Staff Report

Report To: City Council

Report From: Lara Widdifield, Director of Public Works and Engineering

Meeting Date: May 12, 2025

Report Code: OP-25-019

Subject: Intersection Improvement Options - 9th Ave E at 6th St E

Recommendations:

THAT in consideration of Staff Report OP-25-019 respecting Intersection Improvement Options - 9th Ave E at 6th St E, City Council:

1. Directs staff to proceed with the modified intersection design; and
2. Acknowledges that the interim design will not be fully compliant with the *Accessibility for Ontarians with Disabilities Act, 2005* (AODA) at the northwest corner of the intersection due to space limitations.

Highlights:

- The City has qualified for Connecting Link funding to rehabilitate 9th Avenue East/Highway 6/10 – Superior Street to 6th Street East.
- Upgrading the 6th Street East/9th Avenue East intersection is included in the project.
- A 6 m by 6 m daylighting was originally proposed in the northwest quadrant to accommodate existing municipal infrastructure on private property and significant accessibility upgrades, including a widened sidewalk, improved sidewalk ramps and reconfiguration of pedestrian crossing appurtenances.
- Significant realignment of the intersection is not feasible due to the major aerial hydro corridor spanning 9th Avenue at 6th Street. This is suspected to be a main feed line; the hydro pole on the island at the southwest corner bears multiple wires in each direction and is

therefore considered to be a fixed obstacle due to the complexity, timeline and expense of relocating the pole.

- While still a significant improvement over the current condition, the interim design will not be fully AODA-compliant due to space constraints. The 9th Avenue crossing sidewalk ramp will have a minimum slope (2%), but a relatively steep ramp (8%) on the 6th Street side.
- A stanchion will be necessary to ensure the pedestrian signal activation button is correctly sited in relation to the sidewalk ramps, which will be an additional obstacle for sidewalk clearing and, due to its proximity to the road, will be vulnerable to damage from collisions, vandalism and winter maintenance equipment.

Strategic Plan Alignment:

This report supports the delivery of Core Service.

The construction of a functional intersection that uses geometric design best practices ensures safe and smooth transportation for all road users. This Provincial and County corridor experiences notable truck traffic; accommodating truck turning movements without the need for encroaching across sidewalks, and integrating fully accessible sidewalks, tactile plates, accessible activation buttons, and audible signals increases the security of those on the roadside.

Climate and Environmental Implications:

There are no anticipated climate or environmental impacts.

Previous Report/Authority:

Closed Staff Report OP-25-015

Background:

The City has qualified for Connecting Link funding from the Ministry of Transportation Ontario to rehabilitate 9th Avenue East/Highway 6/10 from Superior Street to 6th Street East. This project also includes upgrading the intersection of 6th Street East/Grey Road 5 and 9th Avenue East.

The original design for this intersection required the procurement of a 6.0-metre by 6.0-metre daylight triangle in the northwest corner of the

intersection, partially to legitimize the existence of municipal infrastructure (concrete sidewalk and traffic signal pole) on private property, and partly to improve the accessibility of the pedestrian infrastructure to today's guidelines. As obtaining this property was unsuccessful, the design had to be reevaluated to determine the "what now" scenario.

Multiple geometric configurations were previously considered for this intersection before determining that a corner cut was the best solution, so the Engineering Consultant, Tatham Engineering, was able to refer to the runner-up alternatives. The objective was to eliminate the need for property acquisition while maintaining a safe and functional design, retaining as much of the accessibility improvements as possible.

Analysis:

The most comprehensive solution would have been to shift the roadway to the south by the equivalent area required from the north, to clear the lot corner of any municipal infrastructure. Unfortunately, there is a significant hydroelectric aerial pole on the island at the southwest corner of the intersection. The pole supports several wires over the 4-lane span of 9th Avenue in addition to lines to the north, south and west. It carries at least one 44 kV feeder line and multiple smaller power lines.

While the cost to relocate such a pole may be worth it in comparison to the scope of the project (i.e., an order of magnitude cost of $200,000), it would be an insurmountable time delay as Hydro One has a rigid request process for line relocation that can take up to 18 months. As such, relocating this line underground or shifting the aerial lines southward to realign the road are not viable options.

The only remaining option is to simply adjust the corner radius and shift the sidewalk and traffic signal pole out of the private property. This represents an insignificant design change from a cost perspective; however, it is important to note that it will result in a design that is not fully AODA compliant.

County Staff have indicated that, in principle, they would have difficulty endorsing any option that does not provide full conformance to accessibility guidelines. Remaining points of deviation include:

There will be no separation between the sidewalk ramp and the continuous sidewalk (that runs around the corner). In effect, the sidewalk ramp will

simply be the crossfall of the sidewalk. This is not in conformity with the guideline as a) it is difficult to maintain a straight trajectory on a lateral slope and b) there is no "waiting space" off the sidewalk to allow someone to pass while someone else is waiting to cross.

While still within tolerances, the slopes on the sidewalk ramps are steeper (8%) and flatter (2%) than desired.

The sidewalk crossfall (slope perpendicular to the direction of travel) around the curve is at the maximum allowable slope (10%).

The pedestrian signal activation buttons will need to be installed on stanchions in order to be close enough to the sidewalk ramp; however, being on a stanchion is not considered a best practice, as it is a non-standard location and can be more difficult for someone to locate.

The pedestrian activation buttons will not be located within the recommended 1.5m from the curb due to the need for the sidewalk plow to clear between them. Despite the excess separation, these would essentially be bollards immediately adjacent to the corner, they will be highly susceptible to damage (i.e. maintenance equipment, collisions and vandalism). There is little, if any, flexibility in the stanchion location due to the existing gas main that must be field verified and the above offset requirements.

Staff estimate that the existing intersection is approximately 20% compliant with AODA requirements. The only sidewalk and ramp at this intersection that meets AODA is on the east side of 9th Avenue, approaching the intersection from the south. This sidewalk and ramp were constructed as part of the County Administration Building expansion.

Despite the shortcomings in the north-west quadrant noted above, this project will vastly improve the accessibility of the intersection and bring it to within an estimated 95% compliance of AODA. The only additional needs would be to widen the concrete sidewalk to the north-west (that runs around the corner) of the two ramps in this quadrant, and to move the pedestrian activation buttons to a standardized location.

Regardless, all of the other AODA considerations will be addressed in the interim design, including pedestrian signals with audible and tactile signals. These signals will have locator tones to help pedestrians find the activation buttons. These tones will be different from the walk indicator tones that tell pedestrians when it is safe to cross and in which direction to cross. In

addition to the audible walk indicator tones, signal push buttons will vibrate so that deaf-blind pedestrians will know when they have activated the call to cross the road. The arrow-shaped buttons will be tactile and point in the direction travellers should cross.

The sidewalk adjacent to the two ramps in the north-west quadrant can be widened at a later date if daylighting can be acquired or an easement can be secured. This additional width of sidewalk would allow someone to pass around the corner while others are waiting to cross. In the meantime, the existing infrastructure on private property will be removed, and all of the proposed traffic and pedestrian signal infrastructure will be constructed fully within the existing road allowance as part of this project.

It should also be noted that in order to resolve the lack of space for the traffic signal pole at this corner, the County is arranging for a custom-designed pole that will span the road and eliminate the need for a pole on that corner.

Financial Implications:

Fortunately, the revisions in the new design are so minimal, no appreciable difference in construction cost is anticipated. The tender had already been released and these changes, if approved, are anticipated to be updated to the successful contractor through a change order.

Communication Strategy:

None.

Consultation:

- Spencer Hammill, Engineering Technologist
- Tatham Engineering
- County Transportation Services Department staff

Attachments:

1. Images of 9th Ave E - 6th St E Intersection
2. Existing Intersection Encroachments
3. Amended Concept Plan with Pedestrian Signals

Recommended by:
Lara Widdifield, Director of Public Works and Engineering

Submission approved by:
Tim Simmonds, City Manager

For more information on this report, please contact Lara Widdifield, Director of Public Works and Engineering, at lwiddifield@owensound.ca or 519-376-4440 ext. 1201.