



**CENTRAL TEXAS
Regional Mobility Authority**

AGENDA ITEM #6 SUMMARY

Approve an amendment to the contract with CP&Y Inc. for preliminary engineering and environmental services on the 183 North Mobility project.

Strategic Plan Relevance: Regional Mobility
Department: Engineering
Associated Costs: \$387,771.91
Funding Source: General Fund, Reimbursed with STP-MM Funds
Board Action Required: Yes

Description of Matter: On August 2, 2013, the Mobility Authority entered into a Master Contract and Work Authorization No. 1 with CP&Y Inc. for preliminary engineering and environmental services necessary to implement the 183 North Mobility Project. This amendment provides for extended and additional services to be delivered by the engineer that were not included in the original scope of work. The need for additional services is the result of the extension of the project study area and additional alternatives for analysis and evaluation, including two express lanes and additional general purpose lanes.

Reference: Draft Resolution
Contact: Wesley M. Burford, P.E. Director of Engineering

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

RESOLUTION NO. 15-___

**APPROVING AN AMENDMENT TO THE CONTRACT WITH
CP&Y INC. FOR PRELIMINARY ENGINEERING AND
ENVIRONMENTAL SERVICES ON THE 183 NORTH MOBILITY PROJECT.**

WHEREAS, by Resolution No. 13-023 dated March 27, 2013, the Board of Directors authorized the Executive Director to finalize and execute a professional services contract with CP&Y Inc. (“CP&Y”) for preliminary engineering and environmental services for development of the 183 North Mobility Project (the “Project”); and

WHEREAS, the scope of services needed for the Project has increased as a result of an extension of the project study area and alternatives for analysis and evaluation of the Project, including two express lanes and additional general purpose lanes; and

WHEREAS, the Executive Director and CP&Y have discussed and agreed to a proposed amendment to the contract for CP&Y to provide the expanded scope of services, a copy of which has been provided to the Board as agenda backup information for this resolution.

NOW, THEREFORE, BE IT RESOLVED that the Board hereby authorizes the Executive Director to negotiate and execute an amendment to the contract with CP&Y Inc. in the form or substantially the form provided to the Board as agenda backup information, in an amount not to exceed \$387,771.91.

Adopted by the Board of Directors of the Central Texas Regional Mobility Authority on the 25th day of February, 2015.

Submitted and reviewed by:

Approved:

Andrew Martin, General Counsel

Ray A. Wilkerson
Chairman, Board of Directors

**AMENDMENT NO. 1
TO THE
CONTRACT FOR ENGINEERING SERVICES**

This Amendment No. 1 to the Contract for Engineering Services (“Amendment No. 1”) is between the Central Texas Regional Mobility Authority (“Authority”) and CP&Y, Inc. (“Engineer”) and is effective on _____, 2015.

WHEREAS, the Authority and the Engineer entered into that certain Contract for Engineering Services effective August 2, 2013, (the “Contract”) and that certain Work Authorization No. 01 effective August 2, 2013, (which, together with the Contract, are referred to herein as the “Contract Documents”) wherein the Authority contracted with the Engineer for engineering services for the US 183 North Project; and

WHEREAS, the Authority and Engineer wish to amend the Contract Documents to establish terms and conditions for an additional scope of services to be provided by Engineer beyond the existing Contract Documents.

The Authority and Engineer hereby amend the Contract as follows:

PART I: In addition to the scope of services set forth in Work Authorization No. 1, the Engineer shall provide an additional scope of services as set forth in the attached Exhibit A – Amendment No. 1.

PART II: The maximum amount payable for services provided under the Contract Documents, including this Amendment No. 1, is increased by **\$387,771.91**, from **\$3,909,455.74** to **\$4,297,227.65**, as such additional costs are shown in the fee schedules in the attached Exhibit D.

This Amendment No. 1 shall become effective on the date of final execution of the parties hereto. All other terms and conditions of the Contract Documents not hereby amended are to remain in full force and effect.

IN WITNESS WHEREOF, this Amendment No. 1 is executed in duplicate counterparts and hereby accepted and acknowledged below.

THE ENGINEER

**CENTRAL TEXAS REGIONAL
MOBILITY AUTHORITY**

(Signature)

(Signature)

J.J. Roohms

Mike Heiligenstein

Chief Operating Officer

Executive Director

(Date)

(Date)

EXHIBIT A
AMENDMENT NO. 1

Central Texas Regional Mobility Authority

183 North Mobility Project
SH 45/RM 620 South to MoPac

ADDITIONAL SERVICES TO BE PROVIDED BY THE ENGINEER

I. INTRODUCTION

The ENGINEER shall perform additional work beyond the scope defined in the original contract consisting of alternatives development and evaluation, environmental studies, public involvement, preliminary engineering, design, hydraulic studies, and schematic development for the Central Texas Regional Mobility Authority's (Mobility Authority) proposed 183 North Mobility Project (Project) located in Williamson and Travis Counties, Texas. Work to be performed under this contract shall be in compliance with applicable environmental laws, rules and regulations governing the development of transportation projects including but not limited to 23 CFR 771, the Federal Highway Administration's (FHWA) Technical Advisory 6640.A, the Texas Department of Transportation's (TxDOT) Environmental and Public Involvement rules, and TxDOT and/or FHWA guidance in effect at the time of contract execution.

The Project Limits were originally defined as being along US 183 from the SH 45/RM 620 interchange south to the MoPac interchange. As the project has progressed, it has become necessary to extend the study area at both ends of the project. At the north end, the limits now extend along US 183 to 4,000 feet north of the SH 45/RM 620 interchange as well as about 1.2 miles along RM 620 west to the Lake Creek Parkway / Great Valley Drive intersection. The extension of the project limits west along RM 620 will also involve the acquisition of additional right-of-way beyond what was anticipated in the original scope. At the south end of the project, the limits now extend along US 183 to 3,000 feet south of the MoPac interchange.

The original Project scope assumed that only one additional lane would be added along US 183. Following preliminary alternative investigations, it was determined that the preferred alternative would include two express lanes in each direction while also maintaining the desire to minimize impacts to the existing corridor features, especially bridges and retaining walls. In addition, after work had already begun on the draft environmental assessment and technical reports, it was determined that an additional general purpose lane would be investigated from McNeil Drive to MoPac and implemented into the preferred alternative.

Given the above revisions to the project scope, the ENGINEER shall complete the following additional tasks:

- Update the investigation and documentation of appropriate environmental components to the Environmental Assessment (EA)
- Reassessment and expansion of the pertinent hydrologic and hydraulic engineering, including the improvements required to meet water quality regulations
- Revision and expansion of the geometric schematic for the preferred alternative

II. ROUTE AND DESIGN STUDIES

A. ALTERNATIVES DEVELOPMENT AND ANALYSIS

Task 1: Data Collection

Gather and review information from TxDOT for the design plans of the SH 45 existing interchange and ultimate schematic and for 183A for use in place of ground survey that was only obtained to 1,000 feet north of SH 45.

Task 2: Preliminary Alternatives Development

- a. The ENGINEER shall investigate alternatives for the SH 45 / RM 620 interchange with US 183. Upon selection of the preferred alternative, the ENGINEER shall prepare preliminary configuration layouts for the conceptual design.
- b. The ENGINEER shall investigate additional alternatives for the MoPac / US 183 interchange to connect the 183 North Express Lanes to the Loop 1 Express Lanes, including the transition to MoPac south of US 183. The ENGINEER shall prepare detailed diagrams of these alternatives for evaluation and traffic modeling microsimulations beyond those identified in the original scope.
- c. The ENGINEER shall investigate the options for adding a T-Ramp from the CapMetro Pavilion Park & Ride to the 183 North Express Lanes and prepare a feasibility analysis, conceptual layout, and cost estimate for up to three (3) T-Ramp configurations.
- d. The ENGINEER shall investigate the feasibility of adding a fourth general purpose (GP) lane where only three GP lanes currently exist on US 183 from McNeil Drive to Braker Lane / MoPac and prepare conceptual layouts.

Task 3: Engineering Technical Memos

- a. The ENGINEER shall prepare an engineering technical memo outlining potential alternatives for improvements to the Loop 360 / US 183 interchange and revise it up to two (2) times based on additional feedback from project stakeholders.

- b. The ENGINEER shall re-evaluate the MoPac Improvement Project ingress / egress configuration near RM 2222 to accommodate the 183 North Express Lane connection and transition. The ENGINEER shall then prepare an engineering technical memo justifying the configuration of the proposed addition of an auxiliary lane on the Loop 1 Express Lanes to accommodate traffic to / from the 183 North Express Lanes.

Deliverables

- Conceptual layouts and typical sections of the Preliminary Alternatives (hard copies and electronic files)
- Engineering Technical Memos

B. PRELIMINARY OPINION OF PROBABLE CONSTRUCTION COST

The ENGINEER shall develop preliminary opinions of probable construction cost ("Estimates") for the two revised lane configurations using the most current relevant industry unit prices. Estimates will not be exhaustively developed by individual bid items, but by groupings of similar items by major category as appropriate for planning level cost comparative analysis.

C. DESIGN SCHEMATICS

For the Preferred Alternative, the ENGINEER shall:

- a. For the extension of the project limits to 4,000 feet north of SH 45 and to 3,000 feet south of MoPac, the ENGINEER will develop the geometric design that will include the refinement of the proposed typical sections and a fully calculated geometric design that includes all necessary horizontal and vertical alignments.
- b. For the addition of a fourth GP lane where only three GP lanes currently exist on US 183 from McNeil Drive to Braker Lane / MoPac, the ENGINEER will develop the geometric design that will include the refinement of the proposed typical sections and a fully calculated geometric design that includes all necessary horizontal and vertical alignments.
- c. The ENGINEER shall coordinate the additional design exceptions necessary for the revised lane configurations (SH 45 interchange, two Express Lanes in each direction, fourth general purpose lane, and MoPac transition) with the Mobility Authority, TxDOT, and FHWA, as appropriate. This includes providing a formal justification request package for each exception and preparation and attendance at up to four (4) coordination meetings.
- d. The ENGINEER will prepare a geometric schematic plan and profile drawing in accordance with the Chapter 1, Section 3, of the State's *Roadway Design Manual*. The limits of the geometric schematic shall be based on the revised logical termini with appropriate transitions on each end of US 183, MoPac,

and to westbound RM 620. The ENGINEER shall deliver 3 copies of the schematic design to the Mobility Authority for approval.

- e. The ENGINEER will develop up to three (3) concepts for the termination of the northbound US 183 direct connect ramp to westbound RM 620. The concepts will account for an extension of the SH 45 Toll Road to the west, include overpasses at Pecan Park Boulevard and Ridgeline Boulevard and connect to westbound RM 620.
- f. Develop preliminary cross sections at 200' increments and at critical locations along RM 620 and direct connect ramps.
- g. Perform design of potential alternate wishbone ramp concept between Anderson Mill Road and McNeil Drive (northbound and southbound directions) including revised bridge locations for the wishbone structures.
- h. Perform basic preliminary engineering to determine general bent placements and structure depths for bridge widening and/or new bridges at the following locations:

The RM 620 structures including the following:

1. Direct Connect ramps for the northbound US 183 to westbound RM 620 movement and the eastbound RM 620 to southbound US 183 movement. Two activities comprise this task:
 - The coordination of a SH 45 Toll Road extension with respect to alignment, grade, and future connectivity; and,
 - The interim connection between the westbound SH 45/RM 620, the new northbound to westbound direct connect ramp, and the transition to westbound RM 620.

Deliverables

- Geometric schematic for preferred alternative utilizing the TxDOT Austin District Schematic Checklist (in both DGN and PDF formats).
- Preliminary design cross sections in both electronic and roll format.

III. SOCIAL, ECONOMIC AND ENVIRONMENTAL STUDIES AND PUBLIC INVOLVEMENT

The ENGINEER shall provide environmental and public involvement services necessary to produce an EA for the Project.

A. ENVIRONMENTAL ANALYSIS FOR INCLUSION IN THE EA

Task 1: Analysis of Social and Economic Conditions (including relocations and disproportionate impacts):

The Community Impact Assessment and technical report has been completed and was undergoing internal review. The Community Impact Assessment and technical report will be updated to address the displacement on RM 620 and the changes in mobility and access due to the additional general purpose lane.

Task 2: Traffic Noise Analysis

Noise modeling for the proposed facility was approximately 75% complete (all x,y input was complete but z value were still lacking). Horizontal modeling of the proposed facility will be updated to address the additional general purpose lane.

Task 3: Historic Resource Studies

A Project Coordination Request (PCR) was completed for the proposed project, reviewed by the GEC and comments addressed. Additional historic resource studies will need to be performed and the PCR will need to be updated to address the following:

- 1) The addition of a fourth traffic lane could result in the need for additional temporary and permanent easements as well as detention ponds. The APE would need to be extended to cover these additional areas and incorporated into the PCR documentation.
- 2) The extension of the projects limits to the west along RM 620 requires additional survey, evaluation and PCR update.

Task 4: Initial Assessment of Hazardous Materials

- 1) The ENGINEER will order and review Hazardous Materials database searches to cover the ASTM search distance for each of the additional drainage easements/detention ponds and/or additional project area for a potential added 4th lane on US 183 between McNeil Drive and Braker Ln. / MoPac. Historical topographic maps and aerial photographs will be reviewed. Sites of potential concern to the site will be identified.
- 2) The ENGINEER will conduct a site reconnaissance of the additional project area to identify current land use in the vicinity of the project and identify potential environmental concerns within those areas.

- 3) The ENGINEER will prepare one hazardous materials technical report that covers the additional project area. The technical report will summarize the information from the database searches, historical sources, site reconnaissance, and additional data provided by the Mobility Authority (geotechnical boring reports, as-built plans, and etc.). Interviews with property owners/operators will not be provided and the report will not constitute a Phase I Environmental Site Assessment to ASTM Standard E1527-13.

Deliverables

- One Hazardous Materials Technical Report that covers the additional drainage easements/detention ponds and potential right-of-way.
- TxDOT Hazardous Materials ISA form.

B. PUBLIC INVOLVEMENT

The ENGINEER shall perform public involvement activities in accordance with 43 TAC §2.40 – 2.50 as well as with the current version of TxDOT’s environmental procedures manual.

Task 1: Stakeholder Engagement

- a. The ENGINEER shall make all arrangements for the rescheduling of one (1) Open House. Each Open House shall be coordinated and held in accordance with the following:
 1. The ENGINEER shall secure the meeting/hearing location, date and time (includes securing A/V equipment, chairs/tables, podium, etc.) In the interest of the community outreach and cost, the ENGINEER should ideally pursue non-commercial, community sites for the Public Meetings/Hearings when possible.
 2. The ENGINEER shall prepare and publish legal notices, Display Advertisements, and online advertisements for each meeting/hearing. The ENGINEER shall prepare and distribute meeting notices for distribution to the contacts on project databases. Postcards will be mailed to the households in the surrounding area prior to the first Open House and the Public Hearing. The ENGINEER shall provide the Mobility Authority draft copies of legal notices, display ads, and online advertisements at least three (3) weeks prior to first publication date.
 3. The ENGINEER shall prepare meeting/hearing handouts, agendas, name tags, sign-in sheets, speaker cards, comment cards and Power Point presentations with accompanying speech. The Power Point presentation and accompanying speech will be limited to the Public Hearing. Up to four (4) different line diagrams and up to 20 exhibit boards shall be prepared by the ENGINEER per meeting/hearing.
 4. The ENGINEER shall provide a translator (if needed), audio/video equipment (projector, screen, microphones, podium, etc.) (if needed).

5. The ENGINEER shall provide a court reporter for each Public Meeting/Hearing.
6. The ENGINEER shall compile and prepare responses to comments at each Public Meeting/Hearing.
7. The ENGINEER shall make up to four (4) rounds of revisions on all meeting materials. The ENGINEER shall obtain the Mobility Authority's approval on all materials prior to production or publication.
8. The ENGINEER shall arrange up to four (4) pre-meetings (a pre-meeting prior to each series of public meeting or hearing) with the Mobility Authority and TxDOT to review all exhibits and other materials to be used at public meetings or hearings.
9. The ENGINEER shall provide personnel to staff up to four (4) meetings/hearings including three (3) public involvement and coordination staff to perform registration, make presentations, and answer questions.
10. The ENGINEER shall develop and submit to the Mobility Authority Public Meeting/Hearing Summary Reports for up to four (4) meetings and a Summary and Analysis of each public hearing that document the activities for each series of meetings/hearings conducted. These reports shall contain the outreach, notifications, and contacts conducted prior to the meetings/hearings; meeting/hearing details such as presentations, attendance, and pertinent details regarding the meeting/hearing; and a comment and response section that documents comments received before, during and after the meeting/hearing, and a response to each. The Public Meeting Summary Report and Public Hearing Summary and Analysis shall be sufficiently detailed to provide a full record of officially submitted comments from the meetings/hearings.

IV. DRAINAGE & WATER QUALITY

A. WATER QUALITY

The ENGINEER shall evaluate BMPs, perform loading calculations, and develop conceptual water quality plans associated for the following:

Task 1: SH 45 Interchange Design and RM 620 West Improvements

Develop water quality controls for RM 620 direct connects and RM 620 West improvements. This includes re-calculating loads and load removal for existing S183/SH45 BMPs for the direct connects. New or expanded BMPs will also be evaluated, in particular, the RM 620 West improvements.

Task 2: Two Lane in Each Direction Express Lanes

Develop water quality controls to account for additional volume related to the additional lanes, including additional consideration of innovative BMPs for this layout.

Task 3: Add Fourth General Purpose Lane Northbound and Southbound from MoPac to McNeil Drive

Develop additional water quality controls to account for additional volume related to the additional lanes and to account for additional space constraints. Due to the space constraints and additional impervious cover, more complex and alternative BMP systems will need to be evaluated.

Task 4: Calculate 85% Load Removal, Estimate Additional Pond Volumes and Areas

Develop enhanced water quality controls achieve 85% load removal instead of the 80% removal currently required by TCEQ. This task will involve alternative loading calculations and consideration of significantly larger BMPs and BMPs with higher efficiencies.

For the overall project, including any of the approved scope additions, it is intended that only a single overall water quality plan will be developed. Detailed loading calculations will be performed for this plan.

Exhibit D

**183N Managed Lanes
RM 620/SH45 to Mopac
CTRMA**

Task Description	Total Cost
<u>TOTAL LABOR COSTS</u>	
II. Project Management and Administration	
CP&Y, Inc.	\$ -
<i>II. Project Management and Administration Subtotal</i>	
\$ -	
II. Route and Design Studies	
CP&Y, Inc.	\$ 186,600.38
HDR Engineering	\$ 100,632.62
<i>II. Route and Design Studies Subtotal</i>	
\$ 287,233.00	
III. Social, Economic and Environmental Studies and Public Involvement	
CP&Y, Inc.	\$ 14,107.85
HDR Engineering	\$ 10,605.68
Nancy Ledbetter & Associates	\$ 12,570.35
<i>III. Social, Economic and Environmental Studies and Public Involvement Subtotal</i>	
\$ 37,283.88	
IV. Drainage & Water Quality	
CP&Y, Inc.	\$ 5,912.49
CRESPO	\$ 51,984.91
<i>IV. Drainage & Water Quality Subtotal</i>	
\$ 57,897.40	
<u>LABOR SUMMARY</u>	
CP&Y, Inc.	\$ 206,620.72
CRESPO	\$ 51,984.91
HDR Engineering	\$ 111,238.29
Nancy Ledbetter & Associates	\$ 12,570.35
SUBTOTAL LABOR EXPENSES	
\$ 382,414.28	
<u>EXPENSES</u>	
HDR Engineering	\$ 1,793.00
Nancy Ledbetter & Associates	\$ 3,204.63
Rifeline	\$ 360.00
EXPENSES Subtotal	
\$ 5,357.63	
<u>PROJECT SUMMARY</u>	
TOTAL LABOR COSTS	
\$ 382,414.28	
TOTAL EXPENSE COST	
\$ 5,357.63	
<u>CP&Y, Inc. TOTAL</u>	
CP&Y, Inc.	\$ 206,620.72
<u>SUBCONSULTANTS TOTAL</u>	
CRESPO	\$ 51,984.91
HDR Engineering	\$ 113,031.29
Nancy Ledbetter & Associates	\$ 15,774.98
Rifeline	\$ 360.00

Exhibit D

183N Managed Lanes RM 620/SH45 to Mopac CTRMA
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Task Description	Total Cost
<i>TOTAL LABOR COSTS</i>	
GRAND TOTAL	\$ 387,771.91

Exhibit D

183N Managed Lanes
RM 620/SH45 to Mopac
CTRMA

Fee Schedule/Budget for CP&Y, Inc.

Labor Anticipated to Complete

Task Description	Project Manager	Sr Engineer	Project Engineer	Design Engineer	EIT	Sr CADD Tech	CADD Tech	Sr Env Specialist	Env Specialist	Sr Arch Historian	Biologist	GIS Analyst	Administration	Total Labor Hours	Total Direct Labor Costs
Base Salary Rate	\$62.40	\$60.32	\$47.84	\$38.48	\$31.20	\$32.24	\$28.08	\$43.00	\$27.04	\$31.20	\$28.08	\$26.00	\$27.04		
Audited Overhead Rate	1.7349	1.7349	1.7349	1.7349	1.7349	1.7349	1.7349	1.7349	1.7349	1.7349	1.7349	1.7349	1.7349		
Profit	0.12	0.12	0.12	0.12	0.12	0.12	0.12	0.12	0.12	0.12	0.12	0.12	0.12		
	\$191.14	\$184.77	\$146.54	\$117.87	\$95.57	\$98.75	\$86.01	\$131.71	\$82.83	\$95.57	\$86.01	\$79.64	\$82.83		
II. Route and Design Studies															
A. Alternatives Development and Analysis															
Task 1: Data Collection															
Coordination of 183A and SH 45 Existing Documents, Designs	0	2	8	4	0	0	0	0	0	0	0	0	0	14	\$ 2,013.31
Task 2: Preliminary Alternatives Development															
a. SH 45 / RM 620 Interchange Alternatives and Preliminary Design Concepts	8	12	24	24	32	16	16	0	0	0	0	0	0	132	\$ 16,106.45
b. MoPac Level of Design, Number of Alternatives, Direct Connectors w/ Diagrams	8	12	24	32	40	16	24	0	0	0	0	0	0	156	\$ 18,502.03
c. T-Ramp to Pavilion P&R Concept, Feasibility & Cost Estimate (up to 3 configurations)	4	8	16	24	32	16	12	0	0	0	0	0	0	112	\$ 13,086.49
d. Addition of Fourth GP Lane (MoPac to McNeil Dr) Preliminary Investigation / Concepts	8	12	20	24	32	16	16	0	0	0	0	0	0	128	\$ 15,520.30
Task 3: Engineering Technical Memos															
a. Loop 360 Interchange Alternative Designs and Tech Memo	4	4	8	8	6	0	0	0	0	0	0	0	0	30	\$ 4,192.26
b. Re-evaluation of MIP Ingress/Egress; MoPac Auxiliary Lane Tech Memo	4	4	8	8	0	0	0	0	0	0	0	0	0	24	\$ 3,618.85
B. Preliminary Opinion of Probable Construction Cost															
Develop preliminary cost estimates for two (2) revised lane configurations	2	2	8	16	16	0	0	0	0	0	0	0	0	44	\$ 5,339.08
C. Design Schematics															
a. Extension of Project Limits to 4000' north of SH 45 and to 3000' south of MoPac	4	4	20	24	16	0	0	0	0	0	0	0	0	68	\$ 8,792.29
b. Addition of Fourth GP Lane (MoPac to McNeil Dr)	8	28	64	80	80	64	60	0	0	0	0	0	0	384	\$ 44,636.79
c. Expanded Design Exception Effort	12	24	60	80	120	40	40	0	0	0	0	0	0	376	\$ 43,808.53
d. Prepare geometric schematic plan and profile to include update RM 620/SH 45 direct	0	4	4	0	0	0	0	0	0	0	0	0	0	8	\$ 1,325.21
e. Develop geometric design concepts for termination at RM 620 (up to 3 concepts)	0	4	4	0	0	0	0	0	0	0	0	0	0	8	\$ 1,325.21
f. Develop preliminary cross sections at 200' increments and at critical locations	0	4	4	0	0	0	0	0	0	0	0	0	0	8	\$ 1,325.21
g. Perform design of potential alternate wishbone ramp concept	2	8	8	0	0	0	0	0	0	0	0	0	0	18	\$ 3,032.70
h. Perform basic preliminary engineering for bent placement and structure depths for	0	12	12	0	0	0	0	0	0	0	0	0	0	24	\$ 3,975.64
														1,534	\$ 186,600.38
III. Social, Economic and Environmental Studies and Public Involvement															
A. Environmental Analysis for Inclusion in the EA															
Task 1: Analysis of Social and Economic Conditions															
Community Impact Assessment Revisions	1	0	0	0	0	0	0	2	12	0	0	8	0	23	\$ 2,085.60
Task 2: Traffic Noise Analysis															
Noise Modeling Updates	8	0	0	0	0	0	0	44	0	0	0	24	0	76	\$ 9,235.82
Task 3: Historic Resources Studies															
Historic Project Coordination Request Revisions	0	0	0	0	0	0	0	2	2	18	0	8	0	30	\$ 2,786.43
														129	\$ 14,107.85
VI. Drainage & Water Quality															
A. Water Quality															
Task 1: Interchange and SH 45 / RM 620 Design															
Task 2: Two Lane in Each Direction Express Lanes	2	4	6	0	0	0	0	0	0	0	0	0	0	12	\$ 2,000.56
Task 3: Add Fourth GP Lane from MoPac to McNeil Dr	0	2	4	0	0	0	0	0	0	0	0	0	0	6	\$ 955.68
Task 4: Calculate 85% Load Removal, Estimate Additional Pond Volumes/Areas	0	2	4	0	0	0	0	0	0	0	0	0	0	6	\$ 955.68
	2	4	6	0	0	0	0	0	0	0	0	0	0	12	\$ 2,000.56
														36	\$ 5,912.49
SUBTOTALS															
HOURS SUB-TOTALS	77	156	312	324	374	168	168	48	14	18	0	40	0	1,699	\$ 206,620.72
SUBTOTAL	\$ 14,717.53	\$ 28,823.41	\$ 45,719.90	\$ 38,189.11	\$ 35,742.56	\$ 16,590.66	\$ 14,449.93	\$ 6,322.21	\$ 1,159.56	\$ 1,720.23	\$ -	\$ 3,185.61	\$ -		\$ 206,620.72

Exhibit D

**183N Managed Lanes
RM 620/SH45 to Mopac
CTRMA**

Fee Schedule/Budget for Crespo Consulting Services, Inc.

Task Description	Principal Engineer	Senior Engineer	Hydrologist/Environ. Scientist	Engineer Associate	Planner	GIS/Water Resources Specialist	Total Labor Hours	Total Direct Labor Costs
Base Salary Rate	\$51.48	\$40.46	\$31.10	\$26.78	\$26.78	\$20.80		
Audited Overhead Rate	1.8	1.8	1.8	1.8	1.8	1.8		
Profit	0.12	0.12	0.12	0.12	0.12	0.12		
	\$161.44	\$126.87	\$97.52	\$83.98	\$83.98	\$65.23		
<i>IV. Drainage & Water Quality</i>								
A. Water Quality								
Task 1: Interchange and SH 45 / RM 620 Design	44	-	-	66	2	78	190	\$ 17,902.04
Task 2: Two Lane in Each Direction Express Lanes	20	-	-	40	1	38	99	\$ 9,150.79
Task 3: Add Fourth GP Lane from MoPac to McNeil Dr	36	-	-	64	1	60	161	\$ 15,184.45
Task 4: Calculate 85% Load Removal, Estimate Additional Pond Volumes/Areas	20	-	-	44	1	42	107	\$ 9,747.63
	-	-	-	-	-	-		\$ -
							557	\$ 51,984.91
SUBTOTALS								
HOURS SUB-TOTALS	120	0	0	214	5	218	557	\$ 51,984.91
SUBTOTAL	\$ 19,372.95	\$ -	\$ -	\$ 17,972.17	\$ 419.91	\$ 14,219.88		\$ 51,984.91

Exhibit D

183N Managed Lanes
RM 620/SH45 to Mopac
CTRMA

Fee Schedule/Budget for HDR Engineering, Inc.

Task Description	Project Manager	Senior Env Manager	Senior Project Engineer	Senior Design Engineer	Project Engineer	Design Engineer	Env Specialist	EIT	Senior CAD	Admin	Total Labor Hours	Total Direct Labor Costs
Base Salary Rate	\$77.00	\$72.00	\$67.00	\$57.00	\$46.00	\$43.00	\$41.00	\$41.00	\$36.00	\$29.00		
Audited Overhead Rate	1.5788	1.5788	1.5788	1.5788	1.5788	1.5788	1.5788	1.5788	1.5788	1.5788		
Profit	0.12	0.12	0.12	0.12	0.12	0.12	0.12	0.12	0.12	0.12		
	\$222.40	\$207.95	\$193.51	\$164.63	\$132.86	\$124.20	\$118.42	\$118.42	\$103.98	\$83.76		
III. Route and Design Studies												
C. Design Schematics	-	-	-	-	-	-	-	-	-	-		
c. Coordinate additional design exceptions	-	-	2	-	-	16	-	-	-	-	18	\$ 2,374.15
d. Prepare geometric schematic plan and profile to include update RM 620/SH 45 direct connecting ramps and RM 620 extension west	-	-	16	-	-	40	-	-	24	-	80	\$ 10,559.46
e. Develop geometric design concepts for termination at RM 620 (up to 3 concepts)	-	-	16	-	-	56	-	-	10	-	82	\$ 11,090.90
f. Develop preliminary cross sections at 200' increments and at critical locations	-	-	12	24	-	24	-	16	-	-	76	\$ 11,148.67
g. Perform design of potential alternate wishbone ramp concept	8	-	12	24	48	-	-	64	-	-	156	\$ 22,008.51
h. Perform basic preliminary engineering for bent placement and structure depths for added structures (50% more)	8	-	-	52	40	52	-	124	64	-	340	\$ 43,450.92
	-	-	-	-	-	-	-	-	-	-		\$ -
	-	-	-	-	-	-	-	-	-	-		\$ -
											752	\$ 100,632.62
IV. Social, Economic and Environmental Studies and Public Involvement												
A. Environmental Analysis for Inclusion in the EA												
Task 4: Initial Assessment of Hazardous Materials	-	-	-	-	-	-	-	-	-	-		\$ -
1) Review Hazardous Materials Database Searches and Historical Data	-	4	-	-	-	-	20	-	-	-	24	\$ 3,200.19
2) Conduct Site Reconnaissance	-	2	-	-	-	-	16	-	-	-	18	\$ 2,310.60
3) Prepare Technical Report and TxDOT ISA Form	-	4	-	-	-	-	24	12	-	-	40	\$ 5,094.88
Task 5: Visual Impacts	-	-	-	-	-	-	-	-	-	-		\$ -
	-	-	-	-	-	-	-	-	-	-		\$ -
	-	-	-	-	-	-	-	-	-	-		\$ -
											82	\$ 10,605.68
SUBTOTALS												
HOURS SUB-TOTALS	16	10	58	100	88	188	60	216	98	0	834	\$ 111,238.29
SUBTOTAL	\$ 3,558.33	\$ 2,079.54	\$ 11,223.76	\$ 16,463.06	\$ 11,691.66	\$ 23,348.66	\$ 7,105.11	\$ 25,578.40	\$ 10,189.77	\$ -		\$ 111,238.29

Exhibit D

183N Managed Lanes
RM 620/SH45 to Mopac
CTRMA

Fee Schedule/Budget for Nancy Ledbetter & Associates, Inc.

Task Description	Project Adviser	Public Outreach Project Manager	Senior Public Involvement Specialist	Public Involvement Specialist	Graphic Artist	Admin	Total Labor Hours	Total Direct Labor Costs
Base Salary Rate	\$63.84	\$48.74	\$37.32	\$29.46	\$29.46	\$22.05		
Audited Overhead Rate	1.45	1.45	1.45	1.45	1.45	1.45		
Profit	0.12	0.12	0.12	0.12	0.12	0.12		
	\$175.18	\$133.75	\$102.41	\$80.85	\$80.85	\$60.51		
<i>IV. Social, Economic and Environmental Studies and Public Involvement</i>								
B. Public Involvement								
Task 1: Stakeholder Engagement	-	-	-	-	-	-		\$ -
a. Reschedule Open House #1	2	18	87	12	-	-	119	\$ 12,570.35
							119	\$ 12,570.35
SUBTOTALS								
HOURS SUB-TOTALS	2	18	87	12	0	0	119	\$ 12,570.35
SUBTOTAL	\$ 262.77	\$ 2,407.50	\$ 8,909.67	\$ 990.41	\$ -	\$ -		\$12,570.35

Exhibit D

**183N Managed Lanes
RM 620/SH45 to Mopac
CTRMA**

CP&Y, Inc.

Expense Item	Unit	Unit Cost	Amount	Total Cost
CADD Plotting	sf	\$ 1.50		\$ -
Mylar Plots	lf	\$ 6.00		\$ -
Digital Ortho Plotting	lf	\$ 2.00		\$ -
11" X 17" Mylar	sheet	\$ 1.00		\$ -
8 1/2" X 11" B/W Paper Copies	sheet	\$ 0.10		\$ -
11" X 17" B/W Paper Copies	sheet	\$ 0.15		\$ -
8 1/2" X 11" Color Paper Copies	sheet	\$ 1.00		\$ -
11" X 17" Color Paper Copies	sheet	\$ 1.80		\$ -
Fax Copies	sheet	\$ 0.10		\$ -
Film and Development	roll	\$ 8.00		\$ -
4 X 6 Digital Color Prints	picture	\$ 0.50		\$ -
Oversized Digital Color Prints	picture	\$ 50.00		\$ -
Standard Postage	letter	\$ 0.44		\$ -
Express Mail (Standard)	each	\$ 15.00		\$ -
Express Mail (Oversized)	each	\$ 30.00		\$ -
Deliveries	each	\$ 25.00		\$ -
Airfare	each	\$ 200.00		\$ -
Rental Car	day	\$ 80.00		\$ -
Lodging	day	\$ 85.00		\$ -
Meals	day	\$ 36.00		\$ -
Mileage	mile	\$ 0.550		\$ -
GPS Rental	day	\$ 80.000		\$ -
HazMat Database Search	each	\$ 1,500.000		\$ -
				\$ -
Miscellaneous Project Related Expenses	NA	at cost	NA	\$ -
				\$ -
SUBTOTAL DIRECT EXPENSES				\$ -

Exhibit D

**183N Managed Lanes
RM 620/SH45 to Mopac
CTRMA**

HDR Engineering

Expense Item	Unit	Unit Cost	Amount	Total Cost
CADD Plotting	sf	\$ 1.50	500	\$ 750.00
Mylar Plots	lf	\$ 6.00		\$ -
Digital Ortho Plotting	lf	\$ 2.00		\$ -
11" X 17" Mylar	sheet	\$ 1.00		\$ -
8 1/2" X 11" B/W Paper Copies	sheet	\$ 0.10	100	\$ 10.00
11" X 17" B/W Paper Copies	sheet	\$ 0.15		\$ -
8 1/2" X 11" Color Paper Copies	sheet	\$ 1.00		\$ -
11" X 17" Color Paper Copies	sheet	\$ 1.80		\$ -
Fax Copies	sheet	\$ 0.10		\$ -
Film and Development	roll	\$ 8.00		\$ -
4 X 6 Digital Color Prints	picture	\$ 0.50		\$ -
Oversized Digital Color Prints	picture	\$ 50.00		\$ -
Standard Postage	letter	\$ 0.44		\$ -
Express Mail (Standard)	each	\$ 15.00		\$ -
Express Mail (Oversized)	each	\$ 30.00		\$ -
Deliveries	each	\$ 25.00	0	\$ -
Airfare	each	\$ 200.00		\$ -
Rental Car	day	\$ 80.00		\$ -
Lodging	day	\$ 85.00		\$ -
Meals	day	\$ 36.00		\$ -
Mileage	mile	\$ 0.550	60	\$ 33.00
GPS Rental	day	\$ 80.000		\$ -
HazMat Database Search	each	\$ 250.000	4	\$ 1,000.00
				\$ -
Miscellaneous Project Related Expenses	NA	\$ 1,000.000		\$ -
				\$ -
SUBTOTAL DIRECT EXPENSES				\$ 1,793.00

Exhibit D

**183N Managed Lanes
RM 620/SH45 to Mopac
CTRMA**

Nancy Ledbetter & Associates

Exp	Unit	Unit Cost	Amount	Total Cost
CADD Plotting	sf	\$1.50		\$ -
Mylar Plots	lf	\$6.00		\$ -
Digital Ortho Plotting	lf	\$2.00		\$ -
11" X 17" Mylar	sheet	\$1.00		\$ -
8 1/2" X 11" B/W Paper Copies	sheet	\$0.10	1,278	\$ 127.80
11" X 17" B/W Paper Copies	sheet	\$0.15		\$ -
8 1/2" X 11" Color Paper Copies	sheet	\$1.00		\$ -
11" X 17" Color Paper Copies	sheet	\$1.80		\$ -
Fax Copies	sheet	\$0.10		\$ -
Film and Development	roll	\$8.00		\$ -
4 X 6 Digital Color Prints	picture	\$0.50		\$ -
Oversized Digital Color Prints	picture	\$50.00		\$ -
Standard Postage	letter	\$0.45		\$ -
Express Mail (Standard)	each	\$15.00		\$ -
Express Mail (Oversized)	each	\$30.00		\$ -
Deliveries	each	\$25.00		\$ -
Airfare	each	\$200.00		\$ -
Rental Car	day	\$80.00		\$ -
Lodging	day	\$85.00		\$ -
Meals	day	\$36.00		\$ -
Mileage	mile	\$ 0.550		\$ -
GPS Rental	day	\$ 80.000		\$ -
HazMat Database Search	each	\$ 250.000		\$ -
Newspaper Advertisement-2/3/14, 2/8/14				\$ 1,826.98
Arsenal - 2/4/14				\$ 169.85
KUT Radio Spot - 2/23/14				\$ 1,080.00
Newspaper Advertisement-Display (Ahora Si x 1)	per pub	\$ 1,000.000		\$ -
Newspaper Advertisement-Display (Hill Country News x 1)	per pub	\$ 600.000		\$ -
Court Reporter	event	\$ 800.000		\$ -
Law Enforcement/Uniform Officer	hour/officer	\$ 200.000		\$ -
Translator (English to Spanish or Sign Language)	hour	\$ 200.000		\$ -
Custodian for Public Meeting	hour/custodia	\$ 50.000		\$ -
Sound Technician for Public Meeting	event	\$ 800.000		\$ -
Public Meeting Facility Rental	event	\$ 800.000		\$ -
Audio - Visual Equipment Rental	event	\$ 200.000		\$ -
Public Notices - Mass Mailing	per mailing	\$ 800.000		\$ -
Public Notices - Mass eMailing	month	\$ 50.000		\$ -
Refreshments for public meeting	event	\$ 100.000		\$ -
Public Meeting Supplies	event	\$ 200.000		\$ -
Survey Monkey	month	\$ 30.000		\$ -
Miscellaneous Project Related Expenses	NA	at cost	NA	\$-

SUBTOTAL DIRECT EXPENSES

\$3,204.63

Exhibit D

**183N Managed Lanes
RM 620/SH45 to Mopac
CTRMA**

Rifeline, LLC

Expense Item	Unit	Unit Cost	Amount	Total Cost
CADD Plotting	sf	\$ 1.50		\$ -
Mylar Plots	lf	\$ 6.00		\$ -
Digital Ortho Plotting	lf	\$ 2.00		\$ -
11" X 17" Mylar	sheet	\$ 1.00		\$ -
8 1/2" X 11" B/W Paper Copies	sheet	\$ 0.10		\$ -
11" X 17" B/W Paper Copies	sheet	\$ 0.15		\$ -
8 1/2" X 11" Color Paper Copies	sheet	\$ 1.00		\$ -
11" X 17" Color Paper Copies	sheet	\$ 1.80		\$ -
Fax Copies	sheet	\$ 0.10		\$ -
Film and Development	roll	\$ 8.00		\$ -
4 X 6 Digital Color Prints	picture	\$ 0.50		\$ -
Oversized Digital Color Prints	picture	\$ 50.00		\$ -
Standard Postage	letter	\$ 0.44		\$ -
Express Mail (Standard)	each	\$ 15.00		\$ -
Express Mail (Oversized)	each	\$ 30.00		\$ -
Deliveries	each	\$ 25.00		\$ -
Airfare	each	\$ 200.00		\$ -
Rental Car	day	\$ 80.00		\$ -
Lodging	day	\$ 85.00		\$ -
Meals	day	\$ 36.00		\$ -
Mileage	mile	\$ 0.550		\$ -
GPS Rental	day	\$ 80.000		\$ -
HazMat Database Search	each	\$ 250.000		\$ -
Online ad design & placement	each	\$ 2,400.000		\$ -
Passenger Mini Bus	hr	\$ 120.000	3	\$ 360.00
Miscellaneous Project Related Expenses	NA	at cost	NA	\$ -
SUBTOTAL DIRECT EXPENSES				\$ 360.00