



The Corporation of the Municipality of Wawa
Staff Report

Office of the Director of Community Services and Tourism

Prepared For: Committee of the Whole	Report No.: AP 2023-09
Agenda Date: September 5, 2023	File No.: C11

Subject

This report concerns the Wawa Drill Rig Monument (drill rig) and the recent structural review and report completed by Tulloch Engineering.

Summary of the Recommendation

THAT the Council of the Municipality of Wawa direct staff to hire a contractor to remove and sell for scrap the Wawa Drill Rig

Summary of the Issues


The drill rig began a noticeable lean which was monitored by staff for the past 2 years. In the spring of 2023 staff observed that the lean had worsened, and Tulloch Engineering was contracted to provide staff with a report on the structural integrity of the monument. The results of this report as well as additional staff investigation and a recommendation are included in this report.

List of Stakeholders

- Municipal Council
- Ratepayers
- Tourists
- Retired miners and AOD staff
- Municipal Staff

Purpose of Report

This report originates from inspections of Municipal infrastructure that staff complete on regular intervals. As part of monthly inspections, staff of the CST department noticed that the Drill Rig was beginning to lean in a way that was

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noticeable to the eye as early as fall 2021, and was noted by staff inspections as an observation in spring 2022. Staff began by taking regular pictures of the Drill Rig and in the spring of 2023 the lean had noticeably changed. This prompted staff to contract Tulloch Engineering to complete a structural review and assessment of the monument.

Due to the public nature, costs involved, and the historical importance of the monument, staff reviewed several options not identified in the engineer's report with a variety of local sources. After this information gathering, staff contacted the Engineer to review additional options, all of which are contained in this Report.

Analysis

Engineers' Report

The Director of CST met with Tulloch engineers on site at the drill rig to review the issues. The Engineers made measurements of the unit and slab on site as well as reviewed some of the historical information about the unit's placement.

After a site visit, their report was prepared. It is included as **Appendix A**. The recommendation in this report is to replace the three hydraulic jacking units with either a new jack or a steel column. The report provides a cost breakdown of this option with a cost estimate of \$80,000. The Engineers also reviewed a second option of removing the mast of the drill rig, however an estimated cost is not included in the preliminary report.

The report stated that weekly inspections were required and that work must be done on the monument before the winter of 2023. Staff have been completing weekly inspections since the report was received and no major change in the outrigger crack or the angle of the mast has been observed.

The engineers report concluded with a statement that repairs must be completed before winter, and that at a minimum mast removal was required for safety.

Using this report, staff consulted with local welders and community members who had experience with the rig in an effort to explore other solutions to get a more precise costing than the first estimate. We also explored other options as identified in the staff memo to Council on the same subject.

Additional Investigation – Scrap Steel

For informational purposes a scrap steel company, AIM recycling of Sault Ste Marie was contacted to discuss pricing for removal. A local representative and the Director attended the site and reviewed the options for dismantling and scrapping the monument. The representative stated that there would be value in the steel, however with the complexity of removal due to the site and the requirement for a crane to be used for the mast, it was determined that the cost of removal exceeded

the scrap value. Staff were not able to receive a budget figure for the scrap cost, but estimate that a cost of approximately \$5,000 depending on the specific market value of steel when the project is tendered.

Additional Investigations – Qualified Welder & Ironworker

In gathering information for pricing staff spoke to a local welding company, NorthStar Fusion. The owner and the Director attended the site and reviewed the engineering report. The owner indicated that the rig was repairable and that the requirements from the report could be satisfied as long as the Engineer was able to provide drawings before the repairs and in inspection post-repair to satisfy the report's recommendations. The owner also indicated that they had the ability to jack up the unit and level it without the use of out of town contractors, therefore reducing the expected repair costs as travel time would not be a factor. The owner indicated that an expected budget for these services would range between \$5,000 and \$10,000 based on the grade of steel indicated on the drawings.

Additional Investigations – Drill Rig Operations and Design

As indicated in the engineering report, there is a lack of documentation around the placement as well as the specifications of the unit itself. Staff met with Mr. Andy Stevens, who had both assisted in the rig's placement on Broadway as well as operated and seen these types of rigs in operation during his time at AOD. As such, he shared a unique perspective about the operation and design about the units. He stated that the outriggers were intended for exact placement of the units so that they could bore 90 degrees down, and are not necessary for the structural integrity of the unit, which would have travelled and sat on the tracks located underneath. He was not aware of any design documents or specifications including weights that survived to the present day.

Engineering Consultation

These additional investigations were presented to the consulting Engineer for their feedback. The engineer was somewhat relieved about the stated nature of the supports being non-structural, which reduces the urgency of repair work. However, as the monument is now located in a public place, the engineer continues to recommend that reinforcements be added at these outriggers to ensure that the monument does not fail. When local cost estimates were presented, the engineer agreed that a reduction in the cost estimate would be appropriate.

Financial/Staffing Implications

Cost Forecast Review

In consulting with a variety of sources, staff have reviewed the original budget and made allowances for local contractors as well as the mast remaining in place for the re-levelling work. The estimate is as follows:

Item	Original Forecast	Cost	New Forecast	Cost
Travel, Mileage	\$1,500		\$1,500	
Jacking of Unit	\$10,000		\$5,000	
Crane Rental	\$7,500		\$0	
Cribbing	\$5,000		\$5,000	
Out of town crew	\$25,000		\$0	
Welder	\$5,000		\$10,000	
Welding inspection	\$3,500		\$3,500	
Engineering review	\$10,000		\$10,000	
Contingency	\$13,500		\$5,250	
Total	\$81,000		\$40,250	

****NOTE:** This cost estimate is contingent on the receipt of engineering drawings and the approval of the consulting engineer for the mast to remain in place during jacking operations. The new cost forecast is based on staff estimates

The significant difference is based on the discussions with local contractors who reported their confidence in being able to complete the work in-house.

An additional cost estimate of \$10,000 for painting the unit should be considered if the unit is to remain based on the decision of Council.

Policies Affecting Proposal

Municipal Strategic Plan & Wawa 5 Year Tourism Action Plan

In both of these plans the state of the downtown is of key concern. By maintaining or removing infrastructure that is damaged, it will continue to beautify the area. While there are several options on how to deal with the issue at hand, the ones considered by staff (removal, repair) both provide opportunities to beautify the area.

Comments from Relevant Departments/Community and Corporate Partners

Consultations for this report are noted in the Analysis section of this report.

Alternatives

Option 1: Do Nothing

As per the staff memo, an option is to leave the drill rig as is and continue observation of the monument. However, as we have a report in hand that identifies safety concerns and a timeline for repairs, this option would put all liability for any future issues with the monument directly on Council and could constitute negligence, therefore staff did not pursue further investigation into this option. This option is **Not Recommended**.

Option 2: Scrap the Drill Rig Monument

This option would see the Municipality contract a scrap metal firm to dispose of the unit. While discussing this with AIM Metal Recycling, there is some significant scrap value for the unit itself. This is, however, not enough to cover the cost of getting a crane from Sault Ste Marie and the work required to dismantle the unit, so the final determination was that it would cost the Municipality. The cost is estimated at approx. \$5,000 to \$10,000 depending on the market price of steel at the time of contract.

This option would also leave an empty space along the waterfront, which could be leveraged to provide the community with a different amenity to attract tourists downtown and beautify our waterfront corridor. Options include the installation of a pavilion, a sculpture or other piece of artwork, or a tower like structure such as a headframe as identified in the Wawa Cause architectural and planning document. These options range in cost from \$25,000 to \$100,000 depending on complexity and project demands. Options that can continue to celebrate a mining past do exist, and it is likely that funding can be found to continue to place mining as an important community symbol. Due to the costs of removal, the funding opportunities possible, this is likely the most fiscally responsible option and it is therefore **Recommended**.

Option 3: Remove the Drill Rig Tower

One of the options identified on the report was to remove the mast of the drill rig. This would eliminate the forces that are causing concern for the unit. In addition, the engineer has recommended that the tower may be required to be removed as part of a jacking/lifting plan, however further estimates are required as the weight of the mast could not be determined by reviewing documentation on the rig. Staff would estimate that the cost of this removal would be in the \$15,000 to \$20,000 range in consultation with the engineer and a different qualified welder. This option is **Not Recommended**.

Option 4: Repair the Drill Rig

The final option which received the most attention in staff's investigations was to repair the Drill Rig by additional supports to the outrigger pillars. With more feedback from a variety of sources, and with consultation through the Engineer,

the original cost forecast can be reduced from approx. \$80,000 to \$40,000 based on additional research. Additional costs are recommended for painting the unit that will be included in the normal budget process. As this option is likely the most expensive and least flexible in the long run, this option is **Not Recommended**.

Conclusion

Fundamentally, this is a political decision based upon the community's desire for something new versus a historical monument that is near and dear to many residents. There are many options for celebrating Wawa's rich history, but the drill rig is a unique piece of our community. No matter the final decision of Council, funds must be allocated to deal with this issue in the fall of 2023 so as to satisfy the due diligence requirements of the Municipality.

Recommendation

THAT the Council of the Municipality of Wawa direct staff to hire a contractor to remove and sell for scrap the Wawa Drill Rig

Attachments

Appendix A: Engineering Report

End of Report.