



MARVIN ROAD AND MERIDIAN CAMPUS PRODUCTION WELLS – PHASE I
LACEY PROJECT NUMBERS PW 2022-27

**SPECIFICATIONS AND BID DOCUMENTS
DEPARTMENT OF PUBLIC WORKS**

LACEY PROJECT NUMBERS: PW 2022-27

***CITY OF LACEY
WASHINGTON***

CITY OFFICIALS

MAYOR

ANDY RYDER

DEPUTY MAYOR

MALCOLM MILLER

COUNCIL MEMBERS

LENNY GREENSTEIN

MICHAEL STEADMAN

CAROLYN COX

ROBIN VAZQUEZ

NICOLAS DUNNING

CITY MANAGER

RICK WALK

CITY ATTORNEY

DAVID S. SCHNEIDER

DIRECTOR OF PUBLIC WORKS

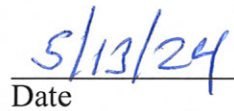
SCOTT EGGER, P.E.

CITY ENGINEER

AUBREY COLLIER, P.E., S.E.



Director of Public Works – Scott Egger, P.E.



Date

City of Lacey PW# 2022-27
Marvin Road and Meridian Campus Production
Wells – Phase I

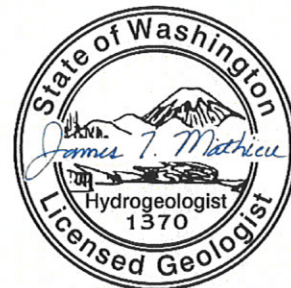
CERTIFICATION

I hereby certify that the Project Specifications were prepared by me or under my direct supervision and I am a duly Registered Engineer under the laws of the State of Washington:

Trent Lougheed, P.E.
City of Lacey
Sections A,B,C,D,F



Jim Mathieu, RG, LG, LHg
Northwest Land & Water, Inc.
Section E



James T. Mathieu

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ADVERTISEMENT FOR BIDS

MARVIN ROAD AND MERIDIAN CAMPUS PRODUCTION WELLS – PHASE I

NOTICE IS HEREBY GIVEN that sealed bids will be received by the City of Lacey at City Hall, Lacey, Washington until **2:30 p.m., June 4, 2024**, at which time bids will be publicly opened via a live video stream. Links to the YouTube live video stream can be found at <https://cityoflacey.org/rfp-rfq-rfi/> under the specific project section and on the specific project page on the Builders Exchange website located at http://bxwa.com/bxwa_toc/pub/2080/toc.html for the following work:

This contract provides for drilling and constructing two water supply wells with a 20-inch diameter casing and a deep well seal to an approximate depth of 460 feet, followed by drilling to an approximate total depth of 750 and installing, developing, and testing a production well screen assembly. This work and other tasks are detailed in the Plans and Specifications.

Each bid must be accompanied by a certified check for five percent of the amount of the proposal made payable to the City Treasurer, or an approved bid bond for five percent of the amount of the proposal executed on the approved form attached to these specifications. If bid bond is used, the five percent may be shown in dollars and cents or the form may be filled in by inserting therein, in lieu thereof, "five percent of the amount of the accompanying proposal". Check of unsuccessful bidders will be returned immediately upon award of contract.

The City Council reserves the right to reject any and all bids and to waive all informalities.

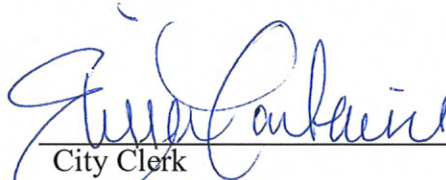
Plans, Specifications, and Addenda for this project are available through the "City of Lacey" on-line plan room. Free of charge access is provided by going to <http://bxwa.com> and clicking on: "Posted Projects", "Public Works", "City of Lacey", and "Projects Bidding". Bidders are asked to "Register" in order to receive automatic email notification of future addenda and to be placed on the "Bidders List". Any questions regarding this contract can be directed to:

Trent Lougheed, P.E.
tloughee@ci.lacey.wa.us

The range for this project is \$3,000,000 to \$4,000,000.

A NON-MANDATORY PREBID CONFERENCE IS SCHEDULED FOR **MAY 22, 2024 AT 1:30 P.M.** We will meet at the Marvin Road Well Site at 4111 Marvin Road NE, Lacey, WA 98516. From I-5: Take the Marvin Road Exit and proceed north on Marvin Road. At the 41st Avenue NE Roundabout, turn left (west). The site is immediately on your right (north), and park adjacent to site (dead end immediately after access to the site).

Publish: **5/15/2024**
5/22/2024



City Clerk
City of Lacey, Washington

A INSTRUCTIONS

INSTRUCTIONS TO BIDDERS

Bidders shall examine contract and bid documents and the site and shall satisfy themselves as to conditions that exist.

Each Bidder shall submit to the City Clerk, Lacey, Washington a sealed bid endorsed upon the outside wrapper with **Marvin Road and Meridian Campus Production Wells – Phase I** at the time and place designated in the advertisement.

Bids may be delivered in person to Lacey City Hall, 420 College Street SE, or by mail to City of Lacey 420 College St SE Lacey, WA 98503.

Bids will be publicly opened via a live video stream. Links to the YouTube live video stream can be found at <https://cityoflacey.org/rfp-rfq-rfi/> or under the specific project section and on the specific project page on the Builders Exchange website.

The City of Lacey is committed to offering reasonable accommodations to persons with disabilities. We invite any person with special needs to contact the City Clerk at (360) 491-3212 at least seventy-two (72) hours before the meeting to discuss any special accommodations that may be necessary. Citizens with hearing impairment may call the TDD line at (800) 833-6388.

Each Bidder shall complete the proposal with prices in figures with the extension properly computed. The proposal must be properly signed by a duly authorized agent. Proposal must acknowledge addenda, if any, received.

If alternates are included in the proposal the Bidder shall complete the alternates. The City will award the contract to the lowest responsible Bidder as determined by the Special Provisions. The City reserves the right to delete alternates after award.

A Bidder will be deemed not responsible if the Bidder does not meet the mandatory bidder responsibility criteria in RCW 39.04.350(1).

The City does not pre-qualify Bidders. However, if the apparent low Bidder has not already been determined qualified, the City shall afford seven (7) days after notification for the low Bidder to provide evidence for evaluation, as to capability to perform the work. The evaluation will include consideration of experience, personnel, equipment, financial resources as well as performance record. The information must be sufficient to enable the Bidder to obtain the required qualification rating prior to the award of the contract.

No bidder may withdraw his bid after the hour set for the opening of bids or before award of the contract unless said award is delayed for a period of forty-five (45) days.

CONTRACT PARTS

The contract to be executed as a result of this bid consists of multiple parts, all of which pertain as if fully attached hereto and Bidder shall consider all parts as a complete document. In the event of discrepancies between the various parts, precedent shall be in the following order:

1. Contract Form,
 2. Addenda (if any),
 3. Proposal Form,
 4. Special Provisions,
 5. Technical Specifications, if included,
 6. Contract Plans,
 7. WSDOT Standard Specifications for Road, Bridge, and Municipal Construction,
 8. City of Lacey Development Guidelines and Public Works Standards, and
 9. WSDOT Standard Plans for Road, Bridge and Municipal Construction
- The Bidder is directed to complete and return the forms in Section B as a bid proposal.

BIDDER'S CHECKLIST

The bidder's attention is especially called to the following forms which must be executed in full as required, and submitted with the bid proposal:

- Proposal: The unit prices bid must be shown in the space provided.
- Proposal Signature Sheet: To be filled in and signed by the bidder. All addenda must be acknowledged.
- Bid Deposit: Any bid shall be accompanied by a deposit of cash, certified check, cashier's check, or surety bond, in an amount equal to at least five percent (5%) of the total amount bid. Checks shall be payable to the City Clerk, City of Lacey, Washington.
- If a surety bond is used, it shall be submitted on a form furnished by the Commission and signed by the bidder and his surety company. The sureties' "attorney-in-fact" must be registered with the Washington State Insurance Commissioner. The power of attorney must also be submitted with the bond. See Specification section 1-02.7 for more information.
- Non-Collusion and Debarment Affidavit

The following form must be submitted within 1 hour following the bid submittal deadline via email to ProjectAdmin@cityoflacey.org or

- Subcontractors List for HVAC, plumbing, and electrical

The following form must be submitted within 24 hours (excluding weekends and holidays) following the bid submittal deadline via email to ProjectAdmin@cityoflacey.org

- Certification of Compliance with Wage Payment Statutes

The following must be submitted within 48 hours (excluding weekends and holidays) following the bid submittal deadline via email to ProjectAdmin@cityoflacey.org

- Subcontractors List for structural steel and rebar installation
- Supplemental Criteria per Specification section 1-02.14

The following must be completed before the contract can be awarded:

- L&I training on the requirements related to public works and prevailing wages per RCW 39.04.350
- Certification of Employment Security Department (ESD) good standing

The following forms are to be executed after the contract is awarded:

- Contract: This agreement to be executed by the successful bidder
- Performance and Payment Bond
- Insurance Certificate

B

BID DOCUMENTS

CITY OF LACEY

Marvin Rd. and Meridian Campus Production Wells

Lacey Contract Number: PW 2022-27

Federal Aid Project Number:

WSDOT Contract Number:

TIB Contract Number:

Contract Proposal

DATE: _____

The undersigned, as bidder, has examined the bid documents as prepared by the Public Works Department, City of Lacey.

The undersigned, as bidder, proposes to furnish all material and perform all labor in accordance with the bid documents at the following prices.

Bidder must fill in unit prices in figures for each item and total.

Bidder shall sign this proposal form and submit all required paperwork with the bid.

A Water - Marvin Road Production Well

No.	Quantity	Unit	Item ID	Item Description	Unit Price	Extended Price
A1	100000	MC	104-010	Minor Change	\$1.00	\$100,000.00
A2	1	LS	105-010	Record Drawing	\$2,000.00	\$2,000.00
A3	1	LS	109-010	Mobilization	LUMP SUM	
A4	1	LS	201-010	Clearing and Grubbing	LUMP SUM	
A5	1	LS	205-510	Trench Safety System	LUMP SUM	
A6	1	EA	726-590	Video Inspection		
A7	1	LS	850-792	Project Closeout	\$5,000.00	\$5,000.00
A8	460	LF	890-544	Install Deep Seal 24-inch x 20-inch		
A9	1	LS	890-569	18-Inch Drive Shoe	LUMP SUM	
A10	1	LS	890-619	18-Inch Drive Shoe Cut	LUMP SUM	
A11	290	LF	890-639	Drill 18-Inch Hole		
A12	752	LF	890-668	Furnish 18-Inch Well Casing		
A13	1	FA	890-709	Furnish Well Screens and Fittings		
A14	180	HR	890-725	Authorized Hourly Work		
A15	1	LS	890-730	Furnish and Install Pumping Test Equipment	LUMP SUM	
A16	1	EA	890-736	Furnish and Install Specific Capacity Test Equipment		
A17	80	HR	890-740	Hourly Work for Pumping Tests		
A18	1	HR	890-744	Hourly Work for Specific Capacity Test		
A19	2	EA	890-755	Alignment Test		
A20	20	TN	890-781	Filter Pack Material		

Schedule A Subtotal: _____

Tax Rate (%) : 9.70 Tax: _____

Schedule A Total: _____

B Water - Meridian Campus Production We

No.	Quantity	Unit	Item ID	Item Description	Unit Price	Extended Price
B1	100000	MC	104-010	Minor Change	\$1.00	\$100,000.00
B2	1	LS	105-010	Record Drawing	\$2,000.00	\$2,000.00
B3	1	LS	109-010	Mobilization	LUMP SUM	
B4	1	LS	201-010	Clearing and Grubbing	LUMP SUM	
B5	1	LS	205-510	Trench Safety System	LUMP SUM	
B6	1	EA	726-590	Video Inspection		
B7	1	LS	850-792	Project Closeout	\$5,000.00	\$5,000.00
B8	460	LF	890-544	Install Deep Seal 24-inch x 20-inch		
B9	1	LS	890-569	18-Inch Drive Shoe	LUMP SUM	
B10	1	LS	890-619	18-Inch Drive Shoe Cut	LUMP SUM	
B11	290	LF	890-639	Drill 18-Inch Hole		
B12	752	LF	890-668	Furnish 18-Inch Well Casing		
B13	1	FA	890-709	Furnish Well Screens and Fittings		
B14	180	HR	890-725	Authorized Hourly Work		
B15	1	LS	890-730	Furnish and Install Pumping Test Equipment	LUMP SUM	
B16	1	EA	890-736	Furnish and Install Specific Capacity Test Equipment		
B17	1	EA	890-737	Furnish and Install Test Screen and Pumping Equipment		
B18	80	HR	890-740	Hourly Work for Pumping Tests		
B19	1	HR	890-744	Hourly Work for Specific Capacity Test		
B20	1	HR	890-745	Hourly Work for Test Screen Pumping		
B21	2	EA	890-755	Alignment Test		
B22	20	TN	890-781	Filter Pack Material		

Schedule B Subtotal: _____

Tax Rate (%) : 9.70 Tax: _____

Schedule B Total: _____

Contract Total: _____

(All Schedules)

The undersigned also agrees as follows:

- Within 10 calendar days after the contract is awarded to sign and return the contract and provide insurance documents.
- That this proposal cannot be withdrawn within 45 days after receipt of bids.
- That it is the understanding that the City of Lacey may accept or reject any or all bids.
- The undersigned hereby agrees to pay for labor not less than the prevailing rates of wages per the bid documents.
- Enclosed with this proposal is a bid deposit in the sum of 5% of the bid total amount which it is agreed shall be collected and retained by the City of Lacey as liquidated damages in the event this proposal is accepted by the City of Lacey with 45 calendar days after the receipt of bids and the undersigned fails to execute the contract and the required bond with the City of Lacey, under the conditions thereof, within 10 calendar days after the undersigned is notified that said proposal has been accepted, otherwise said bid deposit shall be returned to the undersigned upon demand.
- A Performance/Payment Bond will be furnished to the City with the contract.
- Retention will be held on this contract per RCW 60.28.011.

Addenda Receipt Acknowledged

Signature of Bidder

Date

(If an Individual, Partnership, or Non-Incorporated organization)

Firm Name

Please Print

Phone

Address of Bidder: _____

Name and Address of Firm Members:

Signature of Bidder (if a Corporation)

Title: _____

Firm Name: _____

Phone: _____

Business Address: _____

Incorporated under the Laws of the State of _____

Officers

Address

President: _____

Secretary: _____

Treasurer: _____

BID DEPOSIT SELECTION

A bid deposit in an amount of five percent (5%) of the total bid amount is attached hereto:

CASH In the amount of _____

CASHIER'S CHECK In the amount of _____

CERTIFIED CHECK In the amount of _____

BID BOND In the amount of 5% of the total bid amount

**CONTRACTOR'S BID DEPOSIT SURETY BOND
to City of Lacey, Washington**

We, _____, as Principal, existing under and by virtue of the laws of the State of Washington and authorized to do business in the State of Washington, and _____, as Surety, organized and existing under the laws of the State of _____, are held and firmly bound unto the City of Lacey, a Washington municipality, as Obligee, in the penal sum of 5% of the total amount bid, not to exceed \$ _____, for the payment of which we jointly and severally bind ourselves, and our legal representatives and successors.

WHEREAS, the Principal has submitted a bid for **Marvin Road and Meridian Campus Production Wells – Phase I**.

NOW THEREFORE, the condition of the obligation is such that if the Obligee shall accept the bid of Principal and make timely award to the Principal according to the terms of the bid documents; and the Principal shall, within ten days after notice of the award, exclusive of the day of notice, enter into the contract with the Obligee and furnish the contractor's bonds (performance and payment bonds) with Surety satisfactory to the Obligee in an amount equal to 100% of the amount of the bid proposed including additives, alternatives and Washington State sales tax, then this obligation shall be null and void; otherwise if the Principal fails to enter into the contract and fails to furnish the contractor's bonds within ten days of notice of award, exclusive of the day of notice, the amount of the bid deposit shall be forfeited to the Obligee, payable by the Surety; but in no event will the Surety's liability exceed the face amount of this bid bond.

This bond may be executed in two original counterparts, and shall be signed by the parties' duly authorized officers. This bond will only be accepted if it is accompanied by a fully executed and original power of attorney for the officer executing on behalf of the surety.

PRINCIPAL (CONTRACTOR)

SURETY

Principal Signature Date

Surety Signature Date

Printed Name

Printed Name

Title

Title

Name, address, and telephone of local office/agent of Surety Company is:

NON-COLLUSION AND DEBARMENT AFFIDAVIT

State of _____)

)ss

County of _____)

I, the undersigned, being duly sworn, deposes and says that the person, firm, association, copartnership or corporation herein named, has not either directly or indirectly, entered into any agreement, participated in any collusion, or otherwise taken any action in restraint of free competitive bidding in the preparation and submission of a proposal of the City of Lacey for consideration in the award of a contract on the improvement described as follows.

I further certify that, except as noted below, the firm, association or corporation or any person in a controlling capacity associated therewith or any position involving the administration of State or federal funds; is not currently under suspension, debarment, voluntary exclusion, or determination of ineligibility by any federal or State agency; has not been suspended, debarred, voluntarily excluded or determined ineligible by any federal or State agency within the past three years; does not have a proposed debarment pending; and has not been indicted, convicted, or had a civil judgment rendered against said person, firm, association or corporation by a court of competent jurisdiction in any matter involving fraud or official misconduct within the past three years.

I further acknowledge that by signing my signature, I am deemed to have signed and have agreed to the provisions of this affidavit.

Marvin Road and Meridian Campus Production Wells – Phase I

Name of Project

Name of Firm

Signature of Authorized Member

CERTIFICATION OF COMPLIANCE WITH WAGE PAYMENT STATUTES

The bidder hereby certifies that, within the three-year period immediately preceding the bid solicitation date, the bidder is not a "willful" violator, as defined in RCW 49.48.082, of any provision of chapters 49.46, 49.48, or 49.52 RCW, as determined by a final and binding citation and notice of assessment issued by the Department of Labor and Industries or through a civil judgment entered by a court of limited or general jurisdiction.

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

Bidder's Business Name

Signature of Authorized Official*

Printed Name

Title

Date City State

Check One:

Sole Proprietorship Partnership Joint Venture Corporation

State of Incorporation, or if not a corporation, State where business entity was formed:

If a co-partnership, give firm name under which business is transacted:

** If a corporation, proposal must be executed in the corporate name by the president or vice-president (or any other corporate officer accompanied by evidence of authority to sign). If a co-partnership, proposal must be executed by a partner.*

This form must be submitted with the Bid Proposal or as a Supplement to the Bid no later than 24 hours after the time for delivery of the Bid Proposal, as provided for in Section 1-02.9 of the Contract Provisions.

**CERTIFICATION OF EMPLOYMENT SECURITY DEPARTMENT (ESD)
GOOD STANDING AND NUMBER**

The bidder hereby provides an ESD number and certifies that per RCW 39.04.350 and Title 50 RCW, in which the City will verify prior to entering into contract with the Contractor, that the Bidder has a valid ESD number and is deemed to be in good standing with Washington State's Employment Security Department.

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

Bidder's Business Name

Employment Security Department (ESD) Number

WA State Unified Business Identifier (UBI #)

Signature of Authorized Official*

Printed Name

Title

Date

City

State

SUBCONTRACTOR LIST

**TO BE SUBMITTED WITH THE BID PROPOSAL OR VIA EMAIL TO
PROJECTADMIN@CITYOFLACEY.ORG**

Project Name: Marvin Road and Meridian Campus Production Wells – Phase I

Subcontractor(s) with whom the bidder will directly subcontract that are proposed to perform the work of structural steel installation, rebar installation, heating, ventilation and air conditioning, and plumbing, as described in Chapter 18.106 RCW, and electrical as described in Chapter 19.28 RCW **must** be listed below. Failure to list subcontractors, naming more than one subcontractor to perform the same work, or submit by the deadline will result in your bid being non-responsive, and therefore, void.

HVAC, plumbing, and electrical names must be submitted within one (1) hour of the published bid time. Structural steel and rebar names must be submitted within forty-eight (48) hours of the published bid time in accordance with Chapter 39.30 RCW.

To the extent the project includes one or more categories of work below, and no subcontractor is listed below to perform such work, the bidder certifies that the work will either (i) be performed by the bidder itself, or (ii) be performed by a lower tier subcontractor who will not contract directly with the bidder.

Work to be Performed: PLUMBING
<input type="checkbox"/> Subcontractor Name:
OR <input type="checkbox"/> N/A or Work performed by bidder or lower tier subcontractor
Work to be Performed: HEATING VENTILATION AND AIR CONDITIONING (HVAC)
<input type="checkbox"/> Subcontractor Name:
OR <input type="checkbox"/> N/A or Work performed by bidder or lower tier subcontractor
Work to be Performed: *ELECTRICAL
<input type="checkbox"/> Subcontractor Name:
OR <input type="checkbox"/> N/A or Work performed by bidder or lower tier subcontractor
Work to be Performed: STRUCTURAL STEEL INSTALLATION
<input type="checkbox"/> Subcontractor Name:
OR <input type="checkbox"/> N/A or Work performed by bidder or lower tier subcontractor
Work to be Performed: REBAR INSTALLATION
<input type="checkbox"/> Subcontractor Name:
OR <input type="checkbox"/> N/A or Work performed by bidder or lower tier subcontractor

* Bidders are notified that is the opinion of the enforcement agency that PVC or metal conduit, junction boxes, etc., are considered electrical equipment and therefore considered part of electrical work, even if the installation is for future use and no wiring or electrical current is connected during the project.

C
CONTRACT
DOCUMENTS

CONSTRUCTION CONTRACT

THIS AGREEMENT, made and effective as of the date of the last signature below, between the City of Lacey, hereinafter called Owner, under and by virtue of the charter, laws and ordinances of the said Owner and the laws of the State of Washington, and

_____ hereinafter called Contractor,

WITNESSETH:

That in consideration of the payment, covenants and agreement hereinafter mentioned, attached and made a part of this Agreement, to be made and performed by the parties hereto, the parties covenant and agree as follows regarding:

City of Lacey Contract No. PW 2022-27 for the “**Marvin Road and Meridian Campus Production Wells – Phase I**” project in the sum of _____ Dollars (\$) including applicable sales tax.

1. The Contractor shall do all work and furnish all tools, materials and equipment in accordance with and as described in the attached Plans and Specifications, and in full compliance with the terms, conditions and stipulations herein set forth and attached, now referred to and by such reference incorporated herein and made a part hereof as fully for all purposes as if here set forth at length, and shall perform any alterations in or in addition to the work covered by this Contract and every part thereof and any force account work which may be ordered as provided in this Contract and every part thereof.

The Contractor shall provide and bear the expense of all materials, labor, equipment, tools, implements and conveniences and things of every description that may be requisite for the transfer of materials and for constructing and completing the work provided for in this Contract and every part thereof, except such as are mentioned in the Specifications to be furnished by the Owner.

2. The Owner hereby promises and agrees with the Contractor to employ, and does employ the Contractor to provide the materials and to do and cause to be done the above described work and to complete and finish the same according to the attached Plans and Specifications and the schedule of unit or itemized prices hereto attached, at the time and in the manner and upon the conditions provided for in this Contract and every part thereof.
3. Contractor, for himself and for his heirs, executors, administrators, successors, assigns, does hereby agree to the full performance of all the covenants herein contained upon the part of Contractor.
4. It is further provided that no liability shall attach to Owner or Agent thereof by reason of entering into this Contract, except as expressly provided herein.

5. Payments will be made under the Contract according to the schedule of rates and prices and the specification attached and made a part thereof. Partial payments under the Contract will be made at the request of the Contractor not more than once each month upon approval of the Owner, as hereinafter specified, provided they are in accordance with the provisions of RCW 60.28.010. There will be reserved and retained from monies earned by the Contractor, as determined by such monthly estimates, a sum equal to 5 percent of the Contract price.

Payment of the retained percentage shall be withheld for a period of forty-five (45) days following the final acceptance of the work and materials by the Owner, and shall be paid the Contractor at the expiration of said forty-five (45) days in event no claims, as provided by law, have been filed against such funds; and provided further, that releases have been obtained from all departments and agencies having jurisdiction over the activities of the Contractor. In the event such claims are filed, Contractor shall be paid such retained percentages less an amount sufficient to pay any such claims together with a sum sufficient to pay the cost of such action, and to cover attorney fees as determined by the Owner.

6. Requests for review of substitute items of material or equipment will not be accepted by the Owner or Agent from anyone other than the Contractor. If the Contractor wishes to furnish a substitute item, the Contractor shall make written application to the Owner's Agent for acceptance thereof, certifying that the proposed substitute will perform adequately the functions called for by the general design, be similar and of equal substance to that specified and be suited to the same use and capable of performing the same function as that specified. All variations of the proposed substitute from that specified shall be identified in the application and available maintenance, repair and replacement service will be indicated. The application will also contain an itemized estimate of all costs that will result directly or indirectly from acceptance of such substitute, which shall be considered by the Owner in evaluating the proposed substitute. The Owner may require the Contractor to furnish at the Contractor's expense, additional data about the proposed substitute. The Owner will be the sole judge of acceptability, and no substitute will be ordered without the Owner's prior written acceptance. The Owner may require the Contractor to furnish at the Contractor's expense, a special performance guarantee or other surety with respect to any other substitute.

The Owner or Agent will record the time and expenses in evaluating substitutions proposed by the Contractor. Whether or not the Owner accepts a proposed substitute, the Contractor shall reimburse the Owner for the costs of evaluating any proposed substitute.

7. The Owner reserves the right, after the final payment has been made, to claim and recover by process of law such sums as may be sufficient to make good any defects in the equipment or to recover any over-payment resulting from dishonest acts of the Contractor.
8. The contract time will commence to run, and the Contractor shall start to perform his obligation under the contract documents, on the day indicated in the Notice to Proceed given by Owner to Contractor; but in no event shall contract time commence to run later than the 30th calendar day after the date when both Owner and Contractor execute the Contract. A Notice to Proceed may be given at any time within thirty (30) calendar days after the date when both Owner and Contractor execute the Contract.

9. The Contractor shall guarantee the materials and workmanship for a period of one (1) year from and after the date of final acceptance by the Owner.

If, within said guarantee period, repairs are required which, in the opinion of the Owner, are rendered necessary as a result of work or materials which are inferior, defective or not in accordance with the terms of the Contract, the Contractor shall, promptly upon receipt of notice from the Owner, and without expense to the Owner, (a) correct all defects and place in satisfactory condition in every particular all of such guaranteed work and materials; (b) make good all damage which in the opinion of the Owner is caused by such defects; and (c) make good any other work or material or the equipment and contents of a building, structure or site disturbed in fulfilling any such guarantee.

If the Contractor, after notice, fails within ten (10) days to proceed to comply to the terms of this guarantee, the Owner may have the defects corrected, and the Contractor and his Surety shall be liable for all expense incurred, provided, however, that in case of an emergency where, in the opinion of the Owner, delay would cause serious loss or damage, repairs may be made without notice being given to the Contractor and the Contractor shall pay the cost thereof.

IN WITNESS WHEREOF, the said Contractor has executed this instrument and the City Manager, pursuant to resolution duly adopted, has caused this instrument to be executed in the name of the City of Lacey the day and year first above-written.

Contractor Date

Contractor's Registration Number (UBI No.)

City of Lacey Business License Number

City Manager Date

ATTEST:
By:

City Clerk

APPROVED AS TO FORM:
By :

City Attorney

**CONTRACTOR'S PERFORMANCE/PAYMENT BOND
to City of Lacey, Washington**

The City of Lacey, Washington, in Thurston County, has awarded to _____ (Contractor), as Principal, a contract for the construction of the project designated as **Marvin Road and Meridian Campus Production Wells – Phase I, Project No. 2022-27** in Lacey, Washington, and said Principal is required under the terms of the Contract to furnish a performance/payment bond in accordance with chapter 39.08 Revised Code of Washington (RCW).

The Principal, and _____ (Surety), a corporation, organized under the laws of _____ and licensed to do business in the State of Washington as surety and named in the current list of "Surety Companies Acceptable in Federal Bonds" as published in the Federal Register by the Audit Staff Bureau of Accounts, U.S. Treasury Dept., are jointly and severally held and firmly bound to the City of Lacey, as Obligee, in the sum of \$ _____ total Contract amount (including Washington State sales tax), subject to the provisions herein.

The obligations of this bond shall become null and void, if and when the Principal, its heirs, executors, administrators, successors, or assigns shall well and faithfully perform all of the Principal's obligations under the Contract and fulfill all the terms and conditions of all duly authorized modifications, additions, and changes to said Contract that may hereafter be made, at the time and in the manner therein specified; shall pay all persons in accordance with chapters 39.08, 39.12, and 60.28 RCW, including all workers, laborers, mechanics, subcontractors, and material suppliers, and all persons who shall supply such contractor or subcontractor with provisions and supplies for the carrying on of such work; shall warranty the work as provided in the Contract and shall indemnify and hold harmless the Obligee from any defects in the workmanship and materials incorporated into the work for the period identified in the Contract; and if such obligations have not been fulfilled, this bond shall remain in full force and effect.

The Surety for value received agrees that no change, extension of time, alteration or addition to the terms of the Contract, the specifications accompanying the Contract, or to the work to be performed under the Contract shall in any way affect its obligation on this bond, and waives notice of any change, extension of time, alteration or addition to the terms of the Contract or the work performed. The Surety agrees that modifications and changes to the terms and conditions of the Contract that increase the total amount to be paid the Principal shall automatically increase the obligation of the Surety on this bond and notice to Surety is not required for such increased obligation.

This bond may be executed in two original counterparts and shall be signed by the parties' duly authorized officers. This bond will only be accepted if it is accompanied by a fully executed and original power of attorney for the officer executing on behalf of the surety.

PRINCIPAL (CONTRACTOR)

SURETY

Principal Signature Date

Surety Signature Date

Printed Name

Printed Name

Title Title

Name, address, and telephone of local office/agent of Surety Company is:

**DECLARATION OF OPTION FOR MANAGEMENT OF
STATUTORY RETAINED PERCENTAGE**

- A. I hereby elect to have the retained percentage of this contract held in a fund by the City of Lacey until forty-five (45) days following final acceptance of the work.

Contractor (please print)

Date

Signature

- B. I hereby elect to have the City of Lacey invest the retained percentage of this contract from time to time as such retained percentage accrues and in accordance with RCW Ch. 60.28.

I hereby designate _____ as the repository for the escrow of said funds.

I hereby further agree to be fully responsible for payment of all costs or fees incurred as a result of placing said percentage in escrow and investing it as authorized by statute.

The City of Lacey shall not be liable in any way for any costs or fees in connection therewith.

Contractor (please print)

Date

Signature

- C. I hereby elect to hold a retainage bond.

Contractor (please print)

Date

Signature

VERSION 02/14/2023

D SPECIAL PROVISIONS

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SPECIAL PROVISIONS

INTRODUCTION TO THE SPECIAL PROVISIONS

(January 19, 2022 APWA GSP)

The work on this project shall be accomplished in accordance with the *Standard Specifications for Road, Bridge and Municipal Construction*, 2023 edition, as issued by the Washington State Department of Transportation (WSDOT) and the American Public Works Association (APWA), Washington State Chapter (hereafter “Standard Specifications”). The Standard Specifications, as modified or supplemented by these Special Provisions, all of which are made a part of the Contract Documents, shall govern all of the Work.

These Special Provisions are made up of both General Special Provisions (GSPs) from various sources, which may have project-specific fill-ins; and project-specific Special Provisions. Each Provision either supplements, modifies, or replaces the comparable Standard Specification, or is a new Provision. The deletion, amendment, alteration, or addition to any subsection or portion of the Standard Specifications is meant to pertain only to that particular portion of the section, and in no way should it be interpreted that the balance of the section does not apply.

The project-specific Special Provisions are not labeled as such, but are generally denoted with (*****). The GSPs are labeled under the headers of each GSP, with the effective date of the GSP and its source, except WSDOT uses a date only (2nd on list). For example:

(March 8, 2013 APWA GSP)
(April 1, 2013)
(May 1, 2013 Lacey GSP)

Also incorporated into the Contract Documents by reference are:

- *Manual on Uniform Traffic Control Devices for Streets and Highways*, currently adopted edition, with Washington State modifications, if any
- *Standard Plans for Road, Bridge and Municipal Construction*, WSDOT/APWA, current edition
- City of Lacey Development Guidelines and Public Works Standards, current edition

Contractor shall obtain copies of these publications, at Contractor’s own expense.

DESCRIPTION OF WORK

This contract provides for drilling and developing two 20-inch diameter production wells to a depth of approximately 750 feet, installation of 20-in diameter steel casings with deep annular seals to a depth of 430 feet, installation of related screens, pump testing, and other work as detailed in the Plans and Specifications.

1-01 DEFINITIONS AND TERMS

1-01.3 Definitions

(January 19, 2022 APWA GSP)

Delete the heading Completion Dates and the three paragraphs that follow it, and replace them with the following:

Dates

Bid Opening Date

The date on which the Contracting Agency publicly opens and reads the Bids.

Award Date

The date of the formal decision of the Contracting Agency to accept the lowest responsible and responsive Bidder for the Work.

Contract Execution Date

The date the Contracting Agency officially binds the Agency to the Contract.

Notice to Proceed Date

The date stated in the Notice to Proceed on which the Contract time begins.

Substantial Completion Date

The day the Engineer determines the Contracting Agency has full and unrestricted use and benefit of the facilities, both from the operational and safety standpoint, any remaining traffic disruptions will be rare and brief, and only minor incidental work, replacement of temporary substitute facilities, plant establishment periods, or correction or repair remains for the Physical Completion of the total Contract.

Physical Completion Date

The day all of the Work is physically completed on the project. All documentation required by the Contract and required by law does not necessarily need to be furnished by the Contractor by this date.

Completion Date

The day all the Work specified in the Contract is completed and all the obligations of the Contractor under the contract are fulfilled by the Contractor. All documentation required by the Contract and required by law must be furnished by the Contractor before establishment of this date.

Final Acceptance Date

The date on which the Contracting Agency accepts the Work as complete.

Supplement this Section with the following:

All references in the Standard Specifications or WSDOT General Special Provisions, to the terms “Department of Transportation”, “Washington State Transportation Commission”, “Commission”, “Secretary of Transportation”, “Secretary”, “Headquarters”, and “State Treasurer” shall be revised to read “Contracting Agency”.

All references to the terms “State” or “state” shall be revised to read “Contracting Agency” unless the reference is to an administrative agency of the State of Washington, a State statute or regulation, or the context reasonably indicates otherwise.

All references to “State Materials Laboratory” shall be revised to read “Contracting Agency designated location”.

All references to “final contract voucher certification” shall be interpreted to mean the Contracting Agency form(s) by which final payment is authorized, and final completion and acceptance granted.

Additive

A supplemental unit of work or group of bid items, identified separately in the Bid Proposal, which may, at the discretion of the Contracting Agency, be awarded in addition to the base bid.

Alternate

One of two or more units of work or groups of bid items, identified separately in the Bid Proposal, from which the Contracting Agency may make a choice between different methods or material of construction for performing the same work.

Business Day

A business day is any day from Monday through Friday except holidays as listed in Section 1-08.5.

Contract Bond

The definition in the Standard Specifications for "Contract Bond" applies to whatever bond form(s) are required by the Contract Documents, which may be a combination of a Payment Bond and a Performance Bond.

Contract Documents

See definition for "Contract".

Contract Time

The period of time established by the terms and conditions of the Contract within which the Work must be physically completed.

Notice of Award

The written notice from the Contracting Agency to the successful Bidder signifying the Contracting Agency's acceptance of the Bid Proposal.

Notice to Proceed

The written notice from the Contracting Agency or Engineer to the Contractor authorizing and directing the Contractor to proceed with the Work and establishing the date on which the Contract time begins.

Traffic

Both vehicular and non-vehicular traffic, such as pedestrians, bicyclists, wheelchairs, and equestrian traffic.

1-02 BID PROCEDURES AND CONDITIONS

1-02.1 Prequalification of Bidders

Delete this Section and replace it with the following:

1-02.1 Qualifications of Bidder

(January 24, 2011 APWA GSP)

Before award of a public works contract, a bidder must meet at least the minimum qualifications of RCW 39.04.350(1) to be considered a responsible bidder and qualified to be awarded a public works project.

1-02.1(1) Supplemental Qualifications Criteria

(July 31, 2017 APWA GSP)

In addition, the Contracting Agency has established Contracting Agency-specific and/or project-specific supplemental criteria, in accordance with RCW 39.04.350(3), for determining Bidder responsibility, including the basis for evaluation and the deadline for appealing a determination that a Bidder is not responsible. These criteria are contained in Section 1-02.14 Option C of these Special Provisions.

1-02.2 Plans and Specifications

(June 27, 2011 APWA GSP)

Delete this section and replace it with the following:

Information as to where Bid Documents can be obtained or reviewed will be found in the Call for Bids (Advertisement for Bids) for the work.

After award of the contract, plans and specifications will be issued to the Contractor at no cost as detailed below:

To Prime Contractor	No. of Sets	Basis of Distribution
Contract Provisions	3	Furnished automatically upon award

Additional Contract Provisions may be obtained by the Contractor from the source stated in the Call for Bids, at the Contractor's own expense.

1-02.4 Examination of Plans, Specifications and Site of Work

1-02.4(1) General

(December 30, 2022 APWA GSP Option B)

The first sentence of the ninth paragraph, beginning with "Prospective Bidder desiring...", is revised to read:

Prospective Bidder desiring an explanation or interpretation of the Bid Documents, shall request the explanation or interpretation in writing by close of business five (5) business days preceding the bid opening to allow a written reply to reach all prospective Bidders before the submission of their Bids.

1-02.5 Proposal Forms

(July 31, 2017 APWA GSP)

Delete this section and replace it with the following:

The Proposal Form will identify the project and its location and describe the work. It will also list estimated quantities, units of measurement, the items of work, and the materials to be furnished at the unit bid prices. The bidder shall complete spaces on the proposal form that call for, but are not limited to, unit prices; extensions; summations; the total bid amount; signatures; date; and, where applicable, retail sales taxes and acknowledgment of addenda; the bidder's name, address, telephone number, and signature; the bidder's UDBE/DBE/M/WBE commitment, if applicable; a State of Washington Contractor's Registration Number; and a Business License Number, if applicable. Bids shall be completed by typing or shall be printed in ink by hand, preferably in black ink. The required certifications are included as part of the Proposal Form.

The Contracting Agency reserves the right to arrange the proposal forms with alternates and additives, if such be to the advantage of the Contracting Agency. The bidder shall bid on all alternates and additives set forth in the Proposal Form unless otherwise specified.

1-02.6 Preparation of Proposal

(March 3, 2022 Lacey GSP)

Supplement the second paragraph with the following:

4. If a minimum bid amount has been established for any item, the unit or lump sum price must equal or exceed the minimum amount stated.
5. Any correction to a bid made by interlineation, alteration, or erasure, shall be initialed by the signer of the bid.

Delete the last two paragraphs, and replace it with the following:

The Bidder shall submit a completed Contractor Certification Wage Law Compliance form, provided by the Contracting Agency. Failure to return this certification within 24 hours of the bid opening will make this Bid Nonresponsive and ineligible for Award. A Contractor Certification of Wage Law Compliance form is included in the Proposal Forms.

The Bidder shall make no stipulation on the Bid Form, nor qualify the bid in any manner.

A bid by a corporation shall be executed in the corporate name, by the president or a vice president (or other corporate officer accompanied by evidence of authority to sign).

A bid by a partnership shall be executed in the partnership name, and signed by a partner.

A bid by a joint venture shall be executed in the joint venture name and signed by a member of the joint venture.

1-02.7 Bid Deposit **(March 8, 2013 APWA GSP)**

Supplement this section with the following:

Bid bonds shall contain the following:

1. Contracting Agency-assigned number for the project;
2. Name of the project;
3. The Contracting Agency named as obligee;
4. The amount of the bid bond stated either as a dollar figure or as a percentage which represents five percent of the maximum bid amount that could be awarded;
5. Signature of the bidder's officer empowered to sign official statements. The signature of the person authorized to submit the bid should agree with the signature on the bond, and the title of the person must accompany the said signature;
6. The signature of the surety's officer empowered to sign the bond and the power of attorney.

If so stated in the Contract Provisions, bidder must use the bond form included in the Contract Provisions.

If so stated in the Contract Provisions, cash will not be accepted for a bid deposit.

1-02.9 Delivery of Proposal **(March 3, 2022 Lacey GSP)**

Delete this section and replace it with the following:

Each Proposal shall be submitted in a sealed envelope, with the Project Name and Project Number as stated in the Call for Bids clearly marked on the outside of the envelope, or as otherwise required in the Bid Documents, to ensure proper handling and delivery.

If supplemental information is due after the Bid Proposal is due, the document(s) shall be submitted as follows:

1. In a sealed envelope labeled the same as for the Proposal, with “Supplemental Information” added, or
2. By e-mail to the following e-mail address: ProjectAdmin@ci.lacey.wa.us

All other information required to be submitted with the Bid Proposal must be submitted with the Bid Proposal itself, at the time stated in the Call for Bids.

Proposals that are received as required will be publicly opened and read as specified in Section 1-02.12. The Contracting Agency will not open or consider any Bid Proposal that is received after the time specified in the Call for Bids for receipt of Bid Proposals, or received in a location other than that specified in the Call for Bids. The Contracting Agency will not open or consider any “Supplemental Information” that is received after the time specified, or received in a location other than that specified in the Call for Bids.

If an emergency or unanticipated event interrupts normal work processes of the Contracting Agency so that Proposals cannot be received at the office designated for receipt of bids as specified in Section 1-02.12 the time specified for receipt of the Proposal will be deemed to be extended to the same time of day specified in the solicitation on the first work day on which the normal work processes of the Contracting Agency resume.

1-02.10 Withdrawing, Revising, or Supplementing Proposal **(July 23, 2015 APWA GSP)**

Delete this section in its entirety, and replace it with the following:

After submitting a physical Bid Proposal to the Contracting Agency, the Bidder may withdraw, revise, or supplement it if:

1. The Bidder submits a written request signed by an authorized person and physically delivers it to the place designated for receipt of Bid Proposals, and
2. The Contracting Agency receives the request before the time set for receipt of Bid Proposals, and
3. The revised or supplemented Bid Proposal (if any) is received by the Contracting Agency before the time set for receipt of Bid Proposals.

If the Bidder’s request to withdraw, revise, or supplement its Bid Proposal is received before the time set for receipt of Bid Proposals, the Contracting Agency will return the unopened Proposal package to the Bidder. The Bidder must then submit the revised or supplemented package in its entirety. If the Bidder does not submit a revised or supplemented package, then its bid shall be considered withdrawn.

Late revised or supplemented Bid Proposals or late withdrawal requests will be date recorded by the Contracting Agency and returned unopened. Mailed, Emailed, or faxed requests to withdraw, revise, or supplement a Bid Proposal are not acceptable.

1-02.12 Public Opening of Proposals **(November 20, 2020 Lacey GSP)**

Delete and replace this section with the following:

Proposals will be opened and publicly read by live video stream per the “Instructions to Bidders” in Section A of these Specifications at the time as indicated in the call for Bids

1-02.13 Irregular Proposals
(December 30, 2022 APWA GSP)

Delete this section and replace it with the following:

1. A Proposal will be considered irregular and will be rejected if:
 - a. The Bidder is not prequalified when so required;
 - b. The authorized Proposal form furnished by the Contracting Agency is not used or is altered;
 - c. The completed Proposal form contains any unauthorized additions, deletions, alternate Bids, or conditions;
 - d. The Bidder adds provisions reserving the right to reject or accept the award, or enter into the Contract;
 - e. A price per unit cannot be determined from the Bid Proposal;
 - f. The Proposal form is not properly executed;
 - g. The Bidder fails to submit or properly complete a Subcontractor list (WSDOT Form 271-015), if applicable, as required in Section 1-02.6;
 - h. The Bidder fails to submit or properly complete a Disadvantaged Business Enterprise Certification (WSDOT Form 272-056), if applicable, as required in Section 1-02.6;
 - i. The Bidder fails to submit Written Confirmation (WSDOT Form 422-031) from each DBE firm listed on the Bidder’s completed DBE Utilization Certification that they are in agreement with the bidder’s DBE participation commitment, if applicable, as required in Section 1-02.6, or if the written confirmation that is submitted fails to meet the requirements of the Special Provision;
 - j. The Bidder fails to submit DBE Good Faith Effort documentation, if applicable, as required in Section 1-02.6, or if the documentation that is submitted fails to demonstrate that a Good Faith Effort to meet the Condition of Award was made;
 - k. The Bidder fails to submit a DBE Bid Item Breakdown (WSDOT Form 272-054), if applicable, as required in Section 1-02.6, or if the documentation that is submitted fails to meet the requirements of the Special Provisions;
 - l. The Bidder fails to submit DBE Trucking Credit Forms (WSDOT Form 272-058), if applicable, as required in Section 1-02.6, or if the documentation that is submitted fails to meet the requirements of the Special Provisions;
 - m. The Bid Proposal does not constitute a definite and unqualified offer to meet the material terms of the Bid invitation; or
 - n. More than one Proposal is submitted for the same project from a Bidder under the same or different names.

2. A Proposal may be considered irregular and may be rejected if:
 - a. The Proposal does not include a unit price for every Bid item;
 - b. Any of the unit prices are excessively unbalanced (either above or below the amount of a reasonable Bid) to the potential detriment of the Contracting Agency;
 - c. Receipt of Addenda is not acknowledged;
 - d. A member of a joint venture or partnership and the joint venture or partnership submit Proposals for the same project (in such an instance, both Bids may be rejected); or
 - e. If Proposal form entries are not made in ink.

1-02.14 Disqualification of Bidders
(***)**

Delete this section and replace it with the following:

A Bidder will be deemed not responsible if the Bidder does not meet the mandatory bidder responsibility criteria in RCW 39.04.350(1), as amended; or does not meet Supplemental Criteria in this Section:

The Contracting Agency will verify that the Bidder meets the mandatory bidder responsibility criteria in RCW 39.04.350(1). Evidence that the Bidder meets Supplemental Criteria shall be provided by the Bidder as stated later in this Section.

Relevant Experience & Reference Checks

A. Criterion: The Bidder or Subcontractor shall have successfully completed (1) one public works project within the last (5) years, and list the following information:

1. Complete and submit the following table with five (5) projects you have completed in the past 10 years with a similar scope of work: Flooded-reverse circulation and/or cable tool methods used to construct a water well with a production casing of 12 inches or more, and a well screen of 300 feet or deeper. These five (5) projects must be located in western Washington or western Oregon — that is to say, west of the Cascade Mountains. Use the following table as the template to fill and submit:

Well Name/Client	Total Value	Completion Date	Borehole		Well		Drill Rig Type
			Depth	Diameter	Diameter	Type	

2. Of the five projects listed above, which ones included a portion of the drilled formation by flooded reverse circulation in which the drilling fluid was water only, with simultaneous casing advance?
3. Of the five projects list above, provide the client names, their professional titles, and contact numbers (address and phone) for three (3) of the projects. Use the following as the template to fill and submit:

Client Name	Client Title	Client Address	Client Phone #

4. List your drill rig or rigs (make and model), test pump equipment (make, model, pump curves, outer diameter), and support trucks that you expect to use for the tasks on this City of Lacey project. Note the minimum pump performance is 1,800 gpm against a total dynamic head of 500 feet (and a pump intake setting of 450 feet).
5. List all your CONTRACTOR personnel, their years of experience, and their currently active driller license numbers, that are available to work on this City of Lacey project.

6. Provide current certificates of license and a letter from a surety on current status of your firm's "License and Bonding" capacity in Washington state.
7. The information required/listed above in Criterion 1 through 6 shall be submitted together, and may be submitted as a bidder-created document (you may create your own table and provide additional information, however, the information listed in these tables is required).

The Bidder or Subcontractor shall have successfully completed (5) five projects of a similar size and scope within the last (10) ten years. 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. In conducting reference checks, the Owner may include itself as a reference if the bidder has performed work for the Owner, even if the bidder did not identify the Owner as a reference. The assessment may include but is not limited to the following areas:

- a. Administration / Management / Supervision
 - i. Supervision and decision making
 - ii. Coordination and communication with subcontractors and suppliers
 - iii. Submission of documents, reports, material submittals
 - iv. Timeliness of progress schedules
 - v. Public safety and traffic control
 - vi. Compliance with laws, ordinances and regulations
 - vii. Maintenance of employee safety standards
 - viii. Coordination and cooperation with department personnel on project matters
 - ix. Relations with the general public, other agencies and/or adjacent contractors
- b. Quality of Work
 - i. Adherence to plans and specifications
 - ii. Standards of Workmanship
 - iii. Completion of final (punch list) work
- c. Progress of Work
 - i. Completion of project within allotted time
 - ii. Scheduling and execution of schedule
 - iii. Delivery of materials and supplies
 - iv. Operation and use of equipment
 - v. Use of personnel
- d. Equipment
 - i. Condition
 - ii. Maintenance
 - iii. Proper/Suitable equipment used

B. Documentation: The Bidder shall submit a list of projects to the Owner. Public work is as defined in RCW 39.04.010. 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: Drilling and developing deep, large diameter wells similar to the requirements identified in the Technical Specifications. The information about each project shall include the following:

- Contractor's name (identify as bidder or subcontractor)
- Owner's name and contact information for the owner's representative;
- Contract amount;
- Date of Completion;
- A brief description of the scope of the project and how the project is similar to this project

As evidence that the Bidder meets the mandatory and supplemental responsibility criteria stated above, the apparent low Bidder must submit to the Contracting Agency by 2:30 P.M. of the second business day following the bid submittal deadline, documentation verifying that the Bidder meets all of the

supplemental criteria together with supporting documentation including but not limited to that detailed above (sufficient in the sole judgment of the Contracting Agency) demonstrating compliance with all supplemental responsibility criteria. The Contracting Agency reserves the right to request such documentation from other Bidders as well, and to request further documentation as needed to assess Bidder responsibility. The Contracting Agency also reserves the right to obtain information from third-parties and independent sources of information concerning a Bidder's compliance with the mandatory and supplemental criteria, and to use that information in their evaluation. The Contracting Agency may (but is not required to) consider mitigating factors in determining whether the Bidder complies with the requirements of the supplemental criteria.

The basis for evaluation of Bidder compliance with these mandatory and Supplemental Criteria shall include any documents or facts obtained by Contracting Agency (whether from the Bidder or third parties) including but not limited to: (i) financial, historical, or operational data from the Bidder; (ii) information obtained directly by the Contracting Agency from others for whom the Bidder has worked, or other public agencies or private enterprises; and (iii) any additional information obtained by the Contracting Agency which is believed to be relevant to the matter.

If the Contracting Agency determines the Bidder does not meet the bidder responsibility criteria above and is therefore not a responsible Bidder, the Contracting Agency shall notify the Bidder in writing, with the reasons for its determination. If the Bidder disagrees with this determination, it may appeal the determination within two (2) business days of the Contracting Agency's determination by presenting its appeal and any additional information to the Contracting Agency. The Contracting Agency will consider the appeal and any additional information before issuing its final determination. If the final determination affirms that the Bidder is not responsible, the Contracting Agency will not execute a contract with any other Bidder until at least two business days after the Bidder determined to be not responsible has received the Contracting Agency's final determination.

Request to Change Supplemental Bidder Responsibility Criteria Prior To Bid: Bidders with concerns about the relevancy or restrictiveness of the Supplemental Bidder Responsibility Criteria may make or submit requests to the Contracting Agency to modify the criteria. Such requests shall be in writing, describe the nature of the concerns, and propose specific modifications to the criteria. Bidders shall submit such requests to the Contracting Agency no later than five (5) business days prior to the bid submittal deadline and address the request to the Project Engineer or such other person designated by the Contracting Agency in the Bid Documents.

1-02.15 Pre-Award Information **(August 14, 2013 APWA GSP)**

Revise this section to read:

Before awarding any contract, the Contracting Agency may require one or more of these items or actions of the apparent lowest responsible bidder:

1. A complete statement of the origin, composition, and manufacture of any or all materials to be used,
2. Samples of these materials for quality and fitness tests,
3. A progress schedule (in a form the Contracting Agency requires) showing the order of and time required for the various phases of the work,
4. A breakdown of costs assigned to any bid item,
5. Attendance at a conference with the Engineer or representatives of the Engineer,
6. Obtain, and furnish a copy of, a business license to do business in the city or county where the work is located.

7. Any other information or action taken that is deemed necessary to ensure that the bidder is the lowest responsible bidder.

1-03 AWARD AND EXECUTION OF CONTRACT

1-03.3 Execution of Contract **(January 19, 2022 APWA GSP)**

Revise this section to read:

Within 3 calendar days of Award date (not including Saturdays, Sundays and Holidays), the successful Bidder shall provide the information necessary to execute the Contract to the Contracting Agency. The Bidder shall send the contact information, including the full name, email address, and phone number, for the authorized signer and bonding agent to the Contracting Agency.

Copies of the Contract Provisions, including the unsigned Form of Contract, will be available for signature by the successful bidder on the first business day following award. The number of copies to be executed by the Contractor will be determined by the Contracting Agency.

Within 10 calendar days after the award date, the successful bidder shall return the signed Contracting Agency-prepared contract, an insurance certification as required by Section 1-07.18, a satisfactory bond as required by law and Section 1-03.4, and the Transfer of Coverage form for the Construction Stormwater General Permit with sections I, III, and VIII completed when provided. Before execution of the contract by the Contracting Agency, the successful bidder shall provide any pre-award information the Contracting Agency may require under Section 1-02.15.

Until the Contracting Agency executes a contract, no proposal shall bind the Contracting Agency nor shall any work begin within the project limits or within Contracting Agency-furnished sites. The Contractor shall bear all risks for any work begun outside such areas and for any materials ordered before the contract is executed by the Contracting Agency.

If the bidder experiences circumstances beyond their control that prevents return of the contract documents within the calendar days after the award date stated above, the Contracting Agency may grant up to a maximum of 10 additional calendar days for return of the documents, provided the Contracting Agency deems the circumstances warrant it.

1-03.4 Contract Bond **(July 23, 2015 APWA GSP)**

Delete the first paragraph and replace it with the following:

The successful bidder shall provide executed payment and performance bond(s) for the full contract amount. The bond may be a combined payment and performance bond; or be separate payment and performance bonds. In the case of separate payment and performance bonds, each shall be for the full contract amount. The bond(s) shall:

1. Be on Contracting Agency-furnished form(s);
2. Be signed by an approved surety (or sureties) that:
 - a) Is registered with the Washington State Insurance Commissioner, and
 - b) Appears on the current Authorized Insurance List in the State of Washington published by the Office of the Insurance Commissioner,
3. Guarantee that the Contractor will perform and comply with all obligations, duties, and conditions under the Contract, including but not limited to the duty and obligation to indemnify,

defend, and protect the Contracting Agency against all losses and claims related directly or indirectly from any failure:

- a) Of the Contractor (or any of the employees, subcontractors, or lower tier subcontractors of the Contractor) to faithfully perform and comply with all contract obligations, conditions, and duties, or
 - b) Of the Contractor (or the subcontractors or lower tier subcontractors of the Contractor) to pay all laborers, mechanics, subcontractors, lower tier subcontractors, material person, or any other person who provides supplies or provisions for carrying out the work;
4. Be conditioned upon the payment of taxes, increases, and penalties incurred on the project under titles 50, 51, and 82 RCW; and
 5. Be accompanied by a power of attorney for the Surety's officer empowered to sign the bond; and
 6. Be signed by an officer of the Contractor empowered to sign official statements (sole proprietor or partner). If the Contractor is a corporation, the bond(s) must be signed by the president or vice president, unless accompanied by written proof of the authority of the individual signing the bond(s) to bind the corporation (i.e., corporate resolution, power of attorney, or a letter to such effect signed by the president or vice president).

1-03.7 Judicial Review **(December 30, 2022 APWA GSP)**

Revise this section to read:

All decisions made by the Contracting Agency regarding the Award and execution of the Contract or Bid rejection shall be conclusive subject to the scope of judicial review permitted under Washington Law. Such review, if any, shall be timely filed in the Superior Court of the county where the Contracting Agency headquarters is located, provided that where an action is asserted against a county, RCW 36.01.050 shall control venue and jurisdiction.

1-04 SCOPE OF THE WORK

1-04.2 Coordination of Contract Documents, Plans, Special Provisions, Specifications, and Addenda **(November 20, 2020 Lacey GSP)**

Revise the second paragraph to read:

Any inconsistency in the parts of the contract shall be resolved by following this order of precedence (e.g., 1 presiding over 2, 2 presiding over 3, 3 over 4, and so forth):

1. Contract Form,
2. Addenda (if any),
3. Proposal Form,
4. Special Provisions,
5. Technical Specifications, if included,
6. Contract Plans,
7. WSDOT Standard Specifications for Road, Bridge, and Municipal Construction,
8. City of Lacey Development Guidelines and Public Works Standards, and
9. WSDOT Standard Plans for Road, Bridge and Municipal Construction

1-04.4(1) Minor Changes **(May 30, 2019 APWA GSP)**

Delete the first paragraph and replace it with the following:

Payments or credits for changes amounting to \$25,000 or less may be made under the Bid item “Minor Change”. At the discretion of the Contracting Agency, this procedure for Minor Changes may be used in lieu of the more formal procedure as outlined in Section 1-04.4, Changes. All “Minor Change” work will be within the scope of the Contract Work and will not change Contract Time.

1-04.5 Procedure, Protest, and Dispute by the Contractor
(January 19, 2022 APWA GSP)

Revise item 1 of the first paragraph to read:

1. Give a signed written notice of protest to the Engineer or the Engineer’s field Inspectors within 5 calendar days of receiving a change order or an Engineer’s Written Determination.

1-04.6 Variation in Estimated Quantities
(May 25, 2006 APWA GSP)

Supplement this Section with the following:

The quantities for:

- Video Inspection
- Authorized Hourly Work
- Furnish and Install Specific Capacity Test Equipment
- Furnish and Install Test Screen and Pumping Equipment
- Hourly Work for Specific Capacity Test
- Hourly Work for Step- and Constant-Rate Pumping Tests
- Alignment Tests
- Filter Pack Material

have been entered into the Proposal only to provide a common proposal for bidders. Actual quantities will be determined in the field as the work progresses, and will be paid at the original bid price, regardless of final quantity. These bid items shall not be subject to the provisions of 1-04.6 of the Standard Specifications.

1-04.6 Variations in Estimated Quantities
(December 30, 2022 APWA GSP Option B)

Revise the first paragraph to read:

Payment to the Contractor will be made only for the actual quantities of Work performed and accepted in conformance with the Contract. When the accepted quantity of Work performed under a unit item varies from the original Proposal quantity, payment will be at the unit Contract price for all Work unless the total accepted quantity of the Contract item, adjusted to exclude added or deleted amounts included in change orders accepted by both parties, increases or decreases by more than 25 percent from the original Proposal quantity, and if the total extended bid price for that item at time of award is equal to or greater than 10 percent of the total contract price at time of award. In that case, payment for contract work may be adjusted as described herein.

1-05 CONTROL OF WORK

1-05.4 Conformity With and Deviations from Plans and Stakes

Supplement this section with the following:

Roadway and Utility Surveys

(July 23, 2015 APWA GSP, Option 1)

The Engineer shall furnish to the Contractor one time only all principal lines, grades, and measurements the Engineer deems necessary for completion of the work. These shall generally consist of one initial set of:

1. Slope stakes for establishing grading;
2. Curb grade stakes;
3. Centerline finish grade stakes for pavement sections wider than 25 feet; and
4. Offset points to establish line and grade for underground utilities such as water, sewers, and storm drains.

On alley construction projects with minor grade changes, the Engineer shall provide only offset hubs on one side of the alley to establish the alignment and grade.

1-05.4(2) Survey Control and Electronic Files

(August 10, 2010 Lacey GSP)

Add the following new section:

The Contractor shall re-establish the survey control used in design by using existing survey monuments and other control points as provided by the City.

When requested by the Contractor, the City will provide an electronic version of the construction plans (drawings), for use by the Contractor at the Contractor's own risk. In all cases, the approved paper construction plans are the official contract documents. If the Contractor wishes to use the electronic version of the construction plans for the purposes of providing surveying of the proposed improvements, it shall be the Contractor's responsibility to verify that any coordinates used from the electronic file match the station and offset location given in the contract construction plans. Construction plans are diagrammatic in nature. The coordinate locations of the various graphic elements within the electronic files may not necessarily be precisely shown with respect to their coordinate position. In all cases, the location callouts in the contract construction plans shall govern.

1-05.7 Removal of Defective and Unauthorized Work

(October 1, 2005 APWA GSP)

Supplement this section with the following:

If the Contractor fails to remedy defective or unauthorized work within the time specified in a written notice from the Engineer, or fails to perform any part of the work required by the Contract Documents, the Engineer may correct and remedy such work as may be identified in the written notice, with Contracting Agency forces or by such other means as the Contracting Agency may deem necessary.

If the Contractor fails to comply with a written order to remedy what the Engineer determines to be an emergency situation, the Engineer may have the defective and unauthorized work corrected immediately, have the rejected work removed and replaced, or have work the Contractor refuses to perform completed by using Contracting Agency or other forces. An emergency situation is any situation when, in the

opinion of the Engineer, a delay in its remedy could be potentially unsafe, or might cause serious risk of loss or damage to the public.

Direct or indirect costs incurred by the Contracting Agency attributable to correcting and remedying defective or unauthorized work, or work the Contractor failed or refused to perform, shall be paid by the Contractor. Payment will be deducted by the Engineer from monies due, or to become due, the Contractor. Such direct and indirect costs shall include in particular, but without limitation, compensation for additional professional services required, and costs for repair and replacement of work of others destroyed or damaged by correction, removal, or replacement of the Contractor's unauthorized work.

No adjustment in contract time or compensation will be allowed because of the delay in the performance of the work attributable to the exercise of the Contracting Agency's rights provided by this Section.

The rights exercised under the provisions of this section shall not diminish the Contracting Agency's right to pursue any other avenue for additional remedy or damages with respect to the Contractor's failure to perform the work as required.

1-05.11 Final Inspections and Operational Testing **(October 1, 2005 APWA GSP)**

Delete this section and replace it with the following:

1-05.11(1) Substantial Completion Date

When the Contractor considers the work to be substantially complete, the Contractor shall so notify the Engineer and request the Engineer establish the Substantial Completion Date. The Contractor's request shall list the specific items of work that remain to be completed in order to reach physical completion. The Engineer will schedule an inspection of the work with the Contractor to determine the status of completion. The Engineer may also establish the Substantial Completion Date unilaterally.

If, after this inspection, the Engineer concurs with the Contractor that the work is substantially complete and ready for its intended use, the Engineer, by written notice to the Contractor, will set the Substantial Completion Date. If, after this inspection the Engineer does not consider the work substantially complete and ready for its intended use, the Engineer will, by written notice, so notify the Contractor giving the reasons therefore.

Upon receipt of written notice concurring in or denying substantial completion, whichever is applicable, the Contractor shall pursue vigorously, diligently and without unauthorized interruption, the work necessary to reach Substantial and Physical Completion. The Contractor shall provide the Engineer with a revised schedule indicating when the Contractor expects to reach substantial and physical completion of the work.

The above process shall be repeated until the Engineer establishes the Substantial Completion Date and the Contractor considers the work physically complete and ready for final inspection.

1-05.11(2) Final Inspection and Physical Completion Date

When the Contractor considers the work physically complete and ready for final inspection, the Contractor by written notice, shall request the Engineer to schedule a final inspection. The Engineer will set a date for final inspection. The Engineer and the Contractor will then make a final inspection and the Engineer will notify the Contractor in writing of all particulars in which the final inspection reveals the work incomplete or unacceptable. The Contractor shall immediately take such corrective measures as are necessary to remedy the listed deficiencies. Corrective work shall be pursued vigorously, diligently, and

without interruption until physical completion of the listed deficiencies. This process will continue until the Engineer is satisfied the listed deficiencies have been corrected.

If action to correct the listed deficiencies is not initiated within 7 days after receipt of the written notice listing the deficiencies, the Engineer may, upon written notice to the Contractor, take whatever steps are necessary to correct those deficiencies pursuant to Section 1-05.7.

The Contractor will not be allowed an extension of contract time because of a delay in the performance of the work attributable to the exercise of the Engineer's right hereunder.

Upon correction of all deficiencies, the Engineer will notify the Contractor and the Contracting Agency, in writing, of the date upon which the work was considered physically complete. That date shall constitute the Physical Completion Date of the contract, but shall not imply acceptance of the work or that all the obligations of the Contractor under the contract have been fulfilled.

1-05.11(3) Operational Testing

It is the intent of the Contracting Agency to have at the Physical Completion Date a complete and operable system. Therefore when the work involves the installation of machinery or other mechanical equipment; street lighting, electrical distribution or signal systems; irrigation systems; buildings; or other similar work it may be desirable for the Engineer to have the Contractor operate and test the work for a period of time after final inspection but prior to the physical completion date. Whenever items of work are listed in the Contract Provisions for operational testing they shall be fully tested under operating conditions for the time period specified to ensure their acceptability prior to the Physical Completion Date. During and following the test period, the Contractor shall correct any items of workmanship, materials, or equipment which prove faulty, or that are not in first class operating condition. Equipment, electrical controls, meters, or other devices and equipment to be tested during this period shall be tested under the observation of the Engineer, so that the Engineer may determine their suitability for the purpose for which they were installed. The Physical Completion Date cannot be established until testing and corrections have been completed to the satisfaction of the Engineer.

The costs for power, gas, labor, material, supplies, and everything else needed to successfully complete operational testing, shall be included in the unit contract prices related to the system being tested, unless specifically set forth otherwise in the proposal.

Operational and test periods, when required by the Engineer, shall not affect a manufacturer's guaranties or warranties furnished under the terms of the contract.

1-05.12(1) One-Year Guarantee Period

(March 8, 2013 APWA GSP)

Add the following new section:

The Contractor shall return to the project and repair or replace all defects in workmanship and material discovered within one year after Final Acceptance of the Work. The Contractor shall start work to remedy any such defects within 7 calendar days of receiving Contracting Agency's written notice of a defect, and shall complete such work within the time stated in the Contracting Agency's notice. In case of an emergency, where damage may result from delay or where loss of services may result, such corrections may be made by the Contracting Agency's own forces or another contractor, in which case the cost of corrections shall be paid by the Contractor. In the event the Contractor does not accomplish corrections within the time specified, the work will be otherwise accomplished and the cost of same shall be paid by the Contractor.

When corrections of defects are made, the Contractor shall then be responsible for correcting all defects in workmanship and materials in the corrected work for one year after acceptance of the corrections by Contracting Agency.

This guarantee is supplemental to and does not limit or affect the requirements that the Contractor's work comply with the requirements of the Contract or any other legal rights or remedies of the Contracting Agency.

1-05.14 Cooperation with Other Contractors **(August 3, 2015 Lacey GSP)**

Supplement this section with the following:

The Contractor shall coordinate residential refuse and recycling pick-up with Pacific Disposal (360) 923-0111. Construction activities shall be planned so that there is no interruption of services.

1-05.15 Method of Serving Notices **(December 30, 2022 APWA GSP)**

Revise the second paragraph to read:

All correspondence from the Contractor shall be directed to the Project Engineer. All correspondence from the Contractor constituting any notification, notice of protest, notice of dispute, or other correspondence constituting notification required to be furnished under the Contract, must be in paper format, hand delivered or sent via mail delivery service to the Project Engineer's office. Electronic copies such as e-mails or electronically delivered copies of correspondence will not constitute such notice and will not comply with the requirements of the Contract.

1-05.16 Water and Power **(October 1, 2005 APWA GSP)**

Add the following new section:

The Contractor shall make necessary arrangements, and shall bear the costs for power and water necessary for the performance of the work, unless the contract includes power and water as a pay item.

1-06 CONTROL OF MATERIAL

1-06.1 Approval of Materials Prior to Use **(January 4, 2016 Lacey GSP)**

The second sentence of first paragraph is revised to read:

The Contractor shall use the Qualified Product List (QPL), the Aggregate Source Approval (ASA) Database, or the City of Lacey Request for Approval of Material (COL RAM) form.

1-06.1(2) Request for Approval of Material (RAM)

The first paragraph is revised to read:

The COL RAM shall be used with all submittals. The COL RAM shall be prepared by the Contractor in accordance with the instructions and submitted to the engineer for approval before the material is incorporated into the Work..

Supplement this section with the following:

The Contractor shall submit sufficient information that describes the materials proposed as defined and described in these specifications and plans within 20 working days following the Notice to Proceed.

The Contractor shall submit one electronic of catalog cuts, shop drawings, and a material testing sample, as required for all items to be used in this contract for approval. The Contractor shall circle or highlight products and materials that are specific to this project, and cross out items that are not for this project.

All items not in exact compliance with the specifications must be noted as a change. The Contractor shall include an explanation, product specifications, sample articles, and any other items that will aid the Engineer in approving an item not in exact accordance with the specifications.

All submittals shall be submitted in Adobe Acrobat format and submittals that exceed 10 pages shall include a table of contents. Submittals that are not submitted in the format outlined may be rejected outright and the Contractor is required to resubmit in the correct format. The form and the submittal shall be sent in the same e-mail. Submittals that exceed 10 MB shall either be provided on a CD, a flash drive or via an internet link.

The Engineer will review submittals within 10 working days. The Contractor may request additional working days if approval or disapproval is not received in 10 working days. The Contractor may not request additional working days for failure to submit sufficient information to approve an item, or for rejection of an item not in accordance with the specifications.

Resubmittals shall be submitted within 5 working days from City's transmittal, to the contractor, of the Engineer reviewed submittal. If the submittal is "Rejected", the contractor shall resubmit the entire submittal. If the submittal is marked "Revise and Resubmit", the contractor shall submit items that are identified in the Engineer's comments.

Any material purchased or labor performed prior to such approval shall be at the Contractor's risk. The Contractor must receive all material approvals before the materials will be allowed on the project.

1-07 LEGAL RELATIONS AND RESPONSIBILITIES TO THE PUBLIC

1-07.1 Laws to be Observed **(October 1, 2005 APWA GSP)**

Supplement this section with the following:

In cases of conflict between different safety regulations, the more stringent regulation shall apply.

The Washington State Department of Labor and Industries shall be the sole and paramount administrative agency responsible for the administration of the provisions of the Washington Industrial Safety and Health Act of 1973 (WISHA).

The Contractor shall maintain at the project site office, or other well-known place at the project site, all articles necessary for providing first aid to the injured. The Contractor shall establish, publish, and make known to all employees, procedures for ensuring immediate removal to a hospital, or doctor's care,

persons, including employees, who may have been injured on the project site. Employees should not be permitted to work on the project site before the Contractor has established and made known procedures for removal of injured persons to a hospital or a doctor's care.

The Contractor shall have sole responsibility for the safety, efficiency, and adequacy of the Contractor's plant, appliances, and methods, and for any damage or injury resulting from their failure, or improper maintenance, use, or operation. The Contractor shall be solely and completely responsible for the conditions of the project site, including safety for all persons and property in the performance of the work. This requirement shall apply continuously, and not be limited to normal working hours. The required or implied duty of the Engineer to conduct construction review of the Contractor's performance does not, and shall not, be intended to include review and adequacy of the Contractor's safety measures in, on, or near the project site.

1-07.2 State Sales Tax **(June 27, 2011 APWA GSP)**

Delete this section, including its sub-sections, in its entirety and replace it with the following:

The Washington State Department of Revenue has issued special rules on the State sales tax. Sections 1-07.2(1) through 1-07.2(3) are meant to clarify those rules. The Contractor should contact the Washington State Department of Revenue for answers to questions in this area. The Contracting Agency will not adjust its payment if the Contractor bases a bid on a misunderstood tax liability.

The Contractor shall include all Contractor-paid taxes in the unit bid prices or other contract amounts. In some cases, however, state retail sales tax will not be included. Section 1-07.2(2) describes this exception.

The Contracting Agency will pay the retained percentage (or release the Contract Bond if a FHWA-funded Project) only if the Contractor has obtained from the Washington State Department of Revenue a certificate showing that all contract-related taxes have been paid (RCW 60.28.051). The Contracting Agency may deduct from its payments to the Contractor any amount the Contractor may owe the Washington State Department of Revenue, whether the amount owed relates to this contract or not. Any amount so deducted will be paid into the proper State fund.

1-07.2(1) State Sales Tax — Rule 171

WAC 458-20-171, and its related rules, apply to building, repairing, or improving streets, roads, etc., which are owned by a municipal corporation, or political subdivision of the state, or by the United States, and which are used primarily for foot or vehicular traffic. This includes storm or combined sewer systems within and included as a part of the street or road drainage system and power lines when such are part of the roadway lighting system. For work performed in such cases, the Contractor shall include Washington State Retail Sales Taxes in the various unit bid item prices, or other contract amounts, including those that the Contractor pays on the purchase of the materials, equipment, or supplies used or consumed in doing the work.

1-07.2(2) State Sales Tax — Rule 170

WAC 458-20-170, and its related rules, apply to the constructing and repairing of new or existing buildings, or other structures, upon real property. This includes, but is not limited to, the construction of streets, roads, highways, etc., owned by the state of Washington; water mains and their appurtenances; sanitary sewers and sewage disposal systems unless such sewers and disposal systems are within, and a part of, a street or road drainage system; telephone, telegraph, electrical power distribution lines, or other conduits or lines in or above streets or roads, unless such power lines become a part of a street or road

lighting system; and installing or attaching of any article of tangible personal property in or to real property, whether or not such personal property becomes a part of the realty by virtue of installation.

For work performed in such cases, the Contractor shall collect from the Contracting Agency, retail sales tax on the full contract price. The Contracting Agency will automatically add this sales tax to each payment to the Contractor. For this reason, the Contractor shall not include the retail sales tax in the unit bid item prices, or in any other contract amount subject to Rule 170, with the following exception.

Exception: The Contracting Agency will not add in sales tax for a payment the Contractor or a subcontractor makes on the purchase or rental of tools, machinery, equipment, or consumable supplies not integrated into the project. Such sales taxes shall be included in the unit bid item prices or in any other contract amount.

1-07.2(3) Services

The Contractor shall not collect retail sales tax from the Contracting Agency on any contract wholly for professional or other services (as defined in Washington State Department of Revenue Rules 138 and 244).

1-07.6 Permits and Licenses

[\(January 2, 2018 WSDOT 1-07.6.OPT1.FR1\)](#)

Section 1-07.6 is supplemented with the following:

The Contracting Agency has obtained the below-listed permit(s) for this project. A copy of the permit(s) is attached as an appendix for informational purposes. Copies of these permits, including a copy of the Transfer of Coverage form, when applicable, are required to be onsite at all times.

Contact with the permitting agencies, concerning the below-listed permit(s), shall be made through the Engineer with the exception of when the Construction Stormwater General Permit coverage is transferred to the Contractor, direct communication with the Department of Ecology is allowed. The Contractor shall be responsible for obtaining Ecology’s approval for any Work requiring additional approvals (e.g. Request for Chemical Treatment Form). The Contractor shall obtain additional permits as necessary. All costs to obtain and comply with additional permits shall be included in the applicable Bid items for the Work involved.

NAME OF DOCUMENT	PERMITTING AGENCY	PERMIT REFERENCE NO.
Well Site Inspection Approval	Thurston County	23112051
		23112053

1-07.6 Permits and Licenses

[\(February 14, 2023 Lacey GSP\)](#)

Section 1-07.6 is supplemented with the following:

The Contractor shall be responsible for obtaining the permits listed below. The Contractor shall obtain any additional permits as necessary. All costs to obtain and comply with permits shall be included in the applicable Bid items for the Work involved.

NAME OF DOCUMENT	PERMITTING AGENCY
Notice of Intent	Department of Ecology

1-07.15(1) Spill Prevention, Control, and Countermeasures Plan **(February 14, 2023 Lacey GSP)**

The Contractor shall prepare a project-specific spill prevention, control, and countermeasures plan (SPCC Plan), and shall implement the plan for the duration of the project. No on-site construction activities may commence until the Contracting Agency accepts a SPCC Plan for the project. An SPCC Plan template and guidance information is available at <https://wsdot.wa.gov/engineering-standards/environmental-guidance/stormwater-water-quality>.

The SPCC Plan shall address all fuels, petroleum products, hazardous materials, and other materials defined in Chapter 447 of the WSDOT Environmental Manual M 31-11. Occupational safety and health requirements that may pertain to SPCC Plan implementation are contained in, but not limited to, WAC 296-824 and WAC 296-843. The SPCC Plan shall address conditions that may be required by Section 3406 of the current International Fire Code, or as approved by the local Fire Marshal.

Implementation Requirements

The Contractor shall update the SPCC Plan throughout project construction so that the written plan reflects actual site conditions and practices. The Contractor shall update the SPCC Plan at least annually and maintain a copy of the updated SPCC Plan on the project site. The Contractor shall fully implement the SPCC Plan, as accepted and updated, at all times.

SPCC Plan Element Requirements

The SPCC Plan shall set forth the following information in the following order:

1. Responsible Personnel – Identify the names, titles, and contact information for the personnel responsible for implementing and updating the plan and for responding to spills.
2. Spill Reporting – List the names and telephone numbers of the Federal, State, and local agencies the Contractor shall notify in the event of a spill as referenced in the abovementioned template.
3. Spill Prevention – Describe the following items:
 - a. The contents and locations of spill response kits that the Contractor shall supply and maintain that are appropriately stocked, located in close proximity to hazardous materials and equipment, and immediately accessible.
 - b. Security measures for potential spill sources to prevent accidental spills and vandalism.
 - c. Site inspection procedures and frequency.
4. Spill Response – Outline the response procedures the Contractor shall follow for each scenario listed below, indicating that if hazardous materials are encountered or spilled during construction, the Contractor shall do everything possible to control and contain the material until appropriate measures can be taken. Include a description of the actions the Contractor shall take and the specific on-site spill response equipment that shall be used to assess the spill, secure the area, contain and eliminate the spill source, clean up spilled material, decontaminate equipment, and dispose of spilled and contaminated material:
 - a. A spill of each type of hazardous material present.
 - b. Stormwater that has come into contact with hazardous materials.
 - c. A release or spill of any unknown preexisting contamination and contaminant sources (such as buried pipes or tanks) encountered during project Work.

Payment

If no bid item for “SPCC Plan” is included in the proposal, any work described in this section shall be incidental to the project.

1-07.18 Public Liability and Property Damage Insurance

Delete this section in its entirety, and replace it with the following:

1-07.18 Insurance

(December 30, 2022 APWA GSP)

1-07.18(1) General Requirements

A. The Contractor shall procure and maintain the insurance described in all subsections of section 1-07.18 of these Special Provisions, from insurers with a current A. M. Best rating of not less than A-: VII and licensed to do business in the State of Washington. The Contracting Agency reserves the right to approve or reject the insurance provided, based on the insurer’s financial condition.

B. The Contractor shall keep this insurance in force without interruption from the commencement of the Contractor’s Work through the term of the Contract and for thirty (30) days after the Physical Completion date, unless otherwise indicated below.

C. If any insurance policy is written on a claims made form, its retroactive date, and that of all subsequent renewals, shall be no later than the effective date of this Contract. The policy shall state that coverage is claims made, and state the retroactive date. Claims-made form coverage shall be maintained by the Contractor for a minimum of 36 months following the Completion Date or earlier termination of this Contract, and the Contractor shall annually provide the Contracting Agency with proof of renewal. If renewal of the claims made form of coverage becomes unavailable, or economically prohibitive, the Contractor shall purchase an extended reporting period (“tail”) or execute another form of guarantee acceptable to the Contracting Agency to assure financial responsibility for liability for services performed.

D. The Contractor’s Automobile Liability, Commercial General Liability and Excess or Umbrella Liability insurance policies shall be primary and non-contributory insurance as respects the Contracting Agency’s insurance, self-insurance, or self-insured pool coverage. Any insurance, self-insurance, or self-insured pool coverage maintained by the Contracting Agency shall be excess of the Contractor’s insurance and shall not contribute with it.

E. The Contractor shall provide the Contracting Agency and all additional insureds with written notice of any policy cancellation, within two business days of their receipt of such notice.

F. The Contractor shall not begin work under the Contract until the required insurance has been obtained and approved by the Contracting Agency

G. Failure on the part of the Contractor to maintain the insurance as required shall constitute a material breach of contract, upon which the Contracting Agency may, after giving five business days’ notice to the Contractor to correct the breach, immediately terminate the Contract or, at its discretion, procure or renew such insurance and pay any and all premiums in connection therewith, with any sums so expended to be repaid to the Contracting Agency on demand, or at the sole discretion of the Contracting Agency, offset against funds due the Contractor from the Contracting Agency.

H. All costs for insurance shall be incidental to and included in the unit or lump sum prices of the Contract and no additional payment will be made.

1-07.18(2) Additional Insured

All insurance policies, with the exception of Workers Compensation, and of Professional Liability and Builder's Risk (if required by this Contract) shall name the following listed entities as additional insured(s) using the forms or endorsements required herein:

- The Contracting Agency and its officers, elected officials, employees, agents, and volunteers

The above-listed entities shall be additional insured(s) for the full available limits of liability maintained by the Contractor, irrespective of whether such limits maintained by the Contractor are greater than those required by this Contract, and irrespective of whether the Certificate of Insurance provided by the Contractor pursuant to 1-07.18(4) describes limits lower than those maintained by the Contractor.

For Commercial General Liability insurance coverage, the required additional insured endorsements shall be at least as broad as ISO forms CG 20 10 10 01 for ongoing operations and CG 20 37 10 01 for completed operations.

1-07.18(3) Subcontractors

The Contractor shall cause each Subcontractor of every tier to provide insurance coverage that complies with all applicable requirements of the Contractor-provided insurance as set forth herein, except the Contractor shall have sole responsibility for determining the limits of coverage required to be obtained by Subcontractors.

The Contractor shall ensure that all Subcontractors of every tier add all entities listed in 1 07.18(2) as additional insureds, and provide proof of such on the policies as required by that section as detailed in 1-07.18(2) using an endorsement as least as broad as ISO CG 20 10 10 01 for ongoing operations and CG 20 37 10 01 for completed operations.

Upon request by the Contracting Agency, the Contractor shall forward to the Contracting Agency evidence of insurance and copies of the additional insured endorsements of each Subcontractor of every tier as required in 1-07.18(4) Verification of Coverage.

1-07.18(4) Verification of Coverage

The Contractor shall deliver to the Contracting Agency a Certificate(s) of Insurance and endorsements for each policy of insurance meeting the requirements set forth herein when the Contractor delivers the signed Contract for the work. Failure of Contracting Agency to demand such verification of coverage with these insurance requirements or failure of Contracting Agency to identify a deficiency from the insurance documentation provided shall not be construed as a waiver of Contractor's obligation to maintain such insurance.

Verification of coverage shall include:

1. An ACORD certificate or a form determined by the Contracting Agency to be equivalent.
2. Copies of all endorsements naming Contracting Agency and all other entities listed in 1 07.18(2) as additional insured(s), showing the policy number. The Contractor may submit a copy of any blanket additional insured clause from its policies instead of a separate endorsement.
3. Any other amendatory endorsements to show the coverage required herein.
4. A notation of coverage enhancements on the Certificate of Insurance shall not satisfy these requirements – actual endorsements must be submitted.

Upon request by the Contracting Agency, the Contractor shall forward to the Contracting Agency a full and certified copy of the insurance policy(s). If Builders Risk insurance is required on this Project, a full and certified copy of that policy is required when the Contractor delivers the signed Contract for the work.

1-07.18(5) Coverages and Limits

The insurance shall provide the minimum coverages and limits set forth below. Contractor's maintenance of insurance, its scope of coverage, and limits as required herein shall not be construed to limit the liability of the Contractor to the coverage provided by such insurance, or otherwise limit the Contracting Agency's recourse to any remedy available at law or in equity.

All deductibles and self-insured retentions must be disclosed and are subject to approval by the Contracting Agency. The cost of any claim payments falling within the deductible or self-insured retention shall be the responsibility of the Contractor. In the event an additional insured incurs a liability subject to any policy's deductibles or self-insured retention, said deductibles or self-insured retention shall be the responsibility of the Contractor.

1-07.18(5)A Commercial General Liability

Commercial General Liability insurance shall be written on coverage forms at least as broad as ISO occurrence form CG 00 01, including but not limited to liability arising from premises, operations, stop gap liability, independent contractors, products-completed operations, personal and advertising injury, and liability assumed under an insured contract. There shall be no exclusion for liability arising from explosion, collapse or underground property damage.

The Commercial General Liability insurance shall be endorsed to provide a per project general aggregate limit, using ISO form CG 25 03 05 09 or an equivalent endorsement.

Contractor shall maintain Commercial General Liability Insurance arising out of the Contractor's completed operations for at least three years following Substantial Completion of the Work.

Such policy must provide the following minimum limits:

\$1,000,000	Each Occurrence
\$2,000,000	General Aggregate
\$2,000,000	Products & Completed Operations Aggregate
\$1,000,000	Personal & Advertising Injury each offence
\$1,000,000	Stop Gap / Employers' Liability each accident

1-07.18(5)B Automobile Liability

Automobile Liability shall cover owned, non-owned, hired, and leased vehicles; and shall be written on a coverage form at least as broad as ISO form CA 00 01. If the work involves the transport of pollutants, the automobile liability policy shall include MCS 90 and CA 99 48 endorsements.

Such policy must provide the following minimum limit:

\$1,000,000	Combined single limit each accident
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1-07.18(5)C Workers' Compensation

The Contractor shall comply with Workers' Compensation coverage as required by the Industrial Insurance laws of the State of Washington.

1-07.23 Public Convenience and Safety

1-07.24 Rights of Way

[\(July 23, 2015 APWA GSP\)](#)

Delete this section and replace it with the following:

City property, street Right of Way lines, limits of easements, and limits of construction permits are indicated in the Plans. The Contractor's construction activities shall be confined within these limits, unless arrangements for use of private property are made.

Generally, the Contracting Agency will have obtained, prior to bid opening, all rights of way and easements, both permanent and temporary, necessary for carrying out the work. Exceptions to this are noted in the Bid Documents or will be brought to the Contractor's attention by a duly issued Addendum.

Whenever any of the work is accomplished on or through property other than public Right of Way, the Contractor shall meet and fulfill all covenants and stipulations of any easement agreement obtained by the Contracting Agency from the owner of the private property. Copies of the easement agreements may be included in the Contract Provisions or made available to the Contractor as soon as practical after they have been obtained by the Engineer.

Whenever easements or rights of entry have not been acquired prior to advertising, these areas are so noted in the Plans. The Contractor shall not proceed with any portion of the work in areas where right of way, easements or rights of entry have not been acquired until the Engineer certifies to the Contractor that the right of way or easement is available or that the right of entry has been received. If the Contractor is delayed due to acts of omission on the part of the Contracting Agency in obtaining easements, rights of entry or right of way, the Contractor will be entitled to an extension of time. The Contractor agrees that such delay shall not be a breach of contract.

Each property owner shall be given 48 hours notice prior to entry by the Contractor. This includes entry onto easements and private property where private improvements must be adjusted.

The Contractor shall be responsible for providing, without expense or liability to the Contracting Agency, any additional land and access thereto that the Contractor may desire for temporary construction facilities, storage of materials, or other Contractor needs. However, before using any private property, whether adjoining the work or not, the Contractor shall file with the Engineer a written permission of the private property owner, and, upon vacating the premises, a written release from the property owner of each property disturbed or otherwise interfered with by reasons of construction pursued under this contract. The statement shall be signed by the private property owner, or proper authority acting for the owner of the private property affected, stating that permission has been granted to use the property and all necessary permits have been obtained or, in the case of a release, that the restoration of the property has been satisfactorily accomplished. The statement shall include the parcel number, address, and date of signature. Written releases must be filed with the Engineer before the Completion Date will be established.

1-08 PROSECUTION AND PROGRESS

Add the following new section:

1-08.0 Preliminary Matters **(May 25, 2006 APWA GSP)**

Add the following new section:

1-08.0(1) Preconstruction Conference **(October 10, 2008 APWA GSP)**

Prior to the Contractor beginning the work, a preconstruction conference will be held between the Contractor, the Engineer, and such other interested parties as may be invited. The purpose of the preconstruction conference will be:

- To review the initial progress schedule;
- To establish a working understanding among the various parties associated or affected by the work;
- To establish and review procedures for progress payment, notifications, approvals, submittals, etc.;
- To establish normal working hours for the work;
- To review safety standards and traffic control; and
- To discuss such other related items as may be pertinent to the work.

The Contractor shall prepare and submit at the preconstruction conference the following:

- A breakdown of all lump sum items;
- A preliminary schedule of working drawing submittals; and
- A list of material sources for approval if applicable.

1-08.0(2) Hours of Work

(***)**

Except in the case of emergency or unless otherwise approved by the Engineer, the normal working hours for the Contract shall be any consecutive 8-hour period between 7:00 a.m. and 6:00 p.m. Monday through Friday, exclusive of a lunch break. If the Contractor desires different than the normal working hours stated above, the request must be submitted in writing prior to the preconstruction conference, subject to the provisions below. The working hours for the Contract shall be established at or prior to the preconstruction conference.

All working hours and days are also subject to local permit and ordinance conditions (such as noise ordinances).

If the Contractor wishes to deviate from the established working hours, the Contractor shall submit a written request to the Engineer for consideration. This request shall state what hours are being requested, and why. Requests shall be submitted for review no later than 5 day(s) prior to when the Contractor is requesting to change the hours.

If the Contracting Agency approves such a deviation, such approval may be subject to certain other conditions, which will be detailed in writing. For example:

1. On non-Federal aid projects, the Contractor is required to reimburse the Contracting Agency for the costs in excess of straight-time costs for Contracting Agency representatives who worked during such times. (The Engineer may require designated representatives to be present during the work. Representatives who may be deemed necessary by the Engineer include, but are not limited to: survey crews; personnel from the Contracting Agency's material testing lab; inspectors; and other Contracting Agency employees or third party consultants when, in the opinion of the Engineer, such work necessitates their presence.)
2. Considering the work performed on Saturdays, Sundays, and holidays as working days with regard to the contract time.
3. Considering multiple work shifts as multiple working days with respect to contract time even though the multiple shifts occur in a single 24-hour period.
4. If a 4-10 work schedule is requested and approved the non working day for the week will be charged as a working day.
5. If Davis Bacon wage rates apply to this Contract, all requirements must be met and recorded properly on certified payroll

1-08.0(2)A Lacey Hours of Work
(October 16, 2014 Lacey GSP Option A)

Add the following new section:

Lacey Municipal Code (LMC) Chapter 14.38.010, prohibits outside construction activities between the hours of 9:00 p.m. and 7:00 a.m. in or adjacent to residential zones of the City. A waiver to this ordinance will not be allowed, except in case of emergency, or where operations are necessary during such hours in order to promote the safety of the traveling public as shown in these specifications or as determined by the Engineer.

1-08.1(7)A Subcontracting
(December 30, 2022 APWA GSP)

Delete the ninth paragraph, beginning with “On all projects, the Contractor shall certify...”.

1-08.3(2)A Type A Progress Schedule
(December 30, 2022 APWA GSP)

Revise this section to read:

The Contractor shall submit five (5) copies of a Type A Progress Schedule no later than at the preconstruction conference, or some other mutually agreed upon submittal time. The schedule may be a critical path method (CPM) schedule, bar chart, or other standard schedule format. Regardless of which format used, the schedule shall identify the critical path. The Engineer will evaluate the Type A Progress Schedule and approve or return the schedule for corrections within 15 calendar days of receiving the submittal.

1-08.4 Prosecution of Work
(July 23, 2015 APWA GSP)

Delete this section in its entirety, and replace it with the following:

1-08.4 Notice to Proceed and Prosecution of Work

Notice to Proceed will be given after the contract has been executed and the contract bond and evidence of insurance have been approved and filed by the Contracting Agency. The Contractor shall not commence with the work until the Notice to Proceed has been given by the Engineer. The Contractor shall commence construction activities on the project site within ten days of the Notice to Proceed Date, unless otherwise approved in writing. The Contractor shall diligently pursue the work to the physical completion date within the time specified in the contract. Voluntary shutdown or slowing of operations by the Contractor shall not relieve the Contractor of the responsibility to complete the work within the time(s) specified in the contract.

When shown in the Plans, the first order of work shall be the installation of high visibility fencing to delineate all areas for protection or restoration, as described in the Contract. Installation of high visibility fencing adjacent to the roadway shall occur after the placement of all necessary signs and traffic control devices in accordance with 1-10.1(2). Upon construction of the fencing, the Contractor shall request the Engineer to inspect the fence. No other work shall be performed on the site until the Contracting Agency has accepted the installation of high visibility fencing, as described in the Contract.

1-08.5 Time for Completion

(March 13, 1995 WSDOT GSP 1-08.5OPT7.FR1)

This project shall be physically completed within **250** working days.

1-08.5 Time for Completion

(December 30, 2022 APWA GSP Option A)

Revise the third and fourth paragraphs to read:

Contract time shall begin on the first working day following the Notice to Proceed Date.

Each working day shall be charged to the contract as it occurs, until the contract work is physically complete. If Substantial Completion has been granted and all the authorized working days have been used, charging of working days will cease. Each week the Engineer will provide the Contractor a statement that shows the number of working days: (1) charged to the contract the week before; (2) specified for the Physical Completion of the contract; and (3) remaining for the Physical Completion of the contract. The statement will also show the nonworking days and any partial or whole day the Engineer declares as unworkable. The statement will be identified as a Written Determination by the Engineer. If the Contractor does not agree with the Written Determination of working days, the Contractor shall pursue the protest procedures in accordance with Section 1-04.5. By failing to follow the procedures of Section 1-04.5, the Contractor shall be deemed as having accepted the statement as correct. If the Contractor is approved to work 10 hours a day and 4 days a week (a 4-10 schedule) and the fifth day of the week in which a 4-10 shift is worked would ordinarily be charged as a working day then the fifth day of that week will be charged as a working day whether or not the Contractor works on that day.

Revise the sixth paragraph to read:

The Engineer will give the Contractor written notice of the Completion Date of the Contract after all the Contractor's obligations under the Contract have been performed by the Contractor. The following events must occur before the Completion Date can be established:

1. The physical Work on the project must be complete; and
2. The Contractor must furnish all documentation required by the Contract and required by law, to allow the Contracting Agency to process final acceptance of the contract. The following documents must be received by the Project Engineer prior to establishing a Completion Date:
 - a. Certified Payrolls (per Section 1-07.9(5)).
 - b. Material Acceptance Certification Documents
 - c. Monthly Reports of Amounts Credited as DBE Participation, as required by the Contract Provisions.
 - d. Final Contract Voucher Certification
 - e. Copies of the approved "Affidavit of Prevailing Wages Paid" for the Contractor and all Subcontractors
 - f. A copy of the Notice of Termination sent to the Washington State Department of Ecology (Ecology); the elapse of 30 calendar days from the date of receipt of the Notice of Termination by Ecology; and no rejection of the Notice of Termination by Ecology. This requirement will not apply if the Construction Stormwater General Permit is transferred back to the Contracting Agency in accordance with Section 8-01.3(16).
 - g. Property owner releases per Section 1-07.24

1-08.6 Suspension of Work

(February 15, 2023 Lacey GSP)

Contract time may be suspended for procurement of critical materials (Procurement Suspension). In order to receive a Procurement Suspension, the Contractor shall within 21 calendar days after execution by the Contracting Agency, place purchase orders for all materials deemed critical by the Contracting Agency for physical completion of the contract. The Contractor shall provide copies of purchase orders for the critical materials. Such purchase orders shall disclose the purchase order date and estimated delivery dates for such critical material.

The Contractor shall show procurement of the materials anticipated to be critical materials as activities in the Progress Schedule. If approved Progress Schedule indicates that the materials procurement are critical activities, and if the Contractor has provided documentation that purchase orders are placed for the critical materials within the prescribed 21 calendar days, then contract time will be suspended upon physical completion of all critical work except that work dependent upon the critical materials. Items anticipated to be critical materials include but are not limited to:

- Steel Casing

Charging of contract time will resume upon delivery of the critical materials to the Contractor or 90 calendar days, whichever occurs first.

1-08.9 Liquidated Damages **(March 3, 2021 APWA GSP, Option B)**

Revise the second and third paragraphs to read:

Accordingly, the Contractor agrees:

1. To pay (according to the following formula) liquidated damages for each working day beyond the number of working days established for Physical Completion, and
2. To authorize the Engineer to deduct these liquidated damages from any money due or coming due to the Contractor.

Liquidated Damages Formula

$$LD=0.15C/T$$

Where:

LD = liquidated damages per working day (rounded to the nearest dollar)

C = original Contract amount

T = original time for Physical Completion

When the Contract Work has progressed to Substantial Completion as defined in the Contract, the Engineer may determine the Contract Work is Substantially Complete. The Engineer will notify the Contractor in writing of the Substantial Completion Date. For overruns in Contract time occurring after the date so established, the formula for liquidated damages shown above will not apply. For overruns in Contract time occurring after the Substantial Completion Date, liquidated damages shall be assessed on the basis of direct engineering and related costs assignable to the project until the actual Physical Completion Date of all the Contract Work. The Contractor shall complete the remaining Work as promptly as possible. Upon request by the Project Engineer, the Contractor shall furnish a written schedule for completing the physical Work on the Contract.

1-09 MEASUREMENT AND PAYMENT

1-09.2(1) General Requirements for Weighing Equipment **(December 30, 2022 APWA GSP, Option 2)**

Revise item 4 of the fifth paragraph to read:

4. Test results and scale weight records for each day's hauling operations are provided to the Engineer daily. Reporting shall utilize WSDOT form 422-027, Scaleman's Daily Report, unless the printed ticket contains the same information that is on the Scaleman's Daily Report Form. The scale operator must provide an AM and PM tare weight for each truck on the printed ticket.

1-09.2(5) Measurement **(December 30, 2022 APWA GSP)**

Revise the first paragraph to read:

Scale Verification Checks – At the Engineer's discretion, the Engineer may perform verification checks on the accuracy of each batch, hopper, or platform scale used in weighing contract items of Work.

1-09.6 Force Account **(October 10, 2008 APWA GSP)**

Supplement this section with the following:

The Contracting Agency has estimated and included in the Proposal, dollar amounts for all items to be paid per force account, only to provide a common proposal for Bidders. All such dollar amounts are to become a part of Contractor's total bid. However, the Contracting Agency does not warrant expressly or by implication, that the actual amount of work will correspond with those estimates. Payment will be made on the basis of the amount of work actually authorized by Engineer.

1-09.9 Payments **(December 30, 2022 APWA GSP)**

Section 1-09.9 is revised to read:

The basis of payment will be the actual quantities of Work performed according to the Contract and as specified for payment.

The Contractor shall submit a breakdown of the cost of lump sum bid items at the Preconstruction Conference, to enable the Project Engineer to determine the Work performed on a monthly basis. A breakdown is not required for lump sum items that include a basis for incremental payments as part of the respective Specification. Absent a lump sum breakdown, the Project Engineer will make a determination based on information available. The Project Engineer's determination of the cost of work shall be final.

Progress payments for completed work and material on hand will be based upon progress estimates prepared by the Engineer. A progress estimate cutoff date will be established at the preconstruction conference.

The initial progress estimate will be made not later than 30 days after the Contractor commences the work, and successive progress estimates will be made every month thereafter until the Completion Date. Progress estimates made during progress of the work are tentative, and made only for the purpose of

determining progress payments. The progress estimates are subject to change at any time prior to the calculation of the final payment.

The value of the progress estimate will be the sum of the following:

1. Unit Price Items in the Bid Form — the approximate quantity of acceptable units of work completed multiplied by the unit price.
2. Lump Sum Items in the Bid Form — based on the approved Contractor's lump sum breakdown for that item, or absent such a breakdown, based on the Engineer's determination.
3. Materials on Hand — 100 percent of invoiced cost of material delivered to Job site or other storage area approved by the Engineer.
4. Change Orders — entitlement for approved extra cost or completed extra work as determined by the Engineer.

Progress payments will be made in accordance with the progress estimate less:

1. Retainage per Section 1-09.9(1), on non FHWA-funded projects;
2. The amount of progress payments previously made; and
3. Funds withheld by the Contracting Agency for disbursement in accordance with the Contract Documents.

Progress payments for work performed shall not be evidence of acceptable performance or an admission by the Contracting Agency that any work has been satisfactorily completed. The determination of payments under the contract will be final in accordance with Section 1-05.1.

Failure to perform obligations under the Contract by the Contractor may be decreed by the Contracting Agency to be adequate reason for withholding any payments until compliance is achieved.

Upon completion of all Work and after final inspection (Section 1-05.11), the amount due the Contractor under the Contract will be paid based upon the final estimate made by the Engineer and presentation of a Final Contract Voucher Certification to be signed by the Contractor. The Contractor's signature on such voucher shall be deemed a release of all claims of the Contractor unless a Certified Claim is filed in accordance with the requirements of Section 1-09.11 and is expressly excepted from the Contractor's certification on the Final Contract Voucher Certification. The date the Contracting Agency signs the Final Contract Voucher Certification constitutes the final acceptance date (Section 1-05.12).

If the Contractor fails, refuses, or is unable to sign and return the Final Contract Voucher Certification or any other documentation required for completion and final acceptance of the Contract, the Contracting Agency reserves the right to establish a Completion Date (for the purpose of meeting the requirements of RCW 60.28) and unilaterally accept the Contract. Unilateral final acceptance will occur only after the Contractor has been provided the opportunity, by written request from the Engineer, to voluntarily submit such documents. If voluntary compliance is not achieved, formal notification of the impending establishment of a Completion Date and unilateral final acceptance will be provided by email with delivery confirmation from the Contracting Agency to the Contractor, which will provide 30 calendar days for the Contractor to submit the necessary documents. The 30 calendar day period will begin on the date the email with delivery confirmation is received by the Contractor. The date the Contracting Agency unilaterally signs the Final Contract Voucher Certification shall constitute the Completion Date and the final acceptance date (Section 1-05.12). The reservation by the Contracting Agency to unilaterally accept the Contract will apply to Contracts that are Physically Completed in accordance with Section 1-08.5, or for Contracts that are terminated in accordance with Section 1-08.10. Unilateral final acceptance of the Contract by the Contracting Agency does not in any way relieve the Contractor of their responsibility to comply with all Federal, State, tribal, or local laws, ordinances, and regulations that affect the Work under the Contract.

Payment to the Contractor of partial estimates, final estimates, and retained percentages shall be subject to controlling laws.

1-09.9 Payments

(November 20, 2020 Lacey GSP)

Section 1-09.9 is supplemented with the following:

Progress payments and the Final Contract Voucher Certification (FCVC) will be transmitted electronically to the Contractor for signature. The Contractor shall apply all signatures electronically using the software provided by the Contracting Agency. Within 21 days of execution of the Contract, the Contractor shall submit the names, email addresses, and text-message capable phone numbers for the authorized signers and shall bear the name, phone number and email of the officer providing this authorization. Delegation of authority to sign progress payments and the FCVC shall be by the officer authorized to sign the Contract.

1-09.11(3) Time Limitation and Jurisdiction

(December 30, 2022 APWA GSP)

Revise this section to read:

For the convenience of the parties to the Contract it is mutually agreed by the parties that all claims or causes of action which the Contractor has against the Contracting Agency arising from the Contract shall be brought within 180 calendar days from the date of final acceptance (Section 1-05.12) of the Contract by the Contracting Agency; and it is further agreed that all such claims or causes of action shall be brought only in the Superior Court of the county where the Contracting Agency headquarters is located, provided that where an action is asserted against a county, RCW 36.01.050 shall control venue and jurisdiction. The parties understand and agree that the Contractor's failure to bring suit within the time period provided, shall be a complete bar to all such claims or causes of action. It is further mutually agreed by the parties that when claims or causes of action which the Contractor asserts against the Contracting Agency arising from the Contract are filed with the Contracting Agency or initiated in court, the Contractor shall permit the Contracting Agency to have timely access to all records deemed necessary by the Contracting Agency to assist in evaluating the claims or action.

1-09.13(1) General

(January 19, 2022 APWA GSP)

Revise this section to read:

Prior to seeking claims resolution through arbitration or litigation, the Contractor shall proceed in accordance with Sections 1-04.5 and 1-09.11. The provisions of Sections 1-04.5 and 1-09.11 must be complied with in full as a condition precedent to the Contractor's right to seek claim resolution through binding arbitration or litigation.

Any claims or causes of action which the Contractor has against the Contracting Agency arising from the Contract shall be resolved, as prescribed herein, through binding arbitration or litigation.

The Contractor and the Contracting Agency mutually agree that those claims or causes of action which total \$1,000,000 or less, which are not resolved by mediation, shall be resolved through litigation unless the parties mutually agree in writing to resolve the claim through binding arbitration.

The Contractor and the Contracting Agency mutually agree that those claims or causes of action in excess of \$1,000,000, which are not resolved by mediation, shall be resolved through litigation unless the parties mutually agree in writing to resolve the claim through binding arbitration.

1-09.13(3)A Arbitration General
(January 19, 2022 APWA GSP)

Revise the third paragraph to read:

The Contracting Agency and the Contractor mutually agree to be bound by the decision of the arbitrator, and judgment upon the award rendered by the arbitrator may be entered in the Superior Court of the county in which the Contracting Agency's headquarters is located, provided that where claims subject to arbitration are asserted against a county, RCW 36.01.050 shall control venue and jurisdiction of the Superior Court. The decision of the arbitrator and the specific basis for the decision shall be in writing. The arbitrator shall use the Contract as a basis for decisions.

1-09.13(4) Venue for Litigation
(December 30, 2022 APWA GSP)

Revise this section to read:

Litigation shall be brought in the Superior Court of the county in which the Contracting Agency's headquarters is located, provided that where claims are asserted against a county, RCW 36.01.050 shall control venue and jurisdiction of the Superior Court. It is mutually agreed by the parties that when litigation occurs, the Contractor shall permit the Contracting Agency to have timely access to all records deemed necessary by the Contracting Agency to assist in evaluating the claims or action.

1-10 TEMPORARY TRAFFIC CONTROL

1-10.1 General

(January 3, 2017 Lacey GSP)

Supplement this section with the following:

Delays to traffic shall be held to a minimum. There shall be no restrictions or interruptions to traffic on Saturdays, Sundays or Holidays. In addition, there shall be no restrictions or interruptions to traffic after 12:00 noon on the day prior to a holiday or holiday weekend.

There shall be no delay to medical, fire, police, or other emergency vehicles with flashing lights or sirens. The Contractor shall alert all flaggers and personnel of this requirement.

The Contractor shall be responsible for removing the permanent traffic signs, as deemed necessary by the Engineer, and shall install and maintain any temporary signs necessary for the safety of the public.

The Contractor shall maintain pedestrian access at all times, without having pedestrians enter the travel lane.

All lane restrictions shall be held to a minimum time and length. Lane closures shall comply with the traffic control plans and these specifications. If the Contractor wishes to deviate from the plans, the Contractor shall submit a traffic control plan to the Engineer, at no additional cost, that complies with the MUTCD, and the Traffic Control Plans, for approval by the Engineer within (5) five working days before the proposed lane closure. If the Engineer determines that lane restrictions are causing congestion, the Contractor will be required to open any lanes, as determined by the Engineer, until the congestion is eliminated.

During non-working hours, Saturdays, Sundays, and Holidays, the Contractor shall keep all lanes open to traffic throughout the limits of the project with the lane and sidewalk area completely clear of all material, tools, personnel, and equipment as directed by the Engineer.

2-01 CLEARING, GRUBBING, AND ROADSIDE CLEANUP

2-01.1 Description

[\(October 16, 2009 Lacey GSP\)](#)

Supplement this section with the following:

The City of Lacey is a Tree City USA, and has deemed it necessary to protect all trees to the best of their ability. Only the trees that are evaluated by a certified Arborist as being diseased or detrimental to the project shall be removed as shown in the plans. The Contractor shall conduct a site review noting all trees within the construction zone prior to submitting a bid. Ease of construction, spoils, or stockpiling needs shall not justify tree removal.

A high visibility fence shall be installed around all trees and vegetation as required by the Engineer prior to beginning work. The Contractor shall be responsible for installing, maintaining and removing the high visibility fence as required.

Disposal of all organic waste shall be by Disposal Method No. 2. Disposal Method No. 1 and No. 3 will not be permitted in this contract. The City of Lacey encourages recycling of organic material at a certified organic recycling center.

The Contractor shall take all precautions necessary to protect the public, property, trees, and natural vegetation from harm. Any damage to utilities or other structures on public right-of-way or private property shall be restored by the Contractor or authorized agent at the Contractor's expense.

2-01.5 Payment

[\(October 16, 2009 Lacey GSP\)](#)

Modify this section with the following:

The unit contract price per acre or lump sum for "Clearing and Grubbing" shall be full pay for all work described in this section including "Roadside Cleanup". If no bid item for "Clearing and Grubbing" or "High Visibility Fence" is included in the proposal, any work described in this section shall be incidental to the project.

2-02.2 Video

[\(March 3, 2022 Lacey GSP\)](#)

Add the following new section:

The Contractor shall provide pre-construction video of the existing conditions for the construction area including all easements, streets, alleys, and driveways within the project area. Further, video shall include existing drainage, driveways, sidewalks, and other frontage improvements. The Contractor shall also provide pre-construction video of the existing conditions of each face of an existing structure (houses, garages, sheds, fences, etc.), within 30 feet of the construction area.

The Contractor shall provide a copy of the video, in electronic format, to the City prior to any construction.

All costs for providing and furnishing the pre-construction video shall be considered incidental to the Project and no other payment will be allowed.

2-05 TRENCH SAFETY SYSTEM

[\(October 16, 2009 Lacey GSP\)](#)

Add the following new section:

2-05.1 Description

This work consists of furnishing, utilizing, moving, and maintaining a trench safety system.

2-05.3 Construction Requirements

The Contractor shall comply with all applicable state laws, OSHA, WISHA requirements, and Department of Labor and Industries regulations governing trench excavation and pipe laying.

If extra excavation is used in lieu of, or in addition to shoring, cribbing, trench shields, or trench boxes, and select backfill material is required in the trench zone, then select backfill shall be used in the extra excavation zone.

2-05.4 Measurement

Trench safety system shall be paid for per lump sum regardless of the type, size and quantity used.

2-05.5 Payment

The lump sum contract price for "Trench Safety System" shall be full compensation for all labor, tools, equipment, and materials necessary to comply with the requirements stated above.

2-07 WATERING

2-07.3 Construction Requirements

[\(October 16, 2009 Lacey GSP\)](#)

Supplement this section with the following:

If the Contractor anticipates the use of City water, the Contractor shall apply for a water meter through the City of Lacey. Any damage rendered to the meter shall be repaired or replaced by the Contracting Agency and those costs deducted from monies due to the Contractor. All water used shall be metered and used sparingly for the entire length of the project. The Contractor will not be charged for water used on the project. The meter shall be returned promptly at the end of the project.

The Contractor is responsible for complying with backflow prevention requirements, which may include but are not limited to providing a certified air gap or reduced pressure backflow assembly (RPBA).

The Contractor shall use the water to keep the project site clean and to control dust during and after construction hours as determined by the Engineer.

2-07.4 Measurement

(October 16, 2009 Lacey GSP)

Delete and replace this section with the following:

The Contractor shall apply for a construction meter through the Contracting Agency. All water used shall be measured with the Contracting Agency supplied meter.

2-07.5 Payment

(February 14, 2023 Lacey GSP)

Delete and replace this section with the following:

The Contractor will not be charged for water used on this project. A construction meter will also be provided for a deposit and can be obtained at the City of Lacey Maintenance Service Center. Any costs to repair meters damaged by the Contractor shall be recovered from monies due the Contractor.

All costs to use or apply water as directed by the Engineer, including but not limited to supplying tank trucks, reduced pressure backflow assemblies (RPBA), and certification of approved backflow prevention methods, shall be considered incidental to the project and no other payment will be allowed.

7-28 WELL CONSTRUCTION

7-28.1 General

(***)**

Payment for the lengths, areas, volumes, weights, or times shall be compensation in full for furnishing all overhead, labor, materials, tools, equipment, and appurtenances necessary to complete the work in a satisfactory manner as specified with all connections, testing, and related work completed.

Each item, fixture, piece of equipment, etc., shall be complete with all necessary connections and appurtenances for the satisfactory use of and/or operation of said item. No additional payment will be made for work related to each item unless specifically noted or specified.

Additions to, or alterations of, any payment item listed in this Section or on the Bid Schedule will not be considered, unless the actual quantities of items used during the project differ from the Contractor's bid quantities.

7-28.2 Measurement

(***)**

A detailed description of each item and the corresponding payment schedule for well drilling, construction, development, and testing is presented in **Technical Specifications – Section E**, and the **Bid Schedules A and B**. Note the CITY's award criteria includes, but is not limited to, lowest cost of the Bid Schedule, which is the sum of bid cost of "Schedule A: Production Well PW-MR" plus "Schedule B: Production Well PW-MR."

Table 7-28.2-1: Item, Unit of Measurement, and Section E Reference for Production Wells PW-MR (Schedule A) and PW-MC (Schedule B)

Item ID	Item Description	Unit ¹	Reference(s) ²
Schedule A and B			
104-010	Minor Change	MC	N/A
105-010	Record Drawing	LS	N/A
109-010	Mobilization	LS	4.1
201-010	Clearing and Grubbing	LS	N/A
205-510	Trench Safety System	LS	N/A
726-590	Video Inspection	EA	4.10
850-795	Project Closeout	LS	4.11
890-544	Install Deep Seal 24-inch x 20-inch	LF	4.2, 4.3, 4.4
890-569	18-Inch Drive Shoe	LS	3.2.D
890-619	18-Inch Drive Shoe Cut	LS	4.7.A
890-639	Drill 18-Inch Hole	LF	4.5.A-C
890-668	Furnish 18-Inch Well Casing	LF	3.2.C
890-709	Furnish Well Screens and Fittings	FA	3.3
890-725	Authorized Hourly Work	HR	4.7, 4.8.A-C
890-733	Furnish and Install Specific Capacity Test Equipment	EA	4.8.D
890-744	Hourly Work for Specific Capacity Test	HR	4.8.D
890-730	Furnish and Install Pumping Test Equipment	LS	4.9
890-740	Hourly Work for Pumping Test	HR	4.9.C-D
890-755	Alignment Tests	EA	4.6
890-781	Filter Pack Material	TN	3.4
Schedule B Only			
890-734	Furnish and Install Test Screen and Pumping Equipment	EA	4.5.D
890-745	Hourly Work for Test Screen Pumping	HR	4.5.D

1 – Measurement is per the following: MC=minor change (per item), LS=lump sum, EA=each, LF=linear foot, FA= force account, HR=hour, TN= ton

2 – References in Section E, where detailed information can be found for each item

7-28.3 Payment

(*****)

Payment will be made in accordance with Section 1-09.9, for each of the following bid items that are included in the proposal.

Mobilization: Payment for mobilization shall cover the movement of any and all equipment necessary the CONTRACTOR requires to accomplish the entirety of the work specified in the *Technical Specifications – Section E*, including the movement of equipment both to and from the site.

Video Inspection: Payment shall be made for each successful video inspection. Videos that do not meet the visibility requirements or cannot be viewed due to recording error shall be repeated at the Contractor's expense. Additional successful videos performed at the CITY's request and by the CONTRACTOR shall be paid at the CONTRACTOR's video inspection bid item price.

Install Deep Seal 24-inch x 20-inch: Payment for installing the deep seal shall be based on the linear foot price to furnish all materials and labor to drill a borehole, place casing, and install a deep seal within the annular space of 24-inches by 20-inches. The seal shall extend from ground to the assumed depth of 460 feet (for bid purposes) with a 20-inch production casing from +2 feet above ground to the assumed depth of 460 feet (for bid purposes). The successful seal shall be documented by seal volumes that account for the annular space filled and with the seal material return observed at ground surface as it is forced from the bottom to the top of the 24-inch by 20-inch annular space. Note that the CONTRACTOR may choose to drill and case a larger diameter pilot hole (for example, greater than 24 inches, to an approximate depth of 50 feet), and then place a conductor casing in this hole to stabilize surface soils. The payment for this hole and conductor casing will not be separate; rather, all equipment, material, and work will be covered under this "Install Deep Seal 24-inch x 20-inch" item.

18-Inch Drive Shoe: Payment shall be made procuring the specified 18-inch drive shoe and welding it to the bottom of the 18-inch drill casing.

18-Inch Drive Shoe Cut: Payment shall be made for a successful, complete, 360-degree cut of the drive shoe that allows the 18-inch drill casing to be pulled back while properly placing filter pack material and exposing the well screen assembly to the formation sediments.

Drill 18-Inch Hole: Payment shall be made for successfully drilling, casing, and sampling the 18-inch hole to the anticipated depth to 750 feet below ground.

Furnish 18-Inch Well Casing: Payment shall be made for furnishing and installing the 18-inch well casing that has the specified material properties.

Furnish Well Screens and Fittings: Payment shall be made for furnishing all well screens, equipment, and fittings necessary to fabricate, safely and securely transport, and successfully install the well screen assembly as designed and specified by the CITY and HYDROGEOLOGIST in coordination with the CONTRACTOR. Successful installation means that the well screen assembly is placed in the borehole at the depths directed by the CITY and HYDROGEOLOGIST.

Authorized Hourly Work: Payment shall be made for authorized hourly work performed to procure, fabricate, install, and develop the well screen and its assembly. It shall also cover the work to procure and place filter-pack sand, if selected, as part of the well screen design. All other authorized hourly work shall be documented in an email to the CITY and authorized by the CITY prior to the CONTRACTOR's work performance.

Furnish and Install Specific Capacity Test Equipment: Payment shall be made for furnishing and installing the equipment necessary for specific capacity testing, including work to provide and install the specified pump to its specified depth in the well and to perform a short-duration test for the purpose of evaluating the well's specific capacity either pre-, during-, or post-well-screen development. Payment will be made only for the successful operation of the pump in the well. Failure to meet the pumping specifications means the CONTRACTOR must replace the pump at the CONTRACTOR's expense—that is, at no expense to the CITY.

Hourly Work for Specific Capacity Test: Payment for this hourly work shall cover only the test duration (hours) when water is pumped from the well and such pumping meets the test specification. No

payment shall be made to the CONTRACTOR for testing that does not achieve the objective of measuring the well's specific capacity.

Furnish and Install Pumping Test Equipment: Payment shall be made for furnishing and installing the equipment necessary to provide and install the specified pump to its specified depth in the well, and to perform both a step-rate test and a long-term, constant-rate test to evaluate the well's yield and water quality. Payment will be made only for the successful operation of the pump in the well. Failure to meet the pumping specifications means the CONTRACTOR must replace the pump at the CONTRACTOR's expense—that is, at no expense to the CITY.

Hourly Work for Pumping Test: Payment shall be made for hourly work only during the test duration (hours) when water is pumped from the well, provided that such pumping meets the specifications of the test. No payment shall be made to the CONTRACTOR for testing that does not achieve the objective of measuring the well's yield and water quality for the step-rate and constant-rate test specified durations.

Alignment Tests: Payment shall cover the successful measurement and recording of alignment tests in the cased borehole or the completed well for its plumbness and alignment using the method specified and at the depths requested by the CITY and/or HYDROGEOLOGIST.

Filter Pack Material: Payment shall cover the procurement and placement of filter pack media specified by the CITY and/or HYDROGEOLOGIST. Payment shall be only for filter pack media that is properly handled and stored on site by the CONTRACTOR.

Furnish and Install Test Screen and Pumping Equipment: Payment shall be made for furnishing and installing the test screen and pumping equipment—specifically, for (1) procuring and installing the test screen as specified, (2) pulling back the 18-inch casing to expose the screen, (3) installing and operating the pumping equipment as specified, (4) removing the pumping equipment, and (5) re-advancing the 18-inch casing to total depth or abandoning Zones 4 and/or 5, as specified.

Hourly Work for Test Screen Pumping: Payment for hourly work for test screen pumping shall be made only for the test duration (hours) when water is pumped from the well and such pumping meets the specifications of the test. No payment shall be made to the CONTRACTOR for testing that does not achieve the objective of measuring the test screen interval yield and water quality.

8-01 EROSION CONTROL AND WATER POLLUTION CONTROL

8-01.3 Construction Requirements

8-01.3(1) General

[\(May 28, 2020 WSDOT GSP\)](#)

Section 8-01.3(1) is supplemented with the following:

The Contractor shall identify the ESC Lead at the preconstruction discussions and in the TESC Plan. The ESC Lead shall have, for the life of the Contract, a current Certificate of Training in Construction Site Erosion and Sediment Control from a course approved by the Washington State Department of Ecology. The ESC Lead must be onsite or on call at all times throughout construction. The ESC Lead shall be listed on the Emergency Contact List required under Section 1-05.13(1).

The ESC Lead shall implement the TESC Plan. Implementation shall include, but is not limited to:

1. Installing, adaptively managing, and maintaining temporary erosion and sediment control BMPs to assure continued performance of their intended function. Damaged or inadequate BMPs shall be corrected immediately.
2. Updating the TESC Plan to reflect current field conditions.
3. Inspecting and reporting on all areas disturbed by construction activities, all on-site erosion and sediment control BMPs, and all storm water discharge points every calendar week and within 24 hours of runoff events in which storm water discharges from the site or as directed by the Engineer.
4. Submit to the Engineer no later than the end of the next working day following the inspection a TESC Inspection Report that includes:
 - a. When, where, and how BMPs were installed, maintained, modified, and removed.
 - b. Observations of BMP effectiveness and proper placement.
 - c. Recommendations for improving future BMP performance with upgraded or replacement BMPs when inspections reveal TESC BMP deficiencies.
 - d. Identify for each discharge point location whether there is compliance with state water quality standards in WAC 173-201A for turbidity and pH.

Inspection of temporarily stabilized, or inactive sites may be reduced to once every calendar month if allowed by the Engineer.

8-01.3(9)A2 Silt Fence
(October 16, 2014 Lacey GSP)

Supplement this section with the following:

If the Engineer determines that site conditions dictate additional silt fence throughout the duration of the project, the Contractor shall immediately install additional silt fence as directed by the Engineer.

8-01.3(9)D Inlet Protection
(November 20, 2020 Lacey GSP)

Delete the first paragraph and replace with the following:

All catch basins and inlets within 500 ft of the project limits, downstream or affected by construction activities shall have inlet protection and as required by the Engineer. Inlet protection devices shall be installed prior to beginning clearing, grubbing, or earthwork activities.

8-01.4 Measurement
(***) (April 30, 2015 Lacey GSP)**

Supplement this section with the following:

All items required for erosion control shall be incidental to the other bid items and no separate compensation will be provided for "Erosion/Water Pollution Control" unless a specific bid item is included in the proposal.

8-01.5 Payment

(***) (November 20, 2020 Lacey GSP)**

Modify this section with the following:

All items required for erosion control shall be incidental to the other bid items and no separate compensation will be provided for “Erosion/Water Pollution Control” unless a specific bid item is included in the proposal.

8-50 MISCELLANEOUS

Add the following new sections:

8-50.2 PROJECT CLOSEOUT

(April 2, 2018 Lacey GSP)

Description

This work shall consist of completing all miscellaneous items of work in accordance with the Plans and these Specifications that are required to achieve Completion and Final Acceptance, as identified by the Engineer and the Contracting Agency. This work may include but is not limited to punch list items, record drawings, O&M Manuals, training, material acceptance documents, copies of the approved “Affidavit of Prevailing Wages Paid” for the Contractor and all Subcontractors, and any other work required in these Plans and Specifications that has not been completed.

Measurement

No unit of measurement shall apply to the lump sum price for “Project Closeout”.

Payment

“Project Closeout”, lump sum.

The unit contract price per lump sum for “Project Closeout” includes all compensation for all costs of completing the miscellaneous items of work identified by the Contracting Agency prior to final acceptance of the Project. A fixed lump sum price has been included in the Proposal for this work. Any additional costs anticipated or incurred by the Contractor for the work shall be included in the various lump sum and unit price bid items as found in the Proposal. Neither partial payment, nor additional compensation shall be allowed

E
TECHNICAL
SPECIFICATIONS

Technical Specifications – Section E

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Table 1. Summary of Site, Well, and Pump Information

Table 2: Summary of Major Tasks

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Figure 1: Location Map

Figure 2: Marvin Road Site Plan

Figure 3: Meridian Campus Site Plan

Figure 4: Proposed PW-MR / PW-MC Concept for Bid Purposes Only

ATTACHMENTS

Attachment A: Geologic Logs and As-builts for TW-MR and TW-MC

PART 1 – INTRODUCTION

These specifications cover the methods, materials, and equipment required to drill, construct, develop, and test two production wells for the City of Lacey (CITY):

- PW-MR, at the Marvin Road (MR) site
- PW-MC, at the Meridian Campus (MC) site

The CITY drilled and constructed test wells (TW-MR and TW-MC) at each of these sites between 2007 and 2008. The two test wells identified the yield and water quality in five water-bearing zones (Zones 1 through 5), in what is known in northern Thurston County as the Tertiary-Quaternary undifferentiated (TQu) aquifer.

Figure 1 shows the regional locations of the test and production well sites. **Figures 2 and 3** show the MR and MC sites. Geologic logs and as-builts for the two test wells are presented in **Attachment A**.

1.1 ANTICIPATED CONDITIONS

The designs for PW-MR and PW-MC are similar, with one exception: at the MC site, the 18-inch casing will be advanced below the bottom elevation of TW-MC to explore the possible occurrence of a deeper water-bearing unit — one that would be the equivalent of Zone 5 at the MR site.

The anticipated conditions and completion requirements for PW-MR and PW-MC are summarized below in **Table 1**. For bidding purposes, proposed construction details for both wells are shown on **Figure 4**. The actual completion depths and screen designs will differ from the expected depths and design based on site conditions and field observations.

Table 1. Summary of Site, Well, and Pump Information

	PW-MR	PW-MC
Ground elevation (ft msl)	280	240
Depth to static water (ft bgs)	260	205
Deep seal (24"x20") depth (ft)	460	460
Pump chamber diameter (inches)	20	20
Screen assembly (14") interval (ft bgs)	430–750	430–750
Total screened (open) interval (ft, approximate)	100	100
Filter pack	likely	likely
Desired well yield (gpm) ¹	800–1,200	800–1,200
Anticipated drawdown @ 1,000 gpm (ft)	100	100

1 - The CITY may want to test PW-MR or PW-MC at rates of 1,800 gpm or more.

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	PW-MR	PW-MC
Pump type (line shaft or submersible)	LS or Sub	LS or Sub
Pump / column diameter (inches)	12	12
Anticipated deepest pump setting (ft bgs)	450	450

It is the CONTRACTOR’s responsibility to become familiar with the drilling conditions that may be encountered, both surface and subsurface, prior to bid submittal. In addition to carefully reviewing the geologic logs in **Attachment A** and the proposed as-built in **Figure 4**, this may require examining the drilling area and site access to understand local conditions.

1.2 SCOPE

For each well, the CONTRACTOR shall provide all labor, materials, tools, equipment, and incidentals as shown, specified, and required to complete the work summarized below.

See “Part 4 – Execution” for the details of each step.

The CONTRACTOR will drill and install the well pursuant to the final design, which will be developed by the HYDROGEOLOGIST in coordination with the CONTRACTOR and approved by the CITY. The CITY reserves the right to require drilling beyond the depths specified, or to stop at lesser depths, depending on subsurface conditions.

Table 2: Summary of Major Tasks

Step	Major tasks
4.1 Mobilize drilling equipment	Mobilize all equipment required to drill and install each well to the specified depth (750 feet) ²
4.2 Drill and case a pilot borehole	Drill and case a shallow borehole of sufficient diameter to install a temporary conductor casing to stabilize surface soils
4.3 Drill and case the deep annular borehole	Using a rotary rig, drill a 24-inch diameter borehole to 460 feet Collect cuttings samples at 10-foot intervals Install (weld in) the 20-inch outer casing
4.4 Install the deep annular seal	Install a deep seal between the 24-inch borehole and the 20-inch casing using either bentonite or cement grout
4.5 Drill and case the well’s production interval	Install (weld in) an 18-inch inner casing from 0 to 460 feet Using either a rotary or cable-tool rig (with potable water), drill and case the 18-inch borehole to a depth of 750 feet Collect cuttings samples at intervals ranging from 2 to 10 feet
4.6 Conduct alignment tests	Verify the well casing alignment and plumbness

² — Note that the CITY has provided preliminary clearing and access to the drill sites.

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Step	Major tasks
4.7 Install the screen and filter pack	Construct a 14-inch-diameter screen assembly with a riser and sump Install the screen assembly Install a designed filter pack, exposing the screen assembly from 500 to 750 feet
4.8 Develop the well's screened intervals	Develop the well, as directed, using methods such as surging, pumping, swabbing, and bailing Perform specific capacity tests
4.9 Conduct pumping tests	Conduct an 8-hour, step-drawdown test and assist with water sampling Conduct a 72-hour, constant-rate pumping test and assist with water sampling
4.10 Conduct a video survey	Using a downhole video camera, inspect the well casing and screen
4.11 Miscellaneous / site closure	Disinfect the well, pump it out, and test for residual chlorine, if needed Cap the well and access ports Clean up the site and remove equipment

PART 2 – REQUIREMENTS

No allowance will be made for any errors or omissions made by the CONTRACTOR after the bid has been accepted.

2.1 QUALITY ASSURANCE (REFERENCE STANDARDS)

The CONTRACTOR must comply with applicable provisions and recommendations of the following, except as otherwise shown or specified:

1. American Water Works Association (AWWA) Standards for Water Wells (ANSI/AWWA A100-97).
2. AWWA Standard for Field Welding of Steel Water Pipe (ANSI/AWWA C206).
3. American Society for Testing and Materials (ASTM) Standard Test Method for Sieve Analysis of Fine and Coarse Aggregates (ASTM C136).
4. ASTM Standard Specification for Portland Cement (ASTM C150).

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5. *Groundwater and Wells* (Driscoll, 1986; Second Edition); Johnson Filtration System Inc.
6. Chapter 173-160 Washington Administrative Code (WAC) — Minimum Standards for Construction and Maintenance of Wells.

2.2 SUBMITTALS (PRIOR TO START OF PROJECT)

A. Work Plan

The CONTRACTOR shall submit a work plan for review and approval by the HYDROGEOLOGIST and the CITY. The work plan shall describe:

1. The drilling and sampling methods from ground surface to total depth, including the proposed sequence of work for constructing the deep annular seals at PW-MR and PW-MC.
2. The traffic requirements and security measurements as required by the CITY, if necessary.
3. The characterization, transportation, and location for disposal of the drilling fluid and cuttings, if determined necessary by the CITY. Note that drilling fluid and cuttings must be directed to a location specified by the CITY.
4. The schedule for mobilization, drilling, construction, and demobilization.
5. Methods to be used to secure the work area for entire project.
6. Details of the proposed formation-sampling method, including the specific equipment to be used. The sampling program and equipment must be approved by the HYDROGEOLOGIST.

B. Health and Safety Plan

1. The CONTRACTOR shall submit the following:
 - a. A Health and Safety Plan (HASP) for review and approval by the HYDROGEOLOGIST and the CITY.
 - b. A Site Safety Plan (SSP) for this project, in accordance with applicable WISHA requirements and CITY policies.
2. The CONTRACTOR is responsible for ensuring that its personnel and SUBCONTRACTORS are thoroughly familiar with the SSP and have been trained in the use of personal safety equipment required by the SSP.

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3. A copy of the SSP must be kept at the well site and shall be available to all CONTRACTOR personnel for review.
4. The CONTRACTOR shall be responsible for having sufficient personal safety equipment at the work site for its personnel to comply with provisions of the SSP.
5. The CONTRACTOR shall meet the requirements of the SSP at its own cost.

C. Prior Drilling and Decontamination

The CONTRACTOR shall submit following documentation:

1. The location of project work that the CONTRACTOR conducted using its drill rig(s) and appurtenant equipment immediately prior to the start of drilling PW-MR and PW-MC.
2. The type of drilling project — either clean water or environmental contamination work — that the CONTRACTOR conducted using its drill rig(s) and appurtenant equipment immediately prior to the start of drilling PW-MR and PW-MC.
3. The methods used to clean or decontaminate the drill rig and appurtenant equipment prior to mobilization to the PW-MR and PW-MC sites, along with the dates this work was performed.

2.3 SUBMITTALS (DURING PROJECT)

A. Proposed Approach

The CONTRACTOR must submit for approval all items listed below before constructing each well. *Note that detailed material specifications for casings, screens, filter packs, seal materials, and drilling fluids are presented in “Part 3 — Materials and Equipment.”*

1. The drilling method and borehole/casing sizes needed to complete a well (from ground surface to total depth) with 20-inch-diameter outer casing and a 14-inch-diameter screen and filter pack.
2. The size, thickness, grade of steel, and mill certifications for all steel casing used, whether temporarily or permanently placed in the borehole. All casing shall have mill certifications corresponding to the stamped heat number of the pipe provided to confirm that the pipe meets standards in [Section 3.2](#).
3. The marking method to be used during drilling, casing advancement, and casing placement in an open borehole that shows the progress of footage, below ground, to the bottom of the drill string and/or the bottom of the casing. The footage

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markings shall be labeled, in feet, and visible to the CITY and HYDROGEOLOGIST at a safe distance from the drill rig operations.

4. The diameter, slot size, and description of the well screen assembly, along with its total length and depth, including the length and depth of well screen, riser casing needed to blank off fine-grained sediments or form a filter pack reservoir, and sump.
5. The method for assembling the casing and well screen.
6. The design type and vertical and circumferential spacing of centering guides on the riser pipe for the well screen assembly.
7. The type of steel for well screen assembly riser pipe and for the centering guides.
8. The length, elevation, depth, grain-size, and uniformity coefficient of the filter pack (if required).
9. The estimated, pre-placement, filter pack volume in the annular space between the inner casing and well screen assembly. *See 2.3.D, "Documentation," (daily log) for post-placement requirements.*
10. The marking method to be used during casing pullback to expose the well screen assembly that shows the footage, below ground, to the bottom of the casing. The footage markings shall be labeled in feet and visible to the CITY and HYDROGEOLOGIST at a safe distance from the drill rig / casing jack's operations.
11. Information about the well seals:
 - a. The length, elevation, depth, and type of grout to fill both the shallow surface seal (0 to 10s of feet) and the deep annular seal (0 to 400 plus feet). *See 3.5, "Seal Materials"; 4.3, "Drill and Case the Deep Annular Seal Borehole"; and 4.4, "Install the Deep Annular Seal."*
 - b. The estimated pre-placement volume of bentonite or neat cement grout to fill the shallow seal and the deep-seal annular space. *See 2.3.D, "Documentation," (daily log) for post-placement requirements.*

B. Well Screen Development

The CONTRACTOR must submit for approval the following items before developing each well screen.

1. The name and description of necessary equipment for well screen development.
2. The well screen development procedures.

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C. Pumping Test Plan

The CONTRACTOR'S pumping test plan must specify the following:

1. Pump information — specifically, the pump type, its maximum pumping rate against 500 feet of total dynamic head, and the pump curves.
2. The discharge setup and location. *See 4.9.A, "Conduct Pumping Tests › General," for CITY-approved discharge locations.*
3. The diameter of the pump and discharge piping.
4. The number, size, PVC schedule, and perforation configuration of sounding tubes.
5. The size and location of the sampling hose bib, gate valve, inline flow meter, and orifice plate / manometer apparatus.
6. The power source (the CITY requires a low-decibel generator).

D. Documentation

The CONTRACTOR must provide the HYDROGEOLOGIST with written documentation of all work activities upon completion of the work and before final payment.

1. **Daily log.** The CONTRACTOR shall keep an accurate, legible daily log and record of all drilling, construction, developing, and testing. The log and record should describe the following:
 - a. All geologic material encountered during drilling, the depths at which changes in formation occur, and any difficulties or unusual conditions encountered.
 - b. The method of completing the well, including the lengths of the casing and screen installed and the volume of all annular fill and seal materials, including the actual post-placement volumes of the filter pack and the bentonite or neat cement grout.
 - c. The difference in volume between the expected and actual filter pack volumes, as recorded daily or hourly, as required by the CITY and/or HYDROGEOLOGIST, during the well screen exposure process.
 - d. The water level in the borehole or well at the start and end of each day.

A copy of the log shall be furnished to the HYDROGEOLOGIST upon request, or at the completion of drilling and prior to acceptance of the well.

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2. **Well construction report.** The CONTRACTOR shall also prepare a detailed driller's log (also known as the *Water Well Report*) in compliance with the requirements of the Washington Department of Ecology (Ecology). The HYDROGEOLOGIST's lithologic log will be made available to assist the CONTRACTOR in preparing this log.
 - a. The log shall note the reference point for all depth measurements and describe each formation encountered—specifically, the depth at which each formation was encountered, its thickness, and the presence / depth to water.
 - b. The CONTRACTOR must provide a copy of the Ecology well report to the HYDROGEOLOGIST and to the CITY, indicating all pertinent lengths, depths, and materials used to build each well.
3. **Other documentation.** In addition, the CONTRACTOR will be required to provide the following information:
 - a. A summary of the work completed each day and the work to be performed for next 2 days.
 - b. The names and job titles of any employees or SUBCONTRACTORS, if applicable.
 - c. The equipment used, including the drilling rig(s) and sampling equipment.
 - d. The locations of all areas where project work was conducted.
 - e. Well construction methods and materials.
4. **Results of the plumbness and alignment tests.** The CONTRACTOR shall summarize the methods, procedures, and results of the plumbness and alignment tests for each of the four tests (two tests per well). *See 4.6, "Conduct Alignment Tests."*
5. **Well development log.** The CONTRACTOR shall summarize the data collected and the methods used to develop the well screen based on techniques established in coordination with the HYDROGEOLOGIST and CITY. If the well is pumped during development, this log shall indicate the following at the start of each day:
 - a. The well's specific capacity
 - b. The sand content of the pumped water
6. **Video inspection.** A file containing a copy of well video inspection.

PART 3 – MATERIALS AND EQUIPMENT

3.1 DRILLING EQUIPMENT

1. The CONTRACTOR’S drilling rig(s) and accessory equipment shall be in good working condition so work can progress without interruption.
2. The drilling rig(s) and accessory equipment shall be capable of efficiently and successfully drilling, driving casing, sampling sediment, installing the screen assembly, and pulling back casing, as described in these specifications, to complete two production wells to the approximate depths shown on **Figure 4**.
3. The CONTRACTOR’s rig shall be of a type and have the capabilities to successfully drill the 24-inch open hole and advance the 18-inch casing.
 - a. For the 24-inch open hole, the CONTRACTOR shall use a rotary rig (flooded reverse circulation) to drill with engineered fluids from 0 to approximately 460 feet.
 - b. For the 18-inch casing, the CONTRACTOR may use either a cable-tool or a rotary (flooded reverse circulation) rig to drill and advance the casing from 460 to approximately 750 feet. The rotary method shall require the use of potable water (only) as the drill fluid. Cable-tool drilling shall use potable water (only), if needed.

3.2 WELL CASING

The CONTRACTOR shall furnish the casing as specified below. *Note that 2.3, “Submittals (During Project),” lists submittals that will be required for casing materials.*

A. Temporary Conductor Casing (Optional)

The CONTRACTOR has the option to drill a pilot borehole and install conductor casing to a depth of 40 to 50 feet below ground. The purpose of this casing would be to stabilize the shallow formation for subsequent rotary drilling and thereby facilitate installation of the outer casing and deep seal. *See 4.2, “Drill and Case a Pilot Borehole (Optional).”*

1. The conductor casing shall be new, low-carbon steel (LCS), manufactured in accordance with ASTM Specification A53 or A139 for grade B steel.
2. The diameter of the borehole and its conductor casing is left to the discretion of the CONTRACTOR; however, it must be large enough to drill the deep seal borehole and install the outer casing and deep seal in accord with WAC 173-160.
3. The conductor casing shall have a minimum 0.375-inch wall thickness.

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B. Outer (20-inch) Casing

For each well, a borehole will be drilled and an outer casing shall be installed. Note that the annular space between the borehole and casing shall be grouted using bentonite or cement to meet the deep seal requirements set forth in Ecology drilling regulations WAC 173-160, including requirements for diameter size, depth, and grout installation. *See 3.5, "Seal Materials," for grout requirements.*

1. All casing materials shall be new.
2. The outer casing shall have a minimum outside diameter (OD) of 20 inches and a minimum 0.375-inch wall thickness.
3. Casing shall be factory-assembled in sections not less than 20 feet in length having no more than one longitudinal seam nor more than one circumferential seam in 10 feet.
4. The casing shall be watertight from top to bottom, with an anticipated installed length of 462 feet (allowing for a 2-foot stickup above land surface).
5. The high-strength, low-alloy, steel casing shall be manufactured in accordance with ASTM A139, with the following additions:
 - a. Welding shall be by the automatic, submerged-arc process using at least one pass on the inside and one pass on the outside.
 - b. The steel from which the casing is manufactured shall conform to ASTM A606 Type 4.
 - c. The casing shall be factory-assembled in not less than 20-foot lengths and shall contain one longitudinal seam parallel to the axis of the casing and not more than one circumferential seam in 10 feet.
 - d. All longitudinal and circumferential seams shall be butt-welded from the exterior against copper-faced mandrels with shield or electrodes to protect the weld metal from air while cooling and to assure full fusion with the parent metal and complete penetration.
 - e. Spiral-welded casing that is manufactured in accordance with ASTM A139-61 Grade B may be substituted for the butt-welded casing.
 - f. The ends of each joint shall be machine-beveled perpendicular to the axis of the casing to insure the straightness of each assembled section. One end of each assembled section shall be swaged to permit a bell and spigot joint, or approved equal, to be assembled by welding in the field with a continuous weld with not less than a ¼-inch fillet.

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- g. All field welding shall be performed by welders certified in accordance with Appendix 11 of the American Standard Code for Pressure Piping, ASA B31-1, or another approved standard.
6. The casing shall be of a size and construction to hold back and support the surrounding material. It must also have sufficient tensile, column, and collapsing strength to withstand the stresses associated with the depth, installation, and hold-back of the formation during operation.
7. Well casing joints shall have adequate strength to carry the loads imposed by the casing length and still be watertight, or they shall be mechanically supported during installation to maintain joint integrity. Any mechanically supported casings shall terminate on firm material that can adequately support the casing weight.

C. Inner (18-inch) Casing

The same requirements specified above in 3.2.B, “Outer (20-inch) Casing” apply, except that the inner casing shall have an OD of 18 inches and an anticipated installed length of 752 feet to allow for a temporary 2-foot stickup above land surface.

D. Drive Shoe

The inner casing for each well shall be equipped with a drive shoe or armor plate, which will be cut prior to pullback to expose the well screen assembly. The shoe or plate must be long and strong enough to advance the casing to the required depth, forged or cast and purchased from an industry-approved manufacturer, and properly welded to the inner casing.

3.3 SCREEN ASSEMBLY

The CONTRACTOR shall furnish the well screen as specified below.

A. Well Screens

1. The screen shall be constructed from 316L (extra low carbon), wire-wrap, stainless steel and have the following dimensions, as approved by the HYDROGEOLOGIST:
 - a. *If the filter pack option is selected*, screens shall be 14 inches in diameter (pipe size), welded to 14-inch riser pipe.
 - b. *If the natural pack option is selected*, screens shall be 18 inches in diameter (telescopic), welded to a 16-inch riser pipe.

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2. Screens shall be of sufficient size to hold back and support the surrounding designed filter pack and aquifer material per methods described in *Groundwater and Wells* (Driscoll, 1986, Second Edition, Johnson Filtration System, Inc., chapters 12 and 13), or an approved equal.
3. Screens shall be of sufficient tensile, column, and collapsing strength to withstand the stresses associated with the depth, installation, and hold-back of the formation during operation.
4. The screen shall be manufactured by Johnson Screens or an approved equal.
5. In addition to the well screen positioned in water-bearing zone, the assembly may include an upper pressure-relief screen.

B. Riser Casing

1. Riser casing material shall be proposed by the CONTRACTOR and approved by the CITY.
2. All riser casing shall be new.
3. The riser casing shall connect to the 316L tight-wrap well screen with zero slot size (a maximum of 0.0001 inches).
 - a. *If the filter pack option is selected*, the riser casing shall be 14-inch-diameter pipe size.
 - b. *If the natural pack option is selected*, the riser casing shall be 16-inch OD pipe size.
4. The riser shall be welded to the top of the screen and between each interval of the screen assembly.
5. The welds shall be made by certified welders to the standards of ANSI / AWWA C206. Joints shall be butt-welded and watertight.
6. Welds shall be continuous, and fillets shall be as deep as the depth of the material.

C. Packers

Applies only if the natural pack option is selected.

The top of the riser casing shall be fitted with three (3) self-sealing, neoprene rubber K-packers.

D. Sump

1. The sump shall be the same diameter as the well screen and consist of 316L tight-wrap well screen with zero slot size (a maximum of 0.0001 inches).
2. The bottom of the sump shall be sealed with a welded, stainless-steel plate that is 0.375 inches thick.
 - a. The welds shall be made by certified welders to the standards of ANSI/AWWA C206.
 - b. Joints shall be butt-welded.
3. The bottom plate shall be equipped with a bail bottom hook.

E. Centering Guides

Centering guides shall be the same type of steel material as the riser casing pipe that the guides are welded to.

F. Conductor (Tremie) Pipes

If a designed filter pack is implemented, it shall be installed using a tremie pipe or other method proposed by the CONTRACTOR and approved by the CITY.

3.4 FILTER PACK

The well may be completed using either a natural pack, or — more likely — a designed filter pack with a relatively low uniformity coefficient.

1. The type of filter pack will be determined based on the results of drilling and sieve analyses of sediment samples from the formation.
 - a. If a natural pack is unacceptable, the CONTRACTOR shall place a filter pack around the well screen, as approved by the HYDROGEOLOGIST.
 - b. If a filter pack is required, then the screen design will be informed by the filter pack design.

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2. The filter pack shall be a product of a commercial sand-and-gravel company; shall be properly sized and graded for the surrounding aquifer material encountered; and shall consist of round, hard, water-worn, siliceous sand, free of flat or elongated pieces, organic matter, or other foreign matter.
 - a. The filter pack sand shall be of such size to promote the maximum flow of water into the well and prevent the infiltration of sand and silt.
 - b. The gradation of the filter pack material shall be such that its uniformity coefficient is not more than 1.7 as tested under ASTM C136.
 - c. The filter pack material shall be delivered to the site in sealed bags and remain in the bags until placed in the well. It may not be delivered in bulk, unless approved by the HYDROGEOLOGIST.
 - d. Each bag must be labeled with its actual weight.
 - e. Any filter pack material delivered unbagged or unlabeled will be rejected.
 - f. The bagged filter pack sand must be prepared under NSF/ANSI 61 standard for drinking water wells and clearly labeled as such upon delivery to the site.
3. Samples of the filter pack sand, along with a sieve analysis (percent retained through U.S. standard sieve numbers 4, 8, 10, 16, 30, 40, 50, 100, and 200) of the filter pack material shall be submitted to the HYDROGEOLOGIST for approval at least 3 days prior to delivery of the filter pack to the well site.
4. The filter pack material shall be contained in a temporary storage area at the well site, in such a manner as to prevent contamination. Bags shall be stored out of sunlight or covered with an opaque tarp until the material is placed in the well.

3.5 SEAL MATERIALS

Grout materials will be chosen based on the site conditions, in consultation between the CONTRACTOR, the HYDROGEOLOGIST, and the CITY.

All sealing materials (including solids and potable water) must be thoroughly mixed in a mechanical mixer prior to being placed in the well.

See 4.4, "Install the Deep Annular Seal" for field specifications for bentonite and neat cement grout.

A. Cement Grout

1. Cement grout shall consist of Portland cement conforming to ASTM C 150, Type I or II, mixed with not more than 5% powdered bentonite.

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2. Sacks of cement used for the grout mixture shall be new. Sacks that have been water-damaged shall not be used.
3. The two powders shall be dry mixed before adding water.
4. Five to six gallons of water shall be added per 100-pound sack of cement.
5. The mixed grout shall weigh at least 15 pounds per gallon.

B. Bentonite Grout

1. Bentonite grout shall conform to WAC 173-160.
2. If pure bentonite is used as a sealing material, it shall be composed of dry bentonite mixed with potable water to form a high-solids slurry. A high solids slurry contains 20% or greater content of bentonite solids, by weight.
3. Sacks of pure bentonite must be new. Sacks that have been water-damaged shall not be used.
4. All bentonite slurries shall be prepared and installed according to the manufacturer's instructions.

C. Grout Placement

1. The method of grout placement shall be proposed by the CONTRACTOR and approved by the CITY and HYDROGEOLOGIST.
2. The method of grout placement shall provide sufficient head to place a continuous vertical column of either cement or bentonite grout from a depth of 460 feet to ground surface within the 20- by 24-inch annular space.

3.6 DRILLING FLUIDS

A. Rotary, 0–460 Feet

1. Only engineered, non-clay-based drilling fluids shall be used in advancing the borehole for the surface and deep annular seals.
2. Drilling with a mixture of water and unprocessed mud, clay, or other material shall not be permitted.
3. The drilling fluid shall possess such characteristics as required to adequately prevent the borehole wall from caving as drilling progresses and to permit recovery of representative samples of cuttings.

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4. An approved shaker shall be installed between the drilling rig and fluid pit. This shaker shall be designed to remove all but the finest cuttings from the drilling fluid.
5. If found necessary, the CONTRACTOR shall furnish and install centrifugal de-sanding equipment in the hydraulic system to remove excessive quantities of sand that may accumulate in the drilling fluid.
6. The sand content of the drilling fluid entering the borehole must not exceed 1% of fluid's volume.
7. The CONTRACTOR shall furnish a sand-content measuring set with 200-mesh screen as detailed in American Petroleum Institute Code No. 29 and shall make periodic measurements.
8. The CONTRACTOR shall also provide, and make available, all equipment needed to test the properties of the drilling fluid.

B. Rotary or Cable Tool, 460–750 Feet

1. Only potable water shall be used as the drilling fluid in advancing the cased borehole, whether by flooded reverse-circulation rotary or by cable tool.
2. Water is available near each drill site; however, the CONTRACTOR shall fill and use a water-tank-mounted truck to store and dispense the necessary water at the rate and volume necessary for the drilling operations.
3. For rotary drilling, and if found necessary, the CONTRACTOR shall install approved equipment so that drill cutting samples are representative of the formation sediments. The equipment may include shakers or desanding devices.

PART 4 – EXECUTION

4.1 MOBILIZE DRILLING EQUIPMENT

A. Permits

The CONTRACTOR shall acquire all necessary State, County, and local permits that are not acquired by the CITY. The CITY will provide the *Thurston County Well Site Inspection Approval*.

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B. Well Locations

The wells shall be located and staked by the CITY as shown on **Figures 2 and 3**. The CONTRACTOR shall confirm that these locations are acceptable for safe and effective work.

C. Water and Power

1. The CONTRACTOR may fill a water tank by connecting to nearby fire hydrant or water line (**Figures 2 and 3**).
 - a. This requires installing a fire hydrant meter, which can be obtained from the City of Lacey's Operation & Maintenance shop at 420 College Street SE, Lacey, WA, 98503.
 - b. The CONTRACTOR will need a water truck to transport water to each site.
2. The CONTRACTOR must provide a generator for power; there is no power source available at either the PW-MR or PW-MC site.

D. Mobilization

The CONTRACTOR shall be responsible for the following:

1. Mobilizing drill rig(s), equipment, and crews to the site. This may include two or more drill rigs for each production well.
2. Ensuring the safety and security of equipment and personnel at all times. Site security shall include a fence, placed by the CONTRACTOR, that surrounds all equipment used by the CONTRACTOR. The CONTRACTOR shall lock the fence each night after the workday. Note that the CITY is not responsible for the theft, vandalism, or damage of the CONTRACTOR's equipment, when such equipment is mobilized to/from, or resides at, the MR and MC sites.
3. Complying with all state and local traffic laws.
4. Ensuring that all employees entering the site have completed 40-hour OSHA and, as applicable, 8-hour refresher safety training and that drivers have current CDLs.
5. Verifying the CITY's approval of the schedule (mobilization, drilling, construction, testing, demobilization) and SSP.
6. Exercising care when driving to, and onto, the MR and MC sites, so that the existing CITY property and infrastructure is protected from damage. This care shall include a wedge or small ramp placed at the curb or sidewalk of the MC site to protect it from cracking.

4.2 DRILL AND CASE A PILOT BOREHOLE

The CONTRACTOR shall drill a pilot borehole and install temporary conductor casing to stabilize the shallow formation for subsequent rotary drilling for the deep seal.

1. This conductor casing shall extend to a depth of 40 to 50 feet below ground.
2. The diameter of the borehole and conductor casing is at the CONTRACTOR's discretion; however, it must be large enough to accommodate the 20-inch OD outer casing and the construction of the deep seal borehole (in accordance with WAC 173-160) to 460 feet. *See 4.3, "Drill and Case the Deep Annular Seal Borehole."*
3. The conductor casing shall be removed, and the pilot borehole grouted, as part of grouting operations for the deep seal borehole. *See 4.4, "Install the Deep Annular Seal."*

4.3 DRILL AND CASE THE DEEP ANNULAR SEAL BOREHOLE

1. The CONTRACTOR shall drill a borehole for the annular seal using the rotary method. *See 3.6, "Drilling Fluids" for specifications.*
 - a. The borehole diameter shall be large enough to accommodate installation of 20-inch OD outer casing and the deep seal.
 - b. The borehole depth shall be 460 feet or as directed by the HYDROGEOLOGIST, depending on the formation sediments encountered below 400 feet.
 - c. The CONTRACTOR shall collect drill-cuttings samples at 10-foot intervals, or as directed by the HYDROGEOLOGIST. *See 4.5.C, "Sample Collection," for sampling requirements.*
2. The CONTRACTOR shall install the 20-inch OD outer casing. The length of this casing shall be the total depth of the borehole for the deep annular seal, plus 2 feet to allow for a minimum 2-foot stickup above land surface. The length of this casing is therefore anticipated to be 462 feet. *See 3.2.B, "Outer (20-inch) Casing," for specifications.*
3. Joints in the steel well casing and well screen shall be field-welded in accordance with applicable provisions of the AWWA Standard C206.
 - a. A welding sequence shall be followed that will avoid excessive distortion.
 - b. All casing joints or overlaps shall be made watertight
 - c. All welding shall be performed by an experienced welder.

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- d. An affidavit of compliance with the welding provisions of this Section shall be provided to the HYDROGEOLOGIST prior to acceptance of the production well. This affidavit will certify that all welding conducted during this project was performed in accordance with all applicable provisions of this specification.

4.4 INSTALL THE DEEP ANNULAR SEAL

A. General

The CONTRACTOR may install the deep annular seal from 460 feet to ground surface using either bentonite or neat cement grout, as determined based on site conditions, in consultation between the CONTRACTOR, the HYDROGEOLOGIST, and the CITY.

The HYDROGEOLOGIST must approve of the grout type and installation method. *Grout that does not comply with these specifications will be rejected. See 3.5, "Seal Materials," for bentonite and cement material specifications.*

1. Grouting shall be executed in one continuous operation, being forced by pressure, into the annular space.
 - a. The grout shall be placed from the base of the outer casing at 460 feet to ground surface.
 - b. The grout must completely fill the annular space and form a continuous seal between the 20-inch outer casing and 24-inch borehole wall.
2. During grout installation, the CONTRACTOR shall maintain an equalization of pressures to the extent necessary to prevent collapse of the outer casing.
3. The CONTRACTOR shall verify that the seal is adequate by measuring the grout volume and by using other methods as directed by the HYDROGEOLOGIST.

B. Bentonite Grout

1. The seal materials shall be high-solids bentonite (20% or greater content of bentonite solids, by weight, contained in the slurry).
2. If pure bentonite is used as a sealing material, it shall be composed of dry bentonite mixed with potable water to form a high-solids slurry.
3. Sacks of pure bentonite must be new and not water damaged.
4. The bentonite and water must be thoroughly mixed in a mechanical mixer prior to placement in the well.

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5. When grouting is complete, bentonite shall be visible (looking from ground surface) between the conductor and well outer casings.

C. Neat Cement Grout

1. The cement grout slurry shall be mixed thoroughly and must be free of lumps to the satisfaction of the HYDROGEOLOGIST. If the cement grout is not mixed on site, the CONTRACTOR must provide the specific constituents of the cement grout to the HYDROGEOLOGIST prior to placing it.
 - a. The cement slurry shall be free of shale, clay lumps, coal, lignite, soft or unfragmented stone, or other deleterious materials.
 - b. The cement slurry should contain sand, not to exceed 50% by volume of the cement slurry, and shall not exceed 17.0 pounds per gallon (approximately 127 pounds per cubic foot).
2. The grout weight shall be measured prior to installation, as an indicator of the cement-water ratio.
 - a. Water used for preparing the grout slurry shall be potable.
 - b. In no case shall more than 2 hours lapse between the time water is added to the mixture and the time the slurry is pumped down hole.
3. A maximum of 2% by weight of bentonite (not to exceed 1.3 gallons per 1.88 pounds of bentonite) and 2% by weight of calcium chloride may be added to condition the slurry to help ensure a fluid mix and to accelerate the setup time for the cement. The bentonite will reduce the shrinkage and cracking of the cement.

Bentonite shall be added to the water first and allowed to hydrate a minimum of 10 minutes prior to introducing cement to the mixture.
6. When grouting is complete, cement shall be visible (looking from ground surface) between the conductor and well outer casings.
7. The cement seal in the annulus shall remain undisturbed for a minimum of 24 hours before further work is performed in the well. Should the upper surface of the cement seal drop, it shall be topped off with additional cement.
8. All cementing equipment and specialized tools shall be operated by personnel thoroughly trained in their operation and application.

4.5 DRILL AND CASE THE WELL'S PRODUCTION INTERVAL

A. Drilling Method

One of two drilling methods—cable tool or flooded reverse-circulation rotary—shall be used to drill and case the targeted production interval from 460 to 750 feet or to a total depth identified by the HYDROGEOLOGIST. The choice of drilling method shall be proposed in the CONTRACTOR'S drilling method submittal (*see 2.3.A, "Proposed Approach"*) and approved by the CITY. These allowable drilling methods will support advancement of the 18-inch casing.

Note that the CONTRACTOR may drill and case using a one method at PW-MR that is different at PW-MC, subject to the CITY's approval.

B. Casing

See 3.2, "Well Casing," for material specifications.

1. The CONTRACTOR shall assemble, weld, and install the 18-inch OD steel inner casing from 0 to 460 feet.
2. Joints in the steel well casing and well screen shall be field-welded in accordance with applicable provisions of the AWWA Standard C206.
 - a. The CONTRACTOR shall follow a welding sequence that avoids excessive distortion.
 - b. All casing joints or overlaps shall be made watertight
 - c. All welding shall be performed by an experienced welder.
 - d. An affidavit of compliance with the welding provisions of this Section shall be provided to the HYDROGEOLOGIST prior to acceptance of the production well. This affidavit will certify that all welding conducted during this project was performed in accordance with all applicable provisions of this specification.

C. Sample Collection

1. During drilling, the CONTRACTOR shall collect and preserve, for the HYDROGEOLOGIST, drill cutting samples at 2- to 10-foot intervals.
 - a. The CONTRACTOR shall provide an acceptable means of sampling cuttings at either the bailer (cable tool) or rotary drilling fluid discharge.
 - b. Each sample should have a volume of at least a half-gallon.

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- c. After carefully collecting each sample, the sample-catching device shall be cleaned.
2. Samples shall be laid out in a storage area on 4-foot x 8-foot plywood sheets that rest on a waterproof plastic sheet or ground cloth.
 - a. The storage area and plastic sheet or ground cloth must allow samples to be maintained in sequence (descending order), unmixed with surface material, or nightly rainfall, or other samples until they have been examined and logged by the HYDROGEOLOGIST.
 - b. Each sample shall be labeled with date, well ID, and the depth or depth range below ground from which it was collected.
3. Sediment samples in the screen zone shall be provided to the HYDROGEOLOGIST for submittal to a lab for a sieve analysis.

D. Water Quality and Yield Testing in Zones 4 and/or 5

Based on drilling observations and cutting samples, the HYDROGEOLOGIST may deem it necessary or desirable to set a test well screen to obtain data on water yield and water quality in a key depth interval. This may be the case for PW-MC, where the 18-inch borehole and casing may be advanced to previously untested Zones 4 and/or 5 in the TQu aquifer (**Attachment A**).

In this case, the CONTRACTOR shall install a test screen and pump to facilitate a pumping test, and the following general procedures shall apply; however, the specifics will be determined collaboratively by the CITY, CONTRACTOR, and HYDROGEOLOGIST.

1. The test screen dimensions shall be identified by the HYDROGEOLOGIST and the CONTRACTOR and approved by the CITY. For bidding purposes, assume that this screen will be 15 feet long and constructed with 12-inch-diameter (pipe size), 30-slot (0.030-inch) wire-wrap, stainless steel, and that it will feature a 5-foot bottom bail and a 10-foot riser.
2. The screen shall be equipped with a bail bottom hook and carefully lowered into the 18-inch inner casing.
3. The casing shall be pulled back to expose the screen without cutting the 18-inch drive shoe.
4. The well shall be equipped with a pump that is capable of producing 300 gpm against 400 feet of total dynamic head with an estimated intake setting depth of 350 feet below ground.

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5. The pumping test shall be set up and operated as described in items 3–7 of 4.9.A, *“Conduct Pumping Tests > General.”* The estimated test duration is 8 hours.
6. When testing is complete, the CONTRACTOR shall pull the pump and test screen from the well.
 - a. If testing indicates good water yield and quality, the 18-inch casing shall be re-advanced to the total depth of the cased borehole reached prior to setting the test screen.
 - b. If testing indicates poor water yield and/or quality, the interval shall be abandoned using layered bentonite and clean pea gravel. The materials, volumes, and procedure used for abandonment of the Zone 4 and/or 5 intervals shall be approved by the HYDROGEOLOGIST and the CITY.

4.6 CONDUCT ALIGNMENT TESTS

1. The CONTRACTOR shall conduct plumbness and alignment tests according to the procedures outlined in Appendix D of the AWWA Standard for Water Wells (AWWA A100-97).
 - a. The test will be performed at the bottom of the outer casing (assume 460 feet for bidding purposes) and the total borehole depth (assume 750 feet for bidding purposes).
 - b. Alignment tests at other depths may be added at the CITY or HYDROGEOLOGIST’s discretion.
2. The maximum allowable horizontal deviation (drift) of the well from the vertical shall not exceed two-thirds of the smallest inside diameter of that part of the well being tested per 100 feet of depth.
3. The maximum misalignment or “dog leg” permissible is one that will allow a 40-foot-long section of pipe, or a dummy, to pass freely throughout.
 - a. The outside diameter of the pipe or dummy shall be no smaller than ½ inch less than the inside diameter of the casing or hole being tested.
 - b. It is the CONTRACTOR’S responsibility to provide this dummy.
4. If one or both of these tolerances are exceeded, the CONTRACTOR shall fix or replace the well at no additional cost to the CITY.

4.7 INSTALL THE SCREEN AND FILTER PACK

The use of a natural or designed filter pack will be determined after the well has been drilled and formation conditions have been evaluated; however, a filter pack will most likely be required.

A. Casing Extraction and Drive Shoe Cut

The CONTRACTOR shall cut the drive shoe with in-hole cutters to allow for easier pulling. This work shall be paid as a lump sum that includes the shoe-cutting procedures of running in, cutting, and removing the cutter assembly.

The CONTRACTOR shall extract the 18-inch inner casing using hydraulic jacks as directed by the HYDROGEOLOGIST and constantly check for position during pullback. No other pullback method shall be used without express authorization. The CONTRACTOR assumes full responsibility to successfully extract the casing as required.

B. Installation

1. The screen assembly is anticipated to consist of a total of 100 feet of stainless-steel wire-wrap positioned within the five water-bearing zones of the TQu aquifer (**Figure 4**).
2. The CONTRACTOR shall assist the HYDROGEOLOGIST in the design of a screen and riser pipe, and likely, a filter pack.
3. For a filter-pack design, a 14-inch-diameter screen assembly shall be lowered through the 18-inch OD inner casing, from approximately 430 feet to 750 feet, or to the well's total drilled depth.
 - a. *If the well screen is installed with a filter pack, it shall be attached to a riser. See 4.7.C, "Filter Pack (If Selected)," for details.*
 - b. *If the well screen is installed in a natural pack, a K-packer/riser shall be required. See 4.7.D, "Natural Pack (If Selected)," for details.*
4. The well screen shall be set at a depth specified by the HYDROGEOLOGIST.
5. If required, a filter pack consisting of sand shall be carefully placed as the 18-inch OD casing is extracted to expose the filter pack and screen assembly to the natural formation. The method of placing the filter pack shall be approved by the CITY in coordination with the HYDROGEOLOGIST.

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6. The CONTRACTOR shall assemble, weld, and lower the well screen assembly (riser, screen, and sump with bottom plate) into the borehole by a method that allows for control of the rate of fall at all times.
 - a. A cone adaptor may be used to fit the riser casing with K-packers to the inside of the outer casing.
 - b. Centering guides shall be installed at a spacing of 120 degrees around the casing at intervals, not to exceed 20 feet along the length of the screen and riser casing. The guides shall not interfere with setting the filter pack.
7. During installation, the well screen shall be set centered in the hole so as not to interfere in any way with the filter pack, well installation, or maximum efficient operation of pumping equipment.

C. Filter Pack (If Selected)

The specific method of filter pack placement and the filter pack material must be approved by the HYDROGEOLOGIST. *See 3.4, "Filter Pack," for filter pack material specifications.*

1. To facilitate filter pack installation, the CONTRACTOR shall install a conductor / tremie pipe between the 18-inch inner casing and the well screen assembly. This pipe shall extend to 20 feet above the top of the uppermost screen interval (adjacent to the riser casing). The pipe and its placement downhole are subject to approval by the HYDROGEOLOGIST.
2. The CONTRACTOR shall fill the annular space between the screen assembly and the inner (18-inch) casing to form a filter pack reservoir.
 - a. While filling the annular space as the inner casing is extracted, the CONTRACTOR must maintain sufficient filter pack to prevent bridging the formation sediments directly against the well screen assembly.
 - b. The filter pack shall be installed relatively continuously, without interruption, using the conductor pipe.
3. During installation, the CONTRACTOR may be required to disinfect the filter pack using NSF 60-approved hypochlorite or a similar agent constituent.
 - a. The CONTRACTOR is responsible for the ensuring the uniform application of the disinfecting agent throughout the filter pack interval, without relying on subsequent mechanical surging to disperse the disinfectant, as specified in AWWA C654-13.
 - b. The specific method and materials used to disinfect the filter pack must be approved by the HYDROGEOLOGIST.

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4. The CONTRACTOR shall closely monitor the volume of filter pack material placed at depth per foot to top of the filter pack (as it is placed).
 - a. If monitoring reveals high or low filter pack material volume compared to the expected the volume, then the CONTRACTOR shall stop filter pack placement and discuss this deviation with the HYDROGEOLOGIST.
 - b. Voids in the filter pack, due to bridging, shall be prevented and/or fixed by the CONTRACTOR with the full knowledge of the HYDROGEOLOGIST and the CITY.
5. The volume of filter pack material placed per hour, and per day, shall be recorded by the CONTRACTOR. A daily log of filter pack volume placed shall be reviewed by the HYDROGEOLOGIST. *See 2.3.D, "Documentation," for more information about the daily log.*
6. Upon completion of the filter pack placement, any discrepancies between the pre- and post-placement volume shall be communicated by the CONTRACTOR. If this discrepancy results in compromised well production and/or water quality, then corrective measures shall be undertaken at the CONTRACTOR'S expense.

D. Natural Pack (If Selected)

The CONTRACTOR shall fit the top of the riser with three self-sealing, neoprene rubber K-packers. These packers must center the riser in the outer casing and prevent formation from coming over the top of the riser and entering the screen.

4.8 DEVELOP THE WELL'S SCREENED INTERVALS

Standard development methods will be used to settle the filter pack or surrounding natural aquifer and remove fines.

A. General

After the well has been constructed in accordance with these specifications, the CONTRACTOR shall notify the HYDROGEOLOGIST and make the arrangements for well development.

1. Development shall be executed using the techniques specified herein, or other techniques proposed by the CONTRACTOR and approved by the HYDROGEOLOGIST.
2. Development can be suspended at any time, at the discretion of the HYDROGEOLOGIST, to minimize impacts during data-collection activities.

**Technical Specifications for Marvin Road and Meridian Campus
Production Well Construction and Testing**

3. Development shall be considered complete in the judgement of the HYDROGEOLOGIST and CITY.
 - a. Development completeness will include criteria such as the sand content, which must not exceed 5 ppm at the design pumping rate, and turbidity, which must not exceed 1 NTU.
 - b. Specific capacity testing and the step-rate test will also be used to evaluate whether development is complete.
4. The CONTRACTOR shall maintain a complete log of development activity to document the following:
 - a. Quantity of materials placed in the well
 - b. Static and pumping water levels
 - c. Methods of measurement
 - d. Duration of each operation
 - e. Production rates and specific capacities
 - f. Sand content and quantities of sand removed
 - g. Sand content as a function of production rate
 - h. All other pertinent information
5. Development activities shall start within the uppermost portion of the screened interval and proceed downward.
 - a. Upon reaching the lowermost portion of the well, development shall continue as discussed by the CONTRACTOR and HYDROGEOLOGIST, and until the HYDROGEOLOGIST deems the process complete.
 - b. The CONTRACTOR shall maintain the total depth of the well, during development, and shall periodically clean the borehole, as directed by the HYDROGEOLOGIST.
6. The CONTRACTOR shall be responsible for providing a means to contain materials bailed from the well in the immediate vicinity of the drill site.
 - a. Development water shall be allowed to infiltrate in the immediate vicinity of the drill site.
 - b. The CONTRACTOR shall prevent any site flooding or erosion that might be caused by the discharge of development water. The CONTRACTOR shall provide tanks or other means, if needed, to contain development water and prevent runoff.
 - c. Development water shall not be allowed to enter nearby surface water bodies.

**Technical Specifications for Marvin Road and Meridian Campus
Production Well Construction and Testing**

B. Development by Impulse Generation, Swabbing, and Bailing (If Applicable)

1. Impulse generation may be used with swabbing and bailing as follows:
 - a. Apply impulse generation (provided by the HYDROGEOLOGIST) while pumping simultaneously.
 - b. Perform mechanical surging with pumping.
 - c. Bail sediment from the well bottom.
 - d. Repeat steps a–c as directed by the HYDROGEOLOGIST.
2. The swab shall not be more than 1/2-inch smaller in diameter than the inside diameter of the well screen.

C. Development of Filter Pack Wells (If Applicable)

1. If the well is completed with a filter pack, the CONTRACTOR shall initially develop by swabbing and bailing as the inner (18-inch) casing is pulled back, exposing and swabbing no more than 3 feet of screened interval at one time.
2. The CONTRACTOR shall monitor pack settlement during surging and maintain a sufficient amount of material in the casing above the exposed interval. This will ensure that the filter pack does not fall below the bottom of the casing and will prohibit heaving and direct contact of the formation and well screen.
3. The CONTRACTOR shall periodically bail the well clean and determine if material is passing the filter pack and well screen.
 - a. If more than 5% of the filter pack material is passing the well screen, the CONTRACTOR shall halt construction and perform a sieve analysis of the filter pack material.
 - b. Well construction shall not continue until appropriate measures have been taken to ensure the control of filter pack material passing the screen.

D. Specific Capacity Testing

1. The CONTRACTOR shall perform specific capacity tests as directed by the HYDROGEOLOGIST and approved by the CITY.
2. The well shall be equipped with a pump shall that is capable of producing 300 gpm against 400 feet of head with an estimated intake setting depth of 350 feet below ground.
3. The specific capacity test duration shall be minimum of 1 hour.

**Technical Specifications for Marvin Road and Meridian Campus
Production Well Construction and Testing**

4. The CONTRACTOR will provide two sounding tubes and a sampling hose-bib, flow valve, in-line flow meter (that has documented calibration one month prior to the specific capacity test), and 100 feet of discharge line.
5. Discharge water can be conveyed to area on site as directed by the CITY.

4.9 CONDUCT PUMPING TESTS

A. General

1. Two types of pumping tests will be required at each production well: an 8-hour step-rate test and a 72-hour constant-rate test.
2. These tests will be conducted using a temporary pump and generator provided by the CONTRACTOR. Assume a pump intake setting depth of 450 feet below ground.
3. During these tests, manual water levels will be measured by the CONTRACTOR in wells located at the MR and MC sites. The CONTRACTOR will also assist the HYDROGEOLOGIST in collecting water samples from the production wells for water quality analysis, both in the field and for submittal to an approved laboratory.
4. Two flow metering devices shall be installed by the CONTRACTOR—in-line flow meter and a discharge plate / manometer apparatus.
5. Pumped water shall be discharged at the following stormwater sewer vaults (**Figure 2 and 3**):
 - a. PW-MR: At the 12-inch vault on 40th Court NE, approximately 330 feet from the wellhead “as the crow flies” (PW-MR, **Figure 2**). If the discharge line for the pumping test cannot be laid out as the crow flies, it may be laid out along the cleared access road, which spans a longer distance (approximately 390 feet). Note that ground surface at the PW-MR site is about 5 feet lower than the stormwater sewer vault; therefore, the discharge line will need to be elevated to gravity-feed discharge water from the wellhead to the vault.
 - b. PW-MC: At the 18-inch vault on Deni Drive, approximately 190 feet from the wellhead as the crow flies (PW-MC, **Figure 3**). If the discharge line for the pumping test cannot be laid out as the crow flies, it may be laid out along the cleared access road, which spans a longer distance (approximately 230 feet). Note that ground surface at PW-MC is about 2 feet higher than the vault.
6. The CONTRACTOR shall install a discharge trough and downstream line to receive, contain, and convey water from the plate / manometer apparatus to each sewer. This may require elevating the trough to facilitate gravity flow.

**Technical Specifications for Marvin Road and Meridian Campus
Production Well Construction and Testing**

7. The CONTRACTOR shall take precautions to prevent flooding during testing by doing the following:
 - a. Installing a diffuser and a dechlorination apparatus, if needed, at the discharge location.
 - b. Monitoring the discharge location.

B. Background Water Level Monitoring

Background water levels shall be measured by the CITY and HYDROGEOLOGIST in new production wells PW-MR and -MC and in the following observation wells for up to 36 hours before the start of the step- and constant-rate pumping tests: TW-MR, TW-MC, TW-BC, SMW upper, SMW lower, S19, S31, and the Golf Course well (if available).

Monitoring will be the responsibility of the HYDROGEOLOGIST; however, the CONTRACTOR shall assist with the following:

1. The installation of transducers and data loggers, or equivalent, to collect water levels during the pre-test background period in PW-MR and PW-MC.
2. The setup of data loggers adjacent to the new production wells.

C. Step-rate Test

The HYDROGEOLOGIST shall conduct a step-rate test to determine the optimal pumping rate for the constant-rate test. The step-rate test shall be up to 8 hours in length.

1. The CONTRACTOR is responsible for furnishing and installing the following equipment:
 - a. A temporary test pump, approved by the HYDROGEOLOGIST, with discharge piping of sufficient size and length to convey the water being pumped to the point of discharge without creating back pressure that interferes with control of the pumping rate.
 - b. An in-line (totalizing and instantaneous) water flow meter and an orifice and manometer of sufficient size to accurately measure the pumping rate at the well head. The CONTRACTOR will submit documentation that the in-line flow meter is calibrated within 1 month of the pumping test.
 - c. A gate valve, at the well head, to control the pumping rate.
 - d. A 1-inch-diameter valve/spigot in the discharge pipe to facilitate water sample collection.

**Technical Specifications for Marvin Road and Meridian Campus
Production Well Construction and Testing**

- e. Two downhole access tubes made of 1-inch-diameter (or larger) PVC pipe with flush-threaded couplings that extend from the wellhead to 10 feet or less above the top of the pump.
2. The CONTRACTOR shall assist the HYDROLOGEOLOGIST with manual data collection (water level depth, pumping rate, field water quality) for the duration of the step-rate test and at a frequency set by the HYDROGEOLOGIST.
3. The CONTRACTOR shall conduct the test with four consecutive steps of increasing pumping rates, each consisting of at least 90 minutes of continuous pumping.
 - a. The pumping rates for each step will be determined by the HYDROGEOLOGIST.
 - b. The maximum step rate shall be as high as 1,800 gpm.
 - c. A constant pumping rate shall be maintained for each step.

D. Constant-rate Test

1. The CONTRACTOR shall pump the well at a constant rate for 72 hours, or for a duration determined by the HYDROGEOLOGIST and CITY, and at a rate determined by the HYDROGEOLOGIST based on the results of the step-rate test.
2. To facilitate the collection of water samples, the CONTRACTOR shall install a 1-inch-diameter valve/spigot in the discharge pipe.
3. The HYDROGEOLOGIST will collect water samples from the well at 12- to 24-hour intervals (beginning at the start of pumping) and send them to a Washington State-approved laboratory for analysis. The CONTRACTOR will assist with sample collection as directed by the HYDROGEOLOGIST.
4. The CONTRACTOR shall assist the HYDROLOGEOLOGIST with manual data collection (water level depth, pumping rate, field water quality) for the duration of the 72-hour test, at a frequency set by the HYDROGEOLOGIST.

E. Recovery Test

1. The CONTRACTOR will allow up 72 hours of recovery measurements with no cost to the CITY.
2. During this time, the CONTRACTOR will be requested to collect manual water level measurements at a logarithmic frequency set by the HYDROGEOLOGIST for 12 hours after the pump has been turned off.

**Technical Specifications for Marvin Road and Meridian Campus
Production Well Construction and Testing**

3. After 72 hours of recovery, the CONTRACTOR may remove the pumping test equipment.

4.10 CONDUCT A VIDEO SURVEY

Each video survey shall be complete and of adequate quality to allow for full inspection of the entire well casing and screen assembly.

A. Preparation

1. If necessary, and prior to the video inspection of the well, the contractor shall remove any pumps and piping from the well.
2. Before running the video survey, the CONTRACTOR shall install a temporary submersible pump to clear the water of excess turbidity produced during the pump removal process; alternatively, potable water may be added for 24 hours.

B. Equipment

1. The CONTRACTOR shall use a camera with a sufficiently bright light source to achieve the following objectives:
 - a. To clearly illuminate the well casing and screen in the sideview perspective.
 - b. To clearly illuminate the surrounding environment for a downhole distance of at least 3 feet.
2. The CONTRACTOR'S camera inspection system shall include the capability to imprint text onto the video media to document well name, date, and observations during the video inspection. It shall also continuously track camera depth record this information onto the video media.
3. The CONTRACTOR shall use a centralizing device to keep the camera away from the casing sidewall and as close as possible to the center of the well.

C. Methodology

1. The video survey shall be run at a maximum rate of 30 feet per minute.
2. The downward pass of the video survey shall cover the entire well and shall be conducted with downhole and side-scan views.

**Technical Specifications for Marvin Road and Meridian Campus
Production Well Construction and Testing**

- a. The camera shall provide complete inspection of all well screens.
 - b. Each casing joint shall be fully inspected with a 360-degree rotation of the side-scan camera.
 - c. Any features or anomalies shall be fully inspected with the side-scan camera.
3. The upward pass of the video survey shall cover the entire well and shall be conducted with the downhole and side-scan views.
 4. Immediately upon completion of the video survey, the CONTRACTOR shall provide three (3) copies on USB drives or via another digital format approved by the CITY. All copies shall show the full video survey with an accurate depth displayed to the nearest one tenth (0.1) of a foot.

4.11 MISCELLANEOUS / SITE CLOSURE

A. Disinfect the Well

At any time, the CITY may direct the CONTRACTOR to disinfect the well. Disinfection methods, materials, and procedures shall comply with AWWA A100-20.

The CONTRACTOR shall disinfect the well as follows:

1. Place a chlorine solution at a strength and volume necessary to produce an available concentration of at least 50 mg/L to the entire water column in the well. The amount of chlorine solution introduced into the well shall not be so great as to require unreasonable time and effort to reduce the chlorine concentration after final disinfection.
2. Mix to ensure distribution throughout water column in the well.
3. Allow the chlorine solution of 50 ppm to remain in the well for a minimum of 24 hours.
4. At the direction of the CITY or HYDROGEOLOGIST, flush the well and either leave a chlorine residual or pump out all chlorine (the approach will depend on the goal of the well disinfection):
 - a. Residual: Flush the well free of chlorine and leave a minimum of 1 ppm free chlorine residual in the water after 24 hours. The CONTRACTOR shall verify that the minimum residual remains.
 - b. No residual: Pump out all residual chlorine so the CITY can collect a sample for total coliform analysis to verify the well is coliform-free.

**Technical Specifications for Marvin Road and Meridian Campus
Production Well Construction and Testing**

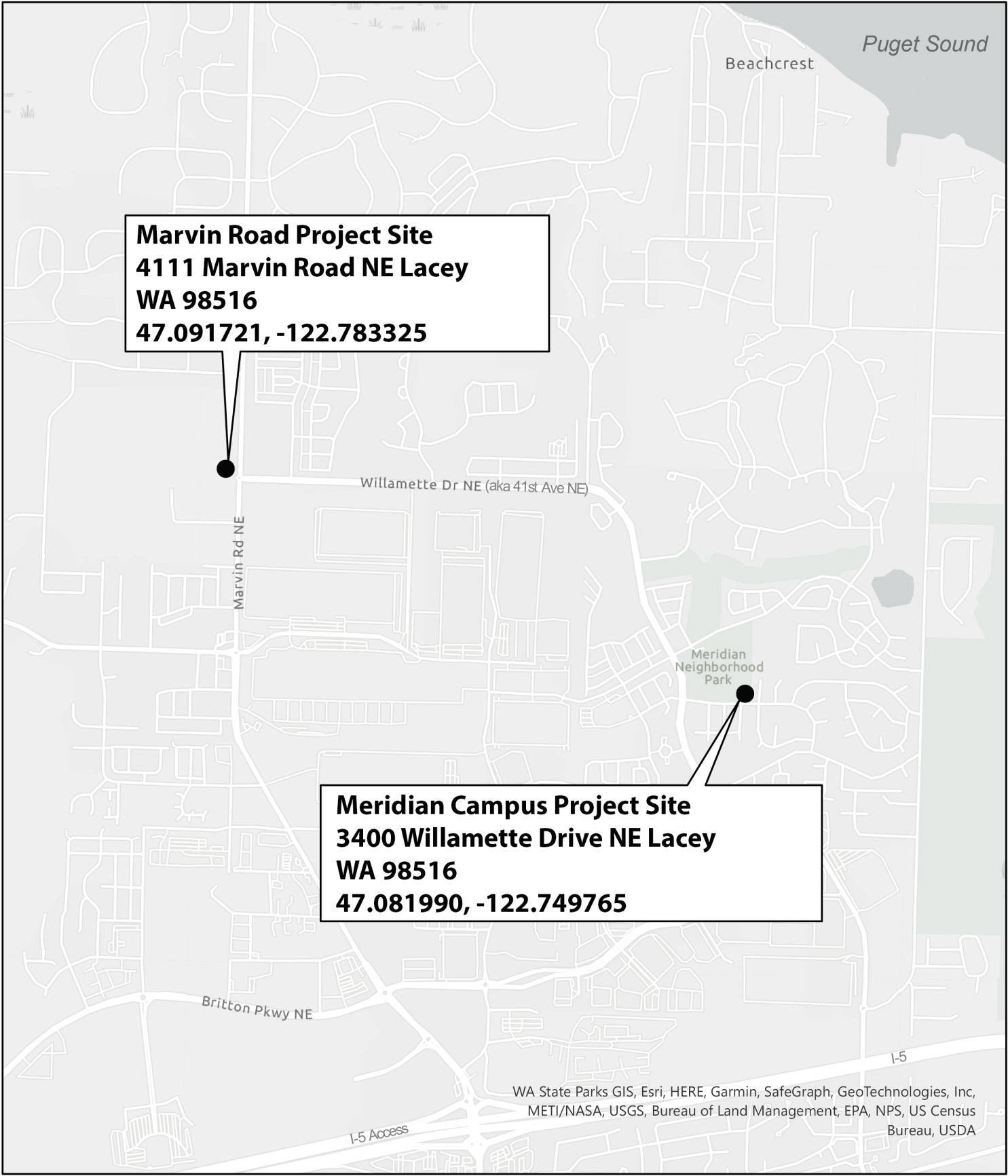
B. Covering the Plate and Access Port

After testing and surveying is complete, the well shall be temporarily capped with a high-strength, low-alloy steel plate that has the same composition and wall thickness as the well casing. The covering plate will be secured to the top of the well with a water-tight welded seam.

C. Cleanup

The CONTRACTOR shall be responsible for the cleaning up the site and restoring the surface to its original condition or as acceptable to the CITY.

Figures



Marvin Road Project Site
4111 Marvin Road NE Lacey
WA 98516
47.091721, -122.783325

Meridian Campus Project Site
3400 Willamette Drive NE Lacey
WA 98516
47.081990, -122.749765

WA State Parks GIS, Esri, HERE, Garmin, SafeGraph, GeoTechnologies, Inc,
 METI/NASA, USGS, Bureau of Land Management, EPA, NPS, US Census
 Bureau, USDA

J:\DATA\NL\GIS\40\2023 HAWKS PRAIRIE\GIS\PW-MR AND PW-MC_FIGURES 1-3\PW-MR AND PW-MC_FIGURES 1-3.APRX BY: LMOJARAB PLOT DATE: OCT 25, 2023 COORDINATE SYSTEM: NAD 1983 HARN STATEPLANE WASHINGTON NORTH FIPS 4601 FEET

NORTH

1 inch : 2,000 Feet

0 1,000 2,000 Feet

DRAWING IS FULL SCALE WHEN BAR MEASURES 1"



Figure 1

Hawks Prairie Vicinity Map

City of Lacey

Hawks Prairie Well Development

Vicinity Map

USGS, EPA

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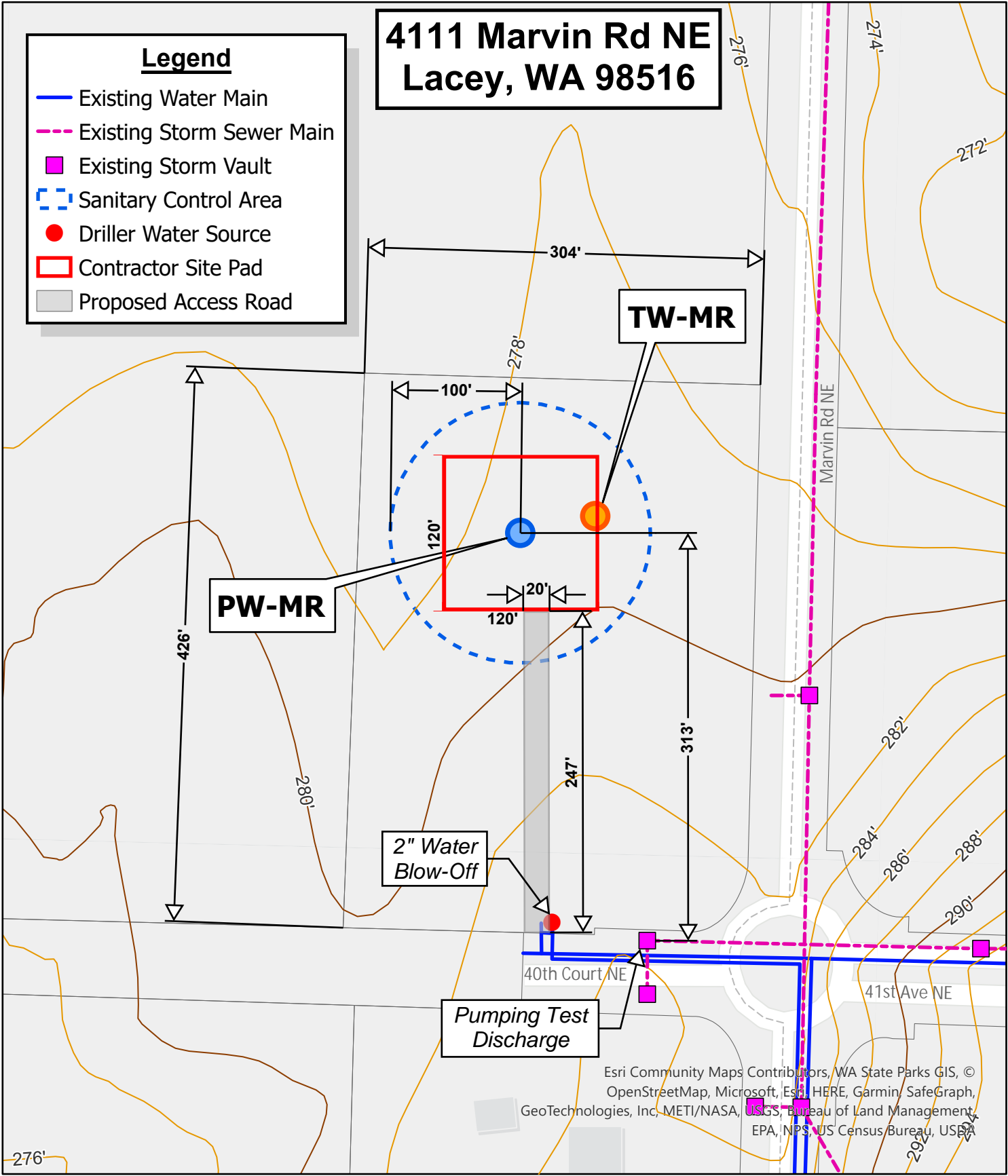
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PRELIMINARY

4111 Marvin Rd NE Lacey, WA 98516

- Legend**
- Existing Water Main
 - - - Existing Storm Sewer Main
 - Existing Storm Vault
 - Sanitary Control Area
 - Driller Water Source
 - Contractor Site Pad
 - Proposed Access Road



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RH2

NORTH

1 inch : 100 Feet

0 50 100 Feet

DRAWING IS FULL SCALE WHEN BAR MEASURES 1"



Figure 2

Marvin Road Site Map

Parcel No. 11934100100

City of Lacey

Hawks Prairie Well Development

Vicinity Map

USGS, EPA, NPS

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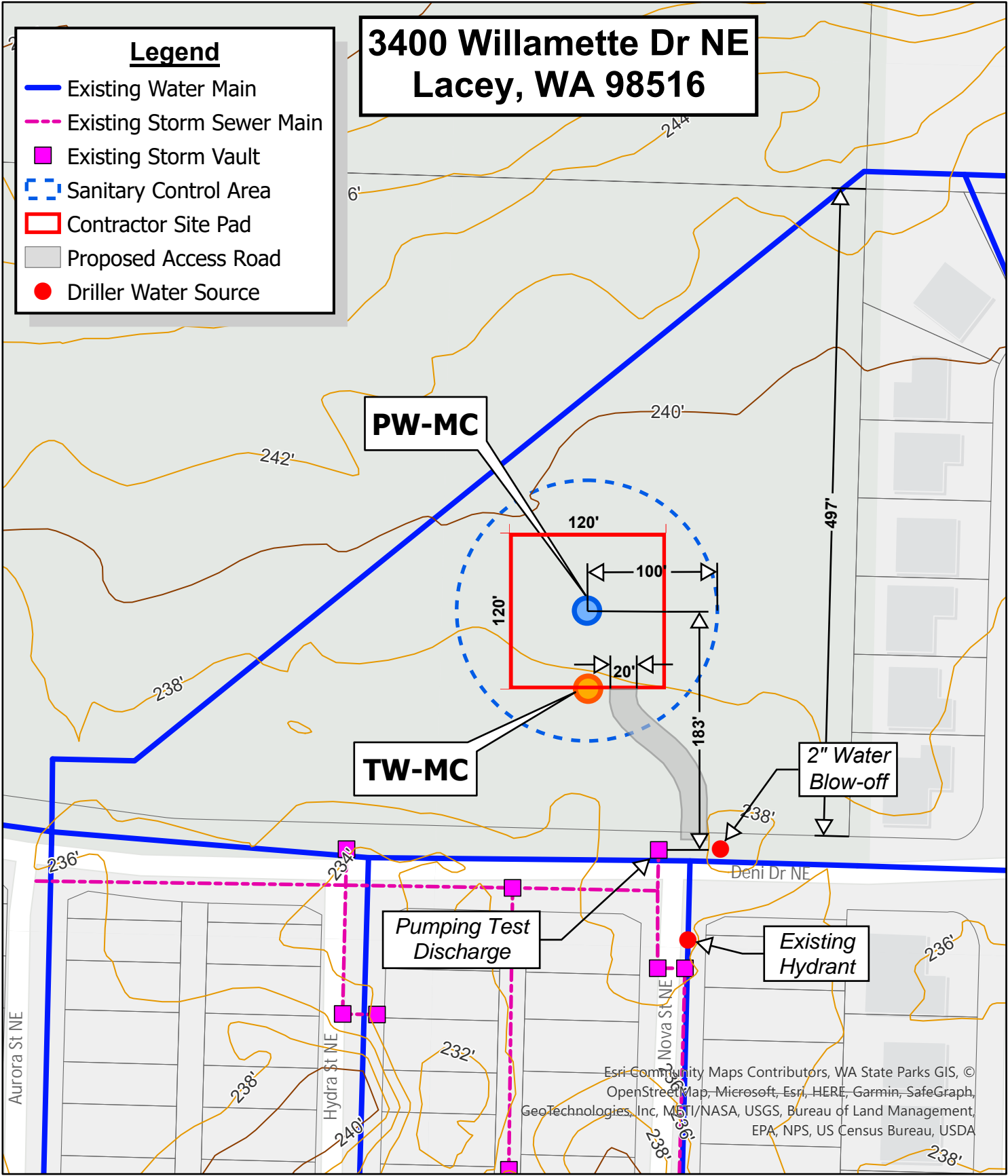
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PRELIMINARY

3400 Willamette Dr NE Lacey, WA 98516

Legend

- Existing Water Main
- Existing Storm Sewer Main
- Existing Storm Vault
- Sanitary Control Area
- Contractor Site Pad
- Proposed Access Road
- Driller Water Source



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J:\DATA\N\GIS40\2023 HAWKS PRAIRIE\GIS\PW-MR AND PW-MC_FIGURES 1-3\PW-MR AND PW-MC_FIGURES 1-3.APRX BY: LMOJARAB PLOT DATE: OCT 25, 2023 COORDINATE SYSTEM: NAD 1983 HARN STATEPLANE WASHINGTON NORTH FIPS 4601 FEET

RH2

NORTH

1 inch : 100 Feet

0 50 100 Feet

DRAWING IS FULL SCALE WHEN BAR MEASURES 1"



Figure 3

Meridian Campus Site Map

Parcel No. 11801210000

City of Lacey

Hawks Prairie Well Development

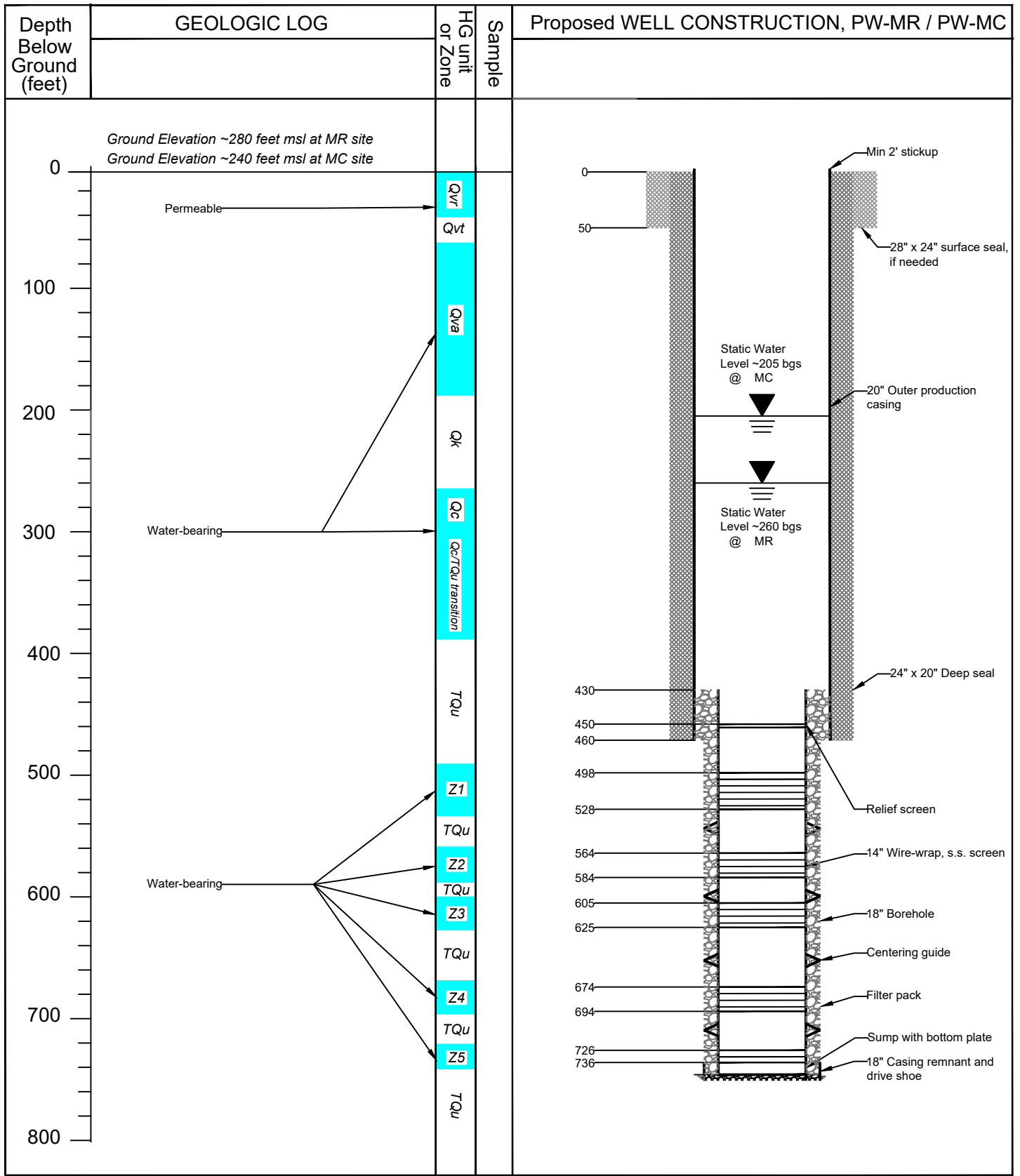
Vicinity Map

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PRELIMINARY

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version 8/27/2023

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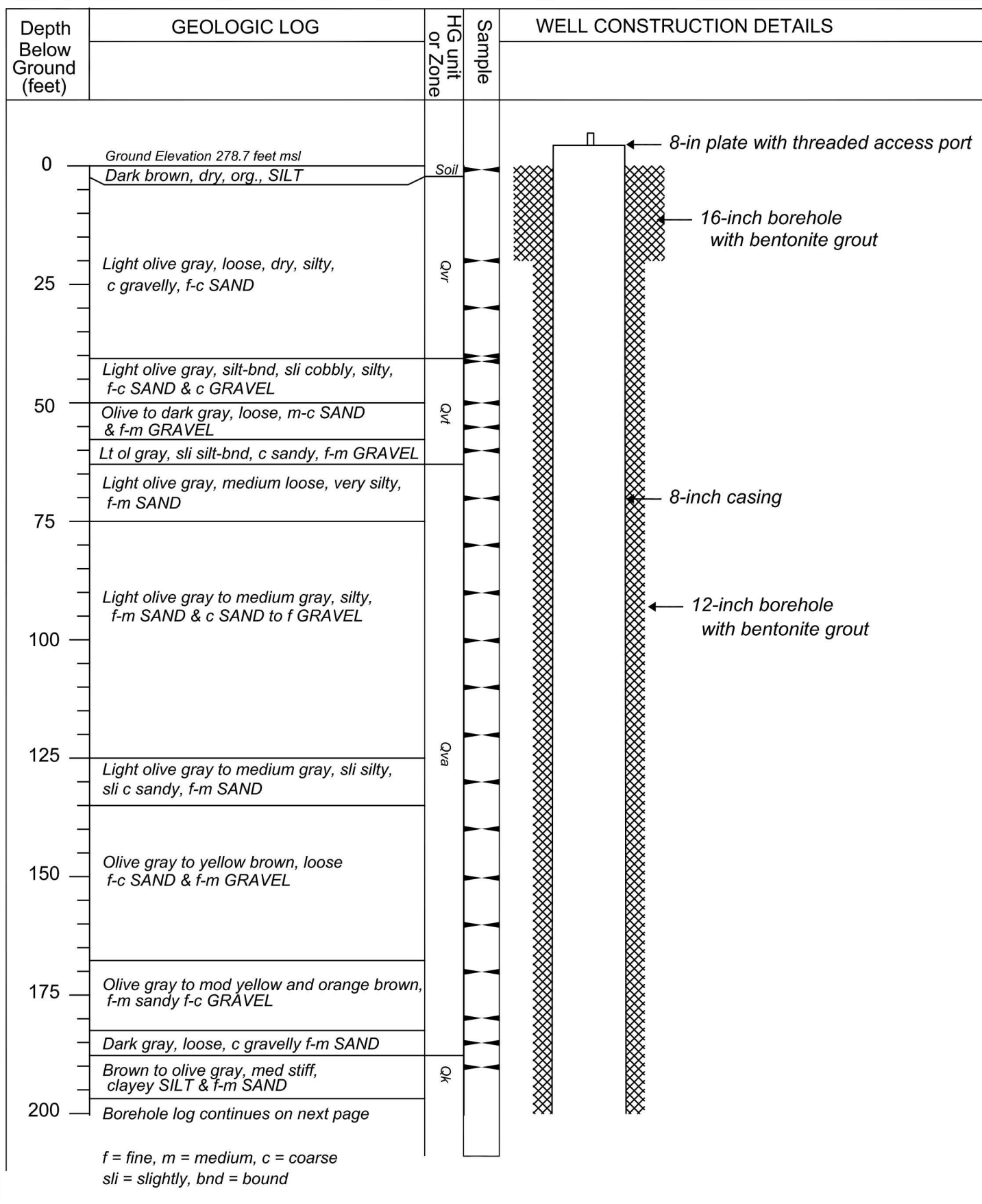
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 DRILLER:
 FIRM:
 CONSULTING FIRM:
 REPRESENTATIVE:
 LOCATION: 1/4 1/4 Sec , T N, R W
 WELL NAME: PW-MR or PW-MC
 WELL TAG ID:

Figure 4
 Proposed Well PW-MR / PW-MC

Concept for Bid Purposes Only
 City of Lacey



Attachment A: Geologic Logs and As-Builts for TW-MR and TW-MC

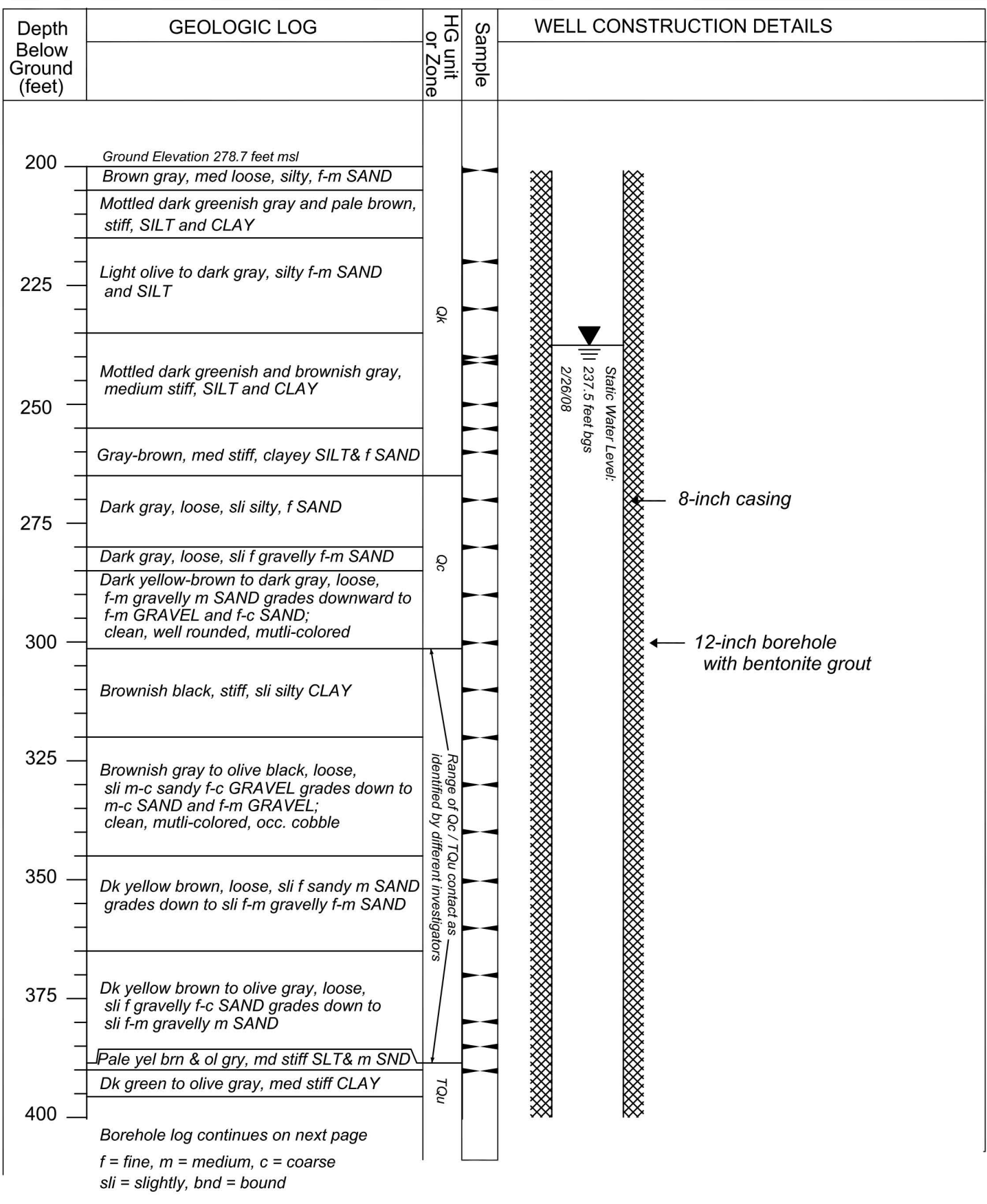


PROJECT NAME: City of Lacey, Potable Water Exploration
 DRILLING METHOD: Cable Tool 12-inch / 8-inch / 6-inch
 DRILLER: Richard Miller
 FIRM: Boart Longyear
 CONSULTING FIRM: Northwest Land & Water, Inc.
 REPRESENTATIVE: Jim Mathieu
 LOCATION: SE 1/4 NE 1/4 Sec 34, T19N, R1W
 WELL NAME: TW-MR
 WELL TAG ID: BAM404

Figure A-1 (page 1/5)
TW-MR Log and As-Built



Potable Water Exploration
City of Lacey



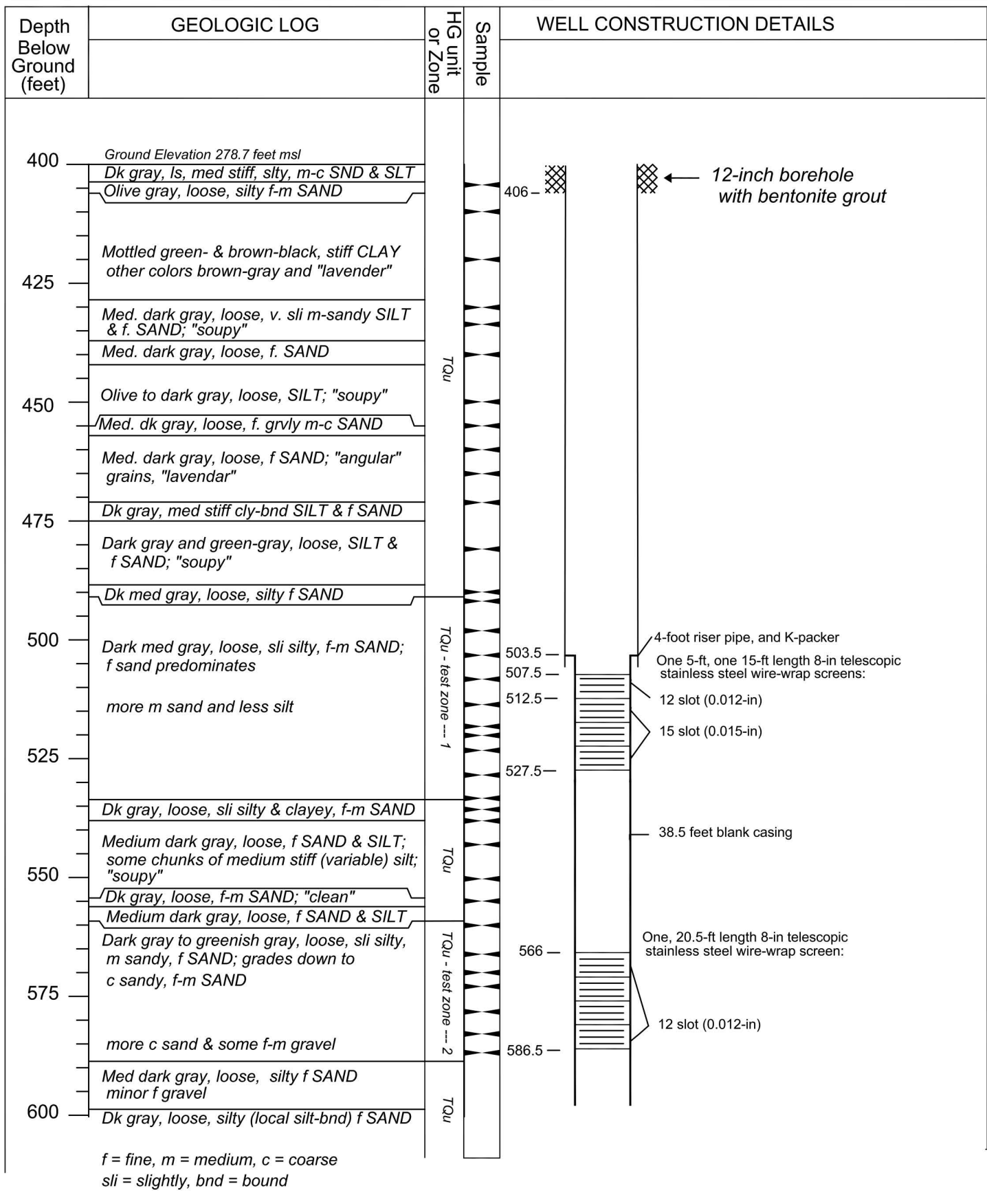
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PROJECT NAME: City of Lacey, Potable Water Exploration
 DRILLING METHOD: Cable Tool 12-inch / 8-inch / 6-inch
 DRILLER: Richard Miller
 FIRM: Boart Longyear
 CONSULTING FIRM: Northwest Land & Water, Inc.
 REPRESENTATIVE: Jim Mathieu
 LOCATION: SE 1/4 NE 1/4 Sec 34, T19N, R1W
 WELL NAME: TW-MR
 WELL TAG ID: BAM404

Figure A-1 (page 2/5)
TW-MR Log and As-Built



Potable Water Exploration
City of Lacey



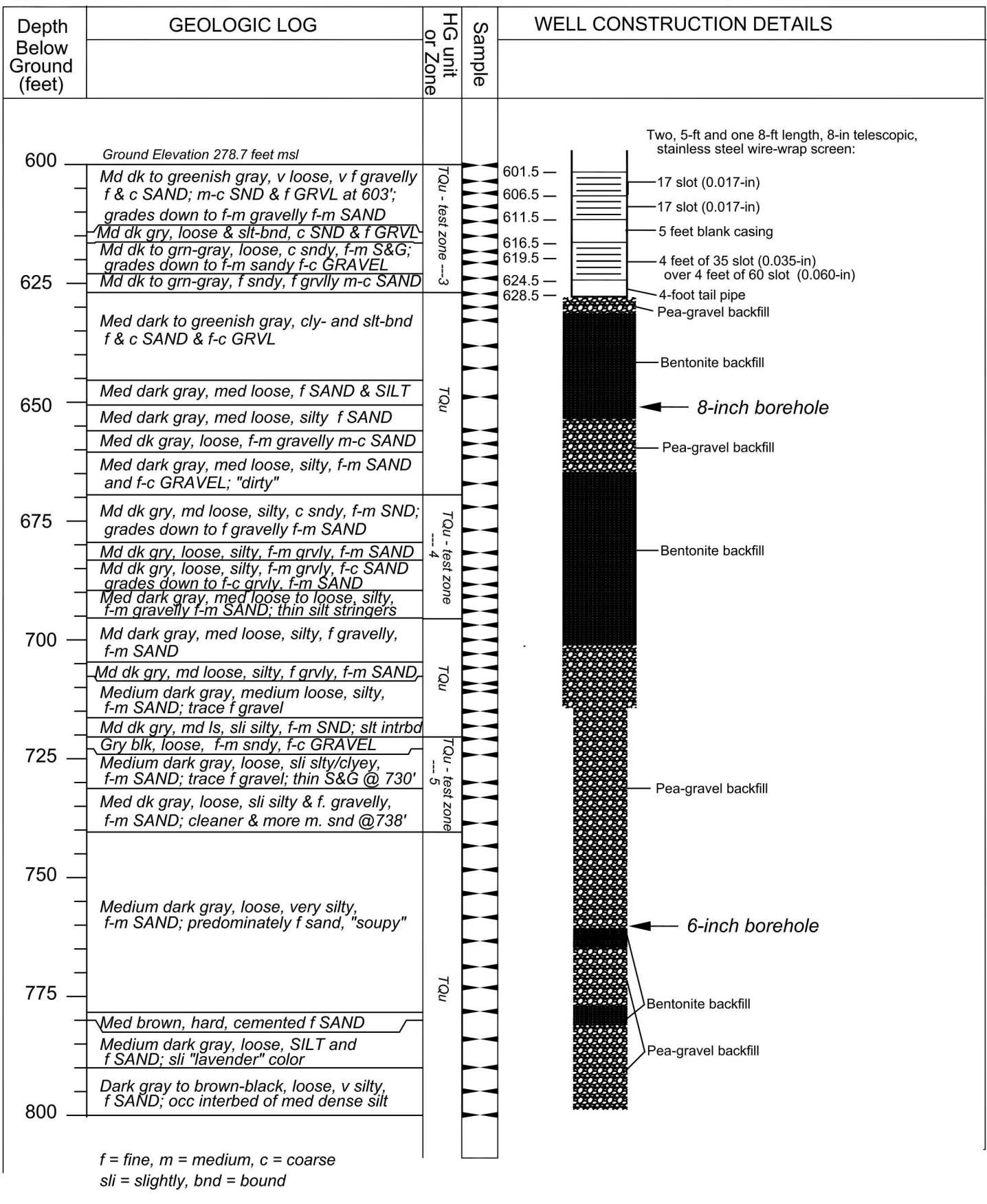
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 DRILLER: Richard Miller
 FIRM: Boart Longyear
 CONSULTING FIRM: Northwest Land & Water, Inc.
 REPRESENTATIVE: Jim Mathieu
 LOCATION: SE 1/4 NE 1/4 Sec 34, T19N, R1W
 WELL NAME: TW-MR
 WELL TAG ID: BAM404

Figure A-1 (page 3/5)
 TW-MR Log and As-Built



Potable Water Exploration
 City of Lacey

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f = fine, m = medium, c = coarse
sli = slightly, bnd = bound

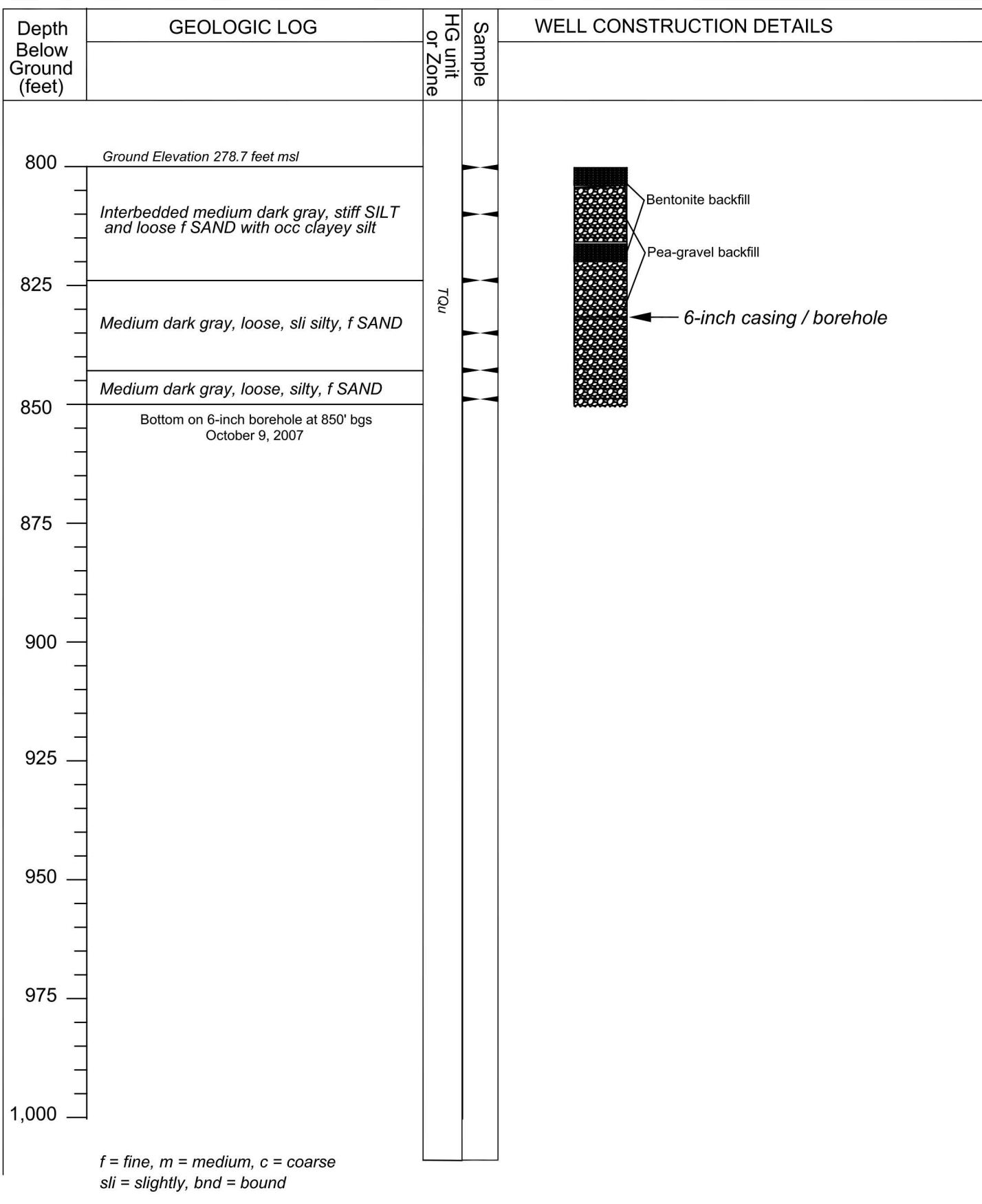
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 DRILLER: Richard Miller
 FIRM: Boart Longyear
 CONSULTING FIRM: Northwest Land & Water, Inc.
 REPRESENTATIVE: Jim Mathieu
 LOCATION: SE 1/4 NE 1/4 Sec 34, T19N, R1W
 WELL NAME: TW-MR
 WELL TAG ID: BAM404

Figure A-1 (page 4/5)
 TW-MR Log and As-Built



Potable Water Exploration
 City of Lacey

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sli = slightly, bnd = bound

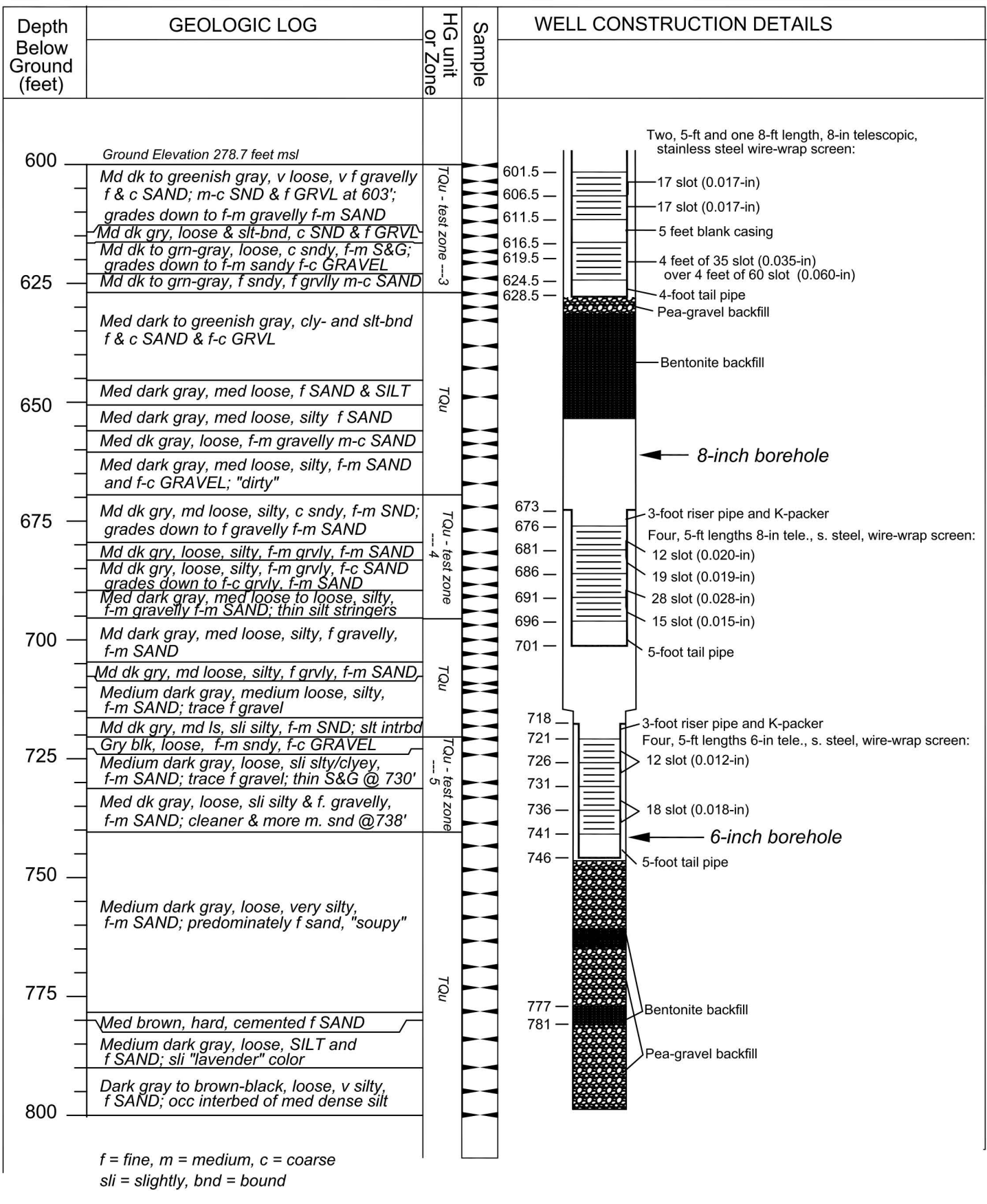
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PROJECT NAME: City of Lacey, Potable Water Exploration
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 DRILLER: Richard Miller
 FIRM: Boart Longyear
 CONSULTING FIRM: Northwest Land & Water, Inc.
 REPRESENTATIVE: Jim Mathieu
 LOCATION: SE 1/4 NE 1/4 Sec 34, T19N, R1W
 WELL NAME: TW-MR
 WELL TAG ID: BAM404

Figure A-1 (page 5/5)
TW-MR Log and As-Built



Potable Water Exploration
City of Lacey



f = fine, m = medium, c = coarse
sli = slightly, bnd = bound

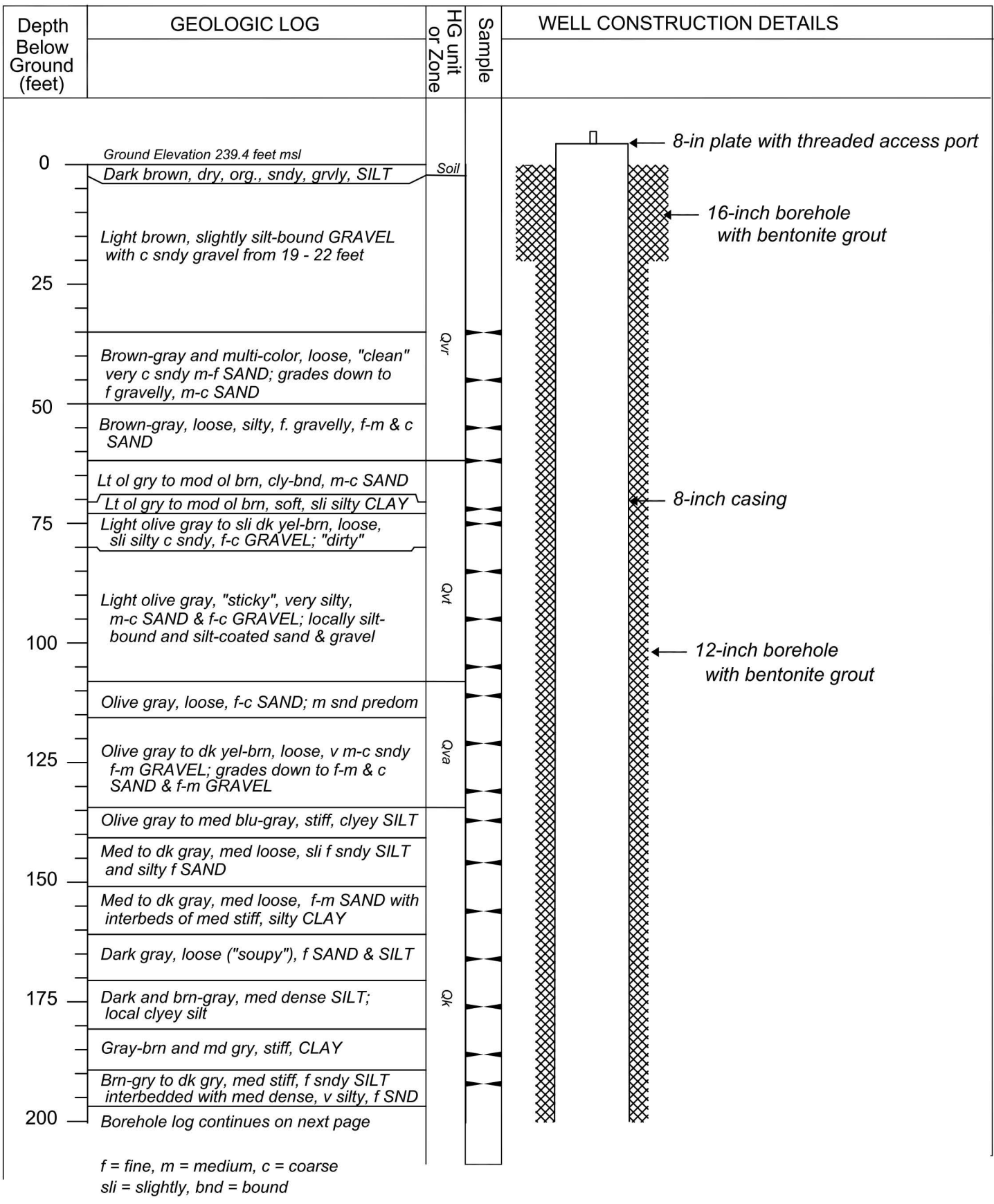
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 DRILLING METHOD: Cable Tool 12-inch / 8-inch / 6-inch
 DRILLER: Richard Miller
 FIRM: Boart Longyear
 CONSULTING FIRM: Northwest Land & Water, Inc.
 REPRESENTATIVE: Jim Mathieu
 LOCATION: SE 1/4 NE 1/4 Sec 34, T19N, R1W
 WELL NAME: TW-MR
 WELL TAG ID: BAM404

Figure A-2 (page 1/1)
 TW-MR Log Interval 600 to 800 Feet including Test Screens in Zones 4 and 5



Potable Water Exploration
 City of Lacey

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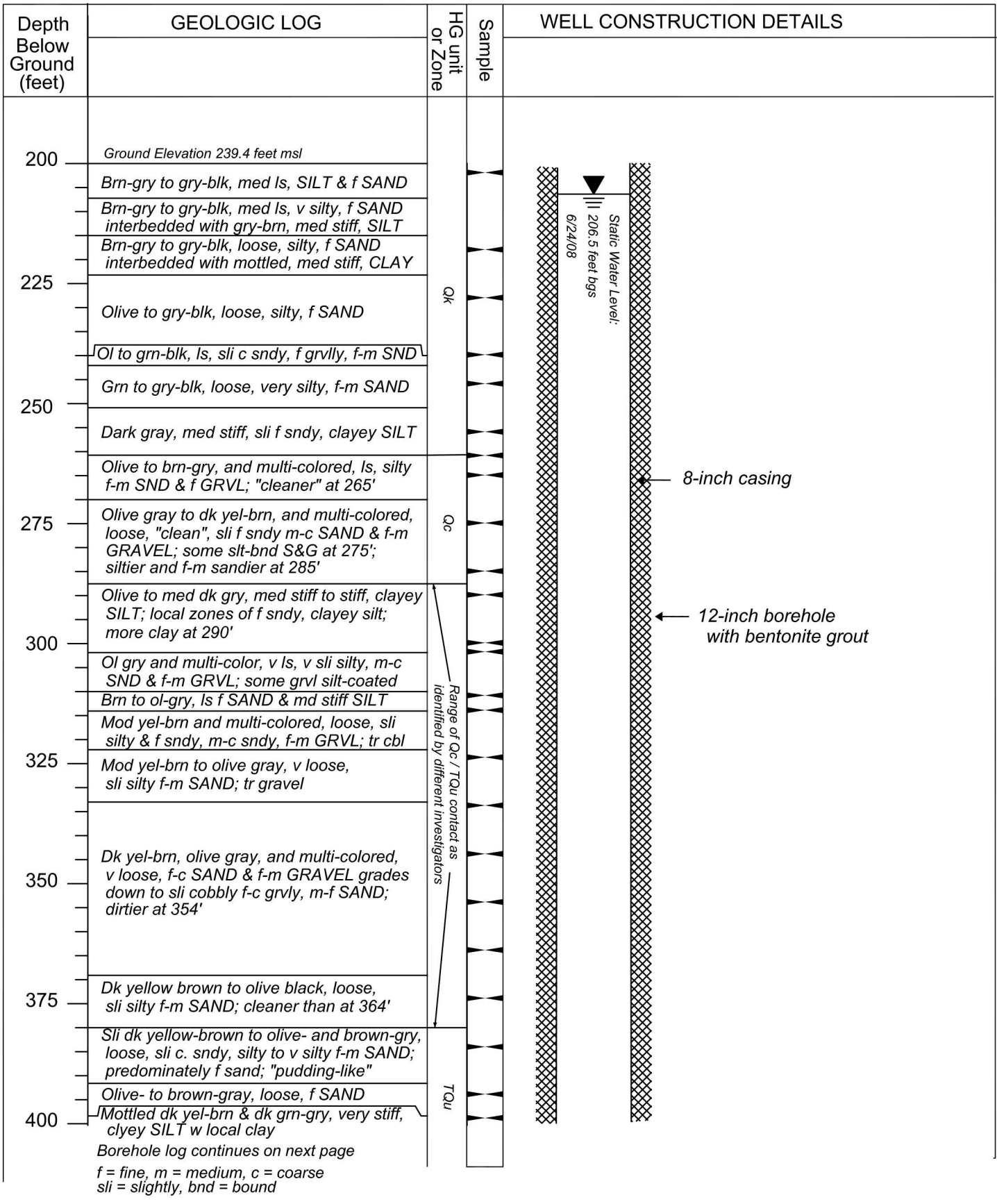
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PROJECT NAME: City of Lacey, Potable Water Exploration
 DRILLING METHOD: Cable Tool 12-inch / 8-inch
 DRILLER: Jim Niedercorn
 FIRM: Boart Longyear
 CONSULTING FIRM: Northwest Land & Water, Inc.
 REPRESENTATIVE: Jim Mathieu
 LOCATION: NE 1/4 NW 1/4 Sec 1, T18N, R1W
 WELL NAME: TW-MC
 WELL TAG ID: BAM407

Figure A-3 (page 1/4)
 TW-MC Log and As-Built



Potable Water Exploration
 City of Lacey



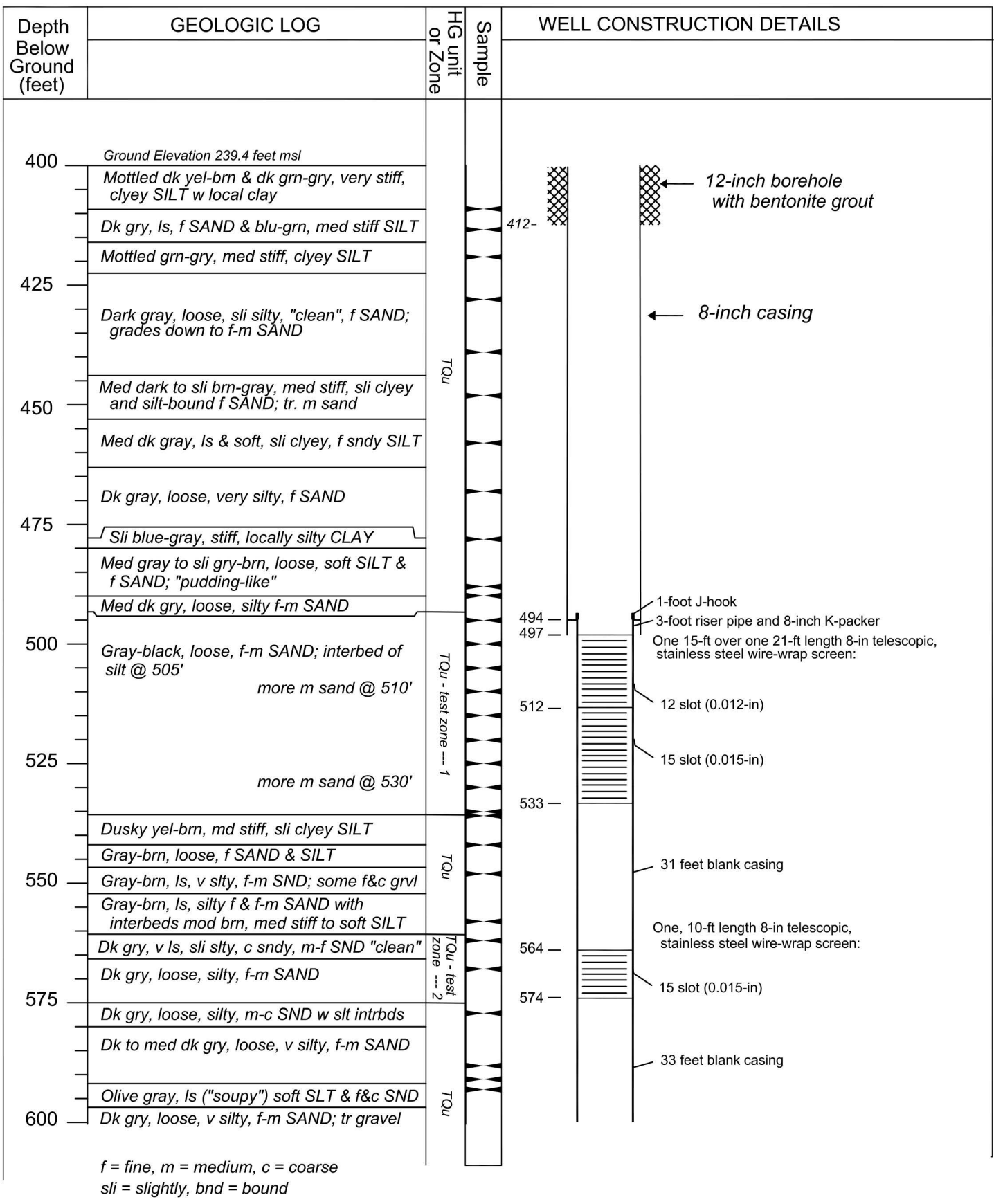
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 DRILLING METHOD: Cable Tool 12-inch / 8-inch
 DRILLER: Jim Niedercorn
 FIRM: Boart Longyear
 CONSULTING FIRM: Northwest Land & Water, Inc.
 REPRESENTATIVE: Jim Mathieu
 LOCATION: NE 1/4 NW 1/4 Sec 1, T18N, R1W
 WELL NAME: TW-MC
 WELL TAG ID: BAM407

Figure A-3 (page 2/4)
TW-MC Log and As-Built



Potable Water Exploration
City of Lacey

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f = fine, m = medium, c = coarse
sli = slightly, bnd = bound

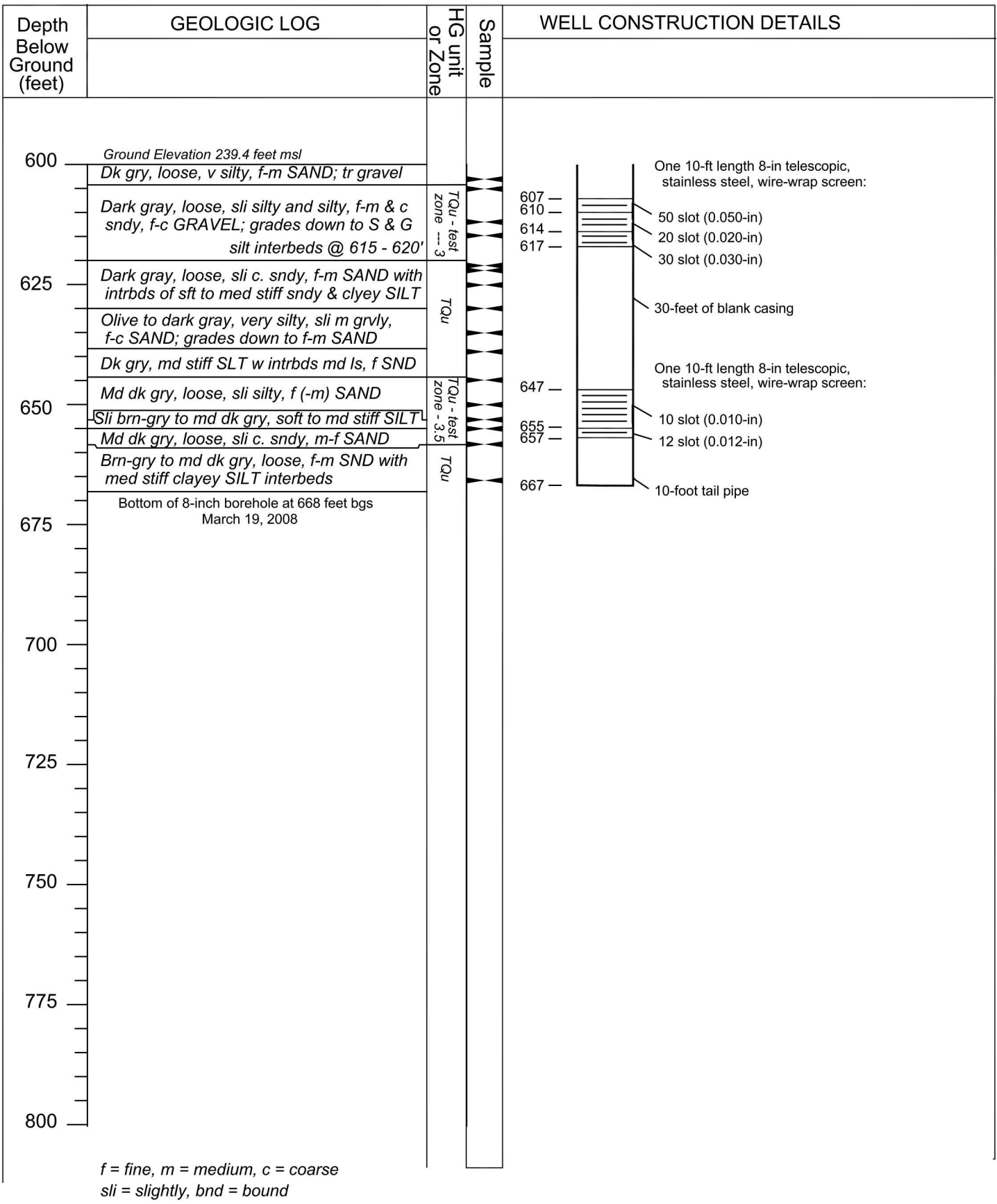
PROJECT NAME: City of Lacey, Potable Water Exploration
 DRILLING METHOD: Cable Tool 12-inch / 8-inch
 DRILLER: Jim Niedercorn
 FIRM: Boart Longyear
 CONSULTING FIRM: Northwest Land & Water, Inc.
 REPRESENTATIVE: Jim Mathieu
 LOCATION: NE 1/4 NW 1/4 Sec 1, T18N, R1W
 WELL NAME: TW-MC
 WELL TAG ID: BAM407

Figure A-3 (page 3/4)
 TW-MC Log and As-Built



Potable Water Exploration
 City of Lacey

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f = fine, m = medium, c = coarse
sli = slightly, bnd = bound

PROJECT NAME: City of Lacey, Potable Water Exploration
 DRILLING METHOD: Cable Tool 12-inch / 8-inch
 DRILLER: Jim Niedercorn
 FIRM: Boart Longyear
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 WELL TAG ID: BAM407

Figure A-3 (page 4/4)
 TW-MC Log and As-Built



Potable Water Exploration
 City of Lacey

F
PREVAILING
WAGES

PREVAILING WAGE RATES

The following wage rates are in effect for this project.

**State of Washington
Department of Labor and Industries
Washington State Prevailing Wage Rates For Public Works Contracts**

Thurston County Rates For All Trades

**Effective: June 4, 2024 including any correction notices issued
by Labor and Industries prior to bid.**

Wage Rates and the Benefit Code Key may be found at:

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

Supplemental to State Wage Rates may be found at:


<http://www.wsdot.wa.gov/Design/ProjectDev/WageRates/default.htm>

A copy is also available for viewing at the City of Lacey Public Works Engineering office located at 420 College St SE, Lacey, WA 98503. If requested, a hard copy will be mailed to you.

APPENDIX A

COL RAM FORMS

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PROJECT:		SUBMITTAL No.		 CITY OF LACEY
LACEY CONTRACT NO. PW___-20___		Date sent to City:		
Request for Approval of Material, Product or Shop Drawing				
Contractor:		Subcontractor:		
No. of Pages	Item: Material, Product or Shop Drawing	Specification Reference		
<input type="checkbox"/> This item is as specified		OR	<input type="checkbox"/> This item is a substitution/or equal Material/Product Substitution Request shall be submitted	
<input type="checkbox"/> Supplier/Subcontractor certifies material/product conforms to contract.				
Review Priority:		<input type="checkbox"/> 1	<input type="checkbox"/> 2	<input type="checkbox"/> 3
				Requested Due Date:
Notes to Engineer:				


City of Lacey Engineer:		Date Approved by City:	
<input type="checkbox"/> Rejected	New Submittal Required.		
<input type="checkbox"/> Revise and Resubmit	See Engineer's comments.		
<input type="checkbox"/> Conditionally Approved	See items included in Engineer's comments.		
<input type="checkbox"/> Conditionally Approved	No exceptions noted.		
Review of the materials, products or plans do not relieve the contractor from compliance with requirements of the contract documents and does not necessarily constitute acceptance for materials, products or plans to be incorporated in the work. This review is for general conformance of the project's conceptual design and general compliance with the project's plans and specifications.			
Date City Transmitted to Contractor:		Date Contractor Transmitted to Subcontractor/Supplier:	

Date Received by
City of Lacey:

Reviewed by:
(Name/Company)

Engineer's Comments:

1.

PROJECT: <i>A</i>		SUBMITTAL No. <i>C</i>	
LACEY CONTRACT NO. PW___-20___ <i>B</i>			
Request for Approval of Material, Product or Shop Drawing			
Contractor: <i>D</i>		Subcontractor: <i>E</i>	
No. of Pages	Item: Material, Product or Shop Drawing	Specification Reference	
<i>F</i>	<i>G</i>	<i>H</i>	
<input type="checkbox"/> This item is as specified <i>I1</i> OR <input type="checkbox"/> This item is a substitution/or equal Material/Product Substitution Request shall be submitted <i>I2</i>			
<input type="checkbox"/> Supplier/Subcontractor certifies material/product conforms to contract.			
Review Priority: <input type="checkbox"/> 1 <i>K</i> <input type="checkbox"/> 2 <input type="checkbox"/> 3		Requested Due Date: <i>L</i>	
Notes to Engineer: <i>M</i>			

Section 1

City of Lacey Engineer: <i>R</i>		Date City Transmitted to Contractor: <i>S</i>	
<input type="checkbox"/> Rejected	New Submittal Required.		
<input type="checkbox"/> Revise and Resubmit	See Engineer's comments.		
<input type="checkbox"/> Conditionally Approved	See items included in Engineer's comments.		
<input type="checkbox"/> Conditionally Approved	No exceptions noted.		
<p>Review of the materials, products or plans do not relieve the contractor from compliance with requirements of the contract documents and does not necessarily constitute acceptance for materials, products or plans to be incorporated in the work. This review is for general conformance of the project's conceptual design and general compliance with the project's plans and specifications.</p>			
Date Received by Contractor: <i>T</i>		Date Returned to Subcontractor/Supplier: <i>U</i>	

Section 3

Section 2

Date Received by City of Lacey: <i>N</i>	Reviewed by: (Name/Company) <i>@</i>
---	---

Engineer's Comments:

1. *P*

Section 1

The **Project Manager** shall fill in items **A** and **B**. The “Request for Approval of Material, Products or Shop Drawing” form shall be included in the specifications.

- A** Project Manager enters in the project title that matches the plans and specifications.
- B** Project Manager enters in PW project number that matches the plans and specifications.

The **Contractor** shall fill out the “Request for Approval of Material, Product or Shop Drawing” form for all materials or products that will be installed and Shop Drawing that will be used in the project. The form and the submittal shall be sent in the same e-mail. Submittals that exceed 10 MB shall either be provided on a CD, a flash drive or an internet link.

The products and materials that are specific to the project shall be circled or highlighted. If a submittal includes products or materials that are not project specific then these items shall be crossed out. Project Submittals that exceed 10 pages shall be submitted in Adobe Acrobat format and include a table of contents. Submittals that are not submitted in this format may be rejected outright and the contractor will be required to resubmit in the correct format.

The contractor shall enter in items **C, D, E, F, G, H, I, J, K, L,** and **M**.

C Contractor enters in the submittal number. The first “Request for Approval of Material, Product or Shop Drawing” submittal number shall be 1.0, the second shall be 2.0, the third shall be 3.0, etc.

When a “Request for Approval of Material, Product or Shop Drawing” requires resubmitting, the next submittal shall be the first part of the submittal number and then 0.1. Example: If submittal 9.0 requires resubmitting, then the resubmittal shall be 9.1. If a second resubmittal is required, then the next resubmittal shall be 9.2.

D Contractor shall fill in their name.

E Contractor shall fill in the subcontractor that is requesting approval. If only the General Contractor is requesting approval, then NA (not applicable) shall be entered.

F The number of pages for each specific material, product or shop drawing shall be entered.

G The specific material, product or shop drawing shall be entered. Material or product will be the trade name of the product or the name it is most easily recognized by. Materials or products that are similar (i.e. pipe fittings) can be bundled into one submittal.

H The specification that pertains to the specific material, product or shop drawing shall be entered. This information is critical in comparing the material, product or shop drawing to the specifications. You may also list Plan Sheet number or Special Provision page in this area.

I The Contractor shall check if the items submitted are either specified (I1) or that the submitted item is a substitution or equal (I2). If the product is a substitute or equal, then a Material/Product Substitution Request shall be submitted.

J The Contractor shall check that supplier and/or subcontractor certifies the bid item.

K The Contractor shall check if the submittal for approval is a high (1), average (2) or low (3) priority. The City of Lacey will review priority submittals as quickly as possible. Note: The majority of the submittals shall be checked as priority 2 or 3. Priority 1 submittals shall be critical or long lead items.

L A due date can be entered by the contractor. The City of Lacey will endeavor to review and return the request for approval by the requested due date.

M Any additional notes that the Contractor finds would assist the City of Lacey in reviewing the submittal can be entered in here.

Section 2

The **City of Lacey Engineer** shall fill in items **N**, **O** and **P**.

N Enter the date that the City of Lacey received the “Request for Approval of Material, Product or Shop Drawing” from the Contractor.

O Enter the name and company of the person that reviewed the submittal.

P Any comments regarding changes needed, resubmittals requirements, conditional approval, etc. shall be entered.

Section 3

The **City of Lacey Engineer** shall fill in items **Q**, **R**, and **S**.

Q Either “Rejected: New Submittal Required.”, “Review and Resubmit: See Engineer’s comments.”, “Conditionally Approved: See items included in Engineer’s comments:”, or “Conditionally Approved: No exceptions noted” shall be checked”.

R Enter the name of the Engineer sending the submittal back to the Contractor. The Engineering sending the form back may not necessarily be the Engineer completing the review.

S Enter the date that the City of Lacey transmits the “Request for Approval of Material, Product or Shop Drawing” to the Contractor.

The **Contractor** shall enter in items **T** and **U** for their own records. If there is a discrepancy between the **S** “Date City Transmitted to Contractor” and **T**, the Contractor shall notify the City of Lacey within 3 working days.

T Contractor enters the date that they received the completed “Request for Approval of Material or Shop Drawing”.

U Contractor enters the date that that they return the completed “Request for Approval of Material or Shop Drawing” to the Subcontractor/Supplier.