

**SUMTER COUNTY BOARD OF COMMISSIONERS
EXECUTIVE SUMMARY**

SUBJECT: Task Order for Design of US 301 Turn Lanes at Langley Medical and CR526E (Staff recommends approval).

REQUESTED ACTION: Board Approval

Work Session (Report Only) **DATE OF MEETING:** 02/08/2011
 Regular Meeting Special Meeting

CONTRACT: N/A Vendor/Entity: Wade Trim
Effective Date: 3/1/2011 Termination Date: 7/1/2011
Managing Division / Dept: Public Works/Engineering

BUDGET IMPACT: \$62,225
 Annual **FUNDING SOURCE:** 103-340-541-6513
 Capital **EXPENDITURE ACCOUNT:** _____
 N/A

HISTORY/FACTS/ISSUES:

At the September 9, 2010 meeting the BOCC directed staff to negotiate a task order to develop construction plans for Left\Right Turn lanes at two locations along US301.

First location is adjacent to Sumter County Project Health/Project Health, Inc. d/b/a Thomas E. Langley; second location is at CR526E which is the main entrance from US301 to Lake-Sumter Community College, Hopice, Doctor's Office, Sumterville Fire Station and Future School Board (school) development.

In addition, we were to request FDOT to construct (1) Left/Right Turn Lane in lieu of their commitment to construct the same on SR 471 at CR 528. FDOT considered this request but, declined based on current funding constraints and lack of warrant study for this location.

To accomplish the BOCC directive for preparing construction plans for Turn Lanes along US301, staff recommends issuing a task order to Wade Trim Engineering for \$62,225.00 to design and permit US301 Turn Lane plans for both Langley medical and CR526E and coordinate these improvements with the resurfacing of US301.

Wade Trim in one of 8 consulting engineering firms under contract with the County thru the CCNA.

Scope of Services
Sumter County Engineering Division
Intersection Improvements at Langley Medical Center and CR 526E

Project Overview:

The COUNTY would like the CONSULTANT to prepare two separate construction plan sets to provide left turn and right turn movements at the intersections of US 301 and the new road proposed along the north property line of the Langley Medical Center and US 301 and CR 526E. The Engineer for the Langley Medical Center will provide the design and the location for the center line of the roadway that runs parallel to the north property line of the Langley Medical Center. Plans for the Langley Medical Center intersection improvement and the intersection improvement at CR 526E will include permitting through the Southwest Florida Water Management District (SWFWMD). Permitting on each intersection improvement will be performed separately since the time of construction for the intersection improvement at CR 526E is unknown. Permitting will consist of obtaining a permit exemption as stated in Rule 40D-4.051(13). Additional permitting will include obtaining a connection permit through the Florida Department of Transportation (FDOT).

The design will be performed to FDOT criteria and will utilize FDOT standards and specifications, since US 301 is a FDOT road. Additional specifications or special conditions will not be prepared and are not anticipated. The CONSULTANT will assist the County in preparing information to be inserted into boiler plate bid documents but will not create a bid document under this scope of services.

The scope of services generally includes design of improvements to the roadway, drainage, pavement markings and signing for approximately distances of 1300 feet each for the two projects along US 301 in Sumter County. No utility design plans are included in this scope of services.

I. Final Design Services:

The CONSULTANT shall furnish professional engineering services for the final design and preparation of construction plans for left turn and right turn movements at the intersections of US 301 and the new road (to be designed by others) proposed along the north property line of the Langley Medical Center; and US 301 and CR 526E. A project kickoff meeting will be held to determine needs with respect to the following:

- Intersection alternatives and location;
- Utility Coordination;
- Establish geotechnical testing locations and frequency.
- Stormwater requirements.

One alternative intersection layout will be provided and developed to the 15% level. This layout will be submitted to the COUNTY for review and comment. Thereafter the CONSULTANT will develop the alternative for 60% submittal and 100% design.

The CONSULTANT's final design services shall include:

- Preparation of construction plans incorporating roadway modifications, storm drainage ditch improvements, signing and pavement marking;
- Utility coordination and adjustment plans noting the status of utilities (these are not utility design plans);
- Stormwater Permitting to obtain exemption approval from SWFWMD;
- FDOT drainage and connection permit (the FDOT permit for the intersection improvement at CR 526E will be processed but final acceptance is not anticipated until the SWFWMD permit for this intersection is filed).
- Bid items, quantities and construction cost estimates.

The COUNTY will provide all available existing information to the CONSULTANT for use in preparing the construction plans.

A. Final Design Plans:

1. Final construction plans:

- a. CONSULTANT shall furnish final construction plans for the project to include cover sheet, typical sections, plan sheets, cross sections, utility adjustment sheets, Traffic Control phasing, Traffic Control typical sections, guide sign sheet and signing and pavement marking sheets. No detour plan is included in this Traffic Control design.
 - Intersection and roadway plans are to be at a scale of 1 inch = 40 feet full size 11 x 17 inch sheets.
 - Following the COUNTY acceptance of the 100% construction plans, the CONSULTANT shall submit three (3) sets of original signed and sealed 11 x 17 inch plan sets, and two (2) electronic copies (in .PDF format on DVD media) of all plan sheets.
- b. CONSULTANT shall furnish supplemental design survey data required to complete the project, to include the following:
 - Route Survey at US Highway 301, from approximately 200' north of the intersection with CR 528, northeasterly to approximately 200' north of the intersection of CR 526, located approximately 6 miles north of the town of Bushnell, Sumter County, Florida,
 - Establish/re-establish horizontal and vertical control in the subject area, on the Florida State Plane Coordinate System and NGVD or NAVD systems respectively
 - Topography (NGVD or NAVD) at 100' cross-sections for a total length of approximately 3,000' plus existing grade elevations as needed at elevation breaks (drainage swales) and surface feature locations for the US 301 route (r/w width varies from 50'-100'), r/w to r/w.
 - Locations of all above-ground improvements including roadway paving and intersections, traffic paint striping, driveways, sidewalks,

signage, retaining walls, fences, and above-ground utility appurtenances (no underground unless flagged by others)

- Sanitary and storm drains – show system information to include field accessible pipe inverts, sizes, courses, spillways, manhole rim elevations, etc
- Vegetation lines (not individual trees) and apparent wetlands, surface waters
- Set off-site and temporary control references along the route where deemed appropriate for later construction
- Show apparent r/w lines and takings based on information obtainable through the public records or other information known to the undersigned or provided by the client
- Locate Lift station in front of Langley Medical Center.

2. Geotechnical Investigation:

- a. The COUNTY will provide all Geotechnical information. This will include Auger Borings along the roadway and pavement corings.

3. Drainage and Permitting:

a. Data collection:

- CONSULTANT shall collect and review all available drainage data from Southwest Florida Water Management District (SWFWMD), COUNTY design files and soil conservation services manual.

b. Southwest Florida Water Management Permitting:

- Per our discussions with the SWFWMD, general roadway safety and turn lane improvements totaling less than a quarter mile in length qualify for an Exemption under Rule 40D-4.051(13). This will apply to the Langley intersection improvement. It is anticipated that the consultant will submit and obtain the permit for the Langley intersection improvement separately from the CR 526E intersection since time of construction is unknown for the CR 526E intersection. The Langley intersection improvement is expected to be advertised for construction immediately after the completion of the construction plans.
- CONSULTANT shall prepare permit applications, technical data and supporting documentation for the Exemption as required by SWFWMD, as verification and notification of the proposed improvements. CONSULTANT will respond to any requests for additional information to obtain final acceptance.
- CONSULTANT shall submit the completed permit applications to the COUNTY for review and signature with the 60% design review submittal, unless otherwise agreed to by the COUNTY

- COUNTY shall provide the checks required for payment of permit filing fees and furnish the checks to the permitting agency at the time the signed permit applications are returned to CONSULTANT.
- c. Stormwater Design:
- The consultant will prepare drainage plans consistent with the Exemption permit. The drainage patterns and conveyances are not anticipated to change. The design shall consist of minor ditch modifications and potential side drain installations. One field visit will be performed to review and assess current conditions. Plans will include a Stormwater Pollution Prevention Plan.
4. Traffic Engineering:
- a. Signing and Pavement Marking Plans:
- CONSULTANT shall prepare signing and pavement marking plans that are consistent with the COUNTY approved intersection improvements.
5. Public and Private Utilities:
- a. Utility coordination:
- CONSULTANT shall, in conjunction with the COUNTY, coordinate the design of the intersection improvements with public and private utility agencies and companies having existing and/or planned facilities within the limits of the project. CONSULTANT shall provide the utility agencies and companies two (2) sets of plans at the 60% complete design phases. Subsequent to the 60% complete design phase and prior to the 100% complete design phase, the utility agencies and companies will be instructed to return one (1) set of marked up plans to CONSULTANT showing their utility relocation, adjustment and new facilities design, as well as existing utilities to remain.
 - CONSULTANT utility coordination responsibilities shall continue throughout the design process to assist the County with resolving utility conflicts. Any utility design services for new facilities or the proposed relocation and adjustment of existing facilities are specifically excluded from this scope of services and are not the responsibility of the CONSULTANT. CONSULTANT is only responsible to show (display) utility agency markups on intersection and roadway plan design sheets and utility adjustment sheets.

b. Utility adjustment plans:

- CONSULTANT shall prepare utility adjustment plans based on utility company markups or designs by utility owners to show new or existing public and private utilities to remain, to be relocated, or to be removed. Utility adjustment plans shall be made part of the roadway plan set.
- The 60% design review submittal shall include all existing utilities drawn on the utility adjustment plans, cross section and plan sheets. CONSULTANT shall identify potential conflicts based on the information provided by the utility agencies and companies and field survey investigations performed by the CONSULTANT. Areas of potential conflict for the intersection improvements will be identified for clarification by the utility agencies.
- The 100% design review submittal shall include final utility adjustment plans, which reflect the final disposition of the public and private utilities. Any subsequent utilities conflicts are to be resolved and all final design revisions complete at the final (100%) submittal.

c. Utility coordination meeting:

- CONSULTANT shall attend a utility coordination meeting to be held within fifteen days of the 60% design review submittal. The CONSULTANT shall be responsible for organizing this meeting. CONSULTANT shall prepare detailed meeting minutes and submit them to COUNTY for review prior to distribution.

6. Right-of-way determination:

This project will not include right-of-way involvement requiring taking of private property. All design is anticipated to occur completely within the US 301 Right-of-Way.

7. Specifications:

No special conditions or specifications will be written for this project. FDOT Standards and Specifications for Road and Bridge Construction will be referenced.

8. Bid Quantities and Engineer's Opinion of Probable Construction Cost:

CONSULTANT shall prepare bid quantities that include all bid items required to construct the project as designed. Bid items shall include reference to applicable COUNTY and FDOT Measurement and Payment Items. Bid proposal sheets that are to be included in the contract

documents shall be prepared by the COUNTY based on the CONSULTANT's quantities.

Estimated bid quantities and a preliminary Engineer's Opinion of Probable Construction Cost shall be submitted with the 60% design review submittal, and final quantities and a final Engineer's Opinion of Probable Construction Cost shall be submitted with the 100% design review submittal. Construction costs shall be based on the most current cost data available to the CONSULTANT.

B. Design Requirements and Provisions for Work:

1. Design Construction Standards:

CONSULTANT shall prepare the design, plans and specifications in accordance with current editions of the following:

- AASHTO Design Standards
- FHWA Manual on Uniform Traffic Control Devices (MUTCD)
- FDOT Design Standards
- FDOT Standard Specifications for Road and Bridge Construction
- FDOT Drainage Manual
- FDOT Manual on Traffic Control and Safe Practices
- FDOT Uniform Minimum Standards for Design, Construction and Maintenance for Streets and Highways (known as "The Green Book")

In case of conflicts between criteria stated in the aforementioned documents, CONSULTANT shall contact COUNTY for direction. If it becomes necessary for CONSULTANT to deviate from the standard design criteria specified in these documents, the CONSULTANT shall advise COUNTY in writing, stating the reasons and justification for the deviation.

2. Plans Preparation:

CONSULTANT shall prepare plans, special conditions and other documents that are accurate, legible and complete in detail. Final submittals shall be made to COUNTY in reproducible form and on diskette for those items so described in this Scope of Services.

C. Submittals and Design Reviews:

Scheduled design reviews by COUNTY will take place as follows:

- Plan design reviews shall occur at the 15% and 60% complete phases.
- Bid quantities and construction cost estimate shall be submitted as described above.

- The requirements for each intersection and roadway plan design review shall be as specified in the COUNTY's "Checklists for Design Review Submittals".
- CONSULTANT shall submit five (5) sets of 11 X 17 inch half size plans along with a .PDF copy of the submittal for each design review phase submittal.
- The final design submittal will consist of three (3) signed and sealed 11 x 17 inch half size scale plan sets and 2 electronic copies (on DVD media in .PDF format) of all plan sheets contained in the signed and sealed set of drawings.
- COUNTY will complete each design phase review within fourteen (14) calendar days.
- CONSULTANT shall respond to the COUNTY's design review comments in writing and by making corresponding revisions to the plans. Written responses and plans revisions are to be included with the next design review submittal.
- CONSULTANT shall respond to regulatory agencies review comments in writing, with copies of all correspondence provided to COUNTY.

D. Project Schedule

CONSULTANT's services shall commence upon receipt of written notice to proceed issued by COUNTY. CONSULTANT shall complete the design in accordance with the following project schedule:

<u>Milestone</u>	<u>Time Durations from Notice to Proceed for Final Design Services</u>
15% Plans Submittal	21 calendar days from NTP (Duration 21 days) 14 calendar days for review
60% Plans Submittal	60 calendar days (Duration 39 days) 14 calendar days for review
100% Plans Submittal	88 calendar days (Duration 28 days) 14 calendar days for review
Final Plans Submittal	109 calendar days (Duration 21 days)
FDOT Acceptance	123 calendar days (Duration 14 days)

Prior to starting work, the CONSULTANT shall provide a schedule of milestones to the COUNTY. This schedule shall be updated and submitted to COUNTY Project Manager on at least a monthly basis. The COUNTY Project Manager may require more frequent submittals at his/her discretion. If COUNTY design review comments are not received by CONSULTANT within the 14 calendar day review periods established in this Scope of

Services, CONSULTANT schedule time shall be extended on a day for day basis accordingly. Any other delays beyond CONSULTANT's control shall be documented in writing by CONSULTANT and submitted to COUNTY for consideration to grant a schedule time extension.

E. Cost of Services

The above design and survey services shall be completed for a fee of **Sixty Two Thousand Two Hundred and Twenty Five dollars and no cents** (\$62,225.00).

F. County Responsibilities

COUNTY will make available to CONSULTANT all information available in COUNTY files pertaining to the project. CONSULTANT shall be responsible for the prudent application of the information provided and shall be responsible for checking and verifying the accuracy of all information prior to its use.

G. Post Design Services

Post design services shall only include the following items with respect to this work order:

- Assist the County in preparing information to be inserted into boiler plate bid documents but will not create a bid document under this scope of services.
- Attend a pre-bid conference.

The CONSULTANT may be asked to provide the additional post design services after completion of the design plans under a new task as described below:

- Preparation of technical addenda to the bid documents (as required);
- Attendance at the pre-construction conference;
- Shop drawing review;
- Providing clarification of the construction plans during construction (as required);
- Providing final site inspection;
- Assisting the County in procuring the required regulatory agency certification for permits upon completion of construction.

A separate work order will be issued if this work is required.

End of Scope of Services