

WORK AUTHORIZATION NO. 6

**PROJECT: Engineering Design Services for Drainage Improvements in Live Oak
Subdivision**

This Work Authorization is made pursuant to the terms and conditions of the Williamson County Contract for Engineering Services, being dated **March 6, 2018** and entered into by and between Williamson County, Texas, a political subdivision of the State of Texas, (the "County") and **Alliance Transportation Group** (the "Engineer").

Part 1. The Engineer will provide the following Engineering Services set forth in Attachment "B" of this Work Authorization.

Part 2. The maximum amount payable for services under this Work Authorization without modification is **\$220,000.00**.

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

Part 4. This Work Authorization shall become effective on the date of final acceptance and full execution of the parties hereto and shall terminate on **March 31, 2021**. The Engineering Services set forth in Attachment "B" of this Work Authorization shall be fully completed on or before said date unless extended by a Supplemental Work Authorization.

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


Part 6. County believes it has sufficient funds currently available and authorized for expenditure to finance the costs of this Work Authorization. Engineer understands and agrees that County's payment of amounts under this Work Authorization is contingent on the County receiving appropriations or other expenditure authority sufficient to allow the County, in the exercise of reasonable administrative discretion, to continue to make payments under this Contract. It is further understood and agreed by Engineer that County shall have the right to terminate this Contract at the end of any County fiscal year if the governing body of County does not appropriate sufficient funds as determined by County's budget for the fiscal year in question. County may effect such termination by giving written notice of termination to Engineer.

Part 7. This Work Authorization is hereby accepted and acknowledged below.

EXECUTED this ____ day of _____, 2019.

ENGINEER:

Alliance Transportation Group

By:  _____
Digitally signed by Clint Jumper
Date: 2019.03.14 20:42:06 -05'00'

Signature

Clint Jumper

Printed Name

VP, Engineering

Title

COUNTY:

Williamson County, Texas

By: _____

Signature

Bill Gravell, Jr.

Printed Name

Williamson County Judge

Title

LIST OF ATTACHMENTS

Attachment A - Services to be Provided by County

Attachment B - Services to be Provided by Engineer

Attachment C - Work Schedule

Attachment D - Fee Schedule

Attachment A - Services to be Provided by County

Please see next page.

Attachment A

Services to be Provided by County

Williamson County Road & Bridge Division personnel will provide:

- Project direction, review and oversight.
- Topographic and R.O.W Surveys.
- Geotechnical investigations, data and reports.
- ROW Documents and Drainage Reports.
- Conducting pre-bid meeting, responding to contractor questions during bidding, tabulating and evaluating bids after bid opening, and providing recommendation of award of contract.
- Construction oversight, administration and management.

Attachment B - Services to be Provided by Engineer

Please see next pages.

Attachment B

Services to be Provided by the Engineer

Project Locations:

1. **Live Oak Subdivision – Live Oak Road from East city limits to East end (4,480')**
2. **Live Oak Subdivision – Red Oak Lane (1,152')**
3. **Live Oak Subdivision – Arthur Circle (474')**
4. **Live Oak Subdivision – Oak Creek Road from city limits to Live Oak Road (3,028')**
5. **Live Oak Subdivision – Farview Circle (562')**
6. **Live Oak Subdivision – Valley View Road (3,318')**
7. **Live Oak Subdivision – Seward View Road (790')**
8. **Live Oak Subdivision – Spivey Road from city limits to East end (734')**

Task 1: Project Management

Attend Progress Review Meetings with County Road & Bridge department at 50%, 90% and Final.
Prepare monthly progress reports and invoices. Maintain project schedule and perform QA/QC.

Task 2: Topographic and R.O.W Surveys

To be provided by the County

Task 3: Preliminary Engineering

Conduct Site Visit and Field Reconnaissance to document existing conditions. Data collection including available as-builts for Bluebonnet Drive only. Develop a conceptual geometric layout on scroll plot (1"=20' H, 1"=2' V) showing roadway horizontal and vertical geometry and proposed typical section. Prepare preliminary cross sections (50' interval and Driveways). Develop preliminary drainage analysis including delineation of drainage areas, calculation of peak stormwater runoff rates for 25-yr and 100-yr.

Task 4: Geotechnical Investigations

To be provided by the County

Task 5: Environmental Studies

N/A

Task 6: Utility Coordination

N/A

Task 7: FEMA Coordination

N/A

Task 8: Final Engineering

Prepare final detailed design and PS&E for proposed improvements. Calculate ditch capacity and analyze driveway pipes as well cross culverts.

Plan Sheets:

- Title Sheet
- Estimate & Quantity Sheet
- Typical Sections
- Horizontal Alignment Data Sheet
- Drainage Area Map
- Hydraulic Data Sheet
- Erosion Control Plan
- Traffic Control Plan
- Driveway Details
- Driveway Summary
- Roadway Plan & Profile Sheets
- Culvert Layout sheets
- Miscellaneous Roadway Details
- Cross Sections (50' interval and Driveways)
- Standards

Construction Schedule

Specifications

Cost Estimate

General Notes

Task 9: Bidding Phase Services

Prepare Bid-Tabs for processing by Purchasing Department.

Task 10: Construction Phase Services

Review shop drawings and respond to contractor RFIs. Prepare electronic as-built final drawings for the County based on construction red-lines provided by the County.

Deliverables:

50% Submittal:

- 2 paper copies of 11" x 17" Plan Sheets
- Specifications
- Estimate of Construction Cost
- General Notes
- Engineer's internal QA/QC marked up set

90% Submittal:

- 2 paper copies of 11" x 17" Plan Sheets
- Construction Schedule
- Specifications

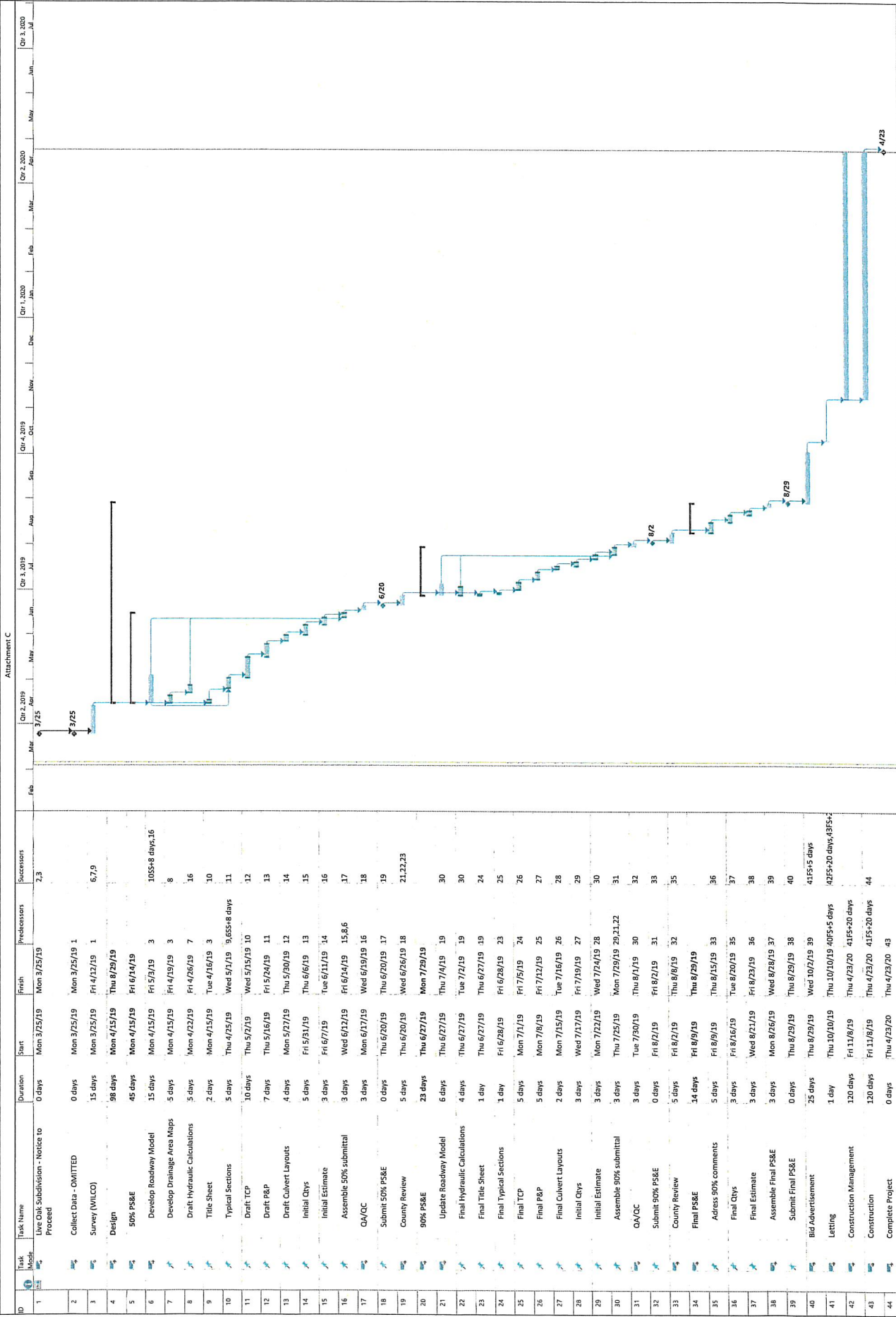
- Estimate of Construction Cost
- General Notes
- Engineer's internal QA/QC marked up set

Final Submittal:

- 2 paper copies of 11" x 17" Plan Sheets
- Construction Schedule
- Specifications
- Estimate of Construction Cost
- General Notes
- Engineer's internal QA/QC marked up set
- Electronic copy of submittal documents in PDF format on CD

Attachment C - Work Schedule

Please see next page.



Project: WILCO Small Drainage & Roadway Design WA #6
 Date: Wed 3/6/19

Task: Milestone

Summary: Project Summary, Inactive Task

Inactive Milestone: Inactive Summary, Manual Task

Duration-only: Manual Summary Rollup, Manual Summary

Start-only: Start-only, External Tasks

External Milestone: External Milestone, Deadline, Progress

Manual Progress: Manual Progress

Page 1

Attachment D - Fee Schedule

Please see next pages.

Task Description	Project Principal	Senior Project Manager	Project Manager	Hydraulic Engineer	Senior Engineer	Project Engineer	Engineer In-Training	Senior Engineering Technician	Engineering Technician	Project Administrator	Clerical	Total Labor Hours & Costs
Task 1: Project Management												
1.1 Progress Review Meetings (3 meetings: 50%, 90% & Final)		9					9				3	21
1.2 Invoicing and Progress Reports (12 months)	6	12								12		30
1.3 Subconsultants							20					0
1.4 QA/QC of Deliverables at 50%, 90% and FINAL		30										50
Labor Hours Subtotal	6	51	0	0	0	0	29	0	0	12	3	101
Contract Labor Rate Per Hour	\$ 265.00	\$ 244.00	\$ 230.00	\$ 210.00	\$ 205.00	\$ 160.00	\$ 115.00	\$ 133.00	\$ 92.00	\$ 104.00	\$ 85.00	
Labor Costs Subtotal	\$ 1,590.00	\$ 12,444.00	\$ -	\$ -	\$ -	\$ -	\$ 3,335.00	\$ -	\$ -	\$ 1,248.00	\$ 255.00	\$ 18,872.00

Task Description	Project Principal	Senior Project Manager	Project Manager	Hydraulic Engineer	Senior Engineer	Project Engineer	Engineer In-Training	Senior Engineering Technician	Engineering Technician	Project Administrator	Clerical	Total Labor Hours & Costs
Task 2: Topographic and R.O.W. Surveys												
N/A												0
Labor Hours Subtotal	0	0	0	0	0	0	0	0	0	0	0	0
Contract Labor Rate Per Hour	\$ 265.00	\$ 244.00	\$ 230.00	\$ 210.00	\$ 205.00	\$ 160.00	\$ 115.00	\$ 133.00	\$ 92.00	\$ 104.00	\$ 85.00	
Labor Costs Subtotal	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -

Task Description	Project Principal	Senior Project Manager	Project Manager	Hydraulic Engineer	Senior Engineer	Project Engineer	Engineer In-Training	Senior Engineering Technician	Engineering Technician	Project Administrator	Clerical	Total Labor Hours & Costs
Task 3: Preliminary Engineering												
3.1 Site Visit & Field Recon		16				16	16					48
3.2 Data Collection			1			2	8				2	13
3.3 Conceptual Geometric Layout			4			8	65					0
Scroll Plot with Plan & Profile (H: 1"=20', V: 1"=2')			4			2	48		4			77
Typical Sections			1			2			80			83
Cross-Sections (50' intervals and driveways)												0
3.4 Preliminary Drainage			1	12			60					73
Delineate Drainage Area			1	12			60					73
Calculate Peak Stormwater Runoff Rates (2.5 yr, 100 yr)												0
Labor Hours Subtotal	0	16	12	24	0	30	257	0	84	0	2	425
Contract Labor Rate Per Hour	\$ 265.00	\$ 244.00	\$ 230.00	\$ 210.00	\$ 205.00	\$ 160.00	\$ 115.00	\$ 133.00	\$ 92.00	\$ 104.00	\$ 85.00	
Labor Costs Subtotal	\$ -	\$ 3,904.00	\$ 2,760.00	\$ 5,040.00	\$ -	\$ 4,800.00	\$ 29,555.00	\$ -	\$ 7,728.00	\$ -	\$ 170.00	\$ 53,957.00

Task Description	Project Principal	Senior Project Manager	Project Manager	Hydraulic Engineer	Senior Engineer	Project Engineer	Engineer -In- Training	Senior Engineering Technician	Engineering Technician	Project Administrator	Clerical	Total Labor Hours & Costs
Task 4: Geotechnical Investigation												
N/A												0
Labor Hours Subtotal	0	0	0	0	0	0	0	0	0	0	0	0
Contract Labor Rate Per Hour	\$ 265.00	\$ 244.00	\$ 230.00	\$ 210.00	\$ 205.00	\$ 160.00	\$ 115.00	\$ 133.00	\$ 92.00	\$ 104.00	\$ 85.00	\$ 85.00
Labor Costs Subtotal	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -

Task Description	Project Principal	Senior Project Manager	Project Manager	Hydraulic Engineer	Senior Engineer	Project Engineer	Engineer -In- Training	Senior Engineering Technician	Engineering Technician	Project Administrator	Clerical	Total Labor Hours & Costs
Task 5: Environmental Studies												
N/A												0
Labor Hours Subtotal	0	0	0	0	0	0	0	0	0	0	0	0
Contract Labor Rate Per Hour	\$ 265.00	\$ 244.00	\$ 230.00	\$ 210.00	\$ 205.00	\$ 160.00	\$ 115.00	\$ 133.00	\$ 92.00	\$ 104.00	\$ 85.00	\$ 85.00
Labor Costs Subtotal	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -

Task Description	Project Principal	Senior Project Manager	Project Manager	Hydraulic Engineer	Senior Engineer	Project Engineer	Engineer -In- Training	Senior Engineering Technician	Engineering Technician	Project Administrator	Clerical	Total Labor Hours & Costs
Task 6: Utility Coordination												
N/A												0
Labor Hours Subtotal	0	0	0	0	0	0	0	0	0	0	0	0
Contract Labor Rate Per Hour	\$ 265.00	\$ 244.00	\$ 230.00	\$ 210.00	\$ 205.00	\$ 160.00	\$ 115.00	\$ 133.00	\$ 92.00	\$ 104.00	\$ 85.00	\$ 85.00
Labor Costs Subtotal	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -

Task Description	Project Principal	Senior Project Manager	Project Manager	Hydraulic Engineer	Senior Engineer	Project Engineer	Engineer -In- Training	Senior Engineering Technician	Engineering Technician	Project Administrator	Clerical	Total Labor Hours & Costs
Task 7: FEMA Coordination												
N/A												0
Labor Hours Subtotal	0	0	0	0	0	0	0	0	0	0	0	0
Contract Labor Rate Per Hour	\$ 265.00	\$ 244.00	\$ 230.00	\$ 210.00	\$ 205.00	\$ 160.00	\$ 115.00	\$ 133.00	\$ 92.00	\$ 104.00	\$ 85.00	\$ 85.00
Labor Costs Subtotal	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -

Task Description	Project Principal	Senior Project Manager	Project Manager	Hydraulic Engineer	Senior Engineer	Project Engineer	Engineer-In-Training	Senior Engineering Technician	Engineering Technician	Project Administrator	Clerical	Total Labor Hours & Costs
Task 8: Final Engineering												
8.1 Plans												
Title Sheet			1			4			20			0
Index of Sheets			1			4			20			25
Estimate & Quantity Sheet			8			1	12		40			61
Typical Sections (8 Roads)			5			2	50					57
Horizontal Alignment Data Sheet (8 Roads)			2			1	30					33
Vertical Alignment Data Sheet (8 Roads)			2			1	30					33
Drainage Area Map				8			40					48
Hydraulic Data Sheet				8			40					48
Erosion Control Plan (8 Roads)			2			4			30			36
Traffic Control Plan (8 Roads)			2		24		60		40			86
Driveway Details						2			40			42
Driveway Summary						2			60			62
Roadway Plan & Plan sheets (1"=50') (8 Roads)			3			4	150					157
Culvert layout sheet (Assume 4)			1				80					91
Final Cross Sections (50' intervals and driveways)					2	5	120					127
Standards						1			6			8
8.2 Construction Schedule			1			20						22
8.3 Specifications			1			1	6					9
8.4 Cost Estimate			2			6	40					51
8.5 General Notes			1			2	12					20
Labor Hours Subtotal	0	0	32	31	30	70	658	0	216	0	4	1041
Contract Labor Rate Per Hour	\$ 265.00	\$ 244.00	\$ 230.00	\$ 210.00	\$ 205.00	\$ 160.00	\$ 115.00	\$ 133.00	\$ 92.00	\$ 104.00	\$ 85.00	
Labor Costs Subtotal	\$ -	\$ -	\$ 7,360.00	\$ 6,510.00	\$ 6,150.00	\$ 11,200.00	\$ 75,670.00	\$ -	\$ 19,872.00	\$ -	\$ 340.00	\$ 127,102.00

Task Description	Project Principal	Senior Project Manager	Project Manager	Hydraulic Engineer	Senior Engineer	Project Engineer	Engineer-In-Training	Senior Engineering Technician	Engineering Technician	Project Administrator	Clerical	Total Labor Hours & Costs
Task 9: Bidding Phase Services												
9.1 Prepare Bid Tabs												
			1			4	8				2	15
Labor Hours Subtotal	0	0	1	0	0	4	8	0	0	0	2	15
Contract Labor Rate Per Hour	\$ 265.00	\$ 244.00	\$ 230.00	\$ 210.00	\$ 205.00	\$ 160.00	\$ 115.00	\$ 133.00	\$ 92.00	\$ 104.00	\$ 85.00	
Labor Costs Subtotal	\$ -	\$ -	\$ 230.00	\$ -	\$ -	\$ 640.00	\$ 920.00	\$ -	\$ -	\$ -	\$ 170.00	\$ 1,966.00

Task Description	Project Principal	Senior Project Manager	Project Manager	Hydraulic Engineer	Senior Engineer	Project Engineer	Engineer-in-Training	Senior Engineering Technician	Engineering Technician	Project Administrator	Clerical	Total Labor Hours & Costs
Task 10: Construction Phase Services:												
10.1 Review Shop Drawings and RFIs (Assume 3 RFIs)			2			6	16				2	26
10.2 OMITTED												0
10.3 Project closure, As-Builts and submittal of electronic files			1			4	20			2	1	28
Labor Hours Subtotal	0	0	3	0	0	10	36	0	0	2	3	54
Contract Labor Rate Per Hour	\$ 265.00	\$ 244.00	\$ 230.00	\$ 210.00	\$ 205.00	\$ 160.00	\$ 115.00	\$ 133.00	\$ 92.00	\$ 104.00	\$ 85.00	
Labor Costs Subtotal	\$ -	\$ -	\$ 690.00	\$ -	\$ -	\$ 1,600.00	\$ 4,140.00	\$ -	\$ -	\$ 208.00	\$ 255.00	\$ 6,893.00

DESCRIPTION	TOTAL MH BY TASK	TOTAL COST BY TASK
Task 1: Project Management	101	\$ 18,872.00
Task 2: Topographic and R.O.W. Surveys	0	\$ -
Task 3: Preliminary Engineering	425	\$ 53,957.00
Task 4: Geotechnical Investigation	0	\$ -
Task 5: Environmental Studies	0	\$ -
Task 6: Utility Coordination	0	\$ -
Task 7: FEMA Coordination	0	\$ -
Task 8: Final Engineering	1041	\$ 127,102.00
Task 9: Bidding Phase Services	15	\$ 1,960.00
Task 10: Construction Phase Services	54	\$ 6,893.00
SUBTOTAL LABOR COST	1636	\$ 208,784.00

DESCRIPTION	Unit	Cost/Unit	Quantity	Total Cost
Mileage	mile	\$ 0.580		\$ -
Standard Postage - Letter	each	\$ 0.50		\$ -
Certified Letter Return Receipt	each	\$ 6.70		\$ -
Overnight Mail - Letter Size	each	\$ 25.00		\$ -
Overnight Mail - Oversized Box	each	\$ 30.00		\$ -
Courier Services	each	\$ 50.00		\$ -
Photocopies B/W (8 1/2" x 11")	each	\$ 0.25	180	\$ 45.00
Photocopies B/W (11" x 17")	each	\$ 0.50	654	\$ 327.00
Photocopies Color (8 1/2" x 11")	each	\$ 1.00		\$ -
Photocopies Color (11" x 17")	each	\$ 2.00		\$ -
Plots (B/W on Bond)	square foot	\$ 6.00		\$ -
Plots (Color on Bond)	square foot	\$ 8.00	240	\$ 1,920.00
CDs	each	\$ 0.50	1	\$ 0.50
SUBTOTAL DIRECT EXPENSES				\$ 2,292.50

SUMMARY	
SUBTOTAL LABOR COST	\$ 208,784.00
SUBTOTAL DIRECT EXPENSE	\$ 2,292.50
TOTAL	\$ 211,076.50