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To: Mayor and Members of Council

From: Stephen Brake, Director of Public Works

Date: December 11, 2020

Subject: Granville Dr. / William Ingles Dr. – Courtice – Three Way Stop Control

Investigation

File: Transportation

At the November 23-24, 2020 Council Meeting, Resolution #C-463-20, as amended, was approved that directed staff to report back regarding the consideration for a three-way (All-Way STOP) at the intersection of Granville Drive and William Ingles Drive in Courtice. The resolution was borne out of the delegation of Mr. Dave Bass citing concern regarding vehicle speeds and requesting that the intersection be made into an All-Way STOP controlled intersection and that Granville Drive have a speed reduction to 40km/h.

Granville Drive is a 2-lane urban local class roadway aligned north-south that experiences an annual average daily traffic (AADT) volume of approximately 1,200 vehicles. William Ingles Drive is a 2-lane urban local class roadway aligned east-west that experiences an AADT volume of approximately 250 vehicles. Both roadways were constructed in 2012 as part of the local subdivision.

Having recently been constructed the Granville Drive road approaches are in good condition, comprised of a dedicated travel lane, sidewalk on the east side of the road and direct frontage of residential properties on the east side. There are streetlight poles along the east boulevard and there is an absence of any other obstructions with the exception of young boulevard trees. The intersection approaches are open and clear, free of sight line obstructions, and are typically free of glare caused by the rising or setting sun.

The William Ingles road approach is in good condition comprised of a dedicated travel lane, sidewalk on the north side of the road and is fronted by single family residential properties on each side. There are streetlight poles along the north boulevard and an absence of any other obstructions with the exception of young boulevard trees. The eastbound STOP control at the Granville Dr. intersection is marked by a regulatory STOP sign. The intersection approaches are open and clear, free of sight line obstructions, and may be subject to glare caused by the rising sun.



The existing intersection currently meets all requirements per Clarington's modified Ontario Traffic Manual (OTM) guidelines which are regarded as the regulatory basis for safe and required measures to be implemented on roadways. No accident history has been reported to Durham Regional Police Service (DRPS) at this intersection.

Radar message boards were deployed on Granville Drive in 2019 for both northbound and southbound traffic to review vehicle speeds, which was shown to be in compliance with averages in the high-30km/h to 40km/h range and an 85th percentile speed (the speed at which 85% of vehicles travel at or under) of high-40km/h. Staff undertook a deployment of our discreet speed radar units from November 25, 2020 to December 02, 2020 that are not apparent to motorists in an attempt to get unbiased speed radar data. Data from this discreet deployment shows that average speed during this duration was 38km/h with an 85th percentile speed of 46km/h which correlates with previous data taken. These radar units additionally and specifically log the speeds and number of vehicles that travel over the assigned speed limit which is an unposted regulatory limit of 50km/h for Granville Dr. It was recorded that approximately 5% of all vehicles travelling on this road were travelling in excess of 50km/h with an average speed of 55km/h. The speeds recorded indicate that vehicles are travelling at speeds below the unposted regulatory speed limit for the majority and at speeds whereby adequate sight distance is available for a vehicle to come to a complete stop should a pedestrian or joining vehicle enter the roadway abruptly.

The delegation of Mr. Dave Bass received by Council cited vehicle speeds as a concern and the main reason for the request for an All-Way STOP control at this intersection. In order to install such traffic control devices Provincial guidelines must be followed. These Provincial guidelines specifically prohibit the use of an All-Way STOP as a speed control device and also dictate minimum traffic volume and traffic volume split criteria for an All-Way STOP. Adhering to these guidelines is critical in having an All-Way STOP operate safely and in meeting the expectations of all road users without compromising safety. All-Way STOP controls are intended to be used to assign the right of way at intersections, not as a speed control device. Inappropriate or unwarranted implementation and use of this STOP control can lead to drivers disobeying the STOP control putting pedestrians and other motorists at risk, drivers speeding up to make up lost time, etc.

The intersection of Granville Dr. and William Ingles Dr. has a significantly skewed traffic volume in favor of Granville Dr. which is expected as Granville Dr. acts as a connection between Sandringham Dr. and Meadowglade Rd. which are a collector and a Type 'C' arterial road respectively with higher volumes of traffic. William Ingles Dr. is a short curving road with access points on Meadowglade Dr. and Granville Dr. servicing 43 residential units and provides access to Glenabbey Park. Due to the significant volume



skew it is unlikely that traffic volume split criteria will ever be met to warrant an All-Way STOP control implementation due to the inability for growth on William Ingles Dr.

The Southeast Courtice Secondary Plan, which is currently in the draft stage of development, will see the continuation of Granville Dr. south of the future Meadowglade Dr. extension to Trulls Rd. As Meadowglade Dr. is a Type 'C' arterial road per the Clarington Official Plan, it will have priority through movements with the expectation that Granville Dr. will be subjected to a north/south STOP control. It is anticipated that vehicles currently utilizing Granville Dr. to access Trulls Rd. via Yorkville Dr. or Sandringham Dr. will be redirected along the Meadowglade Rd. extension as a direct access point thereby reducing vehicle volumes on Granville Dr. The implementation of an additional STOP control, such as the one requested at William Ingles Dr., within very close proximity to a priority STOP control (approximately 100m) may lead to driver impatience and disregard for the secondary STOP control at William Ingles Dr., especially if intersecting volumes are low or not present. This has the potential to elicit problematic roll through movement behaviour or cause motorists to generally disregard the traffic control device as there is nothing to prompt a driver to come to a stop, assess approaching traffic, and yield the right of way. This has been seen to occur and be problematic elsewhere within the Municipality and DRPS has noted that the problem exists Region-wide and is not just characteristic to the Municipality of Clarington.

Public Works staff do not support the implementation of an All-Way STOP at the Granville Drive and William Ingles Drive intersection based on traffic volume, lack of prior accidents, and future development. As mentioned previously and as per the Provincial warrant criteria, speed control is not a factor when considering the implementation of an All-Way STOP control as it compromises safety and the effectiveness of the control. Instead, to address Mr. Dave Bass' speed concerns, staff will deploy speed radar capture devices along Granville Dr. routinely to observe if the area has changed since our last analysis. Should any data that is collected be of significant variance from date previously collected, staff will provide an updated memo to Council on our findings and recommendations. Staff will additionally flag this area to DRPS for their review and possible enforcement if there are individual motorists exhibiting routine aggressive or dangerous driving behaviour.

Regarding Resolution #C-462-20 and the report on decreasing the speed limit to 40km/h on all Clarington Neighbourhood Collector B roads, Public Works staff will report back to the February 16, 2021 General Government Committee Meeting on this item.

Should you have any questions or need further information, please do not hesitate to contact me.



Regards,

Stephen Brake

Director, Public Works

rb/kb

cc: Robert Brezina, P. Eng., Capital Works Engineer

Slav Potrykus, Traffic Coordinator

Constable Dave Ricard, Durham Region Police Service