WORK AUTHORIZATION NO. <u>2</u>

WILLIAMSON COUNTY ROAD & BRIDGE PROJECT: CR 255 and CR 289 PS&E

This Work Authorization is made pursuant to the terms and conditions of the Williamson County Contract for Engineering Services, being dated <u>October 11, 2022</u> and entered into by and between Williamson County, Texas, a political subdivision of the State of Texas, (the "County") and <u>Seiler Lankes Group, LLC</u> (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 \$598,719.00.
- Part 3. Payment to the Engineer for the services established under this Work Authorization shall be made in accordance with the Contract.
- Part 4. This Work Authorization shall become effective on the date of final acceptance and full execution of the parties hereto and shall terminate on October 31, 2023. The Engineering Services set forth in Attachment "B" of this Work Authorization shall be fully completed on or before said date unless extended by a Supplemental Work Authorization.
- Part 5. This Work Authorization does not waive the parties' responsibilities and obligations provided under the Contract.
- Part 6. County believes it has sufficient funds currently available and authorized for expenditure to finance the costs of this Work Authorization. Engineer understands and agrees that County's payment of amounts under this Work Authorization is contingent on the County receiving appropriations or other expenditure authority sufficient to allow the County, in the exercise of reasonable administrative discretion, to continue to make payments under this Contract. It is further understood and agreed by Engineer that County shall have the right to terminate this Contract at the end of any County fiscal year if the governing body of County does not appropriate sufficient funds as determined by County's budget for the fiscal year in question. County may effect such termination by giving written notice of termination to Engineer.
- Part 7. This Work Authorization is hereby accepted and acknowledged below.

EXECUTED this Apr 26, 2023	•
ENGINEER:	COUNTY:
Seiler Lankes Group, LLC	Williamson County, Texas
By:	By: Bill Gravell (Apr 26, 2023 16:17 CDT)
Signature	Signature
Gerald Lankes	Bill Gravell
Printed Name	Printed Name
CEO	County Judge
Title	Title

LIST OF ATTACHMENTS

Attachment B - Services to be Provided by Engineer

Attachment C - Work Schedule

Attachment D - Fee Schedule

ATTACHMENT B SERVICES TO BE PROVIDED BY THE ENGINEER FOR CR 255

PROJECT DESCRIPTION

Project Limits

The project limits are from approximately CR 254 to Ronald Reagan Blvd for approximately 2.9 miles.

Existing Facility

Existing 2-lane roadway with asphalt pavement. The existing right of way width typical is 50 ft.

Proposed Facility

Proposed interim 2-lane roadway with 2 ft shoulders and turn lanes of an ultimate median arterial divided 6-lane curbed section with a raised median. The proposed ROW width of 136 ft, from the project limits mention above.

Design Criteria

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

1. PROJECT MANAGEMENT

- a. Communication:
 - Designate one Licensed Professional Engineer (Texas) to be responsible for the project management, and all communications with the County and its representatives.
- b. Monthly Progress Report, Invoices, and Billings (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:
 - Prepare a project specific QA/QC plan and submit to the County within thirty (30) days of notice to proceed.
 - For each deliverable submittal, 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 & 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.
- e. Progress/Coordination Meetings (6 external meetings assumed):
 - Attend a kickoff meeting and coordination/progress meeting 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.
 - Prepare meeting minutes for review via email within three (3) business days of the external coordination/progress meeting.
 - 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 to County as requested.

g. Deliverables:

- Monthly Invoices and Progress Reports including Deliverable Table
- Project Specific QA/QC Plan
- Meeting Minutes, Sign-In Sheets, and Agendas
- Project Schedule and Updates
- Project Files
- QA/QC Documentation with Deliverable

2. PLAN PREPARATION (PS&E) SERVICES

Prepare plans per the current Williamson County Design Criteria Manual including applicable submittal requirements including cost estimate, checklists, hardcopies, CAD files, comment responses, design waivers/exceptions, general notes, quantities, updated design schedule, construction time determination. The engineer will develop and submit these Plans, Specifications & Estimates (PS&E) at 60%, 90%, & Final submittals.

- a. Roadway/General:
 - Title Sheet

- Prepare a project title sheet as required for the construction plans, utilizing the template provided by the County.
- Index of Sheets
 - Prepare an index sheet(s) that shows each sheet's location in the plan set.
- Project Layout
 - Prepare a project layout sheet(s) that clearly indicates the limits of the entire project.
- Typical Sections
 - Prepare typical section(s) for all proposed and existing roadways and cross streets.
- General Notes
 - Prepare general notes for applicable project-specific items, utilizing the master general notes provided by the County.
- Survey data
 - Prepare benchmark layout sheet(s) that clearly indicate the benchmark locations and associated control information.
- Horizontal Alignment Data
 - Prepare horizontal alignment data sheet(s) that depict the horizontal geometric information for the roadways to be included in the construction plan set.
- Summary Sheets
 - Prepare summary sheet(s) that tabulate, combine, and summarize quantities of the various construction items.
- Removal Plans
 - Prepare removal sheet(s) that clearly identify any items to be removed.
- Roadway Plan & Profiles
 - Prepare roadway plan and profile sheets that depict the proposed construction.
- Side Street/Intersection Plans
 - Side Street/Intersections layouts sheets will be prepared for up to six (6) locations:
 - o CR 254
 - o Umbrella Sky
 - o Phillip Lane
 - Pruddy Oaks Drive
 - o Quarry Bluff Cove
 - o Ronald Reagan Blvd
 - Provide contours or details of drainage patterns for street intersections including slope or elevations along gutter to avoid ponding at intersections. Where applicable, provide details of volume of flow and velocity through intersections.
- Driveways

- Prepare driveway profiles/culverts for each driveway along the project corridor. When
 possible, these driveways will be defined in a tabular format. Non-typical driveways may
 require special details.
- Where applicable, provide details of volume of flow and velocity across driveway intersections.

Miscellaneous

 Develop miscellaneous roadway detail sheets for the project that depict details required, which are not defined in standard detail sheets.

Cross Sections

 Develop cross sections at 50-foot stations and other locations as necessary for the determination of cut and fill quantities. These sections will also be used to further refine the design vertical geometry.

b. Traffic Control:

- Traffic Control Plans (TCP)
 - Prepare traffic control typical section(s) for each stage of the construction sequence to clearly delineate the position of the existing traffic with respect to the proposed construction.
 - Incorporate temporary drainage plans into the TCP. Prepare culvert phasing and shoring details as needed.
 - Prepare a detailed narrative for the sequence of construction and traffic control general notes utilizing the sequence approved during the schematic phase. Any changes to the sequence of construction will be approved by the County prior to developing detailed TCP layouts.
 - Prepare detailed TCP layouts for each phase.
 - Develop traffic control detail(s) for items not covered by County or TxDOT standard details.
 - Compute an Engineer's opinion of construction schedule in order to determine an approximate duration for each of the phases of construction.
 - Consider the construction sequence and plan for temporary functioning of drainage systems.

c. Drainage:

Data Collection

- Conduct field inspections to observe current conditions and the outfall channels, the cross-drainage structures, drainage easements, the tributary channel, and land development projects that contribute flow to the tributary. Document field inspections with digital photos.
- Collect available applicable data including GIS data and maps, site survey data, construction plans, previous reports and studies, and readily available rainfall history for

the area. Particular sources of data collected must include, but are not limited to, the State, County, and Federal Emergency Management Agency (FEMA)

• Review survey data and coordinate any additional surveying needs with the County.

• Hydrologic Studies

The Engineer shall provide the following services:

- Incorporate in the hydrologic study a thorough evaluation of the methodology available, comparison of the results of two or more methods, and calibration of results against measured data, if available
- Calculate discharges using appropriate hydrologic methods and as approved by the County.
- Consider the pre-construction and post-construction conditions in the hydrologic study, as required in the individual work authorization.
- Obtain the drainage area boundaries and hydrologic parameters such as impervious covered areas, and overland flow paths and slopes from appropriate sources including, but 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 rain Include, at a minimum, the "design" frequency specified in the work authorization and the 1% Annual Exceedance Probability (AEP) storm frequency. The report must include the full range of frequencies (50%, 20% 10%, 4%, 2%, 1%, and 0.2% AEP). fall from official sites such as airports.
- Complex Hydraulic Design and Documentation

The Engineer shall provide the following services:

- Gather information regarding existing drainage facilities and features from existing plans and other available studies or sources.
- Perform hydraulic design and analysis using appropriate hydraulic methods, which may include computer models such as HEC-RAS, unsteady HEC-RAS, or 2D models such as SWMM. The Engineer shall not develop 2D models without the express permission of the County. Data entry for appropriate hydraulic computer programs must consist of a combination of both on-the-ground survey and other appropriate sources including, but not limited to topographic maps, GIS modeling, construction plans, and existing hydrologic studies.
- Consider pre-construction, present, and post-construction conditions, as well as future widening, as required in the work authorization.
- Quantify impacts, beneficial or adverse, in terms of increases in peak flow rates and water surface elevations for the above listed hydraulic conditions and hydrologic events.
 Impacts will be determined both upstream and downstream of the bridge crossings.
- Use hydrograph calculations and peak flows to determine the storage required.
- Design mitigation alternatives for up to 11 outfall sites utilizing new detention ponds or storage within the roadside ditches.

• Storm Drains/Ditch Systems

The Engineer shall provide the following services:

- Design and analyze storm drains using Bentley's Geopak Drainage software.
- Size inlets, laterals, trunk line, ditches, and outfall for the Interim Condition only. Develop designs that minimize the interference with the passage of traffic or incur damage to the highway and local property in accordance with the Design Criteria.
- Determine hydraulic grade line starting at the outfall channel for each storm drain or ditch design. Use the design water surface elevation of the outfall as the starting basis (tailwater) for the design of the proposed storm sewer or ditch system.
- Head losses shall be computed using Bentley's Geopak Drainage software.
- Identify areas requiring trench protection, excavation, shoring, and de-watering.

• Cross Drainage Structures

 Bridge-class cross drainage structures shall be designed using HEC-RAS. Minor cross culverts shall be designed using HY-8.

Scour Analysis

The Engineer shall provide the following services:

- Perform a scour analysis for each proposed bridge structure.
- Prepare each scour analysis using a State-approved methodology listed in the work authorization. The Engineer shall select the methodology based on the site conditions such as the presence of cohesive or cohesionless soil, rock or depth of rock, proposed foundation type, and existing site performance. The Engineer shall follow the methodology outlined in the TxDOT Geotechnical Manual.
- Provide the County with the potential scour depths, envelope, and any recommended countermeasures including bridge design modifications and revetment.

• Drainage Report

- The Engineer shall develop a drainage report and submit the draft drainage report to the County for review. The drainage report must include applicable hydrologic and hydraulic models such as HY-8, Geopak Drainage, HEC-RAS, HEC-HMS, XP-SWMM, and other applicable modeling tools. This modeling must evaluate existing versus proposed conditions. The drainage report must also include, but is not limited to, the following: drainage area maps, drainage outfall descriptions, tailwater selection and descriptions, storm water detention facilities, recommendations for mitigation of impacts, scour analysis, and pump station analysis and design including structural, mechanical, and electrical design.
- The Engineer shall address the County's review comments on the draft drainage report and update the drainage report accordingly. The Engineer shall submit a final drainage report that is signed and sealed by a Professional Engineer to the County.
- PS&E for Hydraulics

The Engineer shall provide the following services:

- Prepare the PS&E package in accordance with the applicable requirements of the County's specifications, standards, and manuals, including the Williamson County Design Criteria Manual and the TxDOT PS&E Preparation Manual. Document criteria, input and computations used to calculate run-off and hydraulics for each inlet & gutter, pipe, culvert, ditch, pond or point of interest in accordance with Williamson County Design Criteria Manual. Include the following sheets and documents, as appropriate:
 - o Drainage Summary Sheets
 - Offsite Drainage Area Maps
 - o Internal Drainage Area Maps
 - Prepare interior drainage area maps that depict drainage area boundaries and flow direction arrows for roadside ditch, culverts and storm drain inlets in accordance with Williamson County Design Criteria Manual.
 - ii. Each area will be identified and cross-referenced to the computation sheets.
 - Hydrologic Data Sheets
 - Hydraulic Data Sheets
 - i. Develop a hydraulic data sheet including hydraulic cross sections and hydraulic calculations at **three** (3) HEC-RAS culvert and bridge locations in accordance with Williamson County Design Criteria Manual. New HEC-RAS models will be prepared, or the Schematic HEC-RAS models will be used and verified against the best available information. Any existing models will be updated to the latest version of HEC-RAS.
 - ii. Develop HY8 output sheets for minor culverts.
 - iii. Develop Geopak Drainage computation sheets for ditches, driveway culverts and side street culverts.
 - Culvert Layouts (For Bridge-Class Structures Only)
 - i. Develop culvert layout sheets including plan, profile, riprap or grading details at all the bridge-class crossing locations and major roadside channels, up to **three** (3) locations:
 - 1. Culvert 1 Station 44+85
 - 2. Culvert 2 Station 86+10
 - 3. Culvert 5 Station 118+50
 - o Culvert Cross Sections and Detail Sheets
 - i. Develop culvert profile sheets for all minor cross culverts (non-bridge class), up to **five** (5) locations:
 - 1. Culvert 3 Station 92+50
 - 2. Culvert 4 Station 105+70

- 3. Culvert 6 Station 143+65 (2 culverts)
- 4. Culvert 7 Station 151+00
- 5. Culvert 8 Station 157+50
- Channel Layouts
 - i. Prepare layout sheets for major roadside channels located from Station 73+00 to 83+00.
- o Drainage/Ditch Plan and Profile Sheets (For the Interim Condition Only)
- o Detention Pond Layouts for up to 11 pond sites (For the Interim Condition Only)
- Detention Pond Details
- o Drainage Standards and Miscellaneous Details
 - Select culvert standards based on headwall configuration and fill conditions. Develop details as needed for non-standard headwalls, special shoring, special grading at upstream and downstream transitions, structural excavation, backfill, permanent erosion control, bank stabilization and energy dissipation. Drainage Computation Sheets
- d. Signing and Pavement Markings Layouts:
 - Prepare signing and pavement marking layouts.
 - Prepare pavement marking details for non-standard conditions.
 - Prepare detail sheets for small signs for non-standard signs.
- e. Stormwater Pollution Prevention Plan (SW3P):
 - Develop SW3P narrative in conformance with the TCP to minimize potential impacts to receiving waterways.
 - Prepare Temporary Erosion & Sediment Control Layouts.
- f. Water Quality:
 - Develop a Draft and Final Contributing Zone Plan (CZP), since this project is within the Edwards Aquifer Contributing Zone. Once the CZP is approved by the County, submit documentation to Texas Commission on Environmental Quality (TCEQ).
 - Prepare water quality, temporary and permanent, Best Management Practices (BMPs) to comply with TCEQ regulations.
 - Prepare and submit Agent Authorization form with Draft CZP.
 - Pay Application Fee(s). After the initial TCEQ Review Fee is paid, any County-driven design-related changes that require additional TCEQ review fees including extension requests, exception requests or new CZP reviews shall be paid directly by the County.

 County-driven design changes that require extension requests, modifications to the original CZP application or re-submittal of a new application shall be considered supplemental services.

g. **Deliverables:**

60%, 90%, & Final PS&E Submittals including applicable Williamson County Submittal Checklists.

- Project Construction Manual
- Draft & Final CZP
- Drainage Report & Models

3. BIDDING PHASE SERVICES

- a. Bidding Phase Services:
 - Prepare all applicable construction documents for bidding. Attend the pre-bid meeting. Respond to bidder's questions during the bid period. Prepare project addenda up to three (3) during bid period. Analyze contractor bids, prepare bid tabulation, and make recommendation for award to the apparent low bidder via a letter.

b. <u>Deliverables:</u>

• Letter of Recommendation for Award, with Bid Tabulation.

4. DELIVERABLES:

- c. Documents:
 - 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 hard copy of each deliverable will be provided unless additional copies are required per the submittal checklist.

5. EXCLUSIONS:

- a. The following items are not included in this work authorization:
 - PUBLIC INVOLVEMENT
 - SURVEY
 - ROW MAPPING
 - ENVIRONMENTAL STUDIES & DOCUMENTS
 - GEOTECHNICAL SERVICES
 - CONSTRUCTION PHASE SERVICES.
 - UTILITY COORDINATION OR RELOCATION ESTIMATES.

Wilco Acceptance Ready to Let

3

Gantt Chart

2023 ANTT project 60% Submittal Submittal Jun Jul Aug Sep Oct Nov De May Begin date End date Duration Name Notice To Proceed 5/1/23 5/1/23 0 Survey (Received by Others) 5/1/23 5/1/23 0 Data Collection 5/1/23 5/19/23 15 30% Level Geometric Schematic 5/1/23 6/2/23 25 30% Review 6/5/23 6/16/23 10 60% Design 6/19/23 7/21/23 25 7/24/23 60% Submittal 7/24/23 0 60% Review 7/24/23 8/4/23 10 **Review and Comment Resolution** 8/7/23 8/11/23 5 21 90% Design 8/14/23 9/11/23 90% Submittal 9/12/23 9/12/23 0 90% Review 9/12/23 9/25/23 10 **Review and Comment Resolution** 9/26/23 10/2/23 100% Design 10/3/23 10/30/23 20 100% Ready for Letting 10/31/23 10/31/23 0

10/31/23

10/31/23

0

PRIME PROVIDER NAME: SEILER LANKES GROUP, LLC Project Senior Project Design Engineer-In- Sr. Engineer Engineer Admin./ Total Total Labor CR 255 & CR 289 **Sheets** Manager Engineer Engineer Engineer Training Tech Tech Clerical Hours Cost \$275.00 \$220.00 \$200.00 \$155.00 \$135.00 \$150.00 \$130.00 \$88.00 Social, Economic and Environmental Studies and Public Involvement EPIC Sheets \$985.00 0 **Environmental Study Review** 0 \$0.00 Subtotal - Labor 0 0 2 2 0 \$985.00 PROJECT MANAGEMENT AND ADMINISTRATION 1. Prepare monthly progress reports (6 Months) 3 6 9 \$1,353.00 \$3,570.00 2. Develop and maintain a work schedule 2 12 18 3. Meet on scheduled basis with the County to disucss project status 6 6 12 \$2.850.00 4. Prepare and distribute and file both written and electronic correspondence 0 \$0.00 5. Prepare and distribute project meeting minutes \$2,850.00 6 6 12 \$1,353.00 7. Prepare Invoices 3 6 8. Review Meetings (60%, 90% and 100%) 12 3 \$2,550.00 10. Monthly Design Team Meetings (6 Mo.) 6 6 6 6 24 \$5,100,00 11. Review Sub-consultant invoices 2 8 \$1.078.00 6 12. Sub-consultant Coordination 24 \$5,100.00 6 6 6 6 13. Perform QA/QC Review of Submittals (60%, 90%, 100%) 6 12 12 12 42 \$8,550.00 14. Project Closeout 10 10 \$2,000.00 15. Document phone calls and conference calls 6 12 \$2,850.00 6 49 27 67 18 Subtotal - Labo 31 192 \$39,204.00 PLAN PREPARATION (PS&E) SERVICES Roadway Design Controls 1. Title Sheet \$2,410.00 6 8 16 2. Index Sheet 10 9 19 \$2,765.00 3. Project Layout (1"=200') (Stacked) 4 3 12 16 16 32 80 \$12,135.00 \$3,355.00 4. Horizontal Alignment Data 2 10 1 8 19 **Typical Sections** 1. Existing Typical Sections 12 16 \$2,660.00 \$3,590.00 2. Proposed Typical Sections 1 18 22 **Cut and Fill Quantities** 1. Earthwork Summary 10 10 \$1,550.00 Plan Preparation 1. Roadway Plan and Profile Sheets (1"100')(CR 255/CR 289) 14 4 25 25 80 80 40 254 \$40.800.00 1a. Roadway Plan and Profile Sheets (1"100')(Ronald Raegan, CR 254. 10 30 30 30 104 \$15,645.00 Umbrella Sky, Phillip Lane, Pruddy Oaks Drive, Quarry Bluff Cove) 2. Intersection Details (1"=50') 6 5 15 20 20 40 100 \$16,175.00 3. Supplemental Detail Sheets (1"=50') 0 \$0.00 4. Removals (1"=100')(Stacked) 8 2 10 40 52 \$7,350.00 5. Cross sections (for design, earthwork calcs & display if needed) 60 40 60 60 160 \$25,400,00 6. Dvwy/Side Road Tabulations and Details 2 20 40 \$5,700.00 20 42 7. Miscellaneous Roadway Details 2 2 20 20 \$6,200.00 8. Driveway Plan and Profile for ROW Negotiation (10 Driveways) 10 10 20 20 20 20 \$15,550.00

\$161,285.00

PRIME PROVIDER NAME: SEILER LANKES GROUP	P, LLC										
	No. of	Project	Senior	Project	Design	Engineer-In-	Sr. Engineer	Engineer	Admin./	Total	Total Labor
CR 255 & CR 289	Sheets	Manager	Engineer	Engineer	Engineer	Training	Tech	Tech	Clerical	Hours	Cost
		\$275.00	\$220.00	\$200.00	\$155.00	\$135.00	\$150.00	\$130.00	\$88.00		

146

312

331

120

62

0

1024

29

Subtotal - Labor

117

24

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PRIME PROVIDER NAME: SEILER LANKES GROUP	P, LLC										
	No. of	Project	Senior	Project	Design	Engineer-In-	Sr. Engineer	Engineer	Admin./	Total	Total Labor
CR 255 & CR 289	Sheets	Manager	Engineer	Engineer	Engineer	Training	Tech	Tech	Clerical	Hours	Cost
		\$275.00	\$220.00	\$200.00	\$155.00	\$135.00	\$150.00	\$130.00	\$88.00		
Drainage											
ncorporate special ditch design into cross sections				25	30	30				85	\$13,700.0
Subtotal - Labor	0	0	0	25	30	30	0	0	0	85	\$13,700.0
Signing and Pavement Markings											
Prepare bid documentation (standards, specs, general notes, estimate)		1	2	2						5	\$1,115.0
Prepare General Traffic Layout Sheets (1:100, Dbl Stk, 2200' per sheet)	9	1	8	12	16	32	60			129	\$20,235.0
Prepare Project Specific Sign Detail Sheets	1			8				8		16	\$2,640.00
Prepare Summary of Small Signs (SOSS) Sheets (Without Sign Graphics)	2				8	8	0	24		40	\$5,440.00
Prepare Quantity Summary						10				10	\$1,350.00
QA/QC (for 60% 90% & 100%)		1	8							9	\$2,035.00
Subtotal - Labor	12	3	18	22	24	50	60	32	0	209	\$32,815.00

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	No. of	Project	Senior	Project	Design	Engineer-In-	Sr. Engineer	Engineer	Admin./	Total	Total Labor
CR 255 & CR 289	Sheets	Manager	Engineer	Engineer	Engineer	Training	Tech	Tech	Clerical	Hours	Cost
		\$275.00	\$220.00	\$200.00	\$155.00	\$135.00	\$150.00	\$130.00	\$88.00		
Miscellaneous											
Traffic Control Plan, Detours, Sequence of Construction											
Sequence of Construction Narrative	1			16						16	\$3,200.00
2. Traffic Control Workshop			0	0						0	\$0.00
3. Traffic Control Plans (1"=100')(Stacked) (2 Phases)	8	2	16	20	12	32	48			130	\$21,450.00
3a. Incidental Side Street TCP (1"=100')(Stacked) (2 Phases)	4	1	8	10	8	16	24			67	\$11,035.00
4. TCP Temporary Drainage Design			-	-	-					0	\$0.00
Prepare each TCP in Coordination with the County				10	10					20	\$3,550.00
6. TCP Temporary Shoring Details					-					0	\$0.00
7. Traffic Control Details	2			16	16					32	\$5,680.00
StormWater Pollution Prevention Plans (SW3P)											
1. Erosion Control Plans (1"=100') (Stacked)	8	1	8	8	24	36	48			125	\$19,415.00
1a. Erosion Control Incidental Side Street (1"=100) Stacked	2			8	8	8				24	\$3,920.00
2. SW3P (Narrative Only)	1			2	4		16			22	\$3,420.00
Compute and Tabulate Quantities (60%, 90%, Final)										0	\$0.00
1. Summary Sheets				8	8	8				24	\$3,920.00
Estimate											
1. Construction Cost Estimates (60%, 90%, Final)		3		10	10	10				33	\$5,725.00
Contract time determination											
Determine Construction Time (Schematic 60% 90% and Final)		2	32	0	0					34	\$7,590.00
Specifications and General Notes											
General Notes (Basis Table and Review)		4	16	16		0				36	\$7,820.00
Constructability Review											
1. Constructability Review (60%, 90%, Final)		2	10	15						27	\$5,750.00
Subtotal - Labor	13	15	90	139	100	110	136	0	0	590	\$102,475.00
TOTAL SHEETS											
Total - Labor Hours		92	164	401	499	521	316	94	18	2105	
Total - Labor Cost		\$25,300.00	\$36,080.00	\$80,200.00	\$77,345.00	\$70,335.00	\$47,400.00	\$12,220.00	\$1,584.00		\$350,464.00
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GRAND TOTAL											\$350,464.00

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PROVIDER NAME: CL Gann											
CR 255 & CR 289	No. of Sheets	Project Manager	Senior Engineer	Project Engineer	Design Engineer	Engineer-In- Training	Sr. Engineer Tech	Engineer Tech	Admin./ Clerical	Total Hours	Total Labor Cost
		\$250.00	\$225.00	\$200.00	\$150.00	\$130.00	\$150.00	\$130.00	\$90.00		
1. PROJECT MANAGEMENT											
b. Monthly Progress Report, Invoices, and Billings (12 months assumed)											
Prepare monthly progress reports		10							10	20	\$3,400.00
Prepare Invoices		10							10	20	\$3,400.00
e. Progress/Coordination Meetings (6 external meetings assumed):											
Attend a kick-off meeting										0	\$0.00
Attend external coordination meetings		10								10	\$2,500.00
Attend internal coordination meetings		10								10	\$2,500.00
Attend submittal review meetings (30%, 60%, 90%, and 100%)		6								6	\$1,500.00
FC - 150 Subtotal - Labor	0	46	0	0	0	0	0	0	20	66	\$13,300.00

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CR 255 & CR 289	No. of Sheets	Project Manager \$250.00	Senior Engineer \$225.00	Project Engineer \$200.00	Design Engineer \$150.00	•	Sr. Engineer Tech \$150.00	Engineer Tech \$130.00	Admin./ Clerical \$90.00	Total Hours	
		\$250.00	\$225.00	\$200.00	\$150.00	\$130.00	\$150.00	\$130.00	φ90.00		
1. PLAN PREPARATION (PS&E) SERVICES											
C. Drainage											
Data Collection											
Conduct field investigations (1 site visit)			4			4				8	\$1,420.00
Collect available data										0	\$0.00
Collect available FEMA data, maps and models										0	\$0.00
 Review survey data and coordinate additional surveying needs 										0	\$0.00
 Obtain historical flooding records and high water information 										0	\$0.00
Hydrologic Studies											
Existing Condition HEC-HMS Model (11 outfalls)			4			8				12	\$1,940.00
 Proposed Condition HEC-HMS Model (11 outfalls) 			4			8				12	\$1,940.00
Design Mitigation Alternatives at each outfall			16	16	24	32			-	88	\$14,560.00
 Mitigated Condition HEC-HMS Model (11 outfalls) 			8	8	12	16				44	\$7,280.00
Complex Hydraulic Design and Documentation											
 Existing Condition HEC-RAS Model (3 bridge-class culverts) 			36							36	\$8,100.00
Proposed Condition HEC-RAS Model (3 bridge-class culverts/2 alts)			36							36	\$8,100.00
Storm Drains/Ditch Systems											
Special Ditch Design (Interim Design)			8			16				24	\$3,880.00
Prepare Geopak Drainage Model for Ditches/DWC (Interim Design)			8			28				36	\$5,440.00
Cross Drainage Structures			_			_					, , , , , , , , , , , , , , , , , , , ,
HY-8 Modeling (5 minor culverts)						16				16	\$2,080.00
Temporary Drainage Facilities											72,000.00
Add Temp Drainage to Plans (2 phases & 3 miles)										0	\$0.00
MOT Culvert Phasing Details (5 culverts)										0	\$0.00
MOT Temp Shoring Details (5 culverts)										0	\$0.00
Scour Analysis											70.00
Scour Analysis and Report for 3 Bridge-class Structures			4							4	\$900.00
Design for scour countermeasures			8							8	\$1.800.00
Drainage Report			-								+ 1,000.00
Draft H&H Report			26	12	12					50	\$10.050.00
• Final H&H Report			12	6	6					24	\$4,800.00
PS&E for Hydraulics											7 1,0001100
Drainage Summaries	2		8			16				24	\$3,880.00
Offsite Drainage Area Maps. (2000-scale)	1		4			12				16	\$2,460.00
Internal Drainage Area Maps. (100-scale)	15		-	24	36	60				120	\$18.000.00
Hydrologic Data Sheets	1				1	30					Ţ.z,000.00
All outfalls (Rational Method and NRCS UH)	1		4			16				20	\$2,980.00
Hydraulic Data Sheets					1					T	+=,555.50
Culvert HY8 Output Sheets (5 Minor Culverts)	5		4		4	12				20	\$3,060.00
HEC-RAS Output (3 Bridge-class Culverts/2 sheets per culvert)	6		4		4	16				24	\$3,580.00
Drainage Link Computation Sheets	1		4		<u> </u>					4	\$900.00
Drainage Ditch Computation Sheets	1		4		1					4	\$900.00
Culvert Layouts (3 Bridge-Class Culverts Detailed)	4		12		24	44				80	\$12,020.00
Culvert Profiles (5 Minor Culverts Detailed)	3		10		20	70				100	\$14,350.00
Driveway Culvert Summary	1		.,	4		8				12	\$1,840.00
Channel Lavout	1			8	<u> </u>	12				20	\$3,160.00
Ditch & Driveway Culvert Plan/Profile Sheets (Interim Only)	15		-	25	 	200	1	1		225	\$31,000.00

PROVIDER NAME: CL Gann											
CR 255 & CR 289	No. of Sheets	Project Manager	Senior Engineer	Project Engineer	Design Engineer	Engineer-In- Training	Sr. Engineer Tech	Engineer Tech	Admin./ Clerical	Total Hours	
		\$250.00	\$225.00	\$200.00	\$150.00	\$130.00	\$150.00	\$130.00	\$90.00		
Detention/WQ Pond Layouts (Interim Only)	3		20	20	20					60	\$11,500.00
Detention/WQ Pond Details (Interim Only)	3		10	10	10					30	\$5,750.00
Select Standard Details											
BCS Sheet	1		4	4						8	\$1,700.00
BCS Pipe Runner Details/Table	1		2	2						4	\$850.00
All Other Drainage Standards	25		1			8				9	\$1,265.00
Misceallaneous Details	2		10			30				40	\$6,150.00
F. Water Quality											
Water Quality Site Plans	8		30			50				80	\$13,250,00

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PROVIDER NAME: CL Gann											
	No. of	Project	Senior	Project	Design		Sr. Engineer			Total	Total Labor
CR 255 & CR 289	Sheets	Manager	Engineer	Engineer	Engineer	Training	Tech	Tech		Hours	Cost
		\$250.00	\$225.00	\$200.00	\$150.00	\$130.00	\$150.00	\$130.00	\$90.00		
Prepare WQ Computations Sheet	1		8			16				24	\$3,880.00
Develop Draft CZP for Interim Design			8	40						48	\$9,800.00
Develop Final CZP for Interim Design & Submit to TCEQ			4			4				8	\$1,420.00
Respond to TCEQ Comments and Submit Final Application			2			4				6	\$970.00
FC - 161 Subtotal - Labor	100	0	327	179	172	706	0	0	0	1384	\$226,955.00

TOTAL SHEETS	100										
Total - Labor Hours		46	327	179	172	706	0	0	20	1450	
Total - Labor Cost		\$11,500.00	\$73,575.00	\$35,800.00	\$25,800.00	\$91,780.00	\$0.00	\$0.00	\$1,800.00		\$240,255.00
GRAND TOTAL											\$240,255.00

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	No. of	Project	Senior	Project	Design	Engineer-In-	Sr. Engineer	Engineer	Admin./	Total	Tota	l Labor
CR 255 & CR 289	Sheets	Manager	Engineer	Engineer	Engineer	Training	Tech	Tech	Clerical	Hours		Cost
FC 309 Construction Phase Services							<u> </u>				 	
1. Pre-Construction Meeting (1 Meeting)										0	T	\$0.
2. Partnering Meeting/Transfer to Area Office (1 Meeting)										0	1	\$0.
5. Review and Approve Shop Drawings										0		\$0.
7. Respond to RFI's										0	1	\$0.
8. Perform Minor Redesign										0	1	\$0.
9. Answer General Questions and Provide Clarification as needed										0	1	\$0.
FC - 300 Subtotal - Labor	0	0	0	0	0	0	0	0	0	0	<u> </u>	\$0.
TOTAL SHEETS											$\overline{}$	
Total - Labor Hours		0	0	0	0	0	0	0	0	0	S	
Total - Labor Cost		\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00			
OTHER DIRECT EXPENSES (FC 163)				QTY	UNIT	COST	UNIT					
OTHER BIREOT EXI ENGES (1 0 105)				QII	ONT	1	O IVIT				+	
Mileage					miles @	\$0.59	/ mile				\$	-
Lodging/Hotel (Taxes/fees not included)					Days @	\$96.00	/ day/person				\$	-
odging/Hotel - Taxes and Fees					Days @	\$30.00	/ day/person				\$	-
Meals (Excluding alcohol & tips) (Overnight stay required					Days @	\$59.00	/ day/person				\$	
Rental Car (Includes taxes and fees; Insurance costs will not be reimbursed					Days @	\$100.00	/day				\$	-
Air Travel - In State - 2+ Wks Notice (Coach)					EA	\$525.00	round trip				\$	-
CZP Application Fee				1	EA	\$8,000.00	round trip				\$	8,000.
Subtotal - Other Direct Expenses							, and the second				\$	8,000.

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PS No. 8306

PRIME PROVIDER NAME: SEILER LANKES GROUP, LLC

Fee Summary by Function Code											
	Seiler Lankes Group, LLC	CLG			Total						
Design	\$350,464.00	\$240,255.00									
CZP Permit/Application Fee		\$8,000.00									
		Grand Totals									
Total	\$350,464.00	\$248,255.00									

\$598,719.00 **Project Total**

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