

WORK AUTHORIZATION NO. 2
PROJECT: Traffic Signal Warrant Study – CR 119 / 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 \$8,915.00.

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 May 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 7th day of February, 2017.

ENGINEER:

Kimley-Horn and Associates

By:

Andrew VanLeeuwen
Signature

Andrew VanLeeuwen
Printed Name

Sr. Vice President
Title

COUNTY:

Williamson County, Texas

By:

Dan A. Gatti
Signature

DAN A GATTI
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

ATTACHMENT A

Services to be Provided by the County

Locations: CR 119 at Limmer Loop

Project: Traffic Signal Warrant Study

SCOPE OF WORK OVERVIEW

This project will study the need for a traffic signal at the intersection of CR 119 and Limmer Loop. Traffic count data will be collected and a signal warrant analysis will be performed to determine if this intersection meets any of the traffic signal warrants contained in the Texas Manual on Uniform Traffic Control Devices.

SERVICES TO BE PROVIDED BY THE COUNTY

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 accident data reports for the past three years through the TxDOT CRIS system.
- Provide decisions in a timely manner.
- Process payment to Engineer in a timely manner.

ATTACHMENT B

Services to be Provided by the Engineer

Locations: CR 119 at Limmer Loop

Project: Traffic Signal Warrant Study

SCOPE OF WORK OVERVIEW

This project will study the need for a traffic signal at the intersection of CR 119 and Limmer Loop. Traffic count data will be collected and a signal warrant analysis will be performed to determine if this intersection meets any of the traffic signal warrants contained in the Texas Manual on Uniform Traffic Control Devices.

SERVICES TO BE PROVIDED BY THE ENGINEER

Task 1. Project Management

Kimley-Horn and Associates, Inc. (KHA) will perform typical project management duties to meet the schedule discussed in subsequent sections. Project management duties will include coordination and communication with the Client, coordination with the data collection firm, and accounting activities related to the performance of the study.

Task 2. Data Collection

- 2.1 Intersection Data** – KHA will collect existing lane geometries, traffic control, and speed limits, for the intersection listed above.
- 2.2 Photo Log** – KHA will photograph the approaches to each intersection for verification of field data.
- 2.3 Turning Movement Counts** – KHA will collect weekday peak period turning movement counts from 7 - 9 AM (morning peak), and 4 - 6 PM (afternoon peak) and Saturday counts from 11 AM - 1 PM. The two hour counts will be refined into peak demand hours with calculated peak hour factors for each approach. These data will be used to determine the optimum cycle length and green times for each intersection.
- 2.4 Daily Traffic Volumes** – KHA will collect 24-hour approach counts on each leg of the intersection approaches.
- 2.5 Accident Data** – Historical accident data will be collected from the County for the latest three years available.

Task 3. Apply Traffic Signal Warrant Criteria

KHA will apply warrants from the Texas Manual on Uniform Traffic Control Devices (TMUTCD) to the traffic count and accident data.

KHA will determine the applicable traffic control device that is warranted at the study intersection.

Task 4. Meetings

KHA will attend project meetings with the County as required. For the purpose of this proposal, it is assumed that up to two (2) such meetings will be held.

KHA's involvement in any additional meetings will be billed on an hourly basis in accordance with the attached rate schedule.

Task 5. Technical Memorandum

KHA will prepare a technical memorandum detailing the results of the study and describing recommendations. Two (2) draft copies of the memorandum will be provided to the County for review.

Within five (5) business days of receiving review comments, KHA will finalize the technical memorandum and provide four (4) copies to the County. All reports will be signed and sealed by an engineer licensed to practice in the State of Texas.

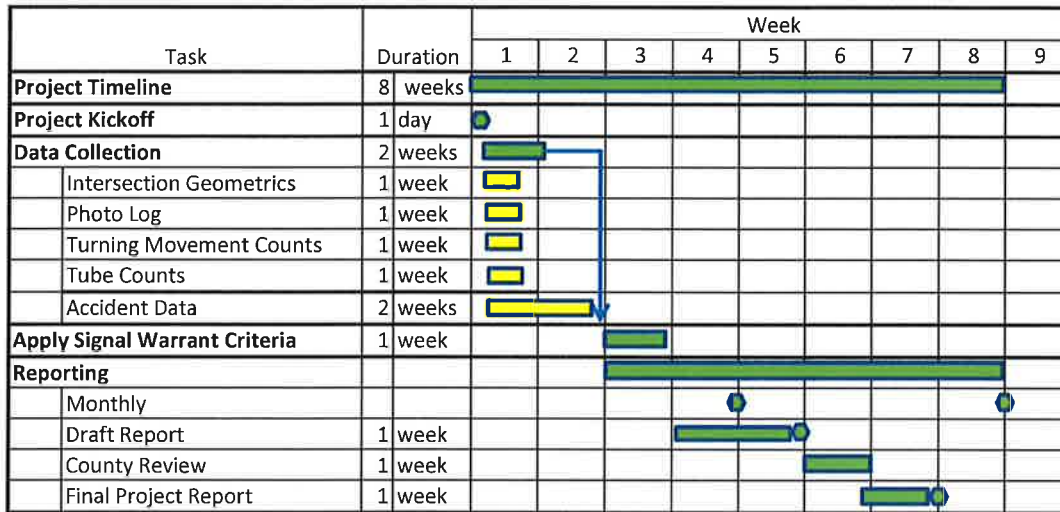
Additional Services

Any services not specifically provided for in the above scope will be considered additional services and can be performed at our then current hourly rates. Additional services we can provide include, but are not limited to, the following:

- Analyses of additional intersections;
- Operational analysis;
- PS&E services including, but not limited to, roadway design, signal design, and pavement design;

Additional analyses or major re-works required resulting from County comments that are inconsistent with KHA's original direction from the County.

Attachment C
CR 119 and Limmerman Loop Signal Warrant Study
PROJECT SCHEDULE



LEGEND:

- Project Milestone
- Work Progress
- Task Progress

WORK AUTHORIZATION 1

Attachment D

Project Name: Traffic Signal Warrant Study
Project Description: CR 119 and Limmer Loop
Prepared By: Kimley-Horn and Associates, Inc.

Task #	KHA Task Name	Direct Labor (Person-Hours)					KHA Labor Expense (\$)	Sub-Contractor and Expense (\$)
		Principal \$240.00	Senior Transportation Engineer II \$215.00	Engineer 145.00	Secretary / Clerical 75.00	KHA Labor Total (hours)		
1	Project Management							
	Project Control and Management	1			1	2	315	
	Project Records and Files	1			1	2	315	
	Status Reports and Invoicing	1			1	2	315	
	Task Total (Hours)	3	0	0	3	6		
	Task Total (Dollars)	\$720	\$0	\$0	\$225		\$945	\$0
2	Data Collection							
	Tube Counts (4 approaches)	1		1		2	385	\$600
	Turning Movement Counts (3 peak periods)		1					\$360
	Delay Study (3 peak periods)		1	2				\$360
	Accident Data		1	4				
	Site Recon (Video / Photos / Drawings)		2	6				
	Task Total (Hours)	1	5	13	0	2		
	Task Total (Dollars)	\$240	\$1,075	\$1,885	\$0		\$385	\$1,320
3	Speed Study Analysis							
	Signal Warrant Count Data		2	2				
	Signal Warrant Site Analysis (ADA, peds)	1	3			4	885	
	Signal Warrant Crash Data		1	4		5	795	
	Task Total (Hours)	1	6	6	0	9		
	Task Total (Dollars)	\$240	\$1,290	\$870	\$0		\$1,680	\$0
4	Technical Memo Report							
	Draft					0	0	
	- Report	1	8			9	1960	
	- Exhibits		2	8		10	1590	
	Revisions		2	4		6	1010	
	Final Report	1	2		2			
	Task Total (Hours)	2	14	12	2	25		
	Task Total (Dollars)	\$480	\$3,010	\$1,740	\$150		\$4,560	\$0
5	Project Coordination Meeting							
						0	0	
	Task Total (Hours)	0	0	0	0	0		
	Task Total (Dollars)	\$0	\$0	\$0	\$0		\$0	\$0
	TOTAL (Hours)	7	25	31	5	68		
	TOTAL (Fee)	\$1,680	\$5,375	\$4,495	\$375		\$7,570	\$1,320

Project Summary

Expenses					
Subconsultants Data Collection					\$1,320
Mileage	50.0 Miles X	\$0.500	per mile		\$25
11"x17" Plots	0.0 Plots X	\$0.20	per plot		\$0
8-1/2"x11" Plots	0.0 Plots X	\$0.10	per plot		\$0
Total					\$1,345
K-H LABOR					\$7,570
GRAND TOTAL					\$8,915