

INDIVIDUAL PROJECT TASK ORDER NUMBER 6

Describing a specific agreement between Infrastructure Consulting & Engineering, PLLC (ENGINEER), and Sumter County Florida Board of County Commissioners (COUNTY) in accordance with the terms of the Master Agreement for Continuing Professional Services (RFP 007-0-2022/RS) dated June 14, 2022, which is incorporated herein by reference.

Project Name:

Project: Intersection Improvements to C 466 at CR 209

Client: Sumter County Florida Board of County Commissioners

Project Understanding:

The subject intersection was previously studied (Intersection Alternatives Report C 466 at CR209 dated January 2023) and the recommended improvements were approved by the Sumter County BOCC on January 24, 2023.

The Project consists of providing engineering design services to improve the intersection of C 466 at CR 209 by adding additional turn lanes and traffic signalization (using mastarm poles) to meet anticipated future traffic conditions. Specifically, a separate eastbound right-turn lane is to be added to C 466 and separate northbound left-turn and right-turn lanes are to be added to CR 209 along with a corresponding southbound left-turn lane. Sidewalk/pedestrian accommodations will be provided at the intersection (signals, landings and crosswalks on all 4-legs) and a 5 ft. wide sidewalk will be added on the south leg west side. The roadway geometry will be improved to meet the FDOT Greenbook (2018) and Sumter County standards. The specific elements to be added are to conform to the approved recommended improvements.

The engineering design component will include survey, geotechnical, roadway and drainage design, traffic signalization, lighting and permitting services.

Specific Scope of Basic Services:

Task 1 – Project Administration

The project administration activities are based on a 10-month contract period following Notice to Proceed by the BOARD. The activities that will be undertaken include the following:

- a. Project Setup: ENGINEER will establish project files, project work plan, initiate accounting system, and engage subconsultants.
- b. Project Schedule: ENGINEER will provide a schedule of calendar deadlines within 10 days of Notice to Proceed and will provide updates to the schedule through the life of the contract.
- c. Monthly Progress Meetings: ENGINEER will meet with the BOARD staff to review the progress of work and to conduct project reviews.
- d. Progress Reports and Invoices: ENGINEER will prepare a monthly progress report to be included with the monthly invoice.

Task 2 – Surveying, Mapping and Utility Locating Services

The ENGINEER (Surveyor subconsultant) will perform a topographic survey to support the design of the subject project. Also included is the preparation of a Right-of-Way Map and legal descriptions to define the existing and any needed additional right-of-way for the project.

Topographic Survey, Right-of-Way Map and Legal Descriptions

- e. Topographic limits at the intersection of C 466 at CR 209 to include the proposed recommended improvements as shown in the Intersection Analysis Report. The topographic limits are to include

15 feet beyond the existing or proposed right-of-way limits and will also include the existing pond B-7 site along CR 209 south of C 466.

- f. Topo to include all above ground features (utilities, fencing, poles, trees greater than 6" DBH, drainage pipes/structures, driveways, guardrail, etc.). Topo to also include the proposed soil boring locations and pavement cores.
- g. Provide a digital terrain model (DTM) depicting cross-sections at 50' intervals and break lines at all changes of slope. Increased density of shots within the intersection proper will be obtained.
- h. Provide horizontal and vertical control with a baseline that can be re-established by the Contractor
- i. Schedule – the Topographic Survey will be delivered to the ENGINEER in 30 days following NTP.
- j. Deliverables: up to five (5) certified copies of the survey along with electronic file in PDF and AutoCAD format.

Utility Locating

The surveyor, through the assistance of a subconsultant, will perform horizontal locating (Level B) of existing underground utilities along the project which will be marked in the field and located by the surveyor. After the design location of the proposed mastarm traffic signal foundations are determined, the surveyor will obtain the vertical location (by vacuum extraction) of underground utilities within a small radius to "clear" the proposed foundation locations. This information and locations will be indicated on the plans as VVH (verified vertically and horizontally) and a table of the located utilities will be prepared and included in the plans.

Right-of-Way Map

The Surveyor will establish the apparent right-of-way limits from the best available information (field survey of existing monumentation, right-of-way maps, maintenance limits as determined by others, and title searches). We will review the title searches of the parcels and create a Specific Purpose Survey depicting a Right-of-way map detailing which areas along the route have deeded right-of-way, which areas are prescriptive, and the location of plottable recorded easements which may affect the road. The Right-of-Way map will be submitted in DRAFT form to the County for review and comment. Once comments are addressed, the Right-of-Way map will be updated and submitted for FINAL approval.

Legal Descriptions

The Surveyor will prepare individual sketch and legal descriptions (in accordance with Standards of Practice Rule 5J-17 FAC) for the County's use in obtaining additional Right-of-Way as required for the project. The estimate (fee per parcel) includes preparation of up to four (4) parcels/descriptions and sketches as well as necessary title work.

Task 3 – Geotechnical Investigation

The ENGINEER (subconsultant) will provide geotechnical investigations needed for the project. Our geotechnical scope of services for this project will consist of the following:

- A. Carry out a generalized pavement condition survey of the overall roadway including identifying pavement crack types, depth, and severity. A recommendation will be included to identify if the existing pavement is suitable for milling/resurfacing and widening or if reconstruction should be considered.
- B. Pavement coring and subsurface exploration. Core samples of existing asphalt and base materials at six (6) locations will be obtained.
- C. Eighteen (18) 5-foot auger borings at 100-foot intervals along the widening areas will be obtained to assess subsoil and groundwater conditions.
- D. 30-foot deep SPT borings (2) will be obtained at the intersection for use in the mastarm traffic signal foundation design.

- E. Four (4) hand auger borings and two (2) permeability tests to support the design of potential drainage improvements (ditches/swales). Estimates of SHGWT will be obtained as well and two (2) SPT borings to evaluate deeper soil conditions and depth to confining layer.
- F. Visually classify and stratify representative soil samples in the laboratory using the AASHTO Soil Classification System. Conduct a limited laboratory testing program to confirm soil classification and determine pertinent engineering properties.
- G. Provide professional opinion for cause(s) of the existing pavement distresses as well as provide engineering recommendations for rehabilitation alternatives.
- H. Results of the subsurface exploration will be presented in a written engineering report prepared by a Professional Engineer licensed in the State of Florida. The report will include pavement design recommendations.

Task 4 – Environmental Permitting Services

The ENGINEER will provide limited environmental permitting services for the project.

Our environmental scope of services for this project will consist of the following:

- A. Regulatory Agency Pre-Application Meeting
A pre-application meeting will be held with SWFWMD to discuss the project and permitting requirements and to ascertain the applicable criteria and process for the project.
- B. Surface Water Environmental Resource Permit (SWERP).
Based upon the proposed improvements, it is anticipated that an individual SWERP Permit will be required to be obtained. The ENGINEER will prepare the application for this permit and coordinate with SWFWMD and will respond to up to two (2) RFAI's if necessary. It is assumed that the improvements will not include any wetland impacts or wetland mitigation design.
- C. Dredge and Fill (Section 404 ACOE Permitting) permit.
The State of Florida FDEP has been delegated the authority to administer this federal permitting process and will be provided a copy of the ERP application. It is anticipated that this project will not impact existing wetlands, so wetland mitigation is not an included service. Since no wetlands are anticipated to be impacted, it is assumed that a Nationwide Permit will be provided for this project and the ERP application documents will be sufficient

Task 5 –Design Plans (Roadway, Drainage, Traffic Signalization)

This task will include the following design, analysis, and coordination components.

- A. The ENGINEER will prepare design plans on 11"x17" sheets depicting the proposed roadway, stormwater, and traffic signalization improvements. The design plans will be prepared in accordance with the Sumter County Engineering Manual (SCEM), Florida Greenbook 2018 Edition, FDOT Standard Plans, and the FDOT Standard Specifications for Road & Bridge Construction. The design plans will consist of the following sheets:
 - 1) Cover Sheet.
 - 2) Drainage Map – the drainage basins, outfalls, stormsewer and drainage structures will be identified on this sheet.
 - 3) General Notes.
 - 4) Typical Section – Typical section will be developed to illustrate the proposed roadway improvements. A pavement design will be prepared for the proposed widening, milling/resurfacing or reconstruction (if recommended by the geotechnical investigation) using the FDOT Flexible Pavement Design Manual (latest edition). The proposed pavement section will be shown on the typical section sheet.
 - 5) Roadway Plan and Profile Sheets – These sheets will illustrate the horizontal and vertical construction details associated with the roadway and drainage improvements.

- 6) Intersection Detail Sheet - A detailed layout sheet will be prepared of the intersection and included in the plans.
- 7) Cross Sections – Roadway cross sections (100 ft. spacing plus at driveways) will be developed and shown on this sheet. Earthwork will also be shown on these sheets.
- 8) Temporary Traffic Control Plans – Temporary Traffic Control (TTC) requirements for the construction of this project will be provided using general notes, preparation of phasing plans, advance warning sign details and phasing notes, as well as reference to the FDOT Standard Plans for Road Construction (102-600 Series) or the MUTCD.
- 9) Erosion Control Plans – details of proposed erosion control devices to be used along the project during construction will be prepared and identified on separate plan sheets.
- 10) Signing and Pavement Marking details – these will be shown on separate signing and pavement marking plan sheets.
- 11) Traffic Signalization Plans – a plan sheet will be prepared identifying the proposed traffic signalization features with applicable pay items. Details will be prepared (as required) identifying the proposed mast arm elements and will be consistent with the County’s decorative mastarm signal standards.
- 12) Traffic Signal Warrant Analysis – a technical memo (signed/sealed) will be prepared, prior to beginning the traffic signal design plans, to determine if the intersection currently meets the MUTCD warrants for installing of a new traffic signal or when it would likely meet the warrants.
- 13) Lighting Design – A design of proposed lighting of the intersection will be performed. The illumination levels and criteria found in the FDOT Greenbook will be utilized in the analysis. Plans will be prepared identifying the location and details of the proposed lighting features and photometrics.
- 14) Submittals – The ENGINEER will submit up to three (3) hard copies and electronic PDF of the design plans at the 60% and 100% review submittal stage to the COUNTY. An electronic copy of all design files will be provided to the COUNTY with the Final submittal along with a signed/sealed set of plans.
- 15) Quantities – The ENGINEER will develop quantities consistent with COUNTY preferences and prepare an Opinion of Probable Construction Costs (OPC) document. An OPC with quantities will be submitted with the 60%, 100% and Final plans.

Note: The ENGINEER has no control over the cost of labor, materials, equipment, over the Contractor’s methods of determining prices, over competitive bidding, or market conditions. Opinions of probable costs provided in accordance with this AGREEMENT are based on the information known at the time the opinions of cost are developed and represent only the ENGINEER’s judgment as a design professional familiar with the construction industry. Actual costs for proposals, bids, or actual construction costs will be different.

Task 6 – Utility Coordination

Under this task, ENGINEER will coordinate with the existing utility agency owners (UAO’s) on the location of their facilities relative to the proposed improvements. The proposed design will attempt to minimize conflicts, where feasible, in the design of the proposed improvements. The ENGINEER will attempt to identify conflicts and coordinate with the UAO’s for their resolution of conflicts. The UAO’s will be responsible to prepare their own relocation plans if necessary to resolve any conflicts. The ENGINEER would be responsible to obtain the UAO’s relocation plans and Utility Work Schedules (UWS) and show their facilities on Utility Adjustment Plans (copies of the roadway plan sheets) for the contractor’s information (these are not construction plans) for construction by others (UAO’s responsibility).

The activities to be performed by the ENGINEER include:

- A. Send out basemaps (with topo and Level B utility locating info) to UAO’s for “Greenline” markups.
- B. Add all of the UAO’s greenline markups to the proposed roadway plans.

- C. Send out the 60% plans (with preliminary signal layout) requesting “redline” markups (prelim. relocation design) to the UAO’s with a preliminary conflict matrix developed and schedule and hold a preliminary design coordination meeting (meeting #1).
- D. Following meeting #1 and any adjustment to the design, initiate the Level A utility locates, add to the plans (identifying or revising utility conflict matrix) and send out to UAO’s and schedule meeting #2.
- E. Hold coordination meeting #2 to review/discuss proposed conflict resolutions, set deadline for UAO’s to prepare relocation plans and UWS.
- F. Following receipt of UAO’s relocation plans and UWS, ENGINEER will review to verify conflicts are resolved, UWS are reasonable and workable with proposed traffic control phasing.
- G. ENGINEER will review the UAO’s UWS and relocation plans and provide comments if necessary for resolution. Once acceptable UWS and relocation plans are provided, the ENGINEER will sign the UWS indicating the compatibility of the UAO work with the proposed project.

Task 7 – Permit Fee Allowance

Under this task, ENGINEER will provide payment of application fees (\$2,184 online application) to SWFWMD for a SWERP permit, and invoice to the BOARD for those amounts as a direct expense on the following monthly invoice.

Task 8 – Post-Design Services

If requested by the COUNTY, the ENGINEER would provide services not included in this scope of services after the completion of the Final Plans. These services would be identified in a separate description of scope and the fee for the services would be based on the required labor charges for applicable classifications. The labor charges would be on a per-hour basis and the rates utilized will be per the rate schedule contained in the Master Agreement for Continuing Professional Services (RFP 007-0-2022/RS) dated June 14, 2022

Reference Documents and Guidelines: the following documents (latest version) will be utilized in the development of the proposed design plans:

- AASHTO – Roadway Design Guide
- AASHTO – A Policy for Geometric Design of Highways and Streets
- FDOT Standard Plans
- FDOT Flexible Pavement Design Manual
- FDOT Manual of Uniform Minimum Standards for Design, Construction and Maintenance for Streets and Highways (“Florida Greenbook”)
- FDOT Standard Specifications for Road and Bridge Construction
- FDOT – Florida Intersection Design Guide
- FDOT – Drainage Manual
- FDOT – Drainage Design Guide
- FHWA MUTCD
- FHWA Public Right-of-Way Accessibility Guidelines (PROWAG)
- Sumter County – 2014 Tree Management Policy Guidelines for Roadway Rehabilitation Projects

Schedule:

The professional services will be completed within a mutually agreeable schedule.

Additional Services if Required:

Services requested that are not specifically included in this Agreement will be provided under a new and separate task order agreement or can be performed on an hourly basis upon written authorization. The following services are not included but could be added as additional services:

- Preparation of Bid Documents (Technical Special Provisions, etc.)
- Bidding Phase Services (Pre-Bid Meeting, Addendums, evaluation of bids, etc.)
- Public Involvement
- Right-of-Way Acquisition Services (negotiations, meetings, property acquisition cost estimates, expert witness/eminent domain assistance, etc.)

Method of Compensation:

The Engineer will perform the services described in Tasks 1 through 8 of the Scope of Services for a lump sum fee of **\$215,806** (task 8 is based on an hourly basis NTE) A breakdown by Task is provided below.

Task	Description	Fee
1	Project Administration	\$6,180
2	Surveying, Mapping and Utility Locating Services	\$42,370
3	Geotechnical Explorations	\$15,872
4	Environmental Permitting Services	\$8,535
5	Design Plans	\$122,565
6	Utility Coordination	\$8,100
7	Permitting Application Fee Allowance	\$2,184
8	Post-Design Services (Hourly basis – Not to Exceed)	\$10,000

Services provided under this task order will be invoiced monthly. All invoices will include a description of services provided.

INFRASTRUCTURE CONSULTING & ENGINEERING, PLLC

ACCEPTED:
BOARD OF SUMTER COUNTY COMMISSIONERS

BY: 

Doug Hambrecht, PE

BY: _____

TITLE: Vice President

TITLE: _____

DATE: 3/6/23

DATE: _____

ESTIMATE OF WORK EFFORT AND COST - PRIME CONSULTANT

Name of Project:
County:
FPN:
FAP No.:

C466 at CR209 Intersection Improv.
Sumter County FL

Consultant Name:
Consultant No.:
Date:
Estimator:

Infrastructure Consulting & Engineering, PLLC
2/28/2023
M. Morlan PE, J. Dabkowski PE, M. Schoefield PE

Staff Classification	Total Staff Hours From "SH Summary - Firm"	Principal	Project Manager	Senior Engineer	Engineer	Designer	EIT	Technician	Admin	SH By Activity	Salary Cost By Activity
		\$245.00	\$175.00	\$210.00	\$150.00	\$110.00	\$105.00	\$95.00	\$80.00		
3. Project General and Project Common Tasks	36	1	33	0	0	0	0	0	2	36	\$6,180
Roadway Plans/Analysis	395	6	59	0	0	115	215	0	0	395	\$47,020
Drainage Plans/Analysis	180	0	20	28	0	89	43	0	0	180	\$23,685
7. Utility Coordination	62	0	12	0	19	9	16	0	6	62	\$8,100
8. Permitting	60	0	6	15	6	9	21	0	3	60	\$8,535
Structures (mastarm and foundation)	44	4	5	23	12	0	0	0	0	44	\$8,485
Signing & Pavement Marking Plans/Analysis	66	0	10	0	0	17	39	0	0	66	\$7,715
Signalization Plans/Analysis	166	4	8	0	120	0	34	0	0	166	\$23,950
Lighting Plans/Analysis	83	3	4	0	51	0	25	0	0	83	\$11,710
Total Staff Hours	1,092	18	157	66	208	239	393	0	11	1,092	
Total Staff Cost		\$4,410.00	\$27,475.00	\$13,860.00	\$31,200.00	\$26,290.00	\$41,265.00	\$0.00	\$880.00		\$145,380.00

Check = \$145,380.00

Notes:

1. This sheet to be used by Prime Consultant to calculate the Grand Total fee.
2. Manually enter fee from each subconsultant. Unused subconsultant rows may be hidden.

BURDENED LABOR RELATED COSTS:		\$145,380.00
SUBTOTAL ESTIMATED FEE (PRIME):		\$145,380.00
Subconsultant:	CFB Surveyor (TOPO, ROW,Legals)	\$32,370.00
Subconsultant:	ELEMENT (SUE Level A & B)	\$10,000.00
Subconsultant:	Geotechnical (Tierra)	\$15,872.00
SUBTOTAL ESTIMATED FEE (SUBCONSULTANTS):		\$58,242.00
Task 7:	Permit Fee Allowance	\$2,184.00
Task 8:	Post-Design Services (Hourly, NTE)	\$10,000.00
GRAND TOTAL ESTIMATED FEE:		\$215,806.00