

**GENERAL MEETING OF THE BOARD OF DIRECTORS  
OF THE  
CENTRAL TEXAS REGIONAL MOBILITY AUTHORITY**

**RESOLUTION NO. 09-75**

**183A Phase II Project  
RTG Supplemental Work Authorization No. 3**

WHEREAS, the Central Texas Regional Mobility Authority ("CTRMA") was created pursuant to the request of Travis and Williamson Counties and in accordance with provisions of the Transportation Code and the petition and approval process established in 43 Tex. Admin. Code § 26.01, *et seq.* (the "RMA Rules"); and

WHEREAS, the Board of Directors of the CTRMA has been constituted in accordance with the Transportation Code and the RMA Rules; and

WHEREAS, the first phase of the CTRMA's 183A Project was opened for use on March 3, 2007 with usage significantly above projections; and

WHEREAS, the design and construction of the 183A main lanes north from FM 1431 was anticipated to begin sometime after 2012; however, due to the success of the first phase of the 183A Project, it was determined that such efforts should be undertaken immediately regarding the extension of the main lanes from north of FM 1431 to north of RM 2243 (the "183A Phase II Project"); and

WHEREAS, in Resolution No. 08-50, dated August 27, 2008, the Board of Directors authorized the Executive Director and CTRMA staff to negotiate and enter into a Contract for Engineering Services with Rodriguez Transportation Group for design and engineering services related to the 183A Phase II Project (the "RTG Contract") and the RTG Contract was finalized and executed; and

WHEREAS, the Board of Directors has previously approved Supplemental Work Authorizations 1 and 2 to the RTG Contract by adoption of Resolutions No. 09-07 and 09-08, respectively, dated February 25, 2009, to address various expansions of the scope of work under the RTG Contract; and

WHEREAS, the CTRMA, in coordination with its engineering advisors, determined that it would be beneficial to have RTG perform additional engineering services regarding the relocation of the proposed CR 272/Crystal Falls Parkway exit ramp and the addition of a ramp toll gantry and the scope of such additional efforts are set forth in Supplemental Work Authorization No. 3 (Work Authorization No. 3) for the RTG Contract, substantially in the form set forth in Attachment "A" attached hereto and incorporated herein; and


WHEREAS, HNTB, as the CTRMA's General Engineering Consultant and the Project Manager for the 183A Phase II Project, has represented to the Board of Directors and CTRMA staff that

the expansion of the scope of services reflected in Work Authorization No. 3 and the cost thereof are necessary and appropriate for the continued efficient and timely design and completion of the 183A Phase II Project.


NOW THEREFORE, BE IT RESOLVED, that the Board of Directors approves Work Authorization No. 3 under the RTG Contract in substantially the form attached hereto as Attachment "A" as it relates to the additional scope of services to be provided thereunder, provided that any work commenced under Work Authorization No. 3 be subject to the terms and conditions of the RTG Contract.

Adopted by the Board of Directors of the Central Texas Regional Mobility Authority on the 18th day of November, 2009.

Submitted and reviewed by:

  
\_\_\_\_\_  
Tom Nielson  
General Counsel for the Central  
Texas Regional Mobility Authority

Approved:

  
\_\_\_\_\_  
Ray A. Wilkerson  
Chairman, Board of Directors  
Resolution Number 09-75  
Date Passed 11/18/09

**ATTACHMENT "A"**  
**TO**  
**RESOLUTION NO. 09-75**  
**WORK AUTHORIZATION NO. 3**  
**TO RTG CONTRACT**

**SUPPLEMENTAL WORK AUTHORIZATION NO. 03  
TO WORK AUTHORIZATION NO. 01  
CONTRACT FOR ENGINEERING SERVICES**

**THIS SUPPLEMENTAL WORK AUTHORIZATION** is made pursuant to the terms and conditions of Article 4 of the Contract for Engineering Services (the Contract) entered into by and between the Central Texas Regional Mobility Authority (the Authority) and Rodriguez Transportation Group, Inc. (the Engineer) dated **November 21, 2008**.

The following terms and conditions of Work Authorization No. 01 are hereby amended as follows:

**PART I.** The Engineer will perform additional engineering services generally described as revising the completed plan set as needed for the relocation of the proposed CR 272/Crystal Falls Parkway northbound exit ramp and the addition of a ramp toll gantry. This proposed ramp is being relocated from just north of the proposed Blockhouse Creek Bridge to just south of the bridge, a distance of approximately 1,900'. The added ramp toll gantry is along the ramp designated as "EXRNB6".

**PART II.** The maximum amount payable under this Lump Sum Work Authorization is increased by \$ 324,995.00 from \$ 5,157,503.00 to \$ 5,482,498.00. The additional costs are shown in Exhibit D, Fee Schedule, attached hereto.

**Part IV.** Consultant shall perform the Services and deliver the related Documents according to the following schedule:

Services under Supplemental Work Authorization No. 3 shall be substantially completed on or before November 2, 2009, in accordance with the Schedule Milestones as shown in EXHIBIT C.

This Supplemental Work Authorization shall become effective on the date of final execution of the parties hereto. All other terms and conditions of Work Authorization No. 01 not hereby amended are to remain in full force and effect.

**IN WITNESS WHEREOF**, this Supplemental Work Authorization No. 3 is executed in duplicate counterparts and hereby accepted and acknowledged below.

**THE ENGINEER**

**CENTRAL TEXAS REGIONAL  
MOBILITY AUTHORITY**

  
\_\_\_\_\_  
(Signature)

\_\_\_\_\_  
(Signature)

Mark E. Rodriguez, P.E.  
\_\_\_\_\_  
(Printed Name)

Mike Heiligenstein  
\_\_\_\_\_  
(Printed Name)

President  
\_\_\_\_\_  
(Title)

Executive Director  
\_\_\_\_\_  
(Title)

10-26-2009  
\_\_\_\_\_  
(Date)

\_\_\_\_\_  
(Date)

EXHIBIT A

SERVICES TO BE PROVIDED BY THE AUTHORITY

The Authority shall perform and provide the following in a timely manner so as not to delay the Services to be provided by the Engineer:

1. Authorize the Engineer in writing to proceed.
2. Render reviews, decisions and approvals as promptly as necessary to allow for the expeditious performance of the Services to be provided by the Engineer.
3. 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.



## EXHIBIT B

### SERVICES TO BE PROVIDED BY THE ENGINEER

The Design Consultant Engineer, herein referred to as the "Engineer", shall be responsible for the work described in this Scope of Services.

The additional Scope of Work to be performed by the Engineer under this Supplemental Work Authorization is to provide the necessary engineering and technical services for the revisions to the completed Plans, Specification and Estimate (PS&E) package. The required revisions are summarized as follows:

- The completed PS&E package will require revisions as needed for the relocation of the proposed CR 272/Crystal Falls Parkway northbound exit ramp. This proposed ramp is being relocated from just north of the proposed Blockhouse Creek Bridge to just south of the bridge, a distance of approximately 1,900'. Plan sheets impacted by the proposed ramp relocation are within the following limits: From approximate 183A centerline Sta. 470+00 to Sta. 506+00.
- The completed PS&E package will require revisions as needed for the addition of a ramp toll gantry at the NB Exit Ramp designated as "EXRNB6". Plan sheets impacted by the addition of the ramp toll gantry are within the following limits: From approximate 183A centerline Sta. 470+00 to Sta. 506+00.
- The ramp toll gantry will be a cantilever design that will require special support details.
- Additional toll gantry details will be added to the completed PS&E package. These details will consist of four (4) wire way attachment details, a wire chase detail at each toll gantry column and details required for the VES Camera and AVI Antenna Support attachments.
- Three (3) additional Cedar Park Special Events Center Large Guide Signs will be included in the PS&E package.
- Several miscellaneous items include, but are not limited to: striping revisions to reflect thermoplastic contrast marking.
- Conversion of TCEQ calculations from one format to a recently revised format, at the request of TCEQ.

The services shall be performed according to the attached schedule in Exhibit C and shall include the tasks and products more fully described in the following Task Outline.

#### 1.01 Design Features

The design progression for the elements associated with this Supplemental Work Authorization shall be as follows:

90% Design - Prepare 90% plans for the roadway, drainage, erosion control, bridge, striping, large guide signs, illumination, ITS, and ETC Sheets.

Final Submittal – The Final Submittal shall be signed and sealed by a Professional Engineer registered in the State of Texas and provided in hard copy, electronic, and \*.pdf formats with all comments resolved. The added scope items as defined by this scope shall be incorporated into the original set of construction documents developed under the original contract to form a single set of construction documents.

#### 1.05 Supplemental Surveying

##### A. Topographic Survey

The Engineer shall:

1. Supplement existing topographic survey within the limits of the ramp relocation as follows:
  - a. Tie down critical points along the existing NBFR Bridge over Blockhouse Creek.
  - b. Tie down existing edge of pavement for a distance of approximately 500' upstream and 1500' downstream of the relocated ramp gore.

#### 1.09 Roadway Design

##### A. Basic Plan Sheets

The Engineer will proceed with revisions to the basic plan sheets as further detailed below:

1. Revise the detailed Index of Sheets that identifies each sheet location in the plan set, as well as its corresponding sheet number.
2. Revise Project Layout Sheets, within the limits of the ramp relocation and the added ramp toll gantry, at a scale of 1"=200' that clearly indicates the limits of the entire project.

##### B. Roadway Plans & Geometry

The Engineer shall proceed with the revision of the plan sheets impacted by the ramp relocation and the added ramp toll gantry, as further defined in Work Authorization No. 1 (Section 1.09, B, 1, 3, 4, 6, 7, 8, 9, and 10).

### C. Grading and Details

The Engineer shall revise the Design Cross Sections, within the limits of the ramp relocation and the added ramp toll gantry, at 100-foot stations along the mainlanes, ramps, and frontage roads, and other locations as necessary for the determination of revised cut and fill quantities. Cross sections shall display proposed storm sewer and utility elements.

#### 1.10 Drainage Design

The Engineer shall proceed with the revision of the plan sheets and other drainage documents impacted by the ramp relocation and the added ramp toll gantry, as further define in Work Authorization No. 1 (Section 1.10, C thru H).

### G. Water Quality

It is anticipated that water quality computations for two (2) water quality ponds will require revisions as a result of the ramp relocation. The two (2) ponds are identified as follows:

- a. Sta. 488+00 (WQ Pond Badger)
- b. Sta. 495+50 (WQ Pond Bulldog)

The Engineer shall revise the pond layouts and details required for the two (2) water quality ponds impacted by the ramp relocation.

The Engineer shall prepare a revision to the TCEQ Contributing Zone Permit, reflecting the updated water quality design computations and revised construction plan sheets. It is assumed that this revision will occur after the original TCEQ CZP permit is approved.

In addition to the services described above, the Engineer shall convert the TECQ calculations to the recently adopted format.

#### 1.11 Structural Design

The Engineer shall proceed with the development of the structural design associated with the widening of the NBFR bridge over Blockhouse Creek and revise the design of the NBML bridge over Blockhouse Creek, as further defined in Work Authorization No. 1 (Section 1.11). No structural analysis or condition survey will be performed on the NBFR bridge over Blockhouse Creek.



Bridge Limits Table for bridges impacted by the ramp relocation

Description	Approx. Length	Approx. Width	Estimated # of spans	Anticipated Beam Type
NBML @ Block House Creek	900'	58'	8	Type IV
NBFR @ Block House Creek (Widening)	880'	53'	8	Type IV

1.12 Retaining Wall Design

The Engineer shall proceed with the revision of retaining walls impacted by the ramp relocation, as further defined in Work Authorization No. 1 (Section 1.12A)

Retaining Wall Table for retaining walls impacted by the ramp relocation

Description	Approximate Location	Approximate Length	Type
WALL 18A	Sta. 496+27	170'	MSE
WALL 18B	Sta. 496+27 to Sta. 498+52	225'	MSE
WALL 18C	Sta. 487+32	225'	MSE
WALL 19	Sta. 506+21 to Sta. 508+00	179'	SOIL NAIL

1.13 Signing, Markings and Signalization

The Engineer shall proceed with the revision of the signing and marking design impacted by the ramp relocation and the added ramp toll gantry, as further defined in Work Authorization No. 1 (Section 1.13B, D and E)

In addition to the services described above, the Engineer shall revise the plan sheets to reflect the directives provided by the CTRMA/GEC. These directives are related to the proposed main lane striping (i.e. edge lines and lane lines).

Three (3) Large Guide Signs, proposed for the Cedar Park Special Events Center, shall also be incorporated into the PS&E package.

1.14 Traffic Control Plan (TCP)

The Engineer shall proceed with the revision of the TCP design impacted by the ramp relocation and the added ramp toll gantry, as further defined in Work Authorization No. 1 (Section 1.14A, B and C)

#### 1.15 Intelligent Transportation Systems (ITS)

The Engineer shall proceed with the revision of the ITS design impacted by the ramp relocation and the added ramp toll gantry, as further defined in Work Authorization No. 1 (Section 1.15)

#### 1.16 Illumination

The Engineer shall proceed with the revision of the Illumination design impacted by the ramp relocation and the added ramp toll gantry, as further defined in Work Authorization No. 1 (Section 1.16)

#### 1.17 Toll Facility Design

The Engineer shall proceed with the development of the ETC design impacted by the addition of the ramp toll gantry. Specific design tasks are summarized below:

- Prepare details for attachment of four (4) wire ways to the Mainlane and Ramp Toll Gantry trusses
- Prepare details to accommodate a wire chase at each toll gantry column
- Prepared details required for the VES Camera and AVI Antenna Support attachments
- Prepared details required for the development of an additional ETC Layout (Ramp), ETC Detail (Ramp), and Overall and Partial Site Plans (Electrical)
- Prepare special structural details required for the addition of the cantilever ramp toll gantry.
- Revise the Ramp Gantry Elevation Summary plan sheet

#### 1.18 Miscellaneous

The Engineer shall proceed with the revision of Miscellaneous tasks impacted by the ramp relocation and the added ramp toll gantry, as further defined in Work Authorization No. 1 (Section 1.18).

##### C. Deliverables

The Engineer will submit twelve (12) 11" X 17" paper copies at the 90% Submittal. Final PS&E Submittal shall include twelve (12) 11" X 17" paper copies of the revised plan sheets in addition to the signed, sealed and dated 11" x 17" final mylar copy including all supporting documentation and paperwork.

#### 1.19 Coordination, Meetings & Invoicing

The Engineer shall thoroughly review design plans, calculations and cost estimates associated with the requested revisions before submittal to the GEC or CTRMA.

EXHIBIT C

WORK SCHEDULE

The Engineer will perform engineering services described in Supplemental Work Authorization No. 3 and will submit deliverables to the Authority based on the following Work Schedule milestones:

Transmittal of completed 90% Design..... October 26, 2009

Transmittal of completed Final Submittal.....November 2, 2009











**RODRIGUEZ TRANSPORTATION GROUP, INC.**

TASK	SHEETS	Hourly Rate:	DESIGN										SUB TOTALS
			PROJECT MANAGER	SENIOR ENGINEER	PROJECT ENGINEER	DESIGN ENGINEER	ENGINEER	EIT	SIC SENIOR SPECIALIST	SIC SENIOR TECH.	ENGR. TECH.	ADMIN.	
			\$ 94.00	\$ 61.00	\$ 43.00	\$ 40.00	\$ 37.00	\$ 20.00	\$ 44.00	\$ 27.00	\$ 33.00	\$ 21.00	
B. Soil Mixing Lots (Coordination)													
C. Contort. Sensitive Design (Coordination)													
<b>SUB-TOTAL NUMBER OF SHEETS:</b>	<b>9</b>												
<b>SUB-TOTAL LABOR COST:</b>			\$ 640	\$ -	\$ -	\$ 1,280	\$ -	\$ -	\$ -	\$ 740	\$ -	\$ -	\$ 2,660
<b>1.13 SIGNS, MARKINGS AND SIGNALIZATION</b>													
A. Review Preliminary Signing Plan													
B. Large Guide Sign Layout													
1. Name Re-location	1								8	2			11
2. Review Ramp Toll Entry Signs	2								10	4			14
3. Add Signs Associated with the CP&EC	1								4				4
D. Large Sign Details													
1. Ramp Reduction	1								6				6
2. Review Ramp Toll Entry Signs	2								10				12
3. Add Signs Associated with the CP&EC	1								2	2			4
E. Overhead Sign Structure Elevations													
1. Large Sign Elevations	2								12				14
2. Auxiliary and Freeway Overlap													
F. Traffic Signal Plans (Coordination)													
G. Temporary Traffic Signal Plan (Coordination)													
<b>SUB-TOTAL NUMBER OF SHEETS:</b>	<b>15</b>												
<b>SUB-TOTAL LABOR COST:</b>			\$ 576	\$ -	\$ -	\$ -	\$ -	\$ -	\$ 2,288	\$ 296	\$ -	\$ -	\$ 3,160
<b>1.14 TRAFFIC CONTROL PLAN</b>													
A. Overall Traffic Control Plan Sheets													
B. Traffic Control Typical Sections													
C. TOP Overview Plans													
D. Sequence of Construction Narrative													
E. Traffic Control Details													
F. Construction Schedule													
G. Road Closure Detail Layouts													
<b>SUB-TOTAL NUMBER OF SHEETS:</b>	<b>10</b>												
<b>SUB-TOTAL LABOR COST:</b>			\$ 704	\$ -	\$ -	\$ 80	\$ -	\$ -	\$ 3,168	\$ 1,036	\$ -	\$ -	\$ 4,988
<b>1.15 INTELLIGENT TRANSPORTATION SYSTEMS</b>													
A. ITS Design (Coordination)													
<b>SUB-TOTAL NUMBER OF SHEETS:</b>	<b>6</b>												
<b>SUB-TOTAL LABOR COST:</b>			\$ 384	\$ -	\$ -	\$ 80	\$ -	\$ -	\$ -	\$ 74	\$ -	\$ -	\$ 538
<b>1.16 ILLUMINATION</b>													
A. Coordination													
<b>SUB-TOTAL NUMBER OF SHEETS:</b>	<b>8</b>												
<b>SUB-TOTAL LABOR COST:</b>			\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -



**RODRIGUEZ TRANSPORTATION GROUP, INC.**

TASK	SHEETS	PROJECT MANAGER	SENIOR ENGINEER	PROJECT ENGINEER	DESIGN ENGINEER	ENGINEER	EIT	SIC ENGR. SPECIALIST	SIC ENGR. TECH.	ENGR. TECH.	ADMIN.	SUB TOTALS
Hourly Rate:		\$ 94.00	\$ 61.00	\$ 43.00	\$ 40.00	\$ 37.00	\$ 29.00	\$ 44.00	\$ 37.00	\$ 33.00	\$ 21.00	
SUB-TOTAL HOURS:		6						2	2			Row Total = 8
SUB-TOTAL LABOR COST:		\$ 564.00						\$ 88.00	\$ 74.00			\$ 1,380.00
<b>1.17 TOLL FACILITY DESIGN</b>												
A. Coordination	2											
B. ETC Ramp Layout and Details	4											
SUB-TOTAL NUMBER OF SHEETS:	2											Column Total = 6
SUB-TOTAL LABOR COST:		\$ 512.00										Row Total = 30
<b>1.18 MISCELLANEOUS</b>												
A. Quantities & Summaries (10% and Final)	8											
B. Standards, Specifications and Education												
C. Prepare Specifications and Provisions	1											
D. Prepare General Notes	3											
E. Construction Costs Estimate												
SUB-TOTAL NUMBER OF SHEETS:	8											Column Total = 67
SUB-TOTAL LABOR COST:		\$ 640.00										Row Total = 67
<b>1.19 COORDINATION, MEETINGS &amp; INVOICING</b>												
A. OAGC	12											
1. OAGC Print Development												
SUB-TOTAL NUMBER OF SHEETS:	12											Column Total = 56
SUB-TOTAL LABOR COST:		\$ 768.00										Row Total = 56
<b>1.20 CONSTRUCTION PHASE SERVICES</b>												
A. Coordination	79											
SUB-TOTAL NUMBER OF SHEETS:	79											Row Total = 667
SUB-TOTAL LABOR COST:		\$ 7,424.00										20,580.00
<b>TOTAL LABOR COST:</b>												41,276.00
<b>OVERHEAD:</b>												70,856.00
<b>PROFIT:</b>												8,603.00
<b>TOTAL LABOR COST:</b>												79,339.00
<b>DIRECT EXPENSES:</b>												
Travel:												
Mileage												\$0.40 per mile
per diem												\$25.00 per day
Lodging												\$100.00 per night
Copies:												
Reproduction												\$0.20 per copy
Media (mylar)												\$1.00 per sheet
Misc Expenses:												
Express delivery												\$25.00 per each
Research Materials												
<b>TOTAL DIRECT EXPENSES:</b>												\$
<b>RTG ENGINEERING TOTAL COST</b>												\$ 79,339.00



HDR ENGINEERING, INC.

TASK	Hourly Rate	SHEETS	PROJECT MANAGER \$89.00	SENIOR SPECIALIST	SENIOR STRUCTURAL ENGINEER \$61.00	SENIOR PROJECT ENGINEER \$54.00	PROJECT ENGINEER of SCL LAND ARCH \$47.00	ENGINEER \$39.00	EST \$28.00	SR. ENGR. TECH. or LAND ARCH \$30.00	ENGR. TECH. \$24.00	CLERICAL \$20.00	SUB TOTALS
P.1 Modify One Interior Joint Design Calculations					3	3			6		4		9
G.3 Modify One (1) Framing Plan - 1 Unit estimates (revised beam design)		1	1			3			0		4		14
H.1 Modify Slab Plan - Unit 1		1	1			2			2		5		11
J. Update Bridge Geometry and RDS			4			2					3		4
K. Bridge CC review						2					3		8







**K FRIESE AND ASSOCIATES, INC.**

TASK	Hourly Rate:	SHEETS	PROJECT MANAGER	SENIOR SPECIALIST	SENIOR BRIDGE ENGINEER	SENIOR PROJECT ENGINEER	SENIOR ENGINEER	ENGINEER	ETT	SR ENGR TCHL	ENGR TCHL	CLERICAL	SUB TOTALS
			\$	\$	\$	\$	\$	\$	\$	\$	\$	\$	\$
<b>1.01 GOVERNMENTAL AGENCY COORDINATION</b>													
A. Coordination													
1. TROTT • 1 meeting													
2. City of Cedar Park • 1 meeting													
3. City of Leander • 1 meeting													
4. Williamson County • 1 meeting													
<b>SUB-TOTAL NUMBER OF SHEETS:</b>													
<b>SUB-TOTAL HOURS:</b>													
<b>SUB-TOTAL LABOR COST:</b>													
<b>1.02 DATA COLLECTION</b>													
A. Collect Right-of-Way and Easement Data													
B. Field Investigations													
<b>SUB-TOTAL NUMBER OF SHEETS:</b>													
<b>SUB-TOTAL HOURS:</b>													
<b>SUB-TOTAL LABOR COST:</b>													
<b>1.04 GEOTECHNICAL INVESTIGATION</b>													
A. Coordination													
<b>SUB-TOTAL NUMBER OF SHEETS:</b>													
<b>SUB-TOTAL HOURS:</b>													
<b>SUB-TOTAL LABOR COST:</b>													
<b>1.05 SUPPLEMENTAL SURVEYING</b>													
A. Coordination													
<b>SUB-TOTAL NUMBER OF SHEETS:</b>													
<b>SUB-TOTAL HOURS:</b>													
<b>SUB-TOTAL LABOR COST:</b>													
<b>1.06 ROW MAPPING</b>													
A. Coordination													
<b>SUB-TOTAL NUMBER OF SHEETS:</b>													
<b>SUB-TOTAL HOURS:</b>													
<b>SUB-TOTAL LABOR COST:</b>													
<b>1.07 UTILITY COORDINATION AND DESIGN</b>													
A. Coordination Meetings													
C. Design changes due to utilities													
D. Illustrate existing and proposed utility locations on drainage plans													
F. Illustrate existing utility locations on drainage profiles													
G. Review utility relocation plans for clearance of utilities													
H. Notify GEC of any utility conflicts (existing and/or proposed)													
<b>SUB-TOTAL NUMBER OF SHEETS:</b>													
<b>SUB-TOTAL HOURS:</b>													
<b>SUB-TOTAL LABOR COST:</b>													
<b>1.08 INITIAL DESIGN AND DCC</b>													
A. Review 183A Extension Project Manual													
B. Assist with development of project DMR													
C. Review schematic for conformance with design criteria													
D. Schematic Refinements													
1. Horizontal and Vertical Refinements													
4. Coordinate implications with the GEC													



**K FRIESE AND ASSOCIATES, INC.**

TASK	Hourly Rate:	SHEETS	PROJECT MANAGER	SENIOR SPECIALIST	SENIOR BRIDGE ENGINEER	SENIOR PROJECT ENGINEER	SENIOR ENGINEER	ENGINEER	BIT	SR. ENGR. TECH.	ENGR. TECH.	CLERICAL	SUB TOTALS
			\$	\$	\$	\$	\$	\$	\$	\$	\$	\$	
E. Preliminary Cost Estimate													
G. Amend DDC													
SUB-TOTAL NUMBER OF SHEETS:													
SUB-TOTAL LABOR COST:													
<b>TUP ROADWAY DESIGN</b>													
A. Block Plan Sheets (Coordination)													
B. Roadway Plans & Geometry													
6. Right-of-Way and Profile (SE Right-of-Way)													
7. Right-of-Way Layout (SE Right-of-Way)													
8. Horizontal Alignment Data Sheets (Coordination)													
9. Substation Data Sheets (Coordination)													
11. Protection and Slope Facility Plans (Coordination)													
SUB-TOTAL NUMBER OF SHEETS:													
SUB-TOTAL LABOR COST:													
<b>T-18 DRAINAGE DESIGN</b>													
SUB-TOTAL NUMBER OF SHEETS:													
SUB-TOTAL LABOR COST:													
A. Review Conceptual Drainage & Water Quality Analysis													
B. Drainage Impact Study													
1. Identify Existing System and Outfalls													
2. Determine Existing Flow													
3. Calculate Proposed System and Outfall													
4. Compare Proposed Flow													
5. Determine Hydraulic Impacts													
6. Evaluate Results and Prepare Impact Analysis													
7. Determine Mitigation Alternatives													
8. Develop Detention Requirements (6 ponds)													
9. Prepare Permitting Coordination													
10. Knowledge Report Preparation													
C. Bridge and Culvert Plan Sheets													
1. Prepare Hydraulic Data / Storm Sewer and Int. Calculation Sheets													
2. Prepare Layout Diagram Area Maps (1"=100')													
3. Prepare Culvert Layouts (1"=20' H, 1"=20' V)													
D. Storm Drain Plans													
1. Prepare Storm Drain Computations Sheets													
2. Prepare Internal Area Maps (1"=100')													
3a. Prepare Drainage Plan Sheets (1"=100')													
3b. Prepare Drainage Profile Sheets (1"=10')													
4. Prepare Layout Profile Sheets													
5. Prepare Open Layout Sheets													
6. Prepare Miscellaneous Drainage Detail Sheets													
7. Temporary Drainage Facilities													
8. French Protection Determination													
E. Sewer Analysis (4 stream crosses)													
F. Storm Water Pollution Prevention Plan (SWPPP)(Coordination)													
G. Water Quality & Collection													
1. Water Quality & Collection													
a. Baseline Pond Water Quality & Collection Pond Layouts (1"=50')													
a. Baseline Pond Water Quality & Collection Pond Layouts (1"=50')													
b. Final Pond Details (1"=50')													
c. Water Quality standard details													
H. TCEC Construction Zone Plan													
1. Prepare Construction Zone Plan													
2. Submit meeting with GEC and TCEO													
3. Submit modification to alternate CDP													





**K FRIESE AND ASSOCIATES, INC.**

TASK	Hourly Rate:	SHEETS	PROJECT MANAGER	SENIOR SPECIALIST	SENIOR BRIDGE ENGINEER	SENIOR PROJECT ENGINEER	SENIOR ENGINEER	ENGINEER	EIT	SR. ENGR. TECH.	ENGR. TECH.	CLERICAL	SUB TOTALS
	DIRECT SALARY PLUS OVERHEAD	12.50%											24,332
	PROFIT												2,844
	TOTAL LABOR COST												27,176
	DIRECT EXPENSES:												
	Travel:												
	Chicago							150 miles					
	Per diem							days					
	Lodging							nights					
	Copies:												
	Reproduction							210 copies					
	Media (mylar)							40 sheets					
	Misc Expenses:												
	Express delivery												
	Research Materials												
	TOTAL DIRECT EXPENSES:												
	K FRIESE ENGINEERING TOTAL COST												\$ 27,709

GRAY JANSING & ASSOCIATES, INC.

TASK	Hourly Rate	SHEETS	PROJECT MANAGER \$	SENIOR SPECIALIST \$	SENIOR BRIDGE ENGINEER \$	SENIOR PROJECT ENGINEER \$	ENGINEER \$	EIT \$	SIL. ENGR. TECH. \$	ENGR. TECH. \$	CLERICAL \$	SUB TOTALS
1.02 GOVERNMENTAL AGENCY COORDINATION												
A. Coordination												
1. City of Cedar Park - 1 meetings												
2. City of Leander - 1 meetings												
3. City of Leander - 1 meetings												
4. Williamson County - 1 meetings												
SUB-TOTAL NUMBER OF SHEETS:												
SUB-TOTAL LABOR COST:												
1.03 DATA COLLECTION												
A. Collect, Review and Evaluate Data												
B. Field Investigations												
SUB-TOTAL NUMBER OF SHEETS:												
SUB-TOTAL LABOR COST:												
1.04 ROW MAPPING												
SUB-TOTAL NUMBER OF SHEETS:												
SUB-TOTAL LABOR COST:												
1.07 UTILITY COORDINATION AND DESIGN												
A. Coordination Meetings												
D. Illustrate existing and proposed utility locations on shared use path plans												
F. Illustrate existing utility easements on shared use path profiles												
G. Review utility relocation plans for clearance of conduits												
H. Notify DEC of any utility conflicts (existing and/or proposed)												
SUB-TOTAL NUMBER OF SHEETS:												
SUB-TOTAL LABOR COST:												
1.08 INITIAL DESIGN AND DEC												
A. Review 183A Extension Project Manual												
D. Schedule Revisions												
1. Horizontal and vertical relocations for shared use path												
2. Finalize location of any shared use path												
3. Coordinate modifications with the DEC												
4. Coordinate modifications with the DEC												
7. Notify DEC of any jurisdictional permit needs												
E. Preliminary Cost Estimate												
G. Allow DEC												
SUB-TOTAL NUMBER OF SHEETS:												
SUB-TOTAL LABOR COST:												

GRAY JANSING & ASSOCIATES, INC.

TASK	Hourly Rate:	SHEETS	PROJECT MANAGER	SENIOR SPECIALIST	SENIOR ENGINEER	SENIOR PROJECT ENGINEER	SENIOR ENGINEER	ENGINEER	BIT	SR. ENGR. TECH.	ENGR. TECH.	CLERICAL	SUB TOTALS
<b>1.09 ROADWAY DESIGN</b>													
A. Basic Plan Sheets													
B. Grading, Slopes, Elevation													
C. Right-of-Way & Utility													
D. Proposed Typical Sections for Drains and Pans													
E. Horizontal Alignment Data Sheets (Coordination)													
F. Super-elevation Data Sheets													
G. Proposed Utility Plans & Profiles													
H. Grading and Details													
I. Develop Microdrainage Details													
SUB-TOTAL NUMBER OF SHEETS:													
SUB-TOTAL HOURS:													
SUB-TOTAL LABOR COST:													
<b>1.10 DRAINAGE DESIGN</b>													
A. Single Plan Sheet (Coordination)													
B. Storm Drain Plan Sheet (Coordination)													
C. Driveway Culvert Plan Sheet (Coordination)													
D. Water Quality (Coordination)													
SUB-TOTAL NUMBER OF SHEETS:													
SUB-TOTAL HOURS:													
SUB-TOTAL LABOR COST:													
<b>1.11 STRUCTURAL DESIGN</b>													
A. Construction													
SUB-TOTAL NUMBER OF SHEETS:													
SUB-TOTAL HOURS:													
SUB-TOTAL LABOR COST:													
<b>1.12 SIGNING, MARKINGS AND SIGNALIZATION</b>													
A. Signing and Pavement Marking Layouts for Drains and Pans													
SUB-TOTAL NUMBER OF SHEETS:													
SUB-TOTAL HOURS:													
SUB-TOTAL LABOR COST:													
<b>1.13 MISCELLANEOUS</b>													
A. Openings & Enclosures (80% PFD-F and PFD)													
B. Standards, Specifications and Estimates													
1. Openings Standards													
2. Standardized Standard Details													
3. Project Specifications and Provisions													
4. Project General Notes													
5. Construction Costs Estimate													
SUB-TOTAL NUMBER OF SHEETS:													
SUB-TOTAL HOURS:													
SUB-TOTAL LABOR COST:													
SUB-TOTAL NUMBER OF SHEETS:													
SUB-TOTAL HOURS:													
SUB-TOTAL LABOR COST:													





AGUIRRE & FIELDS, LP

TASK	Hourly Rate:	SHEETS	PROJECT MANAGER	SENIOR SPECIALIST	SENIOR BRIDGE ENGINEER \$61.00	SENIOR PROJECT ENGINEER	PROJECT ENGINEER \$45.00	ENGINEER \$39.50	BIT \$27.00	SR. ENGR. TECH. \$36.00	ENGR. TECH. \$24.00	CLERICAL	SUB TOTALS
<b>1.10 DRAINAGE DESIGN</b>													
A. Retaining Walls at Detention Ponds													
1. Badger Pond - Sta 488+00		4			4		12	20		28	52		116
2. Bulldog Pond - Sta 496+00		3			4		6	14		24	24		74
SUB-TOTAL NUMBER OF SHEETS:		7			8		20	34		52	76		Column Total = 190 Row Total = 190
SUB-TOTAL DIRECT SALARY COST:			\$ -	\$ -	\$ 488	\$ -	\$ 900	\$ 1,343	\$ -	\$ 1,872	\$ 1,824	\$ -	\$ 6,427
<b>1.11 STRUCTURAL DESIGN</b>													
SUB-TOTAL NUMBER OF SHEETS:													
SUB-TOTAL DIRECT SALARY COST:			\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -
<b>1.12 RETAINING WALL DESIGN</b>													
A. Retaining Walls (Non-Mile)													
1. Retaining Wall 19 - Soil Nsh Layout (29-sheets)		3			7		12	20		24	24		87
SUB-TOTAL NUMBER OF SHEETS:		3			7		12	20		24	24		Column Total = 87 Row Total = 87
SUB-TOTAL DIRECT SALARY COST:			\$ -	\$ -	\$ 427	\$ -	\$ 540	\$ 790	\$ -	\$ 864	\$ 576	\$ -	\$ 3,197
<b>1.18 MISCELLANEOUS</b>													
SUB-TOTAL NUMBER OF SHEETS:													
SUB-TOTAL DIRECT SALARY COST:			\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -
<b>1.19 COORDINATION, MEETINGS &amp; INVOICING</b>													
SUB-TOTAL NUMBER OF SHEETS:													
SUB-TOTAL DIRECT SALARY COST:			\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -
TOTAL NUMBER OF SHEETS:		10			15		32	54		76	100		Column Total = 277 Row Total = 277
TOTAL HOURS:													
DIRECT SALARY COST			\$ -	\$ -	\$ 915	\$ -	\$ 1,640	\$ 2,133	\$ -	\$ 2,736	\$ 2,400	\$ -	\$ 9,624
OVERHEAD		170.00%											16,361
DIRECT SALARY PLUS OVERHEAD													25,985
PROFIT		12.00%											3,118
TOTAL LABOR COST													\$ 29,103
DIRECT EXPENSES:		Travel: Mileage \$0.49 per mile Per diem \$25.00 per day Lodging \$100.00 per night Copies: Reproduction \$0.20 per copy Modis (mylar) \$1.00 per sheet Misc Expenses: Express delivery \$25.00 per each											
TOTAL DIRECT EXPENSES:													\$ -
AGUIRRE & FIELDS ENGINEERING TOTAL COST													\$ 29,103















RJ RIVERA ASSOCIATES, INC.

TASK	Hourly Rate:	SHEETS	PROJECT MANAGER	SENIOR SPECIALIST	SENIOR BRIDGE ENGINEER	SENIOR PROJECT ENGINEER	SENIOR ENGINEER	ENGINEER	ETT	SR ENGR. TECH.	ENGR. TECH.	CLERICAL	SUB TOTALS
			\$	\$	\$	\$	\$	\$	\$	\$	\$	\$	\$
1.07 GOVERNMENTAL AGENCY COORDINATION													
A. Coordination													
1. TDCU - 3 meetings													
2. City of Colleyville - 1 meeting													
3. City of Leander - 1 meeting													
SUB-TOTAL NUMBER OF SHEETS:													
SUB-TOTAL HOURS:													
SUB-TOTAL LABOR COST:													
1.03 DATA COLLECTION													
A. Review and Evaluate Data													
B. Field Investigations													
SUB-TOTAL NUMBER OF SHEETS:													
SUB-TOTAL HOURS:													
SUB-TOTAL LABOR COST:													
1.07 UTILITY COORDINATION AND DESIGN													
A. Coordination Meetings - 2 meetings													
SUB-TOTAL NUMBER OF SHEETS:													
SUB-TOTAL HOURS:													
SUB-TOTAL LABOR COST:													
1.06 INITIAL DESIGN AND BIDD													
A. Review 103A (Interim Project Manual													
B. Preliminary Cost Estimate													
C. Amend DCC													
SUB-TOTAL NUMBER OF SHEETS:													
SUB-TOTAL HOURS:													
SUB-TOTAL LABOR COST:													
1.13 SIGNING, MARKINGS AND SIGNALIZATION													
G. Traffic Signal Plans													
1. Conclusion diagram													
2. Plan layout sheets													
3. Notes for plan layout													
4. Phase sequence diagrams													
5. Conclusion detail sheets													
6. Marking details (North)													
7. Electrical and ITS													
H. Traffic Signal Control Plans and Schematics													
I. Temporary Traffic Signal Plans													
SUB-TOTAL NUMBER OF SHEETS:													
SUB-TOTAL HOURS:													
SUB-TOTAL LABOR COST:													
1.16 INTELLIGENT TRANSPORTATION SYSTEMS													
A. Incorporate ITS Facility Design													
B. Integrate Variable Highway Systems Design Layout Sheets 6, 8, 9													
C. Adjust ITS Turnpike Alignment Data sheet													
SUB-TOTAL NUMBER OF SHEETS:													
SUB-TOTAL HOURS:													
SUB-TOTAL LABOR COST:													
1.14 ILLUSTRATION													
A. Create/Update/Amend Lighting Layouts													
B. Signage Layouts													
SUB-TOTAL NUMBER OF SHEETS:													
SUB-TOTAL HOURS:													
SUB-TOTAL LABOR COST:													
Column Total = 12													
Row Total = 12													
Column Total = 61													
Row Total = 61													



RJ RIVERA ASSOCIATES, INC.

TASK	Hourly Rate:	SHEETS	PROJECT MANAGER	SENIOR SPECIALIST	SENIOR BRIDGE ENGINEER	SENIOR PROJECT ENGINEER	SENIOR ENGINEER	ENGINEER	ET	SP. ENGR. TECH.	ENGR. TECH.	CLERICAL	SUB TOTALS	
			\$	\$	\$	\$	\$	\$	\$	\$	\$	\$	\$	
		Multiple Per item Loading						400 sheets days nights	29.00				\$43.00	
		Copies: Reproduction Media (mylar)						54 copies 18 sheets					\$10.80 \$36.00	
		Misc Expenses: Express delivery Research Materials						1 sheet					\$25.00	
<b>TOTAL DIRECT EXPENSES:</b>													\$	115
<b>RJR ENGINEERING TOTAL COST</b>													\$	24,742





