

**WORK AUTHORIZATION# CM2452-WA04
NASSAUCOUNTY
BOARD OF COUNTY COMMISSIONERS
RFQ/BID NO. NC16-033**

Consultant:	GAI Consultants, Inc.
Contract Number:	CM2452
Contact Name:	Jay Ameno, PE
Contact Number:	561-465-8001
Email:	j.ameno@gaiconsultants.com

CURRENT WORK AUTHORIZATION			
Project Short Title: Amelia Island Booster Pump Station Replacement			
		CONTRACT OVERVIEW	
Date Submitted	June 12, 2018	Total of Previous Authorizations	\$125,851.51
Amount	\$201,000.00	This Work Authorization	\$201,000.00
Scheduled Completion	180 days from NTP	Current Contract Total	\$326,851.51

This Work Authorization is to the AGREEMENT between Nassau County and the Consultant known as GAI Consultants for the Continuing Contract for Miscellaneous Engineering Services for Nassau Amelia Utilities (NAU), Nassau County, Florida, dated September 20, 2017. The services to be provided under this Work Authorization are as follows:

ARTICLE 1. Services Described as:

The purpose of the following engineering scope of services is to provide design services during the replacement of the Amelia Island Booster Pump Station.

GAI will perform a series of professional services associated with projects listed above. Details are enclosed in Exhibit A.

ARTICLE 2. Time Schedule

Total expected time period for this work authorization Six (6) months period starting upon the date of execution of this work authorization .

ARTICLE 3. Budget

Lump Sum \$201,000.

Article 4. Other Provisions See

Exhibit A and Exhibit B


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. Additional terms or contract provisions whether submitted purposely or

inadvertently, shall have no force or effect. 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: KATHLEEN LEO
Title: VICE PRESIDENT
Date: 8/16/18

RECOMMENDED AND APPROVED BY NASSAU COUNTY:

Director of Engineering Services: 

Board of County Commissioners, Chair: 

Ex-Officio Clerk: Sign Signature Below

County Attorney: 

APPROVED by the BOARD OF COUNTY COMMISSIONERS, the 22nd day of October, 2018.

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

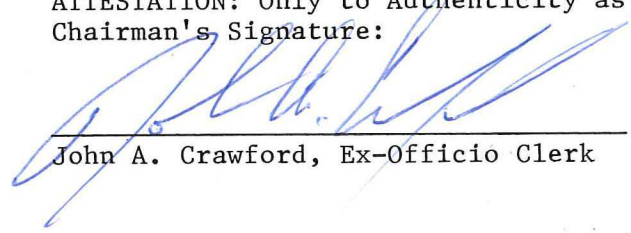

John A. Crawford, Ex-Officio Clerk

EXHIBIT A

Scope of Services

Proposal for Professional Services – Contract No. CM2452

Work Authorization No. 4

Amelia Island Booster Pump Station Replacement

Project Understanding

GAI is to provide design and permitting services during the replacement of the Amelia Island booster pump station (BPS), which was constructed in 1973 to accommodate high density residential and commercial development that did not take place.

The existing BPS includes:

- One (1) jockey pump – 250 gallons per minute (gpm) at 150' total dynamic head (TDH)
- Two (2) low pressure pumps – 310 gpm at 155' TDH; 620 gpm at 155' TDH
- Two (2) high pressure pumps – 680 gpm at 350' TDH; 340 gpm at 350' TDH
- Three (3) fire pumps – 1,000 gpm at 352' TDH

The BPS building foundation has been continuously experiencing settlement. In May 2015, Nassau Amelia Utilities (NAU) authorized GAI to conduct a structural investigation of the Amelia Island BPS. GAI recommended the rehabilitation or replacement of the facility. Consequently, in December 2016, GAI was tasked with developing a hydraulic model for NAU's transmission water mains as a tool to project necessary upgrades to maintain and accommodate the future growth. Based on the hydraulic modeling analysis, a BPS upgrade is recommended with properly-sized pumps, which will meet the required fire flow criteria. A replacement system will improve reliability and efficiency by upgrading to modern pumps and controls systems.

The following Scope of Services is based on the assumption that the new BPS will be a prefabricated facility. If initial design efforts indicate that a prefabricated facility is not feasible, additional services may be required.

Scope of Services

GAI will provide the following services:

Task 1 - Project Management

1. Kick-off Meeting: GAI will meet with NAU key personnel to introduce project team, define the project communication protocol, and review scope of services, project expectations and design assumptions (i.e. fire flow requirements, pressures, pump preferences, etc.). GAI will prepare meeting minutes and distribute within one week of the kickoff meeting.
2. Progress Meetings: GAI will participate in up to three review or progress meetings at NAU.
3. Management: Monitor the project, set up contracts with subconsultants and prepare invoices.

Task 2 – Preliminary Design Report (PDR) for the new BPS

GAI will prepare a PDR that will be representative of the 30 percent design level. Preparation of the PDR will include the following activities:

1. GAI will use existing plans to prepare a preliminary layout of the proposed BPS including connection to the existing 400,000 gallon tank and provisions for a future replacement tank connection.
2. Select replacement pumps based on identified design parameters agreed upon in Task 1. The BPS requires three (3) variable speed pumps with two (2) pumps firm capacity for the potable supply (for both high pressure and low pressure zones). The variable speed pumps eliminate the need for a jockey pump and hydropneumatic tank. Two (2) additional pumps are required to meet fire flow demand (One firm capacity plus one standby).
3. Select the proper size generator for the selected pumps. Size the generator transfer switch gear and the connection with the proposed BPS building. Select fuel tank size based on the 10 State Standard Water Works Section 6.6.6 and Section 2.6. The proposed generator will be a self-contained unit with a sound-attenuating enclosure and double contained base fuel tank.
4. Conduct permit determination with Florida Department of Environmental Protection (FDEP) and Nassau County Building Department to define permit requirements that design must take into account. Conduct meeting with Florida Public Utilities (FPU) to assess electrical power supply and service connection requirements.
5. GAI will prepare a draft PDR and submit to NAU electronically and one hard copy for review and comment. Once NAU has completed the review, GAI will participate in a progress meeting to discuss comments prior to incorporating the edits into the final PDR. GAI will then finalize the PDR and provide one electronic and two hardcopies (including limited 11" x 17" plan set) for NAU's use and records.

Task 3 – Final Design

Final design will include additional services to produce plans and specifications suitable for obtaining competitive bids and required permits.

1. Topographic survey – GAI will provide survey services of the immediate project area within the anticipated limits of construction (property boundary, applicable elevations, notable site features).
2. Subsurface Underground Engineering – GAI will perform subsurface underground engineering suitable to identify underground piping and delineate buried utilities and features located within anticipated construction limits for the BPS replacement.
3. Geotechnical exploration – GAI anticipates a total of four (4) borings to 30 feet below land surface will be required (standard penetration tests).
4. Structural engineering services – Structural engineering is anticipated to include foundation and building supports.
5. Electrical and instrumentation engineering services, as needed for replacement pumps and controls.
6. Civil and mechanical engineering and landscaping services (limited to immediate site restoration for damaged vegetated buffer).
7. Prepare and submit 60 percent and 90 percent design plans and technical specifications for review and comment by NAU. One (1) electronic copy and three (3) half sized (11" x 17") plan sets will be provided at each design milestone. It is anticipated that County purchasing will prepare the front-end bid documents for this effort. GAI will provide project-specific information and guidance to purchasing, where needed.
8. Prepare and submit FDEP permit application – Application for a Specific Permit for Public Water Supply (PWS) Components.
9. Response to up to one request for additional information (RAIs) from the FDEP. If additional RAI's are received, a scope amendment may be required.

10. Prepare Opinion of Probable Construction Cost (OPC) – GAI will prepare an engineer's OPC at the 60 percent design milestone based upon available recent bid information for the region, vendor quotes, and industry standards.
11. Progress Meetings (progress meeting 2 and 3) – GAI will prepare for, and participate in progress meetings to discuss NAU's review of the 60 and 90 percent design documents. Meeting minutes will be prepared after each meeting to document design decisions for use in preparing the next deliverable. Meeting minutes will be distributed electronically within one week of the meetings.
12. Update OPC – the Engineer's OPC will be updated upon completion of the 90 percent design documents.
13. Final Plans and Technical Specifications – GAI will incorporate the 90 percent review comments into a final set of plans and specifications, suitable for obtaining bids.
14. Prepare and submit 100 percent technical specification and plans electronically for County Purchasing to advertise for competitive bids. Two (2) hardcopies of the final documents (specifications and 11" x 17" plan sets) and one full-size (22" x 34") plan set will be provided to NAU.

Deliverables

- One (1) hard copy and one PDF digital copy for the PDR.
- Three (3) copies of drawings (11" x 17") and specifications for 60 percent, 90 percent and 100 percent (final) submittal.
- One hard copy of drawing (22" x 34") for final submittal.
- One PDF digital copy of the final submittal.

Schedule

Total expected time period for this work authorization is six (6) months starting upon the date of execution of this work authorization.

Additional Services

Additional services may be added to this contract during the course of work based on negotiated fees. These respective fees shall be determined jointly by the COUNTY staff and the Consultant. No work shall be undertaken on any additional service tasks without the written authorization of the COUNTY.

Fee

The total lump sum fee is \$201,000. Fees do not include permitting or related fees.

Payment

Payment terms will be in accordance with the 2017 Professional Services Agreement Contract # CM2452.

Assumptions and Understandings

GAI's Scope of Services, Schedule and Compensation as set forth above, have been prepared on the basis of the following assumptions and understandings:

1. It is assumed that Saint John's River Water Management District (SJRWMD) Permitting will not be required.
2. Front-end bid documents to be provided by Nassau County procurement department.
3. No architectural design services are included.

4. Building permit will be applied for by Contractor (not GAI).
5. It is assumed that the bidding services and post design services will be included in Phase 2.
6. Access to the project site(s) or other land upon which GAI is to conduct any field work will be available to GAI personnel in a timely manner.
7. At the time of each work request, the client will provide all its requirements for GAI's scope of services and all criteria and/or specifications that GAI should utilize. This includes any requirement for any statement of professional opinion or certification.
8. At the time of each work request, the client will provide all available information pertinent to GAI's scope of services, including previous reports/drawings; utility information, etc. Unless otherwise noted, GAI may rely upon such information.
9. Client will give GAI prompt notice whenever it observes or otherwise becomes aware of any development that affects the scope or timing of GAI's performance. Client will examine and provide comments and/or decisions with respect to any GAI interim or final deliverables within a period mutually agreed upon.

Exhibit B

Labor Cost Table

Proposal for Professional Services – Contract No. CM2452

Work Authorization No. 4

Amelia Island Booster Pump Station Replacement

Project Name: Amelia Island Booster Pump Station Replacement

Date: 6/12/18

Task #	Task Name	CS Labor Code								GAI Subtotal	Hours subtotal	Subconsultant				Subconsultant Subtotal	Project Subtotal	Direct Expenses	Project Total
		203		205		209		211				BIC	Survey	Universal	Fr-Alman				
		Staff	Rate	Staff	Rate	Staff	Rate	Staff	Rate										
		Jay Amato	\$203	Jill Orland	\$205	Janine Pardee	\$209	Kit Chen	\$211	Steven Holmes	\$137	Baija Zhao	\$107	Darlene Owens	\$53				
		Bill Rate	\$203		\$203		\$137		\$107		\$53								
Task 1	Project Management																		
1	Kick-off Meeting	4	\$ 812	4	\$ 812			4	\$ 556										\$ 2,380
2	Progress Meetings	8	\$ 1,624	4	\$ 812														\$ 2,436
3	Management	16	\$ 3,248	4	\$ 812														\$ 4,273
	Task 1 Sub-Total:	28	\$ 5,664	12	\$ 2,436	0	\$ -	4	\$ 556	0	\$ -	0	\$ -	4	\$ 213	\$ 8,699	48	\$ 6,360	\$ 15,249
Task 2	Preliminary Design Report (PDR) for the new BPS																		
1	Preliminary layout	8	\$ 1,624					16	\$ 2,274	20	\$ 2,145	10	\$ 1,150						\$ 7,143
2	Pump selection	6	\$ 1,218					16	\$ 2,274	10	\$ 1,150								\$ 4,592
3	Size generator and fuel storage tank	2	\$ 406					4	\$ 556										\$ 962
4	Permit determination w/ FDEP and NC BMA Department	2	\$ 406	4	\$ 812			8	\$ 1,112										\$ 2,320
5	Prepare and submit PDR (progress meeting 1)	4	\$ 812	4	\$ 812			32	\$ 4,448	20	\$ 2,145	10	\$ 1,150	3	\$ 160	\$ 9,527	73	\$ 21,140	\$ 23,670
	Task 2 Sub-Total:	22	\$ 4,466	8	\$ 1,624	0	\$ -	74	\$ 10,964	40	\$ 4,290	30	\$ 3,490	3	\$ 160	\$ 24,514	179	\$ 21,540	\$ 46,054
Task 3	Final Design																		
1	Topographic Survey																		\$ 3,500
2	SUP																		\$ 1,980
3	Geotechnical Exploration																		\$ 6,900
4	Structural Engineering Services					30	\$ 6,090												\$ 6,090
5	Electrical and Instrumentation Engineering																		\$ 49,180
6	Civil and mechanical engineering and landscaping services	8	\$ 1,624																\$ 1,624
7	Prepare and submit 60%, 90% design plans and specifications	36	\$ 7,308	8	\$ 1,624			64	\$ 8,876	160	\$ 17,160	20	\$ 2,300						\$ 37,288
8	Prepare and submit the FDEP permit.	4	\$ 812	2	\$ 406			20	\$ 2,780			4	\$ 460	8	\$ 426	\$ 4,884	38	\$ 4,884	
9	Response to up to one request for additional information (RAI) from the FDEP.	2	\$ 406					8	\$ 1,112										\$ 1,778
10	Prepare Opinion of Probable Construction Cost (OPC)	4	\$ 812					8	\$ 1,390										\$ 2,892
11	Meet (progress meetings 2 and 3) with the County to review 60% and 90% submittal.	8	\$ 1,624	4	\$ 812														\$ 2,436
12	Update Opinion of Probable Construction Cost (OPC).	1	\$ 203					6	\$ 831			2	\$ 230						\$ 1,267
13	Incorporate the County's submittal comments.	4	\$ 812					16	\$ 2,274	20	\$ 2,145	8	\$ 920						\$ 6,189
14	Final Plans and Technical Specifications	8	\$ 1,624	4	\$ 812	8	\$ 7,714	20	\$ 2,780	30	\$ 3,218	10	\$ 1,150	4	\$ 213	\$ 11,420	84	\$ 11,420	
	Task 3 Sub-Total:	75	\$ 15,225	18	\$ 3,624	38	\$ 7,714	144	\$ 30,016	210	\$ 22,513	54	\$ 6,210	12	\$ 679	\$ 79,860	351	\$ 49,180	\$ 129,040
	Project Totals:	125	\$ 25,975	34	\$ 7,714	38	\$ 7,714	226	\$ 31,156	250	\$ 26,813	84	\$ 9,660	18	\$ 1,031	\$ 107,422	778	\$ 76,640	\$ 200,062