



Staff Report for Council Meeting

Date of Meeting: July 9, 2019

Report Number: SRPRS.19.109

Department: Planning and Regulatory Services
Division: Development Engineering & Transportation

Subject: **SRPRS.19.109 - Comprehensive Traffic Operations and Parking Review for Red Maple Road**

Purpose:

The purpose of this report to seek Council's approval to implement various traffic and on-street parking operational improvements for Red Maple Road, from Highway 7 to 16th Avenue.

Recommendation(s):

- a) That Chapter 1116, Schedule 'B' (Stopping Prohibited-Signs-Displayed) of the Municipal Code be amended as follows, to introduce "no stopping" restrictions along Red Maple Road, as described below:

(i) Highway: Red Maple Road

Side: Both

From and To: Highway 7 to High Tech Road

Prohibited Time of Day: Anytime

(ii) Highway: Red Maple Road

Side: East

From and To: Bantry Avenue to 60 metres southerly thereof

Prohibited Time of Day: Anytime

(iii) Highway: Red Maple Road

Side: East

From and To: Oneida Crescent (North leg) to 25 metres northerly thereof

Prohibited Time of Day: Anytime

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- b) That Chapter 1116, Schedule 'A' (Parking Prohibited-Signs-Displayed) of the Municipal Code be amended as follows, to introduce "no parking" restrictions on Red Maple Road, as described below:

(i) Highway: Red Maple Road

Side: East

From and To: Levellands Crescent to 16th Avenue

Prohibited Time of Day: 4 pm – 7 pm, Monday - Friday

- c) That removal of the existing parking signage on the west side of Red Maple Road, between Bantry Avenue and Oneida Crescent (North leg), be undertaken to permit on-street parking.
- d) That modifications of the existing northbound right turn lane pavement markings and signage at the southeast corner of the Red Maple Road and Bantry Avenue intersection be undertaken to accommodate the improvements identified in Recommendations a) (ii) and a) (iii).
- e) That Council direct staff to issue notices to resident and businesses affected by the changes in Recommendations a) to d).
- f) That the "no-parking" and no-stopping" changes identified in these recommendations take effect a minimum two weeks after the issuance of the notices, and at the direction of the Commissioner of Planning and Regulatory Services.
- g) That a signalized pedestrian crossing be installed on Red Maple Road at the north approach of Red Maple Road and Oneida Crescent (North Leg) intersection.
- h) That a School Crossing Guard currently located at the intersection of Red Maple Road and Bantry Avenue be re-deployed to the Red Maple Road and Oneida Crescent (North Leg) intersection, once the signalized pedestrian crossing identified in Recommendation g) has been activated.
- i) That an in-year budget request of \$130,000 be approved to implement works identified in the above-noted recommendations.
- j) That a project be established for the Red Maple Road improvements with \$120,000 funded from the Federal Gas Tax Reserve Fund for the intersection pedestrian signal and the remaining \$10,000 from the Transportation Network Repair and Replacement Reserve Fund.

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Report Approval:

Submitted by: Kelvin Kwan, Commissioner of Planning and Regulatory Services

Approved by: Neil Garbe, City Manager

All reports are electronically reviewed and/or approved by the Division Director, Treasurer (as required), City Solicitor (as required), Commissioner and City Manager. Details of the reports approval are attached.

Background:

The City of Richmond Hill's Transportation staff have conducted a comprehensive review of the traffic and parking operations on Red Maple Road from Highway 7 to 16th Avenue. This comprehensive review was carried out at the request of the Local Councillor based on a number of complaints and requests received from residents, motorists, and schools in the area with respect to various traffic operational, safety, and parking issues in the area.

On-street Stopping Prohibition from High Tech Road to Highway 7

City of Richmond Hill staff have received complaints from motorists regarding a number of private coach/tour buses parking and/or stopping along Red Maple Road, between Highway 7 and High Tech Road to pick up patrons for destinations such as casinos.

Red Maple Road, within this section, is a five-lane north-south collector road (two northbound lanes, two southbound lanes, and a centre left turn lane) with 17.6 metres of pavement width. This section of Red Maple Road also has geometric road design constraints due to a horizontal S-curve located north of the Langstaff GO parking driveway to High Tech Road.

This section of Red Maple Road primarily provides access for the Langstaff GO Train Station and surrounding commercial developments, and services the adjacent residential neighbourhoods to the north. As a result, traffic volumes along this section of Red Maple Road are very high, particularly during the morning and afternoon peak periods, and are comparable to volumes along a minor arterial road.

In response to the complaints received, staff have undertaken field investigations and observations regarding this on-street private tour bus stopping situation on Red Maple Road. Based on the observations, staff have reported that the frequent on-street stopping of tour buses to pick up and drop off throughout the day often in the vicinity of the Tim Horton's restaurant has introduced some issues. These stoppages block the

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curb lane resulting in obstructions to two-way traffic flow and a reduction in available road capacity, which is a particular problem during peak periods. The stopped tour buses also obstruct the visibility of motorists turning onto Red Maple Road from the Home Depot/Tim Horton's driveway, which creates potential safety and collision concerns. A review of historical collision data has revealed that 78 collisions have occurred in this section of Red Maple Road during the past 10 years, which is significantly higher than normal for commercial type collector roads in the City. The tour bus obstructions to sight lines for the accesses could pose further risk to motorists and contribute to potential collision factors.

Staff have tried to communicate with the Bus Operators in the past, but have had limited success or results in stopping this activity. As a result, staff recommend that stopping prohibitions be placed along both sides of Red Maple Road from the north limit of Highway 7 to the south limit of High Tech Road (see **Attachment 1**), in order to curb this ongoing activity and to improve traffic operations and safety. This prohibition will also allow for enforcement by the City and York Regional Police as required.

Pedestrian Signal Crossover at Red Maple Road and Oneida Crescent

Over the last several years, Staff have been receiving requests from area residents in the Oneida Crescent area, as well as the Principals at the Red Maple Public School and St. John Paul II Catholic School, to install a midblock pedestrian crossing in the vicinity of the northern intersection of Red Maple Road and Oneida Crescent.

There has been a growing number of vulnerable pedestrians in this area (including school children on Oneida Crescent and the surrounding area as well as elderly residents from the Langstaff Square Care Community seniors' residence) that need to cross Red Maple Road in order to access the Schools, Langstaff Community Centre, Discovery Parkette, and Dr. James Langstaff Community Park situated the east side of Red Maple Road.

Red Maple Road, between High Tech Road and Bantry Avenue, is a 4-lane collector road (13.6 metre pavement width) with significant traffic volumes. This width and volume poses a significant problem for vulnerable users. While there is an existing traffic control signal at the intersection of Bantry Avenue and Red Maple Road, which is approximately 165 metres north of Oneida Crescent (North leg), this becomes somewhat circuitous, and there are clear desire lines to the schools and parks from this location.

In response to these requests, staff have been monitoring the demand at this location for several years. Most recently, Staff conducted a pedestrian crossover assessment for the intersection of Red Maple Road and Oneida Crescent (see **Attachment 2**), as per Ontario Traffic Manual (OTM) Book 15 which is the Provincial guidance document for pedestrian crossing facilities. The assessment takes into account eight-hour pedestrian and traffic volumes, distance of the site from other traffic control devices, and system

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connectivity. The technical criteria for the installation of a pedestrian crossover assessment are as follows:

- Eight-hour pedestrian volume (117 observed vs. 100 threshold) is 100% met;
- Eight-hour traffic volume (9,120 observed vs. 750 threshold) is 100% met; and
- Distance from the nearest traffic control device (165 metres measured vs. 200 metres threshold) is 83% met.

Based on the warrant assessment, the subject intersection fully satisfies the criteria with respect to traffic volumes and pedestrian demand. However, with respect to proximity to other crossing facilities, it is slightly below the threshold. Although this criterion is not absolutely met, the criterion is at 83%, which is within a reasonable range of the threshold. Furthermore, the Decision Support Tool of OTM Book 15 indicates that there is justification for a pedestrian crossover facility where the spacing between two traffic control devices is less than 200 metres, if there is a clear desire line for pedestrian crossings. As noted above, based on the ongoing monitoring and observations made by Staff, there is a clear pedestrian desire line across Red Maple Road for the residents and seniors of Oneida Crescent to directly access the schools, community centre and park facilities, which are situated directly across the street.

The OTM Book 15 also provides information and guidance for transportation practitioners on the type of crossing to apply. Based on the current data and factors, only a Level 2 Type B pedestrian crossover is warranted at this location at this time. A Level 2 Type B crossover consists of a zebra pavement marking, flashing beacons, and appropriate signage.

Transportation analysis carried out as part of recent development applications within the Oneida Crescent high-density development area confirms that a Level 2 Type B crossover is warranted at this time. However, the analysis also indicates that upon full build-out of Oneida Crescent and the surrounding area, a fully-signalized, higher-order pedestrian crossing would will be required.

It should be noted that, as of January 2018, 115 students from the existing six high-rise residential buildings on Oneida Crescent are registered for Red Maple Public School and St. John Paul II Catholic School. Furthermore, a development application is under review for an additional four high-rise residential buildings on the same road, which will add approximately 90 students (forecasted by a consultant study) in the future. Also, the proposed four buildings (about 1,000 units) will add even more pedestrians crossing Red Maple Road to access the facilities on the east side of the road.

In order to maximize the benefit of the developer contribution and minimize future municipal throw-away and construction costs, Staff recommend implementing the fully signalized pedestrian crossing at this time. The additional benefit of implementing the ultimate facility at this time will include less disruption to residents and commuters in the future.

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School Crossing Guard

Staff also reviewed the need to add a school crossing guard at this new pedestrian crossing location in during the morning and afternoon school peak periods.

As per OTM Book 15, a school crossing guard is an optional component for an intersection pedestrian signal. There are a number of factors that are examined to determine if a school crossing guard should be deployed at an intersection or crossing. These include the following:

- **Is the school to be served visible or in proximity of the proposed crossing location?** In this case, Red Maple Public School and St. John Paul II Catholic School are both visible and in close proximity.
- **Is the proposed crossing located within the desired path of travel for pedestrians?** The site inspection process should also verify which route students prefer to take. In this particular case, it was confirmed that the north leg of the subject intersection is the preferred route as evidenced by the uncontrolled pedestrian crossing activity across Red Maple Road, as this location.

Notwithstanding the above, consideration must be given to the Council approved School Crossing Guard Warrant By-law (Confirmatory By-law 61-07 adopted by Council at their meeting of April 23, 2007), before recommending a new school crossing guard. The warrant indicates that a school crossing guard is warranted if all of the following criteria are met:

- There are less than four (4) safe gaps in traffic in fifty percent of the five minutes intervals on a road having a posted speed limit of not more than 60 km/h; and
- The number of students crossing meets or exceeds five (5).

Staff performed a gap study on May 22, 2019 and it was confirmed that the City's assessment criteria noted above, for the placement of school crossing guards, have been satisfied.

A crossing guard was approved for the intersection of Red Maple Road and Bantry Avenue several years ago, as an interim measure, until a mid-block crossing was warranted at Red Maple Road and Oneida Crescent. As such, Staff recommend re-deploying this existing school crossing guard from the Red Maple Road and Bantry Avenue intersection to the proposed signalized pedestrian crossing, once the signal is installed and activated. This school crossing guard re-deployment would be consistent with staff's comments in Delegated Authority report DA.15.037 that stated "this resource [school crossing guard] can be re-deployed in the future to a mid-block crossing location on Red Maple Road once Oneida Crescent and the Town's linear park are built-out."

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Right Turn Lane Modifications and Parking Restrictions at Bantry Avenue

Staff have received a number of complaints regarding vehicles parked in the northbound right-turn lane of the Red Maple Road/Bantry Avenue intersection, obstructing the safe and efficient use of this turn lane, particularly during the roadway peak periods. Staff also received a number of complaints about the parking shortfall on the opposite side of Red Maple Road in front of the seniors' residence, where there are currently parking restrictions between Bantry Avenue and the seniors' residence driveways.

In response to these complaints, Staff have conducted field observations, and operational surveys on the current parking situation at Red Maple Road, south of Bantry Avenue, in response to these complaints.

During these investigations, vehicles were observed regularly parking on the portion of the designated northbound right-turn lane of the Red Maple Road/Bantry Avenue intersection. This is primarily occurring when parents park on the right-turn lane to pick up their children at the end of the school day or when visitors to the seniors' residence cannot find any parking space in their parking lot.

Staff also conducted a traffic operations analysis for the Red Maple Road/Bantry Avenue intersection with the turning movement counts collected on November 28, 2018. The assessment revealed that while there are indeed vehicles parking within the northbound right turn lane causing operational challenges, there is also no need for such a long right-turn lane (120m long) at the intersection. The vehicular queues observed at this location were a maximum of 30m long, which is significantly less than the storage provided.

Based on the above findings, staff recommend the length of the right-turn lane to a point 60m south of Bantry Avenue be reduced to accommodate the appropriate right-turn lane storage and taper. The remaining portion on the east side of Red Maple Road would permit parking extending towards Oneida Crescent. The segment which is 25 metres north of Oneida Crescent is recommended for no stopping in order to have a clear distance and sightlines between the potential first parked car and the recommended pedestrian crossing.

Staff also recommend removing the parking restrictions in front of the seniors' residence to permit parking on the west side of Red Maple Road, between and the seniors' residence driveways (see **Attachment 2**). The existing no parking signage for the fire route was mistakenly placed on Red Maple Road rather than the private laneway adjacent to Red Maple Road. The removal of the no parking signage will correct the mistake and allow on-street parking on Red Maple Road to assist with the parking situation in the area.

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In effect, this will help to address some of the current visitor parking demands for the seniors' residence that will be displaced once parking restrictions are imposed over a portion of the right turn lane on the east side of Red Maple Road. Parked vehicles along the west side of Red Maple Road will also help to create some side friction through reduced lane widths in this area. This will help to encourage reduced speeds in the vicinity of the future pedestrian crossing location. In terms of geometry, the pavement width of Red Maple Road south of Bantry Avenue is wide at 17 metres, as the road begins to transition from a 2-lane roadway north of Bantry Avenue to a 4 –lane roadway south of Bantry Avenue. The parked cars will also help narrow the travel portion of the road providing a transitional effect leading to the proposed pedestrian crossing location with potential to reduce travel speeds.

On-street Parking Prohibitions for Red Maple Road at Levellands Crescent

Staff have also received a number of complaints from motorists/residents regarding parked vehicles along Red Maple Road, between Levellands Crescent and 16th Avenue. Staff conducted field observations and reviewed the traffic operations for this section of Red Maple Road, and the findings are explained below.

Red Maple Road (within the above mentioned section) is a two-lane north-south collector road with 9.75 metres of pavement width. A number of automotive service centres are located within this section of Red Maple Road across from the Vineyards Estate Condominium buildings.

A site investigation indicated that the on-street parking on the east side of Red Maple Road in front of the automotive service centres is creating obstructions to two-way traffic flow. Parked vehicles reduce the pavement width causing northbound motorists to cross the yellow centerline and maneuver into on-coming traffic. This results in potential conflicts and operational impacts, particularly in the afternoon peak hours when the added traffic from commuters of Langstaff GO trains (scheduled from 3:47 to 8:36 p.m.) is added to Red Maple Road. This issue is further exacerbated when there are vehicles stopped to make a left turn into the Vineyard Estates Condominiums. As there is no dedicated northbound left turn lane, motorists are forced to queue up behind a turning vehicle as they cannot pass around it when a car is also parked on the east side of Red Maple Road. Vehicle queues of up to four cars were observed when a northbound vehicle stops on Red Maple Road to turn left at the Vineyards Estate Condominiums.

To improve road operations, safety and traffic flow, particularly during the afternoon peak hours, staff recommend prohibiting parking on the east side of Red Maple Road from the north limit of Levellands Crescent to the south limit of 16th Avenue for the period of 4 p.m. – 7 p.m. on the weekdays (see **Attachment 3**).

To offset some of this loss in parking supply, staff recommend the removal of current parking restrictions on the south side of Colston Court. Currently, there is “No Parking-Anytime” signage in place on Colston Court but this is not reflected in the Municipal

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Code. The removal of this parking restriction will provide an alternative on-street parking location for the affected businesses along Red Maple Road. The existing signage can be removed without amendment of the Municipal Code (see **Attachment 3**).

In addition, staff recommend replacing the existing “No Parking-Anytime” signage with time of day parking restrictions on the west side of Red Maple Road from 16th Avenue to Revelstoke Crescent. The existing signage is not consistent with the Municipal Code and will be replaced with appropriate signage (“No Parking; 8:00 a.m.-4:00 p.m.; Monday-Friday”) in accordance with the By-law (see **Attachment 3**).

Notification of Parking Changes

Staff recommend the appropriate notices be issued to affected businesses and residents along Red Maple Road advising of the parking changes being proposed in this report. Staff also recommend that any of these parking changes will take effect a minimum two weeks after the issuance of the notices, and at the direction of the Commissioner of Planning and Regulatory Services.

Financial/Staffing/Other Implications:

Staff estimate that the improvement measures for Red Maple Road will cost in the order of \$130,000 excluding HST. The cost for the intersection pedestrian signal is estimated to be \$120,000 while the remaining signage and pavement marking improvements along Red Maple Road are estimated to cost \$10,000.

Funding of the \$120,000 as an in-year budget request for the pedestrian crossing is recommended from the Federal Gas Tax Reserve Fund since the pedestrian crossing facility encourages active transportation for residents and students in the area. The remaining \$10,000 for signage and pavement markings is recommended from the Transportation Network Repair and Replacement Reserve Fund.

A school crossing guard is recommended at the north leg of the northern Red Maple Road /Oneida Crescent intersection once the pedestrian crossover has been installed. This school crossing guard will be re-deployed from the existing Red Maple Road and Bantry Avenue intersection location and, as such, there will be no net additional cost for this re-deployment.

Partial Cost Recovery Anticipated for the Pedestrian Facility

The Gates of Bayview developer at Oneida Crescent has agreed in principle to make a contribution toward the implementation of the pedestrian crossing facility on Red Maple Road, as part of their Site Plan approval. Staff are currently working with the developer and their consultant to determine the value of this contribution, which will be based on the portion of contributing traffic and pedestrian volumes to this facility.

As this value of the developer contribution is yet to be determined, Staff are requesting approval of the full budget at this time in order to advance the construction of the signal as soon as possible. As noted previously, City will construct the intersection pedestrian

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signal as an ultimate crossing facility type to minimize future throw-away costs and service disruptions.

Any cost recoveries from the developer group post-construction will be credited to the appropriate City reserve.

Relationship to the Strategic Plan:

The recommendations of this report are consistent with the City's Strategic Plan to "enhance community safety". It also demonstrates responsible municipal management of the City's road network. In addition, the recommendations are consistent with the Strategic Plan's objectives of building stronger transportation connections within the community, which gives better choice for pedestrians, cyclists and motorists.

Conclusion:

Based on a comprehensive review of Red Maple Road traffic and parking operations, from Highway 7 to 16th Avenue, staff have recommended the following improvements:

That "No-Stopping-Anytime" restrictions be added to Red Maple Road, between Highway 7 and High Tech Road, in order to ensure safe and efficient traffic operations and discourage tour buses from parking on-street and obstructing a lane.

The implementation of an east-west pedestrian signal crossover at the north leg of the northern Red Maple Road/Oneida Crescent intersection to provide safe access between the residential neighbourhood on Oneida Crescent and the schools, community centre and park facilities on the east side of Red Maple Road.

The re-deployment of a school crossing guard from the Red Maple Road/Bantry Avenue intersection to the new pedestrian facility, once it is constructed and activated.

Partially restrict parking within the northbound right turn lane of the Red Maple Road/Bantry Avenue intersection, and instead permit parking on the east side of Red Maple Road, south of Bantry Avenue to facilitate the on-street parking demand associated with the Schools and Langstaff Square Care Community seniors' residence.

Introduce "No Parking" restrictions on the east side of Red Maple Road, between Levellands Crescent and 16th Avenue, in order to help maintain unobstructed two-way traffic flow during the afternoon peak hours and to enhance the safety of the road users.

Remove the "No Parking-Anytime" restrictions from the south side of Colston Court to ensure an alternative short time parking location for the automotive service centres and other businesses in the area.

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Removal and replacement of existing signage at the west side of Red Maple Road, between 16th Avenue and Revelstoke Crescent, to make the signage consistent with the existing Municipal Code.

Issuance of proper notification to businesses and residents affected by the implementation of the parking changes and that all changes take effect a minimum two weeks after issuance of the appropriate notices and at the direction of the Commissioner of Planning and Regulatory Services.

Attachments:

The following attached documents may include scanned images of appendixes, maps and photographs. If you require an alternative format please call contact person listed in this document.

- Attachment 1: No Stopping restrictions on Red Maple Road between Highway 7 and High Tech Road.
- Attachment 2: Pedestrian Signal Crossover and Revised Parking locations on Red Maple Road south of Bantry Avenue.
- Attachment 3: Restricted Parking on Red Maple Road between Levellands Crescent and 16th Avenue.

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Report Approval Details

Document Title:	SRPRS.19.109 Comprehensive Traffic Operational Review for Red Maple Road.docx
Attachments:	- Attachment 1.pdf - Attachment 2.pdf - Attachment 3.pdf
Final Approval Date:	Jul 2, 2019

This report and all of its attachments were approved and signed as outlined below:

Dan Terzievski - Jul 2, 2019 - 9:38 AM

Kelvin Kwan - Jul 2, 2019 - 10:55 AM

David Dexter - Jul 2, 2019 - 11:38 AM

Neil Garbe - Jul 2, 2019 - 12:18 PM