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

Date: July 5, 2007

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Elk Vale Road Lift Station Evaluation SS07-1662

CIP #:50688

& Number:

Project Description:

Conduct an engineering analysis of the existing Elk Vale Road sewage lift station to evaluate options and timing for improvements to increase capacity. Evaluate existing and proposed sewage flow rates in the service area, including estimates for near-term, long-term, and build-out levels of development. Provide engineering recommendations for appropriate facility improvements at identified levels of development, with cost

July 2, 2007

estimates.

Consultant:

HDR Engineering, Inc.

Original

Contract Amount: \$9,972.00 Original

Contract Date:

Original

Completion Date:

October 31, 2007

Amendment Number:

Amendment Description:

Current Contract Amount:

Current Completion Date:

October 31, 2007

Change Requested: **New Contract Amount:**

\$9,972.00 \$9,972.00

New Completion Date:

October 31, 2007

Funding Source This Request:

Amount	Dept.	Line Item	Fund	Comments	
\$9,972.00	885	4223	604	Sewer Improvements - Professional Services	
	0834				
\$9,972.00	Total			•	

Agreement Review & Approxals

City Attorney

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

Public Works Engineering Project Manager FINANCE OFFICE USE ONLY

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

7/5/07 Appropriation

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Date Initials Approved Ν

Cash Flow

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AGREEMENT BETWEEN THE CITY OF RAPID CITY AND HDR ENGINEERING, INC.

1) This Agreement is entered into this day of, 20, by and between the City of Rapid City, 300 Sixth Street, Rapid City, SD 57701, a municipal corporation organized under the laws of the state of South Dakota, hereinafter referred to as the "City," and HDR Engineering Services, 1719 West Main Street, Suite 309, Rapid City, South Dakota, 57702, hereinafter referred to as the "engineer."
2) This Agreement together with attached Proposal constitutes the entire agreement between the City and the Engineer and supersedes all prior written or oral understandings.
3) The Engineer agrees to indemnify, defend and hold the City harmless against all liability, loss, damage, costs, and expenses including, but not limited to, costs of defense and reasonable attorney's fees, which the City may hereafter suffer itself or pay to another party by reason of any claim, action, or right of action, at law or in equity, arising out of willful misconduct, error, omission or negligent act of the Engineer and resulting in injury (including death) to any person or damage to any property to the extent such are caused by or are alleged to be caused by the Engineer or its employees, any subcontractor or its employees, or any person, firm, partnership, or corporation employed or engaged by the Engineer.
4) The Engineer is an independent entity and not an employee, agent, or partner of the City.
5) The parties agree that the terms of this Agreement shall be governed by the laws of the State of South Dakota. In the event of any conflict of laws, the law of the State of South Dakota shall be controlling. Any legal action arising out of or relating to this agreement shall be brought only in the Circuit Court of the State of South Dakota, Seventh Judicial Circuit, located in Rapid City, Pennington County, South Dakota.
6) The provisions of this Agreement shall be deemed severable, and the invalidity or unenforceability of any provision shall not affect the validity and enforceability of the other provisions hereof. If any portion of this Agreement is unenforceable for any reason whatsoever, such provision shall be appropriately limited and given effect to the extent that it may be enforceable.
Dated this day of , 2007.

		HDR Engineering Inc.
		Ву:
		Its:
STATE OF SOUTH DAKOTA)	
COUNTY OF PENNINGTON) SS.)	
On this the day of officer, personally appeared be the person whose name is subscreaceuted the same for the purposes so in the name of	therein containe	2006, before me, the undersigned nown to me or satisfactorily proven to trument and acknowledged that they ed and that they had the authority to do ts
IN WITNESS WHEREOF, I	hereunto set my	hand and official seal.
(SEAL)		Notary Public, South Dakota My Commission Expires:
		CITY OF RAPID CITY
		Mayor
		ATTEST:
		Finance Officer
STATE OF SOUTH DAKOTA)) SS.	
COUNTY OF PENNINGTON)	

On this th	e day of	, 2006, before me, the undersigned
officer, personall	y appeared Jerry Cole,	, Jim Shaw and James F. Preston, who
acknowledged the	emselves to be the Par	ks and Recreation Director, Mayor, and Finance
Officer, respectiv	ely, of the City of Rar	oid City, a municipal corporation, and that they, as
such Parks and R	ecreations Director, M	fayor, and Finance Officer, being authorized so to
		for the purposes therein contained by signing the
	0 0	nselves as Parks and Recreations Director, Mayor,
and Finance Office		
IN WITNE	SS WHEREOF I here	unto set my hand and official seal.
III WIIII	os williasor riiere	unio sot my minu uniu canciun scom
		Notary Public, South Dakota
		My Commission Expires:
		My Commission Expires.
(SEAL)		



July 2, 2007

Mr. David Johnson Project Engineer, Rapid City Public Works Department 300 Sixth Street Rapid City, SD 57701-2724

RE: Proposal for Elk Vale Pump Station Study

Dear Mr. Johnson:

This letter and proposal is being submitted at your request to provide engineering services for the Elk Vale Pump Station Study. HDR is excited for the opportunity to work on this project and we look forward to providing a study to lay the groundwork for the improvements that will benefit City of Rapid City for years to come.

The attached proposal and scope is based on our understanding of the project as we discussed in our meeting on June 28th. Based on that information, we have assembled a highly experienced HDR team that will provide the expertise to meet the goals of this project. Please review the project scope and let us know if you would like any revisions.

We again thank you for the chance to work with you on this project and are eager to get started. Please call with any questions or concerns that you may have.

Jody W. Page, P.E.

Project Manager

Sincerely,

HDR ENGINEERING, INC

Daniel Graber, P.E.

Vice President

cc: Robert Ellis, City of Rapid City

RECEIVED

JUL 0 3 2007

RAPID CITY PUBLIC WORKS

Project Background

Rapid City is currently receiving requests for a record breaking amount of commercial development on the northeast area of the city along the I-90 corridor. In 2007 and 2008 alone, there are three proposed malls that include almost 1.5 million square feet of commercial building space. These new developments and other planned sewer improvements will create a significant increase in the amount of sanitary sewer flows into the existing Elk Vale Road pump station. The pump station is currently experiencing low flows, but due to the amount of planned development, its capacity may be reached and could be quickly exceeded within one to two years.

The goal of this project is to complete a study that will address the City's options for improvements and upgrades to the pump station and sanitary sewer piping so that the system will keep pace with the future flow demands. The study will investigate development plans and future land use maps in order to give a prediction of what the sanitary sewer flows could be into the system in 1-year, 2-years, and beyond. This information will then be compared to the capacity of the existing pump system where an efficient plan and timetable for improvements will be prepared. The study will also investigate the existing forcemain and trunk sewer piping system downstream of the pump station, evaluate the system's capacity, and recommend improvements. The results of this investigation and analysis will be presented in a report that will be a critical planning tool to the City for years to come.

Project Team

Project team members have been selected based on their specific expertise in wastewater engineering and pump station facilities. *Jody Page* from the Rapid City office will serve as the Project Manager for this project. Jody has over nine years of experience at HDR and has worked successfully with the City of Rapid City throughout the past year. *Dan Graber* and *Cecil Coombs* will provide the technical design for this study from the Sioux Falls office. Dan and Cecil have years of experience and expertise in pump station design for complex projects throughout the country.

Project Principal	Dan Graber, P.E.	Sioux Falls, SD
Project Manager	Jody Page, P.E.	Rapid City, SD
Wastewater Engineer	Cecil Coombs, P.E.	Sioux Falls, SD
Project Engineer	Michelle Carter	Sioux Falls, SD
CADD Technician	Lori Rowe	Rapid City, SD
QA/QC	Al Erickson, P.E.	Sioux Falls, SD

Project Approach

The following is HDR's proposed approach. The following scope items will be included in this study.

Task 100 - Project Initiation / Data Gathering

The project initiation phase includes the task of planning the project activities and communicating task responsibilities with the project team.

The data gathering phase will consist of HDR preparing a request for information. This request will include detailed information on items such as the following:

Design and specifications of the equipment in the existing pump station facility

- Design and specifications of the materials and equipment used in the forcemain and trunk sewer
- Future land use maps and information on Rapid City's sanitary sewer flow calculations
- Sewer basin maps and information on the existing system within the study area

Other data gathering tasks will include:

- HDR will contact with the design engineers for the developments currently under design and attempt to obtain the most accurate flow information available for those properties.
- HDR will meet with the Rapid City utility engineers for an in-depth discussion of the sewer system in the project area and any planned changes that will affect the pump station flows.
- HDR will conduct interviews with Chip Petrik, Chris Catlette, and other Rapid City personnel that maintain the existing pump station. This will be done to gather background information and identify issues with the pump station design and operation.

Task 200 - Land Use & Sanitary Sewer Flow Projections

This task involves using available information to evaluate the existing and predict the future sanitary flows coming into the Elk Vale Pump Station. For planning purposes the wastewater flows must be projected for the time frames evaluated in the study. The time frames that HDR expects to use will be immediate (2007), 1-year (2008), 2-years (2009), 5-years, (2012), 10-years (2117), and long term build out conditions for the

HDR will accomplish this by first reviewing the sanitary sewer basin maps to determine the area that will be served by the pump station. Once these boundaries are determined, HDR will combine the information from the existing flows, development plans, and Land Use planning maps to estimate what the City can expect to see for future flow demands on the pump station. This information will then be used as the basis of planning the pump station and forcemain improvements for the next tasks.

Task 300 – Pump Station Improvements Analysis

This task will involve an investigation of the existing pump station. Obtaining accurate information about the station's equipment will be the key to determining its current operating capacity and identifying what options are available for improving that capacity.

HDR's team in pump station design and operation will examine the equipment of the current pump station. They will also work with the Rapid City maintenance personnel to incorporate suggestions regarding operation of the facility. Once this information is gathered, it will be used to layout a plan for upgrades that will match the timeframe of the city's growth and meet the demands of the sewer flows.

Some specific improvements that will be addressed include, but are not limited to:

- Upgrading the impellers of the existing pumps
- Replacing the existing pumps
- Additions onto the pump station
- Replacing the pump station with a new facility

Other general suggestions will aid in the operation and capability of the pump station. This portion of the study will create an effective plan to address the growth in this area and will provide City with an efficient wastewater system.

Task 400 – Sanitary Sewer Forcemain & Trunk System Analysis

The purpose of this task will be to analyze the wastewater collection system downstream of the Elk Vale pump station to see if it's capable of handling the flows from the pump station upgrades. The length, size, and profile of the forcemain piping from the pump station has a major effect on the sizing and power needs of

Phone (605) 718-5717

Fax (605) 394-5738

www.hdrinc.com

the pumps. If it's determined that upgrades will be necessary, HDR will include a plan for when those improvements would be needed and an estimate of probable costs. Part of this task will also be coordinating with the consultant on the Elk Vale sanitary trunk sewer extension project.

Task 500 - Reports & Meetings

This task involves gathering information from the investigation and analysis and compiling it into an organized and easy to read document. The report will contain HDR's professional recommendations for future sanitary sewer improvements and estimates of costs for those improvements.

Proposed Design Schedule

The following schedule is based on a Notice-to-Proceed of July 20, 2007 and is dependent on receiving the requested information in a timely manner.

Data Collection: July 23rd through August 8th

Land Use & Flow Projections: August 9th through August 22nd

Pump Station Analysis: August 9^h through September 14th

Draft Report Submittal: September 14th

City Review & Comment: September 14th through September 28th

Incorporate Comments: October 1st through October 5th

Final Report Submittal: October 5th

Manhour Task List and Project Costs

Included on the following page is a spreadsheet with our estimated project costs that have been calculated based on our current understanding of the project.

HDR Engineering, Inc.

Man-hours for the City of Rapid City, SD for Elk Vale Pump Station Study

Description	Project Principal	avac	, Project Manager	Sr. Wastewater Engineer	Jr. Wastewater Engineer	Civil	Cadd	Admin	TOTAL
	Dan Gr.	A. Erickson	Jody P.	Cecil C.	Michelle C.	Jody P.	Lori R.	Carla	HOURS
			OUT OF THE PERSON NAMED IN		前級所以は大田の神を持ち		Secretary and the second		
TASK 100 Data Review and Collection									
Document Existing Plans			Sec. 3.4	2			Same and the same		3
Data Collection from City									. 2
QA/QC/Proj Man/Admin	1.00		4	1					7
Task 100 Series Hours	, L	0	9	4	0	0	0	. 1 .	12
TASK 200 Pump Station Analysis									
Analyze Existing Pump Station				9					9
Evaluate Future Upgrade Capabilities				10					10
Analyze Existing Forcemain		The William States		3	. 7		Section Control		7
Evaluate Future Forcemain Capabilities				3	2				5
Quantities/Estimate				2					2
QA/QC/Proj Man/Admin			2	.2					4
Task 200 Series Hours	0	0	2		9	. 0	0	0	34
TASK 300 Development of Future Sewer Demands									
Analyze Existing Flows				2		2			4
Analyze and Estimate 2008 Demands	0.00					2			. 2
Analyze and Estimate Future Demands						2			2
Prepare Maps and Figures		Section of the sectio					7		7.
QA/QC/Proj Man/Admin			2						2
Task 300 Series Hours	0	0	2	2	0	. 6	7	0	17
TASK 400 Reports and Meetings									
DRAFT REPORT									
Prepare Draft Report			. 2	9		The state of the s	State of the	Carl Made	8
QA/QC/Proj Man/Admin		2							. 2
Meetings			2	. 2					4
FINAL REPORT									
Prepare Final Report			2	2					4
Task 400 Series Hours	. 0	2	. 9	10	0	. 0	0	0	. 18
	第一次の対対が 変数								
TOTAL HOURS	The state of	. 2	16	42	9	9	7	1	81

ENGINEERING COSTS.		
Total Hours		81
Direct Labor	\$	3,230
Direct Labor Overhead	\$	2,100
Gen. Admin. Overhead	69	3,553
Subtotal	S	8,883
Profit	69	711
Direct Costs	4	378
Total	•	9,972

10.00 85.00 70.00 30.00

> 0 Days 0 Days 0 Days

ravel - Rental Car & Fuel ravel - Hotel Room

Total Cost

Unit Cost

Unit

DIRECT EXPENSES: ROADWAY

81 Hours 500 Copies 20 Mailings 2 Packages