

Traffic Control Signals and Traffic Regulations - Yonge Street and Delisle Avenue/Private Driveway

Date: December 18, 2024

To: Toronto and East York Community Council

From: Director, Traffic Management, Transportation Services

Wards: Ward 12, Toronto-St. Paul's

SUMMARY

As the Toronto Transit Commission (TTC) operates a transit service on Yonge Street West, City Council approval of this report is required.

As per conditions of approval for the development at 1-15 Delisle Avenue and 1496-1510 Yonge Street, the installation of traffic control signals at the intersection of Yonge Street and Delisle Avenue is required. This installation will include the existing private driveway on the east side of Yonge Street. The technical justification for the installation of traffic control signals is satisfied, therefore, the installation of traffic control signals on Yonge Street and Delisle Avenue/private driveway is recommended.

Transportation Services supports the installation of traffic control signals at the intersection of Yonge Street and Delisle Avenue/private driveway. This installation will require amendments to the existing traffic and parking regulations at this intersection.

RECOMMENDATIONS

The Director, Traffic Management, Transportation Services recommends that:

1. City Council authorize the installation of traffic control signals at the intersection of Yonge Street and Delisle Avenue/Private Driveway.
2. City Council rescind the existing westbound left-turn prohibition in effect at all times at the intersection of Yonge Street and a point 111 metres north of St. Clair Avenue East (the parking lot access at 1501 Yonge Street).

3. City Council rescind the existing southbound left-turn prohibition in effect from 6:00 a.m. to 7:00 p.m. at the intersection of Yonge Street and a point 111 metres north of St. Clair Avenue East (the parking lot access at 1501 Yonge Street).
4. City Council rescind the existing compulsory turn in effect at all times on Yonge Street from Parking lot access/driveway opposite of Delisle Avenue to Delisle Avenue.
5. City Council rescind the existing maximum 20-minute delivery parking zone in effect all times on the east side of Yonge Street, between a point 85.7 metres north of St. Clair Avenue East and a point 20 metres further north.
6. City Council rescind the existing stopping prohibition in effect at all times on the east side of Yonge Street, between Heath Street and a point 105.7 metres north of St. Clair Avenue East.
7. City Council amend the existing stopping prohibition in effect at all times on the east side of Yonge Street, between a point 85.7 metres north of St. Clair Avenue East and a point 30.5 metres north of Roxborough Street West (north intersection), to be in effect between Heath Street East and a point 30.5 metres north of Roxborough Street East.
8. City Council prohibit southbound left-turns at all times (bicycles excepted) at the intersection of Yonge Street and Delisle Avenue/Private Driveway.
9. City Council prohibit eastbound through movements at all times (bicycles excepted) at the intersection of Yonge Street and Delisle Avenue/Private Driveway.

FINANCIAL IMPACT

There are no financial implications associated with adoption of this report as funding has been secured from the proponents of the 1-15 Delisle Avenue/1496-1510 Yonge Street development for the new signal and other road modifications along Yonge Street. These funds were secured through Zoning By-law Amendment Application No. 18 189938 STE 22 OZ and Site Plan Control Application No. 21 122895 STE 12 SA.

DECISION HISTORY

Through Zoning By-law Amendment Application No. 18 189938 STE 22 OZ and Site Plan Control Application No. 21 122895 STE 12 SA, the installation of traffic control signals was secured for the intersection of Yonge Street and Delisle Avenue. In its March 10, 2021 decision, City Council approved the development by adopting Item No. TE23.14. The City Council decision can be found at:

[Agenda Item History - 2021.TE23.14 \(toronto.ca\)](#)

COMMENTS

The development site is located on the southwest corner of Yonge Street and Delisle Avenue, extending from Delisle Avenue to the northern property line of 2 St. Clair Avenue West.

The current proposal includes one mixed-use building at 44 storeys containing a total of 371 residential dwelling units, 1,252 sq. metres of retail gross floor area (GFA), 723 sq. metres of office GFA, and a total of 166 parking spaces. Access for the subject site will be provided via a driveway connection to Delisle Avenue.

As part of conditions of approval at the development review stage, new traffic control signals are to be installed at the intersection of Yonge Street and Delisle Avenue.

Existing Conditions

Yonge Street is characterized by the following conditions:

- It is a north-south, major arterial roadway that is comprised of one lane in each direction for general traffic, as well as cycling lanes on both sides of the street
- It operates two-way traffic on a pavement width of 12.8 metres
- The daily two-way traffic volume is approximately 16,700 vehicles
- The speed limit is 40 km/h
- Heavy trucks are permitted at all times
- There is TTC bus service provided by the 97 Yonge and 320 Yonge Night Bus routes
- There are sidewalks located on both sides of the street

Delisle Avenue is characterized by the following conditions:

- It is an east-west, local roadway that is comprised of one lane in each direction for general traffic
- It operates two-way traffic on a pavement width of 7.3 metres
- The daily two-way traffic volume is approximately 2,600 vehicles
- The speed limit is 30 km/h
- Heavy trucks are prohibited at all times
- There is no TTC service provided
- There are sidewalks located on both sides of the street

Yonge Street and Delisle Avenue currently form a "T" type intersection. However, it is noted that there is an east leg private driveway to a surface parking lot located at 1501 Yonge Street, opposite Delisle Avenue, which will be included within the traffic control signals. However, this driveway will be closed/removed via a future potential development proposal on the lands known as 1485 Yonge Street/22 St. Clair Avenue East.

The adjacent land use in this area is a mix of residential, business, and commercial. The closest adjacent traffic controls are located approximately 120 metres to the south at Yonge Street and St. Clair Avenue and approximately 110 metres to the north at Yonge Street and Heath Street.

A map of the area is included in Attachment 1.

Transportation Services has reviewed the need for either a pedestrian crossover or traffic control signals at this location to determine if either device should be recommended as an appropriate pedestrian crossing protection.

Pedestrian Crossover (PXO)

To determine the need for a PXO at Yonge Street and Delisle Avenue, staff rely on the justification criteria as outlined in the Ontario Traffic Manual (OTM) Book 12. The OTM justification criteria includes two main factors: the volume of vehicles and pedestrians, and pedestrian delay to cross traffic. As such, based on the traffic volumes on Yonge Street, the PXO warrant requires a minimum of 220 pedestrians crossing Yonge Street over eight hours. Also, based on the pedestrian crossing volume, at least 75 pedestrians must be delayed more than 10 seconds.

An eight-hour pedestrian volume count was conducted (in May 2018) by the proponents' transportation consultant, BA Group, and submitted as part of their Transportation Considerations Study, dated July 6, 2018, and revised via their Update and Response to City comments letter, dated March 28, 2022. This study documented the eight-hour pedestrian and vehicle volumes at the intersection of Yonge Street and Delisle Avenue.

As per the City's standard approach, seniors, unassisted children, and people with disabilities that are observed crossing are given a higher weighting by a factor of two. In this case, the submitted data was not classified and could not be adjusted. However, the unadjusted volume of pedestrians observed crossing Yonge Street over eight hours was 705, which greatly exceeds the above-noted minimum of 220.

In addition, the data did not document how often these crossing pedestrians were delayed greater than 10 seconds. Given the high volumes and current number of pedestrians crossing Yonge Street, it was assumed that the number of pedestrians that experienced a delay greater than 10 seconds will be at least 75. As such, the compliance level of the study results in relation to the warrant criteria is shown in Table 1 below.

Table 1: Pedestrian Crossover Warrant Criteria and Compliance at Yonge Street and Delisle Avenue

Justification	Compliance
Pedestrian volume	100 percent
Pedestrian delay	100 percent

In order to meet the warrant criteria, 100 percent compliance is required in both categories. Based on the results of the above-noted submitted study, a PXO is technically justified as both the pedestrian volume and delays have met the minimum requirements.

Environmental safety characteristics were also evaluated to ensure that the installation of a PXO would be appropriate at this location. Details of the evaluation are included in Attachment 2. Based on the evaluation, a PXO would not be a suitable type of pedestrian crossing protection at this location because of the substandard spacing to adjacent traffic controls and a driveway nearby. Therefore, traffic control signals would be a more suitable traffic control at this location rather than a PXO.

Traffic Control Signals

As such, one of the conditions of approval for the development at the southwest corner of Yonge Street and Delisle Avenue was the installation of traffic control signals at the intersection of Yonge Street and Delisle Avenue/private driveway.

A traffic signal warrant analysis was conducted by the proponents' transportation consultant, BA Group, and submitted in their Transportation Considerations Study, dated July 6, 2018, and revised via their Update and Response to City comments letter, dated March 28, 2022. This traffic signal warrant analysis includes projected traffic generated by the development, vehicle and pedestrian counts, and delay to cross traffic.

The results of the projected 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 statistics provided by the Toronto Police Service for the three-year period ending November 30, 2024 disclosed eleven collisions at Yonge Street and Delisle Avenue. Further review of these collisions noted that five were potentially preventable by the installation of pedestrian crossing protection.

Table 2: Warrant Compliance - Yonge Street and Delisle Avenue

Justification	Compliance level
Minimum vehicular volume	25%
Delay to cross traffic (pedestrians and vehicles)	95%
Collision hazard	33%

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 results in Table 2, the numerical warrants for the installation of traffic control signals are not satisfied at this time.

Regarding the environmental checklist that is used in addition to the numeric traffic control signal warrants, staff noted the following environmental factors:

- The high number of pedestrian generators in the immediate area, including shops, restaurants, offices, and a subway station, along with planned public parks/community spaces on both sides of Yonge Street, which will attract vulnerable pedestrians to cross the street
- Future developments in the area, particularly around Yonge Street and St. Clair Avenue, that will increase pedestrian activity

In considering the above environmental factors, Transportation Services recommends the installation of traffic control signals at Yonge Street and Delisle Avenue as it will provide enhanced safety for all road users.

The TTC has been advised of our recommendation and concurs with the installation of traffic control signals at Yonge Street and Delisle Avenue.

Other Considerations

To implement the traffic signal controls, the existing regulations along Yonge Street are required to change. This includes the removal of the existing on-street parking spaces along the east side of the street, to the south of the east leg of the Yonge Street/Delisle Avenue intersection. This is required to permit the installation of a dedicated northbound left-turn lane.

It should be noted that the installation of traffic control signals will have the following additional impacts:

- The loss of approximately four on-street parking spaces located with a 20-minute parking/loading zone within the above-noted segment of Yonge Street.
- There will be an increase in delays to motorists on Yonge Street as a result of the traffic control signal installation
- There is potential for increase in delays to transit service on Yonge Street as north-south traffic will no longer operate as free-flow

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

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SIGNATURE



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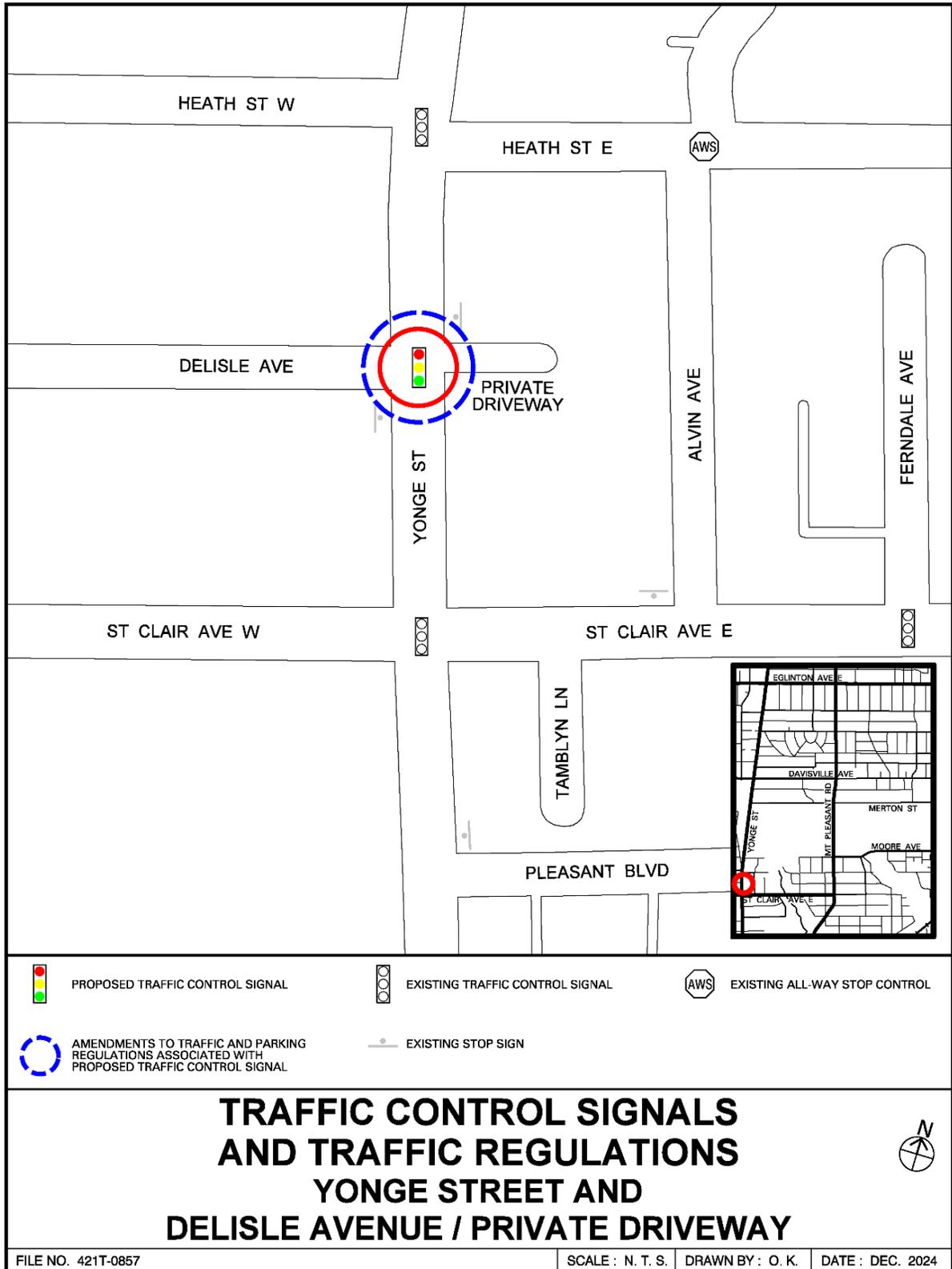
Roger Browne, M.A.Sc., P. Eng.
Director, Traffic Management, Transportation Services

ATTACHMENTS

Attachment 1: Map - Traffic Control Signals - Yonge Street and Delisle Avenue/Private Driveway

Attachment 2: Environmental Safety Audit - PXO - Yonge Street and Delisle Avenue

Attachment 1: Map - Traffic Control Signals - Yonge Street and Delisle Avenue/Private Driveway



Attachment 2: Environmental Safety Audit - PXO - Yonge Street and Delisle Avenue

Standard	Comments	Standard Met/Not Met
Vehicle operating speed less than 60 km/h	The posted speed limit on Yonge Street is 40 km/h	Met
Not more than four lanes wide on a two-way street or more than three lanes wide on a one-way street	Yonge Street operates with one lane in each direction	Met
Traffic volume not more than 35,000 vehicles per day	Yonge Street carries approximately 16,700 vehicles per day	Met
No significant volume of turning movements	The volume of traffic turning to/from Yonge Street (at Delisle Avenue) is significant (approx. 1,900 vehicles over busiest eight hours)	Not Met
No visibility problems exist for either pedestrians or motorists	No vertical or horizontal curves	Met
No loading zones (including TTC) in the immediate area	There are no TTC stops located at this location and the existing on-street parking/loading zone is proposed to be removed	Met
No driveways or entrances nearby	There is a driveway on the east side of the intersection, however this will be incorporated into the traffic control signals	Met
Spacing is not less than 200 metres to another pedestrian crossover or traffic control sign	Yonge St/St. Clair Avenue (TCS) - 120 metres south Yonge St/Heath Street (TCS) - 110 metres north	Not Met