

**AGREEMENT FOR PROFESSIONAL SERVICES  
(Design Professional)**

THIS AGREEMENT is made and entered into this \_\_\_\_ day of \_\_\_\_\_, 2018, by and between the City of Merced, a California Charter Municipal Corporation, whose address of record is 678 West 18<sup>th</sup> Street, Merced, California 95340, (hereinafter referred to as "City") and Cardno, Inc., a Delaware Corporation authorized to do business in California, whose address of record is 4572 Telephone Road, #916, Ventura, California 93003, (hereinafter referred to as "Consultant").

WHEREAS, City is undertaking a project to evaluate the elevated water storage tanks at Well Sites #1, #2 and #7; and,

WHEREAS, Consultant represents that it possesses the professional skills to provide structural engineering services in connection with said project.

NOW, THEREFORE, the parties hereto, in consideration of the mutual covenants hereinafter recited, hereby agree as follows:

1. **SCOPE OF SERVICES.** The Consultant shall furnish the following services: Consultant shall provide the structural engineering services described in Exhibit "A" attached hereto.

No additional services shall be performed by Consultant unless approved in advance in writing by the City, stating the dollar value of the services, the method of payment, and any adjustment in contract time. All such services are to be coordinated with City and the results of the work shall be monitored by the City Engineer or his designee. However, the means by which the work is accomplished shall be the sole responsibility of the Consultant.

2. **TIME OF PERFORMANCE.** All of the work outlined in the Scope of Services shall be completed in accordance with the Schedule outlined in Exhibit "A" attached hereto and incorporated herein by reference. By mutual agreement and written addendum to this Agreement, the City and the Consultant may change the requirements in said Schedule.

3. **RESERVED.**

4. **COMPENSATION.** Payment by the City to the Consultant for actual services rendered under this Agreement shall be made upon presentation of an

invoice detailing services performed under the Scope of Services, in accordance with the fee schedule set forth in Exhibit "B" attached hereto and incorporated herein by reference. The Consultant agrees to provide all services required under the Scope of Services in Exhibit "A" within the compensation amount set forth in Exhibit "B". For Consultant's services rendered under this Agreement, City shall pay Consultant the not to exceed sum of One Hundred Twenty-One Thousand Two Hundred Fifty-Three Dollars (\$121,253.00).

5.     **METHOD OF PAYMENT.** Compensation to Consultant shall be paid by the City after submission by Consultant of an invoice delineating the services performed.

6.     **RECORDS.** It is understood and agreed that all plans, studies, specifications, data magnetically or otherwise recorded on computer or computer diskettes, records, files, reports, etc., in possession of the Consultant relating to the matters covered by this Agreement shall be the property of the City, and Consultant hereby agrees to deliver the same to the City upon termination of the Agreement. It is understood and agreed that the documents and other materials including but not limited to those set forth hereinabove, prepared pursuant to this Agreement are prepared specifically for the City and are not necessarily suitable for any future or other use.

7.     **CONSULTANT'S BOOKS AND RECORDS.** Consultant shall maintain any and all ledgers, books of account, invoices, vouchers, canceled checks, and other records or documents evidencing or relating to charges for services or expenditures and disbursements charged to the City for a minimum of three (3) years, or for any longer period required by law, from the date of final payment to the Consultant to this Agreement. Any records or documents required to be maintained shall be made available for inspection, audit and/or copying at any time during regular business hours, upon oral or written request of the City.

8.     **INDEPENDENT CONTRACTOR.** It is expressly understood that Consultant is an independent contractor and that its employees shall not be employees of or have any contractual relationship with the City. Consultant shall be responsible for the payment of all taxes, workers' compensation insurance and unemployment insurance. Should Consultant desire any insurance protection, the Consultant is to acquire same at its expense.

In the event Consultant or any employee, agent, or subcontractor of Consultant providing services under this Agreement is determined by a court of

competent jurisdiction or the California Public Employees Retirement System (PERS) to be eligible for enrollment in PERS as an employee of the City, Consultant shall indemnify, protect, defend, and hold harmless the City for the payment of any employee and/or employer contributions for PERS benefits on behalf of Consultant or its employees, agents, or subcontractors, as well as for the payment of any penalties and interest on such contributions, which would otherwise be the responsibility of City.

9. INDEMNITY. To the fullest extent permitted by law (including, without limitation, California Civil Code Sections 2782 and 2782.8), Consultant shall indemnify, protect, defend (with legal counsel reasonably acceptable to City), save and hold City, its officers, employees, and agents, harmless from any and all claims or causes of action for death or injury to persons, or damage to property, or expense and liability of every kind, nature and description (including, without limitation, incidental and consequential damages, court costs, attorneys' fees, litigation expenses and fees of expert consultants or expert witnesses incurred in connection therewith and costs of investigation), that arise out of, pertain to, or relate to, the negligence, recklessness, willful misconduct of Consultant or its employees, subcontractors, or agents in the performance of this Agreement. It is understood that the duty of Consultant to indemnify and hold harmless includes the duty to defend as set forth in Section 2778 of the California Civil Code. Acceptance by City of insurance certificates and endorsements required under this Agreement does not relieve Consultant from liability under this indemnification and hold harmless clause. This indemnification and hold harmless clause shall survive the termination of this Agreement and shall apply to any damages or claims for damages whether or not such insurance policies shall have been determined to apply. By execution of this Agreement, Consultant acknowledges and agrees to the provisions of this Section and that it is a material element of consideration.

10. INSURANCE. During the term of this Agreement, Consultant shall maintain in full force and effect at its own cost and expense, the following insurance coverage:

a. Workers' Compensation Insurance. Full workers' compensation insurance shall be provided with a limit of at least One Hundred Thousand Dollars (\$100,000) for any one person and as required by law, including Employer's Liability limits of \$1,000,000.00 per accident. The policy shall be endorsed to waive the insurer's subrogation rights against the City.

b. General Liability.

- (i) Consultant shall obtain and keep in full force and effect general liability coverage at least as broad as ISO commercial general liability coverage occurrence Form CG 0001.
- (ii) Consultant shall maintain limits of no less than One Million Dollars (\$1,000,000) per occurrence for bodily injury, personal injury and property damage.
- (iii) The City, its officers, employees, volunteers and agents are to be named as additional insureds under the policy, as respects liability arising out of work or operations performed by or on behalf of the Consultant.
- (iv) The policy shall stipulate that this insurance will operate as primary insurance for work performed by Consultant and its sub-contractors, and that any other insurance or self insurance maintained by City or other named insureds shall be excess and non-contributory.
- (v) Consultant shall maintain its commercial general liability coverage for three (3) years after completion of the work and shall add an additional insured endorsement form acceptable to the City naming the City of Merced, its officers, employees, agents and volunteers for each year thereafter for at least three (3) years after completion of the work. Copies of the annual renewal and additional insured endorsement form shall be sent to the City within thirty (30) days of the annual renewal.

c. Automobile Insurance.

- (i) Consultant shall obtain and keep in full force and effect an automobile policy of at least One Million Dollars (\$1,000,000) per accident for bodily injury and property damage.
- (ii) The City, its officers, employees, volunteers and agents are to be named as additional insureds under the policy, as respects automobiles owned, leased, hired or borrowed by the Consultant.

- (iii) The policy shall stipulate that this insurance will operate as primary insurance for work performed by Consultant and its sub-contractors, and that any other insurance or self insurance maintained by City or other named insureds shall be excess and non-contributory.

d. Professional Liability Insurance. Consultant shall carry professional liability insurance appropriate to Consultant's profession in the minimum amount of One Million Dollars (\$1,000,000). Architects and engineers' coverage is to be endorsed to include contractual liability.

e. Qualifications of Insurer. The insurance shall be provided by an acceptable insurance provider, as determined by City, which satisfies all of the following minimum requirements:

- (i) An insurance carrier admitted to do business in California and maintaining an agent for service of process within this State; and,
- (ii) An insurance carrier with a current A.M. Best Rating of A:VII or better (except for workers' compensation provided through the California State Compensation Fund).

f. Certificate of Insurance. Consultant shall complete and file with the City prior to engaging in any operation or activity set forth in this Agreement, certificates of insurance evidencing coverage as set forth above and which shall provide that no cancellation or expiration by the insurance company will be made during the term of this Agreement, without thirty (30) days written notice to City prior to the effective date of such cancellation—including cancellation for nonpayment of premium. In addition to any other remedies City may have, City reserves the right to withhold payment if Consultant's insurance policies are not current.

11. ASSIGNABILITY OF AGREEMENT. It is understood and agreed that this Agreement contemplates personal performance by the Consultant and is based upon a determination of its unique personal competence and experience and upon its specialized personal knowledge. Assignments of any or all rights, duties or obligations of the Consultant under this Agreement will be permitted only with the express written consent of the City.

12. TERMINATION FOR CONVENIENCE OF CITY. The City may terminate this Agreement any time by mailing a notice in writing to Consultant that the Agreement is terminated. Said Agreement shall then be deemed terminated, and no further work shall be performed by Consultant. If the Agreement is so terminated, the Consultant shall be paid for that percentage of the phase of work actually completed, based on a pro rata portion of the compensation for said phase satisfactorily completed at the time the notice of termination is received.

13. CONFORMANCE TO APPLICABLE LAWS. Consultant shall comply with its standard of care regarding all applicable Federal, State, and municipal laws, rules and ordinances. No discrimination shall be made by Consultant in the employment of persons to work under this contract because of race, color, national origin, ancestry, disability, sex or religion of such person.

Consultant hereby promises and agrees to comply with all of the provisions of the Federal Immigration and Nationality Act (8 U.S.C.A. 1101 *et seq.*), as amended; and in connection therewith, shall not employ unauthorized aliens as defined therein. Should Consultant so employ such unauthorized aliens for the performance of work and/or services covered by this Agreement, and should any agency or instrumentality of the federal or state government, including the courts, impose sanctions against the City for such use of unauthorized aliens, Consultant hereby agrees to, and shall, reimburse City for the cost of all such sanctions imposed, together with any and all costs, including attorneys' fees, incurred by the City in connection therewith.

14. WAIVER. In the event that either City or Consultant shall at any time or times waive any breach of this Agreement by the other, such waiver shall not constitute a waiver of any other or succeeding breach of this Agreement, whether of the same or any other covenant, condition or obligation. Waiver shall not be deemed effective until and unless signed by the waiving party.

15. INCONSISTENT OR CONFLICTING TERMS IN AGREEMENT AND EXHIBITS. In the event of any contradiction or inconsistency between any attached document(s) or exhibit(s) incorporated by reference herein and the provisions of the Agreement itself, the terms of the Agreement shall control.

Any exhibit that is attached and incorporated by reference shall be limited to the purposes for which it is attached, as specified in this Agreement. Any contractual terms or conditions contained in such exhibit imposing additional obligations on the City are not binding upon the City unless specifically agreed to

in writing, and initialed by the authorized City representative, as to each additional contractual term or condition.

16. AMBIGUITIES. This Agreement has been negotiated at arms' length between persons knowledgeable in the matters dealt with herein. Accordingly, any rule of law, including, but not limited to, Section 1654 of the Civil Code of California, or any other statutes, legal decisions, or common-law principles of similar effect, that would require interpretation of any ambiguities in this Agreement against the party that drafted this Agreement is of no application and is hereby expressly waived.

17. VENUE. This Agreement and all matters relating to it shall be governed by the laws of the State of California and any action brought relating to this agreement shall be held exclusively in a state court in the County of Merced.

18. AMENDMENT. This Agreement shall not be amended, modified, or otherwise changed unless in writing and signed by both parties hereto.

19. INTEGRATION. This Agreement constitutes the entire understanding and agreement of the parties and supersedes all previous and/or contemporaneous understanding or agreement between the parties with respect to all or any part of the subject matter hereof.

20. AUTHORITY TO EXECUTE. The person or persons executing this Agreement on behalf of the parties hereto warrants and represents that he/she/they has/have the authority to execute this Agreement on behalf of their entity and has/have the authority to bind their party to the performance of its obligations hereunder.

21. COUNTERPARTS. This Agreement may be executed in one or more counterparts with each counterpart being deemed an original. No counterpart shall be deemed to be an original or presumed delivered unless and until the counterparts executed by the other parties hereto are in the physical possession of the party or parties seeking enforcement thereof.

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IN WITNESS WHEREOF, the parties have caused this Agreement to be executed on the date first above written.

CITY OF MERCED  
A California Charter Municipal  
Corporation

BY: \_\_\_\_\_  
City Manager

ATTEST:  
STEVE CARRIGAN, CITY CLERK

BY: \_\_\_\_\_  
Assistant/Deputy City Clerk

APPROVED AS TO FORM:

BY: K. Lowe 7/31/18  
City Attorney Date

ACCOUNT DATA:

BY: \_\_\_\_\_  
Verified by Finance Officer



CONSULTANT  
CARDNO, INC., a California  
Corporation

BY: James Anderson  
(Signature)

James Anderson  
(Typed Name)

Its: Senior Project Manager  
(Title)

BY: \_\_\_\_\_  
(Signature)

\_\_\_\_\_  
(Typed Name)

Its: \_\_\_\_\_  
(Title)

Taxpayer I.D. No. 45-2663666

ADDRESS: 4572 Telephone Rd. #916  
Ventura, CA 93003

TELEPHONE: (805) 644-4157

FAX: (805) 644-5610

E-MAIL: james.anderson@cardno.com



July 11, 2018

Joseph D. Angulo  
Public Works – Engineering  
City of Merced  
678 West 18<sup>th</sup> Street  
Merced, CA 95340

Cardno  
601 N. McDowell  
Boulevard  
Petaluma, CA 94954  
USA  
Phone: 707-766-2090  
Fax: 707-789-0414  
www.cardno.com

**Subject: Structural Engineering Services for Elevated Water Tank Evaluation – Proposal**

Dear Mr. Angulo,

Cardno, Inc., along with our teaming partners RMA GeoScience, Inc. and Leon Environmental (further referred to as the Cardno Team), are pleased to submit a proposal for the City of Merced's Structural Engineering Services for Elevated Water Tank Evaluation. The Cardno Team has nearly two decades of experience in developing technical specifications, managing groundwater sampling projects, and monitoring contractor performance to ensure contractual requirements are achieved.

The Cardno Team brings a professional team with vast knowledge and experience to deliver unmatched customer service and technical results for the City of Merced. Our clients know us as trusted partners that work and maintain professional relationships that stand the test of time. Each proposed team member is well versed in identifying creative solutions to challenging issues, ensuring safety measures, streamlining and optimizing processes and systems, and identifying cost saving measures our clients.

Thank you for considering the Cardno Team for this opportunity; we look forward to working with you on this contract and building a strong relationship moving forward. If you have questions, please do not hesitate to contact me at the below listed contact information.

Sincerely,

A handwritten signature in black ink, appearing to read "Leif Law".

Leif Law  
Senior Business Development Manager  
385-228-2249  
leif.law@cardon.com

Enclosed: Technical Proposal – Team organization and proposed scope of work/ schedule. A copy of fee schedule and budget included in separately.

**EXHIBIT A**

## Team Organization

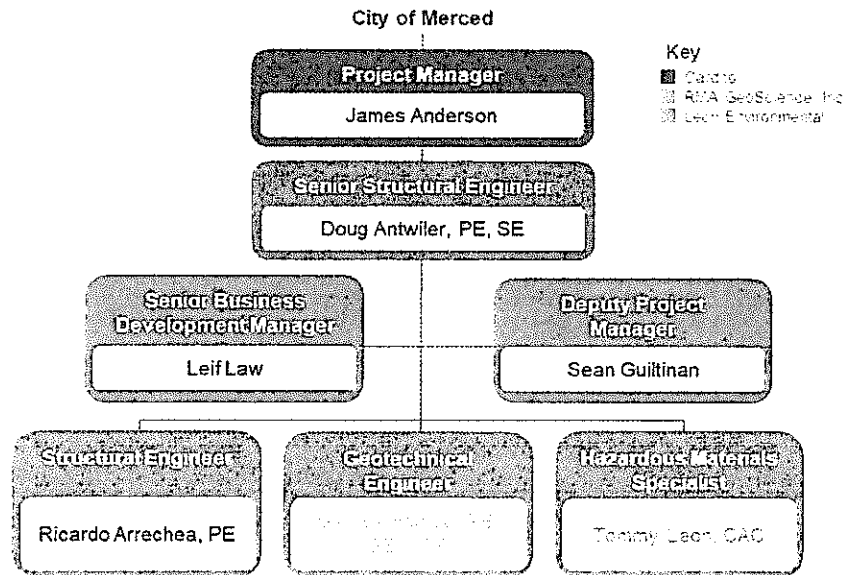


Figure 1 Organizational Chart

### RMA GeoScience, Inc.

RMA GeoScience, Inc. provides geotechnical and materials engineering services to public agencies, land developers, and institutions for roads, highways, buildings, housing, and utility infrastructure. Their professional team specializes in geotechnical engineering, geo-environmental consulting, materials testing, and special inspection services. They are a part of the RMA Group of Companies, a group of employee-owned engineering firms with more than 50 years' experience.

### Leon Environmental

Leon Environmental has served clients across California since 2005. Their senior staff have over 60 years of combined experience in the asbestos & LBP abatement industry. Leon Environmental Services has the unique quality of having hands-on experience managing abatement projects and working in the field with real situations and problem solving. Leon Environmental's provide vast experience and knowledge of the asbestos abatement industry, lead-based paint abatement, and compliance with the law in situations where containment clearance and negative pressure is hard to achieve.

## Proposed Scope of Work and Schedule

### 1. Scope of Work

#### Task 1: Evaluate Site Conditions

After review of any inspection, maintenance, and technical reports and existing structural drawings provided by the City to familiarize themselves with the project background, the Cardno Project Manager and Deputy Project Manager will arrange to meet with the City representative and visit the site. The purpose of the meeting will be to ensure alignment with City expectations for the project, meet with other City's departments as necessary to understand what permits will be required, and perform a reconnaissance survey of the site to evaluate existing well station conditions. The survey will include identifying potential hazards which could affect the work, such as the proximity of overhead power lines, site access and size constraints, the tower demolition drop zone, coordination with existing site operations, and traffic flow and neighboring property conditions. This information will allow the necessary technical specifications to be incorporated into the engineering analysis of the tank construction and current conditions, including subsurface exploration of footings as appropriate.

The inspections and surveys described above will be overseen by an experienced Field Technician, serving as the Site Supervisor, who will also be the resident project representative who performs the majority of the inspections during the contractor's work. This will allow the Site Supervisor to gain a thorough understanding of site conditions and more effectively estimate the costs to demolish each tank as applicable.

The Cardno Team's specific tasks for Task 1 are detailed below:

#### Tanks #1 and #2

- Review existing structural drawings (provided by the City of Merced) for Tank #1 and #2. *If existing structural drawings are not available for these tanks additional investigation will be required to determine the exact construction of these tanks. This additional investigation is not part of the current scope of the project.*
- Review previous inspection, maintenance, and technical reports on Tank #1 and #2 (provided by the City) to gain a better understanding of any known conditions for the towers.
- Perform a visual and tactile survey of the exterior of the water towers using an aerial lift with a 100 foot boom. *Previous reports have noted that access to the catwalk around the tanks is not in accordance with Occupational Safety and Health Administration guidelines, so the survey will be limited to the legs and the exterior walls of the tank that are visible from the lift. A survey of the roof or interior of the tanks are not part of the current scope of the project.*
- It is our understanding the concrete used in the foundations for both Tank #1 and Tank #2 have ASR. A previous report outlined damage observed to a single foundation on each tank structure that was exposed. Additional foundation testing for these two tanks was explicitly excluded by the RFP.

#### Task #1

- Review previous inspection, maintenance, and technical reports on Tank #7 (provided by the City) to gain a better understanding of any known condition for this tower.
- Perform a visual and tactile survey of the exterior of the water tower using an aerial lift with a 100 foot boom. *Previous reports have noted that access to the catwalk around the tanks is not in accordance with Occupational Safety and Health Administration guidelines, so the survey will be limited to the legs and the exterior walls of the tank that are visible from the lift. A survey of the roof or interior of the tanks are not part of the current scope of the project.*
- It is our understanding that existing drawings for the tower are not available. During the course of this survey, measurements and dimensions will be taken on structural elements of the legs for the existing tower to allow for an analysis of the existing structure as part of Task #2.
- Excavate around one of the existing foundations in an attempt to try and identify the type of foundation used for this water tower and any applicable details. This will include taking measurements on the exposed portion of the foundation, performing Ground Penetrating Radar scanning on the surfaces of the foundation to attempt and identify the reinforcement, performing limited demolition in isolated areas to identify the size of the reinforcement in the foundation, taking a core of the foundation, and having a petrographic analysis performed on the core to evaluate whether or not the foundation may have ASR.
- Test the exterior coatings on existing tank for the presence of lead.

#### Task 2: Produce Report of Findings

The Cardno Team will provide a brief signed and sealed letter report summarizing the findings from the visual and tactile structural survey of each of the three elevated water tanks. The report for tank #7 will include a copy of the testing report for the petrographic investigation on the foundation concrete. Our staff will provide testing reports for the existing exterior coatings and perform a static structural analysis on legs and foundations of each of the three water tanks to determine with they are adequate to resist current wind and seismic loading provisions in accordance with American Water Works Association and California Building Code requirements.

The Cardno Team will provide a brief signed and sealed design report/letter for each of the three elevated water tanks outlining the findings from the static structural analysis on the legs and foundations and will develop a strengthening/reinforcement strategy for each tank structure and foundation (if required) to comply with current wind and seismic loading provisions. Our team will create design development drawings for the reinforcement strategy for each tank structure and foundation if required, and provide a brief signed and sealed design report/letter for each of the three elevated water tanks outlining the proposed strengthening/reinforcement strategy for the elevated water tanks and foundations.

Following the evaluation, our team will develop estimated costs for bringing each of the three water tanks into compliance with the wind and seismic load requirements of the current applicable regulations and develop estimated costs for demolishing each tank.

#### Task 3: Project Closeout Services

We will provide project closeout documentation in accordance with any and all permit conditions (if applicable) and will submit documentation on any investigation generated hazardous waste disposal (if applicable).

## 2. Estimated Schedule

The Cardno Team has an established history of meeting critical project deadlines. Our team of experts will ensure the City's priorities are met while finding ways to save time and money. The below estimated schedule highlights the Cardno Team's ability to quickly respond to the City's needs and efficiently complete project milestones. A summarized schedule of project milestones is provided in Table 1; a full project schedule is included below in a separate chart in Figure 2.

**Table 1**      **Project Schedule**

Task	Description
<b>Task 1</b>	Surveying of the existing towers and documentation of the existing conditions will take approximately 4-5 weeks to complete once we receive authorization to proceed and can arrange access to the site.
<b>Task 2</b>	Evaluation of the three existing towers for compliance with existing building codes will take approximately 8-10 weeks to complete after the survey has been completed.  Development of possible reinforcement for the existing towers to comply with current building code requirements will take approximately 8-10 weeks to complete once the tower evaluation is completed.
<b>Task 3</b>	Project closeout documentation and documentation of any investigation generated hazardous waste disposal will be supplied within 30 days of completion of final tasks.



STRUCTURAL ENGINEERING SERVICES FOR ELEVATED WATER TANK EVALUATION



Task	Week 1	Week 2	Week 3	Week 4	Week 5	Week 6	Week 7	Week 8	Week 9	Week 10	Week 11	Week 12	Week 13	Week 14	Week 15	Week 16	Week 17	Week 18	Week 19	Week 20	Week 21	Week 22	Week 23	Week 24	Week 25	Week 26	Week 27	Week 28
<b>Task 1. Evaluate Site Conditions</b>																												
Project kickoff meeting and coordination with city																												
Initial document review																												
Inspection of Water Tower #1																												
Inspection of Water Tower #2																												
Inspection of Water Tower #7 (includes exterior and foundation inspection)																												
Documentation of findings																												
<b>Task 2. Produce Report of Findings</b>																												
Static analysis of existing water towers to code																												
Static analysis of existing water tower connections to current code																												
Evaluation of existing foundation to current code																												
Creation of design report																												
Design of strengthening for existing water towers																												
Design of enlargement/ strengthening for foundation for loads																												
Creation of specifications for development of estimate																												
Creation of design development drawings																												
Creation of summary report outlying findings																												
Detailed estimation of reinforcement and demolishing options																												
<b>Task 3. Project Closeout Documentation</b>																												
Submittal of closeout documentation																												
Submittal of investigation generated hazardous waste disposal documentation																												

Figure 2 Project Schedule

### 3. Project Tasks and Constraints Beyond Outlined Scope of Work

The following items may affect the project work and or schedule and are outside of our control:

- **The inspections can only be performed during calm weather.** Use of tall boom lifts during moderate to high winds or storm events is not safe. Weather concerns at the site may delay the inspection and lead to additional unforeseen costs that would be an additional service.
- **Access to the site is controlled by the City.** If there are areas of the site that are not accessible a complete survey of the tower may not be able to be performed.
- **It is our understanding that existing structural drawings exist for Tank #1 and Tank #7.** The proposal that has been provided is based on these drawings being made available before performing the onsite surveys.
- **It is our understanding that at least two of these water towers are historical.** Based on previous reviews of the structures it is likely that remedial measures to strengthen the elevated water tanks will change the aesthetic appearance of these structures.
- **There will not be waste generated in the investigation process.** The material generated from the vacuum clearance exploration will be used to backfill the excavations.

### 4. Additional Tasks and Services Noted

The following items are not included as part of the current scope:

- Investigation of the interior of the water tanks.
- Investigation of the roof of the water tanks (excluded from the scope because of lack of safe access to the upper areas of the existing water tank based on the findings of previous reports. The previous reports indicate that the roofs for tanks 1 and 2 have holes through them and, unless these have been repaired or replaced, it is assumed that they would still need to be repaired or replaced).
- Investigation of the existing foundations on Tanks #1 and #2 (specifically excluded in the RFP).
- Final construction documents for reinforcing the existing tank structures.
- An analysis of the walls of the water tanks.
- Dynamic analysis of the existing water tank structures.
- As built drawings of the existing water tanks.
- Evaluation of onsite structures that are not part of the tank itself.
- Evaluation of water flow/storage demands and/or design of replacement tanks at these locations.

## Fee Proposal and Budget

Cardno has provided our proposed fee and budget proposal in a separate document the City's request.



# FEE SCHEDULE AND BUDGET



City of Merced - Structural Engineering Services for Elevated Water Tank Evaluation

TASK / SUBTASK	# OF UNITS	UNIT	UNIT COST	LINE ITEM TOTAL	SUBTASK TOTAL
<b>TASK 1. EVALUATE SITE CONDITIONS</b>					
<b>PROJECT KICKOFF MEETING AND COORDINATION WITH CITY</b>					
Project Manager	12	hour	\$155	\$1,860	
Deputy Project Manager (call into kickoff meeting)	1	hour	\$130	\$130	
Senior Structural Engineer (call into kickoff meeting)	1	hour	\$195	\$195	
Structural Engineer	12	hour	\$175	\$2,100	
Vehicle	2	day	\$115	\$230	
Per diem (overnight stay)	1	GSA Rate	\$51	\$51	
Hotel / Taxes	1	GSA Rate	\$105	\$105	
Subtotal					\$4,671
<b>INITIAL DOCUMENT REVIEW</b>					
Project Manager	4	hour	\$155	\$620	
Structural Engineer	20	hour	\$175	\$3,500	
Subtotal					\$4,120
<b>INSPECTION OF WATER TOWER #1</b>					
Senior Structural Engineer	2	hour	\$195	\$390	
Structural Engineer	28	hour	\$175	\$4,900	
Equipment Operator	24	hour	\$100	\$2,400	
Vehicle	6	day	\$115	\$690	
Per diem (overnight stay)	6	GSA Rate	\$51	\$306	
Hotel / Taxes	6	GSA Rate	\$105	\$630	
Subtotal					\$9,316
<b>INSPECTION OF WATER TOWER #2</b>					
Senior Structural Engineer	2	hour	\$195	\$390	
Structural Engineer	28	hour	\$175	\$4,900	
Equipment Operator	24	hour	\$100	\$2,400	
Vehicle	6	day	\$115	\$690	
Per diem (overnight stay)	6	GSA Rate	\$51	\$306	
Hotel / Taxes	6	GSA Rate	\$105	\$630	
Subtotal					\$9,316
<b>INSPECTION OF WATER TOWER #7 (includes exterior and foundation inspection)</b>					
Project Manager	3	hour	\$155	\$465	
Senior Structural Engineer	2	hour	\$195	\$390	
Structural Engineer	48	hour	\$175	\$8,400	
Geotechnical Staff Engineer (subcontractor)	4	hour	\$157	\$628	
Geotechnical Staff Geologist (subcontractor)	13	hour	\$92	\$1,196	
Equipment Operator	32	hour	\$100	\$3,200	
CAC (field survey / travel / reporting)	13	hour	\$135	\$1,755	
Laboratory samples	12	sample	\$11	\$132	
Utility Vacuum Excavation (2 man crew/equipment per day)	2	day	\$3,500	\$7,000	
Vehicle	9	day	\$115	\$1,035	
Per diem (overnight stay)	9	GSA Rate	\$51	\$459	
Hotel / Taxes	9	GSA Rate	\$105	\$945	
Subtotal					\$25,605
<b>DOCUMENTATION OF FINDINGS</b>					
Project Manager	2	hour	\$155	\$310	
Structural Engineer	40	hour	\$175	\$7,000	
Subtotal					\$7,310
<b>TASK 1 TOTAL</b>					<b>\$60,338</b>

**EXHIBIT B**

# FEE SCHEDULE AND BUDGET



City of Merced - Structural Engineering Services for Elevated Water Tank Evaluation

TASK / SUBTASK	# OF UNITS	UNIT	UNIT COST	LINE ITEM TOTAL	SUBTASK TOTAL
<b>TASK 2. PRODUCE REPORT OF FINDINGS</b>					
<b>STATIC ANALYSIS OF EXISTING WATER TOWERS (#1, #2, #7) TO CODE</b>					
Senior Structural Engineer	4	hour	\$195	\$780	
Structural Engineer	40	hour	\$175	\$7,000	
Subtotal					\$7,780
<b>STATIC ANALYSIS OF EXISTING WATER TOWERS (#1, #2, #7) CONNECTIONS TO CURRENT CODE</b>					
Senior Structural Engineer	24	hour	\$195	\$4,680	
Subtotal					\$4,680
<b>EVALUATION OF EXISTING FOUNDATION TO CURRENT CODE (WATER TOWERS #1, #2, #7)</b>					
Structural Engineer	24	hour	\$175	\$4,200	
Subtotal					\$4,200
<b>CREATION OF DESIGN REPORT</b>					
Senior Structural Engineer	4	hour	\$195	\$780	
Structural Engineer	12	hour	\$175	\$2,100	
Subtotal					\$2,880
<b>DESIGN OF STRENGTHENING FOR EXISTING WATER TOWERS (#1, #2, #7)</b>					
Senior Structural Engineer	4	hour	\$195	\$780	
Structural Engineer	40	hour	\$175	\$7,000	
Subtotal					\$7,780
<b>DESIGN OF ENLARGEMENT/STRENGTHENING OF FOUNDATION FOR LOADS (WATER TOWERS #1, #2, #7)</b>					
Senior Structural Engineer	50	hour	\$195	\$9,750	
Subtotal					\$9,750
<b>CREATION OF SPECIFICATIONS FOR DEVELOPMENT OF ESTIMATE</b>					
Structural Engineer	24	hour	\$175	\$4,200	
Subtotal					\$4,200
<b>CREATION OF DESIGN DEVELOPMENT DRAWINGS</b>					
Senior Structural Engineer	8	hour	\$195	\$1,560	
Senior Drafter	32	hour	\$120	\$3,840	
Subtotal					\$5,400
<b>CREATION OF SUMMARY REPORT OUTLING FINDINGS</b>					
Senior Structural Engineer	4	hour	\$195	\$780	
Structural Engineer	12	hour	\$175	\$2,100	
Subtotal					\$2,880
<b>DETAILED ESTIMATION OF REENFORCEMENT &amp; DEMOLISHING OPTIONS</b>					
Deputy Project Manager	4	hour	\$130	\$520	
Senior Structural Engineer	4	hour	\$195	\$780	
Structural Engineer	8	hour	\$175	\$1,400	
Estimator	32	hour	\$155	\$4,960	
Subtotal					\$7,660
<b>TASK 2 TOTAL</b>					<b>\$57,210</b>

**FEE SCHEDULE AND BUDGET**

City of Merced - Structural Engineering Services for Elevated Water Tank Evaluation

TASK / SUBTASK	# OF UNITS	UNIT	UNIT COST	LINE ITEM TOTAL	SUBTASK TOTAL
<b><u>TASK 3. PROJECT CLOSEOUT SERVICES</u></b>					
<b>SUBMITTAL OF CLOSEOUT DOCUMENTATION</b>					
Project Manager	8	hour	\$155	\$1,240	
Deputy Project Manager	4	hour	\$130	\$520	
Structural Engineer	6	hour	\$175	\$1,050	
Senior Drafter	4	hour	\$120	\$480	
Subtotal					\$3,290
<b>SUBMITTAL OF INVESTIGATION GENERATED HAZARDOUS WASTE DISPOSAL DOCUMENTATION</b>					
Project Manager	1	hour	\$155	\$155	
Deputy Project Manager	2	hour	\$130	\$260	
Subtotal					\$415
<b>TASK 3 TOTAL</b>					<b>\$3,705</b>
<b><u>PROJECT TOTAL (not to exceed estimate)</u></b>					<b><u>\$121,253</u></b>

**FEE SCHEDULE AND BUDGET**

City of Merced - Structural Engineering Services for Elevated Water Tank Evaluation

TASK / SUBTASK	# OF UNITS	UNIT	UNIT COST	LINE ITEM TOTAL	SUBTASK TOTAL
<b>FEE SCHEDULE</b>		<b>HOURLY RATE</b>			
Senior Structural Engineer			\$195		
Structural Engineer			\$175		
Project Manager			\$155		
Estimator			\$155		
Geotechnical Engineer (subcontractor)			\$157		
CAC (subcontractor)			\$135		
Deputy Project Manager			\$130		
Senior Drafter (Graphics / AutoCAD Specialist)			\$120		
Equipment Operator			\$100		
Geotechnical Staff Geologist (subcontractor)			\$92		
Utility Vacuum Excavation (2 man crew/equipment per day)			\$3,500		
Vehicle/Pickup Truck (full day)			\$115		
Markup (subcontractors/materials/rental)			8%		