

**WORK AUTHORIZATION # CM1831-WA06  
NASSAU COUNTY  
BOARD OF COUNTY COMMISSIONERS**

<b>Consultant:</b>	GAI Consultants, Inc.
<b>Contract Number:</b>	CM1831
<b>Contact Name:</b>	Samuel T. Ramirez, PE
<b>Contact Number:</b>	904-363-1110 Ext. 2006
<b>Email:</b>	S.Ramirez@gaiconsultants.com

CURRENT WORK AUTHORIZATION			
Project Short Title: CIP FY 2014-2015 Rehabilitation Projects (see projects listed below)			
		CONTRACT OVERVIEW	
<b>Date Submitted</b>	09-16-2014	<b>Total of Previous Authorizations</b>	\$101,215.00
<b>Amount</b>	\$201,580.00	<b>This Work Authorization</b>	\$201,580.00
<b>Scheduled Completion</b>	See Time Schedule	<b>Current Contract Total</b>	\$302,795.00

This Work Authorization is to the AGREEMENT between Nassau County and the Consultant known as the Continuing Contract for Professional Engineering Services for Nassau County, Florida, dated March 21, 2012. The services to be provided under this Work Authorization are as follows:

ARTICLE 1. Services Described as:

GAI shall provide design, bid and post design engineering services for various rehabilitation projects for NAU, which have been identified under NAU's Capital Improvement Program for FY 2014-2015. The following projects listed below shall be performed in accordance with the Scope of Services detailed in Exhibit "A"

- Project 1: Water Storage Tanks Rehabilitation
- Project 2: Wastewater Treatment Facility Headworks (WWTF) Rehabilitation
- Project 3: Lift Station No. 3 Replacement and capacity Upgrade
- Project 4: Wastewater Treatment Facility (WWTF) Aeration Air Piping Replacement
- Project 5: Miscellaneous Professional Services

ARTICLE 2. Time Schedule

GAI anticipates completion of each project within the specified period as follows:

- Project 1 – Water Storage Tans Rehabilitation: 3 months from Notice to Proceed
- Project 2 – WWTF Headworks Rehabilitation: 4 months from Notice to Proceed
- Project 3 – Lift Station No. 3 Replacement and Capacity Upgrade: 4 months (from NTP)
- Project 4 – WWTF Aeration Air Piping Replacement: 1 month from Notice to Proceed
- Project 5 – Miscellaneous Professional Services: 12 months from Notice to Proceed

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**WORK AUTHORIZATION # CM1831-WA06  
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ARTICLE 3. Budget

The total fee is \$201,580, broken down as follows:

- Project 1 – Water Storage Tanks Rehabilitation, \$50,818.00 (Lump Sum) Acct# 71500533-563552
- Project 2 – WWTF Headworks Rehabilitation, \$67,368.00 (Lump Sum)-71500535-563551 WWHW WTNK
- Project 3 – Lift Station No. 3 Replacement and Capacity Upgrade, \$53,806.00 (Lump Sum)-71500535-563551 WWLS
- Project 4 – WWTF Aeration Air Piping Replacement, \$19,588.00 (Lump Sum)-71500535-563551 WWPIP
- Project 5 – Miscellaneous Professional Services: \$10,000 (Limiting Amount Not-to-Exceed)-71500536-531400

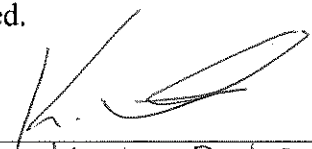
ARTICLE 4. Other Provisions

The Services covered by this Work Authorization will be performed in accordance with the provisions set forth in the AGREEMENT referenced above and any of its attachments or schedules. This Work Authorization will become a part of the referenced AGREEMENT when executed by both parties.

In presenting this Work Authorization, Consultant agrees that:

Unless detailed herein, all drawings, data, electronic files and other information required for this Work Authorization has been accepted by Consultant. Specifically, all electronic files have been reviewed and accepted for the purposes of this Work assignment. Any additional information, including detailed scope of services are attached.

AGREED TO BY:

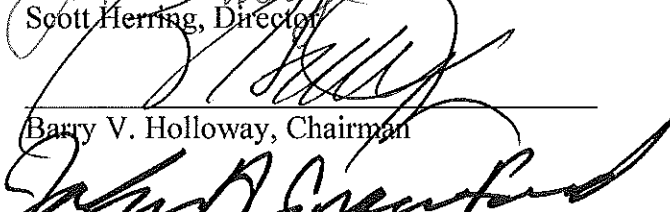
BY:   
 Print Name: Kevin R. Leadbetter  
 Title: Assistant Vice President  
 Date: 9/26/2014

**RECOMMENDED AND APPROVED BY NASSAU COUNTY:**

Public Works Director:

  
 Scott Herring, Director

Board of County Commissioner, Chair:

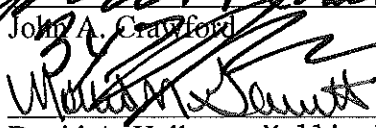
  
 Barry V. Holloway, Chairman

Ex-Officio Clerk:

  
 John A. Crawford

~~County Attorney:~~

Approved as to form only:

  
 David A. Hoffman Mollie M. Garrett, Esq.

APPROVED by the BOARD OF COUNTY COMMISSIONERS, the 15th day of October, 2014.

~~ATTESTATION: Only to Authenticity as to Chairman's Signature:~~

~~John A. Crawford, Ex-Officio Clerk~~

MES  
10-20-14

**EXHIBIT "A"**  
**SCOPE OF SERVICES**  
**WATER STORAGE TANKS REHABILITATION, WWTF HEADWORKS  
REHABILITATION, LIFT STATION NO. 3 REPLACEMENT AND WWTF  
AERATION AIR PIPING REPLACEMENT**  
**NASSAU COUNTY, FLORIDA**

**I. BACKGROUND**

NAU's Capital Improvement Program fiscal year (FY) 2014-2015 has identified the following projects:

1. Water Storage Tanks Rehabilitation
2. Wastewater Treatment Facility (WWTF) Headworks Rehabilitation
3. Lift Station No. 3 Replacement and Capacity Upgrade
4. WWTF Aeration Air Piping Replacement
5. Miscellaneous Professional Services

These projects are necessary to continue meeting NAU's level of service. The listed infrastructures have exceeded their design life cycles. Visual inspections of these infrastructures showed high level of deterioration caused by the exposure to hydrogen sulfide over the years.

In order to expedite the engineering in these critical projects, NAU will conduct the engineering under one work order; however, each project will be engineered as a standalone project. NAU will authorize each project as funds become available.

**II. SCOPE OF SERVICES**

**Project 1: Water Storage Tanks Rehabilitation (Lump Sum)**

**General Scope**

GAI Consultants, Inc. (GAI) will assist NAU in the preparation of bid documents and the bidding process. GAI will provide post design services during the rehabilitation (construction) for the following tanks:

- Water Treatment Plant (WTP) Cast-in-Place Concrete Tank, ground storage tank (GST) (600,000 gallons)
- WTP Steel Hydropneumatic tank (10,000 gallons)
- Water Booster Station Cast-in-Place Concrete Tank, GST (400,000 gallons)
- Water Booster Station Steel Hydropneumatic tank (10,000 gallons)

Project 1 will be funded as a lump sum task.

**Task 1: Data Collection and Assessment**

1. Review the inspection reports including the DVD created by Pittsburgh Tank & Tower Maintenance Co., Inc. in November 2013.
2. Conduct a workshop with NAU Engineering and Operations & Maintenance (O&M) personnel to gather and summarize their concerns on the status of the tanks and collect the historical information of previous rehabilitations.

3. Based on the reviewed reports and the conducted workshop, GAI will create a list of the items that need repairs, replacement or upgrade and submit the list to NAU for review and approval. Note this list will be used to create the necessary technical specifications needed for the project.

**Task 2: Create Bid Documents**

1. Review and edit NAU's front end documents to accommodate this project as a unit price not-to-exceed amount project.
2. Create Technical Specifications including exhibits or schedules for:
  - 1) Division 1, General Requirements – will explain the requirements on how the project will be implemented including units of measurement of payment.
  - 2) Division 2, Site Work – will explain the site conditions, site preparation and the necessary steps required for providing temporary bypassing and construction staging.
  - 3) Division 3, Concrete – will create sections explaining no more than eight types of repairs that will relate back to units of measurement of payment section.
  - 4) Division 5, Metals – will develop sections explaining no more than eight types of repairs that will relate back to units of measurement of payment section.
  - 5) Division 9, Finishes – will develop sections specifying coatings required for concrete and tanks.

**Task 3: Opinion of Probable Construction Cost (OPC)**

1. Provide an OPC. The OPC will include a unit price with an estimated quantity for each type of repairs. This OPC will also be utilized as the bid quantity table for the bid form.

**Task 4: Bidding Services**

1. Attend mandatory Pre-Bid meeting and site visit.
2. Create mandatory Pre-Bid meeting minutes.
3. Answer questions throughout the bidding period.
4. Create addenda.
5. Review bids and create an award letter recommendation.
6. Conform bid documents to contract construction documents.

**Task 5: Post Design Services**

1. Attend Pre-construction meeting.
2. Review shop-drawing submittals.
3. Structural Engineer to inspect the concrete GSTs when they are empty and provide a visual assessment to correlate with the type of expected repairs and bid quantities.
4. Answer requests for information (RFI).
5. Conduct up to 8 site visits, four hours per visit (Not-To-Exceed Amount). This activity must be authorized by NAU.
6. Review Contractor's As-Built records.

**Deliverables**

- Three (3) hard bound copies of front end documents and technical specifications.
- One PDF digital copy.

## **Project 2: WWTF Headworks Rehabilitation (Lump Sum)**

### **General Scope**

GAI will provide design, bid and post design engineering services for the addition of new headworks and the salvage of the existing bar screen for future use by NAU. NAU wants to duplicate its existing headworks on top of surge tank 2. NAU will not consider a Grit Removal System due to budgetary constraints.

Project 2 will be funded as a lump sum task.

### **Task 1: Data Collection and Based Plan**

1. Collect all the available as-built plans.
2. Create a base plan using the as-built plans.
3. Conduct a one-day survey of the facility to confirm the recorded plans. This activity will be conducted by a licensed surveyor.
4. Electrical and Instrumentation Engineer will conduct a one-day site visit to review and visually inspect electrical and instrumentation components of the existing headworks facility.
5. Structural Engineer will conduct a one-day site visit to reexamine the concrete conditions of the concrete on the surge tanks 1 and 2 for developing a repair concrete plan.

### **Task 2: 30% Submittal (Basis of Design)**

1. Prepare and submit 30% design plans and specifications. The 30% submittal will include:
  - Technical Specifications list including major mechanical equipment with three manufactures
  - Demolition Plans (Mechanical, Structural and Electrical/Instrumentation)
  - Bypass Plan
  - Site Plan
  - Mechanical Plan and Sections
2. Meet with NAU to review 30% submittal.

### **Task 3: 60% Submittal**

1. Incorporate NAU's 30% submittals comments.
2. Prepare and submit 60% plan and specifications. The 60% submittal will include:
  - Technical Specifications draft
  - Demolition Plans (Mechanical, Structural and Electrical/Instrumentation)
  - Bypass Plan
  - Site Plan
  - Mechanical Plan and Sections
  - Structural Plan and Sections
  - Electrical and Instrumentation Plans
  - Details and Standard Details
3. FDEP Permit determination meeting.
4. Meet with NAU to review 60% submittal.

**Task 4: Final (100%) Submittal**

1. Incorporate NAU's 60% submittal comments.
2. Prepare and submit final (100%) construction bid documents.
3. Meet with NAU to review submittal and incorporate NAU's 100% submittal comments.
4. Prepare Opinion of Probable Construction Cost (OPC).

**Task 5: Permitting**

1. Prepare and submit the Florida Department of Environmental Protection (FDEP) construction permit application including the design report.
2. Response to up to two requests for additional information (RAIs) from FDEP.
3. Prepare and submit the Nassau County for development review of project.
4. Response to review comments from Nassau County development review.
5. NAU will pay all permit fees.

**Task 6: Bidding Services**

1. Attend mandatory Pre-Bid meeting and site visit.
2. Create mandatory Pre-Bid meeting minutes
3. Answer questions throughout the bidding period
4. Create addenda
5. Review bids and create an award letter recommendation
6. Conform bid documents to contract construction documents

**Task 5: Post Design Services**

1. Attend Pre-construction meeting
2. Review shop-drawing submittals
3. Structural Engineer to inspect the concrete surge tank when it is empty and provide a visual assessment to correlate with the type of expected repairs and bid quantities
4. Answer requests for information (RFIs)
5. Conduct up to 8 site visits, four hours per visit (Not-To-Exceed Amount). This activity must be authorized by NAU
6. Review Contractor's As-Built records
7. Review Operation and Maintenance (O&M) Manual

**Deliverables will be:**

- Three (3) copies of drawings (11x17) and specifications for 30%, 60%, and 100% (final) submittal
- One hard copy of drawing (22x34) for final submittal
- One PDF digital copy of the final submittal

## **Project 3: Lift Station No. 3 Replacement and Capacity Upgrade (Lump Sum)**

### **General Scope**

GAI will provide design, bid and post design engineering services for Lift Station No. 3 (LS#3) Replacement and Capacity Upgrade. GAI will study the sewer watershed to define the new design peak hourly flow and average daily flow to LS#3. GAI will evaluate and design the manifold of Lift Station No. 7 to the forcemain connection with LS#3 to Lift Stations 1, 2 and 4.

Project 3 will be funded as a lump sum task.

### **Task 1: Data Collection and Review**

1. Collect the pump performance curves for each lift station listed above. Obtain motor horsepower and efficiency at each lift station.
2. Collect recorded plans for the existing lift station and its respective sewer shed system map
3. Collect from the County the latest tax parcel map and the latest approved pipeline developments for each respective sewer shed

### **Task 2: Estimate of Flow and Pump Selection**

1. With the data collected above and through hand calculations, define the new design peak hourly flow and average daily flow to LS#3
2. Create total dynamic head system curve for each of the above listed lift stations and plotted against its respective the pump performance curve. See how increasing capacity at LS#3 and manifold of LS#7 impacts the performances of the above listed lift stations.
3. Present the finding in a brief technical memorandum (TM) and make recommendations on the infrastructure upgrades required to accommodate LS#3 capacity increase and LS#7 manifold.
4. NAU will review and approve TM. The TM will provide the designed pumps at LS#3.

### **Task 3: Topographic Survey**

1. GAI will complete the topographic and limited property boundary survey necessary to prepare survey base mapping for the lift station site.
2. GAI will survey and map all site improvements in the vicinity of the existing pump stations with sufficient coverage to include proposed site improvements.
3. All evident planimetric and topographic features will be surveyed and mapped.
4. The contour interval will be 1 foot on NAD83 horizontal datum and NAVD 88 vertical datum.
5. Underground utilities will be shown to the extent possible based on surface evidence, maps of record and vertical surveying of under stormwater and sanitary sewer system.
6. Property lines and roadway rights of way will be shown based on tax current mapping, property line evidence and maps of record. Mapping will be provided at an appropriate scale for design and will be completed in AutoCAD Civil 3D.

### **Task 4: 30% Submittal (Basis of Design)**

1. Prepare and submit 30% design plans and specification. The 30% submittal will include:
  - Technical Specifications list including major mechanical equipment with three manufactures
  - Demolition Plans (Mechanical, Structural and Electrical/Instrumentation)
  - Bypass Plan



- Site Plan
  - Mechanical Plan and Sections
2. Meet with NAU to review 30% submittal

**Task 5: Geotechnical Exploration (Exhibit C)**

1. After defining location and depth of the wetwell, GAI will authorize the geotechnical sub-consultant, Universal Engineering Sciences, Inc. (Universal), to conduct a soil boring at 50 feet deep
2. Universal will prepare and submit a geotechnical report with foundation recommendations for the wet well

**Task 6: 60% Submittal**

1. Incorporate NAU's 30% submittals comments
2. Prepare and submit 60% plan and specifications. The 60% submittal will include:
  - Technical Specifications draft
  - Demolition Plans (Mechanical, Structural and Electrical/Instrumentation)
  - Bypass Plan
  - Site Plan
  - Mechanical Plan and Sections
  - Structural Plan and Sections
  - Electrical and Instrumentation Plans
  - Details and Standard Details
3. FDEP Permit determination meeting
4. Meet with NAU to review 60% submittal

**Task 7: Final (100%) Submittal**

1. Incorporate NAU's 60% submittal comments
2. Prepare and submit final (100%) construction bid documents
3. Meet with NAU to review submittal and incorporate NAU's 100% submittal comments
4. Prepare Opinion of Probable Construction Cost (OPC)

**Task 8: Permitting**

1. Prepare and submit the Florida Department of Environmental Protection (FDEP) construction permit application including the design report.
2. Response to up to two requests for additional information (RAIs) from FDEP
3. Prepare and submit the Nassau County for development review of project.
4. Response to review comments from Nassau County development review
5. NAU pays all permit fees

**Task 9: Bidding Services**

1. Attend mandatory Pre-Bid meeting and site visit.
2. Create mandatory Pre-Bid meeting minutes

3. Answer questions throughout the bidding period
4. Create addenda
5. Review bids and create an award letter recommendation
6. Conform bid documents to contract construction documents

**Task 10: Post Design Services**

1. Attend Pre-construction meeting
2. Review shop-drawing submittals
3. Answer requests for information (RFIs)
4. Conduct up to three (3) site visits, four hours per visit (Not-To-Exceed Amount). This activity must be authorized by NAU
5. Review Contractor's As-Built records
6. Review Operation and Maintenance (O&M) Manual

**Assumptions and exclusions:**

- Environmental Resource Permitting (FDEP/St. Johns River Water Management District), Submerged Land Lease, and Wetland Permitting will not be required. It is assumed that FDEP wastewater collection permit (F.A.C. 62-604.300(8)(a)) are the only permit required with the exception of building permits.
- Subsurface Underground Engineering (SUE) is unaccounted in this scope.
- The provided fee assumes a precast base foundation structural design. If the Geotechnical Exploration indicates that other type of foundation is required, the structural design fee will need to be adjusted accordingly.

**Deliverables will be:**

- Three (3) hard copies and one PDF of the TM
- Three (3) copies of drawings (11x17) and specifications for 30%, 60%, and 100% (final) submittal
- One hard copy of drawing (22x34) for final submittal
- One PDF digital copy of the final submittal

**Project 4: WWTF Aeration Air Piping Replacement (Lump Sum)****General Scope:**

GAI will assist NAU in the preparation of bid documents and the bidding process for the replacement of aeration air piping from the blower room to the aeration basins.

Project 4 will be funded as a lump sum task.

**Task 1: Data Collection**

1. Collect and review existing as-built drawings and specifications of the piping
2. Create a rough sketch to depict pipe lengths, fittings and valves
3. Visit the site, confirm pipe lengths and confirm locations of fittings and valves.

**Task 2: Create Bid Documents**

1. Review and edit NAU's front end documents to accommodate this project as a unit price not-to-exceed amount project.

2. Create Technical Specifications including exhibits or schedules for
  - Division 1, General Requirements – will explain the requirements on how the project will be implemented including units of measurement of payment.
  - Division 2, Site Work – will explain the site conditions, site preparation and the necessary steps required for providing temporary bypassing and construction staging.
  - Division 9, Finishes – will prepare sections specifying coatings required for air pipe.
  - Division 15, Mechanical- will prepare sections specifying steel pipe and appurtenances like pipe supports, insulators, and others.
3. Prepare and submit to the FDEP an application for a minor modification to the treatment plant's domestic wastewater operating permit. Respond to one RAI.

**Task 3: Bidding Services**

1. Attend mandatory Pre-Bid meeting and site visit.
2. Create mandatory Pre-Bid meeting minutes
3. Answer questions throughout the bidding period
4. Create addenda
5. Review bids and create an award letter recommendation
6. Conform bid documents to contract construction documents

**Task 4: Construction Service**

1. Attend Pre-construction meeting
2. Review shop-drawing submittals
3. Conduct one 4 hours site visit.
4. Assist with start-up of the temporary bypass piping system
5. Attend substantial (1) completion walk-through and prepare punch list.
6. Attend final (1) completion walk-through.
7. Assist with contract close-out activities including coordinating release of liens, warranties, and the final change order.
8. Review as-built drawings provided by the Contractor, and collect pertinent test reports, O&M manuals, spare parts, equipment training attendance sheets, and other construction data and furnish to NAU.

**Project 5: Miscellaneous Professional Services (Limited Amount Not-to-Exceed)****General Scope**

NAU may require services from GAI in conceptualizing projects, reviewing bid documents, or providing opinions in a particular project.

Each task will be funded as a Limiting Amount Not-to-Exceed.

**Task 1: Miscellaneous Services**

1. GAI will provide miscellaneous professional services to NAU at their request. NAU will define the activity and the respective budget. GAI will not charge any fee unless has verbal or written approval from NAU.

### **III. PROJECT SCHEDULE**

From the date of the Notice-to-Proceed provided for each project, GAI anticipates completion of each project within the specified period as follows:

1. Water Storage Tanks Rehabilitation: 3 months
2. Wastewater Treatment Facility (WWTF) Headworks Rehabilitation: 4 months
3. Lift Station No. 3 Replacement and Capacity Upgrade: 4 months
4. WWTF Aeration Air Piping Replacement: 1 months
5. Miscellaneous Professional Services: 12 months

### **IV. FEE**

The total fee is \$201,580, broken down as follows:

1. Water Storage Tanks Rehabilitation, \$50,818.00 (Lump Sum)
2. Wastewater Treatment Facility (WWTF) Headworks Rehabilitation, 67,368.00 (Lump Sum)
3. Lift Station No. 3 Replacement and Capacity Upgrade, 53,806.00 (Lump Sum)
4. WWTF Aeration Air Piping Replacement, 19,580.00 (Lump Sum)
5. Miscellaneous Professional Services, 10,000 (Limiting Amount Not-to-Exceed). Fees will utilize 2012 Loaded Rates Miscellaneous Engineering Services for NAU, Bid No. NC11-06.

Fees do not include permitting or related fees.

EXHIBIT B - BUDGET								
WATER STORAGE TANKS REHABILITATION, WWTF HEADWORKS REHABILITATION, LIFT STATION NO. 3 REPLACEMENT, WWTF AERATION AIR PIPING REPLACEMENT AND MISCELLANEOUS	POSITION	Engineering Manager	Lead Engineer	Designer	2-person Survey Crew/hour	Expenses	HOURS/TASK	TOTAL FEE/TASK
	RATE	\$ 161.69	\$ 135.04	\$ 86.40	\$ 130.36	\$		
<b>Project 1: Water Storage Tanks Rehabilitation</b>								
1 Data Collection and Assessment		10	27			185.25	37	\$ 5,450.98
2 Create Bid Documents		39	109	18		831.00	166	\$ 23,449.14
3 Opinion of Probable Construction Cost		2	8			50.00	10	\$ 1,453.70
4 Bidding Services		6	44	4		270.00	54	\$ 7,527.50
5 Post Design Services		12	40			260.00	52	\$ 7,601.88
5.5 8 Site Visits (Not-To-Exceed Amount)		32				160.00	32	\$ 5,334.08
PROJECT 1 LABOR FEE	\$ 50,817.28	\$ 16,371.11	\$ 30,789.12	\$ 1,900.80	\$ -	\$ 1,756.25		\$ 50,817.28
PROJECT 1 HOURS	351	101	228	22	0	-	351	
PROJECT 1 LUMP SUM								\$ 50,818.00
<b>Project 2: WWTF Headworks Rehabilitation</b>								
1 Data Collection and Based Plan		5	20	14		196.63	39	\$ 4,943.24
2 30% Submittal (Basis of Design)		10	40	29		393.25	79	\$ 9,886.48
3 60% Submittal		15	59	43		589.88	118	\$ 14,829.71
4 Final (100%) Submittal		21	79	58		786.50	157	\$ 19,772.95
5 Permitting		2	16	4		110.00	22	\$ 2,939.62
6 Bidding Services		6	28	4		190.00	38	\$ 5,286.86
7 Post Design Services		12	36			240.00	48	\$ 7,041.72
7.5 4 Site Visits (Not-To-Exceed Amount)		16				80.00	16	\$ 2,667.04
PROJECT 2 LABOR FEE	\$ 67,367.62	\$ 14,107.45	\$ 37,541.12	\$ 13,132.80	\$ -	\$ 2,586.25		\$ 67,367.62
PROJECT 2 HOURS	517	87	278	152	0	-	517	
PROJECT 2 LUMP SUM								\$ 67,368.00
<b>Project 3: Lift Station No. 3 Replacement and Capacity Upgrade</b>								
1 Data Collection and Review		3	14	12		140.88	28	\$ 3,445.63
2 Estimate of Flow and Pump Selection		3	14	12		140.88	28	\$ 3,445.63
3 Topographic Survey					16	80.00	16	\$ 2,165.76
4 30% Submittal (Basis of Design)		6	27	24		281.75	56	\$ 6,891.26
5 Geotechnical Exploration (Subconsultant: Universal)						2,030.00		\$ 2,030.00
6 60% Submittal		11	54	47		563.50	113	\$ 13,782.52
7 Final (100%) Submittal		6	27	24		281.75	56	\$ 6,891.26
8 Permitting		4	14	1		95.00	19	\$ 2,718.72
9 Bidding Services		6	28	4		190.00	38	\$ 5,286.86
10 Post Design Services		4	32			180.00	36	\$ 5,148.04
10.4 3 Site Visits (Not-To-Exceed Amount)		12				60.00	12	\$ 2,000.28
PROJECT 3 LABOR FEE	\$ 53,805.95	\$ 8,690.84	\$ 28,358.40	\$ 10,627.20	\$ 2,085.76	\$ 4,043.75		\$ 53,805.95
PROJECT 3 HOURS	403	54	210	123	16	-	403	
PROJECT 3 LUMP SUM								\$ 53,806.00

EXHIBIT B - BUDGET								
WATER STORAGE TANKS REHABILITATION, WWTF HEADWORKS REHABILITATION, LIFT STATION NO. 3 REPLACEMENT, WWTF AERATION AIR PIPING REPLACEMENT AND MISCELLANEOUS	POSITION	Engineering Manager	Lead Engineer	Designer	2-person Survey Crew/hour	Expenses	HOURS/TASK	TOTAL FEE/TASK
	RATE	\$ 161.69	\$ 135.04	\$ 86.40	\$ 130.36	\$		
<b>Project 4: WWTF Aeration Air Piping Replacement</b>								
1 Data Collection		2	9	2		63.00	13	\$ 1,745.31
2 Create Bid Documents		9	35	6		252.00	50	\$ 6,981.24
3 Bid Services		6	24	4		170.00	34	\$ 4,726.70
4 Construction Services		20	20			200.00	40	\$ 6,134.60
PROJECT 4 LABOR FEE	\$ 19,587.85	\$ 5,982.53	\$ 11,883.52	\$ 1,036.80	\$ -	\$ 685.00		\$ 19,587.85
PROJECT 4 HOURS	137	37	88	12	0	-	137	
<b>PROJECT 4 LUMP SUM</b>								<b>\$ 19,588.00</b>
<b>Project 5: Miscellaneous Professional Services</b>								
1 Miscellaneous Professional Services		33	35				68	\$ 10,062.17
TASK 5 LABOR FEE	\$ 10,062.17	\$ 5,335.77	\$ 4,726.40	\$ -	\$ -	\$ -		\$ 10,062.17
TASK 5 HOURS	68	33	35	0	0	-	68	
<b>TASK 5 LIMITED AMOUNT NOT-TO-EXCEED</b>								<b>\$ 10,000.00</b>
TOTAL PROJECT LABOR FEE	\$ 201,640.87	\$ 50,487.70	\$ 113,298.56	\$ 26,697.60	\$ 2,085.76	\$ 9,071.25		\$ 201,640.87
TOTAL PROJECT HOURS	1,408	279	804	309	16	-	1,408	
<b>TOTAL PROJECT LUMP SUM</b>								<b>\$ 201,580.00</b>



# UNIVERSAL ENGINEERING SCIENCES

Consultants In: Geotechnical Engineering • Environmental Engineering • Construction Materials Testing •  
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• Rockledge, FL  
• Sarasota, FL  
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• West Palm Beach, FL

Exhibit C

August 13, 2014

GAI Consultants  
1301 Riverplace Boulevard - Suite 900  
Jacksonville, Florida 32207

Attention: Mr. Samuel Ramirez, P.E.

Subject: **PROPOSAL FOR A GEOTECHNICAL EXPLORATION**  
NAU Pump Station #3  
Amelia Island, Florida  
UES Proposal No. 2014J-473

Dear Mr. Ramirez:

As requested, Universal Engineering Sciences (UES) is pleased to provide this proposal to perform the geotechnical exploration and engineering services for the subject site.

### PROJECT INFORMATION

Project information was provided to us in a recent conversation with you. We have been provided with an aerial map of the subject site, which shows the adjacent roadways, property boundary limits, and the proposed pump station location.

We understand that the proposed project will consist of a pump station with a diameter of eight to ten feet. The bottom of the pump station will be approximately eighteen to twenty feet below the existing grade.

### PROPOSED GEOTECHNICAL EXPLORATION

The objective of the geotechnical exploration is to provide sufficient site and subsurface information to evaluate the subsurface conditions at the site with respect to the proposed construction.

**Field Exploration** – Based on our understanding of the project information, as requested, we propose to perform one (1) Standard Penetration Test (SPT) boring to a depth of 30 feet. We will include a contingency fee to extend the boring to a depth of 60 feet if necessary. The borings will be sampled continuously in the upper 10 feet followed by sampling at 5-foot centers to the boring termination depths.

**Laboratory Testing** – Laboratory classification and index property tests will be performed as necessary on selected soil samples obtained from the exploration. The testing will be performed to better define the materials encountered in the exploration to determine their strength/compressibility characteristics.

**Engineering Services** - A geotechnical engineer, registered in the State of Florida, will direct the geotechnical exploration and provide an engineering analysis and evaluation of the site and subsurface conditions with respect to the planned construction and imposed loading conditions. The results of the recommended exploration and engineering study will be presented in a report containing the following:

1. A brief discussion of our understanding of the planned construction and imposed loads.
2. A presentation of the field and laboratory test procedures used and the data obtained.
3. A presentation of the existing on-site conditions, such as topography, surface vegetation, etc.
4. A presentation of the subsurface conditions including subsurface profiles, estimated seasonal high groundwater, and estimated geotechnical engineering properties (as necessary).
5. A geotechnical engineering evaluation of the site and subsurface conditions with respect to the planned pump station construction
6. Recommendations for foundation design parameters.
7. Recommendations for site preparation and earthwork construction

### **COMPENSATION FOR SERVICES**

Based on the scope of the geotechnical exploration, the proposed laboratory investigation, and the engineering services outlined above, we propose to complete the geotechnical exploration and engineering services for a **lump sum fee of \$1,730.00**. We propose a **contingency fee of an additional \$300.00** to extend the boring to a depth of 60 feet if subsurface conditions warrant. We will contact you immediately if we encounter subsurface conditions which could require (1) the borings to be performed to a deeper depth, (2) additional borings or other field testing, and/or (3) additional engineering analysis/evaluation and studies outside the scope of this proposal.

UES will contact Sunshine State One Call of Florida to identify public utilities within the area and up to the appropriate meters. Furthermore, UES should be provided with all readily available project site information regarding underground utility or service lines, and buried structures. Our office can not be held responsible for damage to buried service lines and/or structures that are not identified to our field personnel.





### SCHEDULING AND AUTHORIZATION

We can initiate the geotechnical studies within 5 to 7 days of receiving written notification to proceed with the field work to be completed in one day subsequent to all necessary utility locates being cleared. As soon as all field and laboratory tests have been completed and reviewed by the geotechnical engineer, verbal results and recommendations can be provided. The written reports should then be available within three weeks after authorization to proceed.

We have included a short form authorization agreement. In order to authorize these services, please execute this document and return one copy to our office.

We appreciate this opportunity to provide this proposal to perform the geotechnical exploration for this project. If you have any questions concerning this proposal or if we can serve you in any other way, please contact us.

Respectfully submitted,

**UNIVERSAL ENGINEERING SCIENCES, INC.**



Stephen R. Weaver, P.E.  
Geotechnical Services Manager

SRW/srw



UNIVERSAL ENGINEERING SCIENCES

WORK AUTHORIZATION / PROPOSAL ACCEPTANCE FORM

Universal Engineering Sciences, Inc. (UES) is pleased to provide the services described below. The purpose of this document is to describe the terms under which the services will be provided and to obtain authorization.

PROJECT NAME: NAU Pump Station #3
PROJECT LOCATION: Amelia Island, Florida
CLIENT NAME: GAI Consultants DATE: August 13, 2014
CLIENT ADDRESS: 1301 Riverplace Boulevard - Suite 900 PHONE NO.: 904-363-1110
Jacksonville, Florida 32207 EMAIL: s.ramirez@gaiconsultants.com

I. Scope of Services and Understanding of Project

As Shown in UES Proposal No. 2014J-473 (Attached)

Lump Sum Fee - \$1,730.00
Contingency Fee - \$300.00

II. Contract Documents. The following documents form part of this Agreement and are incorporated herein by referral:

- A. UES General Conditions
B. UES Proposal Dated: August 13, 2014
Plans, reports, specifications and other documents provided by the Client prior to this Agreement date.
C. Other exhibits marked and described as follows:

In the event of any inconsistency or conflict among the Contract Documents, the provision in the Contract Document first listed above shall govern.

III. Authority to proceed and for payment. (To be completed by Client)

If the above invoice is to be mailed for approval to someone other than the account charged, please indicate where below:

Firm: Social Security No. or Federal Identification No.:
Address:
Attention: Title:

IN WITNESS WHEREOF, the parties have caused this agreement to be executed by their duly authorized representatives

CLIENT UNIVERSAL ENGINEERING SCIENCES, INC.
BY (Signature) BY (Signature)
PRINTED NAME Stephen R. Weaver, P.E.
TITLE Geotechnical Services Manager
DATE August 13, 2014

RETURN EXECUTED COPIES TO
UNIVERSAL ENGINEERING SCIENCES, INC.
5561 FLORIDA MINING BOULEVARD SOUTH, JACKSONVILLE, FLORIDA 32257-3648
TELEPHONE: 904.296.0757 / FAX: 904.296.0748



*Universal Engineering Sciences, Inc.*  
GENERAL CONDITIONS

**SECTION 1: RESPONSIBILITIES**

- 1.1 *Universal Engineering Sciences, Inc.*, ("UES"), has the responsibility for providing the services described under the Scope of Services section. The work is to be performed according to accepted standards of care and is to be completed in a timely manner. The term "UES" as used herein includes all of *Universal Engineering Sciences, Inc.*'s agents, employees, professional staff, and subcontractors.
- 1.2 The Client or a duly authorized representative is responsible for providing UES with a clear understanding of the project nature and scope. The Client shall supply UES with sufficient and adequate information, including, but not limited to, maps, site plans, reports, surveys and designs, to allow UES to properly complete the specified services. The Client shall also communicate changes in the nature and scope of the project as soon as possible during performance of the work so that the changes can be incorporated into the work product.
- 1.3 The Client acknowledges that UES's responsibilities in providing the services described under the Scope of Services section is limited to those services described therein, and the Client hereby assumes any collateral or affiliated duties necessitated by or for those services. Such duties may include, but are not limited to, reporting requirements imposed by any third party such as federal, state, or local entities, the provision of any required notices to any third party, or the securing of necessary permits or permissions from any third parties required for UES's provision of the services so described, unless otherwise agreed upon by both parties.
- 1.4 **PURSUANT TO FLORIDA STATUTES §558.0035, ANY INDIVIDUAL EMPLOYEE OR AGENT OF UES MAY NOT BE HELD INDIVIDUALLY LIABLE FOR NEGLIGENCE.**

**SECTION 2: STANDARD OF CARE**

- 2.1 Services performed by UES under this Agreement will be conducted in a manner consistent with the level of care and skill ordinarily exercised by members of UES's profession practicing contemporaneously under similar conditions in the locality of the project. No other warranty, express or implied, is made.
- 2.2 The Client recognizes that subsurface conditions may vary from those observed at locations where borings, surveys, or other explorations are made, and that site conditions may change with time. Data, interpretations, and recommendations by UES will be based solely on information available to UES at the time of service. UES is responsible for those data, interpretations, and recommendations, but will not be responsible for other parties' interpretations or use of the information developed.
- 2.3 Execution of this document by UES is not a representation that UES has visited the site, become generally familiar with local conditions under which the services are to be performed, or correlated personal observations with the requirements of the Scope of Services. It is the Client's responsibility to provide UES with all information necessary for UES to provide the services described under the Scope of Services, and the Client assumes all liability for information not provided to UES that may affect the quality or sufficiency of the services so described.
- 2.4 Should UES be retained to provide threshold inspection services under Florida Statutes §553.79, Client acknowledges that UES's services thereunder do not constitute a guarantee that the construction in question has been properly designed or constructed, and UES's services do not replace any of the obligations or liabilities associated with any architect, contractor, or structural engineer. Therefore it is explicitly agreed that the Client will not hold UES responsible for the proper performance of service by any architect, contractor, structural engineer or any other entity associated with the project.

**SECTION 3: SITE ACCESS AND SITE CONDITIONS**

- 3.1 Client will grant or obtain free access to the site for all equipment and personnel necessary for UES to perform the work set forth in this Agreement. The Client will notify any and all possessors of the project site that Client has granted UES free access to the site. UES will take reasonable precautions to minimize damage to the site, but it is understood by Client that, in the normal course of work, some damage may occur, and the correction of such damage is not part of this Agreement unless so specified in the Proposal.
- 3.2 The Client is responsible for the accuracy of locations for all subterranean structures and utilities. UES will take reasonable precautions to avoid known subterranean structures, and the Client waives any claim against UES, and agrees to defend, indemnify, and hold UES harmless from any claim or liability for injury or loss, including costs of defense, arising from damage done to subterranean structures and utilities not identified or accurately located. In addition, Client agrees to compensate UES for any time spent or expenses incurred by UES in defense of any such claim with compensation to be based upon UES's prevailing fee schedule and expense reimbursement policy.

**SECTION 4: SAMPLE OWNERSHIP AND DISPOSAL**

- 4.1 Soil or water samples obtained from the project during performance of the work shall remain the property of the Client.
- 4.2 UES will dispose of or return to Client all remaining soils and rock samples 60 days after submission of report covering those samples. Further storage or transfer of samples can be made at Client's expense upon Client's prior written request.
- 4.3 Samples which are contaminated by petroleum products or other chemical waste will be returned to Client for treatment or disposal, consistent with all appropriate federal, state, or local regulations.

**SECTION 5: BILLING AND PAYMENT**

- 5.1 UES will submit invoices to Client monthly or upon completion of services. Invoices will show charges for different personnel and expense classifications.
- 5.2 Payment is due 30 days after presentation of invoice and is past due 31 days from invoice date. Client agrees to pay a finance charge of one and one-half percent (1 ½ %) per month, or the maximum rate allowed by law, on past due accounts.
- 5.3 If UES incurs any expenses to collect overdue billings on invoices, the sums paid by UES for reasonable attorneys' fees, court costs, UES's time, UES's expenses, and interest will be due and owing by the Client.

**SECTION 6: OWNERSHIP AND USE OF DOCUMENTS**

- 6.1 All reports, boring logs, field data, field notes, laboratory test data, calculations, estimates, and other documents prepared by UES, as instruments of service, shall remain the property of UES.
- 6.2 Client agrees that all reports and other work furnished to the Client or his agents, which are not paid for, will be returned upon demand and will not be used by the Client for any purpose.
- 6.3 UES will retain all pertinent records relating to the services performed for a period of five years following submission of the report, during which period the records will be made available to the Client at all reasonable times.
- 6.4 All reports, boring logs, field data, field notes, laboratory test data, calculations, estimates, and other documents prepared by UES, are prepared for the sole and exclusive use of Client, and may not be given to any other party or used or relied upon by any such party without the express written consent of UES.

## SECTION 7: DISCOVERY OF UNANTICIPATED HAZARDOUS MATERIALS

- 7.1 Client warrants that a reasonable effort has been made to inform UES of known or suspected hazardous materials on or near the project site.
- 7.2 Under this agreement, the term hazardous materials include hazardous materials (40 CFR 172.01), hazardous wastes (40 CFR 261.2), hazardous substances (40 CFR 300.6), petroleum products, polychlorinated biphenyls, and asbestos.
- 7.3 Hazardous materials may exist at a site where there is no reason to believe they could or should be present. UES and Client agree that the discovery of unanticipated hazardous materials constitutes a changed condition mandating a renegotiation of the scope of work. UES and Client also agree that the discovery of unanticipated hazardous materials may make it necessary for UES to take immediate measures to protect health and safety. Client agrees to compensate UES for any equipment decontamination or other costs incident to the discovery of unanticipated hazardous waste.
- 7.4 UES agrees to notify Client when unanticipated hazardous materials or suspected hazardous materials are encountered. Client agrees to make any disclosures required by law to the appropriate governing agencies. Client also agrees to hold UES harmless for any and all consequences of disclosures made by UES which are required by governing law. In the event the project site is not owned by Client, Client recognizes that it is the Client's responsibility to inform the property owner of the discovery of unanticipated hazardous materials or suspected hazardous materials.
- 7.5 Notwithstanding any other provision of the Agreement, Client waives any claim against UES, and to the maximum extent permitted by law, agrees to defend, indemnify, and save UES harmless from any claim, liability, and/or defense costs for injury or loss arising from UES's discovery of unanticipated hazardous materials or suspected hazardous materials including any costs created by delay of the project and any cost associated with possible reduction of the property's value. Client will be responsible for ultimate disposal of any samples secured by UES which are found to be contaminated.

## SECTION 8: RISK ALLOCATION

- 8.1 Client agrees that UES's liability for any damage on account of any breach of contract, error, omission or other professional negligence will be limited to a sum not to exceed \$50,000 or UES's fee, whichever is greater. If Client prefers to have higher limits on contractual or professional liability, UES agrees to increase the limits up to a maximum of \$1,000,000.00 upon Client's written request at the time of accepting our proposal provided that Client agrees to pay an additional consideration of four percent of the total fee, or \$400.00, whichever is greater. The additional charge for the higher liability limits is because of the greater risk assumed and is not strictly a charge for additional professional liability insurance.

## SECTION 9: INSURANCE

- 9.1 UES represents and warrants that it and its agents, staff and consultants employed by it, is and are protected by worker's compensation insurance and that UES has such coverage under public liability and property damage insurance policies which UES deems to be adequate. Certificates for all such policies of insurance shall be provided to Client upon request in writing. Within the limits and conditions of such insurance, UES agrees to indemnify and save Client harmless from and against loss, damage, or liability arising from negligent acts by UES, its agents, staff, and consultants employed by it. UES shall not be responsible for any loss, damage or liability beyond the amounts, limits, and conditions of such insurance or the limits described in Section 8, whichever is less. The Client agrees to defend, indemnify and save UES harmless for loss, damage or liability arising from acts by Client, Client's agent, staff, and other UESs employed by Client.

## SECTION 10: DISPUTE RESOLUTION

- 10.1 All claims, disputes, and other matters in controversy between UES and Client arising out of or in any way related to this Agreement will be submitted to alternative dispute resolution (ADR) such as mediation or arbitration, before and as a condition precedent to other remedies provided by law, including the commencement of litigation.
- 10.2 If a dispute arises related to the services provided under this Agreement and that dispute requires litigation instead of ADR as provided above, then:
- (a) the claim will be brought and tried in judicial jurisdiction of the court of the county where UES's principal place of business is located and Client waives the right to remove the action to any other county or judicial jurisdiction, and
  - (b) The prevailing party will be entitled to recovery of all reasonable costs incurred, including staff time, court costs, attorneys' fees, and other claim related expenses.

## SECTION 11: TERMINATION

- 11.1 This agreement may be terminated by either party upon seven (7) days written notice in the event of substantial failure by the other party to perform in accordance with the terms hereof. Such termination shall not be effective if that substantial failure has been remedied before expiration of the period specified in the written notice. In the event of termination, UES shall be paid for services performed to the termination notice date plus reasonable termination expenses.
- 11.2 In the event of termination, or suspension for more than three (3) months, prior to completion of all reports contemplated by the Agreement, UES may complete such analyses and records as are necessary to complete its files and may also complete a report on the services performed to the date of notice of termination or suspension. The expense of termination or suspension shall include all direct costs of UES in completing such analyses, records and reports.

## SECTION 12: ASSIGNS

- 12.1 Neither the Client nor UES may delegate, assign, sublet or transfer their duties or interest in this Agreement without the written consent of the other party.

## SECTION 13. GOVERNING LAW AND SURVIVAL

- 13.1 The laws of the State of Florida will govern the validity of these Terms, their interpretation and performance.
- 13.2 If any of the provisions contained in this Agreement are held illegal, invalid, or unenforceable, the enforceability of the remaining provisions will not be impaired. Limitations of liability and indemnities will survive termination of this Agreement for any cause.

## SECTION 14. INTEGRATION CLAUSE

- 14.1 This Agreement represents and contains the entire and only agreement and understanding among the parties with respect to the subject matter of this Agreement, and supersedes any and all prior and contemporaneous oral and written agreements, understandings, representations, inducements, promises, warranties, and conditions among the parties. No agreement, understanding, representation, inducement, promise, warranty, or condition of any kind with respect to the subject matter of this Agreement shall be relied upon by the parties unless expressly incorporated herein.
- 14.2 This Agreement may not be amended or modified except by an agreement in writing signed by the party against whom the enforcement of any modification or amendment is sought.