



September 27th, 2024

Pedro Stiassni, MS, CLSSGB
Utilities Project Manager
City of Margate
Department of Environmental and Engineering Services (DEES)
901 NW 66th Avenue, Ste A
Margate, FL 33063

**Re: Proposal for Professional Engineering Services
East Accelerator Tank Rehabilitation
Bid Contract Documents
City of Margate, FL**

Dear Mr. Stiassni:

In accordance with City of Margate RFQ 2023-010 General Civil Engineering, Building Architectural and Landscape Architectural Consulting Services, the following scope of services is provided by Kimley-Horn and Associates, Inc., (hereinafter referred to as “Consultant”, “We” or “Kimley-Horn”) to the City of Margate (hereinafter referred to as “Client” or “City”) as requested to provide professional engineering services associated with City of Margate Water Treatment Plant (WTP) East Accelerator Tank.

Project Understanding

In general, the project consists of the rehabilitation of the City of Margate WTP East Accelerator Tank (the Tank). The WTP's two tanks, which were constructed in 2002, are used as lime softening reactors for treating raw groundwater. It is our understanding that the City operates the two tanks in 12-month cycles such that when one tank is in operation, the other tank is drained for cleaning and equipment maintenance. The two tanks are reported to have been leaking since their construction completion date and multiple previous attempts at repairing these tanks have been completed by others. Additionally, the City is requesting catwalk access improvements between the two accelerator tanks and the media filter tanks to improve operation.

Scope of Services

The scope of services for this project includes the preparation of design bid documents for the limited rehabilitation of the East Accelerator Tank and catwalk improvements. The Scope of Services for the project will be provided by the Consultant.

Task 1 - Project Kick-Off

The Consultant will prepare for and coordinate a kick-off meeting with City staff to introduce the project team, discuss the proposed project improvements, and develop project goals. The following items will be discussed as part of the kick-off meeting:

- The City shall provide the Consultant all available studies, reports, or other documents pertaining to the project all of which the Consultant may rely upon.

- Obtain pertinent contact information as applicable for project coordination.
- Discuss project schedule.

Task 2 – Data Gathering and Review

The Consultant will perform the following documentation gathering and review:

- Document and photograph visible surface deficiencies for the East Accelerator tank by visiting the site up to two (2) times. This will require the City to provide Consultant safe access to the interior of the tank.
- Review available as-builts, site inspection reports, and engineering studies completed by others provided by Client.
- Consultant will note readily visible surface cracks, deterioration of structural elements, sagging, foundation settlement, excessive deflections, misalignments, signs of water intrusion or deterioration of finishes. Consultant will provide the Client with a summary of findings exhibit.

The Consultant will subcontract H2R Corp, a Geotechnical engineering firm, to perform two (2) standard penetration test bores to provide pertinent information for the design of the elevated walkways.

Deliverables: The following deliverable shall be provided in digital format under Task 2:

- Summary of findings exhibit
- Geotechnical report

Task 3 - 60% Design Submittal

The intent of this task is to prepare the 60% design submittal for the East Accelerator Tank improvements as follows:

- Using the data gathered performed in Task 2, the Consultant shall prepare 60% plans for the proposed structural concrete restoration of the East Accelerator Tank. The structural concrete restoration plans will consist of the following:
 - Cover sheet with location map, index of sheets, structural general notes, plan, elevations, photos identifying locations requiring concrete repairs.
 - Develop repair details for concrete at applicable locations identified in Task 2.
 - Develop waterproofing details.
 - Evaluate up to one (1) alternative coating system to the City-preferred Tnemec ElastoShield Series 264 liner for the Tank interior surfaces and develop technical specifications.
 - Evaluate up to two (2) different concrete coating systems for the Tank exterior surfaces and develop technical specifications.
- Detail the replacement of the City-provided steel blowdown flaps and associated hinges.
- Specify welding of Tank's steel mechanical components expected to be impacted by Contractor during rehabilitation
- Specify a hydroblasting, surface preparation, and coating of the Tank's steel mechanical components.

- Develop structural plans, sections, and details for a total of three (3) proposed elevated walkways from the East and West Accelerator Tank to Media Filter Tanks as shown on **Figure 1**.
 - Evaluate the existing walkway structure and adjacent concrete structures for proposed elevated walkway connection locations.
 - Perform a visual observation of the existing walkways and review record drawings provided by the Client to determine connection points for the proposed walkway.
 - The walkways are anticipated to be approximately 2.5 feet wide comprised of cast-in-place concrete foundations, structural steel beams, steel columns, and connections to the existing tank structures.
 - Provide design criteria for stair structures to be designed and detailed by selected Contractor’s specialty engineer



Figure 1 - Elevated Catwalks Conceptual Plan

- The Consultant shall submit 60% design submittal for City review. The 60% submittal shall be 22" x 34" full size plan sheets in digital format. The Consultant shall attend one (1) coordination meeting with the City to address/review comments.
- The Consultant will provide an opinion of probable construction cost (OPCC) for the proposed improvements.

Deliverables: The following deliverable shall be provided in digital format under Task 3:

- 60% Design Plans, electronic copy in PDF
- Technical Specifications, electronic copy in PDF and Word
- OPCC, electronic copy in PDF and Excel

Task 4 - 90% Design Submittal

Once the 60% plans have been reviewed by the City and City comments provided to the Consultant, these will be used as the basis for preparing the 90% design submittal. The intent of this task is to further develop the 60% design submittal previously submitted in Task 3 as follows:

- The Consultant will prepare 90% plans that will further refine the design of the proposed tank improvements and incorporate 60% review comments.
- The Consultant will prepare bid documents including updated technical specifications and a bid form listing individual contract pay items, estimated quantities and units of measure for the project. The Front-End contract documents will be provided by the City.
- The Consultant shall update the OPCC.

Deliverables: The following deliverables shall be provided in digital format under Task 4:

- 90% Design Plans, electronic copy in PDF
- Updated Technical Specifications, electronic copy in PDF and Word
- Updated OPCC, electronic copy in PDF and Excel

Task 5 – Final Design Submittal

Once the 90% plans have been reviewed by the City and City comments provided to the Consultant, these will be used as the basis for preparing the final design submittal. The intent of this task is to finalize the plans as follows:

- Incorporate 90% design drawing review comments.
- The Consultant shall submit the final plans for City review. The final design submittal will include the bid documents and design plans. The Final design submittal shall be 22" x 34" full size plan sheets in digital format.
- The Consultant shall update the OPCC.
- Once comments are addressed, or if no comments or corrections are necessary, the Consultant shall submit the final design submittal to the City.

Deliverables: The following deliverables shall be provided under Task 5:

- Final Design Plans, electronic copy in PDF
- Final Technical Specifications, electronic copy in PDF and Word
- Final OPCC, electronic copy in PDF and Excel

Project Assumptions

- City shall provide and coordinate with Consultant for a complete set of Front-End documents.
- The scope does not include tank post-tensioning design
- City shall provide signed and sealed topographic survey including elevations of top of buildings and structures. As-builts if available shall be provided to Kimley-Horn.
- Kimley-Horn cannot and does not guarantee that the proposed limited improvements will repair the East Accelerator's deficiencies in their entirety. Client understands that there are inherent and preceding issues prior to Consultant's engagement with the Tank from its installation that Consultant had no control over as part of this limited rehabilitation scope of work.
- The Consultant has no control over the cost of labor, materials, equipment, or over the Contractor's methods of determining prices or over competitive bidding or market conditions. Opinions of probable construction costs provided will be based on the information known to the Consultant at that time and represent only the Consultant's judgment as a design professional. The OPCC to be developed under this scope of work will be prepared in accordance with the cost estimate classes defined by the Association for the Advancement of Cost Engineering (AACE). Kimley-Horn cannot and does not guarantee that proposals, bids, or actual construction/repair costs will not vary from its opinions of probable costs.
- The time for plan reviews and approvals is outside of Consultant's direct control. Permit review time is at the sole discretion of the agency having jurisdiction. Consultant is not responsible for delays to Project schedule that arise because of this activity.

Additional Services

The Consultant will provide, as requested and authorized by the City, additional services that may be required above and beyond those described in Tasks 1 through 5. These services may include but are not limited to such items as the following:

- Permitting, bidding, or post design services
- Sidewalk design/improvements
- Drainage design/improvements
- Yard piping improvements
- Treatment process improvements
- Electrical and instrumentation/control improvements
- Hydraulic modeling
- Public outreach program.
- Independent testing lab services
- Destructive testing of existing structure
- Structural calculation package

- Repair recommendations or drawings for the West accelerator tank

Project Schedule

The Consultant shall perform the services identified in Tasks 1 through 5 within 90 days of receipt of a City written Notice to Proceed.

Method of Compensation

The Consultant will accomplish the services outlined in Tasks 1 through 5 for a total lump sum amount of **\$162,051.00** as outlined below. The Consultant will submit invoices, based on the percent completion of the work for each task and sub-task. The Consultant will manage work hours between tasks and employee classifications, and/or utilize other appropriate employee classifications, provided that the work assignment total compensation is not exceeded. The invoice will be substantiated with written status reports and the estimated completion percentage for each task. For invoices purposes only, the value of each Task is summarized in the table below. All permitting, application, and similar project fees will be paid directly by the City.

Task 1 – Project Kick-Off	\$1,450.00
Task 2 – Data Gathering and Review	\$17,821.00
Task 3 – 60% Design Submittal	\$75,500.00
Task 4 – 90% Design Submittal	\$42,475.00
Task 5 – Final Design Submittal	\$24,755.00
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Lump Sum Amount	\$162,051.00

Closure

The terms and conditions of the City of Margate RFQ 2023-010 General Civil Engineering, Building Architectural and Landscape Architectural Consulting Services shall govern this scope of services.

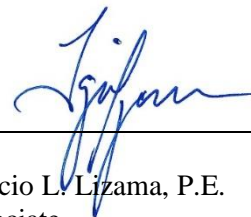
Kimley-Horn appreciates this opportunity to serve and submit this proposal. Should you have any questions or need additional information, please contact me at (954) 535-5100.

Very truly yours,

KIMLEY-HORN AND ASSOCIATES, INC.



Kevin E. Gerszuny, P.E.
Project Manager



Ignacio L. Lizama, P.E.
Associate



WORK PLAN - FEE SCHEDULE

PROJECT:	Margate WTP East Accelerator Tank Rehabilitation	SHEET:	
CLIENT:	City of Margate	PROJECT NO.	
ESTIMATOR:	Kevin E Gerszuny	DATE:	9/27/2024

DESCRIPTION:	Project Manager	Engineer	Designer	Administration	Geotechnical Sub-consultant	Sub-consultant Markup (10%)	Expenses	Line Total	Task Rounded Total
Task 1 - Project Kick-Off									
Prepare for and attend kick off meeting - Discussion pertinent project items	4	4		2				\$1,450.00	\$1,450.00
Task 2 - Data Gathering and Review									
Perform up to two (2) site visits	8	8						\$2,600.00	
Document review	6	24						\$4,650.00	
Geotechnical Report					\$ 9,610.00	\$ 961.00		\$10,571.00	\$17,821.00
Task 3 - 60% Design Submittal									
Develop 60% construction drawings	16	160	200					\$53,800.00	
Develop 60% technical specifications	6	100						\$16,050.00	
Develop 60% opinion of probable construction cost	4	20						\$3,700.00	
Finalize 60% design submittal and submit to the City	2	4						\$950.00	
Prepare for and attend meeting with City to review 60% design submittal	3	3		1				\$1,050.00	\$75,550.00
Task 4 - 90% Design Submittal									
Incorporate 60% review comments	6	20	10	1				\$5,475.00	
Develop 90% construction drawings	10	80	100					\$27,250.00	
Develop 90% technical specifications package and bid form	6	20						\$4,050.00	
Develop 90% opinion of probable construction cost	10	20						\$4,750.00	
Finalize 90% design submittal and submit to the City	2	4						\$950.00	\$42,475.00
Task 5 - Final Design Submittal									
Incorporate 90% review comments	4	12	8	1				\$3,655.00	
Develop final construction drawings	8	40	60					\$15,500.00	
Update opinion of probable construction cost	2	4						\$950.00	
Update technical specifications package and bid form	4	20						\$3,700.00	
Prepare final design submittal and submit to the City for bidding	2	4						\$950.00	\$24,755.00
TOTAL HOURS	103	547	378	5					
LABOR RATE (\$/HOUR)	\$175.00	\$150.00	\$135.00	\$75.00					
SUBTOTAL	\$18,025.00	\$82,050.00	\$51,030.00	\$375.00	\$ 9,610.00	\$ 961.00	\$ -		
PAGE TOTAL								\$162,051.00	\$162,051.00



August 15th, 2024

Kevin Gerszuny, PE
Kimley-Horn

Subject: Proposal for Standard Penetration Test (SPT) Borings
City of Margate Water Treatment Plant (WTP)
Broward County, Florida
H2R Corp Project Number: 240814.128

Dear Mr. Gerszuny,

H2R is pleased to submit this proposal to perform two Standard Penetration Test (SPT) borings at the City of Margate Water Treatment Plant (WTP). These borings are intended to gather subsurface data necessary for upcoming construction activities.

Scope of Work

Our proposed scope of work includes mobilization of drilling equipment and personnel to the site, execution of two SPT borings to a depth of [insert depth] feet or until refusal, collection of soil samples at regular intervals per ASTM D1586 standards, logging of soil strata encountered during drilling, and provision of a geotechnical report summarizing the findings and providing recommendations based on the collected data.

Before initiating any drilling activities, it is crucial to ensure that the proposed boring locations are free from underground utilities or other potential subsurface obstructions. To achieve this, we will perform a comprehensive utility clearance using Ground Penetrating Radar (GPR). This process will be carried out by our experienced technicians, who will carefully scan the designated areas to identify and document any utilities or anomalies. The results of the GPR survey will be analyzed and used to inform the placement of borings, ensuring that all drilling activities can proceed safely and without the risk of damaging existing infrastructure. This step is critical in mitigating potential hazards and preventing costly delays or disruptions during the project.

To further ensure the safety and accuracy of our operations, we will coordinate closely with Kimley-Horn and the plant personnel throughout the process. This collaboration will help verify that all necessary precautions are taken and that the locations of underground utilities are fully understood, thereby preventing any inadvertent impacts during the drilling activities.

Methodology

The SPT borings will be conducted using a drill rig equipped with an automatic hammer. The SPT blow counts will be recorded at each interval, and disturbed samples will be collected for further analysis. The boring locations will be determined in coordination with City of Margate representatives.

Timeline

Mobilization will occur within 2 weeks days of notice to proceed. Drilling and sampling should be completed within an estimated 2 days. The final report will be submitted within 14 days after completion of the subsurface exploration.

Pricing

The total cost for completing the two SPT borings, including mobilization, drilling, sampling, and reporting, is estimated at \$9,610. This amount is inclusive of all labor, materials, and equipment required for the project.

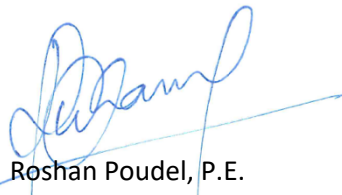
Item	Unit	Rate	# of Borings	Depth	QTY	Cost
Mobilization Drill Rig Truck Mount	Each	\$ 2,500.00	-	-	1	\$ 2,500.00
Utility Clearance (Coordination, GPR Survey, Verification and meeting)	Site	\$ 3,500.00	-	-	1	\$ 3,500.00
Geo SPT Truck 000-050 Ft (includes casing if necessary)	LF	\$ 19.50	2	15	30	\$ 585.00
Grout Boreholes- 000-050 Ft	LF	\$ 7.50	2	15	30	\$ 225.00
Laboratory Testing (Sieve Analysis)	Test	\$ 150.00			2	\$ 300.00
Geotechnical Engineering Report	Report	\$ 2,500.00	-	-	1	\$ 2,500.00
						\$ 9,610.00

Conclusion

H2R appreciates the opportunity to submit this proposal and looks forward to assisting Kimley Horn with this important project. Please feel free to contact us at for any further details or clarifications.

Best Regards,

H2R Corp



Roshan Poudel, P.E.
Geotechnical Engineer



Yves-Stanley Delmas, P.E.
Senior Geotechnical Engineer