



August 4, 2022

Board of County Commissioners
 Clackamas County

Approval of an Intergovernmental Agreement between Water Environment Services and City of Gladstone for Rehabilitation of the 82nd Drive Pump Station. Total value reimbursed is approximately \$728,075.00 to WES Sanitary Construction Fund. County General Funds are not involved.

Purpose/Outcome	Approval of an Intergovernmental Agreement between Water Environment Services and City of Gladstone for Rehabilitation of the 82 nd Drive Pump Station. Total value reimbursed is approximately \$728,075.00 to WES Sanitary Construction Fund. County General Funds are not involved.
Dollar Amount and Fiscal Impact	The City agrees to reimburse WES \$128,075.00 for design, permitting and bid services, and approximately \$600,000.00 for construction costs (final amount to be adjusted based on actual costs incurred by WES), based on monthly invoices sent to the City by WES.
Funding Source	WES Sanitary Construction Fund. County General Funds are not involved.
Duration	The Agreement ends December 31, 2025.
Previous Board Action/Review	This item was presented at Issues on August 2, 2022.
Strategic Plan Alignment	<ol style="list-style-type: none"> 1. This project supports the WES Strategic Plan to provide Enterprise Resiliency, and Performance and Operational Optimization by assisting the City of Gladstone the rehabilitation of the 82nd Drive Pump Station. 2. This project supports the County Strategic Plan to build public trust through good government by realizing cost savings.
Counsel Review	Date of Counsel review: July 12, 2022 Name of County Counsel performing review: Amanda Keller
Procurement Review	<ol style="list-style-type: none"> 1. Was this project processed through Procurement? No 2. IGAs are not considered public contracts for procurement purposes, so they are not required to go through Procurement.
Contact Person	Greg Geist, WES Director, 503-742-4560
Contract No.	N/A

BACKGROUND:

The City of Gladstone (“City”) installed the 82nd Drive Pump Station (“Pump Station”) in the late 1970’s. While the City is the owner of the Pump Station, Water Environment Services (“WES”) has assisted the City with the performance of routine maintenance and operation of the Pump Station over the past several decades.

The current Pump Station and its components are approaching the end of their useful life and are in need of rehabilitation. WES is currently in the early stages of a project to rehabilitate several of its own pump stations and agreed to assist the City by including the Pump Station rehabilitation work in that broader effort.

This IGA documents and outlines the roles and responsibilities of both the City and WES, as well as reimbursement terms. The City will be responsible for the portion of the design and construction costs associated with the Pump Station. WES will manage the project and coordinate with the City throughout the process.

RECOMMENDATION:

WES staff recommends the Board, acting as the governing body of Water Environment Services, approve the Intergovernmental Agreement between Water Environment Services and City of Gladstone for Rehabilitation of the 82nd Drive Pump Station.

Respectfully submitted,



Ron Wierenga
Assistant Director
Water Environment Services

Attachments: Intergovernmental Agreement between Water Environment Services and the City of Gladstone for Rehabilitation of the 82nd Drive Pump Station

COVER SHEET

- New Agreement/Contract
- Amendment/Change/Extension to _____
- Other _____

Originating County Department: _____

Other party to contract/agreement: _____

Description:

After recording please return to: _____

County Admin

Procurement

If applicable, complete the following:

Board Agenda Date/Item Number: _____

INTERGOVERNMENTAL AGREEMENT BETWEEN WATER ENVIRONMENT SERVICES AND THE CITY OF GLADSTONE FOR REHABILITATION OF THE 82nd DRIVE PUMP STATION

THIS AGREEMENT (this “Agreement”) is entered into and between Water Environment Services (“District”), an intergovernmental entity formed pursuant to Oregon Revised Statutes Chapter 190, and the City of Gladstone (“City”), a political subdivision of State of Oregon, collectively referred to as the “Parties” and each a “Party.”

RECITALS

Oregon Revised Statutes Chapter 190.010 confers authority upon local governments to enter into agreements for the performance of any and all functions and activities that a party to the agreement, its officers or agencies have authority to perform.

The 82nd Drive Pump Station was installed by the City in the late 1970's, identified more specifically in Exhibit A (“Pump Station”). While the City is the owner of the Pump Station, the District has assisted the City with performance of routine maintenance and operation of the Pump Station over the past several decades.

The current facilities at the Pump Station are approaching the end of their useful life and are in need of replacement. The District agreed to assist the City by including the Pump Station rehabilitation work (“Rehab Project”), more particularly described in Exhibit B, in the District's work on other similar facilities. This Agreement is intended to document the responsibilities of the Parties as it relates to the current Rehab Project.

In consideration of the mutual promises set forth below and other good and valuable consideration, the receipt and sufficiency of which are hereby acknowledged, the Parties hereby agree as follows:

TERMS

1. **Term.** This Agreement shall be effective upon execution, and shall expire upon the completion of each and every obligation of the Parties set forth herein, or December 31, 2025, whichever is sooner.
2. **Obligations of the District.** The District agrees to do the following:
 - A. Manage a contract with an engineering firm to develop plans and specifications for the Rehab Project. The District has entered into a contract with Murraysmith, Inc. to create the plans and specifications for the construction.
 - B. Enter into a contract with a contractor to construct the Rehab Project work. Prior to entering into the contract, the District will give the City an opportunity to review and comment on the contractor's bid. If the City determines, in its sole discretion, that the bid amount is a substantial and unforeseen increase in cost over the engineer's estimate, then the City may deliver written notice to the District with a request to remove the Rehab Project work from the District contractor's scope of work and the District will remove the Rehab Project from the contractor's scope of work.
 - C. Require contractors with whom the District enters into a contract under subsections 2(A) and 2(B) above to defend and indemnify the City for the contractor's acts or omissions related to the performance of the contract; name the City, its elected officials, officers and employees as additional insureds for the purposes of the

defense and indemnification requirements, and to name the City as a third party beneficiary for any work related to the Rehab Project.

- D. Manage the performance of the Rehab Project work by the contractor. The District will notify the City of potential change orders and give the City an opportunity to review, comment, modify, and reject any change orders.
- E. Submit invoices to the City for Rehab Project work in accordance with the terms of this Agreement.
- F. Ensure the warranties provided by the contractor are in the name of the City.

3. Obligations of the City. The City agrees to do the following:

- A. Authorize the District and any of its agents or contractors to access the Pump Station property as necessary to perform the Rehab Project work, including authorizing temporary construction easements or other mechanisms required for access.
- B. Reimburse District for the following costs associated with the current Pump Station upgrade project District is performing on behalf of City:
 - i. Final Design, Permitting and Bid Services: \$128,075
 - ii. Construction: The construction total is estimated at approximately \$600,000 and the City agrees to reimburse the District for all actual costs incurred by the District for construction related to the Rehab Project, provided the City has not exercised its option to remove the Rehab Project work from the District contractor's scope of work as authorized by Section 2(B) above.
- C. Provide District prior notice if City intends to perform any work on the Pump Station that may affect District's ability to perform its obligations under this Agreement. The District is not responsible for any claims or expenses that result from the District's inability to access the Pump Station or failure of the Pump Station to operate correctly.
- D. The City is responsible for compliance with all legal and regulatory requirements associated with the Pump Station.

4. Payment. Unless otherwise specified, the District shall submit monthly invoices for work performed in accordance with this Agreement. Invoices shall describe all work performed with particularity, and shall itemize and explain all expenses for which reimbursement is claimed. Payments shall be made to District following the City's review and approval of invoices submitted by District.

5. Representations and Warranties.

- A. *City Representations and Warranties*: City represents and warrants to District that City has the power and authority to enter into and perform this Agreement, and this Agreement, when executed and delivered, shall be a valid and binding obligation of City enforceable in accordance with its terms.
- B. *District Representations and Warranties*: District represents and warrants to City that District has the power and authority to enter into and perform this Agreement, and this Agreement, when executed and delivered, shall be a valid and binding obligation of District enforceable in accordance with its terms.

C. The warranties set forth in this section are in addition to, and not in lieu of, any other warranties provided.

6. Termination.

A. Either the District or the City may terminate this Agreement at any time upon thirty (30) days written notice to the other party.

B. Either the District or the City may terminate this Agreement in the event of a breach of the Agreement by the other. Prior to such termination however, the Party seeking the termination shall give the other Party written notice of the breach and of the Party's intent to terminate. If the breaching Party has not entirely cured the breach within fifteen (15) days of deemed or actual receipt of the notice, then the Party giving notice may terminate the Agreement at any time thereafter by giving written notice of termination stating the effective date of the termination. If the default is of such a nature that it cannot be completely remedied within such fifteen (15) day period, this provision shall be complied with if the breaching Party begins correction of the default within the fifteen (15) day period and thereafter proceeds with reasonable diligence and in good faith to effect the remedy as soon as practicable. The Party giving notice shall not be required to give more than one (1) notice for a similar default in any twelve (12) month period.

C. The District or the City shall not be deemed to have waived any breach of this Agreement by the other Party except by an express waiver in writing. An express written waiver as to one breach shall not be deemed a waiver of any other breach not expressly identified, even though the other breach is of the same nature as that waived.

D. Either Party may terminate this Agreement in the event the Party fails to receive expenditure authority sufficient to allow the Party, in the exercise of its reasonable administrative discretion, to continue to perform under this Agreement, or if federal or state laws, regulations or guidelines are modified or interpreted in such a way that either the Project under this Agreement is prohibited or the Party is prohibited from paying for such work from the planned funding source.

E. Any termination of this Agreement shall not prejudice any rights or obligations accrued to the Parties prior to termination.

7. Indemnification. Subject to the limits of the Oregon Constitution and the Oregon Tort Claims Act or successor statute, the District agrees to indemnify, save harmless and defend the City, its officers, elected officials, agents and employees from and against all costs, losses, damages, claims or actions and all expenses incidental to the investigation and defense thereof arising out of or based upon regulatory violations as well as damages or injuries to persons or property caused by the negligent or willful acts or omissions of the District or its officers, elected officials, owners, employees, agents, or its subcontractors or anyone over which the District has a right to control related to work performed under this Agreement. Notwithstanding the above, the District shall not be responsible for indemnifying the City against any claims or fines of any nature arising from a lack of compliance with the Clean Water Act, Oregon Revised Statutes or any legal or regulatory requirements imposed by the State of Oregon, unless and to the extent caused by negligent or willful acts or omissions of the District or its officers, elected officials, employees, agents, or its subcontractors or anyone over which the District has a right to control related to work performed under this Agreement.

Subject to the limits of the Oregon Constitution and the Oregon Tort Claims Act or successor statute, the City agrees to indemnify, save harmless and defend the District, its officers, elected officials, agents and employees from and against all costs, losses, damages, claims or actions and all expenses incidental to the investigation and defense thereof arising out of or based upon regulatory violations as well as damages or injuries to persons or property caused by the negligent or willful acts or omissions of the City or its officers, elected officials, owners, employees, agents, or its subcontractors or anyone over which the City has a right to control directly associated with this Agreement.

8. **Insurance.** The City agrees to furnish the District with evidence of commercial general liability insurance with a combined single limit of not less than \$1,000,000 for each claim, incident, or occurrence, with an aggregate limit of \$2,000,000 for bodily injury and property damage for the protection of District and Clackamas County, and their officers, elected officials, agents, and employees against liability for damages because of personal injury, bodily injury, death or damage to property, including loss of use thereof, in any way related to this Agreement. If self-insured, City shall provide documentation to the District of City's self-insured status by completing the Self-Insurance Certification form provided by the District.

District agrees to furnish the City with evidence of commercial general liability insurance with a combined single limit of not less than \$1,000,000 for each claim, incident, or occurrence, with an aggregate limit of \$2,000,000 for bodily injury and property damage for the protection of the City, and its officers, elected officials, agents, and employees against liability for damages because of personal injury, bodily injury, death or damage to property, including loss of use thereof, in any way related to this Agreement. If self-insured, District shall provide documentation to the City of District's self-insured status by completing the Self-Insurance Certification form provided by the City.

9. **Notices; Contacts.** Legal notice provided under this Agreement shall be delivered personally, by email or by certified mail to the individuals identified below. Any communication or notice so addressed and mailed shall be deemed to be given upon receipt. Any communication or notice sent by electronic mail to an address indicated herein is deemed to be received 2 hours after the time sent (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. Any communication or notice by personal delivery shall be deemed to be given when actually delivered. Either Party may change the Party contact information, or the invoice or payment addresses by giving prior written notice thereof to the other Party at its then current notice address.

- A. Jessica Rinner or their designee will act as liaison for the District.

Contact Information:

Water Environment Services
150 Beavercreek Road, Suite 430
Oregon City, OR 97045

Phone: 503-742-4551
Email: jrinner@clackamas.us

Darren Caniparoli or their designee will act as liaison for the City.

Contact Information:

City of Gladstone Public Works
18595 Portland Ave.
Gladstone, OR 97027
Phone: 503-656-7957
Email: caniparoli@ci.gladstone.or.us

10. General Provisions.

- A. **Oregon Law and Forum.** This Agreement, and all rights, obligations, and disputes arising out of it will be governed by and construed in accordance with the laws of the State of Oregon and the ordinances of the District, without giving effect to the conflict of law provisions thereof. Any claim between District and City that arises from or relates to this Agreement shall be brought and conducted solely and exclusively within the Circuit Court of Clackamas County for the State of Oregon; provided, however, if a claim must be brought in a federal forum, then 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 either Party 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. Both Parties, by execution of this Agreement, hereby consents to the in personam jurisdiction of the courts referenced in this section.
- B. **Compliance with Applicable Law.** Both Parties shall comply with all applicable local, state and federal ordinances, statutes, laws and regulations. All provisions of law required to be a part of this Agreement, whether listed or otherwise, are hereby integrated and adopted herein. Failure to comply with such obligations is a material breach of this Agreement.
- C. **Non-Exclusive Rights and Remedies.** Except as otherwise expressly provided herein, the rights and remedies expressly afforded under the provisions of this Agreement shall not be deemed exclusive, and shall be in addition to and cumulative with any and all rights and remedies otherwise available at law or in equity. The exercise by either Party of any one or more of such remedies shall not preclude the exercise by it, at the same or different times, of any other remedies for the same default or breach, or for any other default or breach, by the other Party.
- D. **Access to Records.** Each Party shall retain, maintain, and keep accessible all records relevant to this Agreement ("Records") for a minimum of six (6) years, following Agreement termination or full performance or any longer period as may be required by applicable law, or until the conclusion of an audit, controversy or litigation arising out of or related to this Agreement, whichever is later. Each Party shall maintain all financial records in accordance with generally accepted

accounting principles. All other Records shall be maintained to the extent necessary to clearly reflect actions taken. During this record retention period, each Party shall permit the other Party's authorized representatives' access to the Records at reasonable times and places for purposes of examining and copying.

- E. **Work Product. Reserved.**
- F. **Hazard Communication.** Each party shall notify the other Party prior to using products containing hazardous chemicals to which the other Party's employees may be exposed, which includes any hazardous, toxic, or dangerous substance, waste, or material that is the subject of environmental protection legal requirements or that becomes regulated under any applicable local, state or federal law, including but not limited to the items listed in the United States Department of Transportation Hazardous Materials Table (49 CFR §172.101) or designated as hazardous substances by Oregon Administrative Rules, Chapter 137, or the United States Environmental Protection Agency (40 CFR Part 302), and any amendments thereto. Upon District's request, City shall immediately provide Material Safety Data Sheets for the products subject to this provision.
- G. **Debt Limitation.** This Agreement is expressly subject to the limitations of the Oregon Constitution and Oregon Tort Claims Act, and is contingent upon appropriation of funds. Any provisions herein that conflict with the above referenced laws are deemed inoperative to that extent.
- H. **Severability.** If any provision of this Agreement is found to be unconstitutional, illegal or unenforceable, this Agreement nevertheless shall remain in full force and effect and the offending provision shall be stricken. The Court or other authorized body finding such provision unconstitutional, illegal or unenforceable shall construe this Agreement without such provision to give effect to the maximum extent possible the intentions of the Parties.
- I. **Integration, Amendment and Waiver.** Except as otherwise set forth herein, this Agreement constitutes the entire agreement between the Parties on the matter of the Project. There are no understandings, agreements, or representations, oral or written, not specified herein regarding this Agreement. No waiver, consent, modification or change of terms of this Agreement shall bind either Party unless in writing and signed by both Parties and all necessary approvals have been obtained. Such waiver, consent, modification or change, if made, shall be effective only in the specific instance and for the specific purpose given. The failure of either Party to enforce any provision of this Agreement shall not constitute a waiver by such Party of that or any other provision.
- J. **Interpretation.** The titles of the sections of this Agreement are inserted for convenience of reference only and shall be disregarded in construing or interpreting any of its provisions.
- K. **Independent Contractor.** Each of the Parties hereto shall be deemed an independent contractor for purposes of this Agreement. No representative, agent, employee or contractor of one Party shall be deemed to be a representative, agent,

employee or contractor of the other Party for any purpose, except to the extent specifically provided herein. Nothing herein is intended, nor shall it be construed, to create between the Parties any relationship of principal and agent, partnership, joint venture or any similar relationship, and each Party hereby specifically disclaims any such relationship.

- L. **No Third-Party Beneficiary.** City and District are the only parties to this Agreement and are the only parties entitled to enforce its terms. Nothing in this Agreement 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 Agreement.
- M. **Subcontract and Assignment.** Except as expressly authorized by this Agreement, neither party shall enter into any subcontracts for any of the work required by this Agreement, or assign or transfer any of its interest in this Agreement by operation of law or otherwise, without obtaining prior written approval from the other Party, which shall be granted or denied in the other Party's sole discretion. A Party's consent to any subcontract or assignment shall not relieve the other Party of any of its duties or obligations under this Agreement.
- N. **Counterparts.** This Agreement may be executed in several counterparts (electronic or otherwise), each of which shall be an original, all of which shall constitute the same instrument.
- O. **Survival.** All provisions in Sections 5, 7, and 10 (A), (C), (D), (G), (H), (I), (J), (L), (Q), (S), and (U) shall survive the termination of this Agreement, together with all other rights and obligations herein which by their context are intended to survive.
- P. **Necessary Acts.** Each Party shall execute and deliver to the others all such further instruments and documents as may be reasonably necessary to carry out this Agreement.
- Q. **Time is of the Essence.** City agrees that time is of the essence in the performance this Agreement.
- R. **Successors in Interest.** The provisions of this Agreement shall be binding upon and shall inure to the benefit of the parties hereto, and their respective authorized successors and assigns.
- S. **Force Majeure.** Neither City nor District shall be held responsible for delay or default caused by events outside of the City or District's reasonable control including, but not limited to, fire, terrorism, riot, acts of God, or war. However, City 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 Agreement.
- T. **Confidentiality.** Reserved.

U. **No Attorney Fees.** In the event any arbitration, action or proceeding, including any bankruptcy proceeding, is instituted to enforce any term of this Agreement, each party shall be responsible for its own attorneys' fees and expenses.

IN WITNESS HEREOF, the Parties have executed this Agreement by the date set forth opposite their names below.

Water Environment Services

City of Gladstone

Chair



Date

4/14/22
Date

Exhibit A
Pump Station Map

Exhibit A – Pump Station Map

The 82nd Drive Pump Station is located just northeast of the I205N Exit 11 off ramp to 82nd Drive. It is located within ODOT ROW accessible by a dirt road from the unnamed access street to Edgewater Road.

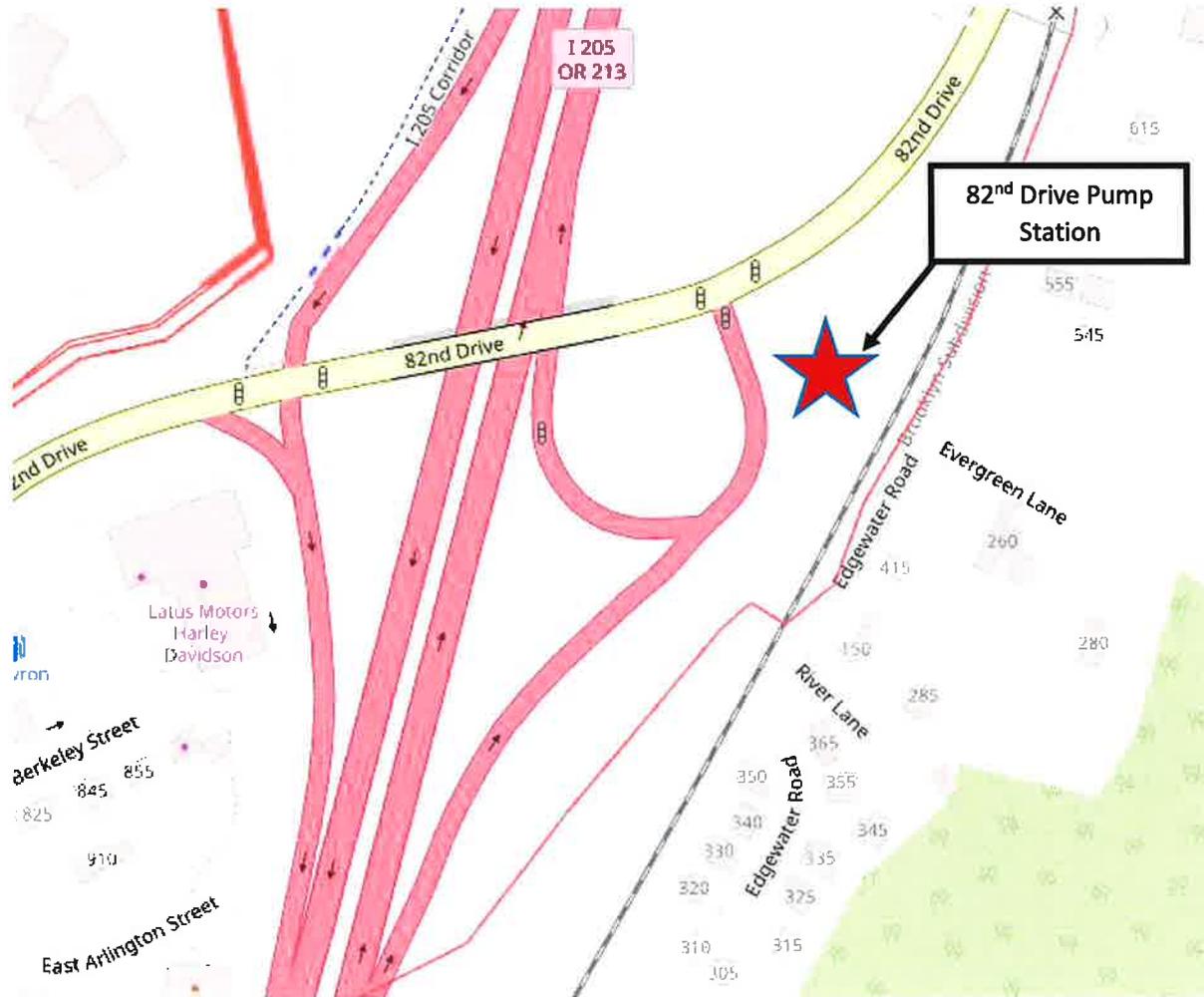


Exhibit B

Pump Station Rehabilitation Project Scope

Exhibit B

AMENDMENT #3
TO THE CONTRACT DOCUMENTS WITH MURRAYSMITH, INC. FOR 2019-55 PUMP STATION
REHABILITATION AND UPGRADES
Contract #1652

This Amendment #3 is entered into between Murraysmith, Inc. ("Contractor") and Water Environment Services ("District") and shall become part of the Contract documents entered into between both parties on November 14, 2019 ("Contract").

The Purpose of this Amendment #3 is to make the following changes to the Contract:

- ARTICLE 1, Section 1, **Effective Date and Duration** is hereby amended as follows:
The Contract expiration date is hereby changed from December 1, 2020 to **December 31, 2023**.
- ARTICLE I, Section 2. **Scope of Work** is hereby amended as follows:
Upon completion of the schematic design for eight pump stations, District is moving forward with Phase 2 per the RFP 2019-55 for Final Design, Permitting and Bid Period Support. The supplemental Scope of Work is attached as **Exhibit E** and hereby incorporated by reference. Attachments to Exhibit E include the Drawing list, Technical Specification and Project Schedule.
- ARTICLE 1, Section 3. **Consideration** is hereby amended as follows:
The additional compensation to add Phase 2 is **\$1,349,710.00**. The additional fee schedule is included at the end of Exhibit E. The total Contract Consideration shall not exceed \$1,608,473.00.

ORIGINAL CONTRACT	\$ 238,771.00
AMENDMENT #1	Allow Travel and other Expense
AMENDMENT #2	\$ 19,992.00 + Time Extension
<u>AMENDMENT #3</u>	<u>\$ 1,349,710.00 + Time Extension</u>
TOTAL AMENDED CONTRACT	\$ 1,608,473.00

Except as expressly amended above, all other terms and conditions of the Contract shall remain in full force and effect. By signature below, the parties agree to this Amendment #3, effective upon the date of the last signature below.

Murraysmith, Inc.

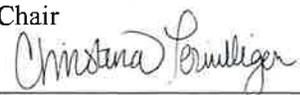
Adam Crafts 2020.12.24
08:52:34-08'00'

 Authorized Signature Date

 Adam Crafts, Principal Engineer
 Printed Name

Water Environment Services



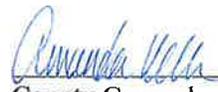
 Chair


 Recording Secretary

1/28/2021

 Date

Approved as to form

 1/4/2020

 County Counsel Date

SCOPE OF WORK PUMP STATION REHABILITATION AND UPGRADES

FINAL DESIGN, PERMITTING, AND BIDDING SERVICES PHASE CLACKAMAS WATER ENVIRONMENT SERVICES

Introduction

Clackamas Water Environmental Services (WES) recently completed schematic design for eight pump stations (PS) to outline proposed improvements to increase reliability and improve safety and operational efficiency. A professional services contract was executed to complete condition assessments for the pump stations, develop project parameters, and identify improvements for the projects. WES selected seven of the pump stations to move forward with the recommended improvements.

This amendment provides services to perform final design of the improvements, prepare construction contract documents, obtain permits and approvals, and support WES staff during the bidding phases for the projects. Task numbering is a continuation from the original contract's scope of work.

General Assumptions

- Design of improvements for seven pump stations will be completed and grouped into three bid sets as follows:
 - Bid Set No. 1: Clackamas and Timberline Rim Pump Stations
 - Bid Set No. 2: Gladstone and Sieben Lane Pump Stations
 - Bid Set No. 3: South Welches, Golf Club Terrace, and 82nd Drive Pump Stations
- Each bid set will be publicly bid once.
- Stormwater system inspection and construction certification is not in this contract.
- Vegetated buffer enhancements, invasive species removal and replanting plans are assumed to be performed by WES staff and are therefore not included in this contract.
- Improvements to building structure to meet current building code, where not required due to modifications, are not included.

- Consultant shall submit minutes from each workshop not later than 5 working days following each respective workshop. Written responses to the comments will be provided by the Consultant. WES staff will provide written review comments within two weeks.
- District will furnish required information, examine deliverables submitted by Consultant, and render decisions and approvals in a timely manner.
- 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, deliverable will be provided in electronic .PDF and original .DOC format.
- Drawings (11-inch by 17-inch) in .PDF format will be provided for each District internal review.
- The Consultant's standard CAD software shall be used to produce the drawings following its own drafting standards.
- Project coordination and design review meetings will be via ZOOM or equivalent unless otherwise noted and attended by Murraysmith's Project Manager and Project Engineer. Multi-disciplinary subconsultants will be included as needed or requested by the District.

District Provided Services

District will provide:

- Site access coordination, as requested.
- Private utility location, topographic and tree surveys, and environmental delineation boundaries.
- Legal descriptions for easements or right-of-way acquisitions associated with the project. Project-specific Division 0 specifications that include Instructions to Bidders, Bid Documents, Contract forms, General and Supplementary Conditions.
- Bid advertisement; Plan holders list; communication with not, and plan holders; addenda; and receiving, opening and reviewing bids.

Task 1 - Project Management (Existing Task Supplement)

Objective

Provide leadership and team strategic guidance aligned with District 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.

Consultant shall:

- Manage design team to project schedule and budget.
- Coordinate with District for design input or decisions in between design submittals.
- Document key decisions in decision log.
- Prepare invoices and progress reports.

Deliverables

- Decision Log.
- Monthly invoices with progress report, task-level budget report.
- Monthly schedule update.

Task 6 – Quality Management (Existing Task Supplement)

Objective

Perform quality assurance tasks to monitor the quality of the Project using internal quality assurance/quality control (QA/QC) reviews as described herein. Reviews shall be performed by staff independent of the design team.

Consultant shall:

- Prepare Quality Management Plan (QMP) to outline anticipated review activities at project milestones.
- Review process and cost calculations.
- Perform QC review of deliverables prior to submitting to WES.
- Verify conformance with the approved QMP.

Deliverables

- Quality Management Plan to include:
 - Identification of a single point of contact responsible for quality management.
 - Proposed design review procedures at project milestones
 - Review confirmation forms from independent quality review
- Quality review forms used during internal quality reviews

Task 7 – Prepare 60% Design Development Documents

Objective

The purpose of this task is to advance the Schematic Design (Tasks 2, 3, 4, and 5). The 60% documents shall include Divisions 0 and 1, equipment, materials, and common details,

standardized across bid packages, specifications for major equipment, and depict the final location and size of major components and systems. The design submittals will be grouped in bid sets outlined in the General Assumptions listed above.

Consultant shall:

General Activities for All Facilities

- Prepare and facilitate design kick off meeting to identify common standards for equipment, materials, and details.
- Finalize equipment selection and collect equipment data sheets.
- Finalize electrical service load calculations and coordinate service upgrade requirements with power utility.
- Develop control narratives for each pump station.
- Design and layout MCC, control panels, generators, ATS, and other electrical equipment and level control systems.
- Develop demolition plans and details for existing facilities.
- Develop plans to maintain service during construction.
- Design and layout mechanical piping and HVAC improvements.
- Outline site impact area and note restoration requirements.
- Develop common details for each required discipline.
- Develop recommendations for construction sequencing and duration estimate for each bid package.
- Facilitate one interim design meeting with WES staff to review design development prior deliverable submittal.
- Review and coordinate Division 0 specifications provided by WES for specific project.
- Prepare 60% Design level drawings for each bid set as noted in the Drawing List included in Attachment A.
- Develop Division 01 Technical Specifications for each bid set as noted in the Technical Specifications List included in Attachment B.
- Develop technical specifications for major equipment for each bid set as noted in the Technical Specifications List included in Attachment B.

- Prepare 60% design construction cost estimate for each bid set (3 total).
- Conduct two-hour 60% design review meeting for each bid set (3 total).

Specific Activities for Clackamas Pump Station

- Design replacement lids with new access hatches for the wet well and pneumatic valve vault.
- Develop details to retrofit gutters and downspouts.
- Design split heating and air conditioning system for building.
- Design exterior lighting for pump station building.
- Specify coating repair for piping in valve vault.

Specific Activities for Timberline Rim Pump Station

- Develop sizing and layout for fans and ducting to declassify space in accordance with NFPA 820.
- Design new control panel and level control system to fit into available space in electrical room. Integrate controls into the existing MCC.
- Provide details to relocate pump disconnect panel to meet NEC clearance requirements.

Specific Activities for Gladstone Pump Station

- Finalize location and configuration for bypass tee connection. Finalize geohazard potential study.
- Develop layouts for process piping to accommodate new pumps and valves, realign piping to exit the north wall.
- Prepare plan and elevation for bypass vault.
- Develop new force main alignment to connection point approximately 150 feet northwest of pump station.
- Coordinate three-phase service upgrade with power utility.
- Size and specify new dri-pit submersible sump pumps and base foundation.
- Design new pump disconnect panel with removable plugs.

- Develop sizing and installation details for generator and ATS replacement in existing locations.
- Develop sizing and layout for fans and ducting to declassify space in accordance with NFPA 820.
- Design replacement lighting plan for new LED building fixtures and include lateral bracing for seismic mitigation.
- Design new wet well access maintenance platform.
- Specify wet well rehabilitation and epoxy liner material and thickness.
- Design gantry beam for pump removal from base elbow within the pump room.
- Prepare details for replacement of potable water RPBA.
- Design new influent manhole access lid with access hatch, safety grate, and hand railing.
- Prepare standalone coating specification in Oregon DOT format to recoat the exposed Gladstone force main for WES future reference.

Specific Activities for Sieben Lane Pump Station

- Size and specify new submersible pumps.
- Design new process piping and valves to fit within the existing vault.
- Size and locate new generator and ATS.
- Design new top slab with vault hatches and safety grating for existing wet well.
- Design new retrofit valve vault hatches in existing top slab.
- Provide details for abandonment of existing air injection system.
- Design new pump disconnect panel with removable plugs.
- Develop sizing and layout for new control room ventilation fan and louver.

Specific Activities for South Welches Pump Station

- Size and specify new submersible pumps.
- Design process piping and new valve vault with bypass connection.
- Design new top slab with vault hatches and safety grating for existing wet well.

- Design new pump disconnect panel with removable plugs.
- Confirm if MCC and Control panel will meet NEC clearance requirements within the existing building.
- Size and locate new diesel generator and ATS on the site.
- Design new metal roof for existing building, including new roof framing, connections, and sheathing.
- Design access road plan and profile generally following the existing alignment.
- Perform a total of four shallow encased falling head infiltration tests, with three locations along the existing golf cart path and at one location at the existing pump station. Adhere to District requirements and provide memo summarizing testing procedure and results.
- Design infiltration swales to manage stormwater for pump station site and access road meeting Clackamas County stormwater standards. Prepare draft stormwater report.
- Coordinate landscaping restoration preferences with Mt. Hood Resort staff and develop landscape planting plans.

Specific activities for Golf Club Terrace Pump Station

- Size and specify submersible pumps.
- Finalize electrical service load calculations and coordinate conversion of power service to underground configuration.
- Design process piping and new valve vault with bypass connection.
- Design new top slab with vault hatches and safety grating for existing wet well.
- Design new pump disconnect panel with removable plugs.
- Layout MCC and control panel to meet NEC clearance requirements within the existing building.
- Size and locate new diesel generator and ATS on the site.
- Design new flat roof for existing building, including new roof framing, connections, and sheathing.

Specific activities for 82nd Drive Pump Station

- Size and specify submersible pumps.

- Design process piping and new valve vault with bypass connection.
- Design new top slab with vault hatches and safety grating for existing wet well.
- Design new pump disconnect panel and MCC.
- Specify new exterior lighting system with manual control.

Deliverables

- 60% Design Development Drawings for each bid set, see attached Drawing List in Attachment A.
- Division 01 Technical Specification as specified for each bid set (3 total). See attached Specification List in Attachment B.
- Equipment Data Sheets and Technical Specifications for major equipment for each bid set (3 total). See attached Specification List in Attachment B.
- 60% Construction Cost Estimate and bid item list for each bid set (3 total).
- 60% Construction Sequence Narrative and Duration Estimate for each bid set (3 total).
- Draft Stormwater Report for South Welches Pump Station.
- Meeting agenda and summary for design kick off and standards development meeting.
- Meeting agenda and summary for interim design coordination meeting.
- Meeting agenda and summary for 60% review workshops for each bid set (3 total).

Assumptions

- Roof replacement at South Welches and Golf Club Terrace will follow the existing configuration. Changes to the configuration may warrant additional structural evaluation and design is loading increases over existing conditions.
- Major equipment is defined as pumps, generator, fans, and flow meters.

Task 8 –Prepare 90% Contract Documents

Objective

The purpose of this task is to develop 90% Contract Documents for each of the three bid sets.

Consultant shall:

- 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 technical specifications to include Division 01 through Division 48 for general requirements, materials, submittals, equipment, installation, and warranty requirements. See attached Specification List in Attachment B.
- Prepare Class 1 Construction Cost Estimate for each bid set.
- Update construction sequence and duration estimates.
- Facilitate one interim design meeting with WES staff to review design development prior deliverable submittal.
- Conduct one two-hour meeting for each bid set to review the 90% design submittal with District staff (3 meetings total).

Deliverables (for each of three bid sets)

- 90% Design Development Drawings, see attached Drawing List in Attachment A.
- 90% Construction Specifications
- 90% Construction Cost Estimate
- Meeting agenda and summaries for interim check-in design
- Meeting agenda and summaries for 90% review workshop (3 meetings)
- Documentation of resolution of District and other external stakeholder 60% review comments.

Task 9 – Prepare Bid Documents

Objective

Prepare final, sealed contract documents to be used for publicly bidding the three (3) separate projects. Consultant shall:

- Address District, County Development, ODOT comments and modify the contract documents to address comments.
- Prepare reproducible final documents and submit to WES.
- Prepare final stormwater report for South Welches Pump Station.

Deliverables

- Final stamped construction documents in PDF format for each bid set (3 total).
- Final Stamped Stormwater Report for South Welches Pump Station.
- Design drawing files in AutoCAD and PDF formats.

Assumptions

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

Task 10 – Permits and Approvals

Objective

Assist WES in obtaining permits and land use approvals from the local review authorities needed to construct the projects. The anticipated approvals are listed in Table 1 below.

Table 1
Anticipated Permits and Land Use Approvals

Pump Station / (Review Agency)	Land Use Approval	Environmental Permitting	Other Permits	Land Use Review Period
Gladstone / (City of Gladstone contracts land use review to Clackamas County)	Conditional use for improvements outside of building [1]	None	Building Permits [2] (S,E,M,P)	150 days
82 nd Drive / (ODOT)	Not Required	Not Required	ODOT ROW Permit	Unknown, assumed 60 days
Clackamas / (Clackamas County)	Conditional approved; exempt if building expansion is less than 10%	None	Trade Permits [2] (E,M)	None [3]
Sieben Lane, Timberline Rim, South Welches Golf Club Terrace / (Clackamas County)	Type III Conditional Use Review [4]	County River Service and Stream Conservation compliance for additional encroachment over existing conditions	Trade Permits [2] (S,E,M,P) Erosion Control Permit [5]	180 days

Notes:

[1] The City of Gladstone contracts its land use review to Clackamas County.

[2] Building permits include structural review for equipment anchorage (S) and trade electrical (E), mechanical (M), and plumbing (P) permits from Clackamas County.

[3] Clackamas Pump Station may be exempt from land use review. It has conditional approval on file with Clackamas County and will not increase the building footprint.

[4] Clackamas County does not have conditional approval on file with Clackamas County. These pump stations are anticipated to require a Type III review with a Plans Examiner.

[5] Erosion control permit are expected at Sieben Lane, South Welches, and Golf Club Terrace. The permits will be obtained through the land use review process.

Consultant shall:

- Conduct Pre-application Conferences:
 - Prepare pre-app applications for the City of Gladstone (for the Gladstone Pump Station) and Clackamas County (for the Sieben Lane, Golf Club Terrace, and South Welches Pump Stations for Clackamas County).
 - Confirm exemption status from Section 704 River and Stream Conservation Area of the Clackamas County Zoning Development code for the Gladstone, South Welches, Timberline Rim, and Golf Club Terrace pump stations based on improvements not encroaching further into the riparian buffer area than existing structures.
 - Attend pre-app meetings with each agency.
- Land Use Applications
 - Prepare list of figures needed for each land use application.
 - Prepare land use applications and revise as needed.
 - Participate in Clackamas County public hearing process, as authorized.
- Erosion Control Permits
 - Development activity exceeding 800 square feet requires an Erosion Control Permit from the WES. Prepare application materials and submit application on behalf of WES.
- Building and Trade Permit Plan Review
 - Prepare stamped permit sets for each pump station as required for building or trade permit reviews.
 - Prepare final stamped structural calculations for each bid set (3 total).

Deliverables

- Pre-application Conferences
 - Pre-application submittal packages for City of Gladstone and Clackamas County.
 - Guidance memorandum for preparation of land use submittal packet.
- Land Use Applications
 - List of figures needed for each pre-application conference
 - Application submittal package including application forms, narrative, and draft findings

- Clackamas County hearing packet, as needed
- Erosion Control Permits
 - Erosion Control Permit application submittal package for each bid set (3 total).
- Building and Trade Permits
 - Permit plan sets in pdf files for each bid set (3 total).
 - Stamped structural calculations in pdf for each bid set (3 total).

Assumptions

- Two separate land use applications will be prepared as follows:
 - Gladstone Pump Station for the City of Gladstone.
 - Sieben Lane, Golf Club Terrace, and South Welches Pump Stations for Clackamas County.
- WES will sign necessary application forms and pay application fees.
- South Welches pump station and access road will be exempt from River and Stream Conservation Area compliance and will be allowed within the Salmon River vegetated buffer. A Natural Resource Assessment report, if requested by Clackamas County Planning, will be prepared by Clackamas WES.
- Wetland impacts are not anticipated. A wetland delineation of the pump station sites is not necessary.
- State or federal environmental permits are not anticipated nor included in the scope of work.
- A DEQ 1200C permit will not be required.
- 90% design drawings shall be submitted for building and trade permits

Task 11 - Bid Period Services

Objective

Provide support to WES staff during bid phase of for each of the three bid sets.

Consultant shall:

- Attend one pre-bid conference for each set (3 total).

- Review and respond to Bidder questions.
- Prepare technical material for addenda, as needed.
- Review bids as requested by the District..

Deliverables

- Technical material for addenda, as needed.

Assumptions

- Two addenda are budgeted for each bid set (6 total).

Anticipated Project Milestones

- The anticipated project schedule and milestones are outlined in Attachment C.

Attachments

- A: Drawing List
- B: Technical Specification List
- C: Anticipated Project Schedule

DRAWING LIST

PUMP STATION REHAB AND UPGRADES

CLACKAMAS WES

The following list of drawings are anticipated for the subject project. Three bid set will be prepared with pump stations grouped as shown. Drawing for each discipline will be organized by facility.

*Denotes drawings to be included with 60% PS&E

Bid Set 1: Clackamas and Timberline Rim Pump Station Improvements (66 drawings)

General (11 drawings)

- Cover*
- General Notes and Legend
- Design Data Table and System Curves*
- Schedule and Sheet Key Plan
- General Erosion Control Notes and Details
- General Civil Details (2 sheets)
- General Mechanical Details (2 sheets)
- Electrical Standard Details
- Instrument Standard Details

Schedule A: Clackamas Pump Station Improvements (30 drawings)

Civil (5 drawings)

- Site Preparations and Bypass Pumping Plan*
- Electrical and Generator Room Demolition Plan*
- Wet Well and Vault Hatch Replacement Plan*
- Site Plan*
- Civil Details

Architectural (1 drawing)

- Roof Plan with Gutter and Downspouts Details

HVAC (3 drawings)

Electrical and Generator Room HVAC Plan and Schedules*
Bathroom HVAC Plan and Schedule*
HVAC Details

Structural (2 drawings)

General Notes & Quality Assurance Plan*
Pump Gantry Plan and Details*

Electrical (9 drawings)

Electrical Legend and Abbreviations*
Electrical Site Plan*
One-Line Diagram*
Electrical Room Power Plan*
Electrical Building*
Electrical Grounding Plan*
Electrical Panel Schedules*
Electrical Circuit Schedule*
Motor Control Diagrams*

Instrumentation & Controls (10 drawings)

P&ID
Control Panel IO List*
Control Panel Layout 1*
Control Panel Layout 2*
Control Panel Power Distribution*
Control Panel Digital Inputs*
Control Panel Digital Outputs*
Control Panel Analog Inputs*
Control Panel Analog Outputs*
Control Demolition Plan

Schedule B: Timberline Rim Pump Station Improvements (25 drawings)

Civil (3 drawings)

Pump Station Site Preparation and Erosion Control Plan*
Bypass Pumping Plan and Details*
Electrical Demolition Plan*

HVAC (3 drawings)

- HVAC Plan and Schedules*
- HVAC Elevations
- HVAC Details

Electrical (9 drawings)

- Electrical Legend and Abbreviations*
- Electrical Site Plan*
- One-Line Diagram*
- Electrical Room Power Plan*
- Electrical Building*
- Electrical Grounding Plan*
- Electrical Panel Schedules*
- Electrical Circuit Schedule*
- Motor Control Diagrams*

Instrumentation & Controls (10 drawings)

- P&ID
- Control Panel IO List*
- Control Panel Layout 1*
- Control Panel Layout 2*
- Control Panel Power Distribution*
- Control Panel Digital Inputs*
- Control Panel Digital Outputs*
- Control Panel Analog Inputs*
- Control Panel Analog Outputs*
- Control Demolition Plan*

Bid Set 2: Gladstone and Sieben Lane Pump Station Improvements (93 drawings)

General (11 drawings)

- Cover*
- General Notes and Legend
- Design Data Table and System Curves*
- Schedule and Sheet Key Plan
- General Erosion Control Notes and Details
- General Civil Details (2 sheets)

General Mechanical Details (2 sheets)
Electrical Standard Details
Instrument Standard Details

Schedule A: Gladstone Pump Station Improvements (48 Drawings)

Civil (10 drawings)

Site Preparation and Erosion Control*
Bypass Pumping Plan and Details
Site Demolition Plan*
Electrical and Generator Room Demolition Plan*
Pump and Intermediate Rooms Demolition Plan*
Wet Well Demolition Plan and Elevation*
Site Plan*
Surfacing and Grading Plan
Force Main Plan and Profile*
Civil Details

Mechanical (9 drawings)

Pump Room Plan and Details*
Pump Room Elevations
Intermediate Room Plan and Details*
Intermediate Room Sections
Bypassing Vault Plan and Sections*
Wet Well Rehabilitation and Coating Plan *
Sump Pump Replacement Plan and Details
Mechanical Details (2 drawings)

HVAC (5 drawings)

Electrical and Pump Room HVAC Plan and Schedules*
Electrical and Pump Room HVAC Elevations
Generator Room HVAC Plan and Schedule*
Generator Room HVAC Elevations
HVAC Details

Structural (5 drawings)

General Notes & Quality Assurance Plan*
Pump Gantry Plan and Details*
Wet Well Platform Elevation and Details*
Influent Manhole Hatch and Railing Plan

Influent Manhole Hatch and Railing Details*

Electrical (9 drawings)

Electrical Legend and Abbreviations*
Power Service Plan*
One-Line Diagram*
Electrical Site Plan*
Electrical Building Plan*
Electrical Grounding Plan*
Electrical Panel Schedules
Electrical Circuit Schedule
Motor Control Diagrams

Instruments & Controls (10 drawings)

P&ID
Control Panel IO List*
Control Panel Layout 1*
Control Panel Layout 2*
Control Panel Power Distribution*
Control Panel Digital Inputs*
Control Panel Digital Outputs*
Control Panel Analog Inputs*
Control Panel Analog Outputs*
Control Demolition Plan

Schedule B: Sieben Lane PS Improvements (34 drawings)

Civil (9 drawings)

Site Preparation and Erosion Control*
Bypass Pumping Plan and Details
Site Demolition Plan*
Electrical Demolition Plan*
Wet Well and Valve Vault Demolition Plan
Site Plan*
Site Piping Plan and Profile*
Grading and Surfacing Plan
Civil Details

Mechanical (4 drawings)

Wet Well Plan and Details*

Wet Well Sections*
Valve Vault Plan and Sections*
Mechanical Details

HVAC (1 drawing)

Electrical Room HVAC Plan and Schedules*

Structural (2 drawings)

General Notes & Quality Assurance Plan*
Generator Foundation Plan and Section*

Electrical (8 drawings)

Electrical Legend and Abbreviations*
One-Line Diagram*
Electrical Site Plan*
Electrical Building Plan*
Electrical Grounding Plan*
Electrical Panel Schedules
Electrical Circuit Schedule
Motor Control Diagrams

Instruments & Controls (10 drawings)

P&ID
Control Panel IO List*
Control Panel Layout 1*
Control Panel Layout 2*
Control Panel Power Distribution*
Control Panel Digital Inputs*
Control Panel Digital Outputs*
Control Panel Analog Inputs*
Control Panel Analog Outputs*
Control Demolition Plan

**Bid Set 3: South Welches, Golf Club Terrace, and 82nd Drive Pump
Station Improvements (114 Drawings)**

General (11 drawings)

Cover*

General Notes and Legend
Design Data Table and System Curves*
Schedule and Sheet Key Plan
General Erosion Control Notes and Details
General Civil Details (2 sheets)
General Mechanical Details (2 sheets)
Electrical Standard Details
Instrument Standard Details

Schedule A: South Welches PS Improvements (45 drawings)

Civil (15 drawings)

Pump Station Site Preparation and Erosion Control*
Cart Path Site Preparation and Erosion Control*
Pump Station Tree Protection Plan*
Cart Path Tree Protection Plan*
Bypass Pumping Plan and Details*
Pump Station Demolition Plan*
Site Plan*
Pump Station Grading and Surfacing Plan*
Pump Station Storm Water Plan and Section*
Cart Path Plan and Profile (2 sheets)*
Cath Path Storm Water Plan and Section (2 sheets)*
Civil Details (2)

Architectural (2 drawings)

Building Roof Section and Details
Architectural Details

Mechanical (3 drawings)

Wet Well and Vault Plan*
Wet Well and Vault Sections*
Mechanical Details

Building HVAC (1 drawing)

Electrical Room HVAC Plan and Schedules*

Structural (2 drawings)

General Notes & Quality Assurance Plan*
Building Roof Framing and Sheathing Plan

Electrical (8 drawings)

Electrical Legend and Abbreviations*
One-Line Diagram*
Electrical Site Plan*
Electrical Building Plan*
Electrical Grounding Plan*
Electrical Panel Schedules
Electrical Circuit Schedule
Motor Control Diagrams

Instruments & Controls (10 drawings)

P&ID
Control Panel IO List*
Control Panel Layout 1*
Control Panel Layout 2*
Control Panel Power Distribution*
Control Panel Digital Inputs*
Control Panel Digital Outputs*
Control Panel Analog Inputs*
Control Panel Analog Outputs*
Control Demolition Plan

Landscape (4 drawings)

Cart Path Swale and Landscape Plan (2 drawings)*
Pump Station Landscape Plan*
Landscape Details

Schedule B: Golf Club Terrace PS Improvements (32 Drawings)

Civil (6 drawings)

Pump Station Site Preparation and Erosion Control*
Bypass Pumping Plan and Details*
Pump Station Demolition Plan*
Site Plan*

**Surfacing and Grading Plan
Civil Details**

Architectural (2 drawings)

**Building Roof Demolition and Roof Plan
Building Roof Section and Details**

Mechanical (3 drawings)

**Wet Well and Vault Plan*
Wet Well and Vault Sections*
Mechanical Details**

Building HVAC (1 drawing)

Electrical Room HVAC Plan and Schedules*

Structural (2 drawings)

**General Notes & Quality Assurance Plan*
Building Roof Framing and Sheathing Plan**

Electrical (8 drawings)

**Electrical Legend and Abbreviations*
One-Line Diagram*
Electrical Site Plan*
Electrical Building Plan*
Electrical Grounding Plan
Electrical Panel Schedules
Electrical Circuit Schedule
Motor Control Diagrams**

Instruments & Controls (10 drawings)

**P&ID
Control Panel IO List*
Control Panel Layout 1*
Control Panel Layout 2*
Control Panel Power Distribution***

Control Panel Digital Inputs*
Control Panel Digital Outputs*
Control Panel Analog Inputs*
Control Panel Analog Outputs*
Control Demolition Plan

Schedule C: 82nd Drive PS Improvements (26 drawings)

Civil (5 drawings)

Pump Station Site Preparation and Erosion Control*
Bypass Pumping Plan and Details*
Site Plan*
Surfacing and Grading Plan
Civil Details

Mechanical (3 drawings)

Wet Well and Vault Plan*
Wet Well and Vault Sections*
Mechanical Details

Electrical (8 drawings)

Electrical Legend and Abbreviations*
One-Line Diagram*
Electrical Site Plan*
Electrical Building Plan*
Electrical Grounding Plan*
Electrical Panel Schedules
Electrical Circuit Schedule
Motor Control Diagrams

Instruments & Controls (10 drawings)

P&ID
Control Panel IO List*
Control Panel Layout 1*
Control Panel Layout 2*
Control Panel Power Distribution*
Control Panel Digital Inputs*
Control Panel Digital Outputs*
Control Panel Analog Inputs*
Control Panel Analog Outputs*
Control Demolition Plan

ATTACHMENT B

TECHNICAL SPECIFICATIONS PUMP STATION REHAB AND UPGRADES CLACKAMAS COUNTY WES

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

*Denotes specifications that will be edited specifically for each of the three bid sets that will be prepared.

(60) Denotes specifications developed for 60% design submittal for construction work sequencing and major equipment.

Section	Title	Page Ct.
<i>Division 01 – General Requirements</i>		
01 10 00	Summary of Work* (60)	1-17
01 12 16	Work Sequence * (60)	1-8
01 22 20	Unit Price Measurement and Payment* (60)	1-3
01 33 00	Submittal Procedures (60)	1-11
01 45 00	Quality Control* (60)	1-5
01 56 39	Temporary Tree and Plant Protection (60)	1-5
01 57 19.11	Temporary Sewage Control and Bypass Piping* (60)	1-6
01 75 16	Testing, Training and System Start-Up (60)	1-8
<i>Division 02 - Existing Conditions</i>		
02 30 00	Subsurface Investigation*	1-1
02 41 00	Demolition	1-7
<i>Division 03 - Concrete</i>		
03 01 30.71.11	Concrete Rehabilitation	1-8
03 11 00	Concrete Work	1-27
03 60 00	Grouting	1-4

Division 05 - Metals

05 50 00	Metal Fabrications*	1-20
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Division 07 - Thermal and Moisture Protections

07 41 13	Metal Roof Panels	1-4
07 60 00	Flashing and Sheet Metal	1-5
07 92 00	Sealants and Caulking	1-3

Division 08 - Openings

08 91 19	Fixed Louvers	1-5
----------	---------------	-----

Division 09 - Finishes

09 90 00	Painting and Coating	1-20
----------	----------------------	------

Division 10 – Specialties

10 14 10	Identifying Devices	1-4
----------	---------------------	-----

Division 23 – Heating, Ventilating, and Air Conditioning (HVAC)

23 05 93	Testing, Adjusting, and Balancing for HVAC	1-4
23 09 13	Instrumentation and Control Devices for HVAC	1-7
23 31 13	Air Ducts and Accessories	1-22
23 34 00	HVAC Fans* (60)	1-11

Division 26 - Electrical

26 05 00	Electrical General Requirements	1-12
26 05 19	Low-Voltage Electrical Power Conductors and Cables	1-6
26 05 26	Grounding and Bonding for Electrical Systems	1-5
26 05 29	Electrical Hangers and Supports for Electrical Systems	1-10
26 05 33	Raceway and Boxes for Electrical Systems	1-8
26 05 53	Identification for Electrical Systems	1-5
26 24 19	Motor Control Equipment* (60)	1-16

26 27 00	Service and Distribution	1-6
26 27 16	Cabinets and Enclosures* (60)	1-3
26 27 26	Wiring Devices	1-3
26 29 23	Variable Frequency Drives (60)	1-14
26 32 13	Standby Power System* (60)	1-14
26 35 26	Active Harmonic Filter	1-7
26 50 00	Lighting	1-4

Division 31 - Earthwork

31 05 13	Soils for Earthwork	1-5
31 05 16	Aggregates for Earthwork	1-6
31 10 00	Site Clearing	1-8
31 22 13	Rough Grading	1-4
31 23 16	Excavation	1-8
31 23 17	Trenching	1-22
31 23 18	Rock Removal	1-4
31 23 19	Dewatering*	1-4
31 23 23	Fill	1-8
31 23 24	Flowable Fill	1-6
31 50 00	Excavation Support and Protection	1-5

Division 32 - Exterior Improvements

32 11 23	Aggregate Base Courses	1-6
32 12 16	Asphaltic Concrete Pavement	1-6

Division 33 - Utilities

33 01 30.13	Sewer and Manhole Testing	1-8
33 05 13	Manholes	1-13
33 05 17	Precast Concrete Vaults *	1-7
33 11 50	Existing Pipe Abandonment	1-4
33 13 00	Testing of Utility Piping	1-5

Division 40 - Process Integration

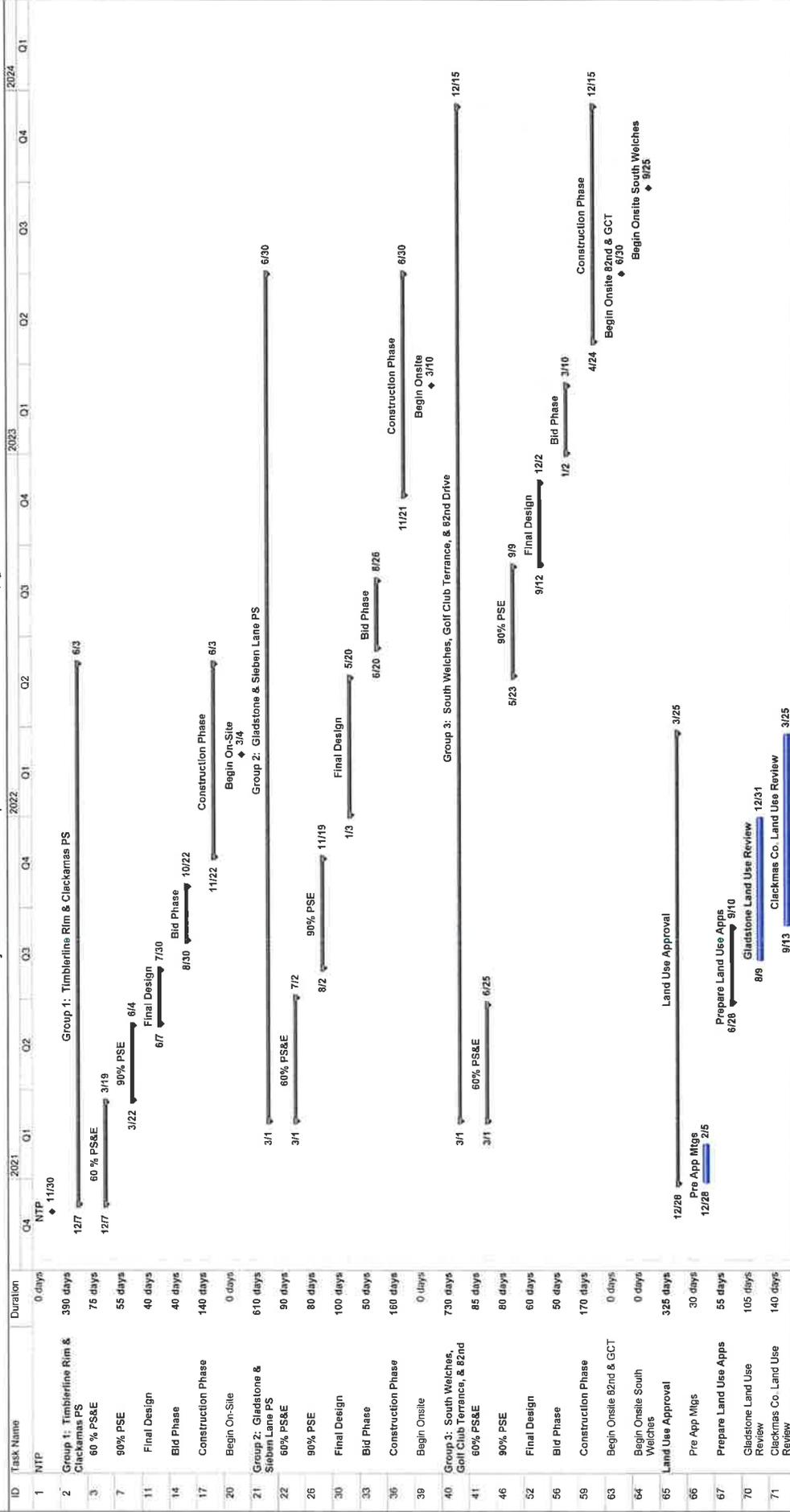
40 05 13	Common Work Results for Process Piping	1-18
40 05 23	Common Work Results for Process Valves	1-7
40 05 23.15	Gate Valves	1-3
40 05 23.21	Plug Valves	1-4
40 05 23.24	Check Valves	1-4
40 05 23.72	Miscellaneous Valves*	1-6
40 91 00	Process Instrumentation and Control* (60)	1-4

40 91 07	Level Detection Devices	1-3
40 91 08	Submersible Level Sensor	1-3
40 91 09	Pressure Detection Devices	1-3
40 91 10	Combustible Gas Detector	1-7
40 91 11	Air Flow Switches	1-2
40 91 12	Intrusion Detection Switches	1-2
40 91 13	Alarm Indicators	1-2
40 91 14	Smoke Detectors	1-2
40 91 23	Flow Process Measurement Devices (60)	1-7
40 92 00	Control Panels and Components*	1-26
40 93 00	Control Strategy*	1-6
40 95 11	PLC Control System Hardware*	1-7

Division 43 - Process Gas & Liquid Handling

43 21 00	Liquid Pumps	1-6
43 21 39	Submersible Liquid Pumps* (60)	1-14

Project Schedule: Pump Station Rehabilitation and Upgrades



ID	Task Name	Duration	Start Date	End Date	Task Split
1	NTP	0 days	11/30		
2	Group 1: Timberline Rim & Clackamas PS	390 days	12/7	6/3	
3	60% PS&E	75 days	12/7	3/19	
7	90% PSE	55 days	3/22	6/4	
11	Final Design	40 days	6/7	7/30	
14	Bid Phase	40 days	8/30	10/22	
17	Construction Phase	140 days	11/22	6/3	
20	Begin On-Site	0 days	3/4		
21	Group 2: Gladstone & Sieben Lane PS	610 days	6/30		
22	60% PS&E	90 days	3/1	7/2	
25	90% PSE	80 days	8/2	11/19	
30	Final Design	100 days	1/3	5/20	
33	Bid Phase	50 days	6/20	8/26	
36	Construction Phase	160 days	11/21		
39	Begin Onsite	0 days	3/10		
40	Group 3: South Welches, Golf Club Terrace, & 82nd Drive	730 days	12/15		
41	60% PS&E	85 days	3/1	6/25	
46	90% PSE	80 days	5/23	9/9	
52	Final Design	60 days	9/12	12/2	
56	Bid Phase	50 days	1/2	3/10	
59	Construction Phase	170 days	4/24		
63	Begin Onsite 82nd & GCT	0 days	6/30		
64	Begin Onsite South Welches	0 days	9/25		
65	Land Use Approval	325 days	12/28	3/25	
66	Pre App Mtgs	30 days	12/28	2/5	
67	Prepare Land Use Apps	55 days	6/28	9/10	
70	Gladstone Land Use Review	105 days	8/9	12/31	
71	Clackamas Co. Land Use Review	140 days	9/13	3/25	

Section 9

82nd Drive Pump Station

9.1 Introduction

This section summarizes the findings from the evaluation of the 82nd Drive Pump Station, recommendations made to address deficiencies, and the selected improvements including estimated construction costs.

9.2 Facility Description and Flow Summary

9.2.1 Facility Description

The 82nd Drive Pump Station is located within ODOT right-of-way, within the City of Gladstone. The facility serves the portion of the City that is located east of Interstate 205 (I-205).

The facility was originally constructed in 1978 and appears to have most of its original equipment. The pump station includes 5-hp self-priming pumps in a package station sitting on top of a 6-foot diameter wet well. The existing 5-inch diameter force main is constructed of unknown material and record drawing note the force main was installed by slip lining an original pipe. The force main crosses under I-205 and discharges to a manhole just east of the intersection of Princeton and Arlington.

9.2.2 Firm Capacity and Flow Projections

Existing firm capacity and flow projections reported in the City of Gladstone 2017 SSMP are shown in **Table 9-1** below.

Table 9-1 | 82nd Drive Pump Station Flow Summary

Flow Condition	Flow Rate, MGD (gpm)	Evaluation Comments
Existing Firm Capacity	0.2 (170)	Pumping capacity with the largest pump out of service.
2020 Dry Weather Flow	0.04 (34)	Dry weather flows are used to estimate force main detention time
2020 Wet Weather Peak Hour	0.04 (34)	Existing peak hour flows reported.
2040 Wet Weather Peak Hour	0.04 (34)	Basin area is built out.

9.3 Facility Evaluation

The evaluation scope and performance criteria outlined in **Section 2** were applied. A summary of the pump station evaluation findings, recommendations, and alternatives considered are presented by System Group in the following sections. Each recommendation is labeled as either a primary or secondary improvement.

9.3.1 Process Equipment

Table 9-2 below summarizes the observations and findings of the Process Equipment system and the improvement recommendations for each system subgroup.

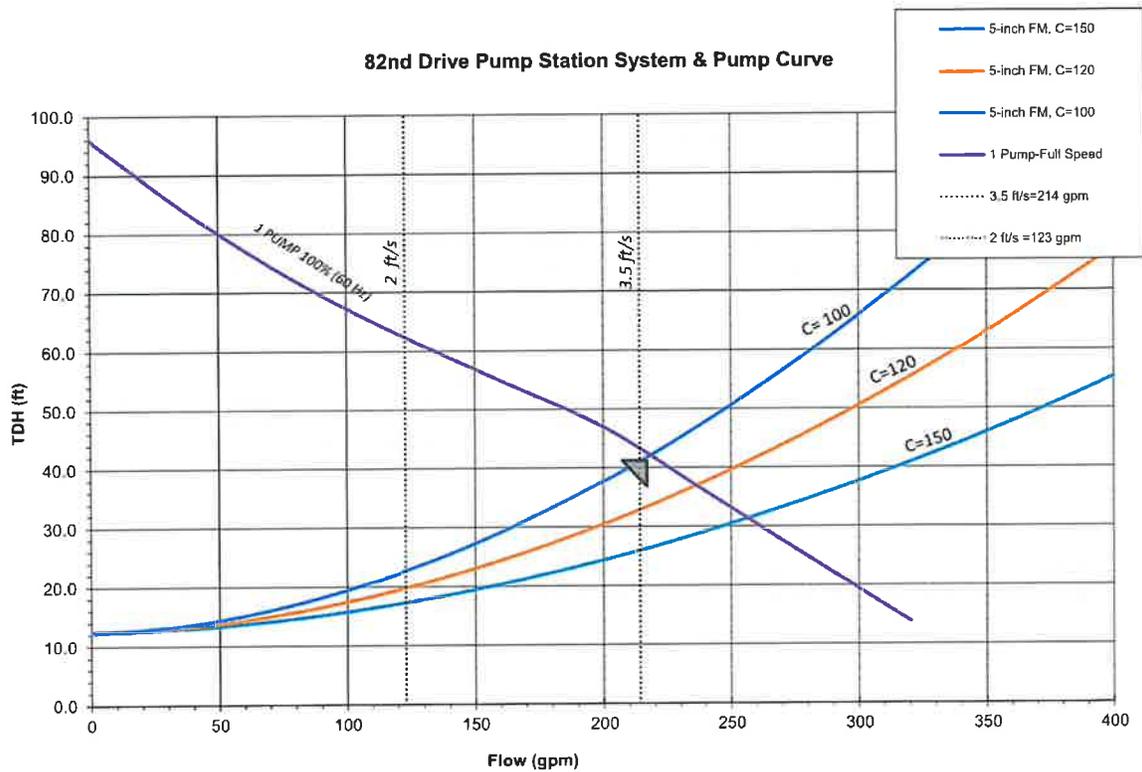
Table 9-2 | Process Equipment Findings and Recommendations

System Subgroup	Evaluation Scope	Observations and Findings	Improvement Recommendations
Pump and Appurtenances	Firm Capacity	Existing firm capacity exceeds projected flows.	Primary: Replace pumps and convert to a submersible duplex installation with Flygt 4-hp N3085.
	Condition and Serviceability	Existing 5 hp vacuum-priming pumps are original, have been rebuilt regularly. Approaching end of useful life. Staff report frequent maintenance needs.	
Process Piping	Pipe Size	Existing fluid velocity at existing pumping rate: 3-inch diam individual vertical discharge – 9 ft/s (within range) 4-inch diam header – 5 ft/s (within range)	Primary: Replace process piping based on condition as part of conversion to a submersible pump station.
	Condition	Process valves and fittings are original and have visible corrosion in several locations.	
Process Valves	Condition	Process valves are original and have visible corrosion in several locations.	Primary: Replace process piping based on condition as part of conversion to a submersible pump station.
Force Main Piping	Pipe Size	5-inch diam force main has capacity to convey the peak flows.	Investigate for possible hydrogen sulfide corrosion in the discharge manhole and downstream sewer. Consider need for corrosion protection.
	Detention Time	53 minutes; exceeds DEQ recommendations	

9.3.1.1 Pumps and Appurtenances

The hydraulic system curve and preliminary pump selection for the recommended pump improvements are shown in **Figure 9-1** below. The pumping capacity was selected to create 3.5 ft/s of fluid velocity in the force main. These curves are for preliminary design purposes only and will be refined in detailed design.

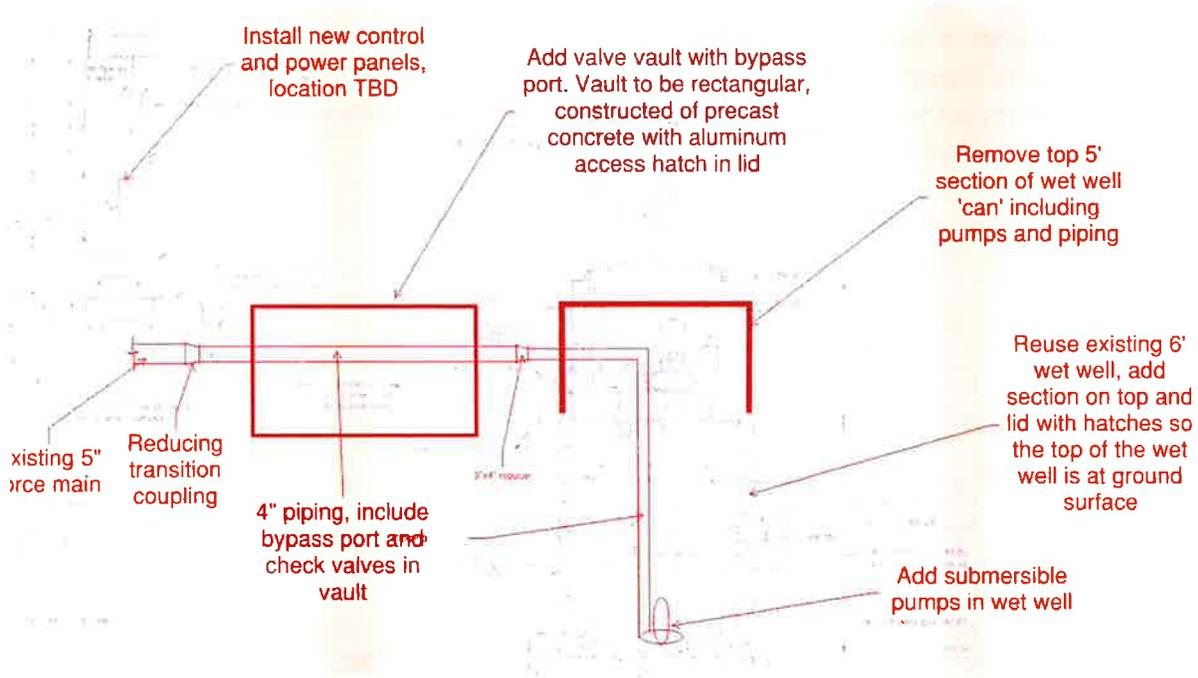
Figure 9-1 | Hydraulic System and Pump Curve



9.3.1.2 Process Piping

An illustration of the recommended conversion to a submersible pump station is shown in **Figure 9-2**.

Figure 9-2 | Conceptual Submersible Pump Station Section



9.3.2 Hydraulic Structures

Table 9-3 below summarizes the observations and findings of the Hydraulic Structure system and the improvement recommendations. The only hydraulic structure at this pump station is the wet well, so other subgroups are not listed.

Table 9-3 | Hydraulic Structure Findings and Recommendations

System Subgroup	Evaluation Criteria	Observations and Findings	Improvement Recommendations
Wet Well	Condition	Unable to access the wet well to inspect.	Primary: Convert wet well to accommodate submersible pumps by constructing an upper section, top slab, and access hatch.
	Volume	Available operating volume of 1,000 gallons is sufficient.	

9.3.3 Site

Table 9-4 below summarizes the observations and findings of the Site system and the improvement recommendations for each system subgroup.

Table 9-4 | Site Findings and Recommendations

System Subgroup	Evaluation Scope	Observations and Findings	Improvement Recommendations
Vehicle Access	Vehicle maneuverability	Driveway 15 feet wide by 600 feet long. Vehicles access to the site is difficult due to the driveway location and slopes. Utility trucks can turn around on site, but a vactor truck cannot.	Secondary: Improve driveway grades to improve access at existing location.
	Parking	Adequate parking for maintenance vehicles on site.	
Site Drainage	Site drainage	No improved drainage system, with minor ponding in potholes.	Secondary: Place aggregate surfacing to level out area.
	Soil erosion	No soil erosion observed.	
Flood Plain Review	N/A: The pump station is not located within a flood plain area.		
Surfacing	Surfacing Type	Gravel surfacing.	Secondary: Place aggregate surfacing to level out area.
	Support vehicle loads	No observed issues caused by vehicle loading.	
	Condition	Driveway and surfacing have some potholing.	
Security	Security features	Lock on existing pump station hatch.	Secondary: Install WES-standardized security system.

9.3.3.1 Driveway Access Improvements

The pump station driveway enters the northbound lane of 82nd Drive at the intersection with Edgewater Road. The driveway intersects 82nd Drive at such an acute angle and drop from the road that vehicles cannot access the site from this direction. Operations staff currently access the site either from southbound 82nd Drive, or from Edgewater Road. The driveway access is illustrated in **Figure 9-3**.

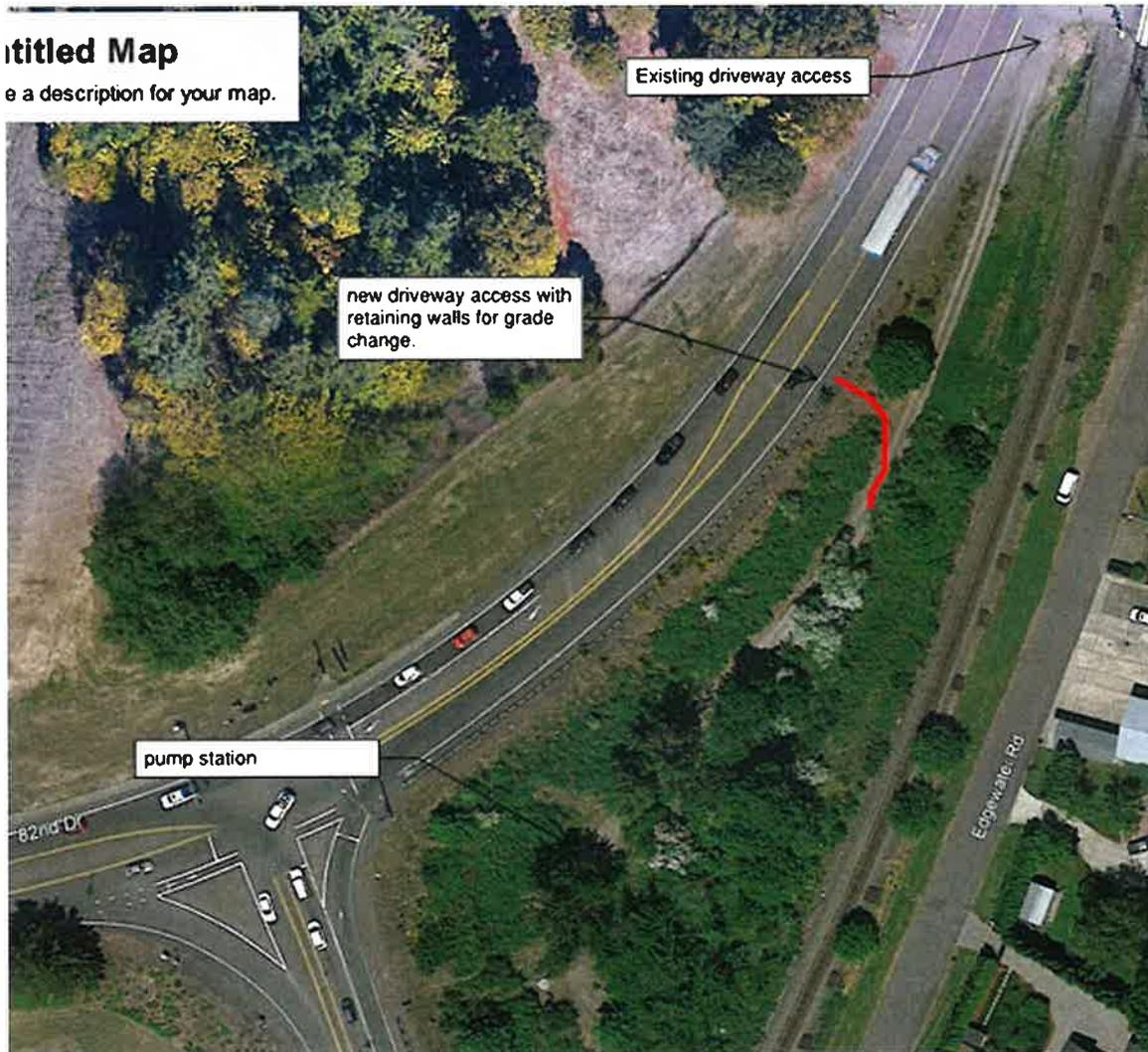
To correct this access issue, a significant and costly realignment of the driveway would be needed to create a driveway approach to 82nd Drive at a right angle and would require retaining walls to bring the driveway up to the road grade. **Figure 9-4** illustrates a potential location that may satisfy these requirements.

Conceptual capital cost estimates to relocate the driveway approached \$100,000. WES staff considered the options but has opted not to change the driveway configuration at this time due to the significant cost and low criticality of this facility.

Figure 9-3 | Pump Station Driveway at 82nd Drive (Looking South from Edgewater)



Figure 9-4 | Conceptual Driveway Realignment



9.3.4 Mechanical Systems

There is no Mechanical system equipment at this pump station.

9.3.5 Electrical and Controls

Table 9-5 below summarizes the observations and findings of the Electrical and Controls system and the resulting recommendations for each system subgroup.

Table 9-5 | Electrical and Controls Findings and Recommendations

System Subgroup	Evaluation Scope	Observations and Findings	Improvement Recommendations
Power Service	Capacity	100-amp, 240 volt, 3-phase service is adequate.	Primary: Replace the meter install a pump disconnect panel. Relocate both closer to the pump station if required by utility.
	Condition	The meter and disconnect enclosures have moderate corrosion.	
Generator and ATS	Capacity	The station does not have a permanent on-site generator and no ATS. The site is equipped with manual transfer switch (MTS) and portable generator plug. A portable generator can be deployed within 30 minutes.	Secondary: Replace the MTS based on condition.
	Condition and obsolescence	The MTS has visible corrosion.	
Motor Control Center	Meets electrical clearance code	Package pump station does not meet current NEC clearances.	Primary: Install new control panel with pump starters.
	Condition and obsolescence	Electrical gear has visible corrosion.	
Controls and Instrumentation	Condition and obsolescence	Level control by float system, no back up control system. Pump flows and pressures are not monitored.	Primary: Modernize control and monitoring systems. Standardized sensors and meters will be established in detailed design.
Lighting and Outlets	Condition	There are no lights present at this site.	Secondary: Install vandal proof lighting to improve security around the site.

Preliminary one-line and P&ID diagrams are included in **Appendix D** to summarize the anticipated power loads and process controls and instrumentation. These will be updated during the design phase to reflect the final equipment and process control selections.

9.3.6 Building

No Building system is present at the facility.

9.3.7 Safety

Table 9-6 below summarizes the observations and findings of the Safety system and the improvement recommendations for each system subgroup.

Table 9-6 | Safety Findings and Recommendations

System Subgroup	Evaluation Scope	Observations and Findings	Improvement Recommendations
Fall Protection	Fall hazards per OSHA	The facility has no unprotected fall conditions.	No action needed.
Hazardous Environment	NFPA 820	No NFPA 820 deficiencies were identified at the pump station.	No action needed.

9.4 Cost of Selected Improvements

The preliminary cost estimate for the selected primary and secondary improvements is shown in Table 9-7.

Table 9-7 | Cost Estimate of Selected Improvements

82nd Drive Improvement Options List						
Item No	Importance	Group	Subgroup Improvement Description	Qty	Unit	Total Cost
1	Primary	Base	Baseline Construction Cost	1	LS	\$ 106,818
2	Primary	Process	Pumps and Appurtenances	1	LS	\$ 35,961
3	Primary	Process	Pump Station Mechanical	1	LS	\$ 32,204
4	Primary	Hydraulic Systems	Wetwell Extension and New Valve	1	LS	\$ 54,865
5	Secondary	Site improvements	Gravel Surfacing	1	LS	\$ 19,907
8	Primary	Electrical and Controls	Power Service	1	LS	\$ 10,000
9	Secondary	Electrical and Controls	Install MTS and Generator Plug	1	LS	\$ 8,000
10	Primary	Electrical and Controls	Motor Control Center	1	LS	\$ 71,800
11	Primary	Electrical and Controls	Controls and Instrumentation	1	LS	\$ 24,330
12	Secondary	Electrical and Controls	Lighting and Outlets	1	LS	\$ 2,500
Construction Cost of all Improvement Options						\$ 366,385

<i>Direct Cost of Primary Improvements</i>		\$	335,978
<i>General Conditions</i>	10%	\$	33,598
<i>Overhead and Profit</i>	15%	\$	50,397
Construction Subtotal		\$	419,973
<i>Contingency</i>	30%	\$	125,992
Construction Total		\$	545,965

<i>Direct Cost of Secondary Improvements</i>		\$	30,407
<i>General Conditions</i>	10%	\$	3,041
<i>Overhead and Profit</i>	15%	\$	4,561
Construction Subtotal		\$	38,009
<i>Contingency</i>	30%	\$	11,403
Construction Total		\$	49,412
Total Cost		\$	595,377

