

**CITY OF PORTLAND
AGREEMENT FOR PROFESSIONAL, TECHNICAL, OR EXPERT SERVICES**

CONTRACT NO. 30001492

**SHORT TITLE OF WORK PROJECT:
Fulton Pump Station Replacement**

This contract is between the City of Portland, acting by and through its Elected Officials, hereafter called "City," and Murray, Smith and Associates, Inc., hereafter called Contractor. The City's Project Manager for this contract is David Evonuk.

Effective Date and Duration

This contract shall become effective on August 1, 2010. This contract shall expire, unless otherwise terminated or extended, on January 1, 2015.

Consideration

- (a) City agrees to pay Contractor a sum not to exceed **\$1,413,741** for accomplishment of the work.
- (b) Interim payments shall be made to Contractor according to the schedule identified in the STATEMENT OF THE WORK AND PAYMENT SCHEDULE.

CONTRACTOR DATA AND CERTIFICATION

Name (please print): Murray, Smith & Associates, Inc.

Address: 121 SW Salmon Suite 900, Portland, OR 97204

Employer Identification Number (EIN) 93-0768555

[INDEPENDENT CONTRACTORS: DO NOT PROVIDE SOCIAL SECURITY NUMBER (SSN) – LEAVE BLANK IF NO EIN]

City of Portland Business License # 211425 01

Citizenship: Nonresident alien ☐ Yes ☒ No

Business Designation (check one): ☐ Individual ☐ Sole Proprietorship ☐ Partnership ☒ Corporation
☐ Limited Liability Co (LLC) ☐ Estate/Trust ☐ Public Service Corp. ☐ Government/Nonprofit

Payment information will be reported to the IRS under the name and taxpayer I.D. number provided above. Information must be provided prior to contract approval. Information not matching IRS records could subject you to 20 percent backup withholding.

**STANDARD CONTRACT PROVISIONS FOR
PROFESSIONAL, TECHNICAL & EXPERT SERVICES (MANDATORY PROVISIONS)**

1. Access to Records

The Contractor shall maintain, and the City of Portland ("City") and its duly authorized representatives shall have access to the books, documents, papers, and records of the Contractor which are directly pertinent to the specific contract for the purpose of making audit, examination, excerpts, and transcripts for a period of three years after final payment. Copies of applicable records shall be made available upon request. Payment for cost of copies is reimbursable by the City.

2. Audits

- (a) The City, either directly or through a designated representative, may conduct financial and performance audits of the billings and services specified in this agreement at any time in the course of the agreement and during the three (3) year period established by section 1, **Access to Records**. Audits will be conducted in accordance with generally accepted auditing standards as promulgated in Government Auditing Standards by the Comptroller General of the United States General Accounting Office.
- (b) If an audit discloses that payments to the Contractor were in excess of the amount to which the Contractor was entitled, then the Contractor shall repay the amount of the excess to the City.
- (c) If any audit shows performance of services is not efficient in accordance with Government Auditing Standards, or that the program is not effective in accordance with Government Auditing Standards, the City may pursue remedies provided under section 5, **Early Termination of Agreement** and section 7, **Remedies**.

3. **Effective Date and Duration**

The passage of the contract expiration date (as recorded on reverse side) shall not extinguish, prejudice, or limit either party's right to enforce this contract with respect to any default or defect in performance that has not been cured.

4. **Order of Precedence**

This contract consists of the terms and conditions of this contract, the Request for Proposals (RFP) issued by the City, if any, and the Contractor's proposal in response to the RFP. In the event of any apparent or alleged conflict between these various documents, the following order of precedence shall apply to resolve the conflict: a) this contract's terms and conditions, b) the City's RFP, and c) the Contractor's proposal in response to the RFP.

5. **Early Termination of Agreement**

(a) The City and the Contractor, by mutual written agreement, may terminate this Agreement at any time.

(b) The City, on thirty (30) days written notice to the Contractor, may terminate this Agreement for any reason deemed appropriate in its sole discretion.

(c) Either the City or the Contractor 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 to the other party written notice of the breach and of the party's intent to terminate. If the party has not entirely cured the breach within fifteen (15) days of the notice, then the party giving the notice may terminate the Agreement at any time thereafter by giving a written notice of termination.

6. **Payment on Early Termination**

(a) In the event of termination under subsection 5(a) or 5(b), **Early Termination of Agreement** hereof, the City shall pay the Contractor for work performed in accordance with the Agreement prior to the termination date.

(b) In the event of termination under subsection 5(c), **Early Termination of Agreement** hereof, by the Contractor due to a breach by the City, then the City shall pay the Contractor as provided in subsection (a) of this section.

(c) In the event of termination under subsection 5(c), **Early Termination of Agreement** hereof, by the City due to a breach by the Contractor, then the City shall pay the Contractor as provided in subsection (a) of this section, subject to set off of excess costs, as provided for in section 7(a), **Remedies**.

(d) In the event of early termination all of the Contractor's work product will become and remain property of the City.

7. **Remedies**

(a) In the event of termination under subsection 5(c), **Early Termination of Agreement**, hereof, by the City due to a breach by the Contractor, then the City may complete the work either itself, by agreement with another contractor or by a combination thereof. In the event the cost of completing the work exceeds the remaining unpaid balance of the total compensation provided under this contract, then the Contractor shall pay to the City the amount of the reasonable excess.

(b) The remedies provided to the City under section 5, **Early Termination of Agreement** and section 7, **Remedies** for a breach by the Contractor shall not be exclusive. The City also shall be entitled to any other equitable and legal remedies that are available.

(c) In the event of breach of this Agreement by the City, then the Contractor's remedy shall be limited to termination of the Agreement and receipt of payment as provided in section 5(c), **Early Termination of Agreement** and section 6(b), **Payment on Early Termination** hereof.

8. **Subcontracts and Assignment**

Contractor shall not subcontract, assign or transfer any of the work scheduled under this agreement, without the prior written consent of the City. Notwithstanding City approval of a subcontractor, the Contractor shall remain obligated for full performance hereunder, and the City shall incur no obligation other than its obligations to the Contractor hereunder. The Contractor agrees that if subcontractors are employed in the performance of this Agreement, the Contractor and its subcontractors are subject to the requirements and sanctions of ORS Chapter 656, Workers' Compensation.

9. **Compliance with Applicable Law**

In connection with its activities under this Agreement, Contractor shall comply with all applicable federal, state and local laws and regulations including the City's Equal Benefits Ordinance and its administrative rules, all of which are incorporated by this reference. Failure to comply with the Ordinance permits the City to impose sanctions or require remedial actions as stated in Section 13.1 of the administrative rules. Contractor shall complete the INDEPENDENT CONTRACTOR CERTIFICATION STATEMENT, which is attached hereto and by this reference made a part hereof.

(a) **Indemnity - Claims for Other than Professional Liability**

Contractor shall defend, save, and hold harmless the City of Portland, its officers, agents, and employees, from all claims, suits, or actions of whatsoever nature, including intentional acts, resulting from or arising out of the activities of Contractor or its subcontractors, agents or employees under this agreement. Nothing in this section requires the Contractor or its insurer to indemnify the City for any claims or losses arising out of death, or bodily injury to persons, or property damage caused by the negligence of the City.

(b) Indemnity - Claims for Professional Liability

Contractor shall defend, save, and hold harmless the City of Portland, its officers, agents, and employees, from all claims, suits, or actions arising out of the professional negligent acts, errors or omissions of Contractor or its subcontractors and sub-consultants, agents or employees in performance of professional services under this agreement. Nothing in this section requires the Contractor or its insurer to indemnify the City for any claims or losses caused by the negligence of the City.

(c) Indemnity - Standard of Care

If Contractor's services involve engineering or consulting, the standard of care applicable to Contractor's service will be the degree of skill and diligence normally employed by professional engineers or consultants performing the same or similar services at the time such services are performed. Contractor will re-perform any services not meeting this standard without additional compensation.

10. Insurance

During the term of this contract Contractor shall maintain in force at its own expense, each insurance noted below:

- (a) Workers' Compensation insurance in compliance with ORS 656.017, which requires subject employers to provide Oregon workers' compensation coverage for all their subject workers (contractors with one or more employees, unless exempt under ORS 656.027).

- (b) ☒ Required and attached or Waived by City Attorney: _____

General Liability insurance with a combined single limit of not less than \$1,000,000 per occurrence for Bodily Injury and Property Damage. It shall include contractual liability coverage for the indemnity provided under this contract, and shall provide that City of Portland, and its agents, officers, and employees are Additional Insured but only with respect to the Contractor's services to be provided under this Contract:

- (c) ☒ Required and attached or Waived by City Attorney: _____

Automobile Liability insurance with a combined single limit of not less than \$1,000,000 per occurrence for Bodily Injury and Property Damage, including coverage for owned, hired, or nonowned vehicles, as applicable:

- (d) ☒ Required and attached or Waived by City Attorney: _____

Professional Liability insurance with a combined single limit of not less than \$1,000,000 per claim, incident, or occurrence. This is to cover damages caused by error, omission or negligent acts related to the professional services to be provided under this contract. If insurance coverage is provided on a "claims made" basis, the successful Proposer shall acquire a "tail" coverage or continue the same coverage for three years after completion of the contract, provided coverage is available and economically feasible. If such coverage is not available or economically feasible, contractor shall notify City immediately.

- (e) On all types of insurance. There shall be no cancellation, material change, reduction of limits, or intent not to renew the insurance coverage(s) without 30-days written notice from the Contractor or its insurer(s) to the City.
- (f) Certificates of insurance. As evidence of the insurance coverages required by this contract, the Contractor shall furnish acceptable insurance certificates to the City at the time contractor returns signed contracts. The certificate will specify all of the parties who are Additional Insured and will include the 30-day cancellation clause and 10-day non-payment clause that provides that the insurance shall not terminate or be cancelled without 30 days or 10 days written notice first being given to the City Auditor. Insuring companies or entities are subject to City acceptance. If requested, complete policy copies shall be provided to the City. The Contractor shall be financially responsible for all pertinent deductibles, self-insured retentions, and/or self-insurance.

11. Ownership of Work Product

All work products produced by the Contractor under this contract is the exclusive property of the City. "Work product" shall include but not be limited to research, reports, computer programs, manuals, drawings, recordings, photographs, artwork and any data or information in any form; the Contractor and the City intend that such work product shall be deemed "work made for hire" of which the City shall be deemed the author. If for any reason a work product is deemed not to be a "work made for hire," the Contractor hereby irrevocably assigns and transfers to the City all right, title and interest in such work product, whether arising from copyright, patent, trademark, trade secret, or any other state or federal intellectual property law or doctrines. Contractor shall obtain such interests and execute all documents necessary to fully vest such rights in the City. Contractor waives all rights relating to work product, including any rights arising under 17 USC 106A, or any other rights of authorship, identification or approval, restriction or limitation on use or subsequent modifications. If the Contractor is an architect, the work product is the property of the Contractor-Architect, and by execution of this contract, the Contractor-Architect grants the City an exclusive and irrevocable license to use that work product.

12. Nondiscrimination

Contractor agrees to comply with all applicable requirements of federal and state civil rights and rehabilitation statutes, rules, and regulations. Contractor also shall comply with the Americans With Disabilities Act of 1990 (Pub L. No. 101-336) including Title II of that Act, ORS 659.425, and all regulations and administrative rules established pursuant to those laws.

13. 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 successors and approved assigns.

14. Severability

The parties agree that 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.

15. Waiver

The failure of the City to enforce any provision of this contract shall not constitute a waiver by the City of that or any other provision.

16. Errors

The Contractor shall perform such additional work as may be necessary to correct errors in the work required under this contract without undue delays and without additional cost.

17. Governing Law

The provisions of this contract shall be construed in accordance with the provisions of the laws of the State of Oregon. Any action or suits involving any question arising under this contract must be brought in the appropriate court in Multnomah County Oregon.

18. Amendments

All changes to this contract, including changes to the scope of work and contract amount, must be made by written amendment and approved by the Purchasing Agent to be valid. Any amendment that increases the original contract amount by more than 25% must be approved by the City Council to be valid.

19. Business License

The Contractor shall obtain a City of Portland business license as required by PCC 7.02 prior to beginning work under this Agreement. The Contractor shall provide a business license number in the space provided on page one of this Agreement. Additionally, the Contractor shall pay all fees or taxes due under the Business License Law and the Multnomah County Business Income Tax (MCC Chapter 12) during the full term of this contract. Failure to be in compliance may result in payments due under this contract to be withheld to satisfy amount due under the Business License Law and the Multnomah County Business Income Tax Law.

20. Prohibited Interest

(a) No City officer or employee during his or her tenure or for one year thereafter shall have any interest, direct or indirect, in this Agreement or the proceeds thereof.

(b) No City officer or employee who participated in the award of this Agreement shall be employed by the Contractor during the period of the Agreement.

21. Payment to Vendors and Subcontractors

The Contractor shall timely pay all suppliers, lessors and contractors providing it services, materials or equipment for carrying out its obligations under this Agreement. The Contractor shall not take or fail to take any action in a manner that causes the City or any materials that the Contractor provides hereunder to be subject to any claim or lien of any person without the City's prior written consent.

Merger Clause

THIS CONTRACT AND ATTACHED EXHIBITS CONSTITUTES THE ENTIRE AGREEMENT BETWEEN THE PARTIES. NO WAIVER, CONSENT, MODIFICATION, OR CHANGE OF TERMS OF THIS CONTRACT SHALL BIND EITHER PARTY UNLESS IN WRITING AND SIGNED BY BOTH PARTIES. SUCH WAIVER, CONSENT, MODIFICATION, OR CHANGE IF MADE, SHALL BE EFFECTIVE ONLY IN SPECIFIC INSTANCES AND FOR THE SPECIFIC PURPOSE GIVEN. THERE ARE NO UNDERSTANDINGS, AGREEMENTS, OR REPRESENTATIONS, ORAL OR WRITTEN, NOT SPECIFIED HEREIN REGARDING THIS CONTRACT. CONTRACTOR, BY THE SIGNATURE OF ITS AUTHORIZED REPRESENTATIVE, HEREBY ACKNOWLEDGES THAT HE OR SHE HAS READ THIS CONTRACT, UNDERSTANDS IT AND AGREES TO BE BOUND BY ITS TERMS AND CONDITIONS.

OPTIONAL PROVISIONS (selected by City Project Manager)**22. Arbitration:** / ☒ / Not Applicable / ☐ / Applicable (consult with City Attorney's Office before finalizing as applicable)

(a) Any dispute arising out of or in connection with this Agreement, which is not settled by mutual agreement of the Contractor and the City within sixty (60) days of notification in writing by either party, shall be submitted to an arbitrator mutually agreed upon by the parties. In the event the parties cannot agree on the arbitrator, then the arbitrator shall be appointed by the Presiding Judge (Civil) of the Circuit Court of the State of Oregon for the County of Multnomah. The arbitrator shall be selected within thirty (30) days from the expiration of the sixty (60) day period following notification of the dispute. The arbitration, and any

litigation arising out of or in connection with this Agreement, shall be conducted in Portland, Oregon, shall be governed by the laws of the State of Oregon, and shall be as speedy as reasonably possible. The applicable arbitration rules for the Multnomah County courts shall apply unless the parties agree in writing to other rules. The arbitrator shall render a decision within forty-five (45) days of the first meeting with the Contractor and the City. Insofar as the Contractor and the City legally may do so, they agree to be bound by the decision of the arbitrator.

(b) Notwithstanding any dispute under this Agreement, whether before or during arbitration, the Contractor shall continue to perform its work pending resolution of a dispute, and the City shall make payments as required by the Agreement for undisputed portions of work.

23. Progress Reports: /_X_/ Applicable /___/ Not Applicable

The Contractor shall provide monthly progress reports to the Project Manager. If applicable, the STATEMENT OF THE WORK should list what information the Contractor must include in monthly progress reports.

24. Contractor's Personnel: /_X_/ Applicable /___/ Not Applicable

The Contractor shall assign the following personnel to do the work in the capacities designated: If applicable, list selected personnel in the STATEMENT OF THE WORK. The Contractor shall not change personnel assignments without the prior written consent of the City.

25. Subcontractors: /_X_/ Applicable /___/ Not Applicable

The City requires Contractors to use the Minority, Women and Emerging Small Business (M/W/ESB) subcontractors identified in their proposals, and as such the Contractor shall assign these subcontractors as listed in the STATEMENT OF THE WORK to perform work in the capacities designated. The Contractor shall not change subcontractor assignments without the prior written consent of the Purchasing Agent.

**STATEMENT OF THE WORK
AND PAYMENT SCHEDULE**

SCOPE OF WORK

The Contractor shall provide technical services, develop all the necessary construction documentation, and provide support services for design, bidding, construction and post-construction to successfully bid and construct the Fulton Pump Station Replacement project.

Key features of the Project include the following:

- Engineering Project Management
- Energy Trust of Oregon Study
- Geotechnical Evaluation
- Floodplain Analysis
- Design and construction of a new pump station facility
- Compliance with City's 2009 Green Building Policy, as applicable
- Hydraulic and Mechanical Design
- Storm and Sewer Management
- Electrical Control, Instrumentation and Telemetry
- Structural Engineering
- Civil Site Work and Piping
- Building Design
- Corrosion Design
- O&M Manuals
- Architectural Design Services
- Landscaping Design
- Public Involvement
- Permits
- Assistance During Bidding
- Engineering Support During Construction
- Start-up and Testing Services

The following is a more detailed description of the key features of this project. The Contractor shall work closely with designated City personnel to accomplish the following:

TASK 1 ENGINEERING PROJECT MANAGEMENT

Task Approach

The Contractor shall work with City of Portland (City) and Portland Water Bureau (PWB) staff to develop and implement key project management protocols to ensure that the project is delivered on time and within budget. The Contractor shall:

1. Perform general administration and project management throughout Design and Bidding and provide support services during Construction and Post Construction phases to ensure successful completion of all tasks and elements of the project within the established scope, schedule and budget.
2. Be responsible for all deliverables listed herein including attending meetings. Forty total meetings are budgeted.
3. Attend a Project Kick-off Meeting with City Project staff and others to review all phases of the work.

Deliverables

The Contractor shall provide the following to the PWB Project Manager or their designated representative:

1. Monthly summary reports highlighting work progress during the previous month and listing unresolved outstanding issues. One copy of each monthly report shall be submitted to PWB's Project Manager by the 15th of the next month. Progress reports shall be broken down by task and shall compare percentage complete with percentage of budget spent.
2. A Monthly Subconsultant Payment and Utilization Report by the 15th of each month.
3. Copies of contracts with subconsultants.
4. Project Design Management Plan. The Contractor shall prepare a work plan that details the team approach to the project. The work plan shall include specific tasks, a description of products, schedule, reviews, costs by task and discipline, and an explanation of how the team will interact.
5. Monthly Design Meetings as required to address relevant issues.
6. Monthly Construction Meetings as required by PWB project manager.
7. Three (3) meetings with PWB Design and Operations staff to confirm system curves and pump selections.
8. One (1) electronic copy of the agenda and minutes for each meeting that occurs throughout the project including meetings with the public and open houses associated with the public involvement aspect of the project. The minutes are due within one week following each meeting.
9. A Monthly Payment Request (Invoice) due by the 15th of the following month and submitted to the PWB's Accounts Payable Department.

TASK 2 ENERGY TRUST STUDY

Task Approach

The Contractor shall:

1. Conduct an Energy Efficiency Measure (EEM) scoping study to determine the savings for pumps and variable frequency drives (VFDs) on pumping costs, and a customized lighting study including recommendations on other savings on the basis of efficiency.
2. Contract with an Allied Technical Assistance Contractor (ATAC), an Independent engineering firm certified by Energy Trust, to perform the analysis.
3. The pump analysis shall compare the baseline consumption of the existing Fulton Pump Station with that of the proposed new station pumping with the maximum allocation of flow from the reduced suction head Washington County Supply Line, and remainder of suction supply from the Westside Header Supply. Variable Frequency Drive (VFD) control shall be used in the analysis.
4. Conduct a lighting analysis which shall compare a theoretical baseline design of the new pump station lighting against two proposed alternative technologies. The analysis shall examine both pump room interior drop lighting and exterior perimeter security lighting. The report shall assume Pulse Start Metal Halide as a baseline technology for the exterior lighting. The report shall assume High Bay Compact Fluorescent as a baseline technology for the interior lighting. The proposed lighting analysis shall compare Light Emitting Diode (LED) and Induction Lamp technology against the baseline, using the Energy Trust of Oregon Lighting software tool.

The most efficient technology with acceptable life cycle costs, reliability, beam pattern and light quality for security purposes shall be selected for the exterior. The most efficient technology with acceptable life cycle costs, reliability, and light quality shall be selected for the interior.

5. Facilitate Technical Review of ATAC study by the Energy Trust certified Program Delivery Contractor.
6. Develop specifications for each EEM.
7. Evaluate contractor bids for installation for each EEM.
8. Assist City to oversee installation and verification of the Project EEMs.
9. Facilitate paperwork associated with program incentives.
10. Assist with the application for the Oregon Business Energy Tax Credit (BETC), if requested by PWB based on the results of the analysis.

Deliverables

The Contractor shall provide the following to the PWB Project Manager or their designated representative:

Final versions of technical memoranda shall be provided on a CD in Microsoft Word and PDF format, in addition to the noted number of hard copies.

30% Design Milestone:

- Ten (10) copies of the Scoping Study

60% Design Milestone:

- Ten (10) copies of the Technical Analysis Study
- One (1) copy of Preliminary Specifications

90% Design Milestone:

- One (1) copy of the Completed Incentive Form Agreement (Form 420)
- One (1) copy of the Completed Oregon BETC Application

Both forms can be found on the State of Oregon website: www.oregon.gov

TASK 3 DESIGN

Design includes the following Subtasks:

- Subtask 3.1 – Geotechnical Evaluation
- Subtask 3.2 – Floodplain Analysis
- Subtask 3.3 – Building Design and Structural Engineering
- Subtask 3.4 – Civil Site Work and Piping
- Subtask 3.5 – Hydraulic and Mechanical Design
- Subtask 3.6 – Electrical Control, Instrumentation and Telemetry Design
- Subtask 3.7 – Landscape Design
- Subtask 3.8 – Corrosion control Design
- Subtask 3.9 – Operation and Maintenance (O & M) Manuals

The Contractor shall complete the following design subtasks which include the following elements:

Subtask 3.1 - Geotechnical Evaluation

1. Evaluation of surface and subsurface soil conditions at the pump station site, valve vaults and proposed suction and discharge piping. Evaluation shall indicate bearing capacity, settlement, type of footings/pilings required, and any special construction requirements.
2. Evaluation of possible drainage problems and any mitigation measures required.
3. Evaluation of soil and groundwater contamination which may either be coordinated with the Bureau of Environmental Services (BES) Testing and Materials Laboratory or completed by an independent subcontractor, with the choice of method to be made by the Contractor.
4. Site-specific seismic analysis.

Subtask 3.2 - Floodplain Analysis

1. Provide an evaluation of pump station construction impacts to the floodplain. Address and incorporate the relevant design requirements of 24.50 Flood Hazard Areas of the City Building Code, including but not limited to 24.50.050.D and Title 24.50.060.F.4 and F8.

Subtask 3.3 - Building Design and Structural Engineering

Determine size, layout and configuration of the building for the pump station with consideration of the following functional and design requirements:

1. The pump station shall be reinforced concrete cast-in-place construction. Tilt-up concrete and concrete masonry unit (CMU) construction are not acceptable for the pump station.
2. Loading area internal to the station such that major components such as pumps, motors, and electrical motor control center (MCC) equipment can be loaded using the station's internal bridge crane.
3. The pump station shall be a multi-level building and layout such that all electrical, instrumentation and other sensitive equipment are located on the 2nd floor and well above the flood protection level elevation.
4. Building must accommodate an approximately four hundred (400) square foot storage facility and four (4) public restrooms.
5. Design of appropriate security features to meet minimum requirements of other PWB-owned pump station facilities. These features shall include door alarms and locks, high security glazing on windows and/or interior security bars. PWB shall provide security requirements to Contractor.
6. Aesthetic design elements are required due to mandatory design review, as well as public involvement process. The Contractor shall provide a minimum of three facade designs required for the Public Involvement process, of which one shall be selected for the pump station. The three facades include the following, or a combination thereof:
 - a. Face Brick with cast stone
 - b. Stone Face
 - c. Architectural/Fair face and/or textured concrete
7. Comply with the City's 2009 Green Building Policy (<http://www.portlandonline.com/bps/index.cfm?c=50447&a=243213>) which requires that all new buildings or buildings undergoing major renovations achieve certain performance levels. Coordinate with PWB staff and other City entities to determine the requirements applicable to the project including these performance levels:
 - a. Improve water savings 30% beyond the Energy Policy Act of 1992 baseline code requirements.
 - b. Design and incorporate an eco-roof covering at least 70% of the roof and utilizing a high reflectance Energy Star rated roof material on the remaining roof areas, where practical. When an integrated eco-roof/Energy Star rated roof is impractical, a high-reflectance Energy Star rated roof material shall be installed. An analysis to evaluate practicality of an eco-roof shall be documented. The analysis shall, at a minimum, consider the following factors:
 - 1) Structural requirements and associated capital and maintenance costs
 - 2) Life-cycle cost analysis compared to other roofing options
 - 3) Access for construction and maintenance
 - 4) Benefits provided by an eco-roof (e.g. stormwater control, roof longevity, insulation to reduce heating or cooling)
 - 5) Other factors specific to this project or design options for this project
 - c. Design and incorporate on-site renewable energy systems, as practical or as required by the State. (See for example: <http://oregon.gov/ENERGY/CONS/PublicSolar.shtml>)
8. Because this building shall be categorized as "unoccupied", it does not have to be LEED Gold certified in accordance with the City's Green Building Policy. However, the contractor will evaluate how best to incorporate the following sustainable approaches in the design and construction of the project and make recommendations to PWB project manager:
 - 1) Water efficiency for the building and landscaping
 - 2) Energy efficiency
 - 3) Construction waste management
 - 4) Construction activity pollution prevention
 - 5) Use of natural light (daylighting)
 - 6) Materials choice (regional products, renewable products, low emitting materials).

Subtask 3.4 - Civil Site Work and Piping

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Develop a design including the following:

1. Site plan.
2. On-site piping layout to and from the station including other utilities (proposed and existing): power/electricity and telemetry.
3. Drain system with a dechlorination chamber to allow for water to be drained from the Burlingame Pump Main (BPM) for maintenance or emergency purpose. The drain system design shall address local and state requirements for disposal of chlorinated water.
4. Valve vault for suction supply connection to the 60-inch diameter Washington County Supply Line (WCSL).
5. Regulated connection from WCSL to suction piping in SW Nevada Street.
6. Suction supply connection to the SE Supply Main and valve connection in the vicinity of 0540 SW Nevada St., extending to the new pump station.
7. Discharge supply connection and valve connection in the vicinity of 0540 SW Nevada St. extending to the new pump station.
8. Portable pump connection points to the suction and discharge supplies for maintenance or emergency purposes.
9. Replacement storm main and sewer force main for pump station, four (4) restrooms, and catchment area.
10. All required earthwork, landscaping, paving, road re-alignment and other site improvements as required by Public Involvement, Design, and Permitting.
11. Temporary construction vehicle access to pump station site from Nevada Street, crossing TriMet's Willamette Shore Trolley Line.

Subtask 3.5 - Hydraulic and Mechanical Design

Design of internal piping layout and pumps required to pump from the WCSL or SE Supply Line to the Burlingame Tanks or Westwood Tanks. Design shall include:

1. A minimum of five (5) pumps in the new pump station with the preliminary design hydraulic capacities:
 - a. Average Day Demand (ADD): 3.5 million gallons per day (MGD) (single pump operation, with a second pump configured for redundancy)
 - b. To bridge the flows between 3.5 to 8.5 MGD:
 - 1) >3.5MGD: VFD Operation of two 3.5 MGD pumps staying within the Preferred Operating Region (POR) as per American National Standards Institute / Hydraulic Institute (ANSI/HI) 9.6.3.
 - 2) <8.5MGD: VFD Operation one 8.5 MGD pump operation, throttled down to minimum acceptable operating point still within the POR.
 - c. Peak Day Demand (PDD): 8.5 MGD (single pump operation, designed to operate at the higher dynamic head, with a second pump configured for redundancy)
 - d. A jockey pump to bridge the flows from 0-4 MGD (night operation)
2. Each pump shall have the ability to draw water from either suction source, the WCSL or the SE Supply Line, with actuated valving remotely from the Water Control Center (WCC). Capability shall be possible with adjacent pumps out of service.
3. Layout plans for all piping, fittings and appurtenances required within pump station.
4. Selection of number, type and capacity of all pumps including design calculations and criteria supporting selections.
5. Selection of hydraulic control valves and related equipment.
6. Pump performance specifications and expected power consumption efficiencies.
7. Surge analysis of the Burlingame Pump Main (BPM), with:
 - a. A transient analysis on the pump main and recommendation and design for surge relief valves and chlorinated water disposal.
 - b. Recommendation for placement of vacuum breakers and air release valves along the BPM.
 - c. Design of pumping facility to drain the BPM for maintenance.
8. Lighting, heating and ventilation systems for the buildings.
9. Noise suppression and vibration limits.

Subtask 3.6 - Electrical Control, Instrumentation and Telemetry Design

Design an electrical control and telemetry system for the pump station based on the established design criteria. Design shall include but not be limited to the following:

1. Electrical one-line diagram.

2. Stamped Electrical System Analysis.
3. Electrical room and all controls and remote instrumentation shall be located on the second floor of the building.
4. A single transformer to be located on site with split distribution and protection such that roughly half the pumps could run with either distribution leg out for maintenance or repair. The transformer shall be located on or above the second floor. All fire-protection requirements shall be met for transformer location.
5. VFDs must have the ability to communicate with Ion Enterprise Power Monitoring Software.
6. Powerlogics CM4000 Power Monitoring shall be included for monitoring Electrical Service.
7. All control systems must comply with and be incorporated into PWB's existing Supervisory Control and Data Acquisition (SCADA), networked to PWB's Interstate Operations Building on City's Integrated Regional Network Enterprise (IRNE) Fiber Cable for Square D Electrical Protection And Monitoring (SEPAMS) and CM4000.
8. Process and Instrumentation Diagram (P&ID) in conjunction with PWB requirements. The PWB P&ID requirements shall be provided to the Contractor.
9. All interior and yard lighting, interior electric heating, ventilation, service outlets, control and telemetry wiring and hardware required.
10. Generator connection ability such that a portable generator unit (not included) can be easily connected into the system as a backup power source.
11. Training for PWB staff on all operation and maintenance for control systems.

Subtask 3.7 - Landscape Design

Design landscaping based on the Land Use Review and permit requirements which shall include but not be limited to the following:

1. Provide recommendations in limiting and mitigating construction and visual impacts to natural resources and incorporate recommendations into the design.
2. Provide non-native vegetation removal and redevelopment with native species in the landscaping design.

Subtask 3.8 - Corrosion Control Design

Corrosion control design shall apply to all associated piping for the new pump station. Pipe materials and corrosion control design shall be per PWB Design Standards, and incorporated into the Plans and Specifications which shall include PWB's Standard Specification and Plan details for dielectric isolation, coating, joint bonding, test stations, and anodes. PWB Design Standards as well as Standard Specification and Plan details for design of a corrosion control system shall be provided to the Contractor.

Subtask 3.9 - Operation and Maintenance (O&M) Manuals

Prepare manuals for operation and maintenance of the pump station in a format similar to that used by the PWB at other Bureau facilities. A sample format of the manuals shall be provided to the Contractor. The manuals shall include but not be limited to the following:

1. A complete operating manual for the station including but not limited to:
 - a. As-built drawings.
 - b. All catalog cuts and schematics.
 - c. Pump station operation procedures.
 - d. Emergency operation procedures and contacts.
 - e. Safety requirements.
2. A complete maintenance manual for the station including but not limited to:
 - a. List and description of mechanical and electrical components.
 - b. Schematics.
 - c. Maintenance procedures and schedules of facility and equipment including painting to address corrosion protection of facility components.
 - d. Trouble shooting data.
 - e. Overhaul procedures for the pumps, motors and other equipment installed.
3. All witness test data for pumps, VFDs and motors.

Deliverables

The Contractor shall provide the following to the PWB Project Manager or their designated representative:

All construction documents shall be provided on a CD in Microsoft Word and PDF format with the electronic drawing files developed in Bentley 3D PlantSpace software and Bentley PlantSpace P&ID that conforms to PWB Computer Aided Drafting (CAD) standards. PWB CAD standards shall be provided to the Contractor. The number of hard copy submittals is noted below. CAD shall include electronic base files and all model data. The documentation supplied by PWB, such as Section 007200, shall be incorporated into the Contractor's signed construction documentation.

30% Initial Design Milestone Submittal Documents

This submittal package shall include one full size (22"x34") plan set, fifteen (15) hard copies of 1/2 size (11"x17") plans, and fifteen (15) hard copies of remaining 30% submittal documents unless otherwise noted below:

1. **Draft Geotechnical Report** – ten (10) copies of the draft geotechnical report. The technical report shall include but not be limited to the following sections:
 - Introduction and Project Understanding
 - Scope of Services
 - Site Description
 - Conclusions
 - Recommendations
 - Subsurface Exploration Data
 - Site-Specific Seismic Evaluation
 - Soil and Groundwater Contamination Evaluation
2. **30% Plans** shall include, at a minimum:
 - Pump station building footprint and elevations
 - One (1) 34" x 44" size copy and ten (10) 11" x 17" copies of Architectural renderings of the pump station building with a minimum of three (3) options for external façade treatments. Architectural renderings shall also include but not be limited to the following:
 - a minimum of 3 elevation views (north, south, east)
 - facility landscaping
 - plan views of building footprint
 - restroom facilities location and footprint
 - realignment of existing roadway in the park
 - Restroom facility location & footprint and elevations
 - Storage footprint and elevations
 - Site grading including topographical map
 - Post-project vehicle parking plan in the vicinity of the project area
 - In-station piping layout
 - Valve vault location & footprint for suction and discharge lines
 - Draft Equipment Selection
 - Draft Equipment Schedule and Quantities
 - Draft P&ID
 - Electrical equipment layout
 - Electrical one-line diagram showing power distribution and protection from source power to all motors and main panels
 - Draft panel and MCC elevations
 - Transformer location & footprint
 - Instrumentation and control room layout
 - Suction and discharge piping
 - Valve connections for suction and discharge headers by existing pump station
 - Site security including temporary fencing
3. **30% Specifications** shall include, at a minimum:
 - Proposed list of specification sections
 - Draft sections of major project components
4. **30% Construction Cost Estimates** shall include, at a minimum:
 - Proposed list of Bid Items and Units of Measurements

- Cost estimate for major components of the project
5. **Draft Design Memorandum** shall include:
- Update proposed Design schedule
 - Identify potential project risks and develop a risk management plan that lists actions required to meet Start of Construction
 - Design assumptions and criteria, including a list of City's Green Building Policy requirements that shall be incorporated into the design and construction of the project
 - Draft Hydraulics: System Curve and Pump Curves
 - Draft surge analysis results
 - Draft floodplain analysis results
 - Descriptions of issues and resolutions
 - Draft Statement of Operation
 - Draft written narrative control process strategy to be included as part of the O&M manual content
 - Draft memorandum evaluating the practicality of installing an eco-roof based on the factors identified in the specific scope. The memorandum shall be between two (2) to five (5) pages in length.

60% Intermediate Design Milestone Submittal Documents

This submittal package shall include one (1) full size (22"x34") Plan set, fifteen (15) hard copies of 1/2 size (11"x17") plans, and fifteen (15) hard copies of remaining 60% submittal documents unless otherwise noted below.

1. **Final Geotechnical Report** – ten (10) copies of signed and stamped geotechnical report which shall include:
 - Update draft and incorporate all PWB comments
 - Tabulated comments and responses to Preliminary Geotechnical Report
2. **60% Plans** shall include, at a minimum:
 - Tabulated comments and responses to 30% Plans
 - Revised plans incorporating changes from PWB staff comments on the 30% Plans and changes to design based on Land Use Review comments
 - Final site plan
 - Final pump station building layout
 - Final on-site pipe alignment
 - Draft in-park road alignment
 - Draft design for storm and sewer force main & lift station
 - Final pipe alignment for supply and discharge lines
 - Final one-line diagram
 - Final P&ID
 - All motor controller, MCC and non-PLC based control wiring schematics
 - Final panel and MCC elevation drawings
 - All utilities identified
 - Elevations
 - Sections and details
3. **60% Specifications** shall include, at a minimum:
 - Tabulated comments and responses to 30% Plans
 - Revised specifications incorporating changes from PWB staff comments on the 60% Plans and changes to the specifications based on Land Use Review comments
 - Completed Table of Contents
 - Completed Supplemental Conditions Sections
 - Draft of All Special Provisions Sections
 - Confirmed List of Specifications with Referenced Drawing Sheet
4. **60% Construction Cost Estimates** shall include, at a minimum:
 - Proposed list of Bid Items and Units of Measurements
 - Cost estimate for major components of the project

5. Updated Design Memorandum including:

- Updated 30% memo submittal
- Update to project schedule if necessary
- Draft structural and civil calculations
- Results and design recommendations of surge analysis
- Results and design recommendations of floodplain analysis
- Final Statement of Operations
- Draft Electrical System Analysis using SKM PowerTools to include short-circuit coordination study, arc flash study and overcurrent device trip settings, stamped by a Professional Engineer (P.E.)
- Final Instrument Loop Diagrams and point-to-point interconnection wiring diagrams for all instrumentation circuits
- Complete Input/Output (I/O) list of all analog and discrete instrumentation and control circuits. Includes equipment list, device setpoints and ranges. Assignment of I/O Tag numbering shall be coordinated with PWB staff
- Complete Electrical Circuit and Raceway schedule
- Final written narrative control process strategy shall be included as part of the O&M manual content
- Final memorandum evaluating the practicality of installing an eco-roof based on the factors identified in the specific scope. The memorandum shall be between 2 to 5 pages in length

90% Pre-Final Design Milestone Submittal Documents

This submittal package shall include one full size (22"x34") plan set, fifteen (15) hard copies of 1/2 size (11"x17") plans, and fifteen (15) hard copies of remaining 90% submittal documents unless otherwise noted below.

1. **90% Plans** – the revised plans shall be complete in all respects including all engineering details and be consistent with specifications. Changes resulting from PWB staff comments on the 60% Plans as well as changes to design based on Final Decision of the Land Use Review shall be incorporated. Provide tabulated comments and responses to 60% plan set.
2. **90% Specifications** – the specifications shall be complete and shall be consistent with design elements as shown on the drawings. Provide tabulated comments and responses to 60% specifications. Changes resulting from PWB staff comments on the 60% Specifications as well as changes to design based on Final Decision of the Land Use Review shall be incorporated.
3. **90% Construction Cost Estimates** – submit an update to bid item list for measurement and payment, and a final engineer's estimate for each bid item.
4. **Updated Design Memorandum** – Provide updated technical memo including a final version of the construction schedule through construction completion and facilities commissioning. Include a list of design modifications required by Land Use Review.
5. **Bidability, Constructability, Operability, Environmental (BCOE) Review** – Review and resolve BCOE comments submitted by the City.

100% Final Design Milestone Submittal Documents

Provide three (3) hard copies of 100% submittals. Plans shall be to scale on 1/2 size (11" x 17") sheets.

1. **100% Plans** – the plans shall be complete in all respects including all engineering detail, be consistent with specifications, and incorporate the resolution of the BCOE review comments. Provide tabulated comments and responses to 90% plan set. Provide list of any outstanding design issues.
2. **100% Specifications** – the specifications shall be complete in all respects, shall be consistent with design elements as shown on the drawings, and incorporate the resolution of the BCOE review comments. Provide tabulated comments and responses to 90% specifications.
3. **100% Construction Cost Estimates** – provide Final Engineer's Estimate.
4. **Updated Design Memorandum** – submit any additional technical information as required or revision to the construction schedule as requested.

Final Signed Design Milestone Submittal Documents

Provide one (1) original and full sized reproducible plan set, one (1) unbound set of specifications and permitting documentation, and one (1) electronic copy with all reference files for the following:

1. **100% Plans** – Provide one (1) signed, full sized original plan set and one (1) electronic copy with all reference files.
2. **100% Specifications, Attachments and Appendices** – Provide one (1) signed, unbound, original with dividers and cover, and one (1) electronic copy (Microsoft Word and PDF format on CD).
3. **Updated Design Memorandum** – Provide final copies of all calculations.

Task 4 PUBLIC INVOLVEMENT

Task Approach

The Contractor shall provide technical support for a PWB-led Public Involvement process in which the facade exterior of the pump station, landscaping improvements, and greenway improvements shall be presented to the public for comment and selection for relevant options before the preliminary design phase is complete. Support services provided by the Contractor shall include but not be limited to the following:

1. Assist PWB Public Outreach staff during the public involvement process outlined in the Public Involvement Plan that was jointly prepared by Portland Parks and Recreation (PP&R) and PWB staff.
2. Facilitate and Attend up to 6 meetings to address comments and questions regarding the project. Record and distribute meeting minutes/notes.
3. Provide graphics for meetings as requested by PWB Project Manager.

Deliverables

The Contractor shall provide the following to the PWB Project Manager or their designated representative:

30% Design Milestone:

- Electronic copies of meeting minutes and meeting notes

Task 5 PERMITS

Task Approach

The Contractor shall provide the technical services necessary to prepare and submit complete applications for meetings and reviews with the City's Bureau of Development Services (BDS) and other permitting agencies which shall include but not be limited to the following:

1. Gather information and data necessary to complete all required land use reviews and acquire building and other necessary permits. The following approvals and permits shall be required:
 - a. City of Portland zoning approvals:
 - 1) Type III Conditional Use approval
 - 2) Type III Design Review
 - 3) Type III Zone Map Amendment
 - 4) Type II Greenway Review
 - b. City of Portland Building Permit
 - c. City of Portland Street Opening Permit
 - d. Oregon Department of Environmental Quality (DEQ) – 1200-C Stormwater and Erosion Control permit
 - e. City of Portland Batch Discharge Permit (BES)
 - f. TriMet Willamette Trolley Line Crossing Permit
 - g. ODOT Highway 43 (Macadam Ave) Permit

2. Prepare all required documentation and submittals for the necessary reviews and permits.
3. Attend Early Assistance and Pre-Application Meetings with BDS as required for the land use reviews and permitting process. Three (3) meetings are budgeted.
4. Respond to requests for additional information or data from permitting and reviewing agencies as needed to acquire necessary approvals and permits.
5. Provide assistance during permitting and Land Use Review processes.

Deliverables

The Contractor shall provide the following to the PWB Project Manager or their designated representative:

Draft and final versions of technical memoranda shall be provided to the PWB project manager on a CD in Microsoft Word and PDF format, in addition to the noted number of hard copies.

30% Design Milestone:

- Ten (10) copies of the draft Permitting Memo detailing permitting requirements for the project, permitting agency, status for each permit, contact information, preliminary cost estimate for each permit, schedule for delivering the required permitting to meet the timeline for start of construction. The project schedule shall include 15 days for each PWB review.
- Land Use Review documentation required for Early Assistance & Pre-application Conference with BDS

60% Design Milestone:

- Ten (10) copies of the updated draft Permitting Memo including an updated schedule for delivering the required permitting to meet the timeline for start of construction. The project schedule shall include 15 days for each PWB review.
- Completed Application for LUR Review which shall include plans and narratives to support Type III Design Review, Type III Conditional Use Review, Type III Zone Amendment, and Type II Greenway Review. These submittals must incorporate comments and requirements from the Early Assistance Meetings and Pre-Application Conference.

90% Design Milestone:

- Ten (10) copies of the updated draft Permitting Memo including an updated schedule for delivering the required permitting to meet the timeline for start of construction. The project schedule shall include 15 days for each PWB review.
- All required Permit applications and approvals including any supporting documentation required for the permits.

Final Signed Design Milestone:

- Ten (10) copies of the final Permitting Memo including an updated schedule for delivering the required permitting to meet the timeline for start of construction.
- Provide all required Building Permit applications including any supporting documentation required for the permits.
- Provide all other required permits (or permit applications, if the permit is acquired at the same time as the Building Permit) – for example, the DEQ 1200-C permit.

Task 6 ASSISTANCE DURING BIDDING

Task Approach

The Contractor shall provide technical assistance to PWB staff during the bidding process of the project. Support during bidding shall include but not be limited to the following:

1. Attend the pre-bid conference and site visit, if and when requested by the PWB Construction Manager CM).
2. Assist PWB in responding to clarifications of the construction contract documents and prepare addenda to bid documents as required. Respond to bidders questions and bid analysis if requested by PWB CM.

Deliverables

The Contractor shall provide the following to the PWB Project Manager or their designated representative:

1. Original signed plans and specifications, estimates, calculations and supporting documents as well as an electronic copy with reference files to the PWB CM.

2. Assist PWB in preparing addenda to bid documents as requested by the PWB project manager. Two (2) addenda are budgeted.
3. Provide bid analysis if requested by PWB CM.

Task 7 ENGINEERING SUPPORT DURING CONSTRUCTION

Task Approach

The Contractor shall designate one Engineer and support staff that are committed to this project to assist PWB CM. Day-to-day project inspection, contract administration, payments, and the majority of construction engineering shall be handled by the PWB CM. The Contractor shall perform the following services during construction:

1. Attend the pre-construction conference(s).
2. Consult with PWB and act as its representative as provided in the general conditions of the contract documents.
3. Provide technical support as needed throughout the bidding process. Twenty (20) hours are budgeted.
4. Make periodic visits to the site when requested by the PWB CM to observe, as an experienced and qualified design professional, the progress and quality of the various aspects of the work. Based on information obtained during such visits, determine if work is proceeding in accordance with the contract documents. Provide a written response or report to the PWB CM of observations and recommendations based on the site visits. Up to 20 periodic visits are budgeted.
5. Perform inspection of the foundation subgrade as well as any special inspections required for structural issues as required by PWB CM.
6. Assist PWB CM in providing interpretations and clarifications of the contract documents and assist in preparation of Field Orders (FOs), Requests for Information (RFIs), and Change Orders (COs) upon request of the PWB CM. Up to fifty (50) combined FOs, RFIs and COs are budgeted.
7. Provide complete list of submittals, warranties, samples and shop drawings that are required by the PWB's Construction Contractor.
8. Review shop drawings and submittals when requested by PWB project manager or PWB CM and provide written responses to the PWB CM as promptly as possible and within seven (7) days. Up to twenty-five (25) combined shop drawings and submittals are budgeted.
9. Witness test for VFD equipment, pumps and instrumentation Programmable Logic Controller (PLC) cabinet.
10. Review operating and maintenance instructions, schedules, certificates of inspection, tests and approvals; these are to be assembled in accordance with the contract documents and included with the O&M manuals prepared by the Contractor.
11. Participate in an inspection to determine if the work is substantially complete and assist the PWB CM in preparing a list of items to be completed. Participate in the final inspection to determine if the completed work is acceptable for final payment. Give written notice to the PWB CM that the work is acceptable or of any deficiencies that need to be resolved.
12. Be available as necessary for special consultation to resolve conflicts and provide interpretations. Twenty (20) hours are budgeted.
13. Provide assistance in preparation of responses to construction claims. Twenty (20) hours are budgeted.
14. Provide a set of reproducible as-built drawings on Mylar showing those changes made during the construction process based on data furnished by the PWB's Construction Contractor. As-builts shall be provided to the PWB CM electronically on CD-ROM or DVD in MicroStation format conforming to PWB standards and scans of original signed as-builts in PDF format. Revised specifications shall be provided to the PWB CM in Microsoft Word on CD-ROM or DVD.
15. Coordinate with the PWB CM to verify that tests, equipment start-ups, and operating and maintenance training are conducted in the presence of appropriate personnel and that the PWB's Construction Contractor maintains adequate records of the proceedings. Evaluate the selected PWB's Construction Contractor's suggestions for modifications in the drawings and specifications and report them, with recommendations to the PWB CM, when requested by the PWB project manager.
16. Provide construction close-out production of electronic as-builts that are developed by the PWB's Construction Contractor. Develop and assure compliance with the project punch list. Obtain all guarantees for PWB.

Deliverables

The Contractor shall provide the following to the PWB Project Manager or their designated representative:

1. Provide a written response or report to the PWB CM of observations and recommendations based on site visits.
2. Prepare field orders and change orders upon request of the PWB CM.
3. Provide written responses to the PWB CM regarding review of shop drawings and submittals when requested

and as promptly as possible and within the contract turnaround time limits.

4. Maintain submittal log and provide PWB CM one complete copy of all submittals and responses at the completion of the project.
5. Prepare responses to construction claims.
6. Provide a set of reproducible as-built drawings on Mylar showing those changes made during the construction process (as-builts) based on data furnished by the PWB's Construction Contractor. As-builts shall also be provided electronically on CD-ROM or DVD in MicroStation that conforms to PWB CAD standard and scans of original signed as-builts PDF format. Revised specifications shall be provided in Microsoft Word on CD-ROM or DVD.
7. Provide written reports to the PWB CM with appropriate details regarding factory and functional equipment test procedures and start-ups.
8. Compile and submit O&M manual with narrative of the O&M Plan. A draft copy shall be submitted for PWB review at the beginning of start-up & commissioning of the facility with the final draft provided prior to the final walk-through and inspection.
9. Provide Project Verification for Energy Trust Study including Form 440, which can be found on the State of Oregon website, www.oregon.gov.
10. Provide special inspections as required by permits to sign off as Engineer of Record.

Task 8 STARTUP AND TESTING SERVICES

Task Approach

The Contractor shall provide required startup and testing services to ensure that the facility is fully operational and meets PWB's operating standards. The Contractor shall coordinate with PWB staff to identify and develop operating standards for the Project. Services required shall include:

1. Develop and implement a Commissioning Plan to ensure successful start-up of facility. The plan shall include, at a minimum, the following:
 - a. Field Test Plan
 - b. Field Test Reports
 - c. Functional Acceptance Test Plans for all major components
 - d. Functional Acceptance Test reports and commentary
 - e. Process Narrative
 - f. Operational Readiness Test Plan
 - g. Operational Readiness Test Report
 - h. Revised Control Narrative
2. Provide support and guidance during all phases of start up, including field testing, operational readiness testing and functional acceptance tests.
3. Summarize the issues that emerged and their resolution in a Commissioning Memorandum/Report.

Deliverables

The Contractor shall provide the following to the PWB Project Manager or their designated representative:

Final versions of technical memoranda shall be provided on a CD in Microsoft Word and PDF format, in addition to the noted number of hard copies.

1. Ten (10) copies of the draft and final Pump Station Commissioning Plan.

Task 9 PROJECT MITIGATION

Additional mitigation to be authorized in writing by the PWB in order to respond to outside permitting agency requirements, other design and construction services change requirements, potentially including but not limited to:

- Geotechnical
- Potholing
- Permitting/Land Use
- Design mitigations
- Special Inspections
- Multi-structure design

WORK PERFORMED BY THE CITY

The City has assigned a project manager to oversee the Contractor's work and provide support as needed. Specific duties the City shall perform and items it shall provide to the Contractor during the life of the project are listed below:

1. One (1) copy of the City of Portland Standard Construction Specifications for reference during the development of the special specification.
2. One (1) copy of the City of Portland Standard Bidding Instructions.
3. Electronic copy of Section 007200 – Supplemental General Requirements.
4. PWB CAD standards.
5. A MicroStation seed file containing standard construction drawings, legend (with symbols) and general notes in a DGN format. 3D seed file for MicroStation to be used for survey base map.
6. City of Portland Procurement Services required paperwork for a Construction contract including: Notice to Bidders, Notice to Contractors, Non-collusion Affidavit, Bid Bond, Proposal, Bid Forms, sample agreement with minority subcontractor, work force training and hiring program and Minority/Women/Emerging Small Business (MWESB) participation requirement information, and prevailing wage rates. This shall be included and bound with the completed specifications.
7. Other City documents including applicable PWB Standard Drawings deemed by PWB staff and Contractor as necessary for the design of the facility.
8. Written comments within fifteen (15) City business days of receipt of 30% design submittal.
9. Written comments within fifteen (15) City business days of receipt of 60% design submittal.
10. Written comments within fifteen (15) City business days of receipt of 90% design submittal.
11. Permit applications review and written comments within fifteen (15) working days after receipt of each item. PWB shall submit pertinent permits and pay permit fees.
12. Survey to establish horizontal/vertical control and base mapping.
13. BCOE checklist form, as to inform the Consultant of the typical BCOE checks that the City shall perform for project quality assurance.
14. Public outreach and education.
15. Overall Construction Management including oversight and inspection.

DELIVERABLES

Deliverables shall be considered those tangible resulting work products that are to be delivered to the City such as reports, draft documents, data, interim findings, drawings, schematics, training, meeting presentations, final drawings and reports. The Contractor is encouraged to provide any deliverables in accordance with the City's Sustainable Paper Use Policy. The policy can be viewed at: <http://www.portlandonline.com/omf/index.cfm?c=37732>.

All deliverables and resulting work products from the contract shall become the property of the City of Portland.

CONTRACTOR PERSONNEL

The Contractor shall assign the following personnel to do the work in the capacities designated:

NAME	ROLE ON PROJECT
Phil Smith	Principal-in-charge
Jim Helton	Project Manager

SUBCONTRACTORS

The Contractor shall assign the following subcontractors to perform work in the capacities designated:

NAME	ROLE ON PROJECT
MWH Americas, Inc.	Electrical/I&C, Surge Analysis, Energy Trust/BETC
MWA Architects	Architecture
Winterbrook Planning	Land Use Permitting
Pacific Geotechnical, LLC	Geotechnical Engineering, on-site soils
BEA Consulting, Inc.	Mechanical (HVAC), Plumbing Design

Peterson Structural Engineers, Inc.	Structural Engineering
Susan Oman, Landscape Architect	Landscape Architecture
Cascade Corrosion Consulting Services, Inc.	Corrosion control consulting services
JLA Public Involvement	Public Involvement
Acoustic Design Studio, Inc.	Acoustical Engineering
NLV Services, Inc.	Surveying

The City shall enforce all diversity in workforce and Minority, Women and Emerging Small Business (M/W/ESB) subcontracting commitments submitted by the Contractor in its Proposal. For contracts valued \$100,000 or more, the Contractor shall submit a Monthly Subconsultant Payment and Utilization Report (MUR), made part of this contract by reference, reporting ALL subcontractors employed in the performance of this agreement. An electronic copy of the MUR may be obtained at: <http://www.portlandonline.com/shared/cfm/image.cfm?id=119851>.

COMPENSATION

The not to exceed amount of this contract is \$1,413,741.

- A. The City shall pay the Contractor for work performed under this Agreement. The payment shall be full compensation for work performed, for services rendered and delivered, and for all labor, materials, supplies, equipment and incidentals necessary to perform the work and services and approved for payment by the City. Errors in estimating the number of hours necessary to perform the work is the sole responsibility of the Contractor.
- B. The City shall pay the Contractor on a time and materials basis in accordance with the following conditions:

Direct labor shall be invoiced as Salary Times Multiplier using a 3.1 multiplier. This multiplier includes overhead and profit. This multiplier includes fringe benefits, payroll bonuses, autos and other perks, telecommunications, facsimile services, overhead expenses including but not limited to local and long distance telephone, parking, delivery/courier, general business and professional liability insurance, advertising costs, postage, leasing of office equipment, information technology (including computer time and CAD services and other related highly specialized equipment), all other direct costs not identified as reimbursable, other indirect costs (support staff such as legal, accounting, officers, computer) and profits..
- C. City shall pay Contractor for the actual amount of work performed for each task as identified in the attached spreadsheet labeled Fulton Pump Station Replacement (attached as Exhibit A). The Contractor shall not exceed the individual task cost without prior written approval of the Portland Water Bureau (PWB) project manager. Contractor shall be paid the not to exceed total amount of \$1,413,741 for the project.
- D. Each year the contract is in force, hourly rates may be adjusted annually to an amount not to exceed the average inflation rate for the Portland Metropolitan Area as determined from the US Department of Labor statistics and certified by the City of Portland Auditor. Other than the impact of inflation as described above, compensation rates may not be increased. Increases to labor rates shall not increase the not-to-exceed amount of \$1,413,741.
- E. Compensation for subcontractors shall be limited to the same restrictions imposed on the Contractor. The maximum markup on subcontractor services shall not exceed 5%.

PAYMENT SCHEDULE AND REPORTING

On or before the 15th of each month, the Contractor shall submit to the Water Bureau's Accounts Payable an invoice for work performed by the Contractor during the preceding month. The invoice shall contain the City's Contract Number and set out all items for payment including, but not limited to: the name of the individual, labor category, direct labor rate, hours worked during the period, tasks performed, and the percentage of work successfully completed for each task. The Contractor shall also attach photocopies of claimed reimbursable expenses. The City's Project Manager shall stamp and approve all subconsultant invoices and note on the subconsultant invoice what they are approving as "billable" under the contract. The billing from the prime should clearly roll up labor and reimbursable costs for the prime and subconsultants – matching the subconsultant invoices. Prior to initial billing,

the Contractor shall develop a billing format for approval by the City. Invoices shall either be e-mailed to: wb.accountspayablesection@ci.portland.or.us (this is the preferred method)

or sent to:

City of Portland Water Bureau
Attn: Portland Water Bureau Accounts Payable
1120 SW 5th Avenue, Room 609
Portland, OR 97204

The City shall pay all amounts to which no dispute exists within 30 days of receipt of the invoice. Payment of any bill, however, does not preclude the City from later determining that an error in payment was made and from withholding the disputed sum from the next progress payment until the dispute is resolved.

The Contractor shall make full payment to its subcontractors within 10 business days following receipt of any payment made by the Bureau to Contractor.

INDEPENDENT CONTRACTOR CERTIFICATION STATEMENT

SECTION A

CONTRACTOR CERTIFICATION I, undersigned, am authorized to act on behalf of entity designated below, hereby certify that entity has current Workers' Compensation Insurance.

Contractor Signature *Juanita Helton* Date 7/13/10 Entity Murray, Smith & Associates, Inc.

If entity does not have Workers' Compensation Insurance, City Project Manager and Contractor complete the remainder of this form.

SECTION B

ORS 670.600 Independent contractor standards. As used in various provisions of ORS Chapters 316, 656, 657, and 701, an individual or business entity that performs labor or services for remuneration shall be considered to perform the labor or services as an "independent contractor" if the standards of this section are met. The contracted work meets the following standards:

1. The individual or business entity providing the labor or services is free from direction and control over the means and manner of providing the labor or services, subject only to the right of the person for whom the labor or services are provided to specify the desired results;
2. The individual or business entity providing labor or services is responsible for obtaining all assumed business registrations or professional occupation licenses required by state law or local government ordinances for the individual or business entity to conduct the business;
3. The individual or business entity providing labor or services furnishes the tools or equipment necessary for performance of the contracted labor or services;
4. The individual or business entity providing labor or services has the authority to hire and fire employees to perform the labor or services;
5. Payment for the labor or services is made upon completion of the performance of specific portions of the project or is made on the basis of an annual or periodic retainer.

City Project Manager Signature

Date

SECTION C

Independent contractor certifies he/she meets the following standards:

1. The individual or business entity providing labor or services is registered under ORS Chapter 701, if the individual or business entity provides labor or services for which such registration is required;
2. Federal and state income tax returns in the name of the business or a business Schedule C or form Schedule F as part of the personal income tax return were filed for the previous year if the individual or business entity performed labor or services as an independent contractor in the previous year; and
3. The individual or business entity represents to the public that the labor or services are to be provided by an independently established business. Except when an individual or business entity files a Schedule F as part of the personal income tax returns and the individual or business entity performs farm labor or services that are reportable on Schedule C, an individual or business entity is considered to be engaged in an independently established business when four or more of the following circumstances exist. Contractor check four or more of the following:
 - ____ A. The labor or services are primarily carried out at a location that is separate from the residence of an individual who performs the labor or services, or are primarily carried out in a specific portion of the residence, which portion is set aside as the location of the business;
 - ____ B. Commercial advertising or business cards as is customary in operating similar businesses are purchased for the business, or the individual or business entity has a trade association membership;
 - ____ C. Telephone listing and service are used for the business that is separate from the personal residence listing and service used by an individual who performs the labor or services;
 - ____ D. Labor or services are performed only pursuant to written contracts;
 - ____ E. Labor or services are performed for two or more different persons within a period of one year; or
 - ____ F. The individual or business entity assumes financial responsibility for defective workmanship or for service not provided as evidenced by the ownership of performance bonds, warranties, errors and omission insurance or liability insurance relating to the labor or services to be provided.

Contractor Signature

Date

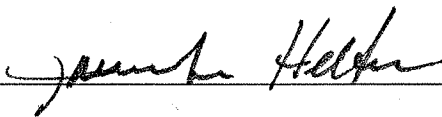
CONTRACTOR SIGNATURE:

This contract may be signed in two (2) or more counterparts, each of which shall be deemed an original, and which, when taken together, shall constitute one and the same Agreement.

The parties agree the City and Contractor may conduct this transaction, including any contract amendments, by electronic means, including the use of electronic signatures.

I, the undersigned, agree to perform work outlined in this contract in accordance to the STANDARD CONTRACT PROVISIONS, the terms and conditions, made part of this contract by reference, and the STATEMENT OF THE WORK made part of this contract by reference; hereby certify under penalty of perjury that I/my business am not/is not in violation of any Oregon tax laws; hereby certify that my business is certified as an Equal Employment Opportunity Affirmative Action Employer and is in compliance with the Equal Benefits Program as prescribed by Chapter 3.100 of Code of the City of Portland; and hereby certify I am an independent contractor as defined in ORS 670.600.

Murray, Smith & Associates, Inc.

BY:  Date: 7/13/10

Name: James L. Helton

Title: Senior Vice President

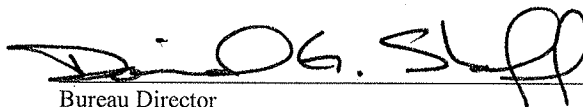
184103

Contract No. 30001492

Contract Title: Fulton Pump Station Replacement

CITY OF PORTLAND SIGNATURES:

By:


Bureau Director

Date: 08.09.2010

By:

Chief Procurement Officer

Date: _____

By:

Elected Official

Date: _____

Approved:

By:

Office of City Auditor

Date: _____

Approved as to Form:

By:

APPROVED AS TO FORM
Office of City Attorney

Date: 7/16/10


CITY ATTORNEY