



## Introduction

The following scope of work is to perform feasibility studies for two alternate design concepts for the Higgins Avenue Bridge Project (STPB 8113(8), UPN 8807000) and if accepted by the City and MDT, implement those concepts into the contract plans.

Work will be performed to complete each task up to the contract amount unless otherwise approved by HDR and the City. This is a cost plus fixed fee contract.

## Scope of Work

### Task 1: Hip Strip Plaza Feasibility

**Description of Work:** Evaluate the feasibility of design modifications to the 3rd Street Plaza, including grading, ADA compliance, utility conflict avoidance, and cost. City Public Works will provide design direction based on the conceptual plan provided by Ken Duce of the Urban Renewal Associations (URA). Deliverable: Feasibility Memo and Comparative Cost Estimates

#### **Tasks:**

- 1.01 Project Management. Coordinate work with staff, track project budget, and invoicing.
- 1.02 Feasibility Study. Evaluate the proposed design modifications and potentially modify the proposed changes to fit the site conditions. Prepare a cost estimate and compare to the current design concept cost. Prepare a preliminary design concept exhibit. Evaluate pros/cons and summarize in a brief memo.

#### **Assumptions:**

- Detailed renderings of the design concept are not included in the scope but can be added by amendment.
- City will provide direction on boulevard widths, landscaping, and other design features.
- Curb and gutter layout along Higgins Avenue will not be modified with the 3<sup>rd</sup> Street Plaza design.

#### **Deliverables:**

1. Feasibility Memo and Comparative Cost Estimates (Electronic .pdf)

### Task 2: West Stair Feasibility

**Description of Work:** Evaluate the feasibility of design modifications to relocate the existing west stair connecting to Caras Park, including foundation design, grading, ADA compliance, utility conflict avoidance, park impacts, and cost. The intent is to replace the existing foundations and move the existing stairs with minimal modifications.

#### **Tasks:**

- 2.01 Project Management. Coordinate work with staff, track project budget, and invoicing.
- 2.02 Feasibility Study. Evaluate the proposed design modification to relocate existing stairs to the west in lieu of the current concept to replace the stairs. Prepare a cost estimate and compare to the current design concept cost. Prepare a preliminary design concept exhibit. Evaluate pros/cons and summarize in a brief memo.

#### **Assumptions:**

- The new stair foundations will be similar to the existing. Geotechnical recommendations for the foundations are not included in the feasibility study.



- Landscaping design for modifications to Caras Parks are not included in the scope.
- Structural evaluation of the existing staircase is not included.
- Detailed rendering for the new design concept are not included in the scope but can be added by amendment.

**Deliverables:**

1. Feasibility Memo and Comparative Cost Estimates (Electronic .pdf)

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**Task 3: Hip Strip Plaza Revisions**

**Description of Work:** Pending the results of the feasibility study and direction from MDT and the City, revise the current design and plans to incorporate the concept proposed by the City.

**Tasks:**

- 3.01 Project Management. Coordinate work with staff, track project budget, and invoicing.
- 3.02 Revise the Design & Plans. Revise the MDT contract plans for the updated design concept. Finalize grades, drainage design, plan details, quantities, cost estimates, and special provisions. Incorporate minor comments from MDT/City review prior to release of the addendum.

**Assumptions:**

- Curb and gutter layout along Higgins Avenue will not be modified with the 3<sup>rd</sup> Street Plaza design.
- Up to 5 plan sheets would be significantly impacted to implement this change.
- Updated plans would be due on September 20, 2019.

**Deliverables:**

1. Revised Plans, Specifications, and Estimate. (Electronic .pdf)

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**Task 4: West Stair Plan Revisions**

**Description of Work:** Pending the results of the feasibility study and direction from MDT and the City, revise the current design and plans to incorporate the concept proposed by the City.

**Tasks:**

- 4.01 Project Management. Coordinate work with staff, track project budget, and invoicing.
- 4.02 Revise the Design & Plans. Revise the MDT contract plans for the updated design concept. Finalize grades, plan details, quantities, cost estimates, and special provisions. Incorporate minor comments from MDT/City review prior to release of the addendum.

**Assumptions:**

- Up to 5 plan sheets would be impacted to implement this change.
- Structural evaluation and design of the existing staircase is not included. It is assumed the existing staircase is adequately designed.
- Geotechnical design is not included. The new foundations will match the existing design and be built on similar soil conditions.
- Updated plans would be due on September 20, 2019.

**Deliverables:**

1. Revised Plans, Specifications, and Estimate. (Electronic .pdf)



City of Missoula  
 Higgins Ave Bridge Rehab - Missoula  
 Feasibility Study and Design Revisions



July 30, 2019

**HDR Cost Estimate - Task 1, 2, 3, and 4**

Work Item	Project Manager	Project Engineer	CAD	QAQC	Accounting & Admin
Task 1: Hip Strip Feasibility Study					
1.01 - Project Management	4				2
1.02 - Feasibility Study	2	40	16	4	
Subtotal	6	40	16	4	2
Task 2: West Stair Feasibility Study					
2.01 - Project Management	4				1
2.02 - Feasibility Study	2	24	16	2	
Subtotal	6	24	16	2	1
Task 3: Hip Strip Plaza Plan Revisions					
3.01 - Project Management	8				2
3.02 - Revise Design and Plans		44	60	5	
Subtotal	8	44	60	5	2
Task 4: West Stair Plan Revisions					
4.01 - Project Management	4				1
4.02 - Revise Design and Plans		20	28	2	
Subtotal	4	20	28	2	1
<b>Total Hours (291)</b>	<b>24</b>	<b>128</b>	<b>120</b>	<b>13</b>	<b>6</b>

**DIRECT COST SUMMARY**

Personnel	Hours	Rate *	Extension
Project Manager	24	\$ 211.20	\$ 5,068.80
Project Engineer	128	\$ 153.60	\$ 19,660.80
CAD	120	\$ 96.00	\$ 11,520.00
QAQC	13	\$ 208.00	\$ 2,704.00
Accounting & Admin	6	\$ 112.00	\$ 672.00
<i>* Includes Overhead &amp; Profit</i>			<b>TOTAL DIRECT LABOR COST \$ 39,625.60</b>

**DIRECT NONLABOR SUMMARY**

Miscellaneous (Mylars, telephone, postage, copies, photos, etc.)				\$100.00
Computer	Hours		Per Hour	\$0.00
Travel (Airlines/meals/lodging)	Trips		Per Trip	
Mileage	Miles		Per Mile	0.545
<b>TOTAL DIRECT NONLABOR</b>				<b>\$100.00</b>

**OUTSIDE SERVICES AND SUBCONTRACTS**

Geotechnical	
Survey	
Architect	
Materials Testing	
<b>TOTAL OUTSIDE SERVICES AND SUBCONTRACTS</b>	

**RECAPITULATION**

Total Labor/ Overhead/Profit	\$ 39,625.60
Total Direct NonLabor	\$ 100.00
Total Outside Services & Subcontracts	\$ 0.00
<b>TOTAL ESTIMATED COST</b>	<b>\$ 39,725.60</b>



City of Missoula  
 Higgins Ave Bridge Rehab - Missoula  
 Feasibility Study and Design Revisions



July 30, 2019

**HDR Cost Estimate - Task 1**

Work Item	Project Manager	Project Engineer	CAD	QAQC	Accounting & Admin
Task 1: Hip Strip Feasibility Study					
1.01 - Project Management	4				2
1.02 - Feasibility Study	2	40	16	4	
Total Hours (68)	6	40	16	4	2

**DIRECT COST SUMMARY**

Personnel	Hours	Rate *	Extension
Project Manager	6	\$ 211.20	\$ 1,267.20
Project Engineer	40	\$ 153.60	\$ 6,144.00
CAD	16	\$ 96.00	\$ 1,536.00
QAQC	4	\$ 208.00	\$ 832.00
Accounting & Admin	2	\$ 112.00	\$ 224.00

\* Includes Overhead & Profit TOTAL DIRECT LABOR COST \$ 10,003.20

**DIRECT NONLABOR SUMMARY**

Miscellaneous (Mylars, telephone, postage, copies, photos, etc.)					\$25.00
Computer	Hours		Per Hour	\$0.00	
Travel (Airlines/meals/lodging)	Trips		Per Trip		
Mileage	Miles		Per Mile	0.545	
<b>TOTAL DIRECT NONLABOR</b>					<b>\$25.00</b>

**OUTSIDE SERVICES AND SUBCONTRACTS**

Geotechnical	
Survey	
Architect	
Materials Testing	
<b>TOTAL OUTSIDE SERVICES AND SUBCONTRACTS</b>	

**RECAPITULATION**

Total Labor/ Overhead/Profit	\$ 10,003.20
Total Direct NonLabor	\$ 25.00
Total Outside Services & Subcontracts	\$ 0.00
<b>TOTAL ESTIMATED COST</b>	
	<b>\$ 10,028.20</b>



City of Missoula  
 Higgins Ave Bridge Rehab - Missoula  
 Feasibility Study and Design Revisions



July 30, 2019

**HDR Cost Estimate - Task 2**

Work Item	Project Manager	Project Engineer	CAD	QAQC	Accounting & Admin
Task 2: West Stair Feasibility Study					
2.01 - Project Management	4				1
2.02 - Feasibility Study	2	24	16	2	
Total Hours (49)	6	24	16	2	1

**DIRECT COST SUMMARY**

Personnel	Hours	Rate *	Extension
Project Manager	6	\$ 211.20	\$ 1,267.20
Project Engineer	24	\$ 153.60	\$ 3,686.40
CAD	16	\$ 96.00	\$ 1,536.00
QAQC	2	\$ 208.00	\$ 416.00
Accounting & Admin	1	\$ 112.00	\$ 112.00
<b>TOTAL DIRECT LABOR COST</b>			<b>\$ 7,017.60</b>

**DIRECT NONLABOR SUMMARY**

Miscellaneous (Mylars, telephone, postage, copies, photos, etc.)					\$25.00	
Computer	Hours		Per Hour	\$0.00		
Travel (Airlines/meals/lodging)	Trips		Per Trip			
Mileage	Miles		Per Mile	0.545		
<i>* Includes Overhead &amp; Profit</i>					<b>TOTAL DIRECT NONLABOR</b>	<b>\$25.00</b>

**OUTSIDE SERVICES AND SUBCONTRACTS**

Geotechnical	
Survey	
Architect	
Materials Testing	
<b>TOTAL OUTSIDE SERVICES AND SUBCONTRACTS</b>	

**RECAPITULATION**

Total Labor/ Overhead/Profit	\$ 7,017.60
Total Direct NonLabor	\$ 25.00
Total Outside Services & Subcontracts	\$ 0.00
<b>TOTAL ESTIMATED COST</b>	<b>\$ 7,042.60</b>



City of Missoula  
 Higgins Ave Bridge Rehab - Missoula  
 Feasibility Study and Design Revisions



July 30, 2019

**HDR Cost Estimate - Task 3**

Work Item	Project Manager	Project Engineer	CAD	QAQC	Accounting & Admin
Task 3: Hip Strip Plaza Plan Revisions					
3.01 - Project Management	8				2
3.02 - Revise Design and Plans		44	60	5	
Total Hours (119)	8	44	60	5	2

**DIRECT COST SUMMARY**

Personnel	Hours	Rate *	Extension
Project Manager	8	\$ 211.20	\$ 1,689.60
Project Engineer	44	\$ 153.60	\$ 6,758.40
CAD	60	\$ 96.00	\$ 5,760.00
QAQC	5	\$ 208.00	\$ 1,040.00
Accounting & Admin	2	\$ 112.00	\$ 224.00

\* Includes Overhead & Profit TOTAL DIRECT LABOR COST \$ 15,472.00

**DIRECT NONLABOR SUMMARY**

Miscellaneous (Mylars, telephone, postage, copies, photos, etc.)					\$25.00
Computer	Hours		Per Hour	\$0.00	
Travel (Airlines/meals/lodging)	Trips		Per Trip		
Mileage	Miles		Per Mile	0.545	
<b>TOTAL DIRECT NONLABOR</b>					<b>\$25.00</b>

**OUTSIDE SERVICES AND SUBCONTRACTS**

Geotechnical	
Survey	
Architect	
Materials Testing	
<b>TOTAL OUTSIDE SERVICES AND SUBCONTRACTS</b>	

**RECAPITULATION**

Total Labor/ Overhead/Profit	\$ 15,472.00
Total Direct NonLabor	\$ 25.00
Total Outside Services & Subcontracts	\$ 0.00
<b>TOTAL ESTIMATED COST</b>	
	<b>\$ 15,497.00</b>



City of Missoula  
 Higgins Ave Bridge Rehab - Missoula  
 Feasibility Study and Design Revisions



July 30, 2019

**HDR Cost Estimate - Task 4**

Work Item	Project Manager	Project Engineer	CAD	QAQC	Accounting & Admin
Task 4: West Stair Plan Revisions					
4.01 - Project Management	4				1
4.02 - Revise Design and Plans		20	28	2	
Total Hours (55)	4	20	28	2	1

**DIRECT COST SUMMARY**

Personnel	Hours	Rate *	Extension
Project Manager	4	\$ 211.20	\$ 844.80
Project Engineer	20	\$ 153.60	\$ 3,072.00
CAD	28	\$ 96.00	\$ 2,688.00
QAQC	2	\$ 208.00	\$ 416.00
Accounting & Admin	1	\$ 112.00	\$ 112.00
* Includes Overhead & Profit			TOTAL DIRECT LABOR COST \$ 7,132.80

**DIRECT NONLABOR SUMMARY**

Miscellaneous (Mylars, telephone, postage, copies, photos, etc.)				\$25.00
Computer	Hours		Per Hour	\$0.00
Travel (Airlines/meals/lodging)	Trips		Per Trip	
Mileage	Miles		Per Mile	0.545
TOTAL DIRECT NONLABOR				\$25.00

**OUTSIDE SERVICES AND SUBCONTRACTS**

Geotechnical	
Survey	
Architect	
Materials Testing	
TOTAL OUTSIDE SERVICES AND SUBCONTRACTS	

**RECAPITULATION**

Total Labor/ Overhead/Profit	\$ 7,132.80
Total Direct NonLabor	\$ 25.00
Total Outside Services & Subcontracts	\$ 0.00
<b>TOTAL ESTIMATED COST</b>	
	<b>\$ 7,157.80</b>