

SUPPLEMENTAL WORK AUTHORIZATION NO. 1
TO
WORK AUTHORIZATION NO. 2

WILLIAMSON COUNTY ROAD BOND PROJECT:
Ronald Reagan Corridor Segment A

This Supplemental Work Authorization No. 1 to Work Authorization No. 2 is made pursuant to the terms and conditions of the Williamson County Contract for Engineering Services, being dated March 9th, 2021 ("Contract") and entered into by and between Williamson County, Texas, a political subdivision of the State of Texas, (the "County") and LJA Engineering (the "Engineer").

WHEREAS, the County and the Engineer executed Work Authorization No. 2 dated effective October 28th, 2021 (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 January 1st, 2023. 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 services under the Work Authorization is hereby increased from \$ 395,889.50 to \$ 881,871.00. The revised Work 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: Kenneth G. Schrock
Signature

Kenneth G. Schrock
Printed Name

Senior Vice President
Title

2/28/2022
Date

COUNTY:

By: _____
Signature

Printed Name

Title

Date

LIST OF ATTACHMENTS

Attachment B - Services to be Provided by Engineer

Attachment C - Work Schedule

Attachment D - Fee Schedule



ATTACHMENT B
SERVICES TO BE PROVIDED BY THE ENGINEER FOR
Ronald Reagan – Segment A
PROJECT DESCRIPTION

Project Limits

Extension of Ronald Reagan Segment A project limits to include RM 1431 to RM 2243 (4.03 mi). Full project limits are now RM 1431 to SH 29 (7.72 mi).

Existing Facility

The existing road is a 2-lane roadway with asphalt pavement and with varying widths of existing ROW 200ft to 260ft.

Proposed Facility

Proposed ultimate controlled access expressway with 2 two-lane divided mainlanes, 2 two-lane curb and gutter frontage roads, ramps, auxiliary lanes, arterial cross streets, shared use path(s) with an approximate proposed ROW width of 300ft, from the project limits mention above.

Design Criteria

The proposed design criteria for the project will be developed from Williamson County and TxDOT design criteria as applicable. Utilize the existing schematic to the extent possible and match the criteria for the adjacent project.

1. PROJECT MANAGEMENT

a. Communication:

- Designate one Licensed Professional Engineer (Texas) to be responsible for the project management, and all communications with the County and its representatives.

b. Monthly Progress Report, Invoices, and Billings (9 months assumed):

- Submit monthly progress status reports to the GEC. Progress reports will include deliverable table, tasks completed, tasks/objectives that are planned for the upcoming periods, lists or descriptions of items or decisions needed from the County and its representatives. Subconsultant progress will be incorporated into the monthly progress report. A copy of the monthly progress report will be uploaded to ProjectWise.
- Prepare correspondence, invoices, and progress reports on a monthly basis in accordance with current County requirements.

c. Quality Assurance and Quality Control (QA/QC):

- For each deliverable submittal, provide evidence of their internal review and mark-up of that deliverable as preparation for submittal and in accordance with submitted project specific QA/QC plan.
- Provide continuous QA/QC throughout the duration of the scheduled services included herein to appraise both technical and business performance and provide direction for project activities.

d. Project Coordination & Administration:

- Prepare and maintain routine project record keeping including records of meetings and minutes.
- Correspondence and coordination will be handled through & with the concurrence of the GEC.
- Manage project activities (including documenting emails, phone and conference calls, maintain project files for the length of the project, meeting agendas, meeting minutes, and schedule meetings), direct Engineer's team/staff, coordinate and review sub-consultant work, correspond with the County and its representatives, and assist the County and its representatives in preparing responses to project-related inquiries.

e. Progress/Coordination Meetings (3 external meetings assumed):

- Attend a kickoff meeting and coordination/progress meeting with the County and its representatives and stakeholders, as necessary to communicate development of the project and design issues.
- Prepare agenda and sign-in sheets for external coordination/progress meetings.
- Prepare meeting minutes for review via email within three (3) business days of the external coordination/progress meeting.
- Conduct internal coordination meetings as required to advance the development of the project.

f. Project Schedule:

- Maintain a project schedule indicating tasks, subtasks, critical dates, milestones, and deliverables. Submit to County as requested.

Deliverables:

- Monthly Invoices and Progress Reports including Deliverable Table
- Project Specific QA/QC Plan
- Meeting Minutes, Sign-In Sheets, and Agendas
- Project Schedule and Updates
- Project Files
- QA/QC Documentation with Deliverable

2. ROUTE AND DESIGN STUDIES

a. Data Collection:

- Perform record research and obtain existing information, including but not limited to: as-built plans, construction plans, right of way maps, traffic data, environmental reports, studies, future land use maps, floodplain data, official copies of FEMA floodplain and drainage models and analyses. Obtain construction plans for projects within the project limits and abutting roadways. Obtain drainage studies, reports, and mapping for the project area, including reports for developments affecting the drainage area. Obtain existing schematic from GEC.
- Conduct a field investigation of the proposed roadway alignment and the surrounding area to determine field conditions including photographic record of notable existing features.
- Develop and maintain adjacent property ownership information spreadsheet to be used for disseminating project information including owner's name, tenant name for leased property, mailing address, property address, property id number.
- Review the data collected and organize the information.

b. Design Summary:

- Review the Williamson County's Long-Range Transportation Plan and other local and regional transportation plans to review and gather information of projects that could impact Ronald Reagan Corridor Segment A.
- Identify and gather data that will be included within the ROW footprint layout, that includes known constraints (structures, floodplain), aerial photography, contour information, utility information, parcel ownership, adjacent proposed & existing developments, and improvements projects, based on research of public databases and sources.
- Develop (1) one preliminary ROW footprint layout with all 3 separate ROW footprint alignments clearly shown for use in soliciting input during coordination meetings with stakeholders. Assumed the 3 ROW footprints will be:
 - Additional ROW (assume 300ft total width) split on both sides of the existing Ronald Reagan Blvd ROW.
 - Additional ROW (assume 300ft total width) entirely on the western (left side) of the existing Ronald Reagan Blvd ROW.
 - Additional ROW (assume 300ft total width) entirely on the eastern (right side) of the existing Ronald Reagan Blvd ROW.
- Quantify potential effects of the preliminary ROW footprints based on the evaluation criteria, provided by GEC or during stakeholder meetings.
- Refine ROW footprint based on public input, stakeholder input, design criteria, existing structures, potential displacements, right of way limits and requirements, known developments, FEMA floodplain areas, existing and proposed drainage structures and issues, and other environmental features.
- Conduct a ROW footprint meeting to discuss impacts and select recommended alignment option.

c. Design Criteria:

- Analyze and identify project-specific design criteria (typical sections, design speed, functional classification, geometric criteria, drainage criteria) in accordance with the latest versions of City of Leander design standards, Williamson County design criteria and other associated local/state manuals, as applicable.
- Draft and Final Design Summary Form

d. List of impacted tracts the Draft and Final ROW footprint.

Deliverables:

- Draft ROW footprint layout
- Final ROW footprint layout
- Draft and Final Design Summary Form
- Affected property owner list

3. ENVIRONMENTAL

a. Desktop Level Review

- Identify and gather data on environmental concerns and known constraints (cultural sites, potential waters of the U.S., hazardous material sites, floodplain) based on research of public databases and sources, to be included into the ROW footprint Layout.
- Prepare memo summarizing concerns and constraints for each alternative for justification of preferred alternative.

Deliverables:

- Environmental Constraints Memo

4. PUBLIC INVOLVEMENT

As this is a Road Bond Project, public involvement activities will be conducted through the County's existing public involvement contract with Rifeline. The engineer will provide support for the Public Involvement plans for the following activities:

a. Public Involvement Plan

- Coordinate/review Corridor Public Involvement plan specific updates.

b. Prepare materials and provide support for meetings with Individual Property Owners, and Stakeholder meetings (up to 5 exhibits assumed).

c. Attend meeting with property owners (5 meetings assumed).

Deliverables:

- Property owner exhibits

5. SCHEMATIC DEVELOPMENT

- Prepare Preliminary & Final Ultimate Schematic submittal per Williamson County Schematic submittal checklist and selected design criteria.
- Prepare Preliminary & Final Engineering Costs Estimate for the construction quantities covering all items of the proposed work.
- Cross Sections
 - Develop cross sections as necessary for the determination of cut and fill quantities. These sections will also be used to further refine the design vertical geometry.

Deliverables:

- Preliminary & Final Schematic (Ultimate) including cost estimate.

6. DRAINAGE STUDY

a. Hydrologic Study & Modeling

Detail the criteria, methodologies, results and recommendations of the analysis.

- Collect, prepare and modify existing hydrologic & hydraulic models to reflect the existing & proposed schematic. Compare and document the study results with existing studies or models from the County, FEMA, cities, etc., if available.
- Provide existing and proposed condition drainage area maps for each outfall from the project area and/or each cross-drainage structure location.
- Provide a comparison of existing vs proposed condition runoff patterns at each outfall from the project area.
- Atlas 14 impacts will be reviewed and incorporated.

b. Hydraulic Study & Modeling

- Provide hydraulic models and/or calculations for the existing and proposed structures.
- Document existing conditions including size, length, flowline elevations, scour, flooding, erosion, tailwater or other notable conditions. Document source of hydraulic/channel cross sections.
- Prepare preliminary design and layout for the cross-drainage structures and major roadside channels using appropriate software (HEC-RAS, HY-8, SWMM, Bentley or other approved hydraulic modeling software). All bridges and multiple box culverts to be analyzed in HEC-RAS.
- Compare and document the study results with existing studies or models, Identify and document need for stakeholder coordination or permitting.
- Recommend minimum pavement elevations based on design event WSEL for cross drainage flood elevations & document WSEL on schematic profile.

- c. FEMA Coordination (Brushy Creek Tributary 1, Blockhouse Creek, & Spanish Oak Creek):
- Coordinate with the County's GEC and Local Floodplain Administrator as necessary throughout the project.
 - Determine if a CLOMR or LOMR will be required and/or recommended. *If a CLOMR or LOMR is required after the Preliminary Drainage Report and through coordination with the Local Floodplain Administrator, a supplemental work authorization would be required.*
- d. Impact and Mitigation Analysis:
- Provide documentation of all adverse impacts resulting from the proposed facility in the proposed condition. Provide a comparison of existing vs proposed condition at each outfall from the project area.
 - Provide plans to mitigate adverse impacts to nearby buildings, property access points, and runoff patterns.
 - If detention is recommended or required prepare a routing analysis to determine preliminary size and ROW needs for proposed detention ponds.
 - Coordinate with County's GEC to determine need for maintenance or landscaping setbacks for ponds. Criteria for this determination shall be based, in part, on drainage information provided by the Engineer and on the preliminary design for the project area.
 - Calculate the volume of fill to be placed in the 100-year floodplain and recommend locations for compensatory storage.
- e. Water Quality Analysis:
- Provide water quality design including preliminary TSS removal calculations and permanent BMP design and placement.

Deliverables:

- Schematic Preliminary and Final Drainage Reports signed and sealed by a professional engineer in the State of Texas.
- Applicable GIS, Hydrologic Models or CAD files referenced in the drainage study.

7. **DELIVERABLES:**

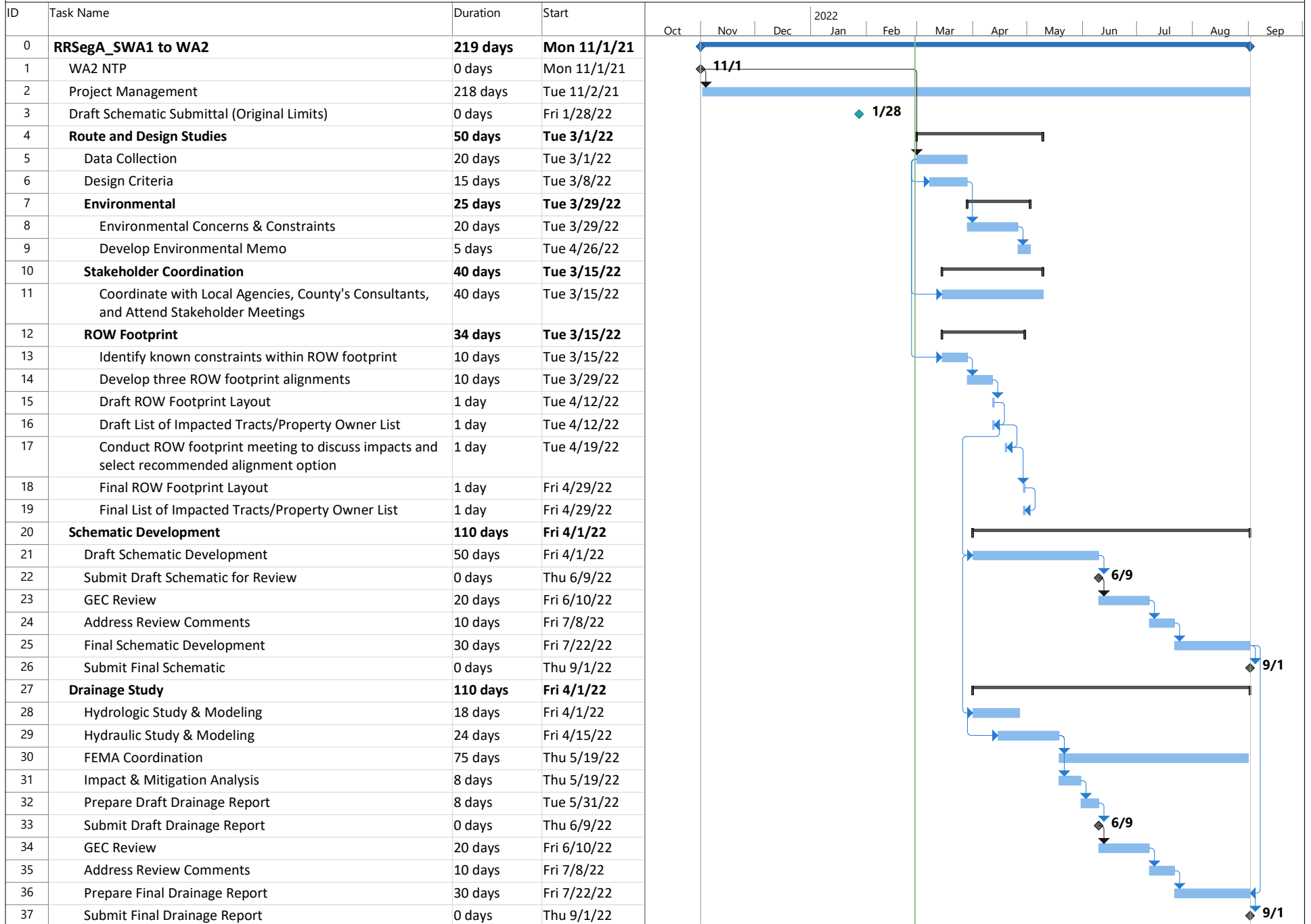
- a. Documents:
- All contract documents, including a pdf copy of each deliverable, native electronic files, models and calculations will be uploaded to the County's project management database at each milestone and at the completion of the project. One hard copy of each deliverable will be provided unless additional copies are required per the submittal checklist.

8. EXCLUSIONS:

a. The following items are not included in this work authorization:

- PUBLIC INVOLVEMENT.
- RIGHT-OF-WAY (ROW) MAPPING.
- CLOMR OR LOMR.
- ENVIRONMENTAL SERVICES (ONLY DESKTOP REVIEW).
- GEOTECHNICAL SERVICES.
- PLAN PREPARATION (PS&E) SERVICES.
- BIDDING PHASE SERVICES.
- CONSTRUCTION PHASE SERVICES.
- UTILITY COORDINATION OR RELOCATION ESTIMATES.

Ronald Reagan Corridor - Segment A - SWA #1
Attachment C



ATTACHMENT D**SERVICES FOR RONALD REAGAN CORRIDOR - SEGMENT A (SWA #1) - EXTENSION TO RM 1431:****LABOR**

LJA Engineering (Prime)	\$ 471,425.00
SWCA (Sub)	\$ 9,562.00

DIRECT COSTS

LJA Engineering (Prime)	\$ 4,994.50
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TOTAL**\$ 485,981.50**

Ronald Reagan Corridor - Segment A - SWA #1													
TASK DESCRIPTION		Project Principal	Project Manager	Quality Manager	Senior Engineer	Project Engineer	Design Engineer	Senion Engineering Technician	E.I.T.	Senior CADD Operator	CADD Operator	Admin	Total
		275.00	245.00	230.00	215.00	170.00	155.00	140.00	135.00	125.00	100.00	80.00	
		HOURS	HOURS	HOURS	HOURS	HOURS	HOURS	HOURS	HOURS	HOURS	HOURS	HOURS	HOURS
TASK 1 – PROJECT MANAGEMENT													
1.a	Communication												
	Project management communication with County and its representatives	2	4										6
1.b	Monthly Progress Report, Invoices, & Billings (9 months assumed)												
	Monthly Progress Reports		9									2	11
	Monthly Invoices		9									2	11
1.c	QA/QC Plan												
	Internal QA/QC at Each Deliverable		8	24	8	8						4	52
	Provide Continuous QA/QC Throughout Project		8	24	8	8							48
1.d	Project Coordination & Administration												
	Prepare Project Records & Meeting Minutes		4		4							8	16
	Coordination with the GEC	2	16		8	8							34
	Manage Project Activities (emails, calls, meetings, coordination)		16		8							8	32
1.e	Progress/Coordination Meetings (3 external meetings assumed)												
	Kickoff and Progress Meetings with County and Representatives	1	3		3								7
	Schedule and Prepare for Coordination Meetings		3		3		3	3				3	15
	Attend Coordination Meetings (3 Meetings)		3		3				3				9
	Prepare Agenda and Sign-in Sheets											3	3
	Prepare Meeting Minutes											3	3
1.f	Project Schedule												
	Maintain a Project Schedule		2		2	2							6
	Maintain Project Deliverables Table		4		4	4							12
TASK 1 TOTAL HOURS		5.0	89.0	48.0	51.0	30.0	3.0	3.0	3.0	0.0	0.0	33.0	265.0
TASK 1 TOTAL FEE		\$1,375	\$21,805	\$11,040	\$10,965	\$5,100	\$465	\$420	\$405	\$0	\$0	\$2,640	\$54,215
TASK 2 – ROUTE AND DESIGN STUDIES													
2.a	Data Collection												
	Perform Record Research & Obtain Existing Information		2		4	4	4	4	8				26
	Conduct Field Investigation and Include Photographic Record		4			4	4		4				16
	Develop and maintain adjacent property ownership information spreadsheet		2		4	4			16				26
	Review Collected Data				8			8					16
2.b	Design Summary												
	Review Williamson County's Long-Range Transportation Plan and local transportation plans		2		4	4							10
	Identify known constraints within ROW footprint		2		4	4	4		24				38
	Develop three separate ROW footprint alignments (east side, west side, both sides)		2		8	8	16		24	4	16		78
	Quantify potential effects of the preliminary ROW footprints		2		4	4	8		8				26
	Refine ROW footprint based input, criteria, displacements, developments, issues, etc.		2		8	16	16		24	4	16		86
	Conduct ROW footprint meeting to discuss impacts and select recommended alignment option		2		2	4			4				12
2.c	Design Criteria												
	Analyze and identify project-specific design criteria		2		2	2	2		2				10
	Draft & Final Design Summary Form		2	4	2		4		4				16
2.d	ROW Mapping												
	Impacted tracts (Draft & Final ROW footprint)		4		16	16			16				52
TASK 2 TOTAL HOURS		0.0	28.0	4.0	66.0	70.0	58.0	12.0	134.0	8.0	32.0	0.0	412.0
TASK 2 TOTAL FEE		\$0	\$6,860	\$920	\$14,190	\$11,900	\$8,990	\$1,680	\$18,090	\$1,000	\$3,200	\$0	\$66,830
TASK 3 – ENVIRONMENTAL													
	(See SWCA Fee)												
TASK 4 – PUBLIC INVOLVEMENT													
4.a	Public Involvement Plan												
	Prepare Individual Property Exhibits with ROW Impacts for Meetings		2	2	2		2		8	2	8		26
	Attend Property Owner Meetings		10		10				10				30
	Provide Information for Fact Sheets and FAQs		2		2		4		4			4	16
TASK 4 TOTAL HOURS		0.0	14.0	2.0	14.0	0.0	6.0	0.0	22.0	2.0	8.0	4.0	72.0
TASK 4 TOTAL FEE		\$0	\$3,430	\$460	\$3,010	\$0	\$930	\$0	\$2,970	\$250	\$800	\$320	\$12,170

Ronald Reagan Corridor - Segment A - SWA #1													
TASK DESCRIPTION		Project Principal	Project Manager	Quality Manager	Senior Engineer	Project Engineer	Design Engineer	Senion Engineering Technician	E.I.T.	Senior CADD Operator	CADD Operator	Admin	Total
		275.00	245.00	230.00	215.00	170.00	155.00	140.00	135.00	125.00	100.00	80.00	
		HOURS	HOURS	HOURS	HOURS	HOURS	HOURS	HOURS	HOURS	HOURS	HOURS	HOURS	HOURS
TASK 5 – SCHEMATIC DEVELOPMENT													
5.a	Schematic Development												
	Prepare Preliminary and Final Ultimate Schematic	8	40		100	140	170		220	100	220		998
	Prepare Preliminary and Final Cost Estimate	4	16		20	20	20		40				120
TASK 5 TOTAL HOURS		12.0	56.0	0.0	120.0	160.0	190.0	0.0	260.0	100.0	220.0	0.0	1118.0
TASK 5 TOTAL FEE		\$3,300	\$13,720	\$0	\$25,800	\$27,200	\$29,450	\$0	\$35,100	\$12,500	\$22,000	\$0	\$169,070
TASK 6 – DRAINAGE STUDY													
6.a	Hydrologic Study & Modeling												
	Develop existing and proposed hydrologic models		4		8	16	24		40				92
	Provide existing and proposed drainage area maps		4		8	16	24		24	24	40		140
	Provide existing vs proposed condition runoff patterns at each outfall		4		4	8	16		24				56
6.b	Hydraulic Study & Modeling												
	Develop existing and proposed hydraulic models		4		8	20	40		100				172
	Document existing conditions				4	8	8		16				36
	Preliminary design and layout for cross-drainage structures		4		8	20	24		40	24	40		160
	Compare results with existing studies and models		4		8	8	16		16				52
	Recommend minimum pavement elevation based on design event		2		8	8	16		16				50
6.c	FEMA Coordination												
	Coordinate with GEC and FEMA Floodplain Administrator throughout project		4		2	4	8						18
	Determine if CLOMR or LOMR will be required		2		2	8	8		16				36
	Calculate volume of fill in 100-yr floodplain and locations for storage		2		2	8	8		16				36
6.d	Impact and Mitigation Analysis												
	Provide documentation of adverse impacts				2	4	8		8				22
	Provide plans to mitigate adverse impacts		2		4	16	16		40				78
	Prepare routing analysis to determine detention pond size and ROW needs		2		4	16	16		40				78
	Coordinate with GEC to determine maintenance setbacks for ponds		2		4	4	4						14
6.e	Water Quality Analysis												
	Provide TSS calcs and BMP design		4		4	8	16		40				72
TASK 6 TOTAL HOURS		0.0	44.0	0.0	80.0	172.0	252.0	0.0	436.0	48.0	80.0	0.0	1112.0
TASK 6 TOTAL FEE		\$0	\$10,780	\$0	\$17,200	\$29,240	\$39,060	\$0	\$58,860	\$6,000	\$8,000	\$0	\$169,140
TOTAL Ronald Reagan Corridor - Segment A Tasks													
TOTAL HOURS (LJA)		17.0	217.0	52.0	317.0	432.0	503.0	15.0	833.0	156.0	332.0	33.0	2907.0
TOTAL LABOR FEE (LJA)		\$4,675	\$56,595	\$12,420	\$71,165	\$73,440	\$78,895	\$2,100	\$115,425	\$19,750	\$34,000	\$2,960	\$471,425

LJA

Ronald Reagan Corridor - Segment A

LJA'S OVERHEAD DIRECT COSTS

DIRECT REIMBURSABLE EXPENSES	Rate	Quantity	Cost
Photocopies B/W (8 1/2" X 11") / each	\$0.12	100	\$12.00
Photocopies B/W (11" X 17") / each	\$0.20	100	\$20.00
Photocopies Color (8 1/2" X 11") / each	\$0.75	100	\$75.00
Photocopies Color (11" X 17") / each	\$1.50	100	\$150.00
Digital Ortho Plotting / sheet	\$2.00	100	\$200.00
Plots (B/W on Bond) / square foot	\$2.00	50	\$100.00
Plots (Color on Bond) / square foot	\$5.00	50	\$250.00
Plots (Color on Photographic Paper) / square foot	\$6.00	500	\$3,000.00
Color Graphics on Foam Board / square foot	\$18.00	50	\$900.00
Mileage	\$0.58	500	\$287.50
	TOTAL LJA DIRECT COSTS		\$4,994.50

SWCA						Total Hours	Total Labor Cost
	Specialist XI	Specilaist X	Specialist VII	Specialist V	Specialist IV		
a. Constraints Memo and Maps							
Draft & Final Environmental Constraints Map	5	4	15	44	10	78	\$9,562.00
Labor Hours - Subtotal	5	4	15	44	10	78	\$9,562.00
Labor Hour Cost	\$187.00	\$171.00	\$133.00	\$112.00	\$102.00		
Total	\$935.00	\$684.00	\$1,995.00	\$4,928.00	\$1,020.00		\$9,562.00