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

#### **RESOLUTION NO. 16-046**

#### ACCEPT THE FINANCIAL STATEMENTS FOR MAY 2016 AND JUNE 2016

WHEREAS, the Central Texas Regional Mobility Authority ("Mobility Authority") is empowered to procure such goods and services as it deems necessary to assist with its operations and to study and develop potential transportation projects, and is responsible to insure accurate financial records are maintained using sound and acceptable financial practices; and

WHEREAS, close scrutiny of the Mobility Authority's expenditures for goods and services, including those related to project development, as well as close scrutiny of the Mobility Authority's financial condition and records is the responsibility of the Board and its designees through procedures the Board may implement from time to time; and

WHEREAS, the Board has adopted policies and procedures intended to provide strong fiscal oversight and which authorize the Executive Director, working with the Mobility Authority's Chief Financial Officer, to review invoices, approve disbursements, and prepare and maintain accurate financial records and reports;

WHEREAS, the Executive Director, working with the Chief Financial Officer, has reviewed and authorized the disbursements necessary for the month of May 2016, and has caused Financial Statements to be prepared and attached to this resolution as <u>Exhibit A</u>; and

WHEREAS, the Executive Director, working with the Chief Financial Officer, has reviewed and authorized the disbursements necessary for the month of June 2016, and has caused Financial Statements to be prepared and attached to this resolution as <u>Exhibit B</u>.

NOW THEREFORE, BE IT RESOLVED, that the Board of Directors accepts the Financial Statements for May 2016 and June 2016, attached hereto as Exhibit A and Exhibit B, respectively.

Adopted by the Board of Directors of the Central Texas Regional Mobility Authority on the 27<sup>th</sup> day of July 2016.

Submitted and reviewed by:

Ray A. Wilkerson

Approved:

Chairman, Board of Directors

### Exhibit A

### **Financial Statements for May 2016**

Account Name	Budget Amount FY 2016	Actual Year to Date 5/31/2016	Percent of Budget	Actual PY to Date 5/31/2015
Revenue				
Operating Revenue				
Toll Revenue-TxTag-183A	32,107,731	25,707,911	80.07%	24,448,614
Toll Revenue-HCTRA-183A	1,678,072	2,296,494	136.85%	1,466,312
Toll Revenue-NTTA-183A	1,425,660	3,755,554	263.43%	993,235
Toll Revenue-TxTag-Manor	8,014,417	8,697,667	108.53%	7,402,775
Toll Revenue-HCTRA Manor	1,561,572	1,724,709	110.45%	1,545,055
Toll Revenue-NTTA-Manor	392,459	568,066	144.75%	363,301
Video Tolls 183A	9,541,998	7,937,533	83.19%	6,657,731
Video Tolls Manor Expressway	4,334,167	3,157,451	72.85%	2,372,072
Fee revenue 183A	2,471,500	2,812,201	113.79%	1,905,413
Fee revenue Manor Expressway	885,000	1,409,545	159.27%	871,061
Total Operating Revenue	 62,412,575	58,067,131	93.04%	48,025,568
Other Revenue				
Interest Income	250,000	1,404,044	561.62%	356,274
Grant Revenue	3,130,258	71,370,180	2280.01%	106,350,283
Reimbursed Expenditures	-	2,849	-	-
Misc Revenue	-	48,372	-	15,959
Total Other Revenue	3,380,258	72,825,445	2154.43%	106,722,515
Total Revenue	\$ 65,792,833	\$ 130,892,576	198.95%	154,748,083

Account Name	Budget Amount FY 2016	Actual Year to Date 5/31/2016	Percent of Budget	Actual PY to Date 5/31/2015
Expenses				
Salaries and Wages				
Salary Expense-Regular	2,710,710	2,582,887	95.28%	2,098,725
Part Time Salary Expense	36,000	-	-	-
Overtime Salary Expense	3,000	-	-	-
Salary Reserve	40,000	-	-	-
TCDRS	349,552	357,160	102.18%	285,783
FICA	109,682	122,483	111.67%	94,022
FICA MED	34,956	37,591	107.54%	30,658
Health Insurance Expense	232,154	240,242	103.48%	185,231
Life Insurance Expense	6,468	3,948	61.05%	3,541
Auto Allowance Expense	10,200	8,500	83.33%	2,975
Other Benefits	203,942	171,549	84.12%	129,760
Unemployment Taxes	14,400	4,689	32.56%	3
Total Salaries and Wages	3,751,064	3,529,050	94.08%	2,830,698

Account Name	Amount FY 2016	Year to Date 5/31/2016	of Budget	PY to Date 5/31/2015
		5/31/2016	виаget	5/31/2015
Administrativo	7.500			
Administrative	7.500			
Administrative and Office Expenses	7.500			
Accounting	7,500	15,648	208.65%	6,476
Auditing	75,000	51,247	68.33%	51,888
Human Resources	50,000	20,589	41.18%	82,131
IT Services	64,000	57,240	89.44%	52,447
Internet	1,700	4,950	291.19%	1,373
Software Licenses	76,100	22,157	29.12%	20,996
Cell Phones	13,600	10,277	75.57%	14,299
Local Telephone Service	13,000	13,142	101.09%	12,334
Overnight Delivery Services	850	119	13.99%	147
Local Delivery Services	900	276	30.64%	-
Copy Machine	12,000	11,666	97.21%	10,385
Repair & Maintenance-General	1,000	2,950	295.04%	3,060
Meeting Facilities	250	-	-	-
CommunityMeeting/ Events	2,000	616	30.80%	-
Meeting Expense	15,000	6,680	44.53%	10,341
Public Notices	2,000	-	-	-
Toll Tag Expense	1,700	1,270	74.73%	1,206
Parking	3,475	2,424	69.75%	3,131
Mileage Reimbursement	9,600	4,757	49.55%	6,591
Insurance Expense	180,000	120,330	66.85%	84,388
Rent Expense	525,000	358,191	68.23%	395,297
Legal Services	220,000	96,481	43.85%	118,966
Total Administrative and Office Expenses	1,274,675	801,010	62.84%	875,455
Office Supplies				
Office Supplies Books & Publications	E 0E0	1 002	10 100/	2 122
Office Supplies	5,950 12,000	1,082 19,108	18.19% 159.23%	2,122 8,366
Computer Supplies				
	20,200	16,987	84.09%	11,892
Copy Supplies Other Reports Printing	2,200	1,760	80.02%	1,362
Other Reports-Printing Office Supplies Printed	13,000	5,088	39.14%	3,452 1,226
Office Supplies-Printed	2,700	3,559	131.81%	1,226
Misc Materials & Supplies	3,000	2,238	74.61%	676
Postage Expense	5,850	549	9.38%	589
Total Office Supplies	64,900	50,371	77.61%	29,686

Account Name	Budget Amount FY 2016	Actual Year to Date 5/31/2016	Percent of Budget	Actual PY to Date 5/31/2015
Communications and Public Relations				
Graphic Design Services	50,000	20,410	40.82%	19,058
Website Maintenance	100,000	14,260	14.26%	15,635
Research Services	50,050		-	4,163
Communications and Marketing	250,000	214,668	85.87%	212,225
Advertising Expense	225,200	128,064	56.87%	73,748
Direct Mail	10,000	380	3.80%	1,020
Video Production	20,000	34,229	171.14%	4,820
Photography	10,000	9,232	92.32%	5,620
Radio	10,000	-	-	10,000
Other Public Relations	27,500	71,430	259.75%	-
Promotional Items	17,500	8,322	47.55%	7,562
Displays	5,000	-	-	312
Annual Report printing	14,000	1,706	12.19%	10,032
Direct Mail Printing	11,300	-	-	-
Other Communication Expenses	1,500	925	61.66%	6,033
<b>Total Communications and Public Relations</b>	802,050	503,625	62.79%	370,229
Employee Development				
Subscriptions	1,500	8,973	598.18%	1,708
Memberships	37,100	41,961	113.10%	31,198
Continuing Education	4,550	331	7.28%	3,880
Professional Development	12,200	303	2.48%	4,743
Other Licenses	950	430	45.26%	457
Seminars and Conferences	41,000	14,501	35.37%	26,267
Travel	88,000	54,627	62.08%	27,294
Total Employee Development	185,300	121,125	65.37%	95,547

	Budget	Actual	Percent	Actual
	Amount	Year to Date	of	PY to Date
Account Name	FY 2016	5/31/2016	Budget	5/31/2015
Financing and Banking Fees				
Trustee Fees	16,000	16,663	104.14%	10,213
Bank Fee Expense	8,000	5,432	67.90%	4,694
Continuing Disclosure	10,000	-	-	19,147
Arbitrage Rebate Calculation	8,000	3,685	46.06%	9,875
Loan Fee Expense	5,000	-	-	-
Rating Agency Expense	50,000	14,000	28.00%	46,500
Total Financing and Banking Fees	97,000	39,780	41.01%	90,429
Total Administrative	2,423,925	1,515,911	62.54%	1,461,344
Operations and Maintenance				
Operations and Maintenance Consulting				
General Engineering Consultant	250,000	-	-	(5,718)
GEC-Trust Indenture Support	142,000	111,344	78.41%	148,428
GEC-Financial Planning Support	10,000	2,421	-	7,179
GEC-Toll Ops Support	20,000	31,643	158.21%	7,522
GEC-Roadway Ops Support	261,000	476,251	182.47%	296,529
GEC-Technology Support	15,000	63,445	422.97%	-
GEC-Public Information Support	-	43,368	-	738
GEC-General Support	318,000	445,387	140.06%	327,974
General System Consultant	175,000	149,312	85.32%	125,031
Traffic and Revenue Consultant	60,000	73,267	122.11%	43,763
Total Ops and Mtce Consulting	1,251,000	1,396,439	111.63%	951,445
Road Operations and Maintenance				
Roadway Maintenance	1,800,000	1,236,479	68.69%	404,009
Landscape Maintenance	110,000	108,103	98.28%	155,755
Signal & Illumination Maint	20,000	141,816	709.08%	63,365
Maintenance Supplies-Roadway	30,000	68,483	228.28%	375
Tools & Equipment Expense	250	517	206.92%	227
Gasoline	6,000	2,675	44.58%	2,122
Repair & Maintenance-Vehicles	1,500	7,805	520.32%	2,578
Roadway Operations	-,	521	-	-,
Electricity - Roadways	160,000	132,349	82.72%	109,246
Total Road Operations and Maintenance	2,127,750	1,698,748	79.84%	737,677

	Budget	Actual	Percent	Actual
Account Name	Amount FY 2016	Year to Date 5/31/2016	of Budget	PY to Date 5/31/2015
Account Name	F1 2010	5/31/2010	buuget	5/51/2015
<b>Toll Processing and Collection Expense</b>				
Image Processing	4,527,740	1,573,175	34.75%	2,100,386
Tag Collection Fees	2,823,744	2,906,393	102.93%	1,986,462
Court Enforcement Costs	30,000	15,400	51.33%	22,305
DMV Lookup Fees	4,000	2,002	50.04%	2,991
Total Toll Processing and Collections	7,385,484	4,496,970	60.89%	4,112,144
Toll Operations Expense				
Facility maintenance	-	825		216
Generator Maintenance	10,000	5,512	55.12%	6,300
Generator Fuel	6,000	1,291	21.51%	749
Fire and Burglar Alarm	500	370	74.02%	370
Elevator Maintenance	2,800	2,530	90.35%	3,178
Refuse	800	793	99.13%	666
Pest Control	1,600	3,074	192.14%	2,000
Custodial	2,000	1,313	65.63%	2,831
Telecommunications	80,000	70,298	87.87%	73,597
Water	8,000	13,340	166.75%	3,715
Electricity	-	-	-	10,166
Repair & Maintenace Toll Equip	500,000	365,029	73.01%	-
Law Enforcement	265,225	201,090	75.82%	188,888
ETC Maintenance Contract	1,368,000	1,140,774	83.39%	1,137,908
ETC Testing	70,000	-	-	-
Total Toll Operations	2,314,925	1,806,239	78.03%	1,430,584
Total Operations and Maintenance	13,079,159	9,398,395	71.86%	7,231,850
Other Expenses				
Special Projects and Contingencies				
HERO	1,400,000	1,124,495	80.32%	1,063,904
Special Projects	200,000	737,879	368.94%	675,596
Other Contractual Svcs	130,000	36,369	27.98%	52,109
Contingency	165,000	21,342	12.93%	-
Total Special Projects and Contingencies	1,895,000	1,920,085	101.32%	1,791,610

	Budget Actual		Percent	Actual	
		Amount	Year to Date	of	PY to Date
Account Name		FY 2016	5/31/2016	Budget	5/31/2015
Non Cash Expenses					
Amortization Expense		275,000	351,294	127.74%	244,431
Amort Expense - Refund Savings		1,030,000	942,205	91.48%	942,205
Dep Exp- Furniture & Fixtures		5,000	1,288	25.75%	-
Dep Expense - Equipment		15,000	, 8,595	57.30%	7,078
Dep Expense - Autos & Trucks		10,000	4,846	48.46%	6,323
Dep Expense-Buildng & Toll Fac		200,000	162,355	81.18%	162,355
Dep Expense-Highways & Bridges		20,000,000	15,532,202	77.66%	15,228,660
Dep Expense-Communic Equip		250,000	179,772	71.91%	179,772
Dep Expense-Toll Equipment		3,000,000	2,524,539	84.15%	2,514,269
Dep Expense - Signs		350,000	298,735	85.35%	295,507
Dep Expense-Land Improvemts		900,000	811,190	90.13%	802,070
Depreciation Expense-Computers		28,000	14,960	53.43%	23,486
Total Non Cash Expenses		26,063,000	20,831,981	79.93%	20,406,156
Total Other Expenses		27,958,000	22,752,066	81.38%	22,197,766
Non Operating Expenses					
Non Operating Expense					
Bond issuance expense		200,000	195,716	97.86%	195,716
Interest Expense		44,660,046	38,091,003	85.29%	37,839,231
Community Initiatives		65,000	35,000	53.85%	46,000
Total Non Operating Expense		44,925,046	38,321,719	85.30%	38,080,947
Total Expenses	\$	92,137,194 \$	75,517,142	81.96%	\$ 71,802,605
Net Income	\$	(26,344,361) \$	55,375,434	:	\$ 82,945,478

## Central Texas Regional Mobility Authority Balance Sheet

	as of 5/31/2016		as of 5/31/2015		
	Ass		<u> </u>		
Current Assets	7.50	- · <del>-</del>			
Cash					
<b>Regions Operating Account</b>	\$ 744,963		\$ 846,823		
Cash In TexSTAR	1,082,472		681,136		
Regions Payroll Account	213,904		57,788		
Restricted Cash					
Fidelity Govt MMA	323,587,587		227,665,552		
Restricted Cash-TexStar	6,832,737		6,552,780		
Overpayments account	136,598		77,543		
<b>Total Cash and Cash Equivalents</b>		332,598,261		235,881,623	
Accounts Receivable					
Accounts Receivable	14,485		14,892		
Due From TTA	570,892		684,539		
Due From NTTA	439,634		404,604		
Due From HCTRA	816,976		675,572		
Due From TxDOT	6,439,918		18,982,679		
Interest Receivable	457,030		83,740		
<b>Total Receivables</b>		8,738,935		20,846,027	
Short Term Investments					
Agencies	217,738,363		48,716,174		
<b>Total Short Term Investments</b>	<u>-</u>	217,738,363		48,716,174	
Total Current Assets		559,075,559		305,443,823	
Total Construction In Progress		311,302,748		134,207,920	
Fixed Assets (Net of Depreciation)					
Computers	41,621		58,040		
Computer Software	1,175,358		947,881		
Furniture and Fixtures	31,822		-		
Equipment	(5,223)		3,793		
Autos and Trucks	21,354		1,150		
<b>Buildings and Toll Facilities</b>	5,482,413		5,670,420		
Highways and Bridges	609,659,784		606,766,917		
Communication Equipment	234,765		392,230		
Toll Equipment	17,486,381		20,105,497		
Signs	11,283,513		11,468,240		
Land Improvements	11,582,617		12,267,738		
Right of Way	86,849,829		85,152,004		
Leasehold Improvements	163,300		181,401		
Total Fixed Assets		744,007,536		743,015,311	
Other Assets				, ,	
Intangible Assets-Net	11,958,218		12,986,079		
2005 Bond Insurance Costs	4,732,766		4,946,274		
Prepaid Insurance	47,104		30,840		
Total Other Assets		16,738,088		17,963,193	
Total Other Assets  Total Assets	-	\$ 1,631,123,932		17, <b>\$ 1,200,</b>	

## Central Texas Regional Mobility Authority Balance Sheet

	as of 5/31/2016		as of 5/31/2015	
	Liabil			
Current Liabilities				
Accounts Payable	\$ 152,726		\$ 995,576	
Construction Payable-Maha Loop	3,118,483		4,921,956	
Overpayments	138,837		79,438	
Interest Payable	23,773,943		16,598,115	
TCDRS Payable	46,890		60,791	
Medical Reimbursement Payable	1,860		-	
Due to Other Entities	772,061		740,954	
Other	650,000		-	
Total Current Liabilities		28,654,801		23,396,829
Long Term Liabilities				
Accrued Vac & Sick Leave Payable	189,089		189,089	
Total Long Term Payables		189,089		189,089
• •				
Bonds Payable				
Senior Lien Revenue Bonds:	445 400 000		444 404 050	
Senior Lien Revenue Bonds 2010	115,403,324		111,404,352	
Senior Lien Revenue Bonds 2011	309,434,505		308,621,156	
Senior Refunding Bonds 2013	147,880,000		182,555,000	
Senior Lien Revenue Bonds 2015	298,790,000		-	
Senior Lien Put Bnd 2015	68,785,000		-	
Sn Lien Rev Bnd Prem/Disc 2010	15,470		56,463	
Sn Lien Rev Bnd Prem/Disc 2011	(3,260,276)		(3,425,652)	
Sn Lien Rev Bnd Prem/Disc 2013	12,223,326		14,406,599	
Sn Lien Revenue Bnd Prem 2015	23,270,067		-	
Sn Lien Put Bnd Prem 2015	7,608,490			
Total Senior Lien Revenue Bonds		980,149,907		613,617,919
Sub Lien Revenue Bonds:				
Subordinated Lien Bond 2011	70,000,000		70,000,000	
Sub Refunding Bnds 2013	102,030,000		102,530,000	
Sub Lien Bond 2011 Prem/Disc	(1,699,225)		(1,797,206)	
Sub Refunding 2013 Prem/Disc	2,855,007		3,341,943	
Tot Sub Lien Revenue Bonds		173,185,782		174,074,737
Other Obligations				
TIFIA Note 2015	51,002		_	
SIB Loan 2015	41,252		_	
State Highway Fund Loan 2015	41,252		_	
2011 Regions Draw Down Note	71,232		1,730,258	
2011 Regions Braw Bown Note  2013 American Bank Loan	5,300,000		5,300,000	
Total Other Obligations	3,300,000	5,433,506	3,300,000	7,030,258
Total Other Obligations  Total Long Term Liabilities		1,158,958,285		7,030,238
Total Liabilities	-	1,187,613,086	-	818,308,832
rotal Edwintes			=	310,300,032
	Net As			<b></b>
Contributed Capital		35,847,060		35,847,060
Net Assets Beginning		352,288,352		263,492,792
Current Year Operations	_	55,375,434	-	82,981,564
Total Net Assets	=	443,510,846	=	382,321,415
<b>Total Liabilities and Net Assets</b>	=	\$ 1,631,123,932	=	\$ 1,200,630,248

#### Central Texas Regional Mobility Authority Statement of Cash Flows - FY 2016 as of May 31, 2016

#### Cash flows from operating activities:

Receipts from toll fees	\$57,911,802
Receipts from Department of Transportation	. , ,
Receipts from other fees	51,221
Receipts from interest income	
Payments to vendors	(7,284,519)
Payments to employees	(3,534,937)
Net cash flows provided by (used in) operating activities	47,143,567
Cash flows from capital and related financing activities:	
Proceeds from bonds	397,078,326
Receipts from Department of Transportation	77,215,207
Payments on principal	(36,905,258)
Payments on interest	(31,308,697)
Acquisitions of construction in progress	(198,966,066)
Net cash flows provided by (used in) capital and	207,113,513
related financing activities	
Cash flows from investing activities:	
Interest income	1,010,716
Purchase of investments	(239,164,354)
Proceeds from sale or maturity of investments	49,522,732
Net cash flows provided by (used in) investing activities	(188,630,906)
Net increase (decrease) in cash and cash equivalents	65,626,173
Cash and cash equivalents at beginning of period	259,056,878
Cash and cash equivalents at end of March	\$324,683,052

### Reconciliation of change in net assets to net cash provided by operating activities:

Restricted cash and cash equivalents

Total

Operating income	\$20,645,114
Adjustments to reconcile change in net assets to	
net cash provided by operating activities:	
Depreciation and amortization	19,538,482
Changes in assets and liabilities:	
Decrease in accounts receivable	(104,158)
(Increase) decrease in prepaid expenses and other assets	(23,973)
(Increase) in non-cash revenue (due from other agencies)	
(Decrease) increase in accounts payable	4,926,988
Increase (decrease) in accrued expenses	867,616
(Decrease) increase in Deferred Revenue	
(Increase) in deferred inflow of resources	1,293,499
Total adjustments	26,498,453
Net cash flows provided by (used in) operating activities	\$47,143,567
Reconciliation of cash and cash equivalents:	
Unrestricted cash and cash equivalents	\$1,095,465

323,587,587

\$324,683,052

### **INVESTMENTS** by FUND

Balance May 31, 2016

7,915,208.81

-320,821,495.22 217,737,975.45

546,474,679.48

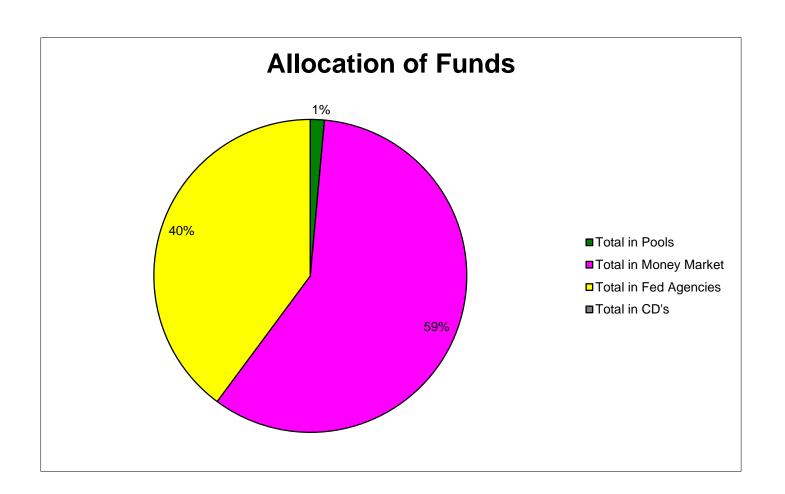
		May 31, 2016		
Renewal & Replacement Fund		• .	TexSTAR	
TexSTAR	503,244.26		CD's	
Regions Sweep Agencies	188,229.72	691,473.98	Regions Sweep Agencies	
TxDOT Grant Fund		031,470.30	Agenoics	
TexSTAR	82,391.23			\$
Regions Sweep	9,457,022.29			
CD's				
Agencies		9,539,413.52		
Senior Debt Service Reserve Fund TexSTAR	591,443.94			
Regions Sweep	27,262,405.53			
Agencies	53,965,044.40	81,818,893.87		
Senior Debt Service Reserve 2015				
Regions Sweep	-	-		
2010 Senior Lien DSF	2 400 040 02			
Regions Sweep TexSTAR	2,106,640.83	2,106,640.83		
2011 Debt Service Acct		2,100,040.00		
Regions Sweep	8,204,629.26	8,204,629.26		
2013 Sr Debt Service Acct				
Regions Sweep	4,829,982.93	4,829,982.93		
2013 Sub Debt Service Account	0.004.407.40	0 004 407 40		
Regions Sweep 2015 Sr Capitalized Interest	2,334,437.13	2,334,437.13		
Regions Sweep	75,480,706.84	75,480,706.84		
2015A Debt Service Account	10,100,100.01	70,400,700,04		
Regions Sweep	3.30	3.30		
2015B Debt Service Account				
Regions Sweep	1,433,216.34	1,433,216.34		
2011 Sub Debt DSRF				
Regions Sweep	7,070,991.97	7 070 001 07		
CD's 2011 Sub DSF		7,070,991.97		
Regions Sweep	2,120,712.74	2,120,712.74		
Operating Fund	_,,.	_,,.		
TexSTAR	1,082,471.50			
TexSTAR-Trustee	1,474,704.51			
Regions Sweep	73,012.46	2,630,188.47		
Revenue Fund Regions Sweep	2,228,769.10	2,228,769.10		
General Fund	2,220,703.10	2,220,703.10		
TexSTAR	53.78			
Regions Sweep	27,982,088.47			
Agencies	4,416,574.25	32,398,716.50		
2013 Sub Debt Service Reserve Fund				
Regions Sweep Agencies	8,465,254.48	8,465,254.48		
MoPac Construction Fund		0,703,237.70		
Regions Sweep	66,410,767.89	66,410,767.89		
2011 Sub Debt Project fund				
TexSTAR	4,180,899.59			
Agencies		44.040.000.00		
Regions Sweep 2015B Project Account	9,837,309.43	14,018,209.02		
Regions Sweep	19,728,587.28			
Agencies	20,283,437.29	40,012,024.57		
2015A Project Account		, ,		
Regions Sweep	6,232,808.99			
Agencies	139,072,919.51	145,305,728.50		
2015 TIFIA Project Account	E0 40E 00	E0 40E 00		
Regions Sweep 2015 State Highway Fund Project Ac	50,185.00	50,185.00		
Regions Sweep	25,002.19	25,002.19		
2015 SIB Project Account				
Regions Sweep	25,001.37	25,001.37		
2011 Sr Financial Assistance Fund				
Regions Sweep	32,286,545.41	32,286,545.41		
2011 Senior Lien Project Fund	00 227 00			
Regions Sweep Agencies	99,227.96	99,227.96		
Develper Deposits		33,221.30		
Regions Sweep	100,029.87	100,029.87		
45SW Trust Account Hays County	,	-7		
Regions Sweep	76,704.65	76,704.65		
45SW Trust Account Travis County	0.744.001.75	A = 1 . A A . = -		
Regions Sweep	6,711,221.79	6,711,221.79 \$ 546,474,679.48		
	=	ψ J+U,+1+,013.40		

#### CTRMA INVESTMENT REPORT

			Month En	ding 5/31/16		1	
	Balance		Discount	ding Gronite		Balance	Rate
	5/1/2016	Additions	Amortization	Accrued Interest	Withdrawals	5/31/2016	May
Amount in Trustee TexStar			I		I		
2011 Sub Lien Construction Fund	4,179,598.94			1,300.65		4,180,899.59	0.36
General Fund	53.78			,		53.78	0.36
Trustee Operating Fund	2,174,025.37	1,300,000.00		679.14	2,000,000.00	1,474,704.51	0.36
Renewal and Replacement	3,113.23	500,000.00		131.03	,,	503,244.26	0.36
TxDOT Grant Fund	82,365.59	,		25.64		82,391.23	0.36
Senior Lien Debt Service Reserve Fund	591,259.96			183.98		591,443.94	0.36
	,					ŕ	
	7,030,416.87	1,800,000.00		2,320.44	2,000,000.00	6,832,737.31	
Amount in TexStar Operating Fund	582,230.73	2,000,000.00		240.77	1,500,000.00	1,082,471.50	0.36
Regions Sweep Money Market Fund							
Operating Fund	832.44	1,372,180.00		0.02	1,300,000.00	73,012.46	0.10
45SW Trust Account Travis County	7,019,285.50	. ,		587.90	308,651.61	6,711,221.79	0.10
45SW Trust Account Hays County	84,050.47			6.93	7,352.75	76,704.65	0.10
2015A Project Account	16,807,947.36			154,183.87	10,729,322.24	6,232,808.99	0.10
2015B Project Account	19,726,965.06			1,622.22	. 5,1 25,022.24	19,728,587.28	0.10
2015D State Highway Fund Project Acct	25,001.37			0.82		25,002.19	0.10
2015C TIFIA Project Account	50,183.34			1.66		50,185.00	0.10
2015C TIFIA Project Account 2015E SIB Project Account	1.37	25,000.00		1.00		25,001.37	0.10
		25,000.00		813.38	25 426 22		0.10
2011 Sub Lien Project Acct	9,871,922.38				35,426.33	9,837,309.43	
2011 Senior Lien Project Acct	99,219.80			8.16		99,227.96	0.10
Developer Deposits	100,021.65			8.22		100,029.87	0.10
2011 Sr Financial Assistance Fund	32,283,974.12			2,571.29		32,286,545.41	0.10
2010 Senior DSF	1,685,337.29	421,181.17		122.37		2,106,640.83	0.10
2011 Senior Lien Debt Service Acct	7,460,942.46	743,102.07		584.73		8,204,629.26	0.10
2011 Sub Debt Service Fund	1,878,513.79	242,053.84		145.11		2,120,712.74	0.10
2013 Senior Lien Debt Service Acct	3,864,466.51	965,235.82		280.60		4,829,982.93	0.10
2013 Subordinate Debt Service Acct	1,867,649.95	466,651.57		135.61		2,334,437.13	0.10
2015 Sr Capitalized Interest	75,474,503.46			6,203.38		75,480,706.84	0.10
2015 Regions Bank Loan	0.00			,	0.00	0.00	0.10
2015A Debt Service Acct	3.30					3.30	0.10
2015B Debt Service Acct	1,146,532.05	286,601.05		83.24		1,433,216.34	0.10
TxDOT Grant Fund	9,456,245.06	200,0000		777.23		9,457,022.29	0.10
Renewal and Replacement	688,173.16			56.56	500.000.00	188,229.72	0.10
Revenue Fund	2,531,064.11	6,238,453.81		305.12	6,541,053.94	2,228,769.10	0.10
General Fund	27,251,096.52	1,804,733.50		2.230.86	1,075,972.41	27,982,088.47	0.10
2011 Sub Debt Service Reserve Fund	7,070,410.84	1,004,733.50		2,230.66 581.13	1,013,912.41	7,070,991.97	0.10
Senior Lien Debt Service Reserve Fund	27,259,504.23			2,901.30		27,262,405.53	0.10
	, ,			2,301.30	<u>, , ,                                </u>	, ,	
Senior Lien Debt Proceeds	0.01			005	0.01	0.00	0.10
2013 Sub Debt Service Reserve Fund	8,464,558.76			695.72		8,465,254.48	0.10
MoPac Managed Lane Construction Fund	67,714,509.15			5,699.11	1,309,440.37	66,410,767.89	0.10
	329,882,915.51	12,565,192.83	0.00	180,606.54	21,807,219.66	320,821,495.22	
Amount in End Agencies and Trans	1						
Amount in Fed Agencies and Treasuries	047 700 00: 5-1		(50.050.55)		1	047 707 075 :-	
Amortized Principal	217,796,931.95		(58,956.50)			217,737,975.45	
	217,796,931.95	0.00	(58,956.50)	0.00	0.00	217,737,975.45	
Certificates of Deposit				Г	Т	0.00	
Total in Pools	7 642 647 60	3 800 000 00		2,561.21	3,500,000.00	7,915,208.81	
	7,612,647.60	3,800,000.00					
Total in Money Market	329,882,915.51	12,565,192.83	(50.050.50)	180,606.54	21,807,219.66	320,821,495.22	
Total in Fed Agencies	217,796,931.95	0.00	(58,956.50)		0.00	217,737,975.45	
Total Invested	EEE 202 405 00	46 26E 402 22	(E0 0E6 50)	102 167 75	25 207 240 00	E46 474 670 40	
Total Invested	555,292,495.06	16,365,192.83	(58,956.50)	183,167.75	∠5,307,219.66	546,474,679.48	

All Investments in the portfollio are in compliance with the CTRMA's Investment policy.

William Chapman, CFO



Amount of investments As of Ma

Ma	v 31.	. 201	6
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Agency	CUSIP#	COST	Book Value	Market Value	Yield to Maturity	Purchased	Matures FUND
Farmer Mac	31315PV55	2,501,200.00	2,500,450.00	2,501,675.00	0.7751%	3/11/2015	2/23/2017 Senior DSRF
Federal Farm Credit	3133ECA79	4,959,250.00	4,975,097.22	4,993,550.00	1.2155%	3/11/2015	3/19/2018 Senior DSRF
Northeast Texas ISD	659155HX6	2,534,600.00	2,505,766.67	2,504,975.00	0.6010%	8/3/2015	8/1/2016 Senior DSRF
Federal Farm Credit	3133EE4K3	24,928,346.00	24,946,066.88	24,996,250.00	0.7200%	1/13/2016	7/21/2017 Senior DSRF
Federal Home Ioan Bank	3130A5K57	1,254,574.50	1,254,912.57	1,254,949.80	0.3300%	2/5/2016	6/30/2016 2015A Sr Project
Federal Farm Credit	3133EFSG3	10,057,749.23	10,050,150.63	10,030,100.00	0.8421%	2/8/2016	3/14/2018 2015B Sr Project
Federal Home Ioan Bank	313378QK0	10,253,642.07	10,233,286.66	10,199,400.00	1.0369%	2/8/2016	3/8/2019 2015B Sr Project
Federal Home Ioan Bank	3030A3J70	5,001,836.28	5,001,163.84	47 004 250 00	0.5781%	2/9/2016	11/23/2016 2015A Sr Project
Federal Home Ioan Bank	3030A3J70	12,005,994.72	12,002,997.36	17,004,250.00	0.5580%	2/23/2016	11/23/2016 2015A Sr Project
Freddie Mac	3137EADF3	16,124,658.17	16,091,028.28	16,068,320.00	0.6259%	2/9/2016	11/23/2016 2015A Sr Project
Freddie Mac	3134G4Z84	9,850,343.91	9,841,278.79	9,828,322.00	0.8097%	2/18/2016	10/10/2017 2015A Sr Project
Federal Farm Credit	3133ECKC7	8,000,866.72	8,000,656.61	7,997,360.00	0.6400%	2/23/2016	3/28/2017 2015A Sr Project
Federal Home Ioan Bank	3130A2T97	8,270,315.03	8,270,210.04	8,270,909.70	0.4922%	3/30/2016	9/28/2016 2015A Sr Project
Federal Home Ioan Bank	3030A62S5	6,984,310.89	6,986,766.06	6,994,960.00	0.9053%	3/14/2016	8/28/2017 2015A Sr Project
Fannie MAE	3035G0GY3	8,037,563.20	8,027,863.34	8,030,960.00	0.7122%	3/14/2016	1/30/2017 2015A Sr Project
Fannie MAE	3135G0JA2	8,031,624.00	8,025,895.58	8,024,640.00	0.9023%	3/14/2016	4/27/2017 2015A Sr Project
Federal Home Ioan Bank	3030A7JU0	9,001,789.65	9,001,491.38	9,001,980.00	0.7103%	3/30/2016	3/30/2017 2015A Sr Project
Federal Home Ioan Bank	303370SZ2	14,536,023.18	14,488,352.65	14,502,082.50	0.9023%	3/7/2016	9/8/2017 2015A Sr Project
Federal Home Ioan Bank	3030A5QL6	8,000,900.56	8,000,731.71	8,000,480.00	0.7913%	3/4/2016	6/30/2017 2015A Sr Project
Freddie Mac	3137EADT3	8,013,462.84	8,010,291.43	8,009,840.00	0.6999%	3/4/2016	2/22/2017 2015A Sr Project
Federal Home Ioan Bank	313379FW4	8,027,415.64	8,023,059.88	8,015,200.00	0.7098%	3/30/2016	6/9/2017 2015A Sr Project
Federal Home Ioan Bank	3030A6SW8	10,039,900.00	10,037,668.75	10,019,400.00	0.7616%	4/11/2016	12/19/2016 Senior DSRF
Federal Home Ioan Bank	3030A6SW8	4,417,556.00	4,416,574.25	4,408,536.00	0.7616%	4/11/2016	12/19/2016 General
Federal Home Ioan Bank	313371PV2	8,058,893.21	8,046,219.99	8,043,920.00	0.4985%	4/12/2016	12/9/2016 2015A Sr Project
Federal Home Ioan Bank	3130A7T62	8,999,994.24	8,999,994.88	8,996,490.00	0.5501%	4/18/2016	1/18/2017 Senior DSRF
		217.892.810.04	217,737,975.45	217,698,550.00	•		

			Cummulative	5/31/2016		Interest	ncome M	May 31, 2016
Agency	CUSIP#	COST	Amortization	Book Value	Maturity Value	Accrued Interest	Amortization	Interest Earned
Farmer Mac	31315PV55	2,501,200.00	750.00	2,500,450.00	2,500,000.00	1,666.67	(50.00)	1,616.67
Federal Farm Credit	3133ECA79	4,959,250.00	(15,847.22)	4,975,097.22	5,000,000.00	3,916.67	1,131.94	5,048.61
Northeast Texas ISD	659155HX6	2,534,600.00	28,833.33	2,505,766.67	2,500,000.00	4,166.67	(2,883.33)	1,283.34
Federal Farm Credit	3133EE4K3	24,928,346.00	(17,720.88)	24,946,066.88	25,000,000.00	15,000.00	3,852.37	18,852.37
Federal Home Ioan Bank	3130A5K57	1,254,574.50	(338.07)	1,254,912.57	1,255,000.00	439.68	90.35	530.03
Federal Farm Credit	3133EFSG3	10,057,749.23	7,598.60	10,050,150.63	10,000,000.00	9,166.67	(2,279.58)	6,887.09
Federal Home Ioan Bank	313378QK0	10,253,642.07	20,355.41	10,233,286.66	10,000,000.00	15,625.00	(6,861.37)	8,763.63
Federal Home Ioan Bank	3030A3J70	5,001,836.28	672.44	5,001,163.84	5,000,000.00	3,906.25	(148.71)	3,757.54
Federal Home Ioan Bank	3030A3J70	12,005,994.72	2,997.36	12,002,997.36	12,000,000.00	9,375.00	(765.99)	8,609.01
Freddie Mac	3137EADF3	16,124,658.17	33,629.89	16,091,028.28	16,000,000.00	25,000.00	(8,407.47)	16,592.53
Freddie Mac	3134G4Z84	9,850,343.91	9,065.12	9,841,278.79	9,800,000.00	9,187.50	(2,428.16)	6,759.34
Federal Farm Credit	3133ECKC7	8,000,866.72	210.11	8,000,656.61	8,000,000.00	4,333.33	(65.66)	4,267.67
Federal Home Ioan Bank	3130A2T97	8,270,315.03	104.99	8,270,210.04	8,270,000.00	3,445.83	(52.50)	3,393.33
Federal Home Ioan Bank	3030A62S5	6,984,310.89	(2,455.16)	6,986,766.06	7,000,000.00	4,375.00	818.39	5,193.39
Fannie MAE	3035G0GY3	8,037,563.20	9,699.86	8,027,863.34	8,000,000.00	10,000.00	(3,233.29)	6,766.71
Fannie MAE	3135G0JA2	8,031,624.00	5,728.42	8,025,895.58	8,000,000.00	7,500.00	(2,354.14)	5,145.86
Federal Home Ioan Bank	3030A7JU0	9,001,789.65	298.28	9,001,491.38	9,000,000.00	5,925.00	(149.14)	5,775.86
Federal Home Ioan Bank	303370SZ2	14,536,023.18	47,670.53	14,488,352.65	14,250,000.00	26,718.75	(15,890.18)	10,828.57
Federal Home Ioan Bank	3030A5QL6	8,000,900.56	168.85	8,000,731.71	8,000,000.00	10,666.67	(56.28)	10,610.39
Freddie Mac	3137EADT3	8,013,462.84	3,171.41	8,010,291.43	8,000,000.00	5,833.33	(1,160.27)	4,673.06
Federal Home Ioan Bank	313379FW4	8,027,415.64	4,355.76	8,023,059.88	8,000,000.00	20,000.00	(2,177.88)	17,822.12
Federal Home Ioan Bank	3030A6SW8	10,039,900.00	2,231.25	10,037,668.75	10,000,000.00	25,000.00	(2,231.25)	22,768.75
Federal Home Ioan Bank	3030A6SW8	4,417,556.00	981.75	4,416,574.25	4,400,000.00	11,000.00	(981.75)	10,018.25
Federal Home Ioan Bank	313371PV2	8,058,893.21	12,673.22	8,046,219.99	8,000,000.00	326.78	(12,673.22)	(12,346.44)
Federal Home Ioan Bank	3130A7T62	8,999,994.24	(0.64)	8,999,994.88	9,000,000.00	4,125.00	0.64	4,125.64
		217,892,810.04	154,834.61	217,737,975.45	216,975,000.00	236,699.80	(58,956.50)	177,743.32

May 31, 2016 Certificates of Deposit Outstanding

CUSIP#	COST	Yield to Maturity	Purchased	Matures	May 31, 2016 Interest	FUND
		matarity	· a.o.iaooa	ata. oo		
<u>-</u>	-	_		•	\$ -	
	CUSIP#		CUSIP # COST Maturity	CUSIP # COST Maturity Purchased	CUSIP # COST Maturity Purchased Matures	CUSIP# COST Maturity Purchased Matures Interest

Tra	vis County Esc	row account				
	Balance		Accrued		Ва	alance
	5/1/2016	Additions	Interest	Withdrawls		5/31/2016
\$	3,006,406.70		\$ 247.50	)	\$	3,006,654.20



### **Monthly Newsletter - May 2016**

### **Performance**

#### As of May 31, 2016

### May Averages

Average Weighted Average Maturity (2)\*

Current Invested Balance	\$5,716,887,504.32
Weighted Average Maturity (1)	46 Days
Weighted Average Maturity (2)	107 Days
Net Asset Value	1.000086
Total Number of Participants	807
Management Fee on Invested Balance	0.05%*
Interest Distributed	\$1,993,198.87
Management Fee Collected	\$238,787.76
% of Portfolio Invested Beyond 1 Year	7.75%
Standard & Poor's Current Rating	AAAm

Rates reflect historical information and are not an indication of future performance.

Average Invested Balance \$5,638,558,122.54

Average Monthly Yield, on a simple basis 0.3664%

Average Weighted Average Maturity (1)\* 48 Days

111 Days

#### Definition of Weighted Average Maturity (1) & (2)

- (1) This weighted average maturity calculation uses the SEC Rule 2a-7 definition for stated maturity for any floating rate instrument held in the portfolio to determine the weighted average maturity for the pool. This Rule specifies that a variable rate instrument to be paid in 397 calendar days or less shall be deemed to have a maturity equal to the period remaining until the next readjustment of the interest rate.
- (2) This weighted average maturity calculation uses the final maturity of any floating rate instruments held in the portfolio to calculate the weighted average maturity for the pool.
  - \* The maximum management fee authorized for the TexSTAR Cash Reserve Fund is 12 basis points. This fee may be waived in full or in part in the discretion of the TexSTAR co-administrators at any time as provided for in the TexSTAR Information Statement.

### **New Participants**

We would like to welcome the following entities who joined the TexSTAR program in May:

★ Fort Bend County MUD 57

★ Montgomery County MUD 113

## Holiday Reminder

In observance of **Independence Day, TexSTAR will be closed on Monday, July 4, 2016.** All ACH transactions initiated on Friday, July 1st will settle on Tuesday, July 5th. Notification of any early transaction deadlines on the business day preceding this holiday will be sent by email to the primary contact on file for all TexSTAR participants. Please plan accordingly for your liquidity needs.

### Economic Commentary

This month dispelled the adage 'sell in May go away' as Treasury yields in the short-end sold off sharply and developed market equities performed positively. In addition, oil prices continued to rise, briefly touching \$50 as demand picked up and supply was impacted by wild fires in Canada, militant attacks in Nigeria, political unrest in Libya and decreased shale production in the U.S. The U.S. dollar posted strong gains as positive economic numbers released throughout the month showed U.S. growth is trending positive. The yield on the two-year U.S. Treasury note rose 10 basis points ending the month at 0.88%. The Federal Open Market Committee's (FOMC) April meeting minute's hawkish tone surprised the markets as the Committee members appeared to be making a concerted effort to communicate that a mid-2016 rate hike was a distinct possibility. As a result, market-implied probability of a potential June or July 2016 rate hike significantly increased. Stronger than expected retail sales, housing and consumer price data served as a catalyst for the Fed to raise expectations. A resurging household sector is expected to drive the rebound in U.S. GDP in the second quarter. Housing activity appears to be accelerating due to strong demand, easy credit availability and low interest rates, leading to a 15% increase in mortgage purchase applications over the prior year. Consumption spending is expected to improve around 2.5% on average for the remainder of the year with pent-up savings, improved real incomes, steady employment growth and rising net worth being supportive going forward. Business investment is likely to remain poor as uncertainty surrounds both the global growth environment and the upcoming political cycle.

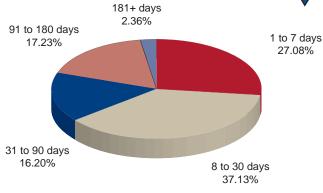
The U.S. remains susceptible to exogenous shocks, but given the lack of imbalances, a domestic catalyst for recession remains difficult to pinpoint. The Fed signaled a less accommodative stance in the release of its April FOMC Minutes. This shift has been reinforced by several Fed speakers, most notably Chair Yellen. It is being questioned whether the data has been sufficient enough to break the negative feedback loop between Fed policy and financial conditions. Market volatility is expected to resurface over the next few months calling into question whether the Fed will be able to tighten on the schedule the committee is now signaling. The current expectations forecast one rate hike during 2016, as event risk and expected volatility will challenge the Fed's desire to tighten. The Fed may be given a window of opportunity in July to raise rates which would increase the possibility of a second rate hike later in the year.

This information is an excerpt from an economic report dated May 2016 provided to TexSTAR by JP Morgan Asset Management, Inc., the investment manager of the TexSTAR pool.

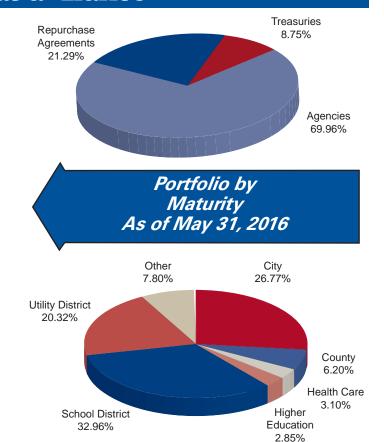
For more information about TexSTAR, please visit our web site at www.texstar.org.

### Information at a Glance





Distribution of Participants by Type As of May 31, 2016



## **Historical Program Information**

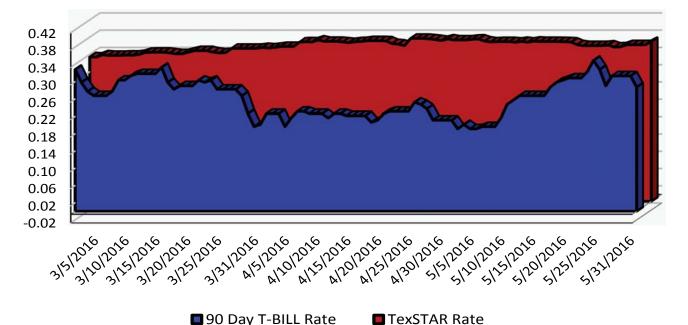
Month	Average Rate	Book Value	Market Value	Net Asset Value	WAM (1)*	WAM (2)*	Number of Participants
May 16	0.3664%	\$5.716.887.504.32	\$5,717,379,585.85	1.000086	48	111	807
Apr 16	0.3696%	5.540.251.067.80	5,541,072,494.98	1.000144	46	106	805
Mar 16	0.3450%	5.594.793.523.15	5.595.290.113.49	1.000088	45	86	803
Feb 16	0.3147%	6,329,887,983.78	6,330,019,653.99	1.000020	46	85	797
Jan 16	0.2713%	5,856,455,946.61	5,856,245,669.97	0.999964	41	79	797
Dec 15	0.1868%	5,077,006,074.74	5,076,619,261.50	0.999915	45	75	797
Nov 15	0.1155%	4,985,405,721.88	4,985,138,368.79	0.999946	48	80	797
Oct 15	0.1099%	5,137,746,592.55	5,138,104,083.30	1.000066	45	72	796
Sep 15	0.0994%	5,171,964,839.33	5,172,390,234.79	1.000082	46	62	796
Aug 15	0.0823%	5,444,712,315.25	5,444,863,919.29	1.000027	47	60	796
Jul 15	0.0722%	5,191,663,669.11	5,192,008,905.67	1.000063	50	63	795
Jun 15	0.0719%	5,113,377,874.72	5.113.798.319.64	1.000082	52	68	794

### Portfolio Asset Summary as of May 31, 2016

		Book Value	Market Value	
Uninvested Balance	\$	(307.46)	\$ (307.46)	
Accrual of Interest Income		3,037,670.04	3,037,670.04	
Interest and Management Fees Payable		(2,135,846.43)	(2,135,846.43)	
Payable for Investment Purchased		0.00	0.00	
Repurchase Agreement		1,216,708,999.78	1,216,708,999.78	
Government Securities	4	4,499,276,988.39	4,499,769,069.92	

Total \$ 5,716,887,504.32 \$ 5,717,379,585.85

## TexSTAR versus 90-Day Treasury Bill



This material is for information purposes only. This information does not represent an offer to buy or sell a security. The above rate information is obtained from sources that are believed to be reliable; however, its accuracy or completeness may be subject to change. The TexSTAR management fee may be waived in full or in part at the discretion of the TexSTAR co-administrators and the TexSTAR rate for the period shown reflects waiver of fees. This table represents historical investment performance/return to the customer, net of fees, and is not an indication of future performance. An investment in the security is not insured or guaranteed by the Federal Deposit Insurance Corporation or any other government agency. Although the issuer seeks to preserve the value of an investment at \$1.00 per share, it is possible to lose money by investing in the security. Information

Deposit Insurance Corporation or any other government agency. Although the issuer seeks to preserve the value of an investment at \$1.00 per share, it is possible to lose money by investing in the security. Information about these and other program details are in the fund's Information Statement which should be read carefully before investing. The yield on the 90-Day Treasury Bill ("T-Bill Yield") is shown for comparative purposes only. When comparing the investment returns of the TexSTAR pool to the T-Bill Yield, you should know that the TexSTAR pool consist of allocations of specific diversified securities as detailed in the respective Information Statements. The T-Bill Yield is taken from Bloomberg Finance L.P. and represents the daily closing yield on the then current 90-day T-Bill.

Daily Summary for May 2016

Date	Mny Mkt Fund Equiv. [SEC Std.]	Daily Allocation Factor	TexSTAR Invested Balance	Market Value Per Share	WAM Days (1)*	WAM Days (2)*
5/1/2016	0.3732%	0.000010226	\$5,540,251,067.80	1.000144	49	112
5/2/2016	0.3748%	0.000010268	\$5,548,528,532.57	1.000181	49	113
5/3/2016	0.3754%	0.000010285	\$5,522,173,528.70	1.000200	51	114
5/4/2016	0.3707%	0.000010156	\$5,542,640,918.11	1.000207	52	116
5/5/2016	0.3685%	0.000010097	\$5,582,579,950.63	1.000202	51	115
5/6/2016	0.3693%	0.000010119	\$5,555,743,435.26	1.000199	50	113
5/7/2016	0.3693%	0.000010119	\$5,555,743,435.26	1.000199	50	113
5/8/2016	0.3693%	0.000010119	\$5,555,743,435.26	1.000199	50	113
5/9/2016	0.3680%	0.000010082	\$5,552,639,270.90	1.000195	49	112
5/10/2016	0.3699%	0.000010135	\$5,582,622,721.75	1.000186	48	111
5/11/2016	0.3680%	0.000010083	\$5,595,735,949.76	1.000184	47	112
5/12/2016	0.3704%	0.000010148	\$5,545,379,025.34	1.000189	46	113
5/13/2016	0.3696%	0.000010127	\$5,592,923,657.83	1.000166	45	110
5/14/2016	0.3696%	0.000010127	\$5,592,923,657.83	1.000166	45	110
5/15/2016	0.3696%	0.000010127	\$5,592,923,657.83	1.000166	45	110
5/16/2016	0.3693%	0.000010119	\$5,625,454,413.22	1.000162	44	108
5/17/2016	0.3691%	0.000010111	\$5,699,301,071.17	1.000165	45	108
5/18/2016	0.3683%	0.000010091	\$5,752,162,627.33	1.000147	47	111
5/19/2016	0.3623%	0.000009925	\$5,717,500,173.27	1.000121	48	111
5/20/2016	0.3600%	0.000009863	\$5,696,259,017.51	1.000080	48	110
5/21/2016	0.3600%	0.000009863	\$5,696,259,017.51	1.000080	48	110
5/22/2016	0.3600%	0.000009863	\$5,696,259,017.51	1.000080	48	110
5/23/2016	0.3601%	0.000009865	\$5,649,143,363.94	1.000082	48	110
5/24/2016	0.3616%	0.000009907	\$5,654,254,292.22	1.000102	46	106
5/25/2016	0.3568%	0.000009775	\$5,671,725,423.59	1.000072	50	111
5/26/2016	0.3572%	0.000009786	\$5,718,222,547.11	1.000114	49	109
5/27/2016	0.3621%	0.000009920	\$5,760,830,271.31	1.000100	47	107
5/28/2016	0.3621%	0.000009920	\$5,760,830,271.31	1.000100	47	107
5/29/2016	0.3621%	0.000009920	\$5,760,830,271.31	1.000100	47	107
5/30/2016	0.3621%	0.000009920	\$5,760,830,271.31	1.000100	47	107
5/31/2016	0.3696%	0.000010125	\$5,716,887,504.32	1.000086	46	107
Average	0.3664%	0.000010038	\$5,638,558,122.54		48	111

TexSTAR Participant Services
FirstSouthwest, A Division of Hilltop Securities
1201 Elm Street, Suite 3500
Dallas, Texas 75270



#### **TexSTAR Board Members**

William Chapman Central Texas Regional Mobility Authority Governing Board President Nell Lange City of Frisco Governing Board Vice President Kenneth Huewitt Governing Board Treasurer Houston ISD David Medanich FirstSouthwest / Hilltop Securities Governing Board Secretary Jennifer Novak J.P. Morgan Asset Management Governing Board Asst. Sec./Treas. Eric Cannon City of Allen Advisory Board Austin ISD Nicole Conley Advisory Board North Central TX Council of Government Monte Mercer Advisory Board Stephen Fortenberry Plano ISD Advisory Board Becky Brooks Government Resource Associates, LLC Advisory Board

For more information contact TexSTAR Participant Services ★ 1-800-TEX-STAR ★ www.texstar.org





### Exhibit B

**Financial Statements for June 2016** 

Account Name	Budget Amount FY 2016	Actual Year to Date 5/31/2016	Percent of Budget	Actual PY to Date 5/31/2015
Revenue				
Operating Revenue				
Toll Revenue-TxTag-183A	32,107,731	25,707,911	80.07%	24,448,614
Toll Revenue-HCTRA-183A	1,678,072	2,296,494	136.85%	1,466,312
Toll Revenue-NTTA-183A	1,425,660	3,755,554	263.43%	993,235
Toll Revenue-TxTag-Manor	8,014,417	8,697,667	108.53%	7,402,775
Toll Revenue-HCTRA Manor	1,561,572	1,724,709	110.45%	1,545,055
Toll Revenue-NTTA-Manor	392,459	568,066	144.75%	363,301
Video Tolls 183A	9,541,998	7,937,533	83.19%	6,657,731
Video Tolls Manor Expressway	4,334,167	3,157,451	72.85%	2,372,072
Fee revenue 183A	2,471,500	2,812,201	113.79%	1,905,413
Fee revenue Manor Expressway	885,000	1,409,545	159.27%	871,061
Total Operating Revenue	 62,412,575	58,067,131	93.04%	48,025,568
Other Revenue				
Interest Income	250,000	1,404,044	561.62%	356,274
Grant Revenue	3,130,258	71,370,180	2280.01%	106,350,283
Reimbursed Expenditures	-	2,849	-	-
Misc Revenue	-	48,372	-	15,959
Total Other Revenue	3,380,258	72,825,445	2154.43%	106,722,515
Total Revenue	\$ 65,792,833	\$ 130,892,576	198.95%	154,748,083

Account Name	Budget Amount FY 2016	Actual Year to Date 5/31/2016	Percent of Budget	Actual PY to Date 5/31/2015
Expenses				
Salaries and Wages				
Salary Expense-Regular	2,710,710	2,582,887	95.28%	2,098,725
Part Time Salary Expense	36,000	-	-	-
Overtime Salary Expense	3,000	-	-	-
Salary Reserve	40,000	-	-	-
TCDRS	349,552	357,160	102.18%	285,783
FICA	109,682	122,483	111.67%	94,022
FICA MED	34,956	37,591	107.54%	30,658
Health Insurance Expense	232,154	240,242	103.48%	185,231
Life Insurance Expense	6,468	3,948	61.05%	3,541
Auto Allowance Expense	10,200	8,500	83.33%	2,975
Other Benefits	203,942	171,549	84.12%	129,760
Unemployment Taxes	14,400	4,689	32.56%	3
Total Salaries and Wages	3,751,064	3,529,050	94.08%	2,830,698

Account Name	Amount FY 2016	Year to Date 5/31/2016	of Budget	PY to Date 5/31/2015
		5/31/2016	виаget	5/31/2015
Administrativo	7.500			
Administrative	7.500			
Administrative and Office Expenses	7.500			
Accounting	7,500	15,648	208.65%	6,476
Auditing	75,000	51,247	68.33%	51,888
Human Resources	50,000	20,589	41.18%	82,131
IT Services	64,000	57,240	89.44%	52,447
Internet	1,700	4,950	291.19%	1,373
Software Licenses	76,100	22,157	29.12%	20,996
Cell Phones	13,600	10,277	75.57%	14,299
Local Telephone Service	13,000	13,142	101.09%	12,334
Overnight Delivery Services	850	119	13.99%	147
Local Delivery Services	900	276	30.64%	-
Copy Machine	12,000	11,666	97.21%	10,385
Repair & Maintenance-General	1,000	2,950	295.04%	3,060
Meeting Facilities	250	-	-	-
CommunityMeeting/ Events	2,000	616	30.80%	-
Meeting Expense	15,000	6,680	44.53%	10,341
Public Notices	2,000	-	-	-
Toll Tag Expense	1,700	1,270	74.73%	1,206
Parking	3,475	2,424	69.75%	3,131
Mileage Reimbursement	9,600	4,757	49.55%	6,591
Insurance Expense	180,000	120,330	66.85%	84,388
Rent Expense	525,000	358,191	68.23%	395,297
Legal Services	220,000	96,481	43.85%	118,966
Total Administrative and Office Expenses	1,274,675	801,010	62.84%	875,455
Office Supplies				
Office Supplies Books & Publications	E 0E0	1 002	10 100/	2 122
Office Supplies	5,950 12,000	1,082 19,108	18.19% 159.23%	2,122 8,366
Computer Supplies				
	20,200	16,987	84.09%	11,892
Copy Supplies Other Reports Printing	2,200	1,760	80.02%	1,362
Other Reports-Printing Office Supplies Printed	13,000	5,088	39.14%	3,452 1,226
Office Supplies-Printed	2,700	3,559	131.81%	1,226
Misc Materials & Supplies	3,000	2,238	74.61%	676
Postage Expense	5,850	549	9.38%	589
Total Office Supplies	64,900	50,371	77.61%	29,686

Account Name	Budget Amount FY 2016	Actual Year to Date 5/31/2016	Percent of Budget	Actual PY to Date 5/31/2015
Communications and Public Relations				
Graphic Design Services	50,000	20,410	40.82%	19,058
Website Maintenance	100,000	14,260	14.26%	15,635
Research Services	50,050		-	4,163
Communications and Marketing	250,000	214,668	85.87%	212,225
Advertising Expense	225,200	128,064	56.87%	73,748
Direct Mail	10,000	380	3.80%	1,020
Video Production	20,000	34,229	171.14%	4,820
Photography	10,000	9,232	92.32%	5,620
Radio	10,000	-	-	10,000
Other Public Relations	27,500	71,430	259.75%	-
Promotional Items	17,500	8,322	47.55%	7,562
Displays	5,000	-	-	312
Annual Report printing	14,000	1,706	12.19%	10,032
Direct Mail Printing	11,300	-	-	-
Other Communication Expenses	1,500	925	61.66%	6,033
<b>Total Communications and Public Relations</b>	802,050	503,625	62.79%	370,229
Employee Development				
Subscriptions	1,500	8,973	598.18%	1,708
Memberships	37,100	41,961	113.10%	31,198
Continuing Education	4,550	331	7.28%	3,880
Professional Development	12,200	303	2.48%	4,743
Other Licenses	950	430	45.26%	457
Seminars and Conferences	41,000	14,501	35.37%	26,267
Travel	88,000	54,627	62.08%	27,294
Total Employee Development	185,300	121,125	65.37%	95,547

	Budget	Actual	Percent	Actual
	Amount	Year to Date	of	PY to Date
Account Name	FY 2016	5/31/2016	Budget	5/31/2015
Financing and Banking Fees				
Trustee Fees	16,000	16,663	104.14%	10,213
Bank Fee Expense	8,000	5,432	67.90%	4,694
Continuing Disclosure	10,000	-	-	19,147
Arbitrage Rebate Calculation	8,000	3,685	46.06%	9,875
Loan Fee Expense	5,000	-	-	-
Rating Agency Expense	50,000	14,000	28.00%	46,500
Total Financing and Banking Fees	97,000	39,780	41.01%	90,429
Total Administrative	2,423,925	1,515,911	62.54%	1,461,344
Operations and Maintenance				
Operations and Maintenance Consulting				
General Engineering Consultant	250,000	-	-	(5,718)
GEC-Trust Indenture Support	142,000	111,344	78.41%	148,428
GEC-Financial Planning Support	10,000	2,421	-	7,179
GEC-Toll Ops Support	20,000	31,643	158.21%	7,522
GEC-Roadway Ops Support	261,000	476,251	182.47%	296,529
GEC-Technology Support	15,000	63,445	422.97%	-
GEC-Public Information Support	-	43,368	-	738
GEC-General Support	318,000	445,387	140.06%	327,974
General System Consultant	175,000	149,312	85.32%	125,031
Traffic and Revenue Consultant	60,000	73,267	122.11%	43,763
Total Ops and Mtce Consulting	1,251,000	1,396,439	111.63%	951,445
Road Operations and Maintenance				
Roadway Maintenance	1,800,000	1,236,479	68.69%	404,009
Landscape Maintenance	110,000	108,103	98.28%	155,755
Signal & Illumination Maint	20,000	141,816	709.08%	63,365
Maintenance Supplies-Roadway	30,000	68,483	228.28%	375
Tools & Equipment Expense	250	517	206.92%	227
Gasoline	6,000	2,675	44.58%	2,122
Repair & Maintenance-Vehicles	1,500	7,805	520.32%	2,578
Roadway Operations	-,	521	-	-,
Electricity - Roadways	160,000	132,349	82.72%	109,246
Total Road Operations and Maintenance	2,127,750	1,698,748	79.84%	737,677

	Budget	Actual	Percent	Actual	
Account Name	Amount FY 2016	Year to Date 5/31/2016	of Budget	PY to Date 5/31/2015	
Account Name	F1 2010	5/31/2010	buuget	5/51/2015	
<b>Toll Processing and Collection Expense</b>					
Image Processing	4,527,740	1,573,175	34.75%	2,100,386	
Tag Collection Fees	2,823,744	2,906,393	102.93%	1,986,462	
Court Enforcement Costs	30,000	15,400	51.33%	22,305	
DMV Lookup Fees	4,000	2,002	50.04%	2,991	
Total Toll Processing and Collections	7,385,484	4,496,970	60.89%	4,112,144	
Toll Operations Expense					
Facility maintenance	-	825		216	
Generator Maintenance	10,000	5,512	55.12%	6,300	
Generator Fuel	6,000	1,291	21.51%	749	
Fire and Burglar Alarm	500	370	74.02%	370	
Elevator Maintenance	2,800	2,530	90.35%	3,178	
Refuse	800	793	99.13%	666	
Pest Control	1,600	3,074	192.14%	2,000	
Custodial	2,000	1,313	65.63%	2,831	
Telecommunications	80,000	70,298	87.87%	73,597	
Water	8,000	13,340	166.75%	3,715	
Electricity	-	-	-	10,166	
Repair & Maintenace Toll Equip	500,000	365,029	73.01%	-	
Law Enforcement	265,225	201,090	75.82%	188,888	
ETC Maintenance Contract	1,368,000	1,140,774	83.39%	1,137,908	
ETC Testing	70,000	-	-	-	
Total Toll Operations	2,314,925	1,806,239	78.03%	1,430,584	
Total Operations and Maintenance	13,079,159	9,398,395	71.86%	7,231,850	
Other Expenses					
Special Projects and Contingencies					
HERO	1,400,000	1,124,495	80.32%	1,063,904	
Special Projects	200,000	737,879	368.94%	675,596	
Other Contractual Svcs	130,000	36,369	27.98%	52,109	
Contingency	165,000	21,342	12.93%	-	
Total Special Projects and Contingencies	1,895,000	1,920,085	101.32%	1,791,610	

	Budget	Actual	Percent	Actual
	Amount	Year to Date	of	PY to Date
Account Name	FY 2016	5/31/2016	Budget	5/31/2015
Non Cash Expenses				
Amortization Expense	275,000	351,294	127.74%	244,431
Amort Expense - Refund Savings	1,030,000	942,205	91.48%	942,205
Dep Exp- Furniture & Fixtures	5,000	1,288	25.75%	-
Dep Expense - Equipment	15,000	, 8,595	57.30%	7,078
Dep Expense - Autos & Trucks	10,000	4,846	48.46%	6,323
Dep Expense-Buildng & Toll Fac	200,000	162,355	81.18%	162,355
Dep Expense-Highways & Bridges	20,000,000	15,532,202	77.66%	15,228,660
Dep Expense-Communic Equip	250,000	179,772	71.91%	179,772
Dep Expense-Toll Equipment	3,000,000	2,524,539	84.15%	2,514,269
Dep Expense - Signs	350,000	298,735	85.35%	295,507
Dep Expense-Land Improvemts	900,000	811,190	90.13%	802,070
Depreciation Expense-Computers	28,000	14,960	53.43%	23,486
Total Non Cash Expenses	 26,063,000	20,831,981	79.93%	20,406,156
Total Other Expenses	27,958,000	22,752,066	81.38%	22,197,766
Non Operating Expenses				
Non Operating Expense				
Bond issuance expense	200,000	195,716	97.86%	195,716
Interest Expense	44,660,046	38,091,003	85.29%	37,839,231
Community Initiatives	65,000	35,000	53.85%	46,000
Total Non Operating Expense	 44,925,046	38,321,719	85.30%	38,080,947
Total Expenses	\$ 92,137,194 \$	75,517,142	81.96%	\$ 71,802,605
Net Income	\$ (26,344,361) \$	55,375,434	:	\$ 82,945,478

## Central Texas Regional Mobility Authority Balance Sheet

	as of	5/31/2016	as of 5/31/2015	
	Ass		<u> </u>	
Current Assets	7.50	- · <del>-</del>		
Cash				
<b>Regions Operating Account</b>	\$ 744,963		\$ 846,823	
Cash In TexSTAR	1,082,472		681,136	
Regions Payroll Account	213,904		57,788	
Restricted Cash				
Fidelity Govt MMA	323,587,587		227,665,552	
Restricted Cash-TexStar	6,832,737		6,552,780	
Overpayments account	136,598		77,543	
<b>Total Cash and Cash Equivalents</b>		332,598,261		235,881,623
Accounts Receivable				
Accounts Receivable	14,485		14,892	
Due From TTA	570,892		684,539	
Due From NTTA	439,634		404,604	
Due From HCTRA	816,976		675,572	
Due From TxDOT	6,439,918		18,982,679	
Interest Receivable	457,030		83,740	
<b>Total Receivables</b>		8,738,935		20,846,027
Short Term Investments				
Agencies	217,738,363		48,716,174	
<b>Total Short Term Investments</b>	<u>-</u>	217,738,363		48,716,174
Total Current Assets		559,075,559		305,443,823
Total Construction In Progress		311,302,748		134,207,920
Fixed Assets (Net of Depreciation)				
Computers	41,621		58,040	
Computer Software	1,175,358		947,881	
Furniture and Fixtures	31,822		-	
Equipment	(5,223)		3,793	
Autos and Trucks	21,354		1,150	
<b>Buildings and Toll Facilities</b>	5,482,413		5,670,420	
Highways and Bridges	609,659,784		606,766,917	
Communication Equipment	234,765		392,230	
Toll Equipment	17,486,381		20,105,497	
Signs	11,283,513		11,468,240	
Land Improvements	11,582,617		12,267,738	
Right of Way	86,849,829		85,152,004	
Leasehold Improvements	163,300		181,401	
Total Fixed Assets		744,007,536		743,015,311
Other Assets				, ,
Intangible Assets-Net	11,958,218		12,986,079	
2005 Bond Insurance Costs	4,732,766		4,946,274	
Prepaid Insurance	47,104		30,840	
Total Other Assets		16,738,088		17,963,193
Total Other Assets  Total Assets	-	\$ 1,631,123,932		17, <b>\$ 1,200,</b>

## Central Texas Regional Mobility Authority Balance Sheet

	as of 5	5/31/2016	as of 5/3	31/2015
	Liabil	ities		
Current Liabilities				
Accounts Payable	\$ 152,726		\$ 995,576	
Construction Payable-Maha Loop	3,118,483		4,921,956	
Overpayments	138,837		79,438	
Interest Payable	23,773,943		16,598,115	
TCDRS Payable	46,890		60,791	
Medical Reimbursement Payable	1,860		-	
Due to Other Entities	772,061		740,954	
Other	650,000		-	
Total Current Liabilities		28,654,801		23,396,829
Long Term Liabilities				
Accrued Vac & Sick Leave Payable	189,089		189,089	
Total Long Term Payables	103,003	189,089		189,089
- ,		103,003		103,003
Bonds Payable				
Senior Lien Revenue Bonds:				
Senior Lien Revenue Bonds 2010	115,403,324		111,404,352	
Senior Lien Revenue Bonds 2011	309,434,505		308,621,156	
Senior Refunding Bonds 2013	147,880,000		182,555,000	
Senior Lien Revenue Bonds 2015	298,790,000		-	
Senior Lien Put Bnd 2015	68,785,000		-	
Sn Lien Rev Bnd Prem/Disc 2010	15,470		56,463	
Sn Lien Rev Bnd Prem/Disc 2011	(3,260,276)		(3,425,652)	
Sn Lien Rev Bnd Prem/Disc 2013	12,223,326		14,406,599	
Sn Lien Revenue Bnd Prem 2015	23,270,067		-	
Sn Lien Put Bnd Prem 2015	7,608,490		-	
<b>Total Senior Lien Revenue Bonds</b>		980,149,907		613,617,919
Sub Lien Revenue Bonds:				
Subordinated Lien Bond 2011	70,000,000		70,000,000	
Sub Refunding Bnds 2013	102,030,000		102,530,000	
Sub Lien Bond 2011 Prem/Disc	(1,699,225)		(1,797,206)	
Sub Refunding 2013 Prem/Disc	2,855,007		3,341,943	
<b>Tot Sub Lien Revenue Bonds</b>		173,185,782		174,074,737
Other Obligations				
TIFIA Note 2015	51,002		-	
SIB Loan 2015	41,252		-	
State Highway Fund Loan 2015	41,252		-	
2011 Regions Draw Down Note	-		1,730,258	
2013 American Bank Loan	5,300,000		5,300,000	
Total Other Obligations		5,433,506		7,030,258
Total Long Term Liabilities		1,158,958,285		794,912,003
Total Liabilities	_	1,187,613,086	_	818,308,832
	= Net As	sets	=	
Contributed Capital	. tot Ac	35,847,060		35,847,060
Net Assets Beginning		352,288,352		263,492,792
Current Year Operations		55,375,434		82,981,564
Total Net Assets	_	443,510,846	_	382,321,415
Total Liabilities and Net Assets	=	\$ 1,631,123,932	=	\$ 1,200,630,248
i otai Liabilities allu Net Assets	=	y 1,031,123,332	=	7 1,200,030,240

#### Central Texas Regional Mobility Authority Statement of Cash Flows - FY 2016 as of May 31, 2016

#### Cash flows from operating activities:

Receipts from toll fees	\$57,911,802
Receipts from Department of Transportation	. , ,
Receipts from other fees	51,221
Receipts from interest income	
Payments to vendors	(7,284,519)
Payments to employees	(3,534,937)
Net cash flows provided by (used in) operating activities	47,143,567
Cash flows from capital and related financing activities:	
Proceeds from bonds	397,078,326
Receipts from Department of Transportation	77,215,207
Payments on principal	(36,905,258)
Payments on interest	(31,308,697)
Acquisitions of construction in progress	(198,966,066)
Net cash flows provided by (used in) capital and	207,113,513
related financing activities	
Cash flows from investing activities:	
Interest income	1,010,716
Purchase of investments	(239,164,354)
Proceeds from sale or maturity of investments	49,522,732
Net cash flows provided by (used in) investing activities	(188,630,906)
Net increase (decrease) in cash and cash equivalents	65,626,173
Cash and cash equivalents at beginning of period	259,056,878
Cash and cash equivalents at end of March	\$324,683,052

### Reconciliation of change in net assets to net cash provided by operating activities:

Restricted cash and cash equivalents

Total

Operating income	\$20,645,114
Adjustments to reconcile change in net assets to	
net cash provided by operating activities:	
Depreciation and amortization	19,538,482
Changes in assets and liabilities:	
Decrease in accounts receivable	(104,158)
(Increase) decrease in prepaid expenses and other assets	(23,973)
(Increase) in non-cash revenue (due from other agencies)	
(Decrease) increase in accounts payable	4,926,988
Increase (decrease) in accrued expenses	867,616
(Decrease) increase in Deferred Revenue	
(Increase) in deferred inflow of resources	1,293,499
Total adjustments	26,498,453
Net cash flows provided by (used in) operating activities	\$47,143,567
Reconciliation of cash and cash equivalents:	
Unrestricted cash and cash equivalents	\$1,095,465

323,587,587

\$324,683,052

### **INVESTMENTS** by FUND

Balance May 31, 2016

7,915,208.81

-320,821,495.22 217,737,975.45

546,474,679.48

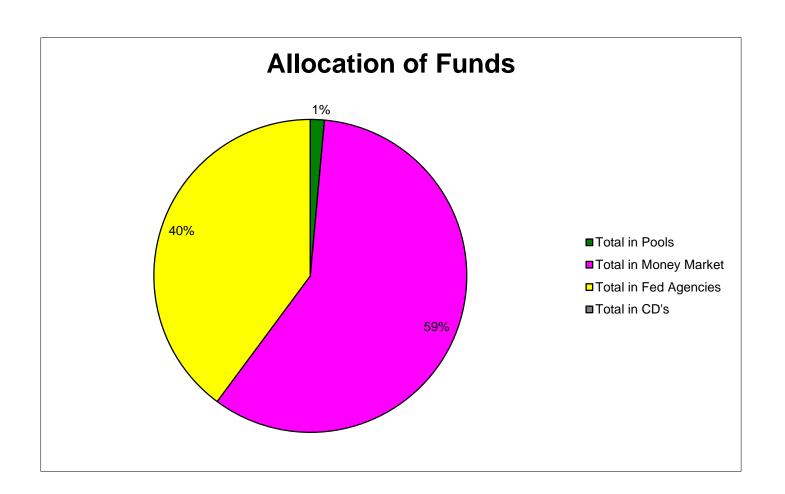
		May 31, 2016		
Renewal & Replacement Fund		• .	TexSTAR	
TexSTAR	503,244.26		CD's	
Regions Sweep Agencies	188,229.72	691,473.98	Regions Sweep Agencies	
TxDOT Grant Fund		031,470.30	Agenoics	
TexSTAR	82,391.23			\$
Regions Sweep	9,457,022.29			
CD's				
Agencies		9,539,413.52		
Senior Debt Service Reserve Fund TexSTAR	591,443.94			
Regions Sweep	27,262,405.53			
Agencies	53,965,044.40	81,818,893.87		
Senior Debt Service Reserve 2015				
Regions Sweep	-	-		
2010 Senior Lien DSF	0.400.040.00			
Regions Sweep TexSTAR	2,106,640.83	2,106,640.83		
2011 Debt Service Acct		2,100,040.00		
Regions Sweep	8,204,629.26	8,204,629.26		
2013 Sr Debt Service Acct				
Regions Sweep	4,829,982.93	4,829,982.93		
2013 Sub Debt Service Account	0.004.407.40	0 004 407 40		
Regions Sweep 2015 Sr Capitalized Interest	2,334,437.13	2,334,437.13		
Regions Sweep	75,480,706.84	75,480,706.84		
2015A Debt Service Account	10,100,100.01	70,400,700,04		
Regions Sweep	3.30	3.30		
2015B Debt Service Account				
Regions Sweep	1,433,216.34	1,433,216.34		
2011 Sub Debt DSRF				
Regions Sweep	7,070,991.97	7 070 001 07		
CD's 2011 Sub DSF		7,070,991.97		
Regions Sweep	2,120,712.74	2,120,712.74		
Operating Fund	_,,.	_,,.		
TexSTAR	1,082,471.50			
TexSTAR-Trustee	1,474,704.51			
Regions Sweep	73,012.46	2,630,188.47		
Revenue Fund Regions Sweep	2,228,769.10	2,228,769.10		
General Fund	2,220,703.10	2,220,703.10		
TexSTAR	53.78			
Regions Sweep	27,982,088.47			
Agencies	4,416,574.25	32,398,716.50		
2013 Sub Debt Service Reserve Fund				
Regions Sweep Agencies	8,465,254.48	8,465,254.48		
MoPac Construction Fund		0,703,237.70		
Regions Sweep	66,410,767.89	66,410,767.89		
2011 Sub Debt Project fund				
TexSTAR	4,180,899.59			
Agencies		44.040.000.00		
Regions Sweep 2015B Project Account	9,837,309.43	14,018,209.02		
Regions Sweep	19,728,587.28			
Agencies	20,283,437.29	40,012,024.57		
2015A Project Account		, ,		
Regions Sweep	6,232,808.99			
Agencies	139,072,919.51	145,305,728.50		
2015 TIFIA Project Account	E0 40E 00	E0 40E 00		
Regions Sweep 2015 State Highway Fund Project Ac	50,185.00	50,185.00		
Regions Sweep	25,002.19	25,002.19		
2015 SIB Project Account				
Regions Sweep	25,001.37	25,001.37		
2011 Sr Financial Assistance Fund				
Regions Sweep	32,286,545.41	32,286,545.41		
2011 Senior Lien Project Fund	00 227 00			
Regions Sweep Agencies	99,227.96	99,227.96		
Develper Deposits		33,221.30		
Regions Sweep	100,029.87	100,029.87		
45SW Trust Account Hays County	,	-7		
Regions Sweep	76,704.65	76,704.65		
45SW Trust Account Travis County	0.744.001.75	A = 1 . A A . = -		
Regions Sweep	6,711,221.79	6,711,221.79 \$ 546,474,679.48		
	=	ψ J+U,+1+,013.40		

#### CTRMA INVESTMENT REPORT

			Month En	ding 5/31/16		1	
	Balance		Discount	ding Gronite		Balance	Rate
	5/1/2016	Additions	Amortization	Accrued Interest	Withdrawals	5/31/2016	May
Amount in Trustee TexStar			I		I		
2011 Sub Lien Construction Fund	4,179,598.94			1,300.65		4,180,899.59	0.36
General Fund	53.78			,		53.78	0.36
Trustee Operating Fund	2,174,025.37	1,300,000.00		679.14	2,000,000.00	1,474,704.51	0.36
Renewal and Replacement	3,113.23	500,000.00		131.03	,,	503,244.26	0.36
TxDOT Grant Fund	82,365.59	,		25.64		82,391.23	0.36
Senior Lien Debt Service Reserve Fund	591,259.96			183.98		591,443.94	0.36
	,					ŕ	
	7,030,416.87	1,800,000.00		2,320.44	2,000,000.00	6,832,737.31	
Amount in TexStar Operating Fund	582,230.73	2,000,000.00		240.77	1,500,000.00	1,082,471.50	0.36
Regions Sweep Money Market Fund							
Operating Fund	832.44	1,372,180.00		0.02	1,300,000.00	73,012.46	0.10
45SW Trust Account Travis County	7,019,285.50	. ,		587.90	308,651.61	6,711,221.79	0.10
45SW Trust Account Hays County	84,050.47			6.93	7,352.75	76,704.65	0.10
2015A Project Account	16,807,947.36			154,183.87	10,729,322.24	6,232,808.99	0.10
2015B Project Account	19,726,965.06			1,622.22	. 5,1 25,022.24	19,728,587.28	0.10
2015D State Highway Fund Project Acct	25,001.37			0.82		25,002.19	0.10
2015C TIFIA Project Account	50,183.34			1.66		50,185.00	0.10
2015C TIFIA Project Account 2015E SIB Project Account	1.37	25,000.00		1.00		25,001.37	0.10
		25,000.00		813.38	25 426 22		0.10
2011 Sub Lien Project Acct	9,871,922.38				35,426.33	9,837,309.43	
2011 Senior Lien Project Acct	99,219.80			8.16		99,227.96	0.10
Developer Deposits	100,021.65			8.22		100,029.87	0.10
2011 Sr Financial Assistance Fund	32,283,974.12			2,571.29		32,286,545.41	0.10
2010 Senior DSF	1,685,337.29	421,181.17		122.37		2,106,640.83	0.10
2011 Senior Lien Debt Service Acct	7,460,942.46	743,102.07		584.73		8,204,629.26	0.10
2011 Sub Debt Service Fund	1,878,513.79	242,053.84		145.11		2,120,712.74	0.10
2013 Senior Lien Debt Service Acct	3,864,466.51	965,235.82		280.60		4,829,982.93	0.10
2013 Subordinate Debt Service Acct	1,867,649.95	466,651.57		135.61		2,334,437.13	0.10
2015 Sr Capitalized Interest	75,474,503.46			6,203.38		75,480,706.84	0.10
2015 Regions Bank Loan	0.00			,	0.00	0.00	0.10
2015A Debt Service Acct	3.30					3.30	0.10
2015B Debt Service Acct	1,146,532.05	286,601.05		83.24		1,433,216.34	0.10
TxDOT Grant Fund	9,456,245.06	200,0000		777.23		9,457,022.29	0.10
Renewal and Replacement	688,173.16			56.56	500.000.00	188,229.72	0.10
Revenue Fund	2,531,064.11	6,238,453.81		305.12	6,541,053.94	2,228,769.10	0.10
General Fund	27,251,096.52	1,804,733.50		2.230.86	1,075,972.41	27,982,088.47	0.10
2011 Sub Debt Service Reserve Fund	7,070,410.84	1,004,733.50		2,230.66 581.13	1,013,912.41	7,070,991.97	0.10
Senior Lien Debt Service Reserve Fund	27,259,504.23			2,901.30		27,262,405.53	0.10
	, ,			2,301.30	<u>, , ,                                </u>	, ,	
Senior Lien Debt Proceeds	0.01			005	0.01	0.00	0.10
2013 Sub Debt Service Reserve Fund	8,464,558.76			695.72		8,465,254.48	0.10
MoPac Managed Lane Construction Fund	67,714,509.15			5,699.11	1,309,440.37	66,410,767.89	0.10
	329,882,915.51	12,565,192.83	0.00	180,606.54	21,807,219.66	320,821,495.22	
Amount in End Agencies and Trans	1						
Amount in Fed Agencies and Treasuries	047 700 00: 5-1		(50.050.55)		1	047 707 075 :-	
Amortized Principal	217,796,931.95		(58,956.50)			217,737,975.45	
	217,796,931.95	0.00	(58,956.50)	0.00	0.00	217,737,975.45	
Certificates of Deposit				Г	Т	0.00	
Total in Pools	7 642 647 60	3 800 000 00		2,561.21	3,500,000.00	7,915,208.81	
	7,612,647.60	3,800,000.00					
Total in Money Market	329,882,915.51	12,565,192.83	(50.050.50)	180,606.54	21,807,219.66	320,821,495.22	
Total in Fed Agencies	217,796,931.95	0.00	(58,956.50)		0.00	217,737,975.45	
Total Invested	EEE 202 405 00	46 26E 402 22	(E0 0E6 50)	102 167 75	25 207 240 00	E46 474 670 40	
Total Invested	555,292,495.06	16,365,192.83	(58,956.50)	183,167.75	∠5,307,219.66	546,474,679.48	

All Investments in the portfollio are in compliance with the CTRMA's Investment policy.

William Chapman, CFO



Amount of investments As of Ma

Ma	v 31.	. 201	6
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Agency	CUSIP#	COST	Book Value	Market Value	Yield to Maturity	Purchased	Matures FUND		
Farmer Mac	31315PV55	2,501,200.00	2,500,450.00	2,501,675.00	0.7751%	3/11/2015	2/23/2017 Senior DSRF		
Federal Farm Credit	3133ECA79	4,959,250.00	4,975,097.22	4,993,550.00	1.2155%	3/11/2015	3/19/2018 Senior DSRF		
Northeast Texas ISD	659155HX6	2,534,600.00	2,505,766.67	2,504,975.00	0.6010%	8/3/2015	8/1/2016 Senior DSRF		
Federal Farm Credit	3133EE4K3	24,928,346.00	24,946,066.88	24,996,250.00	0.7200%	1/13/2016	7/21/2017 Senior DSRF		
Federal Home Ioan Bank	3130A5K57	1,254,574.50	1,254,912.57	1,254,949.80	0.3300%	2/5/2016	6/30/2016 2015A Sr Project		
Federal Farm Credit	3133EFSG3	10,057,749.23	10,050,150.63	10,030,100.00	0.8421%	2/8/2016	3/14/2018 2015B Sr Project		
Federal Home Ioan Bank	313378QK0	10,253,642.07	10,233,286.66	10,199,400.00	1.0369%	2/8/2016	3/8/2019 2015B Sr Project		
Federal Home Ioan Bank	3030A3J70	5,001,836.28	5,001,163.84	47 004 250 00	0.5781%	2/9/2016	11/23/2016 2015A Sr Project		
Federal Home Ioan Bank	3030A3J70	12,005,994.72	12,002,997.36	17,004,250.00	0.5580%	2/23/2016	11/23/2016 2015A Sr Project		
Freddie Mac	3137EADF3	16,124,658.17	16,091,028.28	16,068,320.00	0.6259%	2/9/2016	11/23/2016 2015A Sr Project		
Freddie Mac	3134G4Z84	9,850,343.91	9,841,278.79	9,828,322.00	0.8097%	2/18/2016	10/10/2017 2015A Sr Project		
Federal Farm Credit	3133ECKC7	8,000,866.72	8,000,656.61	7,997,360.00	0.6400%	2/23/2016	3/28/2017 2015A Sr Project		
Federal Home Ioan Bank	3130A2T97	8,270,315.03	8,270,210.04	8,270,909.70	0.4922%	3/30/2016	9/28/2016 2015A Sr Project		
Federal Home Ioan Bank	3030A62S5	6,984,310.89	6,986,766.06	6,994,960.00	0.9053%	3/14/2016	8/28/2017 2015A Sr Project		
Fannie MAE	3035G0GY3	8,037,563.20	8,027,863.34	8,030,960.00	0.7122%	3/14/2016	1/30/2017 2015A Sr Project		
Fannie MAE	3135G0JA2	8,031,624.00	8,025,895.58	8,024,640.00	0.9023%	3/14/2016	4/27/2017 2015A Sr Project		
Federal Home Ioan Bank	3030A7JU0	9,001,789.65	9,001,491.38	9,001,980.00	0.7103%	3/30/2016	3/30/2017 2015A Sr Project		
Federal Home Ioan Bank	303370SZ2	14,536,023.18	14,488,352.65	14,502,082.50	0.9023%	3/7/2016	9/8/2017 2015A Sr Project		
Federal Home Ioan Bank	3030A5QL6	8,000,900.56	8,000,731.71	8,000,480.00	0.7913%	3/4/2016	6/30/2017 2015A Sr Project		
Freddie Mac	3137EADT3	8,013,462.84	8,010,291.43	8,009,840.00	0.6999%	3/4/2016	2/22/2017 2015A Sr Project		
Federal Home Ioan Bank	313379FW4	8,027,415.64	8,023,059.88	8,015,200.00	0.7098%	3/30/2016	6/9/2017 2015A Sr Project		
Federal Home Ioan Bank	3030A6SW8	10,039,900.00	10,037,668.75	10,019,400.00	0.7616%	4/11/2016	12/19/2016 Senior DSRF		
Federal Home Ioan Bank	3030A6SW8	4,417,556.00	4,416,574.25	4,408,536.00	0.7616%	4/11/2016	12/19/2016 General		
Federal Home Ioan Bank	313371PV2	8,058,893.21	8,046,219.99	8,043,920.00	0.4985%	4/12/2016	12/9/2016 2015A Sr Project		
Federal Home Ioan Bank	3130A7T62	8,999,994.24	8,999,994.88	8,996,490.00	0.5501%	4/18/2016	1/18/2017 Senior DSRF		
		217.892.810.04	217,737,975.45	217,698,550.00	•				

			Cummulative	5/31/2016		Interest	Income M	May 31, 2016
Agency	CUSIP#	COST	Amortization	Book Value	Maturity Value	Accrued Interest	Amortization	Interest Earned
Farmer Mac	31315PV55	2,501,200.00	750.00	2,500,450.00	2,500,000.00	1,666.67	(50.00)	1,616.67
Federal Farm Credit	3133ECA79	4,959,250.00	(15,847.22)	4,975,097.22	5,000,000.00	3,916.67	1,131.94	5,048.61
Northeast Texas ISD	659155HX6	2,534,600.00	28,833.33	2,505,766.67	2,500,000.00	4,166.67	(2,883.33)	1,283.34
Federal Farm Credit	3133EE4K3	24,928,346.00	(17,720.88)	24,946,066.88	25,000,000.00	15,000.00	3,852.37	18,852.37
Federal Home Ioan Bank	3130A5K57	1,254,574.50	(338.07)	1,254,912.57	1,255,000.00	439.68	90.35	530.03
Federal Farm Credit	3133EFSG3	10,057,749.23	7,598.60	10,050,150.63	10,000,000.00	9,166.67	(2,279.58)	6,887.09
Federal Home Ioan Bank	313378QK0	10,253,642.07	20,355.41	10,233,286.66	10,000,000.00	15,625.00	(6,861.37)	8,763.63
Federal Home Ioan Bank	3030A3J70	5,001,836.28	672.44	5,001,163.84	5,000,000.00	3,906.25	(148.71)	3,757.54
Federal Home Ioan Bank	3030A3J70	12,005,994.72	2,997.36	12,002,997.36	12,000,000.00	9,375.00	(765.99)	8,609.01
Freddie Mac	3137EADF3	16,124,658.17	33,629.89	16,091,028.28	16,000,000.00	25,000.00	(8,407.47)	16,592.53
Freddie Mac	3134G4Z84	9,850,343.91	9,065.12	9,841,278.79	9,800,000.00	9,187.50	(2,428.16)	6,759.34
Federal Farm Credit	3133ECKC7	8,000,866.72	210.11	8,000,656.61	8,000,000.00	4,333.33	(65.66)	4,267.67
Federal Home Ioan Bank	3130A2T97	8,270,315.03	104.99	8,270,210.04	8,270,000.00	3,445.83	(52.50)	3,393.33
Federal Home Ioan Bank	3030A62S5	6,984,310.89	(2,455.16)	6,986,766.06	7,000,000.00	4,375.00	818.39	5,193.39
Fannie MAE	3035G0GY3	8,037,563.20	9,699.86	8,027,863.34	8,000,000.00	10,000.00	(3,233.29)	6,766.71
Fannie MAE	3135G0JA2	8,031,624.00	5,728.42	8,025,895.58	8,000,000.00	7,500.00	(2,354.14)	5,145.86
Federal Home Ioan Bank	3030A7JU0	9,001,789.65	298.28	9,001,491.38	9,000,000.00	5,925.00	(149.14)	5,775.86
Federal Home Ioan Bank	303370SZ2	14,536,023.18	47,670.53	14,488,352.65	14,250,000.00	26,718.75	(15,890.18)	10,828.57
Federal Home Ioan Bank	3030A5QL6	8,000,900.56	168.85	8,000,731.71	8,000,000.00	10,666.67	(56.28)	10,610.39
Freddie Mac	3137EADT3	8,013,462.84	3,171.41	8,010,291.43	8,000,000.00	5,833.33	(1,160.27)	4,673.06
Federal Home Ioan Bank	313379FW4	8,027,415.64	4,355.76	8,023,059.88	8,000,000.00	20,000.00	(2,177.88)	17,822.12
Federal Home Ioan Bank	3030A6SW8	10,039,900.00	2,231.25	10,037,668.75	10,000,000.00	25,000.00	(2,231.25)	22,768.75
Federal Home Ioan Bank	3030A6SW8	4,417,556.00	981.75	4,416,574.25	4,400,000.00	11,000.00	(981.75)	10,018.25
Federal Home Ioan Bank	313371PV2	8,058,893.21	12,673.22	8,046,219.99	8,000,000.00	326.78	(12,673.22)	(12,346.44)
Federal Home Ioan Bank	3130A7T62	8,999,994.24	(0.64)	8,999,994.88	9,000,000.00	4,125.00	0.64	4,125.64
		217,892,810.04	154,834.61	217,737,975.45	216,975,000.00	236,699.80	(58,956.50)	177,743.32

May 31, 2016 Certificates of Deposit Outstanding

Bank CUSIP# COST Maturity Purchased Matures Interest FUND				Yield to			May 31, 2016	
	Bank	CUSIP#	COST	Maturity	Purchased	Matures	Interest	FUND
							\$ -	

Tra	avis County Esc	row account				
	Balance		Accrued		Ва	alance
	5/1/2016	Additions	Interest	Withdrawls		5/31/2016
\$	3,006,406.70		\$ 247.50		\$	3,006,654.20



## **Monthly Newsletter - May 2016**

### **Performance**

### As of May 31, 2016

### May Averages

Current Invested Balance	\$5,716,887,504.32	
Weighted Average Maturity (1)	46 Days	,
Weighted Average Maturity (2)	107 Days	,
Net Asset Value	1.000086	,
Total Number of Participants	807	
Management Fee on Invested Balance	0.05%*	(
Interest Distributed	\$1,993,198.87	
Management Fee Collected	\$238,787.76	
% of Portfolio Invested Beyond 1 Year	7.75%	(
Standard & Poor's Current Rating	AAAm	

Rates reflect historical information and are not an indication of future performance.

Average Invested Balance \$5,638,558,122.54

Average Monthly Yield, on a simple basis 0.3664%

Average Weighted Average Maturity (1)\* 48 Days

Average Weighted Average Maturity (2)\* 111 Days

#### Definition of Weighted Average Maturity (1) & (2)

- (1) This weighted average maturity calculation uses the SEC Rule 2a-7 definition for stated maturity for any floating rate instrument held in the portfolio to determine the weighted average maturity for the pool. This Rule specifies that a variable rate instrument to be paid in 397 calendar days or less shall be deemed to have a maturity equal to the period remaining until the next readjustment of the interest rate.
- (2) This weighted average maturity calculation uses the final maturity of any floating rate instruments held in the portfolio to calculate the weighted average maturity for the pool.
  - \* The maximum management fee authorized for the TexSTAR Cash Reserve Fund is 12 basis points. This fee may be waived in full or in part in the discretion of the TexSTAR co-administrators at any time as provided for in the TexSTAR Information Statement.

## **New Participants**

We would like to welcome the following entities who joined the TexSTAR program in May:

★ Fort Bend County MUD 57

★ Montgomery County MUD 113

## Holiday Reminder

In observance of **Independence Day, TexSTAR will be closed on Monday, July 4, 2016.** All ACH transactions initiated on Friday, July 1st will settle on Tuesday, July 5th. Notification of any early transaction deadlines on the business day preceding this holiday will be sent by email to the primary contact on file for all TexSTAR participants. Please plan accordingly for your liquidity needs.

## Economic Commentary

This month dispelled the adage 'sell in May go away' as Treasury yields in the short-end sold off sharply and developed market equities performed positively. In addition, oil prices continued to rise, briefly touching \$50 as demand picked up and supply was impacted by wild fires in Canada, militant attacks in Nigeria, political unrest in Libya and decreased shale production in the U.S. The U.S. dollar posted strong gains as positive economic numbers released throughout the month showed U.S. growth is trending positive. The yield on the two-year U.S. Treasury note rose 10 basis points ending the month at 0.88%. The Federal Open Market Committee's (FOMC) April meeting minute's hawkish tone surprised the markets as the Committee members appeared to be making a concerted effort to communicate that a mid-2016 rate hike was a distinct possibility. As a result, market-implied probability of a potential June or July 2016 rate hike significantly increased. Stronger than expected retail sales, housing and consumer price data served as a catalyst for the Fed to raise expectations. A resurging household sector is expected to drive the rebound in U.S. GDP in the second quarter. Housing activity appears to be accelerating due to strong demand, easy credit availability and low interest rates, leading to a 15% increase in mortgage purchase applications over the prior year. Consumption spending is expected to improve around 2.5% on average for the remainder of the year with pent-up savings, improved real incomes, steady employment growth and rising net worth being supportive going forward. Business investment is likely to remain poor as uncertainty surrounds both the global growth environment and the upcoming political cycle.

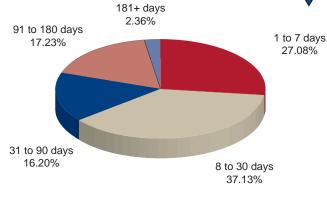
The U.S. remains susceptible to exogenous shocks, but given the lack of imbalances, a domestic catalyst for recession remains difficult to pinpoint. The Fed signaled a less accommodative stance in the release of its April FOMC Minutes. This shift has been reinforced by several Fed speakers, most notably Chair Yellen. It is being questioned whether the data has been sufficient enough to break the negative feedback loop between Fed policy and financial conditions. Market volatility is expected to resurface over the next few months calling into question whether the Fed will be able to tighten on the schedule the committee is now signaling. The current expectations forecast one rate hike during 2016, as event risk and expected volatility will challenge the Fed's desire to tighten. The Fed may be given a window of opportunity in July to raise rates which would increase the possibility of a second rate hike later in the year.

This information is an excerpt from an economic report dated May 2016 provided to TexSTAR by JP Morgan Asset Management, Inc., the investment manager of the TexSTAR pool.

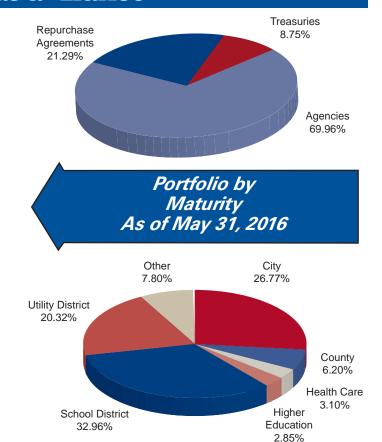
For more information about TexSTAR, please visit our web site at www.texstar.org.

## Information at a Glance





Distribution of Participants by Type As of May 31, 2016



## **Historical Program Information**

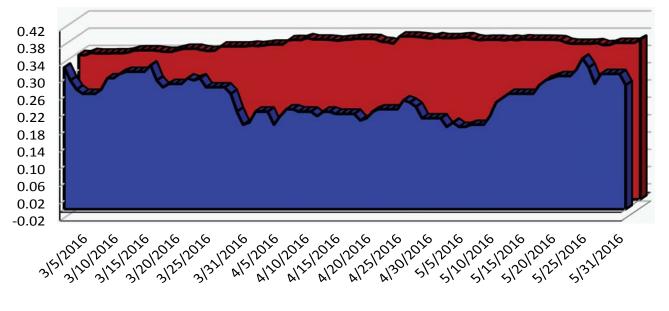
Average Rate	Book Value	Market Value	Net Asset Value	WAM (1)*	WAM (2)*	Number of Participants
0.3664%	\$5,716,887,504.32	\$5,717,379,585.85	1.000086	48	111	807
0.3696%	5,540,251,067.80	5,541,072,494.98	1.000144	46	106	805
0.3450%	5,594,793,523.15	5,595,290,113.49	1.000088	45	86	803
0.3147%	6,329,887,983.78	6,330,019,653.99	1.000020	46	85	797
0.2713%	5,856,455,946.61	5,856,245,669.97	0.999964	41	79	797
0.1868%	5,077,006,074.74	5,076,619,261.50	0.999915	45	75	797
0.1155%	4,985,405,721.88	4,985,138,368.79	0.999946	48	80	797
0.1099%	5,137,746,592.55	5,138,104,083.30	1.000066	45	72	796
0.0994%	5,171,964,839.33	5,172,390,234.79	1.000082	46	62	796
0.0823%	5,444,712,315.25	5,444,863,919.29	1.000027	47	60	796
0.0722%	5,191,663,669.11	5,192,008,905.67	1.000063	50	63	795
0.0719%	5,113,377,874.72	5,113,798,319.64	1.000082	52	68	794
	0.3664% 0.3696% 0.3450% 0.3147% 0.2713% 0.1868% 0.1155% 0.1099% 0.0994% 0.0823% 0.0722%	Rate         Value           0.3664%         \$5,716,887,504.32           0.3696%         5,540,251,067.80           0.3450%         5,594,793,523.15           0.3147%         6,329,887,983.78           0.2713%         5,856,455,946.61           0.1868%         5,077,006,074.74           0.1155%         4,985,405,721.88           0.1099%         5,137,746,592.55           0.0994%         5,171,964,839.33           0.0823%         5,444,712,315.25           0.0722%         5,191,663,669.11	Rate         Value         Value           0.3664%         \$5,716,887,504.32         \$5,717,379,585.85           0.3696%         5,540,251,067.80         5,541,072,494.98           0.3450%         5,594,793,523.15         5,595,290,113.49           0.3147%         6,329,887,983.78         6,330,019,653.99           0.2713%         5,856,455,946.61         5,856,245,669.97           0.1868%         5,077,006,074.74         5,076,619,261.50           0.1155%         4,985,405,721.88         4,985,138,368.79           0.1099%         5,137,746,592.55         5,138,104,083.30           0.0994%         5,171,964,839.33         5,172,390,234.79           0.0823%         5,444,712,315.25         5,444,863,919.29           0.0722%         5,191,663,669.11         5,192,008,905.67	Rate         Value         Value         Asset Value           0.3664%         \$5,716,887,504.32         \$5,717,379,585.85         1.000086           0.3696%         5,540,251,067.80         5,541,072,494.98         1.000144           0.3450%         5,594,793,523.15         5,595,290,113.49         1.000088           0.3147%         6,329,887,983.78         6,330,019,653.99         1.000020           0.2713%         5,856,455,946.61         5,856,245,669.97         0.9999964           0.1868%         5,077,006,074.74         5,076,619,261.50         0.999915           0.1155%         4,985,405,721.88         4,985,138,368.79         0.999946           0.1099%         5,137,746,592.55         5,138,104,083.30         1.000066           0.0994%         5,171,964,839.33         5,172,390,234.79         1.000082           0.0823%         5,444,712,315.25         5,444,863,919.29         1.000027           0.0722%         5,191,663,669.11         5,192,008,905.67         1.000063	Rate         Value         Value         Asset Value         WAM (1)*           0.3664%         \$5,716,887,504.32         \$5,717,379,585.85         1.000086         48           0.3696%         5,540,251,067.80         5,541,072,494.98         1.000144         46           0.3450%         5,594,793,523.15         5,595,290,113.49         1.000088         45           0.3147%         6,329,887,983.78         6,330,019,653.99         1.000020         46           0.2713%         5,856,455,946.61         5,856,245,669.97         0.999964         41           0.1868%         5,077,006,074.74         5,076,619,261.50         0.999915         45           0.1155%         4,985,405,721.88         4,985,138,368.79         0.999946         48           0.1099%         5,137,746,592.55         5,138,104,083.30         1.000066         45           0.0994%         5,171,964,839.33         5,172,390,234.79         1.000082         46           0.0823%         5,444,712,315.25         5,444,863,919.29         1.000027         47           0.0722%         5,191,663,669.11         5,192,008,905.67         1.000063         50	Rate         Value         Value         Asset Value         WAM (1)*         WAM (2)*           0.3664%         \$5,716,887,504.32         \$5,717,379,585.85         1.000086         48         111           0.3696%         5,540,251,067.80         5,541,072,494.98         1.000144         46         106           0.3450%         5,594,793,523.15         5,595,290,113.49         1.000088         45         86           0.3147%         6,329,887,983.78         6,330,019,653.99         1.000020         46         85           0.2713%         5,856,455,946.61         5,856,245,669.97         0.999964         41         79           0.1868%         5,077,006,074.74         5,076,619,261.50         0.999915         45         75           0.1155%         4,985,405,721.88         4,985,138,368.79         0.999946         48         80           0.1099%         5,137,746,592.55         5,138,104,083.30         1.000066         45         72           0.0994%         5,171,964,839.33         5,172,390,234.79         1.000082         46         62           0.0823%         5,444,712,315.25         5,444,863,919.29         1.000063         50         63

## Portfolio Asset Summary as of May 31, 2016

		Book Value	Market Value	
Uninvested Balance	\$	(307.46)	\$ (307.46)	
Accrual of Interest Income		3,037,670.04	3,037,670.04	
Interest and Management Fees Payable		(2,135,846.43)	(2,135,846.43)	
Payable for Investment Purchased		0.00	0.00	
Repurchase Agreement		1,216,708,999.78	1,216,708,999.78	
Government Securities	4	4,499,276,988.39	4,499,769,069.92	

Total \$ 5,716,887,504.32 \$ 5,717,379,585.85

## TexSTAR versus 90-Day Treasury Bill



■ 90 Day T-BILL Rate ■ TexSTAR Rate

This material is for information purposes only. This information does not represent an offer to buy or sell a security. The above rate information is obtained from sources that are believed to be reliable; however, its accuracy or completeness may be subject to change. The TexSTAR management fee may be waived in full or in part at the discretion of the TexSTAR co-administrators and the TexSTAR rate for the period shown reflects waiver of fees. This table represents historical investment performance/return to the customer, net of fees, and is not an indication of future performance. An investment in the security is not insured or guaranteed by the Federal Deposit Insurance Corporation or any other government agency. Although the issuer seeks to preserve the value of an investment at \$1.00 per share, it is possible to lose money by investing in the security. Information about these and other program details are in the fund's Information Statement which should be read carefully before investing. The yield on the 90-Day Treasury Bill ("T-Bill Yield") is shown for comparative purposes only. When comparing the investment returns of the TexSTAR pool to the T-Bill Yield, you should know that the TexSTAR pool consist of allocations of specific diversified securities as detailed in the respective Information Statements. The T-Bill Yield is taken from Bloomberg Finance L.P. and represents the daily closing yield on the then current 90-day T-Bill.

## Daily Summary for May 2016

Date	Mny Mkt Fund Equiv. [SEC Std.]	Daily Allocation Factor	TexSTAR Invested Balance	Market Value Per Share	WAM Days (1)*	WAM Days (2)*
5/1/2016	0.3732%	0.000010226	\$5,540,251,067.80	1.000144	49	112
5/2/2016	0.3748%	0.000010268	\$5,548,528,532.57	1.000181	49	113
5/3/2016	0.3754%	0.000010285	\$5,522,173,528.70	1.000200	51	114
5/4/2016	0.3707%	0.000010156	\$5,542,640,918.11	1.000207	52	116
5/5/2016	0.3685%	0.000010097	\$5,582,579,950.63	1.000202	51	115
5/6/2016	0.3693%	0.000010119	\$5,555,743,435.26	1.000199	50	113
5/7/2016	0.3693%	0.000010119	\$5,555,743,435.26	1.000199	50	113
5/8/2016	0.3693%	0.000010119	\$5,555,743,435.26	1.000199	50	113
5/9/2016	0.3680%	0.000010082	\$5,552,639,270.90	1.000195	49	112
5/10/2016	0.3699%	0.000010135	\$5,582,622,721.75	1.000186	48	111
5/11/2016	0.3680%	0.000010083	\$5,595,735,949.76	1.000184	47	112
5/12/2016	0.3704%	0.000010148	\$5,545,379,025.34	1.000189	46	113
5/13/2016	0.3696%	0.000010127	\$5,592,923,657.83	1.000166	45	110
5/14/2016	0.3696%	0.000010127	\$5,592,923,657.83	1.000166	45	110
5/15/2016	0.3696%	0.000010127	\$5,592,923,657.83	1.000166	45	110
5/16/2016	0.3693%	0.000010119	\$5,625,454,413.22	1.000162	44	108
5/17/2016	0.3691%	0.000010111	\$5,699,301,071.17	1.000165	45	108
5/18/2016	0.3683%	0.000010091	\$5,752,162,627.33	1.000147	47	111
5/19/2016	0.3623%	0.000009925	\$5,717,500,173.27	1.000121	48	111
5/20/2016	0.3600%	0.000009863	\$5,696,259,017.51	1.000080	48	110
5/21/2016	0.3600%	0.000009863	\$5,696,259,017.51	1.000080	48	110
5/22/2016	0.3600%	0.000009863	\$5,696,259,017.51	1.000080	48	110
5/23/2016	0.3601%	0.000009865	\$5,649,143,363.94	1.000082	48	110
5/24/2016	0.3616%	0.000009907	\$5,654,254,292.22	1.000102	46	106
5/25/2016	0.3568%	0.000009775	\$5,671,725,423.59	1.000072	50	111
5/26/2016	0.3572%	0.000009786	\$5,718,222,547.11	1.000114	49	109
5/27/2016	0.3621%	0.000009920	\$5,760,830,271.31	1.000100	47	107
5/28/2016	0.3621%	0.000009920	\$5,760,830,271.31	1.000100	47	107
5/29/2016	0.3621%	0.000009920	\$5,760,830,271.31	1.000100	47	107
5/30/2016	0.3621%	0.000009920	\$5,760,830,271.31	1.000100	47	107
5/31/2016	0.3696%	0.000010125	\$5,716,887,504.32	1.000086	46	107
Average	0.3664%	0.000010038	\$5,638,558,122.54		48	111

TexSTAR Participant Services
FirstSouthwest, A Division of Hilltop Securities
1201 Elm Street, Suite 3500
Dallas, Texas 75270



### **TexSTAR Board Members**

William Chapman Central Texas Regional Mobility Authority Governing Board President Nell Lange City of Frisco Governing Board Vice President Kenneth Huewitt Governing Board Treasurer Houston ISD David Medanich FirstSouthwest / Hilltop Securities Governing Board Secretary Jennifer Novak J.P. Morgan Asset Management Governing Board Asst. Sec./Treas. Eric Cannon City of Allen Advisory Board Austin ISD Nicole Conley Advisory Board North Central TX Council of Government Monte Mercer Advisory Board Stephen Fortenberry Plano ISD Advisory Board

For more information contact TexSTAR Participant Services ★ 1-800-TEX-STAR ★ www.texstar.org

Government Resource Associates, LLC



Becky Brooks



Advisory Board

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

### **RESOLUTION NO. 16-047**

# APPROVING AN INTERLOCAL AGREEMENT WITH THE TEXAS DEPARTMENT OF TRANSPORTATION TO CO-LOCATE PERSONNEL FOR THE PURPOSES OF SERVING PAY-BY-MAIL CUSTOMERS OF BOTH AGENCIES

WHEREAS, the Executive Director has developed a proposed interlocal agreement between the Texas Department of Transportation ("TXDOT") and the Mobility Authority to co-locate personnel for the purposes of serving Pay-By-Mail customers of both agencies; and

WHEREAS, TXDOT shall house one or more Mobility Authority representatives at the TxTAG Customer Service Center, located at 12719 Burnet Rd. Austin, TX 78727 to provide customer service to customers who have a question or issue related to toll and related charges by the Mobility Authority for use of Mobility Authority toll roads; and

WHEREAS, the proposed interlocal agreement will provide the Mobility Authority and TXDOT's Toll Operations Division an opportunity to better serve their customers efficiently and effectively as well as providing a co-location to customers; and

WHEREAS, the Executive Director recommends approval of the proposed interlocal agreement with TXDOT.

NOW THEREFORE, BE IT RESOLVED that the proposed interlocal agreement is hereby approved; and

BE IT FURTHER RESOLVED that the Executive Director is authorized and directed to finalize and execute for the Mobility Authority the interlocal agreement in the form or substantially the same form as Exhibit A hereto.

Adopted by the Board of Directors of the Central Texas Regional Mobility Authority on the 27<sup>th</sup> day of July, 2016.

Submitted and reviewed by:

Geoffrey Petroy, General Counsel

31

Approved:

Chairman, Board of Directors

### Exhibit A

Contract No	

## Interlocal Agreement

## **Contract Services Transmittal Form**

From: Toll Operations Division - 87	Contact Person: Payman Dargahi				
(District/Division/Office)	Phone No.: 512-874-9675				
Subject: Co-location at the TxTag Customer Service Center					
Other Entity Central Texas Regional Mobility Authority	Contract Maximum Amount Payable \$0				
Are any federal funds used in this contract? N	Are any federal funds used in this contract? No				
If yes, what kind of federal funds. N/A					
Was the standard interlocal or amendment for	mat modified? Yes NoX				
If modified, date of Contract Services approval	: _N/A				
Modifications made are as follows: N/A					

Contract No		

## THE STATE OF TEXAS § THE COUNTY OF TRAVIS §

### **INTERLOCAL AGREEMENT**

THIS CONTRACT is entered into by the Contracting Pari	ies under Government Code, Chapter 791.
I. CONTRACTING PARTIES:	
The Texas Department of Transportation Central Texas Regional Mobility Authority	TxDOT Local Government
<b>II. PURPOSE:</b> _ To better serve the public, the Texas D with the Central Texas Regional Mobility Authority (CTRM 12719 Burnet Road, Austin, Texas 78727 to allow custon (bills and questions) in one location. In addition, the Texal locate with the Central Texas Regional Mobility Authority TxTag and CTRMA toll inquiries in one location.	MA) at the TxTag Customer Service Center located at ners to resolve both TxTag and CTRMA toll inquiries as Department of Transportation may want to co-
III. STATEMENT OF SERVICES TO BE PERFORMED: described in <b>Attachment A</b> , Scope of Services.	TxDOT will undertake and carry out services
IV. CONTRACT PAYMENT: The total amount of this coconform to the provisions of <b>Attachment B</b> , Budget. Pay	
V. TERM OF CONTRACT: This contract begins when for _December 31, 2018_ or when otherwise terminated as processed in the contract begins when for _December 31, 2018_ or when otherwise terminated as processed in the contract begins when for _December 31, 2018_ or when otherwise terminated as processed in the contract begins when for _December 31, 2018_ or when otherwise terminated as processed in the contract begins when for _December 31, 2018_ or when otherwise terminated as processed in the contract begins when for _December 31, 2018_ or when otherwise terminated as processed in the contract begins when for _December 31, 2018_ or when otherwise terminated as processed in the contract begins when the contract beg	•
VI. LEGAL AUTHORITY: THE PARTIES certify that the services provided under the legal authority of the Contracting Parties.	is contract are services that are properly within the
The governing body, by resolution or ordinance, dated Government to obtain the services described in <b>Attachm</b>	
This contract incorporates the provisions of <b>Attachment Attachment C</b> , General Terms and Conditions, <b>Attachment Location</b> Map Showing Project.	
CENTRAL TEXAS REGIONAL MOBILITY AUTHORI	TY (Name of Local Government)
By AUTHORIZED SIGNATURE	Date
TYPED OR PRINTED NAME AND TITLE  Title	
FOR THE STATE OF TEXAS  Executed for the Executive Director and approved for the	Texas Transportation Commission for the purpose

Executed for the Executive Director and approved for the Texas Transportation Commission for the purpose and effect of activating and/or carrying out the orders, established policies or work programs heretofore approved and authorized by the Texas Transportation Commission.

Ву		Date	
	Kenneth Stewart		
	Director of Contract Services		

Contract	NI <sub>0</sub>		
Contract	INO		

### **ATTACHMENT A**

### Scope of Services

- I. This agreement will be in full force and effect when approved by each party. It is understood by the Parties that this document will be revisited as necessary by mutual agreement to ensure that it reflects the current agreements and understandings of the participating Parties.
- II. The purpose of this agreement is to provide improved customer service to TxTAG customers with the convenience of having two toll entities with two respective back-office systems, in one location. TxDOT shall house one or more employees of the Local Government at the TxTAG Customer Service Center, located at 12719 Burnet Road, Austin, Texas 78727 in order to provide customer service to customers' with inquiries on the Local Government's back-office system. The Local Government will be responding to billing issues and any and all inquiries with their own equipment and back-office system operating during the same office hours as TxDOT's services, Monday through Friday. This service will allow TxDOT's Toll Operations Division to better serve its customers by allowing for more efficient and effective customer service, as well as providing a co-location to customers.
- III. The Local Government employee(s) will not be granted access to or use of any TxDOT equipment or back-office system.

Contract No	
Contract No	

### **ATTACHMENT B**

### **Budget**

No funds shall be exchanged under this agreement.

Contract	No	
Contract	No	

### ATTACHMENT C

### **General Terms and Conditions**

#### **Article 1. Amendments**

This contract may only be amended by written agreement executed by both parties before the contract is terminated.

### **Article 2. Conflicts Between Agreements**

If the terms of this contract conflict with the terms of any other contract between the parties, the most recent contract shall prevail.

### Article 3. Disputes

TxDOT shall be responsible for the settlement of all contractual and administrative issues arising out of procurements entered in support of contract services.

### **Article 4. Ownership of Equipment**

Except to the extent that a specific provision of this contract states to the contrary, all equipment purchased by TxDOT under this contract shall be owned by TxDOT.

### **Article 5. Termination**

This contract terminates at the end of the contract term, when all services and obligations contained in this contract have been satisfactorily completed, by mutual written agreement, or 30 days after either party gives notice to the other party, whichever occurs first.

### Article 6. Gratuities

Any person who is doing business with or who reasonably speaking may do business with TxDOT under this contract may not make any offer of benefits, gifts, or favors to employees of TxDOT. The only exceptions allowed are ordinary business lunches and items that have received the advanced written approval of the Executive Director of the Texas Department of Transportation.

### **Article 7. Responsibilities of the Parties**

Each party acknowledges that it is not an agent, servant, or employee of the other party. Each party is responsible for its own acts and deeds and for those of its agents, servants, or employees.

### **Article 8. Compliance with Laws**

The parties shall comply with all federal, state, and local laws, statutes, ordinances, rules, and regulations and with the orders and decrees of any courts or administrative bodies or tribunals in any manner affecting the performance of this agreement.

### **Article 9. State Auditor's Provision**

The state auditor may conduct an audit or investigation of any entity receiving funds from TxDOT directly under the contract or indirectly through a subcontract under the contract. Acceptance of funds directly under the contract or indirectly through a subcontract under this contract acts as acceptance of the authority of the state auditor, under the direction of the legislative audit committee, to conduct an audit or investigation in connection with those funds. An entity that is the subject of an audit or investigation must provide the state auditor with access to any information the state auditor considers relevant to the investigation or audit.

Contract No	
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### **Article 10. Signatory Warranty**

Each signatory warrants that the signatory has necessary authority to execute this agreement on behalf of the entity represented.

### **Article 11. Notices**

All notices to either party shall be delivered personally or sent by certified U.S. mail, postage prepaid, addressed to that party at the following address:

Local Government:	Central Texas Regional Mobility Authority 3300 North Interstate 35 Frontage Road #300 Austin, Texas 78705
TxDOT:	Director of Contract Services 125 East 11 <sup>th</sup> Street Austin, Texas 78701

All notices shall be deemed given on the date delivered in person or deposited in the mail. Either party may change the above address by sending written notice of the change to the other party. Either party may request in writing that notices shall be delivered personally or by certified U.S. mail, and that request shall be carried out by the other party.

Contract No	
-------------	--

### **ATTACHMENT D**

### **Resolution or Ordinance**

### **ATTACHMENT E**

### **Location Maps Showing Project**



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

### **RESOLUTION NO. 16-048**

# APPROVING AN INTERLOCAL AGREEMENT WITH THE TEXAS DEPARTMENT OF TRANSPORTATION FOR OFF-SITE MATERIALS, INDEPENDENT ASSURANCE, & SKID & PERMEABILITY TESTING

WHEREAS, by Resolution No. 13-059, the Board of Directors approved an interlocal agreement with the Texas Department of Transportation ("TXDOT") under which TXDOT provided independent inspection and testing services for materials used in constructing the Mobility Authority's transportation projects; and

WHEREAS, TXDOT has continued to provide materials inspection and testing services for Mobility Authority transportation projects under interlocal agreements between the Mobility Authority and TxDOT, with the current such interlocal agreement to expire on October 31, 2016; and

WHEREAS, the Executive Director recommends that the Mobility Authority continue to obtain materials inspection and testing services from TxDOT as needed for the Mobility Authority's transportation projects.

NOW THEREFORE, BE IT RESOLVED that the proposed interlocal agreement is approved and the Executive Director is hereby authorized to finalize and execute an interlocal agreement on behalf of the Mobility Authority in substantially the form attached hereto as Exhibit A.

Adopted by the Board of Directors of the Central Texas Regional Mobility Authority on the 27<sup>th</sup> day of July 2016.

Submitted and reviewed by:

Geoffrey Petroy, General Counsel

Approved:

Rav A. Wilkerson

Chairman, Board of Directors

### Exhibit A

## **Interlocal Agreement**

### **Contract Services Transmittal Form**

From: Construction Division - 46	Contact Person: Hubert Stewart
	Phone No.:(512) 461-2561
Subject: Material Inspection Testing	
Other Entity - Central Texas Regional Mobility Authority	Contract Maximum Amount Payable \$1,800,000
Are any federal funds used in this contract? No	
If yes, what kind of federal funds.	
Was the standard interlocal or amendment format modified? Yes _X No  If modified, date of Contract Services approval: TBD  Modifications made are as follows: Added independent assurance testing and sampling services to the scope.	

## THE STATE OF TEXAS § THE COUNTY OF TRAVIS §

INTERLOCAL AC	GREEMENT
THIS CONTRACT is entered into by the Contracting Partie	es under Government Code, Chapter 791.
I. CONTRACTING PARTIES:	
The Texas Department of Transportation Central Texas Regional Mobility Authority	TxDOT Local Government
II. PURPOSE: Perform material inspection and testing se	ervices.
III. STATEMENT OF SERVICES TO BE PERFORMED: described in <b>Attachment A</b> , Scope of Services.	TxDOT will undertake and carry out services
<b>IV. CONTRACT PAYMENT:</b> The total amount of this conto the provisions of <b>Attachment B</b> , Budget. Payments sha	
<b>V. TERM OF CONTRACT:</b> This contract begins when ful 10/31/2018 or when otherwise terminated as provided in the	
VI. LEGAL AUTHORITY: THE PARTIES certify that the services provided under this legal authority of the Contracting Parties.	s contract are services that are properly within the
The governing body, by resolution or ordinance, dated Government to obtain the services described in <b>Attachme</b>	
This contract incorporates the provisions of <b>Attachment A Attachment C</b> , General Terms and Conditions, <b>Attachme</b> Location Map Showing Project.	
CENTRAL TEXAS REGIONAL MOBILITY AUTHORITY	
Ву	Date
Authorized Signature	
Type or Printed Name and Title	
Title	-
FOR THE STATE OF TEXAS  Executed for the Executive Director and approved for the Taxand effect of activating and/or carrying out the orders, esta approved and authorized by the Texas Transportation Control	blished policies or work programs heretofore
Ву	Date
Kenneth Stewart Director of Contract Services	

### ATTACHMENT A

### Scope of Services

The Texas Department of Transportation (TxDOT) agrees to perform material inspection and testing services as requested by the Local Government, and subject to the terms set forth below. Material inspection and testing services to be performed by TxDOT consists of the following:

- Various inspected materials fabricated off-site (structural steel bridge components, pre-cast concrete stressed/non-stressed products, and miscellaneous fabricated products).
- Independent assurance testing and sampling services
- Other materials inspection and testing as agreed upon in writing by TxDOT and the Local Government.

Inspections will be performed in compliance with the specifications and instructions supplied by the Local Government and are subject to the terms and conditions described below. Written inspection or test reports will be provided to the Local Government in accordance with TxDOT's existing policies as inspection and testing services are performed by TxDOT.

Prior to the commencement of material inspection and testing services or independent assurance testing and sampling services, the Local Government shall provide TxDOT with a single point of contact for this scope of services. TxDOT will direct all invoices, test reports, questions and other issues to this point of contact. The Local Government shall provide an email address to which invoices will be sent. The Local Government shall provide written notification of a change to the point of contact.

### **INSPECTED MATERIALS**

The Local Government will provide TxDOT a list of the materials requiring inspection. Estimated quantities of each material will also be provided. The types of products and the extent of the inspections will be as agreed upon prior to commencement of any inspections. The level of inspection and documentation furnished for Local Government inspections will be as provided for typical TxDOT projects.

TxDOT will only perform inspection services for the Local Government at structural steel fabrication plants, commercial precast prestressed and non-stressed concrete products plants, and other miscellaneous fabrication plants where TxDOT routinely provides such inspection and testing services for its own highway materials or for others. Out-of-state inspections for Local Government will be performed only when TxDOT has employees scheduled to conduct inspections for TxDOT projects at the requested locations, unless agreed upon otherwise. All out-of-state inspections will require reimbursement of the additional costs for travel (airfare, lodging, per diem, vehicle rentals, and other miscellaneous costs). Reimbursement will be requested through invoices from TxDOT.

TxDOT reserves the right to prioritize or reschedule any inspection and testing services according to the following:

- Inspection and testing services may be cancelled or deferred due to unavailability of TxDOT personnel to perform the necessary inspection
- Inspections for the Local Government will be given lower priority than inspections performed by TxDOT for TxDOT projects
- Inspections for the Local Government may be rescheduled to coincide with the inspection of products for TxDOT projects.

The Local Government and its fabricators will abide by the Nonconformance Report (NCR) process utilized by TxDOT for disposition of products that do not meet the requirements of the Local Government's specifications provided.

### INDEPENDENT ASSURANCE

The Local Government will provide TxDOT a list of the elements of the Local Government's Independent Assurance Program, including all equipment and personnel requiring evaluation and verification. The types of products and the extent of the sampling and testing procedures will be as agreed upon prior to commencement of any evaluation or verification by TxDOT. The level of evaluation, verification and documentation furnished for the Local Government will be as required for similar TxDOT projects. The Local Government will compensate TxDOT for all direct costs of salaries and related expenses incurred by TxDOT in providing independent assurance services.

### **WORK REQUESTS**

### Fabrication Inspection

A minimum of two (2) weeks prior to TxDOT performing any inspections, the Local Government will submit Work Requests to TxDOT. Submit one Work Request per Fabricator and include the following:

- Project information (i.e. contract number, CSJ, etc.)
- Work description
- Type and estimated quantity of material(s) to be inspected
- Fabricator information (Name, contact person, phone number, physical location)
- Desired date of inspection
- Name, title, signature, and telephone number of the Local Government's authorized representative.
- Specification Item or Special Specification to be used for inspection
- List of the Local Government's amendments to Specification Item
- Local Governments Special Specifications
- Complete set of necessary design drawings, material specifications, and shop drawing files in Adobe
  .pdf format to perform inspection of the material.

### Independent Assurance

A minimum of two (2) weeks prior to TxDOT providing independent assurance services, the Local Government will submit Work Requests to TxDOT. Submit one Work Request and include the following:

- Project information (i.e. contract number, CSJ, etc.)
- Work description
- List of equipment or personnel requiring evaluation and verification
- Desired date of completion or comparison
- Name, title, signature, and telephone number of the Local Government's authorized representative.

Incomplete Work Requests will not be accepted. E-mail completed Work Requests, with attachments, as an Adobe .pdf format to CST\_Structuralcorrespondence@txdot.gov and include and include "Work Request" in the subject line

### **TEST REPORTS**

TxDOT will send test reports and pertinent information to the Local Government's designated point of contact for services performed as attachments to invoices for services.

### **ATTACHMENT B**

### **Budget**

### **Texas Department of Transportation Inspection & Testing Rates**

TxDOT will only perform inspection and testing services outlined in Attachment A.

Charges will be based on rates in effect at the time inspection and testing services are performed.

Current Inspection and Testing Rates are published at:

http://ftp.dot.state.tx.us/pub/txdot-info/cst/inspection\_testing.pdf

Invoices will be sent to the Local Government on a weekly basis. Payments are due within 30 days of date of invoice and will be mailed to the following address:

Texas Department of Transportation

P. O. Box 149001

Austin, Texas 78714-9001

#### ATTACHMENT C

#### **General Terms and Conditions**

#### **Article 1. Amendments**

This contract may only be amended by written agreement executed by both parties before the contract is terminated.

### **Article 2. Conflicts Between Agreements**

If the terms of this contract conflict with the terms of any other contract between the parties, the most recent contract shall prevail.

### Article 3. Disputes

TxDOT shall be responsible for the settlement of all contractual and administrative issues arising out of procurements entered in support of contract services.

### **Article 4. Ownership of Equipment**

Except to the extent that a specific provision of this contract states to the contrary, all equipment purchased by TxDOT under this contract shall be owned by TxDOT.

### **Article 5. Termination**

This contract terminates at the end of the contract term, when all services and obligations contained in this contract have been satisfactorily completed, by mutual written agreement, or 30 days after either party gives notice to the other party, whichever occurs first.

### Article 6. Gratuities

Any person who is doing business with or who reasonably speaking may do business with TxDOT under this contract may not make any offer of benefits, gifts, or favors to employees of TxDOT. The only exceptions allowed are ordinary business lunches and items that have received the advanced written approval of the Executive Director of the Texas Department of Transportation.

### Article 7. Responsibilities of the Parties

Each party acknowledges that it is not an agent, servant, or employee of the other party. Each party is responsible for its own acts and deeds and for those of its agents, servants, or employees.

### **Article 8. Compliance with Laws**

The parties shall comply with all federal, state, and local laws, statutes, ordinances, rules, and regulations and with the orders and decrees of any courts or administrative bodies or tribunals in any manner affecting the performance of this agreement.

### **Article 9. State Auditor's Provision**

The state auditor may conduct an audit or investigation of any entity receiving funds from TxDOT directly under the contract or indirectly through a subcontract under the contract. Acceptance of funds directly under the contract or indirectly through a subcontract under this contract acts as acceptance of the authority of the state auditor, under the direction of the legislative audit committee, to conduct an audit or investigation in connection with those funds. An entity that is the subject of an audit or investigation must provide the state auditor with access to any information the state auditor considers relevant to the investigation or audit.

### **Article 10. Signatory Warranty**

Each signatory warrants that the signatory has necessary authority to execute this agreement on behalf of the entity represented.

### **Article 11. Notices**

All notices to either party shall be delivered personally or sent by certified U.S. mail, postage prepaid, addressed to that party at the following address:

Local Government:	Central Texas Regional Mobility Authority Attention: Ginny Burcham, Maintenance Director 3300 North IH-35, Suite 300 Austin, TX 78705
TxDOT:	Texas Department of Transportation Attention: Director, Contract Services 125 East 11 <sup>th</sup> Street Austin, TX 78701-2483

All notices shall be deemed given on the date delivered in person or deposited in the mail. Either party may change the above address by sending written notice of the change to the other party. Either party may request in writing that notices shall be delivered personally or by certified U.S. mail, and that request shall be carried out by the other party.

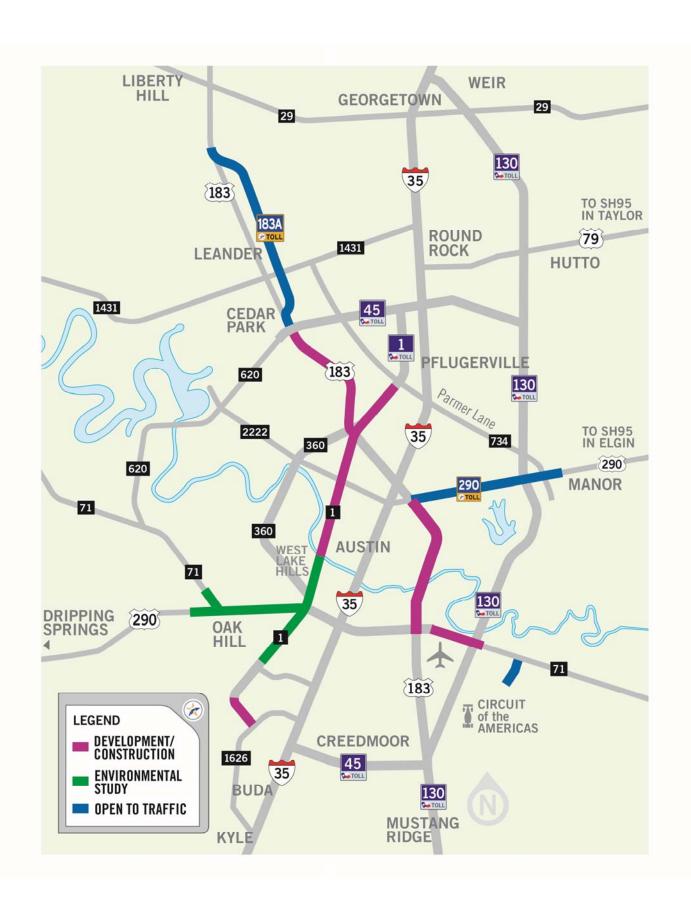
### **ATTACHMENT D**

### **Resolution or Ordinance**

### **ATTACHMENT E**

### **Location Maps Showing Project**

## ATTACHMENT E Projects Location Map



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

### **RESOLUTION NO. 16-049**

### APPROVING A CONTRACT AND WORK AUTHORIZATION NO. 1 FOR CP&Y INC. TO PROVIDE DESIGN SERVICES FOR THE 290E/SH 130 DIRECT CONNECTORS PROJECT

WHEREAS, by Resolution No. 16-019 dated March 30, 2016, the Board of Directors authorized the Executive Director to negotiate a professional engineering services contract with CP&Y Inc. for the design of one or more direct connectors at the intersection of SH 130 and the Manor Expressway; and

WHEREAS, the Executive Director and CP&Y have discussed and agreed to a proposed contract and Work Authorization No. 1 for CP&Y to preliminary and final PS&E design of three (3) direct connectors at the 290 East / SH 130 Interchange and ramp improvements; and

WHEREAS, the Executive Director recommends that the Board approve the proposed contract in substantially the form attached hereto as <u>Exhibit A</u>.

NOW THEREFORE, BE IT RESOLVED that the proposed contract and Work Authorization No. 1 with CP&Y is hereby approved.

BE IT FURTHER RESOLVED that the Executive Director is hereby authorized to finalize and execute contract and Work Authorization No. 1 on behalf of the Mobility Authority in substantially the form attached hereto as Exhibit A.

Adopted by the Board of Directors of the Central Texas Regional Mobility Authority on the 27<sup>th</sup> day of July, 2016.

Submitted and reviewed by:

Geoffrey Petrov, General Counsel

Approved:

Rav A. Wilkerson

Chairman, Board of Directors

### Exhibit A

### CONTRACT FOR ENGINEERING SERVICES

Cost Plus Fixed Fee, Unit Cost, Lump Sum, or Specified Rate Specific Deliverable with Work Authorizations

**THIS CONTRACT FOR ENGINEERING SERVICES** (the "Contract") is made by and between the Central Texas Regional Mobility Authority, 3300 N. I-35, Suite 300, Austin, Texas 78705, hereinafter called "Mobility Authority," and CP&Y, Inc., having its principal business address at 13809 Research Blvd, Suite 300, Austin, TX 78750 hereinafter called "Engineer," for the purpose of contracting for engineering services.

### WITNESSETH

**WHEREAS**, the Mobility Authority desires to contract for engineering services generally described as transportation and engineering design services; and,

**WHEREAS**, pursuant to a qualifications-based selection conducted in accordance with the Professional Services Procurement Act (Tex. Gov't Code Sec. 2254.001, et. seq.), the Mobility Authority has selected the Engineer to provide the needed services; and

**WHEREAS**, the Engineer has agreed to provide the services subject to the terms and conditions hereinafter set forth.

**NOW, THEREFORE**, the Mobility Authority and the Engineer, in consideration of the mutual covenants and agreements herein contained, do hereby mutually agree as follows.

### **AGREEMENT**

### ARTICLE 1 SCOPE OF SERVICES

The Engineer will furnish items and perform those services for fulfillment of the Contract as identified in Exhibit B of the Attachment B - Work Authorization(s) (the "Services"). All Services provided by the Engineer shall comply with the terms and conditions of this Contract and any Work Authorizations issued pursuant hereto, and shall conform to standard engineering practices and applicable rules and regulations of the Texas Engineering Practices Act and the rules of the Texas Board of Professional Engineers.

## ARTICLE 2 COMPENSATION

Compensation for the Engineer's Services and other aspects of the mutual obligations concerning the Engineer's Services and payment therefore are as follows:

**A. Basis for Compensation.** Subject to the terms of a Work Authorization issued pursuant to Article 4 below (including any maximum amount to be paid as stated therein), the Mobility Authority agrees to pay, and the Engineer agrees to accept as full and sufficient

compensation and reimbursement for the performance of all Services as set forth in this Agreement, hourly rates for the staff working on the assignment computed as follows:

Direct Labor Cost x 
$$(1.0 + OH Rate)$$
 x  $(1.0 + Profit (\%))$ .

where Direct Labor Cost equals salary divided by 2080; OH Rate equals the Engineer's most recent auditable overhead rate under 48 C.F.R. Part 31, Federal Acquisition Regulations (FAR 31) or otherwise approved overhead rate pursuant to subarticle 2.B; and Profit (%) reflects a ten percent (10%) profit. The range of Direct Labor Costs for the classifications of employees working for the Mobility Authority as of the effective date of this Agreement is reflected in Attachment A. Revisions to Direct Labor Cost ranges for employee classifications and the auditable overhead rate may be proposed no more frequently than once per calendar year, and are subject to the written approval of the Executive Director or his designee. No increase shall be made to the specified profit percentage. The first adjustment to the auditable overhead rate shall be considered no earlier than one year after the execution of this contract. All adjustments shall be agreed to in writing by the Mobility Authority prior to implementation, and the Mobility Authority shall have the right to review and/or audit the Engineer's Direct Labor Costs and auditable overhead rates upon written request. Once approved, the range of Direct Labor Costs and auditable overhead rate will be used going forward until the next annual adjustment is approved. Changes to the auditable overhead rate will not be applied retroactively to Direct Labor Costs incurred in the previous year. If the Engineer or a sub consultant of the Engineer does not have a Far 31 overhead rate, they may submit, for Mobility Authority approval, alternate documentation supporting an appropriate auditable overhead rate. If an auditable overhead rate is not submitted or available, fixed hourly rates must be submitted per subarticle 2.I. During the term of this Agreement the Engineer shall provide to the Executive Director or his designee, prior to requesting any adjustment to its auditable overhead rate, a copy of the report establishing a new FAR rate for the Engineer.

The payment of the hourly rates and allowed costs shall constitute full payment for all Services, liaisons, products, materials, and equipment required to deliver the Services.

- **B.** Limitations on Rates Utilized. The Engineer represents that at all times, subject to the limitations on timing and approval in subarticle 2.A, throughout the term of this Contract that it shall not use an auditable overhead rate that exceeds the rate determined in accordance with FAR 31 (or successor regulations); and shall be based on actual salary amounts for the individuals performing the work; that the Direct Labor Costs shall not exceed the ranges reflected in Attachment A and shall be based on actual salary amounts for the individuals performing the work.
- C. Expenses. As indicated above, and subject to the terms of any Work Authorization, the compensation computed in accordance with subarticles 2.A. and B. is anticipated by the Mobility Authority and the Engineer to be full and sufficient compensation and reimbursement for the Services, and includes all customary out-of-pocket expenses anticipated to result from the Engineer's performance under the Contract that are included in the computation of the auditable overhead rate, such as office supplies, telecommunications systems, postage, general photocopying, computer hardware/software and service charges, and similar costs. To the extent not otherwise included in the Engineer's auditable overhead rate, non-reimbursable expenses shall also include all tolls incurred by Engineer or any of its sub consultants in connection with the

performance of the Services. Notwithstanding the foregoing, the Engineer shall be entitled to reimbursement for reasonable out-of-pocket expenses actually incurred by the Engineer that are necessary for the performance of its duties under this Contract and which are not included in the auditable overhead rate, said expenses being limited to travel costs (at rates which may not exceed those applicable to Mobility Authority employees), printing costs, automobile expenses being reimbursed at the federal mileage rates for travel originating from the office of the Engineer employee or sub consultant, and other expenses directly approved, in advance, by the Executive Director or his designee. Except for automobile expenses paid at the federal mileage rate and travel paid at state approved rates (if available), all such reimbursement shall be at one-hundred percent (100%) of the actual cost thereof paid by the Engineer to unaffiliated entities; provided, however, that aggregate amounts in excess of \$2,000 for which the Engineer intends to seek reimbursement pursuant to this subarticle 2.C. must be approved in advance and in writing by the Executive Director or his designee, except when such advance approval is impractical due to a bona fide emergency situation. Except as otherwise authorized in a validly issued Work Authorization, and only then to the extent reimbursable by the Texas Department of Transportation ("TxDOT") under the terms of any form of financial assistance agreement, the Mobility Authority shall not reimburse the Engineer for travel, lodging, and similar expenses incurred by the Engineer to bring additional staff to its local office or to otherwise reassign personnel to provide basic engineering support of the Engineer's performance of the Services, provided, however, that the Mobility Authority shall reimburse, but only in accordance with the terms of this subarticle 2.C., such costs incurred by the Engineer to bring to its local office or the Mobility Authority's facilities, with advance approval by the Executive Director or his designee, staff with specialized skills or expertise required for the Services and not customarily available from a staff providing general consulting civil engineering services of the type described in this agreement.

Engineer acknowledges that all expenses and costs paid or reimbursed by the Mobility Authority using federal or state funds shall be paid or reimbursed in accordance with, and subject to, applicable policies of the Mobility Authority and other applicable state and federal laws, including the applicable requirements of OMB Circular A-87, which may reduce the amount of expenses and costs reimbursed to less than what was actually incurred.

- **D.** Non-compensable Time. Time spent by the Engineer's employees or sub consultants to perform services or functions capable of being carried out by other, subordinate personnel with a lower hourly rate shall be billed at a rate equivalent to that of the applicable qualified subordinate personnel. Time spent by the Engineer's personnel or sub consultants in an administrative or supervisory capacity not related to the performance of the Services shall not be compensable. Time spent on work that is in excess of what would reasonably be considered appropriate for the performance of such Services shall not be compensable.
- **E. Effect of Payments.** No payment by the Mobility Authority shall relieve the Engineer of its obligation to deliver timely the Services required under this Contract. If after approving or paying for any service, product or other deliverable, the Mobility Authority determines that said service, product or deliverable does not satisfy the requirements of this Contract, the Mobility Authority may reject same and, if the Engineer fails to correct or cure same within a reasonable period of time and at no additional cost to the Mobility Authority, the Engineer shall return any compensation received therefore. In addition to all other rights provided in this

Contract, the Mobility Authority shall have the right to offset any amounts owed by the Engineer pursuant to the terms of this Contract upon providing the Engineer prior written notice thereof.

- F. No Adjustments to Direct Labor Costs and Auditable Overhead Rate. Except as otherwise expressly provided in subarticle 2.A. above, the Mobility Authority and the Engineer shall not make adjustments to the Direct Labor Costs or the auditable overhead rate during the term of this Contract. The Mobility Authority and the Engineer do not anticipate that any services, work, deliverables or expenses of any nature shall be undertaken or incurred by the Engineer on behalf of the Mobility Authority that constitute "Extra Work" or otherwise fall outside the terms of this Contract. Unless the parties otherwise expressly agree in writing to the contrary, all work of any nature undertaken by the Engineer or its sub consultants during the term of this Contract on behalf of the Mobility Authority shall be conclusively presumed to have been undertaken under, and be subject to, the terms of this Contract.
- **G. Commercial Pricing**. Federal Acquisition Regulations allow for payment of direct auditable expenditures and commercial pricing of certain products. The Engineer may engage in commercial pricing when legally permissible, not in contravention of federal regulations, and subject to express approval by the Board of Directors.
- **H. Taxes.** All payments to be made by the Mobility Authority to the Engineer pursuant to this Contract are inclusive of federal, state, or other taxes, if any, however designated, levied, or based. The Mobility Authority acknowledges and represents that it is a tax-exempt entity under Sections 151.309, *et seq.*, of the Texas Tax Code. The Engineer shall take all reasonable steps to acquire all goods and services subject to reimbursement by the Mobility Authority under this Contract on a tax-free basis pursuant to the Mobility Authority's tax-exempt status described in subarticle 2.H. This provision applies only to the extent the Mobility Authority's tax exempt status can reasonably be extended to purchases made directly by the Engineer.
- I. Compensation of Sub Consultants. It is anticipated that the Engineer may utilize the services of sub consultants to respond to certain assignments under this Contract. The selection and services to be assigned to sub consultants must be approved in advance by the Executive Director or his designee. All sub consultants providing services under this Contract shall be subject to, and compensated or reimbursed in accordance with, all requirements of Article 2, provided that each sub consultant shall utilize (i) its own Direct Labor Costs and (ii) if available, its own auditable overhead rate. For sub consultants that do not have auditable overhead rates computed in accordance with 48 C.F.R. Part 31, the Engineer shall provide a schedule of sub consultant billing rates or alternative overhead rate pursuant to subarticle 2.B for the Mobility Authority's review and written approval by the Executive Director or his designee (including any periodic adjustments thereto).

## ARTICLE 3 PAYMENT REQUIREMENTS

**A. Monthly Invoices.** The Engineer shall request payment for Services rendered and costs incurred by submitting the original and one copy of an itemized invoice in a form acceptable to the Mobility Authority. The Engineer is authorized to submit requests for payment no more

frequently than monthly and no later than one-hundred and twenty (120) days after costs are incurred.

- **B.** Form of Invoices. The invoice shall show: (1) the Work Authorization number for each Work Authorization included in the billing; (2) the total amount earned to the date of submission; and (3) the amount due and payable as of the date of the current billing statement for each Work Authorization. The invoice shall indicate if the work has been completed or if the billing is for partial completion of the work. The invoice shall be in a form provided or approved by the Mobility Authority.
- C. Thirty Day Payments. Upon receipt of an invoice that complies with all invoice requirements set forth in this Article, the Mobility Authority shall make a good faith effort to pay the amount, which is due and payable within thirty (30) days, provided that if all or a portion of the Services reflected in the invoice are to be reimbursed by TxDOT through a financial assistance agreement between TxDOT and the Mobility Authority, the Mobility Authority shall make a good faith effort to pay such amounts within thirty (30) days of receipt of such payments from TxDOT.
- **D.** Withholding Payments. The Mobility Authority reserves the right to withhold payment of the Engineer's invoice in the event of any of the following: (1) if a dispute over the work or costs thereof is not resolved within a thirty (30) day period following receipt of the invoice; (2) pending verification of satisfactory work performed; or (3) if required reports (including third-party verifications, if any) are not received.
- **E.** Invoice and Progress Report Submittal Process. The protocol for invoice and progress report submittal, review, and approval will be as follows:
  - (1) A progress report shall be submitted to Mobility Authority at least once each calendar month including, but not limited to, the following items:
    - Summary of activities for the period;
    - o Anticipated activities next period; and
    - Updated project schedule.
  - (2) In the event that invoices are not submitted on a monthly basis, a <u>monthly</u> submittal of the progress report information <u>will be required</u> nevertheless;
  - (3) The Mobility Authority and/or the GEC Manager (as defined below) will review the invoices for supporting documentation, compliance with the Contract, and consistency with the submitted progress report;
  - (4) The invoice will either be recommended for approval by Mobility Authority and/or GEC Manager, or the Mobility Authority and/or GEC Manager will return it to the Engineer for required correction; and
  - (5) Upon satisfactory review and approval of the invoice, the Mobility Authority will submit it to the Mobility Authority CFO for payment.
- **F. Audit.** The Mobility Authority shall have the right to examine the books and records of the Engineer for the purpose of checking the amount of work performed by the Engineer.

The Engineer shall maintain all books, documents, papers, accounting records and other evidence pertaining to cost incurred and shall make such materials available at its office during the Contract period and for four (4) years from the date of final payment under this Contract or until any pending litigation has been completely and fully resolved and the Mobility authority approves of the destruction of records, whichever occurs last. The Mobility Authority or any of its duly authorized representatives, TxDOT, the Federal Highway Administration ("FHWA"), the United States Department of Transportation Office of Inspector General and the Comptroller General shall have access to any and all books, documents, papers and records of the Engineer which are directly pertinent to this Contract for the purpose of making audits, examinations, excerpts and transcriptions.

## ARTICLE 4 WORK AUTHORIZATIONS

- A. Use. Services performed shall be in strict accordance with the scope, schedule, and budget set forth in each Work Authorization issued pursuant to this Contract, and no Services shall be performed which are not the subject of a validly issued Work Authorization. The Mobility Authority will issue Work Authorizations using the form attached as Attachment B to authorize all work under this Contract. No work shall begin on the activity until the Work Authorization is approved and fully executed. All work must be completed on or before the completion date specified in the Work Authorization.
- **B.** Contents. Each Work Authorization shall include: (1) types of Services to be performed and a full description of the work required to perform those Services; (2) a full description of general administration tasks exclusive to that Work Authorization; (3) a work schedule (including beginning and ending dates) with milestones; (4) the basis of payment whether cost plus fixed fee, unit cost, lump sum, or specified rate; (5) a Work Authorization budget as described in subarticle C below; and (6) DBE Requirements. The Engineer is not to include additional Contract terms and conditions in the Work Authorization.
- C. Work Authorization Budget. A Work Authorization budget shall be prepared by the Engineer and shall set forth in detail the following: (1) the computation of the estimated cost of the work as described in the Work Authorization; (2) the estimated time (hours/days) required to complete the work using the fees set forth in Attachment A; (3) a work plan that includes a list of the work to be performed; and (4) a maximum cost (not-to-exceed) amount or unit or lump sum cost and the total cost or price of the Work Authorization.
- **D.** No Guaranteed Work. Work Authorizations will be issued at the sole discretion of the Mobility Authority. While it is the Mobility Authority's intent to issue Work Authorizations hereunder, the Engineer shall have no cause of action conditioned upon the lack or number of Work Authorizations issued.
- **E.** Incorporation into Contract. Each Work Authorization shall be signed by both parties and become a part of the Contract. No Work Authorization will waive the Mobility Authority's or the Engineer's responsibilities and obligations established in this Contract. The

Engineer shall promptly notify the Mobility Authority of any event that will affect completion of the Work Authorization in accordance with the terms thereof.

- **F. Supplemental Work Authorizations.** Before additional work may be performed or additional costs incurred beyond those authorized in a Work Authorization, a change in a Work Authorization shall be enacted by a written Supplemental Work Authorization in the form identified and attached hereto as Attachment C. Supplemental Work Authorizations, if required, must be executed by both parties within the period of performance specified in the Work Authorization. The Engineer shall allow adequate time for review and approval of the Supplemental Work Authorization by the Mobility Authority.
  - (1) Notice. If the Engineer is of the opinion that any assigned work is beyond the scope of this Contract and constitutes additional work beyond the Services to be provided under this Contract, it shall promptly notify the Mobility Authority and submit written justification presenting the facts of the work and demonstrating how the work constitutes supplementary work.
  - (2) Changes in Scope. Changes that would modify the scope of the work authorized in a Work Authorization must be enacted by a written Supplemental Work Authorization. If the change in scope affects the amount payable under the Work Authorization, the Engineer shall prepare a revised Work Authorization budget for the Mobility Authority's approval. The Mobility Authority shall analyze the proposed justification, work hour estimate and cost. Upon approval of the need, the Mobility Authority shall negotiate the Supplemental Agreement scope with the Engineer, and then process the final Supplemental, subject to final written approval by the Mobility Authority.
  - (3) Limitation of Liability. The Mobility Authority shall not be responsible for actions by the Engineer or any costs incurred by the Engineer relating to additional work not directly associated with or prior to the execution of a Supplemental Work Authorization.
- **G. Deliverables.** Upon satisfactory completion of the Work Authorization, the Engineer shall submit the deliverables as specified in the executed Work Authorization to the Mobility Authority for review and acceptance.

## ARTICLE 5 SCHEDULE

**A. Progress meetings.** As required and detailed in the Work Authorizations, the Engineer shall from time to time during the progress of the work confer with the Mobility Authority. The Engineer shall prepare and present such information as may be pertinent and

necessary or as may be requested by the Mobility Authority in order to evaluate features of the work.

- **B.** Conferences. At the request of the Mobility Authority or the Engineer and as required and detailed in the Work Authorizations, conferences shall be provided at the Engineer's office, the office of the Mobility Authority, or at other locations designated by the Mobility Authority. These conferences shall also include evaluation of the Engineer's Services and work when requested by the Mobility Authority.
- **C. Audits.** If federal or state funds are used to reimburse costs incurred under this Contract, the work and all reimbursements will be subject to periodic review by the U. S. Department of Transportation and TxDOT.
- **D. Reports.** The Engineer shall promptly advise the Mobility Authority in writing of events that have a significant impact upon the progress of a Work Authorization, including:
- (1) problems, delays, adverse conditions that will materially affect the ability to meet the time schedules and goals, or preclude the attainment of project work units by established time periods; this disclosure will be accompanied by a statement of the action taken or contemplated, and any Mobility Authority or federal assistance needed to resolve the situation; and
- (2) favorable developments or events that enable meeting the work schedule goals sooner than anticipated.
- **E.** Corrective Action. Should the Mobility Authority determine that the progress of work does not satisfy the milestone schedule set forth in a Work Authorization, the Mobility Authority shall review the work schedule with the Engineer to determine the nature of corrective action needed.
- **F. More Time Needed.** If the Engineer determines or reasonably anticipates that the work authorized in a Work Authorization cannot be completed within the work schedule contained therein, the Engineer shall promptly notify the Mobility Authority and shall follow the procedure set forth in the Work Authorization. The Mobility Authority may, at its sole discretion, modify the work schedule to incorporate an extension of time.

# ARTICLE 6 SUSPENSION OF WORK AUTHORIZATION

A. Notice. Should the Mobility Authority desire to suspend a Work Authorization but not terminate the Contract, the Mobility Authority may verbally notify the Engineer followed by written confirmation, giving fifteen (15) days prior notice. Both parties may waive the fifteen (15) day notice requirement in writing.

- **B.** Reinstatement. A Work Authorization may be reinstated and resumed in full force and effect within sixty (60) days of receipt of written notice from the Mobility Authority to resume the work. Both parties may waive the sixty (60) day notice in writing.
- **C. Limitation of Liability.** The Mobility Authority shall have no liability for work performed or costs incurred prior to the date authorized by the Mobility Authority to begin work, during periods when work is suspended, or after the completion of the Contract or Work Authorization.

### ARTICLE 7 CHANGES IN WORK

- A. Work Previously Submitted as Satisfactory. If the Engineer has submitted work in accordance with the terms of this Contract and Work Authorization(s) but the Mobility Authority requests changes to the completed work or parts thereof which involve changes to the original scope of services or character of work under the Contract and Work Authorization(s), the Engineer shall make such revisions as requested and as directed by the Mobility Authority provided the work is reflected in a Supplemental Work Authorization.
- **B.** Work Does Not Comply with Contract. If the Engineer submits work that does not comply with the terms of this Contract or Work Authorization(s), the Mobility Authority shall instruct the Engineer to make such revision as is necessary to bring the work into compliance with the Contract or Work Authorization(s). No additional compensation shall be paid for this work.
- **C. Errors/Omissions.** The Engineer shall make revisions to the work authorized in this Contract or Work Authorization(s) that are necessary to correct errors or omissions appearing therein, when required to do so by the Mobility Authority. No additional compensation shall be paid for this work.

## ARTICLE 8 OWNERSHIP OF DATA

- **A. Work for Hire.** All services provided under this Contract are considered work for hire and, as such, all data, basic sketches, charts, calculations, plans, specifications, and other documents created or collected under the terms of this Contract are the property of the Mobility Authority.
- **B. Disposition of Documents.** All documents prepared by the Engineer and all documents furnished to the Engineer by the Mobility Authority shall be delivered to the Mobility Authority upon request by the Mobility Authority. The Engineer, at its own expense, may retain copies of such documents or any other data which it has furnished the Mobility Authority under this Contract, but further use of the data is subject to express written permission by the Mobility Authority.

C. Release of Design Plan. The Engineer (1) will not release any roadway design plan created or collected under this Contract except to its subproviders as necessary to complete the Contract; (2) shall include a provision in all subcontracts which acknowledges the Mobility Authority's ownership of the design plan and prohibits its use for any use other than the project identified in this Contract; and (3) is responsible for any improper use of the design plan by its employees, officers, or subproviders, including costs, damages, or other liability resulting from improper use. Neither the Engineer nor any subprovider may charge a fee for any portion of the design plan created by the Mobility Authority.

# ARTICLE 9 PUBLIC INFORMATION AND CONFIDENTIALITY

- **A. Public Information.** The Mobility Authority will comply with Government Code, Chapter 552, the Public Information Act, in the release of information produced under this Contract.
- **B.** Confidentiality. The Engineer shall not disclose information obtained from the Mobility Authority under this Contract without the express written consent of the Mobility Authority.

### ARTICLE 10 PERSONNEL, EQUIPMENT AND MATERIAL

- **A. Engineer Resources.** The Engineer shall furnish and maintain quarters for the performance of all Services, in addition to providing adequate and sufficient personnel and equipment to perform the Services required under the Contract. The Engineer certifies that it presently has adequate qualified personnel in its employment for performance of the Services required under this Contract, or it will be able to obtain such personnel from sources other than the Mobility Authority.
- **B.** Removal of Contractor Employee. All employees of the Engineer assigned to this Contract shall have such knowledge and experience as will enable them to perform the duties assigned to them. The Mobility Authority may instruct the Engineer to remove any employee from association with work authorized in this Contract if, in the sole opinion of the Mobility Authority, the work of that employee does not comply with the terms of this Contract or if the conduct of that employee becomes detrimental to the work.
- **C. Replacement of Key Personnel.** The Engineer must notify the Mobility Authority in writing as soon as possible, but no later than three (3) business days after a Key Personnel, specified in Attachment D, is removed from association with this Contract, giving the reason for removal.
- **D.** Mobility Authority Approval of Replacement Personnel. The Engineer may not replace Key Personnel, as designated in the applicable Work Authorization, without prior consent of the Mobility Authority. The Mobility Authority must be satisfied that the Key Personnel

replacement is qualified to provide the authorized services. If the Mobility Authority determines that the Key Personnel replacement is not acceptable, the Engineer may not use that person in that capacity and shall replace him or her with one satisfactory to the Mobility Authority within thirty (30) days.

**E.** Ownership of Acquired Property. Except to the extent that a specific provision of this Contract states to the contrary, the Mobility Authority shall own all intellectual property acquired or developed under this Contract and all equipment purchased by the Engineer or its subcontractors under this Contract. All intellectual property and equipment owned by the Mobility Authority shall be delivered to the Mobility Authority when the Contract or applicable Work Authorization terminates, or when it is no longer needed for work performed under this Contract, whichever occurs first.

### ARTICLE 11 SUBCONTRACTING

- **A. Prior Approval.** The Engineer shall not assign, subcontract or transfer any portion of professional services related to the work under this Contract unless specified in an executed Work Authorization or otherwise without prior written approval from the Mobility Authority.
- **B. DBE Compliance.** The Engineer's subcontracting program shall comply with the requirements of Exhibit E of the Work Authorization (DBE Requirements).
- **C. Required Provisions.** All subcontracts for professional services shall include the provisions included in this Contract and any provisions required by law. The Engineer is authorized to pay subproviders in accordance with the terms of the subcontract, and the basis of payment may differ from the basis of payment by the Mobility Authority to the Engineer.
- **D. Prior Review.** Subcontracts for professional services in excess of \$25,000 may be reviewed by the Mobility Authority, in its sole discretion, prior to performance of work thereunder.
- **E.** Engineer Responsibilities. No subcontract shall relieve the Engineer of any of its responsibilities under this Contract and of any liability for work performed under this Contract, even if performed by a subcontractor, sub consultant, or other third party performing work for or on behalf of the Engineer.
- **F.** Invoice Approval and Processing. All sub consultants shall prepare and submit their invoices on the same billing cycle and format as the Engineer (so as to be included in invoices submitted by the Engineer), and in the event that the cycles are not concurrent, a detailed explanation will be submitted to the Mobility Authority.

# ARTICLE 12 INSPECTION OF WORK

**A. Review Rights.** The Mobility Authority, TxDOT, and the U. S. Department of Transportation, when federal funds are involved, and any of their authorized representatives shall

have the right at all reasonable times to review or otherwise evaluate the work performed hereunder and the premises in which it is being performed.

**B.** Reasonable Access. If any review or evaluation is made on the premises of the Engineer or a subprovider, the Engineer shall provide and require its subproviders to provide all reasonable facilities and assistance for the safety and convenience of the Mobility Authority, state or federal representatives in the performance of their duties.

### ARTICLE 13 SUBMISSION OF REPORTS

All applicable study reports shall be submitted in preliminary form for approval by the Mobility Authority before a final report is issued. The Mobility Authority's comments on the Engineer's preliminary report must be addressed in the final report.

### ARTICLE 14 VIOLATION OF CONTRACT TERMS

- **A. Increased Costs.** Violation of contract terms, breach of contract, or default by the Engineer shall be grounds for termination of the Contract, and any increased or additional cost incurred by the Mobility Authority arising from the Engineer's default, breach of contract or violation of contract terms shall be paid by the Engineer.
- **B.** Remedies. This Contract shall not be considered as specifying the exclusive remedy for any default, but all remedies existing at law and in equity may be availed of by either party and shall be cumulative.
- C. Excusable Delays. Except with respect to defaults of subproviders, the Engineer shall not be in default by reason of any failure in performance of this Contract in accordance with its terms (including any failure to progress in the performance of the work) if such failure arises out of causes beyond the control and without the default or negligence of the Engineer. Such causes may include, but are not restricted to, acts of God or the public enemy, acts of the Government in either its sovereign or contractual capacity, fires, floods, epidemics, quarantine restrictions, strikes, freight embargoes, and unusually severe weather.

### ARTICLE 15 TERMINATION

- **A. Causes.** The Contract may be terminated by any of the following conditions:
  - (1) by mutual agreement and consent, in writing from both parties;
- (2) by the Mobility Authority by notice in writing to the Engineer as a consequence of failure by the Engineer to perform the Services set forth herein in a satisfactory manner or if the Engineer violates the provisions of Article 22, Gratuities, or Exhibit E, DBE Requirements;

- (3) by either party, upon the failure of the other party to fulfill its obligations as set forth herein, following thirty (30) days written notice and opportunity to cure;
- (4) by the Mobility Authority in its sole discretion, not subject to the mutual consent of the Engineer, by giving thirty (30) days written notice of termination to the Engineer; or
  - (5) by satisfactory completion of all services and obligations described herein.
- **B. Measurement.** Should the Mobility Authority terminate this Contract as herein provided, no fees other than fees due and payable at the time of termination shall thereafter be paid to the Engineer. In determining the value of the work performed by the Engineer prior to termination, the Mobility Authority shall be the sole judge. Compensation for work at termination will be based on a percentage of the work completed at that time. Should the Mobility Authority terminate this Contract under paragraph A (3) or (4) above, the Engineer shall not incur costs during the thirty-day notice period in excess of the amount incurred during the preceding thirty (30) days and only as necessary to terminate the work in progress.
- C. Value of Completed Work. If the Engineer defaults in the performance of this Contract or if the Mobility Authority terminates this Contract for fault on the part of the Engineer, the Mobility Authority will give consideration to the following when calculating the value of the completed work: (1) the actual costs incurred (not to exceed the rates set forth in the applicable Work Authorization) by the Engineer in performing the work to the date of default; (2) the amount of work required which was satisfactorily completed to date of default; (3) the value of the work which is usable to the Mobility Authority; (4) the cost to the Mobility Authority of employing another firm to complete the required work; (5) the time required to employ another firm to complete the work; (6) delays in opening a revenue generating project and costs (including lost revenues) resulting therefrom; and (7) other factors which affect the value to the Mobility Authority of the work performed.
- **D.** Calculation of Payments. The Mobility Authority shall use the fee structure established by the applicable Work Authorization in determining the value of the work performed up to the time of termination. In the event that a cost plus fixed fee basis of payment is utilized in a Work Authorization, any portion of the fixed fee not previously paid in the partial payments shall not be included in the final payment.
- **E.** Surviving Requirements. The termination of this Contract and payment of an amount in settlement as prescribed above shall extinguish the rights, duties, and obligations of the Mobility Authority and the Engineer under this Contract, except for those provisions that establish responsibilities that extend beyond the Contract period, including without limitation the provisions of Article 17.
- **F.** Payment of Additional Costs. If termination of this Contract is due to the failure of the Engineer to fulfill its Contract obligations, the Mobility Authority may take over the project

and prosecute the work to completion, and the Engineer shall be liable to the Mobility Authority for any additional cost to the Mobility Authority.

### ARTICLE 16 COMPLIANCE WITH LAWS

The Engineer shall comply with all applicable federal, state and local laws, statutes, codes, ordinances, rules and regulations, and the orders and decrees of any court, or administrative bodies or tribunals in any manner affecting the performance of this Contract, including, without limitation, worker's compensation laws, minimum and maximum salary and wage statutes and regulations, nondiscrimination, licensing laws and regulations, the Mobility Authority's enabling legislation (Chapter 370 of the Texas Transportation Code), and all amendments and modifications to any of the foregoing, if any. When required, the Engineer shall furnish the Mobility Authority with satisfactory proof of its compliance therewith.

### ARTICLE 17 INDEMNIFICATION

THE ENGINEER SHALL INDEMNIFY AND HOLD HARMLESS THE MOBILITY AUTHORITY AND ITS OFFICERS, DIRECTORS, EMPLOYEES, CONSULTANTS, AND AGENTS (WHICH, FOR THE PURPOSES OF THIS AGREEMENT, SHALL INCLUDE THE MOBILITY AUTHORITY'S GEC, GENERAL COUNSEL, BOND COUNSEL, FINANCIAL ADVISORS, TRAFFIC AND REVENUE ENGINEERING CONSULTANTS, TOLL OPERATIONS/COLLECTIONS FIRMS, AND UNDERWRITERS) FROM ANY CLAIMS, COSTS, OR LIABILITIES OF ANY TYPE OR NATURE AND BY OR TO ANY PERSONS WHOMSOEVER, TO THE EXTENT CAUSED BY THE NEGLIGENT ACTS, ERRORS, OR OMISSIONS OF THE ENGINEER OR ITS OFFICERS, DIRECTORS, EMPLOYEES, AND AGENTS WITH RESPECT TO THE ENGINEER'S PERFORMANCE OF THE WORK TO BE ACCOMPLISHED UNDER THIS AGREEMENT. IN SUCH EVENT, THE ENGINEER SHALL ALSO INDEMNIFY AND HOLD HARMLESS THE MOBILITY AUTHORITY, ITS OFFICERS, DIRECTORS, EMPLOYEES, CONSULTANTS, AND AGENTS (AS DEFINED ABOVE) FROM ANY AND ALL REASONABLE AND NECESSARY EXPENSES, INCLUDING REASONABLE ATTORNEYS' FEES, INCURRED BY THE AUTHORITY IN LITIGATING OR OTHERWISE RESISTING SAID CLAIMS, COSTS OR LIABILITIES. IN THE EVENT THE MOBILITY AUTHORITY, ITS OFFICERS, DIRECTORS, EMPLOYEES, CONSULTANTS, AND AGENTS (AS DEFINED ABOVE), IS/ARE FOUND TO BE PARTIALLY AT FAULT, THE ENGINEER SHALL, NEVERTHELESS, INDEMNIFY THE MOBILITY AUTHORITY FROM AND AGAINST PERCENTAGE OF FAULT ATTRIBUTABLE TO THE ENGINEER OR ITS OFFICERS. DIRECTORS, EMPLOYEES, AND AGENTS OR TO THEIR CONDUCT.

# ARTICLE 18 ROLE OF GENERAL ENGINEERING CONSULTANT

The Mobility Authority will utilize a General Engineering Consultant ("GEC") to assist in its management of this Contract. The GEC is an independent contractor and is authorized by the Mobility Authority to provide the management and technical direction for this Contract on behalf of the Mobility Authority. All the technical and administrative provisions of the Contract shall be managed by the GEC, and the Engineer shall comply with all of the GEC's directives that are within the purview of the Contract. Decisions concerning Contract amendments and adjustments, such as time extensions and Supplemental Work Authorizations, shall be made by the Mobility Authority; however, requests for such amendments or adjustments shall be made through the GEC, who shall forward such requests to the Mobility Authority with its comments and recommendations.

Should any dispute arise between the General Engineering Consultant and the Engineer, concerning the conduct of this Contract, either party may request a resolution of said dispute by the Executive Director of the Mobility Authority or his designee, whose decision shall be final. The parties shall first try to resolve the dispute at the lowest level practical. In the event that an agreement cannot be reached, the Engineer may schedule a meeting with the GEC Program Manager. If an agreement cannot be reached at this level, then a meeting will be scheduled with the Mobility Authority and the GEC Program Manager, so the Engineer can present its case. The Mobility Authority's decision in the matter will be final. In no case will the Engineer go directly to the Mobility Authority with a dispute unless the Engineer believes that the GEC is violating, or is directing the Engineer to take an action which would violate, any laws or similar provisions described in Article 16 or any ethical obligations owed to the Mobility Authority.

## ARTICLE 19 ENGINEER'S RESPONSIBILITY

- A. Accuracy. The Engineer shall have total responsibility for the accuracy and completeness of the documents prepared under this Work Authorization and shall check all such material accordingly. The documents will be reviewed by the Mobility Authority's GEC, as defined in Article 18 above, for conformity with the Mobility Authority's procedures and the terms of the Contract, as well as coordination with adjacent contracts. Review by the GEC does not include detailed review or checking of designs or major components and related details or the accuracy with which such designs are depicted in the plans. The responsibility for accuracy and completeness of such items shall remain solely that of the Engineer. The Engineer shall promptly make necessary revisions or corrections resulting from its errors, omissions, or negligent acts without compensation.
- **B.** Errors and Omissions. The Engineer's responsibility for all questions arising from design errors and/or omissions will be determined by the Mobility Authority. The Engineer shall not be relieved of the responsibility for subsequent correction of any such errors or omissions or for clarification of any ambiguities until after the construction phase of the project has been completed. In the event that the Mobility Authority discovers a possible design error or omission, the Mobility Authority shall notify the Engineer and seek to involve the Engineer in determining the most effective solution with respect to time and cost, provided that the Mobility Authority shall ultimately determine the solution that is chosen.

- **C. Seal.** The responsible Engineer shall sign, seal and date all appropriate engineering submissions to the Mobility Authority in accordance with the Texas Engineering Practice Act and the rules of the Texas Board of Professional Engineers.
- **D.** Resealing of Documents. Once the work has been sealed and accepted by the Mobility Authority, the Mobility Authority, as the owner, will notify the Engineer, in writing, of the possibility that a Mobility Authority engineer, as a second engineer, may find it necessary to alter, complete, correct, revise or add to the work. If necessary, the second engineer will affix his seal to any work altered, completed, corrected, revised or added. The second engineer will then become responsible for any alterations, additions or deletions to the original design including any effect or impacts of those changes on the original engineer's design.

### ARTICLE 20 NONCOLLUSION

- **A. Warranty.** The Engineer warrants that it has not employed or retained any company or person, other than a bona fide employee working solely for the Engineer, to solicit or secure this Contract and that it has not paid or agreed to pay any company or engineer any fee, commission, percentage, brokerage fee, gifts, or any other consideration, contingent upon or resulting from the award or making of this Contract.
- **B. Liability.** For breach or violation of this warranty, the Mobility Authority shall have the right to annul this Contract without liability or, in its discretion, to deduct from the Contract compensation, or otherwise recover, the full amount of such fee, commission, percentage, brokerage fee, gift or contingent fee.

# ARTICLE 21 INSURANCE

Prior to beginning the services designated in this Agreement, the Engineer shall obtain and furnish certificates to the Mobility Authority for the following minimum amounts of insurance:

- **A. Workers' Compensation Insurance.** In accordance with the laws of the State of Texas and employer's liability coverage with a limit of not less than \$1,000,000.
- **B.** Comprehensive General Liability Insurance. With limits not less than \$1,000,000 for bodily injury, including those resulting in death, and \$1,000,000 for property damage on account of any one occurrence, with an aggregate limit of \$1,000,000.
- C. Comprehensive Automobile Liability Insurance. Applying to owned, non-owned, and hired automobiles in an amount not less than \$1,000,000 for bodily injury, including death, to any one person, and \$1,000,000 on account on any one occurrence, and \$1,000,000 for property damage on account of any one occurrence. This policy shall not contain any limitation with respect to a radius of operation for any vehicle covered and shall not exclude from the

coverage of the policy any vehicle to be used in connection with the performance of the Engineer's obligations under this Agreement.

- **D.** Excess Liability Insurance. In an amount of \$5,000,000 per occurrence and aggregate.
- **E.** Valuable Papers Insurance. In an amount sufficient to assure the full restoration of any plans, drawings, field notes, logs, test reports, diaries, or other similar data or materials relating to the services provided under this Agreement in the event of their loss or destruction, until such time as the work has been delivered to the Mobility Authority.
- **F.** Architects and/or Engineers Professional Liability insurance. Engineer shall provide and maintain professional liability coverage, with limits not less than \$5,000,000 per claim and \$5,000,000 aggregate. The professional liability coverage shall protect against any negligent act, error or omission arising out of design or engineering activities, including environmental related activities, with respect to the project, including coverage for negligent acts, errors or omissions by any member of the Engineer and its subcontractors and subconsultants (including, but not limited to design subcontractors and subconsultants) of any tier. The policy must provide that coverage extends a minimum of three (3) years beyond the Engineer's completion of the services.
- **G. General for All Insurance.** The Engineer shall promptly, upon execution of this Agreement, furnish certificates of insurance to the Mobility Authority indicating compliance with the above requirements. Certificates shall indicate the name of the insured, the name of the insurance company, the name of the agency/agent, the policy number, the term of coverage, and the limits of coverage.

All policies are to be written through companies (a) authorized to transact that class of insurance in the State of Texas; (b) rated (i), with respect to the companies providing the insurance under subarticles 21.a. through d., above, by A. M. Best Company as "A-X" or better (or the equivalent rating by another nationally recognized rating service) and (ii) with respect to the company providing the insurance under subarticle 21.e., a rating by A. M. Best Company or similar rating service satisfactory to the Mobility Authority and/or its insurance consultant; and (c) otherwise acceptable to the Mobility Authority.

All policies are to be written through companies authorized to transact that class of insurance in the State of Texas. Such insurance shall be maintained in full force and effect during the life of this Agreement or for a longer term as may be otherwise provided for hereunder. Insurance furnished under subarticles 21.a., b., c., d. and f., above, shall name the Mobility Authority as additional insured and shall protect the Mobility Authority, its officers, employees, and directors, agents, and representatives from claims for damages for bodily injury and death and for damages to property arising in any manner from the negligent or willful acts or failures to act by the Engineer, its officers, employees, directors, agents, and representatives in the performance of the services rendered under this Agreement. Certificates shall also indicate that the contractual liability assumed in Article 17, above, is included.

The insurance carrier shall include in each of the insurance policies required under subsections 21.a., b., c., d., e., and f., the following statement: "This policy will not be canceled

or materially changed during the period of coverage without at least thirty (30) days prior written notice addressed to the Central Texas Regional Mobility Authority, 3300 N. IH-35, Suite 300, Austin, Texas 78705, Attn: Executive Director"

**H. Subproviders.** In the event a subprovider selected by the Engineer to perform work associated with this Contract is unable to secure insurance coverage in the amounts set forth in subarticles 21.b., d., and f. . above, Engineer may provide to the Mobility Authority an explanation of coverages that a subprovider does possess, why those coverages are adequate to cover the potential exposure for the work to be performed by the subprovider, and an acknowledgement that the Engineer remains liable for the work performed under the contract, including that performed by the subcprovider. The Mobility Authority may decide, in is sole discretion, whether to accept the coverages available to the subprovider

### ARTICLE 22 GRATUITIES

- **A. Employees Not to Benefit.** Mobility Authority policy mandates that employees of the Mobility Authority shall not accept any benefit, gift or favor from any person doing business with or who reasonably speaking may do business with the Mobility Authority under this Contract. The only exceptions allowed are ordinary business lunches and items that have received the advance written approval of the Executive Director of the Mobility Authority.
- **B. Liability.** Any person doing business with or who reasonably speaking may do business with the Mobility Authority under this Contract may not make any offer of benefits, gifts or favors to Mobility Authority employees, except as mentioned above. Failure on the part of the Engineer to adhere to this policy may result in the termination of this Contract.

# ARTICLE 23 DISADVANTAGED BUSINESS ENTERPRISE REQUIREMENTS

The Engineer agrees to comply with the requirements set forth in Exhibit E, DBE Requirements, of the Work Authorization and the assigned goal established by the Mobility Authority.

# ARTICLE 24 MAINTENANCE, RETENTION AND AUDIT OF RECORDS

- **A. Retention Period.** The Engineer shall maintain all books, documents, papers, accounting records and other evidence pertaining to costs incurred and services provided (hereinafter called the Records). The Engineer shall make the Records available at its office during the Contract period and for four years from the date of final payment under this Contract, until completion of all audits, or until pending litigation has been completely and fully resolved, whichever occurs last.
- **B. Availability.** The Mobility Authority shall have the exclusive right to examine the books and records of the Engineer for the purpose of checking the amount of work performed by

the Engineer. The Engineer shall maintain all books, documents, papers, accounting records and other evidence pertaining to cost incurred and shall make such materials available at its office during the contract period and for four (4) years from the date of final payment under this Contract or until pending litigation has been completely and fully resolved, whichever occurs last. The Mobility Authority or any of its duly authorized representatives, the Texas Department of Transportation ("TxDOT"), the Federal Highway Administration ("FHWA"), the United States Department of Transportation Office of Inspector General and the Comptroller General shall have access to any and all books, documents, papers and records of the Engineer which are directly pertinent to this Contract for the purpose of making audits, examinations, excerpts and transcriptions.

### ARTICLE 25 CIVIL RIGHTS COMPLIANCE

- **A.** Compliance with Regulations. The Engineer shall comply with the regulations of the Department of Transportation, Title 49, Code of Federal Regulations, Parts 21, 24, 26 and 60 as they relate to nondiscrimination; also Executive Order 11246 titled Equal Employment Opportunity as amended by Executive Order 11375.
- **B.** Nondiscrimination. The Engineer, with regard to the work performed by it during the Contract, shall not discriminate on the grounds of race, color, sex, or national origin in the selection and retention of subcontractors, including procurement of materials and leases of equipment.
- C. Solicitations for Subcontracts, Including Procurement of Materials and Equipment. In all solicitations either by competitive bidding or negotiation made by the Engineer for work to be performed under a subcontract, including procurement of materials or leases of equipment, each potential subcontractor or supplier shall be notified by the Engineer of the Engineer's obligations under this Contract and the Regulations relative to nondiscrimination on the grounds of race, color, sex, or national origin.
- **D.** Information and Reports. The Engineer shall provide all information and reports required by the Regulations, or directives issued pursuant thereto, and shall permit access to its books, records, accounts, other sources of information, and facilities as may be determined by the Mobility Authority or the FHWA to be pertinent to ascertain compliance with such Regulations or directives. Where any information required of the Engineer is in the exclusive possession of another who fails or refuses to furnish this information, the Engineer shall so certify to the Mobility Authority or the FHWA, as appropriate, and shall set forth what efforts it has made to obtain the information.
- **E.** Sanctions for Noncompliance. In the event of the Engineer's noncompliance with the nondiscrimination provisions of this Contract, the Mobility Authority shall impose such Contract sanctions as it or the FHWA may determine to be appropriate, including, but not limited to:
  - (1) withholding of payments to the Engineer under the Contract until the

Engineer complies; and/or

- (2) cancellation, termination, or suspension of the Contract, in whole or in part.
- F. Incorporation of Provisions: The Engineer shall include the provisions of Article 25A through E in every subcontract, including procurement of materials and leases of equipment, unless exempt by the Regulations or directives issued pursuant thereto. The Engineer shall take such action with respect to any subcontract or procurement as the Mobility Authority or the FHWA may direct as a means of enforcing such provisions including sanctions for noncompliance provided, however, that in the event the Engineer becomes involved in, or is threatened with, litigation with a subcontractor or supplier as a result of such direction, the Engineer may request the Mobility Authority to enter into such litigation to protect the interests of the Mobility Authority; and, in addition, the Engineer may request the United States to enter into such litigation to protect the interests of the United States.

# ARTICLE 26 PATENT RIGHTS

The Mobility Authority and the U. S. Department of Transportation shall have the royalty free, nonexclusive and irrevocable right to use and to authorize others to use any patents developed by the Engineer under this Contract.

## ARTICLE 27 DISPUTES

- **A. Disputes Not Related to Contract Services.** The Engineer shall be responsible for the settlement of all contractual and administrative issues arising out of any procurement made by the Engineer in support of the services authorized herein.
- **B. Disputes Concerning Work or Cost.** The Executive Director of the Mobility Authority shall decide all questions, difficulties and dispute of any nature whatsoever that may arise under or by reason of this Contract, and his decision upon all claims, questions and disputes shall be final. The Engineer shall comply with the provisions of Article 18 in proceeding with such disputes.

## ARTICLE 28 SUCCESSORS AND ASSIGNS

The Engineer and the Mobility Authority do each hereby bind themselves, their successors, executors, administrators and assigns to each other party of this Contract and to the successors, executors, administrators and assigns of such other party in respect to all covenants of this Contract. The Engineer shall not assign, subcontract or transfer its interest in this Contract without the prior written consent of the Mobility Authority.

## ARTICLE 29 SEVERABILITY

In the event any one or more of the provisions contained in this Contract shall for any reason, be held to be invalid, illegal, or unenforceable in any respect, such invalidity, illegality, or unenforceability shall not affect any other provision thereof and this Contract shall be construed as if such invalid, illegal, or unenforceable provision had never been contained herein.

## ARTICLE 30 PRIOR CONTRACTS SUPERSEDED

This Contract, including all attachments, constitutes the sole agreement of the parties hereto for the services authorized herein and supersedes any prior understandings or written or oral contracts between the parties respecting the subject matter defined herein.

### ARTICLE 31 CONFLICT OF INTEREST

- A. Representation by Engineer. The undersigned Engineer represents that such firm has no conflict of interest that would in any way interfere with its or its employees' performance of services for the Mobility Authority or which in any way conflicts with the interests of the Mobility Authority. The Mobility Authority shall exercise reasonable care and diligence to prevent any actions or conditions that could result in a conflict with the Mobility Authority's interests.
- **B.** Environmental Disclosure. If the Engineer will prepare an environmental impact statement or an environmental assessment under this Contract, the Engineer certifies by executing this Contract that it has no financial or other interest in the outcome of the project on which the environmental impact statement or environmental assessment is prepared.

### ARTICLE 32 ENTIRETY OF AGREEMENT

This writing, including attachments and addenda, if any, embodies the entire agreement and understanding between the parties hereto, and there are no agreements and understandings, oral or written, with reference to the subject matter hereof that are not merged herein and superseded hereby. No alteration, change or modification of the terms of the Contract shall be valid unless made in writing signed by both parties hereto.

## ARTICLE 33 SIGNATORY WARRANTY

The undersigned signatory for the Engineer hereby represents and warrants that he or she is an officer of the organization for which he or she has executed this Contract and that he or she has full and complete Mobility Authority authorization to enter into this Contract on behalf of the

firm. These representations and warranties are made for the purpose of inducing the Mobility Authority to enter into this Contract.

### ARTICLE 34 NOTICES

A notice, demand, request, report, and other communication required or permitted under this Contract, or which any party may desire to give, shall be in writing and shall be deemed to have been given on the sooner to occur of (i) receipt by the party to whom the notice is hand-delivered, with a written receipt of notice provided by the receiving party, or (ii) two days after deposit in a regularly maintained express mail receptacle of the United States Postal Service, postage prepaid, or registered or certified mail, return receipt requested, express mail delivery, addressed to such party at their address set forth below, or to such other address as a party may from time to time designate under this article, or (iii) receipt of an electronic mail transmission (attaching scanned documents in a format such as .pdf or .tif) for which confirmation of receipt by the other party has been obtained by the sending party:

### In the case of the Engineer:

Robin Handel, P.E. Vice President CP&Y 13809 Research Blvd, Suite 300 Austin, TX 78750

Email: RHANDEL@cpyi.com

### In the case of the Mobility Authority:

Mike Heiligenstein, Executive Director Central Texas Regional Mobility Authority 3300 North IH 35, Suite 300 Austin, TX 78705

Email: mstein@ctrma.org

with a copy to:

Justin Word, Director of Engineering Central Texas Regional Mobility Authority 3300 North IH 35, Suite 300 Austin, TX 78705

Email: jword@ctrma.org

A party may change the information provided in this article for notification purposes by providing notice to the other party of the new information and the effective date of the change.

### ARTICLE 35 BUSINESS DAYS AND DAYS

For purposes of this Contract, "business days" shall mean any day the Mobility Authority is open for business and "days" shall mean calendar days.

### ARTICLE 36 INCORPORATION OF PROVISIONS

Attachments A through D are attached hereto and incorporated into this Contract as if fully set forth herein.

# ARTICLE 37 PRIORITY OF DOCUMENTS/ORDER OF PRECEDENCE

This Contract, and each of the Attachments (together, the "Contract Documents"), are an essential part of the agreement between the Mobility Authority and the Engineer, and a requirement occurring in one is as binding as though occurring in all. The Contract Documents are intended to be complementary and to describe and provide for a complete Contract. In the event of any conflict among the Contract Documents or between the Contract Documents and other documents, the order of precedence shall be as set forth below:

- A. Supplemental Work Authorizations;
- B. Work Authorizations;
- C. Contract Amendments;
- D. This Contract.

Additional details and more stringent requirements contained in a lower priority document will control unless the requirements of the lower priority document present an actual conflict with the requirements of the higher level document. Notwithstanding the order of precedence among Contract Documents set forth in this Article 37, in the event of a conflict within a Contract Document or set of Contract Documents with the same order of priority (including within documents referenced therein), the Mobility Authority shall have the right to determine, in its sole discretion, which provision applies.

**IN WITNESS WHEREOF**, the **Mobility Authority** and the **Engineer** have executed this Contract in duplicate.

THE ENGINEER	CENTRAL TEXAS REGIONAL MOBILITY AUTHORITY
(Signature) James J. Roohms, P.E.	(Signature) Mike Heiligenstein
(Printed Name) COO, Senior Vice President (Title)	Executive Director
(Date)	(Date)

# **Attachments and Exhibits to Contract for Engineering Services**

Attachments	Title
A	Rate Schedule
В	Work Authorization No. 1
С	Supplemental Work Authorization
D	Key Personnel

## ATTACHMENT A

Rate Schedule

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PRIME NAME: CP&Y, Inc.

	Direct Labor	Negotiated			
Labor/Staff Classification		Hourly Base Rate	Contract Rate		
		,			
Principal		\$80.00	\$255.27		
Senior Project Manager		\$73.00	\$232.93		
Project Manager		\$70.00	\$223.36		
Senior Engineer		\$60.00	\$191.45		
Project Engineer		\$48.00	\$153.16		
Design Engineer		\$40.50	\$129.23		
EIT		\$33.00	\$105.30		
Senior Engineer Specialist		\$48.00	\$153.16		
Senior Engineer Tech		\$38.00	\$121.25		
Engineer Tech		\$30.00	\$95.73		
CADD Tech		\$25.00	\$79.77		
Admin/Clerical		\$27.00	\$86.15		
			\$0.00		
			\$0.00		
			\$0.00		
			\$0.00		
Audited Overhead Rate:	190.08%				
Negotiated Profit Rate:	10%				

SUBPROVIDER NAME: <u>HDR Engineering, Inc.</u>

		Negotiated	
Labor/Staff Classification		Hourly Base Rate	Contract Rate
Principal		\$82.00	\$232.65
Senior Project Manager		\$78.00	\$221.30
Project Manager		\$72.00	\$204.28
Senior Engineer		\$68.00	\$192.93
Project Engineer		\$55.00	\$156.05
Design Engineer		\$48.00	\$136.19
EIT		\$36.00	\$102.14
Senior Engineer Tech		\$33.00	\$93.63
Engineer Tech		\$26.00	\$73.77
Admin/Clerical		\$29.00	\$82.28
			\$0.00
			\$0.00
Audited Overhead Rate:	157.93%		
Negotiated Profit Rate:	10%		

SUBPROVIDER NAME: K Friese & Associates, Inc.

		Negotiated	
Labor/Staff Classification		Hourly Base Rate	<b>Contract Rate</b>
Principal		\$66.00	\$191.29
Senior Project Manager		\$75.00	\$217.37
Project Manager		\$65.00	\$188.39
Senior Engineer		\$58.00	\$168.10
Project Engineer		\$42.00	\$121.73
Design Engineer		\$37.00	\$107.24
EIT		\$31.00	\$89.85
Senior Engineering Tech		\$30.00	\$86.95
Admin/Clerical		\$25.00	\$72.46
			\$0.00
			\$0.00
Audited Overhead Rate:	163.48%		
Negotiated Profit Rate:	10%		

SUBPROVIDER NAME: P.E. Structural Consultants, Inc.

	Direct Labor	Negotiated	
Labor/Staff Classification		Hourly Base Rate	Contract Rate
		•	
Principal		\$68.50	\$194.55
Senior QC Engineer		\$55.00	\$156.21
Senior Engineer/Project Manager		\$51.50	\$146.27
Project Engineer		\$40.00	\$113.61
Design Engineer		\$36.25	\$102.96
EIT		\$30.75	\$87.34
Senior Engineer Tech (CAD Mgr)		\$41.50	\$117.87
Engineer Tech		\$30.00	\$85.21
Junior Engineer Tech		\$20.00	\$56.80
Admin/Clerical		\$18.00	\$51.12
Audited Overhead Rate:	158.20%		
Negotiated Profit Rate:	10%		

SUBPROVIDER NAME: Corsair Consulting, LLC

	Direct Labor	Negotiated	
Labardotaff Olasadfiadtian			0 t t -D t -
Labor/Staff Classification		Hourly Base Rate	Contract Rate
Project Manager		\$75.00	\$212.85
Senior Engineer		\$54.00	\$153.25
Project Engineer		\$46.00	\$130.55
Design Engineer		\$37.00	\$105.01
EIT		\$32.00	\$90.82
Senior Engineer Tech		\$32.00	\$90.82
Engineer Tech		\$25.00	\$70.95
Admin/Clerical		\$19.00	\$53.92
			\$0.00
			\$0.00
			\$0.00
			\$0.00
Audited Overhead Rate:	158.00%		
Negotiated Profit Rate:	10%		

SUBPROVIDER NAME: Maldonado-Burkett Intelligent Transportation Systems, LLP

		Negotiated	
Labor/Staff Classification		Hourly Base Rate	<b>Contract Rate</b>
Project Manager		\$90.00	\$253.07
Senior Engineer		\$80.00	\$224.95
Project Engineer		\$70.00	\$196.84
Design Engineer		\$60.00	\$168.72
EIT		\$43.00	\$120.91
Senior Engineer Tech		\$53.00	\$149.03
Engineer Tech		\$40.00	\$112.48
Administrative Supervisor		\$30.00	\$84.36
			\$0.00
			\$0.00
			\$0.00
Audited Overhead Rate:	155.63%		
Negotiated Profit Rate:	10%		

Surveying Services (SS)	
RPLS - Project Manager	\$136.00
Registered Professionsal Land Surveyor	\$132.00
icensed State Land Surveyor	\$132.00
Survey Technician	\$98.00
- Person Survey Crew (Includes GPS and Robotic Total Stations. Mileage not included.)	\$138.00
- Person Survey Crew (Includes GPS and Robotic Total Stations. Mileage not included.)	\$160.00
- Person Survey Crew (Includes GPS and Robotic Total Stations. Mileage not included.)	\$183.00
dditional Crewmember	\$42.00
SPS Field Operator & Vehicle	\$118.00
Clerical Support	\$54.00

Direct Labor	Contract Rate
Surveying Services (SS)	
RPLS - Project Manager	\$187.0
RPLS - Task Leader	\$177.0
Senior Survey Technician (Must be Surveyor in Training (SIT), or have a minimum of five year's	
Surveying experience)	\$120.0
Survey Technician	\$100.0
1 - Person Survey Crew (Includes GPS and Robotic Total Stations. Mileage not included.)	\$110.0
2 - Person Survey Crew (Includes GPS and Robotic Total Stations. Mileage not included.)	\$165.0
3 - Person Survey Crew (Includes GPS and Robotic Total Stations. Mileage not included.)	\$195.0
4 - Person Survey Crew (Includes GPS and Robotic Total Stations. Mileage not included.)	\$215.0
Flagger	\$45.0
Abstractor (Property Deed Researcher, Courthouse or Internet research)	\$75.0
Admin/Clerical	\$75.0
Mobile Mapping Services	
Mobile Mapping Project Manager	\$142.0
Mobile Project Coordinator	\$137.4
Mobile Mapping LiDAR Processing Technician	\$120.5
Mobile Mapping Field Acquisition Specialist	\$126.2
Aerial Mapping Services	
Aerial Project Coordinator	\$142.0
Certified Photogrammetrist	\$137.4
Analytical Triangulation Specialist	\$96.7
Aerial Mapping Technician	\$92.4
Orthophoto Secialist	\$94.6
Mapping Editor	\$87.9
Aerial Office Technician	\$77.0
SUE / Utility Coordination Services	
SUE / UC Project Manager	\$187.0
Senior Engineer - PE	\$177.0
Engineer-In-Training	\$120.0
Senior Engineer Tech	\$105.0
Engineer Tech	\$90.0
Senior CADD Operator	\$105.0
CADD Operator	\$85.0
Senior Utilities Coordinator	\$155.0
Utilities Coordinator	\$124.0
Field Coordinator	\$115.0
Utility Inspector	\$95.0

### ATTACHMENT A - Rate Schedule Unit Cost Basis

SUBPROVIDER NAME: Corsair Consulting, LLC

SUBPROVIDER NAME. COISUITING, ELC	T			
Services to be Provided	Test Code	Unit		Cost
Field Drilling Services	_			
1.Drilling Rig Mobilization/Demobilization (No more than one per project,				
regardless the number of drill holes)		-	•	700.00
a. Truck Mounted Rig		each	\$	700.00
<u>b. Marsh Buggy Mounted Rig</u> 2. Soil Boring (Drilling with truck mounted rig, logging, recovering undisturbed		each	)	1,200.00
core sample and grouting of borehole):				
a. With Texas Cone Penetration Test (TCP) every 5 feet interval, (0'- 50')		feet	\$	30.00
b. With Texas Cone Penetration Test (TCP) every 5 feet interval, (50' -100')		feet	\$	35.00
c. With Texas Cone Penetration Test (TCP) every 5 feet interval, (100' -150')		feet	\$	40.00
d. Without Texas Cone Penetration Test (TCP)< 60'		feet	\$	27.00
e. Without Texas Cone Penetration Test (TCP)> 60'		feet	\$	30.00
f. Augering		feet	\$	15.00
g. Drilling & Sampling - Soft Rock-Carbide Bit		feet	\$	21.00
h. Drilling & Sampling - Hard Rock-Diamond Bit		feet	\$	26.00
Surcharge for Drilling using Marsh Buggy		feet	\$	6.00
4. Piezometer - 2"( includes all materials, including cap)				
a. In existing boring		feet	\$	22.00
b. In new land wash boring		feet	\$	30.00
c. Steel Manhole Cover for Piezometer		each	\$	400.00
5. Underground Utility Clearance for Boring Location		hr	\$	75.00
6. 3-Man Crew (Driller,logger & helper) travel to/from job site, per day		hr	\$	180.00
7. n/a - intentionally left blank				
8. Pavement Coring for Soil Boring Access (up to 6-in diameter):				
a. Up to 10 inches thickness		inch	\$	130.00
b. Additional thickness over 10 inches		inch-each	\$	15.00
9. Vehicle Charge		hour	\$	9.00
10. Traffic Control -(Per TMUTCD)			Ť	0.00
a) Traffic Signs		day	\$	450.00
b) Crash Truck w/attenuator		day	\$	950.00
c) Certified Flagman		hr	\$	60.00
d) Flashing Arrow Board		day	\$	55.00
11.Traffic Control - Off Duty Police Officer		hr	\$	55.00
12. Dozer for Site Clearing for Soil Boring Access		day	\$	1,750.00
13. Non-Destructive Deflection Testing		auy	Ť	1,700.00
a. Equipment Mobilization		per mile	\$	4.25
b. Dynaflect		day	\$	1,850.00
·			_	
c. Falling Weight Deflection (FWD) d. Heavy Weight Deflection (HWD)		day	\$	2,250.00 2,650.00
· · · · · · · · · · · · · · · · · · ·		day	Ψ	2,030.00
* The cost of mobilization/demobilization for water boring (including floating equipment and support boat) will be per quotation per job site.				
Geotechnicial Lab Testing Services				
Unconfined Compressive Strength (Soil)	ASTM D2166	each	\$	60.00
One Dimensional Consolidation Properties of Soil	ASTM D2435	each	\$	350.00
		set of 3	\$	500.00
Direct Shear Test of Soils Under Consolidated Drained Conditions	ASTM D3080	Set Of 3	Φ	500.00

# ATTACHMENT A - Rate Schedule Unit Cost Basis

Permeability of Silt and Clays	ASTM D5084	each	\$	300.00
Determination of Moisture Content in Soils	TEX-103-E	each	\$	8.00
Determination of Soil Constants Including:				
Liquid Limit of Soils (LL)	TEX-104-E	each	\$	38.00
Plasticity Index (PI)	TEX-106-E	each	\$	38.00
Plastic Limit of Soils (PL)	TEX-105-E	each	\$	38.00
Bar Linear Shrinkage for Soils	TEX-107-E	each	\$	35.00
Determining the Specific Gravity of Soils	TEX-108-E	per test	\$	50.00
Determination of Particle Size Analysis of Soils Text (Part I) - Retained +40	TEX-110-E	each	\$	45.00
Determination of Particle Size Analysis of Soils Text (Part II) - Hyrometer	<u> </u>			
Analysis	TEX-110-E	each	\$	115.00
Amount of Minus No. 200 Sieve Material of Soils	TEX-111-E	each	\$	35.00
Laboratory Compaction Characteristics and Moisture-Density Relationship of				
Base Materials Includes: Liquid Limit and Plastic Limit	TEX-113-E	per test	\$	180.00
Laboratory Compaction Characteristics and Moisture-Density Relationship of				
Subgrade, Embankment Soils, and Backfill Material (Part I)	TEX-114-E	per test	\$	170.00
Laboratory Compaction Characteristics and Moisture-Density Relationship of				
Subgrade, Embankment Soils, and Backfill Material (Part II)	TEX-114-E	per test	\$	170.00
Laboratory Compaction Characteristics and Moisture-Density Relationship of				
Subgrade, Embankment Soils, and Backfill Material (Part III)	TEX-114-E	per test	\$	170.00
Ball Mill method for Determining the Disintegration of Flexible Base Material	TEX-116-E	per test	\$	140.00
Triaxial Compression for Disturbed Soils and Base Materials (Part I) Incudes:	12% 110 2		,	
LL,PL, Gradation, and MD Curve	TEX-117-E	per test	\$	1,250.00
Triaxial Compression for Disturbed Soils and Base Materials (Part II) Incudes:			,	
LL,PL, Gradation, and MD Curve	TEX-117-E	per test	\$	1,250.00
Soil-Cement Testing (Part I) (Includes Tex-113-E)	TEX-120-E	per series	\$	250.00
Soil-Cement Compressive Strength, (Part II)	TEX-120-E	per test	\$	200.00
Soil-Lime Testing (Part I) (Includes Tex-113-E)	TEX-121-E	per series	\$	350.00
Soil-Lime Compressive Strength, ( Part II)	TEX-121-E	per test	\$	150.00
ASTM D4767 (single-stage) (includes moisture, PI, -200 and unit weight)/each	TEX-131-E	per test	\$	350.00
Consolidated Undrained Triaxial Compression Test for Undisturbed Soils (CU) or				
ASTM D4767 (multi-stage) (includes moisture, PI, -200 and unit weight)/each	TEX-131-E	per test	\$	1,000.00
Unconfined Compressive Strength (Rock)		each	\$	60.00
Determination of Sulfate content		each	\$	120.00
Resilient Moduouls Testing (3-points)		each	\$	1,650.00
Bentonite for backfilling of bore holes		linear foot	\$	10.00
<b>■</b>				

Unit costs billed should correspond to the fiscal or calendar year, if applicable, in which the work was done. If unit costs by year are included, the unit costs for the last year shown apply to all later years. If only one set of unit cost figures is included, with no year designation, the unit costs shown apply to all later years.

Documentation of hours worked is not required.

# ATTACHMENT A - Rate Schedule Unit Cost Basis

SUBPROVIDER NAME: Surveying and Mapping, Inc.

Services to be Provided	Test Code	Unit	Cost
SUE Services			
Level C and D. Includes labor and equipment for records research, CADD, and mapping.	N/A	LF	\$ 0.75
Level B (Designation). Includes labor and equipment for records research, designating, engineering, surveying, and CADD.	N/A	LF	\$ 1.50
Level A (Location, Test Holes). Includes labor and equipment for vacuum excavation, engineering, surveying, and CADD.			
0 to 5 ft.	N/A	each	\$ 1,125.00
> 5 to 8 ft. > 8 to 13 ft.	N/A N/A	each each	\$ 1,460.00 \$ 1,875.00
> 13 to 20 ft.	N/A	each	\$ 2,450.00
> 20 ft.	N/A	per vertical foot	\$ 225.00

Unit costs billed should correspond to the fiscal or calendar year, if applicable, in which the work was done. If unit costs by year are included, the unit costs for the last year shown apply to all later years. If only one set of unit cost figures is included, with no year designation, the unit costs shown apply to all later years.

Documentation of hours worked is not required.

# ATTACHMENT A - Rate Schedule Unit Cost Basis

SUBPROVIDER NAME: HDR Engineering, Inc.

24-Hour Automated Tube Counts - Bi-directionalN/Aper counter/c24-Hour Automated Tube Counts - Urban Freeway Main Lanes (per direction)N/Aper counter/c24-Hour Automated Tube Counts - Speed or ClassN/Aper counter/cIntersection Turning Movement CountsN/Aper counter/houTurning Movement Count (12-hour Manual) Minor IntersectionN/AeachTurning Movement Count (12-hour Manual) Major IntersectionN/Aeach2-hour Turning Movment Count, Minor Intersection, WeekdayN/Aeach2-hour Turning Movment Count, Major Intersection, WeekdayN/Aeach2-hour Turning Movment Count, Minor Intersection, WeekendN/Aeach2-hour Turning Movment Count, Major Intersection, WeekendN/Aeach2-hour Turning Movment Count, Major Intersection, WeekendN/Aper locationSpeed Survey (2hr per location)N/Aper locationIntersection Diagrams / SketchesN/Aper intersectIntersection PhotographyN/Aper camera /per lacationVideo Origin & Destination (capture)N/AhourGPS Bluetooth Travel Time RunsN/Ahourly	Services to be Provided Test Code Unit	Cost
24-Hour Automated Tube Counts - Bi-directional  24-Hour Automated Tube Counts - Urban Freeway Main Lanes (per direction)  24-Hour Automated Tube Counts - Speed or Class  N/A per counter/or per camera/per lava per counter/or per cou	Drilling Services	
24-Hour Automated Tube Counts - Bi-directional  24-Hour Automated Tube Counts - Urban Freeway Main Lanes (per direction)  24-Hour Automated Tube Counts - Speed or Class  N/A per counter/or per camera/per lava per counter/or per cou		
24-Hour Automated Tube Counts - Urban Freeway Main Lanes (per direction)  24-Hour Automated Tube Counts - Speed or Class  Intersection Turning Movement Counts  Turning Movement Count (12-hour Manual) Minor Intersection  Turning Movement Count (12-hour Manual) Major Intersection  N/A  2-hour Turning Movement Count, Minor Intersection, Weekday  N/A  2-hour Turning Movement Count, Major Intersection, Weekday  N/A  2-hour Turning Movement Count, Minor Intersection, Weekday  N/A  2-hour Turning Movement Count, Minor Intersection, Weekend  N/A  2-hour Turning Movement Count, Major Intersection, Weekend  N/A  1-hour	ur Automated Tube Counts - Volume (per direction) N/A per counter/day	\$ 130.00
24-Hour Automated Tube Counts - Speed or Class Intersection Turning Movement Counts  Turning Movement Count (12-hour Manual) Minor Intersection  Turning Movement Count (12-hour Manual) Major Intersection  N/A  each 2-hour Turning Movment Count, Minor Intersection, Weekday 2-hour Turning Movment Count, Major Intersection, Weekday 2-hour Turning Movment Count, Major Intersection, Weekday 2-hour Turning Movment Count, Minor Intersection, Weekend 2-hour Turning Movment Count, Major Intersection, Weekend N/A 2-hour Turning Movment Count, Major Intersection, Weekend N/A per location Intersection Diagrams / Sketches Intersection Diagrams / Sketches Intersection Photography  N/A  Per intersect Intersection Photography  N/A  N/A  N/A  hourly	.,	\$ 140.00
Intersection Turning Movement Counts Turning Movement Count (12-hour Manual) Minor Intersection N/A each Turning Movement Count (12-hour Manual) Major Intersection N/A each 2-hour Turning Movment Count, Minor Intersection, Weekday N/A each 2-hour Turning Movment Count, Major Intersection, Weekday N/A each 2-hour Turning Movment Count, Minor Intersection, Weekend N/A each 2-hour Turning Movment Count, Major Intersection, Weekend N/A each 2-hour Turning Movment Count, Major Intersection, Weekend N/A per location Intersection Diagrams / Sketches N/A per intersect Intersection Photography N/A per intersect Intersection Photography N/A hour N/A hourly	ur Automated Tube Counts - Urban Freeway Main Lanes (per direction) N/A per counter/day	\$ 240.00
Turning Movement Count (12-hour Manual) Minor Intersection  Turning Movement Count (12-hour Manual) Major Intersection  2-hour Turning Movment Count, Minor Intersection, Weekday  2-hour Turning Movment Count, Major Intersection, Weekday  2-hour Turning Movment Count, Major Intersection, Weekend  2-hour Turning Movment Count, Minor Intersection, Weekend  N/A  2-hour Turning Movment Count, Major Intersection, Weekend  N/A  2-hour Turning Movment Count, Major Intersection, Weekend  N/A  per location  Intersection Diagrams / Sketches  Intersection Photography  N/A  Per intersect  per camera /per la  Video Origin & Destination (capture)  N/A  hourly	ur Automated Tube Counts - Speed or Class N/A per counter/day	\$ 150.00
Turning Movement Count (12-hour Manual) Major Intersection  2-hour Turning Movment Count, Minor Intersection, Weekday  2-hour Turning Movment Count, Major Intersection, Weekday  2-hour Turning Movment Count, Minor Intersection, Weekend  2-hour Turning Movment Count, Minor Intersection, Weekend  2-hour Turning Movment Count, Major Intersection, Weekend  N/A  Speed Survey (2hr per location)  Intersection Diagrams / Sketches  Intersection Photography  N/A  Per intersect  Intersection Photography  N/A  Per camera /per location  N/A  N/A  N/A  N/A  N/A  N/A  N/A  N/	ection Turning Movement Counts N/A per counter/hour/day	\$ 50.00
2-hour Turning Movment Count, Minor Intersection, Weekday 2-hour Turning Movment Count, Major Intersection, Weekday N/A each 2-hour Turning Movment Count, Minor Intersection, Weekend N/A each 2-hour Turning Movment Count, Major Intersection, Weekend N/A each Speed Survey (2hr per location) N/A per location Intersection Diagrams / Sketches N/A per intersect Intersection Photography N/A per intersect Intersection Photography N/A hour  Wideo Origin & Destination (capture) N/A hourly	g Movement Count (12-hour Manual) Minor Intersection N/A each	\$ 550.00
2-hour Turning Movment Count, Major Intersection, Weekday 2-hour Turning Movment Count, Minor Intersection, Weekend N/A each 2-hour Turning Movment Count, Major Intersection, Weekend N/A each Speed Survey (2hr per location) N/A per location Intersection Diagrams / Sketches N/A per intersect Intersection Photography N/A per intersect per camera /per la Video Origin & Destination (capture) N/A hourly	g Movement Count (12-hour Manual) Major Intersection N/A each	\$ 1,100.00
2-hour Turning Movment Count, Minor Intersection, Weekend 2-hour Turning Movment Count, Major Intersection, Weekend N/A each Speed Survey (2hr per location) N/A per location Intersection Diagrams / Sketches N/A per intersect Intersection Photography N/A per intersect per camera /per location Video Origin & Destination (capture) N/A hour  GPS Bluetooth Travel Time Runs N/A hourly	r Turning Movment Count, Minor Intersection, Weekday N/A each	\$ 100.00
2-hour Turning Movment Count, Major Intersection, Weekend N/A each Speed Survey (2hr per location) N/A per location Intersection Diagrams / Sketches N/A per intersect Intersection Photography N/A per intersect Video Origin & Destination (capture) N/A hour  GPS Bluetooth Travel Time Runs N/A hourly	r Turning Movment Count, Major Intersection, Weekday N/A each	\$ 200.00
Speed Survey (2hr per location)       N/A       per location         Intersection Diagrams / Sketches       N/A       per intersect         Intersection Photography       N/A       per intersect         Video Origin & Destination (capture)       N/A       hour         GPS Bluetooth Travel Time Runs       N/A       hourly	r Turning Movment Count, Minor Intersection, Weekend N/A each	\$ 150.00
Intersection Diagrams / Sketches Intersection Photography N/A per intersect per camera /per la Video Origin & Destination (capture) N/A hour  GPS Bluetooth Travel Time Runs N/A hourly	r Turning Movment Count, Major Intersection, Weekend N/A each	\$ 300.00
Intersection Photography  N/A per intersect per camera /per la Video Origin & Destination (capture)  N/A hour  GPS Bluetooth Travel Time Runs  N/A hourly	Survey (2hr per location) N/A per location	\$ 130.00
Video Origin & Destination (capture)  GPS Bluetooth Travel Time Runs  per camera /per la N/A hourly	ection Diagrams / Sketches N/A per intersection	\$ 50.00
Video Origin & Destination (capture)       N/A       hour         GPS Bluetooth Travel Time Runs       N/A       hourly		\$ 30.00
GPS Bluetooth Travel Time Runs N/A hourly	per camera /per lane/per	
,	Origin & Destination (capture) N/A hour	\$ 350.00
	uetooth Travel Time Runs N/A hourly	\$ 65.00
24-Hour Classification Counts N/A per counter/o	ur Classification Counts N/A per counter/day	\$ 150.00

Unit costs billed should correspond to the fiscal or calendar year, if applicable, in which the work was done. If unit costs by year are included, the unit costs for the last year shown apply to all later years. If only one set of unit cost figures is included, with no year designation, the unit costs shown apply to all later years.

Documentation of hours worked is not required.

### **Other Direct Expenses**

### All Rates Shown Apply To Prime Provider and All Sub-Providers

OTHER DIF	RECT EXPENSES				
ODE Description	Unit	Max Rate	Fixed/Max	0	DE Rate
Lodging/Hotel - Taxes and Fees	day/person	Current State Rate	M		-
Lodging/Hotel (Taxes/fees not included)	day/person	Current State Rate	M		-
Meals (Excluding alcohol & tips) (Overnight stay required)	day/person	Current State Rate	М		-
Mileage	mile	Current State Rate	F		_
Rental Car Fuel	day		M	\$	40.00
SUV or ATV Rental (Includes taxes and fees; Insurance costs will not be reimbursed)	day		М	\$	100.00
Construction Truck (Includes operation, and maintenance costs; Insurance costs will not be reimbursed)	day		F	\$	80.00
Construction Truck (Includes operation, and maintenance costs; Insurance costs will not be reimbursed)	month		F	\$	1,200.00
Construction Truck 4X4 (Includes operation and maintenance costs; Insurance costs will not be reimbursed)	day		М	\$	125.00
Construction Truck 4x4 (Includes operation and maintenance costs; Insurance costs will not be reimbursed)	month		M	\$	1,600.00
Rental Car Fuel	gallon		M	\$	4.00
Rental Car (Includes taxes and fees; Insurance costs will not be reimbursed)	day		M	\$	55.00
Air Travel - In State - Short Notice (Coach)	Rd Trip/person		M	\$	550.00
Air Travel - In State - 2+ Wks Notice (Coach)	Rd Trip/person	Coach Fare	M	\$	400.00
Air Travel - Out of State - 2+ Wks Notice (Coach)	Rd Trip/person		M	\$	650.00
Air Travel - Out of State - Short Notice (Coach)	Rd Trip/person		M	\$	700.00
Air Travel (Use with Indefinite Deliverable Contracts)	Rd Trip/person	Coach Fare	M	\$	475.00
Oversize, special handling or extra baggage airline fees (with advance coordination with TxDOT)	each	Current Airline Rate	M	\$	100.00
Taxi/Cab fare	each/person		M	\$	25.00
Parking	day		M	\$	20.00
Standard Postage	letter	Current Postal Rate	F	+	_
Certified Letter Return Receipt	each	Current Postal Rate	 F		
Overnight Mail - letter size	each	Current Postal Rate	M		_
Overnight Mail - oversized box	each	Current r colai rtato	M	\$	35.00
Materials and Shipping	per package		M	\$	30.00
Courier Services	each		M	\$	30.00
Photocopies B/W (11" X 17")	each		F	\$	0.20
Photocopies B/W (11 X 17 ) Photocopies B/W (8 1/2" X 11")	each		F F	\$	0.20
Photocopies Color (11" X 17")			' F		1.20
Photocopies Color (8 1/2" X 11")	each		F F	\$ \$	0.65
,	each		<u> </u>		
Cardstock Color (8 1/2" X 11")	each		F F	\$	1.00
Digital Ortho Plotting	sheet		F	\$	1.50
Plots (B/W on Bond)	per sq. ft.		F	\$	0.50
Plots (Color on Bond)	per sq. ft.		F -	\$	1.00
Plots (Color on Photographic Paper)	per sq. ft.		F	\$	4.00
Color Graphics on Foam Board	square foot		F	\$	4.00
Presentation Boards 30" X 40" Color Mounted	each		M	\$	60.66
Report Printing	each		M	\$	25.00
Report Binding and tabbing	each		F	\$	4.25
Drawing Binders (variable depth for 11" X 17" paper)	each		M	\$	8.00
Notebooks	each		M	\$	5.00
Reproduction of CD/DVD	each		M	\$	3.00
CDs	each		F	\$	1.00
4" X 6" Digital Color Print	picture		F	\$	0.25

Newspaper Advertisement	per publication		М	\$	2,800.00
Court Reporter	page		М	\$	-
Court Reporter (Public Meetings, Hearings & Transcription)	day		М	\$	500.00
Translator (English to Spanish, other language as appropriate, or Sign Language) for Public Involvement	event		M	\$	500.00
Translator (English to Spanish, other language as appropriate, or Sign Language)	hour		M	\$	100.00
Written Translation Services	word		F	\$	0.16
Custodian for Public Involvement	hour/custodian		М	\$	25.00
Sound Technician for Public Involvement	event		М	\$	250.00
Public Involvement Facility Rental (estimate)	4 hours		М	\$	750.00
Public involvement Facility Rental (estimate)	8 hours		M	\$	3,000.00
Public Involvement Facility Rental (estimate)	hour		M	\$	200.00
Public Involvement Facility Rental	event		M	\$	1,600.00
Audio - Equipment Rental	each		М	\$	150.00
Audio - Visual Equipment Rental	event		М	\$	250.00
Public Involvement Grahpic Artist	event		F	\$	60.00
Professional Narrator for Public Involvement	event		F	\$	100.00
Professional Narrator for Public Involvement	hour		F	\$	100.00
Property Record Fees (Courthouse and Courthouse Direct Record Fees)	Per Parcel		M	\$	24.00
Public Notices - Mass Mailing (500 pieces)	per mailing		М	\$	
Public Notices - Mass Mailing/with Self Addressed Return Envelope (500	per mailing	#N/A	M	+	_
pieces)	pormaning	771477			
Electronic Message Signs	day		M	\$	150.00
Transearch Count-Level Database with counties in neighboring states' BEA's (BEA level beyond TX borders)(Cost is per Unit with Maxumum	per Unit		М	\$	5,000.00
Total Cost per contract not to exceed \$250,000)	1-		N.4		F 00
FEMA FIS (Manual)	each		M	\$	5.00
FEMA FIS Backup Data Request	each		M	\$	300.00
FEMA Map Revision Submittal (CLOMR/LOMR) (Submittal Fee Only)	each		M	\$	8,250.00
FEMA Model/Floodplain Hardcopy	each	1.10.1	M	\$	250.00
Railroad - Flagger (Service provided by RR)	hour	Actual Cost	M	\$	-
Railroad - Insurance in addition to STD Minimum Required (Minimum coverage of \$1 Million required by RR.)	each	Actual Cost	M		_
Railroad - Permit [Note: Read and then delete this note. Most railroad companies charge a fee of \$500 for the permit to access their property.]	each	Actual Cost	М	\$	-
Railroad - Safety Training (If required - Heavy Rail Safety Training Certificate, includes classroom training and employee certification card.)	Per Person	Actual Cost	M	\$	-
Traffic Control Services, Arrow Boards and Attenuator trucks - Large Project (Includes labor, equipment and fuel)	day		М	\$	3,000.00
Traffic Control Services, Arrow Boards and Attenuator trucks - Medium Project (Includes labor, equipment and fuel)	day		М	\$	2,350.00
Traffic Control Services, Arrow Boards and Attenuator trucks - Small Project (Includes labor, equipment and fuel)	day		M	\$	1,500.00
Attenuator trucks - (Lane/Shoulder Closure) (Includes labor, equipment and fuel)	day		M	\$	950.00
Attenuator trucks - (No Lane Closure) (Includes labor, equipment and fuel)	day		M	\$	500.00
Environmental Field Supplies (lathes, stakes, flagging, spray paint, etc.)	day		М	\$	45.00
Specialized locating equipment (Sonde, beacon, rodder, etc.)	day		M	\$	50.00
Pavement coring	each		М	\$	250.00
Flashing Arrow Board	day		M	\$	500.00
Portable Message Board	day		M	\$	200.00
Law Enforcement/Uniform Officer (including vehicle)	hour		M	\$	55.00
Required Permit Fees (non- railroad)	each		M	\$	75.00

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NDT Testing Supplies	each	#N/A	М		_
Shelby Tubes Transportation Box	each	#N/A	М		_
Boat with Motor	day		М	\$	400.00
Bulldozer Rental	each	#N/A	М	\$	1,350.00
Fathometer	day		M	\$	90.00
Backhoe Rental	day		M	\$	1,200.00
Map, Tapes, and Supplies	each			\$	3.50
Rental Equipment - Gasoline Powered Auger	day		M	\$	60.00
Underwater Diving Equipment Rental (Tanks, Boats, Trailers, etc.)	each	#N/A	M	Ψ	
•		· ·	M		_
ManLift Equipment Rental or Bridge Inspection Equipment Rental	each	#N/A			
Barge Rental for Off Shore Driling	each	#N/A	M	\$	50,000.00
Mobilization and Demobilization Barge for Submerged Areas	each	#N/A	M	\$	20,000.00
Mobilization and Demobilization of Drilling Rig (Trips over 100 miles from	each	#N/A	M	\$	1,000.00
@PS Receiver (rates applied to actual time GPS units are in use)	hour		M	\$	25.00
GPS RTK (rates applied to actual time GPS units are in use)	hour		F	\$	25.00
GPS Static (rates applied to actual time GPS units are in use)	hour		F	\$	25.00
Map Records	sheet		M	\$	4.00
Deed Copies	sheet		F	\$	2.00
Certified Deed Copies	sheet		F	\$	10.00
Historical Aerial Images	unit		М	\$	90.00
Aerial Photographs (1" = 500' scale)	each		М	\$	24.00
Type II ROW Monument - Excavated/Drilled, rocks, rocky soil. 2-4 inch	each		F	\$	275.00
depth (includes crew time, equipment, materials, rentals, & labor).					
Brass Marker supplied by TxDOT					
Type II ROW Monument - Poured 2-3 Feet (includes One Call, crew	each		F	\$	475.00
time, equipment, materials, rentals, labor). Brass Marker supplied by TxDOT					
Survey Boundary Taxes (If this line item is billed, a Tax Resale	each	#N/A	M		_
Reprographics b k fil d b il bl b h	per sq. ft.		F	\$	4.00
Wood Core Boxes (Applies to large projects and long term storage)	each	#N/A	 M	Ψ	
Terrestrial Laser Scanner (rates applied to actual time scanner unit is in	hour	1111/71	F	\$	90.00
Ground Target (includes paint, panel material, etc.)	each		F	\$	25.00
Ground Penetrating Radar (equipment only)	day		 F	\$	400.00
Crodital Fortiating Radai (Equipment Only)	day		•	Ψ	400.00
LiDAR Mobile Mapping System (Includes Vehicle Operator, LiDAR Technician, and fuel) (Does not include travel to project.)	day			\$	7,200.00
Mobilization for Helicopter and Aerial Sensors (Includes Aircraft, Pilot,	project			\$	25,000.00
Sensor Operator, and fuel) (Does not include travel to project.)  Helicopter Equipment LiDAR - Project Flight Miles (On project flight	per mile		F	\$	60.00
miles)	hei iiiile		ı	Ψ	00.00
Helicopter Equipment LiDAR - Transit Miles (including turn, maneuver miles and local airport to project)	per mile		F	\$	15.00
Mobilization for Fixed Wing Aircraft and Aerial Sensors (Includes Aircraft, Pilot, Sensor Operator, and fuel) (Does not include travel to project.)	project			\$	25,000.00
Fixed Wing Airborne LiDAR - Project Flight Miles (On project flight miles)	per mile		F	\$	20.00
Fixed Wing Airborne LiDAR - Transit Miles (including turn, maneuver	per mile		F	\$	8.00
	'			\$	2,250.00
Aerial Protography - Airborne GPS/IMU Data collection/Processing	Per Project		F	Ψ	
Aerial Photography - Project Flight Miles (On project flight miles)	<u>'</u>		F	\$	35.00
Aerial Photography - Project Flight Miles (On project flight miles) Aerial Photography - Transit miles (including turn, maneuver miles and	Per Project			_	
Aerial Photography - Project Flight Miles (On project flight miles) Aerial Photography - Transit miles (including turn, maneuver miles and local airport to project) Photo Lab Service - Black and White Processing (film, development,	Per Project Per Mile		F	\$	35.00 8.00
Aerial Photography - Project Flight Miles (On project flight miles) Aerial Photography - Transit miles (including turn, maneuver miles and local airport to project)	Per Project Per Mile Per Mile		F F	\$	35.00
Aerial Photography - Project Flight Miles (On project flight miles) Aerial Photography - Transit miles (including turn, maneuver miles and local airport to project) Photo Lab Service - Black and White Processing (film, development, scanning)	Per Project Per Mile Per Mile Per Frame		F F	\$ \$ \$	35.00 8.00 19.00

Photo Lab Service - Enlargements, Lamination, Mounting	per sq. ft.	F	\$ 6.00
Photo Processing Technician	hour	F	\$ 98.17
Lidar Workstation	hour	F	\$ 25.00

### ATTACHMENT B

## WORK AUTHORIZATION WORK AUTHORIZATION NO. 01 CONTRACT FOR ENGINEERING SERVICES

	pursuant to the terms and conditions of Article 4 of the Contract by and between the Central Texas Regional Mobility Authority eer) dated
estimates for the south to west, north to west and improvements at 290E and SH130, Manor Expresswa attached hereto in Exhibit B and made a part of the south to west, north to west and improvements at 290E and SH130, Manor Expresswa attached hereto in Exhibit B and made a part of the south to west, north to west and improvements at 290E and SH130, Manor Expresswa attached hereto in Exhibit B and made a part of the south to west, north to west and improvements at 290E and SH130, Manor Expresswa attached hereto in Exhibit B and made a part of the south to west, north to west and improvements at 290E and SH130, Manor Expresswa attached hereto in Exhibit B and made a part of the south to west and south to west attached hereto in Exhibit B and made a part of the south to west attached hereto in Exhibit B and made a part of the south to west attached hereto in Exhibit B and made a part of the south to west attached hereto in Exhibit B and made a part of the south to west attached hereto in Exhibit B and made a part of the south to west attached hereto in Exhibit B and made a part of the south to west attached hereto in Exhibit B and made a part of the south to west attached hereto in Exhibit B and made a part of the south to west attached here to west attached he	ering services generally described as plans, specifications and least to south direct connectors and associated interchange ay Phase III Project, in accordance with the project description his Work Authorization. The responsibilities of the Mobility rule are further detailed in Exhibits A, B, and C which are norization.
of payment is Lump Sum. This amount is based upon	der this Work Authorization is \$7,055,388.00 and the method in the Engineer's estimated Work Authorization costs included and made a part of this Work Authorization. DBE participation its E, F, and G.
<b>PART III.</b> Payment to the Engineer for the sein accordance with the appropriate sections of the Cor	rvices established under this Work Authorization shall be made ntract.
	ecome effective on the date of final acceptance of the parties ork, unless extended by a supplemental Work Authorization as
<b>PART V</b> . This Work Authorization does not we the Contract.	vaive the parties' responsibilities and obligations provided under
IN WITNESS WHEREOF, this Work Aut accepted and acknowledged below.	chorization is executed in duplicate counterparts and hereby
THE ENGINEER	CENTRAL TEXAS REGIONAL MOBILITY AUTHORITY
(Signature) James J. Roohms, P.E.	(Signature) Mike Heiligenstein
(Printed Name)  COO, Senior Vice President  (Title)	Executive Director

(Date)

(Date)

# LIST OF EXHIBITS

Exhibits	Title
A	Services to Be Provided by the Mobility Authority
В	Services to Be Provided by the Engineer
С	Work Schedule
D	Fee Schedule/Budget
Е	DBE Participation Forms (E-1 through E-7)
F	Disadvantaged Business Enterprise (DBE) for Federal Funded Professional or Technical Services Contracts – See Exhibit E Instructions
G	Disadvantaged Business Enterprise (DBE) for Race-Neutral Professional or Technical Services Contracts – See Exhibit E Instructions

#### **EXHIBIT A**

## SERVICES TO BE PROVIDED BY THE MOBILITY AUTHORITY

The Mobility 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 of notice to proceed.
- 2. Render reviews, decisions and approval 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.
- 4. Maintain the Project's Website.
- 5. Provide the Engineer with relevant data available to the Mobility Authority related to people, agencies and organizations interested in the proposed project.
- 6. Provide the Project's pavement design for both proposed and temporary conditions.
- 7. Provide the existing schematic designs for 290E and SH130.
- 8. Prepare the Project's environmental studies.
- 9. Provide available project data relevant to the Project including but not limited to as-built plans, preliminary cost estimates, existing ROW plans, CADD files, reports, studies, traffic data/volumes, etc.
- 10. Provide direction of the Project aesthetic theme for the Engineer's development of the aesthetic details.
- 11. Lead and coordinate necessary public involvement activities with support from the Engineer.
- 12. Provide a Project Manager responsible for coordinating with the Engineer.
- 13. Interface with local, regional, State and Federal agencies or other entities on behalf of the Engineer.
- 14. Secure all required permits and agreements with supporting documentation provided by the Engineer.
- 15. Provide information related to the Mobility Authority's Green Roads Program.
- 16. Provide information related to tolling requirements and system integration.
- 17. Provide value engineering facilitator and support staff if required.
- 18. Lead the Project bid process.

# SERVICES TO BE PROVIDED BY THE ENGINEER

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# Services to be Provided by the Engineer Manor Expressway Phase III Project

The Design Consultant Engineer ("Engineer"), shall be responsible for the work described in this Scope of Services ("Services") for the Manor Expressway Phase III Project ("Project"). The Engineer will coordinate with Mobility Authority Staff and their GEC, herein referred to as the "Mobility Authority".

The Engineer will work at the direction and supervision of the Mobility Authority to provide the Services. The Mobility Authority expects the Engineer to work cooperatively and collaboratively through all aspects and phases of preliminary and final PS&E design and in its dealings with TxDOT, subcontractors, engineers, legal counsel, consultants, governmental entities, utilities, businesses, property owners, and the general public.

The Engineer will report to the Mobility Authority's Project Manager, the GEC's Project Manager and staff, and keep them informed of the design progress, especially issues that would affect the project schedule and delivery. The Engineer shall be available for weekly progress meetings with the Mobility Authority, if scheduled. The Engineer will also be responsible for coordinating with all other members of their project team to verify that all deliverables meet the established schedule and quality requirements.

The Engineer will be expected to deliver a final set of construction plans and bid documents suitable for construction bidding. The Project design involves the construction of three (3) direct connectors at the 290E/SH130 Interchange (South SH130 to West 290E, East 290E to South SH130, and North SH130 to West 290E) and ramp improvements/modifications on 290E and SH130. The proposed improvements shall be designed with allowance for the ultimate planned improvements to SH130 including frontage roads, ramps, and additional main lanes.

The Mobility Authority is taking lead on design and construction for the Project, but the Project will be fully coordinated with TxDOT and will be required to meet all standard requirements for a TxDOT project including: Local Government Projects Policy Manual, Pavement Design Guide, Project Development Process Manual, PS&E Preparation Manual, Roadway Design Manual, TxDOT MUTCD and others.

## MAJOR WORK ELEMENTS

## **Data Collection/Preliminary Design**

Perform research and obtain historical project information including as-built plans, environmental documents, existing utility locations, signalization plans and timing, hydraulic and hydrologic data, geotechnical studies and boring logs, and others. Perform field surveys that will assist with preliminary design including geotechnical survey, design survey, SUE, traffic counts and others.

The Services will include Preliminary Design for the Project. Major tasks include: Environmental (evaluate compliance and planning documents and understand environmental permits, issues and commitments, preparation of exhibits and information if a re-evaluation

# Services to be Provided by the Engineer Manor Expressway Phase III Project

should be necessary), Drainage (hydrologic studies, preliminary hydraulic analysis/design), Traffic Evaluation (traffic count evaluation, traffic modeling, reports and recommendations), Stakeholder coordination and assistance with public involvement (presentation support, reporting support), and Preliminary Design including: geometric alignments, bridge type/size/location studies, preliminary structural design for bridges and retaining walls, cross-section development, intersection design/configuration, preliminary traffic control plans, traffic operations study, determination of aesthetic theme, Storm Water Pollution Prevention Plan (SW3P), identify potential utility conflicts, establish preliminary illumination locations, and cost estimates. Design will need to prioritize introduction of sustainability features into the project design and the bid documents should incorporate sustainability requirements for construction methods and materials.

## **Final Design**

Final Design Services will include continuation of stakeholder coordination and assistance with public involvement, finalization of reports and studies, and final design and the preparation of the PS&E documents for the Project. Major design tasks include: Roadway (geometry, retaining walls, earthwork, plan production), Drainage (H&H studies, culvert and storm drain, detention design and coordination), Structures (bridges, walls, miscellaneous drainage structures, foundations), Traffic (pavement markings, small and large signs, overhead sign structures, signalization, illumination, toll facility infrastructure coordination, ITS system duct bank coordination), Miscellaneous (traffic control plans, guardrail, landscape planting and hardscape), support during the bidding process and any other incidental items necessary for the proposed project.

The Engineer shall coordinate with the Mobility Authority prior to a particular task being started and will not begin any work until Notice to Proceed has been issued.

# Services to be Provided by the Engineer Manor Expressway Phase III Project

## 1. DATA COLLECTION / PRELIMINARY DESIGN

## 1.1. Environmental Document Review/Coordination

Major elements of work include the following: The Engineer will review the environmental commitments and innovations included in the past environmental documents for the SH130 Project and the 290E (Manor Expressway Project) and the Mobility Authority's Green Roads Program. The Project is anticipated to be completed under a Reevaluation Consultation Checklist (RCC) under one of the previous environmental documents. Preparing the RCC and coordination with TxDOT is not included in the scope of this contract as this effort will be performed by others. The Engineer will coordinate with TxDOT and the Mobility Authority to assess the required actions that may be associated with design modifications (if any) that result from preliminary design and final design phases. The Engineer will provide information, exhibits, and tables as necessary to assist in the preparation of the RCC.

### 1.2. Public Involvement Assistance

The Engineer will provide support for various meetings (including MAPO's), coordination, and communication with the public and other agencies as requested by the Mobility Authority. Support will include attending meetings, producing displays, providing information for website and information sheet development.

#### 1.3. Data Collection

The Engineer shall collect, review and evaluate data described including: Available "as-built plans", existing schematics, right-of-way maps, SUE mapping, existing cross sections, existing planimetric mapping, Environmental Documents (State EA), driveway permits, utility permits, draft toll systems facility/ITS infrastructure guidelines and plans, etc. The Engineer is responsible for any adjustments to electronic files received by others, as described above, in order to verify that the position of all files are on the exact same georeferenced coordinate system as the Project's Control.

The Engineer will perform sufficient field investigations to gather information for the development of the construction plans. Drainage, signing, structures, ITS and toll infrastructure elements shall be field verified.

## 1.4. Geotechnical Investigation

## 1.4.1. General Requirements

- **1.4.1.1.** Perform geotechnical investigations and testing according to TxDOT's Geotechnical Manual (latest edition) and TxDOT's Test Methods, or ASTM Standards if no corresponding TxDOT Methods exist. Supplement existing boring logs performed by others with new borings for the design of bridge substructures, retaining walls, and sign structure foundations. All proposed boring locations shall be identified by the Engineer and shown on a boring layout, reviewed and approved by the Mobility Authority prior to performing geotechnical investigations.
- **1.4.1.2.** The Engineer shall be responsible for arranging for utility locations prior to

# Services to be Provided by the Engineer Manor Expressway Phase III Project

drilling borings.

- **1.4.1.3.** Provide a traffic control plan in accordance with TxDOT Standards for all work to be performed adjacent to traffic.
- **1.4.1.4.** Record GPS coordinates of each bore hole using hand-held GPS unit utilizing project survey control. Bore holes will be marked for surveying of ground elevations and coordinates in order to locate in the plans.
- **1.4.1.5.** Backfill borings, less than 20 feet with cuttings from the boring or gravel. Patch pavements with cold mix asphalt or concrete (match existing paving surface of affected road or drive. All borings with depths greater than or equal to 20 feet must be plugged with a non-shrink grout from the bottom of the hole to within three (3) feet of the surface. The remainder of the hole must be backfilled with cuttings from the boring or gravel. All borings must be backfilled or plugged within four (4) days of completion of the drilling operations. Voids may be filled with gravel.

## 1.4.2. Pavement Design

**1.4.2.1.** Review the Pavement Design Report and existing boring logs performed by others and make recommendations for adjustments if deemed beneficial or warranted.

## 1.4.3. Bridges

- **1.4.3.1.** Supplement existing boring and boring logs performed by others as necessary to complete the bridge design. Bridge borings shall be drilled to a minimum depth of 50' below top of existing ground.
- **1.4.3.2.** Analyze subsurface conditions and Texas Cone Penetrometer Test results for each bridge location.
- **1.4.3.3.** Develop recommendations for suitable foundation type, allowable bearing and skin friction resistance in the soil profile encountered, and minimum required penetration depths for each bridge location. Provide final tip elevations recommendations as they relate to possible axial design loads.
- **1.4.3.4.** Perform laboratory testing to include: USCS Soil Classification, Atterberg limits, particle size analysis (D50 and D95), moisture content and unconfined compression tests.
- **1.4.3.5.** At bridge locations, for each bent and abutment provide soil parameters and other necessary data so that the structural engineer can determine point-of-fixity. Also included necessary data for lateral analysis of drilled shafts.
- **1.4.3.6.** Identify potential drilled shaft construction problems related to groundwater, caving soils, very hard rock layers or karst features.

## 1.4.4. Retaining Walls

- **1.4.4.1.** Supplement existing boring and boring logs performed by others as necessary to complete the retaining wall design. Retaining wall borings shall be drilled to a minimum depth of 20' below the bottom of proposed walls.
- **1.4.4.2.** Perform laboratory testing to characterize the uniformity and strength for the

# Services to be Provided by the Engineer Manor Expressway Phase III Project

soils that will be supporting MSE walls and soil and rock conditions for design of drilled shaft walls. Laboratory testing will include: USCS Soil Classification, Atterberg limits, particle size analysis, moisture content, soil consolidation, consolidated drained direct shear test and unconfined compression tests.

- **1.4.4.3.** Analyze the bearing, overturning, eccentricity and sliding resistance of the foundation soils at each wall location.
- **1.4.4.4.** Analyze the stability of each wall for rotational stability with respect to deep-seated shearing movements by performing slope stability analyses.
- **1.4.4.5.** Analyze settlement of retaining walls.
- **1.4.4.6.** Analyze global stability of retaining walls
- **1.4.4.7.** Compare anticipated wall applied bearing pressures with the allowable bearing resistance to determine whether or not the foundation soils need to be strengthened to support the walls.
- **1.4.4.8.** For spread footing walls, recommend the design soil lateral earth pressure and provide bearing capacity, sliding and slope stability analyses and evaluate the settlement of the wall.

## 1.4.5. Geotechnical Report

The Engineer will prepare a draft geotechnical report that will present recommendations for the design of the bridge foundations, retaining wall foundations, and sign structures including:

- **1.4.5.1.** Site vicinity and geology map.
- **1.4.5.2.** Generalized subsurface conditions, as well as groundwater conditions encountered during drilling operations.
- **1.4.5.3.** Engineering and construction considerations, structural fill requirements and earthwork recommendations.
- **1.4.5.4.** Wincore Version 3.1 logs in English units, laboratory test results, and plan of borings with station and offset and top of hole elevations.
- **1.4.5.5.** Recommended foundation type, minimum embedment, allowable end bearing and skin friction resistance in the founding material encountered.
- **1.4.5.6.** Soil parameters and other data provided to structural engineers for use in determining point-of-fixity of bridge foundations for bridge column design and lateral analysis of drilled shafts.
- **1.4.5.7.** Recommended bearing and sliding resistance for design of MSE walls. Where the allowable bearing resistance is likely to be exceeded by the walls bearing pressure, recommendations for increasing wall anchor lengths or improving the foundation soils will be presented to provide adequate bearing capacity. Develop parameters for RW(MSE)DD standard sheet.
- **1.4.5.8.** Rotational stability analyses and settlement analyses results for each retaining wall location. At wall locations where stability and/or settlement may be of concern the Engineer shall develop conceptual approaches to improve the rotational stability and/or settlement. Upon review by the Mobility Authority

# Services to be Provided by the Engineer Manor Expressway Phase III Project

- the Engineer will further develop the selected concept.
- **1.4.5.9.** Identification of potential foundation construction problems with recommendations to mitigate or avoid the problems.
- **1.4.5.10.** Existing boring logs performed by others will be presented in the appendix to supplement the new borings for bridge structures, retaining walls and sign and toll gantry structures. The intent is to have one report for the limits of this project. The Engineer assumes no liability for the accuracy of borings performed by others.
- **1.4.5.11.** Minimum side slope and slope stability recommendations for storm water detention basins.
- **1.4.5.12.** Calculated D50 and D95 soil size within potential scour locations for scour analysis computations.
- **1.4.5.13.** Recommended bearing and sliding resistance of the spread footing walls. Where the allowable bearing resistance is likely to be exceeded by the wall pressure, improving the foundation soil will be presented to provide adequate bearing capacity.
- **1.4.5.14.** Provide recommendations for backfill material and drainage for retaining walls.
- **1.4.5.15.** Geophysical study results will be included with the draft geotechnical report.

## 1.4.6. Deliverables

**1.4.6.1.** Submit three (3) draft copies of the geotechnical report for review and comment to the Mobility Authority in \*.pdf and hard copy formats. One draft copy of the geotechnical report shall also be kept on file with the Engineer for future reference.

## 1.5. Surveying

The Engineer shall coordinate survey requirements with the Mobility Authority. If data is needed outside of the limits of the apparent ROW, the Engineer will obtain written right of entry (ROE) from respective property owners or their authorized representatives and any tenants. The Engineer will contact affected land owners from which ROE has been obtained prior to commencing any work on private property. The Engineer anticipates that the Mobility Authority will handle problems regarding any and all refusal to grant ROE or communication with land owners who are hostile with respect to the completion of this scope of services. The Engineer will document any interactions with land owners while performing the work. Gaining ROE from all land owners in a timely manner, if applicable, will be critical to the success and efficiency in meeting deadlines for this project. If ROE is required for other tasks – the ROE request should include those other tasks even if performed by a different firm.

## 1.5.1. Project Control

Utilize the TxDOT-Austin District VRS network to establish up to twenty (20) primary horizontal and vertical control points. Primary control points (5/8" iron rods with "INLAND Control" plastic caps) will be set for horizontal and vertical control in a location that will likely be undisturbed by construction or State

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maintenance. This project will be placed on the horizontal and vertical datum [NAD83/93/NAVD88 values (Texas State Plane, Central Zone)] with the surface adjustment factor of 1.00011. Elevations will be derived from GPS observations using Geoid 2012A model. Secondary control points (5/8" iron rods with "INLAND Control" plastic caps) will be set and tied to primary control as needed. A benchmark system shall be established for additional vertical control on approx. 1000 foot intervals. Digital levels will be run through all survey control points to confirm the established elevations.

The Engineer shall set up to 30 targets along the existing roadway within the below described design survey limits (1.5.2.1 and 1.5.2.2) to be set as control for the Airborne LiDAR and imagery collection. The horizontal and vertical values for these targets will be based on the project control (to be established and provided by Engineer) and positioned using a minimum of two (2) RTK vectors from the project control set.

## 1.5.2. Topographic Survey and Asbuilt

Supplemental design survey within the Project limits as necessary including the following:

- **1.5.2.1.** Within the apparent existing ROW lines of SH130 from approximately 2,400' south of Blue Bluff Road to 2,800' north of FM734 with the following cross flights centered on SH130:
  - 1,900' at Blue Bluff Road
  - 3,700' at the Cap Metro Rail crossing
  - 2.800' at FM734
- **1.5.2.2.** Airborne LiDAR of the roadway and out to the project boundaries is to be collected in the limits described in section 1.5.2.1. Calibrate and merge airborne LiDAR data with field survey data into one point cloud for mapping and extraction purposes. Imagery will be collected during the airborne LiDAR acquisition as well so orthophotos can be made for the entire project area.
- 1.5.2.3. In support of the LiDAR operations, the Engineer will utilize conventional or GPS survey methods to collect supplemental design survey data within the above described design survey limits that may be obscured to LiDAR data collection. The estimated length of this supplemental survey along the longitudinal edge of pavement is 16,000 linear feet. In such areas, conventional survey methods will be utilized to collect cross-sections and break lines at approximate 50-foot intervals within the above described project limits. Major grade-break lines necessary to produce a one-foot interval contour DTM will be collected, as well as any visible improvements including driveways (with type noted), driveway pipes, drop inlets and drainage structures (noting size, material and flowline elevation), edge of pavement, edge (shoulder) line, crown (physical centerline), guardrail, fences, signs (with text) and mailboxes, visible utilities and visible evidence of underground utilities. Collect 1"=50' planimetric features of the entire project area to TxDOT specifications.

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- **1.5.2.4.** Collect design survey data and cross sections for four (4) cross-culverts. Six (6) cross sections at each cross-culvert will be located at the upstream and downstream headwalls, upstream and downstream right-of-way, and 100 feet beyond the upstream and downstream right-of-way. Cross-culvert locations are at the following locations:
  - Culvert 6 approximately 150 feet east of Decker Lane on 290E
  - Culvert 7 approximately 900 feet east of Decker Lane on 290E
  - Culvert 10B approximately 1900 feet north of 290E on SH130
  - Culvert 10E approximately 1200 feet south of 290E on SH130
- **1.5.2.5.** Collect design survey data for the existing bridge structures from conventional survey methods to supplement the airborne LiDAR data within the above described design survey limits or as directed. Bridge structure components to be collected will include, but not limited to, corners of the bridge deck, two (2) points along the toe of each bridge rail within each span, bridge abutments caps, backwalls and wingwalls, interior bent caps, outside low chord elevations, and column locations (noting size, location, and material) only
- **1.5.2.6.** The surveyor will collect sample data of the entire project to "ground truth" the LiDAR deliverables as a QA/QC task. This sample will have cross sectional information of both earthen and improved entities within the project limits. This sample will be approx. a 10% random sample or a cross section at approximately 1000-foot intervals, or as directed, throughout the project.
- **1.5.2.7.** Stake the location of up to seventy (70) geotechnical soil borings using X, Y and Z coordinates to be provided by the Mobility Authority. The Surveyor will then locate the seventy (70) drilled soil borings as placed and drilled by the geotechnical consultant.
- **1.5.2.8.** Collect supplemental design survey data along the SH130 bridges over the CapMetro RailRoad ROW. In such areas low chords and top of rail shots only shall be collected and included in the appended 2D planimetric file. Collecting DTM breaklines and including these bridge details in the appended 3D DTM or TIN file is outside of this scope of services.
- **1.5.2.9.** Provide temporary signs, traffic control, flags, safety equipment, etc. to perform the survey task described hereon
- **1.5.2.10.** Control traffic in and near surveying operations adequately to comply with the latest edition of the Texas Manual on Uniform Traffic Control Devices. In the event field personnel must divert traffic or close traveled lanes, the Engineer shall prepare a Traffic Control Plan for approval by the Mobility Authority prior to commencement of field work. A copy of the approved plans shall be in the possession of field personnel on the job site at all times and shall be made available to Mobility Authority personnel upon request. The Mobility Authority shall be contacted prior to any work in the Project ROW.
- **1.5.2.11.** Merge and append the LiDAR data and the supplemental design survey data to the original aerial mapping file, as provided by the State, to create a seamless 2D, DTM and TIN file. Bridge data may be in a separate .dgn file. Survey

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data to be obtained by the Engineer will be developed and delivered in 2D Microstation format. The 3D Microstation file will also be supplied showing all spot points and break lines. The DTM will be compatible with GEOPAK and Microstation and all level symbology, location, and formats will comply with Mobility Authority's Microstation Graphic File Format prior to delivery. If any AutoCAD to Microstation conversions have taken place, it will be the Surveyors responsibility to verify all such formatting is maintained.

- **1.5.2.12.** The Engineer shall perform an as built survey of new construction (interim project) at the intersection of the SBFR of SH130 for 800 feet north of the 290 WB intersection. Additionally, the Engineer will survey a portion of the WBFR of US290 from the SBWB DC of SH130 for 3500 feet westerly thereof to the entry ramp near Blue Goose Road. This task will be performed after Aerial LiDAR operations.
- **1.5.2.13.** The Engineer shall depict the record right-of-way (ROW) within the project files. The Engineer shall perform sufficient field work to verify the ROW site conditions.

## 1.5.3. Design Survey Deliverables:

- **1.5.3.1.** Merged and unmerged 2D dgn (V8) file with planimetrics including survey control and bench marks
- **1.5.3.2.** Merged and unmerged 3D MicroStation (V8) file with spot points and break lines clearly delineated on separate levels. Provide combined TIN file.
- **1.5.3.3.** 2D dgn of re-established project horizontal and vertical control verified and provided by the surveyor.
- **1.5.3.4.** ASCII text file containing the survey data points
- **1.5.3.5.** GEOPAK file and field book copies
- **1.5.3.6.** Calibrated .las files of the LiDAR data
- **1.5.3.7.** Calibration reports
- **1.5.3.8.** Ortho photography

# 1.6. Subsurface Utility Engineering and Utility Coordination

## **1.6.1.** Project Overview

For the purposes of this Section, the project encompasses an area described by the following:

Along Highway 290E, from a point 2000' east of the centerline intersection with Harris Branch Parkway, approximately 3300' northeast to a point 250' southwest of the centerline intersection of 290E and SH130, extending the width between the westbound 290E frontage road and mainlane centerline as well as the full northwest and southwest corners of the 290E and SH130 interchange.

Along SH130, from a point 300' north of the centerline intersection of SH130 and FM 734 (E. Parmer Lane), approximately 4300' south to the centerline intersection of SH130 and 290E, extending the width between the southbound SH130 frontage

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road and the mainlane centerline

Along SH130, from the centerline intersection of SH130 and 290E, approximately 4900' south and southeast to a point 2250' north of the centerline intersection of SH130 and Blue Bluff, for a width of 550' centered on the SH130 centerline.

Along SH130, from a point 2250' north of the centerline intersection of SH130 and Blue Bluff, approximately 2250' south and southeast to the centerline intersection of SH130 and Blue Bluff Road, for a width of 275' west of the SH130 centerline.

## 1.6.2. Definitions

Utility Quality Levels are defined in cumulative order (least to greatest) as follows:

- **1.6.2.1.** Quality Level D Existing Records: Utilities are plotted from review of available existing records.
- **1.6.2.2.** Quality Level C Surface Visible Feature Survey: Quality Level D information from existing records is correlated with surveyed surface-visible features. It includes Quality Level D information.
- **1.6.2.3.** Quality Level B Designate: Two-dimensional horizontal mapping. This information is obtained through the application and interpretation of appropriate non-destructive surface geophysical methods. Utility indications are referenced to established survey control. It incorporates Quality Levels C and D information to produce Quality Level B.
- **1.6.2.4.** Quality Level A Locate (Test Hole): Three-dimensional mapping and other characterization data. This information is obtained through exposing utility facilities through test holes and measuring and recording (to appropriate survey control) utility/environment data. It incorporates Quality Levels B, C and D information to produce Quality Level A.

## **1.6.3.** Designate (Quality Level B)

Designate means to indicate the horizontal location of underground utilities by the application and interpretation of appropriate non-destructive surface geophysical techniques and reference to established survey control. Designate (Quality Level B) Services are inclusive of Quality Levels C and D.

- **1.6.3.1.** Compile "As Built" information from plans, plats and other location data as provided by the utility owners.
- **1.6.3.2.** Designate, record, and mark the horizontal location of all existing utility facilities and their service laterals to proposed ROW using non-destructive surface geophysical techniques. No storm sewer facilities are to be designated unless authorized by the Mobility Authority. A non-water base paint, utilizing the APWA color code scheme, shall be used on all surface markings of underground utilities. It is estimated 51,000 LF of Level B designation may be required for the Project.
- **1.6.3.3.** Correlate utility owner records with designating data and resolve discrepancies using professional judgment. A color-coded composite utility facility plan with

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utility owner names, quality levels, line sizes and subsurface utility locate (test hole) locations, shall be prepared and delivered to the Utility Authority. It is understood by both the Engineer and the Utility Authority that the line sizes of designated utility facilities detailed on the deliverable are from the best available records and that an actual line size is normally determined from a test hole vacuum excavation. A note will be placed on the quality level B deliverable that states "lines sizes are from best available records".

- **1.6.3.4.** Determine and inform the Mobility Authority of the approximate utility depths at critical locations as determined by the Mobility Authority. This depth indication is understood by both the Engineer and the Mobility Authority to be approximate only and is not intended to be used preparing the right of way and construction plans.
- **1.6.3.5.** Provide a monthly summary of work completed and in process with adequate detail to verify compliance with agreed work schedule.
- **1.6.3.6.** Clearly identify all utilities that were discovered from quality levels C and D investigation, but cannot be depicted in quality level B standards. These utilities must have a unique line style and symbology in the designate (Quality Level B) deliverable.
- **1.6.3.7.** This information will be provided in the latest version of AutoCAD or Microstation, as requested by the Mobility Authority. The electronic file will be delivered on CD, DVD or Newforma File Transfer as requested by the Mobility Authority.
- **1.6.3.8.** A hard copy of the quality level B information will be provided in 22" x 34" format and will be signed, sealed and dated by the Engineer.

# 1.6.4. Subsurface Utility Locate (Test Hole) Service (Quality Level A)

Locate means to obtain precise horizontal and vertical position, material type, condition, size and other data that may be obtainable about the utility facility and its surrounding environment through exposure by non- destructive excavation techniques that maintains the integrity of the utility facility.

- **1.6.4.1.** Review requested test hole locations and advise the Mobility Authority in the development of an appropriate locate (30 test holes) work plan relative to the existing utility infrastructure and proposed highway design elements.
- **1.6.4.2.** Coordinate with utility owner inspectors as may be required by law or utility owner policy.
- **1.6.4.3.** Neatly cut and remove existing pavement material, such that the cut not to exceed 0.10 square meters (1.076 square feet) unless unusual circumstances exist.
- **1.6.4.4.** Measure and record the following data on an appropriately formatted test hole data sheet that has been sealed and dated by the Engineer:
  - Elevation of top and/or bottom of utility tied to the datum of the furnished plan.
  - Identify a minimum of two benchmarks utilized. Elevations shall be within

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an accuracy of 15mm (.591 inches) of utilized benchmarks.

- Elevation of existing grade over utility at test hole location.
- Horizontal location referenced to project coordinate datum.
- Outside diameter of pipe or width of duct banks and configuration of nonencased multi-conduit systems.
- Utility facility material(s).
- Utility facility condition.
- Pavement thickness and type.
- Coating/Wrapping information and condition.
- Unusual circumstances or field conditions.
- **1.6.4.5.** Excavate test holes in such a manner as to prevent any damage to wrappings, coatings, cathodic protection or other protective coverings and features. Water excavation will only be utilized with written approval from the Mobility Authority.
- **1.6.4.6.** Be responsible for any damage to the utility during the locating process. In the event of damage, the Engineer shall stop work, notify the appropriate utility facility owner, and appropriate regulatory agencies. The regulatory agencies include, but are not limited to the Railroad Commission of Texas and the Texas Commission on Environmental Quality. The Engineer shall not resume work until the utility facility owner has determined the corrective action to be taken. The Engineer shall be liable for all costs involved in the repair or replacement of the utility facility.
- **1.6.4.7.** Back fill all excavations with appropriate material, compact backfill by mechanical means, and restore pavement and surface material.
- **1.6.4.8.** Furnish and install an above ground marker directly above center line of the utility facility.
- **1.6.4.9.** Provide complete restoration of work site and landscape to equal or better condition than before excavation. If a work site and landscape is not appropriately restored, the Engineer shall return to correct the condition at no extra charge to the Mobility Authority.
- **1.6.4.10.** Plot utility location position information to scale and provide a comprehensive utility plan sign and sealed by the responsible Engineer. This information shall be provided in the latest version of the CAD format used by the Mobility Authority. The electronic file will be delivered on CD or via Newforma File Transfer. When requested by the Mobility Authority, the SUE information must be over laid on the Mobility Authority's design plans.
- **1.6.4.11.** Return plans, profiles, and test hole data sheets to the Mobility Authority. If requested, conduct a review of the findings with the Mobility Authority.

## 1.6.5. Utility Adjustment Coordination

Utility Adjustment Coordination shall include utility coordination meetings with individual utility companies, communication and coordination with utilities, and preparation of utility agreement assemblies including utility agreements, joint use

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agreements, notice of proposed installation and advanced funding agreements. Utility(ies) or utility(ies) shall mean (1) a public, private, cooperative, municipal and/or government line, facility or system used for the carriage, transmission and/or distribution of cable television, electric power, telephone, telegraph, water, gas, oil, petroleum products, steam, chemicals, hydrocarbons, telecommunications, sewage, storm water not connected with the drainage of the Project, and similar substances that directly or indirectly serve the public, and/or (2) a Private Pipeline. The term "Utility" or "utility" specifically excludes (a) storm water facilities connected to the drainage of the project, (b) ITS, and (c) street lights and traffic signals.

- **1.6.5.1.** The Engineer shall coordinate all activities with the Mobility Authority, or their designee, to facilitate the orderly progress and timely completion of the Mobility Authority design phase. The Engineer shall be responsible for the following:
  - Work Plan. Coordinate a work plan including a list of the proposed meetings and coordination activities, and related tasks to be performed, a schedule and an estimate. The work plan must satisfy the requirements of the project and must be approved by the Mobility Authority prior to commencing work.
  - Orientation. Prepare and present, in collaboration with Mobility Authority staff, instruction and orientation sessions as required by the Mobility Authority. The instruction shall introduce the subsurface utility engineering process, demonstrate the technology and facilitate the preparation of work orders, billings, and contract related documentation.
  - Initial Project Meeting. Attend an initial meeting and an on-site inspection (when appropriate) to establish familiarity with existing conditions, project requirements and prepare a written report of the meeting.
  - External Communications. The Engineer shall coordinate all activities with the Mobility Authority and its consultants or other contractors or representatives, as authorized by the Mobility Authority. Also, the Engineer shall provide the Mobility Authority copies of diaries, correspondence and other documentation of work-related communications between the Engineer, utility owners and other outside entities when requested by the Mobility Authority.
  - Progress Meetings. The Engineer shall implement a schedule of periodic meetings with each utility company and owner or owner's representatives for coordination purposes. Such meetings shall commence as early as possible in the design process and shall continue until completion of the project. The Engineer shall notify the Mobility Authority at least two (2) business days in advance of each meeting to allow the Mobility Authority the opportunity to participate in the meeting. The Engineer shall provide and produce meeting minutes of all meetings with said utility companies, owners or owners' representatives within seven (7) business days. The

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frequency of such meetings shall be appropriate to the matters under discussion with each utility owner.

- **1.6.5.2.** As required the Engineer shall coordinate with the local utilities committees to present a foot print of the Mobility Authority's projects with represented utility companies and owners. The Engineer shall also coordinate with any other utility committees which may include county, city, or other officials, if needed.
- **1.6.5.3.** The Engineer shall provide initial project notification letters to all affected utility companies, owners, and other concerned parties, if needed.
- **1.6.5.4.** The Engineer shall provide the Mobility Authority and all affected utility companies and owners a Utility Contact List for each project with all information such as: (a) Owner's Name; (b) Contact Person; (c) Telephone Numbers; (d) Emergency Contact Number; (e) E-mail addresses; (f) as well as all pertinent information concerning their respective affected utilities and facilities, including but not limited to: size, number of poles, material, and other information which readily identifies the utilities companies' facilities.
- **1.6.5.5.** The Engineer shall advise utility companies and owners of the general characteristics of the Project and provide an illustration of the project footprint for mark-up of the utility facility locations that occupy the project area.

## 1.6.6. Utility Agreements For Utility Adjustments

The Engineer shall coordinate which utilities conflict with highway construction or the "Utility Accommodation Rules" (UAR), and make the utility company aware of these conflicts. The Engineer shall assist the utility companies in the preparation of required agreements associated with the funding of adjustments and the occupation of State right of way. It is assumed that no utility agreements will be required for the construction of this project. If determined to be necessary, these services will be handled under task 2.6, Special Design per Mobility Authority Request.

## **1.6.7.** General Requirements

1.6.7.1. The Engineer shall determine the location of all existing utilities including ITS and toll infrastructure within the project area, as described above, using Quality Level B standards. The Engineer shall compile "As-Built" information from plans, plats and other location data as provided by utility owners. A color-coded composite utility facility plan with utility owner names, quality levels and line sizes will be prepared and delivered to the GEC. It is understood by both the Engineer and the GEC that the line sizes of utility facilities detailed on the deliverable are from the best available records and that an actual line size is normally determined from a test hole vacuum excavation. All above ground appurtenance locations must be included in the deliverable to the GEC. This information will be provided in the latest version of Microstation or Geopak used by the Mobility Authority. The electronic file will be delivered on CD. A hard copy is required and must be signed, sealed and dated by the Engineer.

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- **1.6.7.2.** The Engineer shall maintain and update a Utility Conflict List to include phone log and all correspondence to the utility owners. The Engineer shall provide the most current copy of the conflict list to the GEC at each milestone submittal, and shall be responsible for coordination with utility companies to resolve conflicts. The Utility Conflict List shall identify the owner of the facility, the contact person (with address and telephone number), location of conflict (station and offset), type of facility, expected clearance date, status, effect on construction and type of adjustment necessary.
- **1.6.7.3.** After identifying potential conflicting utilities, and in coordination with the GEC, the Engineer shall arrange for and attend utility meetings with all utility owners and other interested parties or agencies that are identified to be within the proposed project's area. The purpose of this meeting is to verify that all utility owners and area entities are aware of the scope and relevant details of the proposed project. The Engineer shall be responsible for writing and documenting the meeting minutes and other follow-up work with utility owners, if necessary.
- **1.6.7.4.** The Engineer shall determine prior to the 30% milestone submittal if Quality Level A and B Subsurface Utility Engineering (SUE) will be required for this project.
- **1.6.7.5.** The Engineer shall coordinate with the utility companies. The Engineer shall attend meetings at the 30% Design submittal with the various utility companies to discuss potential conflicts.
- **1.6.7.6.** The Engineer shall incorporate existing utility survey and SUE work into the preliminary design for presentation at a utility coordination meeting.
- **1.6.7.7.** Contact One-Call to facilitate the location of existing buried utilities. Tie the surface features of existing utilities within the project limits as marked by One-Call.

## 1.7. Preliminary Design and Incorporation of Innovative and Sustainable Components

The Engineer shall update project specific geometric and drainage criteria and summarize all design criteria and standards in a revised Design Summary Report (DSR). The Engineer will furnish copies of this report to the Mobility Authority for review and approval prior to preliminary design. The Engineer shall review the current approved Schematic and check all design values to verify conformance with the design criteria established in the approved DSR. The Engineer shall notify the Mobility Authority if elements of the schematic do not meet the specified Design Criteria.

## 1.7.1. The Engineer shall proceed with preliminary design as follows:

- **1.7.1.1.** The Engineer shall refine the horizontal and vertical alignment elements of the Schematic for conformance to the proposed design criteria.
- **1.7.1.2.** The Engineer shall incorporate components of the Mobility Authority's Green Roads Program and provide recommendations to the Mobility Authority for incorporation of innovative and sustainable components to the project.
- **1.7.1.3.** Determine vertical clearances at grade separations and overpasses, taking into

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- account the appropriate super-elevation rate.
- **1.7.1.4.** Schematic refinements shall include changes to cross sections and geometry to optimize and finalize bridge limits and span arrangements, retaining wall limits, location of overhead sign structures and toll gantries (if included), development of feasible construction sequence, and cost saving measures to reduce construction cost.
- **1.7.1.5.** The Engineer shall develop a preliminary schematic layout.
- **1.7.1.6.** Coordinate any modifications to the Schematic with the Mobility Authority and TxDOT.
- **1.7.1.7.** The Engineer will coordinate with the Mobility Authority in identifying proposed bridges and retaining walls that would provide an opportunity for applying an aesthetics theme or Green Roads approach. The Engineer shall prepare an exhibit to show what aesthetic/sustainable features could be applied at each specific location for review and approval by the Mobility Authority.
- **1.7.1.8.** Notify the Mobility Authority of any additional ROW needs or access easements.
- **1.7.1.9.** Notify the Mobility Authority of any modifications to the Schematic that may have an impact on the environmental documents.
- **1.7.1.10.** The Engineer shall prepare an updated preliminary cost estimate for discussion.
- **1.7.1.11.** Develop updated proposed Cross-Sections. The cross-sections should illustrate utilities at their existing location.

#### 1.7.2. Deliverables:

- **1.7.2.1.** Submit ten (10) copies of a Schematic layout illustrating the modified typical sections, horizontal and vertical geometry, retaining wall locations, bridge limits and bent locations in \*.pdf, CADD, and hard copy formats.
- **1.7.2.2.** Submit ten (10) 11x17 copies of the proposed design cross-sections including utilities based on the proposed assignments in \*.pdf, CADD, and hard copy formats.
- **1.7.2.3.** Submit ten (10) copies of the preliminary cost estimate in both electronic and hard copy formats.
- **1.7.2.4.** Provide exhibits indicating locations of sustainability and aesthetic improvements in \*.pdf, CADD, and hard copy formats.

## 1.8. Roadway Design

## 1.8.1. Basic Plan Sheets

- **1.8.1.1.** Prepare the preliminary PS&E Title Sheet for a local letting by the Mobility Authority.
- **1.8.1.2.** Prepare preliminary Project Layout Sheets at a scale of 1"=200' that clearly indicates the limits of the entire project.

# 1.8.2. Roadway Plans & Geometry

1.8.2.1. Develop preliminary Proposed Typical Sections Sheets for the Project

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- mainlanes, direct connectors, ramps, and frontage roads where work will be performed.
- **1.8.2.2.** Develop preliminary Existing Typical Sections Sheets depicting the existing conditions of the project roadways.

# 1.8.3. Grading and Details

- **1.8.3.1.** The Engineer will develop a preliminary Open Roads 3D DGN and DTM to model the proposed direct connectors and approaches.
- **1.8.3.2.** The Engineer will cut preliminary Design Cross Sections from the Open Roads DTM at 100-foot stations at a minimum stretching across the entire ROW of the Project as necessary for the determination of cut and fill quantities and limits of disturbance.

## 1.9. Drainage Design

- **1.9.1.** Review existing Drainage Analyses/Reports.
- 1.9.2. Hydraulic Report: Engineer will perform all drainage design with a specific hydrologic and hydraulic study. The Engineer will design and construct the outfalls to avoid any adverse impacts for the Ultimate Design (includes all eight direct connectors). The offsite hydrology may be modeled utilizing HEC-HMS. The cross-culverts shall be modeled using HEC-RAS or FHWA HY-8. The criteria below are meant to clarify and supplement but not supersede the TxDOT Hydraulic Design Manual. Should any apparent conflicts arise, the Engineer should consult the Mobility Authority for clarification.
  - **1.9.2.1.** Obtain and review best available hydrologic and hydraulic models. When appropriate these will be used to develop existing and proposed conditions models
  - **1.9.2.2.** Identify all existing drainage outfalls within the limits of the project. Delineate drainage area boundaries for each drainage outfall including any area outside the limits of the project that drain to the outfall. Existing storm drain systems will be located and analyzed to the extent necessary for this study. Measure the existing impervious cover within each drainage area and compute the time of concentration and runoff curve number for each drainage area.
  - **1.9.2.3.** Compute existing condition flows at all outfalls draining into receiving streams. Utilize 24-Hour rainfall depths in the Atlas of Depth-Duration Frequency of Precipitation Annual Maxima for Texas (USGS/TxDOT Report 2004-5041) and rainfall distributions employed in the most recent FEMA studies of the watersheds of interest to compute discharges for 2, 5, 10, 25, 50, 100 year rainfall frequencies.
  - **1.9.2.4.** Delineate proposed condition drainage area boundaries. Include areas that are outside the project that drain to the proposed outfalls. Coordinate the drainage area delineation with adjacent projects, if applicable. Measure the proposed condition impervious cover within each drainage area and compute the runoff

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curve number and the proposed condition time of concentration. Existing land use condition will be assumed for drainage areas outside the proposed ROW unless there is knowledge of any planned development. The Engineer shall coordinate with the Mobility Authority to obtain any information pertaining to any planned developments adjacent to the Project Corridor. If it is determined that a planned development is eminent and will utilize any part of the Project drainage conveyance system within the Project ROW, then the proposed build out conditions of the development shall be used in calculating runoff. Preliminary proposed condition storm drains will be located and sized.

- **1.9.2.5.** Compute proposed condition flows at all proposed outfalls draining into receiving streams. Utilize rainfall data as defined in Paragraph 2 above.
- **1.9.2.6.** Determine hydrologic impacts from the proposed project by comparing the existing and proposed flow rates at each outfall, taking into account the hydrographs from upstream watersheds.
- 1.9.2.7. For non-FEMA regulated outfalls, the primary criterion for no adverse impact is no more than one foot accumulative increase in water surface elevation of the 100-year rainfall frequency and no additional structures or significant properties in the 100-year rainfall frequency area of inundation. Engineer should use HY-8 or HEC-RAS or equivalent modeling approach to evaluate changes in water surface elevation. The community floodplain administrator will be notified of the project in accordance with TxDOT Hydraulic Design Manual Impacts of the 2, 5, 10, 25, 50-year events should also be evaluated. Engineer will evaluate (on a case by case basis) structures or properties that could potentially be impacted by comparing levels of the structures or properties with the water surface elevations. Engineer will present results of impact analysis to the Mobility Authority.
- **1.9.2.8.** Determine mitigation alternatives if the proposed project could have an adverse impact. The mitigation alternatives may include storm water detention basins and/or adjustments to proposed drainage area boundaries, possible adjustment to roadway profiles and adjustment of preliminary storm drains to accommodate required mitigation alternatives. Mitigation alternatives will be coordinated with the Mobility Authority.
- 1.9.2.9. If detention is chosen as the alternative for mitigation, the design of the pond will achieve mitigation of impacts for 2, 5, 10, 25, 50, and 100 year rainfall events for the ultimate design and future development of 290E. In the case where two adjacent drainage areas discharge to the same watercourse, an adverse impact is determined, and it would be difficult to provide detention for one of the areas, the detention pond for the other area could be sized such that the combined proposed flow from both areas does not result in adverse impacts. Consideration should be made on the stream reach that does not receive detention to verify no adverse impact. Distance downstream for these confluences would be determined on a case by case basis. Engineer will provide proper documentation of such situations to the satisfaction of the

# Services to be Provided by the Engineer Manor Expressway Phase III Project

Mobility Authority.

- **1.9.2.10.** It is assumed that eight (8) new detention basins will be required for the project. The eight locations assumed include:
  - Two (2) ponds along 290E west of the intersection with SH130. The design and capacity of the existing detention basins located along 290E will be reviewed to determine if use of these basins for proposed detention is feasible
  - Two (2) ponds along SH130 north of the intersection with 290E
  - Two (2) ponds along SH130 south of the intersection with 290E
  - Two (2) ponds along 290E east of the intersection with SH130
- **1.9.2.11.** The Engineer will provide support for the Mobility Authority coordination for any approvals and permits required.
- **1.9.2.12.** Submit a report that discusses the pertinent site information, analysis assumptions, hydrologic and hydraulic analyses, and the proposed design of any mitigation measures. Report should include a table that lists existing flows, proposed flows without mitigation, and proposed flows with mitigation (if mitigation proposed). A draft report with recommended mitigation measures will be submitted at the Initial Design Submittal.

## 1.9.3. Storm Water Pollution Prevention Plan (SW3P)

Temporary storm water management devices will be needed to minimize the sediment runoff during construction of this project. The Engineer will consider any and all applicable BMPs including: non-disturbance area delineation (preserving existing vegetation), temporary and permanent seeding or sodding, erosion control blankets, diversion dikes or swales, temporary mulch, silt fence, sand bags, rock filter dams, sediment traps, and construction exits, etc. The Engineer shall provide information to support the environmental document.

#### 1.9.4. Deliverables

- **1.9.4.1.** Electronic version of the validated Project Specified Unit Hydrograph Model
- **1.9.4.2.** Electronic versions of the H&H Models (HEC-RAS, HEC-HMS) and applicable data and maps
- **1.9.4.3.** Electronic version of the preliminary Hydraulic Report in both \*.doc and \*.pdf Formats
- **1.9.4.4.** Electronic versions of the Storm Drainage Model (Geopak Drainage), applicable data and maps

## 1.10. Structural Design

All bridge design shall be in conformance with the latest edition of the State's *LRFD Bridge Design Manual*, *Bridge Project Development Manual*, *Bridge Detailer's Manual*, and AASHTO *LRFD Bridge Design Specifications*.

**1.10.1.** Bridge Foundation Design Study: The Engineer shall coordinate with the geotechnical task lead to evaluate whether alternative foundation designs that may be beneficial to the project. The study should include the options considered, the cost associated with the various options, benefits and drawbacks and final

# Services to be Provided by the Engineer Manor Expressway Phase III Project

recommendations.

- **1.10.2.** The Engineer shall prepare a Bridge Type and Cost report that documents the analyses comparing costs for each bridge length versus pavement/embankment/retaining walls, to determine optimum bridge lengths and submit the report to the GEC. The Mobility Authority will approve this analysis prior to preparation of the bridge layouts.
- **1.10.3.** Preliminary Bridge Layout & Typical Sections: The Engineer shall prepare preliminary bridge layout plans, elevations, and typical sections for the bridge types listed below in the Estimated Bridge Limits Table.
- **1.10.4.** The preliminary development of bridge layouts includes preliminary development of bridge geometry.

# **Estimated Bridge Limits Table**

Bridge	Approx. Length	Approx. Width	Estimated # of Spans
SH130 SB to 290E WB Direct Connector		Varies	
SH130 NB to 290E WB Direct Connector		38'	
290E EB to SH130 SB Direct Connector		38'	

# 1.11. Retaining Wall Design

- **1.11.1.** The Engineer shall determine if walls are required and verify the need for and length of the retaining walls.
- **1.11.2.** The Engineer shall prepare a Retaining Wall Type and Cost report that documents the analyses comparing costs for each wall type and submit the report to the GEC. The Mobility Authority will approve this analysis prior to preparation of the retaining wall layouts.

## 1.12. Signing, Markings and Signalization

- **1.12.1.** Review the Preliminary Signage Schematic and make revisions as needed to reflect modifications made to the Schematic (if any). Provide justification for deletion of any large guide sign. Also, provide justification for the inclusion of any new larger. Justifications shall be reviewed and approved by the Mobility Authority prior to design.
- **1.12.2.** Include proposed pavement markings on the Preliminary Schematic.

### 1.13. Traffic Control Plan

**1.13.1.** The Engineer shall prepare a conceptual Traffic Control Plan/Sequence of Construction Layout that defines the main phases of construction. This layout will be developed in conjunction with the geometric refinements and the preliminary design cross section. Commitments included in the Environmental Assessment

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- shall be taken into account if applicable during the development of the conceptual layout.
- **1.13.2.** The Engineer will define lane closure requirements and develop a conceptual Lane Rental plan for review and approval of the Mobility Authority. Proposed project milestones will be developed for review and approval of the Mobility Authority. Lane Rental and Project Milestones approved by the Mobility Authority will be incorporated into the Traffic Control Narrative and General Notes.
- **1.13.3.** The Engineer shall develop a preliminary construction schedule for the major phases of work.
- **1.13.4.** The Engineer will participate in one Constructability workshop to review the Traffic Control Plan.
- **1.13.5.** The Engineer will analyze the impacts to mainlane traffic volumes on both SH130 and 290E for each phase of the TCP. The Engineer will provide the results of this analysis to the Mobility Authority for use in a toll revenue impact analysis. It is anticipated that this analysis will be required in discussions with both the Mobility Authority and TxDOT in securing approval of the conceptual TCP and proposed lane closures.

## 1.14. Intelligent Transportation Systems (ITS)

- **1.14.1.** The Engineer shall coordinate with the Mobility Authority's Director of Operations and TxDOT to obtain information related to the existing infrastructure.
- **1.14.2.** The Engineer shall prepare an ITS Layout that defines the locations through field verification of duct banks, ground boxes, conduit systems, DMS signs, traffic detection devices, CCTV cameras, etc. to be used for design purposes as well as included in the plans for the contractor's information. The design should be in accordance with TxDOT's existing Concept of Operations (CONOPS) for the area.
- **1.14.3.** Existing duct bank and conduit systems shall be included in the design cross sections where appropriate.
- **1.14.4.** The existing ITS infrastructure should be avoided, but if unavoidable, any needed modifications should be coordinated through the Mobility Authority and TxDOT.
- **1.14.5.** Prepare a report justifying the equipment used on the project with cost justification.

## 1.15. Illumination

- **1.15.1.** The Engineer shall prepare a conceptual Illumination Layout based on 3D model of the roadway using AGI 32 to determine photometric characteristics that defines the safety lighting locations needed.
- **1.15.2.** Prepare a report summarizing the lighting design justifying the recommendations.
- **1.15.3.** The Engineer shall perform lighting warrant studies for full interchange lighting and safety lighting.
- **1.15.4.** Assess the need FAA clearance of high mast lighting locations due to a number of airports in the area.
- **1.15.5.** The Mobility Authority's goal is to provide an average illuminance level of between 0.6- and 0.8-foot candles on the roadway pavement. Illumination uniformity shall comply with the AASHTO Roadway Illumination Design Guide

# Services to be Provided by the Engineer Manor Expressway Phase III Project

requirements.

- **1.15.6.** Engineer shall design for LED luminaires that conform to TxDOT DMS 11011 shall be used at all proposed conventional lighting locations.
- **1.15.7.** The Engineer shall coordinate with utility providers to establish preliminary service pole locations if existing services are not feasible.
- **1.15.8.** The Engineer will design the illumination modifications and additions for 290E to be consistent with the existing components utilized on the 290E.
- **1.15.9.** The Engineer will design the illumination modifications and additions for SH130 to be consistent with the existing components utilized on SH130.

## 1.16. Toll Facilities Infrastructure

- **1.16.1.** The Engineer shall coordinate with the Mobility Authority to obtain details and directives for the Toll Facilities Infrastructure Design.
- **1.16.2.** The Engineer shall include all preliminary civil infrastructure elements required for tolling facilities to the design plans on the Preliminary Schematic.
- **1.16.3.** The Engineer shall coordinate with the Mobility Authority's System Integrator (SI) to determine infrastructure required at each tolling site.

## 1.17. Traffic Operations Modeling

The Engineer shall conduct traffic modeling and analysis to support the interchange design effort. The Engineer shall review, collect, and analyze traffic data (including percent trucks, design hourly volume, and directional distribution), existing roadway features (including weaving sections, merge sections, diverge sections, number of lanes, and intersection geometry), traffic flow patterns, and signal operations.

- **1.17.1.** Collect peak hour turning movement counts (AM (7:00-9:00) and PM (4:00-6:00)) at the following intersections:
  - **1.17.1.1.** Parmer Ln. at SH130 (diamond)
  - **1.17.1.2.** Harris Branch Pkwy. at 290E (diamond)
  - **1.17.1.3.** 290E at SH130 (box diamond)
  - 1.17.1.4. Blue Bluff Rd. at SH130 (partial diamond)
- **1.17.2. Mainlanes** Collect 24-hour bi-directional traffic counts (With Vehicle Classification) at the following locations:
  - **1.17.2.1.** SH130, north of Parmer Ln. ramps
  - 1.17.2.2. 290E, west of Giles Ln./Johnny Morris Rd. ramps
  - **1.17.2.3.** 290E, east of SH130 ramps
  - 1.17.2.4. SH130, south of Blue Bluff Rd. ramps
- **1.17.3. Ramps** Collect 24-hour bi-directional traffic counts at the following locations:
  - **1.17.3.1.** SH130
    - Parmer Ln. (3)
    - 290E (3)

# Services to be Provided by the Engineer Manor Expressway Phase III Project

- Blue Bluff Rd. (3)
- **1.17.3.2.** 290E
  - Giles Ln./Johnny Morris Rd., east of Giles Ln./Johnny Morris Rd. (2)
  - Harris Branch Pkwy. (3)
  - EB-to-NB DC (with vehicle classification)
  - SH130 (3)
- **1.17.4. Frontage Roads** Collect 24-hour bi-directional traffic counts at the following locations:
  - **1.17.4.1.** Parmer Ln., west of SH130
  - **1.17.4.2.** Parmer Ln., east of SH130
  - **1.17.4.3.** SH130 SBFR to WB 290E RT ramp
  - **1.17.4.4.** 290E, between Giles Ln./Johnny Morris Rd. and Harris Branch Pkwy. ramps
  - **1.17.4.5.** 290E, between SH130 ramps and Parmer Ln.
  - **1.17.4.6.** Blue Bluff Rd., west of SH130
  - **1.17.4.7.** Blue Bluff Rd., east of SH130
- **1.17.5.** Conduct a field review of the existing roadways, within the study area limits, to note and verify lane configurations, roadway geometrics and observe existing traffic operations on the study area network to note operational problems and existing traffic patterns to calibrate AM and PM existing models.
- **1.17.6.** Obtain existing traffic signal timing and phasing information from the operating agency.
- **1.17.7.** Code and calibrate existing AM and PM peak Vissim models.
- **1.17.8.** Develop Opening Year volumes for the AM peak and PM peak hours. The volume forecasts will be based on TxDOT historical traffic counts, CAMPO 2040 travel demand model outputs, and information provided by Mobility Authority. Traffic projections will be made for the 290E and SH130 main lanes and ramps in the study area and the intersections listed for data collection.
- **1.17.9.** Using the existing calibrated traffic model as the base, code AM and PM peak hour Vissim models to reflect transportation network configurations associated with the proposed roadway improvements. Two (2) scenarios shall be modeled as listed below for Opening Year traffic volume conditions:
  - **1.17.9.1.** Construction of 3 new DCs at the interchange of 290E and SH130
  - **1.17.9.2.** Construction of 3 new DCs at the interchange of 290E at SH130 and frontage road improvements south of 290E.
- **1.17.10.** Summarize results of the analysis in a technical memorandum. The results will include intersection analysis, weaving analysis, and merge/diverge analysis to support the roadway design

#### 1.18. Miscellaneous

**1.18.1.** The Engineer shall prepare a Construction Cost Estimate. A copy shall be submitted to the Mobility Authority in Microsoft Excel formal.

# Services to be Provided by the Engineer Manor Expressway Phase III Project

- **1.18.2.** Determine locations and extent of Preliminary Landscape Plantings and Hardscape Plans based upon aesthetics and landscaping elements included in Manor Expressway.
- **1.18.3.** The Engineer shall prepare preliminary aesthetic details for bridge and retaining wall elements. The Engineer will develop details with guidance and direction of the Mobility Authority on the aesthetic theme. Engineer shall incorporate aesthetic elements into the project that match those on SH130 and or Manor Expressway. The Mobility Authority will provide the aesthetic guidelines for the Engineer to incorporate into the final design.
- **1.18.4.** All team members involved in the preparation of engineering plans, studies and reports shall have established QA/QC procedures and shall conform to those procedures during the life of the Project. To verify that adequate procedures will be employed to provide quality products, the Engineer will submit for approval for their proposed QA/QC Plan to be used on this project. The Mobility Authority will provide independent QA/QC audits to verify project compliance with this plan. The Engineer shall have a Quality Control Plan in effect during the entire time work is being performed under this project.

## 1.19. Coordination, Meetings & Invoicing

- **1.19.1.** The Engineer will participate and attend up to six (6) project workshops with specialty consultants, TxDOT, and the Mobility Authority to establish the project issues, concerns, and objectives of the Project that will influence the configuration of the proposed Project and further define the Scope of Services to be provided by the Engineer.
- **1.19.2.** The Engineer will participate and attend bi-weekly design coordination meetings with the Mobility Authority. The Engineer shall also conduct periodic meetings with the Engineer's internal team of sub-consultants.
- **1.19.3.** The Engineer will participate and attend monthly design coordination meetings with the TxDOT.
- **1.19.4.** The Engineer shall attend up to a total of eight (8) Stakeholder meetings (e.g. Cap Metro, Toll Operations Division, City of Austin, City of Manor, and Travis County, etc.) and provide support for the development of exhibits when requested by the Mobility Authority.
- **1.19.5.** The Engineer shall prepare project development protocols for: communication, file naming, and documentation. The Engineer shall submit, for Mobility Authority review and approval, the file structure and naming schemes proposed to be used for Project computer generated drawings and plans.
- **1.19.6.** Follow invoice procedures as described in the Contract.

## 2. FINAL DESIGN

## 2.1. Stakeholder Coordination and Public Involvement Assistance

The Engineer will continue to provide support for various meetings, coordination, and communication with the public and other agencies as requested by the Mobility Authority.

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Support will include providing information for website and information sheet development.

## 2.2. Data Collection

The Engineer shall complete and finalize any remaining data collection efforts.

## 2.3. Geotechnical Investigation

**2.3.1.** The Engineer will respond to Mobility Authority comments and prepare a final geotechnical report that will present recommendations for the design of the bridge foundations, retaining wall foundations, sign structures, culverts and toll gantry foundations (if needed).

## **2.3.2.** Deliverables

- **2.3.2.1.** Submit three (3) final copies of geotechnical report that incorporate review comments. One (1) additional final copy of the geotechnical report that incorporates review comments shall also be kept on file with the Engineer for future reference.
- **2.3.2.2.** Provide signed and sealed sheets of boring logs for insertion into the construction plan set.
- **2.3.2.3.** Coordinate with Engineer and review and verify conformance with recommendations provided in the geotechnical report.
- **2.3.2.4.** Provide electronic copies of Soil Boring locations in MicroStation dgn file.
- **2.3.2.5.** Provide complete soil boring data files in Wincore format.

## 2.4. Supplemental Surveying

**2.4.1.** No work performed.

## 2.5. Utility Coordination and Design

- **2.5.1.** The Engineer shall coordinate with the utility companies including TxDOT and the Mobility Authority related to the ITS/Tolling infrastructure. The Engineer shall attend meetings at the 60% Design and Pre-Final submittals with the various utility companies to discuss potential conflicts.
- **2.5.2.** The Engineer shall evaluate and accommodate reasonable changes to plans as necessary or as requested by the Mobility Authority to avoid utility conflicts.
- **2.5.3.** Illustrate existing and proposed utility locations on Roadway Plan sheets.
- **2.5.4.** Show existing utility locations in the proposed cross sections with each submittal.
- **2.5.5.** Illustrate existing and proposed (where applicable) utility crossings on Roadway Profile sheets.
- **2.5.6.** Review all utility designs prepared by others for conflicts with construction plans.

## 2.6. Special Design Per Mobility Authority Request

At the request of the Mobility Authority, the Engineer may be required to produce special design details which are not included in the current schematic or specifically scoped effort. The Engineer shall initiate these efforts after obtaining Mobility Authority approval and shall consider these efforts as part of the Project scope. Budget for these extra tasks shall be allocated and tracked separately from other scoped items.

# Services to be Provided by the Engineer Manor Expressway Phase III Project

# 2.7. Final Roadway Design

- **2.7.1.** Basic Plan Sheets
  - **2.7.1.1.** Prepare the final PS&E Title Sheet.
  - **2.7.1.2.** Complete the detailed Index of Sheets that identifies each sheet location in the plan set, as well as its corresponding sheet number. The Engineer will update the Index of Sheets throughout the submittal process to allow for easier reference during the review process.
  - **2.7.1.3.** Prepare final Project Layout Sheets at a scale of 1"=200' that clearly indicates the limits of the entire project.
  - **2.7.1.4.** Prepare Survey Control Sheets that clearly indicate the benchmark locations and associated control information. These sheets will later be sealed by a RPLS for submittal.

## 2.7.2. Roadway Plans & Geometry

The Engineer will:

- **2.7.2.1.** Develop final Proposed Typical Sections Sheets for the Project mainlanes, direct connectors, ramps, and frontage roads to which work will be completed.
- **2.7.2.2.** Complete final Existing Typical Sections Sheets depicting the existing conditions of the project roadways.
- **2.7.2.3.** Complete Roadway Plan and Profile sheets. Drawings will be prepared at a scale of 1"=100' H and 1"=10' V for the following elements:
  - Southbound SH130 to westbound 290E direct connector.
  - Northbound SH130 to westbound 290E direct connector.
  - Eastbound 290E to southbound SH130 direct connector.
  - Westbound 290E exit ramp to Harris Branch Pkwy.
  - Southbound SH130 exit ramp north of 290E.
  - Southbound SH130 exit ramp to Blue Bluff Rd.
  - Northbound SH130 entrance ramp from Blue Bluff Rd.
- **2.7.2.4.** Prepare Intersection details showing spot elevations and contours. Drawings will be prepared at a scale of 1"=100' H and 1"=10' V.
- **2.7.2.5.** Develop Ramp Gore Layouts at the intersection of each ramp with its adjacent roadways. These layouts will show proposed grading, as well as station, offsets, curb radius and curb locations. Drawings will be prepared at a scale of 1'' = 40'
- **2.7.2.6.** Develop miscellaneous grading details. These layouts will show proposed grading, as well as station, offsets, curb radius and curb locations. Drawings will be prepared at a scale of 1" = 40'.
- **2.7.2.7.** Prepare Horizontal Alignment Data Sheets depicting the horizontal geometric information for the project roadways to be included in the construction plan set.
- **2.7.2.8.** Prepared Miscellaneous Curve Data Sheets depicting the horizontal geometric information for roadway curves that are not concentric to roadway alignments.

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- **2.7.2.9.** Develop Superelevation Data Sheets to be included in the PS&E set. These sheets will define the pavement cross slopes for individual roadway alignments and describe transition locations and values. Profile graphs will be required as backup documentation to illustrate there will be no ponding issues created within superelevation transition zones.
- **2.7.2.10.** Prepare Removal Layouts showing the locations for the removal of pavement, structures and other miscellaneous items. Drawings will be prepared at a scale of 1"=100".

## 2.7.3. Grading and Details

- **2.7.3.1.** The Engineer will complete the Open Roads 3D DGN and DTM to model the proposed project elements.
- **2.7.3.2.** Prepare Design Cross Sections at 50-foot stations along the mainlanes, direct connectors, ramps, frontage roads and other locations as necessary for the determination of cut and fill quantities and limits of construction. No cross sections will be needed at bridge locations. Cross sections shall display existing or proposed storm sewer and utility elements, including the existing ITS conduit system.
- **2.7.3.3.** Develop Miscellaneous Roadway Detail sheets for the project. The sheets will depict details required that are not defined in TxDOT standard detail sheets. When possible Statewide TxDOT or Austin District standards will be used for the project development.

## 2.8. Drainage Design

## 2.8.1. Hydraulic Report:

Refine the hydrologic and hydraulic studies performed in the preliminary phase, which will include:

- **2.8.1.1.** Identify any new or relevant data.
- **2.8.1.2.** Verify validity of previous hydrologic studies.
- **2.8.1.3.** Review previous studies, reports, and plans.
- **2.8.1.4.** Revise the Hydraulic Report as needed.

## 2.8.2. Bridge and Culvert Plan Sheets

- **2.8.2.1.** Hydraulic Data Sheets: The Engineer will prepare hydraulic data sheets for bridges over creeks and any culvert within the project if applicable.
- **2.8.2.2.** External Drainage Area Maps: The Engineer will finalize previously determined drainage areas from the hydrologic analysis and prepare exterior drainage area map sheets at a scale of 1"=200' or a scale acceptable to the Mobility Authority. The Engineer will show structure locations and, for large drainage basins, will indicate pertinent hydraulic information on these sheets.
- **2.8.2.3.** Culvert layouts: The Engineer will prepare culvert plan and profile layouts at

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a scale of 1"=40'H and 1"=20'V that will depict culvert geometry for reconstruction or lengthening, as well as the applicable hydraulic information.

## 2.8.3. Storm Drain Plan Sheets

The Engineer will address the required project storm drain systems as follows:

- **2.8.3.1.** Storm Drain Computations: The Engineer will analyze and design any modifications to existing or proposed storm drain systems. Computations and design information will be presented on the appropriate plan sheets.
- **2.8.3.2.** Interior Drainage Area Maps: The Engineer will prepare interior drainage area map plan sheets at an appropriate scale for any drainage areas that are modified. These maps will depict drainage area boundaries and flow direction arrows. Each drainage area will be identified with a unique number corresponding to run-off information from the calculation sheets.
- **2.8.3.3.** Drainage Plan and Profile Sheets: The Engineer will prepare drainage plan and profile sheets depicting locations of inlets, manholes, storm drains, culverts, utilities, channel improvements, ditch locations, cross-sections and flowlines as required. These sheets will be prepared at a scale of 1"=100'. Storm drain profiles will be prepared at a scale of 1"=100' H and 1"=10' V. Enclosed storm drain plans and profiles will show pipe size and type, inverts, slope, existing and proposed ground lines above the pipe, pertinent hydraulic information, and locations and sizes of inlets and junctions. The design storm HGL shall be clearly plotted and depicted on the Drainage Plan and Profile Sheets.
- **2.8.3.4.** Detention Ponds Layouts and Details: The Engineer will prepare detention pond layouts and details depicting the grading, inlet and outlet structure locations, cross-sections, flowlines, and additional details for the ponds. These sheets will be prepared at a scale of 1" =40'.
- **2.8.3.5.** Ditch Layout Schedule: The Engineer will prepare a tabular ditch layout schedule that depicts pertinent information about the roadside ditch geometry and design based on normal depth computations. This table will include station, offset, flow line elevation, ditch lining material, as well as ditch bottom width. The tables will be shown on the drainage plan sheets.
- **2.8.3.6.** Channel Layouts: The Engineer will prepare culvert layouts depicting all pertinent channel information including alignment, profile, grading, section details, channel lining material, hydraulic computations and HGL.
- **2.8.3.7.** Drainage Detail Sheets: The Engineer shall use TxDOT standard details where practical. The Engineer shall provide drainage design details for "non-standard" drainage structures in instances where TxDOT standard details cannot be utilized.
- **2.8.3.8.** Temporary Drainage Facilities: The Engineer will develop temporary drainage facilities necessary to allow staged construction of the project. The Engineer will design required temporary drainage structures for a 5-year frequency event, and include structure size, flow line elevations and approximate

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structure location in the traffic control plan sheets. The Engineer will evaluate temporary drainage ditches between temporary drainage structures and outfall locations and designate a typical ditch section in the plans along with plan notes for the contractor to maintain positive drainage for these temporary ditches.

**2.8.3.9.** Trench Protection Determination: The Engineer will identify storm drain and culvert construction areas that will require trench protection or special shoring and indicate this information on the plans.

## 2.8.4. Storm Water Pollution Prevention Plan (SW3P)

- **2.8.4.1.** Erosion and Sediment Control Plans: Temporary storm water management devices will be needed to minimize the sediment runoff during construction of this project. The Engineer will develop a temporary erosion and sediment control plan for the length of the project that complements the design and construction phasing of the project, and will include notes that indicate the contractor is responsible for detailed sequencing of the devices. The Engineer will consider the following design components: non-disturbance area delineation (preserving existing vegetation), temporary and permanent seeding or sodding, erosion control blankets, diversion dikes or swales, temporary mulch, silt fence, sand bags, rock filter dams, sediment traps, and construction exits. Permanent erosion control measures will be included on these sheets if needed.
- **2.8.4.2.** SW3P: The Engineer will prepare SW3P summary plan sheet(s) in accordance with Texas Pollution Discharge Elimination System (TPDES) regulations and TxDOT practices. The Engineer will use TxDOT SW3P text sheet(s) to summarize erosion and sediment control measures.
- **2.8.4.3.** Erosion and Sediment Control Details: The Engineer will prepare Erosion and sediment control details for any related items that are not covered by TxDOT standard details. Compost Manufactured Topsoil (CMT) will be utilized wherever possible for erosion control.
- **2.8.4.4.** Environmental Issues, Permits and Commitments: The Engineer will update the EPIC sheet as necessary and include in the final plans.

## 2.8.5. Deliverables

- **2.8.5.1.** Electronic version of the hydrologic model
- **2.8.5.2.** Electronic versions of the hydraulic model(s)
- **2.8.5.3.** Electronic version of the Hydrologic Report in both \*.doc and \*.pdf Formats
- **2.8.5.4.** Three (3) 8 ½"x 11" Bound Paper copies of the Hydrologic Report
- **2.8.5.5.** Electronic version of the Storm Drainage Model, applicable data and maps
- **2.8.5.6.** PS&E Sheets
  - Offsite Drainage Area Maps and Calculations
  - Onsite Drainage Area Maps

# Services to be Provided by the Engineer Manor Expressway Phase III Project

- Storm Sewer Plan and Profile Sheets
- Culvert Hydraulic Data Sheets
- Culvert Layout Sheets
- EPIC Sheet
- SW3P
- SW3P Layouts
- Drainage and Environmental Mitigation Details

## 2.9. Structural Design

All bridge design shall be in conformance with the latest edition of the State's *LRFD* Bridge Design Manual, Bridge Project Development Manual, Bridge Detailer's Manual, and AASHTO *LRFD* Bridge Design Specifications (HL 93 Loading).

- **2.9.1.** The Engineer shall incorporate, into the final design of the bridge elements, aesthetic design features and details as determined in the preliminary engineering phase.
- **2.9.2.** Bridge Layouts: The Engineer shall finalize Bridge Layout plans, elevations and typical sections.
- 2.9.3. The Engineer shall generate final design calculations and final detail drawings for the Project structures. Structural design calculations and final detail drawings will be in accordance with standard requirements of TxDOT. The Engineer's designer and checker shall both check calculations and sign the front page of each individual calculation package. The Engineer shall submit structural design calculations and quantity calculations for review at the Final submittal. The Engineer shall coordinate interim over the shoulder reviews at the request of the Mobility Authority and GEC.
- **2.9.4.** The Engineer shall develop a Boring Log Key map layout indicating locations of geotechnical boring.
- **2.9.5.** Boring Log Elevations: The Engineer will include boring logs for each geotechnical borings on separate sheets.
- **2.9.6.** Estimated Quantities and Bearing Seat Elevations: The Engineer shall provide bridge quantity summaries at 60%, Pre-Final and Final Plan submittals. The bridge elevations shall be limited to bearing seat elevations only.
- **2.9.7.** Abutment details and calculations shall be provided for custom abutments.
- **2.9.8.** Interior Bent details and calculations shall be provided for custom interior bent details (caps and columns).
- **2.9.9.** Footings: Details and calculations shall be provided for footing elements.
- **2.9.10.** Framing Plan: For steel girder design, this effort includes design of steel girders and field splices.
- **2.9.11.** Slab Plan: The slab plan includes the development of prestressed beam designs.
- **2.9.12.** Foundation Design: Details for foundation layouts and calculations shall be provided for foundation elements
- **2.9.13.** Drainage Details: The Engineer shall provide details for concealed drainage for

# Services to be Provided by the Engineer Manor Expressway Phase III Project

bridge deck scuppers. Drainage slots in bridge rails shall not be used for the mainlane structures. These sheets will be developed with combined details for use on various structures.

- **2.9.14.** Aesthetic Design: The Engineer shall finalize detailed drawings for aesthetic features compatible with the project aesthetic theme.
- **2.9.15.** Miscellaneous Details: The details shall include Structural Details for aesthetics. These sheets will be developed with combined details for use on various structures.
- **2.9.16.** Standard Details: The Engineer will use the latest TxDOT standard details for beams, diaphragms, railings, expansion joints, riprap, etc. wherever possible. Prepare any project-specific modified standards necessary for inclusion in the PS&E package. Sign, seal and date all project-specific modified standards.
- **2.9.17.** Specifications: The Engineer will develop specifications as needed for bridge structures.

## 2.10. Retaining Wall Design

The Engineer shall provide layouts (scale Max:1"=40' and Min: 1"=100'), elevations, quantity estimates, summary of quantities, typical cross sections, and structural details of all retaining walls within the project.

- **2.10.1.** The Engineer shall determine if walls are required and verify the need for and length of the retaining walls. The Engineer shall make proposals to the Mobility Authority regarding most suitable wall type for each application.
- **2.10.2.** Engineer will prepare Retaining Wall Key Map depicting the various wall locations. Soil boring locations will also be depicted on these sheets.
- **2.10.3.** Engineer will prepare retaining wall layout sheets showing plan and profile of retaining walls. Engineer will provide associated details in plan and profile views. Engineer shall provide soil boring profiles on separate plan sheets.
- **2.10.4.** Engineer will prepare structural details for soil nail walls if used.
- **2.10.5.** Engineer will identify temporary shoring needs and prepare layouts as necessary.
- **2.10.6.** Engineer will prepare Retaining Wall Typical Sections sheets.
- **2.10.7.** Engineer will prepare Retaining Wall Horizontal Alignment Data Sheets depicting the horizontal geometric information for the project retaining walls to be included in the construction plan set.
- **2.10.8.** Prepare Layout Plan which includes:
  - **2.10.8.1.** Designation of reference line
  - **2.10.8.2.** Beginning and ending retaining wall stations
  - **2.10.8.3.** Offset from reference line
  - **2.10.8.4.** Horizontal curve data
  - **2.10.8.5.** Total length of wall
  - **2.10.8.6.** Indicate face of wall
  - **2.10.8.7.** All wall dimensions and alignment relations (alignment data as necessary)
  - **2.10.8.8.** Soil core hole locations
- **2.10.9.** Prepare Elevation Plan:
  - **2.10.9.1.** Top of wall elevations

# Services to be Provided by the Engineer Manor Expressway Phase III Project

- **2.10.9.2.** Existing and finished ground line elevations
- **2.10.9.3.** Limits of measurement for payment
- **2.10.10.** Type, limits and anchorage details of railing (If applicable)
- **2.10.11.** Provide details related to the interface of retaining wall at bridge abutments.
- **2.10.12.** Provide all boring logs utilized within their design. Borings shall be shown on wall plans at actual location with log information. Separate logs shall be submitted to the GEC for records purposes.
- **2.10.13.** The Engineer shall finalize detailed drawings for aesthetic features compatible with the project aesthetic theme.
- **2.10.14.** The Engineer will assemble the necessary retaining wall standard details.

## 2.11. Signing, Markings and Signalization

- **2.11.1.** The Engineer shall prepare layouts, specifications, and details for striping, pavement markings, and signing. Layouts will be prepared at a scale of 1" = 100' and will depict striping, delineator, pavement markings and small and large signs. The Engineer shall coordinate with the GEC (and other Engineers as required) for overall temporary and final signing strategies including toll signing and placement of signs outside contract limits. The Engineer shall provide the following information on signing and pavement marking layouts:
  - **2.11.1.1.** Roadway layout.
  - **2.11.1.2.** Center line with station numbering.
  - **2.11.1.3.** ROW lines.
  - **2.11.1.4.** Designation of arrow used on exit direction signs.
  - **2.11.1.5.** Culverts and other structures that present a hazard to traffic.
  - **2.11.1.6.** Existing signs to remain, to be removed, or to be relocated.
  - **2.11.1.7.** Proposed signs (illustrated and numbered).
  - **2.11.1.8.** Existing overhead sign bridges to remain, to be revised, removed or relocated.
  - **2.11.1.9.** Proposed overhead sign bridges including toll signing, indicating location by plan.
  - **2.11.1.10.** The Engineer shall detail permanent pavement markings and channelization devices on plan sheets. Pavement marking plans shall accommodate toll gantry areas within the limits of the Project. The Engineer shall coordinate with the Mobility Authority (and Toll System Integrator if necessary) for overall temporary, interim, and final pavement marking strategies. Pavement markings shall be selected from the latest TxDOT standards.
  - **2.11.1.11.** Proposed markings (illustrated and quantified) which include pavement markings, object markings and delineation.
  - **2.11.1.12.** The location of interchanges, mainlanes, grade separations, direct connectors and ramps.
  - **2.11.1.13.** The number of lanes in each section of proposed highway and the location of changes in numbers of lanes.
  - **2.11.1.14.** Direction of traffic flow on all roadways

# Services to be Provided by the Engineer Manor Expressway Phase III Project

- **2.11.2.** Small Sign Detail: Engineer shall provide detail sheets for non-standard small signs. These sheets shall show the overall dimension of the signs by determining letter size and spacing.
- **2.11.3.** Large Sign Details: Engineer shall provide detail sheets for all large guide signs. These sheets shall show dimensions, layout of text, directional arrows and shields, borders and colors.
- **2.11.4.** Overhead Sign Structures Elevations: Engineer shall provide overhead sign structure elevations including walkway and electrical service conduit for future ITS facilities.
- **2.11.5.** Overhead Sign Structure Details: Engineer shall provide overhead sign structure details which incorporate project aesthetic theme. Sign foundation will require special design.
- **2.11.6.** Traffic Signal Plans: Design of traffic signals are not anticipated in this Project.

## 2.12. Traffic Control Plan

- **2.12.1.** Prepare Detailed Traffic Control Plan Sheets at a scale of 1"=100'. This plan will describe the maintenance of traffic and sequence of work for each phase of the proposed construction. Detour alignments, location of work areas, temporary paving, temporary shoring, signing, adjustments to operations of the traffic signals, barricades and other details will be required to describe the traffic control plan. Any adjustments to the operations of the traffic signals will be coordinated through the City of Austin. The Engineer will verify that proper drainage can be maintained during each phase of construction.
- **2.12.2.** Prepare Traffic Control Typical Sections for each stage of the construction sequence to clearly delineate the position of the existing traffic with respect to the proposed construction. Temporary traffic barriers and pavement markings will also be shown and dimensioned.
- **2.12.3.** Develop TCP Overview Plans for each stage of traffic control. These plans will include advance warning signs for the Project on existing roadways being impacted approaching the construction and will act as key maps for each phase of TCP and shall be developed at a 1"=400' scale.
- **2.12.4.** Prepare a detailed Sequence of Construction narrative and submit it to the Mobility Authority for review. The Engineer will revise and incorporate the narrative into the plans. The narrative will include a phase-by-phase, step-by-step written account of the proposed activities throughout the construction process. This is intended to be a narrative account of the activities shown in the Traffic Control Plan layouts.
- **2.12.5.** Prepare Detour Layout Sheets showing plan & profiles where required to define the geometry for detours required in the Traffic Control Plans. Detour layouts will be prepared at a scale of 1"=100' H and 1"=10' V. The Engineer will provide the pavement design section for temporary detours.

# Services to be Provided by the Engineer Manor Expressway Phase III Project

- **2.12.6.** Develop Traffic Control Details for items not covered by TxDOT standard drawings.
- **2.12.7.** Attend one Safety Review Meeting to present the proposed traffic handling scheme to the Mobility Authority, TxDOT and TOD. The Engineer will incorporate the comments from the review into the traffic control plans.
- **2.12.8.** Prepare an Engineer's Opinion of Construction Schedule to determine an approximate duration for each phase of construction. The schedule will be prepared using Microsoft Project or SureTrak and delivered at 90% and Final submittals.
- **2.12.9.** Update analysis performed under 1.13.6 for discussions with Mobility Authority, TxDOT, and TOD to secure approval of proposed TCP and lane closures.
- **2.12.10.** Road Closure Layouts: The Engineer shall prepare temporary road closure layouts where required for beam hanging operations and other short term road closures. The Engineer will be required to coordinate with the appropriate entities for any proposed road closures prior to including the road closure in the plans.
- **2.12.11.** Advanced Signing Layouts. The Engineer shall provide a detailed layout and arrangement of construction signs, construction pavement marking, traffic control devices (including temporary signals and signal heads). The TCP shall include locations of portable changeable message sign devices at all key locations both within the project limits, and outside the right-of-way for each phase of construction.

## 2.13. Intelligent Transportation Systems (ITS)

- **2.13.1.** The Engineer shall develop final ITS Layout for Mobility Authority review and approval if required. The Engineer shall coordinate with the Mobility Authority and it's System's Integrator to obtain additional details and directives for the ITS Design.
- **2.13.2.** The Engineer shall provide plans for the infrastructure and power required for the ITS system. Plans shall include duct bank, ground boxes, conduit, electric cables and meter, traffic monitoring device structure, structures for CCTV cameras, and foundations for cabinets. The Engineer shall include all applicable standards, specifications, details and estimates for the system in the plan set. .

## 2.14. Illumination

- **2.14.1.** The Engineer shall design safety lighting at ramp merge locations, auxiliary lanes, and other locations as required. The Engineer shall provide lighting calculation exhibit(s) for the illumination design.
- **2.14.2.** The illumination design documents will be prepared by the Engineer for the Project as a single set of illumination plans and incorporate them into the PS&E package. The Engineer shall coordinate and provide plans drawings, at a scale of 1" = 100', showing the locations of all components of the illumination system. The Engineer shall include all applicable standards, specifications, details and estimates for the system in the plan set.

#### **EXHIBIT B**

# Services to be Provided by the Engineer Manor Expressway Phase III Project

# 2.15. Toll Facilities Infrastructure Design

The Toll Facilities Infrastructure design shall be covered under additional services 3.0.

#### 2.16. Miscellaneous

- **2.16.1.** Milestone submittals. The Engineer shall produce 30%, 60%, pre-final and final submittals.
- **2.16.2.** The Engineer shall develop landscape planting and hardscape plans as determined during the preliminary design and as coordinated with the Mobility Authority. It is assumed that the Project may require minor modifications of existing landscape and hardscape facilities at the 290E/SH130 interchange. This task shall include landscape planting and hardscape plans specifications and estimate quantities for incorporation into the plan set.
- **2.16.3.** The Engineer will tabulate quantities and prepare Summary Sheets at the 60%, Pre-Final and Final submittals for the following: Traffic Control (per phase), Earthwork, Roadway, Drainage related items including inlets, manholes, and storm drain pipes, Retaining Walls, Bridges, Pavement Markings, Small / Large Signs, Erosion Control and SW3P, Signals, Illumination, ITS, and Toll Facilities infrastructure.
- **2.16.4.** The Engineer shall develop Exhibit A documents for use in coordination with Cap Metro RR and assist the Mobility Authority in the coordination efforts and development of the Agreement with Cap Metro.
- **2.16.5.** Standards, Specifications and Estimate
  - **2.16.5.1.** Download the appropriate TxDOT Standards from the State's web site. The Engineer will revise and seal any Standard that requires modification. All other standards will have their title blocks filled out with the applicable project data and printed for inclusion in the final plan set. The Engineer will utilize Austin District Standards where applicable.
  - **2.16.5.2.** The Engineer shall provide (signed and sealed) any necessary details required to supplement standard details.
  - **2.16.5.3.** Prepare a tabulation of applicable Specifications, Special Specifications and Special Provisions for submission with the pre-final and final PS&E package.
  - **2.16.5.4.** Prepare General Notes utilizing TxDOT most recent version for inclusion in the pre-final and final plan set.
  - **2.16.5.5.** Prepare a Construction Cost Estimate at the 60%, Pre-Final and Final PS&E submittal, and supply a copy to the Mobility Authority in Microsoft Excel format.
- **2.16.6.** Prior to each milestone submittal (30%, 60%, Pre-Final and Final), the Engineer shall conduct a review in accordance with the QA/QC procedures outlined in the Engineer's Quality Control Plan.
- **2.16.7.** Final Design plans, calculations, and cost estimates prepared by Engineer are to be thoroughly reviewed and checked before submittal to the Mobility Authority for review. The Engineer has total responsibility for the accuracy and

#### **EXHIBIT B**

# Services to be Provided by the Engineer Manor Expressway Phase III Project

completeness of the plans and related designs prepared under this project and shall check all such material accordingly. The plans will be reviewed by the Mobility Authority and TxDOT for conformity with the Mobility Authority's procedures and the terms of the project. The Mobility Authority will provide independent QA/QC audits to verify project compliance with this plan. The Engineer shall have a Quality Control Plan in effect during the entire time work is being performed under this project.

**2.16.8.** The Engineer will submit a pdf electronic copy and two (2) 11" X 17" paper copies at the, 60%, and Pre-Final submittal. Final PS&E submittal shall include two (2) 11" X 17" paper copies in addition to the signed, sealed and dated 11" x 17" Final Hard Copy and pdf electronic copy including electronic copies of all supporting documentation, CAD files and paperwork.

## 2.17. Coordination, Meetings & Invoicing

- **2.17.1.** The Engineer will participate and attend up to six (6) project workshops with specialty consultants, TxDOT, and the Mobility Authority to establish the project issues, concerns, and objectives of the Project that will influence the location and configuration of the proposed Project and further define the Scope of Services to be provided by the Engineer.
- **2.17.2.** The Engineer will participate and attend bi-weekly design coordination meetings and production meetings with the Mobility Authority. The Engineer shall also conduct periodic meetings with the Engineer's internal team of sub-consultants.
- **2.17.3.** The Engineer will participate and attend monthly design coordination meetings with TxDOT.
- **2.17.4.** The Engineer shall attend up to a total of six (6) Stakeholder meetings (e.g. Cap Metro, Toll Operations Division, City of Austin, City of Manor, and Travis County, etc.) and provide support for the development of exhibits when requested by the Mobility Authority.
- **2.17.5.** The Engineer will participate in the submittal review process and attend comment resolution meetings for the various submittal milestones. The Engineer will respond to reviewer comments in tabular format for each submittal with explanations included for any items in disagreement. The Engineer will then attend a comment resolution meeting following each submittal to discuss and resolve review comments.
- **2.17.6.** Follow invoice procedures as described in the Contract.
- **2.17.7.** The Engineer shall provide assistance to the Mobility Authority during the bidding process including development of bid tabulations.
- **2.17.8.** The Engineer shall attend a scheduled pre-bid meeting.

## **EXHIBIT C**

## WORK SCHEDULE

Engineer shall perform the Services and deliver the related Documents (if any) according to the following schedule:

Services defined herein are expected to be substantially complete within fourteen (14) months from the date this Work Authorization becomes effective. This Work Authorization will not expire until all tasks associated with the Scope of Services are complete. This does not preclude the rights of the Parties provided under Article 15 of the Contract.

# **EXHIBIT D**

# FEE SCHEDULE/BUDGET

	C	P&Y, Inc.	Engi	HDR neering, Inc.		Friese & ciates, Inc.	P.E. Structural Consultants, Inc.		Corsair Consulting, LLC	Maldor Burket LL	t ITS,	Inland Geodetics, LLC		veying and oping, LLC	TOTAL
1.0 PRELIMINARY DESIGN															
1.1 - ENVIRONMENTAL DOCUMENT REVIEW/COORDINATION	\$	24,104						+							\$ 24,104
1.2 - PUBLIC INVOLVEMENT COORDINATION	\$	43,504					\$ -								\$ 43,504
1.3 - DATA COLLECTION	\$	16,637					\$ 2,674	ı							\$ 19,311
1.4 - GEOTECHNICAL INVESTIGATION	\$	15,894					\$ 439	_	157,495						\$ 173,828
1.4A - GEOTECHNICAL DRILLING / TESTS	<del>                                     </del>	.0,00.					ψ	\$	· · · · · · · · · · · · · · · · · · ·						\$ 268,294
1.5 - SURVEYING	\$	9,975						Ť				\$ 100,438	\$	186,199	 296,612
1.6 - SUBSURFACE UTILITY ENGINEERING AND UTILITY COORDINATION	\$	15,728										ψ 100,100	\$	67,273	 83,001
1.6A - SUE LOCATION SERVICES	<del>                                     </del>	.0,0											\$	136,205	 136,205
1.7 - PRELIMINARY DESIGN	\$	206,691			\$	1,159	\$ 861						Ť	·	\$ 208,711
1.8 - ROADWAY DESIGN	\$	105,346			*	1,100	ψ σσ.								\$ 105,346
1.9 - DRAINAGE DESIGN	\$	7,664			\$	47,156									\$ 54,820
1.10 - STRUCTURAL DESIGN	\$	445,147	\$	21,676	*	,									\$ 466,823
1.11 - RETAINING WALL DESIGN	\$	21,640	<u> </u>	,											\$ 21,640
1.12 - SIGNING, MARKINGS AND SIGNALIZATION	\$	31,264													\$ 31,264
1.13 - TRAFFIC CONTROL PLAN	\$	19,139	\$	116,293											\$ 135,432
1.14 - INTELLIGENT TRANSPORTATION SYSTEMS (ITS)	\$	7,406	Ψ	110,200						\$	33,294				\$ 40,700
1.15 - ILLUMINATION	\$	5,986								•	39,311				\$ 45,297
1.16 - TOLL FACILITIES INFRASTRUCTURE DESIGN	\$	10,370					\$ 2,874	ı		•	14,217				\$ 27,461
1.17 - TRAFFIC OPERATIONS MODELING	\$	11,602	\$	75,289			Σ,σ	+		Ψ	,				\$ 86,891
1.18 - MISCELLANEOUS	\$	39,790		23,980			\$ 2,195	5		\$	8,357				\$ 74,322
1.19 - COORDINATION, MEETINGS & INVOICING	\$	124,369		25,524	\$	14,051				*	10,910				\$ 200,262
1.0 PRELIMINARY DESIGN - SUB TOTAL	\$	1,162,256		262,762		62,366					06,089		\$	389,677	\$ 2,543,828
2.0 FINAL DESIGN															
2.1 - PUBLIC INVOLVEMENT & STAKEHOLDER COORDINATION	\$	44,305					\$ 4,953	<del>.</del>							\$ 49,258
2.2 - DATA COLLECTION	\$	7,932					\$ 6,165	_							\$ 14,097
2.3 - GEOTECHNICAL INVESTIGATION	\$	5,265					\$ 974	_	16,660						\$ 22,899
2.4 - SURVEYING	\$	2,923					Ψ	Ψ	70,000						\$ 2,923
2.5 - UTILITY COORDINATION AND DESIGN	\$	24,123													\$ 24,123
2.6 - SPECIAL DESIGN PER MOBILITY AUTHORITY REQUEST	\$	199,994													\$ 199,994
2.7 - FINAL ROADWAY DESIGN	\$	433,179													\$ 433,179
2.8 - DRAINAGE DESIGN	\$	17,231			\$	82,243	\$ 50,672	,							\$ 150,146
2.9 - STRUCTURAL DESIGN	\$	1,617,831			<del>                                     </del>	32,210	\$ 31,436	_					t		\$ 1,649,267
2.10 - RETAINING WALL DESIGN	\$	240,948					\$ 17,203								\$ 258,151
2.11 - SIGNING, MARKINGS AND SIGNALIZATION	\$	163,417					\$ 64,779	_							\$ 228,196
2.12 - TRAFFIC CONTROL PLAN	\$	30,160	\$	262,428			\$ 31,170								\$ 292,588
2.13 - INTELLIGENT TRANSPORTATION SYSTEMS	\$	6,576	Ť					$\top$		\$	26,939				\$ 33,515
2.14 - ILLUMINATION	\$	6,216	<u> </u>							•	32,323				\$ 38,539
2.15 - TOLL FACILITY DESIGN	\$	-,						$\top$		\$	-				\$ -
2.16 - MISCELLANEOUS	\$	291,784	\$	138,683	\$	21,395	\$ 69,146	\$ \$		•	32,601				\$ 563,309
2.17 - COORDINATION, MEETINGS & INVOICING	\$	219,791		35,363		27,209				•	25,982		1		\$ 343,964
2.0 FINAL DESIGN - SUB TOTAL	\$	3,311,675		436,474		130,847		_			17,845		\$	-	\$ 4,304,148
OTHER DIRECT EXPENSES	\$	10,810	-	21,505	-	966				•	2,610			82,962	\$ 207,412
SUB TOTAL - ENGINEERING DESIGN SERVICES	\$	4,484,741	\$	720,741	\$	194,179	\$ 300,321	\$	536,175	\$ 2	26,544	\$ 120,048	\$	472,639	\$ 7,055,388
PERCENTAGE		63.6%		10.2%		2.8%			7.6%		3.2%			6.7%	100.0%
DBE %	I		1			2.8%	4.3%	6	7.6%		3.2%	1.7%	ı		19.5%

#### **EXHIBIT E**

## INSTRUCTIONS DBE PARTICIPATION

The following pages contain seven (7) different forms (Forms E-1 through E-7) covering participation of DBE providers and subproviders. The correct form to use is determined by whether or not a DBE goal has been set for the contract. The following pages contain separate reporting forms for federally funded DBE participation. **Select the forms that are appropriate for your contract and <u>delete the rest</u> along with these instructions from the Work Authorization.** 

# **Federally Funded Contracts**

# Exhibit F, Disadvantaged Business Enterprise (DBE) for Federal-Aid Professional or Technical Services Contracts

- ◆ This provision is applicable to federally funded contracts with assigned DBE goals.
- ♦ The appropriate forms for this provision are Forms E-1, E-2, E-3, E-4, E-5, E-6 and E-7. Examples of each form required is included in the contract. The native forms that will need to be submitted can be downloaded from the Mobility Authority's website.
- ♦ Note: a completed Form E-2 will be required with each Work Authorization, if a DBE will be performing work. If a non-DBE subprovider is used, insert N/A (not applicable) on the line provided on the Form E-2.
- Form E-4 must be submitted monthly to the Mobility Authority even if there is no invoice being submitted or subcontracting to report.
- Form E-4 must be submitted with each invoice to the appropriate agency contact for payment.

# Exhibit G, Disadvantaged Business Enterprise (DBE) for Race Neutral Professional or Technical Services Contracts

- This provision is applicable to federally funded contracts with no DBE goal assigned.
- ♦ If no subcontractors will be used, the appropriate forms for this provision are E-3 and E-5 forms. Examples of each form required is included in the contract. The native forms that will need to be submitted can be downloaded from the Mobility Authority's website.
- ♦ Note: If subcontractors are used, the required forms would be Forms E-1, E-2, E-3, E-4, E-5, E-6 and E-7. A copy of each form required is in the contract.
- Form E-4 must be submitted monthly to the Mobility Authority even if there is no invoice being submitted or subcontracting to report.
- Form E-4 must be submitted with each invoice to the appropriate agency contact for payment.

# Form E-4, Texas Department of Transportation/Mobility Authority Subprovider Monitoring System for Federally Funded Contracts. This is a DBE Monthly Progress Report.

- Required for all federally funded contracts.
- ♦ This form is required monthly and must be submitted to the Mobility Authority even if there is no invoice being submitted or subcontracting to report.
- This form must be submitted with each invoice to the appropriate agency contact for payment.

# Form E-7, Federal Subprovider and Supplier Information

Required for all federally funded contracts.

# Central Texas Regional Mobility Authority Subprovider Monitoring System Commitment Worksheet

Contract #: <u>16290E22704E</u> Assigned Goal: <u>10</u> %	Federally Funded X State Funded
Prime Provider: <u>CP&amp;Y, Inc.</u>	Total Contract Amount: \$7,055,388.00
Prime Provider Info: DBE HUB <u>X</u> Both _	
Vendor ID #: <u>17517204149</u>	DBE/HUB Expiration Date: HUB – 08/31/2016
(First 11 Digits Only)	in her minering (CN/A), and the 1st time and Jan Carlemani Jan

If no subproviders are used on this contract, please indicate by placing "N/A" on the 1st line under Subproviders.

Subprovider(s) (List All)	Type of Work	Vendor ID # (First 11 Digits Only)	D=DBE H=HUB	Expiration Date	\$ Amount or % of Work *			
HDR Engineering, Inc.	Traffic Control, Traffic, Landscape	14706805687	n/a		\$720,741 (10.2%)			
K. Friese & Associates, Inc.	Drainage	14813046878	H D	5/29/18	\$194,179 (2.8%)			
P.E. Structural Consultants, Inc.	Structural	18105688628	H D	5/22/18	\$300,321 (4.3%)			
Corsair Consulting, LLC	Geotechnical	14546874299	H D	1/29/17	\$536,175 (7.6%)			
Maldonado-Burkett ITS, LLP	Illumination, ITS	12614763394	H D	1/27/17	\$226,544 (3.2%)			
Inland Geodetics, LLC	Survey	12040216991	H D	10/24/18	\$120,048 (1.7%)			
Surveying and Mapping, LLC	Survey, SUE	17427049741	n/a		\$472,639 (6.7%)			
Subprovider(s) Contract or % of Work* Totals								

*For Work Authorization Contracts, indicate the % of work to be performed by each subprovider.								
Total DBE <b>or</b> HUB Commitment Dollars \$_1,377,267.00								
Total DBE <b>or</b> HUB Commitment Percentages of Contract (Commitment Dollars and Percentages are for Subproviders only)	19.5	%						



**Project #: Manor Expressway** 

County:

# Disadvantaged Business Enterprise (DBE) Program Commitment Agreement Form

Form SMS.4901 (Rev. 06/08) Page 1 of 1

This commitment is subject to the award and receipt of a signed contract from the Texas Department of Transportation for the subject project.

Contract-CSJ:

Pha	se III Project									
Items of work to	o be performed (at	ttach a list of work	items if more ro	om is required):						
Bid Item #	Item Description	Unit of Measure	Unit Price	Quantity	Total Per Item					
1.0	Preliminary Design				\$62,366					
2.0	Final Design				\$130,847					
	Other Direct Expenses				\$966					
				Total	\$194,179					
The contractor certifies by signature on this agreement that subcontracts will be executed between the prime contractor the DBE subcontractors as listed on the agreement form. If a DBE Subcontractor is unable to perform the work as listed this agreement form, the prime contractor will follow the substitution/replacement approval process as outlined in Contract DBE Special Provision.  IMPORTANT: The signatures of the prime contractor and the DBE, and the total commitment amount must always be on the same page.										
Drima Cantuaat		total commitment			ie page.					
Filme Contract	tor: CP&Y, Inc.			Name/Title (please print): Robin Handel, P.E. / Vice President						
Address: 13809	Research Blvd, Suit	e 300, Austin, TX 78	750 Signatur	Signature:						
Phone: 512-349-	·0700 F	Fax: 512-349-0727								
E-mail: rhandel	@cpyi.com		Date:	Date:						
DBE: K. Friese	& Associates, Inc.		Name/T	Title (please print):						
Vendor No.:148	13046878									
Address: 1120 S	. Capital of Texas Hi	ghway, CityView 2,	Suite Signatur	re:						
Phone: 512-338-	-1704 F	Fax: 512-338-1784								
E-mail: VMcEv	oy@kfriese.com		Date:							
Subcontractor (if the DBE will be a second tier sub):		Name/T	itle (please print):							
Address:			Signatur	Signature:						
Phone:	I	Fax:								
E-mail:			Date:							



# Disadvantaged Business Enterprise (DBE) Program Commitment Agreement Form

Form SMS.4901 (Rev. 06/08) Page 1 of 1

This commitment is subject to the award and receipt of a signed contract from the Texas Department of Transportation for the subject project.

	nor Expressway ase III Project	County: Travis		Contract-CSJ:						
Items of work	to be performed (a	ttach a list of work	items if more r	oom is required):						
Bid Item #	Item Description	Unit of Measure	Unit Price	Quantity	Total Per Item					
1.0	Preliminary Design				\$26,141					
2.0	Final Design				\$272,906					
	Other Direct Expenses				\$1,974					
				Total	\$300,321					
this agreement	form, the prime of Special Provision.  IMPOR	contractor will follow	ow the substitut	ion/replacement appro-						
		total commitment		ways be on the same	page.					
Prime Contrac	etor: CP&Y, Inc.			Name/Title (please print): Robin Handel, P.E. / Vice President						
Address: 13809	Research Blvd, Suit	e 300, Austin, TX 78	750 Signat	Signature:						
Phone: 512-349	9-0700 I	Fax: 512-349-0727								
E-mail: rhande	l@cpyi.com		Date:	Date:						
DBE: P.E. Stru	ictural Consultants	, Inc.	Name/	Title (please print):						
Vendor No.:181	105688628									
Address: 8436	Spicewood Springs F	Road, Austin, TX 787	59 Signat	Signature:						
Phone: 512-250	0-5200 I	Fax: 512-250-5222								
E-mail: lpowel	1@pestructural.com		Date:							
Subcontractor	(if the DBE will be	a second tier sub):	Name/	Title (please print):						
Address:			Signati	ıre:						
Phone:	I	Fax:								
E-mail:										



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Form SMS.4901 (Rev. 06/08) Page 1 of 1

This commitment is subject to the award and receipt of a signed contract from the Texas Department of Transportation for the subject project.

Project #: Manor Expressway Phase III Project		County: Travis		Contract-CSJ:						
Items of work	to be performed (a	ttach a list of work	items if more	room is required):						
Bid Item #	Item Description	Unit of Measure	Unit Price	Quantity	Total Per Item					
1.0	Preliminary Design			\$						
2.0	Final Design				\$35,101					
	Other Direct Expenses				\$66,975					
				Total	\$536,175					
this agreement	form, the prime of Special Provision.  IMPOR	contractor will follow	w the substitu	tion/replacement appro-						
		total commitment		lways be on the same	page.					
Prime Contrac	etor: CP&Y, Inc.			Name/Title (please print): Robin Handel, P.E. / Vice President						
Address: 13809	Research Blvd, Suit	e 300, Austin, TX 78	750 Signat	Signature:						
Phone: 512-349	0-0700	Fax: 512-349-0727								
E-mail: rhande	l@cpyi.com		Date:	Date:						
DBE: Corsair	Consulting, LLC		Name	/Title (please print):						
Vendor No.: 14	1546874299									
Address: 16800	Joe Barbee Dr., Pflu	gerville, TX 78660	Signat	Signature:						
Phone: 512-342	2-8877	Fax: 512-565-9356								
E-mail: clinthar	ris@corsairus.com		Date:							
Subcontractor	(if the DBE will be	a second tier sub):	Name	Title (please print):						
Address:			Signat	ure:						
Phone:	]	Fax:								
E-mail:										



# Disadvantaged Business Enterprise (DBE) Program Commitment Agreement Form

Form SMS.4901 (Rev. 06/08) Page 1 of 1

This commitment is subject to the award and receipt of a signed contract from the Texas Department of Transportation for the subject project.

	Project #: Manor Expressway Phase III Project  County: Travis				Contract-CSJ:					
Items of work	to be performed (a	ttach a list of work	items i	f more ro	om is required):					
Bid Item #	Item Description	Unit of Measure	Uni	t Price Quantity		Total Per Item				
1.0	Preliminary Design					\$106,089				
2.0	Final Design					\$117,845				
	Other Direct Expenses					\$2,610				
					Total	\$226,544				
Contract DBE	Special Provision.  IMPOR  and the	TANT: The signate	ures of	the prime	contractor and the l					
Prime Contrac	ctor: CP&Y, Inc.			Name/Title (please print): Robin Handel, P.E. / Vice President						
Address: 13809	Research Blvd, Suit	e 300, Austin, TX 78	750	Signature:						
Phone: 512-349	9-0700 I	Fax: 512-349-0727								
E-mail: rhande	l@cpyi.com			Date:						
DBE: Maldona	do-Burkett ITS, L	LP		Name/T	itle (please print):					
Vendor No.: 12	2614763394			1						
Address: 2205 \	Western Trails Blvd.,	Suite B, Austin, TX	78745	Signature:						
Phone: 512-916	5-1386 I	Fax:								
E-mail: karl@n	nbitsgroup.com			Date:						
Subcontractor	(if the DBE will be	a second tier sub):	:	Name/T	itle (please print):					
Address:				Signatur	re:					
Phone:	I	Fax:		1						
E-mail:	L			Date:						



**Project #: Manor Expressway** 

**Phase III Project** 

# Disadvantaged Business Enterprise (DBE) Program Commitment Agreement Form

Form SMS.4901 (Rev. 06/08) Page 1 of 1

This commitment is subject to the award and receipt of a signed contract from the Texas Department of Transportation for the subject project.

**Contract-CSJ:** 

**County: Travis** 

Items of work to be performed (attach a list of work items if more room is required):

Bid Item #	Item Description	Unit of Measure	Unit	Price	Quantity	Total Per Item			
1 ()	Preliminary Design					\$100,438			
	Other Direct Expenses					\$19,610			
					Total	\$120,048			
the DBE subcon	tractors as listed of form, the prime opecial Provision.	on the agreement for contractor will follo	rm. If a low the s	DBE Subc substitutio	contractor is unable n/replacement app	between the prime contractor and to perform the work as listed on roval process as outlined in the			
IMPORTANT: The signatures of and the total commitment amoun									
Prime Contractor: CP&Y, Inc.					tle (please print): andel, P.E. / Vice F	President			
Address: 13809 F	Research Blvd, Suit	e 300, Austin, TX 78	750	Signature:					
Phone: 512-349-0	0700	Fax: 512-349-0727							
E-mail: rhandel@	@cpyi.com			Date:					
DBE: Inland Ge	odetics, LLC			Name/Title (please print):					
Vendor No.: 120	)40216991								
Address: 1504 C 78681	hisholm Trail Rd., S	Suite 103, Round Ro	ck, TX	Signature	e:				
Phone: 512-238-	1200	Fax: 512-238-1251							
E-mail: Steve@i	nland-geo.com			Date:					
Subcontractor (	if the DBE will be	e a second tier sub):	1	Name/Ti	tle (please print):				
Address:				Signature	e:				
Phone:	]	Fax:							
E-mail:	<u>'</u>			Date:					

To ensure prompt and efficient handling of your project file we are requesting that all commitments to be presented to the Office of Civil Rights, using this basic format.

## FORM E-3



Project:

# DBE Prime Contractor To Non-DBE Subcontractors

Form SMS.4902

(Rev. 05/08) Page 1 of 1

Contract CSJ:

ounty:	District.						
etting Date:	For Month of (Mo./Yr.):						
ontractor:	Contract Amount:						
Name of Non-DBE Subcontractor	\$ Amount Paid This Period	Total \$ Amount Paid to Date					
and this manager to the District DDE Coordinator Deposition	due within 15 days fallowing t	he and of each colondar more					
nd this report to the District DBE Coordinator. Report is ignature:		ne end of each calendar mon					
ne Texas Department of Transportation maintains the info	Compan	y Official					

Contract for Engineering Services Contract #16290E22704E

Government Code, you are also entitled to have us correct information about you that is incorrect.



# TxDOT Department of Transportation DBE Monthly Progress Report

Form SMS. 4903 (Rev. 07/08)

Project: Manor E	xpressway Phase III	Contract CSJ:						
County: Travis		Dis	strict: <u>Austi</u>					
Letting Date:		Fo						
Contractor:		Co	ntract Amount: _	\$7,055,388.	00	_		
DBE Goal: 10%		DE	BE Goal Dollars:	\$705,53	9	-		
Vendor Number	Name of DBE Sub/Supplier	* RC or RN	** DBE \$ Amt Paid for Work Performed this Period (X)	*** \$ Amt Paid to Non-DBE 2nd Tier Subs and Haulers (Y)	Amt Paid to DBEs to Date (X-Y)	For TxDOT use Only		
14813046878	K. Friese & Associates, Inc.							
18105688628	P.E. Structural Consultants, Inc.							
14546874299	Corsair Consulting, LLC							
12614763394	Maldonado-Burkett ITS, LLP							
12040216991	Inland Geodetics, LLC							
naulers from this col	progress report amount and/or race-r	to non-E	OBE subcontracte	ors/haulers.				
Any changes to the I	OBE commitments approved by the de	epartme	nt must be repor	ted to the area er	ngineer.*			
naterial supply activ	report for periods of negative DBE activity is completed.  The above is a true and correct statements	·	•			bcontracting or		
Signature:		Date:						
This report must be s	sent to the are engineer's office within	n 15 day	rs following the e	end of the calend	lar month.			

# Central Texas Regional Mobility Authority Subprovider Monitoring System for Federally Funded Contracts Progress Assessment Report for month of (Mo./Yr.) \_\_\_\_\_/\_\_\_\_

Contrac	et #: <u>16290E22704E</u>	<u>.                                    </u>		\$7,05	55,388.00		
Date of	Execution:			Approved Su	pplemental Agre	eements:	
Prime F	Provider: <u>CP&amp;Y</u> , Inc.		\$7,05	\$7,055,388.00			
	authorization No. <u>1</u> providers are used on this contrac	t, please indicate by p	lacing "N/A" on the 1 <sup>st</sup> li		ization Amount	: <u>\$7,05</u>	55,388.00
DBE	All Subproviders	Category of Work	Total Subprovider Amount	% Total Contract Amount	Amount <u>Paid</u> This Period	Amount <u>Paid</u> To Date	Subcontract Balance Remaining
X	K. Friese & Associates, Inc.	Engineering	\$194,179	2.8%			
X	P.E. Structural Consultants, Inc.	Engineering	\$300,321	4.3%			
X	Corsair Consulting, LLC	Engineering	\$536,175	7.6%			
X	Maldonado-Burkett ITS, LLP	Engineering	\$226,544	3.2%			
X	Inland Geodetics, LLC	Surveying	\$120,048	1.7%			
	HDR Engineering, Inc.	Engineering	\$720,741	10.2%			
	Surveying & Mapping, LLC	Surveying	\$472,639	6.7%			
1 Copy	Progress Assessment Report with Invoice - Contract Ma – CTRMA DBE Liaison, c/ I hereby certify that the abo	nager/Managing o Atkins,	Office	, Austin, T	exas		
Dobin	· ·	ve is a trac and co.	rect statement of the	amounts para to the		512-349-0700	
	Handel, P.E. ame - Company Official /DBE Liai	son Officer	Signature			Phone	Date
rhandel	@cpyi.com		_			512-349-0727	
Email						Fax	



Project: Manor Expressway Phase III

# **DBE Final Report**

Contract CSJ:

Form SMS. 4904 (Rev. 09/10)

The DBE final report form should be filled out by the contractor and submitted to the appropriate district office upon completion of the project. One copy of the report must be submitted to the area engineer's office. The report should reflect all DBE activity on the project. The report will aid in expediting the final estimate for payment. If the DBE goal requirements were not met, documentation supporting good faith efforts must be submitted.

			ntrol Project:	Col		ounty: <u>Travis</u>
		10%	BE Goal:	DB		etting Date:
	00	\$7,055,388.0	ntract Amount:	Con		ontractor:
Date For TxDO	Amt Paid to DBEs to Date (X-Y)	*** \$ Amt Paid to Non-DBE 2nd Tier Subs and Haulers (Y)	** DBE \$ Amt Paid for Work Performed this Period (X)	* RC or RN	Name of DBE Sub/Supplier	Vendor Number
					K. Friese & Associates, Inc.	14813046878
					P.E. Structural Consultants, Inc.	18105688628
					Corsair Consulting, LLC	14546874299
					Maldonado-Burkett ITS, LLP	12614763394
					Inland Geodetics, LLC	12040216991
	nt? -	ors/haulers. E Goal attainme	DBE subcontracted DB isadvantaged Bu	ge order the	nt progress report amount and/or race- olumn. t of payment DBE subcontractors paid t under-run caused by a TxDOT chang No Change Order Number at % of the work was comple	as there a project Yes
				r:	Per	/
		r's Signature	Contractor		General Contractor	Name of (
			, A.D.	of	orn to before me, this day of	abscribed and sw
	<u></u>		unty	Co		otary Public
			unty	Co		otary Public

# **Federal Subprovider and Supplier Information**

The Provider shall indicate below the name, address and phone number of all successful and unsuccessful subproviders and/or suppliers that provided proposals/quotes for this contract prior to execution. You may reproduce this form if additional space is needed.

Name	Address	Phone Number
HDR Engineering, Inc.	4401 West Gate Blvd., Suite 400 Austin, TX 78745	512-912-5100
K. Friese & Associates, Inc.	1120 S. Capital of Texas Highway CityView 2, Suite 100, Austin, TX 78746	512-338-1704
P.E. Structural Consultants, Inc.	8436 Spicewood Springs Road, Austin, TX 78759	512-250-5200
Corsair Consulting, LLC	16800 Joe Barbee Dr. Pflugerville, TX 78660	512-342-8877
Maldonado-Burkett ITS, LLP	2205 Western Trails Blvd., Suite B, Austin, TX 78745	512-916-1386
Inland Geodetics, LLC	1504 Chisholm Trail Rd., Suite 103, Round Rock, TX 78681	512-238-1200
Surveying and Mapping, LLC	4801 Southwest Parkway, Building Two, Suite 100, Austin, Texas 78735	512-447-0575

The information must be provided and returned with the contract.				
Signature		Date		
Robin Handel, P.E.	rhandel@cpyi.com		512-349-0700	
Printed Name	Email		Phone#	

#### **EXHIBIT F**

# Disadvantaged Business Enterprise (DBE) for Federal-Aid Professional or Technical Services Contracts Special Provision

- 1) **PURPOSE.** The purpose of this attachment is to carry out the U.S. Department of Transportation's ("DOT") policy of ensuring nondiscrimination in the award and administration of DOT assisted contracts and creating a level playing field on which firms owned and controlled by minority or socially and economically disadvantaged individuals can compete fairly for DOT assisted contracts.
- 2) **POLICY.** It is the policy of the DOT, the Central Texas Regional Mobility Authority (the "Mobility Authority") and the Texas Department of Transportation (the "Department") that Disadvantaged Business Enterprises (DBEs) as defined in 49 CFR Part 26, Subpart A and the Department's Disadvantaged Business Enterprise Program ("DBE Program"), shall have the opportunity to participate in the performance of contracts financed in whole or in part with Federal funds. The Mobility Authority and the Department previously entered into a Memorandum of Understanding Regarding the Adoption of the Texas Department of Transportation's Federally-Approved Disadvantaged Business Opportunity Program by the Central Texas Regional Mobility Authority (the "MOU") dated effective February 1, 2007. The MOU provides that the Mobility Authority has adopted the Department's DBE Program with the consent of the Federal Highway Administration for contracts financed in whole or in part with Federal funds. Consequently, the Disadvantaged Business Enterprise requirements of 49 CFR Part 26, and the Department's DBE Program, apply to this contract as follows:
- a. The Provider will offer Disadvantaged Business Enterprises, as defined in 49 CFR Part 26, Subpart A and the Department's DBE Program, the opportunity to compete fairly for contracts and subcontracts financed in whole or in part with Federal funds. In this regard, the Provider shall make a good faith effort to meet the Disadvantaged Business Enterprise goal for this contract.
- b. The Provider and any subprovider(s) shall not discriminate on the basis of race, color, national origin, or sex in the performance of this contract. The Provider shall carry out applicable requirements of 49 CFR Part 26 in the award and administration of DOT assisted contracts. The requirements of this Special Provision shall be physically included in any subcontract.
- c. When submitting the contract for execution by the Mobility Authority, the Provider must complete and furnish Form E-1 which lists the commitments made to certified DBE subprovider(s) that are to meet the contract goal and Form E-2 which is a commitment agreement(s) containing the original signatures of the Provider and the proposed DBE(s). For Work Authorization Contracts, Form E-1 is required at the time of submitting the contract for execution by the Mobility Authority. Form E-2 will be required to be completed and attached with each work authorization number that is submitted for execution, if the DBE will be performing work. Any substitutions or changes to the DBE subcontract amount shall be subject to prior written approval by the Mobility Authority. If non-DBE subprovider is performing work, insert N/A (not applicable) on the line provided.
- d. Failure to carry out the requirements set forth above shall constitute a material breach of this contract and may result; in termination of the contract by the Mobility Authority; in a deduction of the amount of DBE goal not accomplished by DBEs from the money due or to become due to the Provider, not as a penalty but as liquidated damages to the Mobility Authority; or such other remedy or remedies as the Mobility Authority deems appropriate.

#### 3) **DEFINITIONS.**

- a. "Mobility Authority" means the Central Texas Regional Mobility Authority.
- b. "Department" means the Texas Department of Transportation (TxDOT).
- c. "Federal-Aid Contract" is any contract between the Mobility Authority and a Provider which is paid for in whole or in part with U. S. Department of Transportation ("DOT") financial assistance.
- d. "Provider" is any individual or company that provides professional or technical services.
- e. "DBE Joint Venture" means an association of a DBE firm and one (1) or more other firm(s) to carry out a single business enterprise for profit for which purpose they combine their property, capital, efforts, skills and knowledge, and in which the DBE is responsible for a distinct, clearly defined portion of the work of the contract and whose share in the capital contribution, control, management, risks and profits of the joint venture are commensurate with its ownership interest.
- f. "Disadvantaged Business Enterprise" or "DBE" means a firm certified as such by the Department in accordance with 49 CFR Part 26 and listed on the Department's website under the Texas Unified Certification Program.
- g. "Good Faith Effort" means efforts to achieve a DBE goal or other requirement of this Special Provision which, by their scope, intensity, and appropriateness to the objective, can reasonably be expected to fulfill the program requirement.
- h. "Race-neutral DBE Participation" means any participation by a DBE through customary competitive procurement procedures.
- i. "DBE Liaison" shall have the meaning set forth in Section 5.e. herein.
- 4) **PERCENTAGE GOAL.** The goal for Disadvantaged Business Enterprise participation in the work to be performed under this contract is 10% of the contract amount. This goal is established in accordance with the provisions of the MOU.
- 5) **PROVIDER'S RESPONSIBILITIES.** A DBE prime may receive credit toward the DBE goal for work performed by his-her own forces and work subcontracted to DBEs. A DBE prime must make a good faith effort to meet the goals. In the event a DBE prime subcontracts to a non-DBE, that information must be reported to the Mobility Authority on Form E-3.
- a. A Provider who cannot meet the contract goal, in whole or in part, shall document the "Good Faith Efforts" taken to obtain DBE participation. The following is a list of the types of actions that may be considered as good faith efforts. It is not intended to be a mandatory checklist, nor is it intended to be exclusive or exhaustive. Other factors or types of efforts may be relevant in appropriate cases.
  - (1) Soliciting through all reasonable and available means the interest of all certified DBEs who have the capability to perform the work of the contract. The solicitation must be done within sufficient time to

- allow the DBEs to respond to it. Appropriate steps must be taken to follow up initial solicitations to determine, with certainty, if the DBEs are interested.
- (2) Selecting portions of the work to be performed by DBEs in order to increase the likelihood that the DBE goals will be achieved. This includes, where appropriate, breaking out contract work items into economically feasible units to facilitate DBE participation, even when the Provider might otherwise prefer to perform the work items with its own forces.
- (3) Providing interested DBEs with adequate information about the plans, specifications, and requirements of the contract in a timely manner to assist them in responding to a solicitation.
- (4) Negotiating in good faith with interested DBEs by making a portion of the work available to DBE subproviders and suppliers and selecting those portions of the work or material needs consistent with the available DBE subproviders and suppliers.
- (5) The ability or desire of the Provider to perform the work of a contract with its own organization does not relieve the Provider's responsibility to make a good faith effort. Additional costs involved in finding and using DBEs is not in itself sufficient reason for a Provider's failure to meet the contract DBE goal, as long as such costs are reasonable. Providers are not, however, required to accept higher quotes from DBEs if the price difference is excessive or unreasonable.
- (6) Not rejecting DBEs as being unqualified without sound reasons based on a thorough investigation of their capabilities.
- (7) Making efforts to assist interested DBEs in obtaining bonding, lines of credit, or insurance as required by the recipient or Provider.
- (8) Making efforts to assist interested DBEs in obtaining necessary equipment, supplies, materials or related assistance or services.
- (9) Effectively using the services of available minority/women community organizations; minority/women contractors' groups; local, state, and Federal minority/women business assistance offices; and other organizations as allowed on a case-by-case basis to provide assistance in the recruitment and placement of DBEs.
- (10) If the Department's Director of the Business Opportunity Programs Office or the Mobility Authority's DBE Liaison determines that the Provider has failed to meet the good faith effort requirements, the Provider will be given an opportunity for reconsideration by the Department or the Mobility Authority, as appropriate.

NOTE: The Provider must not cause or allow subproviders to bid their services.

- b. The preceding information shall be submitted directly to the Chair of the Consultant Selection Team responsible for the project.
- c. The Provider shall make all reasonable efforts to honor commitments to DBE subproviders named in the commitment submitted under Section 2.c. of this attachment. Where the Provider terminates or removes a DBE

- subprovider named in the initial commitment, the Provider must demonstrate on a case-by-case basis to the satisfaction of the Mobility Authority that the originally designated DBE was not able or willing to perform.
- d. The Provider shall make a good faith effort to replace a DBE subprovider that is unable or unwilling to perform successfully with another DBE, to the extent needed to meet the contract goal. The Provider shall submit a completed Form E-2 for the substitute firm(s). Any substitution of DBEs shall be subject to prior written approval by the Mobility Authority. The Mobility Authority may request a statement from the firm being replaced concerning its replacement prior to approving the substitution.
- e. The Provider shall designate a DBE liaison officer ("DBE Liaison") who will administer the DBE program and who will be responsible for maintenance of records of efforts and contacts made to subcontract with DBEs.
- f. Providers are encouraged to investigate the services offered by banks owned and controlled by disadvantaged individuals and to make use of these banks where feasible.

## 6) **ELIGIBILITY OF DBEs.**

- a. The Department certifies the eligibility of DBEs, DBE joint ventures and DBE truck-owner operators to perform DBE subcontract work on DOT financially assisted contracts. Under the terms of the MOU, only DBEs certified as eligible to participate on Department roadway construction projects and listed on the Department's website under the Texas Unified Certification Program are eligible to participate on Mobility Authority roadway construction projects.
- b. This certification will be accomplished through the use of the appropriate certification schedule contained in the Department's DBE program and adopted by the Mobility Authority under the terms of the MOU.
- c. The Department publishes a Directory of Disadvantaged Business Enterprises containing the names of firms that have been certified to be eligible to participate as DBEs on DOT financially assisted contracts. The directory is available from the Department's Business Opportunity Programs Office. The Texas Unified Certification Program DBE Directory can be found on the Internet at: <a href="http://www.dot.state.tx.us/services/business\_opportunity\_programs/tucp\_dbe\_directory.htm">http://www.dot.state.tx.us/services/business\_opportunity\_programs/tucp\_dbe\_directory.htm</a>.
- d. Only DBE firms certified at the time the contract is signed or at the time the commitments are submitted are eligible to be used in the information furnished by the Provider as required under Section 2.c. and 5.d. above. For purposes of the DBE goal on this contract, DBEs will only be allowed to perform work in the categories of work for which they were certified.
- 7) **DETERMINATION OF DBE PARTICIPATION.** A firm must be an eligible DBE and perform a professional or technical function relating to the project. Once a firm is determined to be an eligible DBE, the total amount paid to the DBE for work performed with his/her own forces is counted toward the DBE goal. When a DBE subcontracts part of the work of its contract to another firm, the value of the subcontracted work may be counted toward DBE goals only if the subprovider is itself a DBE. Work that a DBE subcontracts to a non-DBE firm does not count toward DBE goals.

A DBE subprovider may subcontract no more than 70% of a federal aid contract. The DBE subprovider shall perform not less than 30% of the value of the contract work with assistance of employees employed and paid directly by the DBE; and equipment owned or rented directly by the DBE. DBE subproviders must perform a commercially useful function required in the contract in order for payments to be credited toward meeting the

contract goal. A DBE performs a commercially useful function when it is responsible for executing the work of the contract and is carrying out its responsibilities by actually performing, managing, and supervising the work involved. To perform a commercially useful function, the DBE must also be responsible, with respect to materials and supplies used on the contract, for negotiating price, determining quality and quantity, ordering the material, and installing (where applicable) and paying for the material itself. When a DBE is presumed not to be performing a commercially useful function, the DBE may present evidence to rebut this presumption.

A Provider may count toward its DBE goal a portion of the total value of the contract amount paid to a DBE joint venture equal to the distinct, clearly defined portion of the work of the contract performed by the DBE.

Proof of payment, such as copies of canceled checks, properly identifying the Mobility Authority's contract number or project number may be required to substantiate the payment, as deemed necessary by the Mobility Authority.

## 8) RECORDS AND REPORTS.

- a. After submission of the initial commitment reported (Form E-1), required by Section 2.c. of this attachment, the Provider shall submit Monthly Progress Assessment Reports (Forms E-4 and E-5), after contract work begins, on DBE involvement to meet the goal and for race-neutral participation. One copy of each report is to be sent monthly to the Mobility Authority as provided in Section 8.b. below and should also be submitted with the Provider's invoice. **Only actual payments made to subproviders are to be reported. These reports will be required until all subprovider activity is completed.** The Mobility Authority may verify the amounts being reported as paid to DBEs by requesting copies of canceled checks paid to DBEs on a random basis.
- b. DBE subproviders should be identified on the report by name, type of work being performed, the amount of actual payment made to each during the billing period, cumulative payment amount and percentage of the total contract amount. These reports will be due within fifteen (15) days after the end of a calendar month. Reports are required even when no DBE activity has occurred in a billing period.
- c. All such records must be retained for a period of four (4) years following final payment or until any investigation, audit, examination, or other review undertaken during the four (4) years is completed, and shall be available at reasonable times and places for inspection by authorized representatives of the Mobility Authority, the Department or the DOT.
- d. Prior to receiving final payment, the Provider shall submit a Final Report (Form E-6), detailing the DBE payments. The Final Report is to be sent to the Mobility Authority and one (1) copy is to be submitted with the Provider's final invoice. If the DBE goal requirement is not met, documentation of the good faith efforts made to meet the goal must be submitted with the Final Report.
- 9) COMPLIANCE OF PROVIDER. To ensure that DBE requirements of this DOT-assisted contract are complied with, the Mobility Authority and/or the Department will monitor the Provider's efforts to involve DBEs during the performance of this contract. This will be accomplished by a review of DBE Monthly Progress Reports (Form E-4), submitted to the Mobility Authority by the Provider indicating his progress in achieving the DBE contract goal, and by compliance reviews conducted by the Mobility Authority or the Department. The DBE Monthly Progress Report (Form E-4) must be submitted at a minimum monthly to the Mobility Authority, in addition to with each invoice to the appropriate agency contact.

The Provider shall receive credit toward the DBE goal based on actual payments to the DBE subproviders with the following exceptions and only if the arrangement is consistent with standard industry practice. The Provider shall immediately contact the Mobility Authority in writing if he/she withholds or reduces payment to any DBE subprovider.

- (1) A DBE firm is paid but does not assume contractual responsibility for performing the service;
- (2) A DBE firm does not perform a commercially useful function;
- (3) Payment is made to a DBE that cannot be linked by an invoice or canceled check to the contract under which credit is claimed:
- (4) Payment is made to a broker or a firm with a brokering-type operation; or
- (5) Partial credit is allowed, in the amount of the fee or commission provided the fee or commission does not exceed that customarily allowed for similar services, for a bona fide service, such as professional, technical, consultant, or managerial services, and assistance in the procurement of essential personnel, facilities, equipment, materials, or supplies required for performance of the contract.

A Provider's failure to comply with the requirements of this Special Provision shall constitute a material breach of this contract. In such a case, the Mobility Authority reserves the right to terminate the contract; to deduct the amount of DBE goal not accomplished by DBEs from the money due or to become due the Provider, not as a penalty but as liquidated damages to the Mobility Authority; or such other remedy or remedies as the Mobility Authority deems appropriate.

#### **EXHIBIT G**

# Disadvantaged Business Enterprise (DBE) for Race-Neutral Professional or Technical Services Contracts Special Provision

It is the policy of the DOT, the Central Texas Regional Mobility Authority (the "Mobility Authority") and the Texas Department of Transportation (the "Department") that Disadvantaged Business Enterprises (DBEs) as defined in 49 CFR Part 26, Subpart A and the Department's Disadvantaged Business Enterprise Program ("DBE Program"), shall have the opportunity to participate in the performance of contracts financed in whole or in part with Federal funds and it is the DOT's policy that a maximum feasible portion of the Department's and the Mobility Authority's overall DBE goal be met using race-neutral means. The Mobility Authority and the Department previously entered into a Memorandum of Understanding Regarding the Adoption of the Texas Department of Transportation's Federally-Approved Disadvantaged Business Opportunity Program by the Central Texas Regional Mobility Authority (the "MOU") dated effective February 1, 2007. The MOU provides that the CTRMA has adopted the Department's DBE Program with the consent of the Federal Highway Administration for contracts financed in whole or in part with Federal funds. Consequently, if there is no DBE goal, the DBE requirements of 49 CFR Part 26, apply to this contract as follows:

The Provider will offer DBEs as defined in 49 CFR Part 26, Subpart A, the opportunity to compete fairly for contracts and subcontracts financed in whole or in part with federal funds. Race-Neutral DBE participation on projects with no DBE goal should be reported on the Form E-3. Payments to DBEs reported on Form E-3 are subject to the following requirements:

#### DETERMINATION OF DBE PARTICIPATION.

A firm must be an eligible DBE and perform a professional or technical function relating to the project. Once a firm is determined to be an eligible DBE, the total amount paid to the DBE for work performed with his/her own forces must be reported as race-neutral DBE participation. When a DBE subcontracts part of the work of its contract to another firm, the value of the subcontracted work should not be reported unless the subcontractor is itself a DBE.

A DBE subprovider may subcontract no more than 70% of a federal aid contract. The DBE subprovider shall perform not less than 30% of the value of the contract work with assistance of employees employed and paid directly by the DBE; and equipment owned or rented directly by the DBE. DBE subproviders must perform a commercially useful function required in the contract. A DBE performs a commercially useful function when it is responsible for execution of the work of the contract and is carrying out its responsibilities by actually performing, managing, and supervising the work involved. To perform a commercially useful function, the DBE must also be responsible, with respect to materials and supplies used on the contract, for negotiating price, determining quality and quantity, ordering the material, and installing (where applicable) and paying for the material itself. When a DBE is presumed not to be performing a commercially useful function, the DBE may present evidence to rebut this presumption.

A Provider must report a portion of the total value of the contract amount paid to a DBE joint venture equal to the distinct, clearly defined portion of the work of the contract performed by the DBE.

Proof of payment, such as copies of canceled checks, properly identifying the Mobility Authority's contract number or project number may be required to substantiate the payment, as deemed necessary by the Mobility Authority.

The Provider and any subprovider shall not discriminate on the basis of race, color, national origin or sex in the award and performance of contracts. These requirements shall be physically included in any subcontract.

Failure to carry out the requirements set forth above shall constitute a material breach of this contract and, may result in termination of the contract by the Mobility Authority or other such remedy as the Mobility Authority deems appropriate.

# ATTACHMENT C

# SUPPLEMENTAL WORK AUTHORIZATION NO. \_\_\_\_ TO WORK AUTHORIZATION NO. \_\_\_\_ CONTRACT FOR ENGINEERING SERVICES

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 Mobility Authority) and (the Engineer) dated				
The following terms and conditions of W follows:	Vork Authorization No are hereby amended as			
* *	zation shall become effective on the date of final erms and conditions of Work Authorization No orce and effect.			
IN WITNESS WHEREOF, this duplicate counterparts and hereby accepted	Supplemental Work Authorization is executed in and acknowledged below.			
THE ENGINEER	CENTRAL TEXAS REGIONAL MOBILITY AUTHORITY			
(Signature)	(Signature)			
(Printed Name)	Mike Heiligenstein			
(Title)	Executive Director			
(Date)	(Date)			

# ATTACHMENT D

# **KEY PERSONNEL**

<u>Title</u> <u>Engineer Employee</u>

Project Manager Robin Handel

Deputy Project Manager/Lead Structural Engineer Tom Ashcraft

Lead Roadway Engineer Paul Schrader

Lead Drainage Engineer Vicki McEvoy

ITS/Infrastructure Engineer Karl Burkett

Traffic Engineer Benedict Patrick

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

#### **RESOLUTION NO. 16-050**

# APPROVING A MEMORANDUM OF AGREEMENT WITH CAPITAL METRO AND THE CAPITAL AREA METROPOLITAN PLANNING ORGANIZATION TO IMPLEMENT A PARK AND RIDE INITIATIVE

WHEREAS, the Central Texas Mobility Authority's (Mobility Authority) mission is to implement innovative, multi-modal transportation solutions that mitigate congestion and create transportation choices that enhance the quality of life and the economic vitality in the Central Texas metropolitan region ("Central Texas"); and

WHEREAS, Capital Metro serves as the largest provider for the Central Texas area's public transportation, including commuter rail, bus rapid transit, express bus operations, local bus operations, rideshare programs, and paratransit services (collectively referred to as the "Services"); and

WHEREAS, the Capital Area Metropolitan Planning Organization ("CAMPO") produces and maintains both the Long-Range Transportation Plan and the Transportation Improvement Program for the 6-County region, including those activities involving Capital Metro and the Mobility Authority; and

WHEREAS, the Mobility Authority is advancing a program of projects that include managed/express lane elements, that shall provide reliable travel times and travel time savings to users; and

WHEREAS, these managed/express lanes are free to use for Capital Metro Services as specified under Section 370.177(a-1), Transportation Code and in Section 301.004 of the CTRMA Policy Code; and

WHEREAS, the Mobility Authority, Capital Metro and CAMPO seek to develop a Park and Ride Initiative to coordinate the integration of Park and Ride ("P&R") facilities to serve transit vehicles using the managed/express lane projects; and

WHEREAS, the Mobility Authority, Capital Metro and CAMPO have discussed and developed a proposed Memorandum of Agreement related to the Park and Ride Initiative to identify and develop a program of P&R facilities that will operate on existing and planned Mobility Authority project corridors; and

WHEREAS, the Memorandum of Agreement identifies the roles and responsibilities of each agency to allow them to cooperate and coordinate with each other to (i) avoid overlap or duplication of efforts, (ii) plan, develop, and construct P&R facilities in an efficient manner in

order to minimize costs while maximizing mobility, and (iii) allow projects to proceed in a timely and cost efficient manner; and

WHEREAS, the Executive Director recommends approval of the proposed Memorandum of Agreement in the form or substantially the same form attached hereto as Exhibit A.

NOW THEREFORE, BE IT RESOLVED that the proposed Memorandum of Agreement is hereby approved; and

BE IT FURTHER RESOLVED that the Executive Director is directed and authorized to finalize and execute for the Mobility Authority the proposed Memorandum of Agreement in the form or substantially the same form attached hereto as <u>Exhibit A</u>.

Adopted by the Board of Directors of the Central Texas Regional Mobility Authority on the 27<sup>th</sup> day of July, 2016.

Submitted and reviewed by:

Geoffrey Petrov, General Counsel

Approved:

Ray A. Wilkerson

Chairman, Board of Directors

# Exhibit A

# MEMORANDUM OF AGREEMENT PARK AND RIDE INITIATIVE

# CENTRAL TEXAS REGIONAL MOBILITY AUTHORITY, CAPITAL METROPOLITAN TRANSPORTATION AUTHORITY, AND CAPITAL AREA METROPOLITAN PLANNING ORGANIZATION

THIS MEMORANDUM OF AGREEMENT (the "Agreement") is made by and between the Central Texas Regional Mobility Authority (the "CTRMA"), the Capital Metropolitan Transportation Authority ("Capital Metro"), and the Capital Area Metropolitan Planning Organization ("CAMPO"). (Collectively referred to as the "Parties")

The Parties hereto agree to the following regarding the planning and development of Park and Ride (P&R) facilities that will benefit transit vehicles exclusively to provide transportation to members of the public using the managed/express lane projects being developed by the CTRMA.

#### WITNESSETH

WHEREAS, the CTRMA's mission is to implement innovative, multi-modal transportation solutions that mitigate congestion and create transportation choices that enhance the quality of life and the economic vitality in the Central Texas metropolitan region ("Central Texas"); and

**WHEREAS,** Capital Metro serves as the largest provider for the Central Texas area's public transportation, including commuter rail, bus rapid transit, express bus operations, local bus operations, rideshare programs, and paratransit services (collectively referred to as the "Services"); and

WHEREAS, CAMPO produces and maintains both the Long-Range Transportation Plan and the Transportation Improvement Program for the 6-County region, including those activities involving Capital Metro and the CTRMA; and

**WHEREAS**, the CTRMA is advancing a program of projects that include managed/express lane elements, that shall provide reliable travel times and travel time savings to users; and

**WHEREAS**, these managed/express lanes are free to use for Capital Metro Services as specified under Section 370.177(a-1), Transportation Code and in Section 301.004 of the CTRMA Policy Code; and

**WHEREAS**, the Parties seek to coordinate the integration of P&R facilities to serve transit vehicles using the managed/express lane projects; and

WHEREAS, the Parties desire to cooperate and coordinate with each other to (i) avoid overlap or duplication of efforts, (ii) plan, develop, and construct P&R facilities in an efficient manner in order to minimize costs while maximizing mobility to all Parties, and (iii) allow the Parties to proceed with projects in a timely and cost efficient manner; and

WHEREAS, the agreement proposed by the Parties is more particularly described in the Roles and Responsibilities Section of this Agreement; and the initial listing of potential P&R Projects to be evaluated are identified as attachments to this Agreement; and

**WHEREAS**, the Parties represent that they have the authority to enter into this Agreement and the Parties intend to comply with the Interlocal Cooperation Act, Texas Government Code Section 791.001, et seq.

**NOW, THEREFORE,** the Parties, in consideration of the mutual covenants and agreements herein contained, do hereby mutually agree as follows:

# I. Purpose

The purpose of this Agreement is to memorialize the responsibilities of the Parties regarding the planning for and the development of a P&R Initiative throughout Central Texas and to solidify the mutual relationship in developing a P&R Initiative between all Parties.

# II. Description and Background

The CTRMA, Capital Metro, and CAMPO are major partners in the development of mobility solutions for the people of Austin and the surrounding metropolitan area. All Parties have worked collaboratively over the past several years in coordinating their respective projects and creating opportunities to improve mobility. Over the past two years, the Parties have identified the need to intensify their collaboration efforts and to focus on the strategic implementation of P&R facilities that will be located in optimal locations to access the managed/express lane projects being implemented by the CTRMA, to provide convenient access and travel time savings to Capital Metro customers, and addresses the planning needs of Central Texas identified by CAMPO. The P&R Initiative is a joint effort by all Parties to address mobility solutions in Central Texas. The CTRMA project corridors related to this agreement include the North MoPac Improvement Project, the South MoPac Improvement Project, US 183 North, US 183 South, SH 71 East, the Manor Expressway, and the Oak Hill Parkway. The initial listing of potential P&R project locations to be evaluated under the conditions of this agreement, are included as attachments to this agreement.

#### III. Roles and Responsibilities

The Parties agree to the following roles and responsibilities regarding the planning and development of P&R facilities that will benefit from the use of managed/express lanes being developed by the CTRMA.

- 1) CAMPO roles and responsibilities are agreed as follows:
  - a) Assist with the CTRMA and Capital Metro in the identification, evaluation, selection, and advancement of each P&R project; and
  - b) Include P&R projects identified in this effort in the development of the CAMPO Long-Range Transportation Plan and the Transportation Improvement Program; and amendments as needed; and
  - c) Work collaboratively with the CTRMA and Capital Metro to identify funding opportunities for P&R projects; and
  - d) Building on these efforts and other P&R projects in operation or being developed by Capital Metro and others, within their respective service areas, develop a Regional Park and Ride Plan for the 6-County CAMPO region.

### 2) Capital Metro roles and responsibilities are agreed as follows:

- a) Coordinate with the CTRMA and CAMPO on P&R locations throughout Central Texas where transit services would benefit from the use of managed/express lane projects being undertaken by the CTRMA; and
- b) Provide staff for project coordination on P&R site location, project development, and approval; and
- c) Provide operating plans for each P&R location; and
- d) Develop demand forecasting and service planning for each P&R location; and
- e) Provide design standards and criteria for P&R facilities; and
- f) Support public outreach for each P&R site location in conjunction with the CTRMA and CAMPO as appropriate; and
- g) Serve as the liaison to the Federal Transit Administration as appropriate to maintain compliance with federal law and to retain project eligibility costs for federal funding support; and
- h) Submit concepts and projects to CAMPO for inclusion in the region's long-range transportation plan and Transportation Improvement Program at the discretion of the Transportation Policy Board in accordance with a 3-C transportation planning process as specified in 23 CFR 450 and 49 CFR 613; and
- i) Conduct operations and maintenance capacity analysis for each P&R location, and incorporate each approved P&R location into the Capital Metro operations and maintenance budget; and
- j) Request Capital Metro board approval for all P&R locations as appropriate; and
- k) Develop the branding logo and related marketing materials for the P&R Initiative; and
- 1) Provide Express Bus Service to each P&R location; and
- m) Maintain operations and maintenance of each site after completion; and
- n) Coordinate with CTRMA and CAMPO to develop and build upon this initial agreement by the development of a P&R guidelines document and corresponding policy to clearly link the P&R facility size, the managed/express lane travel time benefits, and the market assessment with a corresponding level of transit service for these P&R facilities.

- 3) The CTRMA roles and responsibilities are agreed as follows:
  - a) Coordinate with Capital Metro and CAMPO on P&R locations throughout Central Texas where transit services would benefit from the use of managed/express lane projects being undertaken by the CTRMA; and
  - b) Provide staff to lead efforts on P&R site location, project development, and approval; and
  - c) In coordination with local transit operators and/or local governments, provide site narratives, preliminary site assessments, existing conditions analysis, environmental studies, preliminary design, and other planning-level activities necessary to identify, select, and acquire property for each P&R location identified; and
  - d) In coordination with local transit operators and/or local governments, evaluate the proposed and future P&R locations for efficient travel and feasible connectivity between the points of origin and destination in relationship to the managed/express lane projects; and
  - e) Conduct public outreach for each P&R site location in conjunction with Capital Metro and CAMPO; and
  - f) Request CTRMA Board approval for all P&R locations as appropriate; and
  - g) Coordinate with CAMPO and submit concepts and projects for inclusion in the long-range Transportation Plan and Transportation Improvement Program at the discretion of the Transportation Policy Board in accordance with a 3-C transportation planning process as required under 23 CFR 450 and CFR 613; and
  - h) In coordination with local transit operators and/or local governments, lead the efforts to identify potential funding needs and alternative funding sources to advance the P&R Initiative.
- 4) Responsibilities for property acquisition, detailed design, and construction will be determined at a future time under a separate agreement when more specific information is available. Potential funding options for these efforts shall include, but not be limited to, federal and state grants, agency capital program budgeting, municipal bonding programs, and public private partnerships (P3 programs).

#### IV. Term

The term of this Agreement shall commence on the date on which all Parties have executed this Agreement and end upon completion of the P&R Initiative. This Agreement shall remain in full force and effect unless superseded by a supplemental agreement. Any party may withdraw from this Agreement upon ninety (90) days notice to the other parties.

#### V. Termination

Any party may terminate this Agreement in whole or in part if one or both of the other parties fail to comply with any term or condition of the Agreement. The terminating party shall notify the other parties of the decision to terminate this Agreement at least ninety (90) days before the effective date of termination. The non-defaulting party may

avoid termination by correcting the reasons for termination prior to the effective date of termination stated in the notice to the satisfaction of the terminating party.

## VI. Appropriations

If any of the Parties fail to receive sufficient appropriation of funds or authorization to provide for the continuation of the Agreement, or if a lawful order issued in or for any fiscal year reduces the funds appropriated or authorized in such amounts as to preclude performing the services set out herein, the Agreement shall terminate upon the delivery of written notice to the other parties that funds are no longer available without any termination charges or other liability incurring to the terminating party.

## VII. Administrative Approval

The Executive Director(s) of CTRMA and CAMPO and the President/CEO of Capital Metro will have the authority to negotiate and execute amendments to this Agreement without further action of their governing bodies, but only to the extent necessary to implement and further the clear intent of the Parties governing body, and not in such a way as would constitute a substantive modification of the terms and conditions hereof or otherwise violate Chapter 791 of the Texas Government Code. Any amendments that would constitute a substantive modification to the Agreement must be approved by the governing bodies of the Parties.

#### VIII. Miscellaneous

This Agreement represents the entire agreement between the CTRMA, Capital Metro, and CAMPO. Other agencies or municipalities may join into this MOA, as associated with future locations and in particular with the potential P&R projects included as an attachment to this agreement.

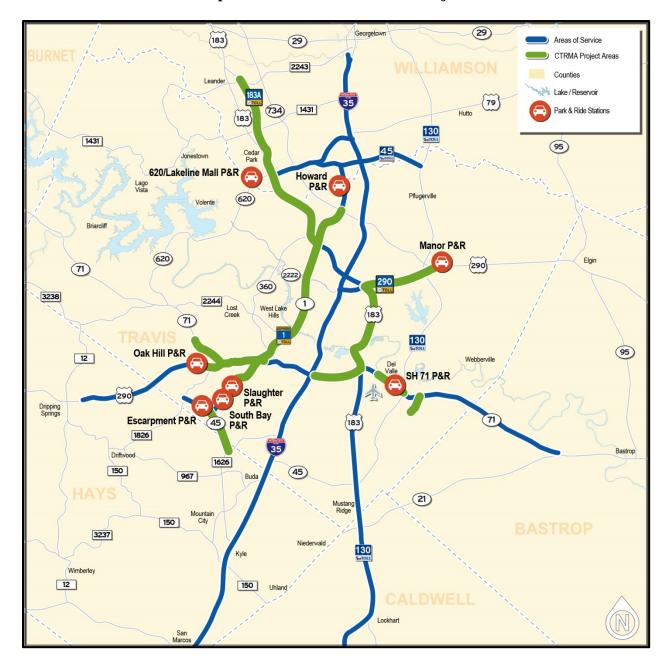
This Agreement supersedes all other agreements, understandings or commitments, written or oral, relative to the intent of this Agreement. Unless expressly provided for in this Agreement, this Agreement may not be amended or modified except pursuant to a mutual written agreement or supplemental written agreement executed by the CTRMA, Capital Metro, and CAMPO. This Agreement does not intend to, and nothing contained in this Agreement shall create any partnership, joint venture or other equity type agreement between the Parties. The Recitals set forth on Page 1 and 2 of this Agreement are incorporated herein for all purposes.

This Agreement shall be governed by a Texas.	and interpreted in accordance with the laws of the State of
Executed by:	
CENTRAL TEXAS REGIONAL MOR	BILITY AUTHORITY
By: Name: Mike Heiligenstein Title: Executive Director	Date:
Approved as to form:	
By:	Date:
Title:	
CAPITAL METROPOLITAN TRANS	SPORTATION AUTHORITY
By: Name: Linda Watson Title: President/CEO	Date:
Approved as to form:	
By:	Date:
Title:	
CAPITAL AREA METROPOLITAN	PLANNING ORGANIZATION
By: Name: Ashby Johnson Title: Executive Director	Date:
Approved as to form:	
By:	Date:
Title	

# Attachment 1 Initial List of Potential Park and Ride Projects

- 1. North Mopac Improvement Project
  - a. Howard Lane
- 2. South Mopac Improvement Project
  - a. Escarpment Drive
  - b. South Bay Lane
  - c. Slaughter Lane
- 3. US 183 North
  - a. US 183 & 620
- 4. US 183 South
  - a. No P&R projects identified
- 5. SH 71 East
  - a. SH 71 (at SH 130 Toll)
- 6. Manor Expressway
  - a. US 290 (at SH 130 Toll)
- 7. Oak Hill Parkway
  - a. Oak Hill P&R (near ACC Pinnacle Campus)

Attachment 2
Map of Potential Park and Ride Projects



#### RESOLUTION NO. 16-051

RESOLUTION AUTHORIZING THE ISSUANCE, SALE AND DELIVERY OF CENTRAL TEXAS REGIONAL MOBILITY AUTHORITY SENIOR LIEN REVENUE BONDS, SERIES 2016A (THE "SERIES 2016A BONDS"), IN ACCORDANCE WITH SPECIFIED PARAMETERS; APPROVING THE FORM OF, AND AUTHORIZING THE EXECUTION AND DELIVERY OF, THE EIGHTEENTH SUPPLEMENTAL TRUST INDENTURE; APPOINTING AUTHORIZED OFFICERS TO AUTHORIZE, APPROVE AND DETERMINE CERTAIN TERMS AND PROVISIONS OF THE SERIES 2016A BONDS; APPROVING AND AUTHORIZING THE TERMS AND CONDITIONS OF A BOND PURCHASE CONTRACT PERTAINING TO THE SERIES 2016A BONDS AND THE EXECUTION AND DELIVERY OF SUCH PURCHASE CONTRACT; APPROVING THE PREPARATION OF A PRELIMINARY OFFICIAL STATEMENT AND AN OFFICIAL STATEMENT IN CONNECTION WITH THE OFFERING AND SALE OF THE SERIES 2016A BONDS; AUTHORIZING THE EXECUTION AND DELIVERY OF ANY AND ALL DOCUMENTS, CERTIFICATES, AGREEMENTS, CLOSING INSTRUCTIONS, AND INSTRUMENTS NECESSARY OR DESIRABLE TO BE EXECUTED AND DELIVERED IN CONNECTION WITH THE FOREGOING AND ENACTING OTHER PROVISIONS RELATING TO THE SUBJECT;

WHEREAS, the Central Texas Regional Mobility Authority (the "Authority") has been created and organized pursuant to and in accordance with the provisions of Chapter 361, Texas Transportation Code, and operates pursuant to the Constitution and laws of the State, including, particularly, Chapter 370, Texas Transportation Code (the "Act"), for the purposes of constructing, maintaining and operating transportation projects, including turnpike projects, in Travis and Williamson Counties, Texas; and

WHEREAS, pursuant to the Act, the Authority is authorized to: (i) study, evaluate, design, finance, acquire, construct, maintain, repair and operate transportation projects (as defined in the Act), individually or as a system (as defined in the Act); (ii) issue bonds, certificates, notes or other obligations payable from the revenues of a transportation project or system, including tolls, fees, fares or other charges, to pay all or part of the cost of a transportation project and to refund any bonds previously issued for a transportation project; and (iii) impose tolls, fees, fares or other charges for the use of each of its transportation projects and the different parts or sections of each of its transportation projects; and

WHEREAS, pursuant to the Act and other applicable laws, the Authority is authorized to issue revenue bonds, notes, certificates or other obligations for the purposes of (i) financing all or a portion of the cost of the acquisition, construction, improvement, extension or expansion of one or more turnpike projects (as defined in the Act), (ii) refunding, defeasing and redeeming any such obligations previously issued by the Authority and (iii) paying the expenses of issuing such revenue bonds, notes, certificates or other obligations; and

WHEREAS, the Authority has previously executed and delivered that certain Master Trust Indenture (the "Master Indenture"), between the Authority and Regions Bank, as successor in trust to JPMorgan Chase Bank, National Association, as trustee (the "Trustee"), providing for the issuance from time to time by the Authority of one or more series of its revenue obligations (collectively, the "Obligations"), as supplemented by that certain (i) First Supplemental Trust Indenture (the "First Supplement"), Second Supplemental Trust Indenture (the "Second Supplement"), and Third Supplemental Trust Indenture (the "Third Supplement"), each between the Authority and the Trustee and dated as of February 1, 2005; (ii) Fourth Supplemental Trust Indenture (the "Fourth Supplement"), between the Authority and the Trustee and dated as of May 1, 2009; (iii) Fifth Supplemental Trust Indenture (the "Fifth Supplement") and Sixth Supplemental Trust Indenture (the "Sixth Supplement"), each between the Authority and the Trustee and dated as of March 1, 2010; (iv) Seventh Supplemental Trust Indenture (the "Seventh Supplement"), between the Authority and the Trustee and dated as of August 1, 2010; (v) Eighth Supplemental Trust Indenture (the "Eighth Supplement") and the Ninth Supplemental Trust Indenture (the "Ninth Supplement"), each between the Authority and the Trustee and dated as of June 1, 2011; (vi) Tenth Supplemental Trust Indenture (the "Tenth Supplement") and Eleventh Supplemental Trust Indenture (the "Eleventh Supplement"), each between the Authority and the Trustee and dated as of May 1, 2013; (vii) Twelfth Supplemental Trust Indenture (the "Twelfth Supplement"), Thirteenth Supplemental Trust Indenture (the "Thirteenth Supplement"), Fourteenth Supplemental Trust Indenture (the "Fourteenth Supplement") and Fifteenth Supplemental Trust Indenture (the "Fifteenth Supplement"), each between the Authority and the Trustee and dated as of November 1, 2015; (viii) Sixteenth Supplemental Trust Indenture (the "Sixteenth Supplement"), between the Authority and the Trustee and dated as of June 1, 2016; and (ix) Seventeenth Supplemental Trust Indenture (the "Seventeenth Supplement") between the Authority and the Trustee and dated as of August 1, 2016, which is expected to be delivered and effective August 9, 2016 (the Master Indenture, as supplemented by the First Supplement, the Second Supplement, the Third Supplement, the Fourth Supplement, the Fifth Supplement, the Sixth Supplement, the Seventh Supplement, the Eighth Supplement, the Ninth Supplement, the Tenth Supplement, the Eleventh Supplement, the Twelfth Supplement, the Thirteenth Supplement, the Fourteenth Supplement, the Fifteenth Supplement, the Sixteenth Supplement and the Seventeenth Supplement, is referred to herein as the "Indenture"); and

WHEREAS, Sections 301, 302, 706 and 1002 of the Master Indenture authorize the Authority and the Trustee to execute and deliver supplemental indentures authorizing the issuance of Obligations, including Additional Senior Lien Obligations, and to include in such supplemental indentures the terms of such Additional Senior Lien Obligations and any other matters and things relative to the issuance of such Obligations which are not inconsistent with or in conflict with the Indenture, to add to the covenants of the Authority, and to pledge other moneys, securities or funds as part of the Trust Estate; and

WHEREAS, pursuant to the Act and Chapter 1371, Texas Government Code, as amended, the Board of Directors (the "Board") of the Authority has determined to issue its Additional Senior Lien Obligations designated as its Senior Lien Revenue Bonds, Series 2016A (the "Series 2016A Bonds"), pursuant to the Master Indenture and an Eighteenth Supplemental Trust Indenture (the "Eighteenth Supplement") for the purposes specified herein, all under and in accordance with the Constitution and the laws of the State; and

WHEREAS, the Board has been presented with and examined the proposed form of the Eighteenth Supplement and the Board finds that the form and substance of such document are satisfactory and the recitals and findings contained therein are true, correct and complete, and hereby adopts and incorporates by reference such recitals and findings as if set forth in full in this Resolution, and finds that it is in the best interest of the public and the Authority to issue the Series 2016A Bonds and to authorize the execution and delivery of such documents; and

WHEREAS, the Board now desires to appoint one or more officers of the Authority to act on behalf of the Authority to determine the final terms and conditions of the Series 2016A Bonds, as provided herein, and to make such determinations and findings as may be required by the Eighteenth Supplement and to carry out the purposes of this Resolution and execute an Award Certificate (as defined herein) setting forth such determinations and authorizing and approving all other matters relating to the issuance, sale and delivery of the Series 2016A Bonds; and

WHEREAS, the Board desires to authorize the execution and delivery of the Eighteenth Supplement providing for the issuance of and setting forth the terms and provisions relating to the Series 2016A Bonds to be issued as Additional Senior Lien Obligations, and the pledge and security therefor, in the substantially final form of the Eighteenth Supplement; and

WHEREAS, the 2016A Senior Lien Bonds shall be issued as Additional Senior Lien Obligations and Long-Term Obligations pursuant to and in accordance with the provisions of the Master Indenture and the Eighteenth Supplement; and

WHEREAS, the Board now desires to approve, ratify and confirm the preparation and distribution of a preliminary official statement and an official statement relating to the offering and sale of the Series 2016A Bonds; and

WHEREAS, the Board desires to provide for the issuance of the Series 2016A Bonds in accordance with the requirements of the Master Indenture and the Eighteenth Supplement, and to authorize the execution and delivery of the Eighteenth Supplement and such certificates, agreements, instruction letters and other instruments as may be necessary or desirable in connection therewith; and

WHEREAS, the Board desires to authorize the execution and delivery of a Bond Purchase Contract (the "Purchase Contract"), between the Authority and Jefferies LLC (the "Underwriters' Representative"), acting for and on behalf of itself and the syndicate of underwriters named therein (collectively, the "Underwriters") relating to the Series 2016A Bonds;

NOW, THEREFORE, BE IT RESOLVED BY THE BOARD OF DIRECTORS OF THE CENTRAL TEXAS REGIONAL MOBILITY AUTHORITY THAT:

#### ARTICLE I

#### FINDINGS AND DETERMINATIONS

- Section 1.1. <u>Findings and Determinations</u>. (a) The findings and determinations set forth in the preamble hereof are hereby incorporated herein for all purposes as though such findings and determinations were set forth in full herein. Capitalized terms used herein and not otherwise defined herein shall have the meanings assigned thereto in the Master Indenture and the Eighteenth Supplement.
- (b) The Board has found and determined that the Series 2016A Bonds may be issued as Additional Senior Lien Obligations and as Current Interest Bonds and Long-Term Obligations in accordance with the Master Indenture.
- (c) It is officially found, determined and declared that the meeting at which this Resolution has been adopted was open to the public and public notice of the time, place and subject matter of the public business to be considered and acted upon at said meeting, including this Resolution was given, all as required by the applicable provisions of Chapter 551, Texas Government Code, as amended.
- (d) The Board hereby finds and determines that the issuance of the Series 2016A Bonds is in the best interest of the Authority.

#### **ARTICLE II**

#### ISSUANCE OF SERIES 2016A BONDS; APPROVAL OF DOCUMENTS

- Section 2.1. <u>Issuance</u>, <u>Execution and Delivery of Series 2016A Bonds</u>; <u>Approval of Eighteenth Supplement</u>. The Authority hereby authorizes, approves and directs the issuance of the Series 2016A Bonds in accordance with the terms of this Resolution, the Award Certificate, the Master Indenture and the Eighteenth Supplement, a draft of which was presented to the Authority and its counsel, the form, terms and provisions of such Eighteenth Supplement being hereby authorized and approved with such changes as may be approved by the Authorized Officer (as defined herein), such approval to be evidenced by the execution thereof. The Authorized Officer is hereby authorized to execute the Eighteenth Supplement and the Secretary is hereby authorized to attest the signature of the Authorized Officer.
- Section 2.2. The Issuance of the Series 2016A Bonds. The issuance, execution and delivery of the Series 2016A Bonds, which shall be issued in the aggregate principal amount and bearing interest in accordance with the terms of the Eighteenth Supplement, all as determined by the Authorized Officer and set forth in the Award Certificate, to provide funds to (i) make a deposit to a reserve fund, (ii) pay the Costs of improvements and extensions to the 290 East Project (as defined in the Eighth Supplement), including, without limitation, the design and construction of one or more direct connectors at the State Highway 130 interchange, (iii) pay capitalized interest with respect to the Series 2016A Bonds, and (iv) pay the costs of issuance for the Series 2016A Bonds, all pursuant to and in accordance with the Master Indenture and the Eighteenth Supplement, are hereby authorized and approved.

Section 2.3. Execution and Delivery of Series 2016A Bonds. The Chairman of the Board is hereby authorized and directed to execute and the Secretary of the Board is hereby authorized and directed to attest the signature of the Chairman of the Board and to affix the Authority's seal to the Series 2016A Bonds and to cause the Trustee to authenticate and deliver the Series 2016 Bonds to the Representative (as defined herein) or its designee against payment therefor in accordance with and subject to the terms and provisions of the Master Indenture and the Eighteenth Supplement.

#### ARTICLE III

#### APPOINTMENT OF AUTHORIZED OFFICER; DELEGATION OF AUTHORITY

- Section 3.1. <u>Appointment of Authorized Officer</u>. The Board hereby appoints the Chairman of the Board, the Executive Director and the Chief Financial Officer, severally and each of them, to act as an authorized officer (the "Authorized Officer") on behalf of the Board and to perform all acts authorized and required of an Authorized Officer set forth in this Resolution and the Eighteenth Supplement, respectively. The Authorized Officer is hereby authorized and directed to execute an Award Certificate setting forth the information authorized to be stated therein pursuant to the Eighteenth Supplement.
- Section 3.2. <u>Delegation of Authority</u>. (a)The Board hereby authorizes and directs that the Authorized Officer act on behalf of the Authority to determine all final terms and conditions of the Series 2016A Bonds, the dated date for the Eighteenth Supplement, the dated date for the Series 2016A Bonds, the aggregate principal amount of Series 2016 Bonds to be issued, the prices at which the Series 2016A Bonds will be sold, any different or additional designation or title of the Series 2016A Bonds, the principal amounts and maturity dates therefor, the per annum interest rates for the Series 2016A Bonds, the redemption provisions and dates for the Series 2016A Bonds, the final forms of the Series 2016A Bonds, and such other terms and provisions that shall be applicable to the Series 2016A Bonds, to approve the form and substance of a purchase contract providing for the sale of the Series 2016A Bonds, to authorize and approve the forms of a preliminary official statement and a final official statement and to make such findings and determinations as are otherwise authorized herein or as may be required by the Eighteenth Supplement to carry out the purposes of this Resolution and to execute an award certificate (the "Award Certificate") setting forth such determinations, such other matters as authorized herein, and authorizing and approving all other matters relating to the issuance, sale and delivery of the Series 2016A Bonds; provided, that the following conditions can be satisfied:
  - (i) the aggregate principal amount of the Series 2016A Bonds to be issued shall not exceed \$70,000,000;
  - (ii) the Series 2016A Bonds shall not bear interest at a rate greater than the maximum rate allowed by Chapter 1204, Texas Government Code, as amended; and
    - (iii) the Series 2016A Bonds shall mature not later than January 1, 2053;

all based on bond market conditions and available rates for the Series 2016A Bonds on the date of sale of the Series 2016A Bonds.

The Series 2016A Bonds may be issued as one or more series as specified in the Award Certificate.

Section 3.3. <u>Limitation on Delegation of Authority</u>. The authority granted to the Authorized Officer under Article III of this Resolution shall expire at 5:00 p.m. Central Time on July 15, 2017, unless otherwise extended by the Board by separate Resolution. Any Series 2016A Bonds, with respect to which an Award Certificate is executed prior to 5:00 p.m. Central Time on July 15, 2017, may be delivered to the initial purchaser thereof after such date.

#### ARTICLE IV

#### APPROVAL OF SALE OF SERIES 2016A BONDS

Section 4.1. Approval of Sale of Series 2016A Bonds. The sale of the Series 2016A Bonds to Jefferies LLC, as Underwriters Representative, acting on behalf of itself and the Underwriters, in the aggregate principal amounts, bearing interest at the rates and at the prices set forth in the Purchase Contract, as determined by the Authorized Officer on the date of sale of the Series 2016A Bonds, is hereby authorized and approved. The Authorized Officer is hereby authorized and directed to execute and deliver the Purchase Contract on behalf of the Authority providing for the sale of the Series 2016A Bonds to the Underwriters in such form as determined by the Authorized Officer, to be dated as of the date of its execution and delivery, by and among the Authority and the Underwriters. The Authorized Officer is hereby authorized and directed to approve the final terms and provisions of the Purchase Contract and to approve and to execute and deliver such Purchase Contract on behalf of the Authority, such approval to be conclusively evidenced by the execution thereof.

Section 4.2. <u>Sale on Best Terms Available</u>. The Series 2016A Bonds shall be sold to the Underwriters at the prices, bearing interest at the rates and having such other terms and provisions, that, based on then current market conditions, result in the best terms reasonably available and advantageous to the Authority, as is determined by the Authorized Officer on the date of sale of the Series 2016A Bonds. The Authorized Officer is hereby authorized and directed to make such findings in the Award Certificates regarding the terms of the sale of the Series 2016A Bonds and the benefit of such sale of the Series 2016A Bonds to the Authority.

#### ARTICLE V

#### APPROVAL OF OFFICIAL STATEMENT

Section 5.1. <u>Approval of Official Statement</u>. The Authorized Officer is hereby authorized and directed to authorize and approve the form and substance of the Preliminary Official Statement prepared in connection with the public offering of the Series 2016A Bonds, together with any addenda, supplement or amendment thereto (the "Preliminary Official Statement"), and the preparation, use and distribution of the Preliminary Official Statement in the marketing of the Series 2016A Bonds. The Authorized Officer is authorized to "deem final"

the Preliminary Official Statement as of its date (except for the omission of pricing and related information) within the meaning and for the purposes of paragraph (b)(1) of Rule 15c2-12 under the Securities Exchange Act of 1934, as amended. The Authorized Officer is hereby further authorized and directed to use and distribute or authorize the use and distribution of, a final official statement and any addenda, supplement or amendment thereto (the "Official Statement"). The use thereof by the Underwriters in the public offering and sale of the Series 2016A Bonds is hereby authorized and approved. The Chairman of the Board is hereby authorized and directed to execute and the Authorized Officer to deliver the Official Statement to the Underwriters in number and in accordance with the terms of the Purchase Contract. The Secretary of the Board is hereby authorized and directed to include and maintain copies of the Preliminary Official Statement and the Official Statement in the permanent records of the Authority.

#### ARTICLE VI

### USE AND APPLICATION OF PROCEEDS; LETTERS OF INSTRUCTION; POWER TO REVISE DOCUMENTS

Section 6.1. <u>Use and Application of Proceeds; Letters of Instruction</u>. The proceeds from the sale of the Series 2016A Bonds shall be used for the respective purposes set forth in and in accordance with the terms and provisions of the Eighteenth Supplement and the Award Certificate. The deposit and application of the proceeds from the sale of the Series 2016A Bonds shall be set forth in Letters of Instruction of the Authority executed by the Authorized Officer.

Section 6.2. Execution and Delivery of Other Documents. The Authorized Officer is hereby authorized and directed to execute and deliver such other documents and agreements, including amendments, modifications, supplements or consents to existing agreements (including any agreements with the Texas Department of Transportation and the United States Department of Transportation), assignments, certificates, instruments, releases, financing statements, written requests, filings with the Internal Revenue Service and letters of instruction, whether or not mentioned herein, as may be necessary or convenient to carry out or assist in carrying out the purposes of this Resolution and to comply with the requirements of the Indenture, the Eighteenth Supplement, the Award Certificate, and the Purchase Contract.

Section 6.3. <u>Power to Revise Form of Documents</u>. Notwithstanding any other provision of this Resolution, the Authorized Officer is hereby authorized to make or approve such revisions in the form of the documents presented at this meeting and any other document, certificate or agreement pertaining to the issuance and delivery of the Series 2016A Bonds in accordance with the terms of the Master Indenture and the Eighteenth Supplement as, in the judgment of such person, may be necessary or convenient to carry out or assist in carrying out the purposes of this Resolution, such approval to be evidenced by the execution thereof.

#### ARTICLE VII

#### APPROVAL AND RATIFICATION OF CERTAIN ACTIONS

Section 7.1. <u>Approval of Submission to the Attorney General of Texas</u>. The Authority's Bond Counsel is hereby authorized and directed to submit to the Attorney General,

for his approval, a transcript of the legal proceedings relating to the issuance, sale and delivery of the Series 2016A Bonds as required by law, and to the Comptroller of Public Accounts of the State of Texas (the "Comptroller") for registration. In connection with the submission of the record of proceedings for the Series 2016A Bonds to the Attorney General of the State of Texas for examination and approval of such Series 2016A Bonds, the Authorized Officer is hereby authorized and directed to issue one or more checks of the Authority payable to the Attorney General of the State of Texas as a nonrefundable examination fee in the amount required by Chapter 1202, Texas Government Code. The Initial Series 2016A Bonds shall be delivered to the Trustee for delivery to the Underwriters Representative against payment therefor and upon satisfaction of the requirements of the Indenture, the Eighteenth Supplement and the Purchase Contract. Upon satisfaction of such requirements, the Trustee shall cancel the Initial Series 2016A Bonds and authenticate and deliver for the account of the Underwriters definitive Series 2016A Bonds, registered in the name of Cede & Co., as nominee of The Depository Trust Company.

- Section 7.2. <u>Certification of the Minutes and Records</u>. The Secretary and any Assistant Secretary of the Board are each hereby severally authorized to certify and authenticate minutes and other records on behalf of the Authority for the issuance of the Series 2016A Bonds and for all other Authority activities.
- Section 7.3. <u>Ratifying Other Actions</u>. All other actions taken or to be taken by the Executive Director, the Chief Financial Officer, the Authorized Officer and the Authority's staff in connection with the issuance of the Series 2016A Bonds are hereby approved, ratified and confirmed.
- Section 7.4. <u>Authority to Invest Funds</u>. The Executive Director and the Chief Financial Officer are each hereby severally authorized to undertake all appropriate actions and to execute such documents, agreements or instruments as they deem necessary or desirable under the Master Indenture and the Eighteenth Supplement with respect to the investment of proceeds of the Series 2016A Bonds and other funds of the Authority.
- Section 7.5. Federal Tax Considerations. In addition to any other authority provided under this Resolution, each Authorized Officer is hereby further expressly authorized, acting for and on behalf of the Authority, to determine and designate in the Award Certificate for the Series 2016A Bonds whether such bonds will be issued as taxable bonds or tax-exempt bonds for federal income tax purposes and to make all appropriate elections under the Internal Revenue Code of 1986, as amended. Each Authorized Officer is hereby further expressly authorized and empowered from time to time and at any time to perform all such acts and things deemed necessary or desirable and to execute and deliver any agreements, certificates, documents or other instruments, whether or not herein mentioned, to carry out the terms and provisions of this section, including but not limited to, the preparation and making of any filings with the Internal Revenue Service.

#### ARTICLE VIII

#### **GENERAL PROVISIONS**

Section 8.1. <u>Changes to Resolution</u>. The Executive Director, the Chief Financial Officer and the Authorized Officer, and either of them, singly and individually, are hereby authorized to make such changes to the text of this Resolution as may be necessary or desirable to carry out the purposes hereof or to comply with the requirements of the Attorney General of Texas in connection with the issuance of the Series 2016A Bonds herein authorized.

Section 8.2. <u>Effective Date</u>. This Resolution shall be in full force and effect from and upon its adoption.

Adopted, passed and approved by the Board of Directors of the Central Texas Regional Mobility Authority on the 27<sup>th</sup> day of July, 2016.

Submitted and reviewed by:

Approved:

Geoffrey Petrov, General Counsel

Ray Wilker on

#### **RESOLUTION NO. 16-052**

### EXPRESSING INTENT TO FINANCE EXPENDITURES TO BE INCURRED FOR THE 290E PROJECT

WHEREAS, the Central Texas Regional Mobility Authority (the "Authority") is a political subdivision of the State of Texas authorized to finance its activities by issuing obligations; and

WHEREAS, the Authority will make, or has made not more than 60 days prior to the date hereof, payments with respect to the acquisition, construction, reconstruction or renovation of the projects listed on Exhibit A attached hereto (the "Financed Project"); and

WHEREAS, the Authority has concluded that it does not currently desire to issue obligations to finance the costs associated with the Financed Project; and

WHEREAS, the Authority desires to reimburse itself for the costs associated with the Financed Project from the proceeds of obligations to be issued subsequent to the date hereof; and

WHEREAS, the Authority reasonably expects to issue obligations to reimburse itself for the costs associated with the Financed Project.

#### **NOW, THEREFORE**, be it resolved that:

Section 1. The Authority reasonably expects to reimburse itself for costs that have been or will be paid subsequent to the date that is 60 days prior to the date hereof and that are to be paid in connection with the acquisition, construction, reconstruction or renovation of the Financed Project from the proceeds of obligations to be issued subsequent to the date hereof.

Section 2. The Authority reasonably expects that the maximum principal amount of obligations issued to reimburse the Authority for the costs associated with the Financed Project will be \$130,000,000.

Adopted by the Board of Directors of the Central Texas Regional Mobility Authority on the 27<sup>th</sup> day of July, 2016.

Submitted and reviewed by:

Ray A. Wilkerson

Approved:

#### **EXHIBIT A**

### **DESCRIPTION OF PROJECT**

#### Purpose/Project

<u>Amount</u>

Highway improvements, for 290E Phase III including but not limited to direct connects between U.S. Highway 290E and State Highway 130.

\$130,000,000

#### **RESOLUTION NO. 16-053**

### EXPRESSING INTENT TO FINANCE EXPENDITURES TO BE INCURRED FOR THE 183A PROJECT

WHEREAS, the Central Texas Regional Mobility Authority (the "Authority") is a political subdivision of the State of Texas authorized to finance its activities by issuing obligations; and

WHEREAS, the Authority will make, or has made not more than 60 days prior to the date hereof, payments with respect to the acquisition, construction, reconstruction or renovation of the projects listed on Exhibit A attached hereto (the "Financed Project"); and

WHEREAS, the Authority has concluded that it does not currently desire to issue obligations to finance the costs associated with the Financed Project; and

WHEREAS, the Authority desires to reimburse itself for the costs associated with the Financed Project from the proceeds of obligations to be issued subsequent to the date hereof; and

WHEREAS, the Authority reasonably expects to issue obligations to reimburse itself for the costs associated with the Financed Project.

#### **NOW, THEREFORE**, be it resolved that:

Section 1. The Authority reasonably expects to reimburse itself for costs that have been or will be paid subsequent to the date that is 60 days prior to the date hereof and that are to be paid in connection with the acquisition, construction, reconstruction or renovation of the Financed Project from the proceeds of obligations to be issued subsequent to the date hereof.

Section 2. The Authority reasonably expects that the maximum principal amount of obligations issued to reimburse the Authority for the costs associated with the Financed Project will be \$120,000,000.

Adopted by the Board of Directors of the Central Texas Regional Mobility Authority on the 27<sup>th</sup> day of July, 2016.

Submitted and reviewed by:

ffrey Petroy, General Counsel

Ray A. Wilkerson

Approved:

#### **EXHIBIT A**

#### **DESCRIPTION OF PROJECT**

Purpose/Project Amount

Highway improvements, for 183A Phase III including but not limited to improvements to and extension of the main lanes.

\$120,000,000

#### **RESOLUTION NO. 16-054**

## AUTHORIZING THE EXECUTIVE DIRECTOR TO TAKE ANY AND ALL ACTIONS NECESSARY TO ENFORCE THE TERMS OF THE DESIGN/BUILD CONTRACT WITH CH2MHILL FOR THE MOPAC IMPROVEMENT PROJECT

WHEREAS, by Resolution No. 13-010 dated February 27, 2013, the Board of Directors ("Board") of the Central Texas Mobility Authority ("Mobility Authority") authorized the Executive Director to finalize and execute a design-build contract (the "Contract") with CH2M Hill Engineers, Inc. ("CH2M") for development of the MoPac Improvement Project (the "Project"); and

WHEREAS, by Resolution No. 16-005 dated February 16, 2016, the Board authorized the Executive Director to take all actions necessary to negotiate, execute and implement Amendment No. 1 to the Contract in order to implement a plan for completing the Project;

WHEREAS, to date, CH2M has failed to complete the Interim Milestone Work, which provides for opening of the northbound and southbound toll lanes, immediately north of 2222 to approximately Parmer Lane (the northern terminus), to tolled traffic for revenue generation;

WHEREAS, the Mobility Authority has accrued liquidated damages due to CH2M's failure to timely deliver the Project by the Completion Deadline;

NOW, THEREFORE, BE IT RESOLVED that the Board hereby authorizes the Executive Director to take any and all actions necessary to enforce the terms of the Contract, as amended, including without limitation terms associated with the recovery schedule and actions authorized for the failure to comply therewith.

Adopted by the Board of Directors of the Central Texas Regional Mobility Authority on the 27<sup>th</sup> day of July, 2016.

Submitted and reviewed by:

Geoffrey Petroy, General Counsel

Ray A. Wilkerson

Approved:

#### **RESOLUTION NO. 16-055**

#### AMENDING THE POLICY CODE TO

WHEREAS, by Resolution No. 12-016 dated February 29, 2012, the Board adopted the Mobility Authority Policy Code ("Policy Code") as a non-substantive codification of all policy resolutions adopted by the Board since 2003; and

WHEREAS, subsequent to its initial adoption, the Board has amended the Policy Code from time to time in order to modify existing policies and incorporate new policies beneficial to the operation of the Central Texas Regional Mobility Authority; and

WHEREAS, the Executive Director recommends amending the Policy Code to allow for the initiation of procurements and execution of employment agreements, as set forth in the proposed amendment to Sections 101.038 and 101.040 attached hereto as Exhibit 1.

NOW, THEREFORE, BE IT RESOLVED that the Board hereby amends Sections 101.038 and 101.040 of the Policy Code, each to read in its entirety as set forth in Exhibit 1.

Adopted by the Board of Directors of the Central Texas Regional Mobility Authority on the 27<sup>th</sup> day of July, 2016.

Submitted and reviewed by

Geoffrey Petroy General Counsel

Approved:

Ray A. Wilkerson

#### **EXHIBIT 1 TO RESOLUTION NO. 16-055**

#### Article 3. ADMINISTRATION

### Subchapter A. ADMINISTRATIVE STAFF **Administrators 101.037**

- (a) The chief administrator of the authority shall be the executive director.
- (b) Other administrators may be appointed by the executive director with the consent of the board. All such administrators, except for the executive director, shall perform such duties and have such powers as may be assigned to them by the executive director or as set forth in board Resolutions.
- (c) Any administrator may be removed, with or without cause, at any time by the executive director.
- (d) All administrators will be reimbursed for expenses incurred in performance of their duties as approved by the executive director. Notwithstanding the foregoing, all expense reimbursements to the executive director shall be subject to the approval of the Executive Committee.

#### Executive Director 101.038

- (a) The executive director will be selected by the board and shall serve at the pleasure of the board, performing all duties assigned by the board and implementing all resolutions adopted by the board.
- (b) In addition, the executive director:
- (1) shall be responsible for general management, hiring and termination of employees, and day-to-day operations of the authority;
- (2) shall be responsible for preparing a draft of the Strategic Plan for the authority's operations, as described in Section 101.013;
- (3) shall be responsible for preparing a draft of the authority's written Annual Report, as described in Section 101.013;
- (4) at the invitation of a Commissioners Court of a county in the authority, shall appear, with representatives of the board, before the Commissioners Court to present the authority's Annual Report and respond to questions and receive comments regarding the Report or the authority's operations;
- (5) may initiate procurements for goods and services, consulting and professional services, and construction services in accordance with the procedures established in this Policy Code, including soliciting proposals and advertising contracts for bids;
- (6) may execute inter-agency and interlocal contracts, service contracts, and employment agreements provided that obligations assumed pursuant to such agreements are within limits specified in the most recent budget approved by the board;

- (7) may execute contracts, contract supplements, contract change orders, and purchase orders not exceeding amounts established in Resolutions of the board; and
- (8) shall have such obligations and authority as may be described in one or more Resolutions enacted from time to time by the board.
- (c) The executive director may delegate the foregoing duties and responsibilities as the executive director deems appropriate, provided such delegation does not conflict with applicable law or any express direction of the board.

#### **Interim Executive Director 101.039**

The board may designate an interim executive director to perform the duties of the executive director during such times as the position of executive director is vacant. The interim executive director need not be an employee of the authority.

#### Termination of Employees 101.040

Employees of the authority shall be employees at will unless they are party to an employment agreement with the authority executed by the executive director or, in the case of an agreement with the executive director, executed by the chairman upon approval by the board. Employees may be terminated at any time, with or without cause, by the executive director subject to applicable law and the policies in place at the time of termination.

#### **Article 3. ADMINISTRATION**

### Subchapter A. ADMINISTRATIVE STAFF

#### Administrators 101.037

- (a) The chief administrator of the authority shall be the executive director.
- (b) Other administrators may be appointed by the executive director with the consent of the board. All such administrators, except for the executive director, shall perform such duties and have such powers as may be assigned to them by the executive director or as set forth in board Resolutions.
- (c) Any administrator may be removed, with or without cause, at any time by the executive director.
- (d) All administrators will be reimbursed for expenses incurred in performance of their duties as approved by the executive director. Notwithstanding the foregoing, all expense reimbursements to the executive director shall be subject to the approval of the Executive Committee.

#### **Executive Director 101.038**

- (a) The executive director will be selected by the board and shall serve at the pleasure of the board, performing all duties assigned by the board and implementing all resolutions adopted by the board.
- (b) In addition, the executive director:
- (1) shall be responsible for general management, hiring and termination of employees, and day-to-day operations of the authority;
- (2) shall be responsible for preparing a draft of the Strategic Plan for the authority's operations, as described in Section 101.013;
- (3) shall be responsible for preparing a draft of the authority's written Annual Report, as described in Section 101.013;
- (4) at the invitation of a Commissioners Court of a county in the authority, shall appear, with representatives of the board, before the Commissioners Court to present the authority's Annual Report and respond to questions and receive comments regarding the Report or the authority's operations;
- (5) may initiate procurement for goods and services, consulting and professional services, and construction services in accordance with the procedures established in this Policy Code including soliciting proposals and advertising contracts for bids;
- (65) may execute inter-agency and interlocal contracts, and service contracts, and employment agreements provided that obligations assumed pursuant to such agreements are within limits specified in the most recent budget approved by the board;
- (76) may execute contracts, contract supplements, contract change orders, and purchase orders not exceeding amounts established in Resolutions of the board; and

- (<u>8</u>7) shall have such obligations and authority as may be described in one or more Resolutions enacted from time to time by the board.
- (c) The executive director may delegate the foregoing duties and responsibilities as the executive director deems appropriate, provided such delegation does not conflict with applicable law or any express direction of the board.

#### **Interim Executive Director 101.039**

The board may designate an interim executive director to perform the duties of the executive director during such times as the position of executive director is vacant. The interim executive director need not be an employee of the authority.

#### Termination of Employees 101.040

Employees of the authority shall be employees at will unless they are party to an employment agreement with the authority executed by the <u>executive director or, in the case of an agreement with the executive director, executed by the chairman upon approval by the board. Employees may be terminated at any time, with or without cause, by the executive director subject to applicable law and the policies in place at the time of termination.</u>

#### **RESOLUTION NO. 16-056**

#### AWARDING A CONSTRUCTION CONTRACT FOR THE SH 45 SW PROJECT

WHEREAS, by Resolution No. 16-040 dated June 15, 2016, the Board of Directors authorized the Executive Director to advertise, release bid documents, and review bids consistent with the Mobility Authority Procurement Policy for construction services for the SH 45 SW Project; and.

WHEREAS, the Mobility Authority received three bids, and after review by staff the apparent low bid was found to be responsive, mathematically correct, and materially balanced; and

WHEREAS, the Executive Director recommends awarding a construction contract to McCarthy Building Companies, Inc. as the low bidder.

NOW, THEREFORE, BE IT RESOLVED, that the Board of Directors authorizes the Executive Director to negotiate and execute on behalf of the Mobility Authority an agreement with McCarthy Building Companies, Inc. in an amount not to exceed \$ 78,599,599.18.

BE IT FURTHER RESOLVED, that the project financing plan and an additional bird survey must be completed prior to the issuance of a notice to proceed with construction of the SH 45 SW Project.

Adopted by the Board of Directors of the Central Texas Regional Mobility Authority on the 27<sup>th</sup> day of July, 2016.

Submitted and reviewed by:

Geoffrey Petroy, General Counsel

Approved:

Ray A. Wilkerson

#### **RESOLUTION NO. 16-057**

## AWARD A PROFESSIONAL SERVICES CONTRACT TO PROVIDE CONSTRUCTION ENGINEERING AND INSPECTION SERVICES FOR THE SH 45 SW PROJECT

WHEREAS, by Resolution No. 15-092 dated December 15, 2015, the Board of Directors authorized the Executive Director to procure construction engineering and inspection services for the SH 45 SW Project; and.

WHEREAS, in accordance with the Mobility Authority Procurement Policies and the request for qualifications for construction engineering and inspection services issued by the Mobility Authority (the "RFQ), the Executive Director recommends selection of Jacobs Engineering Group, Inc. based on the evaluation and selection criteria set forth in the RFQ.

NOW THEREFORE, BE IT RESOLVED that the Board of Directors hereby awards a professional services contract to provide construction engineering and inspection services for the SH 45 SW Project to Jacobs Engineering Group, Inc.; and

BE IT FURTHER RESOLVED, that the Board authorizes the Executive Director to negotiate on behalf of the Mobility Authority the contract awarded to Jacobs Engineering Group, Inc. and an initial work authorization, consistent with Jacobs Engineering Group, Inc.'s ressponses to the RFQ, the RFQ, and the Mobility Authority's Procurement Policies, and as the Executive Director further determines is in the best interest of the Mobility Authority.

Adopted by the Board of Directors of the Central Texas Regional Mobility Authority on the 27<sup>th</sup> day of July, 2016.

Submitted and reviewed by:

Geoffrey S. Petrov, General Counsel

Approved:

Rav A. Wilkerson

#### **RESOLUTION NO. 16-058**

### AWARDING A CONTRACT FOR INDEPENDENT ENVIRONMENTAL COMPLIANCE MANAGEMENT SERVICES FOR THE SH 45 SW PROJECT

WHEREAS, by Resolution No. 15-075 dated October 28, 2015, the Board of Directors authorized the Executive Director to advertise, release bid documents, and review bids consistent with the Mobility Authority Procurement Policy for independent environmental compliance management services for the SH 45 SW Project; and.

WHEREAS, in accordance with the Mobility Authority Procurement Policies and the request for qualifications for independent environmental compliance management services issued by the Mobility Authority (the "RFQ), the Executive Director recommends selection of Hicks & Company based on the evaluation and selection criteria set forth in the RFQ.

NOW THEREFORE, BE IT RESOLVED that the Board of Directors hereby awards a professional services contract to provide independent environmental compliance management services for the SH 45 SW Project to Hicks & Company; and

BE IT FURTHER RESOLVED, that the Board authorizes the Executive Director to negotiate on behalf of the Mobility Authority the contract awarded to Hicks & Company and an initial work authorization, consistent with Hicks & Company's responses to the RFQ, the RFQ, and the Mobility Authority's Procurement Policies, and as the Executive Director further determines is in the best interest of the Mobility Authority.

Adopted by the Board of Directors of the Central Texas Regional Mobility Authority on the 27<sup>th</sup> day of July, 2016.

Submitted and reviewed by:

Geoffrey S. Petroy, General Counsel

Approved:

Ray A. Wilkerson

#### **RESOLUTION NO. 16-059**

# RESOLUTION AUTHORIZING ACQUISITION OF PROPERTY RIGHTS BY AGREEMENT OR CONDEMNATION OF CERTAIN PROPERTY IN TRAVIS COUNTY FOR THE 183 SOUTH / BERGSTROM EXPRESSWAY PROJECT (PARCEL E13A)

WHEREAS, pursuant to and under the authority of Subchapter E, Chapter 370, Texas Transportation Code and other applicable law, the Central Texas Regional Mobility Authority ("Mobility Authority") hereby finds and determines that to promote the public safety, to facilitate the safety and movement of traffic, and to preserve the financial investment of the public in its roadways and the roadways of the State of Texas, public convenience and necessity requires acquisition of a utility easement, as that utility easement is described by metes and bounds in <a href="Exhibit A">Exhibit A</a> to this Resolution (the "Property"), owned by New Century Investment, LLC and Braker-Park, LP (the "Owner"), located adjacent to the US Hwy 183S in Travis County, for the construction, reconstruction, maintaining, widening, straightening, lengthening, and operating of the US 183 South / Bergstrom Expressway Project (the "Project"), as a part of the improvements to the Project; and

WHEREAS, an independent, professional appraisal report of the Property has been submitted to the Mobility Authority or its agent, and an amount has been established to be just compensation for the property rights to be acquired; and

WHEREAS, the Executive Director of the Mobility Authority, through agents employed or contracted with the Mobility Authority, has transmitted an official written offer to the Owner, based on the amount determined to be just compensation, and has entered into good faith negotiations with the Owner of the Property to acquire the Property; and

WHEREAS, as of the date of this Resolution, the Executive Director and the Owner have failed to agree on the amount determined to be just compensation due to said Owner for the Property; and

NOW, THEREFORE, BE IT RESOLVED by the Board of Directors that the Executive Director is specifically authorized to negotiate and execute, if possible, an agreement to acquire the Property for consideration in an amount that does not exceed the official written offer previously transmitted to the Owner; and

BE IT FURTHER RESOLVED that the Executive Director is authorized and directed to negotiate an agreement to acquire the Property and all leasehold interests in the Property by agreement, subject to approval of the agreement and acquisition price by the Board of Directors; and

BE IT FURTHER RESOLVED that at such time as the Executive Director concludes that further negotiations with Owner to acquire the Property by agreement would be futile, the Executive Director or his designee is hereby authorized and directed to file or cause to be filed a suit in eminent domain to acquire the Property for the aforesaid purposes against the Owner and the owners of any interest in, and the holders of any lien secured by the Property described in the attached Exhibit A; and

BE IT FURTHER RESOLVED that the Executive Director or his designee is hereby authorized and directed to incur such expenses and to employ such experts as he shall deem necessary to assist in the prosecution of such suit in eminent domain, including, but not limited to, appraisers, engineers, and land use planners.

Adopted by the Board of Directors of the Central Texas Regional Mobility Authority on the  $27^{th}$  day of July, 2016.

Submitted and reviewed by:

Geoffrey Petrov General Counsel

Approved:

Ray A. Wilkerson

#### Exhibit A

Braker-Park LP
To
City of Austin
(Water Line Easement)

#### Field Notes for Parcel 13A WE

BEING 0.123 OF ONE ACRE (5372 S.F.) OF LAND, MORE OR LESS, OUT OF AND A PART OF THE JESSE C. TANNEHILL SURVEY NO. 29, ABSTRACT NO. 22 IN TRAVIS COUNTY, TEXAS, SAME BEING A PORTION OF LOT C, R.F. BEARDEN SUBDIVISION, RECORDED IN BOOK 85, PAGE 184C OF THE PLAT RECORDS OF TRAVIS COUNTY, TEXAS CONVEYED TO BRAKER-PARK LP BY GENERAL WARRANTY DEED WITH VENDOR'S LIEN EXECUTED ON SEPTEMBER 28, 2015, FILED FOR RECORD ON OCTOBER 7, 2015 AND RECORDED IN DOCUMENT 2015161780 OF THE OFFICIAL PUBLIC RECORDS OF TRAVIS COUNTY, TEXAS, SAID 0.123 OF ONE ACRE (5372 S.F.) OF LAND BEING MORE PARTICULARLY DESCRIBED BY METES AND BOUNDS AS FOLLOWS AND AS SHOWN ON THE ATTACHED SKETCH:

Beginning at a calculated point in the easterly right-of-way line of U. S. Highway 183 (known locally as Ed Bluestein Boulevard-ROW Varies), same being at a westerly corner of said Lot C, and a southwesterly corner of Lot B of said R.F. Bearden Subdivision, same also being a westerly corner of said Braker-Park LP tract, for the Point of Beginning and the most northerly corner of the herein described tract of land having grid coordinate (Texas State Plane, Central Zone, NAD 83(HARN) U.S. Feet, Surface Adjustment Factor of 1.00011) values of N=10077991.31 and E=3138901.57, from which a TxDOT Type I monument found at a corner in the easterly right-of-way line of U.S. Highway 183 bears North 11°35′16″ East, a distance of 615.85 feet;

- 1. THENCE, South 78°02'57" East, leaving the easterly right-of-way line of U.S. Highway 183, with a northerly line of said Lot C, a southerly line of said Lot B and a northerly line of said Braker-Park LP tract, at a distance of 0.30 feet passing a 1/2 inch iron rod found, in all a distance of 15.00 feet to a calculated point for a northeasterly corner of the herein described tract of land, from which 1/2 inch iron rod found at a westerly corner of said Lot C and the most southerly corner of said Lot B, same being a northwesterly corner of said Braker-Park LP tract, bears South 78°02'57" East, a distance of 5.16 feet;
- 2. THENCE, South 11°35'16" West, a distance of 77.85 feet, leaving a northerly line of said Lot C, a southerly line of said Lot B and a northerly line of said Braker-Park LP tract, and crossing said Lot C and said Braker-Park LP tract, to a calculated point for a corner;
- 3. THENCE, South 38°08'58" East, a distance of 134.73 feet, to a calculated point for a corner;
- 4. THENCE, South 68°02'45" East, a distance of 118.39 feet, to a calculated point in a southeasterly line of said Braker-Park LP tract, for the most easterly corner of the herein described tract of land, from which a 1/2 inch iron rod found at a westerly corner of said Lot C and the most southerly corner of said Lot B, same being a northwesterly corner of said Braker-Park LP tract, bears North 21°57'54" East, a distance of 16.85 feet, North 52°00'54" East, a distance of 113.20 feet, North 37°40'49" West, a distance of 275.40 feet and South 51°57'52" West, a distance of 126.37 feet;
- 5. THENCE, South 21°57′54″ West, a distance of 17.00 feet, with a southeasterly line of said Braker-Park LP tract, to a calculated point in a northerly line of the Water and Wastewater Easement recorded in Volume 10061, Page 369 of the Real

#### EXHIBIT "A"

Property Records of Travis County, Texas, for the most southerly corner of the herein described tract of land, from which a 1/2 inch iron rod found at a corner in the easterly right-of-way line of U.S. Highway 183 and in the northerly right-of-way line of FM 969 (R.O.W. varies) bears South 21°57′54″ West, a distance of 20.00 feet to a 1/2 inch iron rod found at the most southerly corner of said Braker-Park LP tract and South 68°02′45″ East, a distance of 124.91 feet;

- 6. THENCE, North 68°02'45" West, a distance of 118.92 feet, leaving a southeasterly line of said Braker-Park LP tract and crossing said Braker-Park LP tract, with the northerly line of said Water and Wastewater Easement, to a calculated point in the easterly right-of-way line of U.S. Highway 183, same being in a southwesterly line of said Lot C and in a southwesterly line of said Braker-Park LP tract, same also being the most westerly corner of said Water and Wastewater Easement, for a corner, from which a TxDOT Type I monument found in the easterly right-of-way line of U.S. Highway 183, at a southwesterly corner of said Braker-Park LP tract, bears South 38°08'58" East, a distance of 40.12 feet;
- 7. THENCE, North 38°08'58" West, a distance of 149.70 feet, with the easterly right-of-way line of U.S. Highway 183, same being a southwesterly line of said Lot C and a southwesterly line of said Braker-Park LP tract, to a TxDOT Type I monument found for the most westerly corner of the herein described tract of land;
- 8. THENCE, North 11°35'16" East, a distance of 84.90 feet, with the easterly right-of-way line of U.S. Highway 183, same being a northwesterly line of said Lot C and a northwesterly line of said Braker-Park LP tract, to the Point of Beginning and containing an area of 0.123 of one acre (5372 s.f.) of land, more or less.

I hereby declare that this survey was made on the ground, under my supervision, and that it substantially complies with the current Texas Society of Professional Surveyors standards.

David Edward Martinez

Registered Professional Land Surveyor 5434

MWM DesignGroup

305 East Huntland Drive, Suite 200 Austin, Texas, 78752 (512) 453-0767 TBPLS Firm Registration No. 10065600 DAVID EDWARD MARTINEZ

Bearing Basis: The bearings described herein are Texas State Plane, Central Zone, NAD 83(Harn), U.S. Feet. For surface coordinates multiply grid coordinates by the Surface Adjustment Factor of 1.00011. The reference points for this project are MWM control point 112, a cotton spindle in the centerline of sidewalk on the east side of Springdale Road approximately 85' east of Rockhurst Lane, having surface coordinate values of N=10088638.55, E=3138681.05 and MWM control point 141, a cotton gin spindle on the south side of Smith Road, approximately 920 feet east of U.S. Highway 183 centerline, at the 90 degree bend, having surface coordinate values of N= 10068786.90, E= 3136881.27, having a grid bearing of South 05°10'49'' West and a surface distance of 19,933.07 feet.

#### FIELD NOTES REVIEWED

TCAD No.: City Grid:	0213280712 N24	Ву:	
	action of	Date:	
		Signed:	

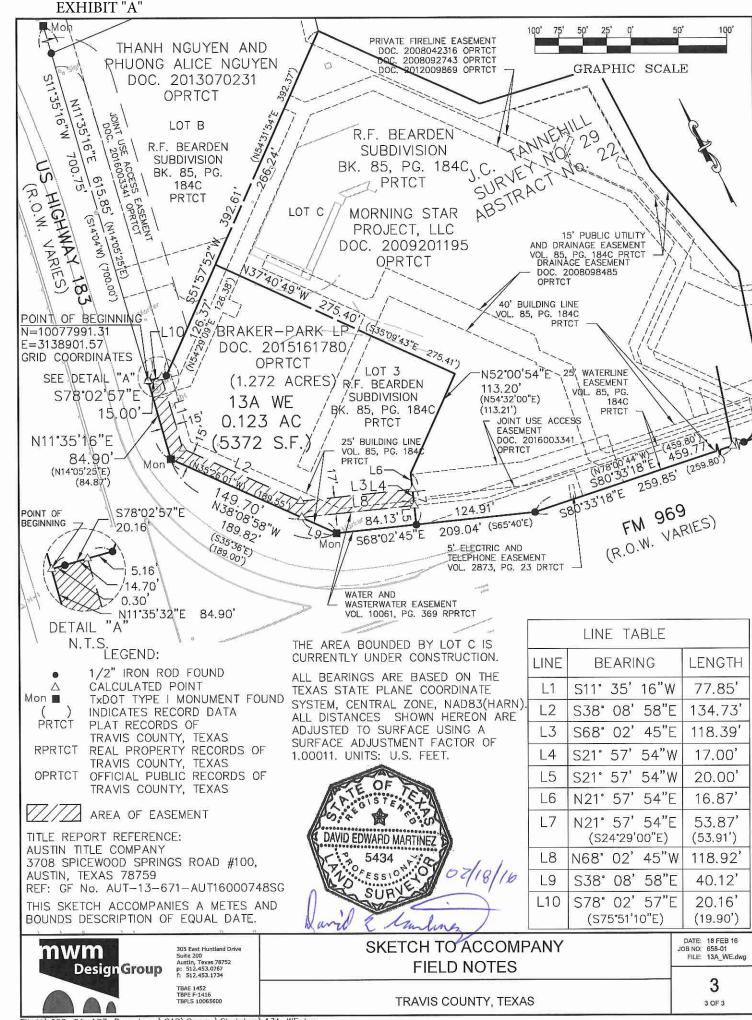


Exhibit "A"



Parcel E13A – Approximately 5,372 Square Feet.

