

Basin 61 SEWER PIPE UPSIZING PROJECT

Bid No. 23-03



Project Manual

Prepared for:

City of Mercer Island Public Works
9611 SE 36th St
Mercer Island, WA 98040

Prepared By:

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4100 194th | Suite 120
Lynnwood, WA 98036

Reichhardt & Ebe Engineering Inc
423 Front St.
Lynden, WA 98264

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FOREWORD

THE ITEMS WHICH MAKE UP THE CONTRACT DOCUMENTS ARE AS FOLLOWS:

DIVISION 0

NOTICES, BIDDING REQUIREMENTS, AND AGREEMENT FORMS

Notices, Bidding Requirements, and Agreement Forms have been copied and bound together with the remainder of the Contract Documents to facilitate the bidder's submittal of this proposal and other required documents.

GENERAL TERMS AND CONDITIONS

SUPPLEMENTAL CONDITIONS

TECHNICAL SPECIFICATIONS/SPECIAL PROVISIONS


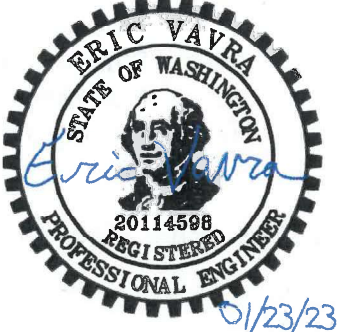
APPENDICES

- A. Prevailing Minimum Hourly Wage Rates
- B. Standard Details
- C. Flow Measurements
- D. Compiled Historical Geotechnical Information

PLANS (Bound Separately)

PROFESSIONAL RESPONSIBILITIES AND SEALS

The following Special Provisions Sections were developed by, or under the direct supervision by discipline as follows:

Supervising Professional Engineer	Applicable Sections	Professional Seal
<p>Jake Andresen, MS, P.E. Staheli Trenchless Consultants</p> <p>4100 194th St SW Suite 120 Lynnwood WA, 98036</p>	<p>SECTION 1-11 SECTION 7-20 DIVISION 9</p>	
<p>Eric Vavra, P.E. Reichhardt & Ebe Engineering Inc.</p> <p>423 Front St. Lynden, WA 98264</p>	<p>SECTION 1-10 DIVISION 2 DIVISION 5 SECTION 7-04 SECTION 7-05 SECTION 7-08 SECTION 7-17 SECTION 7-18 DIVISION 8</p>	

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APPENDIX

A Prevailing Minimum Hourly Wage Rates
B Standard Details
C Flow Measurements
D Compiled Historical Geotechnical Information

PLANS (Bound Separately)

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NOTICES

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Advertisement for Bids

City of Mercer Island

Project Title: Basin 61 Sewer Pipe Upsizing Project

Bid Number: 23-03

Engineer's Estimated Cost (range): \$700,000 to 850,000

Sealed bids will be received, not sent, electronically by the city until **1:00 pm on February 13, 2023**. Bidders shall submit their bids in PDF format to the Public Works email address at publicworks@mercerisland.gov. There will be no public bid opening for this project. Bid results will be posted on City's web page at the following web address: <https://www.mercerisland.gov/rfps>

Work to be performed under this contract includes, but is not limited to:

Work generally consists of completing 218 LF of 8-inch to 12-inch (14-inch OD HDPE), 656 LF of 10-inch to 12-inch (14-inch OD HDPE), and 251 LF of 10-inch to 16-inch (18-inch OD HDPE) pipe bursting installation to upsize existing sewer pipe. Further, the work consists of the removal and replacement of three manhole structures and the protection-in-place and refurbishment of three manholes to accommodate the pipe bursting work, disconnection and reconnection of five lateral connections, associated sewer flow bypass, and installation of an inside drop at an existing MH. Temporary traffic control and devices, HDPE pipe fusion joining, property restoration, utility location and protection, pit excavations, backfill, and paving, and other miscellaneous items will also be necessary to complete the work.

A single contract is to be awarded to the responsible bidder submitting the lowest responsive bid. The City reserves the right to reject any and all bids and to waive minor irregularities.

Plans, specifications, addenda, and bidders list are available on-line through Builders Exchange of Washington, Inc. at <http://www.bxwa.com>. Click on "Posted Projects", "Public Works", "City of Mercer Island", "Projects Bidding". Builders Exchange manages the official bidders list. Bidders are encouraged to register in order to receive automatic email notification of future addenda and to be placed on the official bidders list.

Plans and specifications are also available at the City of Mercer Island website <https://www.mercerisland.gov/rfps>. Addenda may not be available or updated on this website.

A bid deposit in the amount of five percent (5%) of the bid total price must accompany each bid.

Bidder questions are to be directed to George Fletcher, CIP Project Manager, by email at George.fletcher@mercerisland.gov.

Andrea Larson, City Clerk

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City of Mercer Island Instructions to Bidders

1. ELIGIBILITY TO BID:

It is the intent of the City to award a contract to the low responsible bidder. Before award, the bidder must meet the following bidder responsibility criteria to be considered a responsible bidder. To be eligible to bid, each Bidder must:

- A. At the time of bid submittal, have a current certificate of registration as a contractor in compliance with chapter 18.27 RCW; and
- B. Have a current Washington Unified Business Identifier (UBI) number; and
- C. If applicable:
 - i. Have Industrial Insurance (workers' compensation) coverage for the bidder's employees working in Washington, as required in Title 51 RCW; and
 - ii. Have a Washington Employment Security Department number, as required in Title 50 RCW; and
 - iii. Have a Washington Department of Revenue state excise tax registration number, as required in Title 82 RCW; and
- D. Not be disqualified from bidding on any public works contract under RCW 39.06.010 or 39.12.065(3); and
- E. Within the three-year period immediately preceding the date of the bid solicitation, not have been determined by a final and binding citation and notice of assessment issued by the department of labor and industries or through a civil judgment entered by a court of limited or general jurisdiction to have willfully violated, as defined in RCW 49.48.082, any provision of chapter 49.46, 49.48 or 49.52 RCW.

A contract shall only be awarded to a Bidder that demonstrates to the City's satisfaction that the Bidder is qualified to perform the Work and is, therefore, a responsible bidder.

2. SUBCONTRACTOR RESPONSIBILITY CRITERIA:

The Bidder must verify responsibility criteria for each first-tier subcontractor, and each subcontractor of any tier that hires other subcontractors must verify responsibility criteria for each of its subcontractors. Upon request of the City the Bidder shall promptly provide documentation to the City demonstrating that the subcontractor(s) meets the subcontractor responsibility criteria below. The requirements of this section apply to all subcontractors regardless of tier.

At the time of subcontract execution, the Bidder shall verify that each of its first-tier subcontractors meets the following bidder responsibility criteria:

- A. Have a current certificate of registration in compliance with chapter 18.27 RCW; and
- B. Have a current Washington Unified Business Identifier (UBI) number; and

- C. If applicable:
 - i. Have Industrial Insurance (workers' compensation) coverage for the subcontractor's employees working in Washington, as required in Title 51 RCW; and
 - ii. Have a Washington Employment Security Department number, as required in Title 50 RCW; and
 - iii. Have a Washington Department of Revenue state excise tax registration number as required in Title 82 RCW; and
 - iv. Have an electrical contractor license, if required by Chapter 19.28 RCW; and
 - v. Have an elevator contractor license, if required by Chapter 70.87 RCW; and

- D. Not be disqualified from bidding on any public works contract under RCW 39.06.010 or 39.12.065 (3); and

3. EXAMINATION OF PLANS, SPECIFICATIONS AND SITE:

Each bidder is instructed to examine the Plans, Specifications, Addenda, the site of the proposed improvements, and conduct any other examination and investigation which the bidder may desire to make as to the accuracy of the nature of the work and the difficulties to be encountered. The Bidder shall be responsible for all costs associated with these additional examinations including all restoration work and damages which may be a result of such investigation. Bidders shall consider Federal, State, and local laws and regulations that may affect cost, progress, or performance of the work.

4. ADDITIONAL INFORMATION:

All questions about the meaning or intent of the Contract Documents are to be directed to George Fletcher, in writing by email at george.fletcher@mercerisland.gov.

Interpretations or clarifications considered necessary by the City in response to such questions will be issued by Addenda mailed or delivered to all parties recorded by the Engineer or City as having received the Contract Documents. Questions received less than ten (10) days prior to the date for opening of Bids may not be answered. Only questions answered by formal written Addenda will be binding. Oral and other interpretations or clarifications will be without legal effect.

5. WAGES:

This Contract is subject to Chapters 39.12 and 49.28 RCW, amendments thereto and regulations issued thereunder, relating to prevailing wages, benefits and other requirements. Bidders shall examine and be familiar with such requirements. No claim for additional compensation will be allowed which is based upon a lack of knowledge or a misunderstanding of any such requirements by the Bidder or a failure to include in Bidder's price adequate increases in such wages during the performance of this Contract. A copy of the most recent prevailing wage schedule is in the Appendix of the specifications. Current prevailing wage rates for King County can be obtained from the Washington State Department of Labor and Industries at www.lni.wa.gov/TradesLicensing/PrevWage and at Appendix A of the Project Manual.

6. PROGRESS AND COMPLETION:

Time is of the essence for this Project. Progress and completion of the Work shall comply with all requirements herein, and intermediate and final completion dates as may be set forth in the specifications. The submission of

a bid constitutes the Bidder's acknowledgement that such progress and completion requirements have been taken into account in formulating a price for this Work.

7. PREVENTION OF ENVIRONMENTAL POLLUTION AND PRESERVATION OF PUBLIC NATURAL RESOURCES:

If awarded the Contract, the Bidder shall fully comply with all such environmental protection laws, ordinances and regulations dealing with prevention and environmental pollution and the preservation of public natural resources that may be applicable to this Project. The cost of such compliance shall be included in the bid prices.

8. BID FORM:

The Bid Form is included in the Contract Documents. The Bid Form must be completed in ink. Bids that contain omissions, erasures or irregularities of any kind may be rejected. Any qualification, addition, limitation or provision attached to or contained in a bid may render the bid non-responsive and not eligible for award. No oral, facsimile, telegraphic or telephonic bids or modifications will be considered.

All bids shall be signed by the Bidder, or the Bidder's authorized representative. If the bid is made:

- A. By an individual, the Bidder's name, signature, and address must be shown;
- B. By a partnership or joint venture, it shall contain the names of each partner, the mailing address of the partnership or joint venture and shall be signed in the firm name, followed by the signature of the person signing, indicating that person's position in the partnership or joint venture;
- C. By a corporation or limited liability company ("LLC"), the name of the state under the laws of which the corporation or LLC is chartered, the name and post office address of the corporation or LLC and the title of the person who signs on behalf of the corporation or LLC must be shown.

Upon the City's request, the Bidder shall provide copies of the articles of incorporation, bylaws, resolutions of board of directors, partnership papers, joint venture agreements, and any other documents evidencing the legal status of the Bidder and the authority of the Bidder's officer or representative who signed the bid on behalf of the Bidder.

The City is not responsible for any cost incurred in responding to this Call for Bids.

9. ACKNOWLEDGEMENT OF ADDENDA:

Each Bidder shall include on the Bid Form specific acknowledgment of receipt of each Addendum issued by the City during the bidding period. If the Bidder does not specifically acknowledge each addendum, the City may reject the bid as non-responsive unless the City determines from delivery records or from inclusion of information in the bid of information contained in the addenda that the Bidder received constructive notice of the addenda.

10. BID SECURITY:

The Bid shall be accompanied by a bid deposit in the amount equal to at least 5% of the Total Bid Price. The bid deposit shall be in one of the following formats and made payable to the City:

- A. A bid guaranty bond, in accordance with and using a form acceptable to the City which contains provisions substantially similar to those in the bid bond form included with the Contract Documents, duly completed by a guaranty company authorized to carry on business in the state of Washington; or
- B. A postal money order, a certified check, or cashier's check drawn upon a banking institution with a branch office in the state of Washington.

The surety signing the bid guaranty bond shall be registered with the Washington State Insurance Commissioner, and the surety's name shall appear in the current Authorized Insurance Company List in the State of Washington published by the Office of the Insurance Commissioner. A Power of Attorney must accompany the bid guaranty bond and must appoint the surety's true and lawful attorney-in-fact to make, execute, seal and deliver the bid guarantee bond. Failure to submit the required bid security with the Bid shall render the bid non-responsive and the Bid shall be rejected.

11. NON-COLLUSION:

Each bid shall be accompanied by a signed Non-Collusion Declaration in accordance with, and using the form provided by the City. Failure to submit a signed Declaration with the Bid shall render the bid non-responsive and the Bid shall be rejected.

More than one Bid from an individual, firm, partnership, corporation, or association under the same or different names will not be considered. If the City believes that any Bidder is interested in more than one Bid for the work contemplated, all Bids in which such Bidder is interested will be rejected. If the City believes that collusion exists among the Bidders, all Bids will be rejected.

12. DELIVERY OF BID:

Each Bid shall be submitted in a PDF format via electronic transmission to Public Works email address at: publicworks@mercerisland.gov. The City will not consider bids received after the time fixed for opening bids in the Advertisement for Bids.

The submission of a Bid will constitute an incontrovertible representation by the Bidder that the Bidder has complied with every requirement of these instructions, that without exception the Bid is premised upon performing the work required by the Contract Documents and such means, methods, techniques, sequences, or procedures of construction as may be indicated in or required by the Contract Documents, and that the Contract Documents are sufficient in scope and detail to indicate and convey understanding of all terms and conditions for performance of the work.

13. MODIFICATION OF BID:

A modification of a Bid will be considered only if the modification is received prior to the time announced for the opening of Bids. All modifications shall be made in writing executed and submitted in the same form and manner as the original Bid.

14. RETURN OF BID SECURITY:

After the bid prices have been compared, the City may return the bid security if, in the City's judgment, the Bidder would not be considered for award. All other Proposal Guarantees will be held until the Contract and the Performance Bond of the successful bidder have been executed.

15. EVALUATION OF BIDS AND BID ERRORS:

After opening the Bids, the City will check them for correctness of extensions of the prices per unit and the total price. If a discrepancy exists between the price per unit and the extended amount of any bid item, the price per unit will control. The total of extensions, corrected where necessary, will be used by the City for award purposes.

Irregular Bids:

- A. A Bid will be considered irregular and will be rejected if:
 - i. The authorized Bid Form furnished by the City is not used or is materially altered;
 - ii. The completed Bid Form contains any unauthorized additions, deletions, alternate bids, or conditions;
 - iii. The bidder adds provisions reserving the right to reject or accept the Award, or enter into the Contract;
 - iv. A price per unit cannot be determined from the Bid Form;
 - v. The Bid Form is not properly executed;
 - vi. An executed non-collusion certificate is not provided; or
 - vii. Proper bid security does not accompany the Bid.

- B. A Bid may be considered irregular and may be rejected if:
 - i. The Bid Form does not include a unit price for every Bid item;
 - ii. Any of the unit prices are excessively unbalanced (either above or below the amount of a reasonable Bid) to the potential detriment of the City;
 - iii. Receipt of Addenda is not acknowledged;
 - iv. A member of a joint venture or partnership and the joint venture or partnership submit Bid Forms for the same project (in such an instance, both Bids may be rejected); or
 - v. If Bid Form entries are not made in ink.

Bids will be evaluated by the City to determine which bid is the apparent lowest, responsive bid.

Bid results will be posted on the City's website at <https://www.mercerisland.gov/rfps> .

The City, in its sole discretion, reserves the right to waive minor bid errors, informalities, and immaterial irregularities when it is in the City's best interest to do so.

16. EVALUATION OF BIDDER RESPONSIBILITY:

A Contract shall only be awarded to a Bidder that demonstrates to the City's satisfaction that the Bidder is qualified to perform the Work and is, therefore, a responsible bidder.

- A. Bidder Responsibility Criteria. To be determined responsible, the Bidder must, in addition to satisfying the bidder responsibility criteria listed in Section 1. ELIGIBILITY TO BID above:
 - i. Have adequate financial resources to perform the contract, or the ability to obtain them;
 - ii. Have a satisfactory performance record;

- iii. Have a satisfactory record of integrity and business ethics;
 - iv. Have the necessary production, construction, and technical equipment and facilities or the ability to obtain them;
 - v. Be otherwise qualified and eligible to receive an award under applicable laws and regulations;
 - vi. Be in compliance with training requirements in RCW 39.04.350(1)(f); and
 - vii. Provide a statement in accordance with RCW 9A.72.085 verifying compliance with responsible bidder criteria requirement of RCW 39.04.350(1)(g).
- B. Reference Checking. To assist the City in the review of the Bidder's qualifications, the Bidder shall, within five (5) days of being requested to do so by the City, provide the following information:
- i. Past Experience in Similar Projects. Provide a list of all construction contracts (whether completed or in progress) entered into or performed by the Bidder within the past five (5) years for projects similar in scope, time and complexity to the work called for under this Contract. Provide the names of the contracts, the contract price, and the names and phone numbers of the owners.
 - ii. References. Provide a list of five (5) references. References will be asked to rate performance on the following items: overall project performance; acceptable experience and technical knowledge; effective coordination of subcontractors; ability to coordinate and work with utility companies and governmental entities; responsiveness to owner requests; attention to safety; quality and timeliness of submittals, change order proposals, project schedule, schedule updates and other applicable paperwork.

If the Bidder is a joint venture, the Bidder shall submit information for the joint venture if the members have worked together in the past and also information about each member of the joint venture. The Joint Venture Agreement shall be included in the submission.

If the Bidder fails to supply information requested concerning responsibility within the time and the manner specified, the City may base its determination of responsibility upon any available information related to the responsibility criteria or may find the Bidder is not responsible.

The City reserves the right to inspect records, reports and other information which may be maintained by or for the Bidder to the extent necessary, as determined by the City to verify, clarify or otherwise consider the information provided by the Bidder.

17. DETERMINATION OF NON-RESPONSIBILITY:

If the City determines a Bidder to be not responsible, the City will provide, in writing, the reasons for the determination. The Bidder may appeal the determination within ten (10) days of its receipt of the City's determination of non-responsibility by presenting additional information to the City. The City shall consider the additional information before issuing its final determination. If the City's final determination affirms that the Bidder is not responsible, the City shall not execute a contract with any other bidder until two (2) business days after the Bidder determined to be not responsible has received the final determination.

18. CONTRACT AWARD:

If a Contract is awarded, the City will award the contract to the responsible bidder that submits the lowest total responsive bid for the schedule(s) selected by City after bid opening and prior to award.

If the Contract is to be awarded, City will give the successful Bidder a Notice of Award within sixty (60) days after the day of the Bid opening. No other act of the City or others will constitute acceptance of a Bid.

The City reserves the right to request bidders to extend the effective period of their bids.

19. REJECTION OF ALL BIDS:

The City reserves the right to reject any or all Bids at any time up to actual execution of the Public Works Contract, even if there has been an award of the Contract.

Any or all Bids will be rejected if the City has reason to believe that collusion exists among the Bidders.

20. EXECUTION OF PUBLIC WORKS CONTRACT:

The Bidder to whom award is made shall execute a written Public Works Contract with the City on the form provided, shall secure all insurance, and shall furnish all certificates, endorsements and bonds required by the Contract Documents within ten (10) calendar days after receipt of the forms from the City. Failure or refusal to execute the Public Works Contract as herein provided or to conform to any of the stipulated requirements in connection therewith shall be just cause for annulment of the award and forfeiture of the Bid security. If the lowest responsive, responsible Bidder refuses or fails to execute the Public Works Contract, the City may award the Contract to the second lowest responsive, responsible Bidder. If the second lowest responsive, responsible Bidder refuses or fails to execute the Public Works Contract, the City may award the contract to the third lowest responsive, responsible Bidder. On the failure or refusal of such second or third lowest Bidder to execute the Agreement, each such Bidder's Bid securities shall be likewise forfeited to the City.

21. BID PROTEST PROCEDURES:

- A. Form of Protest. In order to be considered, a Protest shall be in writing, addressed and delivered to the attention of the project manager at the City of Mercer Island, 9611 SE 36th Street, Mercer Island, Washington 98040. The Protest shall include the following:
 - i. The name, address, and phone number of the Bidder protesting, or the authorized representative of the Bidder;
 - ii. A complete, detailed statement of all grounds for protest, supporting authority, and any supporting documentation. Supplemental information will not be considered unless the supplementation contains information not available at the time of protest;
 - iii. The specific ruling or relief requested; and
 - iv. Evidence that all persons with a financial interest in the procurement have been given notice of the Protest or if such persons are unknown, a statement to that effect.

- B. Who May Protest:
 - i. Protests based on specifications: Any prospective Bidder.

- ii. Protests following Bid opening: Any Bidder with a substantial financial interest in the award of a Contract.
- C. Time to Protest:
- i. Protests based on specifications or other terms in the Contract Documents must be received by the City no later than ten (10) calendar days prior to the date established for submittal of Bids.
 - ii. The City must receive protests based on other circumstances within five (5) calendar days after the bids are opened and publicly read.
 - iii. In no event shall a Protest be considered if all bids are rejected or after execution of the Contract.
- D. Determination of Protest. Upon receipt of a timely written Protest, the City shall investigate the Protest and shall respond in writing to the Protest prior to the award of Contract. If protest is submitted in accordance with the procedures set forth above, the City will not execute a contract any sooner than two (2) business days after the City's decision on the Protest.
- E. Failure to Comply. Failure to comply with the procedures set forth herein may render a Protest untimely or inadequate and may result in rejection thereof by the City.
- F. Exhaustion of Administrative Remedies. By submitting a bid, the Bidder agrees the Bidder's compliance with the protest procedures set forth herein are a mandatory condition precedent to the Bidder initiating a lawsuit against the City.
- G. Venue. By submitting a bid, the Bidder acknowledges and agrees that a lawsuit or action related to or arising out of this procurement shall be brought in the Superior Court of King County, Washington.

Bidder's Checklist

ALL BIDDERS must properly complete, execute and submit the following with their bids:

1. **NON-COLLUSION DECLARATION:** Failure to submit the certificate shall make the bid non-responsive and not eligible for award.
2. **BID FORM:** Bidders must bid on all items contained in the Bid Form and the Form must be signed. The omission or deletion of any bid item may render the bid non-responsive and result in the rejection of the bid. Bidders are reminded to comply with RCW 39.30.060.
3. **CONTRACTOR DECLARATION PURSUANT TO RCW 39.04.350(2):** Failure to submit the declaration shall make the bid non-responsive and not eligible for award.
4. **BID GUARANTY BOND:** Failure to furnish a bid deposit of a minimum of five percent (5%) shall make the bid non-responsive and not eligible for award.
5. **BIDDERS QUALIFICATION CERTIFICATE:** To be completed and signed. The City reserves the right to check all statements and to judge the adequacy of the bidder's qualifications.

To assist the City in the review of the responsible Bidder's qualifications, the Bidder(s) shall, within five (5) days of being requested to do so by the City, provide the information required in Evaluation of Bidder Responsibility of the Instructions to Bidders, including a statement in accordance with RCW 9A.72.085 verifying compliance with responsible bidder criteria requirement of RCW 39.04.350(1)(g).

The **SUCCESSFUL BIDDER** shall properly complete, execute (as required) and submit the following after receiving notice of the award of the Project.

1. Public Works Contract,
2. Performance Bond,
3. Payment Bond,
4. Certificate of Insurance,
5. Retainage Agreement,
6. Statement of Intent to Pay Prevailing Wages,
7. Other documents requested by City.

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Bidder's Qualification Certificate

The undersigned hereby certifies and submits the following:

Company Name _____
Address _____

Owner Name _____
Contact Person _____
Contact Person's Title _____
Phone _____
E-mail _____

Washington State Contractor Registration # _____
Washington State Unified Business Identifier (UBI)# _____
Federal Tax ID # _____
City of Mercer Island Business License #
(required prior to award of contract) _____

	Yes or No	Account / Registration Number (as applicable)
Does the contractor have industrial insurance coverage for its employees working in Washington as required by Title 51 RCW?	_____	_____
Does the contractor have a Washington State excise tax registration number as required by Title 82 RCW?	_____	_____
Does the contractor have a Washington State Employment Security Department number as required by Title 50 RCW?	_____	_____
Has the contractor been disqualified from bidding on any public works contract under RCW 39.06.010 or 39.12.065(3)?	_____	_____
Has the contractor received training on the requirements related to public works contracts and prevailing wage requirements pursuant to RCW 39.04.350(f) and chapter 39.12 RCW, or is the contractor otherwise exempt from this requirement by the department of labor and industries?	_____	_____
Within the three-year period immediately preceding the date of the bid solicitation, has the contractor been determined by a final and binding citation and notice of assessment issued by the Department of Labor and Industries or through a civil judgment entered by a court of limited or general jurisdiction to have willfully violated, as defined in RCW 49.48.082, any provision of Chapters 49.46, 49.48, or 49.52 RCW?	_____	_____

By: _____
Signature _____ **Print Name** _____
Title _____ **Date** _____

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Contractor Declaration Pursuant to RCW 39.04.350(2)

Project Name: BASIN 61 SEWER PIPE UPSIZING PROJECT

Bidder/Contractor:

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

1. I am the representative for the above-named bidder/contractor, and as its _____, I am authorized to make the declaration herein on its behalf.

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

Date and Place

Signature

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BIDDING REQUIREMENTS

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NON-COLLUSION DECLARATION

Project Name: Basin 61 Sewer Pipe Upsizing Project

Bidder/Contractor: _____

I, _____, declare under penalty of perjury under the laws of the State of Washington that the following statements are true and correct:

1. I am the representative for the above-named bidder/contractor, and as its _____, I am authorized to make the declaration herein on its behalf.
2. That the undersigned person(s), firm, association or corporation has (have) 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 connection with the project for which this proposal is submitted.

Date and Place

Signature

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BID FORM

(NOTE TO BIDDER: This BID FORM shall be completed in ink or typewritten)

TO: City of Mercer Island
ADDRESS: 9611 SE 36th Street
Mercer Island, Washington 98040
PROJECT TITLE: Basin 61 Sewer Pipe Upsizing Project

Bidder Declaration and Understanding

The undersigned Bidder hereby declares that they have carefully examined the Contract Documents for the construction of the project, that they have personally inspected the site, that they have satisfied themselves as to the quantities involved, including materials and equipment, and conditions of work involved, including the fact that the description of the quantities of work and materials, as included herein, is brief and is intended only to indicate the general nature of the work and to identify the quantities with the detailed requirements of the Contract Documents, and that this Proposal is made according to the provisions and under the terms of the Contract Documents, which Documents are hereby made a part of this Proposal. The Bidder further declares that they have exercised their own judgment regarding the interpretation of subsurface information and has utilized all data, which they believe pertinent from the Engineer, Owner, and other sources and have made such independent investigations as the Bidder deems necessary in arriving at their conclusions.

The Bidder is hereby notified that no goal for disadvantaged business enterprise utilization has been established for this project. As part of the City's affirmative action effort, however, the City encourages participation of certified disadvantaged businesses and women business enterprises to act as prime contractors as well as subcontractors on this project.

The undersigned Bidder hereby declares that Bidder has carefully examined the Contract Documents including the following addenda, receipt of all is hereby acknowledged:

Addendum Number	_____	Date	_____
	_____		_____
	_____		_____
	_____		_____

Start of Construction and Contract Completion Time

The City of Mercer Island recognizes there are nationwide supply chain and materials availability issues that could affect bidders' abilities to obtain adequate supplies, HDPE Pipe, and other accessories in normal (or preferred) timeline and that bidders may experience longer than normal lead times to receive their entire material orders.

The Bidder agrees that he will begin work and/or order materials within 10 calendar days of the Notice to Proceed, and Final Completion of the entire project will be achieved by the Final Completion Date (except for extensions of time granted in accordance with the General Terms and Conditions). The Bidder further agrees he/she will, if necessary, accelerate his work, provide additional workers and equipment, and expedite materials delivery to meet these dates, all at no additional expense to the OWNER.

By submitting this bid, the bidder agrees that, if awarded this contract, they will achieve Substantial Completion within 45 working days from the Notice to Proceed and the Physical Completion Date shall be 55 working days from Notice to Proceed.

Project Timeline and Work Limitations

1. A Contract is scheduled for City Council Award on March 7th, 2023.
2. Limited Notice to Proceed allowing submittals, RFIs, and permit applications will be provided after contract award. Working days will not commence at this time.
3. A Pre-Construction meeting is tentatively planned for the week of March 13th, 2023.
4. Full Notice to Proceed will be issued and construction start date for the Work will be determined at the Pre-construction meeting.
5. The project work area encompasses a large portion of Mercerdale Park and this is a heavily used park. The contract work must be completed outside the dates of June 19, 2023 to September 8, 2023. If Substantial Completion cannot be achieved by June 16, 2023, the work shall begin no earlier than September 11, 2023.
6. Scheduled start date must be either prior to April 10, 2023 OR after September 11, 2023.
7. The Mercer Island Thrift Store current hours of operation are Sunday through Thursday. Provide notice of intent to occupy and close sections of the Thrift Store parking lot a minimum of 1 month in advance. Closures must be scheduled to begin during the Thrift Store off hours. Limit closures and provide written notice of specific closure dates as shown on the Drawings.
8. Work requiring staging of equipment at MH 61-200 and 61-199 along SE 32nd Street must be scheduled first, prior to the rest of the work.

Lump Sum or Unit Price Work

The Bidder proposes to accept as full payment for the work proposed herein the amounts computed under the provisions of the Contract Documents and based on the following lump sum or unit price amounts, it being expressly understood that the unit prices are independent of the exact quantities involved. The Contractor shall be compensated for the actual unit quantities performed in accordance with the General Terms and Conditions set forth in these Contract Documents. The Bidder agrees that the lump sum prices and the unit prices represent a true measure of the labor, services, and materials required to perform the work, including all allowances for Contractor-paid taxes, overhead, and profit for each type and unit of work, as well as any auxiliary costs associated with completing a unit of work called for in these Contract Documents. The City does not guarantee the quantities estimated for unit price items, nor does the City limit itself to the estimated number.

If any material, item, or service required by the Contract Documents has not been mentioned specifically, the same shall be furnished and placed with the understanding that the full cost to the Owner has been merged with the prices named in the Proposal.

To the extent possible, standard bid items have been utilized for the work listed in the Proposal. The Bidder is directed to review the Standard Specifications and the City of Mercer Island's Amendments (Technical Specifications herein) for descriptions of bid item work, measurement, and payment.

Certification of Non-Segregated Facilities

The Bidder certifies that the Bidder does not maintain or provide for the Bidder's Employees any segregated facilities at any of the Bidder's establishments, and that the Bidder does not permit the Bidder's employees to perform their services at any location, under the Bidder's control, where segregated facilities are maintained.

Prevailing Wages

The Bidder agrees to pay to labor not less than the hourly minimum rates of wages and fringe benefits determined by the State of Washington Department of Labor and Industries as included in the Appendix.

Bid Schedule

NO	DESCRIPTION OF ITEM	QTY	UNITS	UNIT PRICE	AMOUNT
1	Minor Changes	1	FA	\$40,000	\$40,000
2	Mobilization, Cleanup, and Demobilization	1	LS		
3	Asbestos Abatement	1	LS		
4	Record Drawings (Minimum Bid \$500.00)	1	LS		
5	Project Temporary Traffic Control	1	LS		
6	Clearing and Grubbing	1	LS		
7	Removal of Structures and Obstructions	1	LS		
8	Water	1	M GAL.		
9	Structure Excavation Class B Incl. Haul	400	CY		
10	Shoring or Extra Excavation Class B	1550	SF		
11	Dewatering	1	LS		
12	Crushed Surfacing Top Course	700	TON		
13	Commercial HMA	35	TON		
14	Temporary Barrier	385	LF		
15	Solid Wall PVC Storm Sewer Pipe 12 Inch Diameter	20	LF		
16	Manhole 48 In. Diam. Type 1	3	EA		
17	Drop Manhole Connection	1	EA		
18	PVC Sanitary Sewer Pipe 6 In. Diam	10	LF		
19	PVC Sanitary Sewer Pipe 8 In. Diam.	10	LF		
20	Pipe Bursting - 8-inch to 12-inch (14" DR17 HDPE)	218	LF		
21	Pipe Bursting - 10-inch to 12-inch (14" DR17 HDPE)	656	LF		

22	Pipe Bursting - 10-inch to 16-inch (18" DR17 HDPE)	251	LF		
23	Reconnect Lateral Service	6	EA		
24	Protect & Refurbish Manhole in Place	3	EA		
25	Temporary Sewer Bypass	1	LS		
26	Erosion Control and Water Pollution Prevention	1	FA	\$3,000	\$3,000
27	High Visibility Fence	1315	LF		
28	Street Cleaning	10	HR		
29	Plant Selection Autumn Gold	2	EA		
30	Landscape and Property Restoration	1	EST	\$60,000	\$60,000
31	Cement Conc. Traffic Curb and Gutter	27	LF		
32	Cement Conc. Traffic Curb	20	LF		
33	Cement Conc. Sidewalk	16	SY		
34	Cement Conc. Curb Ramp Type Perpendicular A	1	EA		
35	Pothole Existing Underground Utility	15	EA		
36	Pothole and Protect Existing Underground Utility	5	EA		

Subtotal _____

Sales Tax (10.1%) _____

Total _____

Subcontractor Listing – RCW 39.30.060

Pursuant to RCW 39.30.060, the Bidder shall list as part of its Bid either itself or the names of the subcontractors with whom the Bidder, if awarded the contract, will subcontract for performance of the work of heating, ventilation and air conditioning (“HVAC”), plumbing as described in chapter 18.106 RCW, and electrical as described in chapter 19.28 RCW. The Bidder shall not list more than one subcontractor for each category of work.

Failure of the Bidder to submit as part of the Bid the names of such subcontractors or to name itself to perform such work or the naming of two or more subcontractors to perform the same category of work shall render the Bidder’s Bid nonresponsive and therefore, void.

The requirement of this section to name the Bidder’s proposed HVAC, plumbing, and electrical subcontractors applies only to proposed HVAC, plumbing, and electrical subcontractors who will contract directly with the general contractor submitting the Bid to the City.

Electrical work must be performed by a licensed electrical contractor. Bidders are cautioned that installation of electrical equipment (PVC or metal conduit, junction boxes or similar work) may be considered electrical work even if for future use and no electrical current is involved.

If the subcontract work categories as described above are not applicable to the work being bid, the bidder must indicate that the subcontract category is “NOT APPLICABLE.”

HVAC

Subcontractor Name: _____

UBI Number: _____

Plumbing

Subcontractor Name: _____

UBI Number: _____

Electrical

Subcontractor Name: _____

UBI Number: _____

PROPOSAL SIGNATURE SHEET

If Sole Proprietor, Partnership or Joint Venture

IN WITNESS hereto the undersigned have set their hands this

_____ day of _____, 20_____.

Name of Bidder (name each partner
or joint venture partner) _____

Washington Contractor's Registration
No. _____

Address _____

Authorized Signature _____

Position/Title _____

If Corporation or Limited Liability Company (LLC)

IN WITNESS WHEREOF the undersigned corporation has caused this instrument to be executed and its seal
affixed by its duly authorized officers this

_____ day of _____, 20_____.

Name of Corporation or Limited
Liability Company (LLC) _____

Washington Contractor's Registration
No. _____

Address _____

State of Incorporation or Organization _____

Authorized Signature _____

Position/Title _____

BID GUARANTY BOND

KNOW ALL BY THESE PRESENTS: That we, _____,
as Principal, and _____, as Surety, are jointly and severally held and firmly
bound unto the City of Mercer Island, hereinafter called the Obligee, each in the penal sum of five percent (5%) of the
Principal's Total Bid Price for the work, this sum not to exceed _____ DOLLARS
(\$ _____) (hereinafter referred to as "penal sum") of lawful money of the United States, for the payment whereof
unto the Obligee.

WHEREAS, the Principal is herewith submitting its bid proposal for the

Basin 61 Sewer Pipe Upsizing Project

NOW, THEREFORE, the condition of this obligation is such that if the Principal is awarded the Contract, and if the
Principal, within the time specified, fulfills all of the requirements of the Contract Documents which are conditions
precedent to the execution of the Agreement, enters into, executes and delivers to the Obligee an agreement on the
form provided herein complete with evidences of insurance, and if the Principal, within the time specified, gives to the
Obligee the performance and payment bond on the forms provided herein, then this obligation shall be void;
otherwise, the Principal and Surety shall pay unto the Obligee the penal sum; provided however, in no event shall the
Surety's liability exceed the penal sum. Provided further, if the difference in money between the Principal's Total Bid
Price and the amount for which the Obligee legally contracts with another party to fulfill the Contract is greater than
the penal sum, the Principal shall pay unto the Obligee the difference between the penal sum and the amount the
Obligee pays another to fulfill the Contract.

AND IT IS HEREBY DECLARED AND AGREED that the Surety shall be liable under this obligation as Principal, and
that nothing of any kind or nature whatsoever that will not discharge the Principal shall operate as a discharge or a
release of liability of the Surety.

IT IS HEREBY FURTHER DECLARED AND AGREED that this obligation shall be binding upon and inure to the
benefit of the Principal, the Surety and the Obligee and their respective heirs, executors, administrators, successors
and assigns.

SIGNED this _____ day of _____, 20 _____.

Principal: _____ Surety: _____

By: _____ By: _____

Title: _____ Title: _____

Address: _____ Address: _____

Telephone: () _____ Telephone: () _____

**Note: A power of attorney must be provided which appoints the Surety's true and lawful attorney-in-fact to
make, execute, seal and deliver this bid guaranty bond.**

AGREEMENT FORMS

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CITY OF MERCER ISLAND, WASHINGTON
PUBLIC WORKS CONTRACT
FOR
Basin 61 Sewer Pipe Upsizing Project

THIS PUBLIC WORKS CONTRACT ("Contract") dated _____, is effective on the date the Contract is fully executed by the Parties. The Parties to this Contract are the CITY OF MERCER ISLAND, a Washington municipal corporation ("City" or "Owner"), and _____, a Washington _____ ("Contractor").

A. The City desires to retain an independent contractor to furnish all labor and materials necessary to perform work to complete CIPP lining and related work on Mercer Island, Washington ("Property"); and

B. The Contractor has the requisite skill and experience to perform such work and has submitted a proposal dated _____ to complete such work ("Proposal").

NOW, THEREFORE, the parties ("Parties") agree to the following terms and conditions:

1. SERVICES BY CONTRACTOR

- 1.1 Description of Work. Contractor shall perform all work and furnish all tools, materials, supplies, equipment, labor and other items incidental thereto necessary for the construction and completion of the work, more particularly described in the Contract Documents for Basin 40 CIPP Sewer Lining Project – Phase 1, including this Public Works Contract, the Contractor's completed Bid Form, the City's General Terms and Conditions (May 2020 ed.), any Supplemental and/or Special Conditions, Technical Specifications, Drawings and Addenda, which documents are incorporated by this reference, ("Work"), which Work shall be completed to the City's satisfaction, within the time period prescribed by the City and pursuant to the direction of the City Manager or his or her designee.
- 1.2 Completion Date. The Work shall be commenced within ten (10) days of receipt by the Contractor of the City's Notice to Proceed and shall be Substantially Completed by _____ (the "Contract Time") as may be extended in accordance with the Contract Documents. In the event the Work is not completed within the time specified, Contractor agrees to pay to the City liquidated damages in the amount set forth in Section 1.3 of this Contract.
- 1.3 Liquidated Damages. TIME IS OF THE ESSENCE OF THIS CONTRACT. Delays inconvenience the residents of Mercer Island and cost taxpayers undue sums of money, adding time needed for administration, engineering, inspection and supervision. It is impractical for the City to calculate the actual cost of delays. Accordingly, the Contractor agrees to pay liquidated damages as follows: Liquidated damages for failure to achieve timely Substantial Completion shall be in the amount of \$750.00 per day.
- 1.4 Performance Standard. Contractor shall perform the Work in a manner consistent with accepted practices for highly skilled and competent contractors performing this type of work in this area.

- 1.5 Compliance with Laws. Contractor shall perform the Work in accordance with all applicable federal, state and City laws, including but not limited to all City ordinances, resolutions, standards, or policies, as now existing, or hereafter adopted or amended, and obtain all necessary permits and pay all permit, inspection, or other fees, at its sole cost and expense.
- 1.6 Utility Location. Contractor is responsible for locating any underground utilities affected by the Work and is deemed to be an excavator for purposes of Chapter 19.122 RCW, as amended. Contractor shall be responsible for compliance with Chapter 19.122 RCW, including utilization of the "one call" locator system before commencing any excavation activities.
- 1.7 Air Environment. Contractor shall fully cover any and all loads of loose construction materials including without limitation, sand, dirt, gravel, asphalt, excavated materials, construction debris, etc., to protect said materials from air exposure and to minimize emission of airborne particles to the ambient air environment within the City of Mercer Island.

2. TERM

This Contract shall commence on the effective date of this Contract and continue until the Work is complete, and formally accepted by City, and all warranties have expired.

3. REQUISITE SKILL

The Contractor warrants that it has the requisite skill to complete the Work and is appropriately accredited and licensed by all applicable agencies and governmental entities, including but not limited to being registered to do business in the City of Mercer Island by obtaining a City of Mercer Island business registration. Contractor represents that it has visited the site and is familiar with all of the plans and specifications in connection with the completion of the Work.

4. COMPENSATION

- 4.1 Total Compensation. In consideration of the Contractor performing the Services, the City agrees to pay the Contractor an amount not to exceed _____ Dollars (\$ _____), based on the Proposal submitted by Contractor dated _____ and as may be adjusted under the Contract Documents.
- 4.2 Contractor Responsible for Taxes. Except as otherwise stated in the Contract Documents, the Contractor shall be solely responsible for the payment of any taxes imposed by any lawful jurisdiction as a result of the performance and payment of this Contract.
- 4.3 Method of Payment. Payment by the City for the Work will only be made after the Work has been completed, a voucher or invoice is submitted in a form satisfactory to the City, and such invoice is approved by the appropriate City representative. Payment shall be made within thirty (30) days of receipt of such invoice or voucher unless otherwise set forth in the Bid Form. The Contractor's acceptance of such payment for the Work shall constitute full compensation for the performance of the Work. Invoices shall be submitted to:

City of Mercer Island
ATTN: George Fletcher, CIP Project Manager
9611 SE 36th Street

4.4 Retainage. Pursuant to Chapter 60.28 RCW, five percent (5%) of the Total Compensation shall be retained by the City to assure payment of Contractor's state taxes as well as payment of subcontractors, suppliers, and laborers. Upon execution of this Contract, Contractor shall complete, execute, and deliver to the City the Contractor's Retainage Agreement set forth in the Contract Documents. No payments shall be made by the City from the retained percentage fund ("Fund") nor shall the City release any retained percentage escrow account to any person, until the City has received from the Department of Revenue a certificate that all taxes, increases, and penalties due from the Contractor and all taxes due and to become due with respect to the Contract have been paid in full or that they are, in the Department's opinion, readily collectible without recourse to the State's lien on the retained percentage. Upon non-payment by the general contractor, any supplier or subcontractor may file a lien against the retainage funds, pursuant to Chapter 60.28 RCW. Subcontractors or suppliers are required to give notice of any lien within thirty (30) days of the completion of the Work and in the manner provided in RCW 39.08.030. Within sixty (60) days after completion of all Work on this Contract, the City shall release and pay in full the money held in the Fund, unless the City becomes aware of outstanding claims made against this Fund.

5. EQUAL OPPORTUNITY EMPLOYER

In all Contractor services, programs or activities, and all Contractor hiring and employment made possible by or resulting from this Contract, there shall be no discrimination by Contractor or by Contractor's employees, agents, subcontractors or representatives against any person because of sex, sexual orientation, age (except minimum age and retirement provisions), race, color, creed, national origin, marital status or the presence of any disability, including sensory, mental or physical handicaps, unless based upon a bona fide occupational qualification in relationship to hiring and employment. This requirement shall apply, but not be limited to the following: employment, advertising, layoff or termination, rates of pay or other forms of compensation, and selection for training, including apprenticeship. Contractor shall not violate any of the terms of Chapter 49.60 RCW, Title VII of the Civil Rights Act of 1964, the Americans With Disabilities Act, Section 504 of the Rehabilitation Act of 1973 or any other applicable federal, state, or local law or regulation regarding non-discrimination. Any material violation of this provision shall be grounds for termination of this Contract by the City and, in the case of the Contractor's breach, may result in ineligibility for further City agreements.

6. INDEPENDENT CONTRACTOR/CONFLICT OF INTEREST

It is the intention and understanding of the Parties that the Contractor shall be an independent contractor and that the City shall be neither liable nor obligated to pay Contractor sick leave, vacation pay or any other benefit of employment, nor to pay any social security or other tax which may arise as an incident of employment. The Contractor shall pay all income and other taxes as due. Industrial or any other insurance which is purchased for the benefit of the City, regardless of whether such may provide a secondary or incidental benefit to the Contractor, shall not be deemed to convert this Contract to an employment contract. It is recognized that Contractor may perform work during the Term of this Contract for other third parties; provided, however, that such performance of other work shall not conflict with or interfere with the Contractor's ability to perform the Work. Contractor agrees to resolve any such conflicts of interest in favor of the City.

7. INDEMNIFICATION

7.1 Indemnification and Hold Harmless.

- A. The Contractor shall protect, defend, indemnify, and hold harmless City, its elected officials, officers, agents, volunteers, and employees, from any and all claims, demands, suits, penalties, losses, damages, judgments, or costs of any kind whatsoever, including attorneys' fees (hereinafter "claims"), arising out of or in connection with the performance of this Contract except for injuries and damages caused by the sole negligence of the City. However, should a court of competent jurisdiction determine that this Contract is subject to RCW 4.24.115, then, in the event of liability for damages arising out of bodily injury to persons or damages to property caused by or resulting from the concurrent negligence of the Contractor and the City, its officers, officials, employees, and volunteers, the Contractor's liability hereunder shall be only to the extent of the Contractor's negligence.

- B. The Contractor's obligations under this section shall include, but not be limited to,
 - i. The duty to promptly accept tender of defense and provide defense to City at the Contractor's own expense.

 - ii. The duty to indemnify and defend City, its elected officials, officers, agents, and employees, from any claim, demand, and/or cause of action brought by or on behalf of any of its employees, or agents. The foregoing duty is specifically and expressly intended to constitute a waiver of the Contractor's immunity under Washington's Industrial Insurance Act, RCW Title 51, as respects City with a full and complete indemnity and defense of claims made by the Contractor's employees. The parties acknowledge that these provisions were mutually negotiated upon by them.

 - iii. To the maximum extent permitted by law, the Contractor shall indemnify and defend City, its elected officials, officers, agents and employees, from and be liable for all damages and injury which shall be caused to owners of property on or in the vicinity of the work or which shall occur to any person or persons or property whatsoever arising out of the performance of this Contract, whether or not such injury or damage is caused by negligence of the Contractor or caused by the inherent nature of the work specified.

- C. City may, in its sole discretion, (1) withhold amounts sufficient to pay the amount of any claim for injury, and/or (2) pay any claim for injury of which City may have knowledge, regardless of the formalities of notice of such claim, arising out of the performance of this Contract.

- D. Any amount withheld will be held until the Contractor secures a written release from the claimant, obtains a court decision that such claim is without merit, or satisfies any judgment on such claim. In addition, the Contractor shall reimburse and otherwise be liable for claims costs incurred by City, including, without limitation, costs for claims adjusting services, attorneys, engineering, and administration.

- E. In the event City incurs any judgment, award, and/or costs arising therefrom, including attorneys' fees, to enforce the provisions of this article, all such fees, expenses, and costs shall be recoverable from the Contractor.
- F. This provision has been mutually negotiated by the City and the Contractor.

7.2 Survival. The provisions of this Section 7 shall survive the expiration or termination of this Contract with respect to any event occurring prior to such expiration or termination.

8. INSURANCE

8.1 The Contractor agrees to carry without interruption from commencement of the Contractors work through the term of the contract and for thirty (30) days after Physical Completion, unless otherwise indicated herein, the following insurance against claims for injuries to persons or damage to property which may arise from or in connection with the performance of the Work by Contractor, its agents, representatives, employees or subcontractors with a carriers having a current A.M. Best rating of not less than A:VII. The City, at its discretion, may require additional types and greater limits of insurance coverage commensurate with the risk associated with the performance of the Work.

- A. Workers' Compensation and Employer's Liability Insurance in amounts sufficient pursuant to the laws of the State of Washington.
- B. Commercial general liability insurance shall be written on a form at least as broad as Insurance Services Office (ISO) occurrence form CG 00 01 and shall cover liability arising from premises, operations, independent contractors, products-completed operations for three years following substantial completion of the Work, stop gap liability, personal injury and advertising injury, and liability assumed under an insured contract. The Commercial General Liability insurance shall be endorsed to provide the Aggregate Per Project Endorsement ISO form CG 25 03 05 09. There shall be no exclusion for liability arising from explosion, collapse, or underground property damage. The City shall be named as an additional insured under the Commercial General Liability insurance policy with respect to the Work performed for the City using ISO Additional Insured endorsement CG 20 10 10 01 and Additional Insured Completed Operations endorsement CG 20 37 10 01 or substitute endorsements providing coverage at least as broad, with limits of no less than \$2,000,000 each occurrence, \$2,000,000 general aggregate, and a \$2,000,000 products-completed operations aggregate limit.
- C. Automobile liability insurance covering all owned, non-owned, hired, and leased vehicles. Coverage shall be written on ISO form CA 00 01 or a substitute form providing equivalent liability coverage. If necessary, the policy shall be endorsed to provide contractual liability coverage with combined single limits for bodily injury and property damage of not less than \$1,000,000 per accident.
- D. Asbestos Abatement or Hazardous Materials. If asbestos abatement or hazardous materials work is performed, Contractor shall review coverage with the City Attorney's office and provide scope and limits of coverage that are appropriate for the scope of Work and are satisfactory to the City. Contractor shall not commence any Work until its coverage has been approved by the City Attorney's office.

- E. Builders Risk insurance covering interests of the City, the Contractor, Subcontractors, and Sub-subcontractors in the work. Builders Risk insurance shall be on a special perils policy form and shall insure against the perils of fire and extended coverage and physical loss or damage including flood, earthquake, theft, vandalism, malicious mischief, and collapse. The Builders Risk insurance shall include coverage for temporary buildings, debris removal, and damage to materials in transit or stored off-site. This Builders Risk insurance covering the work will have a deductible of \$5,000 for each occurrence, which will be the responsibility of the Contractor. Higher deductibles for flood and earthquake perils may be accepted by the City upon written request by the Contractor and written acceptance by the City. Any increased deductibles accepted by the City will remain the responsibility of the Contractor. The Builders Risk insurance shall be maintained until the City has granted substantial completion of the project. An installation floater may be acceptable in lieu of Builders Risk for renovation projects only if approved in writing by the City. Builders Risk insurance shall be written in the amount of the completed value of the project with no coinsurance provisions.
- 8.2 The City shall be named as additional insured on all such insurance policies, with the exception of workers' compensation coverages. The Contractor's insurance coverage shall be primary insurance as respect the City. Any insurance, self-insurance, or insurance pool coverage maintained by the City shall be excess of the Contractor's insurance and shall not contribute with it. If the Contractor maintains higher insurance limits than the minimums shown above, the City shall be insured for the full available limits of Commercial General and Excess or Umbrella liability maintained by the Contractor, irrespectively of whether such limits maintained by the Contractor are greater than those required by this Contract or whether any certificate of insurance furnished to the City evidences limits of liability lower than those maintained by the Contractor. Contractor shall provide certificates of insurance and amendatory endorsements, concurrent with the execution of this Contract, evidencing such coverage and, at City's request, furnish the City with copies of all insurance policies and with evidence of payment of premiums or fees of such policies. The Contractor shall provide the City and all Additional Insureds for this work with written notice of any policy cancellation within two business days of their receipt of such notice.
- 8.3 The Contractor shall cause each and every Subcontractor to provide insurance coverage that complies with all applicable requirements of the Contractor-provided insurance as set forth herein, except that the Contractor shall have sole responsibility for determining the limits of coverage required to be obtained by Subcontractors. The Contractor shall ensure that the City is an additional insured on each and every Subcontractor's Commercial General Liability insurance policy using an endorsement at least as broad as ISO CG 20 10 10 01 for ongoing operations and CG 20 37 10 01 for completed operations.
- 8.4. Failure on the part of the Contractor to maintain the insurance as required shall constitute a material breach of contract, upon which the City 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 City on demand, or at the sole discretion of the City, offset against funds due the Contractor from the City.
- 8.5 Waiver of Subrogation. The Contractor and the City waive all rights against each other, any of their Subcontractors, Sub-subcontractors, agents, and employees, each of the other, for

damages caused by fire or other perils to the extent covered by Builders Risk insurance or other property insurance obtained pursuant to the Insurance Requirements Section of this Contract or other property insurance applicable to the work. The policies shall provide such waivers by endorsement or otherwise.

- 8.6 The 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 City's recourse to any remedy available at law or in equity.
- 8.7 The provisions of this Section shall survive the expiration or termination of this Contract with respect to any event occurring prior to such expiration or termination.

9. PERFORMANCE/PAYMENT BOND OR ADDITIONAL RETAINAGE

Pursuant to RCW 39.08.010, Contractor shall provide Performance Bond and Payment Bond each in an amount equal to 100% of the amount of this Contract to cover the performance of all provisions of this Contract and the payment of all laborers and suppliers. The Contract bonds shall be in a form set forth in the Contract Documents. The Contract bond shall assure that the Contractor will faithfully perform all of the provisions of the Contract as well as pay all laborers, mechanic subcontractors, materialmen, and suppliers. Contractor's obligations under this Contract shall not be limited to the bond amount.

Alternatively, pursuant to RCW 39.08.010, on contracts of Fifty-Five Thousand Dollars (\$55,000) or less, at the option of the Contractor, the City may, in lieu of a bond, retain ten percent (10%) of the Contract amount for a period of thirty (30) days after the date of final acceptance, or until receipt of all necessary releases from the Department of Revenue and the Department of Labor and Industries and settlement of any liens filed under Chapter 60.28 RCW, whichever is later.

10. SAFETY

Contractor shall take all necessary precautions for the safety of its employees on the work site and shall comply with all applicable provisions of federal, state, and municipal safety and health laws and codes, including without limitation, all OSHA/WISHA requirements, Safety and Health Standards for Construction Work (Chapter 296-155 WAC), General Safety and Health Standards (Chapter 296-24 WAC), and General Occupational Health Standards (Chapter 296-62 WAC). Contractor shall erect and properly maintain, at all times, all necessary guards, barricades, signals, and other safeguards at all unsafe places at or near the Work for the protection of its employees and the public, safe passageways at all road crossings, crosswalks, street intersections, post danger signs warning against known or unusual hazards and do all other things necessary to prevent accident or loss of any kind. Contractor shall protect from damage all water, sewer, gas, steam or other pipes or conduits, and all hydrants and all other property that is likely to become displaced or damaged by the execution of the Work. The Contractor shall, at its own expense, secure and maintain a safe storage place for its materials and equipment and is solely responsible for the same.

11. PREVAILING WAGES

- 11.1 Wages of Employees. This Contract is subject to the minimum wage requirements of Chapter 39.12 of the Revised Code of Washington, as now existing or hereafter amended or supplemented. In the payment of hourly wages and fringe benefits to be paid to any of Contractor's laborers, workpersons and/or mechanics, Contractor shall not pay less than the

"prevailing rate of wage" for an hour's work in the same trade or occupation in the locality within the State of Washington where such labor is performed, as determined by the Industrial Statistician of the Department of Labor and Industries of the State of Washington. Prevailing wages paid pursuant to this Agreement shall be the prevailing wage rates which are in effect on the date when the bids, proposals, or quotes were required to be submitted to the City.

The State of Washington prevailing wage rates applicable for this public works project, which is located in King County, may be found at the following website address of the Department of Labor and Industries: <https://lni.wa.gov/licensing-permits/public-works-projects/prevailing-wage-rates/>. A copy of the applicable prevailing wage rates is also available for viewing at the office of the City located at 9611 SE 36th St, Mercer Island, WA 98040. Upon request, the City will mail a hard copy of the applicable prevailing wages for this project.

- 11.2 **Reporting Requirements.** Contractor shall comply with all reporting requirements of the Department of Labor and Industries of the State of Washington. Upon the execution of this Contract, Contractor shall complete and file a Statement of Intent to Pay Prevailing Wages with the Department of Labor and Industries. If requested by the City, the Contractor shall provide certified payroll records for its employees and the employees of its subcontractors. Upon completion of the Work, Contractor shall complete and file an Affidavit of Wages Paid with the Department of Labor and Industries. Contractor shall deliver copies of both the Statement of Intent to Pay Prevailing Wages and the Affidavit of Wages Paid, certified by the Department of Labor and Industries, to the City.

12. SUBCONTRACTOR RESPONSIBILITY

Contractor shall verify responsibility criteria for each first-tier subcontractor, and a subcontractor of any tier that hires other subcontractors must verify responsibility criteria for each of its subcontractors. Verification shall include that each subcontractor, at the time of subcontract execution, meets the responsibility criteria listed in the Instructions to Bidders and possesses an electrical contractor license, if required by chapter 19.28 RCW, or an elevator contractor license, if required by chapter 70.87 RCW. This verification requirement must be included in every public works subcontract or every tier.

13. OWNERSHIP OF DOCUMENTS

All originals and copies of work product, including plans, sketches, layouts, designs, design specifications, records, files computer disks, magnetic media, all finished or unfinished documents or material which may be produced or modified by Contractor while performing the Work shall become the property of the City and shall be delivered to the City at its request.

14. CONFIDENTIALITY

If it is necessary to provide proprietary information, the Contractor shall clearly mark the information on each page of the document(s) as "Proprietary and Confidential". The City is subject to laws regarding the disclosure of public records and document. Proposals and other materials, submitted by the Contractor become public record and may be subject to public disclosure, in whole or in part, and may be released by the City in the event of a request for disclosure. In the event the City receives a public record request for information and the Contractor has marked the requested document as "Proprietary and Confidential", the City shall notify the Contractor of such request and withhold disclosure of such information for not less than five (5) business days, to permit the Contractor to seek judicial protection

of such information; provided that the Contractor shall be solely responsible for all attorney fees and costs in such action and shall save and hold harmless the City from any costs, attorney's fees, or penalty assessments under Chapter 42.56 RCW for withholding or delaying public disclosure of such information.

15. BOOKS AND RECORDS

The Contractor agrees to maintain books, records, and documents which sufficiently and properly reflect all direct and indirect costs related to the performance of this Contract and such accounting procedures and practices as may be deemed necessary by the City to assure proper accounting of all funds paid pursuant to this Contract. These records shall be subject at all reasonable times to inspection, review or audit by the City, its authorized representative, the State Auditor, or other governmental officials authorized by law to monitor this Contract.

16. CLEAN UP

At any time ordered by the City and immediately after completion of the Work, the Contractor shall, at its own expense, clean up and remove all refuse and unused materials of any kind resulting from the Work. In the event the Contractor fails to perform the necessary clean up, the City may, but in no event is it obligated to, perform the necessary clean up and the costs thereof shall be immediately paid by the Contractor to the City and/or the City may deduct its costs from any remaining payments due to the Contractor.

17. GENERAL PROVISIONS

This Contract, the Contract Documents and any supporting contract documents contain all of the agreements of the Parties with respect to any matter covered or mentioned in this Contract and no prior agreements or understandings shall be effective for any purpose. No provision of this Contract may be amended except by written agreement of the Parties. Any provision of this Contract which is declared invalid, void or illegal shall in no way affect, impair, or invalidate any other provision hereof and such other provisions shall remain in full force and effect. The Contractor shall not transfer or assign, in whole or in part, any or all of its obligations and rights hereunder without the prior written consent of the City. In the event the City consents to any such assignment or transfer, such consent shall in no way release the Contractor from any of its obligations or liabilities under this Contract. Subject to the preceding sentence, this Contract shall be binding upon and inure to the benefit of the Parties' successors in interest, heirs, and assigns. In the event the City or the Contractor defaults on the performance of any terms in this Contract, and the Contractor or City places the enforcement of the Contract or any part thereof, or the collection of any monies due, in the hands of an attorney, or files suit, each Party shall pay all its own attorneys' fees and expenses. The venue for any dispute related to this Contract shall be King County, Washington. Failure of the City to declare any breach or default immediately upon occurrence thereof, or delay in taking any action in connection with, shall not waive such breach or default. This Contract shall be governed by and interpreted in accordance with the laws of the State of Washington. Each individual executing this Contract on behalf of the City and Contractor represents and warrants that such individuals are duly authorized to execute this Contract. Time is of the essence of this Contract and each and all of its provisions in which performance is a factor. Adherence to completion dates is essential to the Contractor's performance of this Contract.

IN WITNESS WHEREOF, the Parties have executed this Contract the _____ day of _____, 20_____.

CONTRACTOR:

CITY:

(Name of Contractor)

CITY OF MERCER ISLAND

By: _____
(Signature)

By: _____
Jessi Bon, City Manager

(Full Legal name and Title)

Attest:

Address:

By: Andrea Larson, City Clerk

Phone:

Approved as to form:

Email:

By: _____
Bio Park, City Attorney

PERFORMANCE BOND

To City of Mercer Island, WA

Bond No. _____

The City of Mercer Island, Washington has awarded to _____ (Principal), a contract for the construction of the project designated as _____, Project No. _____, in Mercer Island, Washington (Contract), and said Principal is required to furnish a bond for performance of all obligations under the Contract.

The Principal, and _____ (Surety), a corporation, organized under the laws of the State 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, in the sum of _____ US Dollars (\$ _____) Total Contract Amount, subject to the provisions herein.

This statutory payment 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 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; and if such performance obligations have not been fulfilled, this bond shall remain in 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 (2) 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 office executing on behalf of the surety.

PRINCIPAL

SURETY

Principal Signature Date

Surety Signature Date

Printed Name Date

Printed Name Date

Title

Title

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

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PAYMENT BOND

to City of Mercer Island, WA

Bond No _____

The City of Mercer Island, Washington has awarded to _____ (Principal), a contract for the construction of the project designated as _____, Project No. _____, in Mercer Island, Washington (Contract), and said Principal is required under the terms of that Contract to furnish a payment bond in accord with Title 39.08 Revised Code of Washington (RCW) and (where applicable) 60.28 RCW.

The Principal, and _____ (Surety), a corporation organized under the laws of the State 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, in the sum of _____ US Dollars (\$ _____) Total Contract Amount, subject to the provisions herein.

This statutory payment bond shall become null and void, if and when the Principal, its heirs, executors, administrators, successors, or assigns shall pay all persons in accordance with RCW 39.08, 39.12, and 60.28 including all workers, laborers, mechanics, subcontractors, and materialmen, and all person who shall supply such contractor or subcontractor with provisions and supplies for the carrying on of such work, and all taxes incurred on said Contract under Titles 50 and 51 RCW and all taxes imposed on the Principal under Title 82 RCW; and if such payment 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 changes, 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 (2) 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 office executing on behalf of the surety.

PRINCIPAL

Principal Signature Date

Printed Name Date

Title

SURETY

Surety Signature Date

Printed Name Date

Title

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

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RETAINAGE AGREEMENT

Contract Title Basin 61 Sewer Pipe Upsizing Project
Contract Date _____
Contractor Name _____
Contractor Address _____
Contractor Phone _____
Contractor Federal ID # _____

State Law on How Contract Retainage Monies can be Reserved:

RCW 60.28.010 Retained percentage, labor and material Contracts for public improvements or work other than for professional services, provides that there shall be reserved by the city from the monies earned by the contractor on estimates during the progress of the improvement or work, a sum of five percent of such estimates, said sum to be retained by the city as a trust fund for the protection and payment of any persons performing work or supplying provisions or supplies during the work. The monies reserved for contract retainage may be reserved by the contractor choosing one of the following four options:

All investments selected below are subject to City approval.

Contractor Options (Contractor shall place an "x" in one of the boxes below.)

- (a) Retained in a non-interest bearing fund by the public body until released in accordance with applicable state statutes;
- (b) Deposited by the public body in an interest bearing account in a bank, mutual savings bank, or savings and loan association, not subject to withdrawal until released in accordance with applicable state statutes, provided that interest on such account shall be paid to the contractor;
- (c) Placed in escrow with a bank or trust company by the public body until released in accordance with applicable state statutes. The cost of the investment program and the risk thereof is to be borne entirely by the contractor.
- (d) Contractor may submit a Retainage Bond equal to 5% of the total awarded bid amount for all schedules to be held by the public body until released in accordance with applicable state statutes.

Contractor's Bank

If Contractor selects options (b) or (c) above, Contractor shall designate below the bank in which the retainage is to be deposited:

ACCOUNT NO. _____
BANK NAME _____
BANK ADDRESS _____
BANK PHONE # _____

Agreement

Contractor and City agree that all or part of the monies in the account can only be approved for disbursement by Bank to Contractor upon written authorization of the City Finance Director, or his/her authorized designee.

By _____ By _____
City of Mercer Island Contractor

Date _____ Date _____

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**CITY OF MERCER ISLAND
GENERAL TERMS AND CONDITIONS
MAY 2020 EDITION
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ARTICLE 1: GENERAL PROVISIONS

1.1 DEFINITIONS

- A. **“Addendum”** or **“Addenda.”** Alteration or clarification of the plans or specifications provided to bidders by City prior to bid time, which becomes part of the Contract Documents when the Contract is executed.
- B. **“Claim.”** A written demand by the Contractor seeking (1) a change to Contract Price; (2) a change of Contract Time; (3) a payment of money or damages; and/or, (4) any other relief arising out of or relating to this Contract.
- C. **“Change Order.”** A written instrument designated to be a Change Order which alters the Contract, and identifies the following: (1) a change in the Work; (2) a change in Contract Price; and/or (3) a change in Contract Time.
- D. **“Change Proposal.”** A document prepared by the Contractor at the request of City, which proposes changes to the Work and/or changes to the Contract Price and/or Contract Time. City initiates all requests for Change Proposals.
- E. The **“Contract”** or **“Contract Documents.”** The entire integrated agreement between City and the Contractor for the performance of the Work in accordance with the Contract Documents. The Contract Documents include the following:
 - 1. The signed Agreement between City and Contractor (the “Public Works Contract”);
 - 2. The Contractor’s completed Bid Form;
 - 3. The City’s General Terms and Conditions (May 2020 ed.);
 - 4. Any Supplemental or Special Conditions.
 - 5. Technical Specifications;
 - 6. Drawings;
 - 7. Addenda; and
 - 8. Any Change Orders.
- F. **“Contract Execution.”** occurs when City Manager or his/her designee signs the Contract, which shall only occur after the Contractor signs the Contract.
- G. **“Contract Price”** means the total amount payable by City to the Contractor for performance of the Work in accordance with the Contract.
- H. **“Contract Time.”** The number of days or the specific date set forth in the Contract to achieve Substantial Completion of the Work.
- I. **“Contract Work”** or **“Work.”** The labor, supervision, materials, equipment, supplies, services, other items, and requirements of the Contract necessary for the execution, completion and performance of all requirements of the Contract by the Contractor to the satisfaction of City.
- J. **“Contractor.”** The individual, association, partnership, firm, company, corporation, or combination thereof, including joint ventures, contracting with City to do the Contract Work.

- K. **“Critical Path.”** The longest, continuous sequence of interrelated activities that begins at the start of the Project (Notice to Proceed) and extends to Substantial Completion of the Project. These activities are critical because delay to an activity on this path will extend Contract Time.
- L. **“Day.”** A calendar day, unless otherwise specified.
- M. **“Differing Site Conditions.”** (1) Subsurface or latent physical conditions at the site which differ materially from those indicated in the Contract Documents (Type I), or (2) Unknown physical conditions at the Site, of an unusual nature, which differ materially from those ordinarily encountered and generally recognized as inherent in the construction activities of the character provided for in the Contract (Type II).
- N. **“Engineer.”** The City representative who administers the Contract for the City.
- O. **“Final Acceptance.”** Written acceptance of the Project by City.
- P. **“Force Majeure.”** An event that is unforeseeable at the time of Contract Execution and that is beyond the reasonable control of the Contractor and City and includes:
1. Natural Disaster declared by Governor of Washington or President of the United States, including but not limited to earthquakes;
 2. Acts or omissions of any government entity acting within its governmental capacity;
 3. Fire and/or flood for which the Contractor or its Subcontractors is not responsible;
 4. Quarantine or epidemic;
 5. Strike or defensive lockout;
 6. Unusually Severe Weather Conditions; and
 7. Acts of terrorism.
- Q. **“Hazardous Material.”** Any pollutant, contaminant, toxic or hazardous waste, dangerous substance, potentially dangerous substance, noxious substance, toxic substance, flammable material, explosive material, radioactive material, urea formaldehyde foam insulation, asbestos, PCBs, or any other substances the removal of which is required, or the manufacture, preparation, production, generation, use, maintenance, treatment, storage, transfer, handling, or shipment of which is restricted, prohibited, regulated, or penalized by any and all federal, state, City, or municipal statutes or laws and regulations promulgated thereunder, now or at any time hereafter in effect, including, but not limited to, the Comprehensive Environmental Response, Compensation, and Liability Act (42 U.
- S. C. §§ 9601, *et seq.*), the Hazardous Materials Transportation Act (49 U. S. C. §§ 1801, *et seq.*), the Resource Conservation and Recovery Act (42 U. S. C. §§ 6901, *et seq.*), the Federal Water Pollution Control Act (33 U. S. C. §§ 1251, *et seq.*), the Clean Air Act (42 U. S. C. §§ 7401, *et seq.*), the Toxic Substances Control Act, as amended (15 U. S. C. §§ 2601, *et seq.*), the Occupational Safety and Health Act (29 U. S. C. §§ 651, *et seq.*, and the Model Toxics Control Act (RCW 70.105), or similar state or local statute or code), as the laws have been amended and supplemented.
- R. **“City”** or **“Owner”** may be used interchangeably and refer to the City of Mercer Island.

- S. **“Notice.”** A written document issued by the Engineer or Contractor’s Representative which is submitted to the other party and delivered by:
1. Depositing in the U. S. Mail (or other method of commercial express mail), which notice shall be effective on the date of receipt;
 2. Service on the Parties’ representative or at the Contractor’s home office or field office, which notice shall be effective on the date of service; or,
 3. Facsimile to the Parties’ representative or Contractor’s home office or field office, which notice shall be effective upon receipt.
- T. **“Notice To Proceed.”** A written directive issued by City authorizing the Contractor to perform some or all of the Work.
- U. **“Overhead.”** Charges that may be incurred or allocated in support of the Contract but are not part of the cost of directly performing the physical Contract construction activity. Overhead includes Site or Field Overhead and Home Office Overhead.
1. **Site or Field Office Overhead**
 Site or Field Overhead costs are typically those costs that are related to, but are not limited to supervision, including general foremen and their supervisors, planners, schedulers, engineers, managers, etc. and the direct payroll costs of their project-related service, clerical salaries and their direct payroll costs, the costs of all vehicles, travel, meal and lodging costs associated with those personnel, Site or Field office and utility expense, expenses associated with all regulatory compliance, Hand and Other Small Tools provided by the Contractor for the use of its forces, all expendable supplies, and all other items incidental to or integral in supporting the physical completion of the Work.
 2. **Home Office Overhead**
 Home office Overhead costs are typically those that include all general office expenses. Such costs include, but are not limited to those associated with officer and office salaries and related payroll taxes and benefits, costs of office occupancy and maintenance, all supporting services (such as utilities, office machines computers, and related items and support) related to the home office function, business taxes and licenses, and all such other costs necessary to operate the business entity. Home office overhead includes unabsorbed home office overhead.
 3. In addition to the above, whether treated as Site or Field Overhead or as Home Office Overhead, costs of any and all bonds, insurance(s), and taxes associated with this Contract are to be considered as Overhead. All items as those identified above are to be treated as Overhead for this purpose regardless of how the Contractor chooses to account for them in its books of account.
 4. Under no circumstances shall City pay the Contractor for direct or allocated costs or charges for officer bonus and profit sharing, project personnel bonuses, charitable contributions, income taxes, or any costs relating to illegal activity.
- V. **“Parties.”** The Contractor and City.
- W. **“Project.”** All activity relative to this Contract including activity of the Contractor, its Subcontractors, and City.

- X. **“Request for Change Order.”** A document, designated as a Request for a Change Order, prepared by the Contractor requesting either (1) a change in Contract Price; (2) a change in Contract Time; (3) a change in t Work; (4) a payment of money or damages; and/or, (5) any other relief arising out of or relating to this Contract.
- Y. **“Request for Information.”** A request from the Contractor to City seeking an interpretation or a clarification of some requirement of the Contract Documents.
- Z. **“Site” or “Project Site.”** The location, at which construction, equipment or services furnished by the Contractor under the Contract will be performed, completed and/or delivered.
- AA. **“Subcontractor.”** An individual, firm, partnership, or corporation having a contract, purchase order, or agreement with the Contractor, or with any Subcontractor of any tier for the performance of any part of the Contract. When City refers to Subcontractor(s) in this document, for purposes of this document and unless otherwise stated herein, the term Subcontractor(s) includes, at every level and/or tier, all subcontractors and subconsultants.
- BB. **“Supplier(s).”** Any person or firm who is not performing work or supplying labor on Site and is engaged in the business of supplying a manufactured product or resource to City, Contractor, or Subcontractors. The term Suppliers includes materialmen, manufacturers, and fabricators.
- CC. **“Substantial Completion.”** That stage in the progress of the Work where:
 1. City has full and unrestricted use and benefit of the Project for the purpose intended;
 2. All the systems and parts of the Contract Work are functional;
 3. Utilities are connected and operate normally;
 4. Only minor incidental work or correction or repair remains to complete all Contract requirements; and
 5. The City has received all certificates of occupancy and any other permits, approvals, licenses and other documents from any governmental authority with jurisdiction necessary for beneficial occupancy of the project.

1.2 INTENT AND INTERPRETATION OF THE DOCUMENTS

- A. The Contract Documents constitute the entire and integrated agreement between the parties hereto and supersede all prior negotiations, representations, or agreements, either written or oral.
- B. The Contract Documents shall not be construed to create a contractual relationship between any parties other than City and the Contractor. No contract between City and a third party shall be construed to create any duty on the part of City or such third party to the Contractor. The Contractor is not an intended or incidental beneficiary of any promises made in City’s contract with a third party, if any.
- C. The Contract Documents are intended to be complementary. What is required by one part of the Contract shall be as binding as if required by all. Should any conflict or inconsistency be found in the Contract Documents, the provision imposing the more expensive duty or obligation on the Contractor shall take precedence.

- D. The words “similar,” “typical” (or other equivalents) shall mean nearly corresponding or having a likeness. Such words shall not be construed to mean that all parts of the Work referred to are identical or substantially identical, or that such elements of the Work are connected identically or substantially identically to the rest of the Work. The Contractor has the responsibility to determine all details of the Work in relation to their location and connection to other parts of the Work. The singular includes the plural and vice versa. Male includes female and vice versa.
- E. The organization of the specifications into divisions, provisions and articles and the organization of the drawings shall not control the Contractor in dividing the Work among Subcontractors or in establishing the extent of Work to be performed by any trade.

1.3 CLARIFICATION OF DRAWINGS AND DETAIL DRAWINGS

- A. Where on any drawing a portion of the Work is drawn out and the remainder is indicated in outline, the drawn out parts shall apply also to other similar portions of the Work. Where ornament or other detail is indicated by starting only, such detail shall be continued throughout the courses or parts in which it occurs and shall apply to all other similar parts of the Work, unless otherwise indicated.
- B. With regard to drawings the following shall apply:
 - 1. Written dimensions shall be followed; drawings may not be to scale.
 - 2. Figure dimensions on drawings shall govern over scale dimensions; and detail drawings shall govern over general drawings.

ARTICLE 2: CITY

2.1 AUTHORITY

- A. Unless City, in writing, indicates otherwise, the authority to (1) commit to or bind City to any Change Orders or change in the Work, Contract Price and/or Contract Time; or (2) sign the Contract or Change Orders rests solely in the City Manager or his or her designee.
- B. The Engineer shall have the authority to administer the Contract. Administration of the Contract by the Engineer includes but is not limited to:
 - 1. Receiving all correspondence and information from the Contractor;
 - 2. Issuing request for Change Proposals;
 - 3. Responding to Requests For Information;
 - 4. Reviewing the schedule of values, project schedules, submittals, testing and inspection reports, substitution requests, and other documentation submitted by the Contractor;
 - 5. Negotiating Change Proposals and Change Orders;
 - 6. Recommending Change Orders for approval by the City Manager or its designee;
 - 7. Issuing decisions with respect to Requests for Change Orders and Claims;
 - 8. Processing payment requests submitted by the Contractor, and recommending payment;

9. Monitoring the quality of the Work, rejecting noncompliant Work, and recommending acceptance of the Work;
 10. Transmitting executed Change Orders, amendments, and other Contract correspondence to the Contractor; and
 11. Performing all other contract administrative functions.
- C. All correspondence, questions, and/or documentation shall be submitted to the Engineer.
- D. The Engineer may designate representatives to perform functions under the Contract, such as review and/or inspection and acceptance of supplies, services, including construction, and other functions of a technical or administrative nature.

2.2 INFORMATION SUPPLIED BY CITY

- A. Unless otherwise specifically provided in the Contract, surveys and site information provided by City are intended to describe the general physical characteristics of the Site. City does not represent that this information is complete or sufficient for the Contractor's performance of the Work.
- B. City shall furnish to the Contractor a copy of the Contract Documents. The Contractor shall pay City for any additional copies of Contract Documents.

2.3 WORK BY CITY OR SEPARATE CONTRACTORS

City reserves the right to perform work not included in the Contract or to let other contracts in connection with this Project. The Contractor shall coordinate its Work with City and other City contractors and, at City's request, participate in meetings for the purpose of coordinating the Contractor's construction schedule with those of other contractors at no additional cost to City.

ARTICLE 3: CONTRACTOR

3.1 CONTRACTOR REPRESENTATIONS

The Contractor makes the following representations to City:

- A. Before submission of its bid, the Contractor has:
1. Carefully reviewed the Contract Documents, and visited and examined the Site;
 2. Become familiar with the general and local conditions in which the Work is to be performed, and satisfied itself as to the nature, location, character, quality and quantity of Contract Work, the labor, materials, equipment, goods, supplies, work, services and other items to be furnished and all other requirements of the Contract Documents, as well as the surface and reasonably ascertainable subsurface conditions and other matters that may be encountered at the Site or affect performance of the Work or the cost or difficulty thereof;
 3. Become familiar with and satisfied itself as to the conditions bearing upon transportation, disposal, handling, and storage of materials; and
 4. Become familiar with and satisfied itself as to the availability of labor, water, electric power, and roads; and the uncertainties of access, traffic, parking and weather. Any failure of the Contractor to take the action described in this provision (3.0) or elsewhere in the Contract Documents will not relieve the Contractor from responsibility for estimating properly the difficulty and cost of

successfully performing the Work, or for proceeding to successfully perform the Work without additional expense to City.

- B. The Contract Price is reasonable compensation for the Work and the Contract Time is adequate for the performance of the Work as represented by the Contract, site visit, and the general conditions (including but not limited to weather, site, soil) known or reasonably anticipated for the Site.

3.2 GENERAL DUTIES

- A. The Contractor shall give sufficient supervision to the Work, using its best skill and attention. The Contractor is on notice that City will be relying on the accuracy, competence and completeness of the Work. The Contractor shall supervise and be solely responsible for the proper performance of the Work in accordance with the Contract, including the construction means, methods, techniques, sequences, procedures, and for coordination of all portions of the Work.
- B. Unless specified elsewhere in the Contract, the Contractor shall provide and pay for all labor, materials, equipment, tools, construction machinery, utilities, transportation, and other facilities and services (including federal and state tax, industrial insurance, social security liability and all other applicable taxes) necessary for the proper execution and completion of the Work.
- C. The Contractor shall also provide sufficient staffing and supervision to process Requests for Information, Change Proposals, Submittals, Change Orders, close out documentation, and to perform all other requirements of the Contract and all Work.
- D. The Contractor shall lay out its Work from baselines and benchmarks indicated in the Contract, if any, and shall be responsible for the accuracy of all field measurements and surveys used in the lay out.

3.3 DUTY TO INSPECT CONTRACT DOCUMENTS

- A. The Contractor shall carefully study and compare all Contract Documents and check the conditions, dimensions, and instructions as stated therein. Contractor will not be required to provide professional services which constitute the practice of architecture and engineering except to the extent provided for in the technical specifications and drawings.
- B. The Contractor shall immediately notify City in writing of any:
 - 1. Error, inconsistency, or omission in the Contract Documents that a reasonable contractor knew or through the exercise of reasonable diligence should have discovered under the same and similar circumstances;
 - 2. Requirement in the Contract Documents that conflict with any local, state, and federal laws, regulations and/or permits, licenses, and easement conditions that a reasonable contractor knew or through the exercise of reasonable diligence should have discovered under the same and similar circumstances.
- C. The Contractor should not proceed with the work in question until the Contractor receives written direction from the Engineer.
- D. If the Contractor proceeds with the work in question without written direction from the Engineer, the Contractor shall be responsible for any costs or damages associated with:

1. Fines or penalties;
2. Demolition, tear out, removal, cleanup, remediation, or fixing the work in question; and
3. Delay, disruption, and loss of productivity.

3.4 CONTRACTOR'S SUPERVISION AND EMPLOYEES

- A. Contractor shall provide qualified and competent people to administer the contract and perform all the Work.
- B. During performance of the Work the Contractor shall have supervisory personnel on-site and available to administer, manage and coordinate the Work. City shall not be responsible for the acts or omissions of the supervisory personnel or their assistants.
- C. The Contractor shall at all times enforce good order among all persons furnishing labor or materials on-site and shall only employ workers skilled in the work assigned. If requested by the Project Representative, Contractor shall provide the Project Representative with copies of licenses, registrations, and certifications.
 1. City shall have the right to require the Contractor to remove personnel from the Site that do not have the appropriate qualifications and experience to meet or uphold the requirements of the Contract. City shall also have the right to order the Contractor to replace personnel who demonstrate unprofessional behavior.
 2. Failure by City to require removal of any Contractor personnel shall not be deemed an admission that any such personnel are satisfactory, nor shall such failure relieve the Contractor from any contractual responsibility.

3.5 SUBCONTRACTORS AND SUPPLIERS

- A. This Contract is between City and the Contractor.
 1. The Contractor's subcontracting shall not create a contract between City and the Subcontractor and Suppliers. Subcontractors and Suppliers are not intended as incidental third party beneficiaries to the Contract. The Subcontractor and Suppliers shall have no rights against City by reason of their agreements with the Contractor.
 2. The Contractor is responsible for performing all work required by the Contract. The Contract has not been written with the intent of, and City shall not be a party to, defining the division of work between the Contractor and its Subcontractors and Suppliers.
- B. **Selection of Subcontractors and Suppliers**
 1. Subcontractors and Suppliers shall be properly licensed, registered or certified, as applicable, and capable to perform the assigned work.
 2. If requested by City, the Contractor shall provide documentation that the proposed Subcontractors and Suppliers have adequate experience and skill.
 3. The Contractor shall require each Subcontractor and Supplier to comply with all provisions of this Contract. At the request of Subcontractors or Suppliers, Contractor shall make available for copying all Contract Documents.

C. Responsibility for Work of Subcontractors and Suppliers

The Contractor shall be responsible for the acts and omissions of Subcontractors and Suppliers. The Contractor shall also be responsible for the suitability of any materials, components, equipment or supplies furnished by a Subcontractor and/or Supplier irrespective of whether such were designated or approved by City.

3.6 SCHEDULE OF WORKING HOURS

- A. As specified in the Contract, the Contractor shall submit a schedule of working hours, including overtime to City for acceptance. This schedule shall comply with all Contract requirements. Except as permitted elsewhere in the Contract Documents or in the case of an emergency, all Work at the Site shall be performed between the hours of 7am and 6 pm Monday through Friday.
- B. The schedule of working hours accepted by City shall be the only schedule used by the Contractor during performance of the Contract, unless amended to maintain Work progress.
- C. The Contractor shall provide 48 hours advance written Notice of any intent to work outside of approved working hours. Any work at the Site performed outside approved working hours shall be performed without additional expense to City, except as otherwise provided in the Contract Documents. Contractor shall comply with Mercer Island Code Section 8.24.020 (Q) which prohibits construction related noise outside designated hours except in cases of emergency or demonstrated necessity.

3.7 RECORD DOCUMENTS

- A. The Contractor shall maintain an accurate, readable, and orderly set of drawings and specifications, updated as the job progresses to show all approved changes, options, alternates, and all actual deviations from the original Contract Documents. This set of drawings and specifications shall be the Record Documents.
 - 1. The Record Documents shall be maintained in hard copy.
 - 2. In addition to all approved changes, options, alternates, and all actual deviations from the original Contract Documents, the Record Documents shall be marked as follows:
 - a. Record all materials used where options, alternates and/or change orders were indicated, specified and/or authorized;
 - b. Accurate measurements referenced as required by the technical specifications shall be recorded to show the exact location and changes in direction of all underground services and utilities, as well as their depth below finished grade; and
 - c. Record all other requirements as specified in the Technical Specifications.
- B. The Record Documents shall be kept up-to-date and be available for review by City at all times, including but not limited to at each job progress meeting. Failure to have the record set up-to-date shall be sufficient reason for City to withhold payment in accordance with paragraph 7.2, *Payments Withheld*, until all such information is recorded.

- C. Record Documents may be used to assist City to verify the appropriate progress payment.
- D. Neither Final Acceptance nor Final Payment will be issued until a complete set of Record Documents is submitted and the Engineer is satisfied as to its quality and accuracy.

3.8 COST RECORDS

- A. The Contractor, Subcontractors, and Suppliers shall maintain Project cost records by cost codes and shall segregate and separately record at the time incurred all costs (1) directly associated with each work activity and (2) directly or indirectly resulting from any event or condition for which the Contractor seeks an adjustment in the Contract Price, Contract Time, and/or damages.
 - 1. Any costs claimed to result from any such event or condition, including, but not limited to, delay and impact costs, acceleration costs, loss of productivity or efficiency, and increased or extended overhead shall be recorded at the time incurred and be fairly and reasonably allocated to each such event or condition and to other causes of such costs.
 - 2. City shall be provided with a detailed description of all such costs and the basis of allocation. The Contractor, Subcontractors, and Suppliers shall maintain a monthly summary of all costs and shall make all underlying cost records and monthly summary of costs available for review, inspection, and copying by City upon request.
 - 3. Any work performed for which the Contractor intends to seek an adjustment in Contract Price and/or Contract Time shall be recorded on the same day the work is performed and kept separate so as to distinguish it from Contract Work.
- B. In addition to the requirements set forth in Article 5, *Changes to the Contract*, and Article 6, *Time and Price Adjustments*, the Contractor shall be entitled to extra compensation for an event or condition and/or the recovery of damages only to the extent that the Project cost records are kept in full compliance with all Contract requirements and the cost allocations support entitlement to such compensation.

3.9 MAINTENANCE AND INSPECTION OF DOCUMENTS

- A. All Contractor's, Subcontractors', and Suppliers' documents and records relating to the Contract shall be open to inspection, audit, and/or copying by City or its designee:
 - 1. During the Contract Time; and
 - 2. For a period of not less than six years after the date of Final Acceptance of the Contract ("Preservation Period"); or if any Claim, audit or litigation arising out of, in connection with, or related to this Contract is initiated, all documents shall be retained until such Claim, audit or litigation involving the records is resolved or completed, whichever occurs later.
- B. The Contractor shall also guarantee that all Subcontractor and Supplier documents shall be retained and open to similar inspection, audit and/or copying during the Contract Time and also the Preservation Period. The Contractor, Subcontractor, and Supplier shall use its best efforts to cooperate with the inspection, auditing, and/or copying.

- C. Inspection, audit, and/or copying of all documents described herein, may be performed by City or its designee at any time with not less than seven (7) days' Notice. Provided however, if an audit or inspection is to be commenced more than sixty (60) days after the Final Acceptance date of the Contract, the Contractor will be given twenty (20) days' Notice of the date of the audit.
- D. The Contractor, Subcontractors, and Suppliers shall provide adequate facilities, acceptable to City, for inspection, auditing, and/or copying during normal business hours.
- E. If the Contractor is formally dissolved, assigns or otherwise divests itself of its legal capacity under this Contract, then it shall immediately notify City and preserve such records, at its expense, as directed by City.
- F. The Contractor, Subcontractor, and Supplier, shall be subject to audit at any time with respect to this Contract. Failure to maintain and retain sufficient records to allow City to verify all costs or damages or failure to permit City access to the books and records shall constitute a waiver of the rights of the Contractor Subcontractor and Supplier to Claim or be compensated for any damages, additional time or money under this Contract.
- G. At a minimum, the following documents, including the machine readable electronic versions, shall be available for inspection, audits, and/or copying:
 - 1. Daily time sheets and all daily reports, Supervisor's reports, and inspection reports;
 - 2. Collective bargaining agreements;
 - 3. Insurance, welfare, and benefits records;
 - 4. Payroll registers;
 - 5. Earnings records;
 - 6. All tax forms, including payroll taxes;
 - 7. Material invoices and requisitions;
 - 8. Material cost distribution worksheet;
 - 9. Equipment records (list of Contractor's, Subcontractors', and Suppliers' equipment, rates, etc.);
 - 10. Contracts, purchase orders and agreements between the Contractor and each Subcontractor and Supplier;
 - 11. Subcontractors' and Suppliers' payment certificates;
 - 12. Correspondence, including email, with Subcontractors and/or Suppliers;
 - 13. All meeting notes by and between Contractor, Subcontractors, Suppliers and/or any third parties related to the Project;
 - 14. Canceled checks (payroll and vendors);
 - 15. Job cost reports, including monthly totals;
 - 16. Job payroll ledger;
 - 17. Certified payrolls;

18. General ledger;
 19. Cash disbursements journal;
 20. Take off sheets, and calculations used to prepare the bid and/or quotes;
 21. Take off sheets, calculations, quotes, other financial data to support change proposals, request for change order and/or claims;
 22. Financial statements for all years during the Contract Time. In addition, City may require, if it deems appropriate, additional financial statements for 3 years preceding execution of the Contract and 6 years following Final Acceptance of the Contract;
 23. Depreciation records on all Contractor's, Subcontractor's, and Supplier's equipment, whether these records are maintained by the Contractor, Subcontractors, and Suppliers involved, its accountant, or others;
 24. If a source other than depreciation records is used to develop costs for the Contractor's internal purposes in establishing the actual cost of owning and operating equipment, all such other source documents;
 25. All documents which relate to each and every Claim together with all documents which support the amount of damages as to each Claim;
 26. Worksheets or software used to prepare the Claim establishing the cost components for items of the Claim including but not limited to labor, benefits and insurance, materials, equipment, Subcontractors, Suppliers, all documents which establish time periods, individuals involved, the hours for the individuals, and the rates for the individuals;
 27. Worksheets, software, and all other documents used (a) by the Contractor to prepare its bid and schedule(s) and/or (b) to prepare quotes and bids to the Contractor;
 28. All schedule documents, including electronic versions, planned resource codes, or schedules and summaries;
 29. All submittals; and
 30. All other documents, including email, related to the Project, Claims, or Change Orders.
- H. The Contractor shall mark any documentation it considers proprietary or confidential accordingly. Such information will be treated as such by City; however, City cannot ensure that this information will not be subject to release pursuant to a public records request. In the event City receives a request for such information, City will advise the Contractor and will not release the requested information for a period of not less than ten (10) days in order to give the Contractor an opportunity to obtain a court order prohibiting the release of the information in response to the public records request.

3.10 MAINTENANCE AND SITE CLEANUP

- A. The Contractor shall at all times keep the Site, access points, and public rights-of-way free from accumulation of dirt, mud, waste materials or rubbish caused by the Contractor or Subcontractors. At the completion of the Contract Work, the Contractor shall remove and lawfully dispose of all its dirt, mud, waste materials,

rubbish, tools, scaffolding and surplus or partly used materials from the Site and shall leave the Site broom clean unless some stricter standard is specified in the Contract.

- B. The Contractor shall obey all applicable laws and regulations relating to the storage, use, and disposal of Hazardous Materials. The Contractor shall promptly notify City of all Contractor or Subcontractor caused spills or releases of Hazardous Materials, and pay the cost to promptly clean up all such spills or releases and any associated fines or penalties. The Contractor shall maintain documentation of the clean up and disposal all Contractor or Subcontractor caused spills or releases of Hazardous Materials.
- C. If the Contractor fails to adequately maintain or cleanup the Site, City may, after written Notice to the Contractor, sweep surfaces or remove the dirt, mud, waste materials, rubbish, or hazardous materials and charge all reasonable costs of such work to the Contractor.

3.11 PROTECTION OF EXISTING STRUCTURES, EQUIPMENT, VEGETATION, UTILITIES, AND IMPROVEMENTS

- A. Contractor shall protect from damage all existing structures, curbs, gutters, sidewalks, equipment, improvements, utilities, trees, and vegetation not shown in the Contract Documents to be removed or modified at or near the Site. Contractor shall repair, at no cost to City, any such damage resulting from failure to comply with the requirements of the Contract or failure to exercise reasonable care in performing the Work. If Contractor fails or refuses to repair the damage promptly, City may have the necessary work performed and deduct or charge the cost to Contractor or exercise its rights under the Performance and Payment Bond. If there are insufficient funds remaining, excluding retention, the Contractor shall pay City for the costs associated with protection and repairing the damages.

3.12 PERMITS, LAWS, REGULATIONS AND TAXES

- A. Except those permits, easements, and variances specified in the Contract as having been previously obtained by City, all permits, licenses, easements and variances necessary for the execution of the Work shall be secured and paid for by the Contractor. The Contractor shall identify, apply for, and pay for such permits and licenses at the earliest possible time so as to avoid any delay to the Work arising from the permitting and/or licensing process. No actions taken by City to aid the Contractor in securing any permit or license shall relieve the Contractor of any obligations to secure any such permit or license.
- B. The Contractor shall maintain all stamped permit sets of documents at the Site during construction, in good condition and as required by local ordinances.
- C. The Contractor shall perform the Work in full compliance with local, state and federal laws, ordinances, resolutions and regulations, and with permit, license, easement, and variance conditions pertaining to the conduct of the Work. The Contractor shall defend, indemnify, and hold City, its elected officials, officers, agents and employees harmless from any assessment of fines, penalties, or damages arising from violations of the same by the Contractor or Subcontractors. The Contractor shall pay and provide proof of payment for any assessments of fines, penalties or damages. The Contractor shall cooperate with all governmental entities regarding inspection of the Work and compliance with such requirements.

- D. The bid form may include a line item for sales tax on the whole amount, or on items which are not exempt from tax under Washington State Department of Revenue rules, including WAC 458-20-170 and WAC 458-20-171. Unless there are separate line items in the bid form for Washington State sales tax, Contractor shall include all sales tax in its lump sum bid or unit prices. The Contractor should contact the Washington State Department of Revenue for answers to questions in this area. The City will not adjust its payment if the Contractor bases a bid on a misunderstood tax liability. Except as provided above, the Contractor is required to pay all applicable taxes. No adjustment will be made in the amount to be paid by City under the Contract because of any change in law or regulations covering any applicable taxes, or because of any misunderstanding by the Contractor as to its liability for or the amount of any taxes.

3.13 PATENTS AND ROYALTIES

- A. The Contractor shall assume all costs or fees relating to royalties or claims for any patented invention, article, process or method that may be used upon or in a manner connected with the Work under this Contract or with the use of completed Work by City.

3.14 CONTRACTOR'S CERTIFICATION

A. Conflict of Interest

The Contractor certifies (and shall require each Subcontractor to certify) that it has no direct or indirect pecuniary or proprietary interest, and that it shall not acquire any such interest, which conflicts in any manner or degree with the work, services or materials required to be performed and/or provided under this Contract and that it shall not employ any person or agent having any such interest. In the event that the Contractor or its agents, employees or representatives acquires such a conflict of interest, the Contractor shall immediately disclose such interest to City and take action immediately to eliminate the conflict or to withdraw from this Contract, as City may require.

B. Contingent Fees and Gratuities

The Contractor, by entering into this Contract with City to perform or provide work, services or materials, has thereby covenanted:

1. That no person or selling agency except bona fide employees or designated agents or representatives of the Contractor has been or will be employed or retained to solicit or secure this Contract with an agreement or understanding that a commission, percentage, brokerage, or contingent fee may be paid; and
2. That no gratuities, in the form of entertainment, gifts or otherwise, have been or will be offered or given by the Contractor or any of its agents, employees or representatives, to any official member or employee of City or other governmental agency with a view toward securing this Contract or securing favorable treatment with respect to the awarding or amending thereof, or the making of any determination with respect to the performance of this Contract. The Contractor certifies that it has not made any contributions to any person or entity as a condition of doing business with City and it has disclosed to City all attempts by any person to solicit such payments.

3.15 DEVIATION FROM CONTRACT

- A. The Contractor shall not make an alteration, variation, addition, deviation, or omission from the requirements of the Contract Documents without the prior written consent of the Engineer.
- B. Any alteration, variation, addition, deviation, or omission by the Contractor shall not result in any extra compensation or extension of time.

3.16 OPERATIONS, MATERIAL HANDLING, AND STORAGE AREAS

A. Temporary Buildings and Utilities

Temporary buildings (including storage sheds, shops, and offices) and utilities may be erected by Contractor on the Site only with the consent of City and without expense to City. The temporary buildings and utilities shall remain the property of Contractor and shall be removed by the Contractor at its expense upon completion of the Work.

B. Disposal/Removal of Materials

The Contractor shall be responsible for compliance with all laws governing the storage and ultimate disposal of all materials and components. The Contractor shall provide City with a copy of all manifests and receipts evidencing proper disposal when required by City or applicable law.

C. Protection and Care of Contractor's Materials and Equipment

The Contractor shall be responsible for the proper care and protection of its materials and equipment delivered to the Site. Materials and equipment may be stored on the Site at the Contractor's own risk and with prior written approval from City. When the Contractor uses any portion of the Site as a shop, the Contractor shall be responsible for any repairs, patching, or cleaning arising from such use and for obtaining any necessary permits to establish such shop or temporary storage facilities.

3.17 CONTRACTOR'S OVERALL RESPONSIBILITY FOR PROTECTION OF WORK, PROPERTY, AND PERSONS

- A. The Contractor shall be responsible for conditions of the Site, including safety of all persons and property, during performance of the Work. The Contractor shall maintain the Site and perform the Work in a manner which meets all statutory and common law requirements or other specific contractual requirements for the provision of a safe place to work and which adequately protects the safety of all persons and property on or near the Site. This obligation shall apply continuously and shall not be limited to normal working hours. City's inspection of the Work or presence at the Site does not and shall not be construed to include review of the adequacy of the Contractor's safety measures in, on or near the site of the Work.
- B. The Contractor shall be responsible for initiating, maintaining and supervising all safety precautions and programs, including adequate safety training, in connection with the Work. The Contractor shall comply with all applicable laws, ordinances, rules, regulations and lawful orders of any public authority bearing on the safety of persons or property or their protection from damage, injury or loss.
- C. The Contractor shall protect and be responsible for any damage or loss to the Work or to the materials and equipment associated with the Work until the date of

Substantial Completion. The Contractor remains responsible for any damage or loss caused directly or indirectly by the acts or omissions of the Contractor, Subcontractors, Suppliers, or third parties authorized or allowed on the Site by the Contractor until Final Acceptance.

- D. The Contractor shall also be solely and completely responsible for damages arising from the Work that affect property adjacent to the Site.
- E. The Contractor shall repair or replace without cost to City any damage or loss that may occur, except damages or loss caused by the acts or omissions of City.
- F. The Contractor shall erect and maintain adequate steel plates, signs, fencing, barricades, lights or security measures and persons to protect the Work until the Engineer authorizes in writing the removal of signs, fencing, barricades, lights or security measures.
- G. The Contractor shall conduct all operations with the least possible obstruction and inconvenience to the public. To disrupt public traffic as little as possible, the Contractor shall permit traffic to pass through the Project Site with the least possible inconvenience or delay. The Contractor shall maintain existing roads, streets, sidewalks and paths within the Project Site, keeping them open and in good, clean, safe condition at all times.

3.18 PROTECTION OF PERSONS

- A. The Contractor shall take all reasonable precautions for the safety of all employees working on this Contract and all other persons who may be affected by such Work. The Contractor shall designate a responsible member of its organization at the Site whose duty shall be to manage and coordinate the safety programs and to prevent accidents of the Contractor and Subcontractors.
- B. Except as otherwise stated in the Contract, if the Contractor encounters, on the Site, material reasonably believed to be Hazardous Material that Contractor shall immediately stop work in the area affected and give Notice of the condition to City. Work in the affected area shall not be resumed without written direction by City.
- C. To protect the lives and health of persons performing work under this Contract, the Contractor shall comply with the Federal Occupational Safety and Health Act of 1970 (OSHA), including all revisions, amendments and regulations issued thereunder, and the provisions of the Washington Industrial Safety Act of 1973 (WISHA), including all revisions, amendments and regulations issued thereunder by the Washington State Department of Labor and Industries including, without limitation, all excavation, tunneling, trenching and ditching operations. In case of conflict between any such requirements, the more stringent regulation or requirement shall apply. There is no acceptable deviation from these safety requirements, regardless of practice in the construction industry. Any violation of OSHA, WISHA or other safety requirements applicable to the Work may be considered a breach of this Contract.

3.19 SAFETY PROGRAM

The Contractor shall prepare and maintain a written site specific "Safety Program" demonstrating the methods by which all applicable safety requirements of this Contract will be met. The Contractor shall ensure its Subcontractors and Suppliers have a written "Safety Program" or formally adopt the Contractor's site specific "Safety Program." The

Contractor shall conduct a weekly safety meeting with all Subcontractors and others on the Site to discuss general and specific safety matters.

3.20 ARCHAEOLOGICAL AND HISTORICAL PRESERVATION

The Contractor shall comply fully with the requirements set forth in Chapter 27.53 RCW entitled Archaeological Sites and Resources. The Contractor shall immediately notify the City if any artifacts, skeletal remains or other archaeological resources (as defined under RCW 27.53.040 now and as hereinafter amended) are unearthed during excavation or otherwise discovered on the Site.

3.21 WATER POLLUTION CONTROL REQUIREMENTS

The Contractor shall comply with and be liable for all penalties, damages and violations under Chapter 90.48 RCW including any regulations issued pursuant thereto in the performance of the Work.

3.22 EASEMENTS

If the Contractor makes arrangements for use of additional public and/or private property, the Contractor, prior to using such property, shall provide the Engineer with written permission of the landowner, or duly authorized agent of such landowner, for such use.

3.23 TITLE VI / NONDISCRIMINATION ASSURANCES

During the performance of this contract, the contractor/consultant, for itself, its assignees and successors in interest (hereinafter referred to as the "contractor") agrees as follows:

1. Compliance with Regulations

The contractor shall comply with the Regulations relative to non-discrimination in federally assisted programs of United States Department of Transportation (USDOT), Title 49, Code of Federal Regulations, part 21, as they may be amended from time to time, (hereinafter referred to as the Regulations), which are herein incorporated by reference and made a part of this contract.

2. Non-discrimination

The contractor, with regard to the work performed by it during the contract, shall not discriminate on the grounds of race, color, sex, or national origin in the selection and retention of sub-contractors, including procurement of materials and leases of equipment. The contractor shall not participate either directly or indirectly in the discrimination prohibited by Section 21.5 of the Regulations, including employment practices when the contract covers a program set forth in Appendix B of the Regulations.

3. Solicitations for Sub-contracts, Including Procurement of Materials and Equipment

In all solicitations either by competitive bidding or negotiations made by the contractor for work to be performed under a sub-contract, including procurement of materials or leases of equipment, each potential sub-contractor or supplier shall be notified by the contractor of the contractor's obligations under this contract and the Regulations relative to non-discrimination on the grounds of race, color, sex, or national origin.

4. Information and Reports

The contractor shall provide all information and reports required by the Regulations or directives issued pursuant thereto, and shall permit access to its books, records, accounts,

other sources of information, and its facilities as may be determined by the contracting agency or the appropriate federal agency to be pertinent to ascertain compliance with such Regulations, orders and instructions. Where any information required of a contractor is in the exclusive possession of another who fails or refuses to furnish this information, the contractor shall so certify to WSDOT or the USDOT as appropriate, and shall set forth what efforts it has made to obtain the information.

5. Sanctions for Non-compliance

In the event of the contractor's non-compliance with the non-discrimination provisions of this contract, the contracting agency shall impose such contract sanctions as it or the USDOT may determine to be appropriate, including, but not limited to:

- Withholding of payments to the contractor under the contract until the contractor complies, and/or,
- Cancellation, termination, or suspension of the contract, in whole or in part.

6. Incorporation of Provisions

The contractor shall include the provisions of paragraphs (1) through (5) in every sub-contract, including procurement of materials and leases of equipment, unless exempt by the Regulations, or directives issued pursuant thereto. The contractor shall take such action with respect to any sub-contractor or procurement as the contracting agency or USDOT may direct as a means of enforcing such provisions including sanctions for non-compliance.

Provided, however, that in the event a contractor becomes involved in, or is threatened with, litigation with a sub-contractor or supplier as a result of such direction, the contractor may request WSDOT enter into such litigation to protect the interests of the state and, in addition, the contractor may request the USDOT enter into such litigation to protect the interests of the United States.

ARTICLE 4: ADMINISTRATION OF THE CONTRACT

4.1 TIME OF ESSENCE

All time requirements set forth in the Contract Documents are of the essence.

4.2 WORK PROGRESS

A. The Contractor shall be required to:

1. Prosecute the Work diligently with adequate forces;
2. Plan, coordinate, and layout the Work in advance so as to avoid delay; and
3. Achieve Substantial Completion of the Work and Final Acceptance in accordance with the requirements of Contract Documents.

4.3 SCHEDULE OF VALUES

A. Unless otherwise specified, within fourteen (14) days after the date of Contract Execution, the Contractor shall submit to City a detailed Schedule of Values that identifies the various activities of the Work and their values and quantities, including the overhead and profit for each activity. The Contractor warrants that the values identified in its Schedule of Values accurately reflect the value of each work activity. The Schedule of Values shall be used as a basis for calculating all Progress Payments. Payment for Contract Work shall be made only for and in accordance

with those activities identified in the Schedule of Values.

- B. The Contractor shall not be entitled to, nor shall City be required to make, payment for any Contract Work until the Schedule of Values has been accepted by City. Such acceptance shall not be unreasonably withheld.
- C. City shall review and accept the Schedule of Values or provide the Contractor with a written explanation of why the Schedule of Values was not acceptable. City shall use reasonable efforts to review the Schedule of Values within thirty (30) days of City's receipt of the Contractor's submittal of its Schedule of Values. City's acceptance of the Schedule of Values shall not relieve the Contractor from its sole responsibility for the accuracy of the Schedule of Values and its compliance with all Contract requirements. The Contractor shall revise the Schedule of Values as necessary to accurately reflect Change Orders.
- D. Each Application for Payment shall include a current status of the Schedule of Values. No Application for Payment will be considered until the current status of the Schedule of Values has been submitted and accepted.
- E. The activities, which the Contractor identifies within its Schedule of Values, shall be specifically referenced within, and conform and be consistent with the activities set forth within the Project Schedule.

4.4 PROJECT SCHEDULE

- A. Unless otherwise specified, within fourteen (14) days after the date of Contract Execution, the Contractor shall submit to City a Project Schedule. The Project Schedule shall show the sequence in which the Contractor proposes to perform the Work, indicate the Critical Path, identify the dates on which the Contractor proposes to start and finish the scheduled activities of the Contract Work, indicate Substantial Completion within the Contract Time, indicate a date for Final Acceptance, and meet all the requirements as may be set forth in the Contract Documents.
- B. Within thirty (30) days of City's receipt of the Contractor's submittal of its Project Schedule or unless stated elsewhere in the Contract, City shall review the Project Schedule and provide the Contractor with written comments. City will review the Project Schedule only to determine whether the Project Schedule meets the requirements in the Technical Specifications on Project Schedule. To the extent the Project Schedule does not meet such Technical Specifications, the Contractor shall revise the Project Schedule to make it compliant.
- C. By reviewing the Project Schedule and providing written comments, City is not approving or adopting the Contractor's plan, schedule, means, methods, techniques, sequences, or procedures required to perform the Work. Review and comment by City of the Project Schedule shall not relieve the Contractor from the sole responsibility for the accuracy of a Project Schedule, and its compliance with all Contract requirements, and its responsibility to meet all required Contract completion dates. Failure by City to indicate items on the Project Schedule that do not conform with the Contract requirements shall not alter or waive the Contract requirements or relieve the Contractor from complying with all Contract requirements.
- D. The Contractor shall not be entitled to, nor shall City be required to make payment for any Contract Work until the Project Schedule complies with all Contract requirements.
- E. The Contractor shall schedule the Contract Work so that the Contract Work is completed within the Contract Time. Float in the project Schedule shall be defined

as the period of time measured by the number of days each non-critical path activity may be delayed before it and its succeeding activities become part of the Critical Path. Contractor and Owner may both utilize float to offset delays to the Work.

- F. The Contractor shall regularly enter the actual progress of the Work and Contract Time extensions, if any, approved by City on the Project Schedule. Updated Project Schedules shall reflect actual progress and completion within the Contract Time and shall be provided to City with each Application for Payment in format(s) as required by the Contract. Applications for Progress Payments will not be considered by City and the Contractor will not be paid until the Contractor complies with these requirements. The updated Project Schedule shall be used to assist City in verifying the appropriate payment.
- G. If, in the opinion of City, the Contractor falls behind in its progress of the Work due to acts or omissions of the Contractor, Subcontractors, and Suppliers, the Contractor shall take all necessary steps to improve its progress and bring its progress back in-line with the accepted Project Schedule, without additional cost to City. In this circumstance the Contractor shall, as necessary, increase the number of shifts, overtime operations, and/or days of work, both on and off the Site, and submit for acceptance any supplementary schedule or schedules as City deems necessary to demonstrate how the accepted rate of progress will be regained. Failure of the Contractor to comply with the requirements under these provisions shall be grounds for a determination by City that the Contractor is not prosecuting the Work with sufficient diligence to ensure completion within the time specified in the Contract. Upon making this determination, City may pursue any right it has under the law or the Contract, including but not limited to default termination.

4.5 SUBMITTALS

- A. Submittals include shop drawings, setting and erection drawings, schedules of materials, product data, samples, certificates and other information prepared for the Work by the Contractor or a Subcontractor as set forth in the Technical Specifications ("Submittals"). The Contractor shall perform no portion of the Work requiring Submittals until the Submittals have been reviewed and returned by City with one of the following annotations: (1) no exceptions taken, or (2) note markings.
- B. When submitting information, the Contractor shall identify and state reasons for any alteration, variation, addition, deviation, or omission from the Contract. The Contractor shall not perform work that alters, varies, adds to, deviates from, or omits any requirement of the Contract Documents without prior specific written acceptance by City.
- C. The Contractor shall provide Submittals with reasonable promptness and in such sequence as to facilitate the timely completion of the Contract.
- D. City shall review the Contractor's Submittals and respond in writing with reasonable promptness so as not to unreasonably delay the progress of the Work. Unless otherwise agreed, no delay to the Work shall be attributable to the failure by City to respond to a Submittal until thirty (30) days after the Submittal is received by City, and then only if failure by City to respond is unreasonable and affects the Contract completion date.
- E. If the Contractor is required to resubmit a Submittal, any revisions on resubmittals shall be specifically identified in writing and the resubmitted Submittal shall be sequentially alpha denoted (for example: 22A followed by 22B, etc.) and note revisions in numerical order. The cost of the review of the initial

Submittal and the first revised submittal shall be borne by City. The costs of all additional revised Submittals shall be charged to the Contractor. The cost of review shall include, without limitation, administrative, design, and engineering activities directly related to review of Submittals. City may deduct these costs from any amounts due the Contractor.

- F. City shall review the Contractor's Submittals only for conformance with the design of the Work and compliance with the Contract. Review of the Submittals are not conducted to verify the accuracy of dimensions, quantities, or calculations, the performance of materials, systems, or equipment, or construction means, methods, techniques, sequences, or procedures, all of which remain the Contractor's responsibility. Failure by City to take exception to a Submittal shall not relieve the Contractor from any duty, including its responsibility for errors or omissions in Submittals, its duty to make Submittals and duty to perform the Work according to the requirements of the Contract. City's review of a Submittal shall not alter or waive the requirements of the Contract unless City has issued prior written approval of such change or alteration of the Contract requirements.
- G. The Contractor's failure to identify any error, deviation, or omission and subsequent acceptance of the Submittal by City shall not relieve the Contractor from complying with the Contract requirements.

4.6 REQUESTS FOR INFORMATION

- A. If the Contractor determines that some portion of the drawings, specifications or other Contract Documents require clarification or interpretation by City because of an apparent error, inconsistency, omission, or lack of clarity in the Contract, the Contractor shall promptly submit a Request For Information ("RFI") and, unless otherwise directed, shall not proceed with the affected work until City has responded to the RFI. The Contractor shall plan its work in an efficient manner so as to allow for timely responses to RFIs.
- B. City shall respond in writing with reasonable promptness to Contractor's RFI.
 - 1. At the request of the Engineer, the Contractor shall prioritize its RFIs, identify a date by which the Contractor prefers the RFI be answered, and reasons for such priority.
 - 2. If the Contractor submits a RFI on an activity less than thirty (30) days prior to the commencement of that activity, the Contractor shall not be entitled to any time extension or adjustment in Contract Price due to the time it takes City to respond to the RFI provided that City responds within fifteen (15) days. No delay to the Work or damages to the Contractor shall be attributable to the failure by City to respond to the RFI until fifteen (15) days after City's receipt of the RFI, and then only if the failure by City to respond is unreasonable and affects the Contract completion date.
- C. City's response to a RFI shall not be considered a change to the Contract requirements unless it is accompanied by a Request for Change Proposal. If the Contractor believes that City's response to the RFI constitutes changed work impacting Contract Price or Contract Time, the Contractor shall submit a Notice of Claim, Supplemental Information and a Request for Change Order to City in accordance with Articles 5, *Changes to the Contract*.

4.7 TESTS, INSPECTIONS, AND ACCESS TO THE WORK

- A. Contractor shall be responsible for inspection and quality assurance of all the Work

including all work performed by any Subcontractor. The Contractor shall document and maintain an adequate testing and inspection program and perform such tests and inspections as are necessary or required to ensure that the Work conforms to the requirements of the Contract. The Contractor shall maintain all documentation related to testing and inspection and make such documentation available to City at its request. Unless otherwise provided, Contractor shall make arrangements for such tests, inspections, and approvals with an independent testing laboratory or entity acceptable to City, or with the appropriate public authority. If any governmental, regulatory, or permitting authority requires any portion of the Work to be inspected, tested, or approved, the Contractor shall make all arrangements for and cooperate with such inspections, tests, and approvals so as not to delay completion of the Work. The Contractor shall bear all related costs of tests, inspections, and approvals. The Contractor shall give City at least three (3) days' Notice of: (1) when the work is ready to be tested and inspected and (2) when and where tests and inspections are to be made. Contractor shall maintain complete inspection records and make them available to City upon request.

- B. The Contractor shall cooperate with City in the performance of any tests and inspections of the Work. The Contractor has the duty to coordinate all tests and inspections in a manner, which does not negatively impact Contractor's compliance with the Contract.
- C. If any Work required to be inspected, tested, or approved is covered without such inspection, testing or approval being obtained, it must, if requested by City, be uncovered for observation, and such uncovering shall be at Contractor's expense.
- D. City may, at any reasonable time and at its own cost, conduct inspections and tests as it deems necessary to ensure that the Work is in accordance with the Contract. City shall promptly notify Contractor if an inspection or test reveals that the Work is not in accordance with the Contract. City inspection and tests are for the sole benefit of City and do not:
 - 1. Constitute or imply acceptance;
 - 2. Relieve Contractor of responsibility for providing adequate quality control measures;
 - 3. Relieve Contractor of responsibility for risk of loss or damage to the Work, materials, or equipment;
 - 4. Relieve Contractor of its responsibility to comply with the requirements of the Contract; or
 - 5. Impair City's right to reject defective or nonconforming items, or to avail itself of any other remedy to which it may be entitled.
- E. Neither observations by an inspector retained by City, the presence or absence of such inspector on the Site, nor inspections, tests, or approvals by others, shall relieve Contractor from any requirement of the Contract. Inspectors are not authorized to change any term or condition of the Contract.
- F. Contractor shall promptly furnish, without additional charge, all facilities, labor, material and equipment reasonably needed for performing such safe and convenient inspections and tests as may be required by City. City may charge Contractor any additional cost of inspection or testing when Work is not ready at the time specified by Contractor for inspection or testing, or when prior rejection makes reinspection or retest necessary. City shall perform its inspections and tests in a manner that will cause no undue delay in the Work.

4.8 CORRECTION OF WORK OR DAMAGED PROPERTY

- A. If material, equipment, workmanship, or work proposed for, or incorporated into the Work, does not meet the Contract requirements or fails to perform satisfactorily, City shall have the right to reject such work by giving the Contractor written notice and may require the Contractor to promptly repair, replace or correct it at no cost to the City.
- B. If the Contractor does not repair, replace or correct and/or remove defective or non-conforming Work or repair damaged property as required by City, in manner and/or schedule, City or City's designee may repair, replace or correct and/or remove it and deduct the cost of such effort from any payment due the Contractor.
 - 1. If the remaining payments due the Contractor are not sufficient to cover City's cost of remedying the defective or non-conforming Work, the Contractor shall pay the difference to City.
- C. The Contractor shall be liable for all damages and costs incurred by City caused by defective or non-conforming work or workmanship, including but not limited to all special, incidental, or consequential damages incurred by City.

4.9 SUBSTITUTION OF PRODUCTS & PROCESSES

- A. Substitutions requested by the Contractor will be subject to City's prior written acceptance and at City's sole discretion.
- B. Requests for substitution must specifically identify:
 - 1. Material, equipment, and labor costs included in the Contractor's bid associated with the original item to be substituted;
 - 2. All costs for material, equipment, labor associated with the proposed substitution, including any impact costs;
 - 3. Proposed change to the Contract Price and/or Contract Time; and
 - 4. Compatibility with or modification to other systems, parts, equipment or components of the Project and Contract Work.
- C. Contractor shall provide all documentation supporting its request as requested by City.
- D. All costs of any redesign or modification to other systems, parts, equipment or components of the Project or Contract Work, which result from the substitution, shall be borne by the Contractor.
- E. When City approves a substitution proposed by the Contractor, the Contractor shall guarantee the substituted article or materials to be equal to, or better than, those originally specified and shall be compatible with all other systems, parts, equipment or components of the Project and Contract Work. City has the right to order an unaccepted, substituted article removed and replaced without additional cost to City.
- F. City has a right to a deductive Change Order if the substituted product or process is less costly than the contractually required product or process.
- G. If City does not accept the substitution proposal the Contractor shall proceed, without delay or cost to City, with the Contract Work as originally specified.

4.10 INCREASED OR DECREASED QUANTITIES

- A. 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 any 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. In that case, payment for contract work may be adjusted as described herein:
1. The adjusted final quantity shall be determined by starting with the final accepted quantity measured after all work under an item has been completed. From this amount, subtract any quantities included in additive change orders accepted by both parties. Then, to the resulting amount, add any quantities included in deductive change orders accepted by both parties. The final result of this calculation shall become the adjusted final quantity and the basis for comparison to the original proposal quantity.
 - a. Increased Quantities: Either party to the contract will be entitled to renegotiate the price for that portion of the adjusted final quantity in excess of 1.25 times the original proposal quantity. The price for excessive quantities will be determined by agreement of the parties, or, where the parties cannot agree, the price will be determined by the City based upon the actual costs to perform the work, including markup for overhead and profit in accordance with Paragraph 6.3, *Allowable Costs*.
 - b. Decreased Quantities: Either party to the contract will be entitled to an equitable adjustment if the adjusted final quantity of work performed is less than 75 percent of the original bid quantity. The equitable adjustment shall be based upon and limited to three factors:
 - i. Any increase or decrease in unit costs of labor, materials or equipment, utilized for work actually performed, resulting solely from the reduction in quantity;
 - ii. Changes in production rates or methods of performing work actually done to the extent that the nature of the work actually performed differs from the nature of the work included in the original plan; and
 - iii. An adjustment for the anticipated contribution to unavoidable fixed cost and overhead from the units representing the difference between the adjusted final quantity and 75% of the original plan quantity.
- B. The following limitations shall apply to renegotiated prices for increases and/or equitable adjustments for decreases:
1. Labor, materials and equipment rates shall be actual costs but shall not exceed the rates set forth in Paragraph 6.3, *Allowable Costs* nor shall overhead and profit exceed the rates set forth in Paragraph 6.3, *Allowable Costs*.

2. No payment for consequential damages or loss of anticipated profits will be allowed because of any variance in quantities from those originally shown in the proposal form, contract provisions, and contract plans.
 3. The total payment (including the adjustment amount and unit prices for work performed) for any item which experiences an equitable adjustment for decreased quantity shall not exceed 75% of the amount original bid for the item.
- C. If the adjusted final quantity of any item does not vary from the quantity shown in the proposal by more than 25% then the Contractor and the City agree that all work under that item will be performed at the original contract unit price and within the original time for completion.
 - D. When ordered by the Engineer, the Contractor shall proceed with the work pending determination of the cost or time adjustment for the variation in quantities.
 - E. The Contractor and the City agree that there will be no cost adjustment for decreases if the City has entered the amount for the item in the proposal form only to provide a common proposal for bidders.

ARTICLE 5: CHANGES TO THE CONTRACT

5.1 GENERAL

- A. No provisions of the Contract may be amended or modified except by written agreement signed by the City.
- B. All Change Order work shall be performed in accordance with the original Contract requirements unless modified in writing by City.
- C. Any response to a Request For Information, or other directive, direction, instruction, interpretation, or determination (hereinafter referred to as "Direction" for the purposes of Article 5), provided by City is not considered a Change Order, a change to Contract requirements, and shall not constitute, in and of itself, entitlement to an adjustment in Contract Price and/or Contract Time.
- D. The Contractor shall not be entitled to any change in the Contract Price and/or Contract Time under the following conditions or events:
 1. They were reasonably foreseeable at the time the Contractor submitted its bid;
 2. They were caused by the acts of the Contractor, Subcontractor and/or Supplier, including but not limited to the choice of means, methods, techniques, sequences, or procedures for the Work, failure to provide labor, materials or equipment in a timely manner, and failure to take reasonable steps to mitigate delays, disruptions, or conditions encountered.
- E. The Contract requirements for time and price impacts related to Change Orders are set forth in Article 6, *Time and Price Adjustments*.
- F. If there is a bid item for "Minor Changes," payments or credits for changes that cost \$5,000 or less and do not affect time, may, at the discretion of the City, be made under that bid item in lieu of the procedures set forth in Sections 5.1 – 5.6. A Minor Change will be documented by a written Order for a Minor Change or by a notation confirming an oral agreement.

5.2 CONTRACTOR'S REQUEST FOR A CHANGE ORDER

- A. Notice of Claim and Supplemental Information. If the Contractor believes that it is entitled to additional compensation and/or time for any reason (other than for a differing site condition under Section 5.2), or if the Contractor disagrees with any written or oral direction, instruction, interpretation or determination from the City, the Contractor shall
- (1) Provide the Engineer with a written Notice of Protest before doing any work or incurring any costs for which it may seek additional compensation or time from the City.
 - (2) Supplement the written Notice of Protest within 14 days with a written statement that includes the following:
 - a. The date, circumstances, and basis of entitlement to additional compensation and/or time;
 - b. The estimated dollar cost of the protested work and a detailed breakdown showing how that estimate was determined;
 - c. An analysis of the progress schedule showing the schedule change or disruption if the Contractor is asserting a schedule change or disruption;
 - d. Substantive basis of the Request;
 - e. If the protest is continuing, the information required above shall be supplemented upon request by the Engineer until the protest is resolved; and
 - f. The Contractor waives all claims for additional compensation and time if it fails to provide both a timely Notice of Claim and Supplemental Information with the information required by this Section.
- B. Request for Change Order.
1. A Request for a Change Order must be submitted in writing to the Engineer no later than thirty-five (35) days after the Contractor submitted its supplemental information pursuant to Paragraph 5.1(A)(2).
 2. The Request for a Change Order shall include:
 - a. Specific dollar amount covering all costs associated calculated in accordance with Article 6, *Time and Price Adjustments*;
 - b. Specific request for time extension (number of days) calculated in accordance with Article 6, *Time and Price Adjustments*;
 - c. A copy of the written Notice of intent, including all attachments;
 - d. All documentation supporting the Request for a Change Order, including but not limited to a cost proposal prepared using the forms provided by City, all cost records, schedule analysis, and the documents identified in §00700, ¶13.10, *Maintenance and Inspection of Documents*, that are in any way relevant to the Contractor's Request for Change Order; and
 - e. The Contractor waives all claims for additional compensation and time if it fails to provide a timely Request for Change Order with the information required by this Section.
- C. City's Response to Contractor's Request for Change Order.

1. City will make a written determination with respect to the Contractor's Request for Change Order within thirty (30) days of receipt of said Request, unless one of the following activities occurs.
 - a. City may request additional information and specify a time period for receipt of the information. The Contractor shall comply with City's request for additional information.
 - b. City may inform the Contractor that additional time is needed to review the Contractor's Request for Change Order and identify a date certain when a decision will be rendered.
 2. If City requests additional information, City will make a written determination within thirty (30) days receipt of Contractor's additional information.
 3. If City does not make a determination within the applicable time period, the Request For Change Order is deemed denied.
- D. Approval of Request for Change Order and Execution of Change Order. If City determines that a Change Order is necessary, the parties may negotiate acceptable terms and conditions and execute a Bilateral Change Order or City may issue a Unilateral Change Order.
- E. Contractor Procedure upon Denial or Deemed Denial of a Request for a Change Order. If the Contractor disagrees with the denial, the Contractor's sole remedy shall be to file a fully documented Claim within thirty (30) days of deemed denial or the Contractor's receipt of the denial in accordance with Article 9, *Claims and Litigation*.
- F. Contractor's Obligation to Continue to Work. Pending resolution of the Contractor's Request for a Change Order, the Contractor shall continue to perform all Work including, at the written request of City that work associated with the pending Request for Change Order. The Contractor shall maintain its progress with the Work.
- G. Waiver. Failure to follow the provisions set forth herein shall constitute a waiver of the Contractor's right to receive any additional time or money as a result of any alleged direction, instruction, interpretation, determination by City and/or the event or impact to the Project.

5.3 DIFFERING SITE CONDITIONS

- A. Immediate Written Notice to City. If the Contractor encounters a Differing Site Condition as defined in Article 1.0 the Contractor shall immediately, and before the conditions are disturbed, give written Notice to City of Differing Site Conditions.
- B. Request for Change Order based on Differing Site Condition. Unless otherwise agreed upon in writing by the Engineer, within forty-five (45) days of the Contractor's initial written notification of the Differing Site Condition to City, the Contractor shall provide a Request for Change Order that includes all elements required for such a request, including:
 1. A detailed description of the Differing Site Condition; and
 2. Substantive, contractual, and technical basis supporting the existence of the Differing Site Condition and its impacts.
- C. Waiver.

1. If the Contractor's actions disturb the Site such that City or City's designee cannot adequately and fully investigate the alleged differing site condition, the Contractor waives its right to receive any additional time or money as a result of the Differing Site Condition.
 2. Failure by the Contractor to provide either (a) immediate Notice or (b) Request for Change Order shall constitute a waiver of the Contractor's right to receive any additional time or money as a result of the Differing Site Condition.
 3. The Contractor shall be responsible for any and all costs or damages incurred by City resulting from the Contractor's failure to provide appropriate notice and/or the Detailed Description and Request for Change Order.
- D. City's Response to the Differing Site Condition Request for Change Order. City shall investigate the alleged Differing Site Conditions and respond to the Differing Site Condition in accordance with the Request for Change Order procedures set forth above.
- E. Contractor's Obligation to Continue to Work. The Contractor shall not disturb the condition until receipt of written authorization from the Engineer that work can resume at the location of the alleged Differing Site Condition. The Contractor shall continue with performance of all other Work.

5.4 SUSPENSION OF WORK

A. City Issues Directive Suspending Work

1. City may order the Contractor, in writing, to suspend all or any part of the Work of this Contract for the period of time that City determines appropriate for the convenience of City. The Contractor shall not suspend the Work without written direction from City specifically authorizing the Suspension of Work.
2. Upon receipt of a written Notice suspending the Work, the Contractor shall immediately comply with its terms and take all reasonable steps to minimize costs attributable to such suspension. Within a period up to 120 days after the suspension notice is received by the Contractor, or within any extension of that period which City requires, City shall either:
 - a. Cancel the written notice suspending the Work; or
 - b. Terminate the Work for either default or convenience.
3. If a written notice suspending the Work is canceled or the period of the Suspension or any extension thereof expires, the Contractor shall resume Work as required by City.
4. If the performance of all or any part of the Work is, for an unreasonable period of time, suspended by the written direction of City, the Contractor may be entitled to an adjustment in the Contract Time, or Contract Price, or both, for increases in the time or cost of performance directly attributable to the suspension and provided that the Contractor sufficiently documents all costs and time impacts attributable to the suspension. No adjustments to Contract Price and/or Contract Time shall be allowed unless the Contractor can demonstrate that the period of suspension caused by City impacted Critical Path and delayed the Contractor from completing the Work on time.

B. Constructive Suspension of Work

1. If the Contractor believes that some action or omission on the part of City constitutes constructive suspension of Work, the Contractor shall immediately notify City in writing that the Contractor considers the actions or omission a constructive suspension of Work.
- C. To the extent the Contractor believes it is entitled to any additional money or time as a result of the suspension of Work or constructive suspension, Contractor shall submit a Notice of Protest, Supplemental Information and Request for Change Order to City in accordance with Article 5, *Changes to the Contract*.
- D. Failure to comply with these requirements shall constitute a waiver of Contractor rights to any adjustment in Contract Time and/or Contract Price.
- E. No adjustment shall be made under this provision for any suspension to the extent that Contractor's performance would have been suspended, delayed, or interrupted as a result of actions, omissions, fault or negligence caused, in whole or in part, by the Contractor or any of its Subcontractors.

5.5 FORCE MAJEURE

- A. To the extent the Contractor believes it is entitled to any additional time as a result of Force Majeure, Contractor shall submit a Notice of Protest, Supplemental Information and Request for Change Order to City in accordance with Article 5, *Changes to the Contract*.
- B. Contractor shall not be entitled to a change in Contract Price resulting from an act of Force Majeure.
- C. Contractor is not entitled to an adjustment in Contract Time if the act of Force Majeure did not impact progress of the Work on the Critical Path and delay the Contractor from completing the Work within the Contract Time.
- D. When a Contractor experiences concurrent delay caused by either City or Contractor and an act of Force Majeure, the Contractor shall only be entitled to a change in Contract Time. No change to the Contract Price shall be allowed as a result of such concurrent delay.

5.6 CHANGE ORDERS

A. Bilateral Change Orders

1. If City and Contractor reach agreement on the terms and conditions of any change in the Work, including any adjustment in the Contract Price and Contract Time, such agreement shall be incorporated into a Change Order and signed by both Parties. Such Bilateral Change Orders shall represent full and complete payment and final settlement of all changes, Claims, damages or costs for all (a) time; (b) direct, indirect, and overhead costs; (c) profit; and (d) any and all costs or damages associated with delay, inconvenience, disruption of schedule, impact, ripple effect, loss of efficiency or productivity, acceleration of work, lost profits, stand-by, and any other costs or damages related to any work either covered or affected by the Change Order, or related to the events giving rise to the Bilateral Change Order.

B. Unilateral Change Order

1. City's Right to Issue Unilateral Change Order.

- a. City may unilaterally issue a Change Order at any time, without invalidating the Contract and without notice to the sureties, making changes within the general scope of this Contract.
- b. If any such Change Order causes an increase or decrease in the cost of, or time required for, performance of any part of the Work, City may make an adjustment in the Contract Price, Contract Time, or both, in accordance with Articles 5, *Changes to the Contract*, and 6, *Time and Price Adjustments*.

2. Contractor Disagreement with Unilateral Change Order. If the Contractor disagrees with the adjustment to the Contract Price and/or Time as indicated in the Unilateral Change Order, the Contractor must submit a Notice of Protest, Supplemental Information and Request for Change Order to City in accordance with Article 5, *Changes to the Contract*.

3. Contractor's Obligation to Continue to Work. The Contractor is required to continue with performance of all Work, including work associated with the Unilateral Change Order.

5.7 CITY REQUEST FOR A CHANGE PROPOSAL

A. Request. City may request a written Change Proposal from the Contractor for a change in the Work.

B. Contractor's Proposal. Contractor shall submit its written Change Proposal within the time specified in City's request with the costs shown in a form acceptable to the City. The Change Proposal shall represent the Contractor's offer to perform the requested work, and the pricing set forth within the proposal shall represent full, complete, and final compensation for the proposed change and any impacts to any other Work, including any adjustments in the Contract Time.

C. City's Acceptance of Contractor Proposal. If City accepts the Change Proposal as submitted by the Contractor or as negotiated by the parties, City shall notify the Contractor in writing of its acceptance of the Proposal and direct that the change in the Work be performed.

D. Execution of a Bilateral Change Order. After acceptance of the Change Proposal or acceptance of the negotiated Change Proposal, City shall direct the Contractor to perform the work in accordance with the agreed upon terms; thereafter, the Parties shall execute a bilateral Change Order in accordance with the terms of the Change Proposal or negotiated Change Proposal.

E. Execution of Unilateral Change Order. If City does not accept the Change Proposal or the Parties cannot agree upon the appropriate price or terms for the Change Proposal, City may issue a unilateral Change Order.

ARTICLE 6: TIME AND PRICE ADJUSTMENTS

6.1 CHANGE IN THE CONTRACT TIME

A. The Contract Time shall only be changed by a Change Order.

- B. No change in the Contract Time shall be allowed to the extent the time of performance is changed due to the fault, act, or omission of Contractor, or anyone for whose acts or omissions the Contractor is responsible.
- C. Contractor is not entitled to a change in Contract Time unless the progress of the Work on the Critical Path is delayed and completion of the Contract Work within Contract Time is delayed.
- D. When a Contractor experiences concurrent delays which impact the Critical Path and are caused by (1) City and the Contractor; (2) City and an act of Force Majeure; or, (3) the Contractor and an act of Force Majeure, the Contractor shall only be entitled to a change in Contract Time. No change to the Contract Price shall be allowed as a result of such concurrent delay.
- E. A Request for Change Order that includes a request for an adjustment in the Contract Time shall:
 - 1. Be in writing and delivered to City within the appropriate time period specified in Article 5, *Changes in the Contract*.
 - 2. Include a clear explanation of how the event or conditions specifically impacted the Critical Path and overall Project Schedule and the amount of the adjustment in Contract Time requested.
 - 3. Be limited to the change in the Critical Path of a Contractor's Project Schedule, and any updates, attributable to the event or conditions, which caused the request for adjustment. No extension of time or compensation for damages resulting from delay will be granted unless the delay affects the timely completion of all Work under the Contract or timely completion of a portion of the Work for which time of completion is specific. Contractor shall be responsible for showing clearly on the Project Schedule, and any updates, that the event or conditions:
 - a. Had a specific impact on the Critical Path and was the sole cause of such impact;
 - b. Could not have been avoided by resequencing of the Work or other reasonable alternatives; and
 - c. Will prevent the Contractor from completing the Project within the current Contract completion date.
- F. Contractor shall make all reasonable efforts to prevent and mitigate the effects of any delay, whether occasioned by an act of Force Majeure or otherwise.

6.2 CHANGE IN THE CONTRACT PRICE

- A. The Contract Price shall only be changed by a Change Order.
- B. No change in the Contract Price shall be allowed when:
 - 1. Contractor's changed cost of performance is due to the fault, acts, or omissions of Contractor, or anyone for whose acts or omissions Contractor is responsible, including its subcontractors and suppliers;
 - 2. The change is concurrently caused by Contractor and City; or
 - 3. The change is caused by an act of a third party or Force Majeure.

- C. City shall not be responsible for, and the Contractor shall not be entitled to any compensation for unallowable costs. Unallowable costs include, but are not limited to:
1. Interest or attorney's fees of any type other than those mandated by Washington state statute;
 2. Claim preparation or filing costs;
 3. The cost of preparing or reviewing Change Proposals or Requests for Change Orders;
 4. Lost profits, lost income or earnings;
 5. Costs for idle equipment when such equipment is not at the Site, has not been employed in the Work, or is not scheduled to be used at the Site;
 6. Lost earnings or interest on unpaid retainage;
 7. Claims consulting costs;
 8. The costs of corporate officers or staff visiting the Site or participating in meetings with City;
 9. Loss of other business; and/or
 10. Any other special, consequential, or incidental damages incurred by the Contractor, Subcontractor, or Suppliers.
- D. A Request for Change Order that includes a request for an adjustment in Contract Price shall:
1. Be in writing and delivered to City within the applicable time period specified in Article 5, *Changes to the Contract*.
 2. Identify the following information:
 - a. The event or condition which caused the Contractor to submit its request for an adjustment in the Contract Price;
 - b. The nature of the impacts to Contractor and its Subcontractors, if any; and
 - c. The amount of the adjustment in Contract Price requested calculated in accordance with Paragraph 6.3, *Allowable Costs*, and using forms provided by City.
 3. Any requests by Contractor for an adjustment in the Contract Price and in the Contract Time that arise out of the same event or conditions shall be submitted together.
- E. The adjustments to the Contract Price provided for in this Article represent full, final, and complete compensation for all work done in connection with the request for an adjustment in Contract Price and all costs related to, resulting from, or affected by such change in Work including, but not limited to, all direct and indirect costs, overhead, profit, and all costs or damages associated with delay, inconvenience, disruption of schedule, impact, dilution of supervision, inefficiency, ripple effect, loss of efficiency or productivity, acceleration of work, lost profits, and any other costs or damages related to any work either covered or affected by the change in the Work, or related to the events giving rise to the change.

6.3 METHOD TO CALCULATE ADJUSTMENTS TO CONTRACT PRICE

- A. One of the following methods shall be used to calculate damages and/or adjustments to the Contract Price that result from or relate to Change Proposal, Request for Change Order, and/or Claim.
- B. Determination of the method to be used to calculate adjustments in the Contract Price shall be at the sole discretion of City.
- C. One of the following methods shall be used:
 - 1. Unit Price Method;
 - 2. Firm Fixed Price Method (also known as Lump Sum); or
 - 3. Time and Materials Method.
- D. **Unit Price Method**
 - 1. The City may direct the Contractor to perform extra work on a Unit Price basis. Such authorization shall clearly state the:
 - a. Scope of work to be performed;
 - b. Applicable Unit Price; and
 - c. Not to exceed amount of reimbursement as established by City.
 - 2. The applicable unit price shall include reimbursement for all direct and indirect costs of the work, including Overhead and profit, as limited by paragraph 6.3, *Allowable Costs*.
 - 3. Contractor shall only be paid under this method for the actual quantity of materials incorporated in or removed from the Work and such quantities must be supported by field measurement statements verified by City.
- E. **Firm Fixed Price Method**
 - 1. The Contractor and City may mutually agree on a fixed amount as the total compensation for the performance of changed work.
 - 2. The Contractor shall provide a detailed cost breakdown supporting the Contractor's requested adjustment to Contract Price and any other financial documentation requested by the Engineer, as limited by paragraph 6.3, *Allowable Costs*.
 - 3. Any adjustments to the Contract Price using the Firm Fixed Price Method shall include, when appropriate all reasonable costs for labor, equipment, material, Overhead and profit. Such labor, equipment, material, Overhead and profit shall be calculated in accordance with paragraph 6.3, *Allowable Costs*.
 - 4. Whenever City authorizes Contractor to perform changed work on a Firm Fixed Price Method, City's authorization shall clearly state:
 - a. Scope of work to be performed; and
 - b. Total Fixed Price payment for performing such work.
- F. **Time and Materials Method**
 - 1. Whenever City authorizes the Contractor to perform work on a Time and Material basis, City's authorization shall clearly state:

- a. Scope of work to be performed; and
 - b. A not to exceed amount of reimbursement as established by City.
2. Contractor shall:
- a. Cooperate with City and assist in monitoring the work being performed;
 - b. Substantiate the labor hours, materials and equipment charged to work under the Time and Materials Method by detailed time cards or logs completed on a daily basis before the close of business each working day;
 - c. Present the time card and/or log at the close of business each day to the Engineer so that City may review and initial each time card/log;
 - d. Perform all work in accordance with this provision as efficiently as possible;
 - e. Not exceed any cost limit(s) without City's prior written approval; and
 - f. Maintain all records of the work, including all records of the Subcontractor, Supplier, and Materialmen, and make such records available for inspection as required in paragraphs 3.8, *Record Documents*, 3.9, *Cost Records*, and 3.10, *Maintenance and Inspection of Document*.
3. Contractor shall submit costs and any additional information requested by City to support Contractor's requested price adjustment.
4. The Contractor shall only be entitled to be paid for reasonable costs actually incurred by the Contractor. The Contractor has a duty to control costs. If City determines that the Contractor's costs are excessive or unreasonable, City, at its discretion, shall determine the reasonable amount for payment.

G. Deductive Changes to the Contract Price

1. A deductive change to the Contract Price may be determined by taking into account:
- a. Costs incurred and saved by the Contractor as a result of the change, if any;
 - b. The costs of labor, material, equipment, and overhead saved and profit unearned by the deleted work. These costs shall be calculated following as closely as possible with the provisions identified in Article 6, Time and Price Adjustments; and/or,
 - c. At the discretion of City, costs set forth in the documents used by the Contractor to develop its bid.
2. Where City has elected not to correct incomplete or defective Work, the adjustment in the Contract Price shall take into account:
- a. The costs the City would have to expend to correct the Work;
 - b. The decreased value to City resulting from the incomplete or defective Work; and,
 - c. The increased future costs which City may incur by reason of the incomplete or defective Work.

H. Full Compensation

An adjustment calculated in accordance with the provisions of this Article shall be full and complete payment and final settlement of all changes, claims, damages and costs for all (a) time; (b) direct, indirect, and overhead costs; (c) profit; and (d) any and all costs or damages associated with delay, inconvenience, disruption of schedule, impact, ripple effect, loss of efficiency or productivity, acceleration of work, lost profits, standby, and/or any other costs or damages related to any Work either covered or affected by the changed Work, or related to the events giving rise to the change.

6.4 ALLOWABLE COSTS

- A. Any adjustments to the Contract Price shall be based on the following categories and shall incorporate markups for Overhead and profit as provided herein.
1. **Labor.** For all labor, including foreman supervision but excluding superintendents and other project management and consultants, the Contractor shall be reimbursed for labor costs provided herein. The labor cost of an event or condition shall be calculated as the sum of the following:
 - a. **Labor Rate.** The Labor Rate is the actual reasonable wage paid to the individual plus the actual reasonable costs incurred by the Contractor to cover costs associated with Federal Insurance Compensation Act (FICA), Federal Unemployment Tax Act (FUTA), State Unemployment Tax Act (SUCA), industrial insurance, fringe benefits, and benefits paid on behalf of labor by the Contractor. The applicable Labor Rates shall be multiplied by the number of hours reasonably expended in each labor classification because of the event or condition to arrive at a total cost of labor.
 - b. **Travel Allowance and/or Subsistence.** The labor calculation shall include the actual costs of travel and/or subsistence paid to the Contractor's employees engaged upon the Work when said payments are required by a labor agreement.
 2. **Materials.** The cost of materials resulting from an event or condition shall be calculated in one or more of the following methods, at City's election:
 - a. **Invoice Cost.** The Contractor may be paid the actual invoice cost of materials including actual freight and express charges and applicable taxes less all available discounts, rebates, and back-charges,. This method shall be considered only to the extent the Contractor's invoice costs are reasonable and the Contractor provides copies of vendor invoices, freight and express bills, and other evidence of cost accounting and payment satisfactory to City. As to materials furnished from the Contractor's stocks for which an invoice is not available, the Contractor shall furnish an affidavit certifying its actual cost of such materials and such other information as City may reasonably require;
 - b. **Wholesale Price.** The Contractor may be paid the lowest current wholesale price for which the materials are available in the quantities required, including customary costs of delivery and all applicable taxes less all available discounts, rebates, and back-charges; or

- c. **City Furnished Material.** City reserves the right to furnish such materials as it deems advisable, and the Contractor shall have no Claim for any costs, Overhead or profit on such materials. However, should the Contractor be required to pick up, transport and/or unload such materials the Contractor will be reimbursed for reasonable costs thereof.
- 3. **Equipment.** The additional cost, if any, of machine-power tools and equipment usage shall be calculated in accordance with the following rules:
 - a. **Equipment Rates.** The Contractor's own charge rates may be used if verified and approved by City and based on the Contractor's actual ownership and operating cost experience. Rental rates contained in published rate guides may be used if their cost formulas and rate factors are identifiable, reflect the Contractor's historical acquisition costs, utilization, and useful life, and do not include replacement cost, escalation contingency reserves, general and administrative expense, or profit. Rates shall be based on the Contractor's actual allowable costs incurred or the rates established according to the Rental Rate Blue Book for Construction Equipment, published by Equipment Watch, PRIMEDIA, whichever is less. The Rental Rate Blue Book established hourly equipment rate shall be the monthly rental rate for the equipment plus the monthly rental rate for required attachments, divided by 176 work hours per month, multiplied by the appropriate regional adjustment factor, plus the hourly operating cost. The established equipment rate shall apply for actual equipment usage up to eight hours per day. For all hours in excess of eight hours per day or 176 hours per month, the established equipment rate shall be the monthly rental rate plus the monthly rental rate for required attachments, divided by 352, multiplied by the regional adjustment factor, plus the hourly operating cost.
 - b. **Transportation.** If the necessary equipment is not already at the Site and it is not anticipated that it would be required for the performance of other work under the terms of the Contract, the calculation shall include a reasonable amount for the costs of the necessary transportation of such equipment.
 - c. **Standby.** The Contractor shall only be entitled to standby equipment costs if (a) the equipment is ready, able, and available to do the Work at a moment's notice; (b) Contractor is required to have equipment standby because of an event or condition solely caused by City and (c) the Contractor can demonstrate that it could have and intended to use the equipment on other projects/jobs. The Contractor shall be compensated at 50% of the monthly rental rate for the equipment, divided by 176, and multiplied by the appropriate regional adjustment factor, as identified in the Rental Rate Blue Book for Construction Equipment, published by Machinery Information Division of PRIMEDIA Information Inc. Standby shall not be paid during periods of Contractor-caused delay, concurrent delay, Force Majeure, during any seasonal shutdown, routine maintenance, down-time or broken equipment, late delivery of equipment or supplies, or other anticipated occurrence specified in the Contract Documents. No payment shall be made for standby on any piece of equipment, which has been used on the Project in any 24 hour period. Standby costs shall not be paid for weekends, holidays, and any time the equipment was not intended to be used on the Project as demonstrated by the Project Schedule.

4. **Subcontractor & Supplier.** Direct costs associated with Subcontractors and Suppliers shall exclude Overhead and Profit markups and shall be calculated and itemized in the same manner as prescribed herein for Contractor. Contractor shall provide detailed breakdown of Subcontractor and Supplier invoices.
5. **Overhead and Profit Markup.**
 - a. On a change to the Contract Price or any other claim for money by the Contractor, City will only pay Overhead, including Home Office Overhead, Site or Field Office Overhead, and unabsorbed home office overhead, and Profit pursuant to the Overhead and Profit Markups set forth herein. The Overhead and Profit Markups cover all overhead regardless of how the Contractor chooses to account for various costs in its books of account.
 - b. Overhead and Profit markups shall not be applied to freight, delivery charges, express charges, and sales tax.
 - c. The allowed Overhead and Profit markup shall not exceed the following:
 - i. If the Contractor is self-performing work: 18% combined Overhead and Profit markup on the Contractor's Direct Costs;
 - ii. If a Subcontractor or Supplier is performing work: 18% for the Subcontractor's Direct Cost for performing the work and 7% on the Direct Costs of the Subcontractors' or Suppliers'; provided that the 7% is to be divided among upper tier Subcontractors and the Contractor when a Subcontractor or Supplier is performing the work;
 - iii. If the value of material and equipment is greater than 50% of the total value of the change, the Overhead and Profit Markup shall only be 10% for material and equipment; and
 - iv. In no event shall the total combined Overhead and Profit markup for the Contractor and all Subcontractors and Suppliers of any tier exceed 25% of the Direct Cost to perform the Change Order work.

ARTICLE 7: PAYMENT AND COMPLETION

7.1 APPLICATIONS FOR PAYMENT

- A. On or about the first day of each month, the Contractor shall submit to City an Application for Payment. Each application shall be completed on a form acceptable to City and designated as an "Application for Payment."
- B. The Contractor is not entitled to payment for any work unless the Application for Payment includes all required documentation. City reserves the right to withhold payment pursuant to paragraph 7.2, *Payments Withheld* if it is subsequently determined that all required documentation was not provided by the Contractor or is in error.
- C. The application shall correlate the amount requested with the Schedule of Values and with the state of completion of the Work.
- D. The Contractor shall submit a breakdown of the cost of lump sum items to enable the Engineer to determine the Work performed on a monthly basis. Lump sum breakdowns shall be submitted prior to the first progress payment that includes

payment for the Bid Item. Absent a lump sum breakdown, the Engineer will make a determination based on information available.

7.2 PAYMENTS

- A. City shall comply with RCW 39.76, as amended, and promptly review each Application for Payment and identify in writing any cause for disapproval within 8 working days. In addition to withholding payment for unsatisfactory performance or failure to comply with Contract requirements, if the Contractor's Application for Payment fails to recognize any back-charges, off-sets, credits, change orders, or deductions in payment made in accordance with paragraph 7.2, *Payments Withheld*, City shall have the right to revise or disapprove Contractor's Application For Payment because the Application for Payment is not considered a properly completed invoice.
- B. The City shall withhold retainage from each Application for Payment as required by RCW 60.28, as amended.
- C. If an Application for Payment is accepted by City, it shall be paid within thirty (30) days of City's receipt of the properly prepared invoice (Application for Payment).

7.3 PAYMENT WITHHELD

- A. In addition to retainage withheld pursuant to RCW 60.28 and without waiver of any other available remedies, City has the right to withhold, nullify, or back-charge, in whole or in part, any payment or payments due or that have been paid to the Contractor as may be necessary to cover City's costs or to protect City from loss or damage for reasons including but not limited to:
 - 1. Failure of the Contractor to submit or obtain acceptance of a Progress Schedule, Schedule of Values, and any updated Schedules;
 - 2. Defective or non-conforming Work;
 - 3. Costs incurred by City to correct, repair or replace defective or non-conforming Work, or to complete the Work;
 - 4. A reasonable doubt that the Contract can be completed for the balance then unpaid;
 - 5. A reasonable concern by City that the materials, equipment or component parts are not in proper operating condition;
 - 6. Assessment of Liquidated Damages;
 - 7. Failure to perform in accordance with the Contract;
 - 8. Cost or liability that may occur to City as the result of the Contractor's or Subcontractor's acts, omissions, fault, or negligence;
 - 9. Deduction in the Work;
 - 10. Failure of Contractor to repair damaged materials, equipment, property, or Work;
 - 11. Failure of the Contractor to obtain approval of Submittals pertinent to the work accomplished;
 - 12. Failure to pay Subcontractors, Suppliers, employees or other obligations arising out of the Work;

13. Failure to keep Record Documents up to date;
 14. Failure to comply with all applicable federal, state, and local laws, statutes, regulations, codes, licenses, easements, and permits;
 15. Failure to obtain and maintain applicable permits, insurance, and bonds; and
 16. Failure to provide Statement of intent to Pay Prevailing Wage and/or Affidavits of Wages Paid and, if requested, Certified Payroll Records for the Contractor and for Subcontractors of any tier.
- B. The withholding, nullification, or back-charge of any payment(s) by City shall in no way relieve the Contractor of any of its obligations under this Contract.

7.4 TITLE

Title to all Work and materials covered by an accepted and paid Application For Payment shall pass to City at the time of such payment, free and clear of all liens, claims, security interest, and encumbrances. Passage of title shall not, however, (1) relieve Contractor from any of its duties and responsibilities for the Work or materials, including protection thereof, (2) waive any rights of City to insist on full compliance by Contractor with the Contract requirements, or (3) constitute acceptance of the Work or materials.

7.5 SUBSTANTIAL COMPLETION

- A. When the Contractor has achieved Substantial Completion (as defined in Section 1 above), the Contractor shall give written Notice to City.
1. City shall promptly inspect the Work and prepare a Punch List (list of items to be completed or corrected).
 - a. City reserves the right to add to, modify, or change the Punch List.
 - b. Failure by City to include any items on such list does not alter the responsibility of the Contractor to complete or correct the Work in accordance with the Contract.
- B. At the Contractor's request, City may identify those Punch List items that must be completed or corrected in order for the Contractor to achieve Substantial Completion.
1. When City determines that those Punch List items have been completed or corrected by the Contractor, City shall make a determination that the Work is Substantially Complete.
 2. A Certificate of Substantial Completion will be issued by City, which shall establish the date of Substantial Completion.
 3. This Certificate of Substantial Completion shall state the responsibilities of City and the Contractor for security, maintenance, heat, utilities, damage to the Work, and insurance.
- C. City shall assess liquidated damages for the Contractor's failure to Substantially Complete the Work within the Contract Time. The liquidated damage amounts, set forth elsewhere in the Contract Documents, will be assessed for Contractor's failure to achieve Substantial Completion within the Contract Time. These Liquidated Damages are not a penalty, but will be assessed against the Contractor for failure to achieve these Contract requirements. These Liquidated Damage amounts are

fixed and agreed upon by and between the Contractor and City because of the impracticability and extreme difficulty of fixing and ascertaining the actual damages City would in such events sustain. These amounts shall be construed as the actual amount of damages sustained by City, and may be retained by City and deducted from payments to the Contractor. Assessment of Liquidated Damages shall not release the Contractor from any further obligations or duties pursuant to the Work.

- D. As provided in the Contract Documents, City may grant Substantial Completion to specific subsystems or portions of the Work. The dates of Substantial Completion shall be determined, in writing, by City.

7.6 FINAL INSPECTION

- A. The Contractor shall correct all remaining Punch List items and complete all remaining Work within the time period stated in the Certificate of Substantial Completion or within 30 days, whichever is less. When all Punch List items have been successfully corrected and the work is complete the Contractor's shall give written notice to the City that the Work ready for final inspection. After verification by City that such completion was satisfactory, the Contractor shall submit a Final Application for Payment.

7.7 REQUIREMENTS FOR FINAL APPLICATION FOR PAYMENT

- A. In addition to any other requirement identified in the Contract Documents, the Final Application for Payment shall include the following documents:
 - 1. Affidavit of Wages Paid for Contractor and all Subcontractors in accordance with state law;
 - 2. Contractor's release of claims against City, except for Claims specifically described in the release document and submitted in accordance with Article 9, *Claims and Litigation*; and
 - 3. Contractor certification that all Subcontractors and Suppliers have been paid and there are no outstanding liens.

7.8 COMPLETION/FINAL ACCEPTANCE

- A. Completion/Final Acceptance shall be achieved when all the obligations of the Contract have been successfully performed by the Contractor in accordance with the Contract and accepted by City. Should Contractor fail to achieve Final Acceptance within the required time the City may assess actual damages caused by its failure to do so.
- B. Neither Final Acceptance, nor Final Payment, shall release Contractor or its sureties from any obligations under this Contract or the Performance and Payment Bonds, or constitute a waiver of any claims by City arising from or related to Contractor's performance or failure to perform the Work and to meet all Contractual obligations in accordance with the Contract, including but not limited to:
 - 1. Unsettled liens, security interests or encumbrances;
 - 2. Damaged, non-conforming, or defective Work discovered by City;
 - 3. Terms of any warranties or guarantees required by the Contract; and
 - 4. Payments made in error.

- C. Except for any Claims properly submitted in accordance with Article 9, *Claims and Litigation*, acceptance of Payment on the Final Application for Payment by the Contractor shall, on behalf of itself and its Subcontractors or Sureties, forever and unconditionally release and discharge City, its officers, agents, employees, from:
 - 1. Any and all disputes or claims, including but not limited to claims for damages, fines, interest, taxes, attorney fees, or costs, demands, rights, actions or causes of actions, known or unknown, arising out of or in any way related to the parties' performance under the Contract and/or Project; and
 - 2. Any and all known and/or unknown liabilities, obligations, demands, actions, suits, debts, charges, causes of action, requests for money and/or payment under the Contract, outstanding invoices, or claims directly or indirectly arising out of or related to the Contract and/or Project.

7.9 WARRANTY AND GUARANTY

- A. In addition to any special warranties provided elsewhere in the Contract, Contractor warrants that all Work conforms to the requirements of the Contract and is free from any defect in equipment, material, design, or workmanship performed by Contractor or its Subcontractors and Suppliers.
- B. The warranty period shall be for the longer period of: one year from the date of Final Acceptance of the entire Project or the duration of any special extended warranty offered by a supplier or common to the trade.
- C. With respect to all warranties, express or implied, for Work performed or materials furnished according to the Contract, Contractor shall:
 - 1. Obtain all warranties that would be given in normal commercial practice from the supplier and/or manufacturer;
 - 2. Prior to Final Acceptance require all warranties be executed, in writing, for the benefit of City;
 - 3. Enforce all warranties for the benefit of City; and
 - 4. Be responsible to enforce any warranty of a Subcontractor, manufacturer, or Supplier, should they extend beyond the period specified in the Contract.
- D. If, within an applicable warranty period, any part of the Work is found not to conform to the Contract, the Contractor shall correct it promptly after receipt of written Notice from City to do so. In the event City determines that Contractor corrective action is not satisfactory and/or timely performed, then City has the right to either correct the problem itself or procure the necessary services, recommendations, or guidance from third parties. All damages incurred by City and all costs for City's remedy shall be reimbursed by the Contractor.
- E. The warranty provided in this provision shall be in addition to any other rights or remedies provided elsewhere in the Contract or by applicable law.

7.10 PRIOR OCCUPATION

City shall have the right to occupy such part or parts of the Project in or upon which the Work is being done, as it may see fit, and such occupation shall not be construed as acceptance by City of the Work or constitute Substantial Completion of the Work.

ARTICLE 8: TERMINATION

8.1 CITY'S RIGHT TO TERMINATE CONTRACT

A. Termination for Default

1. City may terminate, without prejudice to any right or remedy of City the Work, or any part of it, for cause upon the occurrence of any one or more of the following events:
 - a. Contractor fails to prosecute the Work or any portion thereof with sufficient diligence to ensure Substantial Completion of the Work within the Contract Time;
 - b. Contractor fails to prosecute the Work or any portion thereof with sufficient diligence to ensure Final Acceptance of the Work in a timely manner;
 - c. Contractor is adjudged bankrupt, makes a general assignment for the benefit of its creditors, or a receiver is appointed on account of its insolvency;
 - d. Contractor fails in a material way to repair, replace or correct Work not in conformance with the Contract;
 - e. Contractor repeatedly fails to supply skilled workers or proper materials or equipment;
 - f. Contractor repeatedly fails to make prompt payment to its employees or Subcontractors;
 - g. Contractor materially disregards or fails to comply with laws, ordinances, rules, regulations, permits, easements or orders of any public authority having jurisdiction;
 - h. Contractor fails to comply with all Contract safety requirements; or
 - i. Contractor is otherwise in material breach of any provision of the Contract, including but not limited to quality control, environmental requirements, administrative requirements, coordination and supervision.
2. If City reasonably believes that one of the aforementioned events has occurred, City will provide the Contractor with written Notice of its intent to terminate the Contractor for default, specifying within such notice the ground(s) for such termination. City, at its option, shall require the Contractor to either promptly correct the deficiencies noted in City's intent to terminate or provide City with a corrective action plan as to how such deficiencies will be remedied or cured in a timely fashion. However, if after receipt of the proposed remedy, City has a reasonable basis for concluding that the Contractor has (a) failed or is unwilling to repair, replace or correct the deficiencies, or (b) failed or is unwilling to provide a reasonable and satisfactory corrective action plan, City shall thereafter have the right to terminate this Contract for default.
3. Upon termination, City may at its option:
 - a. Take possession of the Site and possession of or use of all materials, equipment, tools, and construction equipment and machinery thereon owned by Contractor; and/or

- b. Finish the Work by whatever other reasonable method it deems expedient; or
 - c. Call upon the surety to perform its obligations under the performance and payment bonds, if applicable.
4. The Contractor and its sureties shall be liable for all damages and costs, including but not limited to: (1) compensation for architect and engineering services and expenses made necessary thereby; (2) any other costs or damages incurred by City in completing and/or correcting the Work; and (3) any other special, incidental or consequential damages incurred by City which results or arises from the breach or termination for default.
 5. In the event of termination for default City shall only pay the Contractor for Work successfully completed and accepted by City prior to the date of termination. City shall not be responsible for any other Contractor costs, expenses, or damages including any consequential, special, or incidental damages or lost profits associated with this Contract. In no event shall City reimburse the Contractor for any costs directly or indirectly related to the cause of this termination for default.
 6. If, after termination for default, it is determined that the Contractor was not in default, the rights and obligations of the parties will be the same as if the termination had been issued for the convenience of City.
 7. The rights and remedies of City in this provision are in addition to any other rights and remedies provided by law or under this contract.

B. Termination for Convenience

1. Upon written Notice City may terminate the Work, or any part of it, without prejudice to any right or remedy of City, for the convenience of City.
2. If City terminates the Work or any portion thereof for convenience, Contractor shall recover as its sole remedy:
 - a. Reasonable costs for all Work completed prior to the effective date of the termination and not previously paid for by City; and
 - b. A reasonable allowance for Overhead and profit for Work actually performed prior to the date of termination and accepted by City, at a rate not to exceed the percentage amount set forth in the Contract and in paragraph 6.3, *Allowable Costs*, subparagraph A.5, *Overhead and Profit*. The Contractor waives all other claims for payment and damages including without limitation, anticipated profit and overhead on work not performed and accepted by City.
3. The Contractor shall not be entitled to any other costs or damages, whatsoever. The total sum payable upon termination shall not exceed the Contract Price reduced by prior payments. Contractor shall be required to make its request for adjustment in accordance with Article 5, *Changes to the Contract*, and Article 6, *Time and Price Adjustments*.
4. If it appears that the Contractor would have sustained a loss on the entire Contract had it been completed, City shall not reimburse Contractor any profit for the Work completed and shall reduce the settlement to reflect the indicated rate of loss.

C. Contractor's Obligations During Termination

Unless City directs otherwise, after receipt of a written Notice of termination for default or termination for convenience, Contractor shall promptly:

1. Stop performing Work on the date and as specified in the Notice of termination;
2. Place no further orders or subcontracts for materials, equipment, services or facilities, except as may be necessary for completion of such portion of the Work not terminated;
3. Cancel all orders and subcontracts, upon terms acceptable to City, to the extent that they relate to the performance of Work terminated;
4. Assign as specifically requested by City all of the rights, title, and interest of Contractor in all orders and subcontracts;
5. Take such action as may be necessary or as directed by City to preserve and protect the Work, Site, and any other property related to this Project in the possession of Contractor in which City has an interest;
6. Continue performance of Work only to the extent not terminated; and
7. Take any other steps required by City with respect to this Project.

8.2 CITY'S RIGHT TO STOP THE WORK FOR CAUSE

- A. If Contractor fails or refuses to perform its obligations in accordance with the Contract, City may order Contractor, in writing, to stop the Work, or any portion thereof, until satisfactory corrective action has been taken.
- B. Contractor shall not be entitled to any adjustment in the Contract Time and/or Contract Price for any increased cost or time of performance attributable to Contractor's failure or refusal to perform its obligations under the Contract.

ARTICLE 9: CLAIMS AND LITIGATION

9.1 CONTRACTOR CLAIMS

A. Condition Precedent to Filing a Claim.

1. The following actions are a condition precedent to filing a Claim:
 - a. The Contractor submitted a timely Notice of Protest, Supplemental Information and Request for Change Order as required by paragraph 5.1;
 - b. The Request for Change Order has been denied or deemed denied by City;
or
 - c. A Unilateral Change Order is issued by City.

B. Failure to file a Timely Claim.

1. At least seven (7) days prior to appropriate time to file a Claim, the Contractor may request an extension of time for filing its Claim. The Contractor shall state the reasons for the request and identify a date certain when the Contractor shall provide a fully documented Claim. Unless otherwise agreed to in writing by the Engineer, a fully documented Claim shall be received by the City within thirty (30) days after:
 - a. Denial or deemed denial of a Request for Change Order; or

- b. Contractor's receipt of an Executed Unilateral Change Order.
- 2. Failure to comply with the time requirements set for filing a Claim shall constitute acceptance by the Contractor, on behalf of itself and its Subcontractors and Suppliers, of the Unilateral Change Order and/or City's denial or deemed denial of a Request for Change Order. Such acceptance shall be considered complete, full, and final settlement of all costs, damages, and Claims related to or arising from the Request for Change Order and/or Unilateral Change Order.
- C. Contractor's Obligation to Continue to Work. Pending final decision of a Claim hereunder, the Contractor shall proceed diligently with the performance of the Contract Work, including that work associated with the Claim, and maintain its progress with the Work.
- D. Information required in a Fully Documented Claim. Every Claim must be submitted by the Contractor, in writing and clearly designated by the Contractor as a fully documented Claim. At a minimum, a fully documented Claim must contain the following information:
 - 1. A detailed factual statement of the Claim providing all necessary details, locations, and items of Contract Work affected;
 - 2. The date on which facts arose that gave rise to the Claim;
 - 3. The name of each person employed or associated with the Contractor, Subcontractor, Supplier, and/or City with knowledge about the event or condition which gave rise to the Claim;
 - 4. Copies of documents and a written description of the substance of any oral communications that concern or relate to the Claim;
 - 5. The specific provisions of the Contract Documents on which the Claim is based;
 - 6. If an adjustment in the Contract Price is sought, the exact amount sought, calculated in accordance with the Contract including paragraph 6.3, *Allowable Cost* and accompanied by (a) all records supporting the Claim and (b) all records meeting the requirements of paragraph 3.10, *Cost Records*;
 - 7. If an adjustment in the Contract Time is sought, the specific days and dates for which it is sought; the specific reason the Contractor believes an adjustment in the Contract Time should be granted; and the Contractor's analyses of its Progress Schedule, any specific Schedule analysis as required by the Contract Documents, and all updates to demonstrate the reason for the adjustment in Contract Time; and
 - 8. A statement certifying, under penalty of perjury, that after the exercise or reasonable diligence and investigation the Claim is made in good faith, that the supporting cost and pricing data are true and accurate to the best of the Contractor's knowledge and belief, that the Claim is fully supported by the accompanying data, and that the amount requested accurately reflects the adjustment in the Contract Price or Contract Time for which the Contractor believes City is liable.
- E. Contractor's Duty to Cooperate. The Contractor shall cooperate with City or its designee in the evaluation of its Claim and provide all information and documentation requested by City, its auditors or its designee.

F. City's Evaluation of the Claim.

1. To assist City in the review of the Contractor's Claim, City or its designee may visit the Site, request additional information and/or documentation in order to fully evaluate the issues raised in the Claim and/or audit the Claim.
2. After the Contractor has submitted a fully documented Claim that complies with this provision, City shall respond, in writing, to the Contractor within sixty (60) days from the date the fully documented Claim is received with either:
 - a. A decision regarding the Claim; or
 - b. Written Notice extending for another thirty (30) days City's time to respond to the Claim.
3. Absent a thirty (30) day extension, the Claim shall be deemed denied upon the sixty-first (61st) day following receipt of the Claim by City. If City had a thirty (30) day extension, the Claim shall be deemed denied upon the ninety-first (91st) day following receipt of the Claim by City.

9.2 CONTRACTOR'S BURDEN OF PROOF ON CLAIM

- A. The Contractor shall have the burden of proof to demonstrate entitlement and damages.
- B. If the Contractor, on behalf of itself or its Subcontractors and Suppliers seeks an adjustment in the Contract Price or Contract Time not supported by Project cost records meeting the requirements of ¶3.10, *Cost Records*, the Claim is waived.
- C. Compliance with the record keeping requirements set forth in this Contract is a condition precedent to recovery of any costs or damages related to or arising from performance of the Contract Work. If City establishes non-compliance of the record-keeping requirement set forth in ¶ 3.10, *Cost Records*, no adjustment shall be made to the Contract Price and/or Contract Time with respect to that Claim.

9.3 LITIGATION

- A. As a mandatory condition precedent to the initiation of litigation by the Contractor against City, Contractor shall comply with all provisions set forth in this Contract including those stated in Article 5 and Article 9.
- B. Any litigation brought against City shall be filed and served on City within 365 days from either the issuance of the Certificate of Substantial Completion for the entire Contract or Final Acceptance if no Certificate of Substantial Completion of the entire Contract is issued.
- C. Venue and jurisdiction shall vest solely in the King County Superior Court.
- D. Failure to comply with these mandatory condition time requirements shall constitute a waiver of the Contractor's right to pursue judicial relief from or against the City.

ARTICLE 10: MISCELLANEOUS

10.1 COMPENSATION, WAGES, BENEFITS AND TAXES

City assumes no responsibility for the payment of any compensation, wages, benefits, or taxes owed by the Contractor by reason of this Contract. The Contractor shall indemnify and hold City, its elected officials, officers, agents and employees, harmless

against all liability and costs resulting from the Contractor's failure to pay any compensation, wages, benefits or taxes.

10.2 PREVAILING WAGES

The Contractor shall comply with the minimum wage requirements of RCW 39.12, as amended, including the obligation to pay at least the hourly minimum wage and fringe benefits to workers as required by RCW 39.12. The Contractor shall also post all notices required by the Washington Department of Labor & Industries on forms provided by the Department of Labor & Industries. The Contractor shall timely provide a "Statement of Intent to Pay Prevailing Wages" and timely provide an "Affidavit of Prevailing Wages Paid."

10.3 SUCCESSORS AND ASSIGNS

City and the Contractor each binds itself, its partners, successors, assigns and legal representatives to the other with respect to all covenants, agreements and obligations contained in the Contract. Neither party to the Contract shall assign the Contract or sublet it as a whole without the written consent of the other, nor shall the Contractor assign any moneys due or to become due to it hereunder, without the previous written consent of City.

10.4 THIRD PARTY AGREEMENTS

Except as otherwise may be provided, the Contract shall not be construed to create a contractual relationship of any kind between: any architect, engineer, construction manager, Subcontractor, Supplier, or any persons other than City and Contractor.

10.5 NONWAIVER OF BREACH

No action or failure to act by City shall constitute a waiver of any right or duty afforded to City under the Contract; nor shall any such action or failure to act by City constitute an approval of or acquiescence in any breach hereunder, except as may be specifically stated by City in writing.

10.6 NOTICE TO CITY OF LABOR DISPUTES

- A. If Contractor has knowledge that any actual or potential labor dispute is delaying or threatens to delay timely performance in accordance with the Contract, Contractor shall immediately give Notice, including all relevant information, to City.
- B. Contractor agrees to insert a provision in its Subcontracts and to require insertion in all sub-subcontracts, that in the event timely performance of any such contract is delayed or threatened by any actual or potential labor dispute, all Subcontractor or lower-tiered Subcontractor shall immediately notify the next higher tier Subcontractor. Subcontractor or Contractor, as the case may be, of all relevant information concerning the dispute.

10.7 HEADINGS

The headings used in the Contract are for convenience only and shall not be considered a part of or affect the construction or interpretation of any contractual provision therein.

10.8 CHOICE OF LAW

In the event that either party shall bring a lawsuit or action related to or arising out of this Contract, such lawsuit or action shall be brought in the Superior Court, King County, Washington. This Contract shall be governed by, and construed and enforced in accordance

with the laws of the State of Washington.

10.9 SEVERABILITY

The provisions of this Contract shall be effective in all cases unless otherwise prohibited by Washington State Law or applicable Federal Law. The provisions of this Contract are separate and severable. The invalidity of any sentence, paragraph, provision, section, Article, or portion of this Contract shall not affect the validity of the remainder of this Contract.

“Supplemental Conditions” contains portions of Division 1 of the 2022 Standard Specifications for Road, Bridge, and Municipal Construction, prepared by the Washington State Department of Transportation (WSDOT GSP). Section 1-01 to Section 1-08 of Division 1 is deleted and replaced by the “General Terms and Conditions” included in this document. The entire remaining contents remains in effect, along with revisions and supplements provided within this section.

1-10 TEMPORARY TRAFFIC CONTROL

1-10.2 Traffic Control Management

Supplement this section with the following:

The Contractor shall obtain traffic control permits for the jurisdiction in which the work is to be performed and provide the approved permits to the Owner's Representative prior to commencement of the work.

The Contractor shall furnish all personnel for flagging, spotting, for execution of all traffic control work, maintenance and removal for traffic control devices necessary to control traffic.

Where parking lots will be closed, submit a specific closure plan indicating what measures will be taken to prevent access to the closed area by the public. Implement measures to prevent access to closed areas by the public.

1-10.2(1) General

Supplement with the following:

The Traffic Control Supervisor shall be certified by one of the following:

The Northwest Laborers-Employers Training Trust
27055 Ohio Ave.
Kingston, WA 98346
(360) 297-3035
<https://www.nwlett.edu>

Evergreen Safety Council
12545 135th Ave. NE
Kirkland, WA 98034-8709
1-800-521-0778
<https://www.esc.org>

The American Traffic Safety Services Association
15 Riverside Parkway, Suite 100
Fredericksburg, Virginia 22406-1022
Training Dept. Toll Free (877) 642-4637
Phone: (540) 368-1701
<https://altssa.com/training>

Integrity Safety
13912 NE 20th Ave.
Vancouver, WA 98686
(360) 574-6071
<https://www.integritysafety.com>

US Safety Alliance
(904) 705-5660

K&D Services Inc.
2719 Rockefeller Ave.
Everett, WA 98201
(800) 343-4049
<https://www.kndservices.net><https://www.ussafetyalliance.com/>

1-10.2(2) Traffic Control Plans

Supplement with the following:

The Contractor shall submit site specific traffic control plans for approval by the Owner's Representative, meeting the minimum requirements in this Section and adapting the minimum requirements shown on the Plans to the proposed means and methods to carry out the Work. Traffic control plans shall include pedestrian access pathways as needed. Traffic control plans require a minimum of 10 working days for review.

1-10.3(3) Traffic Control Devices

Supplement with the following:

Traffic control barriers used to protect bypass system as shown on the Drawings will be a water/sand fillable all purpose roadway barricade 24" high x 16" wide or approved equal.

1-11 MOBILIZATION, CLEANUP, AND DEMOBILIZATION (New Section)

This Section is added as follows:

1-11.1 Scope

- A. Mobilization & Demobilization shall consist of preparatory Work, operations, and cleanup, including, but not limited to, those necessary for the movement of personnel, equipment and supplies to and from the project site; and for all other Work and operations which must be performed, or costs incurred prior to beginning Work on the various items on the project site.
- B. This shall also include but is not limited to all costs for labor, equipment, and material needed for any Contractor's field office including utilities, preparation of staging areas, fencing of staging sites, all leasing costs for office and material staging areas including Contractor parking and security, profit, interest on borrowed money, overhead, or management costs, insurance and bonds, permits, and fees.
- C. Contractor is responsible for the security of all construction material even after partial payment of project materials until Final Acceptance of the Project.

1-11.2 Products

- A. Products and materials required for mobilization and demobilization are described in the various sections of Division 1 and in other parts of the Contract Documents.

Items included in mobilization and demobilization include, but are not limited to, photo documentation and record drawings.

1-11.3 Execution

- A. Complete mobilization and demobilization as required by the various sections of these Specifications and other parts of the Contract Documents.

1-11.4 Measurement

Measurement for "Mobilization, cleanup, and demobilization" shall be by lump sum.

1-11.5 Payment

Payment for "Mobilization, Cleanup, and Demobilization" shall be by lump sum and include all items as described at 1-11.1, 1-11.2, and 1-11.3.

1-12 HANDLING ASBESTOS CEMENT PIPE (New Section)

The Contractor shall comply with all regional clean air authority and/or State Department of Ecology rules and regulations.

The air quality permit process may include additional State Environment Policy Act (SEPA) requirements. Contractors shall contact the appropriate regional air pollution control authority well in advance of beginning Work. When the Work includes demolition or renovation of any existing facility or structure that contains Asbestos Containing Material (ACM) and/or Presumed Asbestos-Containing Material (PACM), the Contractor shall comply with the National Emission Standards for Hazardous Air Pollutants (NESHAP). Any requirements included in Federal regulations regarding air quality that applies to the "owner or operator" shall be the responsibility of the Contractor.

When accessing the pipe bursting operations at Bursting Pits and Insertion Pits to replace asbestos cement pipe (ACP), contractor shall use means and methods which minimize the amount of pipe cutting.

Where ACP must be cut to allow pipe bursting operations, cut the pipe within the pit and ensure that the material stays in a nonfriable condition. Use proper methods such as snap cutters or carbide-tipped blade cutters.

Workers cutting ACP must have received training in the proper tooling and methods:

- Washington Environmental Training Center (WETRC) Asbestos Cement Pipe Work Practice Procedures course or equal
<https://www.campusce.net/wetrc/course/course.aspx?C=716&pc=&mc=&sc=>

Abandon ACP pipe within pits to the extent possible.

Follow all applicable asbestos abatement regulations, apply for and procure permits, and dispose of pipe in a manner which prevents asbestos fibers from becoming airborne.

Measurement

Measurement for “Asbestos Abatement” shall be by lump sum.

Payment

Payment for “Asbestos Abatement” shall be by lump sum. The following items shall be incidental and included in the bid price:

1. Permit fees
2. All labor and work required to prepare for, apply for, and procure permits and otherwise comply with applicable regulations.
3. All labor, equipment, and materials required to remove asbestos cement pipe from the ground, control and prevent asbestos fibers from becoming airborne, and dispose of the asbestos cement pipe (if required).

TECHNICAL SPECIFICATIONS/SPECIAL PROVISIONS

CITY OF MERCER ISLAND
INTRODUCTION TO THE TECHNICAL SPECIFICATIONS

The accompanying Plans and these Specifications and any Addenda thereto, show and describe the location and type of work to be performed for the **Basin 61 Sewer Pipe Upsizing Project. Bid No. 23-03.**

These Technical Specifications are intended to supplement Division 2 through Division 9 of the 2022 Standard Specifications for Road, Bridge, and Municipal Construction, prepared by the Washington State Department of Transportation (WSDOT) and the American Public Works Associations, Washington State Chapter and any amendments thereto, herein referred to as Standard Specifications. In case of conflict, these Technical Specifications shall take precedence over the Standard Specifications.

HEADINGS

Headings to parts, sections, forms, articles, and sub-articles are inserted for convenience or reference only and shall not affect the interpretation of the contract documents.

SPECIAL PROVISION'S STRUCTURE

The specifications noted herein are in addition to, or as a replacement for, the Standard Specifications. Where sections are marked "Revised Section," the specifications herein are intended to be a revision or partial revision to the Specifications section noted. Where sections are marked as "New Section," the specifications herein will be an addition to the Standard Specifications section noted. Where sections are marked "Supplement," the specifications herein are to be a supplement to the Standard Specifications section noted. Sections of the Standard Specifications that are not modified or replaced as addressed in these Technical Specifications shall remain as described in the Standard Specifications.

**DIVISION 2:
EARTHWORK**

2-01 CLEARING AND GRUBBING AND ROADSIDE CLEANUP

2-01.1 Description

Supplement this Section with the following:

Grubbing work includes removal and disposal of topsoil, sod, and other landscaping materials as directed to a depth of 3-inches.

2-01.2 Disposal of Useable Materials and Debris

Supplement this Section with the following:

Unless otherwise provided in the specifications, all material removed under this item shall become the property of the Contractor.

2-01.2(1) Disposal Method No. 1 – Open Burning

Delete this section and replace with the following:

No open burning permitted within the project limits.

2-01.5 Payment

Supplement this Section with the following:

“Clearing and Grubbing,” lump sum. No additional payment shall be made for haul.

2-02 REMOVAL OF STRUCTURES AND OBSTRUCTIONS

2-02.1 Description

Supplement this Section with the following:

Also included will be removal of existing asphalt concrete pavement, cement concrete curbs, gutter, sidewalk, abandoning or removing drainage pipes and structures, plugging drainage pipes, landscaping structures, fences, signal poles, controller cabinets, J-boxes, vaults, and other structures necessary to complete the work indicated on the plans or as directed by the Engineer. Equipment, labor, and materials necessary to perform the work as specified shall be considered a portion of this work. All material shall be hauled offsite to a permitted, Contractor provided disposal site in accordance with Section 2-03.3(7)C. No payment will be made for haul.

2-02.3 Construction Requirements

Supplement this Section with the following:

Explosives shall not be used in the demolition.

2-02.3(2) Removal of Bridges, Box Culverts, and other Drainage Structures

Supplement this Section with the following:

Removal of Drainage Structures and/or Manholes

Where shown in the Plans the Contractor shall remove drainage structure and/or manholes regardless of the size or type. Each drainage structure and/or manhole shall be removed in its entirety. All materials removed shall become the property of the Contractor and shall be disposed of outside the project limits.

2-02.3(3) Removal of Pavement, Sidewalks, Curbs and Gutters

Supplement this Section with the following:

Delete Item 1. No on-site burial of pavement, sidewalks, curbs and gutters, is allowed.

Item 3 is supplemented with the following: "At locations where the existing concrete is to remain, the horizontal sawcut line shall not vary more than 1/8 inch along the edge of a 10-foot straightedge placed on the surface parallel to the horizontal sawcut line."

Removal of Asphalt Concrete Pavement and Portland Cement Concrete Pavement

The Contractor shall use a full depth sawcut to delineate the pavement to be removed from pavement to remain. The Contractor shall take care to avoid damaging adjacent pavement to remain. Any damage caused to the pavement to remain, as a result of the Contractor's operations, shall be repaired to the satisfaction of the Engineer at no additional cost to the Contracting Agency.

The approximate thicknesses of the pavement are:

SE 34th Street and Thrift Shop Parking Lot = 8"

Removal of Cement Concrete Curb, Gutter, and Sidewalk

The Contractor shall use a sawcut to delineate the curb, gutter and sidewalk to be removed from curb, gutter and sidewalk to remain. The Contractor shall take care to avoid damaging adjacent curb, gutter and sidewalk to remain. Any damage caused to the curb, gutter and sidewalk to remain, as a result of the Contractor's operations, shall be repaired to the satisfaction of the Engineer at no additional cost to the Contracting Agency.

2-02.5 Payment

Supplement this Section with the following:

The lump sum contract price for "Removal of Structures and Obstructions" shall be full compensation for all tools, equipment, materials, and labor to sawcut, excavate and dispose of the above materials, including Haul and disposal fees. Removal of any structures and obstructions readily apparent by visual inspection from the ground surface and not identified elsewhere will be considered incidental.

2-09 STRUCTURE EXCAVATION

2-09.1 Description

Supplement this Section with the following:

This work also includes all sawcutting, excavation and backfilling necessary for bursting and insertion pits and sewer service connection pits where shown.

2-09.3 Construction Requirements

Supplement this Section with the following:

Dewatering

Construction dewatering is to be performed to provide and maintain all excavations free of groundwater in a condition suitable for the required construction. It shall be the sole responsibility of the Contractor to control the rate and effect of dewatering in such a manner as to avoid all objectionable soil settlement, erosion, and subsidence. The responsibility for conducting the dewatering operation in a manner that will protect adjacent structures and facilities rests solely with the Contractor. The cost of repairing any damage to adjacent structures and restoration of facilities shall be the responsibility of the Contractor.

The Contractor is responsible for the design, implementation, operation, and maintenance of dewatering systems needed to complete the work based upon the time of year and proposed construction methods and techniques.

Control surface runoff so as to prevent entry or collection of water in excavations or in low lying areas of the site.

It shall be the responsibility of the Contractor to make a determination as to the appropriate dewatering means, methods, and corresponding shoring means and methods to facilitate the pipe bursting and ancillary construction.

Dewatering water shall be discharged as follows.

Clean, non-turbid dewatering water complying with all federal, state, and local water quality requirements may be discharged via stable conveyance to surface waters, provided the dewatering flow does not cause erosion or flooding of receiving waters. Discharge to a sanitary sewer with local sewer district approval if other options are not available. Highly turbid or contaminated dewatering water shall be handled separately from stormwater.

2-09.3(4) Construction Requirements, Structure Excavation, Class B

Supplement this Section with the following:

All trenches shall be backfilled or plated by the end of the day. No payment shall be made for backfill of native materials or the use of plates. Backfill material shall be as specified in the Plans unless the Engineer approves the use of native material.

2-09.4 Measurement

Supplement this Section with the following:

No specific unit of measure will be made for the lump sum item “Dewatering

2-09.5 Payment

Supplement this Section with the following:

“Dewatering”, lump sum.

The lump sum contract price for “Dewatering” shall be full pay for performing the work as specified, including furnishing, installation, operation, maintenance, and removal of piping, pumps, and other equipment associated with dewatering required to complete the pipe bursting operations including at all pit excavations associated with the pipe bursting and at manholes which will be protected in place or otherwise refurbished to allow pipe bursting. This bid item also includes payment for all dewatering required to install or replace storm pipes, storm sewers, and sanitary sewers. Dewatering associated with new manhole installations is covered under separate bid item.

**DIVISION 5:
SURFACE TREATMENT AND PAVEMENTS**

5-04 HOT MIX ASPHALT

Delete Section 5-04 and amendments, Hot Mix Asphalt and replace it with the following:

5-04.1 Description

This Work shall consist of providing and placing one or more layers of plant-mixed hot mix asphalt (HMA) on a prepared foundation or base in accordance with these Specifications and the lines, grades, thicknesses, and typical cross-sections shown in the Plans. The manufacture of HMA may include warm mix asphalt (WMA) processes in accordance with these Specifications. WMA processes include organic additives, chemical additives, and foaming.

HMA shall be composed of asphalt binder and mineral materials as may be required, mixed in the proportions specified to provide a homogeneous, stable, and workable mixture.

5-04.2 Materials

Materials shall meet the requirements of the following sections:

Asphalt Binder	9-02.1(4)
Cationic Emulsified Asphalt	9-02.1(6)
Anti-Stripping Additive	9-02.4
HMA Additive	9-02.5
Aggregates	9-03.8
Recycled Asphalt Pavement	9-03.8(3)B
Mineral Filler	9-03.8(5)
Recycled Material	9-03.21
Portland Cement	9-01
Sand	9-03.1(2)
(As noted in 5-04.3(5)C for crack sealing)	
Joint Sealant	9-04.2
Foam Backer Rod	9-04.2(3)A

The Contract documents may establish that the various mineral materials required for the manufacture of HMA will be furnished in whole or in part by the Contracting Agency. If the documents do not establish the furnishing of any of these mineral materials by the Contracting Agency, the Contractor shall be required to furnish such materials in the amounts required for the designated mix. Mineral materials include coarse and fine aggregates, and mineral filler.

The Contractor may choose to utilize recycled asphalt pavement (RAP) in the production of HMA. The RAP may be from pavements removed under the Contract, if any, or pavement material from an existing stockpile.

The Contractor may use up to 20 percent RAP by total weight of HMA with no additional sampling or testing of the RAP. The RAP shall be sampled and tested at a frequency of one sample for every 1,000 tons produced and not less than ten samples per project. The asphalt

content and gradation test data shall be reported to the Contracting Agency when submitting the mix design for approval on the QPL. The Contractor shall include the RAP as part of the mix design as defined in these Specifications.

The grade of asphalt binder shall be as required by the Contract. Blending of asphalt binder from different sources is not permitted.

The Contractor may only use warm mix asphalt (WMA) processes in the production of HMA with 20 percent or less RAP by total weight of HMA. The Contractor shall submit to the Engineer for approval the process that is proposed and how it will be used in the manufacture of HMA.

Production of aggregates shall comply with the requirements of Section 3-01. Preparation of stockpile site, the stockpiling of aggregates, and the removal of aggregates from stockpiles shall comply with the requirements of Section 3-02.

5-04.2(1) How to Get an HMA Mix Design on the QPL

If the contractor wishes to submit a mix design for inclusion in the Qualified Products List (QPL), please follow the WSDOT process outlined in Standard Specification 5-04.2(1).

5-04.2(1)A Vacant

5-04.2(2) Mix Design – Obtaining Project Approval

No paving shall begin prior to the approval of the mix design by the Engineer.

Nonstatistical evaluation will be used for all HMA not designated as Commercial HMA in the contract documents.

Commercial evaluation will be used for Commercial HMA and for other classes of HMA in the following applications: sidewalks, road approaches, ditches, slopes, paths, trails, gores, prelevel, and pavement repair. Other nonstructural applications of HMA accepted by commercial evaluation shall be as approved by the Project Engineer. Sampling and testing of HMA accepted by commercial evaluation will be at the option of the Project Engineer. The Proposal quantity of HMA that is accepted by commercial evaluation will be excluded from the quantities used in the determination of nonstatistical evaluation.

Nonstatistical Mix Design. Fifteen days prior to the first day of paving the contractor shall provide one of the following mix design verification certifications for Contracting Agency review;

- The WSDOT Mix Design Evaluation Report from the current WSDOT QPL, or one of the mix design verification certifications listed below.
- The proposed HMA mix design on WSDOT Form 350-042 with the seal and certification (stamp & signature) of a valid licensed Washington State Professional Engineer.
- The Mix Design Report for the proposed HMA mix design developed by a qualified City or County laboratory that is within one year of the approval date.**

The mix design shall be performed by a lab accredited by a national authority such as Laboratory Accreditation Bureau, L-A-B for Construction Materials Testing, The Construction Materials Engineering Council (CMEC's) ISO 17025 or AASHTO Accreditation Program (AAP) and shall supply evidence of participation in the AASHTO: resource proficiency sample program.

Mix designs for HMA accepted by Nonstatistical evaluation shall;

- Have the aggregate structure and asphalt binder content determined in accordance with WSDOT Standard Operating Procedure 732 and meet the requirements of Sections 9-03.8(2), except that Hamburg testing for ruts and stripping are at the discretion of the Engineer, and 9-03.8(6).
- Have anti-strip requirements, if any, for the proposed mix design determined in accordance with AASHTO T 283 or T 324, or based on historic anti-strip and aggregate source compatibility from previous WSDOT lab testing.

At the discretion of the Engineer, agencies may accept verified mix designs older than 12 months from the original verification date with a certification from the Contractor that the materials and sources are the same as those shown on the original mix design.

Commercial Evaluation Approval of a mix design for “Commercial Evaluation” will be based on a review of the Contractor’s submittal of WSDOT Form 350-042 (For commercial mixes, AASHTO T 324 evaluation is not required) or a Mix Design from the current WSDOT QPL or from one of the processes allowed by this section. Testing of the HMA by the Contracting Agency for mix design approval is not required.

(*****)

For the Bid Item Commercial HMA, the Contractor shall furnish HMA Cl. ½”, PG 52H-22.

5-04.2(2)B Using Warm Mix Asphalt Processes

The Contractor may elect to use additives that reduce the optimum mixing temperature or serve as a compaction aid for producing HMA. Additives include organic additives, chemical additives and foaming processes. The use of Additives is subject to the following:

Do not use additives that reduce the mixing temperature more than allowed in Section 5-04.3(6) in the production of mixtures.

Before using additives, obtain the Engineer’s approval using WSDOT Form 350-076 to describe the proposed additive and process.

5-04.3 Construction Requirements

5-04.3(1) Weather Limitations

Do not place HMA for wearing course on any Traveled Way beginning October 1st through March 31st of the following year without written concurrence from the Engineer.

Do not place HMA on any wet surface, or when the average surface temperatures are less than those specified below, or when weather conditions otherwise prevent the proper handling or finishing of the HMA.

Minimum Surface Temperature for Paving

Compacted Thickness (Feet)	Wearing Course	Other Courses
Less than 0.10	55°F	45°F

0.10 to .20	45°F	35°F
More than 0.20	35°F	35°F

5-04.3(2) Paving Under Traffic

When the Roadway being paved is open to traffic, the requirements of this Section shall apply.

The Contractor shall keep intersections open to traffic at all times except when paving the intersection or paving across the intersection. During such time, and provided that there has been an advance warning to the public, the intersection may be closed for the minimum time required to place and compact the mixture. In hot weather, the Engineer may require the application of water to the pavement to accelerate the finish rolling of the pavement and to shorten the time required before reopening to traffic.

Before closing an intersection, advance warning signs shall be placed and signs shall also be placed marking the detour or alternate route.

During paving operations, temporary pavement markings shall be maintained throughout the project. Temporary pavement markings shall be installed on the Roadway prior to opening to traffic. Temporary pavement markings shall be in accordance with Section 8-23.

All costs in connection with performing the Work in accordance with these requirements, except the cost of temporary pavement markings, shall be included in the unit Contract prices for the various Bid items involved in the Contract.

5-04.3(3) Equipment

5-04.3(3)A Mixing Plant

Plants used for the preparation of HMA shall conform to the following requirements:

Equipment for Preparation of Asphalt Binder – Tanks for the storage of asphalt binder shall be equipped to heat and hold the material at the required temperatures. The heating shall be accomplished by steam coils, electricity, or other approved means so that no flame shall be in contact with the storage tank. The circulating system for the asphalt binder shall be designed to ensure proper and continuous circulation during the operating period. A valve for the purpose of sampling the asphalt binder shall be placed in either the storage tank or in the supply line to the mixer.

Thermometric Equipment – An armored thermometer, capable of detecting temperature ranges expected in the HMA mix, shall be fixed in the asphalt binder feed line at a location near the charging valve at the mixer unit. The thermometer location shall be convenient and safe for access by Inspectors. The plant shall also be equipped with an approved dial-scale thermometer, a mercury actuated thermometer, an electric pyrometer, or another approved thermometric instrument placed at the discharge chute of the drier to automatically register or indicate the temperature of the heated aggregates. This device shall be in full view of the plant operator.

Heating of Asphalt Binder – The temperature of the asphalt binder shall not exceed the maximum recommended by the asphalt binder manufacturer nor shall it be below the minimum

temperature required to maintain the asphalt binder in a homogeneous state. The asphalt binder shall be heated in a manner that will avoid local variations in heating. The heating method shall provide a continuous supply of asphalt binder to the mixer at a uniform average temperature with no individual variations exceeding 25°F. Also, when a WMA additive is included in the asphalt binder, the temperature of the asphalt binder shall not exceed the maximum recommended by the manufacturer of the WMA additive.

Sampling and Testing of Mineral Materials – The HMA plant shall be equipped with a mechanical sampler for the sampling of the mineral materials. The mechanical sampler shall meet the requirements of Section 1-05.6 for the crushing and screening operation. The Contractor shall provide for the setup and operation of the field testing facilities of the Contracting Agency as provided for in Section 3-01.2(2).

Sampling HMA – The HMA plant shall provide for sampling HMA by one of the following methods:

- a. A mechanical sampling device attached to the HMA plant.
- b. Platforms or devices to enable sampling from the hauling vehicle without entering the hauling vehicle.

5-04.3(3)B Hauling Equipment

Trucks used for hauling HMA shall have tight, clean, smooth metal beds and shall have a cover of canvas or other suitable material of sufficient size to protect the mixture from adverse weather. Whenever the weather conditions during the work shift include, or are forecast to include, precipitation or an air temperature less than 45°F or when time from loading to unloading exceeds 30 minutes, the cover shall be securely attached to protect the HMA.

The contractor shall provide an environmentally benign means to prevent the HMA mixture from adhering to the hauling equipment. Excess release agent shall be drained prior to filling hauling equipment with HMA. Petroleum derivatives or other coating material that contaminate or alter the characteristics of the HMA shall not be used. For live bed trucks, the conveyer shall be in operation during the process of applying the release agent.

5-04.3(3)C Pavers

HMA pavers shall be self-contained, power-propelled units, provided with an internally heated vibratory screed and shall be capable of spreading and finishing courses of HMA plant mix material in lane widths required by the paving section shown in the Plans.

The HMA paver shall be in good condition and shall have the most current equipment available from the manufacturer for the prevention of segregation of the HMA mixture installed, in good condition, and in working order. The equipment certification shall list the make, model, and year of the paver and any equipment that has been retrofitted.

The screed shall be operated in accordance with the manufacturer's recommendations and shall effectively produce a finished surface of the required evenness and texture without tearing, shoving, segregating, or gouging the mixture. A copy of the manufacturer's recommendations shall be provided upon request by the Contracting Agency. Extensions will be allowed provided they produce the same results, including ride, density, and surface texture as obtained by the primary screed. Extensions without augers and an internally heated vibratory screed shall not be used in the Traveled Way.

When specified in the Contract, reference lines for vertical control will be required. Lines shall be placed on both outer edges of the Traveled Way of each Roadway. Horizontal control utilizing the reference line will be permitted. The grade and slope for intermediate lanes shall be controlled automatically from reference lines or by means of a mat referencing device and a slope control device. When the finish of the grade prepared for paving is superior to the established tolerances and when, in the opinion of the Engineer, further improvement to the line, grade, cross-section, and smoothness can best be achieved without the use of the reference line, a mat referencing device may be substituted for the reference line. Substitution of the device will be subject to the continued approval of the Engineer. A joint matcher may be used subject to the approval of the Engineer. The reference line may be removed after the completion of the first course of HMA when approved by the Engineer. Whenever the Engineer determines that any of these methods are failing to provide the necessary vertical control, the reference lines will be reinstalled by the Contractor.

The Contractor shall furnish and install all pins, brackets, tensioning devices, wire, and accessories necessary for satisfactory operation of the automatic control equipment.

If the paving machine in use is not providing the required finish, the Engineer may suspend Work as allowed by Section 1-08.6. Any cleaning or solvent type liquids spilled on the pavement shall be thoroughly removed before paving proceeds.

5-04.3(3)D Material Transfer Device or Material Transfer Vehicle

A Material Transfer Device/Vehicle (MTD/V) shall only be used with the Engineer's approval, unless other-wise required by the contract.

Where an MTD/V is required by the contract, the Engineer may approve paving without an MTD/V, at the request of the Contractor. The Engineer will determine if an equitable adjustment in cost or time is due.

When used, the MTD/V shall mix the HMA after delivery by the hauling equipment and prior to laydown by the paving machine. Mixing of the HMA shall be sufficient to obtain a uniform temperature throughout the mixture. If a windrow elevator is used, the length of the windrow may be limited in urban areas or through intersections, at the discretion of the Engineer.

To be approved for use, an MTV:

1. Shall be self-propelled vehicle, separate from the hauling vehicle or paver.
2. Shall not be connected to the hauling vehicle or paver.
3. May accept HMA directly from the haul vehicle or pick up HMA from a windrow.
4. Shall mix the HMA after delivery by the hauling equipment and prior to placement into the paving machine.
5. Shall mix the HMA sufficiently to obtain a uniform temperature throughout the mixture.

To be approved for use, an MTD:

1. Shall be positively connected to the paver.
2. May accept HMA directly from the haul vehicle or pick up HMA from a windrow.
3. Shall mix the HMA after delivery by the hauling equipment and prior to placement into the paving machine.
4. Shall mix the HMA sufficiently to obtain a uniform temperature throughout the mixture.

5-04.3(3)E Rollers

Rollers shall be of the steel wheel, vibratory, oscillatory, or pneumatic tire type, in good condition and capable of reversing without backlash. Operation of the roller shall be in accordance with the manufacturer's recommendations. When ordered by the Engineer for any roller planned for use on the project, the Contractor shall provide a copy of the manufacturer's recommendation for the use of that roller for compaction of HMA. The number and weight of rollers shall be sufficient to compact the mixture in compliance with the requirements of Section 5-04.3(10). The use of equipment that results in crushing of the aggregate will not be permitted. Rollers producing pickup, washboard, uneven compaction of the surface, displacement of the mixture or other undesirable results shall not be used.

5-04.3(4) Preparation of Existing Paved Surfaces

When the surface of the existing pavement or old base is irregular, the Contractor shall bring it to a uniform grade and cross-section as shown on the Plans or approved by the Engineer.

Preleveling of uneven or broken surfaces over which HMA is to be placed may be accomplished by using an asphalt paver, a motor patrol grader, or by hand raking, as approved by the Engineer.

Compaction of preleveling HMA shall be to the satisfaction of the Engineer and may require the use of small steel wheel rollers, plate compactors, or pneumatic rollers to avoid bridging across preleveled areas by the compaction equipment. Equipment used for the compaction of preleveling HMA shall be approved by the Engineer.

Before construction of HMA on an existing paved surface, the entire surface of the pavement shall be clean. All fatty asphalt patches, grease drippings, and other objectionable matter shall be entirely removed from the existing pavement. All pavements or bituminous surfaces shall be thoroughly cleaned of dust, soil, pavement grindings, and other foreign matter. All holes and small depressions shall be filled with an appropriate class of HMA. The surface of the patched area shall be leveled and compacted thoroughly. Prior to the application of tack coat, or paving, the condition of the surface shall be approved by the Engineer.

A tack coat of asphalt shall be applied to all paved surfaces on which any course of HMA is to be placed or abutted; except that tack coat may be omitted from clean, newly paved surfaces at the discretion of the Engineer. Tack coat shall be uniformly applied to cover the existing pavement with a thin film of residual asphalt free of streaks and bare spots at a rate between 0.02 and 0.10 gallons per square yard of retained asphalt. The rate of application shall be approved by the Engineer. A heavy application of tack coat shall be applied to all joints. For Roadways open to traffic, the application of tack coat shall be limited to surfaces that will be paved during the same working shift. The spreading equipment shall be equipped with a thermometer to indicate the temperature of the tack coat material.

Equipment shall not operate on tacked surfaces until the tack has broken and cured. If the Contractor's operation damages the tack coat it shall be repaired prior to placement of the HMA.

The tack coat shall be CSS-1, or CSS-1h emulsified asphalt. The CSS-1 and CSS-1h emulsified asphalt may be diluted once with water at a rate not to exceed one part water to one part emulsified asphalt. The tack coat shall have sufficient temperature such that it may be applied uniformly at the specified rate of application and shall not exceed the maximum temperature recommended by the emulsified asphalt manufacturer.

5-04.3(4)A Crack Sealing

5-04.3(4)A1 General

When the Proposal includes a pay item for crack sealing, seal all cracks ¼ inch in width and greater.

Cleaning: Ensure that cracks are thoroughly clean, dry and free of all loose and foreign material when filling with crack sealant material. Use a hot compressed air lance to dry and warm the pavement surfaces within the crack immediately prior to filling a crack with the sealant material. Do not overheat pavement. Do not use direct flame dryers. Routing cracks is not required.

Sand Slurry: For cracks that are to be filled with sand slurry, thoroughly mix the components and pour the mixture into the cracks until full. Add additional CSS-1 cationic emulsified asphalt to the sand slurry as needed for workability to ensure the mixture will completely fill the cracks. Strike off the sand slurry flush with the existing pavement surface and allow the mixture to cure. Top off cracks that were not completely filled with additional sand slurry. Do not place the HMA overlay until the slurry has fully cured.

The sand slurry shall consist of approximately 20 percent CSS-1 emulsified asphalt, approximately 2 percent portland cement, water (if required), and the remainder clean Class 1 or 2 fine aggregate per section 9-03.1(2). The components shall be thoroughly mixed and then poured into the cracks and joints until full. The following day, any cracks or joints that are not completely filled shall be topped off with additional sand slurry. After the sand slurry is placed, the filler shall be struck off flush with the existing pavement surface and allowed to cure. The HMA overlay shall not be placed until the slurry has fully cured. The requirements of Section 1-06 will not apply to the portland cement and sand used in the sand slurry.

In areas where HMA will be placed, use sand slurry to fill the cracks.

In areas where HMA will not be placed, fill the cracks as follows:

1. Cracks ¼ inch to 1 inch in width - fill with hot poured sealant.
2. Cracks greater than 1 inch in width – fill with sand slurry.

Hot Poured Sealant: For cracks that are to be filled with hot poured sealant, apply the material in accordance with these requirements and the manufacturer's recommendations. Furnish a Type 1 Working Drawing of the manufacturer's product information and recommendations to the Engineer prior to the start of work, including the manufacturer's recommended heating time and temperatures, allowable storage time and temperatures after initial heating, allowable reheating criteria, and application temperature range. Confine hot poured sealant material within the crack. Clean any overflow of sealant from the pavement surface. If, in the opinion of the Engineer, the Contractor's method of sealing the cracks with hot poured sealant results in an excessive amount of material on the pavement surface, stop and correct the operation to eliminate the excess material.

5-04.3(4)A2 Crack Sealing Areas Prior to Paving

In areas where HMA will be placed, use sand slurry to fill the cracks.

5-04.3(4)A3 Crack Sealing Areas Not to be Paved

In areas where HMA will not be placed, fill the cracks as follows:

1. Cracks ¼ inch to 1 inch in width - fill with hot poured sealant.
2. Cracks greater than 1 inch in width – fill with sand slurry.

5-04.3(4)B Vacant

5-04.3(4)C Pavement Repair

The Contractor shall excavate pavement repair areas and shall backfill these with HMA in accordance with the details shown in the Plans and as marked in the field. The Contractor shall conduct the excavation operations in a manner that will protect the pavement that is to remain. Pavement not designated to be removed that is damaged as a result of the Contractor's operations shall be repaired by the Contractor to the satisfaction of the Engineer at no cost to the Contracting Agency. The Contractor shall excavate only within one lane at a time unless approved otherwise by the Engineer. The Contractor shall not excavate more area than can be completely finished during the same shift, unless approved by the Engineer.

Unless otherwise shown in the Plans or determined by the Engineer, excavate to a depth of 1.0 feet. The Engineer will make the final determination of the excavation depth required. The minimum width of any pavement repair area shall be 40 inches unless shown otherwise in the Plans. Before any excavation, the existing pavement shall be sawcut or shall be removed by a pavement grinder. Excavated materials will become the property of the Contractor and shall be disposed of in a Contractor-provided site off the Right of Way or used in accordance with Sections 2-02.3(3) or 9-03.21.

Asphalt for tack coat shall be required as specified in Section 5-04.3(4). A heavy application of tack coat shall be applied to all surfaces of existing pavement in the pavement repair area.

Placement of the HMA backfill shall be accomplished in lifts not to exceed 0.35-foot compacted depth. Lifts that exceed 0.35-foot of compacted depth may be accomplished with the approval of the Engineer. Each lift shall be thoroughly compacted by a mechanical tamper or a roller.

5-04.3(5) Producing/Stockpiling Aggregates and RAP

Aggregates and RAP shall be stockpiled according to the requirements of Section 3-02. Sufficient storage space shall be provided for each size of aggregate and RAP. Materials shall be removed from stockpile(s) in a manner to ensure minimal segregation when being moved to the HMA plant for processing into the final mixture. Different aggregate sizes shall be kept separated until they have been delivered to the HMA plant.

5-04.3(5)A Vacant

5-04.3(6) Mixing

After the required amount of mineral materials, asphalt binder, recycling agent and anti-stripping additives have been introduced into the mixer the HMA shall be mixed until complete and uniform coating of the particles and thorough distribution of the asphalt binder throughout the mineral materials is ensured.

When discharged, the temperature of the HMA shall not exceed the optimum mixing temperature by more than 25°F as shown on the reference mix design report or as approved by the Engineer. Also, when a WMA additive is included in the manufacture of HMA, the discharge temperature of the HMA shall not exceed the maximum recommended by the manufacturer of the WMA additive. A maximum water content of 2 percent in the mix, at discharge, will be allowed providing the water causes no problems with handling, stripping, or flushing. If the water in the HMA causes any of these problems, the moisture content shall be reduced as directed by the Engineer.

Storing or holding of the HMA in approved storage facilities will be permitted with approval of the Engineer, but in no event shall the HMA be held for more than 24 hours. HMA held for more than 24 hours after mixing shall be rejected. Rejected HMA shall be disposed of by the Contractor at no expense to the Contracting Agency. The storage facility shall have an accessible device located at the top of the cone or about the third point. The device shall indicate the amount of material in storage. No HMA shall be accepted from the storage facility when the HMA in storage is below the top of the cone of the storage facility, except as the storage facility is being emptied at the end of the working shift.

Recycled asphalt pavement (RAP) utilized in the production of HMA shall be sized prior to entering the mixer so that a uniform and thoroughly mixed HMA is produced. If there is evidence of the recycled asphalt pavement not breaking down during the heating and mixing of the HMA, the Contractor shall immediately suspend the use of the RAP until changes have been approved by the Engineer. After the required amount of mineral materials, RAP, new asphalt binder and asphalt rejuvenator have been introduced into the mixer the HMA shall be mixed until complete and uniform coating of the particles and thorough distribution of the asphalt binder throughout the mineral materials, and RAP is ensured.

5-04.3(7) Spreading and Finishing

The mixture shall be laid upon an approved surface, spread, and struck off to the grade and elevation established. HMA pavers complying with Section 5-04.3(3) shall be used to distribute the mixture. Unless otherwise directed by the Engineer, the nominal compacted depth of any layer of any course shall not exceed the following:

HMA Class 1" 0.35 feet
HMA Class $\frac{3}{4}$ " and HMA Class $\frac{1}{2}$ "
 wearing course 0.30 feet
 other courses 0.35 feet
HMA Class $\frac{3}{8}$ " 0.15 feet

On areas where irregularities or unavoidable obstacles make the use of mechanical spreading and finishing equipment impractical, the paving may be done with other equipment or by hand.

When more than one JMF is being utilized to produce HMA, the material produced for each JMF shall be placed by separate spreading and compacting equipment. The intermingling of HMA produced from more than one JMF is prohibited. Each strip of HMA placed during a work shift shall conform to a single JMF established for the class of HMA specified unless there is a need to make an adjustment in the JMF.

5-04.3(8) Aggregate Acceptance Prior to Incorporation in HMA

For HMA accepted by nonstatistical evaluation the aggregate properties of sand equivalent, uncompacted void content and fracture will be evaluated in accordance with Section 3-04. Sampling and testing of aggregates for HMA accepted by commercial evaluation will be at the option of the Engineer.

5-04.3(9) HMA Mixture Acceptance

Acceptance of HMA shall be as provided under nonstatistical, or commercial evaluation.

Nonstatistical evaluation will be used for the acceptance of HMA unless Commercial Evaluation is specified.

Commercial evaluation will be used for Commercial HMA and for other classes of HMA in the following applications: sidewalks, road approaches, ditches, slopes, paths, trails, gores, prelevel, temporary pavement, and pavement repair. Other nonstructural applications of HMA accepted by commercial evaluation shall be as approved by the Engineer. Sampling and testing of HMA accepted by commercial evaluation will be at the option of the Engineer.

The mix design will be the initial JMF for the class of HMA. The Contractor may request a change in the JMF. Any adjustments to the JMF will require the approval of the Engineer and may be made in accordance with this section.

HMA Tolerances and Adjustments

1. **Job Mix Formula Tolerances** – The constituents of the mixture at the time of acceptance shall be within tolerance. The tolerance limits will be established as follows: For Asphalt Binder and Air Voids (Va), the acceptance limits are determined by adding the tolerances below to the approved JMF values. These values will also be the Upper Specification Limit (USL) and Lower Specification Limit (LSL) required in Section 1-06.2(2)D2

Property	Non-Statistical Evaluation	Commercial Evaluation
Asphalt Binder	+/- 0.5%	+/- 0.7%
Air Voids, Va	2.5% min. and 5.5% max	N/A

For Aggregates in the mixture:

- a. First, determine preliminary upper and lower acceptance limits by applying the following tolerances to the approved JMF.

Aggregate Percent Passing	Non-Statistical Evaluation	Commercial Evaluation
1", ¾", ½", and 3/8" sieves	+/- 6%	+/- 8%
No. 4 sieve	+/-6%	+/- 8%
No. 8 Sieve	+/- 6%	+/-8%
No. 200 sieve	+/- 2.0%	+/- 3.0%

- b. Second, adjust the preliminary upper and lower acceptance limits determined from step (a) the minimum amount necessary so that none of the aggregate properties are outside the control points in Section 9-03.8(6). The resulting values will be the upper and lower acceptance limits for aggregates, as well as the USL and LSL required in Section 1-06.2(2)D2.
2. **Job Mix Formula Adjustments** – An adjustment to the aggregate gradation or asphalt binder content of the JMF requires approval of the Engineer. Adjustments to the JMF will only be considered if the change produces material of equal or better quality and may require the development of a new mix design if the adjustment exceeds the amounts listed below.
- a. **Aggregates** –2 percent for the aggregate passing the 1½", 1", ¾", ½", ⅜", and the No. 4 sieves, 1 percent for aggregate passing the No. 8 sieve, and 0.5 percent for the aggregate passing the No. 200 sieve. The adjusted JMF shall be within the range of the control points in Section 9-03.8(6).
 - b. **Asphalt Binder Content** – The Engineer may order or approve changes to asphalt binder content. The maximum adjustment from the approved mix design for the asphalt binder content shall be 0.3 percent

5-04.3(9)A Vacant

5-04.3(9)B Vacant

5-04.3(9)C Mixture Acceptance – Nonstatistical Evaluation

HMA mixture which is accepted by Nonstatistical Evaluation will be evaluated by the Contracting Agency by dividing the HMA tonnage into lots.

5-04.3(9)C1 Mixture Nonstatistical Evaluation – Lots and Sublots

A lot is represented by randomly selected samples of the same mix design that will be tested for acceptance. A lot is defined as the total quantity of material or work produced for each Job Mix Formula placed. Only one lot per JMF is expected. A subplot shall be equal to one day's production or 800 tons, whichever is less except that the final subplot will be a minimum of 400 tons and may be increased to 1200 tons.

All of the test results obtained from the acceptance samples from a given lot shall be evaluated collectively. If the Contractor requests a change to the JMF that is approved, the material produced after the change will be evaluated on the basis of the new JMF for the remaining sublots in the current lot and for acceptance of subsequent lots. For a lot in progress with a CPF less than 0.75, a new lot will begin at the Contractor's request after the Engineer is satisfied that material conforming to the Specifications can be produced.

Sampling and testing for evaluation shall be performed on the frequency of one sample per subplot.

5-04.3(9)C2 Mixture Nonstatistical Evaluation Sampling

Samples for acceptance testing shall be obtained by the Contractor when ordered by the Engineer. The Contractor shall sample the HMA mixture in the presence of the Engineer and in accordance with AASH-TO T 168. A minimum of three samples should be taken for each class of HMA placed on a project. If used in a structural application, at least one of the three samples shall to be tested.

Sampling and testing HMA in a Structural application where quantities are less than 400 tons is at the discretion of the Engineer.

For HMA used in a structural application and with a total project quantity less than 800 tons but more than 400 tons, a minimum of one acceptance test shall be performed. In all cases, a minimum of 3 samples will be obtained at the point of acceptance, a minimum of one of the three samples will be tested for conformance to the JMF:

- If the test results are found to be within specification requirements, additional testing will be at the Engineer's discretion.
- If test results are found not to be within specification requirements, additional testing of the remaining samples to determine a Composite Pay Factor (CPF) shall be performed.

5-04.3(9)C3 Mixture Nonstatistical Evaluation – Acceptance Testing

Testing of HMA for compliance of V_a will at the option of the Contracting Agency. If tested, compliance of V_a will use WSDOT SOP 731.

Testing for compliance of asphalt binder content will be by WSDOT FOP for AASHTO T 308.

Testing for compliance of gradation will be by FOP for WAQTC T 27/T 11.

5-04.3(9)C4 Mixture Nonstatistical Evaluation – Pay Factors

For each lot of material falling outside the tolerance limits in 5-04.3(9), the Contracting Agency will determine a Composite Pay Factor (CPF) using the following price adjustment factors:

Table of Price Adjustment Factors	
Constituent	Factor “f”
All aggregate passing: 1½", 1", ¾", ½", ⅜" and No.4 sieves	2
All aggregate passing No. 8 sieve	15
All aggregate passing No. 200 sieve	20
Asphalt binder	40
Air Voids (Va) (where applicable)	20

Each lot of HMA produced under Nonstatistical Evaluation and having all constituents falling within the tolerance limits of the job mix formula shall be accepted at the unit Contract price with no further evaluation. When one or more constituents fall outside the nonstatistical tolerance limits in the Job Mix Formula shown in Table of Price Adjustment Factors, the lot shall be evaluated in accordance with Section 1-06.2 to determine the appropriate CPF. The nonstatistical tolerance limits will be used in the calculation of the CPF and the maximum CPF shall be 1.00. When less than three sublots exist, backup samples of the existing sublots or samples from the Roadway shall be tested to provide a minimum of three sets of results for evaluation.

5-04.3(9)C5 Vacant

5-04.3(9)C6 Mixture Nonstatistical Evaluation – Price Adjustments

For each lot of HMA mix produced under Nonstatistical Evaluation when the calculated CPF is less than 1.00, a Nonconforming Mix Factor (NCMF) will be determined. The NCMF equals the algebraic difference of CPF minus 1.00 multiplied by 60 percent. The total job mix compliance price adjustment will be calculated as the product of the NCMF, the quantity of HMA in the lot in tons, and the unit Contract price per ton of mix.

If a constituent is not measured in accordance with these Specifications, its individual pay factor will be considered 1.00 in calculating the Composite Pay Factor (CPF).

5-04.3(9)C7 Mixture Nonstatistical Evaluation - Retests

The Contractor may request a subplot be retested. To request a retest, the Contractor shall submit a written request within 7 calendar days after the specific test results have been received. A split of the original acceptance sample will be retested. The split of the sample will not be tested with the same tester that ran the original acceptance test. The sample will be tested for a complete gradation analysis, asphalt binder content, and, at the option of the agency, V_a . The results of the retest will be used for the acceptance of the HMA in place of the original subplot sample test results. The cost of testing will be deducted from any monies due or that may come due the Contractor under the Contract at the rate of \$500 per sample.

5-04.3 (9)D Mixture Acceptance – Commercial Evaluation

If sampled and tested, HMA produced under Commercial Evaluation and having all constituents falling within the tolerance limits of the job mix formula shall be accepted at the unit Contract price with no further evaluation. When one or more constituents fall outside the commercial

tolerance limits in the Job Mix Formula shown in 5-04.3(9), the lot shall be evaluated in accordance with Section 1-06.2 to determine the appropriate CPF. The commercial tolerance limits will be used in the calculation of the CPF and the maximum CPF shall be 1.00. When less than three sublots exist, backup samples of the existing sublots or samples from the street shall be tested to provide a minimum of three sets of results for evaluation.

For each lot of HMA mix produced and tested under Commercial Evaluation when the calculated CPF is less than 1.00, a Nonconforming Mix Factor (NCMF) will be determined. The NCMF equals the algebraic difference of CPF minus 1.00 multiplied by 60 percent. The Job Mix Compliance Price Adjustment will be calculated as the product of the NCMF, the quantity of HMA in the lot in tons, and the unit Contract price per ton of mix.

If a constituent is not measured in accordance with these Specifications, its individual pay factor will be considered 1.00 in calculating the Composite Pay Factor (CPF).

5-04.3(10) HMA Compaction Acceptance

5-04.3 (10)A HMA Compaction – General Compaction Requirements (January 18, 2021 R&E GSP)

Section 5-04.3(10)A is supplemented with the following:

The completed course shall be free from ridges, ruts, humps, depressions, objectionable marks, and irregularities and shall conform to the line, grade, and cross-section shown in the plans.

Compact the mix when it is in the proper condition so that no undue displacement, cracking, or shoving occurs.

5-04.3(10) HMA Compaction Acceptance

HMA mixture accepted by nonstatistical evaluation that is used in traffic lanes, including lanes for intersections, ramps, truck climbing, weaving, and speed change, and having a specified compacted course thickness greater than 0.10-foot, shall be compacted to a specified level of relative density. The specified level of relative density shall be a Composite Pay Factor (CPF) of not less than 0.75 when evaluated in accordance with Section 1-06.2, using a LSL of 92.0 (minimum of 92 percent of the maximum density). The maximum density shall be determined by WSDOT FOP for AASHTO T 729. The specified level of density attained will be determined by the evaluation of the density of the pavement. The density of the pavement shall be determined in accordance with WSDOT FOP for WAQTC TM 8, except that gauge correlation will be at the discretion of the Engineer, when using the nuclear density gauge and WSDOT SOP 736 when using cores to determine density.

Tests for the determination of the pavement density will be taken in accordance with the required procedures for measurement by a nuclear density gauge or roadway cores after completion of the finish rolling.

If the Contracting Agency uses a nuclear density gauge to determine density the test procedures FOP for WAQTC TM 8 and WSDOT SOP T 729 will be used on the day the mix is placed and prior to opening to traffic.

Roadway cores for density may be obtained by either the Contracting Agency or the Contractor in accordance with WSDOT SOP 734. The core diameter shall be 4-inches minimum, unless

otherwise approved by the Engineer. Roadway cores will be tested by the Contracting Agency in accordance with WSDOT FOP for AASHTO T 166.

If the Contract includes the Bid item "Roadway Core" the cores shall be obtained by the Contractor in the presence of the Engineer on the same day the mix is placed and at locations designated by the Engineer. If the Contract does not include the Bid item "Roadway Core" the Contracting Agency will obtain the cores.

For a lot in progress with a CPF less than 0.75, a new lot will begin at the Contractor's request after the Engineer is satisfied that material conforming to the Specifications can be produced.

HMA mixture accepted by commercial evaluation and HMA constructed under conditions other than those listed above shall be compacted on the basis of a test point evaluation of the compaction train. The test point evaluation shall be performed in accordance with instructions from the Engineer. The number of passes with an approved compaction train, required to attain the maximum test point density, shall be used on all subsequent paving.

HMA for preleveling shall be thoroughly compacted. HMA that is used for preleveling wheel rutting shall be compacted with a pneumatic tire roller unless otherwise approved by the Engineer.

Test Results

For a subplot that has been tested with a nuclear density gauge that did not meet the minimum of 92 percent of the reference maximum density in a compaction lot with a CPF below 1.00 and thus subject to a price reduction or rejection, the Contractor may request that a core be used for determination of the relative density of the subplot. The relative density of the core will replace the relative density determined by the nuclear density gauge for the subplot and will be used for calculation of the CPF and acceptance of HMA compaction lot.

When cores are taken by the Contracting Agency at the request of the Contractor, they shall be requested by noon of the next workday after the test results for the subplot have been provided or made available to the Contractor. Core locations shall be outside of wheel paths and as determined by the Engineer. Traffic control shall be provided by the Contractor as requested by the Engineer. Failure by the Contractor to provide the requested traffic control will result in forfeiture of the request for cores. When the CPF for the lot based on the results of the HMA cores is less than 1.00, the cost for the coring will be deducted from any monies due or that may become due the Contractor under the Contract at the rate of \$200 per core and the Contractor shall pay for the cost of the traffic control.

5-04.3(10)A HMA Compaction – General Compaction Requirements

Compaction shall take place when the mixture is in the proper condition so that no undue displacement, cracking, or shoving occurs. Areas inaccessible to large compaction equipment shall be compacted by other mechanical means. Any HMA that becomes loose, broken, contaminated, shows an excess or deficiency of asphalt, or is in any way defective, shall be removed and replaced with new hot mix that shall be immediately compacted to conform to the surrounding area.

The type of rollers to be used and their relative position in the compaction sequence shall generally be the Contractor's option, provided the specified densities are attained. Unless the Engineer has approved otherwise, rollers shall only be operated in the static mode when the internal temperature of the mix is less than 175°F. Regardless of mix temperature, a roller shall

not be operated in a mode that results in checking or cracking of the mat. Rollers shall only be operated in static mode on bridge decks.

5-04.3(10)B HMA Compaction – Cyclic Density

Low cyclic density areas are defined as spots or streaks in the pavement that are less than 90 percent of the theoretical maximum density. At the Engineer's discretion, the Engineer may evaluate the HMA pavement for low cyclic density, and when doing so will follow WSDOT SOP 733. A \$500 Cyclic Density Price Adjustment will be assessed for any 500-foot section with two or more density readings below 90 percent of the theoretical maximum density.

5-04.3(10)C Vacant

5-04.3(10)D HMA Nonstatistical Compaction

5-04.3(10)D1 HMA Nonstatistical Compaction – Lots and Sublots

HMA compaction which is accepted by nonstatistical evaluation will be based on acceptance testing performed by the Contracting Agency dividing the project into compaction lots.

A lot is represented by randomly selected samples of the same mix design that will be tested for acceptance. A lot is defined as the total quantity of material or work produced for each Job Mix Formula placed. Only one lot per JMF is expected. A subplot shall be equal to one day's production or 400 tons, whichever is less except that the final subplot will be a minimum of 200 tons and may be increased to 800 tons. Testing for compaction will be at the rate of 5 tests per subplot per WSDOT T 738.

The subplot locations within each density lot will be determined by the Engineer. For a lot in progress with a CPF less than 0.75, a new lot will begin at the Contractor's request after the Engineer is satisfied that material conforming to the Specifications can be produced.

HMA mixture accepted by commercial evaluation and HMA constructed under conditions other than those listed above shall be compacted on the basis of a test point evaluation of the compaction train. The test point evaluation shall be performed in accordance with instructions from the Engineer. The number of passes with an approved compaction train, required to attain the maximum test point density, shall be used on all subsequent paving.

HMA for preleveling shall be thoroughly compacted. HMA that is used to prelevel wheel ruts shall be compacted with a pneumatic tire roller unless otherwise approved by the Engineer.

5-04.3(10)D2 HMA Compaction Nonstatistical Evaluation – Acceptance Testing

The location of the HMA compaction acceptance tests will be randomly selected by the Engineer from within each subplot, with one test per subplot.

5-04.3(10)D3 HMA Nonstatistical Compaction – Price Adjustments

For each compaction lot with one or two sublots, having all sublots attain a relative density that is 92 percent of the reference maximum density the HMA shall be accepted at the unit Contract price with no further evaluation. When a subplot does not attain a relative density that is 92 percent of the reference maximum density, the lot shall be evaluated in accordance with Section 1-06.2 to determine the appropriate CPF. The maximum CPF shall be 1.00, however, lots with a calculated CPF in excess of 1.00 will be used to offset lots with CPF values below 1.00 but greater than 0.90. Lots with CPF lower than 0.90 will be evaluated for compliance per 5-

04.3(11). Additional testing by either a nuclear moisture-density gauge or cores will be completed as required to provide a minimum of three tests for evaluation.

For compaction below the required 92% a Non-Conforming Compaction Factor (NCCF) will be determined. The NCCF equals the algebraic difference of CPF minus 1.00 multiplied by 40 percent. The Compaction Price Adjustment will be calculated as the product of CPF, the quantity of HMA in the compaction control lot in tons, and the unit Contract price per ton of mix.

5-04.3(11) Reject Work

5-04.3(11)A Reject Work General

Work that is defective or does not conform to Contract requirements shall be rejected. The Contractor may propose, in writing, alternatives to removal and replacement of rejected material. Acceptability of such alternative proposals will be determined at the sole discretion of the Engineer. HMA that has been rejected is subject to the requirements in Section 1-06.2(2) and this specification, and the Contractor shall submit a corrective action proposal to the Engineer for approval.

5-04.3(11)B Rejection by Contractor

The Contractor may, prior to sampling, elect to remove any defective material and replace it with new material. Any such new material will be sampled, tested, and evaluated for acceptance.

5-04.3(11)C Rejection Without Testing (Mixture or Compaction)

The Engineer may, without sampling, reject any batch, load, or section of Roadway that appears defective. Material rejected before placement shall not be incorporated into the pavement. Any rejected section of Roadway shall be removed.

No payment will be made for the rejected materials or the removal of the materials unless the Contractor requests that the rejected material be tested. If the Contractor elects to have the rejected material tested, a minimum of three representative samples will be obtained and tested. Acceptance of rejected material will be based on conformance with the nonstatistical acceptance Specification. If the CPF for the rejected material is less than 0.75, no payment will be made for the rejected material; in addition, the cost of sampling and testing shall be borne by the Contractor. If the CPF is greater than or equal to 0.75, the cost of sampling and testing will be borne by the Contracting Agency. If the material is rejected before placement and the CPF is greater than or equal to 0.75, compensation for the rejected material will be at a CPF of 0.75. If rejection occurs after placement and the CPF is greater than or equal to 0.75, compensation for the rejected material will be at the calculated CPF with an addition of 25 percent of the unit Contract price added for the cost of removal and disposal.

5-04.3(11)D Rejection - A Partial Sublot

In addition to the random acceptance sampling and testing, the Engineer may also isolate from a normal sublot any material that is suspected of being defective in relative density, gradation or asphalt binder content. Such isolated material will not include an original sample location. A minimum of three random samples of the suspect material will be obtained and tested. The material will then be statistically evaluated as an independent lot in accordance with Section 1-06.2(2).

5-04.3(11)E Rejection - An Entire Sublot

An entire sublot that is suspected of being defective may be rejected. When a sublot is rejected a minimum of two additional random samples from this sublot will be obtained. These additional

samples and the original subplot will be evaluated as an independent lot in accordance with Section 1-06.2(2).

5-04.3(11)F Rejection - A Lot in Progress

The Contractor shall shut down operations and shall not resume HMA placement until such time as the Engineer is satisfied that material conforming to the Specifications can be produced:

1. When the Composite Pay Factor (CPF) of a lot in progress drops below 1.00 and the Contractor is taking no corrective action, or
2. When the Pay Factor (PF) for any constituent of a lot in progress drops below 0.95 and the Contractor is taking no corrective action, or
3. When either the PFi for any constituent or the CPF of a lot in progress is less than 0.75.

5-04.3(11)G Rejection - An Entire Lot (Mixture or Compaction)

An entire lot with a CPF of less than 0.75 will be rejected.

5-04.3(12) Joints

5-04.3(12)A HMA Joints

5-04.3(12)A1 Transverse Joints

(March 22, 2019 R&E GSP)

Section 5-04.3(12)A1 is supplemented with the following:

All joints of new hot mix asphalt to an existing pavement shall be sealed with an appropriate asphalt joint sealer.

5-04.3(12)A1 Transverse Joints

The Contractor shall conduct operations such that the placing of the top or wearing course is a continuous operation or as close to continuous as possible. Unscheduled transverse joints will be allowed and the roller may pass over the unprotected end of the freshly laid mixture only when the placement of the course must be discontinued for such a length of time that the mixture will cool below compaction temperature. When the Work is resumed, the previously compacted mixture shall be cut back to produce a slightly beveled edge for the full thickness of the course.

A temporary wedge of HMA constructed on a 20H:1V shall be constructed where a transverse joint as a result of paving or planing is open to traffic. The HMA in the temporary wedge shall be separated from the permanent HMA by strips of heavy wrapping paper or other methods approved by the Engineer. The wrapping paper shall be removed and the joint trimmed to a slightly beveled edge for the full thickness of the course prior to resumption of paving.

The material that is cut away shall be wasted and new mix shall be laid against the cut. Rollers or tamping irons shall be used to seal the joint.

5-04.3(12)A2 Longitudinal Joints

The longitudinal joint in any one course shall be offset from the course immediately below by not more than 6 inches nor less than 2 inches. All longitudinal joints constructed in the wearing course shall be located at a lane line or an edge line of the Traveled Way. A notched wedge joint shall be constructed along all longitudinal joints in the wearing surface of new HMA unless otherwise approved by the Engineer. The notched wedge joint shall have a vertical edge of not

less than the maximum aggregate size or more than $\frac{1}{2}$ of the compacted lift thickness and then taper down on a slope not steeper than 4H:1V. The sloped portion of the HMA notched wedge joint shall be uniformly compacted.

5-04.3(12)B Bridge Paving Joint Seals

5-04.3(12)B1 HMA Sawcut and Seal

Prior to placing HMA on the bridge deck, establish sawcut alignment points at both ends of the bridge paving joint seals to be placed at the bridge ends, and at interior joints within the bridge deck when and where shown in the Plans. Establish the sawcut alignment points in a manner that they remain functional for use in aligning the sawcut after placing the overlay.

Submit a Type 1 Working Drawing consisting of the sealant manufacturer's application procedure.

Construct the bridge paving joint seal as specified on the Plans and in accordance with the detail shown in the Standard Plans. Construct the sawcut in accordance with the detail shown in the Standard Plan. Construct the sawcut in accordance with Section 5-05.3(8)B and the manufacturer's application procedure.

5-04.3(12)B2 Paved Panel Joint Seal

Construct the paved panel joint seal in accordance with the requirements specified in section 5-04.3(12)B1 and the following requirement:

1. Clean and seal the existing joint between concrete panels in accordance with Section 5-01.3(8) and the details shown in the Standard Plans.

5-04.3(13) Surface Smoothness

The completed surface of all courses shall be of uniform texture, smooth, uniform as to crown and grade, and free from defects of all kinds. The completed surface of the wearing course shall not vary more than $\frac{1}{8}$ inch from the lower edge of a 10-foot straightedge placed on the surface parallel to the centerline. The transverse slope of the completed surface of the wearing course shall vary not more than $\frac{1}{4}$ inch in 10 feet from the rate of transverse slope shown in the Plans.

When deviations in excess of the above tolerances are found that result from a high place in the HMA, the pavement surface shall be corrected by one of the following methods:

1. Removal of material from high places by grinding with an approved grinding machine, or
2. Removal and replacement of the wearing course of HMA, or
3. By other method approved by the Engineer.

Correction of defects shall be carried out until there are no deviations anywhere greater than the allowable tolerances.

Deviations in excess of the above tolerances that result from a low place in the HMA and deviations resulting from a high place where corrective action, in the opinion of the Engineer, will not produce satisfactory results will be accepted with a price adjustment. The Engineer shall deduct from monies due or that may become due to the Contractor the sum of \$500.00 for each and every section of single traffic lane 100 feet in length in which any excessive deviations described above are found.

When utility appurtenances such as manhole covers and valve boxes are located in the traveled way, the utility appurtenances shall be adjusted to the finished grade prior to paving. This requirement may be waived when requested by the Contractor, at the discretion of the Engineer or when the adjustment details provided in the project plan or specifications call for utility appurtenance adjustments after the completion of paving.

Utility appurtenance adjustment discussions will be included in the Pre-Paving planning (5-04.3(14)B3). Submit a written request to waive this requirement to the Engineer prior to the start of paving.

5-04.3(14) Planing Bituminous Pavement

(March 9, 2010 R&E GSP)

Section 5-04.3(14) is supplemented with the following:

Transverse Joints

Unless specifically directed by the Engineer, all connections to existing asphalt shall be by a vertical sawcut abutting the pavements together and heated prior to mat construction. All joints of new hot mix asphalt to an existing pavement shall be sealed with an appropriate asphalt joint sealer. The Contractor shall construct and maintain a temporary hot mix asphalt wedge in accordance with Section 5-04.3(12) across the entire width of the transverse edge when traffic is allowed prior to paving. The wedge shall be constructed before opening the lane to traffic. The Contractor shall remove the wedge immediately prior to paving.

Beveled Edge Planing

A beveled edge shall be constructed in areas with a planed depth of more than 0.20 foot that will not be paved during the same work shift.

The Contractor shall use a beveled cutter on the mandrel of the planing equipment, or other approved method(s), to eliminate the vertical edge(s). The beveled edge(s) shall be constructed at a 4:1 slope.

5-04.3(14) Planing (Milling) Bituminous Pavement

The planning plan must be approved by the Engineer and a pre planning meeting must be held prior to the start of any planing. See Section 5-04.3(14)B2 for information on planning submittals.

Locations of existing surfacing to be planed are as shown in the Drawings.

Where planing an existing pavement is specified in the Contract, the Contractor must remove existing surfacing material and to reshape the surface to remove irregularities. The finished product must be a prepared surface acceptable for receiving an HMA overlay.

Use the cold milling method for planing unless otherwise specified in the Contract. Do not use the planer on the final wearing course of new HMA.

Conduct planing operations in a manner that does not tear, break, burn, or otherwise damage the surface which is to remain. The finished planed surface must be slightly grooved or roughened and must be free from gouges, deep grooves, ridges, or other imperfections. The Contractor must repair any damage to the surface by the Contractor's planing equipment, using an Engineer approved method.

Repair or replace any metal castings and other surface improvements damaged by planing, as determined by the Engineer.

A tapered wedge cut must be planed longitudinally along curb lines sufficient to provide a minimum of 4 inches of curb reveal after placement and compaction of the final wearing course. The dimensions of the wedge must be as shown on the Drawings or as specified by the Engineer.

A tapered wedge cut must also be made at transitions to adjoining pavement surfaces (meet lines) where butt joints are shown on the Drawings. Cut butt joints in a straight line with vertical faces 2 inches or more in height, producing a smooth transition to the existing adjoining pavement.

After planing is complete, planed surfaces must be swept, cleaned, and if required by the Contract, patched and preleveled.

The Engineer may direct additional depth planing. Before performing this additional depth planing, the Contractor must conduct a hidden metal in pavement detection survey as specified in Section 5-04.3(14)A.

5-04.3(14)A Pre-Planing Metal Detection Check

Before starting planing of pavements, and before any additional depth planing required by the Engineer, the Contractor must conduct a physical survey of existing pavement to be planed with equipment that can identify hidden metal objects.

Should such metal be identified, promptly notify the Engineer.

See Section 1-07.16(1) regarding the protection of survey monumentation that may be hidden in pavement.

The Contractor is solely responsible for any damage to equipment resulting from the Contractor's failure to conduct a pre-planing metal detection survey, or from the Contractor's failure to notify the Engineer of any hidden metal that is detected.

5-04.3(14)B Paving and Planing Under Traffic

5-04.3(14)B1 General

In addition the requirements of Section 1-07.23 and the traffic controls required in Section 1-10, and unless the Contract specifies otherwise or the Engineer approves, the Contractor must comply with the following:

1. Intersections:
 - a. Keep intersections open to traffic at all times, except when paving or planing operations through an intersection requires closure. Such closure must be kept to the minimum time required to place and compact the HMA mixture, or plane as appropriate. For paving, schedule such closure to individual lanes or portions thereof that allows the traffic volumes and schedule of traffic volumes required in the approved traffic control plan. Schedule work so that adjacent intersections are not impacted at the same time and comply with the traffic control restrictions required by the Traffic Engineer. Each individual intersection closure or partial

- closure, must be addressed in the traffic control plan, which must be submitted to and accepted by the Engineer, see Section 1-10.2(2).
- b. When planing or paving and related construction must occur in an intersection, consider scheduling and sequencing such work into quarters of the intersection, or half or more of an intersection with side street detours. Be prepared to sequence the work to individual lanes or portions thereof.
 - c. Should closure of the intersection in its entirety be necessary, and no trolley service is impacted, keep such closure to the minimum time required to place and compact the HMA mixture, plane, remove asphalt, tack coat, and as needed.
 - d. Any work in an intersection requires advance warning in both signage and a number of Working Days advance notice as determined by the Engineer, to alert traffic and emergency services of the intersection closure or partial closure.
 - e. Allow new compacted HMA asphalt to cool to ambient temperature before any traffic is allowed on it. Traffic is not allowed on newly placed asphalt until approval has been obtained from the Engineer.
2. Temporary centerline marking, post-paving temporary marking, temporary stop bars, and maintaining temporary pavement marking must comply with Section 8-23.
 3. Permanent pavement marking must comply with Section 8-22.

5-04.3(14)B2 Submittals – Planing Plan and HMA Paving Plan

The Contractor must submit a separate planing plan and a separate paving plan to the Engineer at least 5 Working Days in advance of each operation's activity start date. These plans must show how the moving operation and traffic control are coordinated, as they will be discussed at the pre-planing briefing and pre-paving briefing. When requested by the Engineer, the Contractor must provide each operation's traffic control plan on 24 x 36 inch or larger size Shop Drawings with a scale showing both the area of operation and sufficient detail of traffic beyond the area of operation where detour traffic may be required. The scale on the Shop Drawings is 1 inch = 20 feet, which may be changed if the Engineer agrees sufficient detail is shown.

The planing operation and the paving operation include, but are not limited to, metal detection, removal of asphalt and temporary asphalt of any kind, tack coat and drying, staging of supply trucks, paving trains, rolling, scheduling, and as may be discussed at the briefing.

When intersections will be partially or totally blocked, provide adequately sized and noticeable signage alerting traffic of closures to come, a minimum 2 Working Days in advance. The traffic control plan must show where police officers will be stationed when signalization is or may be, countermanded, and show areas where flaggers are proposed.

At a minimum, the planing and the paving plan must include:

1. A copy of the accepted traffic control plan, see Section 1-10.2(2), detailing each day's traffic control as it relates to the specific requirements of that day's planing and paving. Briefly describe the sequencing of traffic control consistent with the proposed planing and paving sequence, and scheduling of placement of temporary pavement markings and channelizing devices after each day's planing, and paving.
2. A copy of each intersection's traffic control plan.
3. Haul routes from Supplier facilities, and locations of temporary parking and staging areas, including return routes. Describe the complete round trip as it relates to the sequencing of paving operations.
4. Names and locations of HMA Supplier facilities to be used.

5. List of all equipment to be used for paving.
6. List of personnel and associated job classification assigned to each piece of paving equipment.
7. Description (geometric or narrative) of the scheduled sequence of planing and of paving, and intended area of planing and of paving for each day's work, must include the directions of proposed planing and of proposed paving, sequence of adjacent lane paving, sequence of skipped lane paving, intersection planing and paving scheduling and sequencing, and proposed notifications and coordinations to be timely made. The plan must show HMA joints relative to the final pavement marking lane lines.
8. Names, job titles, and contact information for field, office, and plant supervisory personnel.
9. A copy of the approved Mix Designs.
10. Tonnage of HMA to be placed each day.
11. Approximate times and days for starting and ending daily operations.

5-04.3(14)B3 Pre-Paving and Pre-Planing Briefing

At least 2 Working Days before the first paving operation and the first planing operation, or as scheduled by the Engineer for future paving and planing operations to ensure the Contractor has adequately prepared for notifying and coordinating as required in the Contract, the Contractor must be prepared to discuss that day's operations as they relate to other entities and to public safety and convenience, including driveway and business access, garbage truck operations, Metro transit operations and working around energized overhead wires, school and nursing home and hospital and other accesses, other contractors who may be operating in the area, pedestrian and bicycle traffic, and emergency services. The Contractor, and Subcontractors that may be part of that day's operations, must meet with the Engineer and discuss the proposed operation as it relates to the submitted planing plan and paving plan, approved traffic control plan, and public convenience and safety. Such discussion includes, but is not limited to:

1. General for both Paving Plan and for Planing Plan:
 - a. The actual times of starting and ending daily operations.
 - b. In intersections, how to break up the intersection, and address traffic control and signalization for that operation, including use of peace officers.
 - c. The sequencing and scheduling of paving operations and of planing operations, as applicable, as it relates to traffic control, to public convenience and safety, and to other contractors who may operate in the Project Site.
 - d. Notifications required of Contractor activities, and coordinating with other entities and the public as necessary.
 - e. Description of the sequencing of installation and types of temporary pavement markings as it relates to planning and to paving.
 - f. Description of the sequencing of installation of, and the removal of, temporary pavement patch material around exposed castings and as may be needed
 - g. Description of procedures and equipment to identify hidden metal in the pavement, such as survey monumentation, monitoring wells, street car rail, and castings, before planning, see Section 5-04.3(14)B2.
 - h. Description of how flaggers will be coordinated with the planing, paving, and related operations.
 - i. Description of sequencing of traffic controls for the process of rigid pavement base repairs.
 - j. Other items the Engineer deems necessary to address.

2. Paving – additional topics:
 - a. When to start applying tack and coordinating with paving.
 - b. Types of equipment and numbers of each type equipment to be used. If more pieces of equipment than personnel are proposed, describe the sequencing of the personnel operating the types of equipment. Discuss the continuance of operator personnel for each type equipment as it relates to meeting Specification requirements.
 - c. Number of JMFs to be placed, and if more than one JMF how the Contractor will ensure different JMFs are distinguished, how pavers and MTVs are distinguished if more than one JMF is being placed at the time, and how pavers and MTVs are cleaned so that one JMF does not adversely influence the other JMF.
 - d. Description of contingency plans for that day's operations such as equipment breakdown, rain out, and Supplier shutdown of operations.
 - e. Number of sublots to be placed, sequencing of density testing, and other sampling and testing.

5-04.3(15) Sealing Pavement Surfaces

Apply a fog seal where shown in the plans. Construct the fog seal in accordance with Section 5-02.3. Unless otherwise approved by the Engineer, apply the fog seal prior to opening to traffic.

5-04.3(16) HMA Road Approaches

HMA approaches shall be constructed at the locations shown in the Plans or where staked by the Engineer. The Work shall be performed in accordance with Section 5-04.

5-04.4 Measurement

HMA Cl. ___ PG ___, HMA for ___ Cl. ___ PG ___, and Commercial HMA will be measured by the ton in accordance with Section 1-09.2, with no deduction being made for the weight of asphalt binder, mineral filler, or any other component of the mixture. If the Contractor elects to remove and replace mix as allowed by Section 5-04.3(11), the material removed will not be measured.

Roadway cores will be measured per each for the number of cores taken.

Preparation of untreated roadway will be measured by the mile once along the centerline of the main line Roadway. No additional measurement will be made for ramps, Auxiliary Lanes, service roads, Frontage Roads, or Shoulders. Measurement will be to the nearest 0.01 mile.

Soil residual herbicide will be measured by the mile for the stated width to the nearest 0.01 mile or by the square yard, whichever is designated in the Proposal.

Pavement repair excavation will be measured by the square yard of surface marked prior to excavation.

Asphalt for prime coat will be measured by the ton in accordance with Section 1-09.2.

Prime coat aggregate will be measured by the cubic yard, truck measure, or by the ton, whichever is designated in the Proposal.

Asphalt for fog seal will be measured by the ton, as provided in Section 5-02.4.

Longitudinal joint seals between the HMA and cement concrete pavement will be measured by the linear foot along the line and slope of the completed joint seal.

Planing bituminous pavement will be measured by the square yard.

Temporary pavement marking will be measured by the linear foot as provided in Section 8-23.4.

Water will be measured by the M gallon as provided in Section 2-07.4.

5-04.5 Payment

Payment will be made for each of the following Bid items that are included in the Proposal:

“HMA Cl. ___ PG ___”, per ton.

“HMA for Approach Cl. ___ PG ___”, per ton.

“HMA for Preleveling Cl. ___ PG ___”, per ton.

“HMA for Pavement Repair Cl. ___ PG ___”, per ton.

“Commercial HMA”, per ton.

The unit Contract price per ton for “HMA Cl. ___ PG ___”, “HMA for Approach Cl. ___ PG ___”, “HMA for Preleveling Cl. ___ PG ___”, “HMA for Pavement Repair Cl. ___ PG ___”, and “Commercial HMA” shall be full compensation for all costs, including anti-stripping additive, incurred to carry out the requirements of Section 5-04 except for those costs included in other items which are included in this Subsection and which are included in the Proposal.

“Preparation of Untreated Roadway”, per mile.

The unit Contract price per mile for “Preparation of Untreated Roadway” shall be full pay for all Work described under 5-04.3(4) , with the exception, however, that all costs involved in patching the Roadway prior to placement of HMA shall be included in the unit Contract price per ton for “HMA Cl. ___ PG ___” which was used for patching. If the Proposal does not include a Bid item for “Preparation of Untreated Roadway”, the Roadway shall be prepared as specified, but the Work shall be included in the Contract prices of the other items of Work.

“Preparation of Existing Paved Surfaces”, per mile.

The unit Contract Price for “Preparation of Existing Paved Surfaces” shall be full pay for all Work described under Section 5-04.3(4) with the exception, however, that all costs involved in patching the Roadway prior to placement of HMA shall be included in the unit Contract price per ton for “HMA Cl. ___ PG ___” which was used for patching. If the Proposal does not include a Bid item for “Preparation of Untreated Roadway”, the Roadway shall be prepared as specified, but the Work shall be included in the Contract prices of the other items of Work.

“Crack Sealing”, by force account.

“Crack Sealing” will be paid for by force account as specified in Section 1-09.6. For the purpose of providing a common Proposal for all Bidders, the Contracting Agency has entered an amount in the Proposal to become a part of the total Bid by the Contractor.

“Pavement Repair Excavation Incl. Haul”, per square yard.

The unit Contract price per square yard for “Pavement Repair Excavation Incl. Haul” shall be full payment for all costs incurred to perform the Work described in Section 5-04.3(4) with the exception, however, that all costs involved in the placement of HMA shall be included in the unit Contract price per ton for “HMA for Pavement Repair Cl. ___ PG ___”, per ton.

“Asphalt for Prime Coat”, per ton.

The unit Contract price per ton for “Asphalt for Prime Coat” shall be full payment for all costs incurred to obtain, provide and install the material in accordance with Section 5-04.3(4).

“Prime Coat Agg.”, per cubic yard, or per ton.

The unit Contract price per cubic yard or per ton for “Prime Coat Agg.” shall be full pay for furnishing, loading, and hauling aggregate to the place of deposit and spreading the aggregate in the quantities required by the Engineer.

“Asphalt for Fog Seal”, per ton.

Payment for “Asphalt for Fog Seal” is described in Section 5-02.5.

“Longitudinal Joint Seal”, per linear foot.

The unit Contract price per linear foot for “Longitudinal Joint Seal” shall be full payment for all costs incurred to perform the Work described in Section 5-04.3(12).

“Planing Bituminous Pavement”, per square yard.

The unit Contract price per square yard for “Planing Bituminous Pavement” shall be full payment for all costs incurred to perform the Work described in Section 5-04.3(14).

“Temporary Pavement Marking”, per linear foot.

Payment for “Temporary Pavement Marking” is described in Section 8-23.5.

“Water”, per M gallon.

Payment for “Water” is described in Section 2-07.5.

“Job Mix Compliance Price Adjustment”, by calculation.

“Job Mix Compliance Price Adjustment” will be calculated and paid for as described in Section 5-04.3(9)C6.

“Compaction Price Adjustment”, by calculation.

“Compaction Price Adjustment” will be calculated and paid for as described in Section 5-04.3(10)D3.

“Roadway Core”, per each.

The Contractor’s costs for all other Work associated with the coring (e.g., traffic control) shall be incidental and included within the unit Bid price per each and no additional payments will be made.

“Cyclic Density Price Adjustment”, by calculation.

“Cyclic Density Price Adjustment” will be calculated and paid for as described in Section 5-04.3(10)B.

(January 13, 2021 WSDOT GSP)

Asphalt Cost Price Adjustment

The Contracting Agency will make an Asphalt Cost Price Adjustment, either a credit or a payment, for qualifying changes in the reference cost of asphalt binder. The adjustment will be applied to partial payments made according to Section 1-09.9 for the following bid items when they are included in the proposal:

“HMA Cl. ___ PG ___”

“HMA for Approach Cl. ___ PG ___”

“HMA for Preleveling Cl. ___ PG ___”

“HMA for Pavement Repair Cl. ___ PG ___”

“Commercial HMA”

The adjustment is not a guarantee of full compensation for changes in the cost of asphalt binder. The Contracting Agency does not guarantee that asphalt binder will be available at the reference cost.

The Contracting Agency will establish asphalt binder reference costs twice each month and post the information on the Agency website at: <https://wsdot.wa.gov/business-wsdot/how-do-business-us/public-works-contracts/payments-reporting/asphalt-binder-reference-cost>. The reference cost will be determined using posted prices furnished by Poten & Partners, Inc. If the selected price source ceases to be available for any reason, then the Contracting Agency will select a substitute price source to establish the reference cost.

Price adjustments will be calculated one time per month. No price adjustment will be made if the Current Reference Cost is within +/-5% of the Base Cost. Reference costs for projects located in Eastern versus Western Washington shall be selected from the column in the WSDOT website table labeled “Eastern”, or “Western”, accordingly. The adjustment will be calculated as follows:

If the reference cost is greater than or equal to 105% of the base cost, then
Asphalt Cost Price Adjustment = (Current Reference Cost – (1.05 x Base Cost)) x (Q x 0.056).

If the reference cost is less than or equal to 95% of the base cost, then
Asphalt Cost Price Adjustment = (Current Reference Cost – (0.95 x Base Cost)) x (Q x 0.056).

Where: **Current Reference Cost** is selected from the website table based on the “Date Effective” that immediately precedes the current month’s progress estimate end date. For work completed after all authorized working days are used, the adjustment will be based on the posted reference cost during which contract time was exhausted.

Base Cost is selected from the website table based on the “Date Effective” that immediately precedes the contract bid opening date, and shall be a constant for all monthly adjustments.

Q = total tons of all classes of HMA paid in the current month’s progress payment.

“Asphalt Cost Price Adjustment”, by calculation.

“Asphalt Cost Price Adjustment” will be calculated and paid for as described in this section. For the purpose of providing a common proposal for all bidders, the Contracting Agency has entered an amount in the proposal to become a part of the total bid by the Contractor.

**DIVISION 7:
DRAINAGE STRUCTURES, STORM SEWERS, SANITARY SEWERS, WATER, MAINS, AND
CONDUITS**

7-04 STORM SEWERS

7-04.2 Materials

Supplement this Section with the following:

When replacing pipes with open cut, for sizes up to 15 inches: install Solid wall PVC pipe ASTM D3034 SDR 35.

7-04.3 Construction Requirements

7-04.3(1) Cleaning and Testing

7-04.3(1)A General

Supplement this Section with the following:

Storm Drain Pipe shall be tested visually for alignment with full circle visibility required between drainage structures. Other test methods specified in Section 7-04.3(1) may be required of the Contractor and no additional compensation will be allowed. Storm drain structures shall be cleaned of sediment and debris prior to final acceptance.

7-04.4 Measurement

Supplement this Section with the following:

Measurement for the various bid items for storm sewer pipe as indicated in the Bid Proposal shall be per linear foot. The following items shall be incidental and included in the unit price per linear foot:

1. Sawcutting
2. Structure Excavation Class B Including Haul
3. Pipe bedding as shown on the Plans
4. Backfill with approved native material
5. Compaction
6. Installation of storm sewer pipe
7. Coupling bands, fittings, and associated gaskets
8. Marking pipe ends located in hardened surfaces where indicated on the plans
9. Testing and cleaning
10. Connection to existing storm drains, culverts, and structures
11. Other work and materials, not specifically identified as being paid elsewhere
12. Bevel of pipe ends if applicable

7-04.5 Payment

Supplement this Section with the following:

The unit contract price per linear foot for the various bid items for Storm Sewer pipe and trench drains as indicated in the bid proposal form, shall be full compensation for all labor, material, tools and equipment required to complete the Bid Items in accordance with Section 1-04.1

7-05 MANHOLES, INLETS, CATCH BASINS, AND DRYWELLS

7-05.1 Description

Supplement this Section with the following:

This item also includes frames and grates in designated areas. The adjusting of any new storm drain catch basin frame, manhole ring and cover, for the purpose of matching new finish grades shall be incidental to the cost of installation. Existing manholes, inlets, and catchbasins within the Project boundary which are nearest to the point of connection into the storm drain system and other manholes, inlets, and catchbasins which are impacted by construction activities will be cleaned by the Contractor. This work is incidental to the various bid items in this Section.

All existing sanitary sewer manhole frame and covers that are adjusted to finished grade shall be replaced with locking frame and cover.

7-05.4 Measurement

Supplement this Section with the following:

Measurement for the various inlets, manholes, vaults, and catch basins as indicated in the Bid Proposal, shall be per each. The following items shall be incidental and included in the unit price per each:

1. Sawcutting
2. Structure Excavation Class B Including Haul.
3. Shoring or Extra Excavation Class B Including Haul
4. Dewatering if required
5. Gaskets, fittings, frames and grates
6. Bedding
7. Compaction
8. Curb modifications required per the Standard Plans
9. Connection to existing culverts, structures and drain lines
10. Other work and materials, not specifically identified as being paid elsewhere

7-08 GENERAL PIPE INSTALLATION REQUIREMENTS

7-08.3 Construction Requirements

7-08.3(2) Laying Pipe

7-08.3(2)G Jointing of Dissimilar Pipe

Supplement this Section with the following:

Existing storm drains shall be jointed to proposed drain pipe by use of factory-fabricated adapter couplings or a pipe collar or as shown in the Plans. The Contractor shall cut existing storm drains. The Contractor shall remove the portions of the storm drain to provide for the installation of the required fitting at the point of connection. All damage caused by the Contractor's operation to existing storm drains to remain in place shall be repaired by the Contractor at no expense to the Contracting Agency. The Contractor shall determine the exact length of the existing storm drains that must be removed.

7-17 SANITARY SEWERS

7-17.2 Materials

Supplement this Section with the following:

When replacing sanitary sewers with open cut, for sizes up to 15 inches: install Solid wall PVC pipe ASTM D3034 SDR 35. Gasketed.

7-17.4 Measurement

Supplement this Section with the following:

Measurement for Sanitary Sewer Pipe, as indicated on the Bid Proposal, shall be per linear foot. The following items shall be incidental and included in the unit price per linear foot:

1. Pipe bedding as shown on the Plans
2. Compaction
3. Installation of sanitary sewer pipe
4. Coupling bands, fittings, and associated gaskets.
5. Connection to existing structures and mains
6. Other work and materials, not specifically identified as being paid elsewhere

7-18 SIDE SEWERS

7-18.3 Construction Requirements

Supplement this Section with the following:

Connections to the existing sewer main shall not be made without first making the necessary scheduling arrangements with the Engineer in advance. Work shall not be started until all the

materials, equipment, and labor necessary to properly complete the work are assembled on the site.

Existing side sewers shall be cut by the Contractor, unless otherwise specified in the Special Provisions. The Contractor shall remove the portions of pipe to provide for the installation of the required fittings at the points of connection. Damage caused by the Contractor's operations to existing joints in piping to remain in-service shall be repaired by the Contractor at no additional expense to the Contracting Agency.

Once work is started on a side sewer, it shall proceed continuously without interruption and as rapidly as possible until completed. No shutoff will be permitted overnight, over weekends, or on holidays.

If the connection to the existing side sewer system involves turning off the side sewer, the Contractor shall be responsible for notifying the residents affected by the shutoff. The Engineer will advise which property owners are to be notified.

The Contractor may be required to perform the connection during times other than normal working hours.

7-20 PIPE BURSTING

(NEW SECTION)

This Section is added as follows:
(*****)

7-20.1 Description

This Section specifies the installation of sewers using pipe bursting methods. Pipe bursting is a system by which an existing pipeline is used as a pathway through which a static pull or pneumatic bursting unit travels; the unit breaks and displaces the existing sewer pipe into the surrounding soils while simultaneously installing new pipe of the same or larger size along the path of the existing host pipe.

7-20.2 Quality Assurance

The Project Representative shall have full access to the pipe bursting machine, gauges, and pits. The Contractor shall furnish all assistance and cooperation to aid the Project Representative in observation, data and sample collection during the pipe bursting operation.

7-20.3 Qualifications

The Pipe Bursting Contractor shall have at least three years active experience in the installation of pipelines using the Pipe Bursting method and shall demonstrate the minimum experience qualifications as listed below. The Contractor shall submit a list of qualifications and work history for the installer company and the field superintendent who will be on site for the duration of the project.

A. Pipe Bursting Contractor

- i. The Pipe Bursting Contractor must demonstrate at least three years active experience in the installation of pipelines using the Pipe Bursting method.
- ii. Minimum of 25,000 linear feet of pipe installed using pipe bursting to install pipe of 12-inch outer diameter or greater.
- iii. Minimum of 5,000 linear feet of pipe installed using pipe bursting to upsize pipe by 2 sizes or greater (example, 8" ID to 12" ID)

B. Pipe Bursting Superintendent

- i. The Pipe Bursting Contractor must demonstrate at least three years active experience in the installation of pipelines using the Pipe Bursting method.
- ii. Minimum of 15,000 linear feet of pipe installed using pipe bursting to install pipe of 12-inch outer diameter or greater.
- iii. Minimum of 3,000 linear feet of pipe installed using pipe bursting to upsize pipe by 2 sizes or greater (example, 8" ID to 12" ID)

7-20.4 Definitions

Bursting Pit: A pit at which the winch is staged to pull a cable, chain, or rod which advances or guides the pipe bursting expander head along the burst.

Expander: An oversized, conical section of the pipe bursting equipment which is responsible for breaking and displacing the host pipe into the surrounding soil.

Host Pipe: the existing pipe which is broken and displaced by the pipe bursting operation.

Insertion Pit: A pit wherein the replacement pipe is inserted into the ground behind the bursting head along the path of the Host Pipe.

Pipe Bursting: A trenchless method of replacing a pipeline with a new pipeline of equal or greater outer diameter by using the existing pipeline as a proven pathway. The pipe bursting equipment is inserted into the host pipe and breaks and displaces the host pipe into the surrounding soil while the trailing replacement pipe is pulled into place simultaneously.

Replacement Pipe: New pipe installed along the path of the host pipe and behind the Pipe Bursting expander.

Tail Ditch: A sloped excavation at the back of the insertion pit allowing smooth insertion of the replacement pipe into the insertion pit.

7-20.4 Pre-Work Submittals

Provide detailed submittal information as described below. Review of submittals by the Project Representative does not constitute approval nor relieve the Contractor of any responsibilities to exercise care and diligence in the planning and execution of the work. Pre-Work submittals must receive an acceptable disposition prior to commencing the work.

- A. Pipe Bursting Work Plan: Submit a narrative describing the methods, sequence, and details of the pipe bursting installations: Include the following at a minimum.
- i. Describe the method of pipe bursting planned for use (static or dynamic).
 - ii. Describe all activities to be undertaken during the pipe bursting including pre-CCTV confirmation of lateral locations, pit excavation, utility location and protection, staging of winches or other equipment within bursting pits or manholes, and insertion of the pipe bursting expander and replacement pipe.
 - iii. Provide an equipment list with the make, model, manufacturer's literature and photographs of bursting equipment including winches, pneumatic hammers, expanders, and compressors if applicable.
 - iv. Describe how the utilities crossing the alignment will be physically located prior to bursting.
 - v. Describe how utility crossings indicated on the drawings will be protected by excavating between the bottom of the pipe to isolate the utility crossing from the bursting operation.
 - vi. Describe the sequence of Manhole demolition in relation to pipe bursting of segments SS-GM-61-131, SS-GM-61-143, and SS-GM-61-197.
 - vii. Describe the sequence of Protecting Manholes in place, and where applicable, chipping out inverts and the manhole wall prior to bursting in relation to the pipe bursting of segments SS-GM-61-197, SS-GM-61-198, and SS-GM-61-200. Describe in detail how nuisance groundwater will be managed during the bursting. Describe in detail the materials and process for restoration and sealing the manholes at the completion of bursting and for patching and repairing the manhole base, wall, bench, and channel where applicable. Describe in detail the process for restoring MH 61-198 at the completion of bursting.
 - viii. Describe the plan for disconnecting lateral services and for reinstating lateral services.
 - ix. Provide an example of the written notice that will be used to notify homes or business prior to beginning work that will disrupt services.
 - x. Describe how saw-cutting will be performed above and prior to the pipe bursting operations between MH 61-200 to MH 61-199 to control heave.
- B. Construction Schedule: provide sequence and durations for the pipe bursting operations. Include at a minimum:
- i. Mobilization and setup
 - ii. Pre-Construction CCTV inspection
 - iii. Bypass set-up
 - iv. Excavation of pull pits (indicate when each pit will be excavated)
 - v. Excavation of insertion pits (indicate when each pit will be excavated)
 - vi. Layout, fusion, and staging of replacement pipe (itemized for each segment as a separate activity)
 - vii. Protection and preparation of MHs protected in place
 - viii. Pipe bursting (itemize each segment as separate activity)
 - ix. Installation of new manholes/restoration of manholes after pipe bursting
 - x. Final CCTV inspection
 - xi. Demobilization and site cleanup
- C. Shop Drawings – Provide the following:

- i. Dimensioned layout drawings showing each pull and insertion pit location
 - ii. Scaled layout drawings showing the staging/pull-in plan for the replacement pipe planned for each segment.
 - iii. Details and manufacturer information for the pneumatic hammer or static bursting tool
- D. Bypass Workplan
 - i. Provide a narrative describing the bypass operations that will take place and describe how the bypass will facilitate all elements of the work including but not limited to the pipe bursting, manhole replacement, manhole refurbishment, and side services.
 - ii. Provide a scaled plan drawing schematic showing the location of the bypass pumps, piping, diversion and discharge locations.
 - iii. Provide manufacturer's literature for the pumping capacity of each bypass pump, both the primary and secondary pump at each pump around location.
 - iv. Indicate how containment will be built around the pumps actively passing sewer flow.
 - v. Provide details on the bypass piping that will be used to divert sewer flow.
 - vi. Where sections of the bypass piping extend through Mercedale Park, describe how the how the bypass piping and connection will be maintained such that there is no leakage in the park walkways.

7-20.5 Design Criteria

- A. Install HDPE replacement pipe using pipe bursting method as shown on the Drawings.
- B. Install replacement pipe to match replacement invert to the existing pipe invert.
- C. Provide a final pipe condition which flows by gravity from furthest upstream manhole to downstream manhole
- D. Protect existing utilities, features, and structures from damage during pipe bursting operations.
- E. Protect manholes in place where shown on the Drawings. Demolish and replace manholes where shown on the Drawings.
- F. Where shown on the Drawings, complete saw cutting above a pipe bursting run prior to completing the pipe bursting to control heave.

7-20.6 PRODUCTS

7-20.6(1) Materials

- A. High Density Polyethylene (HDPE) Pipe: Refer to Section 9-05.23.
- B. Lubricant: Pipe bursting lubricant (if used) shall be a mixture of bentonite and water or approved equal. The bursting lubrication shall be inert and non-toxic

7-20.6(2) Equipment

- A. Bursting Head and Pull Unit:
 - i. The pipe bursting tool shall be designed and manufactured to be capable of forcing a path through the existing host pipe by fragmenting and compressing the host pipe into

the surrounding soil. The bursting tool diameter shall exceed the replacement pipe diameter and shall be of sufficient size to effectively upsize the host pipe as shown on the Drawings.

- ii. The bursting unit shall install the replacement pipe simultaneously with the bursting of the host pipe.
 - iii. A hydraulic winch or bursting rods shall maintain tension on the bursting head at all times during the pipe bursting process.
- B. Pipe Rollers and Support:
- i. Provide pipe rollers to prevent the replacement pipe from abrading on the ground surface.
- C. Pipe Fusion Equipment: Per Section 9-05.23.

7-20.7 Construction Requirements

7-20.7(1) General Requirements

- A. Contractor shall determine the size and location of bursting pits and insertion pits. Take into account the field located position of existing utilities. All trenches and excavations greater than 4 feet in depth shored in compliance with applicable Federal and State regulations.
- B. Where Manholes at the end of a Pipe Bursting segment will be protected in place, chip out existing manhole wall and channel as required to facilitate the insertion of the upsized replacement pipe into the manhole. At the completion of bursting operations refurbish manhole to a serviceable condition such that all inflows and outflows flow by gravity with a smooth channel.
- C. Where the pipe bursting train will be pulled through an existing manhole, chip out existing manhole wall and channel as required to facilitate pulling or pneumatically advancing the pipe bursting tooling and replacement pipe through the manhole. At the completion of bursting operations refurbish manhole to a serviceable condition such that all inflows and outflows flow by gravity with a smooth channel and the manhole is accessible through the manhole access.
- D. Where manholes will be demolished and replaced, the pipe bursting for pipe sections connecting to the manhole shall be completed prior to installing the new manhole.
- E. Contractor is responsible for the location and protection of existing underground utilities. Protect in place utilities as shown on the Drawings and any additional utilities encountered during the field location of utilities.
- F. During installation of the replacement pipe, stage pipe on rollers to prevent abrading on the ground surface.
- G. For mid-pull fuses of HDPE replacement pipe, wait minimum 30 minutes after cooling prior to loading the pipe in tension.

7-20.7(2) Public Notification

The Contractor shall make every effort to maintain service usage throughout the duration of the project. In the event that a sewer service will be off-line, the maximum amount of time of no service shall be 10 hours for any property served by the sewer between 8 AM – 6:00 PM (Monday – Friday). No service interruption or bypass pumping on weekends or holidays. A public notification program shall be implemented, and shall at a minimum, require the Contractor to be responsible for contacting each home or business connected to the sanitary sewer and informing them of the work to be conducted, and when the sewer will be off-line. The Contractor shall also provide the following:

- A. Written notice to be delivered to each home or business at a minimum of 3 days prior to the beginning of work being conducted on the section, and a local telephone number of the Contractor shall be provided to allow discussions of the project or any problems which could arise.
- B. The Contractor shall make personal contact with the occupants of any home or business which cannot be reconnected within the time stated in the written notice.

7-20.7(2) Pre-Installation CCTV Inspection

The Contractor shall conduct a pre-installation CCTV inspection to assess the existing conditions and to locate all active sewer service connections.

All television camera inspections indicated in these specifications shall be digitally stored. All work and materials associated with Television Inspection and Data storage identified for pipe bursting shall be included in and considered incidental to pipe bursting installation. Digitally stored TV inspection data shall meet the following minimum requirements:

- A. Image
 - 1. Color.
 - 2. Minimum resolution: 720 x 480
 - 3. Minimum bitrate: 128 kb/s
- B. Opening Screen:
 - 1. Date of inspection.
 - 2. Pipe structure identification number.
 - 3. Upstream and downstream node identification numbers.
 - 4. Normal (upstream to downstream) or reverse (downstream to upstream) survey direction.
 - 5. Pipe size and material.
- C. Continuous View:
 - 1. Current distance along reach (tape counter footage).
- D. Audio:
 - 1. Description of inspection setup, including related information from log form.
 - 2. Unusual conditions.
 - 3. Operation changes (e.g., remove roots and restart inspection at footage prior to root removal).
 - 4. The audio portion of the composite recording shall be sufficiently free from electrical interference and background noise to provide complete intelligibility of the oral report.
- E. Video File Labeling:
 - 1. Project Name and Segment.
 - 2. Date of Inspection.
 - 3. Inspection Company.
 - 4. Inspection limits identified by beginning and ending structure number.
 - 5. Indicate pre- or post- cleaning or installation.

7-20.7(3) Lateral Services

- A. The Contractor shall disconnect and protect lateral services from damage prior to completing pipe bursting operations.
- B. Reinstate lateral services using saddle fittings and appurtenances to connect the service connection to the sewer main. Ensure the reinstated lateral service flows by gravity into the sewer with no low points, sags, lips, or other obstructions to flow.

7-20.7(4) Temporary Sewer Bypass

The Contractor shall provide Temporary Sewer Bypass of the sewer main, and if deemed necessary by Contractor, of the sewer lateral as required for acceptable completion of the liner installation.

- A. The Contractor shall pump existing sanitary sewer flows around the area of Work anytime flows are collecting at a manhole. No backup or storage of flow in any upstream pipe segments is allowed. The required length of pumping shall be sufficient to allow the work to be completed and for each length of sewer main to be lined. Bypass pumping shall be done in a manner as to not damage private or public property or create a nuisance or public menace. The pumped sewage shall be in an enclosed hose or pipe that is protected from traffic.

Pumps used for the temporary sewer bypass shall be capable of passing solids and other materials typically found in wastewater flows. All bypass pumps shall also be critically silenced.

- B. Temporary bypass systems must be removed and normal sewer flow resumed at the end of the Contractor's working shift. No bypass during off-shift hours shall be allowed.
- C. Typical flow rates through the sewer mains to be replaced range between 20 GPM, (nighttime flow), to typical peak flows of 250 GPM. Two pumps shall be supplied for each bypass pump around, both individually capable of pumping the above stated flows the required distances and against the required elevation head. One shall be designated as the primary pump, and the second shall be a back-up pump. Pumps used for the temporary sewer bypass shall be capable of passing solids and other materials typically found in wastewater flows.
- D. The pump around shall occur from any sanitary sewer manhole noted on the project plans upstream of the work being performed. The pump discharge shall be to any sanitary sewer manhole noted on the project plans downstream of the work being performed. No bypassing to the ground surface, receiving waters, or any circumstance which results in groundwater contamination or potential health hazards shall be permitted. The distance to be pumped may vary depending on the route chosen by the Contractor and shall be confirmed by the Contractor, and the pumps sized accordingly. No bypass pumping is allowed overnight unless night work is requested 2 weeks prior and approved by the City. Regular sewer flows shall be reinstated through the lined pipes as soon as the work allows and regular sewer flows must be reinstated at the completion of the working shift.
- E. The Contractor shall designate a person to oversee the pumps during their operation. This person shall be on site at all times while the temporary sewer bypass is occurring and

shall continually monitor the pump operation. The individual shall be familiar with the operation of the pumps and shall be capable of switching between pumps if necessary, refueling the pumps, etc. The individual shall monitor the upstream and downstream manholes at a minimum, and must check regularly for flow backup and obstructions.

- F. The Contractor shall take all necessary precautions to prevent an uncontrolled spill of untreated wastewater or discharge to the waters of the State. Should a spill or discharge occur as a direct result of the Contractor's actions, the Contractor shall be responsible for all clean-up, restoration and fines or penalties incurred from regulating authorities as a result of the spill or discharge.
- G. The Contractor is responsible for maintaining sewer service to all connections upstream of the proposed work at all times until the project is complete and accepted by the Owner.
- H. All bypass pumps actively pumping sewer flow shall have containment setup around the pump to contain leaks and drips that may occur during bypass pump operation, hose disconnection, and re-connection. The area around bypass pumps shall be thoroughly cleaned of all sewage at the completion of the bypass pumping operation. Any leaks, drips, or spills which migrate outside of the containment shall be cleaned immediately.

7-20.7(5) Manhole Protection and Refurbishment

Where shown on the drawings, contractor shall conduct pipe bursting operations so as to allow the pipe bursting to be completed without demolition of a connecting manhole and in such a way that the manhole may be refurbished and restored to its pre-existing condition at the completion of pipe bursting operations.

Where the pipe bursting expander head and replacement pipe will be pulled through a manhole such that sewer segments on either side of the manhole can be replaced using pipe bursting in a single burst operation:

- A. Contractor shall remove the portion of the manhole wall sufficient to allow the pipe burst expander and replacement pipe to travel through the manhole wall.
- B. Contractor shall retrofit the manhole base, bench, and channel and remove these elements as necessary to allow the expander replacement pipe to travel through the manhole.
- C. Contractor shall protect the existing manhole structure to allow reuse and effective refurbishment.
- D. Contractor shall repair all damage to the manhole including but not limited:
 - a. to repairing or replacing the concrete base, channel, and bench.
 - b. Installing new pipe to manhole connectors
 - c. Patch the manhole wall such that at pipe intrusions such that the wall thickness matches the existing manhole wall.
 - d. Repair the channel such that the channel invert provides a smooth transition to the pipe intrusions.

7-20.7(6) Quality Control

- A. The replacement pipe shall be free from gouges greater than 10% of the pipe wall thickness on the outside diameter. Any gouges observed in the pipe greater than 10% of the pipe wall thickness shall be cut out and the replacement pipe string re-connected prior

to completing pipe bursting. The inside diameter shall be free of any gouges, defects, or imperfections.

- B. The sanitary sewer shall flow by gravity from upstream manhole to downstream manhole at the completion of pipe bursting.
- C. Protect utilities prior to bursting where shown on the drawings and as required to complete the work per Section 8-30.

7-20.7(7) Work Product Submittals

- A. Upon completing Pipe Bursting installation and reinstating side services the Contractor shall submit Post-installation CCTV inspection records in electronic format. CCTV must be completed with active flow through the pipe to confirm gravity flow. Follow requirements of 7-20.7(2).
- B. Provide HDPE fusion DataLogger output logs per 9-05.23 by end of shift during which the HDPE fusion was completed.
- C. Upon completion of the Pipe Bursting and re-connection at manholes (either protected in place or replaced), provide survey of the finished replacement pipe invert elevation at each MH (invert elevations for both the inflow and outflow segments).

7-20.8 Measurement

Measurement for “Temporary Sewer Bypass” will be by lump sum.

Measurement for “Pipe Bursting – ___ to ___-inch (___” DR17 HDPE) will be by linear foot, from outside of MH to outside of MH.

Measurement for “Reconnect Lateral Service” will be per each.

Measurement for “Protect & Refurbish Manhole in Place” will be per each.

7-20.9 Payment

Payment will be made for each of the following Bid items that are included in the Bid Form.

Payment for “Temporary Sewer Bypass”, Lump Sum: The contractor shall provide all work, labor, and materials required to complete temporary sewer bypass operations as required during all phases of the work. This may include but is not limited to pipe bursting operation, side sewer re-connections, manhole installation, and manhole restoration. Payment will include temporary bypass piping, connectors, receiving of materials, unloading of materials, installation of bypass piping, maintenance of bypass piping and cleanup of any leaks, generators, sound-proofing, installing and maintaining containment around bypass pumps, coordination with the public, and acquisition of relevant noise variance or other permits and compliance with the permits, and removal of temporary bypass piping, and restoration of all areas disturbed by the temporary bypass.

Payment for “Pipe Bursting – ___ to ___-inch (___” DR17 HDPE)”, by linear foot: the contractor shall install HDPE pipe by pipe bursting and payment will include full compensation for all work, materials, and labor required to complete the pipe bursting including but not limited to: HDPE piping, receiving, unloading, staging, fusion welding, and installation, debearing the inside diameter of the HDPE pipe at every fusion weld, preparation of manholes for bursting, setup and use of pipe bursting equipment and pipe bursting operations necessary to displace the

existing pipe and install the replacement pipe in its place as described herein, all pre and post-work submittals. All appurtenances, seals, couplings, HDPE fusion, and other materials required to connect the pipe into the connecting manholes at the completion of pipe bursting and ensure that the installed pipe flows by gravity from upstream manhole to downstream manhole is incidental to this bid item.

Payment for "Reconnect Lateral Service", per each: payment will include full compensation for all work, materials, and labor required to disconnect the lateral service prior to bursting the sewer main and reconnect the lateral service at the completion of pipe bursting the sewer main. Breaking of pipe, saddle fusion or any other connection type required to connect the service joint to the sewer main, pipe fittings, and any and all appurtenances are incidental to this bid item. Excavation and shoring required to access lateral services, backfill, and restoration is paid per separate bid items.

Payment for "Protect and Refurbish Manhole in Place", per each will include full compensation for all work, materials, and labor required to retrofit the manhole to a condition which will allow the pipe bursting to be completed without demolition of a connecting manhole. Refurbishment of the manhole as required to allow the pipe bursting expander head and replacement pipe to be pulled through a manhole such that sewer segments on either side of the manhole can be replaced using pipe bursting in a single burst operation. Removing sections of the manhole wall around pipe intrusions, removal of parts or the entirety of the channel and manhole bench, protection of the manhole during the pipe bursting operations, installation of new pipe to manhole connectors, restoration of the manhole thickness to match the pre-existing manhole thickness, application of cement mortar at the pipe intrusions, pouring concrete to restore or replace the manhole base, channel, and bench are incidental to this bid item. All work necessary to restore the manhole to a serviceable condition at the completion of pipe bursting is incidental to this bid item.

**DIVISION 8:
MISCELLANEOUS CONSTRUCTION**

8-01 EROSION CONTROL AND WATER POLLUTION CONTROL

8-01.3 Construction Requirements

8-01.3(9)A1 High Visibility Fencing

Delete this Section and replace with the following:

High visibility fencing (HVF) shall be orange in color and installed along the site preservation lines shown in the Plans or as specified by the Engineer. Post spacing and attachment of the fencing material to the posts shall be as shown in the Plans. The HVF shall not be fastened to trees. Fasten HVF to chain link fencing where fencing crosses pavement or concrete surfaces.

8-01.5 Payment

Supplement this Section with the following:

“High Visibility Fence”, per linear foot.

The unit contract price per linear foot for “High Visibility Fence” shall be full compensation for all labor, materials, tools and equipment necessary to perform the work as specified herein. This bid item includes furnishing, erecting, maintaining, and removing

Temporary chain link fence used to delineate the work area where shown, as well as fastening High Visibility Fence to the chain link fence. Chain link fence shall be approved by the Engineer prior to use.

Payment for the item “Erosion Control and Water Pollution Prevention” shall be full compensation for all labor, tools, equipment, materials and subcontractor work needed to install TESC measures as shown on the Drawings or as directed by the Engineer. This item shall be paid in accordance with Section 1-09.6 Force Account.

8-02 ROADSIDE RESTORATION

8-02.2 Materials

Supplement this Section with the following:

Plant Selection

Trees shall be balled and burlapped and shall be of the caliper specified on the Plans or herein. Measurements, caliper, branching, grading, quality, balling and burlaping shall follow the Code of Standards of the American Association of Nurserymen Standard for Nursery Stock. All plants shall have a natural shape.

Autumn Gold shall be botanical name: “Ginkgo Biloba ‘Autumn Gold’”. Autumn Gold shall be balled and burlapped, minimum 14-feet in height, and planted approximately where shown or

as directed by the Engineer. Measurements, caliper, branching, grading, quality, balling and burlaping shall follow the Code of Standards of the American Association of Nurserymen Standard for Nursery Stock. All plants shall have a natural shape.

Topsoil Type A

Topsoil Type A shall be commercially available free draining, fertile, friable sandy loam, and shall supply the following composition requirements: weed and seed free, pH between 5.5 and 7.5, maximum particle size to ½ inch, with 97% to 100% passing the 3/8 inch screen, soluble salts shall not exceed 4/0 mmho/cm, free of clay lumps, litter and toxic matter harmful to plant growth. Components shall conform to the requirements indicated. Mixing of the soil components shall not occur on site.

8-02.3 Construction Requirements

Supplement this Section with the following:

Contractor is responsible for obtaining a City of Mercer Island Tree Permit if tree removal is required by the contractor sized Bursting Pit and Insertion Pits locations. Comply with City of Mercer Island City Code Chapter 19.10 and the requirements of the Tree Permit. Contractor shall place a sign on any trees to be removed notifying the public of the impending tree removal. The sign shall be placed on the tree a minimum of 5 days prior to the tree removal or per the requirements of the Tree Permit, whichever is greater.

Where grubbing limits cross the canopy of trees, the critical root zone shall be protected where possible.

8-02.3(10)A Lawn Installation

Supplement this Section with the following:

The dates for seeding outlined in Section 8-02.3(10)A of the Standard Specifications will be considered guidelines rather than requirements for this item. The Contractor shall use professional judgment and consider factors such as weather and soil moisture to obtain satisfactory germination.

8-02.4 Measurement

Supplement this Section with the following:

Work performed under the items “Landscape and Property Restoration” shall be measured in accordance with Section 1-09.6 Force Account.

8-02.5 Payment

Supplement this Section with the following:

Payment for the item “Landscape and Property Restoration” shall be full compensation for all labor, tools, equipment, materials and subcontractor work needed to restore the existing park irrigation system and place topsoil and sod and all other restoration of property as shown or directed by the Engineer. This item shall be paid in accordance with Section 1-09.6 Force Account.

“Plant Selection _____,” per each. This item shall include all labor tools equipment and materials necessary to furnish and install the plant selection as indicated in the contract documents including root barriers.

8-04 CURBS, GUTTERS, AND SPILLWAYS

8-04.3 Construction Requirements

8-04.3(1) Construction Requirements Cement Concrete Curbs, Gutters, and Spillways

Supplement this Section with the following:

Depressed curb driveways and wheel chair ramp openings shall be provided at such locations as directed by the Engineer or shown on the Plans. All curved sections with a radius less than 500 feet shall be formed in arc sections to match the radii detailed in the Plans. The Contractor shall provide temporary ramps over new concrete curbing at driveway locations.

8-14 CEMENT CONCRETE SIDEWALKS

8-14.3 Construction Requirements

Supplement this Section with the following:

Sidewalks shall meet the following minimum requirements:

1. Sidewalks shall have a uniform thickness of 4-inches.
2. 3/8-inch through joints shall be placed 20 feet center to center and shall be matched to curb and gutter joints.
3. ‘V’ grooves shall be scored 3/4-inch deep at five foot intervals.
4. All joints shall be cleaned and edged.
5. Two inches of washed rock shall be placed beneath sidewalks. Washed rock shall be commercially available 1” to 3/4” washed rock. The contractor shall submit preliminary samples to the Engineer for approval prior to use

8-14.3(4) Curing

Supplement this Section with the following:

It shall be the Contractor’s responsibility to protect curing concrete until it is set to prevent vandalism. Any repairs needed to correct vandalism during the initial set period, including full replacement of the damaged panel, shall be at the expense of the Contractor and subject to approval of the Engineer.

8-30 POTHOLE EXISTING UNDERGROUND UTILITY (NEW SECTION)

8-30.1 Description

This work shall consist of obtaining physical information about existing underground utilities or other underground items. The Contractor shall determine as-built underground utility information

(referred to as a 'pothole' or 'potholing') as shown on the Plans or directed by the Owner's Representative.

This work shall also consist of exposing and protecting underground utilities (herein referred to as 'protect' or 'protecting') as shown on the Plans or directed by the Owner's Representative. This type of work shall occur within a pothole and prior to pipe bursting operations.

8-30.2 Vacant

8-30.3 Construction Requirements

The Contractor shall perform potholing of underground utilities, or coordinate with utility companies to perform potholing, as shown on the plans or as directed by the Owner's Representative. The Contractor shall perform exploratory excavations using Contractor provided equipment, or provide hand potholing as required to collect as-built underground utility information or protect utilities from bursting operations. During typical construction activities, Contractor performed excavation of existing utilities and excavation of other underground items shall not be considered potholing or protecting unless requested by the Owner's Representative or specifically indicated as potholing or protecting on the Plans. The Contractor shall give the Owner's Representative advance notice of twenty-four (24) hours, prior to conducting such investigations.

A pothole is defined as a single exploratory excavation of an area up to five (5) feet by five (5) feet square, and up to eight (8) feet deep. The Contractor shall expose all underground utilities within this area. Exposure of multiple underground utilities within one exploratory 5'x5' pothole area shall be paid as one (1) pothole, even if utility types vary (i.e. one communications conduit and two power conduits).

Protecting underground utilities, for the purposes of potholing and protecting existing underground utilities as described herein, shall be defined with the following criteria: utility to be exposed and protected shall be completely uncovered for its entire circumference at the location specified or directed such that an air gap is provided with minimum width of 3-inches radially between the utility edge to trench limits and minimum length of 2-feet along the exposed utility longitudinal axis. The air gap shall be centered above the undercrossing sewer pipe to be burst, as practicable. Identified utilities shall be protected prior to beginning bursting operations. Potholing for the purposes of protecting an existing utility, as described herein, shall be subject to the same definition of a pothole as stated above.

The Contractor shall obtain and document the following underground utility information for potholes: elevation relative to plans, depth of cover, material type, diameter, and both the horizontal location and direction of the utility in question.

The Contractor shall provide all documented underground utility information to the Owner's Representative, as well as retain this information for future reference during construction operations in the pothole area. The Contractor shall immediately notify the Owner's Representative if field conditions differ from that shown on the Plans, or if a potential conflict with proposed improvements exists. The Contractor shall not be compensated for re-exposure of previously potholed underground utilities during construction operations.

8-30.4 Measurement

Measurement for "Pothole Existing Underground Utility", per each.

Measurement for “Pothole and Protect Existing Underground Utility”, per each.

8-30.4 Payment

Payment will be made in accordance with Section 1-04.1, for the following bid items:

“Pothole Existing Underground Utility”, per each.

“Pothole and Protect Existing Underground Utility”, per each.

The unit contract price per each for “Pothole Existing Underground Utility” or “Pothole and Protect Existing Underground Utility” shall be full compensation for all equipment, labor, and materials to locate the existing utilities, document and verify the utilities’ as-built information as described, and restoring the disturbed area. No additional payment shall be made for exposure and documentation of multiple utilities or other underground items within one (1) pothole area.

**DIVISION 9:
MATERIALS**

9-05 DRAINAGE STRUCTURES AND CULVERTS

9-05.23 High-Density Polyethylene (HDPE) Pipe

Delete this Section and replace with the following
(*****)

9-05.23(1) Description

This Section specifies DR17 IPS 4710 high-density polyethylene (HDPE) pipe for installation with pipe bursting. Pipe size is as shown on the Drawings with details as shown below.

Pipe Size	DR	Outer Diameter	Inner Diameter	Wall Thickness
14" HDPE IPS	17	14-inch	12.25-inch	0.824-inch
18" HDPE IPS	17	18-inch	15.755-inch	1.059-inch

9-05.23(2) Referenced Standards

This Section incorporates by reference the latest revisions of the embedded standard referenced herein. In case of conflict between the requirements of this Section and those of a listed document, the requirements of this Section shall prevail.

AWWA C906	Polyethylene (PE) Pressure Pipe and Fittings, 4-inch through 65-inch, for Waterworks
ASTM D2122	Standard Test Method for Determining Dimensions of Thermoplastic Pipe and Fittings
ASTM F2620	Heat Fusion Joining of Polyethylene Pipe and Fittings
ASTM D3350	Polyethylene Plastics Pipe and Fittings Materials
ASTM F2634-10	Standard Test Method for Laboratory Testing of Polyethylene (PE) Butt Fusion Joints using Tensile-Impact Method
ASTM F3124-15e1	Standard Practice for Data Recording the Procedure Used to Produce Heat Butt Fusion Joints in Plastic Piping Systems

9-05.23(3) Quality Assurance

Pipe shall be manufactured at a single facility. Pipe manufacturer must be experienced with minimum 3 years continuous operations fabricating HDPE pipe in fabricating HDPE pipe of similar diameter and wall thickness required for this work. Manufacturer must provide certificate of compliance with applicable ASTM and other governing standards, including independent 3rd party test results regarding the homogeneity, physical properties, and chemical resistance of the fabricated pipe.

9-05.23(4) Qualifications

A. Pipe Fusion Technician:

- i. Representative of the pipe supplier
- ii. Completed a minimum of 60 HDPE butt fusion welds in the size range of 14-inch outer diameter HDPE or greater.

9-05.23(5) Pre-Work Submittals

- A. Pipe Fusion Work Plan:
 - i. Provide a detailed plan for assembly of the pipe. Include a description of the process for checking the condition of the pipe for manufacturing defects and a step-by-step description of the procedure for joining the pipes which can be checked and verified by the Project Representative in the field.
 - ii. Provide the manufacturer's literature and cut sheets on the fusion machine(s) to be used, including the manufacturer's procedure for calibrating and checking the proper function of the machine(s). Provide the piston area, planned fusion pressure, planned heat soak time, and planned fusion/cooling time.
 - iii. Manufacturer's literature and details on the fusion data logger to be used.
 - iv. Describe how the internal bead will be removed from the pipe prior to installation, including photographs of the debearing equipment planned for use.
 - v. Provide the
- B. List of piping and quantities to be provided by manufacturer
- C. Product Data
- D. Affidavit of compliance conforming to the requirements of AWWA C906 affirming that the piping components comply with the requirements of AWWA C906 and this Section.
- E. Manufacturer handling, shipping, and storage requirements.
- F. 3rd Party Test results on the HDPE pipe for strength, corrosion resistance, and homogeneity.

9-05.23(6) As-Recorded Data

- A. Printouts of Fusion Parameters for Each of the following:
 - i. Shop fabricated fittings: Submit at material delivery
 - ii. Field fused joint: Submitted to the Project Representative at the end of each day during pipe fusion work.
- B. The recorded fusion parameters shall include:
 - i. Date and time
 - ii. Joint number.
 - iii. Fusion technician identification
 - iv. Fusion machine, type, size, and piston area
 - v. Interfacial pressure during fusion/cooling.
 - vi. Gauge pressures during bead-up, heat soak, and fusion/cooling phases
 - vii. Heater plate temperature
 - viii. A time versus pressure graph throughout the butt fusion process from the start of the heating/bead-up phase to the end of the fusion/cooling phase.

9-05.23(7) Delivery, Storage, and Handling

- A. Pipe shall be off-loaded, loaded, installed, handled, stored, and stacked per pipe manufacturer's guidelines. These guidelines shall include compliance with the manufacturer's minimum bend radius and maximum safe pull stress for the specific pipe being installed or handled.

- B. Sections of pipe with cuts, gouges, or scratches on the outside diameter (OD) surface that exceed 10 percent of the wall thickness of the pipe shall be removed completely and the ends of the pipe rejoined.
- C. The inside diameter (ID) surface shall be free of cuts, gouges, and scratches
- D. After applying a tension load to HDPE during pipe bursting, wait a minimum of 1 hour or the duration of time that the tension load was applied, whichever is greater, prior to re-connecting service connections to the replacement pipe.

9-05.23(8) Pipe Materials

- A. HDPE fabricated at one company facility.
- B. Piping components shall be manufactured from materials that meet or exceed the requirements of the Plastic Piping Institute designation PE4710 and conform to the requirements of ASTM D3350.
- C. Pipe shall be homogeneous throughout and be free of visible cracks, holes, foreign material, blisters, and other visible deleterious faults.
- D. Pipe Markings shall conform to the requirements of AWWA C906.

9-05.23(9) Joining

- A. Pipe and Fittings shall be joined using butt fusion welding.
- B. Each fusion joint shall be recorded and logged by an approved electronic monitoring device (data logger) connected to the fusion machine, which utilizes a current version of the pipe supplier's recommended and compatible software.
- C. Pipe manufacturer shall be consulted to obtain machinery and expertise for the joining by butt-fusion of pipe and fittings.
- D. Butt fusion joining shall yield a joint strength equal to or greater than the tensile strength of the pipe.
- E. Internal beads at butt-fused joints shall be removed to produce a smooth interior surface across the joint using an internal de-beading tool in accordance with manufacturer's instructions.
- F. No high stress such as pulling, installation, or rough handling for an additional 30 minutes or greater after the completion of the fusion/cooling stage.

APPENDIX A PREVAILING MINIMUM HOURLY WAGE RATES

State of Washington
 Department of Labor & Industries
 Prevailing Wage Section - Telephone 360-902-5335
 PO Box 44540, Olympia, WA 98504-4540

Washington State Prevailing Wage

The PREVAILING WAGES listed here include both the hourly wage rate and the hourly rate of fringe benefits. On public works projects, worker's wage and benefit rates must add to not less than this total. A brief description of overtime calculation requirements are provided on the Benefit Code Key.

Journey Level Prevailing Wage Rates for the Effective Date: 01/30/2023

<u>County</u>	<u>Trade</u>	<u>Job Classification</u>	<u>Wage</u>	<u>Holiday</u>	<u>Overtime</u>	<u>Note</u>	<u>*Risk Class</u>
King	Asbestos Abatement Workers	Journey Level	\$56.80	<u>5D</u>	<u>1H</u>		View
King	Boilermakers	Journey Level	\$72.54	<u>5N</u>	<u>1C</u>		View
King	Brick Mason	Journey Level	\$66.32	<u>7E</u>	<u>1N</u>		View
King	Brick Mason	Pointer-Caulker-Cleaner	\$66.32	<u>7E</u>	<u>1N</u>		View
King	Building Service Employees	Janitor	\$28.23	<u>5S</u>	<u>2F</u>		View
King	Building Service Employees	Traveling Waxer/Shampooer	\$28.68	<u>5S</u>	<u>2F</u>		View
King	Building Service Employees	Window Cleaner (Non-Scaffold)	\$32.18	<u>5S</u>	<u>2F</u>		View
King	Building Service Employees	Window Cleaner (Scaffold)	\$33.18	<u>5S</u>	<u>2F</u>		View
King	Cabinet Makers (In Shop)	Journey Level	\$22.74		<u>1</u>		View
King	Carpenters	Acoustical Worker	\$71.53	<u>15J</u>	<u>4C</u>		View
King	Carpenters	Bridge, Dock And Wharf Carpenters	\$71.53	<u>15J</u>	<u>4C</u>		View
King	Carpenters	Floor Layer & Floor Finisher	\$71.53	<u>15J</u>	<u>4C</u>		View
King	Carpenters	Journey Level	\$71.53	<u>15J</u>	<u>4C</u>		View
King	Carpenters	Scaffold Erector	\$71.53	<u>15J</u>	<u>4C</u>		View
King	Cement Masons	Application of all Composition Mastic	\$70.09	<u>15J</u>	<u>4U</u>		View
King	Cement Masons	Application of all Epoxy Material	\$69.59	<u>15J</u>	<u>4U</u>		View
King	Cement Masons	Application of all Plastic Material	\$70.09	<u>15J</u>	<u>4U</u>		View
King	Cement Masons	Application of Sealing Compound	\$69.59	<u>15J</u>	<u>4U</u>		View
King	Cement Masons	Application of Underlayment	\$70.09	<u>15J</u>	<u>4U</u>		View
King	Cement Masons	Building General	\$69.59	<u>15J</u>	<u>4U</u>		View
King	Cement Masons	Composition or Kalman Floors	\$70.09	<u>15J</u>	<u>4U</u>		View
King	Cement Masons	Concrete Paving	\$69.59	<u>15J</u>	<u>4U</u>		View
King	Cement Masons	Curb & Gutter Machine	\$70.09	<u>15J</u>	<u>4U</u>		View
King	Cement Masons	Curb & Gutter, Sidewalks	\$69.59	<u>15J</u>	<u>4U</u>		View
King	Cement Masons	Curing Concrete	\$69.59	<u>15J</u>	<u>4U</u>		View
King	Cement Masons	Finish Colored Concrete	\$70.09	<u>15J</u>	<u>4U</u>		View

King	Cement Masons	Floor Grinding	\$70.09	15J	4U		View
King	Cement Masons	Floor Grinding/Polisher	\$69.59	15J	4U		View
King	Cement Masons	Green Concrete Saw, self-powered	\$70.09	15J	4U		View
King	Cement Masons	Grouting of all Plates	\$69.59	15J	4U		View
King	Cement Masons	Grouting of all Tilt-up Panels	\$69.59	15J	4U		View
King	Cement Masons	Guniting Nozzleman	\$70.09	15J	4U		View
King	Cement Masons	Hand Powered Grinder	\$70.09	15J	4U		View
King	Cement Masons	Journey Level	\$69.59	15J	4U		View
King	Cement Masons	Patching Concrete	\$69.59	15J	4U		View
King	Cement Masons	Pneumatic Power Tools	\$70.09	15J	4U		View
King	Cement Masons	Power Chipping & Brushing	\$70.09	15J	4U		View
King	Cement Masons	Sand Blasting Architectural Finish	\$70.09	15J	4U		View
King	Cement Masons	Screed & Rodding Machine	\$70.09	15J	4U		View
King	Cement Masons	Spackling or Skim Coat Concrete	\$69.59	15J	4U		View
King	Cement Masons	Troweling Machine Operator	\$70.09	15J	4U		View
King	Cement Masons	Troweling Machine Operator on Colored Slabs	\$70.09	15J	4U		View
King	Cement Masons	Tunnel Workers	\$70.09	15J	4U		View
King	Divers & Tenders	Bell/Vehicle or Submersible Operator (Not Under Pressure)	\$126.05	15J	4C		View
King	Divers & Tenders	Dive Supervisor/Master	\$89.94	15J	4C		View
King	Divers & Tenders	Diver	\$126.05	15J	4C	8V	View
King	Divers & Tenders	Diver On Standby	\$84.94	15J	4C		View
King	Divers & Tenders	Diver Tender	\$77.16	15J	4C		View
King	Divers & Tenders	Hyperbaric Worker - Compressed Air Worker 0-30.00 PSI	\$89.09	15J	4C		View
King	Divers & Tenders	Hyperbaric Worker - Compressed Air Worker 30.01 - 44.00 PSI	\$94.09	15J	4C		View
King	Divers & Tenders	Hyperbaric Worker - Compressed Air Worker 44.01 - 54.00 PSI	\$107.09	15J	4C		View
King	Divers & Tenders	Hyperbaric Worker - Compressed Air Worker 54.01 - 60.00 PSI	\$103.09	15J	4C		View
King	Divers & Tenders	Hyperbaric Worker - Compressed Air Worker 60.01 - 64.00 PSI	\$105.59	15J	4C		View
King	Divers & Tenders	Hyperbaric Worker - Compressed Air Worker 64.01 - 68.00 PSI	\$110.59	15J	4C		View
King	Divers & Tenders	Hyperbaric Worker - Compressed Air Worker 68.01 - 70.00 PSI	\$112.59	15J	4C		View
King	Divers & Tenders	Hyperbaric Worker - Compressed Air Worker 70.01 - 72.00 PSI	\$114.59	15J	4C		View

King	Divers & Tenders	Hyperbaric Worker - Compressed Air Worker 72.01 - 74.00 PSI	\$116.59	15J	4C		View
King	Divers & Tenders	Manifold Operator	\$77.16	15J	4C		View
King	Divers & Tenders	Manifold Operator Mixed Gas	\$82.16	15J	4C		View
King	Divers & Tenders	Remote Operated Vehicle Operator/Technician	\$77.16	15J	4C		View
King	Divers & Tenders	Remote Operated Vehicle Tender	\$71.98	15J	4C		View
King	Dredge Workers	Assistant Engineer	\$76.56	5D	3F		View
King	Dredge Workers	Assistant Mate (Deckhand)	\$75.97	5D	3F		View
King	Dredge Workers	Boatmen	\$76.56	5D	3F		View
King	Dredge Workers	Engineer Welder	\$78.03	5D	3F		View
King	Dredge Workers	Leverman, Hydraulic	\$79.59	5D	3F		View
King	Dredge Workers	Mates	\$76.56	5D	3F		View
King	Dredge Workers	Oiler	\$75.97	5D	3F		View
King	Drywall Applicator	Journey Level	\$71.53	15J	4C		View
King	Drywall Tapers	Journey Level	\$70.61	5P	1E		View
King	Electrical Fixture Maintenance Workers	Journey Level	\$35.19	5L	1E		View
King	Electricians - Inside	Cable Splicer	\$99.36	7C	4E		View
King	Electricians - Inside	Cable Splicer (tunnel)	\$106.81	7C	4E		View
King	Electricians - Inside	Certified Welder	\$95.98	7C	4E		View
King	Electricians - Inside	Certified Welder (tunnel)	\$103.09	7C	4E		View
King	Electricians - Inside	Construction Stock Person	\$47.03	7C	4E		View
King	Electricians - Inside	Journey Level	\$92.59	7C	4E		View
King	Electricians - Inside	Journey Level (tunnel)	\$99.36	7C	4E		View
King	Electricians - Motor Shop	Journey Level	\$48.68	5A	1B		View
King	Electricians - Powerline Construction	Cable Splicer	\$88.89	5A	4D		View
King	Electricians - Powerline Construction	Certified Line Welder	\$81.65	5A	4D		View
King	Electricians - Powerline Construction	Groundperson	\$52.91	5A	4D		View
King	Electricians - Powerline Construction	Heavy Line Equipment Operator	\$81.65	5A	4D		View
King	Electricians - Powerline Construction	Journey Level Lineperson	\$81.65	5A	4D		View
King	Electricians - Powerline Construction	Line Equipment Operator	\$70.02	5A	4D		View
King	Electricians - Powerline Construction	Meter Installer	\$52.91	5A	4D	8W	View
King	Electricians - Powerline Construction	Pole Sprayer	\$81.65	5A	4D		View
King	Electricians - Powerline Construction	Powderperson	\$60.75	5A	4D		View
King	Electronic Technicians	Journey Level	\$60.10	7E	1E		View
King	Elevator Constructors	Mechanic	\$103.81	7D	4A		View
King	Elevator Constructors	Mechanic In Charge	\$112.09	7D	4A		View

King	Fabricated Precast Concrete Products	All Classifications - In-Factory Work Only	\$20.62	5B	1R		View
King	Fence Erectors	Fence Erector	\$48.14	15J	4V	8Y	View
King	Fence Erectors	Fence Laborer	\$48.14	15J	4V	8Y	View
King	Flaggers	Journey Level	\$48.14	15J	4V	8Y	View
King	Glaziers	Journey Level	\$75.91	7L	1Y		View
King	Heat & Frost Insulators And Asbestos Workers	Journey Level	\$84.58	15H	11C		View
King	Heating Equipment Mechanics	Journey Level	\$94.11	7F	1E		View
King	Hod Carriers & Mason Tenders	Journey Level	\$59.85	15J	4V	8Y	View
King	Industrial Power Vacuum Cleaner	Journey Level	\$15.74		1		View
King	Inland Boatmen	Boat Operator	\$61.41	5B	1K		View
King	Inland Boatmen	Cook	\$56.48	5B	1K		View
King	Inland Boatmen	Deckhand	\$57.48	5B	1K		View
King	Inland Boatmen	Deckhand Engineer	\$58.81	5B	1K		View
King	Inland Boatmen	Launch Operator	\$58.89	5B	1K		View
King	Inland Boatmen	Mate	\$57.31	5B	1K		View
King	Inspection/Cleaning/Sealing Of Sewer & Water Systems By Remote Control	Cleaner Operator, Foamer Operator	\$31.49		1		View
King	Inspection/Cleaning/Sealing Of Sewer & Water Systems By Remote Control	Grout Truck Operator	\$15.74		1		View
King	Inspection/Cleaning/Sealing Of Sewer & Water Systems By Remote Control	Head Operator	\$24.91		1		View
King	Inspection/Cleaning/Sealing Of Sewer & Water Systems By Remote Control	Technician	\$19.33		1		View
King	Inspection/Cleaning/Sealing Of Sewer & Water Systems By Remote Control	Tv Truck Operator	\$20.45		1		View
King	Insulation Applicators	Journey Level	\$71.53	15J	4C		View
King	Ironworkers	Journeyman	\$82.03	7N	1O		View
King	Laborers	Air, Gas Or Electric Vibrating Screed	\$56.80	15J	4V	8Y	View
King	Laborers	Airtrac Drill Operator	\$58.56	15J	4V	8Y	View
King	Laborers	Ballast Regular Machine	\$56.80	15J	4V	8Y	View
King	Laborers	Batch Weighman	\$48.14	15J	4V	8Y	View
King	Laborers	Brick Pavers	\$56.80	15J	4V	8Y	View
King	Laborers	Brush Cutter	\$56.80	15J	4V	8Y	View
King	Laborers	Brush Hog Feeder	\$56.80	15J	4V	8Y	View
King	Laborers	Burner	\$56.80	15J	4V	8Y	View
King	Laborers	Caisson Worker	\$58.56	15J	4V	8Y	View
King	Laborers	Carpenter Tender	\$56.80	15J	4V	8Y	View
King	Laborers	Cement Dumper-paving	\$57.84	15J	4V	8Y	View
King	Laborers	Cement Finisher Tender	\$56.80	15J	4V	8Y	View
King	Laborers	Change House Or Dry Shack	\$56.80	15J	4V	8Y	View

King	Laborers	Chipping Gun (30 Lbs. And Over)	\$57.84	15J	4V	8Y	View
King	Laborers	Chipping Gun (Under 30 Lbs.)	\$56.80	15J	4V	8Y	View
King	Laborers	Choker Setter	\$56.80	15J	4V	8Y	View
King	Laborers	Chuck Tender	\$56.80	15J	4V	8Y	View
King	Laborers	Clary Power Spreader	\$57.84	15J	4V	8Y	View
King	Laborers	Clean-up Laborer	\$56.80	15J	4V	8Y	View
King	Laborers	Concrete Dumper/Chute Operator	\$57.84	15J	4V	8Y	View
King	Laborers	Concrete Form Stripper	\$56.80	15J	4V	8Y	View
King	Laborers	Concrete Placement Crew	\$57.84	15J	4V	8Y	View
King	Laborers	Concrete Saw Operator/Core Driller	\$57.84	15J	4V	8Y	View
King	Laborers	Crusher Feeder	\$48.14	15J	4V	8Y	View
King	Laborers	Curing Laborer	\$56.80	15J	4V	8Y	View
King	Laborers	Demolition: Wrecking & Moving (Incl. Charred Material)	\$56.80	15J	4V	8Y	View
King	Laborers	Ditch Digger	\$56.80	15J	4V	8Y	View
King	Laborers	Diver	\$58.56	15J	4V	8Y	View
King	Laborers	Drill Operator (Hydraulic, Diamond)	\$57.84	15J	4V	8Y	View
King	Laborers	Dry Stack Walls	\$56.80	15J	4V	8Y	View
King	Laborers	Dump Person	\$56.80	15J	4V	8Y	View
King	Laborers	Epoxy Technician	\$56.80	15J	4V	8Y	View
King	Laborers	Erosion Control Worker	\$56.80	15J	4V	8Y	View
King	Laborers	Faller & Bucker Chain Saw	\$57.84	15J	4V	8Y	View
King	Laborers	Fine Graders	\$56.80	15J	4V	8Y	View
King	Laborers	Firewatch	\$48.14	15J	4V	8Y	View
King	Laborers	Form Setter	\$57.84	15J	4V	8Y	View
King	Laborers	Gabian Basket Builders	\$56.80	15J	4V	8Y	View
King	Laborers	General Laborer	\$56.80	15J	4V	8Y	View
King	Laborers	Grade Checker & Transit Person	\$59.85	15J	4V	8Y	View
King	Laborers	Grinders	\$56.80	15J	4V	8Y	View
King	Laborers	Grout Machine Tender	\$56.80	15J	4V	8Y	View
King	Laborers	Groutmen (Pressure) Including Post Tension Beams	\$57.84	15J	4V	8Y	View
King	Laborers	Guardrail Erector	\$56.80	15J	4V	8Y	View
King	Laborers	Hazardous Waste Worker (Level A)	\$58.56	15J	4V	8Y	View
King	Laborers	Hazardous Waste Worker (Level B)	\$57.84	15J	4V	8Y	View
King	Laborers	Hazardous Waste Worker (Level C)	\$56.80	15J	4V	8Y	View
King	Laborers	High Scaler	\$58.56	15J	4V	8Y	View
King	Laborers	Jackhammer	\$57.84	15J	4V	8Y	View
King	Laborers	Laserbeam Operator	\$57.84	15J	4V	8Y	View
King	Laborers	Maintenance Person	\$56.80	15J	4V	8Y	View
King	Laborers	Manhole Builder-Mudman	\$57.84	15J	4V	8Y	View

King	Laborers	Material Yard Person	\$56.80	15J	4V	8Y	View
King	Laborers	Mold Abatement Worker	\$56.80	15J	4V	8Y	View
King	Laborers	Motorman-Dinky Locomotive	\$59.95	15J	4V	8Y	View
King	Laborers	nozzleman (concrete pump, green cutter when using combination of high pressure air & water on concrete & rock, sandblast, gunite, shotcrete, water blaster, vacuum blaster)	\$59.85	15J	4V	8Y	View
King	Laborers	Pavement Breaker	\$57.84	15J	4V	8Y	View
King	Laborers	Pilot Car	\$48.14	15J	4V	8Y	View
King	Laborers	Pipe Layer (Lead)	\$59.85	15J	4V	8Y	View
King	Laborers	Pipe Layer/Tailor	\$57.84	15J	4V	8Y	View
King	Laborers	Pipe Pot Tender	\$57.84	15J	4V	8Y	View
King	Laborers	Pipe Reliner	\$57.84	15J	4V	8Y	View
King	Laborers	Pipe Wrapper	\$57.84	15J	4V	8Y	View
King	Laborers	Pot Tender	\$56.80	15J	4V	8Y	View
King	Laborers	Powderman	\$58.56	15J	4V	8Y	View
King	Laborers	Powderman's Helper	\$56.80	15J	4V	8Y	View
King	Laborers	Power Jacks	\$57.84	15J	4V	8Y	View
King	Laborers	Railroad Spike Puller - Power	\$57.84	15J	4V	8Y	View
King	Laborers	Raker - Asphalt	\$59.85	15J	4V	8Y	View
King	Laborers	Re-timberman	\$58.56	15J	4V	8Y	View
King	Laborers	Remote Equipment Operator	\$57.84	15J	4V	8Y	View
King	Laborers	Rigger/Signal Person	\$57.84	15J	4V	8Y	View
King	Laborers	Rip Rap Person	\$56.80	15J	4V	8Y	View
King	Laborers	Rivet Buster	\$57.84	15J	4V	8Y	View
King	Laborers	Rodder	\$57.84	15J	4V	8Y	View
King	Laborers	Scaffold Erector	\$56.80	15J	4V	8Y	View
King	Laborers	Scale Person	\$56.80	15J	4V	8Y	View
King	Laborers	Sloper (Over 20")	\$57.84	15J	4V	8Y	View
King	Laborers	Sloper Sprayer	\$56.80	15J	4V	8Y	View
King	Laborers	Spreader (Concrete)	\$57.84	15J	4V	8Y	View
King	Laborers	Stake Hopper	\$56.80	15J	4V	8Y	View
King	Laborers	Stock Piler	\$56.80	15J	4V	8Y	View
King	Laborers	Swinging Stage/Boatswain Chair	\$48.14	15J	4V	8Y	View
King	Laborers	Tamper & Similar Electric, Air & Gas Operated Tools	\$57.84	15J	4V	8Y	View
King	Laborers	Tamper (Multiple & Self-propelled)	\$57.84	15J	4V	8Y	View
King	Laborers	Timber Person - Sewer (Lagger, Shorer & Cribber)	\$57.84	15J	4V	8Y	View
King	Laborers	Toolroom Person (at Jobsite)	\$56.80	15J	4V	8Y	View
King	Laborers	Topper	\$56.80	15J	4V	8Y	View
King	Laborers	Track Laborer	\$56.80	15J	4V	8Y	View
King	Laborers	Track Liner (Power)	\$57.84	15J	4V	8Y	View
King	Laborers	Traffic Control Laborer	\$51.48	15J	4V	9C	View

King	Laborers	Traffic Control Supervisor	\$54.55	15J	4V	9C	View
King	Laborers	Truck Spotter	\$56.80	15J	4V	8Y	View
King	Laborers	Tugger Operator	\$57.84	15J	4V	8Y	View
King	Laborers	Tunnel Work-Compressed Air Worker 0-30 psi	\$158.87	15J	4V	9B	View
King	Laborers	Tunnel Work-Compressed Air Worker 30.01-44.00 psi	\$163.90	15J	4V	9B	View
King	Laborers	Tunnel Work-Compressed Air Worker 44.01-54.00 psi	\$167.58	15J	4V	9B	View
King	Laborers	Tunnel Work-Compressed Air Worker 54.01-60.00 psi	\$173.28	15J	4V	9B	View
King	Laborers	Tunnel Work-Compressed Air Worker 60.01-64.00 psi	\$175.40	15J	4V	9B	View
King	Laborers	Tunnel Work-Compressed Air Worker 64.01-68.00 psi	\$180.50	15J	4V	9B	View
King	Laborers	Tunnel Work-Compressed Air Worker 68.01-70.00 psi	\$182.40	15J	4V	9B	View
King	Laborers	Tunnel Work-Compressed Air Worker 70.01-72.00 psi	\$184.40	15J	4V	9B	View
King	Laborers	Tunnel Work-Compressed Air Worker 72.01-74.00 psi	\$186.40	15J	4V	9B	View
King	Laborers	Tunnel Work-Guage and Lock Tender	\$59.95	15J	4V	8Y	View
King	Laborers	Tunnel Work-Miner	\$59.95	15J	4V	8Y	View
King	Laborers	Vibrator	\$57.84	15J	4V	8Y	View
King	Laborers	Vinyl Seamer	\$56.80	15J	4V	8Y	View
King	Laborers	Watchman	\$43.76	15J	4V	8Y	View
King	Laborers	Welder	\$57.84	15J	4V	8Y	View
King	Laborers	Well Point Laborer	\$57.84	15J	4V	8Y	View
King	Laborers	Window Washer/Cleaner	\$43.76	15J	4V	8Y	View
King	Laborers - Underground Sewer & Water	General Laborer & Topman	\$56.80	15J	4V	8Y	View
King	Laborers - Underground Sewer & Water	Pipe Layer	\$57.84	15J	4V	8Y	View
King	Landscape Construction	Landscape Construction/Landscaping Or Planting Laborers	\$43.76	15J	4V	8Y	View
King	Landscape Construction	Landscape Operator	\$78.80	15J	11G	8X	View
King	Landscape Maintenance	Groundskeeper	\$17.87		1		View
King	Lathers	Journey Level	\$71.53	15J	4C		View
King	Marble Setters	Journey Level	\$66.32	7E	1N		View
King	Metal Fabrication (In Shop)	Fitter/Certified Welder	\$42.17	15I	11E		View
King	Metal Fabrication (In Shop)	General Laborer	\$30.07	15I	11E		View
King	Metal Fabrication (In Shop)	Mechanic	\$43.63	15I	11E		View
King	Metal Fabrication (In Shop)	Welder/Burner	\$39.28	15I	11E		View
King	Millwright	Journey Level	\$73.08	15J	4C		View
King	Modular Buildings	Cabinet Assembly	\$15.74		1		View
King	Modular Buildings	Electrician	\$15.74		1		View
King	Modular Buildings	Equipment Maintenance	\$15.74		1		View
King	Modular Buildings	Plumber	\$15.74		1		View

King	Modular Buildings	Production Worker	\$15.74		<u>1</u>		View
King	Modular Buildings	Tool Maintenance	\$15.74		<u>1</u>		View
King	Modular Buildings	Utility Person	\$15.74		<u>1</u>		View
King	Modular Buildings	Welder	\$15.74		<u>1</u>		View
King	Painters	Journey Level	\$49.46	<u>6Z</u>	<u>11J</u>		View
King	Pile Driver	Crew Tender	\$77.16	<u>15J</u>	<u>4C</u>		View
King	Pile Driver	Journey Level	\$71.98	<u>15J</u>	<u>4C</u>		View
King	Plasterers	Journey Level	\$67.49	<u>7Q</u>	<u>1R</u>		View
King	Plasterers	Nozzleman	\$71.49	<u>7Q</u>	<u>1R</u>		View
King	Playground & Park Equipment Installers	Journey Level	\$15.74		<u>1</u>		View
King	Plumbers & Pipefitters	Journey Level	\$95.69	<u>6Z</u>	<u>1G</u>		View
King	Power Equipment Operators	Asphalt Plant Operators	\$80.12	<u>15J</u>	<u>11G</u>	<u>8X</u>	View
King	Power Equipment Operators	Assistant Engineer	\$75.35	<u>15J</u>	<u>11G</u>	<u>8X</u>	View
King	Power Equipment Operators	Barrier Machine (zipper)	\$79.41	<u>15J</u>	<u>11G</u>	<u>8X</u>	View
King	Power Equipment Operators	Batch Plant Operator: concrete	\$79.41	<u>15J</u>	<u>11G</u>	<u>8X</u>	View
King	Power Equipment Operators	Boat Operator	\$80.33	<u>7A</u>	<u>11H</u>	<u>8X</u>	View
King	Power Equipment Operators	Bobcat	\$75.35	<u>15J</u>	<u>11G</u>	<u>8X</u>	View
King	Power Equipment Operators	Brokk - Remote Demolition Equipment	\$75.35	<u>15J</u>	<u>11G</u>	<u>8X</u>	View
King	Power Equipment Operators	Brooms	\$75.35	<u>15J</u>	<u>11G</u>	<u>8X</u>	View
King	Power Equipment Operators	Bump Cutter	\$79.41	<u>15J</u>	<u>11G</u>	<u>8X</u>	View
King	Power Equipment Operators	Cableways	\$80.12	<u>15J</u>	<u>11G</u>	<u>8X</u>	View
King	Power Equipment Operators	Chipper	\$79.41	<u>15J</u>	<u>11G</u>	<u>8X</u>	View
King	Power Equipment Operators	Compressor	\$75.35	<u>15J</u>	<u>11G</u>	<u>8X</u>	View
King	Power Equipment Operators	Concrete Finish Machine - Laser Screed	\$75.35	<u>15J</u>	<u>11G</u>	<u>8X</u>	View
King	Power Equipment Operators	Concrete Pump - Mounted Or Trailer High Pressure Line Pump, Pump High Pressure	\$78.80	<u>15J</u>	<u>11G</u>	<u>8X</u>	View
King	Power Equipment Operators	Concrete Pump: Truck Mount With Boom Attachment Over 42 M	\$80.12	<u>15J</u>	<u>11G</u>	<u>8X</u>	View
King	Power Equipment Operators	Concrete Pump: Truck Mount With Boom Attachment Up To 42m	\$79.41	<u>15J</u>	<u>11G</u>	<u>8X</u>	View
King	Power Equipment Operators	Conveyors	\$78.80	<u>15J</u>	<u>11G</u>	<u>8X</u>	View
King	Power Equipment Operators	Cranes Friction: 200 tons and over	\$82.76	<u>7A</u>	<u>11H</u>	<u>8X</u>	View
King	Power Equipment Operators	Cranes, A-frame: 10 tons and under	\$75.55	<u>7A</u>	<u>11H</u>	<u>8X</u>	View
King	Power Equipment Operators	Cranes: 100 tons through 199 tons, or 150' of boom (including jib with attachments)	\$81.12	<u>7A</u>	<u>11H</u>	<u>8X</u>	View
King	Power Equipment Operators	Cranes: 20 tons through 44 tons with attachments	\$79.62	<u>7A</u>	<u>11H</u>	<u>8X</u>	View
King	Power Equipment Operators	Cranes: 200 tons- 299 tons, or 250' of boom including jib with attachments	\$81.97	<u>7A</u>	<u>11H</u>	<u>8X</u>	View

King	Power Equipment Operators	Cranes: 300 tons and over or 300' of boom including jib with attachments	\$82.76	7A	11H	8X	View
King	Power Equipment Operators	Cranes: 45 tons through 99 tons, under 150' of boom(including jib with attachments)	\$80.33	7A	11H	8X	View
King	Power Equipment Operators	Cranes: Friction cranes through 199 tons	\$81.97	7A	11H	8X	View
King	Power Equipment Operators	Cranes: through 19 tons with attachments, a-frame over 10 tons	\$79.00	7A	11H	8X	View
King	Power Equipment Operators	Crusher	\$79.41	15J	11G	8X	View
King	Power Equipment Operators	Deck Engineer/Deck Winches (power)	\$79.41	15J	11G	8X	View
King	Power Equipment Operators	Derricks, On Building Work	\$80.12	15J	11G	8X	View
King	Power Equipment Operators	Dozers D-9 & Under	\$78.80	15J	11G	8X	View
King	Power Equipment Operators	Drill Oilers: Auger Type, Truck Or Crane Mount	\$78.80	15J	11G	8X	View
King	Power Equipment Operators	Drilling Machine	\$80.92	15J	11G	8X	View
King	Power Equipment Operators	Elevator and man-lift: permanent and shaft type	\$75.35	15J	11G	8X	View
King	Power Equipment Operators	Finishing Machine, Bidwell And Gamaco & Similar Equipment	\$79.41	15J	11G	8X	View
King	Power Equipment Operators	Forklift: 3000 lbs and over with attachments	\$78.80	15J	11G	8X	View
King	Power Equipment Operators	Forklifts: under 3000 lbs. with attachments	\$75.35	15J	11G	8X	View
King	Power Equipment Operators	Grade Engineer: Using Blue Prints, Cut Sheets, Etc	\$79.41	15J	11G	8X	View
King	Power Equipment Operators	Gradechecker/Stakeman	\$75.35	15J	11G	8X	View
King	Power Equipment Operators	Guardrail Punch	\$79.41	15J	11G	8X	View
King	Power Equipment Operators	Hard Tail End Dump Articulating Off- Road Equipment 45 Yards. & Over	\$80.12	15J	11G	8X	View
King	Power Equipment Operators	Hard Tail End Dump Articulating Off-road Equipment Under 45 Yards	\$79.41	15J	11G	8X	View
King	Power Equipment Operators	Horizontal/Directional Drill Locator	\$78.80	15J	11G	8X	View
King	Power Equipment Operators	Horizontal/Directional Drill Operator	\$79.41	15J	11G	8X	View
King	Power Equipment Operators	Hydralifts/Boom Trucks Over 10 Tons	\$79.00	7A	11H	8X	View
King	Power Equipment Operators	Hydralifts/boom trucks: 10 tons and under	\$75.55	7A	11H	8X	View
King	Power Equipment Operators	Leverman	\$81.75	15J	11G	8X	View
King	Power Equipment Operators	Loader, Overhead, 6 Yards. But Not Including 8 Yards	\$80.12	15J	11G	8X	View
King	Power Equipment Operators	Loaders, Overhead Under 6 Yards	\$79.41	15J	11G	8X	View
King	Power Equipment Operators	Loaders, Plant Feed	\$79.41	15J	11G	8X	View

King	Power Equipment Operators	Loaders: Elevating Type Belt	\$78.80	15J	11G	8X	View
King	Power Equipment Operators	Locomotives, All	\$79.41	15J	11G	8X	View
King	Power Equipment Operators	Material Transfer Device	\$79.41	15J	11G	8X	View
King	Power Equipment Operators	Mechanics: All (Leadmen - \$0.50 per hour over mechanic)	\$80.92	15J	11G	8X	View
King	Power Equipment Operators	Motor Patrol Graders	\$80.12	15J	11G	8X	View
King	Power Equipment Operators	Mucking Machine, Mole, Tunnel Drill, Boring, Road Header And/or Shield	\$80.12	15J	11G	8X	View
King	Power Equipment Operators	Oil Distributors, Blower Distribution & Mulch Seeding Operator	\$75.35	15J	11G	8X	View
King	Power Equipment Operators	Outside Hoists (Elevators and Manlifts), Air Tuggers, Strato	\$78.80	15J	11G	8X	View
King	Power Equipment Operators	Overhead, bridge type Crane: 20 tons through 44 tons	\$79.62	7A	11H	8X	View
King	Power Equipment Operators	Overhead, bridge type: 100 tons and over	\$81.12	7A	11H	8X	View
King	Power Equipment Operators	Overhead, bridge type: 45 tons through 99 tons	\$80.33	7A	11H	8X	View
King	Power Equipment Operators	Pavement Breaker	\$75.35	15J	11G	8X	View
King	Power Equipment Operators	Pile Driver (other Than Crane Mount)	\$79.41	15J	11G	8X	View
King	Power Equipment Operators	Plant Oiler - Asphalt, Crusher	\$78.80	15J	11G	8X	View
King	Power Equipment Operators	Posthole Digger, Mechanical	\$75.35	15J	11G	8X	View
King	Power Equipment Operators	Power Plant	\$75.35	15J	11G	8X	View
King	Power Equipment Operators	Pumps - Water	\$75.35	15J	11G	8X	View
King	Power Equipment Operators	Quad 9, Hd 41, D10 And Over	\$80.12	15J	11G	8X	View
King	Power Equipment Operators	Quick Tower: no cab, under 100 feet in height base to boom	\$79.41	15J	11G	8X	View
King	Power Equipment Operators	Remote Control Operator On Rubber Tired Earth Moving Equipment	\$80.12	15J	11G	8X	View
King	Power Equipment Operators	Rigger and Bellman	\$75.55	7A	11H	8X	View
King	Power Equipment Operators	Rigger/Signal Person, Bellman(Certified)	\$79.00	7A	11H	8X	View
King	Power Equipment Operators	Rollagon	\$80.12	15J	11G	8X	View
King	Power Equipment Operators	Roller, Other Than Plant Mix	\$75.35	15J	11G	8X	View
King	Power Equipment Operators	Roller, Plant Mix Or Multi-lift Materials	\$78.80	15J	11G	8X	View
King	Power Equipment Operators	Roto-mill, Roto-grinder	\$79.41	15J	11G	8X	View
King	Power Equipment Operators	Saws - Concrete	\$78.80	15J	11G	8X	View
King	Power Equipment Operators	Scraper, Self Propelled Under 45 Yards	\$79.41	15J	11G	8X	View
King	Power Equipment Operators	Scrapers - Concrete & Carry All	\$78.80	15J	11G	8X	View
King	Power Equipment Operators	Scrapers, Self-propelled: 45 Yards And Over	\$80.12	15J	11G	8X	View
King	Power Equipment Operators	Service Engineers: Equipment	\$78.80	15J	11G	8X	View
King	Power Equipment Operators	Shotcrete/Gunite Equipment	\$75.35	15J	11G	8X	View

King	Power Equipment Operators	Shovel, Excavator, Backhoe, Tractors Under 15 Metric Tons	\$78.80	15J	11G	8X	View
King	Power Equipment Operators	Shovel, Excavator, Backhoe: Over 30 Metric Tons To 50 Metric Tons	\$80.12	15J	11G	8X	View
King	Power Equipment Operators	Shovel, Excavator, Backhoes, Tractors: 15 To 30 Metric Tons	\$79.41	15J	11G	8X	View
King	Power Equipment Operators	Shovel, Excavator, Backhoes: Over 50 Metric Tons To 90 Metric Tons	\$80.92	15J	11G	8X	View
King	Power Equipment Operators	Shovel, Excavator, Backhoes: Over 90 Metric Tons	\$81.75	15J	11G	8X	View
King	Power Equipment Operators	Slipform Pavers	\$80.12	15J	11G	8X	View
King	Power Equipment Operators	Spreader, Topsider & Screedman	\$80.12	15J	11G	8X	View
King	Power Equipment Operators	Subgrader Trimmer	\$79.41	15J	11G	8X	View
King	Power Equipment Operators	Tower Bucket Elevators	\$78.80	15J	11G	8X	View
King	Power Equipment Operators	Tower Crane: over 175' through 250' in height, base to boom	\$81.97	7A	11H	8X	View
King	Power Equipment Operators	Tower crane: up to 175' in height base to boom	\$81.12	7A	11H	8X	View
King	Power Equipment Operators	Tower Cranes: over 250' in height from base to boom	\$82.76	7A	11H	8X	View
King	Power Equipment Operators	Transporters, All Track Or Truck Type	\$80.12	15J	11G	8X	View
King	Power Equipment Operators	Trenching Machines	\$78.80	15J	11G	8X	View
King	Power Equipment Operators	Truck Crane Oiler/Driver: 100 tons and over	\$79.62	7A	11H	8X	View
King	Power Equipment Operators	Truck crane oiler/driver: under 100 tons	\$79.00	7A	11H	8X	View
King	Power Equipment Operators	Truck Mount Portable Conveyor	\$79.41	15J	11G	8X	View
King	Power Equipment Operators	Vac Truck (Vactor Guzzler, Hydro Excavator)	\$79.41	15J	11G	8X	View
King	Power Equipment Operators	Welder	\$80.12	15J	11G	8X	View
King	Power Equipment Operators	Wheel Tractors, Farmall Type	\$75.35	15J	11G	8X	View
King	Power Equipment Operators	Yo Yo Pay Dozer	\$79.41	15J	11G	8X	View
King	Power Equipment Operators-Underground Sewer & Water	Asphalt Plant Operators	\$80.12	15J	11G	8X	View
King	Power Equipment Operators-Underground Sewer & Water	Assistant Engineer	\$75.35	15J	11G	8X	View
King	Power Equipment Operators-Underground Sewer & Water	Barrier Machine (zipper)	\$79.41	15J	11G	8X	View
King	Power Equipment Operators-Underground Sewer & Water	Batch Plant Operator, Concrete	\$79.41	15J	11G	8X	View
King	Power Equipment Operators-Underground Sewer & Water	Boat Operator	\$80.33	7A	11H	8X	View
King	Power Equipment Operators-Underground Sewer & Water	Bobcat	\$75.35	15J	11G	8X	View
King	Power Equipment Operators-Underground Sewer & Water	Brokk - Remote Demolition Equipment	\$75.35	15J	11G	8X	View
King	Power Equipment Operators-Underground Sewer & Water	Brooms	\$75.35	15J	11G	8X	View

King	Power Equipment Operators-Underground Sewer & Water	Bump Cutter	\$79.41	15J	11G	8X	View
King	Power Equipment Operators-Underground Sewer & Water	Cableways	\$80.12	15J	11G	8X	View
King	Power Equipment Operators-Underground Sewer & Water	Chipper	\$79.41	15J	11G	8X	View
King	Power Equipment Operators-Underground Sewer & Water	Compressor	\$75.35	15J	11G	8X	View
King	Power Equipment Operators-Underground Sewer & Water	Concrete Finish Machine - Laser Screed	\$75.35	15J	11G	8X	View
King	Power Equipment Operators-Underground Sewer & Water	Concrete Pump - Mounted Or Trailer High Pressure Line Pump, Pump High Pressure	\$78.80	15J	11G	8X	View
King	Power Equipment Operators-Underground Sewer & Water	Concrete Pump: Truck Mount With Boom Attachment Over 42 M	\$80.12	15J	11G	8X	View
King	Power Equipment Operators-Underground Sewer & Water	Concrete Pump: Truck Mount With Boom Attachment Up To 42m	\$79.41	15J	11G	8X	View
King	Power Equipment Operators-Underground Sewer & Water	Conveyors	\$78.80	15J	11G	8X	View
King	Power Equipment Operators-Underground Sewer & Water	Cranes Friction: 200 tons and over	\$82.76	7A	11H	8X	View
King	Power Equipment Operators-Underground Sewer & Water	Cranes, A-frame: 10 tons and under	\$75.55	7A	11H	8X	View
King	Power Equipment Operators-Underground Sewer & Water	Cranes: 100 tons through 199 tons, or 150' of boom (including jib with attachments)	\$81.12	7A	11H	8X	View
King	Power Equipment Operators-Underground Sewer & Water	Cranes: 20 tons through 44 tons with attachments	\$79.62	7A	11H	8X	View
King	Power Equipment Operators-Underground Sewer & Water	Cranes: 20 tons through 44 tons with attachments	\$79.62	7A	11H	8X	View
King	Power Equipment Operators-Underground Sewer & Water	Cranes: 200 tons- 299 tons, or 250' of boom including jib with attachments	\$81.97	7A	11H	8X	View
King	Power Equipment Operators-Underground Sewer & Water	Cranes: 300 tons and over or 300' of boom including jib with attachments	\$82.76	7A	11H	8X	View
King	Power Equipment Operators-Underground Sewer & Water	Cranes: 45 tons through 99 tons, under 150' of boom(including jib with attachments)	\$80.33	7A	11H	8X	View
King	Power Equipment Operators-Underground Sewer & Water	Cranes: Friction cranes through 199 tons	\$81.97	7A	11H	8X	View
King	Power Equipment Operators-Underground Sewer & Water	Cranes: through 19 tons with attachments, a-frame over 10 tons	\$79.00	7A	11H	8X	View
King	Power Equipment Operators-Underground Sewer & Water	Crusher	\$79.41	15J	11G	8X	View
King	Power Equipment Operators-Underground Sewer & Water	Deck Engineer/Deck Winches (power)	\$79.41	15J	11G	8X	View
King	Power Equipment Operators-Underground Sewer & Water	Derricks, On Building Work	\$80.12	15J	11G	8X	View

King	Power Equipment Operators-Underground Sewer & Water	Dozers D-9 & Under	\$78.80	15J	11G	8X	View
King	Power Equipment Operators-Underground Sewer & Water	Drill Oilers: Auger Type, Truck Or Crane Mount	\$78.80	15J	11G	8X	View
King	Power Equipment Operators-Underground Sewer & Water	Drilling Machine	\$80.92	15J	11G	8X	View
King	Power Equipment Operators-Underground Sewer & Water	Elevator and man-lift: permanent and shaft type	\$75.35	15J	11G	8X	View
King	Power Equipment Operators-Underground Sewer & Water	Finishing Machine, Bidwell And Gamaco & Similar Equipment	\$79.41	15J	11G	8X	View
King	Power Equipment Operators-Underground Sewer & Water	Forklift: 3000 lbs and over with attachments	\$78.80	15J	11G	8X	View
King	Power Equipment Operators-Underground Sewer & Water	Forklifts: under 3000 lbs. with attachments	\$75.35	15J	11G	8X	View
King	Power Equipment Operators-Underground Sewer & Water	Grade Engineer: Using Blue Prints, Cut Sheets, Etc	\$79.41	15J	11G	8X	View
King	Power Equipment Operators-Underground Sewer & Water	Gradechecker/Stakeman	\$75.35	15J	11G	8X	View
King	Power Equipment Operators-Underground Sewer & Water	Guardrail Punch	\$79.41	15J	11G	8X	View
King	Power Equipment Operators-Underground Sewer & Water	Hard Tail End Dump Articulating Off- Road Equipment 45 Yards. & Over	\$80.12	15J	11G	8X	View
King	Power Equipment Operators-Underground Sewer & Water	Hard Tail End Dump Articulating Off-road Equipment Under 45 Yards	\$79.41	15J	11G	8X	View
King	Power Equipment Operators-Underground Sewer & Water	Horizontal/Directional Drill Locator	\$78.80	15J	11G	8X	View
King	Power Equipment Operators-Underground Sewer & Water	Horizontal/Directional Drill Operator	\$79.41	15J	11G	8X	View
King	Power Equipment Operators-Underground Sewer & Water	Hydralifts/boom trucks: 10 tons and under	\$75.55	7A	11H	8X	View
King	Power Equipment Operators-Underground Sewer & Water	Hydralifts/boom trucks: over 10 tons	\$79.00	7A	11H	8X	View
King	Power Equipment Operators-Underground Sewer & Water	Leverman	\$81.75	15J	11G	8X	View
King	Power Equipment Operators-Underground Sewer & Water	Loader, Overhead, 6 Yards. But Not Including 8 Yards	\$80.12	15J	11G	8X	View
King	Power Equipment Operators-Underground Sewer & Water	Loaders, Overhead Under 6 Yards	\$79.41	15J	11G	8X	View
King	Power Equipment Operators-Underground Sewer & Water	Loaders, Plant Feed	\$79.41	15J	11G	8X	View
King	Power Equipment Operators-Underground Sewer & Water	Loaders: Elevating Type Belt	\$78.80	15J	11G	8X	View
King	Power Equipment Operators-Underground Sewer & Water	Locomotives, All	\$79.41	15J	11G	8X	View
King	Power Equipment Operators-Underground Sewer & Water	Material Transfer Device	\$79.41	15J	11G	8X	View
King	Power Equipment Operators-Underground Sewer & Water	Mechanics: All (Leadmen - \$0.50 per hour over mechanic)	\$80.92	15J	11G	8X	View
King	Power Equipment Operators-Underground Sewer & Water	Motor Patrol Graders	\$80.12	15J	11G	8X	View

King	Power Equipment Operators-Underground Sewer & Water	Mucking Machine, Mole, Tunnel Drill, Boring, Road Header And/or Shield	\$80.12	15J	11G	8X	View
King	Power Equipment Operators-Underground Sewer & Water	Oil Distributors, Blower Distribution & Mulch Seeding Operator	\$75.35	15J	11G	8X	View
King	Power Equipment Operators-Underground Sewer & Water	Outside Hoists (Elevators and Manlifts), Air Tuggers, Strato	\$78.80	15J	11G	8X	View
King	Power Equipment Operators-Underground Sewer & Water	Overhead, bridge type Crane: 20 tons through 44 tons	\$79.62	7A	11H	8X	View
King	Power Equipment Operators-Underground Sewer & Water	Overhead, bridge type: 100 tons and over	\$81.12	7A	11H	8X	View
King	Power Equipment Operators-Underground Sewer & Water	Overhead, bridge type: 45 tons through 99 tons	\$80.33	7A	11H	8X	View
King	Power Equipment Operators-Underground Sewer & Water	Pavement Breaker	\$75.35	15J	11G	8X	View
King	Power Equipment Operators-Underground Sewer & Water	Pile Driver (other Than Crane Mount)	\$79.41	15J	11G	8X	View
King	Power Equipment Operators-Underground Sewer & Water	Plant Oiler - Asphalt, Crusher	\$78.80	15J	11G	8X	View
King	Power Equipment Operators-Underground Sewer & Water	Posthole Digger, Mechanical	\$75.35	15J	11G	8X	View
King	Power Equipment Operators-Underground Sewer & Water	Power Plant	\$75.35	15J	11G	8X	View
King	Power Equipment Operators-Underground Sewer & Water	Pumps - Water	\$75.35	15J	11G	8X	View
King	Power Equipment Operators-Underground Sewer & Water	Quad 9, Hd 41, D10 And Over	\$80.12	15J	11G	8X	View
King	Power Equipment Operators-Underground Sewer & Water	Quick Tower: no cab, under 100 feet in height base to boom	\$79.41	15J	11G	8X	View
King	Power Equipment Operators-Underground Sewer & Water	Remote Control Operator On Rubber Tired Earth Moving Equipment	\$80.12	15J	11G	8X	View
King	Power Equipment Operators-Underground Sewer & Water	Rigger and Bellman	\$75.55	7A	11H	8X	View
King	Power Equipment Operators-Underground Sewer & Water	Rigger/Signal Person, Bellman(Certified)	\$79.00	7A	11H	8X	View
King	Power Equipment Operators-Underground Sewer & Water	Rollagon	\$80.12	15J	11G	8X	View
King	Power Equipment Operators-Underground Sewer & Water	Roller, Other Than Plant Mix	\$75.35	15J	11G	8X	View
King	Power Equipment Operators-Underground Sewer & Water	Roller, Plant Mix Or Multi-lift Materials	\$78.80	15J	11G	8X	View
King	Power Equipment Operators-Underground Sewer & Water	Roto-mill, Roto-grinder	\$79.41	15J	11G	8X	View
King	Power Equipment Operators-Underground Sewer & Water	Saws - Concrete	\$78.80	15J	11G	8X	View
King	Power Equipment Operators-Underground Sewer & Water	Scraper, Self Propelled Under 45 Yards	\$79.41	15J	11G	8X	View
King	Power Equipment Operators-Underground Sewer & Water	Scrapers - Concrete & Carry All	\$78.80	15J	11G	8X	View

King	Power Equipment Operators-Underground Sewer & Water	Scrapers, Self-propelled: 45 Yards And Over	\$80.12	15J	11G	8X	View
King	Power Equipment Operators-Underground Sewer & Water	Shotcrete/Gunite Equipment	\$75.35	15J	11G	8X	View
King	Power Equipment Operators-Underground Sewer & Water	Shovel, Excavator, Backhoe, Tractors Under 15 Metric Tons	\$78.80	15J	11G	8X	View
King	Power Equipment Operators-Underground Sewer & Water	Shovel, Excavator, Backhoe: Over 30 Metric Tons To 50 Metric Tons	\$80.12	15J	11G	8X	View
King	Power Equipment Operators-Underground Sewer & Water	Shovel, Excavator, Backhoes, Tractors: 15 To 30 Metric Tons	\$79.41	15J	11G	8X	View
King	Power Equipment Operators-Underground Sewer & Water	Shovel, Excavator, Backhoes: Over 50 Metric Tons To 90 Metric Tons	\$80.92	15J	11G	8X	View
King	Power Equipment Operators-Underground Sewer & Water	Shovel, Excavator, Backhoes: Over 90 Metric Tons	\$81.75	15J	11G	8X	View
King	Power Equipment Operators-Underground Sewer & Water	Slipform Pavers	\$80.12	15J	11G	8X	View
King	Power Equipment Operators-Underground Sewer & Water	Spreader, Topsider & Screedman	\$80.12	15J	11G	8X	View
King	Power Equipment Operators-Underground Sewer & Water	Subgrader Trimmer	\$79.41	15J	11G	8X	View
King	Power Equipment Operators-Underground Sewer & Water	Tower Bucket Elevators	\$78.80	15J	11G	8X	View
King	Power Equipment Operators-Underground Sewer & Water	Tower Crane: over 175' through 250' in height, base to boom	\$81.97	7A	11H	8X	View
King	Power Equipment Operators-Underground Sewer & Water	Tower crane: up to 175' in height base to boom	\$81.12	7A	11H	8X	View
King	Power Equipment Operators-Underground Sewer & Water	Tower Cranes: over 250' in height from base to boom	\$82.76	7A	11H	8X	View
King	Power Equipment Operators-Underground Sewer & Water	Transporters, All Track Or Truck Type	\$80.12	15J	11G	8X	View
King	Power Equipment Operators-Underground Sewer & Water	Trenching Machines	\$78.80	15J	11G	8X	View
King	Power Equipment Operators-Underground Sewer & Water	Truck Crane Oiler/Driver: 100 tons and over	\$79.62	7A	11H	8X	View
King	Power Equipment Operators-Underground Sewer & Water	Truck Crane Oiler/Driver: 100 tons and over	\$79.62	7A	11H	8X	View
King	Power Equipment Operators-Underground Sewer & Water	Truck crane oiler/driver: under 100 tons	\$79.00	7A	11H	8X	View
King	Power Equipment Operators-Underground Sewer & Water	Truck Mount Portable Conveyor	\$79.41	15J	11G	8X	View
King	Power Equipment Operators-Underground Sewer & Water	Vac Truck (Vactor Guzzler, Hydro Excavator)	\$79.41	15J	11G	8X	View
King	Power Equipment Operators-Underground Sewer & Water	Welder	\$80.12	15J	11G	8X	View
King	Power Equipment Operators-Underground Sewer & Water	Wheel Tractors, Farmall Type	\$75.35	15J	11G	8X	View
King	Power Equipment Operators-Underground Sewer & Water	Yo Yo Pay Dozer	\$79.41	15J	11G	8X	View
King	Power Line Clearance Tree Trimmers	Journey Level In Charge	\$57.22	5A	4A		View

King	Power Line Clearance Tree Trimmers	Spray Person	\$54.32	5A	4A		View
King	Power Line Clearance Tree Trimmers	Tree Equipment Operator	\$57.22	5A	4A		View
King	Power Line Clearance Tree Trimmers	Tree Trimmer	\$51.18	5A	4A		View
King	Power Line Clearance Tree Trimmers	Tree Trimmer Groundperson	\$38.99	5A	4A		View
King	Refrigeration & Air Conditioning Mechanics	Journey Level	\$91.51	6Z	1G		View
King	Residential Brick Mason	Journey Level	\$66.32	7E	1N		View
King	Residential Carpenters	Journey Level	\$36.44		1		View
King	Residential Cement Masons	Journey Level	\$46.64		1		View
King	Residential Drywall Applicators	Journey Level	\$71.53	15J	4C		View
King	Residential Drywall Tapers	Journey Level	\$36.36		1		View
King	Residential Electricians	Journey Level	\$48.80		1		View
King	Residential Glaziers	Journey Level	\$28.93		1		View
King	Residential Insulation Applicators	Journey Level	\$28.18		1		View
King	Residential Laborers	Journey Level	\$29.73		1		View
King	Residential Marble Setters	Journey Level	\$27.38		1		View
King	Residential Painters	Journey Level	\$23.47		1		View
King	Residential Plumbers & Pipefitters	Journey Level	\$95.69	6Z	1G		View
King	Residential Refrigeration & Air Conditioning Mechanics	Journey Level	\$91.51	6Z	1G		View
King	Residential Sheet Metal Workers	Journey Level	\$94.11	7F	1E		View
King	Residential Soft Floor Layers	Journey Level	\$55.54	5A	3J		View
King	Residential Sprinkler Fitters (Fire Protection)	Journey Level	\$55.95	5C	2R		View
King	Residential Stone Masons	Journey Level	\$66.32	7E	1N		View
King	Residential Terrazzo Workers	Journey Level	\$60.36	7E	1N		View
King	Residential Terrazzo/Tile Finishers	Journey Level	\$24.39		1		View
King	Residential Tile Setters	Journey Level	\$21.04		1		View
King	Roofers	Journey Level	\$59.05	5A	3H		View
King	Roofers	Using Irritable Bituminous Materials	\$62.05	5A	3H		View
King	Sheet Metal Workers	Journey Level (Field or Shop)	\$94.11	7F	1E		View
King	Shipbuilding & Ship Repair	New Construction Boilermaker	\$39.58	7V	1		View
King	Shipbuilding & Ship Repair	New Construction Carpenter	\$39.58	7V	1		View
King	Shipbuilding & Ship Repair	New Construction Crane Operator	\$39.58	7V	1		View
King	Shipbuilding & Ship Repair	New Construction Electrician	\$39.58	7V	1		View
King	Shipbuilding & Ship Repair	New Construction Heat & Frost Insulator	\$84.58	15H	11C		View
King	Shipbuilding & Ship Repair	New Construction Laborer	\$39.58	7V	1		View
King	Shipbuilding & Ship Repair	New Construction Machinist	\$39.58	7V	1		View

King	Shipbuilding & Ship Repair	New Construction Operating Engineer	\$39.58	<u>7V</u>	1		View
King	Shipbuilding & Ship Repair	New Construction Painter	\$39.58	<u>7V</u>	1		View
King	Shipbuilding & Ship Repair	New Construction Pipefitter	\$39.58	<u>7V</u>	1		View
King	Shipbuilding & Ship Repair	New Construction Rigger	\$39.58	<u>7V</u>	1		View
King	Shipbuilding & Ship Repair	New Construction Sheet Metal	\$39.58	<u>7V</u>	1		View
King	Shipbuilding & Ship Repair	New Construction Shipfitter	\$39.58	<u>7V</u>	1		View
King	Shipbuilding & Ship Repair	New Construction Warehouse/Teamster	\$39.58	<u>7V</u>	1		View
King	Shipbuilding & Ship Repair	New Construction Welder / Burner	\$39.58	<u>7V</u>	1		View
King	Shipbuilding & Ship Repair	Ship Repair Boilermaker	\$50.35	<u>7X</u>	<u>4J</u>		View
King	Shipbuilding & Ship Repair	Ship Repair Carpenter	\$50.95	<u>7X</u>	<u>4J</u>		View
King	Shipbuilding & Ship Repair	Ship Repair Crane Operator	\$45.06	<u>7Y</u>	<u>4K</u>		View
King	Shipbuilding & Ship Repair	Ship Repair Electrician	\$50.42	<u>7X</u>	<u>4J</u>		View
King	Shipbuilding & Ship Repair	Ship Repair Heat & Frost Insulator	\$84.58	<u>15H</u>	<u>11C</u>		View
King	Shipbuilding & Ship Repair	Ship Repair Laborer	\$50.95	<u>7X</u>	<u>4J</u>		View
King	Shipbuilding & Ship Repair	Ship Repair Machinist	\$50.95	<u>7X</u>	<u>4J</u>		View
King	Shipbuilding & Ship Repair	Ship Repair Operating Engineer	\$45.06	<u>7Y</u>	<u>4K</u>		View
King	Shipbuilding & Ship Repair	Ship Repair Painter	\$50.95	<u>7X</u>	<u>4J</u>		View
King	Shipbuilding & Ship Repair	Ship Repair Pipefitter	\$50.95	<u>7X</u>	<u>4J</u>		View
King	Shipbuilding & Ship Repair	Ship Repair Rigger	\$50.35	<u>7X</u>	<u>4J</u>		View
King	Shipbuilding & Ship Repair	Ship Repair Sheet Metal	\$50.35	<u>7X</u>	<u>4J</u>		View
King	Shipbuilding & Ship Repair	Ship Repair Shipwright	\$50.95	<u>7X</u>	<u>4J</u>		View
King	Shipbuilding & Ship Repair	Ship Repair Warehouse / Teamster	\$45.06	<u>7Y</u>	<u>4K</u>		View
King	Sign Makers & Installers (Electrical)	Journey Level	\$55.78	<u>Q</u>	1		View
King	Sign Makers & Installers (Non-Electrical)	Journey Level	\$35.73	<u>Q</u>	1		View
King	Soft Floor Layers	Journey Level	\$55.56	<u>5A</u>	<u>3J</u>		View
King	Solar Controls For Windows	Journey Level	\$15.74		1		View
King	Sprinkler Fitters (Fire Protection)	Journey Level	\$90.99	<u>5C</u>	<u>1X</u>		View
King	Stage Rigging Mechanics (Non Structural)	Journey Level	\$15.74		1		View
King	Stone Masons	Journey Level	\$66.32	<u>7E</u>	<u>1N</u>		View
King	Street And Parking Lot Sweeper Workers	Journey Level	\$19.09		1		View
King	Surveyors	Assistant Construction Site Surveyor	\$79.00	<u>7A</u>	<u>11H</u>	<u>8X</u>	View
King	Surveyors	Chainman	\$75.55	<u>7A</u>	<u>11H</u>	<u>8X</u>	View
King	Surveyors	Construction Site Surveyor	\$80.33	<u>7A</u>	<u>11H</u>	<u>8X</u>	View
King	Surveyors	Drone Operator (when used in conjunction with survey work only)	\$75.55	<u>7A</u>	<u>11H</u>	<u>8X</u>	View
King	Surveyors	Ground Penetrating Radar Operator	\$75.55	<u>7A</u>	<u>11H</u>	<u>8X</u>	View
King	Telecommunication Technicians	Journey Level	\$60.10	<u>7E</u>	<u>1E</u>		View

King	Telephone Line Construction - Outside	Cable Splicer	\$39.15	<u>5A</u>	<u>2B</u>		View
King	Telephone Line Construction - Outside	Hole Digger/Ground Person	\$26.29	<u>5A</u>	<u>2B</u>		View
King	Telephone Line Construction - Outside	Telephone Equipment Operator (Light)	\$32.72	<u>5A</u>	<u>2B</u>		View
King	Telephone Line Construction - Outside	Telephone Lineperson	\$37.00	<u>5A</u>	<u>2B</u>		View
King	Terrazzo Workers	Journey Level	\$60.36	<u>7E</u>	<u>1N</u>		View
King	Tile Setters	Journey Level	\$60.36	<u>7E</u>	<u>1N</u>		View
King	Tile, Marble & Terrazzo Finishers	Finisher	\$51.19	<u>7E</u>	<u>1N</u>		View
King	Traffic Control Stripers	Journey Level	\$51.90	<u>7A</u>	<u>1K</u>		View
King	Truck Drivers	Asphalt Mix Over 16 Yards	\$72.45	<u>15J</u>	<u>11M</u>	<u>8L</u>	View
King	Truck Drivers	Asphalt Mix To 16 Yards	\$71.61	<u>15J</u>	<u>11M</u>	<u>8L</u>	View
King	Truck Drivers	Dump Truck	\$71.61	<u>15J</u>	<u>11M</u>	<u>8L</u>	View
King	Truck Drivers	Dump Truck & Trailer	\$72.45	<u>15J</u>	<u>11M</u>	<u>8L</u>	View
King	Truck Drivers	Other Trucks	\$72.45	<u>15J</u>	<u>11M</u>	<u>8L</u>	View
King	Truck Drivers - Ready Mix	Transit Mix	\$72.45	<u>15J</u>	<u>11M</u>	<u>8L</u>	View
King	Well Drillers & Irrigation Pump Installers	Irrigation Pump Installer	\$17.71		<u>1</u>		View
King	Well Drillers & Irrigation Pump Installers	Oiler	\$15.74		<u>1</u>		View
King	Well Drillers & Irrigation Pump Installers	Well Driller	\$18.00		<u>1</u>		View

APPENDIX B STANDARD SEWER DETAILS

STANDARD SEWER DETAILS

The City of Mercer Island standard sewer details apply to this project and may be found at the following website address of the City of Mercer Island:

https://www.mercerisland.gov/sites/default/files/fileattachments/public_works/page/29763/standard_sewerdetails.pdf

The Standard Sewer Details found at the above website address are for reference only.

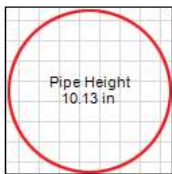
APPENDIX C FLOW MEASUREMENTS

SSMH 61-197
1/21/2016 to 7/07/2016

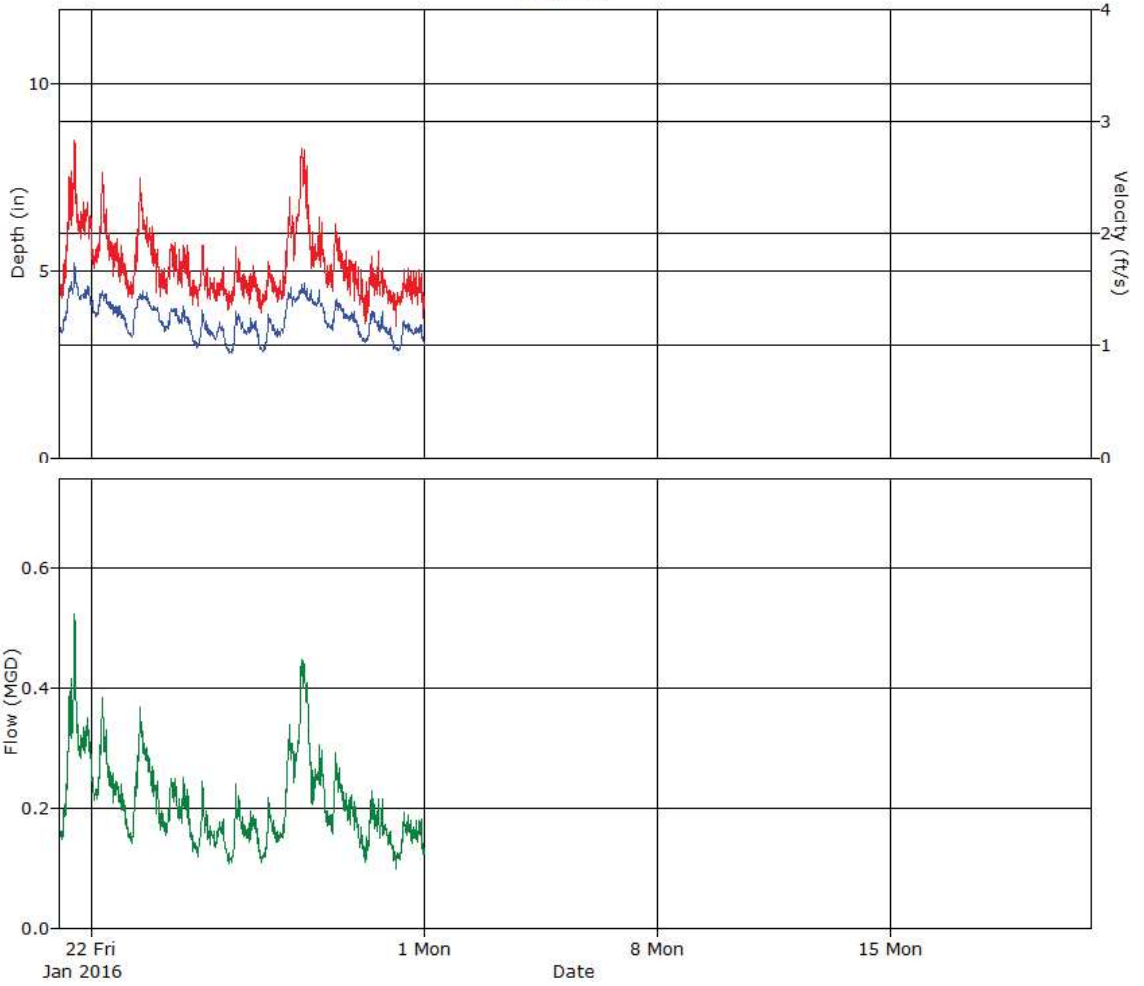
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Flow Monitor
MI_61-197



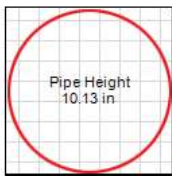
Report Period
1/21/2016
To
1/31/2016



HYDROGRAPH REPORT

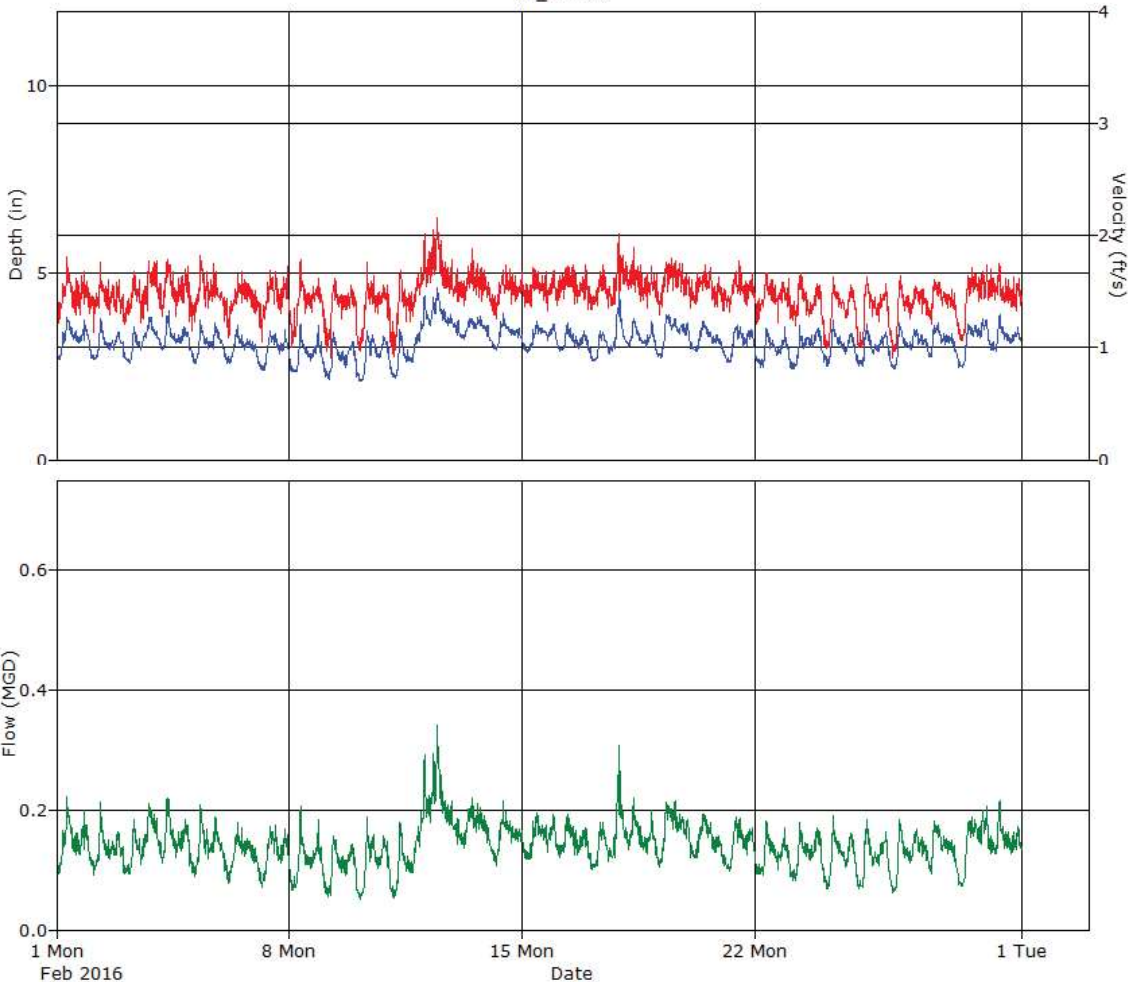
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Flow Monitor
MI_61-197



Report Period
2/1/2016
To
2/29/2016

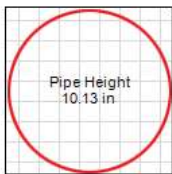
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— Depth
— Velocity
— Quantity



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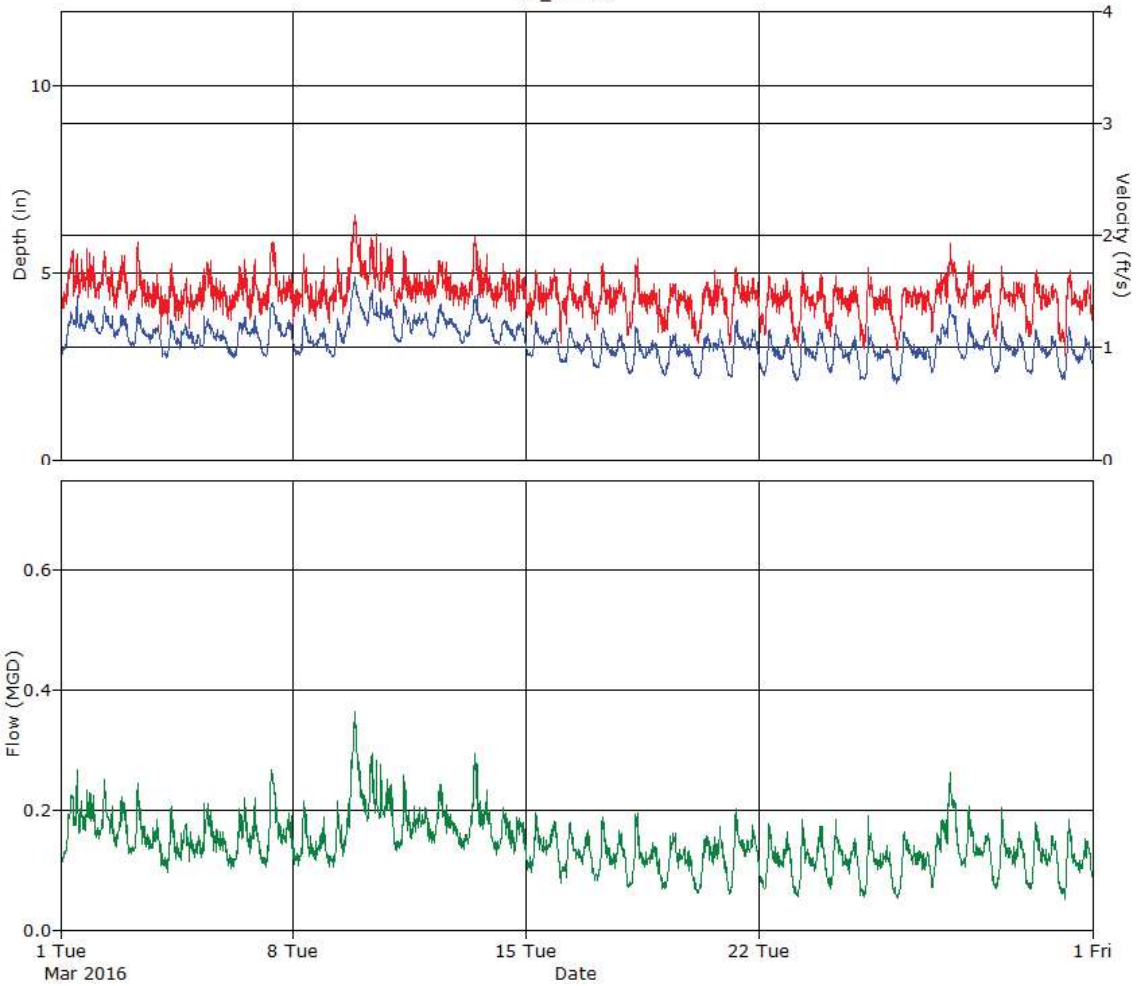
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Flow Monitor
MI_61-197



Report Period
3/1/2016
To
3/31/2016

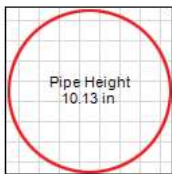
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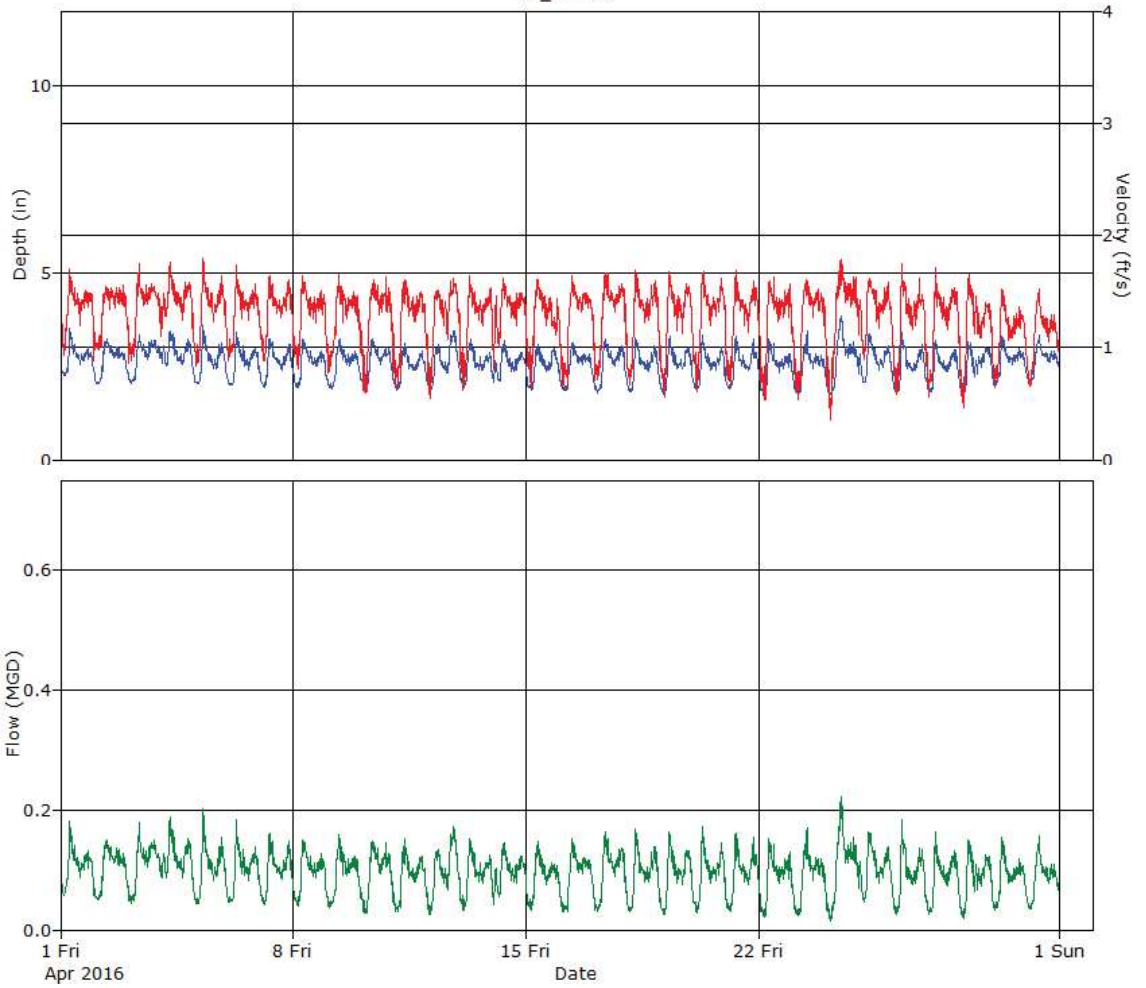
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Flow Monitor
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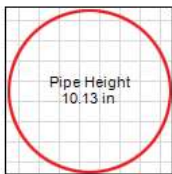
Report Period
4/1/2016
To
4/30/2016



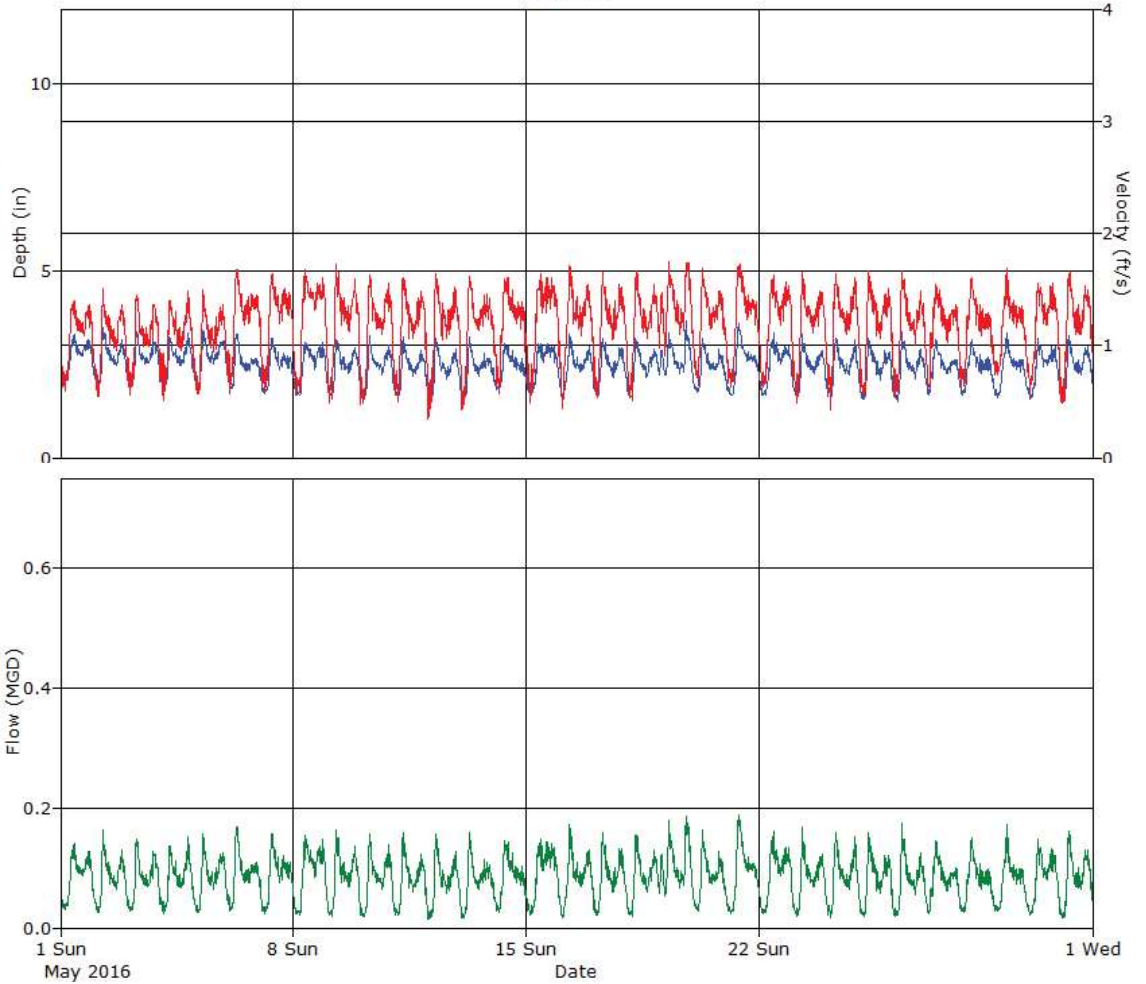
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Flow Monitor
MI_61-197



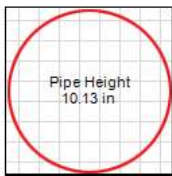
Report Period
5/1/2016
To
5/31/2016



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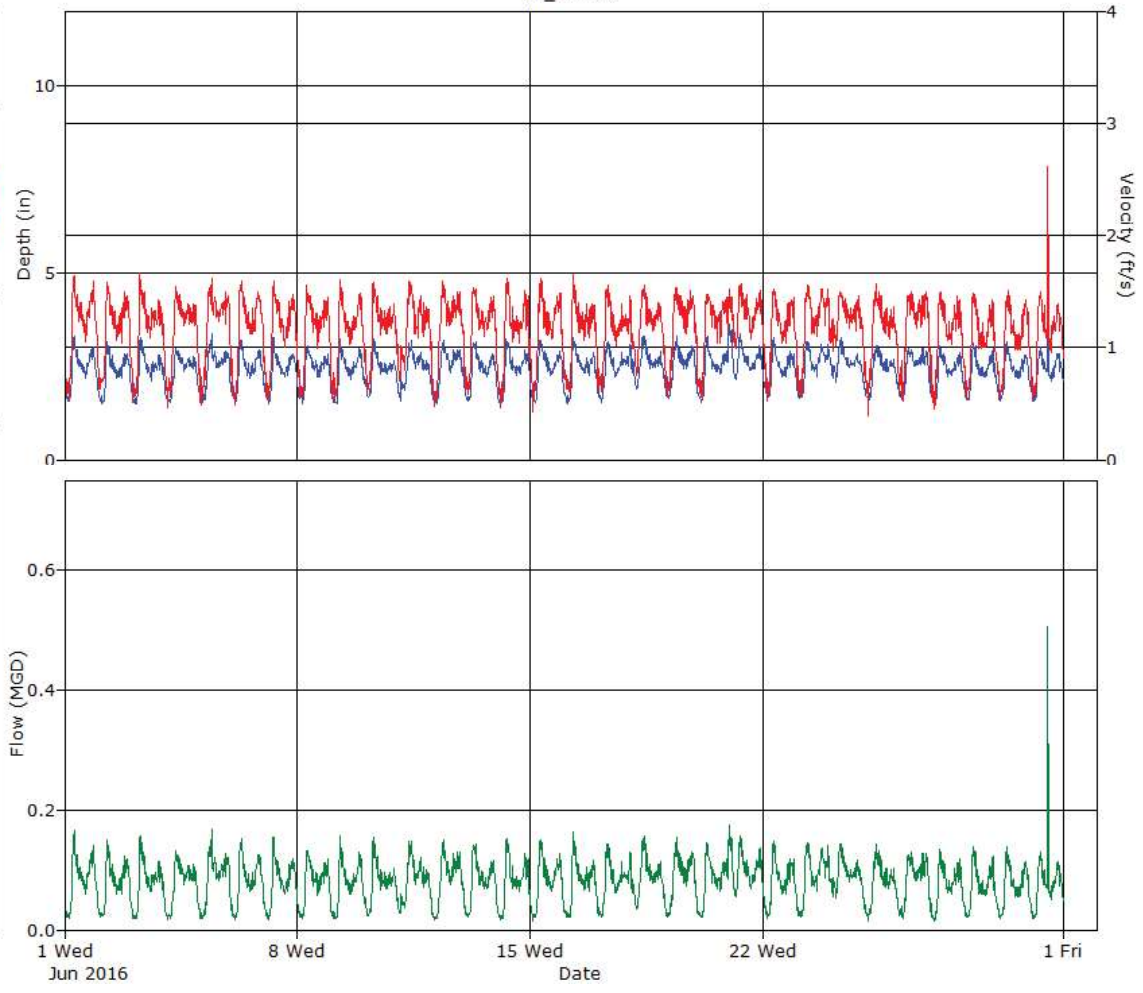
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Flow Monitor
MI_61-197



Report Period
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To
6/30/2016

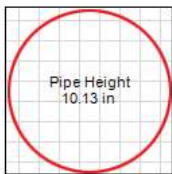
Legend
— Depth
— Velocity
— Quantity



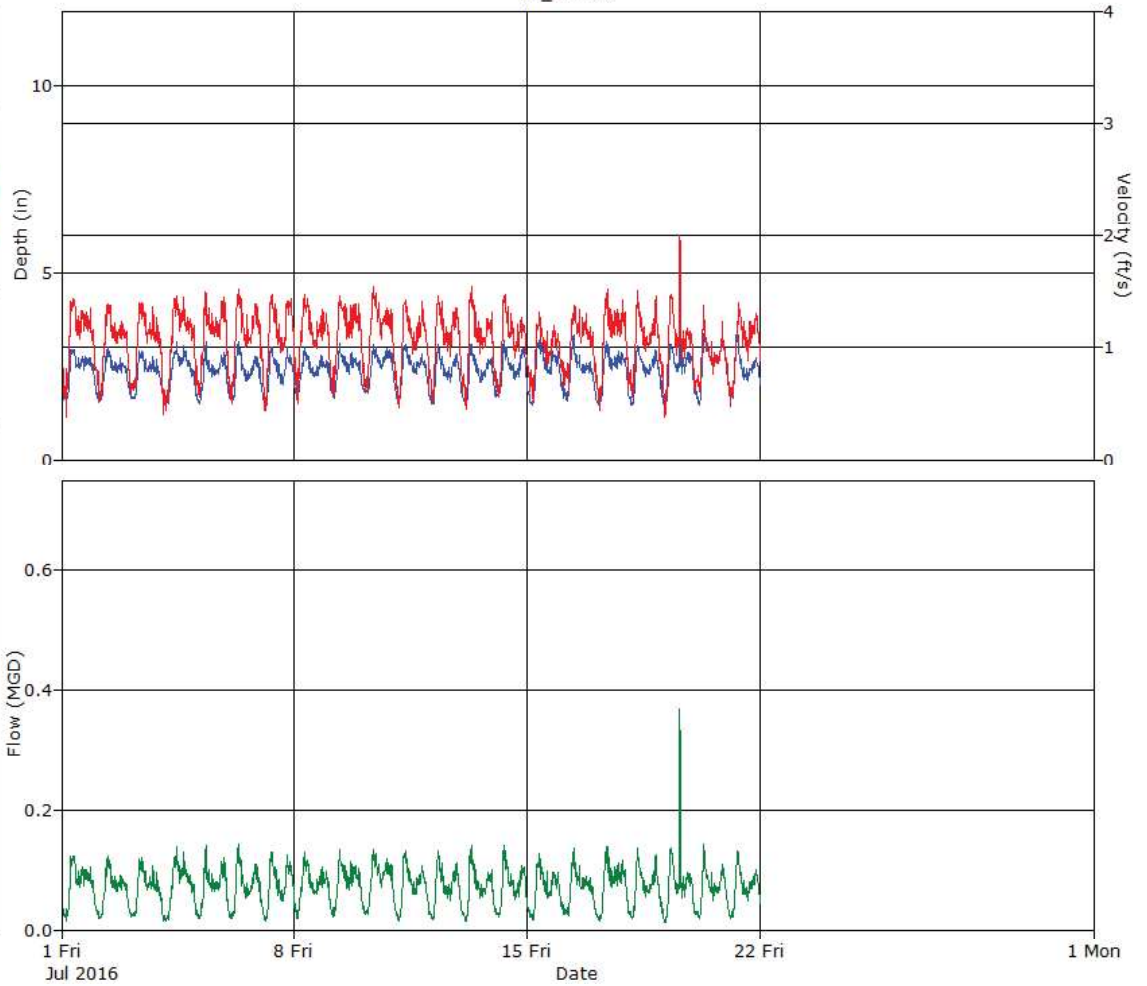
HYDROGRAPH REPORT

MI_61-197

Flow Monitor
MI_61-197



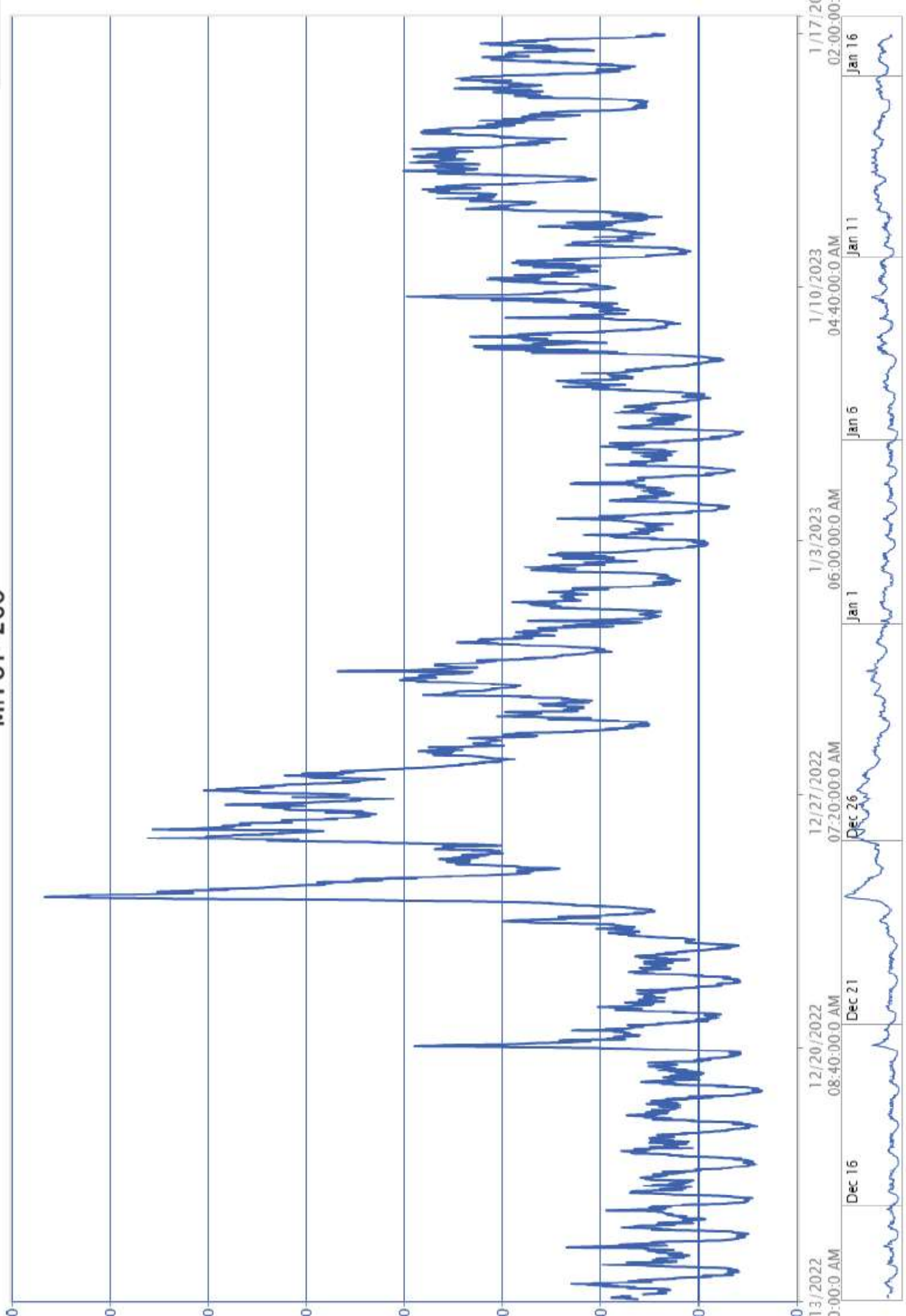
Report Period
7/1/2016
To
7/21/2016



SSMH 61-200
12/13/2022 to 1/17/2023

Flow Measurements MH 61-200

Flow (gph)



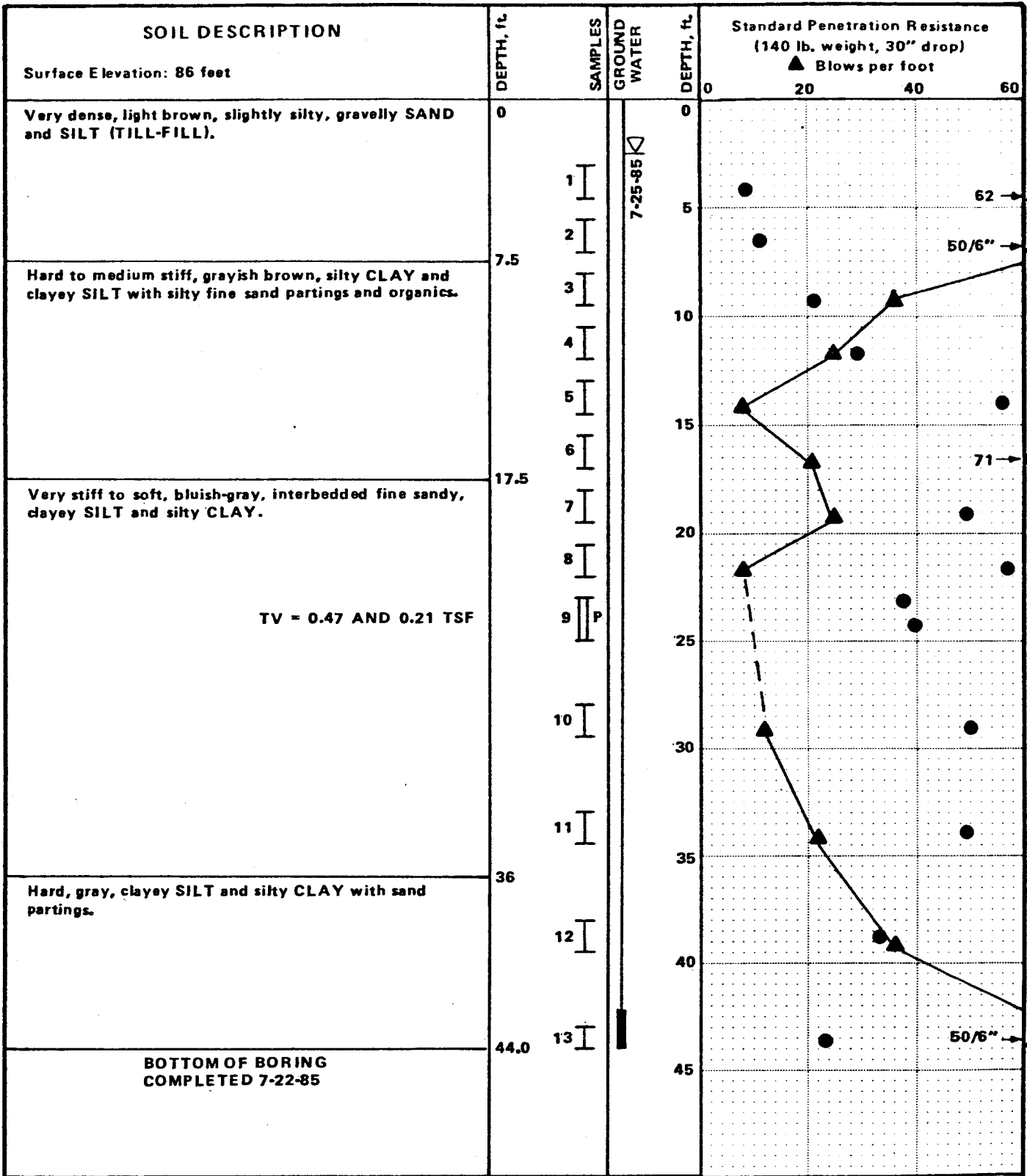
APPENDIX D COMPILED HISTORICAL GEOTECHNICAL INFORMATION

Geotechnical Information Locations



Notes:
 Boring locations not to scale and shown for general reference only. All boring logs included in Appendix D are open source and available at the Washington Geologic Information Portal.
 Reference Website Address:
https://geologicportal.dnr.wa.gov/2d-view/wjwm3-14056095c-1788262f295014693130?Surface_Geol&v=50R_Surface_Geol
 90X.MXD, UTM.

+ Boring or Test Pit
 - - - - - General Project Area

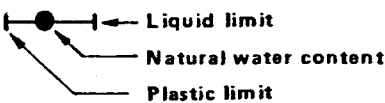


LEGEND

- I 2" O.D. split spoon sample
- II 3" O.D. thin-wall sample

*Sample not recovered

Atterberg Limits:



- Impervious seal
- Water level
- Piezometer tip
- P Sample pushed

NOTE: The stratification lines represent the approximate boundaries between soil types and the transition may be gradual.

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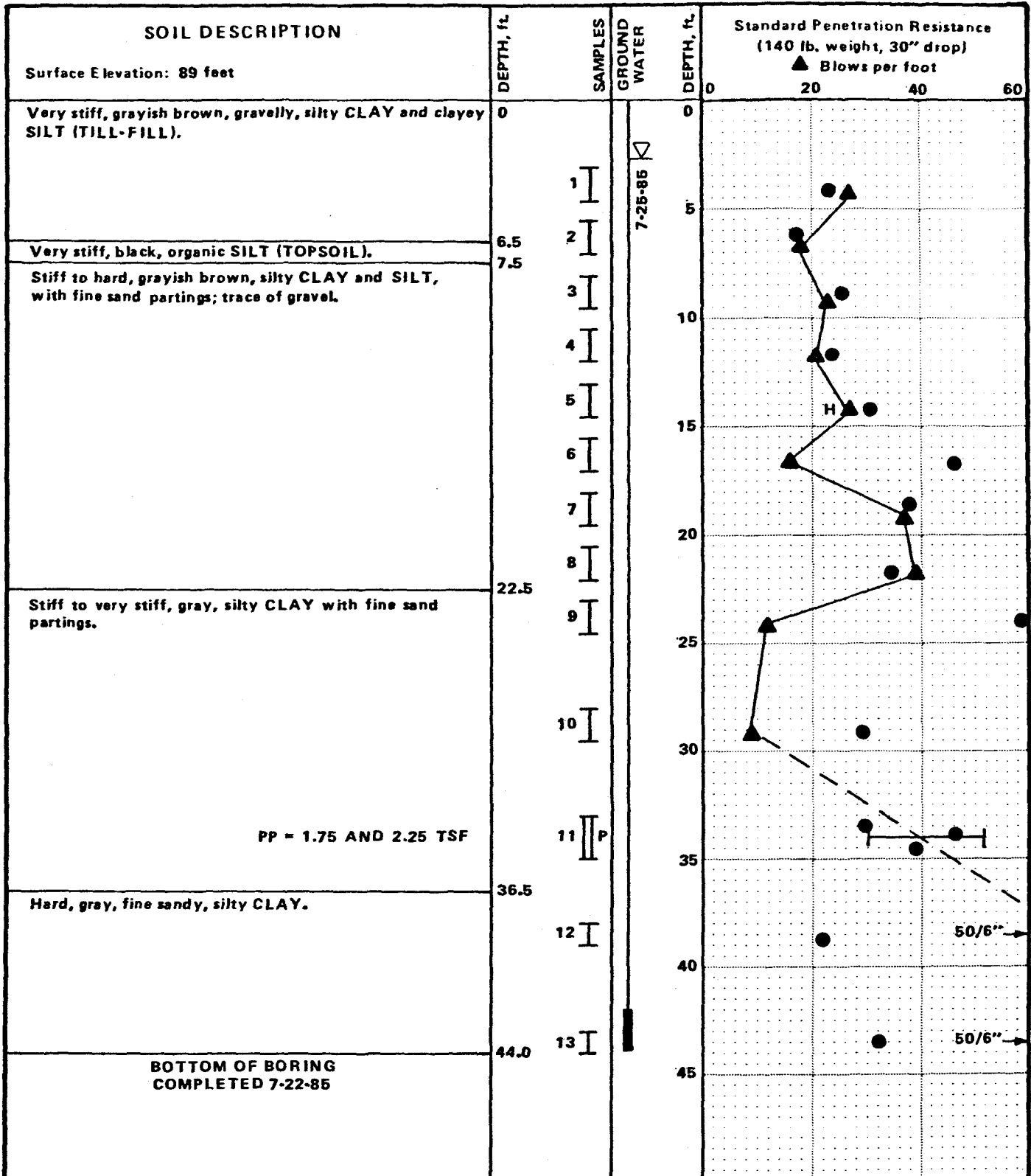
LOG OF BORING B-2

AUGUST 1985

W-4429-01

SHANNON & WILSON, INC.
Geotechnical Consultants

FIG. A-2



LEGEND

- I 2" O.D. split spoon sample
- II 3" O.D. thin-wall sample
- *Sample not recovered
- Atterberg Limits:
 - Liquid limit
 - Natural water content
 - Plastic limit
- Impervious seal
- Water level
- Piezometer tip
- P Sample pushed

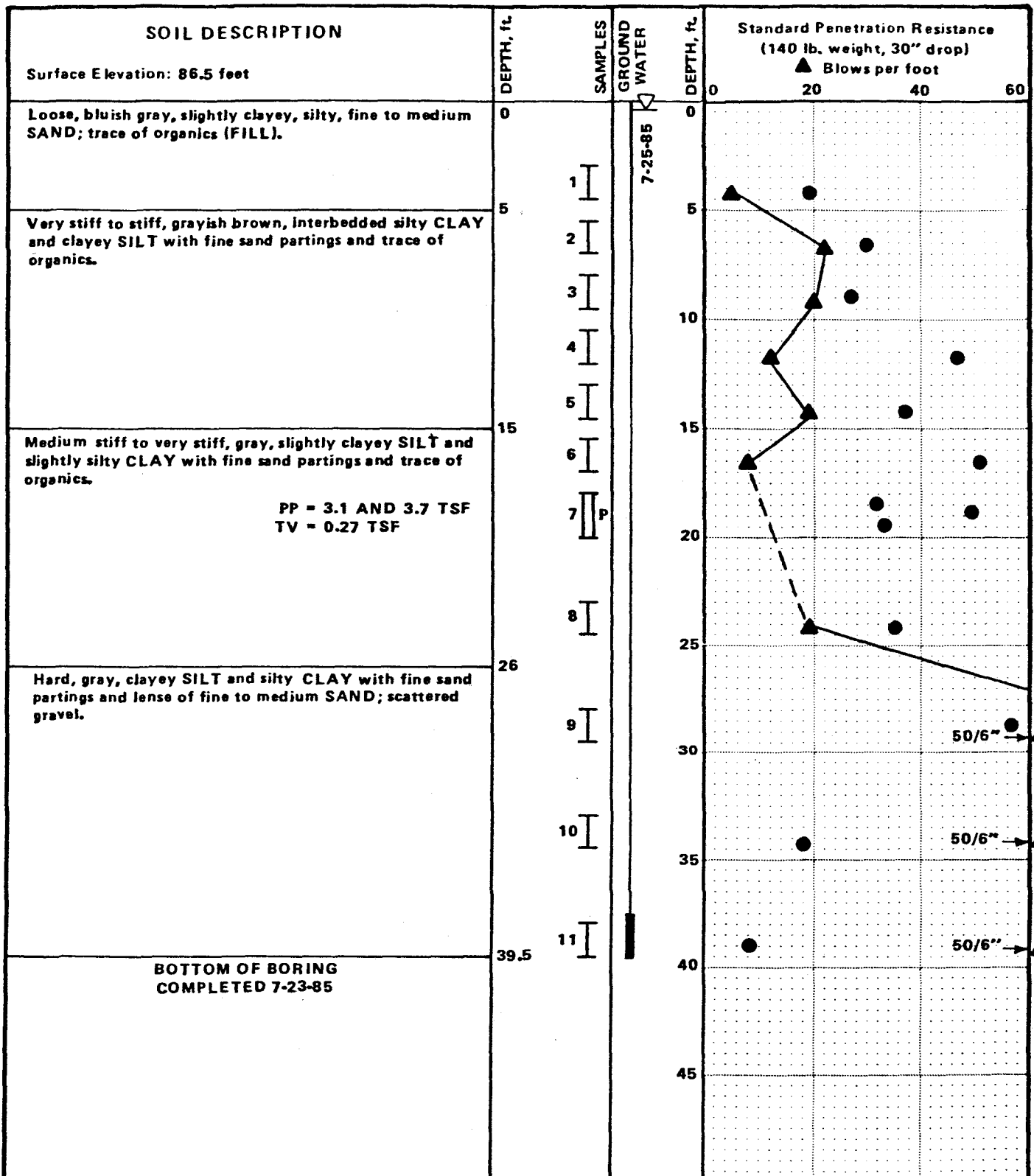
NOTE: The stratification lines represent the approximate boundaries between soil types and the transition may be gradual.

**CITY OF MERCER ISLAND
MERCER ISLAND CIVIC CENTER**

LOG OF BORING B-3

AUGUST 1985 W-4429-01

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



LEGEND

- I 2" O.D. split spoon sample
- II 3" O.D. thin-wall sample
- *Sample not recovered
- Atterberg Limits:
 - Liquid limit
 - Natural water content
 - Plastic limit
- Impervious seal
- Water level
- Piezometer tip
- P Sample pushed

NOTE: The stratification lines represent the approximate boundaries between soil types and the transition may be gradual.

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LOG OF BORING B-4

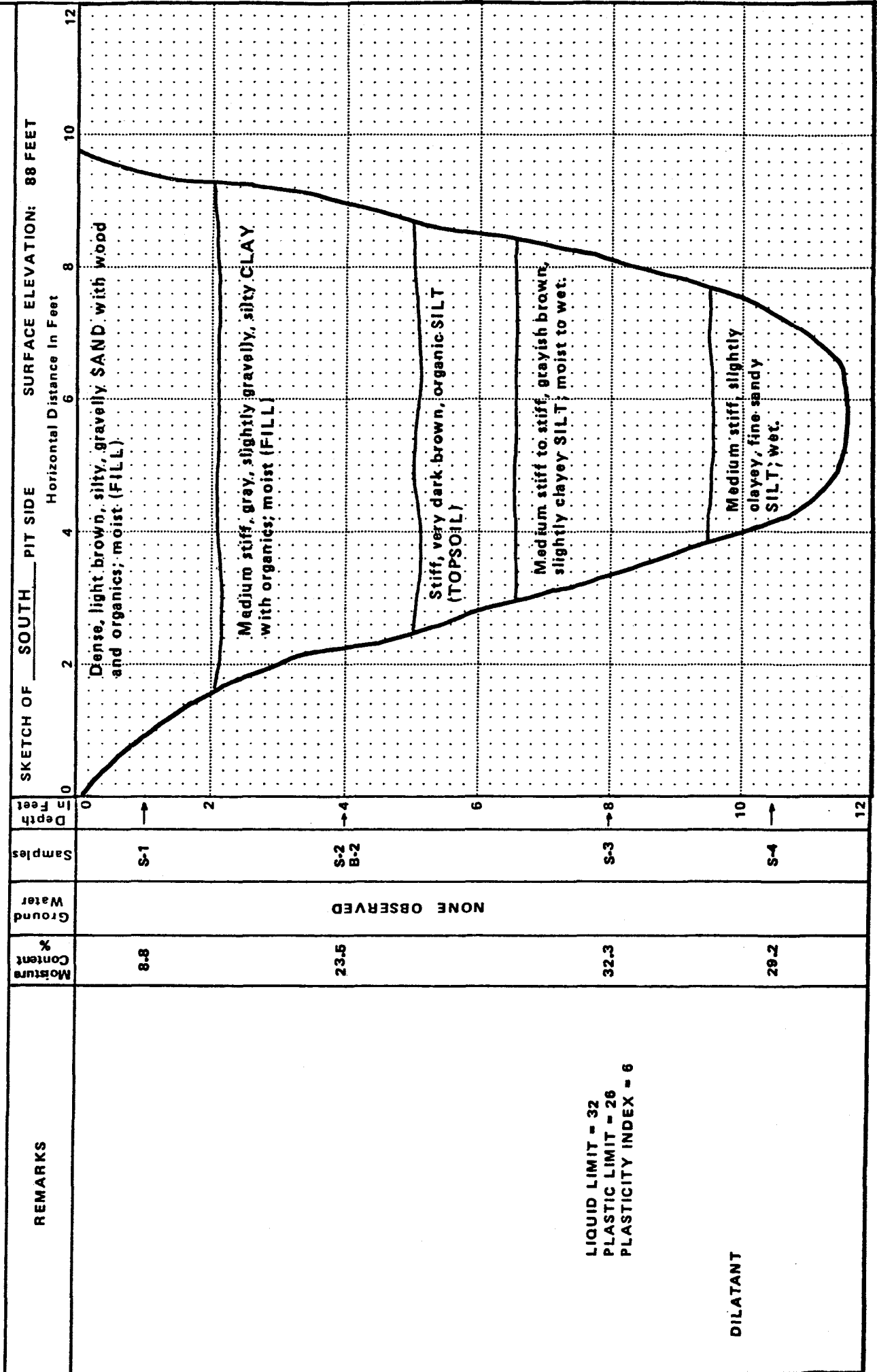
AUGUST 1985 W-4429-01

SHANNON & WILSON, INC. FIG. A-4
Geotechnical Consultants

SHANNON & WILSON, INC.
 Geotechnical Consultants

JOB NO. W-4429-01 DATE 7-19-85 LOCATION NW CORNER
 PROJECT CITY OF MERCER ISLAND, MERCER ISLAND CIVIC CENTER

LOG OF TEST PIT TP-1



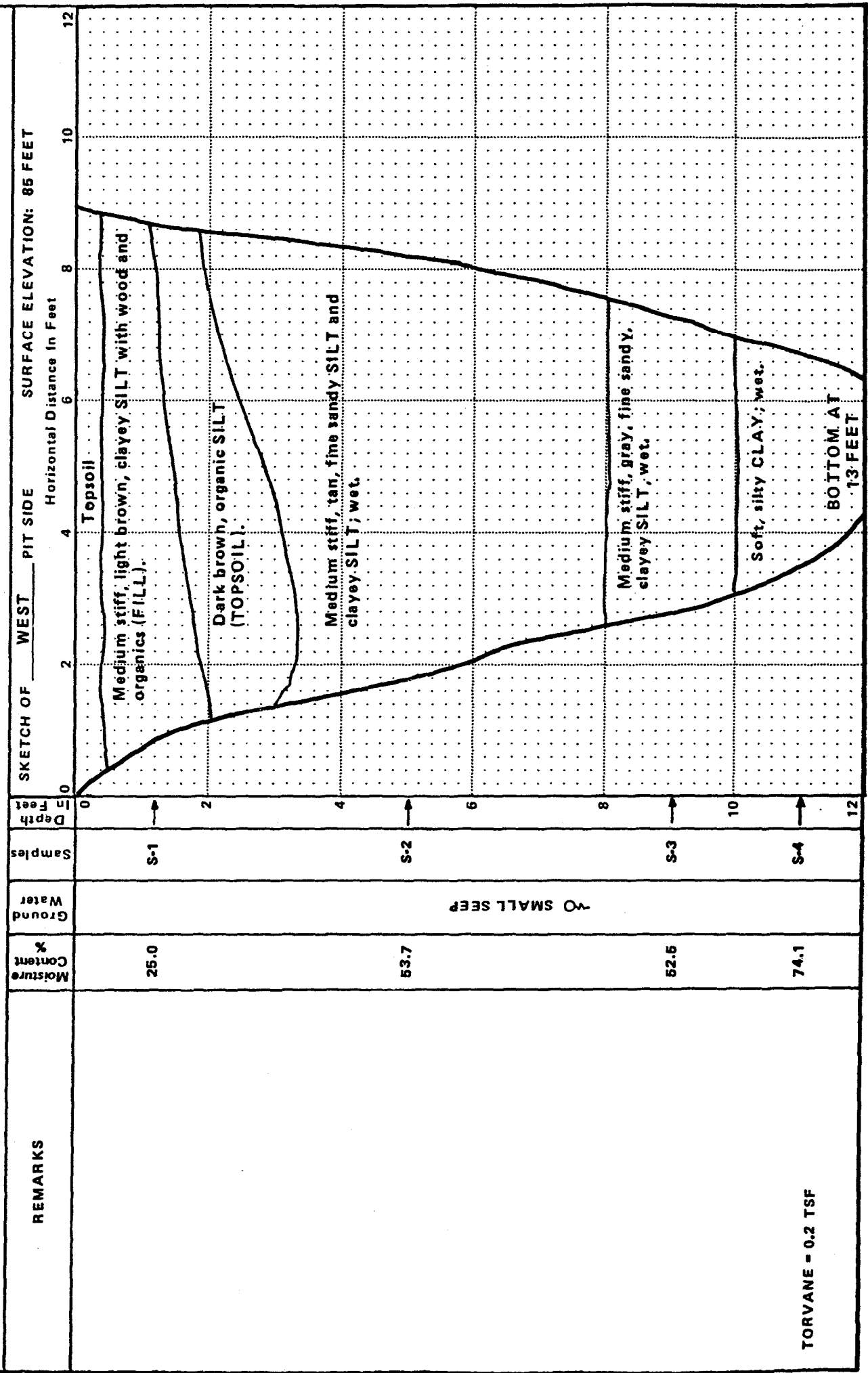
LIQUID LIMIT = 32
 PLASTIC LIMIT = 26
 PLASTICITY INDEX = 6

DILATANT

FIG. A-6

JOB NO. W-4429-01 DATE 7-19-85 LOCATION S. END OF SITE
 PROJECT CITY OF MERCER ISLAND, MERCER ISLAND CIVIC CENTER

SHANNON & WILSON, INC.
 Geotechnical Consultants
 LOG OF TEST PIT TP-3



TORVANE = 0.2 TSF

FIG. A-8

SHANNON & WILSON, INC.
 Geotechnical Consultants

JOB NO. W-4429-01 DATE 7-19-85 LOCATION NW CORNER
 PROJECT CITY OF MERCER ISLAND, MERCER ISLAND CIVIC CENTER

LOG OF TEST PIT TP-1

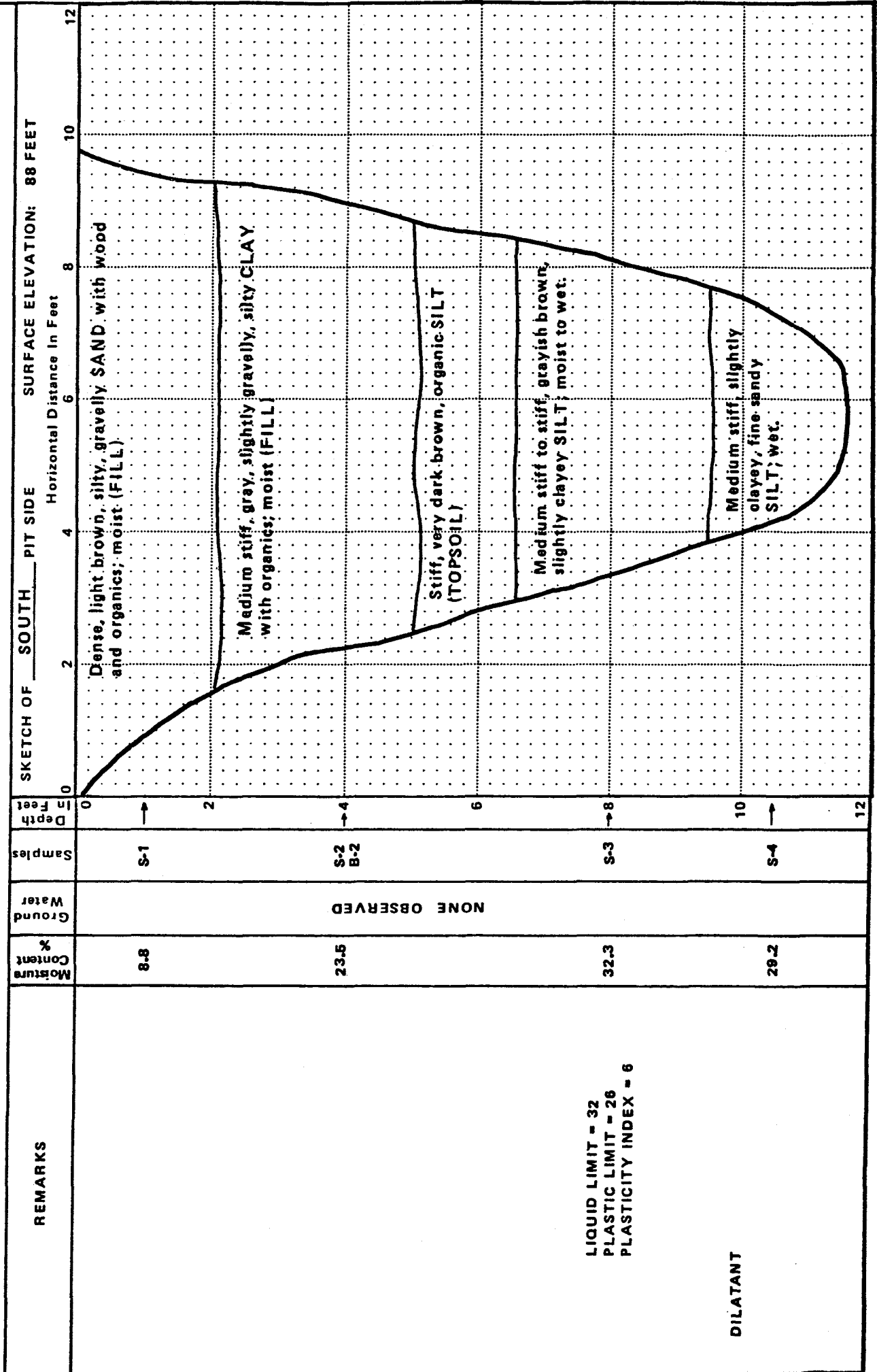
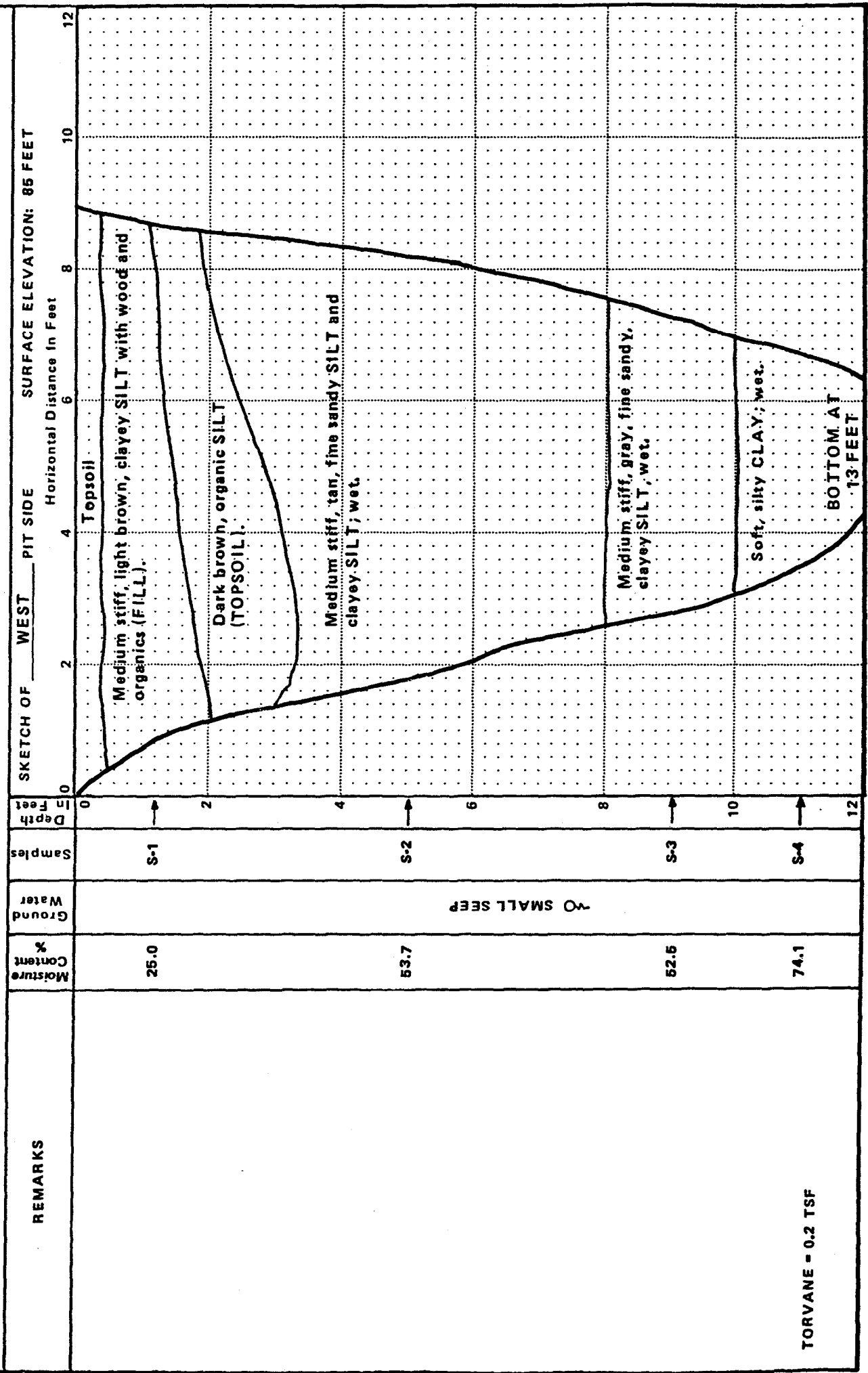


FIG. A-6

JOB NO. W-4429-01 DATE 7-19-85 LOCATION S. END OF SITE
 PROJECT CITY OF MERCER ISLAND, MERCER ISLAND CIVIC CENTER

SHANNON & WILSON, INC.
 Geotechnical Consultants
 LOG OF TEST PIT TP-3



TORVANE = 0.2 TSF

FIG. A-8

SHANNON & WILSON, INC.
 Geotechnical Consultants

JOB NO. W-4429-01 DATE 7-19-85 LOCATION S. END OF SITE
 PROJECT CITY OF MERCER ISLAND, MERCER ISLAND CIVIC CENTER

LOG OF TEST PIT TP-4

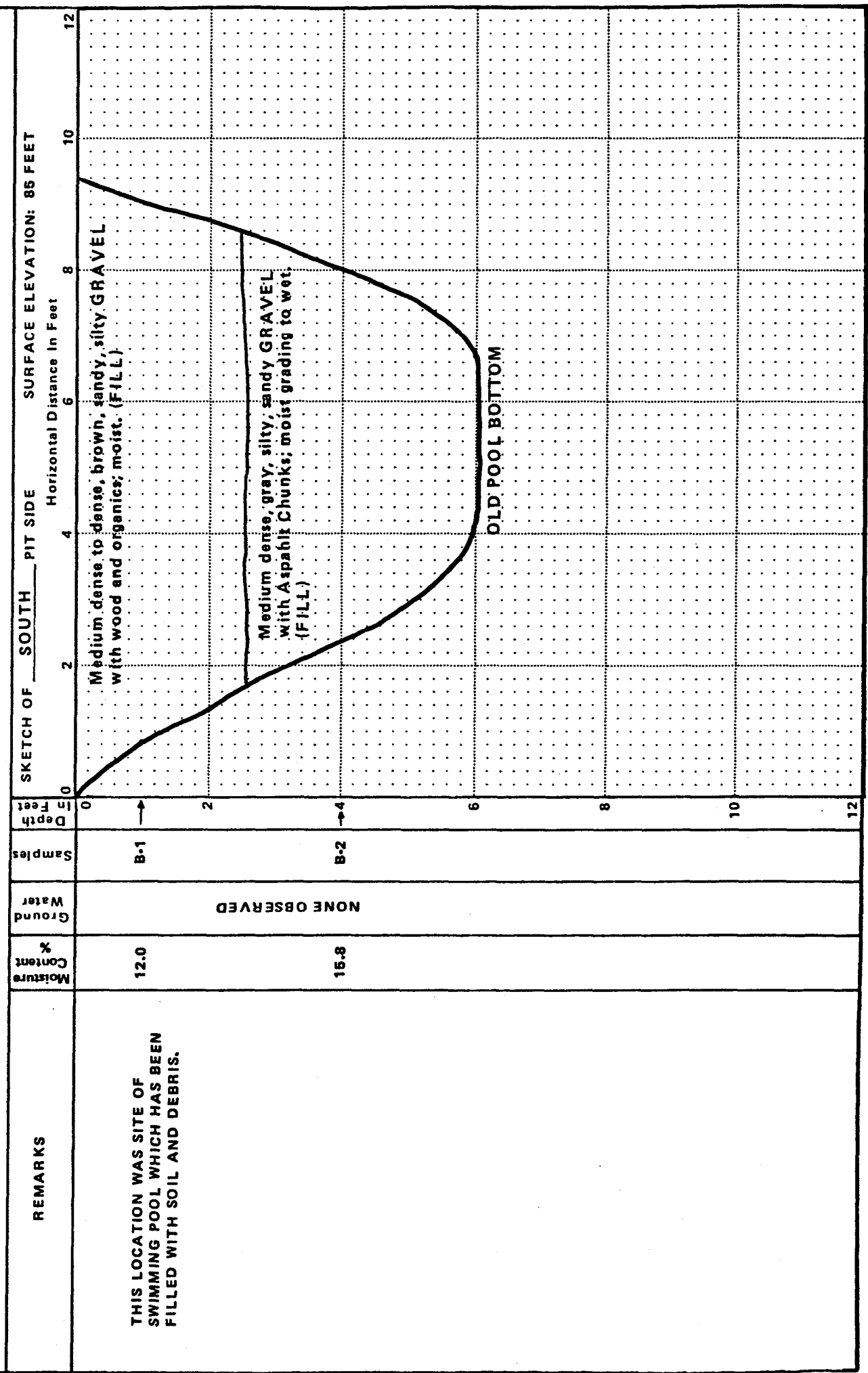


FIG. A-9

SHANNON & WILSON, INC.
 Geotechnical Consultants

JOB NO. W-4429-01 DATE 7-19-85 LOCATION S. END OF SITE
 PROJECT CITY OF MERCER ISLAND, MERCER ISLAND CIVIC CENTER

LOG OF TEST PIT TP-4

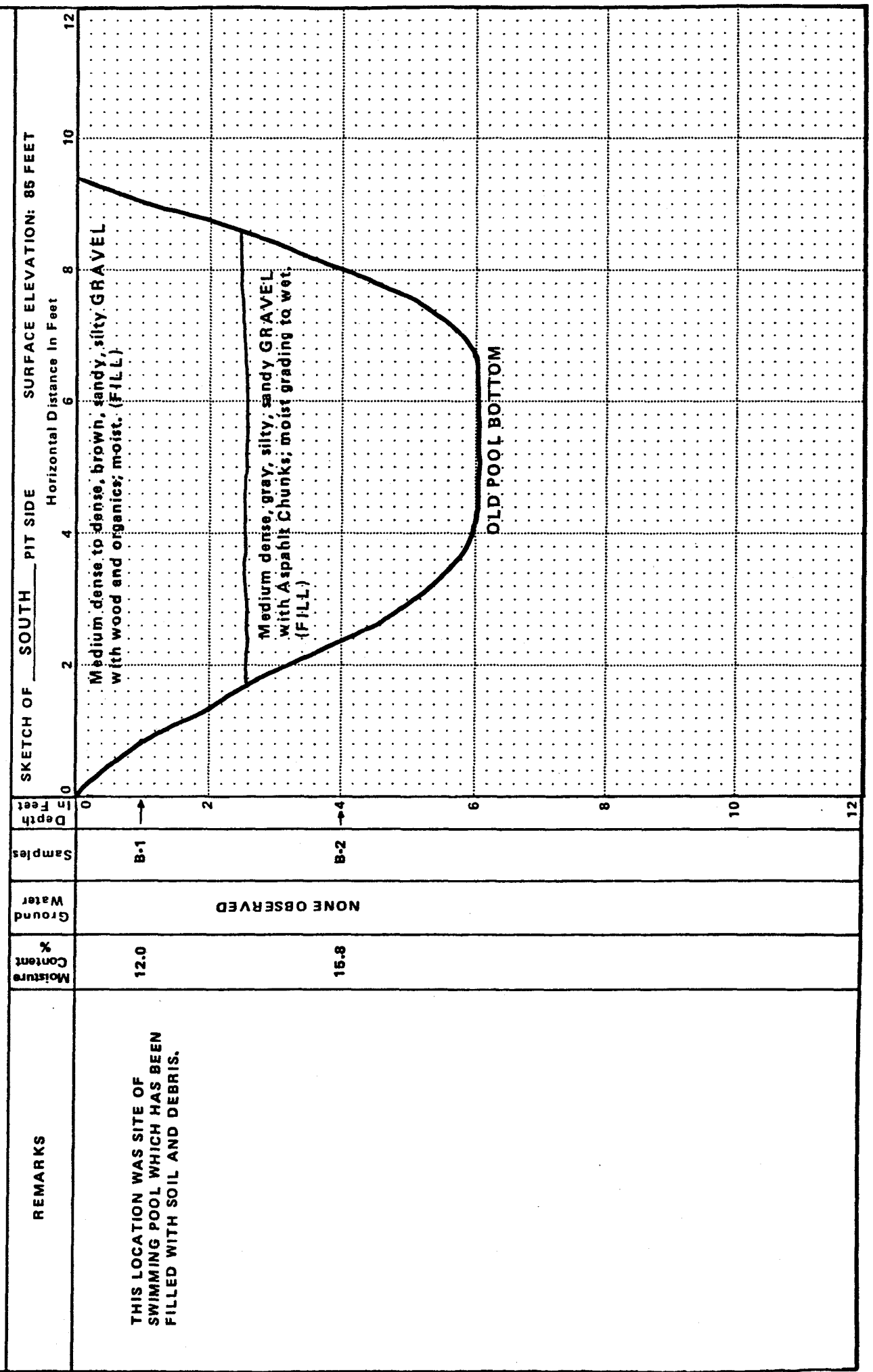
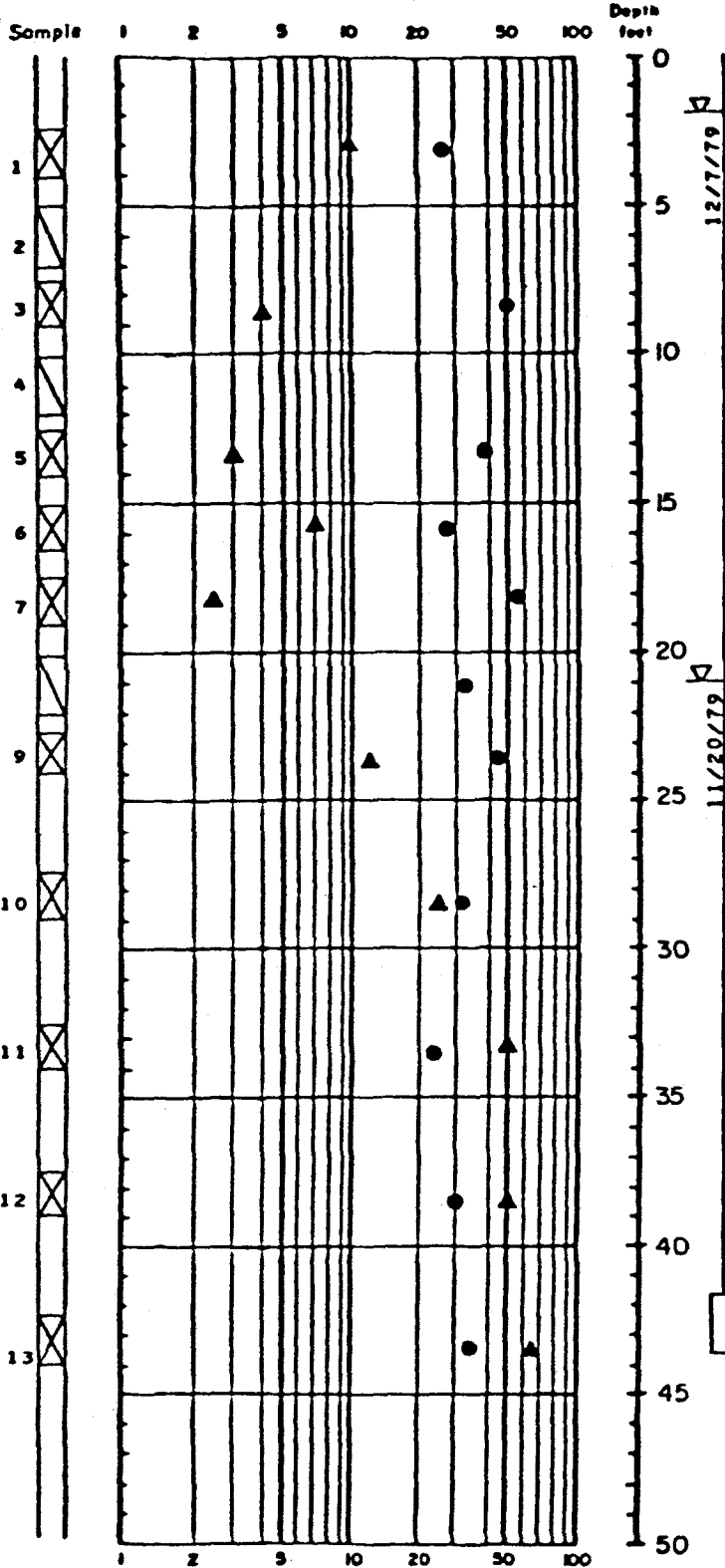


FIG. A-9

BORING LOG B-5

STANDARD PENETRATION RESISTANCE
(140 pound weight, 30 inch drop)
BLOWS PER FOOT ▲

SOIL INTERPRETATION



GROUND SURFACE ELEVATION APPROXIMATELY 83 FEET.

POST GLACIAL LUCISTRINE SEDIMENTS:
MEDIUM TO STIFF, MOIST, BROWN AND TAN, SILTY CLAY AND CLAYEY SILT, OCCASIONAL FINE SAND. LAMINATED. WEATHERED.

SOFT TO STIFF, MOIST, GRAY, SILTY CLAY AND CLAYEY SILT. LAMINATED.

— SAND PARTINGS

GLACIALLY CONSOLIDATED SEDIMENTS:
VERY STIFF TO HARD, MOIST, GRAY, SILTY CLAY AND CLAYEY SILT.

— OCCASIONAL GRAVEL

— WITH SOME SAND AND GRAVEL.

— LAMINATED

BOTTOM OF BORING 44 FEET.
COMPLETED 11/19/79.

REFERENCE: HART-CROWSER & ASSOCIATES, INC. REPORT DATED JANUARY 4, 1980 FOR FARMERS INSURANCE GROUP.

WATER CONTENT PERCENT ●

LEGEND

- ☒ 2" O.D. Split Spoon Sample
- ☒ 3" O.D. Shelby Sample
- ★ No Sample Recovery
- ▽ Water Level
- Observation Well

NOTE: Soil descriptions are interpretive and actual changes may be gradual.

CITY OF MERCER ISLAND
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LOG OF BORING B-5

AUGUST 1985

W-4429-01

SHANNON & WILSON, INC.
Geotechnical Consultants

FIG. B-1

Project: Mercerdale Park

Log of Hand Boring HB-1

Project No: 096-01055

Client: City of Mercer Island

Surface Elevation: 87 feet

Figure No:

Location: 096-01055

Datum:

Logged By: PH and CB

Depth to Water

Initial: 3 inches

At Completion:

SUBSURFACE PROFILE			SAMPLE				Dynamic Cone Penetrometer (Blows/1.75") 20 40 60 80	Water Content (%) Wp 0 Wl 20 40 60 80
Depth	Symbol	Description	Sample Number	Type	Sample Type	N-Value Blows/1.75"		
0		Ground Surface						
		Sod, wet and pumping.						
		POORLY GRADED SAND WITH SILT (SP-SM) Medium dense, fine to medium grained sand, grayish brown, wet. (Fill)	S-1	SS	G			
		POORLY GRADED SAND WITH SILT (SP-SM) Medium dense, fine to medium grained sand, gray, wet. Pocket Penetrometer Reading 5,000 psf.	S-2	SS	G			
		LEAN CLAY (CL) Stiff, grayish brown, moist to wet. Pocket penetrometer 4,000 psf. (Glacial Lacustrian?)	S-3	SS	G			
		End of Borehole						
5								
10								

Drill Method: Hand Tools

Driller: NA

Krazan and Associates
13434 NE 177th Place
Woodinville, Washington
98072

Drill Date: 3-30-01

Sample Method: Grab Samples

Sheet: 1 of 1

Project: Mercerdale Park

Log of Hand Boring HB-2

Project No: 096-01055

Client: City of Mercer Island

Surface Elevation: 87 feet

Figure No:

Location: 096-01055

Datum:

Logged By: PH and CB

Depth to Water

Initial: Not Encountered

At Completion:

SUBSURFACE PROFILE			SAMPLE				Dynamic Cone Penetrometer (Blows/1.75")	Water Content (%) Wp — 0 — Wl 20 40 60 80
Depth	Symbol	Description	Sample Number	Type	Sample Type	N-Value Blows/1.75"		
0		Ground Surface						
		Sod, wet and pumping.						
		POORLY GRADED SAND WITH SILT (SP-SM) Medium dense, fine to medium grained sand, grayish brown, wet. (Fill)	S-1	SS	G			
		LEAN CLAY (CL) Stiff, grayish brown, moist to wet. Pocket penetrometer 4,000 psf. (Glaciolacustrian?)	S-2	SS	G			
		LEAN CLAY (CL) to ORGANIC CLAY (OL) Stiff, grayish brown to very dark grayish brown, mottled. (Glaciolacustrian?)	S-3	SS	G			
		End of Borehole						
5								
10								

Drill Method: Hand Tools

Driller: NA

Krazan and Associates
13434 NE 177th Place
Woodinville, Washington
98072

Drill Date: 3-30-01

Sample Method: Grab Samples

Sheet: 1 of 1

Project: Mercedale Park

Log of Hand Boring HB-3

Project No: 096-01055

Client: City of Mercer Island

Surface Elevation: 87 feet

Figure No:

Location: 096-01055

Datum:

Logged By: PH and CB

Depth to Water

Initial: Not Encountered

At Completion:

SUBSURFACE PROFILE			SAMPLE				Dynamic Cone Penetrometer (Blows/1.75')	Water Content (%) Wp 0 Wl 20 40 60 80
Depth	Symbol	Description	Sample Number	Type	Sample Type	N-Value Blows/1.75'		
0		Ground Surface						
		Sod, wet and pumping.	S-1	SS	G			
		SILTY SAND WITH GRAVEL (SM) Medium dense, fine to medium grained sand, grayish brown, moist. (Fill)						
		POORLY GRADED SAND WITH SILT (SP-SM) Medium dense, fine to medium grained sand, grayish brown, moist to wet. Pocket penetrometer 4,000 psf. (Fill)	S-2	SS	G			
		LEAN CLAY (CL) to ORGANIC CLAY (OL) Stiff, grayish brown to very dark grayish brown, mottled. Pocket penetrometer 4,000 psf. (Glaciolacustrine?)	S-3	SS	G			
		End of Borehole						
5								
10								

Drill Method: Hand Tools

Driller: NA

Krazan and Associates
13434 NE 177th Place
Woodinville, Washington
98072

Drill Date: 3-30-01

Sample Method: Grab Samples

Sheet: 1 of 1