



August 22, 2018

The Honorable Eduardo Cantu  
Commissioner, Hidalgo County Pct. No. 2  
300 W. Hall Acres, Ste. G  
Pharr, Texas 78577

**RE: On Call Services – Traffic Studies County Wide C-15-255A-09-01 - Work Authorization No. 3  
Traffic Signal Timing Modifications & Design**

Dear Commissioner Cantu:

As discussed, attached in duplicate for your review and approval is Work Authorization No. 3 to the On Call Services – Traffic Studies County Wide Agreement between L&G Engineering and Hidalgo County.

Work Auth. No. 3 is in the amount of \$51,852.15 to provide Traffic Signal Timing Modifications, Design, Project Management and Coordination for two (2) signals with the cost breakdown as follows:

- ETSI = \$46,445.02
- L&G Engineering = \$5,407.13

Attached you will find the following:

- 1.) Two (2) signed originals of Work Authorization No. 3 with the following attachments:
  - Exhibit A “Services to be provided by the Owner”
  - Exhibit B “ Services to be provided by the Engineer”
  - Exhibit C “Work Schedule”
  - Exhibit D-1 “Estimated Man-hour Breakdown”

In addition, we would also like to advise you that we will be using the Sub-Consultant listed below for this Work Authorization.

Traffic Signal Warrant Study:  
*Mr. Harry Simeonidis, P.E.*  
*ETSI*  
*5300 Hollister Road, Ste. 220*  
*Houston, Texas 77040*  
*Phone (713) 956-9601*

Should you have any questions regarding this submittal, do not hesitate to call me at (956) 585-1909.

Sincerely,

  
Robert Macheska, P.E.  
Project Manager

Attachments

**HIDALGO COUNTY**  
**Professional Engineering Services**  
**Contract # C-15-255A-09-01**  
**Work Authorization Form**  
  
**WORK AUTHORIZATION NO. 3**

THIS WORK AUTHORIZATION is made pursuant to the terms and conditions of Article 1 of the Agreement made by and between HIDALGO COUNTY, action herein by and through the Commissioner's Court, hereinafter called the "Owner," and, L&G Consulting Engineers, Inc. d/b/a L&G Engineering, professional engineers of Mercedes, Texas hereinafter called "Engineer".

**PART 1. SCOPE OF WORK**

The purpose of this Work Authorization is for the Engineer to provide Engineering Services required for the preparation of the Traffic Signal Timing Modifications, Design, Project Management and Coordination associated with the Hidalgo County Courthouse Square Traffic Signal Adjustment Project. (as identified in the attached Location Map) in Precinct No. 2.

The scope of services to be provided by the Owner is identified in *EXHIBIT "A" - Scope of Services to be provided by the Owner* attached hereto.

The scope of services to be provided by the Engineer is identified in *EXHIBIT "B" - Scope of Services to be provided by the Engineer* attached hereto.

**PART 2. ESTIMATED COST**

The estimated cost for services under this Work Authorization is **\$51,852.15**. This amount is based upon the costs outlined in the Estimated Cost Proposal attached hereto as *EXHIBIT "D-1" - Estimated Man-hour Breakdown*.

**PART 3. PAYMENT**

Compensation and payment to the Engineer for the services established under this Work Authorization shall be made in accordance with Article 6 of the Agreement.

**PART 4. FUNDING**

This Work Authorization No. 3 shall be funded through funding source:

Account No. \_\_\_\_\_

Requisition Number \_\_\_\_\_ (MUST BE INCLUDED AFTER CC APPROVAL)

PART 5. PERIOD OF SERVICE

This Work Authorization shall become effective on the date of final acceptance of the parties hereto, and terminate upon completion of scopes of the work authorization, as identified on *EXHIBIT "C" - Work Schedule*.

PART 6. RESPONSIBILITIES AND OBLIGATIONS

This Authorization does not waive the parties' responsibilities and obligations provided under the Agreement.

PART 7. ACKNOWLEDGEMENT AND CONFIRMATION

Acknowledgement and confirmation by Hidalgo County Precinct No. 2, Commissioner Eduardo Cantu as to the content and detail of this Work Authorization No. 3.

HIDALGO COUNTY  
COMMISSIONER PRECINCT NO. 2

BY:\_\_\_\_\_

PART 8. ACCEPTANCE AND APPROVAL

This Work Authorization is hereby accepted, approved by Hidalgo County Commissioners' Court on \_\_\_\_\_ as indicated below.

THE ENGINEER:  
L&G ENGINEERING

THE OWNER:  
HIDALGO COUNTY

  
-----  
By: Jacinto Garza, P.E.  
President

-----  
By: Ramon Garcia,  
County Judge

ATTEST:

-----  
By: Arturo Guajardo, Jr., County Clerk

LIST OF EXHIBITS

- Exhibit A - Services to be provided by Owner
- Exhibit B - Services to be provided by Engineer
- Exhibit C - Work Schedule
- Exhibit D-1 - Estimated Man-hour Breakdown

**EXHIBIT “A”**  
**SCOPE OF SERVICES TO BE PROVIDED BY THE OWNER**

---

The following provides an outline of the services to be provided by Hidalgo County (hereinafter denoted as the **Owner**) in the development of the Hidalgo County Courthouse Square Traffic Signal Timing Modifications and Design Project (hereinafter denoted as the **Project**).

**GENERAL:**

The **Owner** will provide to the **Engineer** the following:

- 1) Provide the authorization to proceed.
- 2) Payment for work performed by the **Engineer** and accepted by the **Owner**.
- 3) Provide any available relevant data concerning the **Project**, including but not limited to:
  - a. Proposed Courthouse Building Plans
  - b. As built plans for the existing traffic signals at:
    - i. Bus. 281 and Cano
    - ii. Bus. 281 and McIntyre
- 4) Provide timely review and decisions in response to the **Engineer’s** request for information and/or required submittals and deliverables, in order for the **Engineer** to maintain the agreed upon work schedule.
- 5) Attend and participate in progress meetings as required and as coordinated and conducted by **Engineer**.

**EXHIBIT B - SCOPE OF SERVICES FOR  
ADJUSTMENT OF EXISTING SIGNALS  
CANO ST AT CLOSNER BLVD &  
MCINTYRE ST AT CLOSNER BLVD  
ADJACENT TO THE PROPOSED HIDALGO COUNTY COURT HOUSE  
IN EDINBURG, TEXAS**

**Project Understanding**

The construction of the new Hidalgo County Court House will necessitate closure of BUS 281 (Closner Blvd). This will in turn require adjustment of two existing signals, located at:

- Cano Street at Closner Boulevard (BUS 281), and
- McIntyre Street at Closner Boulevard (BUS 281)

The existing signals currently operate in a typical eight phase sequence. By closing Closner Blvd within the Square, certain signal indications will have to be covered and turned off. Accordingly, phasing and timing will have to be adjusted along with temporary detection if necessary.

In addition, the remaining signals surrounding the square will have to be retimed to provide reasonable progression through the Square.

Further, advance guide and warning signs would have to be placed to inform drivers of the upcoming closure and also to provide alternative detour guidance to bypass the Square.

Ergonomic Transportation Solutions, Inc. (ETSI) will produce a complete set of Plans, Specifications and Cost Estimates (PS&E) that cover the signal equipment modifications, as well as phasing and timing modifications for the two subject intersections, signal coordination plans, as well as signing and pavement marking plans to accommodate the closure of BUS 83 (Closner Blvd). The scope will cover:

**TASK 1 – General Notes for Traffic Signal installation**

ETSI will prepare the general notes for the traffic signal design for the above intersections.

**TASK 2 – Basis of Estimate Quantities**

ETSI will prepare a Basis of Estimate sheet with adequate number of columns to reflect the number of the above intersections and one column for the total quantities.

ETSI will calculate quantities at 90% and 100% levels of completion or as directed by Client.

**TASK 3 – Proposed Temporary Signal Plan Layouts**

Client will provide ETSI with the propose Hidalgo County Courthouse improvement plans, as well as the existing signal plans for the above intersections. Information from these plans will be verified in the field and then incorporated into the signal plan layouts. Any conflicts between the proposed Court House plans and the existing signals will be identified and solutions will be provided.

The proposed layouts will show existing equipment to remain, existing equipment to be removed, existing equipment to be adjusted and proposed new equipment to be installed by the contractor.

ETSI will prepare tables, depicting the electrical schedule for the wiring connections as needed.

If the existing signal equipment is in the way of the proposed Court House improvements, ETSI will design temporary signal and detection equipment as needed.

ETSI with assistance from Client will contact the local power company to furnish temporary electrical service at each of the above intersections if current power service drop conflicts with Court House construction.

Based on previously collected traffic data, ETSI will develop optimal phasing and timing charts for the two intersections. The charts will show minimum and maximum greens, green extensions, amber, all red and pedestrian calls.

ETSI will produce submittals for Client's review at the 90% and 100% completion levels or as directed by Client.

All work will conform to TxDOT Signal Design practices and as required by Client.

#### **TASK 4 – Intersection Signing and Pavement Markings**

ETSI will review the need and location for cross walks at each of the two intersections and make recommendations for adjustment and or removal to the Client. Upon Client's approval ETSI will incorporate the new cross walk scheme into the plans.

ETSI will review existing lane striping and provide recommendations to close certain lanes or adjust lane assignments that lead into the closed leg of Closner Blvd. The recommendations will be incorporated into the plans upon Client approval.

ETSI will assess the condition of all pavement markings at each intersections and make recommendations for restriping of the entire or partial intersection.

ETSI will also review existing ground mounted and overhead signs and will make recommendations for removing existing signs and installing new ones, including regulatory, warning, guide and advisory signs.

Adjustments to existing curb ramps are not anticipated.

ETSI will produce submittals for Client's review at the 90% and 100% completion levels.

## **TASK 5 – Detour Plans**

ETSI will provide layouts that show placement of advanced guide and warning signs in order to inform drivers of the upcoming BUS 83 closure and to direct them to alternative routes. The plans will cover an area at least two to three blocks from the Square. Detour signs will be placed in advance of the Square along with Dynamic Message Boards warning drivers of traffic conditions ahead.

The plans will also show barricades and other channelizing devices to effectively close BUS 83.

## **TASK 6 – Signal Coordination Plans**

ETSI will provide coordination charts of all signals around the Court House Square making use of existing signal equipment. ETSI will make use of previously developed traffic analysis results to develop AM and PM peak hour timing and coordination plans. Intersections to be coordinated will include:

- McIntyre St @ 10th Avenue
- McIntyre St @ 12th Avenue
- University Dr @ 10th Avenue
- University Dr @ 12th Avenue
- Cano St @ 10th Avenue
- Cano St @ 12th Avenue
- Cano St at Closner Blvd (BUS 281), and
- McIntyre St at Closner Blvd (BUS 281)

ETSI will conduct a field investigation during a typical construction day to assess traffic operations around the Square. ETSI will develop optimal signal phasing and timing plans for each intersection, as well as signal coordination plans. ETSI will produce tables and charts depicting the various coordination plans.

## **TASK 7 – Standard Sheets and Special Specifications**

ETSI will prepare a list of standard sheets and special specifications for the 90% and 100% submittals.

## **TASK 8 – Cost Estimate**

ETSI will prepare a cost estimate using TxDOT Pharr District's average bid values at the 90% and 100% submittals.

### **TASK 9 – Field Investigation and Meetings**

ETSI will conduct field investigations at the above intersection locations and surrounding area and record pertinent design information as well as identify potential design issues. ETSI will verify the location of available power sources for the new electrical service to each signal. ETSI will also record the conditions of the signs and pavement markings, as well as the location and type of existing street lights.

ETSI will participate in one project progress meeting as requested by Client.

### **TASK 10 – Construction Administration Services**

ETSI will provide construction administration services related to the above tasks. ETSI will conduct a field review assessing contractors signal work, signing, markings and signal coordination.

ETSI will review and respond to Submittals, Requests for Information and Field Changes as needed. The duration of the services for this task will be limited to the time it takes to implement the Temporary Signal Plans, installation of Detour signs and markings related to the closure of BUS 83. This time is estimated to take approximately about one month.

### **SERVICES TO BE PROVIDED BY CLIENT**

Client shall furnish ETSI hard copies and electronic versions of the existing signal plans, proposed Court House improvement plans to include all existing and future utilities. If record drawings for the existing signal plans are not available, topographic maps will be required, showing all existing signal equipment.

Client will be responsible for contacting all utility companies present at the above intersections and furnish such information to ETSI. ETSI will assist Client in identifying and resolving utility conflicts.

Client shall also provide coordination and communication for the progress of the signal design work among all parties involved.

## **EXHIBIT C – TIME SCHEDULE**

ETSI will produce 90% complete drawings within two weeks of receipt of the Existing Signal Plans and notice to proceed. After receipt of the 90% review comments, ETSI can produce 100% complete drawings within one week. ETSI will require an additional One week to produce the Signal Coordination Plan.

**EXHIBIT D-1**  
**ESTIMATED MAN-HOUR BREAKDOWN**  
 Hidalgo County Courthouse Square Traffic Signal Timing Modifications and Design

	MANHOURS										Sub-Contract Amounts / ROW COST	TOTAL LINE ITEM COST	
	Senior Project Manager	Senior Engineer	Project Engineer	Geotechnical Engineer	Senior Engineering Technician	CAUD Operations Analyst	Admin / Clerical	TOTAL HOURS					
<b>WORK AUTHORIZATION NO. 3</b>	209.81	173.94	134.88	179.84	95.91	65.94	92.95						
<b>Adjustment of Existing Signal Timing Design</b>													
1 SUB: Ergonomic Transportation Solutions, Inc. (See fee breakdown on Page 2 of 2)													
2 Project Management and Coordination	5	8	22	0	0	0	0	0	0	0	0	\$ 46,445.02	\$ 5,407.13
<b>SUB-TOTAL</b>												\$ 46,445.02	\$ 5,407.13

Sub-Total Manhours Fee with Subconsultant Fee: \$ 51,852.15

**TOTAL PROJECT FEE: \$ 51,852.15**

**FEE SCHEDULE FOR TRAFFIC SIGNAL ADJUSTMENT  
WITHIN THE PROPOSED HIDALGO COUNTY COURT HOUSE SQUARE, IN EDINBURG, TEXAS**

Ergonomic Transportation Solutions, Inc.

TEMPORARY TRAFFIC SIGNAL DESIGN: CANO @ BUS 281 MCINTYRE @ BUS 281		MANHOURS						Total
		No. of sheets (estimated)	Project Manager	Senior Transp. Engineer	Transportation Engineer	CADD Designer	Administrative Assistant	
<b>TASK</b>								
1	General Notes	n/a	1	1	2	1	2	7
2	Basis of Estimate	1	2	4	6	6		18
3	Proposed Temporary Signal Plan Layouts	2	8	16	40	40		104
4	Intersection Signing, Pavement Markings	2	2	6	24	24		56
5	Detour Plans	2	2	6	24	24		56
6	Signal Coordination Plans	n/a	4	24	40			68
7	Standard Sheets and Special Specifications	8	1	2	6	6		15
8	Cost Estimate	n/a	1	4	8			13
9	Field Investigation and Meeting	n/a	6	8	8			22
10	Construction Administration Services	n/a	8	16	16			40
	<b>Subtotal</b>	<b>15</b>	<b>35</b>	<b>87</b>	<b>174</b>	<b>101</b>	<b>2</b>	<b>399</b>

Total Sheets/Labor Hours	15	35	87	174	101	2	399
Contract Rates		\$ 68.00	\$ 46.00	\$ 34.00	\$ 23.00	\$ 19.00	
Direct Salary Cost		\$ 2,380.00	\$ 4,002.00	\$ 5,916.00	\$ 2,323.00	\$ 38.00	\$ 14,659.00
Overhead Multiplier	165.260%	\$ 3,933.19	\$ 6,613.71	\$ 9,776.78	\$ 3,838.99	\$ 62.80	\$ 24,225.46
Fixed Fee	12.50%	\$ 789.15	\$ 1,326.96	\$ 1,961.60	\$ 770.25	\$ 12.60	\$ 4,860.56
<b>Total Labor Costs</b>		<b>\$ 7,102.34</b>	<b>\$ 11,942.67</b>	<b>\$ 17,654.38</b>	<b>\$ 6,932.24</b>	<b>\$ 113.40</b>	<b>\$ 43,745.02</b>

**Ergonomic Transportation Solutions, Inc. Expenses**

EXPENSES

Printing Reproduction	\$ 100.00
Travel	\$ 2,500.00
Deliveries	\$ 100.00
<b>Total Expenses</b>	<b>\$ 2,700.00</b>

**ETSI Total Cost**

**\$ 46,445.02**

# CERTIFICATE OF INTERESTED PARTIES

FORM 1295

1 of 1

Complete Nos. 1 - 4 and 6 if there are interested parties.  
Complete Nos. 1, 2, 3, 5, and 6 if there are no interested parties.

## OFFICE USE ONLY CERTIFICATION OF FILING

1 Name of business entity filing form, and the city, state and country of the business entity's place of business.  
L&G Consulting Engineers INC  
Mercedes , TX United States

Certificate Number:  
2018-395111

Date Filed:  
08/22/2018

2 Name of governmental entity or state agency that is a party to the contract for which the form is being filed.  
Hidalgo County

Date Acknowledged:

3 Provide the identification number used by the governmental entity or state agency to track or identify the contract, and provide a description of the services, goods, or other property to be provided under the contract.  
C-15-255A-09-01  
On-Call Services - Traffic Studies County Wide -WA #3 Traffic Signal Timing Modifications & Design

4	Name of Interested Party	City, State, Country (place of business)	Nature of interest (check applicable)	
			Controlling	Intermediary
	Sandoval, Armando	Mercedes, TX United States		X
	Garza, Jacinto	Mercedes , TX United States	X	

5 Check only if there is NO Interested Party.

### 6 UNSWORN DECLARATION

My name is Jacinto Garza, and my date of birth is 10/23/1961.

My address is 2100 W. Expressway 83, Mercedes, TX, 78570, USA.  
(street) (city) (state) (zip code) (country)

I declare under penalty of perjury that the foregoing is true and correct.

Executed in Hidalgo County, State of Texas, on the 22 day of August, 20 18.  
(month) (year)

  
\_\_\_\_\_  
Signature of authorized agent of contracting business entity  
(Declarant)