

May 26, 2022

Item No. 8.5.

Victoria Rehab (FM 2154 to Woodlake) Professional Services Contract Change Order No. 1

Sponsor: Emily Fisher, Director of Public Works

Reviewed By CBC: City Council

Agenda Caption: Presentation, discussion, and possible action regarding Change Order 1 deducting the amount of \$363,150 from the Professional Services contract with Quiddity Engineering, LLC for the Victoria Rehabilitation project.

Relationship to Strategic Goals:

1. Core Services and Infrastructure
2. Improving Mobility

Recommendation(s): Staff recommends approval.

Summary: The City of College Station is under contract with Quiddity Engineering, Inc. for the design of the reconstruction of Victoria Road from FM 2154 to Woodlake. The original scope of the project was to reconstruct the existing rural asphalt cross section to concrete roadway with curb and gutter, storm sewer, sidewalks and illumination. After preliminary engineering was completed and a drainage analysis was performed, it was recommended to proceed with a full maintenance-type reconstruction (replacing subgrade and asphalt). This is due to the drainage impacts downstream and upstream resulting from a new concrete street with storm sewer. These impacts included the need for detention capacity, which could only come from modifying an existing detention pond or purchasing land to build a new detention facility. Other impacts included channel improvements within the Creek Meadows subdivision and possible upsizing of existing storm sewer well beyond the scope of the original project, as well as considerable right of way and easement acquisition.

The new scope of the project will include repaving the asphalt road, keeping the same cross section, adding roundabouts at the intersections with Creek Meadows Blvd and Woodlake Dr, and studying the placement and right of way needed for a sidewalk to connect Castlegate subdivision to Creek Meadows and FM 2154.

Because of the change of scope, we are closing out the original design contract with Quiddity Engineering, Inc. An item for the Council to consider a new design contract is also on this agenda.

Budget & Financial Summary: A combined total budget of \$4,300,000 is currently appropriated for these projects in the Streets Capital Improvement Projects Funds. A combined total of \$702,312.70 has been expended or committed to date, leaving a combined balance of \$3,597,688.30 for this change order and future expenses.

Attachments:

1. Change Order 1 - Closing Contract

May 26, 2022

Item No. 8.6.

Victoria Ave Roundabouts Professional Services Contract

Sponsor: Emily Fisher, Director of Public Works

Reviewed By CBC: City Council

Agenda Caption: Presentation, discussion, and possible action regarding a professional services contract with Quiddity Engineering, LLC in the amount of \$182,900 for adding roundabouts and sidewalks on Victoria Avenue.

Relationship to Strategic Goals:

1. Core Services and Infrastructure
2. Improving Mobility

Recommendation(s): Staff recommends approval.

Summary: Based on the findings of a completed drainage analysis for Victoria Ave, it is recommended that the street be kept as a two-lane asphalt road with roadside ditches. Because of development in the area and to better accommodate traffic through the intersections with Woodlake Dr and Creek Meadows Blvd, it is recommended to install concrete roundabouts at these intersections. This contract includes design of two roundabouts as well as identifying the needed right of way for a proposed sidewalk. It also includes design of a median at the intersection with FM 2154 to allow for right turns only.

Budget & Financial Summary: A combined total budget of \$4,300,000 is currently appropriated for the project in the Streets Capital Improvement Projects Funds. A combined total of \$702,312.70 has been expended or committed to date, leaving a combined balance of \$3,597,688.30 for design and construction of this project.

Attachments:

1. Project Map1
2. Victoria Scope and Fee



This product is for informational purposes only and has not been prepared for and is not suitable for legal, engineering, construction, or surveying purposes. It does not represent an on-the-ground survey and represents only the approximate relative location of certain geographic features. No warranty, expressed or implied, is made by the City of College Station as to the accuracy, completeness, suitability, or timeliness of the information contained herein. The City of College Station assumes no responsibility for any private or commercial use, misuse, reliance, or interpretation of the information provided herein, or any loss resulting therefrom.

EXHIBIT "A"
Scope of Services
Page 1 of 6

General

The intent of this project is to provide design and construction phase services for the following:

- Installation of a roundabout at the intersection of Victoria Avenue and Woodlake Drive.
- Installation of a roundabout at the intersection of Victoria Avenue and Creek Meadows Boulevard.
- Relocation of Wellborn Water waterlines in conflict with the two (2) proposed roundabouts.
- Signing and striping along Victoria Avenue from Wellborn Road to Woodlake Drive including the two (2) proposed roundabouts.
- In kind replacement of culverts under the proposed roundabouts.
- Sidewalk feasibility study from Woodlake Drive to Wellborn Road.
- Installation of a forced right turn at the intersection of Victoria Avenue at Wellborn Road.

Scope of Services

1. PROJECT MANGEMENT

- a. Provide Project Administration and Controls
 - i. Prepare subconsultant agreements and task orders, review invoices, etc.
 - ii. Prepare and submit a monthly invoice package, which shall include the Engineer's invoice and a project development status update.
 - iii. Project development/progress meetings with project team and Client.
 - iv. Coordinate and communicate with project team and subconsultants.
 - v. Coordinate and communicate with - City of College Station, project team and other stakeholders.
 - vi. Develop and maintain project development schedule.
 - vii. Quality Control and Quality Assurance (QC/QA) of all submittals.

- b. Attend project coordination meetings with the City of College Station. Prepare and submit a meeting agenda prior to each meeting and submit draft meeting notes for the City's review and approval following each meeting. The meetings shall include the following:
 - i. Initial Kick-off Meeting.
 - ii. Project Planning and coordination meetings with College Station. (virtual)
 - iii. 30%, 60% and 90% review meetings with College Station.
 - iv. Utility Coordination Meetings. (1 assumed)

2. SURVEYING

- a. Topographic Surveying Update
 - i. Update topographic information in areas of recent change.
 - ii. Topographic survey information will be collected and updated within the right-of-way along Creek Meadows Boulevard from Victoria Avenue to E. Beaver Creek Drive.
 - iii. Locate drainage system details of ditches, culverts, storm sewers, and outfall flow lines.
 - iv. Locate all visible improvements such as fences, driveways, retaining walls, landscape areas, sidewalks, impervious surfaces, etc.
 - v. Locate visible utilities including manholes (with invert information), water valves, water meters, fire hydrants, telephone pedestals, power poles, down conduits, gas line markers, etc.
 - vi. Conduct an 811 utility locate (a public service) and provide horizontal locations of underground utilities as marked.

EXHIBIT "A"
Scope of Services
Page 2 of 6

- vii. Provide 1-foot contours as based on data collected on a 100-foot topographic survey grid.
- viii. Provide size, type and location of all trees.
- ix. Perform ROW verification of Creek Meadow Boulevard within project site and indicate on topographic survey deliverable.
- x. All topographic surveying will be within public right-of-way.

3. PRELIMINARY ENGINEERING

a. Sidewalk Feasibility Study

- i. Prepare one plan view schematic for proposed sidewalk improvements along one side of Victoria Avenue from Woodlake Drive to Wellborn Road.
- ii. Identify right-of-way needs based on the proposed sidewalk alignment.
- iii. Calculate quantities.
- iv. Prepare opinion of probable construction cost for sidewalk improvements.

b. Traffic Engineering

- i. Document Vehicle Tracking, Fastest Path and Sight Distance Analysis for the preliminary roundabouts at Woodlake Drive and Creek Meadow Boulevard from the previously submitted PER.
- ii. The results will be summarized in a report along with any recommendations.

c. Drainage Analysis and Design

- i. Utilize previously calculated H&H data from the Preliminary Engineering Report and the previous preliminary design phase for Victoria Avenue and update based on the desired direction of the City of College Station. The analysis and verification will only be for the cross-drainage structure at Victoria Avenue and Woodlake Drive and Victoria Avenue and Creek Meadows Boulevard.
- ii. Update the previously submitted PER with a revised drainage memo to reflect the current design concept in terms of the drainage infrastructure and system and roadway design. The proposed cross culvert system will be analyzed for an in-kind replacement and no upsizing is proposed.
- iii. Utilizing XP-Storm and/or HEC-RAS, the proposed roadway drainage cross culverts will be sized to convey existing conditions runoff for the current BCS Unified Design Guidelines designing to current culvert capacities of the two intersections.
- iv. Summarize drainage area maps, calculations, and output on proposed sheets within the proposed plan set.
- v. Final deliverable will include updated calculations, output, tables, appendices, and exhibits within a revised drainage memo.

Drainage Analysis & Design Assumptions

- i. H&H analysis will utilize previously prepared data as part of the original PER and previous preliminary design phase plans including the use of Pre-Atlas 14 Rainfall amounts.
- ii. The cross culverts will be analyzed and sized for existing hydrologic conditions. The proposed design will be an in-kind replacement to match the existing peak discharge at the cross culverts.

EXHIBIT "A"
Scope of Services
Page 3 of 6

- iii. The existing peak discharge will be based on previous hydrologic analysis performed by JC, approximately 115 cfs for the 100-year at Victoria Avenue and Creek Meadows Boulevard. The existing hydrologic condition will be reviewed for subbasin development to match current conditions. The design plans for the downstream area inlet indicate approximately 81 cfs for the 100-year per the approved drainage report and subdivision plans prepared by Rabon Metcalf Engineering.
- iv. The existing ditch, downstream Victoria Ave and Creek Meadows Blvd, has a capacity of approximately 25 cfs in current conditions. No improvements to the downstream ditch section is proposed.
- v. The proposed structure crossing at Victoria Avenue and Woodlake Drive will be sized and restricted to current runoff by designing and installing similar sized structures. The current crossing is overtopped by approximately 3" and adding additional capacity could increase runoff downstream of Victoria Avenue and Greens Prairie Road requiring additional analysis and mitigation in the Castlegate Phase II detention pond. Effort for additional analysis is not included within this scope of work.
- vi. Tailwater conditions at the Beaver Creek Drive inlet will be based on previous JC survey. The existing ditch, downstream Victoria Ave and Creek Meadows Blvd, was surveyed in March 2021.
- vii. JC will respond to one (1) round of comments from the City. Additional comments or requested changes will be considered an additional service.

4. DESIGN PHASE

a. General Design

- i. Prepare PS&E design details in accordance with the latest City of College Station policies and details. Cover Sheet, Index, General Notes, Bid Schedule, and Technical Specifications.

b. Removal Plans

- i. Prepare layouts to delineate and quantify the limits of removals for pavement, drainage, and miscellaneous items.
- ii. Calculate quantities.

c. Roundabout and Drainage Plans

- i. Prepare the various roadway and drainage plans and details required for PS&E development and deliverables including typical sections, geometrics, grading, and plan and profile sheets, etc.
- ii. Perform detailed grading design of roundabouts.
- iii. Establish limits of construction to establish and confirm ROW needs.
- iv. Develop necessary hydrologic and hydraulic data sheets: Drainage Area Map, Hydrology and Hydraulic Design Data.
- v. Assemble pertinent standard sheets and details.
- vi. Calculate quantities.

EXHIBIT "A"
Scope of Services
Page 4 of 6

- d. Erosion Control Plan
 - i. Prepare base map for the limits of the project along with standard details for the contractor to utilize in his preparation of the Storm Water Pollution Prevention Plan.
 - ii. Assemble pertinent standard sheets and details.
 - iii. Calculate quantities.

- e. Traffic Control Plans (TCP)
 - i. Prepare a TCP to include all geometry required to facilitate the movement of vehicles through the work zone at a reduced speed limit as well as work zone typical sections, lane markings, and standard details.
 - ii. Provide Sequence of Construction and standards and general notes.
 - iii. Assemble pertinent standard sheets and details.
 - iv. Calculate quantities.

- f. Signing & Pavement Markings
 - i. Perform design to establish required pavement markings and signing.
 - ii. Develop the various plans and details required for PS&E development and deliverables.
 - iii. Assemble pertinent standard sheets and details.
 - iv. Calculate Quantities.
 - v. No traffic signal services are included.

- g. Waterline Relocation Plans
 - i. Waterline improvements involve relocation and consolidation of waterlines in conflict with proposed drainage improvements crossing under the proposed roundabouts.
 - ii. Assemble pertinent plan and profile sheets, standard sheets and details.
 - iii. Calculate quantities.
 - iv. Utility flow analysis, line sizing, etc. is not included in this project scope.

- h. Streetlight Design
 - i. Provide Plans and Specifications for streetlight design for two (2) roundabout intersections, one at Victoria Avenue and Creek Meadows Boulevard, and the other at Victoria Avenue and Woodlake Drive.
 - ii. Streetlight design will be based on the City of College Station LED streetlighting standards.
 - iii. Streetlights may be placed on existing electric distribution poles or new steel streetlight poles in the right-of-way.
 - iv. Streetlighting material specifications will utilize the City of College Station standards for streetlight poles, LED luminaries, and conduit placement.
 - v. Electric circuits to serve the streetlights will be shown on the design utilizing a BTU streetlight controller serving the lighting circuits. BTU will furnish the point of service for the lighting circuits.
 - vi. Calculate quantities.

EXHIBIT "A"
Scope of Services
Page 5 of 6

- i. Submittals
 - i. 30% design submittal including the following pdf files:
 - a. Drawings (2 copies 11x17)
 - b. Sidewalk feasibility study
 - c. Opinion of probable construction cost
 - ii. 60% design submittal including the following pdf files:
 - a. Drawings (2 copies 11x17)
 - b. Sidewalk drawings (2 copies 11 x 17)
 - c. Technical specifications
 - d. Opinion of probable construction cost
 - iii. 90% and Final design submittal including the following pdf files:
 - a. Drawings (2 copies 11x17)
 - b. Sidewalk drawings (2 copies 11 x 17)
 - c. Technical specifications
 - d. Opinion of probable construction cost
 - e. Bid Schedule
5. BID/CONSTRUCTION PHASE
- a. The compensation for all Bid/Construction Phase services is estimated and will be invoiced based on hourly effort for each task.
 - b. Bidding Phase Services
 - i. Issue Addenda (up to 3) as appropriate to clarify, correct, or change the contract documents.
 - ii. Attend the Pre-bid meeting.
 - c. Construction Phase Engineering Services
 - i. Provide a digital copy of conformed construction drawings and specifications, incorporating applicable addenda if applicable.
 - ii. Attend the Pre-Construction meeting.
 - iii. Attend bi-weekly construction progress meetings.
 - iv. Perform monthly visits to observe progress and quality of work including the final punch list meeting with meeting minutes.
 - v. Review shop drawings, submittals, RFI's, and test results.
 - vi. Construction duration of 4 months is estimated.
 - d. Record Drawings
 - i. Produce Record Drawings based on redline as-built drawings provided by the contractor. Provide 1 digital copy in AutoCAD and PDF format.
 - e. Construction Material Testing
 - i. Construction materials testing and reporting will be provided to verify and document construction compliance with the contract documents for earthwork, base material and hot mix asphalt concrete. The compensation is estimated from our sub-consultant based on similar projects and will be invoiced based on sub-consultant invoice plus 10% markup.

EXHIBIT "A"
Scope of Services
Page 6 of 6

Other Project & Scope Assumptions

1. Services resulting from changes after 60% approval in the general project scope, extent or character of the project or scope of work, and revising previously accepted studies, reports, design documents, or contract documents when such revisions are required by changes in laws, rules, regulations, ordinances, codes or orders enacted subsequent to the preparation of such studies, reports, or documents, or are due to any other causes beyond the Engineer's control shall be considered additional services and not included herein.
2. No structural design services are included.
3. No sanitary sewer design services are included.
4. No stormwater detention evaluation/design is included in this scope.
5. Field project representation / inspection services are not included.
6. Any other services not specifically stated within this scope of work shall be considered additional services including TxDOT or other agency requirements.

Exhibit B
Payment Terms
Page 1 of 1

Payment is a lump sum in the amount listed in paragraph 2.01 of this Contract. This amount shall be payable by the City pursuant to the schedule listed below and upon completion of the services and written acceptance by the City.

Schedule of Payment for each phase:

Victoria Avenue Roundabouts		Fee
Project Management		
Project Management		\$ 10,000
	Total Project Management	\$ 10,000
Surveying		
Topographic Survey Update		\$ 3,400
	Total Surveying	\$ 3,400
Preliminary Engineering		
Sidewalk Feasibility Study		\$ 5,000
Traffic Engineering		\$ 5,000
Drainage Analysis and Design		\$ 12,000
	Total Preliminary Engineering	\$ 22,000
Design Phase		
General Design		\$ 3,000
Removal Plans		\$ 3,000
Roundabout and Drainage Plans		\$ 50,000
Erosion Control Plans		\$ 3,000
Traffic Control Plans		\$ 6,000
Signing & Pavement Markings		\$ 8,000
Waterline Relocation Plans		\$ 10,000
Streetlight Design		\$ 16,500
	Total Design Phase	\$ 99,500
Bid/Construction Phase		
Bidding Phase		\$ 4,000
Construction Phase Engineering		\$ 15,000
Record Drawings		\$ 3,000
Construction Material Testing		\$ 26,000
	Total Bid/Construction Phase	\$ 48,000
	Total	\$ 182,900