

WORK AUTHORIZATION NO. 4
PROJECT: Traffic Signal Design – CR 119 at Limmer Loop

This Work Authorization is made pursuant to the terms and conditions of the Williamson County Contract for Engineering Services, being dated September 3, 2015 and entered into by and between Williamson County, Texas, a political subdivision of the State of Texas, (the "County") and Kimley-Horn and Associates (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 \$ 24,799.15.

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 August 31, 2017. 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 20 day of June, 2017.

ENGINEER:

Kimley-Horn and Associates

By:


Signature


Andrew VanLeeuwen
Printed Name

Senior Vice President
Title

COUNTY:

Williamson County, Texas

By:


Signature

Dan A EATTS
Printed Name

County Judge
Title

LIST OF ATTACHMENTS

Attachment A - Services to be Provided by County

Attachment B - Services to be Provided by Engineer

Attachment C - Work Schedule

Attachment D - Fee Schedule

WORK AUTHORIZATION NO. 4

PROJECT: CR 119 at Limmer Lp - Signal Design

**ATTACHMENT A
Services to be provided by the County**

Project Location: CR 119 at Limmer Loop

Project Description: Traffic Signal Design and Support Services

SCOPE OF WORK

This project consists of the design and necessary support services for a traffic signal located at the intersection of CR 119 (Ed Schmidt Blvd) and Limmer Loop in Williamson County, in the City of Hutto. CR 119 and Limmer Loop are both two-lane undivided roadways with shoulders and left turn bays. The intersection is located at the edge of the incorporated limits of the City of Hutto. The existing intersection is two-way, stop controlled for the CR 119 (Ed Schmidt Blvd) approaches.

Williamson County (the County) will proceed with design and support services for a traffic signal based on the traffic signal warrant study results resulting from Work Authorization #2 of the subject contract. The design and support services will consist of plans, specifications and estimates, bidding support services, and construction support services. The signal design will utilize a mast-arm configuration meeting the design requirements of the County and the Texas Department of Transportation (TxDOT) design standards and specifications.

SERVICES TO BE PROVIDED BY THE ENGINEER

The County shall provide all information requested by K-H during the project, including but not limited to the following:

- Timely responses to requests for information or clarification; and
- Timely review of all submittals.
- Provide available copies of associated studies and coordination with ongoing related county projects.
- Provide decisions in a timely manner.
- Process payment to Engineer in a timely manner.

WORK AUTHORIZATION NO. 4

PROJECT: CR 119 at Limmer Loop - Signal Design

**ATTACHMENT B
Services to be provided by the Engineer**

Project Location: CR 119 at Limmer Loop

Project Description: Traffic Signal Design and Support Services

SCOPE OF WORK

This project consists of the design and necessary support services for a traffic signal located at the intersection of CR 119 (Ed Schmidt Blvd) and Limmer Loop in Williamson County, in the City of Hutto. CR 119 and Limmer Loop are both two-lane undivided roadways with shoulders and left turn bays. The intersection is located at the edge of the incorporated limits of the City of Hutto. The existing intersection is two-way, stop controlled for the CR 119 (Ed Schmidt Blvd) approaches.

Williamson County (the County) will proceed with design and support services for a traffic signal based on the traffic signal warrant study results resulting from Work Authorization #2 of the subject contract. The design and support services will consist of plans, specifications and estimates, bidding support services, and construction support services. The signal design will utilize a mast-arm configuration meeting the design requirements of the County and the Texas Department of Transportation (TxDOT) design standards and specifications.

SERVICES TO BE PROVIDED BY THE ENGINEER

Task 1. Project Management

The Engineer shall maintain project files throughout all phases of the project including documentation of all correspondence, meeting notes, telephone calls, emails, etc. Invoices and progress reports will be submitted monthly.

The Engineer will conduct a pre-design meeting at County offices and other meetings as may be requested prior to bidding and prior to construction.

Deliverables will include project correspondence, meeting notes, progress reports and invoices.

Task 2. Plans, Specifications and Estimates (PS&E)

The Engineer will prepare construction documents including plans, specifications and estimates (PS&E).

Task 2A – SURVEY, BASE MAPS, AND Design Standards ASSEMBLY

This task includes the collection and organization of data by the Engineer for use in other tasks of this project. The specific type, quantity and other requirements of the data to be surveyed, collected, reduced, and/or organized by the Engineer are described in the following subtasks.

1. The Engineer will assemble applicable design standards and specifications from TxDOT. (TxDOT 2014 Standard Specifications.)
2. The Engineer will gather available existing record drawings and design file information of the Project from County files.
3. The Engineer will perform a field reconnaissance of the intersection to determine existing pavement widths, lane configurations, traffic control devices, and above ground utility locations.
4. The Engineer will hire The Wallace Group to collect Level B SUE survey data on existing utilities, pavement, traffic control devices, right of way, topo, and Level B SUE for 300 feet in either direction along CR 119 and Limmer Loop. Underground utility information will be obtained by the Engineer using one-call services and will be verified with identified utility services providers.
5. The Engineer will prepare a base map of existing geometrics, utilities, and traffic control devices, from record drawings and site reconnaissance.

The Engineer will coordinate with the City of Hutto. The County will provide coordination of any agreements as may be needed.

Task 2B – Preliminary Plans and Specifications

The Engineer will prepare preliminary traffic signal designs for the project locations. The basic design parameters will be based on discussions with the County and applicable TxDOT standards. Using the base maps from Task 2A, The Engineer will prepare a conceptual layout showing the locations of the controller cabinet and signal poles. The conceptual layout will be utilized in a field review meeting with City staff and the electric utility provider. Adjustments will be made based on field conditions.

Following the field review meeting, The Engineer will produce, provide internal quality control/quality assurance for, and submit preliminary plans to the County for review and comment.

The plans will be prepared in accordance with the County and TxDOT design standards and will include the following:

- a. Title Sheet
- b. General Notes and Summary of Quantities

- c. Specifications
- d. Existing Layout
- e. Proposed Signal Layout
- f. Conduit Runs and Wiring Summaries
- g. Phasing and Detection Schemes
- h. Provisions for Future Pedestrian Accommodations
- i. Proposed Signing and Pavement Marking Layout
- j. Proposed Elevations
- k. Detail Sheets

Deliverables: The Engineer will provide: Two (2) copies of 90% complete PS&E for County review.

Task 2C – Final PS&E

Following the review meeting described in Subtask 1(c), the Engineer will produce the final plans, specifications, engineer's opinion of probable construction cost, and bid document package. Final plans and specifications will be submitted to the County.

Deliverables: The Engineer will provide:

- a. One (1) copy of the final PS&E, sealed by a Professional Engineer.
- b. Final Engineer's Opinion of Probable Cost
- c. All electronic files and calculations as requested by the County.

Task 3. Construction Support Services

The Engineer will provide the services during construction listed below, which are only related to the civil improvements designed under this contract for one phase. The County will administer all construction contracts. The Engineer will:

- (a) Make periodic visits to the project site, at intervals appropriate to the various stages of construction as the Engineer deems necessary, in order to observe the progress and quality of the civil aspects of the work of the construction contractor. Based on the Engineer's site visits, the Engineer will inform the County as to the progress of the work and advise the County of any substantial defects and deficiencies in the work of the contractor which are discovered by the Engineer, or are otherwise brought to the Engineer's attention.
- (b) Attend one (1) pre-construction meeting with the County, Contractor, or other members of the project team. Additional meetings, if required, will be invoiced on an hourly basis.
- (c) Consult with and advise the County and issue instructions to the contractor on civil engineering items requested by the County.

- (d) Conduct, in company with City staff, a final inspection of the traffic signal facilities of the project for conformance with the design concept of the project and in general compliance with the Contract.
- (e) Provide Engineer's concurrence letter to the County indicating that the traffic signal and median modification-related portions of the project were constructed in general conformance with the construction plans and specifications.

The Engineer shall not be responsible for the means, methods, techniques, sequences or procedures of construction selected by the Contractor or the safety precautions and programs incidental to the work of the Contractor. The Engineer shall not guarantee the performance of the Contractor nor be responsible for the acts, errors, omissions, or the failure of the Contractor to perform the construction work in accordance with the Contract Documents.

The County agrees to include in all construction contract provisions for Contract indemnification of both the County and the Engineer for Contractor's negligence and to name both the County and the Engineer as additional insured on applicable contractor's insurance policies.

The Engineer will review, recommended for approval/rejection, or resolved all shop drawings and requests for information submitted by the contractor. Field visits will be conducted by the Engineer to observe construction progress and a summary report identifying observations will be provided to the County. The Engineer will perform a final review of construction activities and will assist with signal activation.

Deliverables will include recommendations, review documentation, progress reports, summary report and final review recommending signal activation.

Additional Services

Any services not specifically provided for in the above scope will be considered additional services and may be performed at current contracted hourly rates.

ATTACHMENT C: PROJECT SCHEDULE



Project Name: CR 119 AND LIMMER LOOP
Project Description: Traffic Signal Design and Intersection Modifications
Prepared By: Kimley-Horn and Associates, Inc.

Task #	Task Name	Project Schedule		
		Jun 2017	Jul 2017	Aug 2017
1	Project Management			
2A	Survey / Base Maps / Specifications			
2B	Preliminary Design			
	County Review			
2C	Finalize Plans			

Work Authorization 4 - Attachment EXHIBIT D

Man Hours and Fee Estimate



Signal Design - CR 119 and Limmer Loop

PS&E for Traffic Signal Design And Intersection Improvements At:

DESCRIPTION OF WORK TASK	Plan Sheets	Principal \$240.00	Engineer/ Professional \$145.00	Analyst \$115.00	Admin/ Clerical \$75.00	Total Labor Hours	Direct Labor Cost	Printing Plotting	Mileage	Sub Consultant	Total Cost
1. PROJECT MANAGEMENT											
1 Project Setup	-	1.0			2.0	3.0	\$390.00				\$390.00
2 Meetings (up to 3)	-	6.0		6.0		12.0	\$2,130.00		\$73.92		\$2,203.92
3 Monthly Reporting / Invoicing	-	3.0			3.0	6.0	\$945.00				\$945.00
4 Project / Utility Coordination (up to 2 meetings)	-	4.0		4.0		8.0	\$1,420.00				\$1,420.00
Subtotal		14.0		10.0	5.0	29.0	\$4,885.00		\$73.92		\$4,958.92
2. PS&E											
2A. BASE MAPS AND DESIGN STANDARDS											
1 Assemble Design Standards and Specifications	-	1.0	1.0	9.0		11.0	\$1,420.00				\$1,420.00
2 Gather Available Record Drawings	-		2.0	3.0		5.0	\$635.00				\$635.00
3 Site Recon	-	4.0		4.0		8.0	\$1,420.00		\$49.28		\$1,469.28
4 Survey / One Call	-		2.0			2.0	\$290.00			\$4,500.00	\$4,790.00
5 Prepare Base Maps	-		1.0	9.0		10.0	\$1,180.00				\$1,180.00
Subtotal		5.0	6.0	25.0		36.0	\$4,945.00		\$49.28	\$4,500.00	\$9,494.28
2B PRELIMINARY SIGNAL PLANS											
a Title Sheet	1.0			1.0		1.0	\$115.00	\$1.80			\$116.80
b1 General Notes	2.0	3.0		1.0		4.0	\$635.00	\$3.60			\$638.60
b2 Quantity Estimates	1.0		2.0			2.0	\$290.00	\$1.80			\$291.80
c Signing and Pavement Markings Sheets	1.0		1.0	4.0		5.0	\$605.00	\$1.80			\$606.80
d Signal Layout	1.0		1.0	8.0		9.0	\$1,065.00	\$1.80			\$1,066.80
e Signal Elevations	1.0		1.0	6.0		7.0	\$835.00	\$1.80			\$836.80
f Phasing and Wiring Diagrams	1.0		1.0	4.0		5.0	\$605.00	\$1.80			\$606.80
g Detection Schemes	1.0		1.0	1.0		2.0	\$260.00	\$1.80			\$261.80
h Conduit and Cabling Charts	1.0		2.0	4.0		6.0	\$750.00	\$1.80			\$751.80
i Preliminary Detail Sheets	30.0		2.0	8.0		10.0	\$1,210.00	\$13.50			\$1,223.50
Subtotal	40.0	3.0	11.0	37.0		51.0	\$6,570.00	\$31.50			\$6,601.50
2C FINAL SIGNAL PLANS											
a Title Sheet	1.0							\$1.45			\$1.45
d General Notes	3.0	1.0	2.0			3.0	\$530.00	\$4.35			\$534.35
e Quantity Estimates	1.0	1.0	2.0			3.0	\$530.00	\$1.45			\$531.45
j Signing and Pavement Markings Sheets	1.0			4.0		4.0	\$460.00	\$1.45			\$461.45
k Signal Layout	1.0		1.0	2.0		3.0	\$375.00	\$1.45			\$376.45
l Signal Elevations	1.0		1.0	2.0		3.0	\$375.00	\$1.45			\$376.45
m Phasing and Wiring Diagrams	1.0		2.0	2.0		4.0	\$520.00	\$1.45			\$521.45
n Detection Schemes	1.0		1.0			1.0	\$145.00	\$1.45			\$146.45
o Conduit and Cabling Charts	1.0		2.0			2.0	\$290.00	\$1.45			\$291.45
p Standard Detail Sheets	30.0			4.0		4.0	\$460.00	\$43.50			\$503.50
Subtotal	41.0	2.0	11.0	14.0		27.0	\$3,685.00	\$59.45			\$3,744.45
HOURS TOTALS	81.0	24.0	28.0	86.0	5.0	143.0	\$20,085.00	\$192.95	\$123.20	\$4,500.00	\$24,901.15
FEE TOTALS											