

CCNA2018 WORK ORDER 3 – AMENDMENT 1

West Wabasso Septic to Sewer Phase 3C

This Work Order Number 3 – Amendment 1 is entered into as of this ___ day of _____, 2021, pursuant to that certain Continuing Consulting Engineering Services Agreement for Professional Services entered into as of this 17th day of April, 2018 (collectively referred to as the “Agreement”), by and between INDIAN RIVER COUNTY, a political subdivision of the State of Florida (“COUNTY”) and Bowman Consulting Group, Ltd. (“Consultant”).

The COUNTY has selected the Consultant to perform the professional services set forth on Exhibit A (Scope of Work), attached to this Work Order and made part hereof by this reference. The professional services will be performed by the Consultant for the fee schedule set forth in Exhibit B (Fee Schedule), attached to this Work Order and made a part hereof by this reference. The Consultant will perform the professional services within the timeframe more particularly set forth in Exhibit C (Time Schedule), attached to this Work Order and made a part hereof by this reference all in accordance with the terms and provisions set forth in the Agreement. Pursuant to paragraph 1.4 of the Agreement, nothing contained in any Work Order shall conflict with the terms of the Agreement and the terms of the Agreement shall be deemed to be incorporated in each individual Work Order as if fully set forth herein.

IN WITNESS WHEREOF, the parties hereto have executed this Work Order as of the date first written above.

CONSULTANT:
Bowman Consulting Group, Ltd.

**BOARD OF COUNTY COMMISSIONERS
OF INDIAN RIVER COUNTY**

By: _____

By: _____

, Chairman

Print Name: Erik Juliano, P.E.

Title: Branch Manager

BCC Approved Date: _____

Attest: Jeffrey R. Smith, Clerk of Court and Comptroller

By: _____

Deputy Clerk

Approved: _____

Jason E. Brown, County Administrator

Approved as to form and legal sufficiency: _____

Dylan T. Reingold, County Attorney

EXHIBIT A -SCOPE OF WORK

Bowman Consulting Group Ltd. is pleased to submit this proposal for professional engineering services to Indian River County Utility Department for engineering services to design and permit a septic to sewer project located in West Wabasso.

PROJECT BACKGROUND & UNDERSTANDING

We had several meetings with Utilities Staff to discuss the West Wabasso septic to sewer project and the work is summarized below:

This project is the third site within the Phase 3 work order. Phase 3C consists of 63rd Avenue from CR 510 to 87th Street and 87th Street from 63rd Avenue to 64th Avenue. The work would include design of a gravity collection system and lift station capacity evaluation. Based on discussions with the County there is no expansion potential anticipated for this location.

Consultants surveyor will provide topo mapping and site survey, including clean outs, septic tank(s) and drain field(s) as can be located for each dwelling along 63rd Avenue from CR 510 to 87th Street and 87th Street from 63rd Avenue to the terminal manhole before the lift station, for the use of design of proposed improvements. As a separate task, supplemental topographic mapping on 61st Drive will be provided for the design of the laterals for that work.

The work for Phase 3A, 3B, and 3C will be included in one set of drawings. One bid schedule will be prepared that will tabulate each site separately with one total. Specifications prepared by consultant will consist of bid schedule, bid descriptions, and technical specifications. County will provide front end documents including general provisions. The design is anticipated to include the connection to each dwelling and abandonment of existing located septic tanks. The design will include gravity sewer and existing lift station evaluation. The existing lift station on 87th Street will be evaluated for capacity based on the current number of existing dwellings and for build out of the existing lots on 63rd Avenue and 87th Street only. This condition will be calculated so the County will know what modifications to the lift stations will be required for full build out.

All roads will be replaced in kind for construction (pavement, base and subbase or equivalent) after the construction of sewer in 63rd Avenue and 87th Street.

Permitting is anticipated to include FDEP for the gravity sewer. It is anticipated to receive an IRC right of way permit. We will also need to obtain a "No permit Required" determination from SJRWMD for the proposed road work.

SCOPE OF SERVICES

We propose to provide the following services:

Task 1 - Civil Design Services (Bowman Consulting)

System Evaluation and Design

1. Prepare report that includes evaluation and determination of gravity sewer build out control grades for each site. Estimate current wastewater flows and build out wastewater flows for each site. Summarize lift station components that will be required to change between current design and build out for each site.
2. Utility Research: contact utility companies and obtain record information and transfer information to design drawings.

Prepare Bidding Documents

3. Attend and prepare summary meeting notes for up to two (2) meetings, anticipated to be at beginning, and 50% complete milestones of the project.
4. Prepare 24" x 36" drawings anticipated to be:

Sheet	Description
G-1 thru 2	To be included with Phase 3A & 3B work
SP-1 thru 2	SWPPP Sheets, 2 plan sheets to be included with Phase 3A & 3B
PA-1 thru 8	Phase 3C Site: 1 - Overall Site Plan, 3 - 30 scale Plan & Profile

5. Multiple site visits and coordination with the residents for identification of design issues.
6. Utilize the IRCUDS Utility Construction Standards and supplement with specifications as necessary for the design.
7. Provide two (2) engineer's opinion of estimated construction cost and design plans at 50% and after 90% design milestone. Final estimate will match bid schedule.
8. Field review design/plans at 90% complete milestone to compare with site conditions. In-house plan checking and respond to Utility comments and prepare final drawings and specifications.

Task 2 - Permitting Services (Bowman Consulting)

Project Permitting

9. Prepare and submit FDEP permit the project (both Phases), including fees of \$250. Respond to comments and follow through to final clearance.
10. Prepare and submit IRC right of way permits for 87th Street and 63rd Avenue. These will be no cost permits.
11. SJRWMD no permit required determination.

Task 3 - Bidding Services (Bowman Consulting)

Bidding Services

12. Bidding Services are comprised of attending a pre-bid conference, respond to contractor's bid questions and assist with preparation of addenda.

Task 4 - Survey Services (ISS Survey)

13. Site Survey including rights of way, property lines, easements, topographic mapping, trees, existing improvements, buildings, driveways and utilities.
14. This work will include a subconsultant to locate septic system facilities for each dwelling and survey locate those existing improvements for the design.
15. Supplemental survey on 61st Street.

SERVICES AND/OR INFORMATION TO BE PROVIDED BY OTHERS

Client or others will provide the following services and/or information:

- A. County will provide the specification frontend documents and general provisions.
- B. County will provide all CEI and Certification, only design, permitting and assisting with bidding will be provided by Consultants.
- C. County will handle all aspects of public meetings.
- D. Provide record-drawings and information of existing improvements and utility-owned facilities and other substructures.
- E. Easement acquisition if required.

SPECIFIC EXCLUSIONS

Specifically not included in the above Scope of Services/Compensation are the following:

- A. Any geotechnical services.

EXHIBIT B – FEE SCHEDULE

COMPENSATION

We will provide the requested services on a Lump Sum Cost, with estimated task breakdown below:

Design Services:

Task	Design Services	Fee
1.	Civil Design Services (Bowman)	\$31,345
2.	Permitting	\$3,470
3.	Bidding Services	\$1,955
	Sub Total	\$36,770
4.	Survey Services (ISS Survey)	*\$33,528
	Grand Total	\$70,298

* Subconsultant fee includes 10% markup, see subconsultant proposal attached.

EXHIBIT C – TIME SCHEDULE

This Task Order shall commence upon Notice to Proceed with the work to be completed as follows:

Kick off meeting	(NTP)
Topo Mapping	4 weeks
Design to 50% & Meeting	6 weeks
Permitting, Design to 95% & Submit	6 weeks
County Review	4 weeks
Respond to Comments	2 weeks
<u>Final Bid Docs and Deliver</u>	<u>2 weeks</u>
Total	24 Weeks

168 Calendar Days

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6/2/21

**Estimated Staff Loading For:
Indian River Co. Utilities - West Wabasso Septic to Sewer_Phase 3C**

TASK	Sr Proj Mgr	Sr Engr	Proj Engr	Engr	Sr Dsgnr	Clerical	TOTAL
Task 1 - Design Services							0
1. Meetings	2	2	2				6
2. Design Criteria	1	2	4				7
3. Utility Research & Coordination	1	2	6		6	2	17
4. Probable Const. Cost	1	2	8				11
5. Field Review Recon		8	12		8		28
							0
Final Design							0
6. Meetings	2	2	2				6
7. Septic to Sewer Plans (6 shts)	3	18	40		80		141
8. Specifications	2	4	4			4	14
9. Probable Const. Cost	1	1	4				6
10. Field Review		4	6		8		18
							0
							0
Staff By Category Totals	13	45	88	0	102	6	254
Billing Rate (\$/hr)	\$165	\$150	\$130	\$100	\$105	\$50	
Total Personnel Cost (\$)	\$2,145	\$6,750	\$11,440	\$0	\$10,710	\$300	\$31,345
Staffing Ratio (% of total hrs)	5.1	17.7	34.6	0.0	40.2	2.4	
Average Personnel Cost (\$/hr)						123.41	
Description of Other Project Costs							VALUE (\$)
Total of other costs (\$)							\$0
Total Estimated Project Cost (\$)							\$31,345

May 24, 2021

Mr. Eric Flavell, PE, F-ASCE
Bowman Consulting Group
4450 W. Eau Gallie Blvd., Suite 232
Melbourne, FL 32934

**Subject: Proposal to Provide Surveying Services
Project No. BCG005 – Indian River County West Wabasso Septic to Sewer Phase 3C**

Dear Mr. Flavell:

Infrastructure Solution Services (ISS) is pleased to provide this proposal for surveying services for the Indian River County (IRC) West Wabasso Septic to Sewer Project Phase 3C (the "Project") in Wabasso, Florida to Bowman Consulting Group (BCG).

SECTION I. BACKGROUND

After speaking with Mr. Eric Flavell (BCG) and reviewing the provided scope and limits, it is ISS's understanding that the Project consists of a topographic route survey of approximately 2,500' of residential (dirt) road, 1,200' of residential (paved) road, and 400' of a main road. The project will be divided into two separate tasks.

Task 1 will include approximately 700' of 87th Street (dirt), 400' of 86th Street (dirt), and 1,400' of 63rd Avenue (dirt). It will include the connection of 13± homes. The survey will be used to aid in the design of a gravity sewer system that will flow to an existing sanitary lift station on 87th Street. It is ISS's understanding that the project will include collecting all available property control on all property frontage to help establish approximate lot lines (per IRC Property Appraiser information) to be utilized in design of the gravity system and tying into the lift station. The survey will also include a detailed location of the existing lift station with pipe sizes, invert, and bottom elevations.

Task 2 will include 1,200' of 61st Street (paved), 400' of 85th Street (SR 510), topo, and locations of a 100' X 100' section of parcel 39232 in the SW corner (per IRC Property Appraiser). It will include connection to 14 homes. This survey will be supplemental to the survey previously done by IRC and will not include collecting any property control along the route.

For both Tasks, The ISS team will coordinate the location of all accessible existing septic tanks and cleanouts for the 27± homes that will be connected to the new systems. All finished floor elevations will be established for said homes as accurately as possible for the purpose of calculating slope on gravity laterals along with general grade of the lot. All house basic footprints and permanent features will be collected and shown to aid in design of service connections. The location of underground utilities, that are marked by others, will be collected within the project area. A high resolution, georeferenced drone image will be provided as a background in the survey.

SECTION II. SCOPE OF SERVICES

TASK 1&2 - Topographic Survey

- A. Using the nearest published horizontal and vertical control, ISS will establish a minimum of five (5) site control points with NAD 1983 State Plane coordinate values and NAVD 88 vertical values for the collection of data and to be used as site benchmarks.
- B. (Task 1) Establish frontage property lines for from available property control collected and per available legal descriptions from the IRC Property Appraiser.
- C. Map all above ground existing conditions utilizing conventional survey and GPS real-time kinematic (RTK) methods along the route. Collect any marked underground utilities. This scope assumes that any underground utilities that need to be mapped will be identified by others prior to commencement of the existing conditions survey.
- D. Fly a predefined route in accordance with all FAA Part 107 regulations with a DJI Phantom 4 Pro drone to obtain aerial images. Aerial images will be processed with photogrammetry software for image only.
- E. Draw the existing conditions utilizing AutoCAD Civil 3D in state plane coordinates. Plot the existing conditions on a signed and sealed survey map.

SECTION III. SUBCONSULTANTS

TBD for septic tank locations

SECTION IV. CLIENT'S RESPONSIBILITY

BCG will be responsible for providing the ISS project team the following items:

- A. Access to the project site and upfront communication with homeowners.
- B. Identification and marking of underground utilities.

SECTION V. DELIVERABLES

ISS will provide the following deliverables:

Task 1 & 2 - Existing Conditions Map: Three (3) copies of signed and sealed survey maps and one (1) digital copy delivered on CD or USB drive.

SECTION VI. SCHEDULE

ISS will begin survey field work for each task within two (2) weeks of receiving the signed proposal from BCG. Field work and drafting will be complete within five (5) weeks of commencement. Survey map deliverables will be provided to BCG within five (5) days thereafter.



SECTION VII. COMPENSATION

BCG shall compensate ISS a lump sum fee of thirty thousand four hundred eighty dollars (\$30,480 for the scope of services specified in this task order.

Any additional unforeseen expenses will be identified for approval from BCG before incurring and billed with the final invoice.

Exhibit 1: Fee Schedule by Task

TASK #	TASK DESCRIPTION	FEE
1	Establish survey control = 15hrs @ 2-man crew rate \$160	\$2,400
2	Locate septic tanks and cleanouts = 35hrs @ 2-man crew rate \$160	\$5,600
3	Locate property control = 8hrs @ 2-man crew rate \$160	\$1,280
4	Topo, FFEs, buildings, improvements etc.= 80hrs @ 2-man crew rate \$160	\$12,800
5	Survey drafting = 60hrs @ Draftsmen Tech II rate \$100	\$6,000
6	Drone flight field operations = 10hrs @ 2-man crew rate \$160	\$1,600
7	Drone data processing = 8hrs @ Draftsmen Tech II rate \$100	\$800
TOTAL FEE		\$30,480

SECTION VIII. ACCEPTANCE

If the above scope and fees meet your approval, please indicate by returning one signed copy to ISS which will constitute an "Agreement and Notice to Proceed" for the accomplishment of this work.

Infrastructure Solution Services

Bowman Consulting Group

Brian M. Stahl

Brian M. Stahl, PE – Managing Member

05/25/21

Date

Date





