## CONSOLIDATED COMMISSION ON UTILITIES

Guam Power Authority | Guam Waterworks Authority P.O. Box 2977 Hagatna, Guam 96932 | (671)649-3002 | guamecu.org

### **GWA RESOLUTION NO. 05-FY2022**

# RELATIVE TO APPROVAL OF CHANGE ORDER NO. 6 FOR THE NORTHERN AND SOUTHERN GUAM RESERVOIR DESIGN SERVICES

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 is currently working on critical reservoir projects under the 2011 Court Order ("CO") Paragraph 29 – Storage Tank/Reservoir Repair, Replacement, and Relocation Program; and

WHEREAS, the CCU approved Resolution No. 33-FY2020, which authorized the total funding amount to a maximum of Three Million Seven Hundred Fifty-Three Thousand Three Hundred Twenty-Seven Dollars and Twenty-Five Cents (\$3,753,327.25); and

WHEREAS, GWA issued Change Order Nos. 1 to No. 5 to TG Engineers, P.C. for additional design tasks to account for various changes to the design scope, including differing sites and site conditions (Ugum and Santa Rita Reservoirs), integration with other distribution system projects (Santa Rosa), and construction easement issues (Sinifa), bringing the contract total to Three Million Seven Hundred Fifty-Three Thousand Three Hundred Twenty-Seven Dollars and Twenty-Five Cents (\$3,753,327.25) (Exhibit A); and

WHEREAS, in the ongoing reservoir designs and the water system served by the noted reservoirs, further design services listed below were identified and requested by GWA operations to move forward with improving the functionality of the water system:

- (1) Ugum Treatment Plant and Reservoir: The site will require an equipment building to install new chlorine analyzers, TOC analyzers, and turbidity meters. The scope will include design of a new building to include new sampling compliance equipment and sampling points;
- (2) All sites (Ugum, Inarjan, Afgayan, Santa Rosa, Santa Rita, Sinifa): Continuation of progress design meetings;

WHEREAS, GWA Management is seeking One Hundred Eleven Thousand Three Hundred Thirty-Five Dollars (\$111,335.00) to fund the Change Order proposal (Exhibit B); and

WHEREAS, funding for this Change Order will be from the Bond Funds under the CIP source: PW 09-11 Water System Reservoirs 2005 Improvements; and

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

- 1. The recitals set forth above hereby constitute the findings of the CCU.
- 2. The CCU finds that the terms of the scope and fee proposal submitted by TG Engineers, P.C. are fair and reasonable (Exhibit B).
- 3. The CCU hereby authorizes One Hundred Eleven Thousand Three Hundred Thirty-Five Dollars (\$111,335.00) in additional funding to bring the total authorized funding amount to Three Million Eight Hundred Sixty-Four Thousand Six Hundred Sixty-Two Dollars and Twenty-Five Cents (\$3,864,662.25).
- 4. The CCU hereby authorizes the management of GWA the option to issue Change Order No. 6 in the not-to-exceed amount of One Hundred Eleven Thousand Three Hundred Thirty-Five Dollars (\$111,335.00).
- 5. The CCU hereby authorizes the funding source to be from bond funds under the CIP source: PW 09-11 Water System Reservoirs 2005 Improvements.

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

DULY AND REGULARLY ADOPTED, this 23rd day of November 2021.

Certified by:

Attested by:

**JOSEPH T. DUENAS** 

Chairperson

MICHAEL T. LIMTIACO

Secretary

### SECRETARY'S CERTIFICATE

I, Michael T. Limtiaco, 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: \_\_\_\_\_\_\_

NAYS: \_\_\_\_\_\_\_

ABSENT:

ABSTAIN:





### **GUAM WATERWORKS AUTHORITY**

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

### CHANGE ORDER NO. 05

Project Title:	Northern and Southern	Guam Water Reservoirs -	Design Services					
Project No.:	GWA Project No. W14	-001-BND, RFP-09-ENG-20	014,			Cor	ntract Date: _	5/23/2015
Contractor:	TG Engineers, PC				_	Notice t	to Proceed: _	5/28/2015
TO: TG Engineer	s, PC						0 -	
You are directed to m	ake changes noted below	in the subject contract. The	changes are accep	oted by:		rett	Digitally Garrett \ Date: 20	
TOR GUID	MUNDSEN		PREPARED BY:		Yec	)[]	10:17:48	+10'00'
Contractor Represent	ative (PRINT)			Garre	tt Yeoh		Date	
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re.	5	9.25.28		Br	ett	Raile	Digitally si Date: 2020 +10 <u>'00'</u>	gned by Brett Rail 0.10.16 13:54:07
Contractor Represent	ative (SIGNATURE)	Date		Brett	Railey, I	P.E.	Date	
1 /	( V			Senio	r Engine	ering Super	visor, Water (	CIP
' (			RECOMMEND		4	Lus /		l by Barbara Cruz 2 15:56:14 +10'00'
			APPROVAL:	Barba	ara Cruz	, P.E.	Date	
				Acting	Chief E	ngineer		
The changes result i		nt of contract price and ti	me: 		50 (0.55) 5	·· \$		3,624,912.25
		ct to approved terms and co	anditions)			\$		128,415.00
	including this Change Ord					s		3,753,327.25
Carrotti Continuot pinco	moraling the change on							0,700,027.20
Contract time prior to	this Change Order		VII III III III I			1317	Calendar	Days
Net INCREASE from	this Change Order (subje	ct to approved terms and co	enditions)			1092	Calendar	
Current contract time	including this Change Ord	er	*** *** *** *** *			2409	Calendar	Days
Contract Completion	Date					Frida	ay, Decembe	r 31, 2021
CERTIFIED FUNDS A	VAILABLE:							
Vendor No.: _	21926	_						
Contract No.: _	W247 / 726 OS / FY15-00	3						
Funding Source:_	Principal Victorial Association (Control of Control of							
-	PW 09-11 / Bond 2016							
-	W247.105321.320000			Ta	ling M	1 Taitand	Digita <b>ll</b> y signed l Date: 2020.12.10	oy Ta <b>l</b> ing M Taitano 13:48:09 +10'00'
Amount: _	\$ 128,415.00			Taling	Taitano	, CPA, CGF	M Date	
			it.		Financia			
	APPROVAL	///mm/						
	SIGNATURE:	Immou!	1/1 B	10.	2020			
		Miguel C. Bordallo, F.E	. Date					
		General Manager						

## TG ENGINEERS, PC

July 1, 2020

Mr. Miguel Bordallo, PE General Manager Guam Waterworks Authority Gloria B. Nelson Public Service Building, Room 202 688 Route 15 Mangilao, Guam 96913

ATTN: Mr. Brett Railey, P.E., Acting Chief Engineer

RE: PW 09-11 Northern and Southern Guam Reservoirs: GWA Project No. W14-007-BND, Change Order No. 5 – Fee Proposal

Hafa adai Brett,

TG Engineers, PC (TGE) is pleased to submit our updated Scope of Work and Fee Proposal for the reservoir project Change Order No. 5. We are submitting the proposal file in pdf format by email.

### 1.0 PROJECT DESCRIPTION

TG Engineers, PC (TGE) is under contract with the Guam Waterworks Authority (GWA) for the Design of Northern and Southern Guam Reservoirs. The work completed to date varies for each site and is listed as follows.

- Ugum Basis of Design Report
- Santa Rita Construction started
- Santa Rosa Construction started
- Sinifa Construction started
- Inarajan Reservoir Cancelled
- Agfayan Booster Pump Station New Facility, pending the site location
- Inarajan Booster Pump Station BOD complete and pending the Agrayan BOD to combine projects

We note Change Orders 1.0 - 4.0 have been processed and include the following.

- Change Order No. 1 processed for land acquisition support services. No schedule change.
- Change Order No. 2 processed for additional engineering services. Schedule extended 387-days to 4/14/2017.
- Change Order No. 3 processed for a time extension. Schedule extended 630-days to 1/04/2019.
- Change Order No. 4 processed for additional engineering services.
- Change Order No. 5 (PRV Additions, March 2019) cancelled.
- Change Order No. 5 is proposed with the Scope of Work as follows.

GWA SOW & FEE 7/1/2020

### 2.0 CONTRACT TIME EXTENSION

We propose to extend the contract 714-Calendar Days from Saturday 1/5/2019 to a new completion date of Friday 12/18/2020. It is estimated this duration will allow the completion of the Engineering Design Phase services included in the contract.

### 3.0 SCOPE OF SERVICES

The Ugum Reservoir will require a pile foundation based on the poor quality soils at the site. The scope to add the pile foundation to the design is included.

An additional 24-months of Progress Meetings are proposed for the contract extension to December 18, 2020.

See the TGE Scope of Services attached.

### 4.0 FEES

We propose to complete this work for the lump sum fee of \$128,415.00. See the TGE Fee Spreadsheets attached.

TASK	FEE	
Ugum Pile Foundations	\$48,100.00	
Progress Meetings (23-mos)	\$80,315.00	
GRAND TOTAL	\$128,415.00	

We will invoice monthly according to the percent completed.

### 5.0 SCHEDULE AND DELIVERABLES

The schedule is planned as follows.

- Ugum PS&E ready to bid by August 31, 2020
- Inarajan PS&E ready to bid by December 18, 2020
- Agfayan PS&E ready to bid by December 18, 2020

### 6.0 <u>ASSUMPTIONS</u>

- 6.1 The Scope of Work was defined through discussions in team Progress Meetings with GWA and email correspondence between Mr. Garrett Yeoh and the TGE Team in October 2019 - May 2020.
- 6.2 All other tasks remain unchanged.

(3/8)

GWA SOW & FEE 7/1/2020

We look forward to your favorable review and reaching an agreement on the Scope and Fee. Please call Shirley Itliong or myself directly at 647-0808 with any questions.

Si Yu'os Ma'ase, TG Engineers, PC

Tor Gudmundsen, PE

President

Attachments: Scope of Work Dated 7/01/20, 1-page

TGE Fee Proposal Spreadsheet Dated 7/01/20, 3-pages

MBI Fee Proposal Spreadsheet Dated 5/31/20, 1-page

(4/8)

TG Engineers, PC

# DESIGN OF NORTHERN AND SOUTHERN GUAM RESERVOIRS CHANGE ORDER NO. 5 – SCOPE OF WORK

### 1. INTRODUCTION

TG Engineers, PC (TGE) is under contract with the Guam Waterworks Authority (GWA) for the Design of Northern and Southern Guam Reservoirs.

### 2. SCOPE OF SERVICES

### 2.1 PROJECT MANAGEMENT SERVICES

The current bi-weekly meeting task was completed on January 04, 2019. We propose extending the Bi-weekly progress meetings for a 24-month time extension, ending Friday, 12/18/2020. Based on meeting records, there were 19-meetings held in 2019 and we estimate 16-meetings to complete the contract scope by December 2020.

The scope includes the following tasks.

- a. Meeting Agenda and document preparation.
- b. Meeting attendance.
- c. Writing and issuing the Meeting Minutes within 5-working days after the meeting.
- d. Completing ACTION item tasks in preparation for the next meeting.

### 2.2 UGUM RESERVOIR SITE - PILE FOUNDATION

A concrete pile foundation will be added to the foundation design for the Ugum Reservoir. The pile foundation requirement was determined when the Geotechnical Investigation was completed and poor quality soils were found at the project site. The Geotechnical borings indicated deep, soft and weak subgrade soils. The large diameter tank is also close to existing slopes.

This results in a large stress influence area together with very high lateral loads requiring the loads to be transferred below the slope plane with the use of piles.

ATTACHMENTS: None

## **Guam Waterworks Authority**

Design of Northern and Southern Guam Reservoirs

# Fee Proposal Spreadsheet CHANGE ORDER NO. 5

(5/8)

7/1/2020 Page 1 of 1

Α	UGUM RESERVOIR SITE		TOTAL
18	Engineering Services		\$ 3,700.00
	Survey Services		\$ -
	Subconsultants		\$ 44,058.00
	Direct Expenses		\$ 342.00
		TOTAL - UGUM RESERVOIR SITE	\$ 48,100.00

B EXISTING UGUM WATER PLANT SITE DRAINAGE	TOTAL
TOTAL - EXISTING UGUM WATER PLANT SITE DRAINAGE \$	- 14 N N N N N N N N N N N N N N N N N N

C SANTA ROSA 2-PZR SITES	TOTAL
TOTAL - SANTA ROSA 2-PZR SITES	

D SANTA ROSA PZR PIPELINE	TOTAL
TOTAL - SANTA ROSA PZR PIPELI	NE \$ -

E SINIFA RESERVOIR SITE	TOTAL
TOTAL - SINIFA RESER	VOIR SITE \$ -

F AGFAYAN BPS 4-ALTERNATIVE SITE REVIEW	TOTAL	
TOTAL - AGFAYAN BPS 4-ALTERNATIVE SITE REVIEW \$		-

G AGFAYAN BPS 4-ALTERNATIVE SITES ROAD	TOTAL
TOTAL - AGFAYAN BPS 4-ALTERNATIVE SITES ROAD \$	-

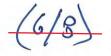
Н	PROJECT MANAGEMENT		TOTAL
	Engineering Services	\$	61,384.00
	Survey Services	\$	-
	Subconsultants	\$	18,526.00
	Direct Expenses	\$	405.00
	TOTAL -	PROJECT MANAGEMENT \$	80,315.00

TOTAL FEE - CHANGE ORDER NO. 5	\$ 128,415.00
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## **Guam Waterworks Authority**

Design of Northern and Southern Guam Reservoirs

### Fee Proposal Spreadsheet CO#5 UGUM PILE FNDN



7/1/2020 Page 1 of 1

	DESIGN TASK	Principal	Project Mgr	Sr Civil Engr II	Sr Civil Engr l	Stf Civil Engr	Jr Civil Engr	CAD	Clerical	TOTAL COST
	ENGINEERING SERVICES			ALC: NO		-1191				
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	Hourly Rat	\$175.00	\$170.00	\$165.00		\$105.00		\$105.00	\$48.00	
	Subtotal Direct Labo	r \$350.00	\$1,700.00	\$1,650.00	\$0.00	\$0.00		\$0.00	\$0.00	\$3,700.00
	DESIGN TASK	n) c	Survey			TOWN ST	Trans.			
	DEAT NOICE	PLS	Tech	Field Crew	CAD					TOTAL COST
	SURVEY SERVICES									
1.0	Site Surveys (4-New Locations)		3 44	Section Show		,		20.1	JI D'I	7 1 1 1 1 1 1
	Property Research			*						
	Control Survey									
	Boundary Survey	-			1.7					
0	Topographic Survey & Map									
	Subtotal Hour		0.0	0.0	0.0	0.0	0.0	0.0	0.0	
	Hourly Rate		\$85.00	\$140.00	\$85.00	\$0.00	\$0.00	\$0.00	\$0.00	
	Subtotal Direct Labo	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00
	SUBCONSULTANTS	PONE A								
- 10	Subconsultant	Tota			s Task	Task	Fee			
1.0	MBI Consulting (Reservoir Design/Structural/Piping/Hydraulics/Modeling)		\$38,050.00	10			\$38,050.00			
2.0	Wixon & Associates, LLC (Electrical)		\$0.00		0%		\$0.00			
3,0	Southeastern Archaeological Research, Inc. (Archaeological)		\$0.00	0			\$0.00			
4.0	Geo-Engineering & Testing, Inc. (Geotechnical)		\$0.00		%		\$0.00			
5.0	PCR Environmental, LLC (Environmental)		\$0.00		%		\$0.00			
6.0	Rider Levett Bucknall (Cost Estimating)		\$0.00	100			\$0.00			
7.0	Cornerstone Valuation Guam, Inc. (Appraisal)		\$0.00	100			\$0.00			
					consultants		\$38,050.00			
			To	GE Sub Admi			\$3,805.00			
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2.0	Reproduction  Drawings (Full Size - 24x36)  Drawings (Tabloid Size - 11x17)  Documents (Letter Size - 8.5x11)  CD  Vehicles/Fuel	20 100 Days	8	Total Pages 160 800 Subtotal - R	\$1.00 \$0.50 \$0.15 \$1.00 eproduction	\$0.00 \$80.00 \$120.00 \$0.00				
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2.0	Reproduction  Drawings (Full Size - 24x36)  Drawings (Tabloid Size - 11x17)  Documents (Letter Size - 8.5x11)  CD  Vehicles/Fuel  Survey Field Crews	20 100 Days 5	Crews 1 0	160 800 Subtotal - Re Rate \$25.00	Unit Cost \$1.00 \$0.50 \$0.15 \$1.00 eproduction Subtotal \$125.00	\$0.00 \$80.00 \$120.00 \$0.00				\$342.00

### **Guam Waterworks Authority**

Design of Northern and Southern Guam Reservoirs

## Fee Proposal Spreadsheet CO#5 PROJECT MANAGEMENT

(7/3)

7/1/2020 Page 1 of 1

	DESIGN TASK	Principal	Project Mg	Sr Civil Engr II	Sr Civil Engr I	Stf Civil Engr	Jr Civil Engr	CAD	Clerical	TOTAL CO
	ENGINEERING SERVICES									
	Project Management			O POST NO.		The state of the s		The state of the s		December 1
1.0	Prep / Attend Bi-weekly Meetings / Webex (Jan 2019 - Nov 2020 = 23-mos)								de la sar	
	Meetings (Jan - Dec) 2019 = 19	10.0	96.0	96.0			10.0	10.0	10.0	
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		\$5,500.00	Survey	S S PO S	\$0.00	\$0.00	\$1,530.00	\$1,890.00	\$864.00	\$61,384.
	DESIGN TASK	PLS	Tech	Field Crew	CAD					TOTAL CO
	SURVEY SERVICES									
1.0	Site Surveys						9.7			A SERVICE
	Property Research									
	Control Survey									
	Boundary Survey									
2.0	Topographic Survey & Map  Land Acquisition									
2.0	Subtotal H	ours 0.0	00					-		
	Hourly		\$85.00	\$140.00	\$85.00	\$0.00	0.0	0.0	0.0	
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	SUBCONSULTANTS			40.00	30.00	30.00	\$0.00	\$0.00	\$0.00	\$0.
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1.0	MBI Consulting (Reservoir Design/Structural/Piping/Hydraulics/Modeling)		\$16,000.00	10	0%		\$16,000.00		2.20	
2.0	Wixon & Associates, LLC (Electrical)		\$0.00	0	%	\$0.00				
3.0	Southeastern Archaeological Research, Inc. (Archaeological)		\$0.00	0	%		\$0.00			
4.0	Geo-Engineering & Testing, Inc. (Geotechnical)		\$0.00	0	%		\$0.00			
5.0	PCR Environmental, LLC (Environmental)		\$0.00	0	%		\$0.00			
6.0	Rider Levett Bucknall (Cost Estimating)		\$0.00	0	%		\$0.00			
7.0	Cornerstone Valuation Guam, Inc. (Appraisal)		\$0.00	0	%		\$0.00			
			S	ubtotal - Sul	bconsultants		\$16,000.00			
			т	GE Sub Adm			\$1,600.00			
TENERS.			SWINSON	G	RT (5.263%)		\$926.00			\$18,526.
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3.0	Miscellaneous	0	0	\$0.00	\$0.00					E MES
		Subtotal	- Task A Dire	ct Expenses	\$385.00					
				RT (5.263%)						

	VA - UGUM R	A CONTRACTOR OF THE PARTY OF TH	5.31.20			
PILE FOUN	NDATION DESIG	N	CHANGE ORD	ER		
Task Description	Project Mgr/Str Engineer		Structural Engineer	CAD Designer	Γ	Cost
Hourly Rate	\$ 235.00	\$	210	\$ 150		
Structural design/review/coordination	. 48		96	72	\$	42,240
Specifications	6		221	10 20 3.9	\$	1,410
Subtotal	54		96	72	\$	43,650
Deduction for continuous footing			12	8	\$	(5,600)
				Total	\$	38,050

## TG ENGINEERS, PC

March 9, 2021

Mr. Miguel Bordallo, PE General Manager Guam Waterworks Authority Gloria B. Nelson Public Service Building, Room 202 688 Route 15 Mangilao, Guam 96913

ATTN: Mr. Garrett Yeoh, Project Manager

# <u>RE: PW 09-11 Northern and Southern Guam Reservoirs: GWA Project No. W14-007-BND, Change Order No. 6 – Fee Proposal</u>

Hafa adai Garrett,

TG Engineers, PC (TGE) is pleased to submit our updated Scope of Work and Fee Proposal for the reservoir project Change Order No. 6. We are submitting the proposal file in pdf format by email.

### 1.0 PROJECT DESCRIPTION

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We note Change Orders 1.0 – 5.0 have been processed and include the following.

- Change Order No. 1 processed for land acquisition support services. No schedule change.
- Change Order No. 2 processed for additional engineering services. Schedule extended 387-days to 4/14/2017.
- Change Order No. 3 processed for a time extension. Schedule extended 630-days to 1/04/2019.
- ➤ Change Order No. 4 processed for additional engineering services.
- Change Order No. 5 processed for the Ugum Reservoir pile foundation, Bi-weekly meetings and a time extension.

### 2.0 CONTRACT TIME

Change Order No. 05 extended the Contract Completion Date to Friday, 12/31/2021.

### 3.0 SCOPE OF SERVICES

The work will be completed to provide a new Equipment Building with appurtenances at the existing Ugum Reservoir site.

An additional 12-months of Progress Meetings are proposed to the contract completion on December 31, 2021.

See the TGE Scope of Services attached.

### 4.0 <u>FEES</u>

We propose to complete this work for the lump sum fee of \$111,335.00. See the TGE Fee Spreadsheets attached.

TASK	FEE	
Equipment Building	\$58,308.00	
Progress Meetings (12-mos)	\$53,027.00	
GRAND TOTAL	\$111,335.00	No.

We will invoice monthly according to the percent completed.

### 5.0 SCHEDULE AND DELIVERABLES

The schedule is planned to complete the Ugum PS&E by June 2021 and the Agfayan and Inarajan sites by November 2021.

### 6.0 **ASSUMPTIONS**

to be updated

- 6.1 The Scope of Work was defined through site meetings with GWA Ops personnel, discussions in team Progress Meetings with GWA and email correspondence between Mr. Garrett Yeoh and the TGE Team.
- 6.2 All other tasks remain unchanged.

We look forward to your favorable review and reaching an agreement on the Scope and Fee. Please call Cathy Manglona or myself directly at 647-0808 with any questions.

Si Yu'os Ma'ase, TG Engineers, PC

Tor Gudmundsen, PE President

Attachments: Scope of Work Dated 3/09/21, 2-pages

Fee Proposal Spreadsheet Dated 3/09/21, 3-pages

Page 2 of 2

# <u>DESIGN OF NORTHERN AND SOUTHERN GUAM RESERVOIRS, PROJECT NO. 2</u> <u>CHANGE ORDER NO. 6 – SCOPE OF WORK</u>

### 1. INTRODUCTION

TG Engineers, PC (TGE) is under contract with the Guam Waterworks Authority (GWA) for the Design of Northern and Southern Guam Reservoirs.

### 2. SCOPE OF SERVICES

The Change Order (CO) No. 6 Scope of Work includes the following.

- Continuing bi-weekly Progress Meetings
- New Equipment Building at the existing Ugum Plant

See further details as follows.

#### 2.1 PROJECT MANAGEMENT SERVICES

The current bi-weekly Progress Meeting task, as included in CO No. 05, was completed on December 18, 2020 with 16-meetings scheduled in 2020. Based on the Coronavirus pandemic status, only 12-meetings were held in 2020. We propose extending the Bi-weekly progress meetings for a 12-month time extension, ending Friday, 12/17/2021, for a total of 25-meetings. We note there is a 4-meeting credit from CO No. 05 and will propose for 25 - 4 = 21 meetings.

The scope includes issuing meeting minutes with ACTION items listed within 5-working days after the meeting and work to resolve any ACTION items prior to the next meeting.

- 2.2 SANTA RITA RESERVOIR SITE No change.
- 2.3 SINIFA RESERVOIR SITE No change.
- 2.4 AGFAYAN BOOSTER PUMP STATION SITE No change.
- 2.5 INARAJAN BOOSTER PUMP STATION SITE No change.
- 2.6 UGUM RESERVOIR SITE No change.
- 2.7 UGUM EXISTING WATER TREATMENT PLANT & TANK

A new Equipment Building with an approximate floor plan area of 10' x 10' will be added to the project at the Ugum Existing Water Treatment Plant site. The building will be CMU block and a concrete roof. Doors, ventilation, power and lighting will be provided. The water piping will be extended to the building and into the interior for sampling and testing equipment. Instrumentation facilities will be provided.

The full scope will include the Plans, Specifications, Engineering Modeling / Calculations and Cost Estimates. The work will be combined with the project documents and issued with the upcoming 100% design submittal.

We anticipate a Drawing Index for revised and new drawings as follows. General

Index of Drawings

March 09, 2021 Page 1 of 2

### TG Engineers, PC

Civil
Erosion Control Plan – Revised
Demolition Plan – Revised
Site Layout & Paving Plan – Revised
Enlarged Site Plan – Revised
Utility Plan – Revised
Utility Profiles – New
Building Plans, Elevations and Sections – New
Door, Louver & Hardware Plans – New
Building Structural Details - New

### Mechanical

1400 –adding new mechanical piping to this drawing 1402 –new drawing - new building piping and elevations

### Electrical

Electrical (Power & Lighting) Building Plans - New

### Instrumentation

1400 –adding new building & conduits to this drawing

1401 - adding new i/Remote I/O enclosure (RIO) in abandoned space enclosure to this drawing

1402 - new drawing - new building instrumentation & display and elevations

1413 - new cameras added

2.8 SANTA ROSA RESERVOIR SITE - No change.

ATTACHMENTS: None

Design of Northern and Southern Guam Reservoirs

A	UGUM RESERVOIR SITE	то	TAL
	Engineering Services	\$	-
	Survey Services	\$	-
	Subconsultants	\$	-
	Direct Expenses	\$	_
		1 RESERVOIR SITE \$	

EXISTING UGUM WATER PLANT SITE DRAINAGE	TOTAL
Engineering Services	\$ 25,900.00
Survey Services	\$ -
Subconsultants	\$ 32,325.00
Direct Expenses	\$ 83.00
TOTAL - EXISTING UGUM WATER PLANT SITE DRAINAGE	\$ 58,308.00

C	SANTA ROSA 2-PZR SITES	TOTAL	
	Engineering Services	\$	-
	Survey Services	\$	-
	Subconsultants	\$	-
	Direct Expenses	\$	-
	TOTAL - SANTA ROSA 2-PZR SITES	\$	-

SANTA ROSA PZR PIPELINE	TOTAL	
Engineering Services	\$	-
Survey Services	\$	-
Subconsultants	\$	-
Engineering Services	\$	-
TOTAL - SANTA RO	SA PZR PIPELINE \$	-

E	SINIFA RESERVOIR SITE	то	TAL
	Engineering Services	\$	-
	Survey Services	\$	-
	Subconsultants	\$	-
	Direct Expenses	\$	-
	TC	OTAL - SINIFA RESERVOIR SITE \$	-

F	AGFAYAN BPS 4-ALTERNATIVE SITE REVIEW	TOTAL	
	Engineering Services	\$	-
	Survey Services	\$	-
	Subconsultants	\$	-
	Direct Expenses	\$	-
	TOTAL - AGFAYAN BPS 4-ALTERNATIVE SITE REVIEW	\$	-

G	AGFAYAN BPS 4-ALTERNATIVE SITES ROAD	TOTAL
	Engineering Services	\$ -
	Survey Services	\$ -
	Subconsultants	\$ -
	Direct Expenses	\$ -
	TOTAL - AGFAYAN BPS 4-ALTERNATIVE SITES ROAD	\$ 

Н	PROJECT MANAGEMENT		TOTAL
	Engineering Services	\$	43,360.00
	Survey Services	\$	-
	Subconsultants	\$	9,625.00
	Direct Expenses	\$	42.00
	TOTAL - PROJ	ECT MANAGEMENT \$	53,027.00
	TOTAL FEE - CHANGE ORDE	R NO. 5 \$	111,335.00

### Fee Proposal Spreadsheet

Design of Northern and Southern Guam Reservoirs

(E) UGUM WTP C.O. No. 06

3/9/2021 Page 1 of 1

	Design of Northern and Southern Guam Reservoirs (E) U	JGUM W	TP C.O. N	lo. 06					Page 1	of 1
	DESIGN TASK	Principal	Project Mgr	Sr Civil Engr II	Sr Civil Engr I	Stf Civil Engr	Jr Civil Engr	CAD	Clerical	TOTAL COST
	ENGINEERING SERVICES									CONTRACT OF
A.	Equipment Building									HENCES STORES
	1. Site Review / Concept Development			4.0	4.0	,				
	2. Site Civil Engineering (7-dwgs)		4.0		16.0	,	24.0			
	3. Building Layout & Structural (3-dwgs)		2.0	4.0	8.0	,		24.0		
	4. Plans, Specifications & Estimates		4.0	8.0	40.0			32.0	16.0	
B.	Project Management	2.0	12.0						8.0	
	Subtotal Hours	2.0	22.0	16.0	68.0	0.0	24.0	56.0	24.0	
	Hourly Rate	\$205.00	\$185.00	\$170.00	\$135.00	\$105.00	\$85.00	\$110.00	\$55.00	
	Subtotal Direct Labor	\$410.00	\$4,070.00	\$2,720.00			\$2,040.00	\$6,160.00	\$1,320.00	\$25,900.0
	DESIGN TASK	PLS	Survey Tech	Field Crew	CAD					TOTAL COS
	SURVEY SERVICES									
1.0	Site Surveys						T			
	Property Research									
	Control Survey									
	Boundary Survey									
	Topographic Survey & Map									
2.0	Land Acquisition									
	Subtotal Hours	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	
	Hourly Rate		\$85.00	\$140.00	\$85.00		\$0.00	\$0.00	\$0.00	
	Subtotal Direct Labor	\$0.00	\$0.00	\$0.00	\$0.00		\$0.00	\$0.00	\$0.00	***
	SUBCONSULTANTS	40.00	40.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00
	Subconsultant	Tota	I Fee	% This	is Task	Task	Foo			
1.0	MBI - Mechanical	1011	\$17,460.00	10		1036	\$1,746.00			
	MBI - Instrumentation		\$7,950.00	10						
2.0	Wixon & Associates, LLC (Electrical)		\$2,800.00		0%		\$795.00			
3.0	Southeastern Archaeological Research, Inc. (Archaeological)		\$0.00	09			\$280.00			
4.0	Geo-Engineering & Testing, Inc. (Geotechnical)						\$0.00			
5.0	PCR Environmental, LLC (Environmental)		\$0.00	09			\$0.00			
6.0			\$0.00	09			\$0.00			
7.0	Rider Levett Bucknall (Cost Estimating)		\$0.00	09			\$0.00			
7.0	Cornerstone Valuation Guam, Inc. (Appraisal)		\$0.00	09			\$0.00			
				ubtotal - Sub			\$28,210.00			
			T(	GE Sub Admi			\$2,821.00			
	DIDECT EXPENSES				GRT (4.17%)		\$1,294.00			\$32,325.00
1.0	DIRECT EXPENSES									
1.0	Reproduction	Sheets	Sets	Total Pages	Unit Cost	Subtotal				
	Drawings (Full Size - 24x36)				\$1.00					
	Drawings (Tabloid Size - 11x17)	5	20	100	\$0.50	\$50.00				
	Documents (Letter Size - 8.5x11)	10	20	200	\$0.15	\$30.00				
	CD				\$1.00	\$0.00				
				Subtotal - Re	eproduction	\$80.00				
2.0	Vehicles/Fuel	Days	Crews	Rate	Subtotal			-		
	Survey Field Crews	0	0	\$25.00	\$0.00					
3.0	Miscellaneous	0	0							
2.0				\$0.00	\$0.00					
		Subtotal	- Task A Direc	ct expenses	\$80.00					
_			_	RT (4.17%)	\$3.00				ll ll	\$83.00

TOTAL - EXISTING UGUM WATER PLANT SITE DRAINAGE

\$58,308.00

### Fee Proposal Spreadsheet

Design of Northern and Southern Guam Reservoirs

CO#6 PROJECT MANAGEMENT

3/9/2021 Page 1 of 1

Sr Civil Sr Civil Stf Civil Principal Project Mgr **DESIGN TASK** Jr Civil Engr CAD Clerical TOTAL COST Engr II Engr I Engr **ENGINEERING SERVICES Project Management** 1.0 Prep / Attend Bi-weekly Meetings / Webex (12-mos / 21-meetings) 10.0 84.0 84.0 42.0 42.0 60.0 Subtotal Hours 10.0 84.0 84.0 0.0 42.0 0.0 42.0 60.0 \$135.00 **Hourly Rate** \$205.00 \$185.00 \$170.00 \$105.00 \$85.00 \$110.00 \$55.00 Subtotal Direct Labor \$2,050.00 \$15,540.00 \$14,280.00 \$0.00 \$0.00 \$3,570.00 \$4,620.00 \$3,300.00 \$43,360.00 Survey **DESIGN TASK** PLS **Field Crew** CAD TOTAL COST Tech **SURVEY SERVICES** Site Surveys Property Research Control Survey Boundary Survey Topographic Survey & Map 2.0 Land Acquisition **Subtotal Hours** 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0 \$145.00 \$85.00 **Hourly Rate** \$140.00 \$85.00 \$0.00 \$0.00 \$0.00 \$0.00 **Subtotal Direct Labor** \$0.00 \$0.00 \$0.00 \$0.00 \$0.00 \$0.00 \$0.00 \$0.00 \$0.00 SUBCONSULTANTS **Total Fee** % This Task Task Fee 1.0 MBI Consulting (Reservoir Design/Structural/Piping/Hydraulics/Modeling) \$8,400.00 100% \$8,400.00 \$0.00 0% Wixon & Associates, LLC (Electrical) \$0.00 3.0 Southeastern Archaeological Research, Inc. (Archaeological) \$0.00 0% \$0.00 Geo-Engineering & Testing, Inc. (Geotechnical) 4.0 \$0.00 0% \$0.00 5.0 PCR Environmental, LLC (Environmental) \$0.00 0% \$0.00 Rider Levett Bucknall (Cost Estimating) \$0.00 6.0 0% \$0.00 Cornerstone Valuation Guam, Inc. (Appraisal) \$0.00 7.0 0% \$0.00 Subtotal - Subconsultants \$8,400.00 TGE Sub Admin Fee (10%) \$840.00 GRT (4.17%) \$385.00 \$9,625.00 **DIRECT EXPENSES** Total Pages Reproduction 1.0 Sheets Sets **Unit Cost** Subtotal Drawings (Full Size - 24x36) \$1.00 \$0.00 Drawings (Tabloid Size - 11x17) \$25.00 10 50 \$0.50 Documents (Letter Size - 8.5x11) 20 5 100 \$0.15 \$15.00 CD \$1.00 \$0.00 **Subtotal - Reproduction** \$40.00 2.0 Vehicles/Fuel Days Crews Subtotal Rate Survey Field Crews 0 \$25.00 \$0.00 3.0 Miscellaneous 0 0 \$0.00 \$0.00 Subtotal - Task A Direct Expenses \$40.00

GRT (4.17%)

\$2.00

TOTAL - PROJECT MANAGEMENT	\$53,027.00
TOTAL - PROJECT MANAGEMENT	\$55,027.00

\$42.00