



**SUPPLEMENTAL WORK AUTHORIZATION NO. 5
TO
WORK AUTHORIZATION NO. 2**

**WILLIAMSON COUNTY ROAD BOND PROJECT:
North Mays Extension (Paloma Dr. to Oakmont Dr.)**

This Supplemental Work Authorization No. 5 to Work Authorization No. 2 is made pursuant to the terms and conditions of the Williamson County Contract for Engineering Services, being dated January 26, 2015 ("Contract") and entered into by and between Williamson County, Texas, a political subdivision of the State of Texas, (the "County") and LJA Engineering, Inc. (the "Engineer").

WHEREAS, the County and the Engineer executed Work Authorization No. 2 dated effective May 5, 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 County that were set out in the original Attachment "A" of the Work Authorization are hereby amended, changed and modified as shown in the attached revised Attachment "A" (must be attached).
- II. 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).
- III. The Work Authorization shall terminate on December 31, 2018. 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).
- IV. The maximum amount payable for this Work Authorization is increased from \$832,693.00 to \$1,057,466.50, an increase of \$224,773.50 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: _____

Signature

KENNETH G. SCHROCK

Printed Name

Sr. Vice President

Title

3/9/18

Date

COUNTY:

By: _____

Signature

Printed Name

Title

Date

LIST OF ATTACHMENTS

- Attachment A – Services to be Provided by the County
- Attachment B – Services to be Provided by the Engineer
- Attachment C – Work Schedule
- Attachment D - Fee Schedule

ATTACHMENT A

SERVICES TO BE PROVIDED BY WILLIAMSON COUNTY North Mays (Arterial M)

1. Williamson County will provide a Project Manager, through their GEC, to serve as the primary point of contact for the consultant.
2. Williamson County or its GEC, will act as direct contact with City of Round Rock.
3. Williamson County shall provide all existing CADD files.
4. Williamson County will provide timely reviews in conjunction with the agreed upon schedule. It is our understanding that Round Rock will also provide reviews through Williamson County GEC.
5. Williamson County will provide right-of-way acquisition services for this project.
6. Williamson County will provide right-of-way relocation assistance if necessary.
7. Williamson County will provide utility coordination services for this project.
8. Williamson County will provide S.U.E. services for this project, if needed.
9. Williamson County will provide TDLR review and registration for this project.

Attachment B - Scope of Services**SERVICES TO BE PROVIDED BY THE ENGINEER**

Roadway: North Mays (Arterial M)
County: Williamson
Limits: **PS&E:** from Paloma Drive to Oakmont

General Work Description: Provide plans, specifications, and estimate (PS&E) development to develop North Mays (Arterial M) from Paloma to Oakmont. The plans will update the 90% plans developed for the interim project from Paloma Drive to Oakmont to the ultimate roadway.

The Engineer will perform the following tasks listed below, as described in detail in each Work Authorization:

TASK 1 – PROJECT MANAGEMENT AND COMMUNICATION PLAN

The Engineer will:

- ◆ **Update Project Management Plan**
 - Update a Project Management Plan that establishes all the responsibilities and roles of the team members, including the prime firm and subs. The plan will also detail the procedure process for all submittals.
- ◆ **Meetings**
 - Hold staff/team meetings at the Engineers office. The staff attending will be appropriate based upon the current assignments (up to 6 meetings).
 - Hold Progress Meetings with Williamson County PM and/or GEC as needed. Up to two (2) progress meetings and involving appropriate personnel from the Engineer's staff (depending on the topics to be discussed). Provide Exhibits if required.
 - Milestone Meetings will be held for each of the following submittals: 90%, Final PS&E. These meeting will include Williamson County, City of Round Rock, and the Engineer's staff.
- ◆ **Invoicing, Contract Document Coordination, Progress Reports**
 - Prepare monthly progress reports and send with invoice to County & GEC via email/ProjectWise, for approximately 3 months.
 - Prepare monthly invoices for submission to the County for all requests for payment, for approximately 3 months.
- ◆ **Coordinate with GEC**
 - Attend coordination meetings (1), prepare exhibits (as needed), and provide assistance for the Williamson County GEC.
- ◆ **Coordinate with the City of Round Rock**

- Attend coordination meetings (1), prepare exhibits (as needed) and along with the GEC assist in coordination with the City of Round Rock.

◆ **Manage Sub Consultants**

The Engineer will:

- Monitor and supervise sub consultant activities (staff and schedule).
- Review all work products prepared by sub consultants in accordance with QA/QC Process
- Require sub consultant to perform Detailed Check Reviews of their own work and participate in Inter-discipline Coordination Reviews.
- Review and approve sub consultant progress reports and invoices.

◆ **Produce Project Scheduling**

- Update critical path schedule in Microsoft Project format for approval by the County indicating tasks, milestones, major meetings, and reviews.

TASK 2 – SURVEY SERVICES

No Updates

TASK 3 –PLANS, SPECIFICATIONS, AND ESTIMATE (PS&E) DEVELOPMENT

The Engineer will prepare PS&E for this Work Authorization.

The Engineer will update the following plan sheets or perform the following engineering in accordance with Williamson County and City of Round Rock guidelines to modify the existing 90% plans prepared for the interim roadway. The previously created plans will be updated to reflect the ultimate configuration.

- Title Sheet
- Index Sheet
- Project Layout Sheets
- General Notes
- Typical Sections; existing and proposed; required for North Mays (Arterial M), Paloma Drive, and Oakmont Drive.
- Horizontal Alignment Sheets
- Roadway Plan and Profile Sheets
- Intersection Grading Sheets
- Cross Sections: Develop design cross sections at 50' intervals along North Mays (Arterial M) and along Oakmont Drive. The Engineer will develop the Cross Sections at 1"=1' and shall be delivered in standard GeoPak format on 11" x 17" sheets.
- Earthwork: The Engineer shall analyze the earthwork to develop cut and fill.

- Quantity Summaries
- External Drainage Area Map Sheets
- Internal Drainage Area Map Sheets
- Storm Sewer Layout & Profile Sheets
- Ditch Design
- Ditch Sheets
- Bridge Typical Section
- Erosion Control Sheets
- EPIC Sheet
- SW3P Sheet
- Water Quality and BMP Sheets
- Signing and Pavement Marking layouts
- Conduit Layout Sheets

The Engineer will develop the following plan sheets or perform the following engineering in accordance with Williamson County and City of Round Rock guidelines.

◆ **Illumination Plans**

Prepare roadway Illumination Layouts in accordance with City of Round Rock Criteria.

◆ **Milestone Comment Resolution**

Update plans per GEC, County, and City of Round Rock comments received from the 60%, 90% and Final milestone review meetings.

◆ **Construction Schedule**

Update preliminary construction schedule.

◆ **Construction Estimates**

Develop a construction estimate of North Mays (Arterial M) for 60%, 90% and Final Submittals. The estimate will be in Microsoft Excel spreadsheet format, reflect current bid items and descriptions, and contain all major items that will likely be on the project (e.g., earthwork, pavement structure items, MBGF, signing, drainage features, etc.) Current TxDOT unit bid prices, with a reasonable adjustment for inflation to the anticipated bid opening date, will be used in preparation of the estimates.

◆ **QA/QC**

- Require these reviews: Detailed Check Review for all designs, Inter-discipline coordination review, detailed plan and construction reviews, and County oversight review.
- PM will maintain documentation of the reviews and it will be made available to the County at their request. All submittals will include a red line set.

TASK 4 - WATER AND WASTEWATER IMPROVEMENTS

The Engineer will update previously created plan sheets to ensure utilities are in compliance with the ultimate facility.

◆ **Organized Sewage Collection System Plan**

Update previously prepared SCS for TCEQ approval and include design plans, construction notes, and details in the construction drawings.

◆ **Milestone Comment Resolution**

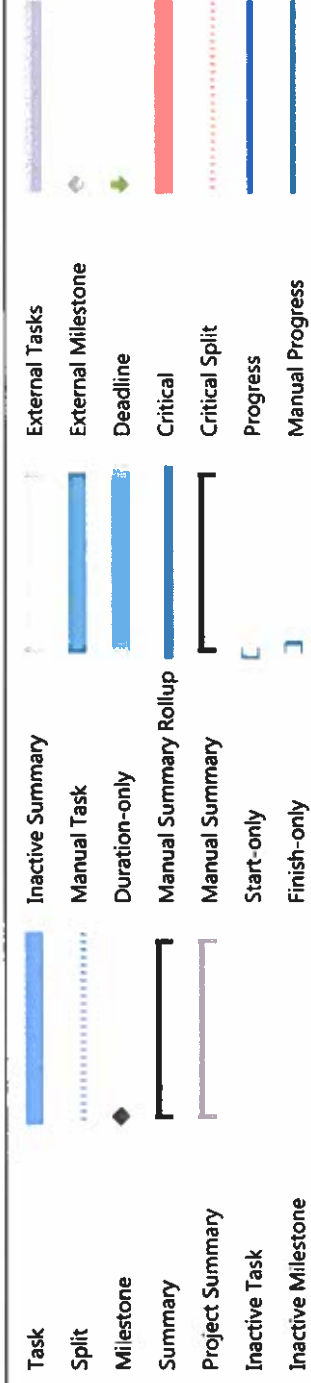
Update plans per GEC, County, and City of Round Rock comments received from the 90% and Final milestone review meetings.

◆ **Construction Estimates**

Develop a construction estimate of North Mays (Arterial M) Water and Wastewater Improvements for 90% and Final Submittals. The estimate will be in Microsoft Excel spreadsheet format, reflect current bid items and descriptions, and contain all major items that will likely be on the project (Current TxDOT and/or local bid information unit bid prices, with a reasonable adjustment for inflation to the anticipated bid opening date, will be used in preparation of the estimates.

Attachment C

ID	Task Mode	Task Name	Duration	Start	Finish	2019 Mar Apr May Jun Jul Aug Sep Oct Nov Dec Jan Feb Mar Apr May Jun Jul Aug Sep
1		PS&E Development	250 days	Fri 4/1/16	Thu 3/16/17	
2		60% Design	105 days	Fri 4/1/16	Thu 8/25/16	
3		90% Design	145 days	Fri 8/26/16	Thu 3/16/17	
4		90% Update for Ultimate	56 days	Fri 3/23/18	Fri 6/8/18	
5		Plans Development	45 days	Fri 3/23/18	Thu 5/24/18	
6		Pond Design	30 days	Fri 3/30/18	Thu 5/10/18	
7		90% Submittal	1 day	Fri 5/25/18	Fri 5/25/18	
8		90% Review	10 days	Mon 5/28/18	Fri 6/8/18	
9		100% Design	31 days	Mon 6/11/18	Mon 7/23/18	
10		100% Plan Development	30 days	Mon 6/11/18	Fri 7/20/18	
11		Final Submittal	1 day	Mon 7/23/18	Mon 7/23/18	
12		Bidding	30 days	Tue 9/4/18	Mon 10/15/18	
13		Construction	198 days	Tue 11/27/18	Thu 8/29/19	



Project: North Mays WA#2
Supplemental #5
Date: Fri 3/9/18

ATTACHMENT D

SERVICES FOR NORTH MAYS WA#2 Sup #5: Ultimate - Current Limits	
LABOR	
LJA	\$162,050.00
KCI	\$61,660.00
DIRECT COSTS	
LJA	\$857.50
KCI	\$206.00
TOTAL FOR WA#2 Sup #5: Ultimate - Current Limits	\$224,773.50

North Mays																									
TASK DESCRIPTION		Senior Project Manager								Project Engineer		E.I.T.		Senior Engineering Tech		CADD Operator		Admin		Total		Number of Sheets		Hours/Sheet	
		215.00		175.00		145.00		130.00		110.00		80.00		70.00		HOURS		HOURS		HOURS		HOURS		HOURS	
TASK 1 - PROJECT MANAGEMENT AND COMMUNICATION PLAN																									
1.1	Develop Project Management Plan																								
	Update North Mays PMP																								
1.2	Meetings																								
	Staff Meetings (6)																								
	Progress Meetings with County/GEC (2)																								
	Milestone Meetings (90%, Final)																								
1.3	Invoicing, Contract Document Coord, Progress Reports																								
	Prepare Sub Contracts																								
	Monthly Progress Reports																								
	Monthly Invoices																								
1.4	Coordinate with GEC																								
	Coordination Meetings (1)																								
	Coordination Meeting Exhibits																								
1.5	Coordinate with the City of Round Rock																								
	Coordination Meetings (1)																								
	Coordination Meeting Exhibits																								
1.6	Coordination with TCEQ																								
	No Updates																								
1.6	Manage Sub Consultants																								
	Manage Inland - No Updates																								
	Manage KCI																								
1.7	Produce Project Scheduling																								
	Project Schedule																								
	SUB TOTAL HOURS																								
	SUB TOTAL FEE																								
TASK 2 - SURVEY																									
2.1	Supplemental Spot Survey																								
	No Updates																								
TASK 3 - PLANS, SPECIFICATIONS, AND ESTIMATE (PS&E) DEVELOPMENT																									
3.1	Field Reconnaissance																								
	No Updates																								
3.2	Update Current Interim Sheets for Ultimate																								
	Update Title Sheet																								
	Update Index																								
	Update Project Layout Sheets																								
	Update Typical Sections																								
	Update Horizontal Alignment Sheets																								
	Update Roadway Plan and Profile (North Mays)																								
	Update Intersection Grading Sheets																								
	Update Driveway Plan and Profile Sheets																								
	Update 3D model																								
	Update Cross Sections																								
	Update Earthwork																								
	Update Quantities																								
	Update External Drainage Area Maps																								
	Update Internal Drainage Area Maps																								
	Update Storm Sewer Plan and Profile Sheets																								
	Update Storm Sewer Lateral Sheets																								
	Update Ditch Sheets																								
	Update Bridge Typical Section																								
	Update SW3P Sheets (See KCI Fee)																								
	Update Water Quality & BMP Sheets (See KCI Fee)																								
	Update TCP Sheets (See KCI Fee)																								
	Update Signing and Striping Sheets (See KCI Fee)																								

North Mays									
TASK DESCRIPTION	Senior Project Manager	Senior Engineer	Project Engineer	E.I.T.	Senior Engineering Tech	CADD Operator	Admin	Total	Hours/Sheet
	HOURS	HOURS	HOURS	HOURS	HOURS	HOURS	HOURS	HOURS	Number of Sheets
	215.00	175.00	145.00	130.00	110.00	80.00	70.00	20.0	3.0
Update Conduit Layout Sheets			2.0	16.0		2.0		20.0	7
3.3 Illumination Plans									
Illumination Design		6.0	16.0	32.0				54.0	
Circuit Layouts			24.0	32.0		16.0		72.0	
Roadway Illumination Layout Sheets			4.0	24.0		24.0		52.0	10
Quantity Summary			2.0	4.0		4.0		10.0	
Standards			2.0			2.0		4.0	
3.4 Utility Coordination									
Coordinate with GEC Utility Coordinator		2.0	6.0	4.0				12.0	
3.5 Milestone Comment Resolution									
Respond to GEC/county 90% comments	2.0	4.0	8.0	20.0	4.0	20.0		58.0	
Respond to GEC/county Final comments	2.0	4.0	4.0	8.0	4.0	8.0		30.0	
3.6 Construction Schedule									
Construction Schedule (90% and Final)		2.0	4.0	4.0				10.0	
3.7 Construction Estimate									
Estimate (90%, Final)			12.0	12.0				24.0	
3.8 QA/QC									
QA/QC 90%	4.0	24.0						28.0	
QA/QC Final	2.0	12.0						14.0	
	4.0	24.0	186.0	470.0	152.0	258.0	0.0	1094.0	
SUB TOTAL HOURS	\$860	\$4,200	\$28,970	\$61,100	\$16,720	\$20,640	\$0	\$130,490.0	
SUB TOTAL FEE									
TASK 4 - City of Round Rock Water & Wastewater Design									
4.1 Water & Wastewater Improvements - Updates for Ultimate									
Update Project Layout Sheets		1.0	2.0	2.0		4.0		9.0	
E&S Controls, Tree Protection		1.0		4.0	2.0			7.0	
Waterline Improvements Plan and Profile		2.0	16.0	24.0	12.0	16.0		70.0	
Waterline Adjustment Details		1.0	2.0	4.0	4.0			11.0	
Quantity Summary			2.0	4.0		2.0		8.0	
4.2 Organized Sewage Collection System Plan									
Update SCS Permit Application		1.0	2.0					3.0	
4.3 Milestone Comment Resolution									
Respond to GEC/County/City 90% comments		2.0	4.0	4.0	4.0	4.0		18.0	
4.4 Utility Construction Estimate									
Estimate (90%, Final)	0.0	8.0	30.0	46.0	22.0	26.0	0.0	132.0	
SUB TOTAL HOURS	\$0	\$1,400	\$4,350	\$5,980	\$2,420	\$2,080	\$0	\$16,230.0	
SUB TOTAL FEE									
TOTAL North Mays Tasks									
TOTAL HOURS (LJA)	33.0	43.0	232.0	542.0	174.0	298.0	5.0	1327.0	
TOTAL LABOR FEE (LJA)	\$7,095	\$7,525	\$33,640	\$70,460	\$19,140	\$23,840	\$350	\$162,050	

LJA'S OVERHEAD DIRECT COSTS

DIRECT REIMBURSABLE EXPENSES	Rate	Quantity	Cost
Lodging/Hotel	\$85.00		
Meals	\$36.00		
Mileage	\$0.58	400	\$230.00
Rental Car	\$45.00		
Standard Postage	\$0.42		
Overnight Mail - letter size	\$16.00		
Overnight Mail - oversized box	\$30.00		
Courier Services (Deliveries)	\$30.00	2	\$60.00
CADD Plotting (per SQ/FT)	\$1.50	75	\$112.50
Photocopies B/W (8.5 X 11)	\$0.10	300	\$30.00
Photocopies B/W (11 X 17)	\$0.15	1500	\$225.00
Photocopies Color (8 X 10)	\$0.75		
Photocopies Color (11 X 17)	\$1.00		
Blue/Blackline Prints (11" X 17")	\$0.20		
Blue/Blackline Prints (22" X 34")	\$0.50		
Plots (B/W on Bond)	\$0.25		
Plots (Color on Bond)	\$2.00	100	\$200.00
Plots (Color on Photographic Paper)	\$5.50		
Mylar (11" X 17")	\$3.00		
Traffic Counts	\$2,000.00		
CD Archive	\$1.50		
WPAP Filing Fee	\$6,500.00		
TDLR Registration and Inspection	\$1,450.00		
TOTAL LJA DIRECT COSTS			\$857.50

FEE SCHEDULE
METHOD OF PAYMENT: Time and Material

PROVIDER NAME: Kennedy Consulting, Inc.
PROJECT NAME: North Mays
CLIENT: Williamson County

TASK DESCRIPTION	Project Manager	Senior Prof 2	Senior Prof 1	Prof 2 / Senior Eng. Technician	Prof 1 / Engineering Technician	Admin/ Clerical	TOTAL LABOR HRS. & COSTS
TASK 1							
PROJECT MANAGEMENT AND COMMUNICATION PLAN							
1. Meetings	4	6					10
2. Invoicing, Contract Document Coordination, Progress Reports	4	6				4	14
HOURS SUB-TOTALS	8	12	0	0	0	4	24
CONTRACT RATE PER HOUR	\$200.00	\$185.00	\$165.00	\$140.00	\$110.00	\$65.00	
TOTAL LABOR COSTS	\$1,600.00	\$2,220.00	\$0.00	\$0.00	\$0.00	\$260.00	\$4,080.00
TASK 1 SUBTOTAL							\$4,080.00

TASK DESCRIPTION	Project Manager	Senior Prof 2	Senior Prof 1	Prof 2 / Senior Eng. Technician	Prof 1 / Engineering Technician	Admin/ Clerical	TOTAL LABOR HRS. & COSTS
TASK 2							
PLANS, SPECIFICATIONS, AND ESTIMATE (PS&E) DEVELOPMENT							
1. Field Reconnaissance		2		4			6
2. Roadway							
2.1. Revise General Notes				1	2		3
2.3. Revise Plan and Profile - Oakmont Drive			1	2	4		7
2.4. Revise Quantity Summary - Oakmont Drive				1	2		3
3. Erosion Control and SW3P Layouts							
3.1. Revise Erosion Control Sheets	2	3	8	18	36		67
3.2. Revise Quantity Summary		1	2	4	8		15
3.4. Revise SW3P Sheet		1	1	1	4		7
3.5. Revise Standards				2	4		6
4. Water Quality and BMP Design							
4.1. Revise Calculations	2	6	12	10	20		50
4.2. Revise Plan Sheets	2	2	8	8	16		36
4.3. Revise WPAP Development	4	8	6	9	15		42
4.4. TCEQ Coordination	4	6					10
4. Signing and Pavement Marking Plans							
5.1. Revise Plan Layouts	2	4	8	16	30		60
5.2. Revise Quantity Summary		1	2	6	12		21
5.3. Revise Standards			1	2	5		8

FEE SCHEDULE
METHOD OF PAYMENT: Time and Material

PROVIDER NAME: Kennedy Consulting, Inc.
PROJECT NAME: North Mays
CLIENT: Williamson County

OTHER DIRECT EXPENSES		QUANTITY	UNIT	RATE	
Mileage		100	mile	\$ 0.560	\$56.00
Courier Services		2	each	\$ 25.00	\$50.00
Photocopies B/W (11" X 17")		500	each	\$ 0.20	\$100.00
SUBTOTAL DIRECT EXPENSES					\$206.00

SUMMARY	
TOTAL LABOR COSTS(@ CONTRACT RATES/HOUR)	\$61,660.00
NON-SALARY (OTHER DIRECT EXPENSES)	\$206.00
GRAND TOTAL	\$61,866.00