

2026-06-08
Project: 230598

Michael Puopolo
Polocorp Inc.
379 Queen Street South
Kitchener ON N2G 1W6

Dear Mr. Puopolo:

**RE: 51-55 HAWKESVILLE ROAD, ST JACOBS
RESPONSE TO REGION OF WATERLOO COMMENT TO TRANSPORTATION
IMPACT STUDY**

Paradigm Transportation Solutions Limited has prepared the Transportation Impact Study for the proposed development with the latest version of the TIS dated December 2025. Region of Waterloo staff has provided comments on the TIS. The purpose of this letter is to address these comments as well as any outstanding comments noted from previous versions of the TIS.

Sight Distance

A sight distance analysis of the two proposed accesses was conducted and found that both accesses had sufficient sight distance. To the west, Hawkesville Road has a valley in the road where the railway crossing is. A measurement of the road profile shows that sight lines are maintained between a driver's eye height of 1.08 metres and the object height of 1.3 metres through this valley, as shown in **Figure 1**. To the east, Hawkesville Road is flat and straight and has visibility to the intersection with King Street.

Within the subdivision, Street A and Street B intersect at a t-intersection with Street A being the through movement. To the west, Street A will turn at a 90-degree angle to connect to Hawkesville Road, and to the east, Street A will lead into a short cul-de-sac. For vehicles turning left from Street B onto Street A, a driver would be able to see an approaching vehicle at a distance of 91 metres, with sight lines contained entirely within the right-of-way. This would be acceptable sight distance for a design speed of 40 km/h. As Street A is proposed to be a short residential street, and vehicles would need to make a 90-degrees turn, a 40 km/h design speed is reasonable in this situation.

Two Accesses

The current Draft Plan of Subdivision shows two accesses onto Hawkesville Road: one at the far east edge of the frontage on Hawkesville Road, which is located to line up with a future access to the north into another proposed development, and an access 80 metres west of that. The Region requested rationale for these two accesses.

It is difficult to provide rationale for two accesses from a purely traffic operations perspective, and other factors need to be considered. A secondary access should be provided for emergency access, and while there are situations where this type of access could be provided as a gated emergency-vehicles-only access, in this case, the layout of the subdivision streets would make it difficult for a large vehicle (such as a fire truck) to manoeuvre within the subdivision. If the west access was closed, it would create a situation where a fire truck entering the subdivision to service Blocks 20 or 21 would find difficulty turning around to exit the site back at the east access.

Interaction with Existing Bike Lanes and Buggy Traffic

Hawkesville Road has an urban cross-section with curbs east of the train tracks, and unpaved shoulders west of the train tracks. The proposed development is along the section of Hawkesville Road that has curbs, which matches the cross-section to the east. No changes to how cyclists or buggies use the road, and no atypical interactions are expected with traffic entering/exiting the site.

Sidewalks

Regional staff indicated that they require sidewalks be provided along the frontage of the development from the site access to connect to the east property limits. This comment is outside the scope of the TIS and will be addressed in the draft plan of subdivision.

Traffic Calming

A comment from the May 2023 TIS indicated that traffic calming measures should be provided within the development. As the proposed road layout in the subdivision do not have roads that would draw cut-through traffic and the straight sections are relatively short, additional traffic calming would not be effective or needed.

Pedestrian Crossing

While there is not expected to be much pedestrian demand across Hawkesville Road between this development and the development on the north side of Hawkesville Road, an analysis of the intersection of Hawkesville Road and Street B was carried out.

The warrant for Pedestrian Crossovers (PXO) is included in Ontario Traffic Manual Book 15. A PXO may be warranted if a minimum of 65 pedestrians and 395 vehicles are observed over a



four-hour period or a minimum of 100 pedestrians and 750 vehicles are observed over an eight-hour period.

Based on the total traffic volumes illustrated in the December 2025 TIS, Hawkesville Road east of the proposed access is forecast to operate with a two-way traffic volume of 1,134 during the two peak hours (AM and PM peak hours). To estimate the traffic volume over an eight-hour period, a conversion factor was established to relate the existing volumes in the AM and PM peak hours to the existing volume over an eight-hour period using the turning movement counts.

The existing turning movements showed:

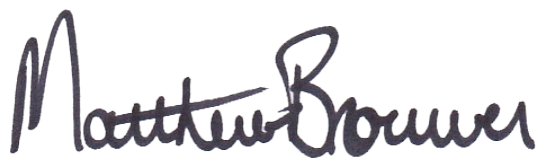
- ▶ 629 vehicles observed on Hawkesville Road during the AM and PM peak hours combined;
- ▶ 1178 vehicles observed on Hawkesville Road during the highest four hours; and
- ▶ 934 vehicles observed on Hawkesville Road during the highest eight hours

This results in a factor of 1.87 for four hours and 3.07 for eight hours. Applying this factor to the forecasted volume of 1,134, results in an estimated 2,121 vehicles over a four-hour period and 3,481 vehicles over an eight-hour period.

Therefore, if pedestrian demand is met, a Level 2 Type D PXO (pavement markings and non-flashing signage) would be the appropriate pedestrian crossing treatment.

Yours very truly,

PARADIGM TRANSPORTATION SOLUTIONS LIMITED

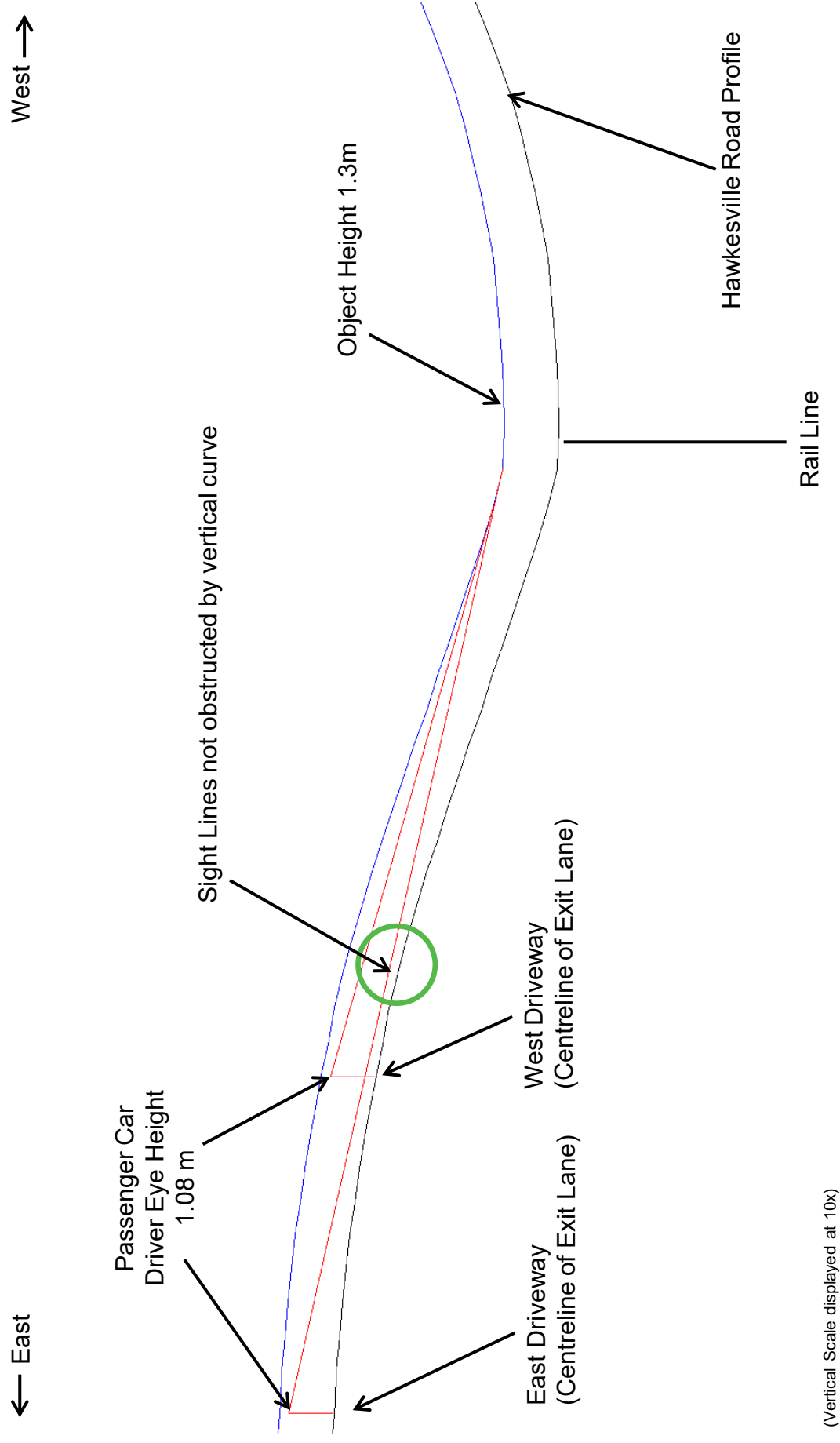


Matt Brouwer

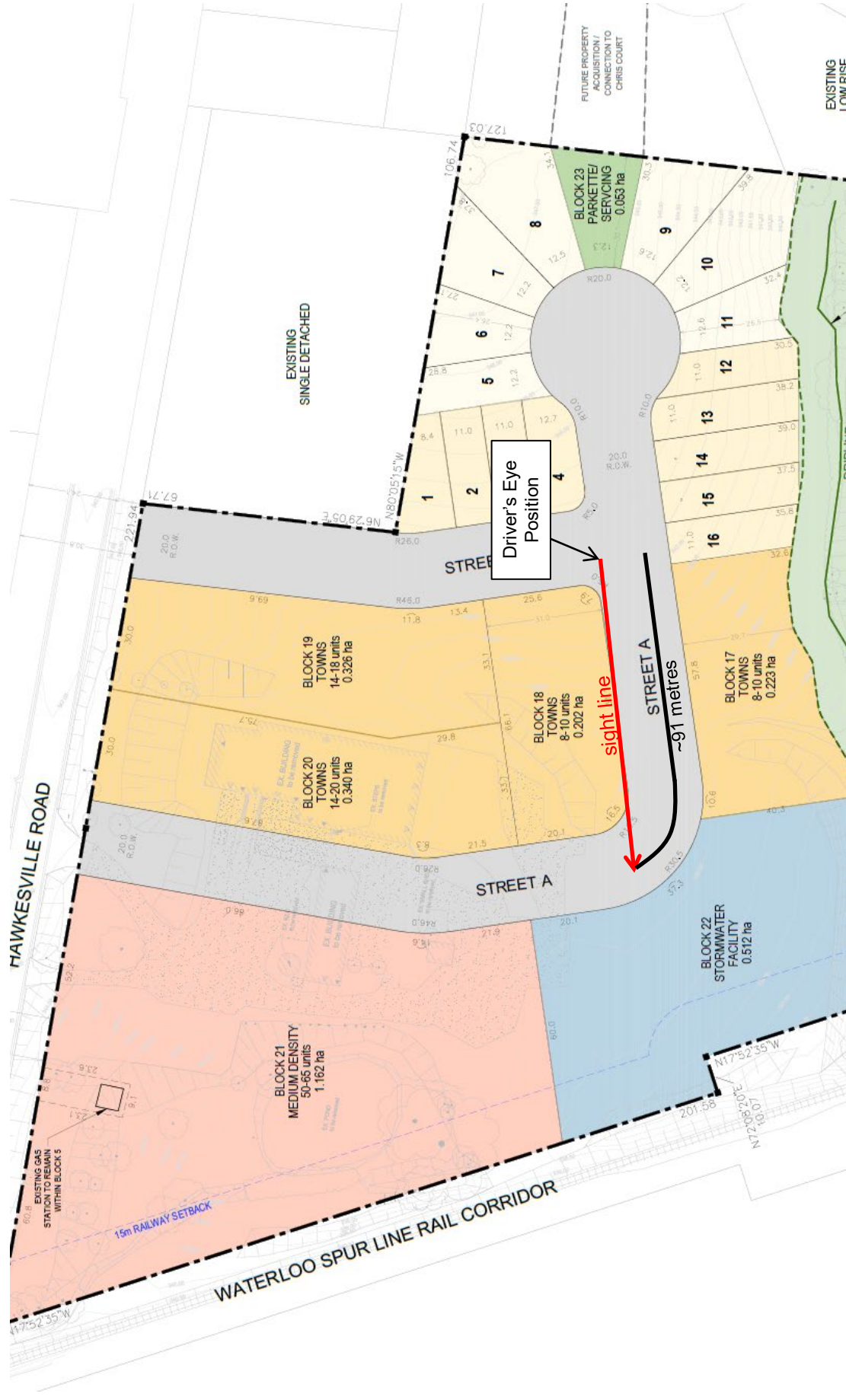
P.Eng.

Operations Principal, Innovation and Technology
Senior Project Manager





Sight Distance Measurements



Internal Intersection Sight Line

Figure 2