



BID DOCUMENT COVER SHEET

Description of Project or Contract: Golf Course Well Pump Installation and Building

BID DEADLINE:

Date: **August 4, 2021**

Time: **2:00 pm**

Place: **City of Port Townsend**

Finance Department Front Desk

250 Madison Street, Suite #1

Port Townsend, WA 98368

PROPOSAL SUBMITTED BY:

Address:

Telephone:

email:

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INVITATION TO BID

Project Name. The City of Port Townsend will be accepting bids for a project:
Golf Course Well Pump Installation and Building

Project Description. This project includes: Constructing a building, contractor designed electrical system, and installing a City provided well pump and pump control panel. The construction will include but is not limited to building construction and mechanical including electrical and plumbing.

Documents. A complete set of contract documents and plans are available at <https://cityofpt.us/publicworks/page/new-bid-opportunities>.

City representative for this project: Questions may be directed to the project manager, Ian Jablonski.

City of Port Townsend
Ian Jablonski, Water Resources Operations Manager
250 Madison Street, Suite 2R
Port Townsend, WA 98368
(360) 3815092
ijablonski@cityofpt.us

Questions which may impact the project or bid will be answered, in writing, in the form of an addendum and posted to <https://cityofpt.us/publicworks/page/new-bid-opportunities>.

Schedule and Completion Time. The successful bidder will have 60 calendar days from the Notice to Proceed to substantially complete construction.

Liquidated Damages. Liquidated damages for delay of \$ 100.00 per day will be assessed for each day that expires after the date substantial completion is to occur.

Bid Submittal. Only sealed bids will be accepted – See Instructions for Bidders.

Date for Bids. Bids will be accepted until 2:00 pm Wednesday August 4, 2021, Front Desk at City Hall, 250 Madison Street Suite, #1, Port Townsend, WA 98368. Hours are currently 9:00 am to 4:00 pm M-F. Bids may also be dropped off in the outdoor drop box. Any bids received after the specified time and date will not be considered.

Prescribed Forms. Each bid must be submitted on the prescribed bid forms.

Right to Reject Bids. The City of Port Townsend reserves the right to reject any and/or all bids, and to accept the bid deemed most advantageous to the City of Port Townsend and to waive all informalities and minor irregularities in the bidding.

Dated this 21st day of July 2021
City of Port Townsend, WA
By: John Mauro, City Manager

INSTRUCTIONS AND INFORMATION FOR BIDDERS

Receipt of Bids. Bids must be submitted on the forms provided herewith, all blanks of which must be appropriately filled in. **The bid must be submitted in a sealed envelope bearing on the outside the name of the bidder, his/her address, the date submitted, and the project for which the bid is being submitted;** if forwarded by mail, the bid must be enclosed in another envelope addressed to the City of Port Townsend.

Withdrawal of Bids. Any bid may be withdrawn prior to the scheduled time for opening of bids or authorized postponement thereof. No bid or proposal may be withdrawn after the time set for the bid opening or before award of contract, unless said award is delayed for a period exceeding 60 days.

Late Bids. Any bid received after the time and date specified shall not be considered.

Bid Documents. Each bid must be accompanied by the following completed forms executed as required.

Exhibit A - Bid Proposal
Exhibit B – Responsible Bidder’s Criteria
Bid Bond or Bid Deposit

Contract. The form of Contract is included in the bid package marked as Exhibit C, which form shall be used and required of the bidder to be executed for the Contract. The party to whom the Contract is awarded will be required to execute the Contract, provide insurance (Exhibit D), and to obtain a Performance Bond (Exhibit E) and Payment Bond (Exhibit F) within 10 calendar days from the date when Notice of Award is delivered to the bidder.

Proposals. All bids must be made on the required Bid Proposal and must include the required bid documents. All blank spaces for bid prices must be filled in, in ink or typewritten, and the Bid Proposal must be fully completed and executed when submitted. Only one copy of the bid is required.

Basis of Award. The City will select and award the Contract to the lowest responsive, responsible bidder whose proposal, submitting the base bid, or base bid plus any alternatives (if any) selected by the City, as determined most advantageous to the City.

If at the time this contract is to be awarded, the lowest acceptable Bid exceeds the funds then estimated by the City as available, the City may reject all Bids or take such other action as best serves the City’s interest.

If the Bid Proposal form includes alternatives, City may accept all, part, or none of the listed alternative bids. Apparent low bidder selection may be based on the total of the base bid plus those alternative bids the City chooses to accept (at the sole discretion of the City.)

Award of Contract. Contract award or bid rejection will occur within 30 calendar days of bid opening.

Execution of Contract. Within 10 calendar days after the award date, the successful bidder shall return the signed Contract, and required insurance certification and bond as required by the Contract documents.

Waiver or Rejection. The City may waive any informality or minor defect or reject any and all bids at any time. Informalities in bids are matters of form rather than substance evident from the bid document, or insignificant mistakes that can be waived or corrected without prejudice to other bidders; that is, the effect on price, quantity, quality, delivery, or contractual conditions is negligible, and waiver of the informality does not grant the bidder a competitive advantage.

Bidder Familiarity with Requirements. Bidders must satisfy themselves of the accuracy of estimated quantities, specifications and contract requirements, by personal examination of any plans, specifications, all bid and contract documents, the site or sites or location of the proposed work, and by any other examination or investigation which they may desire to make as to the nature of the contract requirements or any difficulties to be encountered. The failure or omission of any bidder to do any of the foregoing shall in no way relieve any bidder from any obligation in respect to his bid, and the bidder shall not assert that there was a misunderstanding concerning the work or of the nature of the work to be done, or of the requirements of the contract.

Attorneys-in-Fact. Attorneys-in-fact who sign a Performance Bond must file a certified and effective dated copy of their Power of Attorney with the bond.

Notice to Proceed. A Notice to Proceed shall be issued within 90 days of bid opening. Should there be reasons why the Notice to Proceed cannot be issued within such period, time may be extended by mutual agreement between the City and the Contractor. If the Notice to Proceed has not been issued within 90 days or within the period mutually agreed upon, the Contractor may terminate the Agreement without further liability on the part of each party.

Qualifications of Bidders. The City may make such investigations as it deems necessary to determine the ability of the bidder to perform the work, and the bidder shall furnish to the City all such information and data for this purpose as the City may request. The City reserves the right to reject any bid if the evidence is submitted by or an investigation of such bidder fails to satisfy the City that such bidder is properly qualified to carry out obligations of the contract and to complete the work contemplated therein.

Applicable Law. All applicable laws, ordinances and the rules and regulations of all authorities having jurisdictions over the City or of the work to be performed by the contractor shall apply to the contract throughout, and the bidder shall be required to be familiar with and comply with any such laws, ordinances, rules and regulations.

Conditional or Qualified Bids. A conditional or qualified bid will not be accepted.

Corrections, Interpretations and Addenda. Any omissions, discrepancies, or need for interpretation should be brought in writing, no later than 10 days before the bid opening date and sent to the attention of the following:

Ian Jablonski, Water Resources Operations Manager

City of Port Townsend Public Works
250 Madison Street #2R
Port Townsend, WA 98368

Written addenda to clarify questions, which should arise, will then be issued if appropriate. All interpretation or explanation of the bid contract documents shall be in the form of an addendum, and no oral statements by the City or any other officer, employee or other agent or representative of the City shall in any way modify the contract or bid documents, whether made before or after letting the contract.

Insurance Requirements. All bidders will be required, if they are awarded the contract, to provide evidence of insurance in accordance with the requirements set forth in **Exhibit D**. Bidders should pay special note to the insurance requirements and insurance documents required.

Payment. Payment shall be made monthly upon submittal of a pay request for work performed to date as determined by the City. Failure to perform any of the obligations under the contract by Contractor may be decreed by the City to be adequate reason for withholding any payments until compliance is achieved, including withholding amounts from any payment based on substantial completion to cover the City's cost to complete any punch list items.

Retainage. Pursuant to RCW 60.28, 5% retainage will be withheld from progress payments.

Performance Bond. A Performance Bond, in the form attached as **Exhibit E**, in the amount of 100% of the contract price, with a corporate surety approved by the City, will be required for the faithful performance of the contract.

Payment Bond. A Payment Bond in the form of attached as **Exhibit F**, in the amount of 100% of the contract price, with a corporate surety approved by the City, will be required for payment of workers and suppliers.

Lowest Responsive Responsible Bidder. It is the intent of Owner to award a contract to the lowest responsive and responsible bidder. In accordance with RCW 39.04.350, before award, the bidder must meet the following bidder responsibility criteria to be considered a responsible bidder. The bidder may be required to provide the City documentation demonstrating compliance with the criteria. The bidder must:

1. Have a current certificate of registration as a contractor in compliance with chapter 18.27 RCW, **which must have been in effect at the time of bid submittal**;
2. **Before award of contract**, have a current Washington Unified Business Identifier (UBI) number;
3. **Before award of contract**, if applicable:
 - a. Have Industrial Insurance (workers' compensation) coverage for the bidder's employees working in Washington, as required in Title 51 RCW;
 - b. Have a Washington Employment Security Department number, as required in Title 50 RCW;
 - c. Have a Washington Department of Revenue state excise tax registration number, as required in Title 82 RCW;
4. **At the time of award of contract**, not be disqualified from bidding on any public works contract under RCW 39.06.010 or 39.12.065(3).

5. **At the time of the bid solicitation date** contractor may not have been found in violation of a Washington State Apprenticeship and Training Counsel requirements for working apprentices out of ratio, without appropriate supervision, or outside their approved work processes as outlined in their standards of apprenticeship under chapter [49.04](#) RCW for the preceding year.
6. **Before award of contract**, contractor must have received training on the requirements related to public works and prevailing wage under this chapter and chapter [39.12](#) RCW. The bidder must designate a person or persons to be trained on these requirements. The training must be provided by the Department of Labor and Industries or by a training provider whose curriculum is approved by the Department. The Department, in consultation with the prevailing wage advisory committee, must determine the length of the training. Bidders that have completed three or more public works projects and have had a valid business license in Washington for three or more years are exempt from this subsection.
7. **Within the three-year period immediately preceding the date of the bid solicitation**, not have been determined by a final and binding citation and notice of assessment issued by the Department of Labor and Industries or through a civil judgement 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.

Pursuant to RCW 39.06.020, the bidder who is awarded the contract must verify responsibility criteria for each first-tier subcontractor, and a subcontractor of any tier that hires other subcontractors must verify responsibility criteria for each of its subcontractors. Verification shall include that each subcontractor, at the time of subcontract execution, meets the responsibility listed above and possesses an electrical contractor license, if required by chapter 19.28 RCW, or an elevator contractor license, if required by Chapter 70.87 RCW. This verification requirement, as well as the responsibility criteria, must be included in the project contract and in each subcontract of every tier.

Supplemental Bidder Responsibility Criteria – Only the apparent low bidder will be required to submit documentation of the supplemental criteria before contract award.

1. **Business License** - A City of Port Townsend Business License endorsement is required.
2. **Delinquent State Taxes**
 - a. Criterion: The Bidder shall not owe delinquent taxes to the Washington State Department of Revenue without a payment plan approved by the Department of Revenue.
 - b. Documentation: The Bidder shall not be listed on the Washington State Department of Revenue’s “Delinquent Taxpayer List” website:
<http://dor.wa.gov/content/fileandpaytaxes/latefiling/dtlwest.aspx>.
3. **Federal Debarment**
 - a. Criterion: The Bidder shall not currently be debarred or suspended by the Federal government.

- b. Documentation: The Bidder shall not be listed as a current debarred or suspended bidder on the U.S. General Services Administration's "Excluded Parties List System" website: <http://www.epls.gov/>.

3. Public Bidding Crime

- a. Criterion: The Bidder shall not have been convicted of a crime involving bidding on a public works contract within five years from the bid submittal deadline.
- b. Documentation: The Bidder shall sign a statement (on a form to be provided by the Owner) that the Bidder has not been convicted of a crime involving bidding on a public works contract. The Owner may also use independent sources of information that may be available to demonstrate whether the Bidder is in compliance with this criterion.

4. Subcontractor Responsibility

- a. Criterion: The Bidder's standard subcontract form shall include the subcontractor responsibility language required by RCW 39.06.020, and the Bidder shall have an established procedure which it utilizes to validate the responsibility of each of its subcontractors. The Bidder's subcontract form shall also include a requirement that each of its subcontractors shall have and document a similar procedure to determine whether the sub-tier subcontractors with whom it contracts are also "responsible" subcontractors as defined by RCW 39.06.020.
- b. Documentation: The Bidder shall submit a copy of its standard subcontract form for review by the Owner, and a written description of its procedure for validating the responsibility of subcontractors with which it contracts.

5. Claims Against Retainage and Bonds

- a. Criterion: The Bidder shall not have a record of excessive claims filed against the retainage or payment bonds for public works projects during the previous three years, that demonstrate a lack of effective management by the Bidder of making timely and appropriate payments to its subcontractors, suppliers, and workers, unless there are extenuating circumstances acceptable to the Owner. For the purpose of this criterion, "Bidder" shall include the registered construction company submitting the bid, as well as the owner(s) of the company and any other construction companies the owner(s) may currently or previously have owned.
- b. Documentation: The Bidder shall submit a list of the public works projects completed within the previous three years and include for each project the following information:
 - The owner and contact information for the owner;
 - A list of claims filed against the retainage and/or payment bond for any of the projects listed;

- A written explanation of the circumstances surrounding each claim and the ultimate resolution of the claim.

The Owner may contact previous owners to validate the information provided by the Bidder.

6. Completion of Similar Projects

- a. Criterion: The Bidder shall have successfully completed three projects of a similar size and scope as required by the contract documents for this project. In evaluating whether the projects were “successfully completed,” the Owner may check owner references for the previous projects and may evaluate the owner’s assessment of the Bidder performance.
- b. Documentation: The Bidder shall submit a list of projects of similar size and scope to this project. For the purposes of meeting this criterion, the Owner has determined that “similar size and scope to this project” means projects that have the following characteristics: Building structure with plumbing, electrical and well installation as in pump details. The information about each project shall include the following:
 - Owner’s name and contact information for the owner’s representative;
 - Awarded contract amount;
 - Final contract amount;
 - A description of the scope of the project and how the project is similar to this project;
 - The Bidder’s assessment of its performance of each project, including but not limited to the following:
 - Quality control;
 - Safety record;
 - Timeliness of performance;
 - Use of skilled personnel;
 - Management of subcontractors;
 - Availability of and use of appropriate equipment;
 - Compliance with contract documents;
 - Management of submittals process and change orders.

7. Termination for Cause

- a. Criterion: The Bidder shall not have had any public works contract terminated for cause by a government agency during the five-year period immediately preceding the bid submittal deadline for this project, unless there are extenuating circumstances acceptable to the Owner. For the purpose of this criterion, "Bidder" shall include the registered construction company submitting the bid, as well as the owner(s) of the company and any other construction companies the owner(s) may currently or previously have owned.

b. Documentation: The Bidder shall sign a statement (on a form to be provided by the Owner) that the Bidder has not had any public works contract terminated for cause by a government agency during the five-year period immediately preceding the bid submittal deadline for this project. The Owner may also use independent sources of information that may be available to demonstrate whether the Bidder is in compliance

9. Sales Tax/Use Tax. Retail sales/use tax to be collected from the City on the Contract amount shall be stated separately in the spaces provided, as applicable, and shall not be included in the unit or lump sum prices stated in the Proposal. The amount of retail sales tax stated will not be considered as a competitive bid item and will be considered to be an estimate only.

All other federal, state, and local sales, use, or other taxes as required by federal, state, or local laws shall be included in the unit prices, lump sum price, or other prices stated in the Proposal.

Compliance with Labor Standards and Rate of Wage Requirements. The work under this Contract is to be paid for by public funds; therefore, the Contractor shall comply with the Washington State prevailing wage laws (RCW 39.04, RCW 39.12, RCW 43.19, and RCW 49.38). Copies of Pamphlet No. F700-032-000 (1-89) explaining the prevailing wage law is available from the following:

Department of Labor and Industries
ESAC Division
P.O. Box 44540
Olympia, WA 98504-4540
(360) 902-5335

The City does not guarantee that labor can be procured for the minimum wages shown on the referenced schedules. The rates of wages listed are minimum only, below which the Contractor cannot pay, and they do not constitute a representation that labor can be procured for the minimum listed.

EXHIBIT A
BID PROPOSAL

Proposal of _____
(hereinafter called "Bidder"), organized and existing under the laws of the State of, doing business as _____.

To the City of Port Townsend ("City"):

In compliance with your Invitation for Bids, Bidder hereby proposes to perform all work for the following project or contract: _____ in strict accordance with the Contract Documents, within the time set forth therein, and at the prices stated below.

By submission of this Bid, each Bidder certifies, and in the case of a joint Bid each party thereto certifies as to his own organization, that this Bid has been arrived at independently without consultation, communication or agreement as to any matter relating to this Bid with any other Bidder or with any other competitor.

Bidder hereby agrees to commence work under this Contract on or before a date to be specified in the Notice to Proceed.

Bidder agrees to perform all work as described in the Contract Documents and detailed in the specifications provided for _____ for the lump sum of:

Total lump sum bid amount	\$ _____
Sales tax 9.1%	\$ _____
Total Bid	\$ _____

By signing this proposal:

The Bidder certifies that it has not, within the three-year period immediately preceding the bid solicitation date for this project, been determined to be a "willful" violator (as defined in RCW 49.48.082 of any provision of Chapters 49.46, 49.48, or 49.52 RCW) by a final and binding citation and notice of assessment issued by the Department of Labor and Industries or by a civil judgment entered by a court that is authorized to enter such a judgment.

Further the Bidder certifies:

That the Bidder has not had any public works contract terminated for cause by a government agency during the five-year period immediately preceding the bid submittal deadline for this project.

Receipt is hereby acknowledged of Addendum(s) No(s): _____ [NOTE: write "none" if there were no addendums.]

1. If the Bidder is a sole proprietorship, so state and give the name under which business is transacted.
2. If the Bidder is a co-partnership, so state, giving firm name under which business is transacted.
3. If the Bidder is a corporation, this Proposal must be executed by its duly authorized officials.

I declare under penalty of perjury under the laws of the State of Washington that the foregoing is true and correct.

Bidder's Firm Name

Date

By: _____
Authorized Signature (required)

Bidder's address and

telephone/email for
official communications:

EXHIBIT B

MANDATORY RESPONSIBLE BIDDER'S CRITERIA

Contractor's License # _____

UBI# _____

Do you have industrial Coverage? Yes ___ **No** ___

Employment Security Department # _____

State Excise Tax Registration # _____

Is your firm currently disqualified from bidding? Yes ___ **No** ___

Has your firm received a citation or assessment for a willful violation as defined in RCW 49.48.082 any provision of chapter 49.46, 49.48 or 49.52 RCW in the preceding 3 years? Yes ___ **No** ___

Subcontractor Responsibility:

1. The Contractor shall include the language of this section in each of its first-tier subcontracts, and shall require each of its subcontractors to include the same language of this section in each of their subcontracts, adjusting only as necessary the terms used for the contracting parties. Upon request of the Owner, the Contractor shall promptly provide documentation to the Owner demonstrating that the subcontractor meets the subcontractor responsibility criteria below. The requirements of this section apply to all subcontractors regardless of tier.
2. At the time of subcontract execution, the Contractor shall verify that each of its first-tier subcontractors meets the following bidder responsibility criteria:
 - a. Have a current certificate of registration in compliance with chapter 18.27 RCW, which must have been in effect at the time of subcontract bid submittal;
 - b. Have a current Washington Unified Business Identifier (UBI) number;
 - c. If applicable, have:
 - Have Industrial Insurance (workers' compensation) coverage for the subcontractor's employees working in Washington, as required in Title 51 RCW;
 - A Washington Employment Security Department number, as required in Title 50 RCW;
 - A Washington Department of Revenue state excise tax registration number, as required in Title 82 RCW;
 - An electrical contractor license, if required by Chapter 19.28 RCW;

- An elevator contractor license, if required by Chapter 70.87 RCW.
- d. Not be disqualified from bidding on any public works contract under RCW 39.06.010 or 39.12.065 (3).

EXHIBIT C

**CITY OF PORT TOWNSEND
PUBLIC WORKS CONTRACT**

THIS AGREEMENT, made and entered into this __ day of _____, **20__**, by and between the **City of Port Townsend** (“*Owner*” or “*City*”), and _____ (“*Contractor*”):

WHEREAS, pursuant to the invitation of the Owner for bids, the Contractor did, in accordance therewith, file with the Owner a proposal containing an offer which was invited by said notice, and

WHEREAS, the Owner has heretofore determined that said offer was the lowest responsive and responsible bid submitted;

NOW, THEREFORE, in consideration of the terms and conditions contained herein, the parties hereto covenant and agree as follows:

- 1. Contract Scope of Work; Contract Documents.** The Contractor shall in a workmanlike manner do all work and furnish all tools, materials, and equipment for in accordance with and as described in the following Contract Documents (incorporated by reference in this Contract):
 - a. Public Works Contract;
 - b. Supplemental Conditions;
 - c. City of Port Townsend General Conditions;
 - d. Addenda;
 - e. Plans and specifications issued by the City in connection with the Invitation to Bid or request for proposal;
 - f. City of Port Townsend Engineering Design Standards (except as modified by any technical specifications in the plans and specifications);
 - g. Instructions for Bidders; Accepted Bid; and Invitation to Bid;
 - h. The Washington State Department of Transportation *Standards Specifications for Road, Bridge, and Municipal Construction* incorporating any amendments. (In *Specifications*, “Engineer” means City designated representative, which may be project manager, architect, or consulting engineer; “State,” “State of Washington” or “DOT” are replaced with “City;” “Secretary” is Public Works Director or designee.)

In the event of a conflict or discrepancy among or in the Contract Documents, interpretation shall be governed in the priority listed and set forth above.

The Contractor shall provide and bear the expense of all equipment, work and labor of any sort whatsoever they may be required for the transfer of materials and for constructing and completing the work provided for in these specifications to be furnished by the City of Port Townsend.

- 2. Contract Amount; Compensation.** The City of Port Townsend hereby promises and agrees with the Contractor to employ, and does employ the Contractor to provide materials and to do and cause to be done the above described work and to complete and finish the

same according to the Scope of Work and the terms and conditions herein contained and hereby contracts to pay for the same, the total sum of _____.

Payment shall be as provided in the Instructions for Bidders unless otherwise provided. Payment shall be made monthly upon submittal of a pay request for work performed to date as determined by the City. Failure to perform any of the obligations under the contract by Contractor may be decreed by the City to be adequate reason for withholding any payments until compliance is achieved, including withholding amounts from any payment based on substantial completion to cover the City's cost to complete any punch list items.

- 3. Time for Completion; Penalty.** The Contractor will achieve substantial completion within 60 days of the Notice to Proceed.

The Owner and Contractor recognize that time is of the essence of this Agreement and that Owner will suffer financial loss as a result of mitigating transportation impacts if the Work is not substantially completed within the times specified in the above paragraph, plus any extensions thereof allowed, and further, that the Owner and Contractor recognize the delays, expense, and difficulties involved in proving in a legal or other dispute resolution proceeding the actual loss suffered by Owner if the Work is not completed on time, and further that, instead of requiring any such proof, Owner and Contractor agree that as liquidated damages for delay (but not as a penalty) Contractor shall pay Owner the amount set forth in the Invitation to Bids for Liquidated Damages for each day that expires after the date specified in the above paragraph.

- 4. Insurance and Indemnity Requirements.** Contractor shall take out and maintain insurance as set forth in Exhibit D of the bid package, which is incorporated herein by reference.
- 5. Correction of Work.** If within one year after the date for Substantial Completion, any of the work is found not to be in accordance with the requirements of the Contract Documents, the Contractor shall correct it promptly after written notice to do so. If the Contractor fails to correct nonconforming work within a reasonable time after notice, City may, without prejudice to other remedies it may have, correct such deficiencies, and the Contractor shall pay the cost to the City, plus 10% City administrative overhead fee.
- 6. Attorney Fees.** If enforcement of this Contract requires either party to engage the services of an attorney or consultant, the prevailing party shall be entitled to recover reasonable legal costs, including attorney fees and expert fees, in connection with such enforcement, with or without suit.

IN THE WITNESS WHEREOF the parties hereto have caused this agreement to be executed this _____ day of _____, 20__.

City of Port Townsend

Contractor

By _____
John Mauro, City Manager

By _____

Name: _____

Title: _____

Approved as to form:

Heidi Greenwood, City Attorney

EXHIBIT D

INSURANCE & INDEMNITY REQUIREMENTS FOR CONSTRUCTION PROJECTS

Indemnification / Hold Harmless

The Contractor shall defend, indemnify and hold the City, its officers, officials, employees and volunteers harmless from any and all claims, injuries, damages, losses or suits including attorney fees, arising out of or in connection with the performance of this Contract except for injuries and damages caused by the sole negligence of the City.

Should a court of competent jurisdiction determine that this Contract is subject to RCW 4.24.115, then, in the event of liability for damages arising out of bodily injury to persons or damages to property caused by or resulting from the concurrent negligence of the Contractor and the City, its officers, officials, employees, and volunteers, the Contractor's liability hereunder shall be only to the extent of the Contractor's negligence. It is further specifically and expressly understood that the indemnification provided herein constitutes the Contractor's waiver of immunity under Industrial Insurance, Title 51 RCW, solely for the purposes of this indemnification. This waiver has been mutually negotiated by the parties. The provisions of this section shall survive the expiration or termination of this Agreement.

Insurance

The Contractor shall procure and maintain for the duration of the Contract, insurance against claims for injuries to persons or damage to property which may arise from or in connection with the performance of the work hereunder by the Contractor, their agents, representatives, employees or subcontractors,

1. Minimum Scope of Insurance

Contractor shall obtain insurance of the types described below:

- a. Automobile Liability insurance covering all owned, non-owned, hired and leased vehicles. Coverage shall be written on Insurance Services Office (ISO) form CA 00 01 or a substitute form providing equivalent liability coverage. If necessary, the policy shall be endorsed to provide contractual liability coverage.
- b. Commercial General Liability insurance shall be written on ISO occurrence form CG 00 01 and shall cover liability arising from premises, operations, independent contractors, products-completed operations, personal injury and advertising injury, and liability assumed under an insured contract. The Commercial General Liability insurance shall be endorsed to provide the Aggregate Per Project Endorsement ISO form CG 25 03 11 85. There shall be no endorsement or modification of the Commercial General Liability insurance for liability arising from explosion, collapse or underground property damage. The City shall be named as an insured under the Contractor's Commercial General Liability insurance policy with respect to the work

performed for the City using ISO additional insured endorsement CO 20 10 11 85 or a substitute endorsement providing equivalent coverage.

- c. Workers' Compensation coverage as required by the Industrial Insurance laws of the State of Washington.
- d. Builders Risk insurance covering interests of the City, the Contractor, Subcontractors, and Sub-subcontractors in the work. Builders Risk insurance shall be on an all-risk policy form and shall insure against the perils of fire and extended coverage and physical loss or damage including flood and earthquake, theft, vandalism, malicious mischief, collapse, temporary buildings and debris removal. This Builders Risk insurance covering the work will have a deductible or \$5,000 for each occurrence, which will be the responsibility of the Contractor. Higher deductibles for flood and earthquake perils may be accepted by the City upon written request by the Contractor and written acceptance by the City. Any increased deductibles accepted by the City will remain the responsibility of the Contractor. The Builders Risk insurance shall be maintained until final acceptance of the work by the City.

2. Minimum Amounts of Insurance

Contractor shall maintain the following insurance limits:

- a. Automobile Liability insurance with a minimum combined single limit for bodily injury and property damage of \$1,000,000 per accident.
- b. Commercial General Liability insurance shall be written with limits no less than \$1,000,000 each occurrence, \$2,000,000 general aggregate and a \$2,000,000 products-completed operations aggregate limit.
- c. Builders Risk insurance shall be written in the amount of the completed value of the project with no coinsurance provisions.

3. Other Insurance Provisions

The insurance policies are to contain, or be endorsed to contain, the following provisions for Automobile Liability, Commercial General Liability and Builders Risk insurance:

- a. The Contractor's insurance coverage shall be primary insurance as respect the City. Any insurance, self-insurance, or insurance pool coverage maintained by the City shall be excess of the Contractor's insurance and shall not contribute with it.
- b. The Contractor's insurance shall be endorsed to state that coverage shall not be cancelled by either party, except after thirty (30) days prior written notice by certified mail, return receipt requested, has been given to the City. The word "endeavor" is not acceptable language regarding the required notification.
- c. The insurance policies shall include the City as Additional Named Insured.

4. Contractor's Insurance For Other Losses

The Contractor shall assume full responsibility for all loss or damage from any cause whatsoever to any tools, Contractor's employee owned tools, machinery, equipment, or motor vehicles owned or rented by the Contractor, or the Contractor's agents, suppliers or contractors as well as to any temporary structures, scaffolding and protective fences.

5. Waiver of Subrogation

The Contractor and the City waive all rights against each other any of their Subcontractors, Sub-subcontractors, agents and employees, each of the other, for damages caused by fire or other perils to the extent covered by Builders Risk insurance or other property insurance obtained pursuant to the Insurance Requirements Section of this Contract or other property insurance applicable to the work. The policies shall provide such waivers by endorsement or otherwise,

6. Acceptability of Insurers

Insurance is to be placed with insurers with a current A.M. Best rating of not less than A:VII.

7. Verification of Coverage

Contractor shall furnish the City with original certificates and a copy of the amendatory endorsements, including but not necessarily limited to the additional insured endorsement, evidencing the Automobile Liability and Commercial General Liability insurance of the Contractor before commencement of the work. Before any exposure to loss may occur, the Contractor shall file with the City a copy of the Builders Risk insurance policy that includes all applicable conditions, exclusions, definitions, terms and endorsements related to this project.

8. Subcontractors

Contractor shall include all subcontractors as insureds under its policies or shall furnish separate certificates and endorsements for each subcontractor. All coverages for subcontractors shall be subject to all of the same insurance requirements as stated herein for the Contractor.

EXHIBIT E

WASHINGTON PERFORMANCE BOND

BOND NO. _____
AMOUNT: \$ _____

KNOW ALL MEN BY THESE PRESENTS, that _____

of _____

hereinafter called the CONTRACTOR (Principal), and _____

a corporation duly organized and existing under and by virtue of the

laws of the State of _____, hereinafter called the SURETY, and authorized to transact business within the State of Washington, as SURETY, are held and firmly bound unto

as OWNER (Obligee), in the sum of: _____

_____ DOLLARS (\$ _____), lawful money of the United States of America, for the payment of which, well and truly be made to the OWNER, the CONTRACTOR and the SURETY bind themselves and each of their heirs, executors, administrators, successors, and assigns, jointly and severally, firmly by these presents as follows:

THE CONDITION OF THE ABOVE OBLIGATION IS SUCH THAT:

WHEREAS, the CONTRACTOR has executed and entered into a certain Contract hereto attached, with the OWNER, dated, _____, 20____, for:

IN WITNESS:

NOW, THEREFORE, if the PRINCIPAL shall promptly and faithfully perform all the provisions of such Contract for the duration thereof, including the guarantee period, and shall faithfully discharge the duties and obligations therein assumed, then this obligation shall be void; otherwise it shall remain in full force and effect, and Surety shall defend and indemnify Owner against any loss or damage due to the failure of the Principal to strictly perform all obligations of the Contract.

This bond is provided pursuant to and in compliance with Ch. 39.08 RCW, the terms and requirements of which statute are incorporated herein.

This bond shall remain in force for a period of at least two (2) years after Substantial Completion, with respect to defective workmanship and material, and for any additional period until any claims with respect to defective workmanship and material are resolved, and shall otherwise secure all obligations of the Principal throughout any other periods of limitation.

Contractor and Surety agrees that if Owner is required to engage the services of an attorney or expert services in connection with the enforcement of this bond, each shall pay the Owner reasonable attorney fees and expert fees incurred, with or without suit, in addition to the penal sum.

PROVIDED, HOWEVER, that the conditions of this obligation shall not apply to any money loaned or advanced to the PRINCIPAL or to any subcontractor or other person in the performance of any such work.

The SURETY, for value received, hereby waives notice of any extension of time, alteration, addition or forbearance as to the terms of the Contract made or extended by OWNER or CONTRACTOR.

No right of action shall accrue upon or by reason hereof to, or for the use or benefit of, anyone other than the OWNER.

IN WITNESS WHEREOF, the above parties bounded together have executed this instrument this ____ day _____ of, 20____, the name and corporate seal of each corporate party being hereto affixed and those presents duly signed by its undersigned representative, pursuant to authority of its governing body.

CONTRACTOR

By _____ (Seal)

Attest

SURETY

By _____ (Seal)

Attest

APPROVED AS TO FORM: _____, 20____

_____, OWNER

NOTE: The SURETY named on this bond shall be one who is licensed to conduct business in the state where the project is located, and named in the current list of Companies Holding Certificates of Authority as Acceptable Sureties on Federal Bonds and as Acceptable Reinsuring Companies, as published in Circular 570 (amended) by the Audit Staff Bureau of Accounts, U.S. Treasury Department. All bonds signed by an agent must be accompanied by a certified copy of the authority to act for the SURETY at the time of the signing of this bond.

END OF SECTION

EXHIBIT F

LABOR AND MATERIALS PAYMENT BOND

KNOW ALL MEN BY THESE PRESENTS:

We the Undersigned _____ as
PRINCIPAL (Contractor) and _____
_____ a corporation organized and existing under and by virtue of the laws of the state of _____,
and duly authorized to do surety business in the state of
Washington and named on the current list of approved surety companies acceptable on federal
bonds and conforming with the underwriting limitations as published in the Authorized Insurance
List in the State of Washington published by the Office of the Insurance Commissioner and which
carries an "A" rating and is of the appropriate class for the bond amount as determined by Best's
Rating System, as SURETY, hereby hold and firmly bind ourselves, our heirs, executors,
administrators, successors and assigns, jointly and severally, unto CITY OF PORT TOWNSEND,
as OBLIGEE, in the sum of _____
Dollars (\$ _____) in lawful money of the United States of America, for the payment of that
sum for the use and benefit of claimants as defined below.

The condition of this obligation is such that whereas the PRINCIPAL entered into a
contract with CITY OF PORT TOWNSEND dated _____, 20__, which contract
is hereunto annexed and made a part hereof, for accomplishment of the all contract terms for the
project described as follows: _____
_____.

NOW THEREFORE, if the PRINCIPAL shall promptly make payments to all persons,
firms, subcontractors, corporations and/or others furnishing materials for or performing labor in
the prosecution of the Work provided for in the aforesaid contract, and any authorized extension
or modification thereof, including all amounts due for materials, equipment, mechanical repairs,
transportation, tools and services consumed or used in connection with the performance of such
Work, and for all labor performed in connection with such Work whether by subcontractor or
otherwise, and all other requirements imposed by law, then this obligation shall become null and
void; otherwise this obligation shall remain in full force and effect, subject, however, to the
following condition:

The above-named PRINCIPAL and SURETY hereby jointly and severally agree that every
claimant, who has not been paid in full, may sue on this bond for the use of such claimant,
prosecute the suit to final judgment in for such sum or sums as may be justly due claimant, and
have execution thereon. The OBLIGEE shall not be liable for the payment of any judgment, costs,
expenses or attorneys' fees of any such suit.

PROVIDED, FURTHER, that SURETY for the value received, hereby stipulates and
agrees that all changes, extensions of time, alterations to the terms of the contract or to Work to be
performed thereunder or the Specifications accompanying the same shall be within the scope of
the SURETY's undertaking on this bond, and SURETY does hereby waive notice of any such
change, extension of time, alteration or addition to the terms of the contract or to the Work or to

the Specifications. Any such change, extension of time, alteration or addition to the terms of the contract or to the Work or to the Specifications shall automatically increase the obligation of the SURETY hereunder in a like amount, provided that the total of such increases shall not exceed twenty-five percent (25%) of the original amount of the obligation without the consent of the SURETY.

This obligation shall continue to bind the PRINCIPAL and SURETY, notwithstanding successive payments made hereunder, until the full amount of the obligation is exhausted, or if the full amount of the obligation is not exhausted and no claim is pending resolution, until such time as no further claims can be made pursuant to law with regard to the above-described project.

SURETY shall indemnify, defend, and protect the CITY OF PORT TOWNSEND against any claim of direct or indirect loss resulting from the failure of the CONTRACTOR (or any of the employees, subcontractors, or lower tier subcontractors of the CONTRACTOR) to pay all laborers, mechanics, subcontractors, lower tier subcontractors, material persons, or any other person who provides supplies or provisions for carrying out the work.

If more than one SURETY is on this bond, each SURETY hereby agrees that it is jointly and severally liable for all obligations of this bond.

IN WITNESS WHEREOF, we have hereunto set our hands and seals this _____ day of _____, 20__.

SURETY

CONTRACTOR

By: _____

By*: _____

Title: _____

Title: _____

Street Address

Street Address

City, State ZIP

City, State ZIP

Phone Number

Phone Number

* Must be signed by president or vice-president

EXHIBIT G

**CONTRACTOR'S DECLARATION OF OPTION IN LIEU OF PERFORMANCE BOND
AND PAYMENT BOND FOR PROJECTS \$150,000 OR LESS**

In lieu of providing a Performance Bond & Payment Bond, I hereby request to have the City of Port Townsend retain 10 percent of my payment for this project for a period of 30 days after acceptance of the completed work or until receipt of all necessary releases from the Department of Labor and Industries and settlement of any liens filed under Chapter 60.28 RCW, whichever is later.

COMPANY NAME: _____

ADDRESS: _____

CITY: _____

STATE: _____

ZIP: _____

NAME (PLEASE PRINT): _____

SIGNED: _____

DATE: _____

TITLE: _____

ATTACHMENT H
PREVAILING WAGE RATES

Below is the website address to find the current prevailing wages for Jefferson County as of the bid due date.

<https://secure.lni.wa.gov/wagelookup/>

SECTION 3
SPECIFICATIONS/SUMMARY OF WORK

This project is installation of a vertical turbine well pump in an existing well including:

- Construction of well house building;
- Installation of pump, column/shaft, and motor pumping works supplied by City;
- Piping inside well house;
- Electrical design and installation of all wiring and conduits and power panels;
- Installation of pump control, telemetry and instrumentation supplied by City;
- Underground piping between the well house and meter vault;
- Installation of water meter and associated piping inside the City provided vault;

CITY OF PORT TOWNSEND
GOLF COURSE
WELL PUMP INSTALLATION & IRRIGATION SYSTEM IMPROVEMENT
PROJECT
TECHNICAL SPECIFICATIONS

June 1, 2021

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GENERAL

This project is installation of a vertical turbine well pump in an existing well, construction of a well building, design and installation of power, and mechanical pipe installation for an irrigation well. While this well will be used primarily for irrigation purposes, the well also serves as a backup domestic water supply; therefore, all work shall be done in accordance with AWWA standards of practice for drinking water supplies. The location is the City of Port Townsend Golf Course at 1948 Blaine Street. The well pump assembly and all instrumentation will be provided by the City. City forces will install all underground piping downstream from water meter vault. The construction Contractor will be responsible for assembling the remaining complete project as described below:

The division of work shall be as follows:

Construction Contractor (this contract)

- Well house construction, pumping works installation, and controls, in their entirety
- Electrical design and all wiring and conduits, power panels, and assembly including installation of city provided pump control / telemetry panel.

- Underground piping between the water meter and well house,
- Installation of the water meter and associated piping inside the City provided vault
- Provide all materials and assembly not specified as being provided by the City or others.

City of Port Townsend

- The City will provide the pump, column/shaft, and motor complete for the contractor to install.
- The City will provide a pump control / telemetry panel for the contractor to install.
- The City will install the water meter vault and piping between the vault and the mainline intertie.
- The City will install the buried water main from water meter vault to the system intertie site
- The City will install the water system intertie, including
 - A double check valve and connection piping, in a buried vault,
 - Two bypass vaults, and
- The City will separate the irrigation system from the existing domestic system at F Street

City of Port Townsend work will be completed before construction contractor work begins.

Construction plans attached and these specifications describe the work. Detail on items of work follow:

WELL HOUSE / PUMP STATION

Install a two-foot-long suction pipe with strainer, the eleven-stage pump, discharge piping and drive shaft, and the electric motor. The well depth, from pump mounting flange to top of well screen is 86.5 feet. The pump assembly, from discharge flange to strainer, including the electric motor, will be provided by the City.

Additionally, in the well house / pump station, the Contractor shall furnish and install the following:

- a 3" x 6" reducer;
- a 3" Cla-Val 60-32 (back pressure sustaining) pump control valve;
- two 3" gate valves;
- one 1" combination air valve (air release / vacuum relief);
- one 1.5" pressure relief valve with 1.5" ball valve (City supplied/Contractor installed);
- one 1.5" electronic water meter (City supplied/Contractor installed);
- one steel 3" x 4" reducer with a 1" FPT nipple;
- one 3" x 12" pipe spool including a 1.5" FNPT tap;

- pipe supports;
- 3" ductile iron (DI) pipe and fittings;
- 1.5" stainless steel, schedule 40 pipe and fittings;
- an 86-gallon fiberglass pressure tank with 1-1/4" schedule 80 PVC piping and a 1-1/4" PVC ball valve;
- two – 3" buried conduits from PUD transformer to well house building, two - 3" under-slab panel to motor electrical conduits, one – 1" conduit for pressure transducer cable, one – 1" conduit for 1 1/2" flow meter and pressure transmitter cables and one – 2" conduit for telemetry antenna cable;
- Building door contact switch with disable connected to control panel;
- All mechanical plumbing and electrical parts not specifically listed to make the project complete.

The pump station building shall consist of a concrete slab-on-grade foundation (2500 psi 28 day compressive strength) with 2x6 insulated stud walls, a mono pitch removable flat roof with steel roofing, one door, and four wall vents; all as shown on the plans and as specified herein.

POWER & CONTROLS

The power system shall be Contractor designed. The contractor shall provide engineered design shop drawings for submittal and approval. All electrical work shall be in accordance with the latest edition of the National Electrical Code, National Electrical Safety Code, Washington State Electrical Code, and local ordinances. All products shall be UL listed. The contractor shall be responsible for obtaining an L&I electrical permit and all other required electrical permits.

The Contractor shall design, provide, and install the meter base, a power disconnect switch, the power panel, a 480V to 120V power transformer, and all required electrical systems shown and not shown on the Plans. The contractor shall install the pump control panel / telemetry panel provided by the City. The Contractor shall submit an electrical design, prepared by a Washington licensed electrical engineer, for City approval. The design shall have the features and functions described below. The Contractor shall obtain.

Meter Base and Service Disconnect

The contractor designed power shall include coordination with the Jefferson County PUD for providing and installation of a meter base and service disconnect switch.

Power Load Center

The contractor designed power load center panel shall consist of a NEMA rated wall mount enclosure of welded steel construction with gasketed heat sink and door. The load center panel shall include main breakers sized for the pump well and appurtenances. The

power center shall include a stepdown transformer sized for 40 amps for house power including lights and a 20-amp GFI receptacle and one spare 20 amp circuit. The load center and appurtenances shall be designed, provided, and installed by the contractor interior to the building.

Manual Transfer Switch

The contractor designed manual transfer switch shall be rated for the building and appurtenances. The contractor will provide the switch and all the wiring. The Contractor will provide and install a Crouse Hinds AR1047 S22 100amp 4-wire 4-pole receptacle plug receptacle on the exterior of the building to match the City's mobile auxiliary generator plug.

Pump Control Panel

The pump control panel will be provided by the City. All wiring to panel will be contractor furnished and installed. It will consist of a NEMA rated wall mount enclosure of welded steel construction with gasketed heat sink and door, assembled and pre-wired for circuit breaker type overcurrent protection. The panel will provide the following functionality (programming to be supplied by City).

- pump motor soft start,
- individual circuit breaker,
- thermal overload relays,
- hand / off / auto switch
- emergency stop button
- green run indicating light
- red fail indicating light
- alarm condition signal
- pump run elapsed time meter
- operation start counter
- dry contacts for pump run and pump fail telemetry
- power protection for surge and phase loss with pump shutdown control.
- mechanical high pressure pump off control.
- mechanical low pressure pump off control with delay for pump startup
- programmable logic controller (PLC) will include:
 - Pump control capabilities as follows:
 - Time based pump operations
 - Flow based pump operations
 - High and low pressure-based pump operations
 - Alarm based fail safe pump shut-downs
 - Pump control delay capabilities
 - A combination of the above control programming capabilities
 - Data collection and recording as follows:
 - Timer driven pump start and stop control with remote over-ride

- Remote manual pump start and stop controls
- Pump run time
- Well flow and totalizer
- Power quality
- Pressure upstream of control valve
- Pressure downstream of control valve
- Well water level
- Pressure relief flow meter and totalizer
- Alarm conditions (e.g., security, pump failure, low well water level)

Telemetry (City supplied)

The radio telemetry shall automatically transmit programmable logic controller data to the City’s water treatment plant data system. Antenna and cable will be City supplied and contractor installed.

Exterior Pump Run Lights

The contractor shall design, provide, and install LED exterior red and green lights above the door to indicate “green” when the pump is running and “red” when there is a pump fail condition.

As-Constructed Records and Warranty

The contractor shall provide “as-built” information on all items and work shown in the plans and specifications.

All work and materials shall have a minimum warranty period of one year from the date of contract acceptance. The contractor shall provide all equipment warranties

WATER METER VAULT

Furnish and install one 3” x 4” DI reducer, two 3” gate valves, a 3” Seimens SITRANS FM D80 electronic water mater (City supplied), 3” DI pipe and fittings, pipe supports, in a buried 5’ x 4’ x 4’ deep concrete utility vault with 3’ x 3’ access door (City supplied).

BURIED PIPING (PROVIDED BY THE CITY)

Approximately 80 lineal feet of 4” DI pipe, Class 52, and fittings between the water meter vault and the system intertie.

SYSTEM INTERTIE (PROVIDED BY THE CITY)

One 4” gate valve, two 6” gate valves, two by-pass vaults with blow-off hydrants, 4” and 6” DI fittings, and thrust blocks: as shown on the Plans.

DOUBLE CHECK VALVE VAULT (PROVIDED BY THE CITY)

4" Ames Series 2000SS double check valve assembly, pipe supports, and a buried 6' x 3' x 4' concrete utility vault with 3' x 3' access door.

DISCONNECT SITE (PROVIDED BY THE CITY)

Remove an approximate 3-foot length of existing 6" PVC pipe. Furnish and install two 6" restrained joint couplings, each with a blind flange, and thrust blocks; as shown on the plans.

INSTALLATION

1. Pipe and Fittings Installation

Materials and methods shall be in accordance with Uniform Plumbing Code, latest edition, and local codes and regulations which are applicable.

Install ductile iron water mains in accordance with AWWA C600-93. Install pipes in accordance with manufacturer's recommendations. Use types and sizes of pipes as specified herein and/or as shown on the Plans. Where sizes of small pipe are omitted from the Plans and not mentioned in the specifications, use sizes corresponding to code requirements, and as required by equipment and plumbing fixtures and appurtenances. In any event, properly size any undesignated pipe sizes for functions to be performed.

Carefully lay pipe and supported at proper lines and grades. Follow piping runs shown on the Plans as closely as possible, except for minor adjustment to avoid architectural and structural features. Make major relocations, if required, in a manner acceptable to Engineer.

Keep openings in pipes closed during progress of work. Form thrust blocking so that bolts, joints, gaskets, and flanges of adjacent joints are clear of concrete and so that bolts and joints can be dismantled without removing concrete. All concrete blocking shall have a minimum compressive strength of 2500 psi. Pipe passing through concrete walls or slabs shall be made watertight.

2. Water Main Inspection and Testing

A. General

Furnish all required personnel and equipment and make all tests required to demonstrate the integrity of finished installation for approval of City and all agencies having jurisdiction. Testing shall meet AWWA standards.

B. Water Main Disinfection

After preliminary purging of system, chlorinate entire potable water portion of the system in accordance with C651-92 and C654-87 and any subsequent modifications thereof of American Water Works Association (AWWA) for flushing and disinfecting water mains, and wells in accordance with all other pertinent rules and regulations. Upon completion of sterilizing, thoroughly flush entire potable water system at a velocity of 3 feet per second, allowing four complete exchanges of contents. Do not discharge chlorinated material to storm or surface water systems without thoroughly neutralizing the chlorine residual remaining in the water.

In addition to meeting AWWA Standards, the contractor shall place all well equipment and above grade piping and appurtenances in 50 mg/L chlorine bath. Contractor shall take care to prevent contamination of equipment during installation.

After final flushing and before the potable water pipe is connected to or placed in service, the Contractor shall request that the Owner arrange to have a sample or samples collected for bacteriological testing. At least one sample will be collected from each branch of the pipe. A copy of the test results shall be delivered to the Contractor for review. The Contractor shall not connect the water pipe to the existing distribution system prior to acceptance of the bacteriological test by the Engineer.

C. Hydrostatic Pressure Testing

All pumps, gauges, plugs, saddles, corporation stops, miscellaneous hose and piping, and other equipment necessary for performing the test shall be furnished and operated by the contractor. All thrust restraints shall be in place prior to testing. The contractor shall supply temporary thrust restraint and remove after testing. The contractor is responsible for disposal of any waste, including water. The contractor shall supply water necessary for testing. Should the test fail to meet testing requirement, the contractor shall, at his own expense, locate and repair the defects and then retest.

Prior to calling out the owner to witness the pressure test, the contractor shall have all equipment set up completely ready for operation and shall have successfully performed the test to assure that the piping is in a satisfactory condition. If tests fail, additional trips required by the Owner or Engineer to witness another test shall be done at the contractor's expense.

Before testing, air shall be completely expelled from piping. Pressure testing shall be performed in two stages.

- a. Piping and appurtenances between the pump and the first isolation valve shall be tested under a hydrostatic pressure equal to 250 psi. For approval, no pressure drop will be allowed during this test. The test shall extend for a minimum duration of 15 minutes and up to a maximum of 60 minutes as directed by the engineer.

- b. Piping and appurtenances downstream of the first isolation valve shall be tested under a minimum hydrostatic pressure of 145 psi but absolutely not more than 275 psi. The contractor shall maintain a pressure in this range for a minimum of 15 minutes. For approval, the engineer shall be satisfied there are no leaks after performing visual inspection during the test.

3. Well Level Transducers

A well level transducer for this project will be provided by the City and installed by the Contractor. The transducer cable shall be installed as an un-spliced run from the pump control panel, and down inside a 1.5-inch PVC conduit strapped to the pump discharge pipe column. The contractor shall provide and install the PVC conduit.

The transducer will be a fully active Wheatstone Bridge type submersible, with 4-20ma output.

4. Testing, Startup and coordination with pump supplier and pump control / telemetry panel provider

Contractor shall be responsible for working with the pump supplier (Wastewater Solutions) for pump calibration, startup, and initial performance evaluation to meet specifications herein. The following is the specifications for the pump supplier:

The City's pump supplier will provide a trained, qualified manufacturer's representative to check installation and connection, perform field tests as indicated, and certify to Contractor and City that its performance does meet all specifications.

Prior to acceptance of installed pumps, manufacturer's representative shall demonstrate proper operation of pumps at capacities stated, at which time data shall be taken on total dynamic head, efficiencies and flow of the pumps. Certification shall be if pumps meet all requirements set forth in these specifications and submittal literature.

Repair and retest units failing field tests. If unit fails second test, unit will be rejected, and supplier shall furnish a unit that will perform as specified.

The Contractor shall also be responsible for working with Quality Controls Corp (QCC) for programming of the PLC and testing of the pump control panel.

The contractor shall provide 3 weeks advanced notice of the startup date to the City and suppliers. The advanced notice shall include a schedule of events for startup and testing. The schedule shall be coordinated with the suppliers to ensure that an orderly

testing and startup process is established.

MATERIALS

1. Ductile Iron Pipe

Ductile iron pipe shall be thickness class 52 and shall be cement-lined, unless otherwise specified, and shall conform to standards of ANSI Standard A21.51 (AWWA C151). Rubber gasket pipe joints are to be push-on-joint (Tyton) or mechanical joint (MJ) in accordance with ANSI Standard A21.11 (AWWA C-111), unless otherwise specified. Flanged joint shall conform to ANSI Standard B16.1. Standard thickness cement lining shall be in accordance with ANSI Standard A21.4 (AWWA C104).

Restrained joint pipe shall be ductile iron manufactured in accordance with requirements of ANSI / AWWA C151 / A21.51. Push-on joints for such pipe shall be in accordance with ANSI/AWWA C111 / A21.11. Pipe shall be Griffin Bolt-Lok or equal. Pipe thickness shall be designed in accordance with ANSI/AWWA C150/A21.50 and shall be based on laying conditions and internal pressures as specified in Section 15.2.A. Standard thickness cement lining shall be in accordance with ANSI/AWWA C104/A21.4.

When requested, furnish certification from manufacturer of pipe and gasket being supplied that inspection and all of the specified tests have been made and the results comply with requirements of this standard.

2. Ductile Iron Fittings

All fittings shall be ductile iron where possible. Ductile iron fittings shall be short body, cement-lined, and for Class 52 pressure rating. Metal thickness and manufacturing processes shall conform to applicable portions of ANSI Standards A21.20, A21.11, B16.2, and B16.4. Standard cement lining shall be in accordance with ANSI Standard A21.4 (AWWA C104). Mechanical joint (MJ), ductile iron, compact fittings 3 inches through 24 inches and 54 inches through 64 inches shall be in accordance with AWWA C153.

Ductile iron flange (FL) fittings shall be 150 pound in accordance with AWWA C110. Gasket material for flanges shall be neoprene, buna n, chlorinated butyl, or cloth-inserted rubber. Gaskets shall be full face ring type.

Type of ends shall be specified as mechanical joint (MJ), restrained joint (RJ), plain end (PE), or flanged (FL).

3. Steel Pipe and Fittings

Steel pipe and fittings shall conform to ANSI Standard D36.10 and ASTM A53, Type SE, or Grade B with thickness to meet the requirements of Section 15.2.A.

4. Stainless Steel Pipe and Fittings

Stainless steel pipe and fittings shall be alloy 316, schedule 40, and shall conform to ANSI Standard 316 and ASTM A312.

5. Resilient Wedge Gate Valves

All gate valves for water lines 2" and larger shall be of the resilient, wedge-type, non-rising stem and shall meet or exceed the performance requirements of AWWA C509 and be suitable for installation with the type and class of pipe being installed. The wedge shall be fully encapsulated with vulcanized SBR rubber. Ends to be as specified. Valve opening direction shall be counterclockwise.

Install valves and fittings in accordance with manufacturer's recommendation and as shown on the Plans. Verify alignment and adjustments after installation.

Install valves in strict accordance with manufacturer's instructions and as shown on the Plans. Provide buried valves with all operators or valve boxes installed so that wrenches and operators perform freely and without binding or other interference. Bed and backfill buried valves according to requirements of the pipe to which they are attached.

6. Combination Pump Control, Back Pressure Valve

The combination pump control, back pressure valve shall be a Cla-Val Model 60-32 (back pressure sustaining), or equal.

The valve shall be pilot-operated designed for pump discharge installation to eliminate pipeline surges caused by starting and stopping the pump and to provide adjustable back pressure on pump while it is running. The valve shall have a built-in lift-type check feature to automatically close the valve upon electric power failure or anytime pressure reversal occurs, to protect the pump from back spinning. Provide valve adjusted for 125 psi back pressure with a pressure adjustment range between 20 and 200 psi.

7. Combination Air Valve

The combination air valve (air release / vacuum relief) shall be a 1" Val-Matic model 201C.2, single body, or equal. The valve shall be diaphragm-actuated, single seat, hydraulically operated and shall have cover chamber sealed from the body by a flexible, synthetic rubber diaphragm. Control of valve shall be from single, direct-acting, adjustable spring-loaded diaphragm valve. Valve shall be equipped with air relief and vacuum breaker attachments. In operation, the valve is designed to be open when there is no pressure in the pilot system. Upon pump startup, the valve

relieves air from the inlet side of the valve. As water begins to flow into the air release valve, the main valve body closes. Upon loss of pressure on the inlet side of the valve, the valve automatically re-opens.

8. Water Meters (City supplied)

The flow meters shall be 3" Siemens SITRANS FM Mag 5100 W electromagnetic flow sensor, or equal and 1.5" paddle wheel meter. They shall have 150-pound flanges (3") and FNPT (1.5") and shall be equipped with a compatible data transmitter.

9. Pressure Relief Valves (City supplied)

The pressure relief valve shall be a 1.5" Straval RVC-05-NPT, or equal. Valve shall be calibrated with an adjustment range of 50 to 175 psi and factory set to open at 90 psi and capable of a 65-gpm discharge.

10. Double Check Valve Assembly (Provided by City)

The double check valve assembly shall be an Ames Series 2000SS, or equal. The assembly shall be complete with OS&Y isolation gate valves and flanged or mechanical joint couplings.

11. Pressure Gauges with Transmitter (Provided by City)

Install pressure gauges with transmitter at the locations shown on the Plans. Gauge shall be calibrated for 0 to 200 psi and be completely suitable for measuring potable water. The transmitter shall operate on 12 to 24 V DC with a 4 to 20 ma output. Overall accuracy shall be ± 1.0 percent of full scale.

12. Reserved

13. Flange Coupling Adaptor

The flange coupling adaptors shall have thrust restraint set screws, Romac Industries RFCA for DI pipe or RFCA-PVC for PVC pipe, EBBA iron, or equal.

14. Concrete Utility Vaults (Provided by City)

The buried concrete utility vaults shall be pre-cast by a manufacturer routinely engaged in the pre-cast business. The sizes shall be as shown on the plans, without bottom, with a top slab opening for a 3' x 3' Bilco access door, and with pipe cut-outs at each end. The vaults do not need to be traffic rated.

15. Utility Vault Access Doors (Provided by City)

The utility vault access doors shall Bilco Type J-Channel Framre-300 PSF, or equal. The frame shall be ¼" A36 steel, a diamond pattern steel tread plate cover (rated for 300 psf), heavy brass hinges with stainless steel pins, a type 316 stainless steel slam lock handle, and lift assistance piston withhold-open arm and grip release handle. All ferrous metal shall be hot dip galvanized.

16. Pressure Tank

The pressure tank shall be a Well Mate Model WM-25WB fiberglass, 86.7-gallon capacity, or equal. The tank is 24" diameter, 55-1/4" tall with a 1-1/4" MNPT connection. The tank shall have a factory set maximum pressure of 90 psi.

17. Adjustable Pipe Supports

Pipe supports shall be Standon S89, Adjustable Pipe Support, or equal. Secure pipe support to floor with (2) 1/2-inch diameter x 4-inch-long stainless-steel anchor bolts and to piping with flange bolts. Provide at locations shown on the plans.

18. Fixed Pipe Supports

Fixed pipe supports shall be cast-in-place concrete, 16" x 16" square x as required from top crushed rock to pipe spring-line.

19. Blow-off Hydrant and By-Pass Vault (Provided by City)

The by-pass vault shall include an Eclipse Mainguard #78 blow-off hydrant in an HDPE utility vault with an 18" x 18" bolt down lid and a 24" minimum depth, as shown on the plans.

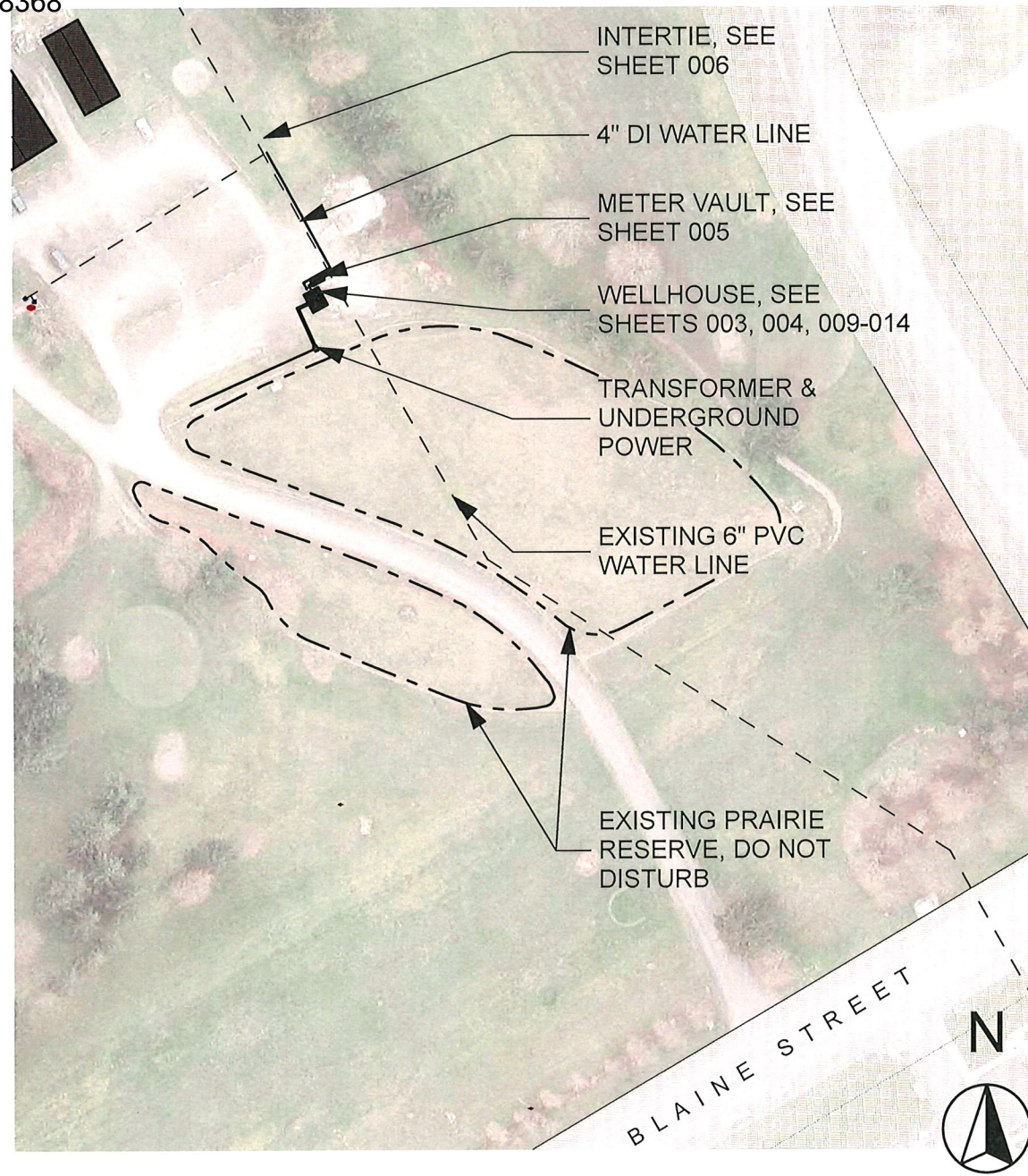
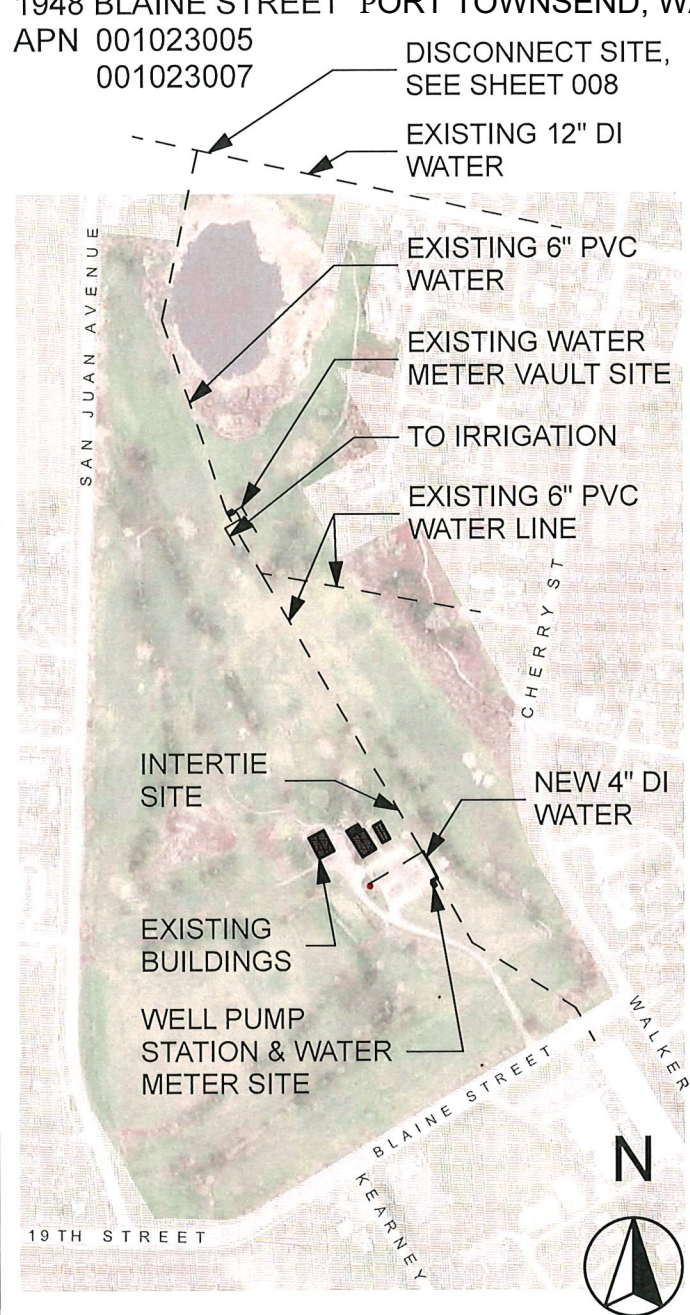
CITY OF PORT TOWNSEND

WELL PUMP INSTALLATION & IRRIGATION SYSTEM IMPROVEMENT PROJECT

CONSTRUCTION PLANS JUNE 4, 2021

TAX ID: 001023005
 S2 T30 R1W TAX 63(LS E OF WALKER ST) BND BY LLA#127643 - GOLF COURSE

SITE
 1948 BLAINE STREET PORT TOWNSEND, WA 98368
 APN 001023005
 001023007



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BREE GANNE
 LEAD OPERATOR - PARKS
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GOLF COURSE MANAGER
 GABE TONAN
 P: (360) 774-0515

PUMP SUPPLIER
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 WASTEWATER SOLUTIONS, LLC
 102 NE 2ND STREET, SUITE 510
 BOCA RATON, FL 33423
 P: (954) 483-9269
autro@wvs-llc.com

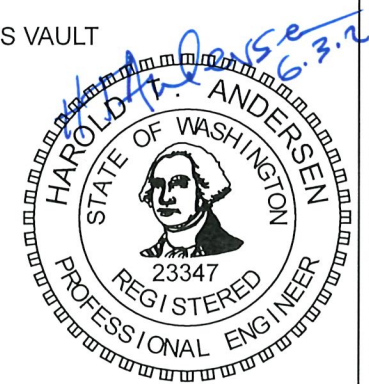
CIVIL CONSULTANT
 HAROLD T ANDERSEN, P.E.
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 P: (360) 379-9117
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htandersen@q.com

ELECTRICAL CONSULTANT
 CONTRACTOR RESPONSIBILITY

TELEMETRY CONSULTANT
 JAMES CROSS
 QUALITY CONTROLS CORP
 (425) 967-7110
jamesc@quality-controls.com

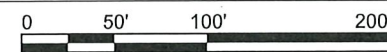
SHEET INDEX

- 001 COVERSHEET
- 002 GENERAL NOTES & WELL HOUSE SITE PLAN
- 003 WELL PUMP & WELL HEAD DETAILS
- 004 WELL HOUSE PIPING
- 005 WATER METER VAULT & BYPASS VAULT
- 006 INTERTIE PIPING
- 007 DOUBLE CHECK VALVE VAULT
- 008 DISCONNECT
- 009 WELL HOUSE FLOOR PLAN
- 010 WELL HOUSE ROOF PLAN
- 011 WELL HOUSE ELEVATIONS
- 012 BUILDING SECTIONS
- 013 FOUNDATION DETAILS
- 014 ROOF DETAILS



1
001 OVERALL SITE PLAN
 SCALE: 1" =500'

2
001 SITE PLAN
 SCALE: 1" =100'



CITY OF PORT TOWNSEND
 WELL PUMP INSTALLATION & IRRIGATION SYSTEM
 IMPROVEMENT PROJECT

DATE: 6/3/2021 | JOB No: | SCALE: AS NOTED | SHEET: 1 of 14



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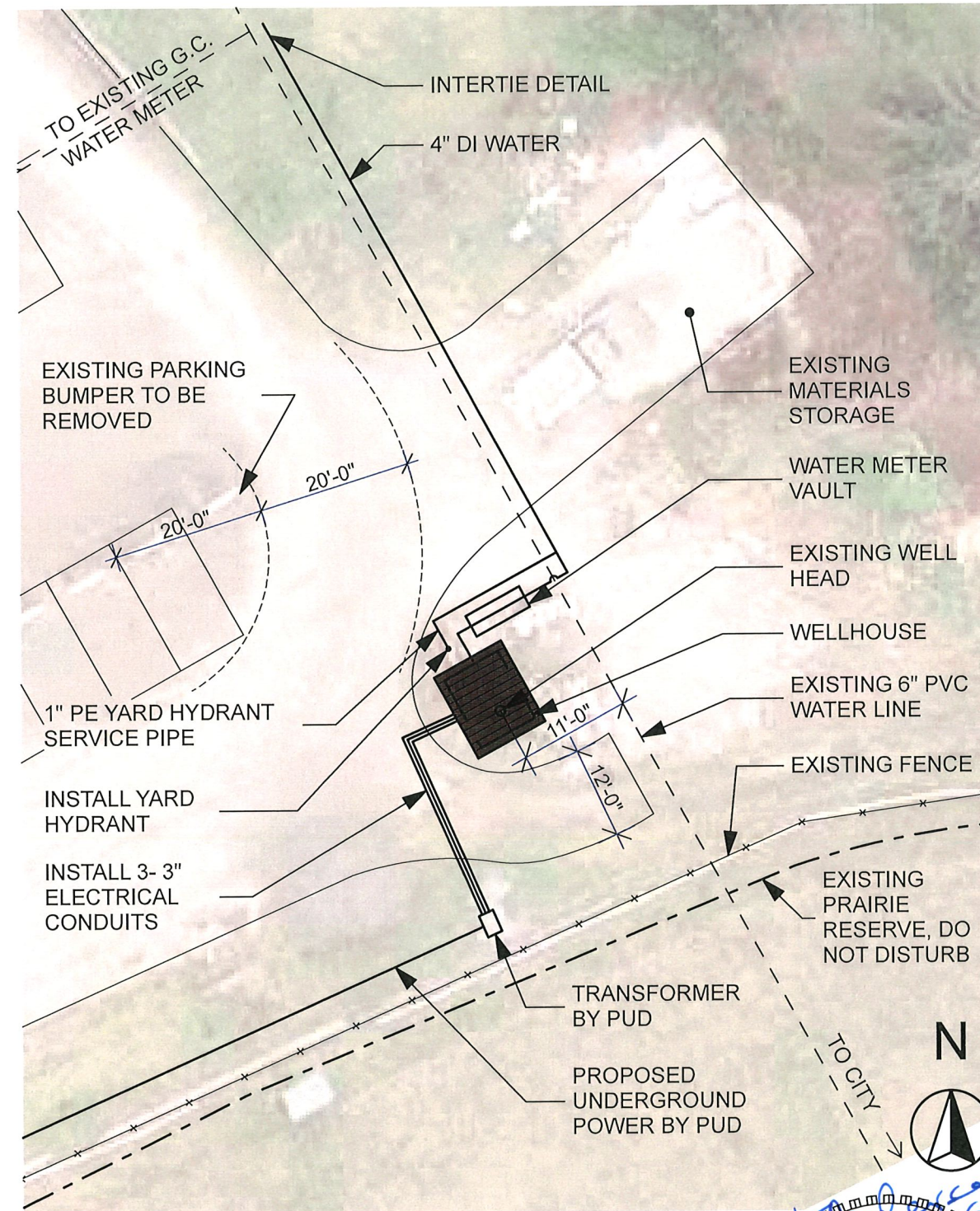
Prepared for:
 City of Port Townsend
 Department of Public Works
 250 Madison Street
 Port Townsend, WA 98368
 (360) 379-5090

DRAWN: LIVE | DESIGNED: HTA | CHECKED: HTA

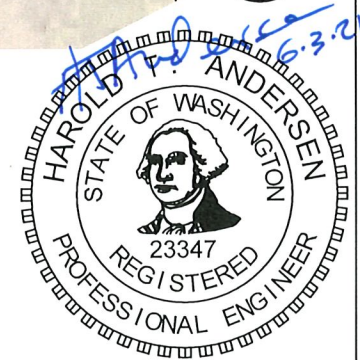
GENERAL NOTES

1. ALL WORK IN: CITY RIGHT-OF-WAY REQUIRES A PERMIT FROM THE CITY OF PORT TOWNSEND. PRIOR TO ANY WORK COMMENCING, THE CONTRACTOR SHALL ARRANGE FOR A PRE-CONSTRUCTION MEETING AT THE SITE TO BE ATTENDED BY ALL MAJOR CONTRACTORS, REPRESENTATIVES OF INVOLVED UTILITIES, THE PROJECT ENGINEER, AND CITY OF PORT TOWNSEND REPRESENTATIVES. CONTACT THE PUBLIC WORKS DEPARTMENT AT THE CITY OF PORT TOWNSEND TO SCHEDULE THE MEETING (360) 385-3000. THE CONTRACTOR IS RESPONSIBLE TO HAVE HIS SET OF APPROVED PLANS AT THE MEETING.
2. AFTER COMPLETION OF ALL ITEMS SHOWN ON THESE PLANS AND BEFORE ACCEPTANCE OF THE PROJECT, THE CONTRACTOR SHALL OBTAIN A "PUNCH LIST" PREPARED BY THE CITY'S INSPECTORS DETAILING REMAINING ITEMS OF WORK TO BE COMPLETED. ALL ITEMS OF WORK SHOWN ON THESE PLANS SHALL BE COMPLETED TO THE SATISFACTION OF THE CITY PRIOR TO ACCEPTANCE.
3. ALL MATERIALS AND WORKMANSHIP SHALL CONFORM TO THE "STANDARD SPECIFICATIONS FOR ROAD, BRIDGE, AND MUNICIPAL CONSTRUCTION", (HEREINAFTER REFERRED TO AS THE STANDARD SPECIFICATIONS), PER WASHINGTON STATE DEPARTMENT OF TRANSPORTATION AND AMERICAN PUBLIC WORKS ASSOCIATION, WASHINGTON CHAPTER, 2006 EDITION, UNLESS SUPERSEDED OR AMENDED BY THE CITY OF PORT TOWNSEND.
4. A COPY OF THESE APPROVED PLANS AND APPLICABLE SPECIFICATIONS AND DETAILS SHALL BE ON-SITE DURING CONSTRUCTION. THE CITY SHALL BE NOT RESPONSIBLE FOR ANY ERRORS AND/OR OMISSIONS TO THESE PLANS.
5. ANY REVISIONS MADE TO THESE PLANS MUST BE REVIEWED AND APPROVED BY QUADRA ENGINEERING AND THE CITY PRIOR TO ANY IMPLEMENTATION IN THE FIELD.
6. THE CONTRACTOR SHALL HAVE ALL UTILITIES VERIFIED ON THE GROUND PRIOR TO ANY CONSTRUCTION. CALL (1-800-424-5555) AT LEAST 48 HOURS IN ADVANCE. THE OWNER AND QUADRA ENGINEERING ENGINEER SHALL BE CONTACTED IMMEDIATELY IF A CONFLICT EXISTS.
7. ANY STRUCTURE AND/OR OBSTRUCTION THAT REQUIRES REMOVAL OR RELOCATION RELATING TO THIS PROJECT SHALL BE DONE SO AT THE CONTRACTOR'S EXPENSE.

8. LOCATIONS OF EXISTING UTILITIES ARE APPROXIMATE. IT SHALL BE THE CONTRACTOR'S RESPONSIBILITY TO DETERMINE THE TRUE ELEVATIONS AND LOCATIONS OF ALL UTILITIES.
9. THE CONTRACTOR SHALL INSTALL, REPLACE, OR RELOCATE ALL SIGNS, SHOWN ON THE PLANS OR AS AFFECTED BY CONSTRUCTION. ALL SIGNAGE SHALL CONFORM TO MUTCD STANDARDS.
10. DURING CONSTRUCTION, ALL PUBLIC STREETS ADJACENT TO THIS PROJECT SHALL BE KEPT CLEAN OF ALL MATERIAL DEPOSITS RESULTING FROM ON-SITE CONSTRUCTION. ALL EXISTING STRUCTURES SHALL BE PROTECTED.
11. THE CONTRACTOR SHALL MAINTAIN A SET OF DRAWINGS UPON WHICH THE CONTRACTOR SHALL RECORD THE HORIZONTAL AND VERTICAL LOCATIONS OF THE AS-CONSTRUCTED IMPROVEMENTS, AND THE ACTUAL LOCATION OF EXISTING UTILITIES ENCOUNTERED.
12. THE CONTRACTOR SHALL BE RESPONSIBLE FOR FURNISHING A SET OF REPRODUCIBLE AS-BUILT DRAWINGS TO THE CITY OF PORT TOWNSEND PRIOR TO PROJECT ACCEPTANCE.
13. THE CONTRACTOR SHALL PROVIDE SAFETY SYSTEMS FOR TRENCH EVACUATION THAT MEET OR EXCEED THE REQUIREMENTS OF THE WASHINGTON INDUSTRIAL SAFETY AND HEALTH ACT, RCW 4917 FOR ALL TRENCH EXCAVATION THAT EXCEEDS A DEPTH OF 4 FEET.
14. WHERE NEW ASPHALT JOINS EXISTING ASPHALT SHALL BE CUT TO A NEAT VERTICAL EDGE AND TACKED WITH ASPHALT EMULSION TYPE CSS-1 IN ACCORDANCE WITH THE STANDARD SPECIFICATIONS. THE JOINT SHALL BE SEALED WITH GRADE AR-4000W PAVING ASPHALT.
15. ALL PIPE AND SERVICES SHALL BE INSTALLED WITH CONTINUOUS DETECTABLE MARKING TAPE NO LESS THAN 18-INCHES BELOW THE FINAL GROUND SURFACE NOR LESS THAN 12-INCHES ABOVE THE TOP OF THE PIPE AND IN ACCORDANCE WITH THE SPECIFICATIONS OF THE MANUFACTURER. THE MARKING TAPE SHALL BE CONTINUOUS AND EXTEND THE FULL LENGTH OF THE PIPE AND MAKE CONNECTION TO ALL APPURTENANCES. THE TAPE SHALL MEET OR EXCEED WSDOT STANDARD SPECIFICATION 9-15.18. TAPE SHALL BE TERRA TAPE D OR APPROVED EQUAL.



1
002 **WELL HOUSE SITE PLAN**
SCALE: 1" = 20'
0 10' 20' 40'



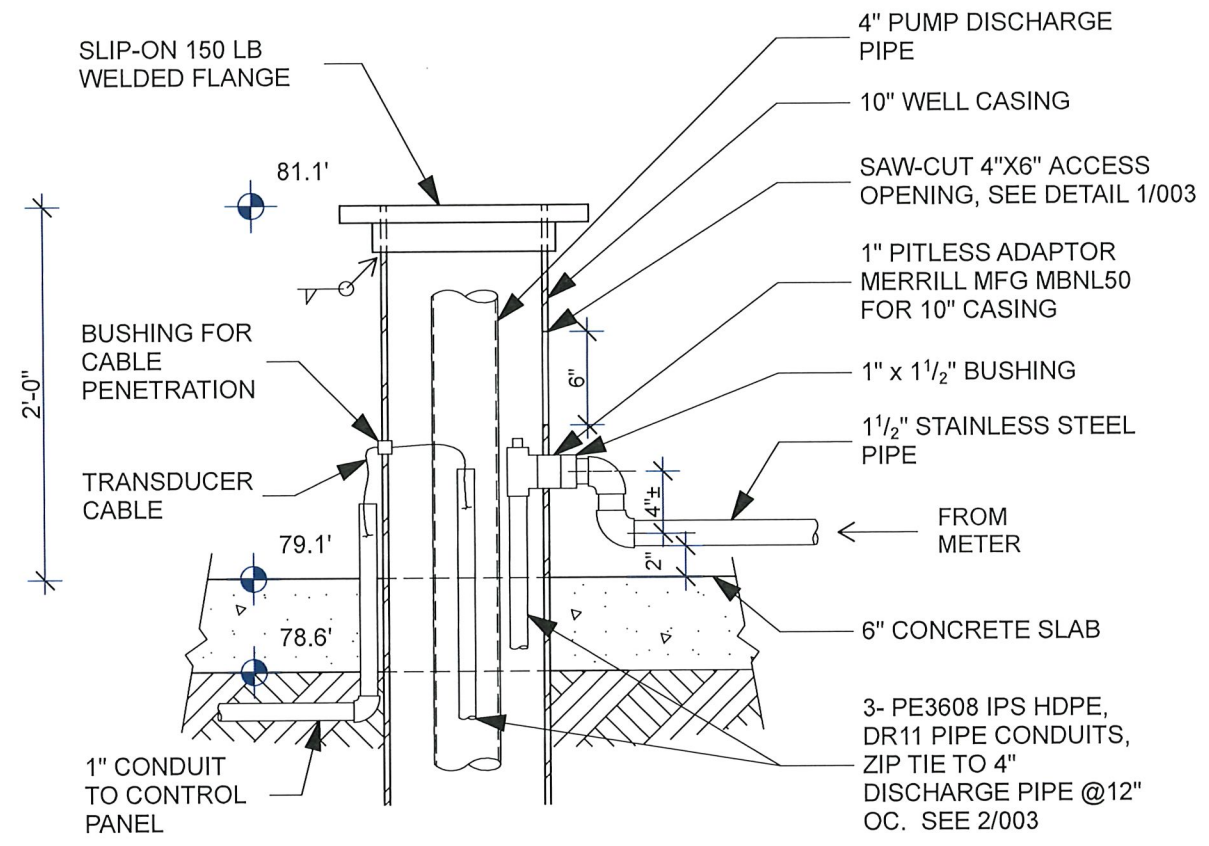
CITY OF PORT TOWNSEND
WELL PUMP INSTALLATION & IRRIGATION SYSTEM
IMPROVEMENT PROJECT

QUADRA
ENGINEERING, SP

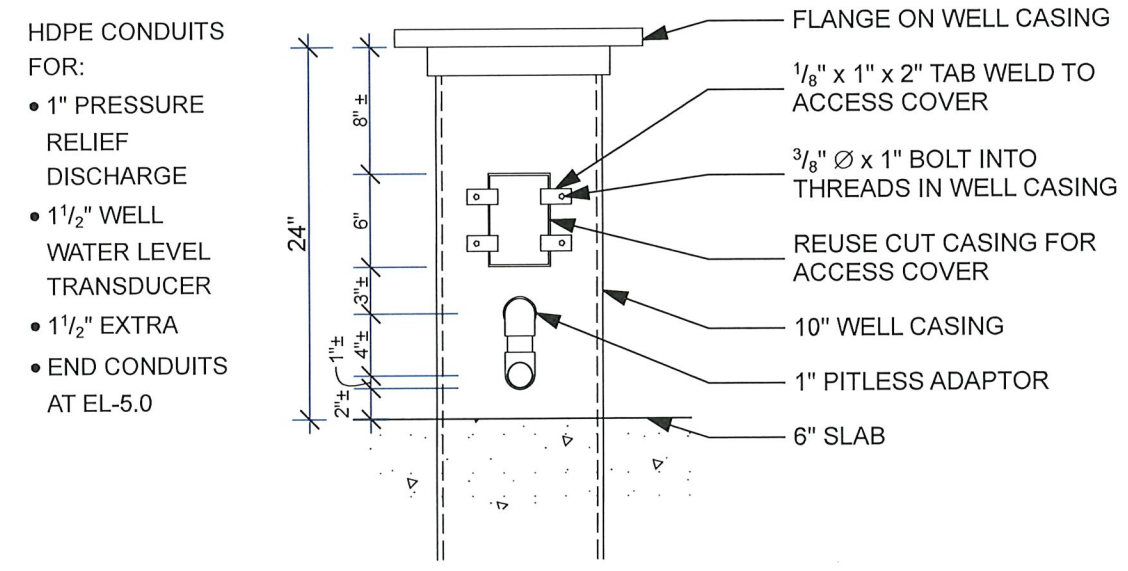
Prepared for: City of Port Townsend
Development of Public Works
250 Madison Street
Port Townsend, WA 98368
(360) 379-5090

DESIGNED: HTA
CHECKED: HTA
DRAWN: LVE

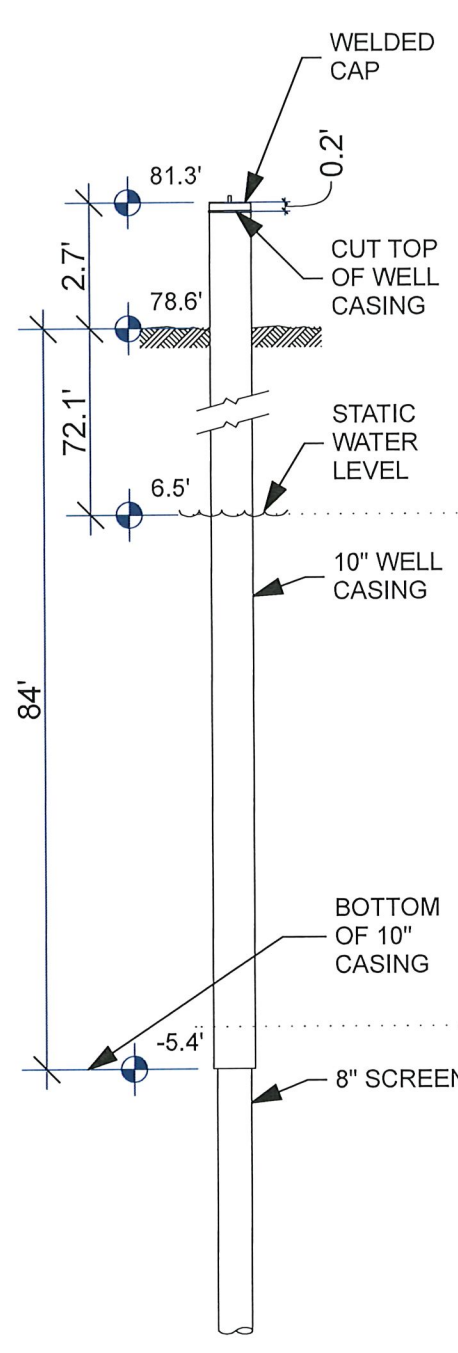
DATE: 6/3/2021
JOB No:
SCALE: AS NOTED
SHEET: 2 of 14



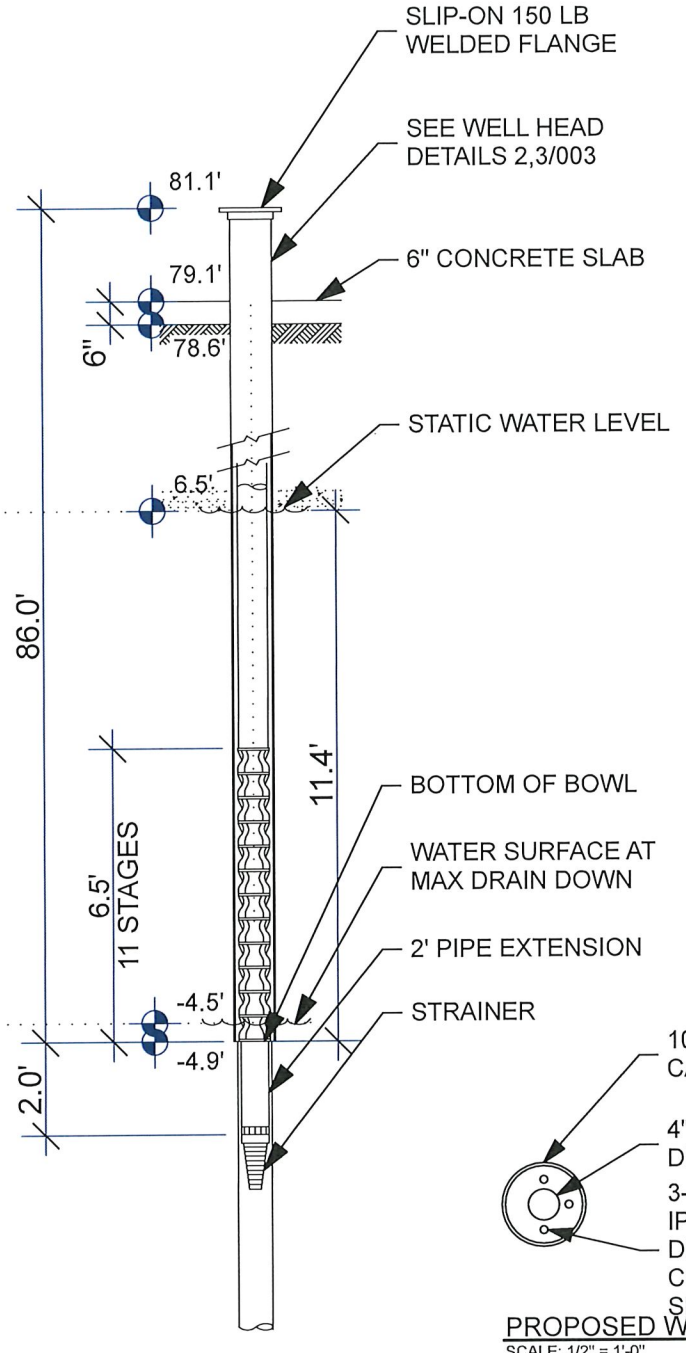
3
003
WELL HEAD DETAIL
SCALE: 1" = 1'-0"
0 6" 1' 2'



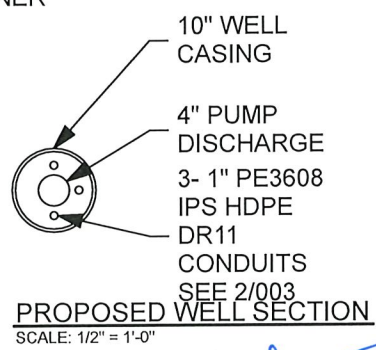
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003
ACCESS OPENING DETAIL
SCALE: 1" = 1'-0"
0 6" 1' 2'



EXISTING

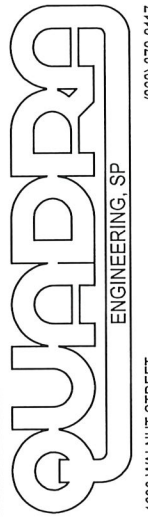
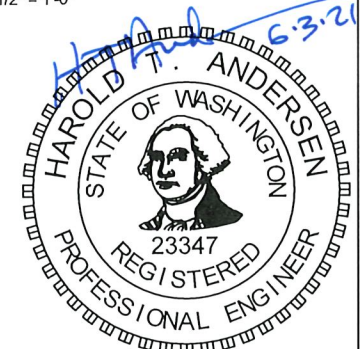


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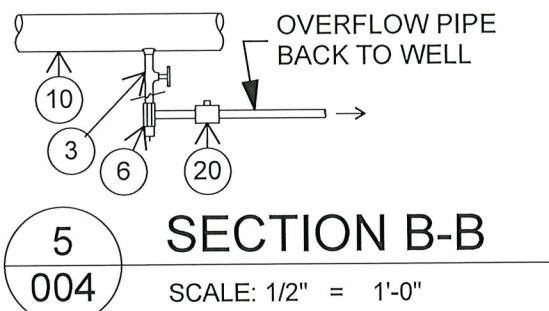


PROPOSED WELL SECTION
SCALE: 1/2" = 1'-0"

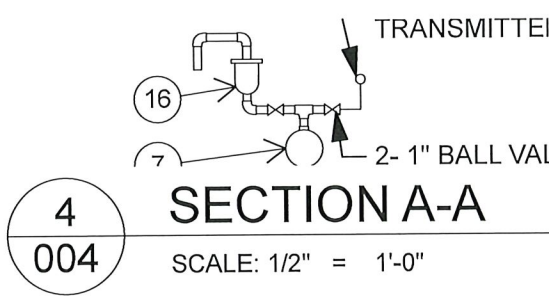
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003
WELL PUMP INSTALLATION
SCALE: 1/4" = 1'-0"
0 2' 4' 8'



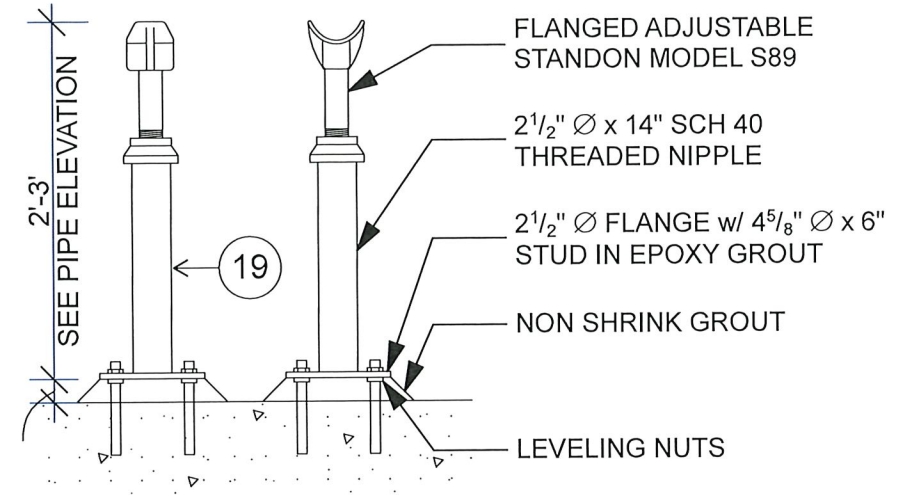
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(360) 460-7311 cell
handersen@q.com



5
004 SECTION B-B
SCALE: 1/2" = 1'-0"



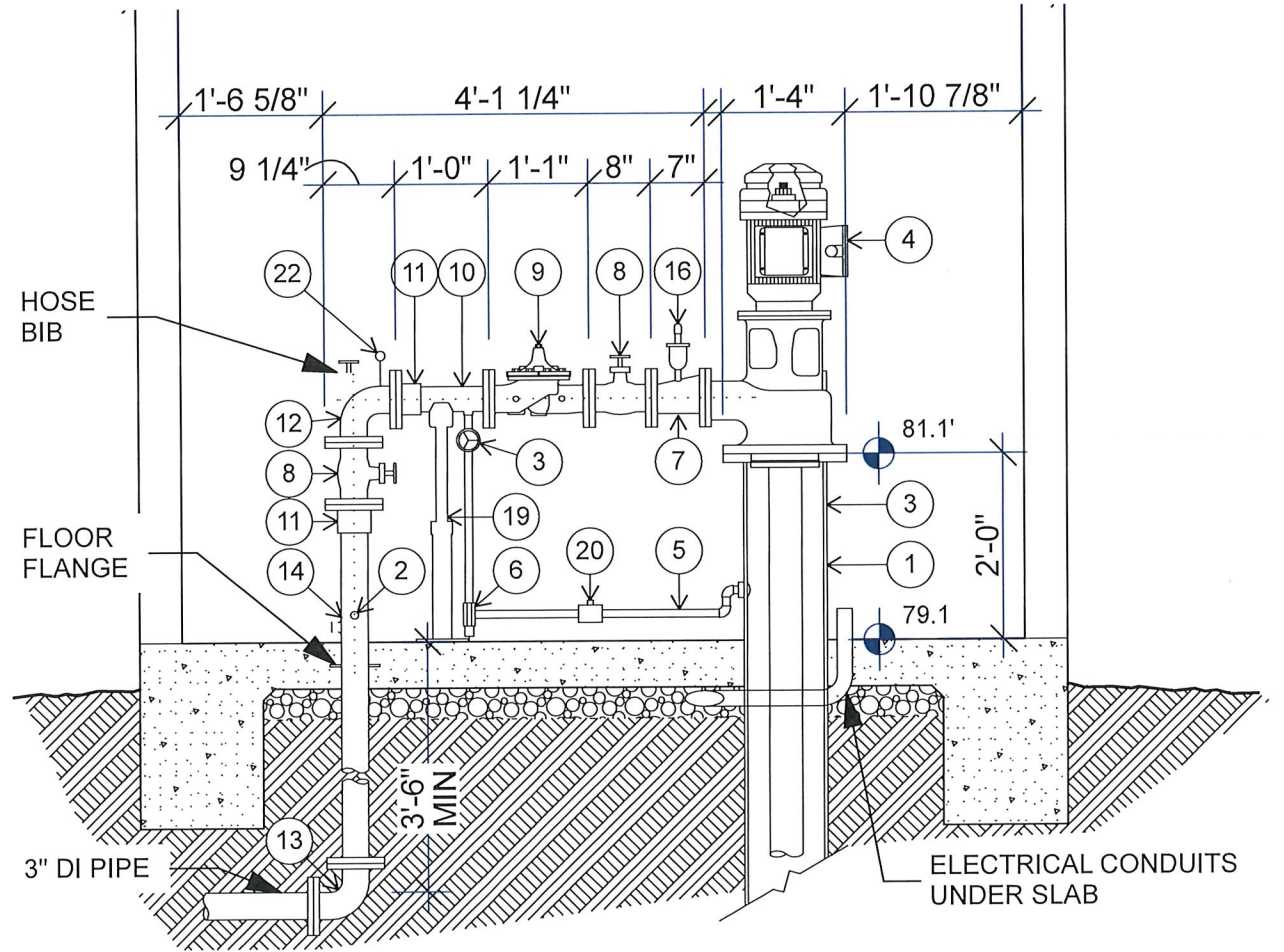
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004 SECTION A-A
SCALE: 1/2" = 1'-0"



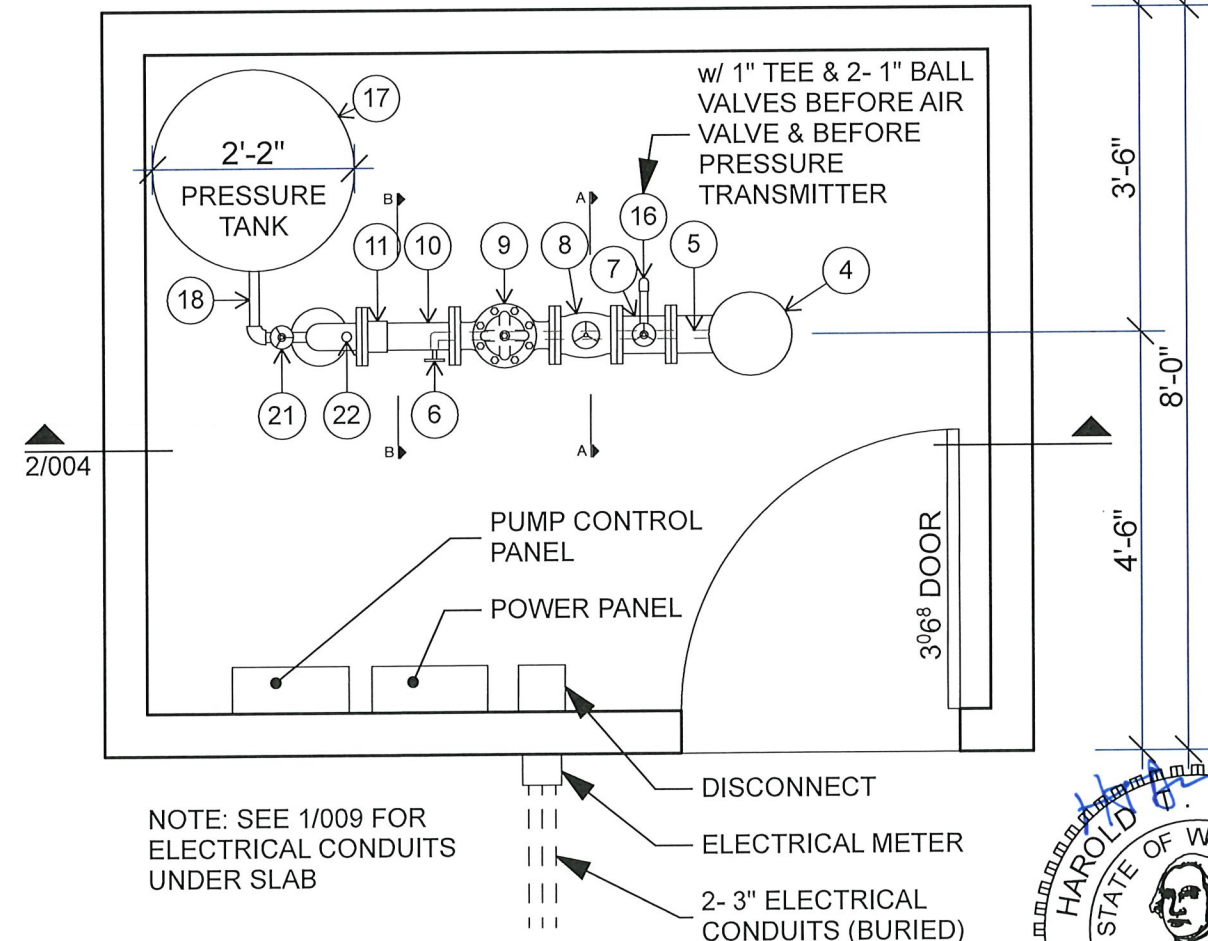
3
004 PIPE SUPPORT DETAIL
SCALE: 1" = 1'-0"
0 6" 1' 2'

WELL HOUSE PIPING SCHEDULE

- | | |
|--|---|
| 1. 10" WELL CASING (10.8" OD), EXISTING | 12. 3" DI ELBOW, FL x FL w/ 2- 3/4" FNPT TAPS. 3/4" HOSE BIB. |
| 2. 1 1/4" FNPT TAP PLUGGED, FUTURE CHLORINE INJECTION PORT | 13. 3" DI ELBOW, MJ x MJ |
| 3. 1 1/2" BALL VALVE | 14. 3" x 60" DI PIPE w/ 1 1/4" FNPT TAP & FLOOR FLANGE, PE x FL |
| 4. BOSCH PUMP MODEL 7WL-IC, 6" FL DISCHARGE | 15. 3" DI PIPE TO WATER METER VAULT, PE x PE |
| 5. 1 1/2" STAINLESS STEEL PIPE | 16. 1" COMBINATION AIR VALVE & PRESSURE TRANSMITTER, SEE 4/004 |
| 6. 1 1/2" PRESSURE RELIEF VALVE, TH x TH | 17. 86-GAL FIBERGLASS PRESSURE TANK |
| 7. 3" x 6" DI REDUCER, FL x FL w/ 1" FNPT TAP | 18. 1 1/4" SCH 80 PVC PIPE |
| 8. 3" GATE VALVE, FL x FL | 19. FLANGED ADJUSTABLE PIPE SUPPORT, SEE DETAIL |
| 9. 3" CLA 60-32 PUMP CONTROL VALVE, FL x FL | 20. 1 1/2" WATER METER, TH X TH, SIEMANS FM D80 w/UNIONS |
| 10. 3" x 12" DI PIPE, FL x FL w/ 1 1/2" FNPT TAP | 21. 1 1/4" BALL VALVE |
| 11. 3" FLANGE COUPLING ADAPTOR RESTRAINED | 22. 3/4" BALL VALVE, PRESSURE GAUGE, PRESSURE TRANSMITTER |



2
004 WELL HOUSE PIPING ELEVATION
SCALE: 1/2" = 1'-0"
0 1' 2' 4'



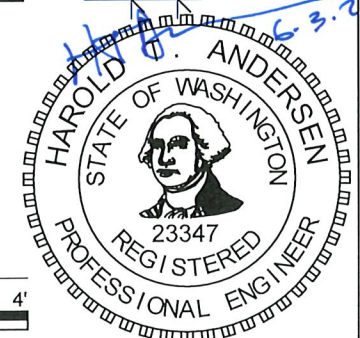
1
004 WELL HOUSE PIPING PLAN
SCALE: 1/2" = 1'-0"
0 1' 2' 4'

NOTE: SEE 1/009 FOR ELECTRICAL CONDUITS UNDER SLAB

DISCONNECT

ELECTRICAL METER

2- 3" ELECTRICAL CONDUITS (BURIED)



CITY OF PORT TOWNSEND
 WELL PUMP INSTALLATION & IRRIGATION SYSTEM
 IMPROVEMENT PROJECT

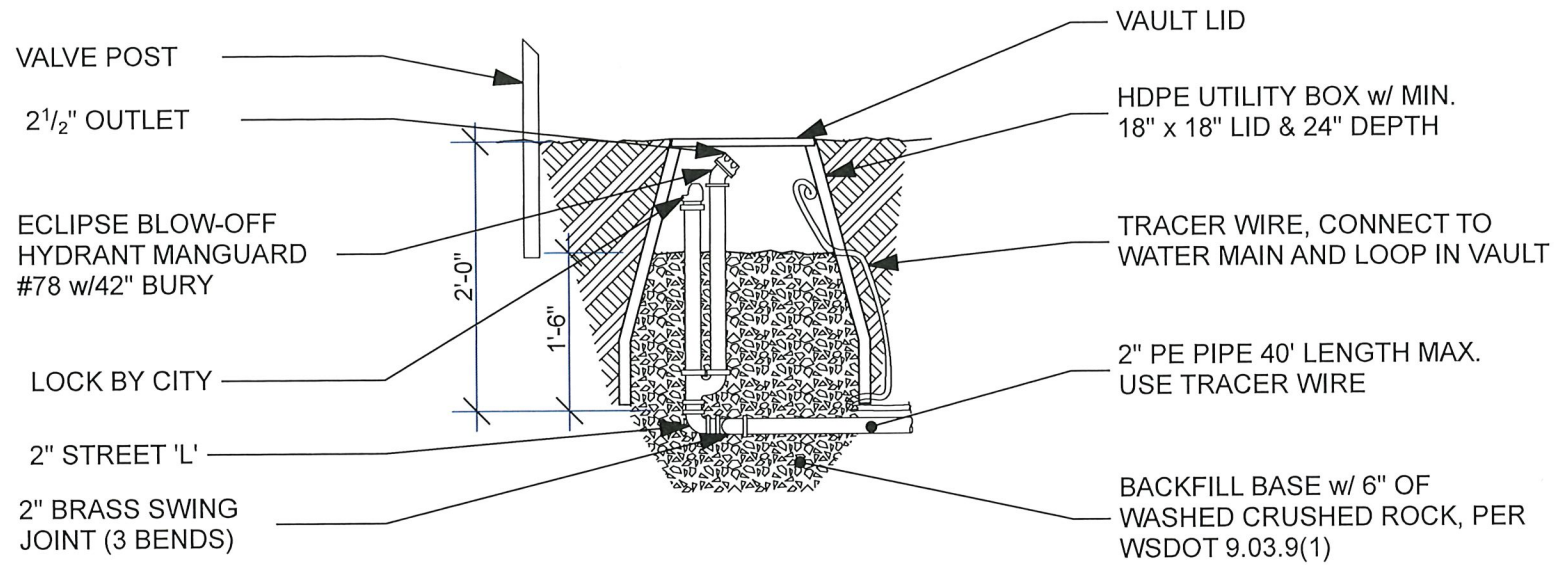
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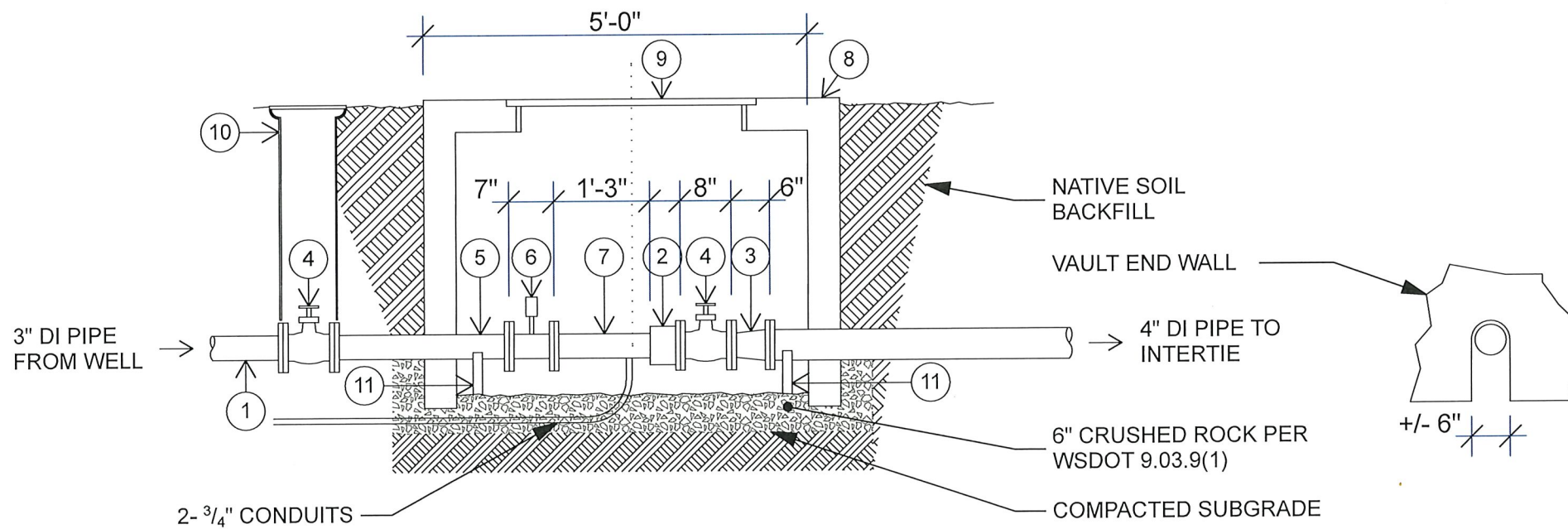
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 Department of Public Works
 250 Madison Street
 Port Townsend, WA 98368
 (360) 379-5090

DRAWN: LVE
 DESIGNED: HTA
 CHECKED: HTA

SCALE: AS NOTED
 SHEET: 4 of 14
 DATE: 6/2/2021
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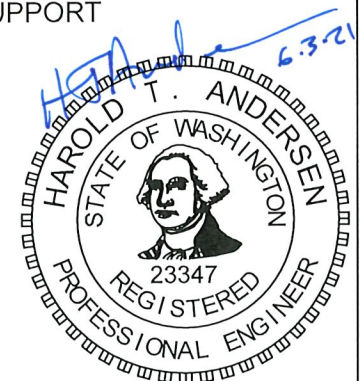
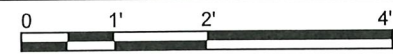
2
005 BYPASS VAULT DETAIL
NOT TO SCALE



WATER METER VAULT PIPING SCHEDULE

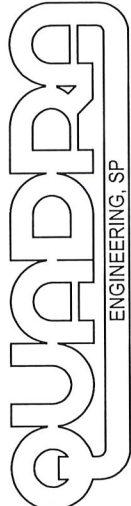
1. 3" DI PIPE
2. 3" FLANGED COUPLING ADAPTOR
3. 3" x 4" REDUCER, FL x FL
4. 3" GATE VALVE, FL x FL
5. 3" x 30" DI PIPE SPOOL, FL x FL
6. 3" WATER METER, FL x FL, SIEMENS SITRANS FM D 80, ORDER CODE P 11
7. 3" x 18" DI PIPE SPOOL, PE x FL
8. CONCRETE VAULT, 5' x 4' x 4' DEEP
9. ACCESS DOOR, 3' x 3', BILCO TYPE J
10. VALVE BOX PER STD DETAIL W4
11. FIXED PIPE SUPPORT

1
005 WATER METER VAULT
SCALE: 1/2" = 1'-0"



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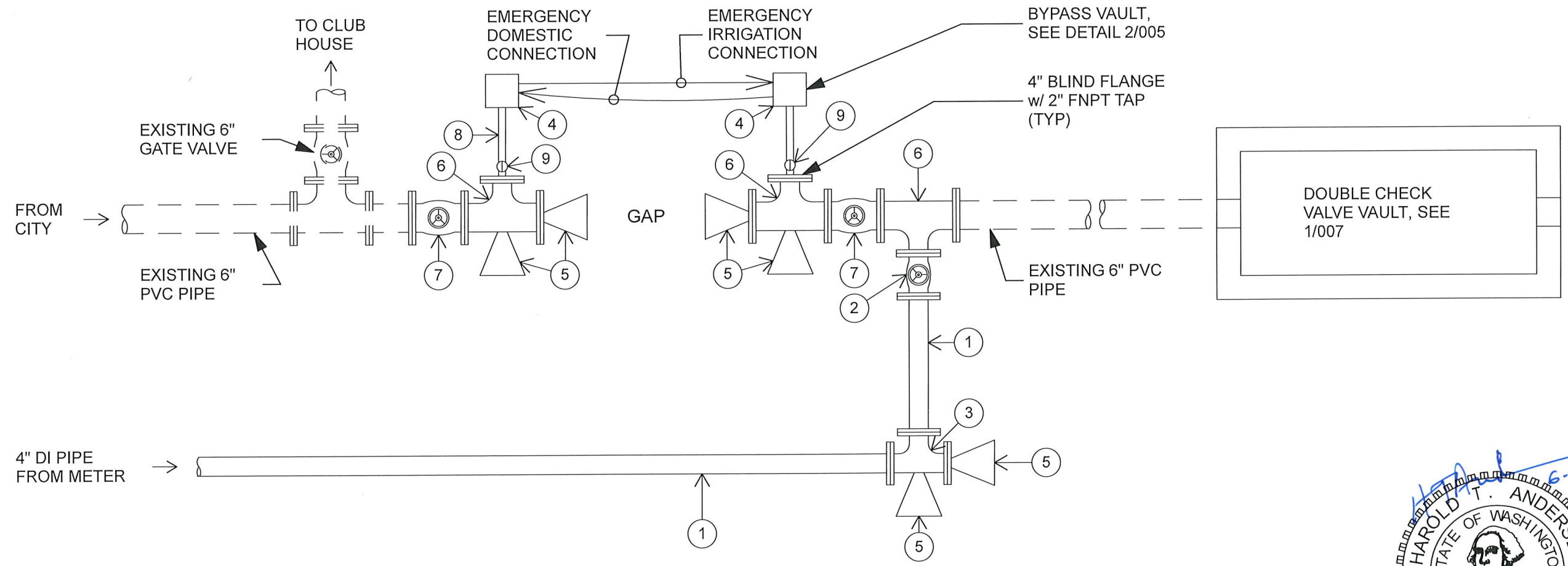
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CITY OF PORT TOWNSEND
WELL PUMP INSTALLATION & IRRIGATION SYSTEM
IMPROVEMENT PROJECT

DATE: 6/3/2021
JOB No:
SCALE: AS NOTED
SHEET: 5 of 14

INTERTIE PIPING SCHEDULE

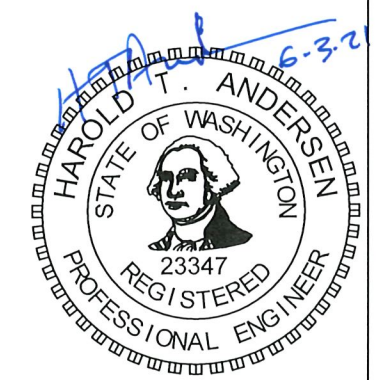
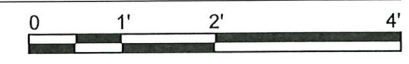
1. 4" DI PIPE
2. 4" GATE VALVE, MJ x MJ w/ VALVE BOX PER STD DTL W4
3. 4" x 4" x 4" TEE, MJ x MJ x MJ
4. ECL/PSE BLOW-OFF MAINGUARD #78
5. THRUST BLOCK, PER STD DETAIL W8
6. 6 x 6 x 4 TEE, MJ x MJ x FL
7. 6" GATE VALVE, MJ x MJ w/ VALVE BOX PER STD DTL W4
8. 2" PE PIPE
9. 2" CORP STOP w/VALVE BOX PER STD DETAIL W4



1
006

INTERTIE DETAIL

SCALE: 1/2" = 1'-0"

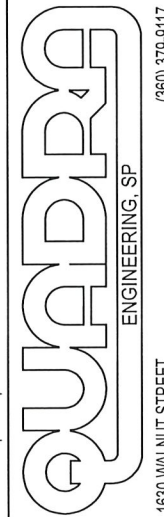


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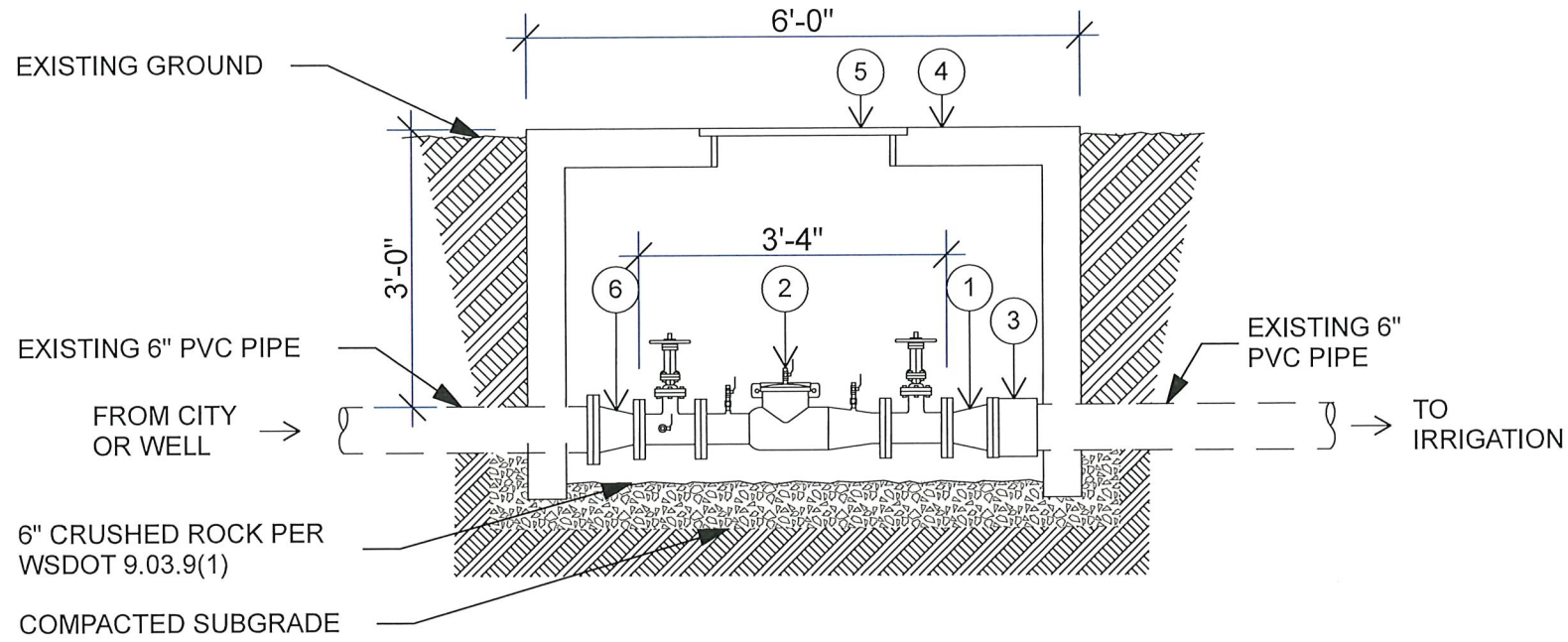
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DESIGNED: HTA

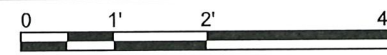
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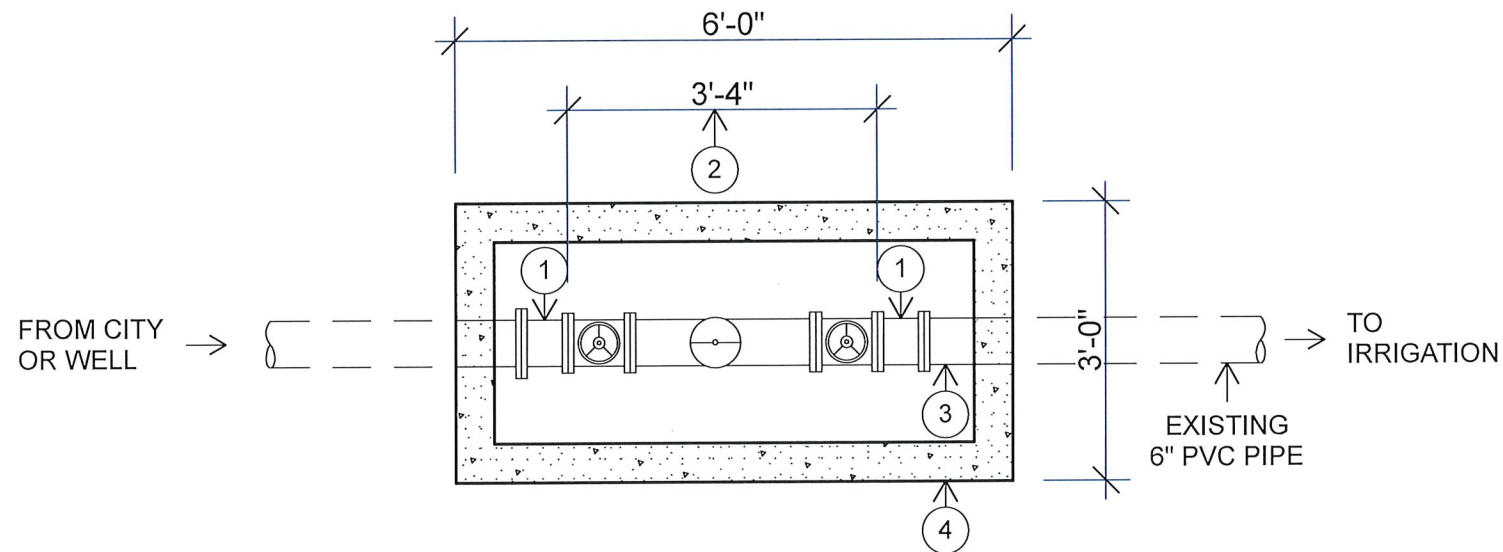


2
007 **DOUBLE CHECK VALVE VAULT SECTION**
SCALE: 1/2" = 1'-0"



DOUBLE CHECK VALVE PIPING SCHEDULE

1. 4" x 6" DI REDUCER FL x FL
2. 4" DOUBLE CHECK VALVE ASSEMBLY, AMES SERIES 2000SS, FL x FL, w/ 2- 4" OS&Y GATE VALVES
3. 6" FLANGE COUPLING ADAPTOR
4. CONCRETE VAULT 6' x 3' x 4' DEEP
5. ACCESS DOOR 3' x 3', BILCO TYPE J
6. 4" x 6" DI REDUCER, FL x MJ

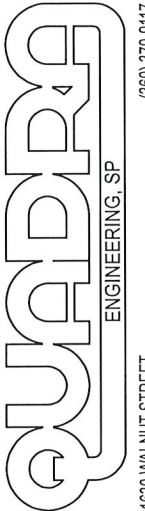


1
007 **DOUBLE CHECK VALVE VAULT PLAN**
SCALE: 1/2" = 1'-0"



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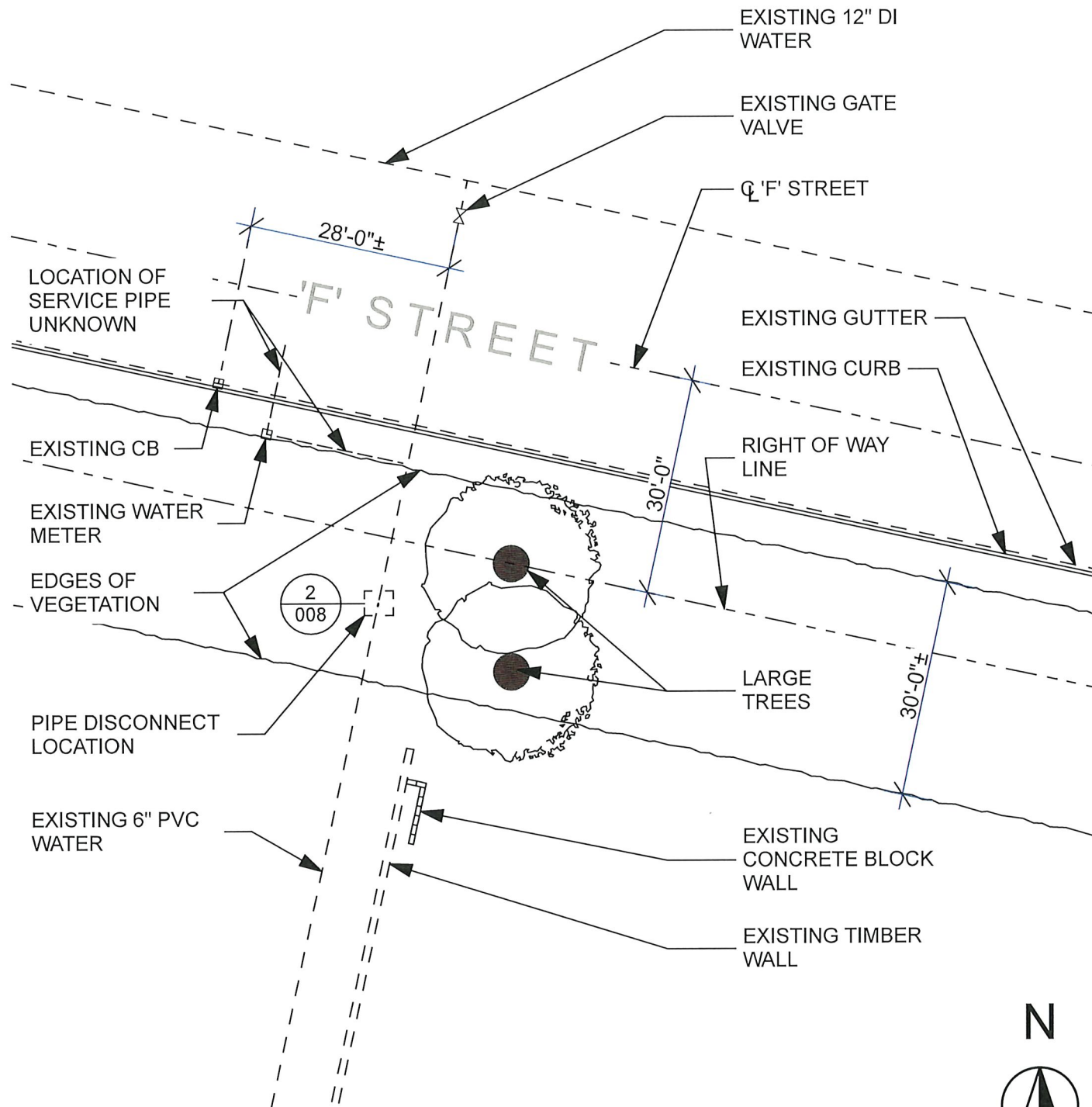
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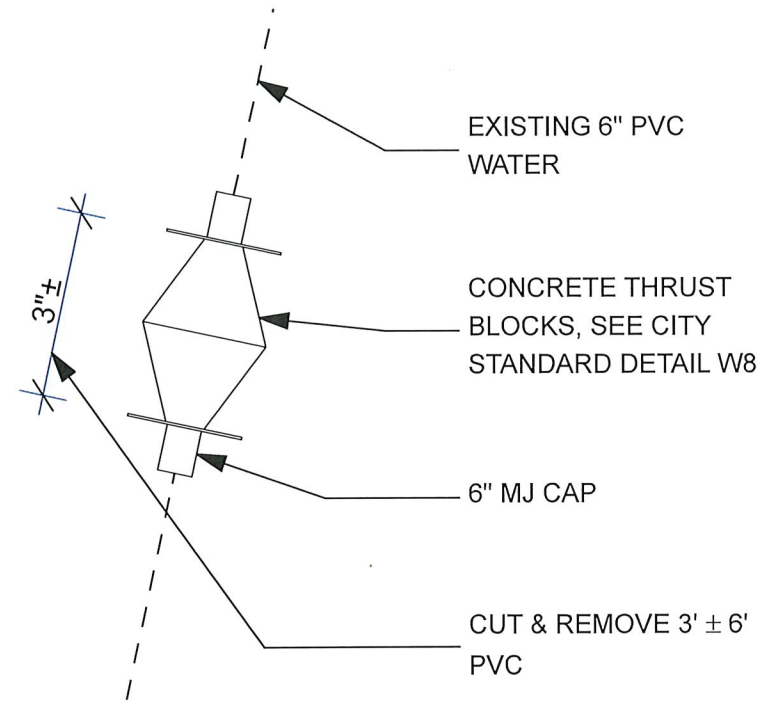
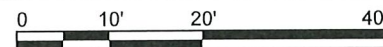
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handersen@qq.com

CITY OF PORT TOWNSEND
WELL PUMP INSTALLATION & IRRIGATION SYSTEM
IMPROVEMENT PROJECT

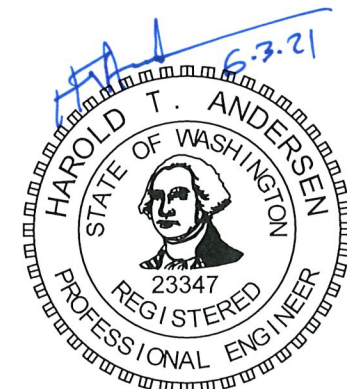
DATE: 6/3/2021 JOB No. SCALE: AS NOTED SHEET: 7 of 14



1 DISCONNECT SITE PLAN
 SCALE: 1" = 20'



2 DISCONNECT DETAIL
 SCALE: 3" = 1'-0"



CITY OF PORT TOWNSEND WELL PUMP INSTALLATION & IRRIGATION SYSTEM IMPROVEMENT PROJECT		DATE: 6/2/2021 JOB No.: SCALE: AS NOTED SHEET: 8 of 14
QUADRA ENGINEERING, SP		(360) 379-9117 (360) 460-7311 cell htandersen@q.com
Prepared for: City of Port Townsend Development of Public Works 250 Madison Street Port Townsend, WA 98368 (360) 379-5090		DESIGNED: HTA CHECKED: HTA
1630 WALNUT STREET P.O. Box 2094 PORT TOWNSEND, WA 98368		DRAWN: LVE

DOOR SCHEDULE

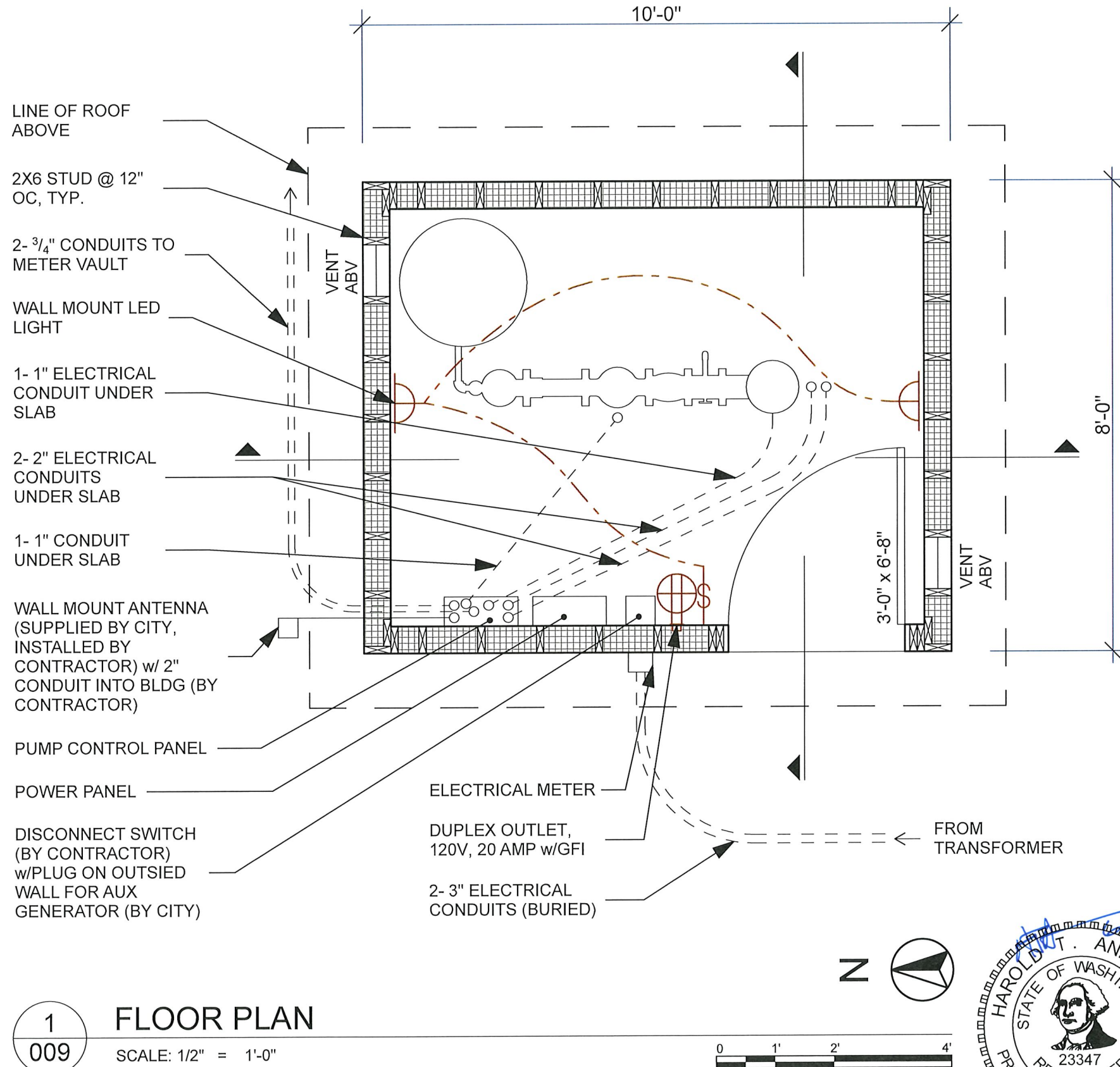
- 1. 3'-0" x 6'-8"
- INSULATED STEEL DOOR
- SECURALL OR SIMILAR
- DOOR TYPE: SINGLE DOOR
- PART NUMBER: HDQM16-36x84-45-HLH
- FRAME TYPE: WELDED FRAME
- SWING: RH (VERIFY)
- ANCHOR TYPE: STUD ANCHOR HINGE TYPE: 4 1/2"
- HARDWARE FINISH: STAINLESS STEEL
- VIEW LITE: NONE
- LOCKSET: LEVER - CYLINDRICAL
- LOCK FUNCTION: STOREROOM (KEY OUTSIDE, ALWAYS LOCKED)
- DEADBOLT: YES
- DOOR FINISH: PRIMER
- WEATHERSTRIPPING: YES
- KICKPLATE: NO
- THRESHOLD: YES

CONDUIT SCHEDULE

- 2- 3/4" CONDUITS FOR METER POWER & ANALOG SIGNAL
- 2- 2" CONDUITS FOR PUMP & POWER
- 1- 1" CONDUIT FOR ANTENNA SIGNAL
- 3- 3" CONDUITS (1 FOR POWER, 2 SPARES)
- 1- 1" CONDUIT FOR FLOW METER & 2 PRESSURE TRANSDUCERS

NOTES

- 1. CONTRACTOR SHALL BE RESPONSIBLE FOR DESIGN AND INSTALLATION OF ELECTRICAL SYSTEMS
- 2. CITY WILL BE RESPONSIBLE FOR INSTALLATION OF AUXILLARY GENERATOR PLUG IN.
- 3. CITY WILL FURNISH ALL INSTRUMENTATION AND PLC PROGRAMMING.
- 4. CONTRACTOR SHALL INSTALL ALL INSTRUMENTATION
- 5. CONTRACTOR SHALL VERIFY CONDUIT SIZES SHOWN
- 6. CONTRACTOR SHALL PROVIDE & INSTALL 480V POWER PANEL, 480V TO 120V TRANSFORMER & 120V 40 AMP POWER PANEL



1
009 **FLOOR PLAN**
SCALE: 1/2" = 1'-0"

CITY OF PORT TOWNSEND
WELL PUMP INSTALLATION & IRRIGATION SYSTEM
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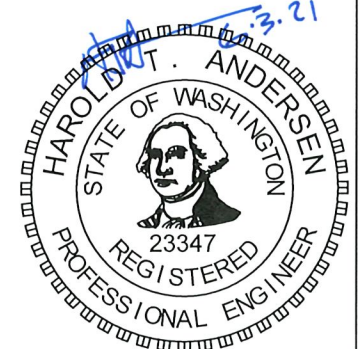
DATE: 6/2/2021 JOB No. SCALE: AS NOTED SHEET: 9 of 14

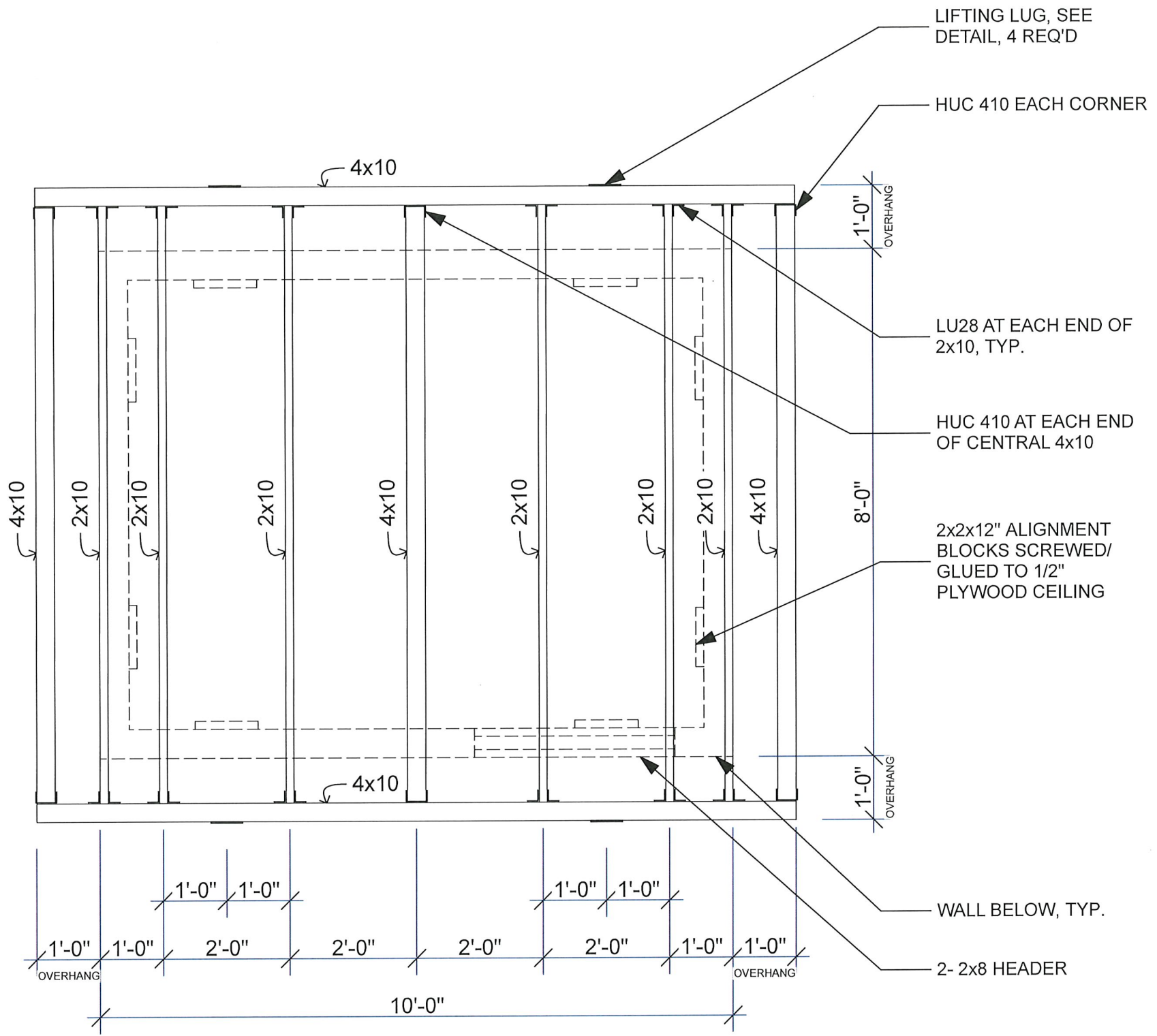
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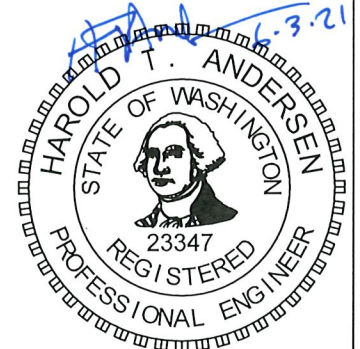
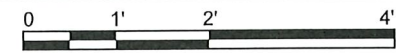
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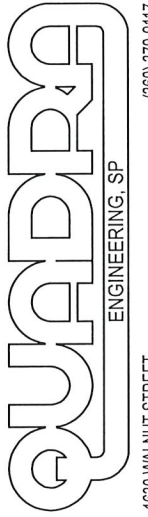
1
010

ROOF PLAN
SCALE: 1/2" = 1'-0"



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IMPROVEMENT PROJECT

DATE: 6/2/2021 JOB No. SCALE: AS NOTED SHEET: 10 of 14

INTERIOR FINISHES

WALLS & CEILING:
 'A' SIDE PLYWOOD w/ SEMIGLOSS WHITE ENAMEL

FLOOR:
 SLAB ON GRADE, TROWELED SMOOTH

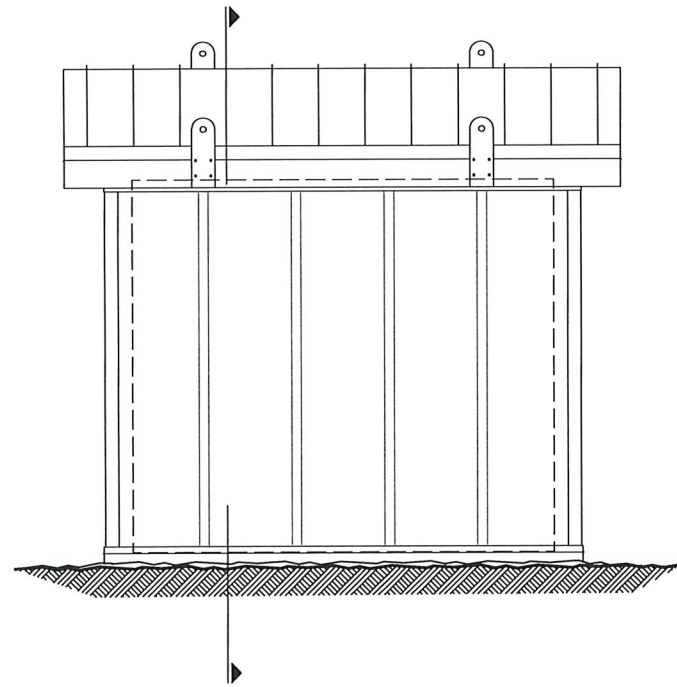
DOOR:
 STEEL, PAINTED TO MATCH EXISTING

EXTERIOR FINISHES

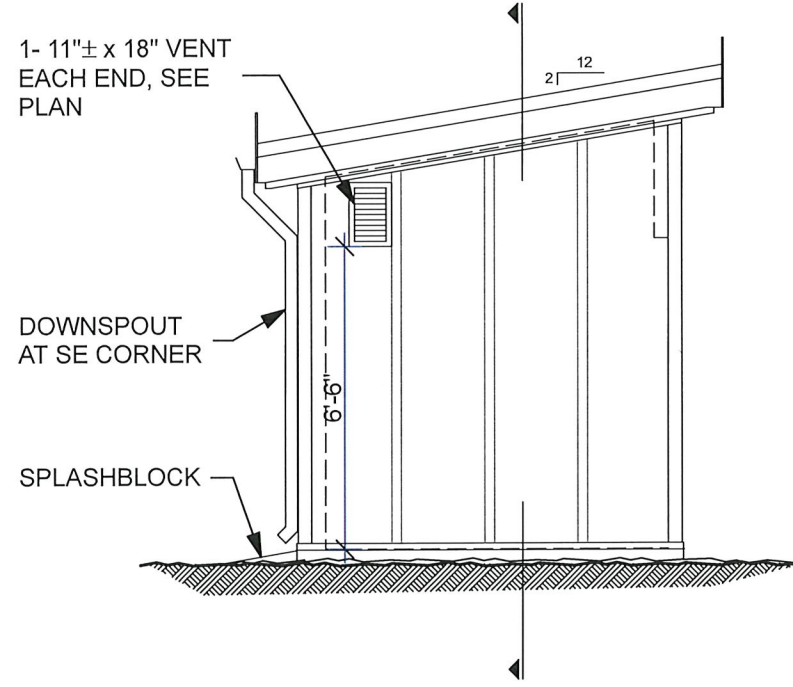
WALLS, PAINT TO MATCH EXISTING GC CLUB HOUSE:
 HARDIPANEL SIDING (TAN/GREY)
 HARDI BATTENS AT 2' O.C. (TAN/GREY)
 HARDI TRIM AT DOOR, 3 1/2" (BLUE)
 BASE FLASHING (TAN/GREY)

DOOR:
 STEEL, PAINTED TO MATCH EXISTING

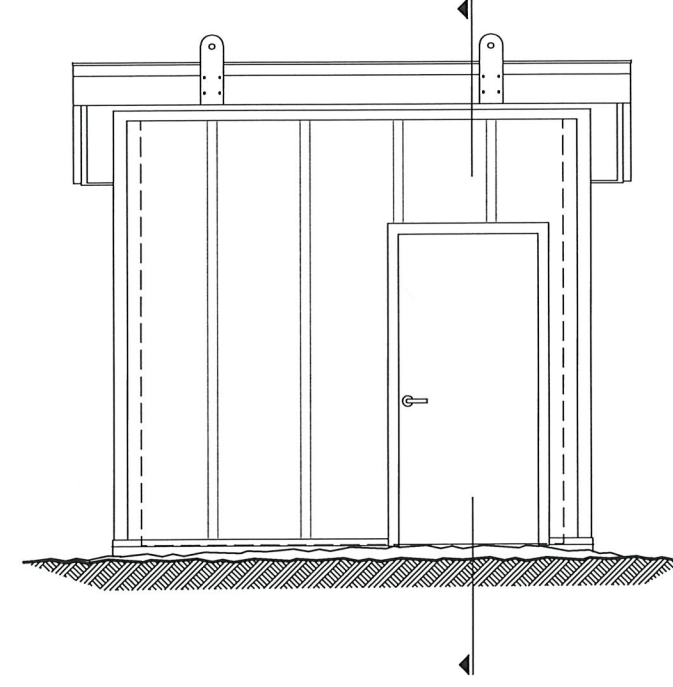
ROOF:
 STEEL ROOFING, BROWN TO MATCH EXIST. BLDGS
 CHAMPION MARION 'R' PANEL, SADDLE TAN
 -OR-
 ACS DESIGN SPAN hp, 16" WALNUT OR SIM.



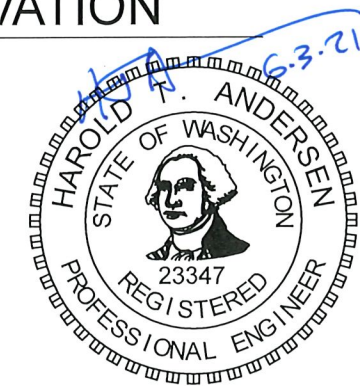
3
011 EAST ELEVATION
 SCALE: 1/4" = 1'-0"



2
011 NORTH ELEVATION
 SCALE: 1/4" = 1'-0"
 (SOUTH SIMILAR)



1
011 WEST ELEVATION
 SCALE: 1/4" = 1'-0"



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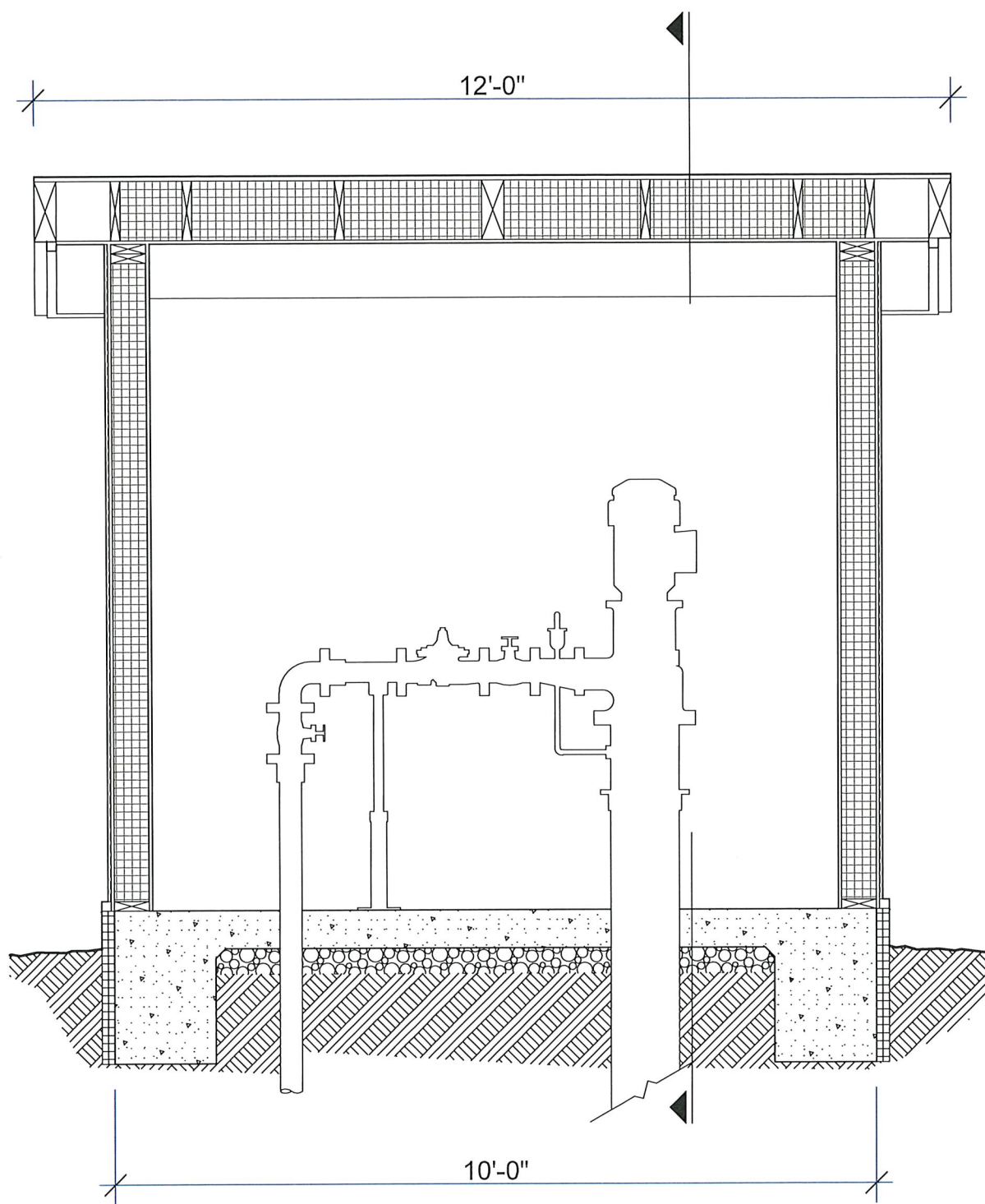
CHECKED: HTA

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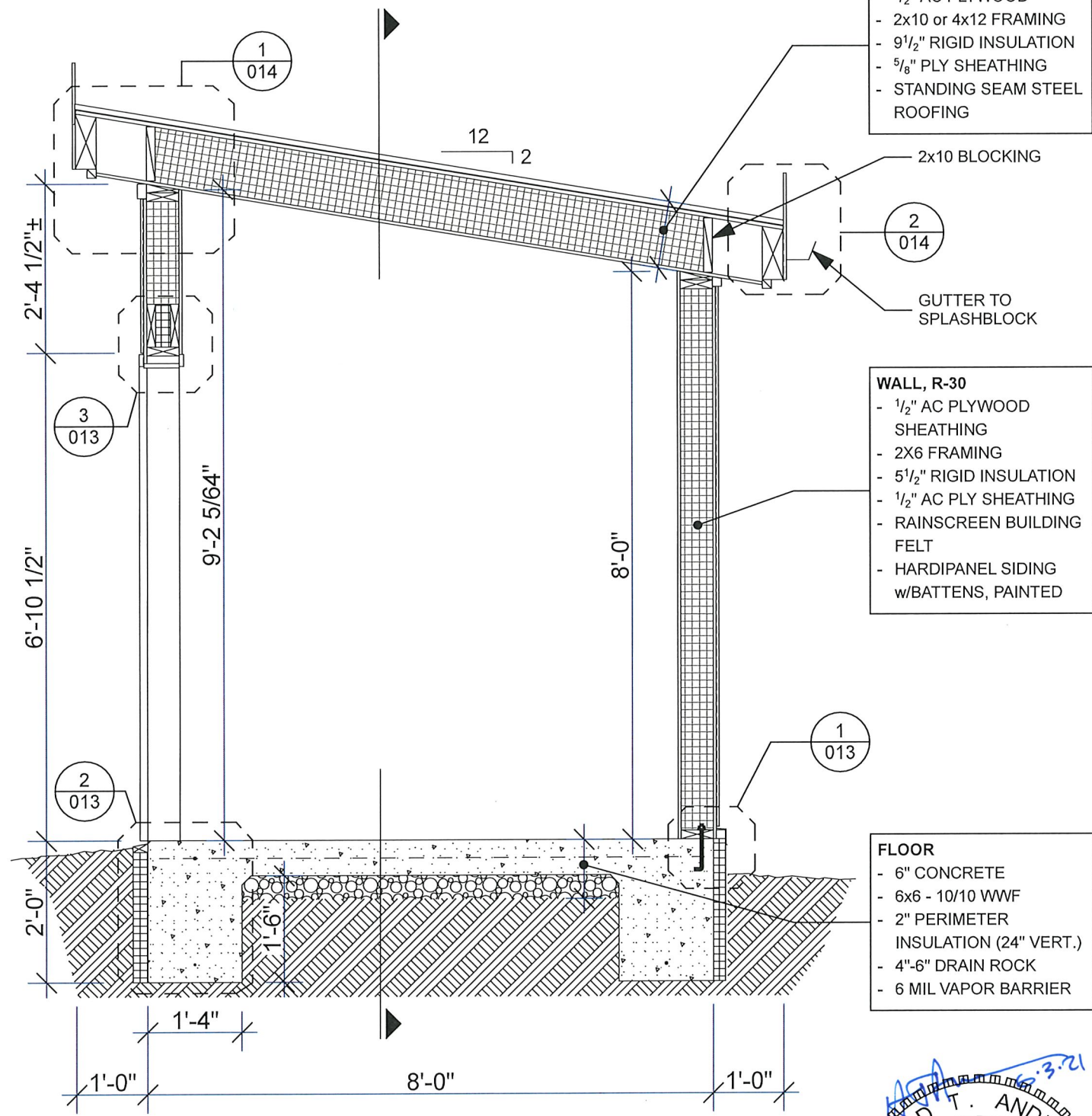
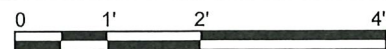
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2
012 BUILDING LONGITUDINAL SECTION
SCALE: 1/2" = 1'-0"



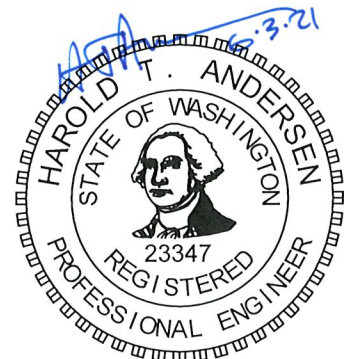
1
012 BUILDING CROSS SECTION
SCALE: 1/2" = 1'-0"



ROOF, R-45
 - 1/2" AC PLYWOOD
 - 2x10 or 4x12 FRAMING
 - 9 1/2" RIGID INSULATION
 - 5/8" PLY SHEATHING
 - STANDING SEAM STEEL ROOFING

WALL, R-30
 - 1/2" AC PLYWOOD SHEATHING
 - 2X6 FRAMING
 - 5 1/2" RIGID INSULATION
 - 1/2" AC PLY SHEATHING
 - RAINSCREEN BUILDING FELT
 - HARDIPANEL SIDING w/BATTENS, PAINTED

FLOOR
 - 6" CONCRETE
 - 6x6 - 10/10 WWF
 - 2" PERIMETER INSULATION (24" VERT.)
 - 4"-6" DRAIN ROCK
 - 6 MIL VAPOR BARRIER



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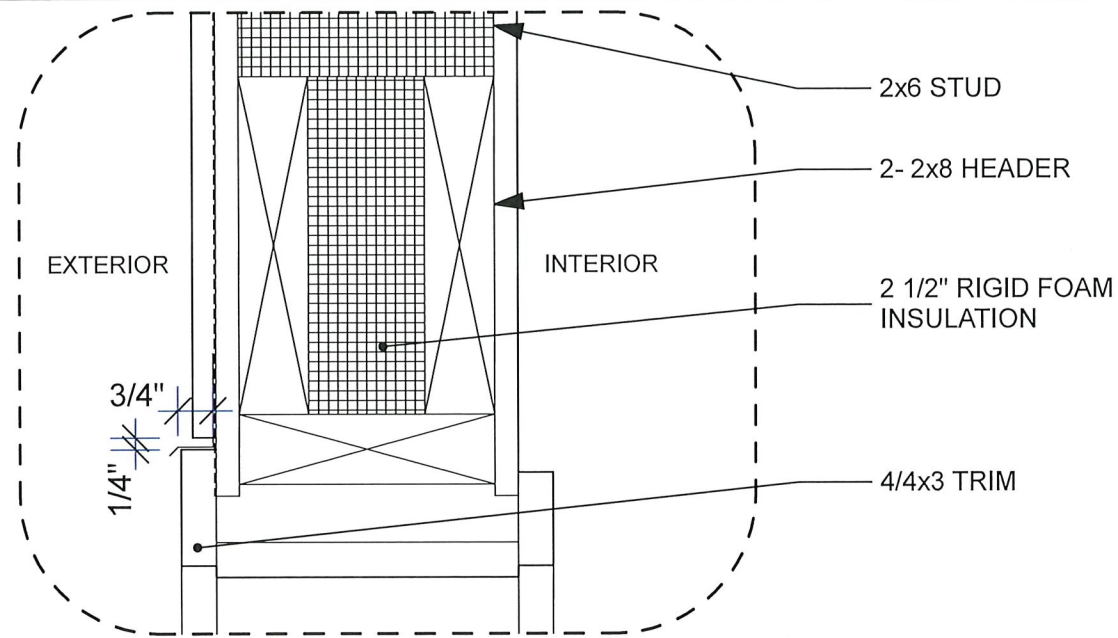
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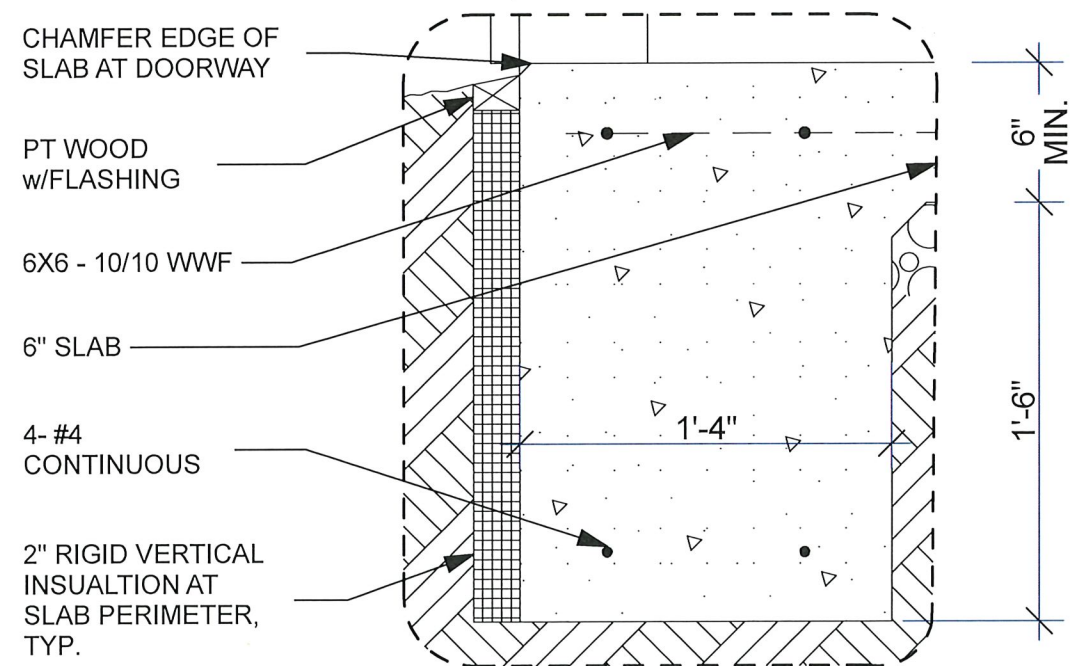
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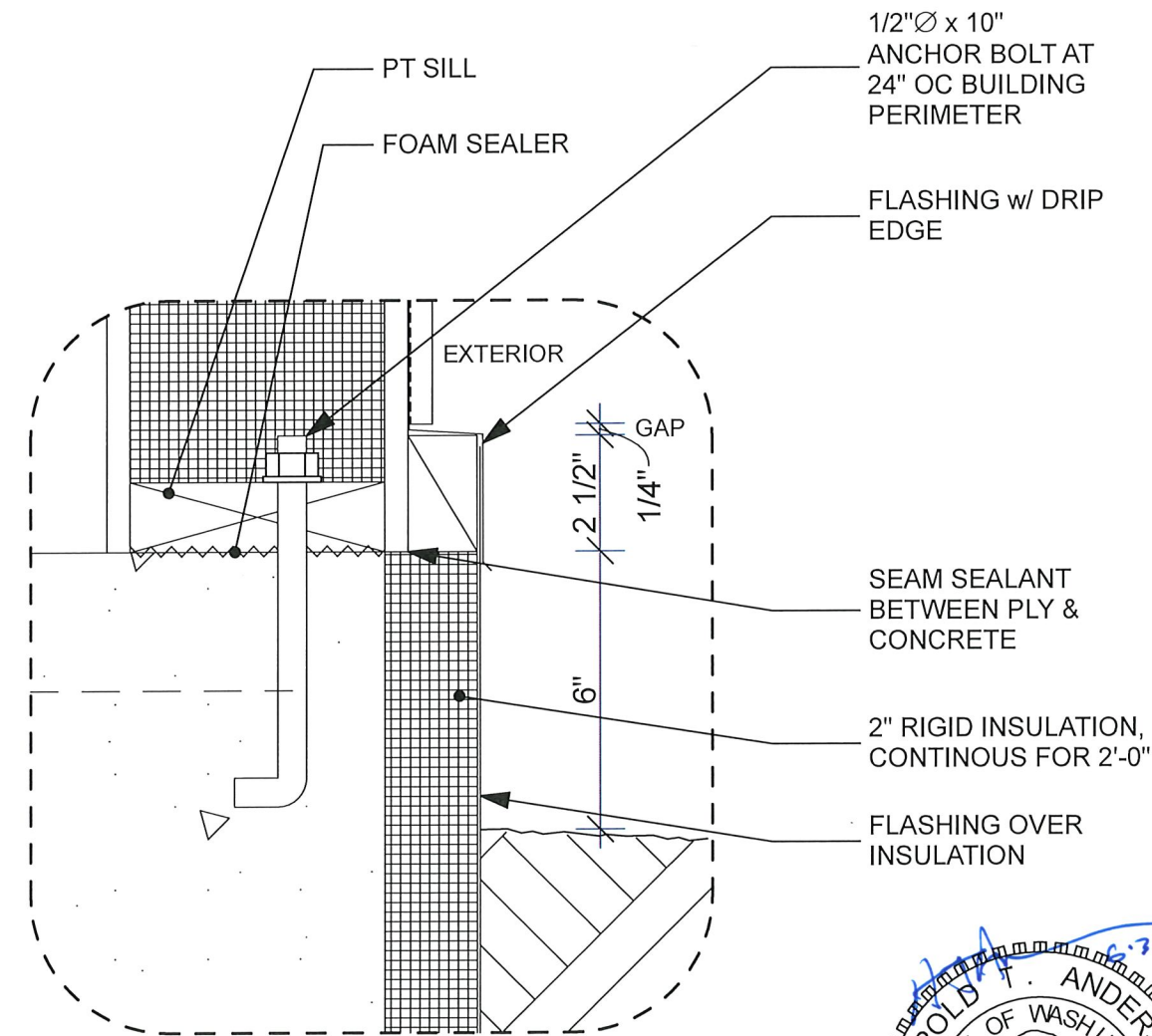
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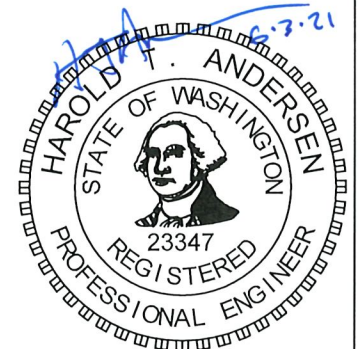
3
013 **DOOR HEADER DETAIL**
SCALE: 3" = 1'-0"
0 3" 6" 9"



2
013 **FOUNDATION DETAIL**
SCALE: 1 1/2" = 1'-0"
0 6" 12" 18"



1
013 **MUDSILL DETAIL**
SCALE: 3" = 1'-0"
0 3" 6" 9"



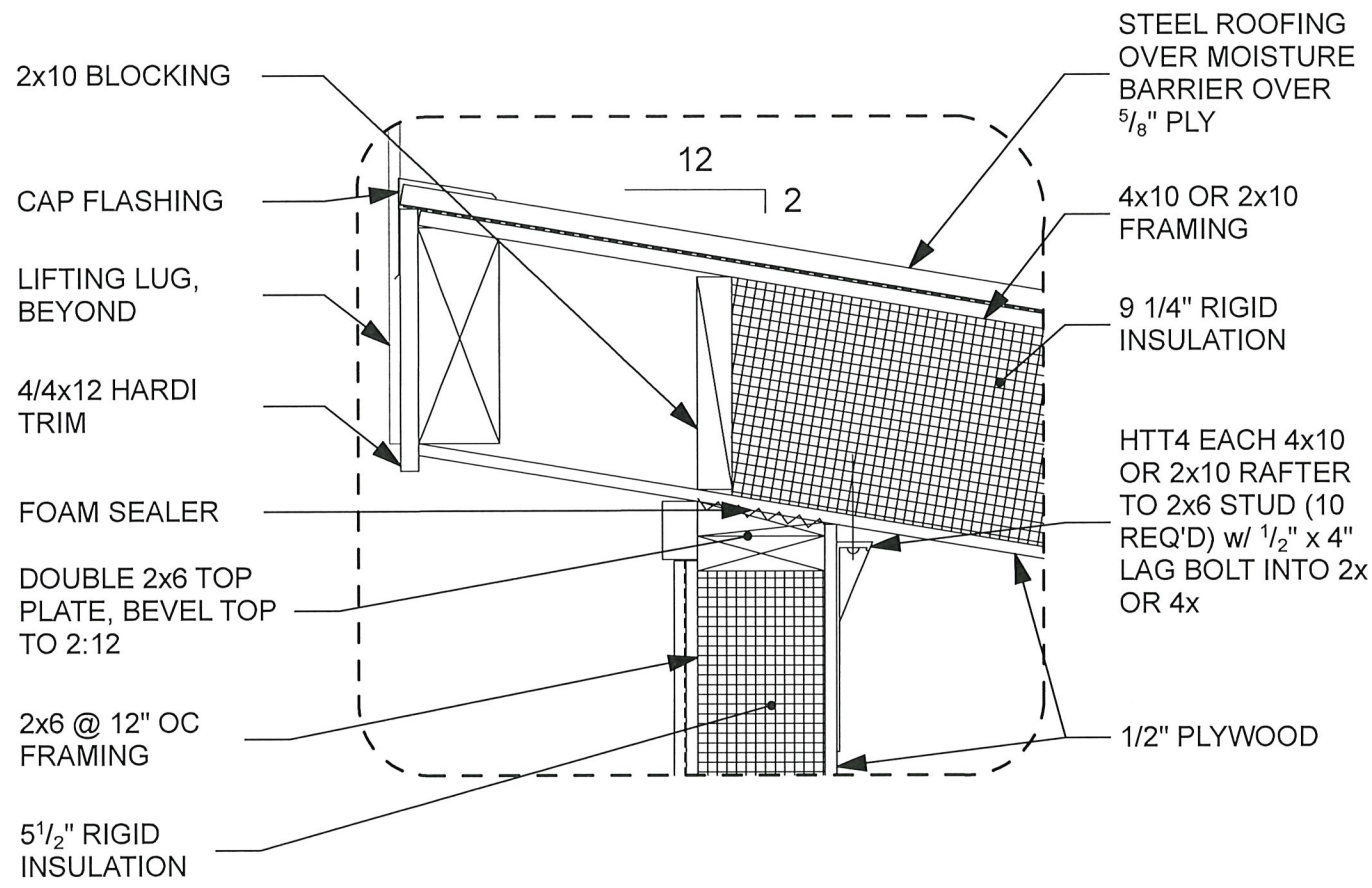
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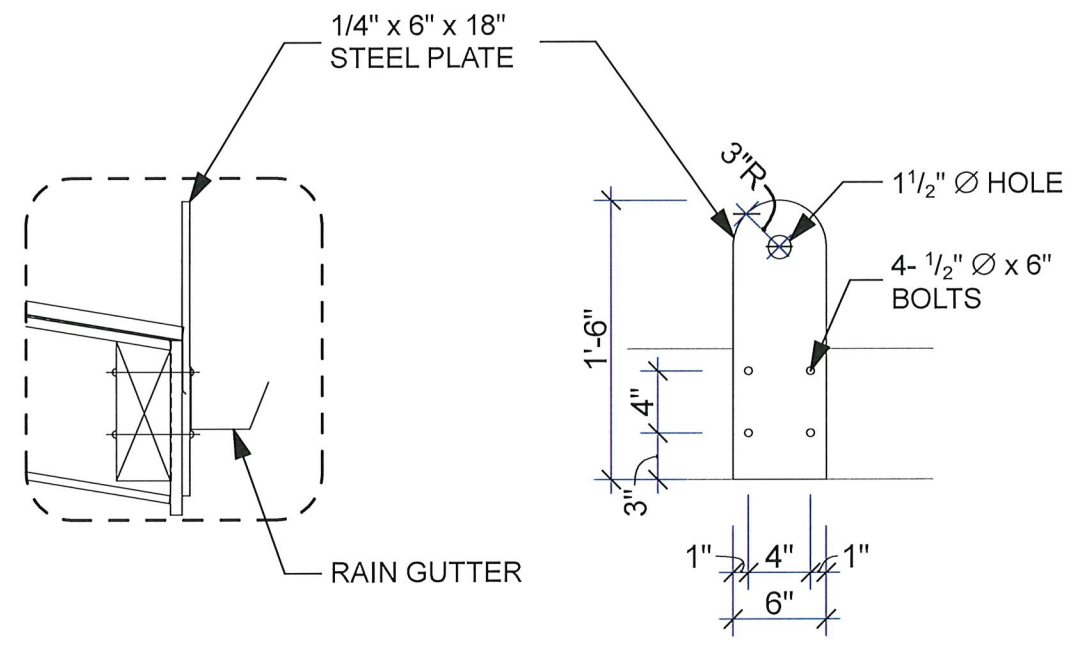
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SCALE: AS NOTED
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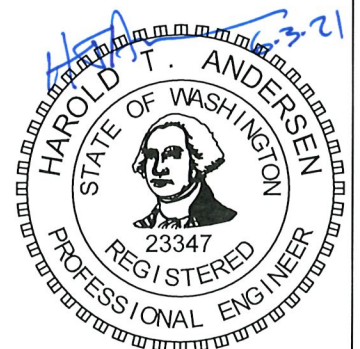
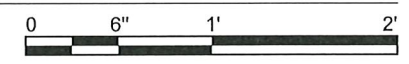


1
014 TYP WALL TO ROOF DETAIL
SCALE: 1 1/2" = 1'-0"



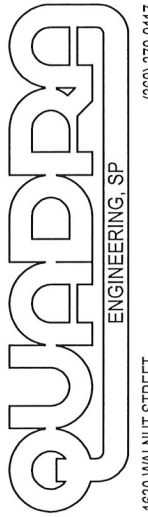
SECTION ELEVATION

2
014 LIFTING LUG DETAIL
SCALE: 1" = 1'-0"



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