SUPPLEMENTAL WORK AUTHORIZATION NO. 2
TO
WORK AUTHORIZATION NO. 5

WILLIAMSON COUNTY ROAD AND BRIDGE PROJECT:
Engineering Design Services the Skyview Drive Bridge Project

This Supplemental Work Authorization No. 2 to Work Authorization No. 5 is made pursuant to the terms and conditions of the Williamson County Contract for Engineering Services, being dated May 31, 2022 ("Contract") and entered into by and between Williamson County, Texas, a political subdivision of the State of Texas, (the "County") and K.C. Engineering, Inc. (the "Firm").

WHEREAS, the County and the Firm executed Work Authorization No. 5 dated effective August 22, 2024 (the "Work Authorization");

WHEREAS, pursuant to the Contract, amendments, changes and modifications to a fully executed Work Authorization shall be made in the form of a Supplemental Work Authorization; and

WHEREAS, it has become necessary to amend, change and modify the Work Authorization.

AGREEMENT

NOW, THEREFORE, premises considered, the County and the Firm agree that the Work Authorization shall be amended, changed and modified as follows:

I. The maximum amount payable for services under the Work Authorization is hereby increased from $265,450.00 to $304,829.14. The revised Work Schedule is attached hereto as Attachment "C" (must be attached).

County believes it has sufficient funds currently available and authorized for expenditure to finance the costs of this Supplemental Work Authorization. Firm understands and agrees that County's payment of amounts under this Supplemental 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 the Supplemental Work Authorization. It is further understood and agreed by Firm that County shall have the right to terminate this Supplemental Work Authorization 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 Firm.

Except as otherwise amended by prior or future Supplemental Work Authorizations, all other terms of the Work Authorization are unchanged and will remain in full force and effect.

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

IN WITNESS WHEREOF, the County and the Firm have executed this Supplemental Work Authorization, in duplicate, to be effective as of the date of the last party's execution below.

FIRM:	**COUNTY:**
By: Greg Haley, P.E.	By:
Signature	Signature
Greg Haley, P.E.	
Printed Name	Printed Name
President	
Title	Title
December 12, 2024	
Date	Date

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

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.
- 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

Services to be Provided by Engineer

Project Locations

1. Name of Roadway: Skyview Drive

Task 1: Project Management

Attend Progress Review Meetings with County Road and Bridge Department at 30%, 90%, and Final. Prepare monthly progress reports and invoices. Maintain project schedule and perform QC/QA.

Task 2: Topographic Surveys and R.O.W. Surveys

To be provided by the County

Task 3: Preliminary Engineering

Conduct Site Visit and Field Reconnaissance to document existing conditions. Data collection including available as-builts. Develop conceptual geometric layout (1" = 20' H, 1" = 2' V) showing roadway horizontal and vertical geometry and proposed typical section. Prepare preliminary cross sections (50' interval and driveways). Develop preliminary drainage analysis including delineation of drainage areas, calculation of peak stormwater runoff rates for 10-yr, 25-yr, 50-yr, and 100-yr. All drainage data will be as obtained from HEC-RAS models provided by the County and hydraulic modeling performed by the Engineer.

Task 4: Geotechnical Investigations

Traffic Control. Bridge site core drilling and core logging. Determine soil moisture content, Liquid Limit, Plastic Limit, Plasticity Index, and Laboratory Testing. Perform existing slope assessment. Make geotechnical design recommendations for the bridge, retaining walls, and channel banks.

Task 5: Environmental Studies

N/A

Task 6: Utility Coordination

To be provided by the County

Task 7: FEMA Coordination

N/A

Task 8: Final Engineering

Prepare final detailed design and PS&E for proposed improvements. Calculate ditch capacity and size driveway and cross culvert pipes.

Plan Sheets:

- Title Sheet
- Index of Sheets
- Estimate of Quantities Summary
- Project Layout
- Typical Sections
- Horizontal Alignment Data
- Drainage Documentation
- H & H Summaries
- Miscellaneous Drainage Details
- Existing Conditions and Removal Plan
- Bridge Layout
- Bridge Details
- Erosion Control Plan
- Sequence of Construction
- Traffic Control Plan
- Driveway Details
- Driveway Summary
- Intersection Layout
- Roadway Plan & Profile
- Miscellaneous Roadway Details
- Signs & Pavement Markings
- Small Sign Summary
- SW3P
- Cross Sections (50' Interval and Driveways)
- Standards

Specifications
Cost Estimate
General Notes

Task 9: Bidding Phase Services

Prepare Bid Tabs for processing by Purchasing Department

Task 10: Construction Phase Services

Review shop drawings and respond to contractor RFIs. Prepare electronic as-built final drawings for the County based on construction red-lines provided by the County.

Bridge Design Assumptions:

- New bridge will be a single span, precast concrete superstructure (e.g., prestressed slab beams, decked slab beams, box beams, Tx Girders)

- New bridge will be built in two phases (single lane on one side first)

- New bridge will have zero skew, straight horizontal alignment, and no aesthetics

- Deck will have raised 6' sidewalk on one side only (curb separation for speed <45 mph with combination traffic rail)

- Abutments will have vertical retaining walls (assume TxDOT standard MSE or CIP spread footing walls), constructed in two phases

- Temporary special shoring will be required for phased construction

- Compressed design schedule: 30%, pre-100%, Final 100% (signed/sealed)

- No work for Public Involvement, Surveying, ROW Mapping or Environmental

- Effort includes minimal bidding and construction phase services

Deliverables:

50% Submittal:
- PDFs of 11" x 17" Plan Sheets
- Specifications
- Estimate of Construction Cost
- General Notes

90% Submittal
- PDFs of 11" x 17" Plan Sheets
- Specifications
- Estimate of Construction Cost
- General Notes

100% Submittal
- PDFs of 11" x 17" Plan Sheets
- Specifications
- Estimate of Construction Cost
- General Notes
- Electronic copy of submittal documents in PDF format

ATTACHMENT C

WORK SCHEDULE

WORK AUTHORIZATION NO. 5 – SUPPLEMENTAL WA NO. 1

Task No.	Task Name	Duration	Time	Start	Finish
1	WA #5 - Notice to Proceed	0	Days	8/6/2024	8/6/2024
2	Survey (by others)	15	Days	8/21/2024	9/5/2024
3	Design	120	Days	9/5/2024	1/3/2025
2	Geotechnical	15	Days	1/3/2025	1/18/2025
4	50% PS&E	10	Days	1/18/2025	1/28/2025
5	QA/QC	2	Days	1/28/2025	1/30/2025
6	Submit 50% PS&E	0	Days	1/30/2025	1/30/2025
7	County Review	5	Days	1/30/2025	2/4/2025
8	90% PS&E	15	Days	2/4/2025	2/19/2025
9	QA/QC	2	Days	2/19/2025	2/21/2025
10	Submit 90% PS&E	0	Days	2/21/2025	2/21/2025
11	County Review	5	Days	2/21/2025	2/26/2025
12	Final PS&E	5	Days	2/26/2025	3/3/2025
13	Address 90% comments	2	Days	3/3/2025	3/5/2025
14	Final Quantities	2	Days	3/5/2025	3/7/2025
15	Final Estimate	2	Days	3/7/2025	3/9/2025
16	Assemble Final PS&E	2	Days	3/9/2025	3/11/2025
17	Submit Final PS&E	0	Days	3/11/2025	3/11/2025
18	County Review	5	Days	3/11/2025	3/16/2025
19	Submit Signed and Sealed PS&E	2	Days	3/16/2025	3/18/2025
20	Bid Advertisement	35	Days	3/18/2025	4/22/2025
21	Letting	1	Days	4/22/2025	4/23/2025
22	Award and Bonds	30	Days	4/23/2025	5/23/2025
23	Construction	60	Days	5/23/2025	7/22/2025
24	Complete Project	2	Days	7/22/2025	7/24/2025

ATTACHMENT D - FEE SCHEDULE
WORK AUTHORIZATION NO. 5 – SUPPLEMENTAL WORK AUTHORIZATION NO. 1
SKYVIEW DRIVE

		K.C. ENGINEERING, INC.					HARDESY & HANOVER, LLC									FLORES GEOTECHNICAL				
TASK NO.	TASK DESCRIPTION	PRINCIPAL ENGINEER	SENIOR PROJECT ENGINEER	PROJECT ENGINEER	ENGINEER-IN-TRAINING	CLERICAL	PROJECT PRINCIPAL	SENIOR TECHNICAL ADVISOR	SENIOR PROJECT MANAGER	SENIOR STR. QA/QC MANAGER	SENIOR STRUCT. ENGINEER	STRUCT. ENGINEER	STRUCT. DESIGNER (E.I.T.)	SENIOR ENGINEER TECH	CAD TECH	ADMIN/ CLERICAL	PRINCIPAL ENGINEER	SENIOR ENGINEER	ADMIN / CLERICAL	ENGINEER TECH	TOTAL
	Labor Rates	250.00	195.00	165.00	125.00	80.00	335.00	300.00	260.00	255.00	250.00	165.00	125.00	150.00	95.00	90.00	253.50	244.54	77.54	104.38	
1	**PS&E Development**																				
1.1	**Roadway Design**																				
1.1.1	Establish Horizontal Alignment		2	2																	$ 720.00
1.1.2	Establish Vertical Alignment		2	4																	$ 1,050.00
1.1.3	Site Visits		2																		$ 390.00
1.1.4	Alignment & Superelevation Table			2	2																$ 580.00
1.1.5	Roadway Cross Sections		4	8	6																$ 2,850.00
1.1.6	Earthwork Calculations		2	2	4																$ 1,220.00
1.1.7	Roadway Plan Profile Sheets		4	8	8																$ 3,100.00
1.1.8	Driveway Profiles / Details / Summaries																				$ -
1.1.9	Side Road Profiles / Details / Summaries																				$ -
1.1.10	Miscellaneous Roadway Details		1	1	1																$ 485.00
1.1.11	Alignment Data		1	1	2																$ 610.00
1.1.12	Sequence of Construction	1	2	8	8																$ 2,960.00
1.1.13	Intersection Layouts																				$ -
1.1.14	Project Layout	1	1	2	2																$ 1,025.00
1.1.15	Title Sheet	1	1	1	2																$ 860.00
1.1.16	Survey Data			6																	$ 990.00
1.1.17	Roadway Typical Sectons	1	4	4	4																$ 2,190.00
1.1.18	Index of Sheets			1	2																$ 415.00
1.1.19	Summary of Roadway Quantities		2	4	6																$ 1,800.00
1.1.20	Construction Estimate	1	4	6	4																$ 2,520.00
1.1.21	Assemble Applicable Standards																				$ -
	Task 1.1 Total	**5**	**32**	**60**	**51**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**$ 23,765.00**
1.2	**Bridge Design**																				
1.2.1	**Project Management**																				
1.2.1	Monthly Progress Reports, Invoices, and Billings						1		9							9					$ 3,485.00
1.2.2	QA/QC Plan						1		2	2											$ 1,365.00
1.2.3	Project Coordination and Admin						2		12			12									$ 5,770.00
1.2.4	Progress/Coordination Meetings								8			8									$ 3,400.00
1.2.5	Project Documents/Files						1		4			4		4							$ 2,635.00
	Task1. 1.2.1 Total	**0**	**0**	**0**	**0**	**0**	**5**	**0**	**35**	**2**	**0**	**24**	**0**	**4**	**0**	**9**	**0**	**0**	**0**	**0**	**$ 16,655.00**
1.2.2	**Route and Design Studies**																				
1.2.6	Data Collection & Field Reconnaissance						1		4				4								$ 1,875.00
1.2.7	Structural Design Citeria & Design Summary Report						1		2		4										$ 1,855.00
1.2.8	Coord with Team to Evaluate Bridge & Wall Type Alternatives, Perform Prelim Engineering						1		4		4		8								$ 3,375.00
1.2.9	Prep Summary Memo, Prelim Costs & Conceptual Layouts for Each Bridge Alt						1		4		8		4	2	8						$ 4,935.00
1.2.10	Summarize Option, Prelim Costs & Conceptual Layouts for Wall Alt's						1		4		8		4	2	8						$ 4,935.00
1.2.11	Prepare Alternative Report and Exhibits, Meet w/ Wilco to Discuss & Select Structure Types						1		2	4	4		4	2	2						$ 3,865.00
	Task1. 1.2.2 Total	**0**	**0**	**0**	**0**	**0**	**6**	**0**	**20**	**4**	**28**	**0**	**24**	**6**	**18**	**0**	**0**	**0**	**0**	**0**	**$ 20,840.00**
1.2.3	**Geotechnical Services (Structural)**																				
1.2.12	Coordinate Boring Loc'ns and Foundation Recommendations for Bridge & Walls								2												$ 520.00
1.2.13	Review Geotech Report & Comment; Coordinate Bridge/Wall Design Parameters w/ Geotech								4			2									$ 1,370.00
	Task1. 1.2.3 Total	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**6**	**0**	**0**	**2**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**$ 1,890.00**
1.2.4	**Bridge Design**																				
1.2.14	Bridge Layout (Phased)						2		8	1	4	16	16	12	16						$ 11,965.00
1.2.15	Typical Sections & Phasing						1	1	4	1	4	8	12	4	8						$ 7,110.00
1.2.16	Temp Sp Shoring Layout/Demo Plan & Notes						1	1	8	1	4	8	12	8	12						$ 9,130.00
1.2.17	Estimated Quantities						1		2	1	2	4	12	2	8						$ 4,830.00
1.2.18	Bearing Seat & Abut Elevs (Incl Geometry Calcs)								1	1	2	4	12	2	8						$ 4,235.00
1.2.19	Foundation Layout (Incl Foundation \Design)						1		4	1	4	4	8	4	12						$ 6,030.00
1.2.20	Boring Logs						1		1	1		1	4	2	8						$ 2,575.00
1.2.21	Abutments (2 Unique Abuts - Both Phased)						1	1	8	1	12	16	24	16	24						$ 16,290.00
1.2.23	Sidewalk Details						1		4	1	2	8	8	4	12						$ 6,190.00
1.2.24	Beam/Girder Layout (1 Span - Phased)						1		2	1	4	8	8	4	12						$ 6,170.00
1.2.25	Prestr Concrete I-Girder Span (1 Span Phased)						1		8	1	8	12	16	4	16						$ 10,770.00
	Task1. 1.2.4 Total	**0**	**0**	**0**	**0**	**0**	**11**	**3**	**50**	**11**	**46**	**89**	**132**	**62**	**136**	**0**	**0**	**0**	**0**	**0**	**$ 85,295.00**
1.2.5	**Wall Design**																				
1.2.26	Wall Layouts (And Devleopment Of Alignments/Profiles For Wall Geometry)						1		4	1	8	8	8	16	32						$ 11,390.00
1.2.27	Wall Typical Sections & Phasing						1	1	2	1	4	8	8	8	12						$ 7,070.00
1.2.28	Wall Misc Details						1		4	1	8		8	8	12						$ 6,970.00
1.2.29	Mse Wall Data (Data Per Geotech - H&H To Coord & Produce Sht)								2	2	4	12		4	4						$ 4,990.00
1.2.30	Wall Quantities (Phased)								4	2	8		12								$ 5,050.00
	Task1. 1.2.5 Total	**0**	**0**	**0**	**0**	**0**	**3**	**1**	**16**	**7**	**32**	**28**	**36**	**36**	**60**	**0**	**0**	**0**	**0**	**0**	**$ 35,470.00**
1.2.6	**Common Tasks**																				

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SKYVIEW DRIVE

		K.C. ENGINEERING, INC.					HARDESY & HANOVER, LLC										FLORES GEOTECHNICAL				
TASK NO.	TASK DESCRIPTION	PRINCIPAL ENGINEER	SENIOR PROJECT ENGINEER	PROJECT ENGINEER	ENGINEER-IN-TRAINING	CLERICAL	PROJECT PRINCIPAL	SENIOR TECHNICAL ADVISOR	SENIOR PROJECT MANAGER	SENIOR STR. QA/QC MANAGER	SENIOR STRUCT. ENGINEER	STRUCT. ENGINEER	STRUCT. DESIGNER (E.I.T.)	SENIOR ENGINEER TECH	CAD TECH	ADMIN/ CLERICAL	PRINCIPAL ENGINEER	SENIOR ENGINEER	ADMIN / CLERICAL	ENGINEER TECH	TOTAL
	Labor Rates	250.00	195.00	165.00	125.00	80.00	335.00	300.00	260.00	255.00	250.00	165.00	125.00	150.00	95.00	90.00	253.50	244.54	77.54	104.38	
1.2.31	TxDOT Standards (W/ Up To 6 Sheets Modified Standards)						1		4	2	8	8	8	4	16						$ 8,325.00
1.2.32	Cost Estimates (Feasibilty Alts, 30%, Pre-100%, And 100% Milestones)						1		4	2	4	12	16								$ 6,865.00
1.2.33	General Notes & Specs (Structural Content)						1		4	1	4	4									$ 3,290.00
	Task1. 1.2.6 Total	**0**	**0**	**0**	**0**	**0**	**3**	**0**	**12**	**5**	**16**	**24**	**24**	**4**	**16**	**0**	**0**	**0**	**0**	**0**	**$ 18,480.00**
1.2.6	**Bidding and Construction Phase Services**																				
1.2.34	Prepare Construction Documents (Assist with Assembling Bid Documents)								4	1	2	4		4							$ 3,055.00
1.2.35	Attend Prebid Meeting (Attend Online)								2												$ 520.00
1.2.36	Prepare Project Addenda								2	1			8	4	8						$ 3,135.00
1.2.37	Analyze Contractor Bids, Prepare Bid Tabs & Make Award Recommendation								1												$ 260.00
1.2.38	Attend Pre-Construction Conference								3												$ 780.00
1.2.39	Respond to RFI's and general Contractor questions								4		4	12									$ 4,020.00
1.2.40	Review/Process Shop Drawings (Bridge and Wall Items - up to 6 Submissions)								6			16	36								$ 8,700.00
	Task1. 1.2.6 Total	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**22**	**2**	**6**	**32**	**44**	**8**	**8**	**0**	**0**	**0**	**0**	**0**	**$ 20,470.00**
1.3	**Hydrology & Hydraulics**																				
1.3.1	Drainage Area Mapping (Roadway & Driveway)																				$ -
1.3.2	Roadway Hydrology Documentation		2	4	6																$ 1,800.00
1.3.3	Roadway Hydraulics Documentation		4	4	6																$ 2,190.00
1.3.4	Roadway Culvert Sizing																				$ -
1.3.5	Roadway H&H Summary Sheet & Tables																				$ -
1.3.6	Driveway Hydrology																				$ -
1.3.7	Driveway Hydraulics																				$ -
1.3.8	Driveway Culvert Sizing																				$ -
1.3.9	Driveway H&H Summary Sheet & Tables																				$ -
1.3.10	Culvert Layouts & Culvert Details																				$ -
1.3.11	Miscellaneous Drainage Details																				$ -
1.3.12	Summary of Drainage Quantities																				$ -
1.3.13	Assemble Applicable Standards																				$ -
	Task 2.2 Total	**0**	**6**	**8**	**12**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**$ 3,990.00**
1.4	**Signing & Pavement Marking**																				
1.4.1	Sign Layouts		1	2	4																$ 1,025.00
1.4.2	Pavement Marking Layouts		1	2	4																$ 1,025.00
1.4.3	Pavement Marking Details																				$ -
1.4.4	Summary of Pavement Markings		1	2	4																$ 1,025.00
1.4.5	Small Sign Summary		1	1	2																$ 610.00
1.4.6	Assemble Applicable Standards		1	1	1																$ 485.00
	Task 2.3 Total	**0**	**5**	**8**	**15**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**$ 4,170.00**
1.5	**Traffic Control Plans / SW3P**																				
1.5.1	Traffic Control Layouts	1	6	6	4																$ 2,910.00
1.5.2	Traffic Control Typical Sections	1	1	2	4																$ 1,275.00
1.5.3	Intersection Design																				$ -
1.5.4	Driveway Design																				$ -
1.5.5	Storm Water Pollution Prevention Plan (SW3P)	1	1	2	2																$ 1,025.00
1.5.6	Erosion Control Plan		1	6	12																$ 2,685.00
1.5.7	Miscellaneous TCP and Erosion Details	1	1	2	2																$ 1,025.00
1.5.8	Assemble Applicable Standards		1	1	2																$ 610.00
	Task 2.4 Total	**4**	**11**	**19**	**26**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**$ 9,530.00**
1.6	**PS&E Documents**																				
1.6.1	Summary of Quantities		2	4	6																$ 1,800.00
1.6.2	Basis of Estimate	1	2	3	5																$ 1,760.00
1.6.3	Construction Cost Estimate	1	2	6	4																$ 2,130.00
1.6.4	Construction Duration Estimate	1	2	2	1																$ 1,095.00
1.6.5	General Notes & Specifications	1	2	6	2																$ 1,880.00
1.6.6	Supporting Contract Documentation	1	2	1	2																$ 1,055.00
	Task 2.5 Total	**5**	**12**	**22**	**20**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**$ 9,720.00**
1.7	**Project Management**																				
1.7.1	Project Administration	8				14															$ 3,120.00
1.7.2	Maintain Project Records	2	2			8															$ 1,530.00
1.7.3	Periodic Progress Meetings (County)	2	2																		$ 890.00
1.7.4	Periodic Progress Meetings (Subconsultants)		6																		$ 1,170.00
1.7.5	QA/QC	2	4	6	4	4															$ 3,090.00
1.7.6	Invoice Preparation	4				6															$ 1,480.00
1.7.7	Progress Reports		2			6															$ 870.00
1.7.8	Plans Preparation for Submittal	1	2	4	4	8															$ 2,440.00
	Task 2.6 Total	**19**	**18**	**10**	**8**	**46**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**$ 14,590.00**
	Task 1 - PS&E Total	**33**	**84**	**127**	**132**	**46**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**$ 264,865.00**

ATTACHMENT D - FEE SCHEDULE
WORK AUTHORIZATION NO. 5 – SUPPLEMENTAL WORK AUTHORIZATION NO. 1
SKYVIEW DRIVE

		K.C. ENGINEERING, INC.					HARDESY & HANOVER, LLC										FLORES GEOTECHNICAL				
TASK NO.	TASK DESCRIPTION	PRINCIPAL ENGINEER	SENIOR PROJECT ENGINEER	PROJECT ENGINEER	ENGINEER-IN-TRAINING	CLERICAL	PROJECT PRINCIPAL	SENIOR TECHNICAL ADVISOR	SENIOR PROJECT MANAGER	SENIOR STR. QA/QC MANAGER	SENIOR STRUCT. ENGINEER	STRUCT. ENGINEER	STRUCT. DESIGNER (E.I.T.)	SENIOR ENGINEER TECH	CAD TECH	ADMIN/ CLERICAL	PRINCIPAL ENGINEER	SENIOR ENGINEER	ADMIN / CLERICAL	ENGINEER TECH	TOTAL
	Labor Rates	250.00	195.00	165.00	125.00	80.00	335.00	300.00	260.00	255.00	250.00	165.00	125.00	150.00	95.00	90.00	253.50	244.54	77.54	104.38	
2	**Project Bidding**																				
2.1	**Project Bidding**																				
2.1.1	Prepare Addenda																				$ -
2.1.2	Contractor Questions (RFI)		1																		$ 195.00
2.1.3	Attend Pre-Bid Conference		1																		$ 195.00
2.1.4	Tabulate Bids		1																		$ 195.00
2.1.5	Prepare Recommendation Letter																				$ -
	Task 2 Project Bidding Total	**0**	**3**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**$ 585.00**
3	**Construction Support**																				
3.1	**Construction Support (If Required)**																				
3.1.1	Preconstruction Meeting																				$ -
3.1.2	Review Shop Drawings																				$ -
3.1.3	General Construction Support																				$ -
3.1.4	Prepare Change Orders as Necessary																				$ -
	Task 3 Construction Support Total	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**$ -**
4	**Geotechnical Services**																				
4.1	**Geotechnical Services**																				
4.1.1	Monthly Progress Reports, Invoices, and Billings																2		1		$ 584.54
4.1.2	Project Coordination and Administration																1		1		$ 331.04
4.1.3	Progress / Cooridnation Meetings																2		1		$ 584.54
4.1.4	Stake Borings, Notify 811, Finalize Bore Layout																	2			$ 489.08
4.1.5	Mobilize/Demobilize: Drilling & Sampling																	1			$ 244.54
4.1.6	Oversight of Drilling & TCP, Field Logging																	16			$ 3,912.64
4.1.7	Laboratory Assignment & Coordination																	1			$ 244.54
4.1.8	Approaches Design Recommendations																	4			$ 978.16
4.1.9	Bridge Design Recommendations																	4			$ 978.16
4.1.10	Retaining Wall Design Recommendations																	8			$ 1,956.32
4.1.11	Channel Bank Design Recommendations																	8			$ 1,956.32
4.1.12	Existing Slopes Assessment																	8			$ 1,956.32
4.1.13	Report Preparation																	16			$ 3,912.64
4.1.14	QA/QC																8			4	$ 2,445.52
4.1.14	Construction Support																	2			$ 489.08
	Task 4 Geotechnical Total	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**13**	**70**	**3**	**4**	**$ 21,063.44**
	Total Tasks 1, 2, 3, & 4	**33**	**87**	**127**	**132**	**46**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**13**	**70**	**3**	**4**	**$ 286,513.44**

UNIT COST SCHEDULE						
FLORES GEOTECHNICAL						
TASK NO .	SERVICES TO BE PROVIDED	QUANTITY	TEST CODE	UNIT	RATE	AMOUNT
5.1	GEOTECHNICAL SERVICES					
5.1.1	Traffic Control Setup	2		Day	$ 350.00	$ 700.00
5.1.2	Flaggers (2)	16		Hours	$ 80.00	$ 1,280.00
5.1.3	Mobilization/Demobilization Drill Rig & Support Truck	1		Trip	$ 600.00	$ 600.00
5.1.4	Boring/Penetrometer, Coring, Sampling	150	TEX-132-E	LF	$ 54.00	$ 8,100.00
5.1.5	Bore Hole Grout (Bentonite Chips)	150		LF	$ 16.56	$ 2,484.00
5.1.6	Crew Standby	1		Hours	$ 371.70	$ 371.70
5.1.7	Core Repair / Patch Pavement	2		Each	$ 105.00	$ 210.00
5.1.8	Electronic Water Level Device	1		Day	$ 175.00	$ 175.00
5.1.9	Determine Soil Moisture Content	10	TEX-103-E	Each	$ 32.00	$ 320.00
5.1.10	Determine Soil Liquid Limit	4	TEX-104-E	Each	$ 64.00	$ 256.00
5.1.11	Determine Soil Plastic Limit	4	TEX-105-E	Each	$ 64.00	$ 256.00
5.1.12	Calculate Soil Plasticity Index	4	TEX-106-E	Each	$ 64.00	$ 256.00
5.1.13	Calculate Soil Bar Linear Shrinkage	4	TEX-107-E	Each	$ 78.00	$ 312.00
5.1.14	Determine Soils Finer than No. 200 Sieve	2	TEX-111-E	Each	$ 87.00	$ 174.00
5.1.15	Soil Particle Size Analysis (Including Hydrometer)	2	TEX-110-E	Each	$ 175.00	$ 350.00
5.1.16	Laboratory Classification of Soils	4	TEX-142-E	Each	$ 96.00	$ 384.00
5.1.17	Unconfined Compression Test of Rock	6	ASTM D2938	Each	$ 150.00	$ 900.00
5.1.18	Triaxial Compression Test of Undisturbed Soils	1	TEX-118-E	Each	$ 375.00	$ 375.00
5.1.19	Determine Soil pH	2	TEX128-E	Each	$ 71.00	$ 142.00
5.1.20	Measure Resistivity of Soils	2	TEX-129-E	Each	$ 180.00	$ 360.00
5.1.21	Determine Sulfate Content - Colorimetric Method	2	TEX-145-E	Each	$ 155.00	$ 310.00
	Total Task 5					**$ 18,315.70**

FEE SUMMARY	
HOURLY COST	**$ 286,513.44**
DIRECT COST	**$ 18,315.70**
TOTAL COST	**$ 304,829.14**