

May 30<sup>th</sup>, 2025

**Mr. Mike Dwyer**  
Planning Manager  
**County of Lanark**  
99 Christie Lake Road  
Perth, Ontario  
K7H 3C6  
[Ph: 1(888) 9-LANARK Ext 1520 / E-mail: [mdwyer@lanarkcounty.ca](mailto:mdwyer@lanarkcounty.ca)]

**Re: Technical Peer Review – Highland Pit TIS, Peer Review Lanark County**

Castleglenn Consultants Inc. had completed a Traffic Impact Study (TIS) (September 2022) for the proposed Highland Line Pit Mineral Extraction Site on behalf of Thomas Cavanagh Construction Limited. This report was peer reviewed by D.M Wills Associates Limited on behalf of Lanark County. The peer review document was dated March 18<sup>th</sup>, 2025 and included consideration of the public comments-&-response matrix (January 15, 2025, prepared by MHBC).

Below are the six peer review comments along with Castleglenn's responses to each individual comment. The information contained within this letter has also been documented in a separate supplement/addendum report attached to this letter.

- The traffic analysis used in this study is based on the counts that were collected in December 2021. Although our team acknowledges that the traffic volumes within the area are relatively low and generally accepts the results, two factors should be clearly presented and considered to follow the typical TIS format:*
  - COVID impact since COVID restrictive measures were in place during the traffic data collection.*
  - Seasonal factor since the count was carried out in December.*

**Response:** The study took into account both COVID and seasonal impacts. A 7.5% growth rate was applied to all traffic movements representing the growth that would have occurred between 2021 and 2024. The traffic volumes recorded on Highland Line between County Road 12 and to the west of the extraction areas were increased 10-fold to examine a "worst case scenario". (See section 4.1, page 10). The applied factors provide a conservative forecast of study area traffic volumes and account for both seasonal variations and the influence of COVID.

- According to the MTO TIS guidelines, the study horizon should consider the opening year of the development in addition to 5 and 10 years for the future. However, the Highland Pit TIS only discussed the 2024 scenario which was considered as the opening year and no horizon years were discussed. Accordingly, the opening year should be revised to reflect a reasonable proposed opening year and 5- and 10-years scenarios as horizon years as per the MTO TIS guidelines.*

**Response:** The location of the development is not located in a "MTO Controlled Area" and therefore is not subject to the MTO's TIS guidelines. There is ample residual roadway capacity along Highland Line and County Road 12. We are unaware of any significant development in the area that could drastically affect the traffic volumes in a 10-year horizon. In summary, we do not

believe that providing a 5 or 10-year forecast and associated analyses will alter the findings or recommendations within the TIS.

3. The background info should provide the maximum annual tonnage extraction limit in addition to the type of trucks to be used to haul the material.

**Response:** Although not referenced in the 2022 TIS, it was assumed that the Highland extraction site would be limited by an annual limit of 1M tonnes, however, this has since been reduced to 0.5M tonnes. While this information was not in the TIS document, it was included in the Acoustic Assessment Report as part of Cavanagh's submission package. This is referenced within Addendum No. 1 attached this letter.

The heavy vehicle trucks used to transport extracted material were assumed to represent a mix of truck-trailer combinations (40 metric tonne capacity) and triaxle trucks (20 metric tonne capacity). These are both standard vehicles used for hauling extraction materials.

4. The study should clearly discuss how the truck trip generation is calculated. The truck trips should be summarized during the peak hour and during the day, especially during the peak production season of the pit. The discussion should include the size of the fleet, vehicle types, and anticipated loads by each type.

**Response:** In the TIS document, truck trip generation was based on the maximum allowable number of trucks as determined by the Acoustic Assessment Report. An estimate of 15 trucks-per-hour from each extraction site was assumed, for a total of 30 trucks-per-hour during the peak hours of operation.

The addendum document supplements this information with a table based on a new 0.5M tonne annual extraction limit. The table indicates the 30 trucks-per-hour in the peak hour would essentially be halved to 15 trucks per hour, or 7-to-8 per extraction site.

A complete breakdown of the calculations is provided in the addendum document.

5. The Highland Line should be assessed in terms of:
  - (a) The pavement adequacy to accommodate traffic loads and the anticipated truck traffic based on the traffic updates in the previous comments. This should include the assessment of the existing condition of Highland and whether there will be any needs for upgrades/maintenance due to the additional truck traffic caused by the proposed development.

**Response:** Highland Line is a Township road that is an existing designated truck route. Regardless of this application, Highland Line will continue to be used by heavy trucks. The Township Asset Management Plan<sup>1</sup> (July, 2021) was referenced and indicates that Highland Line was resurfaced in 2017 and determined to be in "very good" condition in 2021.

It is outside the scope of a TIS and outside the responsibility of a development proponent to provide current estimates of pavement adequacy unless major roadway modifications are being proposed. It is the responsibility of the municipality to regularly monitor roadway structural conditions and assess the need for upgrades/maintenance of the publicly owned asset.

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<sup>1</sup> "Township of Lanark Highlands Asset Management Plan Draft", R.V. Anderson Associates Limited, July 2021

(b) The sight distances adequacy at the proposed entrances.

**Response:** The required stopping sight distance (SSD) for each location was calculated taking into account roadway speed, grade, the paved surface and the motorist heights of a heavy vehicle and a passenger vehicle at all proposed accesses. (See Section 5). Candidate accesses were then determined and evaluated. Deficiencies were identified and assessed for possible mitigations. In all cases the available SSD exceeded the required SSD.

6. Truck swept analysis should be provided at the entrances of the development on Highland Line and at the intersection of CR 12 and Highland Line.

**Response:** Should approval of the pit be obtained, entrance designs would be prepared as part of entrance permit applications to the Township. Typically this process occurs once land use is approved. Truck swept (turning movement) analyses will be conducted at each of the the entrances/exits to the proposed Highland extraction site which is part of the site development process. The access design would adhere to the appropriate design standards.

The existing CR-12/Highland Line intersection currently accommodates heavy vehicle traffic. The intersection was improved in 2010 and its 19m access width onto Highland Line was designed to accommodate truck movements.

Should any new questions or concerns arise, please do not hesitate to contact us at your convenience.

Respectfully,



Mr. Arthur Gordon B.A. P.Eng  
Principal Engineer  
**Castleglenn Consultants Inc.**



Mr. Konstantin Joulanov B.A.Sc., M. Eng  
Transportation Planner  
**Castleglenn Consultants Inc.**