

Mr. C. S. Moase,
Manager,
Special Services Section.

Mr. A. G. Stermac,
Principal Foundation Engr.,
Foundation Section,
Materials & Research Division.
August 16, 1963

D.H.O. FOUNDATION INVESTIGATION REPORT --
Proposed Patrol Garage, Hwy. 20, Elfrieda,
Twp. Binbrook, Dist. No. 4 -- W.J. 63-F-83.

A patrol garage is planned to be built on Lot 2, Con. I, Twp. of Binbrook, adjacent to old Hwy. 20. A foundation investigation was requested by the Special Services Section in a memo. dated July 23, 1963. In order to determine the subsoil conditions at this site and decide on the type and elevations of footings to be recommended, an investigation consisting of three sampled borings and three dynamic cone penetration tests was carried out on August 6, 1963. Attached to this report is a drawing (63-F-83A), showing the locations and elevations of boreholes, together with the inferred stratigraphy of subsoil.

Subsoil conditions in the area are generally uniform and favourable. Underlying a thin layer of topsoil, is a deposit of glacial till consisting of silty clay with traces of sand and fine gravel. This till material is in a hard to stiff state of consistency. It is brown to brownish-grey in colour. This layer was investigated to a depth of 21 ft.

No ground water level could be observed in any of the boreholes during the time of the investigation, due to low permeability of the subsoil.

August 16, 1963

Spread footings are recommended. A safe bearing load of up to 2 tons per square feet can be used. Footings should be provided at least five feet below the ground surface for adequate frost protection. No dewatering problems are anticipated.

For all service, parking and other areas to be paved or gravelled, the topsoil should be stripped and replaced with 6" of sand cushion or rock screenings and topped with 15" of G.B.C. 'A'.

A 2" thickness of HL-6 is recommended for all paved areas as a base course, with 1½" thickness of HL-3 as a wearing surface. Recommendations pertaining to construction of roadways, gravel areas and surfacing materials, were given by the Regional Materials Engineer, Mr. T. J. Kovich.

The field work, performed during the period August 6 to 8, 1963, together with the preparation of this report, was undertaken by Mr. B. M. Ghadiali, Project Foundation Engineer. The investigation was carried out under the general supervision of Mr. M. Devata, Senior Foundation Engineer.

Equipment used was owned and operated by Johnston Drilling Co. Ltd.

We trust that the given recommendations are sufficient for your future design work. However, should there be any additional questions you would like to discuss, please feel free to call on our Office.

AGS/MdeF
Attach.

cc: Messrs. C. S. Moase (4)
E. J. Orr
H. D. McMillan
H. Greenland
T. J. Kovich
A. Watt

A. G. Stermac
A. G. Stermac,
PRINCIPAL FOUNDATION ENGINEER

Foundations Office
Gen. Files

APPENDIX I

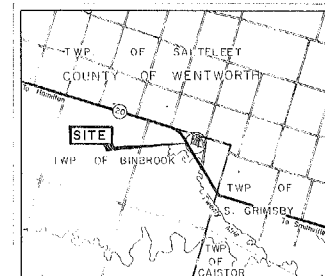
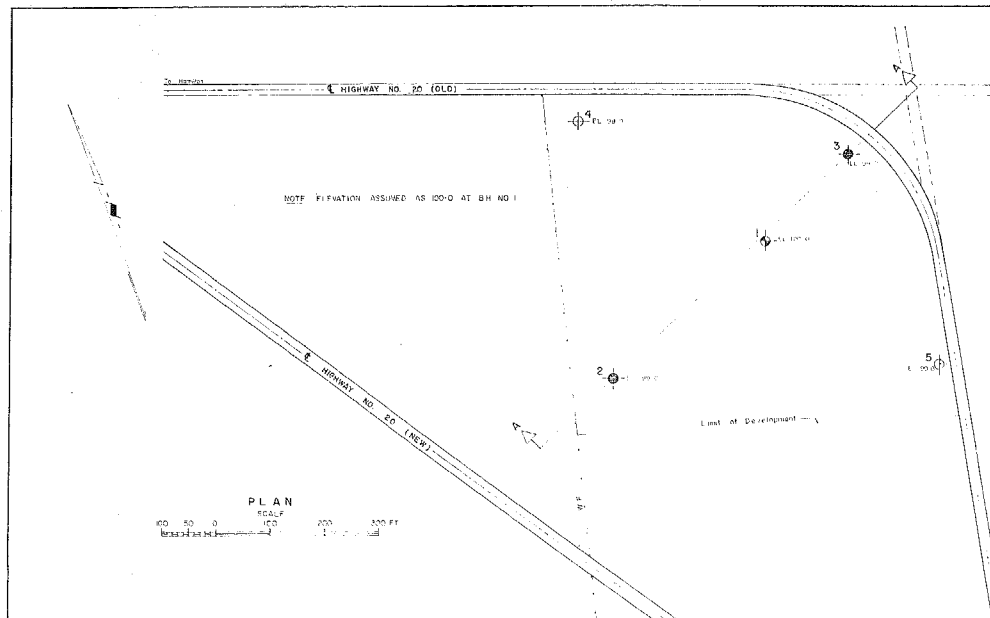
1974-1975

#63-F-B3

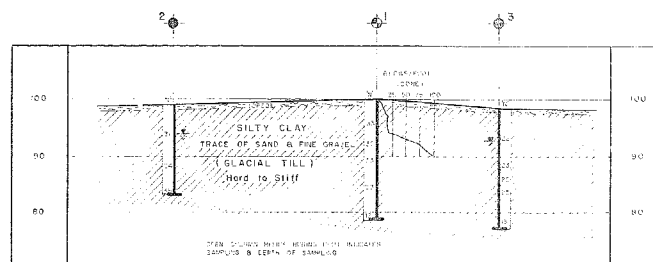
HWY. #20

ELFRIDA

PATROL YARD



LEGEND	
	Bore Hole
	Case Penetration Hole
	Bore A Case Penetration Hole
	Water Level established at time of field investigation Aug. 7, 1953



A - A
SCALE
0 50 100 200 300 FT
HORIZONTAL
VERTICAL

NOTE
The boundaries between soil strata have been established only of given line sections. Between these lines the boundaries are assumed from geological evidence and may be subject to considerable error.

DEPARTMENT OF HIGHWAYS - UTAH			
MATERIALS & RESEARCH SECTION			
ELFRIDA PATROL YARD			
PROJECT NO. 63-F-83A	DATE: AUG. 6, 1953		
DESIGNED BY: CLARK	CHECKED BY: [Signature]	SCALE: AS SHOWN	63-F-83A