



# CBM-Caledon Quarry

## CAART COMMENT SUMMARY TABLE RESPONSE #1 – [TRANSPORTATION]

Please accept the following as feedback from the Caledon Aggregate Review Team (CAART). Fully addressing each comment will expedite the potential for resolution of the consolidated CAART comments and individual agency objections. **Additional comments may be provided once a response has been prepared to the comments raised below and additional information provided.**

Colour Code	Description
	Resolved
	Partly Resolved – subject to additional information being provided to CAART Reviewers (or approved by external review agencies)
	Not resolved

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1.	The Saturday peak hour counts in the report do not match the counts presented in Appendix B. Clarification/explanation of why the counts in the main body of report does not match the counts in the appendix should be provided.	Page 9, Section 3.2	Appendix B has been updated to match the 2023 counts aligning with the AM, PM and Saturday Mid-day Peak Hour traffic analysis.	Verified. The counts now match the appendices which provide the detailed 2023 traffic counts. No additional action required.
2.	A graphic showing the existing truck restrictions and haul routes would be supportive. Figure 4-3 shows roads with truck restrictions in Section 4.7 and may be more appropriate in this section.	Page 10, Section 4.1	Section 4.1 and Section 4.7 has been updated accordingly.	<p>The latest Google Streetview from 2024 is not showing restrictions on Mississauga Road north of Charleston Sideroad. This truck restriction appears to have been removed after 2021 and was permanent (not seasonal). To the south it is seasonal and is still in place.</p> <p>Cataract Road has a seasonal truck restriction to the south of Charleston.</p> <p>Figure 4-1 does not depict truck restrictions. This figure is depicting “designated haul routes” but it is not clear what this is based on and if it is specific to the subject development. A more appropriate use of this graphic would be to depict actual posted truck restrictions, as requested, reflecting signage posted in the field.</p> <p>Despite the above, the conclusions of the section generally remain valid in that Charleston Side Road is the preferred location for the site access.</p>

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3.	TAC Geometric Design Guide for Canadian Roads (GDG) is 200 metres. However, this spacing is more appropriate for signal spacing in urban conditions, while for suburban conditions a minimum intersection spacing of 400 metres would be desirable according to TAC.	Page 11, Section 4.2	TYLin recommends the proposed site access be located approximately 530 metres east of Mississauga Road, 160 metres west of the Peel Region snow storage access. Section 4.2 has been updated accordingly.	Acknowledged. The text has been revised to refer to the 400m spacing from TAC.
4.	Based on the Peel Region Road Characterization Study spacing of 600m, a midblock entrance on Charleston Side Road for the subject quarry is preferred. The proposed driveway design could impact the snow storage facility. The location should be evaluated against other criteria in addition to intersection spacing, such as sightlines and the design of the proposed entrance. If other criteria suggest a location outside of the midblock segment may be preferable for an access, then a spacing that is less than 600 metres away may be acceptable based on a comparison of the trade-offs between meeting intersection spacing and avoiding design and operations conflicts with adjacent driveways.	Page 11, Section 4.2	See response to Comment 3 above.  The revised access location satisfies TAC minimum intersection spacing and will ensure that storage and taper lengths of the proposed auxiliary turn lanes do not impact the existing accesses, specifically the Charleston Sideroad Peel Region snow storage access.  Intersection spacing, sightlines, and the design of the proposed entrance have also been reevaluated and updated accordingly to support the access location.	The revised preferred location for the site access on Charleston Sideroad is acceptable.
5.	The “Left/Right-Turn SSD” should be characterized as Stopping Sight Distance only as it is not related to turning vehicles.	Page 12, Section 4.4	This has been revised to clarify the SSD is measured for a vehicle approaching the intersection.	Verified.
6.	For a more conservative sightline analysis, the 100 km/h design speed should be selected.	Table 4-1 on page 12, Section 4.4	Acknowledged. A 100 km/h design speed was selected for sightline analysis.	Verified.
7.	The note under the table should be revised mentioning this assertion is not applicable in environments with very little vertical deflection. We do agree that the use of regular passenger vehicle stopping sight distance requirements is appropriate.	Table 4-1 on page 12	Acknowledged. The note under Table 4-1 has been revised accordingly.	Verified.
8.	In our opinion, a range of locations for sight measurements should have been tested to identify all locations within the midblock segment that provide acceptable sight distances, independent of other selection criteria.	Page 12, Section 4.4	TYLin determined this range based on our site visit conducted on December 10, 2024.	Verified.
9.	The purpose of the figure is unclear. A legend is required.	Figure 4-1 on page 13	Figure 4-1 has been updated to include a legend.	Figure 4-1 appears to have been relocated and re-numbered as Figure 4-3 and the legend has been added. Figure 4-3 does not effectively or clearly demonstrate the available and required sight distances. The graphic should show the required

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				<p>sight distance compared to the available sight distances by overlaying sight triangles.</p> <p>Multiple graphics may be needed, particularly for potential driveway locations on Mississauga Road and Main Street where there would be overlapping sight triangles for locations 1 and 2, and locations 4 and 5.</p> <p>Separate graphics may be needed for turning sight distance versus stopping sight distance so they can be clearly depicted and individually reviewed.</p> <p>Appendix E should clearly indicate the driveway location in the photographs so it can be referenced back to the sight triangles figures.</p>
10.	It is unclear why left-turn ISD at the Mississauga Road entrance was not captured, since the majority of trucks will be turning left on to Mississauga Road to continue south towards Charleston Sideroad.	Page 12, Section 4.4	The left-turn ISD has been captured in the revised study. The December 10, 2024 site visit assessed this movement and observed an available intersection sight distance of approximately 200m.	Noted.
11.	The sightline requirements in addition to the available sight distances should be better documented and additional figures and/or tables may be beneficial to better document the sight distances observed in the field in relation to the required sight distance.	Page 12, Section 4.4	Sightline Analysis has been included in Appendix D.	The sightlines collected from the field are provided in Appendix E. Please refer to item #9 above. This comment has not been adequately addressed.
12.	The sight distances measured in the field should use the existing property line as an obstruction to reflect that in future conditions which can be roughly estimated as being in the same location as the existing fence which runs along the north side of Charleston Sideroad i.e. on the south side of the subject site property.	Page 12, Section 4.4	Acknowledged. Sightline distances measured in the field on December 10, 2024 uses the existing property line.	<p>The original comment stated that the property line should be used as a control point which means that the sightline should not pass through the property line.</p> <p>The text following Figure 4-3 contradicts the response and states "It is recommended to clear all landscape or other obstructions near the edge of the property as driver's sightline may go through the property line in the future."</p> <p><b>If sightlines must pass through the property line in order to achieve adequate sight distances, then a provision should be made that ensures there will be no obstructions on-site that disrupt the sightlines, in addition to obstructions outside of the property line.</b></p>

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13.	The purpose of providing the available turn lanes and existing driveways at Charleston Sideroad and Main Street does not appear relevant to the discussion related to the proposed entrance. It suggests that an access to Mississauga Road has already been disqualified. The purpose of this section should be better documented as it appears to be a repeat of Section 4.2 but includes discussion on existing left-turn lanes.	Page 14, Section 4.6	Section 4.2 has been revised to better document the proposed Charleston Sideroad access location and its design in relation to the existing accesses, specifically the Charleston Sideroad Peel Region snow storage access.  As a result, Section 4.6 has been removed from the TIS.	Noted.
14.	Figure 4-2 depicts locations where the site access is not recommended but requires more details and measurements to describe the purpose and provide more guidance to the reader on the selection criteria.	Figure 4-2 on page 15	Section 4.2 and Section 4.1 has been updated accordingly.  Text: The revised access location satisfies TAC minimum intersection spacing and will ensure that storage and taper lengths of the proposed auxiliary turn lanes do not impact the existing accesses, specifically the Charleston Sideroad Peel Region snow storage access.	Noted.
15.	This report section would be better suited with a graphic that captures all the criteria which were considered in the selection of the preferring access location: sightlines, physical constraints, vehicular conflicts, traffic operations, haul routes, roadway classifications. Figure 4-3 appears to be more appropriate for Section 4.1.	Page 16, Section 4.7	Figure has been moved to Section 4.1	Noted.
16.	The traffic generated from staff working at 1420 Charleston Sideroad (6 employees) should be considered as a component of site traffic.	Page 16, Section 4.7	1420 Charleston SR staff trips have been added as a component of site traffic and assigned to study intersections accordingly. Section 4.7 relocated to Section 6.1.1 - Passenger Car Peak Hour Trips	Verified.
17.	The horizon year should be adjusted to represent 10-years post build-out as opposed to 10-years beyond existing conditions.	Page 17, Section 5.1	Traffic analysis has been updated to 10 year-post build out (2037).	Verified.
18.	Correspondence details relating to the background growth assumptions are missing in Appendix A.	Page 20, Section 6.1	Correspondence details relating to background growth have added to Appendix A.	Verified.

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19.	Section 6.1.2 refers to truck data which is not presented in the report. Available weigh scale data or similar data from a proxy site should be provided in greater detail, if available.	Page 20, Section 6.1.2	The calculated AM peak hour truck traffic was further increased by 50% to reflect the morning surge in truck traffic (please see updated Section 6.1.2 of the Traffic Impact study). This methodology has been used by TYLin for multiple quarry applications and have been approved by multiple agencies across Ontario.	See below comment.
20.	More details on the time-of-day distribution of truck trips will be beneficial as opposed to assuming even distribution of trucks throughout the week / year with an arbitrary adjustment factor of a 50% increase applied to the weekday AM peak hour.	Page 21, Section 6.1.2	See response to Comment 19 above. Furthermore, Section 6.1.2 provide more details on the expected average monthly breakdown of material extraction based on archived historical data from existing quarry operations in southern Ontario shipped per month for 2019 and 2020.	<p>This comment has not been adequately addressed.</p> <p>Table 6-2 in the report summarizes monthly material shipping estimates from another quarry. This information was not used in the trip generation and appears to be irrelevant to the trip generation calculations.</p> <p>The trip generation is based on first principles using estimated truck capacities and the permitted annual tonnage per year. Adjustments are made for “surges” based on assumptions without any data to support that claim.</p> <p>In a separate memorandum dated October 31, 2025, TYLin provided additional information regarding another aggregate quarry located in Aberfoyle. The Aberfoyle quarry has the same tonnage limit as the proposed quarry (2,000,000 tonnes per year).</p> <p>If the Aberfoyle quarry is to be relied upon then it should be demonstrated that the aggregate material extracted from the Aberfoyle quarry is similar to the aggregate proposed to be extracted from the subject quarry (material type, truck types etc.). Peak period traffic counts at the site driveway of the Aberfoyle site should then be conducted and that trip generation should be applied to the subject development.</p> <p>Trip rates can be derived from the Aberfoyle quarry traffic counts. Alternatively, if the tonnage limits and other factors are comparable to the subject development, no adjustments would be necessary.</p> <p>Using the monthly material shipping estimates or weigh scale data from the Aberfoyle pit, the trip generation captured at the Aberfoyle driveway count can be scaled up to a peak month.</p> <p>These driveway counts should be used to validate the trip generation based on first principles.</p>

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21.	The queries used to support the employee (passenger car) distribution shown in Table 6-4 should be provided in the appendices for review.	Page 23, Section 6.2	Appendix F has been added to include queries used.	A revised signal warrant was provided in a separate memorandum dated October 31, 2025 which supersede the signal warrant contained in the March 2025 report.  This revised signal warrant uses the latest methodology from the Ontario Traffic manual Book 12. The warrant is still not met. This does not change the conclusions or recommendations of the report.
22.	It is preferable to provide separate site traffic for trucks and passenger cars in Figure 6-1.	Figure 6-1 on page 24	Separate site traffic for passenger cars and trucks are shown in <b>Error! Reference source not found.</b> and <b>Error! Reference source not found.</b> , respectively.  A separate site traffic figure for the Heritage House (1420 Charleston SR) has been shown in Figure 6-4.	Verified.
23.	The storage requirements should be revisited to ensure that at least one truck length can be accommodated in the proposed storage for all turn lanes at the site access.	Page 29, Section 9.1	Noted. Each storage lane is to be designed to accommodate a minimum of one truck length.  Text: Refer to Appendix J for updated Truck Swept Path Analysis.	Verified.
24.	Access location should be reconsidered towards west of the proposed access as the design elements overlap with snow storage access. Spacing criteria of 600m as advised in Road Characterization Study may not be satisfied but it should not be used as the only criteria.	Page 30, Section 9.2	See response to Comment 3 and Comment 4 above.	Verified.
25.	It would be more appropriate to use an articulated dump truck that accurately reflects the largest design vehicles anticipated to enter the site.	Page 30, Section 9.3	Noted. The vehicle maneuvering assessment has been revised to assess the largest design vehicle. See Appendix I for updated Truck Swept Path Analysis.	Verified.
26.	The figure does not show edge of the existing pavement. The graphic should also indicate the required widening through the section of the roadway where the access is proposed.	Figure 9-1 on page 30	Noted. The figure has been updated based on the latest topographic survey.	Verified.



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27.	Lost time adjustment should only be applied if the existing operations are indicating over-capacity operations when the demand is known and can be supported through field observations. Operations without calibration should be showed first for comparison with the calibrated operations.	Page 32, Section 10.1	Lost time adjustment has been removed from all scenarios.	Verified. Operations at Hurontario Street and Charleston Sideroad have worsened as a result and some movements would be classified as 'critical' based on MTO thresholds exceeding volume to capacity ratios of 0.85. The analysis presents the incremental impact as being minimal and uses that as justification that the operations are acceptable. The only mitigation proposed is signal timing optimization and other mitigation has not been investigated. <b>If the MTO accepts the operations based on the existing lane configuration, then no additional action is required.</b>
28.	Table 10-2 indicates storage for the intersection of Hurontario Street and Charleston Sideroad only and is not accurately representative of existing conditions. The calculation of effective storage should be revisited so that none of the taper or deceleration components of the turn lanes are reportioned as storage.	Table 10-2 on Page 33	Update table in section 10. Move to Section 11.	Some of the storage distances are not accurate. Taper should not be included in the estimated storage. <b>If the MTO accepts the operations based on the existing lane configuration, then no additional action is required.</b>
29.	Analyze proposed site access under stop control prior to analysis under signal control to provide for comparison with signalized operations.	Table 10-4 on Page 35	Warrant and analysis updated in Section 10 accordingly	Verified. The analysis indicates the driveway would operate with acceptable operations during the analysis time periods under minor street stop control (without a traffic signal). Despite this finding and the signal warrant not being met, the report concludes that a signal is recommended to facilitate truck movements out of the site driveway.  <b>In consideration of the revised signal warrant and stop control analysis, the report should acknowledge that this will introduce delays to background traffic passing by the site along Charleston Sideroad.</b>
30.	It may be beneficial to include a comparison of 95th percentile queues from Synchro in addition to the SimTraffic queues.	Page 38, Section 11	Capacity analysis tables has been updated in Section 11.	Verified. SimTraffic is indicating longer queues than Synchro. The report concludes that the site will have minimal impacts on queues and that most queueing issues are present under background conditions. The report recommends monitoring. With the exception of signal timing optimization, there has been no additional mitigation proposed. <b>If the MTO accepts the operations based on the existing lane configuration, then no additional action is required.</b>

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31.	Site truck traffic is expected to use the available haul routes (Charleston Sideroad and Highway 10) without cutting through side streets or other minor roadways unless there are roadway blockages or conditions which render the haul routes unusable. Congestion and typical delays does not constitute an acceptable reason for trucks to divert from the haul routes along Charleston Sideroad and Highway 10. The report should include discussion about the surrounding non-haul route road network, why it would be used (road closures, local trips, or employee/passenger vehicle traffic), and should provide rationale why the side streets would not be utilized during typical operations (truck restrictions, indirect routing etc.)	Throughout	Separate site traffic for passenger cars and trucks are shown in <b>Error! Reference source not found.</b> and <b>Error! Reference source not found.</b> , respectively.	<p>This comment has not been addressed.</p> <p>Separate figures have been provided for regular vehicles and trucks, which is appreciated, but is irrelevant to the comment.</p>
32.	Collision Analysis – should be updated to capture 5 years before/after the Covid-19 period to ensure the analysis is based on typical conditions. The analysis should also focus on specific turning movements and intersections to identify ‘hotspots’ and to identify potential mitigation. The analysis should be extended to include all intersections along the haul route from the site entrance to Highway 10, as well as the midblock segments.	Attachment D of Response to the Town of Caledon and Cuesta Planning Consultants Inc. – Aggregate Resources Act Comments of November 17, 2023 - St. Marys Cement Inc. (Canada) - Proposed Caledon Pit/Quarry Class A Licence #626600 OUR FILE 8816AF – Attachment D (Collision History Review by TYLin) dated August 13, 2024	Collision Memo has been updated to include 5 years before/after Covid-19 (2015-2023).	Verified.