



**SUPPLEMENTAL WORK AUTHORIZATION NO. 2
TO
WORK AUTHORIZATION NO. 4**

**WILLIAMSON COUNTY ROAD BOND PROJECT:
County Road 200**

This Supplemental Work Authorization No. 2 to Work Authorization No. 4 is made pursuant to the terms and conditions of the Williamson County Contract for Engineering Services, being dated October 02, 2014 ("Contract") and entered into by and between Williamson County, Texas, a political subdivision of the State of Texas, (the "County") and O'Brien Engineering Services, LLC (the "Engineer").

WHEREAS, the County and the Engineer executed Work Authorization No. 4 dated effective **January 29, 2016** (the "Work Authorization");

WHEREAS, pursuant to Article 14 of the Contract, amendments, changes and modifications to a fully executed Work Authorization shall be made in the form of a Supplemental Work Authorization; and

WHEREAS, it has become necessary to amend, change and modify the Work Authorization.

AGREEMENT

NOW, THEREFORE, premises considered, the County and the Engineer agree that the Work Authorization shall be amended, changed and modified as follows:

- I. The Services to be Provided by the Engineer that were set out in the original Attachment "B" of the Work Authorization are hereby amended, changed and modified as shown in the attached revised Attachment "B" (must be attached).
- II. The Work Authorization shall terminate on **December 31, 2019**. The Services to be Provided by the Engineer shall be fully completed on or before said date unless extended by an additional Supplemental Work Authorization. The revised Work Schedule is attached hereto as Attachment "C" (must be attached).
- III. The maximum amount payable for services under the Work Authorization is hereby increased from **\$548,299.98** to **\$702,883.98**. The revised Fee Schedule is attached hereto as Attachment "D" (must be attached).

Except as otherwise amended by prior or future Supplemental Work Authorizations, all other terms of the Work Authorization are unchanged and will remain in full force and effect.

This Supplemental Work Authorization does not waive the parties' responsibilities and obligations provided under the Contract.

IN WITNESS WHEREOF, the County and the Engineer have executed this Supplemental Work Authorization, in duplicate, to be effective as of the date of the last party's execution below.

ENGINEER:

By: Teri O'Brien
Signature

Teri O'Brien
Printed Name

CEO & President
Title

09/13/18
Date

COUNTY:

By: [Signature]
Signature

DAR A GATTI
Printed Name

(County) Judge
Title

09-26-2017
Date

OK
M 9/16/18

LIST OF ATTACHMENTS

Attachment B - Services to be Provided by Engineer

Attachment C - Work Schedule

Attachment D - Fee Schedule

IN WITNESS WHEREOF, the County and the Engineer have executed this Supplemental Work Authorization, in duplicate, to be effective as of the date of the last party's execution below.

ENGINEER:

By: Teri O'Brien
Signature

Teri O'Brien
Printed Name

CEO & President
Title

09/13/18
Date

COUNTY:

By: _____
Signature

Printed Name

Title

Date

OK
M 9/16/18

LIST OF ATTACHMENTS

Attachment B - Services to be Provided by Engineer

Attachment C - Work Schedule

Attachment D - Fee Schedule

**Supplemental Work Authorization No. 2
To
Work Authorization No. 4
County Road 200
CMTA RR to CR 201
Williamson County, TX**

ATTACHMENT B

SERVICES TO BE PROVIDED BY ENGINEER

PROJECT DESCRIPTION

The project involves improvements to County Road (CR) 200 from Capitol Metropolitan Transit Authority (CMTA) Railroad (RR) to CR 201 in Williamson County, TX. The services to be provided by the Engineer under this Supplemental Work Authorization shall consist of engineering, survey, environmental documentation, and Right of Way mapping services.

The proposed improvements under this scope of services include:

- Developing drainage improvements within City of Liberty Hill City Park;
- Environmental studies and reporting to provide appropriate clearances;

SCOPE OF SERVICES

GENERAL

The work to be performed by the ENGINEER consists of providing services following Williamson County (Wilco) criteria, processes and requirements current as of the date of this scope of services. All electronic graphics files will be developed using Microstation Version 8/8i. Other project documents will utilize Microsoft Office 2010 software or later versions.

Design and procedures will use latest TxDOT criteria and manuals for those portions of the project owned by TxDOT and Williamson County criteria and manuals for those portions of the project owned by Williamson County.

PROJECT MANAGEMENT

The ENGINEER will provide project management services to facilitate project development. These services will include the following:

- A. Miscellaneous project discussions with County and attendance of up to two (2) project coordination meeting with County to assess and coordinate the directives to incorporate SWA No. 2 into the scope for WA No. 4;
- B. Perform Quality Assurance and Quality Control (QA/QC) in accordance with approved WA No. 4 QA/QC protocols;

Deliverables

- Meeting minutes from all meetings
- PS&E documents for each submittal

- Comments and Response Form for each submittal

RIGHT OF WAY (ROW)

Develop ROW mapping and documents for 16 additional parcels and 1 additional Easement

Field Survey

- A. Locate right-of-way and property line monumentation sufficient to define each of the affected lots.
- B. Set monumentation, in the field, as follows
 1. ½" iron rod with SURVTEX cap set along the proposed right-of-way of CR 200 at parcel corners.
 2. ½" iron rod with SURVTEX cap set along the existing right-of-way, at parcel corners, as needed. This scope does not include setting monumentation along the existing right-of-way of CR 200 in areas where additional right-of-way is not being acquired.

Office Survey and Production of Deliverables

- A. Produce right-of-way acquisition documents for 16 additional parcels. Right-of-way acquisition documents will include:
 1. A legal description and accompanying sketch of the right-of-way acquisition, and
 2. An area computation report showing the mathematical closure of each sketch, and each legal description.
- B. Produce easement acquisition documents for 1 additional parcel within McKinney tract noted as Parcel 7E. Easement acquisition documents will include:
 1. A legal description and accompanying sketch of the right-of-way acquisition, and
 2. An area computation report showing the mathematical closure of each sketch, and each legal description.
 3. Revise the right-of-way map (currently in process) to reflect the additional parcels.
- C. Revise the right-of-way map (currently in process) to reflect the additional parcels.

Assumptions

- A. This proposal does not include obtaining right-of-entry and will utilize right-of-entry obtained from the County, as needed, to complete this phase of the project. Right-of-entry for this supplemental will be needed to set monumentation along the proposed right-of-way of CR 200, prior to the submittal of the final, signed and sealed ROW documents.
- B. This proposal assumes all survey work performed within a public right-of-way will be in accordance with the 2011 Texas Manual on Uniform Traffic Control Devices (TMUTCD) – Revision 2.

C. ROW acquisition services are not included in this scope of services.

ENVIRONMENTAL STUDIES

The environmental scope of services is related to the 16 additional ROW parcels

- A. The proposed project would be 100 percent funded by local monies and would not involve funding from or involvement with the Texas Department of Transportation or the Federal Highway Administration. The deliverables associated with the tasks outlined below will be presented in a technical memorandum and/or within stand alone reports.

Under this proposal, the Consultant will prepare a technical memorandum that addresses the Antiquities Code of Texas, Section 404 of the Clean Water Act, threatened and endangered species protected under the Endangered Species Act, and potential hazardous materials issues. In addition, standalone cultural resources and Phase I Environmental Site Assessment reports will be prepared. The cultural resources report will include an assessment of historic structures and archeological resources. The report will be coordinated with the Texas Historical Commission.

No proposed Right of Way is anticipated from park lands. As such, no services are included to comply with Chapter 26 of the Texas Parks and Wildlife Code.

1. Cultural Resources Survey

- To meet the requirements of the Antiquities Code of Texas, conduct an intensive archeological survey of the project segment along CR 200 near the City Park. The purpose of the survey will be to locate prehistoric and historical archeological resources that may be within the project area and describe their boundaries subject to limitations imposed by property boundaries, topography, and landforms.
- Conduct a 100 percent pedestrian survey of the study area with surface and subsurface investigations that will comply with appropriate archeological survey methods as defined in the Department of the Interior's Standards and Guidelines (NPS 1983), the Guidelines of the Council of Texas Archeologists (CTA) (1987), and the survey standards developed by the Texas Historical Commission (THC) in conjunction with the CTA. The survey will assess the nature, extent, and, if possible, the eligibility for inclusion to the National Register of Historic Places (NRHP) or for formal State Antiquities Landmark (SAL) designation of all prehistoric and historic archeological properties and sites discovered within the project area. To conduct archeological investigations on public property requires a Texas Antiquities Permit issued by the THC. An appropriate scope of work and a Texas Antiquities Permit application will be completed and submitted to THC for review.
- Surface investigations will involve the examination of the ground surface throughout the project area looking for expressions of prehistoric and historic cultural materials. Subsurface investigations will utilize shovel testing and/or backhoe trenching as necessary based on field conditions to determine the presence/absence of buried archeological material. No artifacts will be collected during the survey. Any diagnostic materials encountered will be documented in the field and left in place.

- All previously recorded and/or previously unrecorded prehistoric or historical archeological sites encountered in the study area will be recorded on a Texas Archeological Site Data Form and then submitted electronically to the Texas Archeological Research Laboratory at The University of Texas at Austin. Site data will include a description of the site's environment and the cultural materials noted within the study area, including comments on the continuance of any site(s) beyond the proposed right-of-way. Site documentation will also involve the recording of the horizontal and vertical extent of cultural deposits identified within the project area, a description of the observed cultural materials, and an overview of the site's environmental setting. Furthermore, sites will be evaluated for their eligibility for inclusion to the NRHP or for formal SAL designation. If eligibility is unknown given the limitations of survey-level data, a program of further archeological investigations will be recommended to determine such eligibility, if any.
- Following fieldwork, if any archeological sites or archeological historic properties are discovered an intensive survey report will be completed in accordance with the full report guidelines outlined by the THC's Rules of Practice and Procedures. If no archeological sites or archeological historic properties are discovered, a short report format will be followed. The report will contain background information on the proposed construction activity, archeological and geomorphic data from site files, information from geologic maps, soil surveys, and a description of previous impacts affecting the integrity of known or potential archeological sites and deposits. The report will also evaluate, to the extent feasible, the eligibility of archeological sites within the project area for inclusion in the NRHP or for formal SAL designation. An evaluation for the potential for intact archeological deposits will be made that concludes with recommendations for any additional archeological work, if deemed necessary. If further work is warranted, the recommendation will indicate where the additional work is needed and the scope of work necessary.

2. Waters of the U.S.

- To ensure compliance with Section 404 of the Clean Water Act (CWA), a determination of jurisdictional waters of the U.S. including wetlands will be conducted within the project area. The product of this effort will be a map depicting the waters of the U.S. as well as recommendations for permitting and/or avoidance. It is anticipated that the proposed project may be authorized utilizing the Nationwide Permit Program.
- **Waters of the U.S. scope assumptions**
 - If it is determined that a pre-construction notification or an Individual Section 404 permit is required, then efforts to complete these tasks would be authorized under a separate scope and budget.

3. Endangered Species

- **Endangered Species scope assumptions**
 - Williamson County shall perform this task and provide documentation to Consultant for inclusion in final deliverables.
 - No coordination with the U.S. Fish and Wildlife Service is anticipated.

4. Hazardous Materials

- An assessment of hazardous materials in the project area will be conducted including a database survey to identify listed hazardous waste generators; treatment, storage, and disposal facilities; solid waste landfills; unauthorized sites; documented spills; and underground registered storage tank sites within and adjacent to the project area. Where practicable, during the site reconnaissance, the hazardous materials sites identified in the database search that are adjacent to the project corridor will be visually inspected for the potential presence of hazardous substances and petroleum products on the subject properties. These findings will be presented in the report and any identified sites will be clearly located on maps. The current regulatory status of the site will be determined and presented along with any additional investigations that may be recommended based on these findings.
- Interviews with any local or adjacent landowners regarding the potential for hazardous materials use or sites will be included where possible.
- Perform Phase I ESA and develop pertinent documentation applicable to ASTM Standards
- **Hazardous Materials scope assumptions**
 - Should the hazardous materials sites review indicate that additional sampling, and/or subsurface investigations are warranted, these items would be additional services.

5. Project Coordination

- Under this task, Consultant will coordinate field investigations, findings, and reports with Williamson County and/or their agent. In addition, Consultant will coordinate with the Texas Historical Commission regarding cultural resource investigations when authorized by the County and/or their agent.
- Public Involvement will be conducted by Williamson County.

PS&E

A. Roadway

1. Perform additional and extended studies to assess alternatives and feasibility to construct proposed typical section through area north of the Liberty Hill City Park to CR201 considering additional ROW along the west side and holding existing ROW along east side.
2. Development of exhibits including design details, cross sections and quantities needed for review of three alternative north project termini. Develop multiple estimates of construction to assess alternatives for revised north project termini.
3. Cross sections have been developed/updated to reflect the revised project termini. Design details will revert to the prior cross sections based on the original terminus.
4. Development of exhibits as needed for ROW acquisition efforts at numerous tracts including Vaughn and Gonzales (up to 8 parcels)
5. Development and revision of exhibits related to design details at driveways and side-streets including Sundance Trail

6. Updating project schedule

B. Drainage

1. Perform studies, create HEC-RAS/HMS models, develop exhibits and opinions of probable construction costs for City Park improvements to assess multiple alternatives for:
 - Channel improvements extending through park from CR 200 culvert at Sta 111+/- (Channel A) and Sta 123+/- (Channel B) and tying to existing downstream CMTA RR bridge
 - Check dam type detention to attenuate increased runoff from current phase project CR 200 project
 - Detention pond in park at Sta 123+/- culvert outfall to attenuate increased runoff from current phase project to show no runoff volume increase at CMTA RR bridge
 - Preliminary concepts of future detention and water quality ponds to accommodate ultimate CR 200 improvements; pond locations will address runoff from CR 200 culvert at Sta 111+/- and Sta 123+/-
 - Vehicle and pedestrian crossing of Channel B associated with proposed parking improvements within park area
 - Extension of CR 200 culvert Sta 123+/- to provide for proposed park pedestrian trail crossing
 - Revised hydraulic data to conform to revised designs

C. Miscellaneous

1. TCP
 - TCP alternative concept studies to accommodate a revised project limit
2. TCEQ CZP
 - Perform additional and extended studies to assess and revise previously prepared CZP to remove Bold Sundown project from documentation, data and exhibits

ID	Task Name	Duration	Start	Finish	A 26	S 2	S 9	S 16	S 23	S 30	O 7	O 14	O 21	O 28	N 4	N 11	N 18	N 25	D 2	D 9	D 16	D 23	D 30	J 6	J 13	J 20	J 27	F 3	F 10	F 17	F 24
1	Notice To Proceed	0 days	Fri 1/15/16	Fri 1/15/16																											
2	Kick-Off Meeting	1 day	Tue 1/19/16	Tue 1/19/16																											
3	Obtain ROE	95 days	Wed 1/20/16	Tue 5/31/16																											
4	Survey Data Collection	55 days	Thu 6/9/16	Wed 8/24/16																											
5	One Call/Control	10 days	Thu 5/26/16	Thu 6/9/16																											
6	Field Survey	20 days	Thu 6/9/16	Wed 7/6/16																											
7	Office Survey	40 days	Thu 6/30/16	Wed 8/24/16																											
8	Environmental Studies	287 days	Thu 8/25/16	Fri 9/29/17																											
9	Geotech/Pavement Design	25 days	Thu 8/25/16	Wed 9/28/16																											
10	Preliminary Design	20 days	Mon 8/1/16	Fri 8/26/16																											
11	Develop Ex A, Coord w/ CMTA	20 days	Mon 8/1/16	Fri 8/26/16																											
12	Preliminary Design Meeting	0 days	Tue 8/30/16	Tue 8/30/16																											
13	Develop 60% PS&E	50 days	Tue 2/14/17	Mon 4/24/17																											
14	Roadway Design	169 days	Wed 8/31/16	Mon 4/24/17																											
15	Drainage Design	169 days	Wed 8/31/16	Mon 4/24/17																											
16	Traffic Design	169 days	Wed 8/31/16	Mon 4/24/17																											
17	CMTA X-ing design & plans	149 days	Wed 9/21/16	Mon 4/17/17																											
18	CZP Design	14 days	Tue 4/11/17	Fri 4/28/17																											
19	Submit CMTA plans	0 days	Mon 4/24/17	Mon 4/24/17																											
20	Internal QC Review	4 days	Tue 4/25/17	Fri 4/28/17																											
21	Willco Review	35 days	Mon 5/1/17	Fri 6/16/17																											
22	Coordinate with C/ty	310 days	Mon 6/19/17	Fri 8/24/18																											
23	Develop 95% PS&E	36 days	Mon 8/27/18	Mon 10/15/18																											
24	Roadway Design	36 days	Mon 8/27/18	Mon 10/15/18																											
25	Drainage Design	36 days	Mon 8/27/18	Mon 10/15/18																											
26	Traffic Design	26 days	Mon 9/10/18	Mon 10/15/18																											
27	CMTA X-ing design & plans	15 days	Tue 9/25/18	Mon 10/15/18																											
28	CZP Design	15 days	Tue 9/25/18	Mon 10/15/18																											
29	Submit TCEQ Permit Docs	0 days	Mon 10/15/18	Mon 10/15/18																											
30	Submit Final CMTA plans	0 days	Tue 10/16/18	Tue 10/16/18																											
31	Internal QC Review	6 days	Tue 10/16/18	Tue 10/23/18																											
32	Willco Review	11 days	Wed 10/24/18	Wed 11/7/18																											
33	Develop Final PS&E	13 days	Thu 11/8/18	Mon 11/26/18																											
34	Roadway Design	13 days	Thu 11/8/18	Mon 11/26/18																											
35	Drainage Design	13 days	Thu 11/8/18	Mon 11/26/18																											
36	Traffic Design	13 days	Thu 11/8/18	Mon 11/26/18																											
37	Obtain TCEQ Permit Approval	31 days	Tue 10/23/18	Tue 12/4/18																											
38	Obtain CMTA Permit Approval	31 days	Tue 10/23/18	Tue 12/4/18																											
39	Internal QC Review	6 days	Mon 11/26/18	Mon 12/3/18																											
40	Willco Review	10 days	Tue 12/4/18	Mon 12/17/18																											
41	ROW	490 days	Tue 2/14/17	Mon 12/31/18																											
42	Mapping	143 days	Tue 2/14/17	Thu 8/31/17																											
43	Acquisition	347 days	Fri 9/1/17	Mon 12/31/18																											
44	Utilities	490 days	Tue 2/14/17	Mon 12/31/18																											
45	Mapping	78 days	Tue 2/14/17	Thu 6/1/17																											
46	Conflict Assessment	400 days	Fri 6/2/17	Thu 12/13/18																											
47	Adjustment	162 days	Fri 5/18/18	Mon 12/31/18																											
48	Bid Phase	33 days	Wed 1/2/19	Fri 2/15/19																											
49	Bid Review/Recommendation	6 days	Mon 2/18/19	Mon 2/25/19																											

Project: CR 200 WAA#4

Task Split



Milestone



Summary



External Tasks

Deadline

O'Brien Engineering Services		
TEAM MEMBER	WA No. 1	
O'Brien Engineering Services, LLC	\$ 58,128.00	
WSB	\$ 30,594.00	
Blanton & Associates	\$ 31,686.00	
Survtex, LLC	\$ 34,176.00	
	\$ 154,584.00	

**Work Authorization No. 4
Supplemental WA No. 2**

2) DESIGN		12	30	12	66	
ROADWAY						
EXTENDED PROJECT STUDIES TO ASSESS ALTERNATIVES		12	30	12	66	\$9,381.60
PROJECT TERMINI STUDIES		2	6		8	\$1,280.00
STAGECOACH SUBDIVISION ENTRANCE STUDIES		2	8		10	\$1,590.00
CALCULATE QTYS & PREP ALT CONSTRUCTION COST ESTIMATES			6	4	22	\$2,601.60
CITY PARK DRAINAGE						
MULTIPLE ALTERNATIVE STUDIES/DESIGN		8	48	96	180	\$23,140.40
SITE VISITS (2 EACH)			6	6	12	\$1,650.00
DRAINAGE PS&E ASPECTS						
UPDATE HYDRAULIC DATA SHEETS				4	8	\$877.20
TCEQ CZP						
REVISE TCEQ CZP (Separate from BS)		6		32	44	\$5,485.80
TCP						
ALTERNATIVE STUDY FOR REVISED PROJECT LIMIT		2	6	4	12	\$1,677.20
	Subtotal	32	110	154	362	\$47,683.80
	LABOR TOTAL					\$58,128.00
	EXPENSES					
	TOTAL					\$58,128.00

ATTACHMENT D									
WA #4 S&P2									
ROGERS DESIGN SERVICES									
PROJECT: Preparation of PS&E									
TASK AND DESCRIPTION									
1. REVISE LIMITS OF IMPROVEMENTS ON CR 200									
	HOURLY RATE								
	HOURS								76
	COST								\$10,170
2. UPDATE TITLE, TYP SECS, P/P, UTILITY SHEETS TO REVISED LIMITS									
	HOURS								0
	COST								\$0
3. REVISE/UPDATE CROSS SECTIONS									
	HOURS								16
	COST								\$2,060
4. DEVELOP ROW EXHIBITS									
	HOURS								112
	COST								\$15,120
5. DEVELOP DRIVEWAY/SIDESTREET EXHIBITS									
	HOURS								32
	COST								\$2,624
6. UPDATE QUANTITIES AND BID ITEM ESTIMATES									
	HOURS								0
	COST								\$0
7. REVISE/UPDATE PROJECT SCHEDULE									
	HOURS								4
	COST								\$620
PROJECT TOTALS									
	TOTAL HOURS								240
	TOTAL COST								\$30,564

**WORK AUTHORIZATION NO. 4
SUPPLEMENTAL WA NO. 2**

TASK AND DESCRIPTION OF EXHIBIT B ITEMS	SPECIFIED RATE EXPENSES											ADMIN / CLERICAL	0
	TRKS / PROJECT MANAGER	TRKS / TASK LEADER	SENIOR SURVEY TECHNICIAN	SURVEY TECHNICIAN	1- PERSON SURVEY CREW	2- PERSON SURVEY CREW	3- PERSON SURVEY CREW	4- PERSON SURVEY CREW	FLAGGER	ABTRACTOR			
A. PSE-CR200 @ 8120 - SUPPLEMENTAL WORK													
1 Field Survey - Locate Existing Boundary and Set proposed Production of R.O.W. Deliverables	2.00 HRS	1.50 HRS	2.00 HRS	10.00 HRS	4.00 HRS	45.00 HRS	0.00 HRS	0.00 HRS	0.00 HRS	0.00 HRS	2.00 HRS	\$3,212.00	
2 Field Survey - Additional Design Production of Design Survey	12.50 HRS	28.50 HRS	64.00 HRS	111.00 HRS	0.00 HRS	0.00 HRS	0.00 HRS	0.00 HRS	0.00 HRS	0.00 HRS	4.00 HRS	\$21,605.00	
	1.00 HRS	1.50 HRS	1.00 HRS	1.00 HRS	0.00 HRS	20.00 HRS	0.00 HRS	0.00 HRS	0.00 HRS	0.00 HRS	1.00 HRS	\$3,022.50	
	1.00 HRS	1.00 HRS	3.00 HRS	8.50 HRS	0.00 HRS	0.00 HRS	0.00 HRS	0.00 HRS	0.00 HRS	0.00 HRS	0.50 HRS	\$1,336.50	
TOTAL HOURS	15.50 HRS	31.00 HRS	70.00 HRS	131.00 HRS	4.00 HRS	65.00 HRS	0.00 HRS	0.00 HRS	0.00 HRS	0.00 HRS	7.50 HRS		
ESTIMATED SPECIFIED RATE FEE	\$ 2,139.00	\$ 4,030.00	\$ 6,650.00	\$ 11,659.00	\$ 388.00	\$ 8,905.00	\$ -	\$ -	\$ -	\$ -	\$ 405.00	\$ 34,176.00	