

CCNA2018 WORK ORDER 4

82nd Avenue Utilities Relocation

This Work Order Number 4 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 provide for the relocation of 16" and 12" diameter water distribution mains and valving, a 4" diameter force main, and a 12" reclaim water main along 82nd Avenue in the vicinity of 26th Street.

PROJECT BACKGROUND & UNDERSTANDING

We had several field reviews and discussions with Mr. John Boyer to discuss the main relocations due to the pending FDOT road realignment of 82nd Street and the anticipated work is summarized below:

The project will consist of preliminary engineering design determination efforts to clearly delineate the parameters of the proposed design effort to include potholing of existing utilities to determine exact alignments within the existing and proposed rights of way, coordination with the Indian River Farms Water Control District (IRFWCD) to determine design requirements for the crossing of the IRFWCD canal located at 26th Street, coordination with HDR Engineering Inc. regarding the pending FDOT roadway alignment and right of way acquisition, and preparation of conceptual relocation design for review by all relevant parties to confirm design parameters.

Consultant will obtain limited survey services to obtain existing utility location information for the design of the utility relocations and tie in to accommodate the FDOT road realignment plans currently under design by HDR Engineering, Inc. Consultant will use and rely on the survey prepared for HDR Engineering as included with in progress drawings of the road realignment project provided to us through the County.

The design work for the project will include relocation of existing utility mains, with connections designed to minimize disruption to existing customers wherever possible. The design will include relocation and realignment of the existing water main, force main, and reclaim water main along the 82nd Avenue roadway realignment corridor as depicted by HDR Engineering Inc. in the vicinity of 26th Street, to include the IRFWCD canal crossing at 26th Street, and extending up to 500 LF east on 26th Street for alignment of that roadway as well. Specifications prepared by consultant will consist of bid schedule, bid descriptions, and technical specifications for the work. County will provide front end documents including general provisions.

All utility relocations are anticipated to be constructed prior to, or in conjunction with the 82nd Ave roadway realignment project.

Permitting is anticipated to include FDEP main extension permits for the water and force mains, County right of way permit for main relocations, and IRCWMD permit for crossing of the canal at 26th Street.

SCOPE OF SERVICES

We propose to provide the following services:

Task 1 – Preliminary Design Research (Bowman Consulting)

System Evaluation and Design Layout

1. Coordinate soft dig potholing of existing utility mains along 82nd Avenue and 26th Street within the limits of the proposed work to determine actual alignments and depths in support of the proposed realignments.
2. Coordinate with Indian River Farms Water Control District to determine design requirements for crossing of the canal at 26th Street. Design parameter research to determine whether best to cross via aerial or subaqueous methodology.
3. Coordination with HDR Engineering Inc. to obtain finalized FDOT roadway realignment drawings and final road rights of way included right of way yet to be acquired in support of the proposed 82nd Avenue and 26th Street realignments
4. Obtain utility information from non-municipal utilities including gas, telephone, power, cable tv, and any other infrastructure identified by Consultant during this preliminary design phase.
5. Prepare conceptual relocation plan including existing and proposed rights of way, pavement alignment, and anticipated utility alignments for review and acceptance by the County, FDOT, and the IRFWCD.

Task 2 - Civil Design Services (Bowman Consulting)

Prepare Bidding Documents

6. Attend and prepare summary meeting notes for up to two (2) meetings, anticipated to be at beginning, and 60% complete milestones of the project.
7. Prepare 24" x 36" drawings anticipated to be:

Sheet	Description
G-1 thru 2	Cover Sheet, Construction Notes Sheet
D-1 thru 3	Details (Utility and site)
SP-1 thru 2	SWPPP Sheets
U-1 thru 5	Utility relocation drawings including 2000' on 82 nd and 1000 ft on 26 th and the Canal crossing at 26 th street

8. Utilize IRCDUS Utility Construction Standards and supplement with specifications as necessary for the design.
9. Provide two (2) engineer's opinion of estimated construction cost and design plans at 60% and after 90% design milestone. Final estimate will match bid schedule.
10. 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 3 – Permitting and Bidding Services (Bowman Consulting)

Project Permitting

11. Prepare and submit FDEP water and wastewater permits for the project, including requisite application fees. Respond to comments and follow through to final clearance.
12. Prepare and submit IRC right of way permits for utility relocation work within the 82nd Avenue and 26th Street rights of way. These are anticipated to be no cost permits.
13. Prepare and submit IRFWCD permit for crossing of the ditch at 26th Street.
14. 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)

15. Utility locate survey with ties to FDOT survey provided by others. This project will use the survey prepared for the FDOT road realignment project. We will survey the unearthened water utilities located by Blood Hound, locating them horizontally in State Plane coordinates and vertically in NAVD 1988 datum. We will locate a minimum of five survey points in common with the FDOT survey provided by others to confirm continuity. We will provide a drone high resolution aerial to be used for the drawing background. See proposal by ISS Survey attached hereto.

Note: The design of improvements will rely on a survey provided to us by the County and prepared by others for the FDOT road realignment (FDOT Survey) that will be used as the basis for our design. The survey service provided herein will augment the FDOT Survey with utility information and to confirm our design is on the same coordinate system and datum as the road alignment design.

Task 5 – Utility Locates (Blood Hound)

16. Utility locates in 82nd Avenue and 26th Street rights of way within the limits of the roadway realignments. See proposal by Blood Hound attached hereto. We have included cost for hot mix A.C. pothole repairs in the road. If this ends up not being required cost can be reduced.

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 front end documents and general provisions.
- B. County will authorize CEI and Certification under an addendum. Only design, permitting and assisting with bidding will be provided by Consultants with this Work Order.
- C. County will handle all aspects of public meetings.
- D. County will mark water, forcemain and reclaimed water in 82nd Avenue so they can be surveyed and potholed by our team.

- E. Provide record-drawings and information of existing improvements and utility-owned facilities and other substructures.
- F. Provide topographic mapping as the basis for design. The mapping will be as included in the drawings for the FDOT road realignment plans currently under design and being prepared by HDR Engineering, Inc.
- G. Easement acquisition if required.

SPECIFIC EXCLUSIONS

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

- A. Any geotechnical services.
- B. Any Environmental 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.	Preliminary Design Research	\$9,095
2.	Project Design	\$30,890
3.	Permitting Services	\$4,160
	Sub Total (Bowman)	\$44,145
4.	Survey Services (ISS Survey)	*\$6,787
5.	Utility Locates in 82 nd and 26 th (Blood Hound)	*\$12,505
	Grand Total	\$63,437

* 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)
Utility Locates and potholing	4 weeks (Concurrent with Preliminary Design Research)
Preliminary Design Research	4 weeks
Preliminary Design	2 week
Design to 60% & Meeting	6 weeks
Permitting, Design to 95% & Submit	6 weeks
County Review	4 weeks
Respond to Comments	2 weeks
Final Bid Docs and Deliver	2 weeks
<u>Total</u>	<u>26 Weeks</u>

182 Calendar Days



ESTIMATE

Created Date 1/11/2021
 Estimate Number 57289

Customer	Bowman Consulting Group	Name	Zachary Komninos
Billing Phone	(321) 255-5434	Phone	(321) 270-8982
Billing Address	12355 Sunvalley Drive Suite 520 Reston, VA 20191 US	Email	zkomninos@bowmanconsulting.com
Job Site Location	26th St. SUE, 26th St & 82nd Ave, West Vero Corridor, Florida, 32966		

Product	Quantity	Sales Price	Total Price
Advantage Locate (hourly)	4.00	\$200.00	\$800.00
Miscellaneous	1.00	\$2,500.00	\$2,500.00
Mob - Single Tech (Hrly)	3.00	\$115.00	\$345.00
Mob - Vac Ex (Hrly)	6.00	\$200.00	\$1,200.00
Permit	1.00	\$300.00	\$300.00
SUE Maint of Traff 4 (unit)	1.00	\$2,000.00	\$2,000.00
Vacuum Excavation (Hourly)	9.00	\$225.00	\$2,025.00
Vacuum Excavation (Unit)	4.00	\$550.00	\$2,200.00
Grand Total			\$11,370.00

Scope of Work

Customer SOW survey

BHUG SOW Client has requested a Revised Estimate 12/22/2020, for the following Scope of Work:

- The following work is being performed to Quality Level B standards in accordance with CI/ASCE 38-02.
- Client has requested an estimate to horizontally locate detectable underground utilities within the Red outlined areas as shown on the provided exhibit, ROW to ROW.
- A BHUG generated image is attached for reference. If incorrect please advise.
- EM and Real-Time GPR Locating equipment will both be utilized to locate and mark the utility lines. A not to scale digital field sketch will be provided of our discoveries for surveying purposes. We will also provide pictures and the raw GPR data for review.
- Customer is advised the horizontal portion of this estimate is based on a 2-hour minimum. Any additional time required on site to complete the task beyond the 2-hour minimum will be invoiced in 15-minute increments @ \$50 per increment, upon customer approval. A mobilization fee is required.
- Customer is advised that Blood Hound utilizes water-based paint and flags to identify any discoveries onsite. If this is an issue, Blood Hound must be made aware of this when scheduling. All discoveries will be painted and flagged for surveying purposes.
- All findings will be marked according to APWA standard.
- Any available as-builts, engineered or other record drawings, if available, should be supplied to BHUG prior to commencement of field work.
- Estimate does not include any camera or surveying services.
- BHUG is not responsible for, moved, altered, obliterated or maintaining marks. BHUG will impose an additional fee to relocate/remark facilities.



ESTIMATE

Created Date 1/11/2021

Estimate Number 57289

- The performance of BHUG's services is limited to full and unobstructed access to include but not limited to: mechanical rooms, manholes, hand holes, vaults, meter rooms, telecom rooms, fixtures (plumbing, electrical, communication), dispensers, fenced compounds, tanks and structures. Full cooperation from the on site personnel is necessary to perform a complete survey.
- Results are dependent upon field conditions at the time of locating services. It may be necessary to have parked vehicles or machinery moved to allow for a full scan and to access structures.
- Estimate DOES NOT include the use of Robotic or Push/Pull Cameras for assistance in locating Sewer Lines or Laterals. These lines would attempt to be marked by EM / Rodder if possible or GPR. If lines are not able to be completely located, Blood Hound will arrow the direction of each line leaving a manhole.
- CUSTOMER IS ADVISED THAT LIMITATIONS EXIST IN LOCATING PLASTIC MATERIALS WITHOUT TRACEABLE WIRES ATTACHED.
-
- The following work is being performed to Quality Level A standards in accordance with CI/ASCE 38-02.
- Vacuum Excavation will be utilized to provide the precise vertical position of the conflict or connection point utilities within the areas as shown on the BHUG generated image. Based on Google Street maps it is assumed that up to six (6) soft surface excavations may be required. Specific locations TBD.
- Revision 1/4/2021: Per customer request based on provided and attached as-builts, VAC excavation will also be performed on existing water mains and Re-claimed water mains in areas to be directed but anticipated to be under an active roadway. For estimating and budgetary purposes additional line items to include four (4) hard surface test holes, (requiring flowable fill back-fill, hot mix restoration and MOT (traffic control) is being provided.
- Please note the above restoration will be completed with flowable fill back-fill, County and State requirements. A temporary cold patch asphalt layer will be utilized after each test hole is performed by BHUG. Upon completion of the entire project and per the request of the County, an outside contractor will return and restore the holes and provide a Hot Mix asphalt for restoration. A line item "Miscellaneous" is provided for this service.
- Customer is advised the vertical portion of this estimate is based on a 4-hour minimum. Any additional time required on site to complete the task beyond the 4-hour minimum will be invoiced in 15-minute increments @ \$56.25 per increment, upon customer approval. Mobilization fees will apply.
- Test hole data forms will be provided with pertinent information to include size, function, depth, material (of pipes if known) and provide the precise horizontal and vertical position of any discoveries. Offsets will be provided to existing above ground features as well and all discoveries will be painted and flagged with all verification's staked with a semi-permanent marker for surveying purposes. A digital field sketch will be provided along with pictures of the areas in question.
- Soft surface excavations cavities will be refilled with dry, native spoils (compacted in 6" lifts).
- Estimate does not include any final restoration such as hot mix asphalt, milling / resurfacing or special back fill requirements (flowable fill.) if final restoration is required by end client, city, state, or any other entity, that restoration will be the responsibility of the client. Blood Hound does not perform final concrete or asphalt surfacing. BHUG will not perform any excavations thru sidewalk without prior permission. Test holes performed under the roadway will be repaired with an asphalt cold patch and any concrete surfaces will be repaired with a Quikrete type product.
- Customer understands any fees required for permits and MOT services are not provided and included in this estimate.
- Any fees required for permitting and MOT are now included.
- No VAC work will take place under the existing roadway.
- Based on most recent request work will be required within the active roadway.
- All Survey work will be completed by others.

If the Scope of Work should change, or is different than listed on the estimate, please call our office for a revised estimate.

Quoted rates are exclusive to this estimate only. Rates quoted by Call Center Representatives are in effect unless otherwise stipulated within a formal estimate.

Please note estimate is valid for 90 days from the quote created date.



ESTIMATE

Created Date 1/11/2021

Estimate Number 57289

Blood Hound will use electromagnetic (EM) and ground-penetrating-radar (GPR) equipment to locate private underground utilities at site indicated by client. All findings will be marked according to APWA standard. Customer is responsible for calling 811 for locates of any public utilities. If the scope of work should change or is different than that listed on estimate, please call our office for a revised estimate. Unless expressly noted, Vacuum Excavation estimates do not include any of the following services: Permitting, Traffic Control, Restoration, Special Restoration, Special Backfill or Waste Disposal. If you need any of those services please call our office for a revised estimate. Blood Hound is not responsible for the condition of the pipes or structures before or after jetting/clearing service is performed. Unsatisfactory conditions could be present within the structure and any services may bring those deficiencies to light. In the event of inclement weather, if the client still requests for crew to arrive on site, then the client will be responsible for minimum charges even if no work is performed.

Payment is due at the time of service, unless you already have an account with us. If you do have an account with us, payment terms are Net 30 days, unless otherwise stated in a pre-approved contract. To learn more, please call the office at 888-858-9830.

PRICE MAY VARY BASED ON ACTUAL TIME ON SITE. The above pricing is based only on the information supplied by the customer. If a site walk through has not been conducted, this may affect the price.

If this is a prevailing wage job, please contact our office for a revised quote as this pricing does not reflect prevailing wage rates. If at some later date a project is determined to be a prevailing wage job, then any extra expense incurred by Blood Hound will be billed to the client.

The project estimate outlined in this specific proposal is valid for 90 days from the date of the proposal. Blood Hound reserves the right to review and adjust this estimate if client does not approve of the proposal within 90 days.

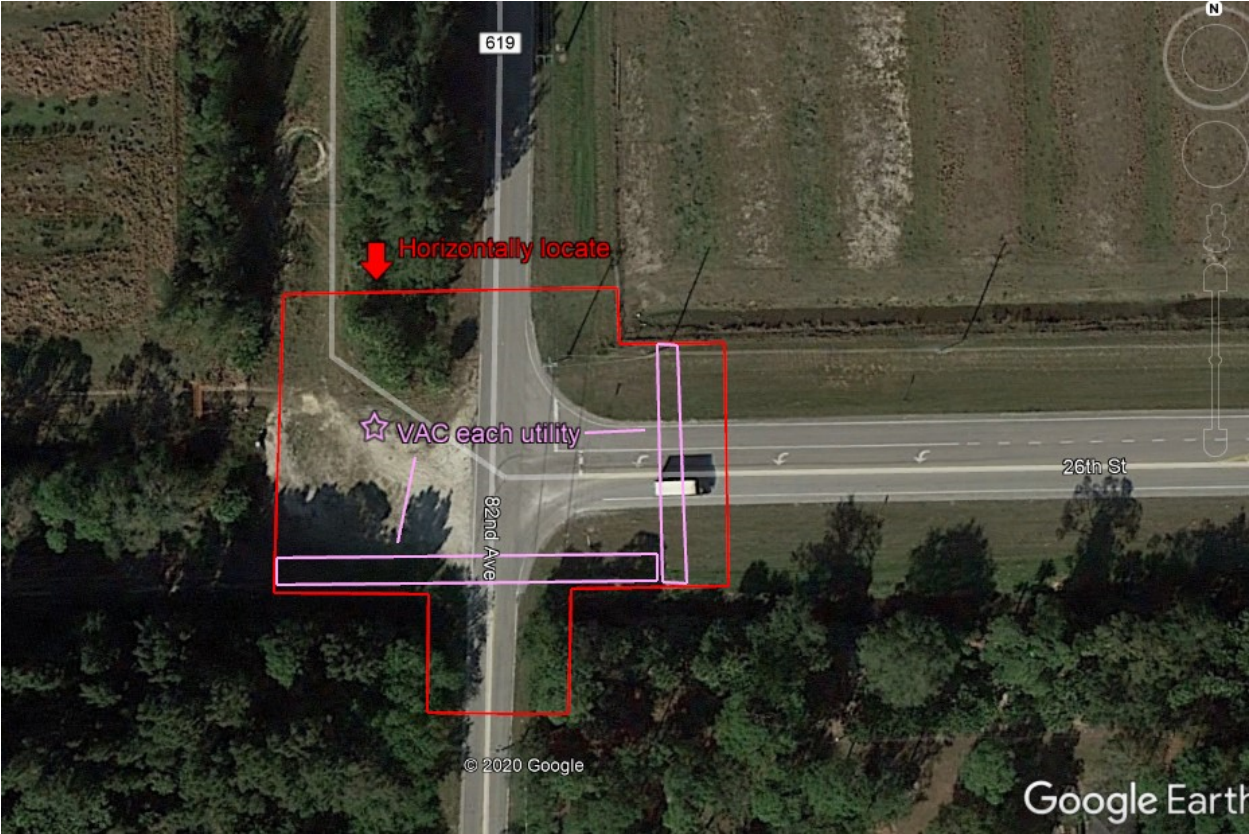
We look forward to working with you.

By signing this Estimate the client acknowledges that they accept the scope of work listed on the estimate, as well as the service rates provided and are providing Blood Hound with a Notice To Proceed (NTP) for the listed Project. If the scope of work should change while the work is in progress, any changes will be documented on the technician's field notes and signed off on by the client. Signing this estimate also acknowledges that the client agrees to the terms and conditions as they relate to payment for services rendered.

Signature: _____

Printed Name: _____

Date Signed: _____



December 3, 2020

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. BWM003 - IRC 82nd/26th Utility Relocate Route Survey**

Dear Mr. Flavel:

Infrastructure Solution Services (ISS) is pleased to provide this proposal for surveying services for the Indian River County 82nd/26th Utility Relocate Route Survey (the "Project") in Vero, Florida, for Bowman Consulting Group (BCG).

SECTION I. BACKGROUND

After speaking with Mr. 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 4,300' of two-lane rural roadway 1,100' of private dirt roadway and 300' of large drainage ditch topography. The Project includes approximately 2,300' of 82nd Street, 2000' of 26th Street, 1,100' of private access road that runs adjacent to 82nd Avenue and approximately 300' of drainage ditch topography west of the intersection of 82nd and 26th to be used as basis of design for the relocation of utilities owned by Indian River County. It is our understanding that the Project will include establishing all right of way (ROW) lines and approximate lot lines per plat and property appraiser information to be utilized for the purpose of designing the relocations.

ISS will establish a minimum of five (5) site benchmarks within the project area. The ISS project team will locate all visible aboveground improvements, locate lines of dense vegetation, perform cross sections at no greater than 100' intervals to establish the project topography. Cross sections of lesser intervals will be performed if the terrain dictates and all grade breaks will be collected. ISS will locate all traffic pavement markings within the Project area. The location of any underground utilities that will be marked by Blood Hound Utility Group will be located when all markings are completed and ISS is provided a sketch of all markings to ensure that the locates are thorough. Mr. Flavell (BCG) has requested a high-resolution georeferenced drone image to be used as a background in the survey.

SECTION II. SCOPE OF SERVICES

TASK 1 – Topographic Survey (As defined in Chapter 5J-17 Administrative Code)

- 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. Establish all of the of the ROW lines, easement lines and approximate lot lines within the project area.
- 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 marked by Blood Hound Utility Group.
- 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 via Pix4D photogrammetry software for image only.

SECTION III. SUBCONSULTANTS

To be determined for septic tank locations.

SECTION IV. CLIENT'S RESPONSIBILITY

The following will be the responsibility of BCG to provide to the ISS project team:

- 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 - 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 four (4) weeks of Project 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 Twenty-Eight Thousand Thirty dollars (\$28,030) 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 = 16hrs @ 2-man crew rate of \$140	\$2,240
2	Perform cross sections and locate improvements on 82nd Avenue = 70hrs @ 2-man crew rate of \$140	\$9,800
3	Locate property control = 16hrs @ 2-man crew rate of \$140	\$2,240
4	Perform cross sections and locate improvements on 26th Street = 35hrs @ 2-man crew rate of \$140	\$4,900
5	Survey drafting = 40hrs @ Draftsmen Tech II rate of \$90	\$3,600
6	Drone flight field operations and supplemental utility locates = 15hrs @ 2-man crew rate of \$140	\$2,100
7	Drone data processing = 5hrs @ Draftsmen Tech II rate of \$90	\$450
8	Sr. Professional Surveyor & Manager = 18hrs @ rate of \$150	\$2,700
TOTAL FEE		\$28,030

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


 Brian Stahl

12/03/20
 Date

Bowman Consulting Group

