

EXHIBIT E
-WORK AUTHORIZATION

HIDALGO COUNTY
Professional Engineering Services
Agreement# C-16-369-10-25

WORK AUTHORIZATION NO. 1

THIS WORK AUTHORIZATION is made pursuant to the terms and conditions of Section I.A. of the Agreement made by and between **HIDALGO COUNTY**, action herein by and through the **Commissioner's Court**, hereinafter called the "**Owner**," and, **South Texas Infrastructure Group, L.L.C.** professional engineers of McAllen, Texas, hereinafter called "**Engineer**".

PART 1. SCOPE OF WORK

The purpose of this Work Authorization is for the "engineering services" to provide: _____
Roadway design and field design survey services (full details of services on Exhibit B)

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 **\$ 36,607.07**. This amount is based upon the costs outlined in the Estimated **Cost Proposal** attached hereto as **EXHIBIT "D"**.

PART 3. PAYMENT

Compensation and payment to the Engineer for the services established under this Work Authorization shall be made in accordance with Article/Part/Section **7** of the Agreement.

PART 4. FUNDING

This **Work Authorization No. 1** shall be funded through funding source:
Account No. 6-1200-431-00-124-189-0721
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***.

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. 4**, as to content and detail of this **Work Authorization No. 1**.

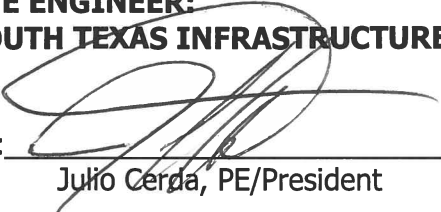
**HIDALGO COUNTY
COMMISSIONER PRECINCT No. 1:**

By: _____
Joseph Palacios, Commissioner

PART 8. ACCEPTANCE AND APPROVAL

This Work Authorization is hereby accepted, approved by Hidalgo County Commissioners' Court on **10/25/16** as indicated below and effective as of **25th** day of **October, 2016**.

**THE ENGINEER:
SOUTH TEXAS INFRASTRUCTURE GROUP, L.L.C.**

By:  _____
Julio Cerda, PE/President

**THE OWNER:
HIDALGO COUNTY**

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 -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 the Owner in the development of Projects (as defined and more particularly identified in Exhibit "A" attached to this Agreement).

General:

The Owner will provide to the Engineer the following:

- 1) Provide the authorization to proceed with services through coordination with the project consulting and design Engineer.
- 2) Payment for work performed by the Engineer and accepted by the Owner in accordance with Article 3 of this Agreement.
- 3) Assistance to the Engineer, as necessary, to obtain the required data and information from other local, regional, State and Federal agencies the Engineer cannot easily obtain.
- 4) Provide any available relevant data the Owner may have on file concerning the projects.
- 5) 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 prepared in accordance with Exhibit "A" attached to this Agreement.
- 6) Attend and participate in progress meetings as required and as coordinated and conducted by Engineer.
- 7) Provide the authorization to proceed with services on project by project basis through consulting design and construction Engineer.

EXHIBIT "B"

-SERVICES TO BE PROVIDED BY THE ENGINEER

A. Engineering Services

ROADWAY DESIGN

- 1) Develop Typical Sections – No Pavement design will be completed as part of the scope of work. Pavement Section will be based on directive from Hidalgo County Pct. No. 4 procured Geotech Engineer.
- 2) Prepare plan and profile sheets as required for the reconstruction.
- 3) Develop plan and profiles for inclusion in sheets.
- 4) Develop roadway quantities and prepare quantity summary sheet.
- 5) Develop Miscellaneous Roadway Details.
- 6) Prepare Title Sheet and Index sheets.
- 7) Calculate project quantities and prepare quantity summary sheet.
- 8) Prepare general notes.
- 9) Prepare list of Standard Drawing to be included in the plans.
- 10) Upon completion of the review of the final plans by Hidalgo County Precinct. No. 1, the ENGINEER shall assemble and furnish signed original (11" x 17") drawings which shall include all applicable standards. The Engineer may sign/seal plans manually or include an electronic signature/seal.
- 11) Coordinate with Pct. 1 and other agencies as necessary.
- 12) Signing and Pavement Markings are to be shown on roadway P&P sheets as necessary.

B. FIELD DESIGN SURVEY SERVICES

SURVEYING

- 1) Topographic survey of entire project length including...
- 2) Topography of existing roadway and ditch within existing apparent ROW.
- 3) Topography shall include any existing drainage crossings.
- 4) Include flow lines, size and direction of drainage channels/structures
- 5) Include utilities
- 6) Perform one-call (Dig Tess) and identify and locate utilities (within Limits of R.O.W) as flagged/marked by utility companies.
- 7) Include inverts on sanitary sewer, measure downs to top of keys on water and gas mains
- 8) Establish x, y, and z coordinates of power poles, manholes and valves of various utilities, flow lines of existing sanitary sewer and storm sewer lines, and subsequent utility ties of facilities exposed by others. Surveyor to survey nearest manhole/valve invert outside project limits.
- 9) Establish 2 benchmarks for project control.

Additional Services

- 1) Prepare Bid Documents
- 2) Attend and Coordinate Pre-bid Conference
- 3) Evaluate Bids
- 4) Make Award Recommendation
- 5) Assist County with preparation of Contract Documents
- 6) Attend Pre-Construction Conference upon request by County

C) GEOTECHNICAL/CMT SERVICES(by others)

- 1) Pavement section design or testing prior to PS&E development
- 2) Construction materials testing during construction

Exhibit "C"
 Work Schedule
 Sunflower Rd. Widening and Reconstruction
 From Mile 17 to SH 107

TASK AND DESCRIPTION	FIRM	2016			2017								
		October	November	December	January	February	March	April	May	June	July	August	September
Phase I: Roadway Design Plans and Specifications	STIG												
A. Design Survey & Roadway Design Plans													
B. Drainage Culvert Design Plan and Profile													
C. Details and Specifications													
D. Final Deliverables													
	ROWSS												
A. Horizontal and Vertical Control													
B. Construction Staking													
C. Construction Inspection													

EXHIBIT C
 -WORK SCHEDULE

Exhibit D
-ESTIMATED MAN-HOUR BREAKDOWN

Exhibit "D-1"
BUDGET
LUMP SUM RATE BASIS OF PAYMENT

Work Authorization No. 1

Fully-Loaded Hourly Wage Rates * (as defined below)	PRINCIPAL	PROJECT	PROJECT	EIT	SENIOR	ENGINEERING	ADMIN/	Total	Cost
TASK AND DESCRIPTION		MANAGER	ENGINEER		CADD	TECHNICIAN	CLERICAL	Hours	
HOURLY RATE	\$175.00	\$152.15	\$126.79	\$98.00	\$82.50	\$76.54	\$50.15		
DRAINAGE (FC161)									
161.1. Drainage Report									
1.0 Site Visit to Confirm Outfalls and Existing Drainage Infrastructure		0	0	2				2	\$ 196.00
2.0 Obtain and Review Existing Hydrologic Models		0	1	1				2	\$ 224.79
3.0 Review Drainage As-Builts		0	1	1				2	\$ 224.79
4.0 Develop Exterior Drainage Area Boundaries		0	1	1				2	\$ 224.79
5.0 Develop Interior Drainage Area Boundaries		0	1	1				2	\$ 224.79
6.0 Compute Discharges for Exterior Drainage Areas		0	1	2				3	\$ 322.79
7.0 Compute Discharges for Interior Drainage Areas		0	1	2				3	\$ 322.79
161.3. Culvert and Storm Drain Design									
1.0 Design and Develop Hydraulic Computations for Outfall Channel		0	0	1				1	\$ 98.00
2.0 Design and Develop Hydraulic Computations for 2 Culvert Crossings		0	0	1				1	\$ 98.00
3.0 Design and Develop Hydraulic Computations for Storm Sewer System (1 System)		0	0	1	1			2	\$ 180.50
4.0 Identify Areas requiring trench protection, shoring, and dewatering		0	0	1				1	\$ 98.00
5.0 Develop Exterior Drainage Area Map Sheets		0	0	1	2	1		4	\$ 339.54
6.0 Develop Interior Drainage Area Map Sheets		0	0	1	2	1		4	\$ 339.54
7.0 Develop Hydrologic Computation Sheets		0	0	1	1	2		4	\$ 333.58
8.0 Develop Storm Sewer Plan and Profile Sheets (1 System)		0	0	1	1	3		5	\$ 410.12
9.0 Select pertinent Drainage Standards		0	0	1	1	1		3	\$ 257.04
10.0 Prepare Drainage Details for outlet protection, etc.		0	0	1	1	1		3	\$ 257.04
11.0 Identify Pipe Strength Requirements		0	0	1				1	\$ 98.00
12.0 Identify Potential Utility Conflicts		0	0	1				1	\$ 98.00
13.0 Develop Existing ground profiles at the ROW line (for storm sewer systems)		0	0	1				1	\$ 98.00
14.0 Develop Hydraulic Data Sheets for Culvert Crossings		0	0	0	0	0		0	\$ -
15.0 Develop Hydraulic Data Sheets for Storm Sewer Systems (1 System)		0	0	1	1	1		3	\$ 257.04
161.5. Temporary Drainage Facilities									
1.0 Evaluate Traffic Control Plan for Temporary Drainage Facilities		0	0	0	0	0		0	\$ -
2.0 Design and Develop Temporary Drainage Measures		0	0	0	0	0		0	\$ -
Subtotal Hours	0	0	6	24	10	10	0	50	
Subtotal Cost	\$0.00	\$0.00	\$760.74	\$2,352.00	\$825.00	\$765.40	\$0.00		\$ 4,703.14

* A fully-loaded Hourly Wage Rate is defined as an employee's base hourly rate plus labor overhead (including fringe benefits), general and administrative (indirect) expenses, profit and escalation (if applicable).

Exhibit "D-1"
BUDGET
LUMP SUM RATE BASIS OF PAYMENT

Work Authorization No. 1

Fully-Loaded Hourly Wage Rates * (as defined below)	PRINCIPAL	PROJECT	PROJECT	EIT	SENIOR	ENGINEERING	ADMIN/	Total	Cost
TASK AND DESCRIPTION		MANAGER	ENGINEER		CADD	TECHNICIAN	CLERICAL	Hours	
HOURLY RATE	\$175.00	\$152.15	\$126.79	\$98.00	\$82.50	\$76.54	\$50.15		
SIGNING, PAVEMENT MARKINGS AND SIGNALIZATION (FC 162)									
162.1. Signing and Pavement Markings									
1.0 Field Visit and Inventory Existing Signs			1					1	\$ 126.79
2.0 Design and Develop Signing and Pavement Marking Layouts			1	1		2		4	\$ 377.87
3.0 Prepare Small Sign Summary			1	1		1		3	\$ 301.33
4.0 Select Signing and Pavement Marking Standards			1	1		1		3	\$ 301.33
Subtotal Hours	0	0	4	3	0	4	0	11	
Subtotal Cost	\$0.00	\$0.00	\$507.16	\$294.00	\$0.00	\$306.16	\$0.00		\$ 1,107.32

* A fully-loaded Hourly Wage Rate is defined as an employee's base hourly rate plus labor overhead (including fringe benefits), general and administrative (indirect) expenses, profit and escalation (if applicable).

TASK AND DESCRIPTION	PRINCIPAL	PROJECT	PROJECT	EIT	SENIOR	ENGINEERING	ADMIN/	Total	Cost
Hourly Rate*	\$175.00	\$152.15	\$126.79	\$98.00	\$82.50	\$76.54	\$50.15	Hours	
MISCELLANEOUS (FC 163)									
163.2. Traffic Control Plan, Sequence of Construction									
1. Written narrative of Construction Sequencing & General Notes			1			1		2	\$ 203.33
2. Develop Advanced Warning Sign Layouts			1			1		2	\$ 203.33
3. Plan and Attend TCP Review Meeting		0	1					1	\$ 126.79
4. TCP Sheets			1			1		2	\$ 203.33
5. Develop Detour Layouts			1			1		2	\$ 203.33
6. TCP Typical Sections			1			1		2	\$ 203.33
7. Select TCP Standards			1			1		2	\$ 203.33
163.5. SW3P Plans									
1. Develop SW3P Narrative			1			1		2	\$ 203.33
2. Develop EPIC Sheet			1			1		2	\$ 203.33
3. Develop SW3P Layouts			1			1		2	\$ 203.33
4. Select SW3P Standards			1			1		2	\$ 203.33
163.11. Specifications and General Notes									
1. Develop General Notes and Specifications			1					1	\$ 126.79
163.12. General Plans & Task									
1. Develop Project Title Sheet						1		1	\$ 76.54
2. Develop Index of Sheets								0	\$ -
4. Develop PS&E Documentation (1002, etc.)			1					1	\$ 126.79
Subtotal Hours	0	0	13	0	0	11	0	24	
Subtotal Cost	\$0.00	\$0.00	\$1,648.27	\$0.00	\$0.00	\$841.94	\$0.00		\$ 2,490.21

* A fully-loaded Hourly Wage Rate is defined as an employee's base hourly rate plus labor overhead (including fringe benefits), general and administrative (indirect) expenses, profit and escalation (if applicable).

October 18, 2016

Hidalgo County Purchasing Department
Attn: Ms. Leticia H. Saenz, CPPB/Contract Manager
2812 S. Business Highway 83
Edinburg, Texas 78539

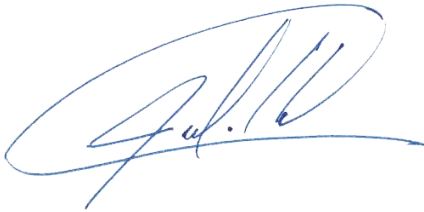
RE: Sunflower Road Precinct No. 4
Contract No. C-16-369-10-25

Dear Ms. Saenz,

Please be advised that South Texas Infrastructure Group, L.L.C. is sub-contracting R.O.W. Surveying Services, L.L.C. for all land surveying services for the Sunflower Road Project between SH 107 and Mile 17 located in Hidalgo County Precinct No. 4.

If you have any questions, please let us know. I may be reached at (956) 451-2670.

Sincerely,



Julio Cerda, P.E.
President

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**

Certificate Number:
2016-122997

Date Filed:
10/12/2016

Date Acknowledged:

1 Name of business entity filing form, and the city, state and country of the business entity's place of business.

South Texas Infrastructure Group, L.L.C.
Mission, TX United States

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

Hidalgo County

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.

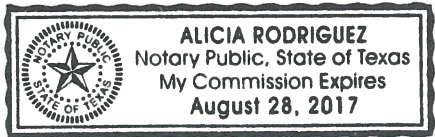
C-16-369-10-25
Sunflower Road

4	Name of Interested Party	City, State, Country (place of business)	Nature of interest (check applicable)	
			Controlling	Intermediary

5 Check only if there is NO Interested Party.

6 AFFIDAVIT

I swear, or affirm, under penalty of perjury, that the above disclosure is true and correct.



[Handwritten Signature]

Signature of authorized agent of contracting business entity

AFFIX NOTARY STAMP / SEAL ABOVE

Sworn to and subscribed before me, by the said Julio Cerda, this the 12th day of October, 2016, to certify which, witness my hand and seal of office.

Alicia Rodriguez
Signature of officer administering oath

Alicia Rodriguez
Printed name of officer administering oath

Notary
Title of officer administering oath

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

Certificate Number:
2016-126334

Date Filed:
10/19/2016

Date Acknowledged:

1 Name of business entity filing form, and the city, state and country of the business entity's place of business.

R.O.W. Surveying Services, L.L.C.
Mission, TX United States

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

Hidalgo County

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.

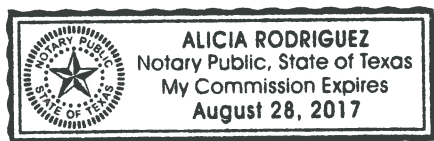
C-16-369-10-25 (WA#1)
Sunflower Road Project Precinct 4

4	Name of Interested Party	City, State, Country (place of business)	Nature of interest (check applicable)	
			Controlling	Intermediary
	South Texas Infrastructure Group, L.L.C.	Mission, TX United States	X	

5 Check only if there is NO Interested Party.

6 AFFIDAVIT

I swear, or affirm, under penalty of perjury, that the above disclosure is true and correct.



[Handwritten Signature]

Signature of authorized agent of contracting business entity

AFFIX NOTARY STAMP / SEAL ABOVE

Sworn to and subscribed before me, by the said Julio Cerda, this the 19th day of October, 2016, to certify which, witness my hand and seal of office.

[Handwritten Signature]

Signature of officer administering oath

Alicia Rodriguez

Printed name of officer administering oath

Notary

Title of officer administering oath

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.
 R.O.W. Surveying Services, L.L.C.
 Mission, TX United States

Certificate Number:
 2016-126334

Date Filed:
 10/19/2016

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:
 10/20/2016

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-16-369-10-25 (WA#1)
 Sunflower Road Project Precinct 4

4	Name of Interested Party	City, State, Country (place of business)	Nature of interest (check applicable)	
			Controlling	Intermediary
	South Texas Infrastructure Group, L.L.C.	Mission, TX United States	X	

5 Check only if there is NO Interested Party.

6 AFFIDAVIT I swear, or affirm, under penalty of perjury, that the above disclosure is true and correct.

 Signature of authorized agent of contracting business entity

AFFIX NOTARY STAMP / SEAL ABOVE

Sworn to and subscribed before me, by the said _____, this the _____ day of _____, 20_____, to certify which, witness my hand and seal of office.

 Signature of officer administering oath Printed name of officer administering oath Title of officer administering oath

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**

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 South Texas Infrastructure Group, L.L.C.
 Mission, TX United States

Certificate Number:
 2016-122997

Date Filed:
 10/12/2016

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:
 10/17/2016

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-16-369-10-25
 Sunflower Road

4	Name of Interested Party	City, State, Country (place of business)	Nature of interest (check applicable)	
			Controlling	Intermediary

5 Check only if there is NO Interested Party.

6 AFFIDAVIT I swear, or affirm, under penalty of perjury, that the above disclosure is true and correct.

 Signature of authorized agent of contracting business entity

AFFIX NOTARY STAMP / SEAL ABOVE

Sworn to and subscribed before me, by the said _____, this the _____ day of _____, 20_____, to certify which, witness my hand and seal of office.

 Signature of officer administering oath Printed name of officer administering oath Title of officer administering oath