

**PROFESSIONAL SERVICES AGREEMENT**  
SCADA MASTER PLAN

This Professional Services Agreement ("Agreement") is entered into and effective between CITY OF GLENDALE, an Arizona municipal corporation ("City") and West Yost Associates, Inc., a California Corporation, authorized to do business in the State of Arizona, ("Consultant") as of the \_\_\_\_ day of \_\_\_\_\_, 2022 ("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**, Project (the "Project");
- B. City desires to retain the professional services of Consultant to perform certain specific duties and produce the specific work as set forth in the attached **Exhibit B**, Project Scope of Work ("Scope");
- C. Consultant desires to provide City with professional services ("Services") consistent with best consulting or architectural practices and the standards set forth in this Agreement, in order to complete the Project; and
- D. 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 the Project is completed timely and efficiently consistent within Project 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 Project 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 Project by Consultant will comprise the "Project Team."
    - (2) Project Manager will have responsibility for and will supervise all other employees assigned to the Project 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 the Project 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 development of the Project.

d. Subcontractors.

- (1) Consultant will not employ any subcontractors or subconsultants during the term of the agreement.

2. **Schedule.** The Services will be undertaken in a manner that ensures the Project is completed timely and efficiently in accordance with the Project.

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 Project 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 on the Project ("Coordinating Project Professionals").
- b. Consultant will meet to review the Project, Schedule and in-progress work with Coordinating Project Professionals and City as often and for durations as City reasonably considers necessary in order to ensure the timely work delivery and Project completion.

- c. For projects not involving Coordinating Project 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 Project.

### 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, excluding any standard designs, details, specifications and other intellectual property to which Consultant held the copyright prior to performing services under this Agreement ("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 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 reuse or modifications of the Work Product.
  - (3) In such case, City will also remove any seal and title block from the Work Product.

## 4. **Compensation for the Project.**

- 4.1 Compensation. Consultant's compensation for the Project, including those furnished by its Subconsultants or Subcontractors will not exceed \$448,705 as specifically detailed in **Exhibit D** ("Compensation").
- 4.2 Change in Scope of Project. The Compensation may be equitably adjusted if the originally contemplated Scope as outlined in the Project is significantly modified.
  - a. Adjustments to Compensation require a written amendment to this Agreement and may require City Council approval.
  - b. Additional services which are outside the Scope of the Project 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 Allowances. An "Allowance" may be identified in **Exhibit D** only for work that is required by the Scope and the value of which cannot reasonably be quantified at the time of this Agreement.
  - a. As stated in Sec. 4.1 above, the Compensation must incorporate all Allowance amounts identified in **Exhibit D** and any unused allowance at the completion of the Project will remain with City.

- b. Consultant may not add any mark-up for work identified as an Allowance and which is to be performed by a Subconsultant.
- c. Consultant will not use any portion of an Allowance without prior written authorization from the City.
- d. Examples of Allowance items include, but are not limited to, subsurface pothole investigations, survey, geotechnical investigations, public participation, radio path studies and material testing.

4.4 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 for Reimbursable Services in the Compensation.

## 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 Project 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 services necessary to complete the Project as herein defined. Such insurance shall cover Consultant, its agent(s), representative(s), and employee(s).

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: Equivalent to 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 negligent errors and omissions arising services performed by Consultant, or anyone employed by Consultant, or anyone for whose negligent acts, mistakes, errors and omissions Consultant is legally liable, with a liability insurance limit of \$1,000,000 for each claim and a \$1,000,000 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 Project.

- 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 (except Professional Liability and Works Compensation), 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 Project 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. Additional Insured status 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 this Project, 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 (including Professional Liability and Worker's Compensation) 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, 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 warrant 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. **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.

12. **Notices.**

12.1 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.

12.2 Representatives.

- a. Consultant. Consultant's representative (the "Consultant's Representative") authorized to act on Consultant's behalf with respect to the Project, and his or her address for Notice delivery is:

West Yost & Associates, Inc.  
c/o Dan Groves, P.E.  
4505 E. Chandler Blvd.  
Phoenix, AZ 85048

- 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 Julie Ossege  
7070 W. Northern Avenue  
Glendale, Arizona 85303

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.

13. **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 Project.

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

14.1 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 Project 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.

14.2 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.

14.3 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 Project, or the earlier termination of this Agreement.

14.4 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.

14.5 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.

14.6 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.

14.7 Counterparts. This Agreement may be executed in counterparts, and all counterparts will together comprise one instrument.

15. **Term.**

15.1 Renewals. The term of this Agreement commences upon the effective date and continues for a 5 year initial period. Price adjustments will only be reviewed during the Agreement renewal period and will be a determining factor for any renewal. There are no automatic renewals of this Agreement.

15.2 Extension for Procurement Process. Upon the expiration of the Term of this Agreement, including the initial term and any renewals, 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.

16. **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.

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

- Exhibit A Project
- Exhibit B Scope of Work
- Exhibit C Schedule
- Exhibit D Compensation

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

City of Glendale,  
an Arizona municipal corporation

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By: Kevin R. Phelps  
Its: City Manager

ATTEST:

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Julie K. Bower (SEAL)  
City Clerk

APPROVED AS TO FORM:

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Michael D. Bailey  
City Attorney

West Yost & Associates, Inc.,  
a California Corporation



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By: Elizabeth T. Drayer, Vice President  
Its: Authorized Representative

**EXHIBIT A**  
**Professional Services Agreement**

PROJECT

Consultant to study alternative information and communication systems to develop a plan to upgrade equipment of the Supervisory Control and Data Acquisition (SCADA) system to new technologies that will be defined in the SCADA Master Plan.

**EXHIBIT B**  
**Professional Services Agreement**

SCOPE OF WORK

The Scope of Work is outlined in the attached West Yost, SCADA Master Plan Proposal.

**EXHIBIT C**  
**Professional Services Agreement**

SCHEDULE

The Fee Schedule is outlined in the attached West Yost, SCADA Master Plan Proposal, Attachment A.

**EXHIBIT D**  
**Professional Services Agreement**

COMPENSATION

**METHOD AND AMOUNT OF COMPENSATION**

Method and amount of Compensation is outlined in the attached West Yost, SCADA Master Plan Proposal, Attachment B.

**NOT-TO-EXCEED AMOUNT**

The total amount of compensation paid to Consultant for full completion of all work required by the Project during the entire term of the Project must not exceed \$448,705.

**DETAILED PROJECT COMPENSATION**

Consultant will be compensated per the attached West Yost, SCADA Master Plan Proposal.



4505 E Chandler Boulevard  
Suite 230  
Phoenix AZ 85048

602.337.6110 phone  
530.756.5991 fax  
westyost.com

April 12, 2022

SENT VIA: EMAIL

Mark Roye  
Asset Reliability Manager  
City of Glendale Water Services Department  
7070 W. Northern Avenue  
Glendale, AZ 85303

**SUBJECT: Proposal for SCADA Master Plan**

Dear Mr. Roye:

West Yost is pleased to submit this proposed scope of work, schedule, and corresponding cost estimate to provide engineering services associated with the development of a supervisory control and data acquisition (SCADA) Master Plan (Master Plan) for the City of Glendale (COG) system that sets the stage for creating, managing, and maintaining a more reliable and secure SCADA system for your water operations. The Master Plan will provide an action plan, strategy, and approach for the SCADA system.

## **BACKGROUND, GOALS AND OBJECTIVES**

COG is planning to replace SCADA systems across all water and wastewater facilities. Additionally, COG is seeking to evaluate its current cybersecurity posture to improve reliability and resiliency of critical water services.

## **SCOPE OF SERVICES**

The following is a list of the key tasks necessary to perform this proposed Scope of Services, each further described below:

- Task 1. Project Management and General Support
- Task 2. Baseline Assessment and Gap Analysis
- Task 3. Alternatives and Recommendations
- Task 4. Master Plan Development
- Task 5. As Needed Support Services
- Task 6. Owner's Contingency

### **Task 1. Project Management and General Support**

The objective of this task is to track work progress and expenditure using proactive communications, quality assurance and quality control to keep the project on schedule and budget.

### **Task 1 Work Activities:**

- **Kickoff Meeting** – West Yost will prepare for and coordinate a kickoff meeting to initiate the Master Plan. This meeting will be conducted at a COG designated location.
- **Progress Meetings** – Every two weeks (or as needed), West Yost will conduct conference calls and will be held to review the project status, including work completed during the latest report period, work anticipated to be completed during the next reporting period, identified problems/issues that could affect project budget/expenditures and/or schedule, outstanding issues to be resolved, and action items. Minutes will be provided for each progress call.
- **Information Requests** – West Yost will request system information from COG to be provided in advance of the facility tours.
- **Invoices and Progress Reports** – Monthly Invoices and Progress Reports will be provided.
- **Quality Control** – Internal quality assurance and quality control will be performed for each of the project deliverables prior to final submission to COG.
- **Data Sharing** – West Yost will coordinate with COG technical staff to provide a secure site for sensitive document exchange. West Yost preference is for COG to host the site and retain control of all documents.
- **Project Closeout** – West Yost will conduct final project closeout activities, including final document delivery and final progress report.

### **Task 1 Assumptions**

- COG Project Manager will attend bi-weekly meetings

### **Task 1 Deliverables**

- West Yost will provide kickoff meeting agendas and minutes
- West Yost will prepare bi-weekly meeting minutes
- West Yost will provide monthly project status reports and invoices

## **Task 2. Baseline Assessment and Gap Analysis**

The objective of this task is to document current baseline conditions, including gathering and reviewing existing document and plans.

### **Task 2 Work Activities:**

COG will upload existing documentation to the data exchange site, including but not limited to:

- List and descriptions of ongoing SCADA related projects
- Detailed financial model providing year-over-year capacity for water fund, wastewater fund, and any other capital funds used for future SCADA projects
- Hardware and software information for SCADA equipment
- Organizational chart for all staff associated with the SCADA and information technology (IT) systems
- Data mapping of current sharing between COG and Partners
- Sample Capital Improvement Program (CIP) project cutsheet

West Yost will:

- Conduct a dedicated workshop for IT to provide an overview of the SCADA Master Plan project
- Conduct site visits at representative sites and document connectivity between COG systems
  - Site visits will include interviews and include network evaluation
  - Interview with IT staff will include network discussions will cover topic operational technology (OT) security including potential implementation OT “SCADA fence” technology
  - Network security will also be discussed and include the possible future implementation of deep packet inspection for the OT network
  - Interviews will also be conducted with COG SCADA staff
- Conduct a baseline assessment including:
  - Current System evaluations and observations
  - SCADA Software Technology Evaluation, using request for information (RFI) approach
  - Controller Hardware and Software Evaluations/Selection
  - Network Architecture and Network standards
    - IT to OT network architecture analysis
    - Technical documentation and demonstration of the current architecture
  - Radio communications/fiber optic/cellular
  - Review of gaps identified in the Risk and Resilience Assessment/Emergency Response Plan project

The assessment will be organized to address the following elements:

- Control Network Standards
- Programmable Logic Controller Communication Standards
- Control Cabinets Layout and Sizing
- Human Machine Interface (HMI) Software Patching and Update approach
- Controller Programming Standards
- Graphical Standards
- Instrument Standards
- Tagging Standards
- System monitoring requirements
- Alarming Philosophy and Management
- Reporting
- Disaster recovery

#### **Task 2 Assumptions**

- COG will upload available documentation to the secure data site for review prior to the facility tours
- West Yost will conduct site visits up to a five-day period

- IT workshop will provide for up to a four-hour meeting
- Interview will include meeting three dedicated SCADA staff
- Financial model will be based on historic, current, and future data including operating expenses, capital expenses, debt, revenues, capital plans, and debt schedules
- The financial model list will be used to coordinate the Master Plan project sequence with COG financial capacity

#### **Task 2 Deliverables**

- IT Workshop and Interviews
- Data Request
- Site Visit Summary
- System Gaps

### **Task 3. Alternatives and Recommendations**

The objective of this task is to document recommended approaches to address communications media, communications protocols, cybersecurity, software, and hardware architecture.

#### **Task 3 Work Activities:**

- **Cybersecurity Tabletop Exercise** – West Yost will create a real-world simulation of a cyber-attack and guide COG’s Emergency Operations Center (EOC) Manager, Operations staff, and SCADA staff through the process (“A Day Without SCADA”). The purpose of this exercise is to help COG staff understand the potential operational implications of a cyber-attack and develop approaches and respond and develop mitigations to minimize the impact of a cybersecurity attack. Immediately following the exercise, a “Hot Wash” will be conducted to evaluate the organizational strengths and areas for improvement.
- **Consequence-Drive, Cyber-Informed Engineering (CCE) Workshop Series** – West Yost will conduct CCE workshops to review the CCE methodology from Idaho National Labs (INL) and conduct a high-level CCE evaluation of the City Water/Wastewater system.
- **Roles and Responsibilities Workshops** – West Yost will prepare and conduct workshops to define and document the current and desired roles and responsibilities for SCADA system maintenance. Separate workshops will be held with three groups: SCADA staff, electrical/instrumentation maintenance staff, and IT staff. A final workshop will be held to review the findings and how the current SCADA system is managed. This exercise will provide background for alternatives evaluation and development, as well as include a gap analysis. It will additionally address data transfer/sharing (SEEQ software package and potential cloud-based data sharing).
- **Request for Information Development** – West Yost will develop a DRAFT RFI intended to obtain information from vendors specific to the current SCADA system software available in the marketplace. The RFI will follow a question-and-answer format, requesting information from SCADA software vendors relative to their products. The information received in response to the RFI will be included in the Alternatives Evaluation Workshop and used to compare the needs of COG to the available marketplace and to the current SCADA software (iFix 6.5). COG will issue the RFI for public review and response.

- **Alternatives Evaluation Workshop** – West Yost will develop an alternatives evaluation for system elements and conduct a workshop to review the evaluation with COG Staff. COG decisions and feedback will be documented and included in the Alternatives Evaluation Summary. Key areas to be evaluated include:
  - Communication network standardization
  - Communications protocols
  - Radio and wireless network options
  - SCADA hardware standardization
  - SCADA software standardization
  - System design and maintenance approaches
  - IT support approach and service-level agreements
  - Integration of SCADA data between COG and partners
  - Control Strategies gap analysis and alternatives
  - Remote Access Options
- **Recommendations Workshops** – West Yost will develop draft recommendations and review the recommendations with the COG in a series of technical workshops.
- **To-Be Network Architecture** – West Yost will develop a recommended communications network architecture for SCADA based on network design best practices and aligned with industrial control system cybersecurity recommendations including National Institute and Technology 800-82 standards (latest version).
- **To-Be Hardware and Software Architecture** – West Yost will develop a recommended hardware and software architecture (including recommended spares and redundancy) based on the COG's preferred hardware vendor.

### Task 3 Assumptions

- COG's EOC Manager, Operations Staff and SCADA maintenance staff will attend the *in-person*, 4-hour Cybersecurity Tabletop Exercise with West Yost staff
- COG's EOC Manager, Operations Staff and SCADA maintenance staff will attend the *virtual* 4-hour CCE Workshop
- CCE series will provide up to four remotely hosted workshops
- The Federal Emergency Management Agency (FEMA) Hot Wash Report Form will be used after the Cybersecurity Tabletop Exercise
- COG networking group will be included in the Roles and Responsibilities workshop
- COG will issue the RFI
- Visio will be used for architecture drawings and org chart

### Task 3 Deliverables

- West Yost will conduct a Cybersecurity Tabletop Exercise and provide a FEMA Hot Wash Report Form
- West Yost will conduct a CCE Workshop
- Draft and Final of Role and Responsibilities Matrix
- Draft and Final of Alternative Evaluation Summary
- Draft and Final Recommendations of Network Architecture and Hardware and Software Architecture

## Task 4. Master Plan Development

The objective of this task is to develop an implementable project portfolio with significant input and discussion with the COG.

### *Task 4 Work Activities:*

- **Project Portfolio Development** – West Yost will develop a preliminary Project List and Schedule for COG Review. COG will provide feedback on the Project List and Schedule with focus on determining which projects will be COG-led initiatives.
- **Cutsheets** – West Yost will develop project cutsheets for SCADA upgrades for non- COG-led initiatives. Project cutsheets will include project scope descriptions, estimated construction costs and funding mechanisms, schedule, criticality ranking, prerequisites, and impacted stakeholders. Projects included in the portfolio will include both CIP projects and the COG-led initiatives.
- **Presentation** – West Yost will develop and present a summary of the project to COG Operations Committee.
- **Project Portfolio Review Workshops** – West Yost will conduct and facilitate two, four-hour afternoon workshops with COG staff to present and receive feedback on the SCADA Upgrades Program. Feedback from the COG will be incorporated, and the document will be updated and distributed for review.
- **Implementation Plan Development** – West Yost will develop an Implementation Plan including a narrative of the proposed implementation approach. The implementation plan will outline key activities, deliverables, roles, and responsibilities for implementation of the overall Project Portfolio.
- **Implementation Plan Review Workshop** – West Yost will conduct one four-hour workshop with COG staff to present and receive feedback on the Implementation Plan. Feedback from the COG will be incorporated, and the document will be updated and distributed for review.
- **Final SCADA Master Plan Development** – Input and comments from the COG will be addressed in the Final SCADA Master Plan (includes executive summary).
- **Final SCADA Master Plan Presentation** – West Yost will develop a summary presentation for the COG Ops Committee to provide an overview of the SCADA Master Plan.

### **Task 4 Assumptions**

- COG will provide review and feedback in time frames as outline in the project schedule
- 3.5 percent cost escalation per year will be included in project cost estimates
- The project portfolio relies on the financial model provided by COG during Task-2

### **Task 4 Deliverables**

- Draft and Final Project Portfolio (Microsoft Word and Microsoft Project)
- Draft and Final Implementation Plan (Microsoft Word)
- Draft and Final SCADA Master Plan Presentation (PowerPoint)

## Task 5. As Needed Support Services

West Yost will provide additional services related to the previous tasks as requested by COG, up to the budget amount shown in the fee estimate. Anticipated as-needed support services include:

- Program Management support services
- Network design and implementation
- Electrical engineering services
- Programming and configuration services for ICS/SCADA
- Financial Model Support
- Additional support for Implementation not specifically outlined in Task 5

### Task 5 Assumptions

- West Yost will provide a separate estimate for each request on a time-and-materials basis up to the level of effort shown in the Project Budget Estimate.

## Task 6. Owner's Contingency

The owner's contingency will serve as a reserve of 8-percent of the overall project fee estimate to cover changes to the scope requested by COG.

### Task 6 Assumptions

- West Yost will provide a separate estimate for each request on a time-and-materials basis up to the level of effort shown in the Project Budget Estimate.

## SCHEDULE AND FEE

We propose to deliver the COG SCADA Master Plan on a time-and-materials not-to-exceed basis of \$448,705. Our Project Schedule (Attachment A) and 2022 Billing Rate schedule (Attachment B) is attached.

Thank you for the opportunity to submit a letter proposal on this important project with the COG. Please reach out if you have further questions about our proposal at 602.845.0326 or [dgroves@westyost.com](mailto:dgroves@westyost.com).

Sincerely,  
WEST YOST



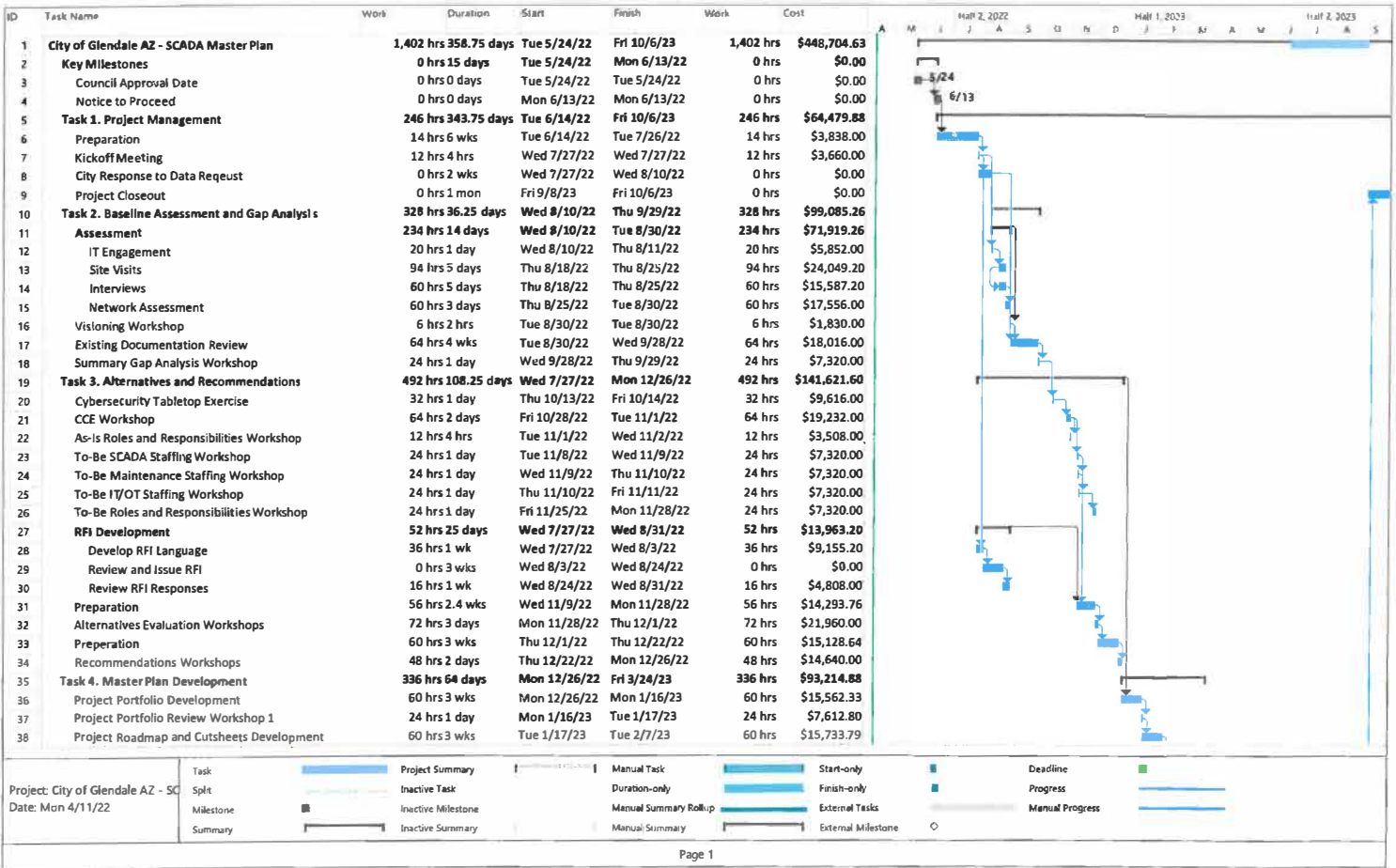
Daniel Groves, PE  
Control Systems Engineer  
RCE # 45679

Attachments: A. Project Schedule  
B. West Yost's 2022 Billing Rate Schedule

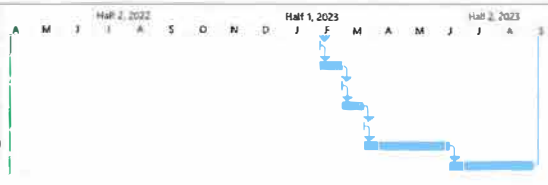


Attachment A

Project Schedule



ID	Task Name	Work	Duration	Start	Finish	Work	Cost
39	Project Portfolio Review Workshop 2		24 hrs 1 day	Tue 2/7/23	Wed 2/8/23	24 hrs	\$7,612.80
40	Implementation Plan Development		60 hrs 3 wks	Wed 2/8/23	Wed 3/1/23	60 hrs	\$15,733.79
41	Implementation Plan Review Workshop		24 hrs 1 day	Wed 3/1/23	Thu 3/2/23	24 hrs	\$7,612.80
42	Final SCADA Master Plan Development		60 hrs 3 wks	Thu 3/2/23	Thu 3/23/23	60 hrs	\$15,733.79
43	Final SCADA Master Plan Presentation		24 hrs 1 day	Thu 3/23/23	Fri 3/24/23	24 hrs	\$7,612.80
44	Task 5. As-Needed Support Services		0 hrs 3 mons	Fri 3/24/23	Fri 6/16/23	0 hrs	\$20,000.00
45	Task 6. Owner's Cost Contingency		0 hrs 3 mons	Fri 6/16/23	Fri 9/8/23	0 hrs	\$30,303.00



Project: City of Glendale AZ - SC  
Date: Mon 4/11/22

Task		Project Summary		Manual Task		Start-only		Deadline	
Split		Inactive Task		Duration-only		Finish-only		Progress	
Milestone		Inactive Milestone		Manual Summary Rollup		External Task		Manual Progress	
Summary		Inactive Summary		Manual Summary		External Milestone			

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Attachment B

## West Yost's 2022 Billing Rate Schedule

# 2022 Billing Rate Schedule

(Effective January 1, 2022 through December 31, 2022)\*



POSITIONS	LABOR CHARGES (DOLLARS PER HOUR)
<b>ENGINEERING</b>	
Principal/Vice President	\$318
Engineer/Scientist/Geologist Manager I / II	\$301 / \$315
Principal Engineer/Scientist/Geologist I / II	\$272 / \$289
Senior Engineer/Scientist/Geologist I / II	\$244 / \$256
Associate Engineer/Scientist/Geologist I / II	\$209 / \$224
Engineer/Scientist/Geologist I / II	\$168 / \$195
Engineering Aide	\$98
Field Monitoring Services	\$90
Administrative I / II / III / IV	\$86 / \$109 / \$130 / \$144
<b>ENGINEERING TECHNOLOGY</b>	
Engineering Tech Manager I / II	\$313 / \$315
Principal Tech Specialist I / II	\$287 / \$297
Senior Tech Specialist I / II	\$263 / \$275
Senior GIS Analyst	\$238
GIS Analyst	\$225
Technical Specialist I / II / III / IV	\$168 / \$191 / \$215 / \$240
Technical Analyst I / II	\$120 / \$144
Technical Analyst Intern	\$97
Cross-Connection Control Specialist I / II / III / IV	\$125 / \$136 / \$152 / \$170
CAD Manager	\$189
CAD Designer I / II	\$147 / \$166
<b>CONSTRUCTION MANAGEMENT</b>	
Senior Construction Manager	\$304
Construction Manager I / II / III / IV	\$185 / \$199 / \$211 / \$267
Resident Inspector (Prevailing Wage Groups 4 / 3 / 2 / 1)	\$162 / \$180 / \$201 / \$209
Apprentice Inspector	\$147
CM Administrative I / II	\$79 / \$106
Field Services	\$209

- Hourly rates include Technology and Communication charges such as general and CAD computer, software, telephone, routine in-house copies/prints, postage, miscellaneous supplies, and other incidental project expenses.
- Outside Services such as vendor reproductions, prints, shipping, and major West Yost reproduction efforts, as well as Engineering Supplies, etc. will be billed at actual cost plus 15%.
- The Federal Mileage Rate will be used for mileage charges and will be based on the Federal Mileage Rate applicable to when the mileage costs were incurred. Travel other than mileage will be billed at cost.
- Subconsultants will be billed at actual cost plus 10%.
- Expert witness, research, technical review, analysis, preparation and meetings billed at 150% of standard hourly rates. Expert witness testimony and depositions billed at 200% of standard hourly rates.
- A Finance Charge of 1.5% per month (an Annual Rate of 18%) on the unpaid balance will be added to invoice amounts if not paid within 45 days from the date of the invoice.

## 2022 Billing Rate Schedule

(Effective January 1, 2022 through December 31, 2022)\*



### Equipment Charges

EQUIPMENT	BILLING RATES
2" Purge Pump & Control Box	\$270 / day
Aquacalc / Pygmy or AA Flow Meter	\$28 / day
Emergency SCADA System	\$35 / day
Gas Detector	\$80 / day
Generator	\$39 / day
Hydrant Pressure Gauge	\$10 / day
Hydrant Pressure Recorder, Impulse (Transient)	\$55 / day
Hydrant Pressure Recorder, Standard	\$40 / day
Low Flow Pump Controller	\$75 / day
Powers Water Level Meter	\$32 / day
Precision Water Level Meter	\$19 / day
Stainless Steel Wire per foot	\$0.03 / day
Storage Tank	\$15 / day
Sump Pump	\$24 / day
Transducer Components (per installation)	\$23 / day
Trimble GPS – Geo 7x	\$220 / day
Tube Length Counter	\$22 / day
Turbidity Meter	\$22 / day
Vehicle	\$10 / day
Water Flow Probe Meter	\$20 / day
Water Quality Meter	\$27 / day
Water Quality Multimeter	\$185 / day
Well Sounder	\$30 / day