

Traffic Control Signals - Steeles Avenue East and Reesor Road (east intersection)

Date: June 14, 2022

To: Scarborough Community Council

From: Director, Traffic Management, Transportation Services

Wards: Ward 25, Scarborough-Rouge Park

SUMMARY

As Steeles Avenue East borders the City of Toronto and City of Markham, City Council approval of this report is required.

Transportation Services has reviewed the need for traffic control signals and/or other intersection improvements to address sightlines and safety of road users at the intersection of Steeles Avenue East and Reesor Road (east intersection). Based on the assessment undertaken, Transportation Services does not recommend the installation of traffic control signals at this intersection as the warrant criteria was not met.

RECOMMENDATIONS

The Director, Traffic Management, Transportation Services recommends that:

1. City Council not authorize the installation of traffic control signals at the intersection of Steeles Avenue East and Reesor Road (east intersection).

FINANCIAL IMPACT

There is no financial impact resulting from the adoption of the recommendation in the report.

If City Council amends the recommendation in this report and authorizes the installation of traffic control signals at the intersection of Steeles Avenue East and Reesor Road (east intersection), the estimated cost is \$180,000. This installation would be considered in 2022 subject to availability of Capital funding and competing priorities.

DECISION HISTORY

At its meeting on February 25, 2022, Scarborough Community Council adopted SC30.13 (Improving Road Safety at Steeles Avenue East and Reesor Road), which recommended Transportation Services conduct a study to determine if traffic control signals is warranted as well to review other intersection improvements to address sightlines and safety of road users at the intersection of Steeles Avenue East and Reesor Road (east intersection), and to report back with findings. The Council decision can be found at:

[Agenda Item History - 2022.SC30.13 \(toronto.ca\)](#).

COMMENTS

Transportation Services was requested by Scarborough Community Council, on behalf of area residents, to investigate the feasibility of installing traffic control signals at the intersection of Steeles Avenue East and Reesor Road (east intersection).

Existing Conditions

Steeles Avenue East is characterized by the following conditions:

- It is a two-lane, east-west, minor arterial roadway
- It operates two-way traffic on a pavement width of approximately 7.5 metres
- The daily two-way traffic volume is approximately 16,000 vehicles
- The speed limit is 60 km/h
- Heavy trucks are permitted at all times
- There is no Toronto Transit Commission (TTC) service provided
- There are no sidewalks on either side of the street

Reesor Road (north) is characterized by the following conditions:

- It is a two-lane, north-south roadway located on the north side of Steeles Avenue East in the City of Markham
- It operates two-way traffic on a pavement width of approximately 7 metres
- The speed limit is 60 km/h
- Heavy vehicle load restriction is in effect year round
- There are no sidewalks on either side of the street

Steeles Avenue East and Reesor Road (north) form a T-type intersection. Reesor Road (north) is stop controlled while Steeles Avenue East is uncontrolled free-flow. There is an overhead yellow flashing beacon for east-west traffic and red flashing beacon for south traffic to indicate to motorists to proceed with caution through the intersection.

The adjacent land use in this area is farmland and parkland.

The closest adjacent traffic controls are located approximately 2.2 kilometres to the west at Ninth Line in the form of traffic control signals and approximately 2.4 kilometres to the east at Pickering Town Line in the form of traffic control signals.

A map of the area is included in Attachment 1.

Traffic Control Signals

To determine the need for traffic control signals at the intersection of Steeles Avenue East and Reesor Road (east intersection), staff rely on the justification criteria as outlined in the Ontario Traffic Manual (OTM) Book 12. The OTM justification criteria includes factors such as volume of vehicles and pedestrians, delay to cross traffic, and collision history. In addition to these technical justifications, staff consider an environmental checklist which includes: consideration of road width, posted speed limit, operating speeds, adjacent land uses, pedestrian desire lines and demographics, presence of a transit stop, sight lines, and distance between existing crossing opportunities.

As part of the investigation, staff conducted vehicle and pedestrian counts on January 27, 2022 at the subject intersection. The results of the counts and collision hazard are summarized in Table 1. The "Collision hazard" criterion is based on the number of collisions potentially preventable by the installation of traffic control signals. Collision history provided by the Toronto Police Service for the three-year period ending December 31, 2021 disclosed six reported collisions at the subject intersection that was potentially preventable by the installation of traffic control signals.

Table 1: Warrant Compliance - Steeles Avenue East and Reesor Road (east intersection)

Justification	Compliance level
Minimum vehicle volume	66%
Delay to cross traffic (pedestrians and vehicles)	64%
Collision hazard	40%

To meet the justification criteria for the installation of traffic control signals, one of the justifications must be 100 percent satisfied or both the minimum vehicular volume and delay to cross traffic justifications must be at least 80 percent satisfied. Based on the technical warrant criteria, the installation of traffic control signals is not justified. The results of this study are consistent with previous traffic control signal studies conducted in 2018 and 2013.

In regards to the environmental checklist, staff completed an assessment and determined that there are no other environmental or external factors that would justify the need for traffic control signals at this time.

Transportation Services does not recommend the installation of traffic control signals as they are not justified based on the technical and environmental criteria that was evaluated.

Intersection Improvements

A review of the area conditions revealed the need to refresh the stop bar pavement marking to improve visibility and awareness of the stop control at the north leg of the intersection. In addition, to improve sightlines of eastbound traffic on Steeles Avenue East view of southbound traffic on Reesor Road and vice versa, it is recommended that the vegetation at the northwest corner of the intersection be trimmed and removed within two metres of back edge of curb.

In summary, Transportation Services does not recommend the installation of traffic control signals as they are not justified. The installation of stop bar pavement marking at the north leg of the intersection, and removal of vegetation to improve sightlines of the intersection.

The Ward Councillor has been advised of the recommendation in this report.

CONTACT

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SIGNATURE

for
Roger Browne, M.A.Sc., P. Eng.
Director, Traffic Management, Transportation Services

ATTACHMENTS

Attachment 1: Map - Traffic Control Signals - Steeles Avenue East and Reesor Road (east intersection)

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