

PROFESSIONAL SERVICES AGREEMENT
TRANSMISSION MAIN AND VALVE ASSESSMENT PROGRAM
City Project No. 222352

This Professional Services Agreement ("Agreement") is entered into and effective between CITY OF GLENDALE, an Arizona municipal corporation ("City") and Black and Veatch Corporation, a Delaware Corporation, authorized to do business in the State of Arizona, ("Consultant") as of the ____ day of _____, 2024 ("Effective Date").

RECITALS

- A. City intends to undertake a project for the benefit of the public and with public funds that is more fully set forth in **Exhibit A**, Scope of Work (the "SOW");
- B. City desires to retain the professional services of Consultant to develop, create, make, generate, supply, deliver, provide and/or perform the specific benefits, services, tasks, activities, expertise, etc. as set forth in the Scope of Work; and
- C. City and Consultant desire to memorialize their agreement with this document.

AGREEMENT

The parties hereby agree as follows:

1. Key Personnel; Other Consultants and Subcontractors.

- 1.1 Professional Services. Consultant will provide all Services necessary to assure all portions, tasks, activities and specifications of the SOW (the "Services") are completed timely and efficiently consistent with the SOW's requirements, including, but not limited to, working in close interaction and interfacing with City and its designated employees, and working closely with others, including other consultants or contractors, retained by City.
- 1.2 Project Team.
 - a. Project Manager.
 - (1) Consultant will designate an employee as Project Manager with sufficient training, knowledge, and experience to, in the City's opinion, complete the project and handle all aspects of the SOW such that the work produced by Consultant is consistent with applicable standards as detailed in this Agreement; and
 - (2) The City must approve the designated Project Manager.
 - b. Project Team.
 - (1) The Project Manager and all other employees assigned to the perform the SOW by Consultant will comprise the "Project Team."
 - (2) Project Manager will have responsibility for and will supervise all other employees assigned to the perform the SOW by Consultant.
 - c. Discharge, Reassign, Replacement.
 - (1) Consultant acknowledges the Project Team is comprised of the same persons and roles for each as may have been identified in **Exhibit A**.
 - (2) Consultant will not discharge, reassign, replace or diminish the responsibilities of any of the employees assigned to perform the SOW who have been approved by City without City's prior written consent unless that person leaves the employment of Consultant, in which event the substitute must first be approved in writing by City.

- (3) Consultant will change any of the members of the Project Team at the City's request if an employee's performance does not equal or exceed the level of competence that the City may reasonably expect of a person performing those duties, or if the acts or omissions of that person are detrimental to the completion of the SOW.

d. Subcontractors.

- (1) Consultant may engage specific technical contractors (each a "Subcontractor") to furnish certain Service.
- (2) Consultant will remain fully responsible for Subcontractor's Services.
- (3) Subcontractors must be approved by the City.
- (4) Consultant will certify by letter that all contracts with Subcontractors have been executed incorporating requirements and standards as set forth in this Agreement.

2. **Schedule.** The Services will be undertaken in a manner that ensures the SOW is completed on time and in a cost- efficient manner. The Services, including any interim milestones, shall be completed in accordance with the schedule contained in **Exhibit A**.

3. **Consultant's Work.**

3.1 Standard. Consultant must perform Services in accordance with the standards of due diligence, care, and quality prevailing among consultants having substantial experience with the successful furnishing of Services for projects that are equivalent in size, scope, quality, and other criteria under the SOW and identified in this Agreement.

3.2 Licensing. Consultant warrants that:

- a. Consultant and its Subconsultants or Subcontractors will hold all appropriate and required licenses, registrations and other approvals necessary for the lawful furnishing of Services ("Approvals"); and
- b. Neither Consultant nor any Subconsultant or Subcontractor has been debarred or otherwise legally excluded from contracting with any federal, state, or local governmental entity ("Debarment").
 - (1) City is under no obligation to ascertain or confirm the existence or issuance of any Approvals or Debarments, or to examine Consultant's contracting ability.
 - (2) Consultant must notify City immediately if any Approvals or Debarment changes during the Agreement's duration. The failure of the Consultant to notify City as required will constitute a material default under the Agreement.

3.3 Compliance.

- a. Services will be furnished in compliance with applicable federal, state, county and local statutes, rules, regulations, ordinances, building codes, life safety codes, and other standards and criteria designated by City.
- b. Consultant must not discriminate against any employee or applicant for employment on the basis of race, color, religion, sex, national origin, age, marital status, sexual orientation, gender identity or expression, genetic characteristics, familial status, U.S. military veteran status or any disability. Consultant will require any Sub-contractor to be bound to the same requirements as stated within this section. Consultant, and on behalf of any subcontractors, warrants compliance with this section.

3.4 Coordination; Interaction.

- a. For projects that the City believes requires the coordination of various professional services, Consultant will work in close consultation with City to proactively interact with any other professionals retained by City ("Coordinating Professionals").

- b. Consultant will meet to review the Services to be provided in the SOW, Schedule and in-progress work with Coordinating Professionals and City as often and for durations as City reasonably considers necessary in order to ensure the timely work delivery and SOW completion.
- c. For projects not involving Coordinating Professionals, Consultant will proactively interact with any other contractors when directed by City to obtain or disseminate timely information for the proper execution of the SOW.

3.5 Work Product.

- a. Ownership. Upon receipt of payment for Services furnished, Consultant grants to City, and will cause its Subconsultants or Subcontractors to grant to the City, the exclusive ownership of and all copyrights, if any, to evaluations, reports, drawings, specifications, project manuals, surveys, estimates, reviews, minutes, all "architectural work" as defined in the United States Copyright Act, 17 U.S.C § 101, *et seq.*, and other intellectual work product as may be applicable ("Work Product").
 - (1) This grant is effective whether the Work Product is on paper (e.g., a "hard copy"), in electronic format, or in some other form.
 - (2) Consultant warrants, and agrees to indemnify, hold harmless and defend City for, from and against any claim that any Work Product infringes on third-party proprietary interests.
- b. Delivery. Consultant will deliver to City copies of the preliminary and completed Work Product promptly as they are prepared.
- c. City Use.
 - (1) City may reuse the Work Product at its sole discretion.
 - (2) In the event the Work Product is used for another project without further consultations with Consultant, the City agrees to indemnify and hold Consultant harmless from any claim arising out of the Work Product.
 - (3) In such case, City will also remove any seal and title block from the Work Product.

4. **Compensation.**

- 4.1 Compensation. Consultant's compensation for the Services, including those furnished by its Subconsultants or Subcontractors will not exceed \$380,900 as specifically detailed in **Exhibit B** ("Compensation").
- 4.2 Change in Scope of Work. The Compensation may be equitably adjusted if the original SOW is significantly modified, but only as provided below.
 - a. Adjustments to the SOW, including adding any additional Services or any change in the amount of Compensation available hereunder, require a written amendment to this Agreement and may require City Council approval.
 - b. Additional services which are outside the scope of the original SOW contained in this Agreement may not be performed by the Consultant without prior written authorization from the City.
 - c. Notwithstanding the incorporation of the Exhibits to this Agreement by reference, should any conflict arise between the provisions of this Agreement and the provisions found in the Exhibits and accompanying attachments, the provisions of this Agreement shall take priority and govern the conduct of the parties.
- 4.3 Expenses. City will reimburse Consultant for certain out-of-pocket expenses necessarily incurred by Consultant in connection with this Agreement, without mark-up (the "Reimbursable Expenses"), including, but not limited to, document reproduction, materials for book preparation, postage,

courier and overnight delivery costs incurred with Federal Express or similar carriers, travel and car mileage, subject to the following:

- a. Mileage, airfare, lodging and other travel expenses will be reimbursable only to the extent these would, if incurred, be reimbursed to City of Glendale personnel under its policies and procedures for business travel expense reimbursement made available to Consultant for review prior to the Agreement's execution, and which policies and procedures will be furnished to Consultant;
- b. The Reimbursable Expenses in this section are approved in advance by City in writing; and
- c. The total of all Reimbursable Expenses paid to Consultant in connection with this Agreement will not exceed the "not to exceed" amount identified in Section 4.1 above.

5. **Billings and Payment.**

5.1 Applications.

- a. Consultant will submit monthly invoices (each, a "Payment Application") to City's Project Manager and City will remit payments based upon the Payment Application as stated below.
- b. The period covered by each Payment Application will be one calendar month ending on the last day of the month.

5.2 Payment.

- a. After a full and complete Payment Application is received, City will process and remit payment within 30 days.
- b. Payment may be subject to or conditioned upon City's receipt of:
 - (1) Completed work generated by Consultant and its Subconsultants and Subcontractors; and
 - (2) Unconditional waivers and releases on final payment from all Subconsultants and Subcontractors as City may reasonably request to assure the City will be free of claims arising from required performances under this Agreement.

5.3 Review and Withholding. City's Project Manager will timely review and certify Payment Applications.

- a. If the Payment Application is rejected, the Project Manager will issue a written listing of the items not approved for payment.
- b. City may withhold an amount sufficient to pay expenses that City reasonably expects to incur in correcting the deficiency or deficiencies rejected for payment.

6. **Termination.**

6.1 For Convenience. City may terminate this Agreement for convenience, without cause, by delivering a written termination notice stating the effective termination date, which may not be less than 15 days following the date of delivery.

- a. Consultant will be equitably compensated for Services furnished prior to receipt of the termination notice and for reasonable costs incurred.
- b. Consultant will also be similarly compensated for any approved effort expended, and approved costs incurred, that are directly associated with Project closeout and delivery of the required items to the City.

6.2 For Cause. City may terminate this Agreement for cause if Consultant fails to cure any breach of this Agreement within seven days after receipt of written notice specifying the breach.

- a. Consultant will not be entitled to further payment until after City has determined its damages. If City's damages resulting from the breach, as determined by City, are less than the equitable

amount due but not paid Consultant for Services furnished, City will pay the amount due to Consultant, less City's damages, in accordance with the provision of Sec. 5.

- b. If City's direct damages exceed amounts otherwise due to Consultant, Consultant must pay the difference to City immediately upon demand; however, Consultant will not be subject to consequential damages more than \$1,000,000 or the amount of this Agreement, whichever is greater.

7. **Conflict.** Consultant acknowledges this Agreement is subject to A.R.S. § 38-511, which allows for cancellation of this Agreement in the event any person who is significantly involved in initiating, negotiating, securing, drafting, or creating the Agreement on City's behalf is also an employee, agent, or consultant of any other party to this Agreement.

8. **Insurance.** For the duration of the term of this Agreement, Consultant shall procure and maintain insurance against claims for injuries to persons or damages to property which may arise from or in connection with the performance of all tasks or work necessary to complete the Project as herein defined. Such insurance shall cover Consultant, its agent(s), representative(s), employee(s) and any subcontractors.

8.1 Minimum Scope and Limit of Insurance. Coverage must be at least as broad as:

- a. Commercial General Liability (CGL). Insurance Services Office Form CG 00 01, including products and completed operations, with limits of no less than **\$1,000,000** per occurrence for bodily injury, personal injury, and property damage. If a general aggregate limit applies, either the general aggregate limit shall apply separately to this project/location or the general aggregate limit shall be twice the required occurrence limit.
- b. Automobile Liability. Insurance Services Office Form Number CA 0001 covering Code 1 (any auto), with limits no less than **\$1,000,000** per accident for bodily injury and property damage.
- c. Professional Liability. Consultant must maintain a Professional Liability insurance covering errors and omissions arising out of the work or services performed by Consultant, or anyone employed by Consultant, or anyone for whose acts, mistakes, errors and omissions Consultant is legally liability, with a liability insurance limit of \$1,000,000 for each claim and a \$2,000,000 annual aggregate limit.
- d. Worker's Compensation. Insurance as required by the State of Arizona, with Statutory Limits, and Employers' Liability insurance with a limit of no less than **\$1,000,000** per accident for bodily injury or disease.

8.2 Indemnification.

- a. To the fullest extent permitted by law, Consultant must defend, indemnify, and hold harmless City and its elected officials, officers, employees and agents (each, an "Indemnified Party," collectively, the "Indemnified Parties") for, from, and against any and all claims, demands, actions, damages, judgments, settlements, personal injury (including sickness, disease, death, and bodily harm), property damage (including loss of use), infringement, governmental action and all other losses and expenses, including attorneys' fees and litigation expenses (each, a "Demand or Expense" collectively "Demands or Expenses") asserted by a third-party (i.e. a person or entity other than City or Consultant) and that arises out of or results from the breach of this Agreement by the Consultant or the Consultant's negligent actions, errors or omissions (including any Subconsultant or Subcontractor or other person or firm employed by Consultant), whether sustained before or after completion of the SOW and/or Services.
- b. This indemnity and hold harmless provision applies even if a Demand or Expense is in part due to the Indemnified Party's negligence or breach of a responsibility under this Agreement, but in that event, Consultant will be liable only to the extent the Demand or Expense results from the negligence or breach of a responsibility of Consultant or of any person or entity for whom Consultant is responsible.

- c. Consultant is not required to indemnify any Indemnified Parties for, from, or against any Demand or Expense resulting from the Indemnified Party's sole negligence or other fault solely attributable to the Indemnified Party.
- 8.3 Other Insurance Provisions. The insurance policies required by the Section above must contain, or be endorsed to contain the following insurance provisions:
- a. **The City, its officers, officials, employees and volunteers are to be covered as additional insureds** of the CGL and automobile policies for any liability arising from or in connection with the performance of all tasks or work necessary to complete the Services as herein defined. Such liability may arise, but is not limited to, liability for materials, parts or equipment furnished in connection with any tasks, or work performed by Consultant or on its behalf and for liability arising from automobiles owned, leased, hired or borrowed on behalf of the Consultant. General liability coverage can be provided in the form of an endorsement to the Consultant's existing insurance policies, provided such endorsement is at least as broad as ISO Form CG 20 10, 11 85 or both CG 20 10 and CG 23 37, if later revisions are used.
- b. For any claims related to the SOW and/or Services, the **Consultant's insurance coverage shall be primary insurance** with respect to the City, its officers, officials, employees, and volunteers. Any insurance or self-insurance maintained by the City, its officers, officials, employees or volunteers shall be in excess of the Consultant's insurance and shall not contribute with it.
- c. Each insurance policy required by this Section shall provide that coverage shall not be canceled, except after providing notice to the City.
- 8.4 Acceptability of Insurers. Insurance is to be placed with insurers with a current A.M. Best rating of no less than A: VII, unless the Consultant has obtained prior approval from the City stating that a non-conforming insurer is acceptable to the City.
- 8.5 Waiver of Subrogation. **Consultant hereby agrees to waive its rights of subrogation which any insurer may acquire** from Consultant by virtue of the payment of any loss. Consultant agrees to obtain any endorsement that may be necessary to effect this waiver of subrogation. The Workers' Compensation Policy shall be endorsed with a waiver of subrogation in favor of the City for all work performed by the Consultant, its employees, agent(s) and subcontractor(s).
- 8.6 Verification of Coverage. Within 15 days of the Effective Date of this Agreement, Consultant shall furnish the City with original certificates and amendatory endorsements, or copies of any applicable insurance language making the coverage required by this Agreement effective. All certificates and endorsements must be received and approved by the City before work commences. Failure to obtain, submit or secure the City's approval of the required insurance policies, certificates or endorsements prior to the City's agreement that work may commence shall not waive the Consultant's obligations to obtain and verify insurance coverage as otherwise provided in this Section. The City reserves the right to require complete, certified copies of all required insurance policies, including any endorsements or amendments, required by this Agreement at any time during the Term stated herein.
- Consultant's failure to obtain, submit or secure the City's approval of the required insurance policies, certificates or endorsements shall not be considered a Force Majeure or defense for any failure by the Consultant to comply with the terms and conditions of the Agreement, including any schedule for performance or completion of the Project.
- 8.7 Subcontractors. Consultant shall require and shall verify that all subcontractors maintain insurance meeting all requirements of this Agreement.
- 8.8 Special Risk or Circumstances. The City reserves the right to modify these insurance requirements, including any limits of coverage, based on the nature of the risk, prior experience, insurer, coverage or other circumstances unique to the Consultant, the Project or the insurer.

9. **E-verify, Records and Audits.** To the extent applicable under A.R.S. § 41-4401, the Consultant warrants their compliance and that of its subconsultants with all federal immigration laws and regulations that relate to their employees and compliance with the E-verify requirements under A.R.S. § 23-214(A). The Consultant or subconsultant's breach of this warranty shall be deemed a material breach of the Agreement and may result in the termination of the Agreement by the City under the terms of this Agreement. The City retains the legal right to randomly inspect the papers and records of the other party to ensure that the other party is complying with the above-mentioned warranty. The Consultant and subconsultant warrant to keep their respective papers and records open for random inspection during normal business hours by the other party. The parties shall cooperate with the City's random inspections, including granting the inspecting party entry rights onto their respective properties to perform the random inspections and waiving their respective rights to keep such papers and records confidential.
10. **No Boycott of Israel.** To the extent A.R.S § 35-393 through § 35-393.03 are applicable, the parties hereby certify that they are not currently engaged in, and agree for the duration of the Agreement to not engage in, a boycott of goods or services from Israel, as that term is defined in A.R.S § 35-393.
11. **Uyghur Forced Labor Prevention Act (UFLPA).** Consultant certifies that it does not currently, and during the term of this Agreement, will not use:
- a. the forced labor of ethnic Uyghurs in the People's Republic of China;
 - b. any goods or services produced by the forced labor of ethnic Uyghurs in the People's Republic of China; and
 - c. any contractors, subcontractors or suppliers that use the forced labor or any goods or services produced by the forced labor of ethnic Uyghurs in the People's Republic of China.
12. **Attestation of PCI Compliance.** When applicable, the Consultant will provide the City annually with a Payment Card Industry Data Security Standard (PCI DSS) attestation of compliance certificate signed by an officer of Consultant with oversight responsibility.
13. **Notices.**
- 13.1 A notice, request or other communication that is required or permitted under this Agreement (each a "Notice") will be effective only if:
- a. The Notice is in writing; and
 - b. Delivered in person or by overnight courier service (delivery charges prepaid), certified or registered mail (return receipt requested).
 - c. Notice will be deemed to have been delivered to the person to whom it is addressed as of the date of receipt, if:
 - (1) Received on a business day before 5:00 p.m. at the address for Notices identified for the Party in this Agreement by U.S. Mail, hand delivery, or overnight courier service; or
 - (2) As of the next business day after receipt, if received after 5:00 p.m.
 - d. The burden of proof of the place and time of delivery is upon the Party giving the Notice.
 - e. Digitalized signatures and copies of signatures will have the same effect as original signatures.
- 13.2 Representatives.
- a. Consultant. Consultant's representative (the "Consultant's Representative") authorized to act on Consultant's behalf with respect to the SOW and/or Services, and his or her address for Notice delivery is:

Lisa Jackson, PE
Black & Veatch Corporation
2231 East Camelback Road, Suite 250
Phoenix, AZ 85016

- b. City. City's representative ("City's Representative") authorized to act on City's behalf, and his or her address for Notice delivery is:

City of Glendale
c/o Marty Soma, PE
5850 West Glendale Avenue
Glendale, Arizona 85301

With required copy to:

City Manager
City of Glendale
5850 West Glendale Avenue
Glendale, Arizona 85301

City Attorney
City of Glendale
5850 West Glendale Avenue
Glendale, Arizona 85301

- c. Concurrent Notices.
 - (1) All notices to City's representative must be given concurrently to City Manager and City Attorney.
 - (2) A notice will not be deemed to have been received by City's representative until the time that it has also been received by the City Manager and the City Attorney.
 - (3) City may appoint one or more designees for the purpose of receiving notice by delivery of a written notice to Consultant identifying the designee(s) and their respective addresses for notices.
- d. Changes. Consultant or City may change its representative or information on Notice, by giving Notice of the change in accordance with this section at least ten days prior to the change.

14. **Financing Assignment.** City may assign this Agreement to any City-affiliated entity, including a non-profit corporation or other entity whose primary purpose is to own or manage the SOW or Services.

15. **Entire Agreement; Survival; Counterparts; Signatures.**

15.1 Integration. This Agreement contains, except as stated below, the entire agreement between City and Consultant and supersedes all prior conversations and negotiations between the parties regarding the SOW or this Agreement.

- a. Neither Party has made any representations, warranties or agreements as to any matters concerning the Agreement's subject matter.
- b. Representations, statements, conditions, or warranties not contained in this Agreement will not be binding on the parties.
- c. Inconsistencies between the solicitation, any addenda attached to the solicitation, the response or any excerpts attached as **Exhibit A**, and this Agreement, will be resolved by the terms and conditions stated in this Agreement.

15.2 Interpretation.

- a. The parties fairly negotiated the Agreement's provisions to the extent they believed necessary and with the legal representation they deemed appropriate.
- b. The parties are of equal bargaining position and this Agreement must be construed equally between the parties without consideration of which of the parties may have drafted this Agreement.
- c. The Agreement will be interpreted in accordance with the laws of the State of Arizona.

- 15.3 Survival. Except as specifically provided otherwise in this Agreement, each warranty, representation, indemnification and hold harmless provision, insurance requirement, and every other right, remedy and responsibility of a Party, will survive completion of the SOW, or the earlier termination of this Agreement.
- 15.4 Amendment. No amendment to this Agreement will be binding unless in writing and executed by the parties. Electronic signature blocks do not constitute execution for purposes of this Agreement. Any amendment may be subject to City Council approval.
- 15.5 Remedies. All rights and remedies provided in this Agreement are cumulative and the exercise of any one or more right or remedy will not affect any other rights or remedies under this Agreement or applicable law.
- 15.6 Severability. If any provision of this Agreement is voided or found unenforceable, that determination will not affect the validity of the other provisions, and the voided or unenforceable provision will be reformed to conform with applicable law.
- 15.7 Counterparts. This Agreement may be executed in counterparts, and all counterparts will together comprise one instrument.

16. Term.

- 16.1 Extensions. The term of this Agreement commences upon the effective date and continues for a 2 year initial period. The City may, at its option and with the approval of the Consultant, extend the term of this Agreement an additional 2 years, on an annual basis. Consultant will be notified in writing by the City of its intent to extend the Agreement period at least thirty (30) calendar days prior to the expiration of the original or any extension period. Price adjustments will only be reviewed during the Agreement extension period and will be a determining factor for any extension. There are no automatic extensions or renewals of this Agreement.
- 16.2 Extension for Procurement Process. Upon the expiration of the Term of this Agreement, including the initial term and any extensions, at the City’s sole discretion, this Agreement may be extended on a month-to-month basis for a maximum of six (6) months to allow for the City to complete its procurement process to select a vendor to provide the services/materials similar to those provided under this Agreement. The City will notify the Contractor in writing of its intent to extend the Agreement at least thirty (30) calendar days prior to the expiration of the Term. Any extension provided under this subsection will continue under the same terms and conditions as in effect immediately prior to the expiration of the then-current term.

17. Dispute Resolution. Any controversy or claim arising out of or relating to this contract, or the breach thereof, shall be settled by arbitration administered according to the American Arbitration Association’s Commercial Arbitration Rules, and judgment on the award rendered by the arbitrator may be entered in any court having jurisdiction thereof.

18. Cooperative Use of Contract. This agreement may be extended for use by other governmental agencies and political subdivisions of the State. Any such usage by other entities must be in accord with the ordinances, charter, rules and regulations of the respective entity and the approval of the Contractor and City. For a list of SAVE members, click on the following link:
<http://www.mesaaz.gov/business/purchasing/save>

19. Exhibits. The following exhibits, with reference to the term in which they are first referenced, are incorporated by this reference.

- Exhibit A Scope of Work
- Exhibit B Compensation

The parties enter into this Agreement effective as of the date shown above.

City of Glendale,
an Arizona municipal corporation

By: Kevin R. Phelps
Its: City Manager

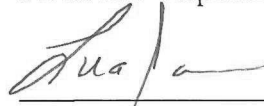
ATTEST:

Julie K. Bower (SEAL)
City Clerk

APPROVED AS TO FORM:

Michael D. Bailey
City Attorney

Black & Veatch Corporation,
a Delaware Corporation



By: Lisa Jackson
Its: Vice President

EXHIBIT A
Professional Services Agreement

SCOPE OF WORK

Detailed Scope of work is included in the attached Exhibit A.

Exhibit A
City of Glendale Water Services Department
Transmission Main and Valve Assessment Program
Project No. 222352

February 2024

Project Description

Project Description

The City of Glendale (City) has approximately 53.6 miles of large-diameter water transmission mains, defined as mains with a diameter of 16 inches or larger. Pipe material is unknown for 42 percent of the system, and the remaining pipe material varies from ductile iron pipe (DIP), prestressed concrete cylinder pipe (PCCP), asbestos cement pipe (ACP), concrete cylinder pipe (CCP), steel pipe (STL), and reinforced concrete pipe (RCP). Approximately 6.0 miles of PCCP 42-inch to 60-inch was inspected in 2020 and 2021. As part of the City's 2022 Integrated Water Master Plan (IWMP), dated October 2022, the water transmission mains were prioritized based on risk. Twelve areas were designated as high risk (approximately 10.3 miles) and are referred to as large diameter areas (LDA) 1 through 12. After the 2022 IWMP was completed, an additional 6.7 miles of pipe were identified as high-priority due to the potential Central Arizona Project (CAP) allocation reduction.

This program is a multi-year, multi-phase effort that is focused on the City's transmission mains. The City's goal for this program and first part of this project is to establish a long-term transmission main and valve assessment program for all 53.6 miles of water transmission mains and inspect the highest priority pipelines and associated valves, approximately 17.0 miles. Inspection of each pipeline and associated valves includes planning, coordination, inspection, analysis, and recommendation activities. Program-level services include overall development and management of the program, such as transmission main segmentation and naming for all 53.6 miles, inspection protocol development, assessment and repair scheduling and oversight, prioritization, and adapting program approaches throughout program to meet City goals.

General Project Scope

This project will establish the City's Transmission Main and Valve Assessment Program. Part I (THIS PROJECT) will be performed by the Engineer and its specialty sub-consultants to complete the following scope of services:

- Phase 100 – Project Management**
- Phase 200 – Program Level Services**
- Phase 300 – Valve Assessments**
- Phase 400 – External Leak Detection Inspection**
- Phase 500 – Internal Leak Detection Inspection**
- Phase 600 – Electromagnetic Inspection**
- Phase 700 – Sub-consultants and Expenses**

This Part I scope of work is as described herein. Any additional tasks not detailed in the Scope of Services will be performed under a contract amendment at the direction of the City.

**City of Glendale Water Services Department
Transmission Main and Valve Assessment Program
Project No. 222352**

February 2024

Scope for Consultant Services

Project Description

The City of Glendale (City) has approximately 53.6 miles of large-diameter water transmission mains, defined as mains with a diameter of 16 inches or larger. Pipe material is unknown for 42 percent of the system, and the remaining pipe material varies from ductile iron pipe (DIP), prestressed concrete cylinder pipe (PCCP), asbestos cement pipe (ACP), concrete cylinder pipe (CCP), steel pipe (STL), and reinforced concrete pipe (RCP). Approximately 6.0 miles of PCCP 42-inch to 60-inch was inspected in 2020 and 2021. As part of the City's 2022 Integrated Water Master Plan (IWMP), dated October 2022, the water transmission mains were prioritized based on risk. Twelve areas were designated as high risk (approximately 10.3 miles) and are referred to as large diameter areas (LDA) 1 through 12. After the 2022 IWMP was completed, an additional 6.7 miles of pipe were identified as high-priority due to the potential Central Arizona Project (CAP) allocation reduction.

This program is a multi-year, multi-phase effort that is focused on the City's transmission mains. The City's goal for this program and first part of this project is to establish a long-term transmission main and valve assessment program for all 53.6 miles of water transmission mains and inspect the highest priority pipelines and associated valves, approximately 17.0 miles. Inspection of each pipeline and associated valves includes planning, coordination, inspection, analysis, and recommendation activities. Program-level services include overall development and management of the program, such as transmission main segmentation and naming for all 53.6 miles, inspection protocol development, assessment and repair scheduling and oversight, prioritization, and adapting program approaches throughout the program to meet City goals.

Consulting Services

Black & Veatch (Engineer) will provide consulting services for the items described in the Project Description. Pipeline and valve inspection specialty sub-consultants will also provide services as a part of this project. As the prime consultant, the Engineer will oversee and manage the various aspects of the condition assessment, analysis, and recommendations. The Engineer will execute this project in two parts. Part I is assumed to be completed from notice to proceed through the end of fiscal year (FY) 2024-2025; Part II is anticipated to start in FY 2025-2026 and extend as required by the City. The Engineer will complete the following scope of services:

Phase 100 – Project Management

Task 101 – Manage Subconsultants (Part II)

Task 102 – Monitor Progress and Prepare Status Reports (Part I & II)

Phase 200 – Program Level Services

- Task 201 – Kickoff and Progress Meetings (Part I & II)
- Task 202 – Transmission Main Segmentation, Naming, and Modeling (Part I)
- Task 203 – Collection and Analysis of Pipe Data (Part I)
- Task 204 – Transmission Main Prioritization, Assessment Protocols, and Cost Estimates (Part I)
- Task 205 – Program Plan Development (Part I & II)
- Task 206 – Water Quality Management Plan (Part II)
- Task 207 – Repair Details and Specifications for Inspection/Repair (Part I)
- Task 208 – Engineer Support for Transmission Main Services (Part I)

Phase 300 – Valve Assessments

- Task 301 – Develop Valve Management Plan (Part II)
- Task 302 – Develop Valve Assessment Plan (Part II)
- Task 303 – Field Inspection Preparation and Execution (Part II)
- Task 304 – Analysis and Recommendations (Part II)

Phase 400 – External Leak Detection Inspection

- Task 401 – Develop Inspection Plans (Part I & II)
- Task 402 – Field Inspection Preparation and Execution (Part I & II)
- Task 403 – Analysis and Recommendations (Part I & II)

Phase 500 – Internal Leak Detection Inspection

- Task 501 – Develop Inspection Plans (Part II)
- Task 502 – Field Inspection Preparation and Execution (Part II)
- Task 503 – Analysis and Recommendations (Part II)

Phase 600 – Electromagnetic Inspection

- Task 601 – Develop Inspection Plans (Part II)
- Task 602 – Field Inspection Preparation and Execution (Part II)
- Task 603 – Analysis and Recommendations (Part II)

Phase 700 – Sub-consultants and Expenses

- Task 701 – Inspection Technology (Part II)
- Task 702 – Valve Assessment Subcontractor (Part II)
- Task 703 – Expenses (Part II)

Scope of Services

The Black & Veatch team (Engineer) will provide the consulting services described below for the City of Phoenix for the project.

Construction-related, non-professional services will be required to support this project. In support of this project, the City has hired a job order contractor (JOC) and valve contractor to provide these services. This exhibit and scope refer to these services and to the JOC and valve contractor under various tasks for which the JOC or valve contractor will provide support. Engineer will provide direction to the JOC and valve contractor for the necessary support work for the assessments described herein.

Phase 100 – Project Management

Task 101 – Manage Subconsultants

Scope to be included if approved under a contract amendment or as part of Part II.

Deliverables: none

Assumptions: For Part I of this project, no subconsultants are anticipated; subconsultants are anticipated to be part of Part II.

Task 102 – Monitor Progress and Prepare Status Reports

Provide monthly budget and progress updates to City staff. Prepare and submit monthly invoices to the City project manager. Status reports will be prepared and submitted along with each monthly invoice. Status reports will identify what work has been performed during the billing period and the completion status of major tasks.

Deliverables: Submit monthly invoices and status reports.

Phase 200 – Program Level Services

Task 201 – Kickoff and Progress Meetings

Coordinate with stakeholders to establish and document project goals early in the project, prior to inspection execution. Through progress meetings, provide monthly updates to City staff regarding project status. Two types of meetings in this task are listed and described below.

- (1) Project Kick-off Meeting. The Engineer will propose attendees, plan, coordinate, and summarize a kickoff meeting to review project goals. Examples of project aspects that will be discussed and documented include pipeline scenarios to be targeted during the program, inspection protocols, inspection planning processes, and overall inspection schedule.
- (2) Monthly Progress Meetings. The Engineer will conduct monthly progress meetings for the duration of the project. The Engineer will distribute the meeting agenda prior to each meeting, prepare meeting materials and content, and summarize each meeting in meeting minutes.

Deliverables: Meeting agenda and minutes with handouts.

Assumptions: One kickoff meeting with City staff. Several informal pre-meetings and other communications with city staff are also anticipated to plan the meeting effectively. Monthly progress meetings are planned. City staff will participate in the meetings. Progress meetings are assumed to last 1 hour and be virtual and/or in person.

Task 202 – Transmission Main Segmentation, Naming, and Modeling

Engineer will work with City staff to divide the inventory of the City’s approximately 53.6 miles of transmission mains, assumed to be 16 inches and larger, into hydraulically contiguous reaches of pipe or grouping. Start and stop locations for each group will be located at an in-line valve.

Engineer will utilize hydraulic modeling to confirm each group’s start and stop locations do not negatively affect the distribution system by determining the following:

- Recommended timing each grouping could be tested/removed from service based on demands, facilities, and system capacity (i.e., time of year) to maintain the City’s levels of service requirements (i.e., system pressure, fire flow, etc.).
- Recommended pressure monitoring locations in the associated distribution pressure zone.
- Identify pressure monitoring locations where pressure complaints may occur using a delta pressure map.

Criteria for creating hydraulically contiguous pipe into groupings will be developed by the Engineer with City staff and are expected to include diameter, as-built number, pressure zone served, material, ability to remove an entire grouping from service without adverse customer impacts (based on hydraulic modeling), and other factors to be determined. Engineer will conduct a workshop with the City to review grouping and naming results. Engineer to incorporate City comments into the final deliverable.

Deliverables: Draft and final Excel and geodatabase files containing transmission main names for each grouping in this project and a presentation with maps/exhibits detailing the approach. Graphics of hydraulic modeling results for each grouping confirming outage timing and monitoring.

Assumptions: Transmission mains are assumed to be 16-inches and larger. Modeling results will identify operational modifications required to maintain supply.

Task 203 – Collection and Analysis of Pipe Data

Update existing City GIS data with data from as-builts and manufacturing records. Currently, GIS data is unknown for 25 percent of transmission mains. To accurately prioritize mains and plan inspection protocols, accurate pipe data is required. Develop and maintain central records of pipelines planned to be inspected. For all transmission mains in this project, the Engineer will review the following data provided by the City: the most recent GIS data, as-built records, and manufacturing data.

Deliverables: Draft and final geodatabase files containing updated material information.

Assumptions: Transmission mains are assumed to be 16-inches and larger. As-builts and manufacturing data to be provided by the City.

Task 204 – Transmission Main Prioritization, Assessment Protocols, and Cost Estimates

Transmission Main Prioritization. The Engineer will prioritize the pipeline groupings developed in Task 202 for future assessment. Engineer will utilize risk results from the IWMP (project numbers LDA1 through LDA12). Since each grouping contains multiple assets, various risk scores exist within one grouping. Criteria for assigning a risk score to each grouping could include using the highest asset risk score for the entirety of the group or a length-weighted average. Strategy to be developed and confirmed with the City in a workshop.

Establish Standard Inspection Protocols. Assessment protocols will be based on typical failure modes for each material and may be comprised of one or more assessment types available to detect these failure modes. Based on results of the transmission main risk prioritization, the Engineer will assign an appropriate assessment protocol and timeframe for application of the assessment.

Cost Estimates. Overall cost estimates to assess each pipeline will be provided based on the recommended assessment protocol. Overall costs will include inspection technology costs, costs to modify pipelines for access, and inspection support contractor costs. Length-based unit costs will be developed based on Engineer's experience with similar assessments and information gathered from technology providers and applied across transmission mains.

Deliverables: Prioritized list of groupings, assigned assessment protocol, recommended inspection year, and budget.

Assumptions: All cost estimates will be AACE Class 5.

Task 205 – Program Plan Development

The Engineer will develop a program plan to guide implementation of the City's transmission main and valve assessment program. Key elements of the transmission main and valve assessment program include:

- A summary of the overall program concept, including:
 - how prioritized groups were developed
 - basis for assigning assessment protocols to pipe groups
 - summary of groups by risk or priority
 - overall program budget details
 - overall program schedule
 - concept for how program data is incorporated into the City's management systems
- For each group, a summary of general installation and operating information, recommended assessment protocol, assessment schedule, history of breaks, repairs, or other issues. This data is expected to be presented in a one-page factsheet for each group.
- Summary map for each group including valve locations. All valves required to isolate the pipeline will be shown on the map.

- Post-assessment recommendations scheduling and status tracking.
- Identify and prioritize spare parts recommended for transmission main and valve program.
- Identify pipeline modifications required to complete inspections (e.g., manholes that need to be raised to grade or fire hydrants to be installed.).
- In addition, a draft maintenance of plant operations (MOPO) plan will be developed for the first (highest priority) segment identified.

Deliverables: Draft Program Plan. This will be a living document to be updated in Part II.

Assumptions: A workshop will be conducted to discuss and develop program plan goals. Additional MOPO plans for other segments will be developed in Part II.

Task 206 – Water Quality Management Plan

Scope to be included if approved under a contract amendment or as part of Part II.

Task 207 – Repair Details and Specifications for Inspection/Repair

Based on the Engineer's experience with other transmission main assessment programs, Engineer will create an initial document set of general details and specifications for pipeline modifications and repairs that may be required by the JOC prior to or after each assessment.

Typical pipeline modifications and repair details and specifications anticipated to include:

- Valve and other appurtenances (e.g. hydrants, drains, or ARVs) repairs/replacements or additions (excluding valves 16-inch and larger)
- Joint repairs, superficial repairs to reduce future potential for corrosion, and minor weld repairs
- Typical PCCP single segment replacement
- Manhole construction for a buried existing pipeline access port

The initial, draft document set will be delivered to the City for review and comment. Comments received by the City will be reviewed and agreed upon comments incorporated into the initial, final document set. The document set will be maintained and updated over the course of the program for inclusion with the final Program Plan.

Construction administration and inspection services provided by the Engineer that support oversight and review of moderate to major pipeline repairs by the JOC will be completed as part of each phase – external and internal leak detection and internal electromagnetic inspections (Phases 400 - 600).

Deliverables: Draft and final of initial set of repair details and specifications.

Assumptions: Details and specifications will be distributed electronically only.

Task 208 – Engineer Support for Transmission Main Services

Provide as-requested services related to City transmission mains, such as:

- Provide technical advisory services related to large main management as requested by the City.
- Schedule, scope, and develop design details for previous transmission main recommendations from prior projects (e.g., air valve replacements on the 60-inch PCCP main).
- Support included as part of Part I includes:
 - Coordinate support needed for the ADOT SR101 Expansion Project at 59th Avenue. This will include:
 - Engineer will subcontract with T2 Utility Engineers, the ADOT subsurface utility engineer, to perform an ASCE quality level A test hole to attempt to locate the buried 20" manway located along 59th Avenue and the Beardsley Avenue frontage road and any potential utility conflicts with the proposed manhole. Up to 20 hours (two days) of field locating services using vacuum excavation services, survey, traffic control and other general coordination are included; off-duty police officers are not included. Potholes will be backfilled per ADOT standards.
 - Engineer will utilize the subsurface utility engineer data and utility maps requested from utilities in the area to create a 90% design set of plans and perform a Quality Control review per Engineer's policies and procedures. Up to eight (8) drawings with MAG specification references are anticipated; no separate specifications will be created. Drawings will be delivered electronically for a three-week City review period via Bluebeam.
 - Engineer will create Final Design set of drawings incorporating agreed upon 90% design City comments and final details to be signed and sealed by a professional engineer licensed in Arizona.
 - No permitting or associated fees for ADOT, City of Glendale or MCESD are included.
 - Support the City regarding proper protection of City assets associated with proposed City of Peoria transmission main construction near the City's existing PCCP main in 67th Avenue.

Deliverables: Sketches, figures, drawings, or related correspondence will be provided to execute this task.

Assumptions: Only Part I tasks are included initially; Part II tasks will be supported as part of the City's Owner's Allowance.

Phase 300 – Valve Assessments

Scope to be included if approved under Owner's Allowance A-2, contract amendment, or as part of Part II.

Phase 400 – External Leak Detection Inspection

Two (2) of the eight (8) external leak detection inspections identified are planned for Part I (THIS PROJECT). If approved under a contract amendment or as part of Part II, the remaining six (6) external leak detection inspections in Tasks 401, 402, and 403 can be completed.

Task 401 – Develop Inspection Plan

The Engineer will work with City staff to confirm assessment objectives and develop an inspection plan detailing how the external leak inspections will be executed on the transmission main groups identified in Task 204.

Prepare a Draft Inspection Plan for City review. Assessment Plan to include:

- Project overview and introduction, summary of the data collection review, assessment methodologies & protocols, roles & responsibilities, inspection planning activities such as access requirements, water quality plan, inspection sequencing, and overall schedule.
- If isolation is required, incorporate modeling results from Task 202 to develop a plan to maintain supply.
- Maintenance of plant/system operations (MOPO)s will be developed for inspection. Detailed MOPOs provide plans for scheduling and outlining pre-inspection activities, water quality plan, step-by-step inspection activities, necessary temporary appurtenance removal to the transmission mains to obtain water column access, and project personnel contact information.
- Assist the City with traffic control coordination for inspection (if any).

Final Inspection Plan to incorporate the City's comments on the Draft Inspection Plan document.

Deliverables: Draft and final inspection plan

Assumptions: Part I external leak detection will be planned for approximately 3.2 miles of 16-inch to 24-inch transmission mains. A single inspection plan is assumed for the following pipelines LDA1: 16-inch DIP (0.5 miles) and LDA1: 24-inch Steel/DIP/CCP (2.2 miles).

Part II external leak detection is be planned for approximately 4.0 miles of 16-inch to 24-inch transmission mains.

However, the pipelines included in this task could be updated based on Task 204.

Task 402 – Field Inspection Preparation, Execution, and Verification

Engineer will work with City operations staff, and JOC to implement the MOPOs for the transmission mains. The following activities will be coordinated by the Engineer for each MOPO:

- Field identification of appurtenances to be used during inspections (performed by City and Engineer).
- Engineer to provide on-site support and oversight of external leak detection preparations (i.e. potholing a buried asset, if needed).
- Water column access may be required for external leak detection inspection. JOC to provide access to valve vaults and confined space entry support. JOC crew will perform necessary work on pipeline appurtenances such as air relief valve removal, access to drain valves, or manipulation of hydrants, as required for the external leak detection inspection.
- External leak detection inspection of transmission mains (performed by Engineer).

- External validation of inspection results identified by the Engineer. The Engineer will use a ground microphone to verify possible leak locations. The Engineer will identify locations recommended to be potholed to validate leak results. Two to four potholes are assumed to be performed by the JOC.

Deliverables: None. Pipeline conditions identified in this task are reported elsewhere in this scope.

Assumptions: Inspection coverage per day is approximately 2,500 feet. A contingency day is added for each pipeline. For Part I, a total of 12 days are assumed for the external leak detection at \$1,250/day for equipment rental. Data validations are assumed to take 1-3 days per pipeline.

JOC to perform pothole(s) or excavation(s) as indicated by the Engineer. JOC to perform surface restoration.

Task 403 – Analysis and Recommendations

Compile and analyze inspection data. Prepare a draft and final report for each inspected transmission main. This report will summarize condition assessment techniques utilized, assessment results, and recommendations.

Deliverables: A single draft condition assessment report for all transmission mains assessed with external leak detection. Submit a final version of the condition assessment report incorporating agreed upon City comments.

Assumptions: City staff will provide input into recommendations based on overall City goals and risk tolerance. City staff will provide content input and comments on draft condition assessment report.

Phase 500 – Internal Leak Detection Inspection

Scope to be included if approved under a contract amendment or as part of Part II.

Phase 600 – Internal Electromagnetic Inspection

Scope to be included if approved under a contract amendment or as part of Part II.

Phase 700 – Sub-consultants and Expenses

Scope to be included if approved under a contract amendment or as part of Part II.

Owner's Allowance – A-1; Additional Supplemental Services

The purpose of this allowance is to provide as-needed assistance during the contract period. Activities or costs will be separately scoped and authorized by the City depending on City needs over the course of the project. Examples of activities that might be requested from this allowance include, but are not limited to, the following:

- Developing maintenance of plant operations (MOPOs) for pipeline inspections.
- Provide as-needed assistance to procure emergency transmission main repairs.

Owner’s Allowance – A-2; Valve Assessment Services

The purpose of this allowance is to provide valve assessment assistance during the contract period. Similar to allowance A-1, activities or costs associated with this allowance will be separately scoped and authorized by the City depending on City needs over the course of the project. Examples of activities that might be requested from this allowance include, but are not limited to, the following:

- Develop valve management plan
- Develop valve assessment plan
- Coordinate, plan, oversee valve assessments in the field
- Analysis and recommendations

City of Glendale Transmission Main & Valve Assessment - City Project Number 222352 - Part I

ID	Task Name	Duration	Start	Finish	Predecessors	Q1	Q2	2024	Q3	Q4	Q1	Q2	20
0	City of Glendale TM and Valve Assessment Project No. 222352	509 days	Tue 7/18/23	Fri 6/27/25									
1	NTP	4 days	Tue 3/26/24	Fri 3/29/24									
2	Phase 100 - PROJECT MANAGEMENT	325 days	Fri 3/29/24	Fri 6/27/25									
3	101 - Manage Subconsultants (Part II)	0 days	Fri 3/29/24	Fri 3/29/24	1								
4	102 - Monitor Progress & Prepare Status Reports (Part I & II)	325 days	Mon 4/1/24	Fri 6/27/25	1								
5	Phase 200 - PROGRAM DEVELOPMENT	351 days	Thu 2/15/24	Thu 6/19/25	1								
6	201 - Kickoff & Progress Meetings	351 days	Thu 2/15/24	Thu 6/19/25									
24	202 - TM Segmentation, Naming, & Modeling (Part I)	125 days	Mon 4/1/24	Fri 9/20/24	1								
25	203 - Collection & Analysis of Pipe Data (Part I)	125 days	Mon 4/1/24	Fri 9/20/24	1								
26	204 - TM Prioritization, Assessment Protocols & Cost Estimates (Part I)	100 days	Mon 7/1/24	Fri 11/15/24									
27	Transmission Main Prioritization	14 days	Mon 7/1/24	Thu 7/18/24	24FS-60 days								
28	Establish Standard Inspection Protocols	30 days	Mon 8/26/24	Fri 10/4/24	25FS-20 days								
29	Cost Estimates	30 days	Mon 10/7/24	Fri 11/15/24	25,28								
30	205 - Program Plan Development	50 days	Mon 11/18/24	Fri 1/24/25									
31	Draft Program Plan Development (Part I)	50 days	Mon 11/18/24	Fri 1/24/25	26								
32	206 - Water Quality Management Plan (Part II)	0 days	Fri 3/29/24	Fri 3/29/24									
33	207 - Design Typical Repair Specifications and Drawings (Part I)	90 days	Mon 9/23/24	Fri 1/24/25	25								
34	208 - General Transmission Main Services (Part I)	300 days	Mon 4/1/24	Fri 5/23/25									
35	TM Support Services	300 days	Mon 4/1/24	Fri 5/23/25	1								
36	Phase 300 - VALVE ASSESSMENTS (Part II)	0 days	Tue 7/18/23	Tue 7/18/23									
37	Phase 400 - EXTERNAL LEAK DETECTION INSPECTION (Part I)	108 days	Fri 7/19/24	Tue 12/17/24									
38	401 - Develop Inspection Plan	67 days	Fri 7/19/24	Mon 10/21/24									
39	Develop Inspection Plan for External Leak Detection	67 days	Fri 7/19/24	Mon 10/21/24	27								
40	402 - Field Inspection Prep, Execution & Verification	14 days	Tue 10/22/24	Fri 11/8/24									
41	LDAI: 16-inch DIP (0.5 miles) External LD	4 days	Tue 10/22/24	Fri 10/25/24									
42	Coordinate Inspections	2 days	Tue 10/22/24	Wed 10/23/24	39								
43	Contingency Day	1 day	Thu 10/24/24	Thu 10/24/24	42								
44	Data Validations	1 day	Fri 10/25/24	Fri 10/25/24	43								
45	LDAI: 24-inch Steel/DIP/CCP (2.2 miles) External LD	10 days	Mon 10/28/24	Fri 11/8/24									
49	403 - Analysis & Recommendations	27 days	Mon 11/11/24	Tue 12/17/24									
50	Detailed Condition Assessment Report & Recommendations	25 days	Mon 11/11/24	Fri 12/13/24									
52	Update City GIS and TM & Valve Program Plan	2 days	Mon 12/16/24	Tue 12/17/24									
54	Phase 500 - INTERNAL LEAK DETECTION INSPECTION (Part II)	0 days	Fri 3/29/24	Fri 3/29/24	1								
55	Phase 600 - INTERNAL ELECTROMAGNETIC INSPECTION (Part II)	0 days	Fri 3/29/24	Fri 3/29/24	1								
56	Phase 700 - SUBCONSULTANTS & EXPENSES (Part II)	0 days	Fri 3/29/24	Fri 3/29/24	1								

City of Glendale TM and Valve Assessment Project No. 222352
Date: Part I Baseline - 2/22/24

Task Summary Project Summary

EXHIBIT B
Professional Services Agreement

COMPENSATION

METHOD AND AMOUNT OF COMPENSATION

Method of payment is hourly, based on hourly rates and reimbursement for expenses.

NOT-TO-EXCEED AMOUNT

The total amount of compensation paid to Consultant for Services as defined herein during the entire term of the Project must not exceed \$380,900.

DETAILED PROJECT COMPENSATION

Detailed project compensation is included in the attached Exhibit B.

Exhibit B

Owner: City of Glendale

Project: Transmission Main & Valve Assessment (PART I) - City PN 222352

		SUBTOTAL, Billings \$	SUBTOTAL, EXPENSES	SUBTOTAL, SUBS	TOTAL Billings	PHASE SUBTOTALS
PHASE/Task						
(Billing Rate, \$\$, Hr.)						
WORK BREAKDOWN STRUCTURE	TASK					
Phase 100 – Project Management (Part I & II)	0100	\$ -	\$ -	\$ -	\$ -	\$ 21,696
Task 101 – Manage Subconsultants (Part II)	0101	\$ -	\$ -	\$ -	\$ -	
Task 102 – Monitor Progress and Prepare Status Reports (Part I & II)	0102	\$ 21,696	\$ -	\$ -	\$ 21,696	
Phase 200 – Program Level Services (Part I & II)	0200	\$ -	\$ -	\$ -	\$ -	\$ 197,424
Task 201 – Kickoff and Progress Meetings (Part I & II)	0201	\$ 19,482	\$ -	\$ -	\$ 19,482	
Task 202 – TM Segmentation and Naming (Part I)	0202	\$ 29,384	\$ -	\$ -	\$ 29,384	
Task 203 – Collection and Analysis of Pipe Data (Part I & II)	0203	\$ 24,736	\$ -	\$ -	\$ 24,736	
Task 204 – TM Prioritization, Assessment Protocols, and Cost Est. (Part I)	0204	\$ 27,848	\$ -	\$ -	\$ 27,848	
Task 205 – Program Plan Development (Part I & II)	0205	\$ 36,848	\$ -	\$ -	\$ 36,848	
Task 206 – Water Quality Management Plan (Part II)	0206	\$ -	\$ -	\$ -	\$ -	
Task 207 – Repair Details and Specifications for Inspection/Repair (Part I)	0207	\$ 20,144	\$ -	\$ -	\$ 20,144	
Task 208 – Engineer Support for Transmission Main Services	0208	\$ 22,872	\$ -	\$ 16,110	\$ 38,982	
Phase 300 – Valve Assessments (Part II)	0300	\$ -	\$ -	\$ -	\$ -	\$ -
Task 301 – Develop Valve Management Plan (Part II)	0301	\$ -	\$ -	\$ -	\$ -	
Task 302 – Develop Valve Assessment Plan (Part II)	0302	\$ -	\$ -	\$ -	\$ -	
Task 303 – Field Inspection Preparation and Execution (Part II)	0303	\$ -	\$ -	\$ -	\$ -	
Task 304 – Analysis and Recommendations (Part II)	0304	\$ -	\$ -	\$ -	\$ -	
Phase 400 – External Leak Detection Inspection (Part I & II)	0400	\$ -	\$ -	\$ -	\$ -	\$ 61,780
Task 401 – Develop Inspection Plans (Part I & II)	0401	\$ 12,740	\$ -	\$ -	\$ 12,740	
Task 402 – Field Inspection Preparation and Execution (Part I & II)	0402	\$ 22,988	\$ 10,000	\$ -	\$ 32,988	
Task 403 – Analysis and Recommendations (Part I & II)	0403	\$ 16,052	\$ -	\$ -	\$ 16,052	
Phase 500 – Internal Leak Detection Inspection (Part II)	0500	\$ -	\$ -	\$ -	\$ -	\$ -
Task 501 – Develop Inspection Plans (Part II)	0501	\$ -	\$ -	\$ -	\$ -	
Task 502 – Field Inspection Preparation and Execution (Part II)	0502	\$ -	\$ -	\$ -	\$ -	
Task 503 – Analysis and Recommendations (Part II)	0503	\$ -	\$ -	\$ -	\$ -	
Phase 600 – Electromagnetic Inspection (Part II)	0600	\$ -	\$ -	\$ -	\$ -	\$ -
Task 601 – Develop Inspection Plans (Part II)	0601	\$ -	\$ -	\$ -	\$ -	
Task 602 – Field Inspection Preparation and Execution (Part II)	0602	\$ -	\$ -	\$ -	\$ -	
Task 603 – Analysis and Recommendations (Part II)	0603	\$ -	\$ -	\$ -	\$ -	
Phase 700 – Sub-consultants and Expenses (Part II)	0700	\$ -	\$ -	\$ -	\$ -	\$ -
Task 701 – Inspection Technology (Part II)	0701	\$ -	\$ -	\$ -	\$ -	
Task 702 – Public Outreach	0702	\$ -	\$ -	\$ -	\$ -	
Task 703 – Valve Assessment (Part II)	0703	\$ -	\$ -	\$ -	\$ -	
Task 704 – Expenses (Part II)	0704	\$ -	\$ -	\$ -	\$ -	
Total, Hours						
Total, Billings		\$ 254,790	\$ 10,000	\$ 16,110	\$ 280,900	
Owner's Allowance A-1 - Supplemental Services					\$ 50,000	
Owner's Allowance A-2 - Valve Assessment Services					\$ 50,000	
Total, Including Owner's Allowance					\$ 380,900	