

MEMORANDUM

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

FROM: Foundation Section,
Materials & Research Div.,
Room 107, Lab. Bldg.

DATE: March 2, 1964

OUR FILE REF.

IN REPLY TO

SUBJECT:

FOUNDATION INVESTIGATION REPORT

For

Wainfleet Patrol Yard
Lot 15, Con. I, Twp. of Wainfleet,
Hwy. #3, District #4.
W.J. 64-F-6 -- W.P. (Nil)

A request for a foundation investigation at the site of the proposed D.H.O. Patrol Yard at Wainfleet was received from Special Services Section, during December 1963.

A field investigation was subsequently carried out by this Section to determine the subsoil conditions existing at the site. Following are the results of this investigation, together with our recommendations pertaining to the proposed building.

The field investigation consisted of 4 sampled boreholes and 6 dynamic cone penetration tests. The locations and elevations of these boreholes are shown on Dwg. 64-F-6A.

The subsoil at the site was found to consist of loose to very dense silt at boreholes No. 5 and No. 6 to the depths of 1 to 9 feet.

The silt layer is underlain by the hard clayey-silt containing sand and gravel. The colour of this glacial till is red.

cont'd. /2 ...

March 2, 1964

The subsoil at the proposed building site was found to be generally uniform and consisted of the above described glacial till.

In view of the above, it is estimated that for the proposed building, a safe net pressure of 2.5 T.S.F. may be achieved at a depth of 6 feet below ground level. No stability problems are anticipated for a proposed sand pile within the boundaries of Boreholes No. 5 and No. 6.

Attention is drawn to the fact, that while the clayey-silt deposit is relatively impermeable, the silt layer has a much higher permeability and it is quite possible that water contaminated with salt, will be able to drain away through this zone. Wells supplying water to private houses are located some 700 feet westerly from the existing building, and in view of the above facts, the danger of salt contamination must be presumed to exist. The water level was found to be 1 ft. in the boreholes and 37 feet in the existing well below ground level.

With regard to possible future paved and gravelled areas, you are advised to contact the Regional Materials Engineer when and if it is decided that recommendations pertaining to the latter are necessary.

The field work was carried out during the period of January 24 to 28, 1964, under the direction of Mr. P. Payer, Project Foundation Engineer, who also prepared this report under the supervision of Mr. K. G. Selby, Senior Foundation Engineer.

PP/MdeF

Attach.

cc: Messrs. C. S. Moase (4)

E. J. Orr

H. D. McMillan

H. Greenland

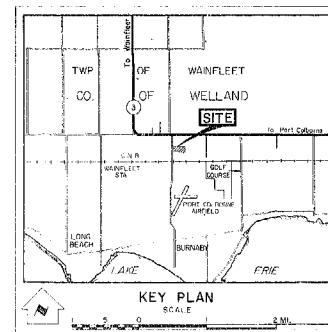
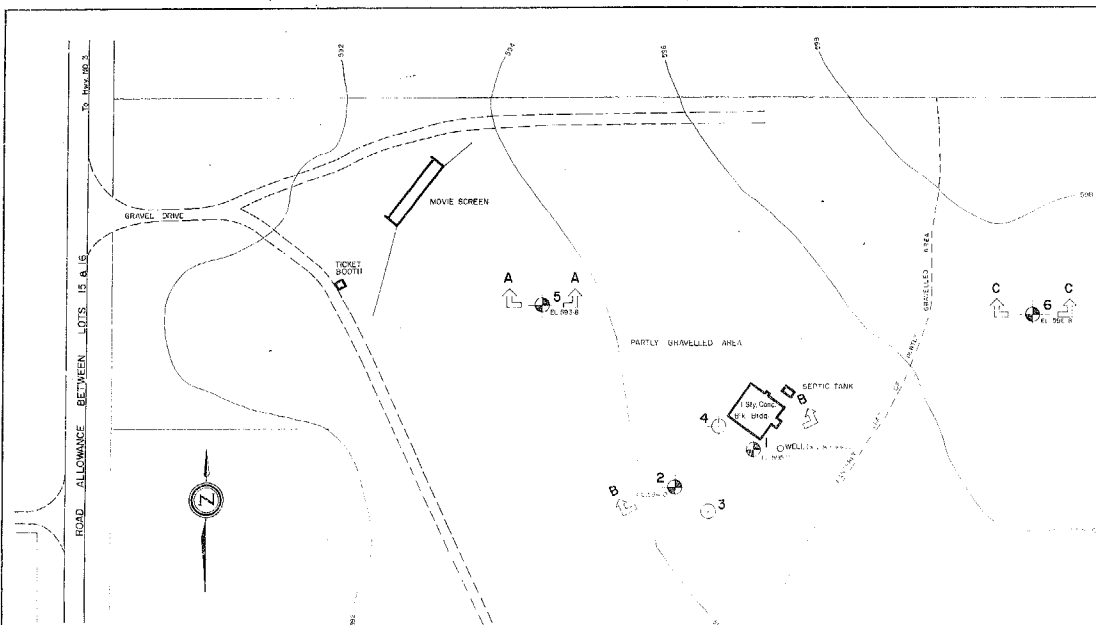
T. J. Kovich

A. Watt

Foundations Office -- Gen. Files

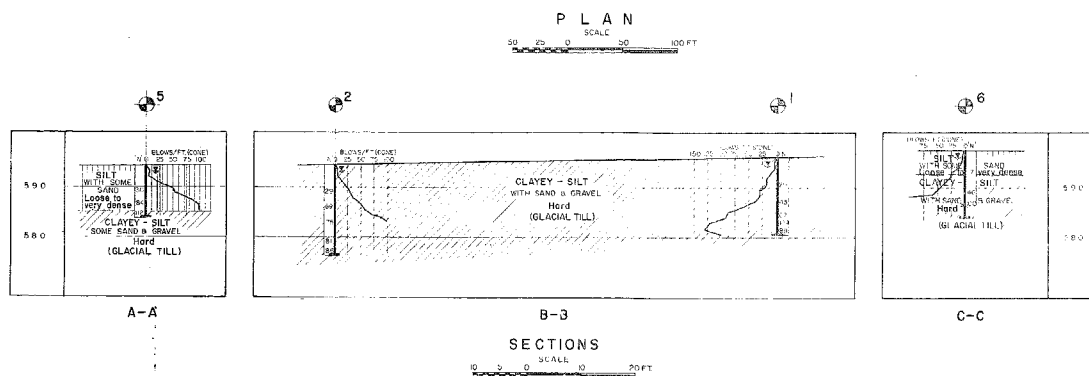
K. Y. Lo
K. Y. Lo,
SUPERVISING FOUNDATION ENGR.
For:
A. G. Stermac,
PRINCIPAL FOUNDATION ENGR.

APPENDIX I.



LEGEND

- ① Cone Penetration Hole
- ② Bore & Cone Penetration Hole
- Water Levels Established Jan 28, 1964



NOTE
THE BOUNDARIES BETWEEN SOIL STRATA HAVE BEEN ESTABLISHED ONLY AT BORE HOLE LOCATIONS. BETWEEN BORE HOLE LOCATIONS THE BOUNDARIES ARE ASSUMED FROM UNDOUBTful EVIDENCE AND MAY BE SUBJECT TO FURTHER REVISION.

DEPARTMENT OF HIGHWAYS - ONTARIO					
WATERWAYS & RESEARCH SECTION					
WAINFLEET PATROL YARD					
SHOWING POSITIONS & ELEVATIONS OF HOLES					
TRK	3	WAINFLEET	4	COUNTY	WELLAND
LOCATION	C.N.R. W. OF WAINFLEET STATION		CON	1	WAINFLEET
DATE	FEB 12, 1964		APPROVED BY	J.P.	
SCALE	AS SHOWN		APPROVED BY	J.P.	

64-F-6A

