Ivins City Staff Report
City Council Meeting 11/16/2023

Agenda Item: Approval of expenditure for engineering services for Old Highway 91 Phase 2 Improvements.

Submitted by: Thomas J. Jorgensen, P.E. Assistant City Engineer

Recommended City Council Action:
Approve expenditure of $88,890 for engineering services for Old Highway 91 Phase 2 Improvements design.

BACKGROUND:

Ivins is nearing completion of the project along Old Highway 91 that involved resurfacing of the existing pavement, adding additional pavement for a bike lane, enhancing intersections, and installing a trail along the north side of the highway. Most of these improvements took place between 200 East and 600 West, so Ivins is now looking to take these improvements and extend them beyond 600 West out to Fire Lake Park as part of a phase 2 project.

Phase 2 of the project, like phase 1, will include similar elements which are as follows:

- Resurfacing the existing pavement and extending the pavement on both the north and south sides for bike lanes from 600 West to Fire Lake Park. It additionally includes approximately 0.3 miles of trail that was removed from the previous phase of the project.
- Phase 2 also includes two wash crossings to accommodate the trail and bike lanes. It is anticipated that at each of these locations a box culvert will either be installed or extended from an existing box culvert.
- Lastly, phase 2 includes various miscellaneous items including grading (a couple steep slopes need to be laid back at a slope closer to 4:1), minor storm drain improvements, and some conduit installation (approximately 0.3 miles).

Staff has submitted a request for proposals for engineering services to prepare construction drawings for this project, hopefully to be bid out by April of 2024.

FINDINGS AND ANALYSIS:

Staff received two proposals, one from Civil Science and one from Mainline Engineering. The total budget included in each of these proposals is shown below.

Mainline Engineering	$70,890.00
Civil Science	$123,800.00

After reviewing the proposals, Staff is recommending the selection of Mainline Engineering and are confident of their qualifications and reasonable pricing. The consultant has established a budget

of $70,890. Staff requests a total expenditure of $88,890, which includes a contingency of $18,000 to help account for possible unforeseen expenditures during the design process.

SUPPORT MATERIALS:

- Request for Proposals
- Mainline Engineering Proposal

FINANCIAL IMPACT:

The expense has been budgeted at $88,890 (GL 49 40 710).

Respectfully Submitted:

Thomas J. Jorgensen, P.E. Assistant City Engineer

Content Review:

Dale Coulam, City Manager

Ivins City
Request for Proposals for
Engineering Services
for design of
Old Highway 91 Widening – Phase 2

Ivins City, Utah is soliciting letter proposals from qualified engineers to provide services as outlined in the **Scope of Services** section of this request.

I. Information:

This request for proposals (RFP) consists of a roadway widening and resurfacing project in Ivins City. The City will hold a pre-RFP meeting to discuss the project on Wednesday, November 1st at 1:00 p.m. at the Ivins City Offices at 85 North Main Street, Ivins, UT 84738.

Although this RFP includes a suggested scope of work, the City is requesting if an item has been omitted or if the consultant feels an item would enhance or better the project, please include these items in the proposal. The City is requesting the consultant prepare a proposal letter for this work.

II. Background:

Ivins City has recently completed a project along Old Highway 91 that involved resurfacing of the existing pavement, adding additional pavement for a bike lane, enhancing intersections, and installing a trail along the north side of the highway.

Phase II of the project, like Phase I, will include resurfacing of approximately 1.6 miles of existing pavement and extending the pavement on each side for bike lanes. We anticipate that the resurfacing will include milling approximately 1" off the existing pavement surface and then paving an overlay treatment of approximately 2" of asphalt. The paved bike shoulders will include subgrade preparation, base course installation and pavement.

Phase II additionally includes approximately 0.3 miles of trail that was removed from the previous phase of the project. The trail will include grading, subgrade preparation, base course installation and pavement.

Phase II also includes two wash crossings to accommodate the trail and bike lanes. It is anticipated that at each of these locations a box culvert will either be installed or extended from an existing box culvert.

Lastly, Phase II includes various miscellaneous items including grading (a couple steep slopes need to be laid back at a slope closer to 4:1), minor storm drain improvements, and some conduit installation (approximately 0.3 miles).

The following information will be provided by the City:

- 2022 Aerial Photography by Pictometry, 3-inch pixels

III. Scope of Services:

The City has compiled an anticipated scope of work for this project, but we'd ask the consultant to add or delete items from this list as they deem appropriate.

A. Coordination Meetings (4 meetings – kickoff, 30%, 60%, and 100% design)
B. Initial Data Gathering
    a. Survey and topo existing locations.
    b. Identify applicable utility and obstacle locations.
C. Right of Way
    a. Review right of way boundaries.
    b. Prepare legal descriptions to acquire right of way or easement for several locations.
    c. City will coordinate with property owners to acquire right of way or easements for the project.
D. Geotechnical and Geological Investigation
    a. Procure geotechnical evaluation of the projects.
E. Prepare Design Drawings
    a. Provide 30%, 60%, and 100% design sets for review by the City.
    b. Determine centerline alignment and design profile for both the paved bike shoulders and trail segment. Design typical cross-sections for both the resurfacing/bike shoulders and trail.
    c. Design grading of various outcroppings that need to be sloped back.
    d. Design minor storm drainage improvements as needed.
    e. Design box culvert crossings (anticipated that the actual culverts will be pre-cast and will be designed by manufacturer).
    f. Design a striping plan.
    g. Design a conduit plan.
    h. Provide other details if Ivins City standard details are not sufficient.
F. Technical Specifications
    a. Provide 90% and 100% technical specifications for review by the City.
    b. Provide specifications if Ivins City standard specifications do not address the requirements to the contractor.
G. Preparation of the construction cost estimates.
H. Contract Documents
    a. Provide 100% contract documents for review by the City.
    b. Prepare final bid documents for the project, including final design drawings, technical specifications, and standard City bid documents and contract conditions.
I. Make revisions for final bid set as directed by City following the 100% review by the City.
J. City will coordinate all bidding services with limited follow-up from consultant for questions.
K. Construction Staking

L. City will provide construction administration and inspection with the consultant providing construction engineering services limited to attendance of preconstruction meeting, and minor follow up with questions or field changes.

IV. Project Schedule:

The City's goal is to complete the design and begin construction by the beginning of April, 2024.

V. Contracting and Compensation for Services:

Ivins City intends to enter into a professional services contract with the successful engineer. The terms of the Ivins City standard contract are attached to this document. Compensation for the services rendered, is to be based upon a time-expended basis with an agreed maximum not to exceed value. The consultant must be willing to sign the attached engineering services contract.

VI. Proposal Letter Format and Content

The proposal shall be in a letter format with company letter head and shall consist of no more than three pages and shall identify the following information: commitment to a time frame for completion, breakdown on total estimated fees for each major task and subtask level of detail (should be presented in table form), and total proposed cost. Qualifications and experience are not necessary in the proposal, as this RFP is only being submitted to a short list of qualified firms.

VII Submittal Requirements

Submit letter proposal by email to Thomas Jorgensen, P.E., Assistant City Engineer at tjorgensen@ivins.com by 3:00 p.m., Wednesday, November 8th, 2023.

Attachment A: Sample Engineering Services Contract

MAINLINE ENGINEERING

November 7, 2023

Tom Jorgensen, PE
Assistant City Engineer
Ivins City
via email: tjorgensen@ivins.com

RE: Old Highway 91 Widening – Phase 2 Request for Proposals

Dear Tom,

Mainline Engineering is providing this letter in response to the Request for Proposals for Engineering Services on Old Highway 91 dated October 18, 2023. Mainline recognizes the City's desire to advertise the project by April 2024. Unfortunately, given our current workload, we are unable to the start work on the project until January 2024 which would adjust our proposed submittal for advertising into May as shown in the schedule below. If the City's schedule is flexible enough to allow this shift, we would love to provide the requested services. Following this cover letter and preliminary schedule, please find our proposed cost estimate for the required services.

Schedule Proposal (dates shown are proposed completion dates)

Estimated NTP and Kickoff Meeting	January 1, 2024
30% Review – Survey/ROW Mapping, Utility Mapping, Basic Geometry	January 31, 2024
60% Review – Plan-in-Hand	March 31, 2024
100% Review – Plans, Specs, and Estimate	May 5, 2024
To City for Advertising	May 15, 2024

We recognize the importance of completing work for the City in a timely manner and are committed to devoting the resources necessary to produce a thorough and accurate bid package for the construction of the improvements on Old Highway 91. Please feel free to reach out to me regarding any questions related to our proposal. We look forward to your response.

Sincerely,

Taylor Ricks

Taylor Ricks, PE
435-669-2261
tricks@mainline-eng.com

COST PROPOSAL FOR DESIGN ENGINEERING SERVICES

OLD HIGHWAY 91 WIDENING – PHASE 2

MAINLINE ENGINEERING

Discipline	Activity Description	Proposed Cost	Proposed Hours	Assumptions
Utilities	Identify and Map Existing Utilities	$1,370.00	10	
	Survey Blue Stake Marks	$870.00	6	
	Coordinate Utility Conflicts (including JUC approval)	$2,160.00	16	
Utilities Subtotal		***$4,400.00***	***32***	U1, U2, U3
Survey & ROW	Establish Survey Control	$870.00	6	
	Complete Topo Survey	$2,320.00	16	
	Develop Survey Control Sheet	$1,040.00	8	
	Develop Base Map	$1,580.00	12	
	Identify ROW Needs	$1,370.00	10	RW1
	Prepare Legal Descriptions & Exhibits	$2,660.00	20	RW1
Survey & Right-of-Way Subtotal		***$9,840.00***	***72***	
Roadway & Traffic	Develop Initial Horizontal and Vertical Geometry	$1,660.00	12	
	Roadway Modeling	$3,740.00	28	
	Develop and Detail Roadway Plan Sheets	$10,800.00	80	
	Develop and Detail Signing & Striping Plan Sheets	$5,320.00	40	
	Develop Typical Sections & Roadway Details	$4,320.00	32	
	Develop Contract Docs & Specifications	$2,160.00	16	
	Develop Engineer's Estimate and Bid Schedule	$1,580.00	12	
Roadway & Traffic Subtotal		***$29,580.00***	***220***	
Drainage	Minor Storm Drain Design	$2,120.00	16	
	Drainage and Erosion Control Plans	$3,160.00	24	
	Develop Drainage Details	$2,160.00	16	
	Stream Alteration Permit Preparation	$2,160.00	16	D1
	Drainage Memo	$1,580.00	12	D2
Drainage Subtotal		***$11,180.00***	***84***	D3
Structures	Box Culvert Layout	$2,320.00	16	
	Box Culvert Situation and Layout Sheets	$3,480.00	24	ST1
Structures Subtotal		***$5,800.00***	***40***	
	Answer Questions During Bidding/Prep Addendums	$1,080.00	8	
	Prepare Bid Tab and Recommend Award	$290.00	2	
Bidding Services Subtotal		***$1,370.00***	***10***	
Project Mgmt.	Four Plan Review Meetings with Owner	$2,740.00	20	
	Coordination with Stakeholders	$1,160.00	8	
	QC & Invoicing	$2,320.00	16	
Project Management Subtotal		***$6,220.00***	***44***	
Landmark Testing & Engineering		***$500.00***		G1
R&B Surveying		***$2,000.00***		S1
Grand Total		***$70,890.00***	***502***	

Cost Proposal Assumptions

#	Explanation
General	Proposed cost is subject to change based on owner changes or requests which invalidate assumptions below.
General	Construction support services are not included. These services include construction management, inspection, staking, or materials testing. If these services are desired, they will be negotiated separately at a later date.
General	No new landscaping, lighting, or aesthetic treatments are anticipated for this section of the corridor.
General	No environmental clearances, resource surveys, or documents will be required.
U1	No utility potholing is anticipated or included.
U2	Third party utilities requiring relocation will provide their own relocation design for inclusion in the plans.
U3	No new utilities are anticipated for inclusion in the design or plans.

RW1	Assume a maximum of two properties require acquisition or easements. Acquisition and title services not included.
R1	Horizontal geometry is relatively fixed. Minimal adjustments to horizontal geometry will be required.
R2	Roadway design is limited to the scope items included in the RFP including approximately 1.6 miles of resurfacing and roadway widening for bike lanes, 0.3 miles of trail design, and flattening two existing cut slopes.
D1	The City will pay permit application fees for Stream Alteration Permit. No other environmental resources will be analyzed or addressed except for stream alteration permits and erosion control. No wetlands will be encountered.
D2	Basic drainage memo detailing improvements. A full report is not anticipated.
D3	Storm drain design includes minor inlet additions or adjustments. A full trunk line and/or outfall is not included. Added drainage elements will compliment existing pipes systems.
ST1	No other structures (including retaining wall over 4' tall) except for the three precast box culvert extensions. Box culvert extensions will be completed with precast sections and will be shown on S&L sheets only. No calculations or details will be required. No headwalls. Include inlet/outlet protection.
G1	Spoke with Steve Wells at Landmark and he indicated that the previous UDOT project completed all field
S1	R&B services will be limited to reviewing survey control and ROW docs for compliance and stamping/signing.