



ONTARIO
DEPARTMENT OF HIGHWAYS

Dist. 28-10

Memo to Mr. F. E. Caveil, *Date* July 9, 1962.
Superintendent,
Special Services Section. *Subject* D.H.O. FOUNDATION INVESTIGATION
REPORT.
From Materials & Research Division, W.J. 62-F-65 -- W.P. (Nil).
(Foundation Section)

RE: PROPOSED D.H.O. PATROL YARD AT HWY. No. 60, LOT 11, CON. 14.,
TWP. OF LYELL, COUNTY OF NIPISSING, DISTRICT No. 10.

It is proposed to erect a D.H.O. patrol garage on Hwy. No. 60, approx. 2 miles West of the Village of Madawaska. A request for a foundation investigation was received from Mr. F. E. Cavell, dated June 5, 1962.

In order to determine the properties of the soil and decide on the type of foundation, an investigation was carried out by this Section. The field investigations were confined to five sampled boreholes, supplemented by four penetration tests. Bag samples of soil at the site were also taken. Due to the very dense state of the soil, boreholes could be taken down only 5'-0" to 10'-0" below existing ground elevations with the available equipment.

The elevations, as well as the locations of the boreholes, are shown on Drawing No. 62-F-65A, attached to this report.

The stratigraphy of the soil, throughout the site, was found to be quite uniform, and consists of very dense silty gravel with boulders up to 2'-0" Ø.

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The safe bearing pressure for spread footings 2 feet wide, at a depth 6 feet below ground elevation, is estimated to be at least 4000 lbs./sq. ft.

At the time of the investigation, the water level was found to be 6'-9" below the existing ground elevations.

The sand pile at the present location may be built without danger of base failure.

Access roads may be built on the silty gravel layer. Topsoil stripping, where necessary, should be carried out according to D.H.O. standards. For roadways and parking areas, a total minimum thickness of 18" of acceptable granular material is recommended. The upper 6" of this should consist of Class "A" G.B.C. material.

The granular deposits at the site were found to be suitable for use as Sand Cushion or Granular Borrow material.

Surfacing material should consist of 3½" base and top of H.L.4. The top 1½" may be modified to allow the use of a sandier mix.

The field work performed June 20, 1962 to June 21, 1962, together with the preparation of this report, was undertaken by Mr. W. W. Kulmatickas. The investigation was carried out under the general supervision of Mr. K. G. Selby, who reviewed this report.

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We believe the information contained in this report will suffice for your future design work. However, should further information be required, please do not hesitate to contact our Office.

WWK/MdeF
Attach.

Stiff
K. Y. Lo,
SUPERVISING FOUNDATION ENGR.
For:

A. G. Stermac,
PRINCIPAL FOUNDATION ENGR.

cc: Messrs. F. E. Cavell (4)
H. A. Tregaskes
H. D. McMillan
W. G. Wigle
T. J. Kovich
J. Roy
J. E. Gruspier
E. R. Saint
F. Norman

Foundation Section ✓
Gen. Files.

APPENDIX I.

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62-F-65

Hwy [#]60

MADAWASKA

PATROL
YARD

