

All-Way Stop Control - Goldhawk Trail and Oakhaven Drive (North Intersection)

Date: May 2, 2023

To: Scarborough Community Council

From: Director, Traffic Management, Transportation Services

Wards: Ward 23, Scarborough North

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 pedestrian crossing protection on Goldhawk Trail and Oakhaven Drive (north intersection). Based on the assessment undertaken, Transportation Services recommends the installation of an all-way stop control at Goldhawk Trail and Oakhaven Drive. The proposed all-way stop control will provide enhanced safety for vulnerable road users crossing at this intersection.

RECOMMENDATIONS

The Director, Traffic Management, Transportation Services recommends that:

1. Scarborough Community Council authorize all-way compulsory stop control at the intersection of Goldhawk Trail and Oakhaven Drive (north intersection).

FINANCIAL IMPACT

The estimated cost for installing an all-way compulsory stop control is \$2,919.00. Funding would be subject to availability and competing priorities within the Transportation Services 2023 Capital Budget.

DECISION HISTORY

This report addresses a new initiative.

COMMENTS

At the request of the Ward Councillor, on behalf of area residents, Transportation Services reviewed the need for crossing protection on Goldhawk Trail and Oakhaven Drive (north intersection).

Existing Conditions

Goldhawk Trail is characterized by the following conditions:

- It is a two-lane, north-south collector roadway
- It operates two-way traffic on a pavement width of approximately 9.5 metres
- The daily two-way traffic volume is approximately 1,300 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 both sides of the street

Oakhaven 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 240 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

The subject segment of Oakhaven Drive (north intersection) intersects the west side of Goldhawk Trail, forming a "T" type intersection controlled by eastbound stop sign. The east approach of the intersection provides pedestrian access to Goldhawk Park.

The adjacent land use in this area is generally residential. Pedestrian generators on the east side of Goldhawk Trail consists of Goldhawk Park, Toronto Public Library's Goldhawk Park Branch, Prince of Peace Catholic Church, Prince of Peace Catholic School, St. Michael Archangel Anglican Church, Banting and Best Public School, the plaza at 240 Alton Towers Circle and TTC service on McCowan Road.

The closest forms of pedestrian crossing protection are all-way stop controls located approximately 265 metres to the north, at Goldhawk Trail and Eagledance Drive/Dawnmist Crescent, and 255 metres to the south, at Goldhawk Trail and Wenlock Gate/Sadlee Cove Crescent.

A map of the area is included in Attachment 2.

Pedestrian Crossover (PXO)

To determine the need for a PXO, staff rely on the justification criteria as outlined in the Ontario Traffic Manual (OTM) Book 12. The existing justification criteria includes two main factors: the volume of vehicles and pedestrians, and pedestrian delay to cross traffic. Based on the existing vehicular volume on Goldhawk Trail, the warrants require a minimum of 200 pedestrians crossing over eight hours and based on the pedestrian crossing volume, at least 130 pedestrians must be delayed more than 10 seconds.

An eight-hour pedestrian delay and classification study was conducted at the northern intersection of Goldhawk Trail and Oakhaven Drive on November 2, 2022, where pedestrians crossing Goldhawk Trail were observed. The number of pedestrian crossings, the classification of the pedestrians and whether the pedestrians were delayed longer than 10 seconds were recorded during the study. Seniors, unassisted children and people with disabilities that are observed crossing are given a higher weighting by an adjustment factor of two. The adjusted volume of pedestrians observed crossing was 152; of these, none experienced a delay greater than 10 seconds. Of the 152 pedestrians, 20 (10 unadjusted) crossing pedestrians were classified as senior citizens, and 8 (4 unadjusted) crossing pedestrians were classified as unassisted children. The compliance level of the study results in relation to existing warrant criteria is shown in Table 1 below.

Table 1: Pedestrian Crossover Warrant Criteria and Compliance at Goldhawk Trail and Oakhaven Drive (North Intersection)

Criteria	Compliance
Pedestrian Volume	76 percent
Pedestrian Delay	0 percent

In order to meet the technical warrant criteria, 100 percent compliance is required in both categories. Based on the results of the study, a PXO is not technically justified as the compliance levels did not meet the minimum requirements.

All-Way Stop Control (AWSC)

Traffic Operation also examined whether Goldhawk Trail and Oakhaven Drive (north intersection) would meet the technical warrant criteria for an all-way stop control. 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 February 28, 2023 disclosed that zero reported collisions occurred at this intersection.

Transportation Services conducted an all-way stop control study on November 2, 2022 at the subject intersection. 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 2 below.

Table 2: All-Way Stop Control Study at Goldhawk Trail and Oakhaven Drive (north intersection).

No.	Warrant Type	Actual	Required	Satisfied (Yes/No)
A	Number of Potentially Preventable Collisions (March 1, 2020, to February 28, 2023)	0	9	No
B1	Average Vehicle Volumes	101/hour	375/hour	No
B2	Combined Vehicle & Pedestrian Volumes Crossing Major Road (Average)	37/hour	150/hour	No
B3	Percentage of Traffic on Major Street	71%	≤70%	No

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 it was determined that this intersection does not meet the numerical requirements for the installation of all-way stop control.

In addition to the technical criteria, consideration is given to the collision history, surrounding area and engineering judgment may be applied to recommend a controlled crossing if the number of pedestrians does not meet the threshold of the technical warrants.

As noted above, staff review of the collision history did not disclose any concerns for pedestrian safety. That being said, the surrounding area does provide contextual factors that would support a controlled crossing of Goldhawk Trail and Oakhaven Drive (north intersection).

Notwithstanding the numeric warrants not being met for either a PXO or all-way stop control, Transportation Services considers that pedestrian crossing protection is appropriate at this intersection due to the following factors:

- Immediate access to Goldhawk Park Trail at the east approach of the intersection.
- Pedestrian desire lines between residences on the west side of Goldhawk Trail and sites on east side of Goldhawk Trail (Goldhawk Park, Toronto Public Library's Goldhawk Park Branch, Prince of Peace Catholic Church, Prince of Peace Catholic School, St. Michael Archangel Anglican Church, Banting and Best Public School, the plaza at 240 Alton Towers Circle and TTC service on McCowan Road).
- Pedestrian desire lines between the aforementioned sites on east side of Goldhawk Trail and transit service on Brimley Road.

Due to operating characteristics within the vicinity of the intersection, an all-way stop control is recommended as it would provide appropriate levels of crossing protection. Specific operating characteristics that could compromise the safe use of a pedestrian crossover at this location are visibility concerns from the horizontal curve south of the intersection, and the residential driveways on the west side of Goldhawk Trail to the north and south of the intersection. Further details regarding the evaluation of operating characteristics can be found within the attached environmental assessment.

In view of the forgoing, Traffic Operations recommends the installation of pedestrian crossing protection at the intersection of Goldhawk Trail and Oakhaven Drive (north intersection) in the form of an all-way stop control.

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

CONTACT

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SIGNATURE

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ATTACHMENTS

Attachment 1: Environment Safety Audit - PXO, Goldhawk Trail and Oakhaven Drive
(North Intersection)
Attachment 2: Map - All-Way Stop Control - Goldhawk Trail and Oakhaven Drive

Attachment 1: Environment Safety Audit - PXO, Goldhawk Trail and Oakhaven Drive
(North Intersection)

Standard	Comments	Standard Met/Not Met
Vehicle operating speed less than 60 km/h	The posted speed limit on Goldhawk Trail 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	Goldhawk Trail operates with one lane in each direction.	Met
Traffic volume not more than 35,000 vehicles per day	Goldhawk Trail carries approximately 1,300 vehicles per day.	Met
No significant volume of turning movements	The volume of traffic turning to/from Goldhawk Trail is low (approx. 62 vehicles over busiest eight hours).	Met
No visibility problems exist for either pedestrians or motorists	There is a notable horizontal curves south of the intersection along Goldhawk Trail.	Not met
No loading zones (including TTC) in the immediate area	No loading zones are within the immediate area.	Met
No driveways or entrances nearby	There are residential driveways on the west side of Goldhawk Trail approximately 15 metres north and 22 metres south of the intersection.	Not met
Spacing is not less than 200 metres to another pedestrian crossover or traffic control signal	There are all-way stop controls located approximately 265 metres to the north, at Goldhawk Trail and Eagledance Drive/Dawnmist Crescent, and 255 metres to the south, at Goldhawk Trail and Wenlock Gate/Sadlee Cove Crescent.	Met

Attachment 2: Map - All-Way Stop Control - Goldhawk Trail and Oakhaven Drive

