

RECEIVED
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BY: PST

Project Name: Supplemental # 3
Work Authorization No. 1
Contract No. Williams Drive/RM 2338

IN WITNESS WHEREOF, the *County* and the *Engineer* have executed this supplemental agreement in duplicate,

ENGINEER:

By: William M. Hall
Signature

William M. Hall
Printed Name

Executive Director
Title

03.24.2010
Date

COUNTY:

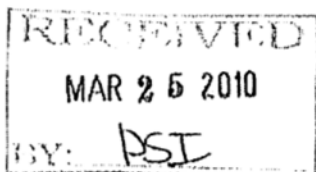
By: [Signature]
Signature

Printed Name

Title

Date

OK
my 3/25/10



Work Authorization No. 5
Contract No. Williams Drive/RM 2338

**ATTACHMENT A
WORK AUTHORIZATION NO. 5**

This Work Authorization is made pursuant to the terms and conditions of the Agreement entered into by and between Williamson County, Texas, a political subdivision of the State of Texas, (*the "County"*) and Kellogg Brown & Root Services, Inc., a Delaware Corporation, located at 4100 Clinton Drive, Houston, Texas 77020 (*the "Engineer"*).

Part 1. The *Engineer* will provide the following engineering services:

KBR, referred to in the contract as the "Engineer" shall provide the necessary engineering and technical service for preparation of Plans, Specifications and estimates (PS&E) for construction improvements to RM 2338 (Williams Drive) in Williamson County from 0.30 Mile West of FM 3405 to 3.3 Mile West of IH 35.

Part 2. The maximum amount payable for services under this Work Authorization without modification is \$ 74,782.66.

Part 3. Payment to the *Engineer* for the services established under this Work Authorization shall be made in accordance with the Agreement.

Part 4. This Work Authorization shall become effective on the date of final acceptance of the parties hereto and shall terminate on December 1, 2010, unless extended by a Supplemental Work Authorization.

Part 5. This Work Authorization does not waive the parties' responsibilities and obligations provided under the Agreement.

ATTACHMENT A (con't.)

Part 6. This Work Authorization is hereby accepted and acknowledged below.

ENGINEER:

Kellogg Brown & Root Services, Inc.

By: William M. Hall
Signature

William M. Hall
Printed Name

Executive Director
Title

03.24.2010
Date

COUNTY:

Williamson County, Texas

By: [Signature]
Signature

Dan A. Gattis
Printed Name

County Judge
Title

Date

LIST OF EXHIBITS

Exhibit A - Services to be Provided by County

Exhibit B - Services to be Provided by Engineer

Exhibit C - Work Schedule

Exhibit D - Fee Schedule *(based on approved rates in PSA Exhibit II executed by
Commissioners Court action)*

OK
my 3/25/2010

Work Authorization No. 5
Contract No. Williams Drive/RM 2338

**Williams Drive/RM 2338- GEORGETOWN
County: Williamson**

EXHIBIT "A"

SERVICES TO BE PROVIDED BY THE COUNTY

Services to be provided by the County will stay the same as it was in the original work authorization except that the County will provide engineering survey to tie-in the existing signal system at Wildwood Drive.

**Williams Drive/RM 2338- GEORGETOWN
County: Williamson**

EXHIBIT "B"

SERVICES TO BE PROVIDED BY THE ENGINEER

KBR, referred to in the contract as the "Engineer" shall provide the necessary engineering and technical service for preparation of Plans, Specifications and estimates (PS&E) for construction improvements at four proposed signalized intersections in conjunction to the RM 2338 (Williams Drive) widening project in Williamson County from 0.30 Mile West of FM 3405 to 3.3 Mile West of IH 35.

ROADWAY DESIGN CONTROLS (Function Code 160)

INTERSECTION DESIGN

The ENGINEER shall re-design Williams Drive at DB Wood Drive/Shell Road intersection to accommodate the recent development of DB wood Drive/Shell Road proposed by the City of Georgetown.

DESIGN CROSS SECTIONS

The ENGINEER shall prepare 4 cross sections for the construction of Williams Drive at DB Wood Drive/Shell Road intersection.

Cross sections are to be submitted on 11" x 17" paper with the following criteria:

- Scale: H= 1"=10'
- V= 1"= 5' (Scale should be appropriate for project)
- Offset and elevation are to be shown for each change in grade. (crown points, change in side slope, ditches, and top/toe of slopes)
- Grid is to be subtle, preferably a gray shade.
- Text is to be legible
- Ditch grade (%) is to be shown between each cross section

DETERMINE CUT AND FILL

The ENGINEER shall determine the quantities of cut and fill for each cross section.

DRAINAGE STRUCTURE DESIGN (Function Code 161)

DRAINAGE STRUCTURE

The Engineer shall modify culvert profile sheet for DB Wood Drive to include the 24" RCP which was recently proposed at DB Wood Drive.

TRAFFIC DESIGN (Function Code 162)

TRAFFIC SIGNAL DESIGN

The Engineer shall re-design the replacement of the following four signalized intersections which are currently used as temporary construction signals. The permanent signal installations

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shall be designed using mast arms in compliance to the recent change in the City of Georgetown policy.

- Intersection of Williams Dr. and DBWood Dr.
- Intersection of Williams Dr. and Wildwood Dr.
- Intersection of Williams Dr. and Woodlake Dr.
- Intersection of Williams Dr. and Del Webb Dr.

The DBWood signal shall be designed to accommodate the concurrent City of Georgetown DB Wood widening project. On all intersections, the ENGINEER shall utilize TxDOT standards and similar criteria as defined on the original Williams Drive design contract with the exception of the Wildwood intersection in which the redesign shall also accommodate pedestrian signals and ADA wheelchair ramps.

On all signalized intersections, the ENGINEER shall prepare the following sheets:

- Existing/temporary Signal Conditions Layout
- Proposed Signal Layout
- Proposed Signal Elevation View
- Electrical signal wiring chart, conduit schedule, details on signal heads, pole mounted signs, summary and location of poles, controller/cabinet, and associated foundation types.

The Engineer shall also select the appropriate/applicable TxDOT standards for pole/cabinet foundations, support structure, equipment installation and ordering, and electrical/conduit details.

SIGNING AND RE-STRIPING PLAN

The Engineer shall modify previously proposed signing/pavement through the four signalized intersections identified above and prepare individual revised signing and re-striping plan sheet per intersection matching the proposed permanent traffic signal equipment.

ADA CORNER RAMPS DESIGN

The Engineer shall include a proposed design sheet detailing the ADA wheelchair ramps and corner landings plan in support to the proposed pedestrian signal crossings at Williams Drive and Wildwood Drive.

MISCELLANEOUS (Roadway) (Function Code 163)

COMPUTE AND TABULATE QUANTITIES

The ENGINEER shall compute all quantities that are required for pay items, and those quantities identified by the County as necessary for inclusion for the contractor's information only. The quantities shall be computed and tabulated by construction phase and total construction sums. Quantities will be in accordance with the TxDOT Standard Specifications for Construction of Highways, Streets, and Bridges 2004.

ESTIMATE

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The ENGINEER shall prepare a project estimate of the probable cost.

MANAGING CONTRACTED PS&E PE SERVICES (Function Code 164)

MEETINGS

The ENGINEER will be required to attend three (3) Project Development Meetings to discuss the progress of the project and design issues.

50% SUBMITTAL AT DBWOOD INTERSECTION

The Engineer shall provide an interim submittal at this intersection with the purpose of quick review, coordination between both concurrent widening projects: DB Wood widening and Williams Drive, and for mast arm pole ordering at this location.

100% SUBMITTAL PACKAGES

The engineer shall submit three interim submittal packages at their 100% design stage as plans are developed and in adherence to the overall construction schedule in the following priority:

- DBWood Intersection
- Wildwood, Woodlake, and Del Webb Intersections

FINAL PS&E PACKAGE & MEETING

Submittal should be 6 copies of the completed PS&E package at the four intersections.

At the meeting, review the completed plans (including quantity summary sheets & general notes), specifications, estimate, and construction schedule.

The ENGINEER shall provide the County with a CD-ROM disk of the project suitable for use by the County.

The ENGINEER, through field recommendations, telephone conversations, and/or revisions to construction plan sheets, shall provide advice and corrections concerning any field change orders required as a direct result of a design error made under his/her supervision.

Description	Original Duration	Early Start	Early Finish	Late Finish	Free Float	01 03 15 22 29 01
FC 160 Roadway Design						
Roadway Design	15	03/25/10	04/15/10	04/15/10	0	
FC 161 Drainage Structure						
Drainage Structure	15	03/25/10	04/15/10	04/15/10	0	
FC 162 Traffic Signal Design						
Traffic Signal Design	43	03/25/10	05/25/10	05/25/10	0	

Start date 03/25/10 2:00PM
Finish date 05/25/10 1:59PM
Data date 03/25/10 2:00PM
Run date 03/23/10 1:00PM
Page number 1A

KBR, Inc.
Work Authorization No. 5
Willams Drive/RM 2338 - Georgetown
Exhibit "C"

EXHIBIT "D"
RM 2338

BASIC SERVICES PERFORMED BY KBR

FUNCTION CODE	PROJECT MANAGER	PROJECT ENGINEER	Sr. TECH CADD	TECH CADD	TOTAL
FC-160 Roadway Design Control	10	36	12	10	68
FC-161 Drainage Structures	1	2	0	3	6
FC-162 Traffic Design	69	163	60	98	390
FC-163 Miscellaneous	10	20	0	0	30
FC-164 Managing Contracted Services	34	0	0	0	34
SUBTOTAL	124	221	72	111	528
TOTAL LABOR RATE / HOUR	\$193.41	\$151.97	\$110.52	\$82.89	
TOTAL LABOR COST	\$23,982.84	\$33,585.37	\$7,957.44	\$9,200.79	\$74,726.44
DIRECT COST					\$56.22
TOTAL					\$74,782.66

DIRECT COST	TOTAL
Printing, Repro and Plotting	
1 Submittal - 6 Copies @23shts @ \$0.10/sht	\$13.80
Travel (6 trips @ 14 miles x \$0.505 per mile)	\$42.42
Total Direct Cost	\$56.22

EXHIBIT "D"
RM 2338
Drawing List - Manhour Estimate

Description	Estimated Number of Sheets	Manhours per Sheet	Man-hours	Man-hours By F.C.
Basic Services				
TOTAL MAN-HOURS			528	
FUNCTION CODE 160				68
ROADWAY DESIGN CONTROLS				
Intersection Layout	1	20	20	
Grading Plan	1	20	20	
Modify Plan & Profile Sheet	1	4	4	
Modify Project Layout Sheet	1	4	4	
Design Cross Sections	LS		20	
FUNCTION CODE 161				6
DRAINAGE STRUCTURE DESIGN				
Modify Culvert Profile Sheet	1	6	6	
FUNCTION CODE 162				390
TRAFFIC DESIGN				
1. Intersection Re-Design at DBWood				
Exist/Temp. Signal Layout & Removal Plan	1	8	8	
Proposed Signal Layout	1	32	32	
Signal & Electrical Charts	1	28	28	
Signal Elevation View	1	10	10	
Proposed Signing & Re-striping Plan	1	10	10	
2. Signal Replacement Design at WildWood				
Exist/Temp. Signal Layout & Removal Plan	1	14	14	
Proposed Signal Layout	1	28	28	
Signal & Electrical Charts	1	24	24	
Signal Elevation View	1	10	10	
Proposed Signing & Re-striping Plan	1	10	10	
Proposed ADA Corner Ramps	1	10	10	
3. Signal Replacement Design at Woodlake				
Exist/Temp. Signal Layout & Removal Plan	1	4	4	
Proposed Signal Layout	1	28	28	
Signal & Electrical Charts	1	24	24	
Signal Elevation View	1	10	10	
Proposed Signing & Re-striping Plan	1	10	10	
4. Signal Replacement Design at Del Webb				
Exist/Temp. Signal Layout & Removal Plan	1	8	8	
Proposed Signal Layout	1	28	28	
Signal & Electrical Charts	1	24	24	
Signal Elevation View	1	10	10	
Proposed Signing & Re-striping Plan	1	10	10	
Signal Foundations, Poles & Standard Details	1	12	12	
Utility Coordination	LS		6	
PS&E Deliverables & Submittals				
DBWood (50% Design - for pole ordering)	LS		4	
DBWood (100% Design)	LS		6	
Wildwood, Woodlake, Del Webb (100%)	LS		12	
Final PS&E Package (Including Comments)	LS		10	
FUNCTION CODE 163				30
MISCELLANEOUS (ROADWAY)				
PS & E Submittal				
Estimate, General Notes, Specification Data Notes	LS		30	
FUNCTION CODE 164				34
MANAGING CONTRACTED SERVICES				
3 Project Development Meetings	LS		9	
Construction Engineering Support	LS		25	