

G.I.-30 SEPT. 1976

GEOCRES No. _____

DIST. 14 REGION _____

W.P. No. _____

CONT. No. _____

W. O. No. 93-11028STR. SITE No. 39-309HWY. No. MunLOCATION Top. of Mountjoy
lot 2/3, Con. IVNo. of PAGES - =====

OVERSIZE DRAWINGS TO BE INCLUDED WITH THIS REPORT. _____

REMARKS: _____

MEMORANDUM



To: A.A. Witecki
Municipal Engineer
Approvals Section
Structural Office
7th Floor, Atrium Tower

Date: December 15, 1993

Attn: Ranko Mihaljevic

From: Foundation Design Section
Room 315, Central Building

Re: Matagami River Bridge
Twp. of Mountjoy
Lot 2/3, Concession IV
Site No. 39-309, W.O. 93-11028
District 14, (New Liskeard)

As per your request, we have reviewed the Structural Drawings MRB-1, MRB-3, MRB-4, MRB-5 and MRB-8 prepared by Paragon Engineering Limited.

Our comments are as follows:

- 1) Drawing MRB-1 indicates that the piers and abutments will be supported on end bearing steel "H" piles, HP 310 X 152 with an ultimate capacity of 2200 kN per pile and on HP 310 X 110 with an ultimate capacity of 1600 kN per pile respectively.
- 2) Drawings MRB-4 and MRB-5 show that the abutments will be founded on HP 310 X 94 steel piles using ULS capacity of 1200 kN per pile.
- 3) Drawing MRB-8 indicates that the piers will be supported on HP 310 X 152 steel piles using ULS capacity of 2000 kN per pile.
- 4) It is pointed out that ultimate capacity is different from ULS capacity.
- 5) The proper description of ULS capacity should read as follows: "Factored Axial Capacity at Ultimate Limit State".
- 6) The Consultant should investigate if the pile sizes of HP 310 X 94 and HP 310 X 152 are manufactured in Canada.
- 7) Since the piles are driven to bedrock, the structural capacity of an individual pile will govern.
- 8) The theoretical pile lengths should be checked by the Geotechnical Consultant.
- 9) A scheme should be included in the contract documents for the construction of the piers.

- 10) The embedded casing lengths of the east pier should be checked by a Structural Engineer.

The above comments were conveyed to you verbally on 93 12 13.



P. Payer, P. Eng.
Senior Foundation Engineer

for

M. Devata, P. Eng.
Chief Foundation Engineer

PP/jb