

All-Way Stop Control - Toynbee Trail at Various Locations

Date: February 7, 2023

To: Scarborough Community Council

From: Director, Traffic Management, Transportation Services

Wards: Ward 24, Scarborough-Guildwood

SUMMARY

This staff report is about a matter that Community Council has delegated authority from City Council to make a final decision.

Transportation Services has reviewed the need for all-way stop control at the intersections of Toynbee Trail at:

- Navarre Crescent
- Nuffield Drive (east intersection)
- Nuffield Drive (west intersection)
- Regency Square
- Somerdale Square
- Wythenshawe Wood

Based on the assessment undertaken, Transportation Services does not recommend the installation of all-way stop control at these six intersections as the warrant criteria was not met.

RECOMMENDATIONS

The Director, Traffic Management, Transportation Services recommends that:

1. Scarborough Community Council not authorize all-way compulsory stop control at the intersection of Toynbee Trail and Navarre Crescent.
2. Scarborough Community Council not authorize all-way compulsory stop control at the intersection of Toynbee Trail and Nuffield Drive (east intersection).

3. Scarborough Community Council not authorize all-way compulsory stop control at the intersection of Toynbee Trail and Nuffield Drive (west intersection).
4. Scarborough Community Council not authorize all-way compulsory stop control at the intersection of Toynbee Trail and Regency Square.
5. Scarborough Community Council not authorize all-way compulsory stop control at the intersection of Toynbee Trail and Somerdale Square.
6. Scarborough Community Council not authorize all-way compulsory stop control at the intersection of Toynbee Trail and Wythenshawe Wood.

FINANCIAL IMPACT

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

If Scarborough Community Council amends the recommendation in this report and authorizes the installation of all-way stop control, the estimated cost associated with the amendment for all locations is \$9,733.50. Funding would be subject to availability and competing priorities within the Transportation Services 2023 Interim Operating and Capital Budgets.

DECISION HISTORY

This report addresses a new initiative.

COMMENTS

At the request of the Ward Councillor, Transportation Services investigated the feasibility of installing all-way stop control at the intersection of Toynbee Trail at Navarre Crescent; Nuffield Drive (east intersection); Nuffield Drive (west intersection), Regency Square; Somerdale Square; Navarre Crescent; and Wythenshawe Wood.

Existing Conditions

Toynbee Trail is characterized by the following conditions:

- It is a two-lane, north-south and 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 speed limit is 40 km/h

- Heavy trucks are prohibited at all times
- There is no Toronto Transit Commission (TTC) service provided
- There are sidewalks located on the south side between Livingston Road (north intersection) and Nuffield Drive (west intersection). Both sides of the road between Nuffield Drive (west intersection) and Wythenshawe Wood. There are no sidewalks between Wythenshawe Wood and Livingston Road (south intersection)

Navarre Crescent, Nuffield Drive, Regency Square, Somerdale Square, and Wythenshawe Wood are characterized by the following conditions:

- They are two-lane, north-south and east-south local roadways
- They operate two-way traffic on a pavement width of approximately 6.5 metres
- They have a speed limit of 50 km/h
- Heavy trucks are prohibited at all times
- There is no TTC service provided
- There are no sidewalks on either sides of the streets

These six intersections intersect to form right-angled three-leg intersections, with right-of-way controlled by stop signs for northbound traffic on Nuffield Drive (east and west intersections), eastbound traffic on Wythenshawe Wood, westbound on Navarre Crescent, and southbound on Regency Square and Somerdale Square.

The area is comprised of residential homes.

A map of the area is included in Attachment 1.

Study Results

In order for all-way stop control to be warranted at an intersection, established criteria must be satisfied. The warrants consist of four components, including: collision history, total vehicle volume, combined vehicle and pedestrian volumes crossing the major road and the percentage of traffic on the major road.

Collision history provided by the Toronto Police Service for the three-year period ending December 31, 2022, disclosed that one reported right-angled collision occurred at the intersection of Toynbee Trail and Wythenshawe Wood and it involved a cyclist. This collision was considered potentially preventable by the installation of all-way stop control.

Transportation Services conducted an all-way stop control study at the six subject intersections. The results of the study were evaluated against the warrant criteria for all-way stop control as adopted by City Council. The evaluation is summarized in Table 1-6.

Table 1: All-Way Stop Control Study at Toynbee Trail and Navarre Crescent

No.	Warrant Type	Actual	Required	Satisfied (Yes/No)
A	Number of Potentially Preventable Collisions January 1, 2020 to December 31, 2022	0	6	No
B1	Average Vehicle Volumes	70/hour	250	No
B2	Combined Vehicle & Pedestrian Volumes Crossing Major Road (Average)	15/hour	100/hour	No
B3	Percentage of Traffic on Major Street	82%	≤70%	No

Table 2: All-Way Stop Control Study at Toynbee Trail and Nuffield Drive (east intersection) (April 20, 2022)

No.	Warrant Type	Actual	Required	Satisfied (Yes/No)
A	Number of Potentially Preventable Collisions January 1, 2020 to December 31, 2022	0	6	No
B1	Average Vehicle Volumes	36/hour	250	No
B2	Combined Vehicle & Pedestrian Volumes Crossing Major Road (Average)	13/hour	100/hour	No
B3	Percentage of Traffic on Major Street	72%	≤70%	No

Table 3: All-Way Stop Control Study at Toynbee Trail and Nuffield Drive (west intersection) (May 11, 2022)

No.	Warrant Type	Actual	Required	Satisfied (Yes/No)
A	Number of Potentially Preventable Collisions January 1, 2020 to December 31, 2022	0	6	No
B1	Average Vehicle Volumes	46/hour	250	No
B2	Combined Vehicle & Pedestrian Volumes Crossing Major Road (Average)	14/hour	100/hour	No
B3	Percentage of Traffic on Major Street	74%	≤70%	No

Table 4: All-Way Stop Control Study at Toynbee Trail and Regency Square (May 18, 2022)

No.	Warrant Type	Actual	Required	Satisfied (Yes/No)
A	Number of Potentially Preventable Collisions January 1, 2020 to December 31, 2022	0	6	No
B1	Average Vehicle Volumes	77/hour	250	No
B2	Combined Vehicle & Pedestrian Volumes Crossing Major Road (Average)	34/hour	100/hour	No
B3	Percentage of Traffic on Major Street	64%	≤70%	Yes

Table 5: All-Way Stop Control Study at Toynbee Trail and Somerdale Square (June 2, 2022)

No.	Warrant Type	Actual	Required	Satisfied (Yes/No)
A	Number of Potentially Preventable Collisions January 1, 2020 to December 31, 2022	0	6	No
B1	Average Vehicle Volumes	82/hour	250	No
B2	Combined Vehicle & Pedestrian Volumes Crossing Major Road (Average)	23/hour	100/hour	No
B3	Percentage of Traffic on Major Street	77%	≤70%	No

Table 6: All-Way Stop Control Study at Toynbee Trail and Wythenshawe Wood (April 27, 2022)

No.	Warrant Type	Actual	Required	Satisfied (Yes/No)
A	Number of Potentially Preventable Collisions January 1, 2020 to December 31, 2022	1	6	No
B1	Average Vehicle Volumes	49/hour	250	No
B2	Combined Vehicle & Pedestrian Volumes Crossing Major Road (Average)	27/hour	100/hour	No
B3	Percentage of Traffic on Major Street	62%	≤70%	Yes

In order for the all-way stop control to be technically warranted, either Warrant A must be met or Warrant B1 or B2 combined with Warrant B3 must be achieved. Based on the study results, the technical warrants for the installation of all-way stop control at all six intersections is not satisfied. Therefore, it is not recommended that all-way stop control be installed at the intersections of Toynbee Trail at Navarre Crescent; Nuffield Drive (east intersection); Nuffield Drive (west intersection), Regency Square; Somerdale Square; Navarre Crescent; and Wythenshawe Wood. The one collision involving a motorist and cyclist at the intersection of Toynbee Trail and Wythenshawe Wood may be considered potentially preventable by the installation of all-way stop control.

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

CONTACT

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SIGNATURE

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

ATTACHMENTS

Attachment 1: Map - All Way Stop Controls - Toynbee Trail at Various Locations

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