

## **WORK AUTHORIZATION NO.5**

**PROJECT: Engineering Design Services for Drainage Improvements on CR 222, CR 378, CR 383, CR 467, CR 417**

This Work Authorization is made pursuant to the terms and conditions of the Williamson County Contract for Engineering Services, being dated May 31, 2022 and entered into by and between Williamson County, Texas, a political subdivision of the State of Texas, (the "County") and Gray Engineering Inc. (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 \$300,847.12

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 September 30, 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 \_\_\_\_\_, 2020.

ENGINEER:

\_\_\_\_\_

By: Brian Williams  
Signature

Brian Williams, P.E.  
Printed Name

Managing Partner  
Title

COUNTY:

Williamson County, Texas

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

Steven Snell  
Printed Name

Williamson County Judge  
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 LIDAR contours and apparent ROW (Wilco's GIS Department)
- Existing culvert sizes and elevations.
- Construction oversight, administration, and management.

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

### Project Locations:

- 1. CR 222 from the Burnet/Williamson County Line to SH 138 (approximately 8,659')**
- 2. CR 378 from CR 347 to the east end (approximately 7,730')**
- 3. CR 383 from the north end to CR 327 (approximately 1,636')**
- 4. CR 467 from the Lee/Williamson County Line to CR 327 (approximately 25,978')**
- 5. CR 417 from CR 412 to CR 487 (approximately 22,018')**

### Task 1: Project Management

Maintain direction of the project with Williamson County via scheduled meetings.  
Provide monthly schedule and memo updates.

### Task 2: Topographic and R.O.W information, culvert inventory, sizing, and elevations.

To be provided by Williamson County

### Task 3: Preliminary Engineering

Create an existing base from information provided by Williamson County. Delineate drainage areas and perform runoff calculations for 2-yr, 5-yr, 10-yr, 25-yr, and 100-yr storm events for parallel driveway culverts and non-bridge class cross culverts within the project limits, including data collection, and field reconnaissance. Provide a scroll plot (1" = 100') showing drainage area boundaries, time of concentration path, drainage area I.D., 2' LIDAR contours and aerial background provided by the County. Provide table showing runoff calculations and existing culvert capacity analysis results.

### Task 4: Final Engineering (CR 222, CR 378, CR 383, CR 467, CR 417)

Calculate capacity of existing parallel driveway culverts and non-bridge class cross culverts. Determine parallel driveway culverts and non-bridge class culverts in need of replacement due to condition, inadequate capacity, or safety treatment. Provide 11x17 Plan sheets (1" = 50') for proposed improvements to parallel driveway culverts and non-bridge class cross culverts showing roadway centerline, stationing, approximate ROW, 2' LIDAR contours (provided by the County), and aerial background. Provide Quantity summary table for proposed drainage facility improvements. The scope of this deliverable will be to provide a plan view of the improvements and computations in tabular format for culverts in need of replacement.

### Final Engineering (CR 417 Only)

#### Plan Sheets (11" x 17"):

- Cover Sheet
- Estimate of Quantities Summary
- Construction Notes & Typical Sections
- Drainage Area Map and Calculations
- Erosion Control Plan
- Traffic Control Plan and Detour Plan (if necessary)
- TxDOT Standard Details

- Roadway & Culvert Plan Sheets (1" = 50') (showing roadway centerline, stationing, apparent ROW, and aerial background)
- Williamson County Driveway Detail Sheets
- Driveway Detail Summary Table
- Culvert Summary Table

In addition to the above plan sheets, the Engineer will provide the following:

- Cost Estimate
- Estimate of Quantities Summary
- Bid form for proposed drainage facility improvements
- General Notes
- Technical Specifications
- Provide exhibits (8.5"x 11" plan view) for temporary construction and/or drainage easements to facilitate construction of proposed drainage improvements. Exhibits shall show roadway centerline, approximate ROW line, boundary, and dimensions of proposed easement for the use in preparing easement documents by others.

## **Attachment C - Work Schedule**

Please see next page.

## Attachment C - Work Schedule

**Project:** Williamson County  
**WA#5**  
**Prepared By:** Gray Engineering, Inc.  
**Date:** July 8, 2025  
**Date Revised:**

<b>WILCO CR H&amp;H Various Roadways</b>			Complete
50% Submittal	37	Calendar Days	8/21/2025
100% Submittal	28	Calendar Days	9/18/2025
Final Signed and Sealed Set	12	Calendar Days	9/30/2025
<b>Total</b>	<b>77</b>	<b>Calendar Days</b>	

Start 7/15/2025  
End 9/30/2025



## **Attachment D - Fee Schedule**

Please see next pages.

Attachment D - Fee Schedule

WILCO CR H&H Various Roadways  
Work Authorization No. 5

	WILCO CR H&H Various Roadways - WORK SHEET	Principal			Project Manager			Project Engineer			EIT			CAD Designer			Total
Task	Sub Task	HRS	Rate	Total	HRS	Rate	Total	HRS	Rate	Total	HRS	Rate	Total	HRS	Rate	Total	
Project Management	Coordination	0	\$357.36	\$ -	40	\$302.38	\$12,095.20	0	\$230.91	\$ -	0	\$175.93	\$ -	0	\$153.94	\$ -	\$12,095.20
	Monthly Progress Reports & Schedules	0	\$357.36	\$ -	16	\$302.38	\$4,838.08	0	\$230.91	\$ -	0	\$175.93	\$ -	0	\$153.94	\$ -	\$4,838.08
	Subtotal	0		\$0.00	56		\$16,933.28	0		\$0.00	0		\$0.00	0		\$0.00	\$16,933.28
Preliminary Engineering	Import Base & Survey Information(WilCo)	0	\$357.36	\$ -	0	\$302.38	\$ -	0	\$230.91	\$ -	24	\$175.93	\$ 4,222.32	60	\$153.94	\$9,236.40	\$13,458.72
	Drainage Analysis & Runoff Calculations (50% Submittal)	10	\$357.36	\$ 3,573.60	40	\$302.38	\$12,095.20	100	\$230.91	\$23,091.00	100	\$175.93	\$ 17,593.00	0	\$153.94	\$ -	\$56,352.80
	Scroll Plot (50% Submittal)	2	\$357.36	\$ 714.72	18	\$302.38	\$5,442.84	36	\$230.91	\$8,312.76	0	\$175.93	\$ -	60	\$153.94	\$9,236.40	\$23,706.72
	Culvert Analysis Table (50% Submittal)	8	\$357.36	\$ 2,858.88	30	\$302.38	\$ 9,071.40	40	\$230.91	\$9,236.40	40	\$175.93	\$ 7,037.20	0	\$153.94	\$ -	\$28,203.88
	50% Progress Set (CR 417 Only) (50% Submittal)	5	\$357.36	\$ 1,786.80	10	\$302.38	\$ 3,023.80	20	\$230.91	\$4,618.20	20	\$175.93	\$ 3,518.60	60	\$153.94	\$ 9,236.40	\$22,183.80
	Site Visits	0	\$357.36	\$ -	9	\$302.38	\$ 2,721.42	16	\$230.91	\$3,694.56	16	\$175.93	\$ 2,814.88	16	\$153.94	\$ 2,463.040	\$11,693.90
	Subtotal	25		\$ 8,934.00	107		\$32,354.66	212		\$48,952.92	200		\$35,186.00	196		\$30,172.24	\$155,599.82
Final Engineering	100% Progress Set (100% Submittal)	17	\$357.36	\$ 6,075.12	45	\$302.38	\$13,607.10	75	\$230.91	\$17,318.25	85	\$175.93	\$14,954.05	80	\$153.94	\$12,315.20	\$64,269.72
	Preliminary Quantities Estimate (100% Submittal)	8	\$357.36	\$ 2,858.88	4	\$302.38	\$1,209.52	18	\$230.91	\$4,156.38	0	\$175.93	\$0.00	0	\$153.94	\$ -	\$8,224.78
	Culvert Design Table (100% Submittal)	4	\$357.36	\$ 1,429.44	24	\$302.38	\$7,257.12	38	\$230.91	\$8,774.58	50	\$175.93	\$8,796.50	0	\$153.94	\$ -	\$26,257.64
	Final Set (Final Submittal)	8	\$357.36	\$ 2,858.88	16	\$302.38	\$4,838.08	24	\$230.91	\$5,541.84	24	\$175.93	\$4,222.32	40	\$153.94	\$6,157.60	\$23,618.72
	Final Quantities Estimate (Final Submittal)	3	\$357.36	\$ 1,072.08	4	\$302.38	\$1,209.52	9	\$230.91	\$2,078.19	9	\$175.93	\$1,583.37	0	\$153.94	\$ -	\$5,943.16
	Subtotal	40		\$ 14,294.40	93		\$28,121.34	164		\$37,869.24	168		\$29,556.24	120		\$18,472.80	\$128,314.02
	TOTAL	65		\$ 23,228.40	256		\$77,409.28	376		\$86,822.16	368		\$64,742.24	316		\$48,645.04	\$300,847.12

Note: This Attachment D - Fee Schedule includes engineering services associated with all of the ROW improvements for the following County roadways:

1. CR 222 from the Burnet/Wilco County Line to SH 138 (approximately 8,659’)
2. CR 378 from CR 347 to the east end (approximately 7,730’)
3. CR 383 from the north end to CR 327 (approximately 1,636’)
4. CR 467 from the Lee/Wilco County Line to FM 619 (approximately 25,978’)
5. CR 417 from CR 412 to CR 487 (approximately 22,018’)\*

\*Includes PS&E package for drainage features