

SUPPLEMENTAL WORK AUTHORIZATION NO. 4
TO
WORK AUTHORIZATION NO. 1

WILLIAMSON COUNTY ROAD BOND PROJECT:
CHANDLER CORRIDOR SEGMENT 1

This Supplemental Work Authorization No. 4 to Work Authorization No. 1 is made pursuant to the terms and conditions of the Williamson County Contract for Engineering Services, being dated September 29, 2022 ("Contract") and entered into by and between Williamson County, Texas, a political subdivision of the State of Texas, (the "County") and DEC – Central Texas, LLC (the "Engineer").

WHEREAS, the County and the Engineer executed Work Authorization No. 1 dated effective November 11, 2022 (the "Work Authorization");

WHEREAS, pursuant to Article 14 of the Contract, amendments, changes and modifications to a fully executed Work Authorization shall be made in the form of a Supplemental Work Authorization; and

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

AGREEMENT

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

- I. The Work Authorization shall terminate on September 30, 2024. The Services to be Provided by the Engineer shall be fully completed on or before said date unless extended by an additional Supplemental Work Authorization. The revised Work Schedule is attached hereto as Attachment "C" (must be attached).
- II. The maximum amount payable for services under the Work Authorization is hereby increased from \$992,726.90 to \$1,028,762.90. The revised Fee Schedule is attached hereto as Attachment "D" (must be attached).

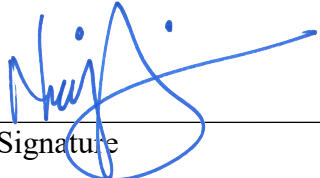
Except as otherwise amended by prior or future Supplemental Work Authorizations, all other terms of the Work Authorization are unchanged and will remain in full force and effect.

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

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

ENGINEER:

DEC – Central Texas, LLC

By: _____
Signature

Nick Bokaie, P.E.
Printed Name

Senior Vice President
Title

July 3, 2024
Date

COUNTY:

Williamson County, Texas

By: _____
Signature

Judge Bill Gravell Jr.
Printed Name

County Judge
Title

Date

LIST OF ATTACHMENTS

Attachment B - Services to be Provided by Engineer

Attachment C - Work Schedule

Attachment D - Fee Schedule

APPROVED

By Christen Eschberger at 10:59 am, Jul 11, 2024

ATTACHMENT B
SERVICES TO BE PROVIDED BY THE ENGINEER
PRELIMINARY ENGINEERING FOR CHANDLER CORRIDOR
SEGMENT 1

DESCRIPTION

DEC requests execution of supplemental work authorization No. 4 pertaining to the Chandler Corridor Segment 1 project to provide additional Engineering Services. Engineering services to be provided by the Engineer under this Supplemental Work Authorization shall include the following:

- Extended management and coordination with GEC and entire project team.
- Final development of Ultimate Schematic layouts, Open Road 3D modeling, quantities, and cost estimates.
- Final Drainage Study and Report.

ADDITIONAL ENGINEERING SERVICES

1. PROJECT MANAGEMENT

a. Communication:

- Extend designation of one Licensed Professional Engineer (Texas) to be responsible for project management, and all communications with the County and its representatives.

b. MONTHLY PROGRESS REPORTS, INVOICES, AND BILLINGS:

- 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.
- Prepare correspondence, invoices, and progress reports on a monthly basis in accordance with current County requirements.

c. PROJECT COORDINATION & ADMINISTRATION:

- Prepare and maintain routine project record keeping including records of meetings.
- 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, correspond with the County and its representatives, and assist the County and its representatives in preparing responses to Project-related inquiries.

d. PROGRESS/COORDINATION MEETINGS (3 external meetings assumed):

- 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.

e. PROJECT SCHEDULE:

- Maintain a project schedule indicating tasks, subtasks, critical dates, milestones, and deliverables. Submit to County as requested.

f. DELIVERABLES:

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

2. SCHEMATIC DEVELOPMENT

a. SCHEMATIC:

- Develop multiple alternatives to reduce ROW Impacts at Sheriff's facility.

- Revise Corridor section from depressed median to a barrier divided section, increase shoulder widths to accommodate future widening and provide roadside ditches to convey off site flow through the site.
- Adjust geometry to accommodate additional turn lanes at intersection.
- Adjust mainlane design to accommodate 70mph design speed, ramps/direct connectors to 55 mph. Revise and resubmit Design Summary form with revised design speeds.
- Finalize ultimate schematic submittal per Williamson County submittal requirements and selected design criteria including proposed cross sections (4:1 max for grass slopes), typical sections, roadway centerline, offsite drainage areas, proposed roadside channels, direction of flow and number of travel lanes, intersecting streets, property boundaries and information, ROW and easement locations, preliminary pavement section, retaining walls and adequate ROW to construct, driveway locations, horizontal alignment data, profile data, identification of known utilities.
- Finalize schematic level cross drainage structures to include culvert and channel alignment, profile (could be submitted either with the cross sections or a culvert layout sheet in the drainage report), embankment slopes, wingwall layout, channel slopes and limits of grading.
- Finalize bridge typical section for each bridge including the type and location of rails, shared use paths, superelevation and deck drains. Finalize schematic level bridge structures for the schematic route. Finalize location of Abutments and Bents, including straddle bents. Engineer will also provide finale span lengths and superstructure depths.
- Finalize plan view phasing plan for construction of ultimate project.
- Prepare Final Engineering Costs Estimate for the construction quantities covering all items of the proposed work.

b. DELIVERABLES:

- Final **Ultimate** Schematic Submittal including cost estimate.

3. DRAINAGE STUDY

a. FINALIZE HYDROLOGIC/HYDRAULIC MODELING:

- Finalize hydrologic and hydraulic review for the corridor. The analysis will include identification of cross drainage structure locations and preliminary sizing of structures.
- Finalize hydrologic and hydraulic models (County's best available data – Atlas 14 draft models, drainage districts, river authorities, cities, etc.) if available, to define the drainage infrastructure required for the ultimate schematic design. Detail the methodologies employed and recommendations. The analysis will include preparation of a preliminary design of the right of way drainage system, cross drainage structures, major channel crossings to reflect the existing and proposed conditions, recommended minimum pavement elevations based on cross drainage flood elevations for culverts, right of way requirements, and identify potential needs for FEMA Coordination. HEC-RAS shall be utilized for modeling all river and major channel crossings and bridge-class structures. HY-8 shall be used for non-bridge class culverts. HY-8 may also be used during the preliminary alignment evaluation stage to size cross culverts. Atlas 14 impacts will be reviewed and incorporated.
- Finalize scroll plot of drainage areas, time of concentration showing County lidar and aerial background. Provide table with runoff calculations for 5, 10 and 25 year storm events for parallel and non bridge type culverts within the project limits.
- Finalize peak discharges for validation purposes and to help evaluate alignments. Detailed hydrologic computations shall be provided based on methodologies recommended by the controlling drainage criteria manual, including technical standards from the County Atlas 14 project.
- Finalize existing channel cross sections based on data collection.
- Finalize onsite parallel drainage for roadside ditches and/or storm sewer sizing will only be analyzed to determine project ROW needs.

b. FINALIZE IMPACT AND MITIGATION ANALYSIS:

- Revise drainage impact study for multiple alternatives based on revised roadway and bridge horizontal alignment, vertical alignment, width, typical section and other geometric properties. If the proposed roadway width is revised, it will impact the land use calculations, flow calculations, routing, input parameters to the drainage models, impact and mitigation calculations, pond capacity/design, and will necessitate a revised drainage report with updated exhibits and appendices. The task includes the necessary updates due to the multiple revised design alternatives.
- The 100-year flood flow (outside of the ROW) is not to be impacted unless fully offsetting conveyance capacity is provided. Deviations from this criteria must be coordinated through the GEC prior to report submittals.
- Prepare an impact analysis to determine increases in peak flow rates for the 2, 10, 25, and 100-year storm events including: existing and proposed peak flow rates, mitigation analysis, conceptual detention basin layouts, design of control structures, routing of storm hydrographs through basins.
- Provide a comparison of existing versus proposed conditions at each outfall from the project area.
- Provide measures to mitigate adverse impacts to nearby buildings, property access points and runoff patterns.
- Calculate the volume of fill to be placed in the 100-year floodplain and recommend locations for compensatory storage.

c. FINALIZE DRAINAGE REPORT

- Finalize drainage report for the corridor.

d. DELIVERABLES:

- Schematic Final Drainage Report.

4. CORRIDOR SUMMARY REPORT

a. DOCUMENTATION:

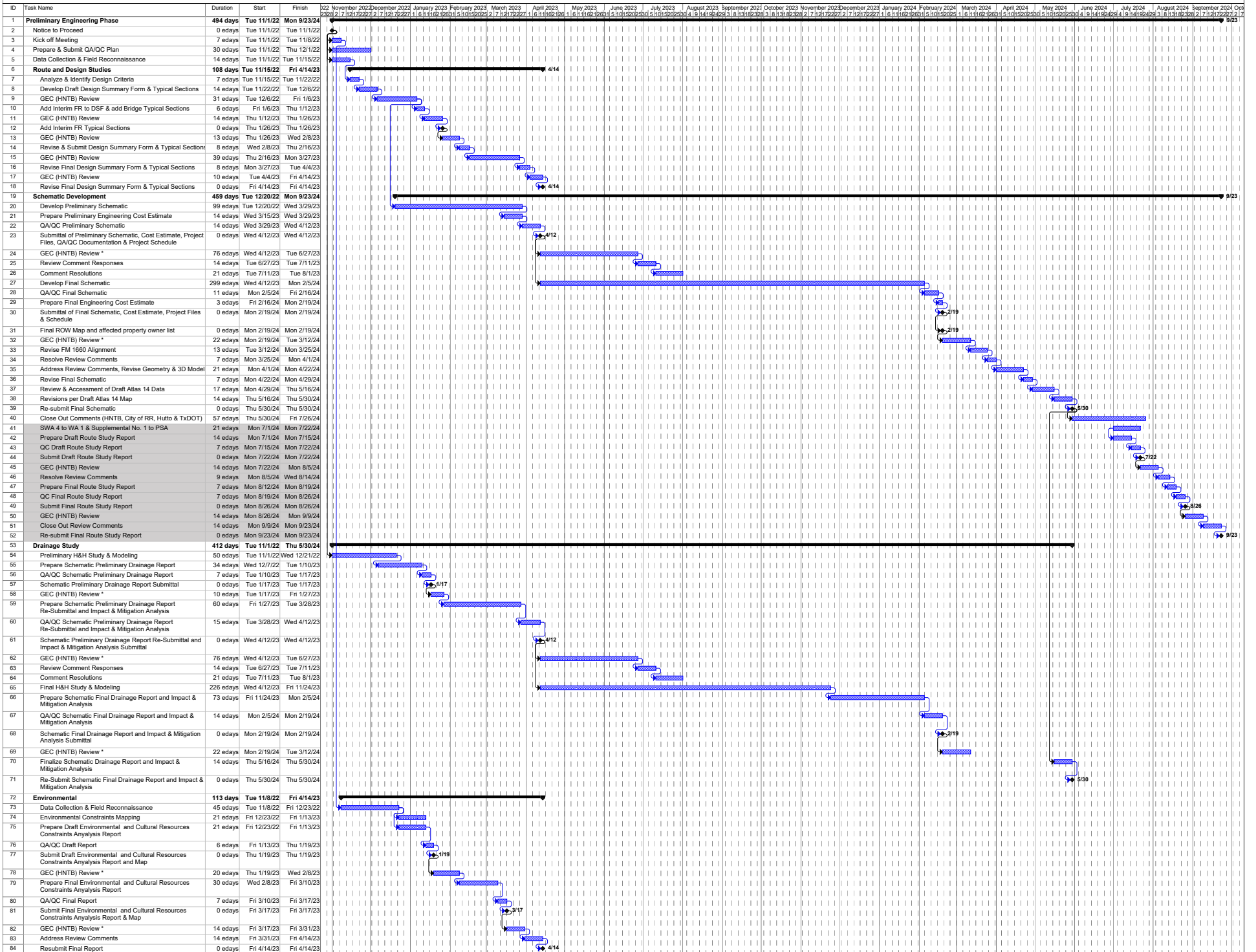
- The Engineer shall prepare a Chandler 1 Corridor Summary Report documenting environmental setting (that includes environmental concerns, known constraints structures, floodplain), aerial photography, contour information, utility information, the project need and purpose, preliminary route concept development and evaluation process and results, stakeholder activities, final route option recommendation, funding, and next steps.

b. REPORT:

- A draft and final report will be prepared for review and will also document refinements to the recommended route option to address any stakeholder or property owner comments and suggestions, as appropriate, and document potential impacts and costs for the refined route option recommendation.

c. DELIVERABLES:

- Draft and Final Report.



DESCRIPTION OF WORK TASK	PRINCIPAL	QA/QC ENGINEER	MANAGING ENGINEER V	PROF ENGINEER IV	PROF ENGINEER I	TOTAL HRS PER TASK	TOTAL COST PER TASK
	\$338.00	\$279.00	\$271.00	\$217.00	\$138.00		
1 PROJECT MANAGEMENT							
A COMMUNICATION							
1 COORDINATION WITH GEC			2			2	\$542.00
B MONTHLY PROGRESS REPORT, INVOICES AND BILLINGS							
1 INVOICE PREPARATION (3)			2			2	\$542.00
2 MONTHLY PROGRESS REPORTS (3)			2			2	\$542.00
C PROJECT COORDINATION & ADMINISTRATION							
1 DOCUMENTATION - EMAILS, CALLS, MTG AGENDAS, MINUTES			3			3	\$813.00
2 COORDINATION OF TEAM/STAFF			3			3	\$813.00
D PROGRESS & COORDINATION MEETINGS							
1 EXTERNAL COORDINATION MEETINGS (3)							
2 INTERNAL COORDINATION MEETINGS (3)			2	2	2	6	\$1,252.00
E UPDATE PROJECT SCHEDULE							
SUBTOTAL PROJECT MANAGEMENT			14	2	2	18	\$4,504.00
2 ROUTE STUDY REPORT							
A INTRODUCTION							
1 BACKGROUND			2		1	3	\$680.00
B PROJECT APPROACH							
1 PURPOSE AND NEED			2		2	4	\$818.00
2 OVERVIEW OF PROJECT AREA			1			1	\$271.00
C PROJECT AREA CHARACTERISTICS							
1 EXISTING CONDITIONS			1		2	3	\$547.00
2 CONSTRAINTS			2		5	7	\$1,232.00
D CORRIDOR PRELIMINARY DESIGN							
1 PROPOSED DESIGN CRITERIA			1		3	4	\$685.00
2 CORRIDOR WIDTH AND TYPICAL SECTION			1		3	4	\$685.00
3 PROPOSED RIGHT-OF-WAY			1		3	4	\$685.00
E AGENCY AND PUBLIC INVOLVEMENT							
1 AGENCY INVOLVEMENT			1		1	2	\$409.00
2 MAJOR STAKEHOLDER COORDINATION			1		1	2	\$409.00
3 INDIVIDUAL AND GROUP MEETINGS			1		1	2	\$409.00
F CONCLUSION AND RECOMMENDATION							
1 CONCLUSION			6	4	6	16	\$3,322.00
2 PROJECT FUNDING			2		1	3	\$680.00
3 NEXT STEPS			2		1	3	\$680.00
G PRELIMINARY REPORT							
1 PREPARE PRELIMINARY REPORT			8	6	16	30	\$5,678.00
2 QA/QC PRELIMINARY REPORT	2	8				10	\$2,908.00
3 ADDRESS REVIEW COMMENTS			4		10	14	\$2,464.00
H FINAL REPORT							
1 PREPARE FINAL REPORT			6	4	8	18	\$3,598.00
2 QA/QC FINAL REPORT	2	8				10	\$2,908.00
3 ADDRESS REVIEW COMMENTS			4		10	14	\$2,464.00
SUBTOTAL ROUTE STUDY REPORT	4	16	46	14	74	154	\$31,532.00
TOTAL PROJECT HOURS	4	16	60	16	76	172	\$36,036.00

1-Jul-24

DEC – CENTRAL TEXAS, LLC

PROJECT SCOPE: SCHEMATIC DEVELOPMENT

TASK AND DESCRIPTION		PRINCIPAL	QA/QC ENGINEER	LEAD STRUCTURAL ENGINEER	MANAGING ENGINEER V	MANAGING ENGINEER IV	PROF ENGINEER IV	PROF ENGINEER III	ENGR ASSOCIATE IV	ENGINEER IN TRAINING II	ENGR TECHNICIAN VI	ENGR TECHNICIAN V	TOTALS
	HOURLY RATE	\$338.00	\$279.00	\$271.00	\$271.00	\$256.00	\$217.00	\$168.00	\$134.00	\$120.00	\$171.00	\$144.00	
1 PROJECT MANAGEMENT	TOTAL HOURS				14		2						18
	TOTAL COST	\$ -	\$ -	\$ -	\$ 3,794.00	\$ -	\$ 434.00	\$ -	\$ -	\$ -	\$ -	\$ -	\$ 4,504.00
2 ROUTE STUDY REPORT	TOTAL HOURS	4	16		46		14						154
	TOTAL COST	\$ 1,352.00	\$ 4,464.00	\$ -	\$ 12,466.00	\$ -	\$ 3,038.00	\$ -	\$ -	\$ -	\$ -	\$ -	\$ 31,532.00
TOTALS	TOTAL HOURS	4	16		60		16						172
	TOTAL COST	\$ 1,352.00	\$ 4,464.00	\$ -	\$ 16,260.00	\$ -	\$ 3,472.00	\$ -	\$ -	\$ -	\$ -	\$ -	\$ 36,036.00
TOTAL COST													\$36,036.00