



GWA RESOLUTION NO. 17-FY2023

RELATIVE TO APPROVAL OF THE ID/IQ ASBESTOS CEMENT PIPE WATERLINE REPLACEMENT DESIGN AND CM CONTRACT

WHEREAS, under 12 G.C.A. § 14105, the Consolidated Commission on Utilities (“CCU”) has plenary authority over financial, contractual and policy matters relative to the Guam Waterworks Authority (“GWA”); and

WHEREAS, the Guam Waterworks Authority (“GWA”) is a Guam Public Corporation established and existing under the laws of Guam; and

WHEREAS, the Water Resource Master Plan Update 2018 (WRMP) developed and included a list of potential asbestos cement pipe (ACP) replacement projects under Volume 2 of the WRMP Table 8-13 Total Remaining 2-Inch and AC Pipes and Table 8-14 Candidate Project Areas with 2-Inch and AC Pipes; and

WHEREAS, in accordance with the CCU-approved 5-year Improvement Program addressing the 2011 Court Order, upcoming EPA compliance requirements, and other regulatory requirements, GWA continues to make improvements to the water system by issuing projects that will reduce water loss, improve water supply, create pressure zones, and reduce ACP lines by installing new waterlines; and

WHEREAS, GWA has advertised the Request for Proposals (RFP-04-ENG-2022) soliciting statement of qualifications from experienced and qualified engineering firms to provide design and construction management services for the Indefinite Delivery/Indefinite Quantity (ID/IQ) for Engineering Design and Construction Management Services for ACP Waterline Replacement; and

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1 **WHEREAS**, 16 interested parties registered for the RFP package, from which GWA
2 received proposal submittals from 8 firms before the RFP submittal deadline; and

3
4 **WHEREAS**, the GWA Architect-Engineer Selection committee reviewed and evaluated
5 the 8 proposals (See Exhibit A – Evaluation Score Summary) and generated a short list of the top
6 3 firms with a recommendation to award a contract to the firm GHD, Inc. (See Exhibit B – GM’s
7 Determination); and

8
9 **WHEREAS**, GHD, Inc. and GWA negotiated the fee proposal for the design and
10 construction management services for the Indefinite Delivery/Indefinite Quantity (ID/IQ) for
11 Engineering Design and Construction Management Services for ACP Waterline Replacement to
12 be provided in the total amount of Five Million Four Hundred Twenty-Seven Thousand Dollars
13 (\$5,427,000.00) (See Exhibit C – Scope of Work and Fees); and

14
15 **WHEREAS**, GWA management seeks approval of the negotiated fee proposal in the
16 amount of Five Million Four Hundred Twenty-Seven Thousand Dollars (\$5,427,000.00) and
17 approval to award a portion of the negotiated fee proposal in the amount of One Million Five
18 Hundred Thousand Dollars (\$1,500,000.00); and

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20 **WHEREAS**, GWA shall issue Task Orders for development of a master list of
21 replacement sites and design and construction management of sites, which GWA have identified
22 for immediate replacement; and

23
24 **WHEREAS**, funding in the amount of One Million Five Hundred Thousand Dollars
25 (\$1,500,000.00) will be from the USEPA grants; and

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27 **NOW BE IT THEREFORE RESOLVED**, the Consolidated Commission on Utilities
28 does hereby approve the following:

- 29
30 1. The recitals set forth above hereby constitute the findings of the CCU.
31 2. The CCU finds that the terms of the fee proposal submitted by GHD, Inc. are
32 fair and reasonable.

- 1 3. The CCU hereby authorizes the management to accept the fee proposal in the
- 2 amount of Five Million Four Hundred Twenty-Seven Thousand Dollars
- 3 (\$5,427,000.00) from GHD, Inc., which is also incorporated into this
- 4 Resolution in its entirety (Exhibit C).
- 5 4. The CCU hereby further authorizes the management of GWA to enter into an
- 6 ID/IQ contract with GHD Inc., in the amount of One Million Five Hundred
- 7 Thousand Dollars (\$1,500,000.00).
- 8 5. The CCU hereby further approves the total funding amount for this project in
- 9 the amount of One Million Five Hundred Thousand Dollars (\$1,500,000.00).
- 10 6. The CCU hereby approves the use of funding source(s) from USEPA grants.

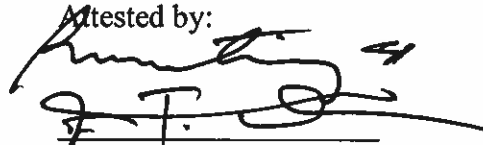
11
12 **RESOLVED**, that the Chairman certified and the Board Secretary attests to the adoption
13 of this Resolution.

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15 **DULY AND REGULARLY ADOPTED**, this 3rd day of April 2023.

16
17 Certified by:

18 
19 _____
20 **JOSEPH T. DUENAS**
21 Chairperson

17 Attested by:

18 
19 _____
20 **PEDRO ROY MARTINEZ**
21 Secretary

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SECRETARY'S CERTIFICATE

I, Pedro Roy Martinez, Board Secretary of the Consolidated Commission on Utilities as evidenced by my signature above do hereby certify as follows:

The foregoing is a full, true and accurate copy of the resolution duly adopted at a regular meeting by the members of the Guam Consolidated Commission on Utilities, duly and legally held at a place properly noticed and advertised at which meeting a quorum was present and the members who were present voted as follows:

AYES: 5
NAYS: Ø
ABSENT: Ø
ABSTAIN: Ø



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GUAM WATERWORKS AUTHORITY

Gloria B. Nelson Public Service Building 688 Route 15 Mangilao, Guam 96913

July 27, 2022

To: Barbara C. Cruz, P.E.
Acting Chief Engineer

From: Josephine E. Smith, PMBA 
Chairperson, Consultant Selection Board

Subject: RFP-04-ENG-2022
Indefinite Delivery/Indefinite Quantity (ID/IQ) for Engineering Design and
CM Services for Asbestos Cement Pipe (ACP) Waterline Replacement
GWA Project No. W22-05-BND

The following information is intended to document the evaluation process undertaken for the referenced solicitation:

EVALUATION COMMITTEE MEMBERS	
Name	Title
Garrett K.A. Yeoh	Senior Engineer
Jessey A. Mendiola	Junior Engineer
Ryan B. Diaz	Junior Engineer
William F. Esteves	Junior Engineer

Offerors	Evaluation Score				Total	Rank
1. GHD	79	84	96	96	355	1
2. Duenas, Camacho & Associates, Inc.	77	82	92	95	346	2
3. Brown and Caldwell	76	76	93	86	331	3
4. AECOM Technical Services, Inc.	75	76	77	94	322	4
5. TG Engineers, PC	71	74	70	89	304	5
6. HDR	74	79	64	86	303	6
7. SSFM International	71	71	71	82	295	7
8. E.M. Chen & Associates, Inc.	70	72	68	70	280	8

Scores were evaluated based on the sum of individual scores. The recommendation of the Evaluation Committee is shown in the ranking above.

For your review and approval. Notification letters will be issued thereafter.

Approved by:



Barbara C. Cruz, P.E.



GUAM WATERWORKS AUTHORITY

Gloria B. Nelson Public Service Building 688 Route 15 Mangilao, Guam 96913

MEMORANDUM

To: Miguel C. Bordallo, P.E.
General Manager

From: Barbara C. Cruz, P.E. ~~†~~
Acting Chief Engineer

Subject: RFP-04-ENG-2022
Indefinite Delivery/Indefinite Quantity (ID/IQ) for Engineering Design and
CM Services for Asbestos Cement Pipe (ACP) Waterline Replacement
GWA Project No. W22-05-BND

Date: July 28, 2022

The Selection Committee has completed all necessary actions for selecting the most qualified consultants for the referenced solicitation. All proposals were reviewed and scored according to the conditions established in the solicitation. The Evaluation Summary is attached for your information.

The committee recommends the following top three (3) firms in order of preference for the project:

1. GHD
2. Duenas, Camacho & Associates, Inc.
3. Brown & Caldwell

Concurred:

Vincent Guerrero
 Vincent E. Guerrero
 Supply Management Administrator

7/28/2022

Date

GENERAL MANAGER'S DETERMINATION

Consultant Firm Selected:

GHD

Remarks:

Miguel C. Bordallo
 Miguel C. Bordallo, P.E.
 General Manager

29.7.2022
 Date



865 S Marine Corps Drive
 Suite 202, Orlean Pacific Plaza
 Tamuning, Guam 96913
 www.ghd.com

Your ref: RFP-04-ENG-2022
 Our ref: 12582394

13 March 2023

Brett Railey, PE
 Guam Waterworks Authority
 Gloria B. Nelson Public Service Building
 688 Route 15
 Mangilao, Guam 96913

RE: Estimated Fee for IDIQ for Engineering Design and CM Services for ACP Waterline Replacement, RFP-04-ENG-2022

Dear Mr. Railey

The Water Resources Master Plan Update for Guam Waterworks Authority (GWA) by Brown and Caldwell, dated August 2018, was used as the basis for estimating a design fee to replace all the Asbestos Cement Pipe (ACP) within GWA's system. Paragraph 8.5.3 of the master plan shows that there is an estimated 30.7 miles of ACP that needs to be replaced for a total replacement cost of \$76.94 million.

GHD has estimated a fee for the design of the entire 30.7 miles of ACP replacement for GWA's budgeting purposes. The design fee was based on a per mile cost that includes subconsultant efforts for surveying, geotechnical services, UXO services, archaeological investigation, environmental permitting, and utility locating services. The assumed fees for the entire 30.7 miles of waterline replacement for the scope of work tasks are broken down as follows:

1. Plans, specifications, and cost estimates	\$2,500,000
2. Program Management	\$15,000
3. Survey services	\$777,000
4. Hydraulic modeling services	\$20,000
5. Geotechnical services	\$30,000
6. UXO services	\$175,000
7. Archaeological services	\$424,000
8. Environmental and biological services	\$424,000
9. Property and land acquisition services	\$212,000
10. GPR and line location services (time and material budget)	\$100,000
11. Construction Management (time and material budget)	\$750,000
Total	\$5,427,000

The design of the replacement of all the ACP pipe will take multiple years. Therefore, a rate increase of 10% has been included over five years to the estimated fee.

Regards



Aaron Sutton, PE
Project Manager

671-472-6792
Aaron.sutton@ghd.com

Matt Kennedy
Project Director

707-523-1010
Matt.kennedy@ghd.com

Copy to: Garrett Yeoh

SCOPE OF WORK

Indefinite Delivery/Indefinite Quantity (ID/IQ) for Engineering Design and CM Services for Asbestos Concrete Pipe (ACP) Waterline Replacement

GWA Project No. W22-05-BND

This ID/IQ will focus on sites which require removal of old ACP pipeline and installation of new appropriately sized waterline around the island. The ID/IQ firm shall work with GWA to develop a master list and prioritize locations for waterline replacement. From the master list, GWA shall select sites for the A/E to proceed with complete design ready for construction bid.

Engineering services will include, but not be limited to the following:

1. PS&E: Plans, Specifications, and Cost Estimate Development. Develop design for ACP waterline distribution improvements and replacement. The work shall include full plans, specifications, and cost estimates at the 30% (basis of design), 60%, 90%, and 100% phases.
2. Engineering program management to include developing master list of line replacement sites which incorporates GWA's Master Plan, GWA Operation's input for areas of high breakage rates, and site field investigations by the ID/IQ A/E and GWA. Sites shall be prioritized based on area of coverage, breakage rates, cost, and other relevant factors.
3. Survey services
4. Ground penetrating radar services
5. Archaeological services
6. Environmental and biological services
7. Property and land acquisition services
8. Hydraulic modeling services
9. Coordinating and facilitating various task with local and federal agencies for grants, general agency review, and permitting.
10. IFB preparation and bidding services to include RFI bid responses, Addendum preparation, bid evaluation/recommendation, and all other task necessary to assist the bid process.
11. Provide construction management services
 - a. Site management
 - b. Conduct weekly meetings
 - c. Construction inspection
 - d. Quality assurance testing

- e. Submittal, RFI, shop drawing review
- f. Payment request review
- g. Change order review and recommendation

The consultant shall furnish, in accordance with the agreed upon schedule, a complete, practical, economical design, plans, specifications, and related corrections and changes which are best suited for the contemplated construction, and ensure all work is completed in accordance with this Agreement and with sound engineering principles and is signed and sealed by a licensed Professional Engineer. The consultant shall provide all calculations, data, charts, field data, and other information of any type whatsoever which support its designs or other work performed pursuant to this Agreement. The consultant may not assert as a basis for refusing to provide such information that it is proprietary. The consultant shall satisfy GWA with design decisions that are based on objective evaluation of the requirements of the facility owner and user, meet site-specific conditions, comply with Project construction cost budget, and minimize long-term operation and maintenance costs. Consultant is aware and agrees that GWA has the right to submit the Proposer's work product to independent design reviewers. Consultant agrees to fully cooperate with such reviewers if GWA determines review is appropriate. Consultant's obligation to cooperate shall include the obligation to respond in an objective professional manner to requests for information, and, if expressly requested by GWA, to enter into a dialogue with the reviewer regarding the comments of the reviewer on the work.

The contract will provide for the issuance of Task Orders (TO) requiring a variety of engineering and construction services as needed and determined by GWA. Each TO will be negotiated with the selected A/E firms. The contract as noted is an Indefinite Delivery Indefinite Quantity (ID/IQ) type contract and GWA does not guaranteed any number of TO to be issued. GWA also does not guarantee a minimum or maximum dollar value of TO's placed with any firm.

Examples of the types of work under this RFP includes, but not limited to, ACP waterline replacement/upgrades, etc.

Task Order Scopes of Work for Design and Construction Management

1. Design Services to be provided by the Consultant:
 - a. Project Management: The consultant shall develop a work plan and schedule for the scope of work to be accomplished within the agreed performance time of the TO's. The schedule shall include reasonable time periods for any review by GWA or

other government agency (such as EPA, GEPA, etc.). Projects shall require reoccurring meetings during the progress of the work. Design meetings to discuss the overall plan, requirements, constraints, expectations, outcomes, design features, design progress, and other project specific elements for discussion between GWA and the consultant to coordinate work.

- b. Design: GWA anticipates that a TO shall be issue to begin developing the Master List of sites which require abandonment and replacement of ACP water lines of various sizes. Sites shall be selected from the Master List for design. TO's shall be issued for design of the sites.

The consultant shall prepare a basis of design for each design (30% phase). As part of the design, the consultant shall collect and review, from GWA and other sources, data required to design facilities outlined in each TO. Site-visits will be required to completely comprehend the scope of work, the design needs, and the necessary data collection. The consultant shall identify any constraining factors that affect design and construction. The consultant shall coordinate and meet with GWA to review available "as-builts" of existing water and other utilities. The basis of design shall establish the design criteria, define preliminary routing of the proposed pipelines, location of control valves, pumping stations, identify right-of-way limits, list questions needing answers for the design, and list decision items. Once the basis of design has been accepted by GWA, the consultant shall move into the design phases.

Following approval of the basis of design, the consultant shall proceed with design for the complete scope of work as outlined in each TO and prepare all engineering and hydraulic calculations, perform all field work, prepare construction plans, specifications, and estimate the cost of construction at the 60%, 90% and 100% phases.

- c. Geotechnical Studies: When required by TO, the consultant shall conduct explorations for geotechnical investigation to determine subsurface conditions, soil properties, and groundwater levels as required for excavation information, foundation parameters, and related engineering information or anticipated construction conditions. A geotechnical report shall be prepared and submitted to GWA to include maps, boring records, soil type, allowable soil bearing capacity,

pipe backfill suitability of in-situ soils, presence of groundwater water encountered, and all other pertinent information required to complete the scope of work.

- d. **Field Surveys:** When required by TO, the consultant shall conduct surveying for the purposes of a topographic survey, right-of-way, and developing design and construction drawings for the proposed facilities as described in each TO scope of work. The survey must indicate easements, property lines, existing utilities, existing water meters, edges of pavement, driveways, existing buildings, structures, trees, and fences within the vicinity of the project.
- e. **Additional Design Services:** As may be necessary for specific work, other additional design services such as archeological review, environmental permitting, biological surveys, ground penetrating radar services, property acquisition and survey services, pressure logging and flow metering equipment procurement, and all other services as described in Section W.

2. **Construction Management Services to be provided by the Consultant:**

- a. **Pre-Construction:** the following elements of construction activity are required during the pre-construction stage of construction management. The consultant shall perform these tasks when required in a TO.

From the time of issuance of the Notice to Proceed (NTP for pre-construction activities prior to the issuance of DPW building permit), all duties listed in this section, at a minimum, shall be part of the CM's daily duties within typical working hours.

- Conduct pre-construction conference. Agenda shall be developed by the consultant.
- Conduct weekly meetings.
- Review Contractor's submittal and construction schedule.
- Review Contractor's master submittal log.
- Review all submittals for conformance with plans and specifications. Submittals to include product and material data, shop drawings, outage plans, schedule updates, and RFIs'.
- Review Contractor's safety and traffic control plans.

- Review the Storm Water Pollution Prevention Plan.
- Ensure that Contractor has applied for all required permitting to being the project.
- Set up and maintain Construction Management Software: ProCore

b. Construction: the following elements of construction activity are required during the construction stage of construction management. The consultant shall perform these tasks when required in a TO.

From the time of issuance of the NTP (after issuance of the DPW building permit), all duties listed in this section, at a minimum, shall be part of the CM and Inspectors daily duties within typical working hours.

- Monitor and inspect daily construction activities in compliance with the contract, plans and specifications, and applicable codes and regulations.
- Witness all quality control testing by the Contractor.
- Maintain Construction Management Software (ProCore). All submittals shall be submitted through the management software.
- Conduct quality assurance testing and surveying as required by the plans and specifications.
- Prepare correspondences as requested by GWA.
- Conduct Davis-Bacon interviews if the construction project is grant funded.
- Review progress payment requests for accuracy and proper reflection of actual work performed and make recommendations to GWA regarding appropriateness and approval.
- Review contractor submitted payroll records for each payment request according to contract requirements.
- Issue directives and corrective action notices dealing with quality of workmanship, non-compliance, safety, and performance.
- At GWA's request, prepare field orders to change specific scope of work requirements.
- Schedule and coordinate all inspection, surveys and material testing.
- Review updated contractor's progress schedule and recommend approval or rejection to GWA.
- Verify contractor's material supply list with regard to delivery timetable, progress schedule, and justification for payment.
- Analyze and participate in negotiating claims and contract change requests; recommend action deemed appropriate.

- Prepare for GWA approval, change orders to modify the terms of the contract (change in cost, performance time, or technical provisions). Make changes to the design as necessary.
 - Provide daily construction reports which includes pictures of construction highlighting deficient work, safety violations, examples of acceptable work, and other critical items. Reports shall be in ProCore.
 - Maintain a set of as-built drawings recording all installed facilities, deviations from the original plans, details of installation, encountered subsurface features and utilities, and critical dimensions. This set of As-Built drawings is to be separate from the Contractor's as-built drawing set. The purpose of this task is to ensure that the CM has their own set to check against the Contractor's set of drawings.
 - Conduct weekly (or specified meeting interval) project meetings with the contractor and GWA to discuss work progress and any concerns relating to the construction.
 - Witness field tests performed by the construction contractor or his representative for compliance with the contract drawings and specifications.
 - Inspect construction, installation, and assemblage of work agreed to with GWA. Verify conformance to the contract provisions and check for acceptable workmanship. Report acceptable and unacceptable work to GWA.
- c. Post Construction: the following elements of construction activity are required during the post-construction stage of construction management. The consultant shall perform these tasks when required in a TO.
- Lead pre-final inspection and prepare a list of incomplete work to be completed before substantial completion and final completion.
 - Determine the date of substantial completion according to the contract terms.
 - Lead final inspection and prepare a punch list of deficiencies to be completed before final acceptance and final payment.
 - Perform or observe all operational testing for proper operation, functionality, and performance. Accumulate all performance test data and submit to GWA.

- Verify final quantities installed and note differences from the estimated contract amount.
- Accumulate and provide to GWA all records, documents, submittals, log books, files, test results, etc.
- Review contract required warranties, O&M manuals, etc. and verify full compliance by the contractor.
- Provide a final review of construction contractor's as-built drawings and transmit the as-built drawings to GWA.
- Provide CM's as-built drawings and transmit to GWA.