



HDR | iTRANS
260 Holiday Inn Drive
Suite 23, Building A
Cambridge, ON N3C 4E8
Tel: (519) 651-8188
Fax: (519) 651-3374
www.hdrinc.com
www.itransconsulting.com

File: 6.1
Project # 5550

Memorandum

To: Township of Woolwich
Cc:
From: Stewart Elkins B.E.S., MITE – Project Manager
(HDR Corporation)
Date: March 9, 2010
Re: **Traffic Operational Review – Hunsberger Pit Peer Review**

Based on our review of the Traffic Operational Review – Hunsberger Pit prepared by IBI Group in May 2008 and concerns raised by the public, we have the following comments:

- On page 3 the turning movement count for Sawmill Road at St. Charles Street is noted as being undertaken on November 27, 2002. There is no indication whether the Township approved a count this old. The Region's requirements state that traffic counts should be no more than two years old. Residents expressed concerns with respect to traffic infiltration on Golf Course Road as drivers attempt to circumvent the haul routes. There is concern with respect to the time of year two of the turning movement counts were undertaken and the potential extent of seasonal variation in the traffic volumes, with the higher volumes occurring in the summer months. The traffic study should provide a comparison of summer and annual average traffic volumes on area roadways, including the haul route.
- On page 4 the report states "It is expected that trucks will travel east on Sawmill Road through the community, and turn left at the Northfield Drive intersection." This should read "trucks will travel *west* on Sawmill Road".
- On page 8 the turning movement volumes illustrated for the intersection of Sawmill Road at Katherine Street and Crowsfoot Road do not include any volumes for Crowsfoot Road. Inspection of the analysis indicates that the Crowsfoot Road approach was not analyzed. There is no discussion explaining this omission. Furthermore, on page 25 it is stated that vehicles on Crowsfoot Road advance into Katherine Street, which creates operational and safety concerns. This approach should be included in the analysis.
- On page 11 the report states "Given that there was minimal growth within the analysis period, the volumes obtained for the future conditions were lower than those

of the existing conditions after the PHFs were applied.” The peak hour factor does not affect the hourly volumes arriving at the intersection, but rather the distribution of these volumes throughout the hour. The volumes should not decrease, though the volume to capacity ratio may be lower.

- On page 12 the critical movements are listed in Exhibit 4-2, however no definition or thresholds of what constitutes a critical movement is provided.
- On page 12 the report discusses the number of trucks per day generated by the site. There is no discussion of staff and customer vehicles.
- On page 12 the Proposed Site Traffic is derived based on an assumed constant extraction rate for the entire year. It is unreasonable to assume there would be no peaking characteristics. Furthermore, trip generation is based solely on the extraction activities, with no consideration given to the asphalt and concrete recycling processes. There is also no justification provided for the trip distribution, particularly since the most direct route to an expressway is to the west.
- On page 12, the average load size is stated as 30 tonnes. The source of the average load size is not noted. The range of typical load sizes and types of vehicles which would be expected at the site are also not specified. *The August 20, 2009 email from IBI indicates that they would revise the average truck size down to 25 tonnes to provide for a more conservative estimation of trip generation from the site.*
- On page 15 it is noted that the intersection of Northfield Drive at Sawmill Road “may require signal timing modifications”. There is no analysis provided to demonstrate whether signal timing modifications would correct the operational issues at the intersection. This comment was made with respect to Future Background traffic as well. The issue should have been previously addressed and resolved.
- On page 15 the WB movement at the intersection of Northfield Drive at Sawmill Road is not noted as exceeding capacity during the PM peak hour.
- On page 17 the design vehicle used as the basis for the safety assessment is identified as “a B-12 tri-axle truck”. TAC designates a B-12 as a standard bus. Further explanation of the characteristics of the design vehicles are required. To be conservative, each safety criteria should be evaluated based on the worst performing vehicle that will service the site.
- On page 17 the report notes that the site will be typically operating during daylight hours. The hours of operation for the site are 7 a.m. to 7 p.m. The sunrise time in December can be as late as 8 a.m. and the sunset time can be as early as 4:45 p.m. While these hours will comprise only a small amount of the proposed operating hours throughout the year, the traffic analysis implies that these hours will have the same trip generation as any other hours, and the road conditions are more likely to be less than optimal.

- On page 20 the collisions that occur during the winter months were discounted since the pit would not be open during winter conditions. This is not a representative collision analysis since winter conditions could occur during times the pit is in operation. This statement is also contradictory to other statements in the study which indicate that the pit will be operational during some winter months.
- On page 20 the collision analysis does not include a collision rate.
- On page 26 it is noted that “No specific issues with truck turning movements at the intersection were identified in the Region’s review [of the intersection conducted in April 2007].” There is no discussion with respect to the truck volumes used in the review and whether they are comparable to the projected truck volumes under the total traffic analysis. The site generated trucks for this pit and other proposed pits in the vicinity – including the Capital Paving property, Kuntz Pit, and Middlebrook Pit – are not included in the volumes used in the Region’s intersection review.
- On page 26 the report states “Notwithstanding that the intersection of Hunsberger.
- Road and Katherine Street will not be used by haulage trucks ...” The proposed site access is north of the intersection and all vehicles are projected to head south. The road also bisects the property, with no alternate access noted. It would be necessary for trucks to cross Hunsberger Road, however there is no discussion or analysis of the traffic and safety impacts of the required access.

General comments about the compliance of the report with Official Plan Amendment No. 13 are as follows:

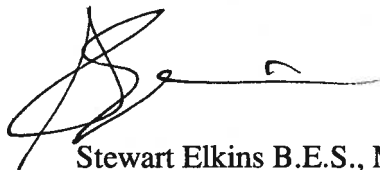
- Specific Town, Region, and provincial policies that need to be addressed by this study are not identified.
- The proposed haul routes are implied through the traffic assignment, but not specifically described. Residents have expressed concerns with respect to traffic infiltration on Golf Course Road as drivers attempt to circumvent the haul routes. The traffic study should comment on the propensity of motorists to take alternative routes based on the reserve capacity and level of service of the haul routes. A time-distance calculation should also be made to demonstrate the potential time savings, if any, to motorists should they use Golf Course Road as a means to by-pass the haul route.
- The land uses and types of impacts for the road network are included.
- There is no evaluation of haul routes or alternate haul routes.
- The physical characteristics of the road are not noted. There is no discussion of load limits or surfacing. Any existing load restrictions, or lack thereof, should be identified. The physical constraints are discussed through the sight line analysis.
- Anticipated increases in background traffic and traffic due to the extraction operations were included. The cumulative impacts from the proposed Jiggs Hollow

pit were included in the background traffic volumes. The site traffic from the Capital Paving property, the Kuntz Pit, and the Middlebrook Pit were not included. Site generated traffic included haul trucks only. No employee vehicles were accounted for.

- A horizon year of 2020 was used.
- The operational traffic impacts were noted, however they were not resolved. The physical traffic impacts with respect to sight lines were addressed. The physical traffic impacts with respect to the road structure were not included in the study.
- There is no discussion of pedestrians, cyclists, and horse-drawn carriages. Due to the proximity of the West Montrose Mennonite School and Foundation Christian School, all of these modes of transportation are likely to be present despite the rural nature of the roads.
- The proposed hours of operation exceed those permitted by the noise by-law. An adjustment in hours of operation will impact the site trip generation. This should be taken into consideration and the traffic analysis should be revised accordingly.
- The costs of improvements were not included in the report and the need for an Environmental Assessment was not addressed.
- While impacts to the Natural Environment (air quality, terrestrial heritage, aquatic heritage) and Social Environment (noise, vibration, cultural heritage) may not be directly attributable to increases in traffic associated with pit operations, other related studies are needed to provide an overall assessment of the cumulative impacts from the pit. The traffic component must be considered with the other related assessments (Natural Environment Technical Report, Hydrogeological Assessment Report, Dust Assessment Report, Aggregate Resource Inventory, Acoustical Assessment, Archaeological Assessment, MNR Recycling Policy, Cultural Heritage Landscape Assessment).

Yours truly,

HDR Corporation



Stewart Elkins B.E.S., MITE
Senior Project Manager