



DATE: November 1, 2016
TO: Mayor Bridge and Members of Council
FROM: Brian Hansen, Public Works Director
SUBJECT: Clifford Ultra Rib Pipe Sanitary Sewer Mains Strategy

STRATEGIC PLAN:

- 5.7 Adopt and maintain fair and transparent procurement policies and by-laws to ensure the Town receives competitive pricing on tenders and proposals, and that local business has equal opportunity to submit bids.

BACKGROUND

January 5 2016, Council considered a report about Ultra Rib Pipe installed throughout Clifford back in early 1990's. At that time Council learned, "Ultra-Rib pipe" is no longer a recommended installation in urban areas. When connection is made to "Ultra-Rib pipe" installers must core into the wall to connect laterals (PDC"S) reducing the pipe's strength causing it to lose conformity and eventually collapse. Where connections have been made the design life is considerably less than the 50 year expectancy especially when there are multiple connections and the sewer is very deep. The following resolution was passed:

THAT Council receives the report from the Public Works Director regarding Clifford Ultra Rib Pipe Sanitary Sewer Mains and approves adding an additional \$50,064 plus HST to the Ann Street reconstruction contract to replace the Ultra Rib Pipe; AND FURTHER that the Public Works Director develop a strategy to re-line and replace sanitary mains in Clifford over the next few years to help alleviate future threats of pipe failure.

In 2016 the ultra-rib sewer main was replaced with PDC pipe on Ann Street from Allan St to Queen St in Clifford. Along with this section of main several relining's were installed in the sanitary system in Clifford to help extend the life cycle of the mains. During this process all PDC connections were relined up to the property line which eliminates infiltration at the connections points as well. The process of re-lining adds strength to the existing sanitary main which in turn adds life expectancy to the pipe helping to prevent future failure. This report outlines the strategy for remaining ultra-rib pipe in Clifford.

COMMENTS

The proposed policy/strategy could be added to the Town's servicing standards as follows:

Purpose:

1. Ensure "ultra-rib" piping is not installed in the Town's sanitary sewer collection system unless specifically recommended by the Town's consulting engineer.
2. Replace existing "ultra-rib" pipe during major roadway reconstructions and/or watermain replacement were reasonable and cost effective do so.
3. Outline conditions and requirements where "ultra-rib" piping may be "relined" rather than replaced.
4. Detail connection requirements to existing "ultra-rib" piping if the Town at its sole discretion permits connection without replacement.

Background

"Ultra-rib" pipe was installed as the main sanitary sewer collection pipe for the former Village of Clifford. The Town has found that "ultra-rib" has only been suitable in Clifford under

certain limited circumstances. This policy provides a cost effective strategy to make reasonable use of existing “ultra-rib” if possible with a view to mitigating unnecessary cost to the Town’s waste water collection system.

Replacement

The Town will replace ultra-rib sanitary sewer mains on all streets during road major re-construction or watermain replacement where excavation will occur within close proximity to the sanitary sewer main unless the main is not expected to be disturbed or exposed to future connections and the condition is such that replacing would be cost prohibitive. Town staff in consultation with the municipal consulting engineer acting reasonably.

Connections

Where a developer proposes more two or more connections within a 15 metres or where one connection is proposed to a sanitary main more than 3.0 meters deep, the private developer shall replace all “ultra-rib” pipe within the frontage of the developer’s lands. The extent of the “ultra-rib” pipe to be replaced in these situations shall be determined by Town staff in consultation with the municipal consulting engineer acting reasonably.

If the Town at its sole discretion permits connection to “ultra-rib” pipe the connection shall be made using “T-Liner” or other approved materials and according to the most recent industry accepted standard to the satisfaction of the Town in consultation with the municipal consulting engineer acting reasonably.

Ultra rib piping is not permitted in new subdivisions or roadway sections where sanitary sewer is to be installed by a developer or by the Town.

Re-lining Ultra-rib

As an alternative to replacing ultra-rib piping, Town staff will budget to re-line sections of existing ultra-rib sanitary sewer. The intent of re-lining is to reduce inflow and infiltration and extend the useful life of an existing ultra-rib piping.

The Town will budget to proactively re-line sections of sanitary sewer main not identified for reconstruction within a five year period. Sections will be identified during the capital budget process based on an assessment of the useful life of the asset and the specific conditions of the section of pipe.

The Town may require a developer to pay the cost of re-lining sections of sanitary sewer that service a private development and would not have otherwise been scheduled for re-lining. In such cases the developer shall pay all or a portion of the cost of re-lining as determined by the Town in consultation with the municipal consulting engineer acting reasonably.

FINANCIAL IMPLICATIONS

Money should be allocated for sewer lining as part of future budgets.

RECOMMENDATION

That Council receives the report from the Public Works Director Clifford Ultra Rib Pipe Sanitary Sewer Mains Strategy and approves the policy outlined in the report and that funds be considered in budget to implement the strategy as outlined.

Brian Hansen, Director of Public Works