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## **Carberry/Willowick Speed Hump Request Staff Report to Council**

Report Number: 2023-68

Department(s): Engineering Services

Author(s): M. Kryzanowski, Manager, Transportation Services

Meeting Date: October 23, 2023

### **Recommendations**

1. That the report entitled 'Carberry/Willowick Speed Hump Request' dated October 23, 2023, be received; and,
2. That speed humps on Carberry Street and Willowick Drive not be implemented at this time; and,
3. That Category 1 measures, including bollards and pavement markings, be implemented as soon as practicable in 2024; and,
4. That traffic signs be relocated to conform to the Ontario Traffic Manual (OTM) Book 6; and,
5. That Staff be authorized and directed to do all things necessary to give effect to this resolution.

### **Purpose**

This report aims to outline the findings and recommendations of the speed hump request review on Willowick Drive/Carberry Street.

### **Background**

The residents of Carberry Street and Willowick Drive submitted a petition for speed humps at the Council meeting of March 20, 2023. The Town Council recommended the following:

1. That staff report on potential speed mitigation options, including speed humps, on Willowick Drive.

In response to the petition and additional feedback received, this safety review was conducted to address the concerns of residents in the area. Below is a summary of the safety review for this location.

## Discussion

Carberry Street (west-east) and Willowick Drive (north-south) consist of 8.5 metre wide paved local roads having a two-lane cross-section. The posted speed limit is 40 km/h. There are no parking restrictions on either side of the road.

### Public Consultation

Staff sought opinions from approximately 63 addresses in the study area through a Public Notice sent in May 2023. Six comments were received from residents across the study area. Below is a summary of the safety concerns that were identified by the respondents.

Safety Concern	Count
Traffic infiltration	6
High vehicle operating speeds	6
School bus stops	3
Speed humps	2
Stop sign compliance at Walpole Cres	1
AWSC on Walpole Cres N and S	1
More signage	1
Flexible bollards	1
No speed humps	1
Safety of kids	1
Establish CSZ	1
Truck traffic	1

### Speed and Volume Studies

In order to determine the speed and volume profile of the two streets, five locations were selected to collect traffic count data. The average operating speed (85th percentile) was found to be 44 km/h for both streets, and the Average Daily Traffic (ADT) was 1,350 vehicles per day. The variance in operating speeds over the study area ranged between 'minus 0.2 km/h' to 'plus 8.4 km/h' from the posted speed limit. Willowick Drive, between Carberry Street and Walpole Crescent, showed the highest operating speed at 48.4 km/h.

Based on the Town's Council-approved policy, speed humps are not warranted in this location. Furthermore, speed humps would bring down operating speeds to approximately 45 km/h, so they would not be very effective for speed reduction. Also, if speed humps were installed, it is expected that the traffic would divert to Pinder Avenue and/or Skinner Avenue,

which currently have lower operating speeds. The Town has evidence of such traffic diversion as a result of speed humps installed in other locations.

The table below compares the average speed, operating speed (85<sup>th</sup> percentile), and ADT of the study area from 2008 and 2023. The data shows that there has been no significant speed or volume increase since 2008. One outstanding change is the difference in ADT from Willowick Dr between Mulock Dr and Walpole Cres, which decreased by 19% since 2008.

<b>Midblock</b>	<b>Average Speed (km/h) 2023 compared to 2008</b>	<b>Operating Speed (km/h) 2023 compared to 2008</b>	<b>Average Daily Traffic 2023 compared to 2008</b>
Carberry St between Pinder Ave and Skinner Ave	-0.8	+0.1	+4%
Willowick Dr between Carberry St and Walpole Cres	+0.7	+0.7	+3%
Willowick Dr between Mulock Dr and Walpole Cres	-0.3	-0.3	-19%

### Traffic Infiltration Studies

One of the elements of this study was to determine the amount of traffic infiltration through the Carberry Street and Willowick Drive community. Residents have expressed concern over the number of non-resident vehicles using Carberry Street and Willowick Drive to bypass Mulock Drive and Bayview Avenue.

The table below shows the number of vehicles entering/exiting Carberry Street and Willowick Drive during the weekday peak periods of the morning (7:00 a.m. to 9:00 a.m.), midday (12:00 p.m. to 2:00 p.m.), and afternoon (4:00 p.m. to 6:00 p.m.).

North/Eastbound Traffic (2023)

<b>Period</b>	<b>Entering at Bayview Ave and Carberry Street</b>	<b>Exiting at Mulock Drive and Willowick Drive (Through Trip only)</b>	<b>Through Trip Volume Percentage</b>
A.M.	24	1	4.2%
Midday	40	2	5.0%
P.M.	65	5	7.7%
Total	129	8	6.2%

West/southbound Traffic (2023)

<b>Period</b>	<b>Entering at Mulock Drive and Willowick Drive</b>	<b>Exiting at Bayview Ave and Carberry Street (Through Trip only)</b>	<b>Through Trip Volume Percentage</b>
A.M.	73	3	4.1%
Midday	77	5	6.5%
P.M.	89	6	6.7%
Total	239	14	5.9%

The study results show that about 6% of the traffic entering and exiting Carberry Street and Willowick Drive are infiltration traffic. This number is below the Town's Transportation Management Policy threshold and therefore, no action is required to reduce infiltration.

For comparison, the tables below show the same data for traffic infiltration in 2008.

North/Eastbound Traffic (2008)

Period	Entering at Bayview Ave and Carberry Street	Exiting at Mulock Drive and Willowick Drive (Through Trip only)	Through Trip Volume Percentage
A.M.	40	14	35.0%
P.M.	73	22	30.1%
Total	113	36	31.9%

West/southbound Traffic (2008)

Period	Entering at Mulock Drive and Willowick Drive	Exiting at Bayview Ave and Carberry Street (Through Trip only)	Through Trip Volume Percentage
A.M.	56	23	41.1%
P.M.	80	16	20.0%
Total	136	39	28.7%

As can be seen, traffic infiltration was more significant in 2008. As a result, the signal timing was revised at that time to address the matter. Recent research indicates that the signal timing adjustment has resolved the traffic infiltration issue.

### Collision Data

Over the past five years, there has only been one reported collision, which occurred in July of 2021. This accident involved a parked vehicle on Willowick Drive between Carberry Street and Walpole Crescent.

### All-Way Stop Warrants Review

The intersections reviewed are below:

- Carberry St and Pinder Ave
- Carberry St and Skinner Ave
- Willowick Dr and Walpole Cres (S)
- Willowick Dr and Walpole Cres (N)

The review shows that no intersections require All-way Stop Controls using the Town's All-way Stop warrants. The Carberry/Pinder and the Willowick/Walpole north intersections are too close to the Regional roads (within 60 metres). All intersections have traffic volumes that are too low to meet the thresholds.

## **Proposed Countermeasures**

### **Speeding**

Although residents expressed concerns about high vehicle operating speeds on this street, the traffic data indicates that the 85th percentile speed is below the Town's threshold for implementing Category 2 traffic calming measures, which include speed humps.

However, staff can implement centre-line bollards with speed limit signs at both entry points for Carberry Street and Willowick Drive as Category 1 measures. Also, the area can now be included in the solar board rotation program for future placements.



*Example of Centre-line Bollard with Speed Limit Sign*

### **Traffic Infiltration**

No countermeasures are needed due to the low traffic infiltration rates.

### **Painted Curb Extension with Bollards**

Another recommended measure could be painted curb extensions with bollards. These can improve pedestrian safety by reducing the crossing distance from one side of the road to the other. The reduced radius may also decrease traffic speed at the curve and increase the awareness of drivers regarding the sharp curve ahead, as shown in the two illustrations below.



*Illustration of painted curb and bollards*



*Representation of the visual impact of the curb line work and bollards*

### **Signage**

During the field investigations, it was noted that some traffic signs are placed at inappropriate locations according to the Ontario Traffic Manual (OTM) Book 6 and therefore, these need to be relocated.

### **Conclusion**

Based on the Town's policy, Category 2 traffic calming measures such as speed humps are not warranted on Carberry Street and Willowick Drive; however, Category 1 measures could be effective in reducing speeds. Also, to enhance pedestrian safety near the park area, it is recommended that a painted curb extension and bollards be installed and that signage be adjusted to meet the current specifications.

### **Business Plan and Strategic Plan Linkages**

Well-planned and connected...strategically planning for the future to improve information access and enhance travel to, from, and within Newmarket.

### **Consultation**

The Town received a petition from households in the Carberry/Willowick community. Transportation staff consulted with all 63 homes that are within the study area. Each house received a letter (dated April 25, 2023) from the Town requesting their input. The purpose was to solicit any additional comments or new comments from the community.

To further communicate the findings and invite more feedback, all households within the study area will receive a copy of this report. A notice will be sent, indicating the date and time of the Committee of the Whole meeting at which the matter will be heard. Residents who wish to address the Committee will be able to do so at that time.

## **Human Resource Considerations**

None.

## **Budget Impact**

The additional bollards and installation, the signage relocation, and the pavement markings would be funded through the Transportation Business unit budgets. The estimated costs would be less than \$1,000,00.

## **Attachments**

None

## **Approval**

Rachel Prudhomme, Director, Engineering Services

Peter Noehammer, Commissioner, Development and Infrastructure Services

## **Contact**

For more information or questions regarding this report, please contact Mark Kryzanowski, Manager, Transportation Services, at 905-895-5193 extension 2508 or [MKryzanowski@newmarket.ca](mailto:MKryzanowski@newmarket.ca)