

**EXHIBIT A
SCOPE OF SERVICES FOR
VAUGHN ROAD IMPROVEMENTS
PRELIMINARY ENGINEERING REPORT
CONTRACT #2022-096-01**

SCOPE OF SERVICES

WSP USA Environment & Infrastructure Inc. (WSP), is pleased to submit this proposal to the Polk County Roads and Drainage Division (COUNTY) for Professional Engineering Services associated with the Vaughn Road Improvements.

PROJECT TITLE

Professional Engineering Services for the Vaughn Road Improvements Preliminary Engineering Report.

OBJECTIVE:

The overall objective of this proposal is to describe the scope of work and responsibilities of WSP for the Preliminary Engineering Report (PER) and performing other professional engineering work associated with the roadway resurfacing and widening of Vaughn Road from Sheffield Road to the northern terminus.

PROJECT DESCRIPTION:

The COUNTY proposes to improve approximately 0.34 miles of Vaughn Road from Sheffield Road to the northern terminus. The existing roadway width between Sheffield Road to the northern terminus is 20 feet and the COUNTY intends to widen the roadway to 24 feet within these limits to accommodate future access associated with the County's Fire Training Facility located at 59 Vaughn Road. (Parcel 25-29-10-000000-021010).

WSP has been requested to prepare a scope of services/staff hours for the development of a Preliminary Engineering Report (PER) for Vaughn Road from Sheffield Road to the northern terminus. The preparation of the PER will be performed in coordination with COUNTY staff and WSP's internal design staff.

PROJECT LOCATION



The proposal seeks professional engineering and planning services for improvements to Vaughn Road from Sheffield Road to the northern terminus. A preliminary engineering report (PER) will be completed and the option to complete a set of contract documents including plans, specifications, supporting engineering analysis, calculations, and other technical documents prepared by WSP and accepted by the COUNTY for this project.

TASK 1: GENERAL TASKS

Contract Maintenance

WSP will provide contract maintenance and project documentation during the duration of the contract. Includes complete setup and maintenance of files, electronic folders, and documents, developing monthly invoices and progress reports, schedule updates, and compilation/submittal of project documentation.

Project Meetings

WSP will attend two in-person progress coordination meetings with Polk County Roads & Drainage. WSP will provide meeting minutes for review and approval to the COUNTY. The task

also includes attendance at monthly virtual progress meetings with the County site development consultant.

Coordination

WSP will coordinate with all relevant agencies, including but not limited to the following agencies:

- Southwest Florida Water Management District (SWFWMD); and
- Dewberry, Inc.

WSP will perform project management duties necessary to coordinate project tasks with the COUNTY, develop and adhere to a project schedule, submit monthly invoices, and attend two in-person progress coordination meetings with the COUNTY.

Deliverables:

- Project Schedule (PDF format).
- Monthly Invoices (Hard copy via FedEx and PDF via email).

TASK 2: ENGINEERING ANALYSIS AND REPORTS

WSP shall develop a Preliminary Engineering Report (PER) that will develop and evaluate a 24-foot typical section for Vaughn Road between Kensington View Blvd. to the northern terminus. Using existing site development plans for the COUNTY's Fire Station, WSP will evaluate the roadway connection from the Vaughn Road right-of-way to 59 Vaughn Road (Parcel 25-29-10-000000-021010). Work includes evaluation of existing conditions, geotechnical investigation, permittability, and review of utility, drainage, and right-of-way impacts.

For the existing Vaughn Road section between Sheffield Road and Kensington View Blvd., WSP will evaluate the geotechnical investigation in order to develop a pavement structure recommendation that can accommodate future freight use (emergency response vehicles, service vehicles) associated with the COUNTY's Fire Station.

Existing Conditions Analysis

WSP will conduct field observations to determine existing field conditions, verify desktop data, and obtain additional data required to understand the Project area, assess Project needs, identify physical and environmental constraints, develop and analyze Project alternatives, and assess constructability issues.

Survey

To be provided by the COUNTY.

Utilities

WSP will evaluate impacts to Utility Agency Owners (UAOs) as part of the PER.

Roadway Analysis

WSP will analyze and document the roadway design in accordance with all the latest applicable manuals, guidelines, Pinellas County Standard Details, handbooks, procedures, and technical specifications. Applicable standards, manuals, and handbooks for this project are shown below:

- FDOT Design Manual (2023);
- FDOT Standard Plans (2023);
- FDOT Manual of Uniform Minimum Standards for Design, Construction, and Maintenance for Streets and Highways (“Florida Greenbook”);
- AASHTO – A Policy for Geometric Design of Highways and Streets;
- Polk County Standard Details; and
- Polk County Land Development Code.

The Roadway Design efforts will focus on the following:

- Design Controls and Criteria;
- Typical Sections;
- Geometric Design;
- Maintenance of Traffic; and
- Utility Relocation for Public Utilities (Polk County).

Drainage Analysis

WSP will perform drainage analysis by delineating the basin boundaries by using LiDAR information, survey data, existing permits, and field observations. WSP will analyze and determine high water elevations and use the information including geotechnical investigations to establish the preliminary roadway profile. It is assumed the drainage retrofit will include improvements along Vaughn Road between Sheffield Road and the northern terminus. The potential solution will investigate providing a stormwater retention area to be determined during the preliminary engineering phase with a positive storm sewer outfall connecting to the existing Vaughn Road stormwater conveyance system(s). The drainage improvements will remain within the existing COUNTY rights-of-way and/or COUNTY easements. The drainage analysis will include calculations to support the drainage design that will be provided in the construction plans. The analysis will also include a field visit and one meeting with the COUNTY staff early in the design phase to discuss potential solutions. WSP will attend and document a pre-application coordination meeting with the SWFWMD. All Drainage Analysis mentioned above will be documented by WSP in the Preliminary Engineering Report and submitted electronically.

Construction Cost Estimates

An estimate of probable construction cost shall be completed at the draft and final submittals (electronically) of the PER. Cost estimates will include work associated with relocating public utilities (if required).

Right of Way Cost Estimates

To be completed by the COUNTY.

Concept Plans

WSP will prepare concept plans and submit them to the COUNTY electronically. The concept plans will contain an aerial photo and existing characteristics for the project. The concept plans will have proposed typical section(s) and must show property lines, potential locations of culverts, retaining walls, right-of-way lines (existing and proposed), major utility facilities, intersections, and driveways, among other roadway elements. The concept plans will be developed on a scale of 1" = 40'.

Deliverables: (All items will be submitted in Microsoft Office Products, CADD, and PDF as appropriate):

- Electronic copy of Draft and Final Preliminary Engineering Report;
- Electronic copy of Draft and Final Engineers Estimate of Probable Construction Cost; and
- Electronic copy of Concept Plans.

TASK 3: GEOTECHNICAL SERVICES

Subsurface Exploration Scope

- Prior to the start of drilling activities, WSP personnel will perform a site visit. Suitable locations for the proposed borings will be selected and marked in the field and existing utilities that are visually identifiable will be noted. Based on our review of available aerial photographs and other site information, the majority of the borings will be drilled in Vaughn Road. As such, traffic control (lane closure) will be required to conduct the proposed borings. A Lane Closure Request will be submitted to Polk County and appropriate MOT will be implemented in working zones.
- WSP will perform seven (7) pavement cores along Vaughn Road to determine asphalt pavement and base thickness.
- WSP will perform six (6) SPT borings using a truck-mounted drill rig to a maximum depth of 6 feet below ground surface (ft BGS) to identify the subsurface conditions. The SPT borings will be performed in general accordance with the procedures recommended in ASTM D 1586. The SPT borings will be sampled using split-spoon samplers. Further, three (3) hand auger borings will be conducted in the grass shoulder of the existing road to a maximum depth of 6 ft BGS, or practical auger refusal (whichever occurs first), to identify the seasonal high water table information.
- Two composite bulk samples will be collected from the boring locations for the purpose of conducting laboratory testing.
- Soil sampling and field classification will be done in general accordance with ASTM D 2488.
- WSP will conduct two (2) double-ring infiltration (DRI) tests in general accordance with ASTM D 3385.
- WSP will subcontract a qualified driller and coordinate the subsurface exploration. WSP field personnel will be present during the subsurface exploration to monitor and direct the subcontractor, to collect quality samples, and provide an accurate representation of the subsurface conditions.
- Water levels will be checked in the boreholes and recorded upon completion of drilling.

- The SPT boreholes will be backfilled with soil cuttings and neat cement, and the surface patched with cold-patch asphalt. The hand auger borings will be backfilled with soil cuttings.
- The public utility locators in the area will be contacted via the Sunshine 811 system a minimum of 72 hours prior to beginning any ground disturbance.
- Soil samples recovered during our site exploration will be transported to our local office where they will be reviewed and visually classified by a geotechnical engineer/geologist.

Laboratory Testing Scope

WSP will perform an appropriate number of geotechnical classification and index property tests on representative soil samples, to sufficiently characterize the subsurface profile and assist in establishing soil properties.

The following specific types of tests are proposed:

- Moisture Content (ASTM D 2216): up to 24 tests;
- Particle Size (Sieve) Analysis with #200 wash (ASTM D 6913): up to 10 tests;
- Atterberg Limits (ASTM D 4318): up to 5 tests;
- Fines Content (ASTM D 1140): up to 10 tests;
- Organic Content (ASTM D 2974): up to 3 tests; and
- Limerock Bearing Ratio (LBR) (FDOT FM 5-515): up to 2 tests.

Geotechnical Engineering Report

The results of our field and laboratory programs will be evaluated by a professional geotechnical engineer licensed in the State of Florida. Based on the results of our evaluation, an engineering report will be prepared that details the results of the testing performed, provides logs of the borings, and a diagram of the site/boring layout. The report will include the following:

- Computer-generated boring logs with soil stratification based on visual soil classification.
- Groundwater levels observed during and after completion of drilling.
- Site location map.
- Boring location plan.
- Description of general site geology.
- Soil survey map.
- Subsurface exploration procedures.
- Encountered soil conditions.
- Double-ring infiltration (DRI) test results.
- Resilient Modulus (M_R) of obtained bulk samples based on LBR test results.
- Anticipated excavation conditions, including difficult excavation and groundwater conditions.
- Recommendations for temporary groundwater control, exclusive of the dewatering system design.
- Recommendations for earthwork, including subgrade preparation, fill placement, and minimum relative density requirements.

Assumptions / Limitations

- This proposal assumes that the complete geotechnical exploration can be performed in a single mobilization of our drilling subcontractor. If more mobilizations are required, additional fees will apply.
- All work can be performed during normal business hours (8 AM to 5 PM, Monday through Friday), except for County-recognized holidays.
- A handheld GPS unit will be utilized to locate each boring location in the field. A survey of as-built boring locations is not included in our scope of work.
- No fees associated with site restoration are included. While care will be taken to minimize disturbance at the site during drilling operations, it should be noted that some disturbance of the ground surface (such as rutting, etc.) is coincidental to drill rig operations, especially in soft ground or grass cover.
- This proposed scope is not intended to serve as an environmental investigation. It is assumed that no environmentally impacted materials will be encountered during the subsurface exploration. Costs for monitoring, handling, and disposal of such materials are not included herein. If such materials are encountered during drilling, a separate scope and budget for handling and disposal of such materials will need to be established.

Deliverable:

- Electronic copy of Geotechnical Engineering Report (PDF format).

TASK 4: OPTIONAL SERVICES

To be determined and negotiated on a case-by-case basis.

Deliverables (All items will be submitted in Microsoft Office Products, CADD, and PDF as appropriate):

- Electronic copy of Draft and Final Preliminary Engineering Report;
- Electronic copy of Geotechnical Engineering Report;
- Electronic copy of Draft and Final Engineers Estimate of Probable Construction Cost; and
- Electronic copy of Concept Plans.

COMPENSATION

WSP will perform the services described herein for a not-to-exceed fee of **\$112,447** as outlined in **Exhibit B-1** and summarized below:

TASK	
Task 1: General Tasks	\$20,325
Task 2: Engineering Analysis and Reports	\$59,401
Task 3: Geotechnical Services	\$17,415
Task 4: Optional/Contingency Services	\$5,000
Expenses	\$583
Geotechnical Laboratory Testing	\$2,946
Sub-Consultant (CPWG) – Geotechnical Drilling	\$6,777
Total:	\$112,447

SCHEDULE

WSP will provide the above Scope of Services and initiate the work upon the Notice to Proceed from Polk County with an estimated schedule of 180 days. A task-specific schedule will be established upon Notice to Proceed and maintained through the duration of the Project. The project schedule may be modified due to circumstances that arise during the execution of the work if mutually agreed to by WSP and the COUNTY Project Manager.

COMPENSATION

Invoices will be submitted monthly as applicable, based upon the actual services performed, and expenses incurred as of the invoice date. If additional efforts become necessary during the performance of the assignment, WSP will immediately advise the COUNTY of any budget revisions.

This proposal is good for 30 days or the contract end date whichever is sooner. The terms and conditions of the Master Consulting Agreement (2022-096) dated October 4, 2022, between Wood Environment & Infrastructure Solutions, Inc. (WSP) and Polk County are incorporated by reference.

We are prepared to begin immediately upon receipt of the Notice to Proceed. Please feel free to contact our office at #863.667.2345 to discuss any questions that you might have.

Sincerely,
WSP USA Environment & Infrastructure Inc.



David W. Butcher, P.E., LEED AP
Vice President, Civil Engineer



Christine Mehle, P.E., CFM, ENV SP
Vice President, Local Business Leader

DWB/CM/tjm



Exhibit B

POLK COUNTY
FEE SCHEDULE
2022

Job Classification	Range of Direct		Range of Hourly	
	Min	Max	Min	Max
Principal	\$65.65	\$134.34	\$176.07	\$360.29
Associate	\$56.23	\$89.23	\$150.80	\$239.31
Senior Project Manager	\$53.17	\$84.57	\$142.60	\$226.81
Project Manager	\$28.93	\$56.42	\$77.59	\$151.31
Senior Engineer/Scientist Professional	\$33.53	\$66.13	\$89.92	\$177.35
Engineer/Scientist Professional	\$18.35	\$49.45	\$49.21	\$132.62
Technician	\$16.67	\$43.50	\$44.71	\$116.66
Administrative Staff	\$15.72	\$36.23	\$42.16	\$97.17
Survey Crew (4 Person)	\$63.75	\$86.46	\$170.97	\$231.88
Survey Crew (3 Person)	\$52.24	\$73.74	\$140.10	\$197.76
Survey Crew (2 Person)	\$38.25	\$56.05	\$102.58	\$150.32

*WOOD will update the rate schedule multiplier annually and submit for approval

EXHIBIT B-1
 Polk County Roads and Drainage
 Vaughn Road Improvements PER
 WSP Project No. 600839.2
 November 2, 2023

Activity	Total Staff Hours From "SH Summary - Firm"	Principal	Senior Project Manager	Senior Project Professional	Project Engineer Professional	Technician	Admin Staff	Geo Associate Eng	Geo Senior Eng	Geo Eng II	Staff Classification 12	Staff Classification 12	Staff Classification 12	SH By Activity	Salary Cost By Activity	Average Rate Per Task
		\$265.00	\$225.00	\$185.00	\$141.00	\$125.00	\$104.00	\$225.00	\$141.00	\$125.00	\$0.00	\$0.00	\$0.00			
General Tasks	100	2	72	11	0	0	15	0	0	0	0	0	0	100	\$20,325	\$203.25
Engineering Analysis & Report	325	7	42	217	36	23	0	0	0	0	0	0	0	325	\$59,401	\$182.77
Geotechnical	117	0	0	0	0	8	2	16	77	14	0	0	0	117	\$17,415	\$148.85
Total Staff Hours	542	9	114	228	36	31	17	16	77	14	0	0	0	542		
Total Staff Cost		\$2,385.00	\$25,650.00	\$42,180.00	\$5,076.00	\$3,875.00	\$1,768.00	\$3,600.00	\$10,857.00	\$1,750.00	\$0.00	\$0.00	\$0.00		\$97,141.00	\$179.23

Survey Field Days by Subconsultant
 4 - Person Crew:

SALARY RELATED COSTS:			\$97,141.00
OVERHEAD:	0.00%		\$0.00
OPERATING MARGIN:	0.00%		\$0.00
FCCM (Facilities Capital Cost Money):	0.00%		\$0.00
EXPENSES:	0.60%		\$583.00
SALARY RELATED SUBTOTAL:			\$97,724.00
Survey (Field - if by Prime)	0.00	4-man crew days @ \$ - / day	\$0.00
Laboratory Testing			\$2,946.00
SUBTOTAL - PRIME			\$100,670.00
Subconsultant: Madrid/CPWG			\$6,777.00
SUBTOTAL ESTIMATED FEE:			\$107,447.00
Optional Services/Contingency			\$5,000.00
GRAND TOTAL ESTIMATED FEE:			\$112,447.00

- 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.
 3. Enter the rate for each classification in Row 9.

**PROJECT DEVELOPMENT & ENVIRONMENT
PROJECT DATA**

Estimator:

Vaughn Road Improvements PER
XXXXXXXX

Representing	Print Name	Signature / Date
2-Nov-23		

NOTE: Signature Block is optional, per District preference

Task No.	Task	Units	# of Units	Hours / Unit	Hours	Comments
NOTE: * subject to QC						
2.2	Project Requirements and Provisions for Work					
	2.2.6 Meetings and Presentations	LS			42	see table below
	2.2.9 Schedule *	LS	1	0	0	
	2.2 Project Requirements and Provisions Work Total				42	
2.3	Coordination with Other Consultants and Entities	LS	1	6	6	Coordination with County survey and geotechnical sub consultant
2.4	Contract Management	LS	1	52	52	Initial Set Up at 20 hours at 4 hours per month at 8 months
2.5	Additional Services					
	2.5.1 Alternative Corridor Evaluation *	LS	1	0	0	N/A
	2.5.2 Advance Notification					N/A
	Advance Notification *	LS	1	0	0	N/A
	Preliminary Environmental Discussion *	LS	1	0	0	N/A
	2.5.3 Scoping (EIS Only)					N/A
	Set up/Scoping Package*	LS	1	0	0	N/A
	Participation and notes	LS	1	0	0	N/A
	2.5.4 Notice of Intent (EIS Only) *	LS	1	0	0	N/A
	2.5.5 Transit Coordination Plan *	LS	1	0	0	N/A
	2.5.6 Miscellaneous Services *	LS	1	0	0	N/A
	2.5 Additional Services Total				0	
2.7	Optional Services	LS	1	0	0	
Project Description and Objectives Subtotal					100	
Roadway	Concepts	EA	1	8	8	Virtual monthly meeting with Dewberry: 1 person @ 1 hr X 8 months
Drainage	Pond Siting	EA	1	0	0	
	FDOT Drainage	EA	1	0	0	
	Agency (Drainage)	EA	1	4	4	Virtual Meeting (County) to discuss preliminary drainage design/approach: 2 ppl @ 2 hrs/person, includes meeting minutes
Structures	FDOT Structures	EA	1	0	0	
	WMD	EA	1	2	2	Virtual Meeting Pre App with SWFWMD; 2 ppl @ 1 hr/person
	NMFS	EA	1	0	0	
	USACE	EA	1	0	0	
	USCG	EA	1	0	0	

**PROJECT DEVELOPMENT & ENVIRONMENT
PROJECT DATA**

Task No.	Task	Units	# of Units	Hours / Unit	Hours	Comments
Environmental	USFWS	EA	1	0	0	
	NPS	EA	1	0	0	
	SHPO	EA	1	0	0	
	USFS	EA	1	0	0	
	FFWCC	EA	1	0	0	
	USDA & NRCS	EA	1	0	0	
	USDOJ	EA	1	0	0	
	Noise Coordination	EA	1	0	0	
	Cultural Resources Coordination	EA	1	0	0	
	FDEP	EA	1	0	0	
	FDOT Environmental	EA	1	0	0	
Traffic	Traffic Methodology	EA	1	0	0	
	Traffic Design	EA	1	0	0	
	Traffic Analysis	EA	1	0	0	
Utilities and Railroad	UAO & DUO	EA	1	0	0	
	Railroad Office	EA	1	0	0	
Tolls	Tolls	EA	1	0	0	
PM / EMO	Local Governments (cities, counties, MPO)	EA	1	0	0	
Subtotal Technical Meetings					18	
	Progress Meetings (if required by County)	EA	8	2	16	Monthly progress meetings with County PM; includes agenda/meeting minutes
	Phase Review Meetings	EA	2	4	8	2 meetings to discuss comments / responses to Draft and Final PER
	Misc. Review Meetings	EA	1	0	0	
Total Meetings					42	Carry to task 2.2.6

**PROJECT DEVELOPMENT & ENVIRONMENT
PROJECT DATA**

Estimator:

Vaughn Road Improvements PER

XXXXXXXX

Representing	Print Name	Signature / Date
2-Nov-23		

NOTE: Signature Block is optional, per District preference

Task No.	Task	Units	# of Units	Hours / Unit	Hours	Comments
NOTE: * subject to QC						
4.1	Review of Previous Studies	LS	1	4	4	Review of Fire Station site plans
4.2	Existing Conditions Analysis					
	<i>Data Collection</i>	LS	1	4	4	
	<i>Field Review</i>	LS	2	8	16	<i>Two field review with two people each at 8 hours per field review (includes PER documentation)</i>
	4.2 Existing Conditions Analysis Total				20	
4.3	Survey					
	<i>4.3.1 Survey Design *</i>	LS	1	0	0	<i>Completed by the County</i>
	<i>Survey Coordination</i>	LS	1	0	0	<i>N/A</i>
	<i>4.3.2 Photogrammetry *</i>	LS	1	0	0	<i>N/A</i>
	<i>Aerial Photography</i>	LS	1	0	0	<i>N/A</i>
	4.3 Survey Total				0	
4.4	Geotechnical Investigation					
	<i>Soils</i>	LS	1	0	0	<i>See Section 3</i>
	<i>Geotechnical Coordination</i>	LS	1	0	0	<i>See Section 3</i>
	<i>Geotechnical Design Services *</i>	LS	1	0	0	<i>See Section 3</i>
	4.4 Geotechnical Investigation Total				0	
4.5	Traffic Analysis					
	<i>4.5.3 Vehicle Class. Counts on Roadway Segments and Ramps *</i>	LS	1	0	0	<i>N/A</i>
	<i>4.5.13 Interchange Access Request *</i>	LS	1	0	0	<i>N/A</i>
	<i>4.5.14 Traffic Data for Noise Study *</i>	EA	0	0	0	<i>N/A</i>
	<i>4.5.15 Traffic Data for Air Quality Analysis *</i>	EA	0	0	0	<i>N/A</i>
	<i>4.5.16 Signalization Analysis *</i>	LS	1	0	0	<i>N/A</i>
	4.5 Traffic Analysis Total				0	

**PROJECT DEVELOPMENT & ENVIRONMENT
PROJECT DATA**

Task No.	Task	Units	# of Units	Hours / Unit	Hours	Comments
4.6	Signage *	LS	1	0	0	N/A
4.7	Tolling Concepts *	LS	1	0	0	N/A
4.8	Safety					
	4.8.1 Crash Data *	LS	1	0	0	N/A
	4.8.2 Safety Analysis					
	Historical Crash Analysis *	LS	1	0	0	N/A
	HSM Safety Analysis *	LS	1	0	0	N/A
	4.8.3 Documentation of Safety Analysis *	LS	1	0	0	N/A
	4.8 Safety Total				0	
4.9	Utilities and Railroads					
	4.9.1 Utilities *	EA	1	0	0	N/A
	4.9.2 Railroad *	EA	1	0	0	N/A
	4.9 Utilities and Railroads Total				0	
4.10	Roadway Analysis					
	4.10.1 Design Controls and Criteria *	LS	1	4	4	
	4.10.2 Typical Section Analysis *	EA	2	8	16	Assume two typical sections (1 - Sheffield to Kensington View Blvd; 2 - Kensington View Blvd to northern terminus) at 8 hours per typical
	4.10.3 Geometric Design*	LS	1	40	40	Concept design Vaughn Rd
	4.10.4 Intersections and Interchange Evaluation *	EA	1	8	8	Analysis at Sheffield Rd and connection to Fire Station site plans
	4.10.5 Access Management *	LS	1	0	0	Review the existing and proposed access management with recommendations
	4.10.6 Multimodal Accommodations *	LS	1	0	0	Evaluate pedestrian, bike, and transit features on the corridor
	4.10.7 Maintenance of Traffic *	LS	1	7	7	20 hours per mile at 0.34 miles at 1 alternative = 20*0.34*1 = 7 hours
	4.10.8 Lighting *	LS	1	0	0	N/A
	4.10 Roadway Total				75	
4.11	Identify Construction Segments *	LS	1	0	0	N/A
4.12	Transportation Systems Management and Operations *	LS	1	0	0	N/A
4.13	Structures					
	4.13.1 Existing Structures*	EA	0	0	0	N/A
	4.13.2 Structure Typical Sections *	EA	0	0	0	N/A
	4.13.3 Structure Design Alternatives *	EA	0	0	0	N/A
	4.13 Structures Total				0	
4.14	Drainage					
	4.14.1 Floodplain and Environmental Permit Data Collection *	LS	1	0	0	No floodplain impacts

**PROJECT DEVELOPMENT & ENVIRONMENT
PROJECT DATA**

Task No.	Task	Units	# of Units	Hours / Unit	Hours	Comments
4.14.2	Drainage Analysis *	Per Basin	2	24	48	Project is located in urban area : Obtain Lidar Delineate Drainage boundaries Determine and Document DHW's for roadway design (from SHWT's) Check capacity and structural adequacy of existing cross drains and outfalls
4.14.3	Floodplain Compensation Analysis *	Per Encroach.	1	0	0	No floodplain impacts
4.14.4 Stormwater Management Analysis						
	Enviro. Look Around (ELA) Meeting and Pond Siting Meeting	LS	0	6	0	N/A
	Stormwater Management *	Per Basin	1	24	24	Water Quality & Quantity Calculations for proposed management facility Outfall Evaluation
	Conceptual Drainage Design Report* (included within PER)	LS	1	16	16	Preliminary Drainage Design Documentation
4.14.5	Drainage Design *	LS	1	0	0	N/A
4.14.6	Location Hydraulic Report *	LS	1	0	0	N/A
4.14.7	Bridge Hydraulic Evaluation*	EA	0	0	0	N/A
4.14 Drainage Total					88	N/A
4.15	Landscaping Analysis *	LS	1	0	0	
4.16 Construction and Right of Way Cost Estimates						
4.16.1	Construction Cost Estimates *	LS	2	12	24	Two Cost Estimates (draft and final) (includes generating quantities)
4.16.2	Right of Way Cost Estimates *	LS	1	0	0	TBD
4.16 Construction and Right of Way Cost Estimates Total					24	
4.17 Alternatives Evaluation						
4.17.1	Comparative Alternatives Evaluation *	LS	1	0	0	N/A
4.17.2	Selection of Recommended Alternative *	LS	1	0	0	N/A
4.17.3	Value Engineering *	LS	1	0	0	N/A
4.17 Alternatives Evaluation Total					0	
4.18 Concept Plans						
4.18.1	Base Map *	Sheet	0	8	0	
4.18.2	Alternative Concept Plans *	Sheet	5	8	40	Roadway: L= 1,800' @ 1" = 40' scale (560'/sheet) = 4 Sheets Drainage: 1 sheet (1" = 200' scale)
4.18.3	Preferred Alternative *	Sheet	0	0	0	Included in Tab 4.18.2
4.18.4	Typical Section Package *	LS	0	0	0	To be completed at Design
4.18.5	Design Exceptions and Design Variations *	EA	0	0	0	To be completed at Design
4.18 Concept Plans Total					40	
4.19	Transportation Management Plan *	LS	1	0	0	N/A

**PROJECT DEVELOPMENT & ENVIRONMENT
PROJECT DATA**

Task No.	Task	Units	# of Units	Hours / Unit	Hours	Comments
4.20	Risk Management					
	<i>Meeting Materials*</i>	LS	1	0	0	N/A
	<i>Meeting Participation</i>	LS	1	0	0	N/A
	4.20 Risk Management Total				0	
4.21	Engineering Analysis Documentation					
	<i>Draft Engineering Analysis Documentation*</i>	LS	1	40	40	<i>Draft PER</i>
	<i>Final Engineering Analysis Documentation *</i>	LS	1	20	20	<i>Final PER</i>
	4.21 Engineering Analysis Documentation Total				60	
4.22	Planning Consistency					
	<i>4.22.1 Transportation Plans</i>	LS	1	0	0	N/A
	<i>4.22.2 Planning Consistency Form *</i>	LS	1	0	0	N/A
	4.22 Planning Consistency Total				0	
4.23	Transit Systems and Service					
	<i>4.23.1 Transit Concepts and Alternatives</i>					N/A
	<i>Review of Transit Concepts and Alternatives Report (TCAR)</i>	LS	1	0	0	N/A
	<i>Review of Bicycle/Greenway plans</i>	LS	1	0	0	N/A
	<i>Develop Transit Concepts and Alternatives Report *</i>	LS	1	0	0	N/A
	<i>4.23.2 Existing and Planned Transit Infrastructure and Services *</i>	LS	1	0	0	N/A
	<i>4.23.3 Connectivity and Accessibility *</i>	LS	1	0	0	N/A
	<i>4.23.4 Transit Operational Analysis *</i>	LS	1	0	0	N/A
	<i>4.23.5 Ridership and Revenue Estimations</i>					N/A
	<i>Ridership and Revenue Forecasts *</i>	LS	1	0	0	N/A
	<i>Operating and Ridership Sensitivity Testing *</i>	LS	1	0	0	N/A
	<i>Ridership and Revenue Results Documentation *</i>	LS	1	0	0	N/A
	<i>4.23.6 Transit Cost Estimates and Financial Commitments *</i>	LS	1	0	0	N/A
	<i>4.23.7 Proposed Transit Service and Operations Plan *</i>	LS	1	0	0	N/A
	<i>4.23.8 Transit Infrastructure Alternatives *</i>	LS	1	0	0	N/A
	<i>4.23.9 Constructability Review *</i>	LS	1	0	0	N/A
	4.23 Transit Systems, Service, and Design Total				0	
	Engineering Analysis and Report Subtotal				311	
	Hours Subject to QC				287	
	Quality Assurance / Quality Control	LS	%	5%	14	
	ENGINEERING ANALYSIS AND REPORT TOTAL HOURS				325	

**PROJECT DEVELOPMENT & ENVIRONMENT
PROJECT DATA**

Estimator:

Vaughn Road Improvements PER
XXXXXXXX

Representing	Print Name	Signature / Date
2-Nov-23		

NOTE: Signature Block is optional, per District preference

Task No.	Task	Units	# of Units	Hours / Unit	Hours	Comments
3.0	Geotechnical Task 1 - Subsurface Investigation					
	<i>Drilling Coordination and Utility Clearance</i>	LS	1	8	8	
	<i>Site Reconnaissance and Boring Layout</i>	LS	1	8	8	
	<i>MOT Plan Preparation and Submittal to Polk County</i>	LS	1	6	6	
	<i>Field Testing</i>	LS	1	24	24	
	<i>Boring Logs Preparation</i>	LS	1	12	12	
	<i>Laboratory Testing</i>	LS	1	7	7	
	Geotechnical Task 2 - Geotechnical Engineering Report					
	<i>Engineering Report Preparation</i>	LS	1	44	44	
	<i>Internal Review</i>	LS	1	8	8	
	4.4 Geotechnical Investigation Total					117



MADRID ENGINEERING GROUP / CPWG
 2030 State Road 60 E
 Bartow FL 33830-4268
 Ph: (863) 533-9007
 Fax: (863) 533-8997

BID WORK UP_15307.14 Vaughn Road Improvements

Date	Estimate No.
9/29/2023	15307.03

NAME/ADDRESS	Site Information		
Dennis Crawford, PE 1 215-439-5715 550 Northlake Blvd Altamonte Springs, FL 32701 dennis.crawford@wsp.com	Polk County		
DESCRIPTION	QTY	TOTAL	
<p>Scope Of Work: (2) double-ring infiltration tests, (3) hand augers to a depth of 6 feet, (7) pavement cores, and drilling (6) 6-foot SPT borings with continuous sampling to depth. The SPT borings will be backfilled with neat cement. Madrid CPWG estimates that the work will take around (2) days to complete, provided all locations are accessible to a truck-mounted drill rig. This assumes that the SPT borings will be drilled in (6) of the cored locations. No additional work will be done without the client's prior approval. If any additional work is required such as TBD usage or extra material and time beyond 20% of the theoretical volumes, it will be billed at our standard unit rates. If you approve of this proposal, please sign the provided space for Authorization to Proceed and email a copy to our office.</p>			
Drilling Services			
Mobilization Drill Rig Truck Mount (<100 miles 1-way)	Lump	1	\$546.00 \$546.00
Geo Drill Crew Support Vehicle (1 Drilling and 1 Dule Rig day)	Day	2	\$185.00 \$370.00
SPT Truck Mount (6) SPT Not >10 Ft, Backfill included (Not >10hr portal to portal day)	Day	1	\$600.00 \$600.00
Day rate Overtime >10 hrs.	Hour	TBD	\$350.00
Geo Hand Auger Borings (Not >10')	Each	3	\$100.00 \$300.00
Geo Double Ring Infiltration ASTM D3385	Each	2	\$600.00 \$1,200.00
Asphalt Pavement Coring – 4" dia with Base Depth Check	Each	7	\$200.00 \$1,400.00
Bulk sample collection (max 2 buckets/bags per sample, Not >3' depth)	Each	2	\$100.00 \$200.00
MOT services			
Mobilization MOT	Lump	1	\$546.00 \$546.00
GEO MOT - Day Rate (Not >10hrs) (Includes Standard Traffic Control Cones & Sign)	Day	1	\$1,150.00 \$1,150.00
Day rate Overtime >10 hrs.	Hour	TBD	\$350.00
Arrow Bard Crew Truck	Day	1	\$240.00 \$240.00
Administration / Staking for 811 not included	Each	3	\$75.00 \$225.00
Stand-By / Adverse conditions or time spent waiting not caused by work Madrid CPWG, Incudes	Hour	TBD	\$350.00
Inclement Weather	Hour	TBD	\$350.00
Production loss due to adverse drilling conditions or undisclosed site conditions will change billing from footage to a day rate (<10 hrs.)	Day	TBD	\$5,000.00
<p>The client is responsible for supplying a water source beyond what is brought with the rig</p>			
<p>Madrid CPWG looks forward to providing you quality services.</p>			
			Estimate Total \$6,777.00

Fran McAskill
Director
Procurement Division



330 West Church Street
P.O. Box 9005, Drawer AS05
Bartow, Florida 33831-9005
Phone: (863) 534-6757
Fax: (863) 534-6789
www.polk-county.net

EXHIBIT C

Board of County Commissioners

REIMBURSABLE COST SCHEDULE

1.	Reproduction Cost		
	A. Regular Copying	Single Side	Double Sided
	8 ½ x 11 (black & white).....	\$ 0.15/page	\$ 0.25/sheet
	8 ½ x 11 (color).....	\$ 0.30/page	\$ 0.40/sheet
	8 ½ x 14 (black & white).....	\$ 0.15/page	\$ 0.25/sheet
	8 ½ x 14 (color).....	\$ 0.30/page	\$.0.40/sheet
	11 x 17 (black & white).....	\$ 0.25/page	\$ 0.35/sheet
	11 x 17 (color).....	\$ 0.40/page	\$ 0.50/sheet
	9 ½ x 24 Single Side Only.....	\$ 1.00/page	
	17 x 22 Single Side Only.....	\$ 2.00/page	
	18 x 24 Single Side Only.....	\$ 2.00/page	
	24 x 36 Single Side Only.....	\$ 3.00/page	
	30 x 30 Single Side Only.....	\$ 5.00/page	
	32 x 34 Single Side Only.....	\$ 5.00/page	
	Other sizes-per square inch	\$ 0.03/page	
	Compact Digital Disk	\$ 6.00/disk	
	B. Blueprint Copy.....		\$10.00/page
2.	Subcontractor Services		Actual Costs
3.	Special Consultants		Actual costs
4.	Computer Services		Non-reimbursable
5.	Travel Expenses	In accordance with Chapter 112.061, F.S.; and further defined in the Polk County Employee Handbook.	
6.	Postage, Fed Express, UPS		Actual Costs
7.	Pre-approved Equipment (includes purchase and rental of equipment used in project)		Actual Costs