TORONTO

REPORT FOR ACTION

Traffic Control Signals and Traffic Regulations - 1245 Dupont Street

Date: October 30, 2023

To: Toronto and East York Community Council

From: Director, Traffic Management, Transportation Services

Wards: Ward 9, Davenport

SUMMARY

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

1245 Dupont Street is the site of the former Galleria Mall, located at the southwest corner of Dufferin Street and Dupont Street. This site is being redeveloped for over 2,800 new residential units as well as other uses, including retail, office and community centre/daycare uses. A number of new public and private roads will be constructed within this site. As per the conditions of approval for this development, the installation of new traffic control signals and traffic regulations are required to accommodate the new land usage and provide enhanced road safety and connectivity for the community.

Transportation Services is requesting approval to install traffic control signals at the following three intersections based on the technical and environmental criteria:

- Dupont Street and Galleria Road
- Dupont Street and Radiator Street
- Dufferin Street and Galleria Road

Transportation Services is also requesting approval to prohibit left turn movements at the following two private roadways that will intersect the south side of Dupont Street:

- Dupont Street and Record Lane
- Dupont Street and Graphophone Grove

The proposed traffic control signals will provide enhanced safety for all road users and the proposed turn restrictions will ensure left turn movements will be made at signalized intersections. All costs will be borne by the developer.

RECOMMENDATIONS

The Director, Traffic Management, Transportation Services recommends that:

- 1. City Council authorize the installation of traffic control signals at the intersection of Dupont Street and Galleria Road/Private Access.
- 2. City Council authorize the installation of traffic control signals at the intersection of Dupont Street and Radiator Street.
- 3. City Council authorize the installation of traffic control signals at the intersection of Dufferin Street and Galleria Road.
- 4. City Council prohibit westbound left-turns at all times, on Dupont Street at Record Lane.
- 5. City Council prohibit northbound left-turns at all times, on Dupont Street at Record Lane.
- 6. City Council prohibit westbound left-turns at all times, on Dupont Street at Graphophone Grove.
- 7. City Council prohibit northbound left-turns at all times, on Dupont Street at Graphophone Grove.

FINANCIAL IMPACT

There are no financial implications associated with the adoption of this report as funding has been secured from the proponent of the 1245 Dupont Street (Galleria Mall) development for the three new signals. These funds were secured through Draft Plan of Subdivision Application No. 18 214150 STE 18 SB.

DECISION HISTORY

Through Zoning By-law Amendment Application No. 16 231334 STE 18 OZ and Draft Plan of Subdivision Application No. 18 214150 STE 18 SB, the installation of three traffic control signals was secured for the intersections of Dupont Street and Galleria Road, Dupont Street and Radiator Street, and Dufferin Street and Galleria Road in its June 26, 2018, decision, City Council approved the development by adopting Item No. TE33.5. The City Council decision can be found at:

Agenda Item History - 2018.TE33.5 (toronto.ca)

COMMENTS

As part of the conditions of approval at the development review stage for 1245 Dupont Street (formerly Galleria Mall), three new traffic control signals are to be installed at the intersections of Dupont Street and Galleria Road, Dupont Street and Radiator Street and Dufferin Street and Galleria Road. Left turn movements will also be prohibited at all times at the intersections of Dupont Street and Record Lane and Dupont Street and Graphophone Grove.

The development site is located in the southwest quadrant of the Dupont Street and Dufferin Street intersection, bounded on the north by Dupont Street, on the east by Dufferin Street, on the south by Wallace Emerson Park Trail and Wallace Emerson Park, and on the west by Emerson Avenue.

The overall site lands are divided into five Blocks, 1 to 5, which are proposed to include a maximum of 2,846 dwelling units and 29,464 square metres of non-residential gross floor area (GFA) for retail, office, and community centre/daycare uses. A total of 2,748 parking spaces are proposed within five-level underground parking for the east development (Blocks 1 to 3) and four-level underground parking for the west development (Blocks 4 and 5).

This development will include two new public roadways:

- Galleria Road, which will run east-west from Dupont Street to Dufferin Street
- Radiator Street, which will run north-south from Dupont Street to Galleria Road

Furthermore, the development will also include three new private roadways:

- Record Lane, which will run north-south from Dupont Street to Galleria Road
- Graphophone Grove, which will run north-south from Dupont Street to Galleria Road
- Album Lane, which will run east-west from Galleria Road and Radiator Street, terminating before Dupont Street and Dufferin Street

A map of the area is included in Attachment 1.

The traffic regulations for the proposed new public roadways, including parking, stop controls and speed limits, will be addressed in a subsequent report to Toronto and East York Community Council.

Existing Conditions

Dupont Street is characterized by the following conditions:

- It is a four-lane, east-west, major arterial roadway
- It operates two-way traffic on a pavement width of approximately 13.8 metres
- The daily two-way traffic volume is approximately 20,000 vehicles

- The speed limit is 40 km/h
- Heavy trucks are permitted at all times
- There is TTC service provided by the 26 Dupont Bus
- There are sidewalks located on both sides of the street

Dufferin Street is characterized by the following conditions:

- It is a four-lane, north-south, major arterial roadway
- It operates two-way traffic on a pavement width of approximately 12.7 metres
- The daily two-way traffic volume is approximately 23,000 vehicles
- The speed limit is 40 km/h
- Heavy trucks are permitted at all times
- There is TTC service provided by the 29 Dufferin Bus, the 929 Dufferin Express Bus, and the 329 Dufferin Night Bus
- There are sidewalks located on both sides of the street

The new internal roads (Galleria Road and Radiator Street) have not been constructed yet but will generally operate with the following conditions:

- Two-way traffic
- The speed limit will be 30 km/h
- Heavy trucks will be prohibited at all times
- These roadways have been designed to accommodate potential transit bus looping, future service will be determined through TTC's service planning process
- There will be sidewalks on both sides of the street

The adjacent land use in this area is a mix of residential, business and commercial. A substantial amount of additional retail and residential density is planned in the area of the intersection, as well as a new community centre to replace the existing Wallace-Emerson Community Centre. The planned new community centre will be located in the southwest quadrant of the Dupont Street and Galleria Road intersection and will anchor an expanded Wallace-Emerson Park. A pedestrian plaza will be located between the planned community centre and the Dupont Street and Galleria Road intersection. Vehicular access (entrance/exit) to Wallace Emerson Park is provided on Dufferin Street.

Additionally, there is a Fire Hall (Toronto Fire Station #345) located on the east side of Dufferin Street, south of Dupont Street. The proposed traffic control signals will provide a controlled pedestrian crossing location in proximity to the planned community centre and the expanded Wallace-Emerson Park.

Traffic Control Signals

As part of the conditions of approval for the subject development, the installation of three traffic signals are proposed at the following intersections:

- Dupont Street and Galleria Road
- Dupont Street and Radiator Street
- Dufferin Street and Galleria Road

To determine the need for traffic control signals at the three intersections above, 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.

The results of the counts are summarized below. The "Collision hazard" criterion is part of the warrants and is based on the number of collisions potentially preventable by the installation of traffic control signals. However, as the construction of the three intersections are planned, the collision history does not exist and is not available for inclusion in the analysis.

Traffic signal warrant analysis was conducted by the proponents' transportation consultant (BA Group) on behalf of Almadev (the developer of the Galleria Mall redevelopment), which includes projected traffic generated by the development, vehicle and pedestrian counts and delay to cross traffic.

Dupont Street and Galleria Road

Dupont Street and Galleria Road will form a "T" type intersection; however, it is planned that an existing private site driveway (connecting to Dupont Street) would be reconfigured to form the north leg of the intersection.

The closest adjacent existing traffic controls are located approximately 260 metres to the west at Lansdowne Avenue and approximately 380 metres to the east at Dufferin Street in the form of traffic control signals. It is also noted, that as part of the subject development, traffic control signals have also been proposed approximately 200 metres to the east at Dupont Street and Radiator Street.

The results using the projected traffic counts are summarized in Table 1.

Table 1: Warrant Compliance - Dupont Street and Galleria Road

Justification	Compliance level
Minimum vehicular volume	24%
Delay to cross traffic (pedestrians and vehicles)	82%

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 1, the installation of traffic control signals is not justified.

In regards to the environmental checklist, staff noted the following environmental factors:

- the long spacing between pedestrian crossing protection on Dupont Street
- the presence of transit stops in both directions on Dupont Street that will attract pedestrians to cross the street
- the pedestrian generators in the immediate area, including residential and community health centres, that will attract vulnerable pedestrians to cross the street
- the four-lane cross-section on Dupont Street
- the alignment of Dupont Street ("S" curve) that reduces the sightlines for motorists of potential pedestrian and vehicle crossing movements

In considering the above environmental factors, Transportation Services recommends the installation of traffic control signals at Dupont Street and Galleria Road.

Dupont Street and Radiator Street

Dupont Street and Radiator Street will form a "T" type intersection. The closest adjacent existing traffic controls are located approximately 460 metres to the west at Lansdowne Avenue and approximately 180 metres to the east at Dufferin Street in the form of traffic control signals. It is also noted that as part of the subject development, traffic control signals have also been proposed approximately 200 metres to the west at Dupont Street and Galleria Road.

The results using the projected traffic counts are summarized in Table 2.

Table 2: Warrant Compliance - Dupont Street and Radiator Street

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

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 installation of traffic control signals is justified.

In regards to the environmental checklist, staff noted the following environmental factors:

- the long spacing between pedestrian crossing protection on Dupont Street
- the presence of transit stops in both directions on Dupont Street that will attract pedestrians to cross the street
- the pedestrian generators in the immediate area, including residential and community health centres, that will attract vulnerable pedestrians to cross the street
- the four-lane cross-section on Dupont Street

In considering the above environmental factors, Transportation Services recommends the installation of traffic control signals at Dupont Street and Radiator Street.

Dufferin Street and Galleria Road

Dufferin Street and Galleria Road will form a "T" type intersection. The closest adjacent existing traffic controls are located approximately 130 metres to the north at Dupont Street and approximately 170 metres to the south at Hallam Street in the form of traffic control signals.

The results using the projected traffic counts are summarized in Table 3.

Table 3: Warrant Compliance - Dufferin Street and Galleria Road

Justification	Compliance level
Minimum vehicular volume	69%
Delay to cross traffic (pedestrians and vehicles)	100%

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 3, the installation of traffic control signals is justified.

In regards to the environmental checklist, staff noted the following environmental factors:

- the long spacing between pedestrian crossing protection on Dufferin Street
- the pedestrian generators in the immediate area, including a municipal park, residential and community health centres, that will attract vulnerable pedestrians to cross the street
- the four-lane cross-section on Dufferin Street

In considering the above environmental factors, Transportation Services recommends the installation of traffic control signals at Dufferin Street and Galleria Road.

Proposed Traffic Regulations

As part of the development, three new private roadways are proposed: Graphophone Grove, Record Lane and Album Lane. The naming of the three new private roadways was adopted by City Council on April 12, 2023, as per Item No. TE4.2.

Agenda Item History - 2023.TE4.2 (toronto.ca)

The proposed traffic regulations will improve safety for all road users travelling along Dupont Street by minimizing traffic congestion and travel delays by permitting the development's northbound and westbound left-turns exclusively at the signalized intersections. Accordingly, the northbound and westbound left-turn restrictions are proposed to/from the development at Dupont Street and Record Lane and at Dupont Street and Graphophone Grove.

Other Considerations

It should be noted that the installation of traffic control signals has the potential for increased delays to transit service on Dupont Street. The TTC has been consulted and concurs with these findings. However, as noted in their memorandum dated July 6, 2022, in order to minimize the delay incurred by the two new traffic control signals on Dupont Street, the applicant is required to equip the new signals with Transit Signal Priority at no cost to the TTC. To offset the remaining delay incurred by these signals, the applicant must provide \$70,000 for the installation of Transit Signal Priority at two other intersections along the 26 Dupont Bus route.

Staff recommend the installation of traffic control signals based on the technical and environmental criteria including the long spacing between existing pedestrian crossing protections and the presence of pedestrian generators in the area.

The Ward Councillor has been advised of the recommendations 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 and Traffic Regulations - 1245 Dupont Street

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