



GWA RESOLUTION NO. 36-FY2024

**RELATIVE TO APPROVAL OF ADDITIONAL FUNDING FOR THE FUJITA SEWAGE
PUMP STATION REHABILITATION AND REDUNDANT FORCE MAIN DESIGN
PROJECT, GWA PROJECT NO. 22003**

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 is a Guam Public Corporation established and existing under the laws of Guam; and

WHEREAS, GWA's public wastewater collection/transmission system, consisting of gravity mains, manholes, laterals, force mains (FM), sewer pump stations (SPS), and other related appurtenances, are in need of repair, rehabilitation, or replacement; and

WHEREAS, GWA has received United States Environmental Protection Agency (USEPA) grant funding for the Fujita FM design project; and

WHEREAS, the Fujita FM serves most of the Tumon Bay area and is approximately 7,100 feet long; and

WHEREAS, the FM's condition is not known and failure of the FM could lead to service disruptions which may impact the health of the community, environment, and negatively impact Guam's main tourist area; and

WHEREAS, to address this concern GWA advertised a Request For Proposals on August 25, 2020, and entered into a contract for design services for a redundant FM with AECOM Technical Services, Inc., on October 5, 2022, in the amount of Nine Hundred Thirty Thousand Eight Hundred Thirty-Four Dollars and Fifty-Seven Cents (\$930,834.57), as shown in Exhibit A; and

1 **WHEREAS**, subsequent to the contract, GWA and the United States Environmental
2 Protection Agency (USEPA) recently entered into a Partial Consent Decree (CD) which requires
3 GWA to achieve certain milestones within our wastewater system to eliminate unauthorized
4 discharges, such as Sanitary Sewer Overflows (SSOs); and

5
6 **WHEREAS**, the Consent Decree with USEPA requires a Force Main Condition Assessment,
7 Force Main Action Plan and Implementation of the Force Main Action Plan for the FM identified in
8 Partial CD Table A (see Exhibit B) to be completed within nine (9) years of the Effective Date; and
9 in which Fujita FM is listed in Table A; and

10
11 **WHEREAS**, the Consent Decree with USEPA requires the rehabilitation of the SPS listed in
12 Partial CD Table B, Tier 1 (see Exhibit C) within seven (7) years of the Effective Date; and in
13 which, the Fujita SPS is listed as a Tier 1 station; and

14
15 **WHEREAS**, to assist with the rehabilitation of the Fujita SPS as part of the Partial CD,
16 GWA negotiated Change Order No. 1 (CO1) for the SPS rehabilitation assessment and design for
17 Six Hundred Seventy Thousand Seven Hundred Sixty-Four Dollars and Seventy-Two Cents
18 (\$670,764.72), as shown in Exhibit D; and

19
20 **WHEREAS**, the additional funding for CO1, as well as a 15% contingency of Two Hundred
21 Forty Thousand Two Hundred Thirty-Nine Dollars and Eighty-Nine Cents (\$240,239.89) was
22 requested and approved as part of GWA Resolution No. 04-FY2024 (Exhibit E), raising the total
23 approved authorized contract amount to One Million Eight Hundred Forty-One Thousand Eight
24 Hundred Thirty-Nine Dollars and Eighteen Cents (\$1,841,839.18); and

25
26 **WHEREAS**, during the assessment and design of the Fujita SPS, the engineering team
27 determined that in order to properly maintain the wet well, the station would need to be bypassed
28 and shut down as there is no way to easily access and clean the wet well otherwise; and

29
30 **WHEREAS**, the Fujita SPS property is also the site of the now-defunct Tumon SPS, which
31 has been shut down and out of operation since the building of the Fujita SPS; and

1 **WHEREAS**, the Tumon SPS presents a potential opportunity to add marginal additional
2 capacity for the pump station to the highly critical Tumon service basin, while also allowing us to
3 temporarily by-pass the Fujita SPS when needed to complete required maintenance, without
4 expanding the site footprint or purchasing additional property; and

5
6 **WHEREAS**, to assist with the assessment and rehabilitation design of the old Tumon SPS,
7 as well as the maintenance of the Fujita SPS and additional capacity to the Tumon basin, GWA
8 negotiated a scope and fee for Change Order No. 2 (CO2) for Four Hundred Thirty-Five Thousand
9 Four Hundred Thirty-Two Dollars and Eighty Cents (\$435,432.80), as shown in Exhibit F; and

10
11 **WHEREAS**, the current contract amount of One Million Six Hundred and One Thousand
12 Five Hundred Ninety-Nine Dollars and Twenty-Nine Cents (\$1,601,599.29) plus CO2 amount of
13 Four Hundred Thirty-Five Thousand Four Hundred Thirty-Two Dollars and Eighty Cents
14 (\$435,432.80), brings the revised contract amount to Two Million Thirty-Seven Thousand Thirty-
15 Two Dollars and Nine Cents (\$2,037,032.09); and

16
17 **WHEREAS**, given the importance of the rehabilitation of the Fujita SPS and the condensed
18 time frame of the Partial CD projects, GWA requests a Ten Percent (10%) contingency of Two
19 Hundred Three Thousand Seven Hundred Three Dollars and Twenty-One Cents (\$203,703.21); and

20
21 **WHEREAS**, the revised contract cost to include the Tumon SPS assessment and design
22 rehabilitation as part of the Fujita SPS assessment and design is Two Million Thirty-Seven Thousand
23 Thirty-Two Dollars and Nine Cents (\$2,037,032.09), plus a Ten Percent (10%) contingency of Two
24 Hundred Three Thousand Seven Hundred Three Dollars and Twenty-One Cents (\$203,703.21) will
25 bring the total authorized funding level to Two Million Two Hundred Forty Thousand Seven
26 Hundred Thirty-Five Dollars and Thirty Cents (\$2,240,735.30); and

27
28 **WHEREAS**, funding for this design project will be from the USEPA grants. Only if
29 necessary, GWA may use bond funds should USEPA Grant funding become unavailable.
30

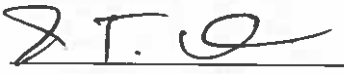
1 **NOW BE IT THEREFORE RESOLVED**, the Consolidated Commission on Utilities does
2 hereby approve the following:

- 3 1. The recitals set forth above hereby constitute the findings of the CCU.
4 2. The CCU finds that the requested funding authorization increases to be fair, reasonable,
5 and necessary for the Fujita SPS rehabilitation design project.
6 3. The CCU hereby authorizes the management of GWA to execute Change Order No. 2 to
7 the contract with AECOM Technical Services, Inc., for a total contract amount of Two
8 Million Thirty-Seven Thousand Thirty-Two Dollars and Nine Cents (\$2,037,032.09).
9 4. The CCU hereby further authorizes a ten percent (10%) contingency of Two Hundred
10 Three Thousand Seven Hundred Three Dollars and Twenty-One Cents (\$203,703.21),
11 increasing the authorized funding amount to Two Million Two Hundred Forty Thousand
12 Seven Hundred Thirty-Five Dollars and Thirty Cents (\$2,240,735.30).
13 5. The CCU hereby further authorizes the use of USEPA grants as the funding source. Only
14 if necessary, GWA may use bond funds should USEPA Grant funding become
15 unavailable.
16 6. The CCU further approves management to duly notify the Public Utilities Commission of
17 this contract which exceeds One Million Dollars (\$1,000,000.00), and is funded by
18 USEPA grant funds. Only if necessary, GWA may use bond funds should USEPA Grant
19 funding become unavailable.

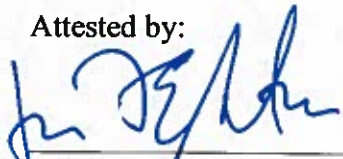
20
21 **RESOLVED**, that the Chairman certified, and the Board Secretary attests to the adoption of
22 this Resolution.

23
24 **DULY AND REGULARLY ADOPTED**, this 25th day of September 2024.

25
26 Certified by:

27 
28 _____
29 **JOSEPH T. DUENAS**
30 Chairperson

26 Attested by:

27 
28 _____
29 **PEDRO ROY MARTINEZ**
30 Secretary

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:	<u>5</u>
NAYS:	<u>0</u>
ABSENT:	<u>0</u>
ABSTAIN:	<u>0</u>



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EXHIBIT A

PROJECT OVERVIEW

(DESIGN SERVICES)

Project: **FUJITA SEWAGE PUMP STATION REDUNDANT FORCE MAIN**

Project Number: S20-003-EPA

Consultant: AECOM Technical Services, Inc.

Contract Amount: \$930,834.57

Contingency: -0-

Selection Notification: October 20, 2020

Request to Award: May 23, 2022

USEPA Approval: May 20, 2022

CCU Approval: N/A

PUC Approval: N/A

Notice of Award Decision: June 3, 2022

Fund Source: USEPA SRF Grant No. M96902619-1

Other documents pertaining to the solicitation of this project are available at Engineering folder:
<Z:\Project Information\CIP Projects - Wastewater\Fujita SPS Redundant FM\Design\Procurement>

Prepared by:


JOSEPHINE E. SMITH

**AGREEMENT
BETWEEN OWNER AND ENGINEER
FOR PROFESSIONAL SERVICES**

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**AGREEMENT
BETWEEN OWNER AND ENGINEER
FOR PROFESSIONAL SERVICES**

THIS IS AN AGREEMENT effective as of October 5, 2022 ("Effective Date") between
Guam Waterworks Authority ("Owner") and
AECOM Technical Services, Inc. ("Engineer").

Owner's Project, of which Engineer's services under this Agreement are a part, is generally identified as follows:

**Fujita Sewage Pump Station Redundant Force Main
GWA Project No. S20-003-EPA**

Other terms used in this Agreement are defined in Article 7.

Engineer's services under this Agreement are generally identified as follows:

- 1) Identify redundant force main options and provide the design for the selected option.**
- 2) After the redundant force main is placed in operation, investigate the condition of the original 14-inch force main to determine if repair, relocation, or replacement is needed in order to ensure force main redundancy. Identify options and provide the design for the selected option, including potential use of CIPP and if necessary, pump station upgrades.**

Owner and Engineer further agree as follows:

ARTICLE 1 – SERVICES OF ENGINEER

1.01 Scope

- A. Engineer shall provide, or cause to be provided, the services set forth herein and in Exhibit A.

ARTICLE 2 – OWNER'S RESPONSIBILITIES

2.01 General

- A. Owner shall have the responsibilities set forth herein and in Exhibit B.
- B. Owner shall pay Engineer as set forth in Article 4 and Exhibit C.
- C. Owner shall be responsible for all requirements and instructions that it furnishes to Engineer pursuant to this Agreement, and for the accuracy and completeness of all programs, reports, data, and other information furnished by Owner to Engineer pursuant to this Agreement. Engineer may use and rely upon such requirements, programs, instructions, reports, data, and information in performing or furnishing services under this Agreement, subject to any express limitations or reservations applicable to the furnished items.

- D. Owner shall give prompt written notice to Engineer whenever Owner observes or otherwise becomes aware of:
1. any development that affects the scope or time of performance of Engineer's services;
 2. the presence at the Site of any Constituent of Concern; or
 3. any relevant, material defect or nonconformance in: (a) Engineer's services, (b) the Work, (c) the performance of any Constructor, or (d) Owner's performance of its responsibilities under this Agreement.

ARTICLE 3 – SCHEDULE FOR RENDERING SERVICES

3.01 Commencement

- A. Engineer is authorized to begin rendering services as of the Effective Date.

3.02 Time for Completion

- A. Engineer shall complete its obligations within a reasonable time. Specific periods of time for rendering services, or specific dates by which services are to be completed, are provided in Exhibit A, and are hereby agreed to be reasonable.
- B. If, through no fault of Engineer, such periods of time or dates are changed, or the orderly and continuous progress of Engineer's services is impaired, or Engineer's services are delayed or suspended, then the time for completion of Engineer's services, and the rates and amounts of Engineer's compensation, shall be adjusted equitably.
- C. If Owner authorizes changes in the scope, extent, or character of the Project or Engineer's services, then the time for completion of Engineer's services, and the rates and amounts of Engineer's compensation, shall be adjusted equitably.
- D. Owner shall make decisions and carry out its other responsibilities in a timely manner so as not to delay the Engineer's performance of its services.
- E. If Engineer fails, through its own fault, to complete the performance required in this Agreement within the time set forth, as duly adjusted, then Owner shall be entitled, as its sole remedy, to the recovery of direct damages, if any, resulting from such failure.

ARTICLE 4 – INVOICES AND PAYMENTS

4.01 Invoices

- A. *Preparation and Submittal of Invoices:* Engineer shall prepare invoices in accordance with its standard invoicing practices and the terms of Exhibit C. Engineer shall submit its invoices to Owner on a monthly basis. Invoices are due and payable within 45 days of receipt.

4.02 *Payments*

- A. *Application to Interest and Principal:* Payment will be credited first to any interest owed to Engineer and then to principal.
- B. *Failure to Pay:* If Owner fails to make any payment due Engineer for services and expenses within 45 days after receipt of Engineer's invoice, then:
 - 1. amounts due Engineer will be increased at the maximum rate of interest permitted by law from said forty-fifth day; and
 - 2. Engineer may, after giving seven days written notice to Owner, suspend services under this Agreement until Owner has paid in full all amounts due for services, expenses, and other related charges. Owner waives any and all claims against Engineer for any such suspension.
- C. *Disputed Invoices:* If Owner disputes an invoice, either as to amount or entitlement, then Owner shall promptly advise Engineer in writing of the specific basis for doing so, may withhold only that portion so disputed, and must pay the undisputed portion subject to the terms of Paragraph 4.01.
- D. *Sales or Use Taxes:* If after the Effective Date any governmental entity takes a legislative action that imposes additional sales or use taxes on Engineer's services or compensation under this Agreement, then Engineer may invoice such additional sales or use taxes for reimbursement by Owner. Owner shall reimburse Engineer for the cost of such invoiced additional sales or use taxes; such reimbursement shall be in addition to the compensation to which Engineer is entitled under the terms of Exhibit C.

ARTICLE 5 – OPINIONS OF COST

5.01 *Opinions of Probable Construction Cost*

- A. Engineer's opinions (if any) of probable Construction Cost are to be made on the basis of Engineer's experience, qualifications, and general familiarity with the construction industry. However, because Engineer has no control over the cost of labor, materials, equipment, or services furnished by others, or over contractors' methods of determining prices, or over competitive bidding or market conditions, Engineer cannot and does not guarantee that proposals, bids, or actual Construction Cost will not vary from opinions of probable Construction Cost prepared by Engineer. If Owner requires greater assurance as to probable Construction Cost, then Owner agrees to obtain an independent cost estimate.

5.02 *Designing to Construction Cost Limit*

- A. If a Construction Cost limit is established between Owner and Engineer, such Construction Cost limit and a statement of Engineer's rights and responsibilities with respect thereto will be specifically set forth in Exhibit F to this Agreement.

5.03 *Opinions of Total Project Costs*

- A. The services, if any, of Engineer with respect to Total Project Costs shall be limited to assisting the Owner in tabulating the various categories that comprise Total Project Costs. Engineer assumes no responsibility for the accuracy of any opinions of Total Project Costs.

ARTICLE 6 – GENERAL CONSIDERATIONS

6.01 *Standards of Performance*

- A. *Standard of Care:* The standard of care for all professional engineering and related services performed or furnished by Engineer under this Agreement will be the care and skill ordinarily used by members of the subject profession practicing under similar circumstances at the same time and in the same locality. Engineer makes no warranties, express or implied, under this Agreement or otherwise, in connection with any services performed or furnished by Engineer.
- B. *Technical Accuracy:* Owner shall not be responsible for discovering deficiencies in the technical accuracy of Engineer's services. Engineer shall correct deficiencies in technical accuracy without additional compensation, unless such corrective action is directly attributable to deficiencies in Owner-furnished information.
- C. *Consultants:* Engineer may retain such Consultants as Engineer deems necessary to assist in the performance or furnishing of the services, subject to reasonable, timely, and substantive objections by Owner.
- D. *Reliance on Others:* Subject to the standard of care set forth in Paragraph 6.01.A, Engineer and its Consultants may use or rely upon design elements and information ordinarily or customarily furnished by others, including, but not limited to, specialty contractors, manufacturers, suppliers, and the publishers of technical standards.
- E. *Compliance with Laws and Regulations, and Policies and Procedures:*
 - 1. Engineer and Owner shall comply with applicable Laws and Regulations.
 - 2. Engineer shall comply with any and all policies, procedures, and instructions of Owner that are applicable to Engineer's performance of services under this Agreement and that Owner provides to Engineer in writing, subject to the standard of care set forth in Paragraph 6.01.A, and to the extent compliance is not inconsistent with professional practice requirements.
 - 3. This Agreement is based on Laws and Regulations and Owner-provided written policies and procedures as of the Effective Date. The following may be the basis for modifications to Owner's responsibilities or to Engineer's scope of services, times of performance, or compensation:
 - a. changes after the Effective Date to Laws and Regulations;
 - b. the receipt by Engineer after the Effective Date of Owner-provided written policies and procedures;

- c. changes after the Effective Date to Owner-provided written policies or procedures.
- F. Engineer shall not be required to sign any document, no matter by whom requested, that would result in the Engineer having to certify, guarantee, or warrant the existence of conditions whose existence the Engineer cannot ascertain. Owner agrees not to make resolution of any dispute with the Engineer or payment of any amount due to the Engineer in any way contingent upon the Engineer signing any such document.
- G. The general conditions for any construction contract documents prepared hereunder are to be EJCDC® C-700 "Standard General Conditions of the Construction Contract" (2013 Edition), prepared by the Engineers Joint Contract Documents Committee, unless expressly indicated otherwise in Exhibit J or elsewhere in this Agreement.
- H. Engineer shall not at any time supervise, direct, control, or have authority over any Constructor's work, nor shall Engineer have authority over or be responsible for the means, methods, techniques, sequences, or procedures of construction selected or used by any Constructor, or the safety precautions and programs incident thereto, for security or safety at the Site, nor for any failure of a Constructor to comply with Laws and Regulations applicable to that Constructor's furnishing and performing of its work. Engineer shall not be responsible for the acts or omissions of any Constructor.
- I. Engineer neither guarantees the performance of any Constructor nor assumes responsibility for any Constructor's, failure to furnish and perform the Work in accordance with the Construction Contract Documents.
- J. Engineer shall not be responsible for any decision made regarding the Construction Contract Documents, or any application, interpretation, clarification, or modification of the Construction Contract Documents, other than those made by Engineer or its Consultants.
- K. Engineer is not required to provide and does not have any responsibility for surety bonding or insurance-related advice, recommendations, counseling, or research, or enforcement of construction insurance or surety bonding requirements.
- L. Engineer's services do not include providing legal advice or representation.
- M. Engineer's services do not include (1) serving as a "municipal advisor" for purposes of the registration requirements of Section 975 of the Dodd-Frank Wall Street Reform and Consumer Protection Act (2010) or the municipal advisor registration rules issued by the Securities and Exchange Commission, or (2) advising Owner, or any municipal entity or other person or entity, regarding municipal financial products or the issuance of municipal securities, including advice with respect to the structure, timing, terms, or other similar matters concerning such products or issuances.
- N. While at the Site, Engineer, its Consultants, and their employees and representatives shall comply with the applicable requirements of Contractor's and Owner's safety programs of which Engineer has been informed in writing.

6.02 *Design Without Construction Phase Services*

- A. Engineer shall be responsible only for those Construction Phase services expressly required of Engineer in Exhibit A, Paragraph A1.05. With the exception of such expressly required services, Engineer shall have no design, Shop Drawing review, or other obligations during construction, and Owner assumes all responsibility for the application and interpretation of the Construction Contract Documents, review and response to Contractor claims, Construction Contract administration, processing of Change Orders and submittals, revisions to the Construction Contract Documents during construction, construction observation and review, review of Contractor's payment applications, and all other necessary Construction Phase administrative, engineering, and professional services. Owner waives all claims against the Engineer that may be connected in any way to Construction Phase administrative, engineering, or professional services except for those services that are expressly required of Engineer in Exhibit A.

6.03 *Use of Documents*

- A. All Documents are instruments of service, and Engineer shall retain an ownership and property interest therein (including the copyright and the right of reuse at the discretion of the Engineer) whether or not the Project is completed.
- B. If Engineer is required to prepare or furnish Drawings or Specifications under this Agreement, Engineer shall deliver to Owner at least one original printed record version of such Drawings and Specifications, signed and sealed according to applicable Laws and Regulations.
- C. Owner may make and retain copies of Documents for information and reference in connection with the use of the Documents on the Project. Engineer grants Owner a limited license to use the Documents on the Project, extensions of the Project, and for related uses of the Owner, subject to receipt by Engineer of full payment due and owing for all services relating to preparation of the Documents, and subject to the following limitations: (1) Owner acknowledges that such Documents are not intended or represented to be suitable for use on the Project unless completed by Engineer, or for use or reuse by Owner or others on extensions of the Project, on any other project, or for any other use or purpose, without written verification or adaptation by Engineer; (2) any such use or reuse, or any modification of the Documents, without written verification, completion, or adaptation by Engineer, as appropriate for the specific purpose intended, will be at Owner's sole risk and without liability or legal exposure to Engineer or to its officers, directors, members, partners, agents, employees, and Consultants; (3) Owner shall indemnify and hold harmless Engineer and its officers, directors, members, partners, agents, employees, and Consultants from all claims, damages, losses, and expenses, including attorneys' fees, arising out of or resulting from any use, reuse, or modification of the Documents without written verification, completion, or adaptation by Engineer; and (4) such limited license to Owner shall not create any rights in third parties.
- D. If Engineer at Owner's request verifies the suitability of the Documents, completes them, or adapts them for extensions of the Project or for any other purpose, then Owner shall compensate Engineer at rates or in an amount to be agreed upon by Owner and Engineer.

6.04 *Electronic Transmittals*

- A. Owner and Engineer may transmit, and shall accept, Project-related correspondence, Documents, text, data, drawings, information, and graphics, in electronic media or digital format, either directly, or through access to a secure Project website, in accordance with a mutually agreeable protocol.
- B. If this Agreement does not establish protocols for electronic or digital transmittals, then Owner and Engineer shall jointly develop such protocols.
- C. When transmitting items in electronic media or digital format, the transmitting party makes no representations as to long term compatibility, usability, or readability of the items resulting from the recipient's use of software application packages, operating systems, or computer hardware differing from those used in the drafting or transmittal of the items, or from those established in applicable transmittal protocols.

6.05 *Insurance*

- A. Engineer shall procure and maintain insurance as set forth in Exhibit G. Engineer shall cause Owner to be listed as an additional insured on any applicable general liability insurance policy carried by Engineer.
- B. Owner shall procure and maintain insurance as set forth in Exhibit G. Owner shall cause Engineer and its Consultants to be listed as additional insureds on any general liability policies carried by Owner, which are applicable to the Project.
- C. Owner shall require Contractor to purchase and maintain policies of insurance covering workers' compensation, general liability, motor vehicle damage and injuries, and other insurance necessary to protect Owner's and Engineer's interests in the Project. Owner shall require Contractor to cause Engineer and its Consultants to be listed as additional insureds with respect to such liability insurance purchased and maintained by Contractor for the Project.
- D. Owner and Engineer shall each deliver to the other certificates of insurance evidencing the coverages indicated in Exhibit G. Such certificates shall be furnished prior to commencement of Engineer's services and at renewals thereafter during the life of the Agreement.
- E. All policies of property insurance relating to the Project, including but not limited to any builder's risk policy, shall allow for waiver of subrogation rights and contain provisions to the effect that in the event of payment of any loss or damage the insurers will have no rights of recovery against any insured thereunder or against Engineer or its Consultants. Owner and Engineer waive all rights against each other, Contractor, the Consultants, and the respective officers, directors, members, partners, employees, agents, consultants, and subcontractors of each and any of them, for all losses and damages caused by, arising out of, or resulting from any of the perils or causes of loss covered by any builder's risk policy and any other property insurance relating to the Project. Owner and Engineer shall take appropriate measures in other Project-related contracts to secure waivers of rights consistent with those set forth in this paragraph.

- F. All policies of insurance shall contain a provision or endorsement that the coverage afforded will not be canceled or reduced in limits by endorsement, and that renewal will not be refused, until at least 10 days prior written notice has been given to the primary insured. Upon receipt of such notice, the receiving party shall promptly forward a copy of the notice to the other party to this Agreement.
- G. At any time, Owner may request that Engineer or its Consultants, at Owner's sole expense, provide additional insurance coverage, increased limits, or revised deductibles that are more protective than those specified in Exhibit G. If so requested by Owner, and if commercially available, Engineer shall obtain and shall require its Consultants to obtain such additional insurance coverage, different limits, or revised deductibles for such periods of time as requested by Owner, and Exhibit G will be supplemented to incorporate these requirements.

6.06 *Suspension and Termination*

A. *Suspension:*

- 1. *By Owner:* Owner may suspend the Project for up to 90 days upon seven days written notice to Engineer.
- 2. *By Engineer:* Engineer may, after giving seven days written notice to Owner, suspend services under this Agreement if Owner has failed to pay Engineer for invoiced services and expenses, as set forth in Paragraph 4.02.B, or in response to the presence of Constituents of Concern at the Site, as set forth in Paragraph 6.10.D.

B. *Termination:* The obligation to provide further services under this Agreement may be terminated:

- 1. For cause,
 - a. by either party upon 30 days written notice in the event of substantial failure by the other party to perform in accordance with the terms hereof through no fault of the terminating party.
 - b. by Engineer:
 - 1) upon seven days written notice if Owner demands that Engineer furnish or perform services contrary to Engineer's responsibilities as a licensed professional; or
 - 2) upon seven days written notice if the Engineer's services for the Project are delayed or suspended for more than 90 days for reasons beyond Engineer's control, or as the result of the presence at the Site of undisclosed Constituents of Concern, as set forth in Paragraph 6.10.D.
 - 3) Engineer shall have no liability to Owner on account of such termination.
 - c. Notwithstanding the foregoing, this Agreement will not terminate under Paragraph 6.06.B.1.a if the party receiving such notice begins, within seven days of

receipt of such notice, to correct its substantial failure to perform and proceeds diligently to cure such failure within no more than 30 days of receipt thereof; provided, however, that if and to the extent such substantial failure cannot be reasonably cured within such 30 day period, and if such party has diligently attempted to cure the same and thereafter continues diligently to cure the same, then the cure period provided for herein shall extend up to, but in no case more than, 60 days after the date of receipt of the notice.

2. For convenience, by Owner effective upon Engineer's receipt of notice from Owner.
- C. *Effective Date of Termination:* The terminating party under Paragraph 6.06.B may set the effective date of termination at a time up to 30 days later than otherwise provided to allow Engineer to demobilize personnel and equipment from the Site, to complete tasks whose value would otherwise be lost, to prepare notes as to the status of completed and uncompleted tasks, and to assemble Project materials in orderly files.
- D. *Payments Upon Termination:*
1. In the event of any termination under Paragraph 6.06, Engineer will be entitled to invoice Owner and to receive full payment for all services performed or furnished in accordance with this Agreement and all Reimbursable Expenses incurred through the effective date of termination. Upon making such payment, Owner shall have the limited right to the use of Documents, at Owner's sole risk, subject to the provisions of Paragraph 6.03.
 2. In the event of termination by Owner for convenience or by Engineer for cause, Engineer shall be entitled, in addition to invoicing for those items identified in Paragraph 6.06.D.1, to invoice Owner and receive payment of a reasonable amount for services and expenses directly attributable to termination, both before and after the effective date of termination, such as reassignment of personnel, costs of terminating contracts with Engineer's Consultants, and other related close-out costs, using methods and rates for Additional Services as set forth in Exhibit C.

6.07 *Controlling Law*

- A. This Agreement is to be governed by the Laws and Regulations of the state in which the Project is located.

6.08 *Successors, Assigns, and Beneficiaries*

- A. Owner and Engineer are hereby bound and the successors, executors, administrators, and legal representatives of Owner and Engineer (and to the extent permitted by Paragraph 6.08.B the assigns of Owner and Engineer) are hereby bound to the other party to this Agreement and to the successors, executors, administrators and legal representatives (and said assigns) of such other party, in respect of all covenants, agreements, and obligations of this Agreement.
- B. Neither Owner nor Engineer may assign, sublet, or transfer any rights under or interest (including, but without limitation, money that is due or may become due) in this Agreement without the written consent of the other party, except to the extent that any

assignment, subletting, or transfer is mandated by law. Unless specifically stated to the contrary in any written consent to an assignment, no assignment will release or discharge the assignor from any duty or responsibility under this Agreement.

- C. Unless expressly provided otherwise in this Agreement:
1. Nothing in this Agreement shall be construed to create, impose, or give rise to any duty owed by Owner or Engineer to any Constructor, other third-party individual or entity, or to any surety for or employee of any of them.
 2. All duties and responsibilities undertaken pursuant to this Agreement will be for the sole and exclusive benefit of Owner and Engineer and not for the benefit of any other party.
 3. Owner agrees that the substance of the provisions of this Paragraph 6.08.C shall appear in the Construction Contract Documents.

6.09 *Dispute Resolution*

- A. Owner and Engineer agree to negotiate all disputes between them in good faith for a period of 30 days from the date of notice prior to invoking the procedures of Exhibit H or other provisions of this Agreement, or exercising their rights at law.
- B. If the parties fail to resolve a dispute through negotiation under Paragraph 6.09.A, then either or both may invoke the procedures of Exhibit H. If Exhibit H is not included, or if no dispute resolution method is specified in Exhibit H, then the parties may exercise their rights at law.

6.10 *Environmental Condition of Site*

- A. Owner represents to Engineer that as of the Effective Date to the best of Owner's knowledge no Constituents of Concern, other than those disclosed in writing to Engineer, exist at or adjacent to the Site.
- B. If Engineer encounters or learns of an undisclosed Constituent of Concern at the Site, then Engineer shall notify (1) Owner and (2) appropriate governmental officials if Engineer reasonably concludes that doing so is required by applicable Laws or Regulations.
- C. It is acknowledged by both parties that Engineer's scope of services does not include any services related to unknown or undisclosed Constituents of Concern. If Engineer or any other party encounters, uncovers, or reveals an undisclosed Constituent of Concern, then Owner shall promptly determine whether to retain a qualified expert to evaluate such condition or take any necessary corrective action.
- D. If investigative or remedial action, or other professional services, are necessary with respect to undisclosed Constituents of Concern, or if investigative or remedial action beyond that reasonably contemplated is needed to address a disclosed or known Constituent of Concern, then Engineer may, at its option and without liability for consequential or any other damages, suspend performance of services on the portion of the Project affected thereby until such portion of the Project is no longer affected.

- E. If the presence at the Site of undisclosed Constituents of Concern adversely affects the performance of Engineer's services under this Agreement, then the Engineer shall have the option of (1) accepting an equitable adjustment in its compensation or in the time of completion, or both; or (2) terminating this Agreement for cause on seven days notice.
- F. Owner acknowledges that Engineer is performing professional services for Owner and that Engineer is not and shall not be required to become an "owner," "arranger," "operator," "generator," or "transporter" of hazardous substances, as defined in the Comprehensive Environmental Response, Compensation, and Liability Act (CERCLA), as amended, which are or may be encountered at or near the Site in connection with Engineer's activities under this Agreement.

6.11 *Indemnification and Mutual Waiver*

- A. *Indemnification by Engineer:* To the fullest extent permitted by Laws and Regulations, Engineer shall indemnify and hold harmless Owner, and Owner's officers, directors, members, partners, agents, consultants, and employees, from losses, damages, and judgments (including reasonable consultants' and attorneys' fees and expenses) arising from third-party claims or actions relating to the Project, provided that any such claim, action, loss, damages, or judgment is attributable to bodily injury, sickness, disease, or death, or to injury to or destruction of tangible property (other than the Work itself), including the loss of use resulting therefrom, but only to the extent caused by any negligent act or omission of Engineer or Engineer's officers, directors, members, partners, agents, employees, or Consultants. **This indemnification provision is subject to and limited by the provisions, if any, agreed to by Owner and Engineer in Exhibit I, "Limitations of Liability."**
- B. *Indemnification by Owner:* Owner shall indemnify and hold harmless Engineer and its officers, directors, members, partners, agents, employees, and Consultants as required by Laws and Regulations and to the extent (if any) required in Exhibit I, "Limitations of Liability."
- C. *Environmental Indemnification:* To the fullest extent permitted by Laws and Regulations, Owner shall indemnify and hold harmless Engineer and its officers, directors, members, partners, agents, employees, and Consultants from all claims, costs, losses, damages, actions, and judgments (including reasonable consultants' and attorney's fees and expenses) caused by, arising out of, relating to, or resulting from a Constituent of Concern at, on, or under the Site, provided that (1) any such claim, cost, loss, damages, action, or judgment is attributable to bodily injury, sickness, disease, or death, or to injury to or destruction of tangible property (other than the Work itself), including the loss of use resulting therefrom, and (2) nothing in this paragraph shall obligate Owner to indemnify any individual or entity from and against the consequences of that individual's or entity's own negligence or willful misconduct.
- D. *No Defense Obligation:* The indemnification commitments in this Agreement do not include a defense obligation by the indemnitor unless such obligation is expressly stated.
- E. *Percentage Share of Negligence:* To the fullest extent permitted by Laws and Regulations, a party's total liability to the other party and anyone claiming by, through, or under the other party for any cost, loss, or damages caused in part by the negligence of the party

and in part by the negligence of the other party or any other negligent entity or individual, shall not exceed the percentage share that the party's negligence bears to the total negligence of Owner, Engineer, and all other negligent entities and individuals.

- F. *Mutual Waiver:* To the fullest extent permitted by Laws and Regulations, Owner and Engineer waive against each other, and the other's employees, officers, directors, members, agents, insurers, partners, and consultants, any and all claims for or entitlement to special, incidental, indirect, or consequential damages arising out of, resulting from, or in any way related to this Agreement or the Project, from any cause or causes.

6.12 *Records Retention*

- A. Engineer shall maintain on file in legible form, for a period of five years following completion or termination of its services, all Documents, records (including cost records), and design calculations related to Engineer's services or pertinent to Engineer's performance under this Agreement. Upon Owner's request, Engineer shall provide a copy of any such item to Owner at cost.

6.13 *Miscellaneous Provisions*

- A. *Notices:* Any notice required under this Agreement will be in writing, addressed to the appropriate party at its address on the signature page and given personally, by registered or certified mail postage prepaid, or by a commercial courier service. All notices shall be effective upon the date of receipt.
- B. *Survival:* All express representations, waivers, indemnifications, and limitations of liability included in this Agreement will survive its completion or termination for any reason.
- C. *Severability:* Any provision or part of the Agreement held to be void or unenforceable under any Laws or Regulations shall be deemed stricken, and all remaining provisions shall continue to be valid and binding upon Owner and Engineer, which agree that the Agreement shall be reformed to replace such stricken provision or part thereof with a valid and enforceable provision that comes as close as possible to expressing the intention of the stricken provision.
- D. *Waiver:* A party's non-enforcement of any provision shall not constitute a waiver of that provision, nor shall it affect the enforceability of that provision or of the remainder of this Agreement.
- E. *Accrual of Claims:* To the fullest extent permitted by Laws and Regulations, all causes of action arising under this Agreement shall be deemed to have accrued, and all statutory periods of limitation shall commence, no later than the date of Substantial Completion.

ARTICLE 7 – DEFINITIONS

7.01 *Defined Terms*

- A. Wherever used in this Agreement (including the Exhibits hereto) terms (including the singular and plural forms) printed with initial capital letters have the meanings indicated in the text above, in the exhibits, or in the following definitions:

1. *Addenda*—Written or graphic instruments issued prior to the opening of bids which clarify, correct, or change the bidding requirements or the proposed Construction Contract Documents.
2. *Additional Services*—The services to be performed for or furnished to Owner by Engineer in accordance with Part 2 of Exhibit A of this Agreement.
3. *Agreement*—This written contract for professional services between Owner and Engineer, including all exhibits identified in Paragraph 8.01 and any duly executed amendments.
4. *Application for Payment*—The form acceptable to Engineer which is to be used by Contractor during the course of the Work in requesting progress or final payments and which is to be accompanied by such supporting documentation as is required by the Construction Contract.
5. *Basic Services*—The services to be performed for or furnished to Owner by Engineer in accordance with Part 1 of Exhibit A of this Agreement.
6. *Change Order*—A document which is signed by Contractor and Owner and authorizes an addition, deletion, or revision in the Work or an adjustment in the Construction Contract Price or the Construction Contract Times, or other revision to the Construction Contract, issued on or after the effective date of the Construction Contract.
7. *Change Proposal*—A written request by Contractor, duly submitted in compliance with the procedural requirements set forth in the Construction Contract, seeking an adjustment in Construction Contract Price or Construction Contract Times, or both; contesting an initial decision by Engineer concerning the requirements of the Construction Contract Documents or the acceptability of Work under the Construction Contract Documents; challenging a set-off against payments due; or seeking other relief with respect to the terms of the Construction Contract.
8. *Constituent of Concern*—Asbestos, petroleum, radioactive material, polychlorinated biphenyls (PCBs), hazardous waste, and any substance, product, waste, or other material of any nature whatsoever that is or becomes listed, regulated, or addressed pursuant to (a) the Comprehensive Environmental Response, Compensation and Liability Act, 42 U.S.C. §§9601 et seq. (“CERCLA”); (b) the Hazardous Materials Transportation Act, 49 U.S.C. §§5501 et seq.; (c) the Resource Conservation and Recovery Act, 42 U.S.C. §§6901 et seq. (“RCRA”); (d) the Toxic Substances Control Act, 15 U.S.C. §§2601 et seq.; (e) the Clean Water Act, 33 U.S.C. §§1251 et seq.; (f) the Clean Air Act, 42 U.S.C. §§7401 et seq.; or (g) any other federal, State, or local statute, law, rule, regulation, ordinance, resolution, code, order, or decree regulating, relating to, or imposing liability or standards of conduct concerning, any hazardous, toxic, or dangerous waste, substance, or material.
9. *Construction Contract*—The entire and integrated written contract between the Owner and Contractor concerning the Work.
10. *Construction Contract Documents*—Those items designated as “Contract Documents” in the Construction Contract, and which together comprise the Construction Contract.

11. *Construction Contract Price*—The money that Owner has agreed to pay Contractor for completion of the Work in accordance with the Construction Contract Documents.
12. *Construction Contract Times*—The number of days or the dates by which Contractor shall: (a) achieve milestones, if any, in the Construction Contract; (b) achieve Substantial Completion; and (c) complete the Work.
13. *Construction Cost*—The cost to Owner of the construction of those portions of the entire Project designed or specified by or for Engineer under this Agreement, including construction labor, services, materials, equipment, insurance, and bonding costs, and allowances for contingencies. Construction Cost does not include costs of services of Engineer or other design professionals and consultants; cost of land or rights-of-way, or compensation for damages to property; Owner's costs for legal, accounting, insurance counseling, or auditing services; interest or financing charges incurred in connection with the Project; or the cost of other services to be provided by others to Owner. Construction Cost is one of the items comprising Total Project Costs.
14. *Contractor*—Any person or entity (not including the Engineer, its employees, agents, representatives, and Consultants), performing or supporting construction activities relating to the Project, including but not limited to Contractors, Subcontractors, Suppliers, Owner's work forces, utility companies, other contractors, construction managers, testing firms, shippers, and truckers, and the employees, agents, and representatives of any or all of them.
15. *Consultants*—Individuals or entities having a contract with Engineer to furnish services with respect to this Project as Engineer's independent professional associates and consultants; subcontractors; or vendors.
16. *Contract*—The entity or individual with which Owner enters into a Construction Contract.
17. *Documents*—Data, reports, Drawings, Specifications, Record Drawings, building information models, civil integrated management models, and other deliverables, whether in printed or electronic format, provided or furnished in appropriate phases by Engineer to Owner pursuant to this Agreement.
18. *Drawings*—That part of the Construction Contract Documents that graphically shows the scope, extent, and character of the Work to be performed by Contractor.
19. *Effective Date*—The date indicated in this Agreement on which it becomes effective, but if no such date is indicated, the date on which this Agreement is signed and delivered by the last of the parties to sign and deliver.
20. *Engineer*—The individual or entity named as such in this Agreement.
21. *Field Order*—A written order issued by Engineer which requires minor changes in the Work but does not change the Construction Contract Price or the Construction Contract Times.

22. *Laws and Regulations; Laws or Regulations*—Any and all applicable laws, statutes, rules, regulations, ordinances, codes, and orders of any and all governmental bodies, agencies, authorities, and courts having jurisdiction.
23. *Owner*—The individual or entity named as such in this Agreement and for which Engineer's services are to be performed. Unless indicated otherwise, this is the same individual or entity that will enter into any Construction Contracts concerning the Project.
24. *Project*—The total undertaking to be accomplished for Owner by engineers, contractors, and others, including planning, study, design, construction, testing, commissioning, and start-up, and of which the services to be performed or furnished by Engineer under this Agreement are a part.
25. *Record Drawings*—Drawings depicting the completed Project, or a specific portion of the completed Project, prepared by Engineer as an Additional Service and based on Contractor's record copy of all Drawings, Specifications, Addenda, Change Orders, Work Change Directives, Field Orders, and written interpretations and clarifications, as delivered to Engineer and annotated by Contractor to show changes made during construction.
26. *Reimbursable Expenses*—The expenses incurred directly by Engineer in connection with the performing or furnishing of Basic Services and Additional Services for the Project.
27. *Resident Project Representative*—The authorized representative of Engineer assigned to assist Engineer at the Site during the Construction Phase. As used herein, the term Resident Project Representative or "RPR" includes any assistants or field staff of Resident Project Representative. The duties and responsibilities of the Resident Project Representative, if any, are as set forth in Exhibit D.
28. *Samples*—Physical examples of materials, equipment, or workmanship that are representative of some portion of the Work and that establish the standards by which such portion of the Work will be judged.
29. *Shop Drawings*—All drawings, diagrams, illustrations, schedules, and other data or information that are specifically prepared or assembled by or for Contractor and submitted by Contractor to illustrate some portion of the Work. Shop Drawings, whether approved or not, are not Drawings and are not Construction Contract Documents.
30. *Site*—Lands or areas to be indicated in the Construction Contract Documents as being furnished by Owner upon which the Work is to be performed, including rights-of-way and easements, and such other lands furnished by Owner which are designated for the use of Contractor.
31. *Specifications*—The part of the Construction Contract Documents that consists of written requirements for materials, equipment, systems, standards, and workmanship as applied to the Work, and certain administrative requirements and procedural matters applicable to the Work.

32. *Subcontractor*—An individual or entity having a direct contract with Contractor or with any other Subcontractor for the performance of a part of the Work.
33. *Substantial Completion*—The time at which the Work (or a specified part thereof) has progressed to the point where, in the opinion of Engineer, the Work (or a specified part thereof) is sufficiently complete, in accordance with the Construction Contract Documents, so that the Work (or a specified part thereof) can be utilized for the purposes for which it is intended. The terms “substantially complete” and “substantially completed” as applied to all or part of the Work refer to Substantial Completion thereof.
34. *Supplier*—A manufacturer, fabricator, supplier, distributor, materialman, or vendor having a direct contract with Contractor or with any Subcontractor to furnish materials or equipment to be incorporated in the Work by Contractor or a Subcontractor.
35. *Total Project Costs*—The total cost of planning, studying, designing, constructing, testing, commissioning, and start-up of the Project, including Construction Cost and all other Project labor, services, materials, equipment, insurance, and bonding costs, allowances for contingencies, and the total costs of services of Engineer or other design professionals and consultants, together with such other Project-related costs that Owner furnishes for inclusion, including but not limited to cost of land, rights-of-way, compensation for damages to properties, Owner’s costs for legal, accounting, insurance counseling, and auditing services, interest and financing charges incurred in connection with the Project, and the cost of other services to be provided by others to Owner.
36. *Work*—The entire construction or the various separately identifiable parts thereof required to be provided under the Construction Contract Documents. Work includes and is the result of performing or providing all labor, services, and documentation necessary to produce such construction; furnishing, installing, and incorporating all materials and equipment into such construction; and may include related services such as testing, start-up, and commissioning, all as required by the Construction Contract Documents.
37. *Work Change Directive*—A written directive to Contractor issued on or after the effective date of the Construction Contract, signed by Owner and recommended by Engineer, ordering an addition, deletion, or revision in the Work.

B. *Day*:

1. The word “day” means a calendar day of 24 hours measured from midnight to the next midnight.

ARTICLE 8 – EXHIBITS AND SPECIAL PROVISIONS

8.01 *Exhibits Included*:

- A. Exhibit A, Engineer’s Services.
- B. Exhibit B, Owner’s Responsibilities.
- C. Exhibit C, Payments to Engineer for Services and Reimbursable Expenses.

- D. Exhibit D, DELETED.
- E. Exhibit E, Notice of Acceptability of Work.
- F. Exhibit F, DELETED.
- G. Exhibit G, Insurance.
- H. Exhibit H, Dispute Resolution.
- I. Exhibit I, Limitations of Liability.
- J. Exhibit J, DELETED.
- K. Exhibit K, Amendment to Owner-Engineer Agreement.

8.02 *Total Agreement*

- A. This Agreement, (together with the exhibits included above) constitutes the entire agreement between Owner and Engineer and supersedes all prior written or oral understandings. This Agreement may only be amended, supplemented, modified, or canceled by a written instrument duly executed by both parties. Amendments should be based whenever possible on the format of Exhibit K to this Agreement.

8.03 *Designated Representatives*


- A. With the execution of this Agreement, Engineer and Owner shall designate specific individuals to act as Engineer's and Owner's representatives with respect to the services to be performed or furnished by Engineer and responsibilities of Owner under this Agreement. Such an individual shall have authority to transmit instructions, receive information, and render decisions relative to this Agreement on behalf of the respective party whom the individual represents.

8.04 *Engineer's Certifications*


- A. Engineer certifies that it has not engaged in corrupt, fraudulent, or coercive practices in competing for or in executing the Agreement. For the purposes of this Paragraph 8.04:
 - 1. "corrupt practice" means the offering, giving, receiving, or soliciting of any thing of value likely to influence the action of a public official in the selection process or in the Agreement execution;
 - 2. "fraudulent practice" means an intentional misrepresentation of facts made (a) to influence the selection process or the execution of the Agreement to the detriment of Owner, or (b) to deprive Owner of the benefits of free and open competition;
 - 3. "coercive practice" means harming or threatening to harm, directly or indirectly, persons or their property to influence their participation in the selection process or affect the execution of the Agreement.

IN WITNESS WHEREOF, the parties hereto have executed this Agreement, the Effective Date of which is indicated on page 1.

Owner: **Guam Waterworks Authority**

By: 
Print name: **MIGUEL C. BORDALLO, P.E.**
Title: **General Manager**
Date Signed: **October 5, 2022**

Engineer: **AECOM Technical Services, Inc.**

By: 
Print name: **MARTIN NAKASONE**
Title: **Area Manager, Hawaii-Pacific Islands**
Date Signed: **07 Jun 2022**


Engineer License or Firm's Certificate No. (if required):

State of: **Territory of Guam**

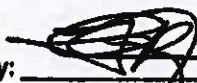
Address for Owner's receipt of notices:
Gloria B. Nelson Public Service Building
688 Route 15, Mangilao, Guam 96913

Address for Engineer's receipt of notices:
414 W. Soledad Ave.
Suite 708
Hagatna, Guam 96910

Certified Funds Available:

By: 
TALING M. TAITANO, CPA, CGFM
GWA Chief Financial Officer
Date Signed: **8/26/2022**

Approved as to Form:

By: 
THERESA G. ROJAS, ESQ
GWA General Counsel
Date Signed: **6/13/2022**

Contract Amount: **\$930,834.57**

Amount Certified: **\$930,834.57**

Source of Funding: **USEPA-SRF Grant M96902619-1**

****Contingency to be identified as needed**

This is **EXHIBIT A**, consisting of 24 pages, referred to in and part of the **Agreement between Owner and Engineer for Professional Services** dated October 5, 2022.

Engineer's Services

Article 1 of the Agreement is supplemented to include the following as an agreement of the parties.

Engineer shall provide the following Basic and Additional Services as set forth in AECOM's letter dated April 29, 2022 and as set forth in AECOM's April 29, 2022, Enclosures labeled: Appendix A: Scope of Work / Appendix B: Fee Detail; and / Appendix C: Tentative Project Schedule.

APPENDIX A: SCOPE OF WORK**I. PROJECT TITLE**

FUJITA SEWAGE PUMP STATION (SPS) REDUNDANT FORCE MAIN (FM);
GWA PROJECT NO. S20-003-EPA

II. PROJECT BACKGROUND

The Fujita SPS is one of the largest capacity stations in the Northern District Wastewater Treatment Plant (WWTP) service area. It is located at the intersection of the Fujita and San Vitores Roads in Tumon. The Tumon area can be divided into 3 wastewater service areas (Ypao, Central Tumon, and Gun Beach). The Fujita SPS receives flow primarily from the Central Tumon Bay area. In geographical terms, the Central Tumon Basin encompasses the sector extending from the Pacific Star Hotel to the Lotte Hotel at Gogna Road and bounded to the north by the cliff line and to the south by the Tumon Bay shoreline. The Nikko Hotel also discharges its wastewater to the Central Tumon Basin. The Fujita SPS conveys flow through a single ductile iron force main towards the Route 16 SPS (see **Figure 1**). The FM has an approximate length of 6,623 LF and ranges in diameter from 14-in, 16-in, and 18-in. All the flow from the Route 16 SPS is conveyed towards the Southern Link SPS, which pumps wastewater to the Northern District WWTP.

Due to a lack of redundancy, the existing Fujita SPS FM cannot be isolated or removed from service to perform repairs, maintenance, or condition assessments. Failure of the FM could lead to service disruptions, which may impact the health of the community, environment, and negatively impact Guam's main tourist area. Also, given the location of the Fujita SPS in the collection system, incoming flows to the Fujita SPS cannot be easily diverted to allow the pump station to be taken out of service for major repair activities.

III. PROJECT OBJECTIVES

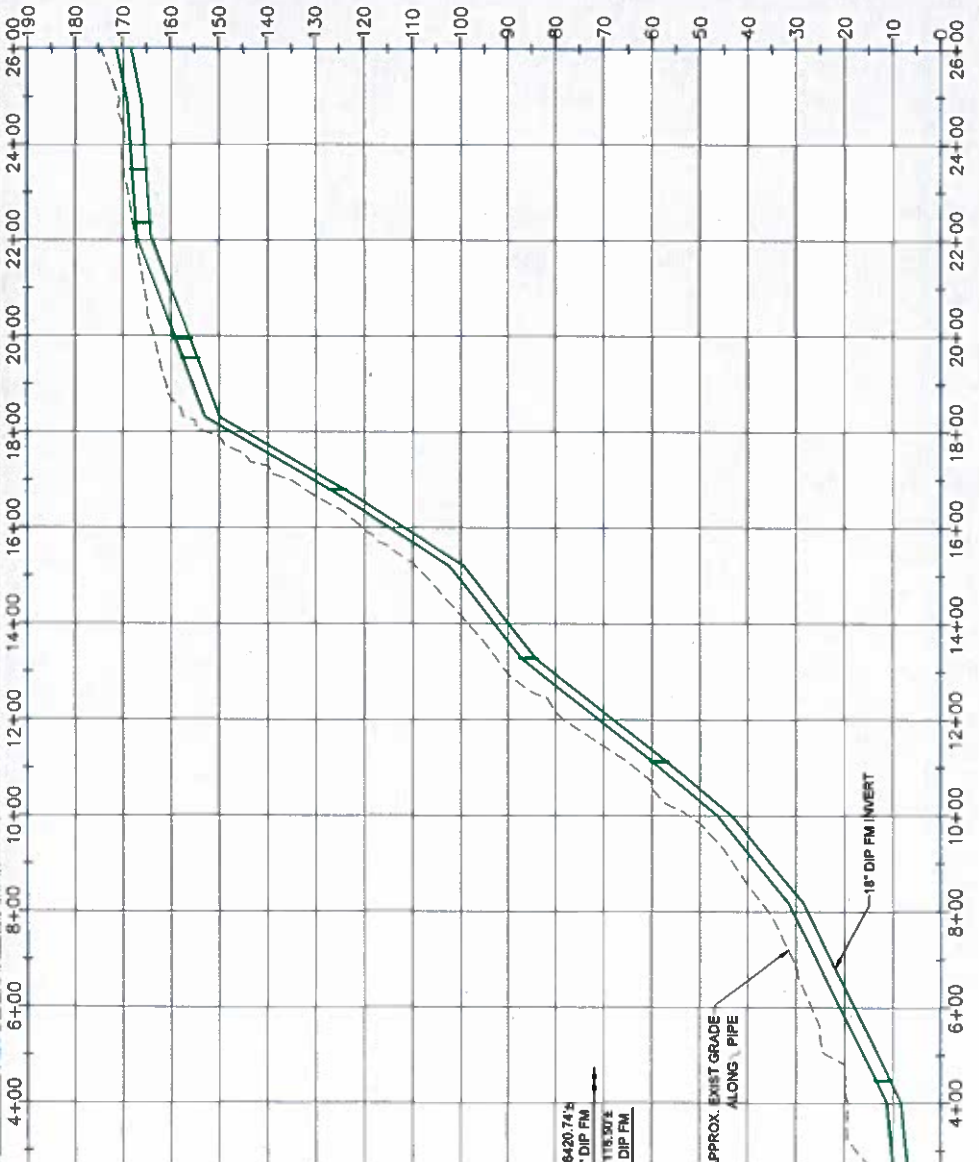
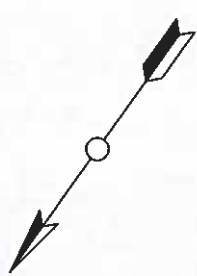
The objectives of the PROJECT are as follows:

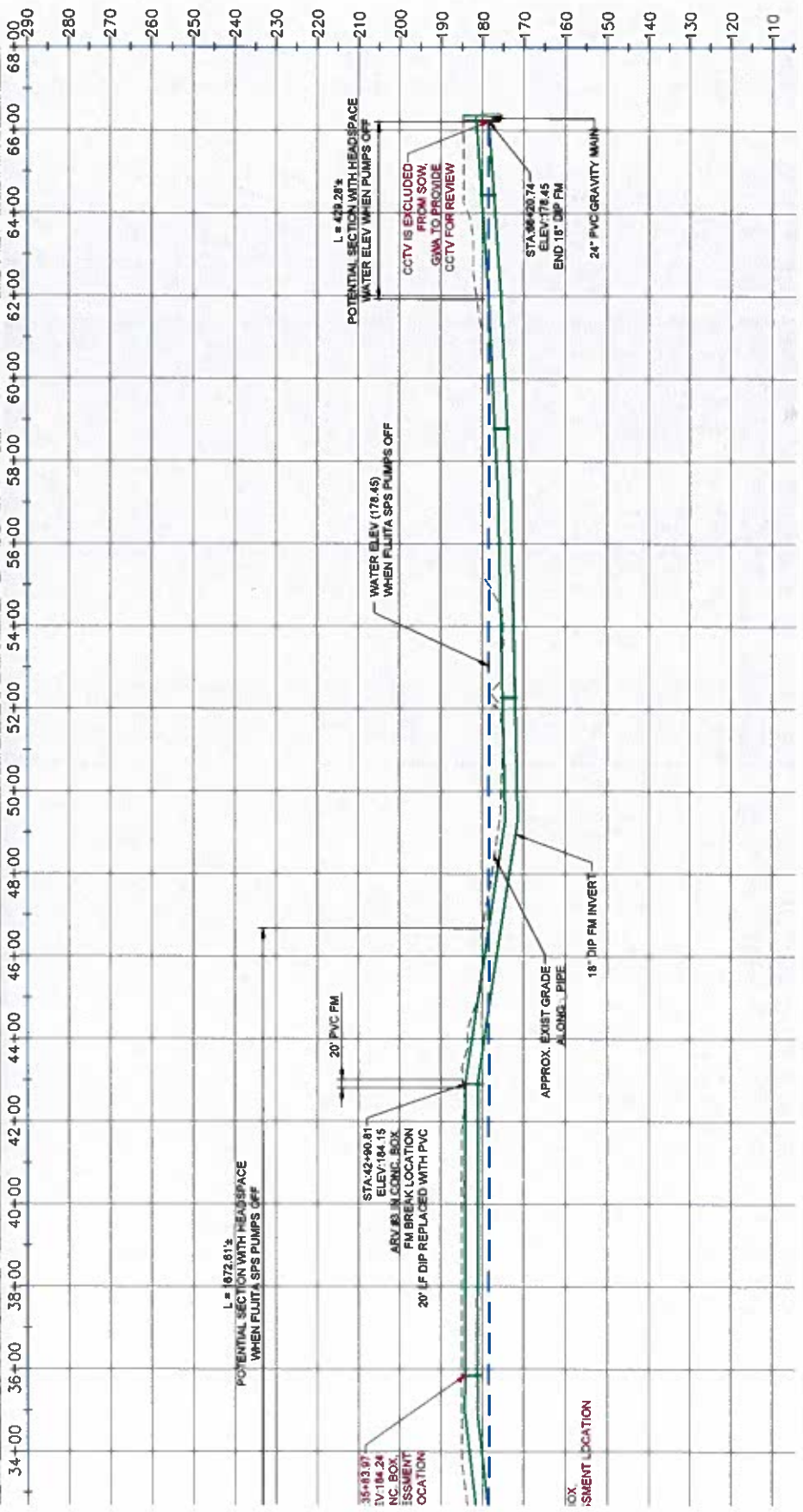
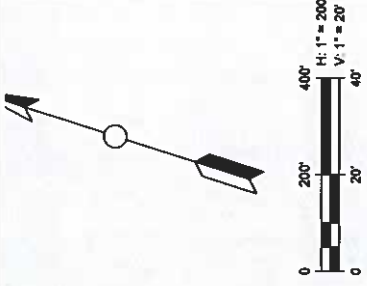
- Identify redundant force main options, including construction methods.
- Provide the design for the selected option, including potential use of CIPP and if necessary, pump station upgrades.
- After the redundant force main is placed in operation, investigate the condition of the original force main to determine if repair, relocation, or replacement is needed to ensure force main redundancy.
- The Fujita SPS must have two (2) force mains, each capable of transferring the current and future peak wet weather flow (PWWF).
- Projected PWWF and domestic sewage flow to be considered will be at least 20 years from the date of the DESIGN CONSULTANT Contract Agreement.

IV. PROJECT LIMITS

Given the various alternatives for this project, a figure was developed in conjunction with GWA to define project areas to assist the development of the fee proposal. The project limits are shown in **Figure 2** and is summarized as follows:

- The existing Fujita SPS site (Project Area 1) is located at the intersection of Fujita Road and Pale San Vitores Road in Tumon, Guam.
- The existing Fujita SPS FM alignment runs along the following route:
 - Pale San Vitores Road/Route 14 (Project Area 2),
 - Happy Landing Road/Old San Vitores Road (Project Area 3),
 - Marine Corps Drive/Route 1 (Project Area 4),
 - Hamburger Road/Route 27 (Project Area 5)
 - Army Drive/Route 16 (Project Area 6).





Project Area	Description	Length (ft)	Width (ft)	Area (ac)	Area (SF)
1	Fujita SPS & Fujita Rd	-	-	0.94	41,000
2	Pale San Vitores Rd between Fujita Rd and Happy Landing Rd	300	100	0.69	30,000
3	Happy Landing Rd between Pale San Vitores and Route 1	1,700	80	3.12	136,000
4	Route 1 between Happy Landing Rd and Hamburger Rd	660	120	1.82	79,200
5	Hamburger Rd between Route 1 and Route 16	4,640	60	6.39	278,400
6	Route 16 and Hamburger Rd Intersection	140	120	0.39	16,800
Total Project Area along existing FM Alignment (Project Areas 1-6)				13.35	581,400

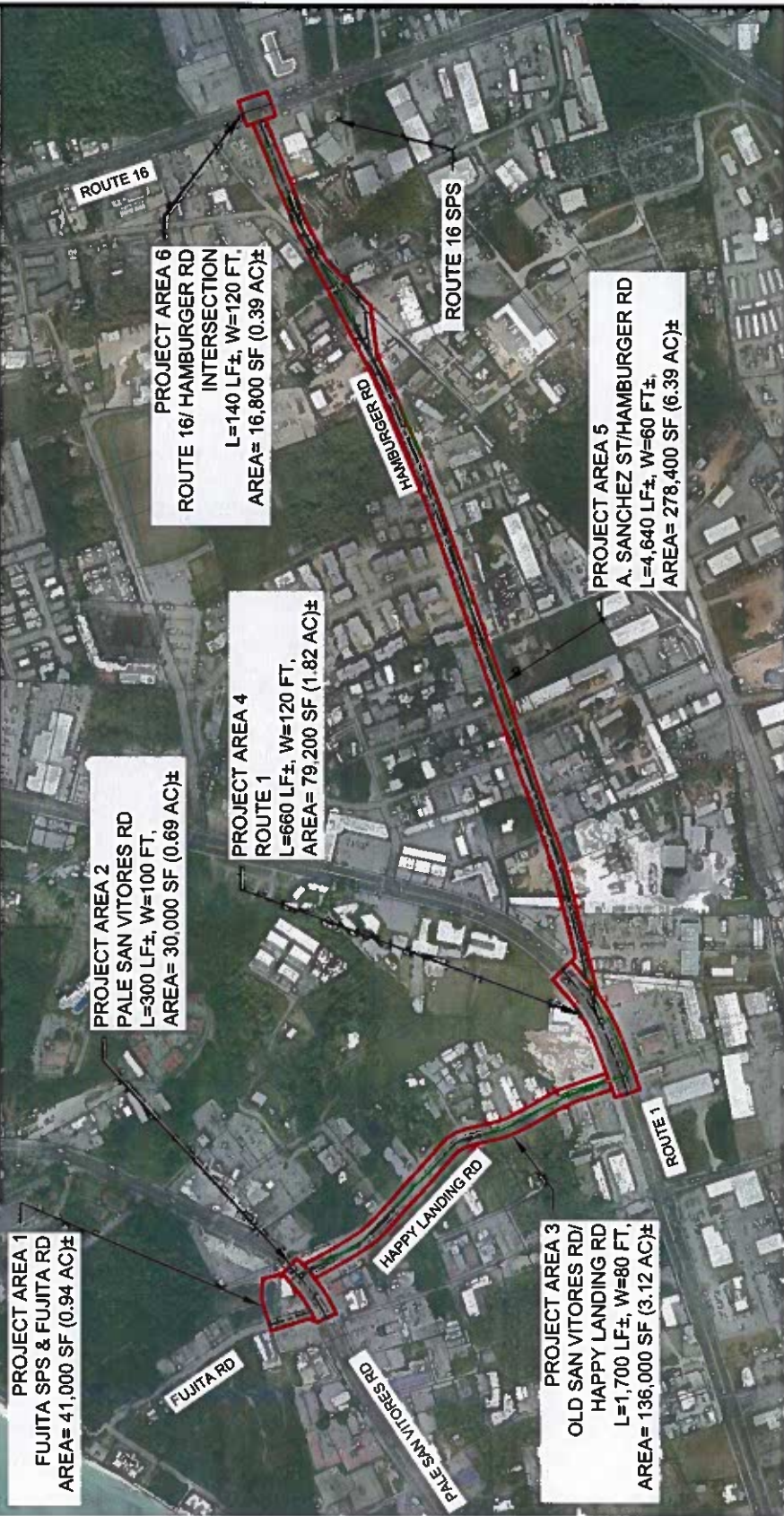


Figure 2
Project Limits

LEGEND:

- Project Areas along Existing Fujita SPS FM
- Roadway Centerline
- Existing Fujita SPS FM
- Parcels

Scale: 0, 800', 1600'. 1" = 800'

North Arrow

Issue Status: Proposal



V. SERVICES

A. GENERAL REQUIREMENTS

Unless otherwise agreed upon between GWA and the DESIGN CONSULTANT, the DESIGN CONSULTANT shall meet the following general requirements.

1. Responsibility of the DESIGN CONSULTANT

- a. The DESIGN CONSULTANT shall be responsible for the professional and technical accuracy and the coordination of all surveys, drawings, specifications, and other work of materials furnished under a contract. The DESIGN CONSULTANT without additional cost to the GWA, shall correct and revise all errors or deficiencies the work.
- b. Neither the GWA's review, approval, or acceptance or non-payment for any of the service required under this contract shall be construed to operate as a waiver of any rights under this contract or of any cause of action arising out of DESIGN CONSULTANT's performance of this contract, and the land surveyor shall be and remain liable to GWA for all costs of any kind which were incurred by GWA as a result of their negligent performance of any of the services furnished under this contract.
- c. DESIGN CONSULTANT is responsible for securing approvals for entry onto private property, if required.

2. Responsibility of GWA

- a. To furnish the DESIGN CONSULTANT with the available as-built drawings and any conducted closed-circuit television (CCTV) of existing facilities covered by the PROJECT that are available in GWA files, draft engineering details, current wastewater system hydraulic model, flow monitoring data, maintenance, and operation records.
- b. GWA shall provide, if requested, access to GWA facilities. GWA operations staff may or may not be available to provide limited traffic control, manual operation of pumps, opening of manholes and vaults, and site access to GWA facilities as requested.

3. Comply with the Guam Board of Registration for Professional Engineers, Architects and Land Surveyors ("PEALS") Law and related laws. Additionally, the DESIGN CONSULTANT shall provide professional engineering design services consistent with the Standard of Care in the Agreement as it relates to wastewater collection and pumping systems, instrumentation control and monitoring systems, wastewater piping, and shore infrastructures.

4. Design Parameters:

The design shall be in accordance with the applicable criteria, regulations, and standards of the following and all parties which have interest or relevance in this PROJECT:

- a. American Association of State and Highway Transportation Officials (AASHTO)
- b. American Concrete Institute (ACI)
- c. American National Standard Institution (ANSI)
- d. American Society for Testing and Materials (ASTM) International
- e. American Water Works Association (AWWA)

- f. Association for the Advancement of Cost Engineering International (AACE)
- g. Guam Building Code/International Building Code (IBC)
- h. Guam Department of Public Works
- i. Guam Environmental Protection Agency (GEPA)
- j. Guam Fire Department (GFD)
- k. Guam Historic Resources Division (GHRD) / State Historic Preservation Office (SHPO)
- l. Guam Waterworks Authority (GWA)
- m. National Association of Sewer Service Companies (NASSCO)
- n. National Environmental Policy Act (NEPA)
- o. National Fire Protection Association (NFPA)
- p. National Sanitation Foundation (NSF)
- q. United States Army Corp of Engineers (USACE)
- r. United States Environmental Protection Agency (USEPA)
- s. US Fish and Wildlife Services (USFWS)

All standards shall be of the most current edition, unless otherwise specified, adopted by Guam law, or as approved by GWA.

5. Contract design drawings shall be completed in AutoCAD 2019 or an earlier version and be able to translate into an Environmental Systems Research Institute (ESRI) geographic information systems (GIS) mapping format. For GIS data, GWA uses the following projection:

- a. Projection: World Geodetic System (WGS) 1984, Universal Transverse Mercator (UTM) Zone 55 North (WGS_1984_UTM_Zone_55N)
- b. False_Easting: 500000.00000000
- c. False_Northing: 0.00000000
- d. Central_Meridian: 147.00000000
- e. Scale_Factor: 0.99960000
- f. Latitude_Of_Origin: 0.00000000
- g. Linear Unit: Meter.

6. Submittals, General Requirements

- a. All computations, specifications, reports and other written or typewritten documents shall be done on 8-1/2" by 11" sheets. Figures and maps included in reports shall be on 8-1/2" by 11" or 11" by 17" sheets, with exceptions to be approved by GWA. Documents shall be submitted neatly bound with appropriate covers as required by GWA.
- b. All engineering plans shall be done on 11" by 17" and 22" by 34" sheets.
- c. All electronic files shall be submitted on CDs, DVDs, or flash drives in Microsoft Word, Microsoft Excel, Adobe Acrobat, AutoCAD or ESRI GIS formats, or in other electronic file formats as approved by GWA.

7. Construction Cost Limitations

The PROJECT shall be designed to permit construction of the complete system within a construction budget to be provided by the GWA after acceptance of the "Design Criteria". If the DESIGN CONSULTANT during the preliminary cost analysis finds that the improvements cannot be built within the allotted amount, the matter shall be brought to the attention of the General Manager immediately. The General Manager may upon receipt of such notification, authorize a change in scope of materials as required to reduce the estimated construction cost to an amount within the funds available as authorized by law or he may elect to adjust the estimated construction budget. DESIGN CONSULTANT shall prepare a detailed construction cost estimate for the system.

B. SCOPE OF SERVICES

The DESIGN CONSULTANT shall comply with the Guam Board of Registration for Professional Engineers, Architects and Land Surveyors (PEALS) Law and related laws. The DESIGN CONSULTANT shall provide professional engineering design services consistent with the Standard of Care required under the Agreement as it relates to wastewater collection and pumping systems, instrumentation control and monitoring systems, wastewater piping, and shore infrastructures and ensure that all required services can be performed at a high-quality standard. The procurement of services of subconsultant design firms to meet the requirements of this PROJECT is included. GWA reserves the right to review and approve the DESIGN CONSULTANT and subconsultants.

Scope of consultant services shall be first conducted during the assessment, preliminary design, design, and construction of a redundant force main (Phase I). After construction of Phase I is complete, the services shall be repeated for the assessment and rehabilitation or relocation of the existing force main (Phase II). Construction may be further phased, dependent on funding availability.

The scope of DESIGN CONSULTANT services anticipated for this PROJECT includes, but is not limited to:

1. Project Management
2. Civil Engineering
3. Structural Engineering
4. Mechanical Engineering
5. Geotechnical Investigation and Engineering
6. Land Surveying
7. Electrical/Power Engineering
8. Instrumentation & Control Engineering
9. Supervisory Control and Data Acquisition (SCADA)
10. Archaeological Monitoring and Data Recovery Plan
11. Condition Assessment
12. Hydraulic Modeling and Analysis
13. Construction Cost Estimating
14. Scheduling
15. Permitting

- 16. Bidding Support
- 17. Engineering Support During Construction

Exclusions to the scope of services include the following:

- 1. Flow monitoring
- 2. Manhole and pipe inspections
- 3. Support studies for NEPA documentation
- 4. Record Drawing (As-built Preparation).

C. SCOPE OF WORK

1. TASK 1 – PROJECT MANAGEMENT

The Task 1 is expected to span the entire life of the PROJECT, from the contract Notice to Proceed (NTP) date through post- construction and final commissioning. This task shall be on a lump sum basis. The fee is based on a period of performance of 31 months from NTP. Assumed durations include 10 months for preliminary design, 7 months for design; 2 months for bidding; 19 months for construction.

a. Subtask 1.1 - Project Management Plan

DESIGN CONSULTANT shall prepare a Project Management Plan that includes:

- (1) Project Description
- (2) Scope of Work (from contract)
- (3) Work Plan
- (4) Progress Evaluation
- (5) Quality Assurance and Quality Control Plan
- (6) Risk Management
- (7) Scope Change
- (8) Communication Plan
- (9) Documentation Plan
- (10) Subcontractors and Organizational chart

b. Subtask 1.2 - Project Schedule

DESIGN CONSULTANT shall submit a project schedule that meets required milestones for approval. Update schedule at all phases of the PROJECT, including monthly meetings, dates for completion of engineering design studies, permitting, milestone tasks, and dates for review periods. The schedule shall be based on the proposed target dates. DESIGN CONSULTANT shall notify GWA if the target dates can be accomplished.

c. Subtask 1.3- Progress Reports

DESIGN CONSULTANT shall submit monthly progress/status reports to support monthly billings. Reports must reflect monthly invoices and earned value reporting including include projected spending and earned value curves.

d. **Subtask 1.4 – Meetings and Coordination**

Attend regularly scheduled meetings and coordinate with entities within and, as appropriate, outside the PROJECT team. Identify and facilitate milestone meetings.

- (1) Coordinate and communicate with local and federal agencies, including GEPA, DPW, GHRD/SHPO, USFWS throughout the course of the PROJECT to ensure review and permitting process adheres to the project schedule.
- (2) Facilitate and record kickoff and regular project meetings.
- (3) Design review (30%, 60%, 90% and 100%) meetings shall be covered under Task 3.

e. **Deliverables:**

- (1) Project Management Plan
- (2) Project Schedule
- (3) Progress Reports
- (4) Meeting Minutes.

2. TASK 2 - PRELIMINARY DESIGN

Task 2 will be on a lump sum basis.

a. **Subtask 2.1 - Research and Field Investigation**

The DESIGN CONSULTANT shall gather data and conduct research and field investigations to assess the existing force main, nearby gravity lines and manholes, the main pump facility, and related structures and components to achieve high quality design solutions and alternatives. Field investigation will include both ground level reconnaissance and confined space-entry. Efforts may include, but are not limited to, the following:

- (1) Review as-built/record drawings
- (2) Review easement locations and property records
- (3) Review maintenance history
- (4) Review pump station and force main inspection data
- (5) Review pump station operation data
- (6) Review flow monitoring data
- (7) Review current and future flow projections from GWA's hydraulic flow models. Currently GWA's hydraulic models are being updated and will be provided to the DESIGN CONSULTANT for use for the PROJECT.
- (8) Review other documents and information relevant to the PROJECT.
- (9) Interviews with GWA staff
- (10) Perform assessments and other permitting-related activities, as required by the appropriate archaeological and environmental regulatory agencies.
- (11) Prepare and submit permits as needed for the site investigation work.

- (12) Conduct condition assessment of the pump station pipes, valves, fittings, and force main.
 - (a) The condition assessment will be performed in one phase. The preliminary condition assessment will take advantage of existing location where the existing FM is accessible. A follow-up assessment will be performed during the construction of the redundant FM and take advantage of access to the existing FM is excluded from the scope of work.
 - (b) The condition assessment will include measurement of soil resistivity, dissolved sulfide, ultrasonic testing, visual inspection, soil sampling review of historical records, and interviews with GWA operators.
 - (c) Prepare a report that presents a presents the collected field data and provides conclusions on the condition of the FM. Recommendations for corrective action will be incorporated into the design.
- (13) Review inspection data of pipes and manholes to be provided by GWA.
- (14) Location and layout of nearby existing utilities within the proposed force main locations to avoid utility conflicts will be based on the best available data and a topographic survey.
- (15) Evaluate redundant force main options based on the findings and recommend the most feasible alternative to move forward with design.
- (16) Investigate the current condition of existing force main. If repair/relocation is needed, then provide options and recommend the most feasible alternative to move forward with design.
- (17) Geotechnical Exploration

The geotechnical scope of work is to obtain information on the subsurface materials to formulate a summary of the soil/rock conditions for the proposed WWPS improvement project. To accomplish these objectives, the scope will include:

 - (a) Research and review of available in-house soils boring data and geologic information in the vicinity of the project site.
 - (b) Coordinate staking of borehole locations and verification of the presence and locations of underground utilities.
 - (c) Mobilization/demobilization of a truck mounted drill rick and two operators to and from the project site
 - (d) Traffic control management (flagmen, signs, and barricades).
 - (e) GEPA and DPW permitting associated with geotechnical exploration.
 - (f) Decontamination of the drilling equipment and supplies prior to field exploration work

- (g) Drilling and sampling of 12 test borings to depths of about 15 to below the existing ground surface for logging and analyses. Drilling and sampling of one test boring to the depth of about 40 feet at the Fujita SPS site for a potential structure. The borings will be drilled in an accessible area using a truck-mounted drill rig.
 - (h) Laboratory testing of selected samples obtained during the filed exploration as an aid in classifying the materials and evaluating their engineering properties.
 - (i) Analyses of the field and laboratory data to formulate geotechnical engineering recommendations pertaining to the design of foundations, earthwork, and pavements for the proposed project.
 - (j) Preparation of a formal geotechnical engineering report summarizing the work on the project and presenting geotechnical findings and recommendations.
 - (k) Coordination, quality assurance, client/design team consultation, drafting word processing and clerical support.
 - (l) Review of plans and specifications for general conformance with the geotechnical recommendations.
- (18) Archaeological monitoring services will be provided to support the geotechnical investigation as required by the Guam SHPO to monitor impacts of the PROJECT on cultural resources in the PROJECT area. This will be performed as additional services once identified as required by SHPO.
- (19) Exclusions:
- (a) Inspections of pipes and manholes conducted in accordance with NASSCO standards.
 - (b) Pot-holing services
 - (c) Support studies (e.g., biological surveys, cultural resource surveys, etc.) for NEPA documentation.
- (20) Notwithstanding anything in this Agreement, the DESIGN CONSULTANT shall have no responsibility for the discovery, presence, handling, removal, or disposal of, or exposure of persons to hazardous materials in any form, at the Fujita SPS.
- b. Subtask 2.2 – Easement and Land Acquisition Assistance
- (1) Research and verification of existing and required new easements is necessary for the force main design. Land acquisition may also be required for the force main design. DESIGN CONSULTANT will be responsible for developing the necessary plans for:
 - (a) obtaining new easements,
 - (b) revising existing easements, or
 - (c) obtaining property transfers.

- (2) The DESIGN CONSULTANT will assist GWA in the preparation of plans under the direction of a professional land surveyor licensed in Guam. GWA will be responsible for the submission and recording of property transfers with the Department of Land Management.

c. Subtask 2.3 - Design Alternatives Report

- (1) The DESIGN CONSULTANT shall develop a Design Alternatives Report (DAR) that includes, as a minimum, the following information:
 - (a) A list of all data gathered and analyzed from Data Research
 - (b) A summary of findings and conclusions from Field Investigation
 - (c) The alternatives analysis shall include, but not be limited to, the following items:
 1. Additional investigation requirements
 2. Cultural resource and historical survey requirements
 3. Construction cost estimates
 4. Construction schedules
 5. Construction implementation (equipment staging, traffic control, sewer bypass requirements, pump station modifications, etc.)
 6. Land acquisition requirements
 7. Permitting requirements
 8. Horizontal Directional Drilling
- (2) At least (2) design alternatives, with a recommendation from the DESIGN CONSULTANT

GWA will decide on the final design alternative. As part of the SRF Grant conditions, the DAR will be forwarded to USEPA for concurrence.

d. Subtask 2.4 – Basis of Design Report

Develop a Basis of Design (BOD) Report that will include key information pertaining to any related geotechnical, civil, structural, electrical, and instrumentation design criteria for the modification of Fujita SPS, to be submitted for review and approval by GWA. Design will be in accordance with the applicable standards noted above. The Basis of Design Report at the minimum shall address the following:

- (1) Geotechnical
 - (a) Geotechnical considerations
 - (b) Geotechnical investigation and report.
- (2) Civil and Process Mechanical
 - (a) Review latest Water Resource Master Plan updates
 - (b) Current and projected flow rates
 - (c) Redundant force main to accommodate existing and projected flow rates and existing pump capacities
 1. Modifying the existing pumps is excluded from this scope of work.

- (d) Changes to hydraulic system curves, pump capacities, electrical demands, and generator requirements
 - (e) Maintaining pump station operations while connecting the redundant force main and valves
 - (f) Ease of redirecting flow between existing and redundant force mains
 - (g) Surrounding infrastructure, utility, and easement considerations
 - (h) Plan and profiles, by-pass pumping (if required), and traffic control
 - (i) Construction Cost Estimates - Develop a Class 4 cost estimate according to the AACE International Cost Estimates Classification System. All cost will be in current US dollars and escalated to the estimated midpoint of construction.
- (3) Structural
- (a) Conformance with seismic and wind loads for Guam
 - (b) Structural modifications
- (4) Electrical and Instrumentation and Control
- (a) Adjustment of existing instrumental controls, VFDs, etc. to accommodate new system curves and capacities
- (5) Architectural and Mechanical (ventilation and plumbing)
- (a) These services are excluded from the scope of work.
- (6) Permitting
- (a) This scope of work assumes that USEPA will prepare a Categorical Exclusion for NEPA compliance and that no local environmental documentation or other NEPA documentation will be required.
 - (b) This scope of work assumes all meetings will be virtual between DESIGN CONSULTANT, GWA, GEPA and/or USEPA.
 - (c) DESIGN CONSULTANT will support USEPA preparation of a NEPA Categorical Exclusion as requested. Support may include revision of the project description, alternatives, BMPs, affected environment, and potential environmental impacts (based on the Alternatives Screen Report) as necessary to provide USEPA with input for the Categorical Exclusion. DESIGN CONSULTANT will coordinate with GWA, GEPA, and USEPA to provide supporting analysis and documentation as requested.
 - (d) DESIGN CONSULTANT will attend and, if requested, present at meetings with local and federal agencies and other interested parties, such as GWA, DPW, Guam EPA, USEPA, and interested members of the community. The scope of work includes up to five (5) online meetings with interested agencies and other interested stakeholders to discuss the environmental review process and analysis.

- (e) The scope of work assumes field surveys and modeling for NEPA compliance (e.g., biological resources, wetlands, archaeological/cultural resources, traffic, noise, etc.) is not required as requested by GWA. If field surveys or modeling are required later, they can be added to the scope of work for an additional fee.
- (f) This scope of work assumes the Notice of Intent and Storm Water Pollution Prevention Plan to support the National Pollutant Discharge Elimination System (NPDES) Construction General Permit will be prepared by the construction contractor and is not part of this scope of work.

(7) Deliverables:

Provide deliverables in accordance with GWA Guidelines.

- (a) Public easement plat
- (b) Flow analysis and collected flow data
- (c) Geotechnical report
- (d) Design Alternatives Report
- (e) Basis of Design Report (BODR)
- (f) Pre-Design workshop with GWA project team to review approach, methodologies, findings, and determine design basis
- (g) Four hard copies and a digital copy of the deliverables listed above was assumed.

- e. Task 2 includes travel for one civil engineer, one structural engineer and one corrosion engineer to conduct the site investigation.

3. TASK 3 – DESIGN

Task 3 will be on a lump sum basis. After the final BODR is approved, the DESIGN CONSULTANT shall perform the following tasks to achieve the Final Design documents. Design shall conform with GWA Design Guidelines.

a. Subtask 3.1 – Meetings

The DESIGN CONSULTANT shall conduct monthly design review meetings with GWA to review the design process, each design discipline status and issues, and project schedule. And conduct design workshops at each milestone of development at 30%, 60%, 90%, and 100%. Prepare and submit all design review meeting agendas and minutes to GWA project team.

b. Subtask 3.2 – Permitting

DESIGN CONSULTANT shall incorporate permitting requirements during design and provide support to obtain the required construction permits signatures and approvals ready for construction. In addition, the DESIGN CONSULTANT shall:

- (1) Identify all permits required. Assist owner in preparing and obtaining all preconstruction permits. Permitting agencies may include the USACE, GEPA, Coastal Management, Department of Parks and Recreation, and the USFWS.

- (2) Comply with the NEPA in accordance with grant conditions.
 - (a) This scope of work assumes that USEPA will prepare a Categorical Exclusion for NEPA compliance and that no local environmental documentation will be required. If USEPA later determines that a NEPA Environmental Assessment would be required (or an Environmental Impact Assessment is required by GEPA), this scope of work can be modified as necessary to provide additional documentation for an additional fee.
 - (b) DESIGN CONSULTANT will support USEPA preparation of a NEPA Categorical Exclusion as requested. Support may include revision of the project description, alternatives, BMPs, affected environment, and potential environmental impacts (based on the Alternatives Screen Report) as necessary to provide USEPA with input for the Categorical Exclusion. DESIGN CONSULTANT will coordinate with GWA, GEPA, and USEPA to provide supporting analysis and documentation as requested.
- (3) The scope of work assumes archival research and preparation of an Archaeological Monitoring and Data Recovery Plan (AMDRP) is required. The Guam SHPO may require preparation of an AMDRP prior to any ground disturbance.
- (4) Coordinate with relevant agencies such as the GEPA, DPW, etc. at the 60%, 90%, and 100% submittals. This includes submitting design documents and maintaining communication throughout the duration of the PROJECT and incorporating any relevant regulation requirements in the design.
- (5) Exclusions:
 - (a) Permit fees; to be paid by the CONTRACTOR.

c. Subtask 3.3 - Design Documents

DESIGN CONSULTANT shall:

- (1) Coordinate with and incorporate information from Program Manager.
- (2) Conduct appropriate boundary and topographic surveys as necessary. This task will include data collection, horizontal and vertical control and boundary study, topographic survey, computation, AutoCAD mapping, translation to GIS mapping format, field check and utility inverts.
- (3) Finalize equipment and instrument list.
- (4) Finalize the engineering report developed from the BODR that documents all disciplines design basis, engineering calculation, final cost estimate, control narrative and supportive data. Three hard copies and a digital copy.

- (1) Prepare progress (30%) plans, specifications, Class 3, (AACE) construction cost estimate, and contract documents, conforming to the GWA and Program Management Design Guidelines as to what should be included in this submittal. Additionally, include profiles, bypass pumping (if required), and traffic control. Four hard copies of the design documents (2 sets of 36"x24" sized drawings and 2 sets of 11"x17" sized drawings) and a digital copy of the design documents are required.
- (2) Allow three weeks for GWA to review 30% design. Incorporate adjudicated comments into the design and submit a formal response to each comment.
- (3) Prepare progress (60%) plans, specifications, Class 2, (AACE) construction cost estimate, and contract documents, conforming to the GWA and Program Management Design Guidelines as to what should be included in this submittal. Additionally, include profiles, bypass pumping (if required), and traffic control. Four hard copies of the design documents (2 sets of 36"x24" sized drawings and 2 sets of 11"x17" sized drawings) and a digital copy of the design documents are required.
- (4) Allow three weeks for GWA to review 60% design. Incorporate adjudicated comments into the design and submit a formal response to each comment.
- (5) Prepare progress (90%) plans, specification, Class 1 (AACE) construction cost estimate, and contract documents, conforming to the GWA Design Guidelines. Four hard copies of the design documents (2 sets of 34"x22" sized drawings and 2 sets of 11"x17" sized drawings) and a digital copy of the design documents are required. A copy of the documents will be provided to USEPA for review.
- (6) Allow three weeks for GWA to review 90% design. Incorporate adjudicated comments into the design and submit a formal response to each comment.
- (7) Prepare final (100%) "Issued for Bid" plans, specifications, and contract documents, conforming to GWA and Program Management Design Guidelines. Four hard copies of the design documents (2 sets of 34"x22" sized drawings and 2 sets of 11"x17" sized drawings) an AutoCAD 2019, 2020 GWA GIS Mapping and a digital copy of the design documents are required. A copy of the documents will be provided to USEPA for review.
- (8) Follow all laws of Guam relative to procurements.
- (9) Utilize GWA's latest procurement templates and ensure that no conflict exists between the procurement templates and any material or subject in the documents being produced. GWA's templates will control in the event of conflict such as between liquidated damages provisions, payment terms, etc.
- (10) Prepare permit applications for all local authorities, highway departments, and other pipeline utilities.
- (11) Provide digital copies of the final design documents

- (12) All cost estimates shall conform to the guidelines of the AACE. During the design process, DESIGN CONSULTANT shall immediately notify the GWA when any design decision causes a significant cost increase to the PROJECT.
- (13) Provide deliverables in accordance with GWA Guidelines. One hardcopy set of submittals and an electronic copy shall be submitted for all deliverables, not previously specified.
- (14) Final design drawings shall also be submitted via electronic PDF and AutoCAD 2019 or earlier version.
- (15) The design will not be considered complete until all comments have been addressed and the design is completed and submitted to GWA for final approval.
- (16) It is anticipated that GWA will use a design-bid-build procurement method. Construction documents must be finalized prior to commencement of the formal bidding process, which has a target start date of January 2022.

4. TASK 4 - CONTRACT BIDDING SUPPORT

Task 4 will be on a time and materials basis. The DESIGN CONSULTANT shall provide the following services:

- a. Pre-Bid Meeting agenda and sign-in sheets, coordinate and facilitate the meeting with GWA, and record meeting minutes.
- b. Compile request for clarification, provide input and prepare addenda as needed
- c. Attend bid evaluation conference
- d. Review, evaluate and certify bid tabulations
- e. Make recommendation for construction contract award.

5. TASK 5 - ENGINEERING SUPPORT DURING CONSTRUCTION

Task 5 will be on a time and materials basis.

The DESIGN CONSULTANT shall:

- a. Coordinate preparation of final (100%) "Issued for Construction" conformed plans and specifications incorporating addenda and changes during the bid phase with the CONSTRUCTION MANAGER (CM).
- b. Assist in preconstruction and partnering conferences.
- c. Attend weekly progress meetings, if requested by the CM or GWA.
 - (1) Ten (10) progress meetings are included in this scope of work. If additional meetings are required, a separate scope and fee will be provided.
- d. Review contractor submittals (e.g., product data, shop drawings, design calculations, samples, test results, and other data) required to be submitted by the contractor for conformance with contract documents, if requested by the CM.

- (1) Twenty (20) submittal reviews are included in this scope of work. It is assumed each submittal will have 3 reviews iterations. If additional submittals are required for review, a separate scope and fee will be provided.
- e. Evaluate substitution requests to determine acceptability of substitute materials and equipment proposed by contractor, if requested by the CM.
 - (1) Five (5) substitution request reviews are included in this scope of work. It is assumed each substitution request will have 3 reviews iterations. If additional substitution requests are required for review, a separate scope and fee will be provided.
- f. Site visits by qualified personnel to ensure construction complies with basis of design is excluded from the scope of work and assumed to be provided by others (e.g., CM).
- g. Review requests for additional information, change orders, schedule of values, and contractor's schedule and provide responses/comments, if requested by the CM.
 - (1) Fifteen (15) reviews are included in this scope of work. If additional reviews are required, a separate scope and fee will be provided.
- h. Limited Condition Assessment During Construction
 - (1) It is assumed the current condition of existing force main can be assessed during the excavation for the redundant FM. The condition assessment will be limited to visual observations and photo documentation and provided to the DESIGN CONSULTANT. The DESIGN CONSULTANT shall review limits of rehabilitation or replacement of the existing force main based the limited condition assessment during construction.
- i. Modifications to the contract documents based on the condition assessment of the existing force main during the construction is included in the scope of work. The modifications are limited to the Civil plans and specifications.
- j. Exclusions:
 - (1) Perform preliminary and final inspections and submit punch list. To be provided by the CM.
 - (2) Provide Final Record Drawings based on marked-up construction drawings. To be provided by the Contractor.
 - (3) A complete condition assessment to include travel for a corrosion engineer, soil testing and pipe thickness testing, etc. is excluded from the scope of work. If GWA requires a complete condition assessment of the existing conditions or it is determined during construction that a complete condition assessment is warranted, a separate fee proposal will be provided.
 - (4) Archaeological services during construction are excluded from the scope of work.

- k. GWA agrees that in accordance with generally accepted construction practices, the construction contractor will be required to assume sole and complete responsibility for job site conditions during construction of the project, including safety of all persons and property, and that this requirement shall be made to apply continuously and not be limited to normal working hours. The DESIGN CONSULTANT shall not have control over or charge of, and shall not be responsible for, construction means, methods, techniques, sequences, or procedures, as these are solely the responsibility of the construction contractor. DESIGN CONSULTANT shall not have the authority to stop the work of the construction contractor. In no event shall DESIGN CONSULTANT be liable for the acts or omissions of any construction contractors, their subcontractors, any of their agents or employees, or any other persons or entities performing any work related to this project, or for the failure of any of them to carry out construction work under contract with GWA.

D. DESIGN AND CONSTRUCTION PERIOD

The DESIGN CONSULTANT shall recommend a construction contract period for this facility based upon required completion dates, actual availability of labor, materials, equipment, and shipping. The following tentative schedule shall be finalized after award of this design services contract. Actual project completion date to be determined based on selected design.

<u>Action Item</u>	<u>Date</u>
Execution of Contract, Initial NTP	6/2022
Complete design	5/2023
GWA submit 100% construction plans, specifications and bid documents to USEPA	5/2023
USEPA approval of construction plans, specifications and bid documents	5/2023
GWA issue IFB and advertise for construction	5/2023
Open bids, evaluate and select apparent low bidder	6/2023
Award contract/ Notice-to-Proceed to Contractor	7/2023
Anticipated project completion	1/2025

Progress payments shall be made monthly by percent complete on lump sum tasks and unit costs or rates for time and materials tasks deemed acceptable to GWA and the DESIGN CONSULTANT.

A project schedule is provided as Attachment C.

APPENDIX B: FEE DETAIL

Fajita Sewer Pump Station Redundant Force Main

Guam Waterworks Authority

Task Description	Rate (\$/HR)		Personnel Hours					Budget				Notes/Assumptions		
	\$282	\$263	\$217	\$196	\$183	\$109	\$84	Subcontractors	Other Direct Costs	Taxes	Total			
	Principal	Engineer IV	Engineer III	Engineer II	Engineer I	CADD Technician	Clerical						Labor	Total Hours
Task 1 - Project Management (Lump Sum)														
1.1 Project Management Plan				16			32						6,143.04	Includes preparation and maintenance of plan. Assumed 10 months for Pre-design and Design.
1.2 Project Schedule				11									2,506.15	Assumed 10 months from Pre-design and Design. Include contract administration, budget tracking, invoicing, etc.
1.3 Progress Reports and Administration	10			42			42						15,378.91	Assumed 10 monthly meetings for pre-design and design phase. Meetings for permitting coordination, design review, bidding support, and construction support are included in separate tasks.
1.4 Regular Progress Meetings				44			22						11,069.95	
Subtotal	10			113			96						34,898.04	
Task 2 - Preliminary Design Research and Field Investigation														
2.1	8	48	8	96	16	16	8		128,157	9,270	9,376		187,623.64	GWA to provide available record drawings, property records, maintenance history, inspection data, flow monitoring data. Excluded from scope of work: Pipeline and manhole inspection, and pooling.
2.1.1 Gather and review data.	8	8	8	24	16	16				320	831		16,631.28	
2.1.2 Field Investigation		32		32						8,880	1,223		24,511.90	Includes travel for 2 staff for 4 days, site visit and interviews with GWA. Subcontractors: V&A and APEC. Includes travel for 1 subcontractor to perform condition assessment, testing, sampling, and report preparation. Excluded from SOV.
2.1.3 Condition Assessment		8		32					110,910	190	6,285		125,776.71	Subcontractors: SEARCH; Includes archival research, preparation of AMDRP support in DAR and preparation of monitoring reports. Daily monitoring rate is separate from this item.
2.1.4 Environmental surveys														Subcontractors: Guam Surveyor.
2.1.5 AMDRP Assessment and Land Acquisition				8			8		17,247	180	1,035		20,703.76	
2.2 Assistance				8					14,572	120	855		17,119.54	GWA to provide Hydraulic Model (InfoSWIM) currently being updated by others. Hydraulic model to be updated based on field investigation data. Includes review of model setup. Assumed maximum of 3 scenarios.
2.3 Design Alternatives Report		24	40	96		24	40			3,500	2,279		45,607.43	Include up to 3 alternatives for analysis.
2.3.1 Hydraulic Modeling		12	24	48						3,500	1,110		22,206.25	Improvements along existing FM alignment; Includes Surveying, Geotech, Archaeological Monitoring.
2.3.2 Alternatives Analysis and Report		12	16	48		24	40			200	1,169		23,401.18	Subcontractors: Guam Surveyor
2.4 Basis of Design Report	20	26	18	101	50		24		113,710	780	8,514		170,571.43	Subcontractors: GeoEngineering & Testing; Assumed 12 borings. Includes permitting, traffic control, drilling, lab testing, and report. Excludes Archaeological Monitoring.
2.4.1 Topographic Survey				32					59,110	20	3,441		68,857.18	Subcontractors: SEARCH; Assumed SHPO to require support to Geotech; 5 work days.
2.4.2 Geotechnical Investigation and Report		8		8					49,600	30	2,804		56,110.69	Subcontractors: SEARCH; Assumed SHPO to require support to Geotech; 5 work days.
2.4.3 Archaeological Monitoring for Geotech Investigation				5					5,000		315		6,296.90	
2.4.4 Engineering Basis of Design	16	16	16	48	48		16		31,227	670	1,704		34,100.93	Includes Civil, Struc, Mechanical, Process, Elec, and I&C disciplines.
2.4.6 Pre-Design Workshop	4	2	2	8	2		8		4,696	60	250		5,005.74	1 virtual meeting, 2 hours; no travel.
Subtotal	28	98	66	301	66	40	72		256,440	13,670	31,024		420,722.05	

Fujita Sewer Pump Station Redundant Force Main

Guam Waterworks Authority

Task Description	Rate (\$/HR)				Personnel Hours				Budget				Total	Notes/Assumptions	
	S282	S243	S217	S196	S183	S109	S84	Total Hours	Labor	Subcontractors	Other Direct Costs	Taxes			
	Principal	Engineer IV	Engineer III	Engineer II	Engineer I	CADD Technician	Clerical								
Task 3 - Design (Lump Sum)															
3.1 Design Meetings and Workshops	6	12	-	24	6	-	24	72	\$ 12,671	\$ -	\$ 110	\$ 672	\$ 13,453.03	Assumed 3 design workshops at 2 hours; 60%, 90%, 100%, no travel.	
3.2 Permitting	1	-	-	44	16	20	12	93	\$ 15,035	\$ -	\$ 1,100	\$ 849	\$ 16,983.61	Includes support for USEPA CATEX preparation and permit agency design reviews and meetings.	
3.2.1 Permit Agency Review	-	-	-	16	-	-	-	16	\$ 3,143	\$ -	\$ 1,010	\$ 218	\$ 4,371.60	DPW, GEPA, GFA, SFPD, etc.	
3.2.2 NEPA CATEX Support Meetings and Coordination with local and federal agencies	1	-	-	4	16	20	12	53	\$ 7,177	\$ -	\$ 90	\$ 380	\$ 7,607.20	Update project description, alternatives, BMPs, description of affected environment and potential impacts as necessary to support USEPA preparation of a NEPA Categorical Exclusion; coordinate with GWA, GEPA, and USEPA to provide supporting analysis and documentation as requested.	
3.2.3 Design	172	182	42	493	287	740	80	24	\$ 4,715	\$ -	\$ 40	\$ 250	\$ 5,004.81	Virtual Meetings, no travel.	
3.3.1 30% Design	50	53	12	144	85	222	24	535	\$ 342,258	\$ -	\$ 3,070	\$ 18,164	\$ 363,492.41	Includes Civil, Arch, Struc, Mech, Process, Elec, and I&C disciplines.	
3.3.1.1 Civil	-	19	-	18	61	95	-	193	\$ 30,041	\$ -	\$ -	\$ 1,580	\$ 31,621.68		
3.3.1.2 Architectural	-	-	-	-	-	-	-	-	\$ -	\$ -	\$ -	\$ -	\$ -		
3.3.1.3 Structural	-	6	-	17	-	32	-	55	\$ 8,413	\$ -	\$ -	\$ 442	\$ 8,855.01		
3.3.1.4 Process	-	4	-	16	-	31	-	51	\$ 7,581	\$ -	\$ -	\$ 399	\$ 7,979.32		
3.3.1.5 Mechanical	22	-	-	37	-	40	-	99	\$ -	\$ -	\$ -	\$ -	\$ -		
3.3.1.6 Electrical	8	8	-	24	8	24	-	56	\$ 9,992	\$ -	\$ -	\$ 938	\$ 18,780.65		
3.3.1.7 Instrumentation	8	8	-	8	8	-	24	64	\$ 11,141	\$ -	\$ -	\$ 586	\$ 11,726.69		
3.3.1.8 Specifications	4	4	-	8	16	-	-	40	\$ 8,893	\$ -	\$ -	\$ 452	\$ 9,045.83		
3.3.1.9 Cost Estimate	8	8	-	16	-	-	-	32	\$ 7,993	\$ -	\$ -	\$ -	\$ 7,999.83		
3.3.1.10 QA/QC	50	53	12	144	85	222	24	590	\$ 100,708	\$ -	\$ 860	\$ 5,342	\$ 106,910.80	Includes Civil, Struc, Process, Elec, and I&C disciplines.	
3.3.2 60% Design	-	19	-	18	61	95	-	193	\$ 30,041	\$ -	\$ 580	\$ 1,611	\$ 32,232.19	Excluded from SOW.	
3.3.2.1 Civil	-	-	-	-	-	-	-	-	\$ -	\$ -	\$ -	\$ -	\$ -		
3.3.2.2 Architectural	-	6	-	17	-	32	-	55	\$ 8,413	\$ -	\$ -	\$ 442	\$ 8,855.01		
3.3.2.3 Structural	-	4	-	16	-	31	-	51	\$ 7,581	\$ -	\$ -	\$ 399	\$ 7,979.32		
3.3.2.4 Process	-	-	-	-	-	-	-	-	\$ -	\$ -	\$ -	\$ -	\$ -		
3.3.2.5 Mechanical	22	-	-	37	-	40	-	99	\$ 17,842	\$ -	\$ -	\$ 938	\$ 18,780.65	Excluded from SOW.	
3.3.2.6 Electrical	8	8	-	24	8	24	-	56	\$ 9,992	\$ -	\$ -	\$ 505	\$ 10,096.54		
3.3.2.7 Instrumentation	8	8	-	8	8	-	24	60	\$ 11,141	\$ -	\$ 270	\$ 600	\$ 12,010.89		
3.3.2.8 Specifications	4	4	-	8	16	-	-	40	\$ 8,893	\$ -	\$ -	\$ 453	\$ 9,055.96		
3.3.2.9 Cost Estimate	8	8	-	16	-	-	-	32	\$ 7,993	\$ -	\$ -	\$ -	\$ 7,999.83		
3.3.2.10 QA/QC	50	53	12	144	85	222	24	590	\$ 100,708	\$ -	\$ 980	\$ 5,349	\$ 107,036.71	Includes Civil, Struc, Process, Elec, and I&C disciplines.	
3.3.3 90% Design	-	19	-	18	61	95	-	193	\$ 30,041	\$ -	\$ 610	\$ 1,612	\$ 32,263.76	Excluded from SOW.	
3.3.3.1 Civil	-	-	-	-	-	-	-	-	\$ -	\$ -	\$ -	\$ -	\$ -		
3.3.3.2 Architectural	-	6	-	17	-	32	-	55	\$ 8,413	\$ -	\$ -	\$ 442	\$ 8,855.01		
3.3.3.3 Structural	-	4	-	16	-	31	-	51	\$ 7,581	\$ -	\$ -	\$ 399	\$ 7,979.32		
3.3.3.4 Process	-	-	-	-	-	-	-	-	\$ -	\$ -	\$ -	\$ -	\$ -		
3.3.3.5 Mechanical	22	-	-	37	-	40	-	99	\$ 17,842	\$ -	\$ -	\$ 938	\$ 18,780.65	Excluded from SOW.	
3.3.3.6 Electrical	8	8	-	24	8	24	-	56	\$ 9,992	\$ -	\$ -	\$ 505	\$ 10,096.54		
3.3.3.7 Instrumentation	8	8	-	8	8	-	24	64	\$ 11,141	\$ -	\$ 360	\$ 605	\$ 12,053.63		
3.3.3.8 Specifications	4	4	-	8	16	-	-	40	\$ 8,893	\$ -	\$ 10	\$ 453	\$ 9,055.96		
3.3.3.9 Cost Estimate	8	8	-	16	-	-	-	32	\$ 7,993	\$ -	\$ -	\$ 395	\$ 7,899.85		
3.3.3.10 QA/QC	22	23	6	61	32	74	8	216	\$ 40,134	\$ -	\$ 1,230	\$ 2,176	\$ 43,540.13	Includes Civil, Struc, Process, Elec, and I&C disciplines.	
3.3.3.1 Civil	-	6	-	6	20	32	-	64	\$ 9,902	\$ -	\$ 770	\$ 561	\$ 11,233.01	Excluded from SOW.	
3.3.3.2 Architectural	-	-	-	-	-	-	-	-	\$ -	\$ -	\$ -	\$ -	\$ -		
3.3.3.3 Structural	-	2	-	6	-	11	-	19	\$ 2,906	\$ -	\$ -	\$ 153	\$ 3,058.91		
3.3.3.4 Process	-	1	-	5	-	10	-	16	\$ 2,337	\$ -	\$ -	\$ 123	\$ 2,460.21		
3.3.3.5 Mechanical	7	-	-	12	-	13	-	32	\$ 5,751	\$ -	\$ -	\$ 303	\$ 6,054.00	Excluded from SOW.	
3.3.3.6 Electrical	3	-	-	8	-	8	-	19	\$ 3,291	\$ -	\$ -	\$ 173	\$ 3,464.09		
3.3.3.7 Instrumentation	2	2	-	4	4	-	8	24	\$ 4,145	\$ -	\$ 440	\$ 241	\$ 4,825.90		
3.3.3.8 Specifications	2	2	-	4	8	-	-	20	\$ 4,297	\$ -	\$ 20	\$ 227	\$ 4,543.77		
3.3.3.9 Cost Estimate	8	8	-	16	-	-	-	32	\$ 7,993	\$ -	\$ -	\$ 395	\$ 7,899.85		
3.3.3.10 QA/QC	179	194	42	561	309	760	116	2,106	\$ 369,964	\$ -	\$ 4,280	\$ 19,685	\$ 393,929.05		
Subtotal															

APPENDIX B: FEE DETAIL

Fujita Sewer Pump Station Redundant Force Main

Guam Waterworks Authority

Task Description	Budget										Notes/Assumptions				
	Personnel Hours														
	\$282	\$263	\$217	\$196	\$183	\$109	\$84	Total Hours	Labor	Subconsultants		Other Direct Costs	Taxes	Total	
Task 4 - Bid Support (T&M)															
4.1 Prebid Conference				8			4	12	\$ 1,907						2,017.50
4.2 Addenda/IFB Drawings	4	6	8	8	8	24	24	82	\$ 12,107						\$ 13,143.34
4.3 Bid Review	4			8				12	\$ 2,700						\$ 2,841.97
Subtotal	8	6	8	24	8	24	28	106	\$ 16,713						\$ 18,002.81
Task 5 - Engineering Support During Construction (T&M)															
5.1 Project Management and Close-out				48			40	88	\$ 12,739						\$ 13,450.84
5.2 Attend CM Meetings, if requested				10				10	\$ 1,964						\$ 2,067.79
5.3 Shop Drawing/Submittal Review	12		24	24				60	\$ 13,009						\$ 14,146.13
5.4 Submittal Review	3		3	9				15	\$ 3,265						\$ 3,551.02
5.5 Compliance site visit, if requested.				18				30	\$ 6,531						\$ 7,116.57
5.6 RFDRFC															
5.7 Archaeological Monitoring															
5.8 Follow-up Condition Assessment															
5.9 Modify existing FM rehab/replace Civil Plans/Specs for Phase 2	10	16	4	26	24	32	8	120	\$ 21,552						\$ 22,948.26
Subtotal	31	16	37	135	24	32	48	323	\$ 59,360						\$ 63,282.62
Total	256	314	153	1,134	407	856	360	3,425	\$ 608,688						\$ 930,834.57

Lump Sum	\$	849,549.14
T&M	\$	81,285.43
Total	\$	930,834.57

AECOM (Prime)	\$	674,394.73
All Subs	\$	256,439.84
Guam Surveyor	\$	73,682.48
V&A	\$	106,750.00
APEC	\$	4,160.00
GeoEngineering & Testing	\$	49,600.00
SEARCH	\$	22,247.36

APPENDIX C: Tentative Project Schedule

ID	Task Name	Duration	Start	Finish
1	Fujita SPS Redundant FM	141.4 wks	Fri 6/17/22	Mon 3/3/25
2	Design Contract NTP	0 days	Fri 6/17/22	Fri 6/17/22
3	Task 1: Project Management	128 wks	Fri 6/17/22	Thu 12/5/24
5	Task 2: Preliminary Design	27 wks	Mon 6/20/22	Fri 12/23/22
6	Research and Desktop Evaluation	2 wks	Mon 6/20/22	Fri 7/1/22
7	Preliminary Permitting	2 wks	Mon 7/4/22	Fri 7/15/22
8	Field Investigations	4 wks	Mon 7/18/22	Fri 8/1/22
9	Preliminary Condition Assessment	3 wks	Mon 7/18/22	Fri 8/5/22
10	Hydraulic Modeling	4 wks	Mon 7/18/22	Fri 8/12/22
11	Alternatives Screening Report	4 wks	Mon 8/15/22	Fri 9/9/22
12	CATEX	8 wks	Mon 9/13/22	Fri 11/4/22
13	Easement and Land Acquisition Assistance	20 wks	Mon 8/8/22	Fri 12/23/22
14	Design Alternatives Analysis	4 wks	Mon 8/8/22	Fri 9/2/22
15	Geotechnical Investigation	8 wks	Mon 9/5/22	Fri 10/28/22
16	Topographic Survey	8 wks	Mon 9/5/22	Fri 10/28/22
17	Basis of Design Report	8 wks	Mon 10/3/22	Fri 11/25/22
18	Pre-Design Workshop	0 days	Fri 11/11/22	Fri 11/11/22
19	Task 3: Design	30 wks	Mon 10/31/22	Fri 5/26/23
20	30% Design	5 wks	Mon 10/31/22	Fri 12/2/22
21	30% GWA/Permit Agency Design Review	3 wks	Mon 12/5/22	Fri 12/23/22
22	30% Progress Review Meeting	0 days	Wed 12/14/22	Wed 12/14/22
23	60% Design	5 wks	Mon 12/26/22	Fri 1/27/23
24	60% GWA/Permit Agency Design Review	5 wks	Mon 1/30/23	Fri 3/9/23
25	60% Progress Review Meeting	0 days	Tue 2/28/23	Tue 2/28/23
26	90% Design	4 wks	Mon 3/6/23	Fri 3/31/23
27	90% GWA/Permit Agency Design Review	3 wks	Mon 4/3/23	Fri 4/21/23
28	90% Progress Review Meeting	0 days	Wed 4/12/23	Wed 4/12/23
29	Final (100%) Design	3 wks	Mon 4/17/23	Fri 5/5/23
30	USEPA Review	3 wks	Mon 5/8/23	Fri 5/26/23
31	Task 4: Contract Bidding Support	8 wks	Mon 6/12/23	Fri 8/4/23
32	Advertise for Construction	8 wks	Mon 6/12/23	Fri 8/4/23
33	Task 5: Engr Suppt During Constr	78 wks	Mon 9/4/23	Mon 3/3/25
34	Award Construction Contract	0 days	Mon 9/4/23	Mon 9/4/23
35	Construction	78 wks	Tue 9/5/23	Mon 3/3/25
36	Phase 2 Design Modification	7 wks	Tue 11/14/23	Mon 1/1/24



This is **EXHIBIT B**, consisting of 3 pages, referred to in and part of the **Agreement between Owner and Engineer for Professional Services** dated October 5, 2022.

Owner's Responsibilities

Article 2 of the Agreement is supplemented to include the following agreement of the parties.

B2.01 In addition to other responsibilities of Owner as set forth in this Agreement, Owner shall at its expense:

- A. Provide Engineer with all criteria and full information as to Owner's requirements for the Project, including design objectives and constraints, space, capacity and performance requirements, flexibility, and expandability, and any budgetary limitations.
- B. Give instructions to Engineer regarding Owner's procurement of construction services (including instructions regarding advertisements for bids, instructions to bidders, and requests for proposals, as applicable), Owner's construction contract practices and requirements, insurance and bonding requirements, electronic transmittals during construction, and other information necessary for the finalization of Owner's bidding-related documents (or requests for proposals or other construction procurement documents), and Construction Contract Documents. Furnish copies (or give specific directions requesting Engineer to use copies already in Engineer's possession) of all design and construction standards, Owner's standard forms, general conditions (if other than EJCDC® C-700, Standard General Conditions of the Construction Contract, 2013 Edition), supplementary conditions, text, and related documents and content for Engineer to include in the draft bidding-related documents (or requests for proposals or other construction procurement documents), and draft Construction Contract Documents, when applicable. Owner shall have responsibility for the final content of (1) such bidding-related documents (or requests for proposals or other construction procurement documents), and (2) those portions of any Construction Contract other than the design (as set forth in the Drawings, Specifications, or otherwise), and other engineering or technical matters; and Owner shall seek the advice of Owner's legal counsel, risk managers, and insurance advisors with respect to the drafting and content of such documents.
- C. Furnish to Engineer any other available information pertinent to the Project including reports and data relative to previous designs, construction, or investigation at or adjacent to the Site.
- D. Following Engineer's assessment of initially-available Project information and data and upon Engineer's request, obtain, furnish, or otherwise make available (if necessary through title searches, or retention of specialists or consultants) such additional Project-related information and data as is reasonably required to enable Engineer to complete its Basic and Additional Services. Such additional information or data would generally include the following:
 1. Property descriptions.
 2. Zoning, deed, and other land use restrictions.

3. Utility and topographic mapping and surveys.
 4. Property, boundary, easement, right-of-way, and other special surveys or data, including establishing relevant reference points.
 5. Explorations and tests of subsurface conditions at or adjacent to the Site; geotechnical reports and investigations; drawings of physical conditions relating to existing surface or subsurface structures at the Site; hydrographic surveys, laboratory tests and inspections of samples, materials, and equipment; with appropriate professional interpretation of such information or data.
 6. Environmental assessments, audits, investigations, and impact statements, and other relevant environmental, historical, or cultural studies relevant to the Project, the Site, and adjacent areas.
 7. Data or consultations as required for the Project but not otherwise identified in this Agreement.
- E. Arrange for safe access to and make all provisions for Engineer to enter upon public and private property as required for Engineer to perform services under the Agreement.
- F. Recognizing and acknowledging that Engineer's services and expertise do not include the following services, provide, as required for the Project:
1. Accounting, bond and financial advisory (including, if applicable, "municipal advisor" services as described in Section 975 of the Dodd-Frank Wall Street Reform and Consumer Protection Act (2010) and the municipal advisor registration rules issued by the Securities and Exchange Commission), independent cost estimating, and insurance counseling services.
 2. Legal services with regard to issues pertaining to the Project as Owner requires, Contractor raises, or Engineer reasonably requests.
 3. Such auditing services as Owner requires to ascertain how or for what purpose Contractor has used the money paid.
- G. Provide the services of an independent testing laboratory to perform all inspections, tests, and approvals of samples, materials, and equipment required by the Construction Contract Documents (other than those required to be furnished or arranged by Contractor), or to evaluate the performance of materials, equipment, and facilities of Owner, prior to their incorporation into the Work with appropriate professional interpretation thereof. Provide Engineer with the findings and reports generated by testing laboratories, including findings and reports obtained from or through Contractor.
- H. Provide reviews, approvals, and permits from all governmental authorities having jurisdiction to approve all phases of the Project designed or specified by Engineer and such reviews, approvals, and consents from others as may be necessary for completion of each phase of the Project.

- I. Advise Engineer of the identity and scope of services of any independent consultants employed by Owner to perform or furnish services in regard to the Project, including, but not limited to, cost estimating, project peer review, value engineering, and constructability review.
- J. If Owner designates a construction manager or an individual or entity other than, or in addition to, Engineer to represent Owner at the Site, define and set forth as an attachment to this Exhibit B the duties, responsibilities, and limitations of authority of such other party and the relation thereof to the duties, responsibilities, and authority of Engineer.
- K. If more than one prime contract is to be awarded for the Work designed or specified by Engineer, then designate a person or entity to have authority and responsibility for coordinating the activities among the various prime Contractors, and define and set forth the duties, responsibilities, and limitations of authority of such individual or entity and the relation thereof to the duties, responsibilities, and authority of Engineer as an attachment to this Exhibit B that is to be mutually agreed upon and made a part of this Agreement before such services begin.
- L. Inform Engineer in writing of any specific requirements of safety or security programs that are applicable to Engineer, as a visitor to the Site.
- M. Examine all alternative solutions, studies, reports, sketches, Drawings, Specifications, proposals, and other documents presented by Engineer (including obtaining advice of an attorney, risk manager, insurance counselor, financial/municipal advisor, and other advisors or consultants as Owner deems appropriate with respect to such examination) and render in writing timely decisions pertaining thereto.
- N. Inform Engineer regarding any need for assistance in evaluating the possible use of Project Strategies, Technologies, and Techniques, as defined in Exhibit A.
- O. Advise Engineer as to whether Engineer's assistance is requested in identifying opportunities for enhancing the sustainability of the Project.
- P. Place and pay for advertisement for Bids in appropriate publications.
- Q. Furnish to Engineer data as to Owner's anticipated costs for services to be provided by others (including, but not limited to, accounting, bond and financial, independent cost estimating, insurance counseling, and legal advice) for Owner so that Engineer may assist Owner in collating the various cost categories which comprise Total Project Costs.
- R. Attend and participate in the pre-bid conference, bid opening, pre-construction conferences, construction progress and other job related meetings, and Site visits to determine Substantial Completion and readiness of the completed Work for final payment.
- S. Authorize Engineer to provide Additional Services as set forth in Part 2 of Exhibit A of the Agreement, as required.

This is **EXHIBIT C**, consisting of 3 page, referred to in and part of the Agreement between Owner and Engineer for Professional Services dated October 5, 2022.

Payments to Engineer for Services and Reimbursable Expenses
COMPENSATION PACKET BC-1: Basic Services – Lump Sum

Article 2 of the Agreement is supplemented to include the following agreement of the parties:

ARTICLE 2 – OWNER’S RESPONSIBILITIES

C2.01 Compensation for Basic Design Services – Lump Sum Method of Payment

A. Owner shall pay Engineer for Basic Design Services set forth in Exhibit A as follows:

1. A Lump Sum amount of \$930,834.57 based on the following estimated distribution of compensation:

See attached Design Fee Proposal, April 29, 2022.

Engineer may alter the distribution of compensation between individual phases noted herein to be consistent with services actually rendered, but shall not exceed the total Lump Sum amount unless approved in writing by the Owner.

2. The Lump Sum includes compensation for Engineer’s services and services of Engineer’s Consultants, if any. Appropriate amounts have been incorporated in the Lump Sum to account for labor costs, overhead, profit, expenses (other than any expressly allowed Reimbursable Expenses), and Consultant charges.
 3. The portion of the Lump Sum amount billed for Engineer’s services will be based upon Engineer’s estimate of the percentage of the total services actually completed during the billing period.
 4. The basis of any adjustment under this Article may include at the request of the Owner, cost and pricing data pursuant to 2 GAR §3118 and will also be subject to 2 GAR § 5107 Fiscal Responsibility.
- B. *Period of Service:* The compensation amount stipulated in Compensation Packet BC-1 is conditioned on a period of service not exceeding ____ months. If such period of service is extended, the compensation amount for Engineer’s services shall be appropriately adjusted.

Payments to Engineer for Services and Reimbursable Expenses
COMPENSATION PACKET BC-2: Basic Services – Standard Hourly Rates

Article 2 of the Agreement is supplemented to include the following agreement of the parties:

ARTICLE 2 – OWNER’S RESPONSIBILITIES

C2.01 Compensation For Basic Post-Design Services – Standard Hourly Rates Method of Payment

- A. Owner shall pay Engineer for Basic Post-Design Services set forth in Exhibit A as follows:
1. An amount equal to the cumulative hours charged to the Project by each class of Engineer’s personnel times Standard Hourly Rates for each applicable billing class for all services performed on the Project, plus Reimbursable Expenses and Engineer’s Consultants’ charges, if any.
 2. The Standard Hourly Rates charged by Engineer constitute full and complete compensation for Engineer’s services, including labor costs, overhead, and profit; the Standard Hourly Rates do not include Reimbursable Expenses or Engineer’s Consultants’ charges.
 3. Engineer’s Standard Hourly Rates are indicated in the negotiated Fee Proposal dated April 29, 2022 and included in the total compensation for services under Paragraph C2.01.
 4. The total compensation for services under Paragraph C2.01 is estimated to be \$930,834.57 based on the following estimated distribution of compensation:
 - a. See attached Revised Design Fee Proposal, April 29, 2022.
 5. Engineer may alter the distribution of compensation between individual phases of the work noted herein to be consistent with services actually rendered, but shall not exceed the total estimated compensation amount unless approved in writing by Owner.
 6. The total estimated compensation for Engineer’s services included in the breakdown by phases as noted in Paragraph C2.01.A.3 incorporates all labor, overhead, profit, Reimbursable Expenses, and Engineer’s Consultants’ charges.
 7. The amounts billed for Engineer’s services under Paragraph C2.01 will be based on the cumulative hours charged to the Project during the billing period by each class of Engineer’s employees times Standard Hourly Rates for each applicable billing class, plus Reimbursable Expenses and Engineer’s Consultants’ charges.

C2.02 Compensation For Reimbursable Expenses

- A. Owner shall pay Engineer for all Reimbursable Expenses.

- B. Reimbursable Expenses include the following: transportation (including mileage), lodging, and subsistence incidental thereto; providing and maintaining field office facilities including furnishings and utilities; toll telephone calls, mobile phone charges, and courier charges; reproduction of reports, Drawings, Specifications, bidding-related or other procurement documents, Construction Contract Documents, and similar Project-related items; and Consultants' charges. In addition, if authorized in advance by Owner, Reimbursable Expenses will also include expenses incurred for the use of highly specialized equipment.
- C. The amounts payable to Engineer for Reimbursable Expenses will be the Project-related internal expenses actually incurred or allocated by Engineer, plus all invoiced external Reimbursable Expenses allocable to the Project, the latter multiplied by a factor of 1.0.

C2.03 *Estimated Compensation Amounts:*

- 1. Engineer's estimate of the amounts that will become payable for specified services are only estimates for planning purposes, are not binding on the parties, and are not the minimum or maximum amounts payable to Engineer under the Agreement.
 - 2. When estimated compensation amounts have been stated herein and it subsequently becomes apparent to Engineer that the total compensation amount thus estimated will be exceeded, Engineer shall give Owner written notice thereof, allowing Owner to consider its options, including suspension or termination of Engineer's services for Owner's convenience. Upon notice, Owner and Engineer promptly shall review the matter of services remaining to be performed and compensation for such services. Owner shall either exercise its right to suspend or terminate Engineer's services for Owner's convenience, agree to such compensation exceeding said estimated amount, or agree to a reduction in the remaining services to be rendered by Engineer, so that total compensation for such services will not exceed said estimated amount when such services are completed. If Owner decides not to suspend the Engineer's services during the negotiations and Engineer exceeds the estimated amount before Owner and Engineer have agreed to an increase in the compensation due Engineer or a reduction in the remaining services, then Engineer shall be paid for all services rendered hereunder.
- D. To the extent necessary to verify Engineer's charges and upon Owner's timely request, Engineer shall make copies of such records available to Owner at cost.

This is EXHIBIT D has been deleted.

This is **EXHIBIT E**, consisting of 2 pages, referred to in and part of the **Agreement between Owner and Engineer for Professional Services** dated October 5, 2022.



NOTICE OF ACCEPTABILITY OF WORK

PROJECT: Fujita Sewage Pump Station Redundant Force Main
GWA Project No. S20-003-EPA

OWNER: Guam Waterworks Authority

CONTRACTOR:

OWNER'S CONSTRUCTION CONTRACT IDENTIFICATION:

EFFECTIVE DATE OF THE CONSTRUCTION CONTRACT:

ENGINEER:
NOTICE DATE:

To: _____
Owner

And To: _____
Contractor

From: _____
Engineer

The Engineer hereby gives notice to the above Owner and Contractor that Engineer has recommended final payment of Contractor, and that the Work furnished and performed by Contractor under the above Construction Contract is acceptable, expressly subject to the provisions of the related Contract Documents, the Agreement between Owner and Engineer for Professional Services dated _____, and the following terms and conditions of this Notice:

CONDITIONS OF NOTICE OF ACCEPTABILITY OF WORK

The Notice of Acceptability of Work ("Notice") is expressly made subject to the following terms and conditions to which all those who receive said Notice and rely thereon agree:

1. This Notice is given with the skill and care ordinarily used by members of the engineering profession practicing under similar conditions at the same time and in the same locality.
2. This Notice reflects and is an expression of the Engineer's professional opinion.
3. This Notice is given as to the best of Engineer's knowledge, information, and belief as of the Notice Date.
4. This Notice is based entirely on and expressly limited by the scope of services Engineer has been employed by Owner to perform or furnish during construction of the Project (including observation of the Contractor's work) under Engineer's Agreement with Owner, and applies only to facts that are within Engineer's knowledge or could reasonably have been ascertained by Engineer as a result of carrying out the responsibilities specifically assigned to Engineer under such Agreement.
5. This Notice is not a guarantee or warranty of Contractor's performance under the Construction Contract, an acceptance of Work that is not in accordance with the related Contract Documents, including but not limited to defective Work discovered after final inspection, nor an assumption of responsibility for any failure of Contractor to furnish and perform the Work thereunder in accordance with the Construction Contract Documents, or to otherwise comply with the Construction Contract Documents or the terms of any special guarantees specified therein.
6. This Notice does not relieve Contractor of any surviving obligations under the Construction Contract, and is subject to Owner's reservations of rights with respect to completion and final payment.

By: _____

Title: _____

Dated: _____

EXHIBIT F has been DELETED.

Exhibit F – Construction Cost Limit.

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Page 1

This is **EXHIBIT G**, consisting of 1 page, referred to in and part of the **Agreement between Owner and Engineer for Professional Services** dated October 5, 2022.

Insurance

Paragraph 6.05 of the Agreement is supplemented to include the following agreement of the parties:

G6.05 Insurance

A. The limits of liability for the insurance required by Paragraph 6.05.A of the Agreement are as follows:

1. By Engineer:

a. Workers' Compensation:	Statutory
b. Employer's Liability:	
Bodily Injury, each accident:	\$100,000
Bodily injury by disease, each employee:	\$100,000
Bodily injury/disease, aggregate:	\$200,000
c. General Liability --	
1) Each Occurrence (Bodily Injury and Property Damage):	\$1,000,000
2) General Aggregate:	\$2,000,000
d. Excess or Umbrella Liability	
Per Occurrence:	\$2,000,000
General Aggregate:	\$4,000,000
e. Automobile Liability --Combined Single Limit (Bodily Injury and Property Damage):	
	\$ 500,000
f. Professional Liability:	
Each Claim Made	\$2,000,000
Annual Aggregate	\$4,000,000

To maintain, and cause to maintain throughout the life of the contract and up until the project is completely constructed, insurance for the Engineer and the named subs-consultants, in the amounts and types specified below which name Guam Waterworks Authority as an additional insured for the project in a separate endorsement:

Exhibit G – Insurance.

EJCDC® E-500, Agreement Between Owner and Engineer for Professional Services.

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- 1.
- 2.
- 3.

B. *Additional Insureds:*

1. The following individuals or entities are to be listed on Engineer's general liability policies of insurance as additional insureds:

Guam Waterworks Authority

2. The Owner shall be listed on Engineer's general liability policy as provided in Paragraph 6.05.B.

This is **EXHIBIT H**, consisting of 1 page, referred to in and part of the **Agreement between Owner and Engineer for Professional Services** dated October 5, 2022.

Dispute Resolution

Paragraph 6.09 of the Agreement is supplemented to include the following agreement of the parties:

H6.09 Mediation, Decision and Action

- A. In the event a claim or controversy is not resolved by mutual agreement, the GWA General Manager shall, after written request by the Contractor for a final decision, promptly issue a written decision. A copy of the decision shall be immediately transmitted to the Contractor by a method that provides evidence of receipt.**
- B. All claims or controversies that remain unresolved after a final decision by the GWA General Manager shall be submitted to mediation in accordance with the rules of the American Arbitration Association, or other dispute resolution rules accredited on Guam. This agreement to mediate is authorized under 5 GCA §5427 (b) and 2 GAR §9103 (a)(1). The parties shall each pay one-half of the mediation expenses.**
- C. In the event mediation is not successful, the General Manager's decision remains final and conclusive unless the Contractor files an appeal with the Guam Office of Public Accountability ("OPA") after receipt of the decision. Upon written request by the Contractor, the 60-day appeal period may be extended for a mutually agreed upon tolling period to allow for mediation after the final decision. In the event the dispute is not resolved by the OPA, the Contractor may seek redress through the Guam Government Claims Act and/or the Guam Superior Court.**

This is **EXHIBIT I**, consisting of 1 page, referred to in and part of the **Agreement between Owner and Engineer for Professional Services** dated October 5, 2022.

Limitations of Liability

Paragraph 6.11 of the Agreement is supplemented to include the following agreement of the parties:

A. *Limitation of Engineer's Liability*

1. ***Engineer's Liability Limited to Stated Amount, or Amount of Engineer's Compensation:*** To the fullest extent permitted by Laws and Regulations, and notwithstanding any other provision of this Agreement, the total liability, in the aggregate, of Engineer and Engineer's officers, directors, members, partners, agents, employees, and Consultants, to Owner and anyone claiming by, through, or under Owner for any and all injuries, claims, losses, expenses, costs, or damages whatsoever arising out of, resulting from, or in any way related to the Project, Engineer's or its Consultants' services, or this Agreement, from any cause or causes whatsoever, including but not limited to the negligence, professional errors or omissions, strict liability, breach of contract, indemnity obligations, or warranty express or implied, of Engineer or Engineer's officers, directors, members, partners, agents, employees, or Consultants, shall not exceed the total amount of \$4,000,000.00 or the total compensation received by Engineer under this Agreement, whichever is greater. Higher limits are available for an additional fee.
2. ***Exclusion of Special, Incidental, Indirect, and Consequential Damages:*** To the fullest extent permitted by Laws and Regulations, and notwithstanding any other provision in the Agreement, consistent with the terms of Paragraph 6.11, the Engineer and Engineer's officers, directors, members, partners, agents, Consultants, and employees shall not be liable to Owner or anyone claiming by, through, or under Owner for any and all claims for or entitlement to special, incidental, indirect, or consequential damages arising out of, resulting from, or in any way related to this Agreement or the Project, from any cause or causes, including but not limited to:

- B. ***Indemnification by Owner:*** To the fullest extent permitted by Laws and Regulations, Owner shall indemnify and hold harmless Engineer and its officers, directors, members, partners, agents, employees, and Consultants from and against any and all claims, costs, losses, and damages (including but not limited to all fees and charges of engineers, architects, attorneys, and other professionals, and all court, arbitration, or other dispute resolution costs) arising out of or relating to the Project, provided that any such claim, cost, loss, or damage is attributable to bodily injury, sickness, disease, or death or to injury to or destruction of tangible property (other than the Work itself), including the loss of use resulting therefrom, but only to the extent caused by any negligent act or omission of Owner or Owner's officers, directors, members, partners, agents, employees, consultants, or others retained by or under contract to the Owner with respect to this Agreement or to the
Project.

EXHIBIT J has been DELETED.

Exhibit J - Special Provisions.

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and American Society of Civil Engineers. All rights reserved.**

Page 1

This is **EXHIBIT K**, consisting of 2 pages, referred to in and part of the **Agreement between Owner and Engineer for Professional Services** dated October 5, 2022.

AMENDMENT TO OWNER-ENGINEER AGREEMENT
Amendment No. 00

The Effective Date of this Amendment is: _____.

Background Data

Owner: Guam Waterworks Authority

Engineer:

Project: Fujita Sewage Pump Station Redundant Force Main
GWA Project No. S20-003-EPA

Nature of Amendment: [Check those that are applicable and delete those that are inapplicable.]

- ___ Additional Services to be performed by Engineer
- ___ Modifications to services of Engineer
- ___ Modifications to responsibilities of Owner
- ___ Modifications of payment to Engineer
- ___ Modifications to time(s) for rendering services
- ___ Modifications to other terms and conditions of the Agreement

Description of Modifications:

Incorporated Guam Procurement Law Clauses

Article 6.07 of the Agreement is supplemented to include the following agreement of the parties:

- B. Engineer hereby warrants that it will abide by 5 GCA Section 5630 prohibiting gratuities, kickbacks and favors in relation to the solicitation and execution of this Contract.
- C. Engineer hereby warrants that it has not retained any person or entity to solicit or secure this Contract, or paid a contingent fee, commission or brokerage fee as proscribed in 5 GCA Section 5631(a).
- D. Engineer hereby warrants that it has not knowingly influence a government employee to breach any of the ethical standards set forth in 5 GCA Chapter 5 Article 11 and in Chapter 11 of the Guam Procurement Regulations.
- E. Engineer hereby warrants that no person, providing services on behalf of the Engineer has been convicted of a sex offense under the provisions of Chapter of Title 9 GCA or any offense as defined in Article 2 of Chapter 28, Title 9 GCA; and should any person providing services on behalf of the

Engineer be convicted during the course of this Contract, such person shall be immediately removed from GWA projects and GWA will be informed of the conviction within twenty-four (24) hours.

Agreement Summary:

Original agreement amount:	\$ _____
Net change for prior amendments:	\$ _____
This amendment amount:	\$ _____
Adjusted Agreement amount:	\$ _____

Change in time for services (days or date, as applicable): _____

The foregoing Agreement Summary is for reference only and does not alter the terms of the Agreement, including those set forth in Exhibit C.

Owner and Engineer hereby agree to modify the above-referenced Agreement as set forth in this Amendment. All provisions of the Agreement not modified by this or previous Amendments remain in effect.

OWNER:

Guam Waterworks Authority

By: _____

Print

name: MIGUEL C. BORDALLO, P.E.

Title: General Manager

Date Signed: _____

ENGINEER:

AECOM Technical Services, Inc.

By: _____

Print

name: Martin Nakasone

Title: Area Manager, Hawaii-Pacific Islands

Date Signed: _____



AECOM
 414 W. Soledad Ave.
 Suite 708
 Hagåtña, GU 96910
 www.aecom.com

671-477-8326/7 tel
 671-472-8324 fax

April 29, 2022

Miguel Bordallo, P.E., General Manager
 Guam Waterworks Authority
 Engineering Division, Room 202
 Gloria B. Nelson Public Service Building
 688 Route 15, Mangilao, GU 96913

Attention: George Watson

Subject: Scope of Work and Fee Proposal for RFP-03-ENG-2020, Fujita Sewer Pump Station Redundant Force Main; GWA Project No. S20-003-EPA.

Háfa Adai,

For the services described herein, AECOM Technical Services, Inc. proposes the fee proposal noted below for Fujita Sewer Pump Station (SPS) Redundant Force Main (FM) Project to provide professional design services.

The scope of work, fee details, and schedule are included in Appendices A, B and C, respectively. The scope of work is based on refinements made during fee and scope negotiations. The fee represents the scope of work associated with improvements to the existing system along the existing Fujita SPS FM alignment. The total fee estimate is \$930,834.57 as shown in Table 1.

Table 1: Fee Summary

Task No.	Task Name	Fee
1	Project Management	\$34,898.04
2	Preliminary Design	\$420,722.05
3	Design	\$393,929.05
4	Contract Bidding Support	\$18,002.81
5	Engineering Support During Construction	\$63,282.62
	Total:	\$930,834.57

We appreciate the opportunity and look forward to working with the Guam Waterworks Authority on this very important project. If you have any questions regarding this fee proposal, please call me at (808) 529-7219 or Pete Diaz at (671) 477-8325.

Sincerely,

**Nakasone,
 Martin**

Digitally signed by Nakasone, Martin
 DN: cn=Nakasone, Martin,
 ou=USP&N.I,
 email=Martin.Nakasone@aecom.com
 Date: 2022.04.28 12:50:22 -10'00'

Martin Nakasone
 Area Manager,
 Hawaii-Pacific Islands
 martin.nakasone@aecom.com

Enclosures: Appendix A: Scope of Work
 Appendix B: Fee Detail
 Appendix C: Schedule

EXHIBIT B

Consent Decree Table A - Force Mains

1. Hagåtña Main
2. Asan
3. Bayside
4. Pago Double Shaft
5. Mamajanao
6. Barrigada
7. Mangilao
8. Piti
9. Tai Mangilao
10. Pump Station No. 17
11. Paseo De Oro
12. Dairy Road
13. Pump Station No. 16
14. Maite
15. Harmon
- 16. Fujita**
17. Route 16
18. Yigo
19. Chaligan
20. Ypao
21. Inarajan Main
22. Southern Link
23. New Chaot
24. Gaan
25. Alupang Cove

EXHIBIT C

Consent Decree

Table B - Tier 1 Sewer Pump Stations

1. Alupang Cove
2. Astumbo #1
3. Astumbo #2
4. Bayside
5. Dairy Road
6. Ejector Station No. 2
- 7. Fujita**
8. Harmon
9. Inarajan Main
10. Inarajan Lift Station
11. Machanao
12. Mongmong Toto
13. Pago Double Shaft
14. Piti
15. Pump Station No. 13
16. Pump Station No. 16
17. Pump Station No. 17
18. Pump Station No. 19
19. Pump Station No. 20
20. Route 16
21. Southern Link
22. Talofoto
23. Yigo

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

CHANGE ORDER NO. 1

Project Title: Fujita Sewage Pump Station Redundant Force Main
Project No.: S20-003-EPA RFP No. RFP-03-ENG-2020
Contractor: AECOM Technical Services, Inc. NTP Date: October 10, 2022

TO: AECOM Technical Services, Inc.

You are directed to make changes noted below in the subject contract. The changes are accepted by:

Martin Nakasone
Contractor Representative (PRINT)
Contractor Representative (SIGNATURE)
Date
PREPARED BY: George Watson
REVIEWED BY: Mauryn McDonald
RECOMMEND APPROVAL: Jeanet Owens
Digitally signed by George Watson
Digitally signed by Mauryn McDonald
Digitally signed by Jeanet Owens

NATURE OF CHANGES:

- Sewage Pump Station (SPS) Scope of Work and Additional Force Main (FM) Scope of Work
• SPS Assessment and Design Scope and Fee (Resolution Exhibit D). Fujita was identified as one of the SPS in the most critical need for rehabilitation according to the Consent Decree (CD) and all necessary improvements to it are required to be completed within two years of the approval of the CD. To get ahead, we are extending the scope to include assessment and design of the work needed to bring the Fujita SPS up to requirements stated in the CD.
• Additional FM Assessment Scope and Fee (Resolution Exhibit D). After review of the Condition Assessment Report of the existing FM completed in April 2023, it was determined there are some areas of the existing FM that need further assessment, to be completed during the construction of the new FM while the active and existing FM will be exposed.
• CCU Approved Resolution No. 04-FY2024 (Attachment 1). The work and funding of this Change Order has been approved by the CCU in the attached GWA Resolution No. 04-FY2024.

THE CHANGES RESULT IN THE FOLLOWING ADJUSTMENT OF CONTRACT PRICE:

Table with 2 columns: Description and Amount. Rows include Contract price prior to this Change Order, Net INCREASE from this Change Order, and Revised contract price after this Change Order.

THE CHANGES RESULT IN THE FOLLOWING ADJUSTMENT OF CONTRACT TIME:

Table with 3 columns: Description, Days, and Unit. Rows include Contract time prior to this Change Order, Net INCREASE from this Change Order, Revised contract time after this Change Order, and Revised Contract Expiration Date after this Change Order.

CERTIFIED FUNDS AVAILABLE:

Vendor No.: 23784
Contract No.: 3027 OS
Funding Source: USEPA SRF M96902619-1
G.L. NO.: 22003.2997.300000
Amount: \$ 670,764.72
Taling M. Taitano, CPA, CGFM
Chief Financial Officer
Date: 1/2/2024

APPROVED AS TO FORM:

Signed separate
Theresa G. Rojas
Legal Counsel, GWA
Date

APPROVED:

Miguel C. Bordallo, P.E.
General Manager, GWA
Date: 1/2/2024



Attachment 1

CONSOLIDATED COMMISSION ON UTILITIES
Guam Power Authority | Guam Waterworks Authority
P.O. Box 2977 Hagatna, Guam 96932 | (671)649-3002 | guamccu.org

GWA RESOLUTION NO. 04-FY2024

RELATIVE TO APPROVAL OF ADDITIONAL FUNDING FOR THE FUJITA SEWAGE PUMP STATION REHABILITATION AND REDUNDANT FORCE MAIN DESIGN PROJECT, GWA PROJECT NO. S20-003-EPA

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, GWA's public wastewater collection/transmission system, consisting of gravity mains, manholes, laterals, force mains (FM), sewer pump stations (SPS), and other related appurtenances, are in need of repair, rehabilitation, or replacement; and

WHEREAS, GWA has received United States Environmental Protection Agency (USEPA) grant funding for the Fujita FM design project; and

WHEREAS, the Fujita FM serves most of the Tumon Bay area and is approximately 7,100 feet long; and

WHEREAS, the FM's condition is not known and failure of the FM could lead to service disruptions which may impact the health of the community, environment, and environment, and negatively impact Guam's main tourist area; and

WHEREAS, to address this concern GWA advertised a Request For Proposals on August 25, 2020, and entered into a contract for design services for a redundant FM with AECOM Technical Services, Inc., on October 5, 2022, in the amount of Nine Hundred Thirty

1 Thousand Eight Hundred Thirty-Four Dollars and Fifty-Seven Cents (\$930,834.57), as shown in
2 Exhibit A; and

3
4 **WHEREAS**, an initial assessment of accessible sections of the FM at air relief valves
5 (ARV) identified a maximum FM wall thickness loss of eleven percent (11%) at one ARV and
6 thirty-eight (38%) at another ARV; and

7
8 **WHEREAS**, additional sub-surface investigation (requiring trenching and pot-holing) of
9 the FM in buried sections is needed to confirm its condition and design its rehabilitation or
10 replacement; and

11
12 **WHEREAS**, the impending Consent Decree with USEPA requires a Force Main
13 Condition Assessment, Force Main Action Plan and Implementation of the Force Main Action
14 Plan for the FM identified in Consent Decree Table A (see Exhibit B) to be completed within
15 nine (9) years of the Effective Date; and in which Fujita FM is listed in Table A; and

16
17 **WHEREAS**, the approval of this resolution will enable the Fujita FM project to meet
18 Consent Decree requirements and deadlines; and

19
20 **WHEREAS**, the impending Consent Decree with USEPA requires the rehabilitation of
21 the SPS listed in Consent Decree Table B, Tier 1 (see Exhibit C) within seven (7) years of the
22 Effective Date; and in which, the Fujita SPS is listed in Tier 1; and

23
24 **WHEREAS**, the approval of this resolution will enable the Fujita SPS rehabilitation to
25 be completed within (7) years; and

26
27 **WHEREAS**, USEPA has approved the inclusion of the redundant Fujita FM and SPS
28 rehabilitation in the design project, as pump station operations are essential for FM operations;
29 and

30
31 //

1 **WHEREAS**, the negotiated cost for the SPS rehabilitation assessment and design, as
2 well as subsurface investigation of buried sections of the FM, is Six Hundred Seventy Thousand
3 Seven Hundred Sixty-Four Dollars and Seventy-Two Cents (\$670,764.72), as shown in Exhibit
4 D; and

5
6 **WHEREAS**, given the seven (7) year time frame required to complete the SPS
7 rehabilitation, a Fifteen Percent (15%) contingency of Two Hundred Forty Thousand Two
8 Hundred Thirty-Nine Dollars and Eighty-Nine Cents (\$240,239.89) is requested to reduce
9 processing time for any future change orders and allow the designer to assist with the
10 specification and procurement of long-lead items prior to construction contract execution; and

11
12 **WHEREAS**, the total contract cost to include the SPS assessment and design
13 rehabilitation, and additional FM assessment, is One Million Six Hundred and One Thousand
14 Five Hundred Ninety-Nine Dollars and Twenty-Nine Cents (\$1,601,599.29), and a Fifteen
15 Percent (15%) contingency of Two Hundred Forty Thousand Two Hundred Thirty-Nine Dollars
16 and Eighty-Nine Cents (\$240,239.89) will bring the total authorized funding amount to One
17 Million Eight Hundred Forty-One Thousand Eight Hundred Thirty-Nine Dollars and Eighteen
18 Cents (\$1,841,839.18); and

19
20 **WHEREAS**, funding for this design project will be from the USEPA grants; and

21
22 **NOW BE IT THEREFORE RESOLVED**, the Consolidated Commission on Utilities
23 does hereby approve the following:

- 24 1. The recitals set forth above hereby constitute the findings of the CCU.
25 2. The CCU finds that the requested funding authorization increases to be fair,
26 reasonable, and necessary for the Fujita Redundant FM and SPS rehabilitation design
27 project.
28 3. The CCU hereby authorizes the management of GWA to execute a Change Order to
29 the contract with AECOM Technical Services, Inc., for a total contract amount of
30 One Million Six Hundred One Thousand Five Hundred Ninety-Nine Dollars and
31 Twenty-Nine Cents (\$1,601,599.29).

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4. The CCU hereby authorizes the total authorized funding to include a fifteen percent (15%) contingency, increasing the authorized funding amount to One Million Eight Hundred Forty-One Thousand Eight Hundred Thirty-Nine Dollars and Eighteen Cents (\$1,841,839.18).

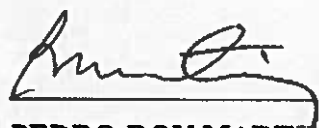
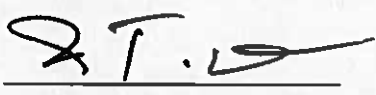
5. The CCU hereby further authorizes the use of USEPA grants as the funding source.

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

DULY AND REGULARLY ADOPTED, this 28th day of November 2023.

Certified by:

Attested by:



JOSEPH T. DUENAS
Chairperson

PEDRO ROY MARTINEZ
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:	<u>5</u>
NAYS:	<u>0</u>
ABSENT:	<u>0</u>
ABSTAIN:	<u>0</u>



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CONSOLIDATED COMMISSION ON UTILITIES
Guam Power Authority | Guam Waterworks Authority
P.O. Box 2977 Hagatna, Guam 96932 | (671)649-3002 | guamccu.org

GWA RESOLUTION NO. 04-FY2024

**RELATIVE TO APPROVAL OF ADDITIONAL FUNDING FOR THE FUJITA
SEWAGE PUMP STATION REHABILITATION AND REDUNDANT FORCE MAIN
DESIGN PROJECT, GWA PROJECT NO. S20-003-EPA**

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, GWA's public wastewater collection/transmission system, consisting of gravity mains, manholes, laterals, force mains (FM), sewer pump stations (SPS), and other related appurtenances, are in need of repair, rehabilitation, or replacement; and

WHEREAS, GWA has received United States Environmental Protection Agency (USEPA) grant funding for the Fujita FM design project; and

WHEREAS, the Fujita FM serves most of the Tumon Bay area and is approximately 7,100 feet long; and

WHEREAS, the FM's condition is not known and failure of the FM could lead to service disruptions which may impact the health of the community, environment, and environment, and negatively impact Guam's main tourist area; and

WHEREAS, to address this concern GWA advertised a Request For Proposals on August 25, 2020, and entered into a contract for design services for a redundant FM with AECOM Technical Services, Inc., on October 5, 2022, in the amount of Nine Hundred Thirty

1 Thousand Eight Hundred Thirty-Four Dollars and Fifty-Seven Cents (\$930,834.57), as shown in
2 Exhibit A; and

3
4 **WHEREAS**, an initial assessment of accessible sections of the FM at air relief valves
5 (ARV) identified a maximum FM wall thickness loss of eleven percent (11%) at one ARV and
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7
8 **WHEREAS**, additional sub-surface investigation (requiring trenching and pot-holing) of
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10 replacement; and

11
12 **WHEREAS**, the impending Consent Decree with USEPA requires a Force Main
13 Condition Assessment, Force Main Action Plan and Implementation of the Force Main Action
14 Plan for the FM identified in Consent Decree Table A (see Exhibit B) to be completed within
15 nine (9) years of the Effective Date; and in which Fujita FM is listed in Table A; and

16
17 **WHEREAS**, the approval of this resolution will enable the Fujita FM project to meet
18 Consent Decree requirements and deadlines; and

19
20 **WHEREAS**, the impending Consent Decree with USEPA requires the rehabilitation of
21 the SPS listed in Consent Decree Table B, Tier 1 (see Exhibit C) within seven (7) years of the
22 Effective Date; and in which, the Fujita SPS is listed in Tier 1; and

23
24 **WHEREAS**, the approval of this resolution will enable the Fujita SPS rehabilitation to
25 be completed within (7) years; and

26
27 **WHEREAS**, USEPA has approved the inclusion of the redundant Fujita FM and SPS
28 rehabilitation in the design project, as pump station operations are essential for FM operations;
29 and

30
31 //

1 **WHEREAS**, the negotiated cost for the SPS rehabilitation assessment and design, as
2 well as subsurface investigation of buried sections of the FM, is Six Hundred Seventy Thousand
3 Seven Hundred Sixty-Four Dollars and Seventy-Two Cents (\$670,764.72), as shown in Exhibit
4 D; and

5
6 **WHEREAS**, given the seven (7) year time frame required to complete the SPS
7 rehabilitation, a Fifteen Percent (15%) contingency of Two Hundred Forty Thousand Two
8 Hundred Thirty-Nine Dollars and Eighty-Nine Cents (\$240,239.89) is requested to reduce
9 processing time for any future change orders and allow the designer to assist with the
10 specification and procurement of long-lead items prior to construction contract execution; and

11
12 **WHEREAS**, the total contract cost to include the SPS assessment and design
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14 Five Hundred Ninety-Nine Dollars and Twenty-Nine Cents (\$1,601,599.29), and a Fifteen
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20 **WHEREAS**, funding for this design project will be from the USEPA grants; and

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

- 24 1. The recitals set forth above hereby constitute the findings of the CCU.
25 2. The CCU finds that the requested funding authorization increases to be fair,
26 reasonable, and necessary for the Fujita Redundant FM and SPS rehabilitation design
27 project.
28 3. The CCU hereby authorizes the management of GWA to execute a Change Order to
29 the contract with AECOM Technical Services, Inc., for a total contract amount of
30 One Million Six Hundred One Thousand Five Hundred Ninety-Nine Dollars and
31 Twenty-Nine Cents (\$1,601,599.29).

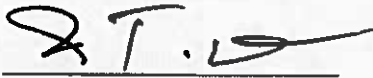
1 4. The CCU hereby authorizes the total authorized funding to include a fifteen percent
2 (15%) contingency, increasing the authorized funding amount to One Million Eight
3 Hundred Forty-One Thousand Eight Hundred Thirty-Nine Dollars and Eighteen
4 Cents (\$1,841,839.18).

5 5. The CCU hereby further authorizes the use of USEPA grants as the funding source.
6

7
8 **RESOLVED**, that the Chairman certified, and the Board Secretary attests to the adoption
9 of this Resolution.
10

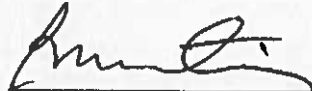
11 **DULY AND REGULARLY ADOPTED**, this 28th day of November 2023.
12

13 Certified by:

14 
15

16 **JOSEPH T. DUENAS**
17 Chairperson
18

Attested by:

19 
20

21 **PEDRO ROY MARTINEZ**
22 Secretary
23

24 //

25 //

26 //

27 //

28 //

29 //

30 //

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:	<u>5</u>
NAYS:	<u>0</u>
ABSENT:	<u>0</u>
ABSTAIN:	<u>0</u>



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///

EXHIBIT F

AECOM
 414 W. Soledad Ave.
 Suite 708
 Hagåtña, GU 96910
 www.aecom.com

671-477-8326/7 tel
 671-472-8324 fax

August 16, 2024

Miguel Bordallo, P.E., General Manager
 Guam Waterworks Authority
 Engineering Division, Room 202
 Gloria B. Nelson Public Service Building
 688 Route 15, Mangilao, GU 96913

Attention: George Watson

Subject: Change Order No. 2 (CO 2), Scope of Work and Fee Proposal for RFP-03-ENG-2020, Fujita Sewer Pump Station (SPS) Redundant Force Main; GWA Project No. S20-003-EPA.

Håfa Adai,

For the services described herein, AECOM Technical Services, Inc. proposes the fee proposal noted below for GWA-requested equipment, additional engineering services for SPS condition assessment, incorporating the former Tumon SPS for bypass pumping, and updating the project schedule.

The scope of work, fee details, and schedule are included in Appendices E.1, E.2 and E.3, respectively. The scope of work is based on refinements made during fee and scope negotiations. The fee estimate for CO 2 is \$435,432.80 as shown in **Table 1**.

Table 1: Fee Summary

Task No.	Task Name	Fee
1	Project Management	\$31,608.74
2	Preliminary Design	\$114,285.84
3	Design	\$224,995.74
4	Bid Support (T&M)	\$16,355.56
5	Engineering Support During Construction (T&M)	\$48,186.92
	Total:	\$435,432.80

We appreciate the opportunity and look forward to working with the Guam Waterworks Authority on this very important project. If you have any questions regarding this fee proposal, please call me at (808) 529-7219 or Pete Diaz at (671) 477-8325.

Sincerely,

Martin Nakasone
 Area Manager,
 Hawaii-Pacific Islands
 martin.nakasone@aecom.com

Enclosures: Appendix E.1: Scope of Work
 Appendix E.2: Fee Detail
 Appendix E.3: Schedule

APPENDIX E.1: ADDITIONAL SCOPE OF WORK

I. PROJECT OBJECTIVES

A. *The objectives of the additional scope of work (SOW) are as follows:*

1. Provide GWA-requested equipment and conduct design services for the rehabilitation of the former Tumon SPS to be used as a bypass pump station at the Fujita SPS.

II. SERVICES

A. **ADDITIONAL SCOPE OF SERVICES**

The additional services would support the preliminary design, design, contract bidding support and engineering support during construction to integrate the rehabilitation of the former Tumon SPS as a permanent bypass pump station at the Fujita SPS.

The scope of DESIGN CONSULTANT services anticipated for this modification includes, but is not limited to:

1. Project Management
2. Civil/Process Mechanical Engineering
3. Structural Engineering
4. Mechanical (HVAC, Plumbing, Fire Protection) Engineering
5. Electrical/Power Engineering
6. Instrumentation & Control Engineering
7. Supervisory Control and Data Acquisition (SCADA)
8. Tumon SPS Condition Assessment
9. Pump Station and Pumping System Evaluation, Analysis and Design
10. Hydraulic Modeling and Analysis
11. Construction Cost Estimating
12. Bidding Support
13. Engineering Support During Construction

Exclusions to the scope of services include the following:

1. Rainfall and flow monitoring
2. Manhole and pipe inspections
3. Pressure testing evaluations
4. Support studies for NEPA documentation
5. Record Drawing (As-built Preparation)
6. Confined Space Entry

B. **SCOPE OF WORK**

1. **TASK 1 – PROJECT MANAGEMENT**

This task is to be on a lump sum basis.

- a. The additional services would require coordination, subcontracting and invoicing that would fall under Task 1 in the original SOW.
- b. Furnish three (3) computer laptop to be turned over to GWA. The laptops are to meet the minimum requirements:

- i. CPU - 13th Generation Intel i7 Processor with minimum 2.3GHz speed
- ii. Screen size - minimum 14.0-inch FHD (1920x1820)
- iii. Memory/RAM - 32GB
- iv. Storage - minimum 512GB Solid State Drive (w/ option to upgrade to 1TB). 1 TB SSD is preferred.
- v. Wireless - compatible with IEEE 802.11ac
- vi. Operating System - Windows 11 Pro x64
- vii. Productivity - None
- viii. Security - TPM 2.0 chip installed
- ix. Accessories - Compatible Docking Station with 2+ Video Ports and Ethernet, USB Wired Mouse, USB Wired Keyboard
- x. External Monitors - 2 x 27inch LCD Monitors (with local support)
- xi. Internal camera, speakers, and microphone
- xii. Minimum 1-Year Local Hardware Support
- xiii. Laptops must be U.S. Trade Agreement Act (TAA) compliant. To be TAA compliant, a product or service must be made or "substantially transformed" in the U.S. or a designated country.

2. TASK 2 - PRELIMINARY DESIGN

Task 2 is to be on a lump sum basis.

a. Subtask 2.1 – Research and Field Investigation

i. Additional SPS Condition Assessment

- (1) Conduct concrete coring & video camera services at two (2) locations within the former Tumon SPS. Identify defects along the interior concrete walls in the former dry pit space the concrete walls within the existing wetwell of the former Tumon SPS by confined space entry. DESIGN CONSULTANT to coordinate with GWA Engineering and/or GWA Operations and Maintenance on access to the former Tumon SPS.
- (2) Assumptions
 - (a) Coring: Work to consist of four (4) 8-inch diameter cores at two (2) locations through approximately 10 inches of concrete. The core openings should allow access for GWA to utilize their pole camera. Debris generated by the coring work to be appropriately disposed of.
 - (b) Video camera services: For two (2) locations, to observe the condition of the concrete walls on the interior of the former dry pit and one (1) location in the former wetwell.
 - (c) Confined space entry: There will be available access to wetwell, manhole at former Tumon SPS for video camera services.
 - (d) Data Storage: Video recordings to be provided on a CD or SD card and also uploaded electronically to a file share site to be coordinated by AECOM.

- (e) GWA to provide access to power and water utilities for use during assessment.
 - (f) GWA may capture additional video and/or photo data and provide to the DESIGN CONSULTANT for review.
 - (3) Deliverables:
 - (a) Information from the additional SPS Condition assessment to be incorporated into One Draft and one Final SPS Condition Assessment Report covered in Change Order No. 1 which includes 4 hard copies and a digital copy. The collected field data and conclusions on the condition of the former Tumon SPS and recommendations for corrective action are to be incorporated into the design.
 - ii. Notwithstanding anything in this Agreement, the DESIGN CONSULTANT shall have no responsibility for the discovery, presence, handling, removal, or disposal of, or exposure of persons to hazardous materials in any form, at the former Tumon SPS.
 - b. Subtask 2.2 - Design Alternatives Report
 - i. Incorporate the rehabilitation of the former Tumon SPS into the Design Alternatives Report (DAR) for the project.
 - ii. Include additional hydraulic modeling and analysis of up to three scenarios for the former Tumon SPS.
 - c. Subtask 2.3 – Basis of Design (BOD) Report

Incorporate key information pertaining to civil, structural, electrical, and instrumentation design criteria for the modification of former Tumon SPS in the BOD for the project.
3. TASK 3 – DESIGN
- Task 3 is to be on a lump sum basis. After the final BOD Report is approved by GWA, the DESIGN CONSULTANT to perform the following tasks to achieve the Final Design documents. Incorporate the rehabilitation of the former Tumon SPS into the Design Documents (30%, 60%, 90% and final (100%) "Issued for Bid") for the project.
4. TASK 4 - CONTRACT BIDDING SUPPORT
- Task 4 is to be on a time and materials basis and includes the rehabilitation of the former Tumon SPS into the Project. The DESIGN CONSULTANT shall provide the following services:
- a. Pre-Bid Meeting agenda and sign-in sheets, coordinate and facilitate the meeting with GWA, and record meeting minutes.
 - b. Compile request for clarification, provide input and prepare addenda as needed
 - c. Attend bid evaluation conference
 - d. Review, evaluate and certify bid tabulations
 - e. Make recommendation for construction contract award.

5. TASK 5 - ENGINEERING SUPPORT DURING CONSTRUCTION

Task 5 is to be on a time and materials basis and includes the rehabilitation of the former Tumon SPS into the Project.

- a. Coordinate preparation of final (100%) "Issued for Construction" conformed plans and specifications incorporating addenda and changes during the bid phase with the CONSTRUCTION MANAGER (CM).
- b. Attend weekly progress meetings, if requested by the CM or GWA.
 - i. Five (5) progress meetings are included in this scope of work. If additional meetings are needed, a separate scope and fee is to be provided.
- c. Review contractor submittals (e.g., product data, shop drawings, design calculations, samples, test results, and other data) to be submitted by the contractor for conformance with contract documents, if requested by the CM.
 - i. Twenty (20) submittal reviews are included in this scope of work. It is assumed each submittal to have 3 review iterations. If additional submittals are needed for review, a separate scope and fee is to be provided.
- d. Evaluate substitution requests to determine acceptability of substitute materials and equipment proposed by contractor, if requested by the CM.
 - i. Five (5) substitution request reviews are included in this scope of work. It is assumed each substitution request to have 3 review iterations. If additional substitution requests are needed for review, a separate scope and fee is to be provided.
- e. Conduct site visits by qualified personnel to review if construction complies with basis of design is excluded from the scope of work and assumed to be provided by others (e.g., CM).
- f. Review requests for additional information, change orders, schedule of values, and contractor's schedule and provide responses/comments, if requested by the CM.
 - i. Fifteen (15) reviews are included in this scope of work. If additional reviews are needed, a separate scope and fee is to be provided.
- g. Operational Testing and Performance Period
 - i. DESIGN CONSULTANT to provide technical support to assist GWA during the Operational Testing and Performance period. Ten (10) requests for reviews are included in this SOW. Travel is excluded for this scope item.
 - (1) **Operational Testing.** Contractor to operate and monitor the former Tumon SPS for five (5) consecutive days. During operational testing, Contractor shall demonstrate SPS operation on automatic control without equipment or control failure and with sewage tie-in. The Pump Station mechanical equipment, electrical/control systems, and emergency power equipment shall operate without failure during the operational testing.

(2) Performance Period. For a Pump Station to be considered operational and successfully complete the performance period, all Pump Station equipment and operational systems, including all control, alarm, and SCADA systems, shall operate without failure for six (6) months and shall not result in any SSOs caused by a Pump Station failure within that time period

h. Exclusions:

- i. Perform preliminary and final inspections and submit punch list. To be provided by the CM.**
 - ii. Provide Final Record Drawings based on marked-up construction drawings. To be provided by the Contractor.**
 - iii. Archaeological services during construction are excluded from the scope of work.**
- i. GWA agrees that in accordance with generally accepted construction practices, the construction contractor should assume sole and complete responsibility for job site conditions during construction of the project, including safety of all persons and property, and that this requirement shall be made to apply continuously and not be limited to normal working hours. The DESIGN CONSULTANT shall not have control over or charge of, and shall not be responsible for, construction means, methods, techniques, sequences, or procedures, as these are solely the responsibility of the construction contractor. DESIGN CONSULTANT shall not have the authority to stop the work of the construction contractor. In no event shall DESIGN CONSULTANT be liable for the acts or omissions of any construction contractors, their subcontractors, any of their agents or employees, or any other persons or entities performing any work related to this project, or for the failure of any of them to carry out construction work under contract with GWA.**

APPENDIX E.2: FEE DETAIL

Former Tumon Pump Station Rehabilitation

Guam Waterworks Authority

Task Description	Rate (\$/HR)					Personnel Hours					Budget					Notes/Assumptions
	\$307	\$286	\$236	\$214	\$199	\$119	\$91	Total Hours	Labor	Subconsultants	Other Direct Costs	Taxes	Total			
Task 1 - Project Management (Lump Sum)																
1.1 Project Management Plan	-	-	4	4	-	-	16	24	\$ 3,256.00	\$ -	\$ 6.60	\$ 171.61	\$ 3,434.21	Update for new SOW		
1.2 Project Schedule	-	-	4	4	-	-	8	8	\$ 1,800.00	\$ -	\$ 13.20	\$ 95.37	\$ 1,908.57	Update for new SOW mechanical submittal / mechanical re-design and design for new SOW		
1.3 Progress Reports and Administration	4	-	25	25	-	-	32	86	\$ 15,390.00	\$ -	\$ 9,463.40	\$ 1,312.55	\$ 26,265.95	Include contract administration, budget tracking, invoicing, etc.		
Subtotal	4	-	33	33	-	-	48	118	\$ 20,446.00	\$ -	\$ 9,583.20	\$ 1,579.54	\$ 31,608.74			
Task 2 - Preliminary Design																
2.1 Research and Field Investigation	8	-	28	16	16	16	8	92	\$ 18,304.00	\$ 10,950.00	\$ 1,244.66	\$ 1,604.23	\$ 32,102.89	Review data applicable to SPS Rehabilitation to include Civil, Architectural, Structural, Process Mechanical, Building Mechanical, Electrical and Instrumentation		
2.1.1 Review SPS Data	2	-	8	8	8	8	-	34	\$ 6,758.00	\$ 1,000.00	\$ 194.88	\$ 415.32	\$ 8,371.20	Subconsultant: WMES for mechanical services		
2.1.2 Field Investigation	2	-	12	-	-	-	-	14	\$ 3,446.00	\$ 7,950.00	\$ 804.13	\$ 641.73	\$ 12,841.86	cleanup services for Former Tumon SPS		
2.1.3 SPS Condition Assessment	4	-	8	8	8	8	8	44	\$ 8,100.00	\$ 2,000.00	\$ 245.65	\$ 544.18	\$ 10,889.83	Structural Condition Assessment		
2.2 Design Alternatives Report	2	14	56	120	88	-	8	288	\$ 61,754.00	\$ 2,000.00	\$ 322.10	\$ 3,370.40	\$ 67,446.50	Additional modeling effort. Assumed maximum of 3 scenarios for former Tumon PS Rehab		
2.2.1 Hydraulic Modeling	-	14	48	80	80	-	-	222	\$ 48,372.00	\$ -	\$ 25.85	\$ 2,545.73	\$ 50,943.58	Include up to 3 alternatives for analysis		
2.2.2 Alternatives Analysis and Report	2	-	8	40	8	-	8	66	\$ 13,382.00	\$ 2,000.00	\$ 296.25	\$ 824.68	\$ 16,502.93	Improvements along existing FM alignment;		
2.3 Basis of Design Report	4	4	8	16	16	-	8	56	\$ 11,596.00	\$ 2,000.00	\$ 404.05	\$ 736.40	\$ 14,736.45	Includes Civil, Struc, Mechanical, Process, Elec, and I&C disciplines.		
2.3.2 Engineering Basis of Design	4	4	8	16	16	-	8	56	\$ 11,596.00	\$ 2,000.00	\$ 404.05	\$ 736.40	\$ 14,736.45	Subconsultant: WMES for mechanical services		
Subtotal	14	18	92	152	120	16	24	436	\$ 91,654.00	\$ 14,950.00	\$ 1,970.81	\$ 5,711.03	\$ 114,285.84			

APPENDIX E.2: FEE DETAIL

Former Tumon Pump Station Rehabilitation

Guam Waterworks Authority

Task Description	Rate (\$/HR)					Personnel Hours					Budget					Notes/Assumptions
	\$307	\$286	\$236	\$214	\$199	CADD Technician	Clerical	Total Hours	Labor	Subconsultants	Other Direct Costs	Taxes	Total			
Task 3 - Design (Lump Sum)																
3.3 Design																
3.3.1 30% Design	98	76	37	224	181	294	72	982	\$ 186,047.00	\$ 24,000.00	\$ 3,705.37	\$ 11,243.37	\$ 224,995.74			
3.3.1.1 Civil	28	12	14	73	58	88	24	297	\$ 55,152.00	\$ 6,500.00	\$ 701.59	\$ 3,378.80	\$ 65,633.39	Includes Civil, Arch, Struc, Mechanical, Process, Elec, and I&C disciplines		
3.3.1.2 Architectural	-	4	-	2	10	13	-	27	\$ 4,577.00	-	-	\$ 238.65	\$ 4,775.65			
3.3.1.3 Structural	-	4	-	4	14	22	-	44	\$ 7,404.00	-	-	\$ 389.45	\$ 7,793.45			
3.3.1.4 Process	2	2	-	8	2	14	-	28	\$ 4,564.00	-	-	\$ 240.07	\$ 4,804.07			
3.3.1.5 Mechanical	-	2	-	2	10	14	-	28	\$ 4,656.00	\$ 2,000.00	\$ 200.00	\$ 140.55	\$ 4,900.91	Subconsultant: WMES for mechanical services		
3.3.1.6 Electrical	10	-	-	14	-	14	-	38	\$ 7,732.00	-	-	\$ 406.70	\$ 8,138.70			
3.3.1.7 Instrumentation	4	-	-	11	-	11	-	26	\$ 4,891.00	-	-	\$ 257.27	\$ 5,148.27			
3.3.1.8 Specifications	4	-	4	16	8	-	16	48	\$ 8,644.00	\$ 1,500.00	\$ 153.30	\$ 541.64	\$ 10,838.94			
3.3.1.9 Cost Estimate	4	-	4	8	16	-	32	32	\$ 7,068.00	\$ 1,500.00	\$ 151.98	\$ 458.67	\$ 9,178.65			
3.3.1.9 QA/QC	4	2	4	8	-	-	8	26	\$ 5,184.00	\$ 1,500.00	\$ 196.31	\$ 361.90	\$ 7,242.21			
3.3.2 60% Design	28	26	8	61	54	88	16	281	\$ 53,648.00	\$ 6,500.00	\$ 786.62	\$ 3,206.16	\$ 64,139.78	Includes Civil, Struc, Process, Elec, and I&C disciplines		
3.3.2.1 Civil	-	2	-	2	10	13	-	27	\$ 4,537.00	-	-	\$ 238.65	\$ 4,775.65			
3.3.2.2 Architectural	-	4	-	4	14	22	-	44	\$ 7,404.00	-	-	\$ 389.45	\$ 7,793.45			
3.3.2.3 Structural	2	2	-	8	-	14	-	26	\$ 4,564.00	-	-	\$ 240.07	\$ 4,804.07			
3.3.2.4 Process	-	2	-	2	10	14	-	28	\$ 4,656.00	-	-	\$ 244.91	\$ 4,900.91			
3.3.2.5 Mechanical	-	-	-	-	-	-	-	-	\$ -	\$ 2,000.00	\$ 200.00	\$ 115.72	\$ 2,315.72	Subconsultant: WMES for mechanical services		
3.3.2.6 Electrical	10	-	-	14	-	14	-	38	\$ 7,732.00	-	-	\$ 406.70	\$ 8,138.70			
3.3.2.7 Instrumentation	4	-	-	11	-	11	-	26	\$ 4,891.00	-	-	\$ 257.27	\$ 5,148.27			
3.3.2.8 Specifications	4	4	4	16	8	-	16	48	\$ 8,644.00	\$ 1,500.00	\$ 216.00	\$ 428.16	\$ 8,568.16			
3.3.2.9 Cost Estimate	4	8	4	8	16	-	40	40	\$ 9,356.00	\$ 1,500.00	\$ 154.40	\$ 579.15	\$ 11,589.55			
3.3.2.10 QA/QC	4	4	4	8	8	-	16	16	\$ 4,084.00	\$ 1,500.00	\$ 216.22	\$ 305.09	\$ 6,105.31	Includes Civil, Struc, Process, Elec, and I&C disciplines		
3.3.3 90% Design	30	26	10	61	50	88	24	289	\$ 54,664.00	\$ 6,500.00	\$ 832.27	\$ 3,261.11	\$ 65,459.38	Includes Civil, Struc, Process, Elec, and I&C disciplines		
3.3.3.1 Civil	-	2	-	2	10	13	-	27	\$ 4,537.00	-	-	\$ 238.65	\$ 4,775.65			
3.3.3.2 Architectural	-	4	-	4	14	22	-	44	\$ 7,404.00	-	-	\$ 389.45	\$ 7,793.45			
3.3.3.3 Structural	2	2	-	8	-	14	-	26	\$ 4,564.00	-	-	\$ 240.07	\$ 4,804.07			
3.3.3.4 Process	-	2	-	2	10	14	-	28	\$ 4,656.00	-	-	\$ 244.91	\$ 4,900.91			
3.3.3.5 Mechanical	-	-	-	-	-	-	-	-	\$ -	\$ 2,000.00	\$ 200.00	\$ 115.72	\$ 2,315.72	Subconsultant: WMES for mechanical services		
3.3.3.6 Electrical	10	-	-	14	-	14	-	38	\$ 7,732.00	-	-	\$ 406.70	\$ 8,138.70			
3.3.3.7 Instrumentation	4	-	-	11	-	11	-	26	\$ 4,891.00	-	-	\$ 257.27	\$ 5,148.27			
3.3.3.8 Specifications	4	8	8	8	8	-	24	64	\$ 12,120.00	\$ 1,500.00	\$ 238.00	\$ 728.93	\$ 14,586.93			
3.3.3.9 Cost Estimate	2	4	2	4	8	-	20	20	\$ 4,678.00	\$ 1,500.00	\$ 154.40	\$ 333.08	\$ 6,665.48			
3.3.3.10 QA/QC	4	4	4	8	-	-	16	16	\$ 4,084.00	\$ 1,500.00	\$ 239.87	\$ 306.34	\$ 6,130.21			
3.3.4 Final Design	12	12	5	29	19	30	8	115	\$ 22,581.00	\$ 4,500.00	\$ 1,884.89	\$ 1,897.31	\$ 29,363.20	Includes Civil, Struc, Process, Elec, and I&C disciplines		
3.3.4.1 Civil	-	1	-	1	3	4	-	9	\$ 1,573.00	-	-	\$ 82.74	\$ 1,655.74			
3.3.4.2 Architectural	-	1	-	1	5	7	-	14	\$ 2,328.00	-	-	\$ 122.45	\$ 2,450.45			
3.3.4.3 Structural	1	1	-	3	-	5	-	10	\$ 1,830.00	-	-	\$ 96.26	\$ 1,926.26			
3.3.4.4 Process	-	1	-	1	3	5	-	10	\$ 1,692.00	-	-	\$ 89.00	\$ 1,781.00			
3.3.4.5 Mechanical	-	-	-	-	-	-	-	-	\$ -	\$ 1,000.00	\$ 100.00	\$ 57.86	\$ 1,157.86	Subconsultant: WMES for mechanical services		
3.3.4.6 Electrical	3	-	-	5	-	5	-	13	\$ 2,586.00	-	-	\$ 136.02	\$ 2,722.02			
3.3.4.7 Instrumentation	3	4	4	4	-	4	-	9	\$ 1,639.00	-	-	\$ 86.21	\$ 1,725.21			
3.3.4.8 Specifications	2	2	4	4	4	-	8	24	\$ 4,510.00	\$ 1,500.00	\$ 370.00	\$ 335.59	\$ 6,715.59			
3.3.4.9 Cost Estimate	1	2	1	2	4	-	10	10	\$ 2,339.00	\$ 1,000.00	\$ 107.04	\$ 181.26	\$ 3,627.30			
3.3.4.10 QA/QC	4	4	4	8	-	-	16	16	\$ 4,084.00	\$ 1,000.00	\$ 807.85	\$ 309.91	\$ 6,201.76			
Subtotal	98	76	37	224	181	294	72	982	\$ 186,047.00	\$ 24,000.00	\$ 3,705.37	\$ 11,243.37	\$ 224,995.74			

APPENDIX E.2: FEE DETAIL

Former Tumon Pump Station Rehabilitation

Guam Waterworks Authority

Task Description	Rate (\$/HR)					Personnel Hours					Budget					Notes/Assumptions		
	\$307	\$286	\$236	\$119	\$91	Principal	Engineer IV	Engineer III	Engineer II	Engineer I	CADD Technician	Clerical	Total Hours	Labor	Subconsultants		Other Direct Costs	Taxes
Task 4 - Bid Support (T&M)																		
4.1 Addenda/IFB Drawings	4	6	8	8	24	4	6	8	8	24	24	24	82	\$ 13,176.00	\$ 2,000.00	\$ 362.25	\$ 817.31	\$ 16,355.56
Subtotal	4	6	8	8	24	4	6	8	8	24	24	24	82	\$ 13,176.00	\$ 2,000.00	\$ 362.25	\$ 817.31	\$ 16,355.56
Task 5 - Engineering Support During Construction (T&M)																		
5.1 Issue for Construction Plans and Specs	4	3	2	10	8	4	3	2	10	15	4	4	45	\$ 8,079.00	\$ 2,000.00	\$ -	\$ 530.16	\$ 10,609.16
5.2 Attend CM Meetings, if requested	-	-	5	-	-	-	-	-	-	-	-	-	5	\$ 1,180.00	\$ 300.00	\$ 30.00	\$ 79.43	\$ 1,589.43
5.3 Shop Drawing/Submittal Review	8	-	-	28	4	-	-	-	4	-	-	-	40	\$ 9,244.00	\$ 2,400.00	\$ 294.45	\$ 627.96	\$ 12,566.41
5.4 Substitution Review	4	-	-	-	8	-	-	-	2	-	-	-	14	\$ 3,338.00	\$ 800.00	\$ 127.30	\$ 224.35	\$ 4,489.65
5.5 Compliance site visit, if requested	-	-	-	-	-	-	-	-	-	-	-	-	-	\$ -	\$ -	\$ -	\$ -	\$ -
5.6 RF/RFEC	6	-	-	20	4	-	-	-	4	-	-	-	30	\$ 6,918.00	\$ 1,700.00	\$ 278.90	\$ 467.98	\$ 9,364.88
Operational Testing and Performance																		
5.7 Period Support	3	-	27	-	-	-	-	-	-	-	-	-	30	\$ 7,293.00	\$ 1,600.00	\$ 196.30	\$ 478.10	\$ 9,567.40
Subtotal	25	3	34	66	18	15	4	164	36,052.00	\$ 8,800.00	\$ 926.95	\$ 2,407.97	\$ 48,186.92					
Total	145	103	204	483	327	349	172	1,762	\$ 347,375.00	\$ 48,750.00	\$ 16,548.58	\$ 21,759.23	\$ 435,432.80					

Lump Sum	\$ 370,890.32
T&M	\$ 64,542.48
Total	\$ 435,432.80

