

To: Community Services Committee

From: Ron Diskey, Commissioner,  
Community Services Department

Report Number: CS-22-38

Date of Report: April 13, 2022

Date of Meeting: April 19, 2022

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

Ward: Ward 4

File: 03-05

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## **1.0 Purpose**

The purpose of this report is to respond to the following direction CS-21-121 from City Council on November 22, 2021;

“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.”

## **2.0 Recommendation**

That the Community Services Committee recommend to City Council:

1. That based on Report CS-22-38 dated April 13, 2022, an all-way stop control not be implemented at the intersection of Verdun Road and Vimy Avenue; and,
2. That a copy of Report CS-22-38 be sent to the resident inquirers.

## **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 to investigate the feasibility of the 3-way stop control at the intersection of Verdun Road and Vimy Avenue and report back to the Community Services Committee.

In response, staff reviewed the issues raised in the signed petition and at the Community Services Committee meeting of November 15, 2021; and collected the traffic data relevant to traffic issues identified.

The residents 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 flanking 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 and contained 79 signatures of support. Out of the 79 signatures received, 52 were from unique properties located on the above-mentioned section of Verdun Road and one property from Taunton Road. The remaining 26 signatures were from different individuals residing in the above-stated 52 properties on Verdun Road – hence, multiple people from the same households also signed the petition.

A copy of the petition is appended as Attachment 1.

### **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 50 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 2.

### **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 road tubes and Radar Message Board (RMB). The RMB unit is currently installed on the east side of Verdun Road and continues to collect traffic data in the northbound direction.

The traffic data collected is summarized in Tables 1, 2, 3, 4, 5 and 6.

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

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

Note: All the data was collected for 24 hours during the specified period.

**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	North-bound	50 km/h	40 km/h	164
Verdun Road	Between Vimy Avenue and Eulalie Avenue	South-bound	50 km/h	41 km/h	163

Note: All the data was collected for 24 hours during the specified period.

**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	North-bound	50 km/h	45 km/h	178
Verdun Road	Between Olive Avenue and Vimy Avenue	South-bound	50 km/h	47 km/h	177

Note: All the data was collected for 24 hours during the specified period.

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

Road	Location	Direction	Speed Limit	Avg 85 <sup>th</sup> Percentile Speed	Traffic Volume (Nov 10-11, 2021)
Verdun Road	Between Vimy Avenue and Eulalie Avenue	South-bound	50 km/h	35 km/h	279

Note: All the data was collected during the specified period.

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

Road	Location	Direction	Speed Limit	Avg 85 <sup>th</sup> Percentile Speed	Traffic Volume (Nov 16, 2021 to March 23, 2022 )
Verdun Road	Between Olive Avenue and Vimy Avenue	South-bound	50 km/h	36 km/h	13462

Note: All the data was collected during the specified period.

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

Road	Location	Direction	Speed Limit	Avg 85 <sup>th</sup> Percentile Speed	Traffic Volume (March 25-31, 2022 )
Verdun Road	Between Olive Avenue and Vimy Avenue	North-bound	50 km/h	31 km/h	323

Note: All the data was collected during the specified period.

### **5.5.1 Traffic Data Review**

A review of traffic data collected on Verdun Road between Olive Avenue and Eulalie Avenue does not indicate a speed or volume issue.

The 85th percentile speeds (the speed at which 85% of vehicles are traveling at/or below, also referred to as the road operating speed) were measured lower than the speed limit of the street at each traffic count location. Furthermore, the data revealed that the majority of vehicles are traveling at an acceptable or lower speed than the designated speed limit.

The traffic volumes collected at different locations on Verdun Road are acceptable and do not indicate any traffic infiltration or 'short cut' traffic along the street.

### **5.6 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 November 2021.

#### **5.6.1 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. This represents an average of zero collisions/year over a three-year period and this warrant is not satisfied the requirements of the warrant criteria.

### **5.6.2 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 42 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 83/17. This signifies that 83% of the total 24-hour volume collected are vehicles travelling on Verdun Road.

Therefore, based on the total volume recorded for the highest hour on all intersection approaches and ratio of volume split condition, the volume warrant is not justified. Due to the large variance in volume split, stop sign compliance would likely be reduced and could impact the safety of the intersection if it was installed.

### **5.6.3 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.

## **5.7 Summary of Traffic Data and Studies**

The analysis of traffic data did not indicate speeding issue 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.

The all-way stop control studies conducted by staff and found that a 3-way stop control is not warranted at the intersection of Verdun Road and Vimy Avenue.

Therefore, it is recommended that a 3-way stop control not be implemented at the intersection of Verdun Road and Vimy Avenue.

## **6.0 Financial Implications**

Not applicable.

## **7.0 Relationship to the Oshawa Strategic Plan**

This report addresses the Oshawa Strategic Plan by responding to the goal of “Social Equity” under the theme of “An Active, Healthy and Safe Community” by providing a safe, reliable and connected active transportation network.



Beth Mullen, Director,  
Strategic and Business Services



Ron Diskey, Commissioner,  
Community Services Department

## **CS-21-121**

Petition for a 3 Way Stop Sign at Verdun Rd and Vimy Rd  
Attention Ward 4 Regional & City Councillor Rick Kerr

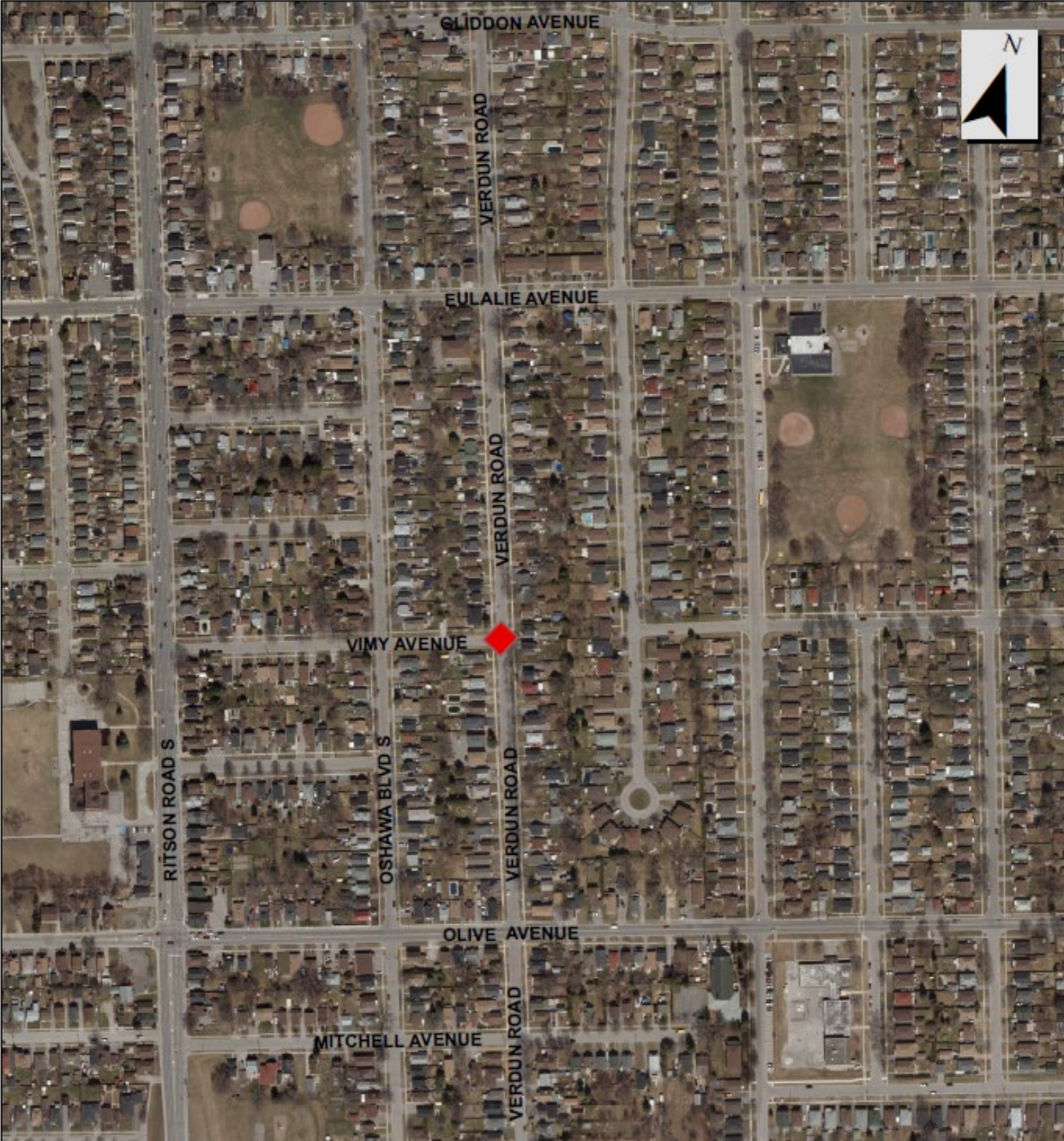
We, the undersigned eligible voters/residence of the City of Oshawa, petition the City Council and hereby submit the following resolution to the excess speeding on Verdun Rd from Olive to Eulalie and vice versa.

79 Signatures

**The original petition is available for viewing in the office of the City Clerk, Monday to Friday from 8:30 a.m. to 4:30 p.m.**

**The City of Oshawa is not accountable for the accuracy or reliability of petitions submitted.**





<p><b>LEGEND:</b></p> <p> Requested 3-Way Stop Control Intersection</p> <p>CS-22-38 Attachment 2</p>	<p>CITY OF OSHAWA DEPARTMENT OF COMMUNITY SERVICES</p>	
	<p>KEY PLAN OF VERDUN ROAD AND VIMY AVENUE STUDY AREA</p>	
	<p>DATE: 14:04:2022</p>	<p>SCALE: NTS</p>