

Traffic Control Signals - Keele Street and Greenbrook Drive/Canon Jackson Drive

Date: June 4, 2021
To: Etobicoke York Community Council
From: Acting Director, Traffic Management, Transportation Services
Wards: Ward 5 - York South-Weston

SUMMARY

As the Toronto Transit Commission (TTC) operates bus service on Keele Street, City Council approval of this report is required.

As per conditions of approval for the development at 2175 Keele Street, the existing traffic control signals at Keele Street and Canon Jackson Drive/Private Access are to be relocated approximately 70 metres to the north to the new intersection of Keele Street and Greenbrook Drive/Canon Jackson Drive.

Transportation Services supports installation of traffic control signals at the intersection of Keele Street and Greenbrook Drive/Canon Jackson Drive.

RECOMMENDATIONS

The Acting Director, Traffic Management, Transportation Services recommends that:

1. City Council authorize the installation of traffic control signals at the intersection of Keele Street and Greenbrook Drive/Canon Jackson Drive.
2. City Council authorize the removal of the existing traffic control signals at Keele Street and Canon Jackson Drive/Private Access, in conjunction with the installation of the traffic control signals as set out in Recommendation 1 above.
3. City Council prohibit westbound through movements at all times from Canon Jackson Drive, east of Keele Street to Greenbrook Drive west of Keele Street, bicycles excepted.

FINANCIAL IMPACT

There are no financial implications associated with adoption of this report as funding has been secured from the proponent of the 2175 Keele Street Development for the new signal and other road improvements along Keele Street. These funds were secured through Zoning By-law Amendment Application No. 15 239429 WET 12OZ.

DECISION HISTORY

Through Zoning By-law Amendment Application No. 15 239429 WET 12OZ, the installation of new traffic control signals was secured for the intersection of Keele Street and Greenbrook Drive/Canon Jackson Drive. In its March 9, 2017 decision, City Council approved the development by adopting Item No. EY20.6. A link to the City Council decision is provided below for reference.

<http://app.toronto.ca/tmmis/viewAgendaItemHistory.do?item=2017.EY20.6>

COMMENTS

A townhouse and mid-rise apartment building containing a total of 650 units is being constructed at 2175 Keele Street. The development site is located on the east side of Keele Street at Greenbrook Drive and includes a new public road, Canon Jackson Drive, a dedicated public highway, not yet assumed. The new public road, Canon Jackson Drive, has an approximate distance of 265 metres and terminates in a cul-de-sac.

As part of conditions of approval at the development review stage, new traffic control signals are to be installed at the new intersection of Keele Street and Greenbrook Drive/Canon Jackson Drive, and the existing traffic control signals at Keele Street and Canon Jackson Drive/Private Access are to be removed.

The former Canon Jackson Drive, that was located south of the subject location, has been closed.

Existing Conditions

Keele Street is characterized by the following conditions:

- It is a four-lane with centre left turn lane, north/south, major arterial roadway
- It operates two-way traffic on a pavement width of approximately 17.8 metres
- The daily two-way traffic volume is approximately 20,000 vehicles
- The unposted regulatory speed limit is 50 km/h
- Heavy trucks are permitted at all times
- There is TTC service provided by the Keele 41 Bus
- There are sidewalks located on both sides of the street

Greenbrook Drive is characterized by the following conditions:

- It is a two-lane, east/west, local roadway
- It operates two-way traffic on a pavement width of approximately 8.5 metres
- The daily two-way traffic volume is approximately 700 vehicles
- The posted regulatory speed limit is 30 km/h
- Heavy trucks are prohibited at all times
- There is no TTC service provided
- There are sidewalks located on the north side of the street from Keele Street to a point 45m west and on the south side of the street from Keele Street to a point 80 metres west
- Traffic calming (speed humps and traffic islands) exists between Keele Street and Trethewey Drive

Keele Street and Greenbrook Drive form a "T" type intersection. Greenbrook Drive is stop-sign controlled while Keele Street is uncontrolled free-flow.

The closest adjacent traffic controls are located approximately 70 metres to the south at Canon Jackson Drive/Private Access in the form of a traffic control signal and approximately 240 metres to the north at Ingram Drive/Gulliver Road in the form of traffic controls signals.

A map of the area is included in Attachment 1.

Traffic Control Signals

One of the conditions of approval for the mixed use development on the east side of Keele Street was that traffic control signals be installed at the intersection of Keele Street and Greenbrook Drive/Canon Jackson Drive. A traffic signal warrant analysis was conducted by the proponents' transportation consultant, which includes projected traffic generated by the development, vehicle and pedestrian counts, delay to cross traffic and collision history.

Table 1: Warrant Compliance - Keele Street and Greenbrook Drive/Canon Jackson Drive.

Justification	Compliance level
Minimum vehicular volume	74%
Delay to cross traffic (pedestrians and vehicles)	100%
Collision hazard	0%

To meet the justification criteria for the installation of traffic control signals, one of the justifications must be 100 percent satisfied or any two of the three justifications must be at least 80 percent satisfied. According to the information provided by the proponent and based on the results in Table 1, traffic signals are warranted under Justification 2 of the Ontario Traffic Manual Book 12.

Additionally, as part of the site plan approval, westbound through movements from the new public road, Canon Jackson Drive, are prohibited at the signalized intersection to mitigate any potential traffic infiltration from the development to Greenbrook Drive.

The TTC has been consulted and concurs with these findings. However, the TTC recommends relocating the existing stops near the now closed former Canon Jackson Drive/Private Access to the intersection of Keele Street and Greenbrook Drive/Canon Jackson Drive.

Based on the aforementioned, Transportation Services is recommending the relocation of the traffic control signal from Keele Street and Canon Jackson Drive/Private Access to Keele Street and Greenbrook Drive/Canon Jackson Drive.

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

CONTACT

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SIGNATURE

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

ATTACHMENTS

Attachment 1: Map - Traffic Control Signals - Keele Street and Greenbrook Drive/Canon Jackson Drive

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