

MEMORANDUM

DATE: September 21, 2022
TO: Mayor Mark Marsh and City Council,
CC: Zane DeWeese, Sheldon Smith, Don Sargent
FROM: Chris Thomsen P.E.
SUBJECT: Coalville Force Main Project Closeout

The Coalville Force Main Project began construction in August 2014 and was completed on February 2022. The purpose of this memo is to outline the project scope, changes and budget in order to close out the project and pay the contractor. We have also included a discussion of options to cover the overrun costs that occurred on the project due to unforeseen conditions and planning for future needs of the overall force main system.

The original lift station and force main for the area west of the interstate is approximately 50 years old and nearing its design life. The City installed a new pump and the sewage rose to the surface. The City elected to begin preparing for its replacement using remaining grant funds from USDA funding for the wastewater treatment plant and additional grant funds from USDA. The focus of this project was to install casing under the interstate for future installation of the force main for sewer west of the interstate.

Project Scope Changes

A series of events during construction occurred that impacted the final construction cost of the project. These are summarized below. A map of the project is included for further clarification of the work.

1. The Contractor began to bore through under the interstate per design. Cobble was encountered that they spent 2 days trying to go through. They couldn't do it.
2. To move the project forward the design was changed to go through clay layer a little above the cobble. This wasn't ideal for the design but was sufficient for the future force main to operate.
3. The contractor drilled from west side of the off ramp to east so there was sufficient room to setup and install the casing.



4. UDOT required that the casing be extended east outside of the ROW 22 feet.
5. This extension created limited space near the adjacent slough impacting constructability and future constructability. It was determined to extend the casing east an extra 66 feet under the slough at this time because of the limited space and water that would impact the bore pit and installation of the casing.
6. The contractor pulled the casing back into the hole from the east under the on ramp and main travel lanes. He stopped in the gore area between the main travel lanes and the off ramp per the design.
7. The Contractor then tried to bore the off-ramp lane near the intersection with Icy Springs Road per the approved plans. It was too rocky at that location and we had to change the location to cross the off ramp.
8. The Contractor then moved back to the main line crossing that had been installed. This time bored from east to west to get under the off ramp. He used the existing casing to send their drill rod through to complete the boring.
9. The casing was then pulled from the west side of the off ramp into the gore area.
10. To remove bore equipment east of the off ramp in the gore area, a 20-foot section was left open.
11. The Contractor decided to fill in the 20-foot open section of casing while working in the UDOT ROW to eliminate the need to work back in that area in the future. He was hopeful that he would be paid for that work but wanted to get it complete while onsite.

With the work primarily occurring in the UDOT Right-of-Way, there were multiple meetings and coordination efforts to complete the project. The Contractor and UDOT worked well with the City and J-U-B to meet the long term needs for UDOT and Coalville.

Budget/Construction Costs

With the changes to the construction scope, there were items that warranted changes in the project contract amount. A summary of the budget, and associated contract change amounts is included on the next page. Per the contract, Paul Taylor worked with the Contractor to install the needed items as outlined above to meet UDOT's requirements and the long-term needs of the City. Some of those changes had to occur in the field in order to keep the Contractor moving forward without incurring delay costs.

Coalville Force Main Casing Project Budget

Project Budget

Amount	Description
\$498,773.30	Construction Approved by Council
\$21,183.78	Engineering Approved by Council
<u>\$35,306.30</u>	Contingency Approved by Council
\$557,549.80	Total Approved by Council

Project Costs

Construction

Amount	Description
\$510,751.76	Revised Contract Total. Only complete casing
\$18,275.62	22' UDOT ROW Casing Extension
<u>\$55,242.22</u>	66' Slough Casing Extension
<u>\$73,517.84</u>	Total Extension Cost
\$584,269.60	Revised Contract Total with Change Order 2

	<u>\$16,614.20</u>	Extra 20 feet to connect the UDOT and Slough Casing (Contractor Choice)
Subtotal	\$600,883.80	Final Construction Contract Total

Engineering

	\$51,177.53	Engineering Inspection - To date
	<u>\$5,000.00</u>	Record Drawing Creation and Project Closeout - Future
Subtotal	\$56,177.53	Estimated Total Engineering

Total	\$657,061.33	Total Project Cost (Construction + Engineering)
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Difference (negative) **(\$99,511.53)** (Budget - Costs)



THE
LANGDON
GROUP



GATEWAY
MAPPING
INC.

J-U-B FAMILY OF COMPANIES

Supplemental Funding

Having worked with Coalville for many years, we are familiar with the challenges the City faces regarding budgets and costs. Knowing that this project has incurred additional expenses due to changes in the scope from unforeseen conditions, we have been exploring ideas to recuperate funds to offset the cost to close this project.

J-U-B's funding group has worked extensively with Coalville to obtain funding from many resources. One of the sources of funding that the City is very successful at using is USDA Rural Development funding. This is the funding source that was used to construct the WW Treatment Plant, portions of this project and others. We have met with USDA's representatives about the cost overruns on this project and the need for the associated lift station and force main pipe to be installed. They would be able to help fund the lift station and force main and include the cost overruns from this project in a funding package. The funding package would include a low interest rate and approximately 20% grant because of Coalville's Median Household Income. We see this as the most favorable funding source to address the long term need for an upgraded lift station and new force main pipe.

Over time, repayment of the loan can be made through sewer rates and impact fees. This allows an equitable distribution of cost between existing citizens and future development that will impact the sewer system. Details of the cost and impact to sewer rates would be determined in the Preliminary Engineering Report for the USDA Project when the details of the project are fully understood including the lift station size and the final pipe sizes for the force main.

We appreciate Coalville's willingness to review this memo and the basis for the cost overruns and look forward to helping the City to obtain additional funding to move forward with the lift station and force main project.