

REQUEST AUTHORIZATION FOR MAYOR AND FINANCE OFFICER TO SIGN PROFESSIONAL SERVICES AGREEMENT OR AMENDMENT

Date: February 22, 2016

Project Name & Number: Jackson Boulevard and West Main Street Intersection Reconstruction **CIP #:** 50858
Project No. 11-1945

Project Description: Project will reconstruct the intersection, including new water, sewer, storm sewer, signals, lighting, handicap ramps, and possible access improvements.

Consultant: HDR Engineering, Inc.

Original Contract Amount: \$136,056.00 **Original Contract Date:** 12/20/11 **Original Completion Date:**

Addendum No: 2

Amendment Description: Amendment for additional design services related to traffic signal analysis and revision to storm sewer outfall.

Current Contract Amount:	\$184,518.00	Current Completion Date:	
Change Requested:	\$80,650.00		
New Contract Amount:	\$265,168.00	New Completion Date:	December 31, 2017

Funding Source This Request:

Amount	Dept.	Line Item	Fund	Comments
\$15,000.00	301	4223	101	
\$5,000.00	833	4223	604	
\$15,000.00	933	4223	602	
\$45,650.00	8911	4223	505	
\$80,650.00	Total			

Agreement Review & Approvals

Tadeo Pachal 2/22/16
Project Manager Date

Chamberlitta 2/23/16
Compliance Specialist Date

[Signature] 2-23-16
Division Manager Date

[Signature] 2-23-16
Department Director Date

City Attorney Date

ROUTING INSTRUCTIONS

Route **two** originals of the Agreement for review and signatures.
Finance Office - Retain one original
Project Manager - Retain second original for delivery to Consultant
cc: Public Works
Engineering
Project Manager

FINANCE OFFICE USE ONLY

(Note to Finance: Please write date of Agreement in appropriate space in the Agreement document)

Date	Initials	Approved
2/24/16	[Signature]	<input checked="" type="radio"/> Y <input type="radio"/> N <input type="radio"/> Y <input type="radio"/> N
Appropriation		
Cash Flow		

AMENDMENT NO. 2 TO AGREEMENT

Project: Jackson Boulevard & West Main Street Intersection
Reconstruction Project.
Project No. 11-1945 / CIP No. 50858

Background Data: Effective Date of Agreement: December 20, 2011
Owner: City of Rapid City
Engineer: HDR Engineering, Inc.

Nature of Amendment: Additional design services related to traffic signal
analysis and revision to storm sewer outfall, as well
as additional landowner coordination.

Current Contract Amount: \$184,518.00

Change Requested: \$80,650.00

New Contract Amount: \$265,168.00

Owner and Engineer hereby agree to modify the above referenced Agreement as set forth in this Amendment. All provisions of the Agreement not modified by this or previous Amendments remain in effect. The effective date of this Amendment is:

CITY OF RAPID CITY:

ENGINEER:

By: _____
Mayor

By: _____
HDR Engineering, Inc.

Date Signed: _____

Date Signed: _____

ATTEST:

By: _____
Finance Officer

Date Signed: _____

REVIEWED BY:

Todd Peckosh, Project Manager



Project Background

HDR Engineering was selected by the City of Rapid City at the end of 2011 to complete design services for improvements at the intersection of Jackson Boulevard and West Main Street in Rapid City. The existing concrete pavement has deteriorated and reconstruction will allow possible improvements to the geometry, city and private utility replacement, and the potential addition of bike lanes and access improvements.

While completing aspects of the preliminary design and public involvement phases, HDR encountered several out of scope items that differed from the assumptions and man-hour estimates in our original contract and the project construction date was pushed back by the City of Rapid City from 2014 to 2015. Several of these items were addressed in 2013 under Amendment #1, however, additional changes have been required since that time to meet the most recent needs of the project along with another push back for construction from 2015 to 2016 and again to 2017 due to budget constraints. Therefore, this amendment proposal is being provided at the request of City staff to complete the design phase of the project through bidding services.

Project Phase 1 Scope of Services

TASK 1 – PRELIMINARY DESIGN SERVICES

The following tasks consist of items where additional services were necessary to take the project from initiation through the Preliminary Design Submittal stage.

- 1.4 **Geotechnical Services:** Additional coordination of geotechnical subcontractor for two added borings at the storm sewer crossing location under railroad tracks. The additional geotechnical work will provide information related to the bore pit design as well as subsurface conditions and water levels for the storm sewer boring(s). This work was not included in the original geotechnical investigation, but is necessary to provide valuable foundation information.
- 1.6 **Landowner Coordination:** Additional time was/will be expended on the multiple rounds of landowner meetings and associated preparation work. This includes eight additional meetings in 2015 with updated figures and project design options to update landowners on the project, address access concerns, and coordinate ROW/easement acquisition. Additional time is required for coordinating ROW vacation adjacent to the Fischer properties.
- 1.7 **Preliminary Design Report:** Additional time to review an alternate storm sewer and utility layout plan to identify potential conflicts to determine feasibility of implementing the changes to the project design. The potential utility conflicts that were identified are discussed further under Task 2.4. Hydraulic analysis was also performed to determine if the downstream modifications (Frisbee Golf Course Pond) would create significant backwater issues with the proposed storm sewer design.

HDR coordinated with SDDOT and City staff to analyze the traffic impacts on the project of a proposed signal at Omaha and Cross Street. HDR completed field work and traffic counts at Main Street / Cross Street and completed a signal warrant with technical memorandum and arranged meetings with City staff to present the results and recommendations for the project. Recommendations carried forward into final design shall include conceptual signal pole layout at the Cross intersection in order to properly install conduits for a future signal and interconnect system.

- 1.11 ROW Exhibits: Additional time to create multiple versions of ROW documents due to changes in access improvement layouts landowner negotiation items, and for HDR to take the lead role in finishing easement documents in the final design phase. This includes coordination of ROW vacation adjacent to Fischer Furniture and Fischer Home Galleries. The ROW vacation was requested by the property owner and will result in four additional exhibits.
- 1.12 Project Management & QAQC. Additional project management activities for the overall design schedule extension of November 2013 to November of 2016.

TASK 2 – FINAL DESIGN SERVICES

This task consists of all additional services necessary to take project from Task 1 Preliminary Design Services through the Final Design Services, and shall include the following itemized services.

The original and amended final design/plan production services were based on construction cost estimates ranging from approximately \$1 - \$3 million, however due to the changes and additions to the project in the preliminary design phase, the current updated construction estimates are over \$4 million. HDR efforts on all design tasks have increased significantly and proportionally with this project scope expansion. Therefore, the request in additional hours on this amendment accounts for these corresponding efforts for HDR to produce the plan documents for the new larger project.

- 2.4 95% Plan Submittal: Several additional efforts/time were also required to incorporate significant utility modifications from the previous design and plan documents. These are modifications resulting from adjustments to the storm sewer outfall at the railroad and final adjustments to the proposed median. The alternate storm sewer outfall raised the storm sewer trunk line by several feet, requiring significant modifications to the storm, water, and sanitary utility layouts. The change in water main profile will also require the design of an air release valve near the Main Street and Jackson Boulevard intersection. Raising the storm sewer also created several conflicts with proposed sanitary sewer and water main services which had to be realigned. Due to the scope of these significant changes and the additional delays to the project schedule, HDR anticipates an additional plan submittal and City review cycle to be completed in the final design process.
- 2.7 Permit Submittals: Due to the proposed raising of the storm sewer outfall profile, additional coordination and permitting efforts will be required for the railroad permitting process. Raising the storm sewer creates a conflict with cover requirements in the ditch areas. This in turn requires additional detail related to the grading within the railroad ROW.

Project Phase 2 Scope of Services

Phase 2 services for this project are expected to consist of all services necessary for the administration of the Basic Construction Services of the project construction stage, and for the administration of the Expanded Construction Services of the project construction stage. Hours and costs for this Phase may or may not be negotiated at the conclusion of Phase 1 design and bidding.

Project Schedule

The originally proposed schedule for design services was based on the information provided in the Request for Proposals and extended in Amendment #1. This revised remaining schedule items are based on discussion with City staff on a future target of the summer 2017 construction season. HDR is prepared to meet these project deadlines as noted below and is always open to discussion on schedule adjustments to meet the City of Rapid City's goals for the project. The schedule allows 4 weeks for City review of 95% submittals.

95% Design Services Resubmittal
Final Plans and Specifications
Bid Letting

April 2016
August 2016
December 2016

EXHIBIT B

**CITY OF RAPID CITY - JACKSON BOULEVARD & WEST MAIN STREET INTERSECTION RECONSTRUCTION PROJECT
Phase 1 - AMENDMENT #2 - PRELIMINARY, FINAL DESIGN & BIDDING SERVICES ENGINEERING FEE ESTIMATE**

	Manhour	Labor	Expense	
	Manhour Total	Labor Total	Expense Total	Additional Fee Total
	Hours	Cost \$	Cost \$	
Task 1 - Preliminary Design Services				
1.4 Geotechnical Coordination	6	\$890	\$0	\$890
1.6 Landowner Coordination	100	\$15,080	\$150	\$15,230
1.7 Preliminary Design Report			\$0	
Storm Sewer Design/Analysis	54	\$8,300	\$0	\$8,300
Intersection Geometry Design/Analysis	14	\$2,100	\$0	\$2,100
Traffic Analysis	46	\$7,340	\$50	\$7,390
1.11 ROW Exhibits and Property Owner Meetings	24	\$3,320	\$0	\$3,320
1.12 Project Management	68	\$9,960	\$0	\$8,980
Task 1 Subtotal	312	\$45,990	\$200	\$46,190
Task 2 - Final Design Services				
2.4 95% Plan Submittal	210	\$28,770	\$50	\$28,820
2.7 Project Permits	11	\$1,710	\$0	\$1,710
2.10 Project Management & QA/QC	9	\$1,530	\$0	\$1,530
Task 2 Subtotal	230	\$32,010	\$50	\$32,060
TOTAL	542	\$78,000	\$250	\$78,250

TOTAL LABOR	\$78,000
TOTAL EXPENSES	\$250
GEOTECHNICAL SUBCONSULTANT	\$2,400
TOTAL NOT TO EXCEED FEE	<u>\$80,650</u>

**EXHIBIT C
SCHEDULE OF PAY RATES**

HDR ENGINEERING, INC.

**Amendment #2
FEE SCHEDULE**

**PHASE 1 of 2 - PRELIMINARY, FINAL DESIGN, and BIDDING SERVICES
FOR JACKSON BOULEVARD & WEST MAIN STREET INTERSECTION RECONSTRUCTION
Project No. 11-1945 / CIP No. 50858
City of Rapid City, South Dakota**

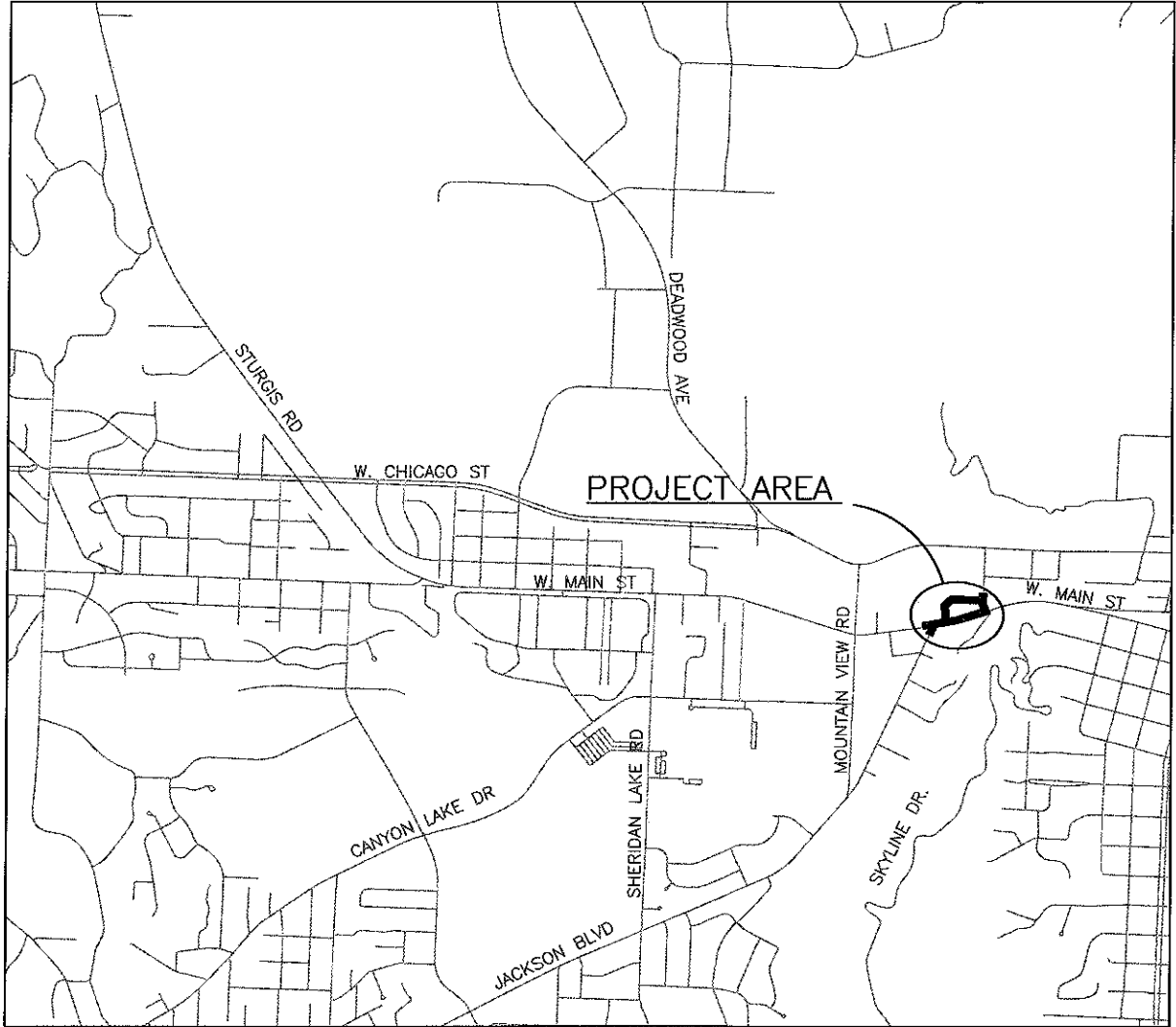
The following updated fee schedule is the 2016 Billable Rate Fee Schedule for HDR Engineering, Inc. This fee schedule and the hourly rates shown apply to the above referenced project. In instances where a discipline is not listed below may work on the project, the billing rate will be prior submitted to the City.

<u>EMPLOYEE - DISCIPLINE</u>	<u>BILLING RATE/HR</u>
Managing Principal	\$ 210
Sr Project Manager	\$ 195
Engineer V	\$ 170
Engineer IV	\$ 155
Engineer II	\$ 120
Cadd/GIS Technician IV	\$ 130
Sr. Land Surveyor	\$ 145
Accounting	\$ 100
Admin	\$ 70
 <u>DIRECT EXPENSES</u>	
Vehicle Mileage	\$ 0.75 mile
24" x 36" Mylar	\$ 15.00 each
Plots Bond	\$ 8.00 each
Plain Paper Copies	\$ 0.15 each
Plain Paper Copies 11" x 17"	\$ 0.25 each
Color 11" x 17" Copies	\$ 1.25 each

OTHER REIMBURSABLE EXPENSES

Reimbursable expenses shall mean the actual expenses incurred directly or indirectly in connection with the project for transportation travel, subconsultants, printing, telephone, fax, shipping and express, and other incurred expenses.

EXHIBIT



JACKSON BOULEVARD & WEST MAIN STREET INTERSECTION RECONSTRUCTION PROJECT

PROJECT # 11-1945, CIP 50858