

# Appendix B

## Traffic Impact Study Scoping Document

August 15, 2008

Mr. Stephen MacIsaac, P. Eng.  
Area Manager Cape Breton  
Department of Transportation Infrastructure Renewal  
SYDNEY RIVER NS

Via Email '[macisasd@gov.ns.ca](mailto:macisasd@gov.ns.ca)'

**Re: Revised Scoping Document for a Traffic Impact Study,  
Proposed Coal Mine, Donkin, Cape Breton County**

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Dear Mr. MacIsaac:

Further to our project scoping meeting in Sydney on August 6, 2008, I am providing this Revised Scoping Document to describe the Traffic Impact Study that we are preparing for the proposed Coal Mine in Donkin, Cape Breton County. The traffic impact study will be completed in accordance with TIR *Guidelines for Completion of Traffic Impact Studies*.

The Coal Mine is expected to start operation in January 2010 and will produce and transport about 2000 tonnes per day five days per week. The site access will be on the No. 6 Mines Road between Donkin and Port Morien.

The proposed Haul Route / Access Route (Figure 1) to be investigated, include the following road sections:

- 1A. Site Access on No. 6 Mines Road to Route 255 at Port Morien then Route 255 to Deams Corner
- 1B. Site Access on No. 6 Mines Road through Donkin to the Deams Corner
2. Route 255 to Dominion Street in Glace Bay
3. Dominion Street and Wilson Road to Trunk 4 (Grand Lake Road / Sydney Road)
4. Trunk 4 to SPAR intersection
5. Other roads with regards to possible trucking coal from Donkin to Lingan, Point Aconi, and the International Coal Terminal.

The following methodology will be used to complete the TIS:

1. Project initiation will include [or has included] the following work tasks:
  - Meeting with Xstrata Coal, NSTIR and CBRM officials to discuss the Project Scope for the Traffic Impact Study (Wednesday, August 6, 2008).
  - Historical traffic count data for Haul Road / Access Route road sections. AADT data for the past 30 years will be used to establish the annual volume growth rate for background traffic. The most recent hourly machine count data will be used to establish peak hour volumes and estimated design hourly volumes for various road sections.
  - Available collision data for 2001 to 2006 for appropriate sections of the Haul Road and Access Route will be obtained from the NSTIR collision data base.

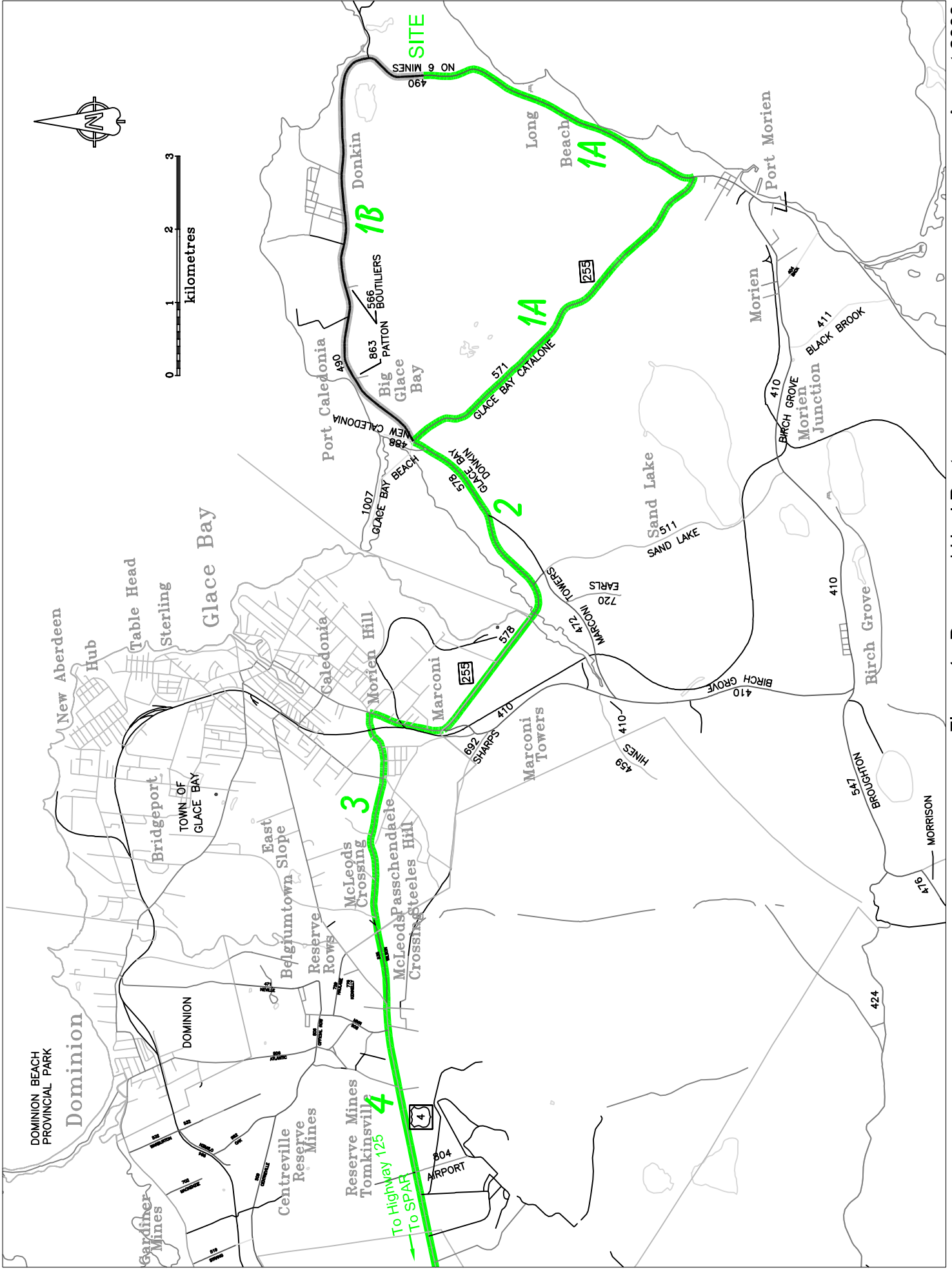


Figure 1 - Proposed Haul Route

2. Areas of concern to NSTIR established at the scoping meeting include:
  - pavement strength needed for Schedule C all-year maximum weight road
  - bridge load capacity
  - road cross-section
  - intersection and road geometry
  - vertical alignment; check signs.
  
3. Areas of concern to CBRM established at the scoping meeting include:
  - residential areas in Donkin
  - residential areas Dominion Street / Wilson Road
  - pavement strength on Glace Bay street sections on proposed Haul Route
  - Reserve Street from Wilson Road westerly to beginning of the 80 km/ h zone
  - cross-walk signing (upgrade to RA-5)
  
4. The number of passenger vehicle and heavy truck trips that will be generated by the construction and production phases of the projects will be estimated based on information provided by the developer. Trip generation estimates for the projects will be prepared for weekday daily volumes, as well as for weekday AM and PM peak hourly volumes. Site generated trips for construction and production phases of the project will be distributed and assigned to the road sections. Site generated construction and production trips will be added to the projected future horizon year volumes for the Study Area road sections to provide projected future year DHVs that include traffic that will be generated by the proposed development.

If 34 tonnes of coal is considered a reasonable average load for a tri-axle semi-trailer unit, and if coal is hauled 12 hours per day five days per week, 2000 tonnes per day will produce about 60 loaded trucks per day, or an average of five loaded and five unloaded trucks per hour. Also, if 42 tonnes of coal is an average load on a B-Train unit, there would be 48 loaded and 48 unloaded trucks per day.
  
5. Study Area intersections will be examined with regards to the following:
  - Stopping sight distances will be measured for existing intersections and will be checked on design drawings, where appropriate
  - Need for left turn and right turn lanes will be examined
  - Geometry of intersections with regards to heavy vehicle turning requirements
  - Need for traffic signals
  - Level of service analyses will be completed for design hour volumes and projected horizon year volumes using Synchro 6.0, where appropriate.
  
6. A Draft Traffic Impact Study Report will be prepared to include review of study methodology, traffic volume growth rates, trip generation for construction and production of the development, evaluation of intersection design requirements, and evaluation of projected horizon year volumes at Study Area intersections. The Draft Report will be sent to NSTIR and CBRM for review and comment prior to printing the Final Report. NSTIR will be provided with five bound copies, plus a PDF copy of the Final Report. CBRM will be provided with three bound copies, plus a PDF copy of the Final Report.

If there are questions or you require additional information, please contact me by Email [traffic@ns.sympatico.ca](mailto:traffic@ns.sympatico.ca) or telephone (902) 443-7747.

Sincerely:



Ken O'Brien, P. Eng.

cc: Mike Croft, P. Eng., NSTIR  
Sean MacLellan, CBRM  
Wayne MacDonald, P. Eng., CBRM  
Peter Walsh, XSTRATA