



**PURCHASING ITEM  
FOR  
COUNCIL AGENDA  
Memo No. CP14-129**

**1. Agenda Item Number:**

7

**2. Council Meeting Date:**  
March 13, 2014

**TO: MAYOR & CITY COUNCIL**

**3. Date Prepared:** February 24, 2014

**THROUGH: CITY MANAGER**

**4. Requesting Department:** Muncipal Utilities

**5. SUBJECT:** Project Agreement with CH2M HILL Engineers, Inc., for Water and Wastewater Facility Arc Flash Updates.

**6. RECOMMENDATION:** Staff recommends City Council award a Project Agreement to CH2M HILL Engineers, Inc., for Water and Wastewater Facility Arc Flash Updates, pursuant to Annual Contract No. EN1308-101, Project No. WW1411-201, in an amount not to exceed \$361,771.

**7. BACKGROUND/DISCUSSION:** The National Fire Protection Association and the 2011 National Electrical Code require routine training and reoccurring safety program audits of electrical equipment. The training and audits ensure safe work practices, procedures, and personal protective equipment for personnel who may be exposed to energized equipment.

The project scope of work includes arc flash evaluation, development of electrical system models, calculations, preparation of reports, and installation of arc flash warning labels. Forty-one water facilities and forty wastewater facilities will be evaluated. The project will also provide training to the department's Safety Coordinator to encompass aspects of the arc flash evaluation conducted, details of the labels provided, and regulations as they apply to the energized work at electrical equipment.

**8. EVALUATION:** This project is being performed under the Annual Permitting, Study, Design, and Post-Design Services for Water and Wastewater facilities Contract, No. EN1308-101, to CH2M HILL Engineers, Inc. The costs proposed for this project have been evaluated by staff and are determined to be reasonable. The contract completion time is 250 calendar days following Notice to Proceed.

**9. FINANCIAL IMPLICATIONS:**

Cost: \$361,771  
Savings: N/A  
Long Term Costs: N/A  
Fund Source:

<u>Account No.:</u>	<u>Fund Name:</u>	<u>Program Name:</u>	<u>CIP Funded:</u>	<u>Amount:</u>
601.3820.6718.6WA230	Water Bond	Water Production Facility Improvements	Yes	\$180,885
615.3910.6817.6WW189	Wastewater Operating	Effluent Reuse - ASR Wells	Yes	\$ 90,443
611.3910.6817.6WW196	Wastewater Bond	Collection System Facility Improvements	Yes	\$ 90,443
			<b>Total:</b>	<b>\$361,771</b>

**10. PROPOSED MOTION:** Move City Council award a Project Agreement to CH2M HILL Engineers, Inc., for Water and Wastewater Facility Arc Flash Updates, pursuant to Annual Contract No. EN1308-101, Project No. WW1411-201, in an amount not to exceed \$361,771.

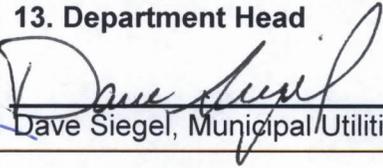
**ATTACHMENTS:** Project Agreement

**APPROVALS**

**11. Requesting Department**

  
John Knudson, Utilities Engineering Manager

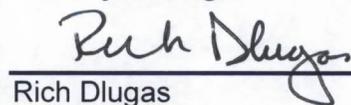
**13. Department Head**

  
Dave Siegel, Municipal Utilities Director

**12. Transportation & Development**

  
Bob Fortier, Capital Projects Manager

**14. City Manager**

  
Rich Dlugas

**PROJECT AGREEMENT  
PURSUANT TO ANNUAL CONTRACT NO. EN1308-101**

**PROJECT AGREEMENT NO: WW1411-201**

This AGREEMENT is made this \_\_\_\_ day of \_\_\_\_\_, 2014, by and between the City of Chandler, a municipal corporation (hereinafter referred to as "CITY") and CH2M Hill Engineers, Inc., a Delaware corporation, licensed in the State of Arizona (hereinafter referred to as "Annual Consultant") and is a project agreement entered into pursuant to Annual Contract No. EN1308-101.

CITY and CH2M Hill Engineers, Inc., in consideration of the mutual covenants herein set forth, agree as follows:

**ARTICLE 1 - DESCRIPTION OF WORK:**

This project is Water and Waste Water Facility Arc-Flash Updates, Project Number WW1411-201. The scope of work consists of Professional Services for arc flash evaluation, development of electrical system models, calculations, the preparation of a report and arc flash warning labels for water and waste water facilities, all as more particularly set forth in Exhibit A attached hereto and incorporated herein by reference.

The Annual Consultant shall not accept any change of scope, or change in contract provisions, unless issued in writing, as a contract amendment and signed by the Contract Administrator.

**ARTICLE 2 - CONTRACT PRICE:**

CITY shall pay Annual Consultant for completion of the Work in accordance with the Contract Documents a fee not to exceed Three Hundred Sixty One Thousand Seven Hundred Seventy One Dollars (\$361,771) determined and payable as set forth in Annual Contract EN1308-101 and Exhibit B attached hereto and made a part hereof by reference.

**ARTICLE 3 - CONTRACT TIME:**

The contract time is Two Hundred Fifty calendar days and Annual Consultant agrees to complete all work within Two Hundred Fifty (250) calendar days of the date CITY issues a Notice to Proceed.

**ARTICLE 4 – GENERAL:**

This Project Agreement is entered into pursuant to Annual Contract No. EN1308-101 and the terms and conditions contained therein are incorporated herein by reference as if set forth in full.

IN WITNESS WHEREOF, the parties hereto have executed this Project Agreement on the day and year first written above.

This Project Agreement will be effective on this \_\_\_\_\_ day of \_\_\_\_\_, 2014.

CITY OF CHANDLER

FOR THE ANNUAL:

\_\_\_\_\_  
MAYOR DATE:

By: *Lang Bealman*  
Title: *Vice President*

ADDRESS FOR NOTICE  
City of Chandler  
P.O. Box 4008, Mail Stop 407  
Chandler, AZ 85244-4008  
480-782-3307

ADDRESS FOR NOTICE  
Mr. Tom McLean  
CH2M Hill Engineers, Inc.  
1501 W. Fountainhead Pkwy., Ste. 401  
Tempe, AZ 852-1868

APPROVED AS TO FORM:

Phone: 480-377-6239

Fax: 480-784-6239

\_\_\_\_\_  
City Attorney By: *[Signature]*

ATTEST:

\_\_\_\_\_  
City Clerk

## **EXHIBIT A SCOPE OF WORK**

### ***Introduction***

ANNUAL CONSULTANT shall provide professional engineering design services for an arc flash evaluation, development of electrical system models, calculations, the preparation of a report and arc flash warning labels for the City of Chandler's Water and Wastewater infrastructure, based upon the requirements of section 110-16 and Article 210 of the 2011 National Electrical Code (NEC). Engineering studies will be prepared as outlined in NFPA 70E-2012, Standard for Electrical Safety in the Workplace and IEEE 1584 Guide for Performing Arc-Flash Hazards Calculations for the facilities identified.

The scope of work includes a short circuit analysis, protective device evaluation and coordination, power studies, and arc flash hazard analysis for each individual facility identified in the lists below. As a precursor to the studies, a key activity will be the collection of as-installed information regarding the existing electrical system components, to be field verified and recorded by individuals authorized and capable to perform this task. This information is necessary for the accurate completion of the analysis and will be used to develop single-line computer model representation of the electrical systems which will form the basis to perform the studies.

### ***Scope of Work***

#### **Facility Locations**

The City has identified the following existing facilities that shall be included in the analysis:

#### **A. Water Infrastructure sites (41)**

##### **I. Water Production Facilities (WPF) and Well Sites (32)**

1. Airport Water WPF and Well at 2250 S Airport Boulevard
2. Alamosa Water WPF at 4260 S Gilbert Road
3. Amberwood Well at 2327 W Calle Del Norte
4. Apache WPF at 1353 N Evergreen Street and Knox Well at 799 W Knox Road
5. Appleby Well and Pressure Reducing Valve (PRV) site at 3445 S Pinoleno Drive
6. Arrowhead WPF and Well at 426 N Arrowhead
7. Basha Road WPF and Well at 4501 S Basha Road
8. Bright Angel Well at 4576 S Bright Angel Way
9. Brooks Crossing WPF and Well at 1405 W Calle Del Norte
10. Bush Way WPF and Well at 625 W Bush Way
11. Colt Water WPF and Well at 2127 N 91st Place
12. Desert Breeze Well at 660 N Desert Breeze Blvd
13. East Knox Well at 450 E Knox Road
14. East Wood Well at 3250 E Wood Drive
15. Frye WPF and Well at 592 W Frye Road
16. Gilbert Road WPF and Well at 6098 S Gilbert Road
17. Golden Lane Well at 3651 W Golden Lane
18. Hightown Well at 147 N Calle Tercera or 147 Avenida Tercera
19. Hunt Highway WPF at 2022 E Hunt Highway
20. Lindsay Road WPF and Well at 6300 S Lindsay Road
21. McQueen Water WPF and Well at 3324 S McQueen Road
22. Monterey WPF and Well at 3840 W Monterey Street
23. Norman Way (Alamosa Well No. 1) at 2765 E Ocotillo Road
24. Ocotillo Road Well at 4015 S Nebraska Street

25. Orchid Lane Well at 1296 N Alma School Road
26. Pennington Drive Well at 403 S Pennington Drive
27. Pleasant Drive Well at 4877 S Pleasant Drive
28. Price South WPF and Well at 2499 S Price Road
29. Roosevelt Well (WPF) at 331 S Roosevelt Avenue
30. Rural WPF and Well at 600 N Rural Road
31. Shawnee Well at 1500 W Mesquite Street
32. Warner Well at 2181 E Warner Road

II. Water Treatment Facilities (1)

1. Reverse Osmosis Facility (Evaporation Pond site) at 3737 S Old Price Road

III. PRV Sites (3)

1. Appleby PRV at 3599 S Gilbert Road
2. McQueen PRV at 3074 S McQueen Road
3. Riggs PRV at 660 E Riggs Road

IV. Water Quality Monitoring Stations (WQMS) (5)

1. Frye and Ellis WQMS at 275 S Ellis Road
2. Golf WQMS at 308 E Riggs Road
3. Kyrene WQMS at 825 S Kyrene Road
4. Sunbird WQMS at 1520 E Hunt Highway
5. Val Vista WQMS at 25200 S Val Vista Road

B. Wastewater Infrastructure – 40 sites

V. Sewer Lift Stations (12)

1. Airport/McQueen
2. Pumpback Sewer Lift Station (Ocotillo Water Reclamation Facility (WRF)/Airport WRF Lift Station) at 2501 W Queen Creek Road
3. Tumbleweed Sewer Lift Station at 603 E Germann Road
4. Golf Course Sewer Lift Station at 308 E Riggs Road
5. Kyrene Sewer Lift Station at 825 S Kyrene Road
6. Manganero Lift Station at 2991 W Ray Road
7. Pecos Sewer Lift Station at 6700 W Pecos Road
8. Pecos and McQueen Sewer Lift Station and Diversion at 993 E Pecos Road
9. Riggs Sewer Lift Station at 598 W Riggs Road
10. Sunbird Sewer Lift Station at 1520 E Hunt Highway

VI. Turnouts (11)

1. Bear Creek Golf Course Reclaimed Water Delivery Turnout at Chandler Heights and SRP Consolidated Canal (Paseo Trail) at approximately 11500 E Chandler Heights Road
2. Fulton Ranch at 4804 S Sundland Drive
3. Lagos Vistoso at 855 E Riggs Road
4. Layton Lakes at 7425 S Layton Lakes Boulevard
5. Lone Tree at 6262 S Mountain Boulevard
6. Old Stone at 4203 S Mingus Drive
7. Pinelakes at 478 E San Carlos Way
8. Sun Groves at 4550 E Riggs Road
9. Valencia II at 3888 E Desert Jewel Boulevard

VII. Recharge Facilities (16)

1. Tumbleweed Recharge Facility (Aquifer Storage and Recovery (ASR), ASR-01 through ASR-10, all within Tumbleweed Park at 2250 S McQueen Road and ASR-9 at 600 E Ryan Road (10)
2. Ocotillo Recharge Facility, ASR-1 through ASR-6 at 3707 S Old Price Road (6)

VIII. Water Reclamation Facilities (1)

1. Lone Butte Water Reclamation Facility (WRF) within the Gila River Indian Community approximately 5 miles west and north of Maricopa Road and Interstate 10

**Project Tasks**

**Task 1: Project Administration**

**Task 1.1: Project Management**

ANNUAL CONSULTANT shall provide project management services that include planning, organizing, staffing, and coordinating the work efforts of the team members. In addition, the ANNUAL CONSULTANT shall be responsible for preparing schedules, status reports, invoices, meetings with the City Project Manager, quality control, report preparation and overall project delivery.

ANNUAL CONSULTANT shall appoint qualified and experienced staff to support the following key roles on the project:

- Senior Project Manager - responsible for the overall project scope, schedule, quality and main contact for the City
- Senior Technical Consultant - responsible for the overall engineering design quality, internal Quality Assurance and Quality Control (QA/QC) of deliverables, training.
- Design Manager/Senior Engineer - responsible for the overall engineering design, documents, deliverables, and main coordination contact for technical details
- Associate Electrical Engineer - assisting with data collection, computerized modeling, reports, label printing, technical details etc.

It is anticipated that the ANNUAL CONSULTANT will meet with City staff on two (2) separate occasions, for a duration of 2 hours each, including i) kick-off meeting, ii) Draft project report review. The purpose of these meetings is elaborated under Task 2.

In addition to the two (2) meetings described above, the ANNUAL CONSULTANT shall arrange additional meetings as needed during the course of the project in order to coordinate and interact with the City staff. It is anticipated that two (2) such meetings of one (1) hour duration each will be required, and these will be scheduled as deemed necessary.

The ANNUAL CONSULTANT shall send regular emails at the end of every other week to the City Project Team reporting the projects status.

ANNUAL CONSULTANT will provide QA/QC by a senior electrical engineer skilled in performing and interpreting power system studies and familiar with arc flash hazard analysis as outlined in the 2011 NEC, NFPA 70E-Standard for Electrical Safety in the Workplace current edition, and IEEE 1584. QA/QC will be an integral and active part of the project and will involve all aspects of the work.

**Task 2: Design and Engineering Services**

**Task 2.1: Kickoff Meeting**

CONSULTANT shall attend a project kickoff meeting with the City. ANNUAL CONSULTANT's Project Manager, Design Manager, and Senior Reviewer will attend this meeting. The kick-off meeting (2 hours) will include a review and discussion of project scope and schedule, a review of existing information, and an overview of the critical items, data needs, and milestones of the project.

## **Task 2.2: Data Collection**

Following the kickoff meeting, ANNUAL CONSULTANT will accompany the City's designated staff to at least six (6) project facilities in order to start the process of existing information collection and to establish the procedure for the City's staff to collect the appropriate field data for the rest of the project facilities. The facilities for the joint data collection visit shall be pre-selected in coordination with the City, spread across Water and Wastewater infrastructure, typical of certain facility types, and based on the complexity of the electrical distribution system.

The City shall assign qualified field staff to visit each facility identified by the ANNUAL CONSULTANT and collect similar information at load centers (nominal voltages 480 to 240 volts, and the main breakers in 120/208, 240/120 volt panels). All facilities listed above under Facility Locations shall be included in the data collection process.

ANNUAL CONSULTANT will provide project instructions and health and safety materials to its employees for field visits associated with this project. The City will be responsible to provide health and safety instructions and materials to its staff for these visits. ANNUAL CONSULTANT has no authority to exercise control over nor shall they bear any responsibility for the health and safety of parties other than ANNUAL CONSULTANT.

ANNUAL CONSULTANT will prepare general device forms with fields for required information to be used in data collection. Data collection for each location will include the following:

- Site observations to develop single-line diagrams or verify existing single-line diagrams
- Power distribution equipment make and model: Panel, MCC, Switchboard, etc.
- Motor nameplate data: Type, HP, Voltage, FLA, RLA, Efficiency, Power Factor, etc.
- Transformer nameplate data: Z%, kVA, X/R, phases, etc.
- Feeder and branch circuit conductor type and size (copper or aluminum cable, bus duct, AWG, single or parallel runs), conduit routing and material (metal or non-metallic), and approximate conductor lengths.
- Standby generator data, including ratings and reactance's (transient and sub-transient)
- Protective devices make and model, current and AIC ratings, and initial settings
- Utility Meter Number and/or Service Address

Data collected by the City's staff will be sent to the ANNUAL CONSULTANT promptly as it gets documented in the forms provided, in a continuous manner. The ANNUAL CONSULTANT will review the collected data for completeness and accuracy on a continuous basis. It is anticipated that up to two (2) coordination meetings, lasting two (2) hours each will be required between the ANNUAL CONSULTANT and the City's staff to jointly review any data gaps, details of the collected data, and schedule of the data collection process. These meetings will provide an opportunity for the ANNUAL CONSULTANT to answer any questions that the field staff may have and will be scheduled as needed.

ANNUAL CONSULTANT will prepare a letter on behalf of The City for the local electrical utility company (SRP or APS) identifying each facility location to request the following information required for the studies:

- Utility transformer ratings: Z%, kVA, X/R, phases, etc.
- Utility primary configuration, protective device type and settings or ratings

- Electrical service peak demand
- Available fault current (high and low level)

ANNUAL CONSULTANT will make a significant attempt to obtain required information from the concerned utility company in a timely manner in order to maintain the schedule of the project. If and when the ANNUAL CONSULTANT encounters delays or difficulty in getting the information, the City will be requested to assist in resolving the difficulty and coordinating with the utility company.

### **Task 2.3: Draft Report Review Meeting**

ANNUAL CONSULTANT will provide a draft report and present highlight findings to the City for review. Subsequent to the review, ANNUAL CONSULTANT will meet with the City staff for of two (2) hours, or as needed, to discuss any review comments, areas of improvements and answer any questions.

### **Task 3: Engineering Design**

#### **Task 3.1 Computerized Models and Analysis**

ANNUAL CONSULTANT will utilize the data collection information to perform computerized modeling and analysis of the electrical systems. The computerized modeling and analysis will use SKM system Analysis Inc.'s software Power Tools for Windows. Simplified single line diagrams will be generated using field collected and electrical utility's data and the following computerized analysis will be performed:

- Short Circuit Study
- Power System Analysis
- Device Evaluation Analysis and Report
- Protective Device Coordination Study
- Arc-Flash Hazard Study
- Recommendations

It is anticipated that limited adjustments may be possible at existing protective devices in order to achieve better protective device coordination. However, when adjustments can be made, they will be recommended in an attempt to minimize the arc flash hazards in lieu of protective device coordination.

ANNUAL CONSULTANT will provide observations and recommendations with respect to any equipment that is found underrated for expected fault current. This information will be included in the written report for the City's use.

#### **Task 3.2: Reports and Deliverables**

- ANNUAL CONSULTANT will use the computerized modeling and analysis to prepare simplified reports, one (1) for each location, for submission to the City. The reports will contain a simplified single line diagram generated by the computerized modeling and analysis software (11"x17"), tabulations of installed equipment withstand and ampere interrupting capacity (AIC) ratings with associated required ratings determined from calculated short circuit currents, utility data information, arc-flash study and revised arc-flash study per recommendations, protective device time current coordination curves, revised time current

coordination curves based on recommendations, tabulations of device settings or fuse ratings with commentary on selections, tabulation of fault current with definition of terms and guide for interpretation, and Hazard Risk Category (HRC) and personal protective equipment requirements (PPE) at each location analyzed, revised personal protective equipment requirements based on recommendations.

ANNUAL CONSULTANT will deliver draft and final reports. The draft reports will be delivered to the City for review. ANNUAL CONSULTANT will meet with the City, present reports, and highlight findings. The City will review and supply comments to ANNUAL CONSULTANT for incorporation into the final reports. Two (2) hard copies of the draft and final reports will be provided, in addition to two (2) electronic copies including PDF and computerized model files of the final report.

- B. ANNUAL CONSULTANT will print Arc Flash and Shock Hazard Warning Labels (4"x6") for each piece of equipment and location analyzed, and provide protective device setting adjustment recommendations as part of and determined by the studies. Labels will be prepared for the As-Found conditions. If adjustments are recommended and are made by the City, new labels will be provided for that equipment. ANNUAL CONSULTANT recommends that when settings are changed on overcurrent devices, that the devices be tested for satisfactory performance in accordance to the manufacturers' recommendations.

The warning labels will comply with the ANSI Z535.4-Product Safety Signs and Labels and NFPA 70E-2012 requirements. In addition to the field marking required by NEC Article 110.16, the labels will display the following information:

- o Flash Hazard Boundary-threshold at which burn level exceeds 1.2cal/cm<sup>2</sup>
  - o Flash Hazard Distance-calculated incident energy at indicated distance
  - o Hazard Risk Category – PPE requirements
  - o Equipment rated Voltage
  - o Required Electrical Glove Class
  - o Shock Hazard Boundaries-Limited Approach, Restricted Approach, and Prohibited Approach
  - o Effective date
- C. ANNUAL CONSULTANT will provide a simplified single line diagram, for posting at each facility.
- D. ANNUAL CONSULTANT shall provide cost estimate(s) for electrical modifications to locations recommended for correction. These would include locations found with an Arc Flash Hazard Risk Category (HRC) of greater than 2. The recommendations will be reviewed with the City to determine if they can be corrected solely by City staff with guidance from ANNUAL CONSULTANT. If City staff is able to implement the recommended corrections, ANNUAL CONSULTANT will include improvements made in the final arc flash study analysis and report.

### ***Task 3.2: Training***

ANNUAL CONSULTANT will provide a familiarization and educational training to the City's Safety Coordinator in an 'Educate the Trainer' training session, not exceeding four (4) hours. This session will encompass aspects of the arc flash evaluation conducted, details of the labels provided, and NFPA 70E regulations as they apply to energized work at electrical equipment. The Safety

Coordinator will be responsible for training other City staff. ANNUAL CONSULTANT will provide required training material during the training to facilitate this process.

### ***Responsibilities of City***

The following are responsibilities of the City staff during the project:

- Field data collection will be done by the City's staff after initial guidance from ANNUAL CONSULTANT.
- Record or Construction Drawings and/or O&M Manuals will be provided where available. Where not available, City staff will provide a sketch single-line diagram with components and ratings identified. It is anticipated that Record or Construction drawings will be available for approximately 33% of the facilities identified.
- Excluding the Service Entrance Sections or Main Disconnect enclosures, electrical equipment will be de-energized and verified by City staff qualified to operate electrical equipment prior to access by ANNUAL CONSULTANT, and all times while doing data collection inside of the equipment.

### ***Assumptions and Clarifications***

- During field visits, existing electrical equipment may be observed to be physically or electrically inadequate. There may be evidence of corrosion, physical damage, and/or worn components observed. Equipment may be observed that could be obsolete for which replacement parts may be difficult to obtain. Condition of the system that is observed during the data collection phase will be documented in the report. However, a thorough condition assessment is not a part of the scope of this work and no electrical testing or thermographic survey will be conducted by ANNUAL CONSULTANT. If field data collection at existing equipment by City staff reveals an instance of electrical equipment in poor condition, and in need of testing or thermographic survey to ensure suitability for operation, such instance will be documented and appropriate recommendations will be brought to the City's attention. If the testing is undertaken by the City during the time frame of this project, the results will be documented and recommendations will be modified accordingly. Such equipment testing will be performed at the discretion of the City; however, it will not result in a delay to the completion of this project and final report.
- This project is focused on adherence with Occupational Safety and Health Administration (OSHA) 1910.132(d), NEC as it relates to Arc Flash Hazard Warning, and National Fire Protection Association (NFPA) 70E requirements. It is not an evaluation of City facilities' compliance with the entire NEC.
- Coordination will be required with the appropriate electrical utility company to obtain or refresh short circuit/fault current data for each facility location. If the Utility Company cannot provide short circuit current data, the high level short circuit analysis will assume an infinite bus on the primary side of the serving transformer and the low level short circuit analysis will assume 50 percent of the high value on the primary side of the serving transformer.
- This scope of work does not include an evaluation of the reliability and redundancy of the system.
- ANNUAL CONSULTANT's personnel will not enter confined spaces and confined space entry is not anticipated to be needed.

- Derived 120/240 or 120/208 volt systems beyond the main device are excluded from studies, because they are not required for analysis by NFPA 70E.
- The project does not require nor include purchase and/or licenses of computerized software for the City.
- The training is limited to one person, the City's Safety Coordinator.
- ANNUAL CONSULTANT will reasonably rely upon the accuracy, timeliness, and completeness of existing information provided by the City and Utility Companies.

**Schedule**

Notice to Proceed (NTP)	To Be Determined
Kick-off Meeting	NTP + 2 weeks
Data Collection– Start	NTP + 2 weeks
Computer Modeling and Analysis– Start	NTP + 4 weeks
Data Collection – Complete	NTP +12 weeks
Computer Modeling and Analysis – Complete	NTP +20 weeks
Submit Draft Report	NTP + 24 weeks
City Complete Review of Draft Report	NTP + 26 weeks
Draft Report Review Meeting	NTP + 27 weeks
Submit Final Report	NTP + 30 weeks
Labels and Settings – Start	NTP + 30 weeks
Training	NTP + 30 weeks
Labels, Reports with Recommendations, and Project Activities Complete	NTP + 33 weeks

**EXHIBIT B  
FEE SCHEDULE**

Tasks	Subtotal
<b>Task 1 - Project Administration</b>	<b>\$16,484.00</b>
1.1 - Project Management	\$16,484.00
<b>Task 2.0 - Design and Engineering Services</b>	<b>\$42,342.00</b>
2.1 Kickoff Meeting	\$12,024.00
2.2 Data Collection, 2 meetings	\$18,294.00
2.3 Draft Report Review Meeting, 2 interim meetings	\$12,024.00
<b>Task 3.0 - Engineering Design</b>	<b>\$257,945.00</b>
3.1 Computerized Model and Analysis	\$160,040.00
3.2 Reports and Deliverables	\$90,042.00
3.3 Training	\$7,863.00
<b>Direct Labor Total</b>	<b>\$ 316,771</b>
Direct Expenses Allowance (travel, label printing, reproductions, etc.)	\$15,000
Owner's Allowance	\$30,000
<b>Allowance Total</b>	<b>\$45,000</b>
<b>Total Fee</b>	<b>\$361,771</b>