Committee of the Whole Report

Report Number:	**ENG2023-017**
Meeting Date:	June 6, 2023
Title:	Request for Pedestrian Crosswalk - Downeyville
Description:	Request for Pedestrian Crosswalk
Author and Title:	Joseph Kelly, Traffic Management Supervisor

Recommendation(s):

Report ENG2023-017 **Request for Pedestrian Crosswalk - Downeyville** be received;

That the costs for installation of a controlled crossing at Sturgeon Road and St. Luke's Road in Downeyville be included in the 2024 budget;

That the application of traffic calming pavement markings in Downeyville be included in the 2024 budget;

That the necessary By-law for the above recommendations be forwarded to Council for adoption;

That the Mayor and Clerk be authorized to execute any documents and agreements required by the approval of this application/agreement/decision; and

That this recommendation be brought forward to Council for consideration at the next Regular Council meeting.

Department Head: _____

Financial/Legal/HR/Other:_____

Chief Administrative Officer:_____

Background:

At the Council meeting of January 31, 2023, Council adopted the following resolution:

CW2023-028

That the Memorandum from Councillor Ashmore, **regarding a Downeyville Pedestrian Warning and Crosswalk**, be received; and

That staff be requested to complete a warrant review for consideration of an east west pedestrian crossing within the Village of Downeyville and report back with options, recommendations and budget implications by end of Q2, 2023.

This report addresses this direction (Memo in Appendix A).

Rationale:

In response to the Council direction, staff performed a peak hour gap study and turning movement count at the intersection of Sturgeon Road (KL Road 7) and St. Luke's Road in the geographic hamlet of Downeyville to determine if a crossing was warranted. Staff ensured that the observed time would include student crossing times. A key map can be seen in Appendix B.

The hierarchy of crossing treatments begins with uncontrolled crossings followed by four types of controlled crossings:

1) Uncontrolled crossing (ie painted crosswalk with signs, no right-of-way granted to pedestrians)
2) School crossing guard
3) Stop controlled intersections
4) Pedestrian Crossover
5) Traffic Signals

Staff applied the warrants from the Ontario Traffic Council - School Crossing Guide and the Ontario Traffic Manual - Pedestrian Crossing Facilities for all the types of crossings and observed the following:

- There were four pedestrians crossing during peak-hour. One child under 12 accompanied by a teenager, one student under 12 on a bicycle, and one other teenager. This does not meet the minimum number of crossings for any of the warrants.
- As per the warrant, there were sufficient gaps in traffic to allow for safe crossing during peak-hour.

- Although safe gaps were present, students seemed to have trouble identifying them, introducing a delay in crossing. Increased delay increases the likelihood of pedestrians making risky crossings.
- Being on top of a crest may contribute to the delay students are experiencing in interpreting the gaps in traffic.
- Drivers compliance with the speed limit appears to be low.

Connectivity and pedestrian desire lines are an important part of a crossing warrant. Locations which do not meet the pedestrian volume criteria could be a candidate for crossing facilities justified as a function of land use and the location of pedestrian generators/attractors.

Traffic Calming

Speeding and sight issues for traffic approaching the crest appear to contribute to conflict potential. It is recommended that traffic calming measures consisting of pavement marking such as dragon's teeth or peripheral transverse bars be implemented on Sturgeon Road through Downeyville. Dragon's teeth are a series of large solid triangles on each side of a lane pointing inward. Peripheral transverse bars are a series of solid bars on each side of a lane in decreasing separation distance. Psychologically, dragon's teeth give the illusion of a shrinking lane which slows down drivers while peripheral transverse bars create the illusion of speeding up, reflexively causing drivers to slow. Examples of traffic calming pavement marking applications can be seen in Appendix C. In addition to pavement markings, the options outlined below presented in order of hierarchy can be considered to further enhance the crossing.

Option 1 – Uncontrolled Crossing

In addition to the recommended traffic calming pavement markings, crossing signage and markings can be installed to create a visual que to drivers that pedestrians could be crossing here. Pedestrians would not be granted the right-of-way in this situation. This would be considered a "better than nothing" relatively inexpensive solution. However, due to the speed limit, observations of speeding, and the arterial nature of the road, this option is not recommended.

Option 2 – Crossing Guard

In addition to the recommended traffic calming pavement markings, an unwarranted crossing guard could be deployed here. An adult guard would be better equipped to determine safe gaps in traffic and have the right to stop traffic granting the right-of-way to pedestrians. Due to the presently low volume of pedestrian crossing, this solution is not recommended.

Option 3 – Controlled Crossing (Preferred Solution)
In addition to the recommended traffic calming pavement markings, Council can deem this intersection as integral to the connectivity system due to development on one side, and the school and general store on the other side. This would justify a controlled crossing despite the low volume of pedestrians. For the type of road environment, the appropriate controlled crossing would consist of pedestrian crossing signs with pedestrian actuated rectangular flashing beacons along with a ladder style crosswalk, known as a Level 2, Type C crossing. Appendix D shows an example of the crossing. It should be noted that if compliance with the speed limit remain low, a controlled crossing could grant pedestrians a false sense of security.

As a result of the justification review carried out by staff, it is recommended that traffic calming measures in the form of pavement markings be applied to both lanes within the 60 km/hr speed zone on Sturgeon Road in Downeyville and that a controlled crossing over Sturgeon Road at St. Luke's Road be installed.

Other Alternatives Considered:
This report identifies three alternatives. A do-nothing approach is not recommended.

Alignment to Strategic Priorities
Providing life safety and protection, is a priority objective of the City under the Council Adopted Strategic Plan Goal of An Exceptional Quality of Life.

Financial/Operation Impacts:
Initial cost of pavement markings is estimated at a cost of $6000 requiring an increase in the yearly line painting budget to account for maintenance.

Cost of the signs required for a controlled crossing is depending on any infrastructure requirements at this intersection, and if solar options are available to reduce the cost of laying conduit. The cost would be estimated to be in the range of $10,000 to $50,000.

Consultations:

Attachments:
Appendix A – Council Memorandum

Adobe Acrobat Document

Appendix B – Key Map

Adobe Acrobat Document

Appendix C – Traffic Calming Pavement Markings Example

Adobe Acrobat Document

Appendix D – Controlled Crossing Design Requirements

Adobe Acrobat Document

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Department Head: Juan Rojas, Director of Engineering & Corporate Assets

Department File: Engineering