

## Report TR-TAPS-60-14

**To:** Chair Barfoot and Members of the Transportation and Public Safety Committee  
**From:** M.J. Kelly, Director of Transportation Services  
**Meeting Date:** July 24, 2014  
**Subject:** **Grey Road 4 Culvert Replacement**  
**Status:** Recommendation adopted by Committee as presented per Resolution TAPS95-14; Endorsed by County Council August 5, 2014 per Resolution CC110-14;

### Recommendation(s)

**WHEREAS a centreline culvert under Grey Road 4 between Hanover and Durham has been assessed by a Structural Engineer and deemed to be in a condition of imminent failure;**

**AND WHEREAS if the culvert fails there will be additional costs to the County to replace the culvert and for possible flooding responsibilities;**

**AND WHEREAS the 2014 Transportation Services Department budget did not include an allocation to replace this culvert;**

**NOW THEREFORE BE IT RESOLVED THAT Report TR-TAPS-60-14 regarding the replacement of the Grey Road 4 centreline culvert be received;**

**AND THAT the Transportation Services Department be authorized to allocate \$150,000 of the Construction, Resurfacing and Minor Capital budget to the replacement of the Grey Road 4 centreline culvert;**

**AND FURTHER THAT Transportation Services issue a tender to procure the replacement of this culvert in accordance with the County Purchasing Policy.**

### Background

A centreline culvert under Grey Road 4 between Hanover and Durham (just west of 30<sup>th</sup> Sideroad) has been assessed by a Structural Engineer and determined to be imminent to failure.

The culvert is estimated to be approximately 1.2 metres square and made of concrete. In addition, circular steel pipes 1.2 metres in diameter have been used to extend the culvert when the road was widened. Grey County does not have a record of when the culvert was constructed or extensions installed.

In 2013 the patrol noticed a void in the back slope over the culvert. The void was filled and a depression was observed in July 2014. Consequently the culvert was reviewed by a Structural Engineer.

If the culvert fails it will dam the downstream flow, which is expected to cause flooding and environmental concerns. In addition, a significant settlement in the road may occur that will affect traffic.

It is much more economical to replace a culvert prior to failure as it can be completed in more ideal conditions.

There are several possible types of replacement methodologies that Transportation Services is reviewing. A feasible detour route is not available in close proximity that could accommodate truck traffic, and as a result, cutting the road would be considered a final option.

Prior to completing any work, Environmental/ Conservation approval will be required. Time restrictions as to when water work in this capacity can take place are often in effect with a specified completion date, such as October 1<sup>st</sup>.

## Financial / Staffing / Legal / Information Technology

### Considerations

Transportation Services is considering a variety of options to replace the culvert as soon as possible. It is expected that the replacement of the culvert will cost approximately \$150,000 and this cost will be funded from within the Construction, Resurfacing and Minor Capital budget.

If the culvert fails there will be significant additional costs to replace the culvert and the County may be responsible for damage caused by any flooding as a result of the water being dammed.

### Link to Strategic Goals / Priorities

Not Applicable

Respectfully submitted by,

M.J. Kelly  
Director of Transportation Services