

Presented To: Operations Committee

Presented: Monday, Jan 09, 2012

Report Date Friday, Dec 23, 2011

Type: Managers' Reports

Request for Decision

Jeanne D'Arc Street Safety Concerns

Recommendation

That the current traffic control at the intersections of Jeanne D'Arc Street at Chateau Crescent/Leger Crescent, Jeanne D'Arc Street at Grandale Street, Jeanne D'Arc Street at Heritage Drive and Jeanne D'Arc Street at Lee Street, be maintained and;

That the speed limits within the Dominion Parc subdivision remain 50 km/h.

Background

At the City Council meeting of October 13, 2010, Councillor Rivest submitted a petition, signed by 192 area residents, requesting that City staff review traffic operations on Jeanne D'Arc Street to address concerns related to speeding traffic and various traffic violations. The first page of the petition with signatures can be found in **Exhibit A**.

Jeanne D'Arc Street is located in the community of Val Therese in the north end of the City (**see Exhibit B**). It is constructed to an urban collector standard with an asphalt surface width of 10 metres and a sidewalk along the south side of the roadway. It has a maximum speed limit of 50 km/h. This roadway was constructed in several phases, with the final phase opening in the summer of 2009. This phase was constructed from the intersection Heritage Drive to the Chateau Crescent/Leger Crescent intersection, included several traffic calming features and connected the two formerly dead end sections of Jeanne D'Arc Street.

To address the concerns outlined in the submitted petition, staff have conducted volume, speed and cut through traffic studies as well as reviewed collision history from January 1, 2008 to December 31, 2010.

All-Way Stop Requests

The petition requested that the City of Greater Sudbury review the need for all-way stops at the intersections

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Division Review

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of Jeanne D'Arc Street and Chateau Crescent and Leger Crescent, Jeanne D'Arc Street and Grandale Street, Jeanne D'Arc Street and Heritage Drive and Jeanne D'Arc Street and Lee Street.

The purpose of an all-way stop is to alternate right-of-way at an intersection. They can be an effective device when installed at busy intersections with similar traffic volumes and characteristics. However, all-way stops disrupt the flow of traffic and introduce delay to all drivers passing through the intersection. The unwarranted installation of all-way stops also results in frequent rolling stops and disrespect for the signs. Studies have shown that mid-block speed actually increase after the installation of all-way stops as drivers attempt to make up for lost time. Therefore, they should only be installed when warranted. In 2008, City Council approved a modified warrant for determining the need for all-way stops that significantly reduces the minimum traffic volume thresholds and collision requirements contained in provincial standards published by the Ontario Ministry of Transportation.

To determine if all-way stops are warranted, staff conducted turning movement counts from June 6th, 2011 to June 9th, 2011 at the four requested intersections and applied the count data to the City's new, warrant. The results of the all-way stop warrants are summarized in the table below.

Intersecting Road	Minimum Vehicle Volume Warrant	Number of Collisions (2008-2010)
Grandale Street	12.9%	0
Heritage Drive	6.4%	0
Lee Street	7.9%	1
Chateau Crescent/Leger Crescent	4.3%	0

Based on the above information, vehicle and pedestrian volumes do not meet the minimum requirements. A review of the City's collision information from 2008 to 2010, inclusive, revealed that there was only one collision at the intersection of Jeanne D'Arc Street and Lee Street that may be susceptible to relief through an all-way stop. While all collisions are undesirable, the collision experience would not be considered high, and does not show a pattern that could be corrected with an all-way stop. For a Minor Collector roadway, like Jeanne D'Arc Street, the Collision Warrant requires a minimum of three collisions per year over a three year period. Based on the traffic volume and collision information, installing an all-way stop at any of the four requested intersections is not recommended.

Speeding Traffic and Speed Limit Reductions

The submitted petition also requested that the City of Greater Sudbury address the ongoing speeding problem and implement a reduced maximum speed limit of 40 km/h on all roadways in the Dominion Parc Subdivision.

In 2009 and 2011 City staff conducted 24 hour speed studies at various locations on Jeanne D'Arc Street. The results of the studies are summarized below:

Location	Year	Number of Vehicles	Average Speed (km/h)	85th Percentile Speed* (km/h)
Between M.R. 80 and Grandale Street	2009	1433	44.0	52.1
Between Grandale Street and Heritage Drive	2011	1668	42.7	49.9
Between Heritage Drive and Dugas Street	2011	2125	40.2	49.9

Between Dugas Street and Lee Street	2011	1987	41.1	48.3
Between Lee Street and Chateau Crescent	2011	1995	43.4	51.5
Between Chateau Crescent and Leger Crescent (east leg)	2009	1225	37.0	43.9
Between St. Mary Boulevard and Marquis Court	2011	1408	42.2	49.9

**The 85th percentile speed is the speed at or below which 85 percent of drivers are travelling and is generally accepted as a good indicator of an appropriate speed limit.*

Reviewing the recorded 85th percentile speeds indicates that the majority of drivers are respecting the speed limit of 50 km/h and the installed traffic calming devices are having an impact. Staff also recorded traffic volumes and conducted a cut-through traffic survey to determine whether any other portions of Jeanne D'Arc Street would qualify for traffic calming. Jeanne D'Arc Street from Municipal Road 80 to Heritage Drive and from Leger Crescent/Chateau Crescent to Hamilton Crescent do not meet the minimum volume or cut-through traffic requirements to qualify to have traffic calming devices installed. Additionally, a review of the collision history revealed that there were no collisions involving vulnerable road users or which may be potentially corrected by traffic calming measures.

With respect to request to reduce the maximum posted speed limit to 40 km/h on all roadways throughout the Dominion Parc subdivision, it is City Council's policy to only limit 40 km/h speed limits to areas adjacent to elementary schools. Since no elementary schools are located within the subdivision, it is recommended that the speed limits remain at 50 km/h.

safety within our community- with the immediate goal of reducing speeding.

1972 Petitioners

EXHIBIT: B

