



Council Report

Report Number:	ENG2024-037
Meeting Date:	December 10, 2024
Title:	Proposed Driveway Culverts – King’s Bay Subdivision – 27 Stub Road – OLT-23-000815
Description:	Requesting Council direction regarding proposed driveway culverts – 16T-22501
Author and Title:	Christina Sisson, Manager, Development Engineering

Recommendations:

That Report ENG2024-037, **Proposed Driveway Culverts – King’s View Subdivision – 27 Stub Road – OLT-23-000815**, be received;

That Council resolve that the City is not willing to accept the paired driveway culverts proposed by King’s Bay as detailed in Report ENG2024-037;

That Council resolve that the City of Kawartha Lakes will not assume proposed subdivision roads containing the proposed paired driveway culverts or permit the proposed paired driveway culverts to be installed within rights of way already owned by the City, unless changes are made to the satisfaction of the Director of Engineering and Corporate Assets and the Director of Public Works; and

That Staff be authorized to continue to require separated driveway culverts, or another appropriate solution to the satisfaction of the Director of Engineering and Corporate Assets and Director of Public Works, and advance this requirement at the written hearing of the issue before the Ontario Land Tribunal.

Department Head: _____

Financial/Legal/HR/Other: _____

Chief Administrative Officer: _____

Background:

The Ontario Land Tribunal (Tribunal) issued draft approval of a 46-unit plan of subdivision at 27 Stub Road on July 4, 2024, in Tribunal Case Number OLT-23-000815. The draft approval was subject to a number of conditions of draft approval, including conditions related to the detailed design of roads and a storm water management system.

Since then, staff have been reviewing detailed engineering submissions for the subdivision. Through that review, staff have identified a concern with some of the proposed driveway culverts. The developer proposes paired driveways for certain lots. Rather than each paired driveway having its own culvert, they propose longer single culverts that will span both driveways. The proposed paired driveway culverts range in length from 15.5m to 24.4m in length, whereas a more typical single driveway culvert would normally be about 10m in length.

The chart below details the location and length of each culvert in question:

Reference Drawing	Lot Numbers	Culvert Length
SCS Consulting Group Second Detailed Engineering Design Submission (Cover Letter Submission) (Drawing Notes indicate 2 ND SUB: PRE-SERVICING) Dated October 2024 and Stamped November 2024		
101	3-4 on proposed Street A	21.5m
101	6-7 on proposed Street A	15.7m
101	9-10 on proposed Street A	16.1m
101	12-13 on existing, assumed Southcrest Drive	21.6m

101	15-16 on existing, assumed Southcrest Drive	21.5m
101	21-22 on proposed Street B	20.0m
101	23-24 on proposed Street B	15.5m
101	25-26 on proposed Street B	15.5m
101	30-31 on existing, assumed Southcrest Drive	18.5m
102	32-33 on existing, assumed Southcrest Drive	15.5m
102	34-35 on existing, assumed Southcrest Drive	21.5m
103	38-39 on proposed Street C	24.4m
103	40-41 on proposed Street C	23.9m
103	42-43 on proposed Street C	21.5m

The existing 111-unit subdivision in proximity to this 46-unit subdivision under development contains some paired driveway culverts with comparable lengths. This is an older subdivision registered in 2000 that predates the formation of the City and was assumed 12 years ago. With one exception, the paired driveway culverts in the older subdivision are extended/shared where a transformer is located in between the driveways and so provides access for three purposes (one lot, the transformer and the adjacent lot). Other paired driveways in the existing subdivision were constructed with separate culverts.

Discussions with the Developer

In the first round of comments on the developer’s detailed engineering submission, staff provided the following comment:

Driveway culverts are not permitted to be shared (see Lots 3 & 4, 25 & 26, 42 & 43, etc.). Each driveway requires its own culvert to facilitate maintenance by the City.

Since staff provided this comment, there have been meetings with the developer, as well as exchange of emails and letters. The position of King’s Bay on this issue is summarized in a November 7, 2024 letter from King’s Bay’s legal counsel to the Tribunal requesting that the Tribunal schedule a 2 day hearing to deal with this issue. The legal letter attaches several technical letters supporting King’s Bay’s position. The November 7, 2024 legal letter, together with its attachments, is attached to as Appendix A.

If the developer and City do not agree, the developer has requested that the Tribunal schedule a motion to determine this question. The Tribunal has set aside January 20, 2025 for a motion in writing on this issue.

Rationale

The main points raised by King’s Bay are that their proposed design is superior from the perspective of safety and hydraulic conductivity and that it will not cause maintenance concerns. They point out that having a continuous culvert for each set of paired driveways will reduce the number of culvert ends, thereby reducing the overall potential for freezing or blockages to occur.

Engineering staff’s opinion is that, with respect to the hydraulic function of the proposed culverts, the ditch system is the only stormwater management proposed for the development. Therefore, the open ditch provides for the slowing down of the drainage to encourage infiltration and plant uptake of stormwater runoff, providing water quality and phosphorus control. For these reasons, while staff do not disagree that water will flow more quickly through culverts than it would through an open ditch. However, staff do not agree that faster flow is desirable in this instance.

With respect to safety, staff note that there are examples of gaps in culverts between driveways in the existing subdivision which are very similar to the gaps staff have requested in this development. Staff are not aware of any safety issues being caused by these existing culverts.

Overall, engineering staff’s opinion is that the use of continuous versus separated culverts for the paired driveways are not significantly different from an engineering perspective. The main difference is with respect to maintenance.

Based on experience with paired driveway culverts in the existing subdivision, as well as other similar length culverts in the City, Public Works staff have found that longer culverts are more difficult and less efficient to maintain. While it is possible for public works staff to remove ice or other blockages from culverts that are longer than the usual 10m, their experience is that doing so is much more difficult and time consuming. It often takes 2-3 times as long as it would take to thaw or unblock a typical length culvert. Public Works staff recommend against adding more culverts with the proposed lengths to the City’s inventory.

For these reasons, Public Works staff recommend against approval or assumption of the paired driveway culverts proposed by the developer.

Other Alternatives Considered:

Council could decide to accept the proposal of the developer, including the proposed paired driveway culverts. This would result in the City accepting the proposed paired driveway culverts and permitting their construction within road rights of way already owned by the City as well as within new roads that are proposed to be assumed. This is not recommended, as the Director of Public Works, which Department is responsible for maintenance of culverts when they are blocked by ice and snow and thus not functioning as intended, indicates that this will reduce the City’s ability to maintain these culverts efficiently.

Alignment to Strategic Priorities

By proposing not to approve or assume for maintenance purposes infrastructure that will be more difficult to maintain, and which will result in increased time and therefore cost spent on maintenance by the City, the City is demonstrating good government practices (operational efficiency).

Financial/Operation Impacts:

The Director of Public Works has identified maintenance issues with the proposed culvert lengths.

Consultations:

External legal counsel with carriage of the OLT appeal

City Solicitor

Director of Public Works

Director of Engineering and Corporate Assets

Attachments:

Appendix A - Legal Letter dated November 7th



Attachment 1

Department Head email: jrojas@kawarthalakes.ca

Department Head: Juan Rojas

Department File: 16T-22501 (Planning); D05-2022-001 (Engineering)