



**TO:** Mayor Shaun Sipma  
Members of the City Council

**FROM:** Dan Jonasson, Director of Public Works

**DATE:** 8-22-18

**SUBJECT: SUNDRE RAW WATERLINE RE-ROUTE ENGINEERING AMMENDMENT  
P#4195**

**I. RECOMMENDED ACTION**

1. Recommend approval of the engineering amendment with Houston Engineering for additional work due to CP Rail requirements.
2. Authorize the Mayor to sign the agreement

**II. DEPARTMENT CONTACT PERSONS**

Dan Jonasson, Director of Public Works	857-4140
Jason Sorenson, Asst. Director of Public Works	857-4140

**III. DESCRIPTION**

A. Background

As the City and SRJB progressed with the design of the first three phases of flood protection. It became apparent that a large portion of the existing fiber glass Sundre raw water line that brings water from the sundre wellfield SE of Minot to the Water plant will need to be relocated for the flood protection. The estimated cost of relocating this line for Phase I of the flood control project alone is \$2.25 million dollars. When the Maple Diversion project is built, it is estimated that an additional \$5 Million + will be required to relocate the sundre line in that phase. An estimated cost of relocation of the Sundre line for all phases of the flood protection would be in excess of \$28 million dollars, if it could be done at all.

In reviewing the costs for the relocation of the sundre line, which is a 40 year old fiber glass line, with leaks and it is difficult to acquire repair parts for, staff began looking at other options, such as alternate routes to re-route the sundre line

In discussions with the SWC and the design engineers for the NAWS project. They felt there were many benefits to re-routing the sundre line and tying it into the NAWS line. Some of the benefits include:

1. Replacing an old fiberglass line with a smaller pressure line that can be maintained and parts are available for.
2. Providing a mixing of ground water with the lake water prior to final treatment at the Minot Water Plant.
3. Provide raw water storage from the sundre field of approx. 2 million gallons, which will reduce the amount of storage needed on the line coming from the water plant at Max.

During the construction of the new Sundre raw water line, part of this work consisted of boring under the CP Railroad as the new line leaves the Sundre well field. A permit was acquired by CP Rail and this permit or occupancy license, was approved by CP Rail on May 1, 2017 for this

bore. On December 4, 2017, when the contractor set up to complete this bore, CP Rail personnel shut the contractor down and we were notified that the CP Rail permit requirements had been updated as of October 3, 2017 and we would have to meet these new requirements before the bore could be completed. Houston Eng. And the City argued that our permit had been issued prior to these new requirements and we should not have to stop work and complete this additional analysis. CP Rail would not budge and furthermore, they wanted us to hire their consultant to complete the additional geotechnical work and settlement analysis they require with the new permit. Doing so would have delayed the project a minimum of 6 months and been much more costly than utilizing a local consultant (Braun) to complete the geotechnical analysis. CP Finally agreed to allow the use of a local consultant, but we would have to pay their consultant to review the report. Houston was given the go ahead to complete this work to keep this project moving forward as delays were critical as the old Sundre line could not be abandoned, which was in the path of the Phase 1 flood protection project, until this new line was in operation.

The result of this additional effort caused additional time and effort of Braun to complete the additional boring and analysis of settlement (\$33,026.70), CP Rail geotechnical engineer to review the settlement report (\$7,000) and Houston Engineering additional time for project management, report review and submittal, survey for boring and settlement monitoring (\$26,101.64).

B. Proposed Project

- Replacing an old fiberglass line with a smaller pressure line that can be maintained and parts are available for.
- Providing a mixing of ground water with the lake water prior to final treatment at the Minot Water Plant.
- Provide raw water storage from the Sundre field of approx. 2 million gallons, which will reduce the amount of storage needed on the line coming from the water plant at Max.

C. Consultant Selection

Houston Engineering was chosen for the design and Construction engineering under the state requirements for engineering selection. This contract amendment is for the additional services as outlined earlier engineering services.

#### IV. **IMPACT:**

A. Strategic Impact:

This is the major raw water source for the City of Minot and NAWS system. Delay in completing the project, creates additional delay for the phase 1 contractor and could easily result in several hundred thousand dollars.

B. Fiscal Impact:

Funding for this project was approved by City Council at the March 2016 Council meeting. The construction engineering in total was estimated not to exceed \$869,650.00 This amendment would increase the Construction engineering by \$66,128.34 to \$935,778.34 Funding for this project is from NAWS sales tax cash reserves. 65% of the cost will be reimbursed by the State Water commission on a future NAWS project. Total engineering compensation is less than 7% of construction cost.

#### V. **TIME CONSTRAINTS**

By not moving ahead with the additional engineering and geotechnical work be working through CP Rail consultants, which would have been much more costly, we would have experience additional

months of delay to the contractor in the phase 1 flood protection project, which in turn would result in thousands of dollars of compensation for delay.

**LIST OF ATTACHMENTS**

- A. Amendment Houston Engineering - \$66,128.34