

WORK AUTHORIZATION NO. 4

PROJECT: Engineering Services for Roadway Widening on  
CR 267 from Equine Rd. to Larkspur Park Blvd., approximately 4,200'

This Work Authorization is made pursuant to the terms and conditions of the Williamson County Contract for Engineering Services, being dated June 2, 2022 and entered into by and between Williamson County, Texas, a political subdivision of the State of Texas, (the "County") and LAN (the "Engineer").

Part 1. The Engineer will provide the following Engineering Services set forth in Attachment "B" of this Work Authorization.

Part 2. The maximum amount payable for services under this Work Authorization without modification is \$102,580.00.

Part 3. Payment to the Engineer for the services established under this Work Authorization shall be made in accordance with the Contract.

Part 4. This Work Authorization shall become effective on the date of final acceptance and full execution of the parties hereto and shall terminate on March 31, 2025. The Engineering Services set forth in Attachment "B" of this Work Authorization shall be fully completed on or before said date unless extended by a Supplemental Work Authorization.

Part 5. This Work Authorization does not waive the parties' responsibilities and obligations provided under the Contract.

Part 6. County believes it has sufficient funds currently available and authorized for expenditure to finance the costs of this Work Authorization. Engineer understands and agrees that County's payment of amounts under this Work Authorization is contingent on the County receiving appropriations or other expenditure authority sufficient to allow the County, in the exercise of reasonable administrative discretion, to continue to make payments under this Contract. It is further understood and agreed by Engineer that County shall have the right to terminate this Contract at the end of any County fiscal year if the governing body of County does not appropriate sufficient funds as determined by County's budget for the fiscal year in question. County may effect such termination by giving written notice of termination to Engineer.

Part 7. This Work Authorization is hereby accepted and acknowledged below.

EXECUTED this \_\_\_\_\_ day of \_\_\_\_\_, 20\_\_.

ENGINEER:

Lockwood, Andrews and Newnam, Inc.

By: Travis Michel  
Signature

Travis Michel, P.E.  
Printed Name

Sr. Associate  
Title

COUNTY:

Williamson County, Texas

By: \_\_\_\_\_  
Signature

\_\_\_\_\_  
Printed Name

\_\_\_\_\_  
Title

## LIST OF ATTACHMENTS

Attachment A - Services to be Provided by County

Attachment B - Services to be Provided by Engineer

Attachment C - Work Schedule

Attachment D - Fee Schedule

## **Attachment A - Services to be Provided by County**

Williamson County Road & Bridge Division personnel will provide:

- Project direction, review and oversight
- Existing topographic survey with existing culvert sizes and elevations (including CAD file)
- Aerial background (photography) files
- Geotechnical investigations and pavement design
- Available recent bid tabs for development of the OPCC
- Right of Entry acquisition for adjacent properties if required
- Bidding and Construction oversight, administration, and management

## **Attachment B - Services to be Provided by Engineer**

### Project Locations:

#### **1. CR 267 from Equine Rd. to Larkspur Park Blvd., approximately 4,200'**

##### Task 1: Project Management

Attend progress review meetings with Road & Bridge Division prior to 90% and 100% submittals. Prepare monthly progress reports and invoices. Maintain project schedule and perform QA/QC.

##### Task 2: LIDAR Contours and Apparent R.O.W.

Topographic survey to be provided by the County.

##### Task 3: Preliminary Engineering

N/A

##### Task 4: Geotechnical Investigations

To be provided by the County  
(pavement design)

##### Task 5: Environmental Studies

N/A

##### Task 6: Utility Coordination

N/A

##### Task 7: FEMA Coordination

N/A

##### Task 8: Final Engineering

###### 8.1. Roadway Design (90% and 100% Submittals):

8.1.1. Preliminary site visit to determine if there's a need to relocate mailboxes and roadway signs, among other tasks.

8.1.2. Roadway design and final plans for construction letting. The plan set will encompass the following sheets:

- I. Title sheet,
- II. Project Layout sheet,
- III. Survey Control Sheets,
- IV. Existing and proposed Typical sections,
- V. Quantity summary,
- V. Plan and profile (including SW3P, signage and pavement marking elements),
- VI. Traffic Control Plans,
- VII. Demolition Plan,
- VIII. Cross Sections

IX. Relevant TxDOT standard details.

8.1.3. Develop the Opinion of Probable Construction Cost (OPCC).

8.1.4. General Notes and Technical Specifications.

## 8.2. Hydrologic & Hydraulic Analysis, and Construction Documents (Drainage Sheets)

8.2.1. Hydrologic Analysis: The contributing drainage basin to County Road 267 (CR 267) will be delineated utilizing LiDAR, survey information, and GIS analysis. Drainage basins will be analyzed using the rational method.

8.2.2. Hydraulic Analysis: The location of existing ditches will be collected through site information and desktop analysis. Spreadsheet ditch calculations will be provided to analyze the proposed parallel ditches on both the east and west sides of CR 267, including analysis of existing driveway culverts using HY-8. The goal of the drainage improvement is to achieve a 10-year capacity for parallel drainage ditches and driveway culverts, if possible.

8.2.3. Design Plans (90% and 100% Submittals): It is anticipated the following drawings will be included in Drainage sheets:

- I. Drainage Area Map (1 sheet)
- II. Hydrologic Calculations (1 sheet)
- III. Ditch Calculations (1 sheet)

Note: Ditch grading and callouts will be provided in roadway plan & profile sheets.

Clarifications:

1. The County will provide survey of the following to support the drainage analysis:
  - Limits of ROW
2. Downstream effect mitigation is not included in this scope.
3. Ditch analysis will be provided for locations where an existing ditch is present. If there is no ditch in the existing condition a possible ditch will be proposed to minimize sheet flow across the roadway. H&H analysis will be provided for that area.

Task 9: Bidding Phase Services

N/A

Task 10: Construction Phase

N/A

### **Deliverables:**

90% Submittal:

- 11"x17" plan sheets
- Estimates and quantities

100% Submittal:

- 11"x17" plan sheets
- Final OPCC

**Exclusions:**

The following items are excluded from LAN's scope of work but may be included as a Supplemental Service should the County request them:

1. Subconsultant services, including but not limited to: Surveying, Geotechnical Engineering, Pavement design, Environmental Consulting, Subsurface Utility Engineering (SUE), Traffic study, etc.
2. Utility coordination or relocations design.
3. Utility design to address water or wastewater conflicts with the proposed drainage improvements is not included in this scope.
4. Separate SW3P sheets (LAN will incorporate these elements into the plan and profile)
5. Separate signage and pavement marking sheets (LAN will incorporate these elements into the plan and profile)
6. Public involvement.
7. Bid phase and construction phase services.
8. Develop record drawings.
9. Any other items not identified in the basic services.

### Attachment C - Work Schedule

Expected Notice to Proceed from Williamson County near August 7, 2024.

Milestone	Duration	Date Due
Notice to Proceed		August 7, 2024
90% Submittal	6 weeks	September 13, 2024
90% Review Comments returned	1 week	September 20, 2024
100% Submittal (Signed & Sealed)	1 week	September 30, 2024

### Attachment D - Fee Schedule

The following tasks will be invoiced at the hourly rate for the personnel performing the tasks. The total amount for each task will not be exceeded without approval from the county.

Task 1 – Project Management	\$10,510.00
Task 8 – Final Engineering	\$92,070.00
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Total	\$102,580.00

Work Authorization #4

Project: CR 267 from Equine Rd. to Larkspur Park Blvd., approx. 4,200'

Task Number	Project Name: CR 267 Roadway Widening Engineering Services	Total Hours	Total Task Cost	Project Principal	Project Manager	Project Engineer	Senior CAD Technician	Engineer - In - Training	Adm'n/ Clerical
<b>01</b>	<b>Project Management and Setup</b>			\$ 260.00	\$ 210.00	\$ 165.00	\$ 130.00	\$ 130.00	\$ 100.00
1.a	Project Management	29	\$ 5,860.00	2	24				3
1.b	Coordination with other Consultants	11	\$ 2,070.00		8			3	
1.c	Monthly Progress Meetings (2 meetings), Agenda & Meeting Minutes Preparation	14	\$ 2,580.00		6	8			
	<b>Subtotal</b>	<b>54</b>	<b>\$ 10,510.00</b>	<b>2</b>	<b>38</b>	<b>8</b>	<b>0</b>	<b>3</b>	<b>3</b>
<b>08.1</b>	<b>Roadway Design</b>								
8.1.a	Field work (limits, striping, driveway, etc. identification)	14	\$ 2,280.00		4	4		6	
8.1.b	Prepare Schematics	332	\$ 48,220.00	8	24	60	120	120	
8.1.c	Prepare Quantity Summary & OPCC	28	\$ 4,010.00		2	6	4	16	
8.1.d	Quality Control/Quality Assurance	12	\$ 2,720.00	4	8				
8.1.e	Mileage (\$0.655/mile) & Plan Production/Printing/Courier Services		\$ 350.00						
	<b>Subtotal</b>	<b>386</b>	<b>\$ 57,580.00</b>	<b>12</b>	<b>38</b>	<b>70</b>	<b>124</b>	<b>142</b>	<b>0</b>
<b>08.2</b>	<b>Hydrologic &amp; Hydraulic Analysis, and Construction Documents (Drainage Sheets)</b>								
	Hydrologic Analysis								
8.2.a	Data Collection/Site Visit	8	\$ 1,110.00			2		6	
8.2.b	Rational Method	22	\$ 3,160.00		2	4		16	
	Hydraulic Analysis								
8.2.c	Data Collection/Site Visit	8	\$ 1,110.00			2		6	
8.2.d	Parallel Ditch Analysis	32	\$ 4,760.00		4	8		20	
8.2.e	Driveway Culverts Analysis (up to 9)	100	\$ 13,880.00		4	16		80	
8.2.f	QC Review	8	\$ 1,680.00		8				
8.2.g	Drainage Area Map (1 sheet)	22	\$ 2,930.00			2		20	
8.2.h	Hydrologic Calculation (1 sheet)	22	\$ 2,930.00			2		20	
8.2.i	Ditch Calculations (1 sheet)	22	\$ 2,930.00			2		20	
	<b>Subtotal</b>	<b>244</b>	<b>\$ 34,490.00</b>	<b>0</b>	<b>18</b>	<b>38</b>	<b>0</b>	<b>188</b>	<b>0</b>
	<b>Total Fee</b>		<b>\$ 102,580.00</b>						