



WORK AUTHORIZATION NO. 3

**PROJECT: TRANSPORTATION CORRIDOR A-1/A-2/ E "INVERTED T" PLANNING,
ROUTE STUDY, ENVIRONMENTAL SERVICES, AND PUBLIC
INVOLVEMENT**

This Work Authorization is made pursuant to the terms and conditions of the Williamson County Contract for Engineering Services, being dated March 13, 2017 and entered into by and between Williamson County, Texas, a political subdivision of the State of Texas, (the "County") and Kennedy Consulting, 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 \$1,970,904.50.

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 December 31, 2019. 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 affect 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:

Kennedy Consulting, Inc.

COUNTY:

Williamson County, Texas

By: 

Signature

By: _____

Signature

Rafael Cruz-Rodriguez

Printed Name

Printed Name

Vice President

Title

Title

LIST OF ATTACHMENTS

Attachment A – Services to be Provided by the County

Attachment B - Services to be Provided by Engineer

Attachment C - Work Schedule

Attachment D - Fee Schedule

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Attachment A - Services to be Provided by County

ATTACHMENT A
SERVICES TO BE PROVIDED BY THE COUNTY
PRELIMINARY ENGINEERING FOR Transportation Corridor A-1/A-2/ E "Inverted T" Planning, Route Study, Environmental Services, and Public Involvement

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 survey information in electronic format.
5. Provide available appropriate County data on file, 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).
6. Provide available criteria and full information as to the client's requirements for the project. Provide examples of acceptable format for the required deliverables.
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 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 subconsultants.

Attachment B - Services to be Provided by Engineer

ATTACHMENT B-1
SERVICES TO BE PROVIDED BY THE ENGINEER
DESIGN SERVICES FOR Transportation Corridor A-1/ A-2/E (Inverted T)

PROJECT DESCRIPTION

Need for additional services

As the result of extensive and proactive public involvement, it is necessary to expand eastern project limits for the Corridor A-1 project from FM 3349 to SH 95. The project also requires the preparation of DEIS. Subconsultant CMEC will provide environmental support to the Engineer, and who will coordinate with the GEC as representative of Williamson County. Subconsultant CMEC will coordinate with BGE as the counterpart environmental consultant for E1. Subconsultant CMEC will lead Technical Reports, folding in BGE tasks for E1 into a single set of Technical Reports for Williamson County and TxDOT review. At the appropriate time, BGE will summarize those coordinated Technical Reports in the DEIS document with support from subconsultant CMEC. Both environmental teams will coordinate for the project scoping phase, will provide technical peer review, and will work in concert to progress this important project for Williamson County.

Draft Environmental Impact Study (DEIS) - Proposed Study Area

The proposed EIS Study Area for the "inverted T" is generally described as follows: SH 130 to the west, SH 95 to the east, US 79 to the north, and Rowe Lane/Brushy Creek/FM 1660 to the south. The Study Area is depicted on the attached Figure. This study area would build on work completed during the Route Study phase and will hone in on alternatives based on feedback received in the first two public meetings. This study area allows for a logical definition of the study area within which several alternative corridors could be investigated in the EIS, in accordance with NEPA.

Alternatives will be developed within the A1, A2, and E1 study areas. A1 falls within the area between SH 130 and FM 3349. A2 is located from FM 3349 to SH 95. E1 extends from US 79 south to FM 1660 and would correlate with the A1/A2 east-west alignment.

Proposed Facility

The proposed corridor would include two mainlanes in each direction, and possibly three lane frontage roads in each direction, mostly on new location. The anticipated right of way (ROW) width is 350 feet, but could be less at locations where constraints exist in order to minimize impacts to the natural, cultural and human environment.

Design Criteria

All tasks must follow the requirements of current TxDOT design criteria for access controlled facilities.

TASK 1. PROJECT MANAGEMENT

a. GENERAL PROJECT MANAGEMENT

Shall designate one Licensed Professional Engineer (Texas) to be responsible for the project management and all communications with the County and its representatives.

- Prepare Subconsultant Agreements for Schematic and DEIS

b. MONTHLY PROGRESS REPORTS, INVOICES, AND BILLING

- Submit monthly progress status reports to the GEC. Progress reports will include: 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. (Assume 24 Months duration for DEIS development).
- Prepare correspondence, invoices, and progress reports monthly in accordance with current County requirements. (Assume 24 Months duration for DEIS development).
- Subconsultant Management – for DEIS (Assume 24 Months)

c. QUALITY ASSURANCE / QUALITY CONTROL (QA/QC) PLAN

- For each deliverable, provide evidence of their internal review and mark-up of that deliverable as preparation for submittal and in accordance with submitted project specific QA/QC plan.
- Provide continuous QA/QC throughout the duration of the scheduled services included herein to appraise both technical and business performance and provide direction for project activities.

d. PROJECT COORDINATION AND ADMINISTRATION

- Prepare and maintain routine project record keeping including records of meetings. (Assume 24 Months for DEIS development).
- Correspondence and coordination will be handled through & with the concurrence of the GEC. (Assume 24 Months for DEIS development).
- 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, correspond with the County and its representatives, and assist the County and its representatives in preparing responses to project-related inquiries. (Assume 16 Months for DEIS development).
- Maintain a log of all stakeholder comments and inquiries received via phone, email, web form and written comments submitted at public meetings. Include stakeholder contact information and any responses provided.

e. PROGRESS / COORDINATION MEETINGS (24 meetings total assumed)

- Attend kickoff meetings (1 meeting for DEIS development) and coordination/progress meetings (24 meetings assumed for DEIS development) with the County and its representatives and stakeholders, as necessary to communicate development of the project and design issues.
- Prepare agenda and sign-in sheets for external coordination/progress meetings (one per meeting).
- Prepare meeting minutes for review via email within three (3) business days of the external coordination/progress meeting.

- Conduct and participate in internal coordination meetings/calls as required to advance the development of the project. (24 Months for DEIS development).

f. PROJECT SCHEDULE

- Maintain a project schedule indicating tasks, subtasks, critical dates, milestones, and deliverables. (Update monthly).

g. PROJECT RECORD

- Prepare and update digital file, conduct weekly document scanning as needed for tracking, prepare weekly hardcopy filings, and final compilation for record-keeping purposes.

h. DELIVERABLES

- Monthly Invoices and Progress Reports
- Meeting Minutes, Sign-In Sheets, and Agendas
- Project Schedule

TASK 2. ROUTE AND DESIGN STUDIES

a. DATA COLLECTION

- Perform record research and obtaining existing information, including but not limited to: as-built plans, construction plans, ROW maps, 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. Environmental data collection will address land use and community impacts, ecological resources including biological and water resources, and cultural resources including historic and archeological resources. Specific considerations are listed in the fee estimate.
- 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 (including owner's name, mailing address, property address, and property id number) spreadsheet to be used for disseminating project information.
- Review the data collected and organize the information.
- Prepare Technical Report to document route analysis for universe of alternatives and reasonable alternatives to support the alternatives analysis chapter of the DEIS.

b. STAKEHOLDER COORDINATION

- Prepare and Conduct Meetings with Affected Property Owners (MAPO) as necessary and in coordination with the public involvement team (20 meetings assumed).

1. Schedule, coordinate logistics for meetings. Prepare materials (agendas, sign-in sheets, meeting minutes, discussion topics, presentations, overall exhibits, and maps)

- Coordinate with affected local agencies, County's consultants, and affected property owners. Includes preparing/reviewing presentations and other communication materials for elected official briefings.

- TxDOT coordination meetings (5 meetings)
- CTRMA Coordination (2 meetings)
- Neighborhood Meetings (10 meetings)
- Initiation meeting

c. CONSTRAINTS MAP (a corridor accommodating three (3) preliminary alignments assumed):

- Establish Project Design Criteria
- Develop Evaluation Criteria to assist in evaluating route alignment alternatives. Complete a constraints matrix to evaluate up to three (3) alternatives within the route study phase. Two build alternatives and one No build.

- Establish Overall Study Area
- Establish Range of Reasonable Alternatives
- Develop Conceptual Alternatives (3 total)
- Develop a constraints map showing features and Technical Report to document route analysis for universe of alternatives and reasonable alternatives to support the alternatives analysis chapter of the DEIS.
- Estimate traffic projections for the ultimate roadway for each corridor.
- Develop preliminary alignments and preliminary costs.
- Refine preliminary alignment based on stakeholder input, design criteria, existing structures, potential displacements, ROW limits and requirements, known developments, FEMA floodplain areas, existing and proposed drainage structures and issues.

d. DELIVERABLES

- Meeting Minutes, Sign-In Sheets, Agendas, Presentations, Maps, and Exhibits for all Stakeholder Coordination Meetings.
- Constraints Map Preliminary Alignments and Technical Memorandum (pdf and hardcopies)
- Constraints Map Refined Alignment and Technical Memorandum Recommendation (pdf and hardcopies)
- Design Summary Form (pdf and hardcopies)
- Prepare and Post deliverables on ProjectWise

TASK 3. PUBLIC INVOLVEMENT – The Engineer and subconsultant (CMEC) understands that the public involvement team members will lead these efforts and the Engineer and subconsultant (CMEC) will provide technical, mapping, and personnel support as needed.

- a. The Engineer and subconsultant (CMEC) will participate in the public scoping meeting process according to the fee estimate.
- b. The Engineer and subconsultant (CMEC) will participate in the public meeting process according to the fee estimate.

- c. The Engineer and subconsultant (CMEC) will participate in meetings with elected officials and individual stakeholders according to the fee estimate.
- d. The Engineer and subconsultant (CMEC) will participate in stakeholder group meetings according to the fee estimate.
- e. The Engineer and subconsultant (CMEC) will participate in technical work group meetings according to the fee estimate.
- f. The Engineer and subconsultant (CMEC) will participate in community issues committee meetings according to the fee estimate.
- g. The Engineer and subconsultant (CMEC) will participate in the public hearing activities according to the fee estimate.

Task 4. RIGHT OF WAY (ROW) MAPPING

a. RIGHT OF ENTRY (ROE) COORDINATION

- Prepare and mail right of entry letters per the County's standard for the project team including surveying, geotechnical, environmental and drainage. Send a second follow up letter to non-responsive property owners.

Task 7. DRAINAGE STUDY

It is anticipated the project includes additional FEMA stream crossings, east of FM 3349 until reaching SH 95.

a. HYDROLOGIC MODELING

Calculate discharges using appropriate hydrologic methods and as approved by the County. Consider the pre-construction and post-construction conditions in the hydrologic study. Include, at a minimum, the "design" frequency and the 1% Annual Exceedance Probability (AEP) storm frequency. The report must include the full range of frequencies.

- Obtain the drainage area boundaries and hydrologic parameters such as impervious covered areas, and overland flow paths and slopes from appropriate sources including, but are not limited to, topographic maps, GIS modeling, construction plans, and existing hydrologic studies. The Engineer shall not use existing hydrologic studies without assessing their validity. If necessary, obtain

additional information such as local rainfall from official sites such as USGS rain gauges.

- At the Zone AE FEMA crossings, the best available models from the Final UBCWCID Flood Protection Plan dated June 2016 for the Brushy Creek and Cottonwood Creek will be obtained. These will be compared with the FEMA effective data for reasonableness. These models will be supplemented as necessary (land use, impervious cover) and used as the basis for developing peak discharges for design.
- For each identified outfall, the Engineer shall quantify the change in peak flow rates between the existing and proposed conditions created by the project. The Engineer shall then determine if the overall increase in peak flow from the project compared to the peak flow in the receiving channel or storm drain system will create an adverse impact to the adjacent properties or existing storm drain systems. If the Engineer determines that the project will create adverse impacts to adjacent properties, the Engineer shall identify potential on-site locations for detention storage and assess potential detention storage availability. The Engineer may recommend detention structures in the form of ponds and ditches where the ROW area allows or within oversized storm drain conduits in locations with limited ROW area. Utilizing hydrograph routing software such as Hydrologic Engineering Center – Hydrologic Modeling System (HEC-HMS) or Storm Water Management Model (SWMM), the Engineer shall calculate required storage volumes based on hydrograph calculations and peak flows to limit 100-year discharge from each outfall to that produced under existing conditions.
- The Engineer will assess the hydrologic impact of the project in the 2, 5, 10, 25 and 50-year storm events to the receiving system and make any recommendations for erosion protection if required. If the receiving system is to an existing storm sewer system outside of the County ROW, the Engineer shall address impacts to the receiving storm drain system, taking into consideration what the existing system was sized to accommodate, and make recommendations for onsite improvements as to not have an adverse impact on these systems.

b. HYDRAULIC MODELING

- Perform hydraulic design and analysis using appropriate hydraulic methods, which may include computer models such as HEC-RAS, unsteady Hydrologic Engineering Center – River Analysis System (HEC- RAS) or two-dimensional (2D) models such as SWMM. 2D models shall not be developed without the express permission of the State. Data entry for appropriate hydraulic computer programs shall consist of a combination of both on-the-ground survey and other appropriate sources including but not limited to topographic maps, GIS modeling, and construction plans and existing hydrologic studies.
- For the FEMA crossings, the Effective or best available models will be utilized accordingly for this analysis. Review the provided base model for correctness and updated as needed. For the Non-FEMA crossings, an original HEC-RAS model will be created for the analysis.
- Quantify impacts, beneficial or adverse, in terms of increases in peak flow rates and WSELs for the above listed hydraulic conditions and hydrologic events. The Engineer shall make recommendations for the proposed design which would limit any increase in WSELs upstream and downstream of the facility to be contained within State ROW. If there are conditions which cause and increase in WSEL outside of State ROW, The Engineer shall evaluate the potential risk to adjacent properties both upstream and downstream of the crossings.
- Compute ROW corridor 1% AEP flood plain volumes for existing and proposed roadway elevations. The Engineer may provide mitigation to offset a decrease in 1% AEP flood plain volumes.
- A Floodway Impact Analysis will be performed at Brushy Creek and Cottonwood Creek to determine the impact to the base flood elevation (BFE) between the pre- and post-construction. Federal requirements do not allow any increases to the BFE within a regulatory floodway.

c. FEMA COORDINATION

- Coordinate with Local Floodplain Administrator (FPA) as necessary throughout the project. (Assume 2 meetings)
- For the floodway impact analysis, the Engineer will need to provide a no-rise certification. If a no-rise certification cannot be provided for geometric reasons, the County can apply for a CLOMR/LOMR with FEMA for a map change. (Assume 1 meeting)

- For the UBCWCID SCSS site 21 dam (see below), any improvements to this dam will need to be approved by the local FPA. (Assume 1 meeting)
- d. UPPER BRUSHY CREEK WATER CONTROL IMPROVEMENT DISTRICT (UBCWCID) COORDINATION
- Any impacts to the dam or to the backwater of any dam will trigger coordination with the appropriate property owner, U.S Department of Agriculture - Natural Resources Conservation Service (USDA-NRCS), and the UBCWCID. No work on the structure or within the inundation easement can occur without formal approval by the WCID Board of Directors.
- The Engineer shall determine the impacts to and the dam, auxiliary spillway, primary spillway/pipe outlet and related appurtenances.
 - For construction fill from the roadway placed within the flood pool, a preliminary compensatory grading plan will be prepared in accordance to the UBWCID regulations. This will be presented to the UBWCID board and property owner for approval and subsequently submitted to the USDA-NRCS for technical review and concurrence.
 - Two UBWCID board meetings and one stakeholder coordination meeting is assumed for this task.
 - This task does not include hydrologic/hydraulic analysis of the dam.
- e. DELIVERABLES
- Preliminary & Final Drainage Reports and Exhibits.

Task 8. ENVIRONMENTAL SERVICES

- a. QUALITY ASSURANCE/QUALITY CONTROL REVIEW
- The Engineer through subconsultant CMEC will utilize an internal QA/QC process to ensure that high quality deliverables are provided to the County at all times.
- b. DRAFT STYLE GUIDE
- The Engineer through CMEC will adhere to the Style Guide prepared by BGE for development of documents for the Williamson County

“Inverted T” project. Technical Reports will comply with the latest TxDOT Environmental Toolkits available on their website. The deliverables to be folded into the DEIS document will be formatted according to the Style Guide. Subconsultant CMEC assumes any style templates for other correspondence will be provided electronically. GIS team members will coordinate to agree upon mapping templates.

c. NEED AND PURPOSE STATEMENT

- Subconsultant CMEC will work with BGE to develop the Need and Purpose report. This report will follow the TxDOT Environmental Toolkit and will help ensure that project team members have a common understanding of the Need and Purpose for the project. For the environmental decision document, the Need and Purpose will be reiterated and supported with technical information.

d. STUDY AREA

- Subconsultant CMEC will work with BGE to develop the study area map for DEIS documentation. In addition, as the limits between A1, A2, and E1 become more clear, subconsultant CMEC and BGE will coordinate to ensure efficient mapping between teams to ensure compatibility.

e. DEVELOPMENT OF INVENTORY MAPPING

- Subconsultant CMEC will complete the constraints inventory mapping in the revised DEIS study area, with a focus on constraints data collection and analysis in the A2 study corridor extending out to SH 95 as a result of the second public meeting and direction from Williamson County. This task is an intensive research and GIS mapping task.
- Subconsultant CMEC will work with BGE to develop the study area map for DEIS documentation. In addition, as the limits between A1, A2, and E1 become more clear, subconsultant CMEC and BGE will coordinate to ensure efficient mapping between teams to ensure compatibility.

f. NOTICE OF INTENT

- The DEIS team shall prepare an NOI advertising the preparation of the project EIS suitable for publication in the Texas and Federal Registers, if requested by Williamson County or the STATE. The DEIS team shall

publish the Texas NOI in the Austin American Statesman. The Engineer through CMEC assumes BGE will arrange for the publications and incur the direct costs.

g. INVITATION FOR PARTICIPATING/ COOPERATING AGENCY INVOLVEMENT and COORDINATION PLAN

- In compliance with the Fixing America's Surface Transportation (FAST) Act) requirements, the DEIS TEAM, in coordination with Williamson County and the STATE, as appropriate, shall establish a plan for coordinating public and agency participation and comment during the environmental review process. Involvement must be early, inclusive, continuous and tailored to address the identified needs within the project area. The public and agency coordination plan shall also outline all key coordination points among the lead agencies to include, but not be limited to, technical workgroup meetings.
- The DEIS team shall develop the public and agency coordination plan to facilitate meaningful participation to ascertain stakeholder input on initiatives to promote environmental stewardship and sustainability planning as part of the environmental decision-making process. The public and agency coordination plan should include an education component to explain to the public the concepts and purpose of environmental stewardship and project sustainability.
- The public and agency coordination plan shall be a living document and shall be updated throughout the project development process.
- Suabconsultant CMEC will work with BGE and the design teams to prepare this plan.

h. PREPARATION FOR AGENCY SCOPING MEETING

- An agency scoping meeting shall be conducted by the DEIS team to discuss the project's history and to identify environmental areas of concern, including technical backup materials and the draft Agency Coordination Plan. A letter shall be sent prior to the Initial Agency Briefing and Kickoff Meeting to the agencies inviting them to the Initial Agency Briefing and Kickoff Meeting.
- The DEIS team shall assist the County and the STATE with mailing the invitation letters and shall track the responses received to the meeting invitations.

- The DEIS team shall prepare for, plan and conduct the meeting in cooperation with the County and the STATE. A presentation shall be prepared for this meeting.
- Subconsultant CMEC will assist the DEIS team with this task.
- i. TXDOT ENVIRONMENTAL CLEARANCE
 - The services to be provided include an interdisciplinary project planning process pursuant to the National Environmental Policy Act of 1969. The Engineer shall assemble and review data, prepare a Draft Environmental Impact Statement (DEIS). ***This scope of work includes tasks through the DEIS. Additional scope and fee estimates will be provided for the FEIS.*** These documents will be prepared in accordance with and contain all the information required by Title 23 CFR Part 771 and Title 40 CFR 1502, as well as TxDOT's Environmental Toolkits and other pertinent guidance.
 - Sources of information will include data received from the State, federal agencies, other state and local governmental and quasi-governmental agencies, local libraries, public and private computer databases, and field investigations. The DEIS will describe the purpose and need of project, taking into account the existing and projected travel volumes for the area, ability of existing facilities to meet the demand, existing safety, environmental, social and economic concerns. The DEIS shall describe and quantify construction and operational impacts as well as avoidance, minimization, and mitigation.
 - This scope and fee estimate assumes that the proposed improvements will be paid for at least in part with funds obtained through a loan from State or Federal sources or reimbursed with State or Federal funds, and therefore NEPA, Section 106 and Section 4(f) compliance requirements would apply.
 - DATA COLLECTION AND FIELD RECONNAISSANCE: Obtain and update periodically publicly available information including but not limited to: locations of public buildings (schools, churches, parks), aerial photography, National Wetland Inventory Maps, County Soil Survey Maps, TCEQ & EPA Hazardous Materials Database Information, FEMA Floodplain Information, Vegetation Information, Environmental Information from the appropriate local, state, or federal agencies, including threatened or endangered species

information from TPWD and the USFWS. Data will be collected for community resources, ecological resources, and cultural resources and specific compliance considerations and deliverables are further described below.

- Conduct field reconnaissance to visually inspect the project site for additional risks and field verify any environmental risks identified by the regulatory records review. Some field investigations would require right-of-entry. Permitting tasks may be limited to the preferred alternative to be analyzed in detail in the FEIS.
- Technical Reports will be prepared as discussed below, in support of the EIS.

j. COMMUNITY IMPACT ASSESSMENT

- Prepare a Community Impact Assessment that addresses displacements, relocations, impacts to farmsteads, community cohesion, changes in travel patterns and access for various travel modes, limited English proficiency, Environmental Justice, and other components of TxDOT's most recent Environmental Toolkit for community impacts. This task also includes land use mapping.

k. HISTORIC RESOURCES/NATIONAL HISTORIC PRESERVATION ACT (NHPA) COMPLIANCE

- Prepare a Project Coordination Request (PCR) for submittal to TxDOT in order to initiate project coordination. The PCR will include database searches of the Texas Historical Commission's (THC) Historic Sites Atlas and TxDOT databases to identify previously documented properties and districts as well as historical markers. All information will be presented in TxDOT's PCR form as required by current TxDOT policy at the time the work is undertaken. A field visit will be required to obtain photographs for the PCR attachments.
- Prepare a Research Design, including a historic context and proposed methodology for area of potential effect, survey, and evaluation, based on the current TxDOT Documentation Standard for Research Designs.
- Following approval of the Research Design, historians will undertake a reconnaissance survey of the area of potential effect. Historians will produce a report compliant with TxDOT's Documentation Standard for Reconnaissance Surveys. The report will include a description of all historic-age properties surveyed, National Register of Historic

Places (NRHP) eligibility determination for each resource, an evaluation of the presence of eligible historic districts, and a determination of whether the proposed project would adversely affect NRHP listed or eligible properties or districts. **The attached fee includes documenting up to 300 resources.**

l. ARCHEOLOGICAL RESOURCES/NHPA AND TEXAS ANTIQUITIES CODE (TAC) COMPLIANCE

- Prepare an Archeological Background study that will be used to determine if archeological survey is warranted. The study will include review of the THC's Texas Archeological Sites Atlas maintained by the Texas Archeological Research Laboratory (TARL) for all known sites and previous cultural resources studies, as well as historic cemeteries, historical markers, NRHP listed properties and districts, and State Antiquities Landmarks (SALs) within one kilometer of the project area. Other resources used in the study would include soils, geology, and historic maps and on-line-available aerial photographs. The archeological background will be prepared in the format that complies with TxDOT's Review Standard for Archeological Background Studies.

m. AIR QUALITY ANALYSIS

- The Engineer shall prepare an air quality analysis in accordance with the STATE'S AIR QUALITY GUIDELINES. As the proposed project is not expected to have traffic volumes exceeding 140,000 annual average daily traffic, affect an intermodal facility, or be a project for which air quality concerns have been raised by the public, it is assumed that a quantitative mobile source air toxics (MSAT) analysis and carbon monoxide (CO) traffic air quality analysis (TAQA) will not be required. Because the project area is not located within a CO or particulate matter (PM) nonattainment or maintenance area, a project level hot-spot analysis is not required. Because the project is within an attainment or unclassifiable area for ozone and CO, a Conformity Report and Congestion Management Process (CMP) analysis are not required.
- The air quality technical report will follow the SOP published by TxDOT and will provide the appropriate statements and negative declarations, where applicable. It is assumed that the project will require the following analyses: Qualitative MSAT and construction emission disclosure language.

- A detailed Greenhouse Gas analysis is not included.
- The air quality analysis or a summary of the air quality analysis shall be included in the environmental document for the project

n. TRAFFIC NOISE ANALYSIS

- The Engineer shall prepare analyses for the Recommended Alternative, including predicted noise levels and the consideration and evaluation of noise mitigation, in accordance with the STATE'S NOISE GUIDELINES. The noise analysis or a summary of the noise analysis shall be included in the environmental document for the project.

o. WATER RESOURCES (WATER RESOURCES INCLUDING WATER BODIES, RIVER BASINS, FLOODPLAINS, SECTION 303 (D) WATERS, WATER WELLS, AND SECTION 404 CLEAN WATER ACT COMPLIANCE)

- Prepare a wetland determination and delineation report identifying: specific impacts of the project on the Waters of the U.S., measures to minimize the impacts will be identified, and discuss applicable Section 404 options in accordance with current permits and conditions based on data collection and field reconnaissance.
- Surface water resources – identification of threatened and impaired water bodies as listed in the current EPA approved TCEQ's 303(d) list and identify sources of public drinking water and assess potential impacts.
- Floodplains. The Engineer shall determine whether the proposed Transportation Activity has the potential to affect floodplains. Studies for floodplain impacts shall follow the requirements of Executive Order 11988 and 23 CFR 650, Subpart A.
- Wild and Scenic Rivers. The Engineer shall determine the Transportation Activity's foreseeable adverse effects on rivers in the National Wild and Scenic River System
- US Coast Guard Section 9 Permit (33 USC 401). The engineer shall determine whether streams or other water bodies crossed by a proposed transportation facility are navigable as defined in the US Coast Guard Commandant.

p. ECOLOGICAL RESOURCES

- Prepare an Ecological Resources Report documenting specific impacts of the project on vegetation, farmlands, wildlife, federal and state listed species or species of greatest conservation need (including a mussel survey for the Preferred Alternative – see Permits), migratory birds, Executive Order 13112, and Beneficial Landscaping, utilizing TxDOT's current guidance in the Environmental Compliance Toolkits and Handbooks.
- Document project's requirement to coordinate with the Texas Parks and Wildlife under the 2014 TxDOT-TPWD Memorandum of Understanding using the Tier I Site Assessment.
- Endangered Species Act Compliance
 1. Prepare a Biological Evaluation Form documenting the project's effects on federally listed Threatened & Endangered Species to document the project's compliance with the Endangered Species Act based on data collection and field reconnaissance. It is assumed no federally listed species or suitable habitat would be impacted by the project and no consultation with the USFWS would be required.
 2. Document compliance with the Farmland Protection Policy act (FPPA), including coordination with the Natural Resources Conservation Service (NRCS) for impacts to farmlands, as necessary.

q. HAZARDOUS MATERIALS INITIAL SITE ASSESSMENT

- Prepare a Hazardous Materials Initial Site Assessment (ISA) in accordance with the TxDOT Environmental Toolkit and based on the data collection and field reconnaissance conducted and identify potential hazardous material sites that may be impacted by the proposed project.

r. CHECKLIST FOR SECTION 4(F) AND SECTION 6(F) RESOURCES

- The Engineer through CMEC will prepare a checklist for Section 4(f) and Section 6(f) compliance needs. Any 'full-blown' analyses would be included under permitting at a future date.

s. INDIRECT AND CUMULATIVE IMPACTS ASSESSMENT

- Prepare an Indirect Impacts Technical Report and a Cumulative Impacts Technical Report. TxDOT's latest Environmental Toolkits will be referenced as guidance. Coordinate with local planning experts and other interested stakeholders as part of data collection process.

t. TECHNICAL STUDIES DELIVERABLES

- Draft & Final Community Impacts Assessment Technical Report
- Historic Resources Project Coordination Request
- Historic Resources Research Design
- Draft & Final Historic Resources Survey
- Draft & Final Archeological Background Study
- Draft & Final Air Quality Analysis
- Draft & Final Noise Analysis
- Draft & Final Water Resources Technical Report and Wetlands Determination
- Draft & Final Ecological Technical Report
- Draft & Final Biological Evaluation Form and Tier I Site Assessment
- Draft & Final Hazardous Materials Initial Site Assessment
- Draft & Final Indirect and Cumulative Impacts Analysis Technical Report

u. ENVIRONMENTAL IMPACT STATEMENT DELIVERABLES

While BGE will be task lead for preparation of the EIS document based on the Technical Reports, subconsultant CMEC shall support preparation of pertinent technical sections, provide peer review QA/QC services, and shall participate in the various rounds of agency comment and response on the document. The EIS shall comply with TxDOT Environmental Toolkit guidance and will meet the requirements of 23 CFR 771.123 and TAC, Title 43, Part 1, Chapter 2. Including:

- Preliminary Draft EIS for GEC and County review

- Revised Draft EIS (per GEC and County comments)
- Draft EIS for State review
- Revised Draft EIS (per State comments)
- Draft EIS for Agency review
- Revised Draft EIS (per Agency comments)
- Draft EIS for Public Hearing
- Final EIS (to be scoped after completion of the DEIS phase)

v. NOTICE OF AVAILABILITY

- Subconsultant CMEC will support BGE in development of Notice of Availability of the DEIS for review.

w. ADMINISTRATIVE RECORD

- The DEIS team shall establish, track, organize and manage the project's administrative record, which is the written record supporting the agency's decisions. The administrative record shall be limited to documents that supported or reflected project decisions. The documents and materials shall be organized in chronological order by date. Subconsultant CMEC will conform with the Administrative Record guidance provided by the GEC team with regard to materials prepared or coordinated by subconsultant CMEC.

EXCLUSIONS AND ASSUMPTIONS

- The project is not located over any portion of the Edwards Aquifer; therefore, no coordination with the TCEQ for Edwards Aquifer compliance or preparation of an Edwards Aquifer Plan would be required.
- No consultation with the USFWS for effects to federally-listed species is included in this scope.
- Full Section 4(f) Analysis or Section 6(f) Analysis is not included in this scope and fee estimate.

- An Environmental Justice and Toll Analysis is not included in this current level of effort.
- An Archeological Survey is not included in the current scope and fee estimate.
- Section 404 permitting and coordination with USACE is not included in the current scope and fee estimate.
- A mussel survey is not included in the current scope and fee estimate.

Attachment C - Work Schedule

ATTACHMENT C
WORK AUTHORIZATION #3
SCHEDULE

PRELIMINARY ENGINEERING FOR Transportation Corridor A-1/ A-2/ E "Inverted T"
Planning, Route Study, Environmental Services, and Public Involvement

	2018												2019											
	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	OCT	NOV	DEC
Task 1																								
MANAGEMENT ROUTE STUDIES																								
Prepare Subconsultant Agreements																								
Prepare & Maintain Records																								
Correspondence & Coordination with GEC																								
Manage Project Activities																								
Progress Meetings																								
Maintain Project Schedule																								
Prepare Invoices & Progress Reports																								
Perform QA/QC of Deliverables																								
Task 2																								
ROUTE & DESIGN STUDIES																								
Data Collection																								
Agencies & Stakeholder Coordination																								
Constraint Map																								
Range of Reasonable Alternatives																								
Conceptual Alternatives																								
Alternatives Refinement																								
Traffic Projections																								
Preliminary Cost																								
Task 3																								
PUBLIC INVOLVEMENT																								
Public Scoping Meeting																								
Open House																								
Elected Officials and other stakeholders																								
Stakeholder Groups																								
Technical Work Group																								
Community Issues Committee																								
Open House																								
Public Hearing																								
Task 4																								
RIGHT OF WAY																								
Right of Entry Letters																								
Recover Existing Control																								
Record Search																								
Task 7																								
DRAINAGE STUDY																								
Data Collection																								
Coordination with Agencies																								
Perform Analysis																								
Include H&H on Conceptual Alignments																								
DRAFT H&H Report																								
H&H Report																								
Task 8																								
ENVIRONMENTAL SERVICES																								
Develop Style Guide																								
Develop Need and Purpose Statement																								
Define Revised Study Area																								
Final Study Area																								
Environmental Features Inventory																								
Prepare and Publish Notice of Intent																								
Invitation for Participating/Cooperating Agency Involvement																								
Coordination Plan																								
Agency Scoping Meeting																								
Technical Reports																								
Prepare DEIS																								
Notice of Availability and Circulation of DEIS																								
Administrative Record																								

OK
7/12/2017

- Task Duration
- Continuous Tasks
- Critical Path Tasks

Attachment D - Fee Schedule

WORK AUTHORIZATION 3
Attachment D - FEE SCHEDULE

Fee Schedule Summary

Kennedy Consulting, Inc.

Transportation Corridor A-1/A-2/ E "Inverted T" Planning, Route Study,
 Environmental Services, and Public Involvement

Description of Work or Task	KCI (63.9%)	CML (36.1%)	Cost / Task Totals
Task 1. PROJECT MANAGEMENT	\$116,360.00	\$154,625.00	\$270,985.00
Task 2. ROUTE AND DESIGN STUDIES	\$602,112.50	\$82,350.00	\$684,462.50
Task 3. PUBLIC INVOLVEMENT	\$119,290.00	\$144,300.00	\$263,590.00
Task 4. RIGHT OF WAY (ROW) MAPPING	\$18,600.00	\$1,200.00	\$19,800.00
Task 7. DRAINAGE STUDY	\$368,865.00	\$0.00	\$368,865.00
Task 8. ENVIRONMENTAL SERVICES	\$34,310.00	\$328,892.00	\$363,202.00
FEE SCHEDULE SUMMARY	\$1,259,537.50	\$711,367.00	\$1,970,904.50
Kennedy Consulting, Inc (KCI)			
Cox McLain Environmental (CML)			
			\$1,259,537.50
			\$711,367.00
			\$1,970,904.50

OK
M 12/1/2017

Summary of Hours by Classification
Kennedy Consulting, Inc.

**Transportation Corridor A-1/A-2/ E "Inverted T" Planning, Route Study,
 Environmental Services, and Public Involvement**

Description of Work or Task	Project Director \$225.00/Hr	Sr. Project Manager \$220.00/Hr	Senior Prof. 2 \$200.00/Hr	Senior Prof. 1 \$175.00/Hr	Prof. 2 / Sr. Eng. Tech \$150.00/Hr	Prof. 1 / Eng. Tech \$115.00/Hr	Admin / Clerical \$65.00/Hr	Staff-Hr. Totals	Staff Cost / Task Totals
b. Stakeholder Coordination								0	\$0.00
Prepare agendas, sign-in sheets, meeting minutes, presentations, etc.		24					48	72	\$8,400.00
Coordinate with affected local agencies, consultants, and property owners	40	80						120	\$26,600.00
Meetings with affected property owners (MAPO) (20 Mtgs.)	10	30						40	\$8,850.00
TxDOT Coordination (5 Mtgs.)	5	10						15	\$3,325.00
CTRMA Coordination (2 Mtgs.)	6	6						12	\$2,670.00
Neighborhood Meetings (10 Mtgs.)		40						40	\$8,800.00
Initiation Meeting	4	16						20	\$4,420.00
c. Constraints Map (3 preliminary alignments and no build assumed)								0	\$0.00
Establish Project Design Criteria	3	4	8	8				23	\$4,555.00
Develop Evaluation Criteria	6	16	24	24		24		70	\$12,430.00
Establish Overall Study Area	6	8	24	24				38	\$7,910.00
Establish Range of Reasonable Alternatives	12	24	48	60	96	120		360	\$56,280.00
Develop Conceptual Alternatives (3 Total)	30	60	90	120	240	400		940	\$140,950.00
Develop Constraints Map and Technical Memorandum	8	4	8	16	24	32		92	\$14,360.00
Estimate Traffic Projections for the Ultimate Roadway	4	8						12	\$2,660.00
Develop Preliminary Alignments and Costs	20	40	120	240	320	400		1140	\$173,300.00
Refine Preliminary Alignment based on Stakeholder Input	8	24	48	80	96	120		376	\$58,880.00
d. Deliverables								0	\$0.00
Prepare and Post on ProjectWise				64	64			128	\$20,800.00
Direct Expenses									\$8,952.50
ROUTE AND DESIGN STUDIES Subtotal:	164	410	410	664	840	1168	116	3772	\$602,112.50
Task 3. PUBLIC INVOLVEMENT									
a. Public Scoping Meeting								0	\$0.00
Review Public Meeting Plan		4						4	\$880.00
Coordination with Consultant Teams		8						8	\$1,760.00
Attend up to 3 pre-meetings	6	6						12	\$2,670.00
Prepare Exhibits		4			40			44	\$6,880.00
Attend Meeting	2	4						6	\$1,330.00

Summary of Hours by Classification
Kennedy Consulting, Inc.
Transportation Corridor A-1/A-2/ E "Inverted T" Planning, Route Study,
Environmental Services, and Public Involvement

Description of Work or Task	Project Director \$225.00/Hr	Sr. Project Manager \$220.00/Hr	Senior Prof. 2 \$200.00/Hr	Senior Prof. 1 \$175.00/Hr	Prof. 2 / Sr. Eng. Tech \$150.00/Hr	Prof. 1 / Eng. Tech \$115.00/Hr	Admin / Clerical \$65.00/Hr	Staff-Hr. Totals	Staff Cost / Task Totals
b. Public Meeting 2								0	\$0.00
Review Public Meeting Plan		4						4	\$880.00
Coordinate with Consultant Teams		8						8	\$1,760.00
Attend up to 3 pre-meetings	6	6						12	\$2,670.00
Prepare Exhibits		4			16			36	\$5,120.00
Attend Meeting	2	4						6	\$1,330.00
c. Elected officials and other Individual Stakeholders								0	\$0.00
Attend up to 30 meetings		60						60	\$13,200.00
Develop presentation materials		20		24				68	\$12,200.00
Contribute to presentation of Meeting minutes		10					20	30	\$3,500.00
d. Stakeholder Groups								0	\$0.00
Develop meeting agenda, comment cards and other materials	2	8					12	22	\$2,990.00
Facilitate up to 2 additional Stakeholder Group Meetings	4	8		8			12	32	\$4,840.00
Develop draft/ final Technical Committee Meeting minutes	2	4					8	14	\$1,850.00
e. Technical Work Group (TWG)								0	\$0.00
Attend up to 10 meetings	10	30						40	\$8,850.00
Develop presentation materials		8					16	24	\$2,800.00
Contribute to preparation of Meeting minutes	2	6					12	20	\$2,550.00
Contribute to draft/ final Technical Work Group Report	6	12						18	\$3,990.00
f. Community Issues Committee (CIC)								0	\$0.00
Attend up to 10 meetings		20						20	\$4,400.00
Contribute to preparation of Meeting minutes		4					12	16	\$1,660.00
g. Public Hearing								0	\$0.00
Review Public Hearing Plan	2	8						10	\$2,210.00
Coordination with Consultant Teams	4	16						20	\$4,420.00
Attend up to 3 pre-meetings	12	12		12			12	60	\$10,020.00

Summary of Hours by Classification
Kennedy Consulting, Inc.
Transportation Corridor A-1/A-2/ E "Inverted T" Planning, Route Study,
Environmental Services, and Public Involvement

Description of Work or Task	Project Director \$225.00/Hr	Sr. Project Manager \$220.00/Hr	Senior Prof. 2 \$200.00/Hr	Senior Prof. 1 \$175.00/Hr	Prof. 2 / Sr. Eng. Tech \$150.00/Hr	Prof. 1 / Eng. Tech \$115.00/Hr	Admin / Clerical \$65.00/Hr	Staff-Hr. Totals	Staff Cost / Task Totals
Prepare Exhibits		6			24	40		70	\$9,520.00
Attend Meeting	6	6		6	6		6	30	\$5,010.00
PUBLIC INVOLVEMENT Subtotal:	66	290	0	50	122	56	110	694	\$119,290.00
Task 4. RIGHT OF WAY (ROW) MAPPING									
a. Recover Exist. Control, Establish Up to 10 Secondary Control Pts.								0	\$0.00
b. Right Of Entry (ROE) Coordination		12		60			84	156	\$18,600.00
c. Records Research								0	\$0.00
d. Deed Study								0	\$0.00
e. Field Surveys								0	\$0.00
f. Boundary Analysis								0	\$0.00
g. Prepare ROW Docs (45 parcel documents and 315 staked assumed)								0	\$0.00
h. Preparation of Documents								0	\$0.00
i. Establish Monumentation (Up to 315 Pts.)								0	\$0.00
RIGHT OF WAY (ROW) MAPPING Subtotal:	0	12	0	60	0	0	84	156	\$18,600.00
SURVEYING Subtotal:	0	0	0	0	0	0	0	0	\$0.00
Task 7. DRAINAGE STUDY									
a. Hydrologic Modeling								0	\$0.00
Drainage Areas		8	16	60	140			224	\$36,460.00
Update FEIMA Models			16	60	80			156	\$25,700.00
Peak Impact Analysis / Detention Design			24	60	130			214	\$34,800.00
Erosion Protection Design			24	80	160			264	\$42,800.00
Hydraulic Modeling								0	\$0.00
Hydraulic Design non-FEMA crossings		2	5	65	100			172	\$27,815.00
Hydraulic Design FEMA crossings			16	60	120			196	\$31,700.00
Mitigation Recommendations			8	24	40			72	\$11,800.00
Floodplain Volume Calculation			8	30	50			88	\$14,350.00

Summary of Hours by Classification
Kennedy Consulting, Inc.

**Transportation Corridor A-1/A-2/ E "Inverted T" Planning, Route Study,
 Environmental Services, and Public Involvement**

Description of Work or Task	Project Director \$225.00/Hr	Sr. Project Manager \$220.00/Hr	Senior Prof. 2 \$200.00/Hr	Senior Prof. 1 \$175.00/Hr	Prof. 2 / Sr. Eng. Tech \$150.00/Hr	Prof. 1 / Eng. Tech \$115.00/Hr	Admin / Clerical \$65.00/Hr	Staff-Hr. Totals	Staff Cost / Task Totals
Floodway Impact Analysis			12	40	80			132	\$21,400.00
c. FEMA Coordination								0	\$0.00
FPA Meetings		4	16	16	16			52	\$9,280.00
Floodway Certification			8	24				32	\$5,800.00
SCS Dam Approval		4	16	16	32			68	\$11,680.00
d. UBCWCID Coordination								0	\$0.00
Dam Impact Analysis		2	16	40	80			138	\$22,640.00
Preliminary Grading Plan			24	32	80			136	\$22,400.00
Coordination Meetings		12	24	24	16			76	\$14,040.00
e. Deliverables								0	\$0.00
Draft and Final Drainage Report and Exhibits		10	40	80	80			210	\$36,200.00
Drainage Study Subtotal:	0	42	273	711	1204	0	0	2230	\$368,865.00
Task 8. ENVIRONMENTAL SERVICES									
Need and Purpose Statement									
EIS Draft Need and Purpose Statement		2						2	\$440.00
EIS Final Need and Purpose Statement		2						2	\$440.00
								0	\$0.00
Study Area									
Development of revised study area map		1						1	\$220.00
Development of final study area map		1						1	\$220.00
								0	\$0.00
Preparation and Publication of Notice of Intent (NOI)									
Draft NOI		2						2	\$440.00
Final NOI		2						2	\$440.00
								0	\$0.00
Invitation for Participating/Cooperating Agency Involvement									
Draft letters		2					12	14	\$1,220.00
Final letters		2						2	\$440.00
								0	\$0.00
Coordination Plan								0	\$0.00

Summary of Hours by Classification
Kennedy Consulting, Inc.
Transportation Corridor A-1/A-2/E "Inverted T" Planning, Route Study,
Environmental Services, and Public Involvement

Description of Work or Task	Project Director \$225.00/Hr	Sr. Project Manager \$220.00/Hr	Senior Prof. 2 \$200.00/Hr	Senior Prof. 1 \$175.00/Hr	Prof. 2 / Sr. Eng. Tech \$150.00/Hr	Prof. 1 / Eng. Tech \$115.00/Hr	Admin / Clerical \$65.00/Hr	Staff-Hr. Totals	Staff Cost / Task Totals
Draft Coordination Plan		2						2	\$440.00
Final Coordination Plan		2						2	\$440.00
Circulate Coordination Plan		2						2	\$440.00
Up to 3 revised versions per comments received at milestone reviews		6						6	\$1,320.00
Preparation for Agency Scoping Meeting								0	\$0.00
Formulated meeting plan		4						4	\$880.00
Develop agenda, meeting materials, presentation		2						2	\$440.00
Logistics coordination		4						4	\$880.00
Coordinate/Invite attendees/follow-up		2					4	6	\$700.00
Attend and Conduct meeting		4						4	\$880.00
Prepare Draft Meeting Minutes and Materials		4						4	\$880.00
Prepare Final Meeting Minutes and Materials		4					4	8	\$1,140.00
Administrative Record (AR)								0	\$0.00
AR Development & Maintenance		4	16				24	44	\$5,640.00
Establish, track and organize Database		4	8	40			16	68	\$10,520.00
Manage Database documentation			4	8				12	\$2,200.00
Indexing and Database			2	6				8	\$1,450.00
Integrate requirements into electronic AR database			4	8				12	\$2,200.00
Develop Index and procedures								0	\$0.00
Environmental Services Subtotal:	0	58	34	62	0	0	60	214	\$34,310.00
KCI SUMMARY	246	1194	777	1595	2166	1224	498	7700	\$1,259,537.50

Summary of Hours by Classification
Cox McLain
Transportation Corridor A-1/A-2/ E "Inverted T" Planning, Route Study,
Environmental Services, and Public Involvement

Fee/Rate Schedule	Raw Rate		Loaded Rate		ENV Staff III		ENV Staff II		ENV Staff I		ENV Tech II		ENV Tech I		OH	MARGIN
	\$150.00	\$130.00	\$110.00	\$95.00	\$85.00	\$75.00	\$65.00	\$55.00	\$45.00	RATE	RATE					
	\$150.00/Hr	\$130.00/Hr	\$110.00/Hr	\$95.00/Hr	\$85.00/Hr	\$75.00/Hr	\$65.00/Hr	\$55.00/Hr	\$45.00/Hr	0.00%	0.00%					
Description of Work or Task	Sr. ENV Scientist II	Sr. ENV Scientist	ENV Professional II	ENV Professional I	ENV Staff III	ENV Staff II	ENV Staff I	ENV Tech II	ENV Tech I	Staff-Hr. Totals	Staff Cost / Task Totals					
Task 1 Project Management																
Project Coordination																
Coordination with GEC/County (1 hr/week over 24 months)	90	90								180	\$25,200.00					
Coordination with the Consultant Teams (1 hr/week over 24 months)	90	90								180	\$25,200.00					
Bi-Weekly Team Meetings (2 per week)	90	90								0	\$0.00					
Project Administration																
Prepare, coordinate, execute subconsultant contracts	12									0	\$0.00					
Prepare Progress Reports	12		12					12		36	\$3,760.00					
Prepare Invoices	12		12					15		39	\$3,945.00					
Recordkeeping	12		12					12		36	\$3,760.00					
File Management	16	16	16	16			16	16	16	112	\$10,400.00					
Prepare and Maintain Project Action List	16		16		16					48	\$5,520.00					
Schedule																
Prepare Initial Schedule	8	8								0	\$0.00					
Monthly Updates	4	16								0	\$0.00					
Project Record																
Prepare and Update digital file	24								40	88	\$7,440.00					
Weekly scanning documents	12	24			24				80	116	\$8,520.00					
Weekly hardcopy filing	12	24							80	116	\$8,520.00					
Final compilation	12	24			24				40	100	\$8,760.00					
Progress Meetings																
Prepare Agenda, Coordinate w/ the GEC, County, TxDOT	12	12								0	\$0.00					
Attend and Conduct 24 Mtgs	24	24								24	\$3,360.00					
Prepare Meeting Minutes, Coordinate and Update	12	12								24	\$3,360.00					
Task 2 Route and Design Studies																
Route Location Studies (FC 110)	458	430	68	16	64	0	16	55	256	1363	\$154,625.00					
Project Management Subtotal:																

Summary of Hours by Classification
Cox McLain
Transportation Corridor A-11A-2/ E "Inverted T" Planning, Route Study,
Environmental Services, and Public Involvement

Description of Work or Task	Sr. ENV Scientist II \$150.00/Hr		Sr. ENV Scientist \$130.00/Hr		ENV Professional II \$110.00/Hr		ENV Professional I \$95.00/Hr		ENV Staff III \$85.00/Hr		ENV Staff II \$75.00/Hr		ENV Staff I \$65.00/Hr		ENV Tech II \$55.00/Hr		ENV Tech I \$45.00/Hr		OH RATE	MARGIN RATE
	Loaded Rate		Loaded Rate		Loaded Rate		Loaded Rate		Loaded Rate		Loaded Rate		Loaded Rate		Loaded Rate		Loaded Rate		0.00%	0.00%
Initial Screening and Evaluation Criteria for Universe of Alternatives																				
Develop screening/evaluation criteria	16		16																0	\$0.00
Prepare Draft Initial Route Evaluation Screening Matrix of Universe of alternatives	16		16				12		40		40		12				12		32	\$4,480.00
Prepare Final Initial Route Evaluation Screening Matrix of Universe of alternatives	6		10				6		36		24		6				6		148	\$13,340.00
Draft Alternatives Evaluation Technical Report	14		12				12		40		40		12				12		94	\$8,290.00
Final Alternatives Evaluation Technical Report	10		18				8		24		24		8				8		166	\$14,500.00
Revise Screening and Evaluation Criteria for Reasonable Alternatives																			116	\$10,640.00
Revise screening/evaluation criteria, engineering, cost, environmental, and traffic constraints	8		8				2		16		8								0	\$0.00
Final Alternatives Evaluation Screening Matrix	8		6				2		12		4								40	\$4,200.00
Prepare Draft Alternatives Evaluation Technical Report	8		10				8		24		24		8				8		34	\$3,710.00
Prepare Final Alternatives Evaluation Technical Report	4		5				4		16		16		4				4		106	\$9,300.00
Level of Service Analysis																			61	\$5,290.00
Conceptual Level of Service Analysis for DEIS Alternatives	3		3						4										0	\$0.00
Drainage Study																			0	\$0.00
Coordinate and confirm drainage study impacts on engineering, environmental and ROW constraints	3		3						4										10	\$1,180.00
Preliminary Cost Estimates (FC 110)																			0	\$0.00
Prepare cursory cost estimates for additional EIS alternatives	8		8				8												24	\$3,120.00
Prepare preliminary cost estimate for additional refined EIS alternatives	8		8				8												24	\$3,120.00
Route and Design Studies Subtotal:	112		123		50		52		216		180		50		32		50		865	\$82,350.00
Task 3 Public Involvement																				
Public Scoping Meeting																				
Review Public Meeting Plan	8		8																0	\$0.00
Coordination with Consultant Teams	8		8																16	\$2,240.00
Attend up to 3 pre-meetings	9		9																18	\$2,520.00
Prepare Exhibits	14		14						24		24						8		84	\$8,120.00
Attend Meeting	8		8																16	\$2,240.00

Summary of Hours by Classification
Cox McLain
Transportation Corridor A-1/A-2/E "Inverted T" Planning, Route Study,
Environmental Services, and Public Involvement

Fee/Rate Schedule	Raw Rate		Loaded Rate		OH RATE		MARGIN RATE			
	\$150.00	\$130.00	\$110.00	\$95.00	\$85.00	\$75.00	\$65.00	\$55.00	\$45.00	0.00%

Description of Work or Task	Sr. ENV Scientist II \$150.00/Hr		Sr. ENV Scientist \$130.00/Hr		ENV Professional II \$110.00/Hr		ENV Professional I \$95.00/Hr		ENV Staff III \$85.00/Hr		ENV Staff II \$75.00/Hr		ENV Staff I \$65.00/Hr		ENV Tech II \$55.00/Hr		ENV Tech I \$45.00/Hr		Staff-Hr. Totals		Staff Cost / Task Totals			
	8	8	8	8	8	8	8	8	8	8	8	8	8	8	8	8	8	8	8	8	0	\$0.00	0	\$0.00
Public Meeting 2																								
Review Public Meeting Plan	8	8																			16	\$2,240.00	16	\$2,240.00
Coordination with Consultant Teams	8	8																			16	\$2,240.00	16	\$2,240.00
Attend up to 3 pre-meetings	9	9																			18	\$2,520.00	18	\$2,520.00
Prepare Exhibits	14	14							24	24								8			84	\$8,120.00	84	\$8,120.00
Attend Meeting	8	8																			16	\$2,240.00	16	\$2,240.00
																					0	\$0.00	0	\$0.00
Elected Officials and other Individual Stakeholders																					0	\$0.00	0	\$0.00
Attend up to 30 meetings	60	60																			120	\$16,800.00	120	\$16,800.00
Develop presentation materials	30	30							40	40											80	\$6,400.00	80	\$6,400.00
Contribute to preparation of Meeting minutes									16	16											92	\$10,960.00	92	\$10,960.00
																					0	\$0.00	0	\$0.00
Stakeholder Groups																					0	\$0.00	0	\$0.00
Develop meeting agenda, comment cards, and other materials such as diagrams and / or presentation	12	12							24	24											72	\$7,200.00	72	\$7,200.00
Facilitate up to 2 additional Stakeholder Group Meetings	8	8							8	8											32	\$3,520.00	32	\$3,520.00
Develop draft / final Technical Committee Meeting Minutes	8	8							8	8								8			40	\$3,880.00	40	\$3,880.00
																					0	\$0.00	0	\$0.00
Technical Work Group (TWG)																					0	\$0.00	0	\$0.00
Attend up to 10 meetings	30	30																			60	\$8,400.00	60	\$8,400.00
Develop presentation materials	14	14							24	24											76	\$7,760.00	76	\$7,760.00
Contribute to preparation of Meeting minutes	4	4							4	4											16	\$1,760.00	16	\$1,760.00
Contribute to draft / final Technical Work Group Report	8	8							8	8								16			48	\$4,240.00	48	\$4,240.00
																					0	\$0.00	0	\$0.00
Community Issues Committee (CIC)																					0	\$0.00	0	\$0.00
Attend up to 10 meetings	30	30																			60	\$8,400.00	60	\$8,400.00
Develop presentation materials	8	8							24	24											64	\$6,080.00	64	\$6,080.00
Contribute to preparation of Meeting minutes	4	4							4	4											16	\$1,760.00	16	\$1,760.00
Contribute to draft / final Community Issues Committee Report	8	8							8	8								16			48	\$4,240.00	48	\$4,240.00
																					0	\$0.00	0	\$0.00
Public Hearing																					0	\$0.00	0	\$0.00
Review Public Hearing Plan	8	8																			16	\$2,240.00	16	\$2,240.00
Coordination with Consultant Teams	16	16							16	16											64	\$7,040.00	64	\$7,040.00
Attend up to 3 pre-meetings	12	12																			24	\$3,360.00	24	\$3,360.00
Prepare Exhibits	3	3							12	12											42	\$3,300.00	42	\$3,300.00

Summary of Hours by Classification

Cox McLain

Transportation Corridor A-1/A-2/ E "Inverted T" Planning, Route Study, Environmental Services, and Public Involvement

Fee/Rate Schedule	Raw Rate		Loaded Rate		ENV Staff III		ENV Staff II		ENV Staff I		ENV Tech II		ENV Tech I		OH		MARGIN	
	\$150.00	\$130.00	\$110.00	\$95.00	\$85.00	\$75.00	\$65.00	\$55.00	\$45.00	Rate	Rate	Rate	Rate	Rate	Rate	Rate	Rate	Rate
Attend Meeting	8	8													16		\$2,240.00	0.00%
Public Involvement Subtotal:	365	365	0	0	244	244	0	0	68						0		\$0.00	
Task 4 Right of Way Mapping	8																\$144,300.00	
Right of Entry Letters (review of letter for environmental information only)—to be sent by others	8														8		\$1,200.00	
Right of Way Mapping Subtotal:	8	0	0	0	0	0	0	0	0	0	0	0	0	0	8		\$1,200.00	
Task 8 Environmental Services	40	64	24	64	16										0		\$0.00	
Environmental Documentation (FC 120) - CMEC providing support for all EIS tasks															208		\$24,400.00	
Quality Assurances / Quality Control Review															0		\$0.00	
Style Guide															0		\$0.00	
Draft Style Guide	8	8													24		\$2,600.00	
Final Style Guide	2	2													6		\$650.00	
Need and Purpose Statement															0		\$0.00	
EIS Draft Need and Purpose Statement	12	12													24		\$3,360.00	
EIS Final Need and Purpose Statement	8	8													16		\$2,240.00	
Study Area															0		\$0.00	
Development of revised study area map	3	3													0		\$0.00	
Development of final study area map	2	2													38		\$3,400.00	
Development of Inventory Mapping															28		\$2,480.00	
Draft GIS study area inventory map	4	4													0		\$0.00	
Final GIS study area inventory map	3	3													88		\$7,520.00	
Preparation and Publication of Notice of Intent (NOI)															38		\$3,400.00	
Draft NOI	8	12													0		\$0.00	
Final NOI	6	6													28		\$3,280.00	
															16		\$1,940.00	
															0		\$0.00	

Summary of Hours by Classification
Cox McLain

**Transportation Corridor A-1/A-2/ E "Inverted T" Planning, Route Study,
Environmental Services, and Public Involvement**

Fee/Rate Schedule	Raw Rate										OH		MARGIN	
	\$150.00	\$130.00	\$110.00	\$95.00	\$85.00	\$75.00	\$65.00	\$55.00	\$45.00		RATE		RATE	
	Loaded Rate										0.00%		0.00%	
Description of Work or Task	Sr. ENV Scientist II \$150.00/Hr	Sr. ENV Scientist \$130.00/Hr	ENV Professional III \$110.00/Hr	ENV Professional III \$95.00/Hr	ENV Staff III \$85.00/Hr	ENV Staff II \$75.00/Hr	ENV Staff I \$65.00/Hr	ENV Tech II \$55.00/Hr	ENV Tech I \$45.00/Hr	Staff-Hr. Totals	Staff Cost / Task Totals			
Invitation for Participating/Cooperating Agency Involvement														
Draft letters	4	12					8			24	\$2,680.00			
Final letters	3	8					4			15	\$1,750.00			
Coordination Plan														
Draft Coordination Plan	8	12		8			8			36	\$4,040.00			
Final Coordination Plan	6	6		6			6			24	\$2,640.00			
Circulate Coordination Plan	2	4					12			18	\$1,600.00			
Up to 3 revised versions per comments received at milestone reviews	8	8		8			8			32	\$3,520.00			
Preparation for Agency Scoping Meeting														
Formulated meeting plan	8	8								16	\$2,240.00			
Develop agenda, meeting materials, presentation	8	8		8		8	8			48	\$4,800.00			
Logistics coordination	8	8					8			24	\$2,760.00			
Coordinate/invite attendees/follow-up	4	4					4			12	\$1,380.00			
Attend and Conduct meeting	8	8								16	\$2,240.00			
Prepare Draft Meeting Minutes and Materials	4	8								12	\$1,640.00			
Prepare Final Meeting Minutes and Materials	3	4								7	\$970.00			
Technical Report Preparation (up to 5 reasonable alternative corridors) - CMEC lead and A1, A2; BGE support and E1														
Community Impacts Assessment Technical Report	8	28	20	68	16	8	28	40	16	232	\$20,200.00			
Historic Resource PCR and Research Design	1	1	40	0	0	30	0	0	4	76	\$7,110.00			
Historic Resources Survey Report (up to 300 resources)	1	1	120	0	0	150	150	0	4	426	\$34,660.00			
Historic Resource Visual Impacts Assessment	1	1	24	0	0	24	24	0	0	74	\$6,280.00			
Archaeological Background Studies Technical Report (see Permits)	1	1	2	16	0	0	16	16	0	52	\$3,940.00			
Air Quality Studies Technical Report (qualitative)	2	0	0	20	0	8	0	0	10	40	\$3,250.00			
Traffic Noise Studies Technical Report (preferred alternative)	1	0	4	0	0	64	24	0	0	93	\$6,950.00			
Water Resources Technical Report	4	0	88	0	0	92	0	0	26	210	\$18,350.00			
Biological Evaluation Form Technical Report	2	0	0	20	0	60	0	40	4	126	\$9,080.00			
Tier I Site Assessment Technical Report	2	0	0	16	0	32	0	32	4	86	\$6,160.00			
Initial Hazardous Materials Site Assessment Technical Report	2	2	0	0	0	48	0	48	0	100	\$6,800.00			
Checklist for Section 4(f) Evaluations (see permits)	4	4	4	0	0	0	0	0	0	12	\$1,560.00			
Checklist for Section 6(f) Evaluations	4	4	4	0	0	0	0	0	0	12	\$1,560.00			
Indirect and Cumulative Impacts Technical Report	16	40	40	0	48	16	40	0	16	216	\$20,600.00			

Summary of Hours by Classification
 Cox McLain
 Transportation Corridor A-1/A-2/ E "Inverted T" Planning, Route Study,
 Environmental Services, and Public Involvement

Fee/Rate Schedule	Raw Rate										OH		MARGIN RATE
	\$150.00	\$130.00	\$110.00	\$95.00	\$85.00	\$75.00	\$65.00	\$55.00	\$45.00	RATE	RATE		
	\$150.00/Hr	\$130.00/Hr	\$110.00/Hr	\$95.00/Hr	\$85.00/Hr	\$75.00/Hr	\$65.00/Hr	\$55.00/Hr	\$45.00/Hr	0.00%	0.00%		
DEIS Preparation and Format - BGE lead and E1, CMEC support and A1, A2													
Executive Summary	2	2	6	8	8	2	2	0	2	0	0	0	\$0.00
Purpose and Need for Action	2	2	6	8	8	2	2	0	2	0	0	0	\$3,030.00
Alternatives	2	2	6	8	8	2	2	0	2	0	0	0	\$3,030.00
Affected Environment & Environmental Consequences	12	10	16	32	40	16	16	0	8	0	0	0	\$13,900.00
Indirect and Cumulative	2	2	6	8	8	2	2	0	2	0	0	0	\$3,030.00
Summary of Alternatives	2	2	6	8	8	2	2	0	2	0	0	0	\$3,030.00
Mitigation and Permitting	12	10	16	32	40	16	16	0	8	0	0	0	\$13,900.00
Comments and Coordination	16	16	16	20	20	16	16	0	8	0	0	0	\$12,440.00
References	4	8	4	4	4	4	4	4	4	0	0	0	\$3,760.00
List of Abbreviations	1	1	0	4	0	0	0	0	0	0	0	0	\$660.00
List of Preparers	1	1	0	4	0	0	0	0	0	0	0	0	\$660.00
Notice of Availability and Circulation of DEIS													
Development of Notice of Availability	8	12			12								\$0.00
Administrative Record (AR)													
AR Development & Maintenance	12	8	4	16	28	20	12	20	16	20	16	136	\$11,280.00
Establish, track and organize Database	4	4	4	8	8	8	4	8	8	8	8	56	\$4,660.00
Manage Database documentation	4	8			8							20	\$2,320.00
Indexing and Database	4	8			8							20	\$2,320.00
Integrate requirements into electronic AR database					8							23	\$2,010.00
Develop Index and procedures	3	4			8							0	\$0.00
Direct Expenses													\$8,022.00
FEIS - not included: to be scoped after the DEIS phase is completed													\$0.00
Environmental Services Subtotal:	310	404	460	394	388	714	438	208	164	295	538	3480	\$328,892.00
Cox & McLain SUMMARY	1253	1322	578	462	912	1138	504	295	538	7002			\$711,367.00

Summary of Direct Expenses
Cox McLain Environmental Consulting, Inc.
Transportation Corridor A-1/A-2/ E "Inverted T" Planning, Route Study, Environmental Services,
and Public Involvement

Item Description	Unit	Quantity	Unit Cost	Total Cost
Direct Expenses				
I. Mileage	Mile	2,000	\$0.535	\$1,070.00
II. Photocopies B/W (8 1/2" X 11")	Per Page	1,000	\$0.16	\$160.00
III. Photocopies Color (8 1/2" X 11")	Per Page	350	\$0.75	\$262.50
IV. Photocopies B/W (11" X 17")	Per Page	500	\$0.32	\$160.00
V. Photocopies Color (11" X 17")	Per Page	300	\$1.50	\$450.00
Plots (B/W on Bond)	SF	120	\$0.75	\$90.00
Plots (Color on Bond)	SF	120	\$1.75	\$210.00
Historic Aerial Photographs	EACH	20	\$35.00	\$700.00
Hazardous Materials Database Search	Per Search	5	\$550.00	\$2,750.00
Noise Meter Rental	Per Project	2	\$165.00	\$330.00
Environmental Database Search	Per Mile	3	\$250.00	\$750.00
Mussel Survey Field Equipment (dive equipment rental, etc.)	Day	0	\$300.00	\$0.00
Environmental Field Supplies (lathes, stakes, flagging, spray paint, etc.)	Day	4	\$40.00	\$160.00
Backhoe Rental	Day	0	\$1,350.00	\$0.00
Overnight Mail - Letter Size	Each	10	\$22.950	\$229.50
Overnight Mail - Oversized Box	Each	10	\$70.000	\$700.00
Cox McLain Environmental Consulting, Inc. Total Direct Expenses				\$8,022.00