#### Adopted by Council at its meeting held May 27, 2013 [M192-2013]

/AA

Windsor, Ontario May 27, 2013

## REPORT NO. 132 of the ENVIRONMENT, TRANSPORTATION & PUBLIC SAFETY STANDING COMMITTEE

of its meeting held April 24, 2013

**Present:** 

Councillor J. Gignac

Councillor A. Halberstadt

Councillor R. Jones, Councillor H. Payne

Councillor F. Valentinis, Chair

That the following recommendations of the Environment, Transportation and Public Safety Standing Committee **BE APPROVED:** 

Moved by Councillor Gignac, seconded by Councillor Jones,

**THAT** the report CQ5-2013 Labelle Street and Dominion Boulevard – Motorist and Pedestrian Safety from the City Engineer **BE RECEIVED** for information, and

**THAT** Administration **BE REQUESTED** to install a pedestrian countdown signal at this location.

Carried.

<u>Clerk's Note</u>: The administrative report authored by the City Engineer dated April 9, 2013 entitled "CQ5-2013 Labelle Street and Dominion Boulevard – Motorist and Pedestrian Safety" is <u>attached</u> as background information.

**LIVELINK 16495, ST2013** 

**CHAIRPERSON** 

DEPUTY CLERK

NOTIFICATION:		***************************************	**********	
Name	Address	Email Address	Telephone	FAX
Councillor Maghnieh				

# THE CORPORATION OF THE CITY OF WINDSOR Environment, Transportation & Public Safety Standing Committee – Administrative Report



#### MISSION STATEMENT:

"The City of Windsor, with the involvement of its citizens, will deliver effective and responsive municipal services, and will mobilize innovative community partnerships"

LiveLink REPORT # 16495 ST2013	Report Date: April 9, 2013 PW# 3541-04/12/13
Author's Name: Jeff Hagan	Date to Standing Committee: April 24, 2013
Author's Phone: (519) 255-6247 ext. 6003	
Author's Email: jhagan@city.windsor.on.ca	

TO:

Environment, Transportation & Public Safety Standing Committee

SUBJECT:

CQ5-2013 Labelle Street and Dominion Boulevard - Motorist and Pedestrian

Safety

#### 1. **RECOMMENDATION:**

City Wide: \_\_\_\_Ward(s) 10

THAT the report CQ5-2013 Labelle Street and Dominion Boulevard – Motorist and Pedestrian Safety from the City Engineer BE RECEIVED for information.

## 2. BACKGROUND:

At the February 19, 2012 meeting of Council, the following Council Question was directed to the Office of the City Engineer:

#### CQ5-2013

"Asks for intersection review of Labelle/Dominion considering recent changes to ensure motorist and pedestrian safety with options and cost."

## 3. <u>DISCUSSION</u>:

A safety review of the intersection of Dominion Boulevard and Labelle Street was carried out, which examined collision history, vehicle speeds, and intersection geometry (including sight distances and view obstructions).

#### **Collision History**

5 years of collision data (January 1, 2008 through December 31, 2012) were reviewed for the Dominion/Labelle intersection; during this period, the intersection experienced a total of 27 reported collisions. The overall collision rate for the intersection was 0.52 collisions per million vehicles entering, which is slightly higher than the City-wide average collision rate for signalized intersections (0.50 collisions per million vehicles entering).



Collisions are events that are subject to random variation, and the number of collisions at an intersection can vary up or down from year to year because of random chance and not necessarily because of factors actually affecting overall risk. Therefore, it is important to use statistical tests to determine whether the difference between an intersection's collision rate and the average collision rate is attributable to random chance or to other factors.

For the traffic volume experienced by the Dominion/Labelle intersection, at a 95% confidence interval (the typical value used when screening for collision "hot spot" locations), the critical collision rate (i.e. the collision rate at which the intersection's rate could be considered significantly different from random chance) is 0.67 collisions per million vehicles entering. The observed collision rate of 0.52 collisions per million vehicles entering is substantially lower than this critical rate, meaning that the collision rate at the Dominion/Labelle intersection is consistent with expectations for an average signalized intersection when random variation is taken into account.

A detailed breakdown of the collision history for the intersection is provided in Table 1.

Table 1: Labelle/Dominion Collisions by Severity

Golfisian Sectority	Numites of Codes one (2008-2012)		
Fatality	0		
Non-Fatal Injury	9		
Property Damage Only	18		
Total	27		

Of the 27 collisions in the 5-year period reviewed, zero (0) involved pedestrians and two (2) involved cyclists. In both of the cyclist collisions, the cyclist was riding on the sidewalk and was struck when he or she disobeyed a red light to ride into the crosswalk. It is noted that the actions in the two cyclist collisions are illegal in several respects: the Highway Traffic Act prohibits riding a bicycle in a crosswalk and disobeying a traffic signal, while the City of Windsor Traffic By-Law prohibits riding an adult-sized bicycle on the sidewalk.

The variation in number of collisions per year is given in Table 2. This information is shown graphically in Figure 1 along with earlier years to provide additional context.

Table 2: Labelle/Dominion Collisions by Year

Yjean	Number of Collisions
2008	5
2009	 8
2010	6
2011	3
2012	4
Total	27

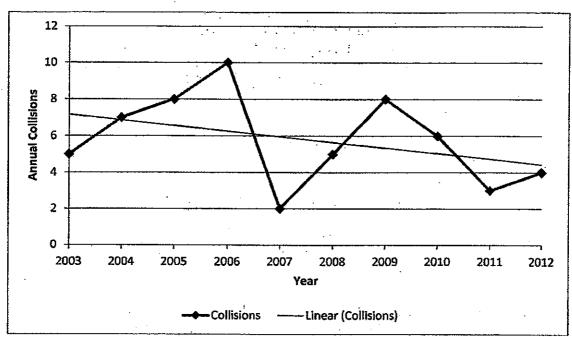


Figure 1: Labelle/Dominion Collisions – Historical Trend

As can be seen in Figure 1, to the extent that a trend is discernable from the number of collisions per year, the number of collisions per year at the intersection is generally decreasing.

#### Vehicle Speeds

In the vicinity of the intersection, the speed limit on both Dominion Boulevard and Labelle Street is 50 km/h.

The most recent data available for vehicle speeds on Dominion Boulevard is radar speed trailer data for Dominion Boulevard southbound, north of Labelle Street, obtained from January 21 to February 4, 2010. This survey found an average speed of 44 km/h and an 85<sup>th</sup> percentile speed of 57 km/h. These values are within the normal range for a street with a 50 km/h speed limit.

#### **Intersection Geometry and Sight Lines**

In the vicinity of the Dominion/Labelle intersection, both Dominion Boulevard and Labelle Street have straight, relatively flat alignments with no significant curves or crests. Sight distance on all approaches exceeds 300 m, which is significantly more than the stopping sight distance required of 85 m, based on a design speed of 60 km/h (in keeping with normal practice for a street with a 50 km/h speed limit).

Turning sight distance requirements are based on the sight distance required for a driver to perceive a safe gap in traffic and make their maneuver. The turning sight distance required for a right turn on red (the governing requirement at this location) at a 60 km/h design speed is 160 m; the available sight distance is greater than 300 m along all approaches, as noted previously; this is significantly more than the required turning sight distance.

During the field review, minor view obstructions due to the trunks of established trees in the boulevard were observed, but these minor obstructions were considered to be in keeping with a normal urban

environment and did not appear to have significant effects on visibility of vehicles or pedestrians approaching the intersection.

On Dominion Boulevard, sidewalks are provided on both sides. On Labelle Street, sidewalks are provided on both sides west of Dominion and on the south side east of Dominion. This is consistent with the Official Plan, which specifies sidewalks on both sides for Class 1 collector roads (e.g. Dominion Boulevard) and on at least one side for local streets (e.g. Labelle Street).

#### **Options**

While the Council Question requested options for the intersection, our review has found that the collision history at the intersection is in keeping with an average signalized intersection, and no geometric deficiencies or pedestrian safety issues were identified. Therefore, Administration recommends that this intersection not be prioritized for safety improvements ahead of other more critical locations, and that no changes to the Dominion/Labelle intersection be made at present.

## 4. RISK ANALYSIS:

While there is a risk of collisions on all City of Windsor roads and streets, the level of risk at the Labelle/Dominion intersection is in keeping with the average risk for signalized intersections.

#### 5. FINANCIAL MATTERS:

N/A

### 6. CONSULTATIONS:

N/A

## 7. CONCLUSION:

Based on the review conducted, Administration concludes that the intersection of Dominion Boulevard and Labelle Street provides an average level of safety compared to other signalized intersection in the City of Windsor, and no geometric deficiencies or pedestrian safety issues were identified at the intersection. Therefore, Administration recommends no further action at this location at this time.

Policy Analyst

Mario Sonego

City Engineer and Corporate Leader

**Environmental Protection and** 

Transportation

Helga/Reidel

Chief Administrative Officer

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DEPARTMENTS/C	OTHERS CON	SULTED:			
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Phone #- 510	ovt				B

NOTIFICATION:					
Name	Address	Email Address	Telephone	FAX	
Councillor Maghnieh	,	amaghnieh@city.windsor.on.ca		-	
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