

**FIRST AMENDMENT TO CONTRACT FOR DESIGN AND ENGINEERING
SERVICES FOR CR 121 FOR RECONSTRUCTION AND RESURFACING FROM
DUVAL COUNTY LINE TO CR 119**

THIS FIRST AMENDMENT TO THE CONTRACT FOR DESIGN AND ENGINEERING SERVICES FOR CR 121 FOR RECONSTRUCTION AND RESURFACING FROM DUVAL COUNTY LINE TO CR 119 (hereinafter “Amendment”) is made by and between the **BOARD OF COUNTY COMMISSIONERS OF NASSAU COUNTY, FLORIDA**, a political subdivision of the State of Florida (hereinafter the “County”), and **KIMLEY-HORN AND ASSOCIATES, INC.**, a business having its primary business location at 12740 Gran Bay Parkway West, Suite 2350, Jacksonville, Florida 32258 (hereinafter the “Vendor”).

WITNESSETH:

WHEREAS, the Parties previously entered into a Contract for design and engineering services dated March 27, 2023 with a termination date of March 27, 2024 (hereinafter “Contract”); and

WHEREAS, as of the date of this Amendment, the Parties have continued performing under the current terms and conditions of the Contract; and

WHEREAS, the Parties now desire to amend the Contract to (1) extend the term of the Contract, (2) replace in their entirety Exhibits “B” and “C” and (3) increase the compensation amount under the Contract as set forth herein.

NOW, THEREFORE, for good and valuable consideration the receipt and sufficiency of which is hereby acknowledged, and intending to be legally bound, the Parties do agree to amend the Contract as follows:

SECTION 1. Article 4. Term of the Contract is hereby amended to extend the term of the Contract for an additional five-hundred twenty-three (523) days and the Contract shall now terminate on August 31, 2025.

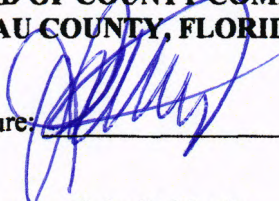
SECTION 2. Article 5. Compensation of the Contract is hereby amended to increase the compensation amount owed to the Vendor for the goods/services to be provided under the Contract by Two Hundred Eighty-Six Thousand, Three Hundred Fifty-Eight Dollars and Thirty-Two Cents (\$286,358.32) for a total not to exceed amount of One Million, One Hundred Sixteen Thousand, Five Hundred Nineteen Dollars and Eight Cents (\$1,116,519.08).

SECTION 3. Article 7. Documents of the Contract is hereby amended to repeal and replace Exhibit “B” and Exhibit “C” of the Contract with an entirely new Exhibit “B” and an entirely new Exhibit “C”, copies of which are attached hereto and incorporated herein.

SECTION 4. All other terms and conditions of the Contract not inconsistent with the provisions of this Amendment shall remain the same and in full force and effect.

IN WITNESS WHEREOF, the Parties have caused this Amendment to be executed by its duly authorized representatives, effective as of the last date below.

**BOARD OF COUNTY COMMISSIONERS
NASSAU COUNTY, FLORIDA**

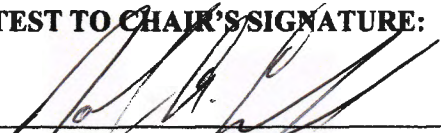
Signature: 

Print Name: John F. Martin

Title: Chairman

Date: 6-3-24

ATTEST TO CHAIR'S SIGNATURE:


JOHN A. CRAWFORD
Its: Ex-Officio Clerk

REVIEWED FOR LEGAL FORM AND CONTENT:


DENISE C. MAY, County Attorney

KIMLEY-HORN AND ASSOCIATES, INC.

Signature: 

By: George Roland

Title: Assistant Secretary

Date: 5/6/2024



SCOPE OF DESIGN SERVICES

ORIGINAL CONTRACT + AMENDMENT #1

Bid No. NC22-019

Identification of Project:

Client: **Nassau County Board of County Commissioners**

Project: **County Road 121: from Duval County line to CR 119**

Project Understanding:

The Project consists of providing design survey, geotechnical investigation, flexible pavement design, roadway design, drainage cross drain analysis, temporary traffic control design, signing & pavement marking design and bidding phase support services for the reconstruction/resurfacing of CR 121 from the Duval County line to CR 119. The project is approximately 7.5 miles in length. The funding for this project is based on a State Funded Grant Agreement between the Florida Department of Transportation (FDOT) and Nassau County. Based on the funding provided in the grant agreement it is understood that the scope of work for this project is limited to improvements to the roadway pavement structure and shoulders. These improvements will serve to improve long term safety through correction of pavement rutting, cross slope and shoulder build up to more effectively remove rainfall from the pavement.

The design for this project will be prepared under the design criteria defined in the 2018 Edition of the "Manual of Uniform Minimum Standards for Design, Construction and Maintenance" (Florida Greenbook). The pavement design will be prepared using the methodology outlined in the FDOT's 2023 "Flexible Pavement Design Manual"

Specific Scope of Basic Services + Amendment #1:

Task 1 – Design Survey Services – Original Contract

The CONSULTANT will subcontract with SAM, LLC to provide survey services as described below:

- a.) Horizontal Project Control (HPC) - Establish HPC at approximately 1 mile spacing. Utilize NGS Benchmarks when possible.
- b.) Vertical Project Control - Level run from NGS Monument B 600 (DG9720) to NGS Monument J 592 through R 592, then close to NGS Monument 74 94 GPS1 (AB4006). Establish secondary vertical control as needed.
- c.) Alignment & Right-of-Way Lines - Non-curve PIs at beginning of project without State Road Department (SRD) monuments. SRD monuments exist at most PCs & PTs.. Calculate a Baseline of Survey from available SRD monuments and R/W Maps. Show Baseline and R/W lines of Stokes Road and CR 119 per DOT Mapping. Staking of Baselines are not included.
- d.) LiDAR Targets - Set targets at 1000 foot spacing, alternating on each side of roadway.
- e.) Reference Points - Show station/offset ties from calculated Baseline of Survey to HPC. No reference points to be field staked.
- f.) Topography 3D - Mobile LiDAR data to be augmented at 1 triple cross drain culvert. Limits are 20 feet each side of extended centerline of culvert, from edge of pavement to R/W of CR 121.
- g.) Roadway Cross-Sections - Test cross-sections at 1000 foot spacing. Two cross-sections near MOC of 6 curves, exact location TBD by Engineer once Baseline is calculated. Total of 46 cross-sections. Cross-sections to extend left and right of Baseline to limits of scan data.

- h.) Side Street Surveys - Topography 3D on Stokes Road and CR 119 extended to 100 feet from centerline of CR 121, from R/W to R/W of Stokes Road.
- i.) Underground Utilities - Utility designation at 1 triple culvert and 3 box culverts. Known utility providers are: Florida Power & Light; Okefenoke Rural Electric Membership Corp.; AT&T Distribution; Southern Natural Gas Co.
- j.) Drainage Survey - Location of side drains not included. Location of cross drain limited to the one triple 48" culvert located just north of the Duval County line
- k.) Jurisdiction Line Survey - Locate flags set by others at 1 triple cross drain culvert.
- l.) Geotechnical Support - Geotech to located borings using handheld GPS. SAM to obtain elevations from scan data.
- m.) Work Zone Safety - One hour per day to set & retrieve safety signs.

Based on the nature of this pavement reconstruction/rehabilitation only the specific survey services listed above are included in this scope of work. The following survey services are not included: Outfall Survey, Pond Site Survey, Mitigation Survey, Sectional/Grant Survey, Subdivision Location, Maintained R/W, Boundary Survey, R/W Staking / R/W Lines, R/W Monumentation, Misc. Survey coverage outside the limits of the LiDAR coverage area.

Task 1A – Design Survey Services Amendment #1

- a) Full topo and vertical survey of the 3 existing Concrete Box Culverts (+/- sta 54+00, sta 90+50 and 407+00)
 - a. Include x-section of existing channel at 25ft interval leading into and out of these CBC's out to 100ft from the existing endwalls
 - b. Need full survey of existing CR 121 swales from EP out to existing R/W from centerline of CBC to a min of 300ft north and south.
- b) Locate and provide full topo (invert elev, pipe size, etc) for all minor existing cross drains. Estimate that there are 15 total.
- c) Locate existing sidedrain pipe under Stokes Rd (invert elev, pipe size, etc)
- d) Locate existing mailboxes within CR 121 R/W.
- e) Locate 2 existing agricultural driveway access (gates) on the east side of CR 121 opposite Stokes Rd.
- f) Locate limits of concrete ditch pavement (sta 406+00 to sta 413+00, Lt)
- g) Locate wetland flagging for CBC replacement/ext.

Task 2 – Geotechnical Explorations – Original Contract

The CONSULTANT will subcontract with Environmental and Geotechnical Specialists Inc. (EGS) to provide geotechnical investigation and analysis for the project. All geotechnical work will be performed in accordance with the **FDOT's** Soils and Foundations Handbook. Our geotechnical scope of services for this project will consist of the following:

The following basic geotechnical services will be provided under this project:

- **Field Services**
 - Install 1 Pavement Core coupled with 1-5 Ft hand auger on 500 Ft centers throughout the length of the corridor, to evaluate the pavement thickness and structure, and to evaluate the type, thickness, and composition of the existing base, subgrade and embankment, to a depth of 5 Ft below the ground surface;

- Install 1-20 Ft SPT boring at 5 areas of severe distress throughout the corridor, in order to run advanced geotechnical analysis of the subsoils to determine if compressible soils (highly organic) are present within the influence zone of the proposed pavement structure;
- Install 1-5 Ft hand auger on 100 Ft centers in the area of the proposed roadway widening, which is estimated as 1,000 Ft of widening.
- **Laboratory Services**
 - Perform general geotechnical laboratory testing to classify the subsoils in respect to USCS and AASHTO Classifications;
 - Perform 1 Limerock Bearing Ratio (**LBR**) Test per mile of roadway, to evaluate the strength characteristics of the existing embankment soils;
- **Design Services**
 - Provide a Report of Soil Survey sheet and Boring Plan Sheet to be included in the report;
 - Provide a data file of each boring for inclusion in the cross sections and plan sheets;
 - Provide the Existing Structural Number (**SNE**) of the asphalt at the locations tested in this Project;
 - Provide asphalt thickness and asphalt type based on the **FDOT** Visual Classification Method;
 - Provide geotechnical findings and recommendations as to why the severe pavement distress is being observed throughout the corridor, and provide remedial design recommendations to repair these sections;

Task 2A – Geotechnical Explorations Amendment #1

- a) Temporary Traffic Control – Perform a temporary shoulder closure in accordance with FDOT SPI 102-602
- b) Soil Borings – Perform 2, 40-foot deep Standard Penetration Test (SPT) soil borings per CBC. (240 feet total)
- c) Laboratory Testing – Perform routine classifications testing. (moisture content, grain size, Atterberg limits, Organic content, corrosion series)
- d) Corrosion Series Testing
- e) Geotechnical Report – Prepare a detailed geotechnical Report summarizing the subsurface conditions encountered, recommendations for foundations preparation and material reuse, and construction considerations.

Task 3 – Project Management – Original Contract

The CONSULTANT shall investigate the status of the project and become familiar with previous design and safety study information provided by Nassau County. The CONSULTANT will coordinate with subconsultants to secure contract agreements and insurance between parties as well as monitor schedule progress. The CONSULTANT will prepare monthly progress and invoicing to be submitted to the County project manager for approval and payment over the anticipated 12-month duration of the design and bidding phase of this project. The CONSULTANT will meet with the County Project Manager over the course of this project to review project progress, get concurrence of design recommendations and to review comments following formal design submittals. A total of five (5) meetings has been included.

Public Involvement during this design phase is not included.

Task 3A – Project Management Amendment #1

- a) Additional meetings for Culvert replacement/extension
- b) Additional Progress meetings
- c) One site visit upon completion of survey

Task 4 – Roadway Design Analysis – Original Contract

The project is understood to be a pavement and shoulder rehabilitation project. The intent is for the existing rural roadway typical section which to be retained. The existing typical section includes two 12ft travel lanes with 6ft – 8ft grass shoulders. The design speed to be used for the project will be 60mph. The CONSULTANT will review the roadway pavement and shoulder conditions throughout the project corridor in coordination with the geotechnical analysis/recommendations to develop pavement and shoulder rehabilitation designs which meet current design criteria and provide a pavement structure which will support the projected traffic loading for a predicted 15 -20 year design service life. The following roadway design analysis will be provided:

- 1) Pavement Rehabilitation Selection – The Consultant will coordinate with the geotechnical subconsultant to develop pavement rehabilitation options. The options to be considered include full depth reconstruction, full depth pavement reclamation, subgrade geogrid reinforcement as well as milling and resurfacing. Design analysis and recommendations for the various options listed will be documented in a preliminary 30% Engineering Report. County approval of the rehabilitation method will be required prior to advancing the design beyond 30% completion.
- 2) Pavement Design – Two pavement designs have been included which will use FDOT Flexible Pavement Design Manual methodologies. One design will be for the areas identified in item 1 as requiring full depth rehabilitation and one design will be prepared for milling and resurfacing areas.
- 3) Cross Slope Correction – The existing cross slope conditions throughout the project will be analyzed. Those areas identified for milling and resurfacing will include the development of cross slope correction design details as may be required to meet current criteria thru roadway tangents and super-elevated curve sections.
- 4) Horizontal/Vertical Master Design – The CONSULTANT will review and analyze the design survey coverage data and prepare AutoCad design files for the pavement and shoulder areas.
- 5) Cross Sections – Analysis of existing pavement and shoulder conditions will be reviewed. Cross sections will be provided at an approximately 1000ft interval as well as two cross sections provided through each of the horizontal curves within the project limits.
- 6) Temporary Traffic Control Design – Level II detail temporary traffic control plans (TTCP) will be provided for the project limits which are determined to require full depth pavement rehabilitation. In areas of milling and resurfacing no plan detail sheets will be provided, a simple reference to the applicable FDOT Standard Plans.
- 7) Engineering Report – The CONSULTANT will prepare an engineering report to be provided at each of the design delivery milestones (30%, 90%, 100% and Final). The report will document the existing pavement/shoulder conditions against current design criteria as well as rehabilitation and/or other corrective measures to be recommended/taken to bring the existing conditions up to current standard. The report will include opinions of probable construction costs for all alternatives considered.
- 8) Quantities – The CONSULTANT will develop bid items and quantities based on the FDOT's specifications and pay item structure as defined in the FDOT's "Basis of Estimates Manual". The exception to this will be Temporary Traffic Control Quantities. Temporary Traffic Control will be set up in the plans to be bid as an all-inclusive lump sum bid item.
- 9) Cost Estimates - The CONSULTANT will prepare opinions of probable construction costs with the 30%, 90%, 100% and Final plans. The estimated unit prices will be based on historical unit price data as well as predicted price trends as published by the FDOT.

Note: The CONSULTANT 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.

- 10) Specifications – The construction specifications for the improvements to be called for in the construction plans will be governed by the FDOT's Standard Specifications. It is anticipated that a maximum of two (2) Technical Special Provisions (TSP) may be required to address innovative pavement rehabilitation methods to be approved by Nassau County as part of the design development.

The analysis of existing roadside conditions outside the basic survey coverage will not be included in this project since the intent for this project is pavement rehabilitation focused. It is understood that a Safety Study was completed for the CR 121 corridor previously. The CONSULTANT will review the recommendations from that previous study as provided by Nassau County and include any missing recommendations into this project subject to project funding limits

Task 4A – Roadway Design Analysis Amendment #1

- a) Revise profile at culverts as needed.
- b) Additional road and channel cross sections at three box culvert replacement/extensions.
- c) Modification of current traffic control plan to accommodate phased culvert construction.
 - a. Two phase (two-way one-lane signal controlled) traffic control plan for each of the three box culverts
- d) Design Report update to include culvert replacement/extensions and no-passing study.
- e) Quantities for one box culvert replacement and two extensions
- f) Updating cost estimates
- g) Two design exceptions (shoulder width and vertical curve K value)

Task 5 – Roadway Plans – Original Contract

The CONSULTANT will prepare roadway design plans on 11"x17" sheets depicting the proposed improvements. The roadway design plans will be prepared in accordance with applicable FDOT design standards and specifications. The roadway design will be developed in an AutoCad format. Construction plans will consist of the following sheets:

- A. Key Sheet.
- B. Typical Sections/Details – Separate mainline typical sections will be developed to illustrate the full depth pavement rehabilitation areas and the milling and resurfacing areas. Misc. typical section details will be provided for cross slope and superelevation correction and driveway aprons..
- C. General Notes/Bid Items – A general notes sheet(s) will be provided to communicate general and pay item requirements. These sheets will also include a tabulation of all bid items and quantities.
- D. Project Layout – Plans sheets will be provided at a +/- 1"=500ft scale to depict the baseline survey alignment and curve data as well as to show the construction plan sheet clip limits.
- E. Roadway Plan Sheets – The plan sheets will be double panel and will be prepared at a 1" = 50ft scale
- F. Special Profiles - In general grading for any new pavement construction will be provided via spot elevations to be labeled on the plan sheets. If need superelevation transition profiles will be provided for any existing curves that require cross slope correction.
- G. Intersection Layout Details – Separate plan sheet details will be provided for the Stokes Road and CR 119 intersections. These detail sheets will be prepared at a 1"=20ft scale

and will detail the pavement construction/widening and grading necessary to accommodate design vehicle turning movements.

- H. Cross Sections – Roadway pavement/shoulder cross sections will be developed at 1000' intervals with additional sections provide through existing horizontal curves and at the triple 48-inch cross drain culvert crossing.
- I. Temporary Traffic Control Plan (TTCP) – In areas of pavement reconstruction, level II temporary traffic control plans will be provided for all phases of construction. In areas of milling and resurfacing TTCP will be provided using general notes and reference to the FDOT Standard Plans for Road Construction (102-600 Series).
- J. Erosion Control / SWPPP Plans – Erosion control features will be shown and labeled on the roadway plans sheets. Separate notes sheets will be included defining the Stormwater Pollution Prevention Plan (SWPPP). It is assumed that soil disturbing activities will be of a magnitude which triggers the need for the contractor to secure a NPDES permit for construction.

Task 5A – Roadway Plans Amendment #1

- a) Typical section details for box culvert extensions/replacement
- b) Modification to plan and profile sheets to include box culvert layouts and vertical profile of roadway over box culverts.
- c) Additional roadway and channel cross sections related to box culvert replacement/extensions.
- d) Additional TTCP sheets for the three box culvert locations (diversion routes to facilitate two-phase culvert replacement).

Task 6 – Drainage Analysis and Plans – Original Contract

The CONSULTANT will perform drainage analysis for the existing triple 48" cross drain located just north of the Duval County line. The analysis will be performed using HY-8 evaluation in accordance with FDOT criteria for a major collector roadway. The design analysis will be documented in a summary memo format outlining the methodology/criteria used as well as documenting the results and recommendations based on the analysis performed.

The CONSULTANT will prepare a working drainage map defining the tributary area to be used in the cross-drain analysis. Drainage construction drawings are also included for the replacement/extension of the existing cross drain should that improvement be warranted and authorized by Nassau County.

Task 6A – Drainage Analysis and Plans Amendment #1

- a) Review existing plans, permits, USGS Maps in preparation of preliminary drainage basin delineation.
- b) Conduct a field inspection of the cross drains and verify basin divides.
- c) Refine drainage basin boundaries for the contributing areas to the cross drains along CR 121 within the project limits (7.5 miles).
- d) Design proposed cross drain replacement at Sta 54+00 (3-8'x6' CBC, #744004) and evaluate two alternatives using an HY-8 analysis.
- e) Design proposed concrete box culvert extensions at Sta 90+50 (2-8'x4' CBC) and 407+00 (2-8'x4' CBC) using an HY-8 analysis.
- f) Prepare a Drainage Design Documentation Report
- g) Prepare a Drainage Cost Estimate
- h) One Technical Meeting with SJRWMD for a permit determination.

- i) Excludes analysis and design of any minor culvert crossings that may be impacted by the road reconstruction.
- j) Drainage Maps for permitting
- k) Drainage structure cross sections (two CBC extensions and one new CBC)
 - a. Riprap armoring details at each end of three culverts
- l) Erosion Control Plan Sheets at cross drain locations
- m) SWPPP; revise to include additional cross drain locations

Task 7 – Utility Coordination – Original Contract

The CONSULTANT will submit a design ticket request through sunshine 811 to identify existing utility owners (UAO's) in the project limits. Project plans will be submitted to the identified UAO's at 30% plans for the purpose of them identifying the location of their existing facilities. The CONSULTANT will incorporate the existing utility locations provided and note the line size/type in the roadway construction plans.

If needed based on the utility mark-ups provided and the roadway improvements proposed the CONSULTANT will schedule one utility coordination meeting with the UAO's to resolve any identified utility conflicts. Plans will be submitted again to the UAO's following the 90% plans submittal for final review and concurrence related to any potential utility conflicts.

The CONSULTANT will work with the UAO's to secure Utility Work Schedules for inclusion in the construction contract documents.

Task 8 – Environmental Permits – Original Contract

The CONSULTANT will provide jurisdictional wetland flagging in the field for location by the project surveyor. The location of this flagging is limited to the existing triple 48-inch cross drain location.

It is anticipated that the roadway pavement rehabilitation work will qualify for a permit exemption with the St Johns River Water Management District (SJRWMD). The CONSULTANT will coordinate with the SJWMD to confirm this understanding as well as secure written confirmation that the project is exempt from permitting.

If the replacement and/or extension of the triple 48-inch cross drain culvert is authorized, we have included effort for general permitting. It is anticipated that a culvert replacement will qualify for a nationwide general permit. Should additional environmental evaluation and/or permit sketches be required beyond the wetland flagging and plan details to be provided in the construction drawings those services would be considered outside this scope of work.

Any application fees required as part of the permitting review process will be paid directly by Nassau County.

Task 8A – Environmental Permits Amendment #1

- a) Investigation into historical wetland boundaries within the project area.
- b) Establish wetland jurisdictional lines.
- c) Meet review agencies in field to confirm wetland location flagging.
- d) Complete and submit all required wetland permit applications. Assumes reconstruction and resurfacing qualifies for permit exemption. ERP exemption application for 3 cross culvert replacement/extension.

Task 9 – Design Traffic and Signing and Pavement Markings – Original Contract

The Consultant will utilize the services of a subconsultant, Peggy Malone and Associates, to collect traffic classification count data along the corridor. Counts will be taken at three (3) strategic locations to best understand existing traffic patterns and types of vehicles using the roadway. The vehicle classification count distinguishes the vehicle types using the roadway into 13 vehicle types based on the number of axles. The vehicle classification coupled with the count data will be used to develop the design traffic loading by converting the traffic to Equivalent Single Axle Loading (ESAL). The design year traffic volumes will be developed using three tools that include the Northeast Florida Regional Planning Model Activity-Based (NERPM-AB), historic traffic counts and the Bureau of Economic and Business Research (BEBR) data which collects economic and demographic data for Florida.

A traffic design summary memo will be prepared which documents the traffic count data collected and the methodology used to project existing traffic volumes to the design year volumes and calculation design year ESAL's.

Signing and Pavement Marking Plan Sheets – Separate signing and pavement marking plan sheets will be provided and included in the construction plan set. Centerline striping will be re-established based on the existing striping pattern. A No-passing study to confirm the centerline striping no-passing zones is not included.

Signing and striping will be in accordance with the "Manual on Uniform Traffic Control Devices" (MUTCD) as well as FDOT Standard Plan details and specifications.

Task 9A – Design Traffic and Signing and Pavement Markings Amendment #1

- a) Perform a No Passing Zone Study and prepare Report of findings.
- b) Modify centerline striping per No Passing Zone Study
- c) Update Signing and Pavement Marking sheets to incorporate No Passing Zone Study findings.

Task 10 – Design Deliverables – Original Contract

The CONSULTANT will submit all deliverables in an electronic format (pdf) as well as up to four (4) paper copies as may be requested by Nassau County. Deliverables will include Engineering Reports, Geotechnical Reports, Drainage Design Memo, Design Traffic Memo and Construction Plans at 30%, 90%, 100% and Final completion stages. At Final completion a copy of the AutoCad files for the project will be delivered to Nassau County

Task 11 – Bid Phase Services – Original Contract

The CONSULTANT will support Nassau County in the preparation of bid documents for Contractor bidding. The CONSULTANTS services are limited to the following:

- A. Bid Form Tabulation – Bid Items and Quantities
- B. Specifications
- C. Response to Contractor Questions during Bidding Phase
- D. Review / Comment on Bids Received

Task 12 – Optional Geotechnical Services – Original Contract

The CONSULTANT has included optional geotechnical services in the scope of work as may be needed. These optional services are to support innovative pavement rehabilitation options and to provide supplemental design data which would potentially reduce overall construction costs by providing a more

focused design. The below are optional services which will not be completed unless a specific and separate work authorization is issued by Nassau County.

- **Field Services**
 - Install 1-20 Ft SPT Soil Boring at the headwall of each cross drain that may be extended (To Be Determined). Based on 3 Cross Drains;
 - 3 Cross Drains x 2 Borings = 6-20 Ft SPT
 - Perform a Ground Penetrating Radar (**GPR**) Survey of the project corridor, in an effort to delineate the thickness of the existing pavement and Full Depth Reclamation (**FDR**) on a 2-Dimensional Plan sheet, with accuracy to the nearest inch.
- **Laboratory Services**
 - Perform general geotechnical laboratory testing to classify the subsoils in respect to USCS and AASHTO Classifications;
- **Design Services**
 - Update the Report covered under Basic Services, with the following:
 - Provide 2-Dimensional Plan Sheet of the project limits, showing the asphalt thickness and **FDR** thickness throughout the project, in an effort to delineate each area of pavement distress/failure, and to provide more accurate design recommendations to repair each severely distressed area;
 - Provide bedding information and geotechnical design parameters for each of the three (3) proposed Cross Drains.

Task 13 – Construction Phase Services - NOT INCLUDED

Task 14 – Structural Design Amendment #1

- a) Coordinate with roadway, drainage, and the geotechnical engineer regarding culvert size, location, extension length and the soil parameters required for design.
- b) Attend one meeting to address 90% design comments.
- c) Structural design of a bridge culvert including standard wingwall design and bridge load rating. (Bridge Culvert #740044, Sta 54+00)
- d) Structural design of four (4) culvert extensions based on requirements provided by roadway and drainage – wingwall design included. (Sta 90+50 & Sta. 407+00)
- e) Preparation of concrete box culvert data table sheets and associated reinforcing bar schedule.
- f) Preparation of quantities related to concrete box culverts

PROJECT SCHEDULE:

A preliminary project schedule has been submitted as a separate attachment with this scope of services. This schedule is an expedited one in which the phase II (60%) design submittal has been deleted to meet a final plans delivery date of December 2023 based on an anticipated Notice to Proceed date of March 15, 2023. This schedule is heavily dependent on the review times by Nassau County and very limited to no review by FDOT.

METHOD OF COMPENSATION:

Services under this scope of services were provided on a lump sum basis in accordance with the original staff hour/fee summary dated Feb 9, 2023. The total basic fee to complete this project was **\$788,106.65**. **Optional Fees of \$42,054.11** were also included for Geotechnical Services if needed and separately authorized by Nassau County. **The total fee amount for this project for both basic and optional fees was \$830,160.76.**

Services under the scope of Amendment #1 tasks will be provided on a lump sum basis in accordance with the staff hour / fee summary attached dated April 29, 2024. Combining the previous total basic fee of **\$830,160.76** and the amendment #1 fee of **\$328,412.43**. It has been determined that the previous **Optional Fees of \$42,054.11** are no longer needed under the amended scope of services. **The total Amendment #1 fee is \$286,358.32. The total fee amount for this project is \$1,116,519.08.**

Services provided under this scope of work will be invoiced monthly.

COMBINED FEE SHEET

Name of Project: CR 121 from Duval County Line to CR 119
Amendment #1

Kimley-Horn and Associates, Inc.

County: Nassau
FPN: NC22-019
FAP No.: N/A

4/29/2024

Task Description	Cost By Activity
1. Design Survey Services - SAM LLC	\$147,964.29
2. Geotechnical Explorations - Env. & Geotech Specialists Inc.	\$94,285.34
3. Project Management	\$16,497
4. Roadway Design Analysis	\$331,292
5. Roadway Plans	\$117,207
6. Drainage Analysis and Plans	\$21,393
7. Utility Coordination	\$5,097
8. Environmental Permits	\$4,939
9. Design Traffic and Signing and Pavement Markings	\$47,212
Subconsultant: Peggy Malone - Traffic Counts	\$2,220
Optional Geotechnical Explorations - Env. & Geotech Specialists Inc.	\$42,054.11
SUBTOTAL OF ORIGINAL CONTRACT:	\$830,160.76
1A. Design Survey Services - Amendment 1 - SAM LLC	\$53,266.68
2A. Geotechnical Explorations - Amendment 1 - Env. & Geotech Specialists Inc.	\$42,870.51
3A. Project Management - Amendment 1	\$11,302
4A. Roadway Design Analysis - Amendment 1	\$61,488
5A. Roadway Plans - Amendment 1	\$33,852
6A. Drainage Analysis and Plans- Amendment 1	\$57,025
8A. Environmental Permits - Amendment 1	\$7,893
9A. Design Traffic and Signing and Pavement Marking - Amendment 1	\$31,884
14. Structural Design - Amendment 1	\$28,831
Removal of Optional Geotechnical Explorations	(\$42,054.11)
SUBTOTAL AMENDMENT 1:	\$286,358.32
NEW CONTRACT TOTAL:	\$1,116,519.08