

WORK AUTHORIZATION NO. 5

PROJECT: Engineering Design Services for Drainage Improvements on Phillip Lane, CR 426 and CR 331

This Work Authorization is made pursuant to the terms and conditions of the Williamson County Contract for Engineering Services, being dated **March 6, 2018** and entered into by and between Williamson County, Texas, a political subdivision of the State of Texas, (the "County") and **Alliance Transportation Group** (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 **\$80,000.00.**

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, 2021.** 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 26th day of February, 2019.

ENGINEER:

Alliance Transportation Group

By:  Digitally signed by Clint Jumper
Date: 2019.02.14 14:49:16 -06'00'

Signature

Clint Jumper

Printed Name

VP, Engineering

Title

COUNTY:

Williamson County, Texas

By: 

Signature

Bill Gravell, Jr.

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

Please see next page.

Attachment A

Services to be Provided by County

Williamson County Road & Bridge Division personnel will provide:

- Project direction, review and oversight.
- Topographic and R.O.W Surveys.
- Geotechnical investigations, data and reports.
- ROW Documents and Drainage Reports.
- Conducting pre-bid meeting, responding to contractor questions during bidding, tabulating and evaluating bids after bid opening, and providing recommendation of award of contract.
- Construction oversight, administration and management.

Attachment B - Services to be Provided by Engineer

Please see next pages.

Attachment B

Services to be Provided by the Engineer

Project Locations:

1. **Phillip Lane – from CR 201 to East End (4,800')**
2. **CR 426 – from CR 427 to County Line (10,000')**
3. **CR 331 – from CR 329 to FM 972 (7,000')**

Task 1: Project Management

Attend Progress Review Meetings with County Road & Bridge department at 50%, 90% and Final.
Prepare monthly progress reports and invoices. Maintain project schedule and perform QA/QC.

Task 2: Topographic and R.O.W Surveys

To be provided by the County

Task 3: Preliminary Engineering

Delineate drainage areas and perform runoff calculations for 5-yr, 10-yr, and 25-yr storm events for parallel driveway pipes 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 calculation results.

Task 4: Geotechnical Investigations

N/A

Task 5: Environmental Studies

N/A

Task 6: Utility Coordination

N/A

Task 7: FEMA Coordination

N/A

Task 8: Final Engineering

Calculate capacity of existing parallel driveway pipes and non-bridge class cross culverts. Determine parallel driveway pipes and non-bridge class culverts in need of replacement due to condition, inadequate capacity, or safety treatment. Provide 11x17 Plan & Plan layout sheet (1" = 50') for proposed improvements to parallel driveway pipes 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. Provide exhibits (8.5x 11 Plan view) for temporary construction and /or drainage easements to facility 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.

Task 9: Bidding Phase Services

N/A

Task 10: Construction Phase Services

N/A

Deliverables:

50% Submittal:

- 2 copies of scroll plots of drainage areas and runoff calculations
- Quantity Summary
- Engineer's internal QA/QC marked up set

90% Submittal:

- 2 paper copies of 11" x 17" Plan Sheets
- 2 paper copies temporary construction and drainage easement exhibits on 8.5 x 11
- Quantity summary
- Engineer's internal QA/QC marked up set

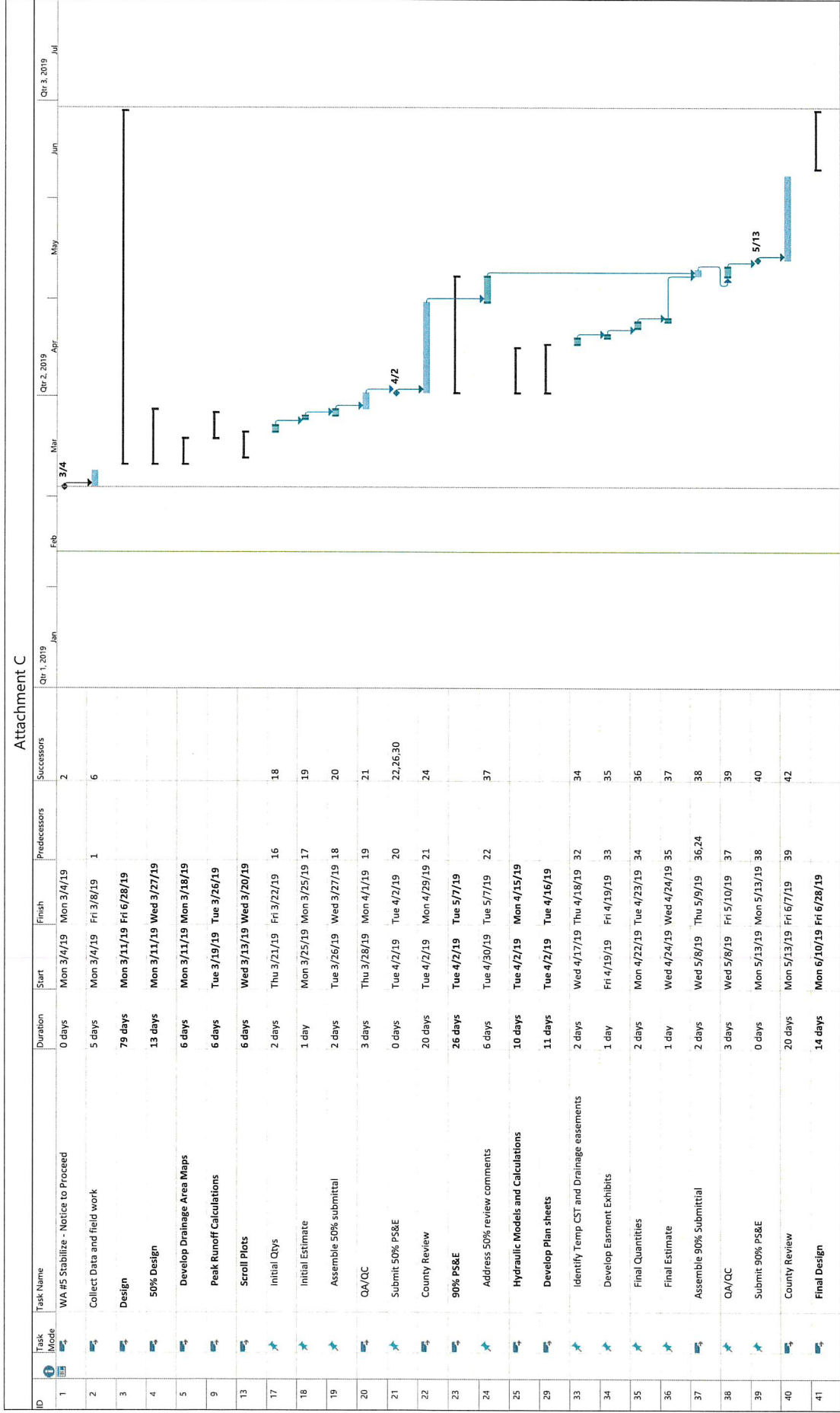
Final Submittal:

- 2 paper copies of 11" x 17" Plan Sheets
- 2 paper copies temporary construction and drainage easement exhibits on 8.5 x 11
- Quantity summary
- Engineer's internal QA/QC marked up set
- Electronic copy of submittal documents in PDF format on CD

Attachment C - Work Schedule

Please see next page.

Attachment C



Project: WILCO Small Drainage & Roadway Design WA # 5
Date: Tue 2/12/19

Task Summary: Manual Task, Duration-only, Manual Summary Rollup, Manual Summary

Task Mode: Task, Split, Milestone, Summary

Legend: Start-only, Finish-only, External Task, External Milestone, Manual Task, Duration-only, Manual Summary Rollup, Manual Summary, Inactive Task, Inactive Milestone, Inactive Summary

Progress: Progress, Manual Progress

Deadline: Deadline

Attachment D - Fee Schedule

Please see next pages.

Williamson County Small Drainage & Roadway Design (1711-206) - WAO3
 Attachment D
 Stabilize Projects
 Phillip Lane – from CR 201 to East End (4,800')
 CR 426 – from CR 427 to County Line (10,000')
 CR 331 – from CR 329 to FM 972 (7,000')

Task Description	Project Principal	Senior Project Manager	Project Manager	Hydraulic Engineer	Senior Engineer	Project Engineer	Engineer In Training	Senior Engineering Technician	Engineering Technician	Project Administrator	Clerical	Total Labor Hours & Costs
Task 1: Project Management												
1.1 Progress Review Meetings (3 meetings: 50%, 90% & Final)			9	9		9					3	30
1.2 Invoicing and Progress Reports (4 months)	4		4							4		12
1.3 Subconsultants												0
1.4 QA/QC of Deliverables at 50%, 90% and FINAL			9	6								15
Labor Hours Subtotal	4	0	22	15	0	9	0	0	0	4	3	57
Contract Labor Rate Per Hour	\$ 265.00	\$ 244.00	\$ 230.00	\$ 210.00	\$ 205.00	\$ 160.00	\$ 115.00	\$ 133.00	\$ 92.00	\$ 104.00	\$ 85.00	
Labor Costs Subtotal	\$ 1,060.00	\$ -	\$ 5,060.00	\$ 3,150.00	\$ -	\$ 1,440.00	\$ -	\$ -	\$ -	\$ 416.00	\$ 255.00	\$ 11,381.00

Task Description	Project Principal	Senior Project Manager	Project Manager	Hydraulic Engineer	Senior Engineer	Project Engineer	Engineer In Training	Senior Engineering Technician	Engineering Technician	Project Administrator	Clerical	Total Labor Hours & Costs
Task 2: Topographic and R.O.W. Surveys												
N/A												0
Labor Hours Subtotal	0	0	0	0	0	0	0	0	0	0	0	0
Contract Labor Rate Per Hour	\$ 265.00	\$ 244.00	\$ 230.00	\$ 210.00	\$ 205.00	\$ 160.00	\$ 115.00	\$ 133.00	\$ 92.00	\$ 104.00	\$ 85.00	
Labor Costs Subtotal	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -

Task Description	Project Principal	Senior Project Manager	Project Manager	Hydraulic Engineer	Senior Engineer	Project Engineer	Engineer In Training	Senior Engineering Technician	Engineering Technician	Project Administrator	Clerical	Total Labor Hours & Costs
Task 3: Preliminary Engineering												
3.1 Site Visit & Field Recon				8			8					16
3.2 Delineate Drainage Areas												0
Phillip Lane			1	3			16					20
CR 426			1	3			16					20
CR 331			1	3			16					20
3.3 Calculate Peak Stormwater Runoff Rates			1	8			40					49
3.4 Scroll plot showing drainage area boundaries, time of concentration paths, and areas (Ac)			1	3								0
Phillip Lane			1	3					16			20
CR 426			1	3					20			20
CR 331			1	3					16			9
3.5 Drainage Memo			1	4			4					9
Labor Hours Subtotal	0	0	8	38	0	0	100	0	52	0	0	198
Contract Labor Rate Per Hour	\$ 265.00	\$ 244.00	\$ 230.00	\$ 210.00	\$ 205.00	\$ 160.00	\$ 115.00	\$ 133.00	\$ 92.00	\$ 104.00	\$ 85.00	
Labor Costs Subtotal	\$ -	\$ -	\$ 1,840.00	\$ 7,980.00	\$ -	\$ -	\$ 11,500.00	\$ -	\$ 4,784.00	\$ -	\$ -	\$ 26,104.00

Task Description	Project Principal	Senior Project Manager	Project Manager	Hydraulic Engineer	Senior Engineer	Project Engineer	Engineer -In- Training	Senior Engineering Technician	Engineering Technician	Project Administrator	Clerical	Total Labor Hours & Costs
Task 4: Geotechnical Investigation												
N/A												0
Labor Hours Subtotal	0	0	0	0	0	0	0	0	0	0	0	0
Contract Labor Rate Per Hour	\$ 265.00	\$ 244.00	\$ 230.00	\$ 210.00	\$ 205.00	\$ 160.00	\$ 115.00	\$ 133.00	\$ 92.00	\$ 104.00	\$ 85.00	\$ -
Labor Costs Subtotal	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -

Task Description	Project Principal	Senior Project Manager	Project Manager	Hydraulic Engineer	Senior Engineer	Project Engineer	Engineer -In- Training	Senior Engineering Technician	Engineering Technician	Project Administrator	Clerical	Total Labor Hours & Costs
Task 5: Environmental Studies												
N/A												0
Labor Hours Subtotal	0	0	0	0	0	0	0	0	0	0	0	0
Contract Labor Rate Per Hour	\$ 265.00	\$ 244.00	\$ 230.00	\$ 210.00	\$ 205.00	\$ 160.00	\$ 115.00	\$ 133.00	\$ 92.00	\$ 104.00	\$ 85.00	\$ -
Labor Costs Subtotal	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -

Task Description	Project Principal	Senior Project Manager	Project Manager	Hydraulic Engineer	Senior Engineer	Project Engineer	Engineer -In- Training	Senior Engineering Technician	Engineering Technician	Project Administrator	Clerical	Total Labor Hours & Costs
Task 6: Utility Coordination												
N/A												0
Labor Hours Subtotal	0	0	0	0	0	0	0	0	0	0	0	0
Contract Labor Rate Per Hour	\$ 265.00	\$ 244.00	\$ 230.00	\$ 210.00	\$ 205.00	\$ 160.00	\$ 115.00	\$ 133.00	\$ 92.00	\$ 104.00	\$ 85.00	\$ -
Labor Costs Subtotal	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -

Task Description	Project Principal	Senior Project Manager	Project Manager	Hydraulic Engineer	Senior Engineer	Project Engineer	Engineer -In- Training	Senior Engineering Technician	Engineering Technician	Project Administrator	Clerical	Total Labor Hours & Costs
Task 7: FEMA Coordination												
N/A												0
Labor Hours Subtotal	0	0	0	0	0	0	0	0	0	0	0	0
Contract Labor Rate Per Hour	\$ 265.00	\$ 244.00	\$ 230.00	\$ 210.00	\$ 205.00	\$ 160.00	\$ 115.00	\$ 133.00	\$ 92.00	\$ 104.00	\$ 85.00	\$ -
Labor Costs Subtotal	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -

Task Description	Project Principal	Senior Project Manager	Project Manager	Hydraulic Engineer	Senior Engineer	Project Engineer	Engineer - In-Training	Senior Engineering Technician	Engineering Technician	Project Administrator	Clerical	Total Labor Hours & Costs
Task 8: Final Engineering												
8.1 Plan & Plan sheets for parallel and cross drainage culverts (1"=50')												
Phillip Lane (5 Sheets)			1	2		5			30			0
CR 426 (10 Sheets)			2	5		10			60			38
CR 331 (7 Sheets)			1	2		7			30			77
8.2 Develop Hydraulic Models and Calculations												40
Phillip Lane			1	8			20					0
CR 426			2	8			40					29
CR 331			1	8			20					50
8.3 Quantity Summary												0
Phillip Lane			1			2			6			9
CR 426			1			2			8			11
CR 331			1			2			6			9
8.4 Temporary Construction and Drainage Easement Exhibits			1			1			8			10
Labor Hours Subtotal	0	0	12	33	0	29	80	0	148	0	0	302
Contract Labor Rate Per Hour	\$ 265.00	\$ 244.00	\$ 230.00	\$ 210.00	\$ 205.00	\$ 160.00	\$ 115.00	\$ 133.00	\$ 92.00	\$ 104.00	\$ 85.00	\$ -
Labor Costs Subtotal	\$ -	\$ -	\$ 2,760.00	\$ 6,930.00	\$ -	\$ 4,640.00	\$ 9,200.00	\$ -	\$ 13,616.00	\$ -	\$ -	\$ 37,146.00

Task Description	Project Principal	Senior Project Manager	Project Manager	Hydraulic Engineer	Senior Engineer	Project Engineer	Engineer - In-Training	Senior Engineering Technician	Engineering Technician	Project Administrator	Clerical	Total Labor Hours & Costs
Task 9: Bidding Phase Services												
N/A												0
Labor Hours Subtotal	0	0	0	0	0	0	0	0	0	0	0	0
Contract Labor Rate Per Hour	\$ 265.00	\$ 244.00	\$ 230.00	\$ 210.00	\$ 205.00	\$ 160.00	\$ 115.00	\$ 133.00	\$ 92.00	\$ 104.00	\$ 85.00	\$ -
Labor Costs Subtotal	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -

Task Description	Project Principal	Senior Project Manager	Project Manager	Hydraulic Engineer	Senior Engineer	Project Engineer	Engineer - In-Training	Senior Engineering Technician	Engineering Technician	Project Administrator	Clerical	Total Labor Hours & Costs
Task 10: Construction Phase Services												
N/A												0
Labor Hours Subtotal	0	0	0	0	0	0	0	0	0	0	0	0
Contract Labor Rate Per Hour	\$ 265.00	\$ 244.00	\$ 230.00	\$ 210.00	\$ 205.00	\$ 160.00	\$ 115.00	\$ 133.00	\$ 92.00	\$ 104.00	\$ 85.00	\$ -
Labor Costs Subtotal	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -

DESCRIPTION	TOTAL MH BY TASK	TOTAL COST BY TASK
Task 1: Project Management	57	\$ 11,381.00
Task 2: Topographic and R.O.W. Surveys	0	\$ -
Task 3: Preliminary Engineering	198	\$ 26,104.00
Task 4: Geotechnical Investigation	0	\$ -
Task 5: Environmental Studies	0	\$ -
Task 6: Utility Coordination	0	\$ -
Task 7: FEMA Coordination	0	\$ -
Task 8: Final Engineering	302	\$ 37,146.00
Task 9: Bidding Phase Services	0	\$ -
Task 10: Construction Phase Services	0	\$ -
SUBTOTAL LABOR COST	557	\$ 74,631.00

DESCRIPTION	Unit	Cost/Unit	Quantity	Total Cost
Mileage	mile	\$ -		\$ -
Standard Postage - Letter	each	\$ -		\$ -
Certified Letter Return Receipt	each	\$ 25.00		\$ -
Overnight Mail - Letter Size	each	\$ 30.00		\$ -
Overnight Mail - Oversized Box	each	\$ 50.00		\$ -
Courier Services	each	\$ 0.25	48	\$ 12.00
Photocopies B/W (8 1/2" x 11")	each	\$ 0.50	148	\$ 74.00
Photocopies B/W (11" x 17")	each	\$ 1.00		\$ -
Photocopies Color (8 1/2" x 11")	each	\$ 2.00		\$ -
Plots (B/W on Bond)	square foot	\$ 6.00		\$ -
Plots (Color on Bond)	square foot	\$ 8.00	180	\$ 1,440.00
CDs	each	\$ 0.50	4	\$ 2.00
SUBTOTAL DIRECT EXPENSES				\$ 1,528.00

SUMMARY	
SUBTOTAL LABOR COST	\$ 74,631.00
SUBTOTAL DIRECT EXPENSE	\$ 1,528.00
TOTAL	\$ 76,159.00