

PROFESSIONAL SERVICES AGREEMENT
ELECTRICAL VULNERABILITY AND ARC FLASH ASSESSMENT
PROJECT 222344

This Professional Services Agreement ("Agreement") is entered into and effective between CITY OF GLENDALE, an Arizona municipal corporation ("City") and Black & 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 \$209,828 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:

Black & Veatch Corporation
c/o Mike Caruso
3133 East Camelback Road, Suite 210

Phoenix, Arizona 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 Joe Hernandez
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 one (1) year initial period. The City may, at its option and with the approval of the Consultant, extend the term of this Agreement an additional one (1) 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

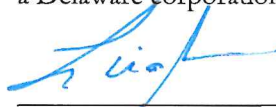
ATTEST:

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

See attached.

Exhibit A Summary
City of Glendale Water Services Department
Electrical Vulnerability and Arc Flash Assessment
Project No. 222344

April 2024

Project Description

Project Description

The City of Glendale (City) has five primary treatment facilities (three water and two wastewater), seven finished water reservoirs, multiple pump stations, lift stations, and groundwater wells. All of these facilities have various types of electrical equipment and systems that require constant maintenance and equipment replacement. With electrical equipment procurement continuing to be problematic based on market demands and continuing supply chain fallout from the pandemic, the City's goal for this project is to create a framework for and perform an electrical vulnerability assessment of key, critical City water and wastewater facilities. The assessment will identify recommended timing for procurement and replacement of electrical equipment or other improvements necessary to maintain redundancy and resiliency through the water distribution and wastewater collections systems.

The City is also interested in performing engineered Power Study analyses (Short Circuit, Coordination and Arc Flash studies) at select facilities and remote sites for National Electric Code recommended compliance and safety of their personnel.

General Project Scope

This project will be executed over the course of multiple years and parts. Part I (THIS PROJECT) will be performed by the Consultant and its specialty sub-consultants to complete the following scope of services:

Phase 100 – Project Management (Part I)

Phase 200 – Data Collection (Parts I & II)

Phase 300 – Electrical Vulnerability Assessment (Parts I & II)

Phase 400 – Power Study Program Assessment (Parts I & II)

Phase 500 – Electrical Improvements Design (Part II)

Phase 600 – Electrical Improvements Construction Administration (Part II)

Part I scope of work is as described herein. Any additional tasks not detailed in the Scope of Services will be performed under an Owner's Allowance or a contract amendment (Part II) at the direction/discretion of the City.

Exhibit A
City of Glendale Water Services Department
Electrical Vulnerability and Arc Flash Assessment
Project No. 222344

April 2024

Scope for Consultant Services

Project Description

The City of Glendale (City) has five primary treatment facilities (three water and two wastewater), seven finished water reservoirs, multiple pump stations, lift stations, and groundwater wells. All of these facilities have various types of electrical equipment and systems that require constant maintenance and equipment replacement. With electrical equipment procurement continuing to be problematic based on market demands and continuing supply chain fallout from the pandemic, the City's goal for this project is to perform an electrical vulnerability assessment of the City's critical water and wastewater facilities. The assessment will identify recommended timing for procurement and replacement of electrical equipment or other improvements necessary to maintain redundancy and resiliency through the water distribution and wastewater collections systems.

The City's is also interested in performing engineered Power Study analyses (Short Circuit, Coordination and Arc Flash studies) at select facilities and remote sites for National Electric Code recommended compliance and safety of their personnel.

Due to budget limitations through fiscal year (FY) 2024-2025, Part I initial data collection will be focused on creating a framework for consistent initial and future electrical equipment vulnerability assessments for existing electrical equipment to repair or replace critical components and determination if a power system study has been performed for all facilities. Additional evaluations and analysis may be added to this effort through owner allowance. Part II of the project is anticipated to include remaining evaluations, design, construction cost estimating, construction administration services for the identified electrical and instrumentation/SCADA improvements as well as detailed power system study / arc flash assessments for prioritized locations.

Due to budget limitations through fiscal year (FY) 2024-2025, Part I of Consultant Services for the Power Study Program will only include an Arc Flash Hazard Analysis update for the Arrowhead Ranch WRF. The Arc Flash update will be performed by the original study firm. Power system study efforts for other facilities, as needed, will be performed as future activities in Part II. In addition, this scope will include development of a Power Study specification to be used by the City of Glendale.

Consultant Services

Black & Veatch (Consultant) will provide consulting services for the items described in the Scope of Services. The Engineer will execute this project in two parts. Part I is assumed to be completed from notice to proceed through the current FY 2023-2024 and through the end of FY

2024-2025; Part II is anticipated to start in FY 2025-2026 and extend as required by the City. Specialty sub-consultants are anticipated during Part I and may also be utilized during Part II of this project. The Consultant will complete the following scope of services:

Phase 100 – Project Management

Task 101 – Monitor Progress and Prepare Status Reports (Part I & II)

Phase 200 – Data Collection

Task 201 – Kickoff and Progress Meetings (Part I & II)

Task 202 – Collect Facility & Electrical Equipment Data (Part I)

Task 203 – Utility Coordination (Part II)

Task 204 – Develop Site Investigation Plans (Parts I & II)

Task 205 – Field Inspection Execution (Parts I & II)

Phase 300 – Electrical Vulnerability Assessment

Task 301 – Review Electrical System Data Collected and Report Development (Parts I & II)

Phase 400 – Power Study Program Assessment

Task 401 – Arrowhead Ranch WRF Arc Flash Hazard Analysis (Part I)

Task 402 – Facility Power Study Analysis (Part II)

Phase 500 – Electrical Improvements Design (Part II)

Phase 600 – Electrical Improvements Construction Administration (Part II)

Scope of Services

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

Construction-related, non-professional services will be required during Part II to support this project. It is anticipated the City will hire a job order contractor (JOC) and/or construction manager-at-risk (CMAR) contractor to provide these services depending on the size of the identified improvement. JOC/CMAR support is not anticipated during Part I. This exhibit and scope may refer to future services and to the JOC under various tasks for which the JOC contractor will provide support. Consultant will provide direction to the JOC, if required, for the necessary support work for the assessments described herein.

Phase 100 – Project Management

Task 101 – 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 – Data Collection

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 Consultant will propose attendees, plan, coordinate, and summarize an in-person kickoff meeting to review project goals. Project aspects that will be discussed include specific facilities for which electrical vulnerability are anticipated to be targeted during the data collection planning and data collection processes, and overall schedule.
- (2) Monthly Progress Meetings. The Consultant will conduct monthly progress meetings for the duration of the project. The Consultant 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 for each meeting.

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 – Collect Facility & Electrical Equipment Data

The following facilities have been identified to be associated with the electrical vulnerability assessment. Only select facilities will be included in this project as noted below. The entire list of facilities include:

- Water Treatment Plants (WTP) / Water Reclamation Facilities (WRF) (including booster pump stations and reservoirs)
 - Water –
 - Cholla WTP (by Others)
 - Oasis (surface and groundwater) WTPs (this project)
 - Pyramid Peak WTP (this project)
 - Wastewater –
 - Arrowhead Ranch (ARWRF) (by Others)
 - West Area (WAWRF) (by Others)
- Groundwater Wells
 - Six current (6) City-owned wells
 - COG43 (this project)
 - AR22, Camelback Ranch, COG6, Manistee Ranch, and SR1 (Part II or by Others)
- Booster Pump Stations (and reservoirs)
 - Pump Station 1 (Zone 4) (this project)
 - Pump Station 2 (Hillcrest Ranch) and Arrowhead Manor ¹ (Part II or by Others)
- Lift Stations (LS) ²
 - ARWRF service area – LS9 (this project), LS10 (Part II or by Others)
 - WAWRF service area – LS1, LS2, LS4, LS5, LS6 (Part II or by Others)
 - SROG service area – LS3 (Part II or by Others)

For Part I of this Scope, Consultant will focus on five facilities that will be used as framework for completing the other sites. The five facilities that are part of this scope will be as follows:

- Pyramid Peak WTP
- Oasis Water Campus WTP
- PS1 - Zone 4 Booster Station and Reservoir
- LS9 - 83rd Ave. and Bell Lift Station
- COG Well 43

For existing facilities included with this project, Consultant will make a data request that includes, but is not limited to:

- Conformed to Construction Record drawings.
- Previously completed electrical assessment, functional testing, inspection reports / bases of design at all facilities
- Previously completed Power Study reports at all facilities, including Power Study model files (SKM/ETAP) (Part II activity)

¹ Pump Station #2 analysis will include Thunderbird Reservoir and future Pump Station

² Glendale Regional Public Safety Training Center (GRPSTC) and Glendale Ave West of 99th Avenue are City-owned but not maintained by Water Services

- 2022 SCADA Master Plan (Part II activity)

Deliverables: none.

Assumptions: Only facilities listed above will be included in Part I of this Scope. Future facilities currently under design will not be included in the electrical vulnerability review but can be included as a supplemental service. Pressure Reducing Valves at the three (3) water distribution pressure zone boundaries are not required or included in the analysis.

Task 203 – Utility Coordination (Part II)

Scope to be included as a supplemental service or as part of Part II.

Deliverables: none.

Assumptions: Utility data collection with the electric Utility (SRP and APS) to obtain up to five (5) years of outage reports will be performed as part of a follow up vulnerability analysis performed as a supplemental service or in Part II.

Task 204 – Develop Site Inspection Plans

The Consultant will work with City staff to confirm constraints for each site in Part I and develop an inspection plan at each facility for collection of general electrical equipment data to be used for confirmation of record drawings, electrical vulnerability assessment and power study confirmations. Specific, detailed electrical equipment, device and installation information for Power Study efforts will be collected as a supplemental service or with Part II services.

The Consultant will prepare a Draft Inspection Plan for each site in Part I for City review. Each Inspection Plan will include:

- Project overview and introduction, site summary with relative information from Task 202.
- Each Inspection Plan will provide plans for scheduling and outlining the following:
 - Assessment methodologies and protocols
 - Roles and responsibilities
 - Site access and City support information
 - General proposed electrical equipment review sequencing.
 - Identification of Primary electrical equipment to review.
 - Site constraints and proposed schedule
 - Project personnel contact information

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

Deliverables: Draft and Final Inspection Plans for each facility.

Assumptions: Site interruptions (isolation of equipment) are not expected. Primary electrical equipment will be defined as the equipment that receives the utility service

connection and critical electrical distribution equipment at the facility. Ground system testing will be completed as a supplemental service or in Part II.

Task 205 – Field Inspection Execution

The Consultant will work with City operations staff to implement the Inspection Plans identified in Task 204 for each facility.

Consultant will perform the following work for each site visit:

- Verify the actual age (where possible), condition, size, and rating of the electrical distribution equipment.
- Digitally photograph electrical equipment and devices
- Document discrepancies between observed equipment and record drawing information.
- Discuss equipment failure concerns with City staff and experiences for equipment and component replacement.

Deliverables: None

Assumptions: Critical equipment component information will only be collected from deenergized equipment, if required. De-energization of electrical equipment will be executed by City personal. It is expected external review of equipment will be performed.

Phase 300 – Electrical Vulnerability Assessment

Task 301 – Review Electrical System Data Collected and Report Development

Consultant will compare the data collected in Phase 200 to facility record drawing information and identify discrepancies. Deviations will be noted in a report.

Consultant will contact equipment manufacturer(s) to document the following conditions for the electrical distribution equipment reviewed:

1. Equipment components that are obsolete and no longer supported.
2. Equipment components that are near or at the end of their recommended service life
3. Equipment components that have long lead times for replacement or repair

Consultant will develop a report for each facility visited to document findings from site review and communications from electrical equipment manufacturers. General recommendations will be provided that describe potential solutions for equipment failure remedies.

Consultant will conduct a meeting with City staff to discuss the initial findings and incorporate feedback into the report.

Deliverables: Draft Report summarizing facility electrical equipment vulnerability assessments and recommendations at each site as described in the report. Final Report with the inclusion of agreed upon City comments.

Assumptions: City will participate in the vulnerability evaluations. Report recommendations are general in nature and will not include remedies on per component level. The study will focus on components with high likelihood of failure only.

Phase 400 – Power Study Program Assessment

Task 401 – Arrowhead Ranch WRF Arc Flash Hazard Analysis

Consultant will coordinate with Sub-Consultant to perform a Power Study Analysis of the Arrowhead Ranch WRF Electrical Distribution System. This effort will utilize the existing electronic modeling file but may require confirmation of all parameters and settings to ensure a complete, accurate and verifiable product. Thoroughly reviewing existing conditions and information ensures the owner is provided with correct results for understanding the hazards associated with the electrical distribution system and the proper protection necessary when working with the electrical equipment. The following activities will be required by the Sub-Consultant.

Site Visit, Data Gathering. The Sub-Consultant will utilize all available electrical record drawings, existing arc flash studies, existing coordination studies, and existing electrical distribution equipment shop drawings obtained from the City. The information will be collected in electronic PDF or JPG format or copies of hard copies will be made. The level of effort is based on City assistance by providing direction on how to collect this data, what data is believed to be available, and provide Sub-Consultant access to City libraries to collect the data. Sub-Consultant will coordinate with the electric utility provider to obtain short circuit current fault contribution values.

Per the National Electric Code (NEC), a five-year review of electrical equipment is recommended. Using the NEC for guidance, the Sub-Consultant will perform a site investigation to visually observe the encompassing portions of electrical distribution system from normal power source or sources up to and including overcurrent protection devices in the service entrance metering section, main breaker in sub-distribution panels, main breaker in each panelboard and motor control center, medium voltage switches, transformers, switchgear, and switchboards. Also, existing cable or bus duct size and length. Sub-Consultant will verify equipment ratings of the existing equipment mentioned above. Site investigation will not include three phase motors less than 10 horsepower, DC equipment, control panels, transient voltage surge suppression (TVSS), power factor correction capacitor (PFCC), soft starters, junction boxes, pull boxes, or terminal boxes. Where data is unable to be visually verified in the field best practice engineering assumption will be made. These assumptions will be identified in the Power Study Report. If Sub-Consultant is unable to access medium voltage equipment during the initial site visit, the city will provide the latest protective device relay phase and ground settings, current transformers (CTs), cable size, cable quantity, and cable type.

The City will provide qualified personnel familiar with the site to accompany the Sub-Consultant and open all electrical equipment doors, locks, etc. as necessary during the site investigation.

Short-Circuit Study. The Sub-Consultant will perform an American National Standards Institute (ANSI) short-circuit study and an equipment evaluation of the devices and equipment modeled. The evaluation will identify if devices and equipment are sufficiently rated for the available short-circuit current. Equipment with no short-circuit rating label in the field will be included in the evaluation but noted that no rating was found during the site survey. Sub-Consultant will state conclusions and provide recommendations, if necessary, in the Power Study Report.

Protective Device Coordination. The Sub-Consultant will perform an ANSI protective device study of relays, fuses, circuit breakers, and all other protective devices and will submit a coordination and protective device settings report as specified herein. The study will be performed in compliance with Institute of Electrical and Electronics Engineers (IEEE) Standard 242 and include the entire distribution system, including existing power distribution components starting with the smallest – 480 volt, 3 phase, 60 Hz – circuit protective device on the load end to the nearest protective device on the power company's line side. Protective device relay phase and ground overcurrent curves are anticipated to at least have a 0.2 second time margin from other devices and 0.4 seconds if possible. Protective device settings will be selected / recommended to provide selective coordination to the maximum extent possible for device coordination while also balancing the goal to reduce the calculated incident energy to the greatest extent possible. Sub-Consultant will state conclusions and provide recommendations in the Power Study Report.

Perform Arc Flash Analyses. The Sub-Consultant will utilize the existing arc flash model as provided to perform an Arc Flash Hazard Analysis for each existing three phase electrical equipment including service entrance sections, sub-distribution panels, panelboards and motor control centers, medium voltage switches, transformers, switchgear, and switchboards, in accordance with IEEE Standard 1584 – the IEEE Guide for Performing Arc-Flash Calculations and will submit findings in the Power Study Report.

The analysis will include single-phase alternating current (AC) circuits as requested by the City. The analysis will not include direct current (DC) distribution systems as these types of circuits and systems are not covered by IEEE 1584-2018 Arc Flash calculation guidelines or required by the City's specifications.

Protective-device settings will be selected to provide the necessary coordination required while also balancing the goal of minimizing the calculated incident energy to the greatest extent possible.

The Arc Flash Hazard Analysis will calculate the arc flash protection boundary and the arc flash incident energy at defined working distances for the locations specified in the analysis. The analysis will be performed for up to three (3) electrical system modes of operation to

calculate the worst-case incident energy. At a minimum, the system will be analyzed for the minimum and maximum available fault current and X/R ratios from the electric utility supplying service or for the separately derived power system.

When performing incident energy calculations, the line side of the main breaker will be used as the point of analysis for a given piece of equipment per IEEE 1584 guidelines. Fault contributions from both the line and load sides shall be used when performing the calculation. If appropriate, a max clearing time of 2 seconds will be used for calculations.

Under certain circumstances, assumptions are required if needed information is unavailable. Sub-Consultant will provide their due diligence to obtain the needed information. Any assumptions used in the analysis will be documented in the Power Study Report.

Deliverables: The Sub-Consultant will develop and submit a draft Power Study Report documenting the analysis and protective device settings for review and acceptance by the City. The Sub-Consultant will meet with the City to gather comments on the draft Power Study Report and answer any questions. Final selection of recommended protective device settings will be subject to review and acceptance by the City.

The Sub-Consultant will incorporate comments as needed and submit a final Power Study Report.

Sub-Consultant will remove existing stickers, create and apply new updated arc flash labels.

Assumptions: City will provide electronic application model file of the existing arc flash study. City will provide support staff for data collection.

Task 402 – Facility Power Study Analysis

Scope to be included as a supplemental service or as part of Part II.

Phase 500 – Electrical/Instrumentation/SCADA Improvements Design

Scope to be included as a supplemental service or as part of Part II.

Phase 600 – Electrical/Instrumentation/SCADA Improvements Construction Administration

Scope to be included as a supplemental service or as part of Part II.

Schedule

See attached schedule in Exhibit A-1.

Budget

See attached level of effort in Exhibit B-1.

Owner's Allowance – 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:

- Detailed internal review of deenergized existing electrical equipment.
- Existing Ground system testing (3-point Fall of Potential or Clamp on Test)
- Detailed electrical distribution vulnerability analysis involving likelihood of failure (LOF) and consequence of failure (COF) with service life estimations.
- Review on going facility designs by others for resiliency and vulnerabilities that align with City goals.
- Conductor insulation testing with summarized report of results. Tests to be performed per NETA testing standards.
- Design of identified electrical, instrumentation/SCADA (PLC) improvements, including creations of engineering plans and/or in-kind electrical replacement specifications.
- Construction administration associated with identified electrical, instrumentation/SCADA (PLC) improvements, including JOC bid / GMP coordination, factory acceptance test witness, submittal review, RFI response / clarification, field inspections, special inspections.
- Power Study assessment, the findings of which would be submitted in the Power Study Report, including:
 - *Data collection.*
 - *Creation / Update of System Model.* Review/update of existing model or creation of new model which begins downstream of the utility service and continue down through the City's electrical distribution system up to and including fuses in service entrance metering section, main breaker in sub-distribution panels, main breaker in each panelboard and motor control center, medium voltage switches, transformers, switchgear, and switchboards.
 - *Short-Circuit Study.* Perform an American National Standards Institute (ANSI) short-circuit study and an equipment evaluation of the devices and equipment modeled. The evaluation will identify if devices and equipment are sufficiently rated for the available short-circuit current. Equipment with no short-circuit rating label in the field will be included in the evaluation but noted that no rating was found during the site survey.
 - *Protective Device Coordination.* Perform an ANSI protective device study of relays, fuses, circuit breakers, and all other protective devices and will submit a coordination and protective device settings report as specified herein. The study will be performed in compliance with Institute of Electrical and Electronics Engineers (IEEE) Standard 242 and include the entire distribution system, including existing power distribution components starting with the smallest – 480 volt, 3 phase, 60 Hz – circuit protective device on the load end to the nearest protective device on the power company's line side. Protective device relay phase and ground overcurrent curves are anticipated to at least have a 0.2 second time margin from other devices and 0.4 seconds if possible. Protective device settings will be selected / recommended to provide selective coordination

to the maximum extent possible for device coordination while also balancing the goal to reduce the calculated incident energy to the greatest extent possible.

- *Arc Flash Analyses.* Perform additional Arc Flash Hazard Analyses as described herein.

Exhibit A-1

City Project Number 222344 - City of Glendale Electrical Vulnerability & Arc Flash Assessment - Part I

ID	Task Name	Duration	Start	Finish	Predecessors	Timeline													
						Apr	Qtr 2, 2024		Jun	Jul	Qtr 3, 2024		Oct	Qtr 4, 2024		Dec	Jan	Qtr 1, 2025	
							May			Aug	Sep		Nov		Feb				
0	City of Glendale Electrical Vulnerability & Arc Flash Assessment Project No. 222344	404 days	Tue 7/18/23	Fri 1/31/25		[Gantt bar spanning from Apr to Feb]													
1	NTP	4 days	Tue 6/11/24	Fri 6/14/24		[Gantt bar from Jun to Jun]													
2	Phase 100 - PROJECT MANAGEMENT	165 days	Mon 6/17/24	Fri 1/31/25		[Gantt bar from Jun to Jan]													
3	101 - Monitor Progress & Prepare Status Reports (Part I & II)	165 days	Mon 6/17/24	Fri 1/31/25	1	[Gantt bar from Jun to Jan]													
4	Phase 200 - PROGRAM DEVELOPMENT	133 days	Fri 6/14/24	Thu 12/19/24	1	[Gantt bar from Jun to Dec]													
5	201 - Kickoff & Progress Meetings	130 days	Thu 6/20/24	Thu 12/19/24		[Gantt bar from Jun to Dec]													
13	202 - Collect Facility & Electrical Equipment Data (Part I)	30 days	Mon 6/17/24	Fri 7/26/24	1	[Gantt bar from Jun to Jul]													
14	203 - Utility Coordination (Part II)	0 days	Fri 6/14/24	Fri 6/14/24		[Gantt bar from Jun to Jun]													
15	204 - Site Visits for Data Collection (Part I)	15 days	Mon 7/29/24	Fri 8/16/24		[Gantt bar from Jul to Aug]													
16	Develop Site Inspection Plans (Part I)	15 days	Mon 7/29/24	Fri 8/16/24	13	[Gantt bar from Jul to Aug]													
17	205 - Field Inspection Preparation and Execution (Part I)	41 days	Tue 7/23/24	Tue 9/17/24		[Gantt bar from Jul to Sep]													
18	Water Treatment Plants	21 days	Tue 8/20/24	Tue 9/17/24		[Gantt bar from Aug to Sep]													
19	Oasis WTP	1 day	Tue 8/20/24	Tue 8/20/24	16FS+1 day	[Gantt bar from Aug to Aug]													
20	Pyramid Peak WTP	1 day	Tue 9/17/24	Tue 9/17/24	23FS+2 days	[Gantt bar from Sep to Sep]													
21	Water Reclamation Facilities (by Others)	0 days	Tue 7/23/24	Tue 7/23/24		[Gantt bar from Jul to Jul]													
22	Groundwater Wells	1 day	Thu 9/12/24	Thu 9/12/24		[Gantt bar from Sep to Sep]													
23	COG43	1 day	Thu 9/12/24	Thu 9/12/24	27	[Gantt bar from Sep to Sep]													
24	Booster Stations	1 day	Tue 8/13/24	Tue 8/13/24		[Gantt bar from Aug to Aug]													
25	#1 - Zone 4	1 day	Tue 9/10/24	Tue 9/10/24	35FS+1 day	[Gantt bar from Sep to Sep]													
26	Lift Stations	1 day	Wed 9/11/24	Wed 9/11/24		[Gantt bar from Sep to Sep]													
27	LS9 - 83rd & Bell	1 day	Wed 9/11/24	Wed 9/11/24	25	[Gantt bar from Sep to Sep]													
28	Phase 300 - ELECTRICAL VULNERABILITY ASSESSMENT PRIORITIZATION (Part I)	401 days	Tue 7/18/23	Tue 1/28/25		[Gantt bar spanning from Apr to Feb]													
29	301 - Review Electrical Vulnerability Data Collected (Part I)	95 days	Wed 9/18/24	Tue 1/28/25		[Gantt bar from Sep to Jan]													
30	Develop Draft Report	60 days	Wed 9/18/24	Tue 12/10/24	17	[Gantt bar from Sep to Dec]													
31	City Review	20 days	Wed 12/11/24	Tue 1/7/25	30	[Gantt bar from Dec to Jan]													
32	Final Report	15 days	Wed 1/8/25	Tue 1/28/25	31	[Gantt bar from Jan to Jan]													
33	302 - Electrical System Review Guidance Document Development (Part I)	45 days	Mon 7/29/24	Fri 9/27/24		[Gantt bar from Jul to Sep]													
34	Develop Draft Report	15 days	Mon 7/29/24	Fri 8/16/24	16FF	[Gantt bar from Jul to Aug]													
35	City Review	15 days	Mon 8/19/24	Fri 9/6/24	34	[Gantt bar from Aug to Sep]													
36	Final Report	15 days	Mon 9/9/24	Fri 9/27/24	35	[Gantt bar from Sep to Sep]													
37	303 - Develop Electrical Vulnerability Assessment Prioritization Plan (Part I)	45 days	Tue 7/18/23	Mon 9/18/23		[Gantt bar from Jul to Sep]													
38	Phase 400 - POWER STUDY PROGRAM ASSESSMENT (Part I & II)	60 days	Fri 7/26/24	Fri 10/18/24		[Gantt bar from Jul to Oct]													
39	401 - Arrowhead Ranch WRF Arc Flash Hazard Initial Analysis (Part I)	60 days	Mon 7/29/24	Fri 10/18/24	13	[Gantt bar from Jul to Oct]													
40	402 - Power Study Analyses (Part II)	0 days	Fri 7/26/24	Fri 7/26/24	13	[Gantt bar from Jul to Jul]													
41	Phase 500 - ELECTRICAL IMPROVEMENTS DESIGN (Part II)	0 days	Fri 6/14/24	Fri 6/14/24	1	[Gantt bar from Jun to Jun]													
42	Phase 600 - ELECTRICAL IMPROVEMENTS CONSTRUCTION ADMINISTRATION (Part II)	0 days	Fri 6/14/24	Fri 6/14/24	1	[Gantt bar from Jun to Jun]													

City of Glendale Electrical Vulnerability & Arc Flash Assessment P
Date: Part I Baseline - 4/17/24

Task [Gantt bar] Summary [Gantt bar] Project Summary [Gantt bar]

EXHIBIT B
Professional Services Agreement

COMPENSATION

METHOD AND AMOUNT OF COMPENSATION

Compensation shall be hourly rates plus allowable reimbursable 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 \$209,828.

DETAILED PROJECT COMPENSATION

See attached.



BLACK & VEATCH

Exhibit B-1 Compensation Summary

City of Glendale

City PN 222344 - Electrical Vulnerability and Arc Flash Assessment (PART I)

Phase	Description	Total Hours	Total Fee
100	Phase 100 – Project Management	56	\$9,476
200	Pre-Award Services	327	\$62,194
300	Phase 300 – Electrical Vulnerability Assessment	298	\$54,858
400	Phase 400 – Power Study Program Assessment	32	\$6,114
500	Phase 500 – Electrical Improvements Design (Part II)	-	\$0
600	Phase 600 – Electrical Improvements Construction Administration (Part II)	-	\$0
	EXPENSES		\$2,139
	SUBCONSULTANTS		\$25,047
	BLACK & VEATCH SUBTOTAL w/ SUBS; w/o ALLOWANCES	713	\$159,828
	Owner's Allowance		
	Supplemental Services Allowance		\$50,000
	BLACK & VEATCH TOTAL w/ ALLOWANCES	713	\$209,828