

**** The City of Anacortes Planning Commission is following the procedure per Section 3 of Anacortes [Resolution 2082](#) Ratifying Proclamation of Emergency and Providing Temporary Procedures to Respond to the COVID-19 Epidemic, adopted by the Anacortes City Council on March 16, 2020 and Resolution 2096, adopted July 27, 2020, extending the duration of Resolution 2082 through September 30, 2020:**

- **All in-person Committee meetings of the City Council [and Planning Commission] are canceled. Council and committee meetings may be held telephonically regardless of whether the City has the capability of video recording meetings.**
- **Meetings may be viewed live or viewed after the fact on the [City of Anacortes website](#) or on [Channel 10](#).**
- **The public may watch, listen to, or participate in the meeting live by visiting <https://us02web.zoom.us/j/85918981678> or by telephoning 1 253 215 8782, and entering Meeting ID 859 1898 1678**
- **Listen to the meeting by phone: 872-240-3412, Access Code: 261-991-485**
- **The public is encouraged to comment via [email](#) or written comment addressed to: Don Measamer, PCED, P.O. Box 547, Anacortes, WA 98221 or via eComment. Public comments received prior to 3:00 p.m. the day of the meeting will become part of the record for the meeting, just as if presented in person.**
- **Complete guidelines for public participation in virtual Anacortes Planning Commission meetings are available [here](#).**

ANACORTES PLANNING COMMISSION

MEETING AGENDA



September 9, 2020

**~~Municipal Building Council Chambers~~
~~6th Street and "Q" Avenue~~**

****THIS MEETING WILL BE HELD ELECTRONICALLY ONLY****

6 P.M.

[VIEW PACKET MATERIALS HERE](#)

1. **Roll Call**
2. **Minutes of August 26, 2020** Will be presented at a later date.
3. **Correspondence**
4. **New Business**
 - a. **Public Hearing:** SDP-2020-0001 – Tom Jackson Dock
 - b. **Public Hearing:** SPL-2020-0003 – Cherry Court Short Plat and CUP

The City of Anacortes encourages people with disabilities to participate in public meetings. For assistance with special needs, please contact the City Clerk at 360-299-1960 in advance of the meeting.

Anacortes Planning Commission

Proposed Agenda Items for Upcoming Meetings

Subjects listed below have been tentatively suggested for consideration by the Anacortes Planning Commission on the dates indicated. Items may be added to, removed from or rearranged on this list. Routine business such as approval of minutes are not included. The complete Preliminary Agenda for each meeting is published on the Thursday prior to the meeting. Published Agendas are subject to change and may be updated following the posting period. For additional information on agenda topics, please contact Joann Stewart at 360-293-1907 or joanns@cityofanacortes.org to be directed to the sponsoring staff member.

Meeting Date	Subject
August 26, 2020	Discussion: Shoreline Master Program Periodic Update draft amendments
September 9, 2020	Public Hearing: SDP-2020-0001 – Tom Jackson Dock Public Hearing: SPL-2020-0003 – Cherry Court Short Plat and CUP
September 23, 2020	Public Hearing: CUP-2020-0001 – 18 th Street Parking Lot CUP Public Hearing: LPS-2020-0001 – The Crossings Cottage Development
October 14, 2020	Discussion: Shoreline Master Program Periodic Update draft amendments
October 28, 2020	
November 11, 2020	Holiday – No Meeting
November 25, 2020	Day Before T-Giving Holiday – No Meeting
December 9, 2020	Joint Ecology/City Public Hearing: Shoreline Master Program Periodic Update proposed amendments (TENTATIVE)
December 23, 2020	



Planning Commission Agenda Bill

Meeting Date: 9/3/2020 **Agenda Item:** [Click here to enter text.](#)

Subject: Jackson Dock Shoreline Substantial Development Permit, CUP-2020-0001

Staff Contact: Tess Cooper, Associate Planner

Approved for Submittal to PC by	
	Laurie Gere, Mayor
x	Don Measamer, PCED Director
	Darcy Swetnam, City Attorney

Action Type	
X	Public Hearing
X	Staff Report
X	Discussion
X	Action

Summary Statement: The applicant has applied for a Shoreline Substantial Development Permit to construct a new private floating dock that will be secured with four 12-inch steel pipe piles and connected to the shore via an articulated ramp with concrete footing. Dimensions of the dock are 8 feet wide by 30 feet. The grated ramp is 3 feet wide by 53 feet long.

Recommended Motion: The Department of Planning, Community, and Economic Development recommends that the Planning Commission make a motion to approve the Shoreline Substantial Development permit subject to the staff's suggested conditions of approval.

Attachments:

- Planning Commission's Draft Recommendation
- Exhibit 1: Staff Report and Findings of Fact
- Exhibit 2: Vicinity Map
- Exhibit 3: Application Materials
- Exhibit 4: Site Plan
- Exhibit 5: Notices
- Exhibit 6: Agency/Department comments received
- Exhibit 7: Issued SEPA MDNS



DRAFT

Anacortes Planning Commission

Findings of Fact, Conclusions of Law and Decision

File Number:	SDP-2020-0001
Project Name:	Jackson Dock
Proposal Description:	The applicant proposes a floating dock that is secured with four 12-inch steel pipe piles and connected to the shore via an articulated ramp with concrete footing. Dimensions of the dock are 8 feet wide by 30 feet. The grated ramp is 3 feet wide by 53 feet long.
Documents available at:	City Hall, Planning Community & Economic Development Department
Public hearing & decision body:	Anacortes Planning Commission
Public hearing date:	September 9, 2020
PC deliberations:	September 9, 2020

After considering the written and spoken comments and considering the record before it, the Planning Commission enters the following findings of fact, conclusions of law, and decision:

Findings of Fact & Conclusions of Law

1. The Staff report dated September 3, 2020 accurately describes the project proposal and is hereby incorporated by reference. (Exhibit 1)
2. The following members of the public provided testimony during the public hearing:
 - a.
3. The following additional exhibits were entered into the record at the public hearing:
 - a.
4. The following additional Findings of Fact and/or Conclusions of Law are entered:
 - a. _____
 - b. _____
 - c. _____

Decision

Based on the foregoing findings and conclusions of law, and review of the City's regulatory authority to implement the policies, standards, and regulations of the Anacortes Municipal Code, the Planning Commission hereby makes the following decision regarding the subject Preliminary Short Subdivision and Conditional Use Permit applications:

- ☒ Approve with Conditions
- ☐ Approve
- ☐ Deny

Subject to staff's recommended conditions in the Staff Report dated September 3, 2020 and any additional Commissioner conditions of approval as listed below:

1. _____
2. _____
3. _____

Commission Vote	Support	Oppose	Absent	Abstain
Frank Jeretzky				
Mike Cortright				
Sarah Ruether				
Jeff Mount				
Vacant				
Jeff Graf				
Ward MacKenzie				
Total	0	0	0	0

ANACORTES PLANNING COMMISSION
ANACORTES, WASHINGTON

War MacKenzie, Planning Commission Chair

Date

Appeals:

Pursuant to AMC 19.20.030, a local appeal of Type 3-PC Planning Commission Decisions is available to the City Council. Appeals of this decision must be filed in accordance with AMC 19.20.180 by 5:00 PM on _____.



Anacortes Planning, Community & Economic Development Department

904 6TH Street / P.O. Box 547, Anacortes, WA 98221

360.299-1984 - Office Hours: Mon-Fri 8:00 AM – 5:00 PM

STAFF REPORT

A. PROJECT SUMMARY DATA

PROJECT INFORMATION:

File Number	SDP-2020-0001	Date of Report		September 2, 2020			
Project Title	Jackson Dock	Attachment					
Site Address	416 2nd Street, Anacortes, WA 98221						
APN(s)	P32865 and P56457	Section	18	Township	35	Range	02E
Request	The applicant proposes a floating dock that is secured with four 12-inch steel pipe piles and connected to the shore via an articulated ramp with concrete footing. Dimensions of the dock are 8 feet wide by 30 feet. The grated ramp is 3 feet wide by 53 feet long.						
Landowner & Applicant	Tom and Wyndham Jackson 416 2nd Street Anacortes, WA 98221						

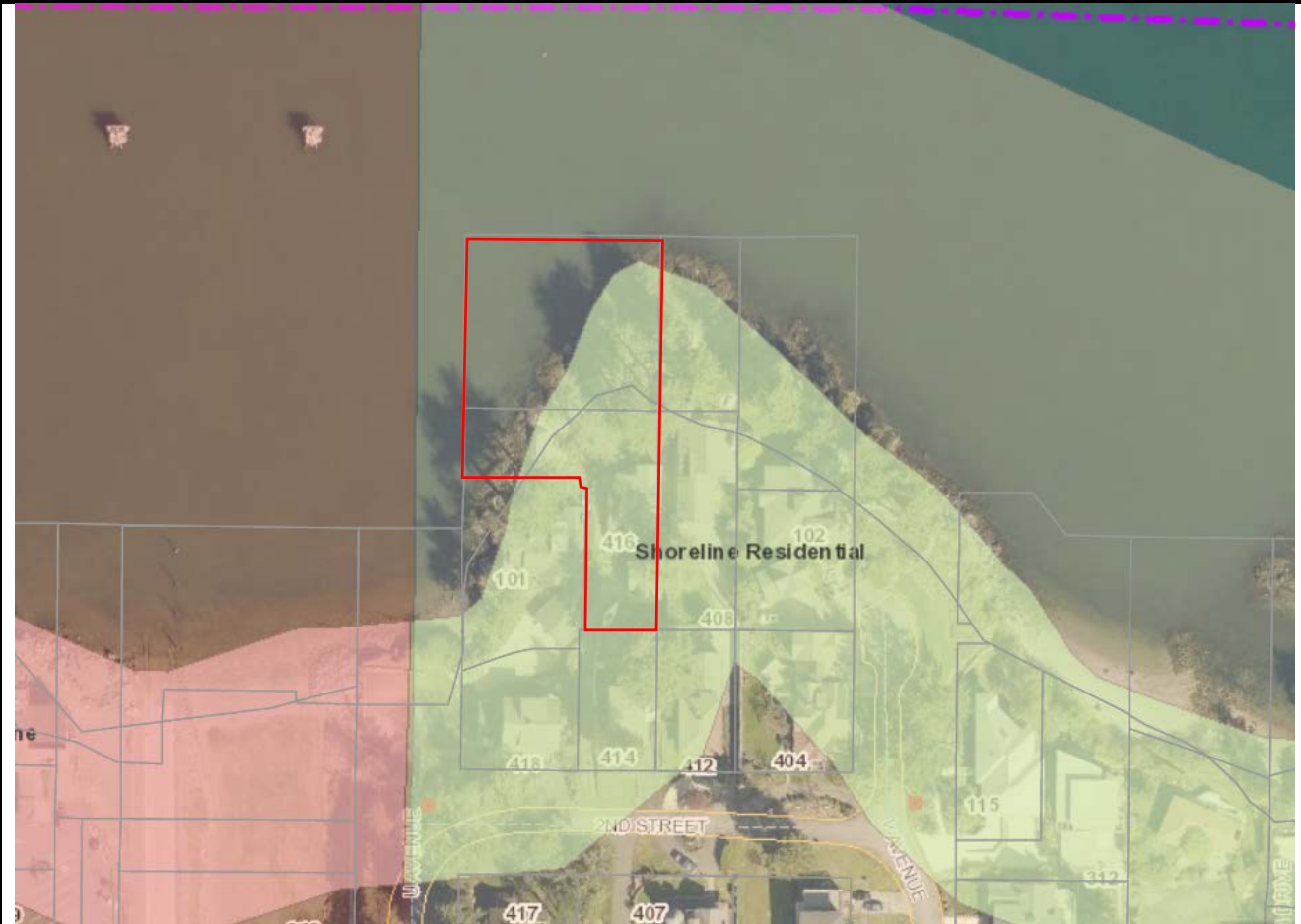
Application Date	March 24, 2020	Complete Application Date		May 14, 2020		
Public Hearing Date	September 9, 2020					
Present Use of Property	Single Family Residential					
Comprehensive Plan Designation	Residential Low Density 2A	Zoning:	R2A			
Shoreline Environment	Shoreline Residential	Critical Areas	Fish and Wildlife Habitat Conservation Area Frequently Flooded Areas			
Water Supply	Current	Proposed	Sewer Supply		Current	Proposed
	City	N/A			City	N/A

Staff Recommendation **Approve, with conditions**

CITY STAFF CONTACTS:

Name:	Title:	Phone:	E-mail:
Tess Cooper	Associate Planner	(360) 588-8234	tessc@cityofanacortes.org
Steve Lange	Public Works Engineering	360-293-1986	stevel@cityofanacortes.org

PROJECT LOCATION & SURROUNDING AREA



SITE & SURROUNDING USES:

	Comprehensive Plan	Zoning	Land Use
Site	Residential Low Density 2A	R2A	Single-family residences
North	N/A	N/A	N/A
East	Residential Low Density 2A	R2A	Single-family residences
South	Residential Low Density 2A	R2A	Single-family residences
West	Residential Low Density 2A	R2A	Single-family residences

B. PROCEDURAL

1. **Type of Review.** The application for Shoreline Substantial Development Permit is a Type 3 Planning Commission Decision as a project under \$1,000,000 value.
2. **Project history.** A mandatory preapplication meeting was held on June 11, 2019. A neighborhood meeting was held on August 1, 2019. The formal application was submitted on March 24, 2020 and determined complete on May 14, 2020.

3. **Public notice and reviewing departments/agencies.** A notice of application with a 30-day public comment period ending on June 19, 2020 was published in the Anacortes American, posted on the project site, mailed to property owners within 300', and posted on the website on May 20, 2020.

The project application was routed for review to applicable agencies and City departments.

REVIEWING DEPARTMENTS & AGENCIES:				
City of Anacortes	Local Agencies & Districts	State & Federal	Skagit County	Other
☒ Building ☒ Fire Dept. ☒ Parks ☒ Planning ☒ Police ☒ Public Works ☒ Operations	☐ Skagit Transit ☐ Anacortes School District 103 ☐ Port of Anacortes	☒ DOE ☒ WDFW ☒ WSDOT ☒ DNR ☒ DAHP	☐ Health District ☐ Planning ☐ Public Works	☒ Swinomish Tribe ☒ Samish Tribe ☒ Upper Skagit Tribe
X = Request for review/comments sent to department or agency.				

4. **Public Hearing.** A pre-decision open record public hearing before the Planning Commission is scheduled for September 9, 2020 at 6:00 PM. A notice of public hearing was published in the Anacortes American on August 19, 2020, posted on the project site, mailed to property owners within 300' and parties of record on August 19, 2020.

C. DEPARTMENT REVIEW – Findings of Fact

1. Tom and Wyndham Jackson, applicants, have requested SEPA review, and shoreline substantial development approval for a residential private dock in Guemes Channel. (Exhibit 3)
2. The applicant proposes a floating dock that is secured with four 12-inch steel pipe piles and connected to the shore via an articulated ramp with concrete footing. Dimensions of the dock are 8 feet wide by 30 feet. The grated ramp is 3 feet wide by 53 feet long.
3. The property is zoned R2A, Residential Low Density 2A. The proposed accessory use is consistent with the R2A zoning designation within the Anacortes Municipal Code as well as the Comprehensive Plan designation of Residential Low Density 2A.
4. The project site is located just north of 2nd Street on Assessor Parcel Number P32865 and P56457. It extends approximately 225 feet along the shoreline of Guemes Channel, at the northern tip of Cap Sante.
5. **Environmental review.** A SEPA Determination of Nonsignificance (DNS) was issued for the proposal on July 15, 2020 after utilizing the optional SEPA DNS process identified in WAC 197-11-355. (Exhibit 7)
6. **Consideration of written comments and applicant responses.** The notice of application public comment period ended on June 19, 2020. No public comments were received during this time and one Agency Comment was received. Concerns identified in the public comments are summarized and responses provided below (Exhibit 6):

Issue	Staff Response
The project does not include a FDP or address flood plain functions.	The Floodplain Development Permit is addressed at the Building Permit Stage and an addendum to the BE has been requested.

In making its recommendation, the Department considered timely received written comments and the applicant's responses, if any, as required in AMC 19.20.130.C.

D. CONCLUSIONS

- A. Pursuant to AMC 19.20.030 and AMC 19.20.040.A, the Planning Commission has authority to decide the proposal after conducting a predecision open record public hearing. The proposal requires preliminary short subdivision approval and a conditional use permit.
- B. Property notice for the public hearing has been provided. Notice was posted on the property, mailed to property owners within 300 feet and published in the Anacortes American newspaper on August 19, 2020, more than 15 days prior to the date of the hearing.
- C. SHORELINE MANAGEMENT ACT (RCW 90.58):
 1. Proposed development lies within two hundred (200) feet of a shoreline of statewide significance (RCW 90.58.030(2)(f)) and is therefore subject to conformance with the City of Anacortes' Shoreline Master Program (SMP).
 2. The subject proposal is located mostly in the Aquatic Shoreline Environment Designation with a small portion of proposed upland improvements occurring in the Shoreline Residential Shoreline Environment Designation.
 3. According to Table 5.1 of the SMP docks, piers, and floats (private) are permitted in the Shoreline Residential (along Cap Sante) and Aquatic Shoreline Environment Designations.
 4. The subject proposal is not exempt from obtaining an approved Shoreline Substantial Development Permit (SSDP) per WAC § 173.27.040. Accordingly, on March 24, 2020, the City of Anacortes' Department of Planning, Community, & Economic Development received the subject application from the applicant.
 5. According to AMC 19.20.030-1 and 18.16.100(B) shoreline substantial development permit applications for projects valued at less than \$1 million or on sites of 3-acres or more are considered a Type 3 type of review. For type 3 reviews, the Planning Commission makes a decision regarding the subject shoreline substantial development permit. The applicant states that the value of this project will \$92,000.
 6. The purpose of the "Shoreline Residential" shoreline designation "is to accommodate residential development and associated structures that are consistent with the Shoreline Management Act, this Master Program, and the protection and restoration of ecological functions."
 7. The purpose of the "Aquatic" shoreline designation "is to protect, restore, and manage the unique characteristics and resources of marine waters, including habitat, ecology, navigation and public enjoyment."

8. Water Dependent uses within both the Shoreline Residential and Aquatic Shoreline Environment Designations have a zero (0) foot setback as measured from the ordinary high water mark (OHWM) pursuant to SMP Table 5.2.
 9. According to SMP DR5.10.8, "Developments consisting of water-dependent scientific, historical, industrial, cultural, or educational research uses, public access, water oriented recreation and ecological restoration are not required to meet the shoreline setback requirements, nor are piers, ramps, or docks."
- D. The subject shoreline permit was reviewed for conformance with Section 9.5 of the Shoreline Master Program that regulates docks, floats and piers. Accordingly, the following development regulations (DR) were reviewed for conformance with as follows:

1. According to DR-9.5.3, "Design and construction of all piers and docks (and floats) are required to mitigate for impacts to ecological processes and functions."

Conclusion: The applicant submitted a Biological Evaluation dated March 20, 2020 prepared by GeoEngineers that addresses potential impacts to aquatic ecological processes and functions. As conditioned below, the applicant will comply with all recommendations of this biological evaluation.

2. According to DR-9.5.4, the design, location, and construction of docks (and floats), and piers, as well as their subsequent use and operation, shall meet the following:
 - a. "Minimize adverse effects on fish, shellfish, wildlife, water quality, and geohydraulic processes. Methods include, but are not limited to: limiting the footprint of the structure to that which is necessary to serve the intended water-dependent use and minimizing the use of materials hazardous to the environment.
 - b. Be capable of withstanding expected environmental conditions.
 - c. Minimize hazards to users.
 - d. Minimize interference with adjacent water uses and navigation."

Conclusion: The applicant submitted a Biological Evaluation dated March 20, 2020 prepared by GeoEngineers that addresses potential impacts to aquatic ecological processes and functions. As conditioned below, the applicant will comply with all recommendations of this biological evaluation.

3. According to DR-9.5.5, "All docks, piers, and floats shall adhere to the following design standards:
 - a. Railings, if provided, shall be of clear or open framework design and conform to the Building Code where applicable.
 - b. Utility service on docks and piers shall be placed on or under the deck. Overhead utility service is prohibited. Floodlighting shall be shielded to prevent unnecessary glare.
 - c. Appropriate marking shall be provided as necessary to avoid hazardous conditions for water surface users.
 - d. Piers, docks, and floats shall be constructed or materials that comply with requirements of federal and state regulations. Treated wood materials may be

utilized on pilings in repair projects for timber structures, provided the BMPs for the use of Treated Wood in Aquatic and Sensitive Environments, Western Wood Preservers Institute /Wood Preservation Canada/Southern Pressure Treaters' Association/Timer Pilings Council, are specified and met. The conditions found in An Agreement Concerning the Use of Treated Wood in Aquatic Areas between Ecology and Department of State Fish and Wildlife dated August 1995, also fulfill this requirement. However, use of treated wood should be minimized wherever practicable.

Conclusion: The proposal incorporates appropriate design and the use of building materials that meet these standards as conditioned below, the subject proposal will meet DR-9.5.5 of the SMP.

- E. The subject proposal is consistent with the Washington State's Shoreline Management Act, City of Anacortes' 2010 Shoreline Master Program and development regulations listed therein for developments within the "Shoreline Residential" and "Aquatic" shoreline environment designations.
- F. Any other factors deemed relevant to the decision-maker.

Conclusion: No other relevant factors have been identified.

E. RECOMMENDATION

Based upon the application, Findings of Fact, and Conclusions of the staff report, staff recommends that the Planning Commission approve the shoreline substantial development permit with the following conditions of approval:

1. The scope of the project shall not exceed that as set-out in the shoreline permit application, and in accordance with the determinations made and conditions imposed. **Exhibit 4** shall be the approved site plan.
2. A building permit(s) with the City of Anacortes' shall be secured prior to work.
3. All applicable permits (local, state, & federal) shall be secured before any construction activities begin onsite and copies provided to the City of Anacortes' PCED.
4. The applicant shall be responsible for reimbursement to the City for the full cost of mailing(s) and newspaper publication associated with the neighborhood meeting, notice of application and hearing, and notice of decision. Payment shall be made prior to building permit application submittal or issuance.
5. Development shall comply with the mitigation measures as listed in the SEPA Mitigated Determination of Non-Significance (MDNS) issued on July 15, 2020.
8. Hours of construction /work are limited to 7:00 AM to 10:00 PM seven (7) days a week unless a noise variance is obtained.
9. Noise levels shall not to exceed those standards as established by the state pursuant to Chapter 70.107 RCW and contained in Chapter 173.60 WAC.
10. The applicant /landowner shall comply with federal statutes including but not limited to: Endangered Species Act, Clean Water Act, Marine Mammal Protection Act, and other federal statutes.
11. The project shall comply with all applicable Shoreline Master Program regulations, including but not limited to, Section 5.6 Aquatic Environment, Section 5.10 Urban Environment, Chapter 5,

Shoreline Environments & Associated Policies and Regulations, Chapter 6 Environmental Protection General Regulations, Chapter 8 Specific Use Policies and Development Regulations, and Chapter 9 Specific Shoreline Modification Policies and Development Regulations.

14. Development shall comply with any recommendations, mitigation measures, and best management practices (BMPs) as listed in the Biological Evaluation (BE) dated March 20, 2020, prepared by GeoEngineers.
15. An addendum to the Biological Evaluation shall be submitted with the Building Permit to include an assessment of Floodplain Habitat Functions.
15. Development shall comply with AMC § 18.16.130 regulating the time limit for shoreline permits as follows:
 - A. Construction, or substantial progress toward completion, must begin within two (2) years after approval of the permit. Substantial progress toward construction shall include, but not limited to, the letting of bids, making of contracts, purchasing of materials involved in development, but shall not include development or uses which are inconsistent with the Shoreline Management Act or the city's master program. In determining the running two-year period hereof, there shall not be included the time during which development was not actually pursued by construction and the pendency of litigation reasonably related thereto made it reasonable not to so pursue; provided, that the city may, in its discretion, extend the two-year time period for a reasonable time based on factors, including the inability to expeditiously obtain other governmental permits which are required prior to the commencement of construction.
 - B. Five-Year Permit Authorization: If construction has not been completed within five years of approval by the City of Anacortes, the city will review the permit, with prior notice to parties of record, and, upon showing of good cause, either extend the permit for one additional year, or terminate the permit. Prior to the city authorizing any permit extensions, it shall notify any parties of record and the Department of Ecology. Note: Only one single extension is permitted.

Staff reserves the right to supplement the record of the case to respond to matters and information raised subsequent to the writing of this report.

Exhibit List

1	Staff Report
2	Vicinity Map
3	Shoreline Substantial Development Permit Application Materials
4	Approved Site Plan
5	Notices
6	Agency/Department Comments
7	Issued SEPA DNS



PLANNING, COMMUNITY, & ECONOMIC DEVELOPMENT DEPARTMENT
Mailing Address: P.O. Box 547, Anacortes, WA 98221
Office Location: 904 6th Street, Anacortes WA 98221
Phone: (360) 299-1984

Master Land Use Permit Application

TYPE OF APPLICATION (check all that apply):		
☐ Administrative Interpretation ☐ Annexation Request ☐ Binding Site Plan (Preliminary) ☐ Boundary Line Adjustment (BLA) ☐ Comprehensive Plan/ Map Amendment Request ☐ Conditional Use Permit (CUP) per AMC 19.36 ☐ Conditional/Special Use Permit (CUP) per AMC 17.70 ☐ Cottage Housing Development ☐ Development Agreement ☐ Essential Public Facility	☐ Floodplain Development Permit ☐ Home Occupation Permit ☐ Long Subdivision (Preliminary) ☐ Lot Certification ☐ Minor Permit Revision ☐ Plat Amendment /Modification ☒ SEPA Environmental Review ☐ Shoreline Conditional Use Permit ☐ Shoreline Exemption ☒ Shoreline Substantial Development Permit ☐ Shoreline Variance	☐ Short Subdivision (Preliminary) ☐ Site Plan Review – Type 1 ☐ Site Plan Review – Type 2 ☐ Stormwater Management Manual Adjustments & Exceptions ☐ Variance (Level 1) ☐ Variance (Level 2) ☐ Wireless Conditional Use Permit (WCUP) ☐ Wireless Service Facility (WSF) Permit ☐ Zoning Code/ Map Amendment Request (Rezone)
PROJECT & SITE INFORMATION:		
SITE ADDRESS: 416 2nd Street, Anacortes, WA 98221		PROJECT NAME: Jackson Dock
PARCEL NUMBER(S): P32865 and P56457		SECTION, TOWNSHIP, & RANGE NE S18, T35N, R2E
LOT SQUARE FOOTAGE & ACREAGE: P56457 = 0.53 acres. P32865 = 0.25 acres		PROJECT VALUATION: \$92,000
LEGAL DESCRIPTION: see attached		PRESENT ZONING: shoreline residential
PRESENT USE OF PROPERTY: single family residence		CUT & FILL (CY) PROPOSED: None
PRE-APPLICATION CONFERENCE HELD?: ☒ Yes, the City file # is <u>PRE-2019-0018</u> ☐ No		WATER SOURCE: ☒ City of Anacortes ☐ Private Well ☐ Community Well
SEWAGE DISPOSAL: ☒ City of Anacortes ☐ Septic		ROAD ACCESS: ☒ City Road ☐ State Highway ☐ Private Road

CRITICAL AREAS OR BUFFERS ON SITE OR WITHIN 300 FEET: ☒ Yes / Type <u>Shoreline buffer, macroalgae</u> ☐ No	WATER BODIES WITHIN 200 FEET: ☒ Yes / Name: <u>Guemes Channel</u> ☐ No
FLOODPLAIN: Flood Zone: Zone AE FIRM Panel # 5303170040A Date of Panel: 9/17/2003	
LOT COVERAGE AREA CALCULATIONS: Existing Square Footage: Not applicable Proposed Square Footage: Not applicable	
IMPERVIOUS SURFACE AREA CALCULATIONS: Existing Impervious Square Footage: Not applicable New Impervious Surface: Not applicable	
DESCRIPTION OF SUBJECT PROPOSAL: ☐ Additional pages attached	
PROPOSED WORK: The current project consists of a proposed floating dock that is secured with four 12-inch steel pipe piles and connected to the shore via an articulated ramp and concrete footing. Dimensions of the dock are 8 feet wide by 30 feet. The grated ramp is 3 feet wide by 53 feet long. See attached drawings for further details. 	
PROPERTY OWNER INFORMATION: ☐ Multiple owners attached	
NAME: Tom and Wyndham Jackson	MAILING ADDRESS: 416 2nd Street
CITY, STATE, ZIP: Anacortes, WA, 98221	PHONE #: 360-298-6683
FAX #:	EMAIL ADDRESS: tom@jacksoneng.com
APPLICANT INFORMATION: ☒ Same as property owner	
NAME:	MAILING ADDRESS:
CITY, STATE, ZIP:	PHONE #:
FAX #:	EMAIL ADDRESS:
CONTACT PERSON: ☒ Same as property owner ☐ Same as applicant	
NAME:	MAILING ADDRESS:
CITY, STATE, ZIP:	PHONE #:
FAX #:	EMAIL ADDRESS:

ACKNOWLEDGEMENTS & SIGNATURE	
Read and initial each of the following statements prior to signing this application:	
	I understand that land use and/or planning permits do not authorize earth disturbing activities, the removal of vegetation, or the construction of buildings. I understand that additional permits will be required after my land use and/or planning permitting process is completed. I understand that no earth disturbing activities (including the removal of vegetation) may take place until after my land use and/or planning process is complete, and only after I have received additional permits such as Fill & Grade, Building Permit, or Right-of-Way permit(s).
	I understand that if critical areas (wetlands, streams, steep slopes, etc.) are found on or near my property I am not authorized to impact these areas in any way and will be required to leave an undisturbed buffer area around the critical area, as determined according the City's critical areas regulations.
	I understand that depending on the size and scope of my project, I may be required to provide maintenance and/or performance bonds for items such as landscaping, critical areas, public roads and/or public utilities that I construct or install.
	I understand that I am solely responsible for providing complete and accurate information to the City. I understand that if my application is missing information or if inaccurate materials are submitted, my permits will be delayed. I understand that depending on how inaccurate and how incomplete my application is or becomes, the Department may require an entirely new application be submitted. I understand that when and if conditions change from that which my application originally represented, I am responsible for letting the City staff person assigned to my project know.
	I understand that I am applying for permits from the City of Anacortes only; and that additional permits from other Federal, State, and Local agencies could be required. I understand that the City of Anacortes cannot advise me of permits that are required from other agencies, and that I must contact these agencies to make sure I comply with their requirements. These agencies include (but are not limited to): Corps of Engineers, Department of Natural Resources, Department of Fish & Wildlife, Department of Ecology, and Northwest Clean Air Agency.
	I understand that I will be responsible for paying consultants that the City may deem necessary to review certain aspects of my application. I understand that these consultant reviews could include special inspections, traffic concurrency, critical areas, landscaping, stormwater, etc.

Signature required on next page.

By affixing my signature hereto, I certify that I am the owner, or am acting as the Owner's authorized agent, and that the application and documents contained with this submittal are complete and accurate to the best of my knowledge and abilities. If your title report lists a company, partnership or other owners, you must submit evidence that you are authorized to sign on behalf of the entity or others that are listed.

If you are an authorized representative you must submit an Agent Authorization Form.

Please attach additional signature sheets if there is more than one owner.

Under penalty of perjury, I certify that the information, statements, answers above regarding the subject application(s) are true and correct to the best of my knowledge and belief.

Signature: 

Date: 3/25/2020

Printed Name: Tom R. Jackson

STATE OF WASHINGTON)
) ss.

COUNTY OF SKAGIT

I certify that I know or have satisfactory evidence that _____ is the person who appeared before me, and said person acknowledged that he/she signed this instrument, and acknowledged it as the free and voluntary act for the uses and purposes mentioned in this instrument.

Given under my hand and official seal this _____ day of _____, 20____

Notary Public

(SEAL)

Residing at _____

My appointment expires _____

LEGAL DESCRIPTIONS

To: Tess Cooper, Associate Planner, City of Anacortes
From: Emily Hurn, GeoEngineers
Date: March 20, 2020
File: 23908-001-00
Subject: Jackson Dock SSDP – Legal Descriptions

Parcel Number	Legal Description
P56457	THAT PORTION OF LOT A, JACKSON BOUNDARY LINE ADJUSTMENT, NO. BLA-2017-0008, RECORDED UNDER AF#201710090071, RECORDS OF SKAGIT COUNTY, WASHINGTON; BEING A PORTION OF THE NORTHWEST QUARTER OF SECTION 18, TOWNSHIP 35 NORTH, RANGE 2 EAST, W.M., DESCRIBED AS FOLLOWS: THE EAST 26 FEET OF LOT 7, AND ALL OF LOT 6, BLOCK 284, MAP OF THE CITY OF ANACORTES, AS PER PLAT RECORDED IN VOLUME 2 OF PLATS, PAGE 4, RECORDS OF SKAGIT COUNTY, WASHINGTON. TOGETHER WITH THE NORTH 1/2 VACATED ALLEY ADJOINING. ALSO TOGETHER WITH THAT PORTION OF VACATED RAILROAD AVENUE ADJOINING. EXCEPT THE SOUTH 7.60 FEET OF VACATED RAILROAD AVENUE NORTH OF SAID BLOCK 284, LYING BETWEEN THE PROJECTED EAST LINE OF LOT 8 AND THE PROJECTED WEST LINE OF LOT 10.
P32865	THAT PORTION OF LOT A, JACKSON BOUNDARY LINE ADJUSTMENT, NO. BLA-2017-0008, RECORDED UNDER AF#201710090071, RECORDS OF SKAGIT COUNTY, WASHINGTON; BEING A PORTION OF THE NORTHWEST QUARTER OF SECTION 18, TOWNSHIP 35 NORTH, RANGE 2 EAST, W.M., DESCRIBED AS FOLLOWS: THAT PORTION OF TRACT 1, PLATE 9 OF ANACORTES TIDELANDS, SECTION 18, TOWNSHIP 35, RANGE EAST, W.M., AS PER THE OFFICIAL MAP THEREOF ON FILE IN THE OFFICE OF THE COMMISSIONER OF PUBLIC LANDS IN OLYMPIA, WASHINGTON, LYING BETWEEN THE WEST LINE OF THE EAST 26 FEET OF LOT 7 AND THE EAST LINE OF LOT 6, BLOCK 284, BOTH PROJECTED NORTH OF THE MAP OF THE CITY OF ANACORTES, AS PER PLAT RECORDED IN VOLUME 2 OF PLATS, PAGE 4, RECORDS OF SKAGIT COUNTY, WASHINGTON. TOGETHER WITH THAT PORTION OF TRACT 1, PLATE 9 OF ANACORTES TIDELANDS, AS PER THE OFFICIAL PLAT THEREOF ON FILED IN THE OFFICE OF THE DEPARTMENT OF PUBLIC LANDS, LYING BETWEEN THE EAST LINE OF LOT 8 AND THE WEST LINE OF LOT 10, PROJECTED NORTH ACROSS SAID TRACT 1.

FEMA FLOOD HAZARD MAP

National Flood Hazard Layer FIRMette



48°31'28.58"N



1:6,000

48°31'4.75"N

Legend

SEE FIS REPORT FOR DETAILED LEGEND AND INDEX MAP FOR FIRM PANEL LAYOUT

SPECIAL FLOOD HAZARD AREAS		Without Base Flood Elevation (BFE) Zone A, V, A99
		With BFE or Depth Zone AE, AO, AH, VE, AR
		Regulatory Floodway
OTHER AREAS OF FLOOD HAZARD		0.2% Annual Chance Flood Hazard, Areas of 1% annual chance flood with average depth less than one foot or with drainage areas of less than one square mile Zone X
		Future Conditions 1% Annual Chance Flood Hazard Zone X
		Area with Reduced Flood Risk due to Levee. See Notes. Zone X
		Area with Flood Risk due to Levee Zone D
OTHER AREAS		Area of Minimal Flood Hazard Zone X
		Effective LOMRs
GENERAL STRUCTURES		Area of Undetermined Flood Hazard Zone D
		Channel, Culvert, or Storm Sewer
OTHER FEATURES		Levee, Dike, or Floodwall
		Cross Sections with 1% Annual Chance Water Surface Elevation
MAP PANELS		20.2
		17.5
		Coastal Transect
		Base Flood Elevation Line (BFE)
		Limit of Study
		Jurisdiction Boundary
		Coastal Transect Baseline
		Profile Baseline
		Hydrographic Feature
		Digital Data Available
		No Digital Data Available
		Unmapped



The pin displayed on the map is an approximate point selected by the user and does not represent an authoritative property location.

This map complies with FEMA's standards for the use of digital flood maps if it is not void as described below. The basemap shown complies with FEMA's basemap accuracy standards

The flood hazard information is derived directly from the authoritative NFHL web services provided by FEMA. This map was exported on 3/2/2020 at 12:25:12 PM and does not reflect changes or amendments subsequent to this date and time. The NFHL and effective information may change or become superseded by new data over time.

This map image is void if the one or more of the following map elements do not appear: basemap imagery, flood zone labels, legend, scale bar, map creation date, community identifiers, FIRM panel number, and FIRM effective date. Map images for unmapped and unmodernized areas cannot be used for regulatory purposes.

PROJECT DESCRIPTION

To: Tess Cooper, Associate Planner, City of Anacortes
From: Emily R. Hurn and Jason P. Stutes, PhD, GeoEngineers
Date: March 20, 2020
File: 23908-001-00
Subject: Project Description for Jackson Dock Project

The purpose of this memo is to provide a project description of the Jackson Dock project.

PROJECT OVERVIEW

A recreational dock structure is proposed at Parcels P32865 and P56457 at 416 2nd Street, Anacortes, Washington. The owners are Tom and Wyndham Jackson. A pre-application conference was held on June 11, 2019 under reference number PRE-2019-0018. The current project consists of a proposed floating dock that is secured with four 12-inch steel pipe piles and connected to the shore via an articulated ramp and concrete footing. Dimensions of the dock are 8 feet wide by 30 feet. The grated ramp is 3 feet wide by 53 feet long. See attached design drawings for further details.

CONSTRUCTION OVERVIEW

The project is proposed for construction in the early summer to fall of 2020, within the US Army Corps of Engineers (USACE) approved in-water work window for Guemes Channel (within Tidal Reference Area 9) limiting in-water work from July 16 to February 15. The project construction will be performed at a high tide via a barge. The four steel pipe piles would be installed via drilling methods. The float and ramp will be fabricated offsite and floated in via barge for installation via barge mounted crane. The concrete abutment will be cast in place and secured to the bedrock above the ordinary high water mark (OHWM).

MITIGATION AND MINIMIZATION MEASURES PROPOSED

The proposed project is designed to avoid and minimize adverse impacts to the aquatic environment. As a result, the float and ramp are fully grated and will provide at least 50 percent open space to minimize shading impacts to the benthic environment. Construction waterward of the OHWM will take place only during designated work windows issued by the Washington Department of Fish and Wildlife (WDFW) and the USACE and will use the most restrictive timeframe to avoid impacting migrating salmonids and bull trout.

In addition, a macrovegetation survey documented a narrow band of sugar kelp (*Saccharina latissima*) along the shoreline that bisects the project footprint and is within 25 feet of the proposed float. As a result, a mitigation plan is being developed as part of the federal permit process to account for impacts to this protected habitat.

**BIOLOGICAL EVALUATION FOR
SHORELINE SUBSTANTIAL DEVELOPMENT PERMIT**

To: Tess Cooper, Associate Planner, City of Anacortes
From: Emily R. Hurn and Jason P. Stutes, PhD, GeoEngineers
Date: March 20, 2020
File: 23908-001-00
Subject: Biological Evaluation for Shoreline Substantial Development Permit Submittal

The purpose of this letter is to address the requirement of a Biological Evaluation as specified in the Pre-Application Conference letter dated June 25, 2019. The Jackson Dock project is being permitted through the US Army Corps of Engineers (USACE) Regional General Permit 6: Structures in Inland Marine Waters of Washington State (USACE 2018). Further discussion on the permit requirements in relation to impacts to habitat and species are provided below.

OVERVIEW OF RGP-6 PERMIT REQUIREMENTS

The purpose of RGP-6 is to authorize the construction of new residential in- and overwater structures in inland marine waters of Washington State with a streamlined permitting process through USACE that includes Section 7 Endangered Species Act (ESA) and Magnuson-Stevens Fishery Conservation and Management Act (MSA) essential fish habitat (EFH) consultation. RPG #6 requires mitigation sequencing to avoided, minimized and mitigated impacts to the maximum extent possible for the purpose of providing residential waterfront access and recreational uses.

Specific to this project, project elements were incorporated to be compliant with the RGP-6 process. These include:

- Minimal float footprint: Float dimensions are within the 8-foot by 30-foot dimensional requirements for single-user structure;
- Four steel pipe piles proposed as part of the single-user float requirements;
- Use of 12-inch steel pile;
- Incorporation of grated surfaces with functional grating greater than 50 percent;
- Float stops on the pile will maintain a minimum of 4 feet above the mudline to reduce impact to marine environment;
- Float was sited in an area that does not contain eelgrass; and
- Float will only be used for recreation by owner and adjacent properties.

Since ESA is administered by the National Marine Fisheries Service (NMFS) and United States Fish and Wildlife Service (USFWS), these agencies were consulted as part of the USACE RGP-6 permit decision. USACE determined that activities authorized under RGP-6 may affect federally listed species. As a result, a biological opinion (BO) for RGP-6 was issued by NMFS on September 13, 2016 and by USFWS on January 20, 2017. These BOs concluded that the proposed actions under this permit would not result in the destruction or adverse modification of ESA species continued existence or their designated critical habitat.

The species considered and the effects determinations contained in the NMFS and USFWS BOs are presented below in Tables 1 and 2:

TABLE 1. NMFS CONSULTATION – AFFECTED SPECIES AND DETERMINATIONS*

ESA-Listed Species	Status	Is Action Likely to Adversely Affect Species or Critical Habitat?	Is Action Likely to Jeopardize the Species?	Is Action Likely to Destroy or Adversely Modify Critical Habitat?
Puget Sound Steelhead (<i>Oncorhynchus mykiss</i>)	Threatened	Yes	No	No
Puget Sound fall Chinook (<i>O. tshawytscha</i>)	Threatened	Yes	No	No
Hood Canal Summer-run Chum (<i>O. keta</i>)	Threatened	Yes	No	No
Puget Sound/Georgia Basin Yelloweye Rockfish (<i>Sebastes ruberrimus</i>)	Threatened	Yes	No	No
Puget Sound/Georgia Basin Bocaccio Rockfish (<i>S. paucispinis</i>)	Endangered	Yes	No	No
Southern Resident Killer Whale (<i>Orcinus orca</i>)	Endangered	No	NA	NA
Humpback whale (<i>Megaptera novaeangliae</i>)	Endangered	Yes	No	No

* Source: NMFS 2016

TABLE 2. USFWS CONSULTATION – AFFECTED SPECIES AND DETERMINATIONS*

ESA-Listed Species	Status	Is Action Likely to Adversely Affect Species or Critical Habitat?	Is Action Likely to Jeopardize the Species?	Is Action Likely to Destroy or Adversely Modify Critical Habitat?
Bull trout (<i>Salvelinus confluentus</i>)	Threatened	Yes	No	No
Marbled Murrelet (<i>Brachyramphus marmoratus</i>)	Threatened	Yes	No	No

*Source: USFWS 2017

SUMMARY

This project will be permitted through RGP-6 and was designed to avoid, minimize and compensate for effects to species listed or proposed under ESA. NMFS and USFWS has provided authorization for actions under this permit through their respective Biological Opinions (NMFS 2016 and USFWS 2017). In addition, we are

developing a mitigation memo to include with the USACE submittal to ensure no-net-loss of marine habitat as a result of the project.

REFERENCES

- NMFS 2016. Endangered Species Act Section 7(a)(2) Biological Opinion, and Magnuson-Stevens Fishery Conservation and Management Act Essential Fish Habitat Response [and Fish and Wildlife Coordination Act Recommendations] for the Regional General Permit 6 (RGP-6): Structures in Inland Marine Waters of Washington State. September 13, 2016. Available at: https://www.nws.usace.army.mil/Portals/27/docs/regulatory/RGPs/RGP6/NMFS%20B0%2020160913_Final_RGP_6_WCR-2016-4361.pdf?ver=2017-02-07-230331-160.
- USACE 2017. Regional General Permit 6 (RGP-6): Structures in Inland Marine Waters of Washington State. Available at: <https://www.nws.usace.army.mil/Portals/27/docs/regulatory2/RGPs/RGP-6%20Permit%20Requirements-20200212.pdf?ver=2020-02-12-200106-570>.
- USFWS 2017. Biological Opinion on RGP-6, 01EWF00-2016-F-0565. January 20, 2017. Available at: <https://www.nws.usace.army.mil/Portals/27/docs/regulatory/RGPs/RGP6/01EWF00-2016-F-0565.pdf?ver=2017-02-07-231906-177>.

Disclaimer: Any electronic form, facsimile or hard copy of the original document (email, text, table, and/or figure), if provided, and any attachments are only a copy of the original document. The original document is stored by GeoEngineers, Inc. and will serve as the official document of record.

CITY OF ANACORTES SEPA CHECKLIST



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: [\[help\]](#)

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.

Use of checklist for nonproject proposals: [\[help\]](#)

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: [\[help\]](#)
Jackson Dock
2. Name of applicant: [\[help\]](#)
Tom & Wyndham Jackson
3. Address and phone number of applicant and contact person: [\[help\]](#)
416 2nd Street
Anacortes, Washington 98221
Telephone: 360-298-6683
4. Date checklist prepared: [\[help\]](#)
3/2/2020
5. Agency requesting checklist: [\[help\]](#)
City of Anacortes
6. Proposed timing or schedule (including phasing, if applicable): [\[help\]](#)
Potential start date of August 2020, but dependent on timing of necessary permits.
7. Do you have any plans for future additions, expansion, or further activity related to or connected with this proposal? If yes, explain. [\[help\]](#)
No future additions or activity proposed as part of this project.
8. List any environmental information you know about that has been prepared, or will be prepared, directly related to this proposal. [\[help\]](#)
 - Macrovegetation and Nearshore Habitat Survey for Jackson Dock Project, Anacortes, Washington. Prepared by GeoEngineers Inc. August 8, 2019.
 - JARPA Form for Jackson Dock Project, Anacortes, Washington. Prepared by GeoEngineers Inc. In Prep.
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. [\[help\]](#)

This project will also require a Hydraulic Project Approval (HPA) from WA Dept. of Fish and Wildlife, a Regional General Permit 6 from the US Army Corps of Engineers, and a Shoreline Substantial Development Permit from City of Anacortes. Currently, there are no applications pending government approval for proposals within the project site.
10. List any government approvals or permits that will be needed for your proposal, if known. [\[help\]](#)

US Army Corps of Engineers

 - Regional General Permit #6

Washington State Department of Fish and Wildlife

 - HPA

City of Anacortes

 - Shoreline Substantial Development Permit
 - SEPA Determination

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

The current proposed dock is composed of a floating dock secured with four 12-inch steel pipe piles and connected to the shore via an articulated ramp and concrete footing. Dimensions of the dock are 8 feet (ft) wide by 30 ft. The ramp is approximately 3 ft wide by 53 ft long. See attached drawings for further details.

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. [\[help\]](#)

JARPA drawings attached provide site plan and vicinity map.

416 2nd Street
Anacortes, WA 98221
NE ¼ SEC. 18, TWP 35N, and RNG 2E
48.521399° N. lat, -122.604122° W long
Tax parcel # - P32865 and P56457

B. ENVIRONMENTAL ELEMENTS [\[help\]](#)

1. Earth

a. General description of the site [\[help\]](#)

(circle one): Flat, rolling, hilly, steep slopes, mountainous, other:

Rocky Shoreline

b. What is the steepest slope on the site (approximate percent slope)? [\[help\]](#)

The steepest slope is along the beach face. The slope is approximately 15%.

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.

[\[help\]](#)

Based on NRCS Web Soil Survey the soils at the site include "Fidalgo-Lithic Xerochrepts-Rock outcrop complex".

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

[\[help\]](#)

There are no visual surface indications of unstable soils on or near the project site.

e. Describe the purpose, type, total area, and approximate quantities and total affected area of any filling, excavation, and grading proposed. Indicate source of fill. [\[help\]](#)

Total project area is approximately 500 square feet. No excavation is proposed. Proposed fill is minor and limited to the footprint of the concrete abutment for the ramp. There are four 12-inch piles proposed for anchoring the float that will be installed via drilling methods into the rock outcrop.

f. Could erosion occur as a result of clearing, construction, or use? If so, generally describe. [\[help\]](#)

Erosion potential is extremely limited at the site due to the hard rock outcrop and due to the fact that there is very limited upland work.

- g. About what percent of the site will be covered with impervious surfaces after project construction (for example, asphalt or buildings)? [\[help\]](#)

The ramp and float structures are grated and proposed impervious surfaces are limited to the concrete abutment. This will result in a small increase (<5%) in impervious surfaces after construction as the location is currently impervious.

- h. Proposed measures to reduce or control erosion, or other impacts to the earth, if any: [\[help\]](#)

Upland construction activities are limited to the concrete abutment and will not require impacts to the earth. The soil type is a hard rock outcrop and has very limited erosion potential. Therefore there are no proposed measures to reduce or control erosion as part of this proposal.

2. Air

- 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. [\[help\]](#)

It is anticipated that during construction, there will be limited emissions from internal combustion engines associated with construction equipment, such as the barge mounted crane for installing the piles. These activities are temporary should not be discernible from baseline conditions. We do not anticipate any off-site air quality impacts from construction activities. In addition, the project once complete will not generate air emissions.

- b. Are there any off-site sources of emissions or odor that may affect your proposal? If so, generally describe. [\[help\]](#)

The project will not be affected by off-site sources of emissions or odors.

- c. Proposed measures to reduce or control emissions or other impacts to air, if any: [\[help\]](#)

No proposed measures are proposed to reduce or control emissions as they are considered minimal and temporary.

3. Water

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

- 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. [\[help\]](#)

The site located along the waterfront along Guemes Channel which is a Type S waterbody. A habitat survey conducted by biologists in July 2019 did not identify wetlands in the vicinity of the project area. Refer to the Habitat Survey Report referenced in Section A.8 of this checklist for additional information.

- 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. [\[help\]](#)

Yes, this project will include work overwater and work adjacent to the described waters. Drawings are attached.

- 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. [\[help\]](#)

Exact amounts of fill related to the concrete abutment are unknown at this time. Installation of four new 12-inch pilings will cover approximately 3.1 SF.

- 4) Will the proposal require surface water withdrawals or diversions? Give general description, purpose, and approximate quantities if known. [\[help\]](#)

The project does not include surface water withdrawals or diversions.

5) Does the proposal lie within a 100-year floodplain? If so, note location on the site plan. [\[help\]](#)
Yes, the site is located within 100-year coastal floodplain, designated as Zone AE, indicating that it has a 1 percent annual chance of flooding.

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. [\[help\]](#)

No waste or discharge to surface waters are proposed as part of this project.

b. Ground Water:

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. [\[help\]](#)

The project does not include withdrawal of groundwater or discharge of water to groundwater.

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. [\[help\]](#)

The project does not include discharge of waste materials into the ground.

c. Water runoff (including stormwater):

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. [\[help\]](#)

There will be no runoff generated as part of this project.

2) Could waste materials enter ground or surface waters? If so, generally describe. [\[help\]](#)

It is not anticipated that waste materials will enter ground or surface waters as a result of proper implementation of BMPs.

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

There will be no alteration or change in drainage patterns as a result of this project.

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

As described in Sections B.1.h and B.3.c.1, measures to reduce potential stormwater runoff impacts during construction will include implementation of a SWPPP and BMPs.

Spill kits with absorbent materials will be located on the barge to address small spills of oil, fuel, hydraulic fluids and other pollutants during construction, if they occur.

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

a. Check the types of vegetation found on the site: [\[help\]](#)

- ☒ deciduous tree: alder, maple, aspen, other
- ☒ evergreen tree: fir, cedar, pine, other: madrona
- ☒ shrubs
- ☒ 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: macrovegetation
☐ other types of vegetation

- b. What kind and amount of vegetation will be removed or altered? [\[help\]](#)

There is no upland vegetation within the footprint of the abutment. There are species of algae that are located along the rock outcrop that the ramp will indirectly affect through shading. The floating dock will be positioned in the subtidal and be located 25 feet from documented *Saccharina latissima* to prevent impacts to that existing habitat.

- c. List threatened and endangered species known to be on or near the site. [\[help\]](#)

There are no threatened or endangered plant species located at or near the site.

- d. Proposed landscaping, use of native plants, or other measures to preserve or enhance vegetation on the site, if any: [\[help\]](#)

No vegetation will be disturbed as a result of this project.

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

No noxious weeds or invasive species are known to be on or near the site.

5. Animals

- 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: [\[help\]](#)

birds: hawk, heron, eagle, songbirds, other: marine
diving birds such as pigeon guillemot, cormorants,
grebes

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. [\[help\]](#)

- Bull trout, *Salvelinus confluentus*
- Puget Sound Chinook, *Oncorhynchus tshawytscha*
- Puget Sound Steelhead, *Oncorhynchus mykiss*
- Southern Resident Killer Whale, *Orcinus orca*
- Yelloweye Rockfish, *Sebastes ruberrimus*
- Bocaccio Rockfish, *Sebastes paucispinis*
- Marbled Murrelet, *Brachyramphus marmoratus*

- c. Is the site part of a migration route? If so, explain. [\[help\]](#)

Yes, the shoreline is considered a migratory pathway for juvenile salmonids headed to the open ocean.

- d. Proposed measures to preserve or enhance wildlife, if any: [\[help\]](#)

Grated decking along the footprint of the ramp and floating dock is intended to minimize impacts of shading to the intertidal and subtidal environment.

There are several potential mitigation options for this project which include restoration or enhancement of existing habitat through propagation of kelp or shellfish on the rocky outcrop or transplanting eelgrass within the parcel boundaries.

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

No invasive species are known to be on or near the site.

6. Energy and natural resources

- 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. [\[help\]](#)

Electricity will be used on the project site and powering construction tools during construction. Tugs, construction skiffs, and construction equipment will use diesel and gasoline as fuel.

- b. Would your project affect the potential use of solar energy by adjacent properties? If so, generally describe. [\[help\]](#)

The project will not affect potential use of solar energy on adjacent properties.

- 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: [\[help\]](#)

There are no plans to incorporate lighting or other electrical features into this design, energy conservation features are not applicable.

7. Environmental health

- 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. [\[help\]](#)

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

There is no known contaminated sediment at the site.

- 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 no known existing hazardous chemicals/conditions that might affect project development and design.

- 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.
- Fuel for equipment is the only hazardous chemical that would be stored or used on site during construction. Also, there will be no toxic or hazardous chemicals stored or used during the project's operating life after construction.

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

Special emergency services will not be required for the project. Emergency services currently available to support the facility (e.g., emergency medical, fire response, security personnel) will continue to serve the site after construction is completed.

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

No specific measures are proposed to reduce or control environmental health hazards as the risks associated with this project are very low and managed with proper BMPs.

b. Noise

- 1) What types of noise exist in the area which may affect your project (for example: traffic, equipment, operation, other)? [\[help\]](#)

Existing noise from the surrounding area will not affect the project.

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. [\[help\]](#)

- Noise from heavy equipment during site preparation and development is considered short-term and is expected to be typical of construction projects and will likely include, but is not limited to, mobilization, site preparation, and heavy equipment movement. Potential construction equipment used during the project may include: rock drill, barge-mounted crane, and tug boats.
- The majority of site activities and associated noise will generally occur during daylight hours and will comply with Anacortes Municipal Code (AMC) Chapter 19.69.020 and the State of Washington administrative code for temporary construction noise. This project will comply with these environmental noise standards which establishes limits on the level and duration of noise impacts. It is expected that any noise generated by project development will be non-disruptive and within the range of normal activities. Additionally, temporary construction noise is exempt from state noise limits during daytime hours, per WAC 173-60-050(3)(a) and are adopted by reference as a part of the AMC 19.69.020.
- No long-term noise will be generated by this project after construction is completed.

3) Proposed measures to reduce or control noise impacts, if any: [\[help\]](#)

This project will meet the noise requirements established by applicable local and state regulations. The project will also employ the use of standard manufacturer's equipment (e.g., mufflers on engines, intake silencers, engine enclosures) as well as turning off idle equipment when not in use. No further measures are proposed.

8. Land and shoreline use

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. [\[help\]](#)

The site is a single-family residence as well as those properties that are directly adjacent. However, just to the west of the parcel are two cleanup sites known as Wyman's Marina and Log Yard. These sites have either gone through recent remedial actions or are in the remedial action process. Wyman's Marina remedial action included the construction of a restoration site known as Wyman's Aquatic Habitat, located just east of the existing boat ramp and approximately 250 feet southwest of this proposed project site.

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? [\[help\]](#)
No, this is not applicable at this site.

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:

No, this is not applicable at this site.

c. Describe any structures on the site. [\[help\]](#)

There are no existing structures within the footprint of the proposed project. The only structures on the property are above OHWM and include a deck and residential structures (house and garage).

d. Will any structures be demolished? If so, what? [\[help\]](#)

No structures will be demolished as part of this proposal.

e. What is the current zoning classification of the site? [\[help\]](#)

The site is zoned as R2, residential low-density.

- f. What is the current comprehensive plan designation of the site? [\[help\]](#)
Site is designated as R2, residential low-density.
- g. If applicable, what is the current shoreline master program designation of the site? [\[help\]](#)
Shoreline Management Action designation is "shoreline residential".
- h. Has any part of the site been classified as a critical area by the city or county? If so, specify. [\[help\]](#)
The entire footprint of the project resides within the shoreline and its buffers which are classified as a critical area.
- i. Approximately how many people would reside or work in the completed project? [\[help\]](#)
No people will reside or work within the footprint of the completed project.
- j. Approximately how many people would the completed project displace? [\[help\]](#)
No people will be displaced as part of this project.
- k. Proposed measures to avoid or reduce displacement impacts, if any: [\[help\]](#)
There are no future displacement impacts, there are no measures proposed as part of this project.
- L. Proposed measures to ensure the proposal is compatible with existing and projected land uses and plans, if any: [\[help\]](#)
The project will provide recreational features at the existing property for the owners and the adjacent neighbors and therefore is compatible with existing and future land uses at the site.
- m. Proposed measures to ensure the proposal is compatible with nearby agricultural and forest lands of long-term commercial significance, if any:
Not applicable for this project.

9. Housing

- a. Approximately how many units would be provided, if any? Indicate whether high, mid- dle, or low-income housing. [\[help\]](#)
Not applicable for this project.
- b. Approximately how many units, if any, would be eliminated? Indicate whether high, middle, or low-income housing. [\[help\]](#)
Not applicable for this project.
- c. Proposed measures to reduce or control housing impacts, if any: [\[help\]](#)
Not applicable for this project.

10. Aesthetics

- a. What is the tallest height of any proposed structure(s), not including antennas; what is the principal exterior building material(s) proposed? [\[help\]](#)
The height of the ramp is relative to the beach surface elevation and tide. The float will be constructed using steel pilings, pile caps, and grated decking. The ramp is constructed of grated decking and steel cross members and railing.
- b. What views in the immediate vicinity would be altered or obstructed? [\[help\]](#)
This project will not affect views.

- c. Proposed measures to reduce or control aesthetic impacts, if any: [\[help\]](#)
The float footprint and design is similar to other floats along the marine shoreline. Grated decking will reduce the aesthetic impact and allow for the natural beach face to be observed throughout the length of the ramp.

11. Light and glare

- a. What type of light or glare will the proposal produce? What time of day would it mainly occur? [\[help\]](#)

There is no lighting proposed as part of this project.

- b. Could light or glare from the finished project be a safety hazard or interfere with views? [\[help\]](#)

There is no lighting proposed as part of this project.

- c. What existing off-site sources of light or glare may affect your proposal? [\[help\]](#)

There are no known off-site sources of light or glare that will affect the project.

- d. Proposed measures to reduce or control light and glare impacts, if any: [\[help\]](#)

No measures are necessary as part of this project.

12. Recreation

- a. What designated and informal recreational opportunities are in the immediate vicinity? [\[help\]](#)

The property is along the waterfront and has access to the Guemes Channel for informal recreational activities. South of the site is Cap Sante Park which provides designated recreational opportunities consisting of wildlife viewing and hiking trails.

- b. Would the proposed project displace any existing recreational uses? If so, describe. [\[help\]](#)

This project will not displace any existing recreational uses.

- c. Proposed measures to reduce or control impacts on recreation, including recreation opportunities to be provided by the project or applicant, if any: [\[help\]](#)

The project will not impact existing recreational resources or opportunities. The proposed project will provide new recreation opportunities for the owner and adjacent properties.

13. Historic and cultural preservation

- 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 located on or near the site? If so, specifically describe. [\[help\]](#)

Not applicable

- 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. [\[help\]](#)

Not applicable

- 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. [\[help\]](#)

Not applicable

- 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.

Not applicable

14. Transportation

- 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. [\[help\]](#)
The two public streets that allow for access to the site 2nd Street and U Avenue.
- 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? [\[help\]](#)
This site is not currently served by public transit.
- c. How many additional parking spaces would the completed project or non-project proposal have? How many would the project or proposal eliminate? [\[help\]](#)
Additional parking is not currently included as part of the design. Existing parking on site will remain and not be impacted by the project.
- 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). [\[help\]](#)
No changes to existing roads, streets, etc are proposed as part of this project.
- e. Will the project or proposal use (or occur in the immediate vicinity of) water, rail, or air transportation? If so, generally describe. [\[help\]](#)
No, this is not applicable to this project.
- 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 nonpassenger vehicles). What data or transportation models were used to make these estimates? [\[help\]](#)
There will be no changes to vehicular trips per day to the site as a result of this project.
- 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.
Not applicable.
- h. Proposed measures to reduce or control transportation impacts, if any: [\[help\]](#)
No measures are proposed for mitigating construction traffic as there are no impacts to existing transportation.

15. Public services

- 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. [\[help\]](#)
The project will not increase demand for public services.
- b. Proposed measures to reduce or control direct impacts on public services, if any. [\[help\]](#)
Not applicable.

16. Utilities

- a. Circle utilities currently available at the site: [\[help\]](#)
electricity, natural gas, water, refuse service, telephone, sanitary sewer, septic system, other _
- b. 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. [\[help\]](#)
There are no utilities proposed as part of this project.

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

I certify (or declare) under penalty of perjury under laws of the State of Washington that 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 a decision.

Signature: _____

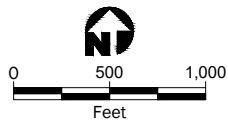
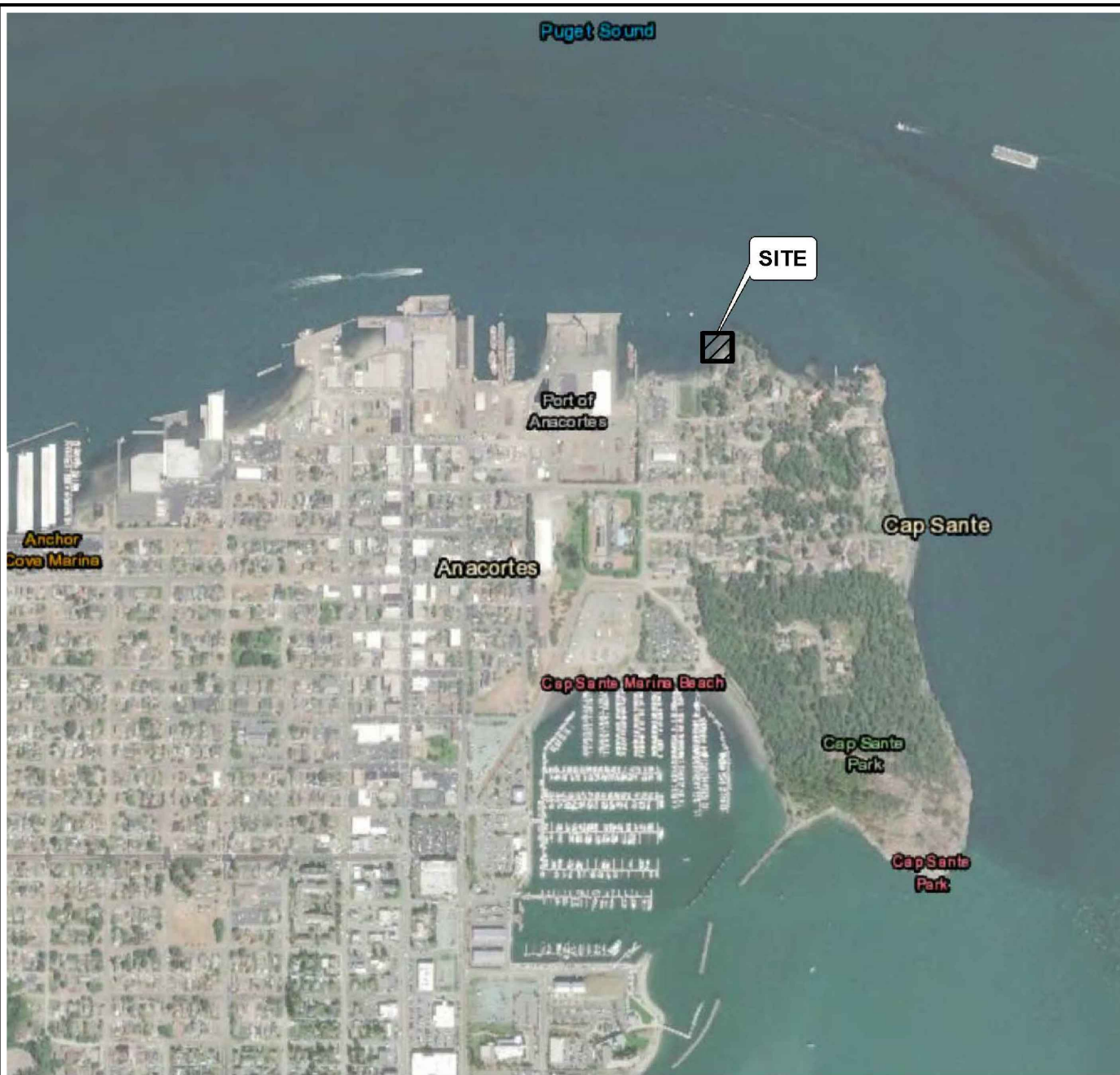
Name of signee Tom R. Jackson

Position and Agency/Organization Property Owner

Date Submitted: 3/25/2020

JARPA DESIGN DRAWINGS

P:\23\23908001\CAD\00_JARPA\2390800100_Sht 01_Vicinity Map.dwg TAB:S01 Date Exported: 03/03/20 - 8:25 by syi



Sheet	Title
1	Vicinity Map
2	Existing Conditions
3	Proposed Float
4	Elevation
5	Pile Details
6	Float Details

Data Source: Mapbox Open Street Map, 2016

Vicinity Map

Applicant: Tom and Wyndham Jackson

Location: 416 Second Street, Anacortes, WA 98221.

Proposed Project:
Jackson Dock

Reference Number:

Lat/Long: 48.521399°N, -122.604122°W

In: Guemes Channel

Adjacent Property Owners:

1. Luanne Freer, 101 U Avenue, Anacortes, WA 98221.
2. Nels Strandberg, 408 2nd Street, P.O. Box 319, Anacortes, WA 98221.

Datum: WA State Plane North
Horizontal=NAD83
Vertical=NAVD 88

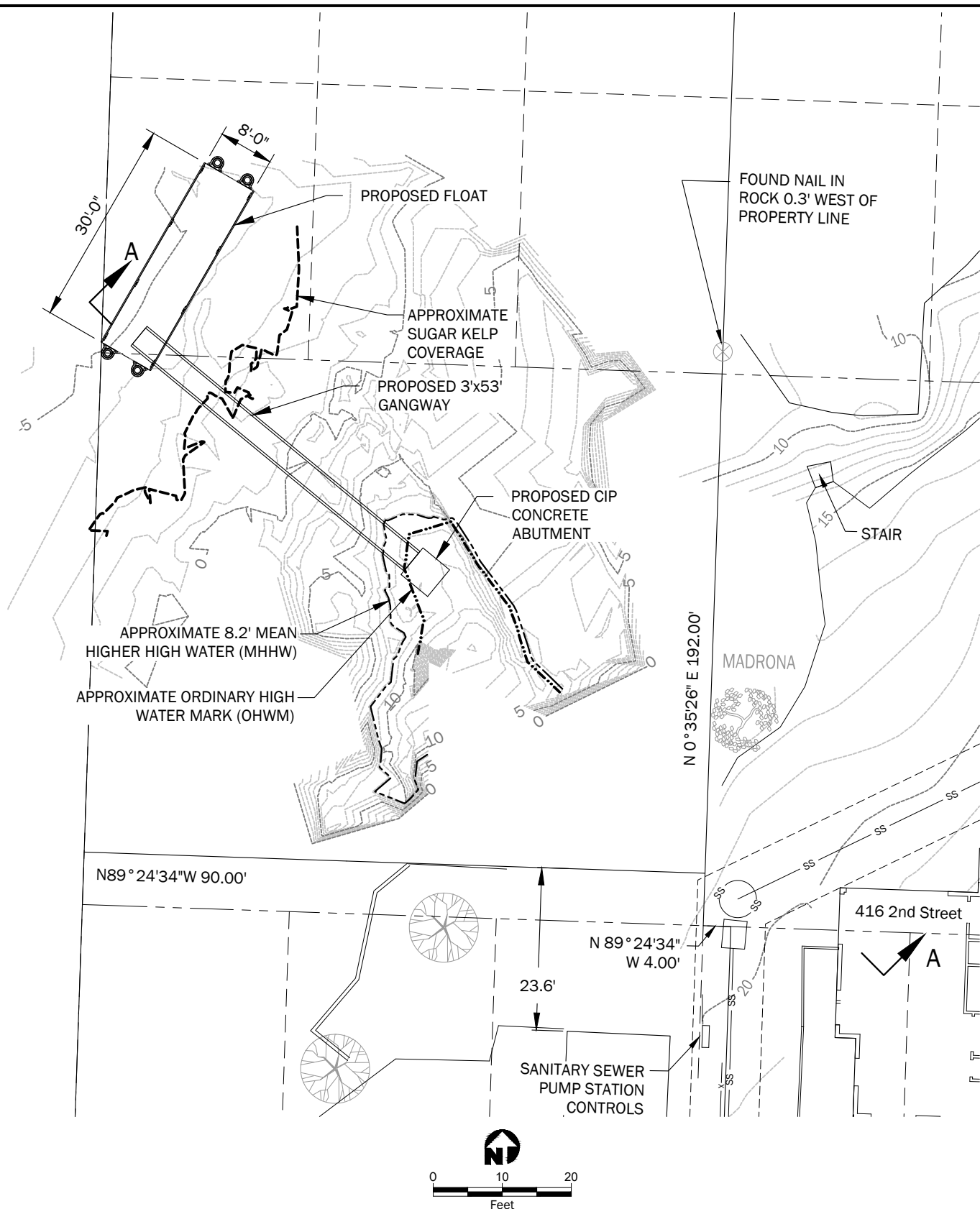
Sheet: 1 of 6 **Date:** 03/03/2020

Near/At: City of Anacortes

County: Skagit

State: WA

P:\23 23908001\CAD\00_JARPA\2390800100_Sht 03_Proposed Float.dwg TAB:S03 Date Exported: 03/03/20 - 8:28 by syi



Legend

- Approximate Ordinary High Water Mark (OHWM)
- - - - - Approximate 8.2' Mean Higher High Water (MHHW)

Applicant: Tom and Wyndham Jackson

Reference Number:

Proposed Project:
Jackson Dock

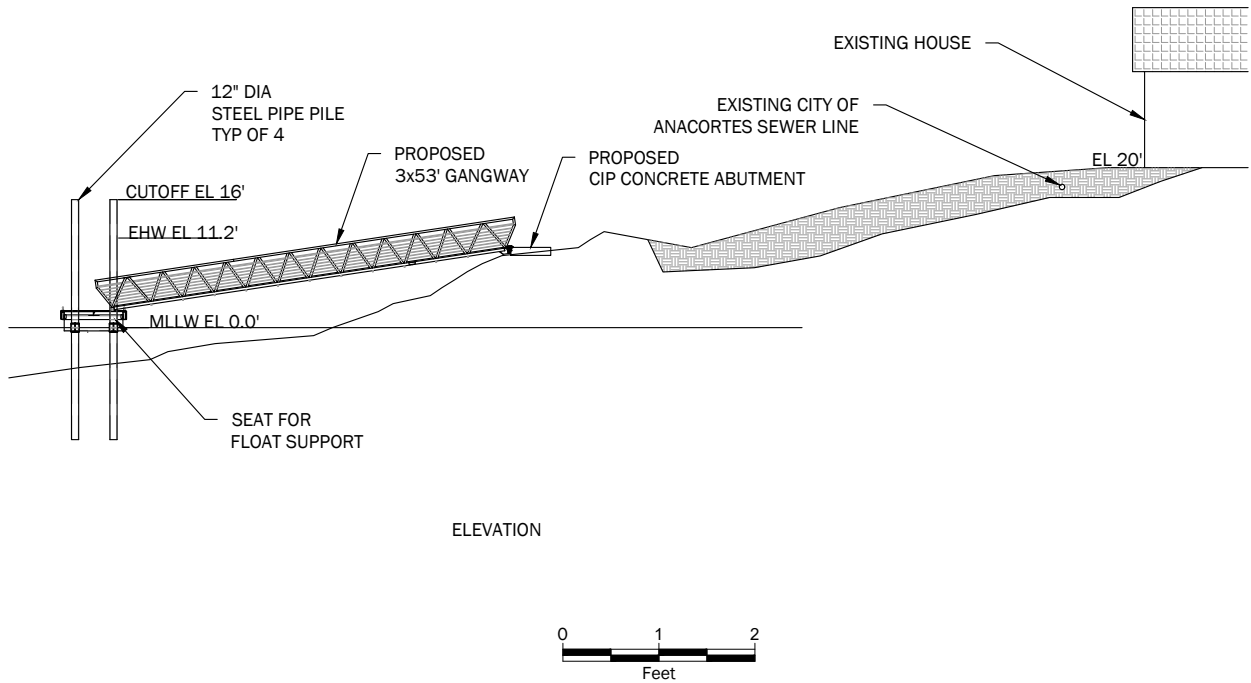
Location: 416 Second Street, Anacortes,
WA 98221.

Sheet: 3 of 6 **Date:** 03/03/2020

Data Source: Drawing from Jackson Engineering, dated 02/12/2020.

Proposed Float

P:\23\23908001\CAD\00_JARPA\2390800100_Sht 04 to 06_Elevation_Pile Details.dwg TAB:S04 Date Exported: 03/03/20 - 8:29 by syj



Applicant: Tom and Wyndham Jackson

Reference Number:

Proposed Project:
Jackson Dock

Location: 416 Second Street, Anacortes,
WA 98221.

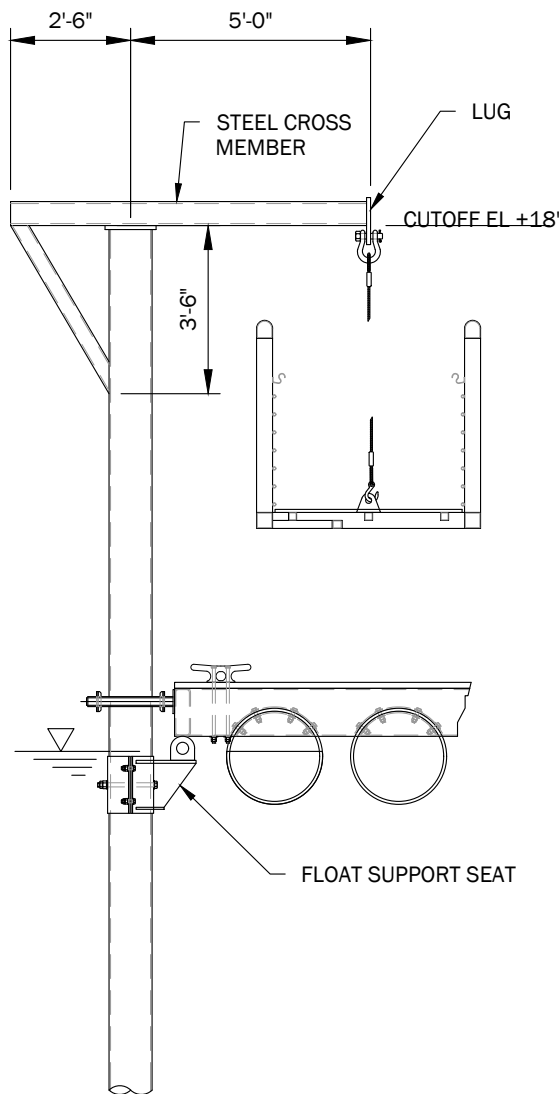
Elevation

Sheet: 4 of 6

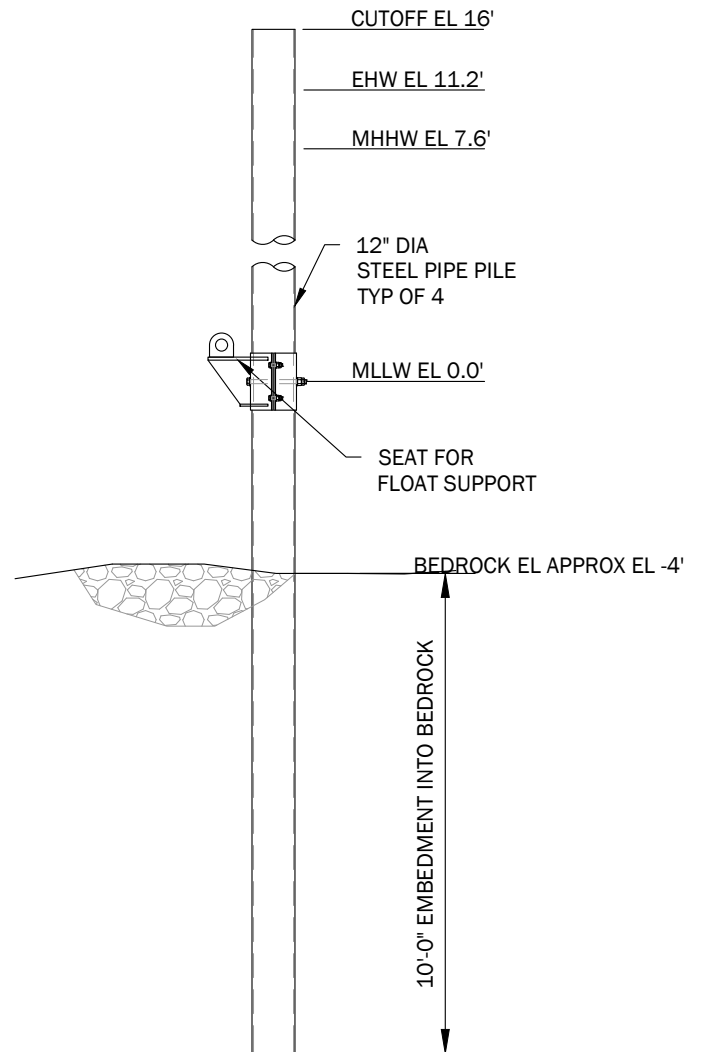
Date: 03/03/2020

Data Source: Drawing from Jackson Engineering, dated 02/12/2020.

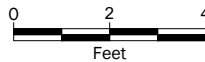
P:\23\23908001\CAD\00_JARPA\2390800100_Sht 04 to 06_Elevation_Pile Details.dwg TAB:S05 Date Exported: 03/03/20 - 8:29 by syi

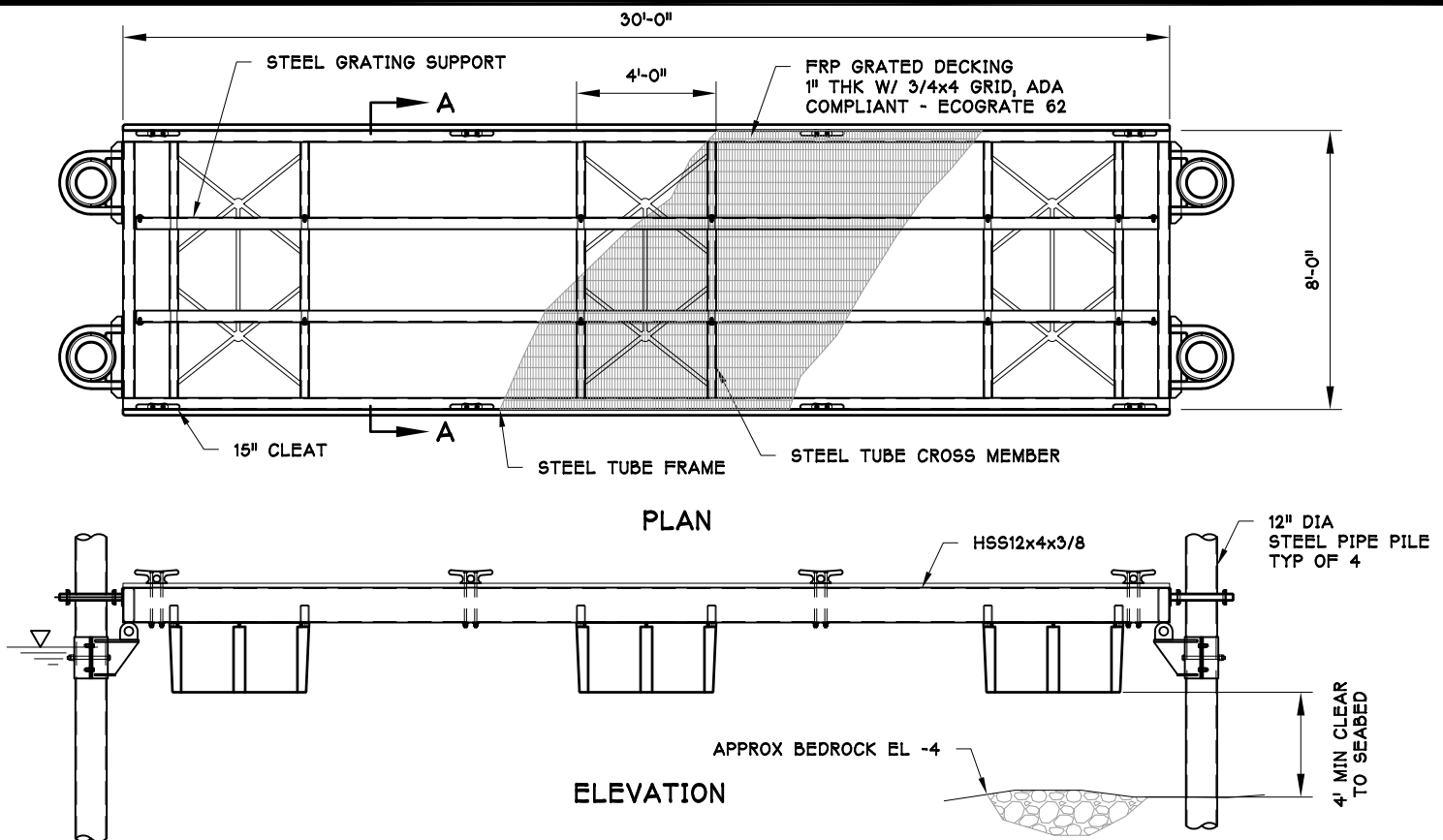


PILE WITH DAVIT DETAIL



TYPICAL PILE DETAIL





OVER WATER COVERAGE - FLOATING DOCK

STEEL TUBE FRAME - $0.33 \times 2 \times (30 + 7.33) = 24.6$ SF

GRATING SUPPORT - $0.167 \times 2 \times 29.33 = 9.8$ SF

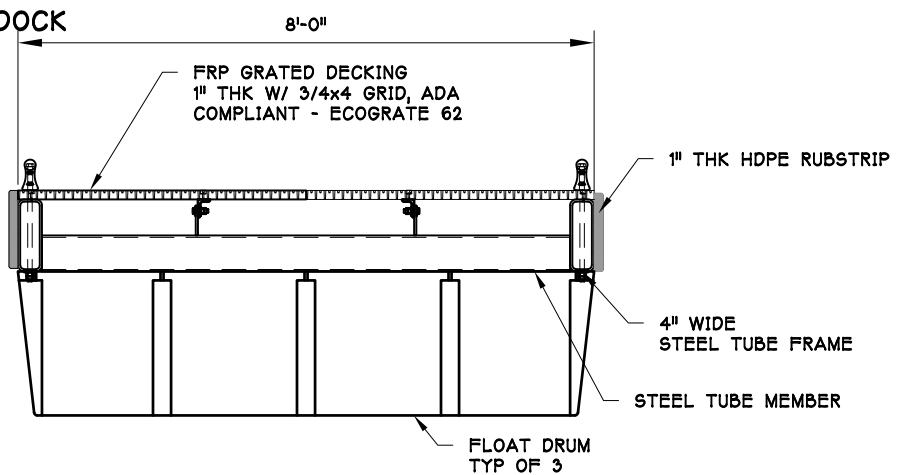
EXPOSED DRUM - $(8 - 0.67 - 0.167 - 0.167) \times 4 \times 3 = 84$ SF

TOTAL - $24.6 + 9.8 + 84 = 118.4$ SF

TOTAL FLOAT AREA - $30 \times 8 = 240$ SF

FUNCTIONAL GRATING AREA - $240 - 118.4 = 121.6$

% FUNCTIONAL GRATING AREA = $(121.6 / 240) \times 100 = 50.7\%$



TRANSPAC
MARINAS

P.O. BOX 1169
ANACORTES
WASHINGTON
U.S.A. 98221
(360) 293-8888

AJD
ENGINEERING

(360) 770-1746

PURPOSE: PROPOSED FLOAT

APPLICANT:
TOM JACKSON
416 SECOND STREET
ANACORTES, WA 98221
(360) 298-6683

IN: GUENES CHANNEL
AT: CITY OF ANACORTES
COUNTY: SKAGIT
STATE: WASHINGTON
LATITUDE: 48.52 deg
LONGITUDE: -122.60 deg

APPLICATION REFERENCE No:

NWS

JACKSON
FLOAT INSTALLATION
FLOAT DETAILS

ADJACENT PROPERTY OWNERS:
LUANNE FREER
101 U AVE
ANACORTES, WA 98221

408 2nd STREET
NELS STRANDBERG
P.O. BOX 319
ANACORTES, WA 98221

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DATE: 12 FEB 2020	JOB NO. 19_117_W	SHEET: OF 6 OF 6	REVISED: -
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REVISED MACROVEGETATION AND NEARSHORE HABITAT SURVEY

March 20, 2020

Jackson Engineering
416 2nd Street
Anacortes, Washington 98221

Attention: Tom and Wyndham Jackson

Subject: Revised Macrovegetation and Nearshore Habitat Survey
Jackson Dock Project
Anacortes, Washington
File No. 23908-001-00

INTRODUCTION AND PURPOSE

GeoEngineers, Inc. (GeoEngineers) is pleased to present the results of the July 3, 2019 nearshore habitat survey at the Jackson Dock project site (Figure 1. Vicinity Map). The current proposed dock is composed of a float dock pinned with several 12-inch piles and connected to the shore via a concrete footing with an articulated ramp. Dimensions of the dock are 8 feet wide by 30 feet. The ramp is approximately 3 feet wide by 55 feet long. The survey was performed to characterize the intertidal and shallow subtidal habitat, identify macro-vegetation and delineate sensitive resources within and adjacent to the proposed dock footprint (area of investigation). The information collected during the habitat assessment will be utilized to inform the permitting and design and to avoid and/or minimize impacts to natural resources at the site during the construction.

This macrovegetation and intertidal/subtidal habitat survey has been prepared to assess the potential effects of the project on existing eelgrass and macroalgae resources and help inform the design team, as well as regulators.

FIELD SURVEY METHODS

The results of the habitat assessment presented in this report included an ordinary high water mark (OHWM) delineation, a preliminary level eelgrass/macroalgae survey and general habitat characterization.

Ordinary High Water Mark (OHWM)

The OHWM was marked using the GeoXH global positioning system (GPS) unit. Recent guidance for tidal systems was used as detailed in the Washington State Department of Ecology (Ecology) *Determining the Ordinary High Water Mark for Shoreline Management Act Compliance in Washington State* (Ecology 2016). OHWM mapping occurred across the site, using breaks in topography, scour lines, algal stains on upper shoreline features and shifts in vegetation in accordance with the guidance.



Eelgrass Survey

The methods utilized in this survey were based on the guidance provided by the United States Army Corps of Engineers' (USACE) *Components of a Complete Eelgrass Delineation Report* (USACE 2018) and Washington Department of Fish and Wildlife (WDFW) *Eelgrass/Macroalgae Habitat Guidelines* (WDFW 2008).

The eelgrass survey was conducted on July 3, 2019 by two biologists wading from the exposed shoreline during an extreme low tide, -3.11 feet mean lower low water (MLLW) to an approximate depth of -5 feet MLLW. Geospatial data was collected during the survey using a GeoXH GPS unit with real-time correction. Accuracy of the GPS unit was sub-meter throughout the survey period.

The field crew walked multiple transects within and beyond the project footprint with the objective of identifying eelgrass and macroalgae habitat in the area. Figure 2, Macrovegetation Map identifies the extent of the area surveyed and occurrence of various macrovegetation.

Habitat Characterization

The proposed project crosses several elevation and intertidal habitat types. Qualitative observations at distinct elevations were performed to identify dominant algae taxa and associated organisms. Photo points were established by taking a GPS point, placing a 0.25-square meter (m²) on representative substrate, taking a photo, estimating percent cover of macroalgae and describing taxa present.

SURVEY RESULTS

The habitat survey began at approximately 10:30 AM with a projected maximum low tide of -3.11 feet MLLW for 11:33 AM. This optimized access to subtidal areas by foot. Weather conditions were partly cloudy with mild winds. The water column had visibility of 3 feet or less over the entire survey. Photographs from the survey are provided in Appendix A, Site Photographs.

Nearshore and Intertidal Habitat Observations

The project is located on a rocky outcrop where there is a moderately steep transition from the upland to the rocky intertidal (Appendix A, Figures A-1 through A-3). The shoreline riparian habitat is well vegetated with native shrubs, such as nootka rose (*Rosa nutkana*), salal (*Gaultheria shallon*) and fescue (*Festuca* sp.) grasses. The area of the proposed concrete footing is bare rock without vegetation. There is overhanging canopy from a mature madrone (*Arbutus menziesii*). The OHWM was delineated in the project footprint during the habitat survey and is defined by staining and presence/absence of encrusting algae (Figure 2).

Using a 0.25m²-quadrat, percent cover of macroalgae was collected at low, mid and high elevations. Photographs of the quadrats are shown on Figure A-4 (Appendix A). Percent cover from low, mid and high was 60, 80 to 90 percent respectively. A photograph showing the location of the dock footing is also shown in Photograph 10 (Appendix A, Figure A-4) also illustrates the sparse vegetation within this portion of the property.

The intertidal habitat has a diverse array of macroalgae and invertebrate species colonizing rock outcrops within and adjacent to the site. Photographs documenting the species are provided in Appendix A, Figures A-5 through A-7. Macroalgae species included sugar kelp (*Saccharina latissima*), Turkish towel

(*Chondracanthus exasperates*), *Graciliaria* spp., Japanese wireweed (*Sargassum muticum*), *Callophyllis* spp. and sea lettuce (*Ulva* sp.). Several marine invertebrate species were documented utilizing the rocky habitat during the survey, which included jingle shells (*Pododesmus macroschisma*), Katy chiton (*Katharina tunicata*), red rock crab (*Cancer productus*) and several seastars (*Pisaster ochraceus*).

Subtidal Observations

At the project site, the sediment transitioned into silty sand over a majority of the float footprint beginning at the toe of the rocky outcrop. No eelgrass was documented within the footprint or adjacent areas of the proposed project. A general survey of the area showed the eelgrass did occur off site, across the inlet, approximately 250-feet west of the project site in the vicinity of the boat ramp and adjacent pier. Our survey included the potential elevations that eelgrass would be expected based on the occurrence of eelgrass at the offsite location. Figure 2 illustrates the extent of the survey area in relation to the project footprint. Photographs of the macroalgae from the survey are provided in Appendix A.

The silty sand substrate at the project site creates challenging growing conditions for eelgrass as turbidity is frequently high as a result of resuspension of fines found at the site. This constant resuspension is likely due to the prevailing wind pattern (out of the NE) and proximity to the rocky outcrop which creates conditions similar to a bulkhead or retaining wall. The offsite eelgrass patch is in a more open area with presumed greater flushing/lower turbidity allowing for greater light penetration in the water column.

Sugar kelp (*Saccharina latissima*) was noted attached to rock protrusions or at the base of the rock slope. Generally, the sugar kelp coverage occurred between 0 and -1 feet MLLW with the lower edge being limited by availability of hard substrate for holdfast attachment (i.e. sediment became mostly silty sand at lower elevations). Percent cover ranged between 30 to 45 percent with a survey average of approximately 35 percent coverage within the areas where it occurred. Relative to the footprint of the proposed float location, sugar kelp mainly occurred shoreward (shallower) than the float footprint with some overlap with the proposed ramp (Figure 2; Photograph 16, Figure A-6, Appendix A).

Other Biological Observations

Additional observations of wildlife during the survey included several marine bird species including a pair of pigeon guillemot (*Cepphus columba*) and a harbor seal (*Phoca vitulina*) was observed milling offshore during the survey.

RESTORATION ALTERNATIVES

During our survey we discussed potential onsite restoration opportunities to help improve nearshore habitat and function. These activities could include mussel seeding, introduction of oyster shell to potentially help recruit native Olympia oysters (*Ostrea lurida*) and potentially transplanting native eelgrass (Figure 2) within the soft subtidal substrates outside of the project area where water clarity would support eelgrass but is currently bare substrate. A potential site that would support eelgrass and/or kelp enhancement was identified near the project footprint (Figure 2). This could be used for potential mitigation actions as needed.

SUMMARY

A low tide habitat survey and OHWM delineation was conducted within the proposed project footprint. No eelgrass was documented within the footprint of the proposed project, but several species of macroalgae were identified including sugar kelp. Sugar kelp is regulated as a Fish and Wildlife Conservation Area (Washington Administrative Code [WAC] 365-190-130) and should be avoided (if possible) during design of the new structure. Currently a majority of the sugar kelp coverage occurs shoreward of the proposed footprint with some portions located within the footprint of the gangway. If impacts to kelp cannot be avoided, mitigation will likely be required.

REFERENCES

Washington State Department of Ecology (Ecology). 2016. Determining the Ordinary High Water Mark for Shoreline Management Act Compliance in Washington State. Publication Number 16-06-029, Revised October 2016.

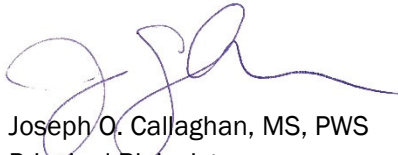
United States Army Corps of Engineers (USACE). 2018. Components of a Complete Eelgrass Delineation Report. January 9, 2018. Available at: <https://www.nws.usace.army.mil/Portals/27/docs/regulatory2/FormsEtc/Components%20of%20Eelgrass%20Delineation%2020180109.pdf?ver=2018-01-12-102015-010>.

Washington Department of Fish and Wildlife (WDFW). 2008. Eelgrass/Macrovegetation Habitat Interim Survey Guidelines. Revised 6/16/2008.

Sincerely,
GeoEngineers, Inc.



Emily R. Hurn
Environmental Scientist



Joseph O. Callaghan, MS, PWS
Principal Biologist

ERH:JPS:JOC:tlm:leh

Attachments:

Figure 1. Vicinity Map

Figure 2. Macrovegetation Map

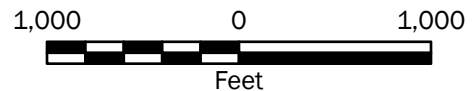
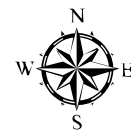
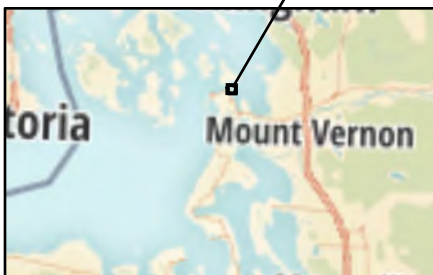
Appendix A. Site Photographs

Disclaimer: Any electronic form, facsimile or hard copy of the original document (email, text, table, and/or figure), if provided, and any attachments are only a copy of the original document. The original document is stored by GeoEngineers, Inc. and will serve as the official document of record.



Jason P. Stutes, PhD
Senior Marine Ecologist

\\geoengineers.com\WAN\Projects\23\239080001\GIS\239080001_Project.aprx Date Exported: 07/18/19 by coabrera



Vicinity Map

Jackson Dock
Anacortes, Washington

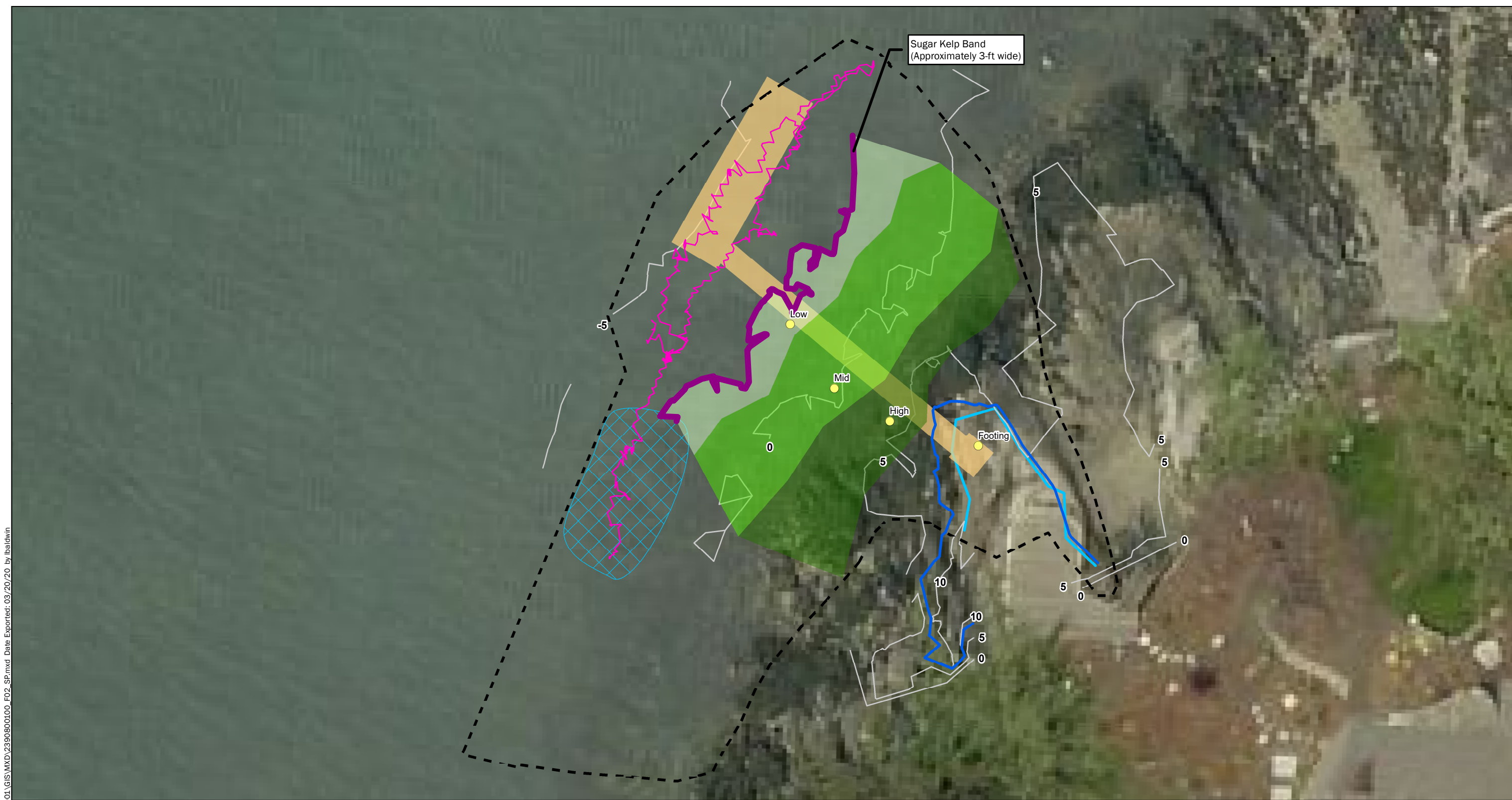


Figure 1

Notes:

1. The locations of all features shown are approximate.
2. This drawing is for information purposes. It is intended to assist in showing features discussed in an attached document. GeoEngineers, Inc. cannot guarantee the accuracy and content of electronic files. The master file is stored by GeoEngineers, Inc. and will serve as the official record of this communication.

Data Source: Mapbox Open Street Map, 2018
ESIR Imagery.
Projection:



Notes:

1. The locations of all features shown are approximate.

2. This drawing is for information purposes. It is intended to assist in showing features discussed in an attached document. GeoEngineers, Inc. cannot guarantee the accuracy and content of electronic files. The master file is stored by GeoEngineers, Inc. and will serve as the official record of this communication.

Data Source: Skagit County 2017

Projection: NAD 1983 StatePlane Washington North FIPS 4601 Feet

Legend

- Yellow dot: Quad Location
- Blue line: Ordinary High Water Mark (OHWM)
- Blue line: Mean High High Water (MHHW)
- Yellow line: Sugar Kelp Band
- Pink line: Intensive Survey Track Lines
- Grey line: Major Contour
- Orange rectangle: Proposed Float and Ramp Alignment
- Dark green rectangle: High Elevation Macroalgae Cover
- Light green rectangle: Mid Elevation Macroalgae Cover
- Light green rectangle: Low Elevation Macroalage Cover
- Blue hatched rectangle: Potential Eelgrass/Sugar Kelp Mitigation Area
- Dashed black line: Area of Survey

Macrovegetation Map

Jackson Dock
Anacortes, Washington

GEOENGINEERS

Figure 2

APPENDIX A

Site Photographs



Photograph 1. Jackson property looking northeast. (7/3/19)



Photograph 2. Nearshore and intertidal area of Jackson property within footprint of proposed dock feature. (7/3/19)

Site Photographs	
Jackson Dock Anacortes, Washington	
	Figure A-1



Photograph 2. Intertidal portion of the Jackson property within footprint of proposed dock feature looking northeast. (7/3/19)



Photograph 4. Intertidal portion of the Jackson property within footprint of the proposed dock feature looking southeast. Sugar kelp (*Saccharina latissima*) shown in foreground. Jason Stutes wading to look for subtidal eelgrass within footprint. (7/3/19)

Site Photographs

Jackson Dock
Anacortes, Washington



Figure A-2



Photograph 5. Intertidal portion of the Jackson property outside of the proposed dock feature looking northeast. Sugar kelp (*Saccharina latissima*) shown in foreground. (7/3/19)



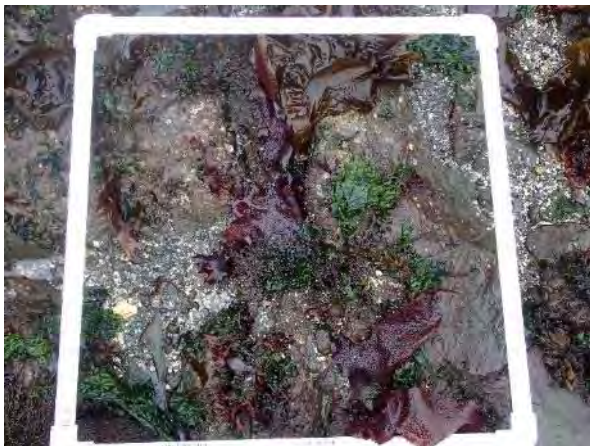
Photograph 6. High intertidal habitat within the vicinity of the proposed dock. (7/3/19)

Site Photographs

Jackson Dock
Anacortes, Washington



Figure A-3



Photograph 7. Low Quad (7/3/19)



Photograph 8. Mid Quad (7/3/19)



Photograph 9. High Quad (7/3/19)



Photograph 10. Footing Quad (7/3/19)

Site Photographs

Jackson Dock
Anacortes, Washington



Figure A-4



Photograph 11. Jingle shells (*Pododesmus macroschisma*) attached to rocks within rocky intertidal of Jackson property. (7/3/19)



Photograph 12. *Soranthera ulvoidea* growing on branched red surrounded by *Ulva* sp



Photograph 13. Turkish towel (*Chondracanthus exasperatus*) within rocky intertidal of Jackson property. (7/3/19)



Photograph 14. *Gracilaria* spp. within rocky intertidal of Jackson property. (7/3/19)

Site Photographs

Jackson Dock
Anacortes, Washington



Figure A-5



Photograph 15. Sugar kelp (*Saccharina latissima*) within the subtidal area of the survey area. (7/3/19)

Site Photographs

Jackson Dock
Anacortes, Washington



Figure A-6



Photograph 16. Japanese wireweed (*Sargassum muticum*) within intertidal of Jackson property. (7/3/19)



Photograph 17. *Callophyllis* spp. within intertidal of Jackson property. (7/3/19)



Photograph 18. *Gracilariaopsis* sp. was found over the shallow subtidal soft sediment habitat



Photograph 19. Ochre sea star (*Pisaster ochraceus*) within intertidal of Jackson property. (7/3/19)

Site Photographs

Jackson Dock
Anacortes, Washington



Figure A-7



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: [\[help\]](#)

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.

Use of checklist for nonproject proposals: [\[help\]](#)

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: [\[help\]](#)
Jackson Dock
2. Name of applicant: [\[help\]](#)
Tom & Wyndham Jackson
3. Address and phone number of applicant and contact person: [\[help\]](#)
416 2nd Street
Anacortes, Washington 98221
Telephone: 360-298-6683
4. Date checklist prepared: [\[help\]](#)
3/2/2020
5. Agency requesting checklist: [\[help\]](#)
City of Anacortes
6. Proposed timing or schedule (including phasing, if applicable): [\[help\]](#)
Potential start date of August 2020, but dependent on timing of necessary permits.
7. Do you have any plans for future additions, expansion, or further activity related to or connected with this proposal? If yes, explain. [\[help\]](#)
No future additions or activity proposed as part of this project.
8. List any environmental information you know about that has been prepared, or will be prepared, directly related to this proposal. [\[help\]](#)
 - Macrovegetation and Nearshore Habitat Survey for Jackson Dock Project, Anacortes, Washington. Prepared by GeoEngineers Inc. August 8, 2019.
 - JARPA Form for Jackson Dock Project, Anacortes, Washington. Prepared by GeoEngineers Inc. In Prep.
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. [\[help\]](#)

This project will also require a Hydraulic Project Approval (HPA) from WA Dept. of Fish and Wildlife, a Regional General Permit 6 from the US Army Corps of Engineers, and a Shoreline Substantial Development Permit from City of Anacortes. Currently, there are no applications pending government approval for proposals within the project site.
10. List any government approvals or permits that will be needed for your proposal, if known. [\[help\]](#)

US Army Corps of Engineers

 - Regional General Permit #6

Washington State Department of Fish and Wildlife

 - HPA

City of Anacortes

 - Shoreline Substantial Development Permit
 - SEPA Determination

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

The current proposed dock is composed of a floating dock secured with four 12-inch steel pipe piles and connected to the shore via an articulated ramp and concrete footing. Dimensions of the dock are 8 feet (ft) wide by 30 ft. The ramp is approximately 3 ft wide by 53 ft long. See attached drawings for further details.

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. [\[help\]](#)

JARPA drawings attached provide site plan and vicinity map.

416 2nd Street
Anacortes, WA 98221
NE ¼ SEC. 18, TWP 35N, and RNG 2E
48.521399° N. lat, -122.604122° W long
Tax parcel # - P32865 and P56457

B. ENVIRONMENTAL ELEMENTS [\[help\]](#)

1. Earth

a. General description of the site [\[help\]](#)

(circle one): Flat, rolling, hilly, steep slopes, mountainous, other:

Rocky Shoreline

b. What is the steepest slope on the site (approximate percent slope)? [\[help\]](#)

The steepest slope is along the beach face. The slope is approximately 15%.

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.

[\[help\]](#)

Based on NRCS Web Soil Survey the soils at the site include "Fidalgo-Lithic Xerochrepts-Rock outcrop complex".

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

[\[help\]](#)

There are no visual surface indications of unstable soils on or near the project site.

e. Describe the purpose, type, total area, and approximate quantities and total affected area of any filling, excavation, and grading proposed. Indicate source of fill. [\[help\]](#)

Total project area is approximately 500 square feet. No excavation is proposed. Proposed fill is minor and limited to the footprint of the concrete abutment for the ramp. There are four 12-inch piles proposed for anchoring the float that will be installed via drilling methods into the rock outcrop.

f. Could erosion occur as a result of clearing, construction, or use? If so, generally describe. [\[help\]](#)

Erosion potential is extremely limited at the site due to the hard rock outcrop and due to the fact that there is very limited upland work.

- g. About what percent of the site will be covered with impervious surfaces after project construction (for example, asphalt or buildings)? [\[help\]](#)

The ramp and float structures are grated and proposed impervious surfaces are limited to the concrete abutment. This will result in a small increase (<5%) in impervious surfaces after construction as the location is currently impervious.

- h. Proposed measures to reduce or control erosion, or other impacts to the earth, if any: [\[help\]](#)

Upland construction activities are limited to the concrete abutment and will not require impacts to the earth. The soil type is a hard rock outcrop and has very limited erosion potential. Therefore there are no proposed measures to reduce or control erosion as part of this proposal.

2. Air

- 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. [\[help\]](#)

It is anticipated that during construction, there will be limited emissions from internal combustion engines associated with construction equipment, such as the barge mounted crane for installing the piles. These activities are temporary should not be discernible from baseline conditions. We do not anticipate any off-site air quality impacts from construction activities. In addition, the project once complete will not generate air emissions.

- b. Are there any off-site sources of emissions or odor that may affect your proposal? If so, generally describe. [\[help\]](#)

The project will not be affected by off-site sources of emissions or odors.

- c. Proposed measures to reduce or control emissions or other impacts to air, if any: [\[help\]](#)

No proposed measures are proposed to reduce or control emissions as they are considered minimal and temporary.

3. Water

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

- 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. [\[help\]](#)

The site located along the waterfront along Guemes Channel which is a Type S waterbody. A habitat survey conducted by biologists in July 2019 did not identify wetlands in the vicinity of the project area. Refer to the Habitat Survey Report referenced in Section A.8 of this checklist for additional information.

- 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. [\[help\]](#)

Yes, this project will include work overwater and work adjacent to the described waters. Drawings are attached.

- 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. [\[help\]](#)

Exact amounts of fill related to the concrete abutment are unknown at this time. Installation of four new 12-inch pilings will cover approximately 3.1 SF.

- 4) Will the proposal require surface water withdrawals or diversions? Give general description, purpose, and approximate quantities if known. [\[help\]](#)

The project does not include surface water withdrawals or diversions.

5) Does the proposal lie within a 100-year floodplain? If so, note location on the site plan. [\[help\]](#)
Yes, the site is located within 100-year coastal floodplain, designated as Zone AE, indicating that it has a 1 percent annual chance of flooding.

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. [\[help\]](#)

No waste or discharge to surface waters are proposed as part of this project.

b. Ground Water:

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. [\[help\]](#)

The project does not include withdrawal of groundwater or discharge of water to groundwater.

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. [\[help\]](#)

The project does not include discharge of waste materials into the ground.

c. Water runoff (including stormwater):

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. [\[help\]](#)

There will be no runoff generated as part of this project.

2) Could waste materials enter ground or surface waters? If so, generally describe. [\[help\]](#)

It is not anticipated that waste materials will enter ground or surface waters as a result of proper implementation of BMPs.

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

There will be no alteration or change in drainage patterns as a result of this project.

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

As described in Sections B.1.h and B.3.c.1, measures to reduce potential stormwater runoff impacts during construction will include implementation of a SWPPP and BMPs.

Spill kits with absorbent materials will be located on the barge to address small spills of oil, fuel, hydraulic fluids and other pollutants during construction, if they occur.

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

a. Check the types of vegetation found on the site: [\[help\]](#)

- ☒ deciduous tree: alder, maple, aspen, other
- ☒ evergreen tree: fir, cedar, pine, other: madrona
- ☒ shrubs
- ☒ 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: macrovegetation
☐ other types of vegetation

- b. What kind and amount of vegetation will be removed or altered? [\[help\]](#)

There is no upland vegetation within the footprint of the abutment. There are species of algae that are located along the rock outcrop that the ramp will indirectly affect through shading. The floating dock will be positioned in the subtidal and be located 25 feet from documented *Saccharina latissima* to prevent impacts to that existing habitat.

- c. List threatened and endangered species known to be on or near the site. [\[help\]](#)

There are no threatened or endangered plant species located at or near the site.

- d. Proposed landscaping, use of native plants, or other measures to preserve or enhance vegetation on the site, if any: [\[help\]](#)

No vegetation will be disturbed as a result of this project.

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

No noxious weeds or invasive species are known to be on or near the site.

5. Animals

- 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: [\[help\]](#)

birds: hawk, heron, eagle, songbirds, other: marine
diving birds such as pigeon guillemot, cormorants,
grebes

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. [\[help\]](#)

- Bull trout, *Salvelinus confluentus*
- Puget Sound Chinook, *Oncorhynchus tshawytscha*
- Puget Sound Steelhead, *Oncorhynchus mykiss*
- Southern Resident Killer Whale, *Orcinus orca*
- Yelloweye Rockfish, *Sebastes ruberrimus*
- Bocaccio Rockfish, *Sebastes paucispinis*
- Marbled Murrelet, *Brachyramphus marmoratus*

- c. Is the site part of a migration route? If so, explain. [\[help\]](#)

Yes, the shoreline is considered a migratory pathway for juvenile salmonids headed to the open ocean.

- d. Proposed measures to preserve or enhance wildlife, if any: [\[help\]](#)

Grated decking along the footprint of the ramp and floating dock is intended to minimize impacts of shading to the intertidal and subtidal environment.

There are several potential mitigation options for this project which include restoration or enhancement of existing habitat through propagation of kelp or shellfish on the rocky outcrop or transplanting eelgrass within the parcel boundaries.

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

No invasive species are known to be on or near the site.

6. Energy and natural resources

- 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. [\[help\]](#)
Electricity will be used on the project site and powering construction tools during construction. Tugs, construction skiffs, and construction equipment will use diesel and gasoline as fuel.
- b. Would your project affect the potential use of solar energy by adjacent properties? If so, generally describe. [\[help\]](#)
The project will not affect potential use of solar energy on adjacent properties.
- 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: [\[help\]](#)
There are no plans to incorporate lighting or other electrical features into this design, energy conservation features are not applicable.

7. Environmental health

- 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. [\[help\]](#)
- 1) Describe any known or possible contamination at the site from present or past uses.
There is no known contaminated sediment at the site.
 - 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 no known existing hazardous chemicals/conditions that might affect project development and design.
 - 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.
Fuel for equipment is the only hazardous chemical that would be stored or used on site during construction. Also, there will be no toxic or hazardous chemicals stored or used during the project's operating life after construction.
 - 4) Describe special emergency services that might be required.
Special emergency services will not be required for the project. Emergency services currently available to support the facility (e.g., emergency medical, fire response, security personnel) will continue to serve the site after construction is completed.
 - 5) Proposed measures to reduce or control environmental health hazards, if any:
No specific measures are proposed to reduce or control environmental health hazards as the risks associated with this project are very low and managed with proper BMPs.
- b. Noise
- 1) What types of noise exist in the area which may affect your project (for example: traffic, equipment, operation, other)? [\[help\]](#)
Existing noise from the surrounding area will not affect the project.

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. [\[help\]](#)

- Noise from heavy equipment during site preparation and development is considered short-term and is expected to be typical of construction projects and will likely include, but is not limited to, mobilization, site preparation, and heavy equipment movement. Potential construction equipment used during the project may include: rock drill, barge-mounted crane, and tug boats.
- The majority of site activities and associated noise will generally occur during daylight hours and will comply with Anacortes Municipal Code (AMC) Chapter 19.69.020 and the State of Washington administrative code for temporary construction noise. This project will comply with these environmental noise standards which establishes limits on the level and duration of noise impacts. It is expected that any noise generated by project development will be non-disruptive and within the range of normal activities. Additionally, temporary construction noise is exempt from state noise limits during daytime hours, per WAC 173-60-050(3)(a) and are adopted by reference as a part of the AMC 19.69.020.
- No long-term noise will be generated by this project after construction is completed.

3) Proposed measures to reduce or control noise impacts, if any: [\[help\]](#)

This project will meet the noise requirements established by applicable local and state regulations. The project will also employ the use of standard manufacturer's equipment (e.g., mufflers on engines, intake silencers, engine enclosures) as well as turning off idle equipment when not in use. No further measures are proposed.

8. Land and shoreline use

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. [\[help\]](#)

The site is a single-family residence as well as those properties that are directly adjacent. However, just to the west of the parcel are two cleanup sites known as Wyman's Marina and Log Yard. These sites have either gone through recent remedial actions or are in the remedial action process. Wyman's Marina remedial action included the construction of a restoration site known as Wyman's Aquatic Habitat, located just east of the existing boat ramp and approximately 250 feet southwest of this proposed project site.

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? [\[help\]](#)
No, this is not applicable at this site.

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:

No, this is not applicable at this site.

c. Describe any structures on the site. [\[help\]](#)

There are no existing structures within the footprint of the proposed project. The only structures on the property are above OHWM and include a deck and residential structures (house and garage).

d. Will any structures be demolished? If so, what? [\[help\]](#)

No structures will be demolished as part of this proposal.

e. What is the current zoning classification of the site? [\[help\]](#)

The site is zoned as R2, residential low-density.

- f. What is the current comprehensive plan designation of the site? [\[help\]](#)
Site is designated as R2, residential low-density.
- g. If applicable, what is the current shoreline master program designation of the site? [\[help\]](#)
Shoreline Management Action designation is "shoreline residential".
- h. Has any part of the site been classified as a critical area by the city or county? If so, specify. [\[help\]](#)
The entire footprint of the project resides within the shoreline and its buffers which are classified as a critical area.
- i. Approximately how many people would reside or work in the completed project? [\[help\]](#)
No people will reside or work within the footprint of the completed project.
- j. Approximately how many people would the completed project displace? [\[help\]](#)
No people will be displaced as part of this project.
- k. Proposed measures to avoid or reduce displacement impacts, if any: [\[help\]](#)
There are no future displacement impacts, there are no measures proposed as part of this project.
- L. Proposed measures to ensure the proposal is compatible with existing and projected land uses and plans, if any: [\[help\]](#)
The project will provide recreational features at the existing property for the owners and the adjacent neighbors and therefore is compatible with existing and future land uses at the site.
- m. Proposed measures to ensure the proposal is compatible with nearby agricultural and forest lands of long-term commercial significance, if any:
Not applicable for this project.

9. Housing

- a. Approximately how many units would be provided, if any? Indicate whether high, mid- dle, or low-income housing. [\[help\]](#)
Not applicable for this project.
- b. Approximately how many units, if any, would be eliminated? Indicate whether high, middle, or low-income housing. [\[help\]](#)
Not applicable for this project.
- c. Proposed measures to reduce or control housing impacts, if any: [\[help\]](#)
Not applicable for this project.

10. Aesthetics

- a. What is the tallest height of any proposed structure(s), not including antennas; what is the principal exterior building material(s) proposed? [\[help\]](#)
The height of the ramp is relative to the beach surface elevation and tide. The float will be constructed using steel pilings, pile caps, and grated decking. The ramp is constructed of grated decking and steel cross members and railing.
- b. What views in the immediate vicinity would be altered or obstructed? [\[help\]](#)
This project will not affect views.

- c. Proposed measures to reduce or control aesthetic impacts, if any: [\[help\]](#)
The float footprint and design is similar to other floats along the marine shoreline. Grated decking will reduce the aesthetic impact and allow for the natural beach face to be observed throughout the length of the ramp.

11. Light and glare

- a. What type of light or glare will the proposal produce? What time of day would it mainly occur? [\[help\]](#)

There is no lighting proposed as part of this project.

- b. Could light or glare from the finished project be a safety hazard or interfere with views? [\[help\]](#)

There is no lighting proposed as part of this project.

- c. What existing off-site sources of light or glare may affect your proposal? [\[help\]](#)

There are no known off-site sources of light or glare that will affect the project.

- d. Proposed measures to reduce or control light and glare impacts, if any: [\[help\]](#)

No measures are necessary as part of this project.

12. Recreation

- a. What designated and informal recreational opportunities are in the immediate vicinity? [\[help\]](#)

The property is along the waterfront and has access to the Guemes Channel for informal recreational activities. South of the site is Cap Sante Park which provides designated recreational opportunities consisting of wildlife viewing and hiking trails.

- b. Would the proposed project displace any existing recreational uses? If so, describe. [\[help\]](#)

This project will not displace any existing recreational uses.

- c. Proposed measures to reduce or control impacts on recreation, including recreation opportunities to be provided by the project or applicant, if any: [\[help\]](#)

The project will not impact existing recreational resources or opportunities. The proposed project will provide new recreation opportunities for the owner and adjacent properties.

13. Historic and cultural preservation

- 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 located on or near the site? If so, specifically describe. [\[help\]](#)

Not applicable

- 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. [\[help\]](#)

Not applicable

- 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. [\[help\]](#)

Not applicable

- 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.

Not applicable

14. Transportation

- 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. [\[help\]](#)
The two public streets that allow for access to the site 2nd Street and U Avenue.
- 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? [\[help\]](#)
This site is not currently served by public transit.
- c. How many additional parking spaces would the completed project or non-project proposal have? How many would the project or proposal eliminate? [\[help\]](#)
Additional parking is not currently included as part of the design. Existing parking on site will remain and not be impacted by the project.
- 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). [\[help\]](#)
No changes to existing roads, streets, etc are proposed as part of this project.
- e. Will the project or proposal use (or occur in the immediate vicinity of) water, rail, or air transportation? If so, generally describe. [\[help\]](#)
No, this is not applicable to this project.
- 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 nonpassenger vehicles). What data or transportation models were used to make these estimates? [\[help\]](#)
There will be no changes to vehicular trips per day to the site as a result of this project.
- 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.
Not applicable.
- h. Proposed measures to reduce or control transportation impacts, if any: [\[help\]](#)
No measures are proposed for mitigating construction traffic as there are no impacts to existing transportation.

15. Public services

- 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. [\[help\]](#)
The project will not increase demand for public services.
- b. Proposed measures to reduce or control direct impacts on public services, if any. [\[help\]](#)
Not applicable.

16. Utilities

- a. Circle utilities currently available at the site: [\[help\]](#)
electricity, natural gas, water, refuse service, telephone, sanitary sewer, septic system, other _
- b. 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. [\[help\]](#)
There are no utilities proposed as part of this project.

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

I certify (or declare) under penalty of perjury under laws of the State of Washington that 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 a decision.

Signature: _____

Name of signee Tom R. Jackson

Position and Agency/Organization Property Owner

Date Submitted: 3/25/2020

To: Tess Cooper, Associate Planner, City of Anacortes
From: Emily R. Hurn and Jason P. Stutes, PhD, GeoEngineers
Date: April 30, 2020
File: 23908-001-00
Subject: Project Description for Jackson Dock Project

The purpose of this memo is to provide a project description for the Jackson Dock project. This description will provide a basic project synopsis as well as points of compliance with the City of Anacortes Shoreline Master Program (SMP).

PROJECT OVERVIEW

A non-commercial residential dock structure is proposed at Parcels P32865 and P56457 at 416 2nd Street, Anacortes, Washington. The owners are Tom and Wyndham Jackson. A pre-application conference was held on June 11, 2019 under reference number PRE-2019-0018. The current project consists of a proposed floating dock that is secured with four 12-inch steel pipe piles and connected to the shore via an articulated ramp and concrete footing. Dimensions of the dock are 8 feet wide by 30 feet. The grated ramp is 3 feet wide by 53 feet long. See attached design drawings for further details. The proposed use of the dock is to provide water access for small vessels (e.g. kayaks). This dock will not be used as permanent moorage.

CONSTRUCTION OVERVIEW

The project is proposed for construction in the early summer to fall of 2020, within the US Army Corps of Engineers (USACE) approved in-water work window for Guemes Channel (within Tidal Reference Area 9) limiting in-water work from July 16 to February 15. The project construction will be performed at high tide via a barge. The four steel pipe piles would be installed via drilling methods. The float and ramp will be fabricated offsite and floated in via barge for installation via barge mounted crane. The concrete abutment will be cast in place and secured to the bedrock above the ordinary high water mark (OHWM).

CONSISTENCY WITH SHORELINE MASTER PROGRAM

In consultation with the City of Anacortes during the application process for the Shoreline Substantial Development permit, compliance with several sections of the current SMP was necessary to demonstrate as part of the process. On April 7, 2020, correspondence with the City of Anacortes (Tess Cooper, Associate Planner) outlined the specific sections of the SMP that would need further discussion in the overall project description. Those sections are: 5.9, 6.4, 6.5, 6.6, 6.7, 9.2 and 9.5

For compliance with Section 5.9, this residential dock will provide homeowner and neighborly access to the water for low to moderate recreational use in an area zoned Shoreline Residential associated with Cap Sante. Its design is consistent with state and federal regulations where horizontal surfaces are grated to provide light penetration. The landing point for the ramp is above the OHWM and not subject to setback requirements due to its water dependent use (per Section 5.9.5 and Tables 5.1 and 5.2).

With regards to Sections 6.4 through 6.7, please see the State Environmental Policy Act (SEPA) checklist and associated attachments for points of compliance, best management practices and other elements relevant to these sections.

To expand on information presented in the SEPA checklist relative to Section 6.7. The proposed dock went through various design alternatives (alternative analysis) in order to avoid impacts to nearshore habitats and the functions they provide. The current design straddles a band of laminarian kelp located in the shallow subtidal (see macrovegetation survey attached to the SEPA checklist). The ramp incorporates the use of grating to provide maximum light penetration and the float is pushed as far offshore to provide the widest buffer possible while remaining within the property boundaries. In addition to this, invasive plants (e.g. English ivy, Scotch broom) have been periodically removed in the upper shoreline in order to preserve habitat function. Further mitigation is not anticipated given the current improvements to the shoreline zone (invasive species suppression), ongoing installation of Puget Sound native plant species, the use of environmentally friendly design elements (e.g. grating, pylons designed and built to ensure the floating dock shall remain elevated 4 feet or more from the seabed even at extreme lowest tides, etc.), and the negligible and discountable negative effects of the proposed dock foot print (minimal size and number of piles).

In addition to the above, the proposed project will follow the designated in-water work window for Guemes Channel. Construction waterward of the OHWM will take place only during designated work windows issued by the Washington Department of Fish and Wildlife (WDFW) and the USACE and will use the most restrictive timeframe to avoid impacting migrating salmonids and bull trout.

Relevant to the general policies of Section 9.2, there are several elements of the design that were described in the SEPA checklist and in the above paragraphs that were incorporated to reduce impacts to the nearshore environment including:

- Designed so that project elements key into surfaces above OHWM and below mean lower low water (MLLW).
- Use of grating throughout the structure.
- Location of the float as far offshore as practicable (especially to avoid impacts to kelp and other macroalgae).
- The float is designed to not ground and will remain elevated 4 feet above the seabed during low tides.

Given the discountable and negligible effects of the proposed dock coupled with the voluntary invasive species removal and proactive ongoing native plant species propagation along the nearshore environment, the project will yield no net loss of ecological function within this nearshore area, and demonstrates the homeowners commitment to enhancing ecological function within the nearshore.

Relevant to Section 9.5, the following demonstrate compliance with the regulations contained therein:

- This dock is associated with a single-family residence for a water-dependent use to provide access to watercraft. Further, this residence is associated with Cap Sante.
- There will be no permanent moorage associated with this dock.
- There is no boat shelter or boat permanently moored at this dock.

- The siting of this dock took into account the following:
 - Overall shoreline characteristics with the float sited to ensure the least amount of environmental impact.
 - The dock was designed to incorporate grating throughout its components and prevent adverse effects to benthic communities by pushing as far offshore as practicable and preventing grounding during low tide.
 - Please see the SEPA checklist and its attachments for documented marine resources in the project area and further analysis of environmental impacts.
- Since the purpose of the dock is not associated with permanent moorage, a mooring buoy was not considered feasible.
- A floating dock element was incorporated into the overall design to reduce the need for piles and to minimize the need for more hard structures in the marine environment.
- Although this is being described as a single-family residence dock, neighbors will be welcome to use the dock for water access. Both adjacent neighbors and several others in the neighborhood of Cap Sante have been invited to enjoy respectful family day-use of the dock.
- No treated wood products will be used to construct the proposed dock. All surfaces in contact with marine waters will be coated steel piles, encapsulated flotation, aluminum or galvanized steel.
- The size of the float and gangway have been minimized to the extent practicable for the proposed use.
- The proposed float/dock will not incorporate power, will not have external lighting, nor hydraulic apparatuses in order to reduce potential environmental impacts such as light pollution or accidental spills.
- The dock was designed by TransPac, a marine engineering firm knowledgeable with nearshore conditions in Guemes Channel.
- The visual aesthetic of the ramp, footing and the pilings were designed to minimize visual impacts from all viewing angles.

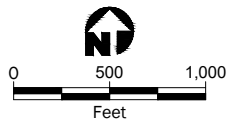
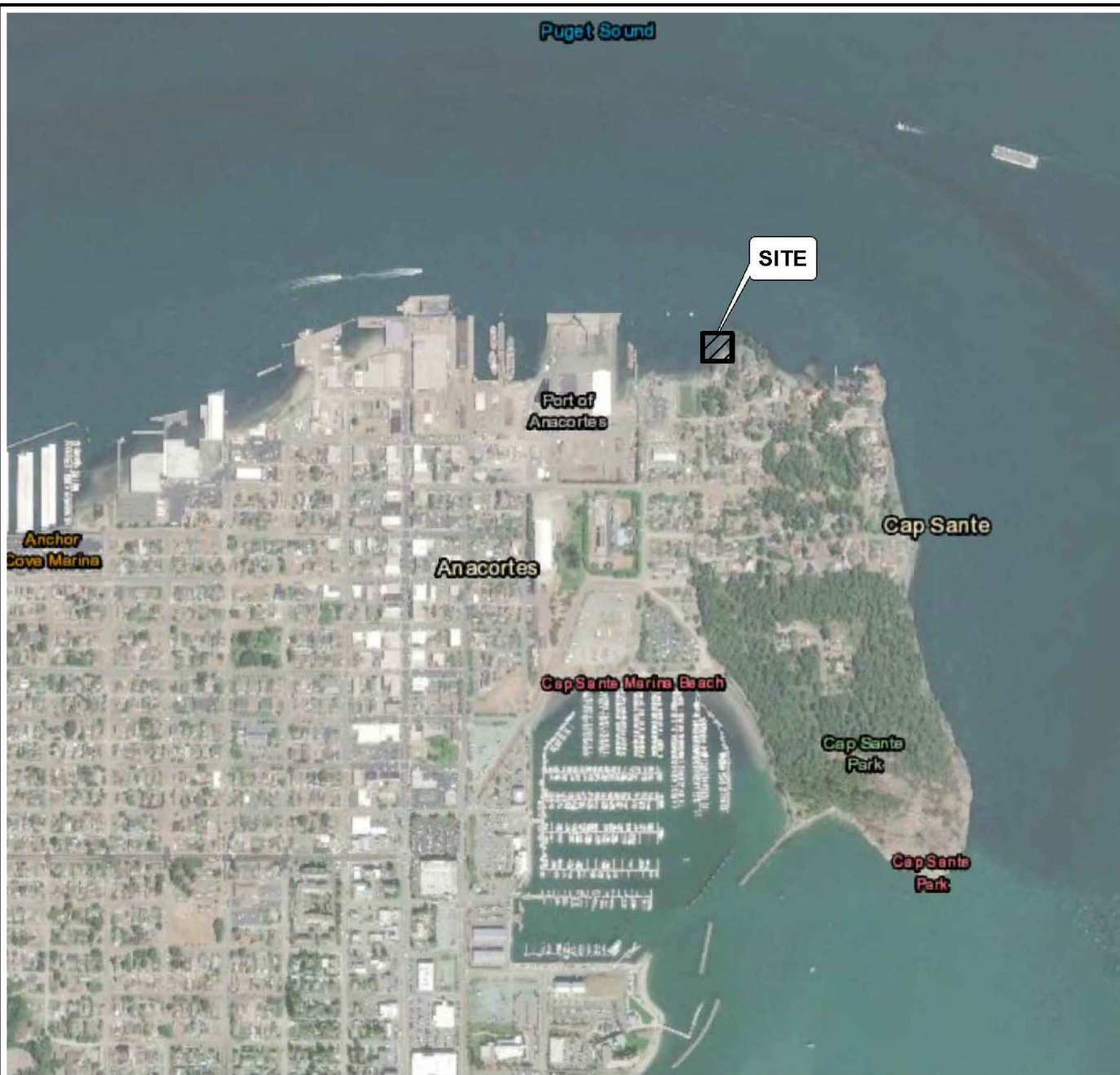
Please see the attached design drawings for further details on design elements, siting, and overall size.

Attachments:

Design Drawings

Disclaimer: Any electronic form, facsimile or hard copy of the original document (email, text, table, and/or figure), if provided, and any attachments are only a copy of the original document. The original document is stored by GeoEngineers, Inc. and will serve as the official document of record.

P:\23\23908001\CAD\00_JARPA\2390800100_Sht 01_Vicinity Map.dwg TAB:S01 Date Exported: 03/03/20 - 8:25 by syi



Sheet	Title
1	Vicinity Map
2	Existing Conditions
3	Proposed Float
4	Elevation
5	Pile Details
6	Float Details

Data Source: Mapbox Open Street Map, 2016

Vicinity Map

Applicant: Tom and Wyndham Jackson

Reference Number:

Adjacent Property Owners:

1. Luanne Freer, 101 U Avenue, Anacortes, WA 98221.
2. Nels Strandberg, 408 2nd Street, P.O. Box 319, Anacortes, WA 98221.

Location: 416 Second Street, Anacortes, WA 98221.

Lat/Long: 48.521399°N, -122.604122°W

Datum: WA State Plane North
Horizontal=NAD83
Vertical=NAVD 88

Sheet: 1 of 6 **Date:** 03/03/2020

Proposed Project:
Jackson Dock

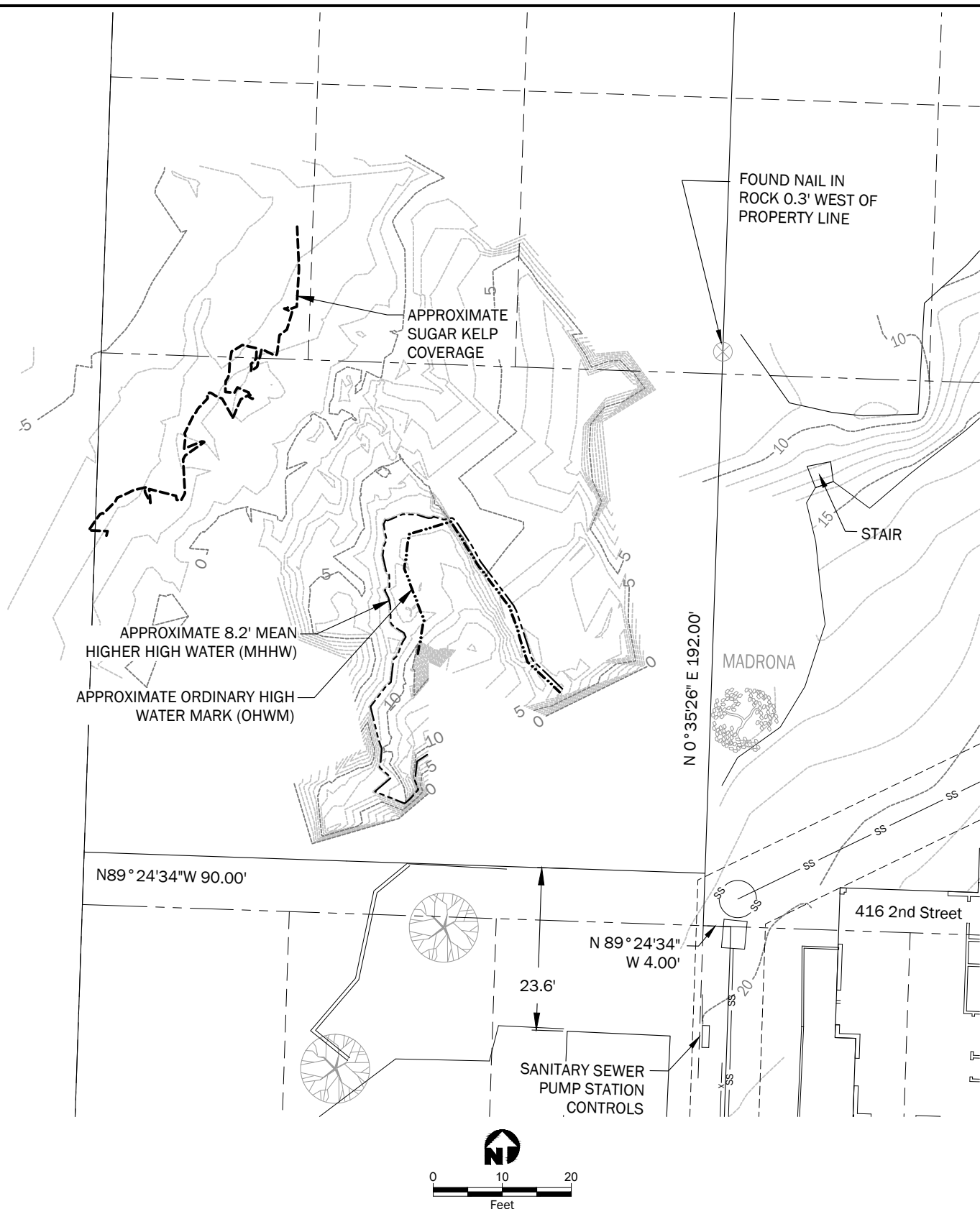
In: Guemes Channel

Near/At: City of Anacortes

County: Skagit

State: WA

P:\23 23908001\CAD\00_JARPA\2390800100_Sht 02_Existing Conditions.dwg TAB:S02 Date Exported: 03/03/20 - 8:27 by syi



Legend

- Approximate Ordinary High Water Mark (OHWM)
- .-.-.-.- Approximate 8.2' Mean Higher High Water (MHHW)

Applicant: Tom and Wyndham Jackson

Reference Number:

Proposed Project:
Jackson Dock

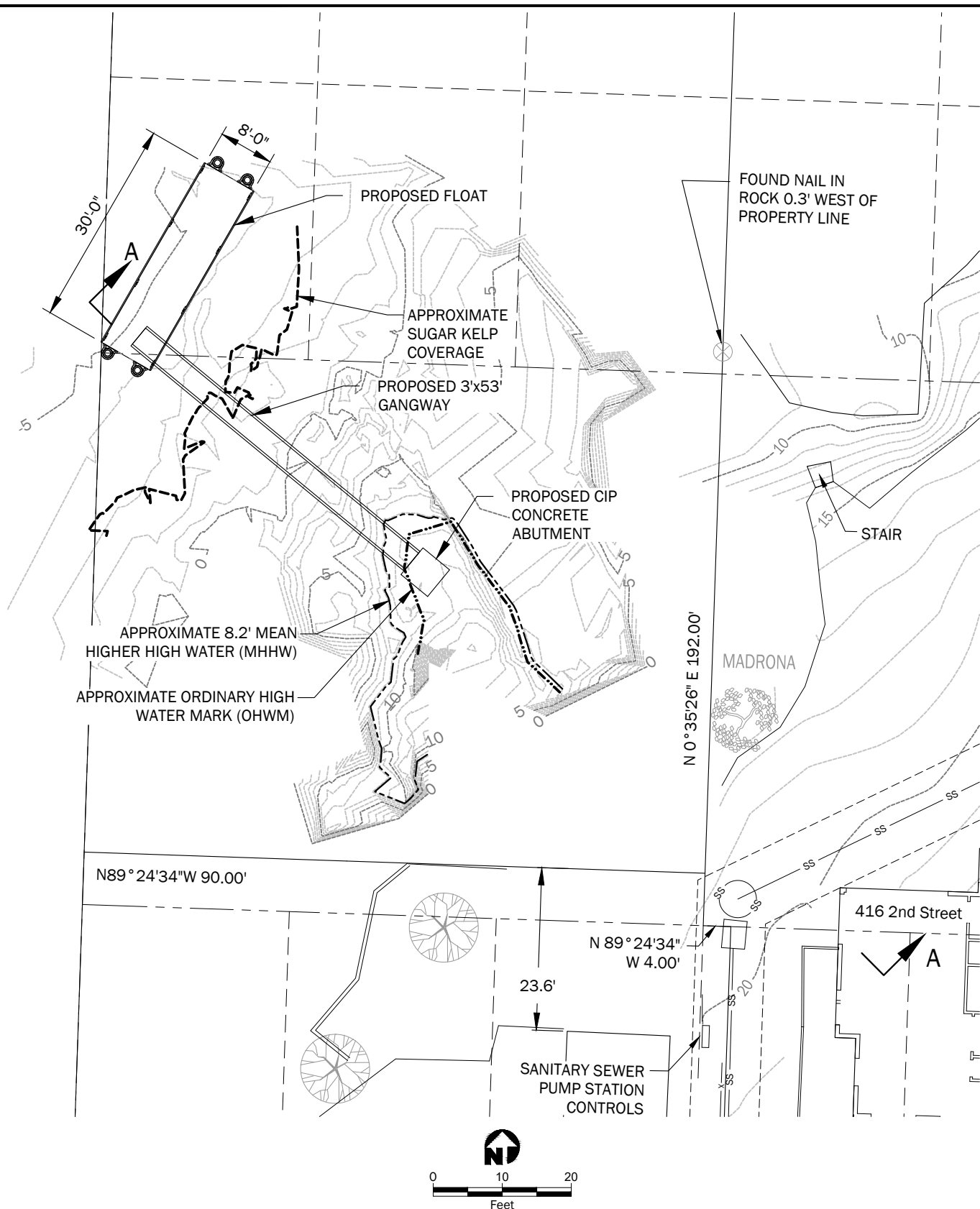
Location: 416 Second Street, Anacortes,
WA 98221.

Sheet: 2 of 6 **Date:** 03/03/2020

Data Source: Drawing from Jackson Engineering, dated 02/12/2020.

Existing Conditions

P:\23 23908001\CAD\00_JARPA\2390800100_Sht 03_Proposed Float.dwg TAB:S03 Date Exported: 03/03/20 - 8:28 by syi



Legend

- Approximate Ordinary High Water Mark (OHWM)
- - - - - Approximate 8.2' Mean Higher High Water (MHHW)

Applicant: Tom and Wyndham Jackson

Reference Number:

Proposed Project:
Jackson Dock

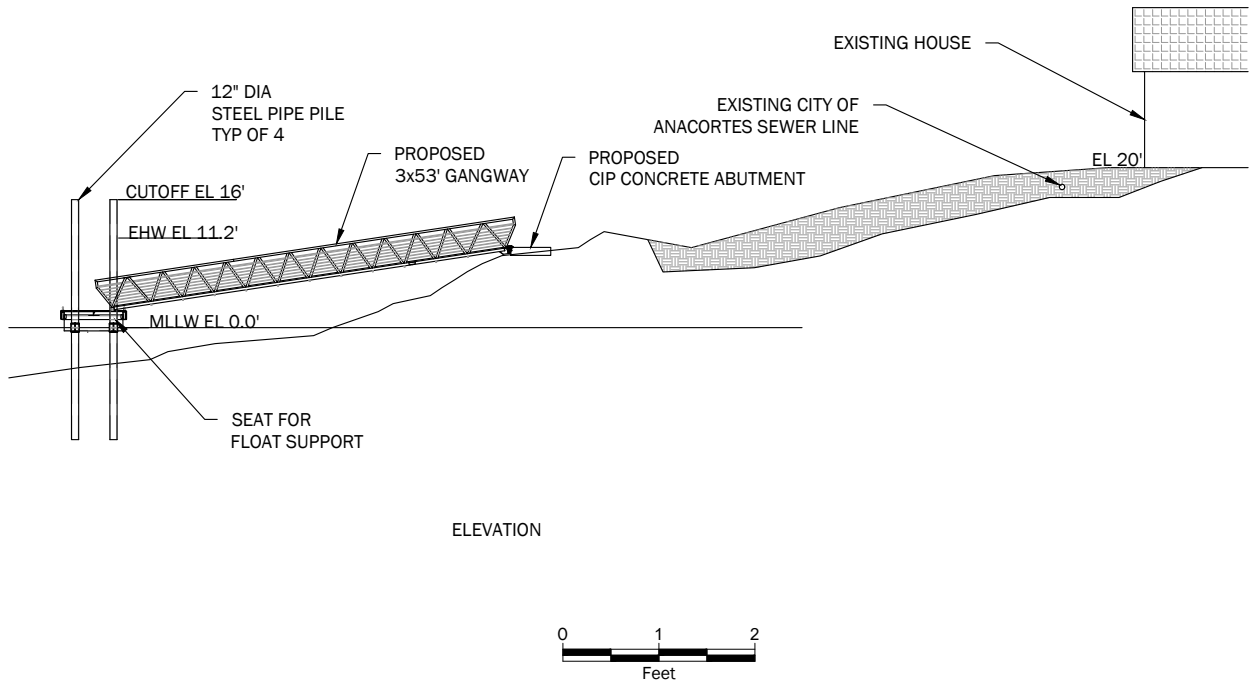
Location: 416 Second Street, Anacortes,
WA 98221.

Sheet: 3 of 6 **Date:** 03/03/2020

Data Source: Drawing from Jackson Engineering, dated 02/12/2020.

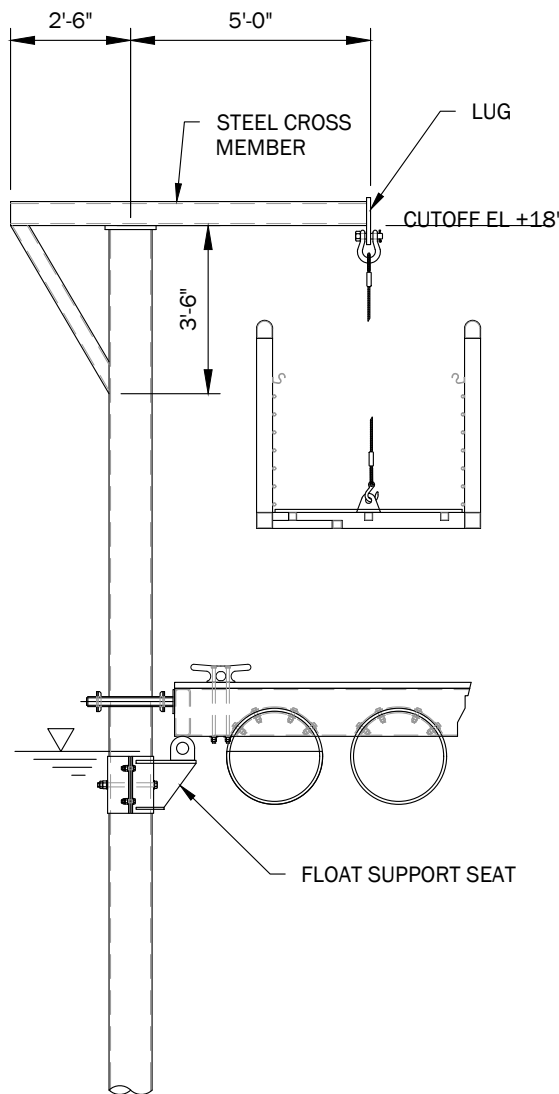
Proposed Float

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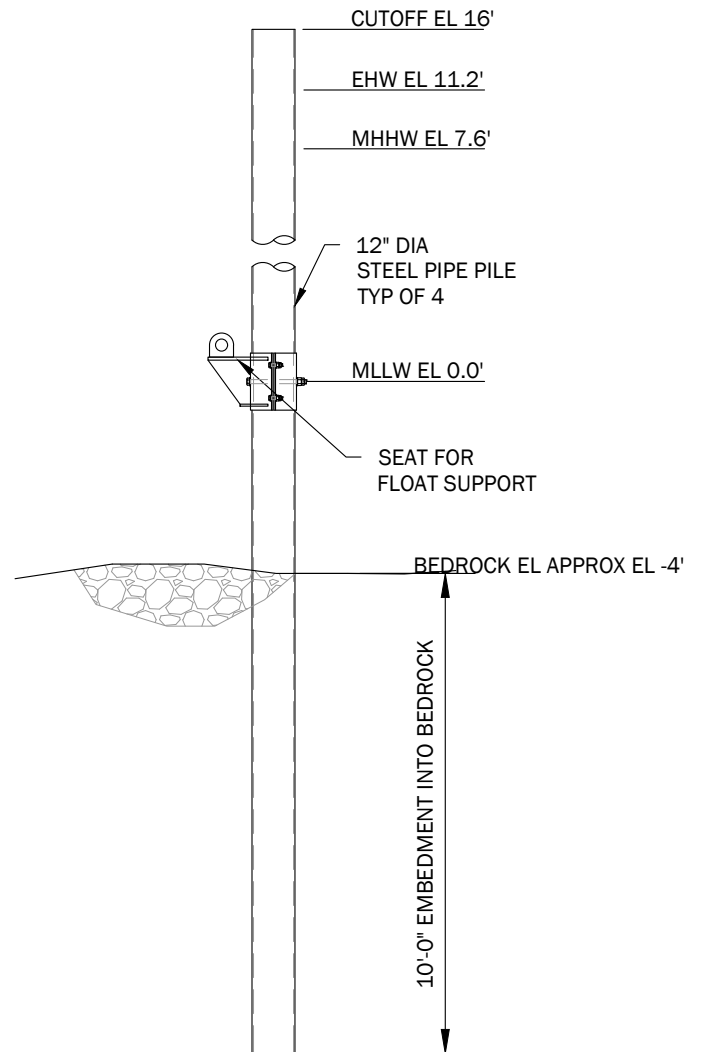


Applicant: Tom and Wyndham Jackson
Reference Number:
Proposed Project:
Jackson Dock
Location: 416 Second Street, Anacortes,
WA 98221.
Sheet: 4 of 6 **Date:** 03/03/2020

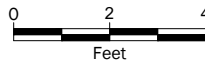
P:\23\23908001\CAD\00_JARPA\2390800100_Sht 04 to 06_Elevation_Pile Details.dwg TAB:S05 Date Exported: 03/03/20 - 8:29 by syi

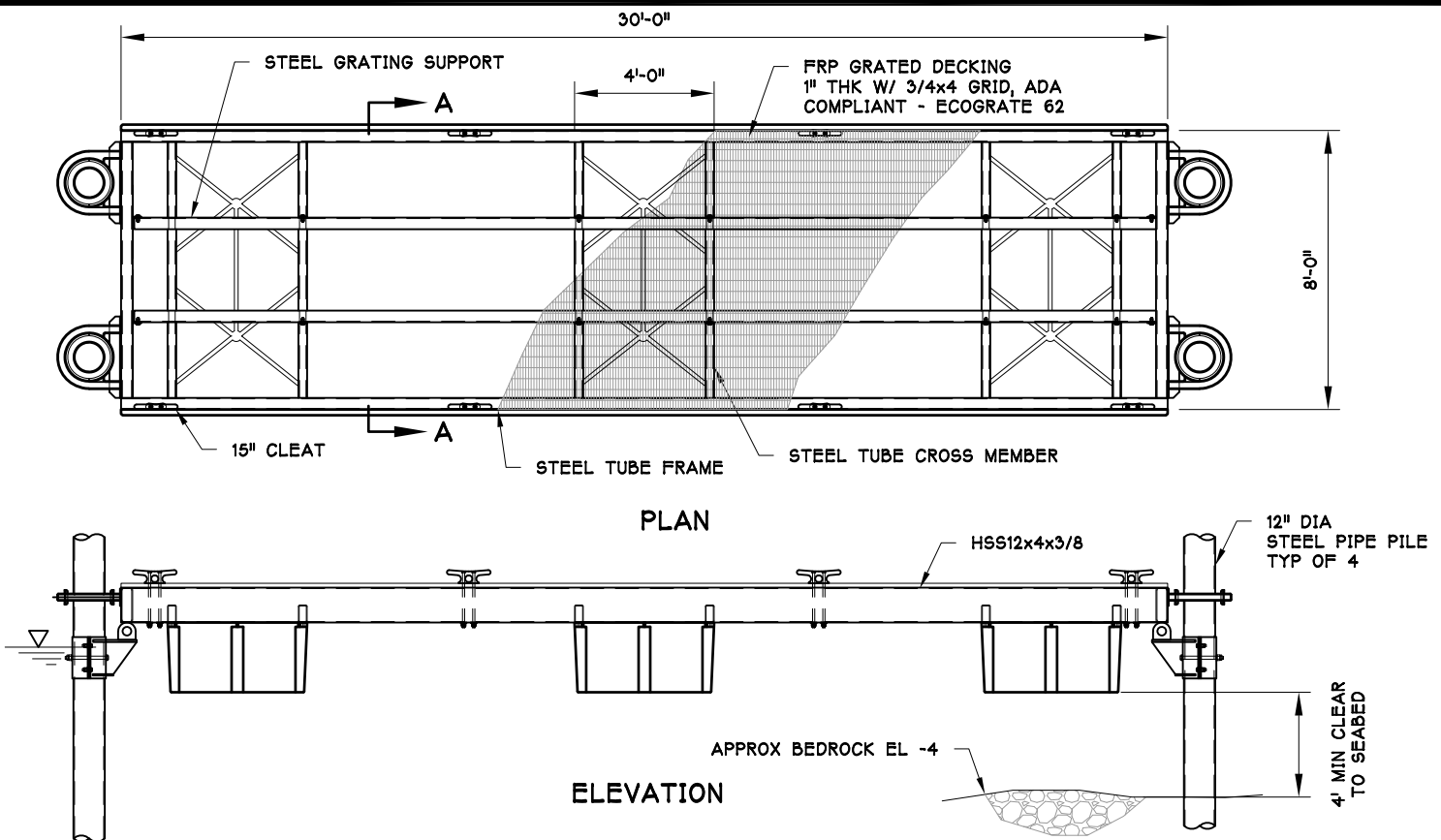


PILE WITH DAVIT DETAIL



TYPICAL PILE DETAIL





OVER WATER COVERAGE - FLOATING DOCK

STEEL TUBE FRAME - $0.33 \times 2 \times (30 + 7.33) = 24.6$ SF

GRATING SUPPORT - $0.167 \times 2 \times 29.33 = 9.8$ SF

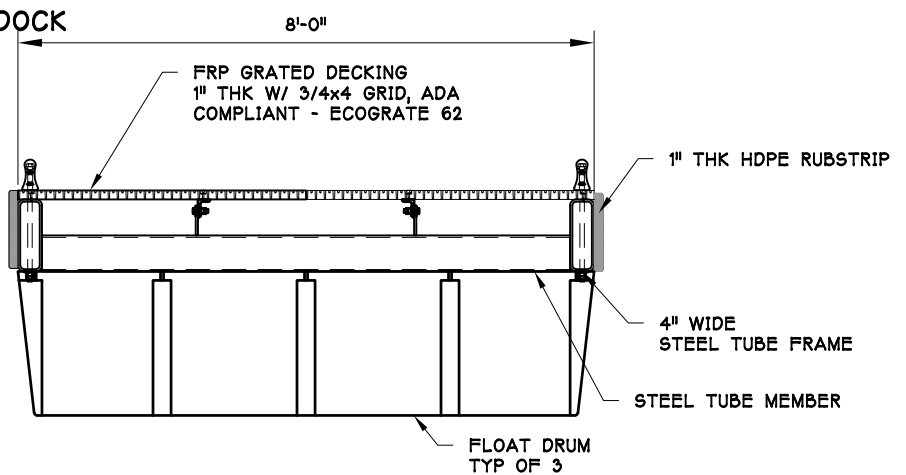
EXPOSED DRUM - $(8 - 0.67 - 0.167 - 0.167) \times 4 \times 3 = 84$ SF

TOTAL - $24.6 + 9.8 + 84 = 118.4$ SF

TOTAL FLOAT AREA - $30 \times 8 = 240$ SF

FUNCTIONAL GRATING AREA - $240 - 118.4 = 121.6$

% FUNCTIONAL GRATING AREA = $(121.6 / 240) \times 100 = 50.7\%$



A - A



TRANSPAC
MARINAS

P.O. BOX 1169
ANACORTES
WASHINGTON
U.S.A. 98221
(360) 293-8888

AJD
ENGINEERING

(360) 770-1746

PURPOSE: PROPOSED FLOAT

APPLICANT:
TOM JACKSON
416 SECOND STREET
ANACORTES, WA 98221
(360) 298-6683

IN: GUERMES CHANNEL
AT: CITY OF ANACORTES
COUNTY: SKAGIT
STATE: WASHINGTON
LATITUDE: 48.52 deg
LONGITUDE: -122.60 deg

APPLICATION REFERENCE No:

NWS

JACKSON
FLOAT INSTALLATION
FLOAT DETAILS

ADJACENT PROPERTY OWNERS:
LUANNE FREER
101 U AVE
ANACORTES, WA 98221

408 2nd STREET
NELS STRANDBERG
P.O. BOX 319
ANACORTES, WA 98221

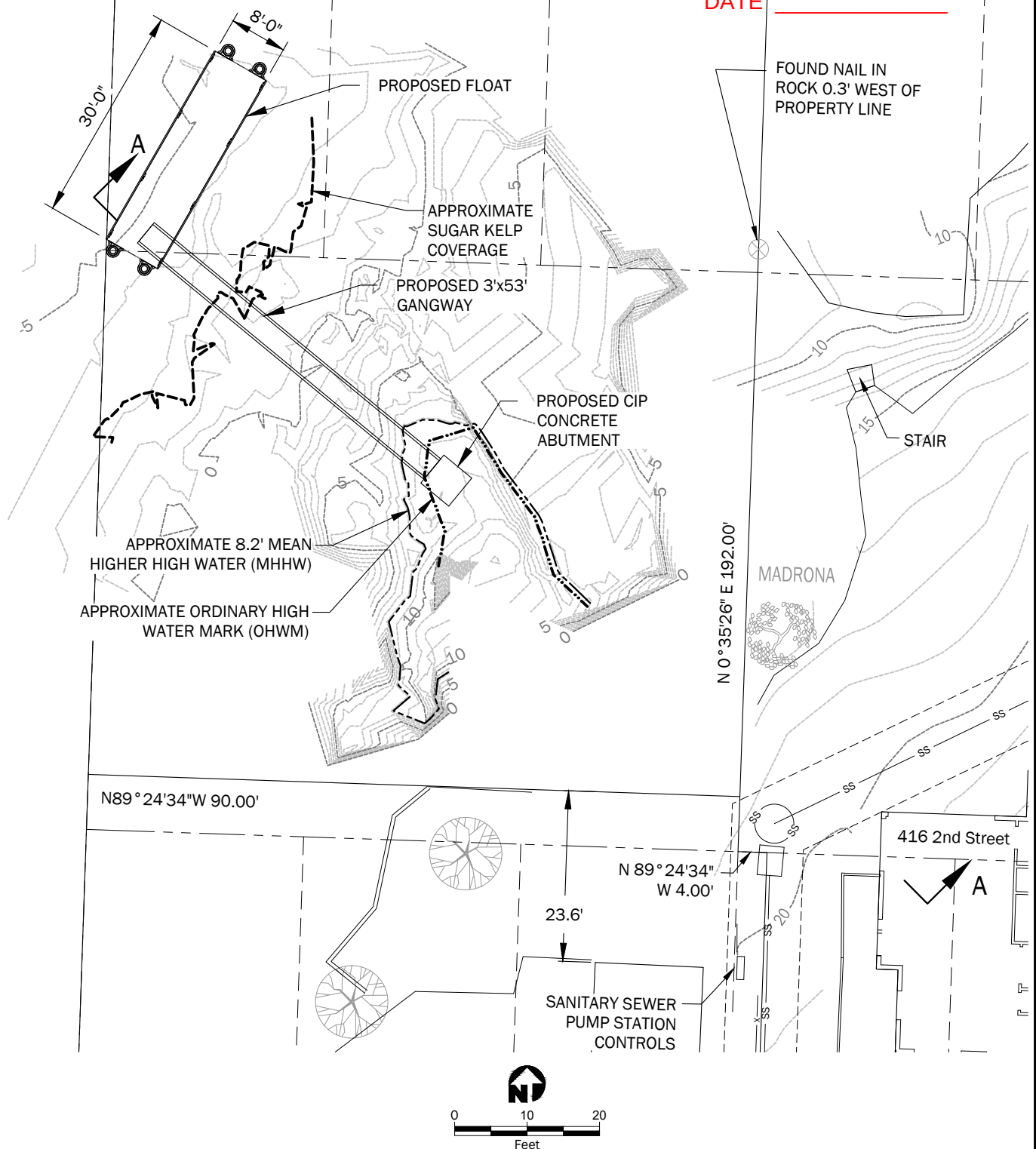
THIS DRAWING IS THE PROPERTY OF AND CONTAINS INFORMATION WHICH BELONGS TO TRANSPAC MARINAS, INC. IT IS BEING LOANED WITH THE UNDERSTANDING THAT IT MAY NOT BE REPRODUCED OR USED IN ANY WAY THAT WOULD BE INJURIOUS TO TRANSPAC'S INTERESTS. DETAILS MAY BE PROTECTED UNDER ONE OR MORE OF THE FOLLOWING U.S. PATENTS: 4,709,647 - 4,887,654 - 4,940,021 - 5,347,948 - 5,529,012 - 6,450,737

DATE: 12 FEB 2020	JOB NO. 19_117_W	SHEET: OF 6 OF 6	REVISED: -
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APPROVED SITE PLAN

STAFF TC

DATE _____



Legend

- Approximate Ordinary High Water Mark (OHWM)
- - - - - Approximate 8.2' Mean Higher High Water (MHHW)

Applicant: Tom and Wyndham Jackson

Reference Number:

Proposed Project:
Jackson Dock

Location: 416 Second Street, Anacortes, WA 98221.

Sheet: 3 of 6 **Date:** 03/03/2020



NEIGHBORHOOD MEETING:

A neighborhood meeting will be held at **6:00 PM on Thursday, August 1, 2019, in the City of Anacortes' Senior Activity Center located at 1701 22nd Street, Anacortes, Washington**, concerning the applicant's proposed development. The applicant is proposing to construct an 8' wide by 30' long private residential dock on the subject property accessed by a gangway. The subject property is located in the R2 Zoning District.

Applicant & Landowner: Tom and Wyndham Jackson, 416 2nd Street, Anacortes, WA 98221; Phone: (360) 298-6683

Project Location: The project site is addressed as 416 2nd Street, Anacortes, Washington which is located within a portion of Section 18; Township 35 North; Range 02 East; Willamette Meridian.

Parcel(s) Numbers Involved: P56457 & P32865

Required Project Permits/Approvals: The following permits /approvals may be required as part of the proposed development: Shoreline Permit, SEPA environmental review, and & Building Permit. At this time however, this just concerns a neighborhood meeting as no permit application submittal has occurred to date.

For Project Information: Kevin Cricchio, AICP, ISA, WPIT, Senior Planner; Phone: (360) 293-1937; Email: kevinc@cityofanacortes.org; City of Anacortes, P.O. Box 547, Anacortes, WA 98221

Date Issued: July 17, 2019

Publish: June 17, 2019



NOTICE OF APPLICATION with OPTIONAL SEPA DNS:

Notice Is Hereby Given That An Application Was Made For The Following Proposal:

Request: The applicant has applied for a Shoreline Substantial Development Permit (SSDP) to permit the proposed floating dock that is secured with four 12-inch steel pipe piles and connected to the shore via an articulated ramp and concrete footing. Dimensions of the dock are 8 feet wide by 30 feet. The grated ramp is 3 feet wide by 53 feet long. The subject property is located in the Residential Low Density (R2A) Zoning District, and Shoreline Residential environmental designation.

File Number: SDP-2020-0001 **Subject Parcels #:** P32865 and P56457

Date of Application: March 24, 2020 **Date of Completeness:** May 14, 2020

Applicant & Landowner: Tom and Wyndham Jackson,

Project Location: The project site is located at 416 2nd Street, Anacortes, WA 98221, within a portion of Section 18; Township 35 North; Range 01 East; Willamette Meridian.

Public Comment Period: Any person may comment on this application by writing to the address below and/or by testifying at the public hearing. Staff will issue a recommendation on the project after the **comment period ends at 5:00 PM on Friday, June 19, 2020**. Written comments on the proposal should be submitted before the end of the comment period but will be accepted until the close of the Pre-Decision Open-Record Public Hearing.

Required Project Permits/Approvals: The following may be required in addition to the above: Shoreline Permit, SEPA environmental review, building permit, WDFW HPA Permit, USACE permit/authorization.

Preliminary Determination of Consistency: At a minimum, this project will be subject to the following plans and regulations: 2010 Shoreline Master Program; 2016 Anacortes Comprehensive Plan; Municipal Code (Zoning, etc.); & Engineering Design and Building Standards.

SEPA Review: Based on the submitted application and available information, the City anticipates issuing an MDNS for this proposal and the optional DNS process as specified in WAC § 197.11.355 is being utilized. Consequently, this may be the only opportunity to comment on the environmental impacts of this proposal. This proposal may include mitigation measures under applicable codes, and the project review process may incorporate or require mitigation measures regardless of whether an EIS is prepared. A copy of the subsequent SEPA threshold determination for the proposal may be obtained upon request.

Existing Environmental Documents: JARPA, Biological Evaluation

Application documents may be reviewed at <https://www.anacorteswa.gov/161/Planning-Community-Economic-Development> by clicking "Notices of Application" and then opening the appropriate project file number folder.

Pre-Decision Open-Record Public Hearing: A **pre-decision open-record public hearing** is required to be held by the **Planning Commission and will be scheduled at a later date – due to COVID-19 restrictions.**

For Project Information: Tess Cooper, Associate Planner; Phone: (360) 588-8234; Email: tessc@cityofanacortes.org; City of Anacortes, P.O. Box 547, Anacortes, WA 98221

Date Issued: May 14, 2020

Date Published: May 20, 2020



NOTICE OF PLANNING COMMISSION VIRTUAL / TELEPHONIC PUBLIC HEARING

A virtual/telephonic public hearing will be held by the Anacortes Planning Commission on **September 9, 2020 at 6:00 PM** by means of the Zoom video conferencing web application to consider the following application:

Project Name: Jackson Dock **File Number:** SDP-2020-0001

Applicant: Tom and Wyndham Jackson

Applicant Contact: Tom Jackson, 416 2nd Street, Anacortes, WA 98221, 360-298-6683;
tom@jacksoneng.com

Project Location: 416 2nd Street, Anacortes, WA 98221. (Assessor Parcel # P32865 and P56457)

Application Type / Description: The applicant requests approval to construct a floating dock that is secured with four 12-inch steel pipe piles and connected to the shore via an articulated ramp and concrete footing. Dimensions of the dock are 8 feet wide by 30 feet. The grated ramp is 3 feet wide by 53 feet long.

Environmental Review: A SEPA threshold Determination of Nonsignificance (DNS) was issued for this project on July 15, 2020, under WAC 197-11-340(2), after using the Optional DNS process in WAC 197-11-355. There is no further comment period on the DNS.

Appeals: The decision on this application, once made, may be appealable pursuant to the procedures outlined in AMC 19.20.030 and AMC 19.20.210.

Staff Report: The staff report will be available no later than 5:00 p.m. on September 3, 2020 and can be viewed at <https://www.anacorteswa.gov/161/Planning-Community-Economic-Development> by clicking "Other Notices" and then opening the appropriate project file number folder (SDP-2020-0001). You may also request a copy by contacting the project contact listed below.

Attending and Providing Comment at the Public Hearing

1. **To participate in the Public Hearing:**
 - Click [this link](#) or copy/paste this URL into your browser: <https://us02web.zoom.us/j/85918981678> or
 - Dial in to the meeting by phone: Dial in the US: +1 253-215-8782, enter the Meeting ID 859 1898 1678
2. **Written comments** received before 3:00 p.m. on the day of the Public Hearing will be distributed to the Planning Commission in advance of the public hearing. Comments can be submitted by:
 - Emailing tessc@cityofanacortes.org (include in the subject line *Public Comment for Planning Commission Meeting on [date]*) or
 - Visit [Watch Meetings](#) on the City of Anacortes website and click the eComment link beside the agenda item for the public hearing you wish to comment on.
3. **To view the live Public Hearing without participating:** Visit [Watch Meetings](#) on the City of Anacortes website (<https://www.anacorteswa.gov/700/Watch-Meetings>) or tune in to Channel 10.
4. Members of the public who require special assistance to participate in or access the public hearing may contact the [City Clerk](#) 24 hours before the meeting to make special arrangements. Dial 360-299-1960.

Project Contact: Tess Cooper, Associate Planner; Phone: (360) 588-8234; tessc@cityofanacortes.org;
City of Anacortes, P.O. Box 547, Anacortes, WA 98221



STATE OF WASHINGTON
DEPARTMENT OF ECOLOGY

*Northwest Regional Office • 3190 160th Avenue SE • Bellevue, Washington 98008-5452 • (425) 649-7000
711 for Washington Relay Service • Persons with a speech disability can call (877) 833-6341*

June 18, 2020

Tess Cooper, Associate Planner
City of Anacortes
PO Box 547
Anacortes, WA 98221

Re: Jackson Dock
File# SDP-2020-0001, Ecology SEPA# 202002651

Dear Tess Cooper:

Thank you for the opportunity to provide comments on the **Jackson Dock** Project. Based on review of the State Environmental Policy Act (SEPA) checklist associated with this Project, we offer the following comments:

SHORELANDS AND ENVIRONMENTAL ASSISTANCE PROGRAM

David Radabaugh, (425) 649-4260, david.radabaugh@ecy.wa.gov

The SEPA documentation says the project is located in the 100-year floodplain, but there is nothing listed about a floodplain development permit being required as part of the proposal. A flood permit review can be embedded within another permit, such as a building or grading permit, though the flood permit should still be called out. Please also note all floodplain development in the Puget Sound region requires documentation of compliance with the Biological Opinion for the National Flood Insurance Program, typically in the form of a habitat assessment. The SEPA documentation lists a 'Macrovegetation and Nearshore Habitat Survey' that was completed; this could potentially serve as documentation of compliance if the following substantive areas are covered within it:

- Water quantity and quality
- Flood storage capacity related impacts
- Riparian vegetation
- Habitat forming processes (such as large woody debris recruitment)
- Refuge from higher velocity floodwaters
- Spawning substrate
- Indirect impacts. Indirect impacts are a result of an action and can occur later in time or in a different place and are reasonably foreseeable
- Cumulative impacts of similar and reasonable foreseeable projects beyond the subject proposal/lot for all aforementioned items, especially loss of storage.

Additionally, the project proponent should ensure the above items are adequately addressed, supported with analysis and logic in the report, and there are no adverse effects resulting from:

- Habitat isolation
- Bank armoring
- Channel straightening
- Construction effects (transport of sediment from the work area, noise, etc.)
- Direct effects

TOXICS CLEANUP PROGRAM

Heather Vick, (425) 649-7064, heather.vick@ecy.wa.gov

There are two contaminated sites listed on Ecology's database with a 750-foot radius of this location. The two sites are described below.

- **Wymans Marina & Wholesale Supply** (Facility Site ID No.: 2821735; Cleanup Site ID No.: 2097) located at 202 U Avenue is approximately 300 feet west-southwest of this location. This site was ranked a '1' using the Washington Ranking Method (WARM) in which a '1' represents the highest risk and a '5' represents the lowest risk. The site, which received a No Further Action determination in 2015, was contaminated with phenolic compounds, metals and pesticides above cleanup levels in soil and metals and pesticides suspected in ground water. This site is most likely hydrogeologically cross-gradient to this location.
- **Anacortes Port Log Yard** (Facility Site ID No. 21898438; Cleanup Site ID No.: 3604) located at 718 4th Street is approximately 725 feet west-southwest of this location. This site was ranked a '2' using WARM. The status of this site is 'cleanup started'. This site has polychlorinated biphenols, polycyclic aromatic hydrocarbons and bioassay benthic failures confirmed above applicable screening levels in sediment. Metals and other deleterious substances are suspected of being in sediment at concentrations above applicable screening levels. This site is most likely hydrogeologically cross-gradient to this location.

Thank you for considering these comments from the Department of Ecology. If you have questions or would like to respond to these comments, please contact one of the commenters listed above.

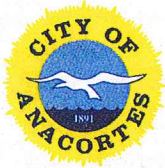
Sincerely,



Katelynn Piazza
SEPA Coordinator

Sent by email: Tess Cooper, tessc@cityofanacortes.org

ecc: Tom Perkow, Ecology
Heather Vick, Ecology



Anacortes Planning, Community & Economic Development Dept.

Permit Center

P.O. Box 547, Anacortes, WA 98221-0547

Don Measamer, *Director of Planning, Community and Economic Development*

PH (360) 299-1984

FAX (360) 293-1938

STATE ENVIRONMENTAL POLICY ACT (SEPA)

Mitigated Determination of Non-Significance (MDNS)

DATE OF DECISION	July 15 , 2020
PERMIT TYPE	Shoreline Substantial Development
FILE NUMBER	SDP-2020-0001
PROJECT NAME	Jackson new residential dock
DATE OF COMPLETE APPLICATION	May 14, 2020
SEPA DETERMINATION	MDNS
APPLICANT/OWNER	Tom and Wyndham Jackson 416 2 nd Street Anacortes, WA 98229
AGENT	Tom and Wyndham Jackson 416 2 nd Street Anacortes, WA 98229

PROJECT LOCATION	Sections 18 of Range 1E, Township 35N; Willamette Meridian. 416 2 nd Street, Anacortes, WA 98221.
PARCEL NUMBER	P32865 and P56457P31557
CURRENT ZONING:	R2A
SHORELINE DESIGNATION	Shoreline Residential
CRITICAL AREAS / OVERLAYS	Marine Fish Wildlife Habitat Conservation Area, Frequently Flooded Areas

PROJECT DESCRIPTION:

The applicant submitted for a Shoreline Substantial Development Permit (SSDP) & SEPA environmental review for the construction of a new residential dock. The proposed floating dock secured with four 12-inch steel pipe piles and connected to the shore via an articulated ramp and concrete footing. Dimensions of the dock are 8 feet wide by 30 feet. The grated ramp is 3 feet wide by 53 feet long.

LEAD AGENCY:

City of Anacortes' Department of Planning, Community & Economic Development. The lead agency for this proposal has determined that this project does not have a probable adverse impact on the environment provided that the conditions set out below are satisfied. An environmental impact statement (EIS) is not required under RCW § 43.21C.030(2)(c). This decision was made after review of a completed environmental checklist and other information on file with the lead agency. This information is available to the public on request.

CRITICAL AREA REVIEW:

Pursuant to Appendix "A" of the Shoreline Master Program (SMP) regulating shoreline critical areas, the subject development was reviewed for proximity to critical areas.

The applicant submitted a Nearshore Habitat Survey. This Report evaluated potential impacts from the project to Endangered Species Act (ESA) endangered and threatened species and their habitat. The Report also lists recommended habitat restoration alternatives. These suggestions have been made as a condition of approval below.

PUBLIC COMMENTS RECEIVED:

Notice of application with optional SEPA DNS process was posted on May 20, 2020 with the comment period ending at 5:00 pm on June 19 2019. One comment was received from the Department of Ecology. The concerns of these comments have been considered in this determination.

MITIGATION MEASURES/ CONDITIONS OF APPROVAL:

1. Construction activities shall comply with best management practices (BMPs) and are subject to building permit and storm water requirements from the City of Anacortes Planning, Community & Economic Development Department.
2. A FEMA Habitat Assessment Report is required prior to commencement of activities. The applicant shall comply with federal statutes including but not limited to the: Endangered Species Act, Clean Water Act, Marine Mammal Protection Act, and other federal statutes.
3. Hours of construction /work are limited to 7:00 AM to 10:00 PM unless a noise variance is first obtained.
4. Noise levels shall not exceed those standards as established by the state pursuant to Chapter 70.107 RCW and contained in Chapter 173.60 WAC.
5. Prior to commencement of site activities, copies of all applicable state and federal permits and/or approvals shall be provided to the City.
6. Proposed excavation activities shall occur at low tide or by barge, no equipment is permitted on the beach.

7. Restoration Alternative as described in the Habitat Evaluation Report shall be implemented, and verified by the Shoreline Administrator prior to Final Building Inspection.

9. If any artifacts or human remains are found upon excavation, the Samish Indian Nation; the City of Anacortes' Department of Planning, Community, & Economic Development; the City of Anacortes' Police Department; and the State of Washington's Department of

Archaeology and Historic Preservation (DAHP) shall be immediately notified and the work in the immediate area cease. Pursuant to RCW § 27.53.060 it is unlawful to destroy any historic or prehistoric archaeological resources. RCW 27.44 and § 27.53.060 require that a person obtain a permit from the Washington State Department of Archaeology and Historic Preservations before excavating, removing, or altering Native American human remains or archaeological resources in Washington.

RESPONSIBLE OFFICIAL:

Don Measamer

POSITION/TITLE:

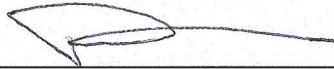
Director of Planning, Community & Economic Development

ADDRESS:

904 6th Street, P.O. Box 547
Anacortes, Washington 98221

DATE: July 15, 2020

Signature: _____



The conditions listed above along with the City of Anacortes' code governing noise, land use, traffic, drainage, fire protection, and building will provide substantial mitigation of the aforementioned environmental impacts. The City of Anacortes' derives the authority to require mitigation from Chapter 18.04 of the Anacortes Municipal Code and the State Environmental Policy Act. This MDNS is issued after using the optional MDNS process in WAC § 197.11.355. There is no further comment period on this MDNS.

For further information, contact the Anacortes Planning, Community, & Economic Development Department at (360) 299-1984. The issuance of this Mitigated Determination of Non-significance should not be interpreted as acceptance or approval of the proposal as presented. The City of Anacortes reserves the right to deny or approve said proposal subject to conditions if it is determined to be in the best interests of the city and/or necessary for the general health, safety and welfare of the public to do so

ISSUED:

July 15, 2020

APPEALS:

Per AMC Table 19.20.030-1 and 19.20.210, the Administrator's decision may be appealed to the Hearing Examiner. Appeals must be delivered to the City Clerk by mail or personal delivery before 5:00 PM on the last business day of the appeal period. Appeals received by mail after 5:00 PM on the last day of the appeal period will not be accepted, regardless when such appeals were mailed or postmarked. Contents of any appeal shall contain the information and items as listed in AMC 19.20.210(F).



Planning Commission Agenda Bill

Meeting Date: 9/9/2020 **Agenda Item:** [Click here to enter text.](#)

Subject: SPL-2020-0003: Cherry Court Short Plat and CUP

Staff Contact: Libby Grage, Planning Manager

Approved for Submittal to PC by	
	Laurie Gere, Mayor
x	Don Measamer, PCED Director
	Darcy Swetnam, City Attorney

Action Type	
X	Public Hearing
X	Staff Report
X	Discussion
X	Action

Summary Statement: Landed Gentry/Corner 9 Properties requests approval of preliminary short subdivision and conditional use permit (per AMC 17.70 Critical Areas) to subdivide approximately 3.12 acres in the R1 zone into 6 residential lots and 1 detention pond tract. The site is located south of the intersection of Cherry Lane and Orchard Ave.

An open record pre-decision public hearing before the Planning Commission is scheduled for September 9, 2020. The Planning Commission is the decision-maker for both the preliminary short subdivision and conditional use permit applications.

See the Staff Report for additional information.

Recommended Motion: The Department of Planning, Community, and Economic Development recommends that the Planning Commission approve subject Preliminary Short Subdivision and Conditional Use Permit subject to the staff's suggested conditions of approval.

Attachments:

- Planning Commission Draft Findings of Fact
- Exhibit 1: Staff Report and Findings of Fact
- Exhibit 2: Vicinity Map
- Exhibit 3: Preliminary Short Subdivision and Conditional Use Permit Application Materials
- Exhibit 4: Preliminary Plat Drawing – redlined
- Exhibit 5: Notices
- Exhibit 6: Agency/Department Comments
- Exhibit 7: Public Comments
- Exhibit 8: Issued SEPA DNS
- Exhibit 9: Site Photos



DRAFT

Anacortes Planning Commission

Findings of Fact, Conclusions of Law and Decision

File Number:	SPL-2020-0003
Project Name:	Cherry Court Short Plat and Conditional Use Permit (CUP)
Proposal Description:	Preliminary short subdivision approval and conditional use permit approval (per AMC 17.70 Critical Areas) to subdivide approximately 3.12 acres in the R1 zone into 6 residential lots and 1 detention pond tract.
Documents available at:	City Hall, Planning Community & Economic Development Department
Public hearing & decision body:	Anacortes Planning Commission
Public hearing date:	September 9, 2020
PC deliberations:	September 9, 2020

After considering the written and spoken comments and considering the record before it, the Planning Commission enters the following findings of fact, conclusions of law, and decision:

Findings of Fact & Conclusions of Law

1. The Staff report dated August 31, 2020 accurately describes the project proposal and is hereby incorporated by reference. (Exhibit 1)
2. The following members of the public provided testimony during the public hearing:
 - a.
3. The following additional exhibits were entered into the record at the public hearing:
 - a.
4. The following additional Findings of Fact and/or Conclusions of Law are entered:
 - a. _____
 - b. _____
 - c. _____

Decision

Based on the foregoing findings and conclusions of law, and review of the City's regulatory authority to implement the policies, standards, and regulations of the Anacortes Municipal Code, the Planning Commission hereby makes the following decision regarding the subject Preliminary Short Subdivision and Conditional Use Permit applications:

- ☒ Approve with Conditions
☐ Approve
☐ Deny

Subject to staff's recommended conditions in the Staff Report dated August 31, 2020 and any additional Commissioner conditions of approval as listed below:

1. _____
2. _____
3. _____

Commission Vote	Support	Oppose	Absent	Abstain
Frank Jeretzky				
Mike Cortright				
Sarah Ruether				
Jeff Mount				
Vacant				
Jeff Graf				
Ward MacKenzie				
Total	0	0	0	0

ANACORTES PLANNING COMMISSION
ANACORTES, WASHINGTON

War MacKenzie, Planning Commission Chair

Date

Appeals:

Pursuant to AMC 19.20.030, a local appeal of Type 3-PC Planning Commission Decisions is available to the City Council. Appeals of this decision must be filed in accordance with AMC 19.20.180 by 5:00 PM on _____.

Exhibit 1

Staff Report



Anacortes Planning, Community & Economic Development Department

904 6TH Street / P.O. Box 547, Anacortes, WA 98221

360.299-1984 - Office Hours: Mon-Fri 8:00 AM – 5:00 PM

STAFF REPORT

A. PROJECT SUMMARY DATA

PROJECT INFORMATION:

File Number	SPL-2020-0003	Date of Report	August 31, 2020				
Project Title	Cherry Court Short Plat	Attachment					
Site Address	South of the intersection of Cherry Lane and Orchard Ave.						
APN(s)	P32077	Section	25	Township	35	Range	01
Request	The applicant requests approval of a preliminary short subdivision, conditional use permit per AMC 17.70 Critical Areas, and SEPA review to subdivide approximately 3.12 acres in the R1 zone into 6 residential lots and 1 detention pond tract.						
Landowner & Applicant	LG Anacortes 504 E Fairhaven Ave Burlington, WA 98233	Landed Gentry Development Inc. / Corner Properties 504 E Fairhaven Ave. Burlington, WA 98233					
Application Date	May 7, 2020	Complete Application Date	June 10, 2020				
Public Hearing Date	September 9, 2020						
Present Use of Property	Undeveloped						
Comprehensive Plan Designation	Residential Low Density 1	Zoning:	R1				
Shoreline Environment	N/A	Critical Areas	Ace of Hearts Creek (FWHCA) bisects a portion of the property				
Water Supply	Current	Proposed	Sewer Supply	Current		Proposed	
	N/A	City		N/A		City	

Staff Recommendation Approve, with conditions

CITY STAFF CONTACTS:

Name:	Title:	Phone:	E-mail:
Libby Grage	Planning Manager	(360) 299-1986	libbyb@cityofanacortes.org
Steve Lange	Public Works Engineering	360-293-1986	stevel@cityofanacortes.org

PROJECT LOCATION & SURROUNDING AREA



SITE & SURROUNDING USES:

	Comprehensive Plan	Zoning	Land Use
Site	Residential Low Density 1	R1	Single-family residences
North	Residential Low Density 1	R1	Single-family residences
East	Residential Low Density 1	R1	Single-family residences
South	Residential Low Density 1	R1	Single-family residences
West	Residential Low Density 1	R1	Single-family residences

B. PROCEDURAL

1. **Type of Review.** The application for short subdivision is a Type 2 Administrative Decision. The application for a conditional use permit per AMC 17.70 is a Type 3 Planning Commission Decision. At the applicant's request, the applications are being processed collectively pursuant to AMC 19.20.040, Consolidated Review, under the highest numbered type procedure required for any part of the application. In this case, a Type 3-PC review is required.
2. **Project history.** A mandatory preapplication meeting was held on November 12, 2019. A neighborhood meeting was held electronically on June 6, 2020. The formal application was submitted on May 7, 2020 and determined complete on June 10, 2020.
3. **Public notice and reviewing departments/agencies.** A notice of application with a 21-day public comment period ending on July 8, 2020 was published in the Anacortes American on June 16, 2020, posted on the project site and mailed to property owners within 300' on June 16, 2020, posted on the website on June 15, 2020, and routed to City departments and applicable local, state and federal agencies on June 15, 2020.

The project application was routed for review to applicable agencies and City departments.

REVIEWING DEPARTMENTS & AGENCIES:				
City of Anacortes	Local Agencies & Districts	State & Federal	Skagit County	Other
☒ Building ☒ Fire Dept. ☒ Parks ☒ Planning ☒ Police ☒ Public Works ☒ Operations	☒ Skagit Transit ☒ Anacortes School District 103 ☒ Port of Anacortes	☒ DOE ☒ WDFW ☒ WSDOT ☒ DNR ☒ DAHP	☐ Health District ☐ Planning ☐ Public Works	☒ Swinomish Tribe ☒ Samish Tribe ☒ Upper Skagit Tribe
X = Request for review/comments sent to department or agency.				

4. **Public Hearing.** A pre-decision open record public hearing before the Planning Commission is scheduled for September 9, 2020 at 6:00 PM. A notice of public hearing was published in the Anacortes American on August 19, 2020, posted on the project site, mailed to property owners within 300' and parties of record on August 19, 2020.

C. DEPARTMENT REVIEW – Findings of Fact

1. Landed Gentry Development Inc. / Corner Properties, applicant, represented by Anna Nelson, has requested SEPA review, preliminary short subdivision approval, and conditional use permit approval per AMC 17.70 Critical Areas, to divide 3.12 acres into 6 building lots and 1 stormwater detention tract. (Exhibit 3)
2. The 6 lots will be used for single family detached homes. Proposed lot sizes range from 15,042 sq. ft. to 23,739 sq. ft. The density for 6 single family units on 3.12 gross acres is 1.92 dwelling units per gross acre.

3. The property is zoned R1, Residential Low Density 1. The maximum density allowed in R1 is 2 dwelling units per gross acre. The proposed use is consistent with the R1 zoning designation within the Anacortes Municipal Code as well as the Comprehensive Plan designation of Residential Low Density 1.
4. The project site is located just south of the intersection of Cherry Lane and Orchard Avenue on Assessor Parcel Number P32077. It is rectangular in shape and 3.12 acres in size. There is an approximately 300' long by 16' wide panhandle that extends to the east to H Ave.
5. The site is surrounded by residential development to the north, east, south and west. The property abuts the Orchards Planned Unit Development (PUD) to the north, west and south. The Orchards PUD was recorded in 2006 and consists of single family homes on lots ranging in size from 9,600 sq. ft. to 26,201 sq. ft. Lots immediately abutting the subject site average approximately 12,600 sq. ft. in size. Development to the east of the site consists of 3 larger unplatted properties with single family homes.
6. The majority of the site slopes downward gently to the northeast. Site elevations vary from 318' in the southwest to 294' near the northeast corner of the property. The site currently is used as a horse pasture and is primarily vegetated with tightly grazed pasture grass species, with a stand of alders and several douglas fir trees.
7. Ace of Hearts creek is located to the east of the project site. The creek flows toward the north from the Anacortes Community Forest Lands. A 16' long culverted segment of Ace of Hearts Creek bisects the eastern panhandle part of the site. The creek is a designated Fish and Wildlife Habitat Conservation Area (FWHCA) and per AMC 17.70.560.I the short subdivision of land in a fish and wildlife habitat conservation area is subject to the conditional use permit process. No changes will be made to the stream or area surrounding it as part of the short subdivision. No wetlands or other critical areas were identified on the site. The applicant submitted a Critical Area Report with Habitat Assessment by Bachman Environmental, dated December 10, 2019.
8. Orchard Avenue, a public street, borders the site to the north. Orchard Ave. has 50' of right-of-way (ROW), with 30 feet of pavement and a sidewalk along a portion of its north side. The project will construct new curb and gutter along the south side of Orchard Ave., along the site frontage.
9. A new public road will be constructed to provide access to the new lots. The road will extend south from Orchard Avenue approximately 235' and terminate in a cul-de-sac. The public road will be constructed to a "lane" standard, which includes 32' right-of-way width, 20' pavement width, and a 6' sidewalk and 6' landscape strip on one side of the road.
10. Transportation impacts generated by the project are mitigated through payment of the transportation impact fee in effect at the time of building permit issuance for each lot.
11. Off street parking will be provided on each lot at a minimum rate of 2 spaces per unit. Guest parking is available along the project's frontage on Orchard Avenue.
12. Fire impacts generated by the project are mitigated through payment of the fire impact fee in effect at the time of building permit issuance for each lot.

13. Park impacts generated by the project are mitigated through payment of the park impact fee in effect at the time of building permit issuance for each lot. No dedication of land for park and recreation purposes is required pursuant to City subdivision code requirements since the plat is fewer than 10 dwelling units.
14. Water and sanitary sewer services will be provided by the City of Anacortes.
15. Stormwater management and Utilities will be provided to the site as follows:
 1. **Storm drainage** – There is an existing stormwater conveyance ditch located just to the north of the property within the Orchard Ave. ROW. Stormwater runoff from new hard surfaces and converted pervious areas will be collected in a series of catch basins and pipes and routed to a detention system prior to being released northeasterly of the site via a control structure. An above ground detention pond will be located within the northeast corner of the site. Road runoff will be collected and directly conveyed to the detention pond system for treatment and detention. Runoff from hard surfaces on individual lots will be dispersed within the lot prior to being connected to the onsite stormwater system.
 2. **Water** – There is an existing 8” ductile iron water main located within Cherry Lane to the north of the site. The water main will be extended south to serve the new lots.
 3. **Sewer** – There is an existing 8” PVC sewer main located within Orchard Avenue and Cherry Lane. The sewer main will be extended from the existing manhole at this intersection to the south to serve the new lots.

Utility and street design issues will be addressed during civil construction plan review process with the City.

16. Trees proposed for removal include 13 alder trees and 1 cherry tree. One 40” diameter douglas fir tree will be retained along the eastern property line. Based on the site’s gross size (118,026 sq. ft.), a total of 118 tree credits are required. Eight tree credits are claimed for retention of the douglas fir, leaving a total of 110 tree credits needed. Of those, 28 (25%) must be located outside of the residential lots.
17. **Environmental review.** A SEPA Determination of Nonsignificance (DNS) was issued for the proposal on August 19, 2020 after utilizing the optional SEPA DNS process identified in WAC 197-11-355. (Exhibit 8)
18. **Consideration of written comments and applicant responses.** The notice of application public comment period ended on July 8, 2020. Four public comments (Exhibit 7) were received during this time. Concerns identified in the public comments are summarized and responses provided below:

Issue	Staff Response
Concern that future homes and landscaping will block views from existing homes.	The Anacortes Municipal Code does not contain regulations protecting views from private property.
The proposed on-street guest parking should be located on the	The proposal to utilize the on-street parking area along Orchard Avenue to satisfy the development’s

new public road, within the plat boundaries, not on Orchards Ave.	guest parking requirements is consistent with AMC 19.64.030.2.a.
The project should be required to abide by the same covenants, conditions, and restrictions (CC&Rs) as the Orchards PUD.	The Orchards PUD was reviewed under the Planned Unit Development regulatory provisions and procedures, which have since been repealed. The City Council's decision for the Orchards PUD included conditions deemed necessary by the City Council to achieve the purposes of the PUD provisions, in exchange for allowing for smaller lots and modifications to road improvement requirements. Private covenants, conditions and restrictions were established to describe ownership and maintenance responsibilities of open spaces and critical areas, and other community standards that go beyond or are more restrictive than the standards in the Anacortes Municipal Code. The subject short subdivision is subject to a different regulatory process and standards, and as conditioned, will meet all the applicable criteria for short subdivisions and R1 zoning standards. The code does not provide the ability to condition approval upon the adoption of or compliance with adjacent development's private CC&Rs.
Concern about stormwater impacts to downstream properties	Stormwater management for the project must meet the requirements of AMC 19.76 and the 2014 Department of Ecology Stormwater Management Requirements for Western Washington. Concerns about downstream flooding during beaver dam maintenance in the ACFL have been referred to the Anacortes Parks Dept.

In making its recommendation, the Department considered timely received written comments and the applicant's responses, if any, as required in AMC 19.20.130.C.

D. CONCLUSIONS

Anacortes Municipal Code Chapter 19.32 provides certain criteria for approval of a Preliminary Plat. Below are the criteria, along with staff conclusions:

- A. Pursuant to AMC 19.20.030 and AMC 19.20.040.A, the Planning Commission has authority to decide the proposal after conducting a predecision open record public hearing. The proposal requires preliminary short subdivision approval and a conditional use permit.
- B. Proper notice for the public hearing has been provided. Notice was posted on the property, mailed to property owners within 300 feet and published in the Anacortes American newspaper on August 19, 2020, more than 15 days prior to the date of the hearing.

- C. **LAND DIVISION Application Review.** The review criteria for land divisions are outlined in AMC 19.32.040.

1. The proposal conforms to the requirements of [AMC 19.32] and Chapter 58.17 RCW.

Conclusion:

Conformance to AMC 19.32 ensures that appropriate 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, including sidewalks and other planning features that assure safe walking conditions for students who only walk to and from school.

The proposed 6 lot preliminary short subdivision provides for stormwater, access, water, sewer, recreation/open space, and schools. All lots will access from a new public street, and water and sewer services will be extended to serve the lots. The City assesses a park impact fee at the building permit stage of the project to address impacts to the City's park system by the project. No comments were received from the Anacortes School District.

Project review by all city review departments has found the project to be in conformance to City Codes and the project approval includes specific conditions to ensure standards are met.

2. The proposal conforms to the form and intensity standards in AMC 19.42, Form and Intensity Standards, for the zone in which the property is located.

Conclusion:

The proposal conforms to density requirements and minimum lot size and lot width standards for the R1 zone. The lots are designed to meet the following requirements:

- Minimum lot size of 15,000 sq. ft.: The smallest lot is 15,042 sq. ft.
- Minimum lot width circle of 100 ft.: Each lot is at least 100 ft. wide, meeting this requirement.
- The future single family residences will be required to meet the minimum setbacks and landscaping requirements, and conform to the maximum allowed lot coverage and building height.

3. The proposal conforms to the community design standards in Division 5 of [Title 19] including AMC Ch. 19.51, *Public Street Improvements*, AMC 19.52, *Public Street Design*, AMC 19.52, *Public Street Design*, AMC 19.53, *Private Driveways and Access*, and AMC 19.54, *Subdivision Design*.

Conclusion:

The proposal conforms to the standards outlined in the above referenced chapters. Improvements will be made to project's Orchard Avenue frontage including new curb and gutter. The Public Works Department concluded that a sidewalk not be required along the Orchard Avenue frontage of the project site as there is no existing sidewalk to connect to and there is an existing sidewalk on the north side of the road.

The new public street to be constructed for the project will conform to the minimum public street design standards in AMC 19.53. The street is proposed to terminate in a cul-de-sac as no future connection to the south of the site is possible (Orchard Place is a private street).

Individual private driveways to the new lots will be required to conform to the width and spacing standards of AMC 19.53 and the Engineering Design Standards, and will be reviewed as part of the civil construction plan review process by the Public Works Department.

The subdivision conforms to the block size and design standards of AMC 19.54. Impacts to parks will be mitigated by payment of the City's park impact fee at the building permit stage.

Each of the new lots is designed to conform to the lot design requirements in AMC 19.54.040. Future homes and other lot improvements will need to be placed on each lot to allow for implementation of low impact development stormwater management techniques proposed in the stormwater management plan for the development (including roof downspout dispersion, sheet flow dispersion, and concentrated flow dispersion of driveway runoff), as approved by the Public Works Department.

Each lot in the subdivision will have access directly to the new public street except for proposed Lot 3, which will access over Lot 4 via a shared driveway that must conform to the provisions of AMC 19.53.040.

4. The proposal conforms to the standards of AMC 16.50 Tree Preservation.

Conclusion:

The proposal conforms to the applicable tree preservation requirements in AMC 16.50. Protection measures for trees proposed for retention will be confirmed prior to site construction activities and conformance with new tree planting requirements for the site and each lot will be reviewed at the final plat and/or building permit stage, as applicable.

5. The proposal conforms to the standards of AMC 17.70, Critical Areas Regulations.

Conclusion:

The only known critical area located on site is a culverted portion of the Ace of Hearts Creek, which bisects a portion of the 16' wide piece of land that extends to H Ave. Ace of Hearts creek is designated as a fish and wildlife habitat conservation area (FWHCA). There are no impacts proposed to the stream as part of the project. AMC 17.70 requires that proposals to subdivide land that is located within a FWHCA obtain a conditional use permit. The subject proposal includes a conditional use permit application.

6. The proposal conforms to the standards of AMC 19.22, Concurrency.

Conclusion:

The application was routed to the City's Public Works, Police, and Fire Departments for review and comment. Based on this review it was determined that the capacity of concurrency facilities is equal to or greater than the capacity required to maintain the level of service standard for the impact from this development application. Therefore, the concurrency test is passed.

Through payment of impact fees and general facilities charges prior to building permit issuance the development will pay for its proportionate share of new public facilities and infrastructure needed to serve the new development.

7. The proposal conforms to the standards of AMC 19.76, Stormwater.

Conclusion:

Pursuant to AMC Ch. 19.76 and City of Anacortes Design Standards, a temporary erosion and sediment control plan is required to be approved and implemented on the site prior to and during site development. Additionally, a stormwater management plan and subsequent installation of an approved stormwater management system on site is required. Potential significant adverse environmental impacts associated with erosion, sedimentation, and increased stormwater runoff from this development are adequately mitigated through compliance with this regulation.

As conditioned, the project will conform to AMC 19.76 Stormwater.

8. AMC Chapter 19.78, Clearing & Grading:

Conclusion:

Conformance with this Chapter will be reviewed upon submittal of detailed clearing and grading plans prior to building permit issuance.

D. **CUP Application Review.** The review criteria for conditional use permit review are outlined in AMC 19.36.040. Below are the criteria, along with staff comments:

1. The use would comply with any specific requirements for the conditional use specified elsewhere in this code;

Conclusion:

AMC 17.70.A.7.b.i requires all new subdivisions of land to demonstrate that existing ecological functions and values of streams and their buffers are at least maintained (and preferably enhanced). All impacts to the on-site portion of the stream are avoided; therefore, this criteria is met. Stormwater generated by the development will be routed to a stormwater facility for treatment and detention, and released at the rate matching predevelopment flows. There are no other specific requirements for subdivision of land located within a FWHCA identified elsewhere in the code.

2. Access to the site is appropriate considering the anticipated volume of traffic resulting from the use;

Conclusion:

Access to the site is via a new public road meeting City standards, connecting to Orchards Ave. The new proposed road will be located over 300' from the stream and will not impact stream functions or values.

3. Off-street parking and loading facilities are adequate in terms of location, amount, and design to service the use;

Conclusion:

Off-street parking and loading facilities for the project will be accessed from the new public road. A minimum of 2 parking spaces per lot will be provided, which meets the minimum

requirement. All site development activities will be located within the primary portion of the site, at least 180' away from the culverted stream, avoiding any impacts.

- 4. The amount and location of open space and the provision of screening is such that buffering of incompatible uses is achieved;**

Conclusion:

The combination of larger lot size and conformance with setbacks, minimum landscaping, maximum building coverage requirements, and low impact development techniques will result in open space being provided on each lot, promoting compatibility between the project and surrounding development. The detention pond will be screened from adjacent properties using landscaping.

- 5. The location and intensity of outdoor lighting is such that it does not cast light on adjacent, adjoining, or neighboring properties;**

Conclusion:

Typical exterior house porch lighting will be shielded and directed downward.

- 6. Hours and manner of operation of the proposed use, including anticipated noise generation, are not inconsistent with the adjacent or nearby uses;**

Conclusion:

There will be short term noise associated with construction. Long term noise typical of single family residential development will not be inconsistent with adjacent or nearby uses.

- 7. Public facilities and utilities are capable of adequately serving the proposed use;**

Conclusion:

Water and sewer services will be extended to serve the future homes. Review by applicable city departments had determined that public facilities and utilities are capable of adequately servicing the development.

- 8. The physical conditions of the site, including size, shape, topography, and drainage, are suitable for the proposed development;**

Conclusion:

The proposal's conformance to form and intensity, clearing and grading, and stormwater management regulations ensure that the proposal is suitable to the physical conditions of the site.

- 9. Any other factors deemed relevant to the decision-maker.**

Conclusion:

No other relevant factors have been identified.

E. RECOMMENDATION

Based upon the application, Findings of Fact, and Conclusions of the staff report, staff recommends that the Planning Commission approve the preliminary short plat and conditional use permit with the following conditions of approval:

1. The redlined preliminary short plat map dated 6/3/20 (Exhibit 4) is the approved preliminary short plat layout.
2. Preliminary approval constitutes authorization for the applicant to develop the required facilities and improvements, upon review and approval of construction drawings by the Public Works Department. All such facilities and improvements must be completed or have a performance assurance guarantee posted to ensure completion as provided in AMC 19.51.070, prior to recording of the short subdivision.
3. The shared driveway access for proposed Lot 3 must conform to AMC 19.53.040, including notation of easement beneficiaries and maintenance responsibilities noted on the final short plat map.
4. Appropriate public and private easements must be dedicated on the face of the plat to ensure adequate provision of utilities and services consistent with the requirements of the Anacortes engineering design standards and the Anacortes Fire Department.
5. Conformance with the approved tree preservation plan and landscape plan must be verified prior to final short plat approval and building permit issuance, as applicable and determined by PCED.
6. The development is subject to applicable water, sewer, and stormwater general facility and hookup fees and transportation, fire, and park impact fees. These fees are payable at levels in effect at the time of building permit issuance.
7. The maximum impervious surface allowed for each lot must be added to the face of the plat, along with a statement that there may not be a net increase in the impervious surface above the limit on the plat without approval by the Director.
8. Because the sizing of the detention pond relies upon the use of downspout dispersion and concentrated sheet flow dispersion, each future lot must have a 50' vegetated flow path available for driveway runoff and 25' of vegetation available for downspout dispersion, as approved by the Public Works Department, and verified at the building permit stage. Dispersion areas for each lot must be maintained as such and may only be modified upon approval by the Public Works Department.
9. "No parking" signage and/or other markings must be installed along the new public street as determined by the Public Works and/or Fire Departments, prior to final short plat approval.
10. Public Works Department Conditions:
 - a) Project shall meet the requirement of the Dead End Streets and Cul-de-Sac, as outlined in the Anacortes Municipal Code 19.52.050.

- b) A clearing and grading plan consistent with City requirements shall be submitted by the applicant for review and approval by the City of Anacortes Planning\Building and Public Works Departments prior to any construction activities taking place on or off-site.
- c) A Storm Drainage Report consistent with City requirements shall be submitted by the applicant for review and approval by the Planning\Building and Public Works Departments prior to any construction activities taking place on or off-site.
- d) Construction activities may require an NPDES Construction Storm Water Discharge Permit issued by the Department of Ecology prior to any construction activities taking place on or off-site.
- e) Any encroachments into the easements by the adjacent properties shall be required to apply for an encroachment agreement (AMC – 12.30) from the City of Anacortes Public Works Department.
- f) All Public structures shall have vehicular access, including but not limited to: 1) A 12-foot minimum width access road (STR-12) with an approved all-weather surface asphalt road, or other approved Low Impact Development Best Management Practice design, 2) Meeting the minimum structural requirements (STR-15.2) for Access Road approved by the City of Anacortes.
- g) Prior to any clearing\fill\grade work beginning, construction civil plans consistent with the City of Anacortes Engineering Development Standards, including but not limited to, Clearing and Grading Plan, Erosion Control Plan, Site utility\Infrastructure improvements Plan, Roadway Improvements Plan, Signage Plan, Street Lighting Plan and other plans and\or information required by the City Planning\Building and Public Works Departments shall be submitted for review and approval.
- h) Street lighting is be required (AMC 19.51.030). Street lighting shall be LED and shall limit glare and\or emission of light downward to the street and front yard areas. Street lighting will be installed per PSE Schedule 53, Option “B”. Lighting fixtures and design shall be approved by the Public Works Director. Shields may be necessary to reduce impacts to adjacent properties.
- i) Mailbox locations shall be reviewed and approved by the City of Anacortes Public Works Department and the U.S. Postal Service.
- j) Sanitation, recycling and compost collection will be at curb side of each parcel serviced.
- k) Utilities, as identified in Anacortes Municipal Code 16.20.080 are required to be extended and to serve the development.
- l) Engineering and Inspection fees in the amount of \$500.00, plus 2% of the total estimated construction cost shall be due upon civil plan approval (AMC 15.24.010). No construction activity is allowed until the construction plans are approved, all fees have been paid and a preconstruction conference held.
- m) Prior to the final plat approval, all infrastructure improvements shall be completed as required by the City of Anacortes Public Works Director and a 2-year Maintenance Bond in place. The 2-year Maintenance Bond is 10% of the actual construction cost.
- n) Storm water conveyance both on-site and off-site shall comply with City Storm drainage requirements.
- o) The Detention Pond Facility will be owned and maintained by the City of Anacortes.

- p) Prior to Final Plat Acceptance, the Applicant will provide an As-built of the Detention Pond and provide a Performance Report identifying the constructed facility meets the accepted design report.
 - q) Access to the Detention Pond shall not be hindered by fencing or other barriers from the adjacent property.
 - r) Street improvements shall be constructed along the frontage of Cherry Court, to include curb\gutter and sidewalk and water, sanitary sewer, storm drainage and Fiberwork. The improvements shall terminate where reasonable and practicable to provide a smooth transition with existing improvements both laterally across the street and longitudinally up and down the street for drainage, vehicular and pedestrian traffic.
 - s) Fire Hydrants are to be located as approved by the City of Anacortes Fire Chief. Fire flows shall be addressed in a manner acceptable to the Fire Chief and the City of Anacortes Public Works Department.
11. Residential fire sprinklers may be required for some or all units based upon building construction type, fire area, available fire flow, and/or access around structures. Fire hydrant(s) may be required based on structure size, layout, and other considerations. The need for sprinklers and hydrants will be determined at time of construction plan review and/or building permit submittal, as applicable.
 12. Restriction on Further Division. Land within an approved and recorded short subdivision may not be further subdivided within a period of five years from the date of final approval if such further division would result in more than nine lots within the original short subdivision boundaries. Any division that would result in more than nine lots within the original short subdivision within the five-year period may be accomplished only by following the process for preliminary and final long subdivision approval.
 13. A final short plat application must be submitted in conformance with AMC Ch. 19.32 Land Division prior to the expiration of this preliminary approval as provided in AMC Ch. 19.28 Permit Revision and Expiration.

Staff reserves the right to supplement the record of the case to respond to matters and information raised subsequent to the writing of this report.

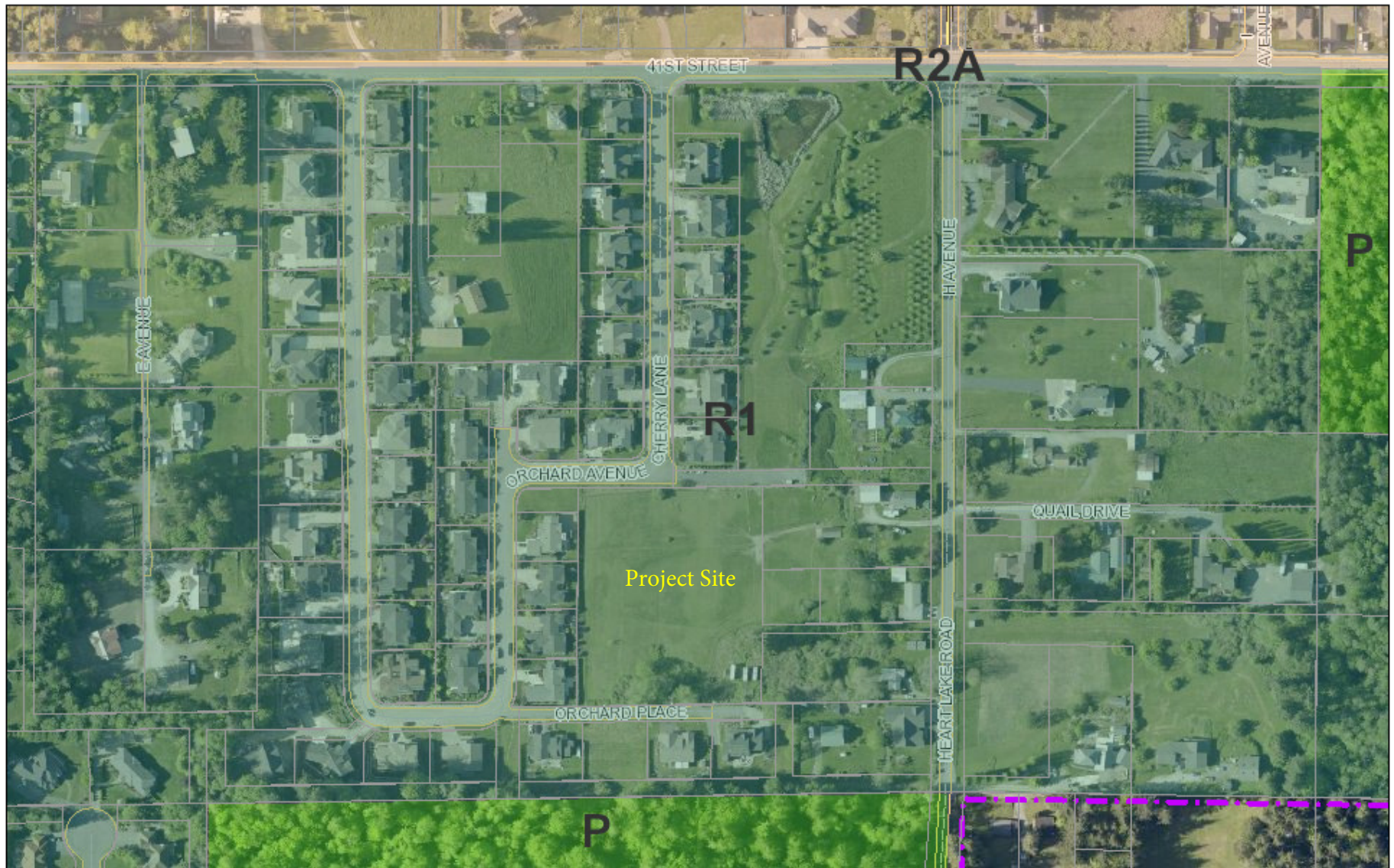
Exhibit List

1	Staff Report
2	Vicinity Map
3	Preliminary Short Subdivision and Conditional Use Permit Application Materials
4	Preliminary Plat Drawing – redlined
5	Notices
6	Agency/Department Comments
7	Public Comments
8	Issued SEPA DNS

Exhibit 2

Vicinity Map

Anacortes Everything Editable Map-Internal Only



August 31, 2020



Parcel Data

City of Anacortes

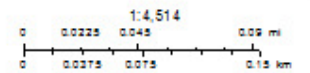


Exhibit 3

Application Materials



PLANNING, COMMUNITY, & ECONOMIC DEVELOPMENT DEPARTMENT
Mailing Address: P.O. Box 547, Anacortes, WA 98221
Office Location: 904 6th Street, Anacortes WA 98821
Phone: (360) 299-1984

City of Anacortes
Planning, Community &
Economic Development

Date Received:

5/7/20

Master Land Use Permit Application

TYPE OF APPLICATION (check all that apply):

- | | | |
|--|---|--|
| ☐ Administrative Interpretation | ☐ Floodplain Development Permit | ☒ Short Subdivision (Preliminary) |
| ☐ Annexation Request | ☐ Home Occupation Permit | ☐ Site Plan Review – Type 1 |
| ☐ Binding Site Plan (Preliminary) | ☐ Long Subdivision (Preliminary) | ☐ Site Plan Review – Type 2 |
| ☐ Boundary Line Adjustment (BLA) | ☐ Lot Certification | ☐ Stormwater Management Manual Adjustments & Exceptions |
| ☐ Comprehensive Plan/ Map Amendment Request | ☐ Minor Permit Revision | ☐ Variance (Level 1) |
| ☐ Conditional Use Permit (CUP) per AMC 19.36 | ☐ Plat Amendment /Modification | ☐ Variance (Level 2) |
| ☒ Conditional/Special Use Permit (CUP) per AMC 17.70 | ☐ SEPA Environmental Review | ☐ Wireless Conditional Use Permit (WCUP) |
| ☐ Cottage Housing Development | ☐ Shoreline Conditional Use Permit | ☐ Wireless Service Facility (WSF) Permit |
| ☐ Development Agreement | ☐ Shoreline Exemption | ☐ Zoning Code/ Map Amendment Request (Rezone) |
| ☐ Essential Public Facility | ☐ Shoreline Substantial Development Permit | |
| | ☐ Shoreline Variance | |

PROJECT & SITE INFORMATION:

SITE ADDRESS: Directly north of the intersection of Cherry Lane and Orchard Avenue	PROJECT NAME: Cherry Court Short Plat
PARCEL NUMBER(S): P32077	SECTION, TOWNSHIP, & RANGE 25 35N R1E
LOT SQUARE FOOTAGE & ACREAGE: 135,907 sf & 3.12 ac	PROJECT VALUATION: NA
LEGAL DESCRIPTION: See Warranty Deed AFN 642677	PRESENT ZONING: R-1
PRESENT USE OF PROPERTY: Vacant	CUT & FILL (CY) PROPOSED: XXX See SEPA Checklist
PRE-APPLICATION CONFERENCE HELD?: ☒ Yes, the City file # is Pre 2019-0032 ☐ No	WATER SOURCE: ☒ City of Anacortes ☐ Private Well ☐ Community Well
SEWAGE DISPOSAL: ☒ City of Anacortes ☐ Septic	ROAD ACCESS: ☒ City Road ☐ State Highway ☐ Private Road

CRITICAL AREAS OR BUFFERS ON SITE OR WITHIN 300 FEET: ☒ Yes / Type <u>Aces of Hearts stream</u> ☐ No		WATER BODIES WITHIN 200 FEET: ☒ Yes / Name: <u>Aces of Hearts stream</u> ☐ No	
FLOODPLAIN: Flood Zone: <u>NA</u> FIRM Panel # Date of Panel:			
LOT COVERAGE AREA CALCULATIONS: Existing Square Footage: <u>NA</u> Proposed Square Footage: See SEPA checklist			
IMPERVIOUS SURFACE AREA CALCULATIONS: Existing Impervious Square Footage: <u>NA</u> New Impervious Surface: See SEPA checklist.			
DESCRIPTION OF SUBJECT PROPOSAL: ☐ Additional pages attached			
PROPOSED WORK: <u>6 lot short plat for future single family detached homes. See project narrative.</u> 			
PROPERTY OWNER INFORMATION: ☐ Multiple owners attached			
NAME: <u>Ronald V. Bayek</u>		MAILING ADDRESS: <u>26339 President Ave.</u>	
CITY, STATE, ZIP: <u>Harbor City, Calif. 90710</u>		PHONE #: <u>cell 213-952-9004</u>	
FAX #: <u>N/A</u>		EMAIL ADDRESS: <u>bayekr@hdeco.com</u>	
APPLICANT INFORMATION: ☐ Same as property owner			
NAME: <u>Corner 9 Properties LLC</u> <u>Landed Gentry Development Inc.</u>		MAILING ADDRESS: <u>504 E. Fairhaven Ave</u>	
CITY, STATE, ZIP: <u>Burlington WA 98233</u>		PHONE #: <u>360-755-9021 x26</u>	
FAX #: <u>360-755-9029</u>		EMAIL ADDRESS:	
CONTACT PERSON: ☐ Same as property owner ☐ Same as applicant			
NAME: <u>Anna Nelson</u>		MAILING ADDRESS: <u>Same as applicant</u>	
CITY, STATE, ZIP: <u>Same as applicant</u>		PHONE #: <u>cell 206-419-4280</u>	
FAX #:		EMAIL ADDRESS: <u>anna@landedgentry.com</u>	

ACKNOWLEDGEMENTS & SIGNATURE

Read and initial each of the following statements prior to signing this application:

RVB	I understand that land use and/or planning permits do not authorize earth disturbing activities, the removal of vegetation, or the construction of buildings. I understand that additional permits will be required after my land use and/or planning permitting process is completed. I understand that no earth disturbing activities (including the removal of vegetation) may take place until after my land use and/or planning process is complete, and only after I have received additional permits such as Fill & Grade, Building Permit, or Right-of-Way permit(s).
RVB	I understand that if critical areas (wetlands, streams, steep slopes, etc.) are found on or near my property I am not authorized to impact these areas in any way and will be required to leave an undisturbed buffer area around the critical area, as determined according the City's critical areas regulations.
RVB	I understand that depending on the size and scope of my project, I may be required to provide maintenance and/or performance bonds for items such as landscaping, critical areas, public roads and/or public utilities that I construct or install.
RVB	I understand that I am solely responsible for providing complete and accurate information to the City. I understand that if my application is missing information or if inaccurate materials are submitted, my permits will be delayed. I understand that depending on how inaccurate and how incomplete my application is or becomes, the Department may require an entirely new application be submitted. I understand that when and if conditions change from that which my application originally represented, I am responsible for letting the City staff person assigned to my project know.
RVB	I understand that I am applying for permits from the City of Anacortes only; and that additional permits from other Federal, State, and Local agencies could be required. I understand that the City of Anacortes cannot advise me of permits that are required from other agencies, and that I must contact these agencies to make sure I comply with their requirements. These agencies include (but are not limited to): Corps of Engineers, Department of Natural Resources, Department of Fish & Wildlife, Department of Ecology, and Northwest Clean Air Agency.
RVB	I understand that I will be responsible for paying consultants that the City may deem necessary to review certain aspects of my application. I understand that these consultant reviews could include special inspections, traffic concurrency, critical areas, landscaping, stormwater, etc.

Signature required on next page.

CALIFORNIA ALL-PURPOSE CERTIFICATE OF ACKNOWLEDGMENT

A notary public or other officer completing this certificate verifies only the identity of the individual who signed the document to which this certificate is attached, and not the truthfulness, accuracy, or validity of that document.

State of California }

County of Los Angeles }

On 12/12/2019

before me,

Mary S. Sotelo, Notary Public
(Here insert name and title of the officer)

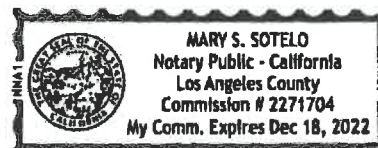
personally appeared Ronald Vance Bayek,
who proved to me on the basis of satisfactory evidence to be the person(s) whose
name(s) is/are subscribed to the within instrument and acknowledged to me that
he/she/they executed the same in his/her/their authorized capacity(ies), and that by
his/her/their signature(s) on the instrument the person(s), or the entity upon behalf of
which the person(s) acted, executed the instrument.

I certify under PENALTY OF PERJURY under the laws of the State of California that
the foregoing paragraph is true and correct.

WITNESS my hand and official seal.

Mary S. Sotelo
Notary Public Signature

(Notary Public Seal)



ADDITIONAL OPTIONAL INFORMATION

DESCRIPTION OF THE ATTACHED DOCUMENT

Master Land Use Permit Application
(Title or description of attached document)

(Title or description of attached document continued)

Number of Pages 4 Document Date 12/12/19

CAPACITY CLAIMED BY THE SIGNER

- ☒ Individual (s)
☐ Corporate Officer

(Title)

- ☐ Partner(s)
☐ Attorney-in-Fact
☐ Trustee(s)
☐ Other _____

INSTRUCTIONS FOR COMPLETING THIS FORM

This form complies with current California statutes regarding notary wording and, if needed, should be completed and attached to the document. Acknowledgments from other states may be completed for documents being sent to that state so long as the wording does not require the California notary to violate California notary law.

- State and County information must be the State and County where the document signer(s) personally appeared before the notary public for acknowledgment.
- Date of notarization must be the date that the signer(s) personally appeared which must also be the same date the acknowledgment is completed.
- The notary public must print his or her name as it appears within his or her commission followed by a comma and then your title (notary public).
- Print the name(s) of document signer(s) who personally appear at the time of notarization.
- Indicate the correct singular or plural forms by crossing off incorrect forms (i.e. he/she/they, is /are) or circling the correct forms. Failure to correctly indicate this information may lead to rejection of document recording.
- The notary seal impression must be clear and photographically reproducible. Impression must not cover text or lines. If seal impression smudges, re-seal if a sufficient area permits, otherwise complete a different acknowledgment form.
- Signature of the notary public must match the signature on file with the office of the county clerk.
 - ❖ Additional information is not required but could help to ensure this acknowledgment is not misused or attached to a different document.
 - ❖ Indicate title or type of attached document, number of pages and date.
 - ❖ Indicate the capacity claimed by the signer. If the claimed capacity is a corporate officer, indicate the title (i.e. CEO, CFO, Secretary).
- Securely attach this document to the signed document with a staple.

By affixing my signature hereto, I certify that I am the owner, or am acting as the Owner's authorized agent, and that the application and documents contained with this submittal are complete and accurate to the best of my knowledge and abilities. If your title report lists a company, partnership or other owners, you must submit evidence that you are authorized to sign on behalf of the entity or others that are listed.

If you are an authorized representative you must submit an Agent Authorization Form.

Please attach additional signature sheets if there is more than one owner.

Under penalty of perjury, I certify that the information, statements, answers above regarding the subject application(s) are true and correct to the best of my knowledge and belief.

Signature: Ronald V. Bayek

Date: Dec. 12, 2019

Printed Name: Ronald V. Bayek

STATE OF WASHINGTON)
) ss.
COUNTY OF SKAGIT

I certify that I know or have satisfactory evidence that _____ is the person who appeared before me, and said person acknowledged that he/she signed this instrument, on oath stated that he/she was authorized to execute the instrument, and acknowledged it as the _____ to be the free and voluntary act and deed of said _____ for the uses and purposes therein mentioned.

Given under my hand and official seal this _____ day of _____, 20_____

Notary Public

Residing at _____

My appointment expires _____



Date Received:

5/7/20

Planning, Community, & Economic Development Department
904 6th St. / P.O. Box 947, Anacortes, WA 98221
360-293-1984

AGENT AUTHORIZATION FORM

Use this form to authorize someone other than the property owner to apply for permits for the subject property.

Project Name: Cherry Court - BLA and Short Plat & CUP
Property Address: 4302 H. Ave
City, State, Zip: Anacortes, WA 98222

AUTHORIZATION STATEMENT

I / we, as the owners of the property identified above, authorize the below listed individual to act as our agent to submit applications, receive correspondence regarding the above-listed application, and sign and to receive notices on my/our behalf.

DESIGNATED AGENT

Agent Name: Landed Greedy Development, Inc.
Agent Address: 504 E. Fairhaven Ave
Agent City, State, Zip: Burlington WA 98221

PROPERTY OWNER SIGNATURE(S)**

Signature: <u>Ronald V. Bayek</u>	Signature: _____
Printed Name: <u>Ronald V. Bayek</u>	Printed Name: _____
Title: <u>Owner</u>	Title: _____
Company: _____	Company: _____
Date: <u>Dec 12, 2019</u>	Date: _____

**Each property owner listed must have their signature notarized.

CALIFORNIA ALL- PURPOSE CERTIFICATE OF ACKNOWLEDGMENT

A notary public or other officer completing this certificate verifies only the identity of the individual who signed the document to which this certificate is attached, and not the truthfulness, accuracy, or validity of that document.

State of California }

County of Los Angeles }

On 12/12/19 before me, Mary S. Sotelo, Notary Public
(Here insert name and title of the officer)

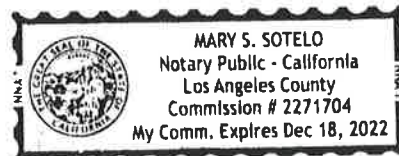
personally appeared Ronald Vance Bayek,
who proved to me on the basis of satisfactory evidence to be the person(s) whose
name(s) ~~is/are~~ subscribed to the within instrument and acknowledged to me that
he/~~she/they~~ executed the same in his/~~her/their~~ authorized capacity(ies), and that by
his/~~her/their~~ signature(s) on the instrument the person(s), or the entity upon behalf of
which the person(s) acted, executed the instrument.

I certify under PENALTY OF PERJURY under the laws of the State of California that
the foregoing paragraph is true and correct.

WITNESS my hand and official seal.

Mary S. Sotelo
Notary Public Signature

(Notary Public Seal)



ADDITIONAL OPTIONAL INFORMATION

DESCRIPTION OF THE ATTACHED DOCUMENT

Agent Authorization Form
(Title or description of attached document)

(Title or description of attached document continued)

Number of Pages one Document Date 12/12/19

CAPACITY CLAIMED BY THE SIGNER

- ☒ Individual (s)
☐ Corporate Officer

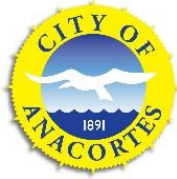
(Title)

- ☐ Partner(s)
☐ Attorney-in-Fact
☐ Trustee(s)
☐ Other _____

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- Print the name(s) of document signer(s) who personally appear at the time of notarization.
- Indicate the correct singular or plural forms by crossing off incorrect forms (i.e. ~~he/she/they~~, is /are) or circling the correct forms. Failure to correctly indicate this information may lead to rejection of document recording.
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 - ❖ Indicate the capacity claimed by the signer. If the claimed capacity is a corporate officer, indicate the title (i.e. CEO, CFO, Secretary).
- Securely attach this document to the signed document with a staple.



PLANNING, COMMUNITY, & ECONOMIC DEVELOPMENT DEPARTMENT

Mailing Address: P.O. Box 547, Anacortes, WA 98221

Office Location: 904 6th Street, Anacortes WA 98221

Phone: (360) 299-1984

City of Anacortes
Planning, Community &
Economic Development

Date Received:

5/7/20

CONDITIONAL USE PERMIT APPLICATION

SUBMITTAL REQUIREMENTS

Applicant Checklist	Conditional Use Permit Submittal Requirement Checklist See pages 2-3 of this handout for information about each submittal item listed below. See AMC 19.36 for Conditional Use Permit review and approval criteria.	Office Use Only
X	Master Land Use Permit Application	
X	Agent Authorization Form	
X	Project Narrative	
X	Responses to Conditional Use Permit criteria	
X	Stormwater Site plan	
X	Site Plan & Landscape Plan	
X	Clearing & Grading Plans	
NA	Building Elevation Drawings	
X	Environmental Checklist (SEPA)	
X	Subdivision Guarantee	
NA	Recorded Property Boundary Survey - Proposed Short Plat Map	
X	Technical Reports - Geotechnical Report	
X	Critical Area Report	
NA	Traffic Impact Analysis	
NA	Parking Study	
Required Number of Copies and Plan Size 3 paper copies of each item above Plans must be <u>minimum</u> 11" x 17", to scale, and legible 1 reduced size copy (<u>maximum</u> size 11" X 17") of plans Digital copy of the application and all submitted materials (flash drive or to pced@cityofanacortes.org.)		Application Fee See the Land Use Permit Fee Schedule

SUBMITTAL REQUIREMENT DETAILS

Additional details on certain submittals is provided below to ensure Applicants are fully aware what City staff will be looking for when an application is submitted to the City.

- a. **MASTER PERMIT APPLICATION:** Form attached. Use this form to indicate all requested land use permits and other key information about your proposed project.
- b. **AGENT AUTHORIZATION FORM.** Use this form to authorize someone other than the property owner to apply for permits.
- c. **PROJECT NARRATIVE:** Form attached. This document contains a list of elements to be included in your project narrative to help provide a clear and concise description of your proposal for those reviewing it.
- d. **RESPONSES TO CONDITIONAL USE PERMIT CRITERIA:** In order for the decision-maker to grant a conditional use permit, there must be a finding that the use would be consistent with the criteria in AMC 19.36.040. As the applicant, it is your responsibility to clearly demonstrate how each criteria is met.
- e. **STORMWATER SITE PLAN:** The Stormwater Site Plan is the comprehensive report containing all of the technical information and analysis necessary for regulatory agencies to evaluate your project for compliance with stormwater requirements. The level of stormwater review and contents of the Stormwater Site Plan will vary with the type and size of the project, and individual site characteristics. Use Form CG-3 to determine the level of stormwater review and then complete the applicable Stormwater Minimum Requirements Form on the Public Works - [Engineering Department Forms website](#) and provide required submittal items/plans.
- f. **SITE & LANDSCAPE PLANS:** These plans are needed so that your proposal can be reviewed for conformance with the applicable zoning and land use, community design, and project design provisions of the development regulations contained in AMC Title 19 Unified Development Code. (Use the site plan checklist for Single Family Residential Building Permits or Multi-Family and Non-Residential Site Plan review, as applicable (see [application checklists](#) and forms)
- g. **CLEARING & GRADING PLANS:** Checklist is located in the [Clearing/Grading Permit application packet](#). These plans are needed so that your proposal can be reviewed for conformance with [AMC 19.78 Clearing and Grading](#).
- h. **BUILDING ELEVATION DRAWINGS:** Checklist attached. These plans are needed so that your proposal can be reviewed for conformance with the applicable project and building design provisions in AMC Title 19 Unified Development Code. (Use the building elevations checklist for Single Family Residential Building Permits or Multi-Family and Non-Residential Site Plan review, as applicable (see [application checklists](#) and forms).
- i. **SEPA CHECKLIST:** Unless a project is categorically exempt, an environmental checklist is required to be completed and submitted.
- j. **SUBDIVISION GUARANTEE:** A document prepared by a title insurance company documenting the ownership and title of all interested parties in the development and that lists all encumbrances. This document is needed to verify property ownership and to identify any encumbrances that are recorded to the property's title. Copies of all the encumbrances listed

within the certificate or report must be provided. The certificate or report must be dated within 30 days prior to the submittal of a permit to the City.

- k. **RECORDED PROPERTY BOUNDARY SURVEY:** A recorded survey is required to define the limits of the property subject to the application. All property corners must be staked/marked and visible.
- l. **DIGITAL COPY OF ALL APPLICATION DOCUMENTS:** PDF format files for all submittal items, named as they appear on the submittal checklist, must be provided on a flash drive or emailed to pced@CityofAnacortes.org.

TECHNICAL REPORTS

Following is a list of technical reports that may be required to be submitted to the City depending on project and site-specific factors. The general triggers for each of the listed technical reports is provided below:

- A. **CRITICAL AREAS REPORTS:** In general, Critical Area reports are required when wetlands, streams, habitat conservation areas, geologically hazardous areas, shorelines, or aquifer recharge areas are located on or near a site. Critical area mitigation plans may also be required, depending on the project proposal. See Anacortes Municipal Code Ch. 17.70 for additional information.
- B. **TRAFFIC IMPACT ANALYSIS.** In general, a Traffic Impact Analysis is required when a development will add 10 or more PM peak hour trips to the City's transportation system.
- C. **PARKING STUDY:** A parking study may be required to determine the parking requirements for a specific use, adjusting minimum and maximum quantitative parking requirements, determining times of peak demand, and determining impacts to on-street parking in the vicinity of a proposed development. See AMC 19.64.020 for more info.
- D. **OTHER TECHNICAL REPORTS MAY BE REQUIRED TO DETERMINE /ENSURE CONFORMANCE WITH CUP CRITERIA.**

PROJECT NARRATIVE REQUIREMENTS

GENERAL INFORMATION
This form is intended to assist applicants in creating complete project narrative for site plan and building design review. Please fill in each space with the requested information.
PROJECT DESCRIPTION – Required for all project types
A. If a neighborhood meeting was held, provide the date held, general items of discussion at the meeting, and how the project proposal has been modified since the meeting, if applicable.
No meeting was held. The Orchards HOA President has been advised of the proposal.
B. Proposed use of the Site per AMC Table 19.41.040 or 19.41.050 and any special use provisions that apply. (see AMC 19.43 – 19.48)
Single family detached residential homes.
C. Current use of the Site. Date of construction for any existing structures on site, and whether they are to be removed or retained.
Vacant pasture land.
D. Description of the site's physical characteristics, including special site features (such as wetlands, water bodies, steep slopes, or other critical areas).
The site is generally flat, with a 16-foot long segment of Ace of Hearts Creek.
E. Current uses and special site features of surrounding properties.
Surrounding properties are primarily single family detached homes.
F. Description of general design techniques you considered to implement low impact development (see AMC 19.76.050(A) and (B)) in the design of your project site and proposed stormwater facilities necessary for compliance with AMC 19.76 Stormwater.
Low impact development techniques are limited. See Geotechnical Report.
G. Description of the proposed form and intensity of the proposed development (height, setbacks, lot coverage, etc.). (See AMC 19.42.)
6 lots, all over 15,000 sf. Homes will not exceed 35 feet in height.
H. Identification of the site's block frontage designation(s) and description of project conformance. (see AMC 19.61)
Not applicable.
I. Description of the proposed building design, including a description of conformance with building massing and articulation, building details, building materials, and blank wall treatment requirements. (See AMC 19.63). Note: If you are proposing any departures, you must attach the applicable form.

Future homes will comply with the Anacortes Municipal Code.
J. Description of proposed parking for vehicles and bicycles, including provisions for guests, shared parking. (see AMC 19.65)
2 off-street parking spaces per lot and 4 guest parking spaces along Orchard Avenue.
K. Describe existing and proposed site access from public streets and any proposed street and/or pedestrian improvements.
A new public road will extend south from Cherry Lane.
L. Estimated quantities and type of materials involved if any fill or excavation is proposed.
See attached SEPA checklist.
M. Number, type, and size of trees to be removed.
13 alders and 1 cherry tree will be removed. See Landscape Plan for details.
N. Description of existing site utilities and proposed utilities, including extensions, upgrades, relocations, etc. (see AMC 19.52 Underground Utilities).
Utilities typical for single family. See SEPA checklist.
O. Explanation of any land to be dedicated to the City.
A new public road, Cherry Court, and stormwater pond tract will be dedicated.

CONDITIONAL USE PERMIT CRITERIA

GENERAL INFORMATION	
The following section is intended to help you provide information about your project's compliance with the CUP criteria. Please fill in each space with responses that demonstrate how your proposal complies with all each criteria found in AMC 19.36.040.	
P.	How will the proposed conditional use comply with any specific requirements for the use found elsewhere in Title 19 Development Regulations?
The development will comply with Title 19. A CUP is required due to the presence of an existing culverted segment of Ace of Hearts Creek, a FWHCA, being located within the short subdivision boundaries. See AMC 17.70.560I. No changes to this area are proposed as part of the short subdivision and this area will be part of new Lot 5 .	
Q.	Describe how access to the site is appropriate considering the anticipated volume of traffic resulting from the use.
The new public road to serve the 6 lots is designed to comply with the City code and is located well away from the FWHCA. The existing access across the culverted stream will not change with the short subdivision.	
R.	Describe how off-street parking and loading facilities are adequate in terms of location, amount, and design to service the use.
A minimum of 2 off-street parking spaces will be provide per lot. 4 guest parking spaces will be located along Orchard Avenue.	
S.	Describe the location and intensity of outdoor lighting and how casting of light on adjacent, adjoining, or neighboring properties will be avoided.
Typical exterior house porch lighting will be shielded and directed downward.	
T.	Describe the hours and manner of operation of the proposed use, including anticipated noise generation, and how these will not be inconsistent with adjacent or nearby uses.
Short term noise associated with construction. Long term noise tpycial of a single family residential neighborhood.	

U. Describe existing or proposed public facilities that will serve the use and whether they are adequate to serve the proposed use.

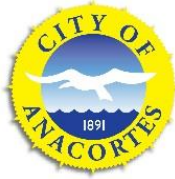
Water and sewer services will be extended to serve the future homes. Incremental increases in fire, police and schools. Access improvements will be made with the short subdivision construction. See SEPA checklist and development plans for more detail.

V. Describe the physical conditions of the site, including size, shape, topography, and drainage and their suitability for the proposed development.

The site is 3 acres and generally flat, sloping to the north. A new stormwater pond is proposed for the northeastern corner of the short subdivision.

W. Describe any other factors deemed relevant to the decision-maker.

No disturbance to the Ace of Hearts Creek is proposed. The short subdivision will result in this area being included as part of new Lot 5.



PLANNING, COMMUNITY, & ECONOMIC DEVELOPMENT DEPARTMENT

Mailing Address: P.O. Box 547, Anacortes, WA 98221

Office Location: 904 6th Street, Anacortes WA 98821

Phone: (360) 299-1984

City of Anacortes
Planning, Community &
Economic Development

Date Received:

5/7/20

PRELIMINARY LAND DIVISION APPLICATION

Long Subdivisions

Short Subdivisions

Binding Site Plans

Unit Lot Subdivisions

SUBMITTAL REQUIREMENTS

Applicant Checklist	Land Division Submittal Requirement Checklist	Office Use Only
	See pages 2 and 3 for details about each submittal item. See AMC Ch. 19.32 Land Divisions for review and approval criteria.	
X	Master Land Use Permit Application	
X	Agent Authorization Form	
X	Project Narrative	
X	Stormwater Site Plan	
X	Preliminary Land Division Map	
X	Landscape Plans	
X	Tree Preservation Plan	
X	Clearing & Grading Plans	
X	Environmental Checklist (SEPA)	
X	Subdivision Guarantee	
NA	Recorded property boundary survey - Proposed short plat map	
NA	Draft covenants, conditions, and restrictions (CC&Rs), condominium declarations, reciprocal use easements, joint use and maintenance agreements, or other similar documents, if applicable.	
X	Technical Reports - Geotechnical report	
X	Critical Area Report	
NA	Traffic Impact Analysis - see SEPA checklist	
NA	Parking Study - See SEPA checklist	
Required Number of Copies and Plan Size 3 paper copies of each item above Plans must be minimum 18" x 24", to scale, and legible 1 reduced size copy (maximum size 11" X 17") of plans Digital copy of the application and all submitted materials (flash drive or to pced@cityofanacortes.org .)		Application Fee See the Land Use Permit Fee Schedule

SUBMITTAL REQUIREMENT DETAILS

Additional details on certain submittals is provided below to ensure Applicants are fully aware what City staff will be looking for when an application is submitted to the City.

- a. **MASTER PERMIT APPLICATION:** Form attached. Use this form to indicate all requested land use permits and other key information about your proposed project.
- b. **AGENT AUTHORIZATION FORM.** Provide this completed form to authorize someone other than the property owner to apply for permits.
- c. **PROJECT NARRATIVE:** Form attached. This document contains a list of elements to be included in your project narrative to help you provide a clear and concise description of your proposal for those reviewing it.
- d. **STORMWATER SITE PLAN:** The Stormwater Site Plan is the comprehensive report containing all of the technical information and analysis necessary for regulatory agencies to evaluate your project for compliance with stormwater requirements. The level of stormwater review and contents of the Stormwater Site Plan will vary with the type and size of the project, and individual site characteristics. Use Form CG-3 to determine the level of stormwater review and then complete the applicable Stormwater Minimum Requirements Form on the Public Works - [Engineering Department Forms website](#) and provide required submittal items/plans.
- e. **PRELIMINARY LAND DIVISION MAP:** A checklist of required information to be shown on the preliminary land division map is attached.
- f. **LANDSCAPE PLANS:** A landscape plan may be required to show street trees and landscaping required within landscaped areas between the street and sidewalk, in stormwater management facilities, or parks and open space.
- g. **TREE PRESERVATION PLAN:** Tree preservation plans are required for all residential subdivisions. See [AMC 16.50, Tree Preservation](#).
- h. **CLEARING & GRADING PLANS:** The applicable checklist is located in the [Clearing/Grading Permit application packet](#). These plans are needed so that your proposal can be reviewed for conformance with [AMC 19.78 Clearing and Grading](#).
- i. **SEPA CHECKLIST:** Unless a project is categorically exempt, an environmental checklist is required to be completed and submitted.
- j. **SUBDIVISION GUARANTEE:** A document prepared by a title insurance company documenting the ownership and title of all interested parties in the development and that lists all encumbrances. This document is needed to verify property ownership and to identify any encumbrances that are recorded to the property's title. Copies of all the encumbrances listed within the certificate or report must be provided. The certificate or report must be dated within 30 days prior to the submittal of a permit to the City.
- k. **RECORDED PROPERTY BOUNDARY SURVEY:** A recorded survey is required to define the limits of the property subject to the application. All property corners must be staked/marked and visible.

- I. **DIGITAL COPY OF ALL APPLICATION DOCUMENTS:** PDF format files for all submittal items, named as they appear on the submittal checklist, must be provided on a flash drive or emailed to pced@CityofAnacortes.org.

TECHNICAL REPORTS

Following is a list of technical reports that may be required to be submitted to the City depending on project and site-specific factors. The general triggers for each of the listed technical reports is provided below:

- A. **CRITICAL AREAS REPORTS:** In general, Critical Area reports are required when wetlands, streams, habitat conservation areas, geologically hazardous areas, shorelines, or aquifer recharge areas are located on or near a site. Critical area mitigation plans may also be required, depending on the project proposal. See Anacortes Municipal Code Ch. 17.70 for additional information.
- B. **TRAFFIC IMPACT ANALYSIS.** In general, a Traffic Impact Analysis is required when a development will add 10 or more PM peak hour trips to the City's transportation system.
- C. **PARKING STUDY:** A parking study may be required to determine the parking requirements for a specific use, adjusting minimum and maximum quantitative parking requirements, determining times of peak demand, and determining impacts to on-street parking in the vicinity of a proposed development. See AMC 19.64.020 for more info.

PROJECT NARRATIVE REQUIREMENTS

GENERAL INFORMATION
This form is intended to assist applicants in creating complete project narrative for site plan and building design review. Please fill in each space with the requested information.
PROJECT DESCRIPTION
A. If a neighborhood meeting was held, provide the date held, general items of discussion at the meeting, and how the project proposal has been modified since the meeting, if applicable.
No meeting was held. Advised Orchards HOA President of proposal.
B. Proposed use of the Site per AMC Table 19.41.040 or 19.41.050 and any special use provisions that apply. (see AMC 19.43 – 19.48)
Single family detached residential homes.
C. Current use of the Site. Date of construction for any existing structures on site, and whether they are to be removed or retained.
Vacant pasture land.
D. Description of the site's physical characteristics, including special site features (such as wetlands, water bodies, steep slopes, or other critical areas).
The site is generally flat, with a 16-foot long segment of Ace of Hearts Creek.
E. Current uses and special site features of surrounding properties.
Surrounding properties are primarily single family detached homes.
F. Description of general design techniques you considered to implement low impact development (see AMC 19.76.050(A) and (B)) in the design of your project site and proposed stormwater facilities necessary for compliance with AMC 19.76 Stormwater.
Low impact development techniques are limited. See Geotechnical Report.
G. Description of the proposed form and intensity of the proposed development (number of lots, density, height, setbacks, lot coverage, etc.). (See AMC 19.42.)
6 lots, all over 15,000 sf. Homes will not exceed 35 feet in height.
H. Describe existing and proposed site access from public streets and any proposed street and/or pedestrian improvements.
A new public road, Cherry Court, and Orchards Ave frontage improvements.
I. Describe any proposed phasing.
Subdivision construction Summer 2020. Home construction after final short plat.
J. Estimated quantities and type of materials involved if any fill or excavation is proposed.

See SEPA checklist
K. Number, type, and size of trees to be removed.
13 alders and 1 cherry tree will be removed. See Landscape Plan for details.
L. Description of existing site utilities and proposed utilities, including extensions, upgrades, relocations, etc. (see AMC 19.52 Underground Utilities).
See SEPA checklist.
M. Explanation of any land to be dedicated to the City.
A new public road, Cherry Court, and stormwater pond tract will be dedicated.

PRELIMINARY LAND DIVISION PLAN REQUIREMENTS

1. GENERAL INFORMATION

This form is intended to assist applicants in creating complete, code compliant preliminary land division plans. Please check the plans you wish to submit to make sure they contain each of the listed items. To the right of the Requirements column is space for you to list the sheet number of the plan set where the listed information is shown.

- Preliminary land division maps must be drawn by a State of Washington licensed surveyor.
- Minimum Plan Size: 18" x 24" and drawn in an engineering scale. Plans must be legible.
- You may use multiple sheets if needed.

2. INFORMATION REQUIRED ON PRELIMINARY LAND DIVISION MAP

COMPLETE?	REQUIREMENTS	PAGE # ON YOUR PLANS
	Cover sheet must contain all of the following: ☐ Project name, if applicable. ☐ Section, township, range. ☐ Full and correct legal description of lands being subdivided. ☐ Site address and tax parcel number. ☐ Zoning designation. (see Official Zoning Map) ☐ Density & dimensional calculations. ☐ Total acreage and square feet of land to be divided. ☐ Gross acreage (see 19.12.010.G) ☐ Total number of residential units proposed and density calculations indicating maximum and minimum density requirements, if applicable. (see AMC 19.42.100) ☐ Maximum impervious surface area allowed for the lot as determined by the calculations in the stormwater report for the project. ☐ Sheet Index & Legend ☐ Date plans were prepared and/or revised ☐ Vicinity map ☐ Name, address, phone number of Applicant, Owner, Engineer, & Surveyor (include signature and seal)	2
	Scale and North Arrow	1, 3 & 4
	Property features:	
	Zoning. Label existing zoning and zoning boundaries on the site and immediately adjacent properties.	2
	Municipal boundaries, township lines and section lines.	2, 3
	Existing property lines. Accurate lines showing the parcel to be subdivided, the block lines and the lot lines.	3
	Easements. All easements shown on the title report, Record of Survey, or plat must be dimensioned and shown.	2, 3 & 4

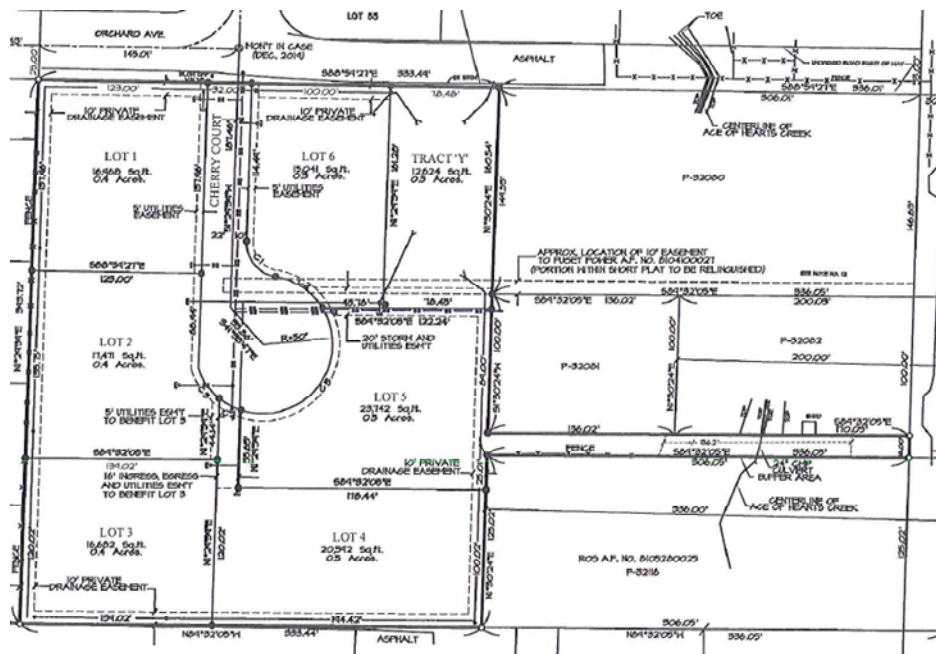
	Critical areas. Location and dimensions of existing critical areas (wetlands, streams, steep slopes) and their associated buffers.	1, 3 & 4
	Other hydrologic features. Show seeps, springs, closed depression areas, and drainage swales.	3
	Shorelines. Location of Ordinary High Water Mark and shoreline jurisdiction limits (if adjacent to a shoreline).	NA
	Topography and grading. Existing and proposed contours and site elevations (i.e. finished grades) at 5-foot minimum increments. The horizontal and vertical control datum must be clearly shown.	3
	Proposed lot lines. Dimensions and numbers or description for each new lot and tract. Land area in acreage and square feet for each of the proposed lots.	4
	Setback lines. Include setback lines for all proposed lots having unusual shape, steep topography, critical areas, wetlands or other environmental or unusual limitations on its building site.	2
	Structures:	
	Buildings. Location, dimensions and size of all existing buildings and other structures.	NA
	Other structures. Location of existing and proposed retaining walls, rockeries, and fences.	3
	Public & Private Improvements	
	Utilities. Location, size, and dimensions of existing and proposed stormwater, sanitary sewer, potable water, fiber lines/facilities, franchise utilities, power poles, etc.	Civil plans
	Wells & Septic. Location of existing septic tanks, drain fields, wells and other improvements located on the site and within 50-feet of the development; and whether such structures are proposed to remain on the property.	NA
	Easements. Show the location, dimensions and purpose of all existing and proposed public and private easements.	2, 3 & 4
	Fire hydrants. Location of all existing and proposed fire hydrants within 300 feet of the boundary of the project site.	
	Stormwater	
	Erosion Control. Proposed Temporary Erosion and Sediment Control Measures, if not shown on other plans.	Civil plans
	Permanent BMPs. Show location of existing and proposed permanent stormwater management BMPs and required setbacks from adjacent structures, utilities, property lines.	
	Access and Circulation	
	Existing streets. Location, identification, and dimensions of all existing adjacent streets and alleys, including pavement and right-of-way width, and the location and dimensions of curbs, gutters, sidewalks, landscape strips, median islands, and street trees.	3 & 4
	Proposed streets. Location, identification, and dimensions of all proposed public streets including pavement and right-of-way width, location and dimensions of curbs, gutters, sidewalks, landscape strips, and parking pockets. (see AMC 19.52 & 19.53)	4

	Shared driveway access. Location, identification, and dimensions of all proposed shared driveways, including pavement and tract or easement width and landscape buffer screening from adjacent properties. Include notes about easement or tract ownership and maintenance. (see 19.53.040)	Lot 4 easement for Lot 3
	Traffic control devices. Show proposed method of and location of “no parking” signage, where applicable.	Civil plans
	Emergency apparatus access. Location and dimensions of inside corner turning radii, required emergency apparatus turnaround areas, proposed grade.	
	Pedestrian access. Show proposed internal pedestrian circulation, including sidewalks, pedestrian paths, crosswalks (including proposed widths and materials).	Civil plans
	Open Space / Parks	
	Park land dedication. For residential subdivisions with 10+ lots, show location, dimensions, square footage and design of park land proposed for dedication. (see AMC 19.54.030)	NA
	Lot Design	
	Alternative lot designs. Indicate where zero-lot line, reciprocal use easement lots, shared access lots, or alley access lots are proposed. (see AMC 19.54.040)	NA

Project Narrative for Cherry Court
Proposed 6-Lot Short Subdivision and Conditional Use Permit

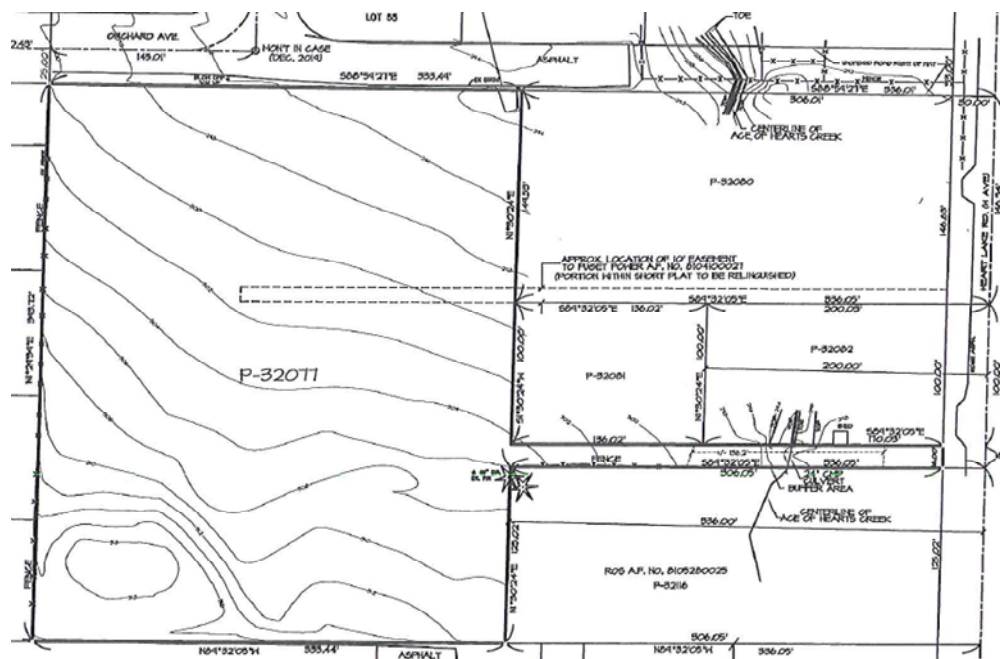
Short Subdivision

Tax parcel P32077 is proposed to be subdivided into 6 lots. The site is zoned R-1 with a combined total area of 3.12 acres and is currently vacant. All lots will be over 15,000 square feet and will be developed in the future with single family detached homes and related accessory structures. The short subdivision also includes a new public road (Cherry Court), Orchard Avenue frontage improvements with on-street guest parking adjacent to new Lot 1, and a public stormwater drainage pond. The portion of the existing power easement that is on the site will be relinquished (see note on short plat map below). A request was submitted to PSE for the relinquishment on May 5, 2020. See Project Narrative attached to Land Use Application Submittal Checklist for additional description of the proposal.



Conditional Use Permit

A 16-foot long existing culverted segment of the Ace of Hearts Creek bisects a portion of the site that is a panhandle to proposed Lot 5. Ace of Hearts Creek is designated as a Fish and Wildlife Habitat Conservation Area according to the City of Anacortes critical area regulations. Per AMC 17.70.560 I., the short subdivision of land in fish and wildlife habitat conservation areas and associated buffers is subject to the city Conditional Use Permit process. No changes will be made to this area as a result of the short subdivision. See Project Narrative attached to Conditional Use Permit Application Submittal Checklist for additional description of the proposal.



OWNER'S CONSENT AND DEDICATION

KNOW ALL MEN BY THESE PRESENTS THAT RONALD V. BAYEK, SR. AND RONALDE V. BAYEK, JR. ARE THE OWNERS IN THE FEE SIMPLE OR CONTRACT PURCHASERS AND MORTGAGE HOLDERS OR LIEN HOLDERS, OF THE LAND HEREBY PLATTED, DECLARE THIS PLAT AND DEDICATE TO THE USE OF PUBLIC FOREVER, THE STREETS, AVENUES, AND COURTS, AS APPROPRIATE, SHOWN HEREON AND THE USE THEREOF FOR ALL PUBLIC PURPOSES CONSISTENT WITH THE USE THEREOF FOR PUBLIC HIGHWAY AND PEDESTRIAN ACCESS PURPOSES TOGETHER WITH THE RIGHT TO MAKE ALL NECESSARY SLOPE FOR CUTS AND FILLS UPON THE LOTS AND BLOCKS SHOWN HEREON IN THE ORIGINAL REASONABLE GRADING OF ALL SUCH STREETS AND AVENUES SHOWN HEREON.

IN WITNESS WHEREOF, THE OWNERS AND SAID CORPORATION HAVE CAUSED THEIR SIGNATURES AND CORPORATE NAME TO BE HEREUNTO SUBSCRIBED AND ITS CORPORATE SEAL TO BE HEREUNTO AFFIXED THIS DAY OF , 2020

RONALD V. BAYEK SR. RONALD V. BAYEK, JR.

AUDITOR'S CERTIFICATE

STATE OF COUNTY OF

I CERTIFY THAT I KNOW OR HAVE SATISFACTORY EVIDENCE THAT, RONALD V. BAYEK SR., IS THE PERSON WHO APPEARED BEFORE ME, AND SAID PERSON ACKNOWLEDGED THAT THEY SIGNED THIS INSTRUMENT AND ACKNOWLEDGED IT TO BE HIS FREE AND VOLUNTARY ACT FOR THE USES AND PURPOSES MENTIONED IN THE INSTRUMENT.

DATED:

SIGNATURE NOTARY PUBLIC MY APPOINTMENT EXPIRES RESIDING AT

STATE OF COUNTY OF

I CERTIFY THAT I KNOW OR HAVE SATISFACTORY EVIDENCE THAT, RONALD V. BAYEK, JR. IS THE PERSON WHO APPEARED BEFORE ME, AND SAID PERSON ACKNOWLEDGED THAT THEY SIGNED THIS INSTRUMENT AND ACKNOWLEDGED IT TO BE HIS FREE AND VOLUNTARY ACT FOR THE USES AND PURPOSES MENTIONED IN THE INSTRUMENT.

DATED:

SIGNATURE NOTARY PUBLIC MY APPOINTMENT EXPIRES RESIDING AT

SURVEYOR'S CERTIFICATE

I HEREBY CERTIFY THAT THIS SHORT PLAT IS BASED UPON AN ACTUAL SURVEY AND SUBDIVISION OF SECTION 25, TOWNSHIP 35 NORTH, RANGE 1 EAST, W.M.; THAT THE COURSES AND DISTANCES ARE SHOWN CORRECTLY; AND THAT I HAVE COMPLIED WITH THE PROVISIONS OF THE CITY OF ANACORTES SHORT PLAT ORDINANCE.

DATE: BRUCE G. LISSER, PLS., CERTIFICATE NO. 22960 LISSER & ASSOCIATES, PLLC 320 MILWAUKEE STREET, PO BOX 1109 MOUNT VERNON WA 98273 PHONE (360) 419-7442 FAX (360) 419-0581 EMAIL BRUCE@LISSER.COM

APPROVALS

THE WITHIN AND FOREGOING SHORT PLAT IS APPROVED IN ACCORANCE WITH THE PROVISIONS OF THE CITY OF ANACORTES SHORT PLAT ORDINACE THIS OF , 2020

SHORT PLAT ADIMISTRATOR PUBLIC WORKS DIRECTOR

TREASURER'S CERTIFICATE

THIS IS TO CERTIFY THAT ALL TAXES HERETOFORE LEVIED AND WHICH HAVE BECOME A LIEN UPON THE LANDS HEREIN DESCRIBED HAVE BEEN FULLY PAID AND DISCHARGED ACCORDING TO THE RECORDS OF MY OFFICE, UP TO AND INCLUDING THE YEAR OF

SKAGIT COUNTY TREASURER DEPUTY

CITY TREASURER'S CERTIFICATE

I HEREBY CERTIFY THAT THERE ARE NO DELINQUENT SPECIAL ASSESSMENTS AND ALL SPECIAL ASSESSMENTS ON ANY OF THE PROPERTY HEREIN CONTAINED DEDICATED AS STREETS, ALLEYS, OR FOR OTHER PUBLIC USE, ARE PAID IN FULL. THIS DAY OF , 2020

ANACORTES CITY TREASURER

AUDITOR'S CERTIFICATE

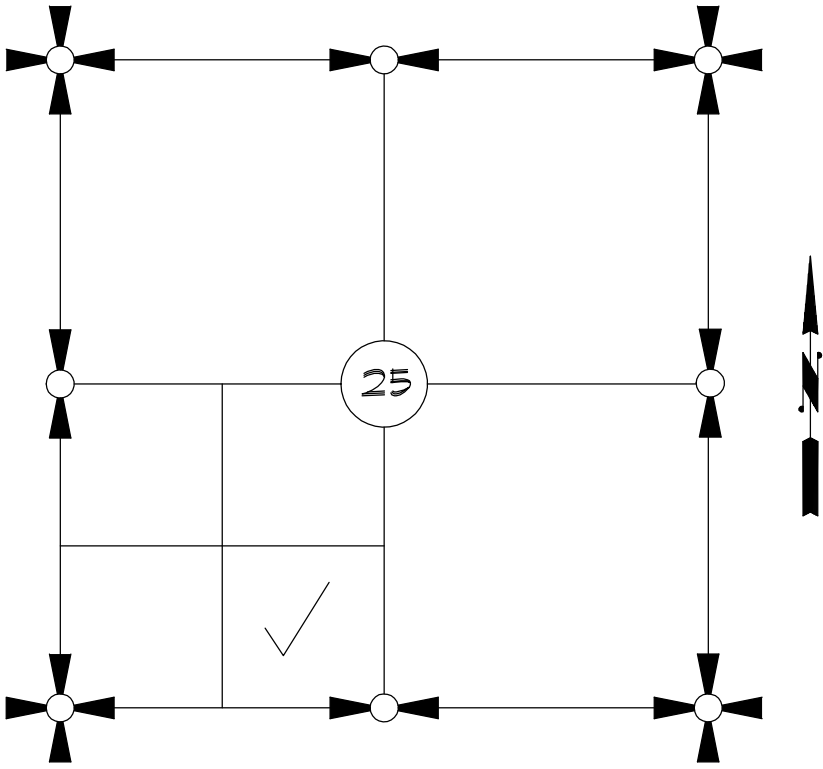
FILED FOR AT THE REQUEST OF LISSER & ASSOCIATES, PLLC.

FILED FOR RECORD THIS DAY OF , 2020 AT MINUTES PAST O'CLOCK M. IN VOLUME OF SHORT PLATS ON PAGE(S) UNDER AUDITOR'S FILE NO. , RECORDS OF SKAGIT COUNTY, WASHINGTON.

SKAGIT COUNTY AUDITOR DEPUTY

City of Anacortes
Planning, Community &
Economic Development

Date Received:
6/3/20



SECTION 25, TOWNSHIP 35 NORTH, RANGE 1 EAST, W.M.

VICINITY MAP
N.T.S.

SHEET 1 OF 4 DATE: 4/08/20

CITY OF ANACORTES SHORT PLAT NO. SPL-2020--			
SURVEY IN A PORTION OF THE SE 1/4 OF THE SW 1/4 OF SECTION 25, T. 35 N., R. 1 E., W.M. SKAGIT COUNTY, WASHINGTON FOR: RONALD V. BAYEK AND RONALD V. BAYEK JR.			
FB:	PG:	LISSER & ASSOCIATES, PLLC	SCALE:
MERIDIAN: ASSUMED		SURVEYING & LAND-USE CONSULTATION MOUNT VERNON, WA 98273 360-419-7442	DWG: 19-130 SP

SURVEY DESCRIPTION

SKAGIT COUNTY ASSESSOR'S PARCEL NUMBER P-32077

THE EAST 1/2 OF THE SOUTHEAST 1/4 OF THE SOUTHWEST 1/4 OF SECTION 25, TOWNSHIP 35 NORTH, RANGE 1 EAST, W.M.;

EXCEPT THE SOUTH 165 FEET THEREOF;

ALSO EXCEPT THE NORTH 759 FEET THEREOF;

ALSO EXCEPT THE EAST 336 FEET THEREOF;

TOGETHER WITH THAT PORTION OF THE EAST 1/2 OF THE SOUTHEAST 1/4 OF THE SOUTHWEST 1/4 OF SECTION 25, TOWNSHIP 35 NORTH, RANGE 1 EAST, W.M., DESCRIBED AS FOLLOWS:

BEGINNING AT A POINT ON THE EAST LINE OF SAID SOUTHEAST 1/4 OF THE SOUTHWEST 1/4 WHICH IS 290 FEET NORTH OF THE SOUTHEAST CORNER OF SAID SOUTHEAST 1/4 OF THE SOUTHWEST 1/4;
THENCE NORTH ALONG SAID EAST LINE OF 16 FEET;
THENCE WEST 336 FEET;
THENCE SOUTH PARALLEL WITH THE EAST LINE OF SAID SOUTHEAST 1/4 OF THE SOUTHWEST 1/4 16 FEET, MORE OR LESS, TO A POINT DUE WEST OF THE POINT OF BEGINNING;
THENCE EAST TO THE POINT OF BEGINNING;

EXCEPT RIGHT-OF-WAY FOR PUBLIC ROAD ALONG THE EAST BOUNDARY THEREOF, KNOWN AS AVENUE H OR HEART LAKE ROAD.

SUBJECT TO AND TOGETHER WITH EASEMENTS, RESERVATIONS, RESTRICTIONS, COVENANTS, LIENS, LEASES, COURT CAUSES AND OTHER INSTRUMENTS OF RECORD.

SITUATE IN THE CITY OF ANACORTES, COUNTY OF SKAGIT, STATE OF WASHINGTON.

UTILITIES EASEMENTS

AN EASEMENT IS HEREBY RESERVED FOR AND GRANTED TO THE CITY OF ANACORTES, PUGET SOUND ENERGY; CASCADE NATURAL GAS CORPORATION; FRONTIER COMMUNICATIONS, INC; AND COMCAST CABLEVISION, AND THEIR RESPECTIVE SUCCESSORS AND ASSIGNS UNDER AND UPON THE AREAS SHOWN AS UTILITIES EASEMENT AREAS AS SHOWN ON THE FACE OF THIS PLAT, OR AS NOTED, IN WHICH TO INSTALL, LAY, CONSTRUCT, RENEW, OPERATE, MAINTAIN AND REMOVE UTILITY SYSTEMS, LINES, FIXTURES AND APPURTENANCES ATTACHED THERETO, FOR THE PURPOSE OF PROVIDING UTILITY SERVICE TO THE SUBDIVISION AND OTHER PROPERTY, TOGETHER WITH THE RIGHT TO ENTER UPON THE LOTS AND TRACTS AT ALL TIMES FOR THE PURPOSES STATED, WITH THE UNDERSTANDING THAT ANY GRANTEE SHALL BE RESPONSIBLE FOR ALL UNNECESSARY DAMAGE IT CAUSED TO ANY REAL PROPERTY OWNER IN THE SUBDIVISION BY THE EXERCISE OF RIGHTS AND PRIVILEGES HEREIN GRANTED.

PRIVATE STORMWATER DRAINAGE EASEMENT

EASEMENTS FOR THE PURPOSE OF CONVEYING ON-SITE STORMWATER RUNOFF WERE GRANTED IN FAVOR OF ALL ABUTTING LOT OWNERS IN THE AREAS DESIGNATED AS PRIVATE DRAINAGE EASEMENTS ON THE FACE OF THIS SHORT PLAT. THE REGULAR MAINTENANCE OF PRIVATE DRAINAGE FACILITIES ESTABLISHED AND GRANTED THEREON WAS TO BE THE RESPONSIBILITY OF AND THE COSTS THEREOF BE BORNE EQUALLY BY, THE PRESENT AND FUTURE OWNERS OF THE ABUTTING PROPERTY AND THEIR HEIRS, PERSONAL REPRESENTATIVES, AND ASSIGNS.

THE CITY OF ANACORTES IS ALSO GRANTED THE PERPETUAL RIGHT OF ENTRY ACROSS DRAINAGE EASEMENTS AND ADJACENT LANDS OF THE GRANTOR, AND OR ASSIGNS, FOR PURPOSES OF ROUTINE INSPECTION OF STORMWATER DRAINAGE FACILITIES AND EMERGENCY MAINTENANCE PURPOSES AT ITS OWN DISCRETION. THE GRANTOR, OWNERS, AND ANY PERSON HAVING ANY PRESENT OR SUBSEQUENT OWNERSHIP INTEREST IN THE PROPERTIES, AND THEIR SUCCESSORS AND ASSIGNS OF OWNERS, AGREED TO HOLD THE CITY, ITS OFFICERS, EMPLOYEES AND AGENTS HARMLESS IN ALL RESPECTS FROM ANY AND ALL CLAIMS FOR DAMAGES WHICH MAY BE OCCASIONED NOW OR IN THE FUTURE TO ADJACENT PROPERTY OR IMPROVEMENTS BY REASON OF CONSTRUCTION, OPERATION AND MAINTENANCE OF THE SAID DRAINAGE SYSTEM.

NOTES

1. ● INDICATES REBAR SET AND CAPPED WITH YELLOW CAP INSCRIBED LISSER 22460.
○ INDICATES EXISTING IRON PIPE OR REBAR FOUND
⊗ INDICATES EXISTING MONUMENT OR SET MONUMENT

2. SURVEY DESCRIPTION IS FROM LAND TITLE SUBDIVISION GUARANTEE, ORDER NO. 01-177292-F DATED MARCH 13, 2020

3. FOR ADDITIONAL MERIDIAN AND SURVEY INFORMATION SEE PLAT OF THE ORCHARDS PUD RECORDED UNDER AUDITOR'S FILE NO. 200601190126 AND RECORD OF SURVEY MAPS RECORDED UNDER AUDITOR'S FILE NUMBERS 8105280025 AND 9507110020, RECORDS OF SKAGIT COUNTY, WASHINGTON.

4. BASIS OF BEARING: EAST LINE OF THE SOUTHWEST 1/4 OF SECTION 25, TOWNSHIP 35 NORTH, RANGE 1 EAST, W.M.
BEARING = NORTH 1°30'24" EAST

5. MERIDIAN: ASSUMED

6. INSTRUMENTATION: LEICA 1103 TCRA PLUS THEODOLITE DISTANCE METER

7. SURVEY PROCEDURE: STANDARD FIELD TRAVERSE

8. THIS PROPERTY IS SUBJECT TO AND TOGETHER WITH EASEMENTS, RESERVATIONS, RESTRICTIONS, COVENANTS, LIENS, LEASES, COURT CAUSES AND OTHER INSTRUMENTS OF RECORD INCLUDING BUT NOT LIMITED TO THOSE INSTRUMENTS SHOWN ON THE ABOVE REFERENCED TITLE REPORT AND RECORDED UNDER SKAGIT COUNTY AUDITOR'S FILE NUMBERS 8104100027, 8105280025 AND 9507110020.

9. THIS SURVEY HAS SHOWN OCCUPATIONAL INDICATORS (STRUCTURES, FENCE LINES) AS PER WAC CHAPTER 332-130. LINES OF OCCUPATION MAY INDICATE AREAS FOR POTENTIAL CLAIMS OF UNWRITTEN OWNERSHIP. THIS BOUNDARY SURVEY HAS ONLY SHOWN THE RELATIONSHIP OF LINES OF OCCUPATION TO THE DEEDED LINES OF RECORD. NO RESOLUTION OF OWNERSHIP BASED ON UNWRITTEN RIGHTS HAS BEEN MADE OR IMPLIED BY THIS SURVEY.

10. ALL DISTANCES SHOWN HEREON ARE IN FEET.

11. OWNER/APPLICANT:
RONALD V. BAYEK
RONALD V. BAYEK, JR.
26339 PRESIDENT AVENUE
HARBOR CITY, CA 90710

12. SKAGIT COUNTY ASSESSOR'S PARCEL NUMBERS
P-32077

13. PROPERTY ZONING: RESIDENTIAL LOW DENSITY DISTRICT (R-1)
MINIMUM LOT AREA = 15,000 SQ. FT.
MINIMUM SETBACKS:
STREET = 20 FEET (HOUSE) 25 FEET (GARAGE)
REAR YARD = 20 FEET
INTERIOR SIDE YARD = 10 FEET
SIDE YARD ALONG STREET = 20 FEET

14. WATER SUPPLY: CITY OF ANACORTES

15. SEWAGE DISPOSAL: CITY OF ANACORTES

16. STORM DRAINAGE: CITY OF ANACORTES

17. CONTOUR INTERVAL: 2-FOOT

18. DATUM PER PLAT OF THE ORCHARDS PUD

19. TRACT "Y" IS FOR STORM DRAINAGE PURPOSE AND IS TO BE OWNED AND MAINTAINED BY THE CITY OF ANACORTES

ADJOINING PROPERTY OWNERS

P- 32080 AND P-32081
RONALD BAYEK SR AND RONALD BAYEK JR
26339 PRESIDENT AVE
HARBOR CITY, CA 90701

P-32082
GARY AND CARRIE WOLLAM
4318 H AVE
ANACORTES, WA 98221

P-32116
JAMES AND BETTY TARTAS
4402 H AVE
ANACORTES, WA 98221

P-124002
JENNINGS REVOCABLE TRUST
1819 ORCHARD PLACE
ANACORTES, WA 98221

P-124001
JOHN AND MARLA HOVEY
1905 ORCHARD PLACE
ANACORTES, WA 98221

P-124000
LG ANACORTES LLC
504 E. FAIRHAVEN AVE
BURLINGTON, WA 98233

P-124003
GERALDAND BONNIE BOWERS
4413 ORCHARDS AVE
ANACORTES, WA 98221

P-124004
MICHAEL AND KIMBERLY LATSHA
4415 ORCHARDS AVE
ANACORTES, WA 98221

P-124005
CARTUS FINANCIAL CORP
C/O OLD REPUBLIC RELOCATION SERVICES
1000 BURNETT AVE, SUITE 330
CONCORD, CA 94520

P-124006
TERRILL VELIN
4419 ORCHARDS AVE
ANACORTES, WA 98221

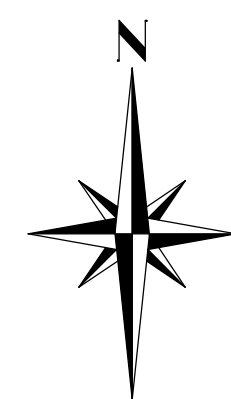
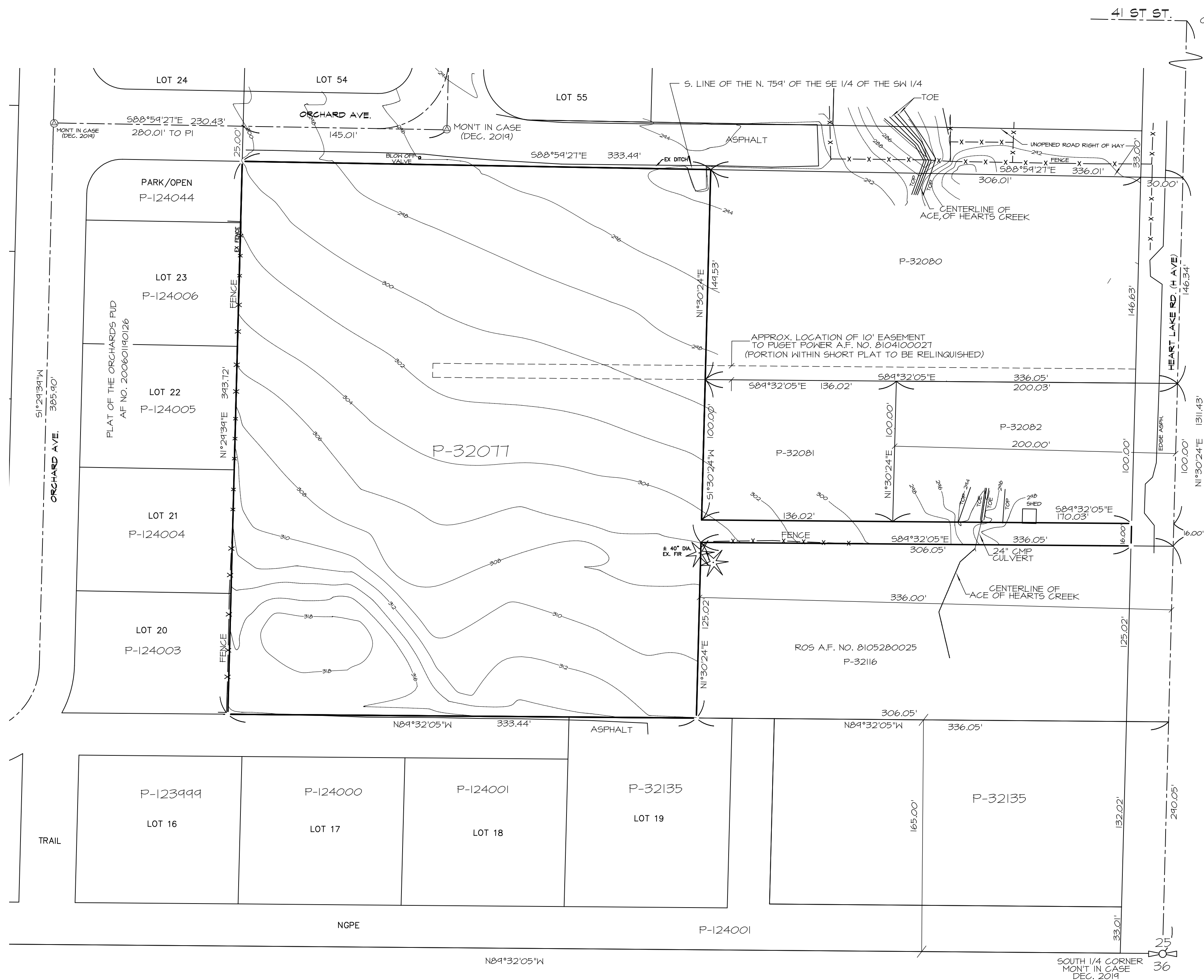
P-124044
THE ORCHARDS PUD HOA
P.O. BOX 1633
ANACORTES, WA 98221

LOT AREA AND ADDRESS INFORMATION

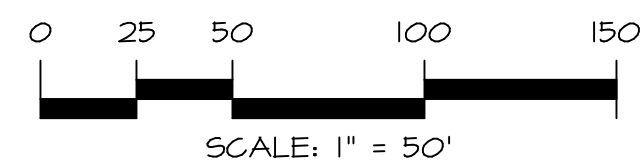
LOT 1	16,968 SQ. FT. 0.39 ACRES	CHERRY COURT
LOT 2	17,471 SQ. FT. 0.40 ACRES	CHERRY COURT
LOT 3	16,682 SQ. FT. 0.38 ACRES	CHERRY COURT
LOT 4	20,392 SQ. FT. 0.47 ACRES	CHERRY COURT
LOT 5	23,472 SQ. FT. 0.55 ACRES	CHERRY COURT
LOT 6	15,041 SQ. FT. 0.35 ACRES	CHERRY COURT
TRACT "Y"	12,624 SQ. FT. 0.29 ACRES	

CHERRY COURT RIGHT OF WAY 12,726 SQ. FT. 0.29 ACRES

CITY OF ANACORTES SHORT PLAT NO. SPL-2020--			
SURVEY IN A PORTION OF THE SE 1/4 OF THE SW 1/4 OF SECTION 25, T. 35 N., R. 1 E., W.M. SKAGIT COUNTY, WASHINGTON FOR: RONALD V. BAYEK AND RONALD V. BAYEK JR.			
FB:	PG:	LISSE & ASSOCIATES, PLLC	SCALE:
MERIDIAN: ASSUMED		SURVEYING & LAND-USE CONSULTATION MOUNT VERNON, WA 98213 360-419-1442	DWG: 19-130 SP



EXISTING CONDITIONS MAP



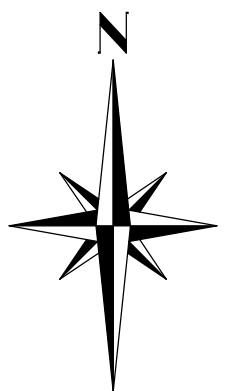
SHEET 3 OF 4

DATE: 6/03/20

CITY OF ANACORTES SHORT PLAT NO. SPL-2020--

SURVEY IN A PORTION OF THE
SE 1/4 OF THE SW 1/4 OF
SECTION 25, T. 35 N., R. 1 E., W.M.
SKAGIT COUNTY, WASHINGTON
FOR: RONALD V. BAYEK AND RONALD V. BAYEK JR.

FB:	PG:	LISSEY & ASSOCIATES, PLLC	SCALE: 1"=50'
MERIDIAN: ASSUMED		SURVEYING & LAND-USE CONSULTATION MOUNT VERNON, WA 98213 360-419-1442	DWG: 19-130 SP



SCALE: 1" = 50'

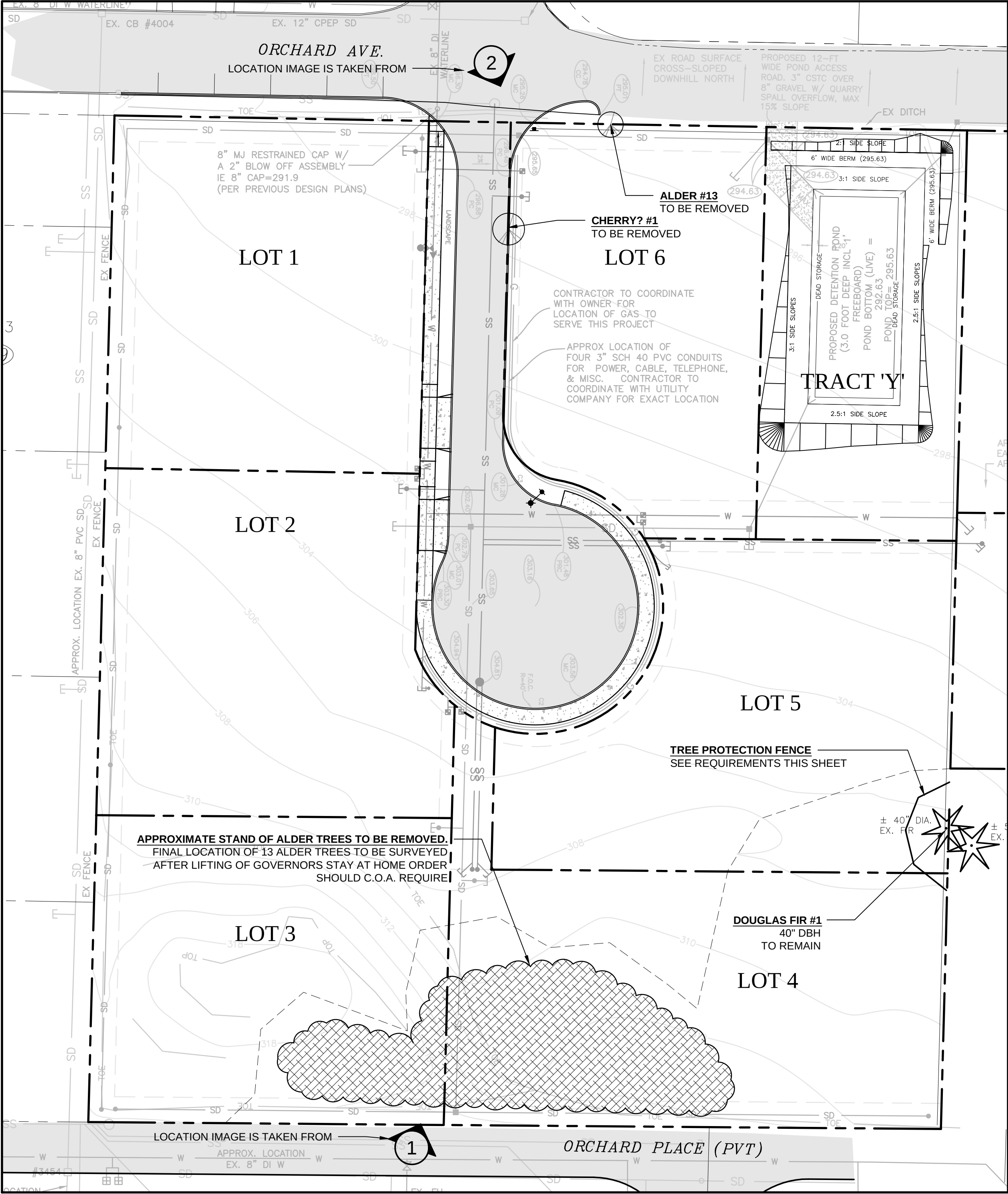
DATE: 6/03/20

SURVEY IN A PORTION OF THE
SE 1/4 OF THE SW 1/4 OF
SECTION 25, T. 35 N., R. 1 E., W.M.
SKAGIT COUNTY, WASHINGTON
DONALD V. BAYEK AND RONALD V. BAYEK JR.

FB:	PG:
MERIDIAN: ASSUMED	

LISSER & ASSOCIATES, PLLC
SURVEYING & LAND-USE CONSULTATION
MOUNT VERNON WA 98273 360-419-7442

SCALE: 1"=50'
DWG: 19-130 SP



TREE PRESERVATION PLAN
1" = 30'-0" (CHECK SCALE BAR FOR ACCURACY)

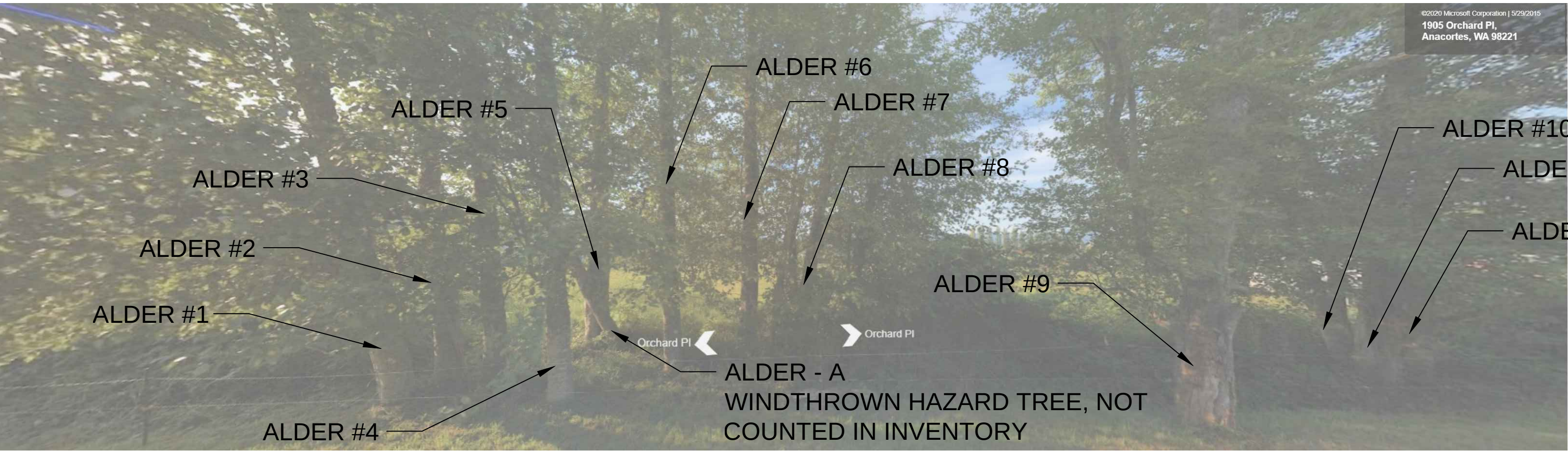


IMAGE 1 - EXISTING TREE INVENTORY ALONG ORCHARD PLACE (PVT)
LOOKING NORTH

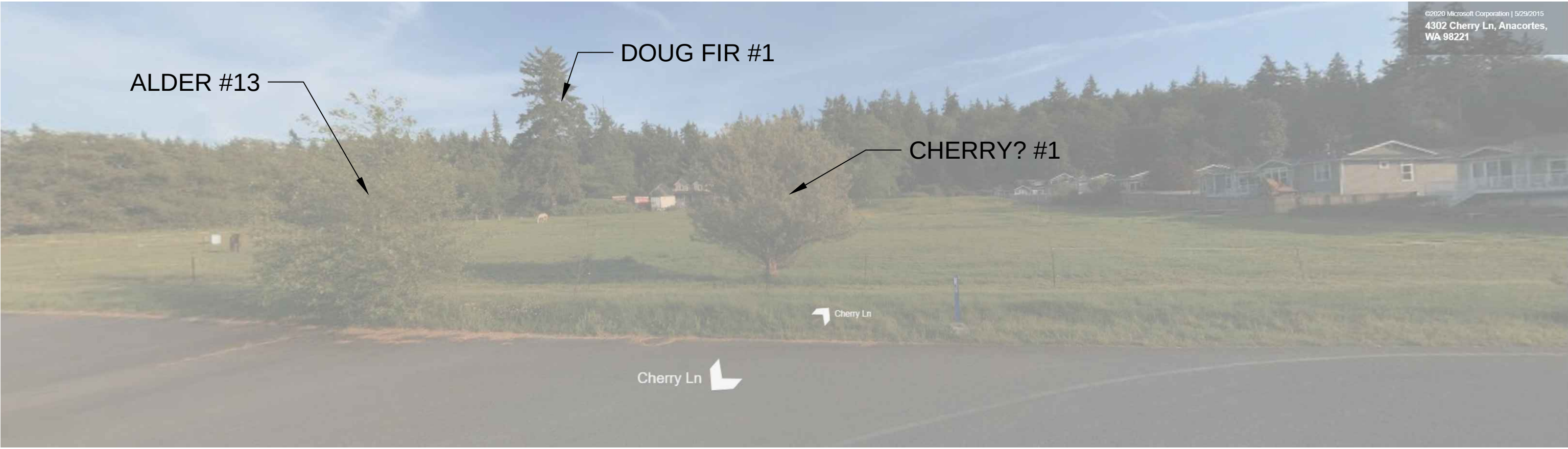


IMAGE 2 - EXISTING TREE INVENTORY ALONG ORCHARD AVE
LOOKING SOUTH

TREE PRESERVATION STATISTICS

Tree Density Requirements - COA		
	S.F.	
GROSS ACREAGE	130.752	
Public and Private ROW	(12.726)	
Subtotal	118,026	divided by 1000
Subtotal Tree Credits Required	118	
Credits from Retained Tree	(8)	see table below
TOTAL tree credits Required	110	

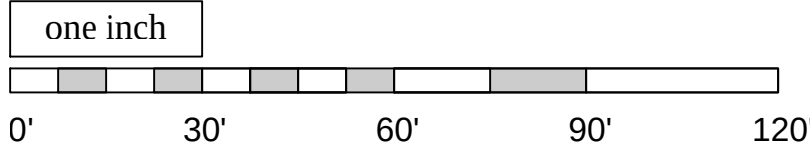
Tree Location Requirements		
	#	
TOTAL TREES REQUIRED	110	
Trees located outside Residential Lots (25%)	28	

Tree Unit Credits - COA				
TREE	SIZE - D.B.H.	REMOVED	RETAINED	CREDIT
ALDER # 1	5.1" to 10"	X		0
ALDER # 2	5.1" to 10"	X		0
ALDER # 3	5.1" to 10"	X		0
ALDER # 4	5.1" to 10"	X		0
ALDER # 5	5.1" to 10"	X		0
ALDER # 6	5.1" to 10"	X		0
ALDER # 7	5.1" to 10"	X		0
ALDER # 8	5.1" to 10"	X		0
ALDER # 9	10.1" to 25"	X		0
ALDER # 10	5.1" to 10"	X		0
ALDER # 11	5.1" to 10"	X		0
ALDER # 12	5.1" to 10"	X		0
ALDER # 13	2-5"	X		0
CHERRY? # 1	5.1" to 10"	X		0
DOUGLAS FIR # 1	40"		X	8

TREE PRESERVATION NOTES

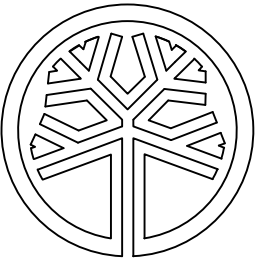
- APPROVED TREE PROTECTION AREAS SHALL BE DESIGNATED IN THE FIELD PRIOR TO THE INITIATION OF ANY CLEARING OR GRADING PER TREE PRESERVATION PLAN. TREE PROTECTION AREAS SHALL REMAIN IN PLACE THROUGH SITE DEVELOPMENT UNTIL PROJECT COMPLETION, OR EARLIER WITH PRIOR AUTHORIZATION BY THE PLANNING DIRECTOR.
- A TREE PROTECTION AREA SHALL BE DESIGNED TO PROTECT EACH TREE OR TREE STAND DURING SITE DEVELOPMENT AND CONSTRUCTION. THE TREE PROTECTION AREAS SHALL CONFORM TO THE APPROVED TREE PRESERVATION PAN.
- IDEALLY, TREE PROTECTION AREAS SHOULD EXTEND TO THE DRIP LINE OF THE TREE PLUS SIX FEET. HOWEVER, IN MANY INSTANCES, THIS WILL NOT BE POSSIBLE DUE TO SITE CONSTRAINTS. TREE PROTECTION AREAS SHALL BE AS LARGE AS FEASIBLE GIVEN SITE CONSTRAINTS AND THE NATURE OF THE PROJECT.
- TREE PROTECTION AREAS SHALL BE CLEARLY SHOWN ON ALL APPLICABLE SITE DEVELOPMENT, PRELIMINARY PLATS, AND CONSTRUCTION DRAWINGS.
- TREE PROTECTION AREAS SHALL BE DESIGNATED THROUGH THE FOLLOWING MINIMUM STANDARDS:
 - CHAIN LINK OR OTHER TYPE OF STURDY CONSTRUCTION FENCING ATTACHED TO POSTS SET IN THE GROUND A MINIMUM OF TWELVE INCHES AND SPACED NO MORE THAN TEN FEET APART; AND
 - COLORED TAPE, RIBBON, AND OTHER IDENTIFICATION TAGS ATTACHED TO PROTECTED TREES.
- METHODS TO PROVIDE ADDITIONAL PROTECTION FOR TREE ROOTS INCLUDE:
 - PLACING LAYERS OF PROTECTIVE MULCH, SIX INCHES — TWO FEET DEEP, OVER TREE ROOTS TO HELP AVOID SOIL COMPACTION OVER ROOTS THAT MAY BE SUBJECT TO NEARBY EQUIPMENT USE. ONCE CONSTRUCTION IS COMPLETE, EXCESS MULCH SHALL BE REMOVED LEAVING A MAXIMUM OF TWO INCHES MULCH COVER OVER PRE-EXISTING GRADE. THEN SOIL SHOULD BE AERATED BY DRILLING HOLES.
 - TUNNELING UNDER ROOT SYSTEMS OR CIRCUMVENTING THE ROOTS INSTEAD OF CUTTING ACROSS THEM.
 - NO TOXIC CHEMICALS SHALL BE USED IN TREE PROTECTION AREAS.
- NO CLEARING, GRADING, FILLING, OPERATING OF HEAVY EQUIPMENT, TRENCHING, OR OTHER DEVELOPMENT ACTIVITIES SHALL OCCUR WITHIN TREE PROTECTION AREAS. TREE PROTECTION AREAS MAY ONLY BE MODIFIED OR TEMPORARILY RELOCATED WITH THE PRIOR WRITTEN APPROVAL OF THE PLANNING DIRECTOR.

City of Anacortes
Planning, Community &
Economic Development
Date Received:
5/7/20



NO.	DATE	REVISION	BY	REV.
1				
2				
3				
4				
5				
6				

prepared for:
Corner 9 Properties, LLC
504 E. Fairhaven
Burlington, WA 98223
contact: Anna Nelson



STATE OF WASHINGTON
REGISTERED
LANDSCAPE ARCHITECT
PATRIK DYLAN
CERTIFICATE NO. 793

prepared by:
eccosDesign
Landscape Architecture and Planning
Mount Vernon, WA 98273
p. 360.419.7400
f. 800.588.2017
www.eccosdesign.com

Cherry Court
Anacortes, WA

SCALES:
HORIZONTAL : 1" = 30'
VERTICAL : N/A
DESIGNED: PD
DRAWN: PD
CHECKED: PD

TREE PRESERVATION PLAN
permit set

ISSUE DATE: 5.2.2020
DRAWING: 2032land
JOB NO.: 2032
SHEET: TP-1



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: [\[help\]](#)

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.

Use of checklist for nonproject proposals: [\[help\]](#)

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: [\[help\]](#)

Cherry Court

2. Name of applicant: [\[help\]](#)

Corner 9 Properties, LLC – Landed Gentry Development, LLC

3. Address and phone number of applicant and contact person: [\[help\]](#)

Anna Nelson

Landed Gentry Development, Inc.

504 E. Fairhaven Ave.

Burlington, WA 98233

4. Date checklist prepared: [\[help\]](#)

May 6, 2020

5. Agency requesting checklist: [\[help\]](#)

City of Anacortes

6. Proposed timing or schedule (including phasing, if applicable): [\[help\]](#)

Site construction Summer 2020, with home in later 2020 and 2021.

7. Do you have any plans for future additions, expansion, or further activity related to or connected with this proposal? If yes, explain. [\[help\]](#)

No

8. List any environmental information you know about that has been prepared, or will be prepared, directly related to this proposal. [\[help\]](#)

Critical Area Report with Habitat Assessment by Bachman Environmental dated 12/10/19

Geotechnical Engineering Evaluation by Geotest dated 2/26/20

Preliminary Drainage Report by Ravnik & Associates dated 5/6/20

Landscape Plan and Tree Preservation Plan by Eccos Design dated 5/2/20

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. [\[help\]](#)

No

10. List any government approvals or permits that will be needed for your proposal, if known. [\[help\]](#)

Preliminary and Final Short Plat approval

Conditional Use Permit

Site and building construction permits

NPDES

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

The site is zoned R-1 with a combined total area of 3.12 acres and is currently vacant. The site is proposed to be subdivided into 6 lots for future single family detached homes and related accessory structures. All lots will be over 15,000 square feet. The short subdivision also includes a new public road and public stormwater drainage pond. See attached aerial and Short Plat map dated 4/8/20.

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. [\[help\]](#)

The site for the proposed residential development is located directly north of the intersection of Cherry Lane and Orchard Avenue in Section 25, Township 35 North, Range 1 E. Skagit County Tax Parcel P32077. See attached vicinity map and legal description on attached Short Plat map dated 4/8/20.

B. ENVIRONMENTAL ELEMENTS [\[help\]](#)

1. Earth

a. General description of the site [\[help\]](#)
(circle one): **Flat**, rolling, hilly, steep slopes, mountainous,
other _____

b. What is the steepest slope on the site (approximate percent slope)? [\[help\]](#)

The site does not contain steep slopes. See existing topography on Short Plat Sheet 3 of 4. 3 to 8% slopes are present according to the *Web Soil Survey* website.

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. [\[help\]](#)

Two soil units are present on the site: Unit 18 and Unit 19 – Bow gravelly loam, dry, 0 to 3 percent slopes and Bow gravelly loam, dry, 3 to 8 percent slopes. See Geotechnical Engineering Evaluation by Geotest dated 2/26/20. The site is in the Anacortes City limits and zoned R-1. It has not been designated as agricultural land of long-term commercial significance.

d. Are there surface indications or history of unstable soils in the immediate vicinity? If so, describe. [\[help\]](#)

No.

e. Describe the purpose, type, total area, and approximate quantities and total affected area of any filling, excavation, and grading proposed. Indicate source of fill. [\[help\]](#)

Within the property soils will be stripped from proposed roadway areas, pond areas, and within residential lots. Of this material some may be stock piled onsite for common lot fill around, but not under, structures. The quantity of excavated materials can potentially be used to partially level out the proposed residential lots, however this product will not be recognized as a structural fill upon which residential foundations can be constructed. Soils used as common lot fills will have to be excavated through for the construction of residential foundations.

Within this project, approximately 230 lineal feet of new roadway construction will occur. Within the alignment of proposed roads, topsoil materials will be removed prior to the placement of the structural fill for the road base. For the purposes of roadway construction, approximately 500 cubic yards of organic topsoil materials will be excavated and approximately 850 cubic yards of gravel structural fill will be imported for the roadway construction. Gravel structural fill will consist of gravel borrow and will be obtained from a Skagit County gravel source. A portion of the excavated topsoil materials will be saved and used as common lot fills. An additional 600 cubic yards of material will be excavated for utility installation.

Approximately 1,250 cubic yards of excavation will be necessary for the construction of the detention pond. A portion of these excavated materials will be used to create the proposed berming as allowed by the geotechnical engineer.

Though future home site construction is specifically unknown at this time, based on an average 24-inch stripping depth over 4,500 square feet of each lot would generate approximately 2,000 cubic yards of excavated material. Assuming a 12-inch depth of gravel fill below the same area would require approximately 1,000 cubic yards of fill material.

f. Could erosion occur as a result of clearing, construction, or use? If so, generally describe. [\[help\]](#)

The site topography, drier season construction and the use of temporary erosion control measures will ensure that there is a low likelihood that site construction could cause erosion. Ground disturbance during site construction will follow best management practices to prevent erosion. During the site development activities, rainfall runoff will be directed towards the partially constructed detention pond. This will provide a facility for rainfall waters to collect, sediment to settle out, and water to soak into the ground. If necessary, a temporary outfall will be made available from the partially constructed infiltration/detention pond to the adjacent drainage course. This will include provisions to filter runoff waters before they enter the referenced drainage course. Silt fences and temporary scratch ditches will also be implemented where effective. In the long term, the site will be designed to prevent erosion. See Preliminary Drainage Report by Ravnik & Associates, Inc. (May 6, 2020).

g. About what percent of the site will be covered with impervious surfaces after project construction (for example, asphalt or buildings)? [\[help\]](#)

Based on 4,200 square feet of house and driveway on each lot, new roadway, new sidewalk and detention pond areas, approximately 1.4 acres of the site will be developed with a total impervious surface area of 0.9-acres (approx. 30% of the entire site). See Preliminary Drainage Report by Ravnik & Associates, Inc. (May 6, 2020).

h. Proposed measures to reduce or control erosion, or other impacts to the earth, if any: [\[help\]](#)

Construction in the drier season will reduce impacts from erosion. Prior to proceeding with any development, compliance with the necessary approval from the Department of Ecology (NPDES) and City of Anacortes for right-of-way and site construction will be required, including following best management practices to prevent erosion. See conclusions and recommendations in Geotechnical Engineering Evaluation by Geotest dated 2/26/20 and Preliminary Drainage Report by Ravnik & Associates, Inc. (May 6, 2020).

2. Air

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. [\[help\]](#)

Some dust and emissions may result during site demolition, grading, and construction. Over the life of the project, emissions are not expected to be significant.

b. Are there any off-site sources of emissions or odor that may affect your proposal? If so, generally describe. [\[help\]](#)

No.

c. Proposed measures to reduce or control emissions or other impacts to air, if any: [\[help\]](#)

Site preparation and construction will follow best management practices to prevent emission of fugitive dust in the vicinity.

3. Water

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

- 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. [\[help\]](#)

A 16 foot long existing culverted segment of the Ace of Hearts Creek crosses a portion of the site that is a panhandle to proposed Lot 5. See Short Plat Sheet 3 of 4 and Critical Area Report with Habitat Assessment by Bachman Environmental dated 12/10/19.

- 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. [\[help\]](#)

No work is required in this area for the short subdivision.

- 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. [\[help\]](#)

None.

- 4) Will the proposal require surface water withdrawals or diversions? Give general description, purpose, and approximate quantities if known. [\[help\]](#)

No.

- 5) Does the proposal lie within a 100-year floodplain? If so, note location on the site plan. [\[help\]](#)

No.

- 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. [\[help\]](#)

No.

b. Ground Water:

- 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. [\[help\]](#)

None proposed. Water will be provided by the City of Anacortes.

- 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. [\[help\]](#)

None proposed. Sanitary sewer will be provided by the City of Anacortes.

c. Water runoff (including stormwater):

- 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. [\[help\]](#)

Runoff from the residential development and new public road widening will be collected and conveyed to a proposed detention pond. The pond will have side slopes varying from 2.5:1 to 3:1 will be 3-feet deep (including 1-foot of freeboard). Storm water discharged to from the detention pond will be routed northeasterly to a control structure which will provide a controlled release of stormwater northeasterly, then easterly within the south side of the Cherry Court right of way to an existing culvert at the easterly end of the existing paved surface. With respect to the current onsite grass conditions, the provision of a detention pond and controlled release of stormwater, the developed site is anticipated to no discharge more stormwater runoff than what currently occurs today. See Preliminary Drainage Report by Ravnik & Associates, Inc. (May 6, 2020).

2) Could waste materials enter ground or surface waters? If so, generally describe. [\[help\]](#)
No.

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

The developed site will not discharge more stormwater than what currently occurs today as the project will detain and release storm water from the site at rates equal to or less than what occurs from the estimated predeveloped condition.

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

A storm water detention and treatment facility will be designed and constructed per the 2014 DOE standards. The design and function of this facility will be reviewed and approved by the City of Anacortes. See measures described above and more fully described in the Preliminary Drainage Report by Ravnik & Associates, Inc. (May 6, 2020).

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

a. Check the types of vegetation found on the site: [\[help\]](#)

- ☒X_deciduous tree: alder, maple, aspen, other
- ☒X_evergreen tree: fir, cedar, pine, other
- ☒X_shrubs
- ☒X_grass
- ☒X_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? [\[help\]](#)

The majority of the site is pasture. 13 alders and 1 cherry tree will be removed and 1 significant Douglas Fir tree will be retained.

c. List threatened and endangered species known to be on or near the site. [\[help\]](#)

None.

d. Proposed landscaping, use of native plants, or other measures to preserve or enhance vegetation on the site, if any: [\[help\]](#)

Landscaping will include street trees, future residential lot landscaping and planting of the stormwater pond perimeter screening. See Landscape and Tree Preservation Plan by Eccos Design (May 2, 2020).

- e. List all noxious weeds and invasive species known to be on or near the site.
None known.

5. Animals

- 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: [\[help\]](#)

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. [\[help\]](#)
None known.

- c. Is the site part of a migration route? If so, explain. [\[help\]](#)
The site is within the Pacific Flyway bird migration route.

- d. Proposed measures to preserve or enhance wildlife, if any: [\[help\]](#)
None necessary.

- e. List any invasive animal species known to be on or near the site.
None known.

6. Energy and natural resources

- 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. [\[help\]](#)

Electricity, natural gas and heating sources typical for a residential subdivision will be used.

- b. Would your project affect the potential use of solar energy by adjacent properties?
If so, generally describe. [\[help\]](#)
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: [\[help\]](#)
The future homes will comply with Energy Code requirements.

7. Environmental health

- 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. [\[help\]](#)
No.

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

None known.

- 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.

None.

- 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.

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

No special emergency services will be required. The site is served by the City of Anacortes Fire Department.

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

None necessary.

b. Noise

- 1) What types of noise exist in the area which may affect your project (for example: traffic, equipment, operation, other)? [\[help\]](#)

No significant noise exists in the area. Typical street noise from adjacent streets and residential development.

- 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. [\[help\]](#)

Site grading and construction will create short-term noise impacts in the immediate vicinity. Long term impacts include low levels of noise associated with cars traveling on and off the site as well as ongoing residential uses.

- 3) Proposed measures to reduce or control noise impacts, if any: [\[help\]](#)

Noise levels during and after construction will comply with City of Anacortes Municipal Code.

8. Land and shoreline use

- 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. [\[help\]](#)

The site is currently vacant pasture land. Adjacent properties are developed with single family residences and associated accessory buildings or are vacant.

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? [\[help\]](#)

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:

No.

c. Describe any structures on the site. [\[help\]](#)

None.

d. Will any structures be demolished? If so, what? [\[help\]](#)

No.

e. What is the current zoning classification of the site? [\[help\]](#)

R-1.

f. What is the current comprehensive plan designation of the site? [\[help\]](#)

Residential Low Density 1.

g. If applicable, what is the current shoreline master program designation of the site? [\[help\]](#)

Not applicable.

h. Has any part of the site been classified as a critical area by the city or county? If so, specify. [\[help\]](#)

Ace of Hearts Creek is designated as a Fish and Wildlife Habitat Conservation Area according to the City of Anacortes critical area regulations. Per AMC 17.70.560 I., the short subdivision of land in fish and wildlife habitat conservation areas and associated buffers is subject to the city conditional use permit process.

i. Approximately how many people would reside or work in the completed project? [\[help\]](#)

Approximately 18 people, based on 3 people per household.

j. Approximately how many people would the completed project displace? [\[help\]](#)

None.

k. Proposed measures to avoid or reduce displacement impacts, if any: [\[help\]](#)

None necessary.

l. Proposed measures to ensure the proposal is compatible with existing and projected land uses and plans, if any: [\[help\]](#)

The short subdivision has been designed to comply with the Anacortes Municipal Code.

m. Proposed measures to ensure the proposal is compatible with nearby agricultural and forest lands of long-term commercial significance, if any:

None necessary.

9. Housing

a. Approximately how many units would be provided, if any? Indicate whether high, middle, or low-income housing. [\[help\]](#)

6 detached single family dwelling units will be constructed. It is anticipated that the housing will be middle-income.

b. Approximately how many units, if any, would be eliminated? Indicate whether high, middle, or low-income housing. [\[help\]](#)

None.

c. Proposed measures to reduce or control housing impacts, if any: [\[help\]](#)

The development will provide for more housing opportunities.

10. Aesthetics

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

The maximum building height in the R-1 zone is 35 feet. The exterior materials are anticipated to lap and panel siding and composite roofing.

b. What views in the immediate vicinity would be altered or obstructed? [\[help\]](#)

No views would be obstructed. The view across the site would change from pasture to residential

c. Proposed measures to reduce or control aesthetic impacts, if any: [\[help\]](#)

The buildings will comply with the City building, zoning and design requirements

11. Light and glare

a. What type of light or glare will the proposal produce? What time of day would it mainly occur? [\[help\]](#)

Outside house porch lighting will be provided. The lighting will be directed downward and shielded from the adjacent properties.

b. Could light or glare from the finished project be a safety hazard or interfere with views? [\[help\]](#)

No.

c. What existing off-site sources of light or glare may affect your proposal? [\[help\]](#)

None anticipated.

d. Proposed measures to reduce or control light and glare impacts, if any: [\[help\]](#)

Lighting will be directed downward with shielding as necessary to avoid lighting spill over per City requirements.

12. Recreation

a. What designated and informal recreational opportunities are in the immediate vicinity? [\[help\]](#)

The Heart Lake Anacortes Community Forest Lands is located south of the site.

b. Would the proposed project displace any existing recreational uses? If so, describe. [\[help\]](#)

No.

c. Proposed measures to reduce or control impacts on recreation, including recreation opportunities to be provided by the project or applicant, if any: [\[help\]](#)

A sidewalk will be built with the new public road to connect to existing pedestrian facilities. Park impact fees will also be required at the time of building permit approval.

13. Historic and cultural preservation

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 located on or near the site? If so, specifically describe. [\[help\]](#)

No.

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. [\[help\]](#)

No.

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.

[\[help\]](#)

Review of City mapping, County GIS data, and Assessor's data.

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.

None necessary.

14. Transportation

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. [\[help\]](#)
Orchard Avenue abuts the northern edge of the site. A new public road, Cherry Court, will extend into the site as an extension of the current Cherry Lane public road located to the north.

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? [\[help\]](#)

No.

c. How many additional parking spaces would the completed project or non-project proposal have? How many would the project or proposal eliminate? [\[help\]](#)

Off street parking for each individual lot will be provided, with on-street guest parking along a portion of Orchard Avenue that abuts the site. No parking will be eliminated.

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

No.

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

No,

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 nonpassenger vehicles). What data or transportation models were used to make these estimates? [\[help\]](#)

The trip generation for the completed homes in the proposed short subdivision has been calculated using the Institute of Transportation Engineers (ITE) *Trip Generation, 7th Edition*. The average trip generation rates for the ITE Land Use Code (LUC) 210, Single-Family Detached, has been used. Based on a total of 6 new single family residential lots, each single family detached house will generate approximately 9.5 trips per day for an estimated total of approximately 57 vehicle trips per day for lots herein. With the development herein proposing middle income housing, most individuals will work. As such, the peak hour traffic will generally be in the afternoon between approximately 5:30 pm and 6:30 pm. Based upon the ITE manual, each lot will generate approximately 1 peak hour trip. For this residential plat, a total of approximately 6 peak hour trips will be generated each weekday afternoon sometime between 4:00pm and 6:00pm (one of these trips is existing due to the one residence currently onsite). Due to the nature of this project, all vehicles will be cars and pickups. Other than having occasional services provided to any of the residences, the peak hour traffic will not contain any significant quantity of commercial vehicles.

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: [help]

The proposed pedestrian and vehicular circulation system design will ensure that the site is developed in a safe manner. Additionally, a traffic impact mitigation fees will be required at the time of building permit approval.

15. Public servicesa. 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. [help]

An incremental increase for fire protection, police protection and schools would be generated from the new development.

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

Fire impact fees would be collected at the time of building permit approval.

16. Utilitiesa. Circle utilities currently available at the site: [help]

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

b. 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. [help]

Wire utilities comprising electricity, (PSE), telephone and internet (Comcast or Frontier), television cable (Comcast or Frontier), and fiber optic will be installed underground to serve this residential plat from existing utilities available in the Orchard Avenue/Cherry Lane right of way. Natural gas by Cascade Natural Gas Corporation. City of Anacortes water for fire protection and domestic water services will involve the installation of water lines of 8-inch and 4-inch in diameter within the proposed right of way for this project. Sanitary sewer main piping being 8-inch in diameter will be constructed to convey all sewage northerly from the new lots to the City of Anacortes's sewer system located north of this property. For the purposes of storm drainage, pipe diameters up to 12-inch diameter will be used to serve this plat.

C. SIGNATURE [HELP]

I certify (or declare) under penalty of perjury under laws of the State of Washington that 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 a decision.

Signature: Anna Marie Nelson

Name of signee Anna Marie Nelson

Position and Agency/Organization Land Development Project Manager, Landed Gentry

Date Submitted: May 7, 2020



Ravnik & Associates, Inc.
CIVIL ENGINEERING & LAND-USE PLANNING
163 LINDAWOOD LANE/20, BOX 361
BURLINGTON, VA 22203
TEL: (660) 707-2646 FAX: (660) 707-2245

SHEET DESCRIPTION:
**CHERRY COURT
SHORT PLAT
FOR
LANDED GENTRY HOMES
SW 1/4 SECTION 25, T. 35 N., R. 1 E., W.M.**

SCALE: N.T.S.
DRAWN BY: DLR
JOB NO. 19013
DATE: 04.29.20

AERIAL PHOTO

Note to reader: This report was prepared for a prior Boundary Line Adjustment application that was subsequently withdrawn. It is provided with this Short Plat application as a portion of the existing culverted Ace of Heart Creek is located on the site proposed to be subdivided as shown on Short Plat Sheet 3 of 4.

CRITICAL AREA REPORT WITH HABITAT ASSESSMENT

FOR

CHERRY COURT

Bachman Environmental Job No. 1945

December 10, 2019

Prepared for:

Corner 9 Properties, LLC
Attn: Anna Nelson
504 E. Fairhaven Ave
Burlington, WA 98233

BY:



Bachman Environmental, LLC

P.O. Box 471 • Anacortes, WA 98221
Ph. 206.963.2909 • andrea@bachmanenvironmental.com

City of Anacortes
*Planning, Community &
Economic Development*

Date Received:

5/7/20

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1.0 INTRODUCTION

1.1 PURPOSE OF REPORT

Bachman Environmental undertook this critical area report to document regulated critical areas required by the city of Anacortes Critical Areas Regulations (CAR) Chapter 17.70. The purpose of this assessment is to evaluate the site conditions for a proposed boundary line adjustment application, to ensure that environmental impacts are avoided.

1.2 SITE LOCATION

The 4.37-acre site consists of three parcels, labeled as Parcel A (P32080), Parcel B (P32081), and Parcel C (P32077) on associated plans. The address for Parcel A is 4302 H Avenue in the city of Anacortes, WA (within a portion of Section 25, Township 35N, Range 1E, W.M.).

1.3 PROJECT DESCRIPTION

The applicant is proposing a boundary line adjustment. Parcel A will retain an existing house and barn as well as a segment of Ace of Hearts Creek and its 50-foot protective buffer. Parcel B, which contains a portion of Ace of Hearts Creek in a culvert, will remain generally the same. Parcel C, the westernmost parcel, will be the largest parcel. This proposal results in no impact on critical areas or regulated buffers.

2.0 METHODS

2.1 REVIEW OF EXISTING INFORMATION

The following information was considered as background information before beginning fieldwork:

- *Google Earth*
- *Skagit County iMap*
- *WDFW PHS on the web*
- *WDNR Forest Practices Application Review System (FPARS) water type map*
- *USDA NRCS Web Soil Survey (on GoogleEarth)*
- *USFWS National Wetland Inventory Maps*

2.2 CRITICAL AREA IDENTIFICATION

The ordinary high water mark (OHWM) is identified using the methodology described in the Washington State Department of Ecology document *Determining the Ordinary High Water Mark for Shoreline Management Act Compliance in Washington State* (October 2016 Final Review) (Publication no. 16-06-029).

Wetland areas are determined using the routine determination approach described in the Corps of Engineers Wetlands Delineation Manual (Environmental Laboratory 1987) and the Regional Supplement to the Corps of Engineers Wetland Delineation Manual: Western Mountains, Valleys, and Coast Region (Version 2.0) (U.S. Army Corps of Engineers 2010). To be considered a wetland, an area must have hydrophytic vegetation, hydric soils, and wetland hydrology.

2.3 CLASSIFICATION AND REGULATIONS

Bachman Environmental utilized the city of Anacortes Critical Areas Regulations, Chapter 17.70, for determining critical area classifications and regulatory requirements.

2.4 FIELD INVESTIGATION

Bachman Environmental performed a field reconnaissance of the subject site on October 3, 2019. During the site visit, the sky was generally clear, and the temperature was about 58 degrees Fahrenheit.

The reconnaissance covered all three parcels and off-site areas that could be observed on the subject property and from public roads. Bachman Environmental also used aerial photograph interpretation and published inventories to assess off-site conditions. Bachman Environmental did not access or field-verify off-site conditions beyond what could be observed from public roads and across property or fence lines. Critical areas could occur in the areas that could not be physically observed or have not been inventoried.

3.0 RESULTS

3.1 SITE DESCRIPTION

The subject property is surrounded by single-family residential land use. It contains an existing single-family home with associated outbuildings in the eastern part of Parcel A. The remainder of the site is cleared of vegetation and comprised of a horse pasture with electric fencing throughout.

Tightly grazed pasture species dominate the site. Identifiable dominant species included colonial bentgrass (*Agrostis capillaris*, FAC), Kentucky bluegrass (*Poa pratensis*, FAC), narrow-leaf plantain (*Plantago lanceolata*, FACU) and Canada thistle (*Cirsium arvense*, FACU).

No wetlands were identified on the site. A stream known as Ace of Hearts Creek flows north through the eastern portion of the site. The stream top of bank is generally 1-foot from the centerline of the stream.

3.2 TOPOGRAPHY AND MAPPED SOILS

The site is situated on a gentle northwestern facing slope.

The NRCS Web Soil Survey maps the site as Bow gravelly loam, dry, 0 to 3 & 3 to 8 percent slopes. The Bow gravelly loam series is described as deep and somewhat poorly drained soil on hillslopes and terraces. It is listed as a hydric soil in Washington State.

3.3 FISH AND WILDLIFE HABITAT CONSERVATION AREAS

Ace of Hearts Creek flows north through approximately the center of Parcel A and the panhandle of Parcel B. This creek is designated as a FWHCA according to the critical areas regulations, Chapter 17.70.540.A.3.7.a. It is dedicated a **50-foot buffer** from the top of the bank.

3.4 HABITAT ASSESSMENT

Ace of Hearts Creek is perennial, less than 2-feet between the bankfull widths with a mud bottom. It was dry at the time of the October 3rd site visit. The portion of the stream on Parcel B is

culverted. It does not support fish habitat. The headwater is Heart Lake, approximately one-half mile to the south. The stream flows through forested riparian areas and wetlands before entering the subject site.

The on-site segment is degraded. Vegetation along the riparian corridor is established with a dominance of creeping buttercup (*Ranunculus repens*, FACW) and bindweed (*Convolvulus arvensis*, UPL) in the channel, and Himalayan blackberry (*Rubus armeniacus*, FAC) cut-leaf blackberry (*Rubus laciniatus*, FACU) and grazed pasture grasses above the top of the bank.

There are no species of local importance, priority species, or endangered, threatened, sensitive, or candidate species that have a primary association with Ace of Hearts Creek. Also, there are no federal, state, or local special management recommendations associated with the creek.

No direct or potential indirect impacts are expected on Ace or Hearts Creek or its buffer because the proposed boundary line adjustment is designed to avoid it altogether. This will be achieved by a boundary line adjustment that retains the creek channel and its buffer all on Parcel A. There are no changes to the creek on Parcel B. Since the project does not propose any in-water work of any kind, it requires no mitigation measures and no other agency reviews are required.

Conclusion

Based on the results of the assessment and the proposed boundary line adjustment lot layout, no impacts to Ace of Hearts Creek or its buffer are anticipated. This report, therefore, meets the requirements for critical areas reporting under the Anacortes CAR Chapter 17.70.

4.0 USE OF THIS REPORT

This Critical Areas Report is supplied to Corner 9 Properties as required by the city of Anacortes during the permitting process.

Bachman Environmental utilized the Anacortes Critical Areas Regulations for guidance and conformed to the accepted standards and methods employed by ecologists in Western Washington. The analysis and conclusions supplied in this report represent the author's best professional judgment based on readily observable conditions and information provided by the project proponent during the study. No attempt has been made to determine hidden or concealed conditions. The laws applicable to critical areas are subject to varying interpretations. They may be changed at any time by the courts or legislative bodies.

Should you have any questions or concerns relating to the findings of this report, please feel free to call at (206) 963-2909.



Andrea Bachman, PWS

Date Received:

5/7/20

SUBDIVISION GUARANTEE
SCHEDULE A

Liability: \$ 2,000.00

Policy No.: 5003353-0002737e

Dated: March 13, 2020 at 8:00 A.M.

Order No.: 01-177292-F

Fee: \$350.00

Tax: \$29.75

Name of Assured:

LANDED GENTRY REALTY & DEVELOPMENT

The assurances referred to on the face page are:

That, according to those public records which, under the recording laws, impart constructive notice of matters relative to the following described real property:

(See Schedule "A-1," attached.)

Title to said real property is vested in:

RONALD V. BAYEK, who also appears of record as RONALD V. BAYEK, SR., and RONALD V. BAYEK, JR., each as their separate property, in indeterminate interests

subject to the matters shown below under Exceptions, which Exceptions are not necessarily shown in the order of their priority.

EXCEPTIONS:

1. Taxes or assessments which are not shown as existing liens by the records of any taxing authority that levies taxes or assessments on real property or by the public records.
2. Unpatented mining claims; reservations or exceptions in the United States Patents or in Acts authorizing the issuance thereof; water rights, claims or title to water.
3. Title to any property beyond the lines of the real property expressly described herein, or title to streets, roads, avenues, lanes, ways or waterways on which such real property abuts, or the right to maintain therein vaults, tunnels, ramps, or any other structure or improvement; or any rights or easements therein unless such property, rights or easements are expressly and specifically set forth in said description.
4. Until disbursement has occurred in the subject transaction, the Company reserves the right to raise exceptions and requirements or determine that it will not issue a title policy based upon the details of the transaction, the review of the closing documents, and changes in recording and title searching capabilities resulting from the COVID-19 virus and its impact on the applicable county recording offices.

SUBDIVISION GUARANTEE

Order No.: 01-177292-F

Policy No. 5003353-0002737e

SCHEDULE A

EXCEPTIONS CONTINUED:

5. General taxes, together with interest, penalty and statutory foreclosure costs, if any, first half delinquent May 1, 2020, if unpaid, second half delinquent November 1, 2020, if unpaid:

<u>Account No.</u>	<u>Year</u>	<u>Amount Billed</u>	<u>Amount Paid</u>	<u>Balance Owning</u>
350125-3-091-0009	2020	\$2,538.68	\$1,269.38	\$1,269.30

Property I.D. No.: P32077

6. Municipal assessments and impact fees, if any, levied by the City of Anacortes.
7. Unrecorded leaseholds, if any; rights of vendors and holders of security interests on personal property installed upon said Land, and rights of tenants to remove trade fixtures at the expiration of the term.
8. Easements, restrictions, and other matters shown on Schedule "B-1" attached are also excepted from coverage. The easements, restrictions and other matters shown as lettered exceptions on Schedule "B-1" are excepted from policy coverage to the same extent that the numbered Schedule "B" Special Exceptions shown herein are excepted from policy coverage.

NOTE #1: EFFECTIVE JANUARY 1, 1997, AND PURSUANT TO AMENDMENT OF WASHINGTON STATE STATUTES RELATING TO STANDARDIZATION OF RECORDED DOCUMENTS, THE FOLLOWING FORMAT AND CONTENT REQUIREMENTS MUST BE MET. FAILURE TO COMPLY MAY RESULT IN REJECTION OF THE DOCUMENTS BY THE RECORDER.

Margins to be 3" on top of first page and 1" on sides and bottom, 1" on top, sides and bottom of each succeeding page. Font size of 8 points or larger, paper size of no more than 8 1/2" by 14". No attachments on pages such as stapled or taped notary seals, pressure seals must be smudged.

INFORMATION WHICH MUST APPEAR ON THE FIRST PAGE

Title or titles of documents. If assignment or reconveyance, reference to auditor's file number of subject deed of trust must be included. Names of grantor(s) and grantee(s) with reference to additional names on following pages, if any.
Abbreviated legal description (lot, block, volume/page of plat or section/township/range and quarter section or government lot for unplatted).
Assessor's tax parcel number(s). Return address which may appear in the upper left hand 3" top margin.

Pursuant to item c.) above, the abbreviated legal description for the subject property is as follows:

Ptn SE 1/4 SW 1/4, 25-35-1 E W.M.

SUBDIVISION GUARANTEE

Order No.: 01-177292-F

Policy No. 5003353-0002737e

SCHEDULE A

EXCEPTIONS CONTINUED:

NOTE #2: The property description included herein is based upon the application for Title Insurance. Before any instrument(s) pertaining to this property is/are prepared, the description should be verified and approved by all parties.

NOTE #3: The attached 'Affidavit of Understanding and Indemnity and Hold Harmless Agreement due to the Covid-19 Emergency' must be executed by the transaction parties. Said instrument must be executed before a Notary Public and submitted to this company PRIOR to closing.

NOTE #4: Unless otherwise specified, this Company has assigned this file to the following Underwriter for the policy to issue: First American Title Company.

Schedule "A-1"

Order No.: 01-177292-F
Policy No.: 5003353-0002737e

DESCRIPTION:

The East Half of the Southeast Quarter of the Southwest Quarter of Section 25, Township 35 North, Range 1 East, W.M.;

EXCEPT the South 165 feet thereof;

ALSO EXCEPT the North 759 feet thereof;

ALSO EXCEPT the East 336 feet thereof;

TOGETHER WITH that portion of the East Half of the Southeast Quarter of the Southwest Quarter of Section 25, Township 35 North, Range 1 East, W.M., described as follows:

Beginning at a point on the East line of said Southeast Quarter of the Southwest Quarter which is 290 feet North of the Southeast corner of said Southeast Quarter of the Southwest Quarter;
thence North along said East line of 16 feet;
thence West 336 feet;
thence South parallel with the East line of said Southeast Quarter of the Southwest Quarter 16 feet, more or less, to a point due West of the point of beginning;
thence East to the point of beginning;

EXCEPT right-of-way for public road along the East boundary thereof, known as Avenue H or Heart Lake Road.

Situate in the County of Skagit, State of Washington.

EXCEPTIONS:

A. EASEMENT AND THE TERMS AND CONDITIONS THEREOF:

Grantee:	Gary Eugene Wollam and Carrie Wollam
Purpose:	Underground electric system
Area Affected:	Portion of subject property
Dated:	March 31, 1981
Recorded:	April 10, 1981
Auditor's No.:	8104100027

B. MATTERS DISCLOSED BY RECORD OF SURVEY:

Recorded:	May 28, 1981
Auditor's File No.:	8105280025

C. MATTERS DISCLOSED BY RECORD OF SURVEY:

Recorded:	July 11, 1995
Auditor's File No.:	9507110020

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642677
WARRANTY DEED

The Grantors, ED J. STONACK and EVA E. STONACK, husband and wife, of Route 3, Box 747, Anacortes, Skagit County, Washington, for and in consideration of the sum of Sixteen Thousand Five Hundred Dollars (\$16,500.00) in hand paid, receipt whereof is hereby acknowledged, hereby convey and warrant unto GENE C. WOLLAM and ELSIE D. WOLLAM, husband and wife, of Route 3, Box 164, Anacortes, Skagit County, Washington, the following described real estate, situated in the County of Skagit, State of Washington, to-wit:

PARCEL "A": That portion of the Southeast $\frac{1}{4}$ of the Southwest $\frac{1}{4}$ of Section 25, Township 35 North, Range 1 East of W.M., described as follows:

Beginning at a point on the East line of said SE $\frac{1}{4}$ of the SW $\frac{1}{4}$ which is 306 feet North of the Southeast corner of said SE $\frac{1}{4}$ of the SW $\frac{1}{4}$; thence North along said East line to a point 759 feet South of the Northeast corner of said SE $\frac{1}{4}$ of the SW $\frac{1}{4}$; thence West 336 feet; thence South parallel to the East line of said SE $\frac{1}{4}$ of the SW $\frac{1}{4}$ to a point due West of the point of beginning; thence East to the point of beginning. EXCEPT road.

PARCEL "B": The East $\frac{1}{2}$ of the Southeast $\frac{1}{2}$ of the Southwest $\frac{1}{4}$ of Section 25, Township 35 North, Range 1 East W.M., EXCEPT the South 165 feet thereof, EXCEPT the North 759 feet thereof; EXCEPT the East 336 feet thereof, and EXCEPT road.

AIS 0 that portion of the East $\frac{1}{2}$ of the Southeast $\frac{1}{4}$ of the Southwest $\frac{1}{4}$ of Section 25, Township 35 North, Range 1 East W.M. described as follows:

Beginning at a point on the East line of said Southeast $\frac{1}{4}$ of the Southwest $\frac{1}{4}$ which is 290 feet North of the Southeast corner of said Southeast $\frac{1}{4}$ of the Southwest $\frac{1}{4}$; thence North along said East line 16 feet; thence West 336 feet; thence South 16 feet; thence East 336 feet to the point of beginning: EXCEPT road:

together with all and singular the tenements, hereditaments and appurtenances thereunto belonging or in any wise appertaining.

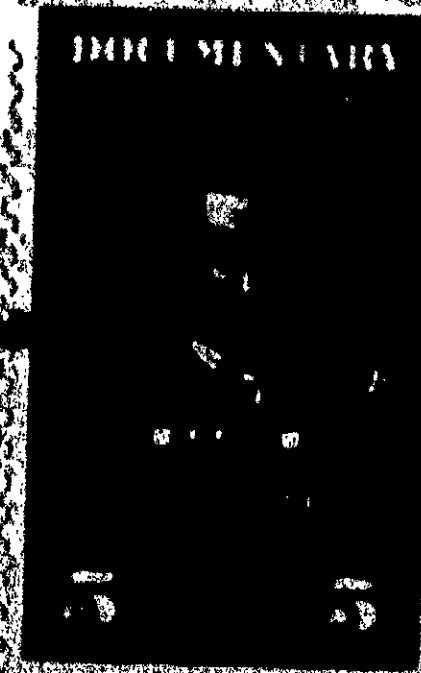
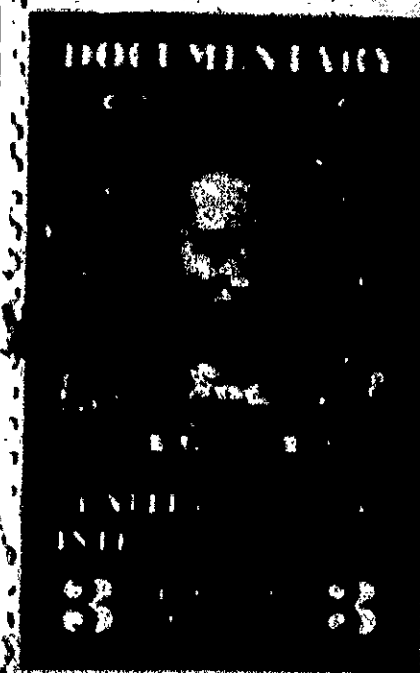
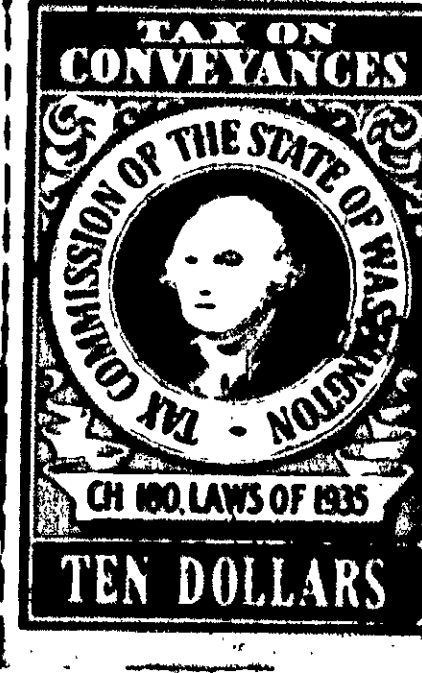
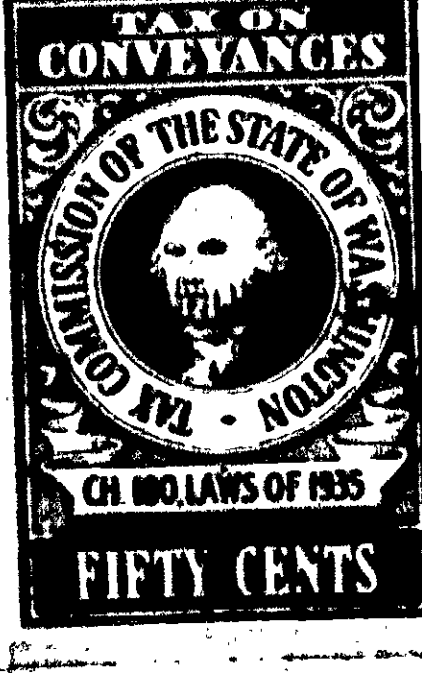
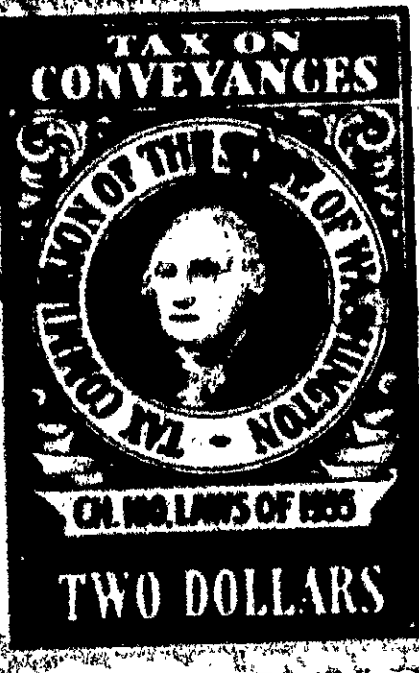
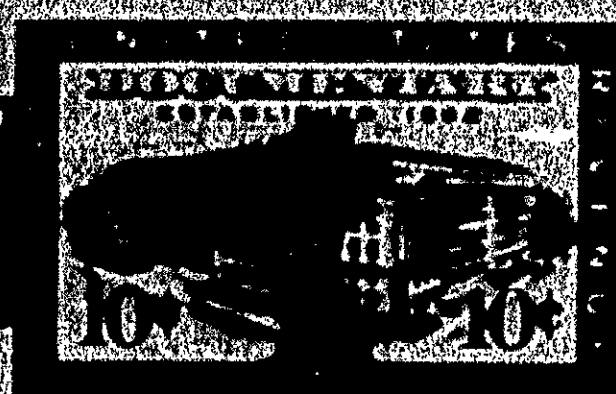
Dated this 31st day of October 1963

En 28 tarock

(SEAL)

Eva G. Stonack

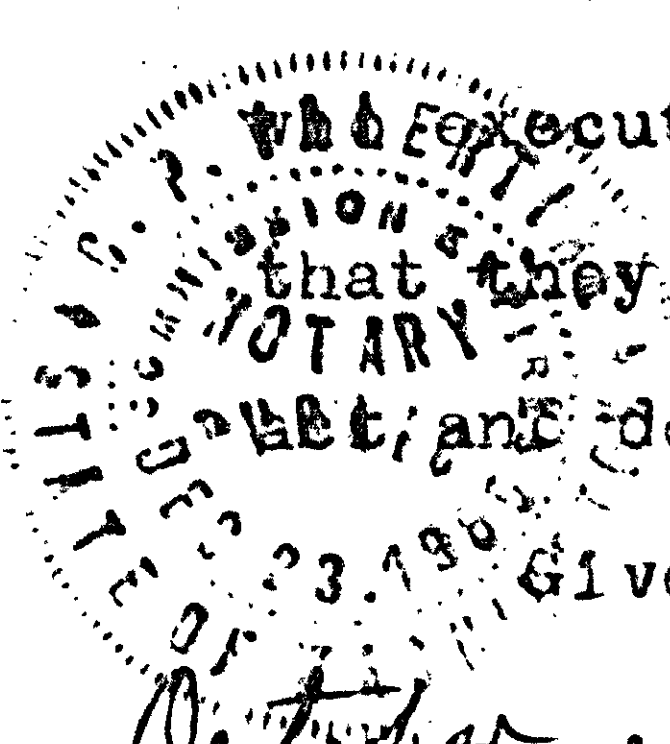
(SEAL)



STATE OF WASHINGTON)
COUNTY OF SKAGIT) :SS

On this day personally appeared before me Ed J. Stonack and
Eva E. Stonack, to me known to be the individuals described in and
who executed the within and foregoing instrument, and acknowledged
that they signed and sealed the same as their free and voluntary
act and deed, for the uses and purposes therein mentioned.

Given under my hand and official seal this 30th day of
October, 1963.


Ed J. Stonack
Notary Public in and for the State of
Washington, residing at Anacortes

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Date Received:

5/7/20

Lot Closure Report - Lot : LOT 1

=====
file- P:\2019 Jobs\19-130\mscad\19-130 SP.msj\lc_LOT 1.txt
Monday, April 6, 2020, 2:59:22p.m.

Starting location (North, East) = (5094.2402, 17230.8014)

(In the table below, the Length of Curves refers to the chord length.
and the Bearing of Curves refers to the chord bearing.)

Leg	Segment	Bearing	Length	Front	End_Northing	End_Easting
---	-----	-----	-----	-----	-----	-----
1	Line	S88°59'27"E	123.0000	No	5092.0738	
17353.7823						
2	Line	S01°29'39"W	137.9600	No	4954.1607	
17350.1850						
3	Line	N88°59'27"W	123.0000	No	4956.3271	
17227.2041						
4	Line	N01°29'39"E	137.9600	No	5094.2402	
17230.8014						

Ending location (North, East) = (5094.2402, 17230.8014)

Total Distance : 521.9200
Total Traverse Stations : 5
Misclosure Distance : < 0.001000
Error of Closure : 1:INFINITY
Frontage : 0.0000
Frontage/Perimeter : 0.0 percent
AREA : 16968.472 sq. ft.
= 0.389543 Acres

Lot Closure Report - Lot : LOT 2

=====

file- P:\2019 Jobs\19-130\mscad\19-130 SP.msj\lc_LOT 2.txt
Tuesday, April 7, 2020, 10:06:45a.m.

Starting location (North, East) = (4958.4940, 17104.2231)

(In the table below, the Length of Curves refers to the chord length.
and the Bearing of Curves refers to the chord bearing.)

Leg	Segment	Bearing	Length	Front	End_Northing	End_Easting
---	-----	-----	-----	-----	-----	-----
1	Line	S88°59'27"E	123.0000	No	4956.3277	
17227.2040						
2	Line	S01°29'39"W	68.9400	No	4887.4112	
17225.4064						
3	Curve	S35°31'47"E	26.5715	No	4865.7869	
17240.8478						
ARC= 26.8946, RAD= 50.0000, DELTA= 30°49'08"						
BC_TO_RAD= N69°52'47"E						
RAD_TO_EC= S39°03'39"W						
SUBTRACT_ARC_AREA = 31.9563						
4	Line	S01°29'39"W	44.1400	No	4821.6619	
17239.6968						
5	Line	N89°32'05"W	139.0200	No	4822.7908	
17100.6814						
6	Line	N01°29'39"E	135.7500	No	4958.4947	
17104.2211						

Ending location (North, East) = (4958.4947, 17104.2211)

Total Distance : 537.7446
Total Traverse Stations : 7
Misclosure Direction : S72°43'44"E (from ending location to starting location)
Misclosure Distance : 0.0021
Error of Closure : 1:256692.9
Frontage : 0.0000
Frontage/Perimeter : 0.0 percent
AREA : 17471.331 sq. ft. (straight segment added to close traverse)
= 0.401087 Acres

Lot Closure Report - Lot : LOT 3

=====

file- P:\2019 Jobs\19-130\mscad\19-130 SP.msj\lc_LOT 3.txt
Tuesday, April 7, 2020, 10:08:55a.m.

Starting location (North, East) = (4822.7958, 17100.5937)

(In the table below, the Length of Curves refers to the chord length.
and the Bearing of Curves refers to the chord bearing.)

Leg	Segment	Bearing	Length	Front	End_Northing	End_Easting
---	-----	-----	-----	-----	-----	-----
1	Line	S89°32'05"E	139.0200	No	4821.6669	
17239.6091						
2	Line	S01°29'39"W	120.0200	No	4701.6877	
17236.4796						
3	Line	N89°32'05"W	139.0200	No	4702.8166	
17097.4642						
4	Line	N01°29'39"E	120.0200	No	4822.7958	
17100.5937						

Ending location (North, East) = (4822.7958, 17100.5937)

Total Distance : 518.0800
Total Traverse Stations : 5
Misclosure Distance : < 0.001000
Error of Closure : 1:INFINITY
Frontage : 0.0000
Frontage/Perimeter : 0.0 percent
AREA : 16682.490 sq. ft.
= 0.382977 Acres

Lot Closure Report - Lot : LOT 4

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file- P:\2019 Jobs\19-130\mscad\19-130 SP.msj\lc_LOT 4.txt
Tuesday, April 7, 2020, 10:11:58a.m.

Starting location (North, East) = (4865.7901, 17240.8523)

(In the table below, the Length of Curves refers to the chord length.
and the Bearing of Curves refers to the chord bearing.)

Leg	Segment	Bearing	Length	Front	End_Northing	End_Easting
---	-----	-----	-----	-----	-----	-----
1	Curve	S61°18'10"E	17.9897	No	4857.1519	
17256.6323						
ARC= 18.0882, RAD= 50.0000, DELTA= 20°43'39"						
BC_TO_RAD= N39°03'39"E						
RAD_TO_EC= S18°20'00"W						
SUBTRACT_ARC_AREA = 9.7992						
2	Line	S01°29'39"W	55.6300	No	4801.5408	
17255.1817						
3	Line	S89°32'05"E	178.4400	No	4800.0917	
17433.6159						
4	Line	S01°30'24"W	100.0200	No	4700.1063	
17430.9860						
5	Line	N89°32'05"W	194.4200	No	4701.6851	
17236.5724						
6	Line	N01°29'39"E	120.0200	No	4821.6643	
17239.7020						
7	Line	N01°29'39"E	44.1400	No	4865.7893	
17240.8529						

Ending location (North, East) = (4865.7893, 17240.8529)

Total Distance : 710.7582
Total Traverse Stations : 8
Misclosure Direction : N37°39'55"W (from ending location to starting location)
Misclosure Distance : 0.0010
Error of Closure : 1:685526.1
Frontage : 0.0000
Frontage/Perimeter : 0.0 percent
AREA : 20392.090 sq. ft. (straight segment added to close traverse)
= 0.468138 Acres

Lot Closure Report - Lot : LOT 5

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file- P:\2019 Jobs\19-130\mscad\19-130 SP.msj\lc_LOT 5.txt
 Tuesday, April 7, 2020, 10:17:02a.m.

Starting location (North, East) = (4931.0458, 17314.8020)

(In the table below, the Length of Curves refers to the chord length.
 and the Bearing of Curves refers to the chord bearing.)

Leg	Segment	Bearing	Length	Front	End_Northing	End_Easting
---	-----	-----	-----	-----	-----	-----
1	Line	S89°32'05"E	122.2400	No	4930.0531	
17437.0379						
2	Line	S01°30'24"W	89.0000	No	4841.0839	
17434.6978						
3	Line	S89°32'05"E	306.0500	No	4838.5986	
17740.7378						
4	Line	S01°30'24"W	16.0000	No	4822.6041	
17740.3171						
5	Line	N89°32'05"W	306.0500	No	4825.0894	
17434.2772						
6	Line	S01°30'24"W	25.0100	No	4800.0881	
17433.6196						
7	Line	N89°32'05"W	178.4400	No	4801.5371	
17255.1854						
8	Line	N01°29'39"E	55.6300	No	4857.1482	
17256.6360						
9	Curve	N38°12'36"E	94.0427	No	4931.0421	
17314.8057						

ARC= 122.3883, RAD= 50.0000, DELTA= 140°14'48"

BC_TO_RAD= N18°20'00"E

RAD_TO_EC= N58°05'12"E

SUBTRACT_ARC_AREA = 2260.3530

Ending location (North, East) = (4931.0421, 17314.8057)

Total Distance : 1220.8083
 Total Traverse Stations : 10
 Misclosure Direction : N45°15'47"W (from ending location to starting location)
 Misclosure Distance : 0.0052
 Error of Closure : 1:234374.6
 Frontage : 0.0000
 Frontage/Perimeter : 0.0 percent
 AREA : 23741.610 sq. ft. (straight segment added to close
 traverse)
 = 0.545032 Acres

Lot Closure Report - Lot : LOT 6

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file- P:\2019 Jobs\19-130\mscad\19-130 SP.msj\lc_LOT 6.txt

Tuesday, April 7, 2020, 10:20:07a.m.

Starting location (North, East) = (5093.6768, 17262.8020)

(In the table below, the Length of Curves refers to the chord length.
and the Bearing of Curves refers to the chord bearing.)

Leg	Segment	Bearing	Length	Front	End_Northing	End_Easting
---	-----	-----	-----	-----	-----	-----
1	Line	S88°59'27"E	100.0000	No	5091.9156	
17362.7865						
2	Line	S01°29'34"W	161.2800	No	4930.6903	
17358.5851						
3	Line	N89°32'05"W	43.7800	No	4931.0458	
17314.8065						
4	Curve	N56°10'47"W	41.0977	No	4953.9205	
17280.6631						
ARC= 42.3526, RAD= 50.0000, DELTA= 48°31'57"						
BC_TO_RAD= S58°05'12"W						
RAD_TO_EC= N09°33'15"E						
SUBTRACT_ARC_AREA = 122.1506						
5	Curve	N39°28'33"W	32.7832	No	4979.2256	
17259.8211						
ARC= 35.7531, RAD= 25.0000, DELTA= 81°56'24"						
BC_TO_RAD= N09°33'15"E						
RAD_TO_EC= N88°30'21"W						
ADD_ARC_AREA = 137.5003						
6	Line	N01°29'39"E	114.4900	No	5093.6767	
17262.8064						

Ending location (North, East) = (5093.6767, 17262.8064)

Total Distance : 497.6557

Total Traverse Stations : 7

Misclosure Direction : N88°07'29"W (from ending location to starting location)

Misclosure Distance : 0.0044

Error of Closure : 1:112432.2

Frontage : 0.0000

Frontage/Perimeter : 0.0 percent

AREA : 15041.450 sq. ft. (straight segment added to close traverse)

= 0.345304 Acres

Lot Closure Report - Lot : TRACT Y

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file- P:\2019 Jobs\19-130\mscad\19-130 SP.ms\lc_TRACT Y.txt
 Tuesday, April 7, 2020, 10:29:06a.m.

Starting location (North, East) = (5091.9157, 17362.7901)

(In the table below, the Length of Curves refers to the chord length.
 and the Bearing of Curves refers to the chord bearing.)

Leg	Segment	Bearing	Length	Front	End_Northing	End_Easting
---	-----	-----	-----	-----	-----	-----
1	Line	S88°59'27"E	78.4800	No	5090.5335	
17441.2579						
2	Line	S01°30'24"W	160.5400	No	4930.0490	
17437.0368						
3	Line	N89°32'05"W	78.4500	No	4930.6861	
17358.5894						
4	Line	N01°29'39"E	161.2800	No	5091.9112	
17362.7948						

Ending location (North, East) = (5091.9112, 17362.7948)

Total Distance : 478.7500
 Total Traverse Stations : 5
 Misclosure Direction : N46°14'44"W (from ending location to starting location)
 Misclosure Distance : 0.0065
 Error of Closure : 1:73624.5
 Frontage : 0.0000
 Frontage/Perimeter : 0.0 percent
 AREA : 12624.327 sq. ft. (straight segment added to close
 traverse)
 = 0.289815 Acres

Lot Closure Report - Lot : CHERRY CT

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file- P:\2019 Jobs\19-130\mscad\19-130 SP.msj\lc_CHERRY CT.txt
Tuesday, April 7, 2020, 10:41:47a.m.

Starting location (North, East) = (5094.2403, 17230.8058)

(In the table below, the Length of Curves refers to the chord length.
and the Bearing of Curves refers to the chord bearing.)

Leg	Segment	Bearing	Length	Front	End_Northing	End_Easting
---	-----	-----	-----	-----	-----	-----
1	Line	S88°59'27"E	32.0000	No	5093.6767	
17262.8009						
2	Line	S01°29'39"W	114.4900	No	4979.2257	
17259.8155						
3	Curve	S39°28'33"E	32.7832	No	4953.9206	
17280.6575						
ARC= 35.7531, RAD= 25.0000, DELTA= 81°56'24"						
BC_TO_RAD= S88°30'21"E						
RAD_TO_EC= S09°33'15"W						
SUBTRACT_ARC_AREA = 137.5003						
4	Curve	S56°10'47"E	41.0977	No	4931.0459	
17314.8009						
ARC= 42.3526, RAD= 50.0000, DELTA= 48°31'57"						
BC_TO_RAD= S09°33'15"W						
RAD_TO_EC= N58°05'12"E						
ADD_ARC_AREA = 122.1506						
5	Curve	S38°12'36"W	94.0427	No	4857.1520	
17256.6313						
ARC= 122.3883, RAD= 50.0000, DELTA= 140°14'48"						
BC_TO_RAD= S58°05'12"W						
RAD_TO_EC= S18°20'00"W						
ADD_ARC_AREA = 2260.3530						
6	Curve	N61°18'10"W	17.9897	No	4865.7902	
17240.8513						
ARC= 18.0882, RAD= 50.0000, DELTA= 20°43'39"						
BC_TO_RAD= N18°20'00"E						
RAD_TO_EC= S39°03'39"W						
ADD_ARC_AREA = 9.7992						
7	Curve	N35°31'47"W	26.5715	No	4887.4145	
17225.4099						
ARC= 26.8946, RAD= 50.0000, DELTA= 30°49'08"						
BC_TO_RAD= N39°03'39"E						
RAD_TO_EC= S69°52'47"W						
ADD_ARC_AREA = 31.9563						
8	Line	N01°29'39"E	68.9400	No	4956.3311	
17227.2075						
9	Line	N01°29'39"E	137.9600	No	5094.2442	
17230.8048						

Ending location (North, East) = (5094.2442, 17230.8048)

Total Distance : 598.8667
Total Traverse Stations : 10
Misclosure Direction : S14°25'32"E (from ending location to starting location)
Misclosure Distance : 0.0039
Error of Closure : 1:151910.7
Frontage : 0.0000
Frontage/Perimeter : 0.0 percent
AREA : 12725.907 sq. ft. (straight segment added to close
traverse)
= 0.292147 Acres

RETURN ADDRESS:

Puget Sound Energy, Inc.
Attn: ROW Department
1660 Park Lane
Burlington, WA 98233

REVIEWED BY
SKAGIT COUNTY TREASURER
DEPUTY Marissa Guerrero
DATE 06/12/2020

PARTIAL RELEASE OF EASEMENT

GNW M 10336

REFERENCE #: **8104100027**
GRANTOR (PSE): **Puget Sound Energy, Inc**
GRANTEE (OWNER): **LG Anacortes LLC**
SHORT LEGAL: **PTN SE ¼, SW ¼, SEC 25, T35N, R01E**
ASSESSOR'S PROPERTY TAX PARCEL: **P32077**

KNOW ALL MEN BY THESE PRESENTS that **Puget Sound Energy, Inc.**, a Washington corporation, is the owner of an easement acquired from **Gary Eugene Wollam and Carrie Wollam**, husband and wife dated **March 31, 1981**, recorded in Volume **435** of Deeds, page(s) **599-600**, under Auditor's File No. **8104100027**, records of **SKAGIT** County, Washington, over the real property described therein as follows:

SEE EXHIBIT "A" ATTACHED HERETO AND BY THIS REFERENCE MADE A PART HEREOF.

Said Company does hereby abandon and release all rights acquired under said easement in and to that portion of the above real property described as follows:

SEE EXHIBIT "B" ATTACHED HERETO AND BY THIS REFERENCE MADE A PART HEREOF.

IN WITNESS WHEREOF, said corporation has caused this instrument to be executed this 11th day of June, 20 20.

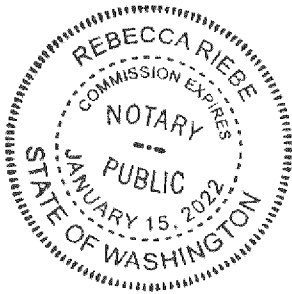
PUGET SOUND ENERGY, INC.

By: Darby Broyles
DARBY M. BROYLES, SUPERVISOR REAL ESTATE

STATE OF WASHINGTON)
) ss
 COUNTY OF SKAGIT)

On this 12 day of June, 2020, before me, the undersigned, a Notary Public in and for the State of Washington, duly commissioned and sworn, personally appeared DARBY MH BROYLES, to me known to be the person who signed as **Supervisor Real Estate**, of Puget Sound Energy, Inc. the corporation that executed the within and foregoing instrument, and acknowledged said instrument to be her free and voluntary act and deed and the free and voluntary act and deed of Puget Sound Energy, Inc. for the uses and purposes therein mentioned; and on oath stated that she was authorized to execute the said instrument on behalf of said Puget Sound Energy, Inc.

IN WITNESS WHEREOF I have hereunto set my hand and official seal the day and year first above written.



[Signature]
 (Signature of Notary)
Rebecca Riebe
 (Print or stamp name of Notary)
 NOTARY PUBLIC in and for the State of Washington,
 residing at Snahomish
 My Appointment Expires: _____

EXHIBIT "A"
(REAL PROPERTY LEGAL DESCRIPTION - WOLLAM)

PARCEL A: THAT PORTION OF THE EAST HALF OF THE SOUTHEAST QUARTER OF THE SOUTHWEST QUARTER OF SECTION 25, TOWNSHIP 35 NORTH, RANGE 1 EAST, W.M., DESCRIBED AS FOLLOWS: **BEGINNING** AT A POINT ON THE EAST LINE OF SAID SOUTHEAST QUARTER OF THE SOUTHWEST QUARTER WHICH IS 406 FEET NORTH OF THE SOUTHEAST CORNER OF SAID SOUTHEAST QUARTER OF THE SOUTHWEST QUARTER; THENCE NORTH ALONG SAID EAST LINE TO A POINT 759 FEET SOUTH OF THE NORTHEAST CORNER OF SAID SOUTHEAST QUARTER OF THE SOUTHEAST QUARTER; THENCE WEST 336 FEET; THENCE SOUTH PARALLEL TO THE EAST LINE OF SAID SOUTHEAST QUARTER OF THE SOUTHWEST QUARTER TO A POINT DUE WEST OF THE POINT OF BEGINNING; THENCE EAST TO THE POINT OF BEGINNING.

PARCEL B: THE EAST HALF OF THE SOUTHEAST QUARTER OF THE SOUTHWEST QUARTER OF SECTION 25, TOWNSHIP 35 NORTH, RANGE 1 EAST, W.M., EXCEPT THE SOUTH 165 FEET THEREOF; EXCEPT THE NORTH 759 FEET THEREOF; EXCEPT THE EAST 336 FEET THEREOF; AND EXCEPT ROAD, IF ANY.

EXHIBIT "B"
(REAL PROPERTY LEGAL DESCRIPTION – LG ANACORTES LLC)

THE EAST HALF OF THE SOUTHEAST QUARTER OF THE SOUTHWEST QUARTER OF SECTION 25, TOWNSHIP 35 NORTH, RANGE 1 EAST, W.M.;

EXCEPT THE SOUTH 165 FEET THEREOF;

ALSO EXCEPT THE NORTH 759 FEET THEREOF;

ALSO EXCEPT THE EAST 336 FEET THEREOF;

TOGETHER WITH THAT PORTION OF THE EAST HALF OF THE SOUTHEAST QUARTER OF THE SOUTHWEST QUARTER OF SECTION 25, TOWNSHIP 35 NORTH, RANGE 1 EAST, W.M., DESCRIBED AS FOLLOWS:

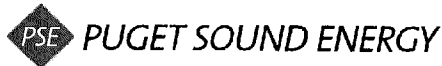
BEGINNING AT A POINT ON THE EAST LINE OF SAID SOUTHEAST QUARTER OF THE SOUTHWEST QUARTER WHICH IS 290 FEET NORTH OF THE SOUTHEAST CORNER OF SAID SOUTHEAST QUARTER OF THE SOUTHWEST QUARTER; THENCE NORTH ALONG SAID EAST LINE OF 16 FEET; THENCE WEST 336 FEET; THENCE SOUTH PARALLEL WITH THE EAST LINE OF SAID SOUTHEAST QUARTER OF THE SOUTHWEST QUARTER 16 FEET, MORE OR LESS, TO A POINT DUE WEST OF THE POINT OF BEGINNING; THENCE EAST TO THE POINT OF BEGINNING;

EXCEPT RIGHT-OF-WAY FOR PUBLIC ROAD ALONG THE EAST BOUNDARY THEREOF, KNOWN AS AVENUE H OR HEART LAKE ROAD.

SITUATE IN COUNTY OF SKAGIT, STATE OF WASHINGTON.

RETURN ADDRESS:

Puget Sound Energy, Inc.
Attn: Real Estate/Right of Way
1660 Park Lane
Burlington, WA 98233

**EASEMENT**

GNW M 10335

REFERENCE #:
GRANTOR (Owner): **LG ANACORTES LLC**
GRANTEE (PSE): **PUGET SOUND ENERGY, INC.**
SHORT LEGAL: **PTN SE ¼, SW ¼, SEC 25, T35N, R01E**
ASSESSOR'S PROPERTY TAX PARCEL: **P32077**

REVIEWED BY
SKAGIT COUNTY TREASURER
DEPUTY Marissa Guerrero
DATE 06/11/2020

For and in consideration of good and valuable consideration, the receipt and sufficiency of which are hereby acknowledged, **LG ANACORTES LLC**, a Washington limited liability company ("Owner" herein), hereby grants and conveys to **PUGET SOUND ENERGY, INC.**, a Washington corporation ("PSE" herein), for the purposes described below, a nonexclusive perpetual easement over, under, along across and through the following described real property (the "Property" herein) in Skagit County, Washington:

SEE EXHIBIT "A" ATTACHED HERETO AND BY THIS REFERENCE MADE A PART HEREOF.

Except as may be otherwise set forth herein PSE's rights shall be exercised upon that portion of the Property ("Easement Area" herein) described as follows:

A RIGHT OF WAY TEN (10) FEET IN WIDTH WITH FIVE (5) FEET ON EACH SIDE OF A CENTERLINE DESCRIBED AS FOLLOWS:

THE CENTERLINE OF GRANTEE'S FACILITIES AS NOW CONSTRUCTED, TO BE CONSTRUCTED, EXTENDED OR RELOCATED LYING WITHIN THE ABOVE DESCRIBED PARCEL.

1. Purpose. PSE shall have the right to use the Easement Area to construct, operate, maintain, repair, replace, improve, remove, upgrade and extend one or more utility systems for purposes of transmission, distribution and sale of electricity. Such systems may include, but are not limited to:

Underground facilities. Conduits, lines, cables, vaults, switches and transformers for electricity; fiber optic cable and other lines, cables and facilities for communications; semi-buried or ground-mounted facilities and pads, manholes, meters, fixtures, attachments and any and all other facilities or appurtenances necessary or convenient to any or all of the foregoing.

Following the initial construction of all or a portion of its systems, PSE may, from time to time, construct such additional facilities as it may require for such systems. PSE shall have the right of access to the Easement Area over and across the Property to enable PSE to exercise its rights granted in this easement.

2. Easement Area Clearing and Maintenance. PSE shall have the right, but not the obligation to cut, remove and dispose of any and all brush, trees or other vegetation in the Easement Area. PSE shall also have the

no monetary consideration

right, but not the obligation, to control, on a continuing basis and by any prudent and reasonable means, the establishment and growth of brush, trees or other vegetation in the Easement Area.

3. Restoration. Following initial installation, repair or extension of its facilities, PSE shall, to the extent reasonably practicable, restore landscaping and surfaces and portions of the Property affected by PSE's work to the condition existing immediately prior to such work, unless said work was done at the request of Owner, in which case Owner shall be responsible for such restoration. All restoration which is the responsibility of PSE shall be performed as soon as reasonably possible after the completion of PSE's work and shall be coordinated with Owner so as to cause the minimum amount of disruption to Owner's use of the Property.

4. Owner's Use of Easement Area. Owner reserves the right to use the Easement Area for any purpose not inconsistent with the rights herein granted, provided, however, Owner shall not excavate within or otherwise change the grade of the Easement Area or construct or maintain any buildings or structures on the Easement Area and Owner shall do no blasting within 300 feet of PSE's facilities without PSE's prior written consent.

5. Indemnity. PSE agrees to indemnify Owner from and against liability incurred by Owner as a result of the negligence of PSE or its contractors in the exercise of the rights herein granted to PSE, but nothing herein shall require PSE to indemnify Owner for that portion of any such liability attributable to the negligence of Owner or the negligence of others.

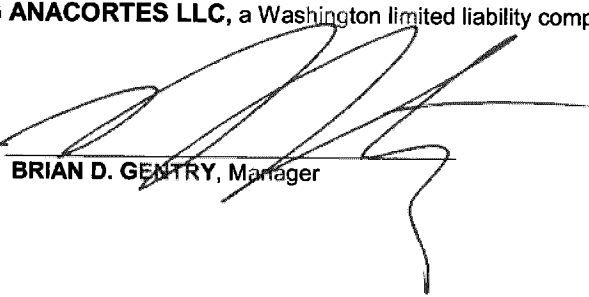
6. Termination. The rights herein granted shall continue until such time as PSE terminates such right by written instrument. If terminated, any improvements remaining in the Easement Area shall become the property of Owner. No termination shall be deemed to have occurred by PSE's failure to install its systems on the Easement Area.

7. Successors and Assigns. PSE shall have the right to assign, apportion or otherwise transfer any or all of its rights, benefits, privileges and interests arising in and under this easement. Without limiting the generality of the foregoing, the rights and obligations of the parties shall be binding upon their respective successors and assigns.

DATED this 10 day of June, 2020.

OWNER:

LG ANACORTES LLC, a Washington limited liability company

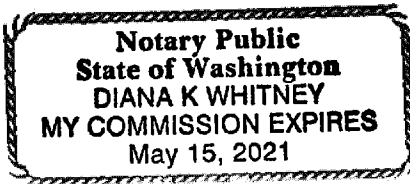
By: 

BRIAN D. GENTRY, Manager

STATE OF WASHINGTON)
) ss
 COUNTY OF SKAGIT)

On this 10th day of JUNE, 2020, before me, the undersigned, a Notary Public in and for the State of Washington, duly commissioned and sworn, personally appeared BRIAN D. GENTRY, to me known or proved by satisfactory evidence to be the person who signed as manager, of LG ANACORTES LLC, the Washington limited liability company that executed the within and foregoing instrument, and acknowledged said instrument to be their free and voluntary act and deed and the free and voluntary act and deed of said limited liability company for the uses and purposes therein mentioned; and on oath stated that they were authorized to execute the said instrument on behalf of said limited liability company.

IN WITNESS WHEREOF I have hereunto set my hand and official seal the day and year first above written.



Diana K. Whitney
 (Signature of Notary)

DIANA K. WHITNEY
 (Print or stamp name of Notary)

NOTARY PUBLIC in and for the State of Washington,
 residing at BOW, WA

My Appointment Expires: MAY 15th, 2021

Notary seal, text and all notations must not be placed within 1" margins

EXHIBIT "A"
(REAL PROPERTY LEGAL DESCRIPTION)

THE EAST HALF OF THE SOUTHEAST QUARTER OF THE SOUTHWEST QUARTER OF SECTION 25, TOWNSHIP 35 NORTH, RANGE 1 EAST, W.M.;

EXCEPT THE SOUTH 165 FEET THEREOF;

ALSO EXCEPT THE NORTH 759 FEET THEREOF;

ALSO EXCEPT THE EAST 336 FEET THEREOF;

TOGETHER WITH THAT PORTION OF THE EAST HALF OF THE SOUTHEAST QUARTER OF THE SOUTHWEST QUARTER OF SECTION 25, TOWNSHIP 35 NORTH, RANGE 1 EAST, W.M., DESCRIBED AS FOLLOWS:

BEGINNING AT A POINT ON THE EAST LINE OF SAID SOUTHEAST QUARTER OF THE SOUTHWEST QUARTER WHICH IS 290 FEET NORTH OF THE SOUTHEAST CORNER OF SAID SOUTHEAST QUARTER OF THE SOUTHWEST QUARTER; THENCE NORTH ALONG SAID EAST LINE OF 16 FEET; THENCE WEST 336 FEET; THENCE SOUTH PARALLEL WITH THE EAST LINE OF SAID SOUTHEAST QUARTER OF THE SOUTHWEST QUARTER 16 FEET, MORE OR LESS, TO A POINT DUE WEST OF THE POINT OF BEGINNING; THENCE EAST TO THE POINT OF BEGINNING;

EXCEPT RIGHT-OF-WAY FOR PUBLIC ROAD ALONG THE EAST BOUNDARY THEREOF, KNOWN AS AVENUE H OR HEART LAKE ROAD.

SITUATE IN COUNTY OF SKAGIT, STATE OF WASHINGTON.

Ravnik & Associates, Inc.

CIVIL ENGINEERING & LAND-USE PLANNING

August 6, 2020

City of Anacortes
P.O. Box 547
Anacortes, Washington 98221

City of Anacortes
Planning, Community &
Economic Development

Date Received:

8/6/20

Attention: Mr. Steve Lange
Project Manager

Reference: Cherry Court
Stormwater and Plan Review Submittal

Dear Steve:

Thank you for the plan review comments from City staff. The comments provided are listed below together with a response as to how each of these civil amendments has been addressed.

STORMWATER DRAINAGE REPORT

1. The applicant states that greater than 40 percent impervious surface coverage has existed in the F4 Basin and therefore, the detention pond was modeled using the current site conditions instead of forested conditions as the "historic" conditions. Anacortes is not shown as a location within the map located in the 2014 Ecology Manual (Appendix I-F) where 40 percent impervious area existed prior to 1986. Also, Section I-2.5.7 (Minimum Requirement 7) of the 2014 Ecology Manual notes: Where basin-specific studies determine a stream channel to be unstable-the pre-developed condition assumption shall be the "historic" land cover condition or a land cover condition commensurate with achieving a target flow regime identified by an approved basin study.

As the City's Stormwater Comprehensive Plan identified a downstream surcharged condition in the F4 Basin, the applicant shall use forested conditions as the predeveloped condition to determine the size of the detention system. All applicable details (orifice sizes, dimensions, etc.) shall be revised to reflect the new system.

Response:

We have coordinated with Steve Lange and the City of Anacortes regarding this item and the downstream condition of the F4 Basin. Since the map referred to in the manual does not extend northerly of Everett, thus does not include any city's in Skagit County, this map is not applicable and specific City drainage studies are more accurate, such as City specific Stormwater Comprehensive Plan. We have provided the updated analysis using "pasture" as the predeveloped condition as coordinated with the City. These are large lots with some flexibility, further specifics can be determined at the time of Fill and Grade Permit.

2. Under the Developed Condition Summary, the applicant mentions discounting impervious surfaces due to downspout dispersion (i.e., 50 percent roof, 50 percent landscaping); however, with the acreages provided both in this section and from the WWHM model screenshots, it appears the applicant took 100 percent of the roof area to be pervious. The area calculations shall be revised and the WWHM model shall be rerun to show 0.215 acre of roof area and 0.215 acre of landscaping for the roof areas.

Response:

Thank you for this comment. We have updated the model to note two of the house sites with dispersion over 50-feet and four house sites with dispersion over 25-feet as this will allow more flexibility for house layouts in the future. We have used the following to rerun the model analyzed runoff the current WWHM model using the following development areas:

- *0.15-acres (Two-3,200 sf house (roof drain dispersion over 50-feet) to be modeled as "Dispersed"*
- *0.29-acres (Four-3,200 sf house (roof drain dispersion over 25-feet) to be modeled at 50% "lawn" and 50% "roof"*
- *0.14-acres driveway (sheet flow dispersed over 50-feet to be modeled as "lawn")*
- *0.19-acres asphalt to be modeled as "Road" for new roadway*
- *0.05-acres sidewalk (back-sloped/dispersed to be modeled as lawn)*
- *0.50-acres of pasture (areas converted from forest to landscaping, to be modeled as "pasture" rather than lawn based on BMP T5.13)*
- *0.10-acres pond to be modeled "pond"*

In summary the following was used for the Developed Condition:

Pervious Post Developed Surfaces:

0.15-acres C/IMP/DISP/FLAT (credit for 2 new house roofs dispersed over 50-feet)
0.145-acres C,Lawn,Flat (50% credit for 4 new house roofs dispersed over 25-feet)
0.14-acres C,Lawn, Flat (driveway credit for dispersed over 50-feet)
0.05-acres C,Lawn, Flat (back-sloped sidewalk)
0.50-acres C, Pasture, Flat (credit for forest area converted to landscape per BMP T5.13)
0.17-acres C, Pasture, Flat (existing pasture to remain)
2.685-acres

Impervious Post Developed Surfaces:

0.145 acres Roof (50% for 4 new house roofs dispersed over 25-feet)
0.19-acres Road, Flat (new roadway)
0.10-acres Pond
0.435-acres

Refer to attached revised drainage report noting these areas, and the WWHM report for review.

3. Under Minimum Requirement 1, there is no discussion of an upstream analysis yet the plans show a perimeter drain around the south and west sides of the property so as to collect upstream run-on. It appears the perforated pipe used for the collection of this water is directed to the detention pond. It is recommended these flows bypass the detention pond. If this is not possible, the amount of run-on to be collected shall be calculated and verified against the capacity of the proposed outgoing pipe from the detention pond.

Response:

The upgradient sites to the south and west of this project are all residentially developed, and their stormwater has been addressed by the underlying Orchards Plat. The interceptor drains noted on the west and south sides of the site are intended to intercept any subsurface flows that may occasionally occur in this area based on our experience and the City's observations. This water is not generally quantifiable and is not anticipated to be a large flow. Routing this small amount of water to the pond will not impact its function and makes for a more cohesive and logical pipe system for maintenance, etc. The outfall pipe from the pond has the capacity to discharge up to 2.11 cfs, which is 8 times larger than is needed to discharge the anticipated runoff from the developed site (100-yr flow frequency, 801, is 0.25 cfs).

4. TESC Elements 5 through 9 and 11 through 12 shall be addressed in the report. For Element 9, note that the contractor is required to have a spill prevention kit on site at all times. Please provide the sizing of the sedimentation pond in Element 10. For Element 12, note that the project is required to have a CESCL and will need to maintain a project SWPPP for the duration of construction.

Response:

We have updated the report items 5 through 9 and 11 and 12 have been updated to reiterate how they have been addressed as requested. Additionally, the specifications sheets at the end of the civil plans add more detail. Once a contractor has been chosen a SWPPP will be prepared to more specifically address each item.

Element 9 has been updated to note that the contractor is required to have a spill prevention kit on site at all times as requested.

Element 10 does not seem to be applicable to the sedimentation pond sizing, so we have provided this calculation under Element 4, sediment control has been updated to provide the sizing of the sedimentation pond.

Element 12 previously noted "Manage the Project – Projects subject to Minimum Requirements 1-9 must have a Certified Erosion and Sediment Control Lead (CESCL) for site inspections. Projects subject to Minimum Requirements 1-5 do not require the inspector to be certified. By the initiation of construction, the SWPPP must identify the CESCL or inspector, who shall be present on-site or on-call at all times" however we have additionally added a note at the bottom of this section to again, note that the project is required to have a CESCL and will need to maintain a project SWPPP for the duration

of construction.

5. Conveyance calculations shall be provided to ensure the stormwater pipes are adequately sized.

Response:

Based on using the "developed, unmitigated (701)" 25-year storm event the site is estimated to generate a total of approximately 0.2928 cfs of flow, with the 100-year event only generating 0.4170. The flows are such that it can be noted, though no single pipe carries the entire developed, unmitigated site runoff, the pipes area sufficient and individual calculations are not needed to confirm pipe sizes.

- 6" pipe at 1.75% slope has the capacity to carry 0.80 cfs

- 8" pipe at a 0.5% slope has the capacity to convey 0.94 cfs

- 12" pipe at 0.3% slope has the capacity to convey 2.11 cfs

With this information it is clear all onsite pipes have the capacity to serve the site as designed. This information has been noted within the drainage report.

6. Calculations for an emergency overflow spillway shall be provided for the detention pond.

Response:

The emergency overflow spillway needs to be sufficient to convey up through the 100-year developed, unmitigated (701) storm event for this project is estimated to be 0.4170 cfs (developed, mitigated, 801 = 0.2585 cfs), per the WWMH modeling attached. With using the access road as the emergency overflow, it will be 12-feet wide. Based on the equation noted within the DOE Volume III Chapter 3, Section III-3.2 Detention Facilities Emergency Overflow Spillway Capacity equation, and minimum flow depth of 0.2-feet specified within this section, it will take a width of 0.63-feet to convey (overflow) during the 100-year event, DOE denoted use of this equation "or 6-feet minimum", thus the overflow spillway will have more than sufficient overflow capacity to serve this project as it will be greater than 6-ft wide. This information has been noted within the drainage report.

CIVIL ENGINEERING PLANS

Sheet 2

7. On Sheet 2, please provide the sizing calculations for a temporary sediment pond.

Response:

We have added the sizing calculations for a temporary sediment pond to sheet 2 as requested. $SA = 2 \times Q2 / 0.00096$ or 2,080 sf per cfs of inflow per DOE Volume II Chapter 4. The 2-year developed, unmitigated flow frequency (701) for this project is 0.1211 cfs while the 100-year flow frequency is 0.4170 cfs. Based on the 100-year event, only 0.4170 cfs $\times$ 2,080 sf/cfs = 867 sf of surface area would be required for the 100-year event. The 3,096 sf proposed bottom footprint exceeds this minimum area, with a larger area provided at the top of the riser structure, thus the sedimentation pond as

proposed it is sufficient.

8. A note shall also be added that the contractor shall clean out all construction sediment prior to completion of the final detention pond.

Response:

A note has been added as requested, this is also addressed within the project specifications. .

9. Typical erosion control notes shall be added.

Response:

Typical erosion control notes are located on sheet 2. Additional specifics are located on sheet 9, within the specifications. In addition a SWPPP will be prepared for this site by the contractor which will provide more detail on this item.

Sheet 3

10. Catch Basin 2 appears to be the only catch basin shown to collect runoff from the cul-de-sac area yet the contours on Sheet 5 are generally pointed away from Catch Basin 2. Likewise, Catch Basin 5 does not look adequate to collect the remaining road runoff. At a minimum, an additional catch basin should be placed west of Catch Basin 5 to ensure runoff is collected on the west side of the road. The current 6-inch perforated pipe being shown across the road could be replaced with a solid pipe. Adequate cover needs to be ensured for this pipe. In general, please ensure there are enough catch basins to appropriately collect road runoff and that the grading is appropriate.

Response:

Catch Basin #2 is intended to be a junction box, and is noted as having a solid top. The road is only 220 lineal feet long and per WSDOT standards with a slope greater than 3% CB spacing only needs to be every 300 feet, therefore CB #5 is sufficient to collect the runoff from this small amount of roadway area. The roadway only comprises 8,429 sf (0.19-acres) and it is estimated the developed, unmitigated flows will be 0.06 cfs (27 gpm) during a 100-year event based on WWHM analysis. One CB is sufficient to collect this small amount of flows.

11. Invert and rim elevations appear to be missing for Catch Basins 2 and 5.

Response:

Catch basin information for CB's 2 and 5 is located on the plan and profile sheet. We have additionally added catch basin structure information to the bottom right-hand corner of sheet 3 for all catch basins for clarity.

Sheet 6

12. Please provide a detail for the temporary sediment pond.

Response:

A cross-section detail for the sediment pond has been added to sheet 7 to provide specifics for the sedimentation pond.

Sheet 8

13. The wet pond shall be revised as follows. We encourage the engineer to look at BMP T10.10 within the Ecology Manual for exact requirements.

Response:

Thank you for the reference. Refer to responses noted below.

- a. Two cells are required per Figure V-10.3.1b of the Ecology Manual. A berm/baffle shall extend across the width of the wet pool.

Response:

This projects water quality volume is only 2,321 cf. Per detail V-10.3.1a and as noted within DOE section T10.10-wetponds with less than 4,000 cf of volume do not require a berm and can be single celled.

- b. A minimum sediment depth (beyond the water quality volume) of 1 foot shall be added.

Response:

Based on DOE BMP T10.10-Wetponds, a one celled pond must provide 6-inches of sediment storage depth. We have added this 6-inch additional sediment depth to the notes pond cross-section details on sheet 8.

- c. The location of the inlet coming from Catch Basin 6 does not allow for maximization of a flow path through the facility as it is right across from the outlet pipe. Please revise.

Response:

We have relocated the outlet from CB #6 to maximize the flow path through the facility as requested.

- d. The pond outlet pipe shall be back sloped and extend 1 foot below the water quality design water surface.

Response:

The pond outlet pipe has been updated to denote a back-sloped outlet pipe and that the outlet pipe be extended to be 1 foot below the water quality design water surface as requested. Refer to sheet 3.

- e. An outlet structure with a grated opening/birdcage should be provided within the pond so as to provide an overflow route should the outlet pipe become clogged.

Response:

An overflow riser and emergency overflow are both provided for this detention facility. We have noted the use of a jailhouse structure or bird cage overflow as requested. This info has been added to sheet 2 and detail sheet 8.

- f. An emergency spillway shall be provided per BMP T10.10.

Response:

An emergency spillway is provided at the ponds northwest corner.

- g. The pond should be moved to a minimum of 20 feet from the property line.

Response:

Per the City of Anacortes stormwater code, detention ponds are to be setback 10 feet from property lines, and can be less along ROW lines. Refer to City SWM 38 Table 4.10 setback requirements for storm drainage features. The top of the pond is greater than 10-feet from property lines.

- h. Slopes of greater than 3:1 shall necessitate fencing around the pond. See Chapter 2 of the City of Anacortes Standards for specifics on fencing.

Response:

The pond will only have one sides that will have slopes greater than 3:1, the east and sides as shown on the attached project plans. The sides where the slope is 2.5:1 rather than 3:1 will have fencing, a minimum of 4-feet high as note by DOE for ponds with less than 5-feet depth of impoundment depth. The fence can also be wood as it will be maintained by the homeowners association as allowed by DOE. This pond only proposes to hold up to 1.4-feet of dead storage (including the 0.5-of additional sedimentation depth) and 2-feet of live storage, for a total of 3.4-feet of depth at max capacity, including dead storage.

- i. A trash rack shall be provided on the pond outlet pipe.

Response:

We have specified a trash rack be installed on the pond outlet pipe.

- j. Per City of Anacortes Standards, the maximum slope of the access ramp is 12 percent.

Response:

We have updated the plans to specify 12% in lieu of the DOE standard 15%

Review Summary 1

1. Drainage Report: Please see the attached June 15, 2020 Review Summary by Gray and Osborne.

Response:

Noted. Refer to responses provided for each of their items.

2. Sheet 3: Return radius on the east side of intersection at Orchard Avenue needs to be a 25' Radius for street sweeping.

Response:

We have updated the radius to note a 25' as requested.

3. Sheet 3: Utility easement between Lot 5 and Lot 6- clarification question, a total of 20-feet to the City of Anacortes? Or 15' to the City of Anacortes and 5-feet to P32081?

Response:

We were informed that P320817 is no longer a part of this project and thus will be eliminating these utility services. The only utility that will remain will be storm drain pipe and it will be placed in a 10-foot wide easement to the City as noted.

4. Sheet 3: Utility easement between Lot 5 and Lot 6: Turning radius for vac truck to reach structures. In other areas, we have similar designs, but when the property owner constructs a fence or large retaining wall at the corner, the radius is significantly reduced.

Response:

We have relocated CB 3 so that it is adjoining the ROW for access, though we are unclear at why the City would need access to this CB as it is only a junction box and is anticipated to only convey roof water, not any ROW road runoff. Please clarify, thank you.

5. Sheet 3: P32081 appears to be land locked from any street frontage or access. Where is the frontage considered for this property?

Response:

This parcel is no longer part of the project and thus no improvements are being provided to this lot on the revised set of plans.

6. Sheet 3: Monument in case installed in the Cul-de-Sac as well. Per EDS Standards, Chapter 3 - Streets, Section STR-25 Monuments.

Response:

Noted.

7. Sheet 6: Typical Cross-section - landscape zone width is shown to be 5.5'. Sheet 3, identifies the width to be 6-feet, which aligns with AMC Table 19.52.040(E).

Response:

We have updated the cross-section to denote 6-feet as noted on sheet 6 has been updated. Thank you for this catch.

8. Sheet 8: Curb Ramp Details - All curb ramps shall have the pan and wings stamped with either 1-inch construction fencing or $\frac{3}{4}$ inch poultry fencing, per EDS Standard, Chapter 3 - Streets, Section STR-06.

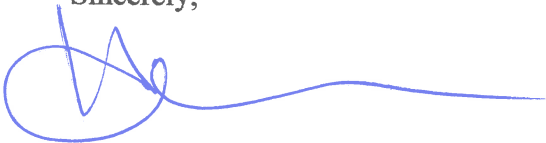
Additionally, the color of the Detectable Warning Devices for the City of Anacortes is either Black or White, unless adjacent to the WSDOT corridor, then it is Yellow.

Response:

We have added this note "All curb ramps shall have the pan and wings stamped with either 1-inch construction fencing or $\frac{3}{4}$ inch poultry fencing, per EDS Standard, Chapter 3 - Streets, Section STR-06 and shall have either black or white detectable warning devices as required by City" on sheet 4 as requested. The project's ramp will not be adjacent to any known WSDOT corridor.

Thank you very much for your plan review comments.

Sincerely,



Heike Nelson

Enclosures:

PC:



Date Received:

8/6/20

Storm Water D Minimum Requirement Minimum Requirement 1 through 9

ENGINEERING DEPARTMENT

904 6th Street Anacortes, WA 98221

www.anacorteswa.gov

08.06.20

Official Use Only: (Information to Inspectors)

Required Storm Water Facility and other related requirements:

Project Address: Orchard Avenue/Cherry Lane

Parcel Number: P32077

Permit Number: _____

Submittal Date: _____

Revision Number: _____

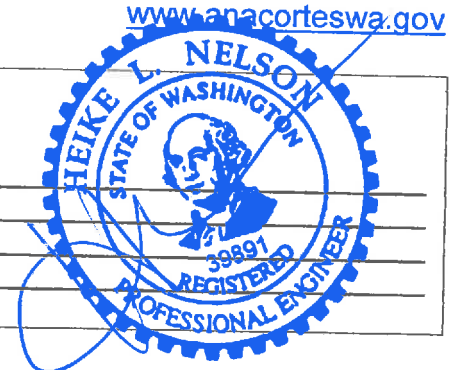
Reviewer: _____

Acceptance Date (COA): _____

FRONT OF REPORT:

Submittal Checklist: (All items listed below are required for a complete submittal)

- Cover Sheet (Preparer to Provide): Project title, Location, Revision dates, Engineer's Stamp
- TAB 1: Minimum Requirement #1 – Preparation of Stormwater Site Plans
- TAB 2: Minimum Requirement #2 – Construction Stormwater Pollution Prevention (SWPP)
- TAB 3: Minimum Requirement #3 – Source Control of Pollution
- TAB 4: Minimum Requirement #4 – Preservation of Natural Drainage Systems and Outfalls
- TAB 5: Minimum Requirement #5 – On-site Stormwater Managements
- TAB 6: Minimum Requirement #6 – Runoff Treatment
- TAB 7: Minimum Requirement #7 – Flow Control
- TAB 8: Minimum Requirement #8 – Wetland Protection
- TAB 9: Minimum Requirement #9 – Operation and Maintenance
- APPENDIX 1 - Survey performed by a Professional Land Surveyor
- APPENDIX 2 - Soils Analysis (Volume 1, Chapter 3.1.1)
- APPENDIX 3 - Model Soil Management Plan for BMP T5.13
- APPENDIX 4 - Determining Construction Site Sediment Damage Potential (Appendix 7)
- APPENDIX 5 - Site Plan with all applicable information (Minimum Size 11x17 – 30 scale)
- APPENDIX 6 - Documented Site Photos (North, South, East and West)
- APPENDIX 7 - Drainage BMP Facility Maintenance Covenant, if applicable. To be recorded prior to the Temporary Certificate of Occupancy, Certificate of Occupancy or Final Acceptance.
- APPENDIX 8 – Vicinity Map, Aerial Exhibit, Downstream Exhibit and 2007 City of Anacortes Stormwater Comprehensive Plan excerpts
- APPENDIX 9 – NRCS/SCS soils information
- APPENDIX 10– WWMH Views & WWHM Report
- APPENDIX 11 – 2014 DOE BMP T5.10B, T5.11, T5.12, and T5.13
- APPENDIX 12 - Excerpts from DOE Manual and City of Anacortes Stormwater Comprehensive Plan





Storm Water Drainage Report

Minimum Requirements 1 through 5

Minimum Requirement 1 through 9

ENGINEERING DEPARTMENT
904 6th Street Anacortes, WA 98221

www.anacorteswa.gov

05.15.20

Official Use Only: (Information to Inspectors)

Required Storm Water Facility and other related requirements:

Project Address: Orchard Avenue/Cherry Lane

Submittal Date: _____

Parcel Number: P32077

Revision Number: _____

Permit Number: _____

Reviewer: _____

Acceptance Date (COA): _____

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Stormwater Management Requirements:

- Refer to the 2012\14 Department of Ecology Manual, as amended in 2014 for further required information.
- See also, City of Anacortes Municipal Code 19.76 for additional information
- See also, current Engineering Development Standards, Chapter 2- Storm Drainage for additional information.

Project Description and Summary:

Summary Table

	Existing	Proposed
Development Type	<u>None/Grass/Pasture</u>	<u>Single Family Residential</u>
Number of Lots	<u>1</u>	<u>6</u>
Lot Acreage in SF	<u>135,648 sf (3.1 acres)</u>	
Soil Type(s)	<u>#18 & #19 per NRCS – Bow Gravelly Loam-Refer to NRCS/SCS info in Appendix 9 and the Geotechnical Report within Appendix #2.</u>	
Site Sediment Transport Score (High\Low)	<u>100 (Of note this number however includes future house construction on the 6 lots which will not occur simontaneously at the same time as plat infrastructure so this number actually is less). Refer to worksheet attached in Appendix 4</u>	
Depth to Ground Water Table (Feet and Inches) (See completed Soils Analysis (Volume 1, Chapter 3.1.1))	<u>Refer to Geotechnical Report prepared by Geotest Services (page 5) provided at the end of this report in Appendix #2</u>	
Infiltration Rate during Rainy Season (Inch\Per Hour)	<u>Restrictive layer, thus infiltration not feasible per Geotechnical Report (page 16) copy provided at the end of this report in Appendix #2</u>	
Impervious Surface (on-site)	<u>None</u>	<u>0.93-acres</u>
Impervious Surface (off-site)	<u>None</u>	<u>None</u>
New and Replaced Hard Surface Total (SF)	<u>0.93-acres of “New” road, home and driveway areas, 0-acres “Replaced”</u>	
Lot Coverage (Percentage)	<u>0%</u>	<u>18-30% Based on 2014 DOE Rqmt to assume use of 4,200 sf hard surface per lot</u>
BMP (Required Minimum Requirement 5)	<u>BMP T5.13 Post Construction Soils, BMP 5.10B Downspout Dispersion, & BMP T5.11 and T5.12 Hard Surface Dispersion</u>	

Water Quality Method (Minimum Requirement 6)	<u>Dead Storage Cell to be provided in pond bottom</u>
Water Quantity Method (Minimum Requirement 7)	<u>Detention Pond with control structure release to existing ditch</u>

Existing Site Conditions Summary:

(Additionally, provide information on previous permits, if any, like Grade and Fill, Clear and Grade, topography, vegetation, drainage, Critical Areas adjacent to the site and how it may affect this project if soils are disturbed, Soils Type (Included in Soils Analysis Report), Erosion Problem Areas, Construction Phasing\Sequence)

This drainage report has been prepared to address the stormwater design necessary to mitigate the increased amount of runoff from the proposed Cherry Court Short Plat which proposes to create 6 single-family lots on a single parcel of land. The minimum size for each residential lot is 15,000 square feet. The short plat proposed herein is to occur on parcel P32077 located within the City of Anacortes, Washington. The subject parcel is approximately 3.11 acres in size. In addition to serving the proposed new plat road and residential infrastructure, drainage facilities noted herein have been sized to mitigate runoff waters from future residential development upon the 6 proposed lots as noted. Subdivisionally, the project area is located within Section 25, Township 35 N, Range 1 E.

The project is located southerly of Cherry Lane and Orchard Avenue, approximately 750 feet south of 41st Street. The property is generally high in the southwest corner, and slopes downhill to the northeast to the low point at the northeast corner of the site. The project area is currently covered with grass and contains no existing buildings. Along the north side of the parcel is existing Orchard Avenue, with an asphalt surface that is cross-sloped downhill northerly, and is to remain. To the south of the site is Orchard Place, a private road serving lots to the south. There are existing single family residences surrounding the project area, with maintained open grass areas to the east. Refer to the accompanying Existing Conditions Exhibit for the existing development and terrain conditions on and surrounding the site. Per the City of Anacortes 2007 Stormwater Comprehensive Plan, this site is located within the southerly portion of stormwater Sub-basin F4. Approximately 125 feet to the east of the proposed development area is Ace of Hearts Creek which has an associated 50-foot buffer.

Per the DOE Volume 1-Figure I-2.4.1 Flow Chart for Determining Requirements for New Development, all DOE Minimum Requirements (MR) #1-9 apply to "new impervious surfaces and converted pervious surfaces". Existing short grass/pasture areas within the site will remain grass, with the exception of the areas denoted below, such as the new road, new sidewalk, house sites, etc. Grass areas, to remain grass/landscape area, other than the 0.5-acre forest/scrub area in the southerly portion of the site have not been included in the development envelope as it is assumed that existing grass areas will simply be regraded, perhaps enhanced with grass seed at the time of home construction, and these actions will not change the drainage characteristics of the surfaces from what is in place today.

The detention system design is proposed to accommodate the increase in runoff from the proposed residential development using a continuous model software, WWHM, as required by DOE. For the analysis, it is necessary to first determine the target flow duration curve for the existing, or pre-developed condition that must be met. For this analysis, one overall drainage basin comprised of the overall 3.11 acres of the subject property. A majority of the property (1.7-acres) that has been included within this basin area is pasture that will remain pasture, with the remaining 1.41-acres of area to be developed with new surfaces; roofs, driveways, new road, concrete sidewalk, and the basin area will also include the 0.5-acre area in southerly portion of the site being converted from tree/scrub covered area to grass. Assuming 1.7-arces of pasture to remain pasture, along with the 1.41-acres of the site to include converted surface areas will be used to model the pre-developed

condition. As previously noted, DOE Figure I-2.4.1 Flow Chart for Determining Requirements for New Development, states "Minimum Requirements apply to the new impervious surfaces and converted pervious surfaces." Grass areas are anticipated to remain surrounding future house sites on each lot. Although these areas will be graded for drainage purposes and may be improved with additional grass and landscaping at the time of individual lot development, due to underlying restrictive soil conditions, these areas will continue to have "like" drainage characteristics as what exists today, and thus are not considered to be "converted."

Per DOE Volume I, the existing land cover condition will be used for the predeveloped condition since the drainage area of the immediate stream and all subsequent downstream basins have at least 40% total impervious area since 1985. The City of Anacortes's Stormwater Comprehensive Plan identifies the project as being in sub-basin F4, and furthermore denotes the F4 sub-basin as having 68% impervious coverage as of 2007, and it is well known that the majority of the existing development in this urban developed sub-basin did not occur post-1985. Refer to excerpt from DOE Volume I and 2007 City of Anacortes Comprehensive Plan appendix 12.

A predeveloped basin area of 3.11-acres will be used as specifically detailed below. This basin area includes 1.7-acres of pasture to remain along with new impervious areas comprised of the proposed 20-foot wide road extension southerly from Cherry Lane/Orchard Avenue, a concrete sidewalk, 6 future residential development lot areas, and the 0.5-acre area in the southerly portion of the site to be converted from scrub/tree covered condition as detailed below. Per the 2014 DOE Manual, Volume 3, Chapter 2.2, 4,200 square feet of impervious surfaces will be assumed for each residential lot, with 1,000 square feet of that being driveway, walkway, patio, and the remainder being rooftop.

The pre-developed compliance curve generated from the basin area assuming a pasture/short lawn cover is noted in the WWHM information as 501 POC1. This pre-developed compliance curve determines the allowable release rates that must be achieved by the proposed development to meet the new flow control standard and obtain a "passing" detention system.

The following is a detailed list of the 3.11-acre basin area used to create the pre-developed target compliance curve:

- 1.70-acres C, Pasture (to remain pasture)
- 0.43-acres C, Pasture, Flat (Area of future residential house - 6 lots @ 3,200 sf each)
- 0.14-acres C, Pasture, Flat (Area for future driveways - 6 lots @ 1,000 sf each)
- 0.19-acres C, Pasture, Flat (Area of proposed 20-ft wide roadway)
- 0.05-acres C, Pasture, Flat (Area of proposed sidewalk)
- 0.50-acres C, Forested, Flat (Area converted from forest/scrub to grass)
- 0.10-acres C, Pasture, Flat (Area for detention pond)
- 3.11-acres

Based on the conditions representing the design information for the 3.11-acres of a pasture Pre-developed basin, the following flow information was determined using WWHM software:

Flow Frequency Return Periods for Pre-developed. (501 POC #1)

<u>Return Period</u>	<u>Flow (cfs)</u>
2 year	0.0401
5 year	0.0761
10 year	0.1026
25 year	0.1373
50 year	0.1634

Developed Conditions Summary:

Development of this property to create six new residential lots will include the construction of a new 20-foot wide roadway. This road will extend southerly from the existing Cherry Lane/Orchard Avenue into the property approximately 235-feet. This project will also include the installation of new sidewalk and necessary utility infrastructure as needed to provide utilities to each of the 6 new residential lots.

Using the previously established 3.11-acre basin (1.7-acres pasture to remain and 0.91-acres of new hard surface and 0.50 acre land conversion) and WWHM software, a flow duration curve was created for the post-developed condition. This uses the combined flow generated by the proposed development of this short plat, which are required to meet the 2014 DOE flow control standard, MR #7. Runoff from the new hard surfaces and converted pervious surfaces will be collected along with runoff from existing pasture areas to remain within the plat and will be collected and routed to a detention system prior to being released northeasterly from the site via a control structure. The above ground detention pond is to be located within the northeast corner of the site. Road runoff will be collected and directly conveyed to the detention pond system, whereas runoff from hard surfaces from individual lot development will be dispersed within the lot as noted, prior to being connected to the onsite stormwater system.

Each lot's roof downspout runoff shall be dispersed per BMP T5.10B and with these facilities located so that they have a minimum 25-feet of down-gradient dispersion length within the lot. Once a minimum of 25-feet of dispersion has been achieved, these dispersed runoff waters can then be collected and conveyed to the detention system as noted on the attached exhibits. The lots are large and based on configuration, topography, and anticipated house site locations as noted on the grading plan, it is likely that most of the lots will be able to provide roof downspout dispersion over 50-feet, however to be conservative we have assumed only two of the total six lots will have 50-feet, and the remaining four lots will be assumed to be dispersed over 25-feet. For the two lots that will provide 50-feet of flow path, 0.15-acres of area can be modeled as "DISP FLAT". For the four lots with a minimum 25-feet of flow path down-gradient of the dispersion trenches, 0.29-acres of roof surface runoff can be therefore be modeled as dispersed, 50% ROOF and 50% C, Lawn, FLAT, in the WWHM model. Private driveways shall be cross-sloped to disperse sheet flow from these surfaces within the lot onto a minimum 50-feet of area as noted within 2014 DOE BMP T5.11 and T5.12 which allows these surfaces to be modeled as "C, Lawn, FLAT". The sidewalk will be cross-sloped to disperse, thus allowing it to be modeled as C, Lawn, FLAT per BMP T5.18. Due to site configuration and existing topography, there is not sufficient room onsite to disperse runoff from the proposed 20-foot wide roadway, therefore, no credit will be applicable to this new hard surface. The resulting Post-developed, unmitigated flow information is noted as "701 inflow to POC 1" on the attached WWHM exhibits in Appendix 10. DOE BMP T5.10B, T5.11, T5.12 and T5.13 are included in Appendix 11 at the end of this report.

Though overall individual lot development is unknown at this time, to be conservative, the small 0.50-acres of scrub/tree area along the south side of the site will be assumed to be converted from forest to pasture for the developed condition to replicate a lawn condition per BMP T5.13.

The following is the land cover characteristics of the 3.11-acre basin area used to model the post-developed duration curves within WWHM Software:

Pervious Surfaces-Post-Developed Condition:

1.70-acres C,Pasture,Flat (existing pasture to remain)

0.150-acres C/IMP/DISP/FLAT (credit for 2 new house roofs dispersed over 50-feet)

0.145-acres C,Lawn,Flat (50% credit for 4 new house roofs dispersed over 25-feet)

0.14-acres C,Lawn, Flat (driveway credit for dispersed over 50-feet)

0.05-acres C,Lawn, Flat (back-sloped sidewalk)
0.50-acres C, Pasture, Flat (credit for forest area converted to landscape per BMP T5.13)
2.685-acres

Impervious Surfaces-Post-Developed Condition:

0.145 acres IMP/Roof (50% for 4 new house roofs dispersed over 25-feet)
0.19-acres IMP/Road, Flat (new roadway)

0.10-acres Pond

0.435-acres

Based on the proposed development previously noted and using the information represented above, the following runoff rates were estimated to occur from the 3.11-acre post-developed site condition as determined by WWHM software:

Flow Frequency Return Periods for Post-Developed, Unmitigated Condition. (701 POC #1)

<u>Return Period</u>	<u>Flow (cfs)</u>
2 year	0.1211
5 year	0.1787
10 year	0.2248
25 year	0.2928
50 year	0.3513
100 year	0.4170

Lastly, WWHM uses these pre-developed and post-developed flow duration curves to determine the required size of proposed detention system and allowed control release required to mitigate the stormwater release from development of the site as required by DOE. The resulting design will provide required flow control for the increase of runoff generated by the proposed roadway, sidewalk, and future residential development proposed on the new resideintial lots within the project area. Refer to MR #7 further within this report for specifics addressing the proposed detention pond and flow control structure proposed for this project.

Drainage Basin (2007 Storm Comp Plan – City website\publicworks\engineering\comprehensive plans):
What Drainage Basin are you in? Anacortes Subbasin F-4. Identify any downstream drainage issues (Storm
Comp Plan: Noted below If so, describe:

Per the City of Anacortes 2007 Comprehensive Stormwater Management Plan there is a drainage issue noted approximately 0.8-miles downstream of the Cherry Court Project, at M Avenue & 33rd Street and is noted as Area #20 on the City's Comprehensive Plan exhibit titled "Problem Areas" (Figure 2-3). The Comprehensive plan states "Ace of Hearts Creek flows from private property into a culvert, across 34th Street and then under a fence back onto private property. The creek is tight lined approximately 100-feet southwest of the intersection of 33rd and M Avenue. There is flooding at the property to the west. This inlet of the pipe may be constraining flow into the pipe. The Solution (as noted by the City's Comprehensive Plan): If the City has an existing easement for the creek area, control vegetation around the fence and maintain the easement, keeping it clear and accessible. Install trash racks similar to the one described for Project Area #5. The comprehensive plan notes estimated project costs \$800/Year for Vegetation Control and \$21,000 for the installation of trash racks. We are unclear if the City has implemented this suggested maintainance.

Complete the Applicability Requirements – Flow Chart (Figure I-2.4.1 Attached, and Figure I-2.5.1 Attached)

- *Refer to attached highlighted Figure I-2.4.1 and Figure I-2.5.1 which are applicable to this project*

Start Here

Does the site have 35%
or more of existing
impervious coverage?

Yes

See Redevelopment Minimum
Requirements and Flow Chart
(Figure I-2.4.2).

No

Does the project result in
5,000 square feet, or
greater, of new plus
replaced hard surface
area?

No

Does the project convert $\frac{3}{4}$
acres or more of vegetation to
lawn or landscaped areas, or
convert 2.5 acres or more of
native vegetation to pasture?

No

Yes

All Minimum Requirements
apply to the new and replaced
hard surfaces and converted
vegetation areas.

Yes

Minimum Requirements #1
through #5 apply to the new
and replaced hard surfaces
and the land disturbed.

Yes

Yes

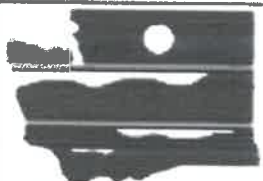
Does the project result in 2,000
square feet, or greater, of new plus
replaced hard surface area?

No

Does the project have land
disturbing activities of 7,000
square feet or greater?

No

Minimum Requirement #2
applies.



DEPARTMENT OF
ECOLOGY
State of Washington

Figure I-2.4.1
**Flow Chart for Determining Requirements for
New Development**

Revised June 2015

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Does the project discharge to Flow Control Exempt Waters (per Minimum Requirement (MR) #7)?

Yes

REQUIRED: Implement the following BMPs where feasible:

- BMP T5.13: Post-Construction Soil Quality and Depth
- BMP T5.10A, B, or C: Downspout Full Infiltration, Downspout Dispersion Systems, or Perforated Stub-out Connections
- BMP T5.11 or T5.12: Concentrated Flow Dispersion or Sheet Flow Dispersion

NOT REQUIRED: Achievement of the LID Performance Standard. Applying the other BMPs in List #1 or List #2.

No

Does the project trigger only MRs #1 - #5? (Per Figure 3.2 or Figure 3.3 in Appendix 1 of the 2013-2018 WWA Phase II Permit & Phase I Permit).

No (the project triggered only MR #2)

No additional requirements

No (the project triggered only MRs #1 - #9)

Is the project Inside the UGA?

Yes

No

Is the project on a parcel of 5 acres or larger?

No

Yes

Did the project developer choose to meet the LID Performance Standard?

No

REQUIRED: For each surface, consider the BMPs in the order listed in List #2 for that type of surface. Use the first BMP that is considered feasible.

NOT REQUIRED: Achievement of the LID Performance Standard.

REQUIRED: Meet the LID Performance Standard through the use of any BMP(s) in the 2014 SWMMWW except for Rain Gardens (the use of Bioretention is acceptable).

If the project can't meet the LID Performance Standard, it must seek and be granted an exception/variance.

REQUIRED: Apply BMP T5.13 Post-Construction Soil Quality and Depth.

NOT REQUIRED: Applying the BMPs in List #1 or List #2.

Did the project developer choose to meet the LID Performance Standard?

No

REQUIRED: For each surface, consider the BMPs in the order listed in List #1 for that type of surface. Use the first BMP that is considered feasible.

NOT REQUIRED: Achievement of the LID Performance Standard.

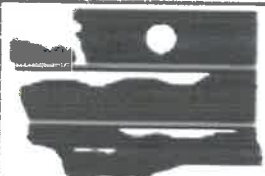
Yes

REQUIRED: Meet the LID Performance Standard through the use of any BMP(s) in the 2014 SWMMWW except for Rain Gardens (the use of bioretention is acceptable).

REQUIRED for Projects Triggering MR #1-9: Apply BMP T5.13 Post Construction Soil Quality and Depth.

NOT REQUIRED: Applying the BMPs in List #1 or List #2.

*Recommended by Ecology for projects triggering MRs #1 - #5.



DEPARTMENT OF
ECOLOGY
State of Washington

Figure I-2.5.1 Flow Chart for Determining LID MR #5 Requirements

Revised June 2015

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TAB 1 (MINIMUM REQUIREMENT #1)

- **1-2.5.1 Minimum Requirement #1 – Prepare a Stormwater Site Plan**
 - 1.3 – Preparation of a Stormwater Site Plan
 - 1.3.1 – Stormwater Site Plans: Step-by-Step

Note: The level of detail needed for each step depends upon the project size. Provide a narrative description of each step.

1-3.1.1 Step 1 - Site Analysis: Collect and Analyze Information on Existing Conditions

Site analysis shall be submitted as part of the Existing Conditions Summary above. Part of the information in this step should be used to help prepare the Construction Stormwater Pollution Prevention Plan. Purpose of the Site Analysis is to provide for a Low Impact Development site design that is intended to compliment the predeveloped conditions of the site.

Existing Conditions onsite consist of short grass/pasture areas on a parcel generally measuring 393 feet north-south x 333 feet east-west, sloped downhill from the site's SW corner to the NE corner at approximately 4 – 5%. A geotechnical investigation has been conducted onsite which identified an underlying very dense, brown, slightly gravelly silty sand (weathered glacial till) at 3-4 feet below ground surface which has very limited infiltration capacity at depth. Per the geotechnical report (page 16), "conventional infiltration of stormwater on this site is not feasible". Dispersion methods for runoff from roofs and driveways will be promoted as noted further on within this report. Refer to the Geotechnical Report prepared by Geotest for this project located within Appendix 2 at the end of this report.

1-3.1.2 Step 2 - Prepare Preliminary Development Layout

Based upon the analysis of existing site conditions, locate the buildings, roads, parking lots, landscaping features, on-site stormwater management BMP's, and preliminary location of stormwater treatment and retention/detention facilities for the proposed development.

Refer to the attached Overall Site Plan Exhibit showing the proposed location of new lots, the new private roadway, sidewalks, stormwater piping, detention pond, control structure and outlet piping from the site.

1-3.1.3 Step 3 - Perform Off-site Analysis (at Local Agency's Option): Use additional Sheets, if necessary,

Per the City of Anacortes Stormwater Comprehensive Plan runoff from this project is discharged to Ace of Hearts Creek, which conveys runoff northeasterly approximately 0.7-miles, towards 32nd and M Avenue, then easterly approximately 0.5-miles east to "T" Avenue. From 32nd and "T" runoff waters are conveyed north in "T" Avenue another 0.2-miles, before being discharged to Fidalgo Bay to the northeast. Refer to the Downstream Exhibit attached with this report.

1-3.1.4 - Determine Applicable Minimum Requirements

Per the attached Minimum Requirements for new development Figure 2.4.1. Minimum Requirements #1 through #9 apply to new and converted surfaces proposed with this short plat. Refer to attached highlighted Figure 2.4.1.

1-3.1.5 Step 5 - Prepare a Permanent Stormwater Control Plan

Refer to the attached Overall Site Plan Exhibit showing the proposed location of new lots, the new private roadway, sidewalks, stormwater piping, detention pond, control structure and outlet piping from the site.

1-3.1.6 Step 6 - Prepare a Construction Stormwater Pollution Prevention Plan (MR#2 – 13 Elements)

Refer to Chapter II-3 – Planning for a detailed description of each element. See also attached Tables 4.1.1 (Source Control BMP's by SWPPP Element) and Table 4.2.1 (Runoff Conveyance and Treatment BMP's by SWPPP Element).

See attached 13 Elements of a SWPPP, please complete and attached Refer to the Civil Site Plan prepared for this project in Appendix 5. Prior to issuance of final permits to allow the commencement of construction, a SWPPP to address each of the 13 required elements will be prepared by the owner and/or contractor and submitted to the City for this project. At this time the stormwater engineer has denoted basic sedimentation and erosion control requirements within the attached civil plans to assure basic elements and specifications to denote the performance required.

1-3.1.7 Step 7 - Complete the stormwater site plan

The Stormwater Site Plan encompasses the entire submittal to the Local Agency with drainage review authority. Refer to this section of the Manual for further clarification of each item and what is required. See below:

- Project Overview
- Existing Conditions Summary
- Off-site Analysis Report
- Permanent Stormwater Control Plan
- Construction Stormwater Pollution Prevention Plan
- Special Reports and Studies
- Other Permits
- Operation and Maintenance Manual
- Declaration of Covenant for Privately Maintained Flow Control and Treatment Facilities. (See attached Drainage BMP Maintenance Covenant BMP Agreement)
- Declaration of Covenant for Privately Maintained On-site Stormwater BMP's (See attached Drainage BMP Maintenance Covenant BMP Agreement)
- Bond Quantities Worksheet, if applicable

Once a contractor has been selected and coordinated with regarding their management of the site, a SWPPP will be prepared for this project (addressing items 1-13) prepared by the owner and/or contractor and be submitted to the City prior to the City's final issuance of a Fill and Grade Permit to commence construction. Also, refer to the attached Existing and Developed Conditions Civil Site Plan showing information prepared for this project located in Appendix 5. This document provides a great deal of the requested information and will be used as the basis for the SWPPP when it is prepared by the owner and/or contractor.

1-3.1.8 Step 8 - Check Compliance with all Applicable Minimum Requirements

A Stormwater Site Plan as designed and implemented should specifically fulfill all Minimum Requirements applicable to the project. The Stormwater Site Plan should be reviewed to check that these requirements are satisfied.

Refer to the Civil Plans within Appendix 5 and the following sections of this document.

TAB 2 (MINIMUM REQUIREMENT #2)

- **1-2.5.2 Minimum Requirement #2 – Construction Stormwater Pollution Prevention Plan (SWPPP)**
 - All projects are required to complete Minimum Requirement 2.
 - Refer to the 13 Elements of the SWPPP (See document below, complete and attach)
 - See attached Table 4.1.1, Table 4.2.1 and Table
 - Provide Engineering Calculations as an attachment for Sediment Ponds\Traps, Diversions, Waterways and Runoff/Stormwater Detention Calculations.

As previously noted, once a contractor has been selected and coordinated with regarding their management of the site, a SWPPP will be prepared for this project (addressing items 1-13) and be submitted to the City prior to the City's final issuance of a Fill and Grade Permit to commence construction. Also refer to the Civil Site Plan information prepared for this project located in Appendix 5. This document provides a great deal of the requested information and will be used as the basis for the SWPPP when it is prepared.

Table 4.1.1 Source Control BMP's by SWPPP Element

BMP or Element Name	Element #1 Preserve Vegetation/Mark Clearing Limits	Element #2 Establish Construction Access	Element #5 Stabilize Soils	Element #6 Protect Slopes	Element #9 Control Pollutants	Element #11 Maintain BMPs	Element #12 Manage the Project	Element #13 Protect Low Impact Development
BMP C101: Preserving Natural Vegetation	✓							
BMP C102: Buffer Zones	✓							✓
BMP C103: High Visibility Plastic or Metal Fence	✓							✓
BMP C105: Stabilized Construction Entrance / Exit		✓						
BMP C106: Wheel Wash		✓						
BMP C107: Construction Road/Parking Area Stabilization		✓						
BMP C120: Temporary and Permanent Seeding			✓	✓				
BMP C121: Mulching			✓	✓				
BMP C122: Nets and Blankets			✓	✓				
BMP C123: Plastic Covering			✓					
BMP C124: Sodding			✓					
BMP C125: Topsoiling / Composting			✓					
BMP C126: Polyacrylamide for Soil Erosion Protection			✓					
BMP C130: Surface Roughening			✓	✓				
BMP C131: Gradient Terraces			✓	✓				
BMP C140: Dust Control			✓					
BMP C150: Materials On Hand						✓	✓	
BMP C151: Concrete Handling					✓			
BMP C152: Sawcutting and Surfacing Pollution Prevention					✓			
BMP C153: Material Delivery, Storage and Containment					✓			
BMP C154: Concrete Washout Area					✓			
BMP C160: Certified Erosion and Sediment Control Lead						✓	✓	
BMP C162: Scheduling							✓	

Table 4.2.1 Runoff Conveyance and Treatment BMP's by SWPPP Element

BMP or Element Name	Element #3 Control Flow Rates	Element #4 Install Sediment Controls	Element #6 Protect Slopes	Element #7 Protect Drain Inlets	Element #8 Stabilize Channels and Outlets	Element #9 Control Pollutants	Element #10 Control De- Watering	Element #13 Protect Low Impact Development
BMP C200: Interceptor Dike and Swale			✓					✓
BMP C201: Grass-Lined Channels			✓					
BMP C202: Channel Lining					✓			
BMP C203: Water Bars	✓		✓					
BMP C204: Pipe Slope Drains			✓					
BMP C206: Subsurface Drains			✓					
BMP C208: Level Spreader			✓					
BMP C207: Check Dams			✓					✓
BMP C208: Triangular Silt Dike (Geotextile Encased Check Dam)			✓					✓
BMP C209: Outlet Protection					✓			
BMP C220: Storm Drain Inlet Protection				✓				
BMP C231: Brush Barrier		✓						✓
BMP C232: Gravel Filter Berm		✓						
BMP C233: Silt Fence		✓						✓
BMP C234: Vegetated Strip		✓						✓
BMP C235: Wattles		✓						
BMP C238: Vegetative Filtration							✓	
BMP C240: Sediment Trap	✓	✓						
BMP C241: Temporary Sediment Pond	✓	✓						
BMP C250: Construction Stormwater Chemical Treatment						✓		
BMP C251: Construction Stormwater Filtration						✓		
BMP C252: High pH Neutralization Using CO ₂						✓		
BMP C253: pH Control for High pH Water						✓		

**13 Elements of SWPPP
(Construction Stormwater Pollution Prevention Plan)**

Please check off boxes to show that each element has been read and understood. Provide details where applicable and if certain aspects are unnecessary or exempt, clearly justify. Details of the 13 Elements and the correlating BMPs are listed **Above from** the 2014 Stormwater Management Manual for Western Washington (SWMMWW). A link is provided on the City of Anacortes website, under Planning, Community, & Economic Development Department, as well as under Stormwater on the Engineering Division of Public Work's page.

Owner Name *Property Owner: Ronald Bayek / Project Owner: 9 Properties, LLC Contact: Anna Nelson*

Site Address: *South of Orchard Avenue, south of Cherry Lane, Anacortes, WA (P32077)*

Prepared By: *Corner 9 Properties, LLC*

The Stormwater checklist or building permit determined that:

- ☐ The 13 elements must be addressed for construction activity adding under 2,000 sq. ft. of hard surface area.

☒ These elements must be addressed for construction activity adding 2,000 sq. ft. or more of hard surface area. This means that an attached narrative and site plan are required with this document.

Under each element, provide the BMP's that will be applicable to your project. Use the attached Tables provided.

ELEMENT 1: Preserve Vegetation/Mark Clearing Limits

- ☒ Before beginning land disturbing activities, including clearing and grading, clearly mark all clearing limits, sensitive areas and their buffers, and trees that are to be preserved within the construction area.
- ☒ Retain the duff layer, native top soil, and natural vegetation in an undisturbed state to the maximum degree practical.

Refer to the attached Existing Conditions, Erosion Control Plan Sheet showing clearing limits, and existing vegetation.

ELEMENT 2: Establish Construction Access

- ☒ Limit construction vehicle access and exit to one route, if possible.
- ☒ Stabilize access points with a pad of quarry spalls, crushed rock, or other equivalent BMPs, to minimize tracking onto roads.
- ☐ Locate wheel wash or tire baths on site, if the stabilized construction entrance is not effective in preventing tracking sediment onto roads.
- ☒ If sediment is tracked off site, clean the affected roadway thoroughly at the end of each day, or more frequently as necessary (ex: wet weather). Remove sediment from roads by shoveling, sweeping, or pick up and transport the sediment to a controlled sediment disposal area.
- ☒ Conduct street washing only after sediment is removed in accordance with the above bullet.
- ☒ Control street wash wastewater by pumping back on site or otherwise preventing it from discharging

into systems tributary to waters of the State.

A quarry spall construction road and associated detail is proposed to extend into the site from the north side to provide construction access. The project specifications on the civil plans denote that no dirt or sediment can be tracked offsite, and if this does occur that the roads shall be cleaned while avoiding any dirty water from being discharged from the site.

ELEMENT 3: Control Flow Rates

- ✖ Protect properties and waterways downstream of development sites from erosion and the associated discharge of turbid waters due to increases in the velocity and peak volumetric flow rate of stormwater runoff from the project site.
- ✖ Where necessary to comply with the bullet above, construct stormwater retention or detention facilities as one of the first steps in grading. Assume that detention facilities function properly before constructing site improvement (e.g. impervious surfaces).
- ✖ If permanent infiltration ponds are used for flow control during construction, protect these facilities from siltation during the construction phase.

At the beginning of construction, the proposed detention pond shall be constructed to detain developed runoff and provide time for sediment to be filtered out prior to being discharged from the site. A sand-filled filtering structure will be included on the outlet end of the site.

ELEMENT 4: Install Sediment Controls

- ✖ Design, install, and maintain effective erosion controls and sediment controls to minimize the discharge of pollutants.
- ✖ Construct sediment control BMPs (sediment ponds, traps, filters, etc.) as one of the first steps in grading. These BMPs shall be functional before other land disturbing activities take place.
- ✖ Minimize sediment discharges from the site. The design, installation and maintenance of erosion and sediment controls must address factors such as the amount, frequency, intensity and duration of precipitation, the nature of resulting stormwater runoff, and soil characteristics, including the range of soil particle sizes expected to be present on the site.
- ✖ Direct stormwater runoff from disturbed areas through a sediment pond or other appropriate sediment removal BMP, before the runoff leaves a construction site or before discharge to an infiltration facility. Runoff from fully stabilized areas may be discharged without a sediment removal BMP, but must meet the flow control performance standard in Element #3, bullet #1.
- ✖ Locate BMPs intended to trap sediment on-site in a manner to avoid interference with the movement of juvenile salmonids attempting to enter off-channel areas or drainages.
- ✖ Provide and maintain natural buffers around surface waters, direct stormwater to vegetated areas to increase sediment removal, and maximize stormwater infiltration.
- ✖ Where feasible, design outlet structures that withdraw impounded stormwater from the surface to avoid discharging sediment that is still suspended lower in the water column.

At the beginning of construction, the proposed detention pond shall be constructed to be used as a sediment pond which will detain developed runoff and give it time to filter sediment prior to runoff being discharged from the site. A sand filtering structure will be included on the outlet end of the site. The following sedimentation calculations are provided below:

$SA = 2 \times Q2 / 0.00096$ or 2080 sf per cfs of inflow per DOE Volume II Chapter 4. The 2 year developed, unmitigated flow frequency for this project is 0.1211 cfs while the 100-year flow frequency is 0.4170 cfs. Based on the 100-year event, only 0.4170 cfs x 2080 sf/cfs = 867 sf of surface area

would be required for the 100-year event. The 3,096 sf proposed bottom footprint greatly exceeds this minimum area, with a larger area provided at the top of the riser structure, thus the sedimentation pond as proposed it is sufficient.

ELEMENT 5: Stabilize Soils

- ✖ Stabilize exposed and unworked soils by application of effective BMPs that prevent erosion. Applicable BMPs include, but are not limited to: temporary and permanent seeding, sodding, mulching, plastic covering, erosion control fabrics and matting, soil application of polyacrylamide (PAM), the early application of gravel base early on areas to be paved, and dust control.
- ✖ Control stormwater volume and velocity within the site to minimize soil erosion.
- ✖ Control stormwater discharges, including both peak flow rates and total stormwater volume, to minimize erosion at outlets and to minimize downstream channel and stream bank erosion.
- ✖ Soils must not remain exposed and unworked for more than the time periods set forth below to prevent erosion.
 - During the dry season (May 1 – Sept 30): 7 days
 - During the wet season (Oct 1 – Apr 30): 2 days
- ✖ Stabilize soils at the end of the shift before a holiday or weekend if needed based on the weather forecast.
- ✖ Stabilize soil stockpiles from erosion, protect with sediment trapping measures, and where possible, be located away from storm drain inlets, waterways, and drainage channels.
- ✖ Minimize the amount of soil exposed during construction activity.
- Minimize the disturbance of steep slopes. (NA)
- ✖ Minimize soil compaction and, unless infeasible, preserve topsoil.

BMPs to prevent erosion as noted above will be incorporated into the site design as noted on the civil plans and future SWPPP. Applicable BMPs to include, but are not limited to, temporary and permanent seeding, sodding, mulching, plastic covering, erosion control fabrics and matting, the early application of gravel base early on areas to be paved, and dust control. A sedimentation pond will be provided to control stormwater discharges, including both peak flow rates and total stormwater volume, to minimize erosion at outlets and to minimize downstream channel and stream bank erosion. In addition as noted within the project specifications it is noted that soils must not remain exposed and unworked for more than the time periods set forth below to prevent erosion, to stabilize soils at the end of the shift before a holiday or weekend if needed based on the weather forecast, to stabilize soil stockpiles from erosion, protect with sediment trapping measures, and where possible, be located away from storm drain inlets, waterways, and drainage channels and to generally Minimize the amount of soil exposed during construction activity, and minimize soil compaction and, unless infeasible, preserve topsoil. Once a contractor has been chosen they will prepare a SWPPP which will better detail how the site will be managed on a day to day basis.

ELEMENT 6: Protect Slopes

- ✖ Design and construct cut-and-fill slopes in a manner to minimize erosion. Applicable practices include, but are not limited to, reducing continuous length of slope with terracing and diversions, reducing slope steepness, and roughening slope surfaces (Ex: track walking).
- ✖ Divert off-site stormwater (run-on) or ground water away from slopes and disturbed areas with interceptor dikes, pipes, and/or swales. Off-site stormwater should be managed separately from stormwater generated on the site.
- ✖ At the top of slopes, collect drainage in pipe slope drains or protected channels to prevent erosion.
 - *Temporary pipe slope drains must handle the peak volumetric flow rate calculated using a 10-minute time step from a Type 1A, 10-year, 24-hour frequency storm for the developed condition. Alternatively, the 10-year, 1-hour flow rate predicted/indicated by an approved continuous runoff

model, increased by a factor of 1.6, may be used. The hydrologic analysis must use the existing land cover condition for predicting flow rates from tributary areas outside the project limits. For tributary areas on the project site, the analysis must use the temporary or permanent project land cover condition, whichever will produce the highest flow rates. If using the Western Washington Hydrology Model (WWHM) to predict flows, bare soil areas should be modeled as "landscaped" area.

- Where 15-minute time steps are available in an approved continuous runoff model, they may be used directly without a correction factor.

- ✖ Place excavated material on the uphill side of trenches, consistent with safety and space considerations.
- ✖ Place check dams at regular intervals within constructed channels that are cut down a slope.
- ✖ Consider soil types and its potential for erosion.
- ✖ Stabilize soils on slopes, as specified in Element 5.
- ✖ BMP combinations are the most effective method of protecting slopes with disturbed soils. Ex: Use both mulching and straw erosion control blankets.

Other than the new pond to be constructed, no substantial slopes are anticipated to be impacted with this project. BMPs used to prevent erosion as noted above will be incorporated into the site design as noted on the civil plans and future SWPPP. Applicable BMPs that may be used are to include, but are not limited to, reducing continuous length of slope with terracing and diversions, reducing slope steepness, and roughening slope surfaces, diverting off-site stormwater (run-on) or ground water away from slopes and disturbed areas with interceptor dikes, pipes, and/or swales placement of excavated material on the uphill side of trenches, consistent with safety and space considerations, stabilize soils on slopes, as specified in Element 5, placement of check dams at regular intervals within constructed channels that are cut down a slope, and/or other BMP combinations that are deemed an effective method of protecting slopes with disturbed soils. Such as use of both mulching and straw erosion control blankets. Off-site stormwater will be managed separately from stormwater generated on the site as required by the City.

ELEMENT 7: Protect Drain Inlets

- ✖ Protect all storm drain inlets made operable during construction so that stormwater runoff does not enter the conveyance system without first being filtered or treated to remove sediment.
- ✖ Clean or remove and replace inlet protection devices when sediment has filled one-third of the available storage (unless a different standard is specified by the product manufacturer).
- ✖ Where possible, protect all existing storm drain inlets so that stormwater runoff does not enter the conveyance system without first being filtered or treated to remove sediment.
- ✖ Keep all approach roads clean. Do not allow sediment and street wash water to enter storm drains without prior and adequate treatment unless treatment is provided before the storm drain discharges to waters of the State.
- ✖ Inlets should be inspected weekly at a minimum and daily during storm events.

BMPs used to protect drain inlets as noted above will be incorporated into the site design as noted on the civil plans and future SWPPP. The civil plans have noted the use of silt sacs or other inlet protection and a quarry spall entrance road be constructed as necessary. Refer to sheet 2, the detail on sheet 5, and the project specifications on sheets 9 and 10. The project specifications also denote the use of road washing as necessary and other provisions as needed to protect drainage inlets and the transport of dirty runoff waters from the site.

ELEMENT 8: Stabilize Channels and Outlets

- ✖ Design, construct, and stabilize all on-site conveyance channels to prevent erosion from the following

expected peak flows:

- *Channels must handle same peak volumetric flow rate as temporary pipe slope drains listed in Element 6, above.

- ✖ Provide stabilization, including armoring material, adequate to prevent erosion of outlets, adjacent streambanks, slopes, and downstream reaches at the outlets of all conveyance systems.
- ✖ The best method for stabilizing channels is to completely line the channel with a blanket product first, then add check dams as necessary to function as an anchor and to slow the flow of water.

The civil plans have noted the use of armoring material, adequate to prevent erosion of all inlets and outlets. BMPs used to stabilize channels and outlets as noted above will be incorporated into the site design as noted on the civil plans and future SWPPP. Refer to sheet , along with the additional specifications on sheets 9 and 10 for specifics on armoring, and other stabilization provision.

ELEMENT 9: Control Pollutants

- ✖ Design, install, implement, and maintain effective pollution prevention measures to minimize the discharge of pollutants.
- ✖ ☐ Handle and dispose of all pollutants, including waste materials and demolition debris that occur on-site in a manner that does not cause contamination of stormwater.
- ✖ Provide cover, containment, and protection from vandalism for all chemicals, liquid products, petroleum products, and other materials that have the potential to pose a threat to human health or the environment. On-site fueling tanks must include secondary containment. Secondary containment means placing tanks or containers within an impervious structure capable of containing 110% of the volume contained in the largest tank within the containment structure. Double-walled tanks do not require additional secondary containment.
- ✖ Conduct maintenance, fueling, and repair of heavy equipment and vehicles using spill prevention and control measures. Clean contaminated surfaces immediately following any spill incident.
- ✖ ☐ Discharge wheel wash or tire bath wastewater to a separate on-site treatment system that prevents discharge to surface water, such as closed-loop recirculation or upland land application, or to the sanitary sewer, with local sewer district approval. Wheel wash or tire bath wastewater should not include wastewater from concrete washout areas.
- ✖ Apply fertilizers and pesticides in a manner and at application rates that will not result in loss of chemical to stormwater runoff. Follow manufacturers' label requirements for application rates and procedures.
- ✖ ☐ Use BMPs to prevent contamination of stormwater runoff by pH-modifying sources. The sources for this contamination include, but are not limited to: bulk cement, cement kiln dust, fly ash, new concrete washing and curing waters, waste streams generated from concrete grinding and sawing, exposed aggregate processes, dewatering concrete vaults, concrete pumping, and mixer washout waters. Adjust the pH of stormwater if necessary to prevent violations of the water quality standards.
- ✖ Assure that washout of concrete trucks is performed off-site or in designated concrete washout areas only. Do not wash out concrete trucks onto the ground, or into storm drains, open ditches, streets, or streams. Do not dump excess concrete on site, except in designated concrete washout areas. Concrete spillage or concrete discharge to surface waters of the State is prohibited. Do not use upland land applications for discharging wastewater from concrete washout areas.
- ✖ Obtain written approval from Ecology and provide to the City before using chemical treatment other than CO₂ or dry ice to adjust pH.
- ✖ Woody debris may be chopped and spread on site.
- ✖ Conduct oil changes, hydraulic system drain down, solvent and de-greasing cleaning operations, fuel tank drain down and removal, and other activities which may result in discharge or spillage of pollutants to the ground or into stormwater runoff using spill prevention measures, such as drip pans.
- ✖ Clean contaminated surfaces immediately following any discharge or spill incident. Emergency repairs may be performed on-site using temporary plastic placed beneath and, if raining, over the vehicle.

To control pollutants the BMPs as noted above will be incorporated into the site design as noted on the civil plans and future SWPPP. Refer to the civil plan specifications for language that discusses conformance to DOE, and SWPPP requirements. The specifications denotes "AT ALL TIMES DURING THE COURSE OF THIS PROJECT, THE CONTRACTOR SHALL HAVE SPILL CLEAN UP EQUIPMENT AND MATERIALS READILY AVAILABLE. EQUIPMENT SHALL BE PARKED IN AN AREA THAT IN THE EVENT A SPILL SHALL OCCUR, THE SPILL WILL BE CONTAINED AND NO FLUIDS WILL HAVE THE POTENTIAL TO ENTER ANY OF THE OFFSITE AND ONSITE DRAINAGE SYSTEMS. ON A DAILY BASIS, THE CONTRACTOR SHALL INSPECT ALL EQUIPMENT AND PROVIDE ALL NECESSARY MAINTENANCE OF SAID EQUIPMENT AS NEEDED TO MINIMIZE THE POTENTIAL FOR ANY SPILLS OR LEAKING OF FLUIDS.

Note: The contractor is required to have a spill prevention kit on site at all times.

ELEMENT 10: Control De-Watering Not Applicable, no dewatering is anticipated

- ☐ Discharge foundation, vault, and trench dewatering water, which have characteristics similar to stormwater runoff at the site, into a controlled conveyance system before discharge to a sediment trap or sediment pond.
- ☐ Discharge clean, non-turbid de-watering water, such as well-point ground water, to systems tributary to, or directly into surface waters of the State, as specified in Element 8, provided the de-watering flow does not cause erosion or flooding of receiving waters or interfere with the operation of the system. Do not route clean dewatering water through stormwater sediment ponds. Note that "surface waters of the State" may exist on a construction site as well as off site; for example, a creek running through a site.
- ☐ Handle highly turbid or contaminated dewatering water separately from stormwater.
- ☐ Other treatment or disposal options may include:
 1. Infiltration
 2. Transport off-site in a vehicle, such as a vacuum flush truck, for legal disposal in a manner that does not pollute state waters.
 3. Ecology-approved on-site chemical treatment or other suitable treatment technologies.
 4. Sanitary or combined sewer discharge with local sewer district approval, if there is no other option.
 5. Use of a sedimentation bag with outfall to a ditch or swale for small volumes of localized dewatering.
- ☐ Construction equipment operation, clamshell digging, concrete tremie pour, or work inside a cofferdam can create highly turbid or contaminated dewatering water.
- ☐ Discharging sediment-laden (muddy) water into waters of the State likely constitutes a violation of water quality standards for turbidity. The easiest way to avoid discharging muddy water is through infiltration and preserving vegetation.

ELEMENT 11: Maintain BMPs

-  Maintain and repair all temporary and permanent erosion and sediment control BMPs as needed to assure continued performance of their intended function in accordance with BMP specifications.
-  Remove all temporary erosion and sediment control BMPs within 30 days after achieving final site stabilization or after the temporary BMPs are no longer needed. Some temporary erosion and sediment control BMPs are bio-degradable and designed to remain in place following construction such as compost socks.
-  Provide protection to all BMPs installed for the permanent control of stormwater from sediment and compaction. All BMPs that are to remain in place following completion of construction shall be

examined and placed in full operating conditions. If sediment enters the BMPs during construction, it shall be removed and the facility shall be returned to the conditions specified in the construction documents.

- ✖ Remove or stabilize trapped sediment on site. Permanently stabilize disturbed soil resulting from removal of BMPs or vegetation.

ELEMENT 12: Manage the Project – Projects subject to Minimum Requirements 1-9 must have a Certified Erosion and Sediment Control Lead (CESCL) for site inspections. Projects subject to Minimum Requirements 1-5 do not require the inspector to be certified. By the initiation of construction, the SWPPP must identify the CESCL or inspector, who shall be present on-site or on-call at all times.

- ✖ Phase development projects to the maximum degree practicable and take into account seasonal work limits to prevent soil erosion and prevent transporting sediment from the site during construction.
- ✖ Inspection and monitoring – Inspect, maintain, and repair all BMPs as needed to assure continued performance of their intended function.
- ✖ Maintain, update, and implement the SWPPP.
- ✖ Clearing and grading activities for developments shall be permitted only if conducted using an approved site development plan (e.g., subdivision approval).
- ✖ From Oct 1 through Apr 30, clearing, grading, and other soil disturbing activities is permitted only if shown that the site operator will prevent silt-laden runoff from leaving the site through a combination of the following:
 1. Site conditions including existing vegetative coverage, slope, soil type, and proximity to receiving waters.
 2. Limit activities and the extent of disturbed areas.
 3. Proposed erosion and sediment control measures.

Weather conditions can influence the seasonal limitation on site disturbance. The City of Anacortes has the authority to take enforcement action per AMC 19.76 Stormwater.

- ✖ The following activities are exempt from the seasonal clearing and grading limitations:
 1. Routine maintenance and necessary repair of erosion and sediment control BMPs;
 2. Routine maintenance of public facilities or existing utility structures that do not expose the soil or result in the removal of the vegetative cover to soil
 3. Activities where there is 100% infiltration of surface water runoff within the site in approved and installed erosion and sediment control facilities.

The project contractor will prepare a SWPPP that will expand on the site's erosion controls as required. The SWPPP and CESL will assure site is managed properly

Note: The project is required to have a CESCL and will need to maintain a project SWPPP for the duration of construction

ELEMENT 13: Protect Low Impact Development BMPs

If implementing any bioretention facilities or rain gardens, refer to the applicable BMP sections of the Manual for requirements.

This project does not propose the use of rain gardens or bioretention facilities. The only LID provision proposed is sheet flow dispersion for future driveways and roof drain dispersion for future roof areas.

Applicant Signature

Date

TAB 3 (MINIMUM REQUIREMENT #3)

- **1-2.5.3 Minimum Requirement #3 – Source Control of Pollution**

All known, available and reasonable source control BMP's must be applied to all projects. Source control BMP's must be selected, designed, maintained according to the reference Ecology Manual.

The intent of source control BMP's is to prevent stormwater from coming in contact with pollutants. They are a cost-effective means of reducing pollutants in stormwater, and, therefore, should be considered in all projects.

There is no source control pollution anticipated within this Residential Subdivision and thus this Minimum Requirement is not necessary

TAB 4 (MINIMUM REQUIREMENT #4)

- **Minimum Requirement #4 – Preservation of Natural Drainage Systems and Outfalls**

Natural drainage patterns shall be maintained and discharges from the project shall occur at the natural location, to maximum extent practicable. The manner by which runoff is discharged from the project site must not cause a significant adverse impact to downstream receiving waters and down gradient properties. All outfalls require energy dissipation.

The objective is to preserve and utilize drainage systems to the fullest extent because of the multiple stormwater benefits these systems provide; and to prevent erosion at the downstream of the discharge location.

Refer to the reference manual for supplemental guidelines and additional information under this section.

Will this project disturb the Natural Drainage System or Outfall of the project Site? Yes\No. If yes, refer to section I.2.5.4 for Supplemental Guidelines for additional information.

No. This project will not disturb the natural drainage system or outfall from the project site. Runoff will be detained prior to being released via a control structure at the site's northeast corner, as occurs today.

TAB 5 (MINIMUM REQUIREMENT #5)

- **Minimum Requirement #5 – On-site Stormwater Management**

Since this project triggers Minimum Requirements #1 through #9, and is on a parcel located within the City limits, this project has the choice to either utilize the On-site Stormwater Management BMP's from List #2 for each type of surface noted on the list; or, can demonstrate compliance with the LID Performance Standard. This project will use List #2 to meet the requirements of On-site Stormwater Management as specified below.

Is this project Flow Control Exempt? No (Yes/No) (See Appendix I-E: Flow Control-Exempt Surface Water). If yes, provide reasoning from the applicability section of 1-2.5.7 Minimum Requirement #7: Flow Control). If No, then the project triggers Minimum Requirement #7 (1-2.5.7) and possibly Minimum Requirement #8 (1-2.5.8).

Projects triggering Minimum Requirements 1 through 9, must meet the requirements in 1-2.5.5 Minimum Requirement 5 – On-site Stormwater Management.

To meet the requirements of MR #5 for this project, each surface on List #2, as listed below, will be reviewed and BMP's will be considered in the order listed for that type of surface. The first BMP for the surface that is considered feasible shall be implemented.

Lawn and Landscaped Area:

- **BMP T5.13: Post-Construction Soil Quality and Depth.** (Refer to DOE Figure V-5.3.3)
Refer to this site for requirements and specifications. All projects are required to utilize this BMP.

http://www.soilsforsalmon.org/pdf/Soil_BMP_Manual.pdf

See **Appendix 3** for the "Model Soil Management Plan for BMP T5.13" to be submitted with Drainage Report and Application Material.

An alternate document acceptable to the City of Anacortes is a Test Report provided by the Soils Supplier that identifies the soils to be used meet the specifications outlined under Minimum Requirement 5. The specifications are in both WSDOT and CSI Formats. For specifications, refer to the above referenced PDF.

This submittal can be a deferred submittal since most projects are not sure who the supplier will be at the time of building permit application. Since this project triggerings Minimum Requirements 1 through 9, the Test Report will be provided to the Engineering Department.

This submittal will be deferred since this project is not sure who the supplier will be at this time. Since this project triggers Minimum Requirements 1 through 9, the Test Report will be provided to the Engineering Department as denoted in directions above.

List #2 – Project Triggering Minimum Requirement 1 through 9

For each surface, consider the BMPs in the order listed for that type of surface. Use the first BMP that is considered feasible. No other On-site Stormwater Management BMP is necessary for that surface.

Provide feasible detail under each BMP with maintenance and operations specifications in Minimum Requirement 5.

Roofs:

1. **BMP T5.30: Full Dispersion** Feasible\Infeasible

If infeasible, explain the criteria:

Full Dispersion, BMP T5.30, is not feasible as the site is not retaining at least 65% of its natural forested or native condition.

Or, T5.10A: Downspout Full Infiltration Feasible\Infeasible

If infeasible, explain the criteria:

Full Infiltration, BMP T5.10A, is not feasible as the site does not have outwash or loam soils, and the underlying soils have an infiltration rate less than 0.3 inches per hour.

2. **BMP T7.30: Bioretention Cells, Swales and Planter Boxes** Feasible\Infeasible

If infeasible, explain the criteria:

Bioretention is not feasible as the site's underlying soils have an infiltration rate less than 0.3 inches per hour.

3. **BMP T5.10B: Downspout Dispersion Systems** Feasible\Infeasible

If infeasible, explain the criteria:

Dispersion is being proposed for roof runoff. Downspout Dispersion Systems are only functional when having a vegetated flow path of 25 – 50 feet. The proposed lots will have sufficient room to provide for a dispersion system for new home roofs. Based on lot configuration, topography, and grading plan, it is anticipated that most lots will be able to provide at least 50-feet of down-gradient area available, however to be conservative, this analysis only assumes two lots will be able to achieve 50-feet length, with the remaining four lots being assumed to only have 25-feet available to allow flexibility.

4. **BMP T5.10C: Perforated Stub-out Connections** Feasible\Infeasible

If infeasible, explain the criteria:

Not applicable since Downspout Dispersion Systems are proposed

Other Hard Surfaces: List #2

1. **BMP T5.30 Full Dispersion** Feasible\Infeasible

If infeasible, explain the criteria:

Full Dispersion, BMP T5.30, is not feasible as the site is not retaining at least 65% of its natural forested or native condition.

2. **BMP T5.15: Permeable Pavements Feasible\Infeasible**

If infeasible, explain the criteria:

Permeable Pavement is not feasible per the 2014 DOE Manual as the site's infiltration capacity is less than 0.30 inches per hour.

3. **BMP T7.30: Biorention Cells, Swales and Planter Boxes Feasible\Infeasible**

If infeasible, explain the criteria:

Just as for Permeable Pavement, Bioretention is infeasible per the 2014 DOE Manual as the underlying soils within the site has a lack of infiltration capacity (less than 0.30 inches per hour).

4. **BMP T5.12: Sheet Flow Dispersion Feasible\Infeasible**

If infeasible, explain the criteria:

Sheet Flow Dispersion BMP T5.12 will be used to disperse driveway runoff on each lot at the time of lot development and to disperse sidewalk areas. Lots are of a sufficient size that a 50-foot dispersion area os reasonable. Sheet flow dispersion is not feasible for the new road as there is no available room to implement a facility of this type and existing site topography.

Or, **BMP T5.11: Concentrated Flow Dispersion Feasible\Infeasible**

If infeasible, explain the criteria:

Concentrated Flow Dispersion per BMP T5.11 will be used to disperse driveway runoff on each lot at the time of lot development on driveways which are sloped. Lots are of a sufficient size that a 50-foot dispersion area is reasonable. Sheet flow dispersion is not feasible for the new road as there is no available room to implement a facility of this type.

Applicant Signature

Date

TAB 6 – (MINIMUM REQUIREMENT 6 - RUNOFF TREATMENT)

Refer to 1.2.5.6 and provide the required information for this Minimum Requirement.

This residential project is responsible for providing Basic Runoff Treatment. Runoff treatment from this residential project will be provided by the incorporation of a dead storage cell located within the bottom of the proposed detention pond. Per WWHM the 24-hour Online Water Quality Volume that must be provided for the proposed residential development is 0.09 acre-feet or 3,928 cubic feet. Refer to the attached WWHM Views and Report denoting the required volume attached in Appendix 10. The dead storage cell in the bottom of the pond is estimated to be 1.4-feet deep and will provide 2,976 cubic feet of dead storage volume below the pond's live storage volume.

TAB 7 – (MINIMUM REQUIREMENT 7 – FLOW CONTROL)

Refer to 1.2.5.7 and provide the required information for this Minimum Requirement.

Runoff from the project basin area, including areas proposed for future development, will be collected and tight-lined to an above ground detention pond system to be located within the northeast corner of the subject property. The detention volume has been provided to detain runoff and will release it at controlled rates via a control structure. The system will release runoff northeasterly to the existing ditch/swale located along the southerly side of Orchard Avenue, north of the site. The proposed stormwater control structure has been specifically designed for this project so that when the combined flow duration curve, or the inflow to the detention pond from the post-developed conditions, is routed to the proposed detention pond, runoff will be detained and released at a rate not to exceed the established Pre-developed flow durations. The flow curve depicting the release of stormwater from the proposed detention pond and control structure is identified as “801 POC1 Mitigated Flow” on the attached WWHM exhibits. This mitigated flow release rate is based on the existing (pre-developed) target flow duration noted as 501 POC 1. Based on the proposed detention pond and control structure the system provides adequate detention volume and a controlled release of stormwater so the waters discharged from the site conform to the runoff control requirements of the 2014 DOE manual. To substantiate that the system is sufficient one must obtain a “pass” within the WWHM software which assures that the post-developed condition releases stormwater at rates not to exceed the thresholds identified as the pre-developed, pasture condition.

Using the design information previously noted, WWHM has been used to design the necessary detention pond volume and size the control structure to be constructed necessary to mitigate the increase in runoff generated from the proposed residential development proposed herein. The detention pond and control structure proposed with this analysis are as follows:

Proposed Detention Pond:

Detention Pond Bottom Footprint Area: 3,096 square feet
Pond Live Storage Depth: 2.0-ft deep + 1 foot freeboard = 3 feet deep
Pond Dead Storage Depth 1.4-feet + 0.5-feet sedimentation depth as required
Pond Dead Storage Bottom Elevation = 291.23
Pond Dead Storage Top Elevation = Live Storage Bottom Elevation = 292.63
Pond Top Live Storage Elevation = 294.63
Pond Top Elevation (incl 1-foot freeboard) = 295.63

Control Structure:

Proposed Notch Weir/Orifice Control Structure
Riser Height: 2.0-ft. (above outlet elevation) = Elevation 294.63
Riser Diameter: 12 in.
Rectangular Notch Height = 0.69-feet (from top of riser)
Rectangular Notch Width = 0.040-feet (0.48-inches)
Bottom Orifice Diameter: 0.85 inches. (0 above outlet elevation)

Using the developed land conditions previously noted, the control structure noted above and an 12-inch diameter overflow riser, it is estimated that the following mitigated flows will be discharged from the site:

Flow Frequency Return Periods for Mitigated. POC1 (801)

<u>Return Period</u>	<u>Flow (cfs)</u>
2 year	0.0263
5 year	0.0532
10 year	0.0012
25 year	0.1328
50 year	0.1869
100 year	0.2583

An above ground detention pond system is proposed to provide necessary stormwater detention for runoff control for this project. This detention pond and controlled release system is to be located within the northeast corner of the site, at the subject property's low point as shown on the attached information. The proposed detention pond will have a live storage bottom footprint area of approximately 3,096 square feet and is designed to have 2.0-feet of live storage depth and an additional foot of freeboard. Refer to the attached Developed Conditions Drainage Exhibit and WWHM design information located in Appendix 10 at the end of this report. The detention pond will release runoff via a control structure which will limit the release of stormwater northeasterly to the existing drainage ditch located along the south side of Orchard Avenue which currently receives runoff from the subject property. Based on the analysis performed by WWHM, a 3-foot deep detention pond with a minimum footprint area of 3,096 square feet and use of the control structure as designed, is sufficient to mitigate the estimated increase in storm water from the proposed residential development, and the detention system "passes" as noted on the attached WWHM Report located in Appendix 10. This "pass" signifies that the currently shown stormwater system is sized as required to provide mitigation as determined by use of a continuous model software, WWHM, as required by the 2014 DOE manual for the 1.7-acres pf pasture to remail and 1.41-acres of new surface areas when dispersing roof runoff and driveway runoff areas as depicted within this report.

Per DOE Volume III Chapter 3 Section III-3.2 the Emergency overflow for this pond shall be sufficient to convey up through the 100-year developed, unmitigated (701) storm event for this project is estimated to be 0.4170 cfs (developed, mitigated, 801 = 0.2585 cfs), per the WWMH modeling attached. With using the access road as the emergency overflow, it will be 12-feet wide. Based on the equation noted within the DOE Volume III Chapter 3, Section III-3.2 Detention Facilities Emergency Overflow Spillway Capacity equation based on a broad crested wier, and minimum flow depth of 0.2-feet specified within this section, it will take a width of L=6.78-feet to convey (overflow) during the 100-year event, DOE denoted use of this equation "or 6-feet minimum", thus the overflow spillway, at 12-feet wide will have more than sufficient overflow capacity to serve this project as it will be greater than 6-ft wide.

$$L = [Q100 / (3.21H^{5/2})] - 2.4H = 6.78 \text{ feet}$$

Based on using the "developed, unmitigated" 25-year storm event the 3.11-acre basin area is estimated to generate a total of approximately 0.2929 cfs of flow, with the 100-year event only generating 0.4170. The flows are such that it can be noted, though no single pipe carries the entire developed, unmitigated site runoff, the pipes are sufficient carry over double the anticipated 100-year event and individual further calculations can be provided if requested.

- 6" pipe at the min 1.75% slope has the capacity to carry 0.80 cfs
- 8" pipe at the min 0.5% slope has the capacity to convey 0.94 cfs
- 12" pipe at the min 0.3% slope has the capacity to convey 2.11 cfs

With this information it is clear all onsite pipes have the capacity to serve the site as noted on the civil plans prepared for this project.

TAB 8 – (MINIMUM REQUIREMENT 8 – WETLAND PROTECTION)

Refer to 1.2.5.8 and provide the required information for this Minimum Requirement.

There are no wetland areas within the areas of the subject property proposed for construction.

TAB 9 – (MINIMUM REQUIREMENT 9 – OPERATION AND MAINTENANCE)

Refer to 1.2.5.9 and provide the required information for this Minimum Requirement.

OPERATIONS & MAINTENANCE OF PRIVATELY OWNED DRAINAGE FACILITIES:

Attached herein are general maintenance requirements from the 2014 Department of Ecology Drainage Manual, Volume V, Section 4.6 as applicable to Detention Ponds, Control Structures, Catch Basins, and Wet Ponds. These requirements, together with those listed below, shall apply to onsite drainage facilities, and shall be used as a basis for inspecting and maintaining the drainage facilities within this project. The owner, or homeowners association of the plat is responsible for assigning an individual to periodically inspect the storm system improvements herein.

Detention Pond Maintenance is needed when any trash or debris has accumulated which exceeds one cubic foot per 1,000 square feet (this is about equal to the amount of trash it would take to fill up a standard size garbage can). This debris shall be cleared from the site. Once every five years, unless evidence suggests otherwise, an engineer shall inspect the inside of the detention facility and make recommendations for repairs and modifications as necessary. Once every five years, an inspection and measurement of debris accumulation depth shall be conducted within the detention pond and shall be removed when the debris exceeds 10% of the designed pond depth (0.3' or 3.6"). No dumping of grass clippings or debris should be allowed within the pond area. Refer to the Table 4.5 Maintenance Standards (excerpts attached) from the 2014 DOE Stormwater Manual for specific information regarding maintenance.

Catch Basins throughout the site shall be inspected once a year to identify accumulated levels of silt and debris within catch basin sumps and general structure integrity. Refer to the attached information from the 2014 DOE Stormwater Manual regarding maintenance of control structures and catch basins.

Control Structure shall be inspected once a year to identify accumulated levels of silt, trash, or debris within structure along with any structural damage. Any material accumulation 0.5-feet in depth or greater maintenance is needed to remove the material. Refer to the attached information from the 2014 DOE Stormwater Manual regarding maintenance of control structures and catch basins.

Stormwater Conveyance Piping shall be inspected once each year, and at not more than five-year intervals, all storm water pipes shall be flushed. Flushed debris shall be contained and disposed offsite, not allowed to enter the detention facility.

APPENDIX 1 – Survey performed by a Professional Land Surveyor

Refer to attached “Existing Conditions, Site Prep and Erosion Control Sheet” attached for survey information provided by Lisser and Associates also attached within this Appendix.

APPENDIX 2 – Soils Analysis (Volume 1, Chapter 3.1.1)

Geotechnical Report for Cherry Court by Geotest Engineers dated February 26th, 2020

APPENDIX 3 – Model Soil Management Plan for BMP T5.13

An alternate document acceptable to the City of Anacortes is a Test Report provided by the Soils Supplier that identifies the soils to be used meet the specifications outlined under Minimum Requirement 5. The specifications are in both WSDOT and CSI Formats. For specifications, refer to the above referenced PDF.

This submittal can be a deferred submittal since most projects are not sure who the supplier will be at the time of building permit application. For projects that trigger Minimum Requirements 1 through 5, the Test Report will be provided to the Building Department. Projects triggering Minimum Requirements 1 through 9, the Test Report will be provided to the Engineering Department.

This submittal will be deferred since this project is unsure of who the supplier will be. Since this project triggers Minimum Requirements 1 through 9, the Test Report will be provided to the Engineering Department as required.

DEFERRED SUBMITTAL: PROVIDE A TEST REPORT FROM SOILS SUPPLIER TO THE ENGINEERING DEPT.

PROJECT INFORMATION "Model Soil Management Plan for BMP T5.13" age # ____ of ____ pages
Complete all information on page 1; only site address and permit number on additional pages.

Site Address / Lot No.: _____	
Permit Type: _____	Permit Number: _____
Permit Holder: _____	Phone: _____
Mailing Address: _____	
Contact Person: _____	Phone: _____
Plan Prepared By: _____	

ATTACHMENTS REQUIRED (Check off required items that are attached to this plan)

☐ Site Plan showing, to scale:	☐ Areas of undisturbed native vegetation (no amendment required)
	☐ New planting beds and turf areas (amendment required)
	☐ Type of soil improvement proposed for each area
☐ Soil test results (required if proposing custom amendment rates)	
☐ Product test results for proposed amendments	

AREA # _____ (should match Area # on Site Plan)

PLANTING TYPE ☐ Turf ☐ Undisturbed native vegetation ☐ Planting Beds ☐ Other: _____		
SQUARE FOOTAGE OF THIS AREA: _____ square feet		
SCARIFICATION ☐ Subsoil will be scarified	☐ inches (depth) of scarification needed to achieve finished total 12" loosened depth.	
PRE-APPROVED AMENDMENT METHOD: ☐ Topsoil import ☐ Amend with compost ☐ Stockpile and amend (____ cu. yds. stockpiled)	☐ inches of compost or imported topsoil applied X <u>3.1</u> (conversion factor, inches to cubic yards) _____ = cu. yards per 1,000 sq. ft. X _____,000s sq.ft. in this area _____ = cubic yards of amendment → → → → → (needed to cover this area to designated depth)	PRODUCT: _____ QUANTITY: _____ CU. YDS.
CUSTOM AMENDMENT ☐ Topsoil import ☐ Topsoil & compost lift ☐ Amend ☐ Stockpile and amend (____ cu. yds. stockpiled)	Attach test results and calculations. ☐ inches organic matter or topsoil import X <u>3.1</u> _____ = cu. yards / 1,000 sq. ft. X _____,000s sq.ft. in this area _____ = cubic yards of amendment → → → → →	PRODUCT: _____ QUANTITY: _____ CU. YDS.
MULCH	_____,000 sq.ft. X <u>6.2</u> (conversion, to give 2 inch mulch depth) _____ = cubic yards of mulch → → → → →	PRODUCT: _____ QUANTITY: _____ CU. YDS.

TOTAL AMENDMENT/TOPSOIL/MULCH FOR ALL AREAS (complete on page 1 only, totaling all areas/pages in this Plan)

☐ Product #1: _____	☐ Quantity: _____ cu. yds.
☐ Test Results: _____ % organic matter C:N ratio <25:1 (except mulch, or <35:1 for native plants)	_____ "stable" (yes/no)
☐ Product #2: _____	☐ Quantity: _____ cu. yds.
☐ Test Results: _____ % organic matter C:N ratio <25:1 (except mulch, or <35:1 for native plants)	_____ "stable" (yes/no)
☐ Product #3: _____	☐ Quantity: _____ cu. yds.
☐ Test Results: _____ % organic matter C:N ratio <25:1 (except mulch, or <35:1 for native plants)	_____ "stable" (yes/no)

Date:	Inspector:	Approved:	Revisions Required:
Date:	Inspector:	Approved:	Revisions Required:

APPENDIX 4 – Determining Construction Site Sediment Damage Potential (Appendix 7 – NPDES Phase II Permit)

See attached Construction Site Sediment Transport Potential Worksheet as required for this project.

- i.
- ii.
- iii.

iv. **APPENDIX 7 – Determining Construction Site Sediment Damage Potential**

The following rating system allows objective evaluation of a particular development site's potential to discharge sediment. Permittees may use the rating system below or develop alternative process designed to identify site-specific features which indicate that the site must be inspected prior to clearing and construction. Any alternative evaluation process must be documented and provide for equivalent environmental review.

Step one is to determine if there is a sediment/erosion sensitive feature downstream of the development site. If there is such a site downstream complete step two, assessment of hydraulic nearness. If there is a sediment/erosion sensitive feature and it is hydraulically near the site then go to step three to determine the construction site sediment transport potential.

7. **STEP 1 – Sediment/Erosion Sensitive Feature Identification**

Sediment/erosion sensitive features are areas subject to significant degradation due to the effect of sediment deposition or erosion. Special protection must be provided to protect them.

Sediment/erosion sensitive features include but are not limited to:

- i. Salmonid bearing fresh water streams and their tributaries or freshwater streams that would be Salmonid bearing if not for anthropogenic barriers;
- ii. Lakes;
- iii. Category I, II, and III wetlands;
- iv. Marine near-shore habitat;
- v. Sites containing contaminated soils where erosion could cause dispersal of contaminants; and
- vi. Steep slopes (25% or greater) associated with one of the above features.

Identify any sediment/erosion sensitive features, and proceed to step two. If there are none the assessment is complete.

Ace of Hearts Creek located approximately 125 feet easterly of the area of the site proposed for development and is noted as a "Fish Bearing" per the Department of Natural Resources FPARS Mapping. Furthermore, the slopes along the edge of Ace of Hearts Creek are slightly steeper than 25% in some locations.

i. **STEP 2 – Hydraulic Nearness Assessment**

Sites are hydraulically near a feature if the pollutant load and peak quantity of runoff from the site will not be naturally attenuated before entering the feature. The conditions that render a site hydraulically near to a feature include, but are not limited to, the following:

- i. The feature or a buffer to protect the feature is within 200 feet downstream of the site.
- ii. Runoff from the site is tight-lined to the feature or flows to the feature through a channel or ditch.

A site is not hydraulically near a feature if one of the following takes place to provide attenuation before runoff from the site enters the feature:

- vii. Sheet flow through a vegetated area with dense ground cover
- viii. Flow through a wetland not included as a sensitive feature
- ix. Flow through a significant shallow or adverse slope, not in a conveyance channel, between the site and the sensitive feature.

Identify any of the sediment/erosion sensitive features from step one that are hydraulically near the site, and proceed to step three. If none of the sediment/erosion sensitive features are hydraulically near the site, the assessment is complete.

Discharge from the sites proposed detention pond will be released to an existing shallow ditch located along the south side of Orchard Avenue, which conveys runoff easterly to Ace of Hearts Creek as occurs today.

x. **STEP 3 – Construction Site Sediment Transport Potential**

Using the worksheet below, determine the total points for each development site. Assign points based on the most critical condition that affects 10% or more of the site.

If soil testing has been performed on site, the results should be used to determine the predominant soil type on the site. Otherwise, soil information should be obtained from the county soil survey to determine Hydrologic Soil Group (Table of Engineering Index Properties for step 1.D) and Erosion Potential (Table of Water Features for step 1.E)

When using the county soil survey, the dominant soil type may be in question, particularly when the site falls on a boundary between two soil types or when one of two soil types may be present on a site. In this case, the soil type resulting in the most points on the rating system will be assumed unless site soil tests indicate that another soil type dominates the site.

Use the point score from Step 3 to determine whether the development site has a high potential for sediment transport off of the site.

<u>Total Score</u>	<u>Transport Rating</u>
<100	Low
≥ 100	High

A high transport rating indicates a higher risk that the site will generate sediment contaminated runoff.

Refer to the attached worksheet prepared for this project noting a score of 100 for this site, however this includes the development of all 6-future home sites, which will all not occur concurrently with plat infrastructure construction. Not accounting for home development reduces the total score below the threshold transport rating to “Low”.

Construction Site Sediment Transport Potential Worksheet

A. <u>Existing slope of site (average, weighted by aerial extent):</u>		Points
2% or less		0
>2-5%		5
>5-10%		15
>10-15%		30
>15%		50
B. <u>Site Area to be cleared and/or graded:</u>		
<5,000 sq. ft.		0
5,000 sq. ft. – 1 acre		30
>1 acres*		50
<i>*This includes future home site construction which will not occur at the same time as the road construction, thus generally less than 1-acre of area will be cleared and/or graded at one time. With this in mind this could be represented as 30 points rather than 50 points as noted here.</i>		
C. <u>Quantity of cut and/or fill on site:</u>		
<500 cubic yards		0
500 – 5,000 cubic yards		5
>5,000 – 10,000 cubic yards		10
>10,000 – 20,000 cubic yards		25
>20,000 cubic yards		40
D. <u>Runoff potential of predominant soils (Natural Resources Conservation Service):</u> Hydrologic		
soil group A		0
Hydrologic soil group B		10
Hydrologic soil group C		20
Hydrologic soil group D		40
E. <u>Erosion Potential of predominant soils (Unified Classification System):</u> GW, GP, SW,		
SP soils		0
Dual classifications (GW-GM, GP-GM, GW-GC, GP-GC, SW-SM, SW-SC, SP-SM, SP-SC)		10
GM, GC, SM , SC soils		20
ML, CL, MH, CH soils		40
F. <u>Surface or Groundwater entering site identified and intercepted¹:</u>		
Yes		0
No		25
G. <u>Depth of cut or height of fill >10 feet:</u>		
Yes		25
No		0
H. <u>Clearing and grading will occur in the wet season (October 1 – May 1):</u> Yes 50		
No		0

TOTAL POINTS..... 100

**This includes future home site construction which will not occur at the same time as the road construction, thus generally less than 1-acre of area will be cleared and/or graded at one time. With this in mind this could be represented as 30 points rather than 50 points as noted here.*

APPENDIX 5 – Site Plan with all applicable information (Minimum Size 11x17 at a legible scale)

See attached Civil Plans

APPENDIX 6 – Documented Site Photos (Show all directions of the site, including frontage)



Location: *View from Orchard Avenue looking southwest*

Description of the photo: *Subject property looking southwest*

Photo taken by: *HLN*



Location: *View from private roadway along south side of site*

Description of the photo: *Subject property looking northwest*

Photo taken by: *HLN*



Location: View from Orchard Avenue

Description of the photo: Subject property looking southeast along west property line

Photo taken by: HLN



Location: View along north side of Orchard Avenue

Description of the photo: Existing ditch outlet at subject property's northeast corner looking east

Photo taken by: HLN



Location: View along north side of Orchard Avenue

Description of the photo: From subject property's northeast corner looking west

Photo taken by: HLN

APPENDIX 7 – Drainage BMP Facility Maintenance Covenant

Note: To be recorded prior to: 1) Temporary Certificate of Occupancy; 2) Final Certificate of Occupancy, and or; 3) Final Acceptance of the project.

This is Covenant is required for any Permanent Stormwater Facility constructed on a project site. The applicant should work with the City of Anacortes Engineering Department on formalizing the document for recording.

The owner will coordinate with the City for the exact wording to be added to the short plat as needed for required maintenance for the associated drainage facilities.

APPENDIX 8 – Vicinty Map, Aerial Exhibit, and Downstream Exhibit

APPENDIX 9 – NRCS/SCS Soils Information

APPENDIX 10 – WWHM Views and WWHM Report

APPENDIX 11 – 2014 DOE BMP T5.10B, T5.11, T5.12, and T5.13

Appendix 12 - Excerpts from DOE Manual and City of Anacortes Stormwater Comprehensive Plan

**Table V-4.5.2(3) Maintenance Standards - Closed Detention Systems
(Tanks/Vaults) (continued)**

Maintenance Component	Defect	Conditions When Maintenance is Needed	Results Expected When Maintenance is Performed
	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).

Table V-4.5.2(4) Maintenance Standards - 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 is not in upright position (allow up to 10% from plumb). Connections to outlet pipe	Structure securely attached to wall and outlet pipe. Structure in correct position. Connections to outlet pipe are water tight; structure repaired or replaced and works as

Table V-4.5.2(4) Maintenance Standards - Control Structure/Flow Restrictor (continued)

Maintenance Component	Defect	Condition When Maintenance is Needed	Results Expected When Maintenance is Performed
		are not watertight and show signs of rust. Any holes - other than designed holes - in the structure.	designed. Structure has no holes other than designed holes.
Cleanout Gate	Damaged or Missing	Cleanout gate is not watertight or is missing. Gate cannot be moved up and down by one maintenance person. Chain/rod leading to gate is missing or damaged. Gate is rusted over 50% of its surface area.	Gate is watertight and works as designed. Gate moves up and down easily and is watertight. Chain is in place and works as designed. 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).

Table V-4.5.2(5) Maintenance Standards - 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%. 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. Trash or debris in any inlet or outlet pipe blocking more than 1/3 of its height. Dead animals or vegetation that could generate odors that could cause complaints or dangerous gases (e.g., methane).	No Trash or debris located immediately in front of catch basin or on grate opening. No trash or debris in the catch basin. Inlet and outlet pipes free of trash or debris. 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 is sit-

Table V-4.5.2(5) Maintenance Standards - Catch Basins (continued)

Maintenance Component	Defect	Conditions When Maintenance is Needed	Results Expected When Maintenance is performed
		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	ting 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. 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.	Basin replaced or repaired to design standards. 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. Vegetation growing in inlet/outlet pipe joints that is more than six inches tall and less than six inches apart.	No vegetation blocking opening to basin. No vegetation or root growth present.
	Contamination and Pollution	See "Detention Ponds" (No. 1).	No pollution present.
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	Mechanism cannot be opened by one maintenance person with proper tools. Bolts into	Mechanism opens with

Table V-4.5.2(5) Maintenance Standards - Catch Basins (continued)

Maintenance Component	Defect	Conditions When Maintenance is Needed	Results Expected When Maintenance is performed
	Working	frame have less than 1/2 inch of thread.	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.

Table V-4.5.2(6) Maintenance Standards - 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 are bent out of shape more than 3 inches.	Bars in place with no bends more than 3/4

Table V-4.5.2(6) Maintenance Standards - Debris Barriers (e.g., Trash Racks) (continued)

Maintenance Components	Defect	Condition When Maintenance is Needed	Results Expected When Maintenance is Performed
	Bars.	Bars are missing or entire barrier missing. Bars are loose and rust is causing 50% deterioration to any part of barrier.	inch. Bars in place according to design. Barrier replaced or repaired to design standards.
	Inlet/Outlet Pipe	Debris barrier missing or not attached to pipe	Barrier firmly attached to pipe

Table V-4.5.2(7) Maintenance Standards - Energy Dissipaters

Maintenance Components	Defect	Conditions When Maintenance is Needed	Results Expected When Maintenance is Performed
External:			
Rock Pad	Missing or Moved Rock	Only one layer of rock exists above native soil in area five square feet or larger, or any exposure of native soil.	Rock pad replaced to design standards.
	Erosion	Soil erosion in or adjacent to rock pad.	Rock pad replaced to design standards.
Dispersion Trench	Pipe Plugged with Sediment	Accumulated sediment that exceeds 20% of the design depth.	Pipe cleaned/-flushed so that it matches design.
	Not Discharging Water Properly	Visual evidence of water discharging at concentrated points along trench (normal condition is a "sheet flow" of water along trench). Intent is to prevent erosion damage.	Trench redesigned or rebuilt to standards.
	Perforations Plugged.	Over 1/2 of perforations in pipe are plugged with debris and sediment.	Perforated pipe cleaned or replaced.

**Table V-4.5.2(7) Maintenance Standards - Energy Dissipaters
(continued)**

Maintenance Components	Defect	Conditions When Maintenance is Needed	Results Expected When Maintenance is Performed
	Water Flows Out Top of "Distributor" Catch Basin.	Maintenance person observes or receives credible report of water flowing out during any storm less than the design storm or its causing or appears likely to cause damage.	Facility rebuilt or redesigned to standards.
	Receiving Area Over-Saturated	Water in receiving area is causing or has potential of causing landslide problems.	No danger of landslides.
Internal:			
Manhole/Chamber	Worn or Damaged Post, Baffles, Side of Chamber	Structure dissipating flow deteriorates to 1/2 of original size or any concentrated worn spot exceeding one square foot which would make structure unsound.	Structure replaced to design standards.
	Other Defects	See "Catch Basins" (No. 5).	See "Catch Basins" (No. 5).

Table V-4.5.2(8) Maintenance Standards - Typical Biofiltration Swale

Maintenance Component	Defect or Problem	Condition When Maintenance is Needed	Recommended Maintenance to Correct Problem
General	Sediment Accumulation on Grass	Sediment depth exceeds 2 inches.	Remove sediment deposits on grass treatment area of the bio-swale. When finished, swale should be level from side to side and drain freely toward outlet. There should be no areas of standing water once inflow has ceased.
	Standing Water	When water stands in the swale between storms and does not drain freely.	Any of the following may apply: remove sediment or trash blockages, improve grade from head to foot of swale, remove clogged check dams, add underdrains or convert to a wet

Table V-4.5.2(10) Maintenance Standards - Filter Strips (continued)

Maintenance Component	Defect or Problem	Condition When Maintenance is Needed	Recommended Maintenance to Correct Problem
		ation starts to take over.	
	Trash and Debris Accumulation	Trash and debris accumulated on the filter strip.	Remove trash and Debris from filter.
	Erosion/Scouring	Eroded or scoured areas due to flow channelization, or higher flows.	For ruts or bare areas less than 12 inches wide, repair the damaged area by filling with crushed gravel. The grass will creep in over the rock in time. If bare areas are large, generally greater than 12 inches wide, the filter strip should be re-graded and re-seeded. For smaller bare areas, over-seed when bare spots are evident.
	Flow spreader	Flow spreader uneven or clogged so that flows are not uniformly distributed through entire filter width.	Level the spreader and clean so that flows are spread evenly over entire filter width.

Table V-4.5.2(11) Maintenance Standards - Wetponds

Maintenance Component	Defect	Condition When Maintenance is Needed	Results Expected When Maintenance is Performed
General	Water level	First cell is empty, doesn't hold water.	Line the first cell to maintain at least 4 feet of water. Although the second cell may drain, the first cell must remain full to control turbulence of the incoming flow and reduce sediment resuspension.
	Trash and Debris	Accumulation that exceeds 1 CF per	Trash and debris removed from pond.

Table V-4.5.2(11) Maintenance Standards - Wetponds (continued)

Maintenance Component	Defect	Condition When Maintenance is Needed	Results Expected When Maintenance is Performed
		1000-SF of pond area.	
	Inlet/Outlet Pipe	Inlet/Outlet pipe clogged with sediment and/or debris material.	No clogging or blockage in the inlet and outlet piping.
	Sediment Accumulation in Pond Bottom	Sediment accumulations in pond bottom that exceeds the depth of sediment zone plus 6-inches, usually in the first cell.	Sediment removed from pond bottom.
	Oil Sheen on Water	Prevalent and visible oil sheen.	Oil removed from water using oil-absorbent pads or vactor truck. Source of oil located and corrected. If chronic low levels of oil persist, plant wetland plants such as <i>Juncus effusus</i> (soft rush) which can uptake small concentrations of oil.
	Erosion	Erosion of the pond's side slopes and/or scouring of the pond bottom, that exceeds 6-inches, or where continued erosion is prevalent.	Slopes stabilized using proper erosion control measures and repair methods.
	Settlement of Pond Dike/Berm	Any part of these components that has settled 4-inches or lower than the design elevation, or inspector determines dike/berm is unsound.	Dike/berm is repaired to specifications.
	Internal Berm	Berm dividing cells should be level.	Berm surface is leveled so that water flows evenly over entire length of

Table V-4.5.2(11) Maintenance Standards - Wetponds (continued)

Maintenance Component	Defect	Condition When Maintenance is Needed	Results Expected When Maintenance is Performed
			berm.
	Overflow Spillway	Rock is missing and soil is exposed at top of spillway or outside slope.	Rocks replaced to specifications.

Table V-4.5.2(12) Maintenance Standards - Wetvaults

Maintenance Component	Defect	Condition When Maintenance is Needed	Results Expected When Maintenance is Performed
General	Trash/Debris Accumulation	Trash and debris accumulated in vault, pipe or inlet/outlet (includes floatables and non-floatables).	Remove trash and debris from vault.
	Sediment Accumulation in Vault	Sediment accumulation in vault bottom exceeds the depth of the sediment zone plus 6-inches.	Remove sediment from vault.
	Damaged Pipes	Inlet/outlet piping damaged or broken and in need of repair.	Pipe repaired and/or replaced.
	Access Cover Damaged/Not Working	Cover cannot be opened or removed, especially by one person.	Pipe repaired or replaced to proper working specifications.
	Ventilation	Ventilation area blocked or plugged.	Blocking material removed or cleared from ventilation area. A specified % of the vault surface area must provide ventilation to the vault interior (see design specifications).
	Vault Structure Damage - Includes Cracks in Walls Bottom, Damage to	Maintenance/inspection personnel determine that the vault is not structurally sound. Cracks wider than 1/2-	Vault replaced or repairs made so that vault meets design specifications and is structurally sound. Vault repaired so that no cracks

V-4.6 Maintenance Standards for Drainage Facilities

The facility-specific maintenance standards contained in this section are intended to be conditions for determining if maintenance actions are required as identified through inspection. They are not intended to be measures of the facility's required condition at all times between inspections. In other words, exceedence of these conditions at any time between inspections and/or maintenance does not automatically constitute a violation of these standards. However, based upon inspection observations, the inspection and maintenance schedules shall be adjusted to minimize the length of time that a facility is in a condition that requires a maintenance action.

Table V-4.5.2(1) Maintenance Standards - Detention Ponds

Maintenance Component	Defect	Conditions When Maintenance Is Needed	Results Expected When Maintenance Is Performed
General	Trash & Debris	Any trash and debris which exceed 1 cubic feet per 1,000 square feet. In general, there should be no visual evidence of dumping. If less than threshold all trash and debris will be removed as part of next scheduled maintenance.	Trash and debris cleared from site
	Poisonous Vegetation and noxious weeds	Any poisonous or nuisance vegetation which may constitute a hazard to maintenance personnel or the public. Any evidence of noxious weeds as defined by State or local regulations. (Apply requirements of adopted IPM policies for the use of herbicides).	No danger of poisonous vegetation where maintenance personnel or the public might normally be. (Coordinate with local health department) Complete eradication of noxious weeds may not be possible. Compliance with State or local eradication policies required
	Contaminants	Any evidence of oil,	No contaminants or pol-

Table V-4.5.2(1) Maintenance Standards - Detention Ponds (continued)

Maintenance Component	Defect	Conditions When Maintenance Is Needed	Results Expected When Maintenance Is Performed
	and Pollution	gasoline, contaminants or other pollutants (Coordinate removal/cleanup with local water quality response agency).	lutants present.
	Rodent Holes	Any evidence of rodent holes if facility is acting as a dam or berm, or any evidence of water piping through dam or berm via rodent holes.	Rodents destroyed and dam or berm repaired. (Coordinate with local health department; coordinate with Ecology Dam Safety Office if pond exceeds 10 acre-feet.)
	Beaver Dams	Dam results in change or function of the facility.	Facility is returned to design function. (Coordinate trapping of beavers and removal of dams with appropriate permitting agencies)
	Insects	When insects such as wasps and hornets interfere with maintenance activities.	Insects destroyed or removed from site. Apply insecticides in compliance with adopted IPM policies
	Tree Growth and Hazard Trees	Tree growth does not allow maintenance access or interferes with maintenance activity (i.e., slope mowing, silt removal, vactoring, or equipment movements). If trees are not interfering with access or maintenance, do not remove	Trees do not hinder maintenance activities. Harvested trees should be recycled into mulch or other beneficial uses (e.g., alders for firewood). Remove hazard Trees

Table V-4.5.2(1) Maintenance Standards - Detention Ponds (continued)

Maintenance Component	Defect	Conditions When Maintenance Is Needed	Results Expected When Maintenance Is Performed
		If dead, diseased, or dying trees are identified (Use a certified Arborist to determine health of tree or removal requirements)	
Side Slopes of Pond	Erosion	Eroded damage over 2 inches deep where cause of damage is still present or where there is potential for continued erosion. Any erosion observed on a compacted berm embankment.	Slopes should be stabilized using appropriate erosion control measure (s); e.g., rock reinforcement, planting of grass, compaction. If erosion is occurring on compacted berms a licensed civil engineer should be consulted to resolve source of erosion.
Storage Area	Sediment	Accumulated sediment that exceeds 10% of the designed pond depth unless otherwise specified or affects inletting or outletting condition of the facility.	Sediment cleaned out to designed pond shape and depth; pond reseeded if necessary to control erosion.
	Liner (if Applicable)	Liner is visible and has more than three 1/4-inch holes in it.	Liner repaired or replaced. Liner is fully covered.
Ponds Berms (Dikes)	Settlements	Any part of berm which has settled 4 inches lower than the design elevation If settlement is apparent, measure berm to determine amount of settlement	Dike is built back to the design elevation.

Table V-4.5.2(1) Maintenance Standards - Detention Ponds (continued)

Maintenance Component	Defect	Conditions When Maintenance Is Needed	Results Expected When Maintenance Is Performed
		Settling can be an indication of more severe problems with the berm or outlet works. A licensed civil engineer should be consulted to determine the source of the settlement.	
	Piping	Discernable water flow through pond berm. Ongoing erosion with potential for erosion to continue. (Recommend a Geotechnical engineer be called in to inspect and evaluate condition and recommend repair of condition.	Piping eliminated. Erosion potential resolved.
Emergency Overflow/ Spillway and Berms over 4 feet in height	Tree Growth	Tree growth on emergency spillways creates blockage problems and may cause failure of the berm due to uncontrolled overtopping. Tree growth on berms over 4 feet in height may lead to piping through the berm which could lead to failure of the berm.	Trees should be removed. If root system is small (base less than 4 inches) the root system may be left in place. Otherwise the roots should be removed and the berm restored. A licensed civil engineer should be consulted for proper berm/spillway restoration.
	Piping	Discernable water flow through pond berm. Ongoing erosion with	Piping eliminated. Erosion potential resolved.

Table V-4.5.2(1) Maintenance Standards - Detention Ponds (continued)

Maintenance Component	Defect	Conditions When Maintenance Is Needed	Results Expected When Maintenance Is Performed
		potential for erosion to continue. (Recommend a Geotechnical engineer be called in to inspect and evaluate condition and recommend repair of condition.)	
Emergency Overflow/Spillway	Emergency Overflow/Spillway	Only one layer of rock exists above native soil in area five square feet or larger, or any exposure of native soil at the top of out flow path of spillway. (Rip-rap on inside slopes need not be replaced.)	Rocks and pad depth are restored to design standards.
	Erosion	See "Side Slopes of Pond"	

Table V-4.5.2(2) Maintenance Standards - Infiltration

Maintenance Component	Defect	Conditions When Maintenance Is Needed	Results Expected When Maintenance Is Performed
General	Trash & Debris	See "Detention Ponds" (No. 1).	See "Detention Ponds" (No. 1).
	Poisonous/Noxious Vegetation	See "Detention Ponds" (No. 1).	See "Detention Ponds" (No. 1).
	Contaminants and Pollution	See "Detention Ponds" (No. 1).	See "Detention Ponds" (No. 1).
	Rodent Holes	See "Detention Ponds" (No. 1).	See "Detention Ponds" (No. 1)
Storage Area	Sediment	Water ponding in infiltration pond after rainfall ceases and appropriate	Sediment is removed

APPENDIX 1 – Survey performed by a Professional Land Surveyor

Refer to attached “Existing Conditions, Site Prep and Erosion Control Sheet” attached for survey information provided by Lisser and Associates also attached within this Appendix.

SURVEY DESCRIPTION

SKASIT COUNTY ASSESSOR'S PARCEL NUMBER P-32077

THE EAST 1/2 OF THE SOUTHEAST 1/4 OF THE SOUTHWEST 1/4 OF SECTION 25, TOWNSHIP 35 NORTH, RANGE 1 EAST, W.M.;

EXCEPT THE SOUTH 165 FEET THEREOF;

ALSO EXCEPT THE NORTH 759 FEET THEREOF;

ALSO EXCEPT THE EAST 336 FEET THEREOF;

TOGETHER WITH THAT PORTION OF THE EAST 1/2 OF THE SOUTHEAST 1/4 OF THE SOUTHWEST 1/4 OF SECTION 25, TOWNSHIP 35 NORTH, RANGE 1 EAST, W.M., DESCRIBED AS FOLLOWS:

BEGINNING AT A POINT ON THE EAST LINE OF SAID SOUTHEAST 1/4 OF THE SOUTHWEST 1/4 WHICH IS 290 FEET NORTH OF THE SOUTHEAST CORNER OF SAID SOUTHEAST 1/4 OF THE SOUTHWEST 1/4;
THENCE NORTH ALONG SAID EAST LINE OF 16 FEET;
THENCE WEST 336 FEET;
THENCE SOUTH PARALLEL WITH THE EAST LINE OF SAID SOUTHEAST 1/4 OF THE SOUTHWEST 1/4 16 FEET, MORE OR LESS, TO A POINT DUE WEST OF THE POINT OF BEGINNING;
THENCE EAST TO THE POINT OF BEGINNING;

EXCEPT RIGHT-OF-WAY FOR PUBLIC ROAD ALONG THE EAST BOUNDARY THEREOF, KNOWN AS AVENUE H OR HEART LAKE ROAD.

SUBJECT TO AND TOGETHER WITH EASEMENTS, RESERVATIONS, RESTRICTIONS, COVENANTS, LIENS, LEASES, COURT CAUSES AND OTHER INSTRUMENTS OF RECORD.

SITUATE IN THE CITY OF ANACORTES, COUNTY OF SKAGIT, STATE OF WASHINGTON.

UTILITIES EASEMENTS

AN EASEMENT IS HEREBY RESERVED FOR AND GRANTED TO THE CITY OF ANACORTES, PUGET SOUND ENERGY, CASCADE NATURAL GAS CORPORATION, FRONTIER COMMUNICATIONS, INC, AND COMCAST CABLEVISION, AND THEIR RESPECTIVE SUCCESSORS AND ASSIGNS UNDER AND UPON THE AREAS SHOWN AS UTILITIES EASEMENT AREAS AS SHOWN ON THE FACE OF THIS PLAT, OR AS NOTED, IN WHICH TO INSTALL, LAY, CONSTRUCT, RENEW, OPERATE, MAINTAIN AND REMOVE UTILITY SYSTEMS, LINES, FIXTURES AND APPURTENANCES ATTACHED THERETO, FOR THE PURPOSE OF PROVIDING UTILITY SERVICE TO THE SUBDIVISION AND OTHER PROPERTY, TOGETHER WITH THE RIGHT TO ENTER UPON THE LOTS AND TRACTS AT ALL TIMES FOR THE PURPOSES STATED, WITH THE UNDERSTANDING THAT ANY GRANTEE SHALL BE RESPONSIBLE FOR ALL UNNECESSARY DAMAGE IT CAUSED TO ANY REAL PROPERTY OWNER IN THE SUBDIVISION BY THE EXERCISE OF RIGHTS AND PRIVILEGES HEREIN GRANTED.

PRIVATE STORMWATER DRAINAGE EASEMENT

EASEMENTS FOR THE PURPOSE OF CONVEYING ON-SITE STORMWATER RUNOFF WERE GRANTED IN FAVOR OF ALL ABUTTING LOT OWNERS IN THE AREAS DESIGNATED AS PRIVATE DRAINAGE EASEMENTS ON THE FACE OF THIS SHORT PLAT. THE REGULAR MAINTENANCE OF PRIVATE DRAINAGE FACILITIES ESTABLISHED AND GRANTED THEREON WAS TO BE THE RESPONSIBILITY OF AND THE COSTS THEREOF BE BORNE EQUALLY BY, THE PRESENT AND FUTURE OWNERS OF THE ABUTTING PROPERTY AND THEIR HEIRS, PERSONAL REPRESENTATIVES, AND ASSIGNS.

THE CITY OF ANACORTES IS ALSO GRANTED THE PERPETUAL RIGHT OF ENTRY ACROSS DRAINAGE EASEMENTS AND ADJACENT LANDS OF THE GRANTOR, AND OR ASSIGNS, FOR PURPOSES OF ROUTINE INSPECTION OF STORMWATER DRAINAGE FACILITIES AND EMERGENCY MAINTENANCE PURPOSES AT ITS OWN DISCRETION. THE GRANTOR, OWNERS, AND ANY PERSON HAVING ANY PRESENT OR SUBSEQUENT OWNERSHIP INTEREST IN THE PROPERTIES, AND THEIR SUCCESSORS AND ASSIGNS OF OWNERS, AGREED TO HOLD THE CITY, ITS OFFICERS, EMPLOYEES AND AGENTS HARMLESS IN ALL RESPECTS FROM ANY AND ALL CLAIMS FOR DAMAGES WHICH MAY BE OCCASIONED NOW OR IN THE FUTURE TO ADJACENT PROPERTY OR IMPROVEMENTS BY REASON OF CONSTRUCTION, OPERATION AND MAINTENANCE OF THE SAID DRAINAGE SYSTEM.

NOTES

1. ● INDICATES REBAR SET AND CAPPED WITH YELLOW CAP INSCRIBED LISSER 22960.
○ INDICATES EXISTING IRON PIPE OR REBAR FOUND
⊗ INDICATES EXISITING MONUMENT OR SET MONUMENT

2. SURVEY DESCRIPTION IS FROM LAND TITLE SUBDIVISION GUARANTEE, ORDER NO. 01-177292-F DATED MARCH 13, 2020

3. FOR ADDITIONAL MERIDIAN AND SURVEY INFORMATION SEE PLAT OF THE ORCHARDS PUD RECORDED UNDER AUDITOR'S FILE NO. 200601190126 AND RECORD OF SURVEY MAPS RECORDED UNDER AUDITOR'S FILE NUMBERS 8105280025 AND 9507110020, RECORDS OF SKAGIT COUNTY, WASHINGTON.

4. BASIS OF BEARING: EAST LINE OF THE SOUTHWEST 1/4 OF SECTION 25, TOWNSHIP 35 NORTH, RANGE 1 EAST, W.M.
BEARING = NORTH 1°30'24" EAST

5. MERIDIAN: ASSUMED

6. INSTRUMENTATION: LEICA 1103 TCRA PLUS THEODOLITE DISTANCE METER

7. SURVEY PROCEDURE: STANDARD FIELD TRAVERSE

8. THIS PROPERTY IS SUBJECT TO AND TOGETHER WITH EASEMENTS, RESERVATIONS, RESTRICTIONS, COVENANTS, LIENS, LEASES, COURT CAUSES AND OTHER INSTRUMENTS OF RECORD INCLUDING BUT NOT LIMITED TO THOSE INSTRUMENTS SHOWN ON THE ABOVE REFERENCED TITLE REPORT AND RECORDED UNDER SKASIT COUNTY AUDITOR'S FILE NUMBERS 8104100027, 8105280025 AND 9507110020.

9. THIS SURVEY HAS SHOWN OCCUPATIONAL INDICATORS (STRUCTURES, FENCE LINES) AS PER WAC CHAPTER 332-130. LINES OF OCCUPATION MAY INDICATE AREAS FOR POTENTIAL CLAIMS OF UNWRITTEN OWNERSHIP. THIS BOUNDARY SURVEY HAS ONLY SHOWN THE RELATIONSHIP OF LINES OF OCCUPATION TO THE DEEDED LINES OF RECORD. NO RESOLUTION OF OWNERSHIP BASED ON UNWRITTEN RIGHTS HAS BEEN MADE OR IMPLIED BY THIS SURVEY.

10. ALL DISTANCES SHOWN HEREON ARE IN FEET.

11. OWNER/APPLICANT:
RONALD V. BAYEK
RONALD V. BAYEK, JR.
26339 PRESIDENT AVENUE
HARBOR CITY, CA 90710

12. SKASIT COUNTY ASSESSOR'S PARCEL NUMBERS
P-32077

13. PROPERTY ZONING: RESIDENTIAL LOW DENSITY DISTRICT (R-1)
MINIMUM LOT AREA = 15,000 SQ. FT.
MINIMUM SETBACKS:
STREET = 20 FEET (HOUSE) 25 FEET (GARAGE)
REAR YARD = 20 FEET
INTERIOR SIDE YARD = 10 FEET
SIDE YARD ALONG STREET = 20 FEET

14. WATER SUPPLY: CITY OF ANACORTES

15. SEWAGE DISPOSAL: CITY OF ANACORTES

16. STORM DRAINAGE: CITY OF ANACORTES

17. CONTOUR INTERVAL: 2-FOOT

18. DATUM PER PLAT OF THE ORCHARDS PUD

19. TRACT "Y" IS FOR STORM DRAINAGE PURPOSE AND IS TO BE OWNED AND MAINTAINED BY THE CITY OF ANACORTES

ADJOINING PROPERTY OWNERS

P- 32080 AND P-32081
RONALD BAYEK SR AND RONALD BAYEK JR
26339 PRESIDENT AVE
HARBOR CITY, CA 90701

P-32082
GARY AND CARRIE WOLLAM
4318 H AVE
ANACORTES, WA 98221

P-32116
JAMES AND BETTY TARTAS
4402 H AVE
ANACORTES, WA 98221

P-124002
JENNINGS REVOCABLE TRUST
1819 ORCHARD PLACE
ANACORTES, WA 98221

P-124001
JOHN AND MARLA HOVEY
1905 ORCHARD PLACE
ANACORTES, WA 98221

P-124000
LG ANACORTES LLC
504 E. FAIRHAVEN AVE
BURLINGTON, WA 98233

P-124003
GERALDAND BONNIE BOWERS
4413 ORCHARDS AVE
ANACORTES, WA 98221

P-124004
MICHAEL AND KIMBERLY LATSHA
4415 ORCHARDS AVE
ANACORTES, WA 98221

P-124005
CARTUS FINANCIAL CORP
C/O OLD REPUBLIC RELOCATION SERVICES
1000 BURNETT AVE, SUITE 330
CONCORD, CA 94520

P-124006
TERRILL VELIN
4419 ORCHARDS AVE
ANACORTES, WA 98221

P-124044
THE ORCHARDS PUD HOA
P.O. BOX 1633
ANACORTES, WA 98221

LOT AREA AND ADDRESS INFORMATION

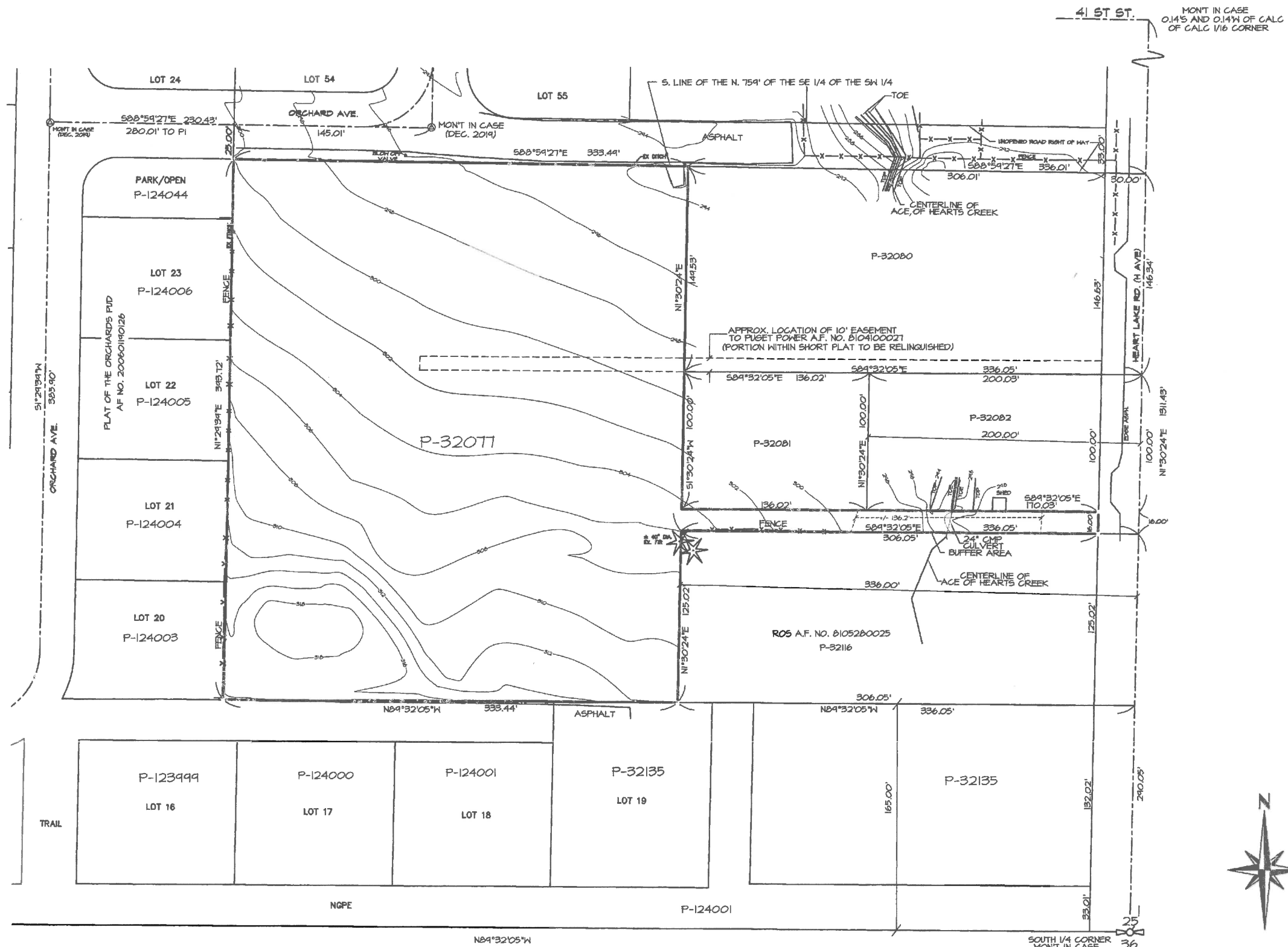
LOT 1	16,968 SQ. FT. 0.39 ACRES	CHERRY COURT
LOT 2	17,471 SQ. FT. 0.40 ACRES	CHERRY COURT
LOT 3	16,882 SQ. FT. 0.38 ACRES	CHERRY COURT
LOT 4	20,392 SQ. FT. 0.47 ACRES	CHERRY COURT
LOT 5	23,472 SQ. FT. 0.55 ACRES	CHERRY COURT
LOT 6	15,041 SQ. FT. 0.35 ACRES	CHERRY COURT
TRACT "Y"	12,624 SQ. FT. 0.29 ACRES	

CHERRY COURT RIGHT OF WAY 12,726 SQ. FT. 0.29 ACRES

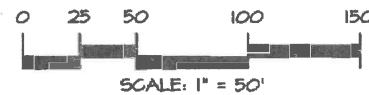
SHEET 2 OF 4

DATE: 4/08/20

CITY OF ANACORTES SHORT PLAT NO. SPL-2020--			
SURVEY IN A PORTION OF THE SE 1/4 OF THE SW 1/4 OF SECTION 25, T. 35 N., R. 1 E., W.M. SKAGIT COUNTY, WASHINGTON FOR: RONALD V. BAYEK AND RONALD V. BAYEK JR.			
FB:	PG:	LISSER & ASSOCIATES, PLLC SURVEYING & LAND-USE CONSULTATION MOUNT VERNON, WA 98273 260-419-7442	SCALE:
MERIDIAN: ASSUMED			DWG: 19-130 SP



EXISTING CONDITIONS MAP



SHEET 3 OF 4

DATE: 4/08/20

CITY OF ANACORTES SHORT PLAT NO. SPL-2020--

SURVEY IN A PORTION OF THE
SE 1/4 OF THE SW 1/4 OF
SECTION 25, T. 35 N., R. 1 E., W.M.
SKAGIT COUNTY, WASHINGTON
FOR: RONALD V. BAYEK AND RONALD V. BAYEK JR.

FB: PG:
MERIDIAN: ASSUMED

LISSEY & ASSOCIATES, PLLC
SURVEYING & LAND-USE CONSULTATION
MOUNT VERNON, WA 98273 360-419-7442

SCALE: 1"=50'
DWB: 19-130 SP

APPENDIX 2 – Soils Analysis (Volume 1, Chapter 3.1.1)

Geotechnical Report for Cherry Court by Geotest Engineers dated February 26th, 2020

Cherry Court SFR Development Geotechnical Engineering Evaluation

Prepared For:

Landed Gentry Homes and Communities
504 E. Fairhaven Ave.
Burlington, WA

Attn: Anna Nelson



1.888.251.5276
Bellingham | Arlington | Oak Harbor
www.geotest-inc.com



February 26, 2020
Project No. 19-0882

Landed Gentry Homes and Communities
504 E. Fairhaven Avenue
Burlington, WA 98233

Attention: Anna Nelson
Land Development Project Manager

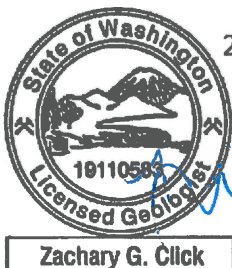
Regarding: Final Geotechnical Engineering Report
Cherry Court SFR Development
Cherry Lane
Anacortes, Washington

Dear Ms. Nelson:

As requested, GeoTest Services, Inc. (GeoTest) is pleased to submit the following report summarizing the results of our geotechnical evaluation for the proposed Cherry Court Single-Family Residence (SFR) Development, located along Cherry Lane in Anacortes, Washington (see Vicinity Map, Figure 1). This report has been prepared in general accordance with the terms and conditions established in our services agreement dated December 10, 2019 and authorized by Mr. Brian Gentry.

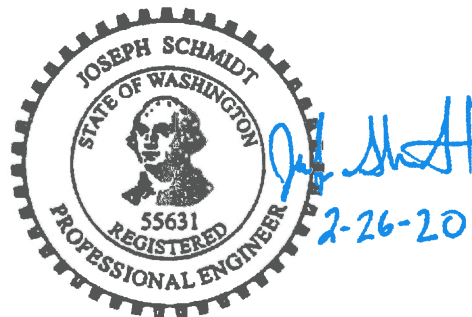
We appreciate the opportunity to provide geotechnical services on this project and look forward to assisting you during the construction phase. Should you have any further questions regarding the information contained within the report, or if we may be of service in other regards, please contact the undersigned.

Respectfully,
GeoTest Services, Inc.



2-26-20

Zach Click, L.G.
Staff Geologist



2-26-20

Joe Schmidt, P.E.
Project Geotechnical Engineer

Enclosure: Final Geotechnical Report



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PURPOSE AND SCOPE OF SERVICES

The purpose of this evaluation is to establish general subsurface conditions beneath the site from which conclusions and recommendations pertaining to project design can be formulated. Our scope of services includes the following tasks:

- Exploration of soil and groundwater conditions underlying the site by advancing 6 test pits with a client provided excavator to evaluate subsurface conditions.
- Laboratory testing on representative samples to classify and evaluate the engineering characteristics of the soils encountered.
- To provide a written report containing a description of subsurface conditions, exploration logs, findings and recommendations pertaining to site preparation and earthwork, fill and compaction, seismic design, foundation recommendations, concrete slab-on-grade construction, foundation and site drainage, utilities, temporary and permanent slopes, an assessment of on-site infiltration feasibility and stormwater pollutant treatment, geotechnical consultation, and construction monitoring.

PROJECT DESCRIPTION

GeoTest understands that there are plans to develop 7 lots along Cherry Lane in Anacortes, Washington with single-family residences. New construction will likely consist of wood-framed residences, on-grade parking and associated drive lanes. Building loads are anticipated to be light and supported by conventional foundations.

SITE CONDITIONS

This section includes a description of the general surface and subsurface conditions observed at the project site during the time of our field investigation. Interpretations of site conditions are based on the results and review of available information, site reconnaissance, subsurface explorations, laboratory testing, and previous experience in the project vicinity.

Surface Conditions

The subject property is approximately 3.4 acres and L-shaped. The property is generally bordered to the north by Cherry Lane, to the south by Orchard Place, to the west by Orchard Avenue and to the east by residential and livestock-purposed properties. The site is relatively level but slopes gently to the northeast. Site vegetation consists of short grass covering with sporadic trees located at the perimeter of the property. The site is currently occupied by a series of electric

fences and gates utilized for livestock which reside on the property. No surface water was observed during our site visit on December 18, 2019.



Image 1. View of the excavation process at test pit # (TP-#) showing the typical overall site conditions.

Subsurface Soil Conditions

Subsurface conditions were explored by advancing 6 test pits (TP-1 through TP-6) with a client provided excavator and operator on December 18, 2019. The explorations were advanced to depths of between 9 and 10 feet below ground surface (BGS). Approximate locations of these explorations have been plotted on the *Site and Exploration Plan* (Figure 2).

The on-site near surface soils generally consisted of approximately 1 foot or less of topsoil, underlain by approximately 2 to 3 feet of a dense, brown, slightly gravelly, silty sand, interpreted as weathered glacial till. At approximately 3 to 4 feet BGS the soils grade to a very dense, gray gravelly, silty sand. GeoTest interprets these soils to be unweathered glacial till.

Within test pit 1 (TP-1), fill was observed overlying undisturbed glacial till. This test pit was performed on a soil mound at the southwestern corner of the project site. GeoTest interprets

the fill at this location to be indicative of native borrow fill, likely from past construction activities in the immediate vicinity, consisting of previously excavated, disturbed glacial till.

More detailed logs of the subsurface conditions encountered at the exploration locations are presented in the attached Test Pit Logs (Figures 5 through 7) at the end of this report.



Image 2. View of test pit 3 (TP-3) showing the typical subgrade soil profile for the project site.

General Geologic Conditions

General geologic conditions at the site are mapped as Pleistocene aged Vashon Stade glacial till within the northwest portion of the site and advance outwash deposits within the southeast portion of the site (Pessl, et. al, 1989). Glacial till consists of nonstratified, dense to very dense diamicton consisting of clay, silt, sand, and gravel in various proportions, with scattered cobbles

and boulders; and rare lenses of sand or gravel indicating subglacial meltwater processes during deposition. Advance outwash deposits typically consist of sand, gravel, silt and clay deposited by meltwater flowing from the advancing ice margin of the Puget lobe of Vashon age. Advance outwash deposits are typically moderate to well-sorted and distinctly stratified.

The subsurface soils encountered in our explorations underlying the site topsoil and uncontrolled fill soils appear to consistent with the mapped glacial till deposits. No soils indicative of advance outwash deposits were encountered within our explorations.

Web Soil Survey

According to the United States Department of Agriculture (USDA) Natural Resource Conservation Service (NRCS) *Web Soil Survey* website, two relevant soil units are present on the subject property and vicinity. Please reference Table 1 below for general characteristics. The mapped soils on the property consist of Unit 18 and Unit 19 – Bow gravelly loam, dry, 0 to 3 percent slopes and Bow gravelly loam, dry, 3 to 8 percent slopes. Both units can be prone to poor drainage and wetness based on their land capability classification ranking of 4w by the USDA. Although the susceptibility to erosion rating of 0.24 is considered moderate by the USDA scale, it is GeoTest’s opinion that due to the relatively flat topography, the project site presents a low vulnerability to sheet and rill erosion.

Table 1: USDA NRCS Soil Classifications		
Map Unit Symbol	18	19
Map Unit Name	Bow gravelly loam, dry, 0 to 3 percent slopes	Bow gravelly loam, dry, 3 to 8 percent slopes
General Location	Western ¾ of the site	Eastern ¼ of the site
Soil Description	Gravelly ashy loam over very gravelly ashy loam over clay loam over silty clay	Gravelly ashy loam over very gravelly ashy loam over clay loam over silty clay
Landform	Hillslopes, terraces	Hillslopes, terraces
Parent Material	Volcanic ash, glaciolacustrine deposits, and glacial drift	Volcanic ash, glaciolacustrine deposits, and glacial drift
Land Capability Classification	4w	4w
Erosion K Factor, Whole Soil	0.24	0.24

Values of the erosion factor “K” range from 0.02 to 0.69; the higher the value, the more susceptible the soil is to sheet and rill erosion by water. Soils found within the project vicinity

could be susceptible to erosion based on their rating, but their vulnerability to sheet and rill erosion are considered low based on slope inclination. Additional commentary on potential geologic hazards follows herein.

Groundwater

Slight Groundwater seepage was observed at depths of approximately 1.5 to 4 feet below the existing ground surface within test pits TP-3, TP-4 and TP-6 at the time of our explorations. No groundwater seepage was observed within the remaining explorations. The groundwater was noted as a slight seep that entered the excavation from the sidewall. The groundwater seepage observed during our explorations is **not indicative of a regional groundwater table or aquifer** and no indications of a regional groundwater table or aquifer were observed within our subsurface explorations.

The slight seepage observed within the explorations is indicative of perched, laterally flowing groundwater conditions. Laterally flowing groundwater typically develops when relatively permeable soil is underlain by more dense and/or less permeable soil. The depositional pattern of these soils is such that the looser or more granular soils allow water to pass through it, only to be restricted once it encounters the denser or siltier soils at depth. It should be noted that interflow (the lateral movement of perched groundwater) likely exists locally on top of the hard glacial till soils where groundwater migrates horizontally down grade perched upon a very dense restrictive soil layer.

The groundwater conditions reported on the exploration logs are for the specific locations and dates indicated, and therefore may not be indicative of other locations and/or times. Groundwater levels are variable and groundwater conditions will fluctuate depending on local subsurface conditions, precipitation, and changes in on-site and off-site use.

GEOLOGIC HAZARDS

Seismic Hazard

The Pacific Northwest region is seismically active. Large Cascadia subduction zone earthquakes with possible magnitudes of 8 or 9 could produce ground shaking events with the potential to significantly impact the region. Cascadia subduction zone earthquakes have occurred 6 times in the last 3,500 years with the most recent taking place in 1700, approximately 300 years ago. They have been determined to have an average reoccurrence interval of approximately 300 to 700 years.

The project site is classified as a potential seismic hazard per Anacortes Municipal Code (AMC) Section 17.70.190(C) because the area proposed for development is at risk of earthquake induced ground shaking.

The project location is mapped by the Washington State Department of Natural Resources online *Geologic Information Portal* as Seismic Site Class D. The International Building Code addresses design standards for new construction in this seismic design category. Incorporation of these mitigations into project design is the responsibility of the structural engineer. Refer to the *Seismic Design Considerations* section of this report for additional information.

Liquefaction

Liquefaction is defined as a significant rise in pore water pressure within a soil mass caused by earthquake-induced cyclic shaking. The shear strength of liquefiable soils is reduced during large and/or long duration earthquakes as the soil consistency approaches that of semi-solid slurry. Liquefaction can result in significant and widespread structural damage if not properly mitigated. Deposits of loose, granular soil below the groundwater table are most susceptible to liquefaction. Damage caused by foundation rotation, lateral spreading, and other ground movements can result from soil liquefaction.

The subject site is mapped (Palmer et al. 2004) as having a liquefaction susceptibility of “very low”. However, this map only provides an estimate of the likelihood that soil will liquefy as a result of earthquake shaking and is meant as a general guide to delineate areas prone to liquefaction. Based on our field explorations in which dense to very dense, gravelly and silty sands (glacial till) were encountered and only localized, slight groundwater seepage was observed, it is our opinion that the subsurface conditions are at a very low risk of liquefaction. Therefore, no specific liquefaction mitigations are recommended for this project.

Slope and Erosion

Due to the relatively flat nature of the project site, GeoTest does not anticipate any slope or erosion hazards as defined by the AMC. Thus, no specific erosion mitigations are recommended for this project. However, the project site is classified as an erosion hazard per AMC 17.70.190(A) due to being classified as a “moderate” erosion hazard by the USDA NRCS.

The following recommendations are best practices intended to prevent excessive erosion from occurring:

- All clearing and grading activities for future residence construction will need to incorporate Best Management Practices (BMPs) for erosion control in compliance with current City of Anacortes codes and standards.
- We recommend that appropriate silt fencing be incorporated into the construction plan for erosion control.
- We recommend that onsite BMP's be implemented during construction. Areas of native vegetation should be left in place and could also be enhanced by adding additional native

plant species and/or other vegetation enhancements.

- Removal of vegetation and trees without proper mitigation may increase the risk of failure for the surficial soils during periods of wet weather. Planting additional brush and vegetation within the subject site and in areas disturbed by excavation activities will help maintain near surface slope stability by providing a stable root base within the near surface soils.
- Proper drainage controls have a significant effect on erosion.
- All areas disturbed by construction practices should be vegetated or otherwise protected to limit the potential for erosion as soon as practical during and after construction. Areas requiring immediate protection from the effects of erosion should be covered with either plastic, mulch or erosion control netting/blankets. Areas requiring permanent stabilization should be seeded with an approved grass seed mixture, hydroseeded with an approved seed-mulch-fertilizer mixture or landscaped with a suitable planting design.

CONCLUSIONS AND RECOMMENDATIONS

Based on the evaluation of the data collected during this investigation, it is our opinion that the subsurface conditions at the site are suitable for the proposed development, provided the recommendations contained herein are incorporated into the project design. Based on our explorations we anticipate that on average about 12 inches of topsoil will need to be removed from across the site to reach suitable native soils. Localized stripping depths will increase in the area surrounding test pit TP-1 due to existing uncontrolled fill soils. In this area we anticipate that up to approximately 5.5 feet of topsoil and uncontrolled fill soils will need to be removed to reach undisturbed native soils.

On-site stormwater infiltration through traditional means will not be feasible due to the highly compact condition of the native unweathered glacial till soils. However, a limited amount of infiltration may be achieved through dispersion or other similar methods. It is our understanding, based on conversations with Ravnik and Associates, that a curtain drain will be installed on the along the western border of the site to intercept offsite groundwater and a stormwater retention pond is planned for the northeast corner of the property. Additionally, the project will utilize roof drain dispersion.

Site Preparation and Earthwork

The portions of the site proposed for foundation(s), floor slabs, pavement and/or sidewalks development should be prepared by removing existing fill, topsoil, deleterious material and significant accumulations of organics. Prior to placement of any foundation elements or structural fill, the exposed subgrade under all areas to be occupied by soil-supported floor slabs, spread, or continuous foundations should be recompact to a firm and unyielding condition. Verification of compaction can be accomplished through proof rolling with a loaded dump truck,

large self-propelled vibrating roller, or similar piece of equipment applicable to the size of the excavation. The purpose of this effort is to identify loose or soft soil deposits so that, if feasible, the soil distributed during site work can be recompacted.

Proof rolling should be carefully observed by qualified geotechnical personnel. Areas exhibiting significant deflection, pumping, or over-saturation that cannot be readily compacted should be overexcavated to firm soil. Overexcavated areas should be backfilled with compacted granular material placed in accordance with subsequent recommendations for structural fill. During periods of wet weather, proof rolling could damage the exposed subgrade. Under these conditions, qualified geotechnical personnel should observe subgrade conditions to determine if proof rolling is feasible.

Proof rolling may not be feasible for certain locations within excavated footings, trench areas, or other difficult access zones when using a full-size dump truck or other large machinery. In this situation, we recommend alternate means of verification such as Dynamic Cone Penetrometer (DCP) testing or soil probe methods be employed to verify suitability of field conditions.

Fill and Compaction

Structural fill used to obtain final elevations for footings and soil-supported floor slabs must be properly placed and compacted. In most cases, any non-organic, predominantly granular soil may be used for fill material provided the material is properly moisture conditioned prior to placement and compaction, and the specified degree of compaction is obtained. Material containing topsoil, wood, trash, organic content, or construction debris is not suitable for reuse as structural fill and should be properly disposed offsite or placed in nonstructural areas.

Soils containing more than approximately 5 percent fines are considered moisture sensitive and are difficult to compact to a firm and unyielding condition when over the optimum moisture content by more than approximately 2 percent. The optimum moisture content is that which allows the greatest dry density to be achieved at a given level of compactive effort.

Reuse of On-Site Soil

Due to excessive silt content of the on-site soils, these soils are not recommended for use as structural fill during wet weather/site conditions due to the difficulties associated with moisture conditioning. GeoTest recommends any reuse of the native soils during periods of wet weather/site conditions be limited to landscape and other non-structural areas.

Reuse of the on-site native soils may be feasible during the dry summer months, typically July through September, provided that they are properly moisture conditioned and placed within approximately 2 percent of the optimum moisture content determined by ASTM D1557 (Modified Proctor).

Import Structural Fill

GeoTest recommends that imported structural fill consist of clean, well-graded sandy gravel, gravelly sand, or other approved naturally occurring granular material (pit run) with at least 30 percent retained on the No. 4 sieve, or a well-graded crushed rock. Structural fill for dry weather construction may contain up to 10 percent fines (that portion passing the U.S. No. 200 sieve) based on the portion passing the U.S. No. 4 sieve. The use of an imported fill having more than 10 percent fines may be feasible, but the use of these soils should generally be reviewed by the design team prior to the start of construction.

Imported structural fill with less than 5 percent fines should be used during wet weather conditions. Due to wet site conditions, soil moisture contents could be high enough that it may be difficult to compact even clean imported select granular fill to a firm and unyielding condition. Soils with an over-optimum moisture content should be scarified and dried back to a suitable moisture content during periods of dry weather or removed and replaced with drier structural fill.

Backfill and Compaction

Structural fill should be placed in horizontal lifts. The structural fill must measure 8 to 10 inches in loose thickness and be thoroughly compacted. All structural fill placed under load bearing areas should be compacted to at least 95 percent of the maximum dry density, as determined using test method ASTM D1557. The top of the compacted structural fill should extend outside all foundations and other structural improvements a minimum distance equal to the thickness of the fill. We recommend that compaction be tested after placement of each lift in the fill pad.

Wet Weather Earthwork

Native glacial till soils are particularly susceptible to degradation during wet weather. As a result, it may be difficult to control the moisture content of site soils during the wet season. If construction takes place during wet weather, GeoTest recommends that structural fill consist of imported, clean, well-graded sandy gravel or gravelly sand with low fines content as described above. If fill is to be placed or earthwork is to be performed in wet conditions, the contractor may reduce soil disturbance by:

- Limiting the size of areas that are stripped of topsoil and left exposed
- Accomplishing earthwork in small sections
- Limiting construction traffic over unprotected soil
- Sloping excavated surfaces to promote runoff
- Limiting the size and type of construction equipment used
- Providing gravel 'working mats' over areas of prepared subgrade
- Removing wet surficial soil prior to commencing fill placement each day

- Sealing the exposed ground surface by rolling with a smooth drum compactor or rubber-tired roller at the end of each working day
- Providing up-gradient perimeter ditches or low earthen berms and using temporary sumps to collect runoff and prevent water from ponding and damaging exposed subgrades

Seismic Design Considerations

The Pacific Northwest is seismically active, and the site could be subject to movement from a moderate or major earthquake. Consequently, moderate levels of seismic shaking should be accounted for during the design life of the project, and the proposed structure should be designed to resist earthquake loading using appropriate design methodology.

For structures designed using the seismic provisions of the 2018 International Building Code, the very dense/hard silty sand/sandy silt soils underlying the site within the upper 100 feet is classified as Site Class D, according to ASCE 7-16. The structural engineer should select the appropriate design response spectrum based on Site Class D soil and the geographical location of the proposed construction.

Foundation Support

Continuous or isolated spread footings founded on proof-rolled, undisturbed, stiff/dense native soils or on properly compacted structural fill placed directly over undisturbed native soil can provide foundation support for the proposed improvements. We recommend that qualified geotechnical personnel confirm that suitable bearing conditions have been reached prior to placement of structural fill or foundation formwork.

To provide proper support, GeoTest recommends that existing topsoil, uncontrolled fill, and/or loose/soft, upper portions of the native soil be removed from beneath the building foundation area(s) or be replaced with properly compacted structural fill as described in the *Fill and Compaction* section of this report. Localized overexcavation, if necessary, can be backfilled to the design footing elevation with structural fill or controlled density fill (CDF), or foundations may be extended to bear on undisturbed native soil. In areas requiring overexcavation to competent native soil, the limits of the overexcavation should extend laterally beyond the edge of each side of the footing a distance equal to the depth of the excavation below the base of the footing, if structural fill is used. If CDF is used to backfill the overexcavation, the limits of the overexcavation need only extend a nominal distance beyond the width of the footing. In addition, GeoTest recommends that foundation elements for the proposed structure(s) bear entirely on similar soil conditions to help prevent differential settlement from occurring.

Continuous and isolated spread footings should be founded 18 inches, minimum, below the lowest adjacent final grade for freeze/thaw protection. The footings should be sized in accordance with the structural engineer's prescribed design criteria and seismic considerations.

Allowable Bearing Capacity

Assuming the above foundation support criteria are satisfied, continuous or isolated spread footings founded directly on stiff/dense native soils or on compacted structural fill placed directly over undisturbed native soils may be proportioned using a net allowable soil bearing pressure of 3,000 pounds per square foot (psf).

The "net allowable bearing pressure" refers to the pressure that can be imposed on the soil at foundation level. This pressure includes all dead loads, live loads, the weight of the footing, and any backfill placed above the footing. The net allowable bearing pressure may be increased by one-third for transient wind or seismic loads.

Foundation Settlement

Settlement of shallow foundations depends on foundation size and bearing pressure, as well as the strength and compressibility characteristics of the underlying soil. If construction is accomplished as recommended and at the maximum allowable soil bearing pressure, GeoTest estimates the total settlement of building foundations to be less than one inch. Differential settlement between two adjacent load-bearing components supported on competent soil is estimated to be less than one half the total settlement.

Floor Support

Conventional slab-on-grade floor construction is feasible for the planned site improvements. Floor slabs may be supported on properly prepared native subgrade or on properly placed and compacted structural fill placed over properly prepared native soil. Prior to placement of the structural fill, the native soil should be proof-rolled or otherwise verified as recommended in the *Site Preparation and Earthwork* section of this report.

A Subgrade Modulus (k) of 300 pounds per cubic inch (pci) for the native glacial till or structural fill overlying native soils is recommended for use in design of concrete slab elements. These values are assuming site preparations including removal of existing topsoil and any uncontrolled fill (*if encountered*) to native soil and potential replacement with imported structural fill prior to slab installation.

For proper slab support, GeoTest recommends that interior concrete slab-on-grade floors be underlain with at least 6 inches of clean, compacted, free-draining gravel. The gravel should contain less than 3 percent passing the U.S. Standard No. 200 sieve (based on a wet sieve analysis

of that portion passing the U.S. Standard No. 4 sieve). The purpose of this gravel layer is to provide uniform support for the slab, provide a capillary break, and act as a drainage layer. To help reduce the potential for water vapor migration through floor slabs, a continuous 10 to 15-mil minimum thick polyethylene sheet with tape-sealed joints should be installed below the slab to serve as an impermeable vapor barrier. The vapor barrier should be installed and sealed in accordance with the manufacturer's instructions.

Exterior concrete slabs-on-grade, such as sidewalks, may be supported directly on undisturbed native soil or on properly placed and compacted structural fill; however, long-term performance will be enhanced if exterior slabs are placed on a layer of clean, durable, well-draining granular material.

Foundation and Site Drainage

Positive surface gradients should be provided adjacent to the proposed building to direct surface water away from the building and toward suitable drainage facilities. Roof drainage should not be introduced into the perimeter footing drains but should be separately discharged directly to the stormwater collection system or similar municipality-approved outlet. Pavement and sidewalk areas, if present, should be sloped and drainage gradients should be maintained to carry surface water away from the building towards an approved stormwater collection system. Surface water should not be allowed to pond and soak into the ground surface near buildings or paved areas during or after construction. Construction excavations should be sloped to drain to sumps where water from seepage, rainfall, and runoff can be collected and pumped to a suitable discharge facility.

To reduce the potential for groundwater and surface water to seep into interior spaces, GeoTest recommends that an exterior footing drain system be constructed around the perimeter of new building foundations as shown in the *Typical Footing and Wall Drain Section* (Figure 3) of this report. The drain should consist of a perforated pipe measuring 4 inches in diameter at minimum, surrounded by at least 12 inches of filtering media. The pipe should be sloped to carry water to an approved collection system.

The filtering media may consist of open-graded drain rock wrapped in a nonwoven geotextile fabric such as Mirafi 140N or industry equivalent. For foundations supporting retaining walls, drainage backfill should be carried up the back of the wall and be at least 12 inches wide. The drainage backfill should extend from the foundation drain to within approximately 1 foot of the finished grade and consist of open-graded drain rock containing less than 3 percent fines by weight passing the U.S. Standard No. 200 sieve (based on a wet sieve analysis of that portion passing the U.S. Standard No. 4 sieve). The invert of the footing drain pipe should be placed at approximately the same elevation as the bottom of the footing or 12 inches below the adjacent floor slab grade, whichever is deeper, so that water will be contained. This process prevents

water from seeping through walls or floor slabs. The drain system should include cleanouts to allow for periodic maintenance and inspection.

Resistance to Lateral Loads

The lateral earth pressures that develop against retaining walls will depend on the method of backfill placement, degree of compaction, slope of backfill, type of backfill material, provisions for drainage, magnitude and location of any adjacent surcharge loads, and the degree to which the wall can yield laterally during or after placement of backfill. If the wall is allowed to rotate or yield so the top of the wall moves an amount equal to or greater than about 0.001 to 0.002 times its height (a yielding wall), the soil pressure exerted comprises the active soil pressure. When a wall is restrained against lateral movement or tilting (a nonyielding wall), the soil pressure exerted comprises the at rest soil pressure. Wall restraint may develop if a rigid structural network is constructed prior to backfilling or if the wall is inherently stiff.

GeoTest recommends that yielding walls under drained conditions be designed for an equivalent fluid density of 35 pounds per cubic foot (pcf), for structural fill and undisturbed native glacial till in active soil conditions. Nonyielding walls under drained conditions should be designed for an equivalent fluid density of 55 pcf, for structural fill and undisturbed glacial till in at-rest conditions. Design of walls should include appropriate lateral pressures caused by surcharge loads located within a horizontal distance equal to or less than the height of the wall. For uniform surcharge pressures, a uniformly distributed lateral pressure equal to 35 percent and 50 percent of the vertical surcharge pressure should be added to the lateral soil pressures for yielding and nonyielding walls, respectively.

For structures designed using the seismic design provisions of the 2018 International Building Code, GeoTest recommends that retaining walls include a seismic surcharge in addition to the equivalent fluid densities presented above. We recommend that a seismic surcharge of approximately $8 \cdot H$ (where H is the height of the wall in feet) be used for design purposes. The seismic surcharge should be modeled as a rectangular distribution with the resultant applied at the midpoint of the wall.

Passive earth pressures developed against the sides of building foundations, in conjunction with friction developed between the base of the footings and the supporting subgrade, will resist lateral loads transmitted from the structure to its foundation. For design purposes, the passive resistance of well-compacted fill placed against the sides of foundations is equivalent to a fluid with a density of 300 pounds per cubic foot. The recommended value includes a safety factor of about 1.5 and is based on the assumption that the ground surface adjacent to the structure is level in the direction of movement for a distance equal to or greater than twice the embedment depth. The recommended value also assumes drained conditions that will prevent the buildup of hydrostatic pressure in the compacted fill. Retaining walls should include a drain system constructed in general accordance with the recommendations presented in the *Foundation and*

Site Drainage section of this report. In design computations, the upper 12 inches of passive resistance should be neglected if the soil is not covered by floor slabs or pavement. If future plans call for the removal of the soil providing resistance, the passive resistance should not be considered.

An allowable coefficient of base friction of 0.35, applied to vertical dead loads only, may be used between the underlying imported granular structural fill and the base of the footing. If passive and frictional resistance are considered together, one half the recommended passive soil resistance value should be used since larger strains are required to mobilize the passive soil resistance as compared to frictional resistance. A safety factor of about 1.5 is included in the base friction design value. GeoTest does not recommend increasing the coefficient of friction to resist seismic or wind loads.

Temporary and Permanent Slopes

The contractor is responsible for construction slope configurations and maintaining safe working conditions, including temporary excavation stability. All applicable local, state, and federal safety codes should be followed. All open cuts should be monitored during and after excavation for any evidence of instability. If instability is detected, the contractor should flatten the side slopes or install temporary shoring.

Temporary excavations in excess of 4 feet should be shored or sloped in accordance with Safety Standards for Construction Work Part N, WAC 296-155-66403. The dense to very dense glacial till encountered at the project site is classified as a Type A soil according to WAC 296-155-66401. Therefore, temporary unsupported excavations and may be sloped as steep as $\frac{3}{4}$:1 (Horizontal: Vertical). All soils encountered are classified as Type C soil in the presence of groundwater seepage. Flatter slopes or temporary shoring may be required in areas where groundwater flow is present and unstable conditions develop.

Temporary slopes and excavations should be protected as soon as possible using appropriate methods to prevent erosion from occurring during periods of wet weather.

GeoTest recommends that permanent cut or fill slopes be designed for inclinations of 2H:1V or flatter. Due to the dense to very dense, low permeability soils, permanent cuts or fills used in detention ponds, retention ponds, or earth slopes intended to hold water may be sloped at an inclination of 2H:1V or flatter. All permanent slopes should be vegetated or otherwise protected to limit the potential for erosion as soon as practical after construction.

Utilities

Utility trenches must be properly backfilled and compacted to reduce cracking or localized loss of foundation, slab, or pavement support. Excavations for new shallow underground utilities are expected to be placed within very dense glacial till soils.

Trench backfill in improved areas (beneath structures, pavements, sidewalks, etc.) should consist of structural fill as defined in the *Fill and Compaction* section of this report. Outside of improved areas, trench backfill may consist of reused native material provided the backfill can be compacted to the project specifications. Trench backfill should be placed and compacted in general accordance with the recommendations presented in the *Fill and Compaction* section of this report.

Surcharge loads on trench support systems due to construction equipment, stockpiled material, and vehicle traffic should be included in the design of any anticipated shoring system. The contractor should implement measures to prevent surface water runoff from entering trenches and excavations. In addition, vibration as a result of construction activity and traffic may cause caving of the trench walls.

The contractor is responsible for trench configurations. All applicable local, state, and federal safety codes should be followed. All open cuts should be monitored by the contractor during excavation for any evidence of instability. If instability is detected, the contractor should flatten the side slopes or install temporary shoring. If groundwater or groundwater seepage is present, and the trench is not properly dewatered, the soil within the trench zone may be prone to caving, channeling, and running. Trench widths may be substantially wider than under dewatered conditions.

Pavement Subgrade Preparation

Site grading plans should include provisions for sloping of the subgrade soils in proposed pavement areas, so that passive drainage of the pavement section(s) can proceed uninterrupted during the life of the project.

Flexible Pavement Sections – Light Duty

GeoTest recommends that a minimum pavement section consist of 2.5 inches of Class ½-inch HMA asphalt above 2 inches of WSDOT Standard Specification 9-03.9[3] Crushed Surfacing Top Course (CSTC), overlying 6 inches of crushed surfacing base course (CSBC) meeting criteria of the WSDOT Standard Specification 9-03.9[3]. Asphalt, CSTC and CSBC sections should be founded on existing firm and unyielding native glacial till or on properly placed and compacted structural fill overlying firm and unyielding native deposits.

Flexible Pavement Sections – Heavy Duty

Areas that will be accessed by more heavily loaded vehicles such as semi and garbage trucks, etc., if any, will require a thicker asphalt section and should be designed using a pavement section consisting of 4 inches of ½-inch HMA above 2 inches of CSTC meeting the WSDOT Standard Specification of 9-03.9[3], overlying 8 inches of WSDOT Standard Specification 9-03.9[3] CSBC.

Concrete Sidewalks and Hardscapes

We anticipate that Portland Cement Concrete (PCC) will be used for walkways and hardscapes. We recommend a concrete sidewalk and hardscape section consisting of 4 inches of PCC surfacing above a minimum of 4 inches of CSTC. It is assumed that sidewalks and hardscape section will be placed over a firm and unyielding subgrade and will be designed by the Structural Engineer.

Stormwater Infiltration Potential

Due to the elevated fines content and the very dense nature of the glacial till soils, it can be expected that the native soils constitute a restrictive layer as defined by the *2012 Washington State Department of Ecology Stormwater Management Manual for Western Washington*, amended 2014. As such, full infiltration through conventional infiltration systems will not be feasible for the project site. It is our understanding that a stormwater detention pond is planned for the northeast corner of the project site.

The less dense weathered glacial till have a very limited amount of infiltration capability and are suitable to support low impact development facilities such as dispersion. We understand that a limited amount of stormwater will be managed through roof drain dispersion.

Stormwater Treatment

Potential stormwater facilities on-site may require some form of pollutant pretreatment with an amended soil prior to on-site infiltration or offsite discharge. The reuse of on-site soil is often the most sustainable and cost-effective method for pollutant treatment purposes. Cation exchange capacities, organic contents, and pH of site subsurface soils were also tested to determine possible pollutant treatment suitability.

Cation exchange capacity, organic content, and pH tests were performed by Northwest Agricultural Consultants on two soil samples collected from the explorations shown in Table 2. A summary of the laboratory test results is presented in Table 2 below.

TABLE 2 Cation Exchange Capacity, Organic Content, and pH Laboratory Test Results					
Test Pit ID	Sample Depth (ft)	Geologic Unit	Cation Exchange Capacity (meq/100 grams)	Organic Content (%)	pH
TP-2	2.0	Weathered Glacial Till	7.4	1.85	6.1
TP-5	0.5	Topsoil	17.7	8.62	5.7

Suitability for onsite pollutant treatment is determined in accordance with SSC-6 of the 2012 Washington State Department of Ecology *Stormwater Management Manual for Western Washington*. Soils with an organic content of greater than or equal to 1 percent and a cation exchange capacity of greater than or equal to 5 meq/100 grams are characterized as suitable for stormwater treatment. Based on the results shown in Table 2, soils within the upper 2 feet are suitable for stormwater treatment. However, low rates of infiltration should be anticipated in the native glacial till soils due to these soils' high silt contents and density.

On-site soils can be amended by mixing higher silt content soils or adding mulch (or other admixtures) to elevate the cation exchange capacity and organic contents. On-site amended soil requires additional testing to confirm compliance with ecological regulations. GeoTest is available to perform additional laboratory testing as part of an expanded scope of services if the soil is to be amended. Alternatively, the owner may elect to import amended soils with the desired properties for planned treatment facilities.

Geotechnical Consultation and Construction Monitoring

GeoTest recommends that we be involved in the project design review process. The purpose of the review is to verify that the recommendations presented in this report are understood and incorporated in the design and specifications.

We also recommend that geotechnical construction monitoring services be provided. These services should include observation by GeoTest personnel during structural fill placement, compaction activities and subgrade preparation operations to confirm that design subgrade conditions are obtained beneath the areas of improvement.

Periodic field density testing should be performed to verify that the appropriate degree of compaction is obtained. The purpose of these services is to observe compliance with the design concepts, specifications, and recommendations of this report. In the event that subsurface conditions differ from those anticipated before the start of construction, GeoTest Services would be pleased to provide revised recommendations appropriate to the conditions revealed during construction.

GeoTest is available to provide a full range of materials testing and special inspection during construction as required by the local building department and the International Building Code. This may include specific construction inspections on materials such as reinforced concrete, reinforced masonry, wood framing and structural steel. These services are supported by our fully accredited materials testing laboratory.

USE OF THIS REPORT

GeoTest Services has prepared this report for the exclusive use of Laned Gentry Homes and Communities and their design consultants for specific application to the design of the proposed Cherry Court SFR Development located along Cherry Lane in Anacortes, Washington. Use of this report by others is at the user's sole risk. This report is not applicable to other site locations. Our services are conducted in accordance with accepted practices of the geotechnical engineering profession; no other warranty, express or implied, is made as to the professional advice included in this report.

Our site explorations indicate subsurface conditions at the dates and locations indicated. It is not warranted that these conditions are representative of conditions at other locations and times. The analyses, conclusions, and recommendations contained in this report are based on site conditions to the limited depth and time of our explorations, a geological reconnaissance of the area, and a review of previously published geological information for the site. If variations in subsurface conditions are encountered during construction that differ from those contained within this report, GeoTest should be allowed to review the recommendations and, if necessary, make revisions. If there is a substantial lapse of time between submission of this report and the start of construction, or if conditions change due to construction operations at or adjacent to the project site, we recommend that we review this report to determine the applicability of the conclusions and recommendations contained herein.

The earthwork contractor is responsible to perform all work in conformance with all applicable WISHA/OSHA regulations. GeoTest Services, Inc. is not responsible for job site safety on this project, and this responsibility is specifically disclaimed.

Attachments:	Figure 1	Vicinity Map
	Figure 2	Site and Exploration Plan
	Figure 3	Typical Footing and Wall Drain Section
	Figure 4	Soil Classification System and Key
	Figures 5 – 7	Test Pit Exploration Logs
	Figures 8 – 9	Sieve Analysis
	Attached	CEC, pH and Organic Content Test Results (1 Page)
	Attached	Report Limitations and Guidelines for its Use (4 Pages)

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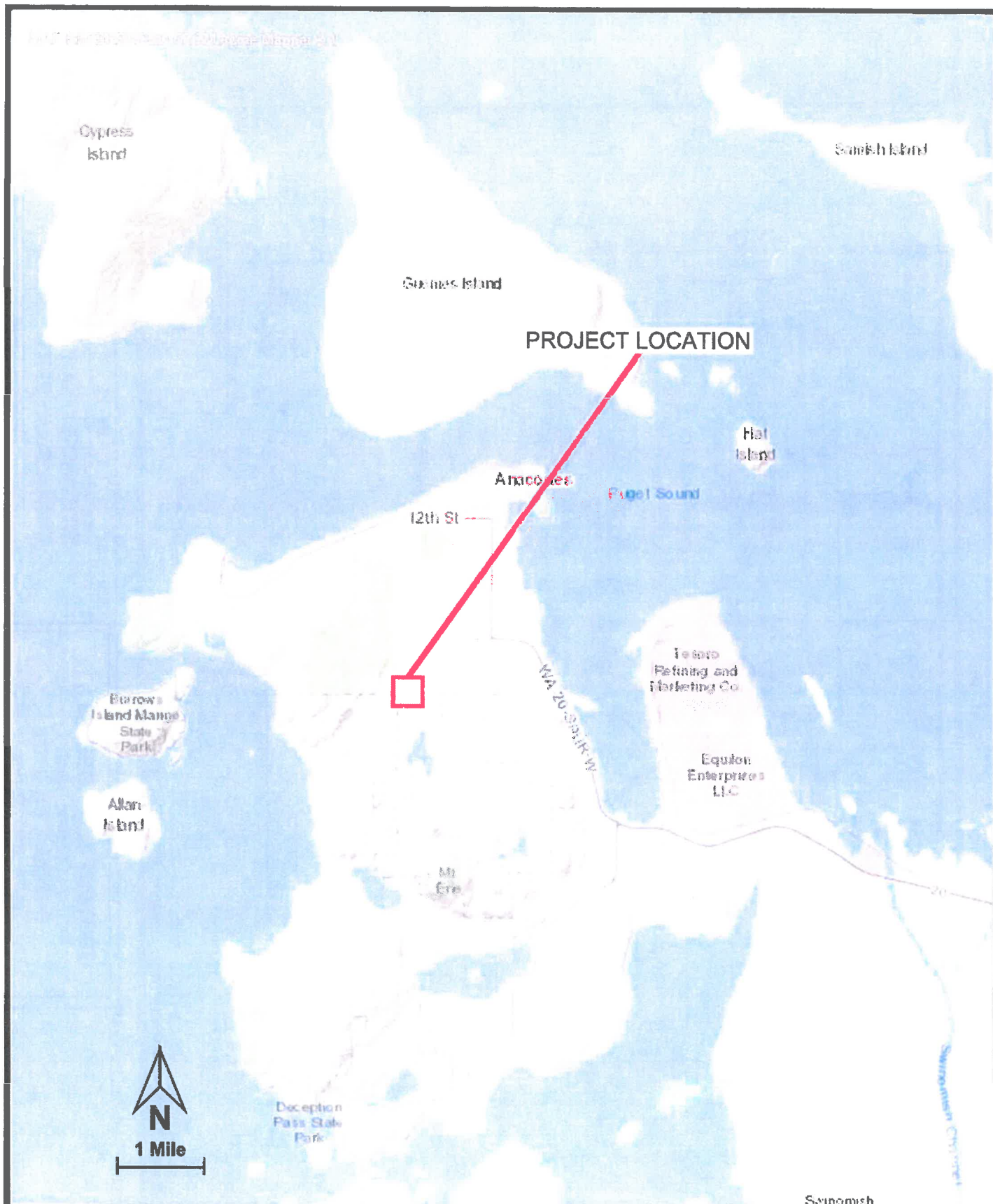
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GEOTEST SERVICES, INC.

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Bellingham, WA 98225

phone: (360) 733-7318
fax: (360) 733-7418

Date: 1-13-20

By: ZC

Scale: As Shown

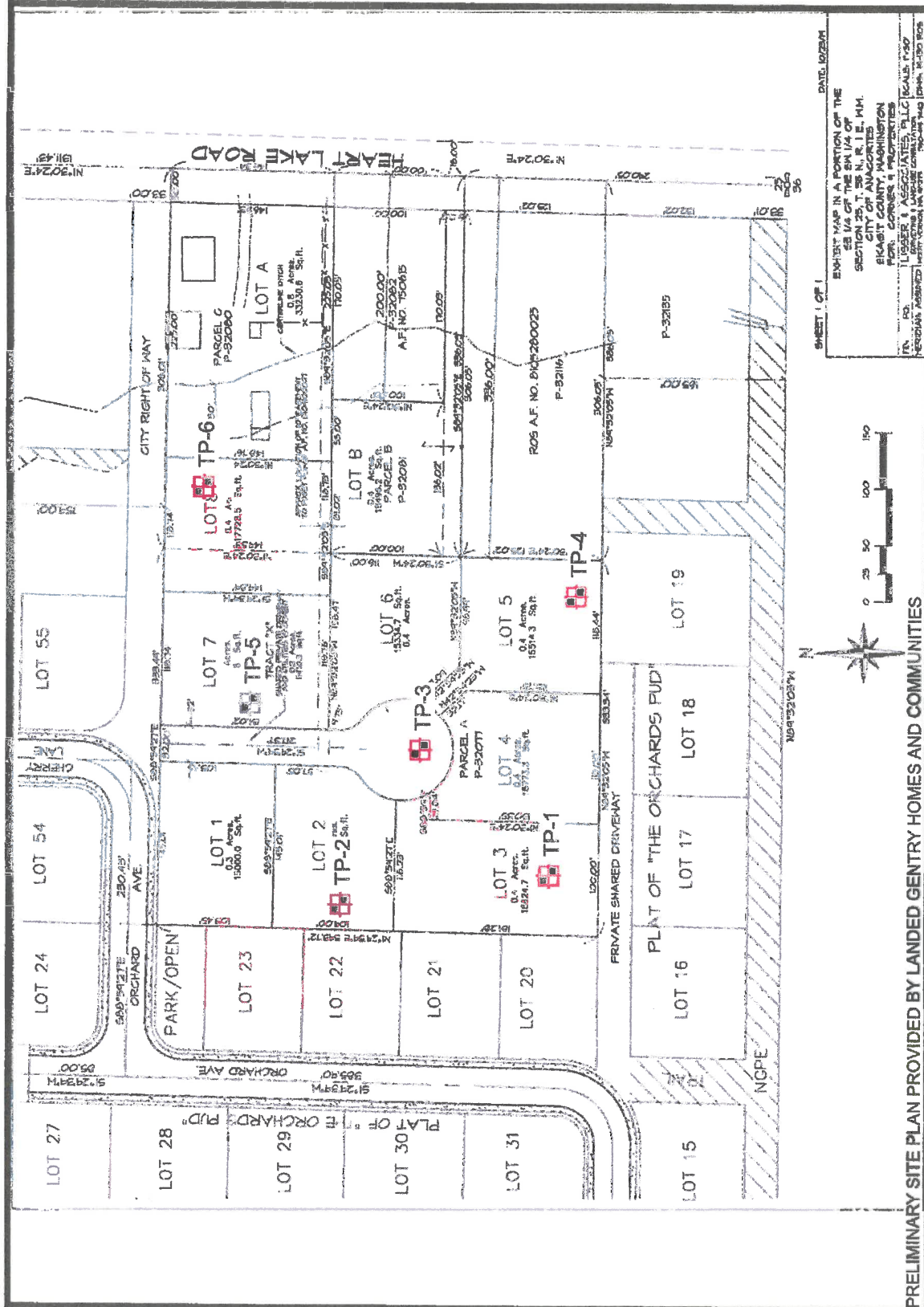
Project

19-0882

VICINITY MAP
CHERRY COURT SFR DEVELOPMENT
CHERRY LANE
ANACORTES, WASHINGTON

Figure

1



TP-# = Approximate Test Pit Location

GEOTEST SERVICES, INC.
741 Marine Drive
Bellingham, WA 98225
phone: (360) 733-7318
fax: (360) 733-7418

Date: 1-6-20

By: ZC

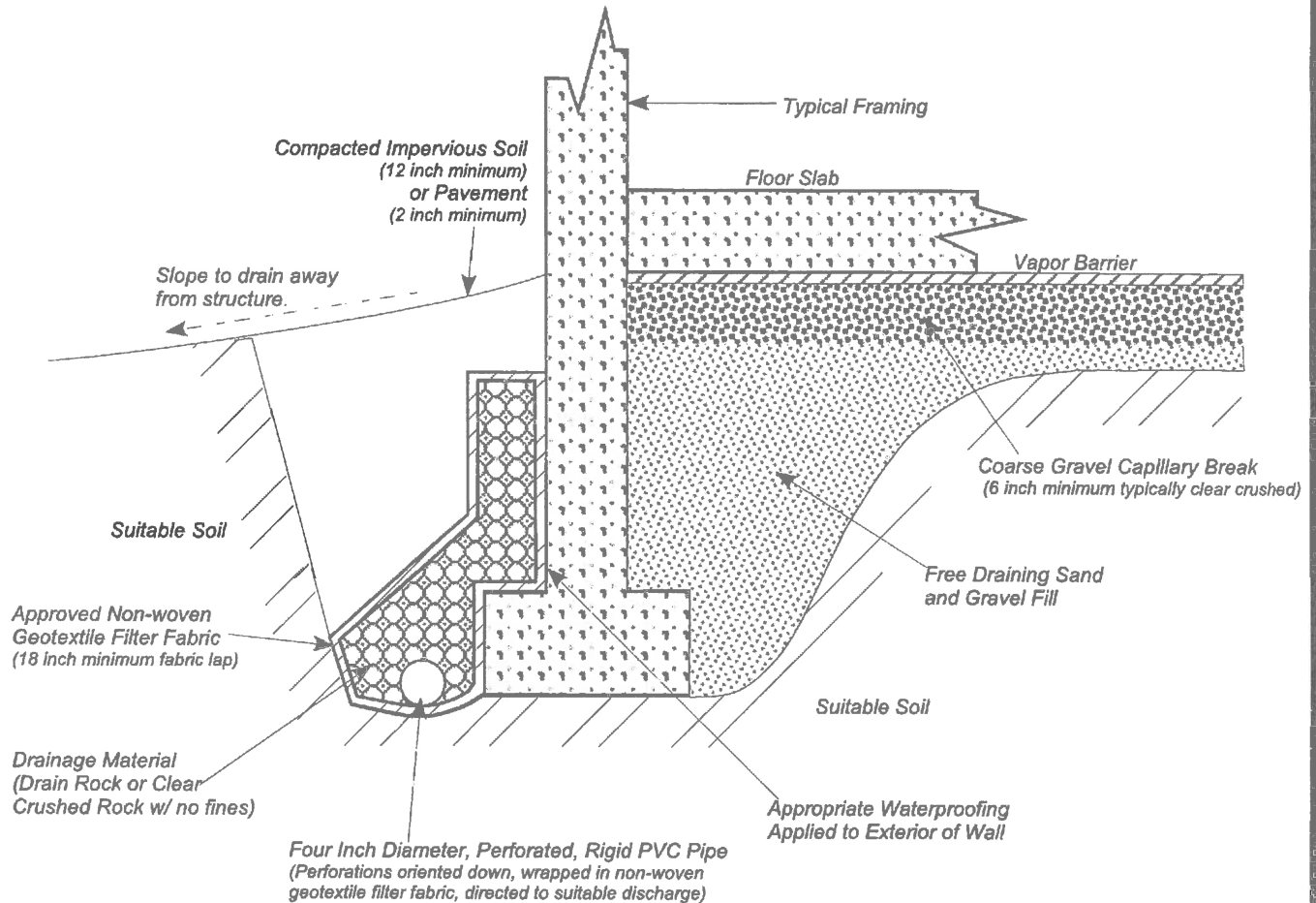
Scale: As Shown

SITE AND EXPLORATION PLAN
CHERRY COURT SFR DEVELOPMENT
CHERRY LANE
ANACORTES, WASHINGTON

Project
19-0882

Figure 2

SHALLOW FOOTINGS WITH INTERIOR SLAB-ON-GRADE



Notes:

Footings Should be properly buried for frost protection in accordance with International Building Code or local building codes
(Typically 18 inches below exterior finished grades)

The footing drain will need to be modified from this typical drawing to fit the dimensions of the planned footing and slab configuration

GEOTEST SERVICES, INC.

741 Marine Drive
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Date: 1-6-20

By: ZC

Scale: None

TYPICAL FOOTING & WALL DRAIN SECTION
CHERRY COURT SFR DEVELOPMENT
CHERRY LANE
ANACORTES, WASHINGTON

Project

19-0882

Figure

3

Soil Classification System

MAJOR DIVISIONS		GRAPHIC SYMBOL	USCS LETTER SYMBOL	TYPICAL DESCRIPTIONS ⁽¹⁾⁽²⁾
COARSE-GRAINED SOIL (More than 50% of material is larger than No. 200 sieve size)	GRAVEL AND GRAVELLY SOIL (More than 50% of coarse fraction retained on No. 4 sieve)	CLEAN GRAVEL (Little or no fines)	GW	Well-graded gravel; gravel/sand mixture(s); little or no fines
			GP	Poorly graded gravel; gravel/sand mixture(s); little or no fines
		GRAVEL WITH FINES (Appreciable amount of fines)	GM	Silty gravel; gravel/sand/silt mixture(s)
			GC	Clayey gravel; gravel/sand/clay mixture(s)
	SAND AND SANDY SOIL (More than 50% of coarse fraction passed through No. 4 sieve)	CLEAN SAND (Little or no fines)	SW	Well-graded sand; gravelly sand; little or no fines
			SP	Poorly graded sand; gravelly sand; little or no fines
SAND WITH FINES (Appreciable amount of fines)		SM	Silty sand; sand/silt mixture(s)	
		SC	Clayey sand; sand/clay mixture(s)	
FINE-GRAINED SOIL (More than 50% of material is smaller than No. 200 sieve size)	SILT AND CLAY (Liquid limit less than 50)	ML	Inorganic silt and very fine sand; rock flour; silty or clayey fine sand or clayey silt with slight plasticity	
		CL	Inorganic clay of low to medium plasticity; gravelly clay; sandy clay; silty clay; lean clay	
		OL	Organic silt; organic, silty clay of low plasticity	
	SILT AND CLAY (Liquid limit greater than 50)	MH	Inorganic silt; micaceous or diatomaceous fine sand	
		CH	Inorganic clay of high plasticity; fat clay	
		OH	Organic clay of medium to high plasticity; organic silt	
		HIGHLY ORGANIC SOIL	PT	Peat; humus; swamp soil with high organic content

OTHER MATERIALS	GRAPHIC SYMBOL	LETTER SYMBOL	TYPICAL DESCRIPTIONS
PAVEMENT		AC or PC	Asphalt concrete pavement or Portland cement pavement
ROCK		RK	Rock (See Rock Classification)
WOOD		WD	Wood, lumber, wood chips
DEBRIS		DB	Construction debris, garbage

- Notes: 1. Soil descriptions are based on the general approach presented in the *Standard Practice for Description and Identification of Soils (Visual-Manual Procedure)*, as outlined in ASTM D 2488. Where laboratory index testing has been conducted, soil classifications are based on the *Standard Test Method for Classification of Soils for Engineering Purposes*, as outlined in ASTM D 2487.
2. Soil description terminology is based on visual estimates (in the absence of laboratory test data) of the percentages of each soil type and is defined as follows:

Primary Constituent: > 50% - "GRAVEL," "SAND," "SILT," "CLAY," etc.
 Secondary Constituents: > 30% and ≤ 50% - "very gravelly," "very sandy," "very silty," etc.
 > 12% and ≤ 30% - "gravelly," "sandy," "silty," etc.
 Additional Constituents: > 5% and ≤ 12% - "slightly gravelly," "slightly sandy," "slightly silty," etc.
 ≤ 5% - "trace gravel," "trace sand," "trace silt," etc., or not noted.

Drilling and Sampling Key		Field and Lab Test Data	
SAMPLE NUMBER & INTERVAL	SAMPLER TYPE	Code	Description
	Code a	3.25-inch O.D., 2.42-inch I.D. Split Spoon	
	Code b	2.00-inch O.D., 1.50-inch I.D. Split Spoon	
	Code c	Shelby Tube	
	Code d	Grab Sample	
	Code e	Other - See text if applicable	
		1	300-lb Hammer, 30-inch Drop
		2	140-lb Hammer, 30-inch Drop
		3	Pushed
		4	Other - See text if applicable
Groundwater			
Approximate water elevation at time of drilling (ATD) or on date noted. Groundwater levels can fluctuate due to precipitation, seasonal conditions, and other factors.			
		PP = 1.0	Pocket Penetrometer, tsf
		TV = 0.5	Torvane, tsf
		PID = 100	Photoionization Detector VOC screening, ppm
		W = 10	Moisture Content, %
		D = 120	Dry Density, pcf
		-200 = 60	Material smaller than No. 200 sieve, %
		GS	Grain Size - See separate figure for data
		AL	Atterberg Limits - See separate figure for data
		GT	Other Geotechnical Testing
		CA	Chemical Analysis



Cherry Court SFR
Development
Cherry Lane
Anacortes, WA

Soil Classification System and Key

Figure
4

TP-1

SAMPLE DATA			SOIL PROFILE			GROUNDWATER
Depth (ft)	Sample Number & Interval	Sampler Type	Test Data	Graphic Symbol	USCS Symbol	Excavation Method: <u>Tracked Excavator</u> Ground Elevation (ft): <u>Not Determined</u> Excavated By: <u>R & J Dirtworks/Z. Click</u>
0		d			SM/OL	Loose, dark brown, damp, silty SAND with organics (Topsoil)
2		d	W = 18 GS		ML	Medium stiff, light brown and tan with some red/orange staining, damp, very sandy SILT with occasional gravel (Native Borrow Fill)
4		d				- Soil at this location was variegated in color and grainsize distribution as well as less dense than was typical within test pits 2 through 6.
6		d	W = 26 GS		ML	Hard, gray, damp, gravelly, slightly sandy SILT (Glacial Till)
8		d				
10		d				
12						

Test Pit Completed 12/18/19
Total Depth of Test Pit = 9.5 ft.

TP-2

SAMPLE DATA			SOIL PROFILE			GROUNDWATER
Depth (ft)	Sample Number & Interval	Sampler Type	Test Data	Graphic Symbol	USCS Symbol	Excavation Method: <u>Tracked Excavator</u> Ground Elevation (ft): <u>Not Determined</u> Excavated By: <u>R & J Dirtworks/Z. Click</u>
0		d			SM/OL	Loose, dark brown, damp, silty SAND with organics (Topsoil)
2		d	W = 9 GS		SM	Dense, brown transitioning to tan with some red/orange staining, damp, silty SAND (Weathered Glacial Till)
4		d				- Rootlets present to ~3' BGS
6		d			SM	Very dense, gray, damp, slightly gravelly to gravelly, very silty SAND (Glacial Till)
8		d	W = 10 GS			
10						
12						

Test Pit Completed 12/18/19
Total Depth of Test Pit = 10.0 ft.

- Notes:
1. Stratigraphic contacts are based on field interpretations and are approximate.
 2. Reference to the text of this report is necessary for a proper understanding of subsurface conditions.
 3. Refer to "Soil Classification System and Key" figure for explanation of graphics and symbols.



Cherry Court SFR
Development
Cherry Lane
Anacortes, WA

Log of Test Pits

Figure
5

TP-3

SAMPLE DATA			SOIL PROFILE			GROUNDWATER
Depth (ft)	Sample Number & Interval	Sampler Type	Test Data	Graphic Symbol	USCS Symbol	
0						Excavation Method: <u>Tracked Excavator</u>
						Ground Elevation (ft): <u>Not Determined</u>
						Excavated By: <u>R & J Dirtworks/Z. Click</u>
0		d			SM/OL	Loose, dark brown, damp, silty SAND with organics (Topsoil)
2		d	W = 15 GS		SM	Dense, brown transitioning to tan with some red/orange staining, damp, slightly gravelly, silty SAND (Weathered Glacial Till)
4		d				- Rootlets present to ~3' BGS
4		d			SM	- Slight seepage and weepholes observed at ~2.5' and 4' BGS
6		d	W = 11 GS			Very dense, gray, damp, gravelly, slightly gravelly, very silty SAND (Glacial Till)
8						
10						
12						

Test Pit Completed 12/18/19
Total Depth of Test Pit = 9.5 ft.

TP-4

SAMPLE DATA			SOIL PROFILE			GROUNDWATER
Depth (ft)	Sample Number & Interval	Sampler Type	Test Data	Graphic Symbol	USCS Symbol	
0						Excavation Method: <u>Tracked Excavator</u>
						Ground Elevation (ft): <u>Not Determined</u>
						Excavated By: <u>R & J Dirtworks/Z. Click</u>
0		d			SM/OL	Loose, dark brown, damp, silty SAND with organics (Topsoil)
2		d	W = 31 GS		SM	Dense, brown transitioning to tan with some red/orange staining, damp, slightly gravelly, silty SAND (Weathered Glacial Till)
4		d				- Rootlets present to ~3' BGS
4		d			SM	- Slight seepage and weepholes observed at ~2.5' and 3' BGS
6		d				Very dense, gray, damp, gravelly, very silty SAND (Glacial Till)
8						
10						
12						

Test Pit Completed 12/18/19
Total Depth of Test Pit = 9.0 ft.

- Notes: 1. Stratigraphic contacts are based on field interpretations and are approximate.
2. Reference to the text of this report is necessary for a proper understanding of subsurface conditions.
3. Refer to "Soil Classification System and Key" figure for explanation of graphics and symbols.



Cherry Court SFR
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Cherry Lane
Anacortes, WA

Log of Test Pits

Figure
6

TP-5

SAMPLE DATA			SOIL PROFILE			GROUNDWATER
Depth (ft)	Sample Number & Interval	Sampler Type	Test Data	Graphic Symbol	USCS Symbol	Excavation Method: <u>Tracked Excavator</u> Ground Elevation (ft): <u>Not Determined</u> Excavated By: <u>R & J Dirtworks/Z. Click</u>
0		d			SM/OL	Loose, dark brown, damp, silty SAND with organics (Topsoil)
2		d	W = 20 GS		SM	Dense, brown transitioning to tan with some red/orange staining, damp, slightly gravelly, very silty SAND (Weathered Glacial Till)
4		d			SM	- Rootlets present to ~3' BGS
6		d	W = 11 GS			Very dense, gray, damp, slightly gravelly, very silty SAND (Glacial Till)
8						
10	Test Pit Completed 12/18/19 Total Depth of Test Pit = 9.0 ft.					
12						

Groundwater not encountered.

TP-6

SAMPLE DATA			SOIL PROFILE			GROUNDWATER
Depth (ft)	Sample Number & Interval	Sampler Type	Test Data	Graphic Symbol	USCS Symbol	Excavation Method: <u>Tracked Excavator</u> Ground Elevation (ft): <u>Not Determined</u> Excavated By: <u>R & J Dirtworks/Z. Click</u>
0		d			SM/OL	Loose, dark brown, damp, silty SAND with organics (Topsoil)
2		d	W = 17 GS		SM	Dense, brown transitioning to tan with some red/orange staining, damp, silty SAND (Weathered Glacial Till)
4		d			SM	- Rootlets present to ~3' BGS - Slight seepage and weepholes observed at ~1.5' and 2' BGS
6		d				Very dense, gray, damp, gravelly, very silty SAND (Glacial Till)
8		d				
10	Test Pit Completed 12/18/19 Total Depth of Test Pit = 9.0 ft.					
12						

∇ Slight groundwater seepage encountered at 1.5 ft.

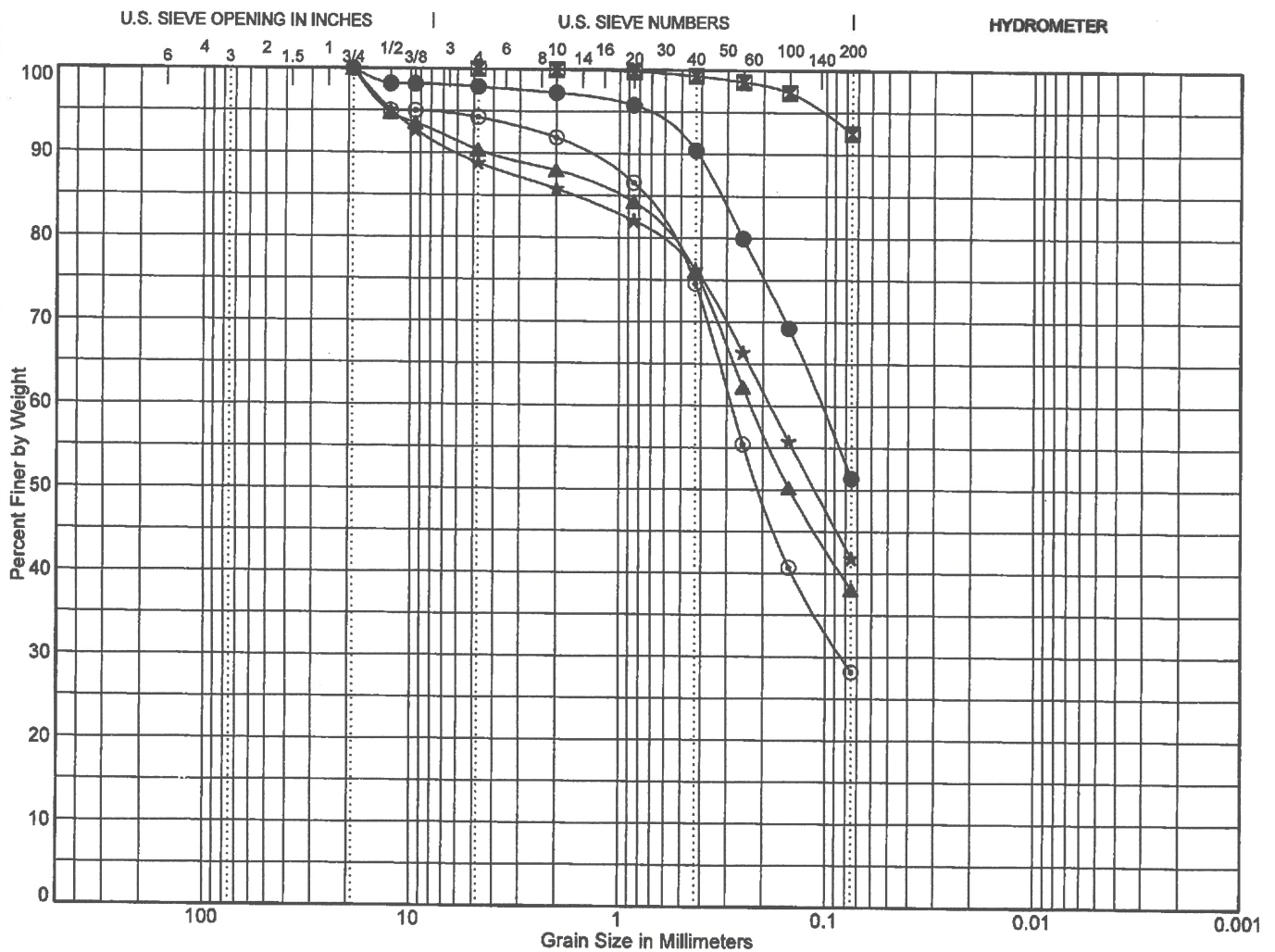
- Notes:
1. Stratigraphic contacts are based on field interpretations and are approximate.
 2. Reference to the text of this report is necessary for a proper understanding of subsurface conditions.
 3. Refer to "Soil Classification System and Key" figure for explanation of graphics and symbols.



Cherry Court SFR
Development
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Anacortes, WA

Log of Test Pits

Figure
7



Cobbles	Gravel		Sand			Silt or Clay
	coarse	fine	coarse	medium	fine	

Point Depth			Classification					LL	PL	PI	C _c	C _u
●	TP-1	3.0	VERY SANDY SILT (ML)									
☒	TP-1	6.5	SLIGHTLY SANDY SILT (ML)									
▲	TP-2	4.0	SLIGHTLY GRAVELLY, VERY SILTY SAND (SM)									
★	TP-2	8.0	GRAVELLY, VERY SILTY SAND (SM)									
◎	TP-3	2.0	SLIGHTLY GRAVELLY, SILTY SAND (SM)									
Point	Depth	D ₉₀	D ₆₀	D ₅₀	D ₃₀	D ₁₀	%Coarse Gravel	% Fine Gravel	% Coarse Sand	% Medium Sand	% Fine Sand	% Fines
●	TP-1	3.0	0.416	0.105			0.0	2.1	0.7	6.8	39.1	51.4
☒	TP-1	6.5					0.0	0.0	0.0	0.7	6.8	92.5
▲	TP-2	4.0	4.151	0.227	0.148		0.0	9.6	2.4	12.0	37.9	38.1
★	TP-2	8.0	5.837	0.184	0.113		0.0	11.2	3.0	9.5	34.4	41.8
◎	TP-3	2.0	1.476	0.284	0.207	0.083	0.0	5.7	2.4	17.3	46.3	28.2

$$C_c = D_{30}^2 / (D_{60} * D_{10})$$

$$C_u = D_{60} / D_{10}$$

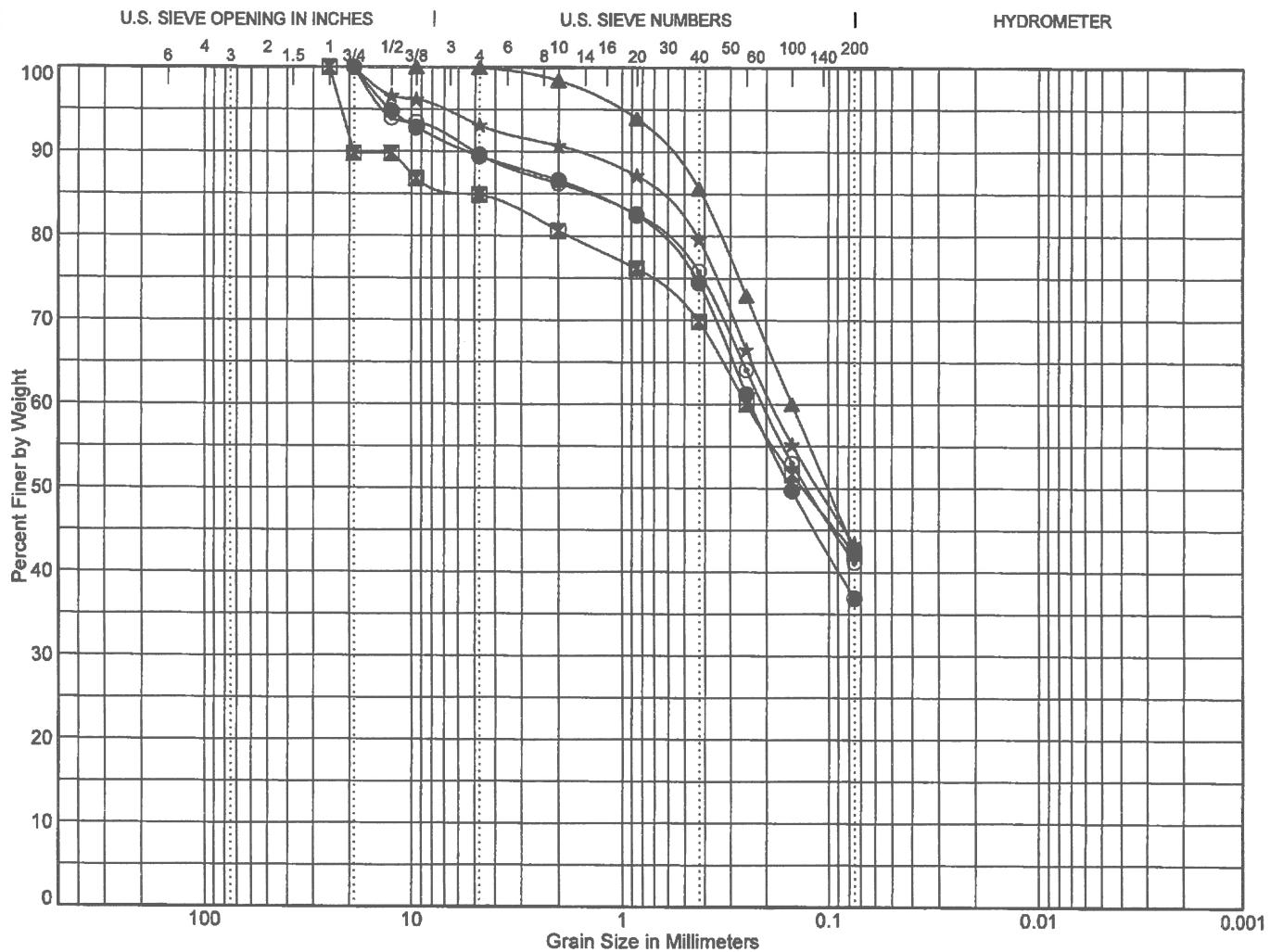
To be well graded: $1 < C_c < 3$ and $C_u > 4$ for GW or $C_u > 6$ for SW



Cherry Court SFR
Development
Cherry Lane
Anacortes, WA

Grain Size Test Data

Figure
8



Cobbles	Gravel		Sand			Silt or Clay
	coarse	fine	coarse	medium	fine	

Point Depth			Classification							LL	PL	PI	C _c	C _u
●	TP-3	5.5	SLIGHTLY GRAVELLY, VERY SILTY SAND (SM)											
☒	TP-4	1.5	GRAVELLY, VERY SILTY SAND (SM)											
▲	TP-5	2.7	VERY SILTY SAND (SM)											
★	TP-5	6.0	SLIGHTLY GRAVELLY, VERY SILTY SAND (SM)											
◎	TP-6	3.3	GRAVELLY, VERY SILTY SAND (SM)											
Point	Depth	D ₉₀	D ₆₀	D ₅₀	D ₃₀	D ₁₀	%Coarse Gravel	% Fine Gravel	% Coarse Sand	% Medium Sand	% Fine Sand	% Fines		
●	TP-3	5.5	5.304	0.237	0.152			0.0	10.5	2.9	12.1	37.6	36.9	
☒	TP-4	1.5	19.1	0.25	0.132			10.2	5.0	4.2	10.7	27.5	42.3	
▲	TP-5	2.7	0.611	0.15	0.101			0.0	0.1	1.5	12.8	43.1	42.5	
★	TP-5	6.0	1.684	0.186	0.111			0.0	6.9	2.4	11.1	36.3	43.3	
◎	TP-6	3.3	5.073	0.207	0.126			0.0	10.4	3.4	10.4	34.6	41.2	

$$C_c = D_{30}^2 / (D_{60} * D_{10})$$

$$C_u = D_{60} / D_{10}$$

To be well graded: $1 < C_c < 3$ and $C_u > 4$ for GW or $C_u > 6$ for SW



Cherry Court SFR
Development
Cherry Lane
Anacortes, WA

Grain Size Test Data

Figure
9



**Northwest Agricultural
Consultants**

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PAP-Accredited



GeoTest Services Inc.
741 Marine Drive
Bellingham, WA 98225

Report: 50199-1-1
Date: January 6, 2020
Project No: 19-0882
Project Name: Cherry Court SFR
Development

Sample ID	pH	Organic Matter	Cation Exchange Capacity
TP-2 @ 2.0'	6.1	1.85%	7.4 meq/100g
TP-5 @ 0.5'	5.7	8.62%	17.7 meq/100g
Method	SM 4500-H ⁺ B	ASTM D2974	EPA 9081



REPORT LIMITATIONS AND GUIDELINES FOR ITS USE¹

Subsurface issues may cause construction delays, cost overruns, claims, and disputes. While you cannot eliminate all such risks, you can manage them. The following information is provided to help:

Geotechnical Services are Performed for Specific Purposes, Persons, and Projects

At GeoTest our geotechnical engineers and geologists structure their services to meet specific needs of our clients. A geotechnical engineering study conducted for a civil engineer may not fulfill the needs of an owner, a construction contractor or even another civil engineer. Because each geotechnical engineering study is unique, each geotechnical engineering report is unique, prepared solely for the client. No one except you should rely on your geotechnical engineer who prepared it. And no one – not even you – should apply the report for any purpose or project except the one originally contemplated.

Read the Full Report

Serious problems have occurred because those relying on a geotechnical engineering report did not read it all. Do not rely on an executive summary. Do not read selected elements only.

A Geotechnical Engineering Report is Based on a Unique Set of Project-Specific Factors

GeoTest's geotechnical engineers consider a number of unique, project-specific factors when establishing the scope of a study. Typical factors include: the clients goals, objectives, and risk management preferences; the general nature of the structure involved its size, and configuration; the location of the structure on the site; and other planned or existing site improvements, such as access roads, parking lots, and underground utilities. Unless GeoTest, who conducted the study specifically states otherwise, do not rely on a geotechnical engineering report that was:

- not prepared for you,
- not prepared for your project,
- not prepared for the specific site explored, or
- completed before important project changes were made.

Typical changes that can erode the reliability of an existing geotechnical engineering report include those that affect:

- the function of the proposed structure, as when it's changed, for example, from a parking garage to an office building, or from a light industrial plant to a refrigerated warehouse,
- elevation, configuration, location, orientation, or weight of the proposed construction,
- alterations in drainage designs; or
- composition of the design team; the passage of time; man-made alterations and construction whether on or adjacent to the site; or by natural alterations and events, such as floods, earthquakes or groundwater fluctuations; or project ownership.

Always inform GeoTest's geotechnical engineer of project changes – even minor ones – and request an assessment of their impact. Geotechnical engineers cannot accept responsibility or liability for problems that occur because their reports do not consider developments of which they were not informed.

Subsurface Conditions Can Change

This geotechnical or geologic report is based on conditions that existed at the time the study was performed. Do not rely on the findings and conclusions of this report, whose adequacy may have been affected by: the passage of time; by man-made events, such as construction on or adjacent to the site; or by natural events, such as floods, earthquakes, or groundwater fluctuations. Always contact GeoTest before applying the report to determine if it is still relevant. A minor amount of additional testing or analysis will help determine if the report remains applicable.

Most Geotechnical and Geologic Findings are Professional Opinions

Our site exploration identifies subsurface conditions only at those points where subsurface tests are conducted or samples are taken. GeoTest's engineers and geologists review field and laboratory data and then apply their professional judgment to render an opinion about subsurface conditions throughout the site. Actual subsurface conditions may differ – sometimes significantly – from those indicated in your report. Retaining GeoTest who developed this report to provide construction observation is the most effective method of managing the risks associated with anticipated or unanticipated conditions.



A Report's Recommendations are Not Final

Do not over-rely on the construction recommendations included in this report. Those recommendations are not final, because geotechnical engineers or geologists develop them principally from judgment and opinion. GeoTest's geotechnical engineers or geologists can finalize their recommendations only by observing actual subsurface conditions revealed during construction. GeoTest cannot assume responsibility or liability for the report's recommendations if our firm does not perform the construction observation.

A Geotechnical Engineering or Geologic Report may be Subject to Misinterpretation

Misinterpretation of this report by other design team members can result in costly problems. Lower that risk by having GeoTest confer with appropriate members of the design team after submitting the report. Also, we suggest retaining GeoTest to review pertinent elements of the design teams plans and specifications. Contractors can also misinterpret a geotechnical engineering report. Reduce that risk by having GeoTest participate in pre-bid and preconstruction conferences, and by providing construction observation.

Do not Redraw the Exploration Logs

Our geotechnical engineers and geologists prepare final boring and testing logs based upon their interpretation of field logs and laboratory data. To prevent errors of omissions, the logs included in this report should never be redrawn for inclusion in architectural or other design drawings. Only photographic or electronic reproduction is acceptable; but recognizes that separating logs from the report can elevate risk.

Give Contractors a Complete Report and Guidance

Some owners and design professionals mistakenly believe they can make contractors liable for unanticipated subsurface conditions by limiting what they provide for bid preparation. To help prevent costly problems, give contractors the complete geotechnical engineering report, but preface it with a clearly written letter of transmittal. In that letter, consider advising the contractors that the report was not prepared for purposes of bid development and that the report's accuracy is limited; encourage them to confer with GeoTest and/or to conduct additional study to obtain the specific types of information they need or prefer. A pre-bid conference can also be valuable. Be sure contractors have sufficient time to perform additional study. Only then might you be in a position to give contractors the best information available, while requiring them to at least share some of the financial responsibilities stemming from unanticipated conditions.



In addition, it is recommended that a contingency for unanticipated conditions be included in your project budget and schedule.

Read Responsibility Provisions Closely

Some clients, design professionals, and contractors do not recognize that geotechnical engineering or geology is far less exact than other engineering disciplines. This lack of understanding can create unrealistic expectations that can lead to disappointments, claims, and disputes. To help reduce risk, GeoTest includes an explanatory limitations section in our reports. Read these provisions closely. Ask questions and we encourage our clients or their representative to contact our office if you are unclear as to how these provisions apply to your project.

Environmental Concerns Are Not Covered in this Geotechnical or Geologic Report

The equipment, techniques, and personnel used to perform an environmental study differ significantly from those used to perform a geotechnical or geologic study. For that reason, a geotechnical engineering or geologic report does not usually relate any environmental findings, conclusions, or recommendations; e.g., about the likelihood of encountering underground storage tanks or regulated containments, etc. If you have not yet obtained your own environmental information, ask your geotechnical consultant for risk management guidance. Do not rely on environmental report prepared for some one else.

Obtain Professional Assistance to Deal with Biological Pollutants

Diverse strategies can be applied during building design, construction, operation, and maintenance to prevent significant amounts biological pollutants from growing on indoor surfaces. Biological pollutants includes but is not limited to molds, fungi, spores, bacteria and viruses. To be effective, all such strategies should be devised for the express purpose of prevention, integrated into a comprehensive plan, and executed with diligent oversight by a professional biological pollutant prevention consultant. Because just a small amount of water or moisture can lead to the development of severe biological infestations, a number of prevention strategies focus on keeping building surfaces dry. While groundwater, water infiltration, and similar issues may have been addressed as part of this study, the geotechnical engineer or geologist in charge of this project is not a biological pollutant prevention consultant; none of the services preformed in connection with this geotechnical engineering or geological study were designed or conducted for the purpose of preventing biological infestations.

APPENDIX 3 – Model Soil Management Plan for BMP T5.13

An alternate document acceptable to the City of Anacortes is a Test Report provided by the Soils Supplier that identifies the soils to be used meet the specifications outlined under Minimum Requirement 5. The specifications are in both WSDOT and CSI Formats. For specifications, refer to the above referenced PDF.

This submittal can be a deferred submittal since most projects are not sure who the supplier will be at the time of building permit application. For projects that trigger Minimum Requirements 1 through 5, the Test Report will be provided to the Building Department. Projects triggering Minimum Requirements 1 through 9, the Test Report will be provided to the Engineering Department.

This submittal will be deferred since this project is unsure of who the supplier will be. Since this project triggers Minimum Requirements 1 through 9, the Test Report will be provided to the Engineering Department as required.

DEFERRED SUBMITTAL: PROVIDE A TEST REPORT FROM SOILS SUPPLIER TO THE ENGINEERING DEPT.

PROJECT INFORMATION "Model Soil Management Plan for BMP T5.13" age # ____ of ____ pages
Complete all information on page 1; only site address and permit number on additional pages.

Site Address / Lot No.: _____	
Permit Type: _____	Permit Number: _____
Permit Holder: _____	Phone: _____
Mailing Address: _____	
Contact Person: _____	Phone: _____
Plan Prepared By: _____	

ATTACHMENTS REQUIRED (Check off required items that are attached to this plan)

☐ Site Plan showing, to scale:	☐ Areas of undisturbed native vegetation (no amendment required)
	☐ New planting beds and turf areas (amendment required)
	☐ Type of soil improvement proposed for each area
☐ Soil test results (required if proposing custom amendment rates)	
☐ Product test results for proposed amendments	

AREA # _____ (should match Area # on Site Plan)

PLANTING TYPE ☐ Turf ☐ Undisturbed native vegetation ☐ Planting Beds ☐ Other: _____		
SQUARE FOOTAGE OF THIS AREA: _____ square feet		
SCARIFICATION ☐ Subsoil will be scarified	☐ inches (depth) of scarification needed to achieve finished total 12" loosened depth.	
PRE-APPROVED AMENDMENT METHOD: ☐ Topsoil import ☐ Amend with compost ☐ Stockpile and amend (____ cu. yds. stockpiled)	☐ inches of compost or imported topsoil applied X <u>3.1</u> (conversion factor, inches to cubic yards) _____ = cu. yards per 1,000 sq. ft. X _____,000s sq.ft. in this area _____ = cubic yards of amendment → → → → → (needed to cover this area to designated depth)	PRODUCT: _____ QUANTITY: _____ CU. YDS.
CUSTOM AMENDMENT ☐ Topsoil import ☐ Topsoil & compost lift ☐ Amend ☐ Stockpile and amend (____ cu. yds. stockpiled)	Attach test results and calculations. ☐ inches organic matter or topsoil import X <u>3.1</u> _____ = cu. yards / 1,000 sq. ft. X _____,000s sq.ft. in this area _____ = cubic yards of amendment → → → → →	PRODUCT: _____ QUANTITY: _____ CU. YDS.
MULCH	_____,000 sq.ft. X <u>6.2</u> (conversion, to give 2 inch mulch depth) _____ = cubic yards of mulch → → → → →	PRODUCT: _____ QUANTITY: _____ CU. YDS.

TOTAL AMENDMENT/TOPSOIL/MULCH FOR ALL AREAS (complete on page 1 only, totaling all areas/pages in this Plan)

☐ Product #1: _____	☐ Quantity: _____ cu. yds.
☐ Test Results: _____ % organic matter C:N ratio <25:1 (except mulch, or <35:1 for native plants)	"stable" (yes/no)
☐ Product #2: _____	☐ Quantity: _____ cu. yds.
☐ Test Results: _____ % organic matter C:N ratio <25:1 (except mulch, or <35:1 for native plants)	"stable" (yes/no)
☐ Product #3: _____	☐ Quantity: _____ cu. yds.
☐ Test Results: _____ % organic matter C:N ratio <25:1 (except mulch, or <35:1 for native plants)	"stable" (yes/no)

Date: _____	Inspector: _____	Approved: _____	Revisions Required: _____
Date: _____	Inspector: _____	Approved: _____	Revisions Required: _____

APPENDIX 4 – Determining Construction Site Sediment Damage Potential (Appendix 7 – NPDES Phase II Permit)

See attached Construction Site Sediment Transport Potential Worksheet as required for this project.

i.

APPENDIX 7 – Determining Construction Site Sediment Damage Potential

The following rating system allows objective evaluation of a particular development site's potential to discharge sediment. Permittees may use the rating system below or develop alternative process designed to identify site-specific features which indicate that the site must be inspected prior to clearing and construction. Any alternative evaluation process must be documented and provide for equivalent environmental review.

Step one is to determine if there is a sediment/erosion sensitive feature downstream of the development site. If there is such a site downstream complete step two, assessment of hydraulic nearness. If there is a sediment/erosion sensitive feature and it is hydraulically near the site then go to step three to determine the construction site sediment transport potential.

STEP 1 – Sediment/Erosion Sensitive Feature Identification

Sediment/erosion sensitive features are areas subject to significant degradation due to the effect of sediment deposition or erosion. Special protection must be provided to protect them.

Sediment/erosion sensitive features include but are not limited to:

- i. Salmonid bearing fresh water streams and their tributaries or freshwater streams that would be Salmonid bearing if not for anthropogenic barriers;
- ii. Lakes;
- iii. Category I, II, and III wetlands;
- iv. Marine near-shore habitat;
- v. Sites containing contaminated soils where erosion could cause dispersal of contaminants; and
- vi. Steep slopes (25% or greater) associated with one of the above features.

Identify any sediment/erosion sensitive features, and proceed to step two. If there are none the assessment is complete.

Ace of Hearts Creek located approximately 125 feet easterly of the area of the site proposed for development and is noted as a "Fish Bearing" per the Department of Natural Resources FPARS Mapping. Furthermore, the slopes along the edge of Ace of Hearts Creek are slightly steeper than 25% in some locations.

STEP 2 – Hydraulic Nearness Assessment

Sites are hydraulically near a feature if the pollutant load and peak quantity of runoff from the site will not be naturally attenuated before entering the feature. The conditions that render a site hydraulically near to a feature include, but are not limited to, the following:

- i. The feature or a buffer to protect the feature is within 200 feet downstream of the site.
- ii. Runoff from the site is tight-lined to the feature or flows to the feature through a channel or ditch.

A site is not hydraulically near a feature if one of the following takes place to provide attenuation before runoff from the site enters the feature:

- iv. Sheet flow through a vegetated area with dense ground cover
- v. Flow through a wetland not included as a sensitive feature
- vi. Flow through a significant shallow or adverse slope, not in a conveyance channel, between the site and the sensitive feature.

Identify any of the sediment/erosion sensitive features from step one that are hydraulically near the site, and proceed to step three. If none of the sediment/erosion sensitive features are hydraulically near the site, the assessment is complete.

Discharge from the sites proposed detention pond will be released to an existing shallow ditch located along the south side of Orchard Avenue, which conveys runoff easterly to Ace of Hearts Creek as occurs today.

vii. **STEP 3 – Construction Site Sediment Transport Potential**

Using the worksheet below, determine the total points for each development site. Assign points based on the most critical condition that affects 10% or more of the site.

If soil testing has been performed on site, the results should be used to determine the predominant soil type on the site. Otherwise, soil information should be obtained from the county soil survey to determine Hydrologic Soil Group (Table of Engineering Index Properties for step 1.D) and Erosion Potential (Table of Water Features for step 1.E)

When using the county soil survey, the dominant soil type may be in question, particularly when the site falls on a boundary between two soil types or when one of two soil types may be present on a site. In this case, the soil type resulting in the most points on the rating system will be assumed unless site soil tests indicate that another soil type dominates the site.

Use the point score from Step 3 to determine whether the development site has a high potential for sediment transport off of the site.

<u>Total Score</u>	<u>Transport Rating</u>
<100	Low
≥ 100	High

A high transport rating indicates a higher risk that the site will generate sediment contaminated runoff.

Refer to the attached worksheet prepared for this project noting a score of 100 for this site, however this includes the development of all 6-future home sites, which will all not occur concurrently with plat infrastructure construction. Not accounting for home development reduces the total score below the threshold transport rating to “Low”.

Construction Site Sediment Transport Potential Worksheet

A. Existing slope of site (average, weighted by aerial extent):	Points
2% or less	0
>2-5%	5
>5-10%	15
>10-15%	30
>15%	50
B. Site Area to be cleared and/or graded:	
<5,000 sq. ft	0
5,000 sq. ft. – 1 acre	30
>1 acres*	50
<i><u>*This includes future home site construction which will not occur at the same time as the road construction, thus generally less than 1-acre of area will be cleared and/or graded at one time. With this in mind this could be represented as 30 points rather than 50 points as noted here.</u></i>	
C. Quantity of cut and/or fill on site:	
<500 cubic yards	0
500 – 5,000 cubic yards	5
>5,000 – 10,000 cubic yards	10
>10,000 – 20,000 cubic yards	25
>20,000 cubic yards	40
D. Runoff potential of predominant soils (Natural Resources Conservation Service):	Hydrologic
soil group A	0
Hydrologic soil group B	10
Hydrologic soil group C	20
Hydrologic soil group D	40
E. Erosion Potential of predominant soils (Unified Classification System):	GW, GP, SW,
SP soils	0
Dual classifications (GW-GM, GP-GM, GW-GC, GP-GC, SW-SM, SW-SC, SP-SM, SP-SC)	10
GM, GC, SM , SC soils	20
ML, CL, MH, CH soils	40
F. Surface or Groundwater entering site identified and intercepted ¹ :	
Yes	0
No	25
G. Depth of cut or height of fill >10 feet:	
Yes	25
No	0
H. Clearing and grading will occur in the wet season (October 1 – May 1):	Yes 50
No	0

TOTAL POINTS..... 100

**This includes future home site construction which will not occur at the same time as the road construction, thus generally less than 1-acre of area will be cleared and/or graded at one time. With this in mind this could be represented as 30 points rather than 50 points as noted here.*

APPENDIX 5 – Site Plan with all applicable information (Minimum Size 11x17 at a legible scale)

See attached Civil Plans

CHERRY COURT
6-LOT SHORT PLAT
FOR
CORNER 9 PROPERTIES, LLC

CALL TWO
BUSINESS DAYS
BEFORE YOU DIG
"811"

LEGEND		
---	EXISTING RIGHT OF WAY LINE	
---	EXISTING RIGHT OF WAY LINE	
---	EXISTING ROAD CENTERLINE	
---	EXISTING PROPERTY LINE	
○	EXISTING PROPERTY CORNER	
SD	EXISTING STORM DRAIN	
○	EXISTING STORM MANHOLE	
□	EXISTING STORM CATCH BASIN	
SS	EXISTING SANITARY SEWER	
○	EXISTING SANITARY MANHOLE	
W	EXISTING WATERLINE	
⊗	EXISTING WATER VALVE	
⊙	EXISTING FIRE HYDRANT	
PCTG	EXISTING POWER, CABLE, TELEPHONE, GAS LINE	
▣	EXISTING WATER METER	
---	EXISTING EDGE OF ASPHALT	
---	EXISTING FENCELINE	
---	EXISTING ASPHALT	
---	EXISTING CONCRETE	
---	EXISTING GRAVEL	
---	EXISTING SWALE	
---	PROPOSED ASPH. SURFACE ELEV.	
---	PROPOSED TOP OF CONC. ELEV.	
---	PROPOSED ASPH. SURFACE ELEV.	
---	PROPOSED LANDSCAPE AREA	
---	PROPOSED CLEANOUT ASSEMBLY FOR STORM OR SANITARY SEWER	
SD	PROPOSED STORM DRAIN	
■	PROPOSED STORM CATCH BASIN	
SS	PROPOSED SANITARY SEWER	
P,C,T,G,S	PROPOSED POWER, CABLE, GAS, TELEPHONE, SPARE CONDUIT LINE	
P,SPR	PROPOSED POWER, & SPARE CONDUIT	
G	PROPOSED GAS LINE	
W	PROPOSED WATERLINE	
⊗	PROPOSED WATER VALVE	
⊙	PROPOSED WATER METER	
---	PROPOSED SWALE	
C/G	CEMENT CONCR. CURB & GUTTER	
---	PROPOSED FENCELINE	
---	PROPOSED ASPHALT	
---	PROPOSED CRUSHED ROCK	
---	PROPOSED SITE LIGHT POLE	
CMP	CORRUGATED METAL PIPE	
---	PROPOSED GRASS	

PROJECT CONTACTS:

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CIVIL ENGINEER

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SURVEYOR

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FAX: (360)419-0581
CONTACT: BRUCE LISSE

PUGET SOUND ENERGY
POTELCO

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MOB: (360)791-2748
CONTACT: JANE MAJOR
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FAX: (360)527-8302
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EMAIL: Casey_Jones@cable.comcast.com

CASCADE NATURAL GAS

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FAX: (360)336-2564
MOB: (360)941-0499
CONTACT: JIM HOBBS
EMAIL: James.Hobbs@cngc.com

FRONTIER

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FAX: (360)757-4338
CONTACT: BRET MURDOCK
EMAIL: bret.t.murdock@ftr.com

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CELL: (360)661-3488
EMAIL: stevel@cityofanacortes.org
ALTERNATE CONTACT: TIM HOHMANN
PHONE: (360)770-9221

WATER DEPARTMENT
PHONE: (360)299-1952 (DIRECT)
CONTACT: TERRY NEMETH

PUBLIC WORKS INSPECTOR - JUSTIN SYMONDS
P.O. BOX 547
ANACORTES, WA 98221
PHONE: (360)299-1962
CELL: (360)661-3547

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741 MARINE DRIVE
BELLINGHAM, WA 98225
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CONTACT: KURT PARKER
MOB: (360)303-3390

SOLID WASTE

CITY OF ANACORTES OPERATIONS DEPARTMENT
SOLID WASTE SUPERVISOR
TEL: (360)293-1921
FAX: (360)293-1931
CONTACT: MATT KOEGEL

LANDSCAPE ARCHITECT

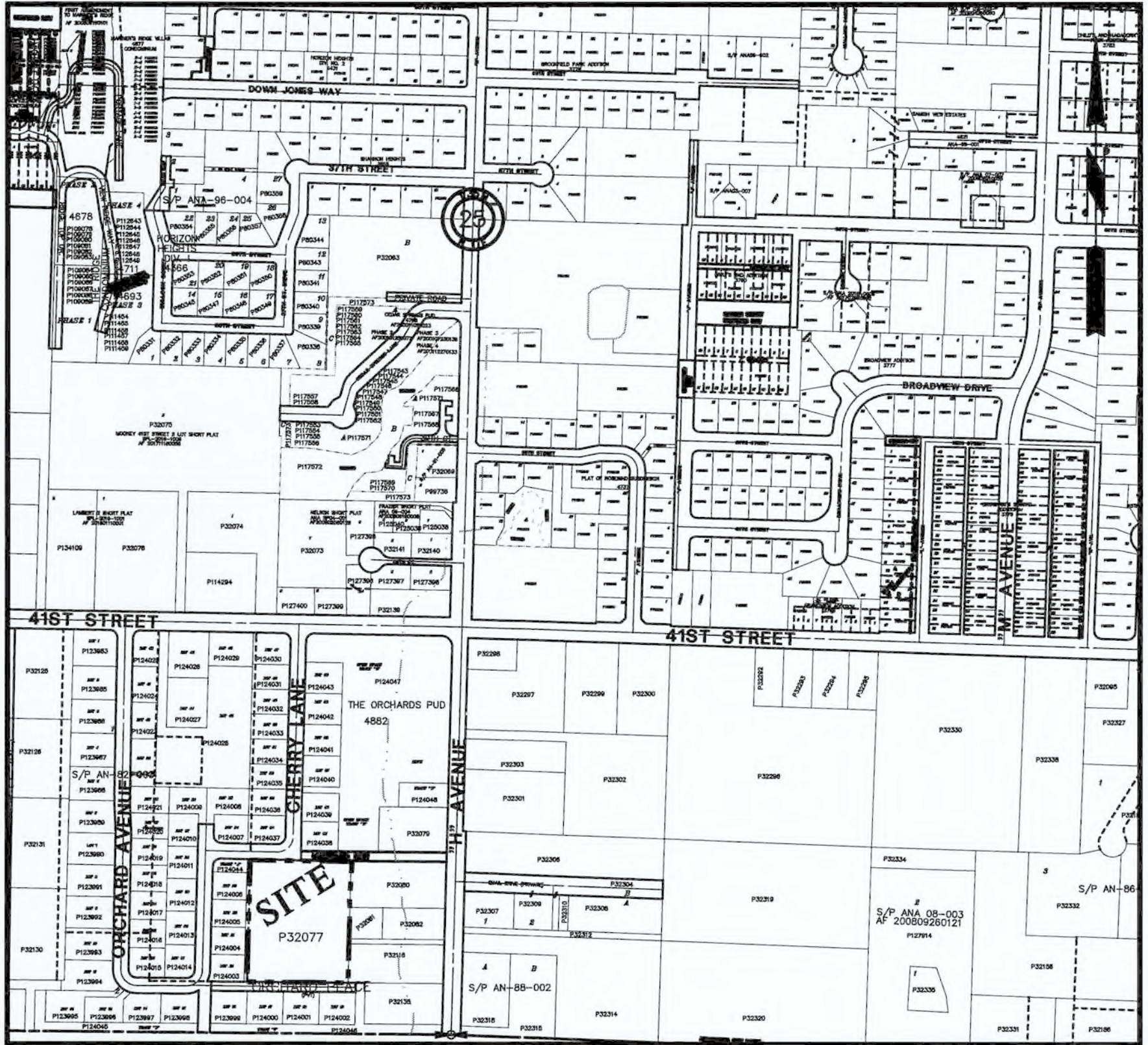
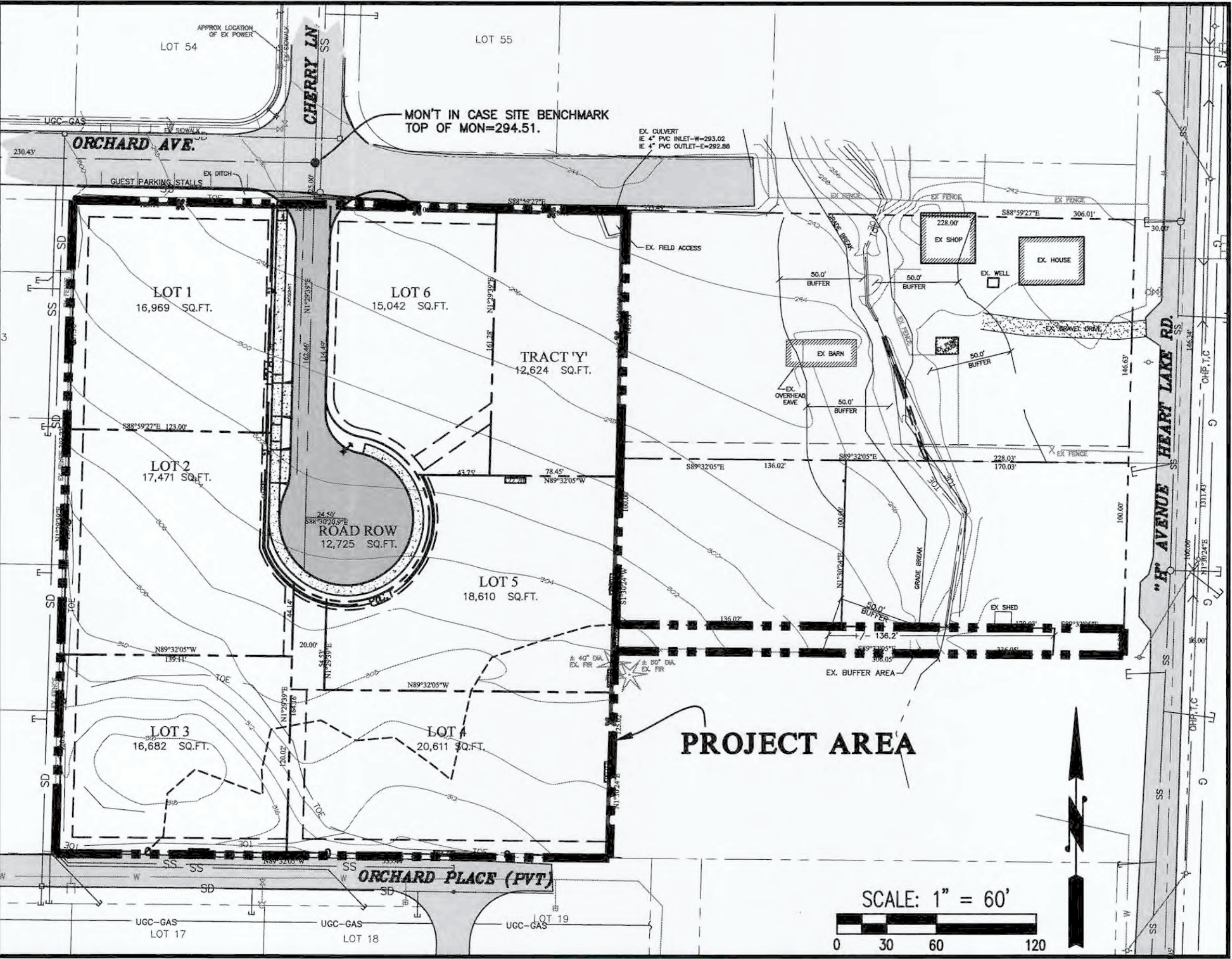
ECCOS DESIGN, LLC
505 S. FIRST STREET
MOUNT VERNON, WA 98273
TEL.: (360)419-7400
CONTACT: PATRIK DYLAN
EMAIL: patrik@eccosdesign.com

UTILITY LOCATE

"811"

SURVEY INFORMATION

NOTE: EXISTING STRUCTURES, UTILITIES, AND SURFACE CONDITIONS SHOWN ON THESE PLANS REPRESENT SURVEY INFORMATION LOCATED IN DECEMBER 2019, FROM A TOPOGRAPHIC SURVEY PERFORMED BY LISSE & ASSOCIATES AND FROM UTILITY INFORMATION PROVIDED BY UTILITY COMPANIES. A UTILITY LOCATE SERVICE WAS NOT CALLED PRIOR TO SURVEYING OF THE PROPERTY, BUT MUST BE CALLED PRIOR TO CONSTRUCTION.



VICINITY MAP

SCALE: 1" = 400'



ENGINEER

DATE

THIS PLAN SHEET IS ACCEPTED FOR CONSTRUCTION IN ACCORDANCE WITH THE CITY OF ANACORTES ORDINANCES AND POLICIES. ACTUAL CONFORMANCE OF THE DESIGN WITH APPLICABLE LAWS IS THE SOLE RESPONSIBILITY OF THE PROFESSIONAL ENGINEER, WHOSE NAME AND STAMP APPEAR ON THIS SHEET. ACQUIRING, COMPLYING WITH, AND PROVIDING MITIGATION FOR ALL FEDERAL, STATE, COUNTY, AND LOCAL LAWS, PERMITS, AND MANDATES, INCLUDING BUT NOT LIMITED TO THE ENDANGERED SPECIES ACT, FEDERAL WETLAND PERMIT, STATE DEPARTMENT OF FISHERIES AND HYDRAULICS PERMIT, FEDERAL FLOOD PLAIN PERMITS, NATIONAL POLLUTANT DISCHARGE ELIMINATION SYSTEM PERMIT IS THE RESPONSIBILITY OF THE DEVELOPER, LAND OWNER, AND THEIR ENGINEER. THE ISSUANCE OF THIS PERMIT SHALL NOT BE CONSTRUED AS PROOF OF COMPLIANCE WITH APPLICABLE LAWS AND PERMIT REQUIREMENTS.

CITY ENGINEER

DATE

CONSTRUCTION FOR THE ACCEPTED PROJECT IS TO START WITHIN 1 YEAR OF THE DATE.

SHEET SCHEDULE:

SHEET 1 OF 10 COVER
SHEET 2 OF 11 EXISTING CONDITIONS, SITE PREPARATION & EROSION CONTROLS PLAN
SHEET 3 OF 11 OVERALL SITE PLAN
SHEET 4 OF 11 PLAN & PROFILE
SHEET 5 OF 11 LOT GRADING EXHIBIT
SHEET 6 OF 11 DETAILS
SHEET 7 OF 11 DETAILS
SHEET 8 OF 11 DETAILS
SHEET 9 OF 11 SPECIFICATIONS
SHEET 10 OF 11 SPECIFICATIONS
SHEET 11 OF 11 SPECIFICATIONS

ZONING: R1

MINIMUM LOT SIZE = 15,000 SQ.FT.

MAXIMUM LOT COVERAGE = 35% FEET

BUILDING FOUNDATION SETBACKS:

FRONT YARD = 20'

INTERIOR SIDE YARD = 10 FEET

SIDE YARD ON FLANKING STREET = 20'

(IF STREET IS DESIGNATED ARTERIAL = 20')

REAR YARD = 20'

TRAFFIC CONTROL PLAN REQUIREMENTS:

FOR ALL CONSTRUCTION ACTIVITIES WITHIN THE RIGHT OF WAY AND WHEN OPERATING EQUIPMENT IN THE R.O.W., THE CONTRACTOR SHALL PREPARE A TRAFFIC CONTROL PLAN. PLAN SHALL BE REVIEWED BY THE CITY PRIOR TO IMPLEMENTING. THE TRAFFIC CONTROL PLAN AS APPROVED BY THE CITY SHALL BE IMPLEMENTED BY THE CONTRACTOR BEFORE ANY WORK IS PERFORMED IN THE R.O.W. TRAFFIC CONTROL SIGNAGE SHALL BE PRESENT TO INFORM VEHICLES AND PEDESTRIANS WITHIN THE R.O.W. OF CONSTRUCTION VEHICLES ENTERING AND EXITING.

REV. NO.	REVISION	DATE	BY	APPROVED

Ravnik & Associates, Inc.
CIVIL ENGINEERING & LAND-USE PLANNING
1633 LINDAMOOD LANE/P.O. BOX 361
BURLINGTON, WA 98233
PH: (360) 707-2048 FAX: (360) 707-2216

SHEET DESCRIPTION:

COVER

PLAN STATUS:

SCALE: AS NOTED

DRAWN BY: D. REMSEN

CHECKED BY: J. RAVNIK

DATE: 08.06.20

SHEET TITLE:

CHERRY COURT
SHORT PLAT

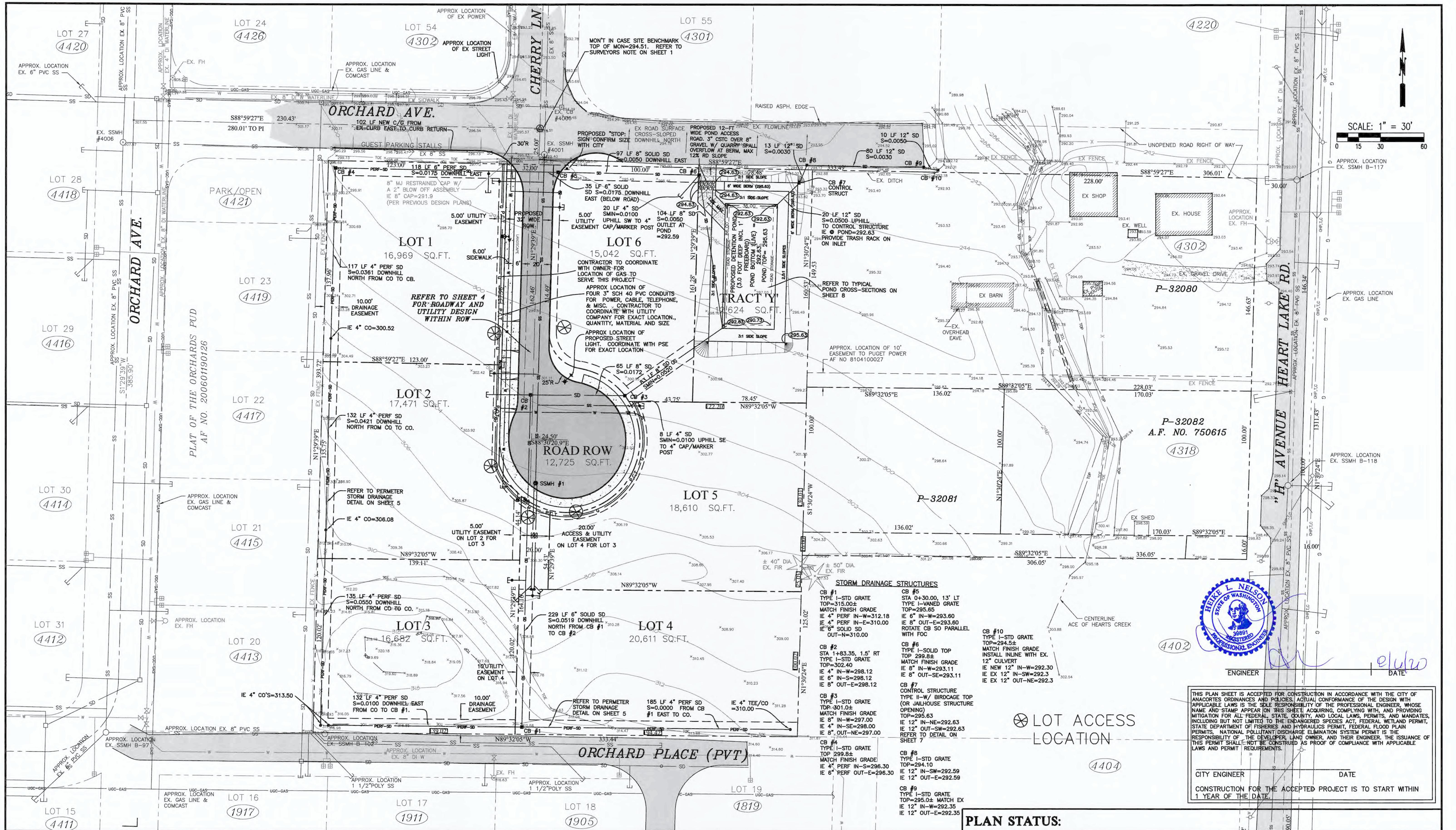
FOR
CORNER 9 PROPERTIES, LLC

SW 1/4 SECTION 25, T. 35 N., R. 1 E., W.M.

DRAWING NO.
19013SITE.dwg

JOB NO.
19013

SHEET NO.
1 OF 11

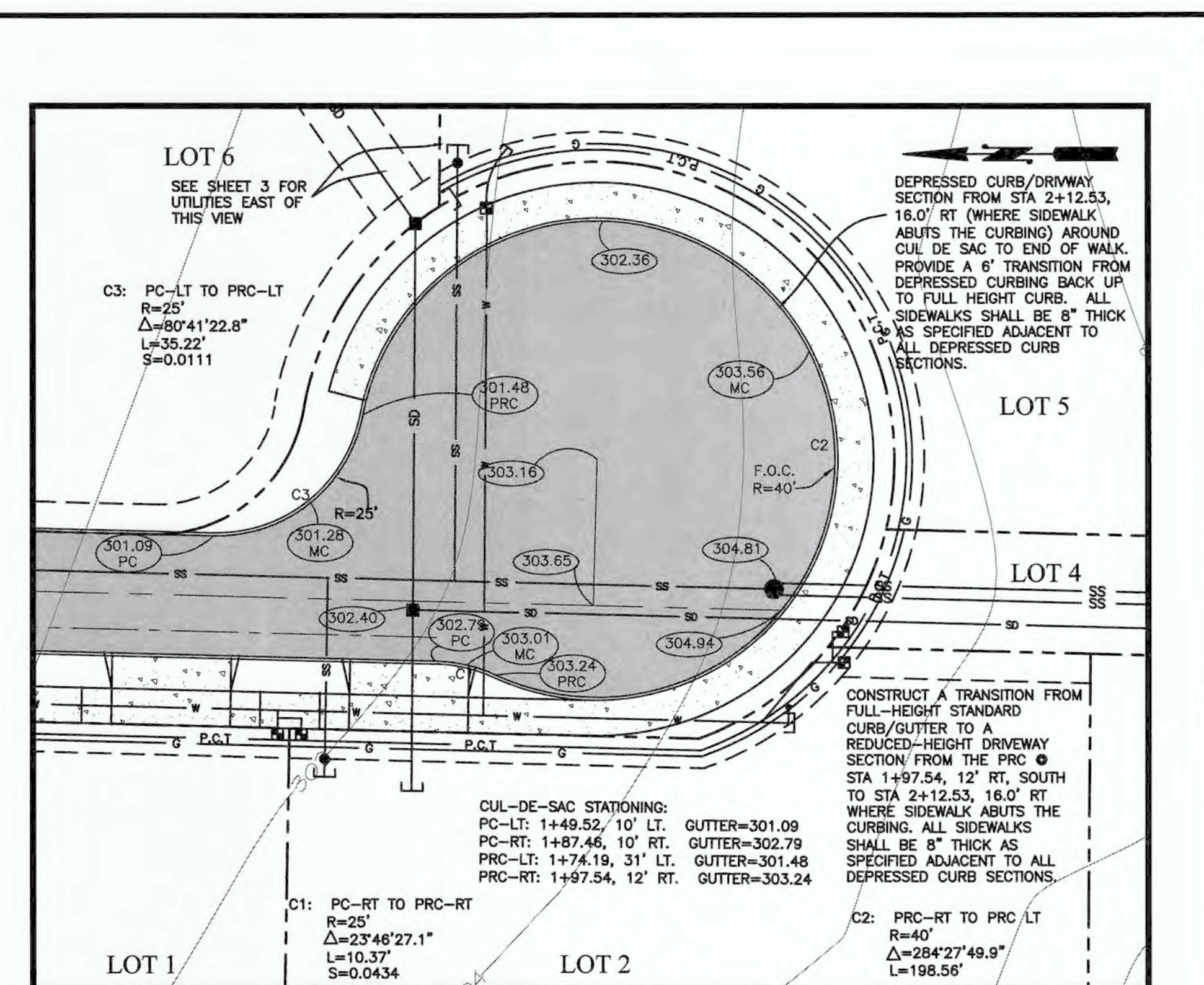


REV. NO.	REVISION	DATE	BY	APPROVED

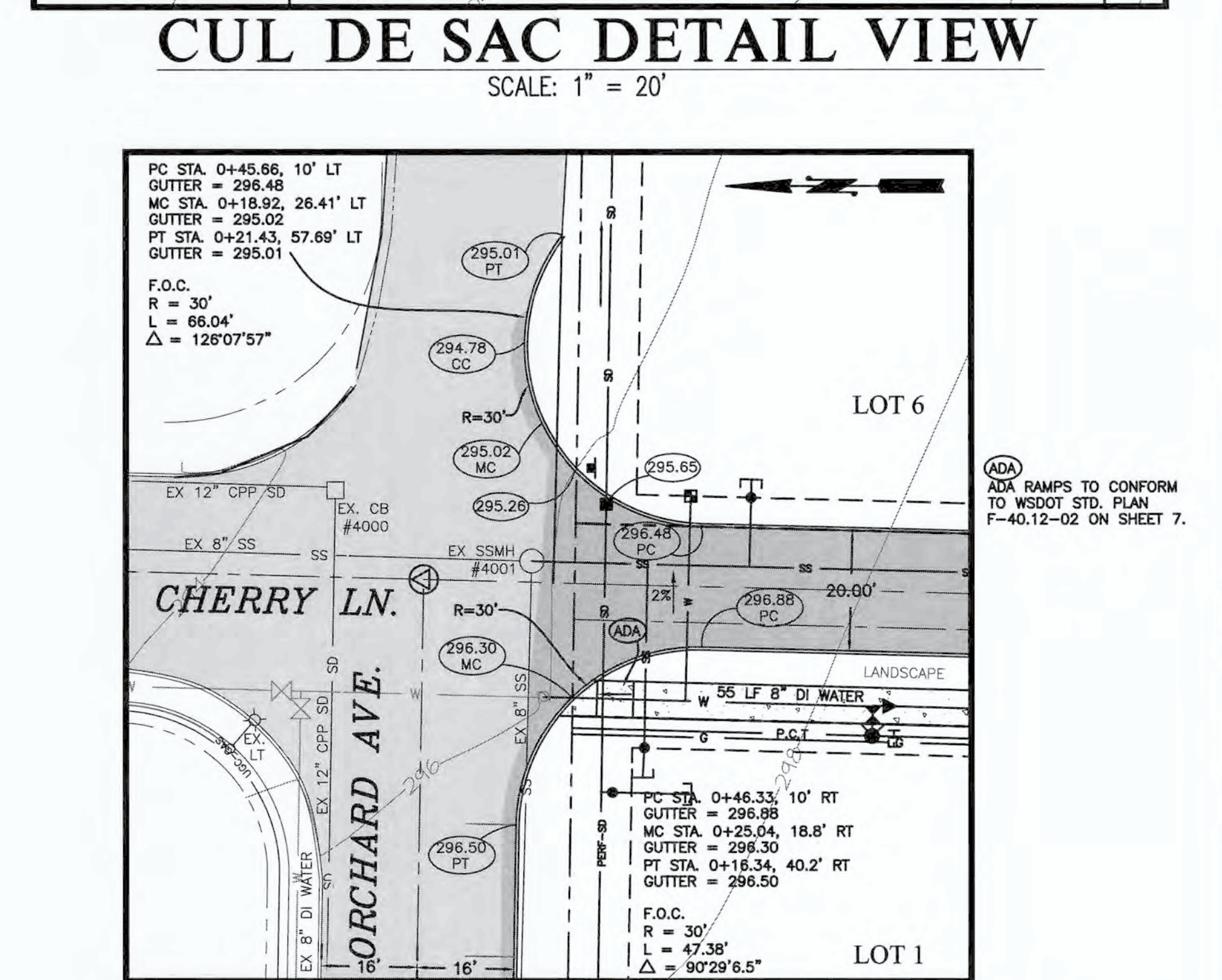
Ravnik & Associates, Inc.
CIVIL ENGINEERING & LAND-USE PLANNING
1633 LINDAMOOD LANE/PO. BOX 361
BURLINGTON, WA 98233
PH: (360) 707-2048 FAX: (360) 707-2216

SHEET DESCRIPTION:

OVERALL SITE PLAN		PLAN STATUS:	
SCALE: 1"=30'	DRAWN BY: HLN	SHEET TITLE:	CITY ENGINEER
CHECKED BY: HLN	DATE: 08.06.20	CHERRY COURT SHORT PLAT FOR CORNER 9 PROPERTIES, LLC SW 1/4 SECTION 25, T. 35 N., R. 1 E., W.M.	DATE
		DRAWING NO. 19013SITE.dwg	JOB NO. 19013
		SHEET NO. 3 OF 11	

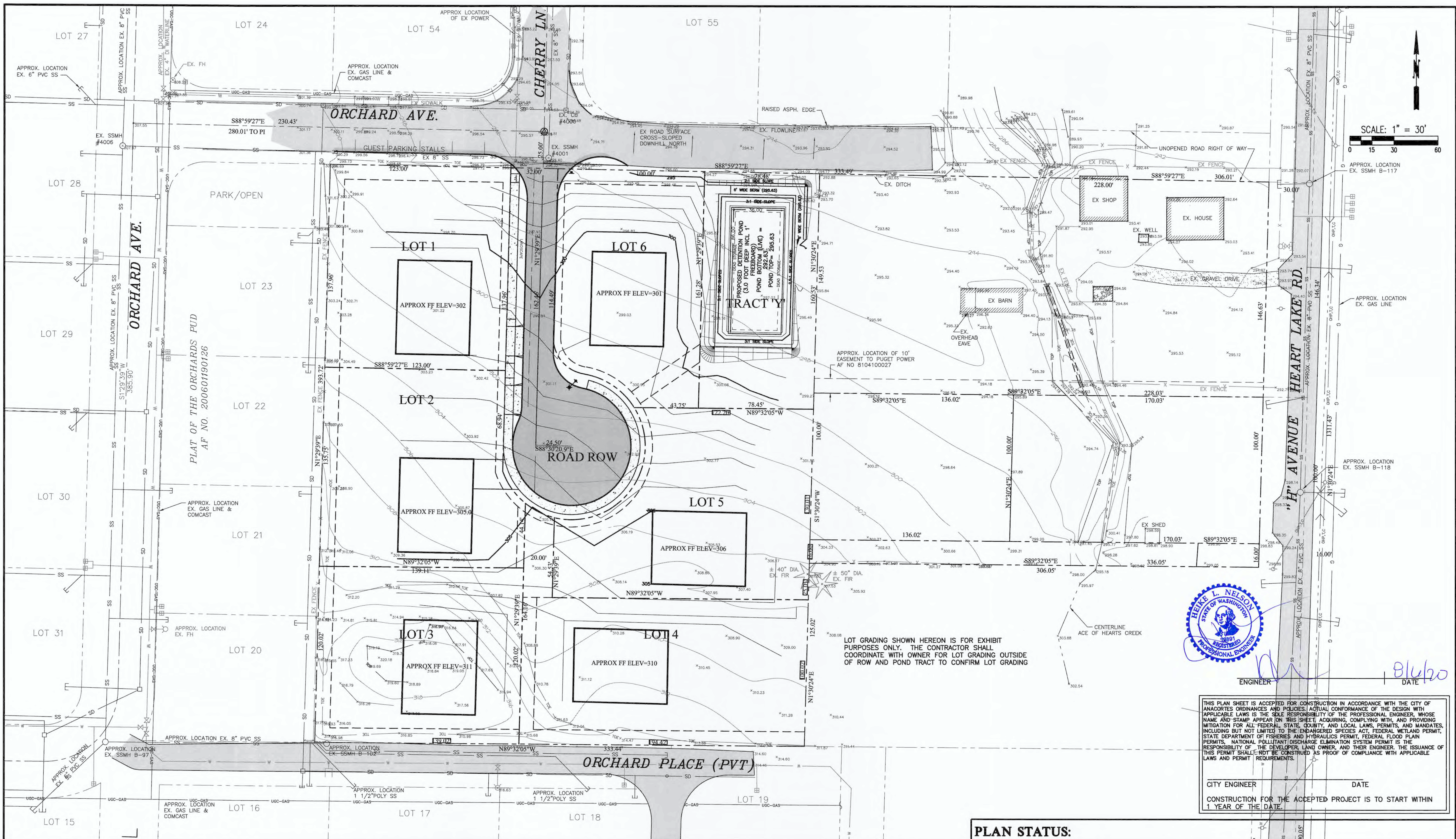


SCALE: 1" = 20'



SCALE: 1" = 20'

PLAN STATUS:		
SCALE: HORIZ. 1"=20' VERT. 1"=2' DRAWN BY: DLR CHECKED BY: HLN DATE: 08.06.20	SHEET TITLE: CHERRY COURT SHORT PLAT FOR CORNER 9 PROPERTIES, LLC SW 1/4 SECTION 25, T. 35 N., R. 1 E., W.M.	DRAWING NO. 19013SITE.dwg JOB NO. 19013 SHEET NO. 4 OF 11



ENGINEER *[Signature]* DATE 8/6/20

THIS PLAN SHEET IS ACCEPTED FOR CONSTRUCTION IN ACCORDANCE WITH THE CITY OF ANACORTES ORDINANCES AND POLICES. ACTUAL CONFORMANCE OF THE DESIGN WITH APPLICABLE LAWS IS THE SOLE RESPONSIBILITY OF THE PROFESSIONAL ENGINEER, WHOSE NAME AND STAMP APPEAR ON THIS SHEET. ACQUIRING, COMPLYING WITH, AND PROVIDING MITIGATION FOR ALL FEDERAL, STATE, COUNTY, AND LOCAL LAWS, PERMITS, AND MANDATES, INCLUDING BUT NOT LIMITED TO THE ENDANGERED SPECIES ACT, FEDERAL WETLAND PERMIT, STATE DEPARTMENT OF FISHERIES AND HYDRAULICS PERMIT, FEDERAL FLOOD PLAIN PERMITS, NATIONAL POLLUTANT DISCHARGE ELIMINATION SYSTEM PERMIT IS THE RESPONSIBILITY OF THE DEVELOPER, LAND OWNER, AND THEIR ENGINEER. THE ISSUANCE OF THIS PERMIT SHALL NOT BE CONSTRUED AS PROOF OF COMPLIANCE WITH APPLICABLE LAWS AND PERMIT REQUIREMENTS.

CITY ENGINEER _____ DATE _____

CONSTRUCTION FOR THE ACCEPTED PROJECT IS TO START WITHIN 1 YEAR OF THE DATE.

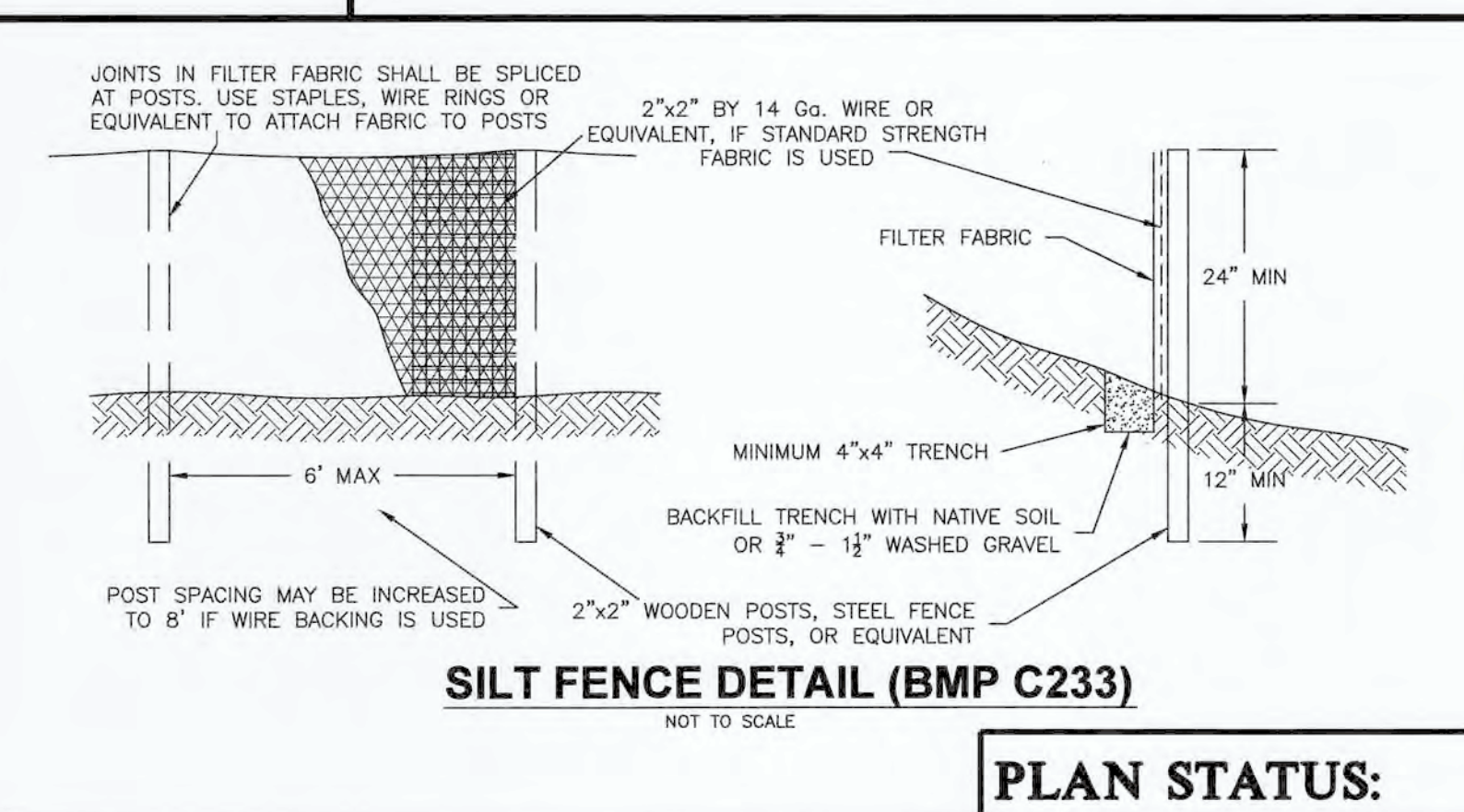
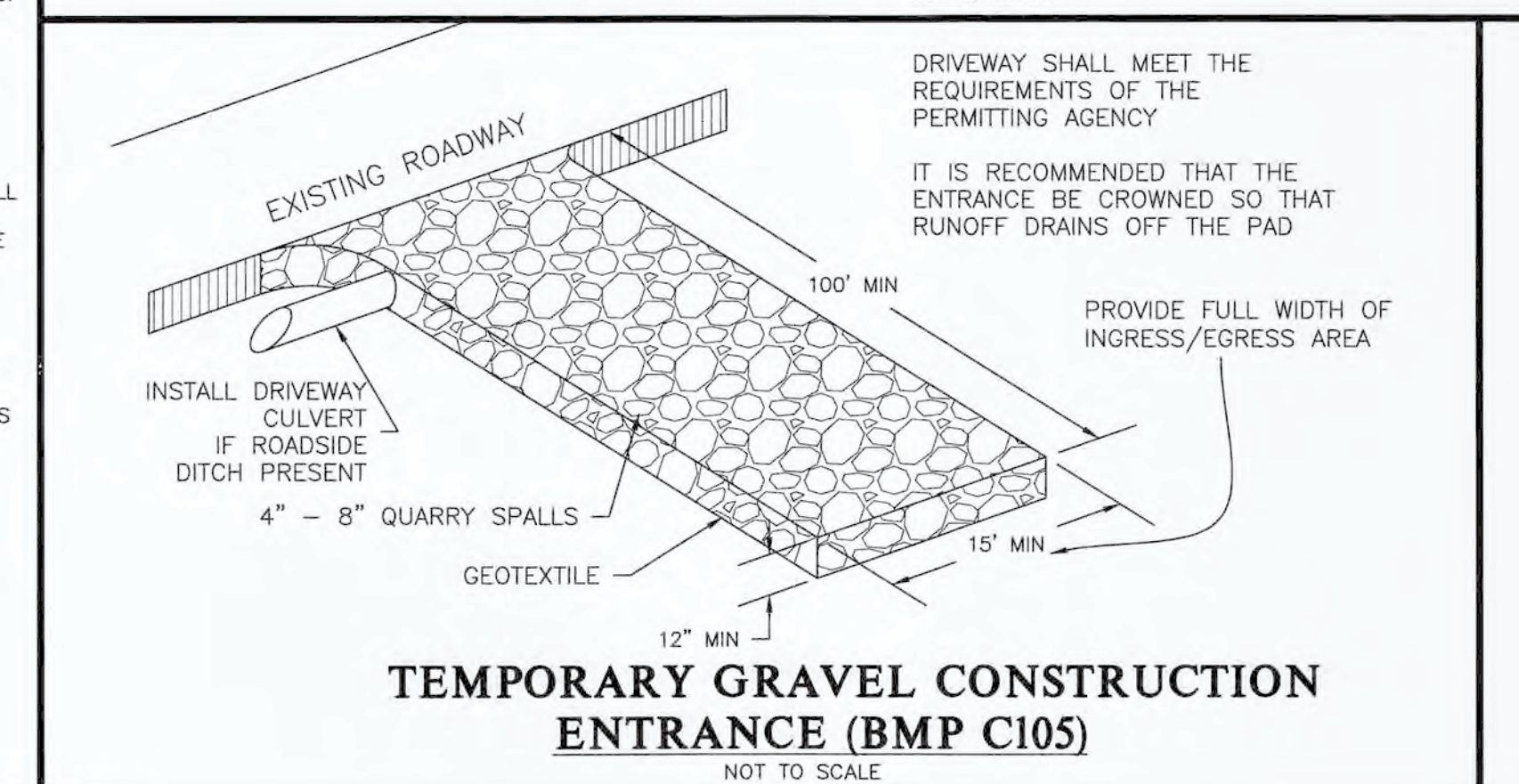
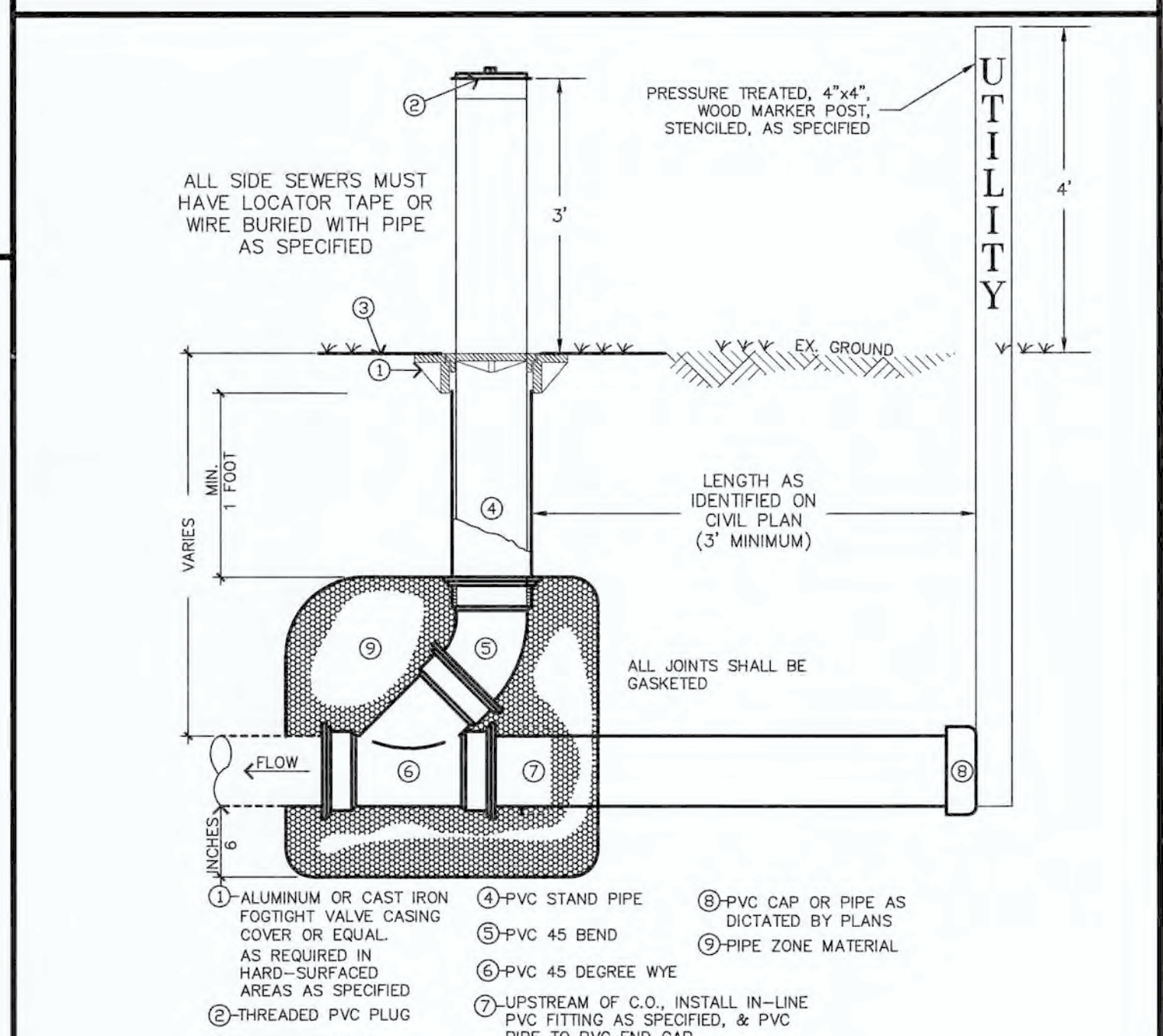
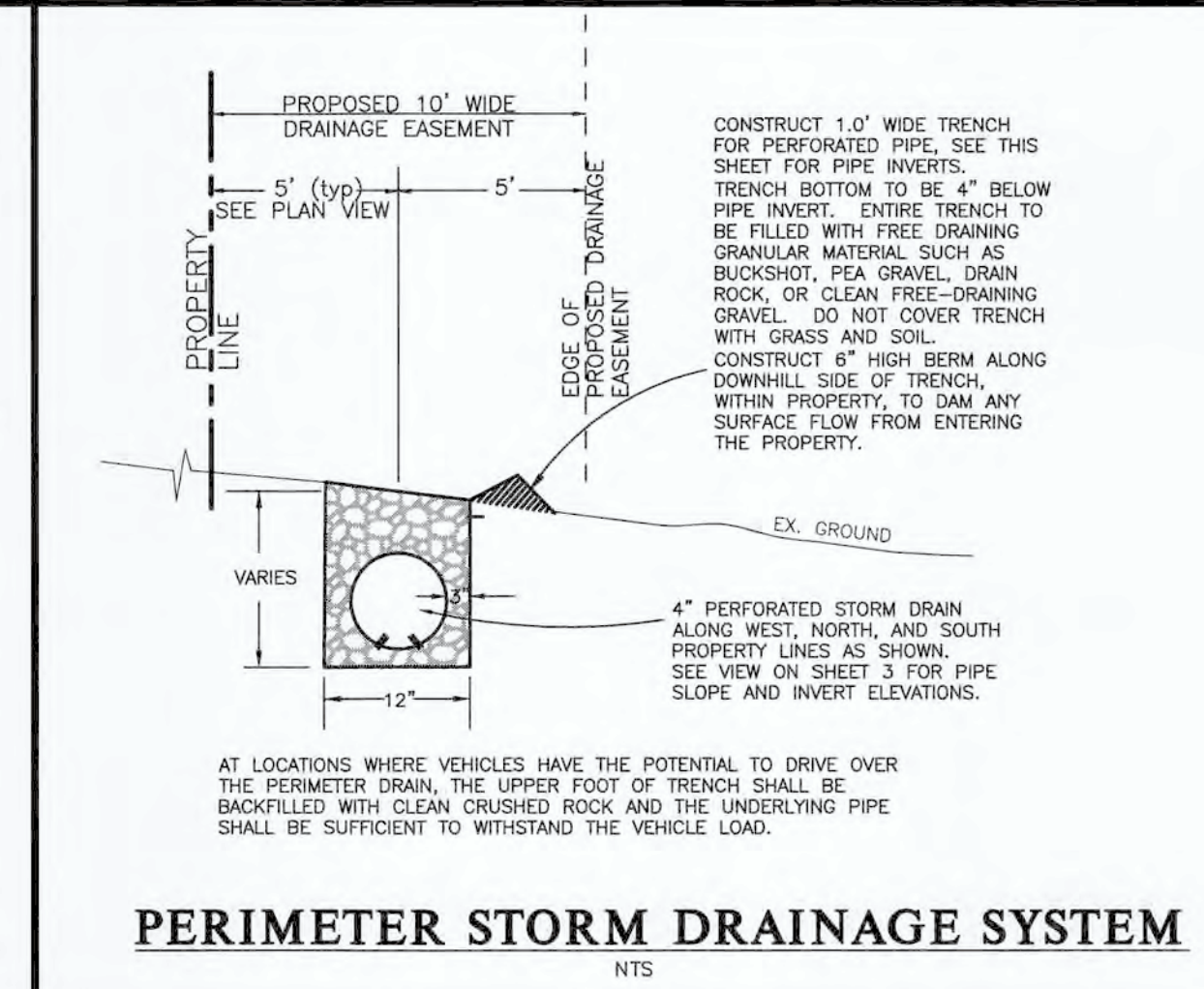
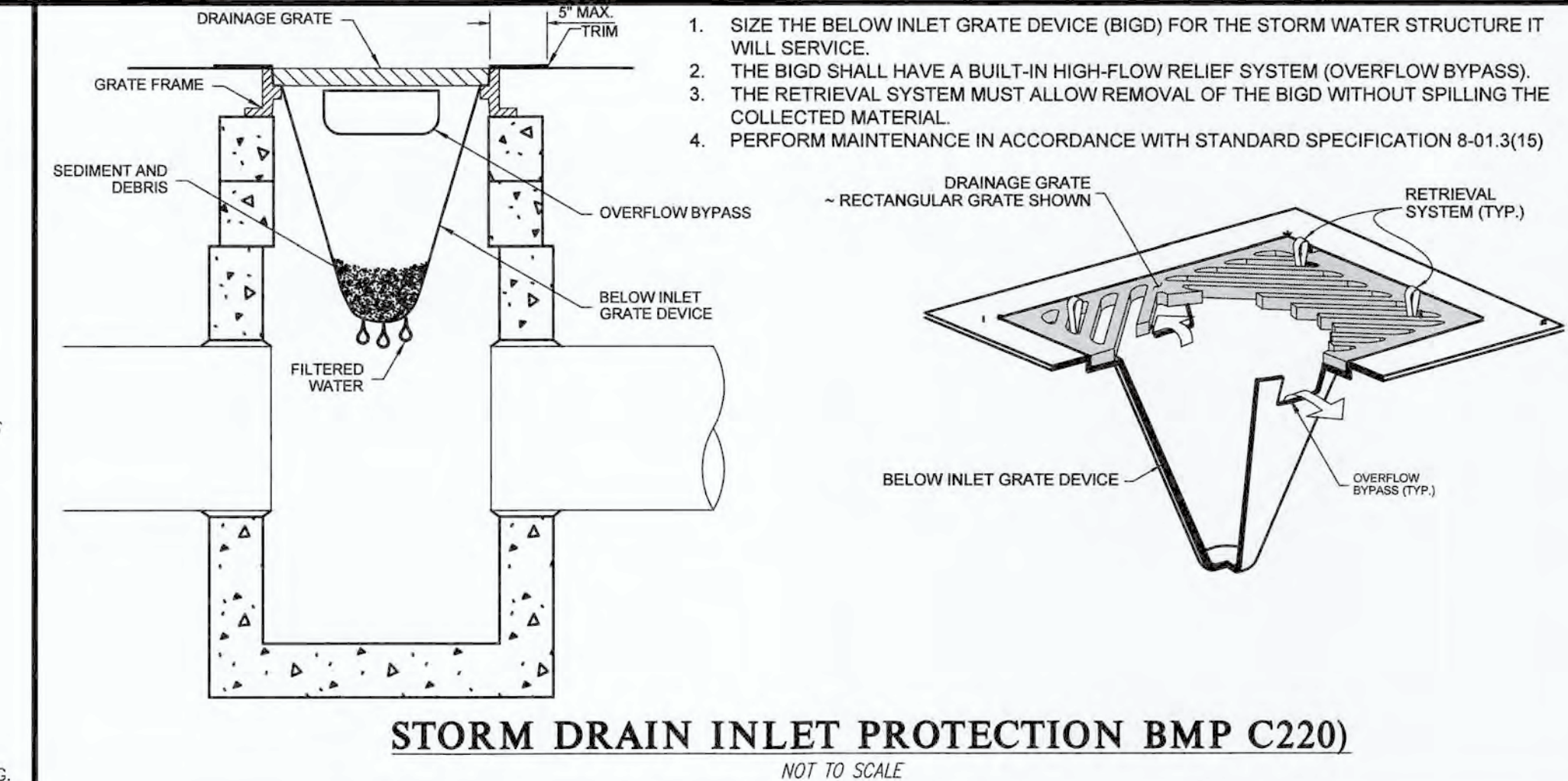
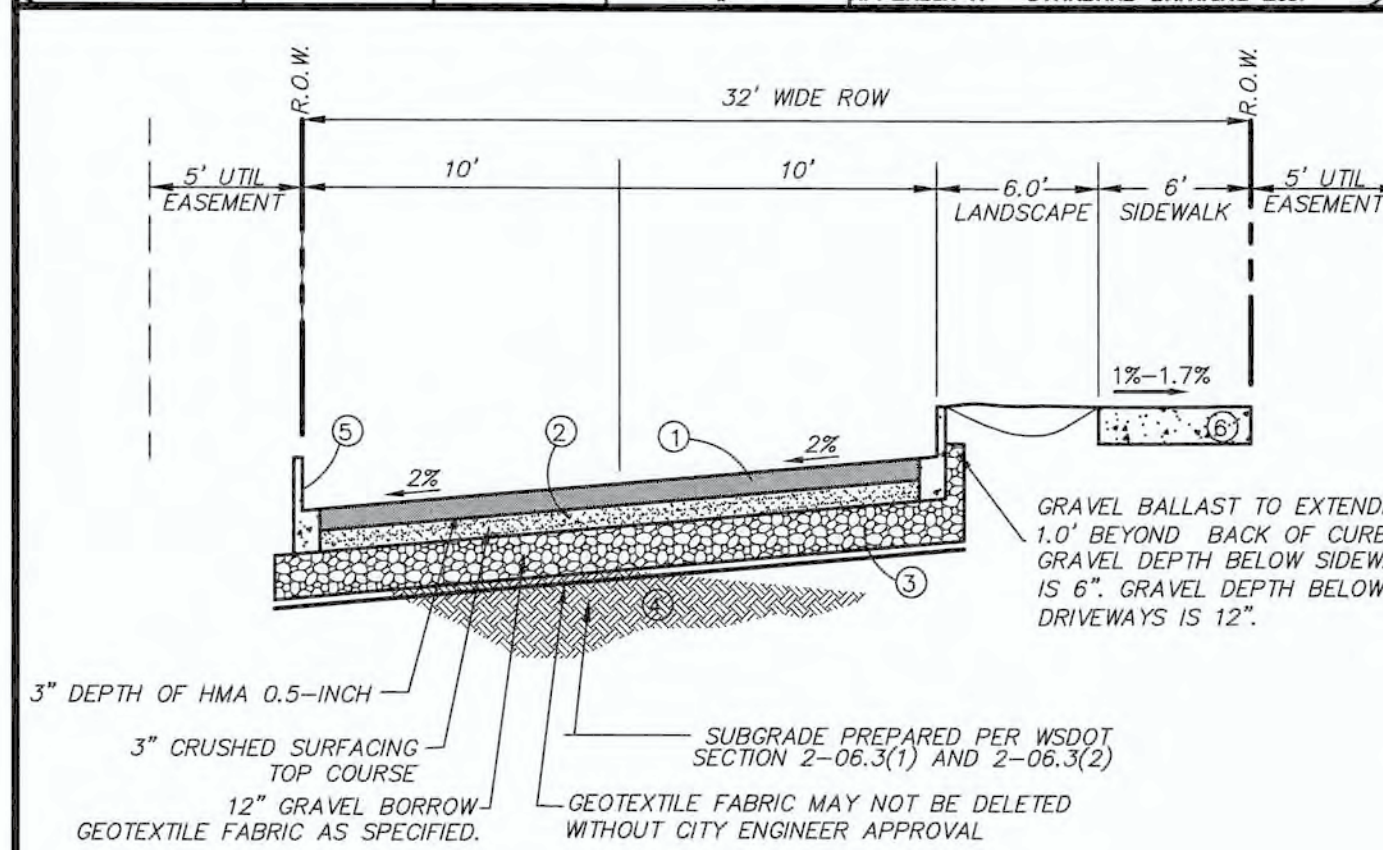
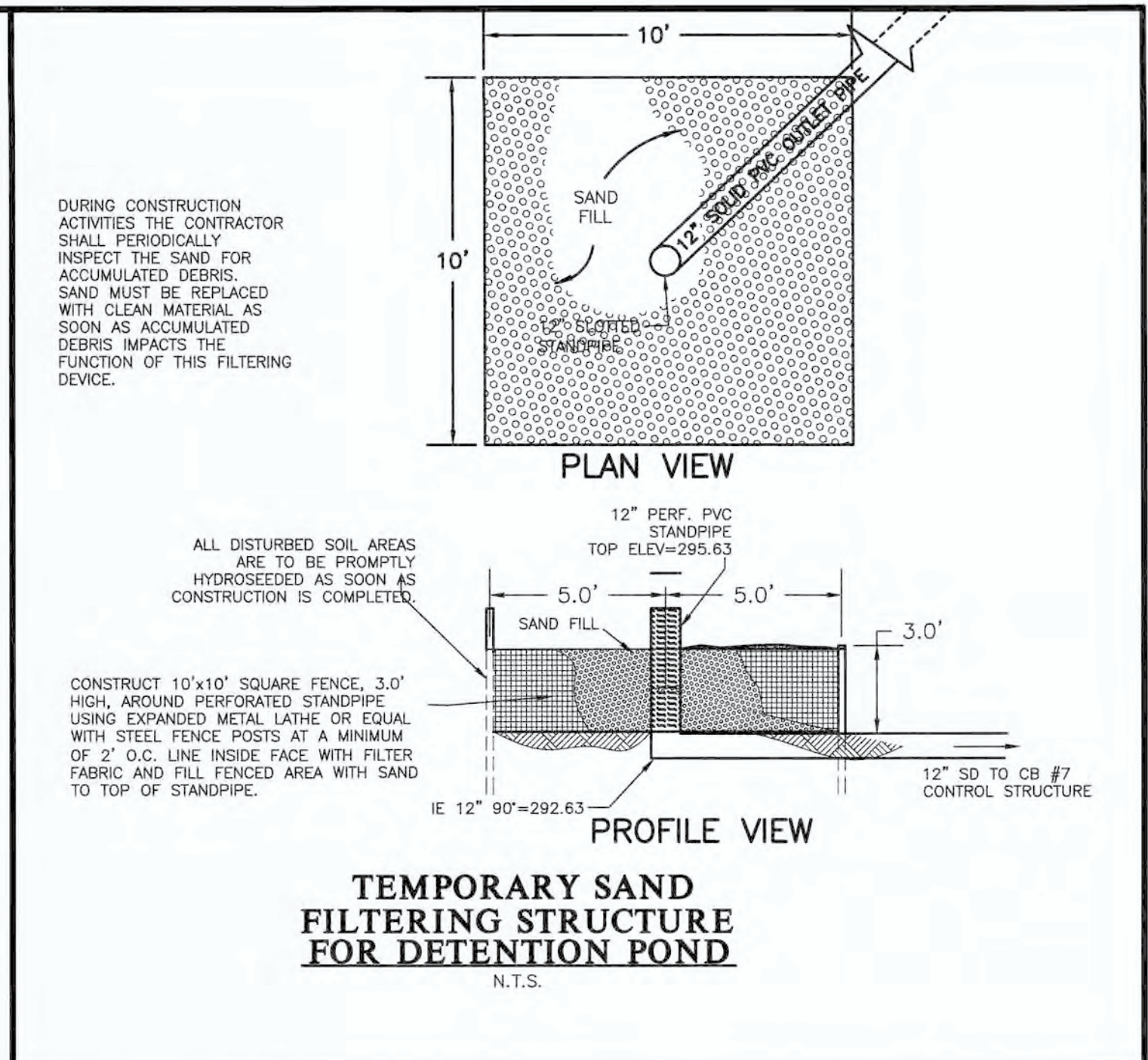
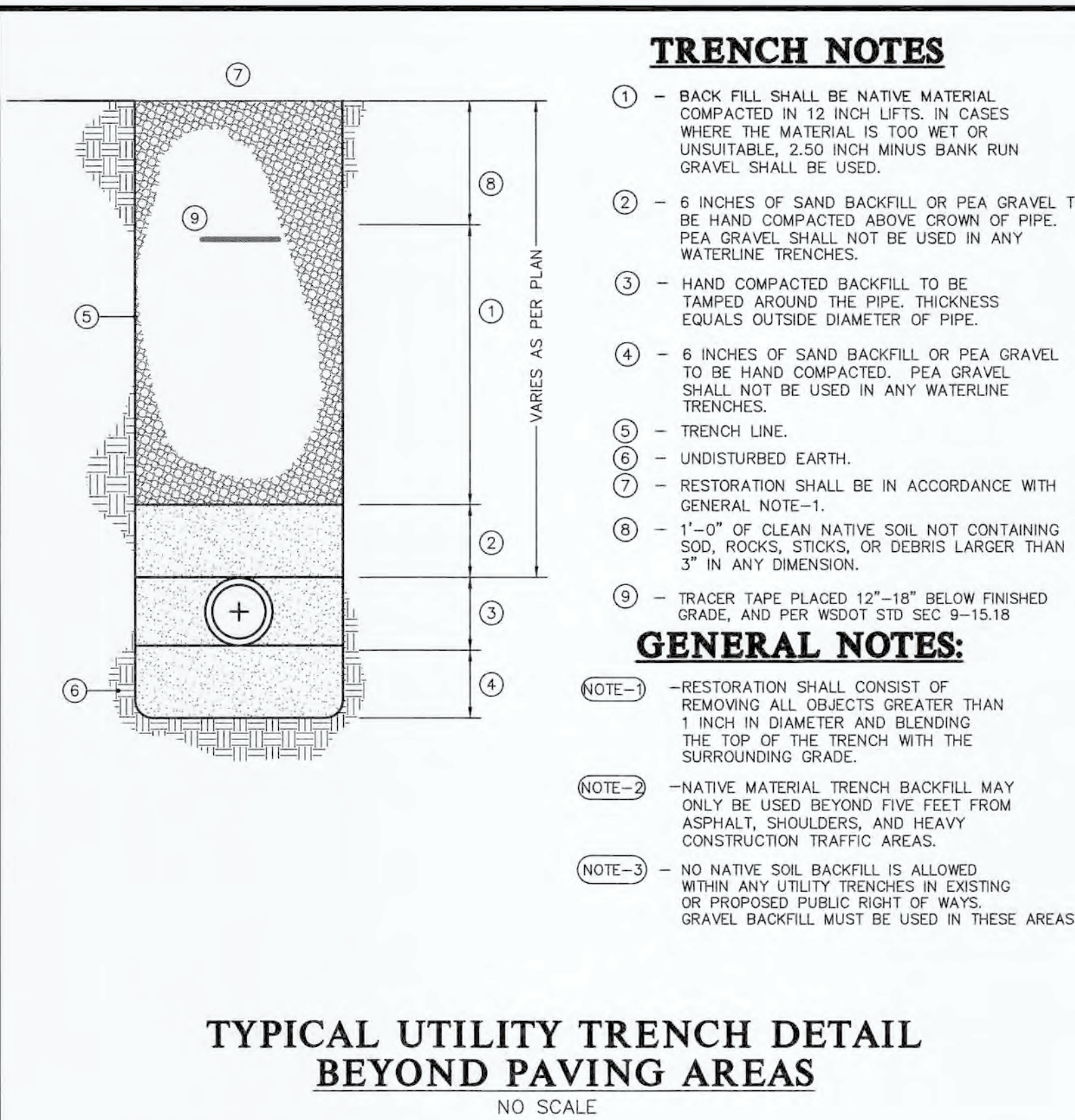
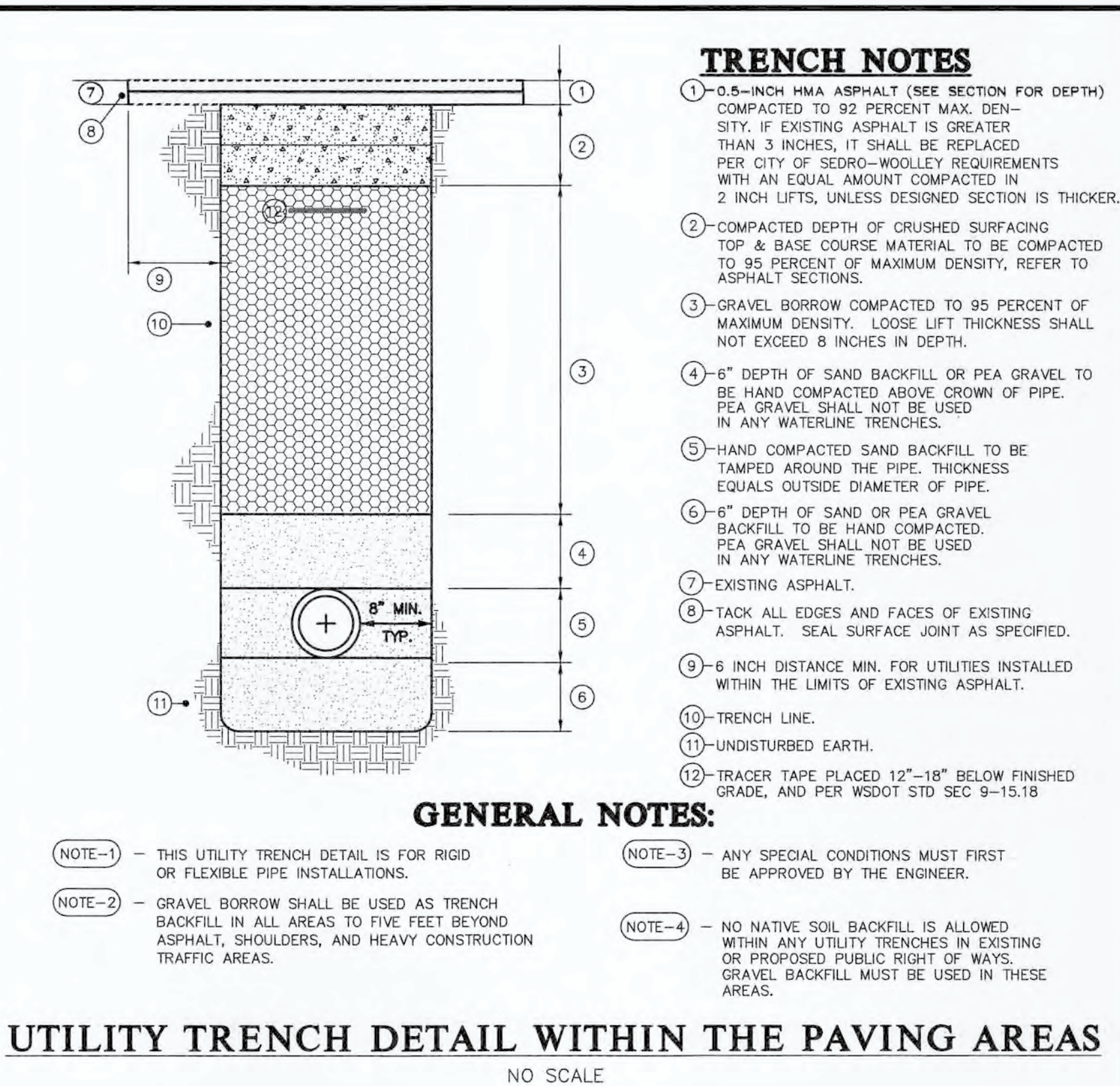
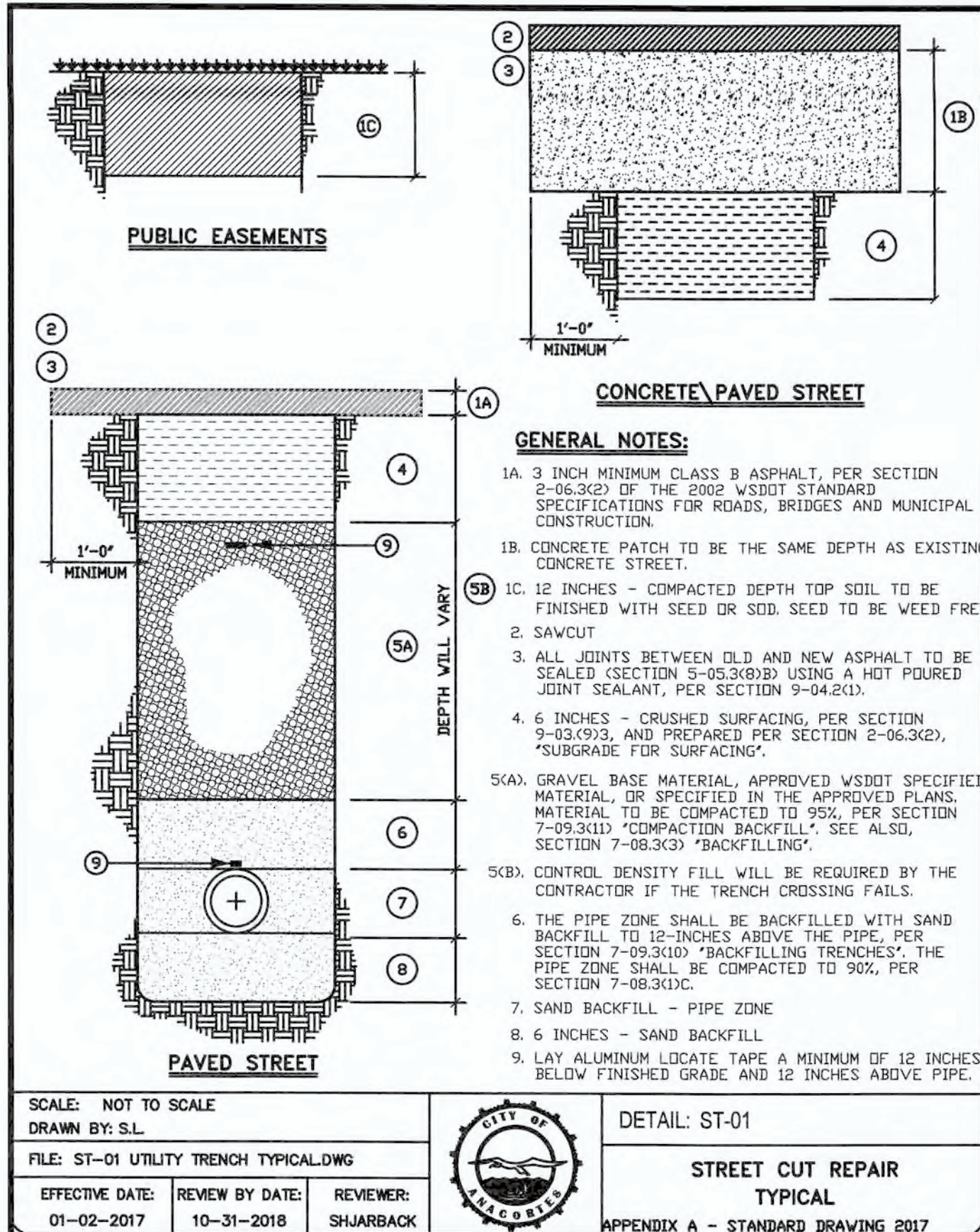
REV. NO.	REVISION	DATE	BY	APPROVED

Ravnik & Associates, Inc.
CIVIL ENGINEERING & LAND-USE PLANNING
1633 LINDAMOOD LANE/P.O. BOX 361
BURLINGTON, WA 98233
PH: (360) 707-2048 FAX: (360) 707-2216

SHEET DESCRIPTION:

LOT GRADING EXHIBIT

PLAN STATUS:			SHEET TITLE:			DRAWING NO.	
SCALE: 1"=30'	CHERRY COURT SHORT PLAT FOR CORNER 9 PROPERTIES, LLC SW 1/4 SECTION 25, T. 35 N., R. 1 E., W.M.					19013SITE.dwg	
DRAWN BY: HLN						JOB NO.	
CHECKED BY: HLN						19013	
DATE: 08.06.20						SHEET NO.	
					5 OF 11		



REV. NO.	REVISION	DATE	BY	APPROVED

Ravnik & Associates, Inc.
CIVIL ENGINEERING & LAND-USE PLANNING
1633 LINDAMOOD LANE/P.O. BOX 361
BURLINGTON, WA 98233
PH: (360) 707-2048 FAX: (360) 707-2216

SHEET DESCRIPTION:

DETAILS

PLAN STATUS:

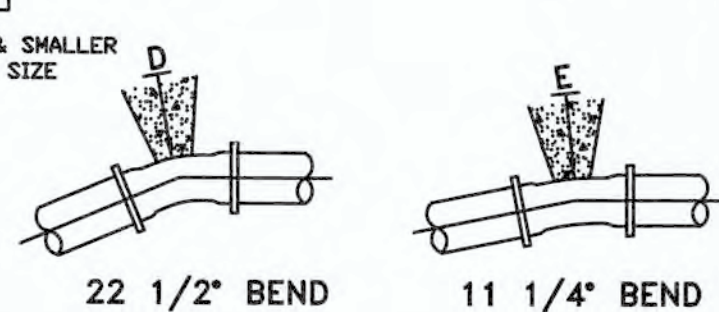
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DRAWN BY: D. REMSEN		JOB NO. 19013
CHECKED BY: HLN		SHEET NO. 5 OF 11
DATE: 08.06.20		

90° BEND

TEE

CAP

45° BEND



PUT BLOCK NOTES:

SQUARE FEET OF CONCRETE THRUSTS + BLOCK AREA
BASED ON LIVE BEARING LOAD OF 2000/3000
POUNDS PER SQUARE FOOT.

AREAS MUST BE ADJUSTED FOR OTHER SIZE PIPE,
PRESSURES AND SOIL CONDITIONS.

CONCRETE BLOCKING SHALL BE CAST IN PLACE AND HAVE
A MINIMUM OF 100 POUNDS PER SQUARE FOOT BEARING
ON THE FITTING.

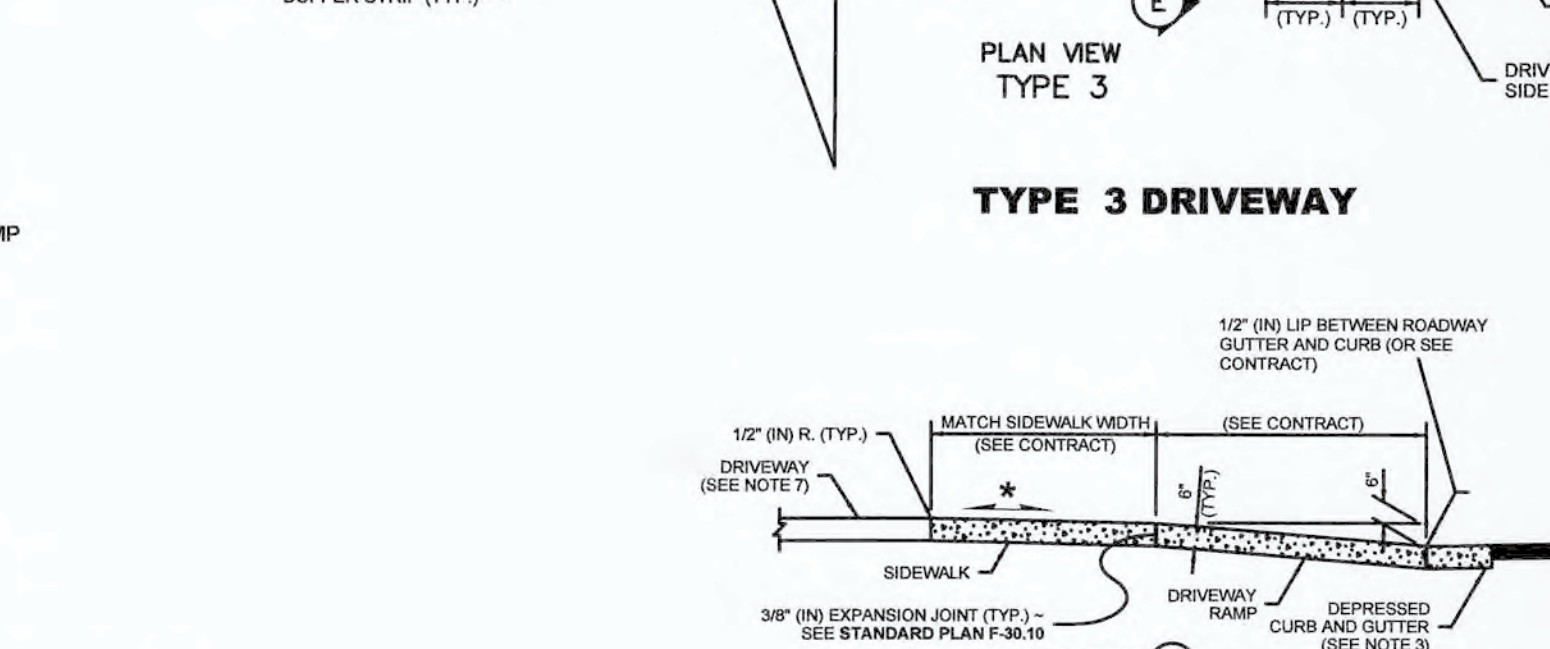
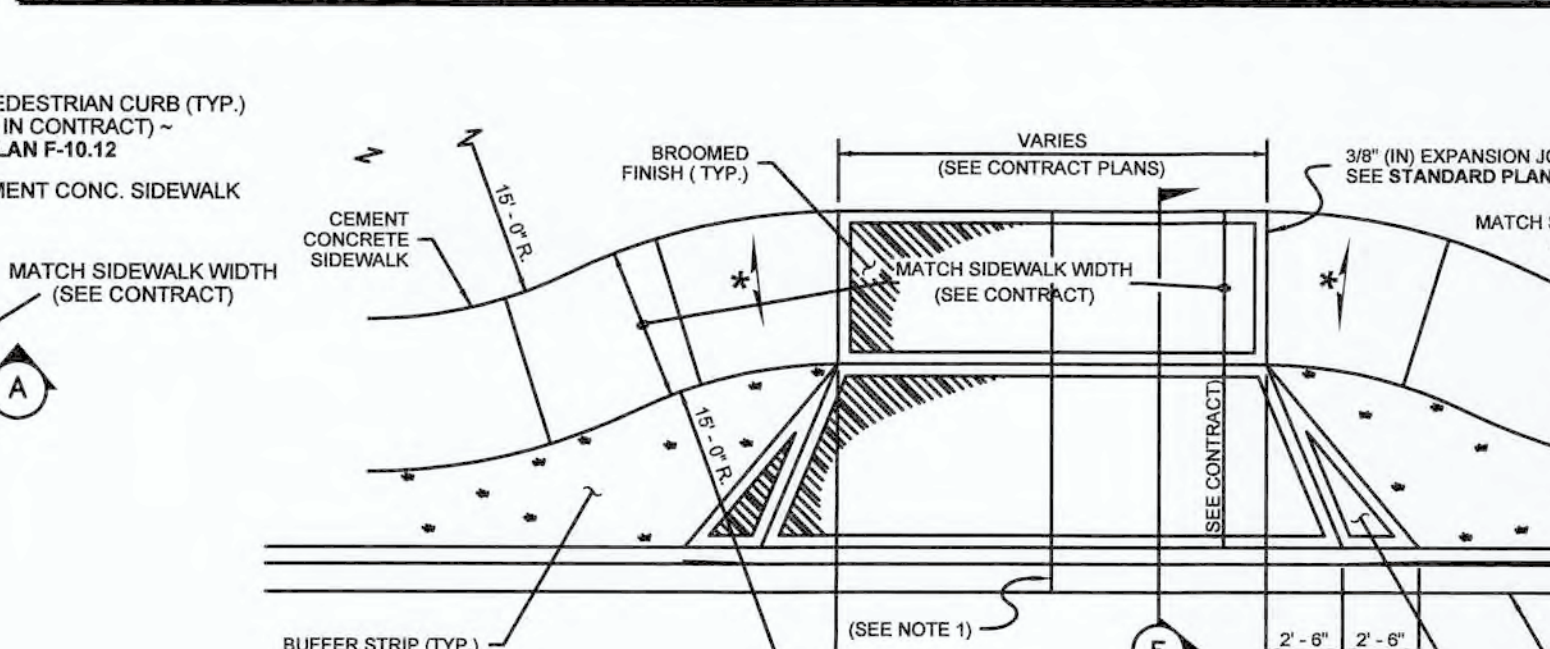
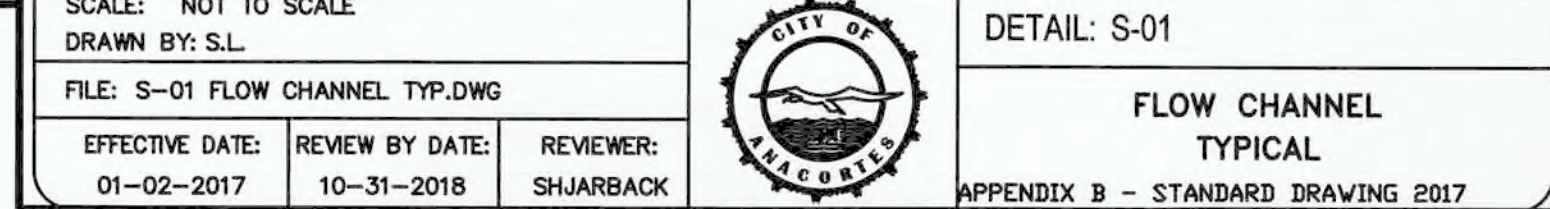
BLOCK SHALL BEAR AGAINST FITTINGS ONLY AND SHALL
BE CLEAR OF JOINTS TO PERMIT TAKING UP OR DIS-
MANTLING JOINT.

CONTRACTOR SHALL INSTALL BLOCKING ADEQUATE TO
WITHSTAND FULL TEST PRESSURE AS WELL AS TO CON-
TINUOUSLY WITHSTAND OPERATING PRESSURE UNDER
ALL CONDITIONS OF SERVICE.

ADDITIONAL BLOCKING MUST BE PROVIDED IF GATE VALVE IS

WASTE BLOCKS MAY BE ALLOWED IN AREAS OF UNDISTURBED SOILS. THE SIZE OF THE BLOCK DEPENDS ON THE SIZE OF PIPE, PRESSURE, ETC. POUR CONCRETE BETWEEN THE WASTE BLOCK AND BEND TO FILL THE VOID. THIS ACTION IS BY WRITTEN REQUEST ONLY.

	DETAIL: WA-08
	THRUST BLOCKING HORIZONTAL BENDS AND VALVES APPENDIX C - STANDARD DRAWING 2018



Ravnik & Associates, Inc.
CIVIL ENGINEERING & LAND-USE PLANNING
1633 LINDAMOOD LANE/P.O. BOX 361
BURLINGTON, WA 98233
PH: (360) 707-2048 FAX: (360) 707-2216

SCALE: AS SH

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DRAWN BY: D. REMSEN	
CHECKED BY: HLN	
DATE: 08.06.20	

DRAWING NO.
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19013

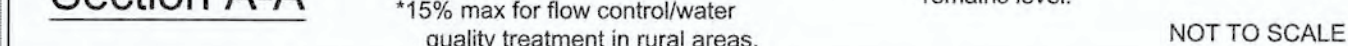
SHEET NO.
7 OF 11

Figure 5.5 – Sheet Flow Dispersion for Driveways

SHEET FLOW DISPERSION FOR DRIVEWAYS
DOE BMP T5.12
NTS

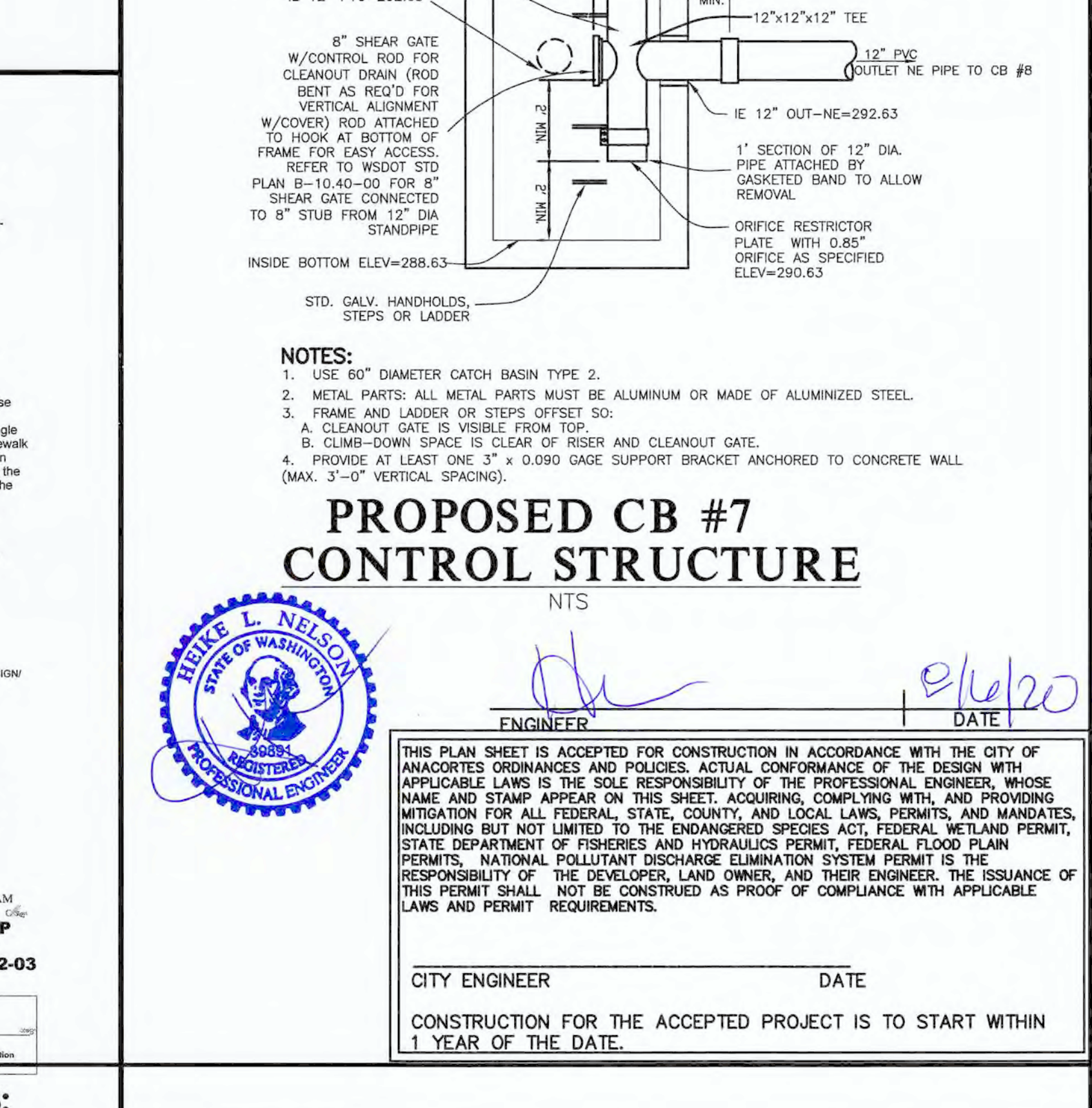
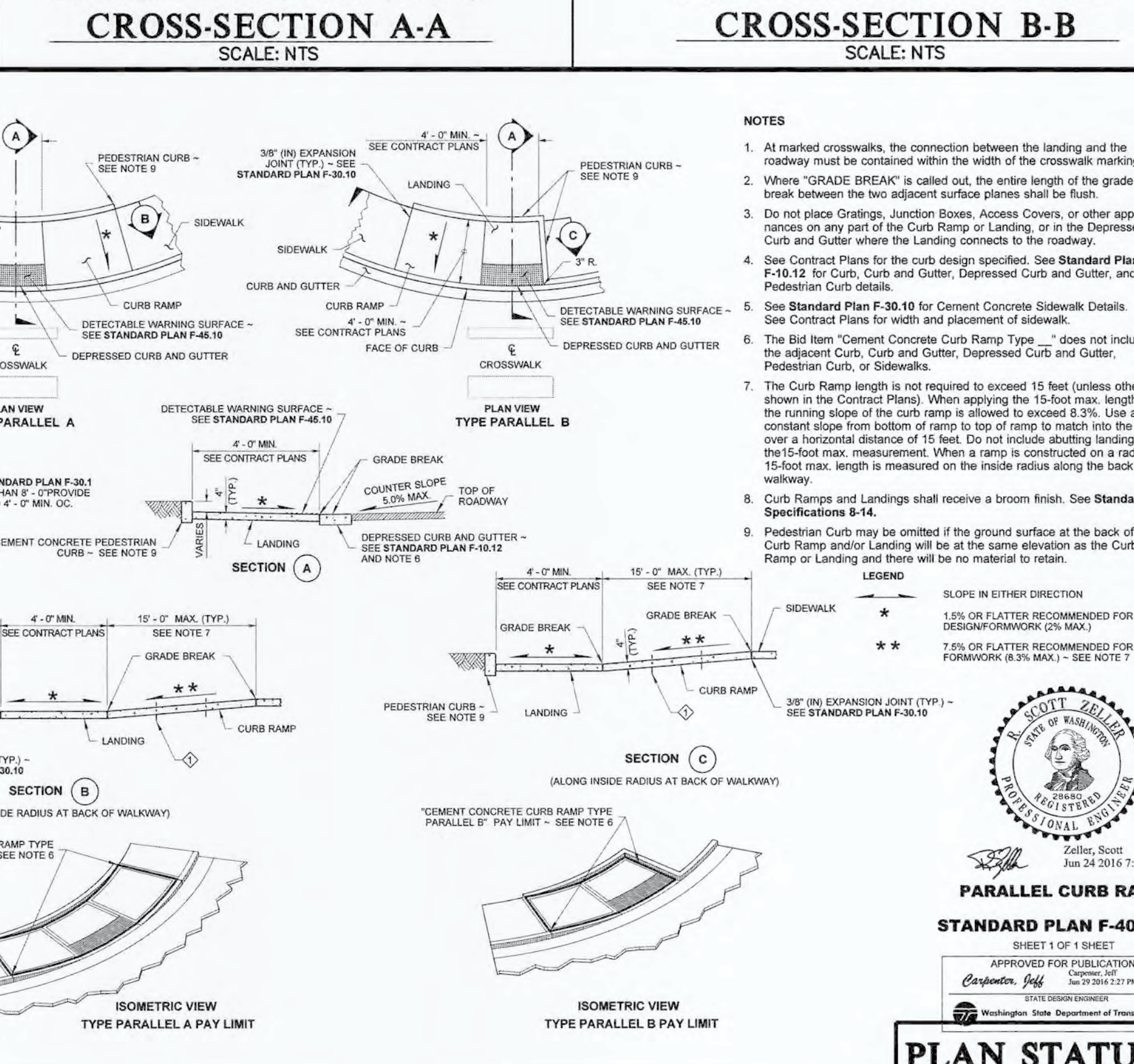
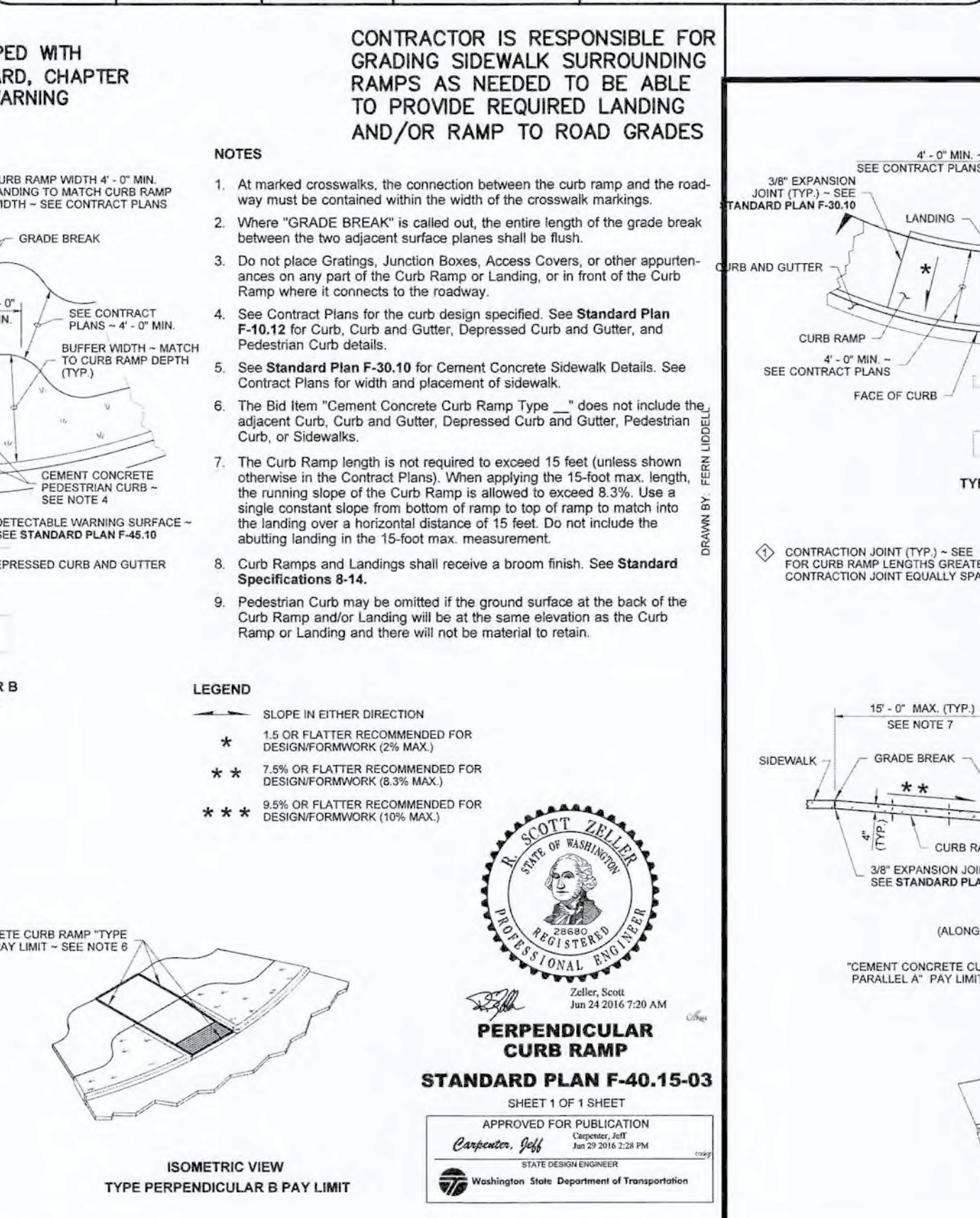
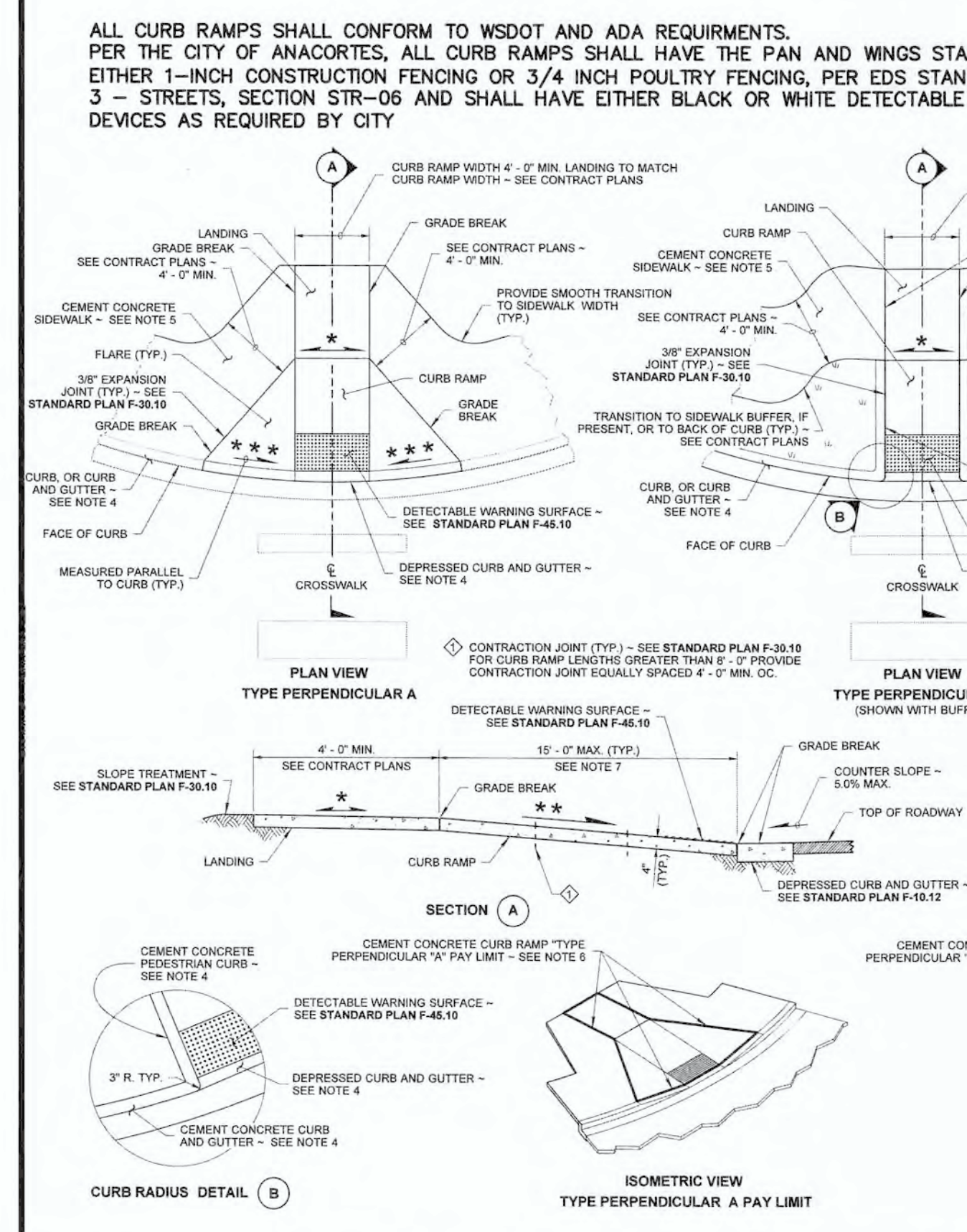
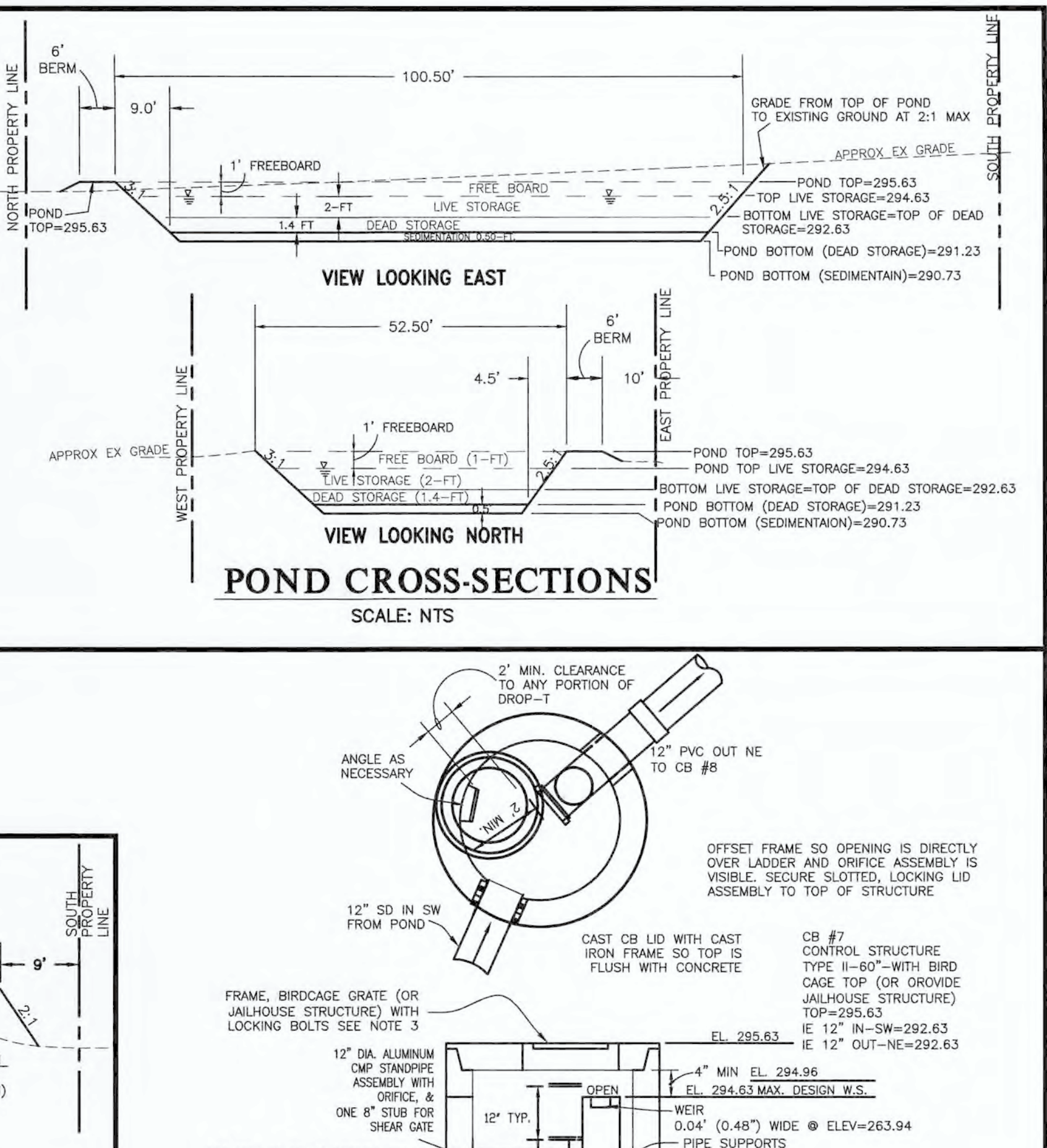
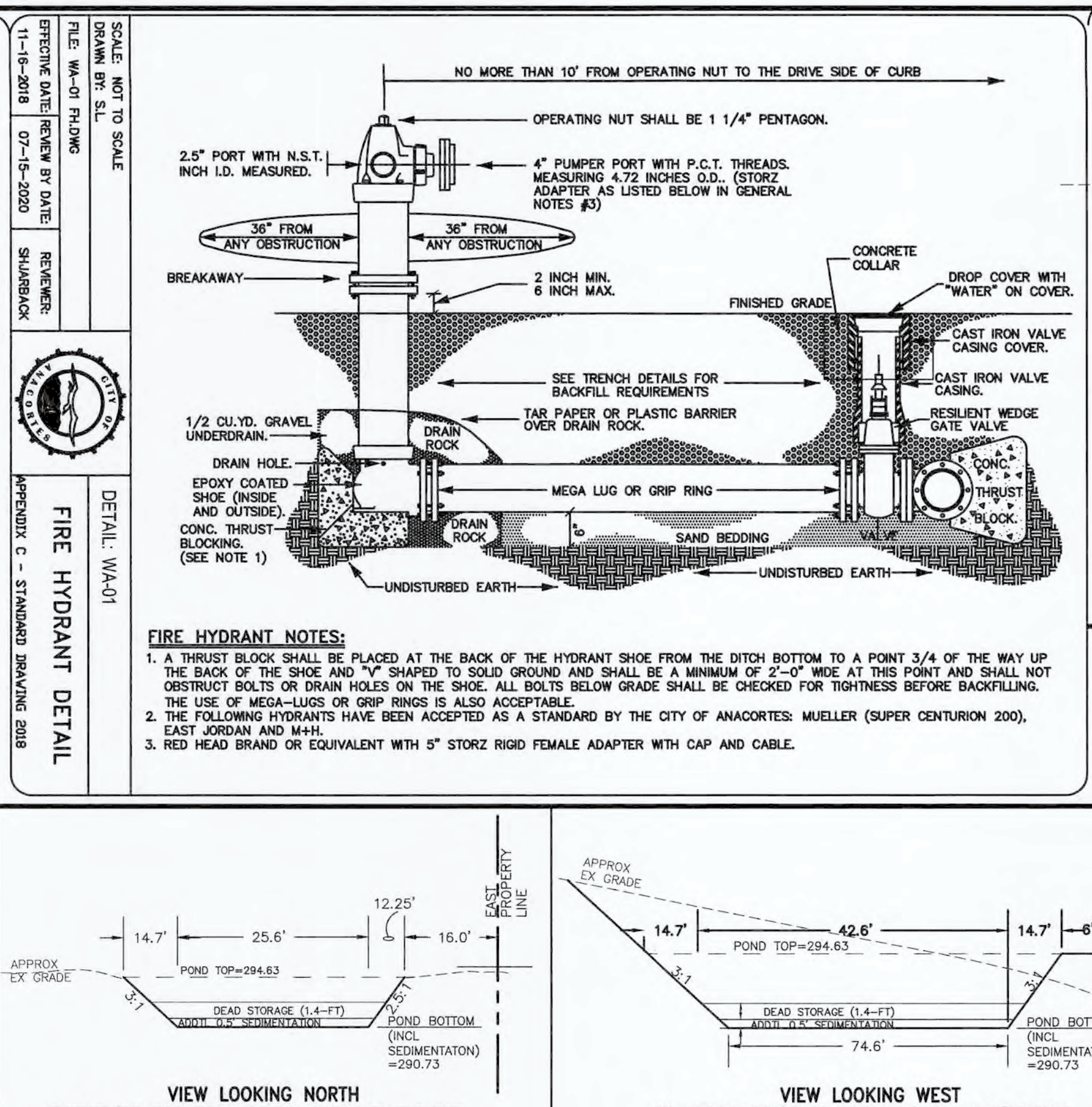
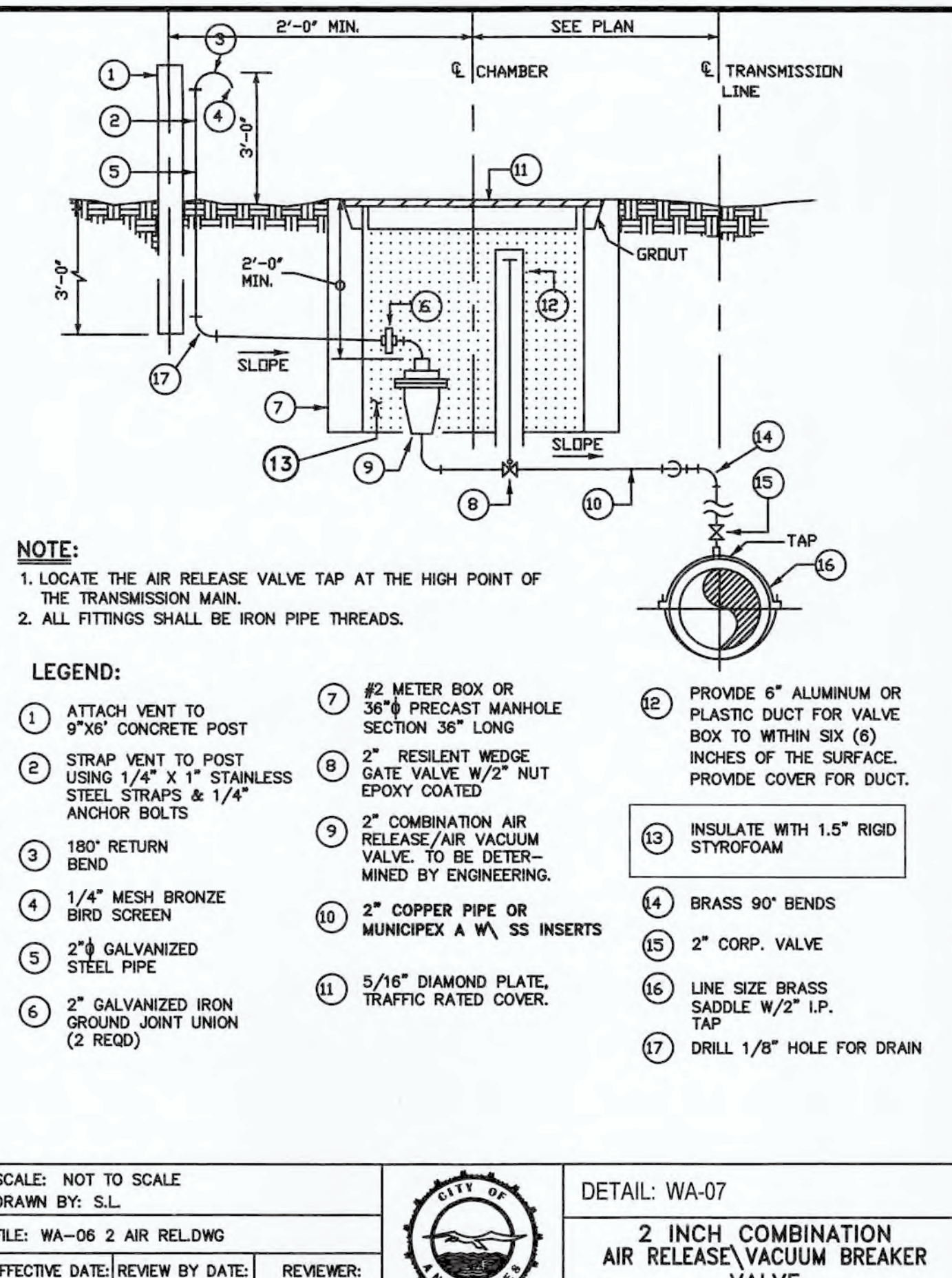
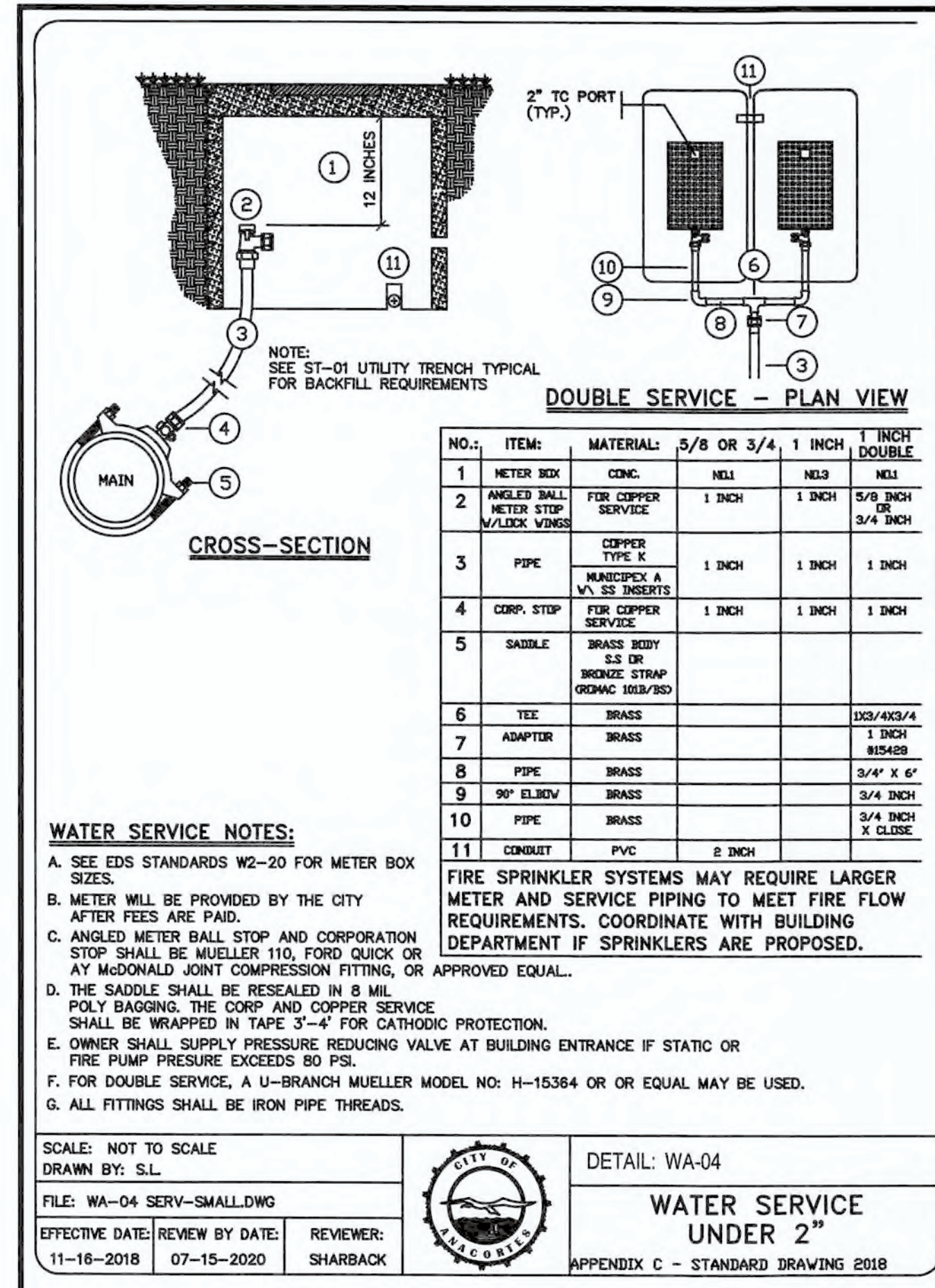
Revised November 2015

pipe O.D.



CITY ENGINEER _____ DATE _____

CONSTRUCTION FOR THE ACCEPTED PROJECT IS TO START WITHIN
1 YEAR OF THE DATE.



REV. NO.	REVISION	DATE	BY	APPROVED	SHEET DESCRIPTION:	SCALE: AS SHOWN	SHEET TITLE:	DRAWING NO.
1	1	08.06.20	HLN		CHERRY COURT SHORT PLAT	19013.DET.dwg		
2	2				CORNER 9 PROPERITES, LLC			
3	3				SW 1/4 SECTION 25, T. 35 N., R. 1 E., W.M.			
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DETAILS

CHERRY COURT SHORT PLAT
FOR
CORNER 9 PROPERITES, LLC
SW 1/4 SECTION 25, T. 35 N., R. 1 E., W.M.

DRAWING NO.
19013.DET.dwg

JOB NO.
19013

SHEET NO.
8 OF 11

GENERAL CONSTRUCTION NOTES

1. ALL CONSTRUCTION AND MATERIALS SHALL CONFORM TO THE 2020 STANDARD SPECIFICATIONS FOR ROAD, BRIDGE, AND MUNICIPAL CONSTRUCTION AS PREPARED BY THE WASHINGTON STATE DEPARTMENT OF TRANSPORTATION AND THE AMERICAN PUBLIC WORKS ASSOCIATION (WSDOT/APWA) TOGETHER WITH THE REQUIREMENTS OF THE ANACORTES PLANNING AND PUBLIC WORKS DEPARTMENTS, THE CITY OF ANACORTES SEWER DEPARTMENT, REQUIREMENTS OF CITY OF ANACORTES WATER DEPARTMENT FOR THE WATERLINE EXTENSIONS SERVING THIS PROJECT, AND REQUIREMENTS OF THE APPLICABLE UTILITY COMPANIES PROVIDING SERVICES TO THIS PROJECT.

IF THERE ARE ANY CONFLICTS IN REQUIREMENTS, THE MOST STRINGENT SHALL APPLY UNLESS OTHERWISE APPROVED BY THE ENGINEER.

2. DURING THE COURSE OF THIS PROJECT THE CONTRACTOR IS RESPONSIBLE FOR COORDINATING AND CONDUCTING PRECONSTRUCTION MEETINGS WITH A REPRESENTATIVE FROM THE FOLLOWING AGENCIES FOR, AT A MINIMUM, THE FOLLOWING CIVIL PHASES OF WORK:

- ? EROSION & SEDIMENT CONTROLS--CITY OF ANACORTES PUBLIC WORKS
- ? SANITARY SEWER SYSTEM--CITY OF ANACORTES
- ? STORM DRAINAGE, ON--SITE GRADING, PIPING--CITY OF ANACORTES, OWNER AND PROJECT ENGINEER
- ? DETENTION POND -- CITY, OWNER, AND PROJECT ENGINEER
- ? PUBLIC WATERLINE EXTENSION--CITY OF ANACORTES WATER DEPARTMENT
- ? P, T, C, G, FO COORDINATION--ALL UTILITY COMPANIES
- ? ROAD SUBGRADE --CITY OF ANACORTES & PROJECT ENGINEER
- ? ROAD TOP OF FINISHED GRAVEL GRADE AND COMPACTION--CITY OF ANACORTES & PROJECT ENGINEER
- ? ROAD FINAL CRUSHED ROCK GRADING PRIOR TO ASPHALT--CITY OF ANACORTES AND PROJECT ENGINEER
- ? CONCRETE CURB/GUTTER/RAMPS--CITY OF ANACORTES PUBLIC WORKS DEPARTMENT
- ? TEMPORARY UTILITY SHUT--DOWNS-- UTILITY COMPANY AND AFFECTED PROPERTIES
- ? FINAL GRADING & SITE CLEANUP -- CITY OF ANACORTES PUBLIC WORKS DEPARTMENT & OWNER
- ? COORDINATION WITH ADJOINING PROPERTY OWNERS FOR ALL WORK ACTIVITIES FRONTING OFFSITE PROPERTIES.

3. THE DEVELOPMENT OF THIS PROJECT REQUIRES THE CONTRACTOR CLOSELY COORDINATE UTILITY AND ROADWAY IMPROVEMENTS WITH CITY OF ANACORTES, UTILITY COMPANIES, AND OTHER DISCIPLINES INVOLVED WITH THIS PROJECT. THE CONTRACTOR IS RESPONSIBLE FOR THOROUGHLY REVIEWING EACH COMPONENT OF WORK ON THE CIVIL PLANS AND COORDINATING WITH THE OWNER, ENGINEER, AND THE CITY OF ANACORTES FOR ANY QUESTIONS OR CLARIFICATIONS OF WORK BEFORE COMMENCING.

4. CONSTRUCTION STAKING FOR THIS PROJECT SHALL BE PERFORMED BY A LICENSED LAND SURVEYOR, COORDINATED AND RETAINED BY THE OWNER. THE CONTRACTOR IS RESPONSIBLE FOR COORDINATING ALL ASPECTS OF CONSTRUCTION STAKING WITH THE SURVEYOR. NO RESTAKING OF ANY PREVIOUSLY STAKED ITEMS WILL BE PAID BY THE OWNER. ANY RESTAKING WILL BE PAID FOR BY THE CONTRACTOR. AT THE ONSET OF THE CONSTRUCTION PROCESS, THE CONTRACTOR SHALL PROVIDE TO THE OWNER, SURVEYOR, AND ENGINEER, A DETAILED LIST AND SCHEDULE OF CONSTRUCTION STAKING ITEMS.

5. DURING THE COURSE OF THIS PROJECT, THE CONTRACTOR SHALL MAINTAIN ACCURATE RECORDS OF ALL ASBUILTS OF UTILITIES INSTALLED, EXISTING UTILITIES ENCOUNTERED INCLUDING THEIR DEPTH, SIZE, AND MATERIAL, AND EXISTING CONDITIONS NOT CONSISTENT WITH THOSE IDENTIFIED ON THE PLANS. ALL ASBUILT INFORMATION SHALL BE MAINTAINED IN A CLEAR, LEGIBLE, COMPREHENDIBLE ORDER. ASBUILT INFORMATION SHALL BE CLEARLY WRITTEN ON A CLEAN SET OF CONSTRUCTION PLANS AND PROVIDED TO THE ENGINEER UPON THE PROJECT'S COMPLETION. THE ASBUILT PLANS, PREPARED BY THE ENGINEER, SHALL BE SUBMITTED AND APPROVED BY CITY OF ANACORTES PUBIC WORKS DEPARTMENT.

6. EXISTING UTILITIES HAVE BEEN IDENTIFIED USING THE AVAILABLE UTILITY RECORDS, PREVIOUS DESIGN DOCUMENTS, AND A TOPOGRAPHIC SURVEY OF THE SURFACE CONDITIONS WITHIN THE SUBJECT PROPERTY AND THE ABUTTING PORTIONS OF ORCHARD AVENUE AND CHERRY LANE. THE TOPOGRAPHIC SURVEY OF THIS SITE AND THE ABUTTING ROADWAYS HAS BEEN PROVIDED BY LISSER AND ASSOCIATES OF MOUNT VERNON, WASHINGTON AT (360) 419-7442.

7. THE CONTRACTOR IS RESPONSIBLE FOR HAVING ALL EXISTING UTILITIES LOCATED PRIOR TO ANY CONSTRUCTION. THE CONTRACTOR SHALL CONTACT THE ONE-CALL UTILITY LOCATE SERVICE AT 7811? A MINIMUM OF TWO WORKING DAYS PRIOR TO ANY WORK. THE CONTRACTOR IS ALSO RESPONSIBLE FOR RETAINING A PRIVATE UTILITY LOCATE SERVICE TO IDENTIFY ANY EXISTING UTILITIES BEYOND THE LIMITS OF THE PUBLIC RIGHTS-OF-WAY. DAMAGES TO THE EXISTING UTILITIES RESULTING FROM THIS CONSTRUCTION SHALL BE REPAIRED BY THE CONTRACTOR OR THE UTILITY COMPANY, AS REQUIRED, AT THE CONTRACTOR'S EXPENSE. AT ALL CROSSING'S OF NEW UTILITIES WITH EXISTING UTILITIES THE EXISTING UTILITY SHALL BE HORIZONATALLY AND VERTICALLY ASBUILT PRIOR TO COMMENCING CONSTRUCTION IN THAT AREA AND THE ENGINEER SHALL BE NOTIFIED OF POTENTIAL CONFLICTS.

8. GENERAL CONDITIONS HAVE BEEN INDICATED ON THE PLANS FOR THE REMOVAL OF EXISTING MATERIALS AND STRUCTURES NECESSARY TO ACCOMMODATE THE PROPOSED IMPROVEMENTS. THE LIMITS OF THIS WORK ARE FOR USE BY THE CONTRACTOR IN PREPARING A COST FOR THIS PROJECT. HOWEVER, THE CONTRACTOR IS RESPONSIBLE FOR THOROUGHLY INSPECTING THE ENTIRE PROJECT SITE AND ASCERTAINING THE ENTIRE LIMIT OF ALL WORK THAT WILL BE NECESSARY TO PROVIDE THE PROPOSED IMPROVEMENTS IN A COMPLETED, ACCEPTABLE CONDITION, TO THE SATISFACTION OF THE OWNER, ENGINEER, OWNER'S RETAINED SOIL'S ENGINEER, THE CITY OF ANACORTES DEPARTMENTS, AND UTILITY COMPANIES INVOLVED WITH THE CONSTRUCTION OF THESE SITE IMPROVEMENTS.

THE CONTRACTOR IS RESPONSIBLE FOR PRESERVING AND PROTECTING ALL ELEMENTS THAT ARE TO REMAIN. DAMAGED CONDITIONS MUST BE PROMPTLY REPAIRED BY THE CONTRACTOR TO THE SATISFACTION OF THE ASSOCIATED OWNER.

9. THE CONTRACTOR SHALL PROVIDE DAILY EFFORTS TO KEEP THE SITE IN A NEAT AND ORDERLY CONDITION TO THE SATISFACTION OF THE OWNER, ENGINEER, AND THE CITY OF ANACORTES. THE CONTRACTOR IS REQUIRED TO PROVIDE PROVISIONS NECESSARY TO PREVENT DEBRIS FROM BEING WASHED INTO ANY DRAINAGE SYSTEM ADJACENT TO THE SUBJECT PROPERTY, OR ANY OTHER STORM SYSTEM THROUGHOUT AND NEAR THIS PROJECT SITE. IT IS IMPERATIVE THE CONTRACTOR PROVIDE EVERY MEASURE TO PREVENT SILT AND DEBRIS FROM BEING WASHED INTO ANY PORTION OF ANY OFFSITE PROPERTY, DITCH, WATERWAYS AND/OR NEW DRAINAGE SYSTEM IMPROVEMENTS. THE CONTRACTOR SHALL TAKE ALL PRECAUTIONS TO PREVENT WASH WATERS FROM DAMAGING PROPERTY OR IMPACT WATERWAYS.

THE CONTRACTOR SHALL PROVIDE ALL PROVISIONS TO PREVENT DIRTY RUNOFF WATERS FROM ENTERING ANY PORTION OF THE EXISTING OR PROPOSED STORM SYSTEM OR PROPERTY OWNED BY OTHERS.

10. THE SITE CONTRACTOR SHALL BE RESPONSIBLE FOR IMPLEMENTING EROSION AND SEDIMENTATION CONTROL REQUIREMENTS IN CONFORMANCE WITH THE SWPPP TO BE PREPARED FOR THIS PROJECT, ALONG WITH THE REQUIREMENTS OF THE CITY OF ANACORTES AND WASHINGTON STATE DEPARTMENT OF ECOLOGY. THE SITE CONTRACTOR IS RESPONSIBLE FOR INSPECTION OF EROSION CONTROL CONDITIONS, MONITORING OF STORMWATER RUNOFF CONDITIONS, AND IMPLEMENTING CHANGES/IMPROVEMENTS/MAINTENANCE OF ALL EROSION CONTROL FACILITIES. THE SITE CONTRACTOR SHALL HAVE A CERTIFIED EROSION CONTROL LEAD PERSON AVAILABLE AT ALL TIMES FOR INSPECTION OF EROSION CONTROL CONDITIONS, MONITORING OF STORMWATER RUNOFF CONDITIONS, AND IMPLEMENTING CHANGES/IMPROVEMENTS/MAINTENANCE OF ALL EROSION CONTROL FACILITIES. THE SITE CONTRACTOR SHALL PROVIDE ANY PERMITS, SITE INSPECTION REPORTS AND/OR DOCUMENTATION AS REQUIRED BY DOE AND THE CITY.

11. ALL CONSTRUCTION ACTIVITIES SHALL BE CONDUCTED TO PREVENT ANY DIRTY RUNOFF WATERS FROM EXITING THE SUBJECT PROPERTY AND/OR ENTERING UPON OFFSITE PROPERTIES, STORM SYSTEMS, OR WATERWAYS.

12. TRAFFIC LANES MUST BE MAINTAINED ON ALL ADJACENT ROADWAYS. NO FULL-WIDTH ROAD CLOSURES WILL BE ALLOWED. TO ACCOMMODATE UTILITY INSTALLATIONS WITHIN THE RIGHT OF WAY, PARTIAL ROAD CLOSURES WILL BE ALLOWED ONLY IF APPROVED BY THE CITY OF ANACORTES PUBLIC WORKS AND FIRE DEPARTMENTS. WITH EACH PARTIAL CLOSURE, AND DURING ALL CONSTRUCTION ACTIVITIES, THE CONTRACTOR SHALL PREPARE AND PROVIDE A TRAFFIC CONTROL PLAN TO THE CITY OF ANACORTES PUBLIC WORKS DEPARTMENT IDENTIFYING FLAGGERS AND TEMPORARY SIGN INSTALLATIONS FOR ON-GOING WORK ACTIVITIES. THE REQUIREMENTS OF TRAFFIC CONTROL SHALL BE APPROVED BY THE CITY OF ANACORTES PUBLIC WORKS DEPARTMENT, PERTAINING TO FLAGGERS AND LIGHTS. ALL TRAFFIC CONTROL PLANS SHALL CONFORM TO THE REQUIREMENTS OF THE CITY OF ANACORTES PUBLIC WORKS DEPARTMENT AND THE MOST RECENT VERSION OF THE MANUAL ON UNIFORM TRAFFIC CONTROL DEVICES. REGARDLESS OF WHERE THE CONSTRUCTION ACTIVITY IS OCCURRING FOR THIS PROJECT, THE CONTRACTOR IS RESPONSIBLE FOR PROVIDING ALL TRAFFIC CONTROL SIGNS AND FLAGGERS FOR CONSTRUCTION VEHICLES ENTERING AND EXITING THIS PROJECT SITE. FLAGGERS MUST BE USED DURING ALL PERIODS OF CONSTRUCTION WITHIN THE RIGHTS OF WAYS.

13. THE SURROUNDING PROPERTIES ARE RESIDENTIALLY DEVELOPED. THE CONTRACTOR MUST PROVIDE ALL PROVISIONS TO PROPERLY AND SAFELY MANAGE THE CONSTRUCTION ACTIVITIES FOR PEOPLE THAT WALK ON ADJOINING ROADS. ALL EXISTING ROADWAYS MUST BE KEPT AVAILABLE FOR A MINIMUM OF ONE TRAVEL LANE AT ALL TIMES. DURING PERIODS WHEN NO CONSTRUCTION ACTIVITIES ARE OCCURING ONSITE, ALL TRAVEL LANES SHALL BE AVAILABLE FOR USE.

14. DURING ALL PHASES OF CONSTRUCTION, THE CONTRACTOR SHALL PROVIDE DUST CONTROL MEASURES TO MINIMIZE THE IMPACTS ON THE ADJOINING PROPERTIES. IT IS THE CONTRACTOR'S DAILY RESPONSIBILITY TO PROVIDE THIS MEASURE WHENEVER NECESSARY. THE CITY OF ANACORTES, OWNER AND PROJECT ENGINEER RESERVE THE RIGHT TO REQUIRE ADDITIONAL DUST CONTROL MEASURES TO BE PROVIDED BY THE CONTRACTOR, AT NO ADDITIONAL COST TO THIS CONTRACT. THE CONTRACTOR IS RESPONSIBLE FOR THE PROMPT CLEANUP OF ALL DEBRIS TRANSPORTED FROM THIS SITE.

15. THE CONTRACTOR SHALL COMPLY WITH ALL LOCAL, STATE, AND FEDERAL REGULATIONS CONCERNING THE DISPOSAL OF MATERIALS REMOVED FROM THIS PROJECT SITE. ALL ASPHALT, CONCRETE, STRUCTURES, NATIVE, AND NON-NATIVE DEBRIS REMOVED FROM THIS SITE SHALL BE DISPOSED IN A LEGALLY APPROVED DISPOSAL SITE OBTAINED BY THE CONTRACTOR. THE CONTRACTOR IS RESPONSIBLE FOR ALL FEES ASSOCIATED WITH THE DISPOSAL OF MATERIALS, REGARDLESS OF NATURE, FROM THIS PROJECT SITE.

16. IN ADDITION TO NOTIFYING CITY OF ANACORTES FOR ANY TEMPORARY OR PARTIAL ROAD CLOSURES, THE CONTRACTOR IS ALSO RESPONSIBLE FOR NOTIFYING ALL ADJOINING RESIDENCES AND ANY BUSINESSES WITHIN THE VICINITY OF THIS PROJECT TO INFORM THEM OF CONSTRUCTION ACTIVITIES AND WHEN ACCESS TO THIS AREA MAY BE LIMITED.

THE CONTRACTOR IS RESPONSIBLE FOR PERFORMING THESE SITE IMPROVEMENTS IN SUCH A WAY AS TO NOT SIGNIFICANTLY IMPACT THE OPERATION OF ANY ADJOINING BUSINESSES OR RESIDENCES.

THE CONTRACTOR SHALL PERFORM ALL SITE IMPROVEMENTS IN SUCH A MANNER AS TO CONTINUALLY ALLOW THE ADJOINING RESIDENCES THE ABILITY TO DRIVE ON ALL ADJACENT ROADWAYS. AT NO TIME SHALL ANY ROADWAY BE TOTALLY CLOSED TO PUBLIC TRAFFIC.

17. THE CONTRACTOR SHALL USE EQUIPMENT THAT IS OPERATING EFFICIENTLY. MANY OF THE UTILITY INSTALLATIONS ARE AT A VERY SMALL SLOPE, THEREFORE, ALL LAZER EQUIPMENT SHALL HAVE BEEN RECENTLY CALIBRATED AND FIELD CHECKED FOR ACCURACY. NO EQUIPMENT SHALL BE ALLOWED ONSITE THAT LEAKS FLUIDS. AT ALL TIMES DURING THE COURSE OF THIS PROJECT, THE CONTRACTOR SHALL HAVE SPILL CLEAN UP EQUIPMENT AND MATERIALS READILY AVAILABLE. EQUIPMENT SHALL BE PARKED IN AN AREA THAT IN THE EVENT A SPILL SHALL OCCUR, THE SPILL WILL BE CONTAINED AND NO FLUIDS WILL HAVE THE POTENTIAL TO ENTER ANY OF THE OFFSITE AND ONSITE DRAINAGE SYSTEMS. ON A DAILY BASIS, THE CONTRACTOR SHALL INSPECT ALL EQUIPMENT AND PROVIDE ALL NECESSARY MAINTENANCE OF SAID EQUIPMENT AS NEEDED TO MINIMIZE THE POTENTIAL FOR ANY SPILLS OR LEAKING OF FLUIDS.

CLEARING AND EXCAVATION

18. A GEOTECHNICAL INVESTIGATION HAS BEEN DONE AND REPORT HAS BEEN PREPARED FOR THIS PROJECT BY GEOTEST ENGINEERS (GEOTEST). THE CONTRACTOR IS RESPONSIBLE FOR OBTAINING AND REVIEWING A COPY OF THIS GEOTECHNICAL INFORMATION PRIOR TO CONSTRUCTION. THE CONTRACTOR IS RESPONSIBLE FOR IMMEDIATELY CONTACTING THE OWNER AND ENGINEER, IF SITE CONDITIONS INDICATE UNSTABLE OR NON-UNIFORM SOIL CONDITIONS.

19. IF NATURAL, UNDISTURBED, SUBGRADE CONDITIONS ARE IDENTIFIED DURING THE COURSE OF THIS WORK THAT REQUIRES ADDITIONAL EXCAVATION; THE CONTRACTOR SHALL NOTIFY THE ENGINEER REGARDING THE ENCOUNTERED CONDITIONS. AS DIRECTED BY THE ENGINEER AND OWNER, THE CONTRACTOR SHALL PERFORM ADDITIONAL EXCAVATION TO REMOVE SOFT, YIELDING, OR ORGANIC MATERIALS WITHIN THE PRISMS OF THE PROPOSED ONSITE AND OFFSITE IMPROVEMENTS. WHERE NECESSARY, EXCAVATION SHALL BE PERFORMED TO REMOVE VEGETATION, TOPSOIL, DEBRIS, REMNANT STRUCTURES, ORGANIC MATERIALS, AND ANY OTHER DELETERIOUS MATERIAL THAT MAY DETRIMENTALLY IMPACT SITE EXCAVATION OR FOUNDATION SUPPORT FOR THE PROPOSED IMPROVEMENTS. STRIPPED MATERIALS SHALL NOT BE USED, NOR MIXED, WITH ANY GRANULAR MATERIALS TO BE USED AS STRUCTURAL FILL WITHIN UTILITY TRENCHES WITHIN PROPOSED ROADWAY IMPROVEMENTS.

NATIVE MATERIALS ARE UNACCEPTABLE AS STRUCTURAL FILL, AND SHALL NOT BE USED FOR ANY IMPROVEMENT EXCEPT FINAL SURFACE GRADING AS SPECIFIED AND FILL WITHIN LANDSCAPE AND LOT AREAS, OUTSIDE OF DRIVELANES.

OUTSIDE OF THE RIGHT OF WAY, SUBJECT TO APPROVAL BY THE OWNER'S RETAINED SOILS ENGINEER AND THE CITY OF ANACORTES, NATIVE CLEAN MATERIALS MAY BE USED AS TRENCH BACKFILL. NATIVE TRENCH BACKFILL SHALL BE COMPACTED TO A MINIMUM OF 95 PERCENT.

20. ALL SUBGRADE CONDITIONS SHALL BE PREPARED AND COMPACTED CONFORMING TO WSDOT SECTION 2-06.3(1) AND 2-06.3(2). THE SUBGRADE CONDITIONS SHALL BE COMPACTED TO A MINIMUM OF 95 PERCENT MAXIMUM DRY DENSITY AT A MOISTURE CONTENT PLUS OR MINUS 2 PERCENT FROM OPTIMUM. THE CONTRACTOR MUST HAVE ALL SUBGRADES, AT THE BOTTOM OF GRAVEL, INSPECTED AND TESTED BY OWNER'S RETAINED SOILS ENGINEER AND INSPECTED BY THE CITY OF ANACORTES. THE CONTRACTOR SHALL PERFORM ALL WORK NECESSARY TO ACHIEVE THE REQUIRED SUBGRADE CONDITIONS, INCLUDING PROTECTING THE SUBGRADE FROM EXCESSIVE MOISTURE, AND CONDITIONING THE NATIVE SUBGRADE TO REMOVE MOISTURE.

21. EXCAVATION SHALL BE PERFORMED, AT A MINIMUM, TO THE DESIGNED SUBGRADE ELEVATION FOR THE BOTTOM OF GRAVEL. THIS SUBGRADE SHALL BE PREPARED AS SPECIFIED. WHERE SOFT, YIELDING, OR ORGANIC CONDITIONS EXIST AT THE DESIGNED SUBGRADE ELEVATION, ADDITIONAL EXCAVATION MUST BE PERFORMED TO EXPOSE FIRM, NON-YIELDING, NON-ORGANIC, SUBGRADE CONDITIONS. ALL OVER-EXCAVATION WORK MUST BE BROUGHT TO THE ENGINEER'S AND OWNER'S ATTENTION AND APPROVED BY THE OWNER PRIOR TO THE CONTRACTOR PERFORMING THE WORK.

22. DURING ALL PERIODS WHEN NO CONSTRUCTION ACTIVITY IS OCCURRING, NO OPEN HOLES SHALL BE LEFT ACCESSIBLE. OPEN HOLES AND TRENCHES SHALL BE COVERED WITH STEEL PLATES OR OTHER DEVICES WHICH PREVENT ANY ACCESS INTO THE EXCAVATION. OTHERWISE, ALL OPEN HOLES AND TRENCHES SHALL BE BACKFILLED.

23. THE CONTRACTOR IS RESPONSIBLE FOR CLEARING BRUSH, TREES, AND OTHER VEGETATION AS NOTED WITHIN THE SOUTHERLY PORTION OF THE SITE AS NOTED ON THE PLANS. THERE AREA ALSO TREES TO REMAIN. THE CONTRACTOR SHALL CAREFULLY REVIEW THE LANDSCAPE PLANS PREPARED FOR THIS PROJECT TO ASSURE CONFORMANCE WITH THIS PLAN. ON-SITE BURNING IS NOT ALLOWED. THE CONTRACTOR IS RESPONSIBLE FOR ALL LOADING, HAULING, AND PROPER OFFSITE DISPOSAL OF VEGETATED MATTER. THE USE OF CHIPPED VEGETATION IS PERMISSIBLE IN THE TEMPORARY EROSION AND SEDIMENTATION CONTROL FACILITIES INSTALLED, MAINTAINED, AND OPERATED BY THE CONTRACTOR.

24. SUBGRADE CONDITIONS AND PLACED-MATERIAL CONDITIONS THAT ARE APPROVED, BUT LATER FAIL TO MEET SPECIFICATIONS DUE TO EXCESSIVE TRAFFIC, UNPROTECTED FROM WEATHER, OR UNDU E IMPACTS, AS DETERMINED BY THE ENGINEER, SHALL BE REBUILT/RECONSTRUCTED BY THE CONTRACTOR AT THE CONTRACTOR'S COST.

25. DURING ALL COURSES OF THIS PROJECT, THE CONTRACTOR IS TO PROVIDE ALL POSSIBLE MEANS TO PREVENT STORMWATER FROM PONDING ON THE EXCAVATED SUBGRADE AND ON PLACED MATERIAL SURFACES, AND FROM CAUSING EXCESSIVE MOISTURE. PROVISIONS TO PREVENT AND/OR REMOVE STORM RUNOFF SHALL INCLUDE, BUT ARE NOT LIMITED TO, PLASTIC COVERS, TEMPORARY DITCHING, PUMPS, AND SILTATION PONDS. ALL STORMWATER DISCHARGED FROM THIS SITE SHALL BE THOROUGHLY FILTERED THROUGH EROSION AND SEDIMENTATION CONTROLS PRIOR TO BEING DISCHARGED INTO ANY NEW OR EXISTING DRAINAGE FACILITY.

26. ALL CONSTRUCTION PRACTICES AND SITE OPERATIONS SHALL BE PERFORMED TO PROTECT THE UNDERLYING SOILS.

27. AT ANY LOCATIONS WHERE TREE STUMPS OR ORGANIC MATERIALS ARE REMOVED FROM WITHIN THE IMPERVIOUS AND UTILITY TRENCH AREAS, THE CONTRACTOR SHALL BACKFILL THE LIMITS OF THE OVEREXCAVATION WITH COMPACTED STRUCTURAL FILL MATERIAL AS SPECIFIED. NATIVE MATERIAL SHALL NOT BE USED AS BACKFILL AT ANY LOCATION BELOW OR WITHIN THREE FEET OF THE PROPOSED RIGHT-OF-WAY, EXCEPT AS FINAL SURFACE GRADING AS SPECIFIED AND AS FILL WITHIN LOW LOT AREAS.

28. DURING THE COURSE OF THIS PROJECT, THE CONTRACTOR IS RESPONSIBLE FOR STOCKPIILING CLEAN, NATIVE TOPSOIL MATERIALS TO BE USED AS FINAL GRADING AGAINST BACKS OF CURBS, AND AT DESIGNATED AREAS DIRECTED BY THE OWNER. STOCKPILED TOPSOIL TO BE USED FOR FINAL GRADING SHALL BE FREE OF ROCKS, STICKS, AND DEBRIS GREATER THAN TWO INCHES IN ANY DIMENSION. THE CONTRACTOR IS RESPONSIBLE FOR STOCKPIILING TOPSOIL AT LOCATIONS THAT WILL NOT INTERRUPT CONSTRUCTION ACTIVITIES, AND FOR PROTECTING THE TOPSOIL STOCKPILE FROM CONTAMINATION AND SATURATION.

TOPSOIL MATERIAL SHALL BE GRADED AS SPECIFIED, AND STATIC ROLLED TO PROVIDE FOR A LIGHTLY DENSE SURFACE CONDITION.

EXCESS REMAINING NATIVE SOILS SHALL BE COORDINATED WITH THE OWNER FOR THE PLACEMENT AND GRADING OF EXCESS CLEAN NATIVE SOILS UPON THE SUBJECT LOTS.

IF CAUSED BY THE CONTRACTOR'S PRACTICES, NATIVE SOILS BECOME CONTAMINATED WITH GRANULAR MATERIALS AND OTHER DEBRIS, THE CONTAMINATED NATIVE SOILS SHALL BE DEPOSITED OFFSITE BY THE CONTRACTOR, AT THE CONTRACTOR'S EXPENSE AND REPLACED WITH SUFFICIENT MATERIALS.

29. AT ALL LOCATIONS WHERE GRADING AND EXCAVATION OF NATIVE SOILS RESULTS IN A SLOPED CONDITION STEEPER THAN 10:1, THE SURFACE SHALL BE TRACKED SO AS TO CREATE A RIDGED PATTERN PERPENDICULAR TO THE DIRECTION OF SLOPE. UNLESS ONLY EXPOSED TO WEATHER FOR LESS THAN FIVE WORKING DAYS AND UNLESS WET WEATHER CONDITIONS EXIST OR ARE ANTICIPATED, ALL SLOPED CONDITIONS STEEPER THAN 10:1 SHALL BE PROMPTLY COVERED WITH A DENSE STRAW MAT.

ALL DISTURBED SOIL CONDITIONS SHALL BE SEEDED WITH GRASS AS SPECIFIED.

EXISTING UTILITIES

30. THERE ARE EXISTING UTILITIES THAT WILL BE CROSSED WITH THE PROPOSED IMPROVEMENTS HEREIN. FOR ALL SLOPE-CONTROLLED UTILITIES SUCH AS STORM DRAINAGE AND SANITARY SEWER, THE CONTRACTOR MUST HORIZONTALLY AND VERTICALLY ASBUILT ALL EXISTING UTILITIES WITHIN THE ALIGNMENT OF THE PROPOSED SLOPE-CONTROLLED UTILITY PRIOR TO PERFORMING ANY CONSTRUCTION. THE CONTRACTOR MUST OBTAIN THE HORIZONTAL LOCATION AND VERTICAL ELEVATION OF THE EXISTING UTILITY AND COMPARE IT TO THE DESIGNED IMPROVEMENT. CONFLICTS BETWEEN PROPOSED UTILITIES AND EXISTING UTILITIES MUST BE IMMEDIATELY BROUGHT TO THE ENGINEER'S ATTENTION SO A RESOLUTION CAN BE ACHIEVED IN A TIMELY MANNER.

31. THROUGHOUT THE COURSE OF THIS PROJECT, VARIOUS UTILITY COMPANIES WILL BE INVOLVED IN SITE IMPROVEMENTS FOR REMOVAL OF A UTILITY, PROPOSED UTILITY CROSSING, AND TO MAKE CONNECTIONS FROM THE PROPOSED WORK HEREIN TO THE EXISTING UTILITIES. THE CONTRACTOR IS RESPONSIBLE FOR COORDINATING WITH EACH UTILITY COMPANY PRIOR TO COMMENCING SITE ACTIVITIES, AND CONDUCTING A COORDINATION MEETING ONSITE WITH A REPRESENTATIVE FROM EVERY UTILITY COMPANY. THE CONTRACTOR SHALL PERFORM EXCAVATION, BACKFILL, AND WORK AS REQUIRED BY THE UTILITY COMPANIES FOR THE COMPLETE AND FUNCTIONAL INSTALLATION OF EACH SERVICE. CONTRACTOR TO COORDINATE WHAT TYPE OF INSPECTION WILL BE REQUIRED BY EXISTING UTILITY COMPANIES WHEN CROSSING THEIR SPECIFIC UTILITY.

32. THE CONTRACTOR IS SOLELY RESPONSIBLE FOR THE PROTECTION OF ALL EXISTING UTILITIES. ANY DAMAGED UTILITY CONDITIONS MUST BE PROMPTLY REPAIRED, IN CONFORMANCE WITH UTILITY COMPANY REQUIREMENTS, AT THE CONTRACTOR'S EXPENSE.

33. CONSTRUCTION OF THESE IMPERVIOUS AND UTILITY IMPROVEMENTS MAY REQUIRE THAT SOME UTILITIES TEMPORARILY BE SHUT DOWN. PRIOR TO PERFORMING ANY WORK THAT WILL INTERRUPT ANY EXISTING SERVICES, THE CONTRACTOR MUST COORDINATE WITH THE ASSOCIATED UTILITY COMPANY AND THE ASSOCIATED PROPERTY OWNERS REGARDING THE TEMPORARY UTILITY SHUTDOWN. UTILITY SHUTDOWNS MUST BE PERFORMED AND COORDINATED SO IMPACT TO THOSE EXISTING PARTIES SERVED IS MINIMIZED.

34. FOR POWER, TELEPHONE, TV CABLE, FIBER OPTIC, AND GAS; THE CONTRACTOR MUST INDEPENDENTLY COORDINATE WITH EACH UTILITY COMPANY REGARDING TRENCH CONDITIONS AND REQUIREMENTS, BEDDING AND COVER MATERIALS, CONDUIT AND ROAD CASINGS. TYPICALLY, A COMMON 48" WIDE TRENCH, BEDDED AND COVERED WITH SIX INCHES OF CLEAN SAND, AND SUFFICIENT DEPTH FOR THREE FEET OF CONDUIT COVER IS ACCEPTABLE TO THE UTILITY COMPANIES. THE CONTRACTOR SHALL EXCAVATE, GRADE, AND PROVIDE BACKFILL FOR ALL VAULTS AND STRUCTURES.

35. THOUGH NONE ARE ANTICIPATED WITHIN THIS PROJECT, THERE MAY BE EXISTING UTILITIES THAT ARE TO BE ABANDONED IN PLACE. IF DETERMINED NECESSARY TO ABANDON A UTILITY IN PLACE, NO OPEN ENDED CONDUITS OR PIPES SHALL BE LEFT, AND ALL OPEN ENDED UTILITIES THAT ARE ABANDONED MUST BE PLUGGED WITH A CONCRETE GROUT MATERIAL OR CAPPED. EVEN ABANDONED UTILITIES SHALL BE ASBUILT WITH THIS INFORMATION PROVIDED TO THE PROJECT ENGINEER AT THE COMPLETION OF THIS PROJECT.

EROSION AND SEDIMENTATION CONTROLS

36. THE CONTRACTOR IS RESPONSIBLE FOR CONFORMING TO ALL EROSION AND SEDIMENTATION CONTROL REQUIREMENTS FROM THE CITY OF ANACORTES, THE DEPARTMENT OF ECOLOGY, AND AS CONTAINED ON THE CIVIL PLANS HEREIN. THE CONTRACTOR MUST INSPECT ALL EROSION CONTROL DEVICES DURING AND AFTER EACH RAINFALL EVENT, EACH SHALL UPGRADE AND SUPPLEMENT ALL EROSION CONTROL ELEMENTS AS NECESSARY TO PREVENT ANY DIRTY RUNOFF WATER FROM ENTERING ANY EXISTING AND PROPOSED DRAINAGE FACILITIES AND FROM IMPACTING OFFSITE PROPERTIES.

37. THE CONTRACTOR MUST PERFORM ALL SITE CONSTRUCTION ACTIVITIES IN SUCH A MANNER TO PROVIDE ALL RUNOFF WATERS AN OPPORTUNITY FOR SEDIMENT AND DEBRIS TO SETTLE OUT OF RUNOFF WATERS, PRIOR TO THEM FLOWING INTO ANY EXISTING OR PROPOSED DRAINAGE FACILITY.

38. FILTER FABRIC FENCE IS TO BE INSTALLED AT ALL LOCATIONS WHERE IT APPEARS SURFICIAL RUNOFF WILL EXIT THE SITE TO AID IN THE REMOVAL OF DEBRIS FROM STORMWATER EXITING THE SUBJECT PROPERTY. THE CONTRACTOR IS RESPONSIBLE FOR THE INSTALLATION, CLEANING, REPLACEMENT IF NECESSARY, AND MAINTENANCE OF FILTER FABRIC SILT FENCE AS NECESSARY TO ADEQUATELY CONTROL ALL SURFACE RUNOFF FROM THIS PROPERTY AND ITS ASSOCIATED DEVELOPMENT. ORANGE CONSTRUCTION FENCING SHALL BE INSTALLED AS PROJECT DELINEATION AS NOTED ON THE CIVIL PLANS. THE CLEARING CONTROL FENCE SHALL BE INSTALLED AT THE DRIP LINE OF TREES TO BE SAVED WHEREVER THE TREE CANOPIES EXTEND INTO THE AREA TO BE CLEARED.

39. THE CONTRACTOR IS RESPONSIBLE FOR INSPECTING THE PROJECT SITE AND DETERMINING LOCATIONS WHERE STORMWATER MAY EXIT THE SUBJECT PROPERTY AND FLOW ONTO ADJACENT AREAS. AT ALL THESE LOCATIONS, THE CONTRACTOR MUST INSTALL FILTER FABRIC FENCE TO AID IN THE REMOVAL OF DEBRIS FROM STORMWATER EXITING THE SUBJECT PROPERTY. CONSTRUCTION ACTIVITIES SHALL NOT BE ALLOWED TO CAUSE ANY CONCENTRATED RUNOFF WATERS ONTO ADJOINING PROPERTIES OR RIGHT OF WAY AREAS.

40. AFTER SITE WORK IS COMPLETED AND SITE SOIL CONDITIONS ARE STABILIZED, THE CONTRACTOR SHALL CLEAN UP AND REMOVE THE EROSION CONTROL ITEMS AND ALL ACCUMULATED DEBRIS. UNTIL THE SITE IS APPROPRIATELY STABILIZED, AS DETERMINED BY THE CITY OF ANACORTES PUBLIC WORKS DEPARTMENT, THE CONTRACTOR IS RESPONSIBLE FOR ALL EROSION AND SEDIMENTATION CONTROL FACILITIES.

41. WITHIN NEW CATCH BASINS AS THEY ARE INSTALLED AND ANY EXISTING CATCH BASIN THAT MAY RECEIVE STORM RUNOFF FROM THE PROJECT AREA, THE CONTRACTOR SHALL INSTALL FILTER FABRIC SACKS UNDER THE RESPECTIVE GRATES. THE CONTRACTOR IS RESPONSIBLE FOR CLEANING, MAINTENANCE, AND REPLACEMENT OF FILTER FABRIC SACKS AS NECESSARY TO CONTINUALLY ALLOW STORMWATER TO BE FILTERED PRIOR TO ENTERING THE DRAINAGE SYSTEM.

42. UPON COMPLETION OF THE PROJECT IMPROVEMENTS, THE CONTRACTOR IS RESPONSIBLE FOR THOROUGHLY CLEANING OUT ALL NEW AND EXISTING STORM PIPES AND ASSOCIATED STORM STRUCTURES INCLUDING CATCH BASINS.

43. AS SOON AS PARTICULAR GRADING ACTIVITIES ARE COMPLETE, THE CONTRACTOR IS RESPONSIBLE FOR PROVIDING A MIXTURE OF GRASS SEED, FERTILIZER, AND MULCH TO ASSIST IN STABILIZING THE DISTURBED SOILS. HAND-APPLIED SEED AND FERTILIZER IS ACCEPTABLE PROVIDING THE WEATHER CONDITIONS ARE SUPPORTIVE, OTHERWISE, HYDROSEEDING SHALL BE PERFORMED.SOILS MUST NOT REMAIN EXPOSED AND UNWORKED FOR MORE THAN THE TIME PERIODS SET FORTH BELOW TO PREVENT EROSION.

DURING THE DRY SEASON (MAY 1 – SEPT 30): 7 DAYS
DURING THE WET SEASON (OCT 1 – APR 30): 2 DAYS

STABILIZE SOILS AT THE END OF THE SHIFT BEFORE A HOLIDAY OR WEEKEND IF NEEDED BASED ON THE WEATHER FORECAST. STABILIZE SOIL STOCKPILES FROM EROSION, PROTECT WITH SEDIMENT TRAPPING MEASURES, AND WHERE POSSIBLE, BE LOCATED AWAY FROM STORM DRAIN INLETS, WATERWAYS, AND DRAINAGE CHANNELS. MINIMIZE THE AMOUNT OF SOIL EXPOSED DURING CONSTRUCTION ACTIVITY. MINIMIZE THE DISTURBANCE OF STEEP SLOPES. (NA) MINIMIZE SOIL COMPACTION AND, UNLESS INFEASIBLE, PRESERVE TOPSOIL.

44. CONSTRUCTION IMPROVEMENTS ARE REQUIRED ON SITE, AND WITHIN THE ADJOINING PUBLIC RIGHT-OF-WAY AS IDENTIFIED ON THE CIVIL PLANS. THE CONTRACTOR IS RESPONSIBLE FOR MAINTAINING THESE ON-SITE AND OFF-SITE PROPERTIES IN SUCH A MANNER THAT A SIGNIFICANT RAINFALL EVENT WILL NOT CAUSE SILT-LOADED STORM RUNOFF WATERS TO ENTER ANY PORTION OF AN EXISTING OR NEW DRAINAGE SYSTEM, WITHOUT BEING APPROPRIATELY FILTERED AND CLEANED. THE PROJECT SITE SHALL BE MANAGED AND MAINTAINED SO THAT NO DAMAGES OCCUR FROM NORMAL RAINFALL EVENTS EXPERIENCED IN CITY OF ANACORTES.



ENGINEER

DATE

THIS PLAN SHEET IS ACCEPTED FOR CONSTRUCTION IN ACCORDANCE WITH THE CITY OF ANACORTES ORDINANCES AND POLICIES. ACTUAL CONFORMANCE OF THE DESIGN WITH APPLICABLE LAWS IS THE SOLE RESPONSIBILITY OF THE PROFESSIONAL ENGINEER, WHOSE NAME AND SEAL APPEAR ON THIS SHEET. ACQUIRING, COMPLYING WITH, AND PROVIDING MITIGATION FOR ALL FEDERAL, STATE, COUNTY, AND LOCAL LAWS, PERMITS, AND MANDATES, INCLUDING BUT NOT LIMITED TO THE ENDANGERED SPECIES ACT, FEDERAL WETLAND PERMIT, STATE DEPARTMENT OF FISHERIES AND HYDRAULICS PERMIT, FEDERAL FLOOD PLAIN PERMITS, NATIONAL POLLUTANT DISCHARGE ELIMINATION SYSTEM PERMIT IS THE RESPONSIBILITY OF THE DEVELOPER, LAND OWNER, AND THEIR ENGINEER. THE ISSUANCE OF THIS PERMIT SHALL NOT BE CONSTRUED AS PROOF OF COMPLIANCE WITH APPLICABLE LAWS AND PERMIT REQUIREMENTS.

CITY ENGINEER _____ DATE _____

CONSTRUCTION FOR THE ACCEPTED PROJECT IS TO START WITHIN 1 YEAR OF THE DATE.

REV. NO.	REVISION	DATE	BY	APPROVED

Ravnik & Associates, Inc.
CIVIL ENGINEERING & LAND-USE PLANNING
1633 LINDAMOOD LANE/P.O. BOX 361
BURLINGTON, WA 98233
PH: (360) 707-2048 FAX: (360) 707-2216

SHEET DESCRIPTION:

SPECIFICATIONS (1)

PLAN STATUS:

SCALE: AS SHOWN	SHEET TITLE:	DRAWING NO.
DRAWN BY: D. REMSEN	CHERRY COURT SHORT PLAT	19013.SPECS.dwg
CHECKED BY: HLN	FOR CORNER 9 PROPERTIES, LLC	JOB NO. 19013
DATE: 08.06.20	SW 1/4 SECTION 25, T. 35 N., R. 1 E., W.M.	SHEET NO. 9 OF 11

45. THROUGHOUT THE COURSE OF THE PROJECT, THE CONTRACTOR IS RESPONSIBLE FOR HAVING THE ADJOINING ROADWAYS SWEEP. IF DEBRIS IS TRANSPORTED FROM THE PROJECT SITE ONTO THE ADJOINING ROADWAY, THE ROADWAYS MUST BE THOROUGHLY SWEEP TO REMOVE AS MUCH DEBRIS AS POSSIBLE, AND THEN WASHED OR VACUUMED. WHEREVER ROAD-WASHING ACTIVITIES OCCUR, SEDIMENT-CONTROL DEVICES MUST BE IN PLACE TO TRAP SILT AND DEBRIS FROM BEING WASHED INTO THE DRAINAGE SYSTEM AND UPON ADJOINING PROPERTIES. THE CONTRACTOR SHALL PROTECT ALL PROPERTIES FROM BEING DAMAGED AND IMPACTED BY WASH WATER.

GRAVEL AND PROCESSED MATERIALS

46. STRUCTURAL FILL, AS NEEDED TO COMPLETE GRADING CONDITIONS AND AS NECESSARY WITHIN THE PROPOSED UTILITY TRENCHES AND IMPERVIOUS SURFACES, SHALL CONFORM TO THE GRAVEL BORROW SPECIFICATION IN WSDOT SECTION 9-03.14(1). GRAVEL BORROW MATERIAL SHALL NOT CONTAIN MORE THAN 5 PERCENT MAXIMUM ANY MATERIAL PASSING THE NO. 200 SIEVE. IF IN THE OPINION OF THE ENGINEER, OWNER, OR CITY OF ANACORTES, THE IMPORTED STRUCTURAL FILL MATERIAL APPEARS TO CONTAIN MORE THAN 5 PERCENT OF MATERIAL PASSING THE NO. 200 SIEVE, OR DOES NOT APPEAR TO CONFORM TO THE REQUIRED GRADATION, THE CONTRACTOR SHALL PROVIDE A GRADATION ANALYSIS AT NO ADDITIONAL CHARGE TO THE OWNER.

PRIOR TO CONSTRUCTION, THE CONTRACTOR MUST PROVIDE A NEW GRADATION ANALYSIS AND PROCTOR OF THE GRAVEL MATERIAL TO BE IMPORTED. THIS ANALYSIS IS TO BE PROVIDED TO THE OWNER'S RETAINED SOILS ENGINEER FOR REVIEW AND APPROVAL.

THE OWNER WILL RETAIN PERSONNEL TO PERFORM COMPACTION TESTING OF GRAVEL FILL MATERIALS AS IDENTIFIED HEREIN. THE CONTRACTOR SHALL HAVE THEIR OWN MATERIALS TESTING COMPANY OBTAIN A NEW SAMPLE OF GRAVEL AND PROVIDE A NEW GRADATION ANALYSIS AND PROCTOR ANALYSIS FOR REVIEW AND APPROVAL BY THE PROJECT ENGINEER AND THE OWNER'S MATERIALS TESTING COMPANY.

MATERIALS THAT ARE DETERMINED TO BE UNACCEPTABLE SHALL BE PROMPTLY REMOVED FROM THE PROJECT SITE AND REPLACED WITH APPROPRIATE MATERIALS AT NO ADDITIONAL CHARGE TO THE CONTRACT.

EACH LIFT OF STRUCTURAL FILL MATERIAL, REGARDLESS OF LOCATION, SHALL BE MECHANICALLY COMPACTED TO A MINIMUM OF NINETY-FIVE PERCENT OF THE MAXIMUM DRY DENSITY, AT A MOISTURE CONTENT PLUS OR MINUS TWO PERCENT FROM OPTIMUM, AS DETERMINED BY THE ASTM TEST METHOD D-1557. MOISTURE CONTENT OF ALL MATERIALS THAT ARE DETERMINED TO BE UNACCEPTABLE SHALL BE PROMPTLY REMOVED FROM THE PROJECT SITE AND REPLACED WITH APPROPRIATE MATERIALS AT NO ADDITIONAL CHARGE TO THE CONTRACT. GRAVEL MATERIALS SHALL BE TESTED FOR COMPACTION AS REQUIRED.

THE CONTRACTOR IS SOLELY RESPONSIBLE FOR PROVIDING ALL IMPORTED GRAVEL THAT CONFORMS TO THE REQUIRED GRADATION AND CAN BE COMPACTED AS SPECIFIED

47. CRUSHED SURFACING TOP COURSE AND CRUSHED SURFACING BASE COURSE FOR ALL IMPERVIOUS AREAS SHALL BE 100 PERCENT FULL-FRACTURE FACE OBTAINED FROM A QUARRY AND CONFORMING TO WSDOT SECTION 9-03.9(3), PLACED IN LOOSE LIFTS NOT EXCEEDING FOUR INCHES IN DEPTH AND COMPACTED TO A MINIMUM OF NINETY-FIVE PERCENT MAXIMUM DRY DENSITY AS DETERMINED BY THE ASTM TEST METHOD D-1557. MOISTURE CONTENT OF ALL MATERIALS SHALL BE PLUS OR MINUS TWO PERCENT FROM OPTIMUM. THE OWNER RESERVES THE RIGHT TO EXCHANGE CRUSHED SURFACING BASE COURSE WITH CRUSHED SURFACING TOP COURSE AT NO CHANGE IN CONTRACT PRICE.

THE CONTRACTOR IS SOLELY RESPONSIBLE FOR PROVIDING ALL IMPORTED CRUSHED ROCK MATERIALS THAT CONFORM TO THE REQUIRED GRADATION AND CAN BE COMPACTED AS SPECIFIED. THE COMPLETED CONDITION FOR PLACED CRUSHED ROCK SHALL BE A DENSE, NON-YIELDING, TIGHT, CONDITION FROM THE BOTTOM TO THE TOP OF THE CRUSHED ROCK SECTION.

48. DRAIN ROCK TO BE PROVIDED IN THE INFILTRATION TRENCHES MUST BE CLEAN, WASHED PRODUCT VARYING IN SIZE FROM 0.75-INCHES TO 2.0-INCHES. DRAIN ROCK SHALL BE FREE OF FINES AND ALL OTHER DEBRIS. NON-WASHED DRAINROCK WILL NOT BE ACCEPTED.

49. QUARRY SPALLS ARE TO BE USED WHERE NECESSARY AS UTILITY TRENCH FOUNDATION, STRUCTURE FOUNDATION, AT THE EXPOSED STORM PIPE INLETS AND OUTLETS, FLOW ARMOURING, AND AS REQUIRED BY THE CITY FOR TEMPORARY CONSTRUCTION ACCESS ROADS. QUARRY SPALLS SHALL CONFORM TO WSDOT SECTION 9-13.6.

50. GEOTEXTILE FABRIC SHALL BE PLACED UPON THE SUBGRADE SURFACE AS DIRECTED BY THE CIVIL PLANS.

GEOTEXTILE FABRIC SHALL CONFORM TO WSDOT SECTION 9-33, TABLE 3, SOIL STABILIZATION PROPERTIES. LISTED BELOW ARE THE MINIMUM REQUIREMENTS FROM THIS REFERENCED SECTION:

APPARENT OPENING SIZE: NO. 40 SIEVE MAX
WATER PERMITTIVITY: 0.1 / SEC MINIMUM
GRAB TENSILE STRENGTH 315/200
SEAM BREAKING STRENGTH 270/180

51. WHERE FABRIC IS REQUIRED, THE CONTRACTOR IS RECOMMENDED TO PERFORM AS MANY OF THE UNDERLYING UTILITY IMPROVEMENTS AS POSSIBLE TO PREVENT HAVING TO CUT THE GEOTEXTILE FABRIC. WHERE FABRIC CUTS ARE NECESSARY, THE CONTRACTOR SHALL USE A SHARP DEVICE, AND NOT TEAR THE FABRIC FOR THE PROPOSED WORK. AT LOCATIONS WHERE A CUT MUST BE MADE, THE OVERLAPPING FABRIC TO COVER THE CUT MUST OVERLAP A MINIMUM OF THREE FEET IN EACH DIRECTION.

52. PLACEMENT OF THE GEOTEXTILE FABRIC WHERE REQUIRED, SHALL BE ON A SUBGRADE THAT HAS BEEN EXCAVATED, PREPARED AS IDENTIFIED HEREIN, AND INSPECTED FOR APPROVAL. PLACEMENT OF THE FABRIC SHALL BE PERFORMED UTILIZING THE MANUFACTURER'S RECOMMENDED METHODS IN ORDER TO STRETCH THE FABRIC AS TIGHT AS POSSIBLE. ALL FABRIC JOINTS MUST OVERLAP A MINIMUM OF THREE FEET.

53. AT LOCATIONS WITHIN THE PROJECT SITE WHERE OVEREXCAVATION IS NECESSARY TO REMOVE SOFT, YIELDING, SUBGRADE MATERIALS, AND AS DIRECTED BY THE SOILS ENGINEER, THE CONTRACTOR SHALL UTILIZE TWO LAYERS OF GEOTEXTILE FABRIC FOR SOIL STABILIZATION PER WSDOT SECTION 9-33, TABLE 3. THE GEOTEXTILE FABRIC SHALL BE PLACED ALONG THE BOTTOM AND SIDES OF THE OVEREXCAVATED AREA, AND SHALL EXTEND BEYOND THE OVER EXCAVATED AREA A MINIMUM DISTANCE OF FIVE FEET ONTO AREAS WHERE THE SUBGRADE CONDITIONS ARE FIRM AND NON-YIELDING. THE OVER EXCAVATED AREA SHALL BE FILLED WITH MECHANICALLY COMPACTED GRAVEL BORROW MATERIAL TO THE DESIGNED SUBGRADE ELEVATION WHERE THE PRIMARY SHEET OF GEOTEXTILE FABRIC SHALL BE PLACED.

GEOTEXTILE FABRIC PLACED WITHIN THE INFILTRATION TRENCHES SHALL CONFORM TO CLASS C PRODUCT OF TABLE 5 FROM WSDOT SECTION 9-3. THE FABRIC SHALL HAVE AN APPARENT OPEN SIZE EQUAL TO THE #70 U.S SIEVE SIZE. INSTALLATION OF THIS PRODUCT SHALL BE ON THE SIDES AND OVERLAPPING THE TOP OF ALL DRAIN ROCK-FILLED TRENCHES ASSOCIATED WITH THIS PROJECT'S INFILTRATION SYSTEM. OVER THE TOP OF THE DRAIN ROCK, THE FILTER FABRIC SHALL OVERLAP NOT LESS THAN ONE-HALF TRENCH WIDTH.

ASPHALT PAVING

54. HOT MIX ASPHALT (HMA) AS SPECIFIED IN THE GEOTECHNICAL INVESTIGATION, SHALL CONFORM TO WSDOT SECTION 5-04. ALL ONSITE ASPHALT PLACEMENT SHALL CONFORM TO REQUIREMENTS OF THE CIVIL PLANS, AND THE REQUIREMENTS OF THE MATERIALS TESTING COMPANY. THE ENGINEER AND OWNER SHALL APPROVE ALL ONSITE ASPHALT IMPROVEMENTS. CITY OF ANACORTES SHALL APPROVE ANY ASPHALT IMPROVEMENTS WITHIN THE EXISTING AND PROPOSED PUBLIC RIGHT OF WAY.

ALL ASPHALT SHALL BE COMPACTED TO A MINIMUM OF NINETY-TWO PERCENT OF THE RICE DENSITY AND TESTED FOR COMPACTION BY THE CONTRACTOR'S RETAINED MATERIALS TESTING FIRM AND THE CONTRACTOR'S SUBCONTRACTOR PERFORMING THE PARTICULAR WORK. THERE IS NO ADDITIONAL PAYMENT FOR ASPHALT COMPACTION THAT IS GREATER THAN 92%.

THE CONTRACTOR IS RESPONSIBLE FOR BECOMING FAMILIAR WITH THE CIVIL PLANS THAT WERE DONE FOR THE PROJECT. THE CONTRACTOR MUST PERFORM AN ON-SITE CONSTRUCTION MEETING WITH THE OWNER'S RETAINED COMPACTION-TESTING FIRM, ENGINEER, CITY OF ANACORTES, AND THE ASPHALT PAVING CONTRACTOR, PRIOR TO ASPHALT PAVING, TO DETERMINE ANY ADDITIONAL SPECIFIC REQUIREMENTS OR CONCERNS EXPRESSED BY THE ENGINEER AND OWNER RELATIVE TO THE ONSITE ASPHALT IMPROVEMENTS, FROM CITY OF ANACORTES FOR RIGHT OF WAY ASPHALT IMPROVEMENTS.

55. POROUS AGGREGATE CONDITIONS WITHIN THE ASPHALT PAVING, THAT ARE NOT CONSISTENT WITH THE AVERAGE ASPHALT PAVING SURFACE OR ARE UNACCEPTABLE TO THE ENGINEER, OWNER, OR CITY OF ANACORTES, SHALL BE REPAIRED OR RECONSTRUCTED AT NO ADDITIONAL COST TO THE CONTRACT. IF PORTIONS OF THE ASPHALT SURFACE ARE TOO OPEN AND POROUS, THE ENTIRE ASPHALT SURFACE SHALL BE FOG-SEALED AS DIRECTED BY THE ENGINEER OR OWNER, AT NO ADDITIONAL CONTRACT AMOUNT.

ALL ABUTTING EDGES OF EXISTING ASPHALT SHALL BE NEATLY SAWCUT FULL DEPTH TO PROVIDE A NEAT, STABLE EDGE FOR THE NEW ASPHALT IMPROVEMENTS. SAWN ASPHALT FACES THAT ARE BROKEN AS A RESULT OF THIS CONSTRUCTION, OR RAVEL, SHALL BE SAWCUT AND REMOVED IMMEDIATELY PRIOR TO ASPHALT PAVING. ALL SAWCUT FACES AND THE FACE OF ABUTTING STRUCTURES SHALL BE THOROUGHLY COATED WITH ASPHALT TACK COAT MATERIAL PRIOR TO ASPHALT PAVING.

UPON COMPLETION OF ALL ASPHALT WORK, THE CONTRACTOR SHALL IMMEDIATELY, AND THOROUGHLY, CLEAN THIS SITE OF ALL LOOSE AND TRACKED ASPHALT DEBRIS. FAILURE OF THE CONTRACTOR TO PERFORM AND COMPLETE THIS WORK WITHIN TWO CALENDAR DAYS AFTER EACH PHASE OF PAVING, GIVES THE OWNER THE RIGHT TO HAVE THIS WORK DONE BY OTHERS, AT THE CONTRACTOR'S EXPENSE.

UPON COMPLETION OF ALL ASPHALT PAVING, ALL SURFACE JOINTS BETWEEN EXISTING AND NEW ASPHALT SHALL BE THOROUGHLY SEALED WITH HEAT-APPLIED AR4000 AND SAND COAT, UNLESS OTHERWISE SPECIFIED BY THE ENGINEER OR OWNER.

56. AFTER ALL PAVING IS COMPLETE, THE CONTRACTOR SHALL INSPECT AND CLEAN THE LIDS OF ALL STRUCTURES WITHIN THE AREA PAVED TO MAKE SURE THE LIDS ARE ACCESSIBLE AND CAN EASILY BE OPENED.

57. WITHIN TWENTY-FOUR HOURS PRIOR TO ASPHALT PAVING, SOIL RESIDUAL HERBICIDE SHALL BE APPLIED TO ALL SURFACES TO BE PAVED. SOIL RESIDUAL HERBICIDE SHALL CONFORM TO WSDOT SECTION 5-04.3(5)D.

58. WITHIN THE PROPOSED ASPHALT IMPROVEMENTS, THE TOPS OF ALL STRUCTURES SUCH AS MANHOLES, CATCH BASINS, VAULTS, AND WATER VALVES, SHALL BE SET AND GROUDED FLUSH WITH THE FINISHED ASPHALT GRADE. ALL STRUCTURE TOPS SHALL BE PROPERLY ALIGNED WITH THE UNDERLYING STRUCTURE.

CONCRETE STRUCTURES

59. CONCRETE SHALL BE USING CLASS 3000, AIR-ENTRAINED, WSDOT SECTION 8-14, AND WSDOT STANDARD PLAN F-30.10-00. FINISHED CONCRETE SHALL BE SPRAYED WITH A WHITE CURING COMPOUND AND COVERED WITH A REFLECTIVE-TYPE SHEETING TO PROVIDE A COVERED CURING TIME OF AT LEAST 72 HOURS. ALL JOINTS SHALL BE CLEANED AND EDGED WITH AN EDGER HAVING A ONE-QUARTER INCH RADIUS.

60. STANDARD CAST IN PLACE CEMENT CONCRETE TRAFFIC CURB AND GUTTERS CONFORM TO WSDOT SECTION 8-04 AND WSDOT STANDARD PLAN F-10.12-00. CONCRETE FOR TRAFFIC CURB AND GUTTER, AND CONCRETE FOR TRAFFIC CURB, SHALL BE THE SAME AS THAT REQUIRED FOR CONCRETE SIDEWALKS, AND SHALL BE FOUNDED ON A MINIMUM 12-INCH DEPTH OF COMPACTED GRAVEL, AS SPECIFIED, OVER A NON-YIELDING, FIRM, SUBGRADE.

THE CONTRACTOR IS RESPONSIBLE FOR FINISHING AND PROTECTING ALL CURB AND GUTTERS AS REQUIRED BY THE ENGINEER AND CITY OF ANACORTES PUBLIC WORKS DEPARTMENT.

61. AT VARIOUS LOCATIONS WITHIN THE PROJECT, A DEPRESSED CURB/GUTTER SECTION SHALL BE CONSTRUCTED. THE TOP BACK OF CURB HEIGHT SHALL BE SUFFICIENT TO CONVEY ALL RUNOFF WATERS, YET BE MOUNTABLE.

TRANSITIONS FROM A FULL-HEIGHT CURB SECTION TO A DEPRESSED CURB SECTION SHALL BE A MINIMUM OF SIX FEET LONG CONFORMING TO ADA RAMP REQUIREMENTS.

62. INSTALL 3/16-INCH THICK EXPANSION JOINT MATERIAL AT 20 FEET ON CENTER. COLD JOINTS SHALL ALSO BE PROVIDED AT ALL HIGH POINTS, LOW POINTS, AND VERTICAL ANGLE POINTS WITHIN THE CURBING.

63. ALL CONCRETE SURFACES FOR CURBS AND GUTTERS SHALL BE VERY NEATLY BROOMED AND FREE OF EXCESS CONCRETE DEBRIS. NON-UNIFORM SURFACES AND NON-BROOMED SURFACES WILL NOT BE ACCEPTED. UNACCEPTABLE CONCRETE IMPROVEMENTS SHALL BE PROMPTLY REMOVED BY THE CONTRACTOR AND REPLACED TO THE SATISFACTION OF THE OWNER AND ENGINEER, AT NO ADDITIONAL CONTRACT COST.

ALL RAMP WITHIN THE WALKING PATH SHALL CONFORM TO THE ADA PROVISIONS. THE CONTRACTOR SHALL LAY OUT ALL HANDICAP RAMPS PRIOR TO CONSTRUCTING ADJACENT SIDEWALK TO ASSURE RAMPS CONFORM TO ADA SLOPE REQUIREMENTS ARE MET. THE COLOR OF TRUNCATED DOMES SHALL BE AS ESTABLISHED BY THE CITY AND WSDOT STANDARDS. TRUNCATED DOMES SHALL BE SET INTO THE CONCRETE SO ONLY THE DOME IS ELEVATED ABOVE THE SURFACE, NOT THE PAD CONTAINING THE DOME.

64. AT ALL DRIVEWAY LOCATIONS SHALL BE CONFIRMED WITH THE OWNER PRIOR TO INSTALLATION. AT ALL CONCRETE DRIVEWAY SECTION SHALL BE EIGHT INCHES THICK REINFORCED WITH FIBER MESH, FOUNDED ON A 12 INCH THICK GRAVEL FOUNDATION.

STORM DRAINAGE

65. THE FOLLOWING PIPE MATERIALS ARE APPROVED FOR USE AS STORM DRAINAGE PRODUCTS FOR THE PROPOSED IMPROVEMENTS. WHICHEVER CHOSEN, THE SAME TYPE SHALL BE USED THROUGHOUT EACH INDIVIDUAL STORM SEWER SYSTEM BETWEEN STRUCTURES. IF A SPECIFIC MATERIAL IS IDENTIFIED ON THE CIVIL PLANS, OR HEREIN, THE CONTRACTOR SHALL PROVIDE THE INSTALLATION AS NOTED.

A. REINFORCED CONCRETE PIPE SHALL CONFORM TO SECTION 9-05.3 AND SECTION 9-05.7.

B. PVC STORM PIPES SHALL CONFORM TO WSDOT SECTION 9-05.12 (1) MEETING THE REQUIREMENTS OF ASTM D 3034, SDR 35. ALL PVC PIPES SHALL HAVE GASKETED JOINTS CONNECTED WITH INJECTION MOLDED FITTINGS ALSO WITH GASKETS. ALL PVC PIPE SHALL BE SOLID WALL, NOT PROFILE WALL.

C. CORRUGATED POLYETHYLENE PIPE (CPP) SHALL HAVE A SMOOTH BARREL INTERIOR, CORRUGATED EXTERIOR CONFORMING TO WSDOT SECTION 9-05.20 AND MEETING THE REQUIREMENTS OF AASHTO M-294. POLYETHYLENE PIPE THAT IS CORRUGATED INSIDE AND OUTSIDE IS NOT ACCEPTABLE WITHIN ANY PORTION OF THIS PROJECT. ALL JOINTS SHALL BE PREMIUM, WATER TIGHT COUPLERS WITH GASKETS. NON-GASKETED BANDS THAT ARE SECURED WITH POLYETHYLENE TIE-STRIPS ARE UNACCEPTABLE.

D. DUCTILE IRON PIPE SHALL BE CLASS 50, CONFORMING TO WSDOT SECTION 9-05.13. WITHIN THE ONSITE IMPROVEMENTS, DUCTILE IRON PIPE SHALL BE USED AT ALL LOCATIONS WHERE THE DEPTH OF COVER IS 15-INCHES OR LESS. WITHIN THE OFFSITE RIGHT OF WAY IMPROVEMENTS, DUCTILE IRON PIPE SHALL BE USED AT ALL LOCATIONS WHERE THE DEPTH OF COVER IS 24-INCHES OR LESS.

E. PERFORATED, CORRUGATED, POLYETHYLENE PIPE HAVING CORRUGATIONS OUTSIDE WITH A SMOOTH INTERIOR BARREL SHALL BE USED IN DRAINAGE TRENCHES AS NOTED ON THE CIVIL PLANS. THIS PIPE SHALL CONFORM TO WSDOT SECTION 9-05.2(7). ALL CONNECTIONS SHALL BE ACHIEVED WITH THE APPROPRIATELY SIZED FITTINGS AND ADAPTORS COMPRISED OF THE SAME MATERIAL AS THE PIPE.

PERFORATED PVC PIPE MAY ALSO BE USED PROVIDING THE PERFORATIONS ARE A SIZE THAT WILL NOT ALLOW BACKFILL MATERIALS TO MIGRATE INTO THE PIPE.

66. AT ALL LOCATIONS WHERE PIPE ENDS ARE EXPOSED AT SWALES, THE POND AND/OR DITCH INLETS AND OUTLETS, THE PIPES SHALL BE CUT WITH A 3:1 BEVELED END. AT ALL LOCATIONS WHERE STORM PIPES ENTER OR EXIT FROM A SWALE, POND OR DITCH, A QUARRY SPALL SPLASH PAD SHALL BE CONSTRUCTED AS PREVIOUSLY REFERENCED. THE SPLASH PAD SHALL BE SWALE SHAPED TO CONVEY WATER AND SHALL NOT BE AT AN ELEVATION THAT IMPEDES FLOW.

67. AT ALL LOCATIONS WHERE STORM PIPES CONNECT TO CONCRETE STRUCTURES, THE CONTRACTOR SHALL NEATLY GROUT THE INSIDE AND OUTSIDE OF THE STRUCTURE TO TOTALLY ENCOMPASS THE STORM PIPE CONNECTION. GROUTING MATERIAL SHALL BE NONSHRINK, CONCRETE-TYPE MATERIAL. THE CONSTRUCTION OF STORM PIPE CONNECTIONS TO CATCH BASIN STRUCTURES SHALL BE PERFORMED IN SUCH A WAY THAT NO GROUND WATER WILL LEAK INTO THE STRUCTURE, NOR WILL WATER LEAK FROM THE STRUCTURE. THE CONTRACTOR HAS THE OPTION OF USING RUBBER BOOTS OR OTHER DEVICES TO ASSURE NO LEAKAGE OCCURS.

AT ALL LOCATIONS WHERE PVC PIPE IS USED AT CONNECTIONS TO CONCRETE STRUCTURES, THE CONTRACTOR SHALL INSTALL A PVC/SAND COLLAR ADAPTER OR RUBBER BOOT ADAPTOR ON THE END OF THE PVC PIPE IN ORDER TO PROVIDE A CLEAN, GROUDED, WATERTIGHT CONNECTION BETWEEN THE STORM PIPE AND THE CONCRETE STRUCTURE.

68. UPON COMPLETION OF ALL SITE IMPROVEMENTS, THE CONTRACTOR SHALL THOROUGHLY FLUSH OUT ALL STORM PIPES TO REMOVE ALL DEBRIS. DEBRIS REMOVED FROM THE STORM SYSTEM IS NOT TO BE WASHED INTO THE DOWNSTREAM DRAINAGE SYSTEM. THE CONTRACTOR IS RESPONSIBLE FOR THE APPROPRIATE DISPOSAL OF ALL MATERIALS REMOVED FROM THE STORM SYSTEM CLEANING.

69. STORM CATCH BASIN STRUCTURES AND THEIR APPURTENANCES SHALL CONFORM TO THE REQUIREMENTS OF CITY OF ANACORTES PUBLIC WORKS DEPARTMENT AND THE FOLLOWING WSDOT STANDARD PLANS:

TYPE I CATCH BASIN-STANDARD PLAN B-5.20-00
TYPE II CATCH BASIN-STANDARD PLAN B-5.40-00
SOLID METAL COVER FOR CATCH BASINS-STANDARD PLAN B-30.10-00 AND B-30.20-01
METAL FRAME AND GRATE-STANDARD PLAN B-30.10-00 AND B-30.50-00
CATCH BASIN TYPE II-489, 60? 96? INCH-STANDARD PLAN B-10.20-00
MISCELLANEOUS DETAILS FOR DRAINAGE STRUCTURES-STANDARD PLAN B-30.90-00

IF SUBGRADE CONDITIONS ARE SOFT BELOW PROPOSED STRUCTURES, THE FOUNDATION SHALL BE OVER-EXCAVATED TWO FEET BELOW THE STRUCTURE AND TO THREE FEET BEYOND THE PERIMETER EDGE OF THE STRUCTURE AND FILLED WITH MECHANICALLY COMPACTED QUARRY SPALLS TO PROVIDE FOR A FIRM, DENSE, NON-YIELDING SUBGRADE CONDITION. THE BOTTOM AND SIDES OF THE OVER-EXCAVATION SHALL BE LINED WITH GEOTEXTILE FABRIC AS SPECIFIED FOR THE ROAD SUBGRADE.

70. AT THE END OF ALL STORM SEWER SERVICES, THE CONTRACTOR SHALL INSTALL A MARKER POST AS INDICATED ON THE CIVIL PLANS. THE MARKER POST SHALL BE INSTALLED VERTICALLY PLUMB, PAINTED WHITE AND NEATLY STENCILED WITH LARGE BLACK LETTERS, THE WORD "SEWER" AS WITH ALL UTILITIES, THE MARKER POST MUST BE INSTALLED AT THE SAME TIME AS THE UTILITY.

71. AT VARIOUS LOCATIONS WITHIN THE STORM DRAINAGE SYSTEMS, CLEAN OUT ASSEMBLIES ARE IDENTIFIED. CLEAN OUT ASSEMBLIES SHALL BE INSTALLED AT THE LOCATIONS AND ELEVATIONS AS IDENTIFIED ON THE CIVIL PLAN. WITHIN LANDSCAPED AREAS, THE TOP OF THE CLEAN OUT SHALL COMPRISE ITS CAP, SET FLUSH WITH THE FINISHED LANDSCAPE GRADE.

WITHIN HARD SURFACED AREAS, THE TOP OF THE CLEAN OUT CAP SHALL BE CONTAINED WITHIN A CONCRETE OR ALUMINUM FOG-TIGHT ENCLOSURE, WITH THE CLEAN OUT CAP SET WITHIN THREE TO SIX INCHES BELOW THE ENCLOSURES LID. AT ALL LOCATIONS WHERE THE FOG-TIGHT ENCLOSURE IS INSTALLED, IT SHALL BE SET FLUSH WITH THE FINISHED HARD SURFACED GRADE.

SANITARY SEWER

72. SANITARY SEWER PIPE SHALL BE PVC CONFORMING TO WSDOT SECTION 9-05.12(1) MEETING THE REQUIREMENTS OF ASTM D 3034, SDR 35. ALL JOINTS SHALL BE BELL AND SPIGOT TYPE WITH RUBBER GASKETS. ALL MATERIALS AND CONSTRUCTION SHALL CONFORM TO WSDOT SECTION 7-08 AND 7-17 AND REQUIREMENTS OF THE CITY OF ANACORTES SEWER DEPARTMENT. THE CITY OF ANACORTES SEWER DEPARTMENT MUST BE CONTACTED PRIOR TO THE SEWER INSTALLATION TO COORDINATE THE CITY'S INSPECTION REQUIREMENTS.

73. THE CONTRACTOR IS RESPONSIBLE FOR INSTALLING ALL COMPONENTS OF THE SANITARY SYSTEM IN SUCH A MANNER AS TO PREVENT ANY GROUNDWATER INTRUSION.

74. THE CONTRACTOR SHALL CONDUCT AN AIR PRESSURE TEST OF EACH NEW INDIVIDUAL SANITARY SEWER MAIN BETWEEN THE MANHOLE AND THE ENDS OF PIPE. THE SANITARY SEWER PIPE SHALL BE AIR-PRESSURE TESTED AT A PRESSURE EQUAL TO 4 PSI IN EXCESS OF THE ESTIMATED WATER TABLE HEAD OVER THE PIPE. THE AIR PRESSURE TEST SHALL BE PERFORMED FOR A TEN-MINUTE PERIOD. DURING THE PRESSURE TEST NO NOTICEABLE CHANGE IN GAUGE PRESSURE SHALL OCCUR. THE CONTRACTOR IS RESPONSIBLE FOR RESTRAINING ALL PIPE ENDS, CLEANOUTS, AND SERVICES DURING THIS TESTING PERIOD. THIS TEST MUST BE MONITORED BY THE ENGINEER AND THE CITY.

75. AT THE ENDS OF ALL SANITARY SEWER SERVICES, THE CONTRACTOR SHALL INSTALL A CAP ON THE END OF PIPE AND INSTALL A MARKER POST. THE MARKER POST SHALL BE INSTALLED VERTICALLY PLUMB, PAINTED WHITE, AND STENCILED WITH LARGE BLACK LETTERS, THE WORD "SEWER" AND THE DEPTH OF BURY FROM THE ADJACENT FINISHED GRADE. THE MARKER POST MUST BE SET AT THE TIME THE UTILITY IS INSTALLED.

76. AT LOCATIONS WHERE PROPOSED SEWER LINES CROSS EXISTING OR PROPOSED WATERLINES, THE INTERSECTION OF THE SEWER PIPE AND THE WATER PIPE SHALL BE AT A MID-PIPE LOCATION FOR THE PVC SEWER PIPE AS WELL AS THE MID-PIPE LOCATION FOR DUCTILE IRON WATER PIPE. AT THESE INTERSECTIONS, A MINIMUM ONE-FOOT OF VERTICAL CLEARANCE BETWEEN THE PIPE-WALLS SHALL BE ACHIEVED.

77. CLEANOUT ASSEMBLIES WITHIN THE SANITARY SEWER SYSTEM SHALL BE INSTALLED AT THE LOCATION AND ELEVATIONS IDENTIFIED ON THE CIVIL PLANS, AND AS NECESSARY TO ACCOMMODATE EACH SANITARY SEWER SERVICE. THE CONTRACTOR IS RESPONSIBLE FOR SETTING THE TOP OF THE CLEANOUT ASSEMBLY WITHIN 3? - 6? BELOW THE ENCLOSURE ASSEMBLY'S LID. CLEANOUT ASSEMBLIES SHALL CONFORM TO WSDOT STANDARD PLAN B-85.40-00, THE REQUIREMENTS OF THE CITY OF ANACORTES SEWER DEPARTMENT, CITY OF ANACORTES PUBLIC WORKS, AND THE DETAIL PROVIDED ON THE CIVIL PLANS. ALL CLEANOUT ASSEMBLIES THAT ARE INSTALLED WITHIN FUTURE HARD SURFACED AREAS SUCH AS GRAVEL, CRUSHED ROCK, ASPHALT, CONCRETE, OR HEAVY TRAFFIC AREAS, SHALL BE CONTAINED WITHIN A CAST IRON OR ALUMINUM FOG-TITE LID ASSEMBLY. THE FOG TITE LID ASSEMBLY SHALL BE SIZED APPROPRIATELY TO ALLOW REMOVAL OF THE CAP ON THE TOP PORTION OF THE VERTICAL CLEANOUT STANDPIPE ASSEMBLY. CLEANOUT ASSEMBLIES WITHIN LANDSCAPE AREAS SHALL HAVE THEIR TOP CAP SET FLUSH WITH THE FINISHED LANDSCAPE GRADE.

WATER

78. STANDARD SPECIFICATIONS SHALL BE WASHINGTON STATE DEPARTMENT OF TRANSPORTATION 2020 STANDARD SPECIFICATIONS FOR ROAD, BRIDGE, AND MUNICIPAL CONSTRUCTION, APWA CURRENT STANDARDS AND THE CITY OF ANACORTES WATER DEPARTMENT REQUIREMENTS. SPECIFIC SPECIFICATIONS FROM THE CITY ARE PROVIDED ON THE CIVIL PLANS, AND SHALL BE CONFORMED TO WHERE THERE IS A DISCREPANCY IN THE WATER SYSTEM SPECIFICATIONS HEREIN AND THOSE FROM THE CITY, THE MOST STRINGENT SHALL APPLY UNLESS OTHERWISE APPROVED BY THE CIVIL ENGINEER AND THE CITY OF ANACORTES.

79. CONTRACTOR IS RESPONSIBLE FOR REVIEWING THE CITY REQUIREMENTS THOROUGHLY PRIOR TO COMMENCING WORK.

80. ANY PERMITS OR OTHER REQUIREMENTS THAT WILL BE NEEDED TO COMPLETE THIS PROJECT WILL BE THE RESPONSIBILITY OF THE CONTRACTOR AND/OR THE DEVELOPER.

81. A PRECONSTRUCTION CONFERENCE MUST BE SCHEDULED BY THE CONTRACTOR WITH THE CITY PRIOR TO CONSTRUCTION. AT THE PRECONSTRUCTION MEETING, THE CONTRACTOR MUST PROVIDE A LIST OF ALL MATERIALS, WATERLINE INSTALLATION AND TESTING SCHEDULE, CONTRACTOR'S LICENSE AND OTHER INFORMATION AND CERTIFICATIONS REQUIRED BY CITY OF ANACORTES ENGINEERING AND WATER DEPARTMENTS.

82. THE UTILITY LOCATIONS MARKED ON THIS MAP ARE APPROXIMATE. THE CONTRACTOR IS TO VERIFY THE ACTUAL LOCATION AND DEPTH OF ALL WATERLINES PRIOR TO CONSTRUCTION. THE ONE-CALL UTILITY LOCATE SERVICE SHALL BE CONTACTED PRIOR TO CONSTRUCTION AT 811.

83. BEFORE CONNECTION TO AN EXISTING WATER MAIN, ALL NEW WATER MAINS AND REPAIRED PORTIONS OF/OR EXTENSION TO EXISTING MAINS SHALL BE ADEQUATELY CHLORINATED, HYDROSTATICALLY PRESSURE TESTED, AND A SATISFACTORY BACTERIOLOGICAL REPORT OBTAINED. BACTERIA SAMPLING AND TESTING SHALL BE PERFORMED TO THE REQUIREMENTS OF CITY OF ANACORTES WATER DEPARTMENT AND THE SKAGIT COUNTY HEALTH DEPARTMENT. THE CONTRACTOR IS RESPONSIBLE FOR COORDINATING WITH THESE JURISDICTIONS TO OBTAIN WATER SAMPLING DEVICES, OBTAINING THE WATER SAMPLES AS REQUIRED BY THE CITY OF ANACORTES WATER AND PUBLIC WORKS DEPARTMENTS, AND SUBMITTING ALL SAMPLES FOR TESTING. THE CONTRACTOR IS RESPONSIBLE FOR ALL TESTING FEES.

84. ALL TIE-INS, SHUTDOWN, FLUSHING, AND HEALTH SAMPLES SHALL BE COORDINATED WITH THE CITY. THE CONTRACTOR SHALL NOT OPERATE ANY VALVES WITHOUT CITY APPROVAL. THE CONTRACTOR IS RESPONSIBLE FOR RETURNING THE VALVES TO THEIR PROPER POSITIONS, AS DIRECTED BY THE CITY.

85. NO CONNECTION SHALL BE MADE BETWEEN THE EXISTING DISTRIBUTION SYSTEM AND THE NEW PIPELINE UNTIL THE NEW SYSTEM HAS BEEN PROPERLY DISINFECTED AND ADEQUATELY FLUSHED. A PROPER WASHINGTON STATE APPROVED REDUCED PRESSURE BACKFLOW PREVENTION ASSEMBLY SHALL BE INSTALLED AT THE CONNECTION (BY WAY OF A JUMPER). THE ASSEMBLY SHALL HAVE BEEN TESTED AS REQUIRED BY THE CITY AND PER WSDOT SECTION 7-09.

86. THE CONTRACTOR IS RESPONSIBLE FOR ALL GRAVEL TRENCH BACKFILL WITHIN WATERLINE TRENCHES AND RESTORATION OF THE TRENCH CONDITIONS TO THE FINISHED CONDITION REQUIRED.



ENGINEER

DATE

THIS PLAN SHEET IS ACCEPTED FOR CONSTRUCTION IN ACCORDANCE WITH THE CITY OF ANACORTES ORDINANCES AND POLICES. ACTUAL CONFORMANCE OF THE DESIGN WITH APPLICABLE LAWS IS THE SOLE RESPONSIBILITY OF THE PROFESSIONAL ENGINEER, WHOSE NAME AND STAMP APPEAR ON THIS SHEET. ACQUIRING, COMPLYING WITH, AND PROVIDING MITIGATION FOR ALL FEDERAL, STATE, COUNTY, AND LOCAL LAWS, PERMITS, AND MANDATES, INCLUDING BUT NOT LIMITED TO THE ENDANGERED SPECIES ACT, FEDERAL WETLAND PERMIT, STATE DEPARTMENT OF FISHERIES AND HYDRAULICS PERMIT, FEDERAL FLOOD PLAN PERMITS, NATIONAL POLLUTANT DISCHARGE ELIMINATION SYSTEM PERMIT IS THE RESPONSIBILITY OF THE DEVELOPER, LAND OWNER, AND THEIR ENGINEER. THE ISSUANCE OF THIS PERMIT SHALL NOT BE CONSTRUED AS PROOF OF COMPLIANCE WITH APPLICABLE LAWS AND PERMIT REQUIREMENTS.

CITY ENGINEER DATE

CONSTRUCTION FOR THE ACCEPTED PROJECT IS TO START WITHIN 1 YEAR OF THE DATE.

REV. NO.	REVISION	DATE	BY	APPROVED

Ravnik & Associates, Inc.
CIVIL ENGINEERING & LAND-USE PLANNING
1633 LINDAMOOD LANE/P.O. BOX 361
BURLINGTON, WA 98233
PH: (360) 707-2048 FAX: (360) 707-2216

SHEET DESCRIPTION: SPECIFICATIONS (2)	SCALE: AS SHOWN	SHEET TITLE: CHERRY COURT SHORT PLAT FOR CORNER 9 PROPERTIES, LLC SW 1/4 SECTION 25, T. 35 N., R. 1 E., W.M.	DRAWING NO. 19013.SPECS.dwg
	DRAWN BY: D. REMSEN		JOB NO. 19013
	CHECKED BY: HLN		SHEET NO.
	DATE: 08.04.20		10 OF 11

87. MAXIMUM TRENCH DEPTH SHALL BE 48 INCHES BELOW FINISHED GRADE ELEVATION WITH MINIMUM COVER OF 36 INCHES OVER TOP OF PIPE UNLESS OTHERWISE SPECIFIED ON THE CIVIL PLAN, AND AS NECESSARY TO AVOID CONFLICTS WITH OTHER UTILITIES. A MINIMUM OF 1-FOOT VERTICAL CLEARANCE AND 5-FOOT HORIZONTAL CLEARANCE BETWEEN WATER PIPELINE AND ALL OTHER UTILITIES UNLESS OTHERWISE SPECIFIED. WATER PIPELINE HORIZONTAL AND VERTICAL ALIGNMENTS ARE REQUIRED TO BE STAKED ON A MAXIMUM 50-INTERVAL, OR AS REQUIRED BY THE CITY.

LOCATIONS WHERE PROPOSED WATERLINES CROSS EXISTING OR PROPOSED SEWER LINES, THE INTERSECTION OF THE WATER PIPE AND THE SEWER PIPE SHALL BE AT A MID-PIPE LOCATION FOR THE WATER PIPE AS WELL AS A MID-PIPE LOCATION FOR THE SEWER PIPE. AT THESE POINTS OF INTERSECTION, A MINIMUM OF 12 INCHES VERTICAL CLEARANCE MUST BE MAINTAINED BETWEEN WATER MAINS AND SEWER MAINS.

88. CONTRACTOR IS RESPONSIBLE FOR ALL EXCAVATIONS, INSTALLATION OF DOMESTIC SERVICE TAPS, INSTALLTION OF WATER SERVICE PIPE, AND MARKER POSTS AT EACH END OF WATER PIPE FOR FUTURE DOMESTIC SERVICES.

89. ALL MATERIALS SHALL BE APPROVED BY CITY OF ANACORTES WATER DEPARTMENT PRIOR TO CONSTRUCTION. PRIOR TO THE PRE-CONSTRUCTION MEETING, THE CONTRACTOR IS REQUIRED TO PROVIDE INFORMATION AS REQUIRED BY THE CITY WATER DEPARTMENT WHICH MAY INCLUDE A LIST OF ALL MATERIALS IDENTIFYING MODEL NUMBER, MANUFACTURER, SIZE, AND COMPOSITION. CONTRACTOR IS RESPONSIBLE FOR COORDINATING WITH THE CITY WATER AND PUBLIC WORKS DEPARTMENT TO DETERMINE EXACTLY WHAT INFORMATION WILL BE REQUIRED.

90. DUCTILE IRON PIPE SHALL BE A MINIMUM OF CLASS 50 AWWA C151 PER WSDOT STANDARD SPECIFICATIONS 9-30.1 AND 9-30.1(1). ALL JOINTS SHALL BE RUBBER GASKETS WITH TYTON TYPE OR MECHANICAL JOINT MEETING AWWA SPECIFICATIONS.

91. A #10 SOLID CORE COPPER WIRE WITH BLUE INSULATION IS TO BE INSTALLED WITH, AND ATTACHED TO, ALL NEW WATER PIPELINES AND SERVICE PIPELINES. REFER TO CITY DETAILS FOR INSTALLATION REQUIREMENTS.

92. ALL VALVES ARE TO BE RESILIENT SEATED GATE VALVES PER AWWA C509 OR C515.

93. BLOCK ALL FITTINGS WITH POURED CONCRETE ACCORDING TO THE CITY OF ANACORTES WATER DEPARTMENT STANDARD DETAIL AND AS IDENTIFIED ON THE CIVIL PLANS. RESTRAINED JOINTS MAY BE USED IN PLACE OF CONCRETE BLOCKING AS DIRECTED BY THE PROJECT DESIGN ENGINEER AND AS ACCEPTED BY THE CITY WATER DEPARTMENT. AT LOCATIONS WHERE JOINT RESTRAINT AND THRUST BLOCKS ARE NOTED, BOTH SHALL BE INSTALLED.

94. ALL DUCTILE IRON PIPE MUST BE COMPLETELY WRAPPED WITH POLYETHYLENE PIPE ENCASEMENT, WHICH IS A MINIMUM OF EIGHT MIL THICK AND INSTALLED PER WSDOT STANDARDS AND IN ACCORDANCE WITH AWWA C105 AND WSDOT STANDARD SPECIFICATION 7-09.3(17) AND 9-30.1(2). POLYETHYLENE SHALL BE TAPED TIGHT AGAINST THE PIPE AT ENDS AND MIDPOINTS, WHILE MAINTAINING AN OVERLAP BETWEEN SECTIONS OF WRAP.

95. PRESSURE TEST NEW DUCTILE IRON PIPELINE AT 150 PSI IN EXCESS OF THE MAXIMUM OPERATING PRESSURE PER WSDOT STANDARDS. TEST PRESSURE SHALL NOT BE LESS THAN 250 PSI. TESTING SHALL BE OBSERVED AND APPROVED BY THE CITY.

96. THE CONTRACTOR IS RESPONSIBLE FOR CHLORINATING ALL PORTIONS OF THE NEW WATERLINE AS REQUIRED BY WSDOT SPECIFICATIONS. CHLORINATED WATER SHALL SOAK A MINIMUM OF 24 HOURS AND AS PER WSDOT STANDARDS. FLUSHING WATER MUST BE DISCHARGED INTO A TANKER TRUCK FOR OFF-SITE DISPOSAL, OR FLUSHING WATER MAY BE DEPOSITED INTO THE PUBLIC SANITARY SEWER SYSTEM ONLY UPON APPROVAL FROM THE CITY OF ANACORTES SEWER TREATMENT PLANT. ABSOLUTELY NO PORTION OF CHLORINATED FLUSHING WATER SHALL BE ALLOWED TO ENTER THE DRAINAGE SYSTEM, ADJOINING ACE OF HEARTS CREEK, OR BE SPRAYED UPON THE SITE.

97. AT THE PRECONSTRUCTION MEETING FOR THE PROPOSED PROJECT IMPROVEMENTS, THE CONTRACTOR SHALL PROVIDE AN APPROPRIATE PLAN AND SCHEDULE FOR ALL WATER PIPE INSTALLATION, FLUSHING, PRESSURE TESTING, DISPOSAL OF CHLORINATED WATER, AND CONNECTIONS.

98. COORDINATE ALL SHUTDOWN, FLUSHING, AND HEALTH SAMPLES WITH CITY OF ANACORTES WATER DEPARTMENT INSPECTOR.

99. FLUSHING ASSEMBLIES, CONFORMING TO THE CITY OF ANACORTES WATER DEPARTMENT DETAIL, SHALL BE INSTALLED AS IDENTIFIED ON THE CIVIL PLANS AND AS NECESSARY FOR THE TESTING AND FLUSHING OF THESE WATER SYSTEM IMPROVEMENTS.

100. BEDDING AND PIPE COVER SHALL BE SELECT, NATIVE, GRANULAR MATERIAL FREE FROM WOOD WASTE, ORGANIC MATERIAL, OR OTHER EXTRANEOUS OR OBJECTIONABLE MATERIALS AND SHALL BE A MAXIMUM SIZE OF 1.5 INCHES OR APPROVED PIPE BEDDING PER WSDOT STANDARDS 7-09.3(9) AND 9-03.12(3). THE CONTRACTOR SHALL MAKE ALL PAVEMENT REPAIRS AND PERFORM ALL RESTORATION. TRENCH BACKFILL REQUIREMENTS SHALL CONFORM TO THE SPECIFICATIONS HEREIN WITHIN THE UTILITY TRENCH SECTION. PEA GRAVEL AND BUCKSHOT SHALL NOT BE USED WITHIN ANY PORTIONS OF THE WATERLINE TRENCH.

101. ALL SALVAGED USABLE WATER SYSTEM MATERIALS ARE TO BE DELIVERED TO THE CITY OF ANACORTES WATER DEPARTMENT OR AS DIRECTED BY THE CITY OF ANACORTES WATER DEPARTMENT.

UTILITY TRENCHES

102. ALL UTILITY TRENCHES FOR POWER, GAS, TELEPHONE, TELEVISION CABLE, FIBER OPTIC, WATER LINES, SANITARY SEWER, AND STORM DRAINS SHALL BE EXCAVATED TO ALLOW A MINIMUM OF EIGHT INCHES BETWEEN THE EDGE OF THE UTILITY AND THE TRENCH WALL. TRENCHES SHALL BE EXCAVATED TO THE DEPTH AS REQUIRED FOR GRAVITY UTILITIES AND SHALL BE EXCAVATED TO ALLOW A MINIMUM OF 36-INCHES OF COVER OVER THE TOP OF PROPOSED WATERLINES TO THE FINISHED GRADE. THE DEPTH OF THE UTILITY TRENCHES FOR POWER, TELEPHONE, TELEVISION CABLE, FIBER OPTIC, AND GAS, SHALL CONFORM TO THE REQUIREMENTS OF THE SPECIFIC UTILITY COMPANY. THE CONTRACTOR SHALL COORDINATE ALL SITE REQUIREMENTS AND SCHEDULING WITH THE NECESSARY UTILITY COMPANIES.

103. ALL UTILITY TRENCHES, REGARDLESS OF UTILITY TYPE, SHALL BE INSTALLED WITH MARKING TAPE CONFORMING TO WSDOT SECTION 9-15.18. MARKING TAPE SHALL BE SIX-INCH WIDE AND COLOR-CODED AS REQUIRED BY THIS WSDOT SECTION AND SHALL BE INSTALLED AT A LOCATION 12 TO 18 INCHES BELOW THE FINISHED GRADE. MARKING TAPE SHALL BE POLYETHYLENE PLASTIC COLORED AND LABELED AS FOLLOWS:

WATER-BLUE
SEWER-GREEN
ELECTRICAL-RED
GAS-OIL-YELLOW
TELEPHONE-CATV-ORANGE

THE TAPE WIDTH SHALL BE A MINIMUM OF SIX INCHES.

104. UNLESS OTHERWISE SPECIFIED HEREIN, ALL UTILITIES SHALL BE BED ON A MINIMUM OF SIX INCHES OF SAND, BUCKSHOT, OR GRAVEL 100 PERCENT PASSING THE QUARTER-INCH SCREEN. BEDDING TYPE MATERIAL SHALL ALSO BE PLACED TO SIX INCHES OVER THE TOP OF EACH UTILITY PIPE. ALL BEDDING MATERIAL AND PIPE COVERING MATERIAL SHALL BE THOROUGHLY HAND COMPACTED ALONG THE SIDES AND OVER THE TOP OF EACH INDIVIDUAL UTILITY AND CONDUIT. REGARDLESS OF LOCATION, ALL UTILITIES SHALL BE BED AND COVERED AS SPECIFIED.

PEA GRAVEL AND BUCKSHOT SHALL NOT BE USED WITHIN ANY PORTIONS OF THE WATER SYSTEM.

EITHER PEA GRAVEL OR BUCKSHOT SHALL BE USED WITHIN SANITARY SEWER PIPE TRENCHES.

105. THE BOTTOM OF UTILITY TRENCHES SHALL HAVE A STABLE, NON-YIELDING SOIL CONDITION, SUITABLE FOR SUPPORTING THE DESIGN LOAD. WHERE THE BOTTOM OF TRENCH CONDITIONS EXHIBIT PUMPING, YIELDING CONDITIONS, THE BOTTOM OF THE TRENCH SHALL BE OVER-EXCAVATED TO EXPOSE A FIRM, STABLE, NON-YIELDING MATERIAL AND BACKFILLED WITH AN 18-INCH THICK COMPACTED BED OF QUARRY SPALLS, TO THE BOTTOM OF THE REQUIRED UTILITY BEDDING MATERIAL, AS DIRECTED BY THE SOILS ENGINEER.

106. TRENCH BACKFILL SHALL CONSIST OF STRUCTURAL FILL MATERIAL AS SPECIFIED. STRUCTURAL FILL TRENCH BACKFILL IS REQUIRED IN ALL TRENCHES UNDER PROPOSED ASPHALT, CONCRETE, CRUSHED ROCK, FUTURE BUILDING FOOTPRINTS, AND HEAVY CONSTRUCTION TRAFFIC AREAS AND TO AN EXTENT OF THREE FEET BEYOND THE ABOVE LISTED CONDITIONS. ALL STRUCTURAL FILL MATERIAL WITHIN UTILITY TRENCHES SHALL BE COMPACTED TO A MINIMUM OF 95 PERCENT OF THE MAXIMUM DRY DENSITY, AT A MOISTURE CONTENT PLUS OR MINUS TWO PERCENT FROM OPTIMUM, REGARDLESS OF DEPTH, AND TESTED ACCORDING TO THE ASTM TEST METHOD D-1557, AS SPECIFIED.

107. NATIVE SOIL MATERIALS MAY BE USED AS TRENCH BACKFILL ONLY AT LOCATIONS BEYOND THOSE REQUIRING GRAVEL STRUCTURAL FILL, PROVIDING THEY ARE OUTSIDE OF EXISTING AND PROPOSED RIGHT OF WAYS.

AT LOCATIONS WHERE NATIVE SOIL IS USED AND RESULTS IN A PUMPING, UNSTABLE TRENCH CONDITION, OR THE SOILS USED CONTAIN UNSUITABLE PRODUCTS, THE CONTRACTOR SHALL REMOVE ALL UNSUITABLE MATERIALS AND REPLACE WITH APPROPRIATE NATIVE MATERIALS, OR IMPORTED GRAVEL STRUCTURAL FILL MATERIAL AT NO ADDITIONAL COST TO THIS CONTRACT. NATIVE MATERIAL SHALL BE COMPACTED TO A MINIMUM OF 90 PERCENT DRY DENSITY AT A MOISTURE CONTENT PLUS OR MINUS OF TWO PERCENT FROM OPTIMUM.

COMPACTION TESTING

108. THE OWNER WILL RETAIN PERSONNEL LICENSED AND EXPERIENCED IN PERFORMING SUBGRADE INSPECTIONS AND COMPACTION TESTING FOR GRAVEL PLACEMENT AND ASPHALT PAVING. PROVIDED BELOW IS A LIST OF REQUIRED COMPACTION TESTING AREAS. IF WORK CONDITIONS INDICATE SUBSTANDARD COMPACTION, THE ENGINEER, OWNER, CITY OF ANACORTES RESERVE THE RIGHT TO REQUIRE THE CONTRACTOR TO PERFORM ADDITIONAL WORK AS NECESSARY TO RESOLVE ALL DEFICIENCIES AND RESERVE THE RIGHT TO REQUIRE THE CONTRACTOR TO HAVE COMPACTION TESTS PERFORMED TO SUBSTANTIATE WORK.

THE CONTRACTOR IS RESPONSIBLE FOR ALL COSTS ASSOCIATED WITH RETESTING COMPACTION AT AREAS THAT PREVIOUSLY FAILED COMPACTION TESTING. IF THE CONTRACTOR DOES NOT SEPARATELY RETAIN A MATERIALS TESTING COMPANY, COSTS INCURRED BY THE OWNER FOR RETESTING OF PREVIOUSLY-TESTED FAILED AREAS SHALL BE DEDUCTED BY THE OWNER FROM MONIES OWNED TO THE CONTRACTOR.

109. WITHIN ALL UTILITY TRENCHES, THE CONTRACTOR SHALL COORDINATE COMPACTION TESTS ON THE TOP OF GRAVEL GRADE. TESTS SHALL BE PERFORMED WITHIN UTILITY TRENCHES AT 50-FOOT INTERVALS. WITHIN TRENCHES HAVING MORE THAN FIVE FEET OF GRAVEL BACKFILL-DEPTH, TESTS SHALL ALSO BE TAKEN AT THE MID-DEPTH OF GRAVEL, AT 50-FOOT INTERVALS.

110. THERE ARE STRUCTURES WITHIN THE GRAVEL-FILLED AREA SUCH AS CATCH BASINS AND VALVE CASINGS. AROUND ALL STRUCTURES, TWO COMPACTION TESTS SHALL BE PERFORMED AT EACH STRUCTURE WITHIN ONE TO TWO FEET OF THE STRUCTURE, TO CONFIRM BACKFILL PLACEMENT.

111. THE CONTRACTOR IS RESPONSIBLE FOR COORDINATING GRAVEL COMPACTION TESTS AFTER EVERY TWO-FOOT INTERVAL OF PLACEMENT IS ACHIEVED. GRAVEL COMPACTION TESTS SHALL BE TAKEN ON A FIFTY FOOT GRID, EACH DIRECTION, THROUGHOUT THE ENTIRE PROJECT SITE.

112. THE CONTRACTOR IS RESPONSIBLE FOR COORDINATING WITH THE OWNER'S RETAINED MATERIALS TESTING COMPANY TO ASSURE THAT ALL COMPACTION TESTING IS PERFORMED AS IDENTIFIED HEREIN. IF THE CONTRACTOR FAILS TO COORDINATE HAVING COMPACTION TESTS PERFORMED, AT THE CONTRACTORS EXPENSE, THE CONTRACTOR WILL BE RESPONSIBLE FOR EXCAVATING AND EXPOSING SUFFICIENT AREAS FOR COMPACTION TESTING TO BE PERFORMED AS REQUIRED BY THE ENGINEER. THE CONTRACTOR IS THE RESPONSIBLE PARTY FOR CONTACTING THE OWNER'S RETAINED MATERIALS TESTING FIRM. THE CONTRACTOR SHALL CONTACT THE TESTING FIRM WHEN THE CONTRACTOR FEELS THE COMPLETED WORK IS SUFFICIENT AND READY FOR RECEPTION TESTING. AT ALL LOCATIONS WHERE COMPACTION TEST RESULTS ARE INSUFFICIENT, THE CONTRACTOR IS RESPONSIBLE FOR PERFORMING ALL NECESSARY WORK TO RESOLVE THE CONDITION, AND FOR HAVING FURTHER COMPACTION TESTS PERFORMED TO SUBSTANTIATE THAT THE WORK MEETS THE SPECIFICATIONS HEREIN.

113. PRIOR TO ASPHALT PAVING, THE CONTRACTOR MUST COORDINATE AN ON-SITE CONSTRUCTION MEETING WITH THE ASPHALT PAVING COMPANY, CITY, OWNER, MATERIALS TESTING COMPANY AND THE PROJECT ENGINEER.

114. THE MATERIALS TESTING COMPANY MUST BE ON SITE AT THE ONSET OF ALL PAVING OPERATIONS, EACH DAY, TO MONITOR ASPHALT PLACEMENT, COMPACTION, AND NECESSARY ROLLING PATTERNS.

THE MATERIALS TESTING COMPANY MUST INSPECT AND TEST ALL ASPHALT PLACEMENT AND SHALL ASSIST THE ASPHALT PAVING COMPANY IN ACHIEVING THE MINIMUM ACCEPTABLE ASPHALT COMPACTION OF 92% RICE DENSITY.

114. WITHIN ALL NEW BERMS AT THE DETENTION POND, COMPACTION OF NATIVE CLAY MATERIALS SHALL BE CONDUCTED AT NO MORE THAN 2 FOOT DEPTH INTERVALS TO SUBSTANTIATE THE ENTIRE CLAY PLACEMENT AT NOT LESS THAN 90 PERCENT DENSITY.

CONDUITS

115. WITHIN THE PROJECT AREA, CONDUITS NOT IMMEDIATELY USED SHALL BE INSTALLED WITH VERTICALLY-ORIENTED LARGE-RADIUS SWEEPS, VERTICAL EXTENSIONS AS NECESSARY TO EXTEND ABOVE GROUND, PVC END CAPS, NYLON PULL STRING, AND MARKER POSTS. TYPICALLY, ALL CONDUITS SHALL BE INSTALLED AT 36-INCHES OF COVER, TO AVOID CONFLICTS WITH OTHER UTILITIES. THE MINIMUM DEPTH OF COVER FOR CONDUITS SHALL BE 24 INCHES BELOW FINISH GRADE. ALL CONDUIT TRENCHES SHALL INCLUDE MARKER TAPE AS SPECIFIED.

116. PRIOR TO PERFORMING SITE CONSTRUCTION, THE CONTRACTOR SHALL COORDINATE WITH PUGET SOUND ENERGY, FRONTIER TELEPHONE, CASCADE NATURAL GAS, AND BLACK ROCK CABLE, AND OTHER APPLICABLE UTILITY COMPANIES FOR ALL CONDUITS AND ROAD-CROSSING CASINGS NECESSARY TO SERVE THEIR SPECIFIC UTILITIES.

117. BEDDING MATERIAL FOR THE CONDUIT SHALL BE OF A QUALITY SUITABLE TO ALL UTILITY COMPANIES. PRIOR TO CONSTRUCTION, THE CONTRACTOR SHALL COORDINATE WITH EACH UTILITY COMPANY AS TO BEDDING MATERIAL, CONDUIT, COVER MATERIAL, AND TRENCH BACKFILL REQUIREMENTS.

THE CONTRACTOR SHALL PERFORM ALL TRENCHING FOR THE INSTALLATION OF ALL CONDUITS, VAULTS, PEDESTALS, AND HAND HOLES ASSOCIATED WITH THE UTILITIES SERVING THIS PROJECT.

THE CONTRACTOR SHALL PROVIDE AND INSTALL ALL CONDUITS REQUIRED FOR THIS PROJECT. ALL CONDUITS ASSOCIATED WITH ELECTRICAL SERVICES SHALL BE PERMITTED THROUGH THE DEPARTMENT OF LABOR AND INDUSTRIES AND INSPECTED BY THE SAME.

SEED, FERTILIZER, MULCH AND LANDSCAPING

118. DURING THE COURSE OF CONSTRUCTION, EXCAVATION WILL BE PERFORMED IN NATIVE SOILS, CONSISTING OF SOD, ORGANIC TOPSOIL, AND COMPACTED SILTY MATERIALS AS NOTED WITHIN THE GEOTECHNICAL REPORT FOR THIS PROJECT. THE CONTRACTOR MUST REVIEW THIS GEOTECHNICAL REPORT PRIOR TO CONSTRUCTION.

119. FOR THE PURPOSES OF LANDSCAPE FILL WITHIN PLANTER STRIPS, TRANSITION GRADING BEHIND CURBS AND ROAD EDGES, AND SITE GRADING TO FILL THE LOWEST PROJECT AREAS, CLEAN NATIVE ORGANIC TOPSOIL MATERIALS SHALL BE USED AS FILL. NATIVE SOILS SHALL NOT BE USED AT ANY LOCATION WHERE STRUCTURAL FILL (GRAVEL) IS REQUIRED AND NEEDED. DURING THE COURSE OF CONSTRUCTION, CLEAN NATIVE ORGANIC SOILS SHALL BE STOCKPILED AND COVERED FOR EVENTUAL USE AS LANDSCAPE FILL AND LANDSCAPE GRADING. REGARDLESS OF LOCATION, THE PLACEMENT OF TOPSOILS AND NATIVE SOILS SHALL BE MECHANICALLY COMPACTED TO A MINIMUM OF 90 PERCENT MAXIMUM DRY DENSITY.

UNTIL NEEDED, CLEAN NATIVE SOILS SHALL BE COVERED WITH AN IMPERVIOUS MATERIAL TO PREVENT EROSION FROM RAINFALL AND TO AID IN PREVENTING GROWTH OF UNSUITABLE VEGETATION IN THE STOCKPILED SOIL.

120. NATIVE SOILS THAT HAVE BECOME CONTAMINATED BY GRAVEL AND OTHER PROCESSED MATERIALS SHALL BE REMOVED FROM THE SITE BY THE CONTRACTOR, AT THE CONTRACTOR'S EXPENSE, AND DEPOSITED AT A LEGALLY-PERMITTED LOCATION APPROVED FOR THE RECEIPT OF THE PRODUCT.

121. SEEDING SHALL BE PROVIDED FOR ALL DISTURBED SOIL CONDITIONS THROUGHOUT THE PROJECT AREA.

122. ALL SEEDING PERFORMED DURING EXTENSIVE PERIODS OF DRY WEATHER SHALL BE APPLIED USING A HYDROSEEDED APPLICATION WITH A MIXTURE OF GRASS SEED, FERTILIZER, AND MULCH. HAND SEEDING OF THIS MIXTURE IS ACCEPTABLE, PROVIDING THERE IS SUFFICIENT MOISTURE WITHIN THE SOIL FOR GERMINATION. ON ALL STEEP SLOPED AREAS GREATER THAN 10:1, THE CONTRACTOR SHALL ALSO APPLY A DENSE STRAW MAT TO REDUCE EROSION, AND TO SUPPORT THE UNDERLYING SEEDED CONDITIONS.

123. AFTER COMPLETION OF SITE IMPROVEMENTS, THE CONTRACTOR SHALL SEED, FERTILIZE, AND MULCH ALL DISTURBED SOIL AREAS WITHIN THE DESIGNATED AREAS.

GRASS SEED: 200 LBS. PER ACRE
10% HIGHLAND COLONIAL BENTGRASS
40% PERENNIAL RYEGRASS
40% PENLAWN RED FESCUE
10% WHITE CLOVER

MODIFICATIONS TO THIS GRASS SEED MIXTURE MAY BE PROVIDED BY THE CONTRACTOR AS AVAILABLE BY LOCAL SUPPLY COMPANIES. THE SUBSTITUTED MIXTURE SHALL BE SUBMITTED TO THE ENGINEER FOR REVIEW AND CONSIDERATION PRIOR TO ITS APPLICATION.

FERTILIZER: 100 LBS. PER ACRE
MIXTURE: 10-20-20
MULCH: 1000 TO 2000 POUNDS PER ACRE DEPENDING UPON SLOPE CONDITIONS

124. THE CONTRACTOR SHALL PROVIDE ALL MAINTENANCE AND PROTECTION OF THE SEEDED CONDITION UNTIL A SUBSTANTIAL DENSE GROWTH HAS BEEN ESTABLISHED. THE CONTRACTOR IS RESPONSIBLE FOR PROTECTING THE SEEDED CONDITIONS FROM DAMAGES CAUSED BY EROSION AND RAINFALL. DAMAGED AREAS SHALL BE PROMPTLY REPAIRED BY THE CONTRACTOR.

125. DURING SITE WORK PERIODS AND EVEN AFTER SEEDING, THE CONTRACTOR IS RECOMMENDED TO STABILIZE THE SURFACE OF SEEDED CONDITIONS.

126. ONCE SITE CONSTRUCTION IS COMPLETE, THE CONTRACTOR SHALL THOROUGHLY EXAMINE THE SITE CONDITIONS TO ASSURE ALL DIRT PILES ARE CLEANED UP AND NEATLY GRADED WITH THE SURROUNDING CONDITIONS.

STRIPING AND SIGNAGE

127. SPECIFIC SIGNS ARE TO BE INSTALLED WITH THIS PROJECT, AS IDENTIFIED ON THE CIVIL PLANS. SIGN MATERIALS AND INSTALLATION SHALL CONFORM TO THE FOLLOWING REQUIREMENTS FROM THE CITY OF ANACORTES:

ALL SIGNS MUST CONFORM TO MUTCD
ALL SIGNS SHALL BE DIAMOND GRADE ON ALODINE TREATED ALUMINUM

128. THE CONTRACTOR SHALL COORDINATE WITH THE ANACORTES STREET DEPARTMENT REGARDING THE TYPE AND SIZE OF POSTS TO BE USED FOR SIGN INSTALLATIONS, AS WELL AS THE TYPE OF RECEIVING COMPONENT TO BE INSTALLED.

IF NO DIRECTION IS PROVIDED BY THE CITY, POSTS SHALL BE TWO-INCH INSIDE DIAMETER SCHEDULE 40 GALVANIZED STEEL PIPE AND SHALL BE INSTALLED WITHIN A CONCRETE-FILLED 30-INCH DEEP BY 12-INCH DIAMETER HOLE, INSTALLED IN A FIRM AND UNYIELDING MANNER

THE SIGN POSTS SHALL BE OF SUFFICIENT LENGTH TO FULLY SECURE THE SIGN PLATE TO THE POST, PROVIDE SEVEN FEET OF VERTICAL CLEARANCE BETWEEN THE LOWEST EDGE OF SIGN PLATE AND THE ADJACENT FINISHED GRADE, AND TO BED THE SIGN POST 30 INCHES INTO THE GROUND WITHIN A CONCRETE-FILLED BASE. ALL SIGNS SHALL BE BOLTED TO THE POST USING STAINLESS STEEL HARDWARE.

129. PRIOR TO INSTALLING ANY SIGNPOSTS, THE CONTRACTOR SHALL CONDUCT AN ON-SITE MEETING WITH THE CITY TO CONFIRM THE LOCATION AND SIZE OF REQUIRED SIGNS.

130. NO STRIPING OF THE ASPHALT SURFACES IS DENOTED ON THE CIVIL PLANS. THE CONTRACTOR SHALL COORDINATE WITH THE CITY OF ANACORTES TO DETERMINE IF STRIPING IS REQUIRED. PRIOR TO PERFORMING ANY STRIPING, THE CONTRACTOR SHALL COORDINATE ONSITE WITH THE CITY AND OWNER TO CONFIRM THE LOCATION OF STRIPING TO BE PERFORMED.



ENGINEER

DATE

THIS PLAN SHEET IS ACCEPTED FOR CONSTRUCTION IN ACCORDANCE WITH THE CITY OF ANACORTES ORDINANCES AND POLICES. ACTUAL CONFORMANCE OF THE DESIGN WITH APPLICABLE LAWS IS THE SOLE RESPONSIBILITY OF THE PROFESSIONAL ENGINEER, WHOSE NAME AND STAMP APPEAR ON THIS SHEET. ACQUIRING, COMPLYING WITH, AND PROVIDING MITIGATION FOR ALL FEDERAL, STATE, COUNTY, AND LOCAL LAWS, PERMITS, AND MANDATES, INCLUDING BUT NOT LIMITED TO THE ENDANGERED SPECIES ACT, FEDERAL WETLAND PERMIT, STATE DEPARTMENT OF FISHERIES AND HYDRAULICS PERMIT, FEDERAL FLOOD PLAIN PERMITS, NATIONAL POLLUTANT DISCHARGE ELIMINATION SYSTEM PERMIT IS THE RESPONSIBILITY OF THE DEVELOPER, LAND OWNER, AND THEIR ENGINEER. THE ISSUANCE OF THIS PERMIT SHALL NOT BE CONSTRUED AS PROOF OF COMPLIANCE WITH APPLICABLE LAWS AND PERMIT REQUIREMENTS.	
CITY ENGINEER	DATE
CONSTRUCTION FOR THE ACCEPTED PROJECT IS TO START WITHIN 1 YEAR OF THE DATE.	

PLAN STATUS:

SCALE: AS SHOWN	SHEET TITLE: CHERRY COURT SHORT PLAT FOR CORNER 9 PROPERTIES, LLC SW 1/4 SECTION 25, T. 35 N., R. 1 E., W.M.	DRAWING NO. 19013.SPECS.dwg
DRAWN BY: D. REMSEN		JOB NO. 19013
CHECKED BY: HLN		SHEET NO. 11 OF 11
DATE: 08.06.20		

REV. NO.	REVISION	DATE	BY	APPROVED

Ravnik & Associates, Inc.
CIVIL ENGINEERING & LAND-USE PLANNING



1633 LINDAMOOD LANE/P.O. BOX 361
BURLINGTON, WA 98233
PH: (360) 707-2048 FAX: (360) 707-2216

SHEET DESCRIPTION:

SPECIFICATIONS (3)

APPENDIX 6 – Documented Site Photos (Show all directions of the site, including frontage)



Location: View from Orchard Avenue looking southwest

Description of the photo: Subject property looking southwest

Photo taken by: HLN



Location: View from private roadway along south side of site

Description of the photo: Subject property looking northwest

Photo taken by: HLN



Location: View from Orchard Avenue

Description of the photo: Subject property looking southeast along west property line

Photo taken by: HLN



Location: View along north side of Orchard Avenue

Description of the photo: Existing ditch outlet at subject property's northeast corner looking east

Photo taken by: HLN



Location: View along north side of Orchard Avenue

Description of the photo: From subject property's northeast corner looking west

Photo taken by: HLN

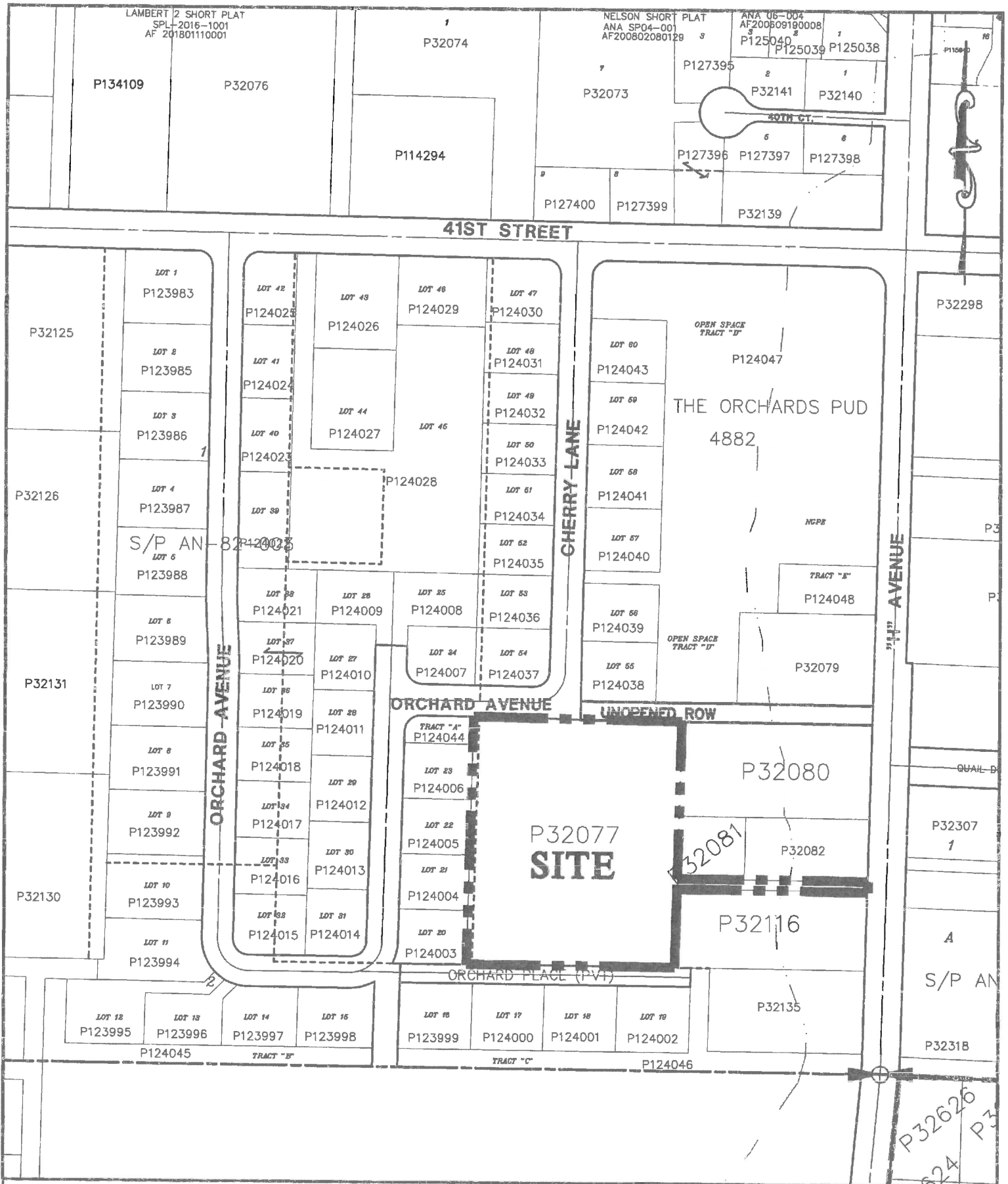
APPENDIX 7 – Drainage BMP Facility Maintenance Covenant

Note: To be recorded prior to: 1) Temporary Certificate of Occupancy; 2) Final Certificate of Occupancy, and or; 3) Final Acceptance of the project.

This is Covenant is required for any Permanent Stormwater Facility constructed on a project site. The applicant should work with the City of Anacortes Engineering Department on formalizing the document for recording.

The owner will coordinate with the City for the exact wording to be added to the short plat as needed for required maintenance for the associated drainage facilities.

**APPENDIX 8 – Vicinty Map, Aerial Exhibit, Downstream Exhibit, Exceprts from City of Anacortes
Comprehensive Plan**



Ravnik & Associates, Inc.
 CIVIL ENGINEERING & LAND-USE PLANNING
 1633 LINDAMOOD LANE/PO. BOX 361
 BURLINGTON, WA 98233
 PH: (360) 707-2048 FAX: (360) 707-2215

SHEET DESCRIPTION:
**VICINITY
 MAP**

SCALE: 1"=200'
 DRAWN BY: D. REMSEN
 JOB NO. 19013
 DATE: 04.29.20



Ravnik & Associates, Inc.
CIVIL ENGINEERING & LAND-USE PLANNING

408 LINDAWOOD LANE, BOX 301
BOLLINGTON, VA 22013
TEL: (561) 761-2245 FAX: (561) 761-2245



SHEET DESCRIPTION:

**CHERRY COURT
SHORT PLAT
FOR**

**LANDED GENTRY HOMES
SW 1/4 SECTION 25, T. 35 N., R. 1 E., W.M.**

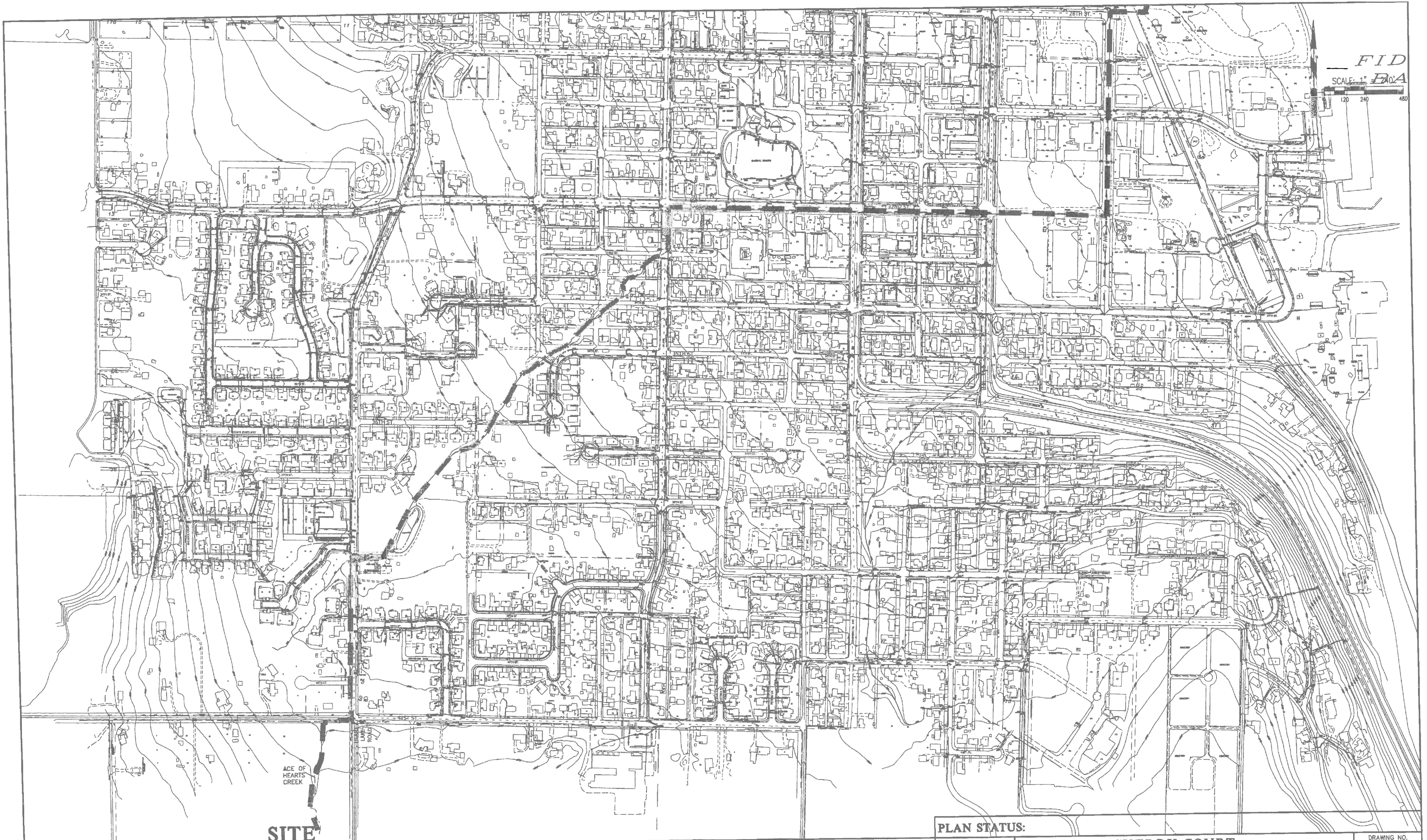
SCALE: N.T.S.

DRAWN BY: DLR

JOB NO. 19013

DATE: 04.28.20

AERIAL PHOTO



FID
SCALE: 1" = 240'
120 240 480

ACE OF
HEARTS
CREEK

SITE

REV. NO.	REVISION	DATE	BY	APPROVED

Ravnik & Associates, Inc.
CIVIL ENGINEERING & LAND-USE PLANNING
1633 LINDAMOOD LANE/P.O. BOX 361
BURLINGTON, WA 98233
PH: (360) 707-2048 FAX: (360) 707-2216

SHEET DESCRIPTION:

DOWNSTREAM DRAINAGE EXHIBIT

PLAN STATUS:

SCALE: 1" = 240'
DRAWN BY: H. NELSON
CHECKED BY: J. RAVNIK
DATE: 05.06.20

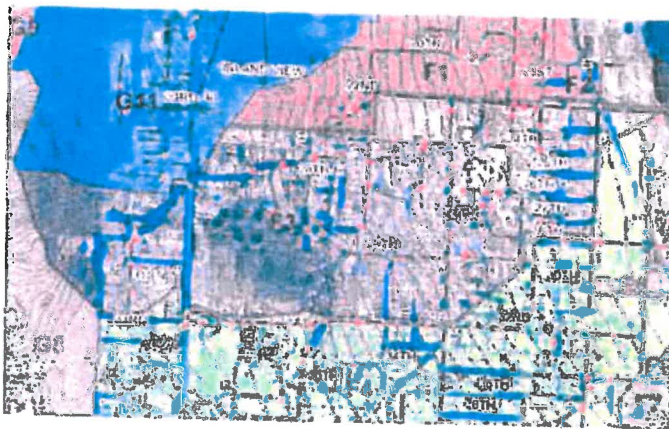
SHEET TITLE:

**CHERRY COURT
SHORT PLAT
FOR
CORNER 9 PROPERTIES, LLC**
SW 1/4 SECTION 25, T. 35 N., R. 1 E., W.M.

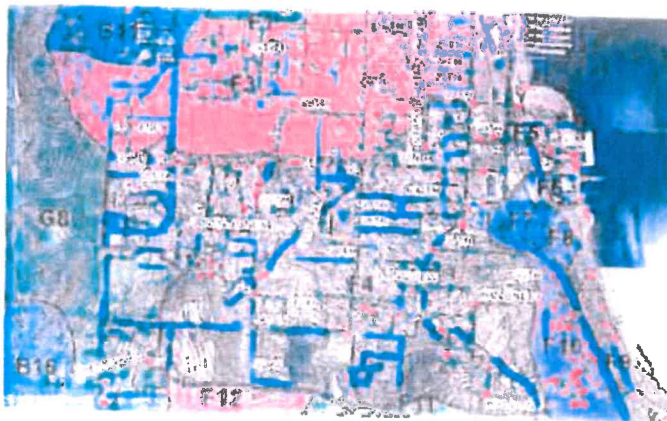
DRAWING NO.
DwnStrm.dwg
JOB NO.
19013
SHEET NO.
1 OF 1



Basin F2 – This basin is located to the east of Basin F1, between 17th and 22nd Streets. This basin is zoned as Commercial and Commercial Marine. No detention facilities are located within this basin. Although the stormwater system database shows a piped outfall, there is no numbered outfall from this basin.



Basin F3 – This basin extends south approximately from 22nd to 32nd Streets and west from Fidalgo Bay to the Cranberry Lake basin. Zoning areas in this basin include Public, High and Low Density Residential, Industrial, Commercial and Commercial Marine. Fourteen detention facilities are located within this basin. This basin discharges to Outfall No. 41



Basin F4 – This basin comprises a large area south of 32nd Street to approximately the City Limits and east of SR 20 to approximately A Avenue. This basin is zoned as High and Low Density Residential, Commercial, Industrial and Public. Seventeen detention facilities are located within this basin. This basin discharges to Outfall No. 42.

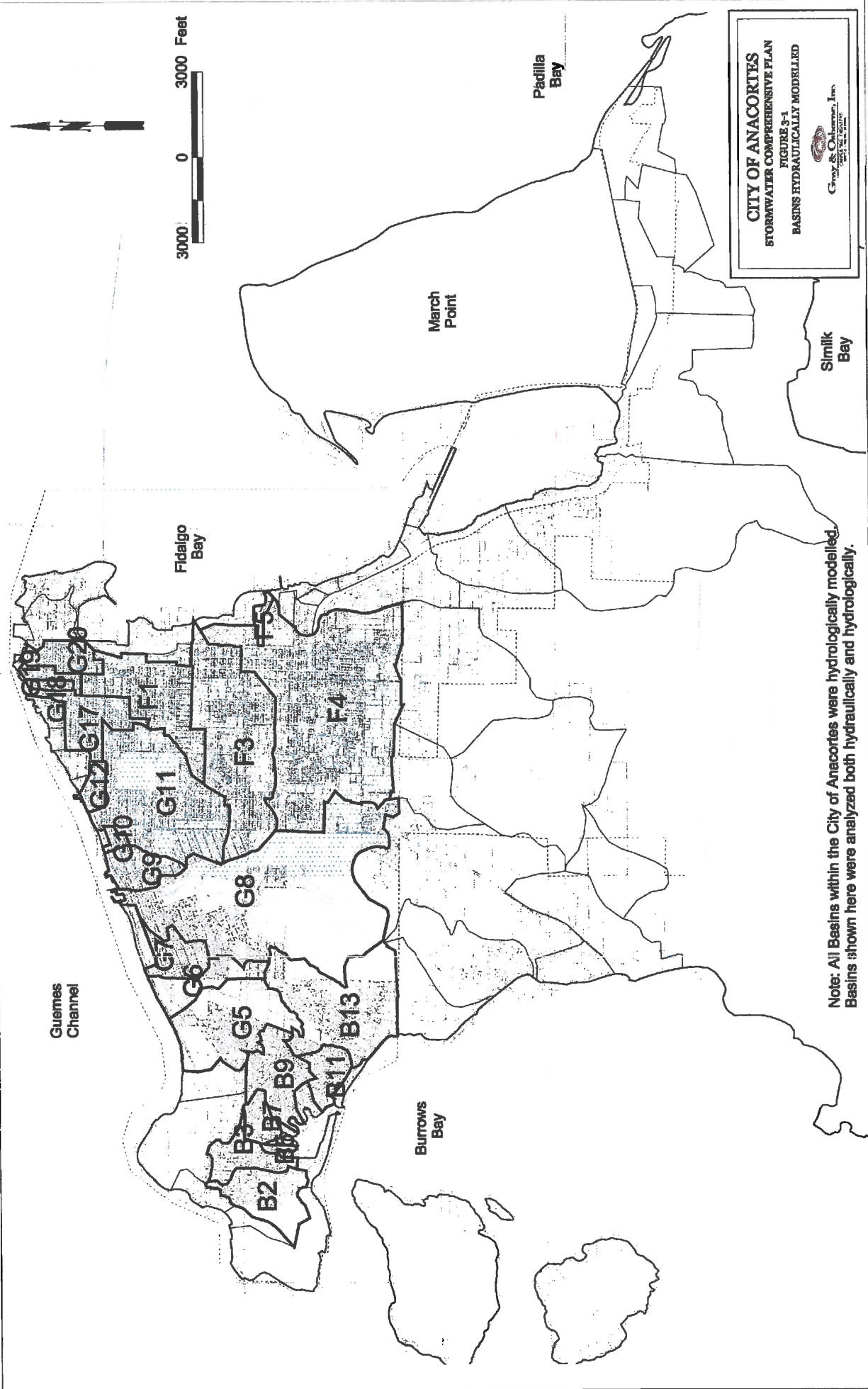


TABLE 2-2 – (continued)

Anacortes Subbasin Areas and Land Cover

Drainage Basin	Subbasin Name	Subbasin Area (acres)	1994 Plan Basin No. ⁽¹⁾	Outfall No.	Percent Forested	Percent Impervious	Percent Pervious
Burrows Bay	B18	84.9	38		N/A	N/A	N/A
	B19	137.6	43		N/A	N/A	N/A
	Total	2,201					
Fidalgo Bay	F1	197.7	40	40	0	65	35
	F2	16.3	40		0	65	35
	F3	376.0	28	41	16	42	42
	F4	65.0	29	42	0	68	32
	F5	718.3	26, 27, 30, 32	43	10	44	46
	F6	12.4	31	45	0	65	35
	F7	18.7	31	46	0	60	40
	F8	8.4	31		0	60	40
	F9	28.0	48	48, 49, 50, 51	0	60	40
	F10	158.4	48	52	0	65	35
	F11	424.0	32	F5	70	15	15
	F12	140.7	33	F5	70	15	15
	F13	489.0	39	F5, F12	75	20	5
	F14	200.0	40	53, 54	0	65	35
	F15	858.8	41	55 – 61	0	65	35
	F16	387.4		62, 63	0	70	30
	F17	42.7			0	70	30
	Total	4,142					
Padilla Bay	P1	174.6			0	65	35
	P2	159.5			0	65	35
	Total	334					
Similk Bay	S1	160.6			0	70	30
	Total	161					

N/A – Not Available, Outside City of Anacortes Aerial Photography

APPENDIX 9 – NRCS/SCS Soils Information



United States
Department of
Agriculture

NRCS

Natural
Resources
Conservation
Service

A product of the National
Cooperative Soil Survey,
a joint effort of the United
States Department of
Agriculture and other
Federal agencies, State
agencies including the
Agricultural Experiment
Stations, and local
participants

Custom Soil Resource Report for **Skagit County Area, Washington**



January 8, 2020

Custom Soil Resource Report Soil Map



MAP LEGEND

- Area of Interest (AOI)

 Area of Interest (AOI)
- Soils

 Soil Map Unit Polygons

 Soil Map Unit Lines

 Soil Map Unit Points
- Special Point Features

 Blowout

 Borrow Pit

 Clay Spot

 Closed Depression

 Gravel Pit

 Gravelly Spot

 Landfill

 Lava Flow

 Marsh or swamp

 Mine or Quarry

 Miscellaneous Water

 Perennial Water

 Rock Outcrop

 Saline Spot

 Sandy Spot

 Severely Eroded Spot

 Sinkhole

 Slide or Slip

 Sodlic Spot
- Water Features

 Streams and Canals
- Transportation

 Ralls

 Interstate Highways

 US Routes

 Major Roads

 Local Roads
- Background

 Aerial Photography
- Soil Area

 Spoil Area

 Stony Spot

 Very Stony Spot

 Wet Spot

 Other

 Special Line Features

MAP INFORMATION

The soil surveys that comprise your AOI were mapped at 1:24,000.

Warning: Soil Map may not be valid at this scale.

Enlargement of maps beyond the scale of mapping can cause misunderstanding of the detail of mapping and accuracy of soil line placement. The maps do not show the small areas of contrasting soils that could have been shown at a more detailed scale.

Please rely on the bar scale on each map sheet for map measurements.

Source of Map: Natural Resources Conservation Service
Web Soil Survey URL:
Coordinate System: Web Mercator (EPSG:3857)

Maps from the Web Soil Survey are based on the Web Mercator projection, which preserves direction and shape but distorts distance and area. A projection that preserves area, such as the Albers equal-area conic projection, should be used if more accurate calculations of distance or area are required.

This product is generated from the USDA-NRCS certified data as of the version date(s) listed below.

Soil Survey Area: Skagit County Area, Washington
Survey Area Data: Version 19, Sep 16, 2019

Soil map units are labeled (as space allows) for map scales 1:50,000 or larger.

Date(s) aerial images were photographed: Dec 31, 2009—Sep 29, 2016

The orthophoto or other base map on which the soil lines were compiled and digitized probably differs from the background imagery displayed on these maps. As a result, some minor shifting of map unit boundaries may be evident.

Map Unit Legend

Map Unit Symbol	Map Unit Name	Acres in AOI	Percent of AOI
18	Bow gravelly loam, dry, 0 to 3 percent slopes	3.8	69.6%
19	Bow gravelly loam, dry, 3 to 8 percent slopes	1.7	30.4%
Totals for Area of Interest		5.5	100.0%

Map Unit Descriptions

The map units delineated on the detailed soil maps in a soil survey represent the soils or miscellaneous areas in the survey area. The map unit descriptions, along with the maps, can be used to determine the composition and properties of a unit.

A map unit delineation on a soil map represents an area dominated by one or more major kinds of soil or miscellaneous areas. A map unit is identified and named according to the taxonomic classification of the dominant soils. Within a taxonomic class there are precisely defined limits for the properties of the soils. On the landscape, however, the soils are natural phenomena, and they have the characteristic variability of all natural phenomena. Thus, the range of some observed properties may extend beyond the limits defined for a taxonomic class. Areas of soils of a single taxonomic class rarely, if ever, can be mapped without including areas of other taxonomic classes. Consequently, every map unit is made up of the soils or miscellaneous areas for which it is named and some minor components that belong to taxonomic classes other than those of the major soils.

Most minor soils have properties similar to those of the dominant soil or soils in the map unit, and thus they do not affect use and management. These are called noncontrasting, or similar, components. They may or may not be mentioned in a particular map unit description. Other minor components, however, have properties and behavioral characteristics divergent enough to affect use or to require different management. These are called contrasting, or dissimilar, components. They generally are in small areas and could not be mapped separately because of the scale used. Some small areas of strongly contrasting soils or miscellaneous areas are identified by a special symbol on the maps. If included in the database for a given area, the contrasting minor components are identified in the map unit descriptions along with some characteristics of each. A few areas of minor components may not have been observed, and consequently they are not mentioned in the descriptions, especially where the pattern was so complex that it was impractical to make enough observations to identify all the soils and miscellaneous areas on the landscape.

The presence of minor components in a map unit in no way diminishes the usefulness or accuracy of the data. The objective of mapping is not to delineate pure taxonomic classes but rather to separate the landscape into landforms or landform segments that have similar use and management requirements. The delineation of such segments on the map provides sufficient information for the development of resource plans. If intensive use of small areas is planned, however,

Custom Soil Resource Report

onsite investigation is needed to define and locate the soils and miscellaneous areas.

An identifying symbol precedes the map unit name in the map unit descriptions. Each description includes general facts about the unit and gives important soil properties and qualities.

Soils that have profiles that are almost alike make up a *soil series*. Except for differences in texture of the surface layer, all the soils of a series have major horizons that are similar in composition, thickness, and arrangement.

Soils of one series can differ in texture of the surface layer, slope, stoniness, salinity, degree of erosion, and other characteristics that affect their use. On the basis of such differences, a soil series is divided into *soil phases*. Most of the areas shown on the detailed soil maps are phases of soil series. The name of a soil phase commonly indicates a feature that affects use or management. For example, Alpha silt loam, 0 to 2 percent slopes, is a phase of the Alpha series.

Some map units are made up of two or more major soils or miscellaneous areas. These map units are complexes, associations, or undifferentiated groups.

A *complex* consists of two or more soils or miscellaneous areas in such an intricate pattern or in such small areas that they cannot be shown separately on the maps. The pattern and proportion of the soils or miscellaneous areas are somewhat similar in all areas. Alpha-Beta complex, 0 to 6 percent slopes, is an example.

An *association* is made up of two or more geographically associated soils or miscellaneous areas that are shown as one unit on the maps. Because of present or anticipated uses of the map units in the survey area, it was not considered practical or necessary to map the soils or miscellaneous areas separately. The pattern and relative proportion of the soils or miscellaneous areas are somewhat similar. Alpha-Beta association, 0 to 2 percent slopes, is an example.

An *undifferentiated group* is made up of two or more soils or miscellaneous areas that could be mapped individually but are mapped as one unit because similar interpretations can be made for use and management. The pattern and proportion of the soils or miscellaneous areas in a mapped area are not uniform. An area can be made up of only one of the major soils or miscellaneous areas, or it can be made up of all of them. Alpha and Beta soils, 0 to 2 percent slopes, is an example.

Some surveys include *miscellaneous areas*. Such areas have little or no soil material and support little or no vegetation. Rock outcrop is an example.

Skagit County Area, Washington

18—Bow gravelly loam, dry, 0 to 3 percent slopes

Map Unit Setting

National map unit symbol: 2hty
Elevation: 0 to 200 feet
Mean annual precipitation: 20 to 40 inches
Mean annual air temperature: 48 to 50 degrees F
Frost-free period: 170 to 220 days
Farmland classification: Prime farmland if drained

Map Unit Composition

Bow, dry, and similar soils: 95 percent
Minor components: 5 percent
Estimates are based on observations, descriptions, and transects of the mapunit.

Description of Bow, Dry

Setting

Landform: Hillslopes, terraces
Parent material: Volcanic ash, glaciolacustrine deposits, and glacial drift

Typical profile

H1 - 0 to 7 inches: gravelly ashy loam
H2 - 7 to 17 inches: very gravelly ashy loam
H3 - 17 to 31 inches: clay loam
H4 - 31 to 60 inches: silty clay

Properties and qualities

Slope: 0 to 3 percent
Depth to restrictive feature: More than 80 inches
Natural drainage class: Somewhat poorly drained
Capacity of the most limiting layer to transmit water (Ksat): Moderately low to moderately high (0.06 to 0.20 in/hr)
Depth to water table: About 6 to 18 inches
Frequency of flooding: None
Frequency of ponding: None
Available water storage in profile: High (about 10.4 inches)

Interpretive groups

Land capability classification (irrigated): None specified
Land capability classification (nonirrigated): 4w
Hydrologic Soil Group: C/D
Forage suitability group: Seasonally Wet Soils (G002XN202WA)
Hydric soil rating: Yes

Minor Components

Bellingham, undrained

Percent of map unit: 5 percent
Landform: Depressions
Hydric soil rating: Yes

19—Bow gravelly loam, dry, 3 to 8 percent slopes

Map Unit Setting

National map unit symbol: 2htz
Elevation: 0 to 200 feet
Mean annual precipitation: 20 to 40 inches
Mean annual air temperature: 48 to 50 degrees F
Frost-free period: 170 to 220 days
Farmland classification: Prime farmland if drained

Map Unit Composition

Bow, dry, and similar soils: 100 percent
Estimates are based on observations, descriptions, and transects of the mapunit.

Description of Bow, Dry

Setting

Landform: Hillslopes, terraces
Parent material: Volcanic ash, glaciolacustrine deposits, and glacial drift

Typical profile

H1 - 0 to 7 inches: gravelly ashy loam
H2 - 7 to 17 inches: very gravelly ashy loam
H3 - 17 to 31 inches: clay loam
H4 - 31 to 60 inches: silty clay

Properties and qualities

Slope: 3 to 8 percent
Depth to restrictive feature: More than 80 inches
Natural drainage class: Somewhat poorly drained
Capacity of the most limiting layer to transmit water (Ksat): Moderately low to moderately high (0.06 to 0.20 in/hr)
Depth to water table: About 6 to 18 inches
Frequency of flooding: None
Frequency of ponding: None
Available water storage in profile: High (about 10.4 inches)

Interpretive groups

Land capability classification (irrigated): None specified
Land capability classification (nonirrigated): 4w
Hydrologic Soil Group: C/D
Forage suitability group: Seasonally Wet Soils (G002XN202WA)
Hydric soil rating: Yes

basis of a 50-year site curve, the mean site index for Douglas fir is estimated to be 107. The highest average growth rate for Douglas fir is 132 cubic feet per acre per year at age 70. Among the trees of limited extent are red alder, western redcedar, and western hemlock. Common forest understory plants are salal, trailing blackberry, evergreen huckleberry, western swordfern, creambush oceanspray, and northern twinflower.

The main limitation for the harvesting of timber is muddiness caused by seasonal soil wetness. Use of wheeled and tracked equipment when the soil is moist produces ruts, compacts the soil, and damages the roots of trees. When wet, unsurfaced roads and skid trails are sticky and slippery and they can be impassable. Logging roads require suitable surfacing for year-round use. Rock for road construction is not readily available on this unit.

Seedling establishment and the hazard of windthrow are the main concerns in the production of timber. Reforestation can be accomplished by planting Douglas fir seedlings. If seed trees are present, natural reforestation of cutover areas by red alder occurs readily. The perched water table reduces root respiration, which results in a low survival rate of seedlings. When openings are made in the canopy, invading brushy plants can prevent the establishment of seedlings. Because the rooting depth is restricted by the perched water table and the clay layer, trees frequently are subject to windthrow.

This unit is poorly suited to homesite development. The main limitations are wetness and shrink-swell potential. Wetness can be reduced by installing drain tile around footings. The effects of shrinking and swelling can be minimized by using proper engineering designs and by backfilling with material that has low shrink-swell potential. The main limitations for septic tank absorption fields are slow permeability and the perched water table. Use of interceptor drains, additional topsoil placed over the absorption field, and longer absorption lines placed on the contour helps to compensate for these limitations.

This map unit is in capability subclass IIIw.

18—Bow gravelly loam, low precipitation, 0 to 3 percent slopes. This very deep, somewhat poorly drained soil is on glacially modified remnant terraces and hills. It formed in gravelly glacial drift over glaciolacustrine material mantled with volcanic ash. The vegetation in areas not cultivated is mainly conifers and deciduous trees. Elevation is near sea level to 200 feet. The average annual precipitation is about 23 inches, the average annual air temperature is about 50 degrees

F, and the average frost-free season is 170 to 220 days.

Typically, the surface is covered with a mat of leaves and twigs 1 inch thick. The surface layer is dark brown gravelly loam 5 inches thick. The upper 3 inches of the subsoil is brown gravelly loam, the next 14 inches is dark grayish brown clay loam, and the lower part to a depth of 60 inches or more is gray silty clay. In some areas the surface layer is gravelly silt loam or is black to dark brown gravelly loam about 9 inches thick, and in some areas the subsoil is gravelly and loamy.

Included in this unit are small areas of Catla and Clallam soils on hills, Bellingham soils in depressional areas, and Laconner soils on terraces.

Permeability of this Bow soil is slow. Available water capacity is high. Effective rooting depth is limited by a perched water table that is at a depth of 6 to 18 inches from November to May. Runoff is slow, and the hazard of water erosion is slight.

This unit is used as woodland, pastureland, hayland, and homesites. If adequately drained, it is suited to climatically adapted cultivated crops.

Douglas fir is the main woodland species on this unit. On the basis of a 100-year site curve, the mean site index for Douglas fir is estimated to be 126. On the basis of a 50-year site curve, the mean site index for Douglas fir is estimated to be 94. The highest average growth rate for Douglas fir is 124 cubic feet per acre per year at age 70. Among the trees of limited extent are western redcedar, red alder, grand fir, and western hemlock. Common forest understory plants are salal, trailing blackberry, evergreen huckleberry, western swordfern, creambush oceanspray, and northern twinflower.

The main limitation for the harvesting of timber is muddiness caused by seasonal soil wetness. Use of wheeled and tracked equipment when the soil is moist produces ruts, compacts the soil, and damages the roots of trees. When wet, unsurfaced roads and skid trails are sticky and slippery and they can be impassable. Logging roads require suitable surfacing for year-round use. Rock for road construction is not readily available on this unit.

Seedling establishment and the hazard of windthrow are the main concerns in the production of timber. Reforestation can be accomplished by planting Douglas fir seedlings. If seed trees are present, natural reforestation of cutover areas by red alder occurs readily. The perched water table reduces root respiration, which results in a low survival rate of seedlings. When openings are made in the canopy, invading brushy plants can prevent the establishment of

seedlings. Because the rooting depth is restricted by the perched water table and the clay layer, trees frequently are subject to windthrow.

If this unit is used for hay and pasture, the main limitation is the perched water table. The water table limits use of the unit to grasses and shallow-rooted legumes. Tile drains and field ditches are needed to lower the water table if deep-rooted plants are grown. Drainage tiles should be closely spaced because of the slow permeability. Use of proper stocking rates, pasture rotation, and restricted grazing during wet periods helps to keep the pasture in good condition. Shallow ditches help to remove surface water and prevent ponding in winter. In summer supplemental irrigation is required for maximum production. Sprinkler irrigation is the most suitable method of applying water.

This unit is poorly suited to homesite development. The main limitations are wetness and shrink-swell potential. Soil wetness can be reduced by installing drain tile around footings. The effects of shrinking and swelling can be minimized by using proper engineering designs and by backfilling with material that has low shrink-swell potential. The main limitations for septic tank absorption fields are slow permeability and the perched water table. Use of interceptor drains, additional topsoil placed over the absorption field, and longer absorption lines helps to compensate for these limitations.

This map unit is in capability subclass IIIw.

19—Bow gravelly loam, low precipitation, 3 to 8 percent slopes. This very deep, somewhat poorly drained soil is on glacially modified remnant terraces and hills. It formed in gravelly glacial drift over glaciolacustrine material mantled with volcanic ash. The vegetation in areas not cultivated is mainly coniferous and deciduous trees. Elevation is near sea level to 200 feet. The average annual precipitation is about 23 inches, the average annual air temperature is about 50 degrees F, and the average frost-free season is 170 to 220 days.

Typically, the surface is covered with a mat of leaves and twigs 1 inch thick. The surface layer is dark brown gravelly loam 5 inches thick. The upper 3 inches of the subsoil is brown gravelly loam, the next 14 inches is dark grayish brown clay loam, and the lower part to a depth of 60 inches or more is gray silty clay. In some areas the surface layer is gravelly silt loam or is black to dark brown gravelly loam about 9 inches thick, and in some areas the subsoil is gravelly and loamy.

Included in this unit are small areas of Catla and

Clallam soils on hills and Laconner soils on terraces.

Permeability of this Bow soil is slow. Available water capacity is high. Effective rooting depth is limited by a perched water table that is at a depth of 6 to 18 inches from November to May. Runoff is medium, and the hazard of water erosion is slight.

This unit is used as woodland, pastureland, hayland, and homesites. If adequately drained, it is suited to climatically adapted cultivated crops.

Douglas fir is the main woodland species on this unit. On the basis of a 100-year site curve, the mean site index for Douglas fir is estimated to be 126. On the basis of a 50-year site curve, the mean site index for Douglas fir is estimated to be 94. The highest average growth rate for Douglas fir is 122 cubic feet per acre per year at age 70. Among the trees of limited extent are western redcedar, red alder, grand fir, and western hemlock. Common forest understory plants are salal, trailing blackberry, evergreen huckleberry, western swordfern, creambush oceanspray, and northern twinflower.

The main limitation for the harvesting of timber is muddiness caused by seasonal soil wetness. Use of wheeled and tracked equipment when the soil is moist produces ruts, compacts the soil, and damages the roots of trees. When wet, unsurfaced roads and skid trails are sticky and slippery and they can be impassable. Logging roads require suitable surfacing for year-round use. Rock for road construction is not readily available on this unit.

Seedling establishment and the hazard of windthrow are the main concerns in the production of timber. Reforestation can be accomplished by planting Douglas fir seedlings. If seed trees are present, natural reforestation of cutover areas by red alder occurs readily. The perched water table reduces root respiration, which results in a low survival rate of seedlings. When openings are made in the canopy, invading brushy plants can prevent the establishment of seedlings. Because the rooting depth is restricted by the perched water table and the clay layer, trees frequently are subject to windthrow.

If this unit is used for hay and pasture, the main limitation is the perched water table. The water table limits use of the unit to grasses and shallow-rooted legumes. Tile drains and field ditches are needed to lower the perched water table if deep-rooted plants are grown. Drainage tiles should be closely spaced because of the slow permeability. Use of proper stocking rates, pasture rotation, and restricted grazing during wet periods helps to keep the pasture in good condition. In

summer supplemental irrigation is required for maximum production. Sprinkler irrigation is the most suitable method of applying water.

This unit is poorly suited to homesite development. The main limitations are wetness and shrink-swell potential. Wetness can be reduced by installing drain tile around footings. The effects of shrinking and swelling can be minimized by using proper engineering designs and by backfilling with material that has low shrink-swell potential. The main limitations for septic tank absorption fields are the slow permeability and perched water table. Use of interceptor drains, additional topsoil placed over the absorption field, and longer absorption lines placed on the contour helps to compensate for these limitations.

This map unit is in capability subclass IIIw.

20—Bow-Urban land complex, 0 to 8 percent slopes. This map unit is on glaciated terraces and hills. Slopes are broad and smooth with concave areas. The native vegetation is mainly conifers and deciduous shrubs. Elevation is 5 to 150 feet. The average annual precipitation is about 23 inches, the average annual air temperature is about 50 degrees F, and the average frost-free season is 170 to 220 days.

This unit is about 60 percent Bow gravelly loam, low precipitation, 0 to 8 percent slopes, and about 35 percent Urban land. The components of this unit are so intricately intermingled that it was not practical to map them separately at the scale used.

Included in this unit are small areas of Bellingham soils in depressional areas and along drainageways and Catla and Clallam soils on glaciated hills.

The Bow soil is very deep and somewhat poorly drained. It formed in glaciolacustrine material derived dominantly from glacial till and lake sediment mantled with volcanic ash. Typically, the surface layer is dark brown gravelly loam 7 inches thick. The upper 10 inches of the subsoil is dark brown very gravelly loam; the next 14 inches is grayish brown clay loam, olive gray silty clay, and light olive gray silt loam; and the lower part to a depth of 60 inches or more is olive gray silty clay. In some areas the surface layer is gravelly silt loam or is black, and in some areas the subsoil is loamy.

Permeability of the Bow soil is slow. Available water capacity is high. Effective rooting depth is limited by a perched water table that is at a depth of 6 to 18 inches from November to May. Runoff is medium, and the hazard of water erosion is slight.

Urban land consists of areas covered by streets, buildings, parking lots, and other structures that obscure

the soils so that identification is not feasible.

The Bow soil in this unit is used as open spaces, parks, building sites, lawns, and gardens.

If the Bow soil is used for homesite development, the main limitations are wetness and shrink-swell potential. Wetness can be reduced by installing drain tile around footings. The effects of shrinking and swelling can be minimized by using proper engineering designs and by backfilling with material that has low shrink-swell potential. The main limitations for septic tank absorption fields are slow permeability and the perched water table. Use of interceptor drains, additional topsoil placed over the absorption field, and longer absorption lines placed on the contour helps to compensate for these limitations.

This map unit is in capability subclass IIIw.

21—Briscot fine sandy loam. This very deep, poorly drained soil is on flood plains. Drainage has been altered by tiling. The soil formed in alluvium. Slope is 0 to 2 percent. The vegetation in areas not cultivated is mainly conifers and shrubs. Elevation is 5 to 45 feet. The average annual precipitation is about 32 inches, the average annual air temperature is about 51 degrees F, and the average frost-free season is 160 to 210 days.

Typically, the surface layer is dark grayish brown fine sandy loam 16 inches thick. The upper 14 inches of the underlying material is grayish brown, stratified loamy fine sand and silt loam, and the lower part to a depth of 60 inches or more is olive gray silt loam. In some areas the surface layer is loamy fine sand, and in some areas the underlying material is dominantly silt loam.

Included in this unit are small areas of Sumas soils on flood plains.

Permeability of this Briscot soil is moderate. Available water capacity is high. Effective rooting depth is limited by a seasonal high water table that is at a depth of 18 to 36 feet from November to April. Runoff is slow, and the hazard of water erosion is slight. Flooding is rare in areas protected by dikes; however, this soil may be subject to frequent, long periods of flooding in areas not protected by dikes.

This unit is used as cropland, hayland, and pastureland.

This unit is well suited to use as cropland, hayland, and pastureland if dikes and drainage systems are maintained. In summer supplemental irrigation is required for maximum production. Returning all crop residue to the soil and using cover crops help to maintain organic matter content, fertility, and tilth. Use of proper stocking rates, pasture rotation, and restricted

TABLE 13.--ENGINEERING INDEX PROPERTIES--Continued

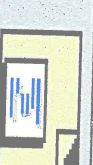
Soil name and map symbol	Depth	USDA texture	Classification		Frag-ments > 3 inches Pct	Percentage passing sieve number--				Liquid limit Pct	Plas- ticity index
			Unified	AASHTO		4	10	40	200		
	<u>In</u>										
16, 17----- Bow	0-7	Gravelly loam----	SM	A-2, A-4	0-10	75-80	55-75	30-50	30-50	20-30	NP-5
	7-17	Very gravelly loam, very gravelly silt loam.	SM	A-1, A-2, A-4	5-15	65-75	35-60	25-50	20-40	20-30	NP-5
	17-31	Clay loam, silt loam, silty clay.	ML, CL	A-6, A-7	0-5	90-100	75-100	60-100	50-85	35-50	10-20
	31-60	Silty clay loam, silty clay, clay.	ML, MH	A-7	0-5	90-100	90-100	80-100	75-100	40-55	10-20
18, 19----- Bow	0-8	Gravelly loam----	SM	A-2, A-4	0-10	75-80	55-75	30-50	30-50	20-30	NP-5
	8-22	Clay loam, silt loam, silty clay.	ML, CL	A-6, A-7	0-5	90-100	75-100	60-100	50-85	35-50	10-20
	22-60	Silty clay loam, silty clay, clay.	ML, MH	A-7	0-5	90-100	90-100	80-100	75-100	40-55	10-20
20*: Bow-----	0-7	Gravelly loam----	SM	A-2, A-4	0-10	75-80	55-75	30-50	30-50	20-30	NP-5
	7-17	Very gravelly loam, very gravelly sandy loam.	SM	A-1, A-2, A-4	5-15	65-75	35-60	25-50	20-40	20-30	NP-5
	17-31	Clay loam, silt loam, silty clay.	ML, CL	A-6, A-7	0-5	90-100	75-100	60-100	50-85	35-50	10-20
	31-60	Silty clay loam, silty clay, clay.	ML, MH	A-7	0-5	90-100	90-100	80-100	75-100	40-55	10-20
Urban land.											
21----- Briscot	0-16	Fine sandy loam	SM	A-4	0	100	100	75-90	35-50	20-25	NP-5
	16-30	Stratified silt loam to fine sand.	ML	A-4	0	100	95-100	85-95	55-75	25-30	NP-5
	30-60	Silt loam, very fine sandy loam, silty clay loam.	CL	A-6, A-7	0	100	100	95-100	50-85	35-45	15-25
22, 23----- Cathcart	0-10	Loam-----	ML	A-4, A-5	0	90-95	85-95	70-80	60-70	35-45	NP-10
	10-40	Loam, sandy loam, silt loam.	ML, SM	A-4, A-5	0	80-95	80-90	70-85	40-65	35-45	NP-10
	40-60	Gravelly loam, gravelly sandy loam.	SM, GM	A-2, A-4	0	60-85	50-75	36-50	25-40	25-35	NP-5
24----- Cathcart	0-7	Loam-----	ML	A-4, A-5	0	90-95	85-95	70-80	60-70	35-45	NP-10
	7-39	Loam, sandy loam, silt loam.	ML, SM	A-4, A-5	0	80-95	80-90	70-85	40-65	35-45	NP-10
	39-60	Gravelly loam, gravelly sandy loam.	SM, GM	A-2, A-4	0	60-85	50-75	36-50	25-40	25-35	NP-5

See footnote at end of table.

TABLE 14.--PHYSICAL AND CHEMICAL PROPERTIES OF THE SOILS--Continued

Soil name and map symbol	Depth	Clay	Permeability	Available water capacity	Soil reaction	Shrink-swell potential	Erosion factors		Organic matter
							K	T	
	In	Pct	In/hr	In/in	pH				Pct
14----- Blethen	0-6 6-37 37-49 49	--- --- 8-14 ---	0.6-2.0 0.6-2.0 0.6-2.0 ---	0.15-0.20 0.10-0.15 0.08-0.12 ---	5.1-6.5 5.1-6.5 5.1-6.5 ---	Low----- Low----- Low----- ---	0.15 0.15 0.10 ---	3	3-9
15----- Borochemists	0-8 8-30 30-60	--- --- ---	0.6-2.0 0.6-2.0 ---	0.30-0.40 0.30-0.40 ---	4.5-5.5 4.5-5.5 ---	Low----- Low----- ---	0.02 0.02 ---	5	40-80
16, 17----- Bow	0-7 7-17 17-31 31-60	--- --- 25-45 35-50	0.6-2.0 0.6-2.0 0.2-0.6 0.06-0.2	0.15-0.20 0.10-0.17 0.19-0.21 0.15-0.19	6.1-7.3 6.1-7.3 6.1-7.3 6.1-7.3	Low----- Low----- Moderate----- Moderate-----	0.20 0.15 0.24 0.24	5	.5-2
18, 19----- Bow	0-8 8-22 22-60	--- 25-45 35-50	0.6-2.0 0.2-0.6 0.06-0.2	0.15-0.20 0.19-0.21 0.15-0.19	6.1-7.3 6.1-7.3 6.1-7.3	Low----- Moderate----- Moderate-----	0.20 0.24 0.24	5	.5-2
20*: Bow-----	0-7 7-17 17-31 31-60	--- --- 25-45 35-50	0.6-2.0 0.6-2.0 0.2-0.6 0.06-0.2	0.15-0.20 0.10-0.17 0.19-0.21 0.15-0.19	6.1-7.3 6.1-7.3 6.1-7.3 6.1-7.3	Low----- Low----- Moderate----- Moderate-----	0.20 0.15 0.24 0.24	5	.5-2
Urban land.									
21----- Briscot	0-16 16-30 30-60	5-12 5-12 20-35	0.6-2.0 0.6-2.0 0.6-2.0	0.13-0.15 0.13-0.20 0.19-0.21	6.1-7.3 6.1-7.3 6.1-7.3	Low----- Low----- Low-----	0.32 0.37 0.43	5	3-9
22, 23----- Cathcart	0-10 10-40 40-60	--- --- ---	0.6-2.0 0.6-2.0 0.6-2.0	0.15-2.0 0.10-2.0 0.08-0.11	4.5-6.0 5.1-6.5 5.6-6.5	Low----- Low----- Low-----	0.28 0.28 0.20	5	2-8
24----- Cathcart	0-7 7-39 39-60	--- --- ---	0.6-2.0 0.6-2.0 0.6-2.0	0.15-2.0 0.10-2.0 0.08-0.11	4.5-6.0 5.1-6.5 5.6-6.5	Low----- Low----- Low-----	0.28 0.28 0.20	5	2-8
25, 26----- Catla	0-6 6-11 11-17 17	5-10 5-15 5-15 ---	0.6-2.0 0.6-2.0 0.6-2.0 <0.06	0.08-0.10 0.08-0.10 0.06-0.08 ---	5.1-6.0 5.1-6.0 5.1-6.0 ---	Low----- Low----- Low----- ---	0.20 0.20 0.10 ---	1	2-5
27, 28----- Chuckanut	0-9 9-35 35-49 49	--- --- --- ---	2.0-6.0 0.6-2.0 0.6-2.0 ---	0.15-0.20 0.10-0.15 0.10-0.15 ---	5.1-6.0 5.1-6.0 5.1-6.0 ---	Low----- Low----- Low----- ---	0.20 0.20 0.20 ---	3	2-8
29, 30----- Clallam	0-11 11-27 27	7-12 3-12 ---	0.6-2.0 0.6-2.0 <0.06	0.10-0.14 0.06-0.10 ---	5.1-6.5 5.1-6.5 ---	Low----- Low----- ---	0.20 0.15 ---	2	3-5
31*: Clallam-----	0-11 11-27 27	7-12 3-12 ---	0.6-2.0 0.6-2.0 <0.06	0.10-0.14 0.06-0.10 ---	5.1-6.5 5.1-6.5 ---	Low----- Low----- ---	0.20 0.15 ---	2	3-5
Urban land.									
32----- Clendenen	0-7 7-16 16	--- --- ---	0.6-2.0 0.6-2.0 <0.06	0.15-0.25 0.12-0.20 ---	4.5-5.0 4.5-5.5 ---	Low----- Low----- ---	0.20 0.10 ---	1	10-15

See footnote at end of table.



Schematic

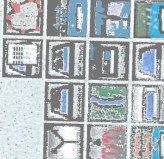
SCENARIOS

☒ Predeveloped

☐ Merged

Run Scenario

ELEMENTS

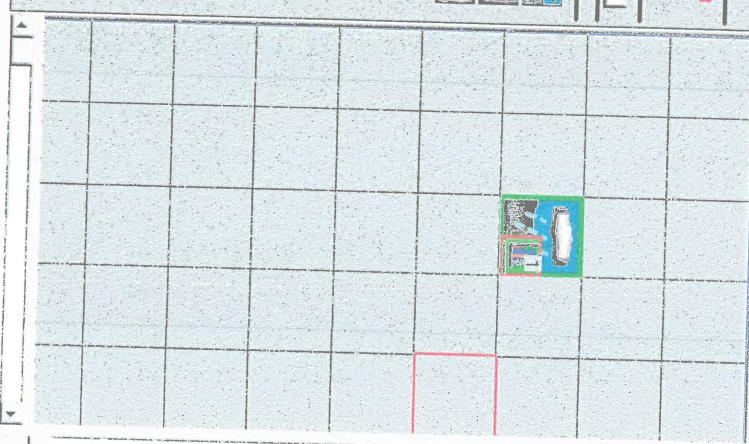


Move Elements



Save x,y Load x,y

X: 40 Y: 18



Basin: 1 Predeveloped

Subbasin Name: Basin 1

Flows To:

Surface

Interflow

Groundwater

Area in Basin

Available Previous

☒ C Forest Flat	5
☒ C Pasture Flat	267
☒ C Lawn Flat	0
☒ C IMP DISP FLAT	0

Available Impervious

☒ ROADS FLAT	0
☒ ROOF TOPS FLAT	0
☒ SIDEWALKS/FLAT	0
☒ POND	0

☒ Show Only Selected

Previous Total

311

Acres

Basin Total

311

Acres

Impervious Total

0

Acres

Dessect Zero

Salient Riv

60

60

60

60

60

60

60

60

60

60

60

60

60

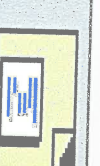
60

60

60

60

60



Schematic

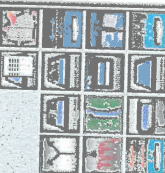
SCENARIOS

☐ Predeveloped

☒ Mitigated

Run Scenario

ELEMENTS

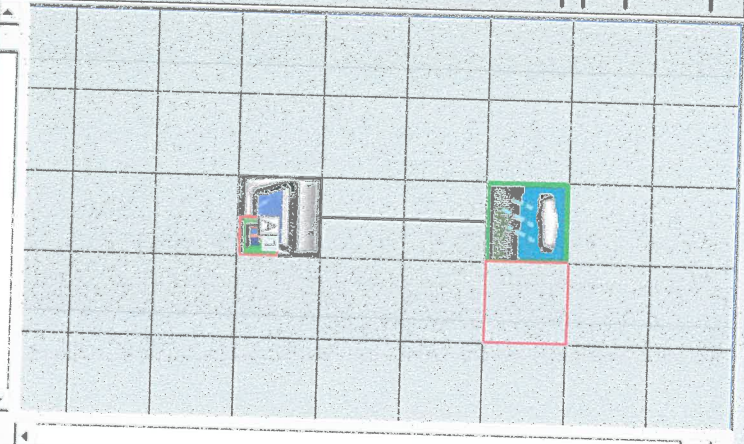


Save x,y

Load x,y

X: 30

Y: 12



Basin: 1 Mitigated

Subbasin Name: Basin 1

Flows To:

Surface

Trapezoidal Pond 1

Interflow

Trapezoidal Pond 1

Groundwater

Area in Basin

Available Pervious

☒ Forest, Flat

0

☒ Pasture, Flat

22

☒ Low, Flat

33

☒ CMP DISP, FLAT

15

Available Impervious

☒ Show Only Selected

79

☒ ROADS, FLAT

14

☒ ROOF TOPS, FLAT

0

☒ SIDEWALKS, FLAT

1

Pervious Total

268

Acres

Basin Total

311

Acres

Impervious Total

0.43

Acres

Deepest Zero

Select Rv

GO





SCENARIOS

Run Scenario

Predeveloped

Mitigated

Run Scenario

Run Scenario

Run Scenario

Run Scenario

Run Scenario

Run Scenario

Run Scenario

Run Scenario

Run Scenario

Run Scenario

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Run Scenario

Run Scenario

Run Scenario

Run Scenario

Run Scenario

Run Scenario

Trapezoidal Pond 1 Mitigated

Facility Name

Downstream Connections

Facility Type

Pre-precipitation Applied to Facility

Evaporation Applied to Facility

Facility Bottom Elevation (ft)

Facility Dimensions

Bottom Length (ft)

Bottom Width (ft)

Effective Depth (ft)

Left Side Slope (H/V)

Bottom Side Slope (H/V)

Right Side Slope (H/V)

Top Side Slope (H/V)

Facility Dimension Diagram

Infiltration

NO

Trapezoidal Pond 1

Outlet 1

0

Trapezoidal Pond

Auto Pond

Quick Pond

Outlet 3

0

Outlet Structure

Riser Height (ft)

2

Riser Diameter (in)

12

Riser Type

Notched

Notch Type

Rectangular

Notch Height (ft)

0.69

Notch Width (ft)

0.04

Orifice Diameter Height (ft)

0.95

0

0

0

0

0

0

0

0

0

0

0

0

0

0

0

0

0

0

0

0

0

0

0

0

0

0

0

0

0

0

0

0

0

0

Pond Volume at Riser Head (acre-ft)

1.76

Pond Increment

0.10

Show Pond Table

Open Table

Use Tide Gate?

NO

NO

NO

NO

NO

NO

NO

NO

NO

NO

NO

NO

NO

NO

NO

NO

NO

NO

NO

NO

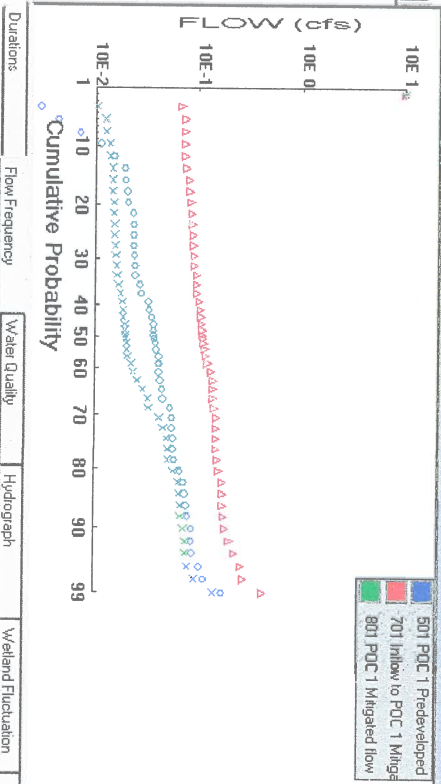
NO

NO

NO



Analysis



Analyze datasets

- 501 POC 1 Predeveloped flow
- 701 Inflow to POC 1 Mitigated
- 801 POC 1 Mitigated flow
- 1000 Trapezoidal Pond 1 ALL OUTLETS Mitigated

All Datasets Flow Stage Precip Evap POC 1

Flood Frequency Method
☒ Log Pearson Type III 17B
☐ Weibull
☐ Duration
☐ Gumbel

Duration

Flow Frequency	501	701	801
Flow (CFS)	0.0401	0.1211	0.0263
2 Year =	0.0761	0.1787	0.0532
5 Year =	0.1026	0.2248	0.0812
10 Year =	0.1373	0.2928	0.1328
25 Year =	0.1634	0.3513	0.1869
50 Year =	0.1893	0.4170	0.2585
100 Year =			
Yearly Peaks			
1949	0.1182	0.2067	0.0956
1950	0.0728	0.1174	0.0809
1951	0.0558	0.1768	0.0510
1952	0.0456	0.1079	0.0332
1953	0.0207	0.1404	0.0178
1954	0.0269	0.0821	0.0195
1955	0.0366	0.0849	0.0185
1956	0.0333	0.0911	0.0163
1957	0.0561	0.1440	0.0285
1958	0.0236	0.1095	0.0158
1959	0.0671	0.1040	0.0662
1960	0.0412	0.1250	0.0419
1961	0.0246	0.0769	0.0208
1962	0.0029	0.1117	0.0139
1963	0.0236	0.0825	0.0154
1964	0.0279	0.1147	0.0155
1965	0.0572	0.2812	0.0511
1966	0.0234	0.0749	0.0154
1967	0.0365	0.1797	0.0195
1968	0.0769	0.1516	0.0645
1969	0.0195	0.0742	0.0163
1970	0.0113	0.1039	0.0125
1971	0.0800	0.1745	0.0736
1972	0.0374	0.0969	0.0189
1973	0.0328	0.0872	0.0225
1974	0.0740	0.1359	0.0764



Analysis

Run
Analysis

Water Quality

On-Line BMP

24 hour Volume
acre feet

0.0918

Standard Flow Rate (cfs)
15 Minute Flow Rate

0.0649
0.0661

Off-Line BMP

Standard Flow Rate (cfs)
15 Minute Flow rate

0.0357
0.0383

Durations

Flow Frequency

Water Quality

Hydrograph

Wetland Fluctuation

Analyze datasets

801 PDC 1 Predeveloped flow
701 Inflow to PDC 1 Mitigated
801 PDC 1 Mitigated flow
1000 Trapezoidal Pond 1 ALL OUTLETS Mitigated

All Datasets Flow Slope Precp Evap PDC 1

Flood Frequency Method
Log Pearson Type III 178

Log Pearson Type III 178
Weibull
Dunnane



Western Washington Hydrology Model
PROJECT REPORT

Project Name: 08.04.20
Site Address:
City :
Report Date : 8/4/2020
Gage : Burlington
Data Start : 1948/10/01
Data End : 1999/09/30
Precip Scale: 0.80
WWHM3 Version:

PREDEVELOPED LAND USE

Name : Basin 1
Bypass: No

GroundWater: No

<u>Pervious Land Use</u>	<u>Acres</u>
C, Forest, Flat	.5
C, Pasture, Flat	2.61

<u>Impervious Land Use</u>	<u>Acres</u>
----------------------------	--------------

Element Flows To:

Surface	Interflow	Groundwater
---------	-----------	-------------

Name : Basin 1
Bypass: No

GroundWater: No

<u>Pervious Land Use</u>	<u>Acres</u>
C, Pasture, Flat	2.2
C IMP DISP FLAT	.15
C, Lawn, Flat	.33

<u>Impervious Land Use</u>	<u>Acres</u>
ROADS FLAT	0.19
ROOF TOPS FLAT	0.14
POND	0.1

Element Flows To:

Surface	Interflow	Groundwater
Trapezoidal Pond 1,	Trapezoidal Pond 1,	

Name : Trapezoidal Pond 1
Bottom Length: 86ft.
Bottom Width: 36ft.
Depth : 3ft.
Volume at riser head : 0.1758ft.
Side slope 1: 3 To 1
Side slope 2: 3 To 1
Side slope 3: 2.5 To 1
Side slope 4: 3 To 1
Discharge Structure
Riser Height: 2 ft.
Riser Diameter: 12 in.
NotchType : Rectangular
Notch Width : 0.040 ft.
Notch Height: 0.690 ft.
Orifice 1 Diameter: 0.85 in. Elevation: 0 ft.

Element Flows To:
Outlet 1 Outlet 2

Pond Hydraulic Table

Stage(ft)	Area(acr)	Volume(acr-ft)	Dschrg(cfs)	Infilt(cfs)
0.000	0.071	0.000	0.000	0.000
0.033	0.072	0.002	0.003	0.000
0.067	0.072	0.005	0.005	0.000
0.100	0.073	0.007	0.006	0.000
0.133	0.073	0.010	0.007	0.000
0.167	0.074	0.012	0.008	0.000
0.200	0.074	0.015	0.008	0.000
0.233	0.075	0.017	0.009	0.000
0.267	0.075	0.020	0.010	0.000
0.300	0.076	0.022	0.010	0.000
0.333	0.076	0.025	0.011	0.000
0.367	0.077	0.027	0.011	0.000
0.400	0.078	0.030	0.012	0.000
0.433	0.078	0.032	0.012	0.000
0.467	0.079	0.035	0.013	0.000
0.500	0.079	0.038	0.013	0.000
0.533	0.080	0.040	0.014	0.000
0.567	0.080	0.043	0.014	0.000
0.600	0.081	0.046	0.015	0.000
0.633	0.081	0.048	0.015	0.000
0.667	0.082	0.051	0.015	0.000
0.700	0.083	0.054	0.016	0.000
0.733	0.083	0.056	0.016	0.000
0.767	0.084	0.059	0.017	0.000
0.800	0.084	0.062	0.017	0.000
0.833	0.085	0.065	0.017	0.000
0.867	0.085	0.068	0.018	0.000
0.900	0.086	0.071	0.018	0.000
0.933	0.086	0.073	0.018	0.000

0.967	0.087	0.076	0.019	0.000
1.000	0.088	0.079	0.019	0.000
1.033	0.088	0.082	0.019	0.000
1.067	0.089	0.085	0.020	0.000
1.100	0.089	0.088	0.020	0.000
1.133	0.090	0.091	0.020	0.000
1.167	0.091	0.094	0.020	0.000
1.200	0.091	0.097	0.021	0.000
1.233	0.092	0.100	0.021	0.000
1.267	0.092	0.103	0.021	0.000
1.300	0.093	0.106	0.022	0.000
1.333	0.094	0.109	0.022	0.000
1.367	0.094	0.113	0.024	0.000
1.400	0.095	0.116	0.026	0.000
1.433	0.095	0.119	0.028	0.000
1.467	0.096	0.122	0.031	0.000
1.500	0.097	0.125	0.034	0.000
1.533	0.097	0.128	0.037	0.000
1.567	0.098	0.132	0.040	0.000
1.600	0.098	0.135	0.044	0.000
1.633	0.099	0.138	0.047	0.000
1.667	0.100	0.142	0.051	0.000
1.700	0.100	0.145	0.055	0.000
1.733	0.101	0.148	0.059	0.000
1.767	0.101	0.152	0.063	0.000
1.800	0.102	0.155	0.067	0.000
1.833	0.103	0.158	0.071	0.000
1.867	0.103	0.162	0.075	0.000
1.900	0.104	0.165	0.079	0.000
1.933	0.104	0.169	0.084	0.000
1.967	0.105	0.172	0.088	0.000
2.000	0.106	0.176	0.093	0.000
2.033	0.106	0.179	0.152	0.000
2.067	0.107	0.183	0.261	0.000
2.100	0.108	0.186	0.401	0.000
2.133	0.108	0.190	0.568	0.000
2.167	0.109	0.194	0.756	0.000
2.200	0.110	0.197	0.965	0.000
2.233	0.110	0.201	1.192	0.000
2.267	0.111	0.205	1.435	0.000
2.300	0.111	0.208	1.695	0.000
2.333	0.112	0.212	1.969	0.000
2.367	0.113	0.216	2.257	0.000
2.400	0.113	0.220	2.559	0.000
2.433	0.114	0.223	2.874	0.000
2.467	0.115	0.227	3.200	0.000
2.500	0.115	0.231	3.539	0.000
2.533	0.116	0.235	3.889	0.000
2.567	0.117	0.239	4.251	0.000
2.600	0.117	0.243	4.623	0.000
2.633	0.118	0.247	5.005	0.000
2.667	0.119	0.251	5.398	0.000
2.700	0.119	0.255	5.801	0.000
2.733	0.120	0.259	6.213	0.000
2.767	0.121	0.263	6.635	0.000
2.800	0.121	0.267	7.066	0.000
2.833	0.122	0.271	7.506	0.000

2.867	0.123	0.275	7.956	0.000
2.900	0.123	0.279	8.413	0.000
2.933	0.124	0.283	8.880	0.000
2.967	0.125	0.287	9.355	0.000
3.000	0.125	0.291	9.838	0.000
3.033	0.126	0.295	10.33	0.000

MITIGATED LAND USE

ANALYSIS RESULTS

Flow Frequency Return Periods for Predeveloped. POC #1

<u>Return Period</u>	<u>Flow(cfs)</u>
2 year	0.040075
5 year	0.076125
10 year	0.102587
25 year	0.137283
50 year	0.163374
100 year	0.189299

Flow Frequency Return Periods for Mitigated. POC #1

<u>Return Period</u>	<u>Flow(cfs)</u>
2 year	0.026328
5 year	0.053224
10 year	0.081158
25 year	0.132795
50 year	0.186942
100 year	0.258464

Yearly Peaks for Predeveloped and Mitigated. POC #1

<u>Year</u>	<u>Predeveloped</u>	<u>Mitigated</u>
1950	0.118	0.096
1951	0.073	0.081
1952	0.056	0.051
1953	0.046	0.033
1954	0.021	0.018
1955	0.027	0.020
1956	0.037	0.018
1957	0.033	0.016
1958	0.056	0.029
1959	0.024	0.016
1960	0.067	0.066
1961	0.041	0.042
1962	0.025	0.021
1963	0.003	0.014
1964	0.024	0.015
1965	0.028	0.015
1966	0.057	0.051
1967	0.023	0.015
1968	0.037	0.019
1969	0.077	0.065
1970	0.019	0.016
1971	0.011	0.013

1972	0.080	0.074
1973	0.037	0.019
1974	0.033	0.023
1975	0.074	0.076
1976	0.307	0.467
1977	0.020	0.019
1978	0.024	0.016
1979	0.038	0.026
1980	0.019	0.015
1981	0.053	0.046
1982	0.035	0.017
1983	0.088	0.076
1984	0.042	0.049
1985	0.088	0.069
1986	0.015	0.014
1987	0.057	0.024
1988	0.037	0.033
1989	0.088	0.020
1990	0.024	0.015
1991	0.058	0.068
1992	0.106	0.145
1993	0.043	0.020
1994	0.039	0.021
1995	0.004	0.010
1996	0.007	0.013
1997	0.041	0.015
1998	0.175	0.058
1999	0.045	0.021
2000	0.024	0.015

Ranked Yearly Peaks for Predeveloped and Mitigated. POC #1

Rank	Predeveloped	Mitigated
1	0.3068	0.4673
2	0.1753	0.1449
3	0.1182	0.0956
4	0.1056	0.0809
5	0.0884	0.0764
6	0.0880	0.0762
7	0.0879	0.0736
8	0.0800	0.0689
9	0.0769	0.0684
10	0.0740	0.0662
11	0.0728	0.0645
12	0.0671	0.0582
13	0.0585	0.0511
14	0.0572	0.0510
15	0.0571	0.0489
16	0.0561	0.0457
17	0.0558	0.0419
18	0.0530	0.0332
19	0.0456	0.0328
20	0.0446	0.0289
21	0.0428	0.0256
22	0.0417	0.0235
23	0.0412	0.0225
24	0.0410	0.0208

25	0.0392	0.0206
26	0.0385	0.0205
27	0.0374	0.0200
28	0.0370	0.0198
29	0.0366	0.0195
30	0.0365	0.0195
31	0.0352	0.0189
32	0.0333	0.0187
33	0.0328	0.0185
34	0.0279	0.0178
35	0.0269	0.0169
36	0.0246	0.0163
37	0.0243	0.0163
38	0.0241	0.0159
39	0.0237	0.0158
40	0.0236	0.0155
41	0.0236	0.0154
42	0.0234	0.0154
43	0.0207	0.0151
44	0.0204	0.0149
45	0.0195	0.0148
46	0.0192	0.0148
47	0.0152	0.0139
48	0.0113	0.0138
49	0.0070	0.0127
50	0.0043	0.0125
51	0.0029	0.0103

POC #1

The Facility PASSED

The Facility **PASSED.**

Flow(CFS)	Predev	Dev	Percentage	Pass/Fail
0.0200	4077	4056	99	Pass
0.0215	3588	2853	79	Pass
0.0229	3174	2259	71	Pass
0.0244	2830	2015	71	Pass
0.0258	2567	1829	71	Pass
0.0273	2319	1696	73	Pass
0.0287	2120	1582	74	Pass
0.0302	1932	1494	77	Pass
0.0316	1742	1406	80	Pass
0.0331	1579	1292	81	Pass
0.0345	1428	1208	84	Pass
0.0360	1301	1151	88	Pass
0.0374	1197	1087	90	Pass
0.0389	1072	1015	94	Pass
0.0403	978	955	97	Pass
0.0418	889	890	100	Pass
0.0432	826	813	98	Pass
0.0447	768	738	96	Pass
0.0461	719	675	93	Pass
0.0475	671	632	94	Pass
0.0490	624	589	94	Pass
0.0504	574	549	95	Pass

0.0519	526	518	98	Pass
0.0533	480	487	101	Pass
0.0548	438	459	104	Pass
0.0562	400	434	108	Pass
0.0577	370	409	110	Pass
0.0591	345	379	109	Pass
0.0606	322	355	110	Pass
0.0620	306	329	107	Pass
0.0635	293	302	103	Pass
0.0649	278	278	100	Pass
0.0664	252	254	100	Pass
0.0678	228	233	102	Pass
0.0693	205	210	102	Pass
0.0707	188	192	102	Pass
0.0722	174	177	101	Pass
0.0736	160	152	95	Pass
0.0751	146	138	94	Pass
0.0765	137	123	89	Pass
0.0780	129	115	89	Pass
0.0794	121	109	90	Pass
0.0808	116	101	87	Pass
0.0823	110	97	88	Pass
0.0837	106	94	88	Pass
0.0852	103	87	84	Pass
0.0866	94	84	89	Pass
0.0881	89	79	88	Pass
0.0895	86	74	86	Pass
0.0910	85	69	81	Pass
0.0924	83	62	74	Pass
0.0939	80	59	73	Pass
0.0953	78	58	74	Pass
0.0968	74	55	74	Pass
0.0982	71	55	77	Pass
0.0997	69	53	76	Pass
0.1011	66	52	78	Pass
0.1026	64	49	76	Pass
0.1040	62	49	79	Pass
0.1055	59	48	81	Pass
0.1069	56	48	85	Pass
0.1084	54	47	87	Pass
0.1098	52	46	88	Pass
0.1113	50	46	92	Pass
0.1127	48	45	93	Pass
0.1141	47	44	93	Pass
0.1156	45	44	97	Pass
0.1170	43	43	100	Pass
0.1185	40	43	107	Pass
0.1199	40	42	104	Pass
0.1214	40	42	104	Pass
0.1228	39	41	105	Pass
0.1243	39	41	105	Pass
0.1257	38	40	105	Pass
0.1272	38	40	105	Pass
0.1286	38	40	105	Pass
0.1301	37	39	105	Pass
0.1315	37	39	105	Pass
0.1330	36	39	108	Pass

0.1344	36	39	108	Pass
0.1359	36	38	105	Pass
0.1373	35	35	100	Pass
0.1388	35	34	97	Pass
0.1402	34	33	97	Pass
0.1417	33	33	100	Pass
0.1431	33	33	100	Pass
0.1446	33	31	93	Pass
0.1460	31	30	96	Pass
0.1474	31	30	96	Pass
0.1489	29	30	103	Pass
0.1503	28	30	107	Pass
0.1518	28	29	103	Pass
0.1532	28	25	89	Pass
0.1547	28	25	89	Pass
0.1561	27	25	92	Pass
0.1576	27	25	92	Pass
0.1590	25	25	100	Pass
0.1605	24	25	104	Pass
0.1619	24	24	100	Pass
0.1634	24	24	100	Pass

Water Quality BMP Flow and Volume for POC 1.
On-line facility volume: 0.0918 acre-feet
On-line facility target flow: 0.01 cfs.
Adjusted for 15 min: 0.0661 cfs.
Off-line facility target flow: 0.0357 cfs.
Adjusted for 15 min: 0.0363 cfs.

PerlnD and Implnd Changes

No changes have been made.

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APPENDIX 11 – 2014 DOE BMP T5.10B, T5.11, T5.12, and T5.13

Setbacks

Local governments may require specific setbacks in sites with slopes over 40%, land slide areas, open water features, springs, wells, and septic tank drain fields. Adequate room for maintenance access and equipment should also be considered. Examples of setbacks commonly used include the following:

1. All infiltration systems should be at least 10 feet from any structure, property line, or sensitive area (except slopes over 40%).
2. All infiltration systems must be at least 50 feet from the top of any slope over 40%. This setback may be reduced to 15 feet based on a geotechnical evaluation, but in no instances may it be less than the buffer width.
3. For sites with septic systems, infiltration systems must be downgradient of the drainfield unless the site topography clearly prohibits subsurface flows from intersecting the drainfield.

III-3.1.2 Downspout Dispersion Systems (BMP T5.10B)

Downspout dispersion systems are splash blocks or gravel filled trenches, which serve to spread roof runoff over vegetated pervious areas. Dispersion attenuates peak flows by slowing the runoff entering into the conveyance system, allowing some infiltration, and providing some water quality benefits.

Applications & Limitations

Downspout dispersion may be used in all subdivision lots where downspout full infiltration, full dispersion, and bioretention/rain gardens are not feasible.

Runoff Modeling for Roof Downspout Dispersion

In WWHM, roof areas may be modeled as grassed surfaces (landscape) if roof runoff is dispersed according to the requirements of this section on lots greater than 22,000 square feet, and the vegetated flowpath is 50 feet or larger through undisturbed native landscape or lawn/landscape area that meets [BMP T5.13: Post-Construction Soil Quality and Depth \(p.911\)](#). If the available vegetated flowpath is 25 to 50 feet, use of a dispersion trench allows modeling the roof as 50% impervious/50% landscape. This is done in WWHM on the Mitigated Scenario screen by entering the roof area into one of the entry options for dispersal of impervious area runoff. For WWHM2012, see [Appendix III-C: Washington State Department of Ecology Low Impact Development Flow Modeling Guidance \(p.587\)](#).

Design Criteria

1. Use downspout trenches designed as shown in [Figure III-3.1.5 Typical Downspout Dispersion Trench \(p.461\)](#) and [Figure III-3.1.6 Standard Dispersion Trench with](#)

[Notched Grade Board \(p.462\)](#) for all downspout dispersion applications except where splash blocks are allowed below.

2. Splash blocks shown in [Figure III-3.1.7 Typical Downspout Splashblock Dispersion \(p.464\)](#) may be used for downspouts discharging to a vegetated flowpath at least 50 feet in length as measured from the downspout to the downstream property line, structure, slope over 15%, stream, wetland, or other impervious surface. Sensitive area buffers may count toward flowpath lengths.
3. Cover the vegetated flowpath with well-established lawn or pasture, landscaping with well-established groundcover, or native vegetation with natural groundcover. The groundcover shall be dense enough to help disperse and infiltrate flows and to prevent erosion.
4. If the vegetated flowpath (measured as defined above) is less than 25 feet, a perforated stub out connection per [III-3.1.3 Perforated Stub Out Connections \(BMP T5.10C\) \(p.465\)](#) may be used in lieu of downspout dispersion. A perforated stub out may also be used where implementation of downspout dispersion might cause erosion or flooding problems, either on site or on adjacent lots. For example, this provision might be appropriate for lots constructed on steep hills where downspout discharge could culminate and might pose a potential hazard for lower lying lots, or where dispersed flows could create problems for adjacent off-site lots. This provision does not apply to situations where lots are flat and on-site downspout dispersal would result in saturated yards. Perforated stub-outs are not appropriate when seasonal water table is <1 foot below trench bottom.

Note: For all other types of projects, the use of a perforated stub-out in lieu of downspout dispersion shall be as determined by the Local Plan Approval Authority.

5. For sites with septic systems, the discharge point of all dispersion systems must be downgradient of the drainfield. This requirement may be waived if site topography clearly prohibits flows from intersecting the drainfield.

Design Criteria for Dispersion Trenches

1. A vegetated flowpath of at least 25 feet in length must be maintained between the outlet of the trench and any property line, structure, stream, wetland, or impervious surface. A vegetated flowpath of at least 50 feet in length must be maintained between the outlet of the trench and any slope steeper than 15%. Sensitive area buffers may count towards flowpath lengths.
2. Trenches serving up to 700 square feet of roof area may be simple 10-foot-long by 2-foot wide gravel filled trenches as shown in [Figure III-3.1.5 Typical Downspout Dispersion Trench \(p.461\)](#). For roof areas larger than 700 square feet, a dispersion trench with notched grade board as shown in [Figure III-3.1.6 Standard Dispersion Trench with Notched Grade Board \(p.462\)](#) or alternative material approved by the

Local Plan Approval Authority may be used. The total length of this design must not exceed 50 feet and must provide at least 10 feet of trench per 700 square feet of roof area.

3. Maintain a setback of at least 5 feet between any edge of the trench and any structure or property line.
4. No erosion or flooding of downstream properties may result.
5. Have a geotechnical engineer or a licensed geologist, hydrogeologist, or engineering geologist evaluate runoff discharged towards landslide hazard areas. Do not place the discharge point on or above slopes greater than 15% or above erosion hazard areas without evaluation by a geotechnical engineer or qualified geologist and jurisdiction approval.
6. For purposes of maintaining adequate separation of flows discharged from adjacent dispersion devices, the outer edge of the vegetated flowpath segment for the dispersion trench must not overlap with other flowpath segments, except those associated with sheet flow from a non-native pervious surface.

Figure III-3.1.5 Typical Downspout Dispersion Trench

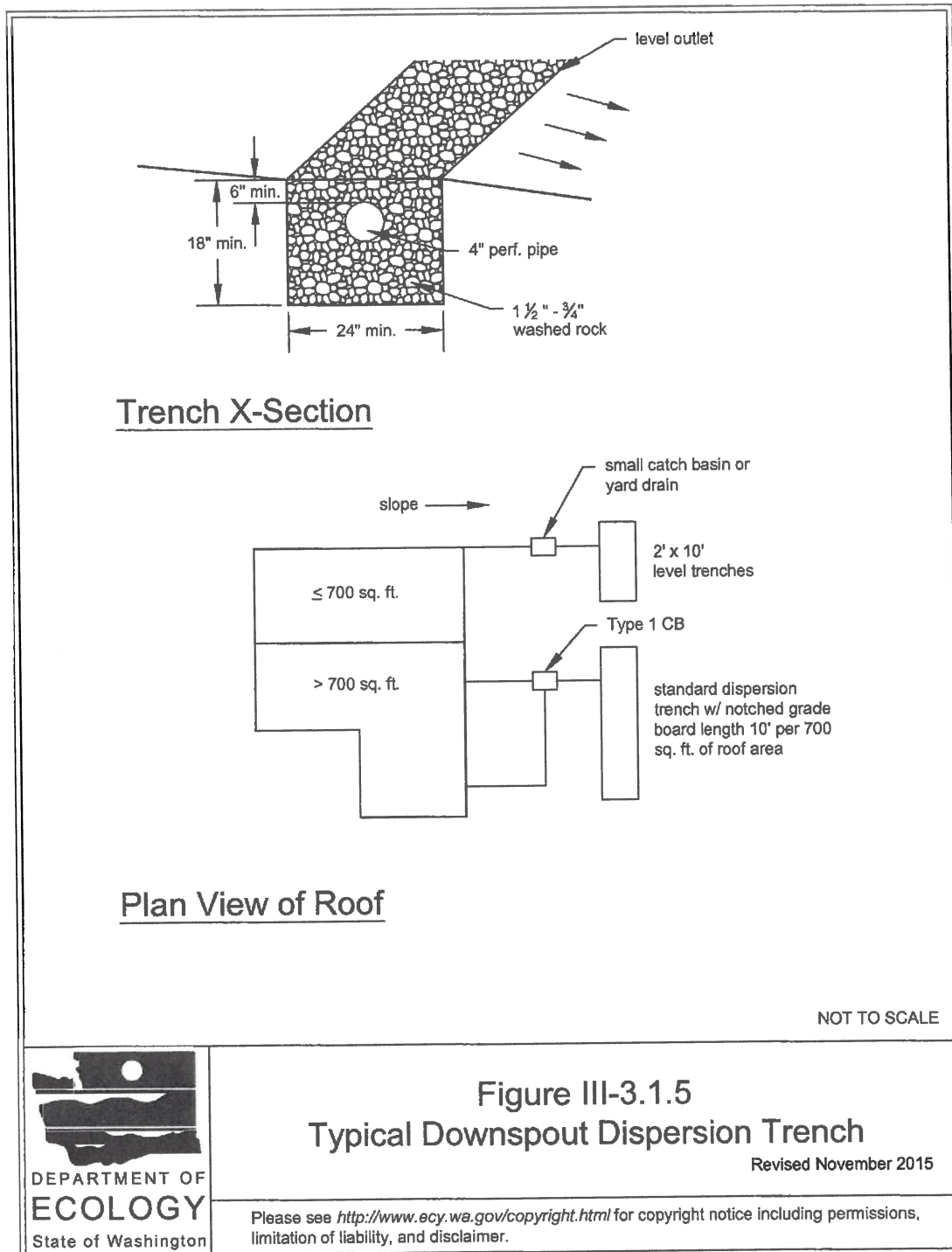
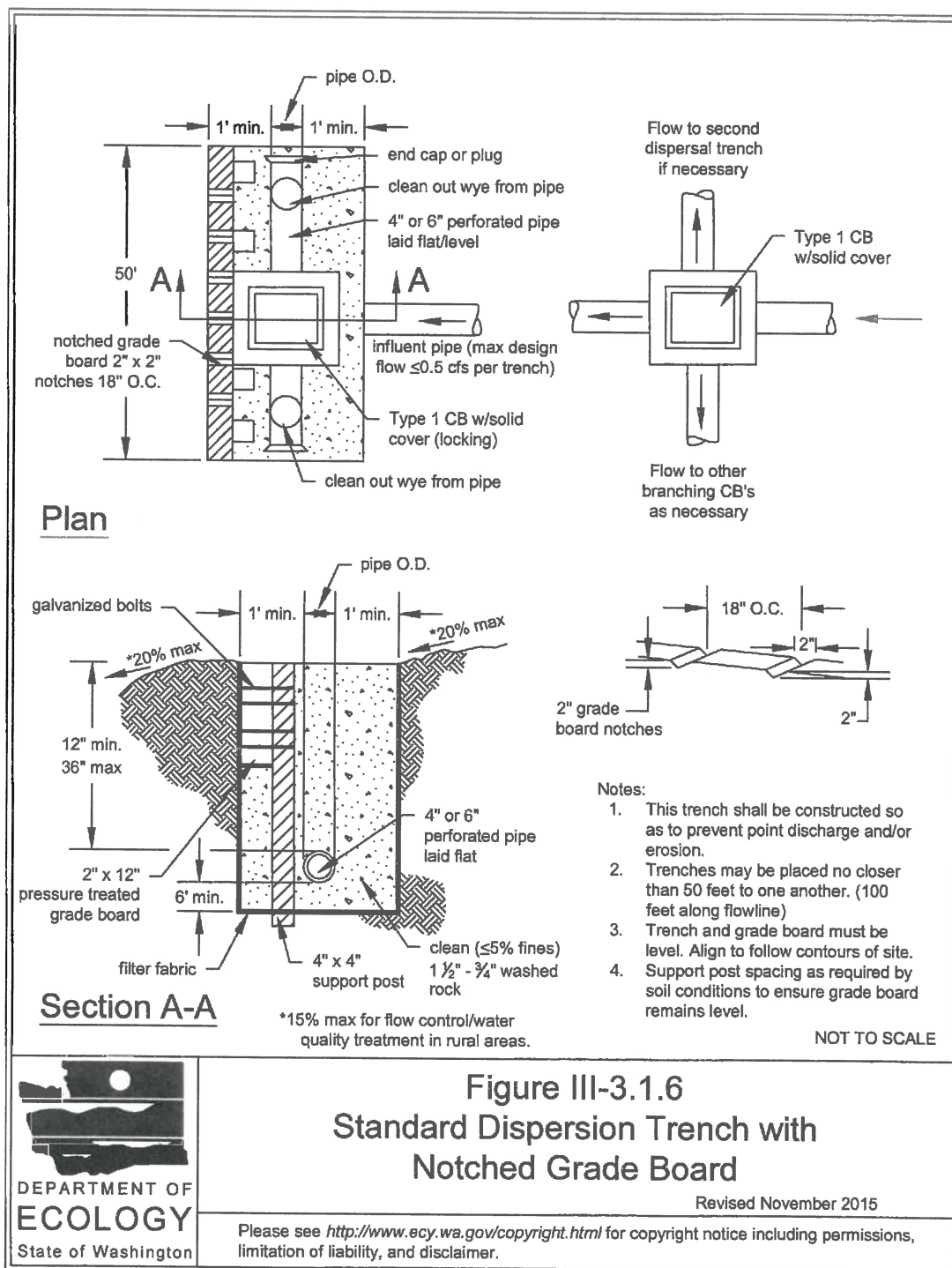


Figure III-3.1.6 Standard Dispersion Trench with Notched Grade Board



require use of LID principles and BMP's.

- Public health and safety standards.
- Transportation regulations to maintain the option for future expansion or multi-modal use of public rights-of-way.
- A local Critical Area Ordinance that provides protection of tree species.
- A local code or rule adopted as part of a Wellhead Protection Program established under the Federal Safe Drinking Water Act; or adopted to protect a Critical Aquifer Recharge Area established under the State Growth Management Act.

BMP T5.10A: Downspout Full Infiltration

Please refer to [III-3.1.1 Downspout Full Infiltration Systems \(BMP T5.10A\) \(p.452\)](#).

BMP T5.10B: Downspout Dispersion Systems

Please refer to [III-3.1.2 Downspout Dispersion Systems \(BMP T5.10B\) \(p.458\)](#).

BMP T5.10C: Perforated Stub-out Connections

Please refer to [III-3.1.3 Perforated Stub Out Connections \(BMP T5.10C\) \(p.465\)](#).

BMP T5.11: Concentrated Flow Dispersion

Purpose and Definition

Dispersion of concentrated flows from driveways or other pavement through a vegetated pervious area attenuates peak flows by slowing entry of the runoff into the conveyance system, allowing for some infiltration, and providing some water quality benefits. See [Figure V-5.3.1 Typical Concentrated Flow Dispersion for Steep Driveways \(p.907\)](#).

Applications and Limitations

- Use this BMP in any situation where concentrated flow can be dispersed through vegetation.
- [Figure V-5.3.1 Typical Concentrated Flow Dispersion for Steep Driveways \(p.907\)](#) shows two possible ways of spreading flows from steep driveways.

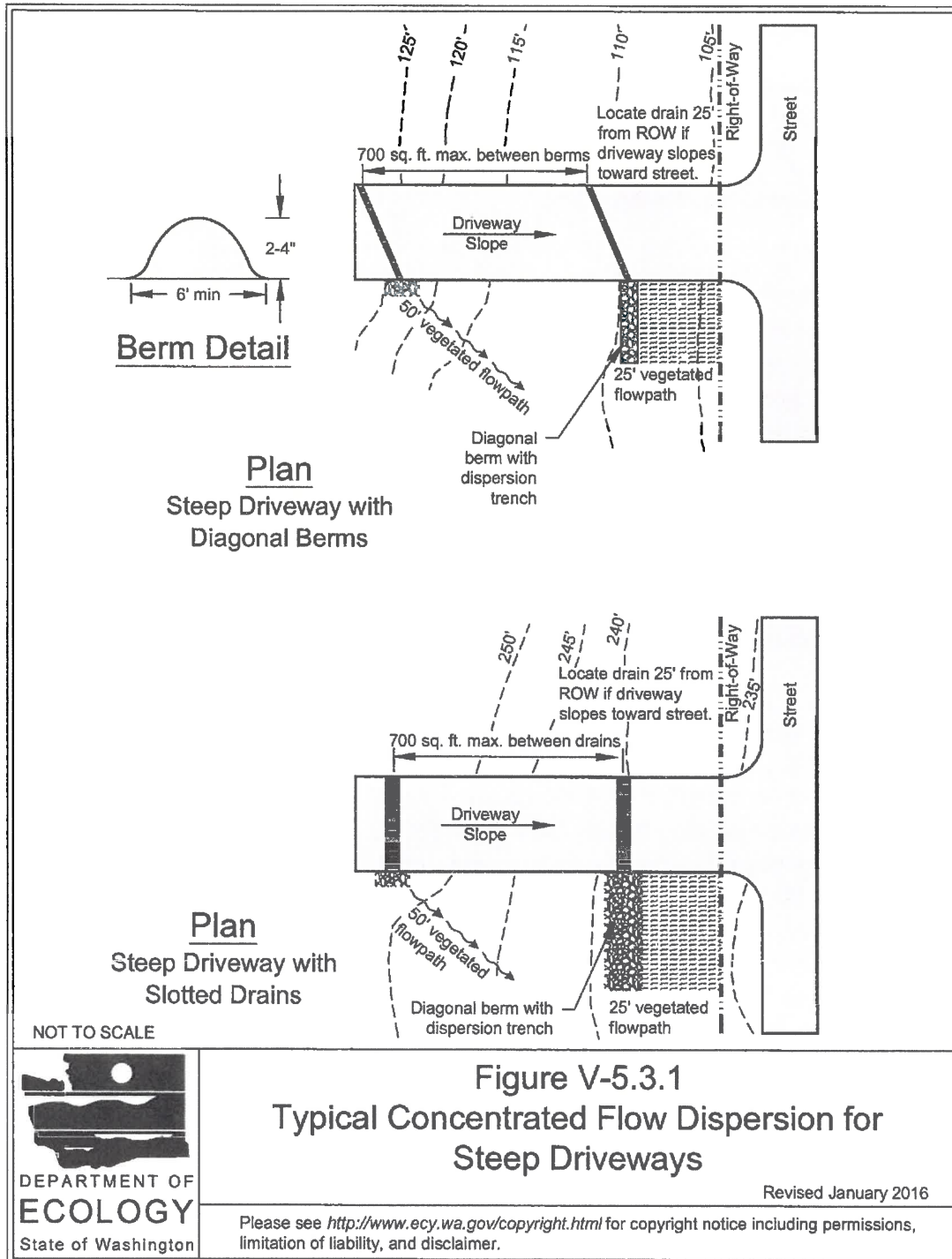
Design Guidelines

- Maintain a vegetated flowpath of at least 50 feet between the discharge point and any property line, structure, steep slope, stream, lake, wetland, lake, or other impervious surface.
- A maximum of 700 square feet of impervious area may drain to each concentrated flow dispersion BMP.
- Provide a pad of crushed rock (a minimum of 2 feet wide by 3 feet long by 6 inches deep) at each discharge point.
- No erosion or flooding of downstream properties may result.
- Runoff discharged towards landslide hazard areas must be evaluated by a geotechnical engineer or qualified geologist. Do not place the discharge point on or above slopes greater than 20%, or above erosion hazard areas, without evaluation by a geotechnical engineer or qualified geologist and approval by the Local Plan Approval Authority.
- For sites with septic systems, the discharge point must be ten feet downgradient of the drainfield primary and reserve areas ([WAC 246-272A-0210](#)). A Local Plan Approval Authority may waive this requirement if site topography clearly prohibits flows from intersecting the drainfield.

Runoff Modeling

Where [BMP T5.11: Concentrated Flow Dispersion](#) is used to disperse runoff into an undisturbed native landscape area or an area that meets [BMP T5.13: Post-Construction Soil Quality and Depth \(p.911\)](#), and the vegetated flow path is at least 50 feet, the impervious area may be modeled as landscaped area. Where the vegetated flowpath is 25 – 50 feet, using a dispersion trench (see [BMP T5.10B: Downspout Dispersion Systems \(p.905\)](#)) allows modeling the impervious area as 50% impervious/50% landscape. This is done in the WWHM 3 on the Mitigated Scenario screen by entering the dispersed impervious area into one of the entry options for dispersal of impervious area runoff. For procedures in WWHM 2012, see [Appendix III-C: Washington State Department of Ecology Low Impact Development Flow Modeling Guidance \(p.587\)](#).

Figure V-5.3.1 Typical Concentrated Flow Dispersion for Steep Driveways



BMP T5.12: Sheet Flow Dispersion

Purpose and Definition

Sheet flow dispersion is the simplest method of runoff control. This BMP can be used for any impervious or pervious surface that is graded to avoid concentrating flows). Because flows are already dispersed as they leave the surface, they need only traverse a narrow band of adjacent vegetation for effective attenuation and treatment.

Applications and Limitations

Use this BMP for flat or moderately sloping (< 15% slope) surfaces such as driveways, sports courts, patios, roofs without gutters, lawns, pastures; or any situation where concentration of flows can be avoided.

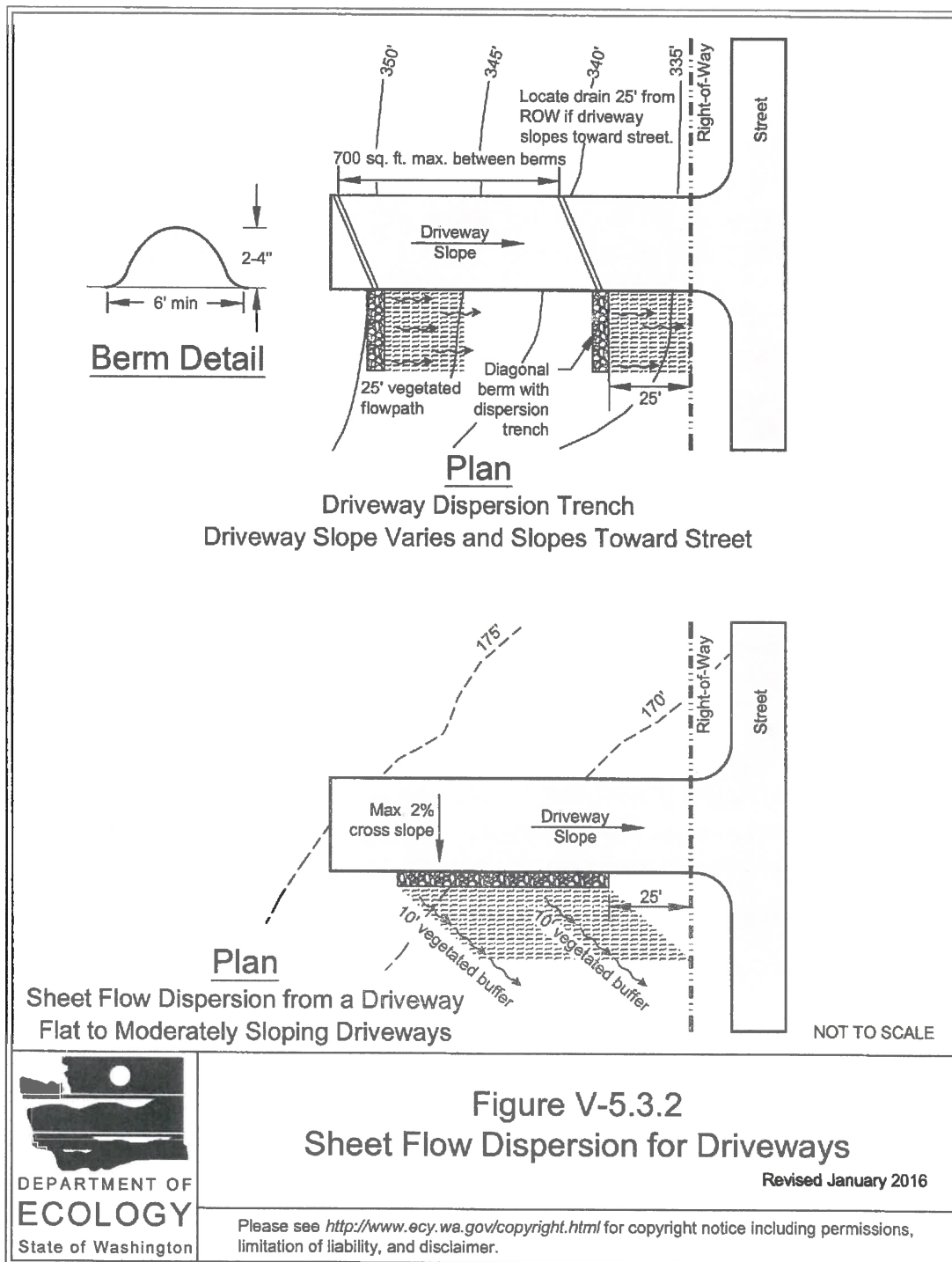
Design Guidelines

- See [Figure V-5.3.2 Sheet Flow Dispersion for Driveways \(p.910\)](#) for details for driveways.
- Provide a 2-foot-wide transition zone to discourage channeling between the edge of the impervious surface (or building eaves) and the downslope vegetation. This transition zone may consist of an extension of subgrade material (crushed rock), modular pavement, drain rock, or other material acceptable to the Local Plan Approval Authority.
- Provide a 10-foot-wide vegetated buffer for up to 20 feet of width of paved or impervious surface. Provide an additional 10 feet of vegetated buffer width for each additional 20 feet of impervious surface width or fraction thereof. (For example, if a driveway is 30 feet wide and 60 feet long provide a 20-foot wide by 60-foot long vegetated buffer, with a 2-foot by 60-foot transition zone.)
- No erosion or flooding of downstream properties may result.
- Runoff discharge toward landslide hazard areas must be evaluated by a geotechnical engineer or a qualified geologist. Do not allow sheet flow on or above slopes greater than 20%, or above erosion hazard areas, without evaluation by a geotechnical engineer or qualified geologist and approval by the Local Plan Approval Authority.
- For sites with septic systems, the discharge area must be ten feet downgradient of the drainfield primary and reserve areas ([WAC 246-272A-0210](#)). A Local Plan Approval Authority may waive this requirement if site topography clearly prohibits flows from intersecting the drainfield.

Runoff Modeling

Where [BMP T5.12: Sheet Flow Dispersion](#) is used to disperse runoff into an undisturbed native landscape area or an area that meets [BMP T5.13: Post-Construction Soil Quality and Depth \(p.911\)](#), and the vegetated flow path is 50 feet or more, the impervious area may be modeled as landscaped area. Where the vegetated flowpath is 25 to 50 feet, use of a dispersion trench (see [BMP T5.10B: Downspout Dispersion Systems \(p.905\)](#)) allows modeling the impervious area as 50% impervious/50% landscape. This is done in the WWHM3 on the Mitigation Scenario screen by entering the dispersed impervious area into one of the entry options for dispersal of impervious area runoff. For procedures in WWHM 2012, see [Appendix III-C: Washington State Department of Ecology Low Impact Development Flow Modeling Guidance \(p.587\)](#).

Figure V-5.3.2 Sheet Flow Dispersion for Driveways



BMP T5.13: Post-Construction Soil Quality and Depth

Purpose and Definition

Naturally occurring (undisturbed) soil and vegetation provide important stormwater functions including: water infiltration; nutrient, sediment, and pollutant adsorption; sediment and pollutant biofiltration; water interflow storage and transmission; and pollutant decomposition. These functions are largely lost when development strips away native soil and vegetation and replaces it with minimal topsoil and sod. Not only are these important stormwater functions lost, but such landscapes themselves become pollution generating pervious surfaces due to increased use of pesticides, fertilizers and other landscaping and household/industrial chemicals, the concentration of pet wastes, and pollutants that accompany roadside litter.

Establishing soil quality and depth regains greater stormwater functions in the post development landscape, provides increased treatment of pollutants and sediments that result from development and habitation, and minimizes the need for some landscaping chemicals, thus reducing pollution through prevention.

Applications and Limitations

Establishing a minimum soil quality and depth is not the same as preservation of naturally occurring soil and vegetation. However, establishing a minimum soil quality and depth will provide improved on-site management of stormwater flow and water quality.

Soil organic matter can be attained through numerous materials such as compost, composted woody material, biosolids, and forest product residuals. It is important that the materials used to meet the soil quality and depth BMP be appropriate and beneficial to the plant cover to be established. Likewise, it is important that imported topsoils improve soil conditions and do not have an excessive percent of clay fines.

This BMP can be considered infeasible on till soil slopes greater than 33 percent.

Design Guidelines

- Soil retention. Retain, in an undisturbed state, the duff layer and native topsoil to the maximum extent practicable. In any areas requiring grading remove and stockpile the duff layer and topsoil on site in a designated, controlled area, not adjacent to public resources and critical areas, to be reapplied to other portions of the site where feasible.
- Soil quality. All areas subject to clearing and grading that have not been covered by impervious surface, incorporated into a drainage facility or engineered as structural fill or slope shall, at project completion, demonstrate the following:
 1. A topsoil layer with a minimum organic matter content of 10% dry weight in planting beds, and 5% organic matter content in turf areas, and a pH from 6.0

to 8.0 or matching the pH of the undisturbed soil. The topsoil layer shall have a minimum depth of eight inches except where tree roots limit the depth of incorporation of amendments needed to meet the criteria. Subsoils below the topsoil layer should be scarified at least 4 inches with some incorporation of the upper material to avoid stratified layers, where feasible.

2. Mulch planting beds with 2 inches of organic material
3. Use compost and other materials that meet these organic content requirements:
 - a. The organic content for “pre-approved” amendment rates can be met only using compost meeting the compost specification for [BMP T7.30: Bioretention Cells, Swales, and Planter Boxes \(p.959\)](#), with the exception that the compost may have up to 35% biosolids or manure.

The compost must also have an organic matter content of 40% to 65%, and a carbon to nitrogen ratio below 25:1.

The carbon to nitrogen ratio may be as high as 35:1 for plantings composed entirely of plants native to the Puget Sound Lowlands region.
 - b. Calculated amendment rates may be met through use of composted material meeting (a.) above; or other organic materials amended to meet the carbon to nitrogen ratio requirements, and not exceeding the contaminant limits identified in Table 220-B, Testing Parameters, in [WAC 173-350-220](#).

The resulting soil should be conducive to the type of vegetation to be established.

- Implementation Options: The soil quality design guidelines listed above can be met by using one of the methods listed below:
 1. Leave undisturbed native vegetation and soil, and protect from compaction during construction.
 2. Amend existing site topsoil or subsoil either at default “pre-approved” rates, or at custom calculated rates based on tests of the soil and amendment.
 3. Stockpile existing topsoil during grading, and replace it prior to planting. Stockpiled topsoil must also be amended if needed to meet the organic matter or depth requirements, either at a default “pre-approved” rate or at a custom calculated rate.
 4. Import topsoil mix of sufficient organic content and depth to meet the requirements.

More than one method may be used on different portions of the same site. Soil that already meets the depth and organic matter quality standards, and is not compacted, does not need to be amended.

Planning/Permitting/Inspection/Verification Guidelines & Procedures

Local governments are encouraged to adopt guidelines and procedures similar to those recommended in Guidelines and Resources For Implementing Soil Quality and Depth BMP T5.13 in WDOE Stormwater Management Manual for Western Washington. This document is available at: [http://www.soilsforsalmon.org/pdf/Soil BMP Manual.pdf](http://www.soilsforsalmon.org/pdf/Soil_BMP_Manual.pdf)

Maintenance

- Establish soil quality and depth toward the end of construction and once established, protect from compaction, such as from large machinery use, and from erosion.
- Plant vegetation and mulch the amended soil area after installation.
- Leave plant debris or its equivalent on the soil surface to replenish organic matter.
- Reduce and adjust, where possible, the use of irrigation, fertilizers, herbicides and pesticides, rather than continuing to implement formerly established practices.

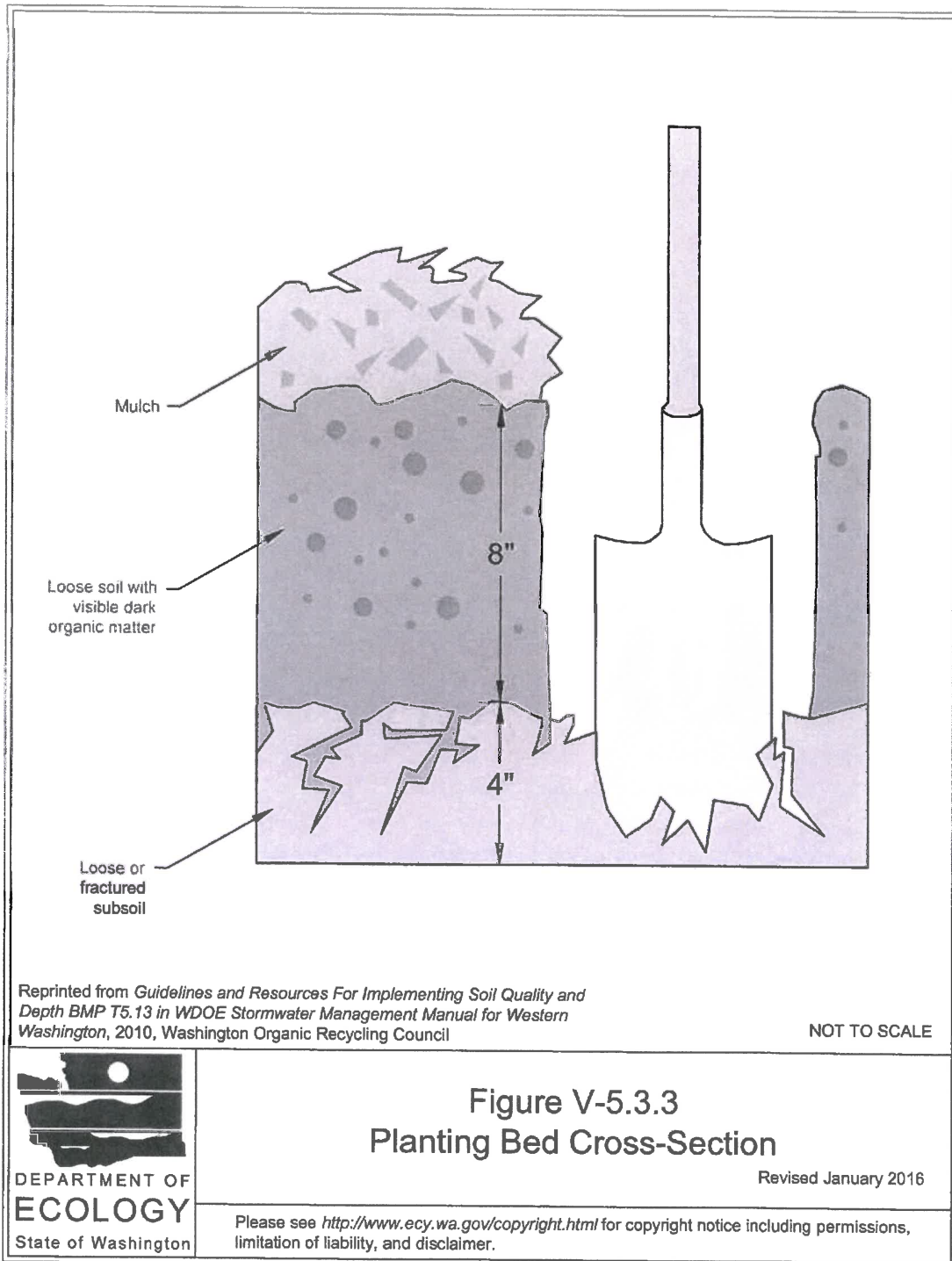
Runoff Model Representation

Areas meeting the design guidelines may be entered into approved runoff models as "Pasture" rather than "Lawn."

Flow reduction credits can be taken in runoff modeling when [BMP T5.13: Post-Construction Soil Quality and Depth](#) is used as part of a dispersion design under the conditions described in:

- [BMP T5.10B: Downspout Dispersion Systems \(p.905\)](#)
- [BMP T5.11: Concentrated Flow Dispersion \(p.905\)](#)
- [BMP T5.12: Sheet Flow Dispersion \(p.908\)](#)
- [BMP T5.18: Reverse Slope Sidewalks \(p.937\)](#)
- [BMP T5.30: Full Dispersion \(p.939\)](#) (for public road projects)

Figure V-5.3.3 Planting bed Cross-Section

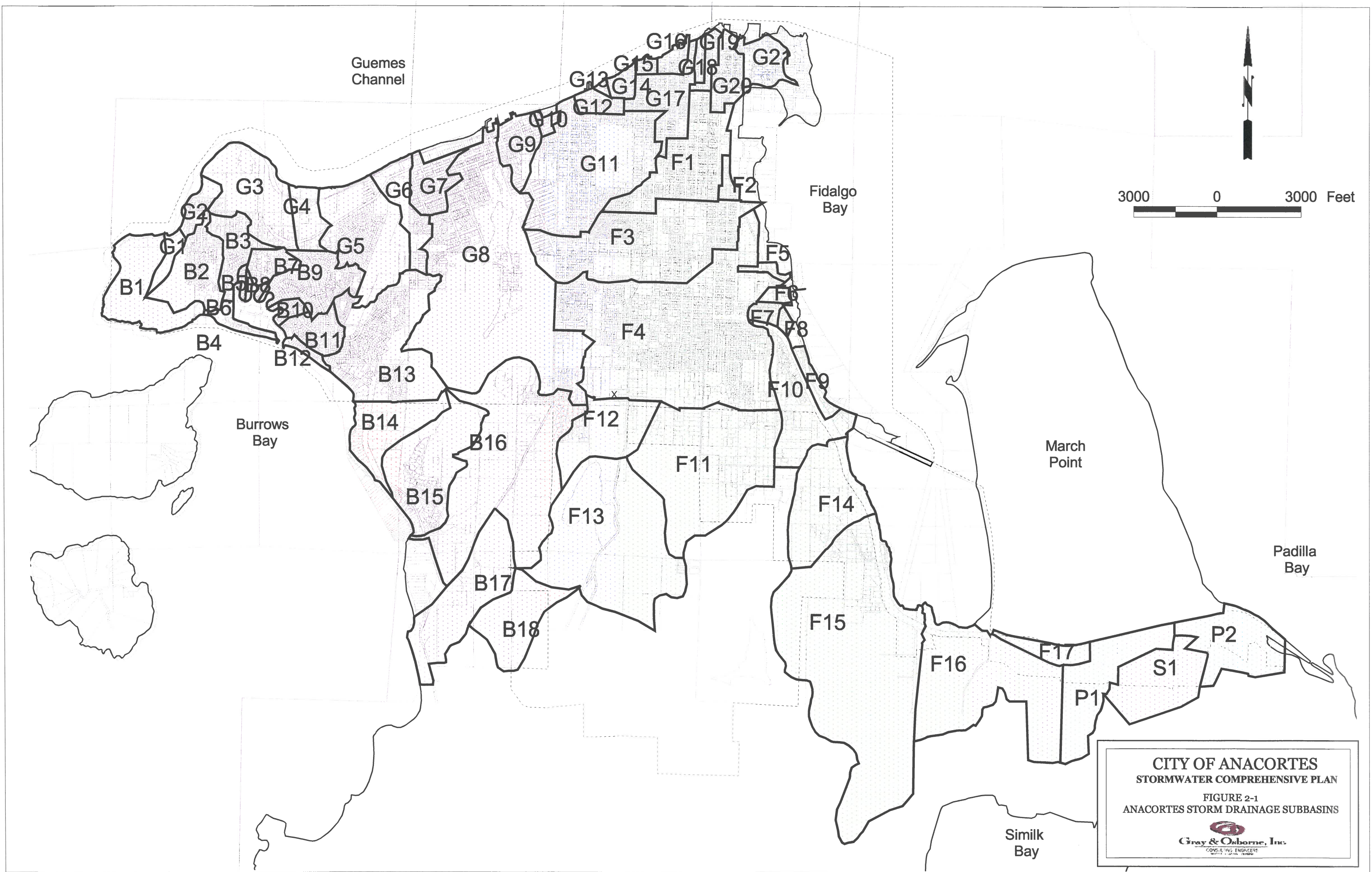


Appendix 12 - Excerpts from DOE Manual and City of Anacortes Stormwater Comprehensive Plan

Clark
Cowlitz
Grays Harbor
Island
Jefferson
King
Kitsap
Lewis
Mason
Pacific
Pierce
San Juan
Skagit
Skamania
Snohomish
Thurston
Wahkiakum
Whatcom

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 unless:

- Reasonable, historic information is provided that indicates the site was prairie prior to settlement (modeled as “pasture” in the Western Washington Hydrology Model); or,
- The drainage area of the immediate stream and all subsequent downstream basins have had at least 40% total impervious area since 1985. In this case, the pre-developed condition to be matched shall be the existing land cover condition. The map in [Appendix I-F: Basins with 40% or more Total Impervious Area as of 1985 \(p.139\)](#) depicts those areas which meet this criterion. Where basin-specific studies determine a stream channel to be unstable, even though the above criterion is met, the pre-developed condition assumption shall be the “historic” land cover condition, or a land cover condition



CITY OF ANACORTES
STORMWATER COMPREHENSIVE PLAN
FIGURE 2-1
ANACORTES STORM DRAINAGE SUBBASINS

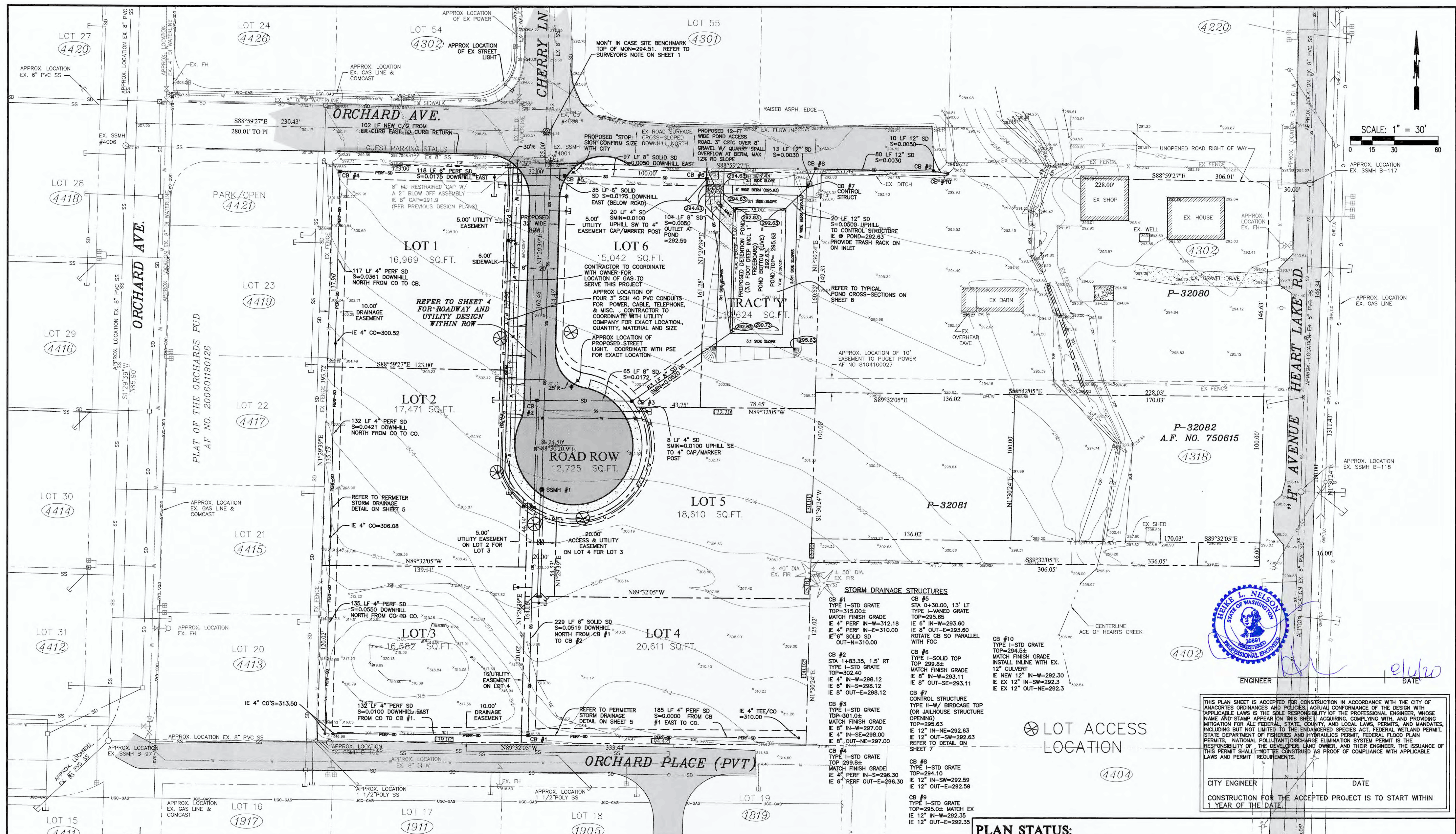

Gray & Osborne, Inc.
CONSULTING ENGINEERS
1001 1ST AVENUE, SUITE 200
SEASIDE, CA 94062

TABLE 2-2 – (continued)

Anacortes Subbasin Areas and Land Cover

Drainage Basin	Subbasin Name	Subbasin Area (acres)	1994 Plan Basin No. ⁽¹⁾	Outfall No.	Percent Forested	Percent Impervious	Percent Pervious
Burrows Bay	B18	84.9	38		N/A	N/A	N/A
	B19	137.6	43		N/A	N/A	N/A
	Total	2,201					
Fidalgo Bay	F1	197.7	40	40	0	65	35
	F2	16.3	40		0	65	35
	F3	376.0	28	41	16	42	42
	F4	65.0	29	42	0	68	32
	F5	718.3	26, 27, 30, 32	43	10	44	46
	F6	12.4	31	45	0	65	35
	F7	18.7	31	46	0	60	40
	F8	8.4	31		0	60	40
	F9	28.0	48	48, 49, 50, 51	0	60	40
	F10	158.4	48	52	0	65	35
	F11	424.0	32	F5	70	15	15
	F12	140.7	33	F5	70	15	15
	F13	489.0	39	F5, F12	75	20	5
	F14	200.0	40	53, 54	0	65	35
	F15	858.8	41	55 – 61	0	65	35
	F16	387.4		62, 63	0	70	30
	F17	42.7			0	70	30
	Total	4,142					
Padilla Bay	P1	174.6			0	65	35
	P2	159.5			0	65	35
	Total	334					
Similk Bay	S1	160.6			0	70	30
	Total	161					

N/A – Not Available, Outside City of Anacortes Aerial Photography



SCALE: 1" = 30'



THIS PLAN SHEET IS ACCEPTED FOR CONSTRUCTION IN ACCORDANCE WITH THE CITY OF ANACORTES ORDINANCES AND POLICIES. ACTUAL CONFORMANCE OF THE DESIGN WITH APPLICABLE LAWS IS THE SOLE RESPONSIBILITY OF THE PROFESSIONAL ENGINEER, WHOSE NAME AND STAMP APPEAR ON THIS SHEET. ACQUIRING, COMPLYING WITH, AND PROVIDING MITIGATION FOR ALL FEDERAL, STATE, COUNTY, AND LOCAL LAWS, PERMITS, AND MANDATES, INCLUDING BUT NOT LIMITED TO THE ENDANGERED SPECIES ACT, FEDERAL WETLAND PERMIT, STATE DEPARTMENT OF FISHERIES AND HYDRAULICS PERMIT, FEDERAL FLOOD PLAIN PERMITS, NATIONAL POLLUTANT DISCHARGE ELIMINATION SYSTEM PERMIT IS THE RESPONSIBILITY OF THE DEVELOPER, LAND OWNER, AND THEIR ENGINEER. THE ISSUANCE OF THIS PERMIT SHALL NOT BE CONSTRUED AS PROOF OF COMPLIANCE WITH APPLICABLE LAWS AND PERMIT REQUIREMENTS.

CITY ENGINEER _____ DATE _____

CONSTRUCTION FOR THE ACCEPTED PROJECT IS TO START WITHIN 1 YEAR OF THE DATE.

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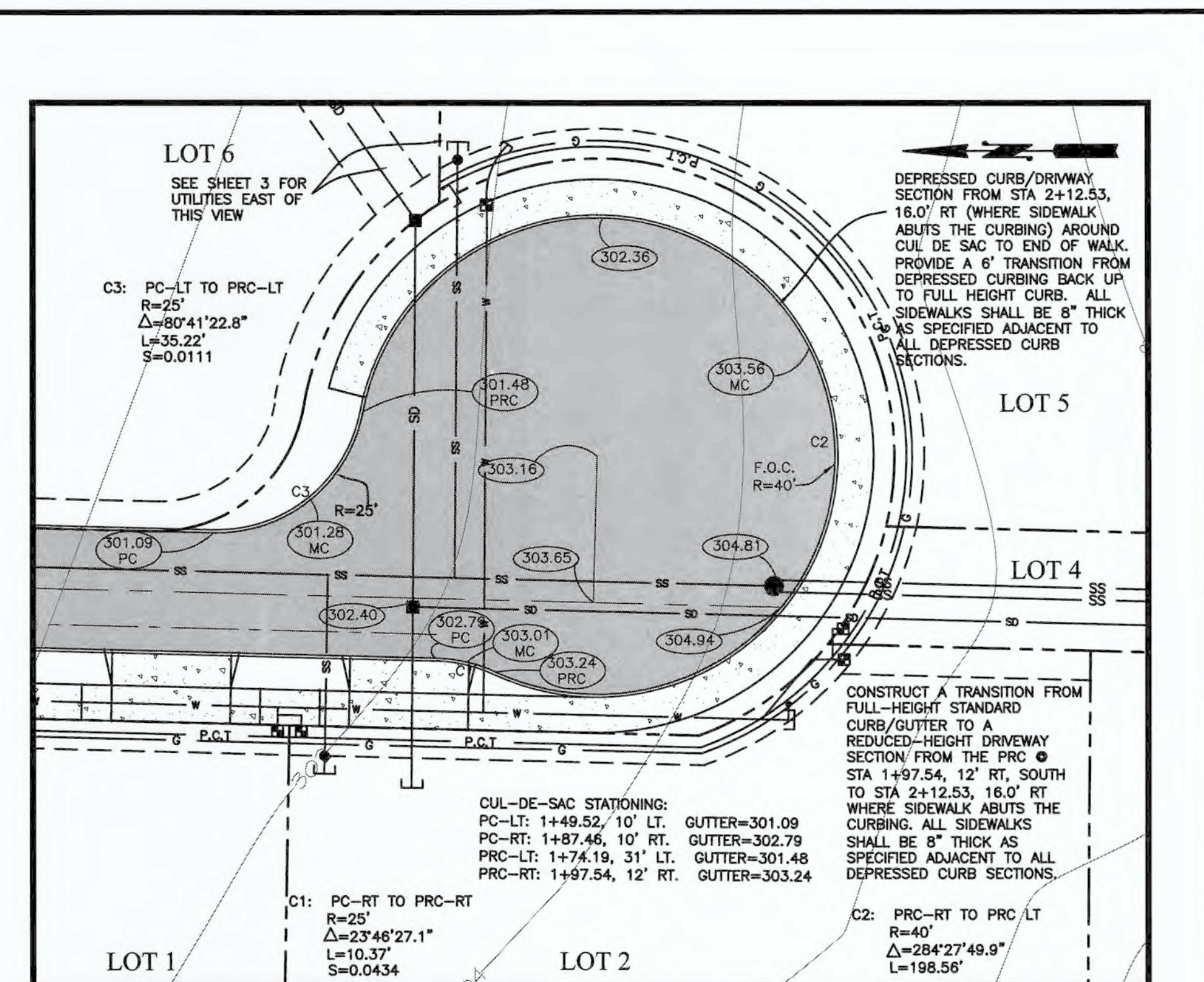
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DRAWN BY: HLN		JOB NO. 19013
CHECKED BY: HLN		SHEET NO. 3 OF 11
DATE: 08.06.20		

REV. NO.	REVISION	DATE	BY	APPROVED

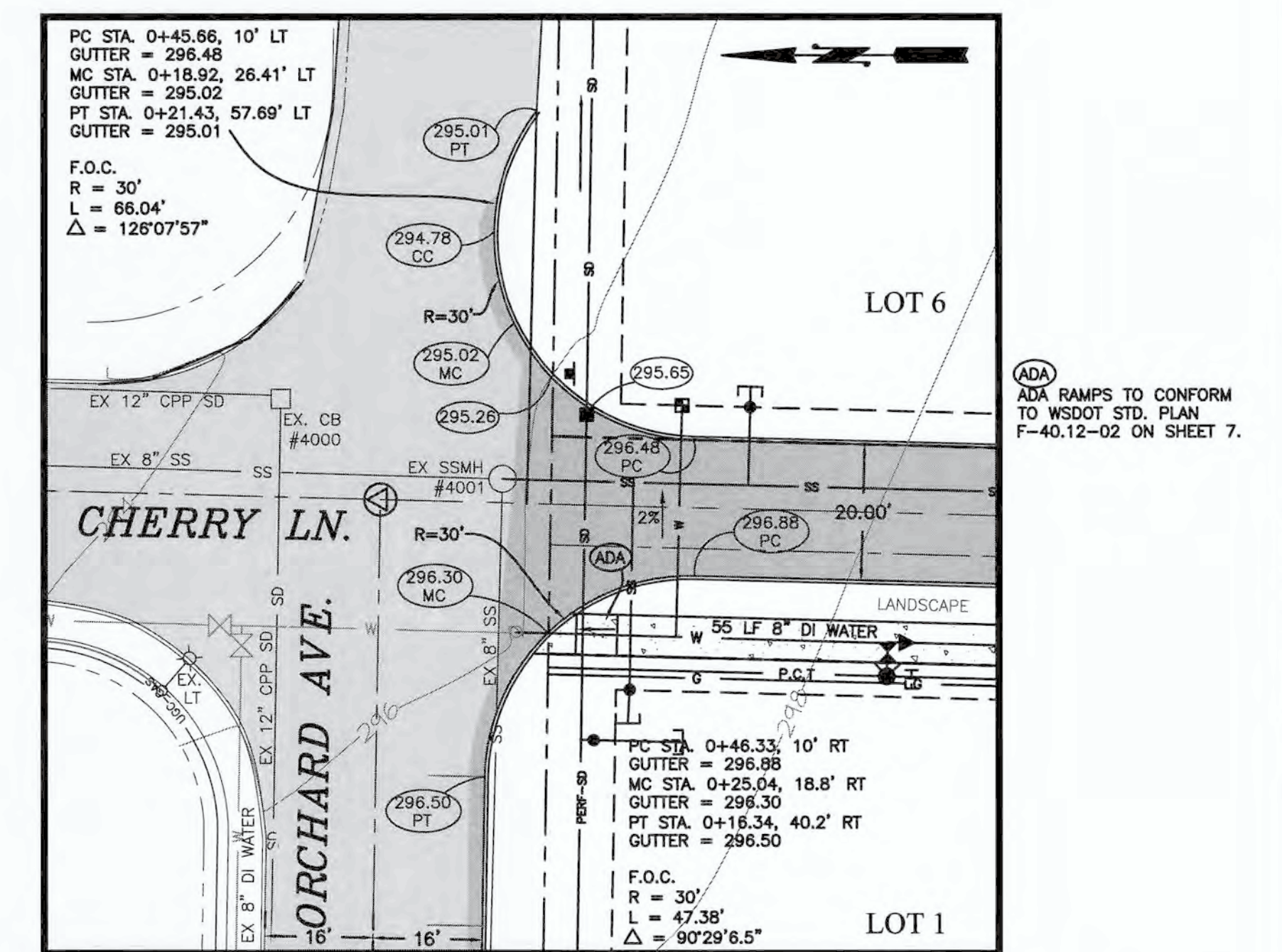
Ravnik & Associates, Inc.
CIVIL ENGINEERING & LAND-USE PLANNING
1633 LINDAMOOD LANE/PO. BOX 361
BURLINGTON, WA 98233
PH: (360) 707-2048 FAX: (360) 707-2216

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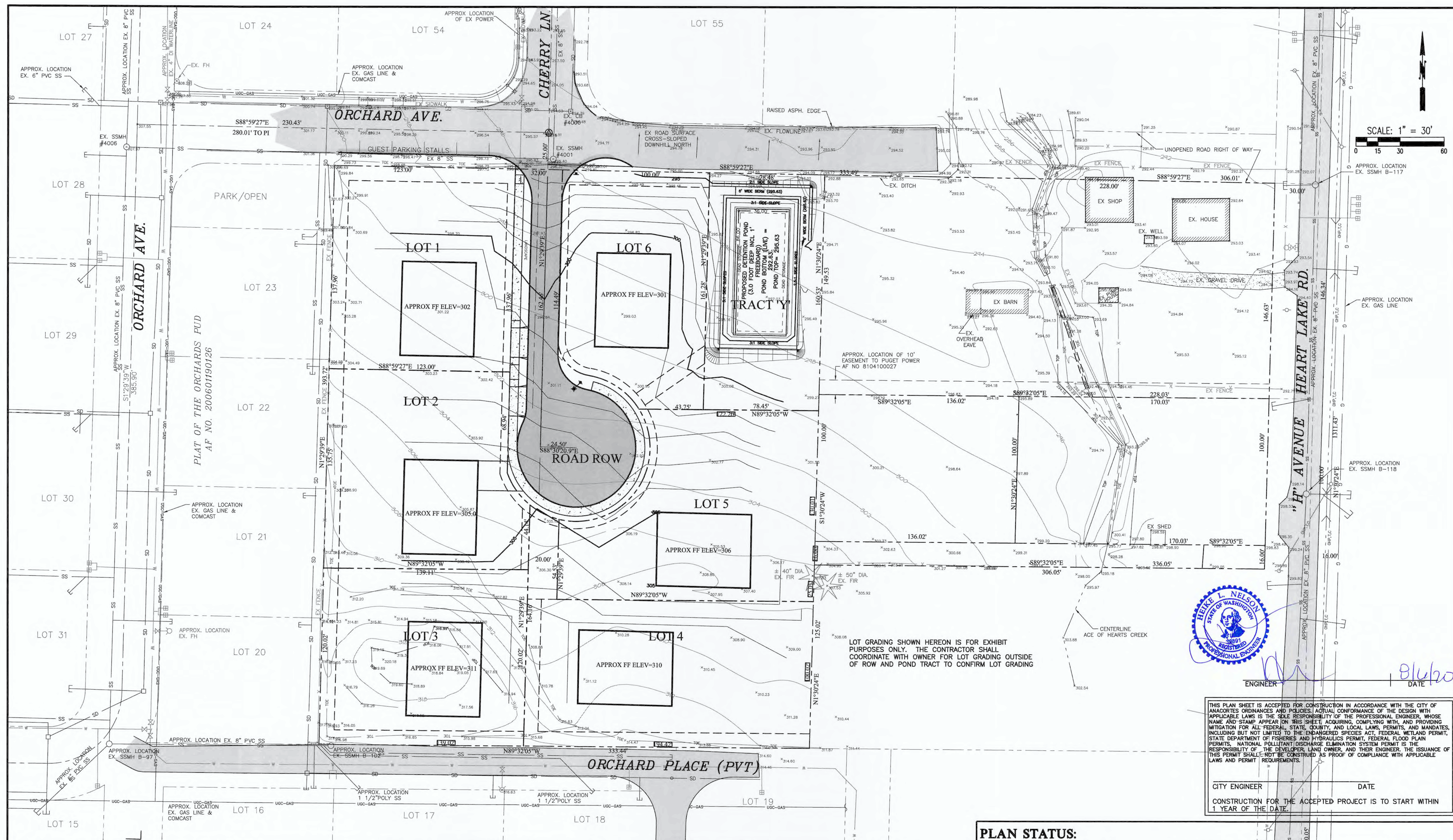


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SCALE: 1" = 20'

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	JOB NO. 19013 SHEET NO. 4 OF 11

[illegible]

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BURLINGTON, WA 98233
PH: (360) 707-2048 FAX: (360) 707-2216

SHEET DESCRIPTION:	
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LOT GRADING EXHIBIT

PLAN STATUS:

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DRAWN BY: HLN
CHECKED BY: HLN
DATE: 08.06.20

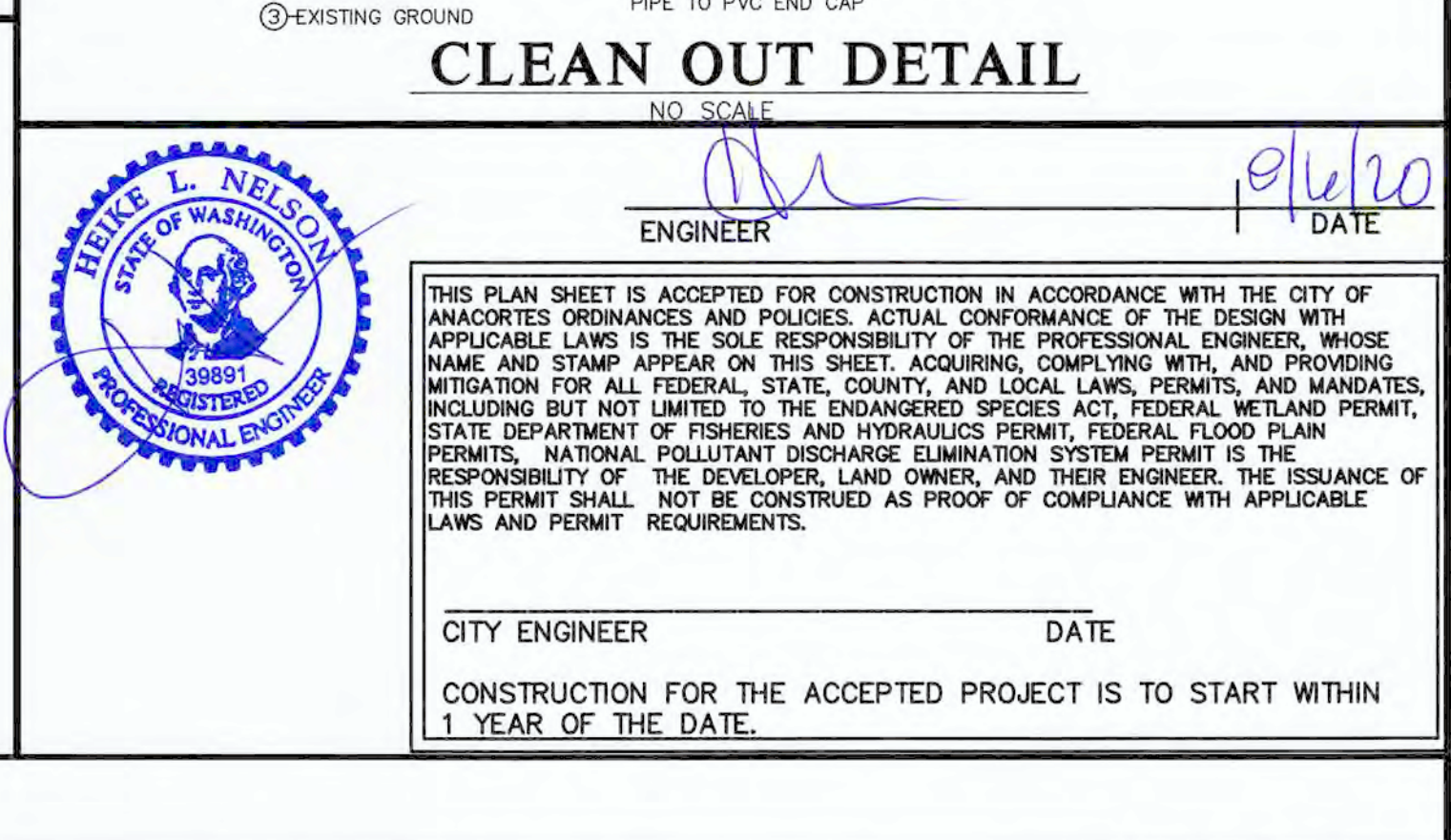
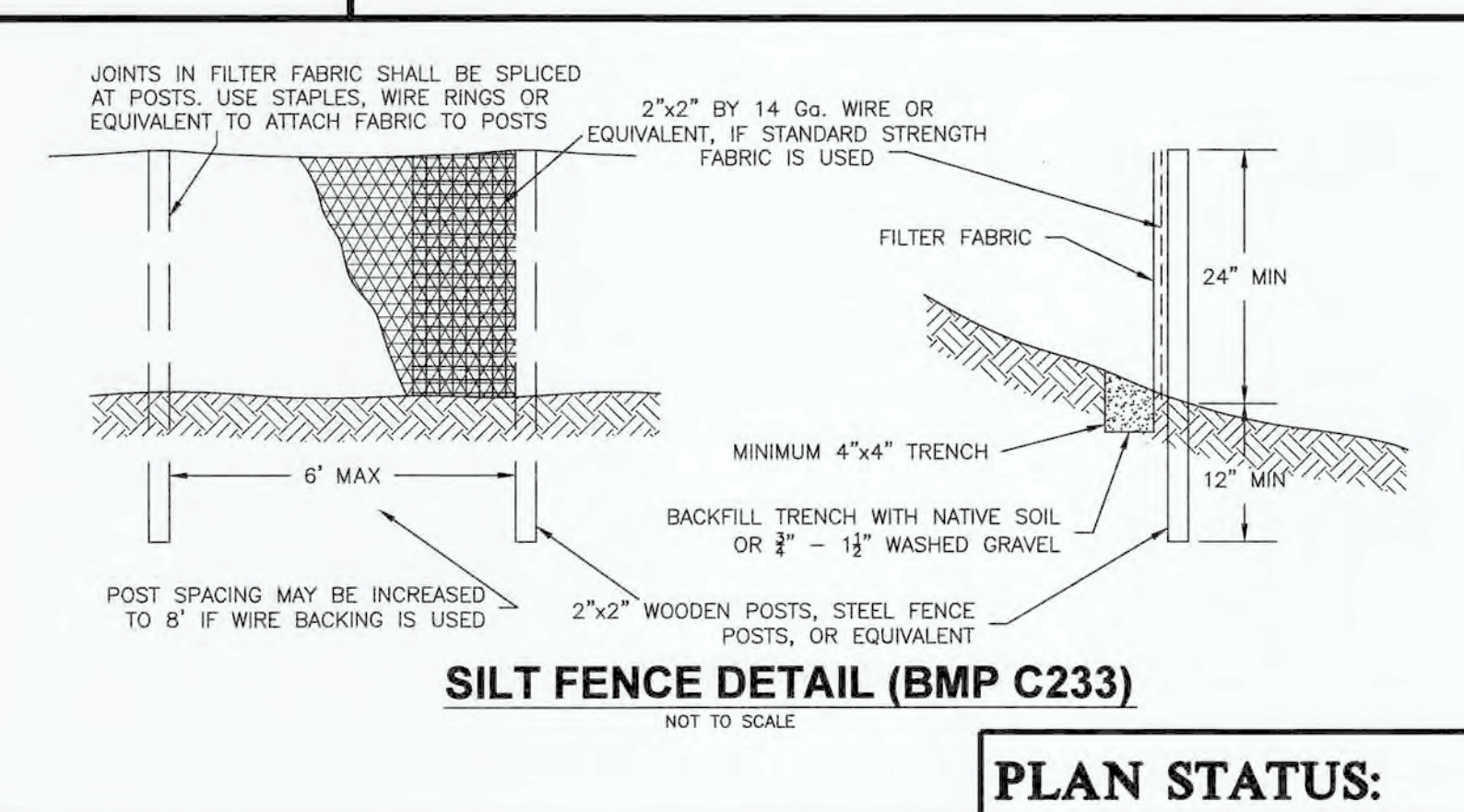
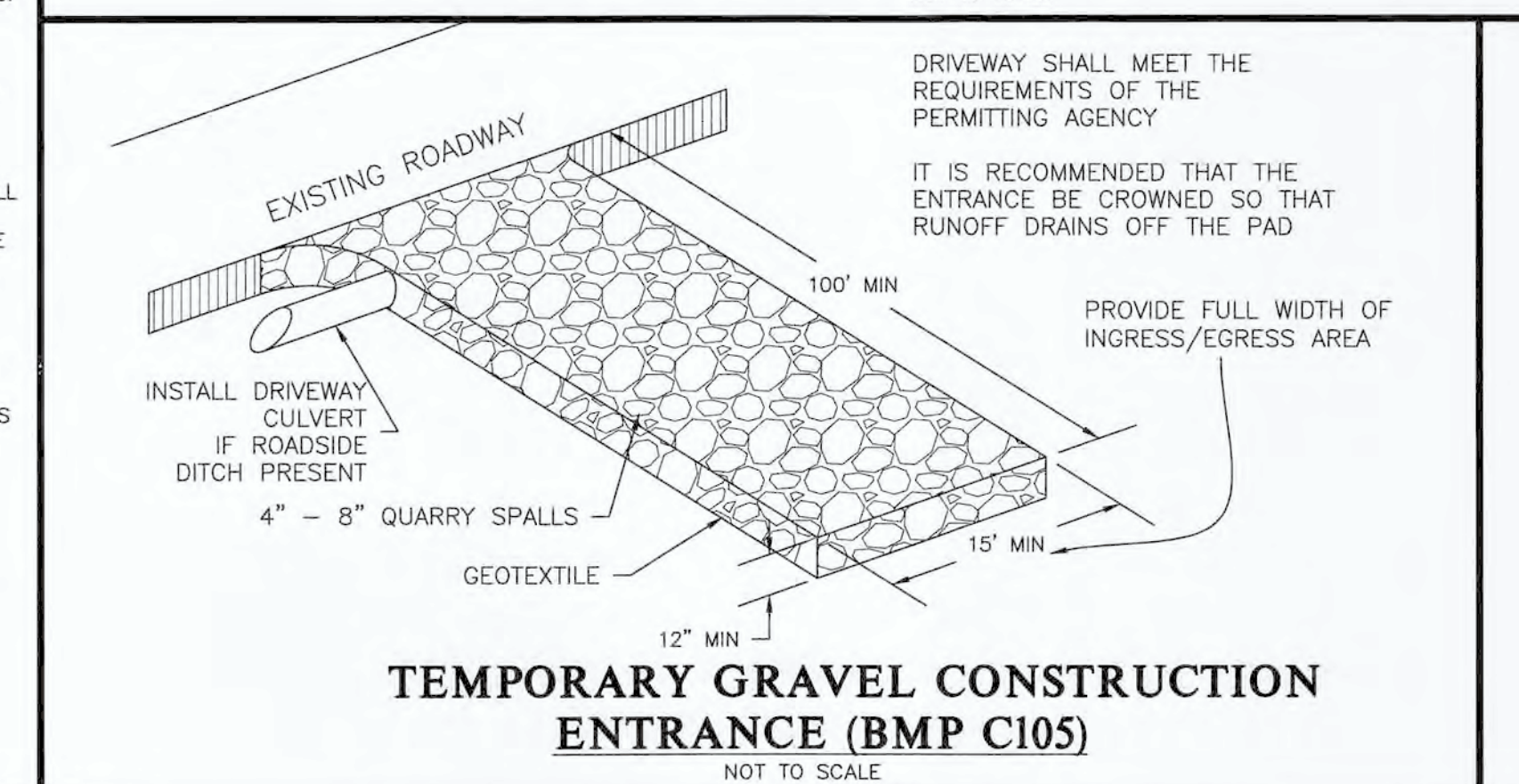
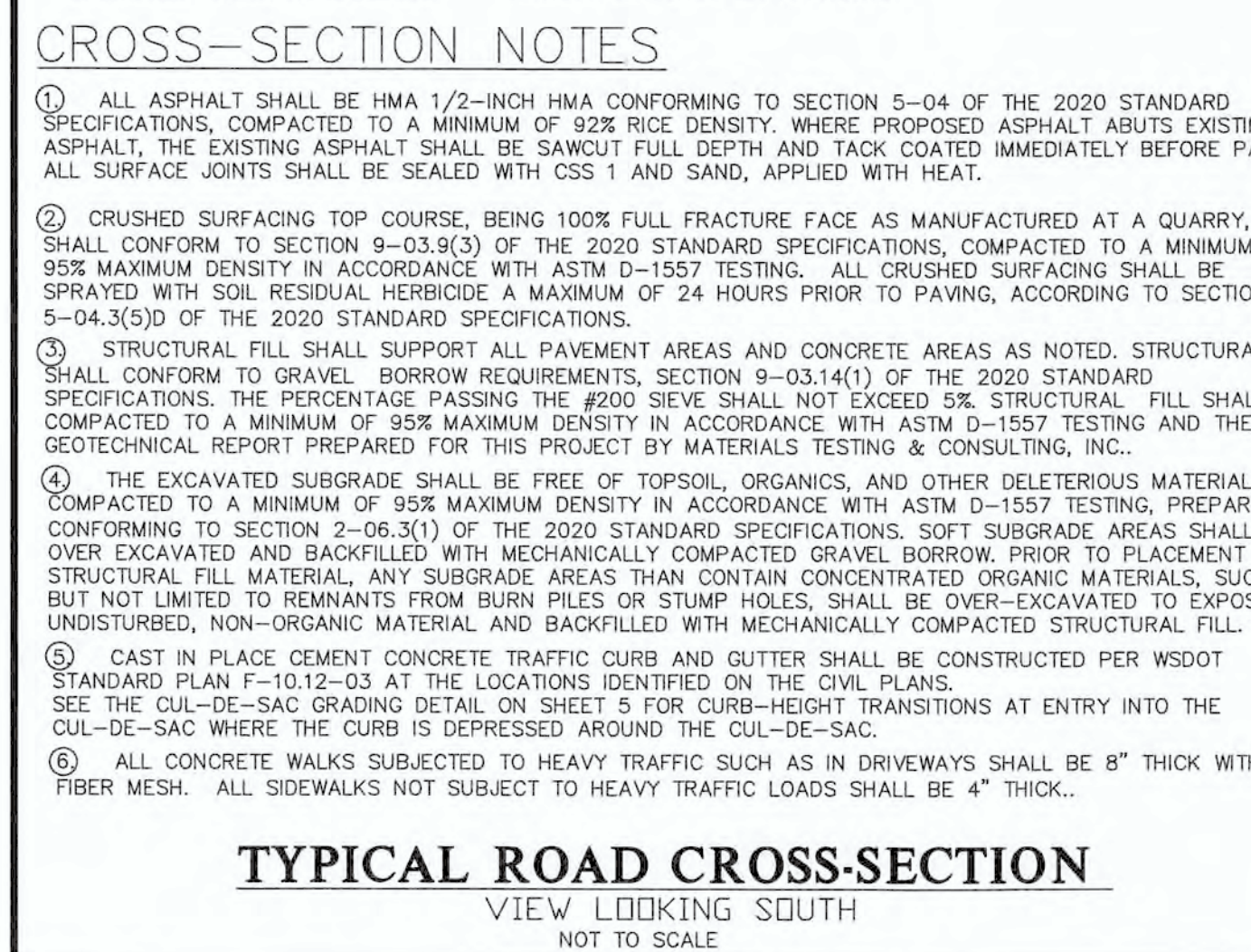
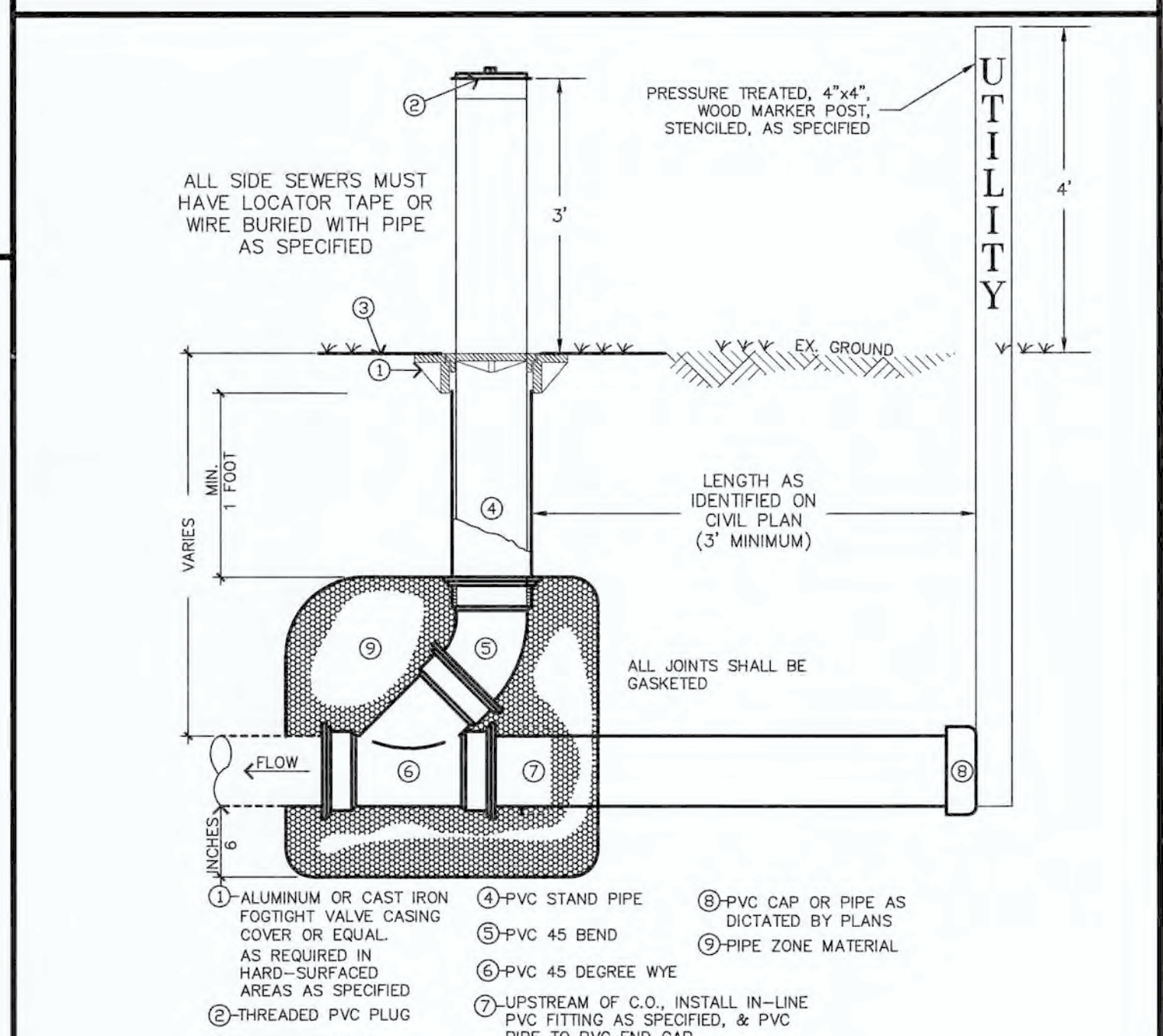
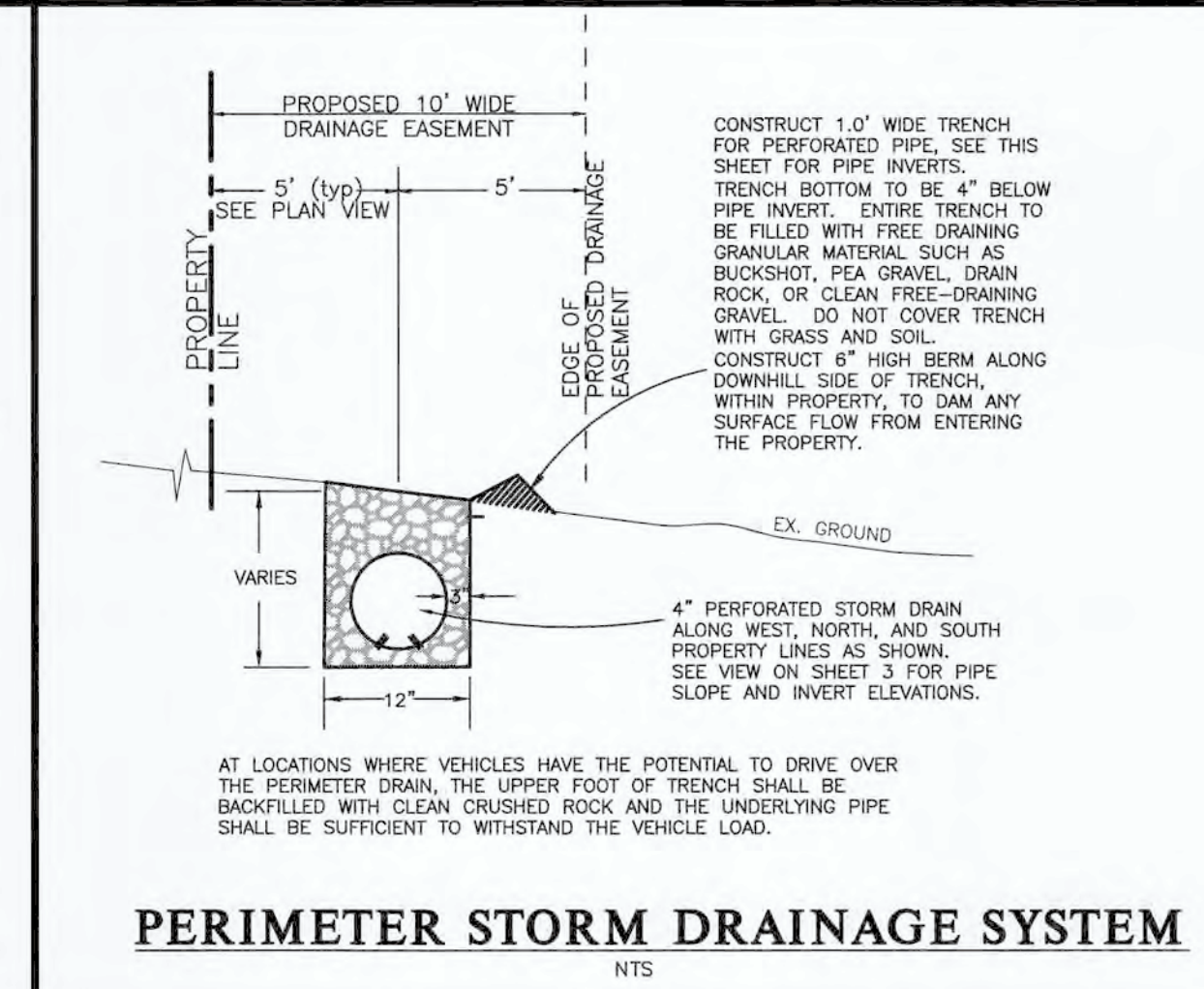
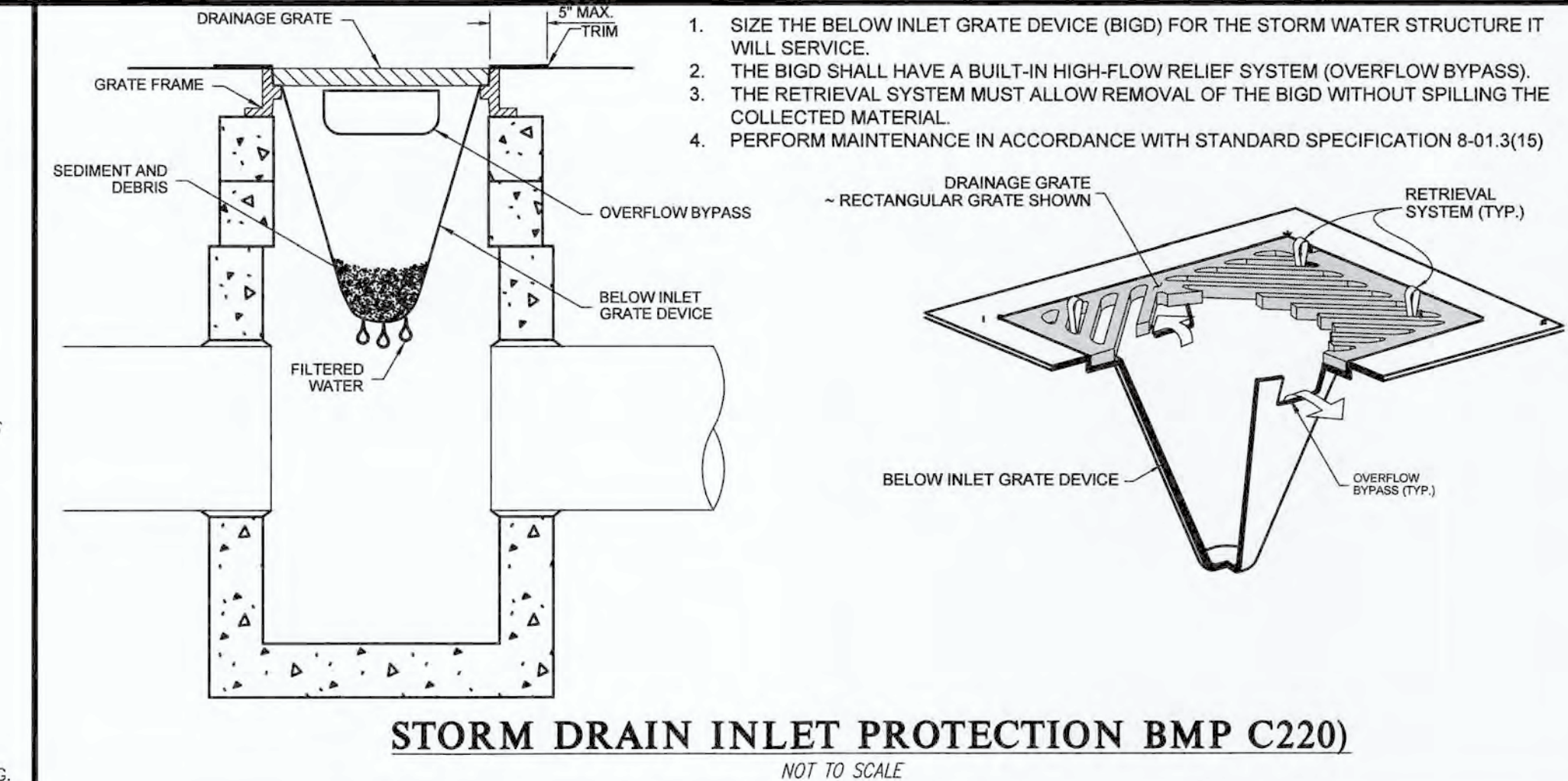
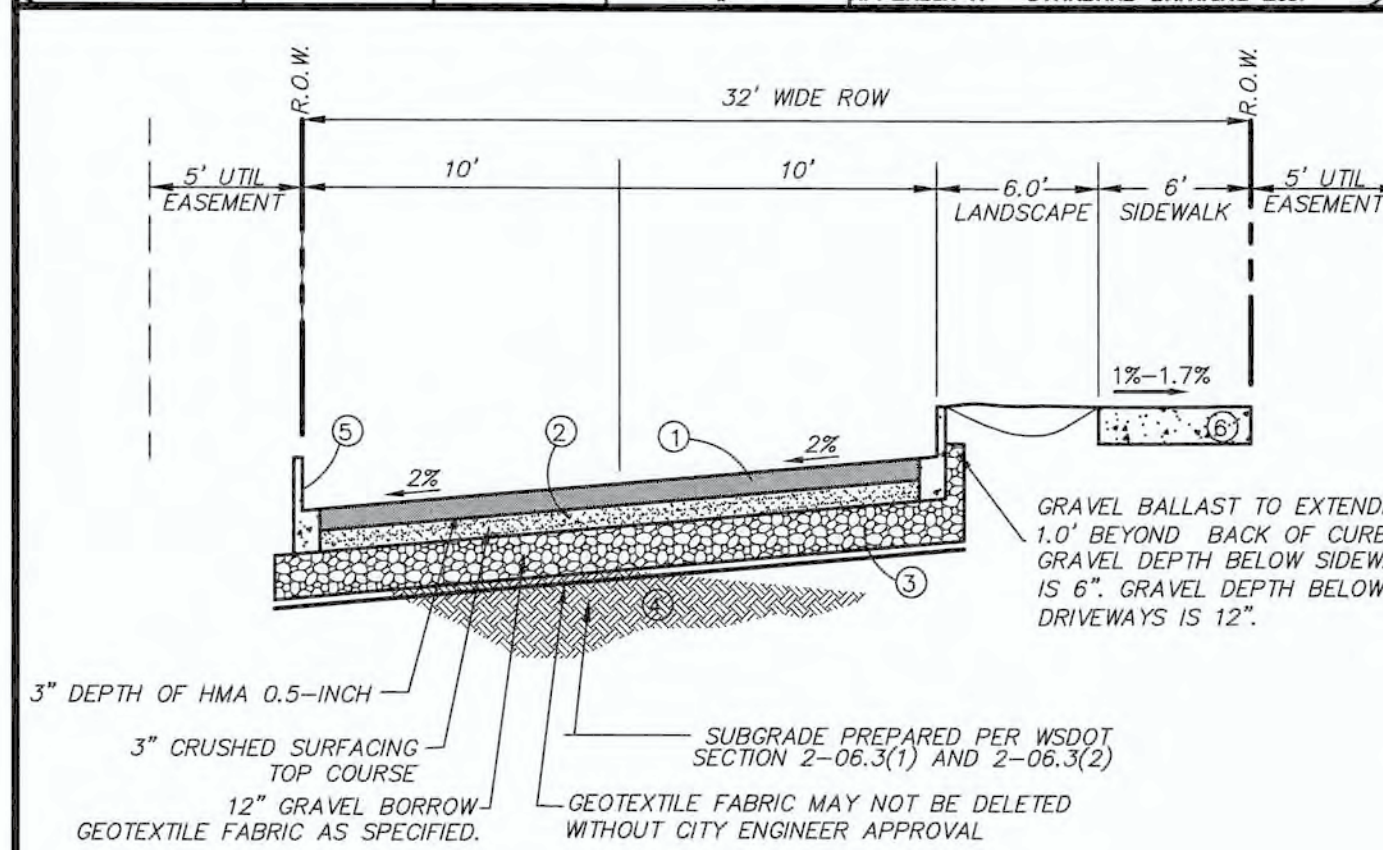
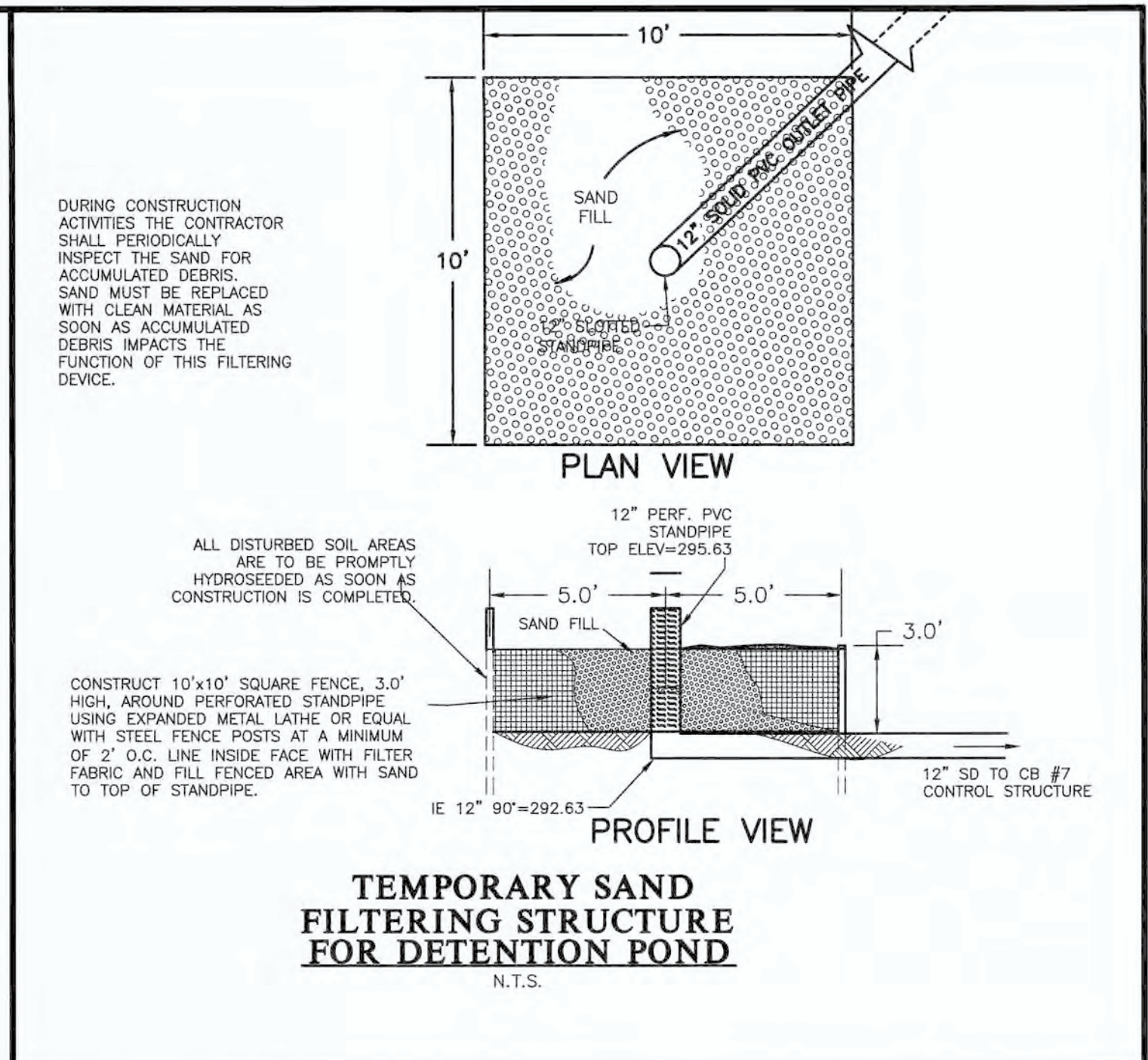
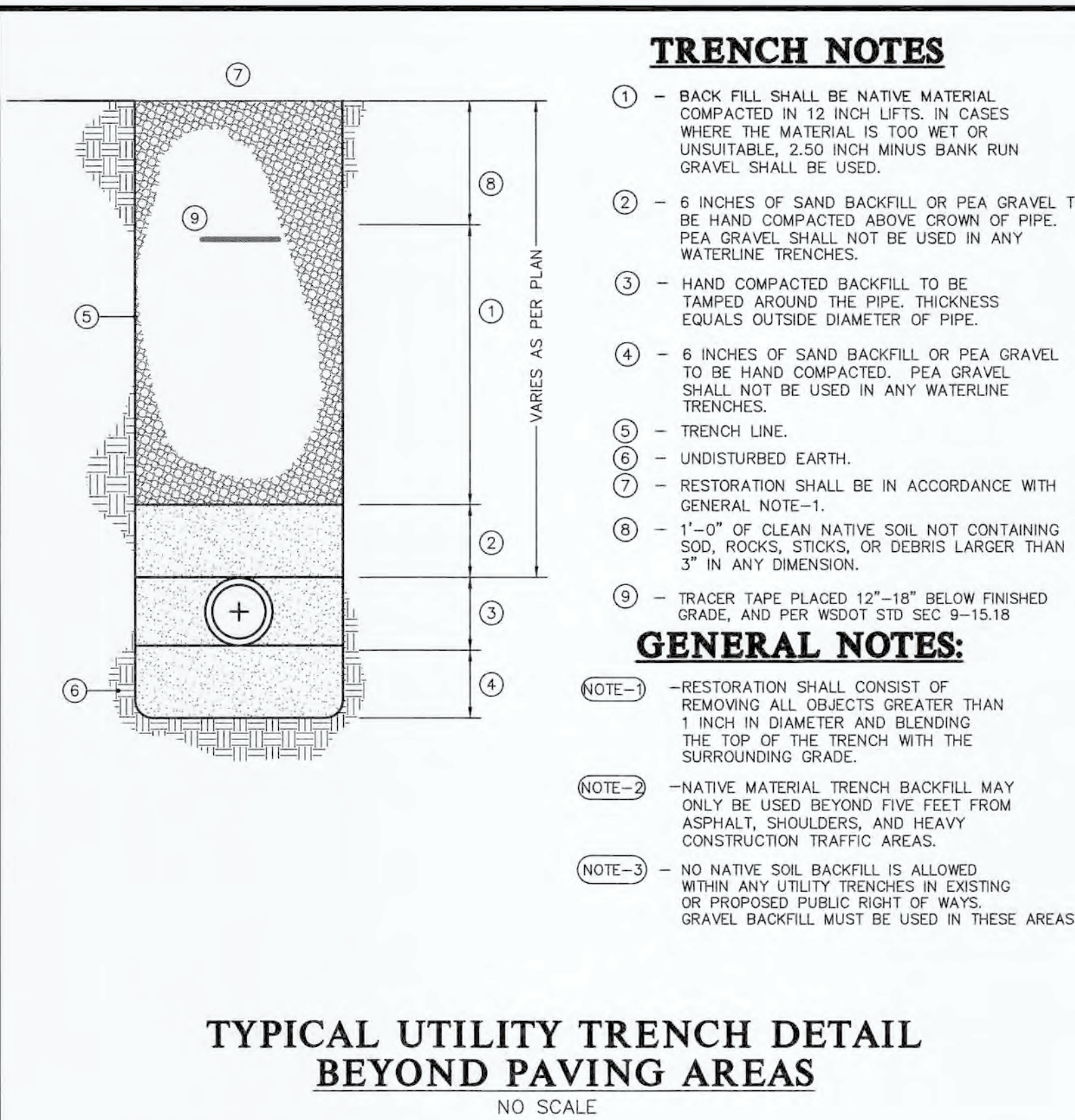
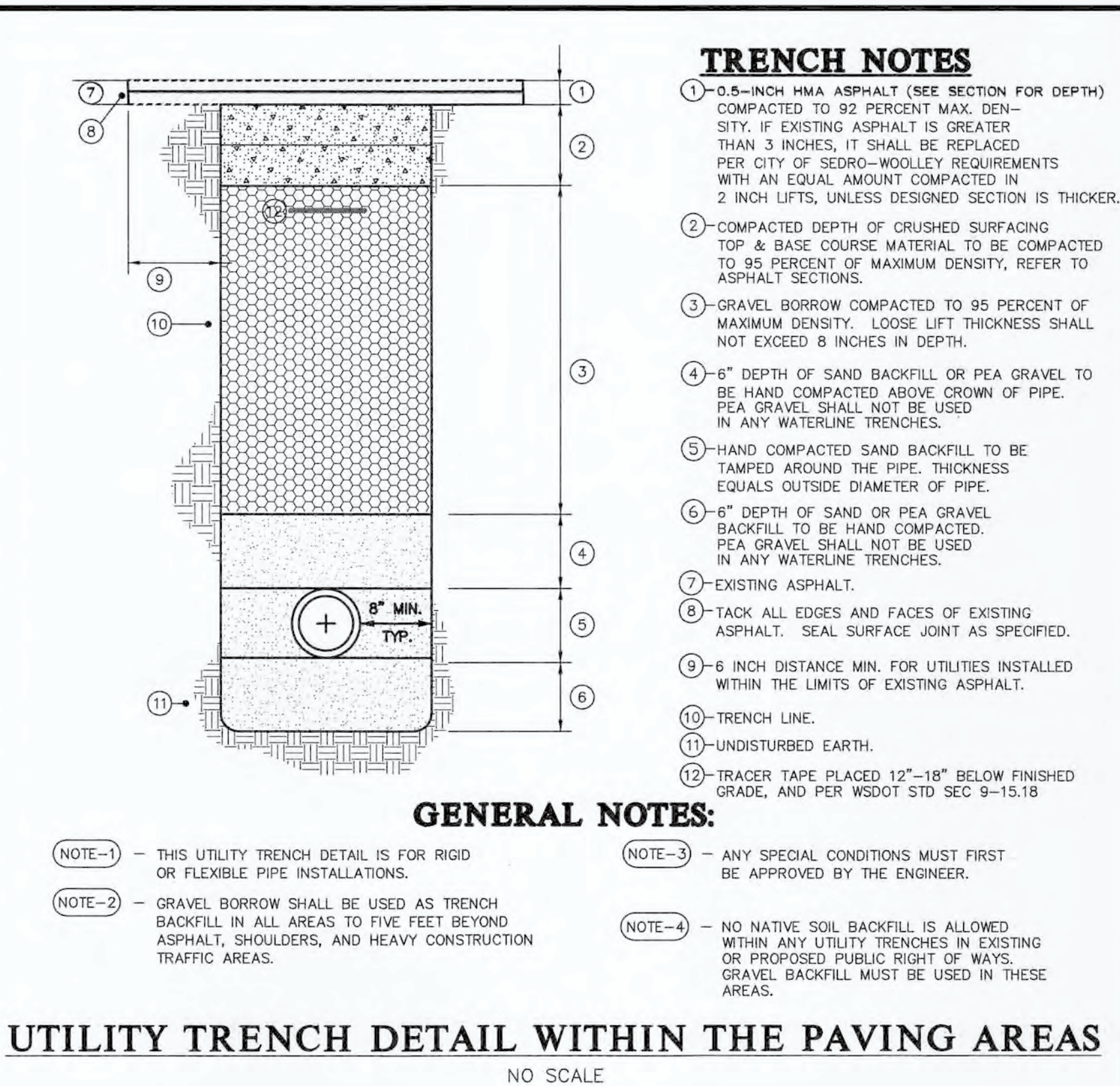
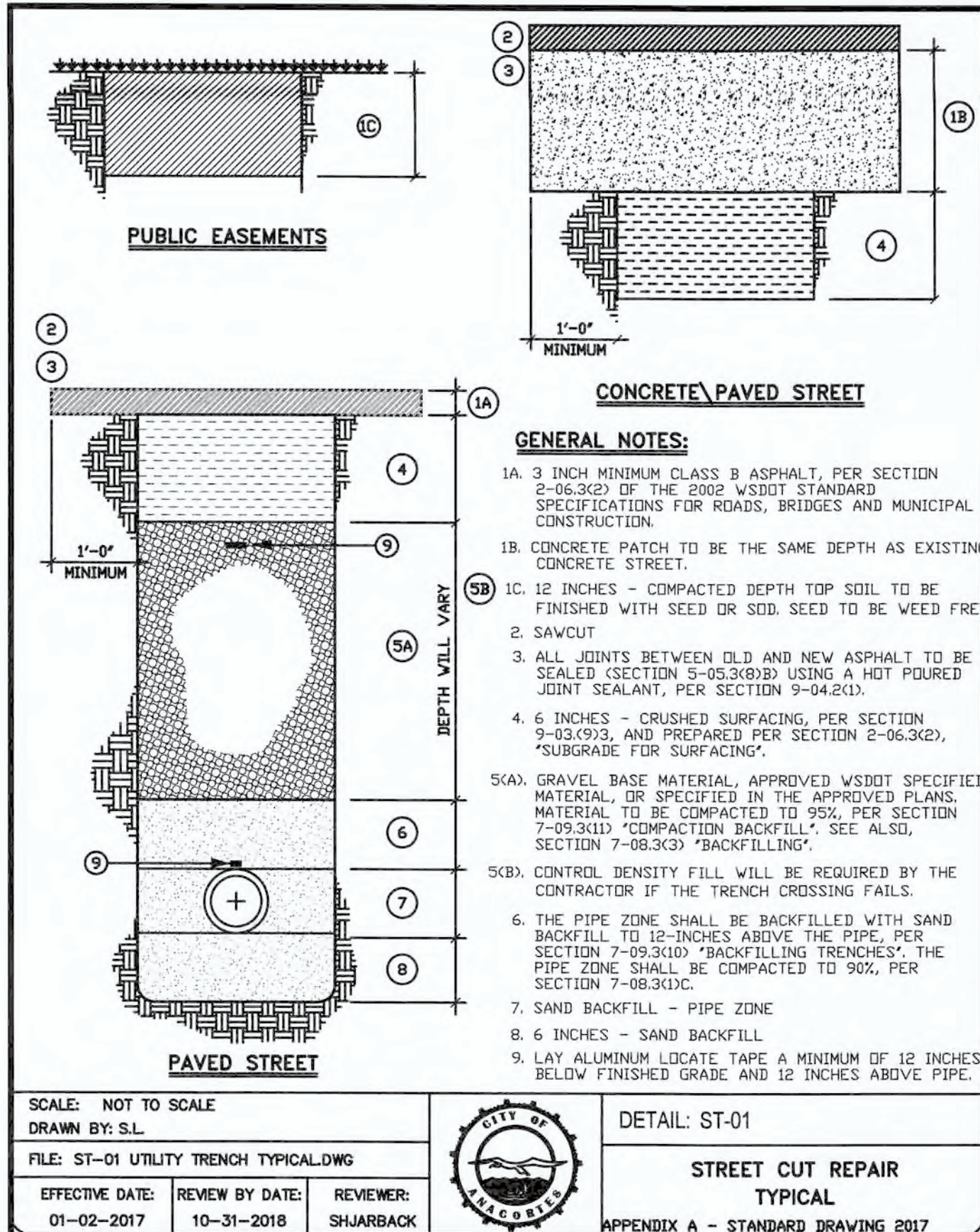
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SHEET TITLE: CHERRY COURT
SHORT PLAT
FOR
CORNER 9 PROPERTIES, LLC
SW 1/4 SECTION 25, T. 35 N., R. 1 E., W.M.

DRAWING NO.
19013SITE.dwg

JOB NO.
19013

SHEET NO.
5 OF 11



REV. NO.	REVISION	DATE	BY	APPROVED

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BURLINGTON, WA 98233
PH: (360) 707-2048 FAX: (360) 707-2216

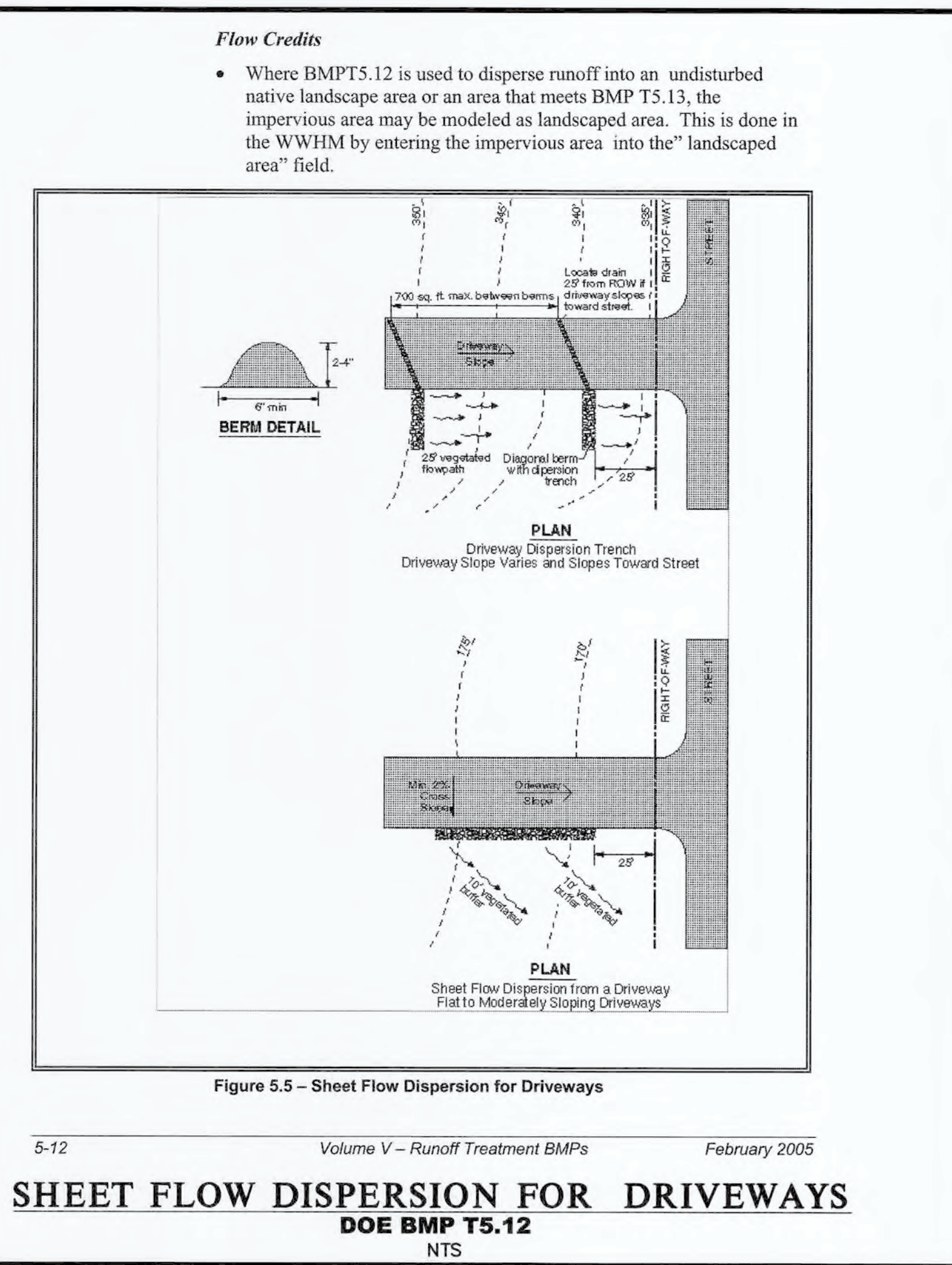
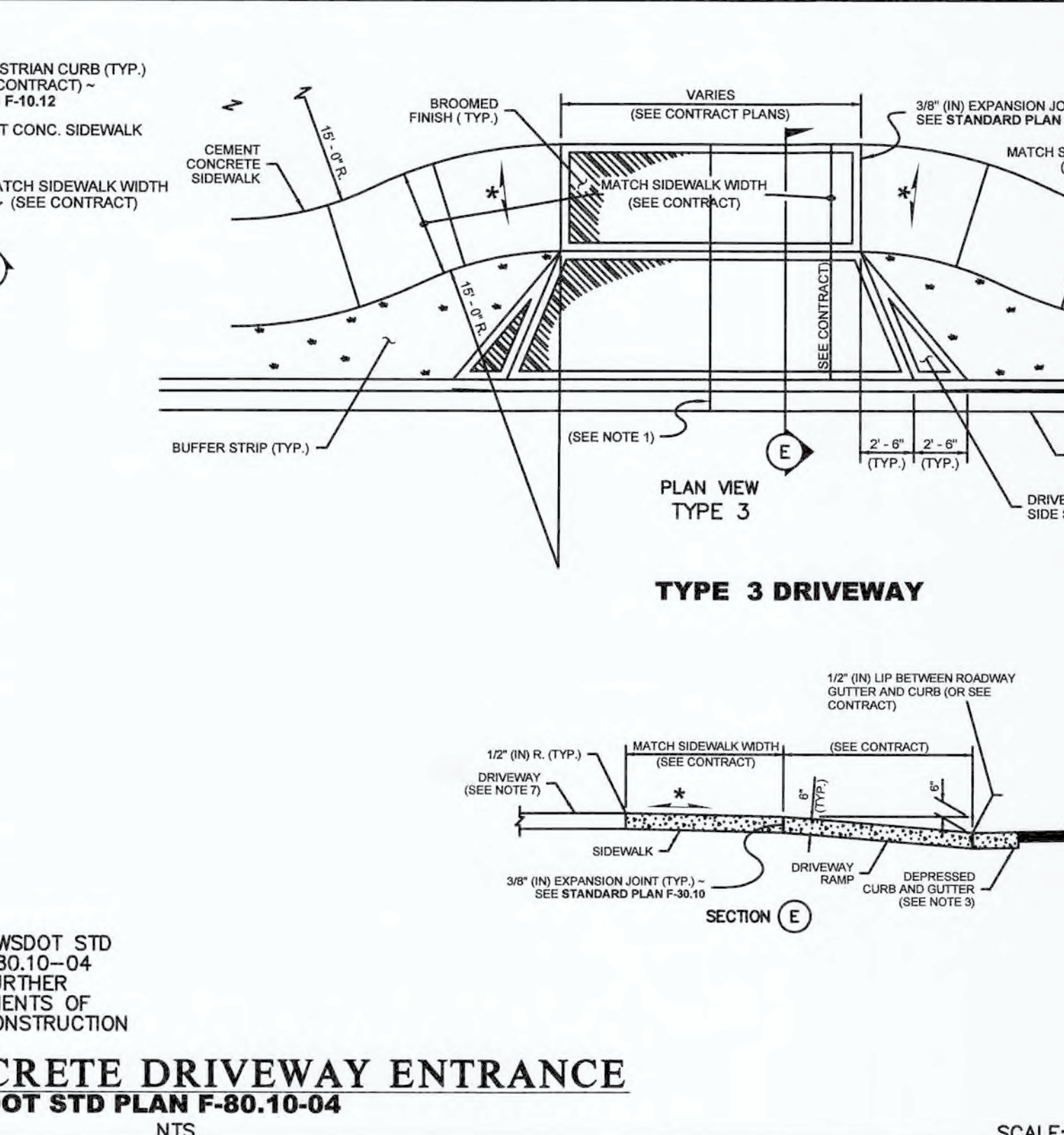
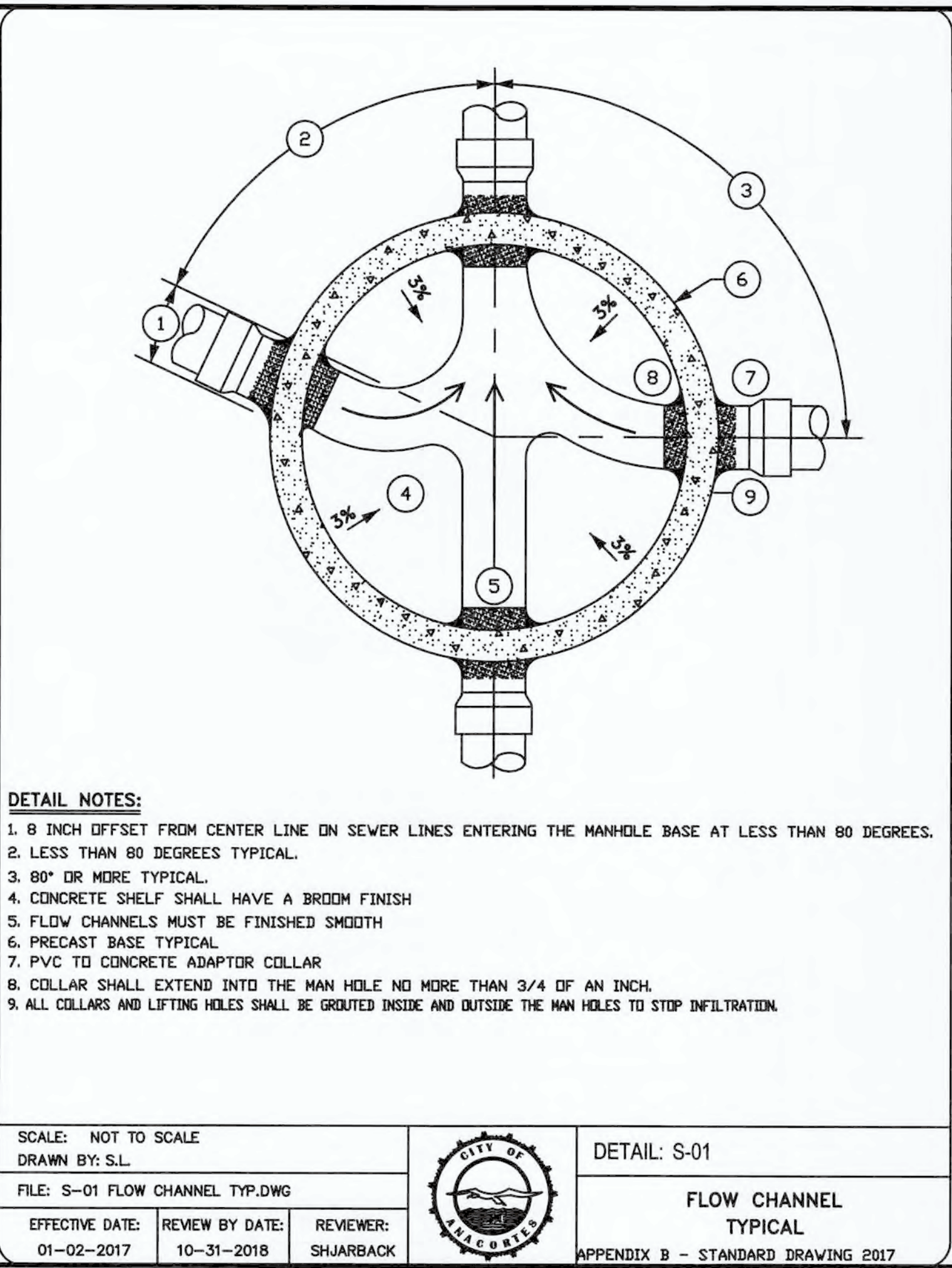
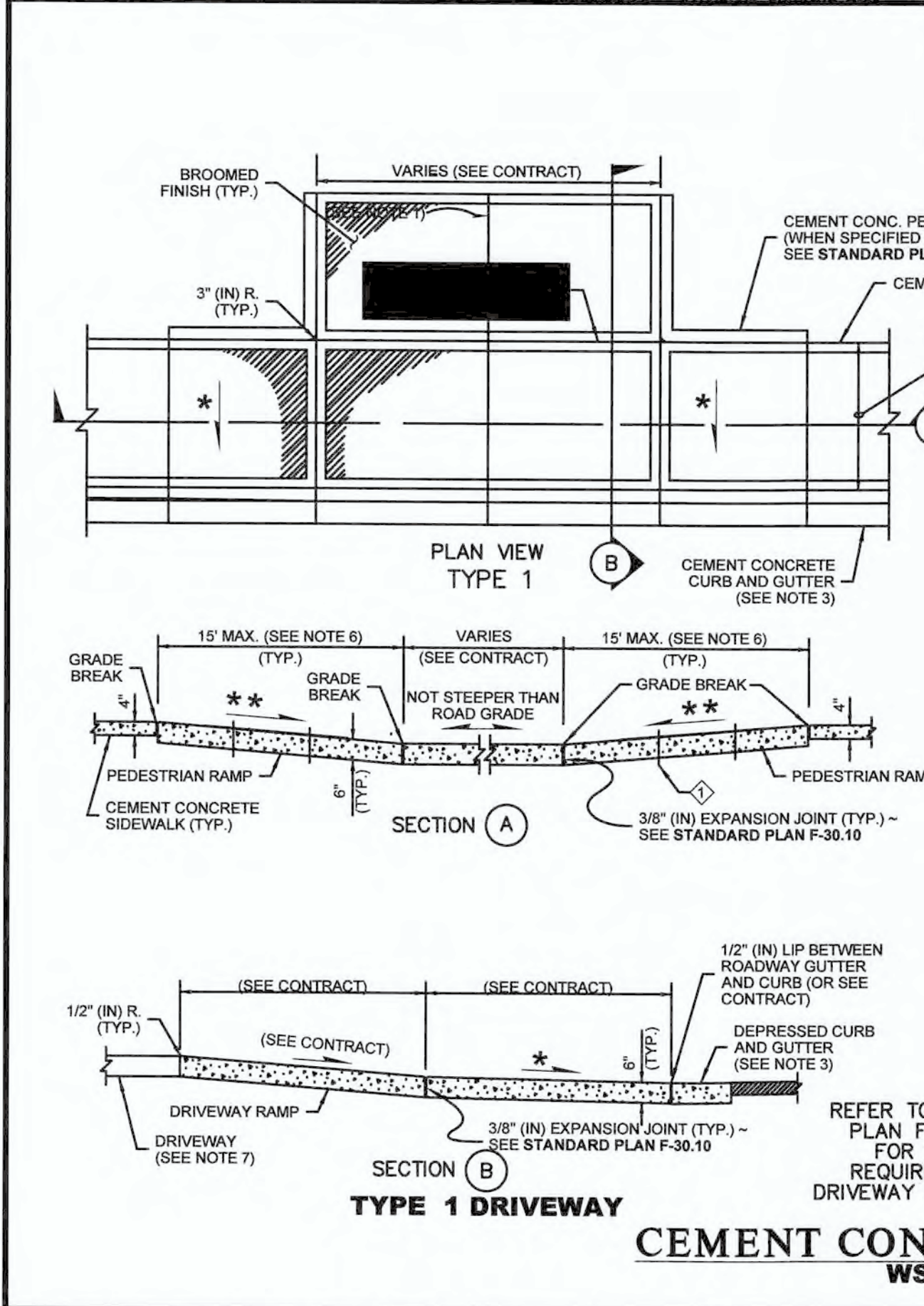
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DETAILS

THRUST BLOCK - TABLE									
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4"	800	8/10	1/4"	1/4"	1/4"	1/4"	1/4"	1/4"	1/4"
6"	800	8/10	3/8"	3/8"	3/8"	3/8"	3/8"	3/8"	3/8"
8"	800	8/10	1/2"	1/2"	1/2"	1/2"	1/2"	1/2"	1/2"
10"	800	8/10	3/4"	3/4"	3/4"	3/4"	3/4"	3/4"	3/4"
12"	800	8/10	1"	1"	1"	1"	1"	1"	1"
14"	800	8/10	1 1/4"	1 1/4"	1 1/4"	1 1/4"	1 1/4"	1 1/4"	1 1/4"
16"	800	8/10	1 3/4"	1 3/4"	1 3/4"	1 3/4"	1 3/4"	1 3/4"	1 3/4"
18"	800	8/10	2"	2"	2"	2"	2"	2"	2"
20"	800	8/10	2 1/4"	2 1/4"	2 1/4"	2 1/4"	2 1/4"	2 1/4"	2 1/4"
24"	800	8/10	3"	3"	3"	3"	3"	3"	3"

PIPE SIZE	THRUST BLOCK AREA (SQ. FT.)
4"	1.0
6"	1.5
8"	2.0
10"	2.5
12"	3.0
14"	3.5
16"	4.0
18"	4.5
20"	5.0
24"	6.0

PIPE SIZE	THRUST BLOCK AREA (SQ. FT.)
4"	1.0
6"	1.5
8"	2.0
10"	2.5
12"	3.0
14"	3.5
16"	4.0
18"	4.5
20"	5.0
24"	6.0



REV. NO.	REVISION	DATE	BY	APPROVED

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 1633 LINDAMOOD LANE/PO. BOX 361
 BURLINGTON, WA 98233
 PH: (360) 707-2048 FAX: (360) 707-2216

SHEET DESCRIPTION: **DETAILS**

SCALE: AS SHOWN

DATE: 08.06.20

PLAN STATUS:

SCALE: AS SHOWN

DRAWN BY: D. REMSEN

CHECKED BY: HLN

DATE: 08.06.20

SHEET TITLE: **CHERRY COURT SHORT PLAT FOR CORNER 9 PROPERITES, LLC SW 1/4 SECTION 25, T. 35 N., R. 1 E., W.M.**

DRAWING NO. 19013.DET.dwg

JOB NO. 19013

SHEET NO. 7 OF 11



NO.:	ITEM:	MATERIAL:	5/8 OR 3/4	1 INCH	1 INCH DOUBLE
1	NETER BOX	COND.	NLL	NB3	NLL
2	WATER BALL W/LOCK W/NGS	FOR SERVICE	1 INCH	1 INCH	5/8 INCH OR 3/4 INCH
3	PIPE	COPPER TYPE K MANDEPAC A N.S. 502032	1 INCH	1 INCH	1 INCH
4	CORP. STOP	FOR COPPER SERVICE	1 INCH	1 INCH	1 INCH
5	SAWBLE	BRASS BODY S.S. OR BRONZE; STRIP 90MAG 316/302			
6	TEE	BRASS	1 INCH		1IN3/4IN3/4
7	ADAPTER	BRASS	1 INCH		815428
8	PIPE	BRASS			3/4" X 1/2"
9	90° ELBOW	BRASS			3/4 INCH
10	PIPE	BRASS			3/4 INCH X 1/2 INCH
11	CONDUIT	PVC	5 INCH		

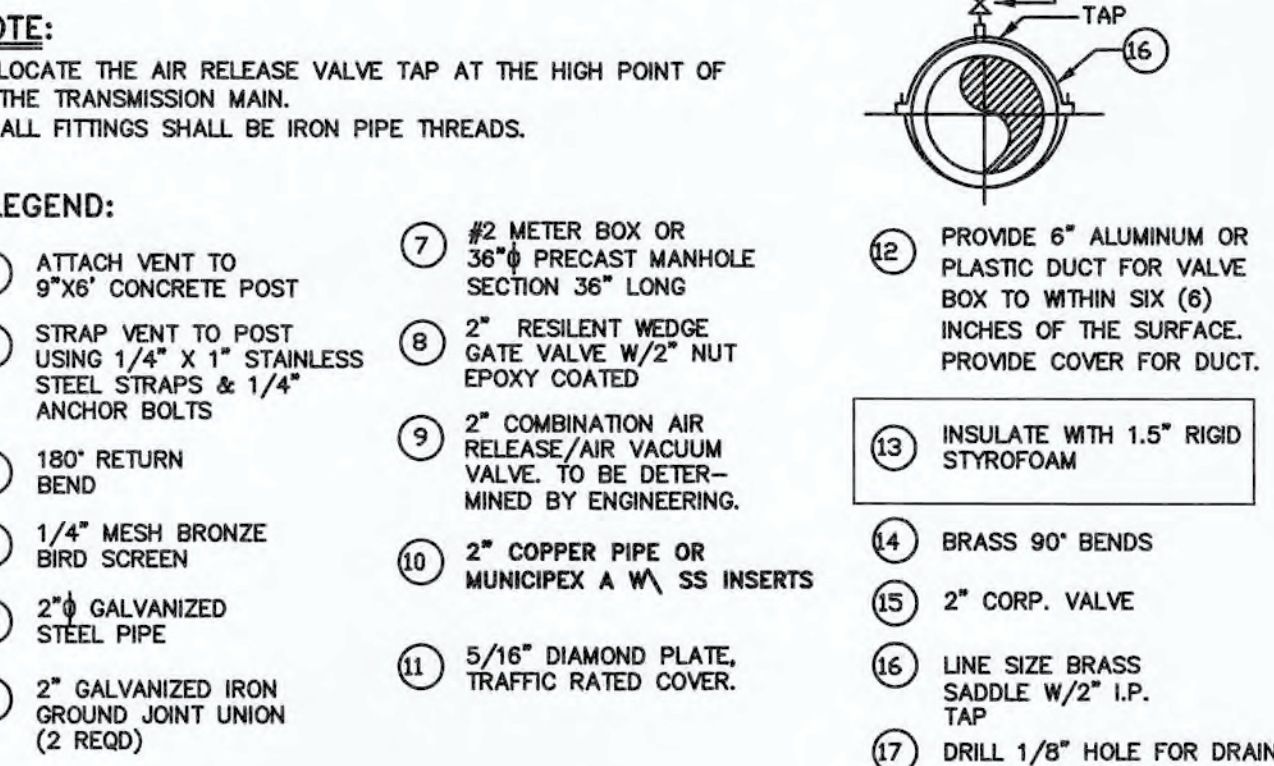
FIRE SPRINKLER SYSTEMS MAY REQUIRE LARGER WATER AND SERVICE PIPING TO MEET FIRE FLOW REQUIREMENTS. COORDINATE WITH BUILDING DEPARTMENT IF SPRINKLERS ARE PROPOSED.

APPROVED EQUAL.

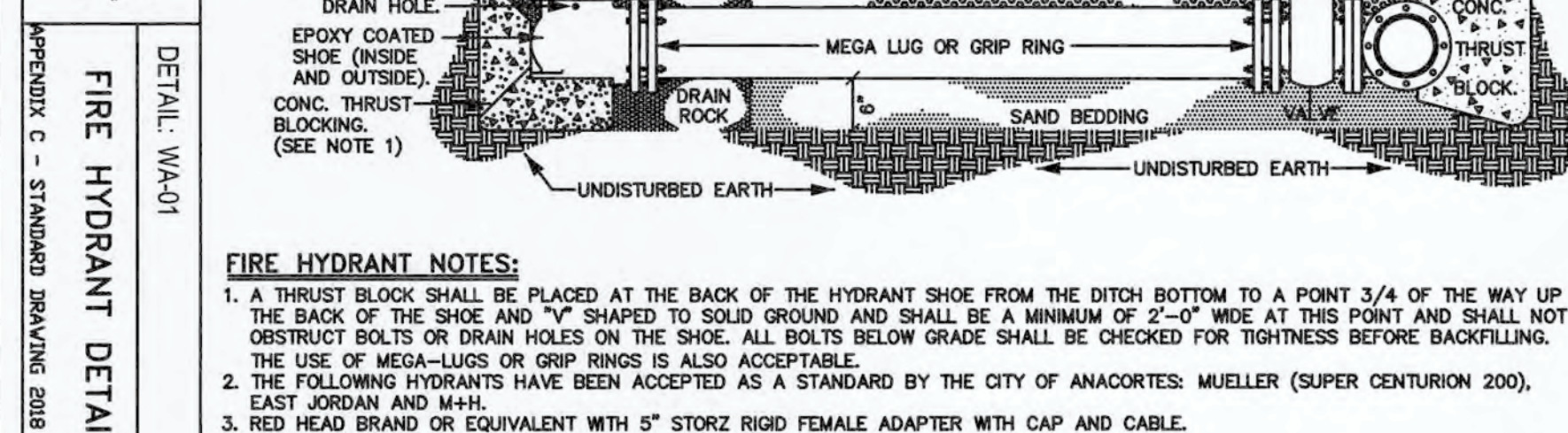
FOR PROTECTION.

WAVE AT BUILDING ENTRANCE IF STATIC OR

MODEL NO. H-15364 OR OR EQUAL MAY BE USED.



GENERAL:		TYPICAL		
ATTACH VENT TO 9"x8" CONCRETE POST	7	#2 METER BOX OR 36" PRECAST MANHOLE SECTION 36" LONG	12	PROVIDE 6" ALUMINUM OR PLASTIC DUCT FOR VALVE BOX TO WITHIN SIX (6) INCHES OF THE SURFACE. PROVIDE COVER FOR DUCT.
STRAP VENT TO POST USING 1/4" x 1" STAINLESS STEEL STRAPS & 1/4" ANCHOR BOLTS	8	2" RESILIENT GATE VALVE W/2" NUT EPOXY COATED	13	INSULATE WITH 1.5" RIGID STYROFOAM
180° RETURN BEND	9	2" COMBINATION AIR RELEASE/AIR VACUUM VALVE TO BE DETERMINED BY ENGINEERING.	14	BRASS 90° BENDS
1/4" MESH BRONZE BIRD SCREEN	10	2" COPPER PIPE OR MUNICIPEX A W/ SS INSERTS	15	2" CORP. VALVE
2" GALVANIZED STEEL PIPE	11	5/16" DIAMOND PLATE, TRAFFIC RATED COVER.	16	LINE SIZE BRASS SADDLE W/2" I.P. TAP
2" GALVANIZED IRON GROUND JOINT UNION (2 REQ'D)			17	DRILL 1/8" HOLE FOR DRAIN

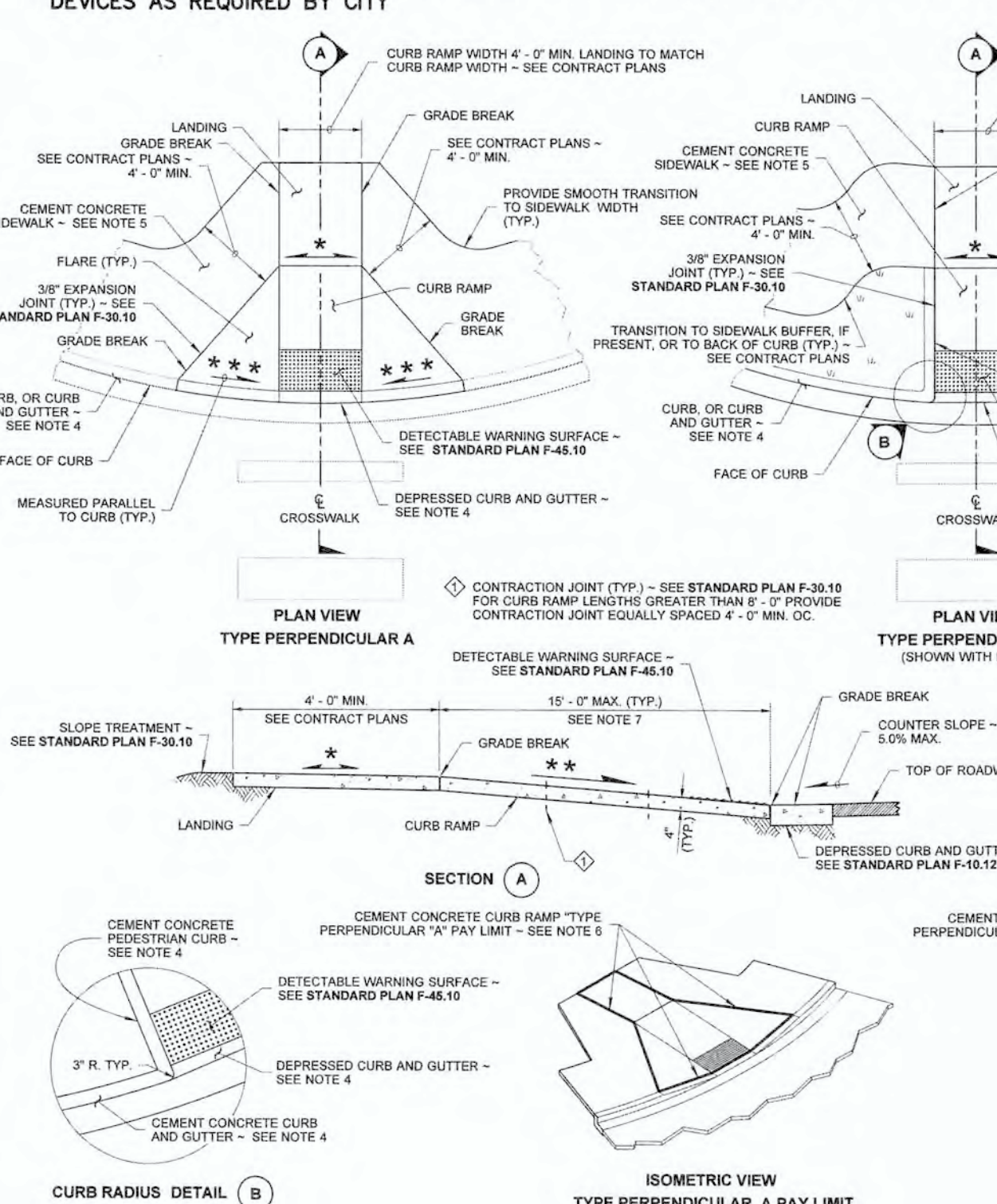
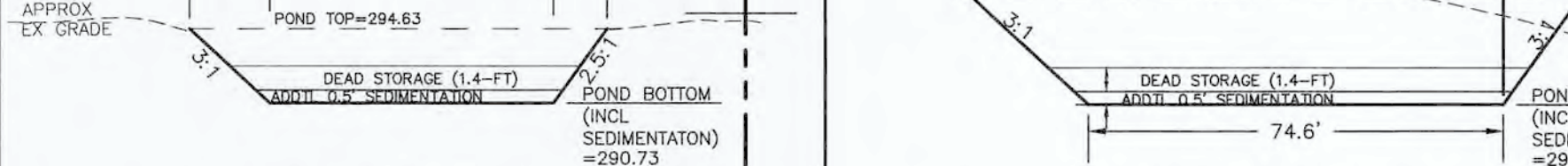
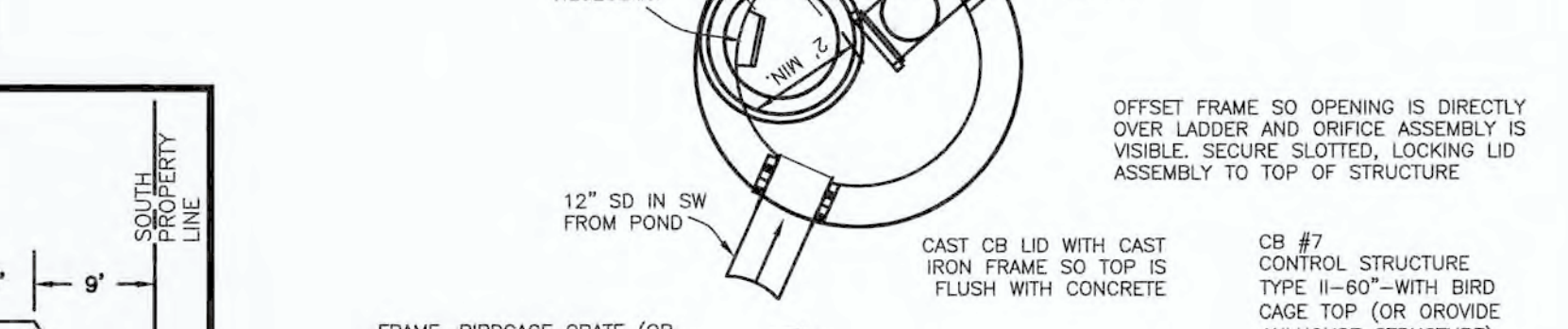
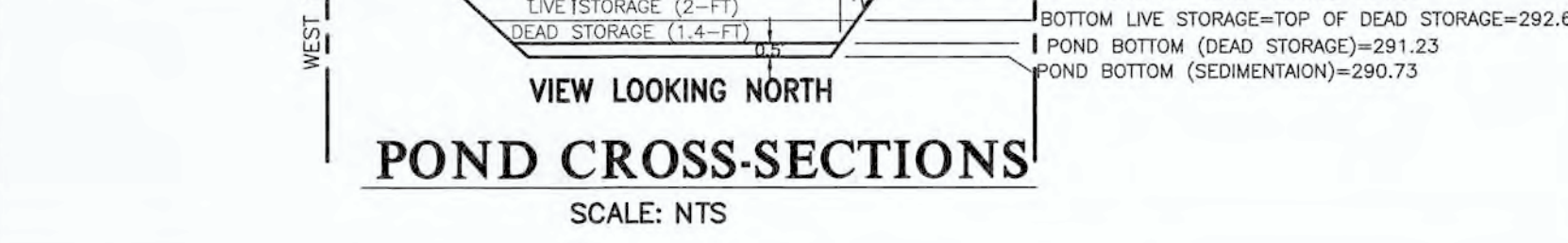


DETAIL: WA-01

FIRE HYDRANT DETAIL

FIRE HYDRANT NOTES:

1. A THRUST BLOCK SHALL BE PLACED AT THE BACK OF THE HYDRANT SHOE FROM THE DITCH BOTTOM TO A POINT 3/4 OF THE WAY UP THE BACK OF THE SHOE AND "Y" SHAPED TO SOLID GROUND AND SHALL BE A MINIMUM OF 2'-0" WIDE AT THIS POINT AND SHALL NOT OBSTRUCT BOLTS OR DRAIN HOLES ON THE SHOE. ALL BOLTS BELOW GRADE SHALL BE CHECKED FOR TIGHTNESS BEFORE BACKFILLING. THE USE OF MEGA-LUGS OR GRIP RINGS IS ALSO ACCEPTABLE.
2. THE FOLLOWING HYDRANTS HAVE BEEN ACCEPTED AS A STANDARD BY THE CITY OF ANACOSTA: MUELLER (SUPER CENTURION 200), EAST JORDAN AND MAH.
3. RED HEAD BRAND OR EQUIVALENT WITH 5" STORZ RIGID FEMALE ADAPTER WITH CAP AND CABLE.



AND/OR RAMP TO ROAD GRADES

F.O.
C-7
CONTRACT JOINT TYPY =
STANDARD PLAN F-9.10

LANDING

CURB AND GUTTER

CURB RAMP

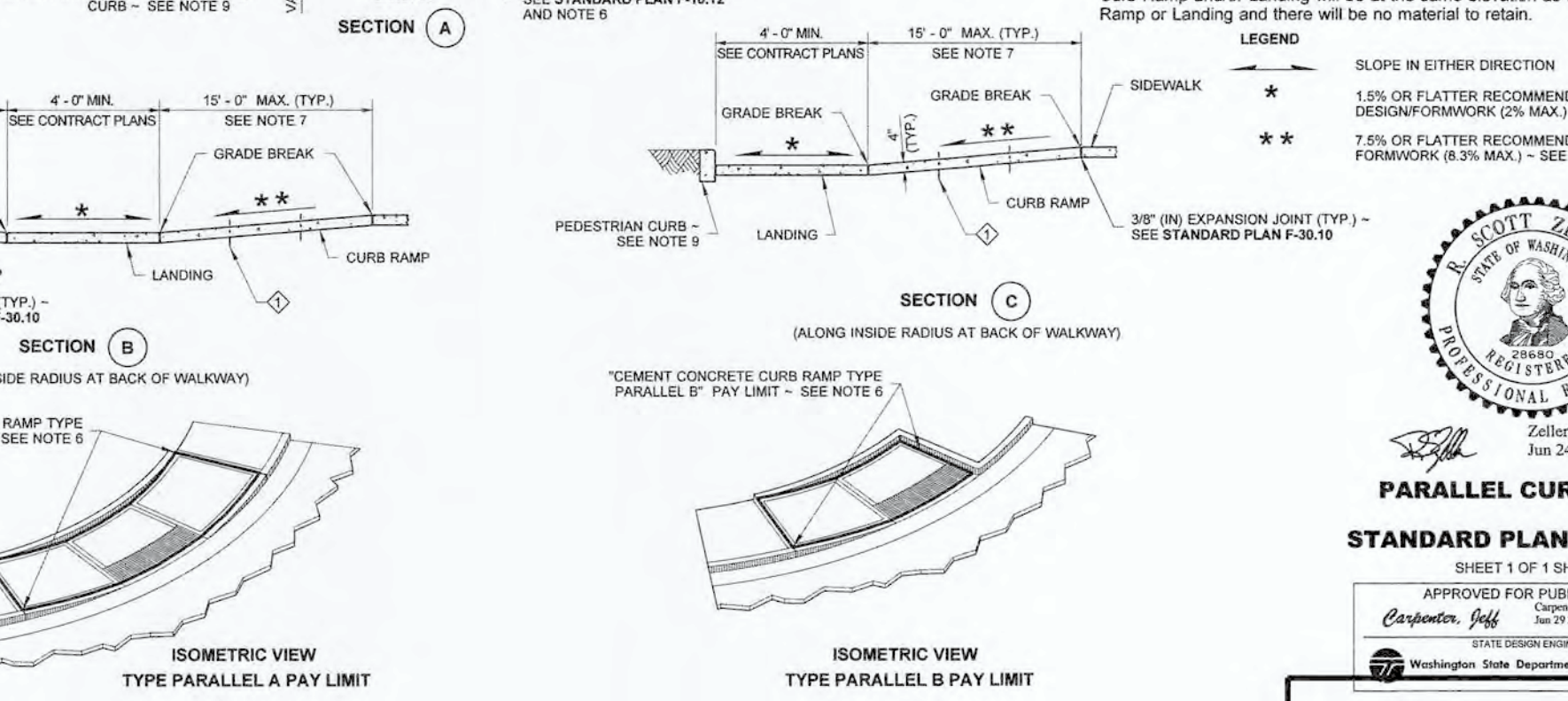
FACE OF CURB

DRAWN BY FRANK LOGGIA

FOR CONTRACT JOINT (TYP) =
CURB RAMP LENGTHS &
CONTRACT JOINT EQUALS

NOTES:

- At marked crosswalks, the connection between the curb ramp and the roadway must be contained within the width of the crosswalk markings.
- Where "GRADE BREAK" is called out, the entire length of the grade break between the two adjacent surface planes shall be flush.
- Do not place Gratings, Junction Boxes, Access Covers, or other appurtenances on any part of the Curb Ramp or Landing, or in front of the Curb Ramp where it connects to the roadway.
- See Contract Plans for the curb design specified. See **Standard Plan P-10.12** for Curb, Curb-and-Gutter, Depressed Curb and Gutter, and Pedestrian Curb details.
- See **Standard Plan F-9.10** for Cement Concrete Sidewalk Details. See Contract Plans for width and placement of sidewalk.
- The Bid Item "Cement Concrete Curb Ramp Type ____" does not include the adjacent Curb, Gutter and/or, Depressed Curb and Gutter, Pedestrian Curb, or Sidewalks.
- The Curb Ramp length is not required to exceed 15 feet (unless shown otherwise in the Contract Plans). When applying the 15-foot max. length, the running slope of the Curb Ramp is allowed to exceed 8.3% (the constant single slope from bottom of ramp to top of ramp to match into the landing over a horizontal distance of 15 ft.). It does not include the abutting landing in the 15-foot-max. measurement.
- Curb Ramps and Landings shall receive a broom finish. See **Standard Specifications 8-14**.
- Pedestrian Curb may be omitted if the ground surface at the back of the Curb Ramp and/or Landing will be at the same elevation as the Curb.



W/COVER) ROD ATTACHED TO HOOK AT BOTTOM OF FRAME FOR EASY ACCESS. REFER TO WSDOT STD PLAN B-10.40-00 FOR 8" SHEAR GATE CONNECTED TO 8" STUB FROM 12" DIA STANDPIPE

INSIDE BOTTOM ELEV.=288.63

STD. GALV. HANDHOLDS, STEPS OR LADDER

1" SECTION OF 12" DIA. PIPE ATTACHED BY GASKETED BAND TO ALLOW REMOVAL

ORIFICE RESTRICTOR PLATE WITH 0.85" ORIFICE AS SPECIFIED ELEV.=290.63

IE 12" OUT-NE=292.63

2'-0" DIA.

NOTES:

1. USE 60" DIAMETER CATCH BASIN TYPE 2.
2. METAL PARTS: ALL METAL PARTS MUST BE ALUMINUM OR MADE OF ALUMINIZED STEEL.
3. FRAME AND LADDER OR STEPS OFFSET SO:
 - A. CLEANOUT GATE IS VISIBLE FROM TOP.
 - B. CLIMB-DOWN SPACE IS CLEAR OF RISER AND CLEANOUT GATE.
4. PROVIDE AT LEAST ONE 3" x 0.090 GAGE SUPPORT BRACKET ANCHORED TO CONCRETE WALL (MAX. 3'-0" VERTICAL SPACING).

PROPOSED CB #7

CONTROL STRUCTURE

	NLS	
	DATE <u>9/6/20</u>	ENGINEER <u>[Signature]</u>
THIS PLAN SHEET IS ACCEPTED FOR CONSTRUCTION IN ACCORDANCE WITH THE CITY OF ANACORTES ORDINANCES AND POLICIES, ACTUAL CONFORMANCE OF THE DESIGN WITH APPLICABLE LAWS IS THE SOLE RESPONSIBILITY OF THE PROFESSIONAL ENGINEER, WHOSE NAME AND STAMP APPEAR ON THIS SHEET. ACQUIRING, COMPLYING WITH, AND PROVIDING MITIGATION FOR ALL FEDERAL, STATE, COUNTY, AND LOCAL LAWS, PERMITS, AND MANDATES INCLUDING BUT NOT LIMITED TO THE ENDANGERED SPECIES ACT, FEDERAL WETLAND PERMITS, NATIONAL POLLUTANT DISCHARGE ELIMINATION SYSTEM PERMIT IS THE RESPONSIBILITY OF THE DEVELOPER, LAND OWNER, AND THEIR ENGINEER. THE ISSUANCE OF THIS PERMIT SHALL NOT BE CONSTRUED AS PROOF OF COMPLIANCE WITH APPLICABLE LAWS AND PERMIT REQUIREMENTS.		
CITY ENGINEER _____		DATE _____
CONSTRUCTION FOR THE ACCEPTED PROJECT IS TO START WITHIN 1 YEAR OF THE DATE.		

[illegible]

Ravnik & Associates, Inc.
CIVIL ENGINEERING & LAND-USE PLANNING
1633 LINDAMOOD LANE/P.O. BOX 361
BURLINGTON, WA 98233
PH: (360) 707-2048 FAX: (360) 707-2216

SHEET DESCRIPTION:

DETAILS

PLAN STATUS:

SCALE: AS SHOWN
DRAWN BY: D. REMSEN
CHECKED BY: HLN
DATE: 08.06.20

SHEET TITLE:

TITLE: CHERRY COURT
SHORT PLAT
FOR
CORNER 9 PROPERITES, LLC
SW 1/4 SECTION 25. T. 35 N., R. 1 E., W.M.

DRAWING NO.
19013.DET.dwg

JOB NO.
19013

SHEET NO.
8 OF 11

GENERAL CONSTRUCTION NOTES

1. ALL CONSTRUCTION AND MATERIALS SHALL CONFORM TO THE 2020 STANDARD SPECIFICATIONS FOR ROAD, BRIDGE, AND MUNICIPAL CONSTRUCTION AS PREPARED BY THE WASHINGTON STATE DEPARTMENT OF TRANSPORTATION AND THE AMERICAN PUBLIC WORKS ASSOCIATION (WSDOT/APWA) TOGETHER WITH THE REQUIREMENTS OF THE ANACORTES PLANNING AND PUBLIC WORKS DEPARTMENTS, THE CITY OF ANACORTES SEWER DEPARTMENT, REQUIREMENTS OF CITY OF ANACORTES WATER DEPARTMENT FOR THE WATERLINE EXTENSIONS SERVING THIS PROJECT, AND REQUIREMENTS OF THE APPLICABLE UTILITY COMPANIES PROVIDING SERVICES TO THIS PROJECT.

IF THERE ARE ANY CONFLICTS IN REQUIREMENTS, THE MOST STRINGENT SHALL APPLY UNLESS OTHERWISE APPROVED BY THE ENGINEER.

2. DURING THE COURSE OF THIS PROJECT THE CONTRACTOR IS RESPONSIBLE FOR COORDINATING AND CONDUCTING PRECONSTRUCTION MEETINGS WITH A REPRESENTATIVE FROM THE FOLLOWING AGENCIES FOR, AT A MINIMUM, THE FOLLOWING CIVIL PHASES OF WORK:

- ? EROSION & SEDIMENT CONTROLS--CITY OF ANACORTES PUBLIC WORKS
- ? SANITARY SEWER SYSTEM--CITY OF ANACORTES
- ? STORM DRAINAGE, ON--SITE GRADING, PIPING--CITY OF ANACORTES, OWNER AND PROJECT ENGINEER
- ? DETENTION POND -- CITY, OWNER, AND PROJECT ENGINEER
- ? PUBLIC WATERLINE EXTENSION--CITY OF ANACORTES WATER DEPARTMENT
- ? P, T, C, G, FO COORDINATION--ALL UTILITY COMPANIES
- ? ROAD SUBGRADE --CITY OF ANACORTES & PROJECT ENGINEER
- ? ROAD TOP OF FINISHED GRAVEL GRADE AND COMPACTION--CITY OF ANACORTES & PROJECT ENGINEER
- ? ROAD FINAL CRUSHED ROCK GRADING PRIOR TO ASPHALT--CITY OF ANACORTES AND PROJECT ENGINEER
- ? CONCRETE CURB/GUTTER/RAMPS--CITY OF ANACORTES PUBLIC WORKS DEPARTMENT
- ? TEMPORARY UTILITY SHUT-DOWNS-- UTILITY COMPANY AND AFFECTED PROPERTIES
- ? FINAL GRADING & SITE CLEANUP -- CITY OF ANACORTES PUBLIC WORKS DEPARTMENT & OWNER
- ? COORDINATION WITH ADJOINING PROPERTY OWNERS FOR ALL WORK ACTIVITIES FRONTING OFFSITE PROPERTIES.

3. THE DEVELOPMENT OF THIS PROJECT REQUIRES THE CONTRACTOR CLOSELY COORDINATE UTILITY AND ROADWAY IMPROVEMENTS WITH CITY OF ANACORTES, UTILITY COMPANIES, AND OTHER DISCIPLINES INVOLVED WITH THIS PROJECT. THE CONTRACTOR IS RESPONSIBLE FOR THOROUGHLY REVIEWING EACH COMPONENT OF WORK ON THE CIVIL PLANS AND COORDINATING WITH THE OWNER, ENGINEER, AND THE CITY OF ANACORTES FOR ANY QUESTIONS OR CLARIFICATIONS OF WORK BEFORE COMMENCING.

4. CONSTRUCTION STAKING FOR THIS PROJECT SHALL BE PERFORMED BY A LICENSED LAND SURVEYOR, COORDINATED AND RETAINED BY THE OWNER. THE CONTRACTOR IS RESPONSIBLE FOR COORDINATING ALL ASPECTS OF CONSTRUCTION STAKING WITH THE SURVEYOR. NO RESTAKING OF ANY PREVIOUSLY STAKED ITEMS WILL BE PAID BY THE OWNER. ANY RESTAKING WILL BE PAID FOR BY THE CONTRACTOR. AT THE ONSET OF THE CONSTRUCTION PROCESS, THE CONTRACTOR SHALL PROVIDE TO THE OWNER, SURVEYOR, AND ENGINEER, A DETAILED LIST AND SCHEDULE OF CONSTRUCTION STAKING ITEMS.

5. DURING THE COURSE OF THIS PROJECT, THE CONTRACTOR SHALL MAINTAIN ACCURATE RECORDS OF ALL ASBULTS OF UTILITIES INSTALLED, EXISTING UTILITIES ENCOUNTERED INCLUDING THEIR DEPTH, SIZE, AND MATERIAL, AND EXISTING CONDITIONS NOT CONSISTENT WITH THOSE IDENTIFIED ON THE PLANS. ALL ASBULT INFORMATION SHALL BE MAINTAINED IN A CLEAR, LEGIBLE, COMPREHENDIBLE ORDER. ASBULT INFORMATION SHALL BE CLEARLY WRITTEN ON A CLEAN SET OF CONSTRUCTION PLANS AND PROVIDED TO THE ENGINEER UPON THE PROJECT'S COMPLETION. THE ASBULT PLANS, PREPARED BY THE ENGINEER, SHALL BE SUBMITTED AND APPROVED BY CITY OF ANACORTES PUBIC WORKS DEPARTMENT.

6. EXISTING UTILITIES HAVE BEEN IDENTIFIED USING THE AVAILABLE UTILITY RECORDS, PREVIOUS DESIGN DOCUMENTS, AND A TOPOGRAPHIC SURVEY OF THE SURFACE CONDITIONS WITHIN THE SUBJECT PROPERTY AND THE ABUTTING PORTIONS OF ORCHARD AVENUE AND CHERRY LANE. THE TOPOGRAPHIC SURVEY OF THIS SITE AND THE ABUTTING ROADWAYS HAS BEEN PROVIDED BY LISSER AND ASSOCIATES OF MOUNT VERNON, WASHINGTON AT (360) 419-7442.

7. THE CONTRACTOR IS RESPONSIBLE FOR HAVING ALL EXISTING UTILITIES LOCATED PRIOR TO ANY CONSTRUCTION. THE CONTRACTOR SHALL CONTACT THE ONE-CALL UTILITY LOCATE SERVICE AT 7811? A MINIMUM OF TWO WORKING DAYS PRIOR TO ANY WORK. THE CONTRACTOR IS ALSO RESPONSIBLE FOR RETAINING A PRIVATE UTILITY LOCATE SERVICE TO IDENTIFY ANY EXISTING UTILITIES BEYOND THE LIMITS OF THE PUBLIC RIGHTS-OF-WAY. DAMAGES TO THE EXISTING UTILITIES RESULTING FROM THIS CONSTRUCTION SHALL BE REPAIRED BY THE CONTRACTOR OR THE UTILITY COMPANY, AS REQUIRED, AT THE CONTRACTOR'S EXPENSE. AT ALL CROSSING'S OF NEW UTILITIES WITH EXISTING UTILITIES THE EXISTING UTILITY SHALL BE HORIZONATALLY AND VERTICALLY ASBULT PRIOR TO COMMENCING CONSTRUCTION IN THAT AREA AND THE ENGINEER SHALL BE NOTIFIED OF POTENTIAL CONFLICTS.

8. GENERAL CONDITIONS HAVE BEEN INDICATED ON THE PLANS FOR THE REMOVAL OF EXISTING MATERIALS AND STRUCTURES NECESSARY TO ACCOMMODATE THE PROPOSED IMPROVEMENTS. THE LIMITS OF THIS WORK ARE FOR USE BY THE CONTRACTOR IN PREPARING A COST FOR THIS PROJECT. HOWEVER, THE CONTRACTOR IS RESPONSIBLE FOR THOROUGHLY INSPECTING THE ENTIRE PROJECT SITE AND ASCERTAINING THE ENTIRE LIMIT OF ALL WORK THAT WILL BE NECESSARY TO PROVIDE THE PROPOSED IMPROVEMENTS IN A COMPLETED, ACCEPTABLE CONDITION, TO THE SATISFACTION OF THE OWNER, ENGINEER, OWNER'S RETAINED SOIL'S ENGINEER, THE CITY OF ANACORTES DEPARTMENTS, AND UTILITY COMPANIES INVOLVED WITH THE CONSTRUCTION OF THESE SITE IMPROVEMENTS.

THE CONTRACTOR IS RESPONSIBLE FOR PRESERVING AND PROTECTING ALL ELEMENTS THAT ARE TO REMAIN. DAMAGED CONDITIONS MUST BE PROMPTLY REPAIRED BY THE CONTRACTOR TO THE SATISFACTION OF THE ASSOCIATED OWNER.

9. THE CONTRACTOR SHALL PROVIDE DAILY EFFORTS TO KEEP THE SITE IN A NEAT AND ORDERLY CONDITION TO THE SATISFACTION OF THE OWNER, ENGINEER, AND THE CITY OF ANACORTES. THE CONTRACTOR IS REQUIRED TO PROVIDE PROVISIONS NECESSARY TO PREVENT DEBRIS FROM BEING WASHED INTO ANY DRAINAGE SYSTEM ADJACENT TO THE SUBJECT PROPERTY, OR ANY OTHER STORM SYSTEM THROUGHOUT AND NEAR THIS PROJECT SITE. IT IS IMPERATIVE THE CONTRACTOR PROVIDE EVERY MEASURE TO PREVENT SILT AND DEBRIS FROM BEING WASHED INTO ANY PORTION OF ANY OFFSITE PROPERTY, DITCH, WATERWAYS AND/OR NEW DRAINAGE SYSTEM IMPROVEMENTS. THE CONTRACTOR SHALL TAKE ALL PRECAUTIONS TO PREVENT WASH WATERS FROM DAMAGING PROPERTY OR IMPACT WATERWAYS.

THE CONTRACTOR SHALL PROVIDE ALL PROVISIONS TO PREVENT DIRTY RUNOFF WATERS FROM ENTERING ANY PORTION OF THE EXISTING OR PROPOSED STORM SYSTEM OR PROPERTY OWNED BY OTHERS.

10. THE SITE CONTRACTOR SHALL BE RESPONSIBLE FOR IMPLEMENTING EROSION AND SEDIMENTATION CONTROL REQUIREMENTS IN CONFORMANCE WITH THE SWPPP TO BE PREPARED FOR THIS PROJECT, ALONG WITH THE REQUIREMENTS OF THE CITY OF ANACORTES AND WASHINGTON STATE DEPARTMENT OF ECOLOGY. THE SITE CONTRACTOR IS RESPONSIBLE FOR INSPECTION OF EROSION CONTROL CONDITIONS, MONITORING OF STORMWATER RUNOFF CONDITIONS, AND IMPLEMENTING CHANGES/IMPROVEMENTS/MAINTENANCE OF ALL EROSION CONTROL FACILITIES. THE SITE CONTRACTOR SHALL HAVE A CERTIFIED EROSION CONTROL LEAD PERSON AVAILABLE AT ALL TIMES FOR INSPECTION OF EROSION CONTROL CONDITIONS, MONITORING OF STORMWATER RUNOFF CONDITIONS, AND IMPLEMENTING CHANGES/IMPROVEMENTS/MAINTENANCE OF ALL EROSION CONTROL FACILITIES. THE SITE CONTRACTOR SHALL PROVIDE ANY PERMITS, SITE INSPECTION REPORTS AND/OR DOCUMENTATION AS REQUIRED BY DOE AND THE CITY.

11. ALL CONSTRUCTION ACTIVITIES SHALL BE CONDUCTED TO PREVENT ANY DIRTY RUNOFF WATERS FROM EXITING THE SUBJECT PROPERTY AND/OR ENTERING UPON OFFSITE PROPERTIES, STORM SYSTEMS, OR WATERWAYS.

12. TRAFFIC LANES MUST BE MAINTAINED ON ALL ADJACENT ROADWAYS. NO FULL-WIDTH ROAD CLOSURES WILL BE ALLOWED. TO ACCOMMODATE UTILITY INSTALLATIONS WITHIN THE RIGHT OF WAY, PARTIAL ROAD CLOSURES WILL BE ALLOWED ONLY IF APPROVED BY THE CITY OF ANACORTES PUBLIC WORKS AND FIRE DEPARTMENTS. WITH EACH PARTIAL CLOSURE, AND DURING ALL CONSTRUCTION ACTIVITIES, THE CONTRACTOR SHALL PREPARE AND PROVIDE A TRAFFIC CONTROL PLAN TO THE CITY OF ANACORTES PUBLIC WORKS DEPARTMENT IDENTIFYING FLAGGERS AND TEMPORARY SIGN INSTALLATIONS FOR ON-GOING WORK ACTIVITIES. THE REQUIREMENTS OF TRAFFIC CONTROL SHALL BE APPROVED BY THE CITY OF ANACORTES PUBLIC WORKS DEPARTMENT, PERTAINING TO FLAGGERS AND LIGHTS. ALL TRAFFIC CONTROL PLANS SHALL CONFORM TO THE REQUIREMENTS OF THE CITY OF ANACORTES PUBLIC WORKS DEPARTMENT AND THE MOST RECENT VERSION OF THE MANUAL ON UNIFORM TRAFFIC CONTROL DEVICES. REGARDLESS OF WHERE THE CONSTRUCTION ACTIVITY IS OCCURRING FOR THIS PROJECT, THE CONTRACTOR IS RESPONSIBLE FOR PROVIDING ALL TRAFFIC CONTROL SIGNS AND FLAGGERS FOR CONSTRUCTION VEHICLES ENTERING AND EXITING THIS PROJECT SITE. FLAGGERS MUST BE USED DURING ALL PERIODS OF CONSTRUCTION WITHIN THE RIGHTS OF WAYS.

13. THE SURROUNDING PROPERTIES ARE RESIDENTIALLY DEVELOPED. THE CONTRACTOR MUST PROVIDE ALL PROVISIONS TO PROPERLY AND SAFELY MANAGE THE CONSTRUCTION ACTIVITIES FOR PEOPLE THAT WALK ON ADJOINING ROADS. ALL EXISTING ROADWAYS MUST BE KEPT AVAILABLE FOR A MINIMUM OF ONE TRAVEL LANE AT ALL TIMES. DURING PERIODS WHEN NO CONSTRUCTION ACTIVITIES ARE OCCURING ONSITE, ALL TRAVEL LANES SHALL BE AVAILABLE FOR USE.

14. DURING ALL PHASES OF CONSTRUCTION, THE CONTRACTOR SHALL PROVIDE DUST CONTROL MEASURES TO MINIMIZE THE IMPACTS ON THE ADJOINING PROPERTIES. IT IS THE CONTRACTOR'S DAILY RESPONSIBILITY TO PROVIDE THIS MEASURE WHENEVER NECESSARY. THE CITY OF ANACORTES, OWNER AND PROJECT ENGINEER RESERVE THE RIGHT TO REQUIRE ADDITIONAL DUST CONTROL MEASURES TO BE PROVIDED BY THE CONTRACTOR, AT NO ADDITIONAL COST TO THIS CONTRACT. THE CONTRACTOR IS RESPONSIBLE FOR THE PROMPT CLEANUP OF ALL DEBRIS TRANSPORTED FROM THIS SITE.

15. THE CONTRACTOR SHALL COMPLY WITH ALL LOCAL, STATE, AND FEDERAL REGULATIONS CONCERNING THE DISPOSAL OF MATERIALS REMOVED FROM THIS PROJECT SITE. ALL ASPHALT, CONCRETE, STRUCTURES, NATIVE, AND NON-NATIVE DEBRIS REMOVED FROM THIS SITE SHALL BE DISPOSED IN A LEGALLY APPROVED DISPOSAL SITE OBTAINED BY THE CONTRACTOR. THE CONTRACTOR IS RESPONSIBLE FOR ALL FEES ASSOCIATED WITH THE DISPOSAL OF MATERIALS, REGARDLESS OF NATURE, FROM THIS PROJECT SITE.

16. IN ADDITION TO NOTIFYING CITY OF ANACORTES FOR ANY TEMPORARY OR PARTIAL ROAD CLOSURES, THE CONTRACTOR IS ALSO RESPONSIBLE FOR NOTIFYING ALL ADJOINING RESIDENCES AND ANY BUSINESSES WITHIN THE VICINITY OF THIS PROJECT TO INFORM THEM OF CONSTRUCTION ACTIVITIES AND WHEN ACCESS TO THIS AREA MAY BE LIMITED.

THE CONTRACTOR IS RESPONSIBLE FOR PERFORMING THESE SITE IMPROVEMENTS IN SUCH A WAY AS TO NOT SIGNIFICANTLY IMPACT THE OPERATION OF ANY ADJOINING BUSINESSES OR RESIDENCES.

THE CONTRACTOR SHALL PERFORM ALL SITE IMPROVEMENTS IN SUCH A MANNER AS TO CONTINUALLY ALLOW THE ADJOINING RESIDENCES THE ABILITY TO DRIVE ON ALL ADJACENT ROADWAYS. AT NO TIME SHALL ANY ROADWAY BE TOTALLY CLOSED TO PUBLIC TRAFFIC.

17. THE CONTRACTOR SHALL USE EQUIPMENT THAT IS OPERATING EFFICIENTLY. MANY OF THE UTILITY INSTALLATIONS ARE AT A VERY SMALL SLOPE, THEREFORE, ALL LAZER EQUIPMENT SHALL HAVE BEEN RECENTLY CALIBRATED AND FIELD CHECKED FOR ACCURACY. NO EQUIPMENT SHALL BE ALLOWED ONSITE THAT LEAKS FLUIDS. AT ALL TIMES DURING THE COURSE OF THIS PROJECT, THE CONTRACTOR SHALL HAVE SPILL CLEAN UP EQUIPMENT AND MATERIALS READILY AVAILABLE. EQUIPMENT SHALL BE PARKED IN AN AREA THAT IN THE EVENT A SPILL SHALL OCCUR, THE SPILL WILL BE CONTAINED AND NO FLUIDS WILL HAVE THE POTENTIAL TO ENTER ANY OF THE OFFSITE AND ONSITE DRAINAGE SYSTEMS. ON A DAILY BASIS, THE CONTRACTOR SHALL INSPECT ALL EQUIPMENT AND PROVIDE ALL NECESSARY MAINTENANCE OF SAID EQUIPMENT AS NEEDED TO MINIMIZE THE POTENTIAL FOR ANY SPILLS OR LEAKING OF FLUIDS.

CLEARING AND EXCAVATION

18. A GEOTECHNICAL INVESTIGATION HAS BEEN DONE AND REPORT HAS BEEN PREPARED FOR THIS PROJECT BY GEOTEST ENGINEERS (GEOTEST). THE CONTRACTOR IS RESPONSIBLE FOR OBTAINING AND REVIEWING A COPY OF THIS GEOTECHNICAL INFORMATION PRIOR TO CONSTRUCTION. THE CONTRACTOR IS RESPONSIBLE FOR IMMEDIATELY CONTACTING THE OWNER AND ENGINEER, IF SITE CONDITIONS INDICATE UNSTABLE OR NON-UNIFORM SOIL CONDITIONS.

19. IF NATURAL, UNDISTURBED, SUBGRADE CONDITIONS ARE IDENTIFIED DURING THE COURSE OF THIS WORK THAT REQUIRES ADDITIONAL EXCAVATION; THE CONTRACTOR SHALL NOTIFY THE ENGINEER REGARDING THE ENCOUNTERED CONDITIONS. AS DIRECTED BY THE ENGINEER AND OWNER, THE CONTRACTOR SHALL PERFORM ADDITIONAL EXCAVATION TO REMOVE SOFT, YIELDING, OR ORGANIC MATERIALS WITHIN THE PRISMS OF THE PROPOSED ONSITE AND OFFSITE IMPROVEMENTS. WHERE NECESSARY, EXCAVATION SHALL BE PERFORMED TO REMOVE VEGETATION, TOPSOIL, DEBRIS, REMNANT STRUCTURES, ORGANIC MATERIALS, AND ANY OTHER DELETERIOUS MATERIAL THAT MAY DETRIMENTALLY IMPACT SITE EXCAVATION OR FOUNDATION SUPPORT FOR THE PROPOSED IMPROVEMENTS. STRIPPED MATERIALS SHALL NOT BE USED, NOR MIXED, WITH ANY GRANULAR MATERIALS TO BE USED AS STRUCTURAL FILL WITHIN UTILITY TRENCHES WITHIN PROPOSED ROADWAY IMPROVEMENTS.

NATIVE MATERIALS ARE UNACCEPTABLE AS STRUCTURAL FILL, AND SHALL NOT BE USED FOR ANY IMPROVEMENT EXCEPT FINAL SURFACE GRADING AS SPECIFIED AND FILL WITHIN LANDSCAPE AND LOT AREAS, OUTSIDE OF DRIVELANES.

OUTSIDE OF THE RIGHT OF WAY, SUBJECT TO APPROVAL BY THE OWNER'S RETAINED SOILS ENGINEER AND THE CITY OF ANACORTES, NATIVE CLEAN MATERIALS MAY BE USED AS TRENCH BACKFILL. NATIVE TRENCH BACKFILL SHALL BE COMPACTED TO A MINIMUM OF 95 PERCENT.

20. ALL SUBGRADE CONDITIONS SHALL BE PREPARED AND COMPACTED CONFORMING TO WSDOT SECTION 2-06.3(1) AND 2-06.3(2). THE SUBGRADE CONDITIONS SHALL BE COMPACTED TO A MINIMUM OF 95 PERCENT MAXIMUM DRY DENSITY AT A MOISTURE CONTENT PLUS OR MINUS 2 PERCENT FROM OPTIMUM. THE CONTRACTOR MUST HAVE ALL SUBGRADES, AT THE BOTTOM OF GRAVEL, INSPECTED AND TESTED BY OWNER'S RETAINED SOILS ENGINEER AND INSPECTED BY THE CITY OF ANACORTES. THE CONTRACTOR SHALL PERFORM ALL WORK NECESSARY TO ACHIEVE THE REQUIRED SUBGRADE CONDITIONS, INCLUDING PROTECTING THE SUBGRADE FROM EXCESSIVE MOISTURE, AND CONDITIONING THE NATIVE SUBGRADE TO REMOVE MOISTURE.

21. EXCAVATION SHALL BE PERFORMED, AT A MINIMUM, TO THE DESIGNED SUBGRADE ELEVATION FOR THE BOTTOM OF GRAVEL. THIS SUBGRADE SHALL BE PREPARED AS SPECIFIED. WHERE SOFT, YIELDING, OR ORGANIC CONDITIONS EXIST AT THE DESIGNED SUBGRADE ELEVATION, ADDITIONAL EXCAVATION MUST BE PERFORMED TO EXPOSE FIRM, NON-YIELDING, NON-ORGANIC SUBGRADE CONDITIONS. ALL OVER-EXCAVATION WORK MUST BE BROUGHT TO THE ENGINEER'S AND OWNER'S ATTENTION AND APPROVED BY THE OWNER PRIOR TO THE CONTRACTOR PERFORMING THE WORK.

22. DURING ALL PERIODS WHEN NO CONSTRUCTION ACTIVITY IS OCCURRING, NO OPEN HOLES SHALL BE LEFT ACCESSIBLE. OPEN HOLES AND TRENCHES SHALL BE COVERED WITH STEEL PLATES OR OTHER DEVICES WHICH PREVENT ANY ACCESS INTO THE EXCAVATION. OTHERWISE, ALL OPEN HOLES AND TRENCHES SHALL BE BACKFILLED.

23. THE CONTRACTOR IS RESPONSIBLE FOR CLEARING BRUSH, TREES, AND OTHER VEGETATION AS NOTED WITHIN THE SOUTHERLY PORTION OF THE SITE AS NOTED ON THE PLANS. THERE AREA ALSO TREES TO REMAIN. THE CONTRACTOR SHALL CAREFULLY REVIEW THE LANDSCAPE PLANS PREPARED FOR THIS PROJECT TO ASSURE CONFORMANCE WITH THIS PLAN. ON-SITE BURNING IS NOT ALLOWED. THE CONTRACTOR IS RESPONSIBLE FOR ALL LOADING, HAULING, AND PROPER OFFSITE DISPOSAL OF VEGETATED MATTER. THE USE OF CHIPPED VEGETATION IS PERMISSIBLE IN THE TEMPORARY EROSION AND SEDIMENTATION CONTROL FACILITIES INSTALLED, MAINTAINED, AND OPERATED BY THE CONTRACTOR.

24. SUBGRADE CONDITIONS AND PLACED-MATERIAL CONDITIONS THAT ARE APPROVED, BUT LATER FAIL TO MEET SPECIFICATIONS DUE TO EXCESSIVE TRAFFIC, UNPROTECTED FROM WEATHER, OR UNDU E IMPACTS, AS DETERMINED BY THE ENGINEER, SHALL BE REBUILT/RECONSTRUCTED BY THE CONTRACTOR AT THE CONTRACTOR'S COST.

25. DURING ALL COURSES OF THIS PROJECT, THE CONTRACTOR IS TO PROVIDE ALL POSSIBLE MEANS TO PREVENT STORMWATER FROM PONDING ON THE EXCAVATED SUBGRADE AND ON PLACED MATERIAL SURFACES, AND FROM CAUSING EXCESSIVE MOISTURE. PROVISIONS TO PREVENT AND/OR REMOVE STORM RUNOFF SHALL INCLUDE, BUT ARE NOT LIMITED TO, PLASTIC COVERS, TEMPORARY DITCHING, PUMPS, AND SILTATION PONDS. ALL STORMWATER DISCHARGED FROM THIS SITE SHALL BE THOROUGHLY FILTERED THROUGH EROSION AND SEDIMENTATION CONTROLS PRIOR TO BEING DISCHARGED INTO ANY NEW OR EXISTING DRAINAGE FACILITY.

26. ALL CONSTRUCTION PRACTICES AND SITE OPERATIONS SHALL BE PERFORMED TO PROTECT THE UNDERLYING SOILS.

27. AT ANY LOCATIONS WHERE TREE STUMPS OR ORGANIC MATERIALS ARE REMOVED FROM WITHIN THE IMPERVIOUS AND UTILITY TRENCH AREAS, THE CONTRACTOR SHALL BACKFILL THE LIMITS OF THE OVEREXCAVATION WITH COMPACTED STRUCTURAL FILL MATERIAL AS SPECIFIED. NATIVE MATERIAL SHALL NOT BE USED AS BACKFILL AT ANY LOCATION BELOW OR WITHIN THREE FEET OF THE PROPOSED RIGHT-OF-WAY, EXCEPT AS FINAL SURFACE GRADING AS SPECIFIED AND AS FILL WITHIN LOW LOT AREAS.

28. DURING THE COURSE OF THIS PROJECT, THE CONTRACTOR IS RESPONSIBLE FOR STOCKPIILING CLEAN, NATIVE TOPSOIL MATERIALS TO BE USED AS FINAL GRADING AGAINST BACKS OF CURBS, AND AT DESIGNATED AREAS DIRECTED BY THE OWNER. STOCKPILED TOPSOIL TO BE USED FOR FINAL GRADING SHALL BE FREE OF ROCKS, STICKS, AND DEBRIS GREATER THAN TWO INCHES IN ANY DIMENSION. THE CONTRACTOR IS RESPONSIBLE FOR STOCKPIILING TOPSOIL AT LOCATIONS THAT WILL NOT INTERRUPT CONSTRUCTION ACTIVITIES, AND FOR PROTECTING THE TOPSOIL STOCKPILE FROM CONTAMINATION AND SATURATION.

TOPSOIL MATERIAL SHALL BE GRADED AS SPECIFIED, AND STATIC ROLLED TO PROVIDE FOR A LIGHTLY DENSE SURFACE CONDITION.

EXCESS REMAINING NATIVE SOILS SHALL BE COORDINATED WITH THE OWNER FOR THE PLACEMENT AND GRADING OF EXCESS CLEAN NATIVE SOILS UPON THE SUBJECT LOTS.

IF CAUSED BY THE CONTRACTOR'S PRACTICES, NATIVE SOILS BECOME CONTAMINATED WITH GRANULAR MATERIALS AND OTHER DEBRIS, THE CONTAMINATED NATIVE SOILS SHALL BE DEPOSITED OFFSITE BY THE CONTRACTOR, AT THE CONTRACTOR'S EXPENSE AND REPLACED WITH SUFFICIENT MATERIALS.

29. AT ALL LOCATIONS WHERE GRADING AND EXCAVATION OF NATIVE SOILS RESULTS IN A SLOPED CONDITION STEEPER THAN 10:1, THE SURFACE SHALL BE TRACKED SO AS TO CREATE A RIDGED PATTERN PERPENDICULAR TO THE DIRECTION OF SLOPE. UNLESS ONLY EXPOSED TO WEATHER FOR LESS THAN FIVE WORKING DAYS AND UNLESS WET WEATHER CONDITIONS EXIST OR ARE ANTICIPATED, ALL SLOPED CONDITIONS STEEPER THAN 10:1 SHALL BE PROMPTLY COVERED WITH A DENSE STRAW MAT.

ALL DISTURBED SOIL CONDITIONS SHALL BE SEEDED WITH GRASS AS SPECIFIED.

EXISTING UTILITIES

30. THERE ARE EXISTING UTILITIES THAT WILL BE CROSSED WITH THE PROPOSED IMPROVEMENTS HEREIN. FOR ALL SLOPE-CONTROLLED UTILITIES SUCH AS STORM DRAINAGE AND SANITARY SEWER, THE CONTRACTOR MUST HORIZONTALLY AND VERTICALLY ASBULT ALL EXISTING UTILITIES WITHIN THE ALIGNMENT OF THE PROPOSED SLOPE-CONTROLLED UTILITY PRIOR TO PERFORMING ANY CONSTRUCTION. THE CONTRACTOR MUST OBTAIN THE HORIZONTAL LOCATION AND VERTICAL ELEVATION OF THE EXISTING UTILITY AND COMPARE IT TO THE DESIGNED IMPROVEMENT. CONFLICTS BETWEEN PROPOSED UTILITIES AND EXISTING UTILITIES MUST BE IMMEDIATELY BROUGHT TO THE ENGINEER'S ATTENTION SO A RESOLUTION CAN BE ACHIEVED IN A TIMELY MANNER.

31. THROUGHOUT THE COURSE OF THIS PROJECT, VARIOUS UTILITY COMPANIES WILL BE INVOLVED IN SITE IMPROVEMENTS FOR REMOVAL OF A UTILITY, PROPOSED UTILITY CROSSING, AND TO MAKE CONNECTIONS FROM THE PROPOSED WORK HEREIN TO THE EXISTING UTILITIES. THE CONTRACTOR IS RESPONSIBLE FOR COORDINATING WITH EACH UTILITY COMPANY PRIOR TO COMMENCING SITE ACTIVITIES, AND CONDUCTING A COORDINATION MEETING ONSITE WITH A REPRESENTATIVE FROM EVERY UTILITY COMPANY. THE CONTRACTOR SHALL PERFORM EXCAVATION, BACKFILL, AND WORK AS REQUIRED BY THE UTILITY COMPANIES FOR THE COMPLETE AND FUNCTIONAL INSTALLATION OF EACH SERVICE. CONTRACTOR TO COORDINATE WHAT TYPE OF INSPECTION WILL BE REQUIRED BY EXISTING UTILITY COMPANIES WHEN CROSSING THEIR SPECIFIC UTILITY.

32. THE CONTRACTOR IS SOLELY RESPONSIBLE FOR THE PROTECTION OF ALL EXISTING UTILITIES. ANY DAMAGED UTILITY CONDITIONS MUST BE PROMPTLY REPAIRED, IN CONFORMANCE WITH UTILITY COMPANY REQUIREMENTS, AT THE CONTRACTOR'S EXPENSE.

33. CONSTRUCTION OF THESE IMPERVIOUS AND UTILITY IMPROVEMENTS MAY REQUIRE THAT SOME UTILITIES TEMPORARILY BE SHUT DOWN. PRIOR TO PERFORMING ANY WORK THAT WILL INTERRUPT ANY EXISTING SERVICES, THE CONTRACTOR MUST COORDINATE WITH THE ASSOCIATED UTILITY COMPANY AND THE ASSOCIATED PROPERTY OWNERS REGARDING THE TEMPORARY UTILITY SHUTDOWN. UTILITY SHUTDOWNS MUST BE PERFORMED AND COORDINATED SO IMPACT TO THOSE EXISTING PARTIES SERVED IS MINIMIZED.

34. FOR POWER, TELEPHONE, TV CABLE, FIBER OPTIC, AND GAS; THE CONTRACTOR MUST INDEPENDENTLY COORDINATE WITH EACH UTILITY COMPANY REGARDING TRENCH CONDITIONS AND REQUIREMENTS, BEDDING AND COVER MATERIALS, CONDUIT AND ROAD CASINGS. TYPICALLY, A COMMON 48" WIDE TRENCH, BEDDED AND COVERED WITH SIX INCHES OF CLEAN SAND, AND SUFFICIENT DEPTH FOR THREE FEET OF CONDUIT COVER IS ACCEPTABLE TO THE UTILITY COMPANIES. THE CONTRACTOR SHALL EXCAVATE, GRADE, AND PROVIDE BACKFILL FOR ALL VAULTS AND STRUCTURES.

35. THOUGH NONE ARE ANTICIPATED WITHIN THIS PROJECT, THERE MAY BE EXISTING UTILITIES THAT ARE TO BE ABANDONED IN PLACE. IF DETERMINED NECESSARY TO ABANDON A UTILITY IN PLACE, NO OPEN ENDED CONDUITS OR PIPES SHALL BE LEFT, AND ALL OPEN ENDED UTILITIES THAT ARE ABANDONED MUST BE PLUGGED WITH A CONCRETE GROUT MATERIAL OR CAPPED. EVEN ABANDONED UTILITIES SHALL BE ASBULT WITH THIS INFORMATION PROVIDED TO THE PROJECT ENGINEER AT THE COMPLETION OF THIS PROJECT.

EROSION AND SEDIMENTATION CONTROLS

36. THE CONTRACTOR IS RESPONSIBLE FOR CONFORMING TO ALL EROSION AND SEDIMENTATION CONTROL REQUIREMENTS FROM THE CITY OF ANACORTES, THE DEPARTMENT OF ECOLOGY, AND AS CONTAINED ON THE CIVIL PLANS HEREIN. THE CONTRACTOR MUST INSPECT ALL EROSION CONTROL DEVICES DURING AND AFTER EACH RAINFALL EVENT, EACH SHALL UPGRADE AND SUPPLEMENT ALL EROSION CONTROL ELEMENTS AS NECESSARY TO PREVENT ANY DIRTY RUNOFF WATER FROM ENTERING ANY EXISTING AND PROPOSED DRAINAGE FACILITIES AND FROM IMPACTING OFFSITE PROPERTIES.

37. THE CONTRACTOR MUST PERFORM ALL SITE CONSTRUCTION ACTIVITIES IN SUCH A MANNER TO PROVIDE ALL RUNOFF WATERS AN OPPORTUNITY FOR SEDIMENT AND DEBRIS TO SETTLE OUT OF RUNOFF WATERS, PRIOR TO THEM FLOWING INTO ANY EXISTING OR PROPOSED DRAINAGE FACILITY.

38. FILTER FABRIC FENCE IS TO BE INSTALLED AT ALL LOCATIONS WHERE IT APPEARS SURFICIAL RUNOFF WILL EXIT THE SITE TO AID IN THE REMOVAL OF DEBRIS FROM STORMWATER EXITING THE SUBJECT PROPERTY. THE CONTRACTOR IS RESPONSIBLE FOR THE INSTALLATION, CLEANING, REPLACEMENT IF NECESSARY, AND MAINTENANCE OF FILTER FABRIC SILT FENCE AS NECESSARY TO ADEQUATELY CONTROL ALL SURFACE RUNOFF FROM THIS PROPERTY AND ITS ASSOCIATED DEVELOPMENT. ORANGE CONSTRUCTION FENCING SHALL BE INSTALLED AS PROJECT DELINEATION AS NOTED ON THE CIVIL PLANS. THE CLEARING CONTROL FENCE SHALL BE INSTALLED AT THE DRIP LINE OF TREES TO BE SAVED WHEREVER THE TREE CANOPIES EXTEND INTO THE AREA TO BE CLEARED.

39. THE CONTRACTOR IS RESPONSIBLE FOR INSPECTING THE PROJECT SITE AND DETERMINING LOCATIONS WHERE STORMWATER MAY EXIT THE SUBJECT PROPERTY AND FLOW ONTO ADJACENT AREAS. AT ALL THESE LOCATIONS, THE CONTRACTOR MUST INSTALL FILTER FABRIC FENCE TO AID IN THE REMOVAL OF DEBRIS FROM STORMWATER EXITING THE SUBJECT PROPERTY. CONSTRUCTION ACTIVITIES SHALL NOT BE ALLOWED TO CAUSE ANY CONCENTRATED RUNOFF WATERS ONTO ADJOINING PROPERTIES OR RIGHT OF WAY AREAS.

40. AFTER SITE WORK IS COMPLETED AND SITE SOIL CONDITIONS ARE STABILIZED, THE CONTRACTOR SHALL CLEAN UP AND REMOVE THE EROSION CONTROL ITEMS AND ALL ACCUMULATED DEBRIS. UNTIL THE SITE IS APPROPRIATELY STABILIZED, AS DETERMINED BY THE CITY OF ANACORTES PUBLIC WORKS DEPARTMENT, THE CONTRACTOR IS RESPONSIBLE FOR ALL EROSION AND SEDIMENTATION CONTROL FACILITIES.

41. WITHIN NEW CATCH BASINS AS THEY ARE INSTALLED AND ANY EXISTING CATCH BASIN THAT MAY RECEIVE STORM RUNOFF FROM THE PROJECT AREA, THE CONTRACTOR SHALL INSTALL FILTER FABRIC SACKS UNDER THE RESPECTIVE GRATES. THE CONTRACTOR IS RESPONSIBLE FOR CLEANING, MAINTENANCE, AND REPLACEMENT OF FILTER FABRIC SACKS AS NECESSARY TO CONTINUALLY ALLOW STORMWATER TO BE FILTERED PRIOR TO ENTERING THE DRAINAGE SYSTEM.

42. UPON COMPLETION OF THE PROJECT IMPROVEMENTS, THE CONTRACTOR IS RESPONSIBLE FOR THOROUGHLY CLEANING OUT ALL NEW AND EXISTING STORM PIPES AND ASSOCIATED STORM STRUCTURES INCLUDING CATCH BASINS.

43. AS SOON AS PARTICULAR GRADING ACTIVITIES ARE COMPLETE, THE CONTRACTOR IS RESPONSIBLE FOR PROVIDING A MIXTURE OF GRASS SEED, FERTILIZER, AND MULCH TO ASSIST IN STABILIZING THE DISTURBED SOILS. HAND-APPLIED SEED AND FERTILIZER IS ACCEPTABLE PROVIDING THE WEATHER CONDITIONS ARE SUPPORTIVE, OTHERWISE, HYDROSEEDING SHALL BE PERFORMED.SOILS MUST NOT REMAIN EXPOSED AND UNWORKED FOR MORE THAN THE TIME PERIODS SET FORTH BELOW TO PREVENT EROSION.

DURING THE DRY SEASON (MAY 1 – SEPT 30): 7 DAYS
DURING THE WET SEASON (OCT 1 – APR 30): 2 DAYS

STABILIZE SOILS AT THE END OF THE SHIFT BEFORE A HOLIDAY OR WEEKEND IF NEEDED BASED ON THE WEATHER FORECAST. STABILIZE SOIL STOCKPILES FROM EROSION, PROTECT WITH SEDIMENT TRAPPING MEASURES, AND WHERE POSSIBLE, BE LOCATED AWAY FROM STORM DRAIN INLETS, WATERWAYS, AND DRAINAGE CHANNELS. MINIMIZE THE AMOUNT OF SOIL EXPOSED DURING CONSTRUCTION ACTIVITY. MINIMIZE THE DISTURBANCE OF STEEP SLOPES. (NA) MINIMIZE SOIL COMPACTION AND, UNLESS INFEASIBLE, PRESERVE TOPSOIL.

44. CONSTRUCTION IMPROVEMENTS ARE REQUIRED ON SITE, AND WITHIN THE ADJOINING PUBLIC RIGHT-OF-WAY AS IDENTIFIED ON THE CIVIL PLANS. THE CONTRACTOR IS RESPONSIBLE FOR MAINTAINING THESE ON-SITE AND OFF-SITE PROPERTIES IN SUCH A MANNER THAT A SIGNIFICANT RAINFALL EVENT WILL NOT CAUSE SILT-LOADED STORM RUNOFF WATERS TO ENTER ANY PORTION OF AN EXISTING OR NEW DRAINAGE SYSTEM, WITHOUT BEING APPROPRIATELY FILTERED AND CLEANED. THE PROJECT SITE SHALL BE MANAGED AND MAINTAINED SO THAT NO DAMAGES OCCUR FROM NORMAL RAINFALL EVENTS EXPERIENCED IN CITY OF ANACORTES.



[Signature]
ENGINEER

[Signature]
DATE

THIS PLAN SHEET IS ACCEPTED FOR CONSTRUCTION IN ACCORDANCE WITH THE CITY OF ANACORTES ORDINANCES AND POLICIES. ACTUAL CONFORMANCE OF THE DESIGN WITH APPLICABLE LAWS IS THE SOLE RESPONSIBILITY OF THE PROFESSIONAL ENGINEER, WHOSE NAME AND SEAL APPEAR ON THIS SHEET. ACQUIRING, COMPLYING WITH, AND PROVIDING MITIGATION FOR ALL FEDERAL, STATE, COUNTY, AND LOCAL LAWS, PERMITS, AND MANDATES, INCLUDING BUT NOT LIMITED TO THE ENDANGERED SPECIES ACT, FEDERAL WETLAND PERMIT, STATE DEPARTMENT OF FISHERIES AND HYDRAULICS PERMIT, FEDERAL FLOOD PLAIN PERMITS, NATIONAL POLLUTANT DISCHARGE ELIMINATION SYSTEM PERMIT IS THE RESPONSIBILITY OF THE DEVELOPER, LAND OWNER, AND THEIR ENGINEER. THE ISSUANCE OF THIS PERMIT SHALL NOT BE CONSTRUED AS PROOF OF COMPLIANCE WITH APPLICABLE LAWS AND PERMIT REQUIREMENTS.	
CITY ENGINEER	DATE
CONSTRUCTION FOR THE ACCEPTED PROJECT IS TO START WITHIN 1 YEAR OF THE DATE.	

REV. NO.	REVISION	DATE	BY	APPROVED

Ravnik & Associates, Inc.
CIVIL ENGINEERING & LAND-USE PLANNING
1633 LINDAMOOD LANE/P.O. BOX 361
BURLINGTON, WA 98233
PH: (360) 707-2048 FAX: (360) 707-2216

SHEET DESCRIPTION:

SPECIFICATIONS (1)

PLAN STATUS:

SCALE: AS SHOWN	SHEET TITLE:	DRAWING NO.
DRAWN BY: D. REMSEN	CHERRY COURT SHORT PLAT	19013.SPECS.dwg
CHECKED BY: HLN	FOR CORNER 9 PROPERTIES, LLC	JOB NO. 19013
DATE: 08.06.20	SW 1/4 SECTION 25, T. 35 N., R. 1 E., W.M.	SHEET NO. 9 OF 11

45. THROUGHOUT THE COURSE OF THE PROJECT, THE CONTRACTOR IS RESPONSIBLE FOR HAVING THE ADJOINING ROADWAYS SWEEP. IF DEBRIS IS TRANSPORTED FROM THE PROJECT SITE ONTO THE ADJOINING ROADWAY, THE ROADWAYS MUST BE THOROUGHLY SWEEP TO REMOVE AS MUCH DEBRIS AS POSSIBLE, AND THEN WASHED OR VACUUMED. WHEREVER ROAD-WASHING ACTIVITIES OCCUR, SEDIMENT-CONTROL DEVICES MUST BE IN PLACE TO TRAP SILT AND DEBRIS FROM BEING WASHED INTO THE DRAINAGE SYSTEM AND UPON ADJOINING PROPERTIES. THE CONTRACTOR SHALL PROTECT ALL PROPERTIES FROM BEING DAMAGED AND IMPACTED BY WASH WATER.

GRAVEL AND PROCESSED MATERIALS

46. STRUCTURAL FILL, AS NEEDED TO COMPLETE GRADING CONDITIONS AND AS NECESSARY WITHIN THE PROPOSED UTILITY TRENCHES AND IMPERVIOUS SURFACES, SHALL CONFORM TO THE GRAVEL BORROW SPECIFICATION IN WSDOT SECTION 9-03.14(1). GRAVEL BORROW MATERIAL SHALL NOT CONTAIN MORE THAN 5 PERCENT MAXIMUM ANY MATERIAL PASSING THE NO. 200 SIEVE. IF IN THE OPINION OF THE ENGINEER, OWNER, OR CITY OF ANACORTES, THE IMPORTED STRUCTURAL FILL MATERIAL APPEARS TO CONTAIN MORE THAN 5 PERCENT OF MATERIAL PASSING THE NO. 200 SIEVE, OR DOES NOT APPEAR TO CONFORM TO THE REQUIRED GRADATION, THE CONTRACTOR SHALL PROVIDE A GRADATION ANALYSIS AT NO ADDITIONAL CHARGE TO THE OWNER.

PRIOR TO CONSTRUCTION, THE CONTRACTOR MUST PROVIDE A NEW GRADATION ANALYSIS AND PROCTOR OF THE GRAVEL MATERIAL TO BE IMPORTED. THIS ANALYSIS IS TO BE PROVIDED TO THE OWNER'S RETAINED SOILS ENGINEER FOR REVIEW AND APPROVAL.

THE OWNER WILL RETAIN PERSONNEL TO PERFORM COMPACTION TESTING OF GRAVEL FILL MATERIALS AS IDENTIFIED HEREIN. THE CONTRACTOR SHALL HAVE THEIR OWN MATERIALS TESTING COMPANY OBTAIN A NEW SAMPLE OF GRAVEL AND PROVIDE A NEW GRADATION ANALYSIS AND PROCTOR ANALYSIS FOR REVIEW AND APPROVAL BY THE PROJECT ENGINEER AND THE OWNER'S MATERIALS TESTING COMPANY.

MATERIALS THAT ARE DETERMINED TO BE UNACCEPTABLE SHALL BE PROMPTLY REMOVED FROM THE PROJECT SITE AND REPLACED WITH APPROPRIATE MATERIALS AT NO ADDITIONAL CHARGE TO THE CONTRACT.

EACH LIFT OF STRUCTURAL FILL MATERIAL, REGARDLESS OF LOCATION, SHALL BE MECHANICALLY COMPACTED TO A MINIMUM OF NINETY-FIVE PERCENT OF THE MAXIMUM DRY DENSITY, AT A MOISTURE CONTENT PLUS OR MINUS TWO PERCENT FROM OPTIMUM, AS DETERMINED BY THE ASTM TEST METHOD D-1557. MOISTURE CONTENT OF ALL MATERIALS THAT ARE DETERMINED TO BE UNACCEPTABLE SHALL BE PROMPTLY REMOVED FROM THE PROJECT SITE AND REPLACED WITH APPROPRIATE MATERIALS AT NO ADDITIONAL CHARGE TO THE CONTRACT. GRAVEL MATERIALS SHALL BE TESTED FOR COMPACTION AS REQUIRED.

THE CONTRACTOR IS SOLELY RESPONSIBLE FOR PROVIDING ALL IMPORTED GRAVEL THAT CONFORMS TO THE REQUIRED GRADATION AND CAN BE COMPACTED AS SPECIFIED

47. CRUSHED SURFACING TOP COURSE AND CRUSHED SURFACING BASE COURSE FOR ALL IMPERVIOUS AREAS SHALL BE 100 PERCENT FULL-FRACTURE FACE OBTAINED FROM A QUARRY AND CONFORMING TO WSDOT SECTION 9-03.9(3), PLACED IN LOOSE LIFTS NOT EXCEEDING FOUR INCHES IN DEPTH AND COMPACTED TO A MINIMUM OF NINETY-FIVE PERCENT MAXIMUM DRY DENSITY AS DETERMINED BY THE ASTM TEST METHOD D-1557. MOISTURE CONTENT OF ALL MATERIALS SHALL BE PLUS OR MINUS TWO PERCENT FROM OPTIMUM. THE OWNER RESERVES THE RIGHT TO EXCHANGE CRUSHED SURFACING BASE COURSE WITH CRUSHED SURFACING TOP COURSE AT NO CHANGE IN CONTRACT PRICE.

THE CONTRACTOR IS SOLELY RESPONSIBLE FOR PROVIDING ALL IMPORTED CRUSHED ROCK MATERIALS THAT CONFORM TO THE REQUIRED GRADATION AND CAN BE COMPACTED AS SPECIFIED. THE COMPLETED CONDITION FOR PLACED CRUSHED ROCK SHALL BE A DENSE, NON-YIELDING, TIGHT, CONDITION FROM THE BOTTOM TO THE TOP OF THE CRUSHED ROCK SECTION.

48. DRAIN ROCK TO BE PROVIDED IN THE INFILTRATION TRENCHES MUST BE CLEAN, WASHED PRODUCT VARYING IN SIZE FROM 0.75-INCHES TO 2.0-INCHES. DRAIN ROCK SHALL BE FREE OF FINES AND ALL OTHER DEBRIS. NON-WASHED DRAINROCK WILL NOT BE ACCEPTED.

49. QUARRY SPALLS ARE TO BE USED WHERE NECESSARY AS UTILITY TRENCH FOUNDATION, STRUCTURE FOUNDATION, AT THE EXPOSED STORM PIPE INLETS AND OUTLETS, FLOW ARMOURING, AND AS REQUIRED BY THE CITY FOR TEMPORARY CONSTRUCTION ACCESS ROADS. QUARRY SPALLS SHALL CONFORM TO WSDOT SECTION 9-13.6.

50. GEOTEXTILE FABRIC SHALL BE PLACED UPON THE SUBGRADE SURFACE AS DIRECTED BY THE CIVIL PLANS.

GEOTEXTILE FABRIC SHALL CONFORM TO WSDOT SECTION 9-33, TABLE 3, SOIL STABILIZATION PROPERTIES. LISTED BELOW ARE THE MINIMUM REQUIREMENTS FROM THIS REFERENCED SECTION:

APPARENT OPENING SIZE: NO. 40 SIEVE MAX
WATER PERMITTIVITY: 0.1 / SEC MINIMUM
GRAB TENSILE STRENGTH 315/200
SEAM BREAKING STRENGTH 270/180

51. WHERE FABRIC IS REQUIRED, THE CONTRACTOR IS RECOMMENDED TO PERFORM AS MANY OF THE UNDERLYING UTILITY IMPROVEMENTS AS POSSIBLE TO PREVENT HAVING TO CUT THE GEOTEXTILE FABRIC. WHERE FABRIC CUTS ARE NECESSARY, THE CONTRACTOR SHALL USE A SHARP DEVICE, AND NOT TEAR THE FABRIC FOR THE PROPOSED WORK. AT LOCATIONS WHERE A CUT MUST BE MADE, THE OVERLAPPING FABRIC TO COVER THE CUT MUST OVERLAP A MINIMUM OF THREE FEET IN EACH DIRECTION.

52. PLACEMENT OF THE GEOTEXTILE FABRIC WHERE REQUIRED, SHALL BE ON A SUBGRADE THAT HAS BEEN EXCAVATED, PREPARED AS IDENTIFIED HEREIN, AND INSPECTED FOR APPROVAL. PLACEMENT OF THE FABRIC SHALL BE PERFORMED UTILIZING THE MANUFACTURER'S RECOMMENDED METHODS IN ORDER TO STRETCH THE FABRIC AS TIGHT AS POSSIBLE. ALL FABRIC JOINTS MUST OVERLAP A MINIMUM OF THREE FEET.

53. AT LOCATIONS WITHIN THE PROJECT SITE WHERE OVEREXCAVATION IS NECESSARY TO REMOVE SOFT, YIELDING, SUBGRADE MATERIALS, AND AS DIRECTED BY THE SOILS ENGINEER, THE CONTRACTOR SHALL UTILIZE TWO LAYERS OF GEOTEXTILE FABRIC FOR SOIL STABILIZATION PER WSDOT SECTION 9-33, TABLE 3. THE GEOTEXTILE FABRIC SHALL BE PLACED ALONG THE BOTTOM AND SIDES OF THE OVEREXCAVATED AREA, AND SHALL EXTEND BEYOND THE OVER EXCAVATED AREA A MINIMUM DISTANCE OF FIVE FEET ONTO AREAS WHERE THE SUBGRADE CONDITIONS ARE FIRM AND NON-YIELDING. THE OVER EXCAVATED AREA SHALL BE FILLED WITH MECHANICALLY COMPACTED GRAVEL BORROW MATERIAL TO THE DESIGNED SUBGRADE ELEVATION WHERE THE PRIMARY SHEET OF GEOTEXTILE FABRIC SHALL BE PLACED.

GEOTEXTILE FABRIC PLACED WITHIN THE INFILTRATION TRENCHES SHALL CONFORM TO CLASS C PRODUCT OF TABLE 5 FROM WSDOT SECTION 9-3. THE FABRIC SHALL HAVE AN APPARENT OPEN SIZE EQUAL TO THE #70 U.S SIEVE SIZE. INSTALLATION OF THIS PRODUCT SHALL BE ON THE SIDES AND OVERLAPPING THE TOP OF ALL DRAIN ROCK-FILLED TRENCHES ASSOCIATED WITH THIS PROJECT'S INFILTRATION SYSTEM. OVER THE TOP OF THE DRAIN ROCK, THE FILTER FABRIC SHALL OVERLAP NOT LESS THAN ONE-HALF TRENCH WIDTH.

ASPHALT PAVING

54. HOT MIX ASPHALT (HMA) AS SPECIFIED IN THE GEOTECHNICAL INVESTIGATION, SHALL CONFORM TO WSDOT SECTION 5-04. ALL ONSITE ASPHALT PLACEMENT SHALL CONFORM TO REQUIREMENTS OF THE CIVIL PLANS, AND THE REQUIREMENTS OF THE MATERIALS TESTING COMPANY. THE ENGINEER AND OWNER SHALL APPROVE ALL ONSITE ASPHALT IMPROVEMENTS. CITY OF ANACORTES SHALL APPROVE ANY ASPHALT IMPROVEMENTS WITHIN THE EXISTING AND PROPOSED PUBLIC RIGHT OF WAY.

ALL ASPHALT SHALL BE COMPACTED TO A MINIMUM OF NINETY-TWO PERCENT OF THE RICE DENSITY AND TESTED FOR COMPACTION BY THE CONTRACTOR'S RETAINED MATERIALS TESTING FIRM AND THE CONTRACTOR'S SUBCONTRACTOR PERFORMING THE PARTICULAR WORK. THERE IS NO ADDITIONAL PAYMENT FOR ASPHALT COMPACTION THAT IS GREATER THAN 92%.

THE CONTRACTOR IS RESPONSIBLE FOR BECOMING FAMILIAR WITH THE CIVIL PLANS THAT WERE DONE FOR THE PROJECT. THE CONTRACTOR MUST PERFORM AN ON-SITE CONSTRUCTION MEETING WITH THE OWNER'S RETAINED COMPACTION-TESTING FIRM, ENGINEER, CITY OF ANACORTES, AND THE ASPHALT PAVING CONTRACTOR, PRIOR TO ASPHALT PAVING, TO DETERMINE ANY ADDITIONAL SPECIFIC REQUIREMENTS OR CONCERNS EXPRESSED BY THE ENGINEER AND OWNER RELATIVE TO THE ONSITE ASPHALT IMPROVEMENTS, FROM CITY OF ANACORTES FOR RIGHT OF WAY ASPHALT IMPROVEMENTS.

55. POROUS AGGREGATE CONDITIONS WITHIN THE ASPHALT PAVING, THAT ARE NOT CONSISTENT WITH THE AVERAGE ASPHALT PAVING SURFACE OR ARE UNACCEPTABLE TO THE ENGINEER, OWNER, OR CITY OF ANACORTES, SHALL BE REPAIRED OR RECONSTRUCTED AT NO ADDITIONAL COST TO THE CONTRACT. IF PORTIONS OF THE ASPHALT SURFACE ARE TOO OPEN AND POROUS, THE ENTIRE ASPHALT SURFACE SHALL BE FOG-SEALED AS DIRECTED BY THE ENGINEER OR OWNER, AT NO ADDITIONAL CONTRACT AMOUNT.

ALL ABUTTING EDGES OF EXISTING ASPHALT SHALL BE NEATLY SAWCUT FULL DEPTH TO PROVIDE A NEAT, STABLE EDGE FOR THE NEW ASPHALT IMPROVEMENTS. SAWN ASPHALT FACES THAT ARE BROKEN AS A RESULT OF THIS CONSTRUCTION, OR RAVEL, SHALL BE SAWCUT AND REMOVED IMMEDIATELY PRIOR TO ASPHALT PAVING. ALL SAWCUT FACES AND THE FACE OF ABUTTING STRUCTURES SHALL BE THOROUGHLY COATED WITH ASPHALT TACK COAT MATERIAL PRIOR TO ASPHALT PAVING.

UPON COMPLETION OF ALL ASPHALT WORK, THE CONTRACTOR SHALL IMMEDIATELY, AND THOROUGHLY, CLEAN THIS SITE OF ALL LOOSE AND TRACKED ASPHALT DEBRIS. FAILURE OF THE CONTRACTOR TO PERFORM AND COMPLETE THIS WORK WITHIN TWO CALENDAR DAYS AFTER EACH PHASE OF PAVING, GIVES THE OWNER THE RIGHT TO HAVE THIS WORK DONE BY OTHERS, AT THE CONTRACTOR'S EXPENSE.

UPON COMPLETION OF ALL ASPHALT PAVING, ALL SURFACE JOINTS BETWEEN EXISTING AND NEW ASPHALT SHALL BE THOROUGHLY SEALED WITH HEAT-APPLIED AR4000 AND SAND COAT, UNLESS OTHERWISE SPECIFIED BY THE ENGINEER OR OWNER.

56. AFTER ALL PAVING IS COMPLETE, THE CONTRACTOR SHALL INSPECT AND CLEAN THE LIDS OF ALL STRUCTURES WITHIN THE AREA PAVED TO MAKE SURE THE LIDS ARE ACCESSIBLE AND CAN EASILY BE OPENED.

57. WITHIN TWENTY-FOUR HOURS PRIOR TO ASPHALT PAVING, SOIL RESIDUAL HERBICIDE SHALL BE APPLIED TO ALL SURFACES TO BE PAVED. SOIL RESIDUAL HERBICIDE SHALL CONFORM TO WSDOT SECTION 5-04.3(5)D.

58. WITHIN THE PROPOSED ASPHALT IMPROVEMENTS, THE TOPS OF ALL STRUCTURES SUCH AS MANHOLES, CATCH BASINS, VAULTS, AND WATER VALVES, SHALL BE SET AND GROUDED FLUSH WITH THE FINISHED ASPHALT GRADE. ALL STRUCTURE TOPS SHALL BE PROPERLY ALIGNED WITH THE UNDERLYING STRUCTURE.

CONCRETE STRUCTURES

59. CONCRETE SHALL BE USING CLASS 3000, AIR-ENTRAINED, WSDOT SECTION 8-14, AND WSDOT STANDARD PLAN F-30.10-00. FINISHED CONCRETE SHALL BE SPRAYED WITH A WHITE CURING COMPOUND AND COVERED WITH A REFLECTIVE-TYPE SHEETING TO PROVIDE A COVERED CURING TIME OF AT LEAST 72 HOURS. ALL JOINTS SHALL BE CLEANED AND EDGED WITH AN EDGER HAVING A ONE-QUARTER INCH RADIUS.

60. STANDARD CAST IN PLACE CEMENT CONCRETE TRAFFIC CURB AND GUTTERS CONFORM TO WSDOT SECTION 8-04 AND WSDOT STANDARD PLAN F-10.12-00. CONCRETE FOR TRAFFIC CURB AND GUTTER, AND CONCRETE FOR TRAFFIC CURB, SHALL BE THE SAME AS THAT REQUIRED FOR CONCRETE SIDEWALKS, AND SHALL BE FOUNDED ON A MINIMUM 12-INCH DEPTH OF COMPACTED GRAVEL, AS SPECIFIED, OVER A NON-YIELDING, FIRM, SUBGRADE.

THE CONTRACTOR IS RESPONSIBLE FOR FINISHING AND PROTECTING ALL CURB AND GUTTERS AS REQUIRED BY THE ENGINEER AND CITY OF ANACORTES PUBLIC WORKS DEPARTMENT.

61. AT VARIOUS LOCATIONS WITHIN THE PROJECT, A DEPRESSED CURB/GUTTER SECTION SHALL BE CONSTRUCTED. THE TOP BACK OF CURB HEIGHT SHALL BE SUFFICIENT TO CONVEY ALL RUNOFF WATERS, YET BE MOUNTABLE.

TRANSITIONS FROM A FULL-HEIGHT CURB SECTION TO A DEPRESSED CURB SECTION SHALL BE A MINIMUM OF SIX FEET LONG CONFORMING TO ADA RAMP REQUIREMENTS.

62. INSTALL 3/16-INCH THICK EXPANSION JOINT MATERIAL AT 20 FEET ON CENTER. COLD JOINTS SHALL ALSO BE PROVIDED AT ALL HIGH POINTS, LOW POINTS, AND VERTICAL ANGLE POINTS WITHIN THE CURBING.

63. ALL CONCRETE SURFACES FOR CURBS AND GUTTERS SHALL BE VERY NEATLY BROOMED AND FREE OF EXCESS CONCRETE DEBRIS. NON-UNIFORM SURFACES AND NON-BROOMED SURFACES WILL NOT BE ACCEPTED. UNACCEPTABLE CONCRETE IMPROVEMENTS SHALL BE PROMPTLY REMOVED BY THE CONTRACTOR AND REPLACED TO THE SATISFACTION OF THE OWNER AND ENGINEER, AT NO ADDITIONAL CONTRACT COST.

ALL RAMP WITHIN THE WALKING PATH SHALL CONFORM TO THE ADA PROVISIONS. THE CONTRACTOR SHALL LAY OUT ALL HANDICAP RAMPS PRIOR TO CONSTRUCTING ADJACENT SIDEWALK TO ASSURE RAMPS CONFORM TO ADA SLOPE REQUIREMENTS ARE MET. THE COLOR OF TRUNCATED DOMES SHALL BE AS ESTABLISHED BY THE CITY AND WSDOT STANDARDS. TRUNCATED DOMES SHALL BE SET INTO THE CONCRETE SO ONLY THE DOME IS ELEVATED ABOVE THE SURFACE, NOT THE PAD CONTAINING THE DOME.

64. AT ALL DRIVEWAY LOCATIONS SHALL BE CONFIRMED WITH THE OWNER PRIOR TO INSTALLATION. AT ALL CONCRETE DRIVEWAY SECTION SHALL BE EIGHT INCHES THICK REINFORCED WITH FIBER MESH, FOUNDED ON A 12 INCH THICK GRAVEL FOUNDATION.

STORM DRAINAGE

65. THE FOLLOWING PIPE MATERIALS ARE APPROVED FOR USE AS STORM DRAINAGE PRODUCTS FOR THE PROPOSED IMPROVEMENTS. WHICHEVER CHOSEN, THE SAME TYPE SHALL BE USED THROUGHOUT EACH INDIVIDUAL STORM SEWER SYSTEM BETWEEN STRUCTURES. IF A SPECIFIC MATERIAL IS IDENTIFIED ON THE CIVIL PLANS, OR HEREIN, THE CONTRACTOR SHALL PROVIDE THE INSTALLATION AS NOTED.

A. REINFORCED CONCRETE PIPE SHALL CONFORM TO SECTION 9-05.3 AND SECTION 9-05.7.

B. PVC STORM PIPES SHALL CONFORM TO WSDOT SECTION 9-05.12 (1) MEETING THE REQUIREMENTS OF ASTM D 3034, SDR 35. ALL PVC PIPES SHALL HAVE GASKETED JOINTS CONNECTED WITH INJECTION MOLDED FITTINGS ALSO WITH GASKETS. ALL PVC PIPE SHALL BE SOLID WALL, NOT PROFILE WALL.

C. CORRUGATED POLYETHYLENE PIPE (CPP) SHALL HAVE A SMOOTH BARREL INTERIOR, CORRUGATED EXTERIOR CONFORMING TO WSDOT SECTION 9-05.20 AND MEETING THE REQUIREMENTS OF AASHTO M-294. POLYETHYLENE PIPE THAT IS CORRUGATED INSIDE AND OUTSIDE IS NOT ACCEPTABLE WITHIN ANY PORTION OF THIS PROJECT. ALL JOINTS SHALL BE PREMIUM, WATER TIGHT COUPLERS WITH GASKETS. NON-GASKETED BANDS THAT ARE SECURED WITH POLYETHYLENE TIE-STRIPS ARE UNACCEPTABLE.

D. DUCTILE IRON PIPE SHALL BE CLASS 50, CONFORMING TO WSDOT SECTION 9-05.13. WITHIN THE ONSITE IMPROVEMENTS, DUCTILE IRON PIPE SHALL BE USED AT ALL LOCATIONS WHERE THE DEPTH OF COVER IS 15-INCHES OR LESS. WITHIN THE OFFSITE RIGHT OF WAY IMPROVEMENTS, DUCTILE IRON PIPE SHALL BE USED AT ALL LOCATIONS WHERE THE DEPTH OF COVER IS 24-INCHES OR LESS.

E. PERFORATED, CORRUGATED, POLYETHYLENE PIPE HAVING CORRUGATIONS OUTSIDE WITH A SMOOTH INTERIOR BARREL SHALL BE USED IN DRAINAGE TRENCHES AS NOTED ON THE CIVIL PLANS. THIS PIPE SHALL CONFORM TO WSDOT SECTION 9-05.2(7). ALL CONNECTIONS SHALL BE ACHIEVED WITH THE APPROPRIATELY SIZED FITTINGS AND ADAPTORS COMPRISED OF THE SAME MATERIAL AS THE PIPE.

PERFORATED PVC PIPE MAY ALSO BE USED PROVIDING THE PERFORATIONS ARE A SIZE THAT WILL NOT ALLOW BACKFILL MATERIALS TO MIGRATE INTO THE PIPE.

66. AT ALL LOCATIONS WHERE PIPE ENDS ARE EXPOSED AT SWALES, THE POND AND/OR DITCH INLETS AND OUTLETS, THE PIPES SHALL BE CUT WITH A 3:1 BEVELED END. AT ALL LOCATIONS WHERE STORM PIPES ENTER OR EXIT FROM A SWALE, POND OR DITCH, A QUARRY SPALL SPLASH PAD SHALL BE CONSTRUCTED AS PREVIOUSLY REFERENCED. THE SPLASH PAD SHALL BE SWALE SHAPED TO CONVEY WATER AND SHALL NOT BE AT AN ELEVATION THAT IMPEDES FLOW.

67. AT ALL LOCATIONS WHERE STORM PIPES CONNECT TO CONCRETE STRUCTURES, THE CONTRACTOR SHALL NEATLY GROUT THE INSIDE AND OUTSIDE OF THE STRUCTURE TO TOTALLY ENCOMPASS THE STORM PIPE CONNECTION. GROUTING MATERIAL SHALL BE NONSHRINK, CONCRETE-TYPE MATERIAL. THE CONSTRUCTION OF STORM PIPE CONNECTIONS TO CATCH BASIN STRUCTURES SHALL BE PERFORMED IN SUCH A WAY THAT NO GROUNDWATER WILL LEAK INTO THE STRUCTURE, NOR WILL WATER LEAK FROM THE STRUCTURE. THE CONTRACTOR HAS THE OPTION OF USING RUBBER BOOTS OR OTHER DEVICES TO ASSURE NO LEAKAGE OCCURS.

AT ALL LOCATIONS WHERE PVC PIPE IS USED AT CONNECTIONS TO CONCRETE STRUCTURES, THE CONTRACTOR SHALL INSTALL A PVC/SAND COLLAR ADAPTER OR RUBBER BOOT ADAPTOR ON THE END OF THE PVC PIPE IN ORDER TO PROVIDE A CLEAN, GROUDED, WATERTIGHT CONNECTION BETWEEN THE STORM PIPE AND THE CONCRETE STRUCTURE.

68. UPON COMPLETION OF ALL SITE IMPROVEMENTS, THE CONTRACTOR SHALL THOROUGHLY FLUSH OUT ALL STORM PIPES TO REMOVE ALL DEBRIS. DEBRIS REMOVED FROM THE STORM SYSTEM IS NOT TO BE WASHED INTO THE DOWNSTREAM DRAINAGE SYSTEM. THE CONTRACTOR IS RESPONSIBLE FOR THE APPROPRIATE DISPOSAL OF ALL MATERIALS REMOVED FROM THE STORM SYSTEM CLEANING.

69. STORM CATCH BASIN STRUCTURES AND THEIR APPURTENANCES SHALL CONFORM TO THE REQUIREMENTS OF CITY OF ANACORTES PUBLIC WORKS DEPARTMENT AND THE FOLLOWING WSDOT STANDARD PLANS:

TYPE I CATCH BASIN-STANDARD PLAN B-5.20-00
TYPE II CATCH BASIN-STANDARD PLAN B-5.40-00
SOLID METAL COVER FOR CATCH BASINS-STANDARD PLAN B-30.10-00 AND B-30.20-01
METAL FRAME AND GRATE-STANDARD PLAN B-30.10-00 AND B-30.50-00
CATCH BASIN TYPE II-489, 60? 96? INCH-STANDARD PLAN B-10.20-00
MISCELLANEOUS DETAILS FOR DRAINAGE STRUCTURES-STANDARD PLAN B-30.90-00

IF SUBGRADE CONDITIONS ARE SOFT BELOW PROPOSED STRUCTURES, THE FOUNDATION SHALL BE OVER-EXCAVATED TWO FEET BELOW THE STRUCTURE AND TO THREE FEET BEYOND THE PERIMETER EDGE OF THE STRUCTURE AND FILLED WITH MECHANICALLY COMPACTED QUARRY SPALLS TO PROVIDE FOR A FIRM, DENSE, NON-YIELDING SUBGRADE CONDITION. THE BOTTOM AND SIDES OF THE OVER-EXCAVATION SHALL BE LINED WITH GEOTEXTILE FABRIC AS SPECIFIED FOR THE ROAD SUBGRADE.

70. AT THE END OF ALL STORM SEWER SERVICES, THE CONTRACTOR SHALL INSTALL A MARKER POST AS INDICATED ON THE CIVIL PLANS. THE MARKER POST SHALL BE INSTALLED VERTICALLY PLUMB, PAINTED WHITE AND NEATLY STENCILED WITH LARGE BLACK LETTERS, THE WORD "SEWER" AS WITH ALL UTILITIES, THE MARKER POST MUST BE INSTALLED AT THE SAME TIME AS THE UTILITY.

71. AT VARIOUS LOCATIONS WITHIN THE STORM DRAINAGE SYSTEMS, CLEAN OUT ASSEMBLIES ARE IDENTIFIED. CLEAN OUT ASSEMBLIES SHALL BE INSTALLED AT THE LOCATIONS AND ELEVATIONS AS IDENTIFIED ON THE CIVIL PLAN. WITHIN LANDSCAPED AREAS, THE TOP OF THE CLEAN OUT SHALL COMPRISE ITS CAP, SET FLUSH WITH THE FINISHED LANDSCAPE GRADE.

WITHIN HARD SURFACED AREAS, THE TOP OF THE CLEAN OUT CAP SHALL BE CONTAINED WITHIN A CONCRETE OR ALUMINUM FOG-TIGHT ENCLOSURE, WITH THE CLEAN OUT CAP SET WITHIN THREE TO SIX INCHES BELOW THE ENCLOSURES LID. AT ALL LOCATIONS WHERE THE FOG-TIGHT ENCLOSURE IS INSTALLED, IT SHALL BE SET FLUSH WITH THE FINISHED HARD SURFACED GRADE.

SANITARY SEWER

72. SANITARY SEWER PIPE SHALL BE PVC CONFORMING TO WSDOT SECTION 9-05.12(1) MEETING THE REQUIREMENTS OF ASTM D 3034, SDR 35. ALL JOINTS SHALL BE BELL AND SPIGOT TYPE WITH RUBBER GASKETS. ALL MATERIALS AND CONSTRUCTION SHALL CONFORM TO WSDOT SECTION 7-08 AND 7-17 AND REQUIREMENTS OF THE CITY OF ANACORTES SEWER DEPARTMENT. THE CITY OF ANACORTES SEWER DEPARTMENT MUST BE CONTACTED PRIOR TO THE SEWER INSTALLATION TO COORDINATE THE CITY'S INSPECTION REQUIREMENTS.

73. THE CONTRACTOR IS RESPONSIBLE FOR INSTALLING ALL COMPONENTS OF THE SANITARY SYSTEM IN SUCH A MANNER AS TO PREVENT ANY GROUNDWATER INTRUSION.

74. THE CONTRACTOR SHALL CONDUCT AN AIR PRESSURE TEST OF EACH NEW INDIVIDUAL SANITARY SEWER MAIN BETWEEN THE MANHOLE AND THE ENDS OF PIPE. THE SANITARY SEWER PIPE SHALL BE AIR-PRESSURE TESTED AT A PRESSURE EQUAL TO 4 PSI IN EXCESS OF THE ESTIMATED WATER TABLE HEAD OVER THE PIPE. THE AIR PRESSURE TEST SHALL BE PERFORMED FOR A TEN-MINUTE PERIOD. DURING THE PRESSURE TEST NO NOTICEABLE CHANGE IN GAUGE PRESSURE SHALL OCCUR. THE CONTRACTOR IS RESPONSIBLE FOR RESTRAINING ALL PIPE ENDS, CLEANOUTS, AND SERVICES DURING THIS TESTING PERIOD. THIS TEST MUST BE MONITORED BY THE ENGINEER AND THE CITY.

75. AT THE ENDS OF ALL SANITARY SEWER SERVICES, THE CONTRACTOR SHALL INSTALL A CAP ON THE END OF PIPE AND INSTALL A MARKER POST. THE MARKER POST SHALL BE INSTALLED VERTICALLY PLUMB, PAINTED WHITE, AND STENCILED WITH LARGE BLACK LETTERS, THE WORD "SEWER" AND THE DEPTH OF BURY FROM THE ADJACENT FINISHED GRADE. THE MARKER POST MUST BE SET AT THE TIME THE UTILITY IS INSTALLED.

76. AT LOCATIONS WHERE PROPOSED SEWER LINES CROSS EXISTING OR PROPOSED WATERLINES, THE INTERSECTION OF THE SEWER PIPE AND THE WATER PIPE SHALL BE AT A MID-PIPE LOCATION FOR THE PVC SEWER PIPE AS WELL AS THE MID-PIPE LOCATION FOR DUCTILE IRON WATER PIPE. AT THESE INTERSECTIONS, A MINIMUM ONE-FOOT OF VERTICAL CLEARANCE BETWEEN THE PIPE-WALLS SHALL BE ACHIEVED.

77. CLEANOUT ASSEMBLIES WITHIN THE SANITARY SEWER SYSTEM SHALL BE INSTALLED AT THE LOCATION AND ELEVATIONS IDENTIFIED ON THE CIVIL PLANS, AND AS NECESSARY TO ACCOMMODATE EACH SANITARY SEWER SERVICE. THE CONTRACTOR IS RESPONSIBLE FOR SETTING THE TOP OF THE CLEANOUT ASSEMBLY WITHIN 3? - 6? BELOW THE ENCLOSURE ASSEMBLY'S LID. CLEANOUT ASSEMBLIES SHALL CONFORM TO WSDOT STANDARD PLAN B-85.40-00, THE REQUIREMENTS OF THE CITY OF ANACORTES SEWER DEPARTMENT, CITY OF ANACORTES PUBLIC WORKS, AND THE DETAIL PROVIDED ON THE CIVIL PLANS. ALL CLEANOUT ASSEMBLIES THAT ARE INSTALLED WITHIN FUTURE HARD SURFACED AREAS SUCH AS GRAVEL, CRUSHED ROCK, ASPHALT, CONCRETE, OR HEAVY TRAFFIC AREAS, SHALL BE CONTAINED WITHIN A CAST IRON OR ALUMINUM FOG-TITE LID ASSEMBLY. THE FOG TITE LID ASSEMBLY SHALL BE SIZED APPROPRIATELY TO ALLOW REMOVAL OF THE CAP ON THE TOP PORTION OF THE VERTICAL CLEANOUT STANDPIPE ASSEMBLY. CLEANOUT ASSEMBLIES WITHIN LANDSCAPE AREAS SHALL HAVE THEIR TOP CAP SET FLUSH WITH THE FINISHED LANDSCAPE GRADE.

WATER

78. STANDARD SPECIFICATIONS SHALL BE WASHINGTON STATE DEPARTMENT OF TRANSPORTATION 2020 STANDARD SPECIFICATIONS FOR ROAD, BRIDGE, AND MUNICIPAL CONSTRUCTION, APWA CURRENT STANDARDS AND THE CITY OF ANACORTES WATER DEPARTMENT REQUIREMENTS. SPECIFIC SPECIFICATIONS FROM THE CITY ARE PROVIDED ON THE CIVIL PLANS, AND SHALL BE CONFORMED TO WHERE THERE IS A DISCREPANCY IN THE WATER SYSTEM SPECIFICATIONS HEREIN AND THOSE FROM THE CITY, THE MOST STRINGENT SHALL APPLY UNLESS OTHERWISE APPROVED BY THE CIVIL ENGINEER AND THE CITY OF ANACORTES.

79. CONTRACTOR IS RESPONSIBLE FOR REVIEWING THE CITY REQUIREMENTS THOROUGHLY PRIOR TO COMMENCING WORK.

80. ANY PERMITS OR OTHER REQUIREMENTS THAT WILL BE NEEDED TO COMPLETE THIS PROJECT WILL BE THE RESPONSIBILITY OF THE CONTRACTOR AND/OR THE DEVELOPER.

81. A PRECONSTRUCTION CONFERENCE MUST BE SCHEDULED BY THE CONTRACTOR WITH THE CITY PRIOR TO CONSTRUCTION. AT THE PRECONSTRUCTION MEETING, THE CONTRACTOR MUST PROVIDE A LIST OF ALL MATERIALS, WATERLINE INSTALLATION AND TESTING SCHEDULE, CONTRACTOR'S LICENSE AND OTHER INFORMATION AND CERTIFICATIONS REQUIRED BY CITY OF ANACORTES ENGINEERING AND WATER DEPARTMENTS.

82. THE UTILITY LOCATIONS MARKED ON THIS MAP ARE APPROXIMATE. THE CONTRACTOR IS TO VERIFY THE ACTUAL LOCATION AND DEPTH OF ALL WATERLINES PRIOR TO CONSTRUCTION. THE ONE-CALL UTILITY LOCATE SERVICE SHALL BE CONTACTED PRIOR TO CONSTRUCTION AT 811.

83. BEFORE CONNECTION TO AN EXISTING WATER MAIN, ALL NEW WATER MAINS AND REPAIRED PORTIONS OF/OR EXTENSION TO EXISTING MAINS SHALL BE ADEQUATELY CHLORINATED, HYDROSTATICALLY PRESSURE TESTED, AND A SATISFACTORY BACTERIOLOGICAL REPORT OBTAINED. BACTERIA SAMPLING AND TESTING SHALL BE PERFORMED TO THE REQUIREMENTS OF CITY OF ANACORTES WATER DEPARTMENT AND THE SKAGIT COUNTY HEALTH DEPARTMENT. THE CONTRACTOR IS RESPONSIBLE FOR COORDINATING WITH THESE JURISDICTIONS TO OBTAIN WATER SAMPLING DEVICES, OBTAINING THE WATER SAMPLES AS REQUIRED BY THE CITY OF ANACORTES WATER AND PUBLIC WORKS DEPARTMENTS, AND SUBMITTING ALL SAMPLES FOR TESTING. THE CONTRACTOR IS RESPONSIBLE FOR ALL TESTING FEES.

84. ALL TIE-INS, SHUTDOWN, FLUSHING, AND HEALTH SAMPLES SHALL BE COORDINATED WITH THE CITY. THE CONTRACTOR SHALL NOT OPERATE ANY VALVES WITHOUT CITY APPROVAL. THE CONTRACTOR IS RESPONSIBLE FOR RETURNING THE VALVES TO THEIR PROPER POSITIONS, AS DIRECTED BY THE CITY.

85. NO CONNECTION SHALL BE MADE BETWEEN THE EXISTING DISTRIBUTION SYSTEM AND THE NEW PIPELINE UNTIL THE NEW SYSTEM HAS BEEN PROPERLY DISINFECTED AND ADEQUATELY FLUSHED. A PROPER WASHINGTON STATE APPROVED REDUCED PRESSURE BACKFLOW PREVENTION ASSEMBLY SHALL BE INSTALLED AT THE CONNECTION (BY WAY OF A JUMPER). THE ASSEMBLY SHALL HAVE BEEN TESTED AS REQUIRED BY THE CITY AND PER WSDOT SECTION 7-09.

86. THE CONTRACTOR IS RESPONSIBLE FOR ALL GRAVEL TRENCH BACKFILL WITHIN WATERLINE TRENCHES AND RESTORATION OF THE TRENCH CONDITIONS TO THE FINISHED CONDITION REQUIRED.



ENGINEER

DATE

THIS PLAN SHEET IS ACCEPTED FOR CONSTRUCTION IN ACCORDANCE WITH THE CITY OF ANACORTES ORDINANCES AND POLICES. ACTUAL CONFORMANCE OF THE DESIGN WITH APPLICABLE LAWS IS THE SOLE RESPONSIBILITY OF THE PROFESSIONAL ENGINEER, WHOSE NAME AND STAMP APPEAR ON THIS SHEET. ACQUIRING, COMPLYING WITH, AND PROVIDING MITIGATION FOR ALL FEDERAL, STATE, COUNTY, AND LOCAL LAWS, PERMITS, AND MANDATES, INCLUDING BUT NOT LIMITED TO THE ENDANGERED SPECIES ACT, FEDERAL WETLAND PERMIT, STATE DEPARTMENT OF FISHERIES AND HYDRAULICS PERMIT, FEDERAL FLOOD PLAN PERMITS, NATIONAL POLLUTANT DISCHARGE ELIMINATION SYSTEM PERMIT IS THE RESPONSIBILITY OF THE DEVELOPER, LAND OWNER, AND THEIR ENGINEER. THE ISSUANCE OF THIS PERMIT SHALL NOT BE CONSTRUED AS PROOF OF COMPLIANCE WITH APPLICABLE LAWS AND PERMIT REQUIREMENTS.

CITY ENGINEER DATE

CONSTRUCTION FOR THE ACCEPTED PROJECT IS TO START WITHIN 1 YEAR OF THE DATE.

REV. NO.	REVISION	DATE	BY	APPROVED

Ravnik & Associates, Inc.
CIVIL ENGINEERING & LAND-USE PLANNING
1633 LINDAMOOD LANE/P.O. BOX 361
BURLINGTON, WA 98233
PH: (360) 707-2048 FAX: (360) 707-2216

SHEET DESCRIPTION:

SPECIFICATIONS (2)

PLAN STATUS:

SCALE: AS SHOWN	SHEET TITLE: CHERRY COURT SHORT PLAT FOR CORNER 9 PROPERTIES, LLC SW 1/4 SECTION 25, T. 35 N., R. 1 E., W.M.	DRAWING NO. 19013.SPECS.dwg
DRAWN BY: D. REMSEN		JOB NO. 19013
CHECKED BY: HLN		SHEET NO. 10 OF 11
DATE: 08.04.20		

87. MAXIMUM TRENCH DEPTH SHALL BE 48 INCHES BELOW FINISHED GRADE ELEVATION WITH MINIMUM COVER OF 36 INCHES OVER TOP OF PIPE UNLESS OTHERWISE SPECIFIED ON THE CIVIL PLAN, AND AS NECESSARY TO AVOID CONFLICTS WITH OTHER UTILITIES. A MINIMUM OF 1-FOOT VERTICAL CLEARANCE AND 5-FOOT HORIZONTAL CLEARANCE BETWEEN WATER PIPELINE AND ALL OTHER UTILITIES UNLESS OTHERWISE SPECIFIED. WATER PIPELINE HORIZONTAL AND VERTICAL ALIGNMENTS ARE REQUIRED TO BE STAKED ON A MAXIMUM 50-INTERVAL, OR AS REQUIRED BY THE CITY.

LOCATIONS WHERE PROPOSED WATERLINES CROSS EXISTING OR PROPOSED SEWER LINES, THE INTERSECTION OF THE WATER PIPE AND THE SEWER PIPE SHALL BE AT A MID-PIPE LOCATION FOR THE WATER PIPE AS WELL AS A MID-PIPE LOCATION FOR THE SEWER PIPE. AT THESE POINTS OF INTERSECTION, A MINIMUM OF 12 INCHES VERTICAL CLEARANCE MUST BE MAINTAINED BETWEEN WATER MAINS AND SEWER MAINS.

88. CONTRACTOR IS RESPONSIBLE FOR ALL EXCAVATIONS, INSTALLATION OF DOMESTIC SERVICE TAPS, INSTALLTION OF WATER SERVICE PIPE, AND MARKER POSTS AT EACH END OF WATER PIPE FOR FUTURE DOMESTIC SERVICES.

89. ALL MATERIALS SHALL BE APPROVED BY CITY OF ANACORTES WATER DEPARTMENT PRIOR TO CONSTRUCTION. PRIOR TO THE PRE-CONSTRUCTION MEETING, THE CONTRACTOR IS REQUIRED TO PROVIDE INFORMATION AS REQUIRED BY THE CITY WATER DEPARTMENT WHICH MAY INCLUDE A LIST OF ALL MATERIALS IDENTIFYING MODEL NUMBER, MANUFACTURER, SIZE, AND COMPOSITION. CONTRACTOR IS RESPONSIBLE FOR COORDINATING WITH THE CITY WATER AND PUBLIC WORKS DEPARTMENT TO DETERMINE EXACTLY WHAT INFORMATION WILL BE REQUIRED.

90. DUCTILE IRON PIPE SHALL BE A MINIMUM OF CLASS 50 AWWA C151 PER WSDOT STANDARD SPECIFICATIONS 9-30.1 AND 9-30.1(1). ALL JOINTS SHALL BE RUBBER GASKETS WITH TYTON TYPE OR MECHANICAL JOINT MEETING AWWA SPECIFICATIONS.

91. A #10 SOLID CORE COPPER WIRE WITH BLUE INSULATION IS TO BE INSTALLED WITH, AND ATTACHED TO, ALL NEW WATER PIPELINES AND SERVICE PIPELINES. REFER TO CITY DETAILS FOR INSTALLATION REQUIREMENTS.

92. ALL VALVES ARE TO BE RESILIENT SEATED GATE VALVES PER AWWA C509 OR C515.

93. BLOCK ALL FITTINGS WITH POURED CONCRETE ACCORDING TO THE CITY OF ANACORTES WATER DEPARTMENT STANDARD DETAIL AND AS IDENTIFIED ON THE CIVIL PLANS. RESTRAINED JOINTS MAY BE USED IN PLACE OF CONCRETE BLOCKING AS DIRECTED BY THE PROJECT DESIGN ENGINEER AND AS ACCEPTED BY THE CITY WATER DEPARTMENT. AT LOCATIONS WHERE JOINT RESTRAINT AND THRUST BLOCKS ARE NOTED, BOTH SHALL BE INSTALLED.

94. ALL DUCTILE IRON PIPE MUST BE COMPLETELY WRAPPED WITH POLYETHYLENE PIPE ENCASEMENT, WHICH IS A MINIMUM OF EIGHT MIL THICK AND INSTALLED PER WSDOT STANDARDS AND IN ACCORDANCE WITH AWWA C105 AND WSDOT STANDARD SPECIFICATION 7-09.3(17) AND 9-30.1(2). POLYETHYLENE SHALL BE TAPED TIGHT AGAINST THE PIPE AT ENDS AND MIDPOINTS, WHILE MAINTAINING AN OVERLAP BETWEEN SECTIONS OF WRAP.

95. PRESSURE TEST NEW DUCTILE IRON PIPELINE AT 150 PSI IN EXCESS OF THE MAXIMUM OPERATING PRESSURE PER WSDOT STANDARDS. TEST PRESSURE SHALL NOT BE LESS THAN 250 PSI. TESTING SHALL BE OBSERVED AND APPROVED BY THE CITY.

96. THE CONTRACTOR IS RESPONSIBLE FOR CHLORINATING ALL PORTIONS OF THE NEW WATERLINE AS REQUIRED BY WSDOT SPECIFICATIONS. CHLORINATED WATER SHALL SOAK A MINIMUM OF 24 HOURS AND AS PER WSDOT STANDARDS. FLUSHING WATER MUST BE DISCHARGED INTO A TANKER TRUCK FOR OFF-SITE DISPOSAL, OR FLUSHING WATER MAY BE DEPOSITED INTO THE PUBLIC SANITARY SEWER SYSTEM ONLY UPON APPROVAL FROM THE CITY OF ANACORTES SEWER TREATMENT PLANT. ABSOLUTELY NO PORTION OF CHLORINATED FLUSHING WATER SHALL BE ALLOWED TO ENTER THE DRAINAGE SYSTEM, ADJOINING ACE OF HEARTS CREEK, OR BE SPRAYED UPON THE SITE.

97. AT THE PRECONSTRUCTION MEETING FOR THE PROPOSED PROJECT IMPROVEMENTS, THE CONTRACTOR SHALL PROVIDE AN APPROPRIATE PLAN AND SCHEDULE FOR ALL WATER PIPE INSTALLATION, FLUSHING, PRESSURE TESTING, DISPOSAL OF CHLORINATED WATER, AND CONNECTIONS.

98. COORDINATE ALL SHUTDOWN, FLUSHING, AND HEALTH SAMPLES WITH CITY OF ANACORTES WATER DEPARTMENT INSPECTOR.

99. FLUSHING ASSEMBLIES, CONFORMING TO THE CITY OF ANACORTES WATER DEPARTMENT DETAIL, SHALL BE INSTALLED AS IDENTIFIED ON THE CIVIL PLANS AND AS NECESSARY FOR THE TESTING AND FLUSHING OF THESE WATER SYSTEM IMPROVEMENTS.

100. BEDDING AND PIPE COVER SHALL BE SELECT, NATIVE, GRANULAR MATERIAL FREE FROM WOOD WASTE, ORGANIC MATERIAL, OR OTHER EXTRANEIOUS OR OBJECTIONABLE MATERIALS AND SHALL BE A MAXIMUM SIZE OF 1.5 INCHES OR APPROVED PIPE BEDDING PER WSDOT STANDARDS 7-09.3(9) AND 9-03.12(3). THE CONTRACTOR SHALL MAKE ALL PAVEMENT REPAIRS AND PERFORM ALL RESTORATION. TRENCH BACKFILL REQUIREMENTS SHALL CONFORM TO THE SPECIFICATIONS HEREIN WITHIN THE UTILITY TRENCH SECTION. PEA GRAVEL AND BUCKSHOT SHALL NOT BE USED WITHIN ANY PORTIONS OF THE WATERLINE TRENCH.

101. ALL SALVAGED USABLE WATER SYSTEM MATERIALS ARE TO BE DELIVERED TO THE CITY OF ANACORTES WATER DEPARTMENT OR AS DIRECTED BY THE CITY OF ANACORTES WATER DEPARTMENT.

UTILITY TRENCHES

102. ALL UTILITY TRENCHES FOR POWER, GAS, TELEPHONE, TELEVISION CABLE, FIBER OPTIC, WATER LINES, SANITARY SEWER, AND STORM DRAINS SHALL BE EXCAVATED TO ALLOW A MINIMUM OF EIGHT INCHES BETWEEN THE EDGE OF THE UTILITY AND THE TRENCH WALL. TRENCHES SHALL BE EXCAVATED TO THE DEPTH AS REQUIRED FOR GRAVITY UTILITIES AND SHALL BE EXCAVATED TO ALLOW A MINIMUM OF 36-INCHES OF COVER OVER THE TOP OF PROPOSED WATERLINES TO THE FINISHED GRADE. THE DEPTH OF THE UTILITY TRENCHES FOR POWER, TELEPHONE, TELEVISION CABLE, FIBER OPTIC, AND GAS, SHALL CONFORM TO THE REQUIREMENTS OF THE SPECIFIC UTILITY COMPANY. THE CONTRACTOR SHALL COORDINATE ALL SITE REQUIREMENTS AND SCHEDULING WITH THE NECESSARY UTILITY COMPANIES.

103. ALL UTILITY TRENCHES, REGARDLESS OF UTILITY TYPE, SHALL BE INSTALLED WITH MARKING TAPE CONFORMING TO WSDOT SECTION 9-15.18. MARKING TAPE SHALL BE SIX-INCH WIDE AND COLOR-CODED AS REQUIRED BY THIS WSDOT SECTION AND SHALL BE INSTALLED AT A LOCATION 12 TO 18 INCHES BELOW THE FINISHED GRADE. MARKING TAPE SHALL BE POLYETHYLENE PLASTIC COLORED AND LABELED AS FOLLOWS:

WATER-BLUE
SEWER-GREEN
ELECTRICAL-RED
GAS-OIL-YELLOW
TELEPHONE-CATV-ORANGE

THE TAPE WIDTH SHALL BE A MINIMUM OF SIX INCHES.

104. UNLESS OTHERWISE SPECIFIED HEREIN, ALL UTILITIES SHALL BE BED ON A MINIMUM OF SIX INCHES OF SAND, BUCKSHOT, OR GRAVEL 100 PERCENT PASSING THE QUARTER-INCH SCREEN. BEDDING TYPE MATERIAL SHALL ALSO BE PLACED TO SIX INCHES OVER THE TOP OF EACH UTILITY PIPE. ALL BEDDING MATERIAL AND PIPE COVERING MATERIAL SHALL BE THOROUGHLY HAND COMPACTED ALONG THE SIDES AND OVER THE TOP OF EACH INDIVIDUAL UTILITY AND CONDUIT. REGARDLESS OF LOCATION, ALL UTILITIES SHALL BE BED AND COVERED AS SPECIFIED.

PEA GRAVEL AND BUCKSHOT SHALL NOT BE USED WITHIN ANY PORTIONS OF THE WATER SYSTEM.

EITHER PEA GRAVEL OR BUCKSHOT SHALL BE USED WITHIN SANITARY SEWER PIPE TRENCHES.

105. THE BOTTOM OF UTILITY TRENCHES SHALL HAVE A STABLE, NON-YIELDING SOIL CONDITION, SUITABLE FOR SUPPORTING THE DESIGN LOAD. WHERE THE BOTTOM OF TRENCH CONDITIONS EXHIBIT PUMPING, YIELDING CONDITIONS, THE BOTTOM OF THE TRENCH SHALL BE OVER-EXCAVATED TO EXPOSE A FIRM, STABLE, NON-YIELDING MATERIAL AND BACKFILLED WITH AN 18-INCH THICK COMPACTED BED OF QUARRY SPALLS, TO THE BOTTOM OF THE REQUIRED UTILITY BEDDING MATERIAL, AS DIRECTED BY THE SOILS ENGINEER.

106. TRENCH BACKFILL SHALL CONSIST OF STRUCTURAL FILL MATERIAL AS SPECIFIED. STRUCTURAL FILL TRENCH BACKFILL IS REQUIRED IN ALL TRENCHES UNDER PROPOSED ASPHALT, CONCRETE, CRUSHED ROCK, FUTURE BUILDING FOOTPRINTS, AND HEAVY CONSTRUCTION TRAFFIC AREAS AND TO AN EXTENT OF THREE FEET BEYOND THE ABOVE LISTED CONDITIONS. ALL STRUCTURAL FILL MATERIAL WITHIN UTILITY TRENCHES SHALL BE COMPACTED TO A MINIMUM OF 95 PERCENT OF THE MAXIMUM DRY DENSITY, AT A MOISTURE CONTENT PLUS OR MINUS TWO PERCENT FROM OPTIMUM, REGARDLESS OF DEPTH, AND TESTED ACCORDING TO THE ASTM TEST METHOD D-1557, AS SPECIFIED.

107. NATIVE SOIL MATERIALS MAY BE USED AS TRENCH BACKFILL ONLY AT LOCATIONS BEYOND THOSE REQUIRING GRAVEL STRUCTURAL FILL, PROVIDING THEY ARE OUTSIDE OF EXISTING AND PROPOSED RIGHT OF WAYS.

AT LOCATIONS WHERE NATIVE SOIL IS USED AND RESULTS IN A PUMPING, UNSTABLE TRENCH CONDITION, OR THE SOILS USED CONTAIN UNSUITABLE PRODUCTS, THE CONTRACTOR SHALL REMOVE ALL UNSUITABLE MATERIALS AND REPLACE WITH APPROPRIATE NATIVE MATERIALS, OR IMPORTED GRAVEL STRUCTURAL FILL MATERIAL AT NO ADDITIONAL COST TO THIS CONTRACT. NATIVE MATERIAL SHALL BE COMPACTED TO A MINIMUM OF 90 PERCENT DRY DENSITY AT A MOISTURE CONTENT PLUS OR MINUS OF TWO PERCENT FROM OPTIMUM.

COMPACTION TESTING

108. THE OWNER WILL RETAIN PERSONNEL LICENSED AND EXPERIENCED IN PERFORMING SUBGRADE INSPECTIONS AND COMPACTION TESTING FOR GRAVEL PLACEMENT AND ASPHALT PAVING. PROVIDED BELOW IS A LIST OF REQUIRED COMPACTION TESTING AREAS. IF WORK CONDITIONS INDICATE SUBSTANDARD COMPACTION, THE ENGINEER, OWNER, CITY OF ANACORTES RESERVE THE RIGHT TO REQUIRE THE CONTRACTOR TO PERFORM ADDITIONAL WORK AS NECESSARY TO RESOLVE ALL DEFICIENCIES AND RESERVE THE RIGHT TO REQUIRE THE CONTRACTOR TO HAVE COMPACTION TESTS PERFORMED TO SUBSTANTIATE WORK.

THE CONTRACTOR IS RESPONSIBLE FOR ALL COSTS ASSOCIATED WITH RETESTING COMPACTION AT AREAS THAT PREVIOUSLY FAILED COMPACTION TESTING. IF THE CONTRACTOR DOES NOT SEPARATELY RETAIN A MATERIALS TESTING COMPANY, COSTS INCURRED BY THE OWNER FOR RETESTING OF PREVIOUSLY-TESTED FAILED AREAS SHALL BE DEDUCTED BY THE OWNER FROM MONIES OWNED TO THE CONTRACTOR.

109. WITHIN ALL UTILITY TRENCHES, THE CONTRACTOR SHALL COORDINATE COMPACTION TESTS ON THE TOP OF GRAVEL GRADE. TESTS SHALL BE PERFORMED WITHIN UTILITY TRENCHES AT 50-FOOT INTERVALS. WITHIN TRENCHES HAVING MORE THAN FIVE FEET OF GRAVEL BACKFILL-DEPTH, TESTS SHALL ALSO BE TAKEN AT THE MID-DEPTH OF GRAVEL, AT 50-FOOT INTERVALS.

110. THERE ARE STRUCTURES WITHIN THE GRAVEL-FILLED AREA SUCH AS CATCH BASINS AND VALVE CASINGS. AROUND ALL STRUCTURES, TWO COMPACTION TESTS SHALL BE PERFORMED AT EACH STRUCTURE WITHIN ONE TO TWO FEET OF THE STRUCTURE, TO CONFIRM BACKFILL PLACEMENT.

111. THE CONTRACTOR IS RESPONSIBLE FOR COORDINATING GRAVEL COMPACTION TESTS AFTER EVERY TWO-FOOT INTERVAL OF PLACEMENT IS ACHIEVED. GRAVEL COMPACTION TESTS SHALL BE TAKEN ON A FIFTY FOOT GRID, EACH DIRECTION, THROUGHOUT THE ENTIRE PROJECT SITE.

112. THE CONTRACTOR IS RESPONSIBLE FOR COORDINATING WITH THE OWNER'S RETAINED MATERIALS TESTING COMPANY TO ASSURE THAT ALL COMPACTION TESTING IS PERFORMED AS IDENTIFIED HEREIN. IF THE CONTRACTOR FAILS TO COORDINATE HAVING COMPACTION TESTS PERFORMED, AT THE CONTRACTORS EXPENSE, THE CONTRACTOR WILL BE RESPONSIBLE FOR EXCAVATING AND EXPOSING SUFFICIENT AREAS FOR COMPACTION TESTING TO BE PERFORMED AS REQUIRED BY THE ENGINEER. THE CONTRACTOR IS THE RESPONSIBLE PARTY FOR CONTACTING THE OWNER'S RETAINED MATERIALS TESTING FIRM. THE CONTRACTOR SHALL CONTACT THE TESTING FIRM WHEN THE CONTRACTOR FEELS THE COMPLETED WORK IS SUFFICIENT AND READY FOR RECEPTION TESTING. AT ALL LOCATIONS WHERE COMPACTION TEST RESULTS ARE INSUFFICIENT, THE CONTRACTOR IS RESPONSIBLE FOR PERFORMING ALL NECESSARY WORK TO RESOLVE THE CONDITION, AND FOR HAVING FURTHER COMPACTION TESTS PERFORMED TO SUBSTANTIATE THAT THE WORK MEETS THE SPECIFICATIONS HEREIN.

113. PRIOR TO ASPHALT PAVING, THE CONTRACTOR MUST COORDINATE AN ON-SITE CONSTRUCTION MEETING WITH THE ASPHALT PAVING COMPANY, CITY, OWNER, MATERIALS TESTING COMPANY AND THE PROJECT ENGINEER.

114. THE MATERIALS TESTING COMPANY MUST BE ON SITE AT THE ONSET OF ALL PAVING OPERATIONS, EACH DAY, TO MONITOR ASPHALT PLACEMENT, COMPACTION, AND NECESSARY ROLLING PATTERNS.

THE MATERIALS TESTING COMPANY MUST INSPECT AND TEST ALL ASPHALT PLACEMENT AND SHALL ASSIST THE ASPHALT PAVING COMPANY IN ACHIEVING THE MINIMUM ACCEPTABLE ASPHALT COMPACTION OF 92% RICE DENSITY.

114. WITHIN ALL NEW BERMS AT THE DETENTION POND, COMPACTION OF NATIVE CLAY MATERIALS SHALL BE CONDUCTED AT NO MORE THAN 2 FOOT DEPTH INTERVALS TO SUBSTANTIATE THE ENTIRRE CLAY PLACEMENT AT NOT LESS THAN 90 PERCENT DENSITY.

CONDUITS

115. WITHIN THE PROJECT AREA, CONDUITS NOT IMMEDIATELY USED SHALL BE INSTALLED WITH VERTICALLY-ORIENTED LARGE-RADIUS SWEEPS, VERTICAL EXTENSIONS AS NECESSARY TO EXTEND ABOVE GROUND, PVC END CAPS, NYLON PULL STRING, AND MARKER POSTS. TYPICALLY, ALL CONDUITS SHALL BE INSTALLED AT 36-INCHES OF COVER, TO AVOID CONFLICTS WITH OTHER UTILITIES. THE MINIMUM DEPTH OF COVER FOR CONDUITS SHALL BE 24 INCHES BELOW FINISH GRADE. ALL CONDUIT TRENCHES SHALL INCLUDE MARKER TAPE AS SPECIFIED.

116. PRIOR TO PERFORMING SITE CONSTRUCTION, THE CONTRACTOR SHALL COORDINATE WITH PUGET SOUND ENERGY, FRONTIER TELEPHONE, CASCADE NATURAL GAS, AND BLACK ROCK CABLE, AND OTHER APPLICABLE UTILITY COMPANIES FOR ALL CONDUITS AND ROAD-CROSSING CASINGS NECESSARY TO SERVE THEIR SPECIFIC UTILITIES.

117. BEDDING MATERIAL FOR THE CONDUIT SHALL BE OF A QUALITY SUITABLE TO ALL UTILITY COMPANIES. PRIOR TO CONSTRUCTION, THE CONTRACTOR SHALL COORDINATE WITH EACH UTILITY COMPANY AS TO BEDDING MATERIAL, CONDUIT, COVER MATERIAL, AND TRENCH BACKFILL REQUIREMENTS.

THE CONTRACTOR SHALL PERFORM ALL TRENCHING FOR THE INSTALLATION OF ALL CONDUITS, VAULTS, PEDESTALS, AND HAND HOLES ASSOCIATED WITH THE UTILITIES SERVING THIS PROJECT.

THE CONTRACTOR SHALL PROVIDE AND INSTALL ALL CONDUITS REQUIRED FOR THIS PROJECT. ALL CONDUITS ASSOCIATED WITH ELECTRICAL SERVICES SHALL BE PERMITTED THROUGH THE DEPARTMENT OF LABOR AND INDUSTRIES AND INSPECTED BY THE SAME.

SEED, FERTILIZER, MULCH AND LANDSCAPING

118. DURING THE COURSE OF CONSTRUCTION, EXCAVATION WILL BE PERFORMED IN NATIVE SOILS, CONSISTING OF SOD, ORGANIC TOPSOIL, AND COMPACTED SILTY MATERIALS AS NOTED WITHIN THE GEOTECHNICAL REPORT FOR THIS PROJECT. THE CONTRACTOR MUST REVIEW THIS GEOTECHNICAL REPORT PRIOR TO CONSTRUCTION.

119. FOR THE PURPOSES OF LANDSCAPE FILL WITHIN PLANTER STRIPS, TRANSITION GRADING BEHIND CURBS AND ROAD EDGES, AND SITE GRADING TO FILL THE LOWEST PROJECT AREAS, CLEAN NATIVE ORGANIC TOPSOIL MATERIALS SHALL BE USED AS FILL. NATIVE SOILS SHALL NOT BE USED AT ANY LOCATION WHERE STRUCTURAL FILL (GRAVEL) IS REQUIRED AND NEEDED. DURING THE COURSE OF CONSTRUCTION, CLEAN NATIVE ORGANIC SOILS SHALL BE STOCKPILED AND COVERED FOR EVENTUAL USE AS LANDSCAPE FILL AND LANDSCAPE GRADING. REGARDLESS OF LOCATION, THE PLACEMENT OF TOPSOILS AND NATIVE SOILS SHALL BE MECHANICALLY COMPACTED TO A MINIMUM OF 90 PERCENT MAXIMUM DRY DENSITY.

UNTIL NEEDED, CLEAN NATIVE SOILS SHALL BE COVERED WITH AN IMPERVIOUS MATERIAL TO PREVENT EROSION FROM RAINFALL AND TO AID IN PREVENTING GROWTH OF UNSUITABLE VEGETATION IN THE STOCKPILED SOIL.

120. NATIVE SOILS THAT HAVE BECOME CONTAMINATED BY GRAVEL AND OTHER PROCESSED MATERIALS SHALL BE REMOVED FROM THE SITE BY THE CONTRACTOR, AT THE CONTRACTOR'S EXPENSE, AND DEPOSITED AT A LEGALLY-PERMITTED LOCATION APPROVED FOR THE RECEIPT OF THE PRODUCT.

121. SEEDING SHALL BE PROVIDED FOR ALL DISTURBED SOIL CONDITIONS THROUGHOUT THE PROJECT AREA.

122. ALL SEEDING PERFORMED DURING EXTENSIVE PERIODS OF DRY WEATHER SHALL BE APPLIED USING A HYDROSEEDED APPLICATION WITH A MIXTURE OF GRASS SEED, FERTILIZER, AND MULCH. HAND SEEDING OF THIS MIXTURE IS ACCEPTABLE, PROVIDING THERE IS SUFFICIENT MOISTURE WITHIN THE SOIL FOR GERMINATION. ON ALL STEEP SLOPED AREAS GREATER THAN 10:1, THE CONTRACTOR SHALL ALSO APPLY A DENSE STRAW MAT TO REDUCE EROSION, AND TO SUPPORT THE UNDERLYING SEEDED CONDITIONS.

123. AFTER COMPLETION OF SITE IMPROVEMENTS, THE CONTRACTOR SHALL SEED, FERTILIZE, AND MULCH ALL DISTURBED SOIL AREAS WITHIN THE DESIGNATED AREAS.

GRASS SEED: 200 LBS. PER ACRE
10% HIGHLAND COLONIAL BENTGRASS
40% PERENNIAL RYEGRASS
40% PENLAWN RED FESCUE
10% WHITE CLOVER

MODIFICATIONS TO THIS GRASS SEED MIXTURE MAY BE PROVIDED BY THE CONTRACTOR AS AVAILABLE BY LOCAL SUPPLY COMPANIES. THE SUBSTITUTED MIXTURE SHALL BE SUBMITTED TO THE ENGINEER FOR REVIEW AND CONSIDERATION PRIOR TO ITS APPLICATION.

FERTILIZER: 100 LBS. PER ACRE
MIXTURE: 10-20-20
MULCH: 1000 TO 2000 POUNDS PER ACRE DEPENDING UPON SLOPE CONDITIONS

124. THE CONTRACTOR SHALL PROVIDE ALL MAINTENANCE AND PROTECTION OF THE SEEDED CONDITION UNTIL A SUBSTANTIAL DENSE GROWTH HAS BEEN ESTABLISHED. THE CONTRACTOR IS RESPONSIBLE FOR PROTECTING THE SEEDED CONDITIONS FROM DAMAGES CAUSED BY EROSION AND RAINFALL. DAMAGED AREAS SHALL BE PROMPTLY REPAIRED BY THE CONTRACTOR.

125. DURING SITE WORK PERIODS AND EVEN AFTER SEEDING, THE CONTRACTOR IS RECOMMENDED TO STABILIZE THE SURFACE OF SEEDED CONDITIONS.

126. ONCE SITE CONSTRUCTION IS COMPLETE, THE CONTRACTOR SHALL THOROUGHLY EXAMINE THE SITE CONDITIONS TO ASSURE ALL DIRT PILES ARE CLEANED UP AND NEATLY GRADED WITH THE SURROUNDING CONDITIONS.

STRIPING AND SIGNAGE

127. SPECIFIC SIGNS ARE TO BE INSTALLED WITH THIS PROJECT, AS IDENTIFIED ON THE CIVIL PLANS. SIGN MATERIALS AND INSTALLATION SHALL CONFORM TO THE FOLLOWING REQUIREMENTS FROM THE CITY OF ANACORTES:

ALL SIGNS MUST CONFORM TO MUTCD
ALL SIGNS SHALL BE DIAMOND GRADE ON ALODINE TREATED ALUMINUM

128. THE CONTRACTOR SHALL COORDINATE WITH THE ANACORTES STREET DEPARTMENT REGARDING THE TYPE AND SIZE OF POSTS TO BE USED FOR SIGN INSTALLATIONS, AS WELL AS THE TYPE OF RECEIVING COMPONENT TO BE INSTALLED.

IF NO DIRECTION IS PROVIDED BY THE CITY, POSTS SHALL BE TWO-INCH INSIDE DIAMETER SCHEDULE 40 GALVANIZED STEEL PIPE AND SHALL BE INSTALLED WITHIN A CONCRETE-FILLED 30-INCH DEEP BY 12-INCH DIAMETER HOLE, INSTALLED IN A FIRM AND UNYIELDING MANNER

THE SIGN POSTS SHALL BE OF SUFFICIENT LENGTH TO FULLY SECURE THE SIGN PLATE TO THE POST, PROVIDE SEVEN FEET OF VERTICAL CLEARANCE BETWEEN THE LOWEST EDGE OF SIGN PLATE AND THE ADJACENT FINISHED GRADE, AND TO BED THE SIGN POST 30 INCHES INTO THE GROUND WITHIN A CONCRETE-FILLED BASE. ALL SIGNS SHALL BE BOLTED TO THE POST USING STAINLESS STEEL HARDWARE.

129. PRIOR TO INSTALLING ANY SIGNPOSTS, THE CONTRACTOR SHALL CONDUCT AN ON-SITE MEETING WITH THE CITY TO CONFIRM THE LOCATION AND SIZE OF REQUIRED SIGNS.

130. NO STRIPING OF THE ASPHALT SURFACES IS DENOTED ON THE CIVIL PLANS. THE CONTRACTOR SHALL COORDINATE WITH THE CITY OF ANACORTES TO DETERMINE IF STRIPING IS REQUIRED. PRIOR TO PERFORMING ANY STRIPING, THE CONTRACTOR SHALL COORDINATE ONSITE WITH THE CITY AND OWNER TO CONFIRM THE LOCATION OF STRIPING TO BE PERFORMED.



ENGINEER

DATE

THIS PLAN SHEET IS ACCEPTED FOR CONSTRUCTION IN ACCORDANCE WITH THE CITY OF ANACORTES ORDINANCES AND POLICES. ACTUAL CONFORMANCE OF THE DESIGN WITH APPLICABLE LAWS IS THE SOLE RESPONSIBILITY OF THE PROFESSIONAL ENGINEER, WHOSE NAME AND STAMP APPEAR ON THIS SHEET. ACQUIRING, COMPLYING WITH, AND PROVIDING MITIGATION FOR ALL FEDERAL, STATE, COUNTY, AND LOCAL LAWS, PERMITS, AND MANDATES, INCLUDING BUT NOT LIMITED TO THE ENDANGERED SPECIES ACT, FEDERAL WETLAND PERMIT, STATE DEPARTMENT OF FISHERIES AND HYDRAULICS PERMIT, FEDERAL FLOOD PLAIN PERMITS, NATIONAL POLLUTANT DISCHARGE ELIMINATION SYSTEM PERMIT IS THE RESPONSIBILITY OF THE DEVELOPER, LAND OWNER, AND THEIR ENGINEER. THE ISSUANCE OF THIS PERMIT SHALL NOT BE CONSTRUED AS PROOF OF COMPLIANCE WITH APPLICABLE LAWS AND PERMIT REQUIREMENTS.	
CITY ENGINEER	DATE
CONSTRUCTION FOR THE ACCEPTED PROJECT IS TO START WITHIN 1 YEAR OF THE DATE.	

PLAN STATUS:

SCALE: AS SHOWN

SHEET TITLE:

DRAWN BY: D. REMSEN

CHECKED BY: HLN

DATE: 08.06.20

CHERRY COURT
SHORT PLAT
FOR
CORNER 9 PROPERTIES, LLC
SW 1/4 SECTION 25, T. 35 N., R. 1 E., W.M.

DRAWING NO.
19013.SPECS.dwg

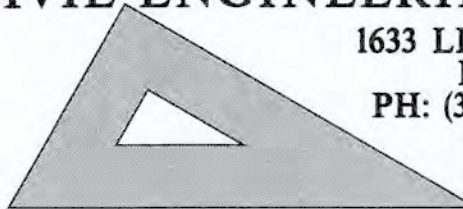
JOB NO.

19013

SHEET NO.
11 OF 11

REV. NO.	REVISION	DATE	BY	APPROVED

Ravnik & Associates, Inc.
CIVIL ENGINEERING & LAND-USE PLANNING

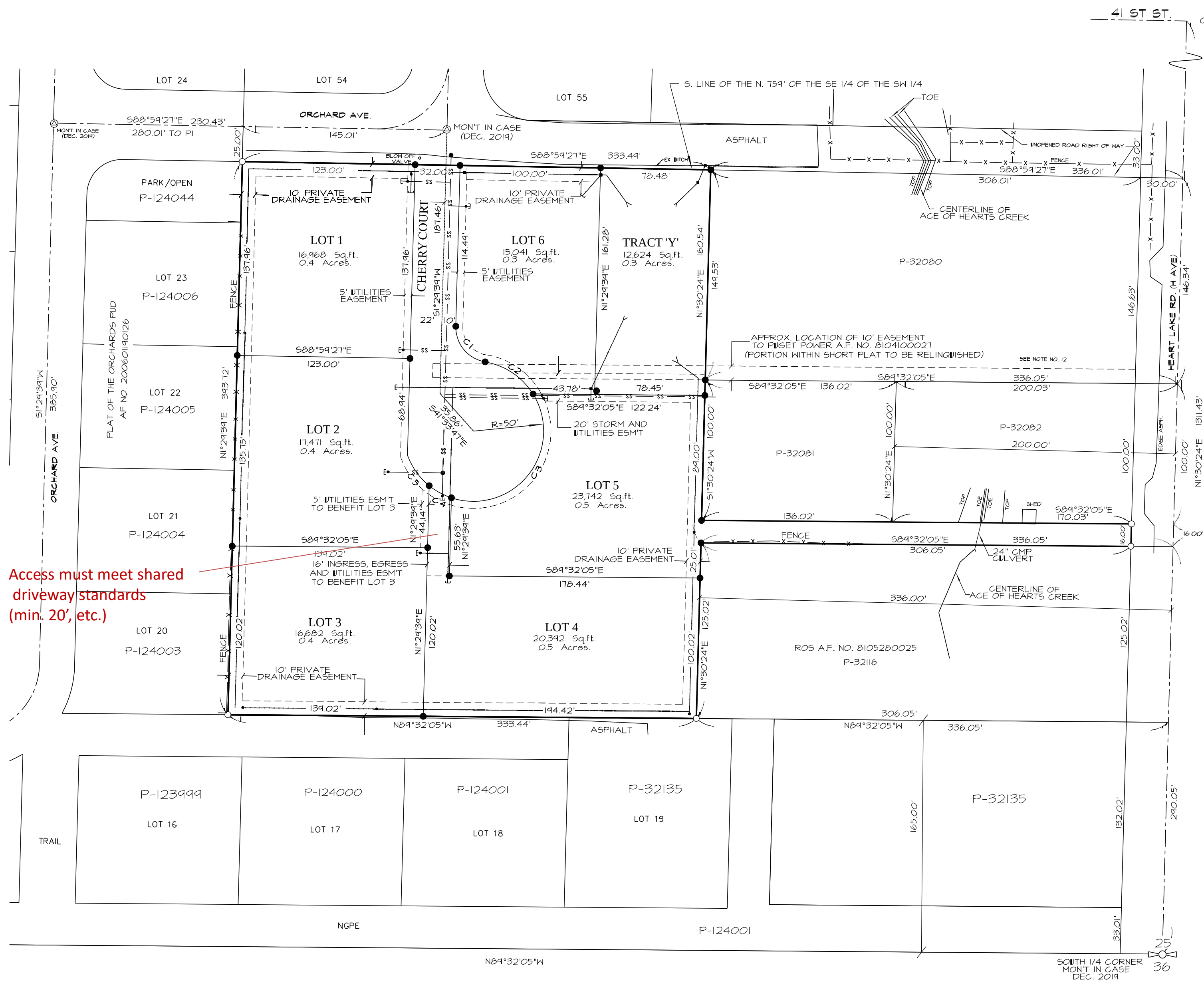


1633 LINDAMOOD LANE/P.O. BOX 361
BURLINGTON, WA 98233
PH: (360) 707-2048 FAX: (360) 707-2216

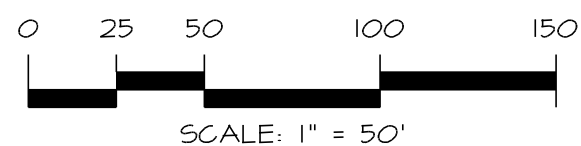
SHEET DESCRIPTION:

SPECIFICATIONS (3)

Exhibit 4
Preliminary Short Plat -
Redlined



CURVE TABLE			
NUM	DELTA	ARC	RADIUS
C1	81°56'24"	35.75'	25.00'
C2	48°31'57"	42.35'	50.00'
C3	140°14'48"	122.39'	50.00'
C4	20°43'39"	18.09'	50.00'
C5	30°44'08"	26.89'	50.00'



DEVELOPED CONDITIONS MAP

SHEET 4 OF 4

DATE: 6/03/20

CITY OF ANACORTES SHORT PLAT NO. SPL-2020--

SURVEY IN A PORTION OF THE
SE 1/4 OF THE SW 1/4 OF
SECTION 25, T. 35 N., R. 1 E., W.M.
SKAGIT COUNTY, WASHINGTON
FOR: RONALD V. BAYEK AND RONALD V. BAYEK JR.

FB: PG:
MERIDIAN: ASSUMED

LISSEY & ASSOCIATES, PLLC
SURVEYING & LAND-USE CONSULTATION
MOUNT VERNON, WA 98213 360-419-1442

SCALE: 1"=50'
DWG: 19-130 SP

Exhibit 5

Notices



NOTICE OF APPLICATION With OPTIONAL DNS

File Number: SPL-2020-0003

Applicant: Landed Gentry Development Inc. / Corner 9 Properties LLC.;

Contact: Anna Nelson - anna@landedgentry.com

Date of Application: May 7, 2020

Date of Complete Application: June 10, 2020

Date of Notice of Application: June 17, 2020

Project Location: South of the intersection of Cherry Lane and Orchard Ave. (Assessor Parcel # P32077)

Application Type / Description: The applicant requests preliminary short subdivision approval, a conditional use permit, and SEPA review to subdivide approximately 3.12 acres in the R1 zone into 6 residential lots and 1 detention pond tract. A portion of the site is bisected by the Ace of Hearts Creek, a designated FWHCA. No changes to the area near the creek are proposed. The project includes a new public road and frontage improvements on Orchard Avenue.

Other Required Project Permits/Approvals: The following may be required in addition to the above: Construction stormwater general permit from WADOE, construction plan approval, right-of-way permit, final land division approval, building permits.

SEPA Review: The City of Anacortes has determined that this proposal is not likely to result in any significant adverse environmental impact, and that issuance of a Determination of Nonsignificance (DNS) is likely following the comment period for this notice. The optional DNS process of WAC 197-11-355 is being used for this proposal and includes the following:

1. This may be your only opportunity to comment on the environmental impacts of the proposal.
2. The proposal may include mitigation measures under applicable codes, and the project review process may incorporate or require mitigation measures regardless of whether an EIS is prepared.
3. A copy of the subsequent threshold determination for this proposal, once issued, may be obtained upon request.

Existing Environmental Documents: The following environmental documents evaluate the proposed project: Critical areas assessment, Stormwater Site Plan, Geotechnical Report, SEPA checklist. Application documents may be reviewed at <https://www.anacorteswa.gov/161/Planning-Community-Economic-Development> by clicking "Notices of Application" and then opening the appropriate project file number folder.

Public Comment Period: Written comments regarding the short subdivision, conditional use permit and SEPA must be submitted to the contact below by **5:00 PM on July 8, 2020**. Any person may comment on the application, receive notice of and participate in any hearings, and request a copy of the decision, once made.

Public Hearing: A public hearing is required to be held before the Planning Commission; the hearing has not yet been scheduled. A separate notice will be distributed once the public hearing has been scheduled.

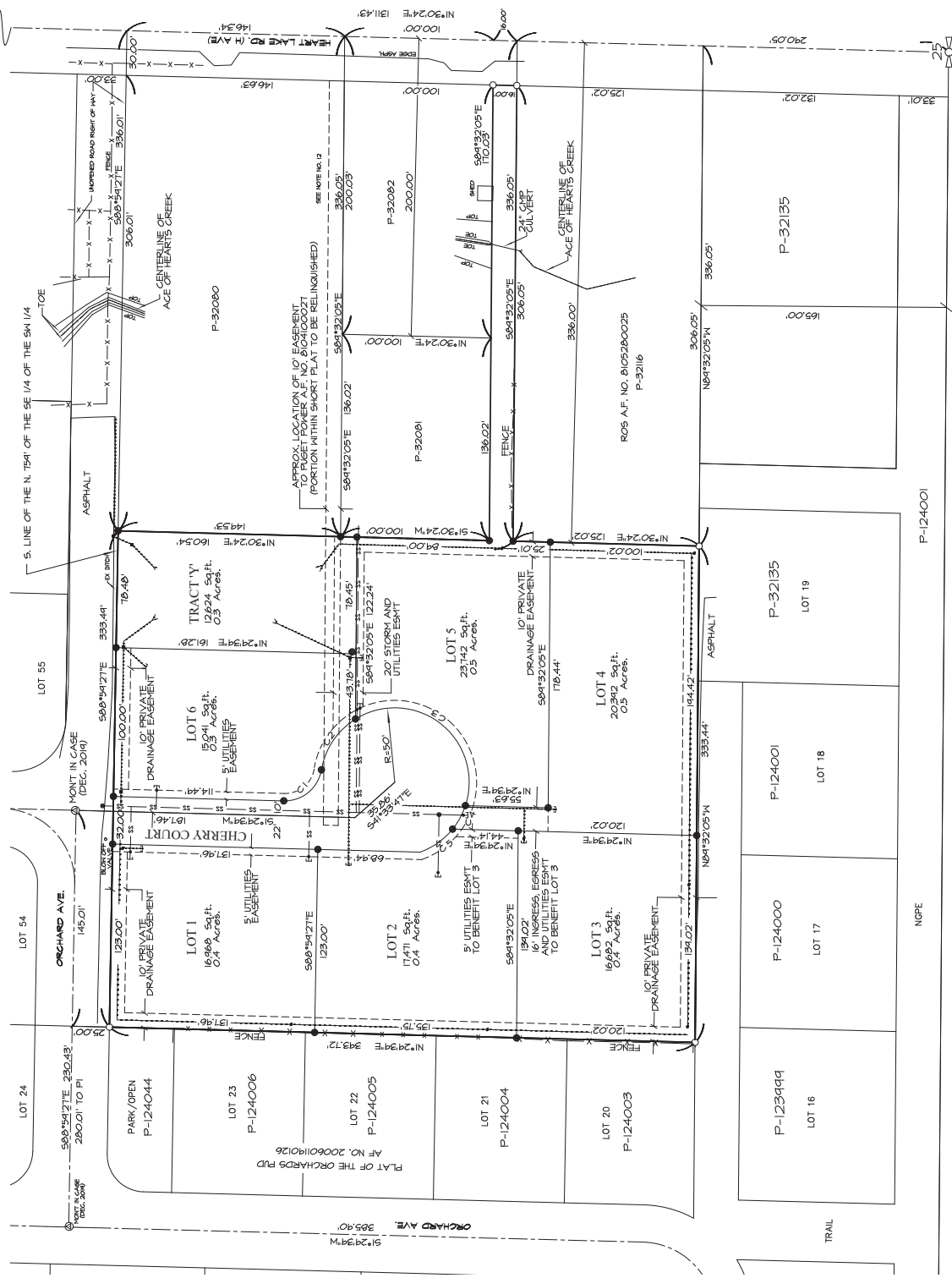
Preliminary Determination of Consistency: At a minimum, this project will be subject to the following plans and regulations: Anacortes Municipal Code Title 16 Tree Preservation, Title 18 Environmental Protection, Ch. 17.70 Critical Areas, Title 19 Unified Development Code Municipal Code, and the Anacortes Engineering Design Standards.

Appeals: Please refer to AMC 19.20.030 and AMC 19.20.210 for appeal procedures.

Project Contact: Libby Grage, Planning Manager; Phone: (360) 299-1986; libbyb@cityofanacortes.org; City of Anacortes, P.O. Box 547, Anacortes, WA 98221

41 ST 97'

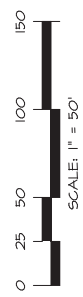
MONIT IN CASE
0.145 AND 0.14N OF CALC
OF CALC 1/6 CORNER



SHEET 4 OF 4

DATE: 6/03/20

CITY OF ANACORTES SHORT PLAT NO. 9PL-2020--
SURVEY IN A PORTION OF THE
SE 1/4 OF THE SW 1/4 OF
SECTION 25, T. 35 N., R. 1 E., KM.
SKAGIT COUNTY, WASHINGTON
FOR: RONALD V. BAYEK AND RONALD V. BAYEK JR.
FBI, PG.
MERIDIAN: ASSUMED
LISSEY & ASSOCIATES, PLLC SCALE: 1"=50'
SURVEYING & LAND-USE CONSULTATION
360-447-1442 DWG: 19-130 SP



CURVE TABLE		
NMI	DELTA	RADIUS
C1	8°15'24"	35.75'
C2	48°3'15"	42.35'
C3	140°14'48"	122.34'
C4	20°43'34"	16.04'
C5	50°44'08"	26.64'

DEVELOPED CONDITIONS MAP

LAND USE PERMIT NOTICE DISTRIBUTION

File Number: SPL-2020-0003
Project Name: Cherry Court Short Plat & CUP



Notice of Application w/ Optional DNS - Affidavit of Posting

Where	Date	By:	Notes
REQUIRED BY CODE			
Anacortes American	6/17/2020		sent 6/13/20
Applicant	6/13/2020		
Appellant	N/A		
Parties of Record	N/A		
Any person who requested notice	N/A		
Agencies with Jurisdiction or who commented	6/15/2020		
WSDOT	N/A		
Skagit County	N/A		
300' Property Owners	6/16/2020		mailed 6/16/20; 45 mailings
Skagit County Assessor	N/A		
Posting property	6/16/2020		
SEPA register - if Optional			
DNS process used	6/15/2020		

COURTESY

Webpage	6/15/2020		
City Hall	closed - COVID 19		
Library	closed - COVID 19		

Other Requests for Review

Anacortes School District	6/15/2020	LBG	via email
Port of Anacortes			
Skagit Transit	6/15/2020	LBG	via email
DAHP	6/15/2020	LBG	via email
DOE - wetlands			
Samish Tribe	6/15/2020	LBG	via email
Swinomish Tribe	6/15/2020	LBG	via email
Sauk-Suiattle Tribe	6/15/2020	LBG	via email
Skagit Coop	6/15/2020	LBG	via email
WDFW	6/15/2020	LBG	via email

SHJARBACK ERIC G
SHJARBACK SILJA K
4409 ORCHARD AVENUE
ANACORTES, WA 98221

HERR THOMAS C
HERR ELEANOR J
4411 ORCHARD AVE
ANACORTES, WA 98221

HEMBREE CHAD
HEMBREE SARA K
1917 ORCHARD PL
ANACORTES, WA 98221

LG ANACORTES LLC
504 E FAIRHAVEN AVE
BURLINGTON, WA 98233

HOVEY JOHN H
HOVEY MARLA J
1905 ORCHARD PLACE
ANACORTES, WA 98221

JENNINGS REVOCABLE LIVING TRUST
JENNINGS BEN L TRUSTEE
JENNINGS LINDA J TRUSTEE
1819 ORCHARD PLACE
ANACORTES, WA 98221

BOWERS GERALD R & BOWERS BONNIE W
4413 ORCHARD AVE
ANACORTES, WA 98221

LATSHA MICHAEL A & LATSHA KIMBERLY L
4415 ORCHARD AVE
ANACORTES, WA 98221

VELIN TERRILL LEE
4419 ORCHARD AVENUE
ANACORTES, WA 98221

SKAROSI DAVID
SKAROSI LESLEY
200 CHAPTICO RUN
YORKTOWN, VA 23693

LUCAS JOLYNN M & LUCAS DAVID
4424 ORCHARD AVE
ANACORTES, WA 98221

SONG BYUNG
SONG JUNG
4422 ORCHARD AVE
ANACORTES, WA 98221

BRAATZ ROBERT W
BRAATZ CAROLINE A
PO BOX 2210
ANACORTES, WA 98221

KOLEGA TOMISLAV PETAR
MER ERIKA
4418 ORCHARD AVENUE
ANACORTES, WA 98221

GRAHAM FAMILY REVOCABLE TRUST
GRAHAM LISA J TRUSTEE
GRAHAM JEREMY M TRUSTEE
4416 ORCHARD AVENUE
ANACORTES, WA 98221

OULD RAYMOND J & OULD EVA R
4414 ORCHARD AVE
ANACORTES, WA 98221

COKER SUSAN
COKER MICHAEL
4412 ORCHARD AVENUE
ANACORTES, WA 98221

MARTIN LIVING TRUST
MARTIN DUANE C TRUSTEE
MARTIN DOROTHY M TRUSTEE
4407 ORCHARD AVENUE
ANACORTES, WA 98221

WILSON SCOT M & WILSON JENNIFER L
4403 ORCHARD AVE
ANACORTES, WA 98221

FLEMING DOMINIC & FLEMING ALETHEA
4315 ORCHARD AVE
ANACORTES, WA 98221

CRIPPEN GORDON M
CRIPPEN SUSAN L
4309 ORCHARD AVE
ANACORTES, WA 98221

VYSKOCIL DOROTHY GAIL
4305 ORCHARD AVE
ANACORTES, WA 98221

IRVING FAMILY TRUST
IRVING DONALD L TRUSTEE
IRVING MARION A TRUSTEE
4301 ORCHARD AVE
ANACORTES, WA 98221

KELLEN JOEL
4217 ORCHARD AVE
ANACORTES, WA 98221

LEVESEN CONRAD C
LEVESEN DIANNA
2001 41ST ST
ANACORTES, WA 98221

BRAR PARDEEP S
4405 MARINE HEIGHTS WAY
ANACORTES, WA 98221

GINDHART RUSSELL A & GINDHART TERRIE
L
4216 CHERRY LN
ANACORTES, WA 98221

CUCCIA DANIEL & CUCCIA JOYCE
4302 CHERRY LN
ANACORTES, WA 98221

FOWLER DALE A & WILSON-FOWLER
ELIZABETH
1705 6TH ST
ANACORTES, WA 98221

HAY BRUCE W JR
PO 2412
HUNTSVILLE, AL 35804

DELEON ROOKS FAMILY TRUST
DELEON LEONELTRUSTEE
ROOKS HARRIET L TRUSTEE
4207 CHERRY LANE
ANACORTES, WA 98221

THE ORCHARDS PUD HOMEOWNERS ASSN
PO BOX 1633
ANACORTES, WA 98221

BALLOW RICHARD A & BALLOW GAIL G
401 E PARK DR
ANACORTES, WA 98221

BRAY FAMILY TRUST & BRAY JANE E
TRUSTEE
BRAY RODNEY NEAL TRUSTEE
4220 H AVE
ANACORTES, WA 98221

BAYEK RONALD V & BAYEK RONALD V JR
26339 PRESIDENT AVE
HARBOR CITY, CA 90710

WOLLAM GARY E
WOLLAM CARRIE
4318 H AVE
ANACORTES, WA 98221

TARTAS JAMES P & TARTAS BETTY
4402 H AVE
ANACORTES, WA 98221

SYMONDS ELIZABETH A
4404 H AVE
ANACORTES, WA 98221

LEMBERG LINDA E
1601 QUAIL DR
ANACORTES, WA 98221

MCKIN ANDREA V
PO BOX 863
ANACORTES, WA 98221

MUNCE IAN S & MUNCE DIANE S
1711 QUAIL DR
ANACORTES, WA 98221

SCHORR ERIK T & SCHORR MEGAN L
1705 QUAIL DR
ANACORTES, WA 98221

RICE DARREN E & RICE JOLYNN L
4417 H AVE
ANACORTES, WA 98221

MIDDLETON BROOKS J
MIDDLETON KELLY DONOVAN
4419 H AVE
ANACORTES, WA 98221

GALLATIN MICHAEL E
ATTN BREWE LAYMNA
PO BOX 193
ANACORTES, WA 98221

SKAGIT PUBLISHING
C/O ISJ PAYMENT PROCESSING CENTER
PO BOX 1570
POCATELLO ID 83204-1570
(360)424-3251
Fax (360)416-2161

ORDER CONFIRMATION

Salesperson: POLLY LEWISVANCE Printed at 06/12/20 13:30 by ple30

Acct #: 210430	Ad #: 2020268	Status: New
CITY OF ANACORTES	Start: 06/17/2020	Stop: 06/17/2020
PO BOX 547	Times Ord: 1	Times Run: ***
ANACORTES WA 98221	STDS 1.00 X 22.57	Words: 493
	Total STDS 23.00	
	Class: 0001 LEGAL	NOTICES
	Rate: AACR	Cost: 186.76
	# Affidavits: 1	

Contact:	Ad Descrpt: AA-2020268
Phone: (360)293-1900	Given by: *
Fax#:	P.O. #:
Email: LibbyB@cityofanacortes.org	Created: ple30 06/12/20 13:14
Agency:	Last Changed: ple30 06/12/20 13:30

PUB	ZONE	EDT	TP	START	INS	STOP	SMTWTF
AA	A	97	W	Wed 06/17/20	1	Wed 06/17/20	W
SVWN	A	97	W	Wed 06/17/20	1	Wed 06/17/20	SMTWTF

AUTHORIZATION

Under this agreement rates are subject to change with 30 days notice. In the event of a cancellation before schedule completion, I understand that the rate charged will be based upon the rate for the number of insertions used.

Name (print or type)

Name (signature)

(CONTINUED ON NEXT PAGE)

This ad has been reformatted for proofing purposes. Column breaks are not necessarily as they will appear in publication.



NOTICE OF APPLICATION With OPTIONAL DNS

File Number:

SPL-2020-0003

Applicant:

Landed Gentry Develop-
ment Inc. / Corner 9 Prop-
erties LLC.;

Contact: Anna Nelson -
anna@landedgentry.com

Date of Application:

May 7, 2020

Date of Complete Appli- cation:

June 10, 2020

Date of Notice of Applica- tion:

June 17, 2020

Project Location:

South of the intersection of
Cherry Lane and Orchard
Ave. (Assessor Parcel #
P32077)

Application Type / De-

scription:

The applicant re-
quests preliminary short
subdivision approval, a
conditional use permit, and
SEPA review to subdivide
approximately 3.12 acres in
the R1 zone into 6 residen-
tial lots and 1 detention
pond tract. A portion of the
site is bisected by the Ace
of Hearts Creek, a desig-
nated FWHCA. No changes
to the area near the creek
are proposed. The project
includes a new public road
and frontage improvements
on Orchard Avenue.

Other Required Project

Permits/Approvals:

The
following may be required
in addition to the above:
Construction stormwater
general permit from WA-
DOE, construction plan ap-
proval, right-of-way permit,
final land division approval,
building permits.

SEPA Review:

The City of
Anacortes has determined
that this proposal is not
likely to result in any signifi-
cant adverse environmental
impact, and that issuance
of a Determination of Non-
significance (DNS) is likely
following the comment peri-

od for this notice. The op-18 Environmental Protec-
tional DNS process of WACtion, Ch. 17.70 Critical Ar-
197-11-355 is being used eas, Title 19 Unified Devel-
for this proposal and in-opment Code Municipal
cludes the following: Code, and the Anacortes
Engineering Design Stan-

1. This may be your only dards.
opportunity to comment
on the environmental **Appeals:** Please refer to
impacts of the proposal. AMC 19.20.030 and AMC
19.20.210 for appeal proce-
2. The proposal may in-dures.
clude mitigation mea-
sures under applicable **Project Contact:** Libby
codes, and the projectGrage, Planning Manager;
review process may in-Phone: (360) 299-1986;
corporate or require libbyb@cityofanacortes.org;
mitigation measures re-City of Anacortes, P.O. Box
gardless of whether an 547, Anacortes, WA 98221
EIS is prepared.

3. A copy of the subse-
quent threshold deter-
mination for this pro-
posal, once issued, may
be obtained upon re-
quest.

Existing Environmental

Documents:

The following
environmental documents
evaluate the proposed
project: Critical areas as-
sessment, Stormwater Site
Plan, Geotechnical Report,
SEPA checklist. Application
documents may be re-
viewed at [https://www.ana-](https://www.anacorteswa.gov/161/Plan-Community-Economic-Development)
[corteswa.gov/161/Plan-](https://www.anacorteswa.gov/161/Plan-Community-Economic-Development)
[Community-Econom-](https://www.anacorteswa.gov/161/Plan-Community-Economic-Development)
[ic-Development](https://www.anacorteswa.gov/161/Plan-Community-Economic-Development) by clicking
"Notices of Application"

and then opening the ap-
propriate project file num-
ber folder.

Public Comment Period:

Written comments regard-
ing the short subdivision,
conditional use permit and
SEPA must be submitted to
the contact below by **5:00**

PM on July 8, 2020. Any
person may comment on
the application, receive no-
tice of and participate in
any hearings, and request a
copy of the decision, once
made.

Public Hearing:

A public
hearing is required to be
held before the Planning
Commission; the hearing
has not yet been sched-
uled. A separate notice will
be distributed once the
public hearing has been
scheduled.

Preliminary Determination

of Consistency:

At a mini-
mum, this project will be
subject to the following
plans and regulations: Ana-
cortes Municipal Code Title
16 Tree Preservation, Title

Published
June 17, 2020
AA-2020268



NOTICE OF PLANNING COMMISSION VIRTUAL / TELEPHONIC PUBLIC HEARING

A virtual/telephonic public hearing will be held by the Anacortes Planning Commission on **September 9, 2020 at 6:00 PM** by means of the Zoom video conferencing web application to consider the following application:

Project Name: Cherry Court Short Plat & CUP

File Number: SPL-2020-0003

Applicant: Landed Gentry Development Inc. / Corner 9 Properties LLC.

Applicant Contact: Anna Nelson, 504 E. Fairhaven Ave., Burlington, WA 98233; Ph: 360-755-9021 Ext. 26; anna@landedgentry.com

Project Location: South of the intersection of Cherry Lane and Orchard Ave. (Assessor Parcel # P32077)

Application Type / Description: The applicant requests preliminary short subdivision approval, a conditional use permit, and SEPA review to subdivide approximately 3.12 acres in the R1 zone into 6 residential lots and 1 detention pond tract. A portion of the site is bisected by the Ace of Hearts Creek, a designated FWHCA. No changes to the area near the creek are proposed. The project includes a new public road and frontage improvements on Orchard Avenue.

Environmental Review: A SEPA threshold Determination of Nonsignificance (DNS) was issued for this project on August 19, 2020, under WAC 197-11-340(2), after using the Optional DNS process in WAC 197-11-355. There is no further comment period on the DNS.

Appeals: The decision on this application, once made, may be appealable pursuant to the procedures outlined in AMC 19.20.030 and AMC 19.20.210.

Staff Report: The staff report will be available no later than 5:00 p.m. on September 3, 2020 and can be viewed at <https://www.anacorteswa.gov/161/Planning-Community-Economic-Development> by clicking "Other Notices" and then opening the appropriate project file number folder (SPL-2020-0003). You may also request a copy by contacting the project contact listed below.

Attending and Providing Comment at the Public Hearing

1. To participate in the Public Hearing:

- Click [this link](https://us02web.zoom.us/j/85918981678) or copy/paste this URL into your browser: <https://us02web.zoom.us/j/85918981678> or
- Dial in to the meeting by phone: Dial in the US: +1 253-215-8782, enter the Meeting ID 859 1898 1678

2. Written comments received before 3:00 p.m. on the day of the Public Hearing will be distributed to the Planning Commission in advance of the public hearing. Comments can be submitted by:

- Emailing libbyb@cityofanacortes.org (include in the subject line *Public Comment for Planning Commission Meeting on [date]*) or
- Visit [Watch Meetings](#) on the City of Anacortes website and click the eComment link beside the agenda item for the public hearing you wish to comment on.

3. To view the live Public Hearing without participating: Visit [Watch Meetings](#) on the City of Anacortes website (<https://www.anacorteswa.gov/700/Watch-Meetings>) or tune in to Channel 10.

4. Members of the public who require special assistance to participate in or access the public hearing may contact the [City Clerk](#) 24 hours before the meeting to make special arrangements. Dial 360-299-1960.

Project Contact: Libby Grage, Planning Manager; Phone: (360) 661-3505; libbyb@cityofanacortes.org;
City of Anacortes, P.O. Box 547, Anacortes, WA 98221

LAND USE PERMIT NOTICE DISTRIBUTION

File Number: SPL-2020-0003
Project Name: Cherry Court Short Plat & CUP

**Notice of Hearing**

Where	Date	By:	Notes
REQUIRED BY CODE			
Anacortes American	8/19/2020		sent 8/14/20
Applicant	8/17/2020		
Appellant	N/A		
Parties of Record	8/19/2020		4 parties of record (commented on NOA)
Any person who requested notice	N/A		
Agencies with Jurisdiction or who commented	8/19/2020		WDFW
WSDOT	N/A		
Skagit County	N/A		
300' Property Owners	8/19/2020		mailed 8/19/20; 45 mailings
Skagit County Assessor	N/A		
Posting property SEPA register - if Optional	8/19/2020	Tess Cooper	
DNS process used	8/19/2020		
COURTESY			
Webpage	8/19/2020		
City Hall	closed - COVID 19		
Library	closed - COVID 19		

SHJARBACK ERIC G
SHJARBACK SILJA K
4409 ORCHARD AVENUE
ANACORTES, WA 98221

HERR THOMAS C
HERR ELEANOR J
4411 ORCHARD AVE
ANACORTES, WA 98221

HEMBREE CHAD
HEMBREE SARA K
1917 ORCHARD PL
ANACORTES, WA 98221

LG ANACORTES LLC
504 E FAIRHAVEN AVE
BURLINGTON, WA 98233

HOVEY JOHN H
HOVEY MARLA J
1905 ORCHARD PLACE
ANACORTES, WA 98221

JENNINGS REVOCABLE LIVING TRUST
JENNINGS BEN L TRUSTEE
JENNINGS LINDA J TRUSTEE
1819 ORCHARD PLACE
ANACORTES, WA 98221

BOWERS GERALD R & BOWERS BONNIE
W
4413 ORCHARD AVE
ANACORTES, WA 98221

LATSHA MICHAEL A & LATSHA
KIMBERLY L
4415 ORCHARD AVE
ANACORTES, WA 98221

VELIN TERRILL LEE
4419 ORCHARD AVENUE
ANACORTES, WA 98221

SKAROSI DAVID
SKAROSI LESLEY
200 CHAPTICO RUN
YORKTOWN, VA 23693

LUCAS JOLYNN M & LUCAS DAVID
4424 ORCHARD AVE
ANACORTES, WA 98221

SONG BYUNG
SONG JUNG
4422 ORCHARD AVE
ANACORTES, WA 98221

BRAATZ ROBERT W
BRAATZ CAROLINE A
PO BOX 2210
ANACORTES, WA 98221

KOLEGA TOMISLAV PETAR
MER ERIKA
4418 ORCHARD AVENUE
ANACORTES, WA 98221

GRAHAM FAMILY REVOCABLE TRUST
GRAHAM LISA J TRUSTEE
GRAHAM JEREMY M TRUSTEE
4416 ORCHARD AVENUE
ANACORTES, WA 98221

OULD RAYMOND J & OULD EVA R
4414 ORCHARD AVE
ANACORTES, WA 98221

COKER SUSAN
COKER MICHAEL
4412 ORCHARD AVENUE
ANACORTES, WA 98221

MARTIN LIVING TRUST
MARTIN DUANE C TRUSTEE
MARTIN DOROTHY M TRUSTEE
4407 ORCHARD AVENUE
ANACORTES, WA 98221

WILSON SCOT M & WILSON JENNIFER L
4403 ORCHARD AVE
ANACORTES, WA 98221

FLEMING DOMINIC & FLEMING
ALETHEA
4315 ORCHARD AVE
ANACORTES, WA 98221

CRIPPEN GORDON M
CRIPPEN SUSAN L
4309 ORCHARD AVE
ANACORTES, WA 98221

VYSKOCIL DOROTHY GAIL
4305 ORCHARD AVE
ANACORTES, WA 98221

IRVING FAMILY TRUST
IRVING DONALD L TRUSTEE
IRVING MARION A TRUSTEE
4301 ORCHARD AVE
ANACORTES, WA 98221

KELLEN JOEL
4217 ORCHARD AVE
ANACORTES, WA 98221

LEVESEN CONRAD C
LEVESEN DIANNA
2001 41ST ST
ANACORTES, WA 98221

BRAR PARDEEP S
4405 MARINE HEIGHTS WAY
ANACORTES, WA 98221

GINDHART RUSSELL A & GINDHART
TERRIE L
4216 CHERRY LN
ANACORTES, WA 98221

CUCCIA DANIEL & CUCCIA JOYCE
4302 CHERRY LN
ANACORTES, WA 98221

FOWLER DALE A & WILSON-FOWLER
ELIZABETH
1705 6TH ST
ANACORTES, WA 98221

HAY BRUCE W JR
PO 2412
HUNTSVILLE, AL 35804

DELEON ROOKS FAMILY TRUST
DELEON LEONELTRUSTEE
ROOKS HARRIET L TRUSTEE
4207 CHERRY LANE
ANACORTES, WA 98221

BRAY FAMILY TRUST & BRAY JANE E
TRUSTEE
BRAY RODNEY NEAL TRUSTEE
4220 H AVE
ANACORTES, WA 98221

TARTAS JAMES P & TARTAS BETTY
4402 H AVE
ANACORTES, WA 98221

MCKIN ANDREA V
PO BOX 863
ANACORTES, WA 98221

RICE DARREN E & RICE JOLYNN L
4417 H AVE
ANACORTES, WA 98221

THE ORCHARDS PUD HOMEOWNERS
ASSN
PO BOX 1633
ANACORTES, WA 98221

BAYEK RONALD V & BAYEK RONALD V
JR
26339 PRESIDENT AVE
HARBOR CITY, CA 90710

SYMONDS ELIZABETH A
4404 H AVE
ANACORTES, WA 98221

MUNCE IAN S & MUNCE DIANE S
1711 QUAIL DR
ANACORTES, WA 98221

MIDDLETON BROOKS J
MIDDLETON KELLY DONOVAN
4419 H AVE
ANACORTES, WA 98221

BALLOW RICHARD A & BALLOW GAIL G
401 E PARK DR
ANACORTES, WA 98221

WOLLAM GARY E
WOLLAM CARRIE
4318 H AVE
ANACORTES, WA 98221

LEMBERG LINDA E
1601 QUAIL DR
ANACORTES, WA 98221

SCHORR ERIK T & SCHORR MEGAN L
1705 QUAIL DR
ANACORTES, WA 98221

GALLATIN MICHAEL E
ATTN BREWE LAYMNA
PO BOX 193
ANACORTES, WA 98221

SKAGIT PUBLISHING
C/O ISJ PAYMENT PROCESSING CENTER
PO BOX 1570
POCATELLO ID 83204-1570
(360)424-3251
Fax (360)416-2161

ORDER CONFIRMATION

Salesperson: POLLY LEWISVANCE Printed at 08/14/20 14:19 by ple30

Acct #: 210430	Ad #: 2030853	Status: New
CITY OF ANACORTES	Start: 08/19/2020	Stop: 08/19/2020
PO BOX 547	Times Ord: 1	Times Run: ***
ANACORTES WA 98221	STDS 1.00 X 21.91	Words: 483
	Total STDS 22.00	
	Class: 0001 LEGAL	NOTICES
	Rate: AAOR	Cost: 182.16
	# Affidavits: 1	

Contact:	Ad Descrpt: AA-2030853
Phone: (360)293-1900	Given by: *
Fax#:	P.O. #: NOH-SPL-2020-0003
Email: LibbyB@cityofanacortes.org	Created: ple30 08/14/20 14:09
Agency:	Last Changed: ple30 08/14/20 14:19

PUB	ZONE	EDT	TP	START	INS	STOP	SMTWTF
AA	A	97	W	Wed 08/19/20	1	Wed 08/19/20	W
SVWN	A	97	W	Wed 08/19/20	1	Wed 08/19/20	SMTWTF

AUTHORIZATION

Under this agreement rates are subject to change with 30 days notice. In the event of a cancellation before schedule completion, I understand that the rate charged will be based upon the rate for the number of insertions used.

Name (print or type)

Name (signature)

(CONTINUED ON NEXT PAGE)

This ad has been reformatted for proofing purposes. Column breaks are not necessarily as they will appear in publication.



NOTICE OF PLANNING COMMISSION VIRTUAL / TELEPHONIC PUBLIC HEARING

A virtual/telephonic public hearing will be held by the City of Anacortes Planning Commission on **September 9, 2020 at 6:00 PM** by means of the Zoom video conference (SPL-2020-0003). You may also request a copy by contacting the project contact listed below.

Project Name: Cherry Court Short Plat & CUP
Attending and Providing Comment at the Public Hearing

File Number: SPL-2020-0003

Applicant: Landed Gentry Development Inc. / Corner 9 Properties LLC.

Applicant Contact: Anna Nelson, 504 E. Fairhaven Ave., Burlington, WA 98233; Ph: 360-755-9021 Ext. 26; anna@landedgentry.com

Project Location: South of the intersection of Cherry Lane and Orchard Ave. (Assessor Parcel # P32077)

Application Type / Description: The applicant requests preliminary shorting. Comments can be submitted by: conditional use permit, and SEPA review to subdivide approximately 3.12 acres in the R1 zone into 6 residential lots and 1 detention pond tract. A portion of the site is bisected by the Ace of Hearts Creek, a designated FWHCA. No changes to the area near the creek are proposed. The project includes a new public road and frontage improvements on Orchard Avenue.

Environmental Review: A SEPA threshold Determination of Nonsignificance (DNS) was issued for this project on August 19, 2020, under WAC 197-11-340(2), after using the Optional DNS process in WAC 197-11-355. There is no further

comment period on the who require special assistance to participate in or access the public hearing

Appeals: The decision on this application, once made, may be appealable pursuant to the procedures outlined in AMC 19.20.030 and AMC 19.20.210.

Project Contact: Libby Grage, Planning Manager; Phone: (360) 661-3505; libbyb@cityofanacortes.org; September 3, 2020 and can be viewed at <https://www.anacorteswa.gov/161/Planning-Community-Economic-Development>

**Published
August 19, 2020
AA-2030853**

1. To participate in the Public Hearing:

Click this link or copy/paste this URL into your browser: <https://us02web.zoom.us/j/85918981678> or Dial in to the meeting by phone: Dial in the US: +1 253-215-8782, enter the Meeting ID 859 1898 1678

2. **Written comments received before 3:00 p.m. on the day of the Public Hearing** will be distributed to the Planning Commission in advance of the public hearing. Comments can be submitted by:

Emailing libbyb@cityofanacortes.org (include in the subject line Public Comment for Planning Commission Meeting on [date]) or Visit Watch Meetings on the City of Anacortes website and click the eComment link beside the agenda item for the public hearing you wish to comment on.

3. **To view the live Public Hearing without participating:** Visit Watch Meetings on the City of Anacortes website (<https://www.anacorteswa.gov/700/Watch-Meetings>) or tune in to Channel 10.

4. Members of the public

Exhibit 6

Agency & Department Comments

PW Conditions PW#20-142-DEV:

Paperwork:

1. Project shall meet the requirement of the Dead End Streets and Cul-de-Sac, as outlined in the Anacortes Municipal Code 19.52.050.
2. A clearing and grading plan consistent with City requirements shall be submitted by the applicant for review and approval by the City of Anacortes Planning\Building and Public Works Departments prior to any construction activities taking place on or off-site.
3. A Storm Drainage Report consistent with City requirements shall be submitted by the applicant for review and approval by the Planning\Building and Public Works Departments prior to any construction activities taking place on or off-site.
4. Construction activities may require an NPDES Construction Storm Water Discharge Permit issued by the Department of Ecology prior to any construction activities taking place on or off-site.
5. Any encroachments into the easements by the adjacent properties shall be required to apply for an encroachment agreement (AMC – 12.30) from the City of Anacortes Public Works Department.
6. All Public structures shall have vehicular access, including but not limited to: 1) A 12-foot minimum width access road (STR-12) with an approved all-weather surface asphalt road, or other approved Low Impact Development Best Management Practice design, 2) Meeting the minimum structural requirements (STR-15.2) for Access Road approved by the City of Anacortes.
7. Prior to any clearing\fill\grade work beginning, construction civil plans consistent with the City of Anacortes Engineering Development Standards, including but not limited to, Clearing and Grading Plan, Erosion Control Plan, Site utility\Infrastructure improvements Plan, Roadway Improvements Plan, Signage Plan, Street Lighting Plan and other plans and/or information required by the City Planning\Building and Public Works Departments shall be submitted for review and approval.
8. Street lighting is be required (AMC 19.51.030). Street lighting shall be LED and shall limit glare and/or emission of light downward to the street and front yard areas. Street lighting will be installed per PSE Schedule 53, Option “B”. Lighting fixtures and design shall be approved by the Public Works Director. Shields may be necessary to reduce impacts to adjacent properties.
9. Mailbox locations shall be reviewed and approved by the City of Anacortes Public Works Department and the U.S. Postal Service.
10. Sanitation, recycling and compost collection will be at curb side of each parcel serviced.
11. Utilities, as identified in Anacortes Municipal Code 16.20.080 are required to be extended and to serve the development.
12. Engineering and Inspection fees in the amount of \$500.00, plus 2% of the total estimated construction cost shall be due upon civil plan approval (AMC

15.24.010). No construction activity is allowed until the construction plans are approved, all fees have been paid and a preconstruction conference held.

13. Prior to the final plat approval, all infrastructure improvements shall be completed as required by the City of Anacortes Public Works Director and a 2-year Maintenance Bond in place. The 2-year Maintenance Bond is 10% of the actual construction cost.

Storm Drainage:

14. Storm water conveyance both on-site and off-site shall comply with City Storm drainage requirements.
15. The Detention Pond Facility will be owned and maintained by the City of Anacortes.
16. Prior to Final Plat Acceptance, the Applicant will provide an As-built of the Detention Pond and provide a Performance Report identifying the constructed facility meets the accepted design report.
17. Access to the Detention Pond shall not be hindered by fencing or other barriers from the adjacent property.

Site-Frontage:

18. Street improvement requirements shall be constructed along the frontage of Cherry Court, to include curb\gutter and sidewalk and water, sanitary sewer, storm drainage and Fiberwork. The improvements shall terminate where reasonable and practicable to provide a smooth transition with existing improvements both laterally across the street and longitudinally up and down the street for drainage, vehicular and pedestrian traffic.

Water:

19. Fire Hydrants are to be located as approved by the City of Anacortes Fire Chief. Fire flows shall be addressed in a manner acceptable to the Fire Chief and the City of Anacortes Public Works Department.



August 18, 2020

Mr. Steve Lange
Project Manager
City of Anacortes
P.O. Box 547
Anacortes, Washington 98221

SUBJECT: SECOND STORMWATER PLAN REVIEW, CHERRY COURT
SHORT PLAT
CITY OF ANACORTES, SKAGIT COUNTY, WASHINGTON
G&O #20411.16

Dear Mr. Lange:

We received a revised submittal for the project on August 12, 2020.

The project consists of installing six single-family homes south of the intersection of Cherry Lane and Orchard Avenue. The proposal includes providing flow control and water quality treatment via a new detention pond. Downspout dispersion and concentrated sheet flow dispersion are proposed for the individual lots as well. As allowed by the Ecology Manual, the applicant assumed 4,200 square feet of hard surface per lot where the driveway alone accounts for 1,000 square feet of the applied 4,200 square feet. Since the sizing of the detention pond relies upon the use of downspout dispersion and concentrated sheet flow dispersion, the City shall ensure that with each future lot being developed, a 50-foot vegetated flow path is available for driveway runoff and 25 feet of vegetation is available for downspout dispersion.

The submittal included:

- Stormwater Drainage Report dated August 6, 2020
- Civil Plans dated August 6, 2020
- Response Letter dated August 6, 2020

We understand the City has allowed the applicant to model to pastured predeveloped conditions. With this, we recognize that the applicant has met all of our previous concerns.



Mr. Steve Lange
August 18, 2020
Page 2

Please contact me if you have any questions regarding these comments.

Sincerely,

GRAY & OSBORNE, INC.

A handwritten signature in blue ink that reads "Stacey A. Clear".

Stacey A. Clear, P.E.

SAC/hh
Encl.



June 15, 2020

Mr. Steve Lange
Project Manager
City of Anacortes
P.O. Box 547
Anacortes, Washington 98221

SUBJECT: STORMWATER PLAN REVIEW SUBMITTAL, CHERRY COURT
SHORT PLAT
CITY OF ANACORTES, SKAGIT COUNTY, WASHINGTON
G&O #20411.16

Dear Mr. Lange:

We received a submittal for the project on June 8, 2020.

The project consists of installing six single-family homes south of the intersection of Cherry Lane and Orchard Avenue. The proposal includes providing flow control and water quality treatment via a new detention pond. Downspout dispersion and concentrated sheet flow dispersion are proposed for the individual lots as well. As allowed by the Ecology Manual, the applicant assumed 4,200 sf of hard surface per lot where the driveway alone accounts for 1,000 sf of the applied 4,200 sf. Since the sizing of the detention pond relies upon the use of downspout dispersion and concentrated sheet flow dispersion, the City shall ensure that with each future lot being developed, a 50-foot vegetated flow path is available for driveway runoff and 25 feet of vegetation is available for downspout dispersion.

The submittal included:

- Stormwater Drainage Report dated May 6, 2020
- Civil Plans dated May 6, 2020
- Geotechnical Report dated February 6, 2020
- Critical Areas Report dated December 10, 2019

We offer the following specific comments to the developer regarding our review of the submitted information.



Mr. Steve Lange
June 15, 2020
Page 2

STORMWATER DRAINAGE REPORT

1. The applicant states that greater than 40 percent impervious surface coverage has existed in the F4 Basin and therefore, the detention pond was modeled using the current site conditions instead of forested conditions as the “historic” conditions. Anacortes is not shown as a location within the map located in the 2014 Ecology Manual (Appendix I-F) where 40 percent impervious area existed prior to 1986. Also, Section I-2.5.7 (Minimum Requirement 7) of the 2014 Ecology Manual notes:

Where basin-specific studies determine a stream channel to be unstable...the pre-developed condition assumption shall be the “historic” land cover condition or a land cover condition commensurate with achieving a target flow regime identified by an approved basin study.

As the City’s Stormwater Comprehensive Plan identified a downstream surcharged condition in the F4 Basin, the applicant shall use forested conditions as the predeveloped condition to determine the size of the detention system. All applicable details (orifice sizes, dimensions, etc.) shall be revised to reflect the new system.

2. Under the Developed Condition Summary, the applicant mentions discounting impervious surfaces due to downspout dispersion (i.e., 50 percent roof, 50 percent landscaping); however, with the acreages provided both in this section and from the WWHM model screenshots, it appears the applicant took 100 percent of the roof area to be pervious. The area calculations shall be revised and the WWHM model shall be rerun to show 0.215 acre of roof area and 0.215 acre of landscaping for the roof areas.
3. Under Minimum Requirement 1, there is no discussion of an upstream analysis yet the plans show a perimeter drain around the south and west sides of the property so as to collect upstream run-on. It appears the perforated pipe used for the collection of this water is directed to the detention pond. It is recommended these flows bypass the detention pond. If this is not possible, the amount of run-on to be collected shall be calculated and verified against the capacity of the proposed outgoing pipe from the detention pond.



Mr. Steve Lange
June 15, 2020
Page 3

4. TESC Elements 5 through 9 and 11 through 12 shall be addressed in the report. For Element 9, note that the contractor is required to have a spill prevention kit on site at all times. Please provide the sizing of the sedimentation pond in Element 10. For Element 12, note that the project is required to have a CESCL and will need to maintain a project SWPPP for the duration of construction.
5. Conveyance calculations shall be provided to ensure the stormwater pipes are adequately sized.
6. Calculations for an emergency overflow spillway shall be provided for the detention pond.

CIVIL ENGINEERING PLANS

Sheet 2

7. On Sheet 2, please provide the sizing calculations for a temporary sediment pond.
8. A note shall also be added that the contractor shall clean out all construction sediment prior to completion of the final detention pond.
9. Typical erosion control notes shall be added.

Sheet 3

10. Catch Basin 2 appears to be the only catch basin shown to collect runoff from the cul-de-sac area yet the contours on Sheet 5 are generally pointed away from Catch Basin 2. Likewise, Catch Basin 5 does not look adequate to collect the remaining road runoff. At a minimum, an additional catch basin should be placed west of Catch Basin 5 to ensure runoff is collected on the west side of the road. The current 6-inch perforated pipe being shown across the road could be replaced with a solid pipe. Adequate cover needs to be ensured for this pipe. In general, please ensure there are enough catch basins to appropriately collect road runoff and that the grading is appropriate.
11. Invert and rim elevations appear to be missing for Catch Basins 2 and 5.



Mr. Steve Lange
June 15, 2020
Page 4

Sheet 6

12. Please provide a detail for the temporary sediment pond.

Sheet 8

13. The wet pond shall be revised as follows. We encourage the engineer to look at BMP T10.10 within the Ecology Manual for exact requirements.
 - a. Two cells are required per Figure V-10.3.1b of the Ecology Manual. A berm/baffle shall extend across the width of the wet pool.
 - b. A minimum sediment depth (beyond the water quality volume) of 1 foot shall be added.
 - c. The location of the inlet coming from Catch Basin 6 does not allow for maximization of a flow path through the facility as it is right across from the outlet pipe. Please revise.
 - d. The pond outlet pipe shall be back sloped and extend 1 foot below the water quality design water surface.
 - e. An outlet structure with a grated opening/birdcage should be provided within the pond so as to provide an overflow route should the outlet pipe become clogged.
 - f. An emergency spillway shall be provided per BMP T10.10.
 - g. The pond should be moved to a minimum of 20 feet from the property line.
 - h. Slopes of greater than 3:1 shall necessitate fencing around the pond. See Chapter 2 of the City of Anacortes Standards for specifics on fencing.
 - i. A trash rack shall be provided on the pond outlet pipe.
 - j. Per City of Anacortes Standards, the maximum slope of the access ramp is 12 percent.



Mr. Steve Lange
June 15, 2020
Page 5

Please contact me if you have any questions regarding these comments.

Sincerely,

GRAY & OSBORNE, INC.

A handwritten signature in blue ink that reads "Stacey A. Clear". The signature is written in a cursive, flowing style.

Stacey A. Clear, P.E.

SAC/hh
Encl.

CHERRY COURT 6-LOT SHORT PLAT FOR CORNER 9 PROPERTIES, LLC

CALL TWO
BUSINESS DAYS
BEFORE YOU DIG
"811"

REVIEW COMPLETED 07.06.20 S2L
SEE 06.15.20 REVIEW BY GSD

LEGEND		
---	EXISTING RIGHT OF WAY LINE	
---	EXISTING RIGHT OF WAY LINE	
---	EXISTING ROAD CENTERLINE	
---	EXISTING PROPERTY LINE	
○	EXISTING PROPERTY CORNER	
SD	EXISTING STORM DRAIN	
○	EXISTING STORM MANHOLE	
□	EXISTING STORM CATCH BASIN	
SS	EXISTING SANITARY SEWER	
○	EXISTING SANITARY MANHOLE	
W	EXISTING WATERLINE	
⊕	EXISTING WATER VALVE	
⊕	EXISTING FIRE HYDRANT	
PCTG	EXISTING POWER, CABLE, TELEPHONE, GAS LINE	
⊕	EXISTING WATER METER	
---	EXISTING EDGE OF ASPHALT	
---	EXISTING FENCELINE	
---	EXISTING ASPHALT	
---	EXISTING CONCRETE	
---	EXISTING GRAVEL	
---	EXISTING SWALE	
---	PROPOSED ASPH. SURFACE ELEV.	
---	PROPOSED TOP OF CONC. ELEV.	
---	PROPOSED ASPH. SURFACE ELEV.	
---	PROPOSED LANDSCAPE AREA	
---	PROPOSED CLEANOUT ASSEMBLY FOR STORM OR SANITARY SEWER	
---	PROPOSED STORM DRAIN	
---	PROPOSED STORM CATCH BASIN	
---	PROPOSED SANITARY SEWER	
---	PROPOSED POWER, CABLE, GAS, TELEPHONE, SPARE CONDUIT LINE	
---	PROPOSED POWER, & SPARE CONDUIT	
---	PROPOSED GAS LINE	
---	PROPOSED WATERLINE	
---	PROPOSED WATER VALVE	
---	PROPOSED WATER METER	
---	PROPOSED SWALE	
---	CEMENT CONCR. CURB & GUTTER	
---	PROPOSED FENCELINE	
---	PROPOSED ASPHALT	
---	PROPOSED CRUSHED ROCK	
---	PROPOSED SITE LIGHT POLE	
---	CORRUGATED METAL PIPE	
---	PROPOSED GRASS	

PROJECT CONTACTS:

OWNER

CORNER 9 PROPERTIES, LLC
504 E. FAIRHAVEN
BURLINGTON, WA 98233
PHONE: (360)755-9021
CONTACT: ANNA NELSON

CIVIL ENGINEER

RAVNIK AND ASSOCIATES, INC.
1633 LINDAMOOD LANE
P.O. BOX 361
BURLINGTON, WA 98233
PHONE: (360)707-2048
FAX: (360)707-2216
CONTACT: JOHN RAVNIK

SURVEYOR

LISSER AND ASSOCIATES, PLLC.
P.O. BOX 1109
MOUNT VERNON, WA 98273
PHONE: (360)419-7442
FAX: (360)419-0581
CONTACT: BRUCE LISSER

PUGET SOUND ENERGY

POTELCO
18601 ANDIS ROAD
BURLINGTON, WA 98233
TEL: (360)766-5571
MOB: (360)791-2748
CONTACT: JANE MAJOR
EMAIL: jane.major@pse.com

COMCAST

400 SEQUOIA DRIVE
BELLINGHAM, WA 98226
TEL: (360)527-8243
FAX: (360)527-8302
CONTACT: CASEY JONES
EMAIL: Casey.Jones@cable.comcast.com

CASCADE NATURAL GAS

1520 SOUTH 2ND
MOUNT VERNON, WA 98273
TEL: (360)336-6155
FAX: (360)336-2564
MOB: (360)941-0499
CONTACT: JIM HOBBS
EMAIL: James.Hobbs@cngc.com

FRONTIER

595 PEASE ROAD
BURLINGTON, WA 98233
TEL: (360)707-0641
FAX: (360)757-4338
CONTACT: BRETT MURDOCK
EMAIL: brett.murdock@fr.com

CITY OF ANACORTES

PUBLIC WORKS PROJECT MANAGER-STEVE LANGE
P.O. BOX 547
ANACORTES, WA 98221
PHONE: (360)293-1900
FAX: (360)293-1938
CELL: (360)661-3468
EMAIL: steve@cityofanacortes.org
ALTERNATE CONTACT: TIM HOHMANN
PHONE: (360)770-9221

WATER DEPARTMENT
PHONE: (360)299-1952 (DIRECT)
CONTACT: TERRY NEMETH

PUBLIC WORKS INSPECTOR - JUSTIN SYMONDS
P.O. BOX 547
ANACORTES, WA 98221
PHONE: (360)299-1962
CELL: (360)661-3547

GEOTECHNICAL CONSULTANT

GEOTEST SERVICES INC
741 MARINE DRIVE
BELLINGHAM, WA 98225
PHONE: (360)733-7318
CONTACT: KURT PARKER
MOB: (360)303-3390

SOLID WASTE

CITY OF ANACORTES OPERATIONS DEPARTMENT
SOLID WASTE SUPERVISOR
TEL: (360)293-1921
FAX: (360)293-1931
CONTACT: MATT KOEGEL

LANDSCAPE ARCHITECT

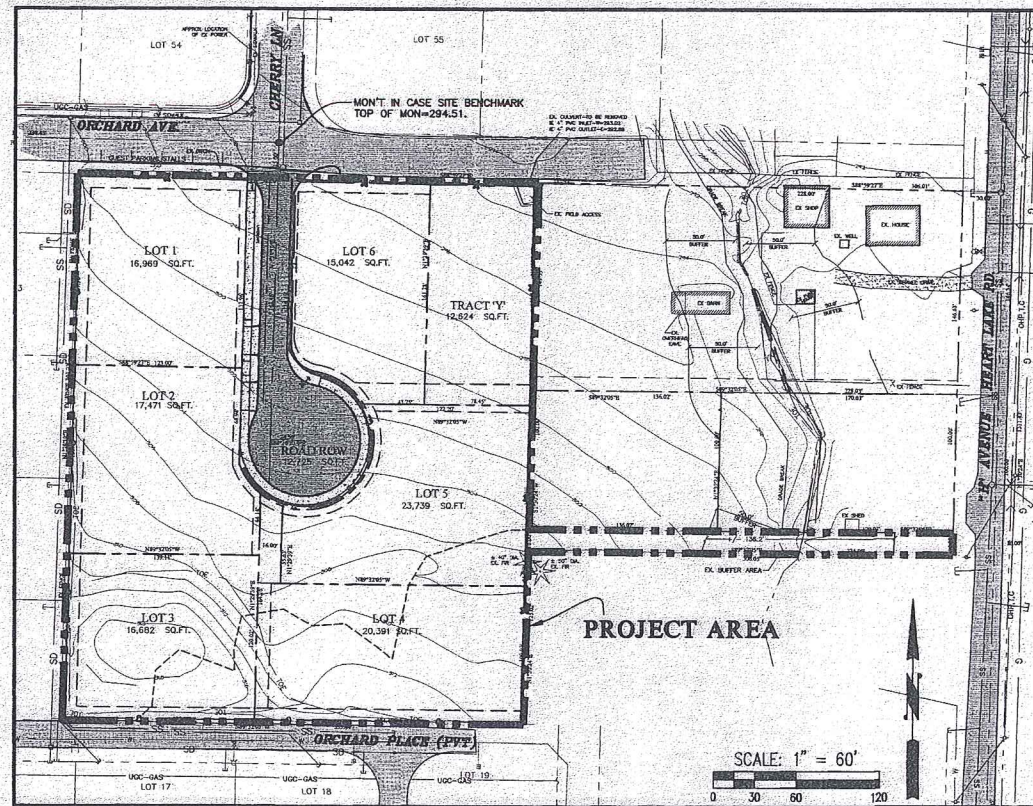
ECCOS DESIGN, LLC
505 S. FIRST STREET
MOUNT VERNON, WA 98273
TEL: (360)419-7400
CONTACT: PATRIK DYLAN
EMAIL: patrik@eccosdesign.com

UTILITY LOCATE

"811"

SURVEY INFORMATION

NOTE: EXISTING STRUCTURES, UTILITIES, AND SURFACE CONDITIONS SHOWN ON THESE PLANS REPRESENT SURVEY INFORMATION LOCATED IN DECEMBER 2019, FROM A TOPOGRAPHIC SURVEY PERFORMED BY LISSER & ASSOCIATES AND FROM UTILITY INFORMATION PROVIDED BY UTILITY COMPANIES. A UTILITY LOCATE SERVICE WAS NOT CALLED PRIOR TO SURVEYING OF THE PROPERTY, BUT MUST BE CALLED PRIOR TO CONSTRUCTION.



SHEET SCHEDULE:

SHEET 1 OF 10 COVER
SHEET 2 OF 11 EXISTING CONDITIONS, SITE PREPARATION & EROSION CONTROLS PLAN
SHEET 3 OF 11 OVERALL SITE PLAN
SHEET 4 OF 11 PLAN & PROFILE
SHEET 5 OF 11 LOT GRADING EXHIBIT
SHEET 6 OF 11 DETAILS
SHEET 7 OF 11 DETAILS
SHEET 8 OF 11 DETAILS
SHEET 9 OF 11 SPECIFICATIONS
SHEET 10 OF 11 SPECIFICATIONS
SHEET 11 OF 11 SPECIFICATIONS

ZONING: R1

MINIMUM LOT SIZE = 15,000 SQ.FT.

MAXIMUM LOT COVERAGE = 35% FEET

BUILDING FOUNDATION SETBACKS:

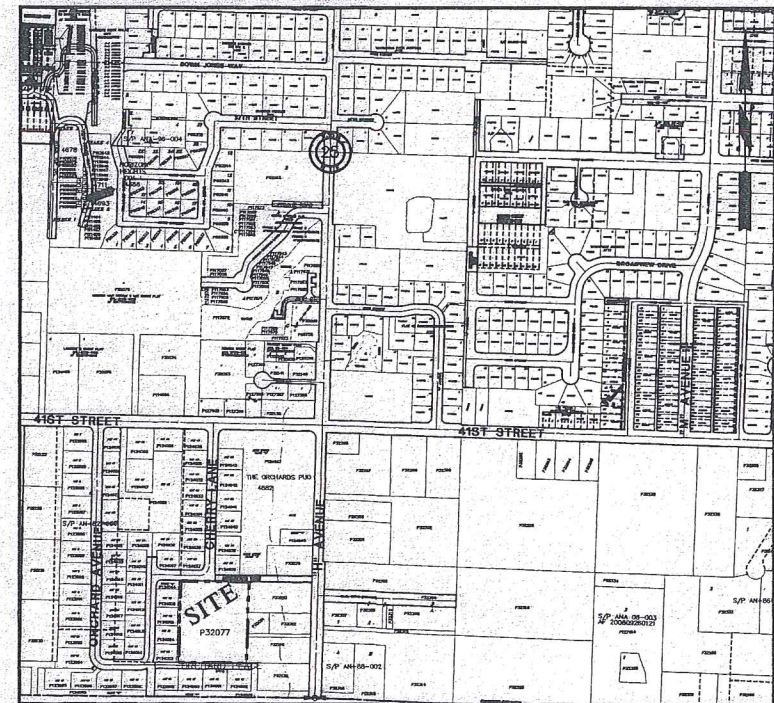
FRONT YARD = 20'

INTERIOR SIDE YARD = 10' FEET

SIDE YARD ON FLANKING STREET = 20'

(IF STREET IS DESIGNATED ARTERIAL = 20')

REAR YARD = 20'



VICINITY MAP

SCALE: 1" = 400'



City of Anacortes
Planning, Community &
Economic Development

Date Received:

5/7/20

ENGINEER

DATE

THIS PLAN SHEET IS ACCEPTED FOR CONSTRUCTION IN ACCORDANCE WITH THE CITY OF ANACORTES ORDINANCES AND POLICES. ACTUAL CONFORMANCE OF THE DESIGN WITH APPLICABLE LAWS IS THE SOLE RESPONSIBILITY OF THE PROFESSIONAL ENGINEER, WHOSE NAME AND STAMP APPEAR ON THIS SHEET. ACCORDING, COMPLYING WITH, AND PROVIDING MITIGATION FOR ALL FEDERAL, STATE, COUNTY, AND LOCAL LAWS, PERMITS, AND MANDATES, INCLUDING BUT NOT LIMITED TO THE ENDANGERED SPECIES ACT, FEDERAL NECLAND PERMIT, STATE DEPARTMENT OF FISHERIES AND HYDRAULICS PERMIT, FEDERAL FLOOD PLAIN PERMITS, NATIONAL POLLUTANT DISCHARGE ELIMINATION SYSTEM PERMIT IS THE RESPONSIBILITY OF THE DEVELOPER, LAND OWNER, AND THEIR ENGINEER. THE ISSUANCE OF THIS PERMIT SHALL NOT BE CONSTRUED AS PROOF OF COMPLIANCE WITH APPLICABLE LAWS AND PERMIT REQUIREMENTS.

CITY ENGINEER

DATE

CONSTRUCTION FOR THE ACCEPTED PROJECT IS TO START WITHIN 1 YEAR OF THE DATE.

PLAN STATUS:

SCALE: AS NOTED

DRAWN BY: D. REMSEN

CHECKED BY: J. RAVNIK

DATE: 05.06.20

SHEET TITLE:

CHERRY COURT
SHORT PLAT
FOR
CORNER 9 PROPERTIES, LLC
SW 1/4 SECTION 25, T. 35 N., R. 1 E., W.M.

DRAWING NO.
19013SITE.dwg

JOB NO.
19013

SHEET NO.
1 OF 11

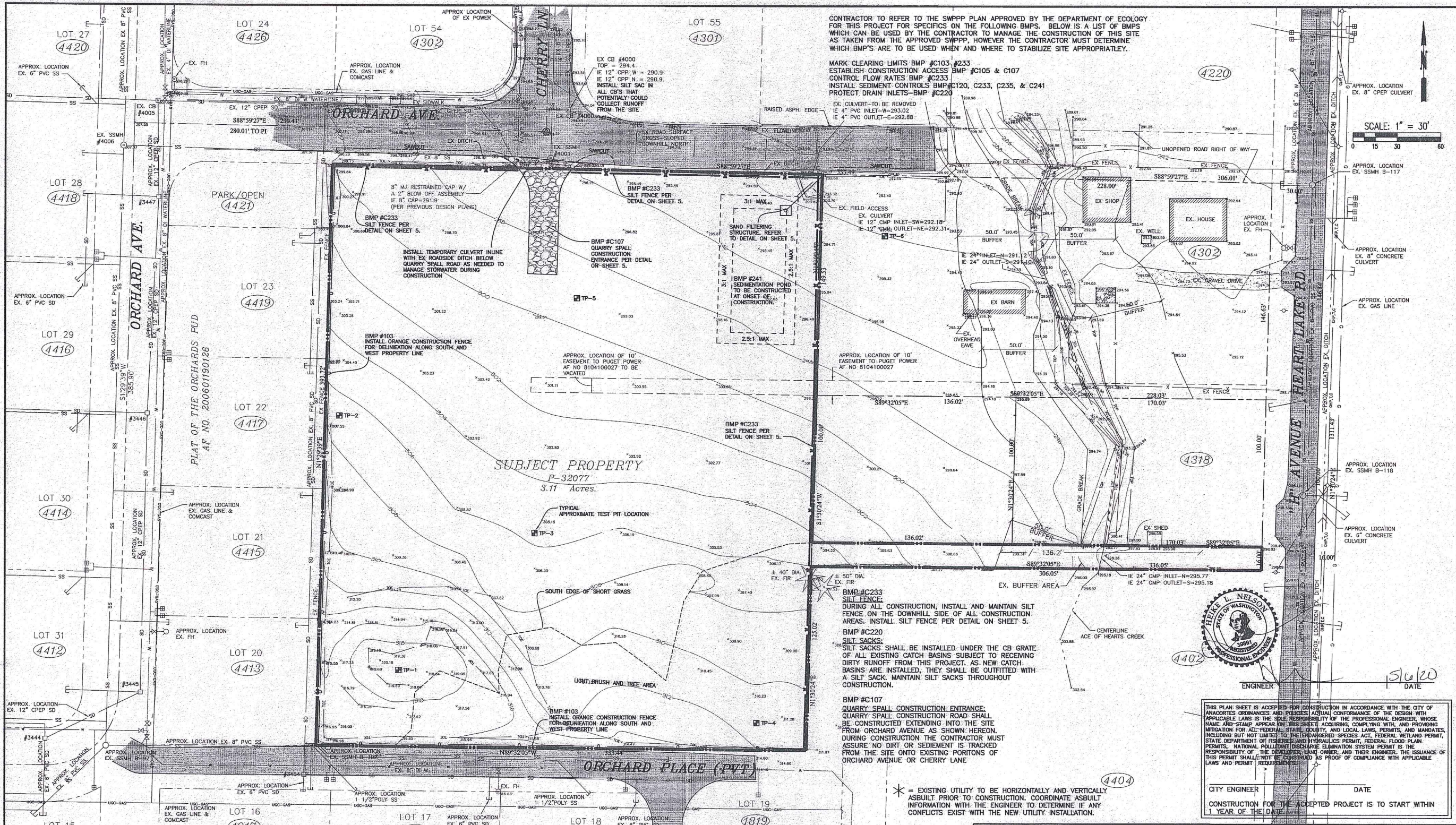
REV. NO.	REVISION	DATE	BY	APPROVED

Ravnik & Associates, Inc.
CIVIL ENGINEERING & LAND-USE PLANNING

1633 LINDAMOOD LANE/P.O. BOX 361
BURLINGTON, WA 98233
PH: (360) 707-2048 FAX: (360) 707-2216

SHEET DESCRIPTION:

COVER



REV. NO.	REVISION	DATE	BY	APPROVED

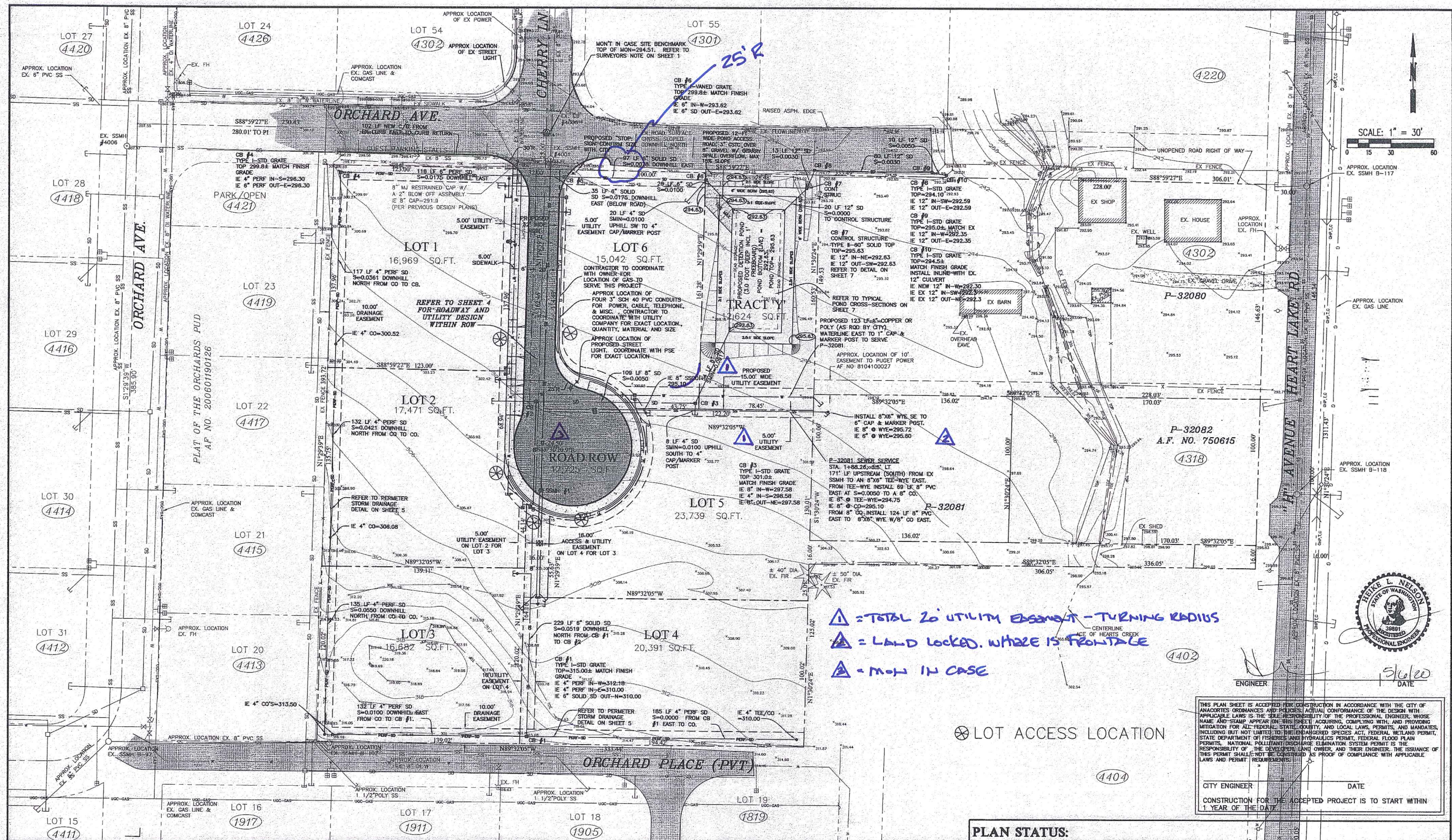
Ravnik & Associates, Inc.
CIVIL ENGINEERING & LAND-USE PLANNING
1633 LINDAMOOD LANE/P.O. BOX 361
BURLINGTON, WA 98233
PH: (360) 707-2048 FAX: (360) 707-2216

**EXISTING CONDITIONS,
SITE PREPARATION
& EROSION CONTROLS**

PLAN STATUS:
SCALE: 1"=30'
DRAWN BY: DLR
CHECKED BY: HLN
DATE: 05.06.20

SHEET TITLE:
**CHERRY COURT
SHORT PLAT
FOR
CORNER 9 PROPERTIES, LLC
SW 1/4 SECTION 25, T. 35 N, R. 1 E, W.M.**

DRAWING NO.
19013SITE.dwg
JOB NO.
19013
SHEET NO.
2 OF 11



REV. NO.	REVISION	DATE	BY	APPROVED

Ravnik & Associates, Inc.
CIVIL ENGINEERING & LAND-USE PLANNING
1633 LINDAMOOD LANE/P.O. BOX 361
BURLINGTON, WA 98233
PH: (360) 707-2048 FAX: (360) 707-2216

SHEET DESCRIPTION:

OVERALL SITE PLAN

PLAN STATUS:

SCALE: 1"=30'
DRAWN BY: HLN
CHECKED BY: HLN
DATE: 05.06.20

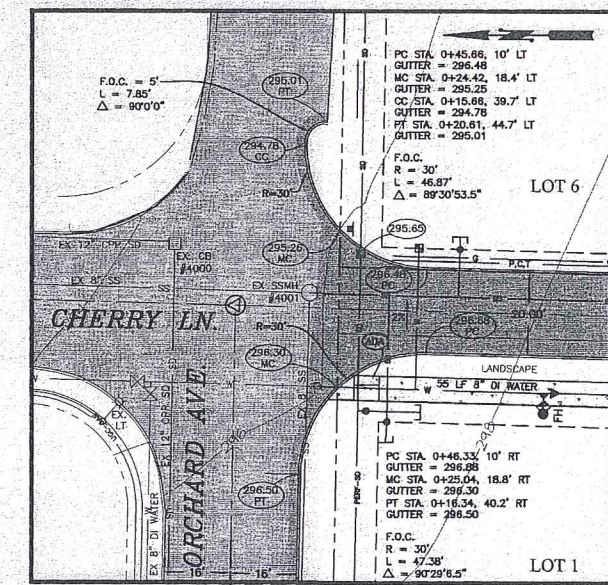
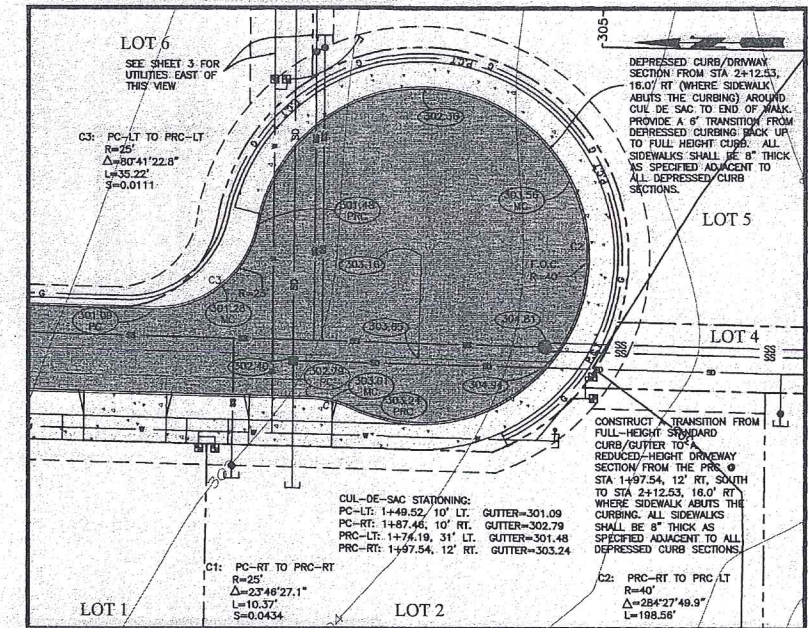
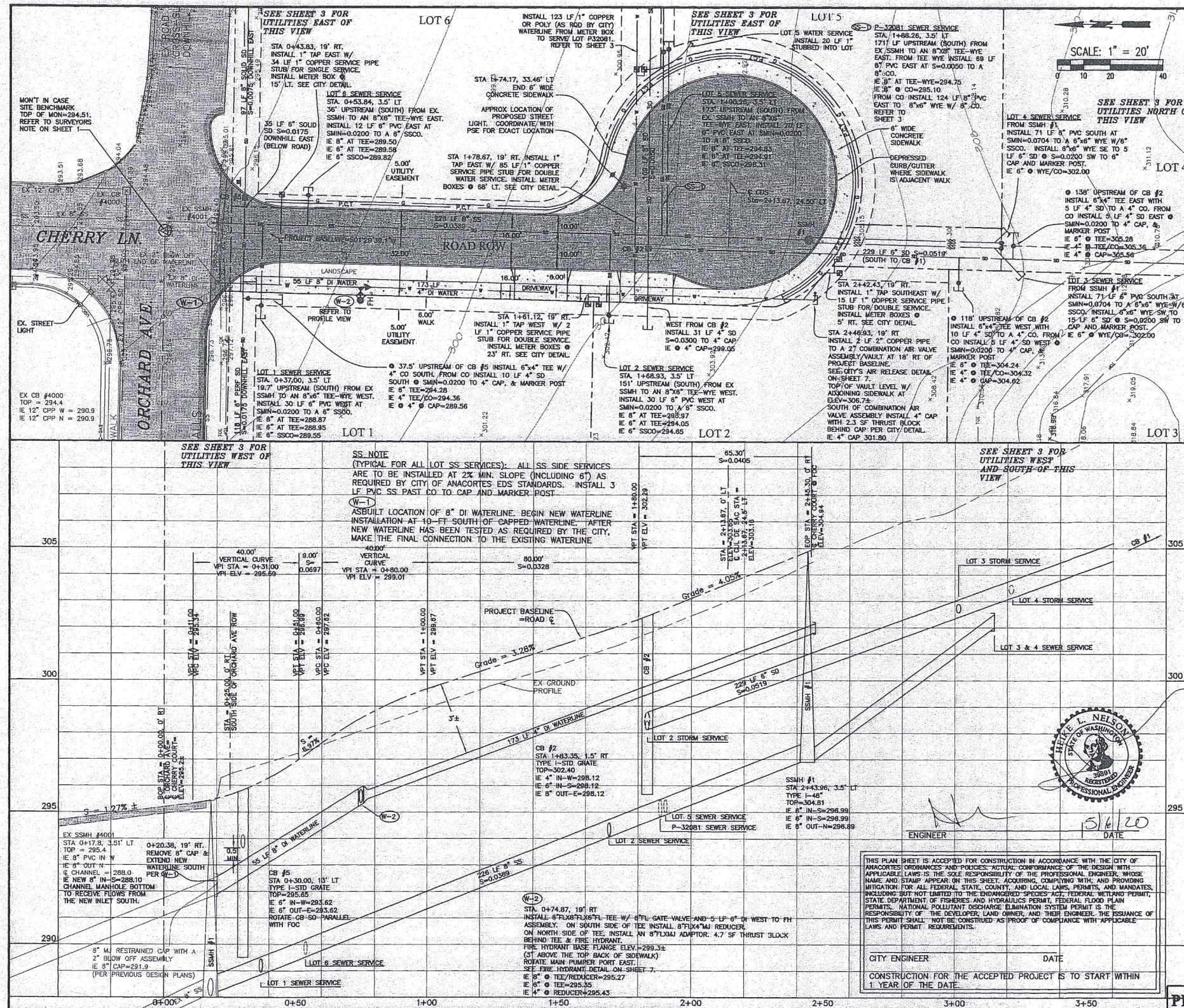
SHEET TITLE:

**CHERRY COURT
SHORT PLAT
FOR
CORNER 9 PROPERTIES, LLC
SW 1/4 SECTION 25, T. 35 N., R. 1 E., W.M.**

DRAWING NO.
19013SITE.dwg
JOB NO.
19013
SHEET NO.
3 OF 11

THIS PLAN SHEET IS ACCEPTED FOR CONSTRUCTION IN ACCORDANCE WITH THE CITY OF ANACORTES ORDINANCES AND POLICES. ACTUAL CONFORMANCE OF THE DESIGN WITH APPLICABLE LAWS IS THE SOLE RESPONSIBILITY OF THE PROFESSIONAL ENGINEER, WHOSE NAME AND SEAL APPEAR ON THIS SHEET. ACCORDING, COMPLYING WITH, AND PROVIDING MITIGATION FOR ALL FEDERAL, STATE, COUNTY, AND LOCAL LAWS, PERMITS, AND MANDATES, INCLUDING BUT NOT LIMITED TO THE ENDANGERED SPECIES ACT, FEDERAL WETLAND PERMIT, STATE DEPARTMENT OF FISHERIES AND HYDRAULICS PERMIT, FEDERAL FLOOD PLAIN PERMITS, NATIONAL POLLUTANT DISCHARGE ELIMINATION SYSTEM PERMIT IS THE RESPONSIBILITY OF THE DEVELOPER/LAND OWNER, AND THEIR ENGINEER. THE ISSUANCE OF THIS PERMIT SHALL NOT BE CONSTRUED AS PROOF OF COMPLIANCE WITH APPLICABLE LAWS AND PERMIT REQUIREMENTS.

CITY ENGINEER _____ DATE _____
CONSTRUCTION FOR THE ACCEPTED PROJECT IS TO START WITHIN 1 YEAR OF THE DATE



REV. NO.	REVISION	DATE	BY	APPROVED

Ravnik & Associates, Inc.
CIVIL ENGINEERING & LAND-USE PLANNING
1633 LINDAMOOD LANE/PO. BOX 361
BURLINGTON, WA 98233
PH: (360) 707-2048 FAX: (360) 707-2216

PLAN & PROFILE

PLAN STATUS:

SCALE: HORIZ. 1"=20'
VERT. 1"=2'

DRAWN BY: DLR
CHECKED BY: HLN
DATE: 05.06.20

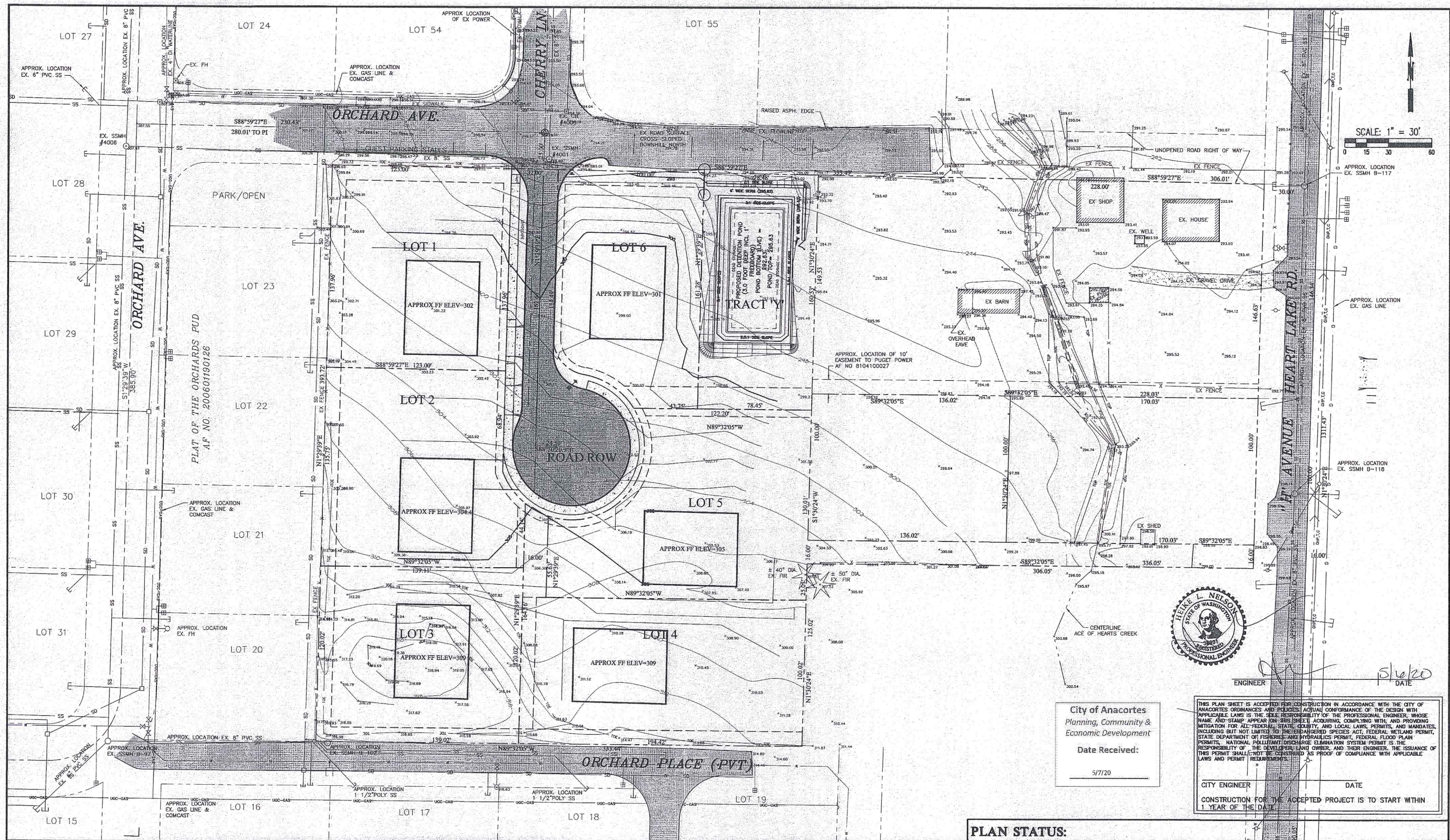
SHEET TITLE:

**CHERRY COURT
SHORT PLAT
FOR
CORNER 9 PROPERTIES, LLC
SW 1/4 SECTION 25, T. 35 N., R. 1 E., W.M.**

DRAWING NO.:
19013SITE.dwg

JOB NO.:
19013

SHEET NO.:
4 OF 11



REV. NO.	REVISION	DATE	BY	APPROVED

Ravnik & Associates, Inc.
CIVIL ENGINEERING & LAND-USE PLANNING
1633 LINDAMOOD LANE/P.O. BOX 361
BURLINGTON, WA 98233
PH: (360) 707-2048 FAX: (360) 707-2216

SHEET DESCRIPTION:
LOT GRADING EXHIBIT

PLAN STATUS:

SCALE: 1"=30'

DRAWN BY: HLN

CHECKED BY: HLN

DATE: 05.08.20

SHEET TITLE:
**CHERRY COURT
SHORT PLAT
FOR
CORNER 9 PROPERTIES, LLC
SW 1/4 SECTION 25, T. 35 N., R. 1 E., W.M.**

DRAWING NO.
19013SITE.dwg
JOB NO.
19013
SHEET NO.
5 OF 11

CITY OF ANACORTES
Planning, Community & Economic Development
Date Received:
5/7/20

THIS PLAN SHEET IS ACCEPTED FOR CONSTRUCTION IN ACCORDANCE WITH THE CITY OF ANACORTES ORDINANCES AND POLICIES. ACTUAL CONFORMANCE OF THE DESIGN WITH APPLICABLE LAWS IS THE SOLE RESPONSIBILITY OF THE PROFESSIONAL ENGINEER, WHOSE NAME AND SEAL APPEAR ON THIS SHEET. ACQUIRING, COMPLYING WITH, AND PROVIDING MITIGATION FOR ALL FEDERAL, STATE, COUNTY, AND LOCAL LAWS, PERMITS, AND MANDATES, INCLUDING BUT NOT LIMITED TO THE ENDANGERED SPECIES ACT, FEDERAL WETLAND PERMIT, STATE DEPARTMENT OF FISHERIES AND HYDRAULICS PERMIT, FEDERAL FLOOD PLAIN PERMIT, NATIONAL POLLUTANT DISCHARGE ELIMINATION SYSTEM PERMIT IS THE RESPONSIBILITY OF THE DEVELOPER/LAND OWNER, AND THEIR ENGINEER. THE ISSUANCE OF THIS PERMIT SHALL NOT BE CONSTRUED AS PROOF OF COMPLIANCE WITH APPLICABLE LAWS AND PERMIT REQUIREMENTS.

CITY ENGINEER
CONSTRUCTION FOR THE ACCEPTED PROJECT IS TO START WITHIN 1 YEAR OF THE DATE

THRUST BLOCK - TABLE									
PIPE SIZE	PRESSURE PSI	A	B	C	D	E	F	G	X
4"	150	0.10	0.10	0.10	0.10	0.10	0.10	0.10	0.10
6"	200	0.15	0.15	0.15	0.15	0.15	0.15	0.15	0.15
8"	250	0.20	0.20	0.20	0.20	0.20	0.20	0.20	0.20
10"	300	0.25	0.25	0.25	0.25	0.25	0.25	0.25	0.25
12"	350	0.30	0.30	0.30	0.30	0.30	0.30	0.30	0.30
14"	400	0.35	0.35	0.35	0.35	0.35	0.35	0.35	0.35
16"	450	0.40	0.40	0.40	0.40	0.40	0.40	0.40	0.40
18"	500	0.45	0.45	0.45	0.45	0.45	0.45	0.45	0.45
20"	550	0.50	0.50	0.50	0.50	0.50	0.50	0.50	0.50
24"	600	0.60	0.60	0.60	0.60	0.60	0.60	0.60	0.60

1" = 3/4" DIA. RODS FOR 10" SIZE & SMALLER
2" = 1" DIA. RODS LARGER THAN 10" SIZE

GATE VALVE
SAFE BEARING LOADS IN LBS. PER SQ. FT. THE SAFE BEARING LOADS GIVEN IN THE FOLLOWING TABLE ARE FOR HORIZONTAL THRUSTS WHEN THE DEPTH OF COVER OVER THE PIPE EXCEEDS 3 FEET.

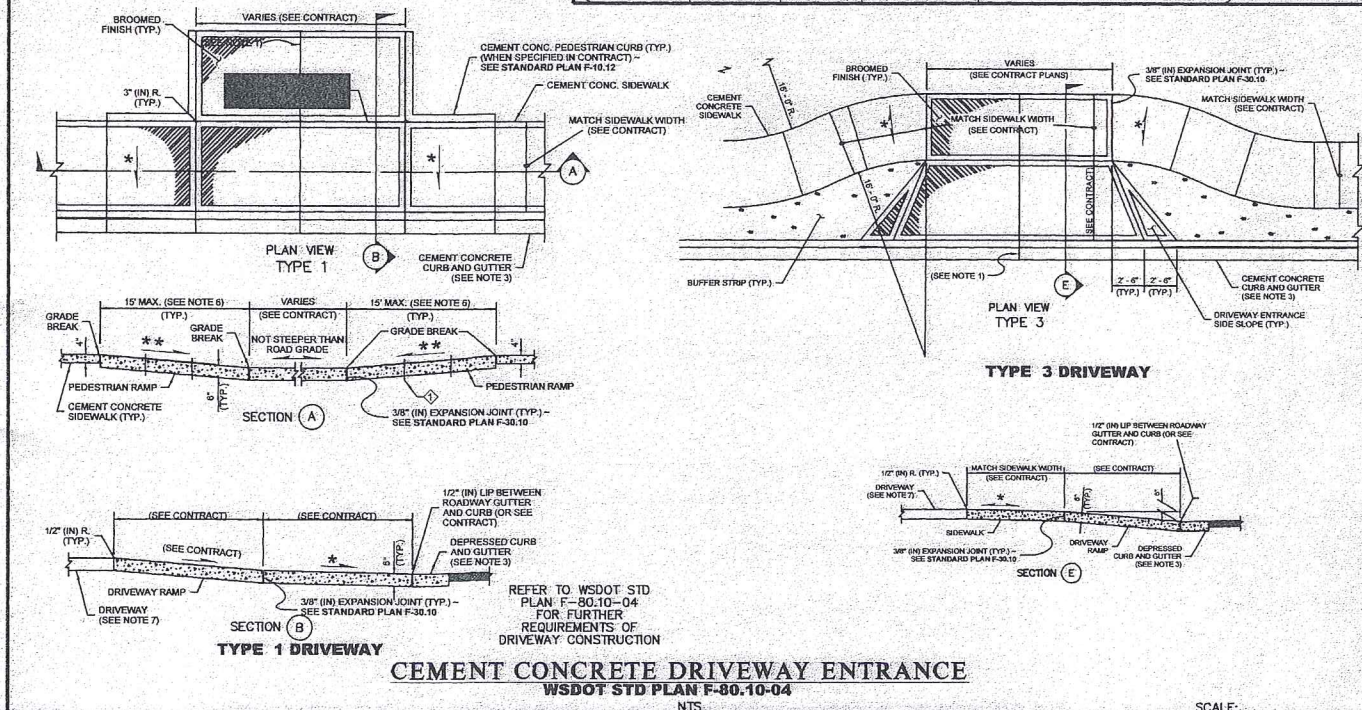
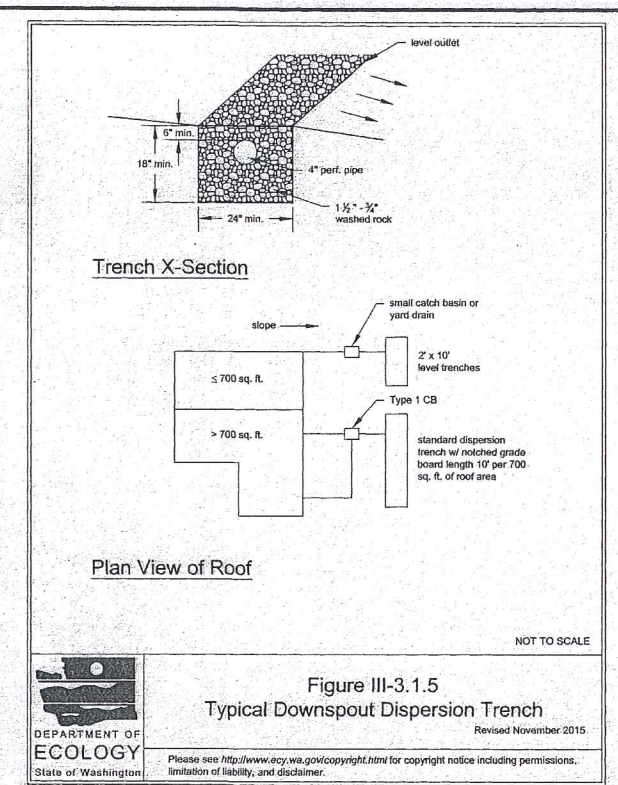
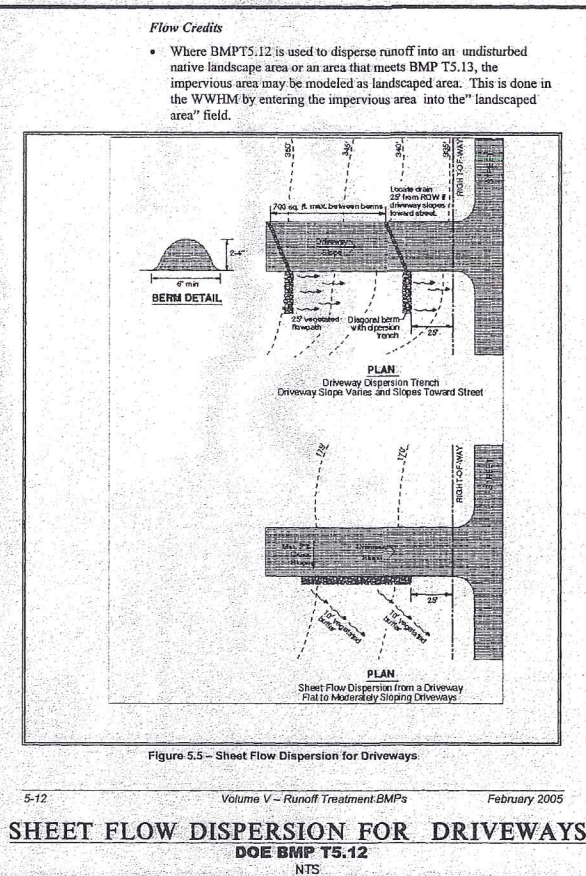
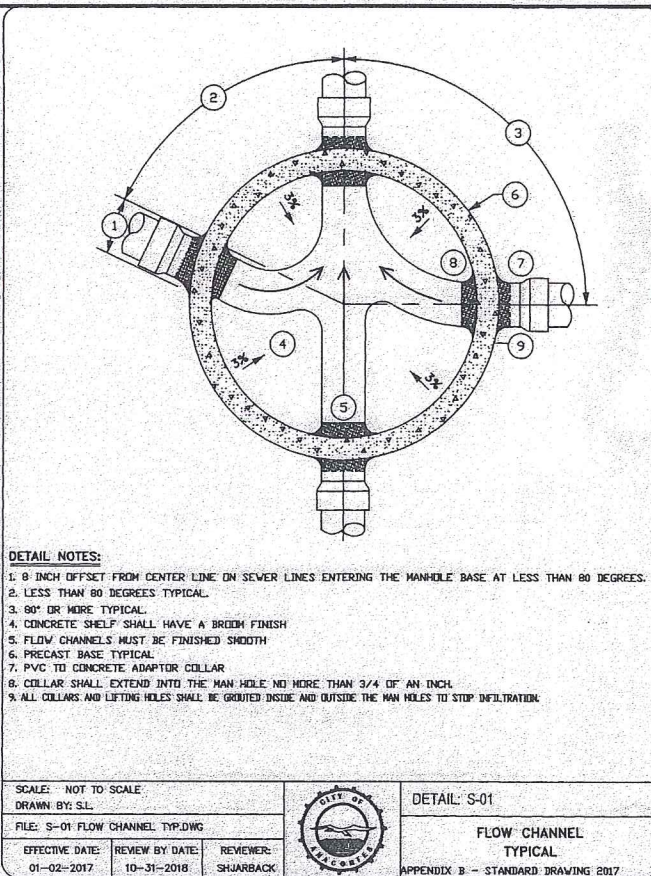
SOIL	SAFE BEARING LOAD LBS. PER SQ. FT.
WELL SORTED, ETC.	8
SAND	2,000
SAND AND GRAVEL	3,000
COARSELY GRADED SAND	4,000
GRAVEL	10,000

IF WOOD OR PEAT, ALL THRUSTS SHALL BE RESTRAINED BY PILES OR BY SOLID FOUNDATIONS OR BY REMOVAL OF WOOD OR PEAT AND REPLACEMENT WITH BALLAST OF SUFFICIENT STABILITY TO RESIST THRUST.

SCALE: NOT TO SCALE
DRAWN BY: S.L.

FILE: WA-07 TBL.DWG
EFFECTIVE DATE: 11-16-2018
REVIEW BY DATE: 07-15-2020
REVIEWER: SHARBACK

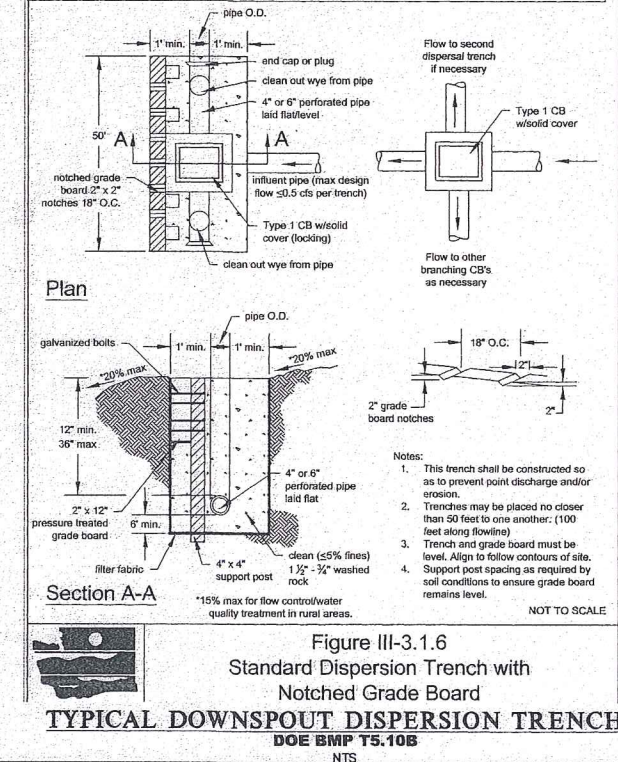
DETAIL: WA-08
THRUST BLOCKING HORIZONTAL BENDS AND VALVES
APPENDIX C - STANDARD DRAWING 2018



THIS PLAN SHEET IS ACCEPTED FOR CONSTRUCTION IN ACCORDANCE WITH THE CITY OF ANACORTES ORDINANCES AND POLICES. ACTUAL CONFORMANCE OF THE DESIGN WITH APPLICABLE LAWS IS THE SOLE RESPONSIBILITY OF THE PROFESSIONAL ENGINEER, WHOSE NAME AND SEAL APPEAR ON THIS SHEET. ACQUIRING, COMPLYING WITH, AND PROVIDING MITIGATION FOR ALL FEDERAL, STATE, COUNTY, AND LOCAL LAWS, PERMITS, AND MANDATES, INCLUDING BUT NOT LIMITED TO THE ENDANGERED SPECIES ACT, FEDERAL WETLAND PERMIT, STATE DEPARTMENT OF FISHERIES AND HYDRAULICS PERMIT, FEDERAL FLOOD PLAIN PERMITS, NATIONAL POLLUTANT DISCHARGE ELIMINATION SYSTEM PERMIT IS THE RESPONSIBILITY OF THE DEVELOPER, LAND OWNER, AND THEIR ENGINEER. THE ISSUANCE OF THIS PERMIT SHALL NOT BE CONSTRUED AS PROOF OF COMPLIANCE WITH APPLICABLE LAWS AND PERMIT REQUIREMENTS.

CITY ENGINEER: _____ DATE: _____

CONSTRUCTION FOR THE ACCEPTED PROJECT IS TO START WITHIN 1 YEAR OF THE DATE.



REV. NO.	REVISION	DATE	BY	APPROVED

Ravnik & Associates, Inc.
CIVIL ENGINEERING & LAND-USE PLANNING
1633 LINDAMOOD LANE/P.O. BOX 361
BURLINGTON, WA 98233
PH: (360) 707-2048 FAX: (360) 707-2216

SHEET DESCRIPTION:

SCALE:

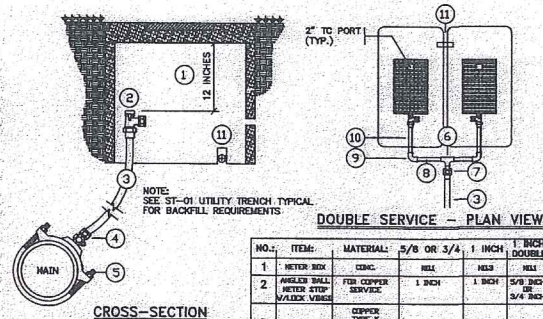
DETAILS

PLAN STATUS:

SCALE: AS SHOWN
DRAWN BY: D. RENSEN
CHECKED BY: HLN
DATE: 05.06.20

SHEET TITLE:
**CHERRY COURT
SHORT PLAT
FOR
CORNER 9 PROPERITES, LLC
SW 1/4 SECTION 25, T. 35 N., R. 1 E., W.M.**

DRAWING NO.
19013.DET.dwg
JOB NO.
19013
SHEET NO.
7 OF 11



NO.	ITEM	MATERIAL	5/8 OR 3/4	1 INCH	1 1/2 INCH
1	METER BOX	CONC.	NEE	NEE	NEE
2	ANGLED BALL VALVE STOP	FOR COPPER SERVICE	1 INCH	1 INCH	1 INCH
3	PIPE	COPPER TYPE K	1 INCH	1 INCH	1 INCH
4	CORP. STOP	FOR COPPER SERVICE	1 INCH	1 INCH	1 INCH
5	SAMPLE	BRASS BODY 1/2 IN. BRASS STRAP BRONZE BRASS	1 INCH	1 INCH	1 INCH
6	TEE	BRASS	1 INCH	1 INCH	1 INCH
7	ADAPTER	BRASS	1 INCH	1 INCH	1 INCH
8	PIPE	BRASS	1 INCH	1 INCH	1 INCH
9	90° ELBOW	BRASS	1 INCH	1 INCH	1 INCH
10	PIPE	BRASS	1 INCH	1 INCH	1 INCH
11	CONDUIT	PVC	2 INCH	2 INCH	2 INCH

WATER SERVICE NOTES:

A. SEE EDS STANDARDS 102-20 FOR METER BOX SIZES.

B. METER WILL BE PROVIDED BY THE CITY AFTER FEES ARE PAID.

C. ANGLED BALL VALVE STOP AND CORP. STOP SHALL BE WELDED 110, FORD QUICK OR AN McDONALD JOINT COMPRESSION FITTING, OR APPROVED EQUAL.

D. THE SADDLE SHALL BE RESEALED IN 8 MIL POLY BANDING. THE CORP. AND COPPER SERVICE SHALL BE WRAPPED IN TAPE 3"-4" FOR CATHODIC PROTECTION.

E. OWNER SHALL SUPPLY PRESSURE REDUCING VALVE AT BUILDING ENTRANCE IF STATIC OR FIRE PUMP PRESSURE EXCEEDS 80 PSI.

F. FOR DOUBLE SERVICE, A U-BRANCH MUELLER MODEL NO. 15-364 OR OR EQUAL MAY BE USED.

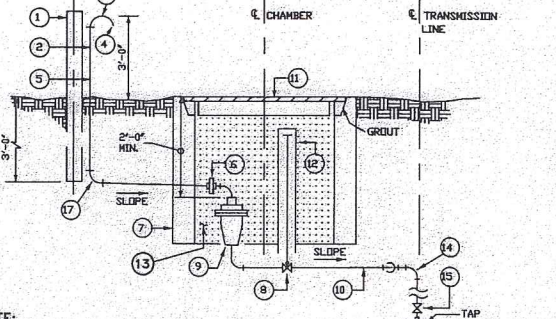
G. ALL FITTINGS SHALL BE IRON PIPE THREADS.

SCALE: NOT TO SCALE
DRAWN BY: S.L.

FILE: WA-04 SERV-SMALLDNG

EFFECTIVE DATE: 11-16-2018
REVIEW BY DATE: 07-15-2020
REVIEWER: SHARBACK

DETAIL: WA-04
WATER SERVICE UNDER 2"
APPENDIX C - STANDARD DRAWING 2018



NOTE:

1. LOCATE THE AIR RELEASE VALVE TAP AT THE HIGH POINT OF THE TRANSMISSION MAIN.

2. ALL FITTINGS SHALL BE IRON PIPE THREADS.

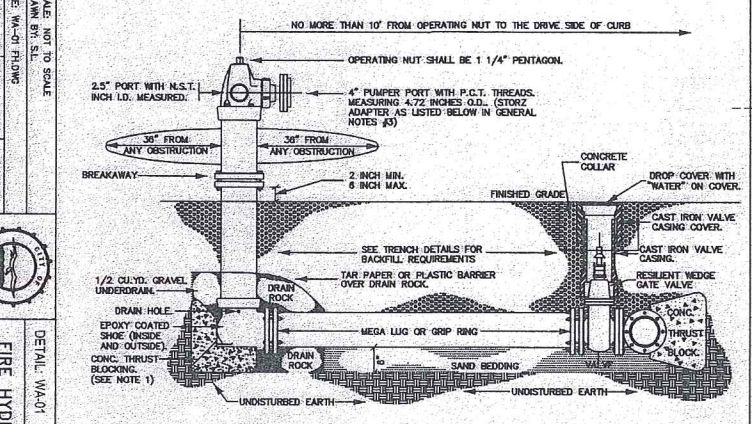
- LEGEND:**
- 1. ATTACH VENT TO 9"X6" CONCRETE POST
 - 2. STRAP VENT TO POST USING 1/4" X 1" STAINLESS STEEL STRAPS & 1/4" ANCHOR BOLTS
 - 3. 180° RETURN BEND
 - 4. 1/4" MESH BRONZE BIRD SCREEN
 - 5. 2" GALVANIZED STEEL PIPE
 - 6. 2" GALVANIZED IRON GROUND JOINT UNION (2 REQ'D)
 - 7. #2 METER BOX OR 3/4" PRECAST MANHOLE SECTION 36" LONG
 - 8. 2" RESILIENT WEDGE GATE VALVE W/2" NUT EPOXY COATED
 - 9. 2" COMBINATION AIR RELEASE/AIR VACUUM VALVE TO BE DETERMINED BY ENGINEERING.
 - 10. 2" COPPER PIPE OR MUNCIPLEX A W/ SS INSERTS
 - 11. 5/16" DIAMOND PLATE TRAFFIC RATED COVER
 - 12. PROVIDE 6" ALUMINUM OR PLASTIC DUCT FOR VALVE BOX TO WITHIN SIX (6) INCHES OF THE SURFACE. PROVIDE COVER FOR DUCT.
 - 13. INSULATE WITH 1.5" RIGID STYROFOAM
 - 14. BRASS 90° BENDS
 - 15. 2" CORP. VALVE
 - 16. LINE SIZE BRASS SADDLE W/2" I.P. TAP
 - 17. DRILL 1/8" HOLE FOR DRAIN

SCALE: NOT TO SCALE
DRAWN BY: S.L.

FILE: WA-05 2 AIR REDDING

EFFECTIVE DATE: 11-16-2018
REVIEW BY DATE: 07-15-2020
REVIEWER: SHARBACK

DETAIL: WA-07
2 INCH COMBINATION AIR RELEASE/VACUUM BREAKER VALVE
APPENDIX C - STANDARD DRAWING 2018



FIRE HYDRANT NOTES:

1. A THIRST BLOCK SHALL BE PLACED AT THE BACK OF THE HYDRANT SHADE FROM THE DITCH BOTTOM TO A POINT 3/4" OF THE WAY UP THE BACK OF THE SHOE AND "Y" SHAPED TO SOLID GROUND AND SHALL BE A MINIMUM OF 2'-0" WIDE AT THIS POINT AND SHALL NOT OBSTRUCT BOLTS OR DRAIN HOLES ON THE SHOE. ALL BOLTS BELOW GRADE SHALL BE CHECKED FOR TIGHTNESS BEFORE BACKFILLING. THE USE OF MEGA-LUGS OR GRIP RINGS IS ALSO ACCEPTABLE.

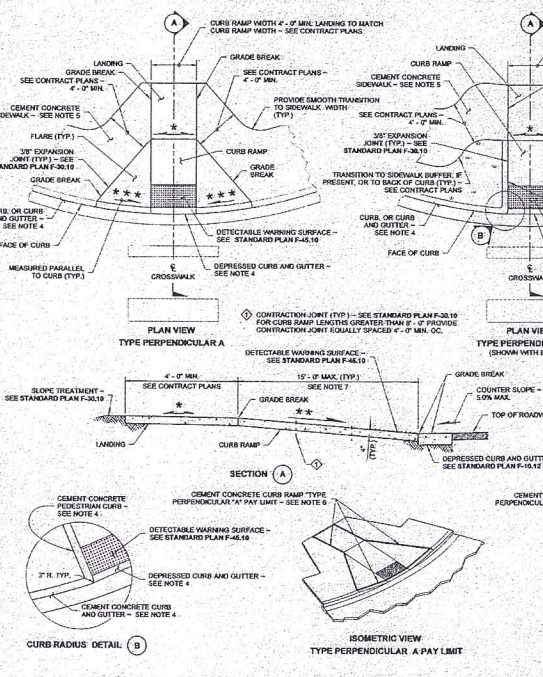
2. THE FOLLOWING HYDRANTS HAVE BEEN ACCEPTED AS A STANDARD BY THE CITY OF ANACORTES: MUELLER (SUPER CENTURION 200), EAST JORDAN AND MHL.

3. RED HEAD BRAND OR EQUIVALENT WITH 9" STORZ RIGID FEMALE ADAPTER WITH CAP AND CABLE.

PAV'S WINGS TO BE STAMPED WITH 1" CONSTRUCTION FENCING OR 3/4 INCH BULTRY FENCING

DWD = WHITE OR BLACK IN COLOR

ALL SIDEWALK RAMPS TO BE STAMPED, PER EDS STANDARDS, CHAPTER-3. DETECTIBLE WARNING DEVICES SHALL BE EITHER "WHITE OR BLACK" IN COLOR ALONG CITY STREETS AND "YELLOW" ALONG WSDOT ROUTES.



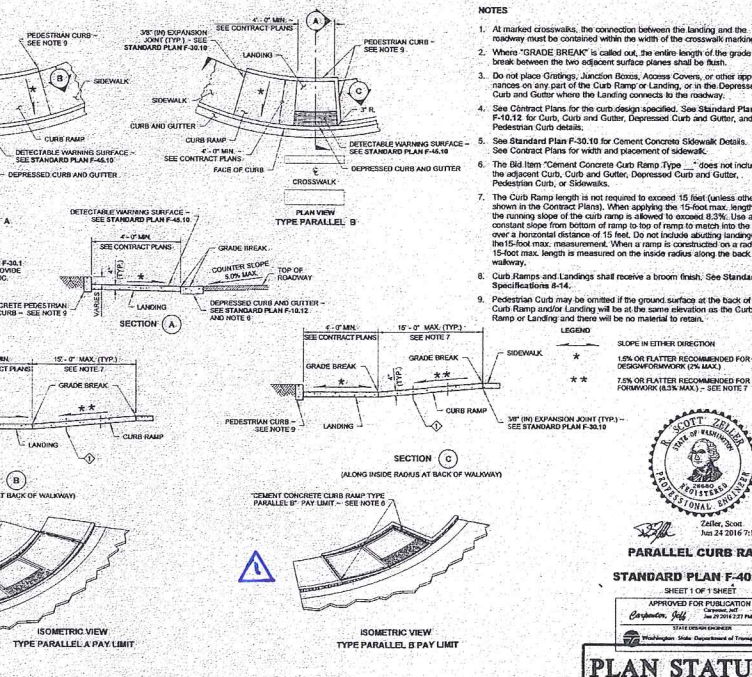
CONTRACTOR IS RESPONSIBLE FOR GRADING SIDEWALK SURROUNDING RAMPS AS NEEDED TO BE ABLE TO PROVIDE REQUIRED LANDING AND/OR RAMP TO ROAD GRAD.

- NOTES:**
- At marked crosswalks, the connection between the curb ramp and the roadway must be contained within the width of the crosswalk markings.
 - Where "GRADE BREAK" is called out, the entire length of the grade break between the two adjacent surface planes shall be flush.
 - Do not place Gratings, Junction Boxes, Access Covers, or other appurtenances on any part of the Curb Ramp or Landing, or in front of the Curb Ramp where it connects to the roadway.
 - See Contract Plans for the curb design specified. See Standard Plan F-10.12 for Curb, Curb and Gutter, Depressed Curb and Gutter, and Pedestrian Curb details.
 - See Standard Plan F-30.18 for Cement Concrete Sidewalk Details. See Contract Plans for width and placement of sidewalk.
 - The 841 Item "Cement Concrete Curb Ramp Type" does not include the adjacent Curb, Curb and Gutter, Depressed Curb and Gutter, and Pedestrian Curb or Sidewalk.
 - The Curb Ramp length is not required to exceed 15 feet (unless shown otherwise in the Contract Plans). When applying the 15-foot max. length, the running slope of the Curb Ramp is allowed to exceed 8.3%. Use a single constant slope from bottom of ramp to top of ramp to match into the existing landing in the 15-foot max. measurement. Do not include the existing landing in the 15-foot max. measurement.
 - Curb Ramps and Landings shall receive a broom finish. See Standard Specifications 8-14.
 - Pedestrian Curb may be omitted if the ground surface at the back of the Curb Ramp and/or Landing will be at the same elevation as the Curb Ramp or Landing and there will be no material to retain.

LEGEND:

- SLOPE IN EITHER DIRECTION
- 15% OR FLATTER RECOMMENDED FOR DESIGN/CONSTRUCTION (8.3% MAX.)
- 7.5% OR FLATTER RECOMMENDED FOR DESIGN/CONSTRUCTION (8.3% MAX.)
- 9.5% OR FLATTER RECOMMENDED FOR DESIGN/CONSTRUCTION (8.3% MAX.)

CONTRACTOR JOINT (TYP.) - SEE STANDARD PLAN F-30.1 FOR CURB RAMP LENGTHS GREATER THAN 15 FEET. PROVIDE CONTRACTION JOINT EQUALLY SPACED 4'-0" MIN. OC.



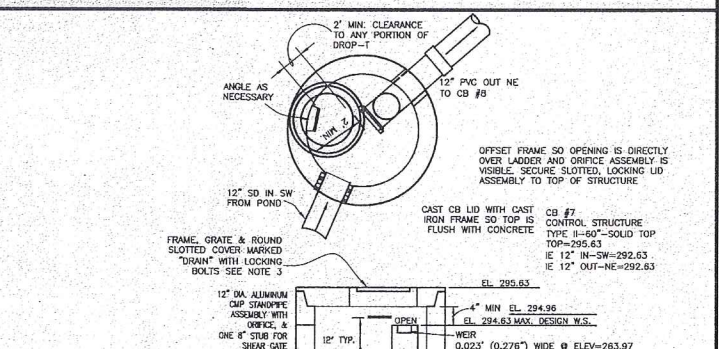
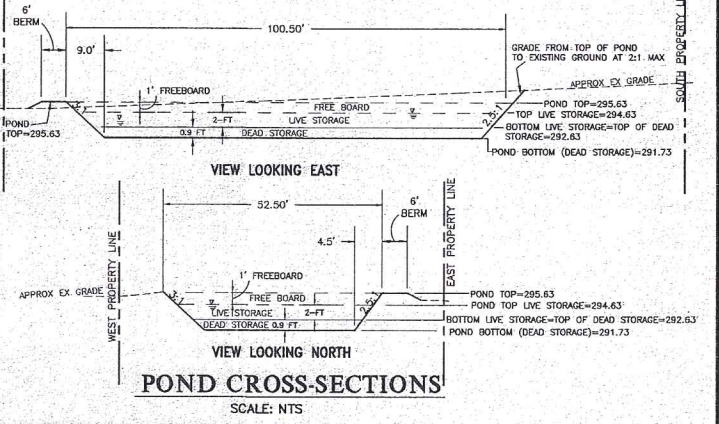
PLAN STATUS:

SCALE: AS SHOWN

DRAWN BY: D. REMSEN

CHECKED BY: HLN

DATE: 05.06.20



NOTES:

- USE 60" DIAMETER CATCH BASIN TYPE 2.
- METAL PARTS ALL METAL PARTS MUST BE ALUMINUM OR MADE OF ALUMINIZED STEEL.
- FRAME AND LADDER OR STEPS OFFSET SO:
 - A. CLEANOUT GATE IS VISIBLE FROM TOP.
 - B. CLIMB-DOWN SPACE IS CLEAR OF RISER AND CLEANOUT GATE.
- PROVIDE AT LEAST ONE 3" x 0.090 GAGE SUPPORT BRACKET ANCHORED TO CONCRETE WALL (MAX. 3'-0" VERTICAL SPACING).

PROPOSED CB #7 CONTROL STRUCTURE

NTS

ENGINEER: HUIKE L. NELSON, PROFESSIONAL ENGINEER

DATE: 5/6/20

CITY ENGINEER: DATE

CONSTRUCTION FOR THE ACCEPTED PROJECT IS TO START WITHIN 1 YEAR OF THE DATE.

REV. NO.	REVISION	DATE	BY	APPROVED

Ravnik & Associates, Inc.
CIVIL ENGINEERING & LAND-USE PLANNING
1633 LINDAMOOD LANE/P.O. BOX 361
BURLINGTON, WA 98223
PH: (360) 707-2048 FAX: (360) 707-2216

SHEET DESCRIPTION:

DETAILS

CHERRY COURT SHORT PLAT

FOR CORNER 9 PROPERITES, LLC

SW 1/4 SECTION 25, T. 35 N., R. 1 E., W.M.

DRAWING NO. 19013.DET.dwg

JOB NO. 19013

SHEET NO. 8 OF 11



ANACORTES PUBLIC WORKS DEPARTMENT

Steven Lange, Project Manager

P.O. BOX 547, ANACORTES, WA 98221

E-MAIL: stevel@cityofanacortes.org

PH(360) 293-1920

FAX(360) 293-1938

Review Summary 1

Date: July 6, 2020

To: Libby Grage, Planning Manager

From: Steven Lange

Subject: Review Summary for proposed Cherry Court Short Plat
(PW#20-142-DEV)

cc: Fred Buckenmeyer, Eric Shjarback, Don Measamer

A review of the associated documents for the proposed Cherry Court Short Plat was completed by the Public Works Engineering Department on July 6, 2020.

This review takes into consideration the following submittals and reviews by others:

1. 05-06-20: Drainage Report and construction plan submitted
2. 06-15-20: Review Summary by Gray and Osborne

Below are the findings.

1. Drainage Report: Please see the attached June 15, 2020 Review Summary by Gray and Osborne.
2. Sheet 3: Return radius on the east side of intersection at Orchard Avenue needs to be a 25' Radius for street sweeping.
3. Sheet 3: Utility easement between Lot 5 and Lot 6 – clarification question, a total of 20-feet to the City of Anacortes? Or 15' to the City of Anacortes and 5-feet to P32081?
4. Sheet 3: Utility easement between Lot 5 and Lot 6: Turning radius for vac truck to reach structures. In other areas, we have similar designs, but when the property owner constructs a fence or large retaining wall at the corner, the radius is significantly reduced.
5. Sheet 3: P32081 appears to be land locked from any street frontage or access. Where is the frontage considered for this property?
6. Sheet 3: Monument in case installed in the Cul-de-Sac as well. Per EDS Standards, Chapter 3 – Streets, Section STR-25 Monuments.
7. Sheet 6: Typical Cross-section – landscape zone width is shown to be 5.5'. Sheet 3, identifies the width to be 6-feet, which aligns with AMC Table 19.52.040(E).



- Water • Wastewater • Streets • Storm Drainage • Engineering • Solid Waste
- Transportation • Equipment • Capital Projects • Development Services

8. Sheet 8: Curb Ramp Details – All curb ramps shall have the pan and wings stamped with either 1-inch construction fencing or ¾ inch poultry fencing, per EDS Standard, Chapter 3 – Streets, Section STR-06.

Additionally, the color of the Detectable Warning Devices for the City of Anacortes is either Black or White, unless adjacent to the WSDOT corridor, then it is Yellow.

Enclosed



- Water • Wastewater • Streets • Storm Drainage • Engineering • Solid Waste
- Transportation • Equipment • Capital Projects • Development Services

From: [Koegel, Matt](#)
To: [Grage, Libby](#)
Subject: RE: Request for Review: SPL-2020-0003 Cherry Court Short Plat & CUP
Date: Monday, May 18, 2020 2:26:48 PM

Make road way entering and leaving big enough for garbage/recycling trucks to enter & turn around exiting without having to back out. Unless customers plan on bringing garbage/recycling out to Heart Lake Rd. for service.

Matt Koegel
Solid Waste Supervisor

From: Grage, Libby <LibbyB@cityofanacortes.org>
Sent: Monday, May 18, 2020 2:11 PM
To: Development Review Group <DevelopmentReviewGroup@cityofanacortes.org>
Subject: Request for Review: SPL-2020-0003 Cherry Court Short Plat & CUP

Hi everyone,

Please review the attached application for a short subdivision and conditional use permit and provide comments for your department by **Monday, June 1, 2020**.

Thank you,

Libby Grage | City of Anacortes
Planning, Community & Economic Development Department
Planning Manager
P.O. Box 547 | 904 6th Street | Anacortes, WA 98221
360.299.1986 (work) | 360-661-3505 (work cell)
libbyb@cityofanacortes.org | www.cityofanacortes.org

My incoming and outgoing email messages are subject to public disclosure requirements per RCW 42.56.

From: [Larson, Bill](#)
To: [Grage, Libby](#)
Subject: RE: Request for Review: SPL-2020-0003 Cherry Court Short Plat & CUP
Date: Wednesday, May 27, 2020 11:40:22 AM

Good with streets.Bill Larson

From: Grage, Libby <LibbyB@cityofanacortes.org>
Sent: Monday, May 18, 2020 2:11 PM
To: Development Review Group <DevelopmentReviewGroup@cityofanacortes.org>
Subject: Request for Review: SPL-2020-0003 Cherry Court Short Plat & CUP

Hi everyone,

Please review the attached application for a short subdivision and conditional use permit and provide comments for your department by **Monday, June 1, 2020**.

Thank you,

Libby Grage | City of Anacortes
Planning, Community & Economic Development Department
Planning Manager
P.O. Box 547 | 904 6th Street | Anacortes, WA 98221
360.299.1986 (work) | 360-661-3505 (work cell)
libbyb@cityofanacortes.org | www.cityofanacortes.org

My incoming and outgoing email messages are subject to public disclosure requirements per RCW 42.56.

Exhibit 7

Public Comments

From: [R.L. Holmes](#)
To: [Grage, Libby](#)
Cc: [Sybil Holmes](#)
Subject: Cherry Court Feedback
Date: Saturday, June 13, 2020 6:55:06 AM

Hi Libby,

This is a follow-up to the Zoom meeting held on 9 JUN pertaining to the Cherry Court development.

I am the owner of 4417 Orchard Ave and note their development will directly abut our backyard and three others. We asked (typed) several questions of which two were unceremoniously skipped. One question was "How about some kind of commitment to minimally block views and take a staggered approach to building out" and "perhaps also place them closer to the front lot lines?"

My personal sense is that Landed Gentry is going to maximize building heights and configure lot development to accommodate future in-law suites or detached garages. In both cases, it would seem there is total disregard to being a "good neighbor" and proactively working to fit the new development in such a fashion as to be minimally invasive to the existing Orchards community.

My wife and I oppose this development (if such an option exists). In lieu of that, we understand available space is not infinite, the area continues to grow, and at some point - all available space will be built upon. If opposition is not an option, then we would at least appreciate Landed Gentry configuring their lots so as to allow the abutting Orchards Ave homes a view of Mt. Baker and the Bay. We really don't care to sit on our deck and overlook someone's backyard and asphalt shingle roof. Nor do we desire to assume the burden of additional depreciation when we decide to sell our home.

Our final point is that the on-street parking should be confined to within their Cherry Court roadway and not spillover into the existing community.

Any help that you and the City of Anacortes can provide to help focus their efforts would be greatly appreciated.

Best,
Bob and Sybil Holmes

David Lucas
4424 Orchard Ave.
Anacortes, WA 98221
360-293-0430
dnjlucas@comcast.net
07/01/2020

Libby Garge
Planning Manager
City of Anacortes
PO Box 547
Anacortes, WA 98221

Dear Libby Garge:

I am writing to comment on the proposal for parcel #P32077 under your application number SPL-2020-003 by Donald and Ronald Bayek.

The proposed subdivision will be adjacent and bordered on 3 sides by previously established homes of The Orchards. The Orchards was created in 2006, with considerable oversight by The City of Anacortes as a PUD, by the original developers, all of who still hold interest either personally or through family in the Orchards. The Orchards has a CC&R document which was signed by the Mayor of Anacortes outlining certain conditions on us as property owners. My concern is that this proposed development will set up 2 separate standards for people on one side of the street as opposed to the other side of the street as governed and set forth by the City of Anacortes.

The Bayeks are owners of 2 adjoining lots one of which has considerable frontage along H Avenue. By choosing not to use already owned property and strategically placing a retention pond separating the 2 parcels they are creating the need for a new road, Cherry Court, and access through a previously developed community. Should this application be granted by the city considerable thought should be placed on requiring this new community to live under the same restrictions that the City of Anacortes has already mandated to us and which lives in perpetuity with our properties.

I understand their desire to maximize profits by accessing through an already developed community however those profits should not come at a cost to other homeowners. Even more it should not grant greater rights than those afforded to other land owners.

My concerns are as follows.

1. Parking – The initial notice identified on street guest parking to be placed along Orchard Ave. In developing the Orchards PUD, the CC&R's signed by the Mayor of Anacortes states that "vehicles shall not be parked overnight on the street adjoining any lot". I would request that any guest parking created in the development be alongside Cherry Court within the development boundaries. Not doing so would create parking provisions where a neighbor on the south side of the street could park however the neighbor on the north side of the street would be prohibited from parking in the same spot. Not only would this create an enforcement nightmare but either would encourage contempt for a legal binding agreement or contempt between neighbors due to the City of Anacortes allotting differing level of rights to separate citizens.
2. Views – During the development of the Orchards conditions were set with height limits and building placement to protect the views of already existing homes on E Avenue. Additionally, the CC&Rs again signed by the Mayor of Anacortes requires vegetation on building lots to be maintained at a height that does not obstruct views of adjacent lots. These same requirements should also be placed to protect the views of homes along the west and south side of the proposed development. Not putting these requirements in place will be setting up a double standard requiring Orchard HOA lot owners to protect the views of homes uphill but not affording the same requirement to those below in a new development.
3. Water Run Off – It was stated in the pre-application meeting that the run-off for the retention pond would be dumped into Ace of Hearts Creek. Downstream on Ace of Hearts Creek the Orchards PUD has a land bridge that creates an upper retention area during times of heavy flow. This area has been severely eroded lately due to the City of Anacortes repeatedly removing the beaver dam from Heart Lake. This usually occurs during times of heavy rain when the lake level is already high. Currently water from the pasture land proposed to be developed does not flow into the creek but soaks into the ground and is released very slowly in all directions not just dumped into the creek. Any additional flow added to the Ace of Hearts Creek during seasonal flow will undoubtedly cause damage to downstream infrastructure. As in the previous comments here again The City of Anacortes mandates in our CC&R's that we as an HOA maintain the hydrology of this area. Not requiring the same for this proposed development will only shift the costs onto the adjacent lot owners.

Libby Garge

07/01/2020

Page 3

I am not overtly against the development of property nor the right for an owner to use their property for their benefit. What I am against is for the City of Anacortes to grant a change of use to a property owner where the cost for their profits are transferred to the neighboring property owners. I am also against the City setting up a double standard system where a person living on one side of the street has more or less rights as property owners than those living on the other side of the street. I do believe this project can be completed in a manner that benefits all of our area homeowners however to do so the City will need to take into consideration the requirements already placed on some of us and not grant a blanket approval taxing some of our citizens for the benefit of others.

Sincerely,

A handwritten signature in blue ink, appearing to read "David A. Lucas". The signature is fluid and cursive, with the first name "David" being the most prominent.

4424 Orchard Ave.
Anacortes, WA 98221

LUCAS
4424 ORCHARD AVE.
ANACORTES, WA 98221

SEATTLE WA 98101

30 JUN 2020 PM 5 L



Celebrating



FOREVER USA
1970-2020

LIBBY GRARGE
c/o CITY OF ANACORTES
PO BOX 547
ANACORTES, WA 98221

From: [Tom Kolega](#)
To: [Grage, Libby](#)
Subject: Cherry Lane / Orchard Avenue Project
Date: Sunday, July 5, 2020 7:49:57 AM

Hi Libby,

I'm writing to you about the subject development (assessor parcel #P32077).

After recently buying a home in the Orchards neighborhood, there's one specific aspect of this new proposed development project that we **strongly object**.

The developers cited a need to include "guest parking" as part of their development. However, instead of "designing" that requirement ***within*** their new development, they chose to place it on Orchard avenue, where parking is not currently allowed per the HOA agreement. We all bought our homes with the understanding there would not be parking on the streets - **this is how we want to keep it**. The developers should be required to align their designs to existing neighborhood policy, *especially since they have plenty of space to meet this requirement within their development space*. The current design plan creates disruption to what already exists for all the Orchard homeowners, specifically those being introduced to new parking right in front of their homes. It's unacceptable from our perspective and the city should require the developer to simply update the design choice made. Having the guest parking requirement met within the new development is the fairest solution.

Is it possible to get status on where this aspect of the development stands from your perspective?

Thanks,
Tom

July 8, 2020

From: Dorothy Vyskocil, 4305 and 4211 Orchard Ave, Anacortes, WA 98221, 360-293-2977

To: City of Anacortes, Planning Department

Re: File Number SPL-2020-0003

I have issues with this new development, Cherry Court, in regard to the apparent lack of concern in preserving the view of the immediately adjacent neighbors in The Orchards development, which border the south and west perimeters of this new development.

According to the information Brian Gentry discussed at the Neighborhood Zoom meeting on June 9, 2020, the large lots in this new development have a 35-foot height restriction on buildings and none on landscape, which could easily lead to extremely tall trees being planted, which could block the views from The Orchards homes, as well as placing tall buildings to obstruct their neighbors' views.

Landed Gentry, the developer of this new property, is fully knowledgeable of the height requirements The Orchards homeowners are held to, in order to preserve the views of Mount Baker for their neighbors, as Landed Gentry has built several homes in The Orchards. For their new development, Cherry Court, which is in the immediate sight lines of Mount Baker of many Orchards homes, to have no height restrictions on trees and potentially 35-foot tall homes and outbuildings is extremely inconsiderate and unneighborly, as well as quite possibly could negatively impart the values of those properties should they lose their views. When The Orchards was developed in the mid-2000's, it is my understanding that our developers respected the views of the uphill neighbors to the west of The Orchards, which includes Mayor Gere's home. It would be the decent and fair thing for Landed Gentry's Cherry Court development to do the same for their Orchards neighbors.

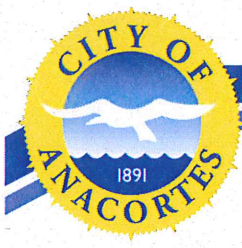
Sincerely,



Dorothy Vyskocil



Exhibit 8
Issued SEPA
Determination



STATE ENVIRONMENTAL POLICY ACT (SEPA)

Determination of Non-Significance (DNS)

PROJECT INFORMATION:	
Project Title	Cherry Court Short Plat & CUP
File Number	SPL-2020-0003
Site Address	South of the intersection of Cherry Lane and Orchard Ave.
APN(s)	P32077
Applicant	Landed Gentry Development Inc. / Corner 9 Properties, LLC
Landowner	Same
Application Date	May 7, 2020
Request	Preliminary short subdivision approval, a conditional use permit, and SEPA review to subdivide approximately 3.12 acres in the R1 zone into 6 residential lots and 1 detention pond tract. A portion of the site is bisected by the Ace of Hearts Creek, a designated FWHCA. No changes to the area near the creek are proposed. The project includes a new public road and frontage improvements on Orchard Avenue.

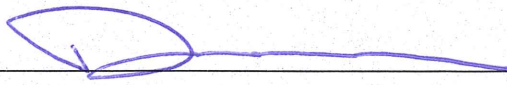
The City of Anacortes Department of Planning, Community & Economic Development has determined that this project does not have a probable significant adverse impact on the environment. An environmental impact statement (EIS) is not required under RCW § 43.21C.030(2)(c). This decision was made after review of a completed environmental checklist and other information on file with the lead agency. This information is available at <https://www.anacorteswa.gov/161/Planning-Community-Economic-Development> under "Public Notices".

This determination is based on the following findings and conclusions:

The proposal's conformance with existing Anacortes Municipal Code regulations and acquisition of applicable agency permits prior to site construction adequately address potential impacts of this project.

This DNS is issued under WAC 197-11-340(2) after using the Optional DNS process in WAC 197-11-355. There is no further comment period on this DNS.

Responsible Official: Don Measamer
Position & Title: Director of Planning, Community & Economic Development
Phone: (360)-299-1942
Email: don@cityofanacortes.org
Address: P.O. Box 547, Anacortes, Washington 98221

Signature: 

Date of Issuance: August 19, 2020

For further information, contact the City of Anacortes' Department of Planning, Community, & Economic Development at (360) 299-1984. The issuance of this Mitigated Determination of Non-significance should not be interpreted as acceptance or approval of the proposal as presented. The City of Anacortes reserves the right to deny or approve said proposal subject to conditions if it is determined to be in the best interests of the city and/or necessary for the general health, safety and welfare of the public to do so.

SEPA APPEAL PROCEDURE:

This environmental threshold determination may be appealed in accordance with the procedures outlined in AMC Chapter 18.04 and 19.20. Appeals must be on forms provided by the Planning, Community & Economic Department (PCED), contain the information specified in AMC 19.20.180.F, be accompanied by a filing fee of \$200, and be delivered to the City Clerk by mail or personal delivery by **5:00 PM, September 2, 2020**. Additional information regarding the appeal process may be obtained from City of Anacortes PCED, (360) 299-1984.



Anacortes Planning, Community & Economic Development Department

904 6TH Street / P.O. Box 547, Anacortes, WA 98221

360.299-1984 - Office Hours: Mon-Fri 8:00 AM – 5:00 PM

MEMO

To: Don Measamer, Planning Director, SEPA Responsible Official
From: Libby Grage, Planning Manager
Subject: SEPA Checklist Review – Staff Report
Date: August 18, 2020

PROJECT NAME: Cherry Court Short Plat and CUP

FILE NUMBER: SPL-2020-0003

APPLICANT & LANDOWNER: Corner 9 Properties, LLC – Landed Gentry Development, LLC
504 E. Fairhaven Ave.
Burlington, WA 98233

SITE ADDRESS: South of the intersection of Cherry Lane and Orchard Ave

PARCEL NUMBERS: P32077

PROJECT DESCRIPTION: The applicant requests preliminary approval of a 6 lot short subdivision for future development of 6 single family residences. The project includes site infrastructure improvements, including a new public street, utilities, and stormwater facilities.

Conditional use permit (CUP) approval is also requested due to a portion of the property being traversed by Ace of Hearts Creek, a designated Fish & Wildlife Habitat Conservation Area. No impacts are proposed to Ace of Hearts Creek as part of site development.

Staff Review & Amendments to the Environmental Checklist:

The following sections correspond with related categories of the environmental checklist submitted for the proposal (dated May 6, 2020), and clarify, amend, or add to that document.

Environmental Checklist / Environmental Elements

1. EARTH:

The environmental checklist adequately addresses the issues of this section.

2. AIR:

The environmental checklist adequately addresses the issues of this section.

3. WATER:

The environmental checklist adequately addresses the issues of this section.

4. PLANTS:

The environmental checklist adequately addresses the issues of this section.

5. ANIMALS:

The environmental checklist adequately addresses the issues of this section.

6. ENERGY & NATURAL RESOURCES:

The environmental checklist adequately addresses the issues of this section.

7. ENVIRONMENTAL HEALTH:

The environmental checklist adequately addresses the issues of this section.

8. LAND & SHORELINE USE:

The environmental checklist adequately addresses the issues of this section.

9. HOUSING:

The environmental checklist adequately addresses the issues of this section.

10. AESTHETICS:

The environmental checklist adequately addresses the issues of this section.

11. LIGHT & GLARE:

The environmental checklist adequately addresses the issues of this section.

12. RECREATION:

The environmental checklist adequately addresses the issues of this section.

13. HISTORIC AND CULTURAL PRESERVATION:

The environmental checklist adequately addresses the issues of this section.

14. TRANSPORTATION:

The environmental checklist adequately addresses the issues of this section.

15. PUBLIC SERVICES:

The environmental checklist adequately addresses the issues of this section.

16. PUBLIC UTILITIES:

The environmental checklist adequately addresses the issues of this section.

PUBLIC COMMENTS:

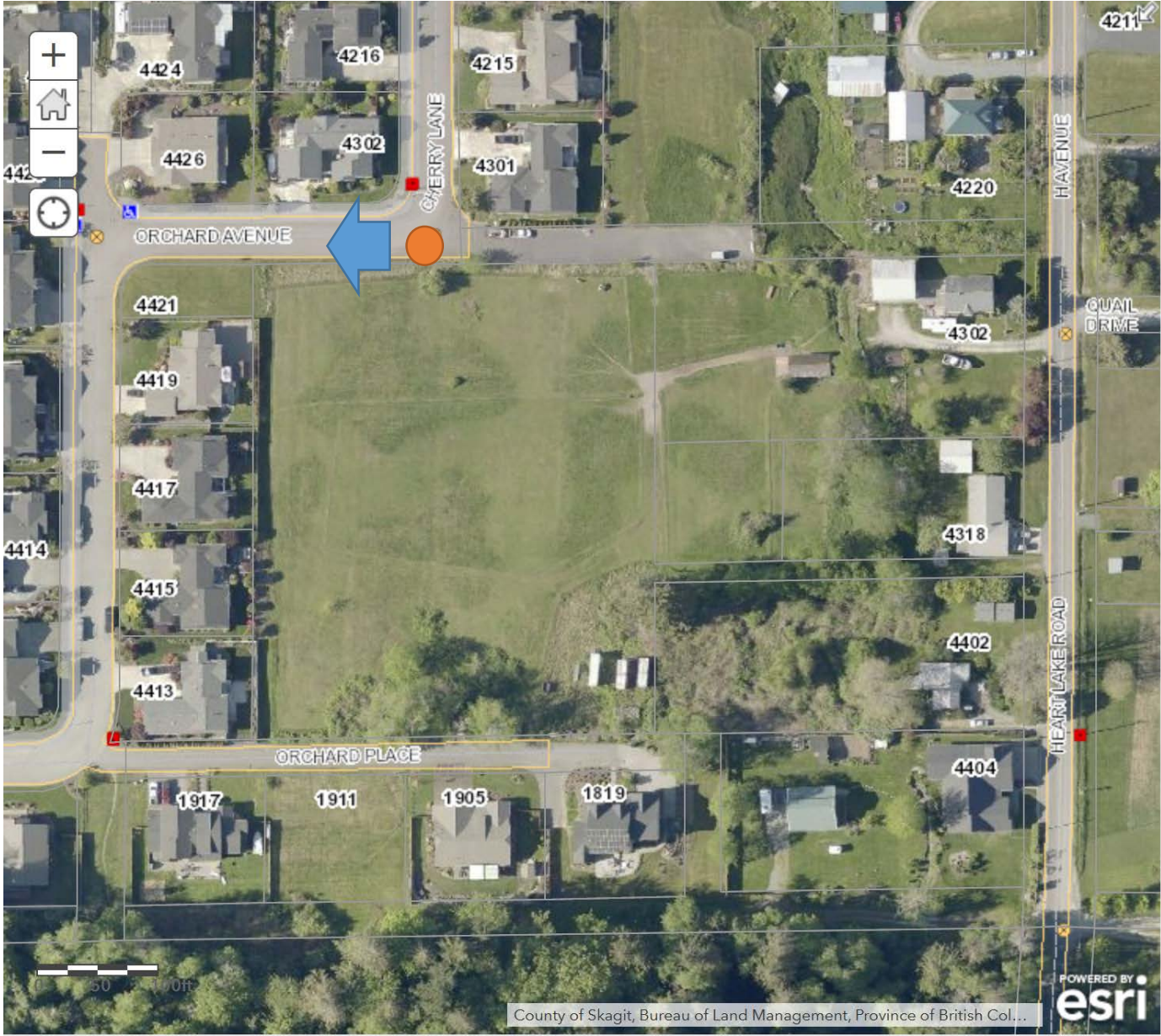
During the notice of application comment period several public comments were received. The primary concerns expressed are related to potential impacts of future new homes and trees to the views of existing surrounding development, guest parking location, and stormwater impacts. The Anacortes Municipal Code contains regulations related to guest parking location and stormwater facilities, which the proposal will be required to meet. The City of Anacortes has not established development regulations that protect views from private property. Public comments were considered in this environmental review.

CONCLUSIONS & RECOMMENDATIONS:

The environmental review indicates that there are no significant adverse environmental impacts from the subject proposal that cannot be mitigated through existing Anacortes Municipal Code land use and development regulations or through the authority of SEPA. Therefore, a Determination of Non-Significance (MDNS) is appropriate.

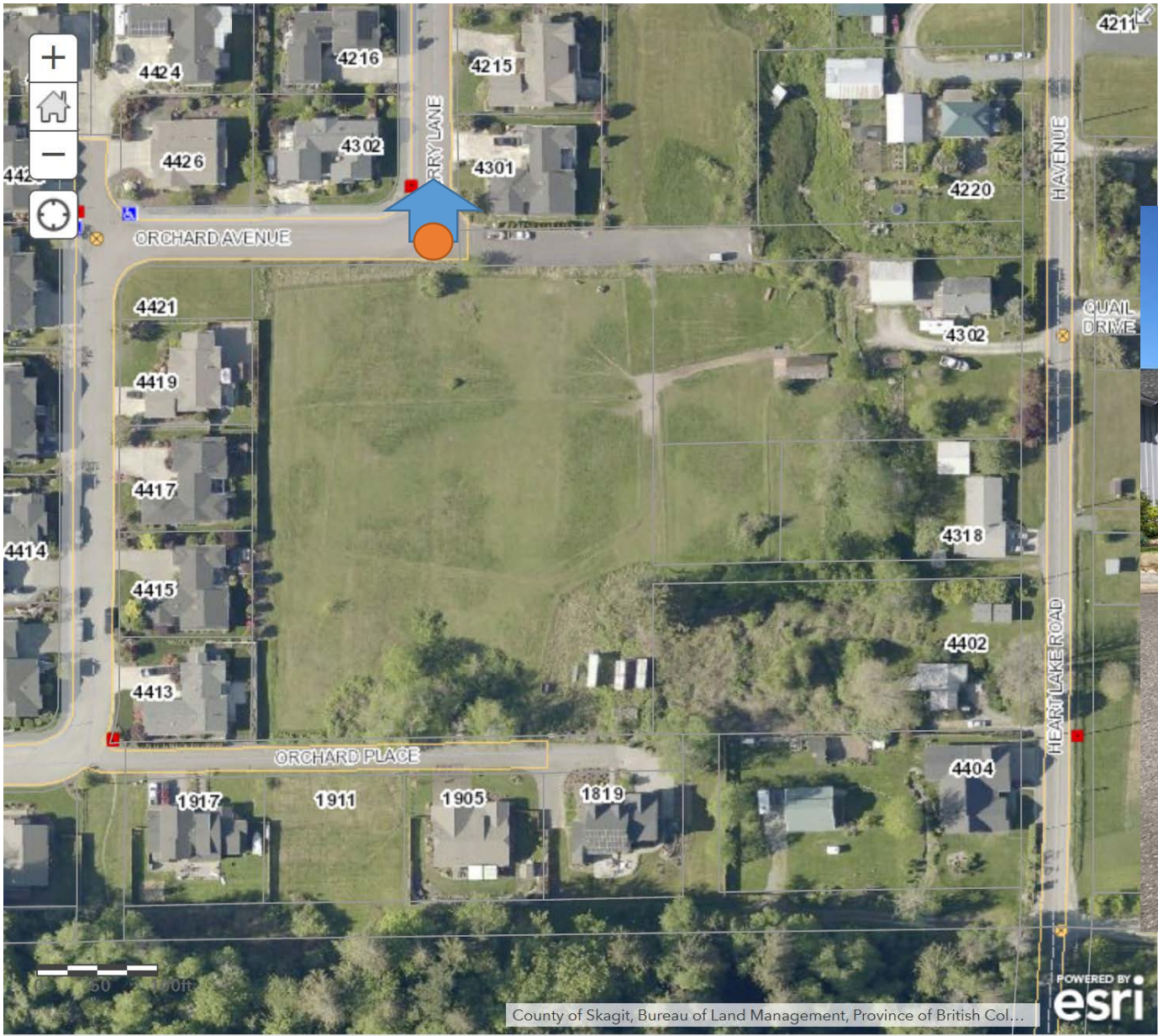
Exhibit 9

Site Photos



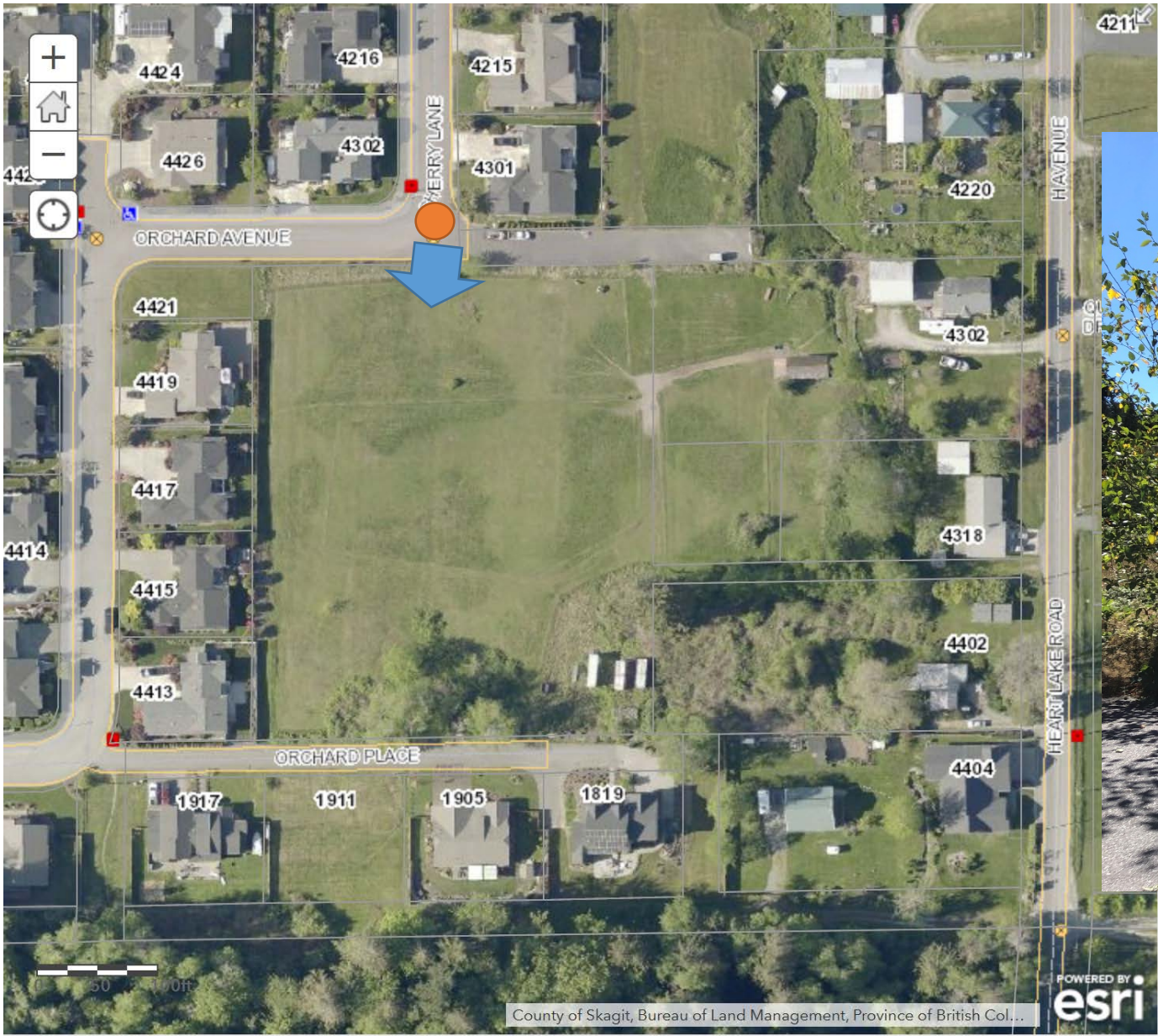
Looking West





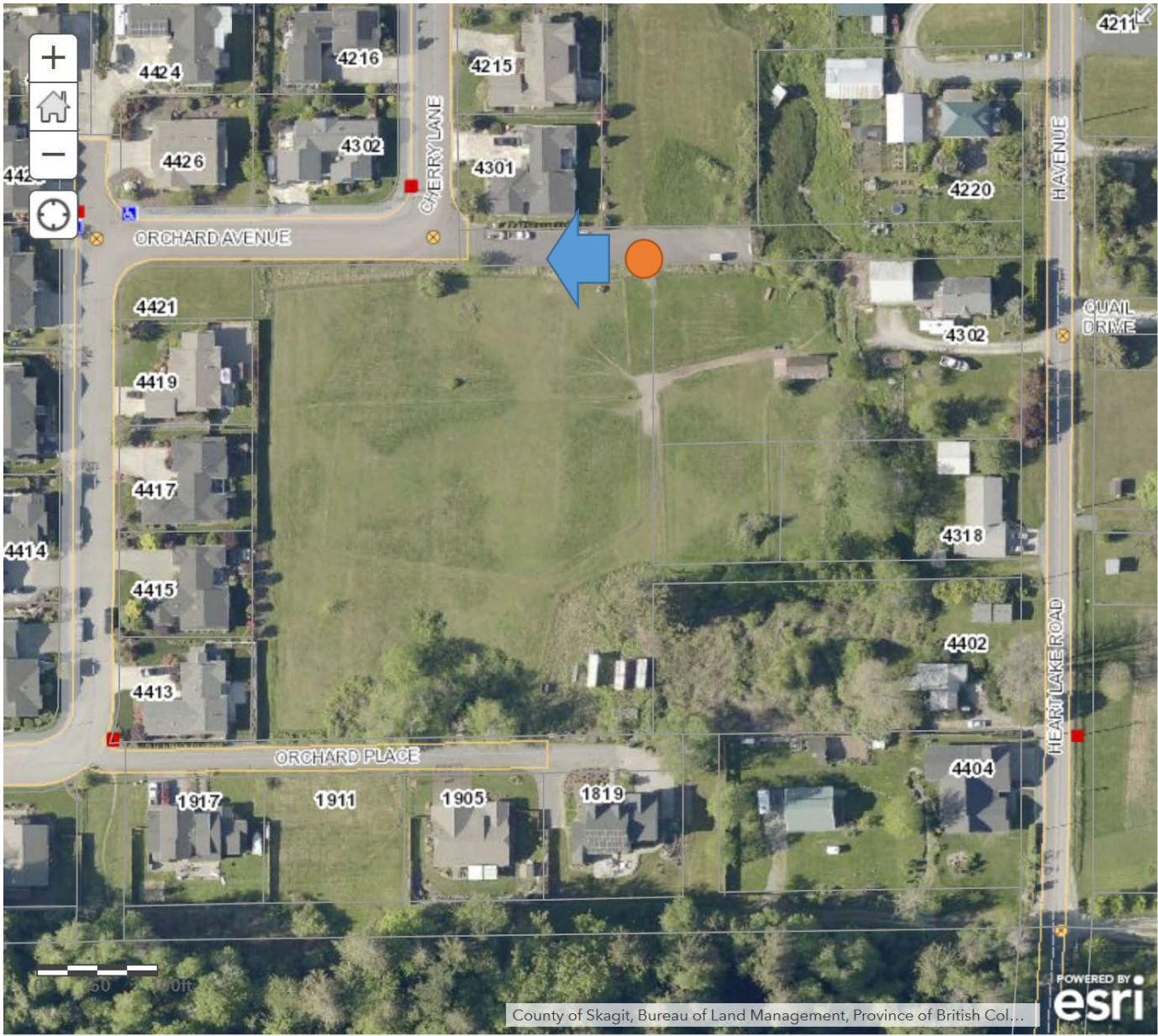
Looking North



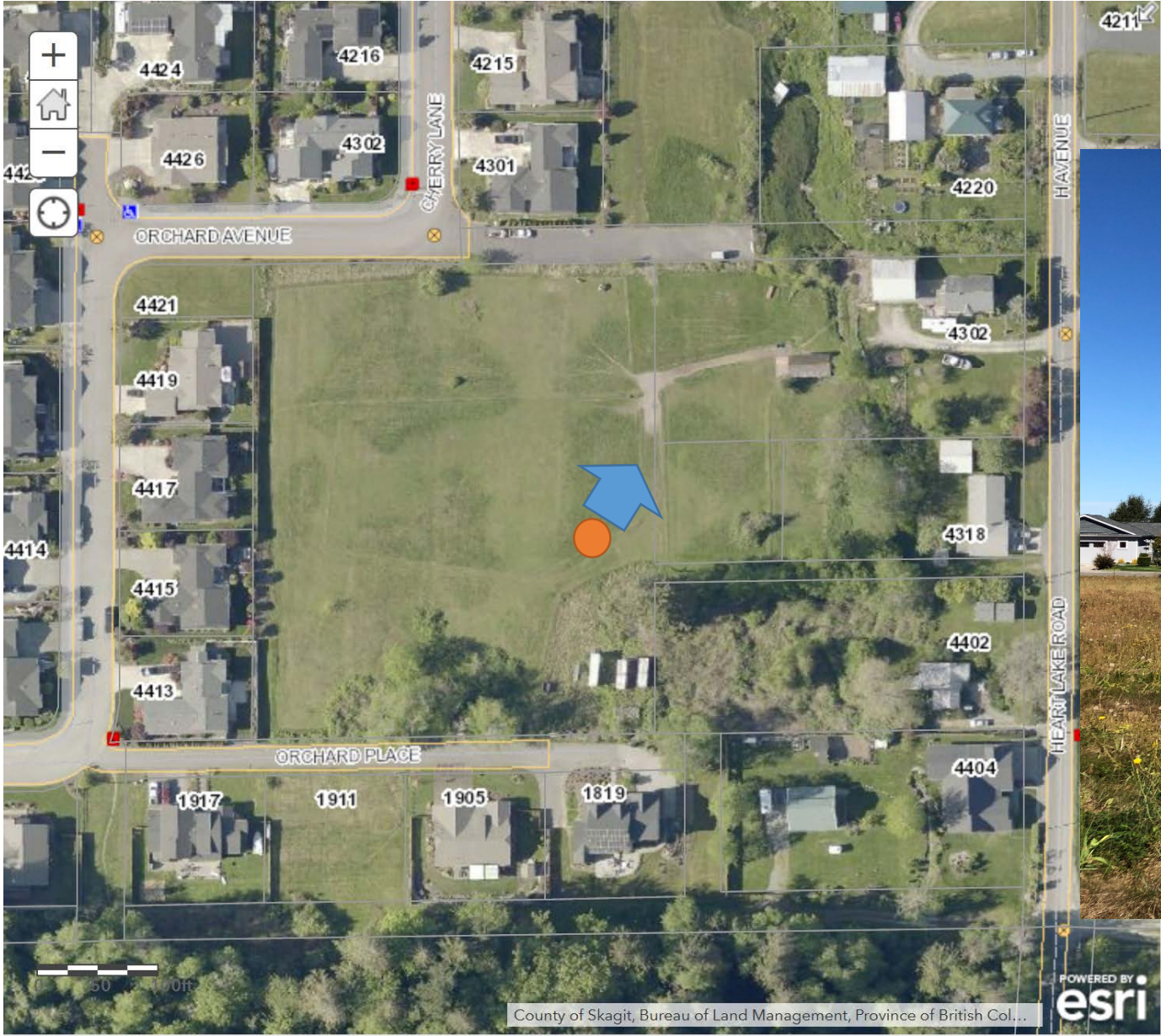


Looking South

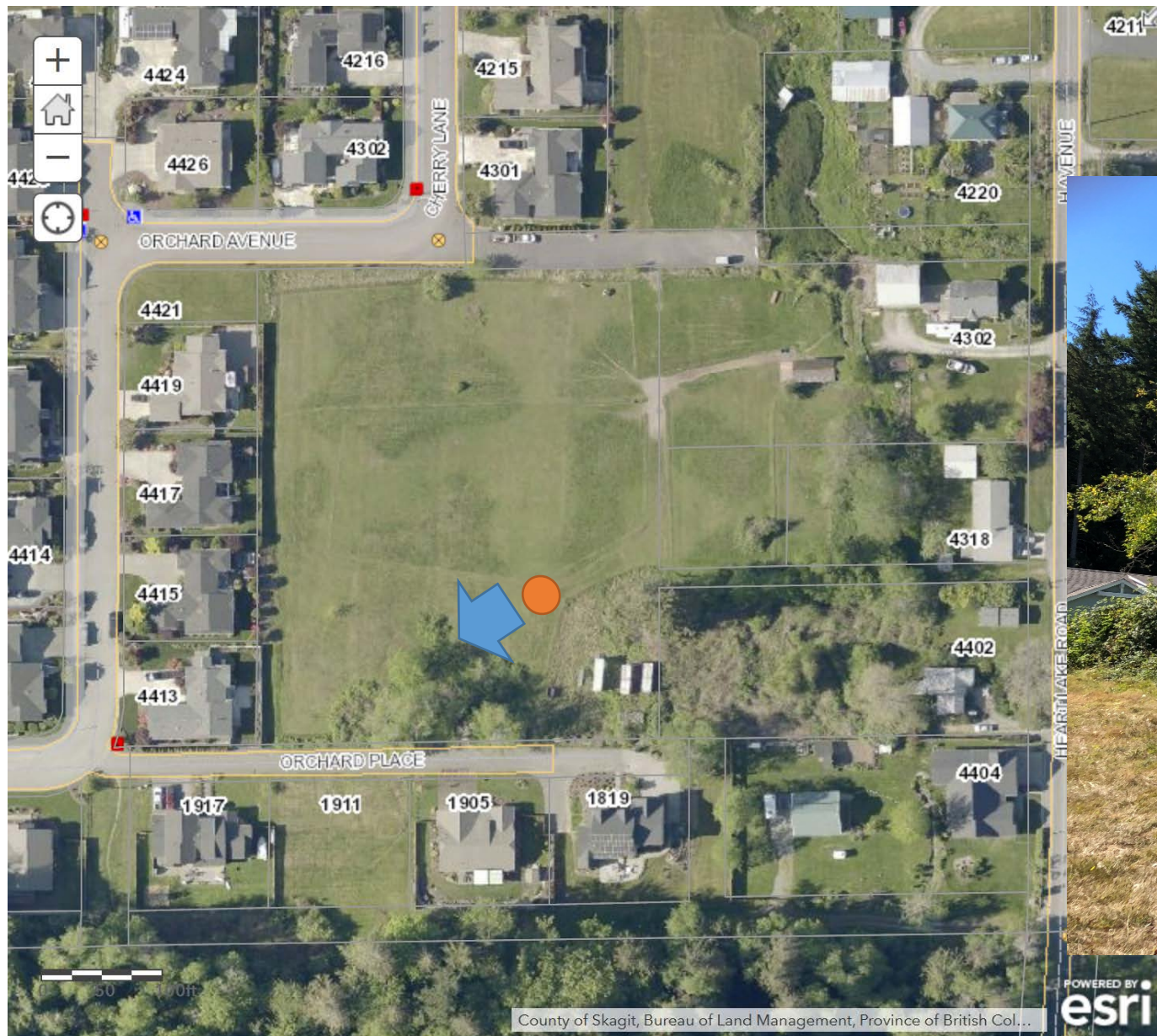




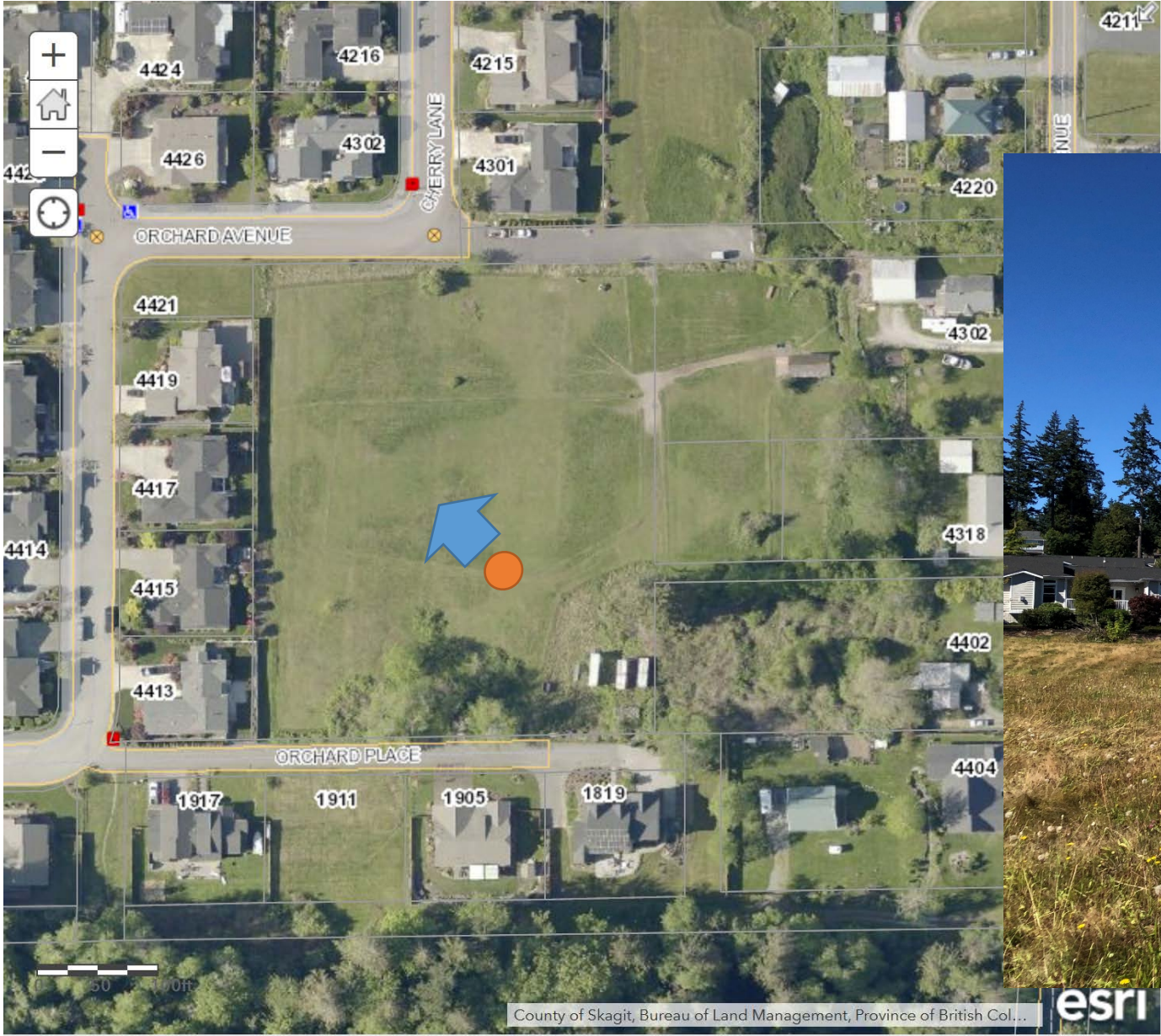
Looking Northeast



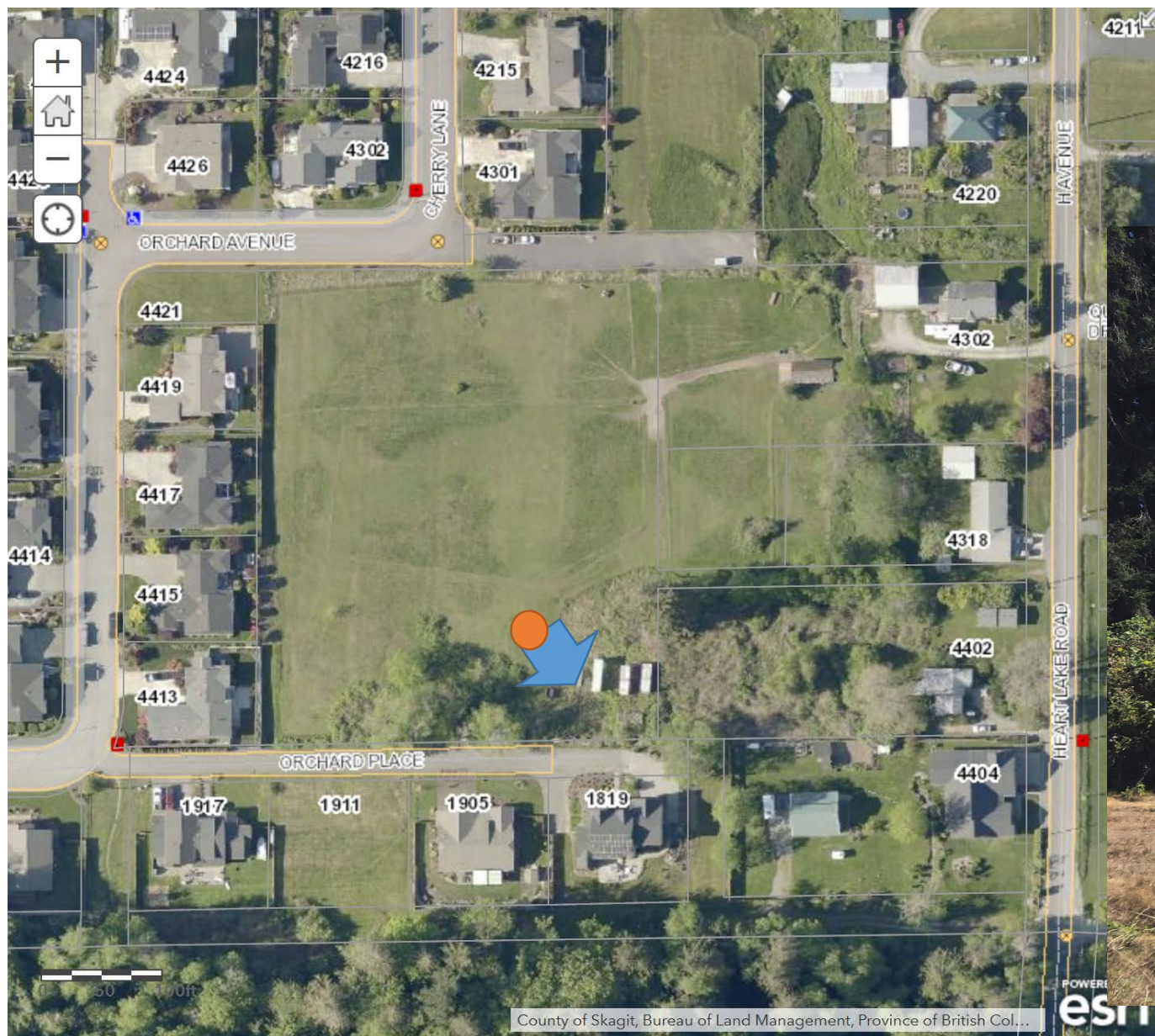
Looking Southwest



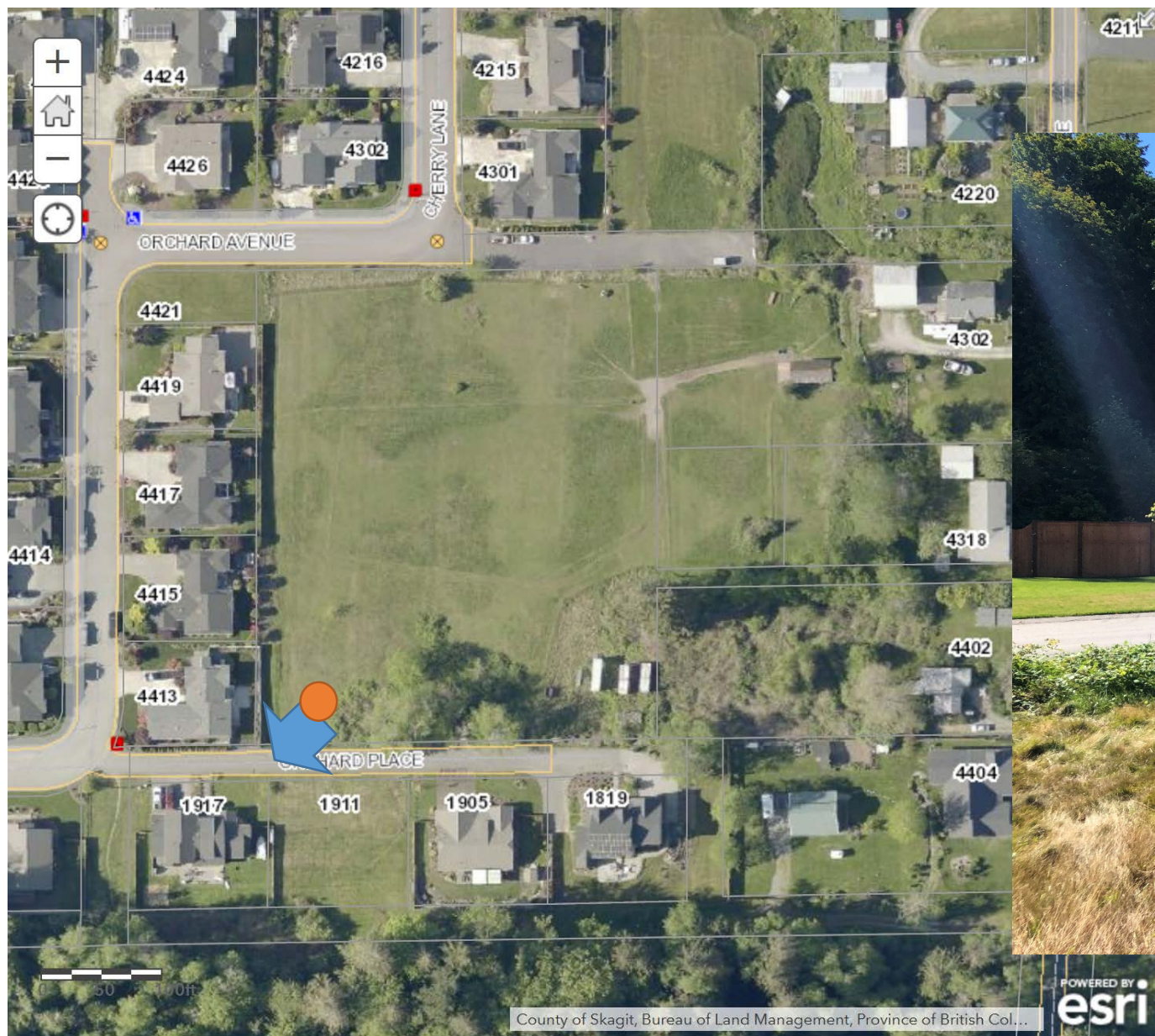
Looking West

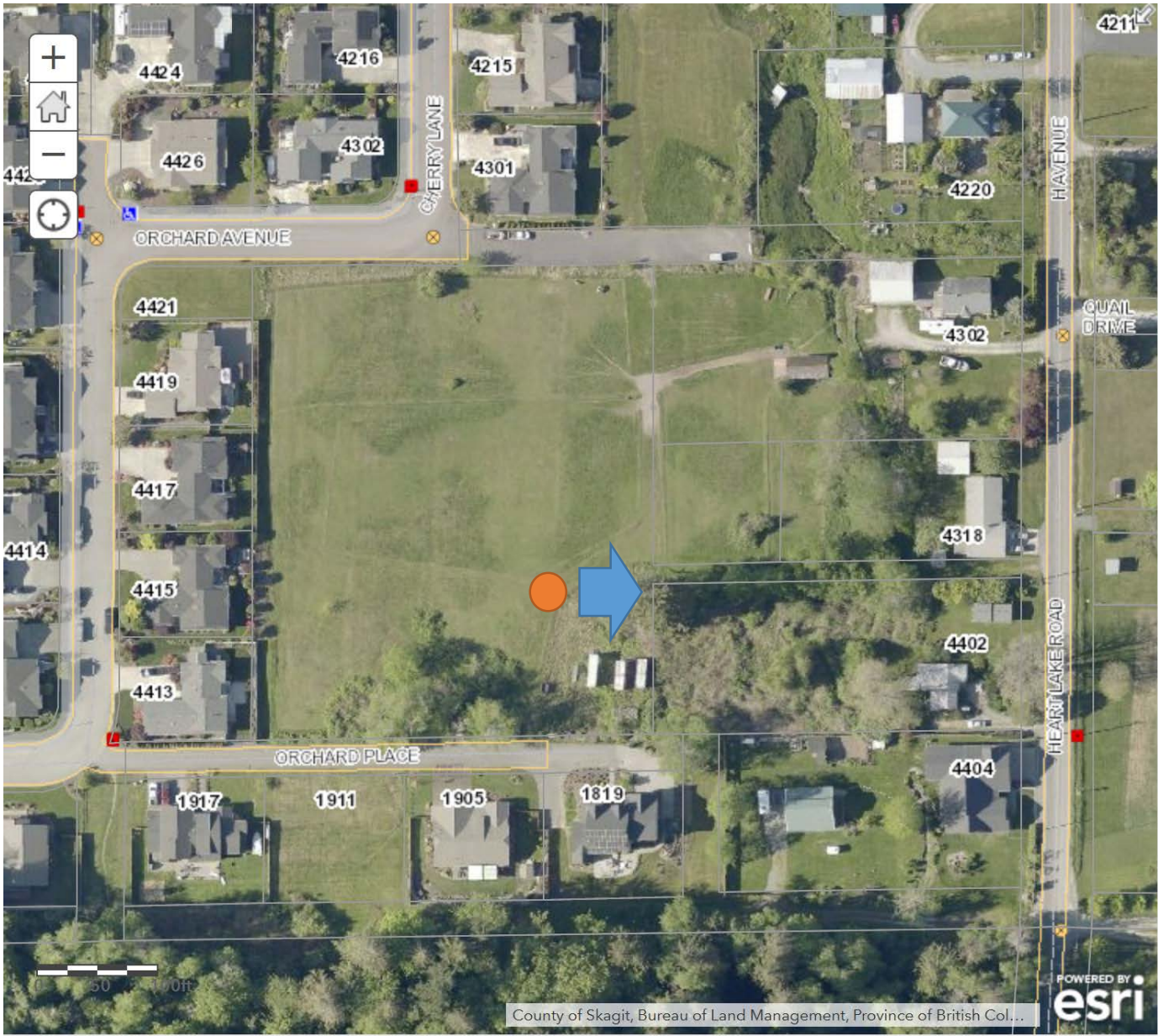


Looking Southeast



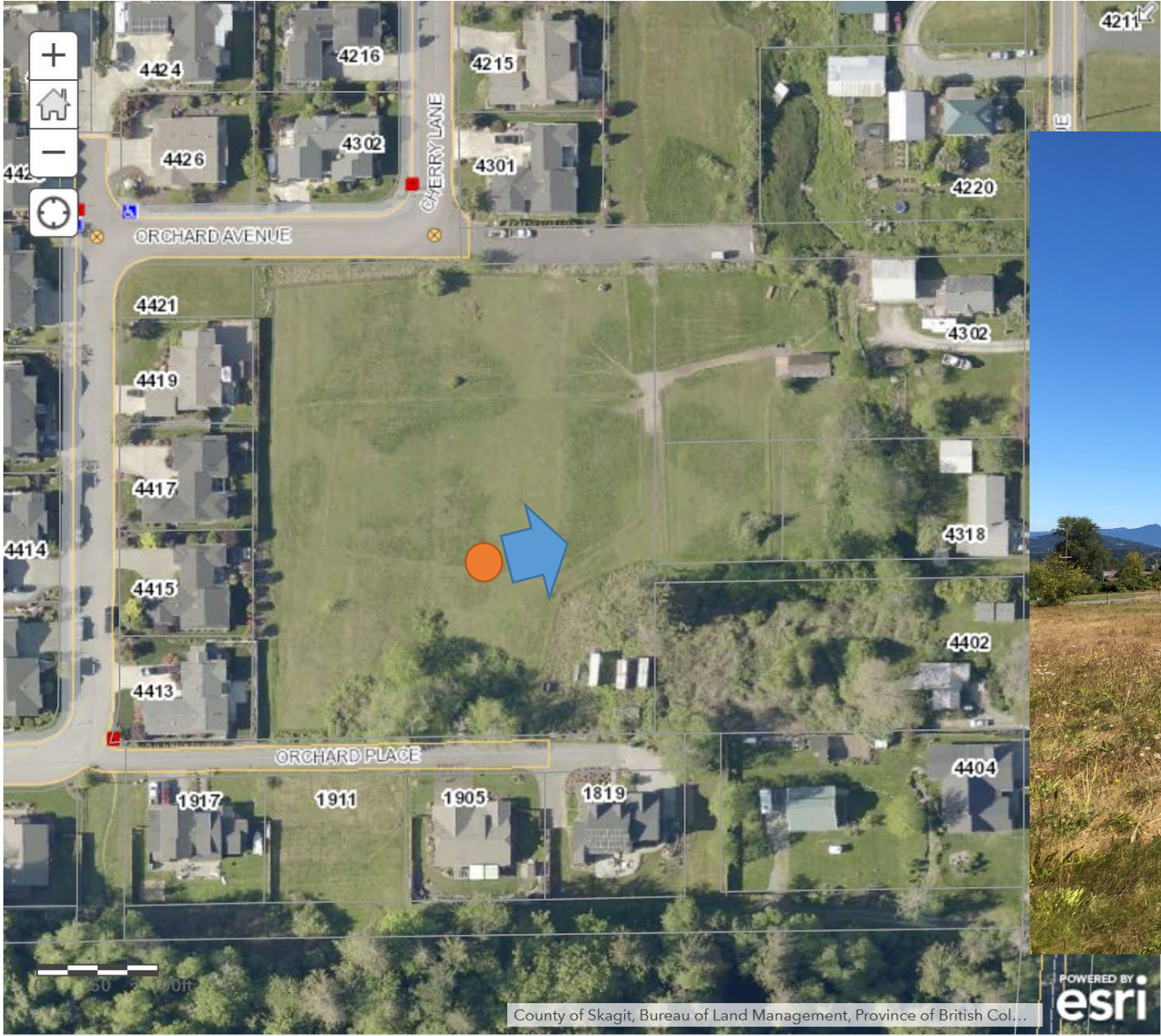
Looking Southwest





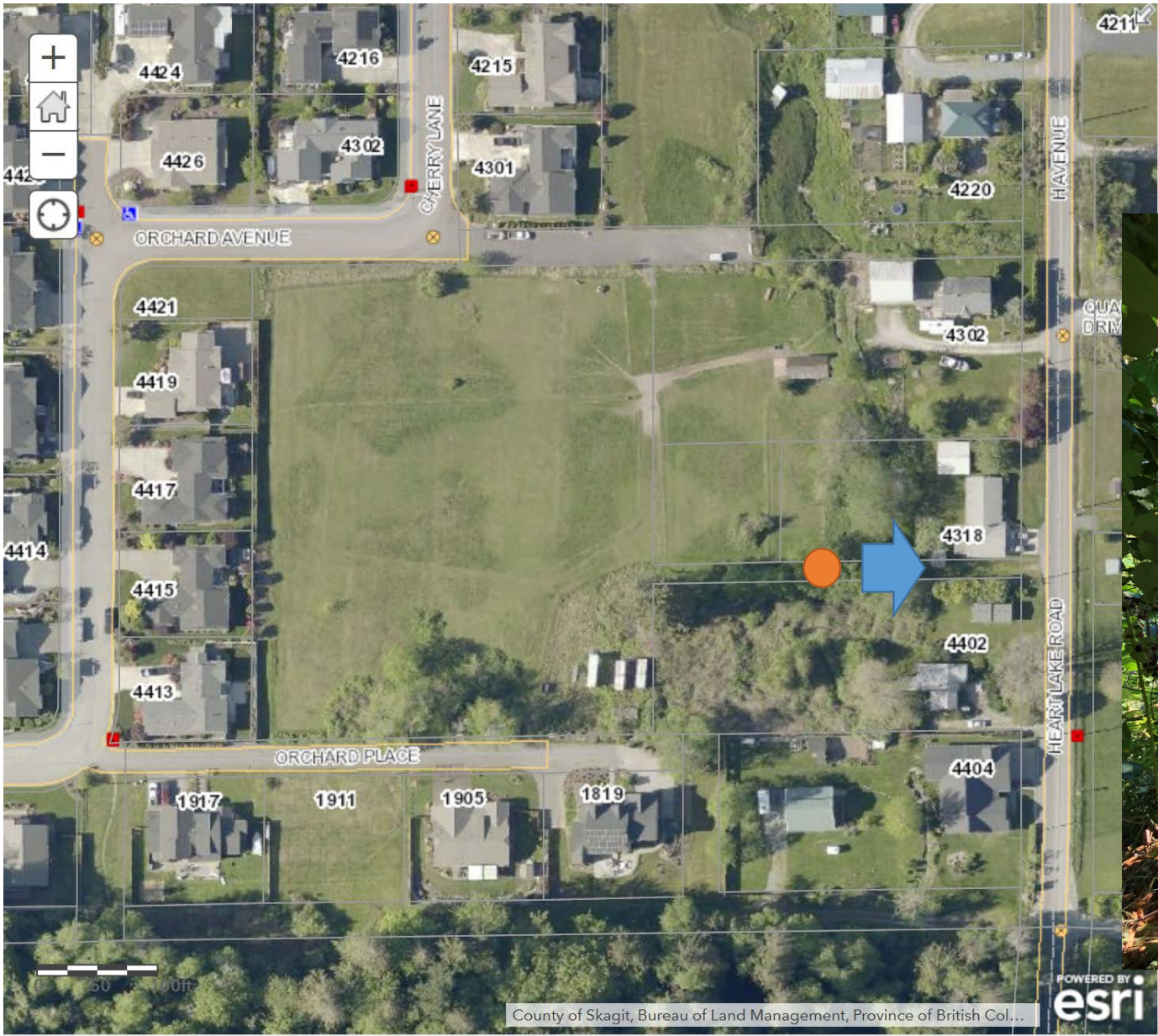
Looking East





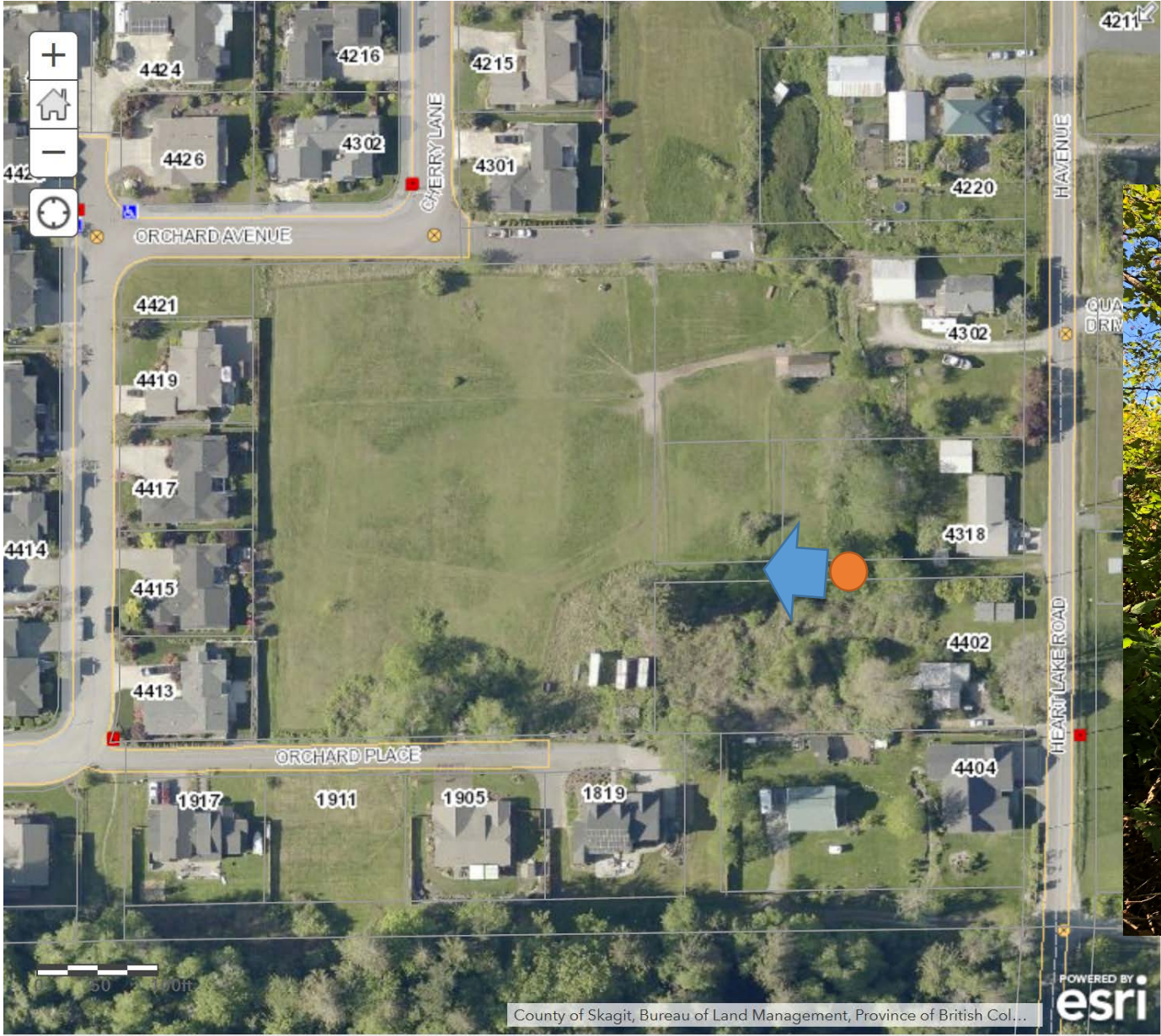
Looking East





Looking east

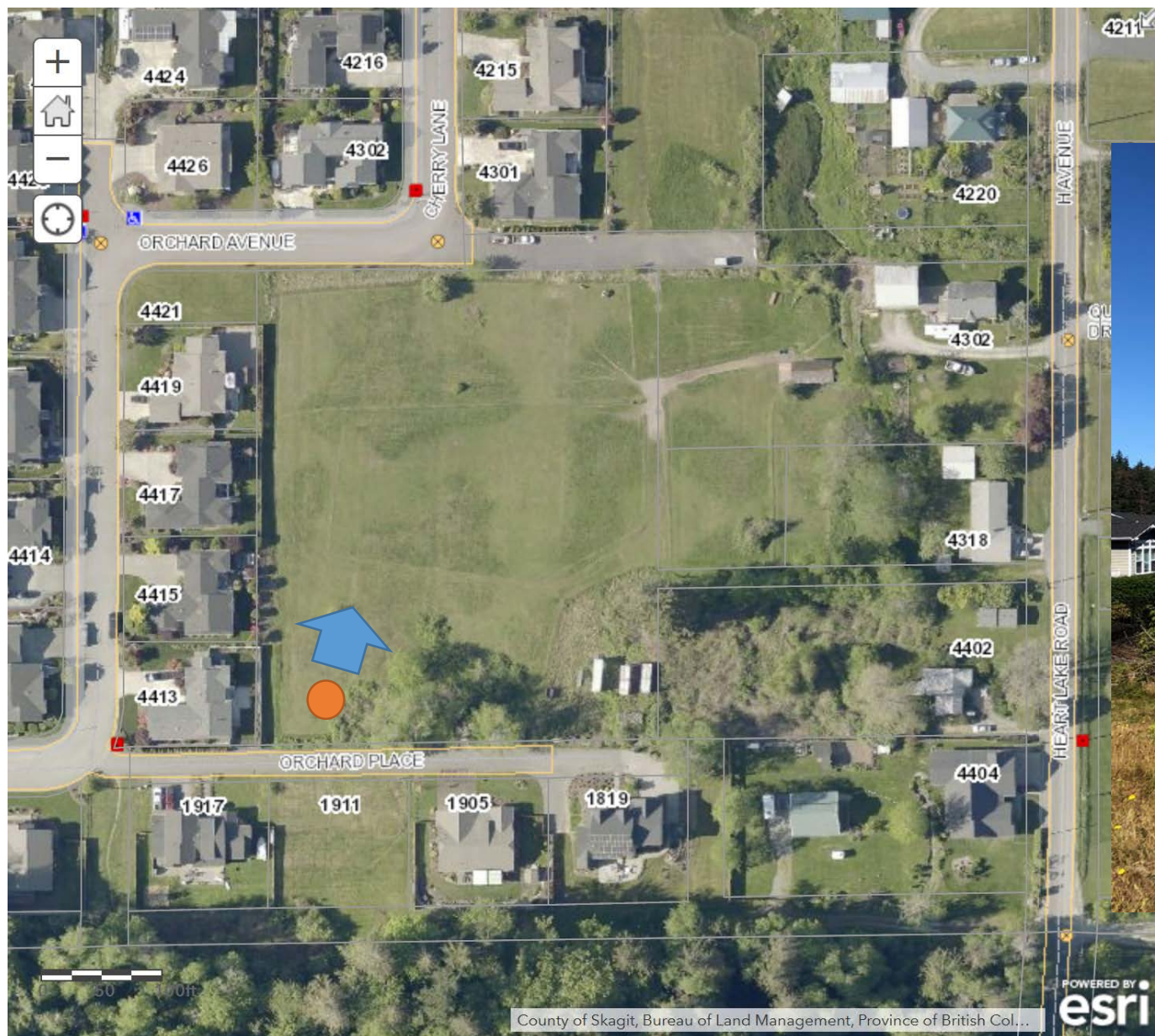


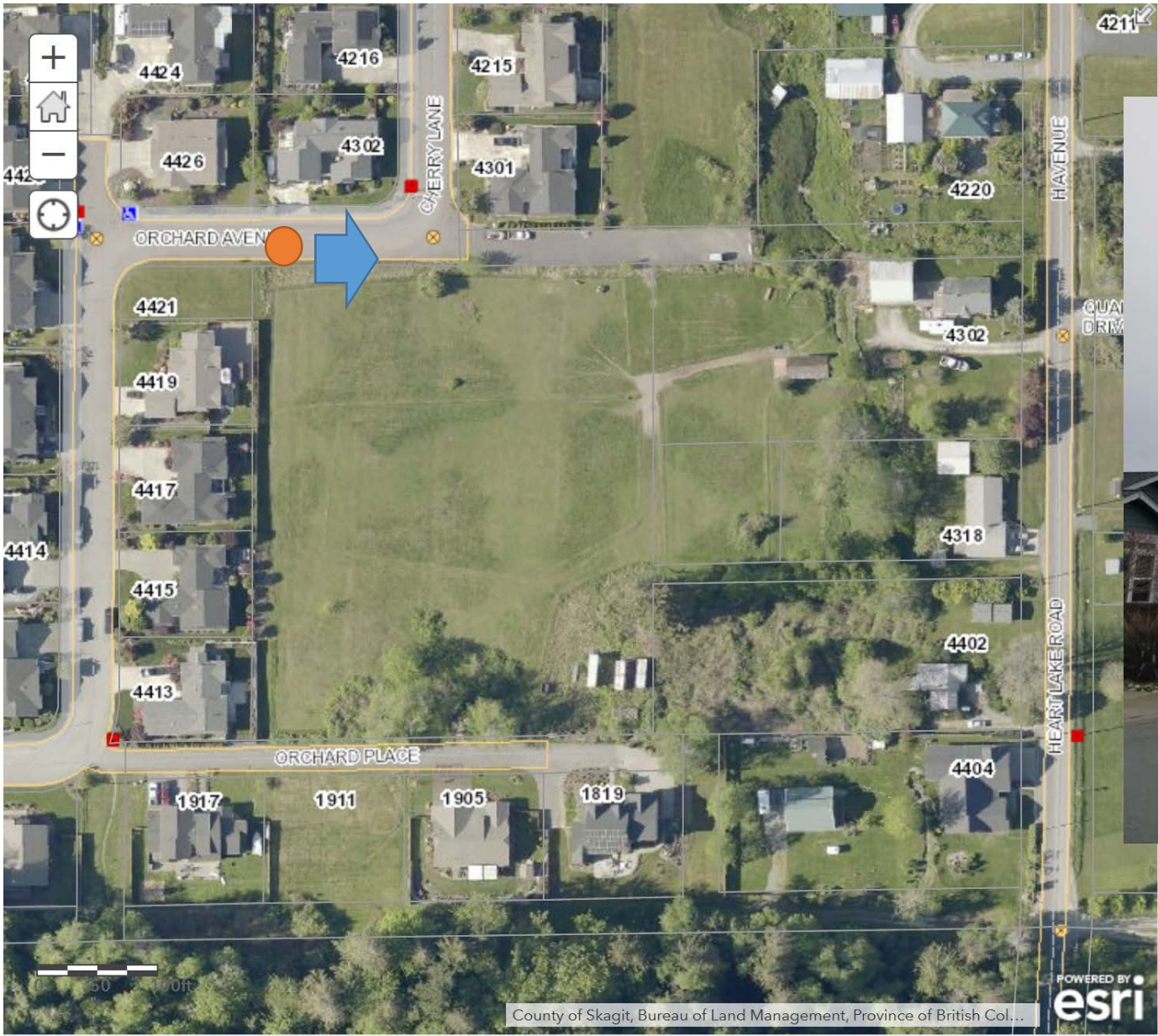


Looking West



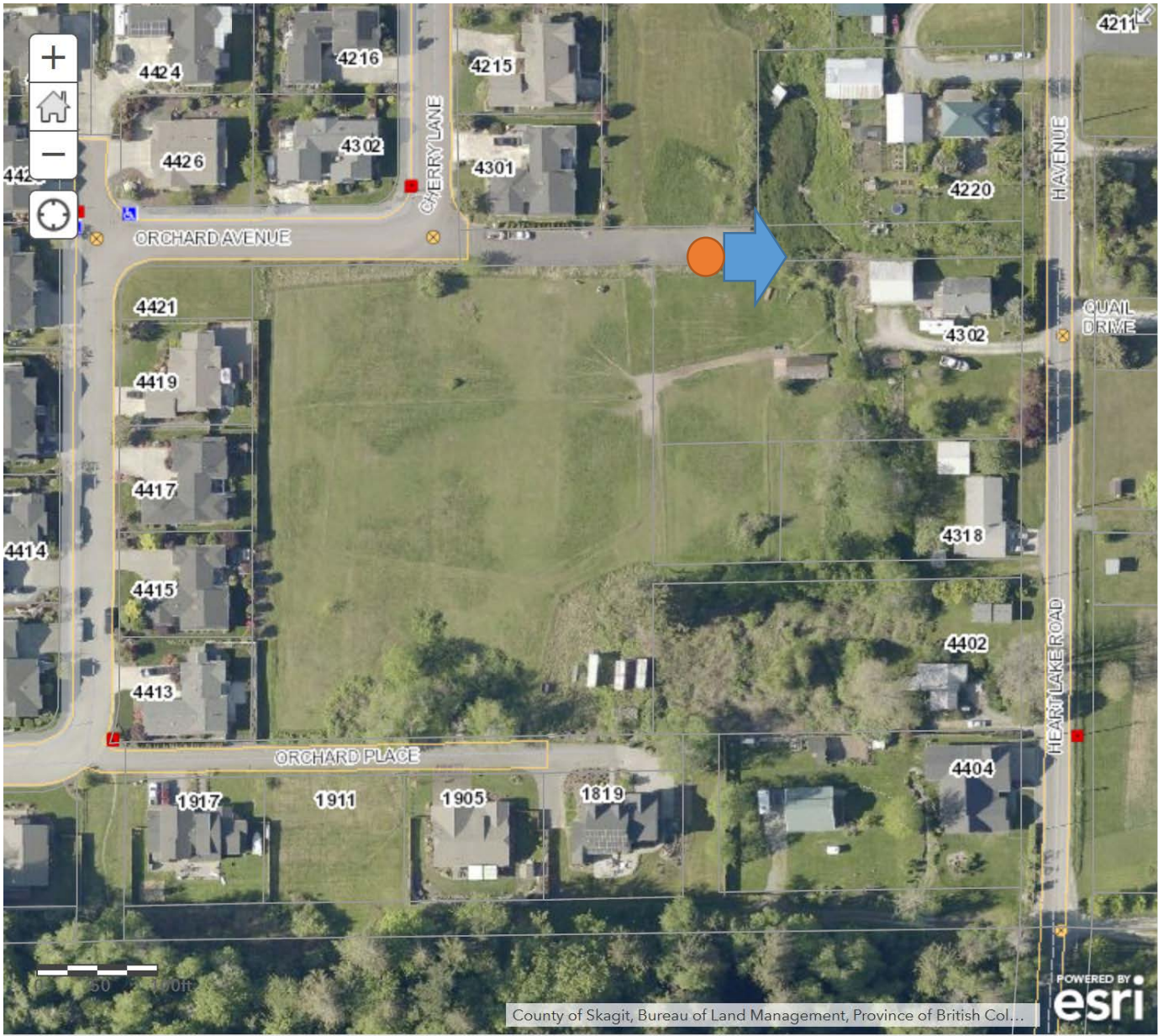
Looking North





Looking East





Looking East

