

**ADDENDUM NO. 1**

CITY OF KIRKLAND  
JUANITA BEACH PARK BATHHOUSE  
CPK NUMBER 0119 100

FROM: City of Kirkland

TO: All Plan Holders and Plan Centers, as listed in the advertisement for bid.

**Addendum No. 1 dated 11/07/2019 forms a part of the Contract Documents and modifies the original bidding documents. This addendum is issued to clarify, add to, or delete from the original bidding documents package.**

**Project Notes / Clarifications:**

**Item 1.** Quality assurance requirements from Specification Section 05 55 00 Metal Fabrications:

1. Part 1.4A Designer Qualifications: Professional structural engineer requirement is only necessary for delegated design / bidder designed and fabricated structural fabrications.
2. Part 1.4B Fabricators Qualifications: In lieu of IAS AC172 accreditation the City will accept fabricators who have 5 years' experience on projects of similar size and complexity and can submit examples of work on 5 projects of similar size and complexity.

**Specification Modifications:**

Specification modifications are indicated in the attached specification sections by a vertical line in the left-hand margin of the specification page. The revised specification sections listed below are included in their entirety at the end of this document.

The following specifications sections are revised:

**Item 1.** Section 00 00 10 Invitation For Bids is revised.

**Item 2.** Section 00 20 00 Instruction To Bidders is revised

**Item 3.** Section 00 41 00 Bid Form is revised

**Item 4.** Section 01 11 00 Summary of Work is revised.

**Item 5.** Dates of Project Specification sections listed below have been modified to be consistent with the rest of the Contract Documents:

01 25 00 Contract Modification Procedures  
01 29 00 Payment Procedures  
01 31 10 Project Coordination  
01 31 20 Project Meetings  
01 32 50 Progress Schedules and Reports  
01 33 00 Submittal Procedures (Sample Submittal Schedule)  
01 41 00 Regulatory Requirements  
01 42 00 References  
01 45 00 Quality Control  
01 50 00 Temporary Facilities and Controls  
01 50 10 Temporary Sign  
01 60 00 Product Requirements  
01 61 00 Substitution Request Form  
01 72 00 Preparation  
01 74 00 Cleaning  
01 74 19-Construction Waste Management and Disposal  
01 78 50 Operation and Maintenance Data  
01 78 70 Warranties and Bonds  
01 78 90 Project Record Documents  
01 82 00 Demonstration and Training

**Item 6.** Section 08 91 00 Louvers is revised

**Drawing Modifications:**

The revised drawings listed below are included in their entirety at the end of this document.

The following Contract Drawings are revised:

**General**

**Item 1**          A0.0          COVER SHEET

**Civil & Landscape**

**Item 1**          C1.0          ESC / DEMOLITION PLAN  
**Item 2**          C2.0          UTILITY AND DRAINAGE PLAN  
**Item 3**          C3.0          PAVING AND GRADING PLAN  
**Item 4**          L3.1          PLAYGROUND AND JOINTING PLAN  
**Item 5**          L4.1          SOIL AND LANDSCAPE PLAN

**Item 6**          D3.0          LANDSCAPE DETAILS

**Mitigation Plans**

**Item 1.**          FIG.2          BUFFER MITIGATION PLAN

**Architectural**

**Item 1.**          A0.2          DOOR & WINDOW SCHEDULE  
**Item 2.**          AD1.0          DEMOLITION SITE PLAN  
**Item 3.**          A1.0          SITE PLAN  
**Item 4.**          A2.3          OVERALL ROOF PLAN  
**Item 5.**          A3.0          BATHHOUSE ELEVATIONS  
**Item 6.**          A5.5          INTERIOR ELEVATIONS  
**Item 7.**          A9.1          EXTERIOR DETAILS  
**Item 8.**          A9.2          EXTERIOR DETAILS  
**Item 9.**          A9.4          EXTERIOR DETAILS  
**Item 10.**          A9.9          EXTERIOR DETAILS

**Structural**

**Item 1.**          S1.0          GENERAL STRUCTURAL NOTES

**Mechanical / Plumbing**

**Item 1.**          M1.1          MECHANICAL PLANS

**Documents added to the Contract Documents:**

These documents in their entirety are included at the end of this document.

The following documents are added to the Contract Documents:

**Item 1.**          BNR18-02893 Project Building Permit Conditions Document  
**Item 2.**          BNR18-02893 Project Building Permit Inspection Card  
**Item 3.**          BNR18-02893 Project Building Permit Document  
**Item 4.**          Project Geotechnical Engineering Report dated April 19, 2017

**SECTION 00 00 10  
INVITATION FOR BIDS**

**City of Kirkland  
Juanita Beach Park Bathhouse  
9703 NE Juanita Drive, Kirkland, WA 98034  
CIP # PKC 0119 100  
JOB # 51-19-PW**

The City of Kirkland invites interested and qualified contractors to submit sealed bids for the following project:

TITLE:	Juanita Beach Park Bathhouse
ESTIMATED BID AMOUNT:	Approximately \$2.5M including sales tax
BID SUBMITTAL TIME/DATE/LOCATION:	Prior to 2:00 P.M. on 15 November 2019 at  City of Kirkland 123 5 <sup>th</sup> Avenue Kirkland WA 98033
PUBLIC BID OPENING	Public Bid Opening will commence 15 November 2019 at approximately 2:00 P.M. in Council Chambers, Kirkland City Hall, 123 Fifth Avenue, Kirkland, WA, 98033
PRE-BID CONFERENCE	10:00 A.M. on 5 NOV 2019 at <b>9703 NE Juanita Drive Kirkland, WA 98034</b> Attendance at the pre-bid conferences and site- walk through is highly encouraged but is not mandatory.

**BID SUBMITTAL ENVELOPE:**

Upon submittal, bids will be recorded by the City of Kirkland as to time and date received, and secured, until the time set for the public bid opening. All bid submittal envelopes must be *plainly marked on the outside* with "Bid Proposal, Juanita Beach Park Bathhouse, Job # 51-19-PW." NO PROPOSALS WILL BE ACCEPTED AFTER THE BID SUBMITTAL TIME.

**ITEM FOR BID:**

The project consists of all work to be performed as indicated in the Project Manual and Drawings. The work consists of furnishing all labor, materials, and other incidentals for the construction of a new 3,030 square foot bathhouse facility with utilities, site work, and playground. The project also includes two 920 square foot picnic pavilions. The project is subject to the Project Manual and Drawings and any posted addenda.

The work, to be substantially completed within 195 calendar days from the notice to proceed.

**BID DOCUMENTS:**

The Project Manual, Drawings, and any Addenda may be viewed and obtained from Builders Exchange of Washington, [www.bxwa.com](http://www.bxwa.com) within the posted projects section for the City of Kirkland It is recommended that Bidders "Register" in order to receive automatic e-mail notification of future addenda and to place themselves on the "Self-Registered Bidders List." Bidders who do not register will not be automatically notified of addenda and will need to periodically check the posted projects section for addenda issues on this project.

Questions regarding this project shall be submitted in writing to Anneke Davis, via fax (425) 587-3807. Questions via phone or e-mail will not be accepted. Bidders shall submit questions no later than noon PST on Tuesday, November 12, 2019.

**CONTRACTOR REGISTRATION:**

Pursuant to RCW 39.06, the bidder shall be registered and licensed as required by the laws of the State of Washington, including but not limited to RCW 18.27.

In order to perform public work, the successful bidder and subcontractors, prior to Contract award, shall hold or obtain such licenses and registrations as required by State Statutes and Codes, and Federal and local laws and regulations and a City of Kirkland business license.

**BID SECURITY:**

Certified check, bank cashier's check or bid bond congruent with the Bid Bond Security Form (Section 00 43 30) as identified in the "Instructions to Bidders" is required to be submitted with each proposal, in the amount equal to five percent (5%) of the total base bid plus additive alternate bids (if applicable). Make bid security payable to the City of Kirkland, furnish bond executed by a licensed bonding agency authorized to do business in the locality of the Project. No bid shall be considered unless accompanied by such bid security.

**RIGHT TO ACCEPT OR REJECT:**

The Contract will be awarded to the responsible bidder submitting the lowest proposal complying with these contract documents provided the bid is reasonable and in the best interest of the City of Kirkland.

The Owner (City of Kirkland) reserves the right to reject any or all bid proposals and the right to waive any irregularities or informalities in any proposal, subject to the Laws of the State of Washington as pertinent to Public Works and congruent with requirements and policies of City of Kirkland, and as may be deemed in the best interest of the Owner. In particular, the Owner reserves the right to reject a bid which is not accompanied by the documents specified in the Instructions to Bidders and incomplete or irregular bids which may exclude any item(s) as may be required by the Project Manual.

The City of Kirkland in accordance with Title VI of the Civil Rights Act of 1964, 78 Stat. 252, 42 USC 2000d to 2000d-4 and Title 49, Code of Federal Regulations, Department of Transportation, Subtitle A, Office of the Secretary, Part 21 Nondiscrimination in Federally-Assisted Programs of the Department of Transportation issued pursuant to such Act, hereby notifies all bidders that it will affirmatively ensure that

in any contract entered into pursuant to this invitation, disadvantaged business enterprises as defined in 49 CFR Part 26 will be afforded full opportunity to submit bids in response to this invitation and will not be discriminated against on the grounds of race, color, national origin, or sex in consideration for an award.

City of Kirkland is an Equal Opportunity and Affirmative Action Employer.

Small, Minority and Women-Owned firms are encouraged to submit bids.

**WITHDRAWAL OF BID:**

No bid proposal may be withdrawn after the time set for the opening thereof, unless the Award of the Contract is delayed for a period of forty-five (45) calendar days.

**NOTICE GIVEN BY ORDER OF THE CITY OF KIRKLAND**

Published in the Daily Journal of Commerce: October 17, 2019

**END OF SECTION**

**SECTION 00 20 00**  
**INSTRUCTION TO BIDDERS**

**A. EXAMINATION OF SITE AND CONSTRUCTION DOCUMENTS**

1. Before submitting a proposal, the bidder shall:
  - a. Carefully examine the drawings and specifications,
  - b. Visit the site of the work, (Bidders are highly encouraged to attend the non-mandatory pre bid walk through meeting)
  - c. Fully inform itself of existing conditions and limitation, relating to the construction of the project and the employment of labor thereon. Failure to do so will not relieve a successful bidder of its obligation to furnish all material and labor necessary to carry out the provisions of this contract.
  - d. Rely entirely upon its own judgment in making its proposal,
  - e. Include in its bid a sum sufficient to cover all items required by the contract including all labor, materials, services, and incidentals necessary to complete this project.

**B. ADDENDA AND INTERPRETATIONS**

Bidders shall promptly notify the City of Kirkland of any ambiguity, inconsistency or error which they may discover upon examination of the Project Manual, Drawings, and any Addenda or of the site and local conditions.

Bidders requiring clarification or interpretation of the Project Manual, Drawings, and/or any Addenda shall submit questions in writing to Anneke Davis, via fax at (425) 587-3807. Questions via phone or e-mail will not be accepted. Bidders shall submit questions no later than noon PST on Tuesday, November 12, 2019.

Any and all such interpretations and any supplemental instructions will be in the form of written addenda to the Project Manual and Drawings. Any interpretation, correction or change of the Project Manual, Drawings, and any Addenda made in any other manner will not be binding, and Bidders shall not rely upon such interpretations, corrections and changes.

Failure of any bidder to receive Addenda shall not relieve any such bidder from any obligation under its bid as submitted. All Addenda so issued shall become part of the Contract Documents. Bidders shall acknowledge receipt of all Addenda, if any, on the Bid Form. Failure to do so may result in the bid being declared non-responsive.

No oral statements by Owner, Engineer, Architect, or other representative of the Owner shall, in any way, modify the Project Manual, Drawings, and any Addenda whether made before or after letting the Contract.

**C. PRODUCT SUBSTITUTIONS:**

1. Substitutions: Bids must be based upon the specific articles and materials named in the Project Manual, Drawings, and any Addenda. Substitution may be made only under the following conditions:
  - a. Prior to Bid Opening: Not less than seven (7) calendar days prior to bid opening, prime bidders may submit to the City of Kirkland written requests for approval of articles or materials, accompanied by complete descriptions, technical data and samples. Approval or rejection of the proposed substitutions will be made by addenda issued to all bidders. Submit material/product requests as specified in Section 01 61 00 to Anneke Davis via fax (425) 587-3807.
  - b. After Award of Contract: Approval of substitution will be made only in exceptional cases where the Contractor submits satisfactory evidence to the City of Kirkland that through no fault of its own, specified or otherwise approved items cannot be obtained in time to avoid delay to the work. Approval in such cases shall conform to the other requirements above.

D. BID FORM (Section 00 41 00)

Bids must be submitted on and according to the Bid Form. Fill in all spaces. Bids shall not contain any recapitulation of work done. State numbers in writing and in figures. Completed form must be without interlineation, alteration or erasure. Signatures shall be in longhand. The bid price (s) for the work as specified in the Project Manual, Drawings, any Addenda and any Alternates must be the total price to cover all items required by the contract including all labor, materials, services, taxes, permits, and incidentals necessary to complete this project.

E. POWER OF ATTORNEY

Attorneys-in-fact who sign bid bonds or contract bonds must file with each bond a certified and effectively dated copy of the power of attorney.

F. ORAL AND TELEGRAPHIC BIDS

Oral and telephonic modifications of bids cannot be considered.

G. SUBMISSION OF BID

Enclose bid and bid bond in opaque sealed envelope, as indicated in the Invitation to Bid; Deliver in person or by post. Bidder is responsible for delivery of bid at or before the time set for bid opening. The Owner may consider informal any bid not prepared and submitted in accordance with the provisions hereof and may waive any informalities or reject any and all bids. The Owner reserves the right to reject any bid if the evidence submitted by, or investigation of, such bidder fails to satisfy the Owner that such bidder is properly qualified to carry out the obligation of the contract and to complete the work contemplated therein. Conditional bids will not be accepted. No proposal or bid may be changed after the time set for receiving bids.

H. BID BOND

Each bidder agrees to furnish a certified check, bank cashier's check, or bid bond in the amount equal to five percent (5%) of the total base bid plus additive alternative bids (if applicable) within its bid proposal. Failure to provide this bid security when required shall render the bid non-responsive. The right is reserved to hold the bid security of the three lowest bidders until the award of the contract or for a period of (60) sixty days, whichever is the shorter time. Bids of all unsuccessful bidders will be returned as soon as feasible after the bid opening.

I. WITHDRAWAL OF BIDS

Any bidder may withdraw its bid either personally or by written request at any time prior to the hour set for the bid opening. No bid may be withdrawn or modified after the time set for opening unless and until the award of the contract is delayed for period exceeding (45) forty-five days.

J. TIME OF COMPLETION AND LIQUIDATED DAMAGES

Bidder must agree to commence work within 10 days of the signing and execution of the contract by the Owner and the Contractor and receipt of the Notice to Proceed; and Substantially Complete the Work within 195 consecutive calendar days of the date of the Notice to Proceed, and to Finally Complete the Work within (30) thirty consecutive calendar days thereafter. Bidder must agree to pay as liquidated damages the sum of \$1000 for each consecutive calendar day that Substantial Completion is delayed and the sum of \$500 thereafter for each consecutive calendar day that Final Completion is delayed. Liquidated damages have been established based on the estimated cost that will be incurred by City of Kirkland in the event the Contractor fails to complete the Work in the time stipulated.

K. SECURITY FOR FAITHFUL PERFORMANCE

Simultaneously with its delivery of the executed contract, the Contractor shall furnish a surety bond or bonds as security for faithful performance of the Contract and for payment of all persons performing labor under the Contract and furnishing material or services in connection with the Contract as described in the Contract Documents. The surety on such bond or bonds shall be a duly authorized surety company satisfactory to the Owner, registered in the State of Washington, Insurance Commissioner's Office. List Bonding Agent and address of same.

L. INSURANCE

The Contractor shall obtain such construction insurance as is set forth in Section 00 60 00 "Bonds and Certificates."

M. QUALIFICATIONS OF BIDDERS

Bidder must meet all criteria set forth in the Bidder's Qualifications (Section 00 10 20), Item 8 and the Bidder's responsibility Criteria in Section 00 15 30). The Owner may make such investigations as necessary to determine the ability of a Bidder to perform the work, and the Bidder shall furnish all such information and data as may be requested prior to bidding.

The Owner reserves the right to reject any bid if the evidence submitted by, or if investigation of, such Bidder fails to satisfy the Owner that such Bidder is properly qualified to perform the obligations of the Contract and to complete the work contemplated therein. Conditional Bids will not be accepted.

N. LAWS AND REGULATIONS

The bidder's attention is directed to the fact that all applicable State laws, municipal ordinances, and rules and regulations of all authorities having jurisdiction over construction of the project shall apply to the Contract throughout, and they shall be deemed to be included in the Contract the same as though written out in full therein. Bidders are advised that if successful, they will be required to meet all applicable federal, state, and local laws pertaining to permits, licenses, fees and taxes, as well as laws pertaining to employment and wages. Bidders are responsible for determining the extent and applicability of such laws.

O. AWARD OF THE CONTRACT/REJECTION OF BIDS

1. The Contract will be awarded to the responsible bidder submitting the lowest proposal complying with the condition of the Invitation for Bid and these contract documents provided the bid is reasonable and in the best interest of The Owner. Items in this bid, approved for contract by City of Kirkland, shall be awarded by the City of Kirkland.
2. City of Kirkland reserves the right to reject any and all bids and to waive any informality in bids received whenever such rejection or waiver is in the interest of the Owner. City of Kirkland reserves the right to select all or individual alternate bid items whichever is determined to be in the best interest of the City of Kirkland.
3. The bidder to whom the award is made will be notified at the earliest practicable date.

P. DISQUALIFICATION OF BIDDERS

Any one or more of the following causes may be considered sufficient for the disqualification of a Bidder and the rejection of its bid or bids:

- a. Evidence of collusion among Bidders.
- b. Lack of expertise as shown by past work, and judged from the standpoint of workmanship and performance history.
- c. Uncompleted work under other contracts which, in the judgment of the City, might hinder or prevent the prompt completion of additional work if awarded.
- d. Being in arrears on existing contracts, in litigation with an Owner, or having defaulted on a previous contract.
- e. Contractor's naming oneself as a Subcontractor for which they have no expertise and working knowledge directly within the firm.
- f. Contractor's inability to meet the Bidder's Qualifications (Section 00 10 20) outlined in item 8.
- g. Contractor's inability to meet the Bidder's Responsibility Criteria outlined in Section 00 15 30.
- h. Failure to comply with any requirements of the Invitation for Bid or Instructions to Bidders.

**END OF SECTION**

**SECTION 00 41 00**  
**BID FORM**

Bidder's Firm Name: \_\_\_\_\_ Date: \_\_\_\_\_

Address: \_\_\_\_\_  
\_\_\_\_\_

Telephone No.: \_\_\_\_\_

**TO: City of Kirkland**  
**123 5<sup>th</sup> Avenue**  
**Kirkland, WA 98033**

**Juanita Beach Park Bathhouse**  
**9703 NE Juanita Drive, Kirkland, WA 98034**  
**CIP NO. PKC 0119 100**  
**JOB NO. 51-19-PW**

**GENERAL PROPOSAL**

The undersigned, hereinafter called the Bidder, declares that the only persons or parties interested in this proposal are those named herein; that this proposal is in all respects fair and without fraud; that it is made without collusion with any official or employee City of Kirkland; and that the proposal is made without any connection or collusion with any person making another proposal on this contract.

The Bidder further declares that they have carefully examined the contract documents for the construction of the project; that they have personally inspected the site; that they have satisfied themselves as to the quantities involved, including materials and equipment and conditions of work involved, including the fact that the description of the quantities of work materials, as included herein, is brief and is intended only to indicate the general nature of the work and to identify the said quantities with the detailed requirements of the contract documents; and that this proposal is made according to the provisions and under the terms of the contract documents, which documents are hereby made a part of this proposal.

The Bidder further agrees that they have exercised their own judgment regarding the interpretation of subsurface information and have utilized all data which they believe is pertinent from the Architect, Owner and other sources in arriving at his/her conclusions.

The Bidder agrees to hold their bid proposal open for forty-five (45) days after the actual date of bid opening and to accept the provisions of the Instructions to Bidders regarding disposition of bid bond.

The Bidder agrees that if this bid is accepted through Award of Contract by Council, it will, within ten (10) calendar days after notification of acceptance, execute the contract with the Owner in the form of contract included in the contract documents, and will, at the time of execution of the Contract, deliver to the Owner the Performance and Payment Bonds and all Certificates of Insurance required therein, and will, to the extent of its proposals, furnish all machinery, tools, apparatus, and other means of construction and do the work in the manner, in the time, and according to the requirements as specified in the contract documents and required by the engineer/architect or other project manager designated thereunder.

**TIME OF COMPLETION:**

The undersigned agrees, if awarded the contract, to commence work within 10 days of the signing and execution of the contract by the Owner and Contractor and receipt of the Notice to Proceed. The

**SECTION 00 41 00**  
**BID FORM**

undersigned understands and agrees that Substantial Completion of the work shall be no later than 195 calendar days thereafter, and that Final Completion of the work shall be no later than 30 calendar days after Substantial Completion.

**PERMITS, FEES AND INSPECTIONS:**

The Owner is responsible for procuring the building permit, demolition permit, and shoreline permit. The contractor is required to meet the requirements and conditions of these owner-procured permits, to post the permits, and for the scheduling and inspections related to these permits. The Contractor is responsible for all other required permits in their entirety: including, but not limited to, the plumbing, electrical, and mechanical, and utility permits. This includes application, payment, scheduling, and inspections. Utility connection fees, if incurred by the contractor to facilitate the work, shall be paid back to the contractor by the Owner within the contact document change order process without markup of any kind. All other City of Kirkland and other State of Washington or local agency permits and requirements are the financial and administrative responsibility of the Contractor at no cost to the City of Kirkland.

**BASE BID:**

The Bidder further proposes to accept as full payment for the work proposed herein the amounts computed under the provisions of the contract documents and based upon the bid price for fully completed work as included in the proposal and the Bid Price represents a true measure of the labor, equipment, and materials required to perform and complete the work, including all allowances for overhead and profit for each type of work called for in these contract documents, as well as all use taxes, overhead, profit, bond premiums, insurance premiums and all other miscellaneous and incidental expenses. The amounts shall be shown in both words and figures. In case of discrepancy, the amount shown in words shall govern.

The undersigned bids for complete construction of the Juanita Beach Bathhouse Project as follows:

For the **Total for Base Bid including applicable sales tax at the current rate where the project resides**, the sum of:

\_\_\_\_\_ DOLLARS  
(Please print dollar amount in words in space above for base bid including sales tax.)

\$ \_\_\_\_\_  
(Please write dollar figure in space above including sales tax.)

**ADDENDA**

Receipt of the following Addenda is hereby acknowledged.

Addendum No. \_\_\_\_\_ dated \_\_\_\_\_

**SECTION 00 41 00**  
BID FORM

**Within the three-year period immediately preceding the date of the bid solicitation for this Project, bidder has not been determined by a final and binding citation and notice of assessment issued by the department of labor and industries or through a civil judgment entered by a court of limited or general jurisdiction to have willfully violated, as defined in RCW 49.48.082, any provision of chapter 49.46, 49.48, or 49.52 RCW.**

**I certify (or declare) under penalty of perjury under the laws of the State of Washington that the foregoing is true and correct:**

\_\_\_\_\_  
CONTRACTOR (Firm Name)

\_\_\_\_\_  
By (Signature)

\_\_\_\_\_  
Printed Name/Title of Signatory

\_\_\_\_\_  
(Indicate whether Contractor is Partnership,

\_\_\_\_\_  
Washington State Contractor's  
Registration Number

\_\_\_\_\_  
Contractor's Industrial Insurance  
Account Number

Contractor's Address:  
  
\_\_\_\_\_

\_\_\_\_\_  
Telephone Number

\_\_\_\_\_

\_\_\_\_\_  
Fax Number

**BID FORM TO BE SUBMITTED IN A SEALED ENVELOPE  
END OF SECTION**

**SECTION 01 11 00**

**SUMMARY OF WORK**

**PART 1 - GENERAL**

**1.01 RELATED DOCUMENTS**

- A. Project Manual including general conditions, any supplementary conditions, divisions 00 and 01 Specification Sections, all technical specifications, drawings, and any addenda apply to work of this Section.

**1.02 WORK COVERED BY CONTRACT DOCUMENTS**

- A. The Project consists of furnishing all labor, materials and other incidentals for the construction of a new 3,030 square foot bathhouse facility with utilities, site work and playground. The project also includes two 920 square foot picnic pavilions. The project is subject to the Project Manual, Drawings, and any Addenda. The Project is located at 9703 NE Juanita Dr, Kirkland, WA 98034. The Architect's estimate is \$2.5 million, including sales tax.

**1.03 CONTRACTOR'S USE OF PREMISES**

- A. Contractor's use of premises for Work and storage is limited to the area shown.
- B. During the entire construction period the Contractor shall have the exclusive use of the designated portion of the premises for construction operations. The Contractor shall limit his use of the premises to the work indicated. Confine operations at the site to the areas permitted. Portions of the site beyond areas on which work is indicated are not to be disturbed.
- C. The Contractor shall protect the identified wetlands, the oak tree, and the willow tree.
- D. Owner and Contractor shall jointly sign a written transmittal of all items to be deconstructed and preserved for re-use. Contractor to provide a schedule of items to be remove and re-used. Owner shall approve this list. Contractor to ensure protection from damage by mishandling, improper storage, contamination, inadequate protection, pilferage or other actions that could diminish material's or items' value.
- E. The Contractor shall remove indicated play equipment, barbecues, and picnic tables, with great care as the City intends to re-use the equipment at other City parks. Coordinate with the Project Manager for timing of its removal. The City will store and/or transport the equipment; Contractor shall provide adequate communication and notification.
- F. Hours of Work: The contractor shall limit their work to those hours allowed by the building permit. Typically, the City of Kirkland allows construction only between the hours of 7 am and 10 pm, Monday through Friday, and between the hours of 9 am

and 10 pm on weekends. Any other times of work shall be by approval of the Owner.

- G. Security: The contractor shall maintain general security of the job site during construction.
- H. Parking: The Owner shall not provide any off-site parking or staging for the Contractor.
- I. Staging: The Owner shall not designate an off-site construction staging area. The Contractor shall prepare a staging plan to show locations of construction trailers and material storage within the project site. The contractor shall coordinate with the Project Manager for appropriate staging area. Staging shall be limited to the west end of the parking lot.
- J. Contractor shall install up to three City-provided informational signs at or near the two ends of the project's geographic limits. The informational signs will be chloroplast or aluminum signs up to 72 inches wide and 48 inches tall. The contractor will mount chloroplast signs to plywood sheets of the same size. This mounting can be skipped for aluminum signs. Contractor will install signs by setting two 4" x 4" x 10' posts (per sign) 36" below grade, set apart consistent with the width of the sign, and backfilling with soil at a location agreed upon by the City and the Contractor. Secure the sign so the top is 7' above ground level. Contractor will remove at substantial completion.
- K. Miscellaneous: The Contractor shall:
  - 1. Maintain pedestrian access to and around the site, including maintaining pedestrian access along the concrete promenade and the pier. Maintain vehicular access to and around the Park in areas not designated for Contractor use. Some work will block public access to the promenade, the Contractor shall provide a reasonable pedestrian detour. The contractor shall coordinate with Project Manager to provide a one-week notification to the public of the walking detour. 2 weeks prior to implementing the pedestrian detour the Contractor shall submit a detour plan to the City of Kirkland for review and approval.
  - 2. Not unreasonably encumber the site with materials or equipment.
  - 3. Assume full responsibility for protection and safekeeping of products stored on premises.
  - 4. Obtain and paying for the use of additional storage or work areas needed for operation.
  - 5. Patching existing paving on roads and adjacent properties damaged by the contractor.
  - 6. Repair, resurface, and re-stripe any area of the parking lot utilized by the Contractor for staging, operations, deliveries, or other construction activities. Repave with HMA Class ½-inch per City of Kirkland requirements.
  - 7. Keep roads and sidewalks and the work area clean of dirt and other debris.
  - 8. Maintain and protect all landscaping during construction from NTP to Physical Completion.

#### 1.04 EXAMINATION

- A. Persons performing Work shall examine surfaces to receive their Work and shall report in writing to Contractor, with copy to Architect, conditions detrimental to Work. Failure to examine and report makes the person responsible, at no increase in Contract Sum, for corrections Architect may require. Commencement of Work constitutes acceptance of surface.

#### 1.05 COORDINATION OF WORK

- A. Beginning June 1, 2020, Fridays are non-working days.
- B. The City of Kirkland hosts various events throughout the year. Other than as specified above, the Contractor may continue Work, but should be aware that the events will be held as scheduled and the Contractor shall be prepared to work with the City of Kirkland to ensure the events can proceed as planned. Public access to these events shall not be blocked and the Contractor shall not inhibit public enjoyment of these events.
- C.

<b>Service</b>	<b>Approximate Date</b>	<b>Approximate Location</b>
Beach Volleyball Leagues	June 15 <sup>th</sup> – Aug 31 <sup>st</sup>	Volleyball Courts
Paddle board classes	June 15 <sup>th</sup> – Aug 31 <sup>st</sup>	Waterfront
Tennis/beach Youth camps	June 15 <sup>th</sup> – Aug 31 <sup>st</sup>	Park
Juanita Friday Market	June 1 – Sept 30	Parking Lot
Lifeguard Services	July 1 – Sept. 7	Beach
Children's Triathlon	Sept 5 <sup>th</sup>	Beach, Parking Lot
Paddle board rental	April – Oct 31 <sup>st</sup>	Waterfront
Food vendor	April – Oct 31st	Waterfront

#### 1.06 SEQUENCE OF CONSTRUCTION

- A. The sequence of work will be in accordance with the construction schedule submitted by the Contractor and approved by the Architect. The construction schedule shall be based on the requirements of these Contact Documents, and on the Contractor prepared and Owner-approved detailed plans for the Work.
- B. The City of Kirkland requires that the seasonal restroom portion of the new building be substantially complete, fully operational with certificate of occupancy, no later than July 1, 2020.

**1.07 SURROUNDING SITE CONDITION SURVEY**

- A. Prior to commencement of Work Contractor, Owner, and Architect shall jointly survey the existing site, and surrounding conditions making permanent note of such existing damage as cracks, sags, or other similar damage. This record shall serve as a basis for determination of subsequent damage due to the Contractor's operations.
- B. Owner and Contractor shall jointly sign a written transmittal of all items to be deconstructed and preserved for re-use. Contractor to provide a schedule of items to be remove and re-used. Owner shall approve this list. Contractor to ensure protection from damage by mishandling, improper storage, contamination, inadequate protection, pilferage or other actions that could diminish material's or items' value.

**1.08 PROTECTION OF EXISTING STRUCTURES AND UTILITIES**

- A. The Drawings indicate existing above and below grade structures, drainage lines, storm drains, sewers, water, gas, electrical, and other similar items, and utilities which are known to the Owner.
- B. The Contractor shall verify the location of all underground utilities before proceeding with trenching, or other operations which may cause damage, shall maintain them in service where appropriate, and shall repair any damage to them caused by the Work, at no increase in Contract Sum.

**PART 2 - PRODUCTS NOT USED**

**PART 3 - EXECUTION NOT USED**

**END OF SECTION**

## **SECTION 01 25 00**

### **CONTRACT MODIFICATION PROCEDURES**

#### **PART 1 - GENERAL**

##### **1.01 RELATED DOCUMENTS**

- A. Project Manual including General Conditions, any Supplementary Conditions, Divisions 00 and Division 01 Specification Sections, Drawings, and any Addenda apply to work of this Section.

##### **1.02 REQUIREMENTS INCLUDE:**

- A. Promptly implement change order and field order procedures.
  - 1. Provide full written data required to evaluate changes.
  - 2. Maintain detailed records of work done including time and materials.
  - 3. Provide full documentation to Architect on request.

##### **1.03 RELATED REQUIREMENTS:**

- A. Coordinate related requirements specified in other parts of Project Manual including but not limited to the following: Change Orders/General Conditions; Applications for Payment; Construction Schedules; Schedule of Values; Substitutions and Product Options; Project Record Documents.
- B. Designate in writing the names of authorized members of Contractor's organizations who accept changes in the work, and are responsible for informing other workers of the authorized changes.
- C. Contractor agrees; Architect approves; Owner authorizes.

##### **1.04 DEFINITIONS:**

- A. Change Order: See General Conditions, Section 00 70 00.
- B. Architect's Supplemental Instructions: Work order, instructions, or interpretations, signed by Architect making minor changes in the work not involving a change in Contract Sum or Contract Time.
- C. Construction Change Authorization: Written order to the Contractor, signed by Owner, Architect and Contractor amending Contract Documents as described. This order authorizes Contractor to proceed with a change altering Contract Sum or Contract Time, and is to be included in a subsequent Change Order.

**1.05 PRELIMINARY INITIATION/CHANGES:**

- A. Changes may be initiated by Owner and Architect through a Proposal Request submitted to Contractor. Request will include:
  - 1. Detailed description of Change, Products, and location of change in Project.
  - 2. Supplementary or revised Drawings and Specifications.
  - 3. Projected time span for making change.
    - a. Statement as to whether overtime work is, or is not, authorized.
  - 4. A specific period of time during which requested price will be considered valid.
  - 5. Documentation supporting any change in Contract Sum or Contract Time, as appropriate.

**1.06 CONSTRUCTION CHANGE AUTHORIZATION:**

- A. In lieu of Proposal Request, Architect may issue a construction change authorization for Contractor to proceed with a change for subsequent inclusion in Change Order.
- B. Authorization describes work change additions and deletions, with attachments of revised Contract Documents to define details and designate any change in Contract Sum and Contract Time.
- C. Owner and Architect will sign and date as authorization to proceed with changes. General Contractor can not be paid for the work until it is incorporated into a change order and signed by all parties.
- D. Contractor signs and dates to indicate agreement with terms.

**1.07 DOCUMENTATION OF PROPOSALS AND CLAIMS:**

- A. Support each lump sum proposal quotation and each unit price (not previously established) with sufficient substantiating data.
- B. On request provide additional data to support time and cost computations:
  - 1. Labor required; hours, hourly rate.
  - 2. Equipment required.
  - 3. Products required.
    - a. Recommended source of purchase and unit cost.
    - b. Quantities required of each material.
    - c. Material unit costs and extended price.
  - 4. Taxes, insurance, and bonds.
  - 5. Documented credit for work deleted from Contract.
  - 6. Overhead and profit. (See General Conditions.)
  - 7. Justification for any change in Contract Time.
- C. Support each claim for additional costs, and time and material/force account work with documentation, as required for lump sum proposal. Include additional information:

1. Name of Owner's authorized agent who ordered work, and date of order.
  2. Dates and times work was performed, and by whom.
  3. Time record, summary of hours worked, and hourly rates paid.
  4. Receipts and invoices for:
    - a. Equipment used, listing dates and times of use.
    - b. Products used, listing of quantities.
    - c. Subcontracts.
- D. Document requests for substitutions for Products as specified.

**1.08 PREPARATION OF CHANGE ORDERS:**

- A. Architect will prepare Change Orders.
- B. Change Order Form: AIA Document G701 or similar form.
- C. Change Order provides accounting of any Contract Sum and Contract Time adjustment.
- D. All agreed-upon Change Orders shall be deemed full and final settlement of any and all claims of any kind, including without limitation those for direct or indirect costs or damages or for extension of time, relating to the subject matter of such Change Order.
- E. Contractor shall not undertake any work or incur any expense that Contractor does not believe is included in the work required by the existing project contract documents, unless and until it brings such matter to Owner's attention and such work is authorized by a Construction Change Authorization or agreed Change Order. Contractor shall be deemed to have waived any and all claims of any kind with respect to any work undertaken or expense incurred in violation of this provision.

**1.09 LUMP SUM/FIXED PRICE CHANGE ORDER:**

- A. Content of Change Orders will be based on, either:
  1. Architect's Proposal Request and Contractor's responsible Proposal as mutually agreed between Owner and Contractor.
  2. Contractor's Change Proposal, as recommended by Architect.
- B. Proper signatures (dated) authorize you to proceed with changes.
- C. Sign and date Change Order if you agree with terms.

**1.10 UNIT PRICE CHANGE ORDER:**

- A. Content of Change Orders will be based on, either:
  1. Definition of extent of required changes.
  2. Contractor's Proposal for change, as approved with appropriate signatures.

3. Survey of completed work.
- B. The amount of unit prices is to be:
  1. Any stated in the Bid Form/Agreement.
  2. Those mutually agreed upon between Owner and Contractor.
- C. When Change Order quantities can be determined prior to start of work:
  1. Appropriate listed persons will sign and date as authorization for you to proceed.
  2. Sign and date Change Order to indicate your agreement with terms.
- D. When quantities cannot be determined prior to start of work the following procedures will be followed:
  1. Appropriately signed and issued construction Modification Proposal will authorize you to proceed on unit price basis, and cite applicable unit prices.
  2. At completion of change, Architect will determine cost of work based on unit prices and quantities used.
    - a. Submit documentation establishing any claims for Contract Time change.
  3. Architect signs and dates the Change Order establishing change in Contract Sum and Contract Time.
  4. All pertinent listed parties sign and date Change Order indicating their agreement.

**1.11 TIME AND MATERIAL/FORCE ACCOUNT CHANGE ORDER/CONSTRUCTION CHANGE AUTHORIZATION:**

- A. Appropriately executed and signed Change Order authorizes you to proceed.
- B. At completion of change, submit itemized accounting and supporting data as provided in Article "Documentation of Proposals and Claims" of this Section.
- C. All concerned sign and date Change Order and/or Construction change authorization establishing change in Contract Sum and Contract Time.
- D. Contractor signs and dates indicating his agreement.

**1.12 CORRELATION WITH CONTRACTOR'S SUBMITTALS:**

- A. Quarterly revise Schedule of Values and Request for Payment forms to record each change as a separate item of work. Record adjusted Contract Sum.
- B. Monthly revise Construction Schedule reflecting each change in Contract Time.
  1. Revise sub schedules to show changes for other items of work affected by changes.
  2. Upon completion of work under Change Order, enter pertinent changes in Record Documents.

**1.13 DISTRIBUTION:**

- A. Send copies to all concerned parties.
  - 1. Change orders:
    - a. Upon authorization, Owner transmits one signed copy each to Contractor and Architect.
    - b. Construction Change Authorization:
    - c. Distribution of copies:
      - 1) One to Owner.
      - 2) One to Contractor.
      - 3) One to Architect.

**PART 2 - PRODUCTS - NOT USED**

**PART 3 - EXECUTION - NOT USED**

**END OF SECTION**

**SECTION 01 29 00**

**PAYMENT PROCEDURES**

**PART 1 - GENERAL**

**1.01 RELATED DOCUMENTS**

- A. Project Manual including General Conditions, any Supplementary Conditions, Divisions 00 and Division 01 Specification Sections, Drawings, and any Addenda apply to work of this Section.

**1.02 APPLICATIONS FOR PAYMENT**

- A. Format and Data Required:
1. Schedule of Values: Submit on AIA Document G703 or approved alternative.
  2. Applications for Payment: Submit on AIA Document G702 or approved alternative.
- B. Preparation of Application for Each Progress Payment:
1. Application-Form:
    - a. Fill in required information.
      - 1) Include Change Orders approved prior to Application Submittal date.
      - 2) Fill in summary of dollar values to agree with respective total indicated on any continuation sheets.
      - 3) Sign by responsible officer of Contract firm.
      - 4) Sign all copies; no photocopies of signatures permitted.
      - 5) Indicate for each line item, the percentage of completion as reflected in the dollar value of completed work.
  2. Continuation Sheets:
    - a. Totally fill in all scheduled component work items. Show item number/scheduled dollar value/item/Schedule of Values.
    - b. Fill in dollar value in each column for each scheduled line item.
      - 1) Round off values to nearest dollar. Tally Sheet.
      - 2) If no work has been performed entire zero.
    - c. At end of continuation sheets, list each Change Order approved prior to submission date.
      - 1) List by Change Order Number, and description, as for an original component item of work.
- C. Post Addendums in field Specifications prior to first Progress Payment.
- D. Substantiating Data for Final Payment:
1. When Owner or Architect requires substantiating data, submit suitable information, with cover letter.
  2. Submit one copy of data and cover letter for each copy of Application.
- E. Preparation of Application for Final Payment:

1. Fill in application form, as specified, for progress payment.
  2. Use continuation-sheet for presenting final accounting statement, as specified: Project Closeout.
- F. Submittal Procedure:
1. Submit Application for Payment at times stipulated in Agreement. Allow stipulated time for processing.
  2. Number: Three (3) copies of each Application, unless otherwise directed at Pre-construction Meeting.
  3. When Architect finds Application properly completed and correct, he transmits Payment Certificate to Owner.
  4. If Architect finds application improperly or incorrectly executed, an annotated copy is returned for NEW SUBMITTAL.
  5. Submit revised Progress Schedule with each Application for Payment.

**PART 2 - PRODUCTS NOT USED**

**PART 3 - EXECUTION NOT USED**

**END OF SECTION**

## SECTION 01 31 10

### PROJECT COORDINATION

#### PART 1 - GENERAL

##### 1.01 RELATED DOCUMENTS

- A. Project Manual including General Conditions, any Supplementary Conditions, Divisions 00 and Division 01 Specification Sections, Drawings, and any Addenda apply to work of this Section.

##### 1.02 PROJECT COORDINATION

- A. General:
  - 1. Coordinate with Work of other Sections to ensure that all fixtures, devices, switches, outlets, ducts, pipes, and similar items can be installed as shown without modifications to framing. Provide all blockouts, raceways and similar framing as required.
  - 2. Coordinate the Work; do not delegate responsibility for coordination to any subcontractor.
  - 3. Anticipate interrelationship of all subcontractors and their relationship with the total Work.
  - 4. Resolve differences or disputes between subcontractors and materials suppliers concerning coordination, interference, or extent of Work between Sections. Contractor's decisions, if consistent with Contract Document requirements, shall be final.

##### 1.03 MECHANICAL AND ELECTRICAL COORDINATION

- A. "Tight" Conditions:
  - 1. Resolve all "tight" conditions involving Work of various Sections in advance of installation.
  - 2. If necessary, and before Work proceeds in these areas, prepare supplementary drawings for review showing all Work in "tight" areas.
  - 3. Provide supplementary drawings, and additional Work necessary to overcome "tight" conditions, at no increase in Contract Sum.

##### 1.04 JOB SITE ADMINISTRATION

- A. Field Measurements and Templates:
  - 1. Obtain field measurements required for accurate fabrication and installation of Work included in this Contract. Exact measurements are the Contractor's responsibility.
  - 2. Furnish or obtain templates, patterns, and setting instructions as required for installation of all Work. Verify in field.

- B. Responsibility:
  - 1. The Contractor shall be in charge of this Contract and the Site, as well as directing and scheduling of all Work.
  - 2. Final responsibility for performance, interface, and completion of Work and Project shall be the Contractor's.

## **PART 2 - PRODUCTS**

### **2.01 MATERIALS**

- A. Comply with Specifications for each specific product involved.

## **PART 3 - EXECUTION**

### **3.01 CUTTING AND PATCHING**

- A. Execute cutting and patching Work and structural reinforcing in a manner to prevent damage to other Work and to provide proper surfaces for installation of repairs, penetrations through surfaces, or other items.
- B. For all new Work employ original installer or fabricator to perform cutting and patching for weather exposed or moisture resistance elements, fireproofing, and finished surfaces exposed to view.
- C. Provide cutting and patching for all existing work, where mechanical and electrical utilities or similar services extend beyond limits of work for new construction, to match existing.
- D. General: Provide and be responsible for all cutting, fitting, and patching required to complete the Work, or to:
  - 1. Make its several parts fit together and to provide for installation of ill-timed Work.
  - 2. Uncover portions of Work to provide for installation of ill-timed Work.
  - 3. Remove and replace defective Work.
  - 4. Remove and replace Work not conforming to Contract Document requirements.
  - 5. Remove samples of installed Work as specified for testing.
  - 6. Provide routine penetrations on non-structural surfaces for installation of piping.
- E. Project Conditions:
  - 1. Inspect existing conditions including elements subject to damage or movement during cutting and patching.
  - 2. After uncovering Work, inspect conditions affecting installation of products or performance of Work.
  - 3. Report unsatisfactory or questionable conditions to Architect in writing. Do not proceed with Work until Architect provides further instructions.

- F. Materials:
  - 1. Those required for original installation.
  - 2. For any change in materials, submit request for substitution to Architect.
  
- G. Preparation:
  - 1. Provide adequate temporary support as required to assure structural value or integrity of the affected portion of the Work.
  - 2. Provide devices and methods to protect other portions of the Project which may be exposed by uncovering Work.
  
- H. Performance:
  - 1. Execute cutting and patching by methods which will avoid damage to other areas, and will provide proper surfaces to receive patching and finishing. Cutting which will in any way impair the structural strength of the buildings will not be allowed. Pay all costs, as determined by Architect for remedial Work necessitated by cutting which impaired the structural integrity of the building.
  - 2. Execute fitting and adjustment of products to provide a finished installation to comply with specified products, functions, tolerances, and finishes.
  - 3. Restore Work which has been cut or removed; install new products to provide completed Work in accordance with Contract Document requirements.
  
- I. Adjust and fit products to provide a neat installation. Finish or refinish surfaces, as required, to match adjacent finishes. Repaint surfaces to nearest change in plane.

**END OF SECTION**

**SECTION 01 31 20**  
**PROJECT MEETINGS**

**PART 1 - GENERAL**

**1.01 RELATED DOCUMENTS**

- A. Project Manual including General Conditions, any Supplementary Conditions, Divisions 00 and Division 01 Specification Sections, Drawings, and any Addenda apply to work of this Section.

**1.02 PRECONSTRUCTION CONFERENCE**

- A. Prior to commencement of Work, a pre-construction conference will be held to discuss procedures to be followed.
- B. Location: City of Kirkland, 123 5<sup>th</sup> Avenue, Kirkland, WA.
- C. Attending shall be:
  - 1. Owner's representative.
  - 2. Architect.
  - 3. Architect's Professional Consultants.
  - 4. Contractor.
  - 5. Contractor's Superintendent.
  - 6. Major Subcontractors.
  - 7. Permit Reviewer and City Inspector(s)
  - 8. Others as appropriate.

**1.03 PROGRESS MEETINGS**

- A. Contractor shall prepare agenda, schedule, and hold periodic meetings as required by the progress of the Work. Architect shall record agreed action and resolutions in minutes of meeting and promptly distribute to attending parties.
- B. Location: Contractor's field office.
- C. Attending shall be:
  - 1. Architect.
  - 2. Architect's Professional Consultants, as appropriate to the agenda.
  - 3. Owner's Representative.
  - 4. Contractor.
  - 5. Contractor's Superintendent.
  - 6. Subcontractors, as appropriate to the agenda.
  - 7. Suppliers, as appropriate to the agenda.
  - 8. Others, as appropriate to the agenda.

**PART 2 - PRODUCTS - NOT USED**

**PART 3 - EXECUTION - NOT USED**

**END OF SECTION**

**SECTION 01 32 50**

**PROGRESS SCHEDULES AND REPORTS**

**PART 1 - GENERAL**

**1.01 RELATED DOCUMENTS**

- A. Drawings and general provisions of Contract, including General Conditions, Supplementary Conditions and Divisions 00 and Division 01 Specification Sections, apply to work of this Section.

**1.02 PROGRESS SCHEDULE**

- A. The Contractor shall prepare and submit to the Architect for review and approval prior to starting work at the site a comprehensive bar chart type progress Schedule that indicates a time bar for each significant category or unit of Work. The Contractor shall prepare the Schedule to indicate required sequencing of units, and to show time allowance for submittals, inspections and similar time margins. The Contractor shall show critical submittal dates related to each time bar, or prepare separate coordinated listing of critical submittal dates.
- B. Following initial revision of Schedule after Architect's review, print and distribute schedule to entities with a need-to-know responsibility, including two copies to Architect. The Contractor shall post the approved Schedule in the Contractor's temporary office space. The Contractor shall review and update the Schedule coincident with payment request submission, and shall redistribute and re-post updated versions.
- C. The Contractor shall update the Progress Schedule during construction every (2) two weeks to keep it current.
- D. Contractor to email a weekly update progress report to the Owner's representative and the Architect.

**PART 2 - PRODUCTS - NOT USED**

**PART 3 - EXECUTION - NOT USED**

**END OF SECTION**

**SECTION 01 33 00**  
**SUBMITTAL PROCEDURES**

**PART 1 - GENERAL**

**1.01 RELATED DOCUMENTS**

- A. Drawings and general provisions of Contract, including General Conditions, Supplementary Conditions and Divisions 00 and Division 01 Specification Sections, apply to work of this Section.

**1.02 SUMMARY**

- A. Items requiring Shop Drawings, Product Data, and Samples are specified in the individual Sections. Submission of Shop Drawings, Product Data, and Samples is required only for those items where submittals are specified.
- B. Unspecified submittals will not be reviewed by the Architect. Subcontractor's drawings, setting diagrams and similar information required by the Contractor for coordination shall remain between the Contractor and subcontractors and will not be reviewed by the Architect.
- C. Related Sections:
  - 1. Product Substitution Procedures: Section 01 60 00 – Product Requirements.

**1.03 SHOP DRAWINGS**

- A. Present information required on Shop Drawings in a clear and thorough manner. Identify details by reference to drawing and detail, schedule, or room numbers shown and specified.

**1.04 PRODUCT DATA**

- A. Clearly mark each copy to identify pertinent products or models. Show performance characteristics and capacities, dimensions and clearances required, wiring or piping diagrams and controls.
- B. Modify manufacturer's standard schematic drawings and diagrams to delete information which is not applicable to the Work.
- C. Supplement standard information to provide information specifically applicable to the Work.

**1.05 SAMPLES**

- A. Samples shall be of sufficient size and quality to clearly illustrate functional characteristics of product, with integrally related parts and attachment devices.

- B. Submit full range of colors, textures, and patterns.

#### **1.06 CONTRACTOR'S RESPONSIBILITIES**

- A. Review, mark up as appropriate, and stamp Shop Drawings, Product Data, and Samples prior to submission.
- B. Determine and verify field measurements, field construction criteria, catalog numbers and similar data, and conformance with requirements of Contract Documents.
- C. Coordinate each submittal with requirements of the Work and of the Contract Documents.
- D. Notify Architect in writing, at time of submission, of any deviation in submittals from requirements of Contract Documents.
- E. Begin no fabrication or Work which requires submittals until return of Architect's final reviewed submittals.

#### **1.07 SUBMISSION REQUIREMENTS**

- A. Make submittals promptly in accordance with approved schedule and in such a manner as to cause no delay in the Work.
- B. Number of Submittals Required:
  - 1. Shop Drawings: Submit one reproducible transparency, which will be returned for reproduction and distribution by the Contractor, and two opaque reproductions which will be used for checking and will not be returned. Resubmit as required until final action by the Architect.
  - 2. Product Data, and Non-Reproducible Submittals: Submit the number of copies which the Contractor requires, plus two which will be retained by the Architect.
  - 3. Samples: Submit number stated in each Section.
- C. Submittals shall Contain:
  - 1. Date of submission and dates of any previous submissions with identification of revisions on any re-submittals.
  - 2. Project title and number; Contract identification; names of Contractor, supplier, and manufacturer.
  - 3. Relation to adjacent or critical features of the Work or materials.
  - 4. Applicable Standards, such as ASTM or Federal Specification numbers.

#### **1.08 SUBMITTAL SCHEDULE**

- A. Time of submission of Shop Drawings, Product Data, and Samples by the Contractor and their processing and return by the Architect, is a matter which must be jointly agreed to by both parties in order that items covered by required submittals will be available when needed by the construction process and so that each party can plan their workload in an orderly manner.

- B. The Contractor shall prepare a Submittal Schedule in the format provided, coordinated with the Progress Schedule, and submit to the Architect 15 calendar days prior to submission of the first submittals or simultaneously with the Progress Schedule, whichever is earlier. No submittals will be processed before the Submittal Schedule has been reviewed by the Architect.
1. Sample Submittal Schedule Form attached to end of this Section.
- C. In preparing the Submittal Schedule, the Contractor shall first determine, from the Progress Schedule, the date the particular item is needed on the Work for installation. Working backwards, the Contractor will then add the number of days for shipment, time for fabrication, and similar items, to determine the date of first submittal. Note that the Architect will determine the time required in steps 5 and 8 of the form. To secure this, the Contractor shall furnish the Architect with draft copies of the Submittal Schedule with all information in steps 1, 2, and 3 completed.
- D. The intent is to adjust the Schedule to produce an orderly, even workload, without peak loads if possible, and yet meet the needs of the construction process. After the schedule is completed by the Contractor, the Contractor shall, at its expense, furnish copies to the Architect as required.

**PART 2 - PRODUCTS - NOT USED**

**PART 3 - EXECUTION - NOT USED**

**END OF SECTION**

**SUBMITTAL SCHEDULE (SAMPLE)**

1. Subcontractor			
2. Specification Section			
3. Item of Work			
4. Received by Contractor and Time for Checking			
5. First Delivered to Architect and Time for Checking			
6. Returned to Contractor			
7. Corrections Completed and Time for Corrections			
8. Next Delivered To Architect and Time for Checking			
9. Returned to Contractor			
10. Approval for Job Information			
11. Approval for Fabrication and Time for Fabrication			
12. Fabrication Completed			
13. Shipping Date and Time En route			
14. Delivery to Job			
<b>STEP LEGEND</b>			
	= Date this step is scheduled to be completed		
	= Date this step is actually completed		
	= Calendar days required to complete this step (if applicable)		

**SECTION 01 41 00**

**REGULATORY REQUIREMENTS**

**PART 1 - GENERAL**

**1.01 RELATED DOCUMENTS**

- A. Drawings and general provisions of Contract, including General Conditions, Supplementary Conditions and Divisions 00 and Division 01 Specification Sections, apply to work of this Section.

**1.02 APPLICABLE CODES AND STANDARDS**

- A. Any specific reference in the Specifications to codes, regulations, reference standards, manufacturer's instructions or requirements of regulatory agencies shall mean the latest printed edition of each in effect at the date of submission of bids unless the document is shown dated.
- B. Perform the Work in conformance with the applicable requirements of all regulatory agencies including, but not limited to, the following:
  - 1. International Building Code (IBC) 2015 Edition.
  - 2. National Electrical Code (NEC) current edition.
  - 3. Uniform Plumbing Code (IPC), 2015 Edition.
  - 4. International Mechanical Code (IMC), 2015 Edition.
  - 5. Washington State Non-Residential Energy Code, 2016
  - 6. Washington State Ventilation and Indoor Air Quality Code.
  - 7. ANSI 117.1 Disability Standards.

**PART 2 - PRODUCTS - NOT USED**

**PART 3 - EXECUTION - NOT USED**

**END OF SECTION**

## SECTION 01 42 00

### REFERENCES

#### PART 1 - GENERAL

##### 1.01 RELATED DOCUMENTS

- A. Drawings and general provisions of Contract, including General Conditions, Supplementary Conditions and Divisions 00 and Division 01 Specification Sections, apply to work of this Section.

##### 1.02 ABBREVIATIONS

- A. The following abbreviations of organizations may be used in the Contract Documents.
- |     |       |  |
|-----|-------|--|
| 1.  | AAMA  | Architectural Aluminum Manufacturer's Association                          |
| 2.  | ACI   | American Concrete Institute  |
| 3.  | AGC   | Associated General Contractors of America                                  |
| 4.  | AIA   | American Institute of Architects   |
| 5.  | AISC  | American Institute of Steel Construction                                   |
| 6.  | AITC  | American Institute of Timber Construction                                  |
| 7.  | ANSI  | American National Standards Institute                                      |
| 8.  | APA   | American Plywood Association   |
| 9.  | ASTM  | American Society for Testing and Materials                                 |
| 10. | AWPA  | American Wood Preservers Association                                       |
| 11. | AWS   | American Welding Society   |
| 12. | AWI   | Architectural Woodwork Institute   |
| 13. | BHMA  | Builder's Hardware Manufacturers Association                               |
| 14. | CLFMI | Chain Link Fence Manufacturers Institute                                   |
| 15. | CRSI  | Concrete Reinforcing Steel Institute                                       |
| 16. | CS    | U.S. Commercial Standard   |
| 17. | DHI   | Door and Hardware Institute  |
| 18. | FGMA  | Flat Glass Marketing Association   |
| 19. | FM    | Factory Mutual System  |
| 20. | FS    | Federal Specification  |
| 21. | GA    | Gypsum Association   |
| 22. | MLSFA | Metal Lath/Steel Framing Association                                       |
| 23. | NAAMM | National Association of Architectural Metal Manufacturers                  |
| 24. | NEC   | National Electrical Code   |
| 25. | NEMA  | National Electrical Manufacturers Association                              |
| 26. | NFPA  | National Fire Protection Association; National Forest Products Association |
| 27. | NWMA  | National Woodwork Manufacturers' Association                               |
| 28. | NWWDA | National Wood Window and Door Association                                  |
| 29. | PCI   | Prestressed Concrete Institute   |
| 30. | PDCA  | Painting and Decorating Contractors of America                             |
| 31. | PS    | U.S. Product Standard  |
| 32. | SDI   | Steel Deck Institute; Steel Door Institute                                 |

- |     |        |   |
|-----|--------|---|
| 33. | SMACNA | Sheet Metal and Air Conditioning Contractors National Association, Inc. |
| 34. | SSPC   | Steel Structures Painting Council                                       |
| 35. | TCA    | Tile Council of America   |
| 36. | TPI    | Truss Plate Institute   |
| 37. | UBC    | Uniform Building Code   |
| 38. | UL     | Underwriters' Laboratories, Inc.  |
| 39. | UMC    | Uniform Mechanical Code   |
| 40. | UPC    | Uniform Plumbing Code   |
| 41. | WABO   | Washington Association of Building Officials                            |
| 42. | WAC    | Washington Administrative Code  |
| 43. | WSDOT  | Washington State Department of Transportation                           |
| 44. | WWPA   | Western Wood Products Association                                       |

B. Additional abbreviations, used only on the Drawings, are listed thereon.

### 1.03 SYMBOLS

A. Symbols, used only on the Drawings, are shown thereon.

### 1.04 DEFINITIONS

- A. Terms used on the Drawings or in the Specifications in addition to those shown in General Conditions shall have the meanings as follows. Terminology is shown to the left, it's meaning is shown to the right.
- |    |                  |   |
|----|------------------|---|
| B. | As Directed      | "By the Architect"  |
| C. | As Required      | "By Code; by good building practice; by the condition prevailing; by Contract Documents; by Owner, or by Architect" |
| D. | As Selected      | "By Architect"  |
| E. | Equal/Equivalent | In the opinion of the Architect. The burden of proof of equality is the responsibility of the Contractor.           |
| F. | Furnish          | "Supply and deliver to the Project ready for installation and in operable condition."                               |
| G. | Install          | "Incorporate in the Work in final position, complete, anchored, connected, and in operable condition."              |
| H. | NIC              | Not in Contract   |
| I. | Owner            | City of Kirkland  |
| J. | Project          | Total construction of which Work performed under the Contract Documents may be the whole or a part.                 |

- |    |           |   |
|----|-----------|---|
| K. | Provide   | "Furnish and install complete." When neither "furnish", "install", nor "provide" is stated, "provide" is implied. |
| L. | Shown     | "As indicated on the Drawings"  |
| M. | Specified | "As written in the Project Manual/Specifications"   |

**PART 2 - PRODUCTS - NOT USED**

**PART 3 - EXECUTION - NOT USED**

**END OF SECTION**

**SECTION 01 45 00**

**QUALITY CONTROL**

**PART 1 - GENERAL**

**1.01 RELATED DOCUMENTS**

- A. Drawings and general provisions of Contract, including General Conditions, Supplementary Conditions and Divisions 00 and Division 01 Specification Sections, apply to work of this Section.

**1.02 TESTING LABORATORY SERVICES**

- A. Testing Laboratory: Owner will retain and pay expenses of a Testing Laboratory, except as specified otherwise in the individual Sections, as an independent testing laboratory to perform, and report on, the tests and inspections described in the Specifications or as otherwise deemed necessary and appropriate.
- B. Additional Testing and Inspection: If initial tests or inspections made by the Testing Laboratory reveal that materials do not comply with Contract Documents, or if Architect has reasonable doubt that materials comply with Contract Documents, additional test and inspections shall be made as directed.
  - 1. If additional tests and inspections establish that materials comply with Contract Documents, all costs for such tests and inspections shall be paid by Owner.
  - 2. If additional tests and inspections establish that materials do not comply with Contract Documents, all costs of such tests and inspections shall be deducted from the Contract Sum.

**1.03 SPECIAL INSPECTIONS**

- A. All special inspections shall be performed by Washington Association of Building Officials (WABO) registered special inspectors and their employer agencies.
- B. Inspections and Tests: Perform, on site, at fabricators' plants, or in approved professional testing laboratory.
- C. Regulatory Requirements: Perform all Work in accordance with International Building Code IBC, 2015 Edition.
- D. Duties of Special Inspector: Make required tests in accordance with regulatory requirements. Submit written reports to Owner and Architect. Submit test reports as soon as they are made. Submit inspection reports. Special Inspector shall have access to the Work at all times. The Contractor shall furnish facilities for such access in order that the Special Inspector may properly perform his functions.
- E. Notices: Notify Architect and Special Inspector at least 48 hours before Work requiring inspection is started.

- F. Costs: Fees for special inspection and testing will be paid by the Owner. Additional inspection and tests required because of defective Work or ill-timed notices shall be paid by the Contractor. Additional inspection or testing performed at Contractor's request shall be the sole responsibility of the Contractor.

#### **1.04 TESTS, INSPECTIONS, AND METHODS REQUIRED**

- A. Items for Special Inspection and Testing: Inspection and tests shall be performed as required to assure compliance with Drawings and Specifications and as noted on the Structural and Civil Drawings. Inspections and tests may include but not necessarily be limited to the following:
1. Concrete: During taking of test specimens and placement of reinforced concrete greater than 2500 psi compressive strength.
  2. Bolts Installed in Concrete: Prior to and during placement of concrete around bolts when stress increases permitted by UBC Section 1923, Table 19-D, Footnote 5, are used.
  3. Reinforcing Steel: During placement of reinforcing steel for all concrete required to have special inspection as specified in 1.4, A,1.
  4. During welding of any structural member or connection designed to resist loads and forces required by code.
  5. High Strength Bolting: As required by IBC Chapter 22.
  6. Special Grading, Excavating, Filling, and Structural Fills: When buildings are supported by fill materials, special inspections will be required to verify each soil lift meets minimum compaction requirements. Provide sufficient observation during preparation of natural ground and placement and compaction of fill to verify that Work is performed in accordance with Drawings, Specifications, and Geotechnical Report.
- B. Other Special Inspections: Special inspections required for other elements not specifically listed when, in the opinion of the building official, the Work is such that compliance is difficult to demonstrate without special inspection.

#### **PART 2 - PRODUCTS - NOT USED**

#### **PART 3 - EXECUTION - NOT USED**

**END OF SECTION**

**SECTION 01 50 00**

**TEMPORARY FACILITIES AND CONTROLS**

**PART 1 - GENERAL**

**1.01 RELATED DOCUMENTS**

- A. Drawings and general provisions of the Contract, including Divisions 00 and Division 01 Specification Sections, apply to work of this Section.

**1.02 SECTION INCLUDES**

- A. This Section specifies administrative and procedural requirements for the Contractor's construction facilities and temporary controls.

**1.03 DESCRIPTION**

- A. This Section specifies minimum actions required. Other actions may be specified elsewhere in the Contract Documents, manufacturer's literature, and governing regulations.
- B. Nothing in this Section is intended to limit types or amounts of construction facilities and temporary controls.
- C. No omission from this Section will be recognized as a temporary activity that is not required to complete the Work.

**1.04 DISPOSAL OF WASTE MATERIALS**

- A. See Section 01 74 19 Construction Waste Management and Disposal.
- B. Dispose of all refuse and waste material, including excess earth from excavation, off Owner's property in a legal manner conforming to all requirements of local authorities having jurisdiction. Do not stockpile waste material on Owner's property. Immediately clean up any spilled material.
- C. Clean all trash and debris from work area daily. Keep work area, site, and adjacent properties free from accumulations of waste materials, rubbish and windblown debris resulting from construction operations.
- D. Provide on-site containers for collection of waste materials, debris and rubbish. Periodically remove waste from the site. Do not use Owner's waste containers for construction waste.
- E. Waste Construction Liquid Disposal: Provide portable containers for disposal of any waste construction liquids or fluids that are generated by or needed for the construction work. Do not dump any waste construction liquid or fluid (including paint, solvents, plaster mud, brush and tool cleanup water, etc.) down the building

sanitary or storm drain systems or anywhere on the site (except clean water).  
Dispose of contents of all portable containers off site daily.

- F. Dispose of all flammable, hazardous, and toxic waste materials daily. Storage of these materials will not be permitted on the interior of building.
- G. Locate dumpster within the fenced Work Area.
  - 1. Dumpsters shall have a hinged lid that shall be closed and locked at the end of each day's work.

#### **1.05 TEMPORARY ELECTRICITY**

- A. The Contractor shall provide electrical power, including temporary power service or electrical generator(s) required to complete the work of this Contract. The Contractor will provide for all connection costs including but not limited to fees, meters, transformers, disconnects, cabling, etc. and shall remove temporary connections after Work is completed.
- B. Provide temporary electric feeders from electrical service. Power consumption shall not disrupt Owner's need for continuous service. Verify type of service characteristics and provide temporary feeders accordingly.
- C. Provide power outlets for construction operations, with branch wiring and distribution boxes. Provide OSHA/WISHA approved flexible power cords as needed.
- D. Provide temporary service disconnect and over current protection at convenient location.
- E. Permanent convenience receptacles may be utilized during construction provided they are replaced if damaged or defaced in any way.

#### **1.06 TEMPORARY LIGHTING**

- A. Provide and maintain lighting for construction operations. Provide sufficient lighting to ensure proper workmanship everywhere.
- B. Provide branch wiring from power source to distribution boxes with lighting conductors, pigtails, and lamps as needed.
- C. Maintain lighting and provide routine repairs.
- D. Superintendent shall carry a digital/voice pager or a cellular phone to allow voice communication at all times.

#### **1.07 TEMPORARY WATER SERVICE**

- A. Provide, maintain, and pay for suitable quality water service required for construction operations. Pay all costs of connection and piping required to perform the work.

- B. Extend branch piping with outlets located so water is available by hoses with threaded connections.

#### **1.08 TEMPORARY SANITARY FACILITIES**

- A. Provide and maintain temporary OSHA/WISHA required portable toilet facilities and enclosures; in sufficient numbers and locations to accommodate the size of workers on site. Maintain daily in clean and sanitary condition.

#### **1.09 TEMPORARY HEAT**

- A. Provide and pay for temporary heat devices and energy source as required to maintain conditions required for construction operations.
  - 1. Use of the permanent heating system in the buildings is not permitted.
  - 2. Direct fired gas/oil heaters are not allowed, all combustion/exhaust gases shall be vented to building exterior.
- B. Maintain minimum ambient temperature of 60 degrees F in areas where construction is in progress, unless required otherwise by manufacturers, trade associations, and/or the specification sections.

#### **1.10 TEMPORARY VENTILATION**

- A. Provide temporary ventilation equipment to facilitate drying out of materials, to dissipate humidity, to maintain consistent temperature in all areas and to prevent accumulation of dust, fumes, vapors, or gases.

#### **1.11 TEMPORARY DEHUMIDIFICATION**

- A. Provide temporary dehumidification equipment as required to lower the moisture content of the building interior and dry out materials to required levels.

#### **1.12 BUILDING MATERIALS ACCLIMATIZATION AND DRY OUT**

- A. Prior to installation of any building insulation, wall surfaces or finishes, the Contractor shall provide the equipment and expertise required to dry out the building structure and materials, including concrete slabs, to conform with the following minimum criteria:
  - 1. Contractor is responsible for selecting the means and methods utilized to acclimate, ventilate and dry out the building structure and materials, including deciding the proper sequence of construction and other determinates affecting the dry out process; and shall hire an expert consultant to advise in this process if problems or questions are encountered.
  - 2. Acclimate, ventilate and dry out structure and materials as required by manufacturers of materials, finishes or coverings applied over, onto or within the structure or material.
    - a. Refer to Section 03 30 02 for requirements related to concrete floor slabs.

3. Acclimate, ventilate and dry out structure and materials as required to allow installed materials to dry evenly and rapidly as recommended by manufacturer or reference standard.
4. Acclimate, ventilate and dry out structure and materials as required to prevent the formation of water condensation on any material.
5. Do not install thermal insulation until the moisture content and temperature of building materials is being maintained at a level that will prevent condensation from forming in the insulation or on the cold side surface of the insulated cavity.
6. Test and record moisture content of each different building structural element and material on a daily basis during and after acclimatization and dry out process.
  - a. Provide professional quality moisture testing equipment capable of providing consistently accurate moisture content analysis for each different type of material found on project.
  - b. Record moisture content data collected on a printed log showing location of each test and material/structural member tested; key each test to a floor plan.
  - c. Provide copies of the moisture log and keyed floor plan to subcontractors suppliers, Architect and Owner upon request.
7. The Owner may elect to hire a testing lab to perform the moisture testing and recording at the Contractor's expense if the Contractor fails to provide adequate or consistent moisture content testing and recording as specified herein.

### **1.13 TEMPORARY BARRIERS**

- A. Provide barriers to protect the public from any potentially unsafe conditions, and from damage and/or dust from construction operations.
- B. Provide protection for existing plant life designated to remain. Replace damaged plant life.
- C. Protect non-owned vehicular traffic, stored materials, site and structures from damage.

### **1.14 TEMPORARY CONSTRUCTION SITE FENCNG**

- A. Commercial grade chain link fencing.
- B. Provide 6 foot high temporary chain link fence around the construction area; equip with vehicular and pedestrian gates with locks.
  1. Anchor each fence post securely as required to maintain integrity of security fencing.

### **1.15 WATER CONTROL**

- A. See Section 01 57 13 – Temporary Erosion and Sediment Control for additional site dewatering.

- B. Grade site to drain. Maintain excavations free of water. Provide, operate, and maintain pumping equipment.
- C. Protect site from puddling or running water.
- D. Provide settling basins and erosion control.
- E. Protect any facilities on-site and off-site from damage due to uncontrolled water.

#### **1.16 TEMPORARY STORAGE**

- A. The Contractor shall make whatever provisions necessary to ensure the safe and weathertight protection of materials, or equipment temporarily stored.

#### **1.17 EXTERIOR ENCLOSURES**

- A. After roof is installed and insulation or interior finishes are started, provide temporary, weather-tight enclosure over any portion of the building exposed to the weather to prevent the structure and finishes from getting wet.

#### **1.18 PROTECTION OF INSTALLED WORK**

- A. Protect installed work. Provide special protection where specified in individual specification sections or as required to prevent any type of damage or defacement.
- B. Provide temporary and removable protection for installed products. Control activity in immediate work area to minimize damage.
- C. Prohibit traffic or storage upon waterproofed or roofed surfaces. If traffic or activity is necessary, obtain recommendations for protection from waterproofing or roofing material manufacturer and install protection. Remove and replace waterproofing or roofing material damaged during the work.
- D. Prohibit construction worker access to all rooms and areas which do not have construction work. After work in any area or room is complete, prohibit further worker access.
- E. Prevent any construction dust and dirt from entering the HVAC equipment and ductwork, computer equipment, electrical switchgear, building systems/equipment, smoke detectors or anything that will be adversely affected.

#### **1.19 SECURITY**

- A. Lock up or block up all doors, windows and openings in building and lock any gates on the site each day prior to leaving the site to prevent unauthorized entry into the building or site.

- B. Maintain building security until the Owner takes permanent occupancy or until substantial completion is achieved, whichever occurs first.

**1.20 ACCESS ROADS**

- A. Provide and maintain access to fire hydrants, free of obstructions. Do not block access roads or prevent emergency vehicles access to site.

**1.21 PROGRESS CLEANING**

- A. Provide periodic cleaning to prevent any buildup or accumulation of construction debris and dirt on the site.
- B. Maintain areas free of waste materials, debris, rubbish and dust. Maintain site in a clean and orderly condition.
- C. Remove waste materials, debris, and rubbish from site weekly and dispose off-site.

**1.22 ENVIRONMENTAL PROCEDURES**

- A. Comply with all environmental and health safety regulations.
- B. Burning on site is not permitted.

**1.23 FIELD OFFICE**

- A. Office: Weather-tight, with lighting, electrical outlets, HVAC equipment, and equipped with sturdy furniture, plan rack and drawing display table.
- B. Provide office large enough to comfortably house Superintendent and the Field Engineer, and to accommodate weekly jobsite meetings, with table and chairs adequate for all attendees up to a maximum of ten (10) people.
- C. Provide copy and fax machine on site for use of Contractor, Architect and Owner.
- D. Provide computer(s) with Microsoft Word, Excel, and Adobe Acrobat software programs and internet connection for e-mail communication with Superintendent and Field Engineer.
- E. Maintain office in organized and clean condition.

**1.24 MACHINERY AND EQUIPMENT RESTRICTIONS**

- A. Equipment and Internal Combustion Engine Noise: The noise level of each vehicle or piece of equipment shall not be greater than 90 DB(A) at a distance of 50 feet as measured under noisiest operating conditions. Mufflers for stationary engines shall be hospital-area quality of silencing.

**1.25 REMOVAL OF UTILITIES, FACILITIES, AND CONTROLS**

- A. Remove temporary above grade or buried utilities, equipment, facilities, materials,
- B. Remove temporary underground installations to a minimum depth of 2 feet.
- C. Clean and repair damage caused by installation or use of temporary work.

**1.26 EMERGENCY CONTACTS**

- A. Provide Owner with two emergency contact names (Superintendent and Project Manager), with home phone, cell phone and pager numbers.

**PART 2 - PRODUCTS**

Not Used

**PART 3 - EXECUTION**

Not Used

**END OF SECTION**

**SECTION 01 50 10**  
**TEMPORARY PROJECT SIGN**

**PART 1 - GENERAL**

**1.01 RELATED DOCUMENTS**

- A. Drawings and general provisions of Contract, including General Conditions, Supplementary Conditions and Divisions 00 and Division 01 Specification Sections, apply to work of this Section.

**1.02 SUMMARY**

- A. Supply the following types of signs as indicated by the Architect and conform to the specifications given herein.
- B. Construction/Job Signage must comply with the requirements of the ARRA, the Authorities Having Jurisdiction, and the requirements of the Architect.
- C. Prohibitions: The following may not be used by the Contractor on the site:
  - 1. Separate Contractor's, subcontractor's or supplier's signs or advertisements.
  - 2. Signs that flash, blink, rotate or otherwise draw unusual attention (except where required by safety regulations).
  - 3. Company or agency logos.

**PART 2 - PRODUCTS**

**2.01 MATERIALS**

- A. All project signs and construction signs shall be fabricated from the following materials:
  - 1. Plywood Face: High density overlay type, with overlay 0.012" thick each side, 45% resin content by dry weight, and minimum weight of 60 pounds/thousand sq. ft. of surface. 3/4" nominal plywood thickness shall be provided.
  - 2. Paint: Exterior, gloss, alkyd enamel. Provide 2 coats on all sign faces, backs and edges and 1 coat on all posts.
  - 3. Aluminum Paint: Exterior paint conforming to Federal Spec. TT-E-38. Provide 2 coats on all plywood edges and post tops.
  - 4. Wood Posts: Douglas Fir, S4S, with design stress of 1400 psi fb minimum. Paint the entire post before embedding in earth. Provide posts in sizes and depths of embedment as indicated. All signs will be reviewed with the Architect for location and nature of mounting details.

**2.02 SIGNS**

- A. The Contractor shall provide the "Project Sign".

1. Layout and design are provided in this specification
  2. Area of plywood shall be 4 feet x 8 feet.
- B. The Contractor shall provide all required signs and postings of all Authorities Having Jurisdiction.

### **PART 3 - EXECUTION**

#### **3.01 FABRICATION AND INSTALLATION**

- A. All project signs and construction signs shall conform to the following:
1. Sign Panel: All cuts and edges shall be square and clean and all defects patched before painting.
  2. Image: Symbol or type may be screened or hand painted. No screen pattering, paint build-up, bleed-through or drips and runs will be allowed. Hand-made patterns must be carefully cut and true to the symbols provided therein. Only clear, crisp sign painting is acceptable. Hand-painted graphics shall be true to the design.
  3. Posts: All signposts shall be embedded in earth and braced. All signs 4' x 8' and larger shall have compacted gravel around each post.

**END OF SECTION**

**SECTION 01 60 00**  
**PRODUCT REQUIREMENTS**

**PART 1 - GENERAL**

**1.01 RELATED DOCUMENTS**

- A. Drawings and general provisions of Contract, including General Conditions, Supplementary Conditions and Divisions 00 and Division 01 Specification Sections, apply to work of this Section.

**1.02 SECTION INCLUDES**

- A. This Section specifies administrative and procedural requirements for materials and equipment related to:
  - 1. Transportation and handling
  - 2. Storage and protection
  - 3. Product options

**1.03 DEFINITIONS**

- A. Performance Specifications: No manufacturer is specified, and requirements are specified by descriptive requirements, design requirements, performance requirements, reference standards, and codes. Product options complying with or exceeding provisions of Contract Documents are acceptable and require no Substitution Request.
- B. Closed Proprietary Specifications: Products by one or more manufacturers are specified and specification Section does not allow for approval of other products by Substitution Request. No other product options will be accepted. Provide products and Work specified.
- C. Open Proprietary Specifications: Products by one or more manufacturers are specified, and specification Section allows for approval of other products by Substitution Request. Submit Substitution Request for other products to Architect under provisions of this Section.

**1.04 SUBSTITUTION REQUESTS DURING BIDDING PERIOD**

- A. Submit Substitution Request to reach Architect's office before 5:00 PM at least ten (10) working days prior to date for receiving Bids, and in conformance with Instructions to Bidders.
- B. Bidders will be notified by Addendum of products approved in addition to those specified. No other form of approval, including verbal or implied, is acceptable to indicate approval of Substitution Request.

### 1.05 SUBSTITUTION REQUESTS DURING CONSTRUCTION PERIOD

- A. Substitution Requests, submitted by Contractor will not be considered, except for the following reasons. Indicate one or more reasons why substitution is required with Substitution Request.
  - 1. Unavailability: Specified item has been discontinued or is unavailable in time to meet Construction Schedule through no fault of Contractor or subcontractor.
  - 2. Unsuitability: Subsequent information discloses specified item is unsuitable, inappropriate, unable to perform properly, or fit designated space.
  - 3. Regulatory Requirements: Substitution is required to comply with Code interpretations or insurance regulations.
  - 4. Warranty: Manufacturer or fabricator declare specified item to be unsuitable for use intended or refuses to certify or warrant performance of specified item for Project.
- B. During Construction Period, Contractor will be notified by Architect in writing of decision to accept or reject Substitution Request.

### 1.06 SUBMITTAL REQUIREMENTS

- A. Submit two copies of Substitution Request. Limit each request to one Substitution Request form.
- B. Burden of proof is upon Substitution Request, as proposed, to show compliance with specified requirements. Submit drawings, product data, samples, certified test results, and as needed to fully describe Substitution request for evaluation by Architect.
- C. Where product data includes other than that proposed by substitution Request, clearly mark, or otherwise indicate, exact substitution.
- D. Document each Substitution Request with complete data substantiating that proposed substitution complies with provisions of Contract Documents.
- E. Submission of Substitution Request constitutes representation that Bidder or Contractor:
  - 1. Has investigated proposed product and determined that it meets or exceeds, in all respects, specified product.
  - 2. Shall provide the same or better warranty for substitution as for specified product.
  - 3. Shall be responsible for effect of substitution upon related Work, shall coordinate installation, and be responsible for other changes which may be required for Work to be complete in all respects, in compliance with design intent and in compliance with all applicable codes and regulatory requirements.
  - 4. Be responsible for additional costs which may subsequently become apparent. This includes additional costs for required additional Architect's services made necessary by the substitution.
  - 5. Shall provide all cost savings to Contract Sum as credits.

- 6. Shall provide specified product, material, or system should substitution be rejected, at no change in Contract Sum.
- F. Substitutions indicated or implied on submittals, such as Shop Drawings, will not be accepted.
- G. Products and materials included in the Work, not specified or approved by Substitution Request, are defined as Non-Conforming Work. Remove and replace with conforming Work at Contractor's expense with no increase in Contract Time, as directed by Architect.

**1.07 ARCHITECT WILL NOT CONSIDER**

- A. Substitution Requests which do not provide adequate or clearly defined information for complete and timely appraisal.
- B. Substitutions which, if accepted, will require substantial revisions of Contract Documents.
- C. Substitution indicated or implied by Shop Drawings and other submittals.
- D. Substitutions not approved by published Addendum during Bid Period or not approved in writing by Architect during Construction period.
- E. Substitutions not submitted on completed Substitution Request Form.

**PART 2 - PRODUCTS - NOT USED**

**PART 3 - EXECUTION - NOT USED**

**END OF SECTION**

**SECTION 01 61 00**  
**SUBSTITUTION REQUEST FORM**

SUBMITTED TO:

PROJECT: CITY OF KIRKLAND  
JUANITA BEACH PARK BATHHOUSE

SPECIFIED ITEM:

Section No.	Paragraph No.	Description of Specified Item
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The Undersigned requests consideration for the following substitution to that specified

PROPOSED SUBSTITUTION:

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ATTACHED DATA:

Include product description, specifications, drawings, photographs, performance, and test data as necessary for evaluation. Clearly identify proposed substitution and portions of data from other items where more than one item is described.

Include description of changes to Contract Documents required by proposed substitution.

CERTIFICATION:

The Undersigned certifies that the following paragraphs are correct:

1. Proposed substitution does not affect dimensions shown on Drawings.
2. The Undersigned will pay for changes to building design, including engineering design, detailing, and construction costs, caused by requested substitution.
3. Proposed substitution will have no adverse effect on other trades, Construction Schedule, or specified warranty requirements.
4. Maintenance and service parts will be locally available for proposed substitution.

Undersigned further states that function, appearance, and quality of proposed substitution are equivalent or superior to specified item.

SUBMITTED BY:

Signature \_\_\_\_\_

Firm \_\_\_\_\_

Address \_\_\_\_\_

Date \_\_\_\_\_

Telephone (     ) \_\_\_\_\_

FAX (     ) \_\_\_\_\_

LIST ATTACHMENTS:

FOR USE BY ARCHITECT:

Approved                       Approved as Noted

Not Approved                   Received too Late

By \_\_\_\_\_

Date \_\_\_\_\_

Remarks \_\_\_\_\_

**END OF SECTION**

**SECTION 01 72 00**

**PREPARATION**

**PART 1 - GENERAL**

**1.01 RELATED DOCUMENTS**

- A. Drawings and general provisions of Contract, including General Conditions, Supplementary Conditions and Divisions 00 and Division 01 Specification Sections, apply to work of this Section.

**1.02 EXAMINATION**

- A. Inspect the site and location of the Work and become acquainted with and understand all conditions relating to the Work to be performed under this Contract.

**1.03 GRADES, LINES, AND LEVELS**

- A. Datum: Locate grades, lines, and levels from established reference points and datum furnished on Drawings.
- B. Staking and Grading: Locate and stake out new construction and facilities. Be responsible for accuracy and correctness of lines and grades, and for establishing location of buried utility lines.

**1.04 EXISTING UTILITIES**

- A. Verify location and depth of existing utilities and services before performing excavation Work.

**1.05 ACCURACY OF DATA**

- A. Site data shown are as exact as could be obtained, but their absolute accuracy cannot be guaranteed. Exact locations, distances, elevations, and similar data shall be governed by field conditions and Owner's instructions.

**1.06 QUALIFIED SERVICES**

- A. Retain and pay expenses of a professional licensed land surveyor to establish building lines, elevations grade, utility and datum points.

**1.07 SURVEY REFERENCE POINTS**

- A. Locate and protect control points prior to starting Work. Preserve all permanent reference points during construction.

**1.08 RECORDS**

- A. Maintain a complete, accurate log of control and survey Work as it progresses.

- B. On completion of foundation walls and major Site improvements, prepare a certified survey showing dimensions, locations, angles, and elevations of construction.

**PART 2 - PRODUCTS - NOT USED**

**PART 3 - EXECUTION - NOT USED**

**END OF SECTION**

**SECTION 01 74 00**

**CLEANING**

**PART 1 - GENERAL**

**1.01 RELATED DOCUMENTS**

- A. Drawings and general provisions of Contract, including General Conditions, Supplementary Conditions and Divisions 00 and Division 01 Specification Sections, apply to work of this Section.

**1.02 SUMMARY**

- A. Throughout the construction period, maintain the building and site in a standard of cleanliness as described in this Section.
- B. Related work:
  - 1. Documents affecting work of this Section include, but are not necessarily limited to, General Conditions, Supplementary Conditions, and Sections in Division 1.
  - 2. In addition to standards described in this Section, comply with requirements for cleaning as described in pertinent other Sections.

**1.03 QUALITY ASSURANCE**

- A. Conduct daily inspection, and more often if necessary, to verify that requirements for cleanliness are being met.
- B. In addition to the standards described in this Section, comply with pertinent requirements of governmental agencies having jurisdiction.

**PART 2 - PRODUCTS**

**2.01 CLEANING MATERIALS AND EQUIPMENT**

- A. Provide required personnel, equipment, and materials needed to maintain the specified standard of cleanliness.

**2.02 COMPATIBILITY**

- A. Use only the cleaning materials and equipment which are compatible with the surface being cleaned, as recommended by the manufacturer of the material.

### **PART 3 - EXECUTION**

#### **3.01 PROGRESS CLEANING**

- A. General:
  - 1. Retain stored items in an orderly arrangement allowing maximum access, not impeding traffic or drainage, and providing required protection of materials.
  - 2. Do not allow accumulation of scrap, debris, waste material, and other items not required for construction of this Work.
  - 3. At least twice each month, and more often if necessary, completely remove all scrap, debris, and waste material from the job site.
  - 4. Provide adequate storage for all items awaiting removal from the job site, observing requirements for fire protection and protection of the ecology.
  
- B. Site:
  - 1. Daily, and more often if necessary, inspect the site and pick up all scrap, debris, and waste material. Remove such items to the place designated for their storage.
  - 2. Weekly, and more often if necessary, inspect all arrangements of materials stored on the site. Re-stack, tidy or otherwise service arrangements to meet specified requirements.
  - 3. Maintain the site in a neat and orderly condition at all times.
  
- C. Structure:
  - 1. Weekly, and more often if necessary, inspect the structures and pick up all scrap, debris, and waste material. Remove such items to the place designated for their storage.
  - 2. Weekly, and more often if necessary, sweep interior spaces clean.
    - a. "Clean," for the purpose of this subparagraph, shall be interpreted as meaning free from dust and other material capable of being removed by use of reasonable effort and a hand-held broom.
  - 3. As required preparatory to installation of succeeding materials, clean the structures or pertinent portions thereof to the degree of cleanliness recommended by the manufacturer of the succeeding material, using equipment and materials required to achieve the necessary cleanliness.
    - a. Following the installation of finish floor materials, clean the finish floor daily (and more often if necessary) at all times while work is being performed in the space in which finish materials are installed.
    - b. "Clean," for the purpose of this subparagraph, shall be interpreted as meaning free from foreign material which, in the opinion of the Architect, may be injurious to the finish floor material.

#### **3.02 FINAL CLEANING**

- A. "Clean," for the purpose of this Article, and except as may be specifically provided otherwise, shall be interpreted as meaning the level of cleanliness generally provided by skilled cleaners using commercial quality building maintenance equipment and materials.

- B. Prior to completion of the Work, remove from the job site all tools, surplus materials, equipment, scrap, debris, and waste. Conduct final progress cleaning as described in Article 3.1 above.
- C. Site:
  - 1. Unless otherwise specifically directed by the Architect, broom clean paved areas on the site and public paved areas adjacent to the site.
  - 2. Completely remove resultant debris.
- D. Structure:
  - 1. Exterior:
    - a. Visually inspect exterior surfaces and remove all traces of soil, waste materials, smudges, and other foreign matter.
    - b. Remove all traces of splashed materials from adjacent surfaces.
    - c. If necessary to achieve a uniform degree of cleanliness, hose down the exterior of the structure.
    - d. In the event of stubborn stains not removable with water, the Architect may require light sandblasting or other cleaning t no additional cost to the Owner.
  - 2. Interior:
    - a. Visually inspect interior surfaces and remove all traces of soil, waste materials, smudges, and other foreign matter.
    - b. Remove all traces of splashed material from adjacent surfaces.
    - c. Remove paint droppings, spots, stains, and dirt from finished surfaces.
    - d. Glass: Clean inside and outside.
    - e. Polished surfaces: To surfaces requiring routine application of buffed polish, apply the polish recommended by the manufacturer of the material being polished.
- E. Schedule final cleaning as approved by the Architect to enable the Owner to accept a completely clean Work.

**END OF SECTION**

**SECTION 01 74 19**

**CONSTRUCTION WASTE MANAGEMENT AND DISPOSAL**

PART 1 - GENERAL (NOT USED)

PART 2 - PRODUCTS (NOT USED)

PART 3 - EXECUTION

3.1 DISPOSAL OF WASTE

- A. General: Except for items or materials to be salvaged, recycled, or otherwise reused, remove waste materials from Project site and legally dispose of them in a landfill or incinerator acceptable to Authorities Having Jurisdiction.
  - 1. Except as otherwise specified, do not allow waste materials that are to be disposed of accumulate on-site.
  - 2. Remove and transport debris in a manner that will prevent spillage on adjacent surfaces and areas.
- B. Waste and debris removed from the worksite and not specified for reuse becomes the responsibility of the Contractor and disposed of off park property in areas authorized by the applicable county and/or state agencies and in accordance with current rules and regulations governing the disposal of solid waste. Disposal fees and sundry charges are paid by the Contractor and are incidental to the contract.
- C. Burning: Do not burn waste materials.
- D. Disposal: Remove waste materials from Owner's property and legally dispose of them.

END OF SECTION

**SECTION 01 78 50**

**OPERATION AND MAINTENANCE DATA**

**PART 1 - GENERAL**

**1.01 RELATED DOCUMENTS**

- A. Drawings and general provisions of Contract, including General Conditions, Supplementary Conditions and Divisions 00 and Division 01 Specification Sections, apply to work of this Section.

**1.02 SUMMARY**

- A. To aid the continued instruction of operating and maintenance personnel, and to provide a positive source of information regarding the products incorporated into the Work, furnish and deliver the data described in this Section and in pertinent other Sections.
- B. Related Work:
  - 1. Documents affecting work of this Section include, but are not necessarily limited to, General Conditions, Supplementary Conditions, and Sections in Division 1.
  - 2. Required contents of submittals also may be amplified in pertinent other Sections.

**1.03 SUBMITTALS**

- A. Comply with applicable provisions of Section 01 33 00 – Submittal Procedures.
- B. Submit two copies of a preliminary draft of the proposed Manual or Manuals to the Architect for review and comments.
- C. Unless otherwise directed in other Sections, or in writing by the Architect, submit three copies of the final Manual to the Architect prior to instruction of operation and maintenance personnel.

**1.04 QUALITY ASSURANCE**

- A. In preparing data required by this Section, use only personnel who are thoroughly trained and experienced in operation and maintenance of the described items, completely familiar with the requirements of this Section, and skilled in technical writing to the extent needed for communicating the essential data.

## PART 2 - PRODUCTS

### 2.01 INSTRUCTIONS

- A. Where instruction Manuals are required to be submitted under other Sections of these Specifications, prepare in accordance with the provisions of this Section.
- B. Format:
1. Size: 8-1/2" x 11".
  2. Paper: White bond, at least 20 lb wt.  
***ELECTRONIC PDF ARE HIGHLY ENCOURGED***
  3. Text: Neatly written or printed.
  4. Drawings: 11 inch height preferable; bind in with text; foldout acceptable; larger drawings acceptable but fold to fit within the Manual and provide a drawing pocket inside rear cover or bind in with text.
  5. Flysheets: Separate each portion of the Manual, by Specification Section, with neatly prepared flysheets briefly describing contents of the ensuing portion; flysheets may be in color.
  6. Binders: Commercial quality heavy-duty plastic or fiberboard 3-ring D-ring binders. All binding is subject to the Architect's approval.
  7. Measurements: Provide all measurements in U. S. standard units such as feet-and-inches, lbs, and cfm.
  8. Manuals shall be clearly identified on the cover with at least the following information:

### 2.02 OPERATING AND MAINTENANCE INSTRUCTIONS

- A. Labels: Provide labels as follows:

( )  
( Name and address of work )

---

( )  
( Name of contractor )

---

( )  
( General subject of this Manual )

---

( )  
(Space for approval signature of )

---

(The Architect and approval date )

---

- B. Contents: Include at least the following:
1. Neatly typewritten index near the front of the Manual, giving immediate information as to location within the Manual of all emergency information regarding the installation.
  2. Complete instructions regarding operation and maintenance of all equipment involved including lubrication, disassembly, and re-assembly.
  3. Complete nomenclature of all parts of all equipment.

4. Complete nomenclature and part number of all replaceable parts, name and address of nearest vendor and all other data pertinent to procurement procedures.
5. Copy of all guarantees and warranties issued.
6. Manufacturers' bulletins, cuts, and descriptive data, where pertinent, clearly indicating the precise items included in this installation and deleting, or otherwise clearly indicating, all manufacturers' data with which this installation is not concerned.
7. Such other data as required in pertinent Sections of these Specifications.

### **PART 3 - EXECUTION**

#### **3.01 INSTRUCTION MANUALS**

- A. Preliminary:
  1. Prepare a preliminary draft of each proposed Manual.
  2. Show general arrangement, nature of contents in each portion, probable number of drawings and their size, and proposed method of binding and covering.
  3. Secure the Architect's approval prior to proceeding.
- B. Final: Complete the Manuals in strict accordance with the approved preliminary drafts and the Architect's review comments.
- C. Revisions:
  1. Following the indoctrination and instruction of operation and maintenance personnel, review all proposed revisions of the Manual with the Architect.
  2. If the Contractor is required by the Architect to revise previously approved Manuals, compensation will be made as provided for under "Changes" in the General Conditions.

**END OF SECTION**

**SECTION 01 78 70**  
**WARRANTIES AND BONDS**

**PART 1 - GENERAL**

**1.01 RELATED DOCUMENTS**

- A. Drawings and general provisions of Contract, including General Conditions, Supplementary Conditions and Divisions 00 and Division 01 Specification Sections, apply to work of this Section.

**1.02 SUMMARY**

- A. Compile specified certificates, bonds and similar certification.
- B. Compile specified services and maintenance contracts.
- C. Co-execute submittals when so specified.
- D. Review submittals to verify compliance with Contract Documents.
  - 1. Submit to Architect on Contractor's letterhead. Architect reviews and transmits to Owner.
- E. Related Requirements:
  - 1. Coordinate related requirements specified in other parts of the Project Manual, including but not limited to following.
    - a. Operating and Maintenance Data/Section 01 78 50.
    - b. Each respective Section as required.

**1.03 SUBMITTALS**

- A. Assemble executed certificates, warranties, bonds, and any required service and maintenance contracts from the respective manufacturers, suppliers and subcontractors.
- B. Number of original signed copies required: Two each.
- C. Contents: Neatly type Table of Contents in orderly sequence. Furnish complete information for each item as follows:
  - 1. Product or work item;
  - 2. Firm, with name of principal, address, and telephone number;
  - 3. Scope;
  - 4. Date of beginning of warranty or service and maintenance contract;
  - 5. Duration of warranty or service maintenance contract;
  - 6. Information for Owner's personnel, including:
    - a. Proper procedure in case of failure;
  - 7. Instances which might affect validity of warranty or bond.
  - 8. Contractor, name of responsible principal, address, and telephone number.

#### 1.04 FORM OF SUBMITTALS

- A. Prepare in duplicate, packets conforming to following requirements.
1. Size: 8-1/2" X 11" punched sheets for 3-ring binder. Fold larger sheets to fit into binders.
  2. Binders: Commercial quality heavy-duty plastic or fiberboard 3-ring D-ring binders. All binding is subject to the Architect's approval.
  3. Covers: Identify each packet with typed or printed title "WARRANTIES AND BONDS" and showing:
    - a. Title of Project.
    - b. Name of Contractor.
- B. Format/Warranties/Guarantees:
1. In addition to guarantees required by "General Conditions of Contract", furnish written guarantees warranting certain portions of work for longer periods.
  2. Address them to Owner.
  3. Submit through Architect on Contractor's letterhead before final payment and acceptance of work by Owner.
  4. Where more than one subcontractor is involved, submit guarantee for each.
- C. Form of Guarantee for other specified installation:
1. I (We), (insert name of contractor), certify (insert name of trade or portion of work being guaranteed) installed by (insert name of appropriate subcontractor) on (insert name of job) located at (Street address or location), is performed in strict accordance with Contract Documents. Further, I (We) guarantee this work to be (watertight, and without leaks) (other) caused by defects in materials and workmanship, for (fill in specific required guarantee period) years from (date of acceptance of work), and will repair, or replace, without delay, any defects in materials and workmanship discovered within guarantee period.

Sincerely,

(Name of Contractor/responsible principal/ address/telephone number).  
Signed by Owner, Partner, or other person authorized to commit firm.)

#### 1.05 TIME OF SUBMITTALS

- A. For equipment or component parts of equipment put into service during progress of construction:
1. Submit documents within ten days after final inspection and acceptance; or:
    - a. Otherwise make submittals within ten days after Date of Substantial Completion, prior to final request for payment.
- B. For items of work, where acceptance is delayed materially beyond the date of Substantial Completion, provide updated submittal within ten days after acceptance. List the date of acceptance as the start of the warranty period.

**1.06 WARRANTY LENGTHS AND START DATES**

- A. All materials, parts, and labor shall be warranted for a minimum period of (1) one year; unless greater lengths for specific sections are specified elsewhere within the Project Manual.
- B. Warranty periods shall begin on the date established as Substantial Completion.

**PART 2 - PRODUCTS - NOT USED**

**PART 3 - EXECUTION - NOT USED**

**END OF SECTION**

**SECTION 01 78 90**

**PROJECT RECORD DOCUMENTS**

**PART 1 - GENERAL**

**1.01 RELATED DOCUMENTS**

- A. Drawings and general provisions of Contract, including General Conditions, Supplementary Conditions and Divisions 00 and Division 01 Specification Sections, apply to work of this Section.

**1.02 SUMMARY**

- A. Section Includes:
  - 1. Throughout progress of the Work, maintain an accurate, consolidated and legible record of changes in Contract Documents, as specified.
  - 2. Product Substitution Procedures: Section 01 60 00 – Product Requirements.
  - 3. Upon completion of the Work, transfer recorded changes to a set of Record Documents, as specified.
  - 4. Other requirements affecting Project Record Documents may appear in other pertinent Sections.

**1.03 SUBMITTALS**

- A. Comply with pertinent provisions of Section 01 33 00 – Submittal Procedures.
- B. Architect's approval of the current status of Project Record Documents may be a prerequisite to the Architect's approval of requests for progress payment and request for final payment under the Contract.
- C. Prior to submitting request for final payment, submit final Project Record Documents, including survey (see Section 01 72 00), to the Architect and secure approval.

**1.04 QUALITY ASSURANCE**

- A. Delegate the responsibility for maintenance of Record Documents to one person on the Contractor's staff as approved by the Architect.
- B. Accuracy of records:
  - 1. Thoroughly coordinate changes within Record Documents, making adequate and proper entries on each page of Specifications and each sheet of Drawings and other Documents where such entry is required to show the change properly.
  - 2. Accuracy of records shall be such that future search for items shown in Contract Documents may rely reasonably on information obtained from approved Project Record Documents.

3. Make entries within 24 hours after receipt of information that the change has occurred.

#### **1.05 PRODUCT HANDLING**

- A. Maintain job set of Record Documents completely protected from deterioration and from loss and damage until completion of the Work and transfer of all recorded data to final Project Record Documents.
- B. In the event of loss of recorded data, use means necessary to again secure data to Architect's approval.
  1. Such means shall include, if necessary in the opinion of the Architect, removal and replacement of concealing materials.
  2. In such case, provide replacements to the standards originally required by Contract Documents.

### **PART 2 - PRODUCTS**

#### **2.01 RECORD DOCUMENTS:**

- A. Job set: Promptly following receipt of Owner's Notice to Proceed, secure from the Architect at no charge to the Contractor one complete set of all Documents comprising the Contract.
- B. Final Record Documents: At a time nearing completion of the Work, Contractor to clearly mark in red all as-built conditions for existing underground utilities, conduits, pipes, drains etc.

### **PART 3 - EXECUTION**

#### **3.01 MAINTENANCE OF JOB SET**

- A. Immediately upon receipt of the job set described in Paragraph 2.01.A, identify each of the Documents with the title, "RECORD DOCUMENTS - JOB SET."
- B. Preservation:
  1. Considering the Contract completion time, probable number of occasions upon which the job set must be taken out for new entries and for examination, and conditions under which these activities will be performed, devise a suitable method for protecting the job set to the approval of the Architect.
  2. Do not use the job set for any purpose except entry of new data and for review by the Architect, until start of transfer of data to final Project Record Documents.
  3. Maintain job set at the site of Work as that site is designated by the Architect.
- C. Making entries on Drawings:

1. Using an erasable colored pencil (not ink or indelible pencil), clearly describe the change by graphic line and note as required.
  2. Date all entries.
  3. Call attention to the entry by a "cloud" drawn around the area or areas affected.
  4. In the event of overlapping changes, use different colors for overlapping changes.
- D. Make entries in pertinent other Documents as approved by the Architect. In addition to Drawings and Specifications, a current set of the following documents shall be maintained in the Field Office Building: Addenda, Shop Drawings, Field Clarifications, Modification Proposals, Change Orders, and other Contract Modifications.
- E. Conversion of schematic layouts:
1. In some cases on the Drawings, underground utilities, arrangements of conduits, circuits, piping, ducts, and similar items are shown schematically and are not intended to portray precise physical layout.
    - a. Final physical arrangement is determined by the Contractor, subject to the Architect's approval.
    - b. However, design of future modifications of the facility may require accurate information as to the final physical layout of items which are shown only schematically on the Drawings.
  2. Show on the job set of Record Drawings, by dimension accurate to within one inch, the centerline of each run of items such as are described in subparagraph 3.01.E.1 above.
    - a. Clearly identify the item by an accurate note such as "cast iron drain," "galv. water," and similar items.
    - b. Show, by symbol or note, vertical location of the item ("under slab," "in ceiling plenum," "exposed," and similar situations).
    - c. Make all identification sufficiently descriptive that it may be related reliably to Specifications.
  3. The Architect may waive requirements for conversion of schematic layouts where, in the Architect's judgment, conversion serves no useful purpose. However, do not rely upon waivers being issued except as specifically issued in writing by the Architect.
- F. Final Project Record Documents:
1. The purpose of the final Project Record Documents is to provide factual information regarding all aspects of the Work, both concealed and visible to enable future modification of the Work to proceed without lengthy and expensive site measurement, investigation, and examination.
  2. Approval of recorded data prior to transfer:
    - a. Carefully transfer change data shown on the job set of Record Drawings to the corresponding transparencies, coordinating changes as required.
    - b. Make required revisions.
  3. Transfer of data to Drawings:

- a. Carefully transfer change data shown on the job set of Record Drawings to the corresponding transparencies, coordinating the changes as required.
  - b. Clearly indicate at each affected detail and other Drawing a full description of changes made during construction, and the actual location of items described in subparagraph 3.01.E.1 above.
  - c. Call attention to each entry by drawing a "cloud" around the area or areas affected.
  - d. Make changes neatly, consistently, and with the proper media to assure longevity and clear reproduction.
  - e. The job set of record drawings shall be made available to the Architect for cross checking the corresponding transparencies after the transmittal of the transparencies to the Architect.
4. Transfer of data to other Documents:
- a. If Documents other than Drawings have been kept clean during progress of the Work, and if entries thereon have been orderly to the approval of the Architect, the job set of those Documents other than Drawings will be accepted as final Record Documents.
  - b. If any such Document is not so approved by the Architect, secure a new copy of that Document from the Architect at the Architect's usual charge for reproduction and handling, and carefully transfer the change data to the new copy to the approval of the Architect.
5. Review and submittal:
- a. Submit completed set of Project Record Documents to the Architect as specified herein.
  - b. Participate in review meetings as required
  - c. Make required changes and promptly deliver the final Project Record Documents to the Architect.
- G. Changes Subsequent To Acceptance: The Contractor has no responsibility for recording changes in the Work subsequent to Final Completion, except for changes resulting from work performed under Warranty.

**END OF SECTION**

**SECTION 01 82 00**  
**DEMONSTRATION AND TRAINING**

**PART 1 - GENERAL**

**1.01 RELATED DOCUMENTS**

- A. Drawings and general provisions of Contract, including General Conditions, Supplementary Conditions and Divisions 00 and Division 01 Specification Sections, apply to work of this Section.

**1.02 SECTION INCLUDES**

- A. Section includes general requirements and procedures for demonstration of products and systems, and training of Owner's operating and maintenance personnel.
- B. Work requiring instruction of Owner's personnel is specified in individual Sections.
- C. Related Sections:
  - 1. Section 01 78 50 – Operation and Maintenance Data.

**1.03 COMMISSIONING**

- A. Schedule instructional meeting or meetings within 2 weeks after Operation and Maintenance manuals have been accepted by the Architect.
- B. Prior to final inspection, fully qualified manufacturers' representatives shall fully instruct Owner's designated operating and maintenance personnel in operation, adjustment, and maintenance of equipment and systems.
- C. Basis of Instruction: Operation and maintenance manuals. Review contents of manuals with Owner's designated personnel, in full detail, to explain all aspects of operation and maintenance.

**PART 2 - PRODUCTS - NOT USED**

**PART 3 - EXECUTION - NOT USED**

**END OF SECTION**

## **SECTION 08 91 00**

### **LOUVERS**

#### **PART 1 - GENERAL**

##### **1.1 SECTION INCLUDES**

- A. Fixed louvers.

##### **1.2 RELATED REQUIREMENTS**

- A. 07 62 00 - Sheet Metal Flashing and Trim.
- B. 07 90 05 - Joint Sealers.
- C. Division 23: Louver performance requirements.

##### **1.3 SUBMITTALS**

- A. Submit materials in accordance with 01 33 00 – Submittal Procedures. Furnish materials literature, product specifications and installation instructions for all products.
- B. Qualification Data: For manufacturer.
- C. Product Data: Provide data describing design characteristics, maximum recommended air velocity, design free area, materials and finishes.
- D. Shop Drawings: Indicate louver layout plan and elevations, opening and clearance dimensions, tolerances; head, jamb and sill details; blade configuration, screens, blankout areas required, and frames.
- E. Sample: Submit two samples 4 inch x 6 inches in size illustrating finish and color of exterior and interior surfaces.
- F. Manufacturer's Installation Instructions: Indicate special preparation of substrate, installation and attachment methods, and perimeter conditions requiring special attention.
- G. Maintenance Data: For users operation and maintenance of system including:
  - 1. Methods for maintaining system's performance, materials and finishes.

2. Precautions about cleaning materials and methods that could be detrimental to components, finishes, and performance.
3. Recommendations on maintenance schedule.

#### **1.4 QUALITY ASSURANCE**

- A. Manufacturer Qualification: Company specializing in the manufacture of work specified in this section with minimum 5 years of experience.

#### **1.5 DELIVERY, STORAGE, AND HANDLING**

- A. As required by the manufacturer for a warrantable installation of the installed products to meet the Performance and Design Criteria.

#### **1.6 WARRANTY**

- A. Manufacturer's Finish Warranty: Correct defective work within a 20 year period after Substantial Completion for degradation of panel finish, including color fading caused by exposure to weather.
  1. Panel Finish Criteria are listed AAMA 2605.

### **PART 2 - PRODUCTS**

#### **2.1 DESCRIPTION**

- A. Factory fabricated and assembled architectural louvers including fixed types.

#### **2.2 PERFORMANCE AND DESIGN CRITERIA**

- A. AMCA Certified in accordance with AMCA 511.
- B. Wind Load Resistance: Design to resist positive and negative wind load of 25 psf without damage or permanent deformation.
- C. Intake Louvers: Design to allow maximum of 0.01 oz/sq ft water penetration at 850 feet per minute, when tested in accordance with AMCA 500-L.
- D. Drainable Blades: Continuous rain stop at front or rear of blade aligned with vertical gutter recessed into both jambs of frame.
- E. Screens: Provide insect screens at intake louvers and bird screens at exhaust louvers.

## 2.3 FIXED LOUVERS

### A. Drainable Blade Fixed Louver, Custom Shape:

1. Basis of Design Product: Greenheck Model ESD-202 with blank off panels. Comparable and substituted products will be judged based on the following performance criteria, features, warranty, and qualifications.
2. Performance Criteria: Refer to mechanical requirements.
3. Features:
  - a. Blades: Drainable.
  - b. Frame: 4 inches deep, channel profile; corner joints mitered and, with continuous recessed caulking channel each side.
  - c. Aluminum Thickness: Frame 12 gage, 0.0808 inch minimum; blades 12 gage, 0.0808 inch minimum.
  - d. Finish: Prefinished, Finish to match pre-finished metal roofing and flashing. Kynar finish.
  - e. Blank off panels: As required to marry louver with duct.
  - f. Attached with clip angles on the interior.
  - g. Provide with manufacturers extended 1 ½" flange and extended sill.

## 2.4 SPECIALTY LOUVERS

### A. Brick Vent:

1. Basis of Design Product: Greenheck Model BVE. Comparable and substituted products will be judged based on the following performance criteria, features, warranty, and qualifications.
2. Performance Criteria: Refer to Mechanical requirements.
3. Features:
  - a. Size as indicated in mechanical drawings.
  - b. Blades: Heavy gauge extruded 6063T5 aluminum, 0.125 inches nominal wall thickness, positioned at 45 degree angles.
  - c. Frame: Heavy gauge extrude 6063T5 aluminum, 4 inch by 0.125 inch nominal wall thickness.
  - d. Finish: Clear anodized aluminum.
  - e. Course into concrete masonry wall.
  - f. Furnish with .063 thickness aluminum duct, sized to extend 2" off the face of wall.
  - g. Where brick vent is to be installed in and exterior wall furnish with in screen.

## **2.5 ACCESSORIES**

- A. All accessory materials required by the manufacturer for a warrantable installation of the installed products in a manner that meets the Performance and Design Criteria.
- B. Blank-Off Panels: Same material as louver, painted black on exterior side; provide where duct connected to louver is smaller than louver frame, sealing off louver area outside duct.
- C. Bird Screen: Interwoven wire mesh of steel, 14 gage, 0.0641 inch diameter wire, 1/2 inch open weave, diagonal design.
- D. Fasteners and Anchors: Stainless steel.
- E. Flashings: Of same material as louver frame, formed to required shape, single length in one piece per location.
- F. Sealant: type, as specified in 07 90 05 – Sealants.

## **PART 3 - EXECUTION**

### **3.1 EXAMINATION**

- A. Verify existing conditions meet the manufacturer's requirements before starting work.

### **3.2 PREPARATION**

- A. Prepare surfaces to receive work in accordance with manufacturer's instructions.

### **3.3 INSTALLATION**

- A. General: Install all materials in accordance with manufacturer's instructions based on conditions present.
- B. Install perimeter sealant and backing rod in accordance with Section 07 90 05.
- C. Coordinate with installation of mechanical ductwork.
- D. Coordinate with installation of louver actuators.

**3.4 PROTECTION**

- A. Protect installed work as required by the manufacturer to maintain product performance, design criteria and warranty.

**3.5 SCHEDULE**

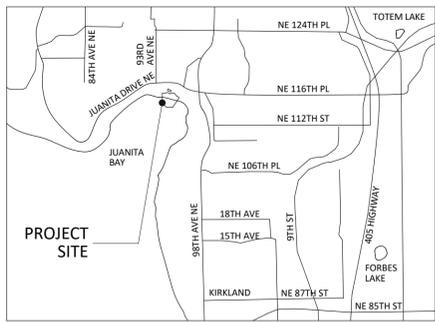
- A. Refer to Louver schedule on mechanical drawings and louvers indicated on mechanical plans.

**END OF SECTION**

**GENERAL NOTES**

- ALL WORK SHALL BE IN CONFORMANCE WITH APPLICABLE CODES AND LOCAL BUILDING REQUIREMENTS, INCLUDING BUT NOT LIMITED TO THE 2015 EDITION OF THE IBC AND THE 2015 INTERNATIONAL ENERGY CONSERVATION CODE.
- ALL APPLICABLE CODES, ORDINANCES AND MINIMUM STRUCTURAL REQUIREMENTS TAKE PRECEDENCE OVER DRAWINGS AND NOTES.
- CONTRACTOR SHALL VERIFY ALL DIMENSIONS SHOWN ON THE DRAWINGS BEFORE COMMENCING WITH WORK. ANY DISCREPANCIES SHALL BE BROUGHT TO THE ATTENTION OF THE OWNER AND ARCHITECT PRIOR TO STARTING ANY CONSTRUCTION OF THE AREA CONCERNED. DO NOT SCALE DRAWINGS.
- DIMENSIONS ARE TO FACE OF CMU, CONCRETE, CLT OR FACE OF STUD, U.N.O.
- PARTITIONS AND WALLS NOT OTHERWISE DIMENSIONED SHALL BE LOCATED FLUSH WITH REFERENCE TO ADJACENT WALL FACE.
- WHERE ON ANY OF THE DRAWINGS OR DETAILS, A PORTION OF THE WORK IS SHOWN AND/OR DETAILED, AND THE REMAINDER IS INDICATED IN OUTLINE, THE PARTS SHOWN AND/OR DETAILED SHALL APPLY TO ALL OTHER LIKE PORTIONS OF THE WORK.
- PRIOR TO AND DURING THE WORK, CONTRACTOR SHALL VERIFY CONDITIONS; ANY CONDITIONS INCONSISTENT OR PROBLEMATIC WITH REGARD TO THE INTENT OF THE DRAWINGS SHALL BE BROUGHT TO THE ATTENTION OF THE OWNER AND ARCHITECT PRIOR TO STARTING OR CONTINUING WORK IN THE AREA CONCERNED.
- PROVIDE SUFFICIENT STRUCTURE IN WALLS FOR SUPPORTING COUNTERS, CABINETS ACCESSORIES, ETC., AS REQUIRED.
- VERTICAL DIMENSIONS ARE TYPICALLY REFERENCED FROM STRUCTURAL SLAB U.N.O.
- CONTRACTOR TO ASSUME ALL MATERIALS AS NEW UNLESS NOTED AS "EXISTING."
- ALL WOOD IN CONTACT WITH CONCRETE TO BE P.T.
- FLASH OPENINGS WITH MIN. 26 GA. GALV. STL. TO ACCEPTABLE INDUSTRY STANDARDS. ALL FLASHING LAP SEAMS TO BE 12" MIN. W/ 2 BEADS OF SEALANT.
- CONTRACTOR TO VERIFY LOCATION OF ALL EXISTING UTILITIES THROUGHOUT SITE PRIOR TO EXCAVATION.
- GEOTECHNICAL ENGINEER REQUIRED TO BE ONSITE DURING FOUNDATION GRADING AND EXCAVATION PRIOR TO CONCRETE PLACEMENT TO EVALUATE SOILS.

**VICINITY MAP**



**CODE COMPLIANCE**

2015 INTERNATIONAL BUILDING CODE  
 2015 INTERNATIONAL MECHANICAL CODE  
 2015 INTERNATIONAL ENERGY CONSERVATION CODE  
 2015 WASHINGTON STATE ENERGY CODE  
 2015 UNIFORM PLUMBING CODE  
 2014 NATIONAL ELECTRICAL CODE

**CODE COMPLIANCE**

OCCUPANCY CLASSIFICATION (UNSEPARATED OCCUPANCIES):

BATHHOUSE BUILDING:  
 UTILITY AND MISCELLANEOUS - GROUP U  
 LOW HAZARD STORAGE - GROUP S-2

TYPE OF CONSTRUCTION:  
 BUSINESS AREAS - GROUP B  
 LOW HAZARD STORAGE - GROUP S-2

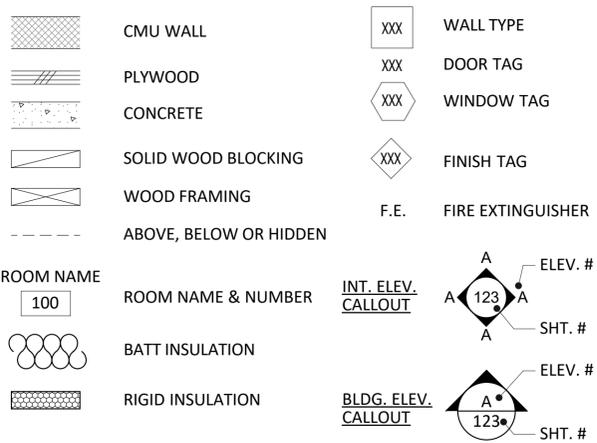
TYPE V-B - NON-SPRINKLERED

CLIMATE ZONE:

4C - (MARINE)

CODE COMPLIANCE INFORMATION CONTINUED ON SHEET A0.1

**SYMBOLS**



**BUILDING PERMIT**

CITY OF KIRKLAND PERMIT NO:

BNR18-02893

NOTE: SEPARATE DEMOLITION PERMIT REQUIRED FOR DEMOLITION OF THE (E) BATHHOUSE

**PROPERTY NOTES**

PROPERTY ADDRESS:  
 9703 JUANITA DR. N.E.  
 KIRKLAND, WA 98034

PARCEL NUMBER:  
 1791500425

**PROPERTY OWNER**

PROPERTY OWNER:  
 CITY OF KIRKLAND PARKS AND  
 COMMUNITY SERVICES

CONTACT/ PROJECT COORDINATOR:  
 ANNEKE DAVIS  
 123 5TH AVE  
 KIRKLAND, WA 98033  
 T: 425-587-3828

**PROPOSED WORK**

CONSTRUCTION OF NON CONDITIONED, NATURALLY VENTILATED BATHHOUSE STRUCTURE TO REPLACE EXISTING NON CONDITIONED, NATURALLY VENTILATED BATHHOUSE THAT WILL BE DEMOLISHED IN ITS ENTIRETY AS PART OF THE WORK. PROJECT INCLUDES CONSTRUCTION OF PICNIC PAVILIONS, ASSOCIATED GRADING AND HARDSCAPE, AND CONSTRUCTION OF A NEW PLAY AREA.

**PROJECT TEAM**

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LANDSCAPE: MIG / SVR  
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ENVIRONMENTAL/SHORELINE: SHANNON & WILSON  
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**DRAWING INDEX**

GENERAL		ARCHITECTURAL (CONT.)	
A0.0	COVER SHEET	A9.4	EXTERIOR DETAILS
CIVIL & LANDSCAPE		A9.5	EXTERIOR DETAILS
G0.0	GENERAL NOTES 1	A9.6	EXTERIOR DETAILS
G0.1	GENERAL NOTES 2	A9.7	EXTERIOR DETAILS
C1.0	ESC / DEMOLITION PLAN	A9.8	EXTERIOR DETAILS
C2.0	UTILITY AND DRAINAGE PLAN	A9.10	EXTERIOR DETAILS
C3.0	PAVING AND GRADING PLAN	STRUCTURAL	
L3.1	PLAYGROUND AND JOINTING PLAN	S1.0	GENERAL STRUCTURAL NOTES
L4.1	SOIL AND LANDSCAPE PLAN	S1.1	GENERAL STRUCTURAL NOTES
L5.0	IRRIGATION NOTES 1	S1.2	GENERAL STRUCTURAL NOTES
L5.1	IRRIGATION NOTES 2	S2.0	FOUNDATION PLAN
D1.0	AGENCY STD DETAILS	S2.1	FOUNDATION PLAN
D1.1	AGENCY STD DETAILS	S2.2	ROOF FRAMING PLAN
D2.0	PAVING AND DRAINAGE DETAILS	S2.3	ROOF FRAMING PLAN
D2.1	PAVING AND DRAINAGE DETAILS	S2.4	FOUNDATION & ROOF PLANS - PAVILION
D3.0	LANDSCAPE DETAILS	S3.0	DETAILS
MITIGATION PLANS		S3.1	DETAILS
FIG. 1	SITE PLAN - EXISTING CONDITONS	S3.2	DETAILS
FIG. 2	BUFFER MITIGATION PLAN	S4.0	TYPICAL WOOD DETAILS
FIG. 3	BUFFER MITIGATION SCHEDULE AND DETAILS	S4.1	DETAILS
ARCHITECTURAL		S4.2	DETAILS
A0.1	CODE SUMMARY	MECHANICAL	
A0.2	DOOR & WINDOW SCHEDULE	M0.1	CODE COMPLIANCE, LEGEND, NOTES
A0.3	WALL ASSEMBLIES	M0.2	MECHANICAL SCHEDULES
AD1.0	DEMOLITION SITE PLAN	M1.1	MECHANICAL PLANS
A1.0	SITE PLAN	M2.1	MECHANICAL DETAILS
A2.0	OVERALL BATHHOUSE FLOOR PLAN	PLUMBING	
A2.1	ENLARGED FLOOR PLAN	P0.1	LEGEND, ABBREVIATIONS, NOTES
A2.2	ENLARGED FLOOR PLAN	P0.2	PLUMBING SCHEDULES
A2.3	OVERALL ROOF PLAN	P1.0	PLUMBING FOUNDATION PLAN
A2.4	TYPICAL PAVILION FLOOR PLAN, ROOF PLAN	P1.1	WASTE & VENT NORTH PLAN
A2.5	FOUNDATION / PAVING REFERENCE PLAN	P1.2	WASTE & VENT SOUTH PLAN
A3.0	BATHHOUSE ELEVATIONS	P1.3	DOMESTIC WATER NORTH PLAN
A3.1	BATHHOUSE ELEVATIONS	P1.4	DOMESTIC WATER SOUTH PLAN
A3.2	PAVILION ELEVATIONS	P1.5	PLUMBING ROOF PLAN
A3.3	WS-1 CLADDING DIAGRAM	P2.1	PLUMBING DETAILS
A3.4	WS-1 CLADDING DIAGRAM	P2.2	PLUMBING DETAILS
A4.0	OVERALL SECTION	P3.1	PLUMBING RISERS
A4.1	ENLARGED SECTION	ELECTRICAL	
A4.2	ENLARGED SECTION	E0.1	COVER SHEET
A4.3	ENLARGED SECTION	E0.2	GENERAL NOTES
A4.4	ENLARGED SECTION	E0.3	LUMINAIRE SCHEDULE
A4.5	ENLARGED SECTION	E0.4	NREC
A4.6	ENLARGED SECTION	E0.5	NREC
A4.7	PAVILION SECTIONS	E0.6	NREC
A5.0	TYPICAL MOUNTING HEIGHTS	E1.1	SITE PLAN - DEMO
A5.1	INTERIOR ELEVATIONS	E1.2	SITE PLAN - NEW
A5.2	INTERIOR ELEVATIONS	E2.1	BATHHOUSE LIGHTING PLAN
A5.3	INTERIOR ELEVATIONS	E3.1	BATHHOUSE POWER AND SYSTEMS PLAN
A5.4	INTERIOR ELEVATIONS	E4.1	PAVILION LIGHTING AND POWER PLAN
A5.5	INTERIOR ELEVATIONS	E5.1	ONE-LINE DIAGRAM
A6.0	REFLECTED CEILING PLANS	E6.1	PANEL SCHEDULE
A8.0	INTERIOR DETAILS		
A8.1	INTERIOR DETAILS		
A8.2	INTERIOR DETAILS		
A9.0	EXTERIOR DETAILS		
A9.1	EXTERIOR DETAILS		
A9.2	EXTERIOR DETAILS		
A9.3	EXTERIOR DETAILS		

**ABBREVIATIONS LIST** (ABBREV. NOT LIMITED TO THIS LIST)

A.B.	ANCHOR BOLT	CLR.	CLEAR	E	EAST	G.A.	GAUGE	MAX.	MAXIMUM	PLYWD.	PLYWOOD	S.S.	STAINLESS STEEL	VERT.	VERTICAL
ABV.	ABOVE	CNTR.	CENTER	(E) OR	EXISTING	GALV.	GALVANIZED	MECH.	MECHANICAL	PLT.	PLATE	SIM.	SIMILAR	V.F.Y.	VERIFY
ADJ.	ADJUSTABLE/ADJACENT	CONST.	CONSTRUCTION	EXIST.	EACH WAY	GCMU	GLAZED CONCRETE	MEMB.	MEMBER	P.LAM	PLASTIC LAMINATE	SHT.	SHEET	V.I.F.	VERIFY IN FIELD
A.F.F.	ABOVE FINISH FLOOR	CONT.	CONTINUOUS	E.W.	EACH	GL	MASONRY UNIT	MFR.	MANUFACTURER	PLUMB.	PLUMBING	SPEC.	SPECIFICATION	W	WEST
ALT.	ALTERNATIVE	COORD.	COORDINATE	EA.	EACH	G.W.B.	GYPSUM WALL BOARD	MIN.	MINIMUM	PNTD.	PAINTED	SQ.	SQUARE	WD.	WOOD
ALUM.	ALUMINIUM	CTR.	CENTER	ELEC.	ELECTRICAL	HDWR.	HARDWARE	MISC.	MISCELLANEOUS	PREP.	PREPARATION	STD.	STANDARD	W/	WITH
ARCH.	ARCHITECTURAL	CLT	CROSS LAMINATED TIMBER	ELEV.	ELEVATION	HDR.	HEADER	MAT'L	MATERIAL	P.T.	PRESSURE TREATED	STL.	STEEL	W/I	WITHIN
BLDG.	BUILDING	CMU	CONCRETE MASONRY UNIT	EQ.	EQUAL	HDG	HOT DIPPED GALVANIZED	MTL.	METAL	R.	RADIUS	STRUCT.	STRUCTURAL	W/O	WITHOUT
BLKG.	BLOCKING	C.S.	COUNTERSUNK	EXP.	EXPANSION/EXPOSED	HT.	HEIGHT	M.O.	MASONRY OPENING	RCP	REFLECTED CEILING PLAN	TERM.	TERMINATION	W.C.	WATER CLOSET
BOT.	BOTTOM	D.	DRAIN	EXT.	EXTERIOR	HORIZ.	HORIZONTAL	MOD. BT.	MODIFIED BITUMEN	REQD.	REQUIRED	THK.	THICK	W.GL.	WIRE GLASS
B.O.F.	BOTTOM OF FRAMING	D.F.	DOUGLAS FIR	FD.	FLOOR DRAIN	H.M.	HOLLOW METAL	N	NORTH	REINF.	REINFORCE	T.O.	TOP OF	W.M.	WIRE MESH
BTWN.	BETWEEN	DR.	DOOR	F.E.	WALL MOUNTED FIRE EXTINGUISHER	HORIZ.	HORIZONTAL	N.T.S.	NOT TO SCALE	R.O.	ROUGH OPENING	T.O.C.	TOP OF CONCRETE	W.P.	WATERPROOF
BYD.	BEYOND	DWG.	DRAWING	F.F.	FINISHED FLOOR	HR.	HOT WATER HEATER	NIC.	NOT IN CONTRACT	RM.	ROOM	T.O.M.	TOP OF MASONRY	W.R.M.	WEATHER RESISTANT
CL	CENTERLINE	DWGS.	DRAWINGS	F.F.C.	FLOOR MATERIAL CHANGE FURNISHED BY OWNER, INSTALLED BY CONTRACTOR	H.S.S.	HOLLOW STRUCTURAL SECTION	NO. OR #	NUMBER	R.R.	RESTROOM	T.O.S.	TOP OF SLAB	W.W.M.	WELDED WIRE MESH
CLG.	CEILING	D.S.	DOWNSPOUT WITH CONDUCTOR HEAD	F.O.C.	FURNISHED BY OWNER, INSTALLED BY OWNER	I.D.	INSIDE DIAMETER	O.C.	ON CENTER	S	SOUTH	T.O.S.F.	TOP OF SUBFLOOR		
CONC.	CONCRETE	DTL.	DETAIL	FOIO	FOIO	INSUL.	INSULATION	O.D.	OUTSIDE DIAMETER	S.A.F.	SELF ADHESIVE FLASHING	T.O.S.	TOP OF SLAB		
C.I.	CAST IRON	DTLS.	DETAILS	F.O.C.	FACE OF CONCRETE	INT.	INTERIOR	OPP.	OPPOSITE	SCHED.	SCHEDULE	T.O.S.F.	TOP OF SUBFLOOR		
C.	CENTER LINE	DIM.	DIMENSION	F.O.S.	FACE OF STUD	INTL.	INTERNATIONAL	O/VHD.	OVERHEAD	S.D.	SMOKE DETECTOR	TYP.	TYPICAL		
C.O.	CLEAN OUT	DN.	DOWN	FIN.	FINISH	ISO.	ISOLATION	PERP.	PERPENDICULAR	SECT.	SECTION	U.N.O.	UNLESS NOTED OTHERWISE		
C.W.	COLD WATER	DWR.	DRAWER	FLR.	FLOOR	JT.	JOINT	PERF.	PERFORATED						
CAB.	CABINET														



PATANO STUDIO ARCHITECTURE  
 603 STEWART ST. SUITE 500  
 SEATTLE, WA 98101



11/07/2019

FILE	ENGR.	REVIEW	SCALE	DATE
			AS SHOWN	09/30/2019
1			DL	EB 11/07/2019
NO.	REVISION	BY	REVIEW	DATE

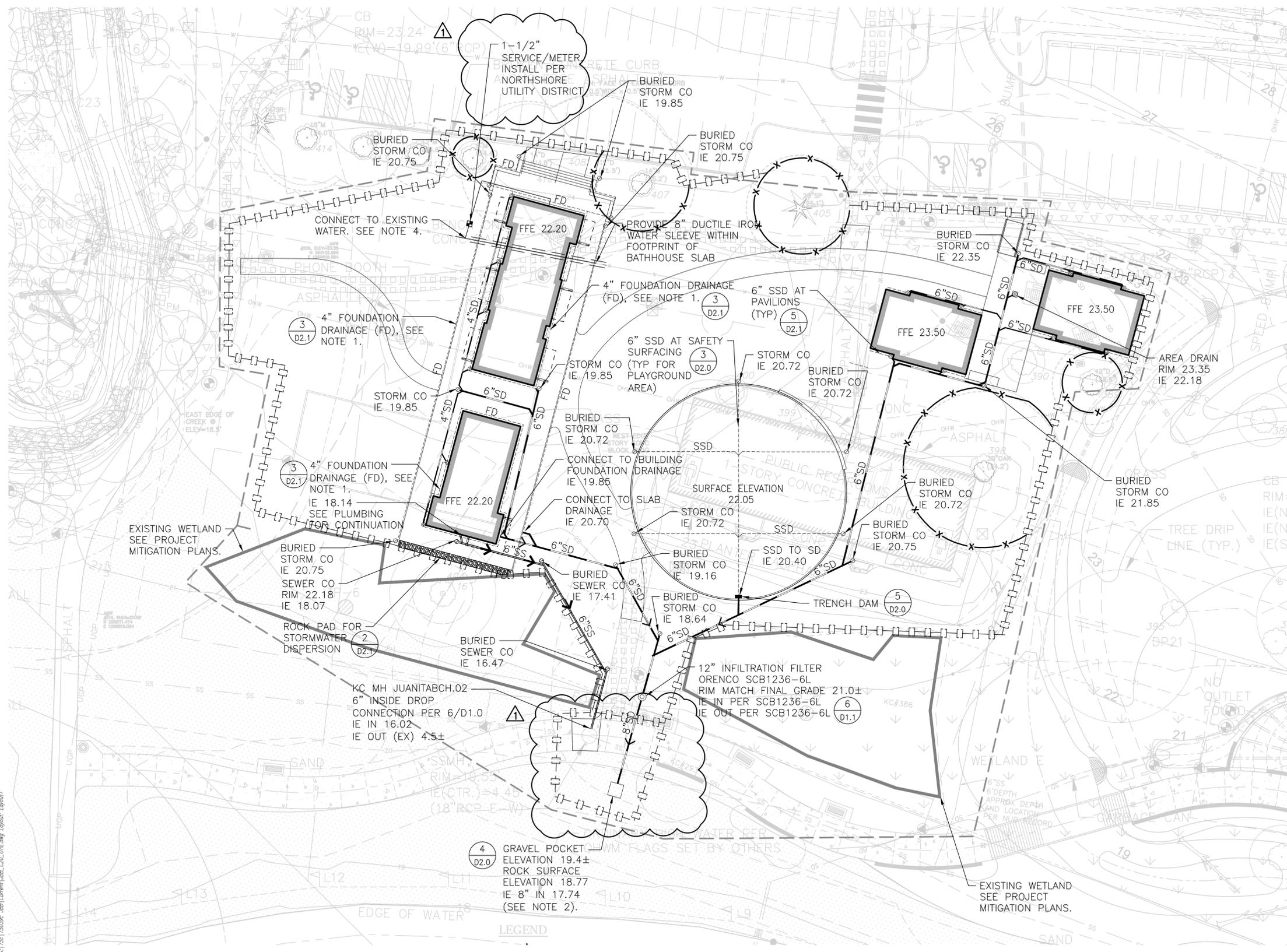


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 CPK 0119 100  
**JUANITA BEACH PARK  
 BATHHOUSE REPLACEMENT**  
 COVER SHEET

SHEET

A0.0

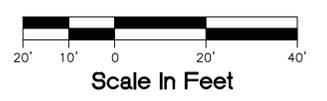
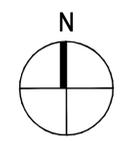




**LEGEND**

- APPROX LIMITS OF WORK
- ▬ PROPOSED BUILDING
- [-][-][-][-] CONSTRUCTION FENCE
- x-x- TREE AND SOIL PROTECTION FENCING (CRZ) (3/D3.0)
- >->- STORM DRAIN LINE (SIZE AS NOTED)
- - - - - SLOTTED STORM DRAIN (SSD) OR FOUNDATION DRAIN (FD) AS NOTED ON PLANS
- WATER LINE
- >->- SANITARY SEWER LINE
- AREA DRAIN W/SUMP
- STORM CLEANOUT/SEWER CLEANOUT (SEE NOTE 3) (1/D1.1) (2/D1.1)
- ⌋ STORM/SANITARY PIPE CAP/PLUG
- ⊙ DOWNSPOUT, PER ARCHITECTURE
- ← PIPE FLOW DIRECTION
- SURFACE FLOW/CONVEYANCE SWALE
- EXISTING IRRIGATION MAINLINE. PROTECT AND MAINTAIN PER IRRIGATION NOTES.

- NOTES**
1. INSTALL EXTERNAL FOUNDATION DRAINAGE ALONG THE BUILDING FOOTING PER STRUCTURAL DRAWINGS AND DETAIL 3/D2.1.
  2. CONTRACTOR SHALL MAKE EFFORTS TO REDUCE CLOSURES OF LAKEFRONT PATHWAY DURING CONSTRUCTION OF CULVERT AND STORM DRAIN PIPES BENEATH PATHWAY.
  3. CLEANOUTS IDENTIFIED AS "BURIED" SHALL HAVE A RIM ELEVATION 12" BELOW FINAL GRADE AND SHOULD NOT BE INSTALLED WITH A CLEANOUT BOX.
  4. WATER PIPE SHALL MATCH EXISTING PIPE MATERIALS AND SIZE. PIPE

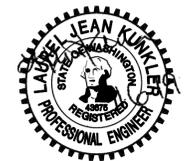


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Project No. 07-2019-11871 Date: 09/30/2019  
 File: C:\156\156336-089\Current\089\_020\_UTILITY.dwg Layout: Layout1

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1	ADDENDUM NO. 1			11/07/2019
NO.	REVISION	BY	REVIEW	DATE



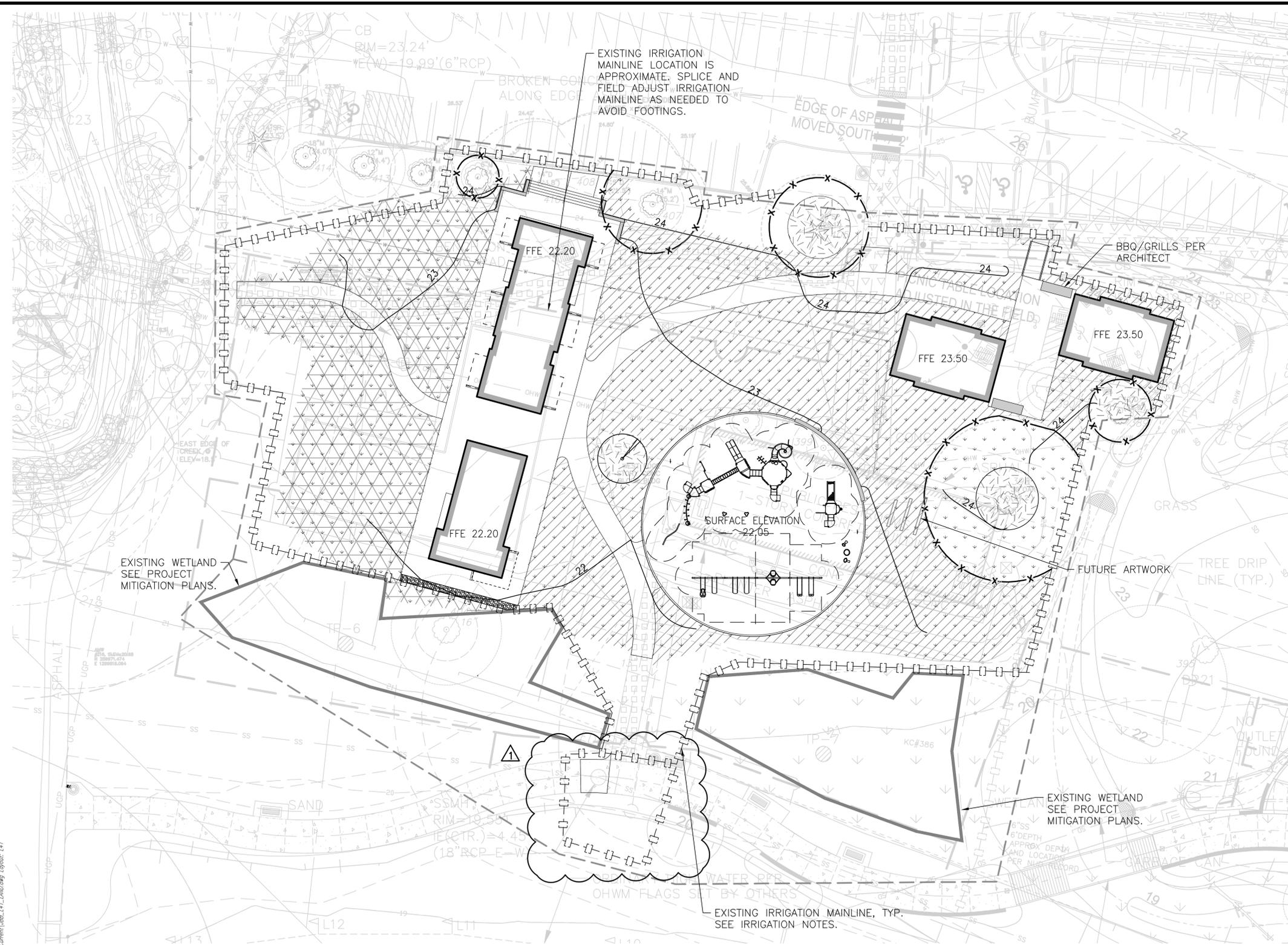
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PUBLIC WORKS DEPARTMENT  
123 FIFTH AVENUE - KIRKLAND, WA 98033-6189 - (206)828-1243  
CPK 0119 100  
**JUANITA BEACH PARK  
BATHHOUSE REPLACEMENT  
UTILITY AND DRAINAGE PLAN**

**SHEET**  
C2.0

603 STEWART ST. SUITE 500 SEATTLE, WA 98101







**LEGEND**

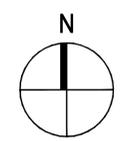
- LIMITS OF WORK (CLEARING LIMITS)
- - - ECA BUFFER
- [ ] - [ ] - [ ] - [ ] - [ ] CONSTRUCTION FENCE
- x - x - x - x - x TREE AND SOIL PROTECTION FENCING (CRZ) 3  
D3.0
- LAWN AMENDED SOIL. SEE NOTE 1.
- BUFFER ENHANCEMENT AREA AMENDED SOIL. SEE NOTE 2.
- SEEDED LAWN RESTORATION
- 3" MULCH
- ROCK PAD FOR STORMWATER DISPERSION 2  
D2.1
- EXISTING IRRIGATION MAINLINE
- SLEEVING

**PLANTING NOTES**

1. ALL LAWN AREAS SHALL BE AMENDED WITH 1.75" OF COMPOST TILLED TO A DEPTH OF 8", PER COK PLAN CK-E-12 OPTION 1. SEE SOIL PREP. SPECS.
2. AREA BETWEEN BATHHOUSE PAD AND EXISTING TRAIL SHALL BE AMENDED WITH 4" OF COMPOST TILLED TO A DEPTH OF 8". SEE SOIL PREP SPECS.
3. NO TILLING SHALL OCCUR WITHIN CRITICAL ROOT ZONES.
4. SEE DESIGN-BUILD IRRIGATION NOTES, SHEETS L5.0 AND L5.1.

**PLANT SCHEDULE**

SYM	BOTANICAL NAME	COMMON NAME	SIZE	QTY
<b>TREES</b>				
	NYSSA SYLVATICA 'WILDFIRE'	WILDFIRE TUPELO	2"- 2 1/2" CALIPER	1
<b>SEEDED LAWN AREA</b>				
	SEEDED LAWN MIX			25,000 SF



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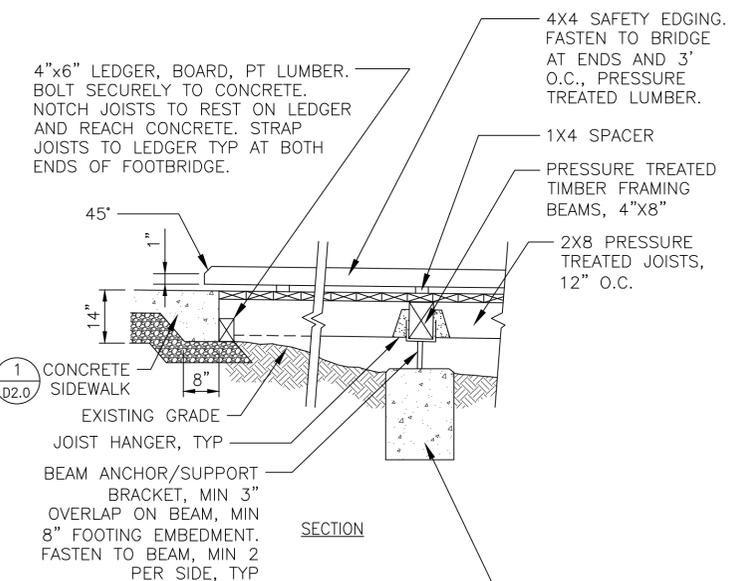
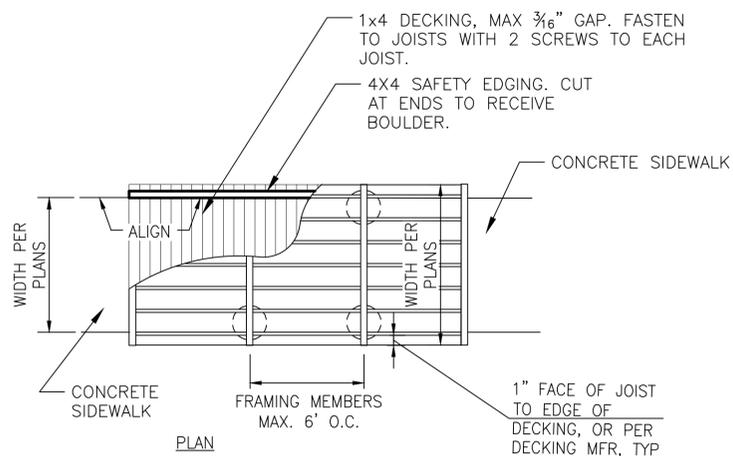


Project No. 07-2019 - 11/13/2019 - 11/13/2019  
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 603 STEWART ST. SUITE 500 SEATTLE, WA 98101	 615 SECOND AVE. SUITE 280 SEATTLE, WA 98104 T 206.223.8826 F 206.223.0125 www.svrdesign.com	 LIZEL JEAN KINLEY PROFESSIONAL ENGINEER	 STATE OF WASHINGTON LANDSCAPE ARCHITECT	FILE	ENGR.	REVIEW	SCALE	DATE
				1	BM	ADDENDUM NO. 1	AS SHOWN	09/30/2019
				NO.	REVISION	BY	REVIEW	DATE

**CITY OF KIRKLAND**  
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**JUANITA BEACH PARK  
BATHHOUSE REPLACEMENT**  
 SOIL AND LANDSCAPE PLAN

**SHEET**  
  
 L4.1

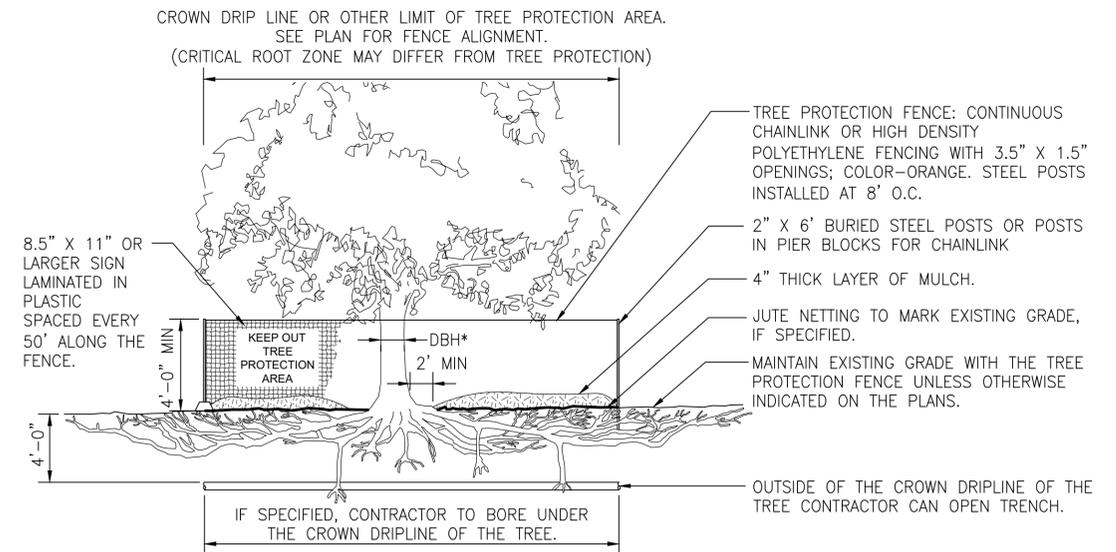


- NOTES:
1. ALL FASTENERS AND METAL HARDWARE SHALL BE HOT DIP GALVANIZED OR SST, OR OTHER MATERIAL RATED FOR OUTDOOR USE AND APPROVED BY ENGINEER.
  2. COUNTERSINK ALL DECKING FASTENERS.
  3. SHOP DRAWINGS REQUIRED.

18" MIN. DEPTH AND 12" MIN DIAMETER PREFABRICATED OR POURED-IN-PLACE CONCRETE DECK FOOTING, SET IN COMPACTED SUBGRADE. SLOPE TOP TO DRAIN, SET WITH EDGES MIN 2" BACK FROM FOOTBRIDGE EDGE

NTS  
Foot Bridge 4

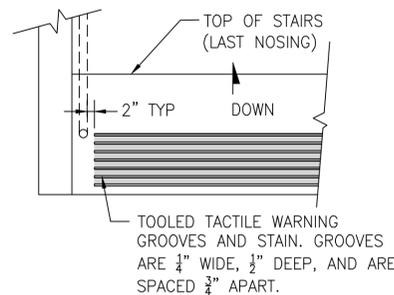
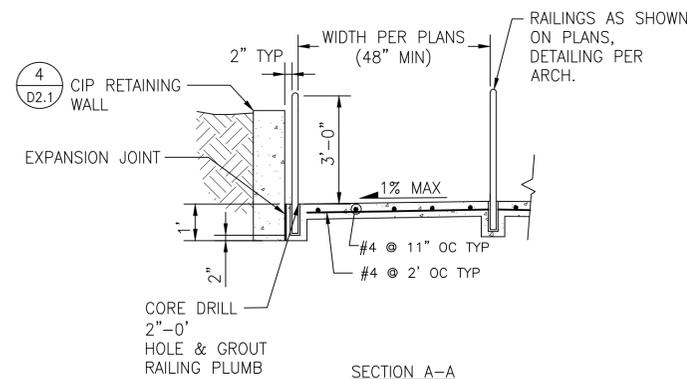
NTS  
Not Used 2



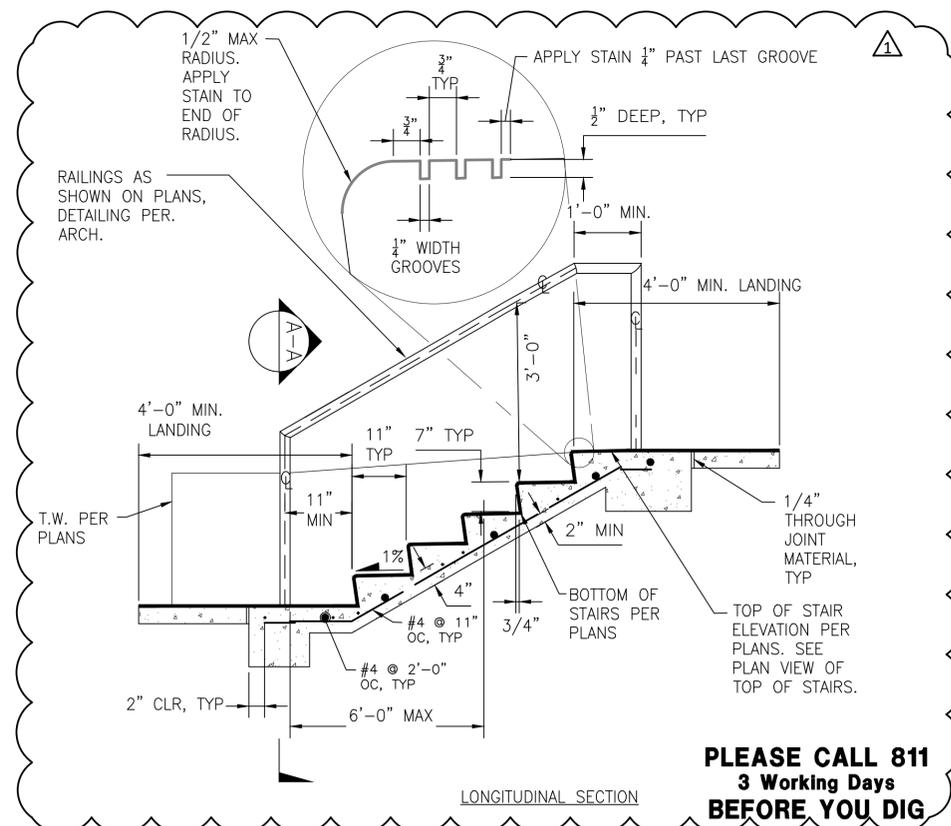
NOTES:

1. SEE GENERAL NOTES AND SPECIFICATIONS FOR ADDITIONAL TREE PROTECTION REQUIREMENTS.
2. IF THERE IS NO EXISTING IRRIGATION, SEE SPECIFICATIONS FOR WATERING REQUIREMENTS.
3. NO PRUNING SHALL BE PERFORMED EXCEPT BY APPROVED ISA CERTIFIED ARBORIST.
4. NO EQUIPMENT SHALL OPERATE INSIDE THE PROTECTIVE ZONE FENCE AREA INCLUDING DURING FENCE INSTALLATION AND REMOVAL.
5. SEE DEMO, GRADING DRAINAGE AND UTILITY PLAN FOR ANY MODIFICATIONS WITH THE TREE PROTECTION AREA.
6. DBH\* - DIAMETER OF TRUNK AT BREAST HEIGHT.

NTS  
Tree and Soil Protection Fencing 3



PLAN VIEW-TOP OF STAIRS



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NOTES:

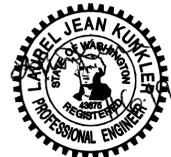
1. STEPS IN FLIGHT MUST HAVE UNIFORM TREAD RUNS AND UNIFORM RISER HEIGHTS.
2. GRIND ALL WELDS SMOOTH.
3. STEPS SHALL HAVE HANDRAILS ON BOTH SIDES
4. HANDRAILS SHALL BE CONTINUOUS ACROSS LANDINGS BETWEEN FLIGHTS OF STEPS.
5. HANDRAILS SHALL BE GALVANIZED AFTER FABRICATION.
6. PIPE MATERIAL SHALL BE ASTM A53.
7. REINFORCING STEEL SHALL BE ASTM A615 GR 60.
8. PIPE DIAMETERS SHOWN ARE "NOMINAL" DIAMETERS AS GIVEN IN AMERICAN INSTITUTE OF STEEL CONSTRUCTION MANUAL.
9. ALL EXPOSED CONCRETE SURFACES SHALL HAVE A MEDIUM SAND BLAST FINISH.
10. NUMBER OF STAIRS AS INDICATED ON PLANS

NTS  
Stair and Handrail 6

Project No: 07-2019 - 03-23-19 Rev. 06/2019  
 File: C:\501\16030-000\Current\000\_LAND\_LAND\_DET.dwg Layout: Layout2



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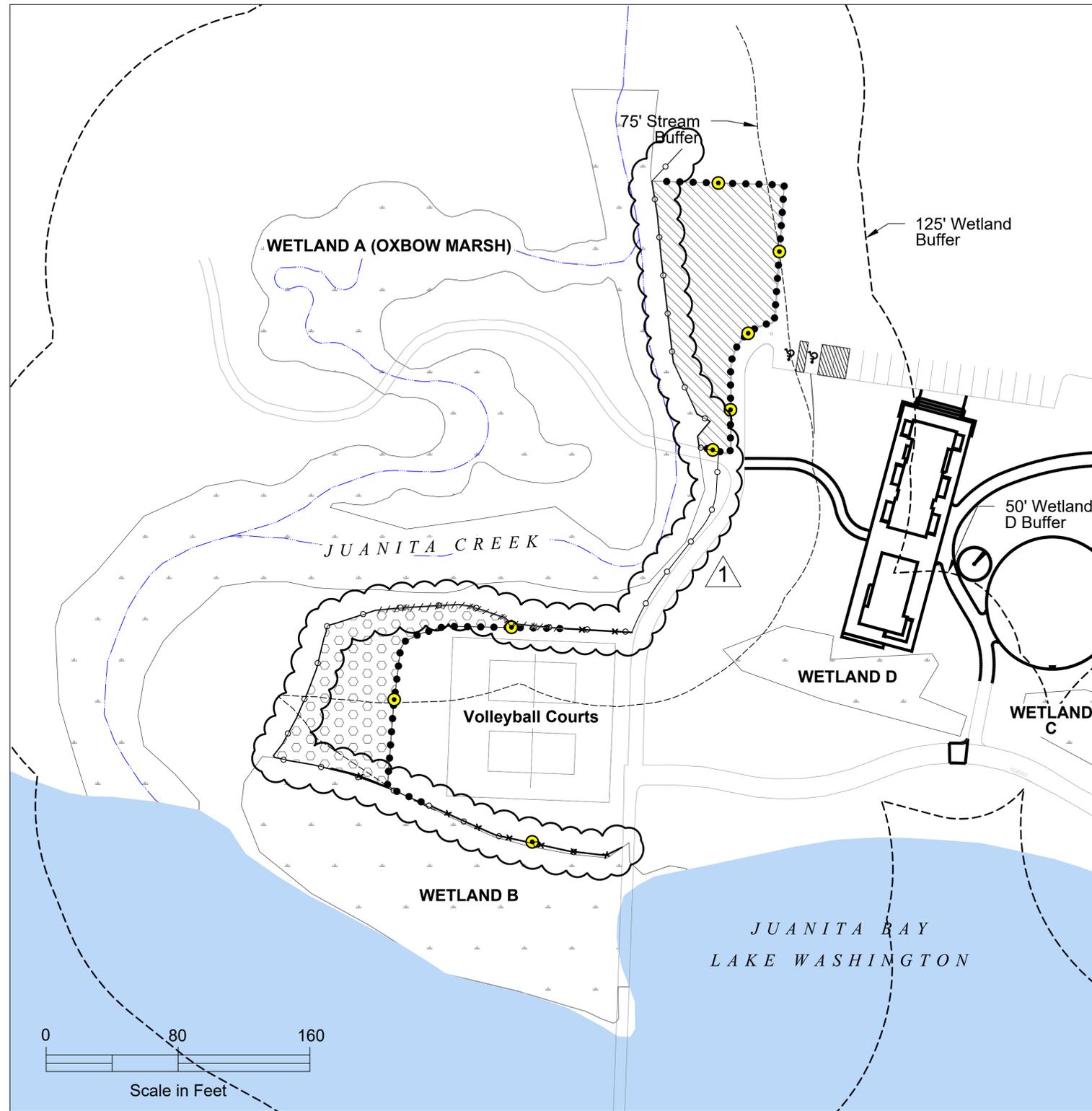


FILE	ENGR.	REVIEW	SCALE	DATE
	BM		AS SHOWN	09/30/2019
1	ADDENDUM NO. 1			11/07/2019
NO.	REVISION	BY	REVIEW	DATE



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 CPK 0119 100  
**JUANITA BEACH PARK  
 BATHHOUSE REPLACEMENT**  
 LANDSCAPE DETAILS

SHEET  
 D3.0



**INSTALLATION NOTES**

1. Prior to the start of mitigation work, a surveyor will use flagging or stakes to identify in the field the locations of the proposed mitigation areas.
2. Install erosion control Best Management Practices as needed and protect existing native woody vegetation in and adjacent to the planting areas. Earth disturbance should be minimized to the extent possible to avoid damaging existing tree roots in the area.
3. With the assistance of the biologist, any invasive species shall be identified for removal.
4. Remove existing non-native invasive species such as Himalayan blackberry, English ivy, and English holly from the enhancement area using a combination of hand pulling and cutting, depending on size of individuals. English ivy vines growing on trees shall be cut at shoulder height and all roots and stems below the cut and along the ground shall be removed from the site and properly disposed of. Himalayan blackberry roots shall be rooted out. Invasive species should be disposed of where they cannot reestablish in critical areas or buffers. Care shall be taken during invasive species removal to preserve native trees and shrubs.
5. Procure plants and store properly. Plant material will be native to the Pacific Northwest and from plant stock genomes from Western Washington. Biologist shall review plant material and plant layout prior to planting.
6. In the flat, sandy portion of the buffer mitigation area adjacent to the existing volleyball court, four inches of fine compost shall be added and tilled into the upper 12 inches of soil throughout the area. In other buffer mitigation areas, 4 inches of fine compost shall be tilled into the upper 8 inches of soil.
7. Dig circular plant pits; take care to avoid cutting through existing native tree roots. Install plants by hand in the planting areas in natural, random clusters. Backfill with native soil that has been mixed with 3 inches of fine compost. Planting should occur between October 15 and March 1 to take advantage of cool temperatures and precipitation. Mulch the mitigation areas with 6 inches of wood chip mulch to discourage weed establishment.
8. Water plants thoroughly after planting to avoid capillary stress. Planted areas shall be watered with approximately 1 inch of water immediately after planting.
9. Install wire fencing around each plant installation to protect from beaver herbivory. Install split-rail wood fencing around buffer mitigation area as shown on plans.
10. Remove construction debris and any other unnatural refuse. Remove BMPs after site is stabilized.
11. Landscaper shall submit copies of the invoices showing planted species and quantities, volumes and classification of mulch, and volumes and classification of compost.
12. Landscaper shall replace all plant mortalities and perform maintenance for one year after installation.
13. Protect all (E) wetlands and Juanita Creek within or adjacent to work areas during construction with silt fence/high visibility fence as shown on plans (Figure 2 and Sheets C1.0 and D1.0). No equipment or materials shall access or be stored in the wetlands, and no material shall be discharged into the stream or wetlands.

**LEGEND**

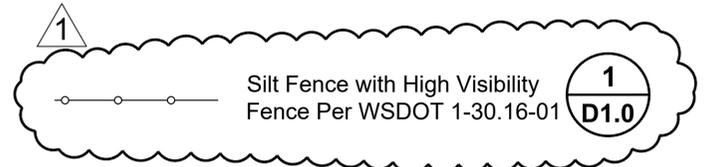
- Critical Areas Sign
- Proposed Features
- Existing Features

**BUFFER MITIGATION** (See Plant Schedules on Sheet 3)

- Native Shrub (8,300 sq. ft.)
- Native Forest (6,001 sq. ft.)

**MITIGATION FENCE**

- Remove Existing Fence (120 ft.)
- New Split-Rail Fence (500 ft.)
- Existing Fence (195 ft.)



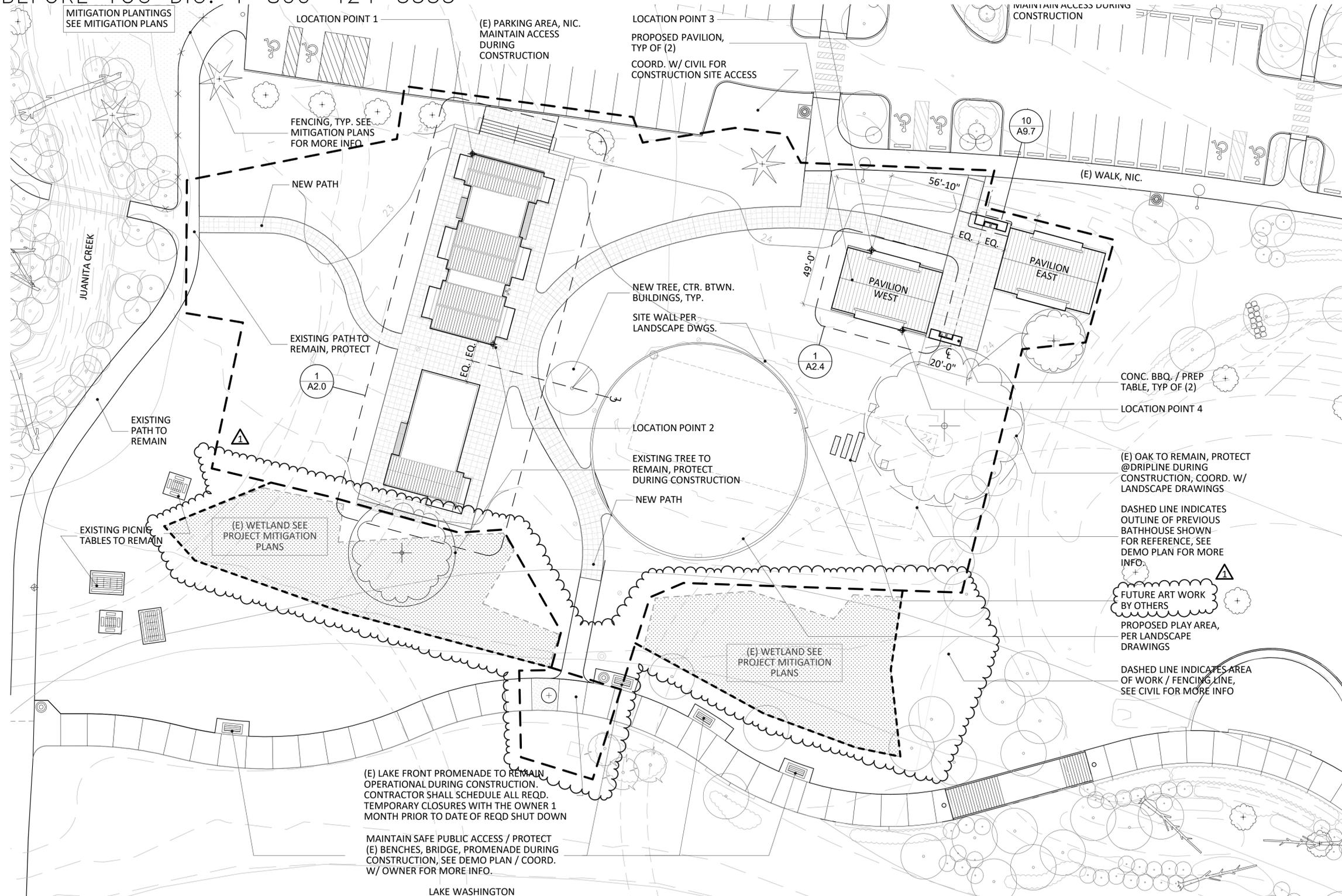
FILE	ENGR.	REVIEW	SCALE	DATE
1			AJS	11/07/2019
ADDENDUM 1			KLW	09/30/2019
NO.	REVISION	BY	REVIEW	DATE







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**NOTES**

1. COORDINATE W/ CIVIL / TESC. DRAWINGS
2. COORDINATE W/ LANDSCAPE ARCH. DRAWINGS
3. COORDINATE W/ ELECTRICAL DRAWINGS.
4. COORDINATE W/ PLUMBING DRAWINGS.
5. COORDINATE W/ GEOTECH REPORT.
6. COORDINATE W/ MITIGATION PLANS.
7. COORDINATE W/ ALL DISCIPLINES DRAWINGS/SPECIFICATIONS.
8. RESTRIPE PARKING AND ADD MARKINGS FOR ADA PARKING AND ACCESS AISLE AS INDICATED. PROVIDE ADA SIGNAGE. ALL SIGNAGE / MARKINGS TO COMPLY W/ ICC A117.1-1009 AND CITY OF KIRKLAND STANDARDS.

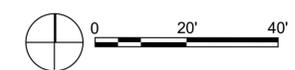
LOC. POINT	NORTHING	EASTING
1	260132.99	1299982.16
2	260062.20	1299989.69
3	260097.29	1300131.11
4	260067.42	1300142.50

NOTE: ALL BUILDINGS ROTATED 15 DEGREES EAST OF TRUE NORTH. SEE CIVIL DRAWINGS FOR MORE INFO.

(E) LAKE FRONT PROMENADE TO REMAIN OPERATIONAL DURING CONSTRUCTION. CONTRACTOR SHALL SCHEDULE ALL REQD. TEMPORARY CLOSURES WITH THE OWNER 1 MONTH PRIOR TO DATE OF REQD SHUT DOWN

MAINTAIN SAFE PUBLIC ACCESS / PROTECT (E) BENCHES, BRIDGE, PROMENADE DURING CONSTRUCTION, SEE DEMO PLAN / COORD. W/ OWNER FOR MORE INFO.

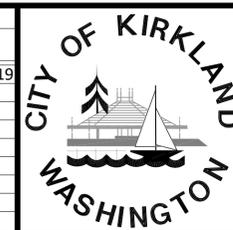
**1 SITE PLAN**  
SCALE: 1" = 20'



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8425 REGISTERED ARCHITECT  
CHRISTOPHER K. PATANO  
STATE OF WASHINGTON  
11/07/2019

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1			AS SHOWN	09/30/2019
NO.	REVISION	BY	REVIEW	DATE

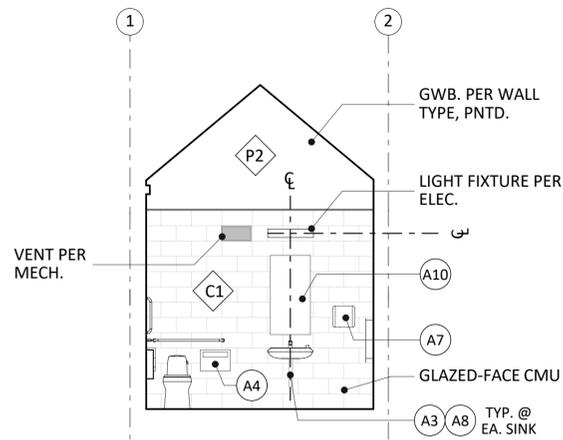


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CPK 0119 100  
**JUANITA BEACH PARK  
BATHHOUSE REPLACEMENT**  
SITE PLAN

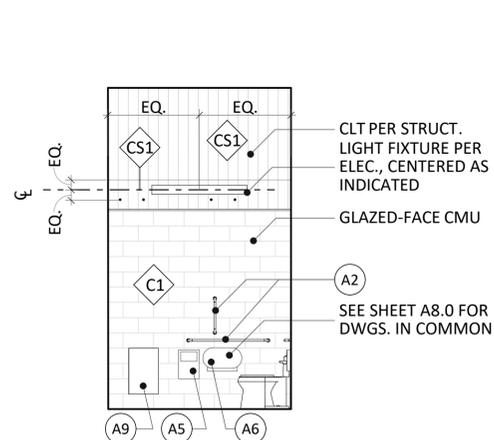
SHEET  
**A1.0**



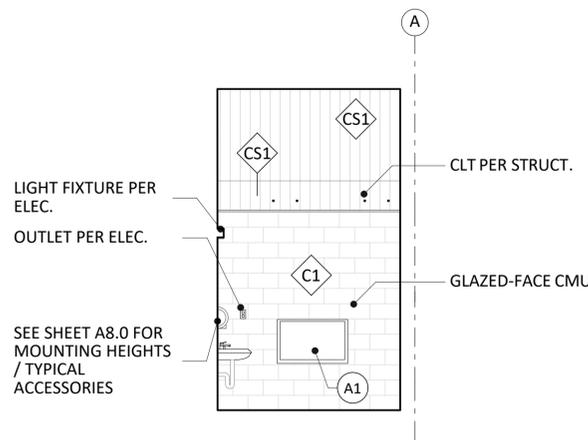




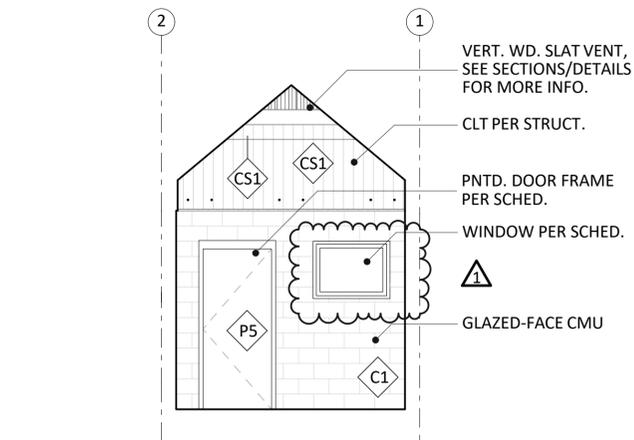
3 RESTROOM 101 - EAST  
SCALE: 1/4" = 1'-0"



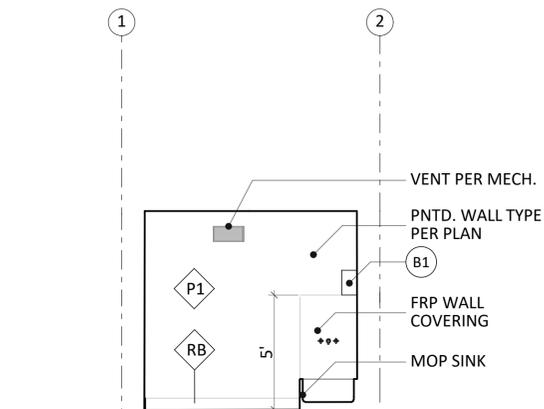
4 RESTROOM 101 - NORTH  
SCALE: 1/4" = 1'-0"



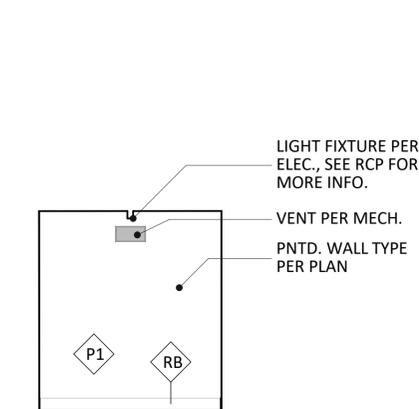
2 RESTROOM 101 - SOUTH  
SCALE: 1/4" = 1'-0"



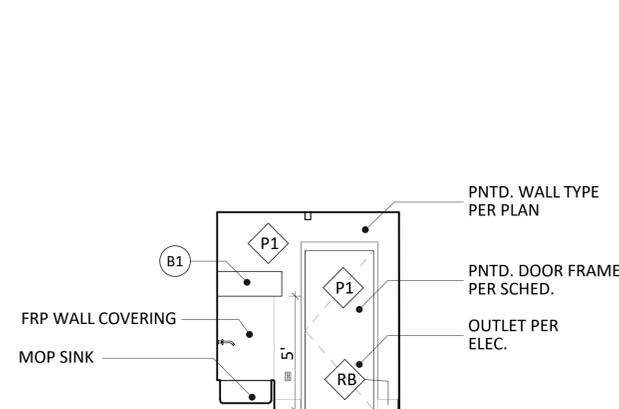
1 RESTROOM 101 - WEST  
SCALE: 1/4" = 1'-0"



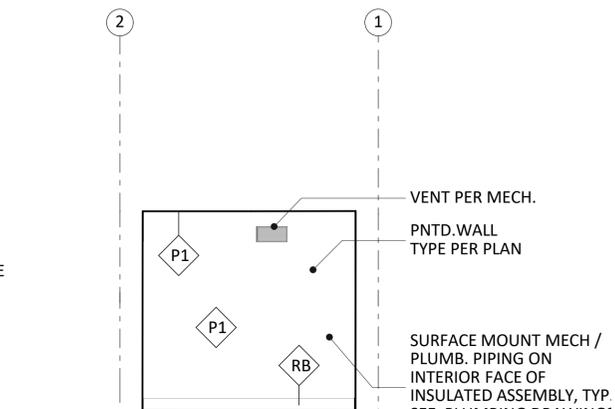
8 CHASE 102 - EAST  
SCALE: 1/4" = 1'-0"



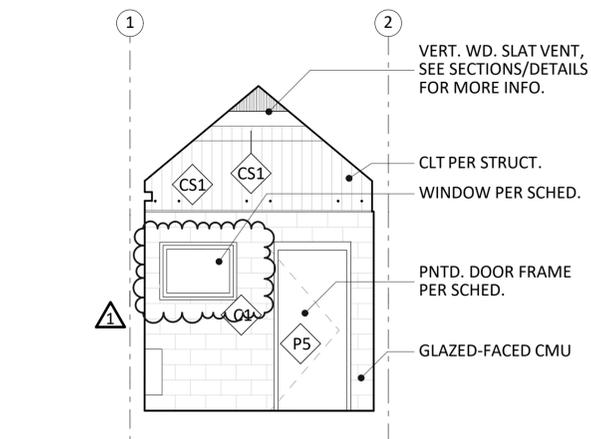
7 CHASE 102 - NORTH  
SCALE: 1/4" = 1'-0"



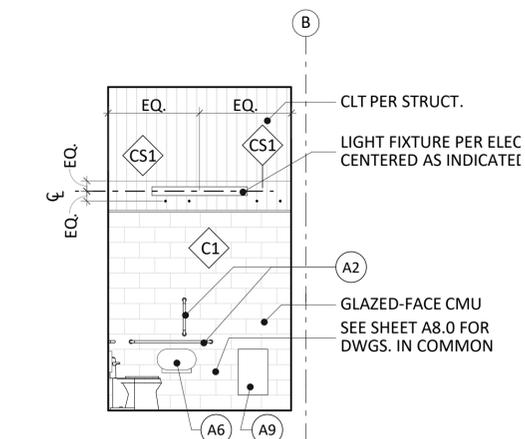
6 CHASE 102 - SOUTH  
SCALE: 1/4" = 1'-0"



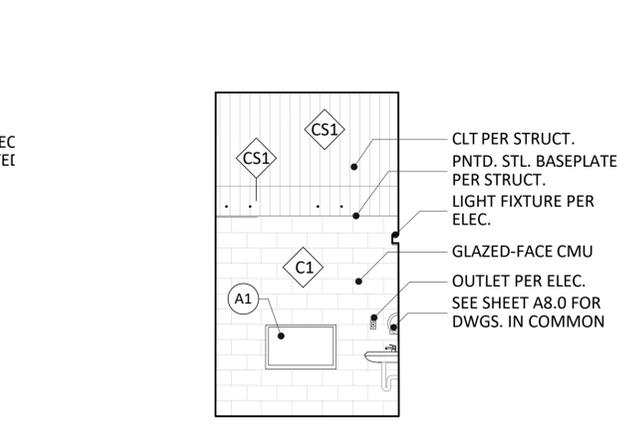
5 CHASE 102 - WEST  
SCALE: 1/4" = 1'-0"



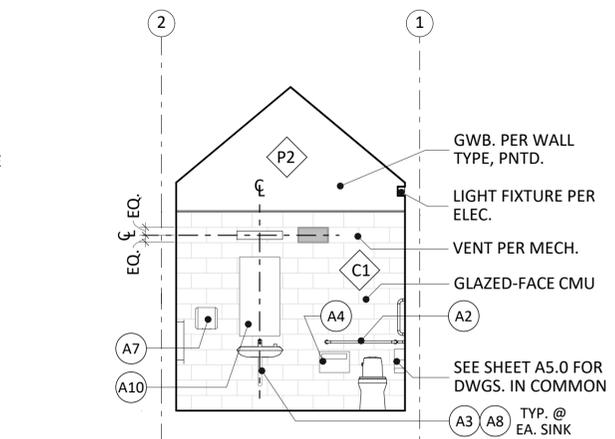
12 RESTROOM 103 - EAST  
SCALE: 1/4" = 1'-0"



11 RESTROOM 103 - NORTH  
SCALE: 1/4" = 1'-0"



10 RESTROOM 103 - SOUTH  
SCALE: 1/4" = 1'-0"



9 RESTROOM 103 - WEST  
SCALE: 1/4" = 1'-0"

INTERIOR FINISH LEGEND		
TAG	ITEM	NOTES
CS1	CLEAR SEALER	SEE SPEC. SECTION 09 90 00
P1 P2 P3 P5	INTERIOR PAINT	SEE SPEC. SECTION 09 90 00
C1	GLAZED CMU	SEE SPEC. SECTION 04 20 00
RB	RUBBER BASE	SEE SPEC. SECTION 09 65 13
WD	WOOD BASE	SEE SPEC. SECTION 06 20 00

TOILET ACCESSORIES LEGEND	
TAG	ITEM
A1	DIAPER CHANGING STATION
A2	GRAB BARS
A3	LAVATORY GUARDS
A4	SEAT COVER DISPENSER
A5	SANITARY NAPKIN DISPOSAL UNIT
A6	TOILET TISSUE DISPENSER
A7	WARM AIR HAND DRYER
A8	SOAP DISPENSER
A9	WASTE RECEPTACLE
A10	MIRROR
B1	MOP AND BROOM HOLDER W/ SHELF

NOTE: (1) SEE SPEC. SECTION 10 28 00 FOR MORE INFORMATION (2) REFER TO SHEET A5.0 FOR STANDARD MOUNTING HEIGHTS



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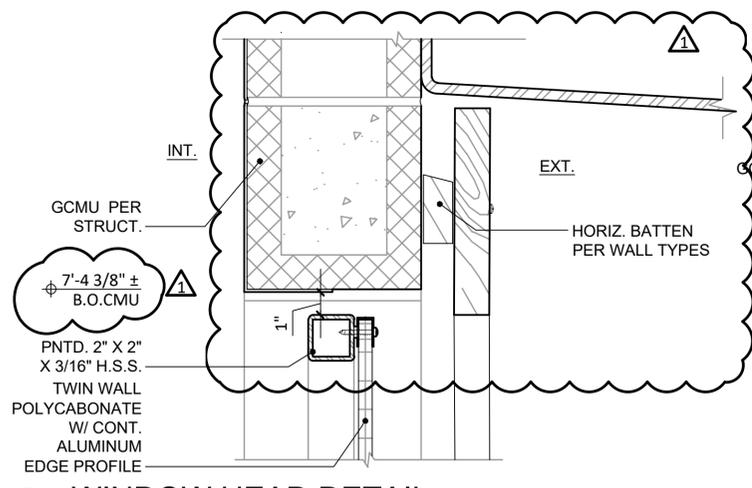
11/07/2019

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ADDENDUM NO. 1				
			DL	EB
				11/07/2019
NO.	REVISION	BY	REVIEW	DATE

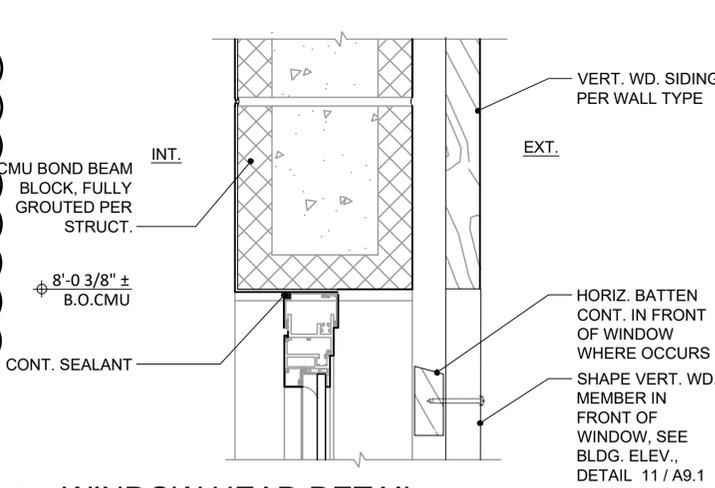


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JUANITA BEACH PARK  
BATHHOUSE REPLACEMENT  
INTERIOR ELEVATIONS

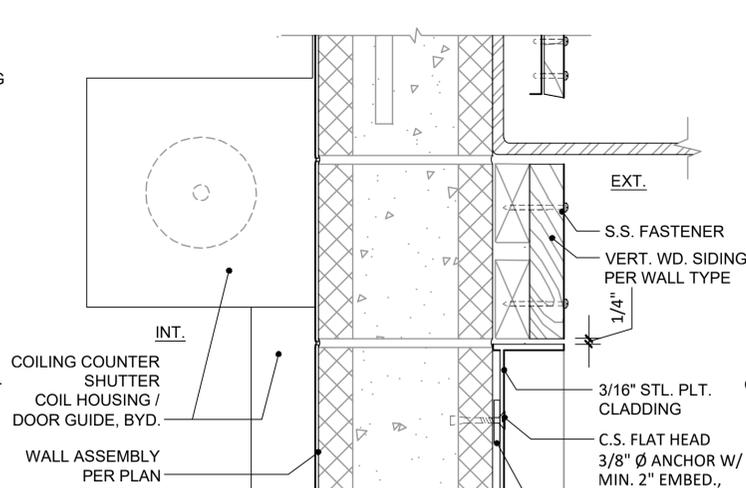
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A5.5



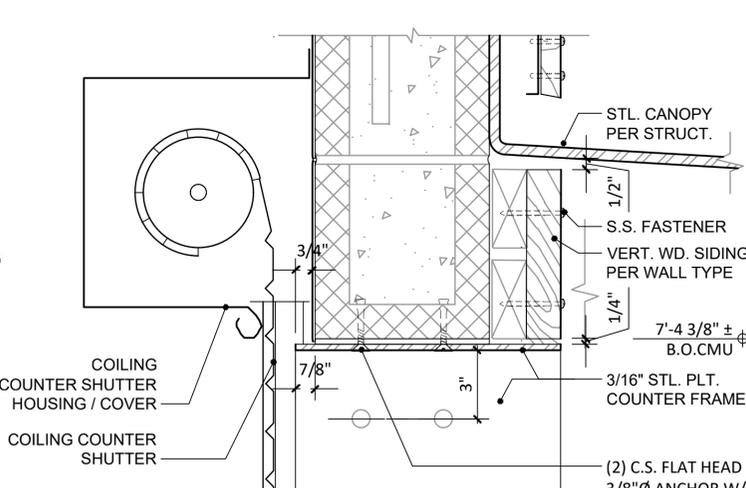
**4 WINDOW HEAD DETAIL**  
3" = 1'-0"



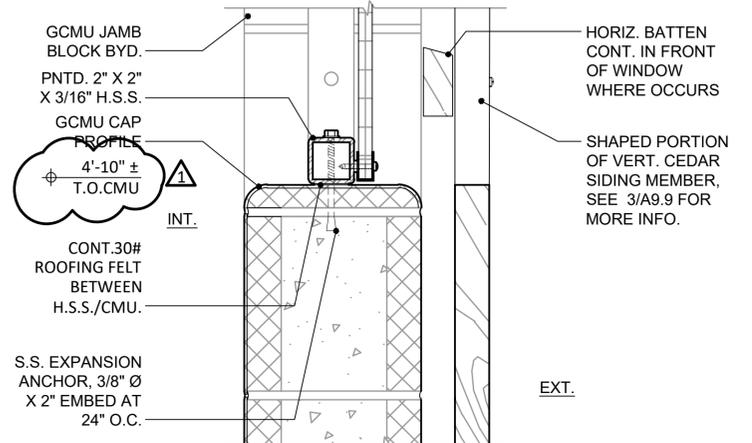
**3 WINDOW HEAD DETAIL**  
3" = 1'-0"



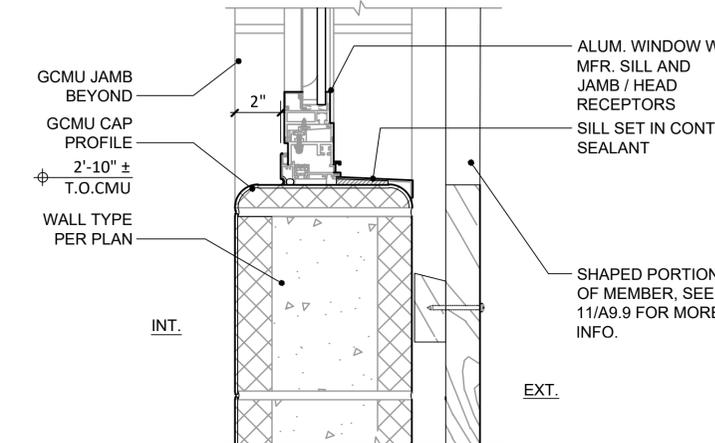
**2 WINDOW HEAD DETAIL**  
3" = 1'-0"



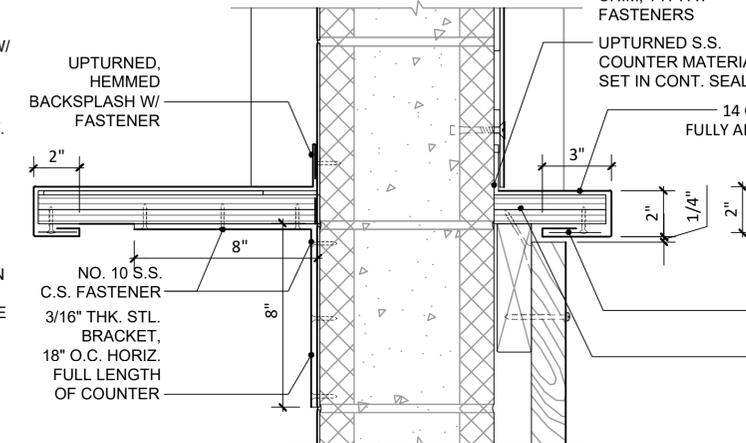
**1 WINDOW HEAD DETAIL**  
3" = 1'-0"



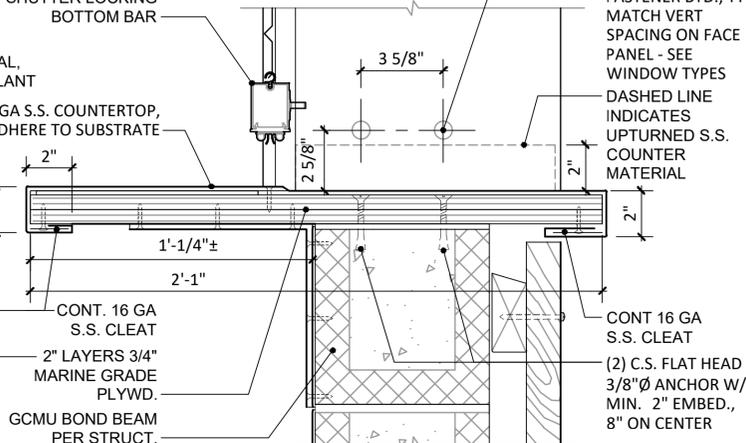
**8 WINDOW SILL DETAIL**  
3" = 1'-0"



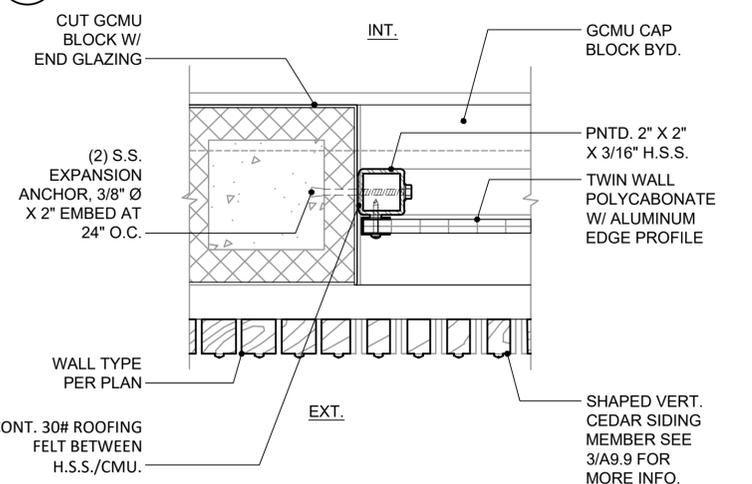
**7 WINDOW SILL DETAIL**  
3" = 1'-0"



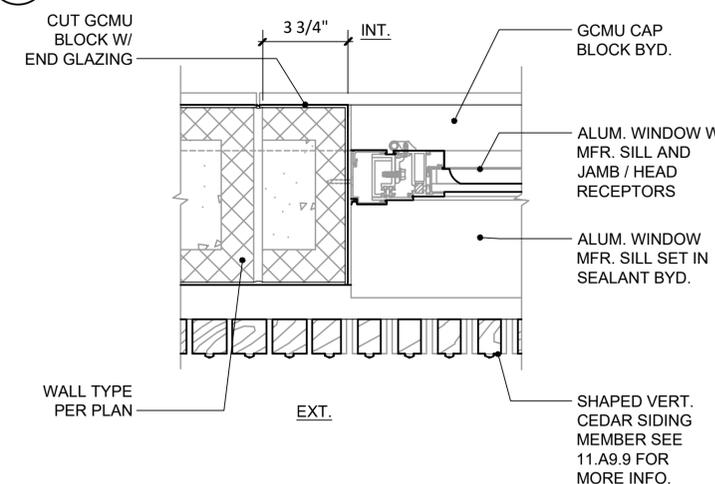
**6 DESK / EXTERIOR STL. CLADDING**  
3" = 1'-0"



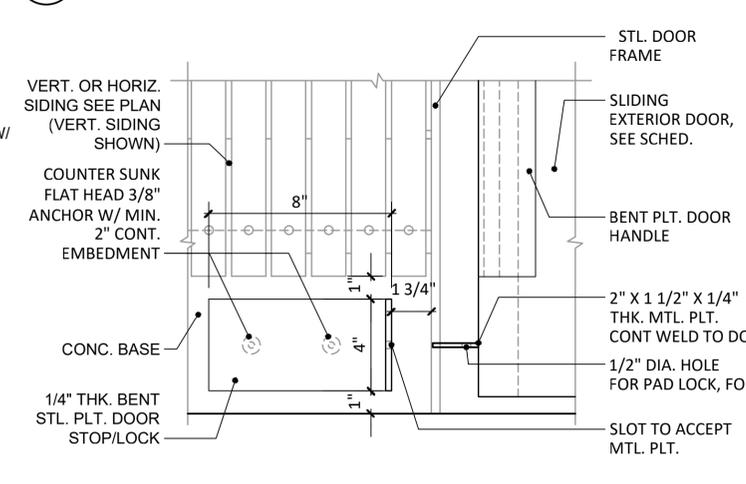
**5 COILING COUNTER DOOR**  
3" = 1'-0"



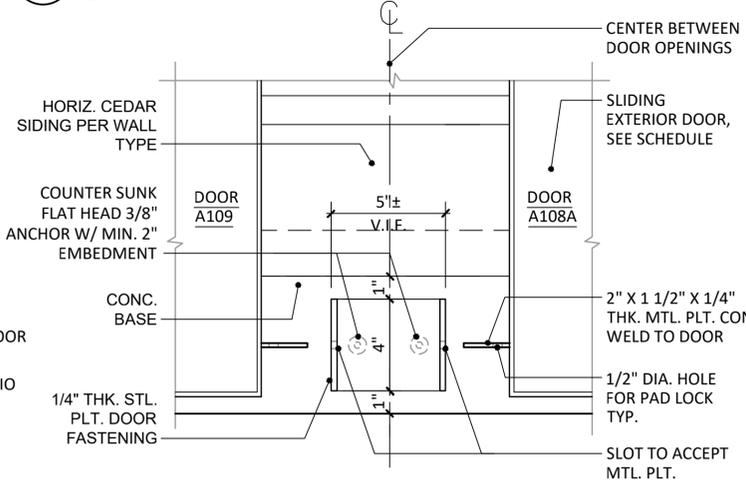
**12 WINDOW JAMB DETAIL**  
3" = 1'-0"



**11 WINDOW JAMB DETAIL**  
3" = 1'-0"



**10 SLIDING DOOR FASTENING PLATE**  
3" = 1'-0"



**9 SLIDING DOOR FASTENING PLATE**  
3" = 1'-0"

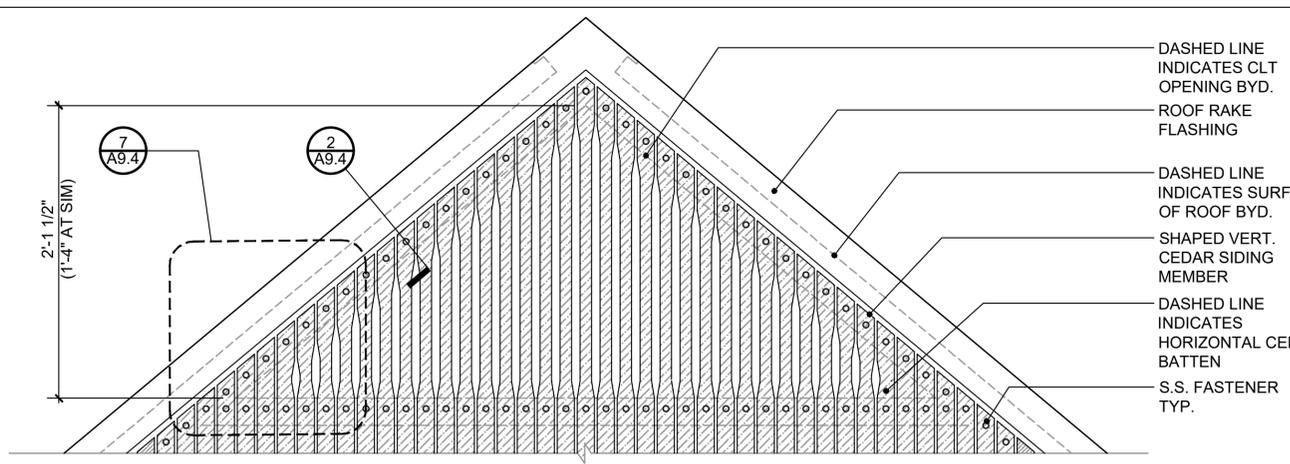
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NO.	REVISION	BY	REVIEW	DATE



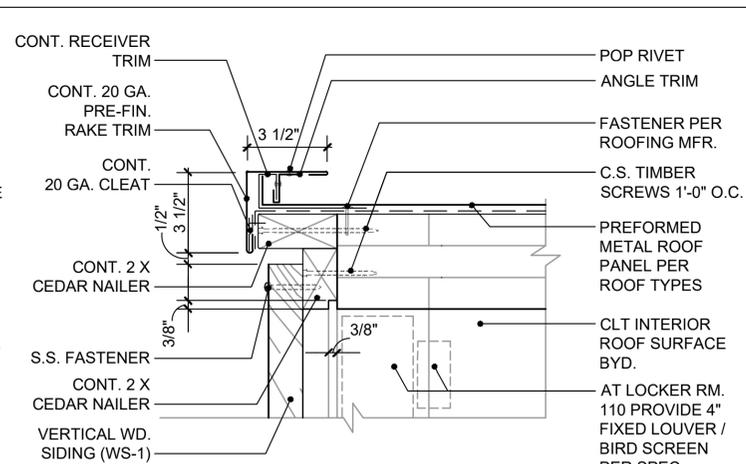
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BATHHOUSE REPLACEMENT  
EXTERIOR DETAILS

**SHEET**  
**A9.1**

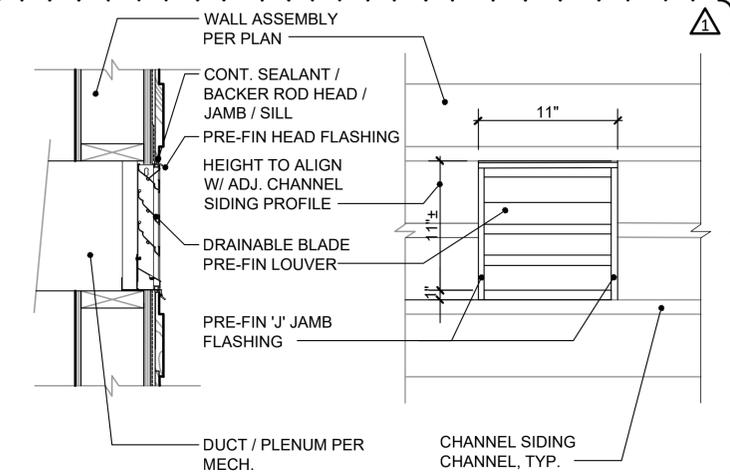




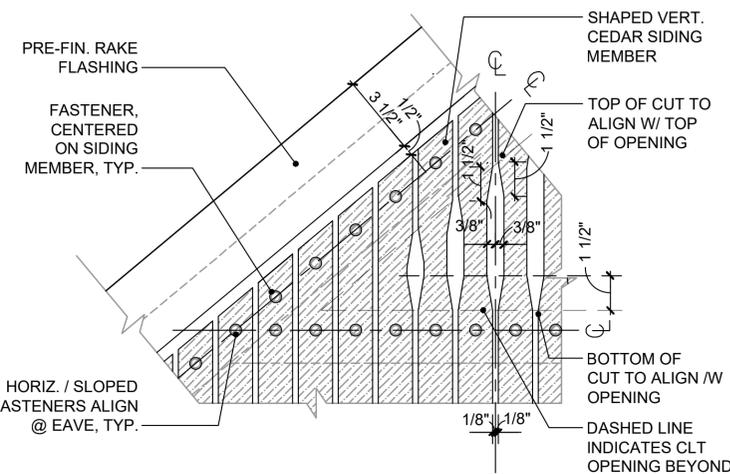
**4** LIGHT / AIR OPENING - ENLARGED ELEVATION  
1 1/2" = 1'-0"



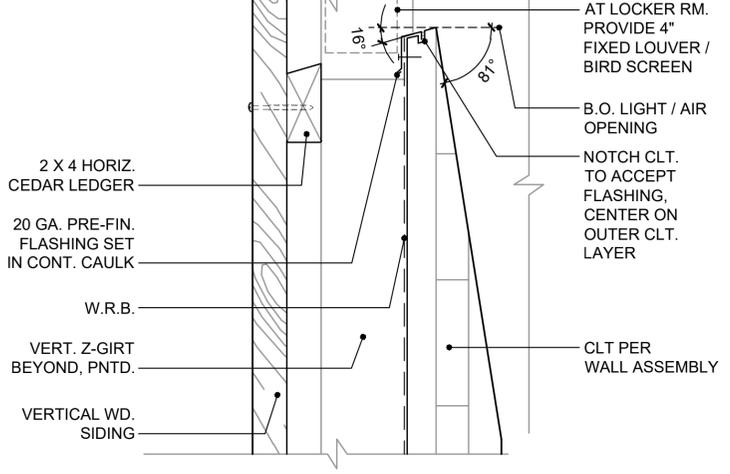
**2** LIGHT / AIR OPENING - HEAD / RAKE  
3" = 1'-0"



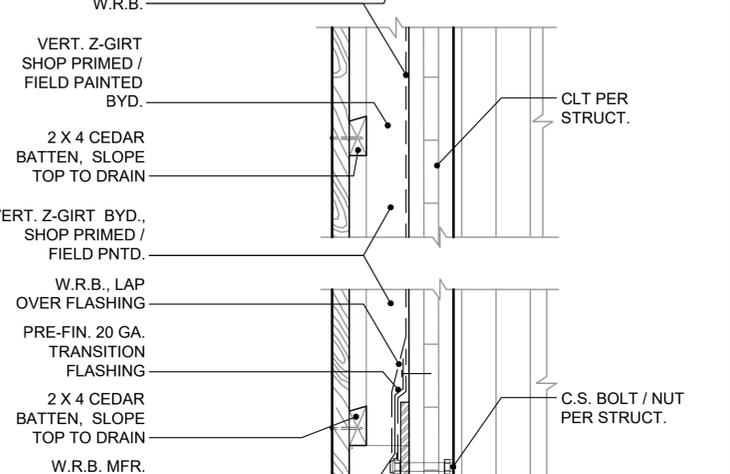
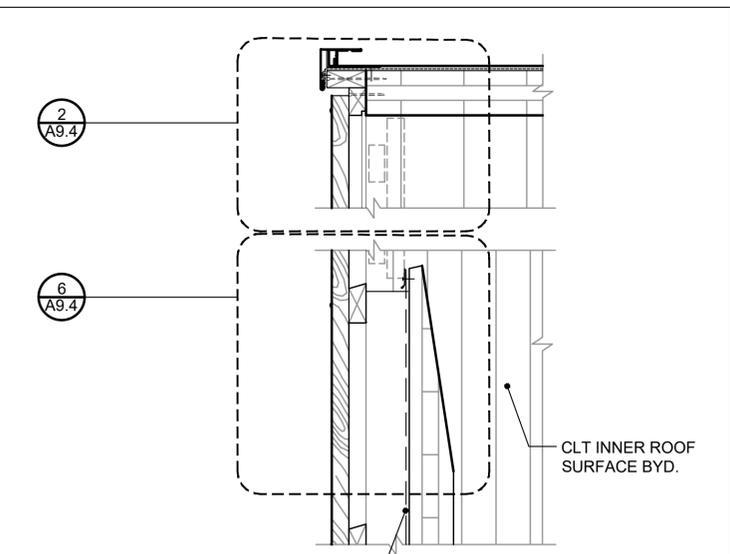
**8** EXTERIOR LOUVER  
1 1/2" = 1'-0"



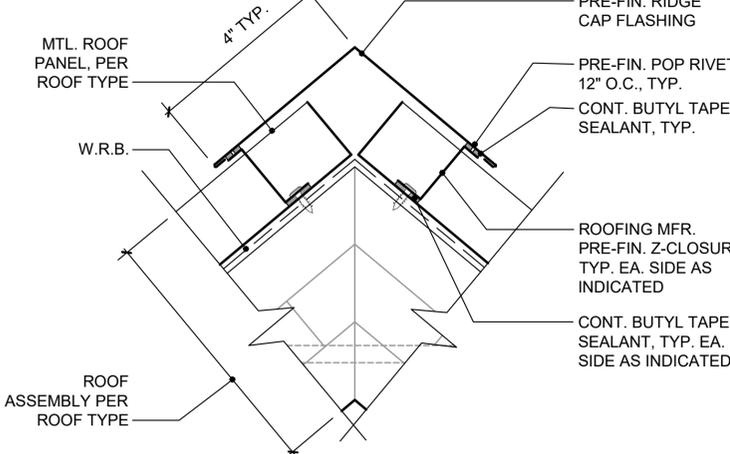
**7** LIGHT / AIR OPENING - DETAIL  
3" = 1'-0"



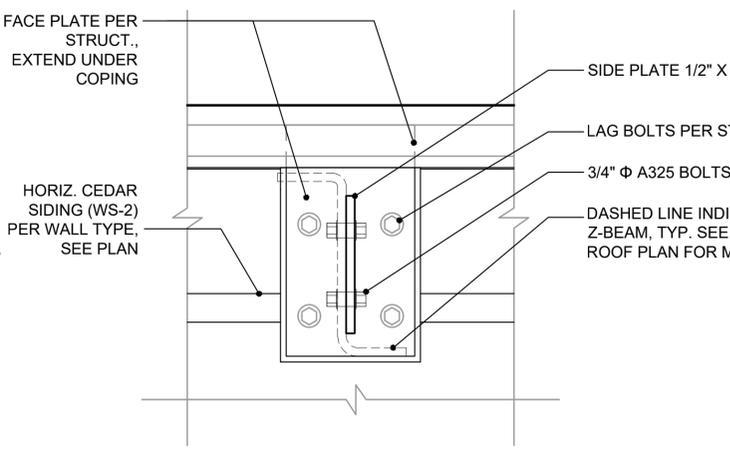
**6** LIGHT / AIR OPENING - SILL  
3" = 1'-0"



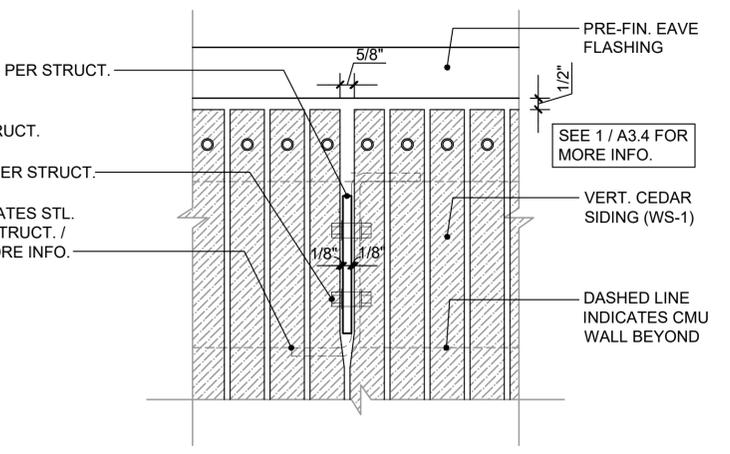
**9** TYP. GABLE WALL SECTION  
1 1/2" = 1'-0"



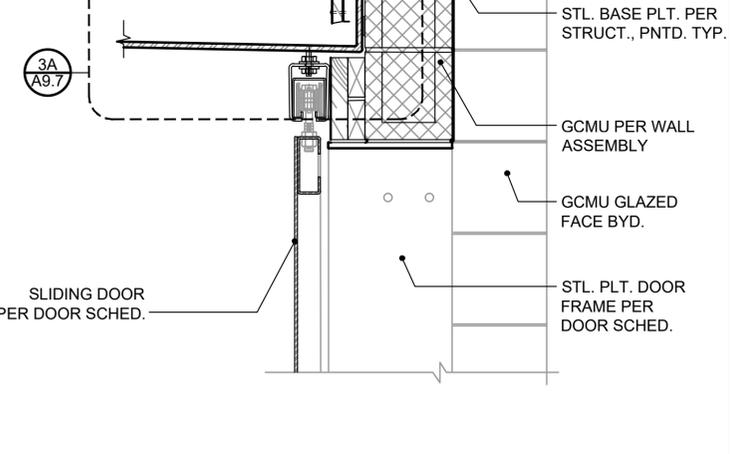
**12** TYP. METAL ROOF RIDGE FLASHING  
6" = 1'-0"



**11** Z - BEAM - DETAIL  
3" = 1'-0"

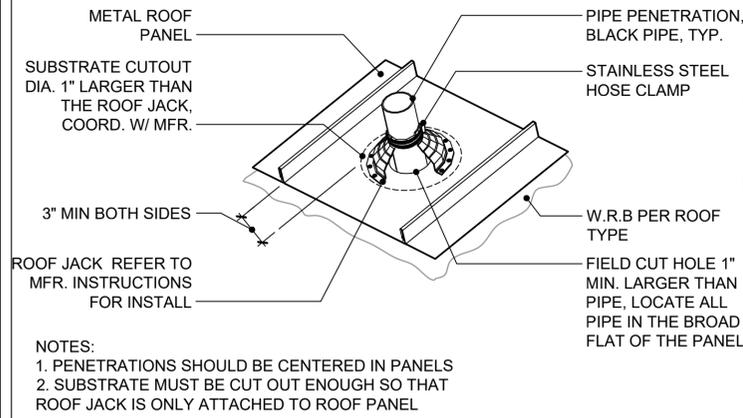


**10** Z - BEAM - DETAIL  
3" = 1'-0"

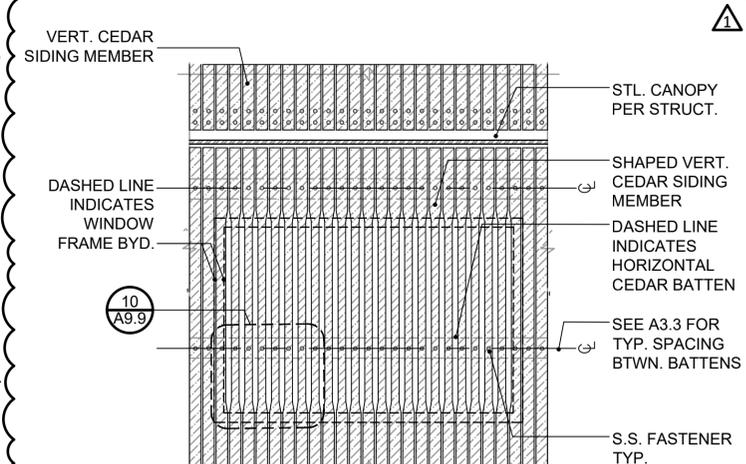


**9** TYP. GABLE WALL SECTION  
1 1/2" = 1'-0"

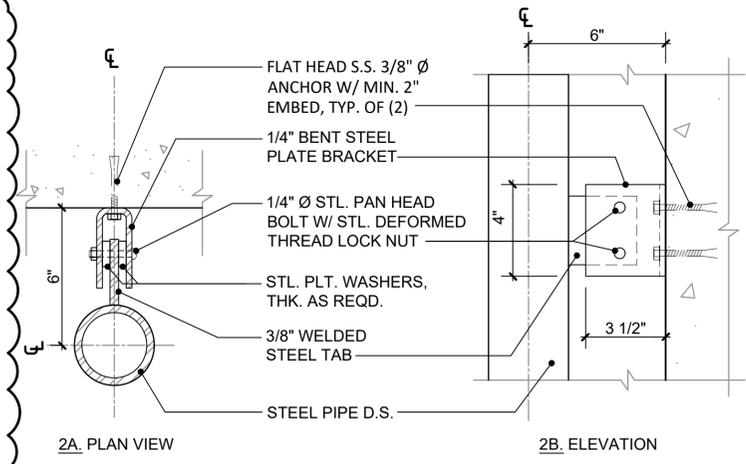
FILE	ENGR.	REVIEW	SCALE	DATE
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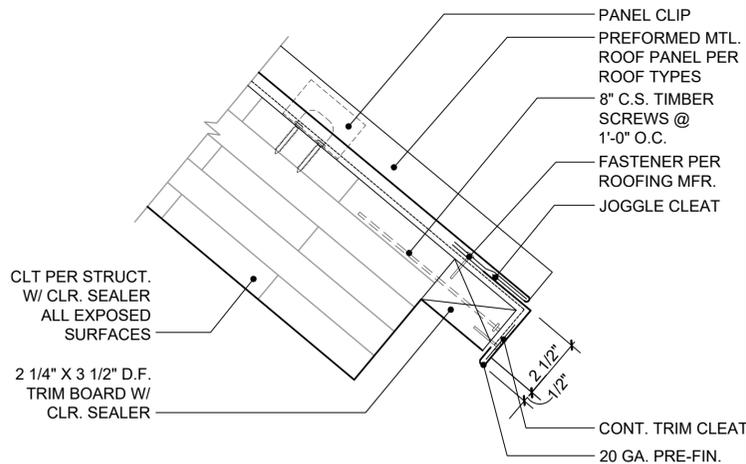
10 TYP. VENT STACK @ MTL. ROOF  
NTS



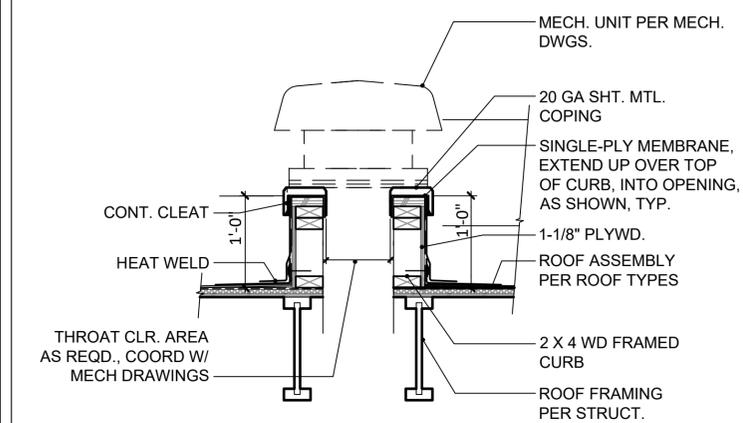
3 SHAPED SIDING MEMBERS AT WINDOW  
1" = 1'-0"



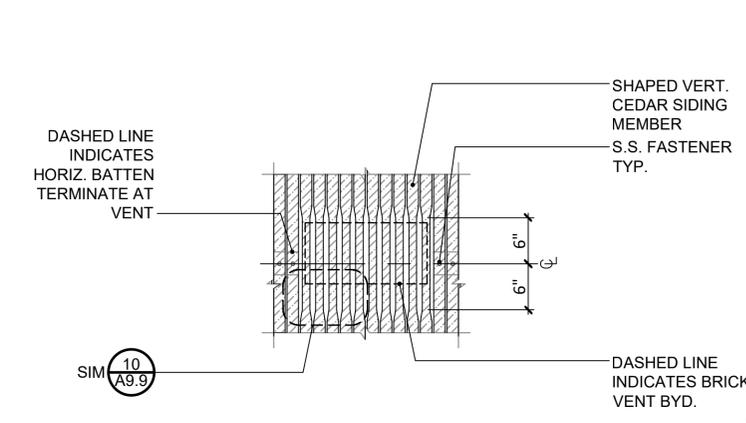
2 DOWNSPOUT BRACKET PLAN/ELEV.  
3" = 1'-0"



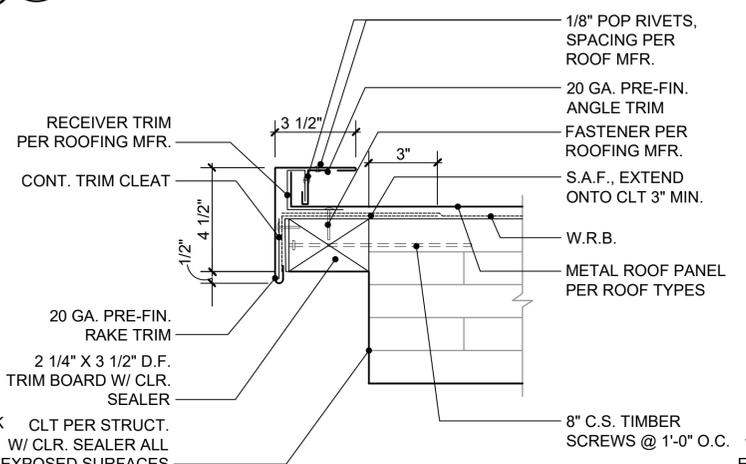
1 PAVILION ROOF EAVE DETAIL  
3" = 1'-0"



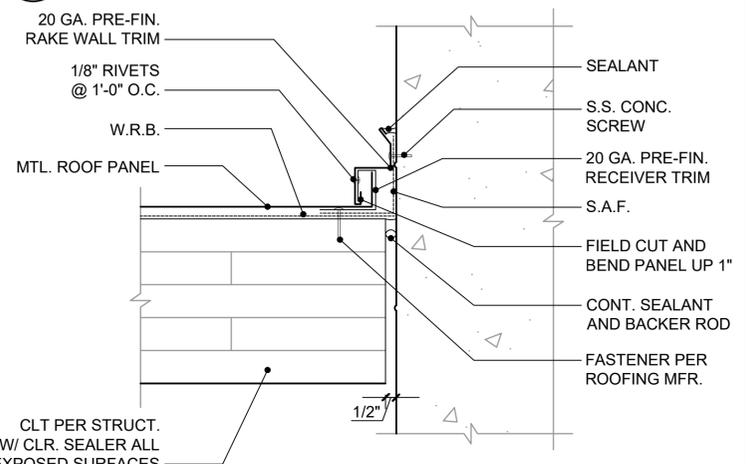
8 TYP. MECH. CURB @ LOW SLOPE ROOF  
1" = 1'-0"



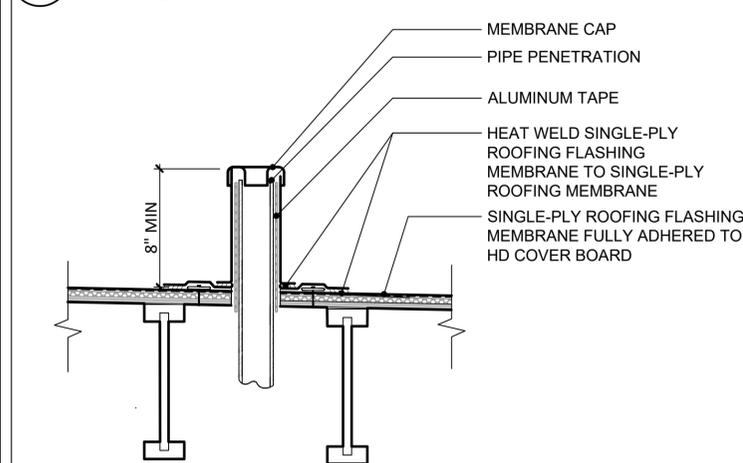
7 SHAPED SIDING MEMBERS AT VENT  
1" = 1'-0"



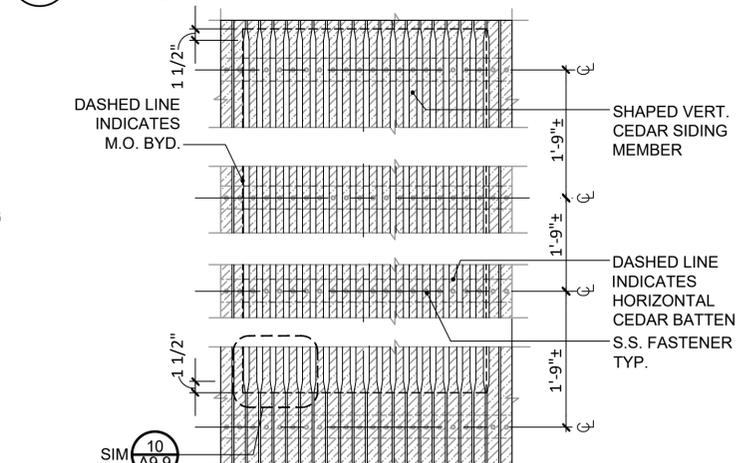
6 PAVILION ROOF RAKE DETAIL  
3" = 1'-0"



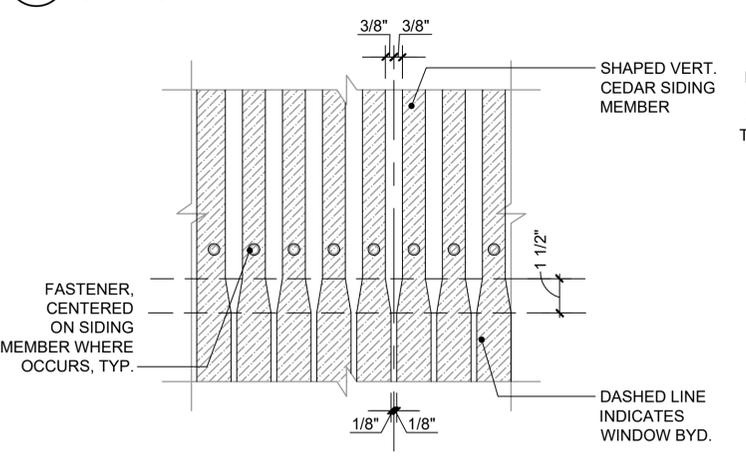
5 PAVILION ROOF RAKE @ CONC. WALL  
3" = 1'-0"



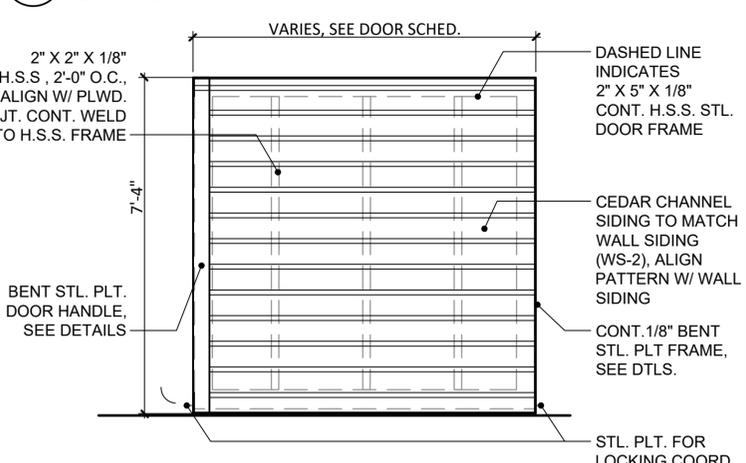
12 TYP. VENT STACK @ LOW SLOPE ROOF  
1 1/2" = 1'-0"



11 SHAPED SIDING MEMBERS AT WINDOW  
1" = 1'-0"



10 WINDOW / VENT OPENING - DETAIL  
3" = 1'-0"



9 SLIDING EXTERIOR WOOD DOOR  
1/2" = 1'-0"



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JUANITA BEACH PARK  
BATHHOUSE REPLACEMENT  
EXTERIOR DETAILS

SHEET  
A9.9

**GENERAL STRUCTURAL NOTES**

(The following apply unless shown otherwise on the plans)

**CRITERIA**

- ALL MATERIALS, WORKMANSHIP, DESIGN, AND CONSTRUCTION SHALL CONFORM TO THE DRAWINGS, SPECIFICATIONS, THE 2015 EDITION OF THE INTERNATIONAL BUILDING CODE (IBC).
- DESIGN LOADING CRITERIA
  - ROOF SNOW LOAD ..... 25 PSF
  - FLOOR LIVE LOAD (RETAIL) ..... 100 PSF OR 1,000 LBS.
  - WIND ..... ANALYSIS PROCEDURE: ASCE 7-10 CHAPTER 27 "PART II- ENCLOSED SIMPLE DIAPHRAGM" RISK CATEGORY II 110 MPH EXPOSURE "C" TOPOGRAPHIC FACTOR  $K_{zt} = 1.0$  NORTH BUILDING WIND BASE SHEAR, NORTH/SOUTH  $V_w = 8.6$  K NORTH BUILDING WIND BASE SHEAR, EAST/WEST  $V_w = 12.5$  K SOUTH BUILDING WIND BASE SHEAR, NORTH/SOUTH  $V_w = 6.3$  K SOUTH BUILDING WIND BASE SHEAR, EAST/WEST  $V_w = 6.0$  K PAVILION WIND BASE SHEAR, NORTH/SOUTH  $V_w = 3.1$  K PAVILION WIND BASE SHEAR, EAST/WEST  $V_w = 2.4$  K
  - EARTHQUAKE ..... ANALYSIS PROCEDURE: IBC @EQUIVALENT LATERAL FORCE PROCEDUREA SEISMIC DESIGN CATEGORY (SDC) = D RISK CATEGORY = II SEISMIC SITE CLASS = D IMPORTANCE FACTOR  $I_e = 1.0$  MAPPED MCE  $S_s = 1.25$ ;  $S_1 = 0.48$  DESIGN ACCELERATION  $S_{ds} = 0.83$ ;  $S_{d1} = 0.49$  SEISMIC RESISTING SYSTEM: WOOD PANEL BEARING SHEAR WALL,  $R = 6.5$  SEISMIC RESISTING SYSTEM: SPECIAL MASONRY & CONCRETE SHEAR WALLS,  $R = 5$  NORTH BUILDING SEISMIC BASE SHEAR  $V_s = 19.1$  K SOUTH BUILDING SEISMIC BASE SHEAR  $V_s = 7.9$  K PAVILION SEISMIC BASE SHEAR  $V_s = 5.9$  K
- LATERAL LOADS ARE TRANSFERRED BY THE ROOF AND FLOOR DIAPHRAGMS TO THE SHEAR WALLS. FORCES ARE BASED ON THE TRIBUTARY AREA FOR EACH SHEAR WALL AND ARE CARRIED BY THE SHEAR WALLS TO THE FOUNDATION.
- STRUCTURAL DRAWINGS SHALL BE USED IN CONJUNCTION WITH ARCHITECTURAL DRAWINGS FOR BIDDING AND CONSTRUCTION. CONTRACTOR SHALL VERIFY DIMENSIONS AND CONDITIONS FOR COMPATIBILITY AND SHALL NOTIFY ARCHITECT OF ANY DISCREPANCIES PRIOR TO CONSTRUCTION.
- CONTRACTOR SHALL VERIFY ALL EXISTING DIMENSIONS, MEMBER SIZES, AND CONDITIONS PRIOR TO COMMENCING ANY WORK. ALL DIMENSIONS OF EXISTING CONSTRUCTION SHOWN ON THE DRAWINGS ARE INTENDED AS GUIDELINES ONLY AND MUST BE VERIFIED.
- CONTRACTOR SHALL PROVIDE TEMPORARY BRACING FOR THE STRUCTURE AND STRUCTURAL COMPONENTS UNTIL ALL FINAL CONNECTIONS HAVE BEEN COMPLETED IN ACCORDANCE WITH THE PLANS.
- CONTRACTOR SHALL BE RESPONSIBLE FOR ALL SAFETY PRECAUTIONS AND THE METHODS, TECHNIQUES, SEQUENCES OR PROCEDURES REQUIRED TO PERFORM THEIR WORK. THE STRUCTURAL ENGINEER HAS NO OVERALL SUPERVISORY AUTHORITY OR ACTUAL AND/OR DIRECT RESPONSIBILITY FOR THE SPECIFIC WORKING CONDITIONS AT THE SITE AND/OR FOR ANY HAZARDS RESULTING FROM THE ACTIONS OF ANY TRADE CONTRACTOR. THE STRUCTURAL ENGINEER HAS NO DUTY TO INSPECT, SUPERVISE, NOTE, CORRECT, OR REPORT ANY HEALTH OR SAFETY DEFICIENCIES OF THE OWNER, CONTRACTORS, OR OTHER ENTITIES OR PERSONS AT THE PROJECT SITE.
- CONTRACTOR-INITIATED CHANGES SHALL BE SUBMITTED IN WRITING TO THE ARCHITECT AND STRUCTURAL ENGINEER FOR APPROVAL PRIOR TO FABRICATION OR CONSTRUCTION. CHANGES SHOWN ON SHOP DRAWINGS ONLY WILL NOT SATISFY THIS REQUIREMENT.
- DRAWINGS INDICATE GENERAL AND TYPICAL DETAILS OF CONSTRUCTION. WHERE CONDITIONS ARE NOT SPECIFICALLY INDICATED BUT ARE OF SIMILAR CHARACTER TO DETAILS SHOWN, SIMILAR DETAILS OF CONSTRUCTION SHALL BE USED, SUBJECT TO REVIEW AND APPROVAL BY THE ARCHITECT AND THE STRUCTURAL ENGINEER. WHERE INFORMATION ON THE DRAWINGS IS IN CONFLICT WITH THE SPECIFICATIONS, THE MORE STRINGENT SHALL APPLY, SUBJECT TO REVIEW AND APPROVAL BY THE ARCHITECT AND THE STRUCTURAL ENGINEER. DO NOT SCALE THE DRAWINGS.
- ALL STRUCTURAL SYSTEMS WHICH ARE COMPOSED OF FIELD ERECTED COMPONENTS SHALL BE SUPERVISED BY THE SUPPLIER DURING MANUFACTURING, DELIVERY, HANDLING, STORAGE AND ERECTION IN ACCORDANCE WITH INSTRUCTIONS PREPARED BY THE SUPPLIER.
- SHOP DRAWINGS FOR REINFORCING STEEL (FOR BOTH CONCRETE AND MASONRY CONSTRUCTION) AND PLYWOOD WEB JOISTS SHALL BE SUBMITTED TO THE ARCHITECT AND STRUCTURAL ENGINEER FOR REVIEW PRIOR TO FABRICATION OF THESE ITEMS.
- SHOP DRAWING REVIEW: DIMENSIONS AND QUANTITIES ARE NOT REVIEWED BY THE ENGINEER OF RECORD, AND THEREFORE MUST BE VERIFIED BY THE CONTRACTOR. CONTRACTOR SHALL REVIEW AND STAMP DRAWINGS PRIOR TO REVIEW BY ENGINEER OF RECORD. CONTRACTOR SHALL REVIEW DRAWINGS FOR CONFORMANCE WITH THE MEANS, METHODS, TECHNIQUES, SEQUENCES AND OPERATIONS OF CONSTRUCTION, AND ALL SAFETY PRECAUTIONS AND PROGRAMS INCIDENTAL THERETO.

- SHOP DRAWING SUBMITTALS PROCESSED BY THE ENGINEER ARE NOT CHANGE ORDERS. THE PURPOSE OF SHOP DRAWING SUBMITTALS BY THE CONTRACTOR IS TO DEMONSTRATE TO THE ENGINEER THAT THE CONTRACTOR UNDERSTANDS THE DESIGN CONCEPT, BY INDICATING WHICH MATERIAL IS INTENDED TO BE FURNISHED AND INSTALLED AND BY DETAILING THE INTENDED FABRICATION AND INSTALLATION METHODS. IF DEVIATIONS, DISCREPANCIES, OR CONFLICTS BETWEEN SHOP DRAWING SUBMITTALS AND THE CONTRACT DOCUMENTS ARE DISCOVERED EITHER PRIOR TO OR AFTER SHOP DRAWING SUBMITTALS ARE PROCESSED BY THE ENGINEER, THE DESIGN DRAWINGS AND SPECIFICATIONS SHALL CONTROL AND SHALL BE FOLLOWED.
- SPECIAL INSPECTION: CONCRETE CONSTRUCTION, MASONRY CONSTRUCTION, STRUCTURAL STEEL FABRICATION AND ERECTION (INCLUDING FIELD WELDING), EXPANSION BOLTS AND THREADED EXPANSION INSERTS, SCREW ANCHORS AND EPOXY GROUTED INSTALLATIONS SHALL BE SUPERVISED IN ACCORDANCE WITH IBC SECTIONS 1704 & 1705 AND THE PROJECT SPECIFICATIONS BY A QUALIFIED TESTING AGENCY DESIGNATED BY THE OWNER. THE TESTING AGENCY SHALL SEND COPIES OF ALL STRUCTURAL TESTING AND INSPECTION REPORTS DIRECTLY TO THE OWNER, ARCHITECT, STRUCTURAL ENGINEER, CONTRACTOR AND BUILDING OFFICIAL. ANY MATERIALS WHICH FAIL TO MEET PROJECT SPECIFICATIONS SHALL BE BROUGHT TO THE ATTENTION OF THE ARCHITECT.

**GEOTECHNICAL**

- FOUNDATION NOTES: SUBGRADE PREPARATION INCLUDING DRAINAGE, EXCAVATION, COMPACTION, AND FILLING REQUIREMENTS, SHALL CONFORM STRICTLY WITH RECOMMENDATIONS GIVEN IN THE GEOTECHNICAL REPORT OR AS DIRECTED BY THE GEOTECHNICAL ENGINEER. FOOTINGS SHALL BEAR ON SOLID UNDISTURBED EARTH (CONTROLLED, COMPACTED STRUCTURAL FILL OR BOTH) AT LEAST 18" BELOW LOWEST ADJACENT FINISHED GRADE. FOOTING DEPTHS/ELEVATIONS SHOWN ON PLANS (OR IN DETAILS) ARE MINIMUM AND FOR GUIDANCE ONLY; THE ACTUAL ELEVATIONS OF FOOTINGS MUST BE ESTABLISHED BY THE CONTRACTOR IN THE FIELD WORKING WITH THE TESTING LAB AND GEOTECHNICAL ENGINEER. UNLESS OTHERWISE NOTED, FOOTINGS SHALL BE CENTERED UNDER COLUMNS OR WALLS ABOVE.

BACKFILL BEHIND ALL RETAINING WALLS WITH FREE DRAINING GRANULAR FILL AND PROVIDE FOR SUBSURFACE DRAINAGE AS NOTED IN THE GEOTECHNICAL REPORT.

ALLOWABLE SOIL PRESSURE	2,000 PSF
LATERAL EARTH PRESSURE (RESTRAINED/UNRESTRAINED)	55 PCF/35 PCF
PASSIVE SOIL PRESSURE	300 PCF
SOIL COEFFICIENT OF FRICTION	0.35
SOIL DENSITY	120 PCF

**1** GEOTECHNICAL REPORT REFERENCE: #22-1-22161-008 BY SHANNON & WILSON, INC. DATED APRIL 19, 2017.

**CONCRETE**

- CONCRETE SHALL BE MIXED, PROPORTIONED, CONVEYED AND PLACED IN ACCORDANCE WITH ACI 301. CONSTRUCTION TOLERANCES SHALL NOT EXCEED THOSE LISTED IN ACI 117. CONCRETE SHALL ATTAIN A 28 DAY STRENGTH OF  $f'_c = 2,500$  PSI AND MIX SHALL CONTAIN NOT LESS THAN 5-1/2 SACKS OF CEMENT PER CUBIC YARD AND SHALL BE PROPORTIONED TO PRODUCE A SLUMP OF 5" OR LESS (BEFORE THE ADDITION OF ADMIXTURES). THE WATER/CEMENT RATIO SHALL NOT EXCEED 0.55 FOR FOOTINGS AND 0.45 FOR ALL SLABS AND EXPOSED CONCRETE UNLESS OTHERWISE NOTED. EXCEPT FOR FOOTINGS AND SLAB ON GRADE, AGGREGATE SIZE SHALL NOT EXCEED 3/4".

THE MINIMUM AMOUNT OF CEMENT AND THE MAXIMUM SLUMP MAY BE CHANGED IF A CONCRETE PERFORMANCE MIX IS SUBMITTED TO THE STRUCTURAL ENGINEER AND THE BUILDING DEPARTMENT FOR APPROVAL TWO WEEKS PRIOR TO PLACING ANY CONCRETE. THE CONCRETE PERFORMANCE MIX SHALL INCLUDE THE AMOUNTS OF CEMENT, CEMENTITIOUS MATERIAL, FINE AND COARSE AGGREGATE, WATER AND ADMIXTURES AS WELL AS THE WATER CEMENT RATIO, SLUMP, CONCRETE YIELD AND SUBSTANTIATING STRENGTH DATA IN ACCORDANCE WITH ACI 301. CHEMICAL ADMIXTURES AND FLY ASH SHALL CONFORM TO ASTM C494 AND C681 RESPECTIVELY. FLY ASH PERCENTAGE OF TOTAL CEMENTITIOUS MATERIAL SHALL NOT EXCEED 20%. THE USE OF A PERFORMANCE MIX REQUIRES BATCH PLANT INSPECTION, THE COST OF WHICH SHALL BE BROUGHT TO THE ATTENTION OF THE OWNER. REVIEW OF MIX SUBMITTALS BY THE ENGINEER OF RECORD INDICATES ONLY THAT INFORMATION PRESENTED CONFORMS GENERALLY TO CONTRACT DOCUMENTS. CONTRACTOR MAINTAINS FULL RESPONSIBILITY FOR SPECIFIED PERFORMANCE.

ALL CONCRETE WITH SURFACES EXPOSED TO STANDING WATER SHALL BE AIR ENTRAINING WITH AN AIR ENTRAINING AGENT CONFORMING TO ASTM C260. TOTAL AIR CONTENT FOR FROST-RESISTANT CONCRETE SHALL BE IN ACCORDANCE WITH ACI 318-14 TABLE 19.3.3.1. ALL CONCRETE EXPOSED TO THE WEATHER AND ALL GARAGE SLABS-ON-GRADE SHALL OBTAIN A 28-DAY STRENGTH  $f'_c$  OF 3,000 PSI IN ACCORDANCE WITH ACI 318 TABLE 19.3.2.1 AND IBC SECTION 1904.1. THIS INCREASE IN REQUIRED STRENGTH IS FOR DURABILITY ONLY (SPECIAL INSPECTION IS NOT REQUIRED). ALL CONCRETE TO RECEIVE A STEEL TROMELED FINISH SHALL NOT BE AIR-ENTRAINED.

CONCRETE USED FOR ELEVATED SLABS SHALL HAVE A SHRINKAGE LIMIT OF 0.035 PERCENT AT 28 DAYS AS TESTED BY ASTM C157. IF TESTING IS NOT PERFORMED, THE WATER CONTENT OF THE MIX SHALL NOT EXCEED 235 LB./CU. YD OF CONCRETE.

CONCRETE MAY BE PLACED BY THE "SHOTCRETE" METHOD, PROVIDED THE APPROVALS, TESTS, AND INSPECTIONS REQUIRED BY THE BUILDING DEPARTMENT ARE OBTAINED. SHOTCRETE MATERIALS, EQUIPMENT, PROCEDURES, PROPORTIONS, BATCHING AND MIXING AND PLACEMENT SHALL BE IN ACCORDANCE WITH ACI 506R, ACI 506.2 AND IBC SECTION 1908.

- REINFORCING STEEL SHALL CONFORM TO ASTM A615 (INCLUDING SUPPLEMENT S1), GRADE 60,  $f_y = 60,000$  PSI. EXCEPTIONS: ANY BARS SPECIFICALLY SO NOTED ON THE DRAWINGS AS GRADE 40 SHALL HAVE  $f_y = 40,000$  PSI. GRADE 60 REINFORCING STEEL INDICATED ON DRAWINGS TO BE WELDED SHALL CONFORM TO ASTM A706. REINFORCING STEEL COMPLYING WITH ASTM A615 (S1) MAY BE WELDED ONLY IF MATERIAL PROPERTY REPORTS INDICATING CONFORMANCE WITH WELDING PROCEDURES SPECIFIED IN A.M.S. D1.4 ARE SUBMITTED.

LONGITUDINAL REINFORCING STEEL IN DUCTILE FRAME MEMBERS AND IN SHEAR WALL BOUNDARY MEMBERS SHALL COMPLY WITH ASTM A706. ASTM A615 GRADE 60 REINFORCING STEEL IS ALLOWED IN THESE MEMBERS IF (A) THE ACTUAL YIELD STRENGTH BASED ON MILL TESTS DOES NOT EXCEED THE SPECIFIED YIELD STRENGTH BY MORE THAN 18,000 PSI (RETESTS SHALL NOT EXCEED THIS VALUE BY MORE THAN AN ADDITIONAL 3,000 PSI) AND (B) THE RATIO OF THE ACTUAL ULTIMATE TENSILE STRESS TO THE ACTUAL TENSILE YIELD STRENGTH IS NOT LESS THAN 1.25.

WELDED WIRE FABRIC SHALL CONFORM TO ASTM A1064. LAP ADJACENT MATS OF WELDED WIRE FABRIC A MINIMUM OF 8" AT SIDES AND ENDS.

SPIRAL REINFORCEMENT SHALL BE PLAIN WIRE CONFORMING TO ASTM A615, GRADE 60,  $f_y = 60,000$  PSI.

- REINFORCING STEEL SHALL BE DETAILED (INCLUDING HOOKS AND BENDS) IN ACCORDANCE WITH ACI 315 AND 318. LAP ALL CONTINUOUS REINFORCEMENT #5 AND SMALLER 60 BAR DIAMETERS, 2'-0" MINIMUM. PROVIDE CORNER BARS AT ALL WALL AND FOOTING INTERSECTIONS. LAP CORNER BARS #5 AND SMALLER 60 BAR DIAMETERS OR 2'-0" MINIMUM. LAPS OF LARGER BARS SHALL BE MADE IN ACCORDANCE WITH ACI 318, CLASS B. LAP ADJACENT MATS OF WELDED WIRE FABRIC A MINIMUM OF 8" AT SIDES AND ENDS. PROVIDE (2) #5 MIN. U.N.O. TRIM BARS AROUND ALL OPENINGS IN CONCRETE WALLS OR SLABS EXTENDING 2'-6" PAST CORNERS, TYPICAL.

NO BARS PARTIALLY EMBEDDED IN HARDENED CONCRETE SHALL BE FIELD BENT UNLESS SPECIFICALLY SO DETAILED OR APPROVED BY THE STRUCTURAL ENGINEER. NO REINFORCING BARS SHALL BE @NET-BETA INTO THE CONCRETE. PROVIDE A 20' LONG REBAR GROUND (UFER GROUND) PER ELECTRICIAN.

- CONCRETE PROTECTION (COVER) FOR REINFORCING STEEL SHALL BE AS FOLLOWS:

FOOTINGS AND OTHER UNFORMED SURFACES CAST AGAINST AND PERMANENTLY EXPOSED TO EARTH	3"
FORMED SURFACES EXPOSED TO EARTH (i.e. WALLS BELOW GROUND) OR WEATHER (#5 BARS OR LARGER)	1-1/2"
COLUMN TIES OR SPIRALS AND BEAM STIRRUPS	1-1/2"
SLABS AND WALLS (INTERIOR FACE)	GREATER OF (BAR DIAMETER PLUS 1/8") OR 3/4"

- CONCRETE WALL REINFORCING--PROVIDE THE FOLLOWING UNLESS DETAILED OTHERWISE:

WALL THICKNESS	VERTICAL BARS	HORIZONTAL BARS
10" WALLS	#5 @ 9" 2 CURTAINS	#4 @ 16" 2 CURTAINS

- CAST-IN-PLACE CONCRETE: SEE ARCHITECTURAL DRAWINGS FOR EXACT LOCATIONS AND DIMENSIONS OF DOOR AND WINDOW OPENINGS IN ALL CONCRETE WALLS. SEE MECHANICAL DRAWINGS FOR SIZE AND LOCATION OF MISCELLANEOUS MECHANICAL OPENINGS THROUGH CONCRETE WALLS. SEE ARCHITECTURAL DRAWINGS FOR ALL GROOVES, NOTCHES, CHAMFERS, FEATURE STRIPS, COLOR, TEXTURE, AND OTHER FINISH DETAILS AT ALL EXPOSED CONCRETE SURFACES. CONCRETE CHAMFER AT CORNERS 1/2", TYP.

- NON-SHRINK GROUT SHALL BE NON-METALLIC CONFORMING TO ASTM C1107 AND BE FURNISHED BY AN APPROVED MANUFACTURER AND SHALL BE MIXED AND PLACED IN STRICT ACCORDANCE WITH THE MANUFACTURER'S PUBLISHED RECOMMENDATIONS. GROUT STRENGTH SHALL BE AT LEAST EQUAL TO THE MATERIAL ON WHICH IT IS PLACED (5000 PSI MINIMUM).

**ANCHORAGE**

- EXPANSION BOLTS INTO CONCRETE SHALL BE "STRONG-BOLT 2 WEDGE ANCHOR", AS MANUFACTURED BY SIMPSON STRONG-TIE ANCHOR SYSTEMS. INSTALL IN STRICT ACCORDANCE WITH I.C.C. REPORT NO. ESR-3037 INCLUDING STANDARD EMBEDMENT REQUIREMENTS U.O.N. PROPOSED SUBSTITUTIONS SHALL BE SUBMITTED FOR REVIEW WITH I.C.C. OR IAPMO UES REPORTS INDICATING EQUIVALENT OR GREATER LOAD CAPACITIES. SPECIAL INSPECTION IS REQUIRED FOR ALL EXPANSION BOLT INSTALLATION.

- EXPANSION BOLTS INTO GROUT FILLED CMU SHALL BE "STRONG-BOLT 2 WEDGE ANCHOR", AS MANUFACTURED BY SIMPSON STRONG-TIE ANCHOR SYSTEMS. INSTALL IN STRICT ACCORDANCE WITH IAPMO UES REPORT NO. ER-240 INCLUDING STANDARD EMBEDMENT REQUIREMENTS U.O.N. PROPOSED SUBSTITUTIONS SHALL BE SUBMITTED FOR REVIEW WITH I.C.C. OR IAPMO UES REPORTS INDICATING EQUIVALENT OR GREATER LOAD CAPACITIES. SPECIAL INSPECTION IS REQUIRED FOR ALL EXPANSION BOLT INSTALLATION.

- SCREW ANCHORS INTO GROUT FILLED CMU SHALL BE "TITEN HD", AS MANUFACTURED BY SIMPSON STRONG-TIE ANCHOR SYSTEMS. INSTALL IN STRICT ACCORDANCE WITH I.C.C. REPORT NO. ESR-1056 INCLUDING STANDARD EMBEDMENT REQUIREMENTS U.O.N. PROPOSED SUBSTITUTIONS SHALL BE SUBMITTED FOR REVIEW WITH I.C.C. OR IAPMO UES REPORTS INDICATING EQUIVALENT OR GREATER LOAD CAPACITIES. SPECIAL INSPECTION IS NOT REQUIRED FOR ALL SCREW ANCHOR INSTALLATION.



603 STEWART ST. SUITE 500 SEATTLE, WA 98101



1511 THIRD AVENUE SUITE 323 SEATTLE, WA 98101 TEL 206.967.3900 FAX 206.967.3901 www.quantumce.com PROJECT NO. 16428.01



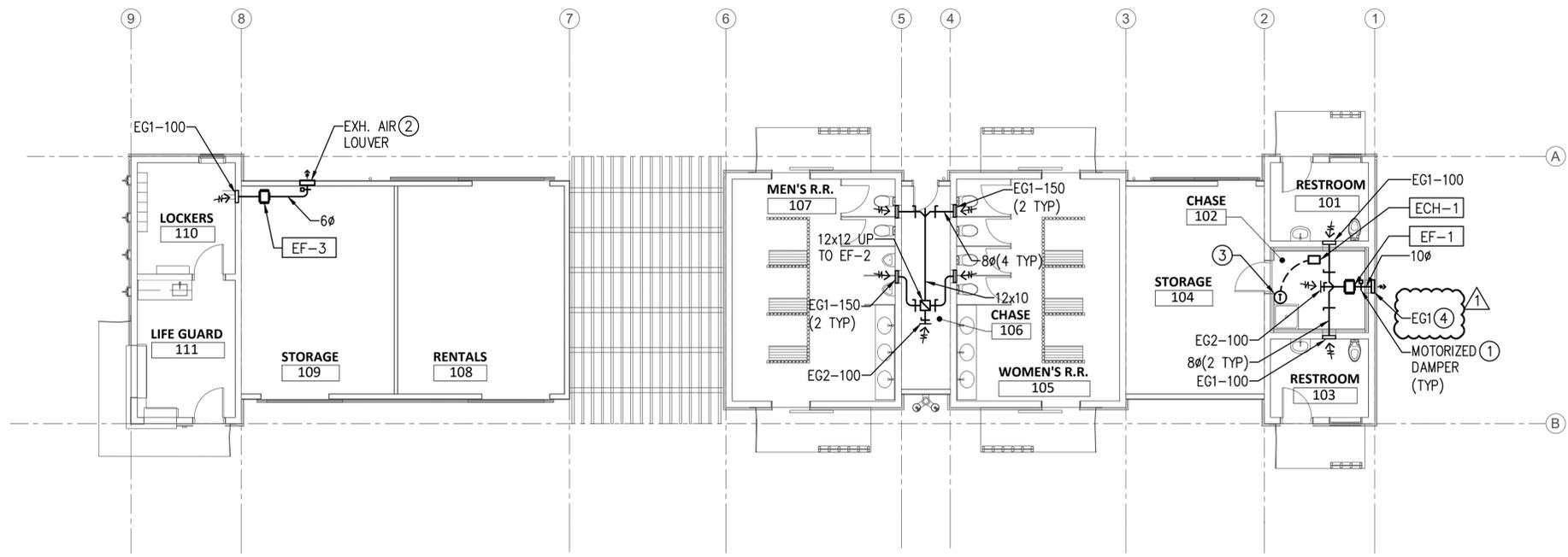
FILE	ENGR.	REVIEW	SCALE	DATE
	JHW	JHW	AS SHOWN	09/30/2019
1	ADDENDUM NO. 1			11/07/2019
NO.	REVISION	BY	REVIEW	DATE



**CITY OF KIRKLAND**  
PUBLIC WORKS DEPARTMENT  
123 FIFTH AVENUE - KIRKLAND, WA 98035-8189 - (206)828-1243  
CPK 0119 100  
**JUANITA BEACH PARK**  
**BATHHOUSE REPLACEMENT**  
GENERAL STRUCTURAL NOTES

SHEET

S1.0



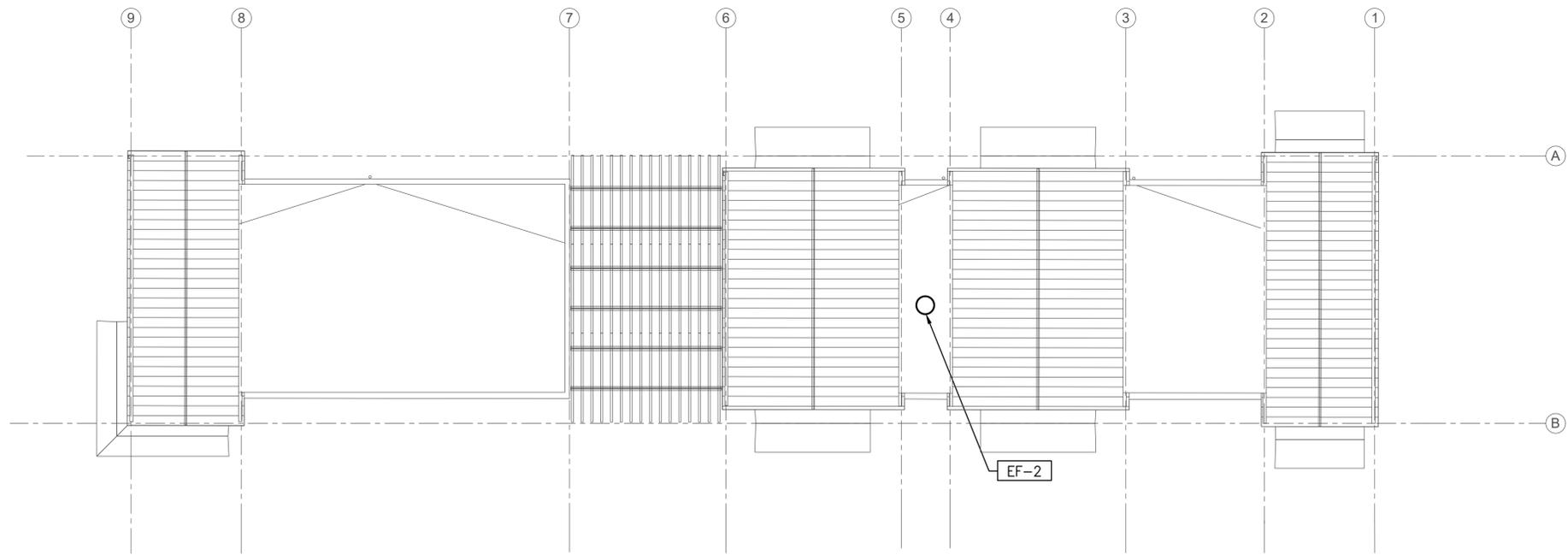
**PLAN NOTES:**

1. ALL DUCTWORK SHALL BE GALVANIZED SHEET METAL UNLESS OTHERWISE NOTED AND INSTALLED IN ACCORDANCE WITH SMACNA REQUIREMENTS. ALL DUCTWORK ON THIS PROJECT SHALL BE LOW PRESSURE TYPE.
2. FLEXIBLE CONNECTORS: PROVIDE UL LISTED 181 FLEXIBLE CONNECTORS PER INTERNATIONAL MECHANICAL CODE SECTION 603.2.1.
3. REFER TO SHEET M2.1 FOR DETAILS OF DUCT HANGERS AND CONNECTIONS TO STRUCTURE.
4. NOTE THAT MECHANICAL EQUIPMENT AND DUCTWORK LOCATED IN CHASE 102 SHALL BE INSTALLED BELOW THE CEILING, AS TIGHT TO CEILING AS POSSIBLE.

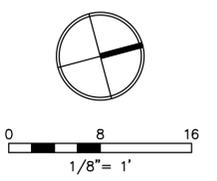
1 BATHHOUSE - MECHANICAL FLOOR PLAN  
1/8" = 1'-0"

**KEY NOTES:**

- 1 CLASS 1 MOTORIZED DAMPER. BASIS FOR DESIGN: GREENHECK VCD-23 SERIES WITH 120-VOLT ACTUATOR. ACTUATOR SHALL POWER OPEN AND CLOSE UPON POWER FAILURE.
- 2 LOUVER SPECIFIED BY ARCHITECT AND INSTALLED BY GENERAL CONTRACTOR. MECHANICAL TO PROVIDE 4-INCH DEEP SHEET METAL PLENUM ON THE INSIDE SIDE OF LOUVER FOR DUCT CONNECTION.
- 3 MOUNT THERMOSTAT ON INSULATED BASE. THERMOSTAT SETPOINT = 45-DEG F.
- 4 MECHANICAL TO PROVIDE 4-INCH DEEP SHEET METAL PLENUM ON THE INSIDE SIDE OF GRILLE FOR DUCT CONNECTION.



1 BATHHOUSE - MECHANICAL ROOF PLAN  
1/8" = 1'-0"



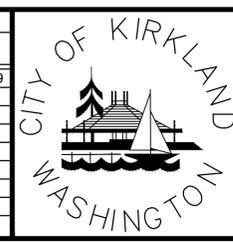
603 STEWART ST. SUITE 500 SEATTLE, WA 98101



336 NW 50th Street, Seattle, WA 98107  
Phone: 206.235.6002  
rainbowconsulting-me.com



FILE	ENGR.	REVIEW	SCALE	DATE
	SPR		AS SHOWN	9/30/2019
1	ADDENDUM NO. 1			11/07/2019
NO.	REVISION	BY	REVIEW	DATE



**CITY OF KIRKLAND**  
PUBLIC WORKS DEPARTMENT  
123 FIFTH AVENUE - KIRKLAND, WA 98033-6189 - (206)828-1243  
CPK 0119 100  
**JUANITA BEACH PARK**  
**BATHHOUSE REPLACEMENT**  
MECHANICAL PLANS

SHEET  
**M1.1**

**Building Department Conditions:**

Inspections Required:

1. Foundation and Footing
  2. Underground Trade
  3. Underground Roof Drainage
  4. Masonry Lifts @ 4 Feet
  5. Roof Sheathing
  6. Trade Roughs
  7. Framing
  8. Insulation
  9. Finals
- 

**Fire Department Conditions:**

FIRE DEPARTMENT COMMENTS

Contact: Grace Steuart at 425-587-3660; or [gsteuart@kirklandwa.gov](mailto:gsteuart@kirklandwa.gov)

FIRE EXTINGUISHERS

Portable fire extinguishers are required per Section 906 of the IFC. Minimum rating is 2A10BC. See approved plans for locations. Extinguishers shall be mounted or in cabinets so that the top of the extinguisher is no more than 5 feet above the finished floor. Travel distance to a fire extinguisher shall not exceed 75 feet as measured along the route of travel.

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**Planning Department Conditions:**

Planning Department Conditions\*\* Contact Christian Geitz at 425.587.3246

- PCD 1. PLN TO PERFORM FINAL PRIOR TO BLD - BUILDING PERMIT INSPECTION CARD MUST BE SIGNED OFF BY PLANNING PRIOR TO ANY REQUEST FOR FINAL BUILDING INSPECTION. PLEASE CALL 425-587-3235 TO REQUEST INSPECTION. 24 HOUR ADVANCE NOTICE REQUIRED FOR INSPECTION.
- PCD 2. ZONING PERMIT DECISION AND CONDITIONS – Construction shall comply with all conditions of approval established under the Shoreline Variance Permit SHR19-00096 and through the final Department of Ecology decision. Final inspection will be contingent upon compliance with all applicable restoration, mitigation, and installation standards.
- PCD 3. REVISED SITE PLAN - Any proposed changes to the approved site plan must be submitted as a revision to the building permit for review and approval prior to implementation.
- PCD 4. TREE INSTALLATION - All supplemental trees required to be planted shall conform to the Kirkland Plant List. All installation and maintenance standards shall conform to Kirkland Zoning Code Sections 95.45 and 95.50.
- PCD 5. LOT COVERAGE - Any proposed increase in the total impervious surfaces on the site must be submitted for review as a revision to this building permit prior to the addition of impervious area. All exempted surfaces calculated at a ratio of 50 percent shall be installed in accordance with the current stormwater design manual and comply with the City's erosion plan notes for treatment during construction.
- PCD 6. ALL - PROHIBITED VEGETATION - Plants listed as prohibited in the Kirkland Plant List (available from the Planning Department) shall not be planted in the City. These plants include Blackberry, Fragrant water lily, Ivy, Herb Robert, Knotweed, Old man's beard, Poison hemlock, Reed canary grass, Scotch broom, Spurge laurel, Yellow archangel, and Yellow flag iris. Other plants, while not prohibited, are discouraged, including Butterfly bush, English holly, and English laurel.
- PCD 7. NON-NATIVE INVASIVE AND NOXIOUS PLANTS (KZC 95.51.5) - It is the responsibility of the property owner to remove non-native invasive plants and noxious plants from the vicinity of any tree or other vegetation that the City has required to be planted or protected. Removal must be performed in a manner that will not harm the tree or other vegetation that the City has required to be planted or protected. Prior to calling for a final inspection remove ivy from all trees from the ground up 5 feet above grade and from the trunk out 1 foot.
- PCD 8. ALL - HOURS OF CONSTRUCTION - All development activity and heavy equipment operation is restricted to 7:00 a.m. to 8:00 p.m. Monday through Friday, and 9:00 a.m. to 6:00 p.m. Saturday. Other restrictions on Saturday include: no working in the right-of-way, no work requiring inspection, and no trucking into or out of the site; however, light grading work on-site on Saturday is allowed. NO development activity or heavy equipment operation may occur on Sundays or the following holidays: New Year's Day, Memorial Day, Independence Day, Labor Day, Thanksgiving Day, and Christmas Day.
- PCD 9. WETLAND/STREAM BUFFER PROTECTION – Prior to beginning development activities, the applicant shall install a 6-foot-high construction-phase chain link fence or equivalent fence, as approved by the Planning Official, consistent with the site disturbance plan approved by the Planning Department and DOE under permit SHR19-00096. The

**Planning Department Conditions:**

construction-phase fence shall remain upright in the approved location for the duration of development activities.

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**Public Works Department Conditions:**

PUBLIC WORKS CONDITIONS

1. Refer to the Contract Documents for construction of the subject project, including but not limited to all terms, conditions, provisions, agreements, construction plans, specifications, addenda, and all applicable standards, codes, laws, and regulations.
  2. The CIP Division of Public Works will manage the construction process and provide inspections for right-of-way /street /public utilities improvements, for land surface modifications, and for construction stormwater pollution prevention /erosion and sediment control. Inspections may be provided by consultant(s) working on behalf of the CIP Division and/or by in-house staff, unless otherwise specified by the Contract Documents.
-

City of Kirkland  
 123 5th Avenue  
 Kirkland, WA 98033

**INSPECTION RECORD - THIS CARD MUST BE POSTED ON SITE**

Schedule an inspection by 6:00 PM for next day inspections  
 Schedule online at: [www.MyBuildingPermit.com](http://www.MyBuildingPermit.com)



Permit #: **BNR18-02893**

**How to request an inspection:**

- 1) Go to <http://www.MyBuildingPermit.com>
- 2) Select Kirkland as the Jurisdiction.
- 3) Select Permit Number or Address.
- 4) Follow the on-screen instructions.

BUILDING ADDRESS	PARCEL NUMBER	DATE PRINTED	PERMIT TYPE	WORKCLASS	SQ FT	VALUATION
9703 NE JUANITA DR	1791500425	10/24/19	Building Non Residential - BNR	New	0	\$1,868,770.00

**REQUIRED INSPECTIONS - DO NOT COVER ANY WORK PRIOR TO INSPECTION**

Inspection	IVR	Date	Insp	Inspection	IVR	Date	Insp
1 BLD - Footings/Setback/UFER	210	_____	_____				
2 BLD - Footing Perimeter Drains	209	_____	_____				
3 BLD - Tightline Exterior Roof Drain	273	_____	_____				
4 BLD - CMU Walls	228	_____	_____				
5 BLD - Exterior Wall Sheathing	253	_____	_____				
6 BLD - Roof Sheathing	252	_____	_____				
7 BLD - Exterior Membrane/Flashing	280	_____	_____				
8 BLD - Venting/Ventilation & Indoor Air Quality	283	_____	_____				
9 BLD - Draft & Fire Stopping & Caulking	246	_____	_____				
10 BLD - Framing	250	_____	_____				
11 BLD - Wall Insulation	260	_____	_____				
12 BLD - Attic/Roof Insulation	263	_____	_____				
13 BLD - Floor Insulation	262	_____	_____				
14 BLD - Other	201	_____	_____				
15 PCD - Tree Fencing Installation	605	_____	_____				
16 FIR - Final	795	_____	_____				
17 BLD - Final	295	_____	_____				

\* Note: 1st erosion control inspection is required prior to any excavation.

\* 2nd erosion control inspection is required after foundation backfill.

(These erosion control inspections only apply if they are listed on the above checklist)

Departmental staff: BLD is Building Dept, PW is Public Works Dept, PCD is Planning Dept, and FIR is Fire Dept

NOTE: THIS INSPECTION RECORD IS THE CERTIFICATE OF OCCUPANCY WHEN THE BUILDING FINAL INSPECTION HAS BEEN APPROVED



# BUILDING PERMIT

BNR18-02893

ELECTRONIC

9703 NE JUANITA DR



**City of Kirkland**  
123 Fifth Avenue  
Kirkland WA 98033  
425-587-3600

**Permit Number:** BNR18-02893  
**Type:** Building Non Residential - BNR  
**Work Class:** New

### Permit Information

**Plans Location:** Electronic

<b>Job Address:</b> 9703 NE JUANITA DR	<b>Project:</b> JUANITA BEACH PARK PHASE II-BATH HOUSE	<b>Application Date:</b> 04/30/2018
<b>Parcel:</b> 1791500425	<b>Valuation:</b> \$1,868,770.00	<b>Issue Date:</b> 10/25/2019
<b>Sprinklered:</b> 0	<b>Dwelling Units:</b> 0	<b>Expiration Date:</b> 10/25/2022
		<b>Code Edition:</b> 2015 IBC

### Scope of Work

Juanita Beach Park Bathhouse: Construct non-conditioned, naturally ventilated bathhouse structure. Existing structure to be demolished in its entirety. Project includes construction of picnic pavilions, associated grading & hard scape & construction of new play area.  
**Public Works:** CIP to provide inspections.

### Contacts

Type	Name	Address	Phone
Owner	CITY OF KIRKLAND	123 5TH AVE KIRKLAND, WA 98033	B: 425.587.3146 C:
Owner is Contractor	OWNER IS CONTRACTOR		B: C:

### General Conditions

- The issuance of this permit shall not be construed to be a permit for, or an approval of, any violation of any of the provisions of this code or of any other ordinances of the jurisdiction.
- The approved plans shall not be changed, modified, or altered without authorization from the building official.
- This permit, inspection record and approved plans are required to be on the job site at all times.
- All development activity and heavy equipment operation is restricted to 7:00 a.m. to 8:00 p.m., Monday through Friday, and 9:00 a.m. to 6:00 on Saturdays. No development activity or heavy equipment operation may occur on Sundays or holidays observed by the City.
- All work is subject to field inspection. Do not cover any work until approved by a City inspector.
- Inspection(s) required - Schedule on <http://MyBuildingPermit.com>
- Contact the Building Division at 425-587-3600 with any questions.

### SEE ATTACHED SHEET FOR SPECIFIC CONDITIONS

The City approved plans, permit and inspection record must remain on the job site for use by City inspection personnel.  
Any sales tax reported to the State in association with this project should be coded to the City of Kirkland tax location code 1716.  
I certify that the information furnished by me is true and correct to the best of my knowledge and the applicable City of Kirkland requirements will be met.

Owner or  Agent  
(Check one)

\_\_\_\_\_ (Print Name) \_\_\_\_\_ Date  
\_\_\_\_\_ (Signature)

April 19, 2017



Excellence. Innovation. Service. Value.  
*Since 1954.*

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## TABLE OF CONTENTS

	Page
1.0 INTRODUCTION.....	1
2.0 SITE AND PROJECT DESCRIPTION.....	1
3.0 SITE GEOLOGY .....	1
3.1 Regional Geology.....	1
3.2 Regional Tectonics and Seismicity .....	2
4.0 SUBSURFACE EXPLORATIONS .....	3
5.0 SUBSURFACE CONDITIONS.....	3
5.1 Soil .....	3
5.2 Groundwater.....	3
6.0 ENGINEERING RECOMMENDATIONS AND CONCLUSIONS .....	4
6.1 Earthquake-induced Geologic Hazards .....	4
6.2 Liquefaction Potential .....	4
6.3 Seismic Design .....	5
6.4 Lateral Spreading .....	6
6.5 Seismically Induced Settlement .....	6
6.6 Foundations .....	6
6.6.1 Spread Footings .....	7
6.6.2 Mat Foundations .....	7
6.7 Floor Slabs.....	7
6.8 Lateral Resistance .....	7
6.9 Base Footing Friction .....	8
6.10 Sewer Line Excavation.....	8
6.10.1 Temporary Excavation Slopes .....	8
6.10.2 Temporary Shoring .....	9
6.10.3 Dewatering.....	9
6.10.3.1 Hydraulic Conductivity .....	9
6.10.3.2 Dewatering Analysis .....	10
6.10.3.3 Dewatering-induced Settlement .....	10
6.10.3.4 Construction Dewatering Approach and Available Technologies .....	10
6.10.3.5 Construction Dewatering Recommendations.....	11
6.11 Subdrainage and Surface Water Drainage Control .....	12
7.0 CONSTRUCTION CONSIDERATIONS .....	13
7.1 Foundations .....	13
7.2 Fill Material, Placement, Compaction, and Use of On-site Soils .....	13
7.3 Wet Weather Earthwork.....	13

TABLE OF CONTENTS (cont.)

8.0 ADDITIONAL SERVICES .....14

9.0 CLOSURE.....15

10.0 REFERENCES.....17

**TABLE**

1 Earthquake Magnitude and Site Class D Peak Ground Accelerations .....5

**FIGURES**

1 Vicinity Map

2 Site and Exploration Plan

3 Typical Wall Drainage and Backfill

4 Recommended Surcharge Loading for Temporary and Permanent Walls

**APPENDICES**

A Subsurface Explorations

B Geotechnical Laboratory Test Results

C Hydrogeologic Testing and Groundwater Monitoring

D Important Information About Your Geotechnical/Environmental Report

**GEOTECHNICAL ENGINEERING REPORT  
JUANITA BEACH PARK BATHHOUSE  
KIRKLAND, WASHINGTON**

**1.0 INTRODUCTION**

Juanita Beach Park is located on Juanita Bay on the northeast side of Lake Washington in Kirkland, Washington, as illustrated on the Vicinity Map (Figure 1). The proposed facility improvements include a bathhouse structure, a sewer connection to an existing manhole, a pavilion, two play areas, and several pathways. The purpose of this study was to evaluate subsurface soil and groundwater conditions to aid in design and planning for proposed facilities improvements. Our geotechnical scope of services included drilling three soil borings, performing hydrogeologic testing, performing engineering analyses, and preparing this report. We researched available geotechnical engineering reports and geologic maps of the area. We reviewed the boring logs from the Juanita Bay Pumping Station project, located about 400 feet northwest of the proposed Bathhouse (Metropolitan Engineers, 1966).

**2.0 SITE AND PROJECT DESCRIPTION**

Juanita Beach Park slopes gently towards the south from about elevation 30 feet on the north side to elevation 18 feet on the south side at Lake Washington. The site includes grassy lawn areas, sidewalks, a beach on the south side, a parking lot on the north side, and an existing bathhouse and playground. A creek flows along the west side of the site into Lake Washington.

The proposed bathhouse will be approximately 2,000 to 3,000 square feet and will partially occupy the footprint of the existing playground. The bathhouse will connect a sewer line to an existing King County Metro manhole approximately 100 feet southeast of the bathhouse. We understand the existing bathhouse will be demolished. The proposed pavilion will cover approximately 1,000 square feet and will partially occupy the footprint of the existing bathhouse.

**3.0 SITE GEOLOGY**

**3.1 Regional Geology**

Kirkland is located in the central portion of the Puget Lowland, an elongated topographic and structural depression bordered by the Cascade Mountains on the east and the Olympic Mountains on the west. This lowland is characterized by low, rolling relief with some deeply cut ravines and broad valleys. In general, the ground surface elevation is within 500 feet of sea level.

The Puget Sound area underwent six or more major glaciations during the Pleistocene Epoch (2 million years ago to about 10,000 years ago), which filled the Puget Lowland to significant depths with a complex sequence of glacial and nonglacial (deposited during interglacial times) sediments. These glaciers originated in the coastal mountains of British Columbia. The maximum southward advance of the ice was about halfway between Olympia and Centralia (about 50 miles south of Seattle). During the most recent glaciation of the central Puget Lowland (Vashon Stade of Fraser Glaciation), the thickness of ice was about 3,000 feet in the project area, resulting in overconsolidation of the underlying soils. Since the last glaciation, complete or partial erosion of some deposits, as well as local deposition of alluvial deposits, further complicates the geology of the region.

### **3.2 Regional Tectonics and Seismicity**

Tectonically, the Puget Lowland is located in the fore arc of the Cascadia Subduction Zone. The tectonics and seismicity of the region are the result of the relative northeastward subduction of the Juan de Fuca Plate beneath the North American Plate. The convergence of these two plates results not only in the east-west compressive strain, but also in dextral shear, clockwise rotation and north-south compression of the crustal blocks that form the leading edge of the North American Plate. It is estimated that the compression rate for these blocks is about 0.03 to 0.04 inch per year, and much of the compression may be occurring within the more fractured, northern Washington block that underlies the Puget Lowland.

While the bedrock and structure of the portion of the northern block that underlies the Puget Lowland is largely concealed by thick Quaternary deposits, it has been the subject of recent and ongoing research (Yount and Gower, 1991; Yount and others, 1985). This research suggests that the north-south compression of the block is being accommodated primarily beneath the Lowland by a series of west and northwest-trending thrust faults that extend to depths of about 12 miles. The thrust faults are presumably bounded by strike slip or shear zones on the east at the Cascade Mountains, and on the west along Hood Canal at the base of the Olympic Mountains.

The nearest potentially active fault to the project is the Seattle Fault, a collective term for a series of four or more east-west-trending, south-dipping fault splays. The mapped location of the fault is about 8 miles south of Juanita Beach Park (Booth and Minard, 1992). This thrust fault zone is approximately 2.5 to 4 miles wide (north-south) and extends from the west end of the Kitsap Peninsula near Hood Canal, eastward to the Sammamish Plateau east of Lake Sammamish. The locations of the fault splays are largely determined from overwater seismic reflection profiles with some recent fault trenching studies by the U.S. Geological Survey (USGS) on the west side of Puget Sound on Bainbridge Island and the Kitsap Peninsula. East of Puget Sound, the fault

splay locations have been extrapolated and are not precisely known. Recent geologic evidence indicates that ground surface rupture from movement on this fault zone occurred as recently as 1,100 years before present.

#### 4.0 SUBSURFACE EXPLORATIONS

Holocene Drilling, Inc. (Holocene) drilled three soil borings, designated B-1 to B-3. Boring B-1 was drilled on October 27, 2015, and borings B-2 and B-3 were drilled on March 23, 2017. Holocene installed a well in boring B-2. The boring locations are shown in Figure 2. Logs of the borings and description of drilling methods are presented in Appendix A. We performed geotechnical laboratory testing on select samples from the borings. Appendix B presents laboratory test results and procedures.

#### 5.0 SUBSURFACE CONDITIONS

The subsurface conditions of the site have been summarized based on the soil and groundwater conditions observed in the boring, and review of previous geotechnical reports and boring logs.

##### 5.1 Soil

The soil at the project site consists of:

- Alluvial sand with silt and recessional outwash was encountered below a thin layer of topsoil. The alluvium and outwash is generally very loose to medium dense and extends 12 to 15 feet below ground surface (bgs).
- Lacustrine deposits, consisting of silt, were encountered below the alluvium and extended to 17 feet bgs. The lacustrine deposit is generally medium dense or stiff and contains variable amounts of sand.
- Recessional outwash was encountered below the lacustrine silt and extended to the bottom of the borings at 31.5 feet bgs. The outwash generally consists of medium dense to dense, fine to medium sand. The low blow counts encountered in boring B-2 are likely influenced by heaving sands and are not representative of soil density.

More detailed information is presented on the boring logs in Appendix A.

##### 5.2 Groundwater

Groundwater was encountered at about elevation 18 feet, or about 3 to 5 feet bgs. The elevation of Lake Washington is at about elevation 18 feet. Therefore, we anticipate the groundwater level is closely tied to the elevation of Lake Washington and probably varies seasonally with Lake Washington.

Our groundwater measurements from the monitoring well installed in boring B-2 indicate that a confined aquifer is present below the lacustrine layer. The confined aquifer extends from approximately 17 feet bgs to at least 31.5 feet bgs (where boring B-2 was terminated). We observed artesian groundwater pressures in the confined aquifer with pressures corresponding to about elevation 22 feet. Review of boring logs from the nearby Juanita Bay Pump Station Replacement Project provide a similar hydrogeologic profile to boring B-2, with alluvial sand unconfined aquifer above a silt/clay confining unit, in turn underlain by a confined aquifer consisting of alluvial and recessional outwash sand. The alluvial and recessional outwash sand at the Juanita Bay Pump Station Replacement Project was encountered to depths of 45 feet bgs.

## **6.0 ENGINEERING RECOMMENDATIONS AND CONCLUSIONS**

### **6.1 Earthquake-induced Geologic Hazards**

Earthquake-induced geologic hazards that may affect a given site include landsliding, fault rupture, settlement, and liquefaction, and associated effects (loss of shear strength, bearing capacity failures, loss of lateral support, ground oscillation, lateral spreading, etc.). Because of the relatively flat topography at the site, the risk of landsliding is considered low.

The project site is about 8 miles from the potentially active Seattle Fault zone. Therefore, the risk of fault rupture is considered negligible. The hazards associated with liquefaction are discussed below.

### **6.2 Liquefaction Potential**

Soil liquefaction is a phenomenon that occurs during seismic shaking in loose, saturated, cohesionless soils. During liquefaction, the pore pressure of the water in the soil increases while the effective stress between soil grains decreases. When the two approach equal states, the result is a reduction in shear strength of the soil. This reduction in strength can cause ground settlement and lateral spreading.

We have evaluated the liquefaction potential of the site soils using the data from borings B-1 to B-3. We used the procedure by Youd and others (2001), and updated by Idriss and Boulanger (2004) to calculate factors of safety (FSs). This method involves comparing the liquefaction resistance of the soil (expressed as cyclic resistance ratio) to the earthquake-induced loading (expressed as cyclic stress ratio). Our liquefaction analyses indicate that the soil in the upper 15 feet is susceptible to liquefaction during the 2,500-year earthquake. This could induce settlement of the project site, as described below in Section 6.5.

### 6.3 Seismic Design

We understand that the bathhouse project will be designed in accordance with the International Code Council's 2014 International Building Code (IBC) (International Code Council, 2015). The IBC requires that the seismicity of the region be considered in building design by requiring that structures be designed for earthquake ground motions with a 2 percent chance of being exceeded in 50 years (2,500-year recurrence).

The subsurface conditions at the site correspond to IBC 2014 Site Class F because of the presence of potentially liquefiable soil. If liquefaction were not considered, the site would correspond to IBC 2014 Site Class D, based on standard penetration resistance values in the boring. The IBC 2014 requires a site-specific ground response evaluation for Site Class F sites, with the exception of structures with periods of less than 0.5 second, which we assume is the case for the proposed bathhouse. Therefore, we recommend that the site be classified as Site Class D for purposes of structural design.

Table 1 summarizes the mean earthquake magnitude value from the USGS probabilistic seismic hazard analysis,  $M_w$ , and a ground motion that corresponds to Site Class D for the 2,500-year seismic event.

**TABLE 1  
EARTHQUAKE MAGNITUDE AND SITE CLASS D  
PEAK GROUND ACCELERATIONS**

2,500-year Earthquake	Design Value
Magnitude	7.0
$S_1$ g (1 sec)	0.48
$S_s$ g (0.2 sec)	1.25
PGA (ground motion*)	0.67
Design PGA **	0.45

Notes:

\* Peak ground accelerations based upon the maximum considered earthquake spectral response acceleration.

\*\* Two-thirds of peak ground accelerations.

PGA = ground motion

sec = second

Because of the potential for ground settlements and lateral movements during a design-level earthquake, we recommend the foundations for the bathhouse be structurally tied together to resist differential settlements. Some structural damage due to settlement could be expected in a design-level earthquake, however, we do not expect it would result in a life-safety hazard.

## 6.4 Lateral Spreading

Liquefaction of soils at the site may result in permanent lateral displacement, or lateral spreading, toward Lake Washington. Lateral spreading occurs when the ground surface displaces towards a nearby sloping ground surface at a lower elevation than the site during liquefaction. We estimate that there is moderate risk of liquefaction-induced lateral spreading using the results of our liquefaction analyses and the empirical procedure by Youd and others (2002). As such the shoreline may experience minor lateral displacement during an earthquake event.

## 6.5 Seismically Induced Settlement

Loose, cohesionless soils that are susceptible to liquefaction are also susceptible to earthquake-induced settlement. The resulting ground surface settlements are not likely to occur uniformly over an area. Differential settlement can be damaging to structures founded on loose soils.

We estimated seismically-induced settlements for the subsurface conditions encountered in boring B-1 using the empirical correlations for volumetric strain by Tokimatsu and Seed (1987). The Tokimatsu and Seed procedure for estimating seismically-induced settlements is an approximate method; however, this method is the current state-of-practice. We estimate seismic-induced settlements would be about 3 to 8 inches over the width of the building. It is common to assume that differential settlement may be a large percentage of or equal to the total settlement because of potential variations in subsurface conditions across a given site. If this potential differential settlement is unacceptable for spread footings, we recommend using a mat foundation to reduce the potential for differential settlement.

## 6.6 Foundations

The proposed bathhouse may be supported on spread footings with a slab-on-grade floor slab or on a mat foundation. We recommend that an allowable bearing pressure of 2,000 pounds per square foot be used in the design of the spread footings and mat foundations. The native subgrade should be compacted to a dense and unyielding condition prior to constructing foundations. This pressure could be increased by up to one-third for seismic and wind loads.

The base of all foundations should be located at least 18 inches below the adjacent grade. We recommend that a representative from our firm be retained to evaluate foundation excavations during construction and to verify the presence of competent bearing soil or compacted structural fill. This should be done immediately prior to placement of reinforcing steel and concrete forms.

### **6.6.1 Spread Footings**

Continuous footings should have a minimum width of 18 inches, and column footings should have a minimum width of 24 inches. Spread footing foundations designed and constructed as recommended in this report are estimated to undergo total settlement on the order of 1 inch under static loading conditions. We estimate differential settlement would be on the order of ½ inch between adjacent footings. Due to the granular nature of the foundation soils, we estimate that the majority of this settlement would occur during construction as the load is applied.

### **6.6.2 Mat Foundations**

Mat foundations designed and constructed as recommended in this report are estimated to undergo total settlement on the order of 1 inch under static loading conditions. We estimate differential settlement would be on the order of ½ inch across the width of the foundation. Due to the granular nature of the foundation soils, we estimate that the majority of this settlement would occur during construction as the load is applied.

We recommend designing the mat foundation using a modulus of vertical subgrade reaction of 14 pounds per cubic inch (pci). This value was calculated based on the allowable bearing pressure and estimated static settlement.

### **6.7 Floor Slabs**

We recommend that floor slabs be supported by densely compacted native soil, or compacted structural fill placed directly onto compacted native soil. If unanticipated loose, soft, or unsuitable soil is encountered, it should be removed and replaced with compacted structural fill. Structural fill should be compacted to a dense, unyielding condition, according to our recommendations presented in the construction considerations section of this report below. A modulus of subgrade reaction of 250 pci may be used to design the slab, assuming that densely compacted structural fill will be present.

We recommend placing a capillary break consisting of a minimum 4-inch layer of washed pea gravel (¾ inch to No. 8 sieve size) and a vapor barrier consisting of plastic sheeting, as shown in Figure 3.

### **6.8 Lateral Resistance**

Lateral forces would be resisted by passive earth pressure against the buried portions of the structure and friction against the bottom. In our opinion, passive earth pressures developed from

compacted granular fill could be estimated using an equivalent fluid unit weight of 300 pounds per cubic foot (pcf). This value is based on the assumption that the structure extends at least 18 inches below the lowest adjacent exterior grade, is properly drained, and the backfill around the structure is compacted in accordance with the recommendations for structural fill outlined herein. The above equivalent fluid unit weight includes a FS of 1.5 to limit lateral deflection.

## **6.9 Base Footing Friction**

We recommend that a coefficient of friction of 0.35 be used between cast-in-place concrete and native granular soil. This value includes an FS of 1.5.

## **6.10 Sewer Line Excavation**

We understand an approximately 16-foot-deep excavation is proposed to connect the bathhouse sewer line to an existing King County Metro manhole. The following sections present our recommendations for temporary slopes, temporary shoring, and dewatering related to the proposed excavation.

### **6.10.1 Temporary Excavation Slopes**

Temporary excavation slopes should be made the responsibility of the Contractor who is continually at the site, is able to observe the nature and conditions of the subsurface materials encountered, including groundwater, and has responsibility for the methods, sequence, and schedule of construction.

For planning purposes, we recommend that temporary, unsupported, open-cut slopes be no steeper than 1.5 Horizontal to 1 Vertical. This recommendation is applicable if groundwater seepage is not present. Flatter slopes may be required based on the actual conditions encountered, particularly where groundwater seepage is encountered. We recommend that all exposed slopes be protected with waterproof covering during periods of wet weather to reduce sloughing and erosion.

All traffic and/or construction equipment loads should be set back from the edge of the temporary cut slopes a minimum of 5 feet. Excavated material, stockpiles of construction materials, and equipment should not be placed closer to the edge of any excavation than the depth of the excavation, unless the excavation is shored and such materials are accounted for as a surcharge load.

### 6.10.2 Temporary Shoring

Temporary shoring will be required for the proposed excavation. We anticipate temporary shoring would consist of temporary sheet piles and/or trench boxes. We recommend designing temporary shoring for an equivalent fluid weight of 40 pcf above the water table or 85 pcf below the water table. Surcharge loads such as traffic and construction equipment will also induce lateral loads on retaining walls and buried structures. Figure 4 presents recommendations for lateral pressure due to surcharge loads that could be applied to walls. We recommend using a  $K_a$  value of 0.33.

### 6.10.3 Dewatering

The hydrogeologic conditions impacting construction dewatering include an unconfined sand aquifer overlying a silt/clay confining unit, which is underlain by a confined sand aquifer.

We recommend that the dewatering system design be made the Contractor's responsibility as part of the project plans and specifications. The design should be provided by a Washington State-Licensed Hydrogeologist experienced in the design and construction of dewatering systems.

This section provides groundwater parameters that can be used for preliminary dewatering design, conceptual dewatering recommendations, and dewatering considerations.

#### 6.10.3.1 Hydraulic Conductivity

Hydraulic conductivity estimates for the unconfined aquifer are based on visual comparison of boring B-2 samples within the unconfined aquifer with boring B-2, sample S-9 from the confined aquifer. The samples within the unconfined aquifer have a visually similar grain size distribution to sample S-9 and are expected to have a similar hydraulic conductivity. Hydraulic conductivity estimates for the confined aquifer are based on the results of slug testing (single-well field hydraulic conductivity testing, described in Appendix C) performed in observation well B-2 and grain size analysis values.

Estimated hydraulic conductivities are as follows:

- Unconfined aquifer: 70 feet per day (ft/day) to 250 ft/day
- Confined Aquifer: 70 ft/day to 250 ft/day

These hydraulic conductivity ranges are generally consistent with the fine to medium sand encountered in the observation well screen interval of this exploration.

Groundwater depth measured in observation well B-2 in April 2017 varied from 0.56 to 0.8 foot above ground surface (approximate elevation 21.6 to 21.8 feet).

These groundwater depths/elevations are expected to be at or near the annual high which typically occurs in late winter or spring.

#### **6.10.3.2 Dewatering Analysis**

Installation of the proposed below-ground sewer connection will involve excavating below groundwater, with anticipated excavation depths up to 16 feet. This excavation will require construction dewatering and depressurization to control groundwater inflow, reduce instability and erosion of the side slopes, and reduce hydrostatic pressures and subgrade instability at the base of the excavation.

The maximum required groundwater drawdown was assumed to be 16 feet below existing ground surface (elevation 5 feet). Additionally, we assume the excavation will be supported using sheet pile shoring and/or trench boxes and will require dewatering of the unconfined aquifer and depressurization of the confined aquifer. Dewatering of the unconfined aquifer is accomplished by physically draining groundwater from the pore space within the sediment. This process requires lowering of the water table, by pumping, which induces groundwater flow by gravity towards the area of lowered water table. Depressurization of the confined aquifer is accomplished by lowering the piezometric surface that extends above the top of the aquifer while the pore space within the aquifer remains saturated.

#### **6.10.3.3 Dewatering-induced Settlement**

Dewatering of the unconfined aquifer and depressurizing of the confined aquifer will result in settlement due to the decrease in water pressure and subsequent increase in effective stress. We anticipate settlement due to dewatering could be on the order of ½ to 1 inch. Settlement would be greatest near the excavation, but could potentially impact areas several hundred feet away. The dewatering designer should evaluate potential settlement impacts prior to construction.

We recommend completing the excavation and associated dewatering prior to construction of the bathhouse and pavilion to avoid causing settlement of the new structures.

#### **6.10.3.4 Construction Dewatering Approach and Available Technologies**

Numerous factors influence the type of dewatering approach employed by the Contractor, including soils, aquifer thickness, the relationship of the excavation base to the base

of the aquifer, drawdown requirements, shoring and excavation approaches, the amount of dewatering flow anticipated, and the experience of the Contractor working in dewatered and wet soils.

Available dewatering technologies include:

- **Sumps and/or Trenches** generally provide the least costly method and are the most common dewatering methods. Sumps consist of excavations immediately adjacent to or in an excavation. Sump pumping should be limited to areas where no more than 2 or 3 feet of drawdown is required. Sumps work well in either fine- or coarse-grained soils, which typically provide low or high dewatering flow rates, respectively. Sumps and trenches generally pump finer-formation material which can undermine excavations. Sump pumping usually requires considerable treatment such as settlement of fines in the dewatering discharge prior to disposal.
- **Pumped Wells (Dewatering Wells)** typically consist of large-diameter holes (24 to 36 inches) and large-diameter casings/screens (i.e., 8- to 16-inch-diameter). Pumped wells, often called deep wells, are relatively deep compared to sumps and vacuum wellpoints. Pumped wells include individual pumps which typically discharge to a common manifold. Pumped wells work best (most efficiently) in relatively coarse-grained (high permeability) formations (silty sand, sand and gravel) that allow wide spacing of wells (typically 25 to 250 feet) due to a large radius of influence.
- **Vacuum Wellpoints** connect to a common vacuum header and typically operate using a single pump for the whole system, and are suitable for both fine- and coarse-grained soils. They are generally 15 to 25 feet deep and constrained by the limits of the vacuum to pull water out of the ground (typically 15 to 20 feet at sea level). The wellpoints typically have a 3-foot length of slotted well screen at the bottom and are spaced 2 to 10 feet apart with the closer spacing for finer-grained soils (i.e., silt, clay, and/or peat). For coarser soils and wider spacing, pumped wells typically prove more efficient and less costly than vacuum wellpoints.
- **Eductors/Ejectors** typically are closely spaced, and are rarely used except in fine-grained soils due to their higher cost. However, because eductors require little maintenance, they are particularly suited for excavations in both coarse- and fine-grained soils needing large drawdown over a long period of time (months or years). Because eductors employ pressurized flow and are not limited by vacuum constraints, they can achieve greater drawdowns than vacuum wellpoints.

#### 6.10.3.5 Construction Dewatering Recommendations

Based on our understanding of the hydrogeologic conditions at the project site and their relation to the proposed structures and sewer line construction, we recommend assuming that a Contractor would propose to use large-diameter pumped wells lower groundwater levels in the unconfined aquifer and depressurize the confined aquifer during construction. As an

alternative, the Contractor may select a vacuum well point system to dewater the unconfined aquifer, and would still use pumped wells to depressurize the confined aquifer.

Additionally, the use of localized sump pumping within the trench excavation should be anticipated to capture perched or pocketed groundwater not captured by the wells and or vacuum well points within the unconfined aquifer. Sumps should be designed to produce discharge that is free of sediment or high levels of turbidity. Using a “trash pump” directly in the excavation (open sumping) to remove groundwater typically mobilizes sediment, produces very turbid discharge, and should be prohibited.

We also note that the existing sewer line which connects to the manhole may have relatively high-permeability bedding material, which could contribute significant volumes of water to the excavation. Water flow from the pipe bedding may also mobilize soil, which could result in soil loss and associated ground settlement. The Contractor should anticipate this likelihood, and should be required to submit to the owner their plan for capturing or controlling water flow from the existing pipe bedding, and preventing soil loss and related impacts.

We recommend that construction dewatering, and the design of dewatering systems, be the responsibility of the Contractor. The Contractor should be required to use the services of a Washington State-Licensed Hydrogeologist experienced in the design and construction of dewatering systems.

Discharge from the temporary dewatering systems should be collected and disposed of in accordance with discharge permit requirements.

### **6.11 Subdrainage and Surface Water Drainage Control**

We recommend installing a footing subdrain system along the outside of the perimeter footings to prevent the buildup of hydrostatic pressures. The subdrain system should consist of a perforated or slotted, 4-inch (minimum)-diameter plastic pipe bedded in  $\frac{3}{8}$  inch to No. 8 size washed pea gravel or crushed gravel. Please refer to Figure 3 for subdrainage recommendations.

To promote surface water drainage, provisions should be made to direct water away from structures and prevent water from seeping into the ground adjacent to the structures. The ground surface should be sloped away, and surface and downspout water should not be introduced into backfill. Surface water should be collected in catch basins and, along with downspout water, should be conveyed in a non-perforated pipe (tightline) into an approved discharge point.

## 7.0 CONSTRUCTION CONSIDERATIONS

### 7.1 Foundations

The recommended allowable bearing capacities presented previously in this report are contingent upon the following construction considerations:

- Foundation subgrade excavations should be cleaned of all fill, debris, and loose, soft, wet, or disturbed soil prior to placing the reinforced concrete.
- All excavations for spread footing foundations should be observed by a geotechnical engineer to evaluate the adequacy of the bearing stratum and to confirm that subsurface conditions at and below the bearing elevation are suitable for the design bearing values provided.

### 7.2 Fill Material, Placement, Compaction, and Use of On-site Soils

Care should be taken to select the granular soil suitable for use as structural fill. All fill material placed beneath structures, pavements, or other areas where settlements are to be reduced and where backfill will provide passive resistance, should be structural fill. Onsite native soils are suitable for reuse, but may be difficult to compact during wet weather conditions because it contains significant quantities of silts and clays. Structural fill should consist of reasonably well-graded sand and gravel, free of organics and debris, and with a maximum particle size of 3 inches for wall and footing backfills.

Structural fill should be placed in uniform lifts and compacted to a dense and unyielding condition, to at least 95 percent of the Modified Proctor maximum dry density (ASTM Designation: D1557-70, Method C or D). The thickness of soil layers before compaction should not exceed 12 inches for heavy equipment compactors or 6 inches for hand-operated mechanical compactors.

### 7.3 Wet Weather Earthwork

In the Puget Sound region, wet weather generally begins about mid-October and continues through about May, although rainy periods may occur at any time of year. Therefore, it would be advisable to schedule earthwork during the normally dry weather months of June through September. Earthwork conducted during wet weather generally is more costly and time-consuming than work conducted in dry weather.

The following recommendations are applicable if earthwork construction takes place during wet weather or in wet conditions:

- The ground surface in and surrounding the construction area should be sloped and sealed with a smooth-drum roller to promote runoff of precipitation, to prevent surface water from flowing into excavations, and to prevent ponding of water.
- Work areas and soil stockpiles should be covered with plastic. The use of sloping, ditching, sumps, dewatering, and other measures should be employed as necessary to permit proper completion of the work. Bales of straw and/or geotextile silt fences should be suitably located to control soil movement and erosion.
- Earthwork should be accomplished in small sections to reduce exposure to wet weather. If there is to be traffic over the exposed subgrade, the subgrade should be protected with a compacted layer of clean sand and gravel or crushed rock. The size of construction equipment may have to be limited to prevent soil disturbance.
- Fill material should consist of clean, granular soil, of which not more than 5 percent by weight passes the No. 200 mesh sieve, based on wet-sieving the fraction passing the ¾-inch mesh sieve. The fines should be nonplastic. Such soils may need to be imported to the site.
- No fill should be left uncompacted and exposed to moisture. A smooth-drum vibratory roller, or equivalent, should be used to seal the ground surface. Soil that becomes too wet for compaction should be removed and replaced with clean granular soil.
- Excavation and placement of structural fill material should be observed on a full-time basis by a geotechnical engineer or the engineer's representative experienced in wet weather earthwork to determine that all unsuitable aggregates are removed and suitable compaction and site drainage is achieved.
- Grading and earthwork should not be accomplished during periods of heavy, continuous rainfall.

We suggest that these recommendations for wet weather earthwork be included in the contract specifications.

## 8.0 ADDITIONAL SERVICES

We recommend that Shannon & Wilson, Inc. (Shannon & Wilson) be retained to review the geotechnical aspects of plans and specifications to determine that they are consistent with our recommendations. In addition, we should be retained to observe the geotechnical aspects of construction, particularly foundation installation and drainage and backfill. Observation will allow us to evaluate the subsurface conditions as they are exposed during construction and to determine that the work is accomplished in accordance with our recommendations and the project specifications.

## 9.0 CLOSURE

This report was prepared for the exclusive use of Patano Studio Architecture for design and construction of the proposed development at Juanita Beach Park in Kirkland, Washington. The report should be provided to the design team and prospective subcontractors for information of factual data only, and not as a warranty of subsurface conditions, such as those interpreted from the exploration logs and discussions of subsurface conditions included in this report.

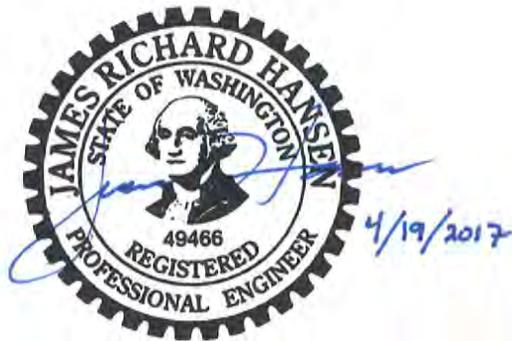
The analyses, conclusions, and recommendations contained in this report are based on site conditions as they presently exist. We assume that the exploratory boring made for this project is representative of the subsurface conditions throughout the site; i.e., the subsurface conditions everywhere are not significantly different from those disclosed by the explorations. If conditions different from those described in this report are observed or appear to be present during construction, we should be advised at once so that we could review these conditions and reconsider our recommendations, where necessary. If conditions have changed because of natural causes or construction operations at or near the site, it is recommended that this report be reviewed to determine the applicability of the conclusions and recommendations considering the changed conditions and time lapse.

Within the limitations of the scope, schedule and budget, the analyses, conclusions, and recommendations presented in this report were prepared in accordance with generally accepted professional geotechnical engineering and hydrogeologic principles and practice in this area at the time this report was prepared. We make no other warranty, either express or implied.

The scope of our services did not include any environmental assessment or evaluation of hazardous or toxic materials in the soil, surface water, groundwater, or air at the subject site. Shannon & Wilson has qualified personnel to assist you with these services should they be necessary.

Shannon & Wilson has prepared Appendix D, "Important Information About Your Geotechnical/Environmental Report," to assist you and others in understanding the use and limitations of our reports.

SHANNON & WILSON, INC.

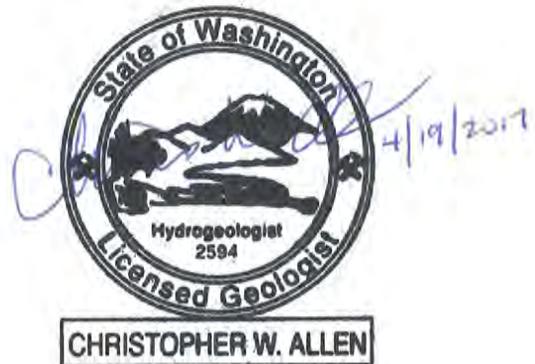


James R. Hansen, PE  
Senior Engineer

JRH:CWA:EDB:MWP/jrh

Geotechnical engineering recommendations were prepared by or prepared under the direct supervision of James R. Hansen, PE.

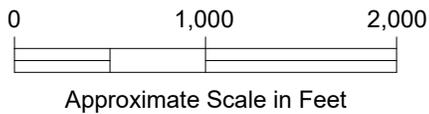
Hydrogeologic recommendations were prepared by or prepared under the direct supervision of Chris W. Allen, LG, LHG.



Chris W. Allen, LG, LHG  
Senior Hydrogeologist

## 10.0 REFERENCES

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- Yount, J.C., and Gower, H.D., 1991, Bedrock geologic map of the Seattle 30' x 60' quadrangle, Washington: U.S. Geological Survey Open-File Report 91-147.



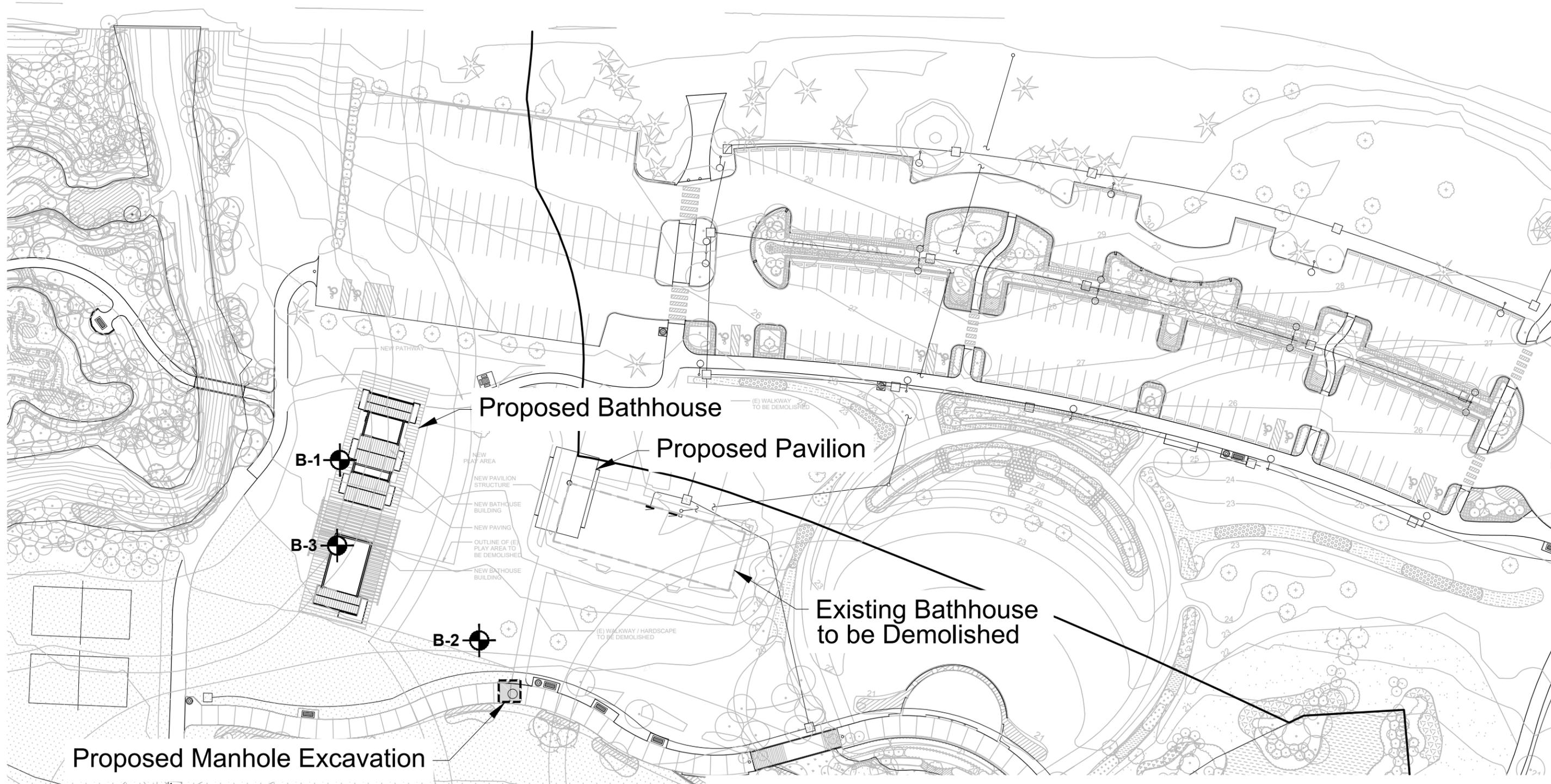
**NOTE**

Map adapted from aerial imagery provided by Google Earth Pro, reproduced by permission granted by Google Earth™ Mapping Service.

Juanita Beach Park Bathhouse Kirkland, Washington	
<b>VICINITY MAP</b>	
April 2017	21-1-22161-008
 SHANNON & WILSON, INC. <small>GEOTECHNICAL AND ENVIRONMENTAL CONSULTANTS</small>	<b>FIG. 1</b>

Filename: J:\211\22161-008\21-1-22161-008 Fig 2 - Site Plan.dwg Layout: Layout1 Date: 04-17-2017 Login: jrs

NE Juanita Drive



Proposed Bathhouse

Proposed Pavilion

Existing Bathhouse to be Demolished

Proposed Manhole Excavation

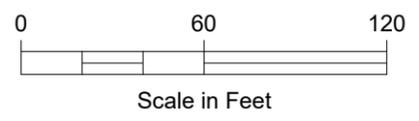
B-1

B-3

B-2

LEGEND

B-1 Boring Designation and Approximate Location



NOTE

Figure adapted from files JBPB\_BASE.dwg and JBPB\_CONTOURS.dwg received 11/3/2015.



Juanita Beach Park Bathhouse  
Kirkland, Washington

SITE AND EXPLORATION PLAN

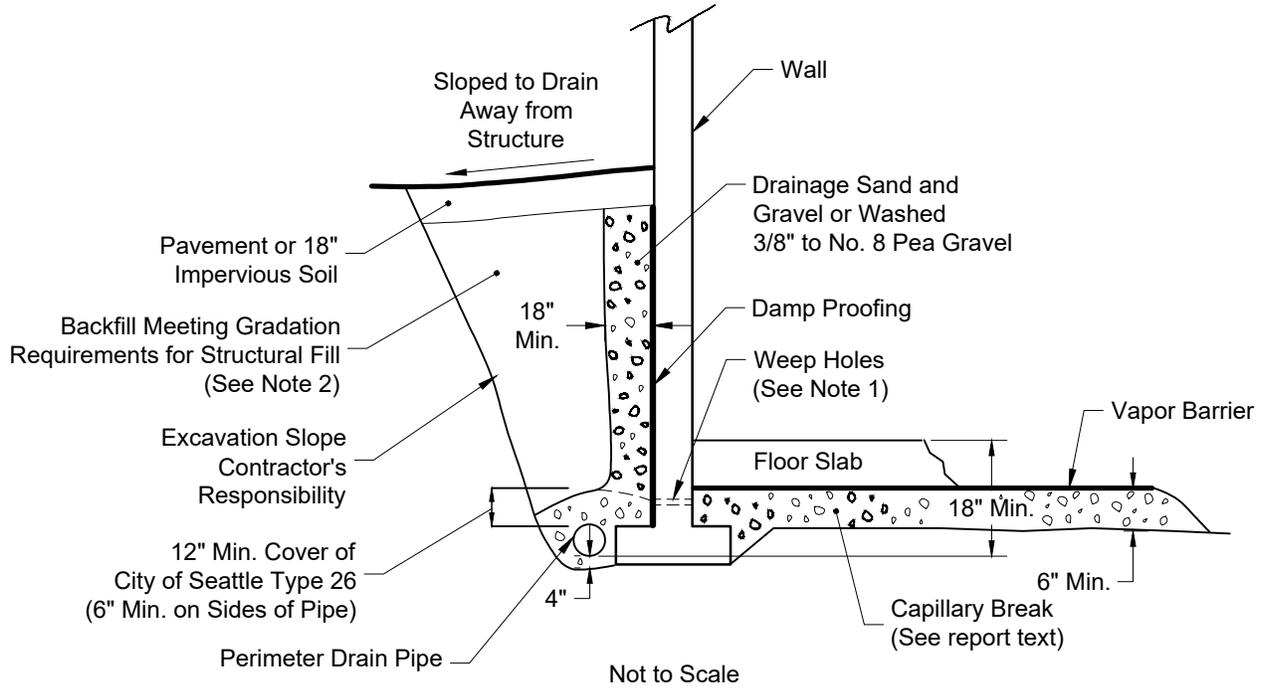
April 2017

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FIG. 1

Filename: J:\211\22161-008\21-1-22\161-008 Fig 3 - Wall Backfill.dwg    Layout: Sheet 1    Date: 04-17-2017    Login: jrs



**MATERIALS**

Drainage Sand & Gravel with the Following Specifications:

Sieve Size	% Passing by Weight
1-1/2"	100
3/4"	90 to 100
1/4"	75 to 100
No. 8	65 to 92
No. 30	20 to 65
No. 50	5 to 20
No. 100	0 to 2
(by wet sieving)	(non-plastic)

**PERIMETER DRAIN PIPE**

4" minimum diameter perforated or slotted pipe; tight joints; sloped to drain (6"/100' min. slope); provide clean-outs.

Perforated pipe holes (3/16" to 3/8" dia.) to be in lower half of the pipe with lower quarter segment unperforated for water flow.

Slotted pipe to have 1/8" maximum width slots.

**NOTES**

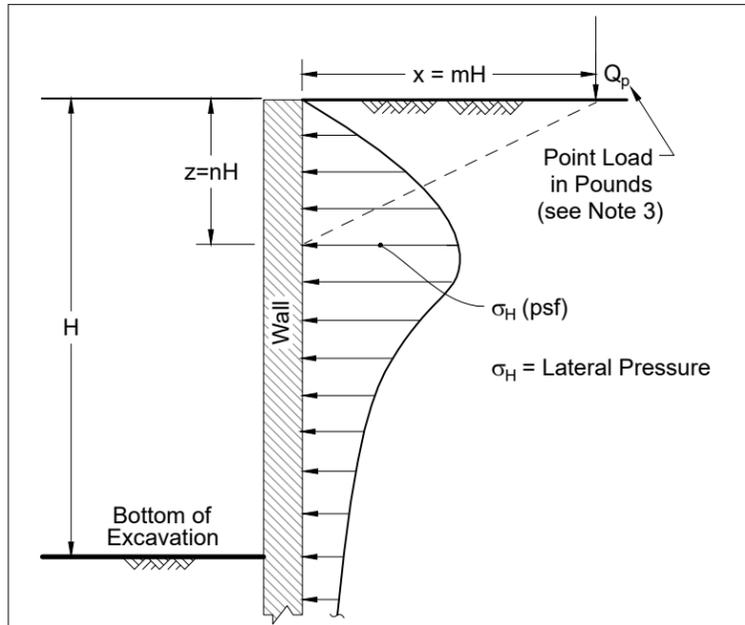
1. Capillary break beneath floor slab could be hydraulically connected to perimeter drain pipe. Use of 2-inch-diameter weep holes as shown is one applicable method.
2. If wet conditions render on-site soil unsuitable for compaction, backfill the zone shown above with imported structural fill. Imported structural fill should meet WSDOT Gravel Borrow Specification 9-03.14(1) but should have a maximum size of 3 inches, and should not have more than 5% fines (by weight based on minus 3/4" portion) passing No. 200 sieve (by wet sieving) with no plastic fines during wet conditions or wet weather.
3. Backfill within 3 feet of wall should be compacted with hand-operated equipment. Heavy equipment should not be used to compact backfill, as such equipment operated near the wall could increase lateral earth pressures and possibly damage the wall.
4. All backfill should be placed in layers not exceeding 4" loose thickness for light equipment and 8" for heavy equipment and densely compacted. Beneath paved or sidewalk areas, compact to at least 95% Modified Proctor maximum dry density (ASTM: D1557, Method C or D). Landscape areas could be compacted to 90% minimum.

Juanita Beach Park Bathhouse  
Kirkland, Washington

**TYPICAL WALL DRAINAGE AND BACKFILL**

April 2017

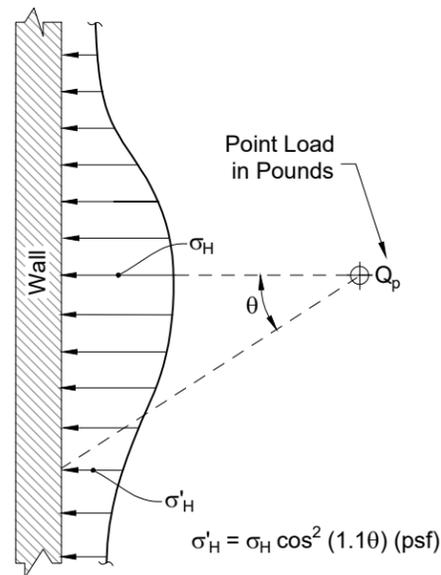
21-1-22161-008



**ELEVATION VIEW**

For  $m \leq 0.4$ :  $\sigma_H = 0.28 \frac{Q_p}{H^2} \frac{n^2}{(0.16 + n^2)^3}$  (psf) (see Note 3)

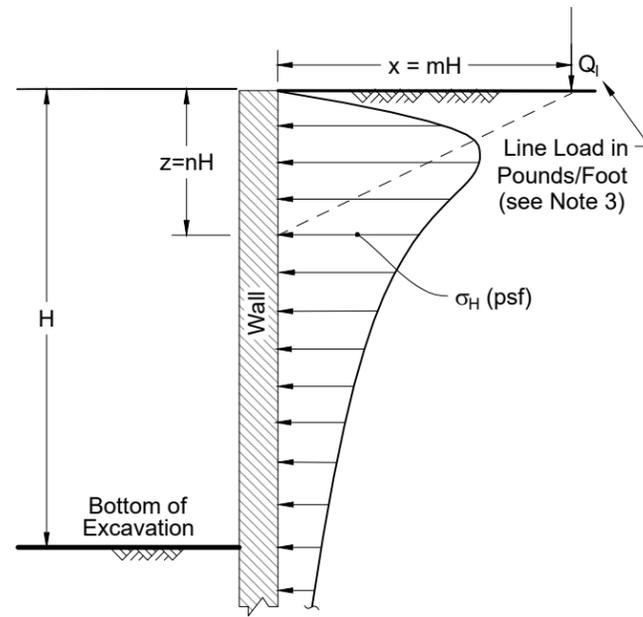
For  $m > 0.4$ :  $\sigma_H = 1.77 \frac{Q_p}{H^2} \frac{m^2 n^2}{(m^2 + n^2)^3}$  (psf)



**PLAN VIEW**

**A) LATERAL PRESSURE DUE TO POINT LOAD  
i.e. SMALL ISOLATED FOOTING OR WHEEL LOAD**

(NAVFAC DM 7.2, 1986)



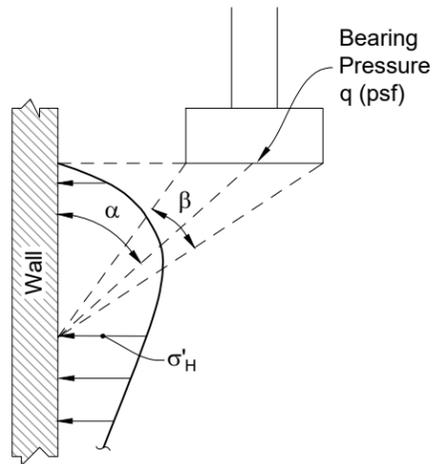
**ELEVATION VIEW**

For  $m \leq 0.4$ :  $\sigma_H = 0.20 \frac{Q_l}{H} \frac{n}{(0.16 + n^2)^2}$  (psf) (see Note 3)

For  $m > 0.4$ :  $\sigma_H = 1.28 \frac{Q_l}{H} \frac{m^2 n}{(m^2 + n^2)^2}$  (psf)

**B) LATERAL PRESSURE DUE TO LINE LOAD  
i.e. NARROW CONTINUOUS FOOTING  
PARALLEL TO WALL**

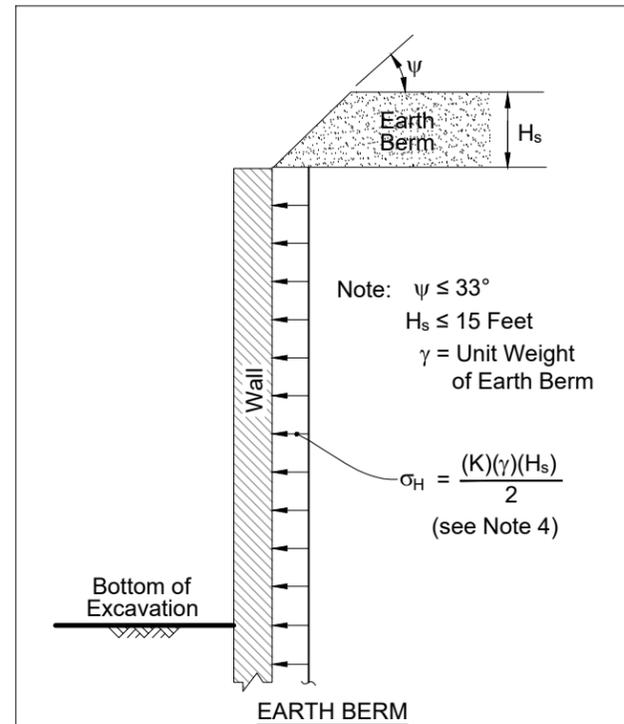
(NAVFAC DM 7.02, 1986)



$\sigma_H = \frac{2q}{\pi} (\beta - \sin \beta \cos 2\alpha)$  (psf)  
in radians

**C) LATERAL PRESSURE DUE TO STRIP LOAD**

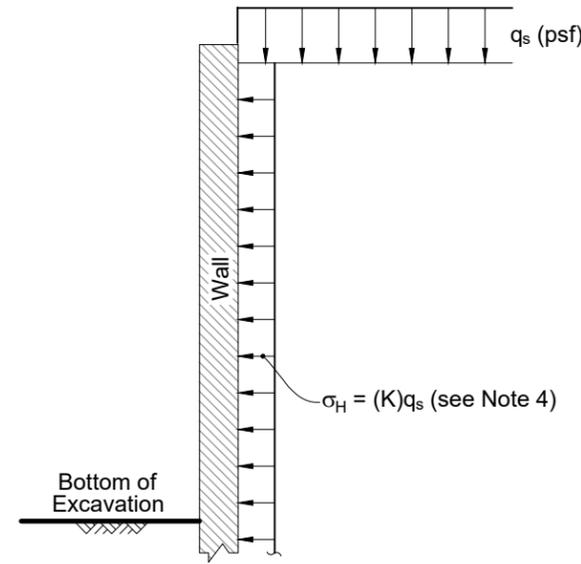
(derived from Fang, *Foundation Engineering Handbook*, 1991)



**EARTH BERM**

Note:  $\psi \leq 33^\circ$   
 $H_s \leq 15$  Feet  
 $\gamma$  = Unit Weight of Earth Berm

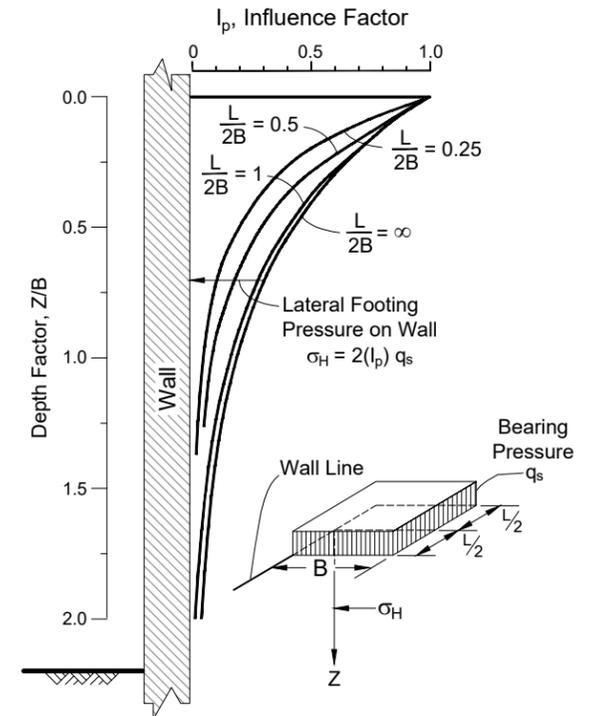
$\sigma_H = \frac{(K)(\gamma)(H_s)}{2}$   
(see Note 4)



**UNIFORM SURCHARGE**

**D) LATERAL PRESSURE DUE TO EARTH BERM  
OR UNIFORM SURCHARGE**

(derived from Poulos and Davis, *Elastic Solutions for Soil and Rock Mechanics*, 1974; and Terzaghi and Peck, *Soil Mechanics in Engineering Practice*, 1967)



**E) LATERAL PRESSURE DUE TO ADJACENT FOOTING  
(see Notes 5 and 6)**

(derived from NAVFAC DM 7.02, 1986; and Sandhu, *Earth Pressure on Walls Due to Surcharge*, 1974)

**NOTES**

- Figures are not drawn to scale.
- Applicable surcharge pressures should be added to appropriate permanent wall lateral earth and water pressure.
- If point or line loads are close to the back of the wall such that  $m \leq 0.4$ , it may be more appropriate to model the actual load distribution (i.e., Detail E) or use more rigorous analysis methods.
- Use a  $K_a$  value of  $K_a = 0.33$ .
- The stress is estimated on the back of the wall at the center of the length,  $L$ , of loading.
- The estimated stress is based on a Poisson's ratio of 0.5.
- For areas where fill will be placed immediately behind and above the top elevation of the wall, Diagram D can be used to determine loads on the wall. For narrow fills adjacent to the wall, Diagram C can be used.

Juanita Beach Park Bathhouse  
Kirkland, Washington

**RECOMMENDED SURCHARGE  
LOADING FOR TEMPORARY AND  
PERMANENT WALLS**

April 2017

21-1-22161-008

**APPENDIX A**  
**SUBSURFACE EXPLORATIONS**

**APPENDIX A**  
**SUBSURFACE EXPLORATIONS**

**TABLE OF CONTENTS**

	<b>Page</b>
A.1 GENERAL.....	A-1
A.2 SOIL BORINGS.....	A-1
A.3 GROUNDWATER OBSERVATIONS.....	A-1
A.4 SOIL SAMPLING AND CLASSIFICATION.....	A-2
A.5 EXISTING EXPLORATIONS.....	A-2

**FIGURES**

A-1	Soil Description and Log Key (3 sheets)
A-2	Log of Boring B-1
A-3	Log of Boring B-2
A-4	Log of Boring B-3

## APPENDIX A

### SUBSURFACE EXPLORATIONS

#### A.1 GENERAL

The subsurface exploration program for the project was conducted by Shannon & Wilson, Inc. (Shannon & Wilson). The exploration program consisted of three soil borings, designated B-1 to B-3. The approximate locations of the explorations are shown in Figure 2.

The logs of the soil borings are presented as Figures A-2 to A-4. Figure A-1 presents a key to our classification of the soils encountered in the explorations.

#### A.2 SOIL BORINGS

The soil borings were drilled by Holocene Drilling, Inc. (Holocene). Boring B-1 was completed on October 27, 2015, and borings B-2 and B-3 were completed on March 23, 2017. Borings B-1 and B-2 extended 31.5 feet below existing grade. Boring B-3 extended 11.5 feet below existing grade. Disturbed samples were obtained in conjunction with the Standard Penetration Test (SPT). The SPT test is an in situ soil test, which can be used to interpret the several engineering properties of soils (see Section A.4). The Unified Soil Classification System (USCS), as described in Figure A-1, was used to classify the soils.

Holocene completed the soil borings using a track-mounted drill rig using hollow-stem auger (HSA) drilling techniques. HSA drilling consists of advancing continuous-flight augers to remove soil from the borehole. Soil samples are taken from the bottom of the boring by removing the center rod and lowering a split-spoon sampler through the hollow stem. Soil samples were taken in 2.5-foot intervals in the upper 20 feet and 5-foot intervals beyond 20 feet deep. After completing drilling, borings B-1 and B-3 were backfilled with bentonite chips. Holocene installed a 2-inch-diameter polyvinyl chloride well in boring B-2 and backfilled with sand and bentonite chips. Drill cuttings and spoils were put into drums, and the drums were taken off site by Holocene.

#### A.3 GROUNDWATER OBSERVATIONS

Groundwater was observed during drilling at about 3 to 5 feet below ground surface. The depth of groundwater is noted on the boring logs. We measured groundwater in the monitoring well installed in boring B-2 within the confined aquifer in April 2017. Observed water levels in the confined aquifer varied from 0.56 to 0.8 foot above the ground surface.

#### A.4 SOIL SAMPLING AND CLASSIFICATION

A Shannon & Wilson geologist observed and logged the drilling operations. Representative soil samples collected were transferred to our laboratory in Seattle, Washington, for analysis. The field logs and soil samples were reviewed by Shannon & Wilson personnel in the Seattle laboratory using the USCS field classification method. The boring logs in this report represent our interpretation of the field logs.

Disturbed soil samples were obtained in conjunction with the SPT. SPTs were performed in general accordance with the ASTM International (ASTM) Designation: D1586, Test Method for Penetration Test and Split-Barrel Sampling of Soils (ASTM, 2010).<sup>1</sup> SPTs were collected in the borings at 2.5-foot intervals. The SPT consists of driving a 2-inch outside diameter split-spoon sampler a total distance of 18 inches below the bottom of the drill hole with a 140-pound hammer falling 30 inches. The number of blows required to advance the split spoon from 6 to 18 inches of penetration is termed the Standard Penetration Resistance (N-value). The N-values are plotted in the boring logs presented in this appendix. These values provide a means for evaluating the relative density of granular soils and the relative consistency (stiffness) of cohesive soils.

#### A.5 EXISTING EXPLORATIONS

We reviewed subsurface explorations previously completed for the Juanita Bay Pumping Station project (Metropolitan Engineers, 1966).<sup>2</sup> Boring logs, boring locations, descriptions of the drilling methods, and sampling procedures can be found in the referenced report, available on the Washington State Department of Natural Resources website.

---

<sup>1</sup> ASTM International (ASTM), 2010, 2010 Annual book of standards, Construction, v. 04.08, Soil and rock (I): D420 - D5876: West Conshohocken, Pa.

<sup>2</sup> Metropolitan Engineers, 1966, Final report, soils investigation, Juanita Bay pumping station, Kirkland, Washington: Report prepared by Metropolitan Engineers, Seattle, Washington.

Shannon & Wilson, Inc. (S&W), uses a soil identification system modified from the Unified Soil Classification System (USCS). Elements of the USCS and other definitions are provided on this and the following pages. Soil descriptions are based on visual-manual procedures (ASTM D2488) and laboratory testing procedures (ASTM D2487), if performed.

**S&W INORGANIC SOIL CONSTITUENT DEFINITIONS**

CONSTITUENT <sup>2</sup>	FINE-GRAINED SOILS (50% or more fines) <sup>1</sup>	COARSE-GRAINED SOILS (less than 50% fines) <sup>1</sup>
Major	<b>Silt, Lean Clay, Elastic Silt<sub>3</sub>, or Fat Clay</b>	<b>Sand or Gravel<sup>4</sup></b>
Modifying (Secondary) Precedes major constituent	30% or more coarse-grained: <b>Sandy or Gravelly<sup>4</sup></b>	More than 12% fine-grained: <b>Silty or Clayey<sup>3</sup></b>
Minor Follows major constituent	15% to 30% coarse-grained: <b>with Sand or with Gravel<sup>4</sup></b> 30% or more total coarse-grained and lesser coarse-grained constituent is 15% or more: <b>with Sand or with Gravel<sup>5</sup></b>	5% to 12% fine-grained: <b>with Silt or with Clay<sup>3</sup></b> 15% or more of a second coarse-grained constituent: <b>with Sand or with Gravel<sup>5</sup></b>

<sup>1</sup>All percentages are by weight of total specimen passing a 3-inch sieve.  
<sup>2</sup>The order of terms is: *Modifying Major with Minor*.  
<sup>3</sup>Determined based on behavior.  
<sup>4</sup>Determined based on which constituent comprises a larger percentage.  
<sup>5</sup>Whichever is the lesser constituent.

**MOISTURE CONTENT TERMS**

Dry	Absence of moisture, dusty, dry to the touch
Moist	Damp but no visible water
Wet	Visible free water, from below water table

**STANDARD PENETRATION TEST (SPT) SPECIFICATIONS**

Hammer:	140 pounds with a 30-inch free fall. Rope on 6- to 10-inch-diam. cathead 2-1/4 rope turns, > 100 rpm
	NOTE: If automatic hammers are used, blow counts shown on boring logs should be adjusted to account for efficiency of hammer.
Sampler:	10 to 30 inches long Shoe I.D. = 1.375 inches Barrel I.D. = 1.5 inches Barrel O.D. = 2 inches
N-Value:	Sum blow counts for second and third 6-inch increments. Refusal: 50 blows for 6 inches or less; 10 blows for 0 inches.
	NOTE: Penetration resistances (N-values) shown on boring logs are as recorded in the field and have not been corrected for hammer efficiency, overburden, or other factors.

**PARTICLE SIZE DEFINITIONS**

DESCRIPTION	SIEVE NUMBER AND/OR APPROXIMATE SIZE
FINES	< #200 (0.075 mm = 0.003 in.)
SAND Fine Medium Coarse	#200 to #40 (0.075 to 0.4 mm; 0.003 to 0.02 in.) #40 to #10 (0.4 to 2 mm; 0.02 to 0.08 in.) #10 to #4 (2 to 4.75 mm; 0.08 to 0.187 in.)
GRAVEL Fine Coarse	#4 to 3/4 in. (4.75 to 19 mm; 0.187 to 0.75 in.) 3/4 to 3 in. (19 to 76 mm)
COBBLES	3 to 12 in. (76 to 305 mm)
BOULDERS	> 12 in. (305 mm)

**RELATIVE DENSITY / CONSISTENCY**

COHESIONLESS SOILS		COHESIVE SOILS	
N, SPT, BLOWS/FT.	RELATIVE DENSITY	N, SPT, BLOWS/FT.	RELATIVE CONSISTENCY
< 4	Very loose	< 2	Very soft
4 - 10	Loose	2 - 4	Soft
10 - 30	Medium dense	4 - 8	Medium stiff
30 - 50	Dense	8 - 15	Stiff
> 50	Very dense	15 - 30	Very stiff
		> 30	Hard

**WELL AND BACKFILL SYMBOLS**

	Bentonite Cement Grout		Surface Cement Seal
	Bentonite Grout		Asphalt or Cap
	Bentonite Chips		Slough
	Silica Sand		Inclinometer or Non-perforated Casing
	Perforated or Screened Casing		Vibrating Wire Piezometer

**PERCENTAGES TERMS<sup>1,2</sup>**

Trace	< 5%
Few	5 to 10%
Little	15 to 25%
Some	30 to 45%
Mostly	50 to 100%

<sup>1</sup>Gravel, sand, and fines estimated by mass. Other constituents, such as organics, cobbles, and boulders, estimated by volume.

<sup>2</sup>Reprinted, with permission, from ASTM D2488 - 09a Standard Practice for Description and Identification of Soils (Visual-Manual Procedure), copyright ASTM International, 100 Barr Harbor Drive, West Conshohocken, PA 19428. A copy of the complete standard may be obtained from ASTM International, www.astm.org.

Juanita Beach Park Bathhouse  
Kirkland, Washington

**SOIL DESCRIPTION AND LOG KEY**

April 2017

21-1-22161-008

**SHANNON & WILSON, INC.**  
Geotechnical and Environmental Consultants

**FIG. A-1**  
Sheet 1 of 3

**UNIFIED SOIL CLASSIFICATION SYSTEM (USCS)**  
 (Modified From USACE Tech Memo 3-357, ASTM D2487, and ASTM D2488)

MAJOR DIVISIONS			GROUP/GRAPHIC SYMBOL	TYPICAL IDENTIFICATIONS
COARSE-GRAINED SOILS <i>(more than 50% retained on No. 200 sieve)</i>	Gravels <i>(more than 50% of coarse fraction retained on No. 4 sieve)</i>	Gravel <i>(less than 5% fines)</i>	GW 	Well-Graded Gravel; Well-Graded Gravel with Sand
			GP 	Poorly Graded Gravel; Poorly Graded Gravel with Sand
		Silty or Clayey Gravel <i>(more than 12% fines)</i>	GM 	Silty Gravel; Silty Gravel with Sand
			GC 	Clayey Gravel; Clayey Gravel with Sand
	Sands <i>(50% or more of coarse fraction passes the No. 4 sieve)</i>	Sand <i>(less than 5% fines)</i>	SW 	Well-Graded Sand; Well-Graded Sand with Gravel
			SP 	Poorly Graded Sand; Poorly Graded Sand with Gravel
		Silty or Clayey Sand <i>(more than 12% fines)</i>	SM 	Silty Sand; Silty Sand with Gravel
			SC 	Clayey Sand; Clayey Sand with Gravel
FINE-GRAINED SOILS <i>(50% or more passes the No. 200 sieve)</i>	Silts and Clays <i>(liquid limit less than 50)</i>	Inorganic	ML 	Silt; Silt with Sand or Gravel; Sandy or Gravelly Silt
			CL 	Lean Clay; Lean Clay with Sand or Gravel; Sandy or Gravelly Lean Clay
		Organic	OL 	Organic Silt or Clay; Organic Silt or Clay with Sand or Gravel; Sandy or Gravelly Organic Silt or Clay
	Silts and Clays <i>(liquid limit 50 or more)</i>	Inorganic	MH 	Elastic Silt; Elastic Silt with Sand or Gravel; Sandy or Gravelly Elastic Silt
			CH 	Fat Clay; Fat Clay with Sand or Gravel; Sandy or Gravelly Fat Clay
		Organic	OH 	Organic Silt or Clay; Organic Silt or Clay with Sand or Gravel; Sandy or Gravelly Organic Silt or Clay
HIGHLY-ORGANIC SOILS	Primarily organic matter, dark in color, and organic odor	PT 	Peat or other highly organic soils (see ASTM D4427)	

NOTE: No. 4 size = 4.75 mm = 0.187 in.; No. 200 size = 0.075 mm = 0.003 in.

NOTES

- Dual symbols (*symbols separated by a hyphen, i.e., SP-SM, Sand with Silt*) are used for soils with between 5% and 12% fines or when the liquid limit and plasticity index values plot in the CL-ML area of the plasticity chart. Graphics shown on the logs for these soil types are a combination of the two graphic symbols (e.g., SP and SM).
- Borderline symbols (*symbols separated by a slash, i.e., CL/ML, Lean Clay to Silt; SP-SM/SM, Sand with Silt to Silty Sand*) indicate that the soil properties are close to the defining boundary between two groups.

Juanita Beach Park Bathhouse  
Kirkland, Washington

**SOIL DESCRIPTION  
AND LOG KEY**

April 2017

21-1-22161-008

**SHANNON & WILSON, INC.**  
Geotechnical and Environmental Consultants

**FIG. A-1**  
Sheet 2 of 3

### GRADATION TERMS

Poorly Graded	Narrow range of grain sizes present or, within the range of grain sizes present, one or more sizes are missing (Gap Graded). Meets criteria in ASTM D2487, if tested.
Well-Graded	Full range and even distribution of grain sizes present. Meets criteria in ASTM D2487, if tested.

### CEMENTATION TERMS<sup>1</sup>

Weak	Crumbles or breaks with handling or slight finger pressure.
Moderate	Crumbles or breaks with considerable finger pressure.
Strong	Will not crumble or break with finger pressure.

### PLASTICITY<sup>2</sup>

DESCRIPTION	VISUAL-MANUAL CRITERIA	APPROX. PLASTICITY INDEX RANGE
Nonplastic	A 1/8-in. thread cannot be rolled at any water content.	< 4
Low	A thread can barely be rolled and a lump cannot be formed when drier than the plastic limit.	4 to 10
Medium	A thread is easy to roll and not much time is required to reach the plastic limit. The thread cannot be rerolled after reaching the plastic limit. A lump crumbles when drier than the plastic limit.	10 to 20
High	It takes considerable time rolling and kneading to reach the plastic limit. A thread can be rerolled several times after reaching the plastic limit. A lump can be formed without crumbling when drier than the plastic limit.	> 20

### ADDITIONAL TERMS

Mottled	Irregular patches of different colors.
Bioturbated	Soil disturbance or mixing by plants or animals.
Diamict	Nonsorted sediment; sand and gravel in silt and/or clay matrix.
Cuttings	Material brought to surface by drilling.
Slough	Material that caved from sides of borehole.
Sheared	Disturbed texture, mix of strengths.

### PARTICLE ANGULARITY AND SHAPE TERMS<sup>1</sup>

Angular	Sharp edges and unpolished planar surfaces.
Subangular	Similar to angular, but with rounded edges.
Subrounded	Nearly planar sides with well-rounded edges.
Rounded	Smoothly curved sides with no edges.
Flat	Width/thickness ratio > 3.
Elongated	Length/width ratio > 3.

### ACRONYMS AND ABBREVIATIONS

ATD	At Time of Drilling
Diam.	Diameter
Elev.	Elevation
ft.	Feet
FeO	Iron Oxide
gal.	Gallons
Horiz.	Horizontal
HSA	Hollow Stem Auger
I.D.	Inside Diameter
in.	Inches
lbs.	Pounds
MgO	Magnesium Oxide
mm	Millimeter
MnO	Manganese Oxide
NA	Not Applicable or Not Available
NP	Nonplastic
O.D.	Outside Diameter
OW	Observation Well
pcf	Pounds per Cubic Foot
PID	Photo-Ionization Detector
PMT	Pressuremeter Test
ppm	Parts per Million
psi	Pounds per Square Inch
PVC	Polyvinyl Chloride
rpm	Rotations per Minute
SPT	Standard Penetration Test
USCS	Unified Soil Classification System
q <sub>u</sub>	Unconfined Compressive Strength
VWP	Vibrating Wire Piezometer
Vert.	Vertical
WOH	Weight of Hammer
WOR	Weight of Rods
Wt.	Weight

### STRUCTURE TERMS<sup>1</sup>

Interbedded	Alternating layers of varying material or color with layers at least 1/4-inch thick; singular: bed.
Laminated	Alternating layers of varying material or color with layers less than 1/4-inch thick; singular: lamination.
Fissured	Breaks along definite planes or fractures with little resistance.
Slickensided	Fracture planes appear polished or glossy; sometimes striated.
Blocky	Cohesive soil that can be broken down into small angular lumps that resist further breakdown.
Lensed	Inclusion of small pockets of different soils, such as small lenses of sand scattered through a mass of clay.
Homogeneous	Same color and appearance throughout.

Juanita Beach Park Bathhouse  
Kirkland, Washington

## SOIL DESCRIPTION AND LOG KEY

April 2017

21-1-22161-008

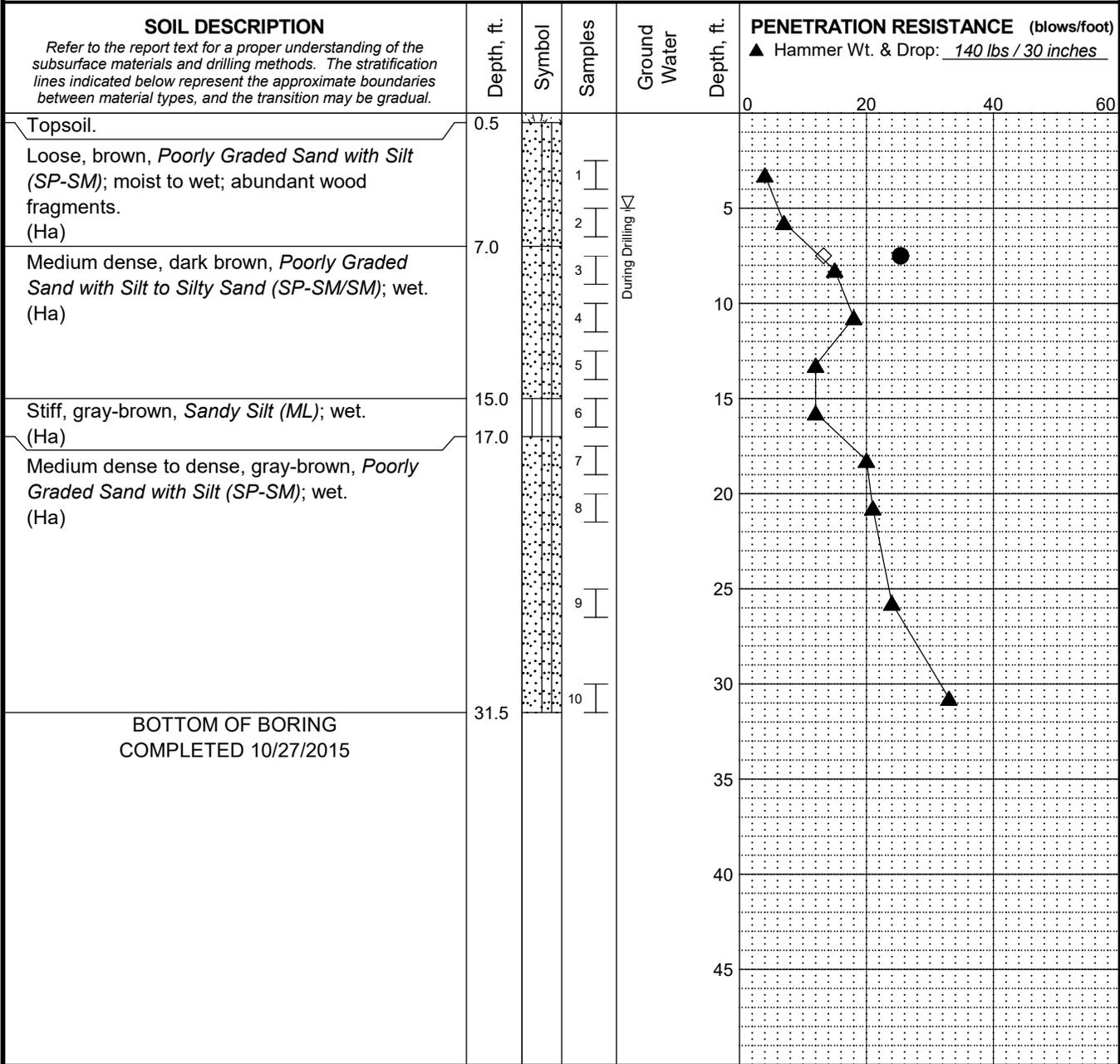
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Geotechnical and Environmental Consultants

**FIG. A-1**  
Sheet 3 of 3

<sup>1</sup>Reprinted, with permission, from ASTM D2488 - 09a Standard Practice for Description and Identification of Soils (Visual-Manual Procedure), copyright ASTM International, 100 Barr Harbor Drive, West Conshohocken, PA 19428. A copy of the complete standard may be obtained from ASTM International, www.astm.org.

<sup>2</sup>Adapted, with permission, from ASTM D2488 - 09a Standard Practice for Description and Identification of Soils (Visual-Manual Procedure), copyright ASTM International, 100 Barr Harbor Drive, West Conshohocken, PA 19428. A copy of the complete standard may be obtained from ASTM International, www.astm.org.

Total Depth: 31.5 ft. Northing: \_\_\_\_\_ Drilling Method: Hollow Stem Auger Hole Diam.: 8 in.  
 Top Elevation: ~ 23 ft. Easting: \_\_\_\_\_ Drilling Company: Holocene Drilling Rod Diam.: 2-inch  
 Vert. Datum: \_\_\_\_\_ Station: \_\_\_\_\_ Drill Rig Equipment: Diedrich D50 Hammer Type: Automatic  
 Horiz. Datum: \_\_\_\_\_ Offset: \_\_\_\_\_ Other Comments: \_\_\_\_\_



**LEGEND**

\* Sample Not Recovered      ▽ Ground Water Level ATD      ◇ % Fines (<0.075mm)  
 I 2.0" O.D. Split Spoon Sample      ● % Water Content

**NOTES**

1. Refer to KEY for explanation of symbols, codes, abbreviations and definitions.
2. Groundwater level, if indicated above, is for the date specified and may vary.
3. USCS designation is based on visual-manual classification and selected lab testing.

Juanita Beach Park Bathhouse  
Kirkland, Washington

**LOG OF BORING B-1**

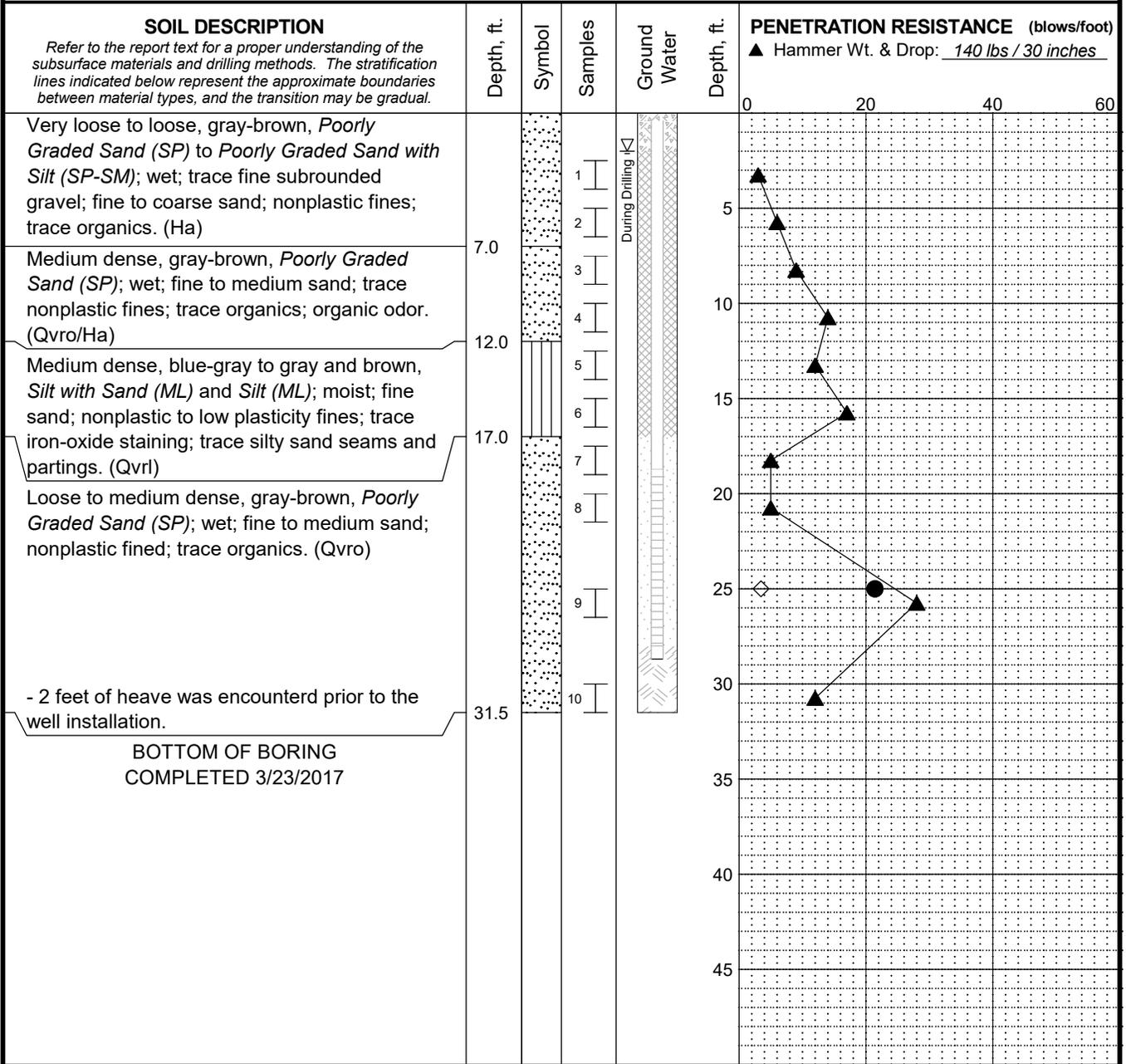
April 2017      21-1-22161-008

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**FIG. A-2**

MASTER LOG E. 21-22161.GPJ SHAN WIL.GDT 4/18/17 Log: KJW Rev: JRH Typ: LKN

Total Depth: 31.5 ft. Northing: \_\_\_\_\_ Drilling Method: Hollow Stem Auger Hole Diam.: 8 in.  
 Top Elevation: ~ 21 ft. Easting: \_\_\_\_\_ Drilling Company: Holocene Drilling Rod Diam.: 2-inch  
 Vert. Datum: \_\_\_\_\_ Station: \_\_\_\_\_ Drill Rig Equipment: Diedrich D50 Hammer Type: Automatic  
 Horiz. Datum: \_\_\_\_\_ Offset: \_\_\_\_\_ Other Comments: \_\_\_\_\_



Log: JJM Rev: EAS Typ: LKN MASTER LOG E 21-22161.GPJ SHAN WIL.GDT 4/18/17

- LEGEND**
- \* Sample Not Recovered
  - ⊥ 2.0" O.D. Split Spoon Sample
  - [Symbol] Well Screen and Sand Filter
  - [Symbol] Bentonite-Cement Grout
  - [Symbol] Bentonite Chips/Pellets
  - [Symbol] Bentonite Grout
  - ∇ Ground Water Level ATD
  - ◇ % Fines (<0.075mm)
  - % Water Content

- NOTES**
- Refer to KEY for explanation of symbols, codes, abbreviations and definitions.
  - Groundwater level, if indicated above, is for the date specified and may vary.
  - USCS designation is based on visual-manual classification and selected lab testing.

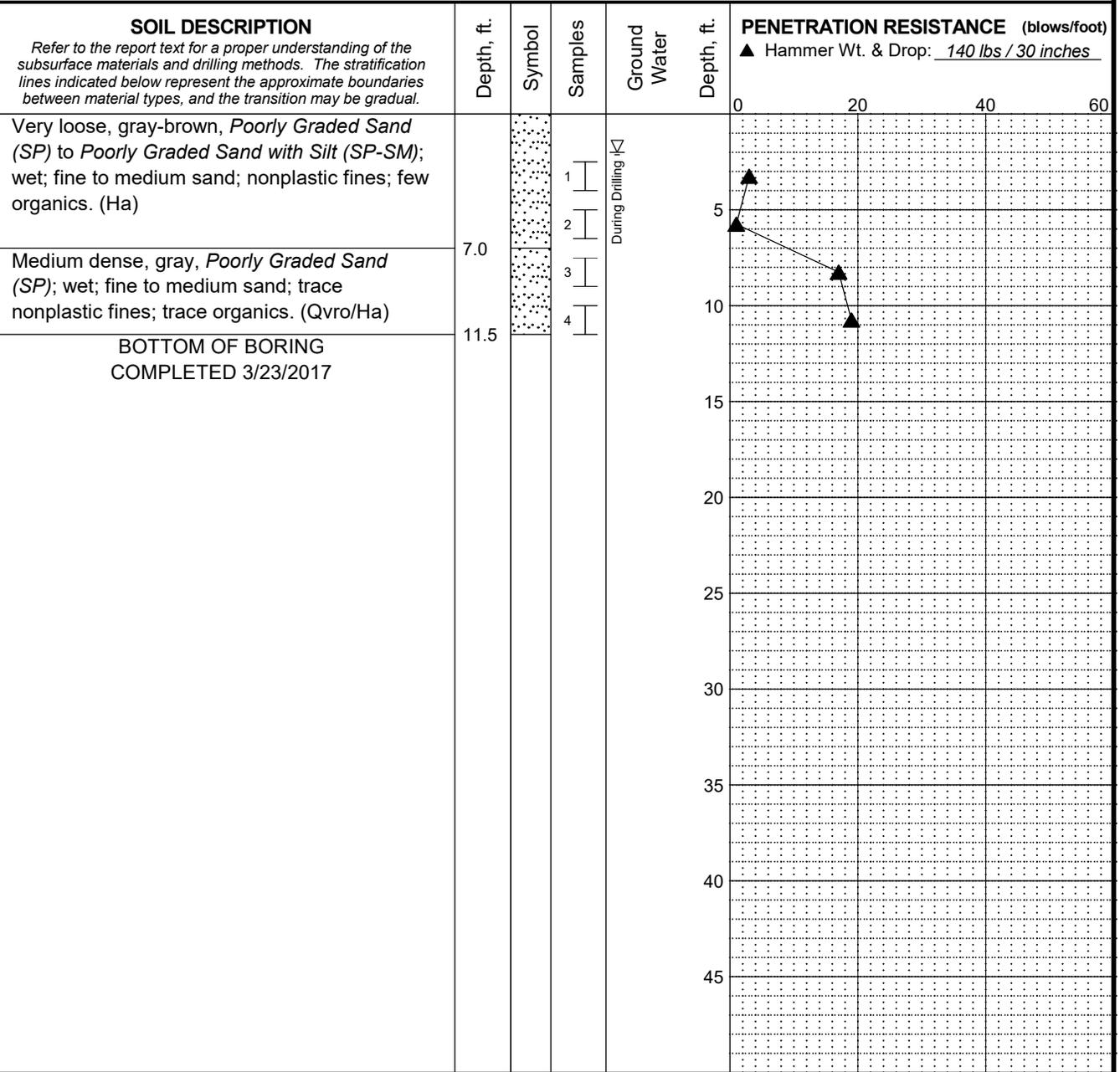
Juanita Beach Park Bathhouse  
Kirkland, Washington

**LOG OF BORING B-2**

April 2017 21-1-22161-008

**SHANNON & WILSON, INC.**  
Geotechnical and Environmental Consultants **FIG. A-3**

Total Depth: 11.5 ft. Northing: \_\_\_\_\_ Drilling Method: Hollow Stem Auger Hole Diam.: 8 in.  
 Top Elevation: ~ 22 ft. Easting: \_\_\_\_\_ Drilling Company: Holocene Drilling Rod Diam.: 2-inch  
 Vert. Datum: \_\_\_\_\_ Station: \_\_\_\_\_ Drill Rig Equipment: Diedrich D50 Hammer Type: Automatic  
 Horiz. Datum: \_\_\_\_\_ Offset: \_\_\_\_\_ Other Comments: \_\_\_\_\_



**LEGEND**

\* Sample Not Recovered      ▽ Ground Water Level ATD      ◇ % Fines (<0.075mm)  
 I 2.0" O.D. Split Spoon Sample      ● % Water Content

**NOTES**

1. Refer to KEY for explanation of symbols, codes, abbreviations and definitions.
2. Groundwater level, if indicated above, is for the date specified and may vary.
3. USCS designation is based on visual-manual classification and selected lab testing.

Juanita Beach Park Bathhouse  
Kirkland, Washington

**LOG OF BORING B-3**

April 2017 21-1-22161-008

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**FIG. A-4**

MASTER LOG E 21-22161.GPJ SHAN WIL.GDT 4/18/17 Log: JJM Rev: EAS Typ: LKN

**APPENDIX B**  
**GEOTECHNICAL LABORATORY TEST RESULTS**

**APPENDIX B**  
**GEOTECHNICAL LABORATORY TEST RESULTS**

**TABLE OF CONTENTS**

	<b>Page</b>
B.1 WATER CONTENT DETERMINATION.....	B-1
B.2 GRAIN SIZE ANALYSIS.....	B-1

**FIGURE**

B-1 Grain Size Distribution

## APPENDIX B

### GEOTECHNICAL LABORATORY TEST RESULTS

Samples collected from the boring B-1 were sealed in jars and returned to the Shannon & Wilson, Inc. (Shannon & Wilson) laboratory for testing. The Shannon & Wilson laboratory conducted the tests.

#### **B.1 WATER CONTENT DETERMINATION**

The water content was determined for select boring samples. Water content determination tests are generally performed in accordance with ASTM International (ASTM) D2216, Standard Method for Laboratory Determination of Water (Moisture) Content of Soil and Rock. Comparison of water content of a soil with its index properties can be useful in characterizing soil unit weight, compactness, consistency, compressibility, and strength. Water content is plotted in the boring logs presented in Appendix A.

#### **B.2 GRAIN SIZE ANALYSIS**

Two grain size analyses were performed from one sample each in borings B-1 and B-2. Grain size analyses are generally performed in accordance with ASTM D422, Standard Method for Particle Size Analysis of Soils.<sup>1</sup> Results of the grain size analyses are presented in Figure B-1. This figure also shows percent fines in tabular form.

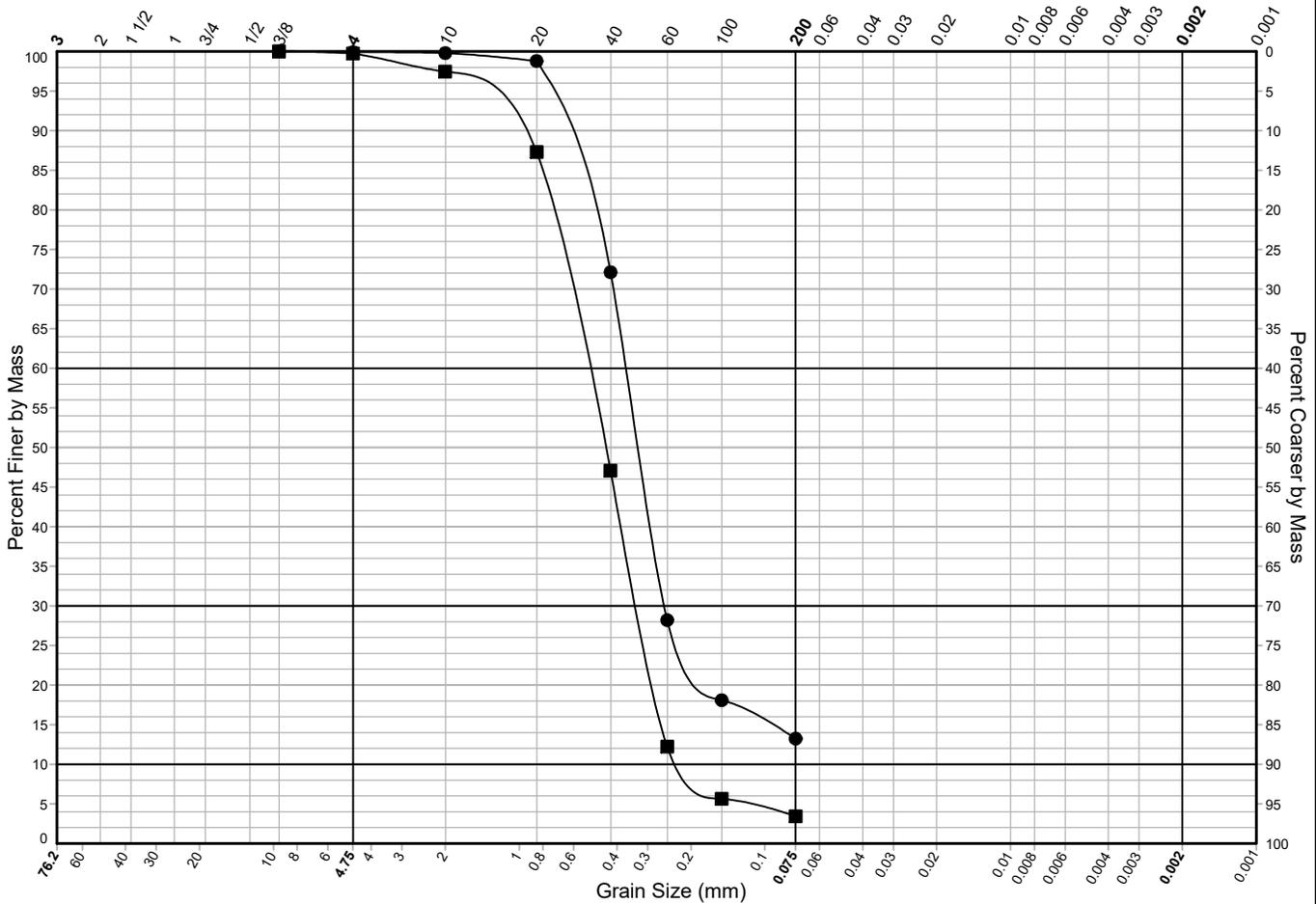
---

<sup>1</sup> ASTM International (ASTM), 2007, Annual book of standards, construction, v. 4.08, soil and rock (I): D420 – D5611: West Conshohocken, Pa.

Juanita Beach Park Bathhouse  
Kirkland, Washington

B-1|7.5, B-2|25

Gravel		Sand			Fines	
Coarse	Fine	Coarse	Medium	Fine	Silt & Clay-Size	
Mesh Opening in Inches		Mesh Openings per Inch, U.S. Standard			Grain Size in Millimeters	



Sample Identification	Depth (ft)	USCS Group Symbol	USCS Group Name	Gravel %	Sand %	Fines %	< 20µm %	< 2µm %	WC %	Tested By	Review By	ASTM Std.
● B-1, S-3'	7.5	SM	Silty Sand	0	87	13			25.4	AKV	JFL	D422
■ B-2, S-9'	25.0	SP	Poorly Graded Sand	0	96	3.4			21.4	AKV		C136

\* Test specimen did not meet minimum mass recommendations.

21-1-22161-008 A\_GSA\_MAIN 21-22161.GPJ\_SHAN\_WIL.GDT 4/18/17

**APPENDIX C**

**HYDROGEOLOGIC TESTING AND  
GROUNDWATER LEVEL MONITORING**

**APPENDIX C**  
**HYDROGEOLOGIC TESTING AND**  
**GROUNDWATER LEVEL MONITORING**

**TABLE OF CONTENTS**

	<b>Page</b>
C.1 SLUG TESTING .....	C-1
C.2 GROUNDWATER LEVEL MONITORING .....	C-1
C.3 REFERENCES .....	C-2

**TABLES**

C-1	Summary of Slug Testing
C-2	Summary of Groundwater Level Monitoring Data

**FIGURES**

C-1	Falling Head Test 1, Observation Well B-2
C-2	Falling Head Test 2, Observation Well B-2
C-3	Falling Head Test 3, Observation Well B-2
C-4	Falling Head Test 4, Observation Well B-2
C-5	Rising Head Test 1, Observation Well B-2
C-6	Rising Head Test 2, Observation Well B-2
C-7	Rising Head Test 3, Observation Well B-2
C-8	Rising Head Test 4, Observation Well B-2

## APPENDIX C

### HYDROGEOLOGIC TESTING AND GROUNDWATER LEVEL MONITORING

#### C.1 SLUG TESTING

Single-well field hydraulic conductivity tests (slug tests) were performed in observation well B-2 to estimate the horizontal hydraulic conductivity of the soils. The slug tests were performed on March 27, 2017. A slug test provides an in situ means of estimating the horizontal hydraulic conductivity of the saturated sediments surrounding the screened zone of a well. Slug tests do not provide data regarding large-scale aquifer properties, aquifer geometry, or boundary conditions affecting groundwater flow.

Slug testing consists of rapidly raising or lowering the water level within an observation well and measuring the recovery of the water level over time to the static level. Raising the water level is achieved by lowering a slug (a sealed, sand-filled, polyvinyl chloride [PVC] pipe) below the static water level to displace water within the well casing. This procedure is termed a “falling head test” because the water level falls with time back to the static level. Lowering the water level is achieved by quickly removing the slug from the well. This is termed a “rising head test” because the water level rises back to the static level after the slug is removed. Both rising and falling head tests were performed as part of the slug testing at each location.

Field staff measured and recorded the variation in water level during the testing period at the well using a downhole combination pressure transducer/data logger, with additional water level measurements being made with an electronic water level indicator. The transducer was secured in the well below the depth to which the slug would be lowered, and rapid water level measurements were made by the transducer and recorded by the data logger.

The slug test data were analyzed using the Bouwer and Rice solution (Bouwer and Rice, 1976; and Bouwer, 1989). Figures C-1 through C-8 present the slug test data in semi-log plots of water level change versus time.

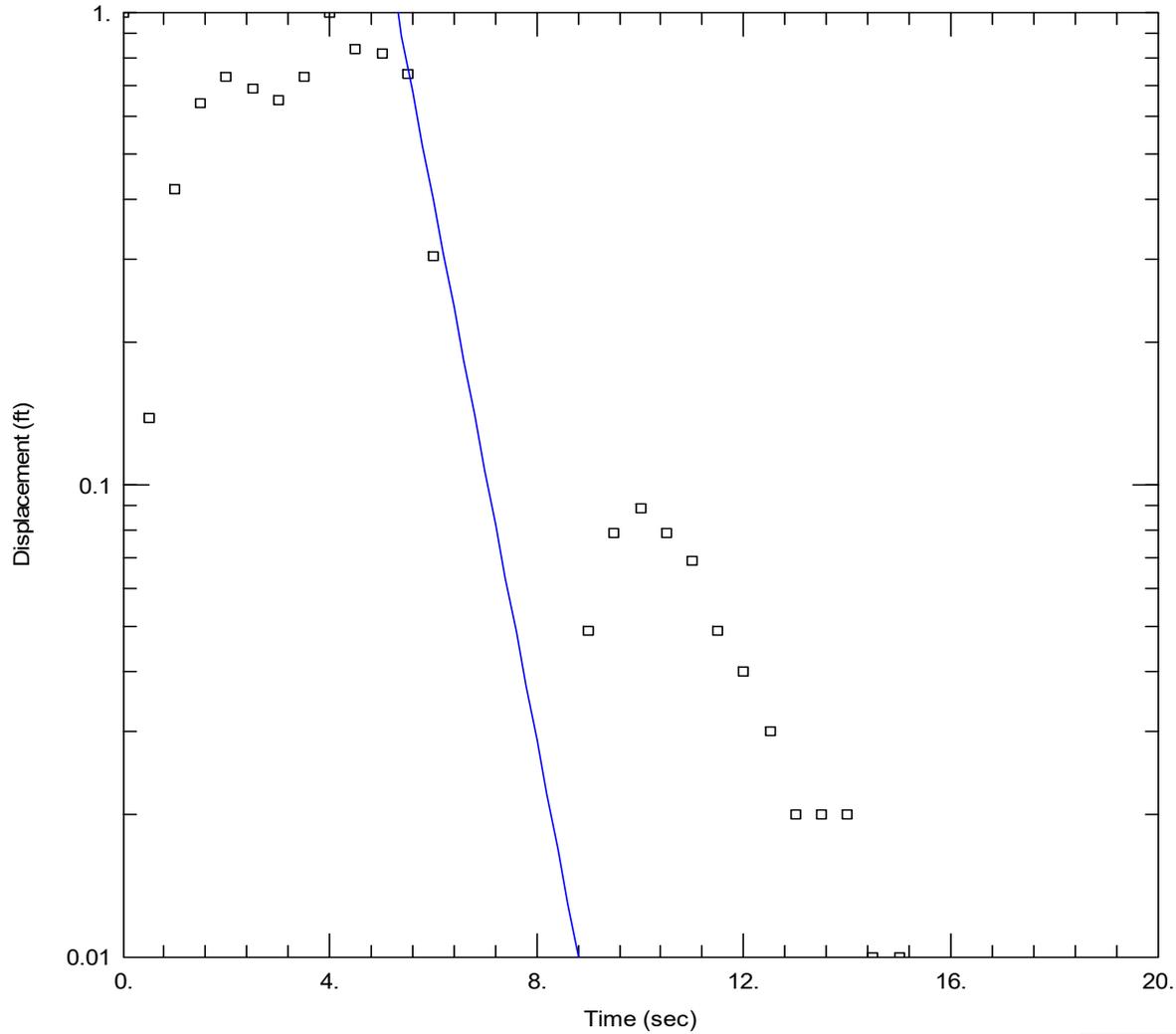
#### C.2 GROUNDWATER LEVEL MONITORING

Groundwater levels in the observation well originally installed for the project were measured in March 2017. Groundwater levels were measured in Observation well water level measurements were made using an electric water level indicator measured relative to the top of the PVC well casing. The water level at observation well B-2 varied from 0.56 to 0.8 foot above ground surface.

### C.3 REFERENCES

Bouwer, Herman, 1989, The Bouwer and Rice slug test – an update: *Ground Water*, v. 27, no. 3, May-June, p. 304-309.

Bouwer, Herman, and Rice, R.C., 1976, A slug test for determining hydraulic conductivity of unconfined aquifers with completely or partially penetrating wells: *Water Resources Research*, v. 12, no. 3, June, p. 423-428.



Obs. Wells  
 □ B-2

Aquifer Model  
 Confined

Solution  
 Bower-Rice

Parameters  
 K = 161.1 ft/day  
 y0 = 1102.9 ft

NOTES

1. Observed test data represented by squares in plot
2. Modeled line in plot is selected based on Bower and Rice (1976)

ft= feet  
 min= minutes

**FIG. C-1**

Juanita Beach Park Bathhouse  
 Kirkland, Washington

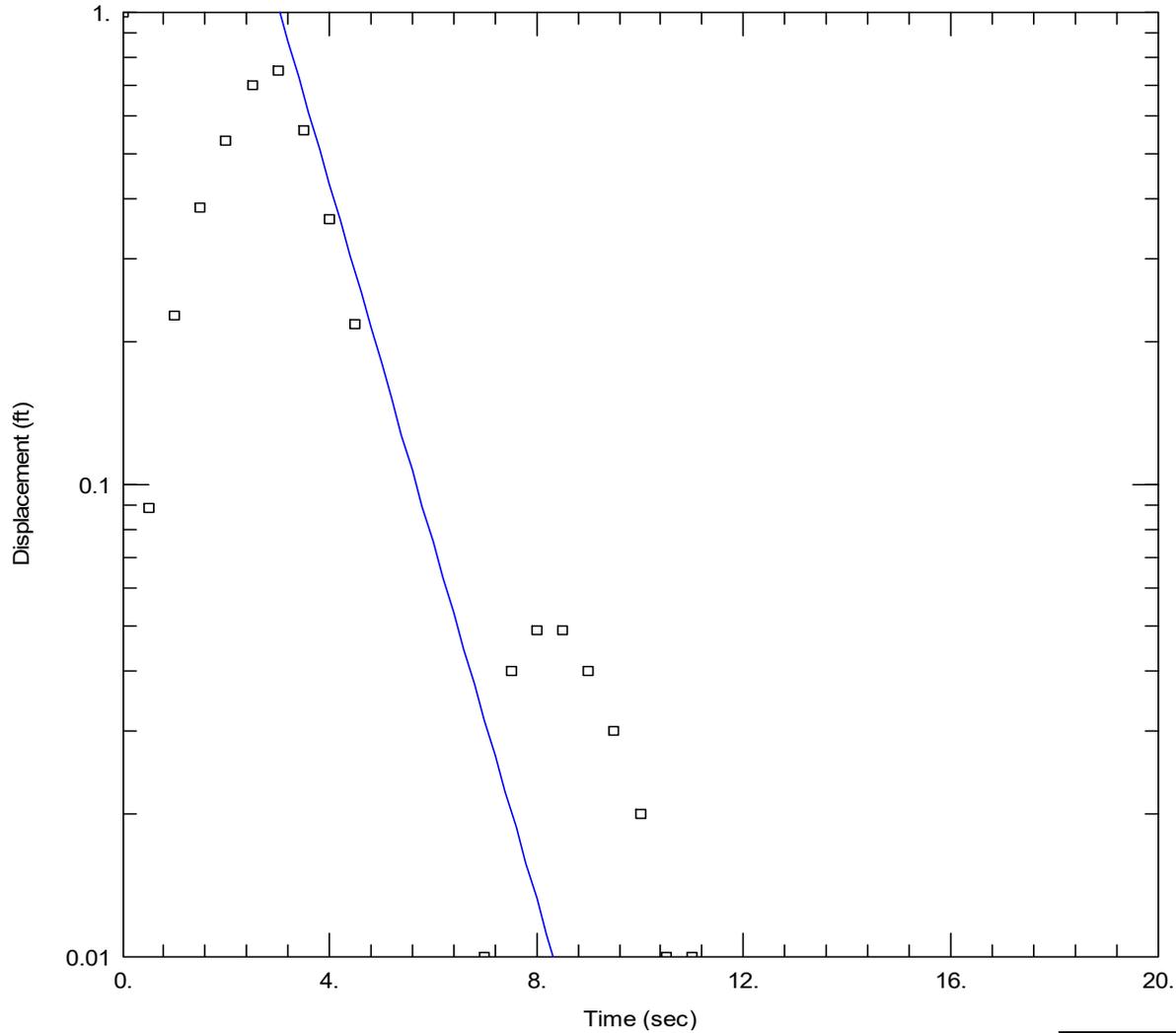
**FALLING HEAD TEST 1  
 OBSERVATION WELL B-2**

April 2017

21-1-22161-008

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 Geotechnical and Environmental Consultants

**FIG. C-1**



Obs. Wells  
 □ B-2  
Aquifer Model  
 Confined  
Solution  
 Bouwer-Rice  
Parameters  
 K = 106.3 ft/day  
 y0 = 14.01 ft

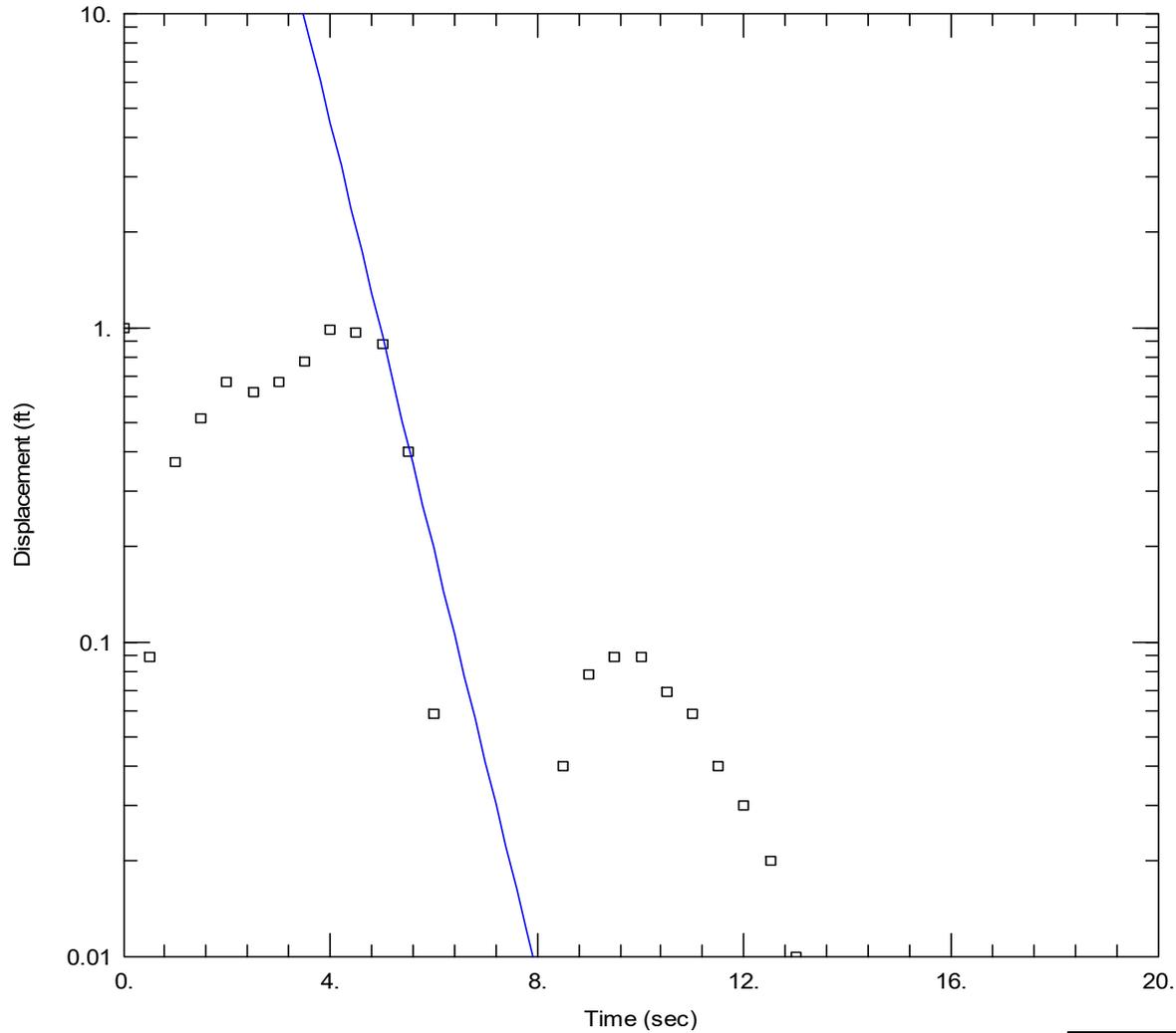
NOTES

1. Observed test data represented by squares in plot
2. Modeled line in plot is selected based on Bower and Rice (1976)

ft= feet  
 min= minutes

**FIG. C-2**

Juanita Beach Park Bathhouse Kirkland, Washington	
<b>FALLING HEAD TEST 2</b> <b>OBSERVATION WELL B-2</b>	
April 2017	21-1-22161-008
SHANNON & WILSON, INC. Geotechnical and Environmental Consultants	<b>FIG. C-2</b>



NOTES

1. Observed test data represented by squares in plot
2. Modeled line in plot is selected based on Bower and Rice (1976)

ft= feet  
 min= minutes

**FIG. C-3**

Juanita Beach Park Bathhouse  
 Kirkland, Washington

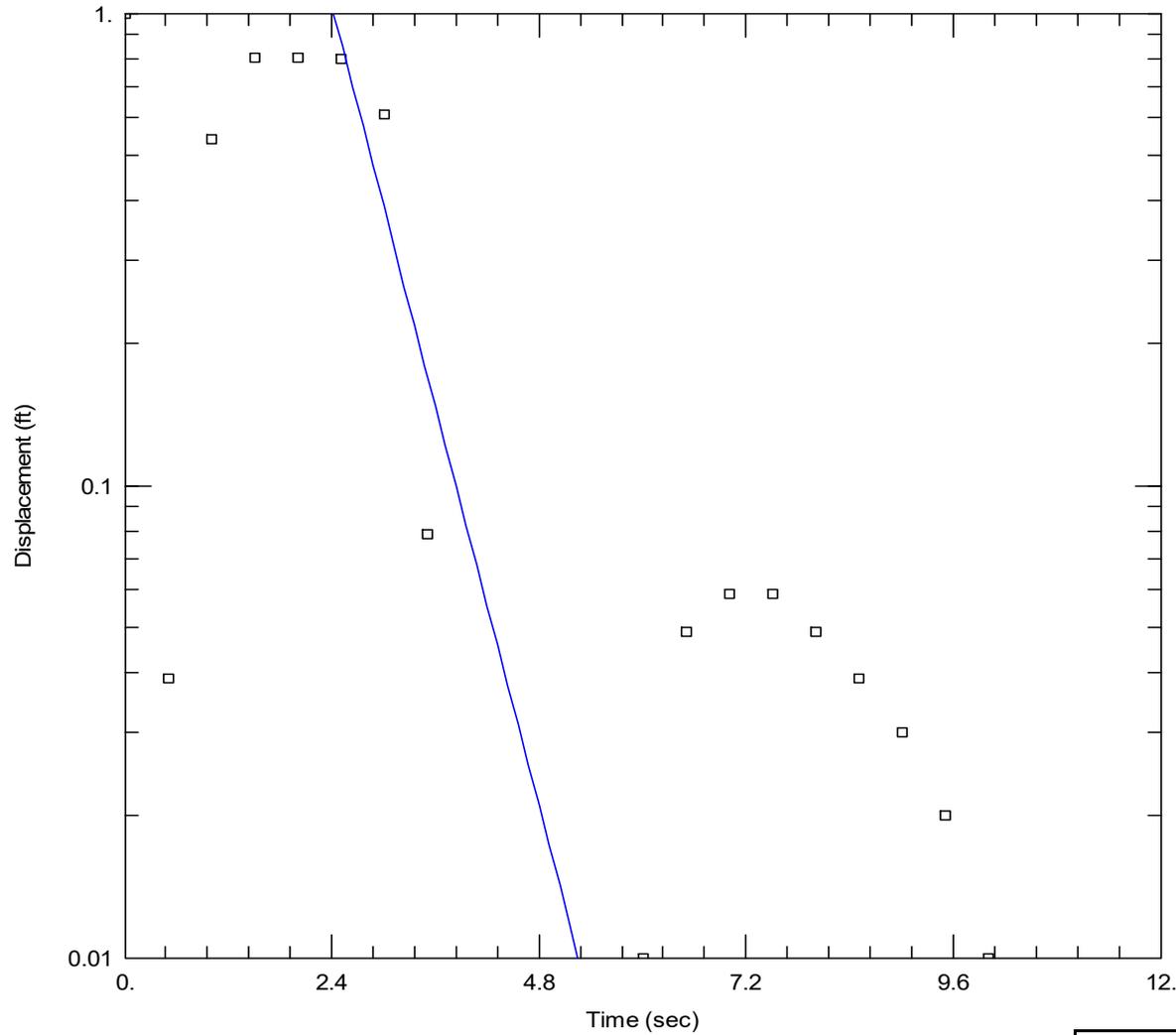
**FALLING HEAD TEST 3  
 OBSERVATION WELL B-2**

April 2017

21-1-22161-008

**SHANNON & WILSON, INC.**  
 Geotechnical and Environmental Consultants

**FIG. C-3**



Obs. Wells  
 □ B-2

Aquifer Model  
 Confined

Solution  
 Bower-Rice

Parameters  
 K = 198.1 ft/day  
 y0 = 50.82 ft

NOTES

1. Observed test data represented by squares in plot
2. Modeled line in plot is selected based on Bower and Rice (1976)

ft= feet  
 min= minutes

**FIG. C-4**

Juanita Beach Park Bathhouse  
 Kirkland, Washington

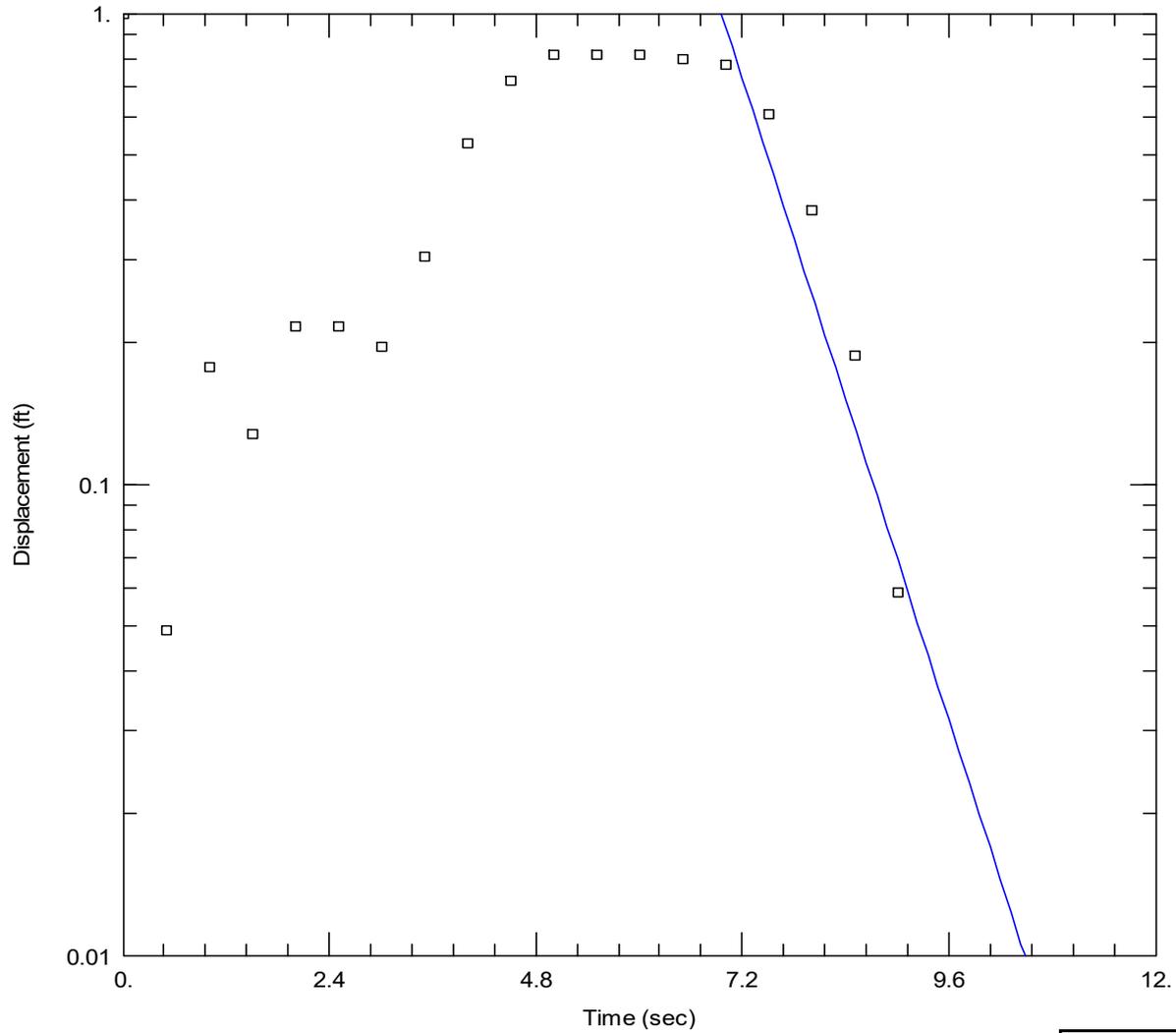
**FALLING HEAD TEST 4  
 OBSERVATION WELL B-2**

April 2017

21-1-22161-008

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**FIG. C-4**



Obs. Wells

□ B-2

Aquifer Model

Confined

Solution

Bouwer-Rice

Parameters

K = 159.4 ft/day

y0 = 8806.8 ft

NOTES

1. Observed test data represented by squares in plot
2. Modeled line in plot is selected based on Bower and Rice (1976)

ft= feet  
min= minutes

**FIG. C-5**

Juanita Beach Park Bathhouse  
Kirkland, Washington

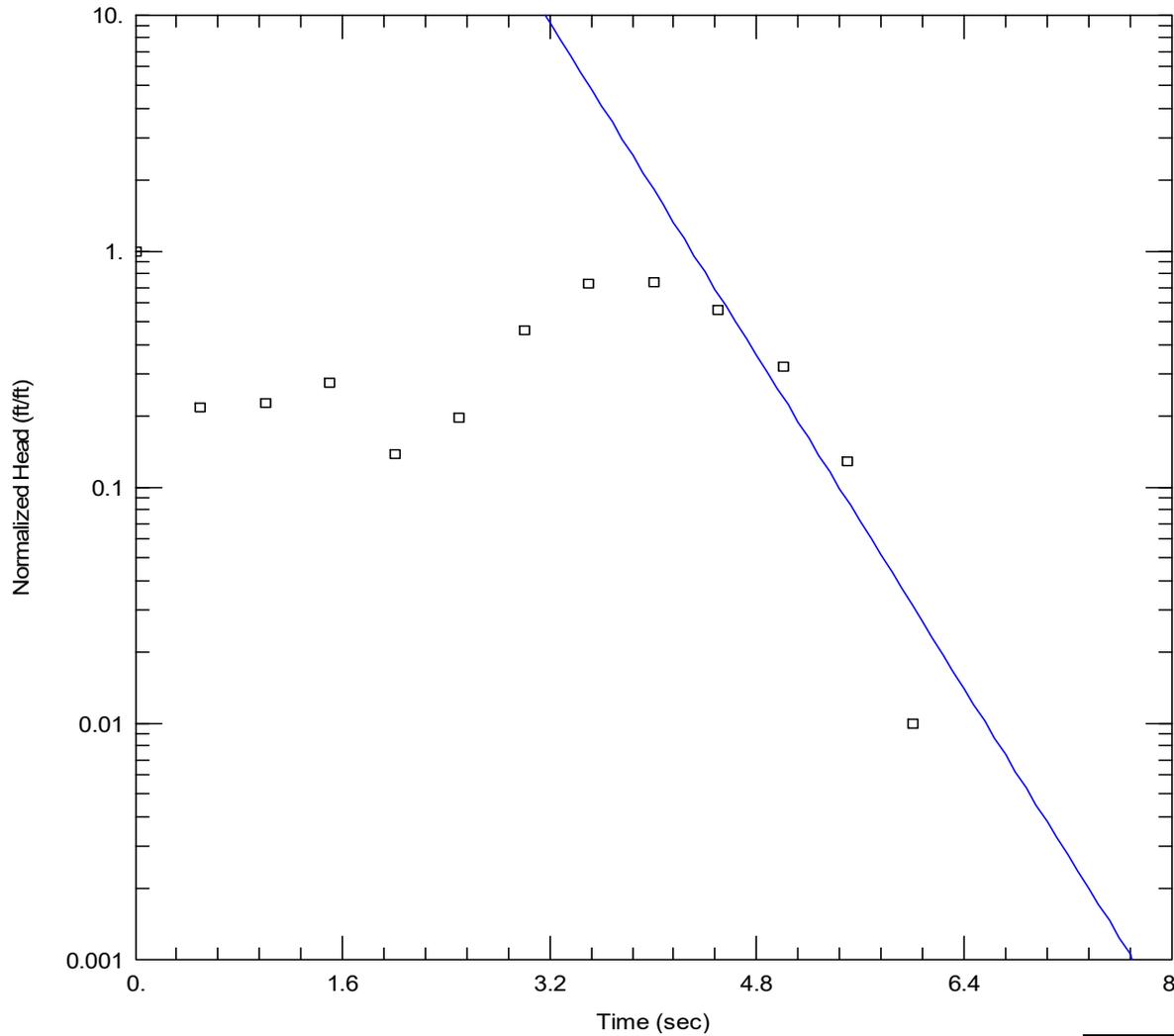
**RISING HEAD TEST 1  
OBSERVATION WELL B-2**

April 2017

21-1-22161-008

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**FIG. C-5**



Obs. Wells  
 □ B-2  
Aquifer Model  
 Confined  
Solution  
 Bouwer-Rice  
Parameters  
 K = 247.7 ft/day  
 y0 = 6117.8 ft

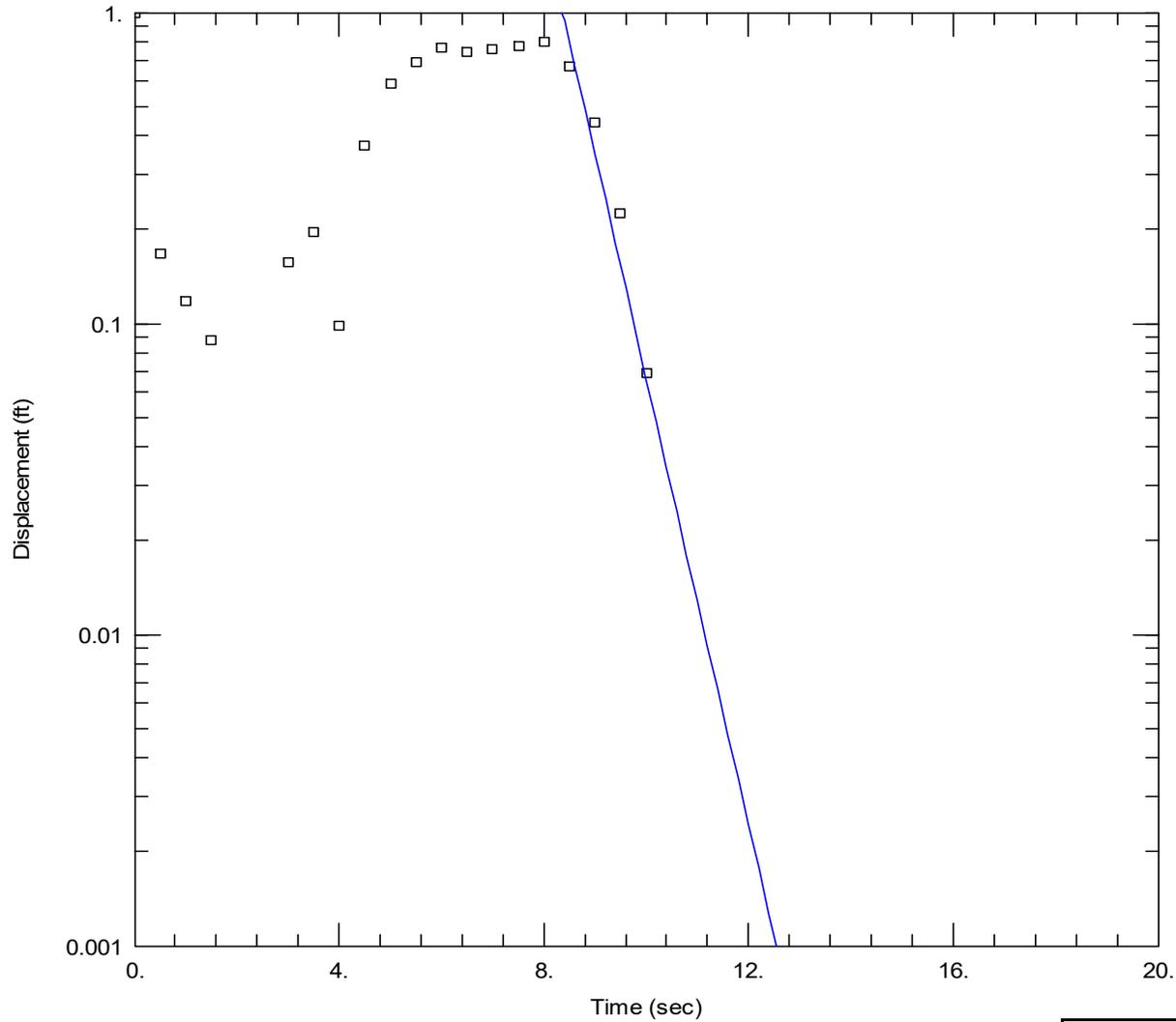
NOTES

1. Observed test data represented by squares in plot
2. Modeled line in plot is selected based on Bower and Rice (1976)

ft= feet  
 min= minutes

**FIG. C-6**

Juanita Beach Park Bathhouse Kirkland, Washington	
<b>RISING HEAD TEST 2</b> <b>OBSERVATION WELL B-2</b>	
April 2017	21-1-22161-008
<b>SHANNON &amp; WILSON, INC.</b> Geotechnical and Environmental Consultants	<b>FIG. C-6</b>



Obs. Wells  
 □ B-2  
Aquifer Model  
 Confined  
Solution  
 Bouwer-Rice  
Parameters  
 K = 201.5 ft/day  
 y0 = 9.859E+5 ft

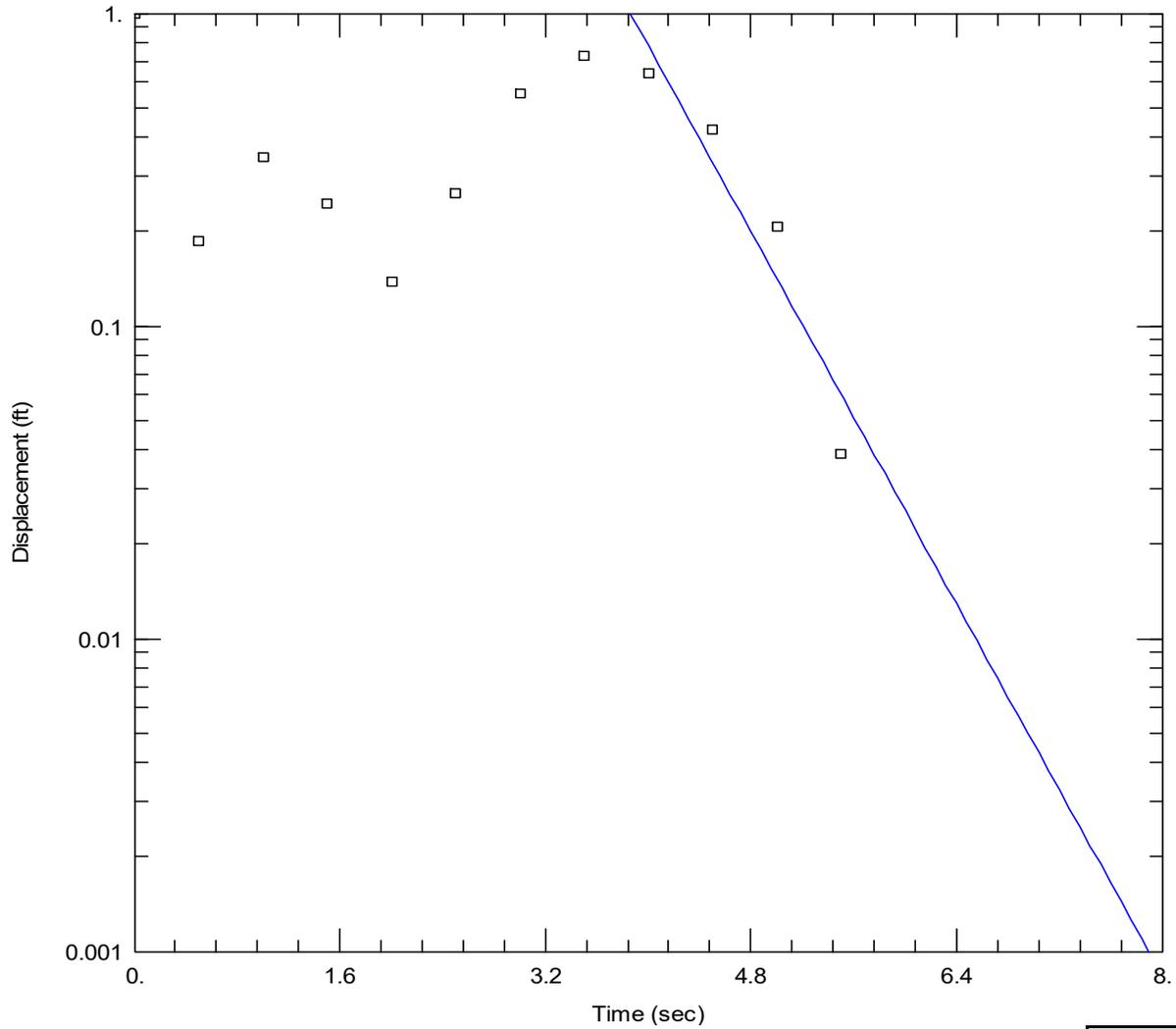
NOTES

1. Observed test data represented by squares in plot
2. Modeled line in plot is selected based on Bower and Rice (1976)

ft= feet  
 min= minutes

**FIG. C-7**

Juanita Beach Park Bathhouse Kirkland, Washington	
<b>RIISING HEAD TEST 3 OBSERVATION WELL B-2</b>	
April 2017	21-1-22161-008
<b>SHANNON &amp; WILSON, INC.</b> Geotechnical and Environmental Consultants	<b>FIG. C-7</b>



Obs. Wells

□ B-2

Aquifer Model

Confined

Solution

Bouwer-Rice

Parameters

K = 209.2 ft/day

y0 = 747.2 ft

NOTES

1. Observed test data represented by squares in plot
2. Modeled line in plot is selected based on Bower and Rice (1976)

ft= feet  
min= minutes

**FIG. C-8**

Juanita Beach Park Bathhouse  
Kirkland, Washington

**RISING HEAD TEST 4  
OBSERVATION WELL B-2**

April 2017

21-1-22161-008

**SHANNON & WILSON, INC.**  
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**FIG. C-8**

**APPENDIX D**

**IMPORTANT INFORMATION ABOUT YOUR  
GEOTECHNICAL/ENVIRONMENTAL REPORT**



Date: April 19, 2017  
To: Mr. Erik Barr  
Patano Studio Architecture

## **IMPORTANT INFORMATION ABOUT YOUR GEOTECHNICAL/ENVIRONMENTAL REPORT**

### **CONSULTING SERVICES ARE PERFORMED FOR SPECIFIC PURPOSES AND FOR SPECIFIC CLIENTS.**

Consultants prepare reports to meet the specific needs of specific individuals. A report prepared for a civil engineer may not be adequate for a construction contractor or even another civil engineer. Unless indicated otherwise, your consultant prepared your report expressly for you and expressly for the purposes you indicated. No one other than you should apply this report for its intended purpose without first conferring with the consultant. No party should apply this report for any purpose other than that originally contemplated without first conferring with the consultant.

### **THE CONSULTANT'S REPORT IS BASED ON PROJECT-SPECIFIC FACTORS.**

A geotechnical/environmental report is based on a subsurface exploration plan designed to consider a unique set of project-specific factors. Depending on the project, these may include: the general nature of the structure and property involved; its size and configuration; its historical use and practice; the location of the structure on the site and its orientation; other improvements such as access roads, parking lots, and underground utilities; and the additional risk created by scope-of-service limitations imposed by the client. To help avoid costly problems, ask the consultant to evaluate how any factors that change subsequent to the date of the report may affect the recommendations. Unless your consultant indicates otherwise, your report should not be used: (1) when the nature of the proposed project is changed (for example, if an office building will be erected instead of a parking garage, or if a refrigerated warehouse will be built instead of an unrefrigerated one, or chemicals are discovered on or near the site); (2) when the size, elevation, or configuration of the proposed project is altered; (3) when the location or orientation of the proposed project is modified; (4) when there is a change of ownership; or (5) for application to an adjacent site. Consultants cannot accept responsibility for problems that may occur if they are not consulted after factors which were considered in the development of the report have changed.

### **SUBSURFACE CONDITIONS CAN CHANGE.**

Subsurface conditions may be affected as a result of natural processes or human activity. Because a geotechnical/environmental report is based on conditions that existed at the time of subsurface exploration, construction decisions should not be based on a report whose adequacy may have been affected by time. Ask the consultant to advise if additional tests are desirable before construction starts; for example, groundwater conditions commonly vary seasonally.

Construction operations at or adjacent to the site and natural events such as floods, earthquakes, or groundwater fluctuations may also affect subsurface conditions and, thus, the continuing adequacy of a geotechnical/environmental report. The consultant should be kept apprised of any such events, and should be consulted to determine if additional tests are necessary.

### **MOST RECOMMENDATIONS ARE PROFESSIONAL JUDGMENTS.**

Site exploration and testing identifies actual surface and subsurface conditions only at those points where samples are taken. The data were extrapolated by your consultant, who then applied judgment to render an opinion about overall subsurface conditions. The actual interface between materials may be far more gradual or abrupt than your report indicates. Actual conditions in areas not sampled may differ from those predicted in your report. While nothing can be done to prevent such situations, you and your consultant can work together to help reduce their impacts. Retaining your consultant to observe subsurface construction operations can be particularly beneficial in this respect.

## **A REPORT'S CONCLUSIONS ARE PRELIMINARY.**

The conclusions contained in your consultant's report are preliminary because they must be based on the assumption that conditions revealed through selective exploratory sampling are indicative of actual conditions throughout a site. Actual subsurface conditions can be discerned only during earthwork; therefore, you should retain your consultant to observe actual conditions and to provide conclusions. Only the consultant who prepared the report is fully familiar with the background information needed to determine whether or not the report's recommendations based on those conclusions are valid and whether or not the contractor is abiding by applicable recommendations. The consultant who developed your report cannot assume responsibility or liability for the adequacy of the report's recommendations if another party is retained to observe construction.

## **THE CONSULTANT'S REPORT IS SUBJECT TO MISINTERPRETATION.**

Costly problems can occur when other design professionals develop their plans based on misinterpretation of a geotechnical/environmental report. To help avoid these problems, the consultant should be retained to work with other project design professionals to explain relevant geotechnical, geological, hydrogeological, and environmental findings, and to review the adequacy of their plans and specifications relative to these issues.

## **BORING LOGS AND/OR MONITORING WELL DATA SHOULD NOT BE SEPARATED FROM THE REPORT.**

Final boring logs developed by the consultant are based upon interpretation of field logs (assembled by site personnel), field test results, and laboratory and/or office evaluation of field samples and data. Only final boring logs and data are customarily included in geotechnical/environmental reports. These final logs should not, under any circumstances, be redrawn for inclusion in architectural or other design drawings, because drafters may commit errors or omissions in the transfer process.

To reduce the likelihood of boring log or monitoring well misinterpretation, contractors should be given ready access to the complete geotechnical engineering/environmental report prepared or authorized for their use. If access is provided only to the report prepared for you, you should advise contractors of the report's limitations, assuming that a contractor was not one of the specific persons for whom the report was prepared, and that developing construction cost estimates was not one of the specific purposes for which it was prepared. While a contractor may gain important knowledge from a report prepared for another party, the contractor should discuss the report with your consultant and perform the additional or alternative work believed necessary to obtain the data specifically appropriate for construction cost estimating purposes. Some clients hold the mistaken impression that simply disclaiming responsibility for the accuracy of subsurface information always insulates them from attendant liability. Providing the best available information to contractors helps prevent costly construction problems and the adversarial attitudes that aggravate them to a disproportionate scale.

## **READ RESPONSIBILITY CLAUSES CLOSELY.**

Because geotechnical/environmental engineering is based extensively on judgment and opinion, it is far less exact than other design disciplines. This situation has resulted in wholly unwarranted claims being lodged against consultants. To help prevent this problem, consultants have developed a number of clauses for use in their contracts, reports, and other documents. These responsibility clauses are not exculpatory clauses designed to transfer the consultant's liabilities to other parties; rather, they are definitive clauses that identify where the consultant's responsibilities begin and end. Their use helps all parties involved recognize their individual responsibilities and take appropriate action. Some of these definitive clauses are likely to appear in your report, and you are encouraged to read them closely. Your consultant will be pleased to give full and frank answers to your questions.

The preceding paragraphs are based on information provided by the  
ASFE/Association of Engineering Firms Practicing in the Geosciences, Silver Spring, Maryland