WORK AUTHORIZATION NO. 2 PROJECT: Corridor I2 (US 183 to SH 29)

This Work Authorization is made pursuant to the terms and conditions of the Williamson County Contract for Engineering Services, being dated March 10, 2020 and entered into by and between Williamson County, Texas, a political subdivision of the State of Texas, (the "County") and K Friese & Associates, Inc. (the "Engineer").

Part1. 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 \$448,892.50.

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 <u>February 10, 2026</u>. 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. This Work Authorization is hereby accepted and acknowledged below.

EXECUTED this 21 day of July	, 20 <u>25</u> .
ENGINEER:	COUNTY:
K Friese + Associates, Inc.	Williamson County, Texas
By: Thomas M. Owens Signature	By: Steve Snell (Jul 22, 2025 21:20:09 CDT) Signature
Thomas M. Owens	Steve Snell
Printed Name	Printed Name
Vice President	Williamson County Judge
Title	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 - Rate Schedule

APPROVED

By Christen Eschberger at 7:45 am, Jul 16, 2025

ATTACHMENT A SERVICES TO BE PROVIDED BY THE COUNTY FOR CORRIDOR 12

In general, Williamson County and its representatives to their best efforts will render services as follows:

- 1. Name, business address, and phone number of County's project manager.
- 2. Assistance to the Engineer, as necessary, with obtaining data and information from other local, regional, State and Federal agencies required for this project.
- 3. Obtain Rights of Entry from landowners that are unwilling to grant access to the Engineer.
- 4. Provide available appropriate County data on file including plans and specifications that are deemed pertinent to the completion of the work required by the scope of services (including previous hydraulic studies, models, previous reports and studies, available existing traffic counts, and design year traffic projections).
- 5. Provide available criteria and full information as to the client's requirements for the project. Provide examples of acceptable format for the required deliverables.
- 6. Provide information on any meetings/discussions held with adjoining property owners that may impact the project.
- 7. Provide timely reviews and decisions necessary for the Engineer to maintain the project work schedule. Review recommendations offered by the Engineer, progress of work, and final acceptance of all documents.
- 8. Submittal of documentation and permits to regulatory agencies for review and comment, when specified.
- 9. Support project development efforts with stakeholders, coordinate meetings and interface with stakeholders, as needed.
- 10. Post and maintain project information for public consumption on the County website.
- 11. Assist with Coordination between the Engineer and the County's other consultants.
- 12. Negotiate with all utility companies for any agreements and/or relocations required.
- 13. Provide an agent as necessary to secure proposed ROW and relocate/remove improvements on proposed ROW.

ATTACHMENT B SERVICES TO BE PROVIDED BY THE ENGINEER FOR CORRIDOR I2 (US 183 TO SH 29)

PROJECT DESCRIPTION

The scope of services includes the design for the schematic realignment of Corridor I2 along the Chapman Ranch and Butler Family tracts located in Williamson County. Additionally, revisions are to be made to the roadway geometry, model updates, drainage criteria and design.

Project Limits

This is a new location corridor. The proposed Corridor I2 project limits are an ~2.18 mile expressway from approximately 1000 ft West of the North Fork San Gabriel River to approximately 500 ft Southeast of CR 202 and a ~1.52 mile major arterial connecting from SH 29 to approximately 2000 ft North of CR 206 (between Liberty Hill and the Williamson/Burnet County Line). The County desires to update the schematic alignment from the K. Friese & Associates submitted final schematic dated 8/9/2024 in two locations. The areas in focus are from ~STA 290+00 to STA 405+00.00, later known as E/W Update, and ~STA 700+00 to STA STA 780+00, later known as the N/S Update.

Proposed Facility

The proposed ultimate expressway facility is a controlled access facility with 2 two-lane mainlanes, 2 two-lane frontage roads with curb and gutter, storm sewer system, and 2 shared use paths (one on each side of the ROW). The proposed expressway right-of-way width will be typically 200 feet, however, may vary to accommodate intersection turn lanes, drainage, including detention ponds and drainage easements, and other roadway elements as required in the schematic design.

The proposed ultimate major arterial facility is a non-controlled access facility with six-lane curb and gutter median divided facility drainage ditches on the outside, with 2 shared use paths (one on each side of the ROW). The proposed major arterial right-of-way width will be typically 200 feet, however, may vary to accommodate drainage, including detention ponds and drainage easements.

Design Criteria

The proposed design criteria for the project will be developed from Williamson County and TxDOT design criteria as outlined in the master agreement. It is anticipated that in most cases the most stringent of the design criteria will be used.

1. PROJECT MANAGEMENT

- a. Communication:
- b. Monthly Progress Report, Invoices, and Billings (six (6) months assumed):
 - Submit monthly progress status reports to the GEC. Progress reports will include: deliverable
 table, tasks completed, tasks/objectives that are planned for the upcoming periods, lists or
 descriptions of items or decisions needed from the County and its representatives.
 Subconsultant progress will be incorporated into the monthly progress report. A copy of the
 monthly progress report will be uploaded to ProjectWise.
 - Prepare correspondence, invoices, and progress reports on a monthly basis in accordance with current County requirements.

- c. Quality Assurance and Quality Control (QA/QC) Plan: *Remains Unchanged. Previously Submitted & Approved by GEC, no additional needs.*
- d. Project Coordination & Administration:
 - Prepare and maintain routine project record keeping including records of meetings and minutes.
 - Correspondence and coordination will be handled through & with the concurrence of the GEC
 - Manage project activities (including documenting emails, phone and conference calls, maintain project files for the length of the project, meeting agendas, meeting minutes, and schedule meetings), direct Engineer's team/staff, coordinate and review sub-consultant work, correspond with the County and its representatives, and assist the County and its representatives in preparing responses to project-related inquiries.
 - Prepare and administer contract agreements with subconsultants.
 - Prepare and administer contract amendments with subconsultants to reflect changes in Work Authorization through approved Supplemental Agreements
- e. Progress/Coordination Meetings (17 external meetings assumed): Additional one (1) kickoff Meeting and sixteen (16) bi-weekly coordination meetings.
 - Attend a kickoff meeting and up to 16 coordination/progress meeting with the County and its representatives and stakeholders (Commissioners Office, Department of Infrastructure, Program Manager, GEC and any other County staff), as necessary to communicate development of the project and design issues.
 - Prepare agenda and meeting notes for up to 16 external coordination/progress meetings.
 - Prepare meeting minutes for review via email of the external coordination/progress meetings.
 - Conduct internal coordination meetings as required to advance the development of the project.
- f. Project Schedule:
 - Maintain a project schedule indicating tasks, subtasks, critical dates, milestones, and deliverables. Submit as requested, but no more than monthly.

Deliverables:

- Monthly Invoices and Progress Reports including Deliverable Table
- Meeting Minutes, Sign-In Sheets, and Agendas
- Project Schedule and Updates
- Project Files

2. ROUTE AND DESIGN STUDIES

• Data Collection: Remains Unchanged. Previously Submitted & Approved by GEC, no additional needs.

Perform record research and obtain existing information, including but not limited to: asbuilt plans, construction plans, right of way maps, traffic data, environmental reports, studies, future land use maps, floodplain data, floodplain and drainage models and analyses. Obtain construction plans for projects within the project limits and abutting TxDOT and County Roads. Obtain drainage studies, reports, and mapping for the project area, including reports for developments affecting the drainage area. Obtain existing schematic from the Road Bond program.

- Conduct a field investigation of the proposed roadway alignment and the surrounding area to determine field conditions including photographic record of notable existing features.
- Develop and maintain adjacent property ownership information spreadsheet to be used for disseminating project information including owner's name, tenant name for leased property, mailing address, property address, property id number.
- Review the data collected and organize the information.
- b. Stakeholder and Agency Coordination (up to six (6) meetings assumed):
 - Attend meetings with stakeholders/developers (up to six (6) meetings assumed) for both the N/S Update and the E/W Update.
- c. Constraints Map (up to three (3) preliminary route concepts assumed that will be developed by the project team): *Remains Unchanged. Previously Submitted & Approved by GEC, no additional needs.*
 - Obtain and update periodically publicly available information including but not limited to: locations of public buildings and facilities (schools, churches, parks, cemeteries, dams), aerial photography, National Wetland Inventory Maps, County Soil Survey Maps, Texas Commission on Environmental Quality (TCEQ) & Environmental Protection Agency (EPA) Hazardous Materials Database Information, Federal Emergency Management Agency (FEMA) Floodplain Information, Vegetation Information, Environmental Information from the appropriate local, state, or federal agencies. Threatened & Endangered Species and Karst Information will be provided by others (SWCA).
 - Conduct a regulatory records review to identify listed hazardous waste generators, treatment, storage and disposal facilities; solid waste landfills, unauthorized sites; documented spills; oil and gas exploration and production sites; and underground storage tank sites within the proposed site location. The review will also identify other environmental risks along the project corridor.
 - Conduct field reconnaissance to visually inspect the project site for additional risks and field
 verify any environmental risks identified by the regulatory records review. This field
 investigation will be limited to accessible areas within the existing right-of-way.
 - Review the Williamson County's Long-Range Transportation Plan and other local and regional transportation plans to review and gather information of projects that could impact Corridor 12.

- Develop a constraints map that includes environmental concerns, known constraints (structures, floodplain), aerial photography, contour information, utility information, based on research of public databases and sources.
- Develop preliminary route concepts and preliminary costs for use in soliciting input during coordination meetings with stakeholders. (Includes bridge considerations for up to 5 creek crossing bridges, 3 county roads crossing bridges, and one UPRR crossing bridge.)
- Develop evaluation criteria to assist in evaluating preliminary route concepts.
- Quantify potential effects of the preliminary route concepts based on the evaluation criteria.
- Conduct screening process and select recommended route option, including preparation of a Technical Memorandum Recommendation.
- Refine recommended route option based on public input, stakeholder input, design criteria, existing structures, potential displacements, right of way limits and requirements, known developments, FEMA floodplain areas, existing and proposed drainage structures and issues, and other environmental features.
- The Engineer shall prepare a **Corridor I2** Route Study Report documenting the project need and purpose, preliminary route concept development and evaluation process and results, stakeholder activities, final route option recommendation, funding, and next steps. A draft and final report will be prepared for review and will also document refinements to the recommended route option to address any stakeholder or public issues and suggestions, as appropriate, and document potential impacts and costs for the refined route option recommendation.
- Design Criteria: Remains Unchanged. Previously Submitted & Approved by GEC, no additional needs.

Analyze and identify project-specific design criteria (typical sections, design speed, functional classification, geometric criteria) in accordance with the latest versions of Williamson County Design Criteria Manual and other associated local and state manuals, as applicable.

Deliverables:

- Meeting Minutes, Sign-In Sheets, Agendas, Presentations, Maps, and Exhibits for all Stakeholder Coordination Meetings.
- Draft and Final Constraints Map Refined Route Option and Technical Memorandum Recommendation (pdf and hardcopies)
- Draft and Final Corridor I2 Study Report
- Draft and Final Design Summary Form (pdf and hardcopies)

3. PUBLIC INVOLVEMENT – NOT USED (N/A)

4. RIGHT-OF-WAY (ROW) MAPPING – NOT USED (N/A

5. SCHEMATIC DEVELOPMENT

- a. Schematic (up to 12.0 miles in length, limited to Expressway section and Major Arterial section within Williamson County):
 - Prepare an Updated Preliminary & Final (Ultimate, Only) Schematic submittal per Williamson County Schematic submittal checklist and selected design criteria.
 - i. Includes transition design from end of direct connectors on Corridor I1 to standard typical section for Corridor I2.
 - ii. Includes bridge considerations for up to 12 creek crossing bridges, 3 county roads crossing bridges, and one UPRR crossing bridge.
 - iii. Revisions include updates to the horizontal and vertical alignment from the KFA submitted schematic dated 8/9/2024 in two locations. The areas in focus are from ~STA 290+00 to STA 405+00.00, later known as E/W Update, and ~STA 700+00 to STA STA780+00
 - iv. Roadway revisions also incorporate updates based updated drainage criteria discussed below in 6. Drainage Study.
 - The chosen bridge type will be evaluated based on project requirements and site conditions, while the span lengths will be determined to meet structural efficiency. The appropriate beam and abutment types will be identified, and the structural depth will be estimated for the roadway design team to ensure compatibility with roadway grades and clearances.
 - Compliance with TxDOT bridge design guidelines, Williamson County criteria, and relevant publications will be a priority throughout the process.
 - Proposed revisions include updates to bridges:
 - i. Bridge #12- North Folk San Gabriel,
 - ii. Bridge #2- I2 NS Corridor with CR206 and UPRR
 - iii. Bridge #13 -I2 EW corridor with CR107
 - Preliminary Ultimate Schematic includes locating piers, preliminary typical sections, as well as determining preliminary span lengths and girder depths.
 - Final Ultimate Schematic includes typical bridge sections, span/pier/girder configuration calculations based on foundation type selection.
 - Construction Time Determination and bridge layouts are excluded as this is a ROW preservation project and project would likely be constructed in multiple phases.
 - Prepare Preliminary & Final Engineering Costs Estimate for the construction quantities covering all items of the proposed work.

Deliverables:

- Preliminary Ultimate Schematic including cost estimate (drawing file, pdf, kmz, and one hardcopy)
- Final Ultimate Schematic including cost estimate (drawing file, pdf, kmz, and one hardcopy)

6. DRAINAGE STUDY

N/S Update

- a. Hydrologic/Hydraulic Modeling (1 major crossings and up to 6 total cross drainage structures assumed):
 - Update schematic level hydrologic and hydraulic models to define the drainage infrastructure required for up to 1 alignment alternative that will include one ultimate design. Detail the methodologies employed and recommendations. The analysis will include: refine the sizing of cross drainage structures and major channel crossings; recommended pavement elevations based on cross drainage flood elevations for culverts; right-of-way and easement requirements; and identify potential needs for FEMA Coordination. HEC-RAS shall be utilized for modeling all river and major channel crossings. HY-8 shall be used for non-bridge class culverts. Atlas 14 impacts will be reviewed and incorporated.
 - Update existing channel cross sections based on data collection.
 - Exhibits and analysis will be prepared in the GIS environment to the extent practical.
 - Update onsite parallel drainage for ditch and/or storm sewer sizing will only be analyzed to
 determine project ROW needs. Trunkline size and length to be determined for up to 11 storm
 sewer systems; detailed inlet and lateral level placement and calculations are not included in
 this scope.
 - c. Impact and Mitigation Analysis:
 - Update impact analysis to determine increases in peak flow rates for the 100-year storm at each outfall including: existing and proposed peak flow rates, mitigation analysis to prevent adverse impacts to nearby buildings, property access points and runoff patterns, conceptual detention basin layouts for up to 3 detention ponds to determine preliminary size and ROW needs, calculate the volume of fill to be placed in the 100-year floodplain, and recommend locations for compensatory storage. Coordinate with the County's GEC to determine need for maintenance or landscaping setbacks for ponds. Criteria for this determination shall be based, in part, on drainage information provided by the Engineer and on the preliminary design for the project area.
 - d. Water Quality Analysis
 - Update water quality analysis, including assumptions, calculations and proposed BMP's, to
 determine preliminary design and ROW needs for accommodation of water quality treatment
 BMP's in accordance with TCEQ Edwards Aquifers Protection Program. Design will
 include up to 3 water quality ponds.
 - e. Schematic Drainage Report
 - Update Draft and Final Schematic Drainage Report submittal per Williamson County Schematic submittal checklist and selected design criteria.

E-W Update

- a. Hydrologic/Hydraulic Modeling (1 major crossings and up to 5 total cross drainage structures assumed):
- Update schematic level hydrologic and hydraulic models to define the drainage infrastructure required for up to 1 alignment alternative that will include one ultimate design. Detail the methodologies employed and recommendations. The analysis will include: refine the sizing of cross drainage structures and major channel crossings; recommended pavement elevations based on cross drainage flood elevations for culverts; right-of-way and easement requirements; and identify potential needs for FEMA Coordination. HEC-RAS shall be utilized for modeling all river and major channel crossings. HY-8 shall be used for non-bridge class culverts. Atlas 14 impacts will be reviewed and incorporated.
- Update existing channel cross sections based on data collection.
- Exhibits and analysis will be prepared in the GIS environment to the extent practical.
- Update onsite parallel drainage for ditch and/or storm sewer sizing will only be analyzed to
 determine project ROW needs. Trunkline size and length to be determined for up to 11 storm
 sewer systems; detailed inlet and lateral level placement and calculations are not included in
 this scope.
 - c. Impact and Mitigation Analysis:
 - Update impact analysis to determine increases in peak flow rates for the 100-year storm at each outfall including: existing and proposed peak flow rates, mitigation analysis to prevent adverse impacts to nearby buildings, property access points and runoff patterns, conceptual detention basin layouts for up to 3 detention ponds to determine preliminary size and ROW needs, calculate the volume of fill to be placed in the 100-year floodplain, and recommend locations for compensatory storage. Coordinate with the County's GEC to determine need for maintenance or landscaping setbacks for ponds. Criteria for this determination shall be based, in part, on drainage information provided by the Engineer and on the preliminary design for the project area.
 - d. Water Quality Analysis
 - Update water quality analysis, including assumptions, calculations and proposed BMP's, to determine preliminary design and ROW needs for accommodation of water quality treatment BMP's in accordance with TCEQ Edwards Aquifers Protection Program. Design will include up to 3 water quality ponds.
 - e. Schematic Drainage Report
 - Prepare Draft and Final Schematic Drainage Report submittal per Williamson County Schematic submittal checklist and selected design criteria.

Deliverables:

- Schematic Draft Drainage Report (pdf and one hardcopy)
- Schematic Final Drainage Report (including native files for analysis, pdf and one hardcopy)
- Applicable GIS, Hydrologic Models or CAD files referenced in the drainage study.

7. ENVIRONMENTAL SERVICES - NOT USED (N/A

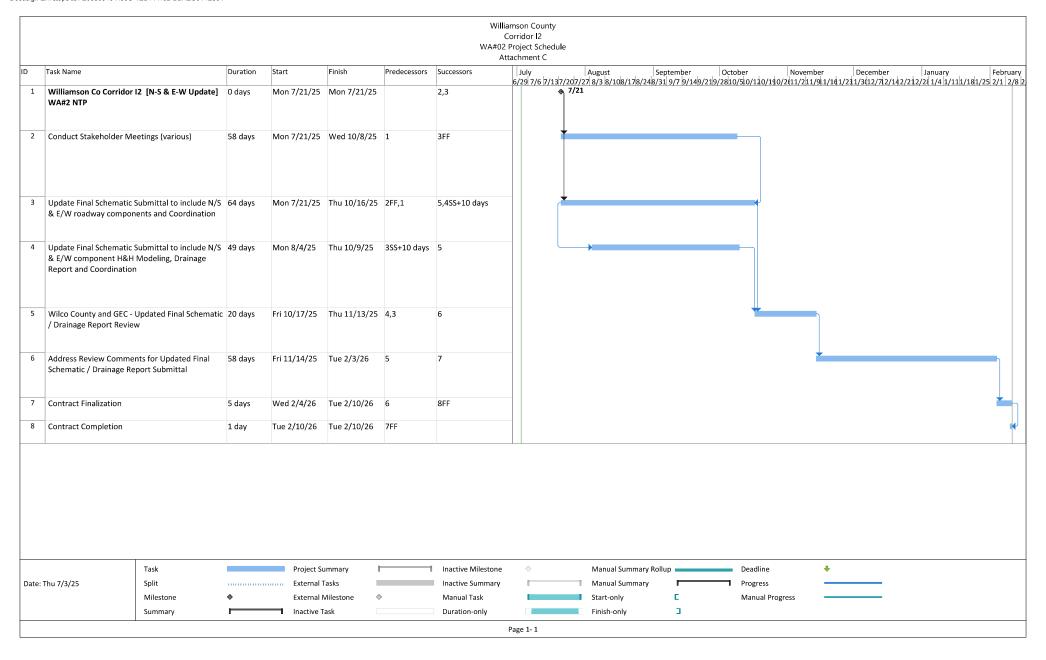
8. <u>DELIVERABLES:</u>

- a. Documents: Remains Unchanged.
 - All contract documents, including a pdf copy of each deliverable, native electronic files, models and calculations will be uploaded to the County's project management database at each milestone and at the completion of the project. One hardcopy of each deliverable will be provided unless additional copies are required per the submittal checklist.

9. EXCLUSIONS:

- a. The following items are not included in this work authorization:
 - TRAFFIC DATA COLLECION OR TRAFFIC ANALYSIS
 - SURVEYING
 - FIELD SURVEY AND BOUNDARY/ROW ANALYZATION
 - ROW PARCEL EXHIBITS
 - PROPERTY OWNERSHIP IN BURNET COUNTY
 - BRIDGE LAYOUTS
 - ENVIRONMENTAL SERVICES:
 - ENDANGERED SPECIES ACT COMPLIANCE
 - WETLAND DELINEATIONS TO USACE STANDARDS
 - NATIONWIDE PERMIT (NWP) 14 WITH A PRE-CONSTRUCTION NOTIFICATION (PCN) OR INDIVIDUAL PERMIT
 - TXDOT NEPA DOCUMENTATION
 - WATER RESOURCES TECHNICAL REPORT
 - NOISE AND AIR QUALITY TECHINCIAL REPORTS
 - ARCHEOLOGICAL PERMITTING AND FIELD STUDIES

- COMMUNITY IMPACT ASSESSMENT
- INDIRECT AND CUMULATIVE IMPACTS ANALYSIS
- RESEARCH DESIGN AND HISTORICAL RESOURCES SURVEY REPORT
- PHASE I ENVIRONMENTAL SITE ASSESSMENT (TO ASTM STANDARDS)
- ENVIRONMENTAL SUMMARY REPORT IN BURNET COUNTY
- CONDITIONAL LETTER OF MAP REVISION (CLOMR) OR LETTER OF MAP REVISION (LOMR)
- CONTRIBUTING ZONE PLAN (CZP)
- GEOTECHNICAL SERVICES
- SCHEMATIC DESIGN AND DRAINAGE STUDY IN BURNET COUNTY
- PLAN/PROFILE OF PARALLEL DRAINAGE SYSTEMS
- ANY UPDATES TO DRAINAGE DESIGN TO ACCOMMODATE NEW DRAINAGE CRITERIA MANUAL EXCEPT WATER QUALITY DESCRIBED IN 6 DRAINAGE CRITERIA UPDATES
- CONSTRUCTION TIME DETERMINATION
- PLAN PREPARATION (PS&E) SERVICES
- BIDDING PHASE SERVICES
- CONSTRUCTION PHASE SERVICES
- UTILITY COORDINATION OR RELOCATION ESTIMATES
- ADDITIONAL EXCLUSIONS LISTED IN INDIVIDUAL SECTIONS
- ANY UPDATES RELATED TO REVISIONS TO COUNTY'S DRAINAGE CRITERIA IS EXCLUDED OUTSIDE OF THE N/S AND E/W UPDATES.



Work Items	K Friese &	Associates, LLC	Atkins No	rth America, Inc.	TOTAL		
Task	Total Hrs	Labor Cost	Total Hrs	Labor Cost	Total Hrs	Labor Cost	
TASK 1. PROJECT MANAGEMENT							
Subtotal Task 1	424	\$83,120.00	0	\$0.00	424	\$83,120.00	
TASK 2. ROUTE AND DESIGN STUDIES							
Subtotal Task 2	162	\$27,160.00	0	\$0.00	162	\$27,160.00	
TASK 3. PUBLC INVOLVEMENT							
Subtotal Task 3	0	\$0.00	0	\$0.00	0	\$0.00	
TASK 4. RIGHT-OF-WAY MAPPING							
Subtotal Task 4	0	\$0.00	0	\$0.00	0	\$0.00	
TASK 5. SCHEMATIC DEVELOPMENT					Ĭ		
Subtotal Task 5	761	\$131,575.00	0	\$0.00	761	\$131,575.00	
TASK 6. DRAINAGE STUDY				9			
Subtotal Task 6	1068	\$183,680.00	105	\$20,660.00	1173	\$204,340.00	
TASK 7. ENVIRONMENTAL SERVICES							
Subtotal Task 7	0	\$0.00	0	\$0.00	0	\$0.00	
Miscellaneous							
Subtotal Miscellaneous	0	\$0.00	0	\$0.00	0	\$0.00	
Expenses							
Subtotal Expenses		\$2,697.50		\$0.00	0	\$2,697.50	
Total	2415	\$428,232.50	105	\$20,660.00	2520	\$448,892.50	

Work Items	-					K Fr	iese & Assoc	iates, LLC						
	\$ 350.00	\$ 250.00	\$ 240.00	\$ 225.00	\$ 185.00	\$ 150.00	\$ 125.00	\$ 120.00	\$ 130.00	\$ 110.00	\$ 90.00			
	Principal/Šr	\$ 250.00		\$ 225.00	\$ 185.00	3 130.00	\$ 125.00			\$ 110.00	3 90.00	Total	Labor	
Task	Technical	Senior Project	Quality		Project		Engineer In	SeniorCADD	Senior GIS		1	Hrs	Cost	
TASK 1. PROJECT MANAGEMENT	Advisor	Manager	Manager	Senior Engineer	Engineer	Design Engineer	Training	Operator	Operator	GIS Technician	Admin/ Clerical		\$	
a. Communication	2	8	0	48	0	12	12	0	0	0	0	82	\$16,800.00	
b. Monthly Progress Reports, Invoices, and Billings	0	0	0	36	0	12	0	0	0	0	8	56	\$10,620.00	
c. Quality Assurance and Quality Control (QA/QC) Plan	0	0	0	0	0	0	0	0	0	0	0	0	\$0.00	
d. Project Coordination & Administration Prepare and Maintain Routine Project Record Keeping	0	0	0	48	0	0	0	0	0	0	0	0 48	\$0.00 \$10,800.00	
Manage Project Activities and Documentation	0	0	0	12	0	0	0	0	0	0	0	12	\$10,800.00	
Coordination with County and GEC	0	O O	0	36	0	8	4	0	0	Ů,	U O	48	\$9,800.00	
Assist in Preparing Responses to Project-related Inquiries (Up to 12)	0	0	0	12	0	24	8	0	0	0	0	44	\$7,300.00	
Prepare and Administer Contract Agreements with Subconsultants	0	0	0	4	0	0	0	0	0	0	0	4	\$900.00	
e. Progress/Coordination Meetings	0	0	0	4	0	6	2	0	0	0	0	12	\$0.00 \$2.050.00	
Kickoff Meeting (1) Coordination/Progress Meeting with County and Representatives (up to 16)	0	0	0	32	0	36	12	0	0	0	0	12 80	\$2,050.00 \$14,100.00	
Internal Coordination Meetings (8 months - bi-weekly team)	0	0	0	24	0	0	0	0	0	0	0	24	\$5,400.00	
f. Schedule	0	0	0	8	0	4	2	0	0	0	0	14	\$2,650.00	
Subtotal Task 1	2	8	0	264	. 0	102	40	0	. 0	0	8	424	\$83,120.00	
SK 2. ROUTE AND DESIGN STUDIES														
a. Data Collection Record Research and Obtain Existing Information	0	0	0	0	0	0	0	0	0	0	0	0	\$0.00	
Field Investigation & Documentation of Alignment & Surrounding Area	0	0	0	0	0	0	0	0	0	0	0	0	\$0.00	
Develop & Maintain Adjacent Property Ownership Information Spreadsheet	0	Ö	0	0	0	8	18	0	0	0	0	26	\$3,450.00	
b. Stakeholder Coordination	0	0	0	. 0	0	0	0	. 0	0	0	0	. 0	\$0.00	
Schedule & Facilitate Stakeholder Meetings (up to 5)	0	10	0	28	36	12	26	0	0	0	0	112	\$20,510.00	
Coordination with Affected Local Agencies & County Consultants	0	0	0	0	0	0	0	0	0	0	0	0	\$0.00	
c. Constraints Map Public and Regulatory Records Review	0	0	0	0	0	0	0	0	0	0	0	0	\$0.00 \$0.00	
Field Verify Environmental Risks (from Existing ROW)	0	0	0	0	0	0	0	0	0	0	0	0	\$0.00	
Draft Constraints Map	0	0	0	0	0	0	0	0	0	0	0	0	\$0.00	
Preliminary Route Concepts & Costs (up to 3)	0	0	0	0	0	0	0	0	0	0	0	0	\$0.00	
Develop Evaluation Criteria	0	0	0	0	0	0	0	0	0	0	0	0	\$0.00	
Quantify Potential Effects of Preliminary Route Concepts Conduct Screening & Select Recommended Route , including Technical Memo	0	0	0	0	0	0	0	0	0	0	0	0	\$0.00 \$0.00	
Refine Recommended Route	0	0	0	0	0	0	0	0	0	0	0	0	\$0.00	
Final Constraints Map for Refined Route	0	Ö	0	0	0	0	0	0	0	Ö	O O	0	\$0.00	
Draft and Final Corridor I Study Report	0	0	0	0	0	0	0	0	0	0	0	0	\$0.00	
d. Design Criteria, including Draft & Final Design Summary Form	0	0	0	0	0	8	16	0	0	0	0	24	\$3,200.00	
Subtotal Task 2 TASK 3. PUBLC INVOLVEMENT	0	10	0	28	36	28	60	0	0	0	0	162	\$27,160.00	
a. Public Involvement Plan	0	0 1	0	0	0	0	0	0	0	0	1 0	0	\$0.00	
Meetings with Individual Property Owners (up to 20), including Documentation Review	0	Ö	0	Ö	0	0	0	0	0	Ö	Ö	0	\$0.00	
Meetings with Groups of Property Owners (up to 10), including Documentation Review	0	0	0	0	0	0	0	0	0	0	0	0	\$0.00	
Coordinate/Review Corridor Public Involvement Plan Updates (up to 4)	0	0	0	0	0	0	0	0	0	0	0	0	\$0.00	
Review/Provide Feedback on Proj Updates/Mat'ls Prepared by County PI (up to 10) Subtotal Task 3	0	0	0	0	0	0	0	0	0	0	0	0	\$0.00 \$0.00	
TASK 4. RIGHT-OF-WAY MAPPING	0 3	U	U	0	0	0	U	U	0			U	\$0.00	
a. ROW Map (Up to 75 Parcels)	0	0	0	. 0	0	0	0	0	0	0	0	0	\$0.00	
Research, Compile Records and Building Working Map from Recorded Data	0	0	0	. 0	0	0	0	0	0	0	0	0	\$0.00	
Draft Preliminary ROW Map and List of Impacted Tracts	0	0	0	. 0	0	0	0	0	0	0	0	0	\$0.00	
Final ROW Map and List of Impacted Tracts Subtotal Task 4	0	0	0	0	0	0	0	0	0	0	0	0	\$0.00 \$0.00	
TASK 5. SCHEMATIC DEVELOPMENT	8 8	0	J	0	0	0	J	0	8 5	U	U	J	\$0.00	
a. Schematic	0	0	0	0	0	0	0	0	0	0	0	0	\$0.00	
Preliminary Ultimate Schematic & Engineering Costs Estimate	16	24	32	53	68	68	116	48	0	8	0	433	\$75,125.00	
Final Ultimate Schematic & Engineering Costs Estimate	8	16	24	44	56	54	90	32	0	4	0	328	\$56,450.00	
Subtotal Task 5 TASK 6. DRAINAGE STUDY	24	40	56	97	124	122	206	80	0	12	0	761	\$131,575.00	
a. Hydrologic/Hydraulic Modeling	0	0 1	0	0	0	0	0	0	0	0	0	0	\$0.00	
Preliminary Hydrologic Review for Recommended Alternative	0	0	. 0	. 0	0	0	. 0	0	0	0	. 0	0	\$0.00	
Preliminary Hydraulic Review for Recommended Alternative	0	0	0	0	0	0	0	0	0	0	0	0	\$0.00	
Recommended Alternative Preliminary Cross Drainage Structure Locations & Size	0	0	0	0	0	0	0	0	0	0	0	0	\$0.00	
Hydrologic Analyses for Schematic (1 major, 5 minor crossings)	0	9	6	10	24	0	16	. 0	0	0	0	65	\$12,380.00	
Hydraulic Analysis for Schematic (1 major, 5 minor crossings) Develop Existing Channel Cross Sections	0	18 8	12 6	16 10	24	0	40 16	9	0	0	0	114 69	\$20,900.00 \$12,470.00	
Analyze Onsite Parallel Drainage for Ditch and/or Storm Sewer Sizing for ROW Needs (11 systems)	0	5	4	8	24	0	24	12	0	0	0	77	\$12,470.00	
b. FEMA Coordination	0	0	0	. 0	0	0	0	0	0	0	0	0	\$0.00	
Coordinate with Local Floodplain Administrator	0	0	0	0	0	0	0	0	0	0	0	0	\$0.00	
Determine if CLOMR or LOMR will be Required/Recommended	0	0	0	0	0	0	0	0	0	0	0	0	\$0.00	
c. Impact and Mitigation Analysis	0	0	0	. 0	0	0	0	. 0	0	0		0	\$0.00	

Prepare an Impact Analysis to Determine Increases in Peak Flow Rates (26 ponds)	0	10	7	20	120	0	60	33	0	0	0	250	\$42,340.00
d. Water Quality Analysis	0	0	0	0	0	0	0	0	0	0	0	0	\$0.00
Prepare a Water Quality Analysis (40 ponds)	0	16	8	24	120	0	80	33	0	0	0	281	\$47,480.00
f. Schematic Drainage Report	0	0	0	0	0	0	0	0	0	0	0	0	\$0.00
Schematic Draft Drainage Report	. 0	12	16	12	20	0	30	20	. 0	20	0	130	\$21,590.00
Schematic Final Drainage Report	0	8	12	6	12	0	12	16	0	16	0	82	\$13,630.00
Subtotal Task 6	0	86	71	106	364	0	278	127	0	36	0	1068	\$183,680.00
TASK 7. ENVIRONMENTAL SERVICES		-											
a. County Due Diligence	0	0	0	0	0	0	0	0	0	0	0	0	\$0.00
Draft Environmental Summary Report	0	0	0	0	0	0	0	0	0	0	0	0	\$0.00
Final Environmental Summary Report	0	0	0	0	0	0	0	0	0	0	0	0	\$0.00
b. Data Collection & Field Reconnaissance	0	0	0	0	0	0	0	0	0	0	0	0	\$0.00
c. Hazardous Materials Initial Site Assessment	0	0	0	0	0	0	0	0	0	0	0	0	\$0.00
d. Section 404 Clear Water Act Compliance	0	0	0	0	0	0	0	0	0	0	0	0	\$0.00
e. Historical Site Compliance	0	0	. 0	0	0	0	0	0	. 0	0	0	0	\$0.00
f. Texas Antiquities Code (TAC) Compliance	0	0	0	0	0	0	0	0	0	0	0	0	\$0.00
g. Coordination with County ENV	0	0	0	. 0	0	0	0	0	0	0	0	0	\$0.00
g. Strud 165	0	0	0	0	0	0	0	0	0	0	0	0	\$0.00
Threatened & Endangered Species Coordination	0	0	0	0	0	0	0	0	. 0	0	. 0	0	\$0.00
Karst Analysis Coordination	0	0	0	0	0	0	0	0	0	0	0	0	\$0.00
h. Coordination with County Environmental Consultant	0	0	0	. 0	0	0	0	0	0	0	0	0	\$0.00
Subtotal Task 7	0	0	0	0	0	0	0	0	0	0	0	0	\$0.00
Miscellaneous	1		9	ř.	1				1		-	1	i i
	0	0	0	. 0	0	0	0	. 0	0	0	0	. 0	\$0.00
Subtotal Miscellaneous	0	0	0	0	0	0	0	0	0	0	0	0	\$0.00
Total	26	144	127	495	524	252	584	207	0	48	8	2415	\$425,535.00

Expenses	.t. 18			6
	Amount	Unit	Unit Cost	Total Cost
Milage	500	Mile	\$0.70/mile	\$ 350.00
In-house Photocopies B/W (8 1/2" X 11")	500	Page	\$0.16/page	\$ 80.00
In-house Photocopies Color (8 1/2" X 11")	500	Page	\$0.75/page	\$ 375.00
In-house Photocopies B/W (11" X 17")	250	Page	\$0.32/page	\$ 80.00
In-house Photocopies Color (11" X 17")	250	Page	\$1.50/page	\$ 375.00
In-house Plots (B/W on Bond)	500	SF	\$0.75/sf	\$ 375.00
in-house Plots (Color on Bond)	250	SF	\$1.75/sf	\$ 437.50
In-house Large Format Plotting	250	SF	\$2.50/sf	\$ 625.00
In-house Mounting of Large Exhibits		SF	\$10.00/sf	\$ =

\$2,697.50	KFA Expenses
\$428,232.50	Total KFA Estimated Costs

Williamson County Corridor I2 (US 183 to SH 29) Attachment D

Work Items	Atkins North America, Inc.															
WOLK ITEMS		Ta		L		4 440.00	4 405.00				(A	120.00	I	44000		
Task	\$ 350.00 Principal	\$ 300.00 Sr Project Manager	\$ 300.00 Sr Engineer II	\$ 250.00 Sr Engineer I	\$ 185.00 Project Engineer	\$ 140.00 Sr Engineer Tech	\$ 125.00 EIT II	\$ 250.00 Sr Environmental Planner	\$ 180.00 Environmental Planner	Jr Environmental Planner	\$ 150.00 Sr Environmental Specialist	\$ 120.00 Environmental Specialist	Jr Environmental Specialist	\$ 110.00 GI S Analyst	Total	Labor Cost
TASK 1. PROJECT MANAGEMENT	v .	4				1.00	7 5		0				5		8	
a. Communication					$\overline{}$										0	\$0.00
b. Monthly Progress Reports, Invoices, and Billings c. Quality Assurance and Quality Control (QA/QC) Plan					-					_			1 1		0	\$0.00 \$0.00
d. Project Coordination & Administration						- 1									0	\$0.00
Prepare and Maintain Routine Project RecordKeeping		3					3				5 5		1 3		- 0	\$0.00
Manage Project Activities and Documentation															0	\$0.00 \$0.00
Coordinationwith County and GEC Assist in Preparing Responses to Project-related Inquiries (Up to 12)	_				_				8 9	_		_			0	\$0.00
Prepare and Administer Contract Agreements with Subconsultants															0	50.00
e. Progress/Coordination Meetings									12		3				- 0	\$0.00
Kickoff Meeting (1) Coordination/Progress Meetingwith County and Representatives (up to 16)						_	-				1				0	\$0.00 \$0.00
Internal Coordination Meetings (8 months - bi-weekly team)											1 1				0	\$0.00
f. Schedule															0	\$0.00
Subtotal Task 1		. 0	- 5	9	-15	0	, b	- 0	E 0	.0	. 0	10	9	- 0	- 0	\$0.00
TASK 2. ROUTE AND DESIGN STUDIES a. Data Collection															0	\$0.00
Record Research and Obtain ExistingInformation						3							- 3		0	\$0.00
Field Investigation & Documentation of Alignment & Surrounding Area						7.	9								0	\$0.00
Develop & Maintain Adjacent Property Ownership Information Spreadsheet b. Stakeholder Coordination						1									0	\$0.00 \$0.00
Schedule & Facilitate Stakeholder Meetings (upto 5)				_		- 2					-			-	0	\$0.00
Coordination with Affected Local Agencies & County Consultants		3		1		č č	0 1		0		1 5		- 8		0	\$0.00
c. Constraints Map						()									0	\$0.00
Public and Regulatory Records Review Field Verify Environmental Risks (from Existing ROW)	_			-	_	- 10					_				0	\$0.00 \$0.00
Draft Constraints Map					\vdash	9	5 - 1				1 1				0	\$0.00
Preliminary Route Concepts & Costs (up to 3)						- 1									0	\$0.00
Develop Evaluation Criteria		3									3 3				0	\$0.00
Quantify Potential Effectsof Preliminary Route Concepts Conduct Screening & Select Recommended Route, including Technical Memo		2			_		2				7	_			0	\$0.00 \$0.00
Refine Recommended Route															0	\$0.00
Final Constraints Map for Refined Route															0	\$0.00
Draft and Final Corridor! Study Report		4			-	- 3	2				5 5				0	\$0.00
d. Design Criteria, including Draft & Final Design Summary Form Subtotal Task 2	- 0	- 0	- 0	0	-0	6 6 5	0 3	d-		- 0	0. 7	-0	B- 3	- 0	0	\$0.00 \$0.00
TASK 3. PUBLC INVOLVEMENT											4					
a. Public Involvement Plan															0	\$0.00
Meetings with Individual Property Owners (up to 20), including Documentation Review Meetings with Groups of Property Owners (up to 10), including Documentation Review	-				-	-							- 8		0	\$0.00 \$0.00
Coordinate/Review Corridor Public Involvement Plan Updates (up to 4)															0	\$0.00
Review/Provide Feedback on Proj Updates/Mat'ls Prepared by County PI (up to 10)							9 3				3 3				- 0	\$0.00
Subtotal Task 3 TASK 4. RIGHT-OF-WAY MAPPING	. 0	0	.0	91	.0	9	0	0		Ω	. 0	.0	0. 3	0	0	\$0.00
a. ROW Map (Up to 75 Parcels)	i e			r -					i i		0 0		ř ·		- 0	\$0.00
Research, Compile Records and Building Working Map from Recorded Data															0	\$0.00
Draft Preliminary ROW Map and List of Impacted Tracts						18									- 0	\$0.00
Final ROW Map and List of Impacted Tracts Subtotal Task 4	0	- 0-	0	Ud.	-0	6	- 0	0	-0	- 0	0	-0	0	-0	0	\$0.00 \$0.00
TASK 5. SCHEMA TIC DEVELOPMENT						100					X 3					1 3
a. Schematid											1 1				0	\$0.00
Preliminary Ultimate Schematic & Engineering Costs Estimate Final Ultimate Schematic & Engineering Costs Estimate		10		12	8	32 18	-				-		-		62 43	\$11,960.00 \$8,700.00
Subtotal Task 5	8	19	-0	20	16	50	.0	0	.00	0	0.00	.0	0	0	105	\$20,660.00
TASK 6. DRAINAGE STUDY																
a. Hydrologic/Hydraulic Modeling Preliminary Hydrologic Review for Recommended Alternative					_						-			-	0	\$0.00 \$0.00
Preliminary Hydraulic Review for Recommended Alternative		3 3			_		-				9 8				0	\$0.00
Recommended Alternative Preliminary Cross Drainage Structure Locations & Size															. 0	\$0.00
Hydrologic Analyses for Schematic (1 major, 5 minorcrossings)						22	4 9				1				0	\$0.00
Hydraulic Analysis for Schematic (1 major, 5 minor crossings) Develop Existing Channel Cross Sections					_	- 1									9	\$0.00 \$0.00
Analyze Onsite Parallel Drainage for Ditch and/or Storm Sewer Sizing for ROW Needs (11 sys	tems)			5 3		79					()				0	\$0.00
b. IE MA Coordination	0					9	3 3		3 2		3 3				0	\$0.00
Coordinate with Local Floodplain Administrator Determine if CLOMR or LOMR will be Required/Recommended				-		0					1				0	\$0.00 \$0.00
c. Impact and Mitigation Analysis					-						-				0	\$0.00
Prepare an Impact Analysis to Determine Increases in Peak Flow Rates (3 ponds)						E									0	\$0.00
d. Water Quality Analysis						S 17			4						g	\$0.00 \$0.00
Prepare a Water Quality Analysis (6 ponds) f. Schematic Drainage Report				-			_				3 13				0	\$0.00 \$0.00
Schematic Draft Drainage Report						17					9				0	\$0.00
Schematic Final Drainage Report										145					0	\$0.00
Subtotal Task 6 TASK 7. ENVIRONMENTAL SERVICES	. 0	(9)		9	.0	0. 1	. 2			0	- 9	-0	0, 7	0	- 9:	\$0.00
a. County Due Diligence						E 21					9 3		1		0	\$0.00
N	-	-		-			-		-		-	-	-			. 70.00

0.0																	
	Draft Environmental Summary Report															0	\$0.00
	Final Environmental Summary Report									12		8 6				0	\$0.00
b	Data Collection & Field Reconnaissance											3 6				0	\$0.00
	Hazardous Materials Initial Site Assessment							3		2		2 3		3		0	\$0.00
d	Section 404 Clear Water Act Compliance									10 3		9 3		3	3	0	\$0.00
	Historical Site Compliance															0	\$0.00
-	Texas Antiquities Code (TA C) Compliance		8					d.		10 0		6 2					\$0.00
	Coordination with County ENV		0							100		3				0	\$0.00
- 8	Strud165															- 0	\$0.00
	Threatened & Endangered Species Coordination							(5)		12		8 8				0	\$0.00
	Karst Analysis Coordination											1 1				0	\$0.00
h	Coordination with County Environmental Consultant							2				2		2		0.	\$0.00
Subto	tal Task 7	.9.	0.	.0	0	.0	0	0.0	0.	101	.0.	0	.0	0.		0	\$0.00
Misce	llaneous																
		Û.	- 4	.0	. 0	. 0	0	3	-	in the same of		- J	.0	0.	- 0	- 0	\$0.00 \$0.00
Subto	tal Miscellaneous	۵	. 0	n n	0	0	0	0	0.	0 0	D	0	0	D	0	0	\$0.00
	Total	0	19	0	20	16	50	0	0	0	0	0	0	0	0	105	\$ 20,660.00

	Atkins Expenses	\$0.00
Total Atkins Estimated Costs		\$20,660.00