

# MEMORANDUM



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Page 1 of 5

To: Planning Committee, City of Greater Sudbury

Date: November 4, 2020

JLR No.: 29346-000 (01)

CC: Councillor Leduc, City of Greater Sudbury  
Glen Ferguson, MCIP, RPP, Senior Planner  
City of Greater Sudbury

From: Sarah Vereault, MCIP, RPP, Planner

Re: Lakeview Subdivision – Condition #25 Greenwood  
Drive Design Speed  
CGS File No. 780-6/07002

Further to the City of Greater Sudbury's (CGS or City) Planning Committee Meeting of February 19, 2020 where the application to extend a draft approved plan of subdivision was deferred to deal with Condition #25, we have gathered supporting information and reviewed site conditions with members of the City in order to provide the following updated request to the City.

## **Requested Revision to Condition #25 – Greenwood Drive Design/Posted Speed**

We would like to request that Condition #25 be amended to read as follows:

*“That the owner shall provide speed limit signs for a 40 km/hr posted speed. No physical changes to the design and/or construction of Greenwood Drive are required.”*

## **Supporting Information**

### 1) City Official Plan design speeds / Transportation Background Study

The City of Greater Sudbury's (City) Official Plan identifies Greenwood Drive as a local road. Section 11.2.3, Table 2, Road Classification provides that a local road is meant to connect properties within a neighbourhood, providing trip origin and/or destination along its right-of-way. It also notes that traffic movement is a secondary consideration, and that land access is the primary function. Further, the table provides that **the design speed for local roads is 30-50 km/hr**. Therefore, the City's Condition #25 to increase design speed to 60 km/hr does not conform to its Official Plan, and our client's request to maintain the current design speed below 50 km/hr falls within the recommended design speed in the Official Plan.

The 30-50 km/hr design speed for local roads established in the Official Plan is different than the 60 km/hr design speed used in the City's Engineering Design Manual. This discrepancy between policy and engineering standards was addressed in the December 2016 Transportation Background Study update. The road classifications established in Section 10.2.1, Table 47 of that document refer to a **40-50 km/hr posted speed for local roads**. This is in line with the requested amended condition.

### 2) MTO's Geometric Design Standards permit design speeds equal to the posted speed

Speed limits are influenced by the design and classification of a roadway. The Ministry of Transportation (MTO)'s Geometric Design Standards for Ontario Highways defines design speed as “a speed used for the design and correlation of the physical features of a highway that influence vehicle operation” and as “the maximum safe speed that can be maintained over a specified section of highway when conditions are so favourable that the design features of the highway govern.”

MTO's Standards additionally provide that: “A design speed equal to the maximum posted speed is accepted where warranted by such factors as low traffic volumes, rugged terrain and economic considerations. This practice would be more appropriate for minor collector and local roads.”

The current conditions on Greenwood Drive represent a design speed of between 40 km/hr and 50 km/hr. Therefore, posting the roadway at 40 km/hr (i.e. near the design speed) would be accepted by the MTO Standard.

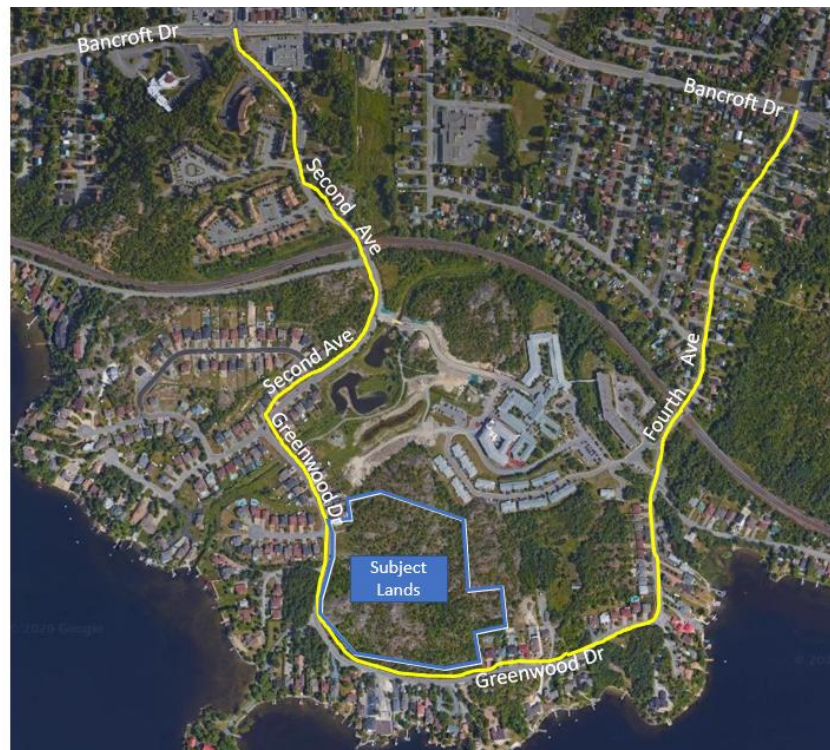
### 3) Residential Gateway Speed Limits

The Highway Traffic Act was amended in 2018 to permit municipalities to use new gateway speed limit signs to designate roadways within residential areas with reduced speed limits of less than 50 km/hr. Gateway speed limit signs are posted at each entry and exit point to a community where lower speeds are in effect.

Several Ontario municipalities are implementing residential gateway speed limits, with the Cities of Ottawa and Hamilton notably providing a plan to implement this in all of their neighbourhoods over a period of time.

The City of Sudbury considered Gateway Speed Limits at its Operations Committee in September 2019.

The existing road conditions in the immediate vicinity of Lakeview Subdivision (discussed further below) and road conditions on Second Avenue South leading to Greenwood Drive make this area ideal for use of the Residential Gateway Speed Limits. Second Avenue South of Bancroft Drive starts as a rural cross section that contains many curves for approximately 700 metres leading up to the intersection with Bayside Crescent. Second Avenue crosses over double railroad tracks on a curve and provides access to several multiple residential and retirement home developments. The roadway changes to an urban cross section without sidewalks from Bayside Crescent through to Greenwood Drive (approximately 150 metres). The roadway is well-used by pedestrians and cyclists.



*Figure 1: Area potential for Residential Gateway Speed Limit*

Beyond the curve in Greenwood Drive after the development, the road continues as a rural cross section where there are also vehicular parking spaces close to the roadway. At a 90-degree curve the road becomes Fourth Avenue which provides onto low density residential, multiple residential, seniors residence, and long term care facility. Fourth Avenue continues as a rural cross section until its intersection with Bancroft Drive. Lowering the speed limits in this area could be a City pilot project in Residential Gateway Speed Limits promoting pedestrian and cyclist safety.

#### 4) Existing Road Conditions

Greenwood Drive is a local road that is used for access to low density residential development. Given the local nature of the roadway, there are low traffic volumes on Greenwood Drive. The roadway does not have sidewalks and is well-used in this area by pedestrian and bicycle traffic.

The existing road conditions make improvements to increase the design and operating speed of Greenwood Drive difficult in this area. There is a crest on Greenwood Drive at the entrance of Street A which would need to be lowered, impacting the connection with Bayridge Court, the recently constructed cul-de-sac opposite Street A.



*Figure 2: Greenwood Drive and Bayridge Court, looking south*

Further, significant fill would be needed to connect with Baycrest Road, a private road which intersects with Greenwood Drive on the western side approximately 70 metres from Street A. Further, as Baycrest Road is not a municipal road, it is not built to municipal standards and would require significant work to make the connection with an upgraded Greenwood Drive.



*Figure 3: Greenwood Drive and Baycrest Road (private), looking west*



Approximately 150 metres to the south of the entrance of Street A on Greenwood Drive is a significant sharp curve in the roadway. This area is posted at a reduced speed of 25 km/hr for the sharp curve.



*Figure 4: Greenwood Drive, approaching sharp curve (from Baycrest Road), looking southeast*

Finally, and perhaps most importantly, Greenwood Drive is built to a rural cross section, and is well-used in this area by pedestrian and bicycle traffic. Vehicular traffic in this area is local traffic and is subject to low overall traffic volumes. The circuitous nature of the existing roadway provides a natural traffic calming and vehicles are already travelling closer to 40km/hr given the crest, curve, and variety of road users.

Improving the design speed of Greenwood Drive facilitates faster vehicular speed jeopardizing the safety of all road users. Improving the design speed immediately prior to a sharp curve and posted reduction in Speed Limit to 25 km/hr serves no purpose. Similarly, approaching from the east, users will be traveling at a slow rate of speed coming out of the sharp curve and then going up the hill towards Street A, following which they will be in a low density residential neighbourhood. There is no warrant for a 60 km/hr design speed given the existing road conditions.

Typically, improvements to design speeds enable faster vehicular traffic and do not provide improvement for pedestrians and cyclists use of the roadway. In this case, improvements to the design speed will not improve the sharp curve immediately after. As an alternative, it is recommended that lowering the posted speed limit acknowledges the existing road conditions, the use by a variety of road users, and encourages slower, safer speeds.

#### 5) Housing Affordability

The improvements requested by the City in the original condition to increase the design speed of Greenwood to 60 km/hr were estimated to have a construction cost of \$670,000 in 2017. Escalating to 2020 costs, this is estimated to be 30% higher based on recent project estimates, at roughly \$871,000. Translated to a cost per housing unit, over 52 units, this equals **an added cost of \$16,750/unit**.

In addition, there is an unknown cost to the negotiations required to upgrade Baycrest Drive for the requested improvements, as Baycrest Drive is a private drive, not built to municipal standards. Previous discussions with residents have indicated they desire upgrades to a full municipal road, which would increase costs substantially.

The marginal increase in the number of homes in the area from the Lakeview Subdivision (52 units) with limited additional development lands in the area and relative traffic increase does not justify the added cost to the developer or homeowner. The added cost is inconsistent with City Council's strategic goals around "Business

Attraction, Development and Retention” and “Housing” as outlined in the 2019-2027 City of Greater Sudbury Strategic Plan that position Sudbury as an affordable place to live and invest in.

### **Conclusion**

It is our opinion that the requested revision to Condition #25 to read: *“That the owner shall provide speed limit signs for a 40 km/hr posted speed. No physical changes to the design and/or construction of Greenwood Drive are required.”* is supportable for the following reasons:

- The City’s Official Plan does not support design speeds above 50 km/hr for local roads, and the City’s Transportation Background Report further permits a posted speed of 40 km/hr for local roads.
- MTO’s Geometric Design Standards permit design speeds equal to the posted speed, so no improvement to design speed is required.
- It is in line with recent opportunities for Ontario municipalities to post lower speed limits in Residential Gateway areas, supporting pedestrian and cyclist safety and quieter residential areas.
- The existing road presents significant barriers to improve the design speed as per the City’s condition, which cannot be supported for good neighbourhood design.
- The cost necessary to construct the improvements as per the City condition translate to additional costs borne by the eventual homeowner and do not align with City Council’s strategic goals of “Business Attraction, Development and Retention” and “Housing” in the 2019-2027 City of Greater Sudbury Strategic Plan.

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