

MEMO

DATE May 11, 2018 **FILE NO.** 1046-4031
RE Parkbridge Traffic Assessment County of Grey Comment Response

TO Jim Stevenson,
Engineering Technologist
County of Grey **CC**

FROM Alexander Fleming, MBA, P.Eng
Ryan MacLaughlan, P.Eng

Dear Jim,

This memo has been prepared in response to the R.J. Burnside & Associates Limited comments received May 2nd, 2018, pertaining to the Traffic Assessment and Traffic Impact Study of the proposed Parkbridge development dated February 2018 and December 2016, respectively. The assessment and study were completed for the development to be bounded by Grey Road 19 and existing residential developments to the west, Lakeshore Road to the north, the proposed Eden Oak development to the east, and the proposed Home Farm and existing residential developments to the south. This memo is intended to address the R.J. Burnside & Associates Limited comments.

We have transcribed the R.J. Burnside & Associates Limited comments, followed by our response.

R.J. Burnside & Associates Limited TIS and Traffic Assessment Comments (Rec: from R.J. Burnside & Associates Limited April 26, 2018)

1. **Trip Generation** – The TIS suggests that the use of Single Detached and Multi-Family trip rates may be overly conservative. We note that these rates are consistent with those used in other TIS studies in the area (e.g., Home Farm Development). Considering that the trend is towards permanent residences and away from seasonal residences, we recommend that the higher trip generations should apply.

We are not aware of any evidence of a trend towards permanent residences and away from seasonal residences in this Craigeleith area.

Regardless, we compared the trip generation rate of Birches Boulevard, which is a condominium development of primarily large single detached homes. That trip generation rate was found to be **0.19 and 0.36** (for A.M. and P.M. respectively), which compares favourably to the rate used in the TIS (**0.16 and 0.26**) as opposed to single family detached equivalent rates of **0.75 and 1.0** (for A.M. and P.M., respectively) and multifamily trip equivalent rates of **0.48 and 0.60** (for A.M. and P.M., respectively).

Regardless, as a sensitivity analysis exercise and to address MTO comments on trip generation, Appendix I provides the traffic operations results using the higher 100 percent permanent resident trip generation. The traffic operations results are similar (Levels of Service B and C under both scenarios).

- Existing Traffic Volumes** – The existing traffic volumes on Grey Road 19 were based on traffic counts taken in August 2016. The Town of the Blue Mountains *Comprehensive Transportation Strategic Plan* (CTSP) (Tatham Associates, 2010) recommends that winter weekend traffic volumes be used in this area to assess peak operations, since these are expected to have repeated occurrences throughout the winter. This is consistent with the methodology used in the TIS for the adjacent Home Farm Development (Crozier & Associates, 2013) which used winter weekend traffic volumes as the background design volumes. Based on the information in the CTSP, the peak winter traffic volumes may be over twice as high as the peak summer traffic volumes in this area. Localized winter traffic volumes may be even higher (e.g., Craigleith Road provides access to the Craigleith Ski Club which would be expected to attract significant traffic volumes in the winter). We recommend that the existing traffic volumes be adjusted to reflect these seasonal variations.

The summer traffic data is preferable for use. "The Village" at Blue Mountain has higher visitation in the summer than in the winter. Highway 26 traffic volumes in between Stayner and Thornbury show an approximate 40% greater SADT than WADT. Further, the traffic volumes on Grey Road 19 (GR 19) were compared between the Home Farm TIS and the Parkbridge TIS.

The Home Farm TIS traffic data was collected in the winter due to the timing of the development application. To mitigate the effect of lower winter traffic volumes in the area, it was deliberately selected to take the counts during the school year March Break.

A comparison of the north and southbound volumes on GR 19 between Birches Boulevard and Craigleith Road revealed that the peak hour volumes (AM + PM) were **4.4% greater** in the 2016 summer than in the 2013 March Break, and only the a.m. peak hour SB volume was less in the summer than in the winter. This in itself is not troublesome, as it is the p.m. peak hour which has the higher traffic volumes that would establish roadway improvements, if warranted. Although there is a three-year difference between these counts, the minimal calculated growth rate (described below) would not severely impact these numbers.

- Background Traffic Growth** – The TIS assumes a background growth rate of 2% per annum on Grey Road 19, over the next 15 years. The 2016 TIS also included traffic generation from the Eden Oak/Chasson Developments, while the 2018 TIS included these developments as well as the Home Farm Development. Some of the traffic from the Home Farm Development is distributed past the Parkridge Development Access. However, the volume of the Home Farm Traffic that was distributed in this direction has been significantly revised from the distribution previously assumed in the Home Farm TIS (Crozier & Associates, 2013). The previous TIS had a forecasted 55% of the traffic would distribute in this direction, while the current TIS has now

reduced this to only 20%. The rationale for this adjustment was based on the travel time survey, which identified that a minor reduction in travel time would be realized by using Mountain Road to travel to Collingwood from the Home Farm development, as compared to using Highway 26. The Home Farm TIS has also assumed a growth rate of 5% per annum for background traffic on Grey Road 19, which is significantly higher than the background growth rate assumed in the current TIS (i.e., 2% per annum). The inconsistencies in the studies suggest that the assumed growth rate in background traffic may be under-estimated in the current TIS.

The 5% growth rate was used in the 2010 Town of The Blue Mountains Comprehensive Transportation Strategic Plan and so was used for the 2013 Home Farm TIS. However, the Home Farm report cautioned that this was an aggressive growth rate and was believed to be overstating the likely future growth. A review of MTO traffic data on Highway 26 for the segments east and west of Grey Road 19 show a growth rate either negative or less than 1 percent for all categories of AADT, SADT, etc. for the years 2010 to 2016. The 5% forecast in the 2010 TOBM CTSP has not been realized so the use of a 2% growth rate is appropriate.

We acknowledge that the Home Farm distributions were changed. It was revised based on a look at multiple studies in the area, both by Crozier and other consultants. Additionally, travel time survey results were consulted.

4. **Left Turn Lane Warrants** – The TIS recommends that traffic continue to be monitored at the intersection of Grey Road 19/Street 1/Craigleith Road, to confirm if the forecasted warrant for a southbound left turn lane is met. We recommend that the left turn lane warrants be recalculated, based on any adjustments made to the existing traffic volumes and background growth rate (as discussed previously). Considering the rural environment along this corridor, we recommend that the left turn warrants be based on a 70 km/h design speeds, rather than the 60 km/h design speed assumed in the TIS. It should be noted that the left turn lane warrants are intended to address collision potential and therefore maintaining operational mobility (i.e., short delays for turning movements) should not be considered justification for not installing such lanes if the warrants are met.

The design speed of 60 km/h was selected to follow conventional practice of using a design speed of 10 km/h more than the posted speed for low-speed roads. A design speed of 70 km/h was checked and does not change any of the conclusions and recommendations.

Regarding the left-turn lane warrants, the requirement for a left-turn lane is based on volume warrants and collision warrants.

Per TAC GDGCR (2017), volume warrants for left-turns are typically based on capacity analysis. Further, a left-turn storage lane may also be considered at locations where four or more collisions related to left-turns occur per year, or where six occur with a period of two years, provided the collisions are of a type that could reasonably be expected to be eliminated by providing a left-turn lane.

Collision concerns have not been identified by the County in this location, but investigation could be undertaken. Given the straight and flat roadway, it was not anticipated to be a high-risk location. If the monitoring determines that the appropriate collision trends exist that could be mitigated with the implementation of a left-turn lane, one will be recommended.

5. **Roundabout Option** – The TIS provides a concept for a roundabout to replace the signals at the Highway 26/Grey Road 19 intersection. We concur with the TIS that the roundabout is not recommended at this location. We note that the property impacts of a roundabout may be even greater than identified in the TIS, since a relocation of Lakeshore Road would also be required and since ultimate traffic requirements may necessitate a two-lane roundabout rather than the single-lane roundabout shown in the concept.

No action from this comment.

6. **Sight Distance Review** – The TIS should confirm the adequacy of sight distances at all intersections and accesses within the study area. We note that sight distance is limited at the intersection of Lakeshore/Grey Road 19, which should be identified as a constraint.

This can be done, but it would not be the onus of Parkbridge to correct any deficiencies, other than at accesses to the site. The proposed access at Grey Road 19 opposite Craigleith Road was determined to have adequate sight distance.

7. **Alternative Travel Modes** – The TIS should confirm the linkages and adequacy of the alternative travel modes (pedestrian, cyclist, transit) to serve the subject development.

Refer to **Section 8.2** in the February 2018 Traffic Assessment.

8. **Road Network Considerations** – The TIS notes that MTO will not support any connection to Lakeshore Road from the Parkbridge Development. We confirmed with MTO (Zsolt Katzirz) that MTO could support a connection to Lakeshore Road if a solution, acceptable to the MTO, can be identified for modifications of the connection of Lakeshore Road to Highway 26. A Class Environmental Assessment is currently in progress for Highway 26 in this area, with a preliminary solution being considered that would support a connection between the Parkbridge Development and Lakeshore Road. Therefore, it is premature to recommend that only Option 3 be pursued.

This is completely opposite what we've been told by the Ministry of Transportation. Correspondence (attached) in which the MTO outlines their clear lack of support for further intensification of the intersection of Lakeshore Road and Highway 26. This was the main reason why the traffic assessment was pursued. Additionally, this lack of support was reiterated in the comments received by the MTO dated March 31st, 2017. At no time did the MTO state that a connection to Lakeshore Road could be supported. For this reason, the connection to Lakeshore Road was ruled out, as

described in the February 2018 Traffic Assessment. Furthermore, the EA study being pursued by the MTO in this area is known to be stalled at this point, thereby preventing MTO support of intensification.

As noted in the Traffic Assessment, an emergency access to Lakeshore Road has been provided. This would allow for the potential conversion to a full access if the EA concluded that this connection could be supported. The timeline of this approval, however, is still unknown.

Therefore, recommending Option 3 is not premature as nothing put forward by Parkbridge Lifestyle Communities precludes the conversion of the emergency access to a secondary access at a later phase or compromise any solution the EA may select.

If you would like to discuss, please contact the undersigned.

Sincerely,

C.F.CROZIER & ASSOCIATES INC.



Alexander J. W. Fleming, MBA, P.Eng
Associate
AF/rm.mf

C.F.CROZIER & ASSOCIATES INC.



Ryan MacLaughlan, P.Eng
Project Engineer

Ryan MacLaughlan

From: Madeleine Ferguson
Sent: Thursday, May 03, 2018 1:30 PM
To: Ryan MacLaughlan
Subject: FW: Craigeith Residential Development - TIS Terms of Reference
Attachments: Craigeith Residential Development - Aerial Photo.pdf

Madeleine

From: Katzirz, Zsolt (MTO) <Zsolt.Katzirz@ontario.ca>
Sent: Tuesday, December 13, 2016 9:16 AM
To: Madeleine Ferguson <mferguson@cfcrozier.ca>
Subject: RE: Craigeith Residential Development - TIS Terms of Reference

Madeline,

MTO is not supportive of any further intensification on the Highway 26 intersection with Lakeshore Road, therefore MTO will not be supportive of any new access connections onto Lakeshore Road that significantly intensify the highway intersection. Please revise site access. I have attached our current TIS guideline.

Feel free to contact me for further information or discussion.

Regards,

Zsolt Katzirz | Corridor Management Planner (A)
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Provincial Highways Management | Ministry of Transportation
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Public Website: <http://www.mto.gov.on.ca/english/engineering/management/corridor/index.shtml>

From: Secord, David (MTO)
Sent: October-28-16 12:12 PM
To: mferguson@cfcrozier.ca
Cc: Katzirz, Zsolt (MTO)
Subject: FW: Craigeith Residential Development - TIS Terms of Reference

Madeleine

There is a scheduled meeting with the municipality and associated stakeholders November 2, 2016, pertaining to the subject area. It would be advantageous to hold off on direction for the terms of reference for the TIS until post meeting. There is a larger scaled transportation study/EA pending for this area of Hwy 26 thus the details of such are relevant to discussion in advance of the individual TIS. A resultant Highway Access Management Plan may be warranted. Zsolt Katzirz is the MTO Corridor Management Planner assigned to this file.

Zsolt and I look forward to representing MTO and working with you on this project.

Regards,

Dave

David Secord

Senior Project Manager
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From: Madeleine Ferguson [<mailto:mferguson@cfcrozier.ca>]
Sent: October-28-16 11:36 AM
To: Brian Worsley; Patrick Hoy; Secord, David (MTO)
Cc: Jon Proctor; Alex Fleming
Subject: Craigeith Residential Development - TIS Terms of Reference

Good morning all,

As a follow up to the voicemail messages I left earlier, I wanted to provide you with our proposed Terms of Reference for the Traffic Impact Study for a residential development in Craigeith, Town of Blue Mountain in the County of Grey. The proposed residential development includes 94 townhouses and 119 single family detached houses. The attached aerial photo illustrates the site location, as well as the location of the proposed site accesses.

We understand that the Traffic Impact Study must conform to the Ontario Ministry of Transportation Standards, and we will therefore follow requirements outlined in the Ministry of Transportation "Traffic Impact Study Guidelines".

With this in mind, we propose the following Terms of Reference for the study:

1. The study of the intersections of Grey County Road 19 and Craigeith Road, Grey County Road 19 and Lakeshore Drive East, Highway 26 and Grey County Road 19, and Highway 26 and Lakeshore Drive East/Fraser Crescent is assumed to be sufficient to determine the traffic effects of the proposed development on the surrounding road network;
2. Traffic counts were taken on Friday, August 26th, 2016 in order to capture the summer peak traffic volumes. The Friday a.m. and p.m. peak hours will be analyzed and accordingly, traffic counts were undertaken between 6:00-10:00 a.m. and 3:00-7:00 p.m.;
3. The study horizons comprise of the full buildout year, assumed as 2021, as well as five (2026) and ten (2031) years beyond;

4. Future traffic volumes will be calculated based on growth rates calculated using historical AADT data on Highway 26 and applied to all intersections. Additionally, trips generated from other planned developments in the area will be considered in the future background traffic volume calculations;
5. Trip distribution will be based on the existing travel patterns observed in the traffic counts;
6. It is our understanding that a left-turn lane is planned to be constructed at the intersection of Highway 26 and Lakeshore Road/Fraser Crescent so this will be taken into account in our future traffic analyses; and,
7. The Transportation Impact Study will also examine other typical elements, such as sight distance at the development entrances and other elements detailed in the guidelines.

We appreciate any feedback you may have on this approach to the TIS, and kindly request signal timing data for the intersection of Grey County Road 19 and Highway 26 if available.

Thank you and Best Regards,

Madeleine

| **MADELEINE FERGUSON** E.I.T. | C.F. CROZIER & ASSOCIATES

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