

August 25, 2021

**REQUEST FOR QUOTE:  
FRIDAY HARBOR LABS SEWER REPAIR**

**Background**

University of Washington (UW), through UW Facilities department (UWF), is seeking quotes from licensed general contractors to provide sewer line repairs for UW Friday Harbor Labs, located in Friday Harbor, Washington. This quote will be awarded to the lowest responsive and responsible bidder. Owner's estimated cost range \$160,000 - \$200,000. The target completion date for this project is November 15, 2021.

**Site Visit:**

A site visit will be held at the University of Washington Friday Harbor Laboratories Campus located at 620 University Rd, Friday Harbor, WA 98250. Prospective bidders should meet the UW point of contact in the main parking lot at **1:30pm on Wednesday, September 8, 2021**. It is the Contractor's responsibility to fully satisfy themselves of existing conditions prior to bid. No changes will result from Contractor's failure to be fully aware of existing conditions. The UW staff who will be on-site are there to provide access to the facilities, but are not able to address any questions related to the RFQ/RFP.

All questions must be emailed to Procurement & Sourcing at [uwfbuy@uw.edu](mailto:uwfbuy@uw.edu) prior to the deadline listed below. UWF will respond only via addenda or a formal written clarification. No statements made by any other method shall serve to amend or modify this RFQ/RFP unless they are subsequently issued as a written addendum to this RFQ/RFP. Answers to questions will be posted to our website not later than Wednesday, September 15, 2021.

In our continued efforts to follow established health and safety protocols related to COVID-19, we request and/or remind all visitors of the following guidelines:

- Where possible, send only one participant, no more than two.
- Do not send any employees who are not feeling well and/or are sick.
- Maintain a social distancing as much as possible.
- Only visit locations as directed by the University representative(s) conducting the site visit.
- Wash and/or sanitize your hands before and after the site visit.
- Wear a mask at all times.

**Scope of Work:**

Please refer to attached documents, scope of work (Attachment A) and drawings (Attachment B) for additional information. A Cultural Resources Report is also provided for reference.

An as-built document of the completed work signed by the contractor will be required at close-out. The format will be AutoCAD, PDF or other UW approved format.

**Minimum Qualifications:**

1. Licensed to do business in the State of Washington.
2. 5 or more years of relevant experience to the work included in the scope.
3. Able to provide evidence of minimum insurance requirements in accordance with UW Requirements, see sample agreement (Attachment C) and link below for general terms and conditions. Additional insurance may be required depending on the nature of the work.

**To Submit:**

Please submit your quote to [uwfbuy@uw.edu](mailto:uwfbuy@uw.edu) **before 5 pm on Friday, September 17, 2021**, for consideration. **Questions can be submitted by 5 pm, Friday, September 10, 2021.**

Contractors interested in performing this work shall submit a lump sum quotation for completing the work. The price quotation shall be an all-inclusive amount. Quotes should be on your company letterhead, acknowledge the UWF date, and your ability to meet all requirements. Please itemize the lump sum quotation to include line items for labor, materials, equipment, and tax. Please itemize the alternate included in item 10 of Attachment A - Scope of Work separately to include line items for labor, materials, equipment, and tax for that item only. Any additional fees should be itemized separately.

**\*IMPORTANT\***

1. The work as described in the work scope must be completed and final documents submitted to UW Facilities no later than November 30, 2021.
2. Any work authorization resulting from this quote, including Purchase Orders will be subject to UW [General Terms and Conditions](#).
3. This Quotation must remain firm for 90 calendar days from the due date.
4. The work is subject to prevailing wage requirements in accordance with RCW 39.12 and the rules and regulations of the WA Department of Labor and Industries.
5. This work is subject to Public Work retainage per RCW 60.28.011 and payment and performance bonding per RCW 39.08.010.
6. The UW encourages participation by firms certified as small businesses, minority-owned businesses, women-owned businesses, and other historically marginalized businesses, referred to as Business Equity Enterprises (BEE). However, no preference will be included in the evaluation of proposals, no minimum level of MWBE participation shall be required, and proposals will not be rejected or considered non-responsive on this basis.

## **ATTACHMENT A – SCOPE OF WORK**

### **FRIDAY HARBOR LABS SEWER REPAIR**

August 20, 2021

1. Install new 4" Gasketed PVC Sewer Main SDR 35 ASTM D3034 from Plant Services building connection point to Manhole 3. Remove enough of the existing 6" pipe to make connection to building (should be about 20' of pipe) and clear path to slide new 4" PVC through existing 6" pipe under the main road. Remove enough of existing 6" pipe by Manhole 3 (probably about 3') to ensure water tight concrete seal / connection between new 4" PVC and Manhole 3. Wherever 4" pipe is not installed inside existing 6" pipe, maintain a slope of 2% or greater, backfill with 5/8s crushed rock to 1' over top of pipe and compact. Backfill remaining with native material and compact. Patch any asphalt that is disturbed, reseed any grass areas that are disturbed by digging.
2. Remove root intrusion, include alternate price to replace 6" line from Building B connection point to Manhole 7 with 6" Gasketed PVC Sewer Main SDR 35 ASTM D3034 if needed. Alternate price to include maintain a slope of 2% or greater, backfill with 5/8s crushed rock to 1' over top of pipe and compact. Backfill remaining with native material and compact. Reseed any grass areas that are disturbed by digging.
3. Replace existing sump pump and enclosure with a Liberty Provore 380 Preassembled 1.0 HP Residential Sewage Grinder System or comparable unit approved by UW ([https://www.septicsolutions.com/septic-parts/complete-pump-systems/sewage-pit-packages/p382xprg101\\_liberty-provore-380-pre-assembled-10-hp-residential-sewage-grinder-system](https://www.septicsolutions.com/septic-parts/complete-pump-systems/sewage-pit-packages/p382xprg101_liberty-provore-380-pre-assembled-10-hp-residential-sewage-grinder-system)). All connections to be watertight, backfill and compact around new unit, replace any grass / landscaping that is disturbed.
4. Replace Broken Pipe from Building R connection point to 8" PVC Main with new 4" Gasketed PVC Sewer Main SDR 35 ASTM D3034. Maintain a slope of 2% or greater, backfill with 5/8" crushed rock to 1' over top of pipe and compact. Backfill remaining with native material and compact. Patch any asphalt that is disturbed, reseed any grass areas that are disturbed by digging.
5. Replace Broken Pipe from Building N connection point to Manhole 9 with new 4" Gasketed PVC Sewer Main SDR 35 ASTM D3034, maintaining slope of 2% or greater. RegROUT / Reseal Manhole 9 at connection point and at riser connections, inside and out. Backfill with 5/8"

crushed rock to 1' over top of pipe and compact. Backfill remaining with native material and compact. Patch any asphalt that is disturbed, reseed any grass areas that are disturbed by digging.

6. Site plan is incorrect in this location. There is a new pipe running from buildings I and J to Manhole 10. The pipe shown serving buildings I and J is abandoned, and it no longer serves these buildings. Cap this 6" concrete pipe 3 feet or closer from Main (removing 3 ' section of pipe between Main and new cap). Backfill with 5/8" crushed rock and compact. Patch any asphalt that is disturbed, reseed any grass areas that are disturbed by digging.
7. Replace Broken Pipe from Building M connection point to 8" PVC Main with new 4" Gasketed PVC Sewer Main SDR 35 ASTM D3034. Maintain a slope of 2% or greater, backfill with 5/8" crushed rock to 1' over top of pipe and compact. Backfill remaining with native material and compact. Patch any asphalt that is disturbed, reseed any grass areas that are disturbed by digging.
8. Regrout / reseal Manhole 11 at side sewer connections, risers and any other weak points.
9. Regrout / reseal Manhole 11A at infiltration points at bottom of Manhole, risers and at any other weak points.
10. Provide as an **alternate** the price to line pipe between Manhole 5 and vault below Lift Station 1 with epoxy saturated pipe tubing (no digging).

ATTACHMENT B  
FHL SEWER REPAIR

LEGEND

MH#7A

Manhole

CO3

Clean out

Incorrect Pipe Connection

Recommended Replacement

Recommended Repair

Infiltration

Repair/Replacement Reason

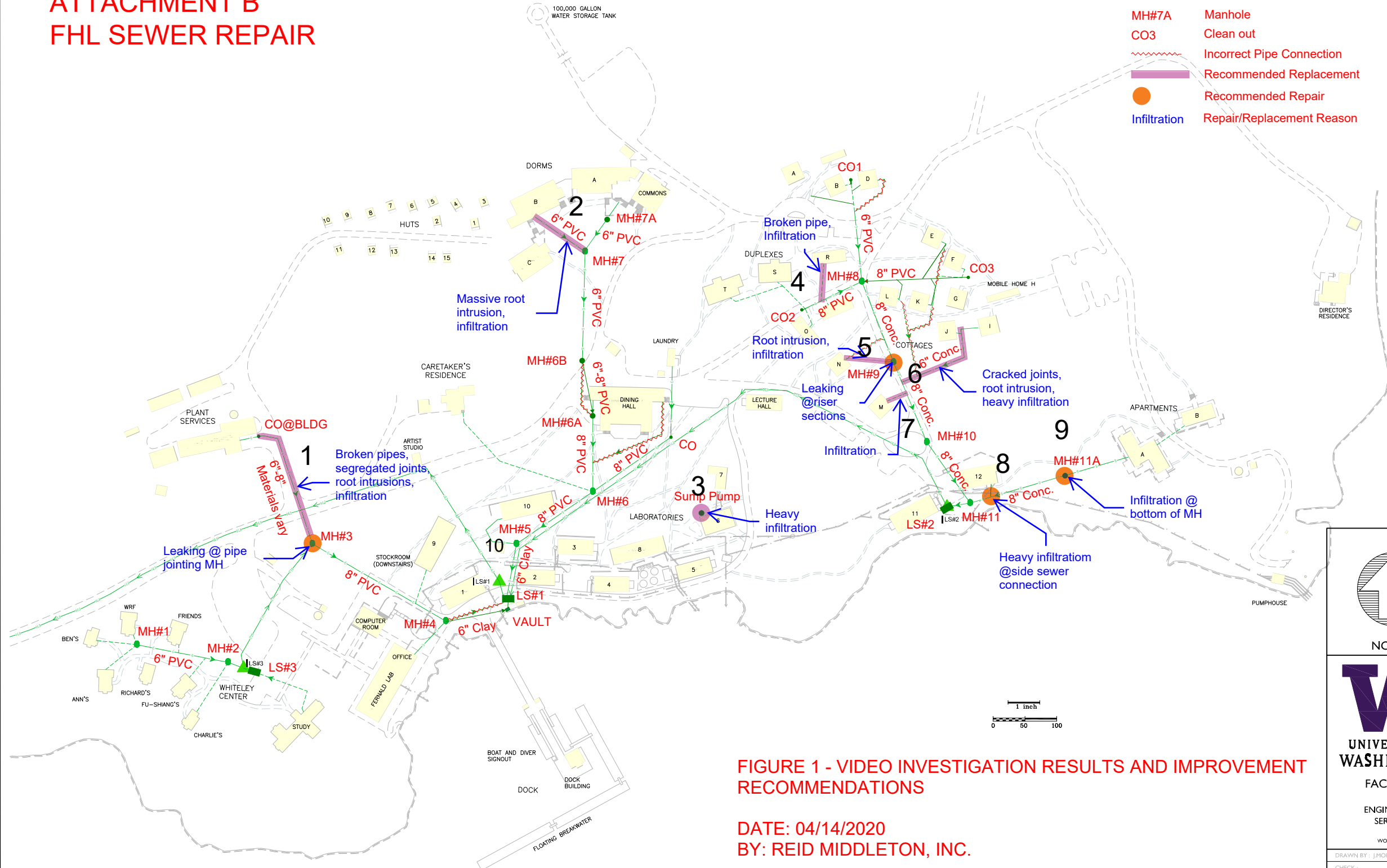


FIGURE 1 - VIDEO INVESTIGATION RESULTS AND IMPROVEMENT  
RECOMMENDATIONS

DATE: 04/14/2020  
BY: REID MIDDLETON, INC.

NORTH

UNIVERSITY of  
WASHINGTON

FACILITIES

ENGINEERING  
SERVICES

WORKSHEET

DRAWN BY : JHOREN

CHECK :

APPROVED :

DATE : 10/7/2019

REVISION : A

DATE : 10/7/2019

REVISED BY :

FRIDAY HARBOR  
LABORATORIES  
SANITARY SEWER

DRAWING NUMBER  
XXXXXX-X

University of Washington  
Construction Contract  
For  
[Project Name]

<sup>TEN</sup>  
**AGREEMENT** made as of the [ ] day of [ ] in the year Two Thousand Twenty One (2021)

**BETWEEN** the Owner:

University of Washington (UW)  
Project Manager [NAME]  
[UW Property Address]  
[City, State, Zip]

and the Contractor:

Company Name  
Contact Name/Title  
Address  
City, State, Zip

for the following Project:

Project Name  
Location Address  
City, State, Zip

The Owner and Contractor agree as follows.

## **TABLE OF ARTICLES**

<b>1</b>	<b>THE CONTRACT DOCUMENTS</b>
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<b>3</b>	<b>CONTRACT SUM</b>
<b>4</b>	<b>PAYMENTS</b>
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<b>10</b>	<b>TIME</b>
<b>11</b>	<b>PAYMENTS AND COMPLETION</b>
<b>12</b>	<b>PROTECTION OF PERSONS AND PROPERTY</b>
<b>13</b>	<b>CORRECTION OF WORK</b>
<b>14</b>	<b>MISCELLANEOUS PROVISIONS</b>
<b>15</b>	<b>TERMINATION OF THE CONTRACT</b>

## ARTICLE 1 THE CONTRACT DOCUMENTS

The Contractor shall complete the Work described in the Contract Documents for the Project. The Contract Documents consist of the following:

- .1 written orders for changes in the Work, pursuant to Article 10, issued after execution of this Agreement; and
- .2 this Agreement signed by the Owner and Contractor;
- .3 **[IF APPLICABLE]** the drawings prepared by **[Company Name]**, dated **[ ]**, and enumerated as follows:

Drawings:

Number	Title	Date

- .4 University of Washington General Terms and Conditions
- .5 the Request for Proposal
- .6 the Contractor's Proposal

## ARTICLE 2 DATE OF COMMENCEMENT AND SUBSTANTIAL COMPLETION

**§ 2.1** The Contract Time is the number of calendar days available to the Contractor to substantially complete the Work.

### **§ 2.2 Date of Commencement:**

Unless otherwise set forth below, the date of commencement shall be the date of this Agreement.

### **§ 2.3 Substantial Completion:**

Subject to adjustments of the Contract Time as provided in the Contract Documents (Exhibit B – "Project Schedule"), the Contractor shall achieve Substantial Completion, as defined in Section 12.5, of the entire Work:

*(Check the appropriate box and complete the necessary information.)*

☒ By the following date: **ENTER DATE**

### **§ 2.4 Liquidated Damages:**

Within the Contractor's control, for failure to achieve Substantial Completion of the Work within the time provided, Contractor shall pay Owner **\$500** for each calendar day from the date when Substantial Completion should have been achieved, to the date Substantial Completion is actually achieved.

Liquidated Damages will be taken out of any monies owed the Contractor. If no additional monies are owed to the Contractor, the Contractor shall provide reparation directly to the Owner.



### ARTICLE 3 CONTRACT SUM

§ 3.1 The Contract Sum shall include all items and services necessary for the proper execution and completion of the Work. Subject to additions and deductions in accordance with Article 10, the Contract Sum is:

ENTER \$ AMOUNT

§ 3.2 For purposes of payment, as provided on the Bid Form, the Contract Sum includes the following values related to portions of the Work:

Base Bid	<u>\$0</u>
Alternate(s) 4	<u>\$0</u>
<b>Total</b>	<b>\$0</b>

### ARTICLE 4 PAYMENTS

§ 4.1 Based on Contractor's Applications for Payment certified by the Project Manager, the Owner shall pay the Contractor, in accordance with Article 12, as follows:

Payments will be made accordance with the following completed, and accepted, project milestones:

Mobilization	10% (paid 30 days after Date of Commencement)
Demolition	40%
Materials to Site	40%
Substantial Completion	5%
Retainage	5%

§ 4.2 Late payments and payment not in dispute that are unpaid under this Agreement shall bear interest from the date payment is due at the rate below, or in the absence thereof, at the legal rate prevailing at the place of the Project.

1% (one percent)

### ARTICLE 5 INSURANCE AND BONDS

§ 5.1 The Contractor shall maintain the following types and limits of insurance until the expiration of the period for correction of Work as set forth in Section 14.2, subject to the terms and conditions set forth in this Section 5.1:

§ 5.1.1 *Commercial General Liability* insurance for the Project, written on an occurrence form, with policy limits of not less than one million dollars (\$1M) each occurrence, two million dollars (\$2M) general aggregate, and one million dollars (\$1M) aggregate for *products-completed operations* hazard.

Such insurance must provide a minimum limit of liability of \$1 Million each Occurrence Combined Single Limit Bodily Injury and Property Damage.

§ 5.1.2 *Automobile Liability* for owned, non-owned, hired, and leased vehicles, as applicable, with a minimum limit of liability of \$1 million CSL. If pollutants are to be transported, MCS 90 and CA 99 48 endorsements are required on the Automobile Liability insurance policy unless the transportation pollution risk is covered under the Contractor's Pollution Liability insurance policy.

**§ 5.1.3 Pollution Liability (CPL)** The Contractor must provide a Pollution Liability policy for pollutants that are or may be remediated on or off site covering claims, including investigation, defense, or settlement costs and expenses that involve bodily injury and property damage (including natural resources damages and loss of use of tangible property that has not been physically injured) covering:

1. Pollution conditions caused or made worse by the Contractor, including clean-up costs for a newly caused condition or a historical condition that is made worse.
2. The vicarious liability of subcontractors of any tier.

The Pollution Liability insurance must provide a minimum limit of liability of \$1M each claim with a minimum aggregate limit of 200% of each claim limit. There is no requirement for a dedicated project aggregate limit provided that the Contractor (1) submits to the Owner before the Notice to Proceed Date with its insurance certification a written statement from its authorized insurance representative that the full minimum aggregate limit is available and has not been impaired by any claims reserved on another project, and (2) thereafter, until the completion of the Work, provides notice in writing to the Owner within 10 Days of Contractor's constructive knowledge of any pending or actual impairment of the aggregate limit. If in-Transit Pollution Liability is required but is not provided under the Automobile Liability, the Contractor must provide evidence of transportation coverage under the Contractor's Pollution Liability policy.

**§ 5.1.4** The Contractor may achieve the required limits and coverage for Commercial General Liability and Automobile Liability through a combination of primary and excess or umbrella liability insurance, provided that such primary and excess or umbrella insurance policies result in the same or greater coverage as those required under Section 5.1.1 and 5.1.2, and in no event shall any excess or umbrella liability insurance provide narrower coverage than the primary policy. The excess policy shall not require exhaustion of the underlying limits only through the actual payment by the underlying insurers.

**§ 5.1.5** Contractor must comply with Workers' Compensation coverage per Title 51 Revised Code of Washington (RCW).

**§ 5.2** The Contractor shall obtain an endorsement to its Commercial General Liability insurance policy to provide coverage for the Contractor's obligations under Section 8.12.

**§ 5.3 Evidence of Insurance** (does not apply to State of Washington Statutory Worker's Compensation) Prior to commencement of the Work, each party shall provide certificates of insurance showing their respective coverages.

The Contractor must provide the Owner documentation of insurance meeting these requirements before the Execution Date is established. The documentation must include the following:

1. An ACORD certificate or equivalent form fully disclosing all coverages and limits of liability maintained.
2. A copy of the additional insured endorsement or blanket additional insured language to the Commercial General Liability, Automobile Liability, and, if required, Pollution Liability insurance documenting that the Owner is listed as an additional insured for primary and non-contributory limits of liability and, if required, Products and Completed Operations Additional Insured; a statement of additional insured status on an ACORD or other form of certificate of insurance will not satisfy this requirement.

Should any insurance policy neither be issued nor delivered to the named insured Contractor at the time it delivers the signed Contract for the Work, the Contractor must deliver and maintain on file with the Owner, binders of insurance evidencing compliance with the requirements.

As soon as practicable after delivery of the policy, the Contractor must deliver the insurance certification specified above. At any time upon the Owner's request, the Contractor must forward to the Owner a true and certified copy of any insurance policy.

**§ 5.4** Unless specifically precluded by the Owner's property insurance policy, the Owner and Contractor waive all rights against (1) each other and any of their subcontractors, suppliers, agents, and employees, each of the other; and (2) the Designer of Record, consultants, and any of their agents and employees, for damages caused by fire or other causes of loss to the extent those losses are covered by property insurance or other insurance applicable to the Project, except such rights as they have to the proceeds of such insurance.

**§ 5.5 Payment and Performance Bonds.** Payment and performance bonds for 100% of the Contract Sum, including all Change Orders and state sales tax, shall be furnished for the Work, and shall be in a form acceptable to the Owner. No payment or performance bond is required if the Contract Sum is \$150,000 or less and the Contractor agrees that Owner may, in lieu of the bond, retain 10% of the Contract Sum for the period allowed by RCW 39.08.010.

**§ 5.6 Retainage and Bond Claim Rights.** In accordance with RCW 60.28.011, the Owner is required to withhold 5% of each progress payment submitted by the Contractor as retainage. The Contractor may submit a bond in lieu of retained funds for all or any portion of the contract retainage in a form acceptable to the Owner and from an authorized surety insurer.

Chapters 39.08 RCW and 60.28 RCW, concerning the rights and responsibilities of Contractor and Owner with regard to the performance and payment bonds and retainage, are made a part of the Contract Documents by reference as though fully set forth herein.

## **ARTICLE 6 GENERAL PROVISIONS**

### **§ 6.1 The Contract**

The Contract represents the entire and integrated agreement between the parties and supersedes prior negotiations, representations or agreements, either written or oral. The Contract may be amended or modified only by a written modification in accordance with Article 10.

### **§ 6.2 The Work**

The term "Work" means the construction and services required by the Contract Documents, and includes all other labor, materials, equipment, and services provided, or to be provided, by the Contractor to fulfill the Contractor's obligations.

#### **1.2.1 Wages**

The Work is subject to the wage requirements of RCW 39.12 (Prevailing Wages on Public Works), RCW 49.28 (Hours of Labor), and to RCW 49.46 (Minimum Wage Act) as amended or supplemented. The Contractor, any Subcontractor, and all individuals and firms required to pay prevailing wages under WAC 296-127-010, must pay all laborers, workers, or mechanics no less than the applicable prevailing hourly wage rate and fringe benefits appropriate to the worker's classification. Higher wages and benefits may be paid at the option of the employer.

The Contractor is responsible for assigning the appropriate classification to all laborers, workers, or mechanics that perform any Work under this Contract, under the scope of work descriptions established

by the L&I Industrial Statistician. Laborers, workers, and mechanics must be paid in full at least once each week and in lawful money of the United States. If the Contractor assigns the wrong prevailing wage classification, the Contractor is responsible for and must pay the amount of the corrected prevailing wage. The difference is not subject to an equitable adjustment or Change Order.

The Contractor must ensure that all Subcontractors, and all other individuals and firms as applicable, comply with all prevailing wage requirements including payroll reporting requirements and payment of prevailing wages. The Contractor is responsible for any violations of prevailing wage requirements by Subcontractors, individuals, or firms, and The Owner will take enforcement action against the Contractor to remedy any violations and achieve compliance with prevailing wage requirements.

Prevailing wage rates will be determined by L&I and published on the first Business Day of February and the first Business Day of August of each year. All prevailing wage rates become effective 30 Days after they are published. Current prevailing wage information may be obtained online:

Washington State Department of Labor and Industries

<https://lni.wa.gov/licensing-permits/public-works-projects/prevailing-wage-rates/>

By including wage and fringe benefit rates in the Contract Documents, the Owner does not imply that the Contractor will find labor available at those rates. The Contractor must calculate any amount above the minimums that have to be paid.

If the Contractor employs labor in a classification not covered by WAC 296-127, the Contractor must request the Industrial Statistician at L&I determine the correct prevailing wage rate for that classification and locality.

#### **6.2.1. A. OVERTIME**

Pursuant to the provisions of RCW 49.28 and WAC 296-127-022, Work performed on public works contracts will not require the payment of overtime rates for the first 2 hours worked in excess of 8 hours per Day when the employer and employee voluntarily enter into a written agreement wherein the employee will work up to 10 hours per Day in a 4-Day week to accomplish 40 hours of work. Working more than 10 hours on any Calendar Day on a public works project is prohibited except in cases of extraordinary emergency, such as danger to life or property. The Contractor must refer to the Benefits Code Key attached to the Prevailing Wage Schedule for specific overtime rates.

#### **6.2.1.B. WAGE ENFORCEMENT**

The Contractor, every Subcontractor, and all other individuals or firms required to pay prevailing wages for Work performed on this Contract are subject to investigation by the Owner and L&I in regards to payment of the required prevailing wage to workers, laborers, and mechanics employed on the project.

If the investigations result in a finding that an individual or firm has violated the requirement to pay the prevailing rate of wage, the unpaid wages will constitute a lien against the Contractor's Bond and retainage. The Owner may also withhold payments to the Contractor. Per RCW 39.12.065 and 39.12.050, the Contractor or Subcontractor may also be subject to civil penalties and may be prohibited from bidding on any public works contract within the State of Washington for the period specified by law.

#### **6.2.1.C. REQUIRED DOCUMENTS**

Before payment is made by the Owner of any sums due under this Contract, the Contractor and each Subcontractor regardless of tier must have a Statement of Intent to Pay Prevailing Wages (form F700 029 000), approved by L&I. Wage rates listed on an approved Statement of Intent to Pay Prevailing Wages may not comply with federal prevailing wage requirements.

Each payment application submitted must include an Owner-provided form listing all Subcontractors and Suppliers, who performed Work on the project during that pay period, including but not limited to, Subcontractor Name, UBI Number, Intent Number and Affidavit Number as applicable, along with a statement completed and signed by an authorized representative of the Contractor certifying the prevailing wages have been paid per RCW 39.12.040.

Upon completion of the Work and before final payment and funds retained under RCW Chapter 60.28 can be released to the Contractor, the Contractor and each Subcontractor regardless of tier must have an Affidavit of Wages Paid (form L700 007 000) approved by L&I.

The Contractor or Subcontractor, as applicable, is responsible for payment of fees for each Statement of Intent to Pay Prevailing Wages and Affidavit of Wages Paid and must submit all forms directly to L&I for approval. The cost of these fees is included in the Bid Item prices that comprise this Contract. Intent and Affidavit forms may be obtained from L&I.

### **§ 6.3 Intent**

The intent of the Contract Documents is to include all items necessary for the proper execution and completion of the Work by the Contractor. The Contract Documents are complementary, and what is required by one shall be as binding as if required by all.

### **§ 6.5 Electronic Notice**

Written notice under this Agreement may be given by one party to the other by email as set forth below.

#### **University of Washington**

UW Project Name

C/O Project Manager, [Project Manager Name]

[Project Manager Email Address]

Company Name

Company Representative Name and Title

Company Representative Email Address

## **ARTICLE 7 OWNER**

### **§ 7.1 Information and Services Required of the Owner**

**§ 7.1.1** If requested by the Contractor, the Owner shall furnish all necessary surveys and a legal description of the site.

**§ 7.1.2** Except for permits and fees under Section 8.7.1 that are the responsibility of the Contractor, the Owner shall obtain and pay for other necessary approvals, easements, assessments, and charges.

**§ 7.1.3** Prior to commencement of the Work, at the written request of the Contractor, the Owner shall furnish to the Contractor reasonable evidence that the Owner has made financial arrangements to fulfill the Owner's obligations under the Contract. The Contractor shall have no obligation to commence the Work until the Owner provides such evidence.

### **§ 7.2 Owner's Right to Manage the Work**

Based on the Owner's observations and evaluations of the Contractor's Applications for Payment, the Designer of Record will review and certify the amounts due the Contractor.

**7.2.A.** The Owner, through the Project Manager, has authority to reject Work that does not conform to the Contract Documents.

**7.2.B.** The Owner, through the Project Manager, will promptly review and approve or take appropriate action upon Contractor's submittals, but only for the limited purpose of checking for conformance with information given and the design concept expressed in the Contract Documents

**7.2.C.** If the Contractor fails to correct Work which is not in accordance with the Contract Documents, the Owner may direct the Contractor in writing to stop the Work until the correction is made.

### **§ 7.3 Owner's Right to Carry Out the Work**

If the Contractor defaults or neglects to carry out the Work in accordance with the Contract Documents and fails within a seven-day period after receipt of written notice from the Owner to commence and continue correction of such default or neglect with diligence and promptness, the Owner may, without prejudice to other remedies, correct such deficiencies. In such case, the Designer of Record may withhold or nullify a Certificate for Payment in whole or in part, to the extent reasonably necessary to reimburse the Owner for the cost of correction, provided the actions of the Owner and amounts charged to the Contractor were approved by the Designer of Record.

### **§ 7.4 Owner's Right to Perform Construction and to Award Separate Contracts**

**§ 7.4.1** The Owner reserves the right to perform construction or operations related to the Project with the Owner's own forces, and to award separate contracts in connection with other portions of the Project.

**§ 7.4.2** The Contractor shall coordinate and cooperate with the Owner's own forces and separate contractors employed by the Owner.

## **ARTICLE 8 CONTRACTOR**

### **§ 8.1 Review of Contract Documents and Field Conditions by Contractor**

**§ 8.1.1** Execution of the Contract by the Contractor is a representation that the Contractor has visited the site, become familiar with local conditions under which the Work is to be performed, and correlated personal observations with requirements of the Contract Documents.

**§ 8.1.2** The Contractor shall carefully study and compare the Contract Documents with each other and with information furnished by the Owner. Before commencing activities, the Contractor shall (1) take field measurements and verify field conditions; (2) carefully compare this and other information known to the Contractor with the Contract Documents; and (3) promptly report errors, inconsistencies, or omissions discovered to the Project Manager.

### **§ 8.2 Contractor's Construction Schedule**

The Contractor, promptly after being awarded the Contract, shall prepare and submit for the Owner's information a Contractor's construction schedule for the Work.

### **§ 8.3 Supervision and Construction Procedures**

**§ 8.3.1** The Contractor shall supervise and direct the Work using the Contractor's best skill and attention. The Contractor shall be solely responsible for and have control over construction means, methods, techniques, sequences, and procedures, and for coordinating all portions of the Work.

**§ 8.3.2** The Contractor, as soon as practicable after award of the Contract, shall furnish in writing to the Owner, through notification, the names of subcontractors or suppliers for each portion of the Work. The Contractor shall not contract with any subcontractor or supplier to whom the Owner has made a timely and reasonable objection.

#### **§ 8.4 Labor and Materials**

**§ 8.4.1** Unless otherwise provided in the Contract Documents, the Contractor shall provide and pay for labor, materials, equipment, tools, utilities, transportation, and any other facilities and services necessary for proper execution and completion of the Work.

**§ 8.4.2** The Contractor shall enforce strict discipline and good order among the Contractor's employees and other persons carrying out the Contract Work. The Contractor shall not permit employment of unfit persons or persons not skilled in tasks assigned to them.

#### **§ 8.5 Warranty**

The Contractor warrants to the Owner that: (1) materials and equipment furnished under the Contract will be new and of good quality unless otherwise required or permitted by the Contract Documents; (2) the Work will be free from defects not inherent in the quality required or permitted; and (3) the Work will conform to the requirements of the Contract Documents. Any material or equipment warranties required by the Contract Documents shall be issued in the name of the Owner, or shall be transferable to the Owner.

#### **§ 8.6 Taxes**

The Contractor shall pay sales, consumer, use, and similar taxes that are legally required when the Contract is executed.

#### **§ 8.7 Permits, Fees and Notices**

**§ 8.7.1** The Contractor shall obtain and pay for any permit not issued and other permits and governmental fees, licenses, and inspections necessary for proper execution and completion of the Work.

**§ 8.7.2** The Contractor shall comply with and give notices required by agencies having jurisdiction over the Work. If the Contractor performs Work knowing it to be contrary to applicable laws, statutes, ordinances, codes, rules and regulations, or lawful orders of public authorities, the Contractor shall assume full responsibility for such Work and shall bear the attributable costs. The Contractor shall promptly notify the Designer of Record in writing of any known inconsistencies in the Contract Documents with such governmental laws, rules, and regulations.

#### **§ 8.8 Submittals**

Upon execution, the Contractor shall promptly submit to the Owner a detailed task schedule itemizing the necessary steps and times to complete the Work prior to the Substantial Completion Date; shop drawings, product data, samples, and similar submittals required by the Contract Documents.

#### **§ 8.9 Use of Site**

The Contractor shall confine Work operations areas permitted by law, ordinances, permits, the Contract Documents, and the Owner. The use of the Site from the upland side is not feasible other than pedestrian access.

#### **§ 8.10 Cutting and Patching**

The Contractor shall be responsible for cutting, fitting, or patching required to complete the Work or to make its parts fit together properly.

#### **§ 8.11 Cleaning Up**

The Contractor shall keep the premises and surrounding area free from accumulation of debris and trash related to the Work. At the completion of the Work, the Contractor shall remove its tools, construction equipment, machinery, and surplus material; and shall properly dispose of waste materials.

### **§ 8.12 Indemnification**

To the fullest extent permitted by law, the Contractor shall indemnify and hold harmless the Owner, Designer of Record, consultants, and agents and employees of any of them, from and against claims, damages, losses and expenses, including but not limited to attorneys' fees, arising out of or resulting from performance of the Work, provided that such claim, damage, loss, or expense is attributable to bodily injury, sickness, disease or death, or to injury to or destruction of tangible property (other than the Work itself), but only to the extent caused by the negligent acts or omissions of the Contractor, a subcontractor, anyone directly or indirectly employed by them or anyone for whose acts they may be liable, regardless of whether or not such claim, damage, loss or expense is caused in part by a party indemnified hereunder.

## **ARTICLE 9 CHANGES IN THE WORK**

**§ 9.1** The Owner, without invalidating the Contract, may order and/or approve, changes in the Work within the general scope of the Contract, consisting of additions, deletions or other revisions, and the Contract Sum and Contract Time shall be adjusted accordingly, in writing.

If the Owner and Contractor cannot agree to a change in the Contract Sum, the Owner shall pay the Contractor its actual cost plus reasonable overhead and profit.

**§ 9.2** The Owner expects that construction means and methods, value engineering or similar will benefit the efficiency of the Work and would encourage the Contractor to request any changes that may benefit and ensure the successful completion of the Work by the Substantial Completion Date.

**§ 9.3** If concealed, or unknown, physical conditions are encountered at the site that differ materially from those indicated in the Contract Documents or from those conditions ordinarily found to exist, the Contract Sum and Contract Time shall be subject to equitable adjustment.

## **ARTICLE 10 TIME**

**§ 10.1** Time limits stated in the Contract Documents are of the essence of the Contract.

**§ 10.2** If the Contractor is delayed at any time in progress of the Work by changes ordered in the Work, or by labor disputes, fire, unusual delay in deliveries, unavoidable casualties, or other causes beyond the Contractor's control, the Contract Time shall be subject to equitable adjustment.

**§ 10.3** Costs caused by delays or by improperly timed activities or defective construction shall be borne by the responsible party.

## **ARTICLE 11 PAYMENTS AND COMPLETION**

### **§ 11.1 Contract Sum**

The Contract Sum stated in this Agreement, including authorized adjustments, is the total amount payable by the Owner to the Contractor for performance of the Work under the Contract Documents.

### **§ 11.2 Applications for Payment**

**§ 11.2.1** At least ten days before the portions of the Work listed in Section 3.2 are anticipated to be completed, and on the form provided, the Contractor shall submit to the Project Manager an itemized Application for Payment.

The Application shall be supported by data substantiating the Contractor's right to payment as the Owner, or Designer of Record, may reasonably require, such as evidence of payments made to, and waivers of liens from, subcontractors and suppliers. Payments shall be made on account of materials and equipment



delivered and suitably stored at the site for subsequent incorporation in the Work. If approved in advance by the Owner, payment may similarly be made for materials and equipment stored, and protected from damage, off the site at a location agreed upon in writing.

**§ 11.2.2** The Contractor warrants that title to all Work covered by an Application for Payment will pass to the Owner no later than the time of payment. The Contractor further warrants that upon submittal of an Application for Payment, all Work for which Certificates for Payment have been previously issued and payments received from the Owner shall, to the best of the Contractor's knowledge, information, and belief, be free and clear of liens, claims, security interests, or other encumbrances adverse to the Owner's interests.

### **§ 11.3 Certificates for Payment**

The Owner/Project Manager will, within seven days after receipt of the Contractor's Application for Payment, either (1) issue a Certificate for Payment in the full amount of the Application for Payment, (2) issue a Certificate for Payment for such amount that is determines to be properly due, and notify the Contractor in writing of the reasons for withholding certification in part; or (3) withhold certification of the entire Application for Payment, and notify the Contractor the reason for withholding certification in whole.

If certification or notification is not made within such seven-day period, the Contractor may, upon seven additional days' written notice to the Owner, stop the Work until payment of the amount owing has been received. The Contract Time and the Contract Sum shall be equitably adjusted due to the delay.

### **§ 11.4 Progress Payments**

**§ 11.4.1** After an issued Certificate for Payment, the Owner shall make payment in the manner provided in the Contract Documents.

**§ 11.4.2** The Contractor shall promptly pay each subcontractor and supplier, upon receipt of payment from the Owner, an amount determined in accordance with the terms of the applicable subcontracts and purchase orders.

**§ 11.4.3** The Owner shall not have responsibility for payments to a subcontractor or supplier.

**§ 11.4.4** A Certificate for Payment, a progress payment, or partial or entire use or occupancy of the Project by the Owner shall not constitute acceptance of Work not in accordance with the requirements of the Contract Documents.

### **§ 11.5 Substantial Completion**

**§ 11.5.1** Substantial Completion is the stage in the progress of the Work when the Work or designated portion thereof is sufficiently complete in accordance with the Contract Documents so the Owner can occupy or utilize the Work for its intended use.

**§ 11.5.2** When the Contractor believes that the Work or designated portion thereof is substantially complete, it will notify the Owner/Project Manager will make an inspection to determine whether the Work is substantially complete. When the Owner determines that the Work is substantially complete, they shall prepare a Certificate of Substantial Completion that shall establish the date of Substantial Completion, establish the responsibilities of the Contractor, and fix the time within which the Contractor shall finish all items on the list accompanying the Certificate. Warranties required by the Contract Documents, unless otherwise amended, shall commence on the date of Substantial Completion of the Work or designated portion thereof unless otherwise provided in the Certificate of Substantial Completion.

## **§ 11.6 Final Completion and Final Payment**

**§ 11.6.1** Upon receipt of a final Application for Payment, the Owner will inspect the Work. When the Owner finds the Work acceptable and the Contract fully performed, the Owner will promptly issue a final Certificate for Payment.

**§ 11.6.2** Final payment shall not become due until the Contractor submits to the Owner releases and waivers of liens, and data establishing payment or satisfaction of obligations, such as receipts, claims, security interests, or encumbrances arising out of the Contract.

**§ 11.6.3** Acceptance of final payment by the Contractor, a subcontractor or supplier shall constitute a waiver of claims by that payee except those previously made in writing and identified by that payee as unsettled at the time of final Application for Payment.

## **ARTICLE 12 PROTECTION OF PERSONS AND PROPERTY**

**§ 12.1** The Contractor shall be responsible for initiating, maintaining and supervising all safety precautions and programs, including all those required by law in connection with performance of the Contract. The Contractor shall take reasonable precautions to prevent damage, injury, or loss to employees on the Work and other persons who may be affected thereby, the Work and materials and equipment to be incorporated therein, and other property at the site or adjacent thereto, including, but not limited to, adherence to COVID-19 Field Safety Guidelines (Exhibit C). The Contractor shall promptly remedy damage and loss to property caused in whole or in part by the Contractor, or by anyone for whose acts the Contractor may be liable.

**§ 12.2** The Contractor shall require its employees to give all notices and comply with all Federal, State or local laws, ordinances, rules, regulations and contract terms of any public authority relative to the performance of the Services and any materials (including, without limitation, Hazardous Materials (as defined below), used in the performance of the Services or the disposal of any materials used in the performance of the Services. As used herein, "Hazardous Materials" means and includes petroleum, any petroleum product, lead, mold, asbestos, and any substance, chemical or waste that is identified as hazardous, toxic or dangerous by any federal, state or local law. Building materials encountered during renovations or demolitions which are suspected to contain Hazardous Materials must be avoided and not impacted. A stop work order must be instituted and the UW Project Manager notified.

## **ARTICLE 13 CORRECTION OF WORK**

**§ 13.1** The Contractor shall promptly correct Work rejected by the Owner as failing to conform to the requirements of the Contract Documents. The Contractor shall bear the cost of correcting such rejected Work, including the costs of uncovering, replacement, and additional testing.

**§ 13.2** In addition to the Contractor's other obligations including warranties under the Contract, the Contractor shall, for a period of one-year after Substantial Completion, correct work not conforming to the requirements of the Contract Documents.

**§ 13.3** If the Contractor fails to correct nonconforming Work within a reasonable time, the Owner may correct it in accordance with Section 7.3.

## **ARTICLE 14 MISCELLANEOUS PROVISIONS**

### **§ 14.1 Assignment of Contract**

Neither party to the Contract shall assign the Contract as a whole without written consent of the other.

## **§ 14.2 Tests and Inspections**

**§ 14.2.1** At the appropriate times, the Contractor shall arrange and bear cost of tests, inspections, and approvals of portions of the Work required by the Contract Documents or by laws, statutes, ordinances, codes, rules and regulations, or lawful orders of public authorities.

**§ 14.2.2** The Owner shall bear cost of tests, inspections, or approvals that do not become requirements until after the Contract is executed. The Owner shall directly arrange and pay for tests, inspections, or approvals where building codes or applicable laws or regulations so require.

## **§ 14.3 Governing Law**

The Contract shall be governed by the law of the State of Washington, King County, City of Seattle where the Project is located.

## **ARTICLE 15 TERMINATION OF THE CONTRACT**

### **§ 15.1 Termination by the Contractor**

If the Work is stopped under Section 12.3 for a period of 14 days through no fault of the Contractor, the Contractor may, upon seven additional days' written notice to the Owner and Designer of Record, terminate the Contract and recover from the Owner payment for Work executed including reasonable overhead and profit, and costs incurred by reason of such termination.

### **§ 15.2 Termination by the Owner for Cause**

**§ 15.2.1** The Owner may terminate the Contract if the Contractor

- .1 repeatedly refuses or fails to supply enough properly skilled workers or proper materials;
- .2 fails to make payment to subcontractors for materials or labor in accordance with the respective agreements between the Contractor and the subcontractors;
- .3 repeatedly disregards applicable laws, statutes, ordinances, codes, rules and regulations, or lawful orders of a public authority; or
- .4 is otherwise guilty of substantial breach of a provision of the Contract Documents.

**§ 15.2.2** When any of the above reasons exist, the Owner, after consultation with the Designer of Record, may without prejudice to any other rights or remedies of the Owner and after giving the Contractor and the Contractor's surety, if any, seven days' written notice, terminate employment of the Contractor and may

- .1 take possession of the site and of all materials thereon owned by the Contractor, and
- .2 finish the Work by whatever reasonable method the Owner may deem expedient.

**§ 15.2.3** When the Owner terminates the Contract for one of the reasons stated in Section 16.2.1, the Contractor shall not be entitled to receive further payment until the Work is finished.

**§ 15.2.4** If the unpaid balance of the Contract Sum exceeds costs of finishing the Work, such excess shall be paid to the Contractor. If such costs exceed the unpaid balance, the Contractor shall pay the difference to the Owner. This obligation for payment shall survive termination of the Contract.

### **§ 15.3 Termination by the Owner for Convenience**

The Owner may, at any time, terminate the Contract for the Owner's convenience and without cause. The Contractor shall be entitled to receive payment for Work executed, and costs incurred by reason of such termination, along with reasonable overhead and profit on the Work not executed.

This Agreement entered into as of the day and year first written above.

**University of Washington**

**OWNER** *(Signature)*

« »« »

*Michael McCormick*

*Associate Vice President, UW Facilities*

**Company Name**

**CONTRACTOR** *(Signature)*

« »« »

*Company Representative Name*

*Company Representative Title*

# CULTURAL RESOURCES REPORT COVER SHEET

**Author:** Jena A. Kalli and Jeremy W. Ripin

**Title of Report:** Archaeological Assessment for Sewer Maintenance  
University of Washington Friday Harbor Laboratories, Friday  
Harbor, San Juan Island, San Juan County, Washington

**Date of Report:** May 26, 2021

**County(ies):** San Juan **Section:** 12 **Township:** 35N **Range:** 3W

**Quad:** NW 1/4 **Acres:**468.84

**PDF of report submitted (REQUIRED)** Yes

**Historic Property Inventory Forms to be Approved Online?** No

**Archaeological Site(s)/Isolate(s) Found or Amended?** No

**TCP(s) found?** No

**Replace a draft?** No

**Satisfy a DAHP Archaeological Excavation Permit requirement?** No

**Were Human Remains Found?** No

**DAHP Archaeological Sites:** N/A



# **Archaeological Assessment for Sewer Maintenance University of Washington Friday Harbor Laboratories, Friday Harbor, San Juan Island, San Juan County, Washington**



## **Prepared by:**



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## **Prepared for:**

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3988 Jefferson Rd NE  
Seattle, Washington, 98195

May 26, 2021

## Management Summary

Landowner(s)	University of Washington
Location	University of Washington Friday Harbor Laboratories
Project Summary	An archaeological survey for the permitting related to upgrading portions of the campus's sewer system.
Methods	Pedestrian and Subsurface Survey
Shovel Test Probes (STPs)	8 STPs excavated
Results	No archaeological materials observed
Recommendations	The project should proceed; however, the UW FHL staff and contractors should follow protocols outlined in the San Juan County Inadvertent Discovery Plan. If archaeological materials are observed during construction, all work should cease. The area should be protected and immediately notify the DAHP and other stakeholders.

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## Land Acknowledgment

The study presented in this document was conducted on San Juan Island, which is part of the San Juan Archipelago located in the Salish Sea off the northwest mainland of Washington. The islands are hotspots of biodiversity and have been and continue to be home to communities of Coast Salish Peoples since time immemorial. Many people travel to the islands to vacation and engage in outdoor activities in what they perceive to be a mix of wild setting and pastoral landscapes; however, Indigenous Americans and Indigenous Canadians shaped the islands' terrain through landscape management practices for thousands of years. Landscape Stewardship practices past and present of Coast Salish Peoples throughout the region often center on food and medicinal plants, game, waterfowl, shellfish, and various fish species. Such resources are not seen solely as consumable goods but rather as essential to Coast Salish values, beliefs, and lifeways. They are a vital component of spiritual, cultural, and community well-being as well as environmental health. Archaeological records reveal that at least 280 plants, birds, mammals, fish, reptiles, shellfish, and other marine life comprised Coast Salish cuisine. We recognize that this land acknowledgment is one small step toward true allyship. We are committed to uplifting the voices, experiences, and histories of the Indigenous People of this land and beyond.

## Introduction

The University of Washington Friday Harbor Laboratories Campus (UW FHL) located on San Juan Island needs to upgrade portions of the sewer system. The repairs are needed to help prevent ground water from entering the municipal sewer system. The San Juan County Department of Community Development (SJCD) requires an archaeological assessment of the project area due to its proximity to a previously recorded archaeological sites prior to issuing permits for the sewer upgrades. There are a total of nine different upgrades proposed, of which, six would require ground disturbance to complete the repairs. Fullscope NW, LLC (FSNW) archaeologists conducted an investigation of the six the projects that would have ground disturbing activities and therefore the potential to disturb undocumented cultural resources. This report highlights the resulting findings of both background research and the field investigation.

There are five recorded archaeological sites, two register properties, and one heritage barn within a mile of the overall project area. There have been 5 cultural resource surveys conducted within a mile radius of the overall project area. There are currently no documented sites directly in any of the project areas with ground disturbing activities but four sites, SJ00210, SJ00204, SJ00324, and SJ00456 are located on the campus near or along the shoreline.

Archaeological reconnaissance fieldwork was conducted on May13, 2021 and consisted of pedestrian and subsurface survey. The field investigation did not identify any archaeological sites and the area is highly disturbed.

Based on this assessment, we recommend that completing the proposed upgrades to the sewer system should proceed with the stipulation that UW FHL staff and contractors should follow protocols outlined in the San Juan County Inadvertent Discovery Plan.

## Project Location

The project is located on a portion of the UW FHL 468.84 acre campus located on the eastern side of San Juan Island, just north of the town of Friday Harbor, in San Juan County, Washington. It is situated in the northeast quarter of Section 12, Township 35 North, Range 3 West as indicated in the Friday Harbor, WA (2020) USGS 7.5 minute quadrangle (Figure 1).

## Project Description

UW FHL needs to perform maintenance upgrades on their sewer system to prevent ground water from entering the municipal waste water treatment plant (Figure 2). There are nine separate upgrades required; however, only six would require ground disturbance: Projects 1, 2, 4 - 7. Below are descriptions of the six projects with an inset of each project created from the overall design plan and corresponding photograph of each project area (Figures 3 -12 ). The remaining projects: Projects 3, 8, and 9 would consist of adding grout to pipe joints or replacing a sump pump and would not require any ground disturbance or changes to any buildings. Full project descriptions available in Appendix A.

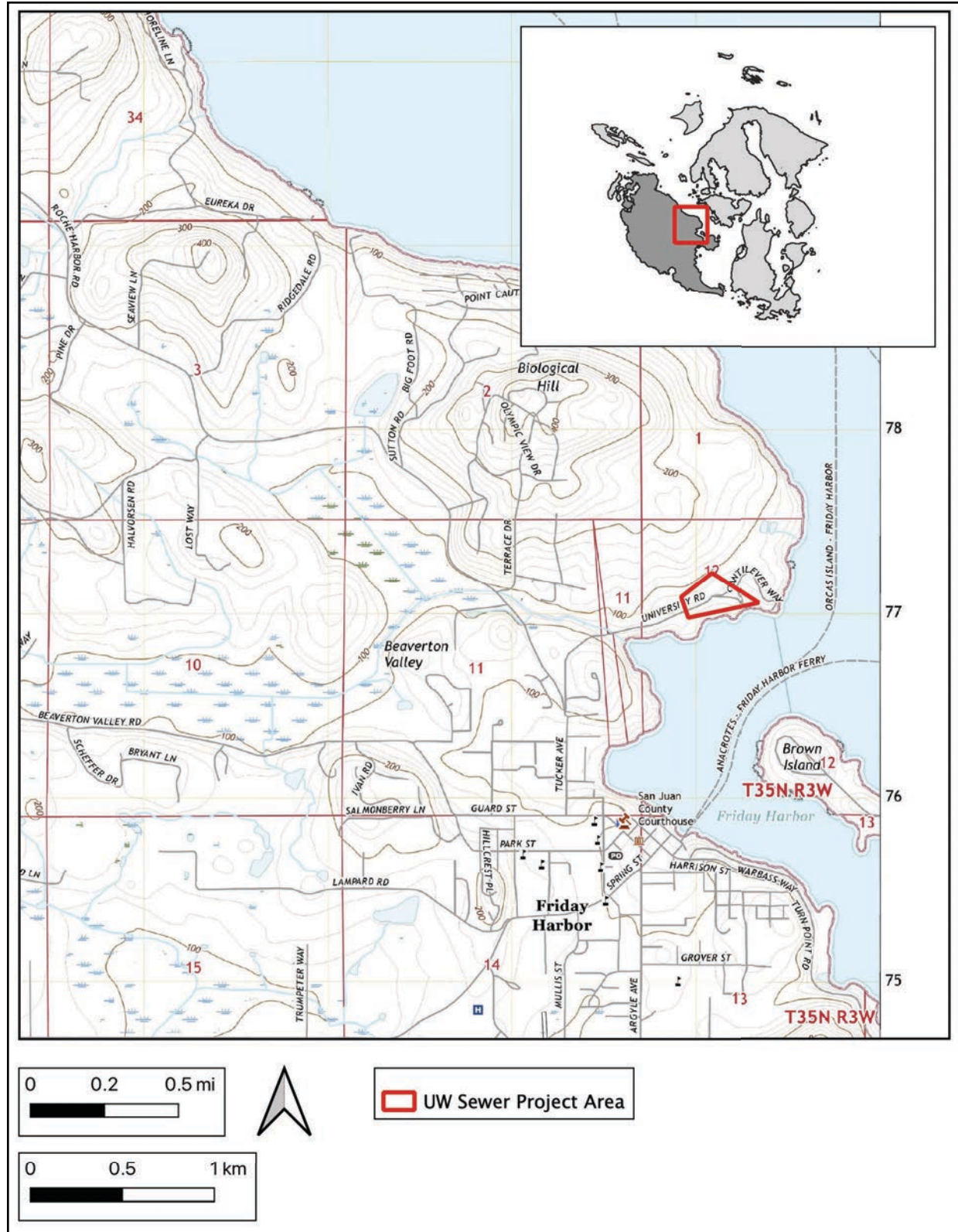


Figure 1. Project vicinity map.

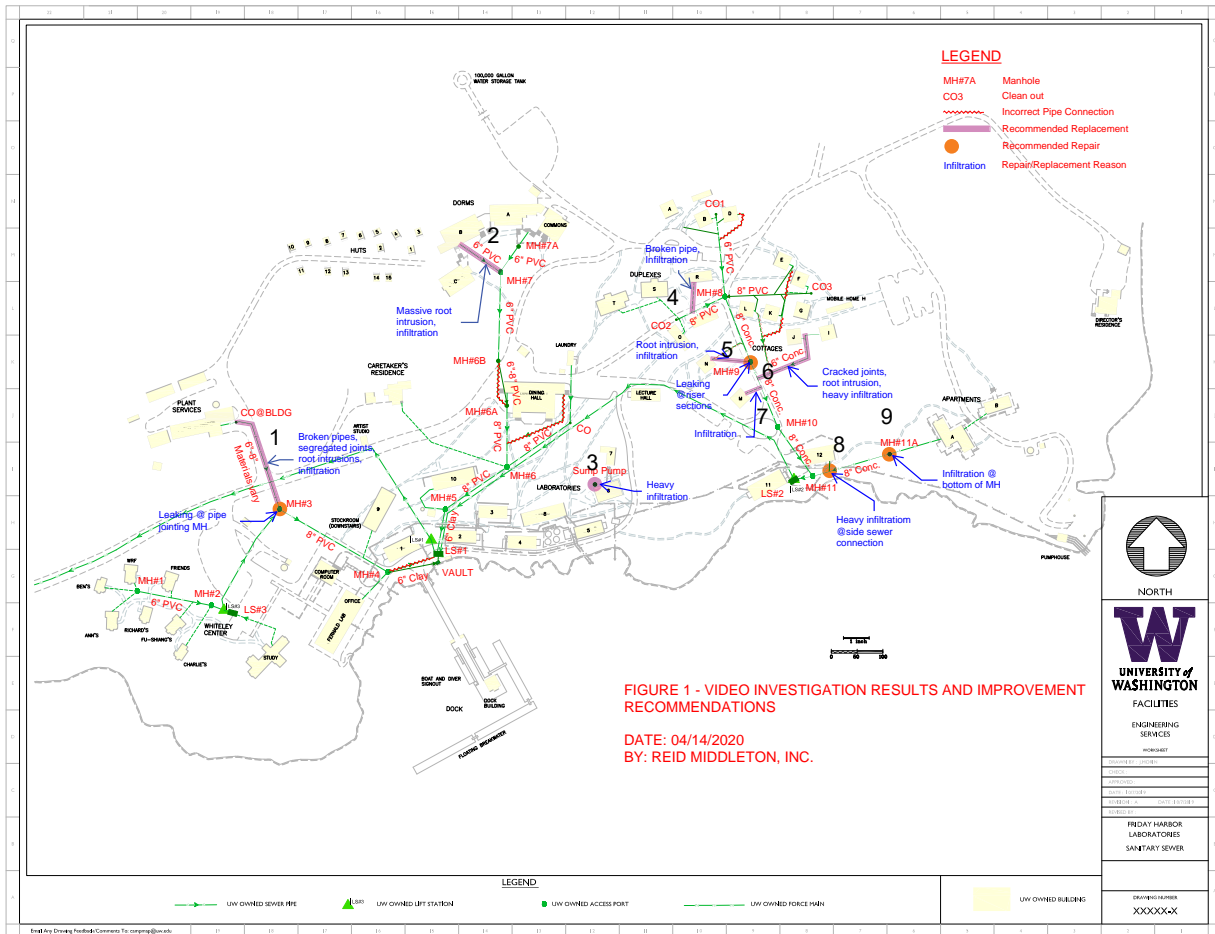


Figure 2. Plan for all nine sewer projects.

### Project 1

Install new 4" Gasketed PVC Sewer Main SDR 35 ASTM D3034 from Plant Services building connection point to Manhole 3. Remove enough of the existing 6" pipe to make connection to building (should be about 20' of pipe) and clear path to slide new 4" PVC through existing 6" pipe under the main road. Remove enough of existing 6" pipe by Manhole 3 (probably about 3') to ensure water tight concrete seal connection between new 4" PVC and Manhole 3. Wherever 4" pipe is not installed inside existing 6" pipe, maintain a slope of 2% or greater, backfill with 5/8" crushed rock to 1' over top of pipe and compact. Backfill remaining with native material and compact. Patch any asphalt that is disturbed, reseed any grass areas that are disturbed by digging.



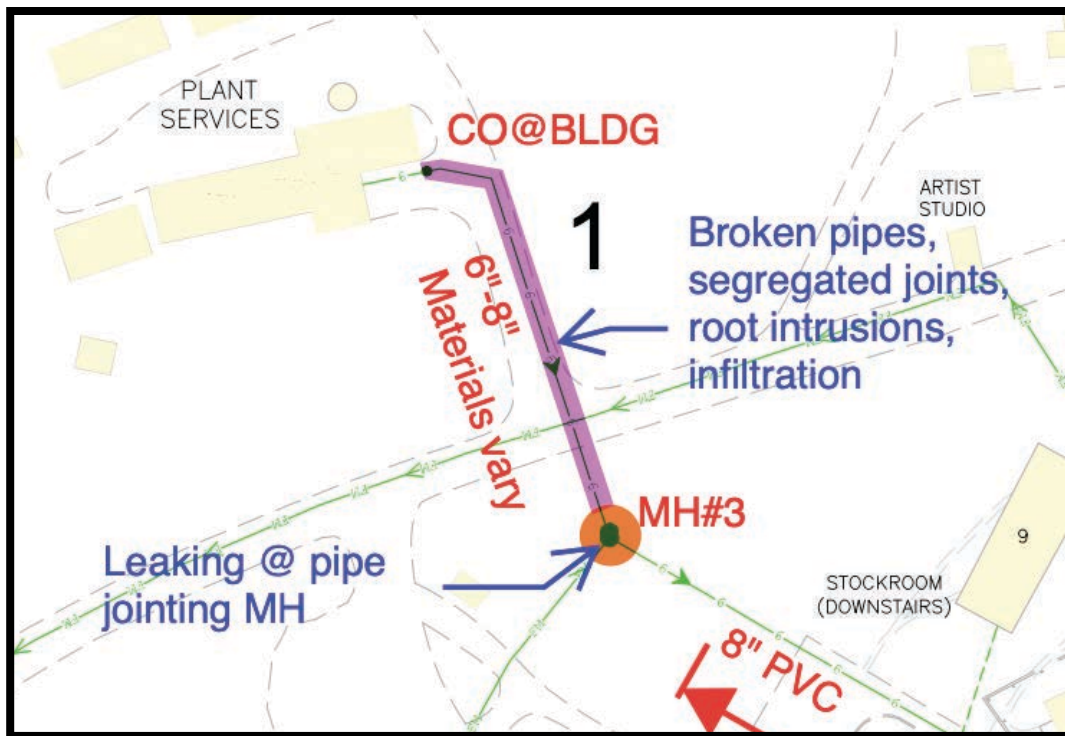


Figure 3. Inset of Project Area 1.

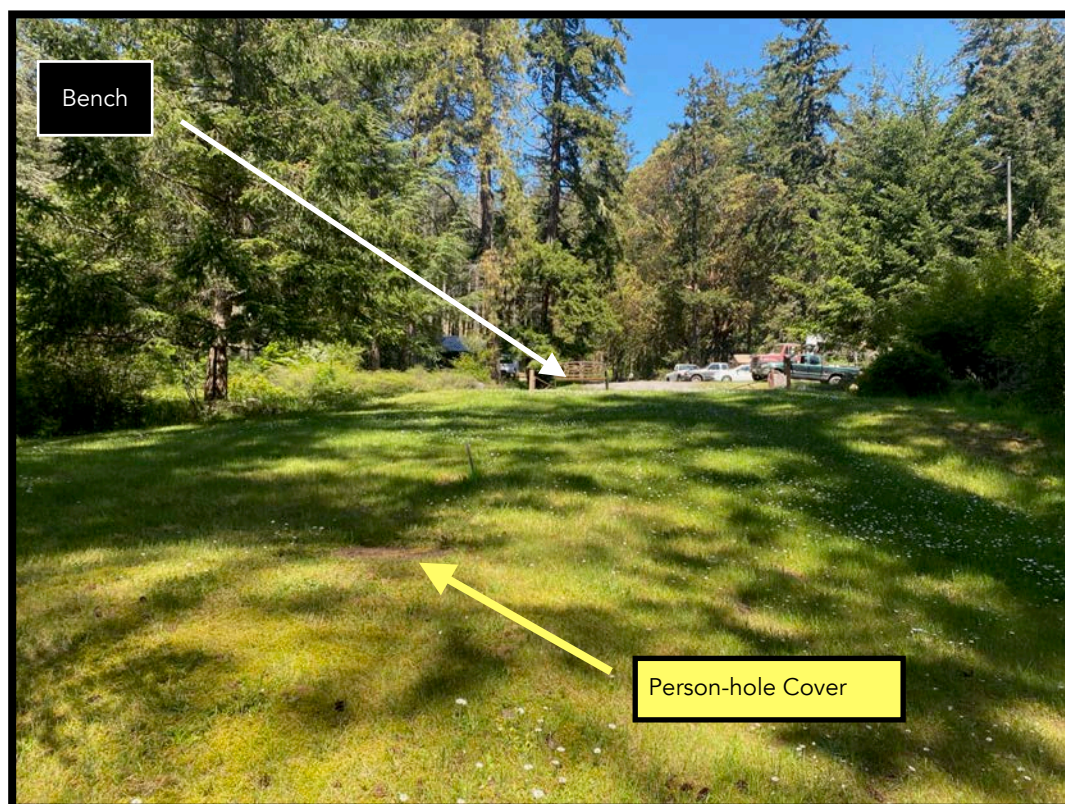


Figure 4. Project Area 1 overview photograph. View to the northwest.

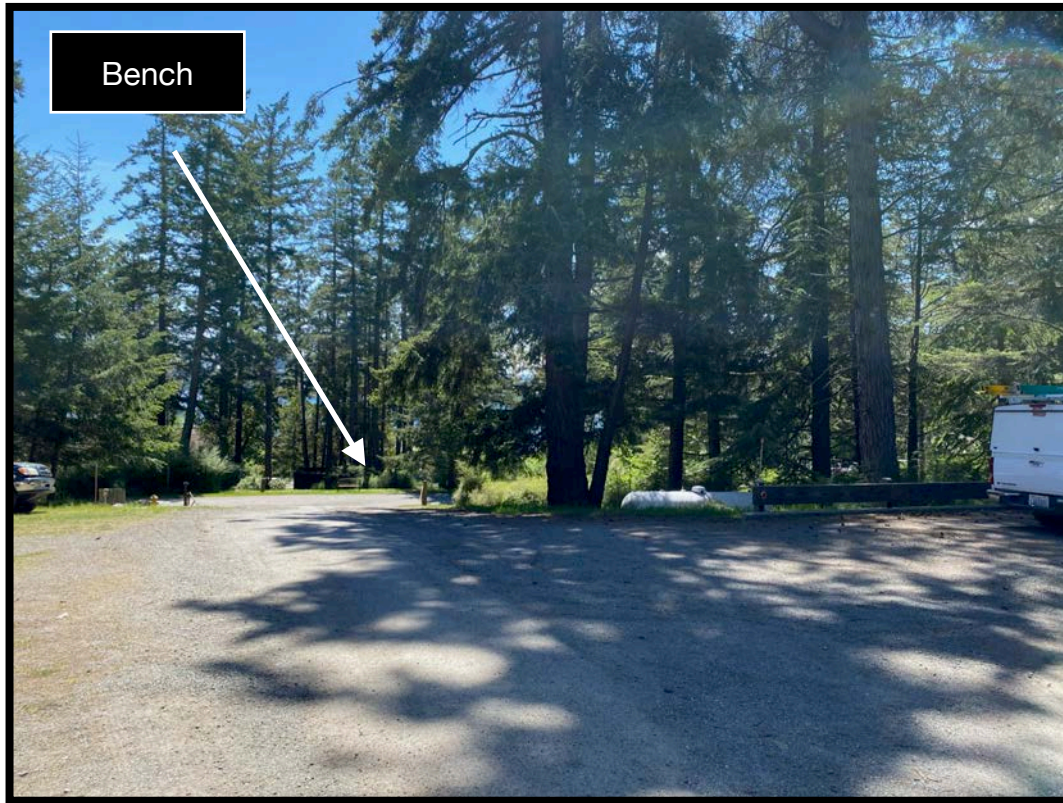


Figure 5. Project Area 1 overview photograph. Area not excavated due to asphalt covering. View to the southeast.

### *Project 2*

Remove root intrusion, include alternate price to replace 6" line from Building B connection point to Manhole 7 with 6" Gasketed PVC Sewer Main SDR 35 ASTM D3034 if needed. Alternate price to include maintain a slope of 2% or greater, backfill with 5/8" crushed rock to 1' over top of pipe and compact. Backfill remaining with native material and compact. Reseed any grass areas that are disturbed by digging.



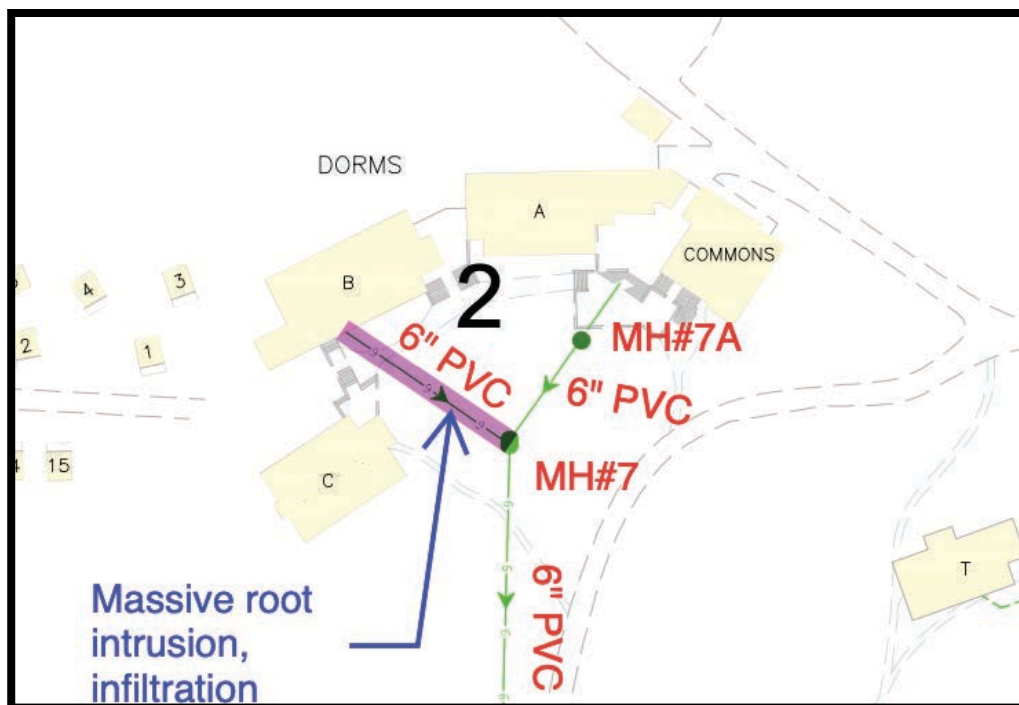


Figure 6. Inset of Project Area 2.



Figure 7. Project Area 2 overview photograph. View to the northwest.



#### *Project 4*

Replace Broken Pipe from Building R connection point to 8" PVC Main with new 4" Gasketed PVC Sewer Main SDR 35 ASTM D3034. Maintain a slope of 2% or greater, backfill with 5/8" crushed rock to 1' over top of pipe and compact. Backfill remaining with native material and compact. Patch any asphalt that is disturbed, reseed any grass areas that are disturbed by digging.

#### *Project 5*

Replace Broken Pipe from Building N connection point to Manhole 9 with new 4" Gasketed PVC Sewer Main SDR 35 ASTM D3034, maintaining slope of 2% or greater. Regrout / Reseal Manhole 9 at connection point and at riser connections, inside and out. Backfill with 5/8" crushed rock to 1' over top of pipe and compact. Backfill remaining with native material and compact. Patch any asphalt that is disturbed, reseed any grass areas that are disturbed by digging.

#### *Project 6*

Site plan is incorrect in this location. The pipe shown serving buildings I and J is actually connected to Manhole 10, and it no longer serves buildings I and J. Cap this 6" concrete pipe 3 feet from Manhole 10 (removing 3' section of pipe between Manhole 10 and new cap), and install water tight concrete seal in Manhole 10. Backfill with 5/8" crushed rock and compact. Patch any asphalt that is disturbed, reseed any grass areas that are disturbed by digging.

#### *Project 7*

Replace Broken Pipe from Building M connection point to 8" PVC Main with new 4" Gasketed PVC Sewer Main SDR 35 ASTM D3034. Maintain a slope of 2% or greater, backfill with 5/8" crushed rock to 1' over top of pipe and compact. Backfill remaining with native material and compact. Patch any asphalt that is disturbed, reseed any grass areas that are disturbed by digging.

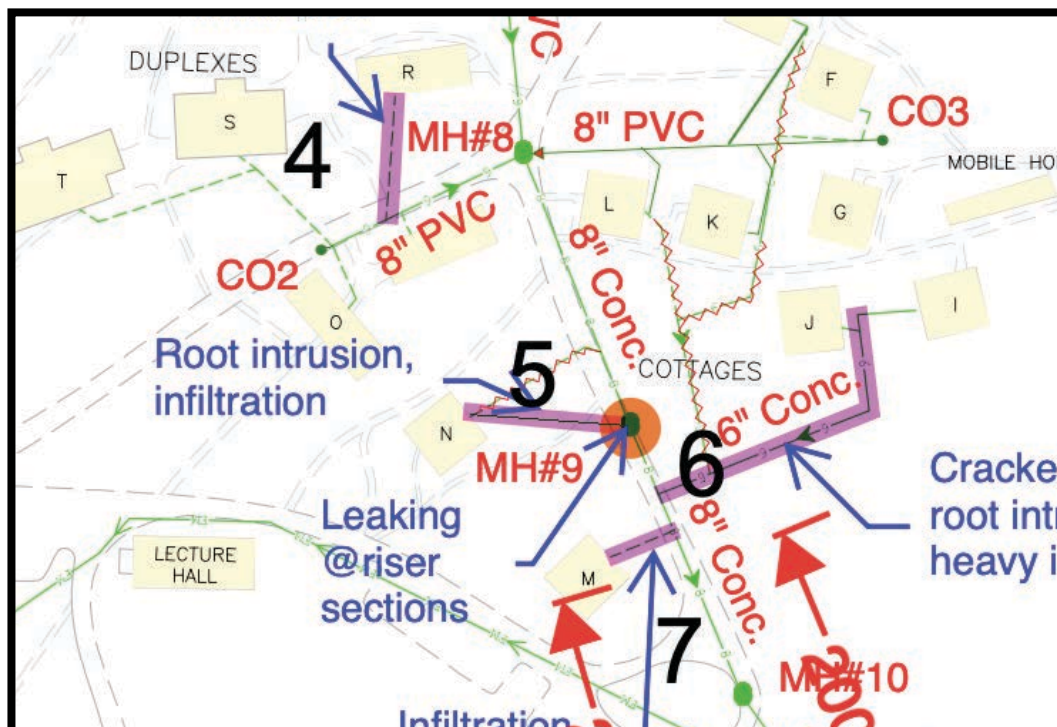


Figure 8. Inset of Project Areas 4-7.



Figure 9. Project Area 4 overview photograph. View to the north.





Figure 10. Project Area 5 overview photograph. View to the west.



Figure 11. Project Area 6 overview photograph. View to the northeast.





Figure 12. Project Area 7 overview photograph. View to the southwest.

## Current Conditions

The portion of the campus that is included in the six project areas has been developed since the early 1920s to support the administration, students, faculty, and staff. The majority of the developed portion of the campus is a mixture of buildings, open manicured lawns, stands of trees, and edge habitat (Figures 13 and 14). Both gravel and asphalt roads route around the various buildings. Parking is available throughout the six project areas. The developed portion of the campus slopes down to the inlet currently known as Friday Harbor and the shoreline consists of exposed natural rock and gravel beaches.



Figure 13. An example of the current conditions. View to the southeast.



Figure 14. An example of the current conditions. View to the southwest.



## Environmental Background

### Geology

The San Juan Islands are the tops of a mountain range formed several hundred million years ago and were shaped in part by glacial activity. They are composed chiefly of Paleozoic and Mesozoic sedimentary rocks (Nass Ciskowski 2013). Most of the sediment exposed in the San Juan Islands were deposited during the past 18,000 years when continental ice flowed south into the Puget Lowland from source areas in Canada (Dither et al. 1996). Glaciers retreated rapidly back through the San Juan Islands about 13,000 years ago, depositing marine sediment and shell assemblages up to an elevation of about 300 ft. (Dither et al. 1996).

By 12,500 years ago, relieved of the great mass of the ice sheets, most of the area rebounded rapidly (>0.4 ft. per year) (Dither et al. 1996). About 8,000 years ago local sea level rose more rapidly than the rebounding land (Dither et al. 1996). During Holocene time (the past 12,000 years), island landforms have been primarily affected by coastal processes such as wave erosion and sediment transport; relative sea level has risen more than 150 ft., gradually moving the shoreline inland (Dither et al. 1996). Around 1,000 years ago, shorelines stabilized to about 1 meter below the present position (Stein 1994).

The glacial and marine history of the area can be observed in the soils. The northern portion of the project area is mapped as consisting of the Cady-Doebay\_Rock Outcrop complex (UC Davis 2021). The Cady-Doebay\_Rock Outcrop complex consists of three main soils (Cady 70%, Doebay 15%, Rock outcrop 15%) (UC Davis 2021). Soils of the Cady and Doebay, series consist of colluvium mixed with glacial drift (Regan et al. 2005). They occur in areas where glacial sediment is thin or where the sediment has been eroded (Regan et al. 2005). Both soils have a bedrock contact in the rooting zone (Regan et al. 2005). The bedrock consists mainly of marine metasedimentary rock of the Cretaceous-Jurassic period known as the Constitution Formation (Regan et al. 2005). Rock types included are metamorphosed sandstone, argillite, mudstone, and conglomerate (NPS). Both the Cady and Doebay series exhibit little horizon development. Their formation has been affected by the mixing of soil material as a result of windthrow of trees, erosion, and mass movement on steep slopes. (Regan et al. 2005)

### The San Juan Channel Management Area

Below is summarized from the Shoreline Inventory and Characterization Report for San Juan County (Herrera Environmental Consultants et al. 2013).

The San Juan Channel Management Area comprises 69,498 feet (13.2 miles) of shoreline. Its southern point is Friday Harbor. It extends north and wraps around the northern end of the island ending just east of Davison Head, along the south edge of San Juan Channel. The management area also includes O'Neal Island. There are no major transportation-related uses in this management area. The management area scores high for maintaining natural sediment and current patterns and wave and current attenuation. Most shoreline reaches have high water

quality and relatively intact shoreline shading. Floating kelp, haul-out habitat, and spawning habitat for priority fish species are mainly lacking in this management area.

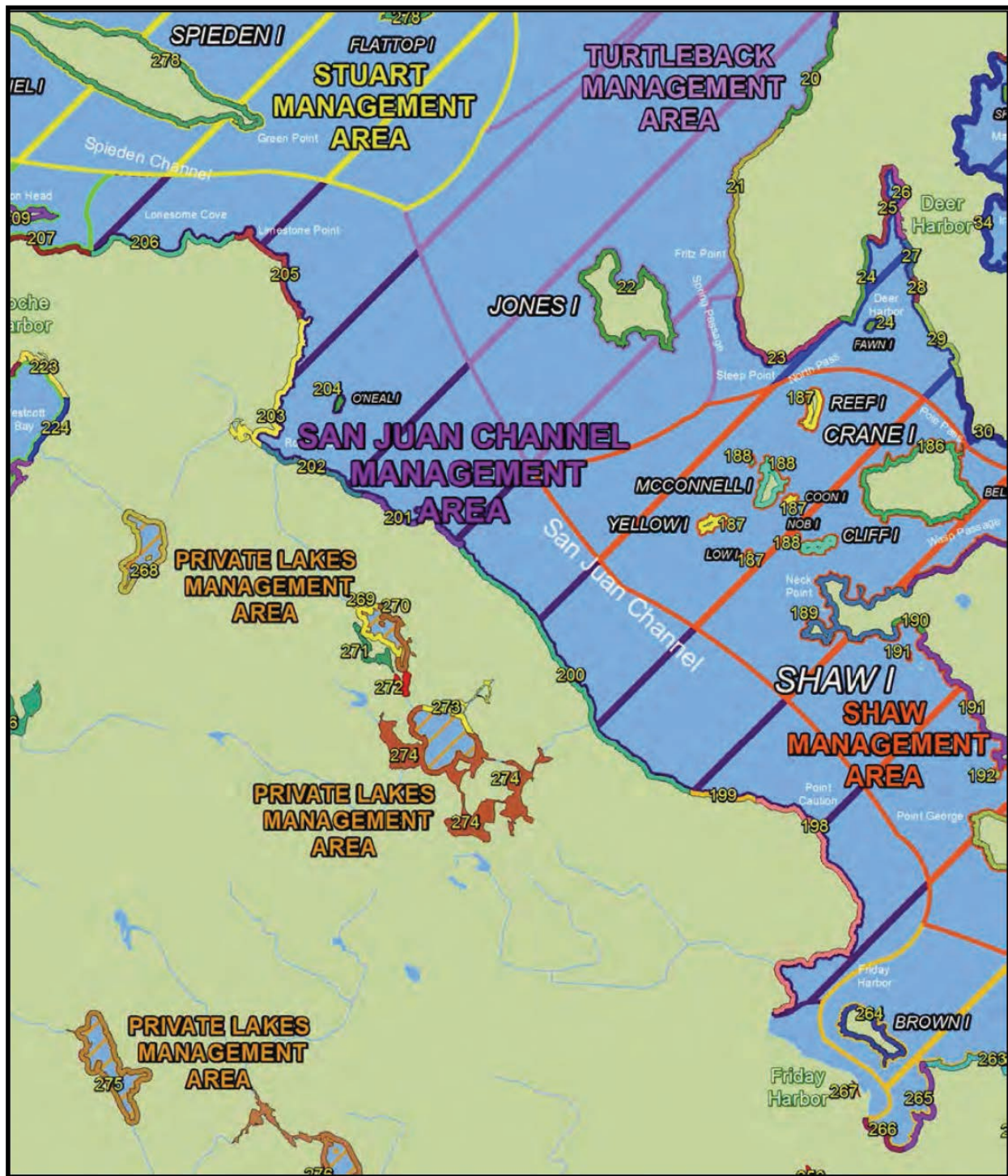


Figure 15. Map of Strait of Juan De Fuca Management Area (Herrera Environmental Consultants et al. 2013: Fig 22).

## **Geological Hazards**

Throughout the management area, landholding is possible in many locations given the large slopes present, but the resistant nature of the bedrock makes slides rare and localized. The tsunami threat is minor for most of the shorelines facing east. Still, the north-facing shorelines could experience some effects from a tsunami generated anywhere in the Strait of Georgia, including tsunamis generated from a Fraser River delta collapse. Liquefaction is non-existent in the management area.

## **Nearshore Physical Processes**

The management area's geology is relatively uniform and consists of altered marine sedimentary bedrock. The majority of the shoreline is steep. There is minimal sediment in transport alongshore. The presence of sediment does increase to the north, where thin deposits intersect the shoreline in a few places. There are no mapped drift cells in this management area. In the middle of the San Juan Channel, tidal currents greater than 1 knot can occur, but tidal flows in the embayments of the management area are much less. Inside Friday Harbor, wave energy is minimal; it generally increases as you travel north in the management area. Having indirect exposure to the Strait of Georgia, the north shore of San Juan has fairly significant waves.

## **Streams and Associated Wetlands**

Several mapped streams can be found in this management area, including Salmon Creek, which drains into Beaverton Valley, located north and west of the Town of Friday Harbor. It empties into Friday Harbor at the University of Washington Friday Harbor Laboratories. Another stream serves as an outlet for Sportsman (Sportsperson) Lake. A further example is an outlet that drains to the southern side of Rocky Bay from Neva Lake. Five small ephemeral streams are present. One shoreline wetland is mapped in the management area at the head of Rocky Bay.

## **Cultural Context**

### **Ethnographic**

The San Juan Islands are within the traditional territories of the Central Coast Salish communities. The territory encompasses portions of both the province of British Columbia and Washington State, including the area from the southern end of the Strait of Georgia, most of the Strait of Juan de Fuca, the Lower Fraser Valley, and some adjacent regions (Suttles 1990). The Central Coast Salish includes the speakers of five languages: Squamish, Halkomelem, Nooksack, Northern Strait, and Clallam; and consists of the present-day communities of the Lummi Nation, Samish Indian Nation, Swinomish Indian Community, the Songhees, and Saanich First Nations on Vancouver Island (Suttles 1951a, 1974, 1990).



The Coast Salish ancestors were complex hunter-gatherers who shaped the landscape from southern British Columbia to southwest Washington State (Taylor 2020). They have utilized marine and terrestrial resources for thousands of years into the present day. Like Indigenous Peoples worldwide, the Coast Salish developed innovative ways to produce predecessors to modern-day consumer goods through evolving ecological and technical knowledge. They operated complex agroecosystems that included managing marine resources, terrestrial animals, and food staples such as camas (Angelbeck 2016). Archaeological sites around Puget Sound, the second-largest estuary in the United States, have found more than 280 plants, birds, mammals, fish, reptiles, shellfish, and other marine life used as traditional Coast Salish cuisine (Burke Museum 2013).

Ethnographer Wayne Suttles viewed the Coast Salish Peoples as sedentary since they annually harvested family-owned plots that produced first foods, such as camas (Suttles 1951b). His research indicates that it was common to have permanent multigenerational homes that were the primary residence for half the year. For the remainder of the year, some family members would travel to harvest foods and materials. Using boats as transport allowed them to generally travel less than a day or two from their home base (Suttles 1951b). Planks or mats transported from winter villages covered summer houses. Fish drying racks were staged in large dwellings. Temporary crew members would lodge in small mat houses (Suttles 1951a).

The autonomous groups who lived in the region collaborated in intra-tribal negotiations, coalition building, and co-ownership or sharing of resource locations, but ethnographers who sought to categorize Indigenous communities by cultural characteristics and geography promoted an oversimplified portrayal of the Indigenous Americans and Indigenous Canadians (Taylor 2020). Despite ethnographic oversimplifications, Coast Salish communities are recognized as connecting socially via shared waterways and drainages before the treaties of the 1850s (Taylor 2020). Population size, access to resources, defense, and hierarchical status, varied among groups (Taylor 2020). No political structure divided regional Indigenous communities into tribal bands before treaties with the federal government (Taylor 2020).

Villages were ethnographically recorded in present day Mitchell Bay, Garrison Bay, Westcott Bay, Davidson Head and historically Kanaka Bay (Figure 5) (Suttles 1951). The Salmon Banks, located off the coast of present day San Juan Island National Historical Park American Camp and adjacent to the project area, was a highly productive salmon fishing area. Fish Creek, where the project area is located is also reported being home to a village site (Suttles 1951a).

## **Historical Context**

Lifeways of Coast Salish and Indigenous Peoples throughout the Americas experienced extreme and devastating changes when European contact and the colonial enterprise began (Butler et al. 2019). Contact between Indigenous Americans and Europeans began in the 1770s with Spanish coastal exploration, followed by British, Russian, and U.S. led expeditions (Butler et al. 2019). Maritime fur Trade development was a central interest early on; later ambitions included but were not limited to colonization, resource extraction, and missionizing (Butler et al. 2019). Indigenous Americans were devastated by disease. Communities saw significant

declines in their populations (Boyd 1999). Indigenous communities were removed from traditional lands, and access to various resources was restricted (Butler et al. 2019). Cultural practices, including speaking native languages, were made illegal (Butler et al. 2019). Despite the various negative impacts of colonization, Indigenous Americans and Indigenous Canadians were resilient and endured and are reclaiming and relearning their lifeways that often continue to be threatened and imperiled.

## **San Juan Islands**

Salmon returning to the Fraser River (British Columbia, Canada) must travel through the San Juan Archipelago's narrow passage, making the San Juans Islands a prime place for salmon fishing (Taylor et al. 2011). One disadvantage of the islands in terms of long-term human occupation is the lack of fresh water (Taylor et al. 2011).

In 1843 the Hudson's Bay Company (HBC) established Fort Victoria on nearby Vancouver Island (Weber/Rooschvarg 2016). In the 1850s, British and American trappers began inhabiting the landscape, bringing further Coast Salish communities changes (Carter 2012). Over-trapping extirpated beaver from the San Juan islands, leaving only mink and low-value raccoon (Carter 2012).

Continuing impacts of the overlapping of European and Indigenous cultures began in the 1790s when the first wave of smallpox swept over the region (Carter 2012). Disease outbreaks in 1782, 1830, and 1850 resulted in an estimated 80%-90% of Coast Salish population loss in just 75 years (Weber/Rooschvarg 2020). Coast Salish villages were also impacted by raids carried out by northern tribes who would kill villagers, seize goods, destroy property, and take prisoners for slave labor (Weber/Rooschvarg 2020). San Juan Islands winter villages have been reported to have been primarily relinquished by 1840 (Weber/Rooschvarg 2020). Tribal members still utilized their traditional summer fishing grounds but, in the fall, returned to more secure villages on Vancouver Island and the mainland (Weber/Rooschvarg 2020).

The California Gold Rush (1849) and the Fraser River Rush (1858) brought tens of thousands of prospectors to the region. HBC employees began raising sheep and pigs, deer hunting, and traded with the Coast Salish Peoples. Kanaka shepherds from Hawaii tended the sheep while French Canadians trapped and hunted on San Juan and Orcas Island. In 1872, the United States government sanctioned homesteading in the San Juan Islands leading to a rapid increase in European American populations. By 1895 a prosperous agricultural community was established in the San Juan Islands.

In the 1860s, San Juan County emerged as the principal lime producer in the region (Pratt 2016). Through the 1920s, Roche Harbor on San Juan Island was the center of lime production. Lime from islands was used to make cement for cities throughout the West Coast (Pratt 2016). Lime kilns burned extensive amounts of wood. Trees that were not felled for kilns or lime shipping barrels were often cut and to clear land for crops and orchards and then burned in huge piles. Sawmills became part of the islands' economy (Pratt 2016).

The depression of 1893 weakened the agriculture economy of the islands. The irrigated orchards of Eastern Washington and California coupled with the expansion of mainland shipping shank islands' farmers' place in the market. Tourism help fill the gap in the economy (Crater 2012). In Friday Harbor the small San Juan Hotel was established in the late 1870s or early 1880s in a former private residence on Spring Street (Weber 2019). Eventually the structure was expanded and a deck was added and it was renamed the Bay View Hotel and was advertised as providing the best services for the business traveler. In 1891 the Tourist Hotel was built in town (Figure 9) (Weber 2019).



Figure 16. Tourists Hotel, Friday Harbor, San Juan Island, ca. 1906. Source: UW Special Collections (WAS1159).

### University Of Washington Friday Harbor Labs

UW FHL are world renowned for their research on marine biology, oceanography, and fisheries. The 490 area tract of land which UW FHL is located and the marine waters of the region are biological preserves.

Research at FHL is conducted throughout the year, with courses offered during the Autumn, Spring, and Summer being the busiest time. Various college-level educational groups visit UW FHL for field trips, meeting and symposia during the Autumn, Winter, and Spring Months.

The UW FHL campus includes 78 buildings encompassing just over 116k gross square feet. These buildings vary in age from 2012 to 1924. Almost 75% of the building inventory dates to 1924. Very little construction cured at the UW FHL until the early 2000s.

The UW FHL grew from a dozen of University of Washington students taking part in six weeks of marine biology field studies in the San Juan islands in 1904 (Oldham 2005). The base for these studies was a cabin on loan from a community member (Oldham 2005).

In 1906, the cannery building, which is located next to the presented day Washington State Department of Transportation Ferry Terminal, became the growing field station's base when the cannery suspended operations due to lack of water (Geyer 2015).

In 1909 the cannery resumed operations and the field station moved to four acres of donated land south of town (Geyer 2015; Oldham 2005). In 1910 the Puget Sound Marine Station opened (Oldham 2005). The site included permanent buildings and platform tents for student housing (Oldman 2005)(Figure 6).The field station's named changed to the Puget Sound Biological Station during World War I to avoid confusion with military "Marine Stations" (Geyer 2015; Oldham 2005).

The donated location, nicknamed the "Bug Station" came with issues that began being raised as early as 1916 (Geyer 2015). Steep slopes became hazards in the wet season (Geyer 2015; Oldham 2005). The shoreline was only 400 ft., too small for proper studies and industrial pollution from the cannery impacted water quality (Geyer 2015; Oldham 2005).

For years faculty and administration had taken notice of the 484-acre military reservation at Point Caution (Military Point) on the north side of Friday Harbor for a potential permanent home for growing field station (Oldham 2005). The Army established seven Such reservations in the San Juans during the 1870s, none of them were ever utilized (Oldham 2005).

In 1917 the UW Board of Regents applied to the U.S. War Department to grant land at Point Caution (Geyer 2015). On August 23, 1921 President Harding signed House Resolution 1475, granting the Point Caution tract to the university (Geyer 2015; Oldham 2005). The first classes were held on the current campus in 1924 (Geyer 2015; Oldham 2005).



Property of MSCUA, University of Washington Libraries. Photo Coll 700

Figure 17. University of Washington Friday Harbor Laboratories second of the three locations, nicknamed the "Bug Station". Source: [University of Washington Libraries, Special Collections](#).

## Precontact Archaeology

Archaeologists formulate cultural chronologies to classify regional consistencies in material culture through different, general periods. Summaries of each phase's characteristics can be found in Stein (2000) and Carlson (1990). For this report, cultural chronologies for the region are divided into six general groupings.



Table 1. Archaeological Chronology (adapted from Stein 2000)

Period/Phase	Years Before Present	Characteristics
Pre-Clovis Period	14,000 to 12,500	Bone tools; hunters of extinct mega-fauna; evidence from surrounding area; potentially in the county (Kenady et al. 2011; Waters et al. 2011)
Paleoindian Period	12,500 to 9,000	Makers of Clovis points; none found in San Juans
Cascade Phase	9,000 to 4,500	Absence of shell; terrestrial mammals; leaf shaped points
St. Mungo, Mayne, and Locarno Beach Phases	4,500 to 2,500	Shell, fish, bird, and terrestrial mammals; bone tools; stemmed points
Marpole Phase	2,500 to 1,500	Abundant shell; variety of artifacts; triangular and stemmed points
San Juan Phase	1,500 to European Contact	Shell; fewer artifacts

### Recorded Archaeological Sites and Previous Surveys

This investigation included a search using the Washington Information System on Archaeology and Architectural Data (WISAARD) to identify any previously recorded archaeological sites and surveys conducted within the project area and the vicinity.

The records search examined an area within one mile of the project area. According to WISAARD, there are no recorded cultural resource sites within the project area. Five recorded archaeological sites, two register properties, and one heritage barn are within a one mile radius of the project areas (Tables 2 - 4). Five cultural resource surveys have been completed within a 1-mile radius (Table 5). Table 6 gives the distance between the four recorded sites and the closet project area.

Table 2. Recorded Cultural Resources Within 1 Mile of Project Area

SITE	INVENTORY	DATE
SJ00211	SHELL AND BONE IN BANK 200 YARDS ALONG BEACH; UP TO 10 YARDS WIDE.	1951
SJ00204	SHELLFISH REMAINS	1985
SJ00210	SHELLFISH REMAINS, FISH BONES	1985
SJ00324	SHELL MIDDEN, 65M L (E/W) X 25M W (N/S) X 110CM D, FISH BONES, REMAINS OF AT LEAST 9 VARIETIES OF SHELLFISH	1985
SJ00456	LITHIC DEBITAGE, 2 BASALT DEBITAGE, FMR FRAGMENTS	2006

Table 3. Register Properties Within 1 Mile of Project Area

SITE	DESCRIPTION	REGISTER TYPE
SJ00424	San Juan County Courthouse	National Register Washington Heritage Register
SJ00317	Odd Fellows Hall (Whale Musuem)	Washington Heritage Register

Table 4. Heritage Barns Within 1 Mile of Project Area

SITE	DESCRIPTION	REGISTER TYPE
SJ00559	Stoney Place (Kinnaman Farm)	Washington Heritage Barn Register

Table 5. Previously Conducted Cultural Resource Surveys Within 1 Mile of Project Area

TITLE	AUTHOR	DATE
Archaeological Investigations at the University of Washington's Friday Harbor Labs	Baldwin, Garth	2006
Letter to Julie Matteson RE: Resutls of Archaeological Monitoring for the Friday Harbor Sewer Improvements Project	Shong, Michael	2009
An Archaeological Survey of the Blair Avenue and Mullis Street Improvement Project Areas, Friday Harbor, San Juan Island	Wessen, Gary	2013
Cultural Resources Review for the OPALCO, Brown Island, Cable Crossing Project Friday Harbor	Baldwin, Garth	2015
Archaeological Investigation Report: Town of Friday Harbor, Park and Reed Street Sidewalks, San Juan County, Washington	Gargett, Robert	2016

Table 6. Approximate Distance of Archaeological Sites to the Closest Project Area.

SITE	APPROXIMATE DISTANCE (FEET)	PROJECT AREA
SJ00210	1200	Area 1
SJ00204	530	Area 1
SJ00324	450	Area 7
SJ00456	250	Area 7

## SJ002011

**Site Type:**Precontact Shell Midden

Originally Recorded 1951  
Revisited 1985

The site was originally K. Thompson of University of Washington in 1951. It was recorded by Gary Wessen in 1985.

**Below is taken from the Site Form compiled by Gary Wesson in 1986**

*No study subsequent to recording. In 1985 there was no visible evidence of the site. Sea wall and home developments completely obscure the bank. Intact buried deposits may still be present.*

## SJ00204

**Site Type:**Precontact Shell Midden

Originally located between 1940-1950 by University of Washington  
Revisited 1951  
Recorded 1985  
Revisited 1998

The site was originally noted sometime between 1940-1950. K. Thompson of University of Washington relocated it in 1951. Gary Wessen recorded it in 1985.

**Below is taken from the Site Form compiled by Gary Wesson in 1986**

*This site is a zone of shell midden deposits exposed in eroding bank faces. The site contains a low density of highly fragmented shell dominated by *Protothaca* and *Saxidomus*. Deposits occur at the top of the stratigraphic sequence. No features or other obvious internal structures were noted. Cultural material noted in 1985 included faunal material, with the remains of at least 6 varieties of shellfish noted. No materials collected. No study subsequent to Thomson. In 1985 the site was locatable but very little of the site remained. The site is above the height of wave erosion and had not been impacted by development. Sheet erosion is probably mechanism for erosion of the site.*

**Below is taken from a letter written by Julie Stein in 1998**

*In 1998 Julie Stein and Laura Phillips were contacted to conduct an archaeological investigation of the proposed Helen Riaboff Whiteley Study Center and Housing at the UW FHL. 45SJ204 as located on a high bluff 5 meters above a rocky shore. The boundary of the site was located at approximately 25 meters south of the closest section of the "construction wall". The site extends no more than 3 meters inland from the edge of the bluff. 15 cm below surface, and very little of the site remains. It is likely that since Gary Wessen's survey, the site has eroded further. In fact, a madrona tree and a fir have slumped halfway down the slope and are close to a horizontal position. When they fall into the water, they will probably cause the rest of the site encased within their roots to fall.*



## SJ002010

**Site Type:**Precontact Shell Midden

Originally Recorded 1951  
Revisited 1985

The site was originally K. Thompson of University of Washington in 1951. It was recorded by Gary Wessen in 1985.

**Below is taken from the Site Form compiled by Gary Wesson in 1986**

*This is a zone of shell midden deposits exposed in an eroding bank face. The deposits contain a low density of highly fragmented shell dominated by Protothaca. Deposit occurs at the top of the stratigraphic sequence. No features or other obvious internal structures were noted.*

*Cultural materials noted in 1985 included faunal materials consisting of fish bones and the remains of at least 1 variety of shellfish. No materials collected.*

*No study subsequent to recording. In 1985, this site was locatable. Very little of this site remains. The site is above the height of wave erosion and has not been impacted by development. Sheet erosion is probable mechanism of erosion of this site.*

## SJ00324

**Site Type:**Precontact Shell Midden

Originally Recorded 1985  
Revisited 1985

The site was originally Gary Wessen in 1985 and was revisited in 2006

**Below is taken from the Site Form compiled by Gary Wesson in 1986**

*This site is a zone of shell midden deposits. The deposits contain low to moderate density of highly fragmented shell dominated by Protothaca and Saxidomus. Deposit occurs at the bottom of the stratigraphic sequence. No features or other obvious internal structures were noted. Cultural materials noted in 1985 included faunal materials fish bones and the remains of at least 9 varieties of shellfish. No materials collected. The site is visible on the only undisturbed ground in the area. Site area has been badly impacted by marine lab development, but more intact buried deposits may be present*

Continued Below

**Below is taken from the Site Form compiled by E. Arthur and G. Baldwin in 2006**

*The site is a pre-contact shell midden along the northern shoreline of Friday Harbor on San Juan Island. Midden deposits are exposed for approximately 65 meters along the shoreline in erosion cuts behind the seawall and on the ground surface around the roots and trunk of a Madrone tree and several bushes. The site fronts a narrow gravelly beach between two rock outcrops on the UW FHL. Portions of the bench behind the beach appear to have been leveled during construction of several of the Universities lab buildings.*

*The cultural materials observed during the 2006 site visit included a wide variety of marine shellfish: Thais spp. (whelks), Clinocardium nuttalli (cockle), Protothaca staminea (steamer clam), Tresus capax (horse clam), Pododesmus macrochisma (jingle shell), Mytilus edulis (muscle), Balanus spp. (barnacles), Cryptochiton stelleri (chiton), Hinnites giganteus (blue scallop), Saxidomus giganteus (butter clam). Fragments of fire modified rock (FMR), marine and terrestrial mammal bone, and bird bone were also present within the midden matrix. The observed midden deposits appear to be approximately 60 centimeters in thickness at the seawall and are capped by approximately 40 to 50 centimeters of historic debris and fill. The observed profiles at the seawall and within the excavated STP consist of two distinct layers: an upper layer between 30 and 40 cm in thickness consisting primarily of fragmentary shell and FMR and a lower thinner layer - 20 cm in thickness containing a lower percentage of shell fragments and a higher percentage of mammal and avian bone. The lowest midden components are resting upon glacial sediments. The surface of the intact midden deposits appear to be fairly level.*

**C14 Data**

Shell 1110 BP +/-40

Shell 1090 BP +/-40

Shell 1190 BP +/-40

## **SJ00456**

**Site Type:** Lithic Debitage

**Originally Recorded** 2006

The site was originally recorded by E. Arthur in 2006.

**Below is taken from the Site Form compiled by E. Arthur in 2006.**

*The isolate site consist of two pieces of basalt debit age and several fragment of possible FMR. Both prices of debit age are secondary removals.*

## Archaeological Survey

### Survey Expectations

According to the WISAARD archaeological site predictive model the project area is located within a very high risk area and a survey is highly advised.

### Methods

FSNW archaeologists, Jeremy Ripin and Jena Kalli, conducted a field survey of the project area on May 13, 2021. The surface examination consisted of traversing the project area to identify artifacts or features indicative of archaeological resources. Observations on the terrain, vegetation, and exposed ground surface were recorded in notes.

Shovel Test Probes (STP) were excavated within portions of the project area that may be subjected to ground disturbance. STPs were 40 cm in diameter holes excavated until sterile sediments were reached, a restrictive layer (rock, thick roots, or standing water) was encountered, or upon the observation of archaeological materials. Sediments were screened through 1/4 inch mesh to separate out potential artifacts, and STP side walls were examined to identify any potential archaeological in-situ artifacts or features. All STPs were backfilled upon completion. A total of eight (8) STPs were excavated (Figures 18).

### Results

#### *Pedestrian Survey*

All of the project areas are highly developed, covered in paved roads, or within grass covered lawns. Ground surface visibility is extremely low.

#### *Shovel Test Probes*

STPs excavated in the survey area did not reveal any artifacts or evidence of archaeological features. STPs ranged in depth from 40 to 65 cm below the surface and average STP depth was 49 cm below the surface. Descriptions of STPs are available in Table 4.

In general, STP data indicates that the proposed work areas are highly disturbed from land development including the construction of the buildings, roads, and buried utilities. The only items recovered were from STP 1 in Project Area 1. A fragment of a wire nail and a single piece of clear glass was observed 20 to 30 cm and 30 to 40 cmbs (cm below surface), respectively. In Project Area 2, STP 2, the buried sewer line was uncovered at approximately 15 cmbs. The STP was abandoned and relocated 2 meters south and was negative. There were no other other objects or materials encountered in any other STP.



Figure 18. Survey map showing the locations of STPs.

**Table 6. Shovel Test Probes Results**

SP	Level	Depth	Artifacts	Sediment Texture	Color	Hue	Notes
<b>1</b>							
	1	0-20		Extremely gravelly silt loam	10YR	3/2	Fill
	2	20-30	Wire nail	Gravelly loamy sand	10 YR	4/6	Fill
	3	30-40	Clear glass	Gravelly loamy sand	10 YR	4/6	Fill
	4	40-65		Gravelly loamy sand	10 YR	4/4	Fill, Rock Impasse
<b>2</b>							
	1	0-20		Extremely gravelly silt loam	10YR	3/2	Started stp ~2 meters north, hit water pipe 10 cmbs. Fill, angular cobbles and gravel
	2	20-40		Gravelly loamy sand	10YR	4/6	
	3	40-60		Gravelly loamy sand	10YR	4/4	Roots
<b>3</b>							
	1	0-10		Extremely gravelly silt loam	10YR	3/2	Fill
	2	10-25		Gravelly loamy sand	10YR	3/3	Fill
	3	25-40		Gravelly loamy sand	10YR	4/6	Disturbed
<b>4</b>							
	1	0-10		silt loam	10YR	3/2	
	2	10-25		Gravelly silt loam	10YR	3/3	
	3	25-40		Gravelly silt loam	10YR	4/6	Disturbed
<b>5</b>							
	1	0-10		silt loam	10YR	3/2	
	2	10-25		Gravelly silt loam	10YR	3/3	
	3	25-40		Gravelly silt loam	10YR	4/6	Disturbed
<b>6</b>							
	1	0-10		silt loam	10YR	3/3	
	2	10-40		Gravelly silt loam	10YR	6/2	Disturbed
<b>7</b>							
	1	0-10		silt loam	10YR	3/3	
	2	10-45		Gravelly silt loam	10YR	6/2	Disturbed
<b>8</b>							
	1	0-10		silt loam	10YR	3/3	
	2	10-43		Gravelly silt loam	10YR	6/2	Disturbed

## Discussion and Recommendations

This investigation was conducted to identify any archaeological materials located within any of the six project areas investigated. There were no archaeological sites observed.

Sediments observed in STPs suggests that much of the area has been highly disturbed in the past most likely during the construction of the buildings, roads, and the installation of buried utilities.

Based on the results of archival research and a field investigation, Fullscope NW, LLC recommends that the project should proceed; however, the UW FHL staff and contractors should follow protocols outlined in the San Juan County Inadvertent Discovery Plan. If archaeological materials are observed during construction, all work should cease. The area should be protected and immediately notify the DAHP and other stakeholders.

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## Appendix A

### FRIDAY HARBOR LABS SEWER REPAIR SCOPE

March 4, 2021

1. Install new 4" Gasketed PVC Sewer Main SDR 35 ASTM D3034 from Plant Services building connection point to Manhole 3. Remove enough of the existing 6" pipe to make connection to building (should be about 20' of pipe) and clear path to slide new 4" PVC through existing 6" pipe under the main road. Remove enough of existing 6" pipe by Manhole 3 (probably about 3') to ensure water tight concrete seal / connection between new 4" PVC and Manhole 3. Wherever 4" pipe is not installed inside existing 6" pipe, maintain a slope of 2% or greater, backfill with 5/8s crushed rock to 1' over top of pipe and compact. Backfill remaining with native material and compact. Patch any asphalt that is disturbed, reseed any grass areas that are disturbed by digging.

1. Remove root intrusion, include alternate price to replace 6" line from Building B connection point to Manhole 7 with 6" Gasketed PVC Sewer Main SDR 35 ASTM D3034 if needed. Alternate price to include maintain a slope of 2% or greater, backfill with 5/8s crushed rock to 1' over top of pipe and compact. Backfill remaining with native material and compact. Reseed any grass areas that are disturbed by digging.

1. Replace existing sump pump and enclosure with a Liberty Provore 380 Preassembled 1.0 HP Residential Sewage Grinder System ([https://www.septicsolutions.com/septic-parts/complete-pump-systems/sewage-pit-packages/p382xprg101\\_liberty-provore-380-pre-assembled-10-hp-residential-sewage-grinder-system](https://www.septicsolutions.com/septic-parts/complete-pump-systems/sewage-pit-packages/p382xprg101_liberty-provore-380-pre-assembled-10-hp-residential-sewage-grinder-system)). All connections to be watertight, backfill and compact around new unit, replace any grass / landscaping that is disturbed.

1. Replace Broken Pipe from Building R connection point to 8" PVC Main with new 4" Gasketed PVC Sewer Main SDR 35 ASTM D3034. Maintain a slope of 2% or greater, backfill with 5/8" crushed rock to 1' over top of pipe and compact. Backfill remaining with native material and compact. Patch any asphalt that is disturbed, reseed any grass areas that are disturbed by digging.

1. Replace Broken Pipe from Building N connection point to Manhole 9 with new 4" Gasketed PVC Sewer Main SDR 35 ASTM D3034, maintaining slope of 2% or greater. Regrout / Reseal Manhole 9 at connection point and at riser connections, inside and out. Backfill with 5/8" crushed rock to 1' over top of pipe and compact. Backfill remaining with native material and compact. Patch any asphalt that is disturbed, reseed any grass areas that are disturbed by digging.

1.Site plan is incorrect in this location. The pipe shown serving buildings I and J is actually connected to Manhole 10, and it no longer serves buildings I and J. Cap this 6" concrete pipe 3 feet from Manhole 10 (removing 3 ' section of pipe between Manhole 10 and new cap), and install water tight concrete seal in Manhole 10. Backfill with 5/8" crushed rock and compact. Patch any asphalt that is disturbed, reseed any grass areas that are disturbed by digging.

1.Replace Broken Pipe from Building M connection point to 8" PVC Main with new 4" Gasketed PVC Sewer Main SDR 35 ASTM D3034. Maintain a slope of 2% or greater, backfill with 5/8" crushed rock to 1' over top of pipe and compact. Backfill remaining with native material and compact. Patch any asphalt that is disturbed, reseed any grass areas that are disturbed by digging.

- 1.RegROUT / reseal Manhole 11 at side sewer connection and any other weak points.
- 2.RegROUT / reseal Manhole 11A at infiltration point at bottom of Manhole and at any other weak points.