

Committee of the Whole (2) Report

DATE: Tuesday, February 9, 2021

WARD: 1

TITLE: TRAFFIC CALMING REVIEW – BLOCK 55 EAST

FROM:

Jim Harnum, City Manager

ACTION: FOR INFORMATION

Purpose

To inform Council of Staff's findings with respect to the implementation of traffic control at intersections along Kleinburg Summit Way and Kipling Avenue within the Monarch Castlepoint Kleinburg North subdivision of Block 55.

Report Highlights

- An updated Transportation Impact Study has been provided to the City for the Monarch Castlepoint Kleinburg North Subdivision of Block 55 to assess the need for additional traffic control measures along Kleinburg Summit Way and Kipling Avenue.
- Traffic studies show that the Provincial warrant for an all-way stop control is currently not met at the studied intersections.
- Per the subdivision agreement, it is the responsibility of the Owner to implement traffic calming measures to the City's satisfaction. Steps have been taken by the Owner including installing radar speed signs on Kleinburg Summit Way and Kipling Avenue.
- Traffic volumes at the Kleinburg Summit Way intersections will continue to be monitored for traffic control, while other traffic calming measures can be explored, such as pedestrian crossovers (PXOs)

Recommendation

1. That this report be received for information.

Background

As the Monarch Castlepoint Kleinburg North subdivisions become occupied, residents of the subdivisions have expressed concern with respect to vehicular volumes and pedestrian safety along Kleinburg Summit Way

Approved as part of the Monarch Castlepoint Kleinburg North subdivisions, Kleinburg Summit Way is a north-south minor collector road that operates between Kirby Road and Teston Road. There are no all-way stop-control or protected pedestrian crossings along Kleinburg Summit Way.

As the subdivisions have become increasingly occupied over the years, residents have expressed concerns with respect to increasing traffic volumes, speeding, and a lack of protected pedestrian crossing opportunities. Residents have also requested that all-way stop control be installed at key intersections. Resident concerns were first received by City Staff in August, 2018.

In response to resident concerns, City Staff undertook an all-way stop control analysis in late 2018. The following intersections were studied:

- Kipling Avenue & McMichael Avenue
- Kirby Road & Kleinburg Summit Way

The study found the Provincial Warrant for all-way stop control was not met. Residents have continued to express concerns with respect to vehicle speeds and pedestrian safety following this analysis. More recently, the City received a proposal to install all-way stop control at seven (7) internal intersections from the Owner in August, 2019, as well as an updated Transportation Impact Study (TIS) provided in March, 2020, which performed updated all-way stop control warrant analysis at key intersections.

Understanding the concerns of residents with respect to vehicle speeds, the City also recently worked to address speeding concerns on Kipling Avenue within the Block. The City has reduced the speed limit on Kipling Avenue to 60km/h, painted centerline markings, and installed the flashing light at the intersection of Kipling Avenue and Teston Road.

Previous Reports/Authority

City of Vaughan Traffic By-Law:

[Consolidated Traffic By-Law 284-94](#)

Kipling Avenue Speed Review:

[Kipling Avenue – Kirby Road to 500m South of Teston Road Speed Review](#)

Analysis and Options

The updated Transportation Impact Study (TIS) provided to the City finds that the warrant criteria for all-way stop control are not met at the studied intersections

The updated TIS involved collecting traffic volumes in October, 2019, and performed an analysis of the all-way stop control warrant criteria for seven (7) key intersections within the subdivision. The updated TIS assessed all-way stop control under two scenarios, including both the existing conditions and the forecasted full build-out of the subdivisions.

Under existing conditions, the TIS noted that the warrant criteria are close to being satisfied at one (1) of the studied intersections, being the Kleinburg Summit Way & Teston Road intersection. However, the findings indicated that the warrant criteria per the Provincial Warrant is currently not met. Under the forecasted ultimate build-out of the subdivisions, while none of the studied intersections satisfy the Provincial Warrant, four (4) intersections were close to satisfying the warrant criteria, and include:

- Kleinburg Summit Way & Ridgpoint Road
- Kleinburg Summit Way & McMichael Avenue
- Kleinburg Summit Way & Pierre Berton Boulevard
- Kleinburg Summit Way & Teston Road

The updated TIS studied the following intersections:

Intersection	Current Control	Potential Control	OTM Warrant Result
Kipling Ave & McMichael Ave	1-way	all-way	Not met
Kipling Ave & Pierre Berton Blvd	1-way	all-way	Not met
Kleinburg Summit Way & Teston Rd	1-way	all-way	Not met
Kleinburg Summit Way & Pierre Berton Blvd	2-way	all-way	Not met
Kleinburg Summit Way & Lacrosse Trail	2-way	all-way	Not met
Kleinburg Summit Way & McMichael Ave	2-way	all-way	Not met
Kleinburg Summit Way & Ridgpoint Rd	2-way	all-way	Not met

The City's warrant analysis for all-way stop controls takes into consideration the minimum vehicular volumes required, accident hazards, and sight restrictions at the intersection. This warrant analysis is generally based on the thresholds established in Book 5 of the Ontario Traffic Manual. Based on the analysis, the warrant for all-way stop control is not met.

The Ontario Traffic Manual details inappropriate use of traffic control, stating that traffic control should not be used under the following conditions:

- Where the protection of pedestrians, school children in particular is a prime concern. This concern can usually be addressed by other means (such as pedestrian crossovers)
- As a speed control device
- As a means of deterring the movement of through traffic in a residential area

When assessing the application of traffic control in the Monarch Castepoint Kleinburg North subdivisions, the Ontario Traffic Manual clearly defines that the use of all-way stop control should not be used to address the concerns that have been expressed by residents, including pedestrian crossing safety, speed control, and/or traffic calming. The installation of all-way stop control when unwarranted may lead to driver violation and increased vehicle speeds due to the inconvenience all-way stop control introduces. Unwarranted all-way stop control may also provide pedestrians a false sense of safety.

It is the recommendation of Staff that all-way stop control not be implemented as recommended by the Ontario Traffic Manual. Instead, the use of pedestrian crossovers (PXOs) can be explored, per the Ontario Traffic Manual, which involve a varying degree of warning measures and indicators to both drivers and pedestrians to facilitate safe crossings. These measures can be tailored to the specific road conditions or area context, and vehicular volumes, should a PXO be warranted. The measures can include the appropriate signage and pavement markings, including advanced warning signage, and flashing beacons.

Traffic calming measures can be deployed on Kleinburg Summit Way which can encourage reduced vehicle speeds and provide safer pedestrian crossing options

Understanding that speeding concerns are present on Kleinburg Summit Way, traffic calming measures can be explored to encourage reduced vehicle speeds. The City's Neighbourhood Traffic Committee Policy and Procedure (Revised June, 2010) provides guidance on a range of traffic calming measures that can be deployed on roadways

such as Kleinburg Summit Way. Such traffic calming measures that are applicable to Kleinburg Summit Way include:

- Curb Extension / Road Narrowing
- Chicane
- Contrasting Materials
- Pavement Markings
- Warning Signage

Per the subdivision agreement section 21.2.31, “in the event that these traffic calming measures are found to be insufficient and/or ineffective by the City prior to the assumption of the municipal services on the Plan, then the Owner shall design and construct additional traffic calming measures and/or modify existing traffic calming measures to the satisfaction of the City”. As such, it is the responsibility of the Owner to explore and install satisfactory traffic calming measures to address speeding and pedestrian safety concerns. The City has met with the area residents on a number of occasions to explore the appropriate solutions. As a result, it is understood that the Owner has deployed radar speed signs, pavement markings, and signage on Kleinburg Summit Way. The City also installed pavement markings and signage on Kipling Avenue. The City can continue to work with the Owner in assessing the effectiveness of the traffic calming measures, in combination with other potential measures in calming traffic.

With regards to pedestrian crossing safety, other solutions can be explored that do not rely on all-way stop control. Per the recommendations of Ontario Traffic Manual Book 15: Pedestrian Crossing Facilities, a gradient of pedestrian crossover (PXO) facilities can be explored. The Ontario Traffic Manual provides warrant criteria and design recommendations for differing types of PXOs that respond to a range of factors, including traffic volumes, pedestrian volumes, roadway configuration and classification, speed limits, and other design elements.

Traffic volumes can continue to be monitored as the subdivisions near and reach full build-out

While the forecasts conducted in the updated TIS analyzed the subdivisions under full-occupancy, real-world conditions may differ from the forecasts to some extent. Therefore, updated all-way stop control warrant analyses could be conducted as the subdivisions continue to reach full occupancy. Should traffic volumes within the subdivisions exceed the forecasts performed in the updated TIS, and the all-way stop control warrant criteria be met, the City can consider the installation of all-way stop

control. In particular, the City can monitor the key intersections of Kleinburg Summit Way with McMichael Avenue and Pierre Berton Boulevard as these intersections provide access to the community from Kipling Avenue. At this time given the warrant criteria is not met under the forecasted full built-out of the subdivisions, it is recommended that other traffic calming measures and pedestrian crossing solutions be explored.

Traffic and pedestrian volumes may increase

While the intersections do not currently satisfy the warrant for all-way stop-control, traffic volumes may increase above the forecasted volumes, and pedestrian volumes are expected to increase due to on-going growth and development in the area, as well as due to the numerous parks and trail connections throughout the Block. Staff will continue to monitor traffic conditions at these intersections to determine when additional traffic controls are needed.

Financial Impact

There are no financial implications as a result of this report.

Broader Regional Impacts/Considerations

There are no broader regional impacts or considerations as a result of this report.

Conclusion

Traffic studies show that traffic volumes at the studied intersections do not yet meet the Provincial Warrant for all-way stop controls. Other traffic calming measures can be considered to calm traffic, as well as PXOs to be studied to provide safe pedestrian crossing opportunities. Staff recommends that these other measures be investigated.

For more information, please contact:

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Attachment

1. Location Map

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