

To: Community and Operations Services Committee

From: Tracy Adams, Chief Administrative Officer,
Office of the C.A.O.

Report Number: CO-23-58

Date of Report: November 8, 2023

Date of Meeting: November 13, 2023

Subject: Follow up Report Regarding the Petition for a 3-Way Stop
Control at the Intersection of Verdun Road and Vimy Avenue

Ward: Ward 4

File: 03-05

1.0 Purpose

The purpose of this report is to provide the Community and Operations Services Committee with additional information related to speeding concerns on Verdun Road as requested in the following directive CS-22-38 from City Council on April 25, 2022:

1. That a 40km/h zone be implemented on Verdun Road between Eulalie Avenue and Olive Avenue; and,
2. That radar message boards be deployed along the same part of Verdun Road shortly after the implementation of 40km/h and vehicle speeds be tracked; and,
3. That radar message boards be again deployed after 6 months along with vehicle speed tracking; and,
4. That communication be sent to residents in the same area that thanks them for bringing their neighbourhood safety concerns to the City's attention, explains the current approach being taken to manage and monitor the concerns and its rationale, and that the process will include a future assessment of the results to determine if it is having the desired impact; and,
5. That results be reported back to Community Services Committee at a date after the six month check-in that compares the data sets from the initial report and the two periods measured after the implementation of a 40km/h limit, and that the same be communicated to residents at that time.

Attachment 1 is a key plan of Vimy Avenue.

2.0 Recommendation

That the Community and Operations Services Committee recommend to City Council:

1. That based on Report CO-23-58 dated November 08, 2023, concerning Follow Up Report Regarding the Petition for a 3-Way Stop Control at the Intersection of Verdun Road and Vimy Avenue, an all-way stop control not be implemented at the intersection of Verdun Road and Vimy Avenue; and,
2. That an information letter be sent to the residents of Verdun Road advising them of the actions taken, data collected and Council's decision.

3.0 Executive Summary

Not Applicable

4.0 Input From Other Sources

Residents of Verdun Road

5.0 Analysis

5.1 Background

At the City Council meeting on November 22, 2021, staff were directed "That Correspondence CS-21-121 concerning the Petition for a 3 way stop at Verdun Road and Vimy Avenue be referred to staff for a report."

The residents signing the petition were concerned about the traffic speed on Verdun Road between Olive Avenue and Eulalie Avenue, and requested an all-way stop control at the intersection of Verdun Road and Vimy Avenue as a potential solution of controlling the stated speeding issue on that section of the street.

There are 74 properties that have either fronting or side yards on Verdun Road between Olive Avenue and Eulalie Avenue. A petition requesting a 3-way stop at the intersection of Verdun Road and Vimy Avenue was received from 52 properties within this area. There was a total of 79 signatures received as some properties had multiple signatures.

In response, staff reported to the Community Services Committee with [report CS-22-38](#) dated April 19, 2022. As part of the report, staff collected and analyzed traffic data to review traffic speeds on Verdun Road and to determine if an all-way stop control was warranted at Verdun Road and Vimy Road.

The data analysis revealed no speeding issue on that section of Verdun Road, also; the all-way stop control studies indicated that an all-way stop control is not warranted at the intersection of Verdun Road and Vimy Avenue.

In response to report CS-22-38, the Community Services Committee provided the following directives at their April 19, 2022 meeting, which were recommended by City Council on April 25, 2022;

1. That a 40 km/h zone be implemented on Verdun Road between Eulalie Avenue and Olive Avenue; and,
2. That radar message boards be deployed along the same part of Verdun Road shortly after the implementation of 40 km/h and vehicle speeds be tracked; and,
3. That radar message boards be again deployed after 6 months along with vehicle speed tracking; and,
4. That communication be sent to residents in the same area that thanks them for bringing their neighbourhood safety concerns to the City's attention, explains the current approach being taken to manage and monitor the concerns and its rationale, and that the process will include a future assessment of the results to determine if it is having the desired impact; and,
5. That results be reported back to Community Services Committee at a date after the six month check-in that compares the data sets from the initial report and the two periods measured after the implementation of a 40 km/h limit, and that the same be communicated to residents at that time.

In response, staff implemented a 40 km/h speed limit on Verdun Road between Olive Avenue and Eulalie Avenue, and redeployed two Radar Message Boards (RMB) on the stated section of Verdun Road to collect updated speed and traffic volume data, as directed by City Council.

5.2 Verdun Road – Road Characteristics

Verdun Road is a local residential street with a pavement width of 8.5 meters and a speed limit of 40 km/h. It connects with Gliddon Avenue at the north limit, crosses Olive Avenue in the south, and then converts into a dead end. There are sidewalk facilities on both sides of the road in the subject area between Olive Avenue and Eulalie Avenue.

5.3 Vimy Avenue – Road Characteristics

Vimy Avenue is a local residential street with a pavement width of 8.5 meters and a speed limit of 50 km/h. It connects with Ritson Road South at the west limit and Verdun Road in the east. It has sidewalk facilities on the north side of the road between Oshawa Boulevard South and Verdun Road. A key plan of the area is appended as Attachment 1.

5.4 Collision History

In the past five years, there have been no reported collisions at the intersection of Verdun Road and Vimy Avenue.

5.5 Traffic Data Collection

Staff collected traffic speed data at different locations along Verdun Road between Olive Avenue and Eulalie Avenue using pneumatic road tube counters and Radar Message Boards (RMB). The RMB units had been installed on stated section of Verdun Road to collect the traffic data facing both north and south direction traffic. The traffic data collected is summarized in Tables 1-10.

The data shown in Tables 1-6 were collected when Verdun Road had a speed limit of 50 km/h, and the data shown in the Tables 7-10 were collected after implementing the reduced 40 km/h speed limit on the mentioned section of Verdun Road.

The data collected along Verdun Road before and after the 40 km/h speed limit reduction was found to have acceptable 85th percentile speeds (the speed at which 85% of traffic is travelling at or below, also sometimes referred to as the operating speed). The data does not show any speeding or traffic infiltration (short cutting) issues as defined in the City's Neighbourhood Traffic Management Guide (NTMG).

5.5.1 Traffic Data Collection on Verdun Road with 50 km/h Speed Limit

Table 1: Verdun Road Traffic Data Summary (June 8-9, 2021)

Road	Location	Direction	Speed Limit	85th Percentile Speed	24 hour Traffic Volume
Verdun Road	Between Olive Avenue and Vimy Avenue	Northbound	50 km/h	42 km/h	143
Verdun Road	Between Olive Avenue and Vimy Avenue	Southbound	50 km/h	47 km/h	138
Verdun Road	Between Vimy Avenue and Eulalie Avenue	Northbound	50 km/h	41 km/h	137
Verdun Road	Between Vimy Avenue and Eulalie Avenue	Southbound	50 km/h	46 km/h	126

* Traffic data collected using pneumatic road tubes

Table 2: Verdun Road Traffic Data Summary (November 18-19, 2021)

Road	Location	Direction	Speed Limit	85th Percentile Speed	24 hour Traffic Volume
Verdun Road	Between Vimy Avenue and Eulalie Avenue	Northbound	50 km/h	40 km/h	164
Verdun Road	Between Vimy Avenue and Eulalie Avenue	Southbound	50 km/h	41 km/h	163

* Traffic data collected using pneumatic road tubes

Table 3: Verdun Road Traffic Data Summary (November 25-26, 2021)

Road	Location	Direction	Speed Limit	85th Percentile Speed	24 hour Traffic Volume
Verdun Road	Between Olive Avenue and Vimy Avenue	Northbound	50 km/h	45 km/h	178
Verdun Road	Between Olive Avenue and Vimy Avenue	Southbound	50 km/h	47 km/h	177

* Traffic data collected using pneumatic road tubes

Table 4: Verdun Road RMB Traffic Data Summary (November 10-11, 2021)

Road	Location	Direction	Speed Limit	85th Percentile Speed	Traffic Volume
Verdun Road	Between Vimy Avenue and Eulalie Avenue	Southbound	50 km/h	35 km/h	279

* Traffic data collected using radar message board (RMB)

Table 5: Verdun Road RMB Traffic Data Summary (November 16, 2021-March 23, 2022)

Road	Location	Direction	Speed Limit	85th Percentile Speed	Traffic Volume
Verdun Road	Between Olive Avenue and Vimy Avenue	Southbound	50 km/h	36 km/h	13462

* Traffic data collected using radar message board (RMB)

Table 6: Verdun Road RMB Traffic Data Summary (March 25-31, 2022)

Road	Location	Direction	Speed Limit	85th Percentile Speed	Traffic Volume
Verdun Road	Between Olive Avenue and Vimy Avenue	Northbound	50 km/h	31 km/h	323

* Traffic data collected using radar message board (RMB)

5.5.2 Traffic Data Collection on Verdun Road after Implementing Reduced 40km/h Speed Limit

Table 7: Verdun Road Traffic Data Summary (October 31-November 01, 2022)

Road	Location	Direction	Speed Limit	85th Percentile Speed	24 hour Traffic Volume
Verdun Road	Between Olive Avenue and Vimy Avenue	Northbound	40 km/h	38 km/h	243
Verdun Road	Between Olive Avenue and Vimy Avenue	Southbound	40 km/h	47 km/h	234
Verdun Road	Between Vimy Avenue and Eulalie Avenue	Northbound	40 km/h	43 km/h	173
Verdun Road	Between Vimy Avenue and Eulalie Avenue	Southbound	40 km/h	41 km/h	188

* Traffic data collected using pneumatic road tubes

Table 8: Verdun Road Traffic Data Summary (September 12-14, 2023)

Road	Location	Direction	Speed Limit	85th Percentile Speed	24 hour Traffic Volume
Verdun Road	Between Olive Avenue and Vimy Avenue	Northbound	40 km/h	38 km/h	180
Verdun Road	Between Olive Avenue and Vimy Avenue	Southbound	40 km/h	47 km/h	172
Verdun Road	Between Vimy Avenue and Eulalie Avenue	Northbound	40 km/h	43 km/h	164
Verdun Road	Between Vimy Avenue and Eulalie Avenue	Southbound	40 km/h	41 km/h	151

* Traffic data collected using pneumatic road tubes

Table 9: Verdun Road RMB Traffic Data Summary (October 24-November 6, 2022)

Road	Location	Direction	Speed Limit	85 th Percentile Speed	Traffic Volume
Verdun Road	Between Olive Avenue and Vimy Avenue	Northbound	40 km/h	36 km/h	2986
Verdun Road	Between Vimy Avenue and Eulalie Avenue	Southbound	40 km/h	35 km/h	3342

* Traffic data collected using radar message board (RMB)

Table 10: Verdun Road RMB Traffic Data Summary (September 22-October 18, 2023)

Road	Location	Direction	Speed Limit	85 th Percentile Speed	Traffic Volume
Verdun Road	Between Olive Avenue and Vimy Avenue	Northbound	40 km/h	23 km/h	1367
Verdun Road	Between Vimy Avenue and Eulalie Avenue	Southbound	40 km/h	31 km/h	4148

* Traffic data collected using radar message board (RMB)

5.6 Traffic Data Review

5.6.1 All-way Stop Control Study at Verdun Road and Vimy Avenue

Staff completed an all-way stop control study at the intersection of Verdun Road and Vimy Avenue in September 2023.

5.6.2 All-way Stop Control Study - Safety Warrant

The Ontario Traffic Manual (O.T.M.) and Transportation Association of Canada Geometric Design for Canadian Roads govern the use of all-way stop control. The all-way stop control warrant is based on collision history, traffic volumes and sightlines. Operating speeds are not part of the technical warrant criteria as prescribed by the manuals.

The O.T.M. specifically states ‘stop signs are not intended to be used as speed control devices’. The O.T.M. is a well-respected manual in the road engineering community and is accepted by the courts as a best practice. Failure to follow the criteria outlined in the O.T.M. places municipalities at significant risk. The manual includes warrants for the use of all-way stop control which states that all-way stop control should be considered under one or more of the following situations.

- As an interim measure, where traffic control signals are warranted but cannot be implemented immediately – this is not applicable in this situation.
- As a means of providing a transition period to accustom drivers to a change in intersection right-of-way control from one direction to another - this is not applicable in this situation.
- At locations having a high collision frequency where less restrictive measures have been tried and found inadequate. The manual defines this as an average of four collisions per year, of type considered preventable by all-way stop control, over a three-year period.
 - During a three-year period, there have been no reported collisions at the intersection of Verdun Road and Vimy Avenue. The collision warrant is not satisfied based on collision history.

5.6.3 All-way Stop Control Study – Volume Warrant

The O.T.M. states that all-way stop control may be considered on local roads if the following two conditions are met regarding minimum traffic volumes.

- A total volume on all intersection approaches exceeds 350 vehicles for the highest hour recorded.
 - Traffic counts indicate that the highest hour recorded had 41 vehicles.
- If the volume split does not exceed 75/25 at a three-leg intersection, then all-way stop control may be considered.
 - The volume split was 86/14. This signifies that 86% of the total 24-hour volume collected are vehicles travelling on Verdun Road.

The volume warrant is not satisfied based on the total volume and volume split at this intersection.

Therefore, all-way stop control is not warranted at Verdun Road and Vimy Avenue based on the technical warrants prescribed by OTM.

5.6.4 Sightline Review

Staff have reviewed the sightlines at the intersection of Verdun Road and Vimy Avenue. Field investigations revealed no sightline deficiencies at this intersection.

5.6.5 Summary of Traffic Data and Studies

The analysis of traffic data did not show speeding issues on Verdun Road between Olive Avenue and Eulalie Avenue.

The traffic volumes collected at different locations on Verdun Road are acceptable and do not indicate a traffic infiltration or 'short cutting' issue, and they are as per classification of road specified in the City of Oshawa Neighbourhood Traffic Management Guide (NTMG).

The all-way stop control studies conducted by staff found that an all-way stop control is not warranted at the intersection of Verdun Road and Vimy Avenue.

Therefore, it is recommended that an all-way stop control not be implemented at the intersection of Verdun Road and Vimy Avenue at this time.

6.0 Financial Implications

There are no financial implications based on the recommendations of this report.

7.0 Relationship to the Oshawa Strategic Plan

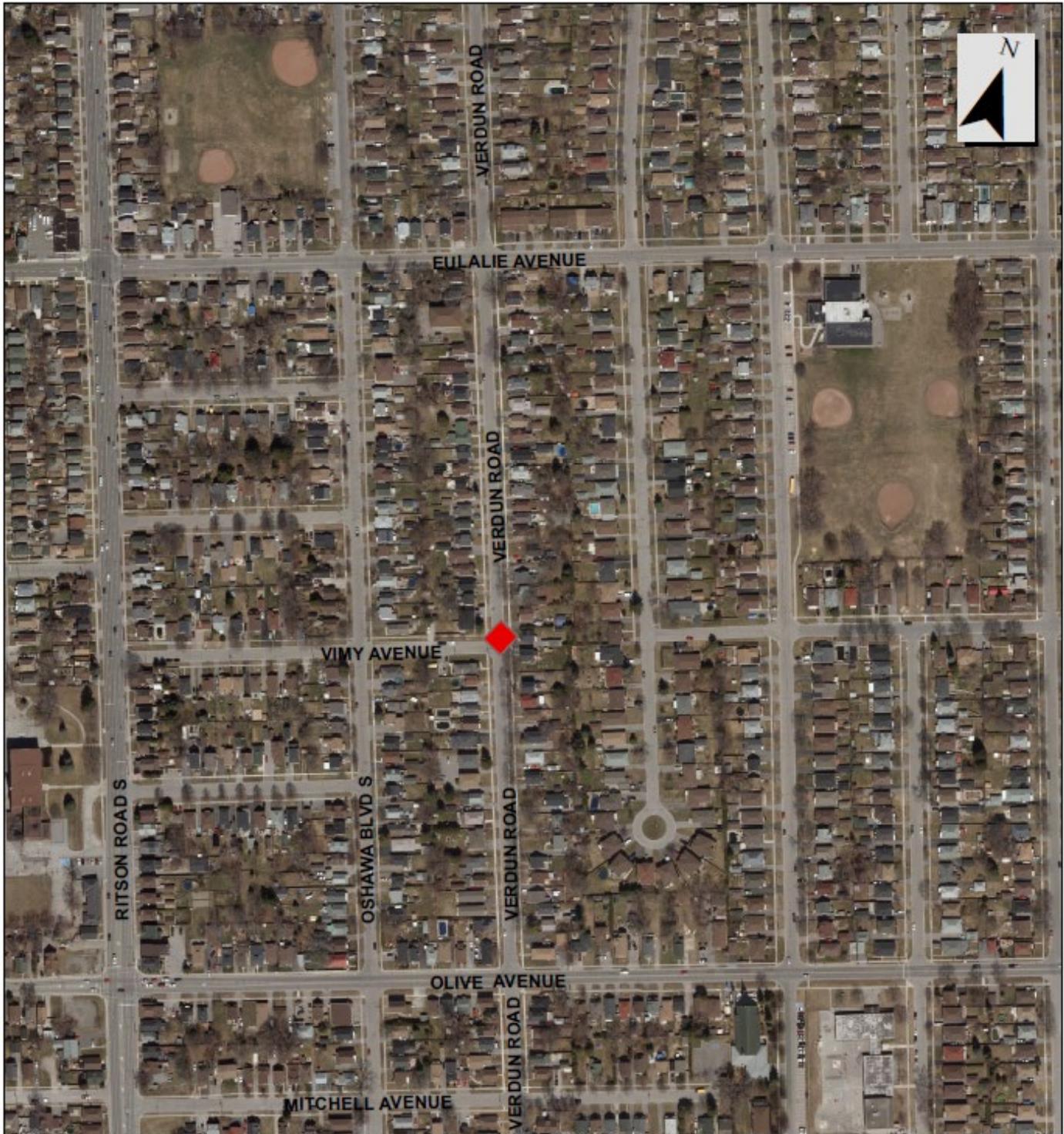
This Report addresses the Oshawa Strategic Plan Goal of Social Equity.



Beth Mullen, Director,
Community Support Services



Tracy Adams, Chief Administrative Officer,
Office of the C.A.O.



LEGEND:  Requested All-way Stop Control Intersection	CITY OF OSHAWA COMMUNITY & OPERATIONS SERVICES DEPARTMENT	
	KEY PLAN OF VERDUN ROAD AND VIMY AVENUE STUDY AREA	
	DATE: 08:11:2023	SCALE: NTS