CITY OF MERCER ISLAND

KING COUNTY, WASHINGTON



21-11 RESERVOIR IMPROVEMENTS PROJECT

BID NUMBER: 21-11

CONTRACT SPECIFICATIONS FEBRUARY 2021

MURRAYSMITH, INC. 1145 BROADWAY PLAZA, SUITE 1010 TACOMA, WA 98402 PHONE: 253.627.1520

FOREWORD

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

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

MEASUREMENT AND PAYMENT

TECHNICAL SPECIFICATIONS

APPENDICES

A. Prevailing Minimum Hourly Wage Rates

PLANS (Bound Separately)

The Project Manual for the 21-11 Reservoir Improvements for the City of Mercer Island has been prepared under the direction of the following Registered Professional Engineer.



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GENERAL TERMS AND CONDITIONS

MEASUREMENT AND PAYMENT

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- 01 31 19 Project Meetings
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APPENDIX

A. Prevailing Minimum Hourly Wage Rates

PLANS (Bound Separately)

NOTICES

Advertisement for Bids City of Mercer Island

Project Title: **21-11 Reservoir Improvements** Project No.: 21-11 Engineers Estimated Cost (range): \$60,000 - \$85,000

Sealed bids will be received, not sent, electronically by the City until **2:00 PM on March 2, 2021**. Due to the Covid-19 pandemic and the temporary closure of the City Hall building, bidders shall submit their bids in PDF format to the City Clerk at <u>cityclerk@mercerisland.gov</u>. Upon receipt of e-bid, the City Clerk will send a Zoom link to the same email that sent the bid (no exceptions).

A Virtual Bid Opening is scheduled for **March 4, 2021 at 10:00 AM**. Bid results will be posted on the City's website, after the Virtual Bid Opening, at <u>https://www.mercerisland.gov/rfps</u>.

Work to be performed under this contract includes, but is not limited to: installation of a new reservoir vent, replacement of access hatch gaskets, installation of new screens on reservoir overflow and drain lines, sealing a small hole in the North Reservoir, pressure washing the South Reservoir, and touchup recoating in areas of work.

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 <u>http://www.bxwa.com</u>. 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 <u>https://www.mercerisland.gov/rfps</u>. 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 Maya Giddings, CIP Project Manager, by email only at <u>maya.giddings@mercerisland.gov</u>. The City will receive questions until **12:00pm on February 23, 2020**. Questions received after this date will not be answered. All questions and responses will be posted by **February 25, 2021** to the Builders Exchange site.

The City of Mercer Island, in accordance with Title VI of the Civil Rights Act of 1964, 78 Stat. 252, 42 U.S.C. 2000d to 2000d-4 and Title 49, Code of Federal Regulations, Department of Transportation, Subtitle A, Office of the Secretary, Part 21, Nondiscrimination in Federally-assisted programs of the Department of Transportation issued pursuant to such Act, hereby notifies all bidders that it will affirmatively ensure that in any contract entered into pursuant to this advertisement, disadvantaged business enterprises as defined at 49 CFR Part 23 will be afforded full opportunity to submit bids in response to this invitation and will not be discriminated against on the grounds of race, color, national origin, or sex in consideration for an award.

Deborah Estrada, MMC, City Clerk

Published: Seattle Daily Journal of Commerce – February 16, 2021 through March 2, 2021

City of Mercer Island Instructions to Bidders

1. <u>ELIGIBILITY TO BID</u>:

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, RCW 39.12.050, RCW 39.12.055, or 39.12.065; and
- E. Completed the L&I online training or meet the prior experience requirements in RCW 39.04.350(1)(f); and
- F. 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.
- G. Have not filed for bankruptcy under any business name over the past five (5) years.

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. <u>SUBCONTRACTOR RESPONSIBILITY CRITERIA:</u>

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:
 - 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, RCW 39.12.050, RCW 39.12.055, or 39.12.065; and
- E. Completed the L&I online training or meet the prior experience requirements in RCW 39.04.350(1)(f); and
- F. Key personnel must hold an appropriate license in the applicable discipline.

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. <u>ADDITIONAL INFORMATION</u>:

All questions about the meaning or intent of the Contract Documents are to be directed to Maya Giddings, Project Manager in writing by email at <u>maya.giddings@mercerisland.gov</u>. No telephone questions will be accepted or considered. Bidders should include a reference to the specific. Specification Section and paragraph number and/or Drawing number in the Contract Documents and should quote the passage being questioned.

The City will receive questions until **12:00pm on February 23, 2021**. Questions received after this date will not be answered. All questions and responses will be posted by **February 25, 2021** to the Builders Exchange site. The City will delete bidder names from the text of question(s) and answers being sent.

Interpretations or clarifications considered necessary by the City in response to such questions will be issued by Addenda. Only questions answered by formal written Addenda will be binding. Oral and other interpretations or clarifications will be without legal effect.

5. <u>WAGES</u>:

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

6. <u>PROGRESS AND COMPLETION</u>:

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. <u>PREVENTION OF ENVIRONMENTAL POLLUTION AND PRESERVATION OF PUBLIC NATURAL</u> <u>RESOURCES</u>:

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. <u>BID FORM</u>:

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;
- 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. <u>ACKNOWLEDGEMENT OF ADDENDA</u>:

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. <u>BID SECURITY</u>:

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. <u>NON-COLLUSION</u>:

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. <u>DELIVERY OF BID</u>:

Each Bid shall be submitted in PDF format via electronic transmission to the Public Works email address at: <u>cityclerk@mercerisland.gov</u>. 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. <u>RETURN OF BID SECURITY</u>:

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 <u>https://www.mercerisland.gov/rfps</u>.

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. <u>Past Experience in Similar Projects</u>. 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. <u>References</u>. 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. <u>CONTRACT AWARD</u>:

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. <u>REJECTION OF ALL BIDS</u>:

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 to 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. <u>BID PROTEST PROCEDURES</u>:

- A. <u>Form of Protest</u>. 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;
 - 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. <u>Who May Protest:</u>

- 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. <u>Time to Protest:</u>

- 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. <u>Determination of Protest</u>. 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. <u>Failure to Comply</u>. 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. <u>Exhaustion of Administrative Remedies</u>. 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. <u>Venue</u>. 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.

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	Account / Pogistration
	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)?		
By:		Drivé Nome
Signature		Print Name
Title		Date

BIDDING REQUIREMENTS

Non-Collusion Declaration

Project Name:	21-11 Reservoir Improvements
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

Contractor Declaration Pursuant to RCW 39.04.350(2)

Project Name: 21-11 RESERVOIR IMPROVEMENTS

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

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: 21-11 Reservoir Improvements

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 Bidder agrees that he will begin work 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 award this contract, they will achieve Final Completion within 65 working days from the Notice to Proceed and the Substantial Completion Date

Bidding Requirements

will be 5 calendar days prior to the Final Completion Date. Construction is anticipated to start at the beginning of April and must reach final completion by July 2021.

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 theses 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.

Bid Schedule

Bid Item	Item Description	Estimated Quantity	Unit	Unit Cost	Total Cost
1	Mobilization	1	LS		
2	Replace Screens on Reservoir Drain and Overflow	1	LS		
3	North Reservoir Roof Hole Repair	1	LS		
4	Replace Existing Roof Hatch Gaskets	3	EA		
5	North Reservoir Vent Replacement	1	LS		
6	North Reservoir Ladder Safety Improvement	1	LS		
7	Painting and Coating	1	LS		
8	South Reservoir Roof Pressure Washing	1	LS		
9	Testing, Flushing, and Disinfection of Reservoirs	2	EA		
10	Minor Changes	1	FA	\$2,500	\$2,500
	Subtotal	\$			
	Sales Tax (10.1%)	\$			
	Total Bid Price	\$			

Subcontractor Listing - RCW 39.30.060

Pursuant to RCW 39.30.060, the Bidder shall list as part of its Bid either itself of 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, electrical as described in chapter 19.28 RCW, structural steel installation, and rebar installation. 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, electrical, structural steel installation, and rebar installation subcontractors applies only to proposed HVAC, plumbing, electrical, structural steel installation, and rebar installation 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:
Structural Steel Installation
Subcontractor Name:
UBI Number:
Rebar Installation
Subcontractor Name:
UBI Number:
Other Subcontractors Used
Subcontractor Name(s):
UBI Number(s):

PROPOSAL SIGNATURE SHEET

If Sole Proprietor, Partnership or Joint Ve	enture
IN WITNESS hereto the undersigned hav	e set their hands this
day of	, 20
Name of Bidder (name each partner or joint venture partner)	
Washington Contractor's Registration	
- Authorized Signature	
IN WITNESS WHEREOF the undersigned its seal affixed by its duly authorized offi day of	
Name of Corporation or Limited Liability Company (LLC)	
Washington Contractor's Registration No.	
Address	
State of Incorporation or Organization	
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

21-11 Reservoir Improvements

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 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:	
Ву:	Ву:	
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.

Bidding	Requirements
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AGREEMENT FORMS

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PUBLIC WORKS CONTRACT FOR 21-11 RESERVOIR IMPROVEMENTS

THIS PUBLIC WORKS CONTRACT ("Contract") dated , 20 , 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 Corporation ("Contractor").

A. The City desires to retain an independent contractor to furnish all labor and materials necessary to perform work at 4350 88th Ave SE, Mercer Island, Washington ("Property"); and

B. The Contractor has the requisite skill and experience to perform such work and has submitted a proposal dated , 20 to complete such work ("Proposal").

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

1. SERVICES BY CONTRACTOR

1.1 <u>Description of Work</u>. 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 the 21-11 Reservoir Improvements Project, 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 <u>Completion Date</u>. 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 60 calendar days, (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 <u>Liquidated Damages</u>. 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 \$100 per day. 1.4 <u>Performance Standard</u>. 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 <u>Compliance with Laws</u>. 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 <u>Utility Location</u>. 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 <u>Air Environment</u>. 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. <u>TERM</u>

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. <u>COMPENSATION</u>

4.1 <u>Total Compensation</u>. 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 <u>Contractor Responsible for Taxes</u>. 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 <u>Method of Payment</u>. 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 9611 S.E. 36th Street Mercer Island, WA 98040 ATTN: Maya Giddings (staff), Project Manager (title)

Retainage. Pursuant to Chapter 60.28 RCW, five percent (5%) of the Total 4.4 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 and employees, from any and all claims, demands, suits, penalties, losses, damages, judgments, or costs of any kind whatsoever (hereinafter "claims"), arising out of or in any way resulting from the Contractor's officers, employees, agents, and/or subcontractors of all tiers, acts or omissions, performance or failure to perform this Contract, to the maximum extent permitted by law or as defined by RCW 4.24.115, now enacted or as hereinafter amended.
 - 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 <u>Survival</u>. 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.

8. INSURANCE

The Contractor agrees to carry as a minimum, 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:

8.1 Workers' Compensation and Employer's Liability Insurance in amounts sufficient pursuant to the laws of the State of Washington.

8.2 Commercial general liability insurance shall be written on Insurance Services Office (ISO) occurrence form CG 00 01 and shall cover liability arising from premises, operations, independent contractors, products-completed operations, 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 11 85. There shall be no endorsement or modification of the Commercial General Liability insurance for liability arising from explosion, collapse or underground property damage. The City shall be named as an 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 equivalent coverage with limits of no less than \$1,000,000 each occurrence, \$2,000,000 general aggregate and a \$2,000,000 products-completed operations aggregate limit.

8.3 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.

8.4 <u>Asbestos Abatement or Hazardous Materials</u>. 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.

The City shall be named as additional insured on all such insurance policies, with the exception of workers' compensation coverages. Contractor shall provide certificates of insurance, 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. All insurance policies shall contain a clause of endorsement providing that they may not be terminated or materially amended during the Term of this Contract, except after thirty (30) days prior written notice to the City. Contractor shall include all subcontractors as insureds under its policies or shall furnish separate certificates and endorsements for each subcontractor. All coverages for subcontractors shall be subject to all of the same insurance requirements as stated herein for the Contractor. Contractor's failure to maintain such insurance policies shall be grounds for the City's immediate termination of this Contract.

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. <u>SAFETY</u>

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 <u>Wages of Employees</u>. 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: <u>https://secure.lni.wa.gov/Wagelookup.</u> A copy of the applicable prevailing wage rates are 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 <u>Reporting Requirements</u>. 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. <u>OWNERSHIP OF DOCUMENTS</u>

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. <u>CONFIDENTIALITY</u>

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, attorneys 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. <u>CLEAN UP</u>

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. <u>GENERAL PROVISIONS</u>

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 .

CITY OF MERCER ISLAND

By:

Jessi Bon, City Manager

ATTEST:

Deborah A. Estrada, MMC, City Clerk

APPROVED AS TO FORM:

Bio Park, City Attorney

(Name of Contractor)

By:

(Signature)

(Signature Name and Title)

(Address)

(Phone)

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 21-11 Reservoir Improvements, Project No. 21-11, in Mercer Island, Washington (Contract), and said Principal is required to furnish a bond for performance of all obligations under the Contract.

(Surety), a corporation, organized under the laws of the The Principal, and and licensed to do business in the State of Washington as surety and named in the current list of "Surety State of Companies Acceptable in Federal Bonds" as published in the Federal Register by the Audit Staff Bureau of Accounts, U.S. Treasury Dept., severally held and firmly bound City, in the are jointly and to the sum of US Dollars (\$) Total

Contract Amount, subject to the provisions herein.

This statutory performance 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 21-11 Reservoir Improvements, Project No. <u>21-11</u>, 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.

(Surety), a corporation organized under the laws of the The Principal, and and licensed to do business in the State of Washington as surety and named in the current list of "Surety State of Companies Acceptable in Federal Bonds" as published in the Federal Register by the Audit Staff Bureau of Accounts, U.S. Treasury jointly bound Dept., are and severally held and firmly to the City, in the sum Total of US Dollars (\$)

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

Title

SURETY

Surety Signature

Printed Name

Date

Date

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

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RETAINAGE AGREEMENT

Contract Title	21-11 Reservoir Improvements Project Number 21-11
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.

<u>Contractor Options</u> (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.

Ву	Ву
City of Mercer Island	Contractor
Date	Date

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GENERAL TERMS AND CONDITIONS

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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.
- 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.
 - 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.
 - 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.
 - 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;
 - 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-ofway 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 subcontract, 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 USDOT enter into such litigation to protect the interests of the USDOT enter.

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 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 nonconforming 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:
 - 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, contact 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. <u>Notice of Claim and Supplemental Information.</u> 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, ¶3.10, *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. <u>Approval of Request for Change Order and Execution of Change Order</u>. 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. <u>Contractor Procedure upon Denial or Deemed Denial of a Request for a Change</u> <u>Order</u>. 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. <u>Contractor's Obligation to Continue to Work</u>. 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. <u>Waiver</u>. 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. <u>Immediate Written Notice to City</u>. 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. <u>Request for Change Order based on Differing Site Condition</u>. 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. <u>Waiver</u>.

- 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. <u>City's Response to the Differing Site Condition Request for Change Order</u>. 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. <u>Contractor's Obligation to Continue to Work</u>. 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. <u>City Issues Directive Suspending Work</u>
 - 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 an 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. <u>City's Right to Issue Unilateral Change Order</u>.
 - 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*.
 - <u>Contractor Disagreement with Unilateral Change Order</u>. 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. <u>Contractor's Obligation to Continue to Work</u>. 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. <u>Request</u>. City may request a written Change Proposal from the Contractor for a change in the Work.
- B. <u>Contractor's Proposal</u>. 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. <u>City's Acceptance of Contractor Proposal</u>. 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. <u>Execution of a Bilateral Change Order</u>. 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. <u>Execution of Unilateral Change Order</u>. 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;
 - 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, it 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:
 - 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.
 - 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. <u>Contractor's Obligation to Continue to Work</u>. 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. <u>Information required in a Fully Documented Claim</u>. 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. <u>Contractor's Duty to Cooperate.</u> 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. <u>City's Evaluation of the Claim</u>.
 - 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.
 - 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.

MEASUREMENT AND PAYMENT

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MEASUREMENT AND PAYMENT

It is the intention of these specifications that the performance of all work under the bid for each item shall result in the complete construction in an accepted operating condition, of each item.

Work and material not specifically listed in the proposal, but required according to the contract plans, specifications, and general practice shall be included in the contractor's bid price. No separate payment of any kind will be made for these incidental items.

The Contract Price shall constitute full compensation for furnishing all plans, labor, equipment, incidentals and materials, applicable sales tax for materials and equipment, and performing all operations required to complete the work, as specified, as shown on the Contract Plans or as otherwise directed. Notwithstanding the omission or mention of any incidental work, the Contract Price and payment shall also constitute full compensation for all work incident or incidental to completion of the item, unless such work is otherwise specifically mentioned for separate payment under another bid item. In the event any work is required by the Specifications or by the Proposal, or which is not directly incident or incidental to the completion of any such item, the Contract Price of all enumerated items shall also constitute full compensation for such work.

Unless a specific bid item for the following work has been provided in the Proposal/Construction Contract, or the work has been specifically included in a bid item, such work shall be considered incidental to and included in the various bid items of work:

- Furnishing Manufacturer's Certificates of Compliance
- Clearing and grubbing
- Removal of structures and obstructions (except Schedule C)
- Roadway excavation including haul for water main trenching
- Protection of existing trees to remain
- Securing a disposal site and disposal of waste materials
- Haul
- Sawcutting and slurry vacuuming
- Milling or saw cutting pavement
- Watering
- Dust control
- Trimming and cleanup
- Construction Staking
- Maintaining As-built Redlines for Submittal to City
- Pre-construction photographs

No separate or extra payment of any kind shall be made for this work under the Contract.

Per RCW 39.12.040, each progress payment must have this statement included: <u>"We certify that the prevailing</u> wages have been paid in accordance with the pre-file statement or statements of intent to pay prevailing wages on file with the City of Mercer Island".

Contractor shall submit properly completed invoice(s) electronically to the Project Manager, or designated

representative, and also to the Public Works Mailbox at publicworks@mercerisland.gov.

BID ITEM #1 - MOBILIZATION (5% MAXIMUM)

The lump sum price bid for mobilization shall include, but is not limited to, preconstruction costs of preparatory work and operations by the Contractor and the removal of equipment and surplus materials from the project site. The Contract Price per lump sum for mobilization/demobilization shall constitute full compensation for all labor, materials and equipment required for:

- premiums for bonding and insurance,
- pre-construction photographs, referenced and compiled in an album,
- mobilizing labor, equipment, materials, supplies and incidentals to the project site(s),
- preparatory tasks prior to beginning production work on the bid items,
- traffic control plan, including provisions for cleaning and sweeping of any impacted roadways,
- maintaining and producing Record Drawings as required herein,
- demobilizing labor, equipment, materials, supplies and incidentals from the project site(s)
- cleanup of all Contractor occupied areas.

Mobilization/demobilization costs for all subcontracted work shall be considered included in the price bid and no additional payment will be allowed. The lump sum bid item, "Mobilization/Demobilization (5% maximum)", shall be no greater than five (5) percent of the sum of all other bid items of all schedules, excluding tax.

The payment schedule shall be as follows:

- 75% of the price bid after Contractor has submitted preconstruction photos, construction schedule and traffic control plan, and has mobilized equipment, materials and labor to the project site(s).
- 25% of the bid price after Contractor has demobilized all equipment, material and labor from the project site(s).

BID ITEM #2 – REPLACE SCREENS ON RESERVOIR DRAIN AND OVERFLOW

The Contract Price per lump sum shall be full compensation for, but is not limited to, all labor, material, incidentals, hauling, disposal, tools and equipment necessary to satisfactorily complete the work as defined in the Standard Specifications, these Specifications, as shown on the Contract Plans, and not included in other bid items.

Specifically included in, but not limited to, the Contract Price bid for this item are all costs for installation of new 24 mesh and 4 mesh stainless steel screens on the reservoir drain and overflow air gap discharge elbows.

BID ITEM #3 – NORTH RESERVOIR ROOF HOLE REPAIR

The Contract Price per lump sum for North Reservoir Roof Hole Repair shall be full compensation for, but is not limited to, all labor, material, incidentals, hauling, disposal, tools and equipment necessary to satisfactorily complete the work as defined in the Standard Specifications, these Specifications, as shown on the Contract Plans, and not included in other bid items.

Specifically included in, but not limited to, the Contract Price bid for this item are all costs for sealing the small hole on the North Reservoir roof overhang as shown on the Contract Plans.

BID ITEM #4 – REPLACE EXISTING ROOF HATCH GASKETS

The Contract Price per each for Replace Existing Roof Hatch Gaskets shall be full compensation for, but is not limited to, all labor, material, incidentals, hauling, disposal, tools and equipment necessary to satisfactorily

complete the work as defined in the Standard Specifications, these Specifications, as shown on the Contract Plans, and not included in other bid items.

Specifically included in, but not limited to, the Contract Price bid for this item are all costs for removing existing gasket material and installing new roof hatch gasketing as shown on the Contract Plans.

BID ITEM #5 – NORTH RESERVOIR VENT REPLACEMENT

The Contract Price per lump sum for North Reservoir Vent Replacement shall be full compensation for, but is not limited to, all labor, material, incidentals, hauling, disposal, tools and equipment necessary to satisfactorily complete the work as defined in the Standard Specifications, these Specifications, as shown on the Contract Plans, and not included in other bid items.

Specifically included in, but not limited to, the Contract Price bid for this item are all costs for removal of the existing vent hood assembly, removal of the existing fall protection lanyard post, modification of the vent opening, installation of a new vent ring, installing a new pressure vacuum vent assembly, and installation of a new fall protection anchor ring around the vent.

BID ITEM #6 – NORTH RESERVOIR LADDER SAFETY IMPROVEMENT

The Contract Price per lump sum for North Reservoir Ladder Safety Improvement shall be full compensation for, but is not limited to, all labor, material, incidentals, hauling, disposal, tools and equipment necessary to satisfactorily complete the work as defined in the Standard Specifications, these Specifications, as shown on the Contract Plans, and not included in other bid items.

Specifically included in, but not limited to, the Contract Price bid for this item are all costs for trimming of existing bolts near the top of the North Reservoir ladder.

BID ITEM #7 – PAINTING AND COATING

The Contract Price per lump sum for Painting and Coating shall be full compensation for, but is not limited to, all labor, material, incidentals, hauling, disposal, tools and equipment necessary to satisfactorily complete the work as defined in the Standard Specifications, these Specifications, as shown on the Contract Plans, and not included in other bid items.

Specifically included in, but not limited to, the Contract Price bid for this item are all costs for existing coating removal, surface preparation, and furnishing and installing the protective coating system as specified for up to one-hundred (100) square feet of reservoir area impacted by work under bid items. Areas are anticipated to include the roof hatches, area around the North Reservoir vent, and area around the North Reservoir roof hole repair . Surface preparation includes, but is not limited to, abrasive blasting to SSPC-SP 10 or power tool cleaning to SSPC-SP 11 to remove existing coating. Furnishing and installing coating system includes, but is not limited to, application of prime, intermediate, and top coat as specified, and furnishing and operating dehumidification equipment as required due to field conditions.

BID ITEM #8 – SOUTH RESERVOIR ROOF PRESSURE WASHING

The Contract Price per lump sum for South Reservoir Roof Pressure Washing shall be full compensation for, but is not limited to, all labor, material, incidentals, hauling, disposal, tools and equipment necessary to satisfactorily complete the work as defined in the Standard Specifications, these Specifications, as shown on the Contract Plans, and not included in other bid items.

Specifically included in, but not limited to, the Contract Price bid for this item are all costs for pressure washing the South Reservoir roof and cleanup of debris following pressure washing.

BID ITEM #9 – RESERVOIR TESTING, FLUSHING, AND DISINFECTION

The Contract Price per each for Reservoir Testing, Flushing, and Disinfection shall be full compensation for, but is not limited to, all labor, material, incidentals, hauling, disposal, tools and equipment necessary to satisfactorily complete the work as defined in the Standard Specifications, these Specifications, as shown on the Contract Plans, and not included in other bid items.

Specifically included in, but not limited to, the Contract Price bid for this item are all costs for inspection, preparation, application, disinfection, and startup shall be in conformance with Section 33 13 13. Chlorination Method 2 for disinfecting the tanks should be followed (Section 4, AWWA C652). Sampling shall meet State Health Standards.

BID ITEM #10 - MINOR CHANGES

Payment for Minor Changes will be per force account for, but not limited to, all labor, material, incidentals, tools and equipment necessary to satisfactorily complete the work as directed by the Engineer. Payment for minor contract changes will be made according to the provisions included in Section 1-04.4(1) and 1-09.6 of the Standard Specifications. Measurement and payment will be made on the basis of work authorized by the Engineer. Unauthorized work will not be paid for.

END OF SECTION

TECHNICAL SPECIFICATIONS

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SECTION 01 31 19

PROJECT MEETINGS SECTION

PART 1 GENERAL

1.1 DESCRIPTION

- A. This section covers the requirements for project meetings. The Owner will record minutes of each meeting and will furnish copies to the Contractor within five working days thereafter. If the Contractor does not submit written objection to the contents of such minutes within five working days after receipt of the minutes, it shall be understood and agreed that the Contractor accepts the minutes as a true and complete record of the meeting.
- B. Meeting Schedule. The dates, times, and locations for the various meetings shall be agreed upon and recorded at the pre-construction conference. Thereafter, changes to the schedule shall be by agreement between the Owner and Contractor, with appropriate written notice to all parties involved.
- PART 2 PRODUCTS (Not Used)

PART 3 EXECUTION

- 3.1 PRE-CONSTRUCTION CONFERENCE
 - A. Before the Contractor starts any Work, he/she shall attend a pre-construction conference held at the location, date, and time designated by the Owner, typically within 14 calendar days after the Notice of Award. The meeting may be attended by the representatives of the regulatory agencies having jurisdiction over the project, if required, and such other persons the Owner, may designate; including the Contractor's Project Manager, its superintendent, and its subcontractors as the Contractor deems appropriate.
 - 1. Other attendees maybe:
 - a. Representatives of Owner
 - b. Others as requested by Contractor or Owner
 - 2. Execution and Submittal of Documents. At the pre-construction conference, unless otherwise specified or agreed by the Owner, the Contractor shall present to the Owner the pre-construction submittals as indicated in Article 4 of the General Terms and Conditions.

- 3. Agenda. In general, the matters to be discussed or resolved and the instructions and information to be furnished to or given by the Contractor at the preconstruction conference include but are not limited to:
 - a. Project meeting schedule
 - b. Preliminary CPM Construction Schedule submitted by Contractor
 - c. Critical work sequencing
 - d. Communication procedures between the parties
 - e. The names and titles of all persons authorized by the Contractor to represent and execute documents for him/her, with samples of all authorized signatures
 - f. The names, addresses, and telephone numbers of all those authorized by the Contractor to act for him in emergencies
 - g. Construction permit requirements, procedures, and posting
 - h. Spill Prevention/Emergency Response Plan
 - i. Access and rights-of-way furnished by the Owner
 - j. Forms and procedures for Contractor's submittals
 - k. Change order forms and procedures. Partial payment application forms and procedures
 - I. Inspection staff and their duties
 - m. Construction equipment and methods proposed by the Contractor
 - n. Procedures for payroll and labor cost reporting by the Contractor and Contractor's Schedule of Values
 - o. Placement of temporary erosion, sedimentation and drainage control facilities
 - p. Other administrative and general matters as needed.

3.2 PROGRESS MEETINGS

A. The Contractor shall attend regular, weekly (or as frequently as determined in Preconstruction Conference), on-site progress meetings and at other times as requested by Owner or as required by progress of the Work. The Contractor, Owner, and Subcontractors active on the site (as appropriate) must attend each meeting. Contractor may at its discretion request attendance by representatives of its Suppliers, manufacturers, and other Subcontractors.

- B. The Owner shall preside at the meetings and distribute the minutes. The Owner shall produce an agenda for each site meeting. All matters bearing on the progress and performance of the work since the preceding progress meeting shall be discussed and resolved, including, without limitation, any previously unresolved matters, deficiencies in the work or the methods being employed for the work, and problems, difficulties, or delays which may be encountered.
- C. The Contractor shall provide a three (3) week "look ahead" schedule at each progress meeting. "Look ahead" schedule shall include current week as week 1.

3.3 SPECIAL MEETINGS

A. Upon appropriate notice to the other parties, special meetings may be called by the Owner or Contractor. Special meetings will be held where and when designated by the Owner.

3.4 REGULATORY AGENCIES

- A. When requested, the Contractor shall attend meetings held or required by the governmental regulatory agencies having jurisdiction over the project.
- 3.5 AUDIO RECORDING OF MEETINGS
 - A. The Contractor agrees that the Owner is permitted to make an audio recording of the meetings upon request. The purpose of the recording will be to assist in developing the written meeting minutes.

END OF SECTION

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SECTION 02 41 00 - DEMOLITION

PART 1 GENERAL

1.1 SUMMARY

- A. Section Includes:
 - 1. Partial demolition of existing facilities.

1.2 SUBMITTALS

- A. General Terms and Conditions, Article 4.5 Submittal Procedures.
- B. Submit to Engineer a copy of written permission of private property owners, with copy of fill permit for said private property, as may be required for disposal of materials.

1.3 QUALITY ASSURANCE

- A. Existing Conditions: Determine the extent of work required and limitations before proceeding with Work.
- B. Conform to applicable local, state and federal codes for environmental requirements in relation to disposal of debris.
 - 1. Burning at the Site for the disposal of refuse, debris, and waste materials resulting from demolition and site clearing operations shall not be permitted.
- C. Permits: The Contractor is responsible for obtaining all necessary permits required for completion of the Work described in this Section.
- D. Protection of Persons and Property: Meet all federal, state and local safety requirements for the protection of workmen, other persons, and property in the vicinity of the Work and requirements of the General Provisions.
- E. If the existing material to be demolished and removed contains any hazardous materials which will require special handling upon removal, such as asbestos or lead, it is the responsibility of the Contractor to remove and dispose of the material in accordance with all applicable federal, state and local regulations.

PART 2 PRODUCTS

2.1 MATERIALS

A. Existing Materials: All materials, equipment, miscellaneous items and debris involved, occurring or resulting from demolition, clearing and grubbing work shall become the property of the Contractor at the place of origin, except as otherwise indicated in the Drawings or Specifications.

PART 3 EXECUTION

3.1 EXAMINATION

- A. The Owner assumes no responsibility for the actual condition of the facilities to be demolished. The Contractor shall visit the site, inspect all facilities and be familiar with all existing conditions and utilities.
- B. Demolition drawings identify major equipment and structures to be demolished only. Auxiliary utilities such as water, air, chemicals, drainage, lubrication oil, hydraulic power fluid, electrical wiring, controls, and instrumentation are not necessarily shown shall be considered incidental to all demolition work.
- C. Identify waste and salvage areas for placing removed materials.

3.2 PREPARATION

A. Carefully coordinate the work of this Section with all other work and construction.

3.3 PROTECTION

- A. Utilities: Locate, identify, and protect utilities located by utilities and indicated in the Drawings to remain from damage.
- B. Survey control: Protect bench marks, survey control points, and existing structures from damage or displacement.
- C. Miscellaneous Site Features: Protect all existing miscellaneous site features from damage by excavating equipment and vehicular traffic, including but not limited to existing structures, fences, mailboxes, sidewalks, paving, guy wires, utility poles, and curbs.
- D. Repair and Replacement:
 - 1. Damaged items, including but not restricted to those noted above, shall be repaired or replaced with new materials as required to restore damaged items or surfaces

to a condition equal to and matching that existing prior to damage or start of Work of this contract.

2. Any damage to existing facilities or utilities to remain as caused by the Contractor's operations shall be repaired at the Contractor's expense.

3.4 DEMOLITION

- A. Carefully consider all bearing loads and capacities for placement of equipment and material on site. In the event of any questions as to whether an area to be loaded has adequate bearing capacity, consult with Engineer prior to the placement of such equipment or material.
- B. All existing improvements designated in the Drawings or specified to be removed including the North Reservoir roof vent shall be included in the demolition work.

3.5 REMOVAL

- A. Continuously clean-up and remove waste materials from site. Do not allow materials to accumulate on site.
- B. Removal: All material resulting from demolition, clearing and grubbing, and trimming operations shall be removed from the project site and disposed of in a lawful manner. Materials placed on property of private property owners shall be by written permission only.
- 3.6 CLEANUP:
 - A. During and upon completion of work, promptly remove all unused tools and equipment, surplus materials, debris, and dust and shall leave all areas affected by the work in a clean, condition, as may be subject to Engineer approval.
 - B. Adjacent structures shall be cleaned of dust, dirt and debris resulting from demolition.
 - C. Adjacent areas shall be returned to their existing condition prior to the start of work.

3.7 SCHEDULES

- A. The following structures are to be demolished and removed from the project site:
 - 1. North Reservoir Vent Assembly
- B. Protect the following structures:
 - 1. North Reservoir & appurtenances not specifically detailed above
 - 2. South Reservoir & appurtenances not specifically detailed above

- 3. Vaults & Appurtenances
- 4. Site Piping, Valves & Appurtenances not designated for removal or abandonment in the Drawings.
- 5. Pump Station
- 6. Generator & Transformer
- 7. Luminaries & Electrical
- 8. Trees
- 9. Driveway
- 10. Retaining Walls
- 11. Fence & Gates

END OF SECTION

SECTION 05 50 00 - METAL FABRICATIONS

PART 1 GENERAL

1.1 SUMMARY

- A. The extent of metal fabrications work is shown on the Drawings and includes items fabricated from iron, steel, stainless steel and aluminum shapes, plates, bars, sheets, strips, tubes, pipes and castings which are not a part of structural steel or other metal systems in other sections of these specifications.
- B. Section Includes:
 - 1. Shop-fabricated metal items.
 - 2. Air Vents.
 - 3. Fasteners.

1.2 REFERENCE STANDARDS

- A. Aluminum Association:
 - 1. AA DAF-45 Designation System for Aluminum Finishes.
- B. American Architectural Manufacturers Association:
 - 1. AAMA 611 Voluntary Specification for Anodized Architectural Aluminum.
 - 2. AAMA 2603 Voluntary Specification, Performance Requirements and Test Procedures for Pigmented Organic Coatings on Aluminum Extrusions and Panels.
 - 3. AAMA 2604 Voluntary Specification, Performance Requirements and Test Procedures for High Performance Organic Coatings on Aluminum Extrusions and Panels.
 - 4. AAMA 2605 Voluntary Specification, Performance Requirements and Test Procedures for Superior Performing Organic Coatings on Aluminum Extrusions and Panels.
- C. American National Standards Institute:
 - 1. ANSI A14.3 American National Standard (ASC) for Ladders Fixed Safety Requirements.
- D. American Welding Society:

- 1. AWS A2.4 Standard Symbols for Welding, Brazing, and Nondestructive Examination.
- 2. AWS D1.1 Structural Welding Code Steel.
- 3. AWS D1.6 Structural Welding Code Stainless Steel.
- E. ASTM International:
 - 1. ASTM A6 Standard Specification for General Requirements for Rolled Structural Steel Bars, Plates, Shapes, and Sheet Piling.
 - 2. ASTM A36 Standard Specification for Carbon Structural Steel.
 - 3. ASTM A47, grade as selected Malleable Iron Castings.
 - 4. ASTM A48, Class 30 Gray Iron Castings.
 - 5. ASTM A53- Standard Specification for Pipe, Steel, Black and Hot-Dipped, Zinc-Coated, Welded and Seamless.
 - 6. ASTM A108 Standard Specification for Steel Bar, Carbon and Alloy, Cold-Finished
 - 7. ASTM A123 Standard Specification for Zinc (Hot-Dip Galvanized) Coatings on Iron and Steel Products.
 - 8. ASTM A153 Standard Specification for Zinc Coating (Hot-Dip) on Iron and Steel Hardware.
 - 9. ASTM A193 Standard Specification for Alloy-Steel and Stainless Steel Bolting for High Temperature or High Pressure Service and Other Special Purpose Applications.
 - 10. ASTM A240 Standard Specification for Chromium and Chromium-Nickel Stainless Steel Plate, Sheet, and Strip for Pressure Vessels and for General Applications.
 - 11. ASTM A269 Standard Specification for Seamless and Welded Austenitic Stainless Steel Tubing for General Service.
 - 12. ASTM A283, Grade C Steel Plates to be Bent or Cold Formed.
 - 13. ASTM A276 Standard Specification for Stainless Steel Bars and Shapes.
 - 14. ASTM A307 Standard Specification for Carbon Steel Bolts, Studs, and Threaded Rod 60 000 PSI Tensile Strength.
 - 15. ASTM A312 Standard Specification for Seamless, Welded, and Heavily Cold Worked Austenitic Stainless Steel Pipes.

- 16. ASTM A354 Standard Specification for Quenched and Tempered Alloy Steel Bolts, Studs, and Other Externally Threaded Fasteners.
- 17. ASTM A500 Standard Specification for Cold-Formed Welded and Seamless Carbon Steel Structural Tubing in Rounds and Shapes.
- 18. ASTM A501 Standard Specification for Hot-Formed Welded and Seamless Carbon Steel Structural Tubing.
- 19. ASTM A513 Standard Specification for Electric-Resistance-Welded Carbon and Alloy Steel Mechanical Tubing.
- 20. ASTM A554 Standard Specification for Welded Stainless Steel Mechanical Tubing.
- 21. ASTM A563 Standard Specification for Carbon and Alloy Steel Nuts.
- 22. ASTM A572 Standard Specification for High-Strength Low-Alloy Columbium-Vanadium Structural Steel.
- 23. ASTM A653 Standard Specification for Steel Sheet, Zinc-Coated (Galvanized) or Zinc-Iron Alloy-Coated (Galvannealed) by the Hot-Dip Process.
- 24. ASTM A666 Standard Specification for Annealed or Cold-Worked Austenitic Stainless Steel Sheet, Strip, Plate, and Flat Bar.
- 25. ASTM A780 Standard Practice for Repair of Damaged and Uncoated Areas of Hot-Dip Galvanized Coatings.
- 26. ASTM A992 Standard Specification for Structural Steel Shapes.
- 27. ASTM B26 Standard Specification for Aluminum-Alloy Sand Castings.
- 28. ASTM B85 Standard Specification for Aluminum-Alloy Die Castings.
- 29. ASTM B177 Standard Guide for Engineering Chromium Electroplating.
- 30. ASTM B209 Standard Specification for Aluminum and Aluminum-Alloy Sheet and Plate.
- 31. ASTM B210 Standard Specification for Aluminum and Aluminum-Alloy Drawn Seamless Tubes.
- 32. ASTM B211 Standard Specification for Aluminum and Aluminum-Alloy Rolled or Cold Finished Bar, Rod, and Wire.
- 33. ASTM B 308, Alloy 6061-T6, Anodic Coating Class I, AA-C22-A41, anodized after fabrication Structural Aluminum Shapes and Plates.

- 34. ASTM B221 Standard Specification for Aluminum and Aluminum-Alloy Extruded Bars, Rods, Wire, Profiles, and Tubes.
- 35. ASTM B695 Standard Specification for Coatings of Zinc Mechanically Deposited on Iron and Steel.
- 36. ASTM E935 Standard Test Methods for Performance of Permanent Metal Railing Systems and Rails for Buildings.
- 37. ASTM E985 Standard Specification for Permanent Metal Railing Systems and Rails for Buildings.
- 38. ASTM F3125 Standard Specification for High Strength Structural Bolts, Steel and Alloy Steel, Heat Treated, 120 ksi and 150 ksi Minimum Tensile Strength.
- 39. ASTM F436 Standard Specification for Hardened Steel Washers.
- 40. ASTM F844 Standard Specification for Washers, Steel, Plain (Flat), Unhardened for General Use.
- 41. ASTM F1554 Standard Specification for Anchor Bolts, Steel, 36, 55, and 105 ksi Yield Strength.
- F. Builders Hardware Manufacturers Association (BHMA):
 - 1. ANSI/BHMA A156.20 American National Standard for Strap and Tee Hinges and Hasps.
- G. National Ornamental & Miscellaneous Metals Association:
 - 1. NOMMA Guideline 1 Joint Finishes.
- H. SSPC: The Society for Protective Coatings:
 - 1. SSPC Steel Structures Painting Manual.
 - 2. SSPC Paint 15 Steel Joist Shop Primer/Metal Building Primer.
 - 3. SSPC Paint 20 Zinc-Rich Coating (Type I Inorganic and Type II Organic).
 - 4. SSPC SP 1 Solvent Cleaning.
 - 5. SSPC SP-7 Brush-off Blast Cleaning.
 - 6. SSPC SP 10 Near-White Blast Cleaning.
- 1.3 SUBMITTALS
 - A. General Terms and Conditions, Article 4.5 Submittal Procedures.
 - B. Manufacturer's Data: For information only, submit copies of manufacturer's specifications, load tables, dimension diagrams, anchor details and installation

instructions for products to be used in miscellaneous metal work, including paint products.

- C. Shop Drawings:
 - 1. General: Submit copies of shop drawings for the fabrication and erection of all assemblies of miscellaneous metal work which are not completely shown by the manufacturer's data sheets.
 - a. Include plans, elevations and details of sections and connections and fabricators proposed shop coat paint or galvanizing specifications.
 - b. Show anchorage and accessory items.
 - c. Furnish setting drawings, diagrams, templates, instructions, and directions for installation of anchorages, such as concrete inserts, anchor bolts, and miscellaneous items having integral anchors, which are to be embedded in concrete construction.
 - d. Indicate welded connections using standard AWS A2.4 welding symbols.
 - e. Indicate net weld lengths.
- D. Samples:
 - 1. Submit two sets of representative samples of materials, illustrating factory finishes as may be requested by the Engineer.
 - 2. Engineer's review will be for color, texture, style and finish only.
- E. Welders Certificates: Certify welders employed on the Work, verifying AWS qualification within previous 12 months.
- F. Delegated Design Submittals:
 - 1. Submit signed and sealed Shop Drawings from a registered, licensed professional engineer within the State of Washington.
 - 2. Include design calculations and assumptions for the Reservoir Vent Assemblies.
- G. Field Quality-Control Submittals: Indicate results of Contractor-furnished tests and inspections.
- H. Qualifications Statement:
 - 1. Submit qualifications for licensed professional to perform Delegated Design Submittals as noted above.

- 1.4 DELIVERY, STORAGE, AND HANDLING
 - A. Transporting, handling, storing, and protecting products shall be in accordance with manufacturer's requirements.
 - B. Inspection: Accept metal fabrications on-site in labeled shipments. Inspect for damage.
 - C. Protect metal fabrications from damage by exposure to weather or by ground contact.

1.5 EXISTING CONDITIONS

- A. Field Measurements: Verify field measurements prior to preparation of Shop Drawings and fabrication. Indicate field measurements on Shop Drawings.
 - 1. Do not delay job progress; allow for trimming and fitting where taking field measurements before fabrication.

PART 2 PRODUCTS

- 2.1 GENERAL
 - A. For the fabrication of miscellaneous metal work items which will be exposed to view, use only materials which are smooth and free of surface blemishes including pitting, seam marks, roller marks, rolled trade names, roughness, and defects which impair strength, durability, or appearance. Remove such blemishes by grinding or by welding and grinding prior to cleaning, treating and application of surface finishes including zinc coatings.

2.2 RESERVOIR ROOF VENT

- A. The existing reservoir roof vent shall be removed and discarded, and a new vent installed. The existing roof vent will be cut and removed and a new 24" diameter penetration, steel collar, and flange will be installed.
- A. The reservoir roof vent shall meet all requirements and guidelines set forth by the Washington State Department of Health, Division of Environmental Health, Office of Drinking Water, and AWWA Standard D100.
- C. All dissimilar metals shall be insulated from each other to avoid any potential corrosion pathways.
- D. The reservoir roof vent shall be frost-free, vacuum proof, and vandal deterrent. The vent shall include an insect screen with openings no bigger than No. 24 mesh.
- E. The reservoir roof vent shall be a 24-inch Pressure Vacuum Vent as manufactured by Newlin's Welding and Tank Maintenance or approved equal.

2.3 SHELL CUTTING AND PATCHING

- A. Removal of existing hardware penetration the shell shall include all previous welded surfaces. This shall extend ½-inch beyond the existing edge of any systems penetrating the roof or shell wall.
- B. Areas that are to be patched shall use a steel grade equivalent to the existing plate.
 - 1. North Reservoir, all plate equivalent to ASTM A36 steel
- C. Construction:
 - 1. Patching
 - a. Grind surface to accept patching plate
 - b. Install a plate with a thickness, size, and material equivalent to the created penetration
 - c. Weld continuously and in accordance with the recommendations of AWS. Perform special inspection of shell welds as required
 - d. Grind exposed welds smooth and flush, to match and blend with adjoining surfaces
 - e. Discoloration of finished surfaces and sharp edges will not be acceptable
 - 2. New penetrations
 - a. Grind surface in preparation to accept vent ring.
 - b. Weld continuously and in accordance with the recommendations of AWS. Perform special inspection of shell welds as required.
 - c. Grind exposed welds smooth and flush, to match and blend with adjoining surfaces.
 - d. Discoloration of finished surfaces and sharp edges will not be acceptable.

2.4 ROUGH HARDWARE

- A. Furnish bent or otherwise custom fabricated bolts, plates, anchors, hangers, dowels and other miscellaneous steel and iron shapes as required for framing and supporting systems. Acceptable manufacturers are Simpson, or approved equal.
- B. Manufacture or fabricate items of sizes, shapes and dimensions required. Furnish malleable iron washers for heads and nuts which bear on wood structural connections; elsewhere furnish galvanized steel washers.

2.5 MISCELLANEOUS FABRICATIONS, FRAMING AND SUPPORTS

- A. Provide miscellaneous steel framing and supports required to complete the Work.
- B. Fabricate miscellaneous units to the sizes, shapes and profiles shown in the Drawings or, if not shown, of the required dimensions to receive adjacent grating, plates doors, or other work to be retained by the framing.
- C. Except as otherwise shown, fabricate from structural steel shapes and plate and steel bars, all welded construction using mitered corners, welded brackets and splice plates and a minimum number of joints for field connection.
- D. Cut, drill and tap units to receive hardware and similar items to be anchored to the work.
- E. Equip units with integrally welded anchors for casting into concrete, bolting to structural steel or building into masonry. Furnish inserts if units must be installed after concrete is placed.
- F. Galvanize all miscellaneous fabrications unless otherwise noted.

2.6 MATERIALS

- A. Materials listed below shall be provided unless otherwise noted in the Drawings or other sections of these specification.
- B. Steel:
 - 1. Structural W Shapes: ASTM A992.
 - 2. Structural Shapes: ASTM A36.
 - 3. Channels and Angles: ASTM A36.
 - 4. Steel Plate: ASTM A36.
 - a. Steel Plate to be Bent or Cold Formed: ASTM A283, Grade C.
 - 5. Hollow Structural Sections: ASTM A500, Grade B.
 - 6. Sheet Steel: ASTM A653, Grade 33 Structural Quality.
 - 7. Standard Bolts: ASTM A307; Grade A.
 - a. Washers: ASTM F844.
 - 8. High Strength Bolts: ASTM F3125.

- a. Washers: ASTM F436; Type 1.
- 9. Nuts: ASTM A563; heavy-hex type.

10. Welding Materials: AWS D1.1; type required for materials being welded.

- C. Stainless Steel:
 - 1. Bars and Shapes: ASTM A276; Type 316.
 - 2. Plate, Sheet, and Strip: ASTM A666; Type 316.
 - 3. Bolts, Nuts, and Washers: ASTM A354; Type 316.
 - 4. Welding Materials: AWS D1.6; type required for materials being welded.
- D. Aluminum:
 - 1. Structural Aluminum Shapes and Plates: ASTM B308, Alloy 6061, Temper T66, Anodic Coating Class I, anodized after fabrication.
 - 2. Bolts, Nuts, and Washers: Stainless steel or Steel, galvanized.
 - 3. Welding Materials: AWS D1.1; type required for materials being welded.
- E. Bolts, Nuts, and Washers for Equipment and Piping:
 - 1. Select fasteners for the type, grade and class required for the installation of miscellaneous metal items.
 - 2. Carbon Steel:
 - a. General: Zinc-coated, ASTM A153.
 - b. Structural Connections: ASTM A307, Grade 2 (60 ksi), hot-dip galvanized.
 - c. Anchor Bolts: ASTM A307, Grade 2 (60 ksi), hot-dip galvanized.
 - d. Pipe and Equipment Flange Bolts: ASTM A193, Grade B-7.
 - e. High Strength Bolts: ASTM F3125, Heavy Hex Head.
 - 3. Stainless Steel: Type 316 stainless steel, Class 2; ASTM A193 for bolts; ASTM A194 for nuts.
 - a. Where stainless steel bolts are in contact with dissimilar metals, glass epoxy insulating sleeves and washers shall be used to electrically isolate the bolts.
- 2.7 FABRICATION
 - A. Workmanship:

- 1. Use materials of the size and thicknesses shown in the Drawings or, if not shown, of the required size and thickness to produce adequate strength and durability in the finished product for the intended use as approved by the Engineer.
- 2. Work to the dimensions shown in the Drawings or accepted on Shop Drawings, using proven details of fabrication and support.
- 3. Use the type of materials shown in the Drawings or specified for the various components of work.
- 4. Form exposed work true to line and level with accurate angles and surfaces and straight sharp edges.
- 5. Ease exposed edges to a radius of approximately 1/32 inch, unless otherwise shown in the Drawings.
- 6. Form bent-metal corners to the smallest radius possible without causing grain separation or otherwise impairing the Work.
- B. Fit and shop-assemble items in largest practical sections for delivery to Site.
- C. Fabricate items with joints tightly fitted and secured.
- D. Continuously seal join members by means of continuous welds in accordance with the recommendations of AWS, unless otherwise noted or approved.
- E. Grind exposed joints flush and smooth with adjacent finish surface. Make exposed joints butt tight, flush, and hairline. Ease exposed edges to small, uniform radius.
- F. Exposed Mechanical Fastenings: Flush countersunk screws or bolts; unobtrusively located; consistent with design of component, except where specifically noted otherwise.
- G. Supply components required for anchorage of fabrications. Fabricate anchors and related components of same material and finish as fabrication, except where specifically noted otherwise.
- H. Miscellaneous Steel Trim:
 - 1. Provide shapes and sizes for profiles shown in the Drawings.
 - 2. Except as otherwise indicated, fabricate units from structural steel shapes and plates and steel bars, with continuously welded joints and smooth exposed edges.
 - 3. Use concealed field splices wherever possible.

- 4. Provide cutouts, fittings and anchorages as required for coordination of assembly and installation with other work.
- I. Fabrication Tolerances:
 - 1. Squareness: 1/8-inch maximum difference in diagonal measurements.
 - 2. Maximum Offset between Faces: 1/16 inch.
 - 3. Maximum Misalignment of Adjacent Members: 1/16 inch.
 - 4. Maximum Bow: 1/8 inch in 48 inches.
 - 5. Maximum Deviation from Plane: 1/16 inch in 48 inches.

2.8 FINISHES

- A. Steel:
 - 1. Clean surfaces of rust, scale, grease, and foreign matter prior to finishing.
 - 2. Do not prime surfaces in direct contact with concrete or where field welding is required.
 - 3. Prime-paint items with one coat, except where galvanizing is specified.
 - 4. Coatings as specified per Section 09 97 14 Steel Water Storage Tank Painting.
 - a. Primer paint selected must be compatible with the required finish coats of paint.
 - b. At locations in contact with potable water, use only primer approved for potable water use.
 - 5. Galvanizing for Rolled, Pressed and Forged Steel Shapes, Plates, Bars and Strips: ASTM A123; hot-dip galvanize after fabrication.
 - 6. Galvanizing for Fasteners, Connectors, and Anchors:
 - a. Hot-Dip Galvanizing: ASTM A153.
 - b. Mechanical Galvanizing: ASTM B695; Class 50 minimum.
 - 7. Chrome Plating: ASTM B177, nickel-chromium alloy, satin finish.
 - 8. Sheet Steel: Galvanized.
 - 9. Bolts: Hot-dip galvanized.
 - 10. Nuts: Hot-dip galvanized.
 - 11. Washers: Hot-dip galvanized.

- 12. Touchup Primer for Galvanized Surfaces: ASTM A780 (A780M), A1. Repair Using Zinc-Based Alloys (Heat and Stick Method).
- B. Stainless Steel:
 - 1. Satin-Polished Finish: Number 4, satin directional polish parallel with long dimension of finished face.
 - 2. Mirror-Polished Finish: Number 8, mirror polish with preliminary directional polish lines removed.
- C. Aluminum:
 - 1. Protection of All Aluminum:
 - a. Aluminum surfaces in contact with cementitious, masonry or dissimilar materials, apply the following coating system:
 - 1) One (1) coat of epoxy primer, 1 to 2 mils dry film (D.F.).
 - 2) Followed by two (2) coats of Bitumastic, 6 to 8 mils D.F.
 - 3) Followed by two (2) coats of tarset material, 6 to 8 mils D.F.
- D. Shop Painting
 - 1. Shop painting of metal fabrications shall be allowed only at the sole discretion of the Engineer.
 - 2. Remove scale, rust, and other deleterious materials before the shop coat of paint is applied.
 - a. Clean off heavy rust and loose mill scale in accordance with SSPC SP-7, Brushoff Blast Cleaning.
 - b. Remove oil, grease and similar contaminates in accordance with SSPC SP-1, Solvent Cleaning.
 - 3. Immediately following surface preparation, brush or spray on metal primer paint, applied in accordance with the manufacturer's instructions or as specified below.
 - 4. Apply one (1) shop coat of metal primer paint to fabricated metal items. Surfaces which will be inaccessible after assembly or erection require application of two (2) coats of paint to surfaces. Change color of second coat to distinguish it from the first.

- E. Touch-up Painting, Pre-painted Items:
 - 1. Immediately after erection, clean field welds, bolted connections, and abraded areas of the shop paint, and paint all exposed areas with the same material as used for shop painting.
 - 2. Apply touch-up coatings by brush or spray to provide a minimum dry film thickness of the original coating thickness.

PART 3 EXECUTION

3.1 EXAMINATION

A. Verify that field conditions are acceptable and are ready to receive Work.

3.2 PREPARATION

- A. Clean and strip primed steel items to bare metal and aluminum where Site welding is required.
- B. Furnish setting drawings, diagrams, templates, instructions and directions for the installation of anchorages, such as concrete inserts, anchor bolts and miscellaneous items having integral anchors. Supply steel items required to be cast into concrete or embedded in masonry with setting templates to appropriate sections. Coordinate delivery of such items to the project Site.

3.3 INSTALLATION

- A. Install items plumb and level, accurately fitted, and free from distortion or defects.
- B. Make provisions for erection stresses. Install temporary bracing to maintain alignment until permanent bracing and attachments are installed.
- C. Fastening to In-Place Construction: Provide anchorage devices and fasteners where necessary for securing miscellaneous metal items to in-place construction, including threaded fasteners for concrete and masonry inserts, toggle bolts, through-bolts, lag bolts, wood screws and other connectors as required.
- D. Fit exposed connections accurately together to form tight hairline joints.
- E. Grind joints smooth and touch-up using shop paint coat.
- F. Do not weld, cut or abrade the surfaces of exterior units which have been hot-dip galvanized after fabrication and are intended for bolted or screwed field connections.
- G. Field-weld components indicated on Drawings and Shop Drawings.

- H. Perform field welding according to AWS D1.1 with regards to procedures of manual shielded metal-arc welding, the appearance and quality of welds made and the methods used in correcting welding work.
- I. Obtain approval of Engineer prior to Site cutting or making adjustments not scheduled.

3.4 TOLERANCES

- A. Maximum Variation from Plumb: 1/4 inch per story or for every 12 feet in height, whichever is greater, non-cumulative.
- B. Maximum Variation from Level: 1/16 inch in 3 feet and 1/4 inch in 10 feet.
- C. Maximum Offset from Alignment: 1/4 inch.
- D. Maximum Out-of-Position: 1/4 inch.

3.5 FIELD QUALITY CONTROL

- A. Welding: Inspect welds according to AWS D1.1.
- B. Replace damaged or improperly functioning hardware.
- C. After erection, touch up welds, abrasions, and damaged finishes with prime paint or galvanizing repair paint to match shop finishes.
- D. Touch up factory-applied finishes according to manufacturer-recommended procedures.

3.6 ADJUSTING

A. Adjust operating hardware and lubricate as necessary for smooth operation.

END OF SECTION

SECTION 09 97 14- STEEL WATER STORAGE TANK PAINTING

- PART 1 GENERAL
- 1.1 SUMMARY
 - A. This Section includes preparing, priming, and installing protective paint systems for welded steel potable water storage tanks and associated appurtenances.
 - B. Section Includes:
 - 1. Surface preparation.
 - 2. Touch-up painting of tank interior, exterior, and designated appurtenances.
 - C. The two (2) existing reservoirs are described as follows:
 - 1. Owner: City of Mercer Island, Washington
 - 2. Location: 4350 88th Ave SE Mercer Island, Washington
 - 3. Function: Potable water storage reservoirs.
 - 4. Reservoir Name: North Reservoir
 - a. Nominal Volume: 4.0 million gallons
 - b. Dimensions (approximate): 147 feet, 10 inches in diameter; 32 feet in height (shell height)
 - c. Year of construction: Unknown.
 - d. Interior coating system: Epoxy
 - e. Existing Exterior coating system:
 - 1) Tnemec 91-H20 with Tnemec Epoxy N27 Typoxy finish coats.
 - 5. Reservoir Name: South Reservoir
 - a. Nominal Volume: 4.0 million gallons
 - b. Dimensions (approximate): 147.5 feet in diameter; 32.5 feet in height (shell height)
 - c. Year of construction: 1976.
 - d. Interior coating system: Epoxy

- e. Exterior coating system:
 - 1) Tnemec 91-H20 with Tnemec Epoxy N27 Typoxy finish coats.
- D. Extent of Work:
 - 1. Surface preparation and application of a protective paint system to:
 - a. Roof Hatches
 - 1) One (1) on the North Reservoir
 - 2) Two (2) on the South Reservoir
 - b. Area around North Reservoir vent following vent replacement.
 - c. Area around hole in North Reservoir roof overhang following repair.
 - d. Other touch up as directed by Owner, with a total painted area of up to 100 square feet for all items.
 - 2. Surface cleaning of the existing South Reservoir exterior steel roof surface by waterjet cleaning.
 - 3. Replacement of the reservoir roof access hatch gaskets.
 - 4. Replacement of the North Reservoir vent.
 - 5. Reservoir disinfection upon completion of construction.
- E. Related Work Specified in Other Sections:
 - 1. Surface preparation and application of specified coatings systems in this Section are in addition to shop-priming and surface treatment that may be specified under other sections of the Work or furnished with manufactured equipment.
 - 2. Some items with factory-finishes or corrosion-resistant finishes may be scheduled or directed to be painted by the ENGINEER to unify a finish or color scheme at the ENGINEER'S discretion.
 - 3. Paint all exposed surfaces whether or not colors are designated in "schedules", except where the natural finish of the material is specifically noted as a surface not to be painted. Where items or surfaces are not specifically mentioned, paint these the same as adjacent similar materials or areas. If color or finish is not designated, the ENGINEER will select these from standard colors available for the materials systems specified.

- F. Exclusions:
 - 1. Do not paint the following surfaces unless specified or directed elsewhere: Stainless steel, aluminum, copper, brass, bronze, and other corrosion-resistant materials (except for valve bodies and piping); multiple-coated factory-finished baked enamel or porcelain products; concealed areas such as ducts, piping, conduits, and items specified elsewhere for special linings and coatings.
 - 2. Do not paint any surfaces scheduled for special coating or waterproofing systems in other sections of the specifications.

1.2 REFERENCE STANDARDS

- A. General:
 - 1. Without limiting the general aspects or other requirements of this Section, Work and equipment shall conform to any applicable requirements of municipal, state and federal codes, laws and ordinances governing the Work, standard specifications, and the paint manufacturer's printed instructions and guidance documentation.
 - 2. The decision of the ENGINEER shall be final as to the interpretation of any codes, laws, ordinances, instructions, guidance documentation, specifications and standards referenced or contained herein, and the resolution of any conflicts between any documents.
- B. American Water Works Association:
 - 1. AWWA D102 Coating Steel Water Storage Tanks.
- C. NSF International (NSF):
 - 1. NSF 61 Drinking Water System Components Health Effects.
- D. SSPC: The Society for Protective Coatings:
 - 1. Good Painting Practice, SSPC Painting Manual, Volume 1.
 - 2. Specifications and Systems, SSPC Painting Manual, Volume 2.
- E. Published standards of National Association of Corrosion Engineers (NACE) pertaining to coating and coating inspections.
- F. Code of Federal Regulations (CFR)
 - 1. 29 CFR 1910 Occupational Safety and Health Standards (General Industry Standards)

2. 29 CFR 1926.62, Lead in Construction

1.3 DEFINITIONS

- A. Coating Systems: Protective paint systems consisting of primer, intermediate coat(s) and finish-top coats.
- B. Exterior Surfaces: All outside surfaces of the reservoir. Exterior surfaces include the reservoir roof; the reservoir exterior shell; all exterior ladders and ladder cages; vents; piping; roof hatches; sidewall manway access hatches; and any other exterior appurtenances and surfaces not specifically excluded by this Section or elsewhere in these Specifications to receive the specified paint system.
- C. Interior Surfaces: All surfaces contained within the inside of the reservoir which have contact with the stored fluid or the humid atmosphere above the stored fluid. Interior surfaces include the reservoir ceiling and associated structural supports, including joists and columns; reservoir interior shell; reservoir floor; interior ladders; overflow and associated piping; the interior of the center roof support column and exterior of all pipes located within the center roof support column; and any other interior surfaces not specifically excluded by this Section or elsewhere in these Specifications to receive the specified paint system.
- D. Paints: All coating systems materials, including primers, emulsions, enamels, stains, sealers and fillers, and other applied materials whether used as prime, intermediate or topcoat.
- 1.4 NOT USED

1.5 PAINT AND COATING SYSTEMS MANUFACTURER

- A. Provide the paints and coatings specified herein. Paint application shall be in strict accordance with the manufacturer's printed instructions.
- B. Paint Products:
 - 1. All paint products shall be from a single manufacturer.
 - 2. No request for substitution shall be approved which decreases the film thickness designated or the number of coats to be applied, or which offers a change from the generic type of coating specified.
 - 3. Painting shall be done at such times as the CONTRACTOR and ENGINEER may agree upon in order that dust-free and neat work is achieved.
 - 4. All painting shall be in strict accordance with the manufacturer's instructions and shall be performed in a manner satisfactory to the ENGINEER.

- C. Manufacturer's Representative:
 - 1. Provide a paint manufacturer's representative and require paint manufacturer's representative to be at job site for a pre-job conference, when surface preparation is underway, when the first day's painting is in progress, and periodically during progress of the work.
- D. Paint Labels:
 - 1. Deliver paint to Site in the original sealed containers with manufacturer's name, product name, type of product, manufacturer's specification or catalog number or federal specification number, and instructions for reducing where applicable.
- E. Paint Colors:
 - 1. Colors will be selected from manufacturer's standard colors as reviewed by ENGINEER and approved by the OWNER.
 - 2. Colors for special coatings that are limited in their availability and color selection will be chosen on the basis of manufacturer's standard colors, provided that the manufacturer's product line represents a color range comparable to similar products of other manufacturers.

1.6 SUBMITTALS

- A. See General Terms and Conditions, Article 4.5 Submittal Procedures.
- B. Materials List: Submit a list of materials and manufacturer's standard color chart and manufacturer's technical information including analysis and application information for each material proposed for use, federal specification number, and cross references to the specifications. Clearly identify and label each paint system with designated specification number and, within each system, identify and label the product designated for first coat and each additional coat. Submit product data/information sheets for all products proposed for use.
- C. Manufacturer's Application Instructions and Surface Preparation Recommendations: Submit manufacturer's application instructions and surface preparation recommendations for use and reference at the project site.
- D. Safety Data Sheets (SDS): Submit SDS's for all products proposed for use, including paint systems, solvents, thinners, and mineral spirits to be used for degreasing, surface preparation, and thinning of paint systems for review by the ENGINEER and approval by the paint manufacturer's representative. Applicable SDS's shall be kept on the Site for the entire time such products are present on the Site.

- E. Certificate: Submit manufacturer's certificate of compliance with the specifications and standards signed by a representative in the manufacturer's employ who is authorized by the manufacturer to execute the certificate.
- F. Submittal Documents: Submit the above-specified materials in a single project submittal with all materials in an electronic copy.
- G. Field Quality-Control Submittals:
 - 1. Indicate results of Contractor-furnished tests and inspections including, but not limited to, ambient environmental conditions, surface profile measurements, DFT measurements, etc.
 - 2. Provide letters of coating application acceptance from paint and coating systems manufacturer representative.
 - 3. Provide certification letters from NACE Certified Level 2 Coating Inspector and surface preparation conformance with Specifications for any shop-coating procedures performed as may be applicable to the project.
- H. Existing Lead-Based Paint Testing, Removal, Containment, Disposal, and Environmental and Personnel Protection Plans:
 - 1. It is the ENGINEER's opinion that a lead-based primer was applied to the exterior surfaces of the reservoir when it was initially constructed, as evidenced by test results from 2014 which indicated total lead of 2,100 mg/Kg for the North Reservoir and 114 mg/Kg for the south reservoir. Submit a representative sample of the existing exterior coating system for laboratory testing and analysis, and if lead is present, shall comply with the following protocols.
 - 2. Collection/Storage/Disposal Plan for Lead-Based Paint Coating: Provide a written plan for the collection, storage, and disposal of lead-based paint removed as part of this project. The name and address of the hazardous waste hauler and a copy of their hauling permit shall be submitted along with the name and address of the final disposal site. When the disposal is completed, a copy of the completed EPA manifest shall be submitted to the City.
 - 3. Removal/Containment Plan: Provide a written plan for the methods to be employed for surface preparation, proposed containment, and collection of debris. At a minimum, vacuum shrouding shall be used around removal tools in combination with ground covers to contain and collect all debris. Submit the containment plan for review by the Engineer. Submittals shall be in general accordance with 29 CFR1910.62.

4. Programs for the Protection of the Soil and Water: Submit testing and evaluation programs that will be used to confirm that the Work does not violate federal, state, or local regulations.

1.7 QUALITY ASSURANCE

- A. Comply with AWWA D102
- B. Materials in Contact with Potable Water: Certified to NSF 61.
- C. Obtain paint products from single source for Work specified in this Section.
- D. Provide all testing equipment and conduct Field Quality Control procedures as specified in Part 3 of this Section.

1.8 PAINT DELIVERY, HANDLING, AND STORAGE

- A. Container Labeling: Include manufacturer's name, type of coating, brand name, lot number, brand code, coverage, surface preparation, drying time, cleanup requirements, color designation, and instructions for mixing and reducing.
- B. Inspection:
 - 1. Accept materials on Site in manufacturer's sealed and labeled containers.
 - 2. Inspect for damage and to verify acceptability.
- C. Store materials in ventilated area and otherwise according to manufacturer instructions.
- D. Protection:
 - 1. Protect materials from moisture and dust by storing in clean, dry location remote from construction operations areas.
 - 2. Provide additional protection according to manufacturer instructions.

1.9 SAFETY AND HEALTH REQUIREMENTS

- A. Comply with all applicable WISHA, EPA, and Department of Ecology regulations relating to painting/coating preparation, application, and all associated activities.
- B. Conform to all applicable safety requirements set forth by manufacturer's printed instructions and applicable technical bulletins and manuals.
- C. Provide and require the use of personal protective life-saving equipment for persons working within or about the Site.

- D. Ladders, Scaffolding, and Rigging:
 - 1. All ladders, scaffolding, and rigging shall be designed for their intended uses.
 - 2. Ladders and scaffolding shall be erected where requested by ENGINEER to facilitate inspection and be moved by the CONTRACTOR to locations requested by the ENGINEER.
- E. Ventilation:
 - 1. Where ventilation is used to control hazardous exposure, all equipment shall be explosion-proof.
 - 2. Ventilation accomplished by educting air, vapors, and other hazardous material from the confined space shall be conducted to reduce the concentration of air contaminants to the degree a hazard does not exist.
 - 3. Forced air eduction during blast cleaning and coating application operations is mandatory.
 - 4. Air circulation and exhausting of solvent vapors shall be continued until coatings have fully cured.
- F. Protective Equipment:
 - 1. Provide for the duration of the coating/painting operations suitable personal breathing apparatus, protective clothing and safety gear for the use of the ENGINEER's on-site representative.
 - 2. All such equipment shall be provided and maintained in excellent working order and shall be available at all times during painting and coating operations.
- G. Grounding: Blasting, spray, and air hoses shall be grounded to prevent accumulation of charges of static electricity.
- H. Illumination:
 - 1. Spark-proof artificial lighting shall be provided for all work in confined spaces. Light bulbs shall be guarded to prevent breakage.
 - 2. Lighting fixtures and flexible cords shall comply with the requirements of NFPA 70: National Electric Code for the atmosphere in which they will be used.
 - 3. Whenever required by the ENGINEER, the CONTRACTOR shall provide additional illumination and necessary supports to cover all areas to be inspected. The level of illumination for inspection purposes shall be determined by the ENGINEER.

- I. Solvents:
 - 1. The solvents used with specified protective coatings may be explosive at low concentrations and may be highly toxic. Because of toxicity, the maximum allowable concentration of vapor shall be kept below the maximum safe concentration for 8-hour exposure and the lower explosive limit (LEL) must be strictly adhered to.
 - 2. If existing coatings or paints to be removed contain lead or other hazardous materials, all regulations related to safety of personnel and handling of such materials shall be strictly adhered to.
- J. Mixing and Application of Coatings and Paints:
 - 1. During mixing and application of coatings and paints, all flames, welding, and smoking shall be prohibited in the vicinity.
 - 2. When handling and mixing coatings and paints, workers shall wear gloves and eye shields.
 - 3. Fire extinguishers of the appropriate type shall be provided by CONTRACTOR and kept at the project site during all operations.
- K. Noise: Whenever the occupational noise exposure exceeds the maximum allowable sound levels, the CONTRACTOR shall provide and require the use of approved ear protective devices.
- L. Notification to Public: Notify all adjoining property Owners within 24 hours of any and all on-site surface preparation and/or painting activities.
- M. Dust Prevention and Control: Applicable environmental regulations for dust prevention shall be strictly enforced. Emissions from reservoir construction activities including abrasive blasting and painting shall be controlled to be within applicable environmental regulations.
 - 1. Where a reservoir may be located in close proximity to existing residential, commercial, or industrial development, conduct all operations so as to confine abrasive blasting debris and paint overspray to within the bounds of the Site. Take all precautions necessary to prevent adverse off-site consequences of painting operations.
 - 2. Any complaints received by the OWNER or ENGINEER shall be delivered to the CONTRACTOR for resolution. The CONTRACTOR shall immediately halt the work and shall take whatever corrective action is required to mitigate any such problems.

3. All costs associated with protection of off-site properties and/or correction of damage to property as a result of painting operations shall be borne directly by the CONTRACTOR at no additional expense to the OWNER.

1.10 AMBIENT CONDITIONS

- A. Do not apply paint in rain, snow, fog or mist, or when steel surface temperature is less than 5°F above the dew point as specified by coating manufacturer which will result in condensation.
- B. Do not apply materials when surface and ambient temperatures are outside temperature ranges indicated by paint product manufacturer.
- C. Do not apply coating materials when the relative humidity is outside acceptable limits as described on the coating product data sheets.
- D. Prevent rapid changes in temperature during curing and thermal shock cracks in finish material.

1.11 WARRANTY

- A. A warranty inspection will be conducted between the 10th and 12th months following completion and acceptance of all coating and painting work. The OWNER, the ENGINEER, and the CONTRACTOR shall be present at this inspection.
- B. All defective work found in the warranty inspection shall be repaired at the sole cost of the CONTRACTOR in strict accordance with this Section and to the satisfaction of the ENGINEER.
- C. The warranty inspection shall consist of the following:
 - 1. The OWNER shall establish the date for the inspection and shall notify the CONTRACTOR at least 30 days in advance.
 - 2. Interior Coating Systems:
 - a. The entire interior coating systems, as installed under this Project, shall be visually inspected.
 - b. If additional inspection is deemed necessary by the ENGINEER, such inspection shall be accomplished as directed in accordance with the applicable provisions of this Section.
 - c. All defective coating, as well as damaged or rusting spots of the reservoir, shall be satisfactorily repaired by and at the sole expense of the CONTRACTOR.

- d. All repaired areas shall then be electrically tested as specified in the Field Quality Control procedures within Part 3 of this Section.
- 3. Exterior Coating Systems:
 - a. The entire exterior paint system, as installed under this Project, shall be visually inspected.
 - b. If additional inspection if deemed necessary by the ENGINEER, such inspection shall be accomplished as directed in accordance with the application provisions of this Section.
 - c. All defective, damaged or rusting areas shall be satisfactorily repaired by and at the sole expense of the CONTRACTOR.
- 4. The ENGINEER will prepare and deliver to the CONTRACTOR an inspection report covering the first anniversary inspection, setting forth the number and type of failures observed, the percentage of the surface area where failure has occurred, and the names of the persons making the inspection.
- 5. Upon completion of inspection and receipt of the inspection report as noted herein, the OWNER shall establish a date for the CONTRACTOR to proceed with remedial work. Any delay on part of the CONTRACTOR to meet schedule established by the OWNER shall constitute breach of this Contract and OWNER may proceed to have defects remedied as outlined under General Conditions.
- 6. Any location where the coating or paint has peeled, bubbled, or cracked and any location where rusting is evident shall be considered to be a failure of the system. The CONTRACTOR shall make repairs at all points where failures are observed by removing the deteriorated coating or paint, cleaning the surface, and recoating or repainting with the same system. If the area of failure exceeds 25 percent of the total coated or painted surface, the entire coating or paint system may be required to be removed and recoated or repainted in accordance with the original specification.
- 7. All costs for the warranty inspection and all costs for repair shall be borne by the CONTRACTOR. The CONTRACTOR shall reserve an appropriate amount for inspection, testing, repair, and disinfection as no additional allowance will be paid by the OWNER for the warranty inspection and repair.

PART 2 PRODUCTS

2.1 MATERIALS, GENERAL

A. Schedules:

- 1. Paint systems, surface treatments, and finishes are indicated in the "Schedules" of the contract documents or as described in this Section.
- 2. Prior to beginning work, the ENGINEER will furnish color schedule for surfaces to be painted.
- 3. Vary undercoats slightly from color of next coat.
- 4. The color schedule will consist of colors as selected by the OWNER and approved by the ENGINEER and from approved submittals, at the ENGINEER'S discretion.
- B. Quality:
 - 1. Provide the best quality grade of the various types of coatings as regularly manufactured by acceptable paint materials manufacturers.
 - 2. Materials not displaying the manufacturer's identification as a standard, best-grade product will not be acceptable.
- C. Paint Coordination:
 - 1. Provide topcoats which are compatible with prime coats used on the Project or which are compatible with existing topcoats on existing facilities.
 - 2. Review other sections of these Specifications in which prime coats are to be provided to ensure compatibility of total coatings system for various substrates.
 - 3. Upon requests from other trades, furnish information on the characteristics of finish materials proposed for use, to ensure compatible prime coats are used.
 - 4. Provide barrier coats over incompatible primers or remove the primer and re-prime as required.
 - 5. Notify the ENGINEER in writing of any anticipated problems using specified coating systems with substrates primed by others or on existing finishes.
- D. Proprietary names used to designate colors, materials, or equipment are not intended to imply that products of the named manufacturers are required to the exclusion of equivalent products, materials, equipment, and equal color ranges of other manufacturers.
- E. Federal Specifications, where used, establish the minimum acceptable quality for paint materials. Provide a written certification from the paint manufacturer that materials provided meet or exceed these minimums.
- F. Color Pigments:

- 1. Color pigments shall be pure, non-fading, and applicable and suitable to the substrates and services indicated.
- 2. Pigments shall be lead free.
- G. Use only thinners approved by the paint manufacturer and only within recommended limits.

2.2 SURFACE PREPARATION MATERIALS

- A. Abrasives
 - 1. Abrasives used in blast cleaning operations shall be clean, well graded, nonmetallic, and free of contaminants which would interfere with adhesion of the coatings to the substrate material.
 - 2. Selection of abrasive size and type shall be based upon the type, grade, and surface condition of the steel to be cleaned and on the finished surface to be produced for the subsequent paint system.
 - 3. Blast cleaning abrasives shall meet or exceed the following minimum criteria:

Description	<u>Criteria</u>
Shape	Angular
Hardness (Mohr Scale)	8
Specific Gravity	3.3
Bulk Density (1lbs/cu. ft.)	110
Free Silica (% by wt.)	0

- 4. Blast cleaning abrasive particle size shall be that which will produce a 2.0-mil (.002inch) anchor profile on the substrate metal or in accordance with recommendations of the manufacturers of the specified coating system to be applied, subject to approval by the ENGINEER.
- 5. Blast cleaning abrasive manufacturer:
 - a. Blast cleaning abrasives shall be Kleen Blast Abrasive as manufactured by Kleen Blast, Green Diamond Abrasive as manufactured by Green Diamond Sand Products or approved equal.
- 6. Lead Stabilizing Additives: For coatings containing lead removed by blast cleaning, a lead stabilizing abrasive additive shall be used in concentrations recommended by the additive manufacturer. Lead stabilizing additive shall be Blastox as manufactured by The TDJ Group, Fesi-Bond as manufactured by Green Diamond Sand Products or approved equal.

- B. Waterjet Wash Solutions: Solutions shall consist of a 5 percent concentration of trisodium phosphate (TSP).
- C. Tool Cleaning: Hand and power tools shall be used to adequately prepare surface areas per surface preparation specifications methods specified herein.

2.3 INTERIOR PAINT SYSTEMS

- A. General:
 - 1. Interior paint systems for wet surfaces of tanks must have been approved by the National Sanitation Foundation (NSF) under Standard 61 for indirect additives.
 - 2. The paint systems shall conform to regulations and applicable requirements of local, State, and Federal air pollution regulatory agencies.
 - 3. Products containing perchloroethylene will not be permitted.
- B. Interior paint systems shall consist of a zinc/epoxy system.
 - 1. In accordance with AWWA Standard D102, Inside Coating System No. 5 for surfaces above the water line.
 - 2. In accordance with AWWA Standard D102, Inside Coating System No 2 for surfaces below the water line.
- C. Coatings and sequence of their application shall be as described below:
 - 1. Prime coat for ceiling and associated support system including joists, columns, overflow and associated piping, and walls from the ceiling down to a level 2 feet below the lowest normal reservoir operating level:
 - a. Material: Zinc-rich urethane
 - 1) Tnemec Series 94-H₂O, Hydro Zinc, Zinc-rich urethane primer
 - 2) Approved equal
 - b. Dry Film Thickness: 2.5 to 3.5 mils
 - 2. Intermediate coat for all primed surfaces:
 - a. Material: Polyamide epoxy
 - 1) Tnemec Series 20 Pota-Pox.
 - 2) Approved equal
 - b. Dry Film Thickness: 4.0-5.0 mils

- c. Color: Light blue or Beige.
- d. All weld seams and pitted areas shall be back rolled or brushed with the intermediate coat.
- 3. Finish coat for all interior surfaces:
 - a. Material: Polyamide epoxy
 - 1) Tnemec Series 20 Pota-Pox
 - 2) Approved equal
 - b. Dry Film Thickness: 4.0-5.0 mils. Color shall be "White" or "Beige" to match existing
- 4. The completed finished coating system on all interior surfaces shall be 11.0-14.0 mils DFT minimum.
- D. Fast-cure versions of the paint products specified above may be substituted upon approval from the ENGINEER.

2.4 EXTERIOR PAINT SYSTEMS

- A. General:
 - 1. Conform to the regulations and applicable requirements of local, State, and Federal air pollution regulatory agencies.
- B. AWWA OCS-6 Exterior paint systems shall consist of an organic zinc /epoxy/urethane system.
- C. Coatings and sequence of their application shall be as described below:
 - 1. Prime Coat:
 - a. Material: Zinc-rich urethane
 - 1) Tnemec Series 94-H₂O, Hydro Zinc, Zinc-rich urethane primer
 - 2) Approved equal
 - b. Dry Film Thickness: 2.5 to 3.5 mils
 - 2. Intermediate Coat:
 - a. Material: Epoxy
 - 1) Tnemec Series 27 F.C. Typoxy

- 2) Approved equal
- b. Dry Film Thickness: 3.0 to 5.0 mils.
- c. Color: Same color as the topcoat
- 3. Finish coat
 - a. Material: Acrylic polyurethane enamel.
 - 1) Tnemec Series 73, Endura-Shield
 - 2) Approved equal
 - b. Dry Film Thickness: 3.0 to 5.0 mils
 - c. Color: As selected by the OWNER. Confirm color with OWNER prior to ordering.
- 4. Finished coating system on exterior surface and appurtenances shall be between 8.5 and 13.5 mils dry film thickness.
- D. Compatible accelerators may be used as recommended by manufacturer and as approved by ENGINEER. All such accelerators must be produced by the same manufacturers as the paint products.
- 2.5 WATERJET CLEANING EQUIPMENT
 - A. Performance Criteria:
 - 1. Deliver a flow rate of 3.5 gallons per minute (gpm) at a pressure of 3,000 pounds per square inch (psi).
 - 2. Nozzle manufacture and geometry shall provide a rotating nozzle which directs the high-pressure spray at a 90-degree angle to the axis of the pressure wand.
- 2.6 MOISTURE CONTROL & HEATING EQUIPMENT
 - A. Moisture control and heating equipment may be used on Project at the Contractor's option at no additional cost to the Owner to complete the specified interior surface preparation and coating as specified herein.
- 2.7 ELECTRICAL POWER AND GENERATOR REQUIREMENTS
 - A. If the operating equipment is to be electrically powered by connection to the local electrical utility, the CONTRACTOR shall be responsible for all utility arrangements. The CONTRACTOR's attention is directed to the General Requirement Sections regarding temporary utilities for construction purposes.

B. If portable electric generators are used for operating equipment, including moisture control equipment, they shall include acoustic attenuation shrouds and be strategically located on site to minimize noise impact to nearby residents.

PART 3 EXECUTION

3.1 INSPECTION

- A. The CONTRACTOR, ENGINEER, and local painting manufacturer representative shall jointly inspect surfaces to receive finishes.
 - 1. Examine surfaces scheduled to be finished prior to commencement of Work, and report conditions capable of affecting proper application.
 - 2. At the ENGINEER's direction, correct defects prior to application of coatings systems specified herein.
 - 3. Painting over the work of other trades does not constitute acceptance of previous work and surfaces by ENGINEER.

3.2 PROTECTION

- A. Cover miscellaneous tank openings, except as required for ventilation, to avoid accumulation of cleaning residue and paint material in overflows, drains, inlet, and outlet piping.
- B. Exterior Tank:
 - 1. Cover tank vents without sealing tight to prevent contamination of tank interior.
 - 2. Maintain ventilation of tank interior.
- C. Protect equipment from abrasion and paint damage.
- D. Cleaning and painting tank exterior after tank is filled is not permitted.

3.3 NOT USED

3.4 SURFACE PREPARATION

- A. General:
 - 1. Unless specified otherwise herein, all surface preparation, coating, and paint application shall conform to applicable standards:
 - a. The Society for Protective Coatings (SSPC).

- 1) All painting work shall be conducted in accordance with SSPC Painting Manual, Volume 1 Good Painting Practices.
- b. American Water Works Association (AWWA).
- c. Manufacturer's printed instruction.
- 2. Skilled Craftsmen:
 - a. All work shall be performed by skilled craftsmen qualified to perform the required work in a manner comparable with the best standards of practice.
 - b. Continuity of personnel shall be maintained, and transfers of key personnel shall be coordinated with the ENGINEER.
- 3. Supervisor:
 - a. Provide a supervisor to be at the Site during surface preparation, paint coatings application, and disinfection operations.
 - b. Supervisor shall have the authority to sign change orders, coordinate work, and make other decisions pertaining to the fulfillment of the work requirements.
- 4. Rolling Scaffolds:
 - a. Blast cleaning from rolling scaffolds shall only be performed within the confines of the interior perimeter of scaffolds.
 - b. Reaching beyond the limits of the perimeter will be allowed only if the blast nozzle is maintained in a position which will produce a profile acceptable to ENGINEER.
- 5. Slag and weld metal accumulation and spatters not previously removed by others including the fabricator, erector, or installer shall be removed by chipping and grinding. All sharp edges shall be peened, ground, or otherwise blunted.
- 6. Evaluation:
 - a. Surface evaluated before and after preparation will be based upon comparison with:
 - 1) SSPC-VIS 1, Guide and Reference Photographs for Steel Surfaces Prepared by Dry Abrasive Blast Cleaning.
 - 2) SSPC-VIS 2, Standard Method of Evaluating Degree of Rusting on Painted Steel Surfaces.

- 3) SSPC-VIS 3, Guide and Reference Photographs for Steel Surfaces Prepared by Power- and Hand-Tool Cleaning.
- 4) SSPC-VIS 4, Guide and Reference Photographs for Steel Surfaces Prepared by Waterjetting.
- 5) SSPC-VIS 5, Guide and Reference Photographs for Steel Surfaces Prepared by Wet Abrasive Blast Cleaning.
- 6) ASTM D610, Standard Method of Evaluating Degree of Rusting on Painted Steel Surfaces.
- 7) ASTM D2200, Standard Practice for Use of Pictorial Surface Preparation Standards and Guides for Painting Steel Surfaces.
- b. Anchor Profile: Anchor profile for prepared surfaces shall be measured by using a non-destructive testing instrument such as a Keane-Tator Surface Profile Comparator or Testex Press-O-Film System to be provided by the CONTRACTOR.
- 7. The latest revision of the following surface preparation specifications of The Society for Protective Coatings (SSPC) shall form a part of this Specification:
 - a. Solvent Cleaning (SSPC-SP1): Removal of oil, grease, dirt, soil, salts, and contaminants by cleaning with solvent, vapor, alkali, emulsion, or steam.
 - b. Hand Tool Cleaning (SSPC-SP2): Removal of loose rust, loose mill scale, and loose paint to degree specified, by hand chipping, scraping, sanding, and wire brushing.
 - c. Power Tool Cleaning (SSPC-SP3): Removal of loose rust, loose mill scale, and loose paint to degree specified, by power tool chipping, descaling, sanding, wire brushing or wire impact tools, and grinding.
 - d. White Metal Blast Cleaning (SSPC-SP5): Removal of all visible rust, mill scale, paint and foreign matter by blast cleaning by wheel or nozzle (dry or wet) using sand, grit, or shot.
 - e. Commercial Blast Cleaning (SSPC-SP6): Removal of all visible rust, mill scale, paint, and foreign matter by blast cleaning. Staining is permitted on no more than 33 percent of each 9-square inch (in²) area of the cleaned surface.
 - f. Brush-off Blast Cleaning (SSPC-SP7): Blast cleaning of all except tightly adhering residues of mill scale, rust, and coatings, while uniformly roughening the surface.

- g. Pickling (SSPC-SP8): Complete removal of rust and mill scale by acid pickling, duplex pickling, or electrolytic pickling.
- h. Near-White Blast Cleaning (SSPC-SP10): Removal of all visible rust, mill scale, paint, and foreign matter by blast cleaning. Staining is permitted on no more than 5 percent of each 9-in² area of the cleaned surface.
- i. Power Tool Cleaning to Bare Metal (SSPC-SP11): Complete removal of all rust, scale, and paint by power tools, with resultant minimum surface profile of 25 micrometers (μ m) (1-mil).
- j. Industrial Blast Cleaning (SSPC-SP14): Between SP 7 (brush-off blast cleaning) and SP 6 (commercial blast cleaning). The intent is to remove as much coating as possible, but tightly adherent rust, mill scale, and coating can remain on 10 percent of each 9-in² area of the cleaned surface.
- k. Commercial Grade Power Tool Cleaning (SSPC-SP15): Between SP 3 (power tool cleaning) and SP 11 (power tool cleaning to bare metal). Removes all rust and paint but allows for random staining on up to 33 percent of each 9-in² area of the cleaned surface; requires a minimum surface profile of 25 μ m (1-mil).
- I. Brush-off Blast Cleaning of Coated and Uncoated Galvanized Steel, Stainless Steels, and Non-ferrous Metals (SSPC-SP16): Requirements for removing loose contaminants and coating from coated and uncoated galvanized steel, stainless steels, and non-ferrous metals. Requires a minimum 19 μ m (0.75-mil) surface profile on bare metal substrate.
- m. Waterjet Cleaning of Metals Clean to Bare Substrate (SP WJ-1): Cleanest waterjetting level, requires the cleaned metal to be free of all visible oil, grease, dirt, rust and other corrosion products, previous coatings, mill scale, and foreign matter.
- n. Waterjet Cleaning of Metals Very Thorough Cleaning (SP WJ-2): Requires the cleaned metal surface to be free of all visible oil, grease, dirt, rust and other corrosion products, except for randomly dispersed stains of rust and other corrosion products, tightly adherent thin coatings, and other tightly adherent foreign matter previous coatings, mill scale, and foreign matter over no more than 5 percent of each 9-in² area of the cleaned surface.
- Waterjet Cleaning of Metals Thorough Cleaning (SP WJ-3): Requires removal of all visible contaminants as in WJ-2 above. Randomly dispersed staining as described in WJ-2 is limited to no more than 33 percent of each 9-in² area of the cleaned surface.

- p. Waterjet Cleaning of Metals Light Cleaning (SP WJ-4): Requires removal of all visible oil, grease, dirt, dust, loose mill scale, loose rust and other corrosion products, and loose coating. Any residual material shall be tightly adhered to the metal substrate.
- 8. All welds, when required, shall be neutralized with a suitable chemical compatible with the specified coating or paint materials.
- 9. Keep the area of Work in a clean condition.
 - a. Do not permit blasting materials to accumulate so as to constitute a nuisance or hazard to the prosecution of Work or the operation of the existing facilities.
 - b. Spent abrasives and other debris shall be removed at the CONTRACTOR's expense as directed by the ENGINEER.
 - c. If waste is determined to be hazardous, disposal by the CONTRACTOR shall meet requirements of all regulatory agencies for handling and disposing of such wastes as noted elsewhere in this Section.
- 10. Remove residue from surface preparation before paint application is begun.
 - a. Blast-cleaned surfaces shall be cleaned prior to application of specified coatings or paints through a combination of blowing with clean dry air, brushing/brooming and/or vacuuming as directed by the ENGINEER.
 - b. Air hoses for blowing shall be at least 1/2-inch in diameter and shall be equipped with a shut-off device.
- 11. Any surfaces not coated/painted the same day they are prepared to receive the specified paint systems shall be re-prepared prior to coating/painting, unless the ENGINEER-approved moisture control equipment is used by the CONTRACTOR to maintain conditions that allow extended blasting schedules prior to application of prime coats.
- B. Surface Preparation, Interior Surfaces
 - 1. Prepare all interior surfaces of the reservoir and associated interior structures according to SSPC-SP 1 followed by either SSPC-SP 10 or SSPC-SP 11.
 - 2. Anchor profile shall be measured as described elsewhere in this Section.
 - 3. Following blast cleaning and prior to painting, the following additional operations shall be performed:

- a. Material Removal: Remove spent abrasives and existing coating waste material from all blasted surfaces. This shall be accomplished by blowing off all blasted surfaces with clean, dry air and vacuum cleaning or blooming/sweeping of all waste material.
- b. Remove or cause to be removed all traces of rust bloom or deposits of oil, grease, or other contaminants which become visible prior to application of the prime coat.
- c. Pitting Inspection and Repairs:
 - 1) The ENGINEER and CONTRACTOR will perform an inspection of the blasted substrate metal for identification of areas with significant pitting of the substrate metal and any surface deficiencies.
 - 2) Pitting of the substrate metal to a depth greater than 1/8-inch shall be ground out with a suitable grinding tool and filled with weld filler materials so that the deposited weld filler material forms a convex surface over the base metal. This convex surface shall then be ground flush to the base metal prior to any additional surface preparation and subsequent application of the prime coat.
 - 3) Surface deficiencies identified shall be repaired to the satisfaction of the ENGINEER.
- 4. Humidity and Temperature Control
 - a. General: Humidity and temperature control, when specified and required elsewhere in this Section for interior spaces, shall be provided using appropriate specialized equipment.
- C. Surface Preparation, Exterior Surfaces
 - 1. The South Reservoir roof and exterior areas to be recoated shall be prepared with a 50 percent bleach solution to kill mildew or other biological growth prior to waterjet cleaning.
 - 2. Waterjet Cleaning:
 - a. After applying bleach solution, all exterior surfaces of the reservoir and associated exterior structures shall be waterjet cleaned with a 5 percent TSP solution.
 - b. Waterjet cleaning equipment shall comply with requirements specified elsewhere in this Section.

- c. Prepare all exterior metal surfaces according to SP WJ-4, Waterjet Cleaning of Metals, Light Cleaning.
- 3. Following waterjet cleaning and prior to painting, the following surface preparation of all locations of proposed coating shall be performed:
 - a. Spot Surface Preparation: All locations where the existing coating system has failed and there is visible rust or other surface contamination, power-tool cleaning to bare metal (SSPC SP-11) shall be performed.
 - b. Care shall be taken to feather the surface preparation into the existing coating to remain in order to create a surface that will easily accept the new coating system primer.
 - c. Follow all manufacturer requirements regarding minimum surface profile of the steel to receive the new spot primer.

3.5 APPLICATION

- A. General:
 - 1. According to SSPC Paint Application Specification PA 1 Shop, Field and Maintenance Painting, latest revision.
 - 2. Printed literature of the manufacturer of the coating and paint materials.
 - 3. As further specified within this Section.
- B. Ventilation: Provide for adequately ventilated enclosed rooms and spaces during painting and curing periods.
- C. Thickness:
 - 1. Apply coatings in strict conformance with the manufacturer's application instructions.
 - 2. Apply each coat at the rate specified by the manufacturer to achieve the dry mil thickness specified.
 - 3. If material must be diluted for application by spray gun, build up more coating to achieve the same thickness as undiluted material.
 - 4. Correct any apparent deficiencies of film thickness by the application of an additional coat.
- D. Thinning:

- 1. Do not thin paint unless approved by the ENGINEER.
- 2. Only use thinner recommended by paint manufacturer which has been determined to be compatible with specified coating system.
- 3. Thin paint in accordance with the manufacturer's directions.
- E. Application:
 - 1. Each application of coatings shall be applied evenly, free of brush marks, sags, runs, and no evidence of poor workmanship.
 - 2. Care shall be exercised to avoid lapping on glass or hardware.
 - 3. Coatings shall be sharply cut to lines.
 - 4. Finished surfaces shall be free from defects or blemishes.
- F. Interior Coatings: By airless spray application, except where back rolling or striping is performed.
 - 1. Brushing may be used to repair paint in areas of steel modifications.
- G. Exterior Paint Application: By roller only.
 - 1. Brushing may be used to repair paint in areas of steel modifications.
 - 2. Spray application will not be allowed.
- H. Brush Coats:
 - 1. All welds, laps, edges, inside angles, and irregular surfaces shall receive a brush coat of the specified product prior to application of each complete coat.
 - 2. Paint may be applied as a spray stripe coat and back brushed by hand.
 - 3. Coatings shall be brushed in multiple directions to ensure penetration and coverage, as directed by the ENGINEER.
- I. At conclusion of each day's cleaning and coating operations, a 6-inch wide strip of cleaned substrate shall remain uncoated to facilitate locating the point of origin for each successive day's cleaning operations.
- J. Curing Time:
 - 1. Do not apply the next coat of paint until each coat is dry.
 - 2. Test non-metallic surfaces with a moisture meter.

- 3. The manufacturer's recommended curing time shall mean an interval under normal conditions that is to be increased to allow for adverse weather or curing conditions.
- 4. Paint manufacturer's representative shall verify by cure testing the complete cure of coatings systems used for immersion service.
- K. Attachments, Accessories, and Appurtenance: All attachments, accessories, and appurtenances shall be prepared and coated in the same manner as specified for adjacent structures, unless otherwise specified elsewhere in this Section or other sections of the Specifications.
- L. Protection of Coated Surfaces:
 - 1. Protective coverings or drop cloths shall be used to protect floors, fixtures, equipment, prepared surface, and applied coatings.
 - 2. Personnel entering the reservoir or walking on the exterior roof of the reservoir shall take precautions to prevent damage or contamination of coated surfaces.
 - 3. Care shall be exercised to prevent coatings from being spattered onto surfaces which are not to be coated.
 - 4. Surfaces from which such material cannot be removed satisfactorily shall be repainted as required to produce a finish satisfactory to the ENGINEER.
- M. Atmospheric Conditions: No coatings shall be applied under the following limitations:
 - 1. Temperature: If temperatures are anticipated to be as noted below within eight hours after application of the coating.
 - a. Epoxy Coatings: Surface to be coated is below 55 degrees Fahrenheit (F). Exceptions may be approved by ENGINEER with concurrence from manufacturer if material is "low temperature" type.
 - b. Inorganic Zinc or Urethane Finishes: Surface to be coated is below 40 degrees F.
 - c. When the temperature is less than 5 degrees F above the dew point.
 - 1) The dew point shall be measured by use of an instrument such as a sling psychrometer in conjunction with U.S. Department of Commerce Weather Bureau Psychometric Tables or other instrument acceptable to the ENGINEER.
 - d. When the temperature of the surface to be coated is above 125 degrees F for all coating types.

- 2. Surfaces: When the surfaces to be coated are wet or damp or there is the presence of rain, snow, fog, or mist.
- 3. If any of the above adverse conditions are present, the coating or paint application shall be postponed until conditions are favorable. The day's coating or paint application shall be completed in time to permit the film sufficient drying time prior to the onset of adverse atmospheric conditions.
- 3.6 NOT USED
- 3.7 FIELD QUALITY CONTROL
 - A. Quality assurance procedures and practices shall be used to monitor all phases of surface preparation, application, and inspection throughout the duration of the Project. Procedures or practices not specifically defined herein may be used provided they meet recognized and acceptable professional standards and are approved by the ENGINEER.
 - B. All materials furnished and all work performed shall be subject to inspection by the ENGINEER. The CONTRACTOR shall be held strictly to the true intent of the Specifications in regard to quality of materials, workmanship, and diligent execution of the work.
 - C. Field Inspection: CONTRACTOR shall notify ENGINEER when painting work is to be in progress in time for ENGINEER to check atmospheric conditions, surface preparation, mixing and thinning procedures, materials and thicknesses with wet film thickness gauge at frequent intervals and varied locations during the course of painting work.
 - D. The ENGINEER will make, or arrange to have made by others, such tests as may be deemed necessary to assure the Work is being accomplished in accordance with the requirements of the specifications.
 - 1. Unless otherwise specified, the cost of such testing will be borne by the OWNER.
 - 2. In the event such tests reveal non-compliance, the CONTRACTOR shall bear the cost of such corrective measures deemed necessary by the ENGINEER, as well as the cost of retesting.
 - 3. It is understood and agreed that the performance of tests by the ENGINEER shall not constitute an acceptance of any portion of the Work, nor relieve the CONTRACTOR from compliance with the project requirements.
 - E. Testing Instruments:
 - 1. Provide all inspection devices in good working condition.

- 2. Inspection devices shall be operated by, or in the presence of the ENGINEER with the location and the frequency basis of testing as determined by the ENGINEER.
- 3. Provide all instruments required for testing atmospheric conditions and shall, during painting/coating operations, perform all measurements in the presence of the ENGINEER.
 - a. As a minimum, measure and record temperature, relative humidity, and dew point daily prior to beginning any painting/coating operations and again at midday.
 - b. Measurement records shall be maintained by the CONTRACTOR on forms approved by the ENGINEER.
- 4. Provide all instruments required for detection of holidays and measurement of dryfilm thickness of coatings and paints.
 - a. Holiday detectors and dry film thickness gauges shall be available at all times until final acceptance of painting/coating application.
 - b. Inspection devices shall be operated in accordance with the manufacturer's instructions.
 - c. Holiday Detectors: Acceptable devices for ferrous metal surfaces include, but are not limited to, Tinker & Rasor Models AP and AP/W holiday detectors or other units approved by the ENGINEER.
 - d. Dry Film Thickness Gauges: DeFelsko Positest (Type 1), DeFelsko Positector 6000 (Type 2), or other units approved by the ENGINEER.
- 5. Provide U.S. Department of Commerce, National Bureau of Standards certified thickness calibration plates to test the accuracy of thickness gauges.
- 6. The ENGINEER is not precluded from furnishing its own inspection devices and rendering decisions based solely upon its tests.
- F. Thickness of Coatings:
 - 1. Thickness of coatings and paint shall be checked with a non-destructive, magnetictype thickness gauge.
 - 2. Destructive Testing: An instrument such as a Tooke Gage shall be used if a destructive tester is deemed necessary.
 - 3. The coating integrity of all coated surfaces shall be tested with an approved inspection device.

- 4. All pinholes shall be marked, repaired in accordance with the manufacturer's printed recommendations, and retested.
- 5. No pinholes or other irregularities will be permitted in the final coating.
- G. Wet Film Thickness: Use wet film thickness gauges to ensure proper application rates to prevent over-thick coatings and curing difficulties.
- H. Additional Coats: Provide additional coats of paint at no additional cost to the OWNER when mil thicknesses specified have not been obtained as determined by either dry or wet film thickness testing specified herein.
- I. Painting Equipment:
 - 1. Coating and painting equipment shall be designed for the proper application of the materials specified and shall be maintained in first class working condition.
 - 2. Compressors shall have suitable traps and filters to remove water and oils from the air.
 - 3. Blotter tests shall be performed at each start-up period and as deemed necessary by the ENGINEER.
 - 4. Equipment shall be subject to approval of the ENGINEER.
- J. Moisture Control Equipment: Employ to maintain conditions within the reservoir interior which allow extended blasting and painting schedules.
- K. Painting/Coating Manufacturer's Representative:
 - 1. Services of the paint/coating manufacturer's representative shall be provided at no additional expense to the OWNER.
 - 2. Reporting from the paint manufacturer's representative shall not preclude the ENGINEER from making independent assessments of the quality of Work. The ENGINEER will make the final decision as to the acceptability of the paint/coating systems.
 - 3. Responsibilities:
 - a. Make periodic site visits throughout the course of the surface preparation and the painting/coating application.
 - b. Schedule all site visits with the ENGINEER.
 - c. Minimum Site Visits:

- 1) Inspect typical shop and field steel preparation prior to primer applications.
- 2) Inspect finished primer applications prior to application of intermediate coats.
- 3) Inspect each intermediate coat prior to application of subsequent finish coats.
- 4) Inspect final coats and report to the ENGINEER the representative's assessment of the paint system's suitability and acceptability for the intended service.
- d. Prepare and submit written reports directly to the ENGINEER immediately following each site visit.
 - 1) Reports shall identify the representative's observations relative to the quality of the surface preparation and painting/coating work.
 - 2) Reports shall address any conditions observed which have the potential to adversely impact the finished painting/coating system's integrity and performance.
- e. Any such findings shall be immediately remedied by the CONTRACTOR.
- L. Damaged Factory Finishes: If directed by the ENGINEER, refinish the entire exposed surfaces of factory-finished equipment that is chipped, scratched, or otherwise damaged in shipment or installation

3.8 CLEANUP

- A. Remove all staging, scaffolding, ladders, and containers from the Site.
- B. Remove temporary heating and ventilating facilities.
- C. Coating or paint spots upon adjacent surfaces shall be removed and the entire Site cleaned.
- D. All damage to surfaces resulting from the work of this Section shall be cleaned, repaired, or refinished to the complete satisfaction of the ENGINEER at no cost to the OWNER.
- E. Allow a minimum of 7 days at 70 degrees F curing after application of the final coat to the tank interior before flushing, sterilizing, or filling with water.
 - 1. Utilize a recording or high/low-indicating thermometer and paint manufacturer's reference charts to determine actual cure time of products.

- 2. Prior to disinfection, demonstrate complete curing to ENGINEER and paint manufacturer's representative.
- 3. Use forced ventilation during approved workdays and hours identified elsewhere in this Section to assist curing.
- F. Disinfect the tank interior according to Section 33 13 13 Disinfection of Water Utility Storage Tanks

3.9 COLLECTION, MONITORING AND DISPOSAL OF REGULATED WASTES

- Laboratory tests performed by the OWNER on paint samples removed from the Α. reservoir exterior indicate that the existing paint system contains lead. It is the intent of these Specifications to encapsulate the existing exterior coating within the new paint system specified. The CONTRACTOR shall be solely responsible for implementing, monitoring, and maintaining such controls as may be necessary to ensure compliance with applicable Federal, State, and local laws and regulations regarding worker protection, health, and safety where the CONTRACTOR's operations may cause exposure to lead in concentrations above the levels identified in 29 CFR 1926.62 – Lead. The CONTRACTOR shall implement a safety program as approved by the ENGINEER during this project. A project report shall be submitted to the OWNER which documents that all applicable provisions of the referenced regulation have been complied with. Costs to implement and maintain such controls for the term of the project for the CONTRACTOR's employees and those of the OWNER, ENGINEER, or their agents, shall be included in the CONTRACTOR's bid and no separate payment will be made.
- B. Unless otherwise indicated on the Plans or in the Specifications, all abrasive blasting material and byproducts, paints, solvents and containers, and any other discarded materials or equipment shall remain the property of the CONTRACTOR and shall be disposed of in a manner compliant with applicable Federal, State, and local laws and regulations governing disposal of all wastes generated by the CONTRACTOR in the prosecution of this work.

END OF SECTION

SECTION 11 81 29 - FACILITY FALL PROTECTION

PART 1 GENERAL

1.1 SUMMARY

- A. This Section includes the work to furnish and install fall prevention systems as shown on the Drawings and as required to meet all safety and occupational code requirements.
- B. The requirements of the Drawings and all other sections and provisions of the specifications are applicable to the work to be performed under this Section.
- C. Section includes:
 - 1. Vent safety collar safety systems.

1.2 REFERENCE STANDARDS

- A. American National Standards Institute (ANSI):
 - 1. ANSI Z359.1-2007 Safety Requirements for Personal Fall Arrest Systems, Subsystems, and Components
- B. Occupational Safety and Health Administration (OSHA):
 - 1. Title 29, Chapter XVII, Part 1910.140 Personal Fall Protection Systems

1.3 SUBMITTALS

- A. Shop Drawings and calculations. Must be stamped by a Washington P.E.
- B. Catalog cuts and other descriptive literature prepared to show specifically the material and equipment to be incorporated in the fall arrest systems.
- C. Installation instructions
- D. Operation and Maintenance manual, three (3) copies.

1.4 QUALITY ASSURANCE

- A. Comply with local, state and federal requirements of Occupational Safety and Health Administration (OSHA) regulations and all applicable codes and standards.
- B. Install according to manufacturer's instructions.

C. Provide all system components from a single manufacturer that will assure compatibility of all components.

PART 2 PRODUCTS

2.1 VENT SAFETY COLLAR FALL PREVENTION SYSTEM

- A. A registered professional engineer shall design the fall protection system and provide stamped drawings and calculations for review.
- B. System shall consist of four (4) primary components: Tank Vent Collar (TVC) Fall Protection Anchor, trolley, Tie-off device, and full body harness. All other hardware (snap hooks, D-rings, etc.) necessary to make a safe and complete system shall be provided.
- C. The system shall be designed to allow two users to walk interrupted around the tank without having to unhitch from the fall protection system.
- D. The system shall be designed to support two users in fall arrest. The system shall be designed to allow hands-free operation once the user is properly attached to the system.
- E. System shall be designed using a maximum arresting force of 900 pounds per worker with a minimum safety factor of 2.
- F. Lanyards, D-rings, snap hooks, and all other necessary hardware shall be capable of sustaining a minimum tensile load of 5,000 pounds.
- G. In order to assure uniform quality, ease of maintenance and minimal parts storage, all equipment for the system shall be supplied by a single source.
- H. The manufacturer of the system shall be regularly engaged in manufacturing and production of fall arrest systems for a minimum of five years with at least a dozen systems installed within the last two years.
- I. All materials shall be new and shall be properly stored during construction to prevent physical damage and damage from the weather.
- J. Where required nylon tagline shall be provided on each system for the purpose of pulling each vertical lifeline down to floor level for hook-up to the harness.
- K. All components and hardware shall meet the requirements of ANSI Z359.1
- L. TVC Anchor: Will be all aluminum construction without paint finish. TVC anchor must meet the following criteria:

- 1. All hardware to be stainless steel
- 2. The TVC anchor to accommodate vent size OD of 1'6" to 4'6"
- 3. Legs of TVC anchor must have a minimum height adjustment of 4" to accommodate the tank slope
- 4. Neoprene pads shall be provided at all points of contact with the tank roof and vent ring to prevent damage to coating systems.
- 5. Maximum TVC anchor weight to be 125 pounds
- 6. Acceptable Manufacturers
 - a. CAI Safety Systems
 - b. Approved Equal
- M. Trolley rated for fall arrest and compatible with the TVC anchor. Must allow user to remain tied off and travel without obstruction around the track of the TVC anchor.
- N. Tie-off Device
 - 1. Shall be a Leading Edge rated self-retracting lifeline suitable for the provided anchor and the minimum clearance required from nearest obstruction level to the working level. DBI SALA Ultra-Lok or equivalent.
 - 2. Rope/Cable grab system equivalent to DBI-SALA model number 5000400
- O. Body Harness: Lightweight nylon full body Class III harness with back and chest D-ring and tongue buckle sub pelvic straps. DBI SALA Exofit NEX.
- P. Each system will include a warning label measuring 12" X 8" that will outline the limitations and proper use of the fall protection system. Each warning label will be permanently stamped with a unique manufacturer's serial number.
- Q. Provide two body harness assemblies with lanyards and sleeves.

PART 3 EXECUTION

3.1 INSTALLATION

- A. Install vent safety collar system according to manufacturer's instructions.
- B. Prior to commissioning systems for use, Manufacturer's Representative shall inspect and make sure system has been properly installed.

- C. Provide training session on use and maintenance of system.
- D. Provide a copy of fall prevention system operation and maintenance instructions.

END OF SECTION

SECTION 33 01 13.13 - REHABILITATION OF STEEL ABOVEGROUND WATER UTILITY STORAGE TANKS

PART 1 GENERAL

1.1 DESCRIPTION OF WORK

This Section defines the work required for design, fabrication, and installation of the various appurtenances for two existing ground supported welded steel reservoirs. The work described in this Section includes the welded steel reservoir air vent, and other appurtenances and accessories. Earthwork, yard piping, landscaping, and provisions for other related project work is covered elsewhere in the specifications.

1.2 RELATED SECTIONS

A. Section 05 50 00 – Metal Fabrications.

1.3 DESIGN

A. General

The ground supported steel reservoir accessories and appurtenances shall be designed in accordance with the latest edition of the American Water Works Association (AWWA) Standard for Welded Steel Tanks for Water Storage, ANSI/AWWA D100-(latest edition) except as herein modified by these specifications.

B. Codes and Standards

In addition to compliance with the provisions of ANSI/AWWA D100- (latest edition), the reservoir accessories and appurtenances shall be designed and constructed in accordance with all applicable local requirements including the following Codes and Standards:

- 1. Washington State Building Code, (latest edition).
- 2. Revised Code of Washington
- 3. Washington Administrative Code

Details of design and construction shall be such as to allow access to all surfaces for maintenance, cleaning, and coating and to eliminate all moisture pockets. All welds shall be "seal" welds. There shall be no open crevices caused by overlap of steel plate on a supporting member.

C. Submittal Requirements

The CONTRACTOR shall provide any and all design drawings required by the ENGINEER

to clearly delineate all proposed details of construction. These shall include as a minimum but not be limited to plan, section and elevation views and detail drawings for all proposed accessories and attachments. Detailed structural design calculations shall also be provided, where applicable.

All components, which will be shop fabricated, shall be clearly identified. Shop drawings shall also be provided for all proposed accessories.

Submit manufacturer and model of radiographic weld testing equipment proposed to be used for testing of weld joints; include detailed outline description of equipment operation and testing evaluation methods.

The Contractor shall provide a letter from the reservoir improvement designer, where applicable, who certifies conformance of the design with requirements of these specifications and all applicable codes and standards of the State of Washington. That letter shall include a summary of design data, which identifies live and dead design base loads for wind, snow, and seismic loading. The calculated lateral force coefficient shall also be identified. That letter, and the above described design drawings and structural calculations, shall have affixed thereto the current and valid Professional Engineer's seal of an Engineer licensed to practice in the State of Washington unless out-of-state licensing is otherwise approved by the Washington Board of Registration for Professional Engineers and Land Surveyors. The ENGINEER reserves the rights to review and reject with proper cause all or portions of the submittal.

PART 2 MATERIALS

2.1 TANK ACCESSORIES

The completed tank shall include all accessories shown on the drawings and described herein. All accessories shall be designed and constructed in accordance with all applicable Federal, State and local codes and standards.

- A. Ladders Fixed external ladder on the North Reservoir shall have the bolts trimmed.
- B. Tank Roof Access Hatches -
 - 1. North Reservoir The existing roof access hatch (manway) shall be modified to include new gaskets. The hatch gasket shall provide watertight seal and meet DOH requirements.
 - 2. South Reservoir Both the existing 24-inch diameter access hatches (manways) shall be modified to include new gaskets. The hatch gaskets shall provide watertight seals and meet DOH requirements.

- C. North Reservoir Vent – The existing vent roof penetrations shall be modified, a new vent ring shall be installed, and new vent hood assemblies mounted on the vent ring as shown on the Drawings. The vent hood assembly shall be designed by the Manufacturer and approved by the ENGINEER. The vent hood assembly shall be sized for adequate airflow at extreme tank fill/empty flow rates. Vent hood assembly sizing shall be based on a minimum fill flow rate of 7,500 gpm and empty flow rate of 27,000 gpm. Vent shall be fitted with #24 stainless steel screening for insect and pest obstruction, backed with #4 stainless steel screening, and shall be secured continuously around all edges. Screen securing system shall be such as to allow maintenance replacement of screen. Vent hood assembly shall include a rainproof hood and shall be removable by means of a bolting system accessible and operable from the tank roof without the need for entry into the tank. The vent will be equipped with air pressure and vacuum pressure venting to accommodate potential clogging of the screens. The vent hood assembly to be Pressure Vacuum Vent manufactured by Newlin's Welding & Tank Maintenance or approved equal.
- D. Reservoir Structural Members All structural members, plates, doubler plates, etc. shall be ASTM A36 steel unless otherwise noted.

PART 3 EXECUTION

3.1 GENERAL

All workmanship required for the improvements of the steel tank structures and all accessories shall be of the highest quality. All work shall conform to the standards set forth in AWWA D100- (latest edition) except as modified herein. The steel tank structure improvements and all integral accessories and components shall be the end product of one manufacturer. The structure improvements shall be constructed to true, plumb, and concentric lines and dimensions.

3.2 STANDARDS

All construction shall be in full conformance with all applicable Federal, State, and Local codes, standards and specifications including those set forth by the American Water Works Association (AWWA), Unified Building Code (UBC), American Welding Institute (AWI), the American Institute of Steel Construction (AISC), American Society of Testing Materials, (ASTM) and the Occupational Safety and Health Administration (OSHA).

3.3 IMPROVEMENTS

- A. Welding
 - 1. North Reservoir All welds for the roof vent retrofit shall be "seal" welds in accordance with the Drawings. All circumferential and longitudinal steel plate shell welds shall be full penetration butt welds except as described as follows.

Circumferential lap welds will be allowed only on the roof portion of the tank. Any overlap of plates shall be seal welded to prevent moisture pockets. All exposed sharp edges, burrs and corners shall be ground smooth. All weld splatter shall be removed by grinding. Any and all welds not uniform and continuous shall be ground smooth.

- B. Inspection and Testing
 - 1. Inspection of shop fabrication, surface preparation and welding procedures may be conducted by the ENGINEER or the ENGINEER's agent. The Contractor shall provide the ENGINEER with a schedule identifying all planned shop fabrication activities.
 - 2. The quality of reservoir shell welded joints following installation of the door sheet shall be determined by visual inspection and the radiograph method as specified in AWWA D100- (latest edition) Sec. 11. The Contractor shall provide all necessary radiographic testing equipment and shall perform any and all tests as may be required by the ENGINEER. All radiographic films shall become the property of the OWNER. Initial field-testing will be conducted immediately following the beginning of field welding operations and inspection of radiographs will be made to establish the acceptable quality of work.
 - 3. The Contractor shall provide and submit a written report as per the requirements of AWWA D100-(latest edition) Sec. 11.2.1 Radiographic methods shall be used for testing of all welds where possible. The Contractor shall notify the ENGINEER 24 hours in advance of any scaffolding relocation and shall provide ample opportunity for any and all testing and inspections as may be required by the ENGINEER.
- C. Painting and Disinfection Painting and disinfection shall be accomplished in accordance with requirements included elsewhere in these Contract Documents.
- D. Post Fabrication & Erection Cut-Outs
 - 1. Special cut-outs within a fabricated steel panel for the temporary purpose of moving equipment into, out of, or off of the steel tank structure will not be allowed.

END OF SECTION

SECTION 33 13 13 - DISINFECTION OF WATER UTILITY STORAGE TANKS

- PART 1 GENERAL
- 1.1 SUMMARY
 - A. This Section includes methods of disinfecting water storage tanks for potable water.
 - B. Section includes:
 - 1. Water storage tank disinfection.
 - 2. Bacteriological testing.

1.2 REFERENCE STANDARDS

- A. American Water Works Association:
 - 1. AWWA C652 Disinfection of Water Storage Facilities.

1.3 SUBMITTALS

- A. General Terms and Conditions, Article 4.5 Submittal Procedures.
- B. Disinfection Procedure:
 - 1. Submit description of procedure, including type of disinfectant and calculations indicating quantities of disinfectants required to produce specified chlorine concentration.
 - 2. Comply with Sections 3 and 4 of AWWA C652.
- C. Manufacturer's Certificate: Certify that products meet or exceed specified requirements.
- D. Certify that disinfectants meet or exceed AWWA C652 requirements.
- E. Test and Evaluation Reports: Indicate results of bacteriological and residual chlorine laboratory test reports.
- F. Field Quality-Control Submittals: Indicate results of Contractor-furnished tests and inspections.
- 1.4 QUALITY ASSURANCE
 - A. Perform Work in compliance with AWWA C652.

1.5 DELIVERY, STORAGE, AND HANDLING

- A. Inspection: Accept materials on Site in manufacturer's original packaging and inspect for damage.
- B. Store disinfectants according to manufacturer's recommendations and in a cool, dry place away from combustibles such as wood, rags, oils, and greases.
- C. Handle disinfectants according to manufacturer's safety precautions.

PART 2 PRODUCTS

2.1 DISINFECTANTS

- A. Chlorine Forms: According to AWWA C652, Section 4.
 - 1. Liquid chlorine.
 - 2. Sodium hypochlorite.
 - 3. Calcium hypochlorite.

PART 3 EXECUTION

- 3.1 EXAMINATION
 - A. Inspection:
 - 1. Conduct inspection of tank interior before beginning disinfection.
 - 2. Verify tank is clean and free of polluting materials.
 - 3. Verify tank piping and vent connections are properly made and clear of obstructions.
 - 4. Verify all interior paint is thoroughly cured according to paint manufacturer's instructions.

3.2 PREPARATION

- A. Furnish personnel working inside tank during disinfection with equipment to comply with Federal and State regulations for Work conducted in a hazardous atmosphere.
- B. Coordinate with the Engineer and Owner for scheduling of disinfection activities.
 - 1. The Owner may require up to one weeks' time following notice to supply water for filling of reservoir.

3.3 APPLICATION

- A. Use Chlorination Method 2 for disinfecting tank in Section 4 of AWWA C652, generally detailed as followed:
 - 1. Spray or brush a solution of 200 mg/L available chlorine directly on the surfaces of all parts of the storage facility that will be in contact with water when the storage facility is full to the overflow elevation.
 - 2. The solution shall thoroughly coat all surfaces to be treated, including the inlet and outlet piping and shall be applied to any separate drain piping such that it will have available chlorine of not less than 10 mg/L when filled with water.
 - 3. Disinfected surfaces shall remain in contact with the strong chlorine solution for at least 30 min.
 - 4. Following the completion of the chlorination procedure, potable water shall be admitted, the drain piping purged of the 10 mg/L chlorinated water, and the storage facility filled to its overflow level.
- B. A sample shall be taken by the Owner for microbiological analysis according to State Health Standards for potable water.
 - 1. Contact the Engineer and/or Owner to arrange for samples to be taken for microbiological analysis.
 - 2. Microbiological analysis must indicate that the water is free of coliform organisms before the facility can be put into service.
 - 3. It will not be necessary to flush the reservoir or tank after the chlorine solution is applied by spraying or brushing providing a passing microbiological test is achieved.
- C. When water samples fail to meet State Health Standards for potable water, perform corrective measures until water quality conforms to State Health Standards.
- D. Any superchlorinated water shall be discharged through an approved connection to the public sanitary sewer system or shall be dechlorinated to limits acceptable by the State of Washington Department of Ecology (DOE) for discharge into the existing storm drainage system. If superchlorinated water is to be discharged into the public sanitary sewer system, notify the sewage treatment plant notifying the planned time, location, and quantity of discharge. No superchlorinated water shall be discharged into the storm drainage system or natural drainage way prior to approved dechlorination treatment.

END OF SECTION

APPENDIX A - PREVAILING MINIMUM HOURLY WAGE RATES

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PREVAILING WAGES

The State of Washington prevailing wage rates for King County apply to work performed under this contract. The applicable prevailing wage rates may be found at the following website address of the Department of Labor and Industries:

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

Based on the bid submittal date for this project, the applicable date for prevailing wages for this project is March 2, 2021. A copy of the applicable prevailing wage rates are also available for viewing at the City of Mercer Island, Maintenance Department located at 9601 SE 36th Street.

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