



April 26, 2018

Via: Email (jim.stevenson@grey.ca)

Mr. Jim Stevenson
Engineering Technologist
County of Grey
9th Avenue East
Owen Sound ON N4K 3E3

Dear Mr. Stevenson:

**Re: Proposed Parkbridge Development
Peer Review of Traffic Impact Study
Project No.: 300042704.0000**

This letter provides our peer review of the following traffic impact studies:

- Traffic Impact Study, Parkbridge Craigeleith; dated December 2016; prepared by C.F. Crozier & Associates Inc.;
- Traffic Assessment, Parkbridge Craigeleith Ridge; dated February 2018; prepared by C.F. Crozier & Associates Inc.

This peer review is focused on traffic issues which may impact the County of Grey and therefore is not intended to provide a complete review of traffic matters which may impact other road authorities that also have an interest in this development (i.e., Town of the Blue Mountains and Ministry of Transportation).

The primary conclusions and recommendations of the above noted reports are summarized as follows:

- The preliminary plans for the subject lands propose 94 townhomes and 119 single-detached houses (213 units total), forecasted to add 34 primary trips in the AM peak hour and 56 primary trips in the PM peak hour onto the boundary road network (i.e., based on "Recreational Home" land use). In response to Ministry of Transportation (MTO) comments, a sensitivity analysis was also provided which estimated the trip generation based on Single Family Detached and Multi-family Housing land uses, which increased the forecasts to 133 trips in the AM peak hour and 175 trips in the PM peak hour. However, it was indicated that this trip generation is considered to be an over-estimation, since these land use categories do not align with other typical Parkbridge developments.
- The 2031 total traffic operations are forecasted to be acceptable at all of the intersections reviewed in the study area. However, the warrants are met for a southbound left turn lane at the intersection of Street 1/Grey Road 19, under the PM peak hour traffic (2031 Total

Traffic), and assuming the more conservative trip generation rates noted above. Based on this trip generation being overly conservative and that operational delay is minimal at this intersection, no left turn lane is recommended at this time. However, it is recommended that traffic monitoring be completed after completion of the subject development, to confirm whether left turn lanes are warranted based on actual traffic conditions.

- The traffic forecasts indicate that the traffic operations at the intersection of Highway 26/Lakeshore Road will not be materially affected by the site generated traffic and therefore site entrances onto Lakeshore Road are supportable. However, the Ministry of Transportation (MTO) has indicated that any connection to Lakeshore Road would not be supported.
- Three options were considered for road connections through the subject development as follows:
 - Option 1 – Private roads, connecting Lakeshore Road to Grey Road 19. This option provides an improved environment for active transportation by reducing vehicular volumes and speeds through the development. However, this option does assign some additional traffic to the intersection of Highway 26/Lakeshore Road, which is a concern to the MTO.
 - Option 2 – Public road, connecting Lakeshore Road to Grey Road 19. This option has environmental, archaeological and topographic constraints and would increase the Town's financial responsibility for maintenance and rehabilitation, as well as the Town's potential liability for cyclist/pedestrian/vehicular conflicts or hazards.
 - Option 3 – Private roads, with a single connection to Grey Road 19. This option would also have an "emergency access only" connection to Lakeshore Road. It is recommended that this option be pursued, since it does not assign additional traffic to the intersection of Highway 26/Lakeshore Road.
- The potential for a roundabout at the intersection of Highway 26/Grey Road 19 was reviewed but not recommended due to the lack of operational need and the significant property impacts that would result.
- Based on a travel time survey that was conducted in December 2017, the shortest travel time between the site access onto Grey Road 19 and Collingwood is via Highway 26, as opposed to via Mountain Road, which influences the trip distribution from the subject development.

Burnside Comments on the Traffic Impact Studies (TIS)

Based on our review of the subject studies, Burnside provides the following comments:

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.

2. **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 weekend 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.

3. **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 Parkbridge 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 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 could 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 in background traffic may be under-estimated in the current TIS.

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 traffic 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.

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 a 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.

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 Road/Grey Road 19, which should be identified as a constraint.

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

8. **Road Network Considerations** – The TIS notes that MTO will not support any connection to Lakeshore Road from the Parkbridge Development. We have 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.

In summary, our peer review of the TIS reports has identified that the traffic impacts of the Parkbridge Development on traffic operations on Grey Road 19 may be greater than forecasted and that additional mitigation work may be required to address these impacts. In addition, broader road network decisions will have an impact on the final form and function of the road access to Parkbridge and therefore will need to be coordinated with the decisions surrounding this application.

Please call if you have any questions pertaining to our peer review comments.

Yours truly,

R.J. Burnside & Associates Limited



Henry Centen, P. Eng.
Senior Transportation Engineer
HBC:ls

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