

May 21, 2021

Julie Stewart
County Planner
99 Christie Lake Road
Perth, Ontario
K7H 3C6

Re: Gardiner's Grove Subdivision
Part of Lots 8 and 9, Concession 9, Geographic Township of Beckwith, County of Lanark
Traffic Review Letter/Brief
MPCE No. CCO-20-0203

McIntosh Perry Consulting Engineers Ltd. (McIntosh Perry) was retained by BLD Homes to prepare the following Traffic Review Letter/Brief in support of the application for Draft Plan of Subdivision for the development known as Gardiner's Grove Subdivision. The proposed 120-lot rural estate lot development is located adjacent to the community development area of Greater Blacks Corners, in the Township of Beckwith, per the Township's Official Plan. The legal description of the lands is Part of Lot 8 and 9, Concession 9, Township of Beckwith, County of Lanark. The subject lands are bounded by residential properties and Beckwith 10th Line to the north, vacant land, soon to be a rural residential subdivision to the east, vacant rural lands to the south, and Gardiner's Shore to the west.

CONCEPTUAL DESIGN AND PRECONSULTATION

McIntosh Perry prepared a conceptual lot configuration for the development prior to organizing a pre-consultation meeting with the relevant approval agencies to review the conceptual layout and confirm submission requirements for Draft Plan of Subdivision application. A formal pre-consultation meeting was held on October 6, 2020, with members of the Township, County and local Conservation Authority (Mississippi Valley Conservation Authority) present to provide input on submission requirements.

At the pre-consultation meeting, it was requested by the County that a letter/brief be prepared similar to those that had been provided for previous applications within Beckwith Township (Beckwith Estates Subdivision, Kings Creek Subdivision and most recently, McEwen's Mills). Specifically, it was requested that this letter/brief speak to site lines for the proposed single stop-controlled 'T' intersections at Beckwith 10th Line and Beckwith 9th Line.

INVESTIGATION

Access Points –10th Line Road (2)

Beckwith 10th Line extends from Highway 15 to its dead end at the Mississippi River. As such, Beckwith 10th Line Road is generally only traversed by those travelling to or from the residential developments along Beckwith 10th Line. Beckwith 10th Line serves as an access point for a number of rural estate lot subdivisions, including Maggie's Place, Beckenridge

Estates and Hayshore Estates. With the exception of Beckenridge Estates, the majority of the larger rural estate lot subdivisions with access points on Beckwith 10th Line also have secondary access points on adjoining roads; Lake Park Road and Beckwith 9th Line. The proposed development has two entrances located across the frontage on Beckwith 10th Line, greater than 150m apart. The entrances will be located on a 'flat' section of Beckwith 10th Line and will each require sight line triangles and proposed road crossing culverts to be installed in the existing ditch line.

Access Points – 9th Line Road

Beckwith 9th Line extends from the City of Ottawa through Beckwith from the Village of Ashton to the Village of Tennyson before entering into the neighbouring municipality, Drummond / North Elmsley Township. Beckwith 9th Line provides an alternative east-west connection through parts of Lanark County but is predominantly used for access to local residential developments along Beckwith 9th Line including Country Lane Estates, Rhoda Drive, Pine Ridge Drive and Maggie's Place.

Beckwith 10th Line Road is rated as a 60 km/hr roadway for the majority of the length, with some areas posted at 80km/hr. None of the existing developments employ left turn lanes or right turn tapers. Traffic count data was not available at the time of this report, but it is estimated that the annual average daily traffic (AADT) for Beckwith 10th Line would be less than 1,000 vehicles per day.

Suitability of Single Access Point

Rural subdivisions with detached housing are considered low traffic generators, and as such, a single access point for this first phase(s) of a development of this magnitude is sufficient from a capacity standpoint. With respect to providing access for emergency vehicles, the roads within the proposed development have wide granular shoulders which would allow for emergency vehicles to easily pass any unforeseen blockages.

While the specifics of the phasing limits are still unknown, it is expected that prior to registration that the scale, orientation and timing of the phases will consider impacts to local traffic along both Beckwith 10th Line and Beckwith 9th Line. At this point, it is not expected that the first phase of approximately 25-30 lots will warrant the construction of a secondary access. Given the layout proposed on the Draft Plan of Subdivision – the developer would have an option to construct a second phase that provides either a second connection to the same road (ie. two access points off Beckwith 10th Line or Beckwith 9th Line), or extend the development from one existing municipal road to the other (ie. single access of both Beckwith 10th Line and Beckwith 9th Line).

Anticipated Trip-Ends

Referencing the ITE Trip Generation Manual (10th Edition) for single family detached housing (Chart 210), the proposed 120 lot subdivision is expected to generate a total of approximately 95 trip-ends during the weekday, A.M. peak hours, with a distribution of approximately 25 entering and 70 exiting. During the weekday, P.M. peak hours, the subdivision is expected to generate a total of approximately 126 trip-ends, with a distribution of approximately 33 entering and 93 exiting. Chart 210 for the A.M. and P.M. peak hours have been enclosed at the end of this letter for ease of reference.

Sight Lines

The proposed points of entry have no sight line concerns with respect to the horizontal and vertical alignment of Beckwith 10th Line and Beckwith 9th Line. The proposed entry point provides for clear sight lines in both directions. Additional tree clearing/brushing may be required along the ditch line of the existing roads upon the construction of the new entrance to ensure that growth of the low density brush along the frontage does not impede sight lines in the future.

CONCLUSION

Based on the traffic assessment and analysis used for this study, McIntosh Perry concludes that the adjacent road network has excess capacity to accommodate the minimal new traffic generated by the development and that the new intersections on Beckwith 10th Line and Beckwith 9th Line are expected to operate at an acceptable level of service during the weekday A.M. and P.M. period through the foreseeable future. Furthermore, sight lines for the new access point are not expected to be a concern given the horizontal and vertical alignment of the existing roads at these locations, although tree clearing/brushing may be required along the ditch line to avoid future visual obstruction.

Should you have any questions with regards to the information contained herein, or require any additional information, please do not hesitate to contact the undersigned.

Sincerely,

McIntosh Perry Consulting Engineers Ltd.



Adam O'Connor, P. Eng.
Client Service Manager, Land Development
613.229.4744
a.oconnor@mcintoshperry.com

Enclosed: Chart 210 (2 pages)

Single-Family Detached Housing (210)

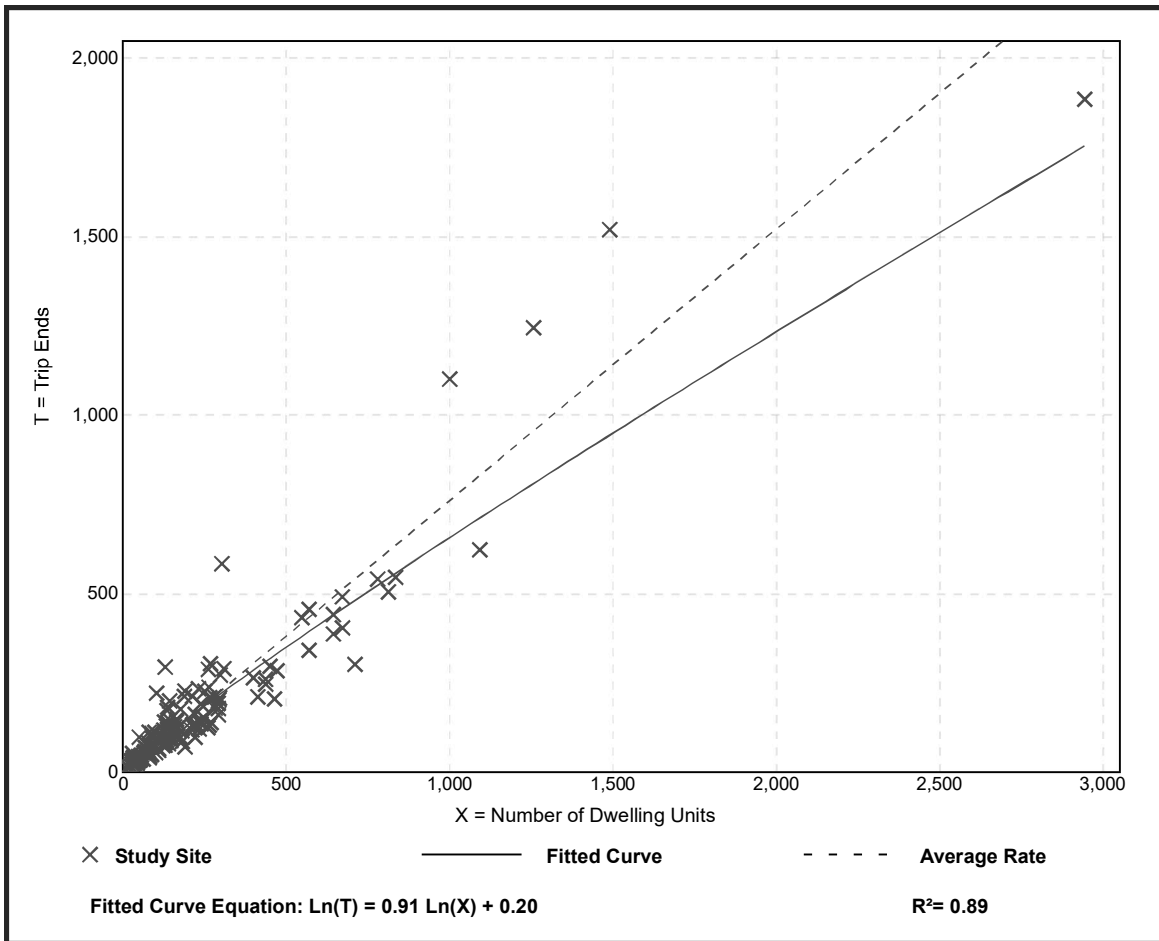
Vehicle Trip Ends vs: Dwelling Units
On a: Weekday,
AM Peak Hour of Generator

Setting/Location: General Urban/Suburban
 Number of Studies: 157
 Avg. Num. of Dwelling Units: 231
 Directional Distribution: 26% entering, 74% exiting

Vehicle Trip Generation per Dwelling Unit

Average Rate	Range of Rates	Standard Deviation
0.76	0.36 - 2.27	0.26

Data Plot and Equation



Single-Family Detached Housing (210)

Vehicle Trip Ends vs: Dwelling Units
On a: Weekday,
PM Peak Hour of Generator

Setting/Location: General Urban/Suburban
 Number of Studies: 165
 Avg. Num. of Dwelling Units: 217
 Directional Distribution: 64% entering, 36% exiting

Vehicle Trip Generation per Dwelling Unit

Average Rate	Range of Rates	Standard Deviation
1.00	0.49 - 2.98	0.31

Data Plot and Equation

