

RESOLUTION NO. 03 28 2024B

A RESOLUTION AUTHORIZING A SUPPLEMENTAL AGREEMENT WITH HORNER & SHIFRIN, INC., PROVIDING FOR ENGINEERING SERVICES ON THE WEST TERRA LANE REALIGNMENT PROJECT, IN AN AMOUNT NOT TO EXCEED \$865,691.03.

WHEREAS, the City of O'Fallon entered into an original agreement for services related to the West Terra Lane Realignment Project on May 26, 2023; and

WHEREAS, the original agreement indicated a two-phase approach would be utilized with the second phase scope and fee to be determined and added via a supplemental agreement; and

WHEREAS, the second phase scope and fee has been negotiated and is to be added via this supplemental agreement; and

WHEREAS, funds were included in the fiscal year 2023 budget for this agreement and will need to be moved to fiscal year 2024 via a mid-year budget amendment; and


WHEREAS, City Staff recommends approval of this Resolution.

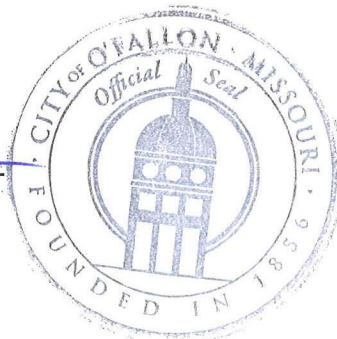
NOW, THEREFORE, BE IT RESOLVED BY THE CITY COUNCIL OF THE CITY OF O'FALLON, MISSOURI, AS FOLLOWS:

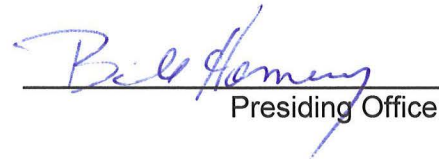
SECTION 1: The City Council approves on behalf of the City a supplemental agreement with Horner & Shifrin, Inc., for engineering services at a cost not to exceed \$865,691.03, in substantial conformity with the terms shown on Exhibit A attached hereto and incorporated herein by this reference as if set out here in full, together with such changes therein as shall be approved by the officers of the City executing same which are consistent with the provisions and intent of this legislation and necessary, desirable, convenient or proper in order to carry out the matters herein authorized. The City Administrator and other appropriate City officials are hereby authorized to execute the Agreement and such additional documents and take any and all actions necessary, desirable, convenient or prudent in order to carry out the intent of this legislation.

PASSED BY THE CITY COUNCIL FOR THE CITY OF O'FALLON, MISSOURI, THIS 28TH DAY OF MARCH 2024.

Attest:

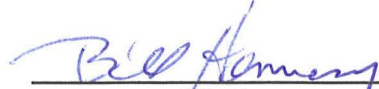

Bess Bacher, City Clerk




Presiding Officer

RESOLUTION NO. 03 28 2024B

APPROVED BY THE MAYOR FOR THE CITY OF O'FALLON, MISSOURI, THIS 28TH DAY OF MARCH 2024.



Bill Hennessy, Mayor

Attest:



Bess Bacher, City Clerk



Approved as to Form:


Kevin M. O'Keefe, City Attorney

**SUPPLEMENTAL AGREEMENT #1 TO THE WEST TERRA LANE
REALIGNMENT DESIGN AGREEMENT**

This Supplemental Agreement is made part of an agreement dated May 26, 2023 between the City of O'Fallon and Horner & Shifrin, Inc. for additional services as part of the West Terra Lane Realignment Project. This proposed supplemental was identified in the original contract under ARTICLE III as the second phase of the two-phase design approach.

The purpose of this supplemental agreement is for additional engineering design, public engagement, and right of way services related to the West Terra Lane Realignment project as described in the Scope of Services attached hereto. The additional services shall be an amount not to exceed **Eight Hundred Sixty Five Thousand Six Hundred Ninety One Dollars and Three Cents (\$865,691.03)** without further authorization. The estimated total agreement of all services, including Phase 1 (study phase) work, shall be an amount not to exceed **One Million Three Hundred Sixty Nine Thousand Four Hundred Ninety Seven Dollars and Eighty Six Cents (\$1,369,497.86)**.


In all other respects, the terms and conditions of the Professional Services Agreement shall remain in full force and effect, except as specifically modified by this Supplemental Agreement.

Attachment A outlines the Scope of Services and the Cost for this Supplemental Agreement.

Supplemental Agreement accepted as defined herein:

CITY OF O'FALLON, MISSOURI

HORNER & SHIFRIN, INC.



(Signature)



(Signature)

Michael Snowden

(Printed Name)

Jarrett Jasper

(Printed Name)

City Administrator

(Title)

Senior Vice President

(Title)

3.28.24

(Date)

March 8, 2024

(Date)

ATTEST:

ATTEST:



Bess Bacher, City Clerk



Jon Loos, Assistant Regional Manager



SCOPE OF SERVICES
TERRA LANE REALIGNMENT – PHASE 2
CITY PROJECT NUMBER #22-016
CITY OF O’FALLON, MISSOURI
February 29, 2024

Project Description

The City of O’Fallon, MO (Client) intends to realign a portion of West Terra Lane around Bryan Road to improve safety and operations through the area and has secured St. Charles County Road Board funding to assist with the cost of the design of roadway and pedestrian improvements on W Terra Lane from Herman Drive to North Central Drive. Based on the analysis performed during the Study Phase (Phase 1) of this contract, the City has decided a roundabout at the realigned intersection is the optimal solution (Project). The Project also requires significant property acquisition, displacement, and relocation. The Client requires the coordination, engineering design, and right of way acquisition services necessary for the development of right-of-way and construction documents for the Project. These documents will allow the Client to advertise for and secure competitive bids for the completion of the Project as required by the Client.

Horner & Shifrin, Inc. (Engineer) will provide the required services to develop an approved concept for the Project.

Project Limits

The Project involves a realignment of West Terra Lane from east of Herman Drive to west of North Central Drive, a dual-lane roundabout at the intersection of Bryan Road and W Terra Lane, a ten-foot (10’) shared use path on the west side of Bryan Road and north side of W Terra Lane, and six-foot (6’) bike lanes.

Project Assumptions and Limitations

The Engineer and the Client make the following assumptions and acknowledge the following limitations regarding this scope of services:

- A. Design standards. The following documents shall be considered the design standards for the project. The Engineer and the Client may agree to certain modifications to these standards.
 - The latest edition of the Missouri Standard Specifications for Highway Construction by the Missouri Department of Transportation (MoDOT).
 - The latest edition of the Rules and Regulations and Engineering Design Requirements for Sanitary Sewer and Stormwater Drainage Facilities by the Metropolitan St. Louis Sewer District (MSD).
- B. The Engineer will make digital submittals (PDF) for all submittals to the Client.
- C. The Engineer will not provide any paper copies of any deliverables.
- D. The following are beyond this scope of services:
 - Landscaping plan

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- Retaining walls
 - Comprehensive noise study and sound wall design
 - Full-time construction inspection
 - Associated permitting fees
 - Anything explicitly mentioned within the scope below as not included

E. Invoices shall follow the Local Public Agency (LPA) Format and include a breakdown of hours per employee.

1. Project Management. The Engineer shall be required to administer, manage, and coordinate the design effort with Client staff, City of St. Charles, MoDOT, and other stakeholders, as appropriate and necessary, for the successful and responsible completion of the Project design.

1.1. The following administrative tasks are anticipated:

- 1.1.1. Monitoring of Project metrics and resource planning
- 1.1.2. Monthly invoice and progress report preparation (assumes 24 invoices)

1.2. The following coordination meetings are anticipated:

- 1.2.1. County and MoDOT Staff. In addition to phone and e-mail conversations, the Engineer shall attend up to two (2) meetings to review and discuss the Project with St. Charles County and MoDOT staff.
- 1.2.2. External Stakeholders. The Engineer shall attend up to two (3) small group meetings to review and discuss the Project with external stakeholders as requested by the Client.

1.3. Internal coordination meetings will be held on a regular basis.

2. Information Gathering.

2.1. Geotechnical Services

- 2.1.1. The Engineer will explore the subsurface conditions by drilling twelve soil test borings to depths of 5 to 20 feet unless auger refusal terminates drilling at shallower depths.
- 2.1.2. The Engineer will core the existing pavement at four locations.
- 2.1.3. The Engineer will provide traffic control during field work.
- 2.1.4. The Engineer will analyze the samples with a number of tests with the purpose of classifying and characterizing the samples.
- 2.1.5. The Engineer will summarize their findings in a formal report.

2.2. Geophysical Services

- 2.2.1. The Engineer will utilize each boring location and scan a perimeter for underground features.
- 2.2.2. The Engineer will mark the utilities detected with spray paint or flags.

2.3. Environmental Services

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- 2.3.1. The Engineer will perform asbestos surveys in all of the residences that are intended to be demolished due to the proposed work of the Project.
 - 2.3.2. The Engineer will submit the collected samples for analytical testing utilizing polarized light microscopy.
 - 2.3.3. The Engineer will summarize the finding in a formal letter.

2.4. Cultural Resources Survey

- 2.4.1. The Engineer will perform a Phase One Cultural Resources Survey in the approximate 5-acre project area.
- 2.4.2. The Engineer will utilize a mix of pedestrian surveys and shovel probe surveys, depending on the field conditions.
- 2.4.3. The Engineer will take photographs and write descriptions on any built environment resources located within 100 feet of new right of way.
- 2.4.4. The Engineer will summarize the field work and laboratory finding in a formal report.
- 2.4.5. The identification of locations of unmarked human burials is beyond the scope of this survey.

2.5. Environmental Coordination

- 2.5.1. The Engineer will perform a Phase 1 Environmental Site Assessment to identify any potential hazardous waste sites.
- 2.5.2. The Engineer will perform a wetland and waterbody determination and coordinate with the US Army Corps of Engineers regarding a Section 404 permit.
 - 2.5.2.1. It is assumed a 404 permit would be the "nationwide" permit.
- 2.5.3. The Engineer will complete MoDOT's Request for Environmental Review.
- 2.5.4. The Engineer will prepare, submit, revise, and receive approval for an assumed Categorical Exclusion 2 (CE-2) Document for the project.

2.6. Survey

- 2.6.1. A topographic, utility, and boundary survey was completed for the area during Phase 1.
- 2.6.2. The Engineer shall accommodate one day of miscellaneous survey pickup and subsequent processing, if needed.
- 2.6.3. The Engineer will locate private utilities near buildings, as necessary.
- 2.6.4. Title reports for twelve (12) parcels are included in the scope.
- 2.6.5. Allowances for staking are not included.

3. Preliminary Engineering. The Engineer shall develop a preliminary design that meets the requirements of the design standards. Preliminary design plans shall represent approximately 50% design completion.

3.1. Preliminary design items shall include:

- 3.1.1. Horizontal alignment

- 3.1.2. Vertical alignment
 - 3.1.3. Local Connections and Entrances
 - 3.1.4. Sidewalk/PROWAG Design
 - 3.1.5. Drainage Areas
 - 3.1.6. Storm Sewer Layout and Ditch Design
 - 3.1.7. Water Quality and Detention
 - 3.1.8. Traffic Control Concept
 - 3.1.9. Utility Coordination
 - 3.1.10. Right of Way Delineation
 - 3.1.11. Preliminary Quantity Takeoff and Cost Estimate
 - 3.2. The preliminary design shall be submitted to the Client as a set of plans containing:
 - 3.2.1. Title Sheet
 - 3.2.2. Typical sections and general notes
 - 3.2.3. 20-scale roadway plan
 - 3.2.4. Profile sheets
 - 3.2.5. 5-scale cross sections
 - 3.3. The Engineer shall submit preliminary design plans and estimate via PDF to the Client for review and approval.
 - 3.4. The Engineer shall meet with the Client to review comments, if desired.
 - 3.5. The Engineer shall address one (1) round of review comments from the Client as necessary.
 - 3.6. Upon approval from the Client, the Engineer shall submit the Preliminary Design Plans to St. Charles County for review and approval.
 - 3.7. The Engineer will further optimize traffic modeling outputs as required during design.
 - 3.8. The Engineer will create a 3D visualization of the Project to assist with public outreach and engagement.
 - 4. Public Outreach.**
 - 4.1. The Engineer will continue to update the previously prepared Public Involvement Plan (PIP) to support the City of O'Fallon's efforts to develop awareness and understanding of the project and to solicit input from identified stakeholders.
 - 4.2. The Engineer will continue to maintain the Master Stakeholder List that includes, but is not limited to, area government representatives, first responders, schools, businesses, and residents along the project corridor.
 - 4.3. The Engineer will continue to maintain a comment protocol that will allow the Client to answer and collect comments.
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- 4.4. The Engineer will record stakeholder comments, public involvement activities, media, and social media posts in the project database in order to track sources, responses, geographic trends, and comment themes.
- 4.5. The Engineer will plan and host two (2) in-person, two-hour evening public open houses during the project.
- 4.6. In addition to the in-person open house, the Engineer will create an online public meeting using an interactive user-friendly, accessible website.
- 4.7. It is assumed the Engineer will purchase and maintain the online meeting domain.
- 4.8. The Engineer will coordinate, facilitate, and attend three (3) stakeholder meetings and/or workshops.
- 4.9. The Engineer will create an upfront social media strategy that details messaging, graphics development, and a schedule for message dissemination.
5. **Right of Way.** After review of the preliminary plan comments, the Engineer will modify the plans to address the Client's comments and proceed toward final design of the project. At this point, the Engineer will begin the preparation of right of way and easement documents as follows:
 - 5.1. The Engineer shall research, develop, and certify up to twelve (12) right-of-way or permanent easement exhibits and legal descriptions and six (6) temporary construction easement (TCE) exhibits necessary to complete the Project.
 - 5.2. Additions to the plan set are expected to include:
 - 5.2.1. A coordinate points and reference points sheet.
 - 5.2.2. A set of right-of-way plans will be created delineating and labeling proposed acquisition limits, taking areas, and shading as necessary.
 - 5.3. The Engineer shall submit Right of Way plans and exhibits via PDF to the Client for review and approval.
 - 5.4. Upon approval from the Client, the Engineer shall submit the Right of Way Plans to St. Charles County for their review and approval.
 - 5.5. Any design work required for condemnation, should it be required for any parcels, is specifically excluded from this scope.
 - 5.6. The Engineer will conduct the land acquisition services on behalf of the Consultant. All documents shall comply with the requirements of the LPA policy and EPG, including formatting. This is expected to include:
 - 5.6.1. Up to twelve (12) complex appraisals, and their review.
 - 5.6.2. Up to three (3) value findings, and their review.
 - 5.6.3. A relocation plan.
 - 5.6.4. Negotiations for up to fifteen (15) parcels.
 - 5.6.5. Up to two (2) commercial relocations.
 - 5.6.6. Up to nine (9) residential relocations.

6. Final Engineering. The Engineer shall develop final design plans, specifications, and quantities and construction estimate that reasonably address the comments received from the Client and from the County during the Preliminary Design and Right of Way phases. The final documents shall be a complete set of construction documents that the Client can use for advertising, bidding, and constructing the Project.

6.1. The design items listed in preliminary design will be refined to a greater level of detail. Additional final design items shall include:

- 6.1.1. Demolition and Necessary Grading
- 6.1.2. Pavement Marking Details
- 6.1.3. Signing Details
- 6.1.4. Erosion Control Details
- 6.1.5. Traffic Control Staging
- 6.1.6. Lighting Analysis and Design
- 6.1.7. Final Quantity Takeoff and Cost Estimate

6.2. The final plans shall add the following to the current set of design plans:

- 6.2.1. Schedule of Quantities ("B" Sheets)
- 6.2.2. Storm Sewer Profiles
- 6.2.3. Detention Plans
- 6.2.4. Grading Plan, as necessary
- 6.2.5. Erosion Control Plan
- 6.2.6. Traffic Control Plan
- 6.2.7. Lighting Plan
- 6.2.8. Construction Details, including Standard Details, as necessary

6.3. The Engineer will prepare the Job Special Provisions (JSPs) for the Project. The Client will assemble the specifications manual.

6.4. The Engineer shall prepare and submit a draft set of the final plans and construction cost estimate to the Client for review and comment. This pre-final draft set shall represent approximately 90% design completion.

6.5. Upon addressing the Client's comments, the Engineer shall submit the final bid package to the Client and St. Charles County for Final PS&E review and approval.

6.6. Upon approval from the Client and County, the Engineer shall submit the Final PS&E package to the Client for solicitation.

6.7. It is expected, during the solicitation and construction of the project, the Engineer will provide the following service:

- 6.7.1. Attendance at the pre-bidding meeting.
- 6.7.2. Attendance at the pre-construction meeting.

6.7.3. Reviewing and responding to Requests for Information (RFIs)

7. Sanitary Sewer Design.

- 7.1. The Engineer will review a previously completed sanitary sewer design and modify the proposed design based on the new Project configuration.
- 7.2. The Engineer will design and quantify infrastructure to be installed with construction of the Project, in an effort to limit disturbance to the new pavement in the future.

8. Additional Traffic Modeling.

- 8.1. Through incremental increases to the 2025 Build model, the Engineer will determine the approximate intermediate timeframe where the existing I-70 interchange is likely to produce a queue on Bryan Road that extends into the proposed roundabout at W Terra Lane.
- 8.2. The Engineer will integrate and modify VISSIM models developed by others into the existing model and analyze the future years scenarios listed in 8.2.2.
 - 8.2.1. This task shall require additional traffic counts along Bryan Road at the following intersections:
 - 8.2.1.1. Route N/South Outer 364
 - 8.2.1.2. Route 364 Eastbound Ramps
 - 8.2.1.3. Route 364 Westbound Ramps
 - 8.2.1.4. Feise Road
 - 8.2.1.5. Great Warrior Drive
 - 8.2.1.6. Mexico Road
 - 8.2.1.7. Sunview Drive
 - 8.2.1.8. Veterans Memorial Parkway
 - 8.2.2. The future build-out scenarios are summarized as:
 - 8.2.2.1. W Terra Lane Improvements Build + Bryan Rd South No Build (2025)
 - 8.2.2.2. W Terra Lane Improvements Build + HR Green “intermediate build” (Bryan Rd turn lanes) + Ex. Interstate 70 No Build (2050)
 - 8.2.2.3. W Terra Lane Improvements Build + HR Green “intermediate build” + Interstate 70 DDI Build (2050)
 - 8.2.2.4. W Terra Lane Improvements Build + HR Green “ultimate build” (Bryan Rd six lanes) + Interstate 70 DDI Build (2050)
 - 8.2.2.5. W Terra Lane Improvements Build + alternative “ultimate build” (developed by Lochmueller Group) + Interstate 70 DDI Build (2050)

**Terra Lane Realignment - Design Phase
City of O'Fallon, MO
Summary Table**

	Hours	Direct Labor	Overhead	FCCM	Fixed Fee	Reimb.	Total
Horner & Shifrin	1734	\$96,892.00	\$179,211.44	\$0.00	\$35,893.45	\$9,217.00	\$321,213.89
Lochmueller Group	1139	\$49,899.35	\$93,256.90	\$0.00	\$20,185.03	\$73,312.00	\$236,653.28
HDR, Inc.	887	\$45,042.00	\$70,842.06	\$128.68	\$16,223.77	\$6,050.00	\$138,286.51
SCI	207	\$7,338.68	\$13,990.46	\$34.57	\$3,156.71	\$22,216.94	\$46,737.36
OR Colan	955	\$37,431.00	\$68,131.91	\$0.00	\$14,989.93	\$2,247.16	\$122,800.00
Totals	4922	\$236,603.03	\$425,432.76	\$163.25	\$90,448.89	\$113,043.10	\$865,691.03

Terra Lane Realignment Contract Summary	
STUDY PHASE (PHASE 1)	
Horner & Shifrin	\$248,088.54
Lochmueller Group	\$144,697.88
HDR, Inc.	\$92,095.30
SCI	\$2,557.67
OR Colan	\$16,367.44
Phase 1 Subtotal	\$503,806.83
DESIGN PHASE (PHASE 2)	
Horner & Shifrin	\$321,213.89
Lochmueller Group	\$236,653.28
HDR, Inc.	\$138,286.51
SCI	\$46,737.36
OR Colan	\$122,800.00
Phase 2 Subtotal	\$865,691.03
PHASE 1 SUBTOTAL	\$503,806.83
PHASE 2 SUBTOTAL	\$865,691.03
CONTRACT TOTAL	\$1,369,497.86

Supplemental Agreement #1 Attachment A
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Subject:	Terra Lane Realignment - O'Fallon, MO		
Job No.:	2317000		
File:			
By:	J. Loos	Date:	February 29, 2024



Terra Lane Realignment - Design Phase
City of O'Fallon, MO

TASK	SCOPE OF SERVICES & ESTIMATE OF COST										Hours	Cost
	Project Principal	Project Manager	Project Engineer	Design Engineer	Env. Scientist	Licensed Surveyor	Survey Technician	Drone Pilot	2-Person Field Crew	1-Person Field Crew		
Hourly Rate =	\$100.00	\$65.00	\$53.00	\$48.00	\$70.00	\$60.00	\$35.00	\$40.00	\$75.00	\$55.00	Total	Total
1. PROJECT MANAGEMENT												
Project Management	10	24			4						38	\$2,840
Project Administration/Invoicing	10	36									46	\$3,340
Internal Coordination Meetings		12	6								18	\$1,098
MoDOT & County Meetings (2)	6	6									12	\$990
Stakeholder Meetings (3)		6	6								12	\$708
Subtotal											126	\$8,976
2. INFORMATION GATHERING												
Coordination with Subconsultant		10									10	\$650
ENVIRONMENTAL COORDINATION												
Environmental Site Assessment					20						20	\$1,400
Wetlands/Waterbody Delineation and Corps Coordination					20						20	\$1,400
Request for Environmental Review		2	4	8							14	\$726
CE-2 Document Preparation		4	20	30							54	\$7,760
TOPOGRAPHIC SURVEY												
Miscellaneous Pickup (1 day)							4			8	12	\$580
PLS Review						2					2	\$120
Subtotal											132	\$7,636
3. PRELIMINARY ENGINEERING												
Coordination with Subconsultant		10									10	\$650
SITE VISITS												
Site Visit		6	6	6							18	\$996
PRELIMINARY DESIGN												
Horizontal Alignment Design		1	2	4							7	\$363
Vertical Alignment Design		1	4	8							13	\$661
Layout Local Connections/Entrances		1	4	8							13	\$661
Sidewalk Design		1	2	4							7	\$363
Corridor Modeling		1	4	12							17	\$853
Drainage Areas		2	6	12							20	\$1,024
Storm Sewer Layout		2	8	16							26	\$1,322
On-Site Drainage Design		2	8	16							26	\$1,322
Water Quality		2	6	8							16	\$832
Detention		2	6	8							16	\$832
Traffic Control Concept		2	4	8							14	\$726
Utility Coordination		4	8	20							32	\$1,644
Right-of-Way Delineation		4	4	2							10	\$568
PRELIMINARY PLANS												
Title Sheet			1	1							2	\$101
Legend & General Notes			1	1							2	\$101
Typical Sections		1	1	4							6	\$310
Plan Sheets (20 Scale)		2	8	12							22	\$1,130
Profile Sheets		1	4	8							13	\$661
Cross Section Sheets		1	6	12							19	\$959
COST ESTIMATE												
Quantities		2	6	12							20	\$1,024
Conceptual Cost Estimate		4	6								10	\$578
SUBMITTALS												
Preliminary Plans Submittal to City		2	2	2							6	\$332
Address Preliminary Plan Comments		2	8	12							22	\$1,130
Preliminary Plans Submittal to County		2	2	2							4	\$236
Address Preliminary Plan Comments		2	4	8							14	\$726
QC/QA												
Design Review	4	8	4								16	\$1,132
Revisions		4	4	8							16	\$856
Subtotal											417	\$22,093
4. PUBLIC OUTREACH												
Coordination with Subconsultant		20									20	\$1,300
Public Meeting (2)	4	8	4								16	\$1,132
Stakeholder Workshops (3)		10									10	\$650
Subtotal											46	\$3,082
5. RIGHT OF WAY												
Coordination with Subconsultant		40									40	\$2,600
ROW DESIGN												
Determine R/W & Easement Limits & Areas		2	4	4							10	\$534
ROW PLAN DRAWINGS												
Title Sheet			1	2							3	\$149
Coordinate Points & Reference Points Sheet			1	2							3	\$149
Plan Sheets (20 Scale)		2	4	8							14	\$726
ROW DOCUMENTS												
Title Report Research and Review						2	8				10	\$400
Temporary Easement Plats (6 parcels)			3	12		2					17	\$855
ROW Plats & Legals (12 parcels)			6	30		4					40	\$1,998
SUBMITTALS												
Submit ROW Plans for Review		2	2								4	\$236
Submit ROW Documents for Review		2	2								4	\$236
Address City Comments		4	8	20							32	\$1,644
QC/QA												
Design Review	4	8	4								16	\$1,132
Revisions		2	4	8							14	\$726
Subtotal											207	\$11,385
6. FINAL ENGINEERING												
Coordination with Subconsultant		20	10								30	\$1,830
SITE VISITS												
Site Visit		8	8	8							24	\$1,328
FINAL DESIGN												
Roundabout Geometrics & Warpings		4	8	20							32	\$1,644
3D Model Refinements		1	4	4							9	\$469
Finalize Entrance Profiles		1	4	8							13	\$661
Finalize Enclosed Drainage Design		2	4	8							14	\$726
Finalize Open Drainage Design		2	4	8							14	\$726

Subject:	Terra Lane Realignment - O'Fallon, MO		
Job No.:	2317000		
File:			
By:	J. Loos	Date:	February 29, 2024



Terra Lane Realignment - Design Phase
City of O'Fallon, MO

TASK	SCOPE OF SERVICES & ESTIMATE OF COST										Hours	Cost
	Project Principal	Project Manager	Project Engineer	Design Engineer	Env. Scientist	Licensed Surveyor	Survey Technician	Drone Pilot	2-Person Field Crew	1-Person Field Crew		
Hourly Rate =	\$100.00	\$65.00	\$53.00	\$48.00	\$70.00	\$60.00	\$35.00	\$40.00	\$75.00	\$55.00	Total	Total
Demolition Grading Design		4	8	12							24	\$1,260
Detention Details		2	16	16							34	\$1,746
Water Quality Details		2	8	8							18	\$938
Pavement Marking Details		2	4	8							14	\$726
Signing Details		2	4	4							10	\$534
Erosion Control Details		1	2	4							7	\$363
Traffic Control Staging		4	8	12							24	\$1,260
Utility Coordination		4	12	20							36	\$1,856
FINAL PLANS												
Title Sheet			1	1							2	\$101
Schedule of Quantities Sheets			4	8							12	\$596
Legend & General Notes			1	1							2	\$101
Typical Sections		1	1	2							4	\$214
Plan Sheets (20 Scale)		2	8	16							26	\$1,322
Storm Sewer Profiles		1	4	8							13	\$661
Detention Plans		2	4	8							14	\$726
Demolition Grading Plan		4	6	12							22	\$1,154
Pavement Markings Plans		1	2	4							7	\$363
Erosion Control Plans		1	1	2							4	\$214
Traffic Control Plans		2	4	8							14	\$726
Cross Section Sheets		1	2	4							7	\$363
Standard & Special Details		4	4	8							16	\$856
COST ESTIMATE												
Quantities		4	10	16							30	\$1,558
Conceptual Cost Estimate		4	4								8	\$472
SPECIFICATIONS												
Job Special Provisions		8	16								24	\$1,368
SUBMITTALS												
Submit 90% Draft Plans for Review		2	2								4	\$236
Address Review Comments from City		4	8	8							20	\$1,068
Submit Draft PS&E for Review to City and County		2	4								6	\$342
Address Review Comments from City		4	8	8							20	\$1,068
Submit Final PS&E to City for Solicitation		2	4								6	\$342
QC/QA												
Design Review	4	8	4								16	\$1,132
Revisions		4	4	8							16	\$856
CONSTRUCTION ASSISTANCE												
Pre-Bid Meeting		2									2	\$130
Pre-Construction Meeting		2									2	\$130
Construction RFIs		20	20								40	\$2,360
Subtotal											640	\$34,526
7. SANITARY SEWER DESIGN												
Review existing roadway alignment		2		2							4	\$226
Review survey to identify new sanitary connections		2		8							10	\$514
Site visit to confirm sanitary connections		6		6							12	\$678
Confirm sewer design flows & pipe sizing				2							2	\$96
Develop horizontal sewer alignment		2		20							22	\$1,090
Coordination with roadway design		2		2							4	\$226
Review existing utility conflicts		2		4							6	\$322
Review sewer profile conflicts		2		12							14	\$706
Develop final sewer alignment on roadway plans		2		24							26	\$1,282
QA/QC and Project Management		4									4	\$260
Coordination with Transportation		4	4	4							12	\$664
Subtotal											116	\$6,064
8. ADDITIONAL TRAFFIC MODELING												
Coordination with Subconsultant		40	10								50	\$3,130
Subtotal											50	\$3,130
REIMBURSABLES												
Title Reports (12 parcels x \$450/report)												\$5,400
Mileage (100 miles at \$0.67/mile)												\$67
Additional Traffic Counts - Terra Engineering												\$3,750
Subtotal												\$9,217
SCOPE OF SERVICES SUBTOTAL	42	484	452	682	44	10	12	0	0	8	1734	\$96,892

	Hours	Direct Labor	OH 184.96%	Fixed Fee 13.00%	Reimb.	Total
Scope of Services	1734	\$96,892.00	\$179,211.44	\$35,893.45	\$9,217.00	\$321,213.89

Subject:	Terra Lane Realignment - O'Fallon, MO	
Job No.:	2317000	
File:		
By:	T. King	Date: February 29, 2024



Terra Lane Realignment - Design Phase
City of O'Fallon, MO

SCOPE OF SERVICES & ESTIMATE OF COST

TASK	SPM3	SPM1	SPM1	Engineer II	Engineer I	Proj Eng I	Planner II	Project Manager	Hours	Cost
	\$89.73	\$65.59	\$65.59	\$33.49	\$31.71	\$40.30	\$36.04	\$72.14	Total	Total
1. PROJECT MANAGEMENT										
Design Team Meetings (up to 4, 1.5hr durations)			6			6			12	\$635
City/County/MoDOT Meetings (up to 2)			8			8			16	\$847
Internal Coordination Meetings, QA/QC	4		6	6		6			22	\$1,195
									50	\$2,678
3. PRELIMINARY ENGINEERING										
Synchro/SIDRA Revisions/Optimizations			8	22		14			44	\$1,826
VISSIM Revisions/Optimizations	2		10	40		24			76	\$3,142
Revised Model Output Summaries			3	8		6			17	\$706
Develop 3D VISSIM Videos, minimal non-vehicular renderings	2		8	28		20			58	\$2,448
Video Compression, Refinement			4	6					10	\$463
									205	\$8,586
4. PUBLIC OUTREACH										
Attend Public Meetings (2 meetings, 2 staff) no material prep time		6				6		6	18	\$1,068
									18	\$1,068
5. RIGHT OF WAY										
Project Management								24	24	\$1,731
									24	\$1,731
8. ADDITIONAL TRAFFIC MODELING										
Test interchange operations by incrementally increasing volumes on I-70	4		8		24				46	\$2,048
Develop growth rates for Bryan s/o VMP (2025, 2050) from TDM	6	20					28		54	\$2,859
Develop Synchro and VISSIM base models for the School Release peak period s/o VMP	4		16	60		32			112	\$4,707
Develop Expanded 2050 No Build - Add Bryan Rd s/o VMP, Update w/ Grown Volumes	4		12	48		28			92	\$3,882
Develop Expanded 2050 Build - Turn Lanes on Bryan, I-70 Ex. Diamond, W Terra Improvements	4		10	44		24			82	\$3,456
Develop Expanded 2050 Build - Turn Lanes on Bryan, I-70 DDI, W Terra Improvements	4		10	44		24			82	\$3,456
Develop Expanded 2050 Build - 6-Lane Bryan, I-70 DDI, W Terra Improvements	4		10	44		24			82	\$3,456
Develop Expanded 2050 Build - Alternative Ultimate Build	4		18	96		48			166	\$6,689
Summary Report, MOE Documentation	4		22	40	32	28			126	\$5,285
									842	\$35,837
REIMBURSABLES										
Mileage (200mi @ 0.56/mi)										\$112
APPRAISALS										
12 Complex Appraisals (@ \$4,100 ea)										\$49,200
12 Complex Reviews (@ \$1,200 ea)										\$14,400
3 Value Findings (@ \$2,400 ea)										\$7,200
3 Value Findings Reviews (@ \$800 ea)										\$2,400
										\$73,312
SCOPE OF SERVICES SUBTOTAL	46	26	159	486	56	298	28	30	1139	\$49,899

	Hours	Direct Labor	OH 186.89%	Fixed Fee 14.10%	Reimb.	Total
Scope of Services	1139	\$49,899.35	\$93,256.90	\$20,185.03	\$73,312.00	\$236,653.28



Subject:	Terra Lane Realignment - O'Fallon, MO	
Job No.:	2317000	
File:		
By:	J. Deves	Date: February 29, 2024

Terra Lane Realignment - Design Phase
City of O'Fallon, MO

SCOPE OF SERVICES & ESTIMATE OF COST

TASK	Project Principal	QA/QC	Project Manager	Sr. Traffic Engineer	Traffic Engineer	Web Designer	St. Strat Comm Coordinator	Graphics	Admin	Hours	Cost
Hourly Rate =	\$118.00	\$91.00	\$86.00	\$89.00	\$51.00	\$58.00	\$39.00	\$38.00	\$43.00	Total	Total
1. PROJECT MANAGEMENT											
Project Management Plan			8							8	\$688
Project Administration	8		32						24	64	\$4,728
Project Team Communications and Document Controls	2		26	10			26			64	\$4,376
Subtotal										136	\$9,792
4. PUBLIC OUTREACH											
PUBLIC INVOLVEMENT PLAN											
Initial Document		1	2				5			8	\$458
Ongoing Updates							16			16	\$624
MASTER STAKEHOLDER LIST											
Initial Document		1	1				5			7	\$372
Ongoing Updates							20			20	\$780
Communications Database							40			40	\$1,560
Open Houses	1		4				80	80		165	\$6,595
Online Public Meeting	1		4			60	40	48		153	\$7,299
Stakeholder Meetings/Workshops		1	4				80	40		125	\$5,075
Subtotal										534	\$22,763
6. FINAL ENGINEERING											
Lighting Analysis		2		8	54					64	\$3,648
Lighting Quantities Spreadsheet		2		6	32					40	\$2,348
Lighting Cover Sheet and Electrical One-Line Diagrams (2 sheets)		1		2	22					25	\$1,391
Lighting Layout Sheets (5 sheets)		2		8	52					62	\$3,546
Lighting Quantities Sheet (1 sheet)				4	12					16	\$968
Lighting Standard Drawing Sheets (6 sheets)				2	8					10	\$586
Subtotal										217	\$12,487
REIMBURSABLES											
Online Meeting Domain											\$50
Public Meeting Mailers											\$5,000
Printing/Mileage/Meals											\$1,000
Subtotal											\$6,050
SCOPE OF SERVICES SUBTOTAL	10	12	81	40	180	60	312	168	24	887	\$45,042

	Hours	Direct Labor	OH	FCCM	Fixed Fee	Reimb.	Total
Scope of Services	887	\$45,042.00	\$70,842.06	\$128.68	\$16,223.77	\$6,050.00	\$138,286.51

Subject:	Terra Lane Realignment - O'Fallon, MO	
Job No.:	2317000	
File:		
By:	T. Barrett	Date: February 29, 2024



Terra Lane Realignment - Design Phase
City of O'Fallon, MO

SCOPE OF SERVICES & ESTIMATE OF COST

TASK	Senior Engineer II	Staff Engineer	GIS/CAD	Senior Admin	Sr. Geophysicist	Utility Locator	Senior Scientist	Staff Scientist	Field Scientist	Hours	Cost
Hourly Rate =	\$68.42	\$30.23	\$30.80	\$29.01	\$52.88	\$25.51	\$47.77	\$29.83	\$22.33	Total	Total
2. INFORMATION GATHERING											
<i>GEOTECHNICAL SERVICES (GT)</i>											
Coordination and Field Exploration	4	30	4							38	\$1,304
Geotechnical Report	11	44	8	8						71	\$2,561
Meetings	2	2								4	\$197
QA/QC	5									5	\$342
Project Administration	5									5	\$342
<i>GEOPHYSICAL SERVICES (GP)</i>											
Coordination/Management				2	2	4				8	\$266
Private Utility Locating					4	16				20	\$620
<i>ENVIRONMENTAL SERVICES (EV)</i>											
Asbestos Survey				10			10	18	18	56	\$1,707
										207	\$7,339
REIMBURSABLES											
<i>GT - FIELD EXPLORATION</i>											
Traffic Control											\$1,760
Clearing (1 day assumed)											\$1,800
Soil Test Borings (4 pavement cores, 12 borings, 160 feet of drilling)											\$5,500
Mileage (3 trips at 20 miles per Roundtrip)											\$39.30
<i>GT - LABORATORY TESTING</i>											
Testing Materials											\$3,535
<i>GP - FIELD EXPLORATION</i>											
GPR Equipment											\$700
GPS Equipment											\$100
Mileage (2 trips at 20 miles per Roundtrip)											\$26.20
<i>EV - ASBESTOS SURVEY</i>											
Laboratory Analysis											\$225
Mileage (2 trips at 24 miles per Roundtrip)											\$31.44
<i>CR - CULTURAL RESOURCES SURVEY</i>											
Phase 1 Survey											\$8,000
Curation Fee											\$500
											\$22,217
SCOPE OF SERVICES SUBTOTAL	27	76	12	20	6	20	10	18	18	207	\$7,339

	Hours	Fixed Fee				Reimb.	Total
		Direct Labor	OH 190.64%	FCCM 0.471%	Fee 14.80%		
Scope of Services	207	\$7,338.68	\$13,990.46	\$34.57	\$3,156.71	\$22,216.94	\$46,737.36

Subject:	Terra Lane Realignment - O'Fallon, MO		
Job No.:	2317000		
File:			
By:	J. Lemon	Date:	February 29, 2024



Terra Lane Realignment - Design Phase
City of O'Fallon, MO

SCOPE OF SERVICES & ESTIMATE OF COST

TASK	Project Manager	Relocation Specialist	Asst. Relo Specialist	QC/QA	Hours	Cost
Hourly Rate =	\$53.00	\$43.00	\$35.00	\$33.00	Total	Total
4. PUBLIC OUTREACH						
Public Meeting	2	10			12	\$536
					12	\$536
5. RIGHT OF WAY						
Negotiations	5	115	155	30	305	\$11,625
Relocation Plan		33	18	2	53	\$2,115
Relocationg (assuming 2 commerical/9 residential)		335	250		585	\$23,155
					943	\$36,895
REIMBURSABLES						
Postage/Mileage/Recording Fees						\$2,247
						\$0
						\$2,247
SCOPE OF SERVICES SUBTOTAL	7	493	423	32	955	\$37,431

	Hours	Direct Labor	OH 182.02%	Fixed Fee 14.20%	Reimb.	Total
Scope of Services	955	\$37,431.00	\$68,131.91	\$14,989.93	\$2,247.16	\$122,800.00