

EXHIBIT "A"

E. Stone Road Improvements Study from S W Allen Blvd to Bennett Road

SCOPE OF ENGINEERING SERVICES

PROJECT DESCRIPTION:

Performance of a study to analyze improving approximately 2.5 miles of E Stone Road from S W Allen Blvd to Bennett Road in Wylie, Texas and in unincorporated areas of the County. The road experiences a varied mix of traffic including passenger vehicles, construction trucks, and school buses. There is also a high percentage of teenage drivers due to the proximity to the local high school. The existing road is narrow with steep parallel drainage ditches in some sections. As such, the scope of this project is focused on exploring options for improving safety conditions on this roadway.

The project involves identifying and investigating alternative proposals to provide local officials with the necessary information to enhance safety along the roadway, including determining viable options, providing preliminary costs of the alternatives, and identifying the impacts on the community. The following three alternatives have been identified by the County for analysis:

- Option 1
Reconstruct the road with no widening of the existing pavement. This would improve the pavement, but it would not address drainage and safety. Included in this option analysis is an estimate of the probable construction cost and an assessment of the resulting drainage and safety conditions. The expected serviceable life expectancy of the rebuilt pavement shall also be determined in order determine if bond funds are appropriate for the improvements.
- Option 2
Reconstruct the pavement and acquire the applicable right-of-way (ROW) to improve the ditches and safety of the road where necessary, including identifying which improvements are required for adequate drainage and safety and determining the ROW necessary for those improvements. A cost estimate for improvements plus ROW acquisition shall be included in the option analysis.
- Option 3
Reconstruct the road to an urban, curb and gutter section with underground drainage. According to the County, traffic projections indicate the volume will remain well under 10,000 vehicles per day, so a two-lane road with additional turn lanes at strategic locations is anticipated. This analysis option includes developing a concept plan, identifying the ROW required, and developing an estimate of probable construction cost. In addition, traffic counts and forecasting shall be included to confirm the recommended number of lanes and associated roadway improvements.

Other alternatives shall be developed as part of this project and discussed with County. If approved by the County, the consultant will analyze the impact and cost of the additional alternatives. The result will be presented in a written report as well as a presentation to County personnel. A minimum of three meetings with County personnel prior to the report is anticipated.

BASIC SERVICES:

A. Investigation and Data Collection

1. Meet with Collin County public works staff to discuss the project.
2. Obtain design criteria, pertinent utility plans, street plans, plats and right-of-way maps, existing easement information, record drawings, and other information available for the project area.
3. Perform an on-site site inspection
4. Obtain aerial imagery
5. Obtain contour data
6. Research and make efforts to obtain pertinent information to and in coordination of the proposed improvements with any planned future improvements that may influence the project. Identify and seek to obtain data for existing conditions that may impact the project including City of Wylie Master Plans, Trail Master Plan, City and County Drainage complaint files, existing applicable drainage studies (FEMA, County, City), and property ownership as available from the Tax Assessor's office.
7. Coordinate with the local agency to request and obtain relevant crash reports and other related documents and information. Depending on the information received, crash data will be extracted from the TxDOT Crash Records Information System database if necessary.
8. Develop the project schedule. This schedule will provide milestones for the project specific delivery dates. The schedule will be approved by the County, updated monthly, and included with the invoice.

C. Drainage Analysis

1. Develop drainage area maps
2. Provide analysis of drainage discharges based upon Texas Department of Transportation (TxDOT) Hydraulics Design Manual for preliminary cross drainage structure, parallel roadway ditch, and/or underground storm sewer analyses.
3. Compare calculated discharge values with available data from FEMA studies, record drawings, or other studies.
4. Provide a brief summary of drainage structure replacement/upgrade options.

D. Crash Analysis

1. Crash Analysis
 - a. Examine all crash reporting data obtained.
 - b. Prepare crash diagrams.
 - c. Identify hotspots and areas for safety improvement within the existing roadway.
 - d. Propose safety improvements based on the findings of the Crash Analysis.
 - e. Prepare a report summarizing the Crash Analysis findings and recommendations.

E. Preliminary Schematics

1. Based on the analyses performed, prepare roadway schematics for the entire length of the project indicating horizontal alignments, including typical sections.
2. Schematics to include linework for proposed roadway using aerial imagery as the plan base at a scale and plot size suitable for review, discussion, and presentation.
3. Estimate the reconstructed roadway expected life cycle for each alternative
4. Develop the preliminary statements of probable cost of the improvements, including any general ROW acquisition needs.
5. Submit hardcopies and PDFs of the schematics and preliminary statements of probable costs for review by the County.

F. Final Schematics

1. Meet with County staff to discuss comments on preliminary schematics.
2. Revise preliminary schematics incorporating comments from the County.
3. Update statements of probable cost.
4. Incorporate the schematics, statements of probable costs, and summary text into the report.

SPECIAL SERVICES:

A. Topographic Survey (Limited)

1. Perform a targeted topographic survey of Stone Road consisting of cross sections within the right-of-way at major changes in roadway ditch shapes within the apparent right of way. Bridge and/or culvert improvements (pipe sizes, type, and flowline) will be located at the three structure locations (Rush Creek, Tributary of Rush Creek, and subdivision culvert crossing.)

Exclusions

The intent of this scope of services is to include only the services specifically listed herein and no others. Services specifically excluded from this scope of services include, but are not necessarily limited to, the following:

1. Geotechnical investigation/recommendations
2. ROW survey
3. Detailed topographic survey other than that listed in the scope
4. Permitting and Coordination
5. Wetlands Delineation and 404 Permit Application
6. Tree Survey
7. Re-establishment of Survey Site Control
8. Floodplain analysis, FEMA Coordination and/or CLOMR/LOMR
9. Subsurface Utility Engineering Services
10. Franchise utility relocation requirements (except identification of power pole conflicts)
11. Franchise utility relocation costs
12. Water and wastewater upgrades and/or relocation analysis
13. Detailed storm sewer/drainage design and layouts
14. Construction plans

EXHIBIT “B”

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PROJECT SCHEDULE

Services shall be completed per the following project development schedule.

ITEM	2021					
	JUN	JULY	AUG	SEPT	OCT	NOV
INVESTIGATION AND DATA COLLECTION	■◆					
SURVEY	■◆	■◆				
CRASH ANALYSIS		■◆				
DRAINAGE ANALYSIS		■◆	■◆			
PRELIMINARY SCHEMATICS		■◆	■◆			
FINAL SCHEMATICS				■◆		

NOTES:

1. SCHEDULE ASSUMES START DATE OF JUNE 1, 2021 AND FACTORS IN HOLIDAYS. SCHEDULE WILL BE ADJUSTED PER ACTUAL START DATE DICTATED BY COUNTY. OVERALL LENGTH OF PROJECT WILL NOT CHANGE.
2. SCHEDULE IS APPROXIMATE AND BASED ON A FOUR (4) MONTH SCHEDULE. SCHEDULE MAY BE ADJUSTED PURSUANT TO COUNTY REQUIREMENTS.

EXHIBIT "C"

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PAYMENT SCHEDULE

Invoices will be transmitted to the County on a monthly basis based on a percentage of completion up to that time. A derivation of the total contract fee amount is as follows:

<u>BASIC SERVICES</u>	<u>LUMP SUM FEE</u>	<u>SUBTOTAL</u>
Investigation and Data Collection	\$7,500	
Crash Analysis	\$7,500	
Drainage Analysis	\$12,000	
Preliminary Schematics	\$27,000	
Final Schematics	\$7,000	
Basic Services Total		\$61,000
<u>SPECIAL SERVICES</u>		
Limited Topographic Survey	\$8,000	
Special Services Total		\$8,000
Expenses		\$ 750
Total		\$69,750