



Gregory L. Geist
Director

March 24, 2022

Board of County Commissioners
Clackamas County

Members of the Board:

Approval of a Contract with Murraysmith, Inc.

For the Contract # 5222-RFP 2019-55, for the Intertie 2 Pump Station Expansion and Force Main Project. The Purpose of the project is to expand pumping capacity to accommodate future peak flows. The Contract is for \$1,100,708.00 through WES Capital Improvement Funds. No County General Funds are involved. - Procurement

Purpose/Outcomes	Approval of a Contract with Murraysmith, Inc. for the Contract # 5222-RFP 2019-55, for the Intertie 2 Pump Station Expansion and Force Main Project. The Purpose of the project is to expand pumping capacity to accommodate future peak flows. The Contract is for \$1,100,708.00 through WES Capital Improvement Funds. No County General Funds are involved. - <i>Procurement</i>
Dollar Amount and Fiscal Impact	Maximum contract value is \$1,100,708.00 through June 30, 2024.
Funding Source	WES Capital Improvement Funds - No County General Funds are involved.
Duration	This contract shall be in effect through November 30, 2026.
Previous Board Action	Presented at Issues on March 22, 2022.
Strategic Plan Alignment	<ol style="list-style-type: none"> 1. This project supports the WES Strategic Plan to provide Enterprise Resiliency, Infrastructure Strategy and Performance and Operational Optimization by expanding the pumping capacity of the Intertie 2 Pump Station to accommodate future flows. 2. This project supports the County Strategic Plan of building a strong infrastructure that delivers services to customers.
Counsel Review	Date of Counsel Review: 03/07/2022 Name of County Counsel performing review: Amanda Keller
Procurement Review	Was this item reviewed by Procurement? Yes <input checked="" type="checkbox"/> No <input type="checkbox"/> RFP 2019-55
Contact Person	Jeff Stallard, Civil Engineering Supervisor, 503-926-4162
Agreement No.	5222

BACKGROUND:

The Intertie 2 Pump Station (IT2 PS) Diverts flow in excess of the 25 MGD wet weather capacity of the Kellogg Creek Water Resources Recovery Facility (WRRF) to the Tri-City WRRF. The IT2 PS is operating at capacity as is the force main from the pump station to the Tri-City WRRF. The pump station was constructed so that pumps could be added. A portion of the required new 30-inch diameter force main was partially constructed with the existing force main.

This project would expand the pumping capacity of the IT2 PS to accommodate future peak flows and construct the remaining section of the 30-inch diameter force main to convey increased flow to the Tri-City WRRF. WES anticipates it will also be necessary to modify the physical layout and functionality of an existing diversion box upstream of IT2 PS to improve control and operability of the system address condition issues in the pump station wet well and update pump station controls. Total project cost is anticipated to be \$10.3 million. This agreement with Murraysmith will provide bid documents for the force main and conceptual design of the pump station improvements. Final design of the pump station improvements will be addressed in an amendment to this agreement.

PROCUREMENT PROCESS:

This project was advertised in accordance with ORS and LCRB Rules on February 18, 2021, Through RFP 2021-15. Proposals were publicly opened on March 18, 2021. The County received three (3) Proposals in response to the RFP. After review of the Proposals, contracting with Murraysmith, Inc. was determined to be in the best interest of the county based upon the scoring criteria outlined in RFP 2021-15.

RECOMMENDATION:

Staff recommends the Board approve the Contract with Murraysmith, Inc. for the Contract # 5222- RFP 2019-55, for the Intertie 2 Pump Station Expansion and Force Main Project. The Purpose of the project is to expand pumping capacity to accommodate future peak flows.

Respectfully submitted,



Greg Geist
Director, Water Environment Services

Attachments: Contract #5222

PROCUREMENT



**WATER ENVIRONMENT SERVICES
PERSONAL SERVICES CONTRACT
Contract #5222**

This Personal Services Contract (this “Contract”) is entered into between **Murraysmith, Inc.** (“Contractor”), and Water Environment Services, a political subdivision of the State of Oregon (“District”).

ARTICLE I.

- 1. Effective Date and Duration.** This Contract shall become effective upon signature of both parties. Unless earlier terminated or extended, this Contract shall expire on **June 30, 2024**.
- 2. Scope of Work.** Contractor shall provide the following personal services: Intertie 2 Pump Station Expansion and Force Main Project (“Work”), as described in Contractors Response to RFP 2021-15, the negotiated scope of which is set forth, in **Exhibit A** attached and incorporated by reference herein.
- 3. Consideration.** The District agrees to pay Contractor, from available and authorized funds, a sum not to exceed **One Million One Hundred Thousand Seven Hundred Eight Dollars (\$1,100,708.00)**, for accomplishing the Work required by this Contract. Consideration rates are on a time and materials basis in accordance with the rates and costs specified in **Exhibit B**. If any interim payments to Contractor are made, such payments shall be made only in accordance with the schedule and requirements in Exhibit A.
- 4. Invoices and Payments.** Unless otherwise specified, Contractor shall submit monthly invoices for Work performed. Invoices shall describe all Work performed with particularity, by whom it was performed, and shall itemize and explain all expenses for which reimbursement is claimed. The invoices shall include the total amount billed to date by Contractor prior to the current invoice. If Contractor fails to present invoices in proper form within sixty (60) calendar days after the end of the month in which the services were rendered, Contractor waives any rights to present such invoice thereafter and to receive payment therefor. Payments shall be made in accordance with ORS 293.462 to Contractor following the District’s review and approval of invoices submitted by Contractor. Contractor shall not submit invoices for, and the District will not be obligated to pay, any amount in excess of the maximum compensation amount set forth above. If this maximum compensation amount is increased by amendment of this Contract, the amendment must be fully effective before Contractor performs Work subject to the amendment.

Invoices shall reference the above Contract Number and be submitted to: JStallard@clackamas.us

- 5. Travel and Other Expense.** Authorized: Yes No
If travel expense reimbursement is authorized in this Contract, such expense shall only be reimbursed at the rates in the Clackamas County Contractor Travel Reimbursement Policy, hereby incorporated by reference and found at: <https://www.clackamas.us/finance/terms.html>. Travel expense reimbursement shall not be in excess of the not to exceed consideration amount identified in Section 3 above.
- 6. Contract Documents.** This Contract consists of the following documents, which are listed in descending order of precedence and are attached and incorporated by reference, this Contract, Exhibit A, and Exhibit B.

7. Contractor and District Contacts.

Contractor	District
Administrator: Michael Carr Phone: 503-225-9010 Email: michael@murraysmith.us	Administrator: Jeff Stallard Phone: 503-742-4694 Email: JStallard@clackamas.us

Payment information will be reported to the Internal Revenue Service (“IRS”) under the name and taxpayer ID number submitted. (See I.R.S. 1099 for additional instructions regarding taxpayer ID numbers.) Information not matching IRS records will subject Contractor payments to backup withholding.

ARTICLE II.

- 1. ACCESS TO RECORDS.** Contractor shall maintain books, records, documents, and other evidence, in accordance with generally accepted accounting procedures and practices, sufficient to reflect properly all costs of whatever nature claimed to have been incurred and anticipated to be incurred in the performance of this Contract. District and their duly authorized representatives shall have access to the books, documents, papers, and records of Contractor, which are directly pertinent to this Contract for the purpose of making audit, examination, excerpts, and transcripts. Contractor shall maintain such books and records for a minimum of six (6) years, or such longer period as may be required by applicable law, following final payment and termination of this Contract, or until the conclusion of any audit, controversy or litigation arising out of or related to this Contract, whichever date is later.
- 2. AVAILABILITY OF FUTURE FUNDS.** Any continuation or extension of this Contract after the end of the fiscal period in which it is written is contingent on a new appropriation for each succeeding fiscal period sufficient to continue to make payments under this Contract, as determined by the District in its sole administrative discretion.
- 3. CAPTIONS.** The captions or headings in this Contract are for convenience only and in no way define, limit, or describe the scope or intent of any provisions of this Contract.
- 4. COMPLIANCE WITH APPLICABLE LAW.** Contractor shall comply with all applicable federal, state and local laws, regulations, executive orders, and ordinances, as such may be amended from time to time.
- 5. COUNTERPARTS.** This Contract may be executed in several counterparts (electronic or otherwise), each of which shall be an original, all of which shall constitute the same instrument.
- 6. GOVERNING LAW.** This Contract, and all rights, obligations, and disputes arising out of it, shall be governed and construed in accordance with the laws of the State of Oregon and the ordinances of Clackamas County without regard to principles of conflicts of law. Any claim, action, or suit between District and Contractor that arises out of or relates to the performance of this Contract shall be brought and conducted solely and exclusively within the Circuit Court for Clackamas County, for the State of Oregon. Provided, however, that if any such claim, action, or suit may be brought in a federal forum, it shall be brought and conducted solely and exclusively within the United States District Court for the District of Oregon. In no event shall this section be construed as a waiver by the District of any form of defense or immunity, whether sovereign immunity, governmental immunity, immunity based on the Eleventh Amendment to the Constitution of the United States or otherwise,

from any claim or from the jurisdiction of any court. Contractor, by execution of this Contract, hereby consents to the personal jurisdiction of the courts referenced in this section.

- 7. INDEMNITY, RESPONSIBILITY FOR DAMAGES.** Contractor shall be responsible for all damage to property, injury to persons, and loss, expense, inconvenience, and delay which may be caused by, or result from, any negligent act, omission, or neglect of Contractor, its subcontractors, agents, or employees. The Contractor agrees to indemnify and defend the District and Clackamas County, and their officers, elected officials, agents and employees from and against all claims, actions, losses, liabilities, including reasonable attorney and accounting fees, and all expenses incidental to the investigation and defense thereof, arising out of or based upon Contractor’s negligent acts or omissions in performing under this Contract.

However, neither Contractor nor any attorney engaged by Contractor shall defend the claim in the name of District or Clackamas County (“County”), purport to act as legal representative of District or County, or settle any claim on behalf of District or County, without the approval of the Clackamas County Counsel’s Office. District or County may assume their own defense and settlement at their election and expense.

- 8. INDEPENDENT CONTRACTOR STATUS.** The service(s) to be rendered under this Contract are those of an independent contractor. Although the District reserves the right to determine (and modify) the delivery schedule for the Work to be performed and to evaluate the quality of the completed performance, District cannot and will not control the means or manner of Contractor’s performance. Contractor is responsible for determining the appropriate means and manner of performing the Work. Contractor is not to be considered an agent or employee of District for any purpose, including, but not limited to: (A) The Contractor will be solely responsible for payment of any Federal or State taxes required as a result of this Contract; and (B) This Contract is not intended to entitle the Contractor to any benefits generally granted to District employees, including, but not limited to, vacation, holiday and sick leave, other leaves with pay, tenure, medical and dental coverage, life and disability insurance, overtime, Social Security, Workers' Compensation, unemployment compensation, or retirement benefits.

- 9. INSURANCE.** Contractor shall secure at its own expense and keep in effect during the term of the performance under this Contract the insurance required and minimum coverage indicated below. The insurance requirements outlined below do not in any anyway limit the amount of scope of liability of Contractor under this Contract. Contractor shall provide proof of said insurance and name the District and Clackamas County as an additional insureds on all required liability policies. Proof of insurance and notice of any material change should be submitted to the following address: Clackamas County Procurement Division, 2051 Kaen Road, Oregon City, OR 97045 or procurement@clackamas.us.

Required - Workers Compensation: Contractor shall comply with the statutory workers’ compensation requirements in ORS 656.017, unless exempt under ORS 656.027 or 656.126.
<input checked="" type="checkbox"/> Required – Commercial General Liability: combined single limit, or the equivalent, of not less than \$1,000,000 per claim, with an annual aggregate limit of \$2,000,000 for Bodily Injury and Property Damage.
<input checked="" type="checkbox"/> Required – Professional Liability: combined single limit, or the equivalent, of not less than \$1,000,000 per occurrence, with an annual aggregate limit of \$2,000,000 for damages caused by error, omission or negligent acts.
<input checked="" type="checkbox"/> Required – Automobile Liability: combined single limit, or the equivalent, of not less than \$1,000,000 per accident for Bodily Injury and Property Damage.

The policy(s) shall be primary insurance as respects to the District. Any insurance or self-insurance maintained by the District shall be excess and shall not contribute to it. Any obligation that District agree to a waiver of subrogation is hereby stricken.

10. LIMITATION OF LIABILITIES. This Contract is expressly subject to the debt limitation of Oregon counties set forth in Article XI, Section 10, of the Oregon Constitution, and is contingent upon funds being appropriated therefore. Any provisions herein which would conflict with law are deemed inoperative to that extent. Except for liability arising under or related to Article II, Section 13 or Section 20 neither party shall be liable for (i) any indirect, incidental, consequential or special damages under this Contract or (ii) any damages of any sort arising solely from the termination of this Contract in accordance with its terms.

11. NOTICES. Except as otherwise provided in this Contract, any required notices between the parties shall be given in writing by personal delivery, email, or mailing the same, to the Contract Administrators identified in Article 1, Section 6. If notice is sent to District, a copy shall also be sent to: Clackamas County Procurement, 2051 Kaen Road, Oregon City, OR 97045, or procurement@clackamas.us. Any communication or notice so addressed and mailed shall be deemed to be given five (5) days after mailing, and immediately upon personal delivery, or within 2 hours after the email is sent during District's normal business hours (Monday – Thursday, 7:00 a.m. to 6:00 p.m.) (as recorded on the device from which the sender sent the email), unless the sender receives an automated message or other indication that the email has not been delivered.

12. OWNERSHIP OF WORK PRODUCT. All work product of Contractor that results from this Contract (the "Work Product") is the exclusive property of District. District and Contractor intend that such Work Product be deemed "work made for hire" of which District shall be deemed the author. If for any reason the Work Product is not deemed "work made for hire," Contractor hereby irrevocably assigns to District all of its right, title, and interest in and to any and all of the Work Product, whether arising from copyright, patent, trademark or trade secret, or any other state or federal intellectual property law or doctrine. Contractor shall execute such further documents and instruments as District may reasonably request in order to fully vest such rights in District. Contractor forever waives any and all rights relating to the Work Product, including without limitation, any and all rights arising under 17 USC § 106A or any other rights of identification of authorship or rights of approval, restriction or limitation on use or subsequent modifications. Notwithstanding the above, District shall have no rights in any pre-existing Contractor intellectual property provided to District by Contractor in the performance of this Contract except to copy, use and re-use any such Contractor intellectual property for District use only. Any reuse of the Work Product outside the scope of this Contract or any alteration of it whatsoever without Contractor's review and approval shall be at the District's sole risk.

13. REPRESENTATIONS AND WARRANTIES. Contractor represents and warrants to District that (A) Contractor has the power and authority to enter into and perform this Contract; (B) this Contract, when executed and delivered, shall be a valid and binding obligation of Contractor enforceable in accordance with its terms; (C) Contractor shall at all times during the term of this Contract, be qualified, professionally competent, and duly licensed to perform the Work; (D) Contractor is an independent contractor as defined in ORS 670.600; and (E) the Work under this Contract shall be performed in the same professional skill, care, diligence and standards as other professionals performing similar services under similar conditions. The warranties set forth in this section are in addition to, and not in lieu of, any other warranties provided. The Contractor shall be responsible for the technical accuracy of its services and documents resulting therefrom, and District shall not be responsible for discovering deficiencies therein. The Contractor shall correct such deficiencies without additional compensation except to the extent such action is directly attributable to deficiencies in information furnished by the District.

14. SURVIVAL. All rights and obligations shall cease upon termination or expiration of this Contract, except for the rights and obligations set forth in Article II, Sections 1, 6, 7, 10, 12, 13, 14, 15, 17, 20, 21, 25, 27, and 29, and all other rights and obligations which by their context are intended to survive.

However, such expiration shall not extinguish or prejudice the District's right to enforce this Contract with respect to: (a) any breach of a Contractor warranty; or (b) any default or defect in Contractor performance that has not been cured.

- 15. SEVERABILITY.** If any term or provision of this Contract is declared by a court of competent jurisdiction to be illegal or in conflict with any law, the validity of the remaining terms and provisions shall not be affected, and the rights and obligations of the parties shall be construed and enforced as if the Contract did not contain the particular term or provision held to be invalid.
- 16. SUBCONTRACTS AND ASSIGNMENTS.** Contractor shall not enter into any subcontracts for any of the Work required by this Contract, or assign or transfer any of its interest in this Contract by operation of law or otherwise, without obtaining prior written approval from the District, which shall be granted or denied in the District's sole discretion. In addition to any provisions the District may require, Contractor shall include in any permitted subcontract under this Contract a requirement that the subcontractor be bound by this Article II, Sections 1, 7, 8, 13, 16, and 27 as if the subcontractor were the Contractor. District's consent to any subcontract shall not relieve Contractor of any of its duties or obligations under this Contract.
- 17. SUCCESSORS IN INTEREST.** The provisions of this Contract shall be binding upon and shall inure to the benefit of the parties hereto, and their respective authorized successors and assigns.
- 18. TAX COMPLIANCE CERTIFICATION.** The Contractor shall comply with all federal, state and local laws, regulation, executive orders and ordinances applicable to this Contract. Contractor represents and warrants that it has complied, and will continue to comply throughout the duration of this Contract and any extensions, with all tax laws of this state or any political subdivision of this state, including but not limited to ORS 305.620 and ORS chapters 316, 317, and 318. Any violation of this section shall constitute a material breach of this Contract and shall entitle District to terminate this Contract, to pursue and recover any and all damages that arise from the breach and the termination of this Contract, and to pursue any or all of the remedies available under this Contract or applicable law.
- 19. TERMINATION.** This Contract may be terminated for the following reasons: (A) by mutual agreement of the parties or by the District (i) for convenience upon thirty (30) days written notice to Contractor or (ii) at any time the District fails to receive funding, appropriations, or other expenditure authority as solely determined by the District; or (B) if contractor breaches any Contract provision or is declared insolvent, District may terminate after thirty (30) days written notice with an opportunity to cure.

Upon receipt of written notice of termination from the District, Contractor shall immediately stop performance of the Work. Upon termination of this Contract, Contractor shall deliver to District all documents, Work Product, information, works-in-progress and other property that are or would be deliverables had the Contract Work been completed. Upon District's request, Contractor shall surrender to anyone District designates, all documents, research, objects or other tangible things needed to complete the Work.
- 20. REMEDIES.** If terminated by the District due to a breach by the Contractor, then the District shall have any remedy available to it in law or equity. If this Contract is terminated for any other reason, Contractor's sole remedy is payment for the goods and services delivered and accepted by the District, less any setoff to which the District is entitled.
- 21. NO THIRD PARTY BENEFICIARIES.** District and Contractor are the only parties to this Contract and are the only parties entitled to enforce its terms. Nothing in this Contract gives, is intended to give, or shall be construed to give or provide any benefit or right, whether directly, indirectly or

otherwise, to third persons unless such third persons are individually identified by name herein and expressly described as intended beneficiaries of the terms of this Contract.

- 22. TIME IS OF THE ESSENCE.** Contractor agrees that time is of the essence in the performance this Contract.
- 23. FOREIGN CONTRACTOR.** If the Contractor is not domiciled in or registered to do business in the State of Oregon, Contractor shall promptly provide to the Oregon Department of Revenue and the Secretary of State, Corporate Division, all information required by those agencies relative to this Contract. The Contractor shall demonstrate its legal capacity to perform these services in the State of Oregon prior to entering into this Contract.
- 24. FORCE MAJEURE.** Neither District nor Contractor shall be held responsible for delay or default caused by events outside the District or Contractor's reasonable control including, but not limited to, fire, terrorism, riot, acts of God, or war. However, Contractor shall make all reasonable efforts to remove or eliminate such a cause of delay or default and shall upon the cessation of the cause, diligently pursue performance of its obligations under this Contract.
- 25. WAIVER.** The failure of District to enforce any provision of this Contract shall not constitute a waiver by District of that or any other provision.
- 26. PUBLIC CONTRACTING REQUIREMENTS.** Pursuant to the public contracting requirements contained in Oregon Revised Statutes ("ORS") Chapter 279B.220 through 279B.235, Contractor shall:
- a. Make payments promptly, as due, to all persons supplying to Contractor labor or materials for the prosecution of the work provided for in the Contract.
 - b. Pay all contributions or amounts due the Industrial Accident Fund from such Contractor or subcontractor incurred in the performance of the Contract.
 - c. Not permit any lien or claim to be filed or prosecuted against District on account of any labor or material furnished.
 - d. Pay the Department of Revenue all sums withheld from employees pursuant to ORS 316.167.
 - e. As applicable, the Contractor shall pay employees for work in accordance with ORS 279B.235, which is incorporated herein by this reference. The Contractor shall comply with the prohibitions set forth in ORS 652.220, compliance of which is a material element of this Contract, and failure to comply is a breach entitling District to terminate this Contract for cause.
 - f. If the Work involves lawn and landscape maintenance, Contractor shall salvage, recycle, compost, or mulch yard waste material at an approved site, if feasible and cost effective.
- 27. NO ATTORNEY FEES.** In the event any arbitration, action or proceeding, including any bankruptcy proceeding, is instituted to enforce any term of this Contract, each party shall be responsible for its own attorneys' fees and expenses.
- 28. KEY PERSONS.** Contractor acknowledges and agrees that a significant reason the District is entering into this Contract is because of the special qualifications of certain Key Persons set forth in the contract. Under this Contract, the District is engaging the expertise, experience, judgment, and personal attention of such Key Persons. Neither Contractor nor any of the Key Persons shall delegate performance of the management powers and responsibilities each such Key Person is required to provide under this Contract to any other employee or agent of the Contractor unless the District provides prior written consent to such delegation. Contractor shall not reassign or transfer a Key Person to other duties or positions such that the Key Person is no longer available to provide the

District with such Key Person's services unless the District provides prior written consent to such reassignment or transfer.

29. MERGER. THIS CONTRACT CONSTITUTES THE ENTIRE AGREEMENT BETWEEN THE PARTIES WITH RESPECT TO THE SUBJECT MATTER REFERENCED THEREIN. THERE ARE NO UNDERSTANDINGS, AGREEMENTS, OR REPRESENTATIONS, ORAL OR WRITTEN, NOT SPECIFIED HEREIN REGARDING THIS CONTRACT. NO AMENDMENT, CONSENT, OR WAIVER OF TERMS OF THIS CONTRACT SHALL BIND EITHER PARTY UNLESS IN WRITING AND SIGNED BY ALL PARTIES. ANY SUCH AMENDMENT, CONSENT, OR WAIVER SHALL BE EFFECTIVE ONLY IN THE SPECIFIC INSTANCE AND FOR THE SPECIFIC PURPOSE GIVEN. CONTRACTOR, BY THE SIGNATURE HERETO OF ITS AUTHORIZED REPRESENTATIVE, IS AN INDEPENDENT CONTRACTOR, ACKNOWLEDGES HAVING READ AND UNDERSTOOD THIS CONTRACT, AND CONTRACTOR AGREES TO BE BOUND BY ITS TERMS AND CONDITIONS.

By their signatures below, the parties to this Contract agree to the terms, conditions, and content expressed herein.

Murraysmith, Inc.

Water Environment Services

Michael Carr Michael Carr
2022.03.11
12:47:22 -08'00'

 Authorized Signature Date

 Chair Date


Michael Carr/Principal Engr

 Name / Title (Printed)

 Recording Secretary

1935808-92

 Oregon Business Registry #

APPROVED AS TO FORM


 County Counsel Date

ABN/OR

 Entity Type / State of Formation

3/14/22

 Date

**EXHIBIT A
PERSONAL SERVICES CONTRACT
SCOPE OF WORK**

**INTERTIE 2 PUMP STATION & FORCE MAIN EXPANSION
PROJECT
CLACKAMAS WATER ENVIRONMENT SERVICES**

Introduction

Clackamas County Water Environmental Services (WES) requires that the capacity of its Intertie 2 Diversion Pump Station and force main system be expanded. Constructed in 2011, the pump station has a firm capacity of 10 million gallons per day (mgd) and features two 5-mgd and two 10-mgd submersible pumps. The station pumps to the Tri-City Water Resource and Recovery Facility (WRRF), an approximate distance of 4 miles, through a 20-inch ductile iron force main.

The pump station and force main were designed to allow expansion to a firm capacity of approximately 27 mgd through the addition of one 10-mgd pump and a parallel 30-inch diameter force main. Approximately two miles of the future 30-inch force main were constructed in 2012 alongside the 20-inch pipeline, in six separate sections. The force main system includes 12 odor treatment and air valve stations along the route, each with provisions to add valving for the proposed 30-inch pipeline.

The goal of the expansion project includes adding a fifth pump with 10-mgd capacity and completing installation of the 30-inch pipeline. This will increase the total station capacity to over 19 million gallons per day (mgd) as recommended in the Sanitary Sewer Master Plan (2019).

District staff has determined that the most efficient delivery plan for the project will be to construct the parallel 30-inch force main separately from the pump station, and desires to complete design and prepare contract documents for the force main project and bid the project for construction. This work will be completed in the first phase of the project, along with completion of preliminary designs for the pump station and diversion structure facilities.

This scope of work includes professional services to complete the Phase 1 work: 1) develop the bid ready documents of the force main; 2) perform bid period services for the force main 2) perform evaluations and prepare preliminary designs for the pump station and diversion structure; and 3) develop operational strategies for control of the diversion facilities. It is anticipated that the Phase 2 of the project will include final design and bid period services for the pump station improvements and Tri-City WRRF force main connection, plus construction support services for the two construction packages. It is anticipated the Phase 2 services will be added by contract amendment.

General Assumptions

For the purpose of this scope of work, the Intertie 2 Force Main is defined as the pipeline system between the Intertie 2 Pump Station flow meter at the pump station site, and the Tri-City WRRF facility driveway entrance on S. Agnes Avenue in Oregon City. Force main connections at the pump station and WRRF will be evaluated as part of Task 9, with final designs performed as part of the future Phase 2 scope of work.

Project meeting space will include a large screen or projector to facilitate presentation to attendees, or will be conducted remotely using Zoom, Teams, or similar platform.

District staff will provide comments within one week of workshop presentations or submitted deliverables.

Consultant shall use 49 Division format master specifications. Consultant shall provide Division 1 and technical specifications for project use and District review and comment.

Where deliverable documents are identified, hereinafter, one (1) reproduceable copy and four (4) copies of the deliverable will be provided in addition to electronic version in .PDF and original .DOC format.

The Consultant's standard CAD software (AutoCAD) will be used to produce the drawings, following its own drafting standards. Final record drawings files will be delivered to WES in AutoCAD format.

District-Provided Services

The District will provide the following services for this project:

Provide as-built drawings, condition studies, master plans, or other relevant documents that can be used to develop the schematic designs.

Provide access to the pump station site, treatment facility, and force main odor and air valve stations, and be present to explain operating procedures and maintenance issues to the Consultant.

Provide a Project Manager who will act as point of contact for requests for information and deliverables reviews.

Provide Division 0 specifications.

Furnish consolidated written review comments on deliverables.

Organize meetings with WES staff as needed to solicit input.

Lead the bid period services for the force main construction package.

Scope of Services

Task 1 - Project Management

Objective:

Provide leadership and team strategic guidance aligned with WES staff objectives. Coordinate, monitor, and control the project resources to meet the technical, communication, and contractual obligations required for developing and implementing the project scope.

Activities:

Conduct regular status meetings with District PM

Prepare monthly invoices and progress reports

Deliverables:

Regular project status meeting notes

Monthly invoices with progress report, task-level budget report

Project schedule updated and submitted with invoices

Task 2 – Quality Management

Objective:

Consultant shall monitor the quality of the Project and perform internal quality assurance/quality control (QA/QC) reviews as described herein.

Activities:

Prepare a Quality Management Plan (QMP) for the project. Key features of the QMP shall include a single point of contact responsible for all quality management and a description of the quality control review process and approach.

Conduct quality reviews in accordance with the QMP. Prepare documentation demonstrating the quality review process is complete and review comments are adequately addressed. Quality Review Forms shall be prepared, collected, and properly stored in the project records system.

Deliverables:

Quality Management Plan

Written documentation of QC reviews

Assumptions:

QA/QC reviews will be performed by consultant staff not directly involved with the project design team.

Task 3 – Force Main 30% Design

Objective

The purpose of this task is to prepare a 30% Design for the six unconstructed segments of 30-inch diameter force main.

Task 3.1 – Surveying

Activities:

Provide topographic survey services for the proposed 30-inch diameter force main alignment as follows:

Review and compile available information for the pump station site, diversion structure, and force main alignment.

Call for one-call utility locate paint marks and as-built maps.

Establish survey control and field locate existing centerline monuments as well as any monuments that have the potential to be disturbed within the limits of construction.

- Perform detailed topographic survey, to include field survey of existing above ground features (i.e., edge of pavement, buildings, improvements, trees, utilities, etc.) and elevations with one-foot contour intervals. Survey the below ground utilities from one-call locate paint marks and existing as-built maps, manhole dips etc.
- Prepare an existing conditions base map using the above data, to be used for the development of plan sheets for the length of the proposed utility improvements.
- Research Clackamas County survey records for recorded surveys, subdivision plats and road drawings that show the location of survey monuments previously set within the planned work limits.
- Field verify presence of monuments within the planned work limits of the utility construction.
- Notify County surveyor of public land corners that may be affected by construction activities.

Deliverables:

AutoCAD drawings with resolved right-of-way and existing surface files.

AutoCAD files with control and monument ties for use in resetting monuments disturbed by construction.

Assumptions:

Vertical control will be referenced to NGVD29 datum.

Horizontal control points will be established using the Oregon State Plane Coordinate System, North Zone NAD 83 (91).

Survey to include the IT2 PS site in the location of the force main installation, six force main segments identified (approximately 11,000 LF total) with additional 100 feet at ends of each segment, up to TC WRRF property line.

Survey width will be from right-of-way to right-of-way, or easement width, as applicable.

Right-of-way lines will be computed and shown based on the monument ties and right-of-way research performed under this task.

Task 3.2 – Geotechnical Evaluation

Activities:

Review and compile available information for the pump station site, diversion structure, and force main alignment.

Interview County and/or consultant representatives who had significant involvement in the design and construction of the existing pump station, force main and diversion structure to obtain additional relevant information, if available.

Complete a ground-based geotechnical reconnaissance of the proposed force main alignment to review existing surface conditions and visible features that may be important considerations with respect to location, design, and construction of the force main segments.

Review existing soil corrosivity data, provide recommendations for additional corrosivity testing if required.

Prepare a technical memorandum that will: 1) summarize geotechnical information obtained from the documents review and site reconnaissance; 2) address pertinent recommendations from the 2010 geotechnical reports as they relate to the current project; 3) update and provide additional design and construction recommendations; 4) provide recommendations for additional subsurface explorations along the force main alignment.

Deliverables:

Draft and final Geotechnical Technical Memorandum

Assumptions:

Force main segments are located within existing rights-of-way or WES-controlled easements or property.

Task 3.3 – Preliminary Utility Coordination

Activities:

Prepare and deliver a Project Information Letter to each utility within the project area describing the project and project schedule. This letter will be followed by calls or visits to appropriate contacts at each utility to ascertain the existence of any facilities within the corridor. Those utilities having facilities within the pipeline corridor will be specifically asked for all information concerning said utilities.

Perform field reconnaissance of the proposed alignment to review utility paint markings and verify completeness of the subsurface and above ground utilities as depicted in the Utility Base CAD file.

Document discrepancies between utility documents and located facilities and coordinate with the utilities for clarification and resolution.

Perform a conflict analysis of the preliminary pipeline alignment and the existing utilities shown in the Utility Base CAD File.

Prepare a Conflict List in spreadsheet format listing existing utilities crossing the proposed pipeline, and existing utilities parallel to the proposed pipeline within an 8-foot “Restricted Zone” or “Safety Zone” around the pipeline.

Prepare Conflict Plan Sheets corresponding to the Conflict List identifying proposed utilities, existing utilities, and potential conflicts, with color-coding of each type of conflict.

Identify potential conflict locations which merit further investigation by potholing and prepare plan showing recommended potholing locations.

Establish or verify documentation of prior rights by private utilities.

Provide Utility Conflict Plan Sheets and Conflict List to all utility companies identified within the project area for their review for accuracy of potential conflicts and include any recommended potholing locations.

Deliverables:

Utility contact list, project information letter, and conflict letters.

Utility Conflict Plan Sheets and Conflict List.

Recommended potholing plan identifying pothole location and utility owner.

Utility company coordination meeting agenda and minutes.

Assumptions:

Consultant will serve as single point of contact through the design phase of the project for utilities in addressing their need for project information and design requests, including distribution of design plans, and discussing with each utility special requirements associated with facility relocation or modification. .

Up to ten private utility owners will be identified through utility locate requests and pole owner permits.

Task 3.4 – Transient Evaluation

Objective:

Perform an evaluation of transient (surge) hydraulics at the Intertie 2 Diversion Pump Station for protection of the combined 20-inch and 30-inch parallel force main system during emergency pump shutdown.

Activities:

Review previous transient analysis document prepared in 2010 (Pressure Surge Analysis by Northwest Hydraulic Consultants).

Using the WES Collection System hydraulic model, develop a surge model for the pump station and force mains to include the existing combination air valve stations along the force main alignment.

Evaluate surge impacts for maximum capacity of the Intertie 2 Diversion Pump Station using force main sizing and location proposed in 30% design.

Review additional combination air valve locations and/or changes to valve sizing to protect against pressure transients during normal operation and complete power outage.

Provide recommendations on surge protection on the force main system, and at the pump station.

Prepare documentation of transient analysis for the draft and final Preliminary Design Memorandum.

Deliverables:

Section of draft and final Force Main Design Memorandum.

Assumptions

Subsequent analysis iterations will occur as needed to support 60-percent and 90-percent design phases if the force main alignment or proposed pump station operations change.

This task will be coordinated with Tasks 9.1 and 9.3 which include scope to select pump models. Pump selection will be performed prior to transient modeling.

Task 3.5 – Prepare Force Main 30% Design

Objective:

Complete preliminary (30%) design and document in preliminary design report.

Activities:

Provide recommendations for pipeline corrosion control and summarize information for memorandum.

Prepare drawings to the 30% design level as noted in the Drawing List provided as Attachment A.

Prepare cost estimates to Class III level of confidence accuracy.

Prepare a project schedule and identify potential project phasing.

Prepare draft Force Main Design Memorandum including the following:

- Introduction, Background, and Purpose
- Design Criteria Summary
- Force Main Route Description & Analysis
- Pipe Materials & Appurtenances
- Corrosion Control Recommendations
- Utility Conflict Analysis
- Geotechnical Considerations
- Odor & Air Valve Station Improvements
- Anticipated Permitting
- Project Implementation and Costs

Facilitate a 30% Design Review Meeting to present the selected alternatives, the recommended project schedule, and cost estimate.

Incorporate District Staff comments and prepare final Design Memorandum.

Deliverables:

30% Design drawings as identified in Drawing List in Attachment A.

Class III cost estimate.

Project delivery schedule.

Draft 30% Force Main Design Memorandum.

Project Meeting agendas and minutes.

Final 30% Force Main Design Memorandum.

Task 4 – Prepare (60%) Design Development Documents

Objective:

Advance the force main design to a 60% completion level.

Task 4.1 – Additional Field Surveying

Activities:

Perform additional field survey to locate new subsurface explorations, new utility locating potholes, and other facilities in the force main corridor that are identified to be relevant for the design and construction of the force main segments.

Deliverables:

AutoCAD files with additional field survey data, to be incorporated into the project AutoCAD design files.

Assumptions:

A maximum of 50 additional potholing, boring and other facility locations along the project corridor will be surveyed.

Task 4.2 –Geotechnical Explorations

Activities:

Perform subsurface explorations as identified to obtain additional information for design and construction of the force main segments. Obtain samples for corrosivity testing from each boring. Perform coring and strength-testing of rock where encountered.

Supplement or revise geotechnical reports and/or memoranda to address additional subsurface explorations where performed.

Deliverables:

Supplemental Geotechnical Technical Memorandum

Assumptions:

A maximum of five subsurface explorations to depths between 15 and 25 feet below ground surface.

Force main segments are located within existing rights-of-way or WES-controlled easements or property.

Task 4.3 – Utility Coordination at 60% Design

Activities:

Perform potholing in accordance with the approved potholing plan, with numbered survey pin to provide a reference mark for survey. Prepare potholing reports noting the depth from the surface to the top and bottom of the utility structure.

Perform private locating (“designating”) to determine locations of existing utilities in areas outside the right-of-way.

Prepare updated Utility Conflict Plan Sheets and Utility Conflict List, including results of potholing and private utility designating.

Prepare conflict letters and coordinate with each private utility to resolve conflicts and coordinate utility relocation work that could be completed. Prepare email documentation of telephone conversations with the utility owners.

Deliverables:

Potholing plan and maps identifying pothole location and utility owner.

Maps of designated private utilities.

Updated Utility Conflict Plan Sheets and Utility Conflict List.

Utility meeting agenda and minutes and email documentation.

Assumptions:

A maximum of 30 utility location potholes will be performed.

A maximum of 10 hours of designating time to determine private utility locations will be performed.

Task 4.4 – Prepare Force Main 60% Design

Objective:

Advance the force main design and prepare documents to the 60% submittal stage. The 60% documents shall include Divisions 0 and 1 specifications and specifications for equipment, materials, common details and drawings to the 60% completion level.

Activities:

Recommend final pipeline route for all pipeline segments.

Finalize pipe material selection, including recommendations for lining, coating, and providing corrosion protection for the pipe material.

Design layout and improvements at each of the 12 odor and air valve stations.

Develop plans to maintain service in the 20-inch force main during construction.

Develop recommendations for contractor testing of existing 30-inch force main segments to verify acceptance in accordance with new pipe acceptance criteria.

Prepare drawings to the 60% design level as noted in the Drawing List provided as Attachment A.

Perform updated transient analysis of force main, based on revised force main alignment or proposed change to pump station operations determined during 60% design phase.

Prepare draft traffic control plans.

Prepare draft erosion and sediment control plans for all force main segments.

Assemble County or WES standard details for each required discipline.

Review and coordinate Division 0 specifications provided by WES.

Develop draft Technical Specifications as identified in the Specifications List provided as Attachment B.

Prepare bid item list and Class 3 Construction Cost Estimate.

Develop preliminary construction sequence, constraints and construction schedule.

Conduct one interim design meeting with WES staff to review design development prior deliverable submittal. Meeting will be attended by Murraysmith's Project Manager, Project Engineer, and multi-disciplinary subconsultants as applicable.

Conduct 60% design review meeting. Consultant will conduct one two-hour workshop to review the 60% design submittal with District staff. Meeting will be attended by Murraysmith's Project Manager, Project Engineer, and multi-disciplinary subconsultants as applicable.

Deliverables:

60% Design drawings as identified in Drawing List in Attachment A.

Division 01 Technical Specifications as identified in Specification List in Attachment B.

Technical Specifications for major construction elements as identified in Specification List in Attachment B.

60% Construction Cost Estimate using proposed bid item list.

60% Construction Sequence Narrative with estimated construction schedule.

Meeting agendas and summaries.

Task 5 – Prepare Force Main 90% Contract Documents

Objective:

Develop 90% Contract Documents for the force main bid set.

Task 5.1 – Utility Coordination at 90% Design

Activities:

Perform updates to Utility Conflict Plan Sheets and Utility Conflict List as needed.

Coordinate with each private utility to resolve conflicts and coordinate utility relocation work to be completed. Prepare email documentation of telephone conversations with the utility owners.

Prepare technical specification regarding relevant utility relocation work to be performed by private utilities.

Deliverables:

Updated Utility Conflict Plan Sheets and Utility Conflict List.

Utility meeting agenda and minutes and email documentation.

Technical specification regarding utility coordination.

Assumptions:

Design of existing utility relocations will be completed by the utility owners and reviewed by Murraysmith to confirm that the proposed relocations will resolve the identified conflicts. Design reviews are limited to up to two iterations per utility conflict.

Task 5.2 – Prepare Force Main 90% Design

Objective:

Advance the force main design and prepare 90% Contract Documents.

Activities:

Review and address 60% design review comments from WES staff or other stakeholders.

Prepare 90% design level drawings for each bid set as noted in the Drawing List included in Attachment A.

Prepare stamped 90% design drawings as needed for plan review for building and trade permits.

Perform updated transient analysis of force main, based on revised force main alignment or proposed change to pump station operations determined during 90% design phase.

Prepare technical specifications to include Division 01 through Division 48. See attached Specification List in Attachment B.

Prepare a Class 2 Construction Cost Estimate.

Update the estimated construction schedule.

Conduct one interim design meeting with WES staff to review contract documents prior deliverable submittal.

Conduct one two-hour meeting to review the 90% design submittal with District staff.

Deliverables:

Stamped 90% design drawings needed for building and trade permits.

90% Design Development Drawings, see Drawing List in Attachment A.

90% Construction Specifications, see Specification List in Attachment B.

Class 2 Construction Cost Estimate.

Meeting agenda and summaries.

Documentation of resolution of 60% review comments by District and other external stakeholders.

Task 6 – Prepare Force Main Bid Documents

Objective:

Prepare final sealed contract documents to be used for publicly bidding the force main project.

Activities:

Address and modify the contract documents to address District comments and permit plan review comments.

Prepare deliverable documents and submit to WES.

Deliverables:

Final sealed construction documents in PDF format

Design drawing files in AutoCAD

Assumptions:

Standard details will be separately bound as 8.5-inch x 11-inch sheets, provided in PDF format only.

Task 7 – Force Main Construction Permits and Approvals

Objective:

Assist WES in obtaining permits and land use approvals from local agencies for construction of the force main project. The anticipated approvals are listed in Table 1 below.

Agency	Anticipated Permits
City of Oregon City	Right-of-Way Street Permit Building Permit
City of Gladstone	Permit to Work in the Right-of-Way Plumbing Permit
Clackamas County	Development Permit Plumbing Permit

Activities:

Coordinate with each local agency to verify applicable permits required, obtain applicable permit application forms, and verify

Rights-of-Way Construction Permits

Prepare application materials and submit application on behalf of WES.

Erosion Control Permits

Prepare application materials and submit application on behalf of WES.

Building and Trade Permit Plan Review

Prepare plan review drawing sets using stamped 90% design drawings as required for building or trade permit reviews.

Deliverables:

Rights-of-Way Construction Permits application submittal packages.

Erosion Control Permit application submittal package.

Building and Trade Permit application materials

Permit plan sets in pdf files

Assumptions:

No land use permits are anticipated to be required for force main installation.

WES will sign necessary application forms and pay application fees.

Wetland impacts are not anticipated.

State or federal environmental permits are not included in the scope of work.

Task 8 – Force Main Bid Period Services

Objective:

Provide support to WES staff during bid phase of the force main bid documents.

Activities:

Attend the pre-bid conference.

Review and respond to technical questions as requested.

Prepare technical material for addenda as needed.

Review bids and provide comments.

Deliverables:

Written documentation of responses to technical questions

Summary of pre-bid conference

Technical addenda to the contract documents, as needed

Written recommendation of contract award

Assumptions:

Preparation of technical materials for two addenda is budgeted.

WES will advertise and distribute bid documents and addenda.

Task 9 – Intertie 2 Pump Station and Diversion Facilities Preliminary Design

Objective:

The purpose of this task is to develop a basis of design for the capacity improvements to the Intertie 2 Diversion Pump Station and Diversion Structure (Diversion Facilities), to be completed through analyses of critical components and collaboration with District staff.

Task 9.1 – Existing Diversion Facilities Site Evaluation

Objective:

Conduct desktop review and site visit of the existing Intertie 2 Pump Station and Diversion Structure to document and evaluate major system components to meet requirements of capacity improvements and other evaluations.

Activities:

Review available as-built drawings, design reports, master plans, operations and maintenance manual and other relevant documentation.

Review existing operational strategies of the diversion facilities and meet with District staff to obtain further knowledge and understanding of system and downstream impact on conveyance and treatment infrastructure.

Review design flow rates and pump and motor selections from previous documentation, including 2009 Preliminary Design Report and 2020 Concept Design Report with project team.

Review pump station wet well and pump intake configuration relative to current Hydraulic Institute standards and guidelines.

Perform a site visit to the Intertie 2 Pump Station & diversion facilities. Perform a site visit to the Tri-City WWRf facilities to review and observe current Intertie 2 force main discharge configuration.

Review existing configuration, operational status, condition, maintenance needs, deficiencies, and other elements relevant to design of the capacity improvements, for the following major equipment and subsystems:

Diversion Structure and appurtenances

Pump station wet well and other hydraulic structures

Submersible pumps

Valves, gates, and other flow control devices

Vapor-phase odor control equipment

Liquid-phase calcium nitrate (Bioxide) odor control system

Electrical system capacity, including stand-by generator and power service

Instrumentation including flow meters, level sensors, and similar devices

Review force main system curve, hydraulic grade line, and pump performance curves from conceptual design report, and update as necessary to reflect design assumptions for current and future conditions. Develop recommendation for selection of submersible pumps for basis of design and advanced hydraulic analysis.

Prepare wastewater sampling plan for evaluation of liquid-phase odor control system, to be conducted by District staff at the pump station; review and evaluate collected data to develop the design basis for the liquid-phase odor control system during future flow conditions.

Recommend improvements to pump station elements to accommodate capacity improvements and the recommendations developed from the hydraulic, transient analyses, and operational evaluations.

Task Deliverables

Documentation of existing conditions of the pump station

Wastewater sampling plan

Assumptions

District will collect and analyze wastewater samples according to recommended odor control sampling plan and provide results to Consultant.

Task 9.2 – CFD Hydraulic Analysis

Objective:

Perform computational fluid dynamics (CFD) modeling of the Intertie 2 Pump Station Wet Well and Diversion Structure when subject to projected future flows and operational conditions. Provide background information for diversion system basis of design.

Activities:

Perform computational fluid dynamics (CFD) modeling, to include:

Develop a three-dimensional CFD model of the Diversion Structure, diversion pipeline, Intertie 2 Pump Station wet well, and pump intakes.

Evaluate wet well configuration and pump intake for phased pump station capacity improvements focusing on risks associated with pump priming, swirl angle at pump intake, and other cavitation risks.

Evaluate diversion box size and configuration for turbulence, air entrainment, and erosion risks associated with flow direction change.

Provide up to three iterations of analysis to provide recommendations on hydraulic performance and improvements at the diversion box and pump station.

Prepare documentation as input to the preliminary design memorandum.

Deliverables:

Draft and final sections for inclusion in diversion operations technical memorandum.

Task 9.3 – Diversion Operations Review & Evaluation

Objective:

Perform review and evaluation of operational strategies for the Intertie 2 Diversion Structure and Intertie 2 Pump Station Evaluation. Provide recommendations to update the operational strategies upon implementation of the capacity improvements.

Activities:

Conduct Workshop #1 with District staff to discuss operational strategies, historical issues, downstream constraints, operational preferences, on-going or planned improvement projects, and other system information as relevant.

Workshop #1 will cover the following issues:

Review recommendations for pump selection from Task 9.1 and select pump models.

Diversion strategy – manual vs. automated gates at the Diversion Structure

Flow control – control at the Diversion Structure, Intertie 2 Pump Station, and Kellogg WRRF

Secondary control and monitoring particularly for flow contribution downstream of the Diversion Structure in the Mount Scott Interceptor and upstream of Kellogg WRRF

Configuration of Mount Scott Interceptor improvements into the Diversion Structure

Pump sequencing and use of individual force mains vs both force mains in parallel

Tri-City WRRF headworks configuration – existing and future locations and elevation/head requirements of force main discharge at the WRRF

Seasonal operational requirements

Future flow contributions, variability of I&I flows and increased flow with time

Travel or lag time and additional flow inputs between the Diversion Structure and the Kellogg WRRF

Diversion Structure and wet well hydraulics (based on CFD evaluation from Task 8.2)

Discuss alternatives for diversion pumping configurations, including pump sizing, configuration, and parallel vs. separate force main operations. Select up to three alternatives for further review.

Develop hydraulic/operations model (REPLICA™) for use in evaluation of alternative control strategies and calibrate the model using available information from SCADA, flow monitoring, and WES Collection System Model.

Evaluate up to three alternative control strategies, based on the outcome of Workshop 1. Evaluation is anticipated to focus on the following parameters: timing of capacity improvements; planned seasonal diversion flows; O&M staff preferences; and sequencing options for pumps, VFD settings, and force mains.

Conduct Workshop #2 with District staff to present the evaluation findings and select a preferred operational concept for design and implementation.

Prepare a technical memorandum documenting the preferred operational concept as input to the basis of design documentation.

Deliverables:

Workshop agenda and minutes.

Draft and Final technical memorandum.

REPLICA™ model in ExtendSim (third party platform)

Assumptions:

Electrical and I&C design are excluded from the Phase 1 scope of work.

Workshop duration anticipated to be 2 to 3 hours.

Up to four (one to two-hour duration) meetings with consultant and WES engineering staff in addition to the task workshops.

REPLICA™ training is excluded from the scope and level of effort for Phase 1. WES may elect to include training in a future phase of work.

Task 9.4 – Diversion Facilities Improvements Predesign

Objective:

Develop the basis of design for Intertie 2 Pump Station and Intertie 2 Diversion Structure and document in a preliminary design report.

Activities:

Prepare and present site plans, building floor plan figures, P&ID, one-line diagram as needed to describe the recommended improvements and design.

Prepare cost estimate to Class 3 level of confidence accuracy.

Prepare project schedule and recommendations for construction, testing, and startup.

Prepare draft Preliminary Design Memorandum outlining the following:

Introduction, Background, and Purpose
Design Criteria Summary
Facility Description
Evaluations and Recommended Improvements
Permitting and Approvals
Project Implementation and Costs

Review Workshop – Facilitate workshop to review Basis of Design Report and to recommended project delivery schedule.

Incorporate District Staff comments into final report.

Task Deliverables

Draft and Final Preliminary Design Memorandum.

Basis of Design Review meeting agenda and minutes.

Budget

Payment will be made at the billing rates for personnel working directly on the project, which will be at the Consultant’s Hourly Rates, plus Direct Expenses incurred. Billing rates, expenses, and outside services are as listed below.

Personnel

Labor will be invoiced at direct labor with a 3.15 multiplier. Maximum rate is \$230 per hour.

Project Expenses:

Expenses incurred in-house that are directly attributable to the project will be invoiced at actual cost. These expenses include the following:

Mileage (allowed where one-way trip exceeds 25 miles)	Current IRS Rate
Postage and Delivery Services	At Cost
Printing and Reproduction	At Cost
Travel, Lodging, and Subsistence	At Cost

Outside Services:

Outside technical, professional, and other services will be invoiced at actual cost-plus 5 percent.

Anticipated Project Milestones

The project milestones listed below are intended to show the anticipated schedule through completion of the project. Phase I milestones for work included in this scope of work are provided as approximate dates based on the assumed Notice to Proceed date and may be refined based on actual project start.

Phase I Schedule (included in this contract)	
Notice to Proceed	April 4, 2022
Draft Force Main 30% Design Submittal	August 1, 2022
Force Main 60% Design Submittal	December 1, 2022
Force Main 90% Design Submittal	March 1, 2023
Force Main Bid Documents Submittal	April 14, 2023
Force Main Bid/Award Period Completion	July 2023
Diversion Operations Workshop #1	May 18, 2022
Diversion Operations Workshop #2	August 17, 2022
Diversion Facilities Preliminary Design Report - Draft	September 16, 2022

Attachments

- 1: Drawing List
- 2: Technical Specification List

ATTACHMENT 1

DRAWING LIST INTERTIE 2 PUMP STATION & FORCE MAIN EXPANSION PROJECT CLACKAMAS COUNTY WATER ENVIRONMENT SERVICES

The following list of drawings are anticipated for the subject project. Two bid sets will be prepared with the pump station and force main improvement separated as shown. Drawing for each discipline will be organized by facility.

*Denotes drawings to be included with 30% Design Submittal

Bid Set 1: Intertie 2 30" Force Main Improvements (100 drawings)

General (6 drawings)

Cover Page & Vicinity Map*

Index of Drawings*

Project Overview Map & Force Main Profile*

Abbreviations

Symbol & Legend

General Notes

Civil (54 drawings)

Plan & Profile – Segments 1-6, STA 0+00 TO 210+00 (10,950 LF, 1"=20', 26 sheets total)*

Plan & Profile – Tri-City WRRF On-Site Piping (1 sheet)*

Odor & Air Valve Assembly (12 sites, 1 per sheet, 12 sheets total)*

Waterline Plan & Profile Relocations (2 sheets)

Sewer Plan & Profile Relocations (2 sheets)

Pipeline Trench Details (2 sheets)

TC WRRF Piping Connection Details (2 sheets)

WES Standard Details (5 sheets)

CRW Standard Details (1 sheet)

Sewer Details (1 sheets)

Erosion & Sediment Control (28 drawings)

General Erosion Control Cover Sheet

General Erosion Control Notes Clackamas WES MURRAYSMITH Intertie 2 PS & FM Expansion – Phase 1
September 2, 2021 2

Erosion Control Plan – 0+00 TO 210+00 (10,500 LF, 1000' per sheet, 11 sheets total)

Erosion Control Plan - Staging Area (Assume 4 staging areas, 4 sheets total)

Erosion Control Plan – Odor & Air Valve Assembly (12 sites, 2 sites per sheet, 6 sheets total)

Erosion Control Plan – Tri-City WRRF (1 sheet)

Erosion Control Details (4 sheets)

Traffic Control (12 sheets)

Traffic Control Plan – Segments A through F (1 sheet per Segment, 6 sheets total)

Traffic Control Staging Area Plan (Assume 4 staging areas, 4 sheets total)

Traffic Control Details (2 sheets)

ATTACHMENT 2
TECHNICAL SPECIFICATIONS
INTERTIE 2 PUMP STATION & FORCE MAIN EXPANSION PROJECT
CLACKAMAS COUNTY WATER ENVIRONMENT SERVICES

The following list of specifications are anticipated for the subject project. These specifications will be included in the bid set that will be prepared under the design scope of work.

Bid Set 1: Intertie 2 30” Force Main Improvements

Section	Title
<i>Division 01 – General Requirements</i>	
01 10 00	Summary of Work
01 12 16	Work Sequence
01 22 20	Unit Price Measurement and Payment
01 33 00	Submittal Procedures
01 45 00	Quality Control
01 55 26	Traffic Control
01 56 39	Temporary Tree and Plant Protection
01 57 19.11	Temporary Sewage Control and Bypass Piping
<i>Division 02 - Existing Conditions</i>	
02 30 00	Subsurface Investigation
02 41 00	Demolition
<i>Division 03 - Concrete</i>	
03 11 00	Concrete Work
03 60 00	Grouting
<i>Division 05 - Metals</i>	
05 50 00	Metal Fabrications
<i>Division 10 – Specialties</i>	
10 14 10	Identifying Devices
<i>Division 31 - Earthwork</i>	
31 05 13	Soils for Earthwork
31 05 16	Aggregates for Earthwork
31 23 16	Excavation
31 23 17	Trenching
31 23 18	Rock Removal
31 23 19	Dewatering

31 23 24 Flowable Fill
31 50 00 Excavation Support and
Protection

Division 32 - Exterior Improvements

32 11 23 Aggregate Base Courses
32 12 16 Asphaltic Concrete Pavement
32 12 17 Cold Plane Pavement Removal

Division 33 - Utilities

33 01 30.13 Sewer and Manhole Testing
33 05 13 Manholes and Wet Wells
33 11 10 Water Utility Distribution and
Transmission Piping
33 12 13 Water Service Connections
33 12 16 Water Utility Distribution Valves
33 13 00 Testing and Disinfecting of
Utility Piping
33 31 10 Sanitary Utility Sewerage Piping
33 41 10 Storm Utility Drainage Piping

Division 40 – Process Integration

40 05 13 Common Work Results for
Process Piping
40 05 51 Common Requirements Results
for Process Valves
40 05 78 Miscellaneous Valves (Air
Valves)
40 05 23.15 Gate Valves
40 05 23.21 Plug Valves

**EXHIBIT B
PERSONAL SERVICES CONTRACT
FEE SCHEDULE**

INTERIE Z PUMP STATION & FORCE MAIN EXPANSION - PHASE 1
CONSTRUCTION SERVICES
PROPOSED FEE ESTIMATE

	Subconsultants												Expenses	Total				
	Principal Engineer IV	Professional Engineer VII	Professional Engineer VI	Professional Engineer V	Professional Engineer IV	Professional Engineer III	Professional Engineer II	Professional Engineer I	Technician III	Technician II	Technician I	Labor						
	Hours	Rate	Rate	Rate	Rate	Rate	Rate	Rate	Rate	Rate	Rate	Rate	Rate	Rate	Rate	Rate	Rate	Rate
Table 1 - Project Management Subtotal	94	577	544	512	412	412	412	412	412	412	412	412	412	412	412	412	412	412
Table 2 - Quality Management Subtotal	15	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Table 3 - Permit Administration Subtotal	98	104	113	88	102	102	102	102	102	102	102	102	102	102	102	102	102	102
Table 4 - Permit Administration Subtotal	80	124	165	108	98	98	98	98	98	98	98	98	98	98	98	98	98	98
Table 5 - Permit Administration Subtotal	71	84	148	200	92	92	92	92	92	92	92	92	92	92	92	92	92	92
Table 6 - Permit Administration Subtotal	24	24	90	44	34	34	34	34	34	34	34	34	34	34	34	34	34	34
Table 7 - Permit Administration Subtotal	2	6	14	48	12	12	12	12	12	12	12	12	12	12	12	12	12	12
Table 8 - Permit Administration Subtotal	4	10	12	3	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Table 9 - Permit Administration Subtotal	145	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Table 10 - Permit Administration Subtotal	472	284	289	287	198	198	198	198	198	198	198	198	198	198	198	198	198	198
TOTAL - ALL TABLES																		