

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

CONTRACT NUMBER _____

**TITLE OF WORK PROJECT
Riverview Forcemain Replacement Project**

This contract is between the City of Portland ("City," or "Bureau") and Parametrix, Inc. ("Consultant" or "Parametrix"). The City's Project Manager for this contract is Brenda Sherwood, P.E.

Effective Date and Duration

This contract shall become effective on August 1, 2013. This contract shall expire, unless otherwise terminated or extended, on December 30, 2016.

Consideration

- (a) City agrees to pay Consultant a sum not to exceed \$268,095 for accomplishment of the work.
- (b) Interim payments shall be made to Consultant according to the schedule identified in the STATEMENT OF THE WORK AND PAYMENT SCHEDULE.

CONSULTANT DATA AND CERTIFICATION

Name (print full legal name): Parametrix, Inc.

Address: 700 NE Multnomah, Suite 1000, Portland, OR 97232

Employer Identification Number (EIN): _____

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

City of Portland Business Tax Registration Number: 380691

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.

TERMS AND CONDITIONS

1. Standard of Care

Consultant shall perform all services under this contract using that care, skill, and diligence that would ordinarily be used by similar professionals in this community in similar circumstances.

2. Effect of Expiration

Passage of the contract expiration date 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 corrected.

3. Order of Precedence

This contract consists of these Terms and Conditions, the Statement of Work and Payment Schedule, and any exhibits that are attached. Any apparent or alleged conflict between these items will be resolved by using the following order of precedence: a) these Terms and Conditions; b) Statement of Work and Payment Schedule; and c) any exhibits attached to the contract.

4. Early Termination of Contract

- (a) The City may terminate this Contract for convenience at any time for any reason deemed appropriate in its sole discretion. Termination is effective immediately upon notice of termination given by the City.
- (b) Either party may terminate this Contract in the event of a material breach by the other party that is not cured. Before termination is permitted, the party seeking termination shall give the other party written notice of the breach, its intent to terminate, and fifteen (15) calendar days to cure the breach. If the breach is not cured within 15 days, the party seeking termination may terminate immediately by giving written notice that the Contract is terminated.

5. Remedies and Payment on Early Termination

- (a) If the City terminates pursuant to 4(a) above, the City shall pay the Consultant for work performed in accordance with the Contract prior to the termination date. No other costs or loss of anticipated profits shall be paid.

- (b) If the City terminates pursuant to 4(b) above, the City is entitled all remedies available at law or equity. In addition, Consultant shall pay the City all damages, costs, and sums incurred by the City as a result of the breach.
- (c) If the Consultant justifiably terminates the contract pursuant to subsection 4(b), the Consultant's only remedy is payment for work prior to the termination. No other costs or loss of anticipated profits shall be paid.
- (d) If the City's termination under Section 4(b) was wrongful, the termination shall be automatically converted to one for convenience and the Consultant shall be paid as if the Contract was terminated under Section 4(a).
- (e) In the event of early termination the Consultant's work product before the date of termination becomes property of the City.

6. Assignment

Consultant 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 subconsultant, the Consultant shall remain obligated for full performance hereunder, and the City shall incur no obligation other than its obligations to the Consultant hereunder. The Consultant agrees that if subconsultants are employed in the performance of this Agreement, the Consultant and its subconsultants are subject to the requirements and sanctions of ORS Chapter 656, Workers' Compensation.

7. Compliance with Applicable Law

Consultant shall comply with all applicable federal, state, and local laws and regulations. Consultant agrees it currently is in compliance with all tax laws.

8. Indemnification for Property Damage and Personal Injury

Consultant shall indemnify, defend, and hold harmless the City, its officers, agents, and employees, from all claims, losses, damages, and costs (including reasonable attorney fees) for personal injury and property damage arising out of the intentional or negligent acts or omissions of the Consultant, its Subconsultants, suppliers, employees or agents in the performance of its services. Nothing in this paragraph requires the Consultant or its insurer to indemnify the City for claims of personal injury or property damage caused by the negligence of the City. This duty shall survive the expiration or termination of this contract.

9. Insurance

Consultant shall obtain and maintain in full force at Consultant expense, throughout the duration of the Contract and any warranty or extension periods, the required insurance identified below. The City reserves the right to require additional insurance coverage as required by statutory or legal changes to the maximum liability that may be imposed on Oregon cities during the term of the Contract.

- (a) Workers' compensation insurance as required by ORS Chapter 656 and as it may be amended. Unless exempt under ORS Chapter 656, the Consultant and all subconsultants shall maintain coverage for all subject workers.

☒ Required and attached or ☐ Proof of exemption (i.e., completion of Workers' Compensation Insurance Statement)

- (b) General commercial liability (CGL) insurance covering bodily injury, personal injury, property damage, including coverage for independent contractor's protection (required if any work will be subcontracted), premises/operations, contractual liability, products and completed operations, in per occurrence limit of not less than \$1,000,000, and aggregate limit of not less than \$2,000,000.

☒ Required and attached or ☐ waived by Bureau Director or designee

- (c) Automobile liability insurance with coverage of not less than \$1,000,000 each accident, and an umbrella or excess liability coverage of \$2,000,000. The insurance shall include coverage for any auto or all owned, scheduled, hired and non-owned auto. This coverage may be combined with the commercial general liability insurance policy.

☒ Required and attached or ☐ waived by Bureau Director or designee

- (d) Professional Liability and/or Errors & Omissions insurance to cover damages caused by negligent acts, errors or omissions related to the professional services, and performance of duties and responsibilities of the Consultant under this contract in an amount with a combined single limit of not less than \$1,000,000 per occurrence and aggregate of \$3,000,000 for all claims per occurrence. In lieu of an occurrence based policy, Consultant may have claims-made policy in an amount not less than \$1,000,000 per claim and \$3,000,000 annual aggregate, if the Consultant obtains an extended reporting period or tail coverage for not less than three (3) years following the termination or expiration of the Contract, provided such coverage is available and economically feasible.

☒ Required and attached (See SPECIAL PROVISIONS below) or ☐ waived by Bureau Director or designee

Continuous Coverage; Notice of Cancellation: The Consultant agrees to maintain continuous, uninterrupted coverage for the duration of the Contract. There shall be no termination, cancellation, material change, potential exhaustion of aggregate limits or non renewal of coverage without thirty (30) days written notice from Consultant to the City. If the insurance is canceled or terminated prior to completion of the Contract, Consultant shall immediately notify the City and provide a new policy with the same terms. Any failure to comply with this clause shall constitute a material breach of Contract and shall be grounds for immediate termination of this Contract.

Additional Insured: The liability insurance coverages, except Professional Liability, Errors and Omissions, or Workers' Compensation, shall be without prejudice to coverage otherwise existing, and shall name the City of Portland and its bureaus/divisions, officers, agents and employees as Additional Insureds, with respect to the Consultant's activities to be performed, or products or services to be provided. Coverage shall be primary and non-contributory with any other insurance and self-insurance. Notwithstanding the naming of additional insureds, the insurance shall protect each additional insured in the same manner as though a separate policy had been issued to each, but nothing herein shall operate to increase the insurer's liability as set forth elsewhere in the policy beyond the amount or amounts for which the insurer would have been liable if only one person or interest had been named as insured.

Certificate(s) of Insurance: Consultant shall provide proof of insurance through acceptable certificate(s) of insurance, including additional insured endorsement form(s) and all other relevant endorsements, to the City prior to the award of the Contract if required by the procurement documents (e.g., request for proposal), or at execution of Contract and prior to any commencement of work or delivery of goods or services under the Contract. The Certificate(s) will specify all of the parties who are endorsed on the policy as Additional Insureds (or Loss Payees). Insurance coverages required under this Contract shall be obtained from insurance companies acceptable to the City of Portland. The Consultant shall pay for all deductibles and premium. The City reserves the right to require, at any time, complete, certified copies of required insurance policies, including endorsements evidencing the coverage the required.

Subconsultant(s): Upon City's request, Consultant shall provide evidence that any subconsultant performing work or providing goods or service under the Contract has the appropriate types and amounts of required insurance coverages or that the subconsultant is included under Consultant's policy.

10. Ownership of Work Product

All work product produced by the Consultant under this contract is the exclusive property of the City. "Work Product" includes, but is not limited to: research, reports, computer programs, manuals, drawings, recordings, photographs, artwork and any data or information in any form. The Consultant 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 Consultant 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. Consultant shall obtain such interests and execute all documents necessary to fully vest such rights in the City. Consultant 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 Consultant is an architect, the Work Product is the property of the Consultant-Architect, and by execution of this contract, the Consultant-Architect grants the City an exclusive and irrevocable license to use that Work Product.

Notwithstanding the above, all pre-existing trademarks, services marks, patents, copyrights, trade secrets, and other proprietary rights of Consultant are and will remain the exclusive property of Consultant.

11. EEO Certification

In the event Consultant provides in excess of \$2,500.00 for services to the City in any fiscal year, Consultant shall obtain EEO certification from the City.

12. Equal Benefits

Consultant must comply with the City's Equal Benefits program as prescribed by Chapter 3.100 of the Code of the City of Portland. The required documentation must be filed with Procurement Services, City of Portland, prior to contract execution.

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 Consultant shall promptly perform such additional services as may be necessary to correct errors in the services required by this contract without undue delays and without additional cost.

17. Governing Law/Venue

The provisions of this contract shall be interpreted, construed and enforced in accordance with, and governed by, the laws of the State of Oregon without reference to its conflict of laws provisions that might otherwise require the application of the law of any other jurisdiction. 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 Chief Procurement Officer 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 Tax Registration

The Consultant shall obtain a City of Portland business tax registration number as required by PCC 7.02 prior to beginning work under this Contract.

20. Prohibited Conduct

The Consultant shall not hire any City employee who evaluated the proposals or authorized the award of this Contract for two years after the date the contract was authorized without the express written permission of the City and provided the hiring is permitted by state law.

21. Payment to Vendors and Subconsultants

The Consultant shall timely pay all subconsultants and suppliers providing services or goods for this Contract.

22. Access to Records

The Consultant shall maintain all records relating to this Contract for three (3) years after final payment. The City may examine, audit and copy the Consultant's books, documents, papers, and records relating to this contract at any time during this period upon reasonable notice. Copies of these records shall be made available upon request. Payment for the reasonable cost of requested copies shall be made by the City.

23. Audits

(a) The City 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 paragraph 22. 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 Government Accountability Office.

(b) If an audit discloses that payments to the Consultant exceed the amount to which the Consultant was entitled, the Consultant shall repay the amount of the excess to the City.

24. Electronic Signatures

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

25. Merger Clause

This Contract encompasses the entire agreement of the parties, and supersedes all previous understandings and agreements between the parties, whether verbal or written.

26. Dispute Resolution/Work regardless of disputes

The parties shall participate in mediation to resolve disputes before conducting litigation. The mediation shall occur at a reasonable time after the conclusion of the Contract with a mediator jointly selected by the parties. Notwithstanding any dispute under this Contract, the Consultant shall continue to perform its work pending resolution of a dispute, and the City shall make payments as required by the Contract for undisputed portions of the work. In the event of litigation no attorney fees are recoverable. No different dispute resolution paragraph(s) in this contract or any attachment hereto shall supersede or take precedence over this provision.

27. Progress Reports: / X / Applicable / ___ / Not Applicable

If applicable, the Consultant shall provide monthly progress reports to the Project Manager as described in the Statement of the Work and Payment Schedule.

28. Consultant's Personnel: / X / Applicable / ___ / Not Applicable

If applicable, the Consultant shall assign the personnel listed in the Statement of the Work and Payment Schedule for the work required by the Contract and shall not change personnel without the prior written consent of the City, which shall not be unreasonably withheld.

29. Subconsultants

The Consultant shall use the subconsultants identified in its proposals. The Consultant shall not change subconsultant assignments without the prior written consent of the Chief Procurement Officer. Failure to use the identified M/W/ESB subconsultants without prior written consent is a material breach of contract.

30. Third Party Beneficiaries

There are no third party beneficiaries to this contract. Enforcement of this contract is reserved to the parties.

SPECIAL PROVISIONS

1. Professional Liability Insurance

Paragraph 9, Insurance, subparagraph (d) is revised as follows:

(d) Professional Liability and/or Errors & Omissions insurance to cover damages caused by negligent acts, errors or omissions related to the professional services, and performance of duties and responsibilities of the Consultant under this contract in an amount with a combined single limit of not less than \$1,000,000 per occurrence and aggregate of ~~\$3,000,000~~ \$2,000,000 for all claims per occurrence. In lieu of an occurrence based policy, Consultant may have claims-made policy in an amount not less than \$1,000,000 per claim and ~~\$3,000,000~~ \$2,000,000 annual aggregate, if the Consultant obtains an extended reporting period or tail coverage for not less than three (3) years following the termination or expiration of the Contract, provided such coverage is available and economically feasible.

STATEMENT OF THE WORK AND PAYMENT SCHEDULE

SCOPE OF WORK

PHASE 1 – PRELIMINARY WORK

TASK 110 – KICKOFF MEETING

Collect background, survey, and review scope of work. Review schedule for force main location verification, geotechnical, hazardous material corridor survey, 30% design submittal, and overall project schedule.

Assumptions:

- Kickoff meeting will be attended by two Parametrix staff.

TASK 120 – GEOTECHNICAL

Geotechnics will explore soil and groundwater conditions along the proposed open-cut pipeline alignment. Shallow borings will be drilled along the alignment.

The following subtasks will be performed:

- Obtain and review existing available subsurface soil and groundwater information, geologic and hazard maps and other information pertinent to the alignment.
- Field preparation for highway drilling including site reconnaissance, ODOT permitting, traffic control plans and subcontract, and coordination of utility clearance via the required One-Call service.
- Explore subsurface soil and groundwater conditions by drilling borings located in the travel lanes or shoulder of Highway 43.
- For each boring, obtain samples at representative intervals, observe groundwater conditions, perform Standard Penetration Testing, and maintain detailed logs. Perform laboratory tests on selected soil samples obtained from the explorations to evaluate pertinent engineering characteristics.
- Prepare a geotechnical report including descriptions of surface and subsurface conditions and a site plan showing exploration locations and other pertinent features. Boring logs and laboratory test results will be included. We will present geotechnical engineering recommendations related to excavation, trench shoring, groundwater dewatering, backfill compaction requirements, fill materials, and potential for rock.
- Geotechnical construction monitoring services. Field observation and documentation of construction in accordance with geotechnical recommendations and approved plans and specifications. Final letter of Special Inspections services if required. We have assumed 12 hours for this task.

Assumptions:

- Will drill 6 borings to depths of 16 feet or practical refusal.
- Geotechnics will subcontract the drilling to Geodyne, Inc. and traffic control services to D & H Flagging.

Deliverables:

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- One unbound and three bound copies of geotechnical report and a CD containing electronic file in Adobe Acrobat format.

TASK 130 – FORCE MAIN LOCATION VERIFICATION

The location of the existing force main is not well documented on the 1963 drawings. It is very important to maintain the existing force main in continuous service during construction. Thus, refining the location of the existing force main is necessary for the successful completion of the design and construction.

The intent of the work is to verify and mark the location of the existing 8-inch cast iron force main from the pump station south approximately 3,000 feet. The marks would then be incorporated into the topographic survey by City staff when they survey the pipeline alignment.

Parametrix will coordinate with Applied Professional Services (APS), provide survey data of existing utilities, coordinate with ODOT for permit, review initial locate results to finalize potholing, and participate in three field meetings with APS during their work.

An overview of the work by (APS) is presented below. Details of APS's proposal can be provided upon request in a separate attachment.

APS recommends a mix and combination of approaches to most accurately find and locate the pipeline. In all cases, the pipeline will be marked with a permanent pavement marking that can be picked up by surveyors:

- Conductible Locating. Use a radio frequency to induce a signal in pipeline from access points at each end.
- Non-conductible locating. Access the pipeline at each end and use crawler tractors, rush rods, sondes (self-contained locator transmitters), and locatable cameras to locate the pipeline from each end using a passive transmitter. These are limited to length of approximately 1,000 feet from each end.
- Air vacuum excavation. This is for two days of potholing crew with an air/vacuum excavator that provides information on the pipeline depth at 6 to 8 locations. Pavement restoration with select backfill and cold mix asphalt patching. Other backfill and pavement restoration methods are available.
- Ground penetrating radar (GPR) scan and sweep.

Assumptions:

- APS will conduct conductible, nonconductible, and GPR on one day and potholing on two subsequent days. D&H Flagging will provide three days of flagging and traffic control plans for permit.
- City will provide surveying of the pavement marking of the force main location.
- ODOT District 2B personnel will prepare the permit with information and input provided by Parametrix.

Deliverables:

- Pavement marking of location of existing force main at 50-foot intervals and selected depth data.

TASK 140 – HAZARDOUS MATERIAL CORRIDOR STUDY

The purpose of the hazardous material corridor survey will be to identify and evaluate known or potentially contaminated sites along the entire length of the project corridor that: 1) may have impacted or has the potential to impact environmental conditions in the project corridor, 2) create significant construction impacts, and/or 3) may represent potential cleanup liability if disturbed. The survey is intended to provide an appropriate level of documentation and analysis necessary to allow informed decisions regarding early identification of potential issues.

There are four subtasks included in the Hazardous Materials Corridor Survey, an environmental records review, a historical data review, a site reconnaissance and interviews, and preparation of a report. Details of these subtasks are described as follows:

Subtask 141 – Environmental Records Review

The objective of the records review is to obtain and review public records that will help to identify Recognized Environmental Conditions (RECs) in connection to the project corridor. Parametrix will identify and evaluate potential RECs through the review of reasonably ascertainable state and federal public agency computer databases (searched and compiled by EDR Inc. of Milford, Connecticut). Databases to be reviewed include those at the Oregon Department of Environmental Quality (DEQ) and the United States Environmental Protection Agency (EPA). In addition, local agencies databases (health department, fire marshal's office, local planning and zoning agencies, building permits, Oregon Water Resources) may be reviewed to evaluate any environmental concerns in connection with the project corridor.

Subtask 142 – Historical Data Review

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The objective of the historical data review is to develop a history of the previous uses along the project corridor and surrounding area that help to identify the likelihood of past uses having led to RECs in connection with the subject property. Parametrix will research the historic land use, occupancy, and ownership of the subject property and adjacent properties to evaluate historic uses that are known to be associated with RECs. Historic records to be reviewed may include aerial photographs, Sanborn Fire Insurance Maps, Local Street Directories, Zoning/ Land Use Records, Building Department Records, or prior environmental assessments.

Subtask 143 – Site Reconnaissance

The objective of the site reconnaissance is to obtain information indicating the likelihood of identifying RECs in connection with the project corridor. This task includes a physical walk-through of the project corridor with emphasis on identification of the presence and handling of hazardous substances. Particular attention will be paid to locations in the project corridor that were identified in one of the aforementioned databases as being the location of a spill or a structure connected with the use or storage of hazardous materials. A cursory review of immediately adjacent properties, which may pose an environmental concern to the subject property, may also be completed.

Subtask 144 – Reporting

The findings of the Hazardous Materials Corridor Survey will be summarized and documented in a technical memorandum. Parametrix will prepare and submit one electronic copy of the Draft Technical Memorandum for City review, flag any significant areas of concern, and respond to and incorporate any suggested revisions in the final technical memorandum.

Assumptions:

- Hazardous Materials Corridor Survey will focus on Highway 43 in Portland, Oregon beginning approximately 800 feet north of the intersection with SW Radcliffe Court continuing approximately 3,000 feet south to SW Riverwood Road.
- No title reports on properties will be obtained, unless they are included in the EDR research.
- No soil, water, air or other environmental or other sampling will be conducted.
- Records review will be limited to RECs obtainable by EDR, Inc.
- Historic records to be reviewed might include Sanborn Fire Maps, and historic aerial photographs, as readily available through computer and internet databases.
- The corridor screening does not constitute a Level I Environmental Assessment.
- Preparation of a contaminated media management plan is not included.

Deliverables:

- A draft copy of the technical memorandum submitted to City electronically by email.
 - The technical memorandum will include a summary of the regulatory environmental database review, historical land use review, site visit, data evaluation, conclusions, and recommendations.
 - The Technical Memorandum will also include a preliminary estimate of the cost to further address environmental issues, if identified.
- Three (3) paper copies and one electronic copy of the Final Technical Memorandum.

TASK 150 – PERMIT ASSISTANCE, AGENCY APPROVALS, AND PROPERTY NEEDS

Contact ODOT, BDS, and DEQ during the design to confirm permit requirements. At 90 percent completion stage, submit design documents to ODEQ for review. Coordinate with ODEQ on any comments.

Review city furnished survey related to right of way and proposed pipeline alignment. Identify any needed easements and property owners.

Coordinate with ODOT on temporary road closure and timing, temporary and permanent pavement restoration, traffic control conditions, hanging the pipeline on the bridge, and other permit requirements. Prepare and obtain a "Permit to Occupy or Perform Operations Upon a State Highway" from ODOT District 2B permit personnel. The permit will address the following:

- Description of Work Zone Area.
- Work Schedule and timeline of construction activities.
- Traffic Control Plan (including ODOT standard drawings).

- Details for pipeline attachment to structure.

Assumptions:

- Right of way will be based on city furnished survey. Property ownership will be based on data available on Portland Maps. The city will contact property owners.
- The new force main will be located within the public right-of-way. City will coordinate and obtain rights-of-entry, legal property descriptions, and new easements, if needed.
- Bid set plan sheets will be utilized as permit exhibits. No additional figures or drawings will be needed.
- Attendance at two (2) permit coordination meeting for two (2) Parametrix staff.
- Load rating of existing bridge structure will be conducted in another task.
- Based on previous contacts during predesign tasks, no Bureau of Development Services or Site Development Department permits are needed (provided force main does not enter Environmental Zone and stays within public right-of-way).
- No creek crossings are needed. The proposed design will not enter wetlands or property requiring natural resource agency permitting.
- Because work will be within the public right-of-way, less than one acre of area will be disturbed by construction, and volume of water from construction dewatering activities will be minimal, a ODEQ 1200C permit is not anticipated.
- The City will pay all permit fees.
- Parametrix will prepare draft permit applications, which will be finalized by the City.

Deliverables:

- List, general description, and sketch(es) showing any property needs or easements for pipeline.
- Traffic Control plan sheets (as prepared in another task)
- Pipeline attachment detail sheets (as prepared in another task).
- Completed permit application "Permit to Occupy or Perform Operations Upon a State Highway."

PHASE 2 – DESIGN

TASK 210 – HYDRAULIC TRANSIENT ANALYSIS

A hydraulic transient or water hammer analysis would be performed using Flow Science modeling software to better protect the conveyance system from operating in a way that could damage the pump station or force main.

Hydraulic steady state conditions, along with the force main size and profile, are used for the transient analysis. Transient pressures can be caused by changes of flow in the force main such as a sudden valve closure, pump startup, or a power outage caused pump shutdown. High transient pressures will be analyzed to identify the range for force main operation within acceptable pressure limits of the pipe material. Low transient pressures are also analyzed to check for the formation of vapor cavities, which can cause very severe conditions when they collapse.

The hydraulic transient analysis will include the following:

- An analysis of high transient pressures in the system and recommendations to reduce the pressure, if necessary.
- An analysis of low transient pressures in the system and recommendations for protection at the pump station and along its force main.
- Identify locations (station number or distance from an intersection) of protection needed along the force main to minimize or mitigate transient caused damage.
- A technical memorandum summarizing the hydraulic transient analysis with recommendations.

Assumptions:

- The flows used in the transient analysis will be the flow range established in the steady state analysis completed previously during predesign.

- A preliminary transient analysis (model run) will be conducted using the pipeline alignment produced in the 60 percent design. The transient analysis will be refined and finalized with a second modeling run using the 90 percent design pipeline alignment.
- If the force main experiences the formation of vapor cavities from low transient pressures, the assumed recommended type of protection are air inlet or vacuum valves.
- The worst case scenario used in the analysis for high transient pressures is an across-the-line start of all available pumps.
- The worst case scenario used in the analysis for low transient pressures is a power outage shutdown with all available pumps running.
- Design of the protective measures are included in the design task.

Deliverables:

- A draft (concurrent with 60% pipeline design) technical memorandum summarizing the hydraulic transient analysis and any recommendations.
- A final (based on 90% pipeline design) technical memorandum summarizing the hydraulic transient analysis and any recommendations.

TASK 220 – LOAD RATING AND PIPE HANGER DESIGN FOR HIGHWAY 43 BRIDGE

Prepare bridge load rating analysis and design documents for public bidding for the construction of the proposed pipeline. Work consists of the following elements: evaluating the new pipeline effects on the existing bridge load rating, design of pipe supports for the 60 and 90 percent bid submittals, and conducting a re-load rating of the bridge, if required by ODOT. Details of these elements are described below:

- Contact the Region 1 ODOT bridge engineer to obtain available background data, existing maps, and engineering drawings, bridge record drawings, load ratings, and most recent inspection reports from ODOT. Confirm load limitations and design requirements to hang the new pipeline on the bridge.
- Review existing information of the bridge, bridge inspection reports, and load rating reports. Prepare preliminary sketches and locations of pipe hangers and provide data on pipe weight.
- Conduct a visit to meet with City and ODOT to review project objectives, and learn design preferences and observe the site and note conditions that may affect design.
- Calculate new bridge loads imposed by the pipeline and flexible expansion joints and evaluate the existing bridge for structural adequacy. Utilize current AASHTO and ODOT analysis methods and processes.
- Prepare preliminary technical memorandum summarizing the pipeline load effects on the existing structure.
- Discuss preliminary technical memo with ODOT Bridge Engineering section to determine if the bridge needs to be re-load rated because of the proposed pipeline. If the load rating is not warranted, a final technical memorandum will be prepared summarizing the analysis and results of the discussion with ODOT.
- Analyze operating loads to size the structural supports for the proposed pipeline crossing of the bridge. Design new pipe supports for the pipeline and two flexible expansion joints. Prepare support details for the 60 percent design submittal and finalize for 90 percent and bid submittals.
- Re-load rate the bridge (as required by ODOT) based upon the proposed pipeline and the most recent bridge inspection report and load rating analysis.
- Prepare a load rating report (as required by ODOT), signed and stamped by a Professional Engineer registered in the State of Oregon and submit to ODOT Bridge Engineering section.

TASK 230 – GENERAL, CIVIL, AND EROSION CONTROL

Work elements consist of the following:

- Review City survey on pipeline alignment and adjust to City standards/format needed for design.
- Conduct three site visits during progress of the design to observe and review conditions affecting the design.
- Prepare general drawings showing vicinity maps, abbreviations, and design criteria.
- Prepare layout sheets for plan/profile. Prepare plans and profiles for the proposed alignment.

- Identify locations for valves, air/vacuum relief, and appurtenances.
- Address site work, pavement removal/replacement, bridge approaches, ODOT required right-of-way improvements (if required), and restoration along the route. Include appropriate details.
- Prepare erosion control drawings in accordance with City of Portland standards.
- Prepare calculators for needed pipeline joint restraint.
- Conduct steady state hydraulics using the 90 % submittal pipeline alignment.
- Design surge protection system using appropriately sized air inlet and venting valves in vaults or manholes along pipeline within the right-of-way. The locations for surge design will be based on modeling completed for the 60 percent design alignment; final surge protection locations will use the 90 percent alignment.

TASK 240 – TRAFFIC CONTROL PLANS

Description: Develop a traffic control plan subject to City of Portland and ODOT approval. Produce plan drawings and specifications to guide the contractor in the requirements for maintenance of traffic during construction. The contractor is ultimately responsible for traffic control and safety of construction activities.

Prepare plans, specifications and cost estimates for traffic control along Oregon State Highway 43 where traffic impacts are likely. The traffic control plan will include the depiction of the following:

- Typical Work Zone area.
- Warning signs.
- Traffic delineation devices (barricades, traffic control devices, temporary striping, etc.).

The plan will be prepared at generally the same scale as the pipeline alignment plans. The traffic control plans will adhere to ODOT Traffic Control Plans Design Manual and the FHWA Manual on Uniform Traffic Control Devices (MUTCD), in particular Part 6 Temporary Traffic Control. Supplements to the MUTCD standards by ODOT will also be included.

The plan will provide sufficient information to the contractor and avoid unnecessary detail that could overly constrain the contractor. The traffic control plans will be generic traffic controls plan prepared to act as a menu selection for various traffic control scenarios. ODOT standard drawings will be referenced whenever applicable.

Traffic control specifications will be prepared in the project's specification format. Opinions of probable costs will be prepared using ODOT cost data for the applicable work items.

TASK 250 – DESIGN SUBMITTALS

Work elements consist of the following:

- Participate in six meetings with City staff on three project progress and coordination, and three to review with City their comments on 30, 60, and 90 percent submittals.
- Prepare design submittals at the 30 percent, 60 percent, 90 percent, and bid set completion stages. Prepare documents and graphics to support city public involvement efforts.
 - The 30 percent design will be plan view of the alignment based on survey data. Profile will not be fully developed. Intent is to identify how best to manage separation and crossings of existing utilities. The bridge crossing will be shown conceptually, but hanger details not developed.
 - 60 percent design includes draft specification table of contents, and draft specifications for pipe material, asphalt pavement, and earthwork (aggregate and backfill). Drawings will include standard details, and pipeline plan and profiles. Connection at the discharge manhole. Bridge crossing will be more fully developed and preliminary hanger details prepared.
 - Prepare written responses to City comments on the 30, 60, and 90 percent submittals. Attend review meetings with City staff after receipt of City comments for each of the three submittals.
 - 90 percent design includes completed drawings and specifications ready for final client and regulatory (ODOT and ODEQ) review.
 - The bid sets will be prepared based upon final review comments and be ready for public bidding.
 - Prepare opinion of probable construction cost with each submittal.

Assumptions for Design Tasks 210-250:

- Scope of work and budget is based on the pipeline alignment along the westernmost lane of Highway 43 as presented in the Section 2.3.3 and Figure 8 of the October 2012 Evaluation of Options for the Rehabilitation or Replacement of the Riverview Pump Station Force Main Technical Memorandum. The crossing of the Highway 43-bridge will be tailored to accommodate pre-stressed concrete girders and ODOT requirements. The crossing is expected to be similar to the description in Section 5.1.7 and shown in Figure 11 of the technical memorandum referenced above. A force-balanced expansion ball joint will be provided at each end of the pipeline on the bridge to reduce seismic affects and expansion considerations.
- The new pipeline would be constructed from the end of new work from the 2007 pump station upgrade through the discharge manhole ADL326 in Riverwood Road.
- City will have City of Portland surveyors conduct a survey of the west half of highway 43. The surveying will be as described in the scope of work and supporting attachments in the emails of October 8, 2012 to Brenda Sherwood.
- Submittal review and progress meetings will be conducted at City of Portland offices, attended by two Parametrix staff, and take one to two hours each.
- Bridge load rating services will be performed using the software program BRASS, and/or hand calculations as needed.
- All schematic drawings produced for the bridge load rating shall be full size (22 x 34), plotted on 11 x 17 for ODOT. If required by ODOT, these drawings will be produced using MicroStation V8 XM. The drawings will also will be converted to ACAD in City standards.
- For the bridge load rating, additional design standards, guidelines, requirements, and methodologies to be used are prescribed in the latest editions of the publications listed below:
 - Load and Resistance Factor Design (LRFD) Bridge Design Specifications, AASHTO 2010 fifth edition.
 - Bridge Design and Drafting Manual, ODOT 2004 with 2012 revisions
 - ODOT Load and Resistance Factor Rating (LRFR) Manual, ODOT 2012
- The pipeline will be constructed of 8-inch diameter ductile iron pipe. The new pipeline is sized for use with the existing pumps.
- A horizontal scale of 1"=20' is assumed for the pipeline plan and profile drawings.
- Specifications will be prepared using the Construction Specification Institute's three-part format: Part 1 – General, Part 2 – Products, Part 3 – Execution, using the six digit numbering format.
- Traffic control plans drawings will depict typical work zone scenarios of a few hundred feet, utilizing ODOT standard drawings when appropriate.
- This scope does not include traffic impact study "level" quantitative evaluation (level of service, intersection analysis, etc.).
- Drawings will be produced according to City of Portland CADD drafting standards.
- The City will provide the following components of the specifications:
 - Bidding Requirements – invitation, instruction, bid, bid bond
 - Contract Forms – agreement, performance bond, payment bond, and certificates
 - Contract Conditions – General conditions and supplementary conditions.
- For work in Highway 43, after the new pipe is installed and the trench backfilled, temporary asphalt pavement would be installed as the work progresses. Upon completion of the entire pipeline, the western most lane would be ground, and approximately 2 inches of new asphalt pavement installed.
- The new pipeline would be installed just east of the existing force main, in the most western lane. The new force main should be installed with a minimum of 3 feet of cover, making it more accessible for repairs and maintenance.
- City will conduct and provide any public involvement and public information programs. Parametrix will provide supporting graphics based on the current progress of the design.
- The anticipated drawing list for the 90 percent and bid set submittal are in Table 1 below under "Deliverables."

- Preliminary bridge load rating technical memorandum.
- Final bridge load rating technical memorandum (as needed) including a bridge load rating (as needed):
 - Three hard copies of the load rating report and supporting information bound in a labeled pressboard report cover with provisions for CD storage.
 - Load rating reports including a CD containing load rating electronic files (files shall be located under a directory whose name is the bridge number).
- Calculations for thrust restraint for pipeline (upon request) -
- The 30, 60, and 90 percent submittals will include one unbound copy of the half-size drawings, with level of detail as described above, and an opinion of probable construction cost for review. At the 60 and 90 percent submittals, one unbound copy of the specifications will also be submitted.
- A CD with an example ACAD drawing file will be submitted with the 30 and 60 percent submittals.
- A complete set of ACAD and pdf format drawing files and specifications in in Word format will be included on a CD in the 90 percent and bid set submittals.
- One half-size (11x17) set of reproducible drawings, one unbound set of full sized (22x34) drawings, and unbound technical specifications will be included in the bid set submittal. A final cost opinion will be included.

| Table 1 – Pipeline Drawing Sheet List – 90% and Bid Sets | |
|--|---|
| 1 | Vicinity & Location Maps, Index |
| 2 | Design Criteria, Legend, Abbreviations |
| 3 | Plan & Profile |
| 4 | Plan & Profile |
| 5 | Plan & Profile |
| 6 | Plan & Profile |
| 7 | Plan & Profile |
| 8 | Plan & Profile |
| 9 | Pipeline at Bridge |
| 10 | Pipeline Bridge Sections & Details |
| 11 | Pipeline Bridge Details |
| 12 | Trench and Restoration Details |
| 13 | Discharge Manhole, Pump Station Details |
| 14 | Standard Details |
| 15 | Erosion Control Notes and Details |
| 16 | Erosion Control Plans |
| 17 | Traffic Control Details and Notes |
| 18 | Traffic Control Details and Notes |

PHASE 3 – BIDDING AND CONSTRUCTION PHASE SERVICES

TASK 310 – BIDDING ASSISTANCE

Provide assistance to the City during bidding to include the following:

- Attend prebid conference.
- Respond to bidder's questions and requests for clarifications (through City)
- Assist City in preparation of addenda.
- Evaluate bids and assist City in preparation of bid tabulation.

Assumptions:

- The City will reproduce and distribute documents to potential bidders.
- There will be up to a five-week bidding period.
- After bid due date, approximately three months is needed for City to process contract and issue notice-to-proceed to contractor.

Deliverables:

- Written responses (email) to questions during bidding.
- Addenda (anticipate that Parametrix will prepare technical portions of addenda, City will prepare formal addenda document, and Parametrix will finalize and stamp).
- Comments on bids.

TASK 320 OFFICE ENGINEERING – SUBMITTALS, RFI/RFC, COORDINATION

This task includes the following elements:

- Review technical submittals and shop drawings submitted by the construction contractor, through City, for conformance with the contract documents.
- Return reviewed submittals via email, with appropriate written comments and with recommended action noted, to the City project manager.
- Coordinate with City on construction activities and design intent.
- Provide technical assistance in conjunction with design clarifications based on written requests in the form of Requests for Information (RFI) or Request for Clarification (RFC) from the construction contractor, handled through City.
- Assist with resolution of construction issues.
- Review pipeline pressure and compaction test results and make recommendations regarding acceptance.

TASK 330 – CONSTRUCTION PROGRESS MEETINGS AND SITE VISITS

This task includes the following elements:

- Participate in up to ten construction progress meetings at the construction site or another location as determined by the City construction manager (CM).
- Conduct BDS-required structural inspections and prepare reports documenting compliance.
- Concurrent with progress meetings held at the construction site, review construction progress to confirm conformance with the intent and requirements of the contract documents.
- Prepare a site visit report after each visit to the construction site and provide a copy to the City design project manager.

TASK 340 – CONSTRUCTION ENGINEERING

This task includes the following elements:

- Respond to Requests for Information (RFIs).
- Assist City with Design Clarifications (DCs), as requested.
- Conduct selected design work necessary to support change order proposals, as requested by City.
- Conduct design work required for proposed changes, as requested by City.
- Evaluate construction contractor proposed costs for change orders or prepare cost opinions for design changes as requested by City.
- Prepare supplementary sketches or drawings to change the design as requested by City.

TASK 350 – STARTUP ASSISTANCE AND O&M MANUAL

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This task includes the following elements:

- Participate and assist City, during the startup and testing of the replacement force main system.
- Prepare and submit one draft and one final narrative O&M Manual specific to the replacement force main system.

TASK 360 – RECORD DRAWINGS

This task includes the following elements:

- Prepare “as-built” record drawings conforming to construction contractor provided “mark-ups” of the design documents.
- Record drawing ACAD drafting will be performed by i-Ten (formerly ValueCAD) and Rivero Design as subconsultants to Parametrix.

Assumptions for Tasks 310-360:

- City will provide construction project management and administration, perform routine (daily) observation of construction progress, observe materials or equipment furnished by construction contractor for compliance with submittals and design, prepare daily construction observation reports, take construction progress photographs, conduct and attend weekly job progress meeting with the construction contractor, prepare meeting minutes, coordinate review of submittals, maintain construction related files, coordinate construction contractor’s requests for information, process change proposals, review and process construction contractor’s periodic payments and change orders, prepare “punch-list(s),” prepare all correspondence with construction contractor, and be the primary point of contact.
- City will maintain submittal files and review selected submittals.
- Parametrix staff will participate in ten meetings/site visits and six structural related special inspections. Time required for preparation, attendance, travel, and observation report is four hours each.
- City will conduct punch list inspections and prepare the punch list.
- City will prepare agendas, minutes, and run the meetings and coordinate with the construction contractor and appropriate agencies on attendance.
- Coordination with City assumes one-half hour per week for 14 weeks while awaiting on-site activities to begin and one hour per week for 38 weeks during on-site construction activities.
- Prepare responses in writing to up to 40 submittals (at 1.6 hours each) and 50 requests for information/clarification (at 1 hour each). Parametrix will not respond to direct requests for information from the construction contractor, his subcontractors, or his suppliers, either in writing or verbally.
- City will meet with the construction contractor regarding testing and start-up to review contractor’s test plan and schedule.
- City will consolidate test results and provide copies to Parametrix.
- City will prepare formal paperwork required for execution of any contract change orders.
- Allowance for engineering support for changes to design (Task 340) is 24 hours of engineering time and 16 hours of AutoCAD time.
- The City will provide any surveying during construction.
- One day of start-up assistance will be provided.
- City will provide and insert appropriate safety, city reference, and policy documents for O&M Manual.
- Parametrix will participate in two meetings for O&M, one to discuss content and a second to review City comments on the draft.
- Anticipated sections of the O&M Manual:
 - Introduction
 - Description of System
 - Operators – Normal and Emergency conditions
 - Maintenance

- Safety and Reference Documents
- Emergency Plans and Procedures Reference Documents
- Appendices: Test Reports, certifications, start-up data; Table of Contents of Contractors O&M data; and supplies contact information
- Record drawings will be prepared based upon one consolidated set of marked up drawings from the construction contractor. City will review a contractor submittal of "asbuilts" at 75% construction completion.
- Parametrix will participate in two meetings with City staff related to the record drawings: first to review initial contractor submittal and second to review the draft record drawings.
- Record drawing deliverables will meet City ACAD standards. Field verification will not be required. Final record drawings will not be stamped by PE.

Deliverables for Tasks 310 - 360:

- Technical aspects to support two addenda.
- Site visit reports delivered by email.
- Written responses delivered by email on construction contractor submittals and RFIs/RFCs.
- Supplementary sketches or drawings for design changes during construction.
- Field notes from start-up delivered by email.
- Draft O&M Manual in pdf format delivered by email.
- Final O&M Manual in Word and pdf formats on CD. Figures will be ACAD and/or pdf as required by City. Three hard copies in 3-ring binders.
- Record drawings: draft of complete set in 11"x17" size paper for City review, and one final set of drawings in 22"x34" size on vellum. A CD containing final set of drawings as ACAD and pdf files.

PHASE 4 – PROJECT MANAGEMENT AND QA/QC

TASK 410 – PROJECT MANAGEMENT

Coordinate efforts of team members; prepare scope of work and fee, the project specific work plan, monthly progress reports, review project billings, and conduct other administrative tasks. The Project Manager is Tom Nielsen.

Coordinate team members and subcontractors to develop define their task specific work plans. Prepare subcontracting agreements with the subconsultants. Coordinate work of subconsultants and process subconsultant billings. Prepare project correspondence (letters, memos, email, etc.) and maintain written and electronic files. Participate in approximately monthly status meetings with City staff.

Monthly progress reports will address work progress; significant findings and unresolved issues; action needed from City, Parametrix, and subconsultants; items and meetings scheduled for the next period(s); and list potential out-of-scope work/issues. Monthly invoices will include copies of sub-consultant invoices, and receipts to support any non-routine expenses.

Assumptions:

- The duration of design and bidding through contractor award is 14 months, with an additional 12 months for construction, total 26 months.
- Assume 24 status meetings, each taking one hour, including travel.

Deliverables:

- Monthly progress reports and invoices.
- Monthly Subconsultant Payment and Utilization Report (MUR)
- Subconsultant agreements.

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TASK 420 – QUALITY ASSURANCE/QUALITY CONTROL

The goal under this task is to provide quality Deliverables in conformance with the standards of our profession and expectations of the City through informal peer reviews and formal senior reviews.

Quality Assurance (QA) is verifying and documenting that the work and Quality Control (QC) reviews were performed. Quality Control consists of review of services and Deliverables to confirm they conform to applicable standards of care and contractual and regulatory requirements.

Parametrix will implement appropriate project QA/QC measures for quality, proper design documentation, and enable peer and senior staff review. The project QA/QC measures will include the following:

- Use informal peer checks by persons that have experience in the specialty area of work to allow a fresh perspective on achieving project objectives. Peer checks will include review of work in progress to identify potential alternative methods of performing the work.
- Provide formal QC reviews by a designated senior reviewer of project deliverables.

Assumptions:

- Deliverables will be as described under individual tasks.

Deliverables:

- Documentation of QC review of deliverables (upon request). Documentation may consist of mark-ups of reports, specifications, or drawings; email comments from reviewers; or hand written notes taken during receipt of verbal comments.

WORK PERFORMED BY THE CITY

The City has assigned a project manager to oversee Consultant's work and provide support as needed. Specific duties the City will perform include:

- a. Land Acquisition:
 - Acquire additional easement area and record legal documentation of changes to easement areas if required.
- b. Survey Services:
 - Provide topographical survey data to be used for field investigation and constructions.
 - Establish property lines from located monument, maps, and legal descriptions.
- c. Site Analysis:
 - Provide documentation of a Coordinated Site Analysis, which includes soils testing and hazardous materials survey.
- d. Obtain Building and Regulatory Permits for Construction:
 - City shall submit the final plans and specifications to Oregon DEQ for review and approval to construct the project. The Contract Documents shall require the construction contractor to be responsible for obtaining all other required City of Portland trade permits.
- e. Bidding and Contract Requirements:
 - City in coordination with Procurement Services will prepare the Bidding and Contract Requirements sections of the Contract Documents. City will also prepare the CSI Divisions 0 and 1 sections of the Contract Documents using the current 6-digit format.
- f. Printing of Documents:
 - City shall be responsible for advertising, printing and distributing the final set of bidding and contract requirements, detailed plans and technical specifications. City will also print and issue addenda.
- g. Bid Evaluation Report:
 - City shall evaluate all bids submitted and prepare a bid analysis and evaluation report.
- h. Construction Management:
 - City shall be responsible for the project construction management, field inspection, special inspections, record keeping, administration and coordination of contractors and subcontractors during the construction phase of the project.
- i. Owner-Furnished Data:
 - City shall provide technical data known by the City's project manager to be in the City's possession and related to the services required on this project. Bureau staff shall make available sufficient hours of staff personnel as is required to meet with the Consultant and provide such information as required.

CONSULTANT PERSONNEL

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

| NAME | ROLE ON PROJECT |
|----------------------|-----------------------|
| Thomas Nielsen, P.E. | Project Manager |
| Michael Pyszka, P.E. | Senior Civil Engineer |

SUBCONSULTANTS

The Consultant shall assign the following subconsultants to perform work in the capacities designated:

| NAME | ROLE ON PROJECT | SUBCONTRACT AMOUNT |
|---------------------------------------|---|--------------------|
| i-Ten Associates, Inc. | AutoCAD Drafting | \$15,365.00 |
| Rivero Design, LLC | AutoCAD Drafting | \$15,995.00 |
| Geotechnics LLC | Geotechnical Services | \$22,080.00 |
| Applied Professional Services | Locate Services for Existing Force Main | \$8,830.00 |
| D&H Flagging, Inc. | Traffic Control | \$2,600.00 |
| Construction Estimating Services, LLC | Cost Estimates | \$5,949.00 |

The City will enforce all social equity contracting and Minority, Women and Emerging Small Business (M/W/ESB) subcontracting commitments submitted by the Consultant in its Proposal. For contracts valued \$50,000 or more, the Consultant shall submit a Monthly Subconsultant Payment and Utilization Report (MUR), made part of this contract by reference, reporting ALL subconsultants employed in the performance of this agreement. An electronic copy of the MUR may be obtained at: <http://www.portlandoregon.gov/bibs/45475>.

COMPENSATION

The maximum that the Consultant can be paid on this contract is \$268,095 (hereafter the "not to exceed" amount.). The "not to exceed" amount includes all payments to be made pursuant to this contract, including reimbursable expenses, if any. Nothing in this contract requires the City to pay for work that does not meet the Standard of Care or other requirements of the Contract. The actual amount to be paid Consultant may be less than that amount.

The Consultant is entitled to receive progress payments for its work pursuant to the Contract as provided in more detail below. The City will pay Consultant based on these invoices for acceptable work performed and approved until the "not to exceed" amount is reached. Thereafter, Consultant must complete work based on the Contract without additional compensation unless there is a change to the scope of work.

Any estimate of the hours necessary to perform the work is not binding on the City. The Consultant remains responsible if the estimate proves to be incorrect. Exceeding the number of estimated hours of work does not impose any liability on the City for additional payment.

If work is completed before the "not to exceed" amount is reached, the Consultant's compensation will be based on the Consultant's bills previously submitted for acceptable work performed and approved.

PAYMENT TERMS: Net 30 Days**Hourly Billing Rates**

The billing rates shall include the following non-reimbursable expenses: fringe benefits, payroll bonuses, autos and other defined perquisites, 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, internal copying, lease of office equipment, mileage and other local travel costs, 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 and profit.

The billing rates shall not exceed those set forth below:

PARAMETRIX

2013 Min/Max Classification Rate Schedule (Actual rates will vary by individual staff). Rate will not exceed specific classification
Rates effective through September 30, 2014

| FIRM | | CLASSIFICATION/STAFF | | Billing Rate | |
|------|--|-----------------------------|-----------------------------|--------------|-----------|
| | | | | Min | Max |
| | | Sr Management | Principal | \$ 167.74 | \$ 289.23 |
| | | | Division Manager | \$ 124.22 | \$ 236.77 |
| | | Business Development | Sr Consultant | \$ 151.78 | \$ 261.69 |
| | | Engineering | Sr Engineer | \$ 112.38 | \$ 214.20 |
| | | | Engineer IV | \$ 101.68 | \$ 158.59 |
| | | | Engineer III | \$ 83.20 | \$ 143.47 |
| | | | Engineer II | \$ 74.87 | \$ 116.81 |
| | | | Engineer I | \$ 67.39 | \$ 105.13 |
| | | Science | Sr Scientist | \$ 112.38 | \$ 214.20 |
| | | | Scientist IV | \$ 101.68 | \$ 158.59 |
| | | | Scientist III | \$ 83.20 | \$ 143.47 |
| | | | Scientist II | \$ 74.87 | \$ 116.81 |
| | | | Scientist I | \$ 67.39 | \$ 105.13 |
| | | Hydrogeology | Sr Hydrogeologist | \$ 112.38 | \$ 214.20 |
| | | | Hydrogeologist IV | \$ 101.68 | \$ 158.59 |
| | | | Hydrogeologist III | \$ 83.20 | \$ 143.47 |
| | | | Hydrogeologist II | \$ 74.87 | \$ 116.81 |
| | | | Hydrogeologist I | \$ 67.39 | \$ 105.13 |
| | | Planning | Sr Planner | \$ 112.38 | \$ 214.20 |
| | | | Planner IV | \$ 101.68 | \$ 158.59 |
| | | | Planner III | \$ 83.20 | \$ 143.47 |
| | | | Planner II | \$ 74.87 | \$ 116.81 |
| | | | Planner I | \$ 67.39 | \$ 105.13 |
| | | CADD | CADD Services Manager | \$ 101.68 | \$ 158.59 |
| | | | CADD Operator III | \$ 74.87 | \$ 116.81 |
| | | | CADD Operator II | \$ 60.64 | \$ 94.62 |
| | | GIS | Sr GIS Analyst | \$ 74.87 | \$ 116.81 |
| | | | GIS Analyst | \$ 67.39 | \$ 105.13 |
| | | Administration | Sr Administrative Assistant | \$ 54.59 | \$ 94.62 |
| | | Word Processing | Technical Editor | \$ 67.39 | \$ 105.13 |
| | | | Word Processing Specialist | \$ 60.64 | \$ 94.62 |
| | | | Sr Word Processor | \$ 54.59 | \$ 85.15 |
| | | Technical Aides | Sr Project Coordinator | \$ 67.39 | \$ 105.13 |
| | | | Project Coordinator | \$ 60.64 | \$ 94.62 |
| | | Graphic Design | Sr Graphic Artist | \$ 67.39 | \$ 105.13 |
| | | | Graphic Artist | \$ 60.64 | \$ 94.62 |
| | | Finance | Sr Project Accountant | \$ 67.39 | \$ 116.81 |
| | | | Project Accountant | \$ 60.64 | \$ 94.62 |

| FIRM | CLASSIFICATION/STAFF | Billing Rate |
|----------------------------------|--|--------------|
| ITEN | Sr Project Manager | \$ 124.80 |
| | Project Manager | \$ 98.80 |
| | Sr GIS Analyst | \$ 98.80 |
| | GIS/CADD Analyst | \$ 78.00 |
| | GIS/CADD Technician | \$ 66.95 |
| D&H FLAGGING | Flagger (Straight Time Rate) | \$ 29.10 |
| | Flagger (Overtime Rate) | \$ 43.65 |
| | * Traffic Control Plans are \$225/site, and \$50/additional page (as required) | |
| GEOTECHNICS | Registered Professional Engineer | \$ 140.00 |
| | Field Technician | \$ 100.00 |
| | CAD/Graphics | \$ 80.00 |
| RIVERO DESIGN | Drafter | \$ 70.00 |
| CONSTRUCTION ESTIMATING SERVICES | Estimator | \$ 114.40 |

Note: APS rates not listed because they are providing a lump sum service.

Adjustment of Labor Rates Due to Inflation

Annual adjustment of hourly rates will be considered upon written request from the Consultant. Approval of a request for rate increases is solely within the City's discretion and under no circumstances is the City obligated to approve such a request. Approved rate increases must be made by written amendment to the contract.

Rate increases are subject to the following limitations:

- No increases will be granted before the one-year anniversary of the contract;
- No more than one increase shall be granted per contract year;
- Rate increases may not exceed the then-current average inflation rate for the Portland Metropolitan Area (as determined from the US Department of Labor statistics);
- Rate increases shall not be retroactive.

Other than the impact of inflation as described above, hourly rates may not be increased.

Reimbursable Costs

The following costs will be reimbursed without mark-up:

- Out-of-Town Travel. Travel (transportation, lodging and per diem) of Consultant and/or experts when specified in the contract or requested by City, directly attributed to specific tasks and when to a location outside a 100 mile radius of Consultant's project office. Travel costs will be reimbursed in accordance with the City's Travel Expense Guidelines which are based on the General Services Administration (GSA) per diem rates.
- Photocopying/Reproduction Costs for the reproduction of required drawings, reports, specifications, bidding documents.

Subconsultant Costs

Compensation for subconsultants shall be limited to the same restrictions imposed on the Consultant. The markup on subconsultant services shall not exceed 5%.

Progress Payments

On or before the 15th of each month, the Consultant shall submit to the City's Project Manager an invoice for work performed by the Consultant 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, and tasks performed. The Consultant shall also attach photocopies of claimed reimbursable expenses, if applicable. The Consultant 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 Consultant shall develop a billing format for approval by the City.

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 Consultant shall make full payment to its subconsultants within 10 business days following receipt of any payment made by the City to Consultant.

ACH Payments

It is the City's policy to pay its Consultant invoices via electronic funds transfers through the automated clearing house (ACH) network. To initiate payment of invoices, Consultants shall execute the City's standard ACH Vendor Payment Authorization Agreement which is available on the City's website at <http://www.portlandoregon.gov/bfs/article/409834?>

Upon verification of the data provided, the Payment Authorization Agreement will authorize the City to deposit payment for services rendered directly into Consultant accounts with financial institutions. All payments shall be in United States currency.

WORKERS' COMPENSATION INSURANCE STATEMENT

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IF YOUR FIRM HAS CURRENT WORKERS' COMPENSATION INSURANCE, CONTRACTOR MUST SIGN HERE:

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

Contractor Signature: _____ Date: _____ Entity: _____

IF YOUR FIRM DOES NOT HAVE CURRENT WORKERS' COMPENSATION INSURANCE, CONTRACTOR MUST COMPLETE THE FOLLOWING INDEPENDENT CONTRACTOR CERTIFICATION STATEMENT:

As an independent contractor, I certify that I meet 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

FOR CITY USE ONLY

PROJECT MANAGER-COMplete ONLY IF CONTRACTOR DOES NOT HAVE WORKER'S COMPENSATION INSURANCE

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

CONSULTANT 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 Consultant 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.

PARAMETRIX, INC.

BY: _____ Date: _____

Name: _____

Title: _____

CONTRACT NUMBER: _____

CONTRACT TITLE: Riverview Forcemain Replacement Project**CITY OF PORTLAND SIGNATURES:**

By: n/a Date: _____
Bureau Director

By: n/a Date: _____
Chief Procurement Officer

By: _____ Date: _____
Elected Official

Approved:

By: n/a Date: _____
Office of City Auditor

Approved as to Form:

By: _____ Date: _____
Office of City Attorney