

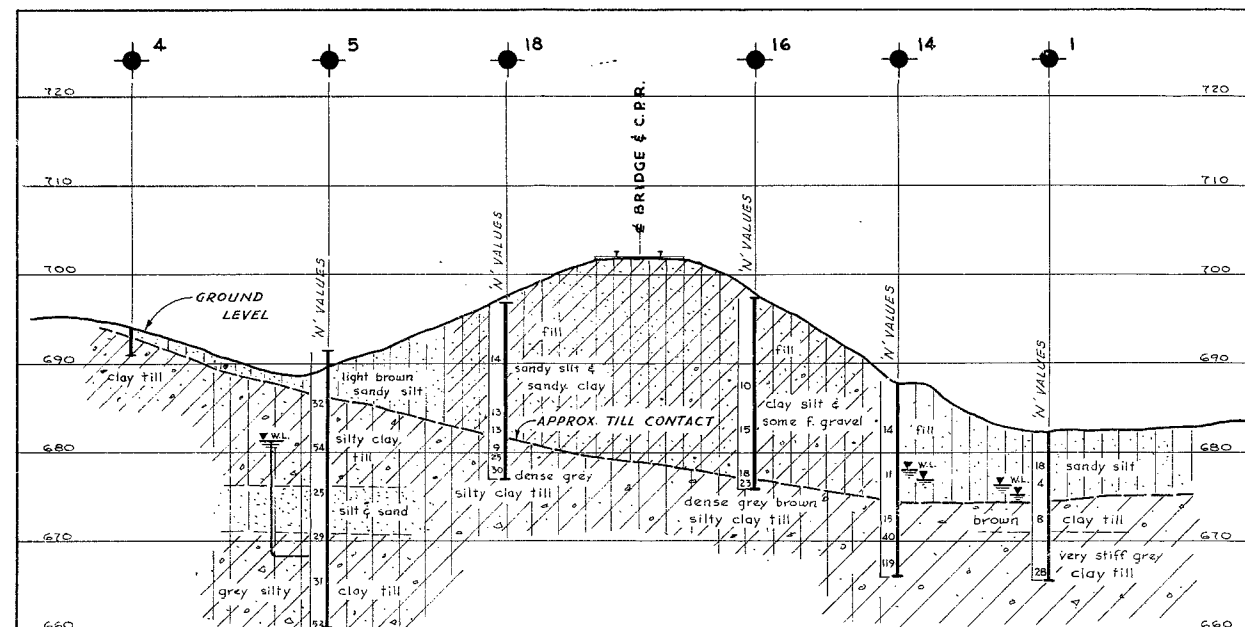
#59-F-110

W.P. 8C-58

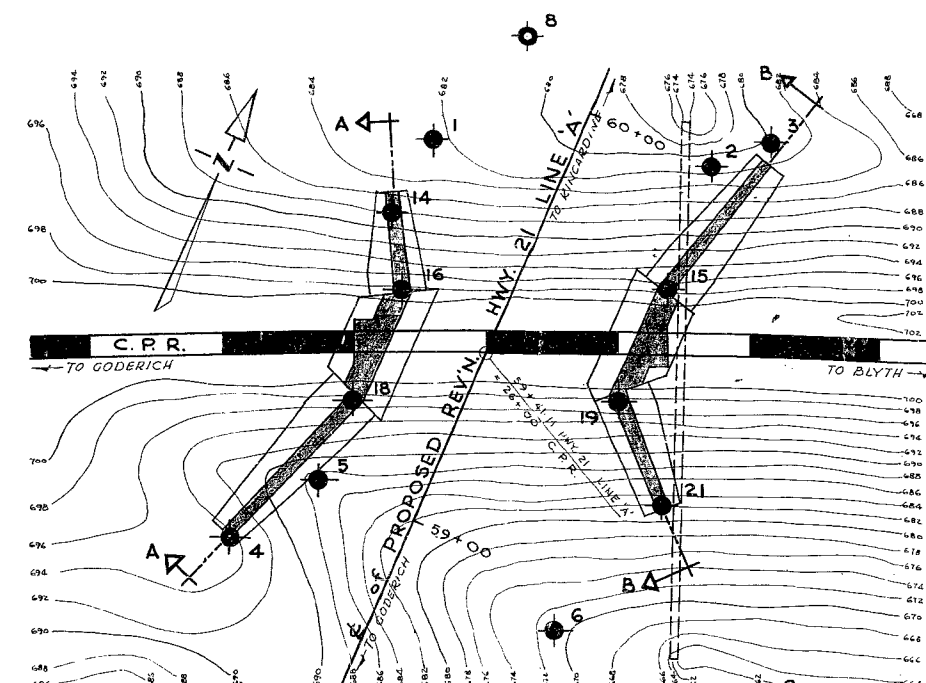
HWY. #21 E

CANADIAN PACIFIC

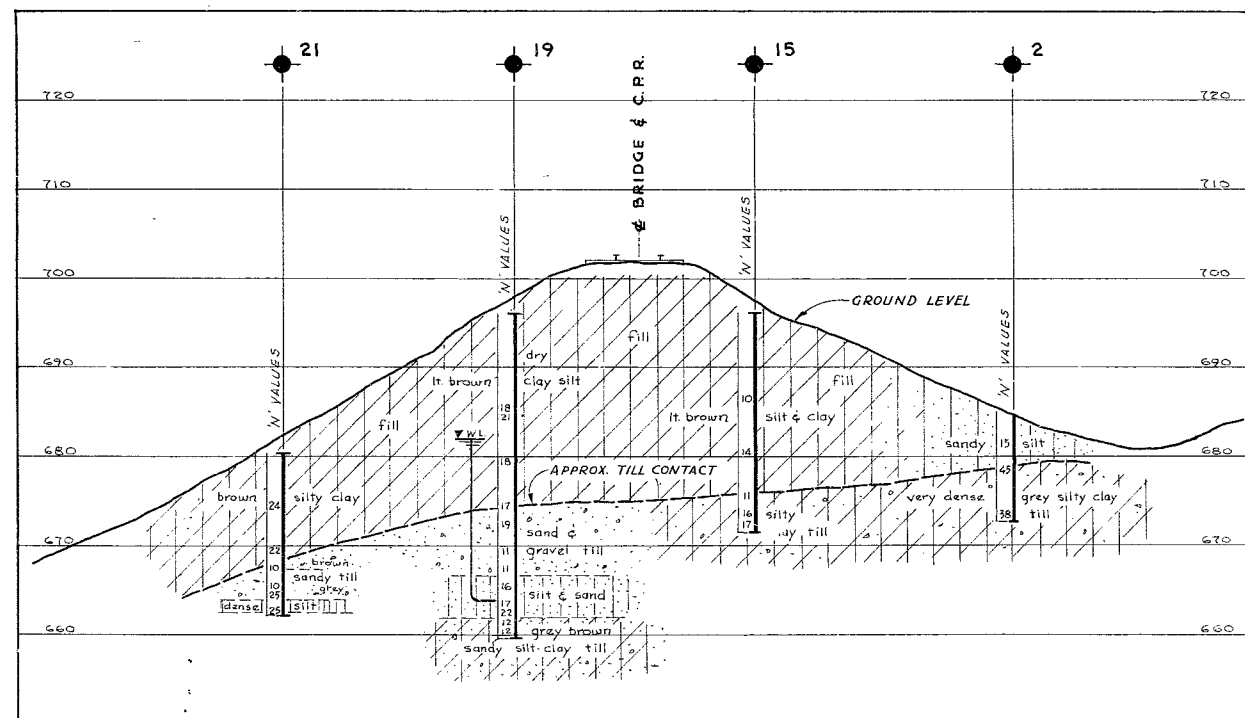
Rwy.



SECTION A-A
Scale - 1 inch = 10 feet

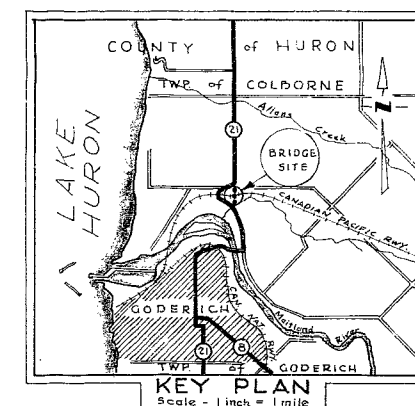


PLAN
Scale - 1 inch = 20 feet



SECTION B-B
Scale - 1 inch = 10 feet

LEGEND		
Bore Hole		●
Bore Hole by Geocon		○
HOLE NO.	STATION	DISTANCE FROM C.
1	59+80	30' LT.
2	60+00	30' RT.
3	NOT TESTED	
4	58+80	36' LT.
5	59+00	23' LT.
6	58+90	39' RT.
8	61+00	20' LT.
9	58+95	89' RT.
14	59+61	32' LT.
15	59+71	32' RT.
16	59+46	23' LT.
18	59+19	23' LT.
19	59+43	32' RT.
21	59+26	50' RT.



NOTE
THE BOUNDARIES BETWEEN SOIL STRATA HAVE BEEN ESTABLISHED ONLY AT BORE HOLE LOCATIONS. BETWEEN BORE HOLES THE BOUNDARIES ARE ASSUMED FROM GEOLOGICAL EVIDENCE AND MAY BE SUBJECT TO CONSIDERABLE ERROR.

DEPARTMENT OF HIGHWAYS - ONTARIO MATERIALS & RESEARCH SECTION			
CANADIAN PACIFIC RAILWAY PROPOSED CROSSING			
SHOWING POSITIONS & ELEVATIONS OF HOLES			
HWY 21 LINE 'A'	DISTRICT 3	COUNTY HURON	CON. BLOCK 'C'
TOWNSHIP COLBORNE	LOT		
LOCATION GODERICH			
DRAWN BY: H. REED	CHECKED BY:	W.F. 8C-58	
DATE 14 DEC. 1959	APPROVED BY:		
SCALE AS SHOWN			F-59-110 A

Mr. A. M. Toye,
Bridge Engineer.
Materials & Research Section.

December 17, 1959.

D.H.O. Soil Investigation --

Attention: Mr. S. McCombie.

Re: C.P.R. Underpass Hwy. #21 Alignment
Maitland River Valley, Goderich, Ont.,
W.P. 84-58-7- F-59-110.
Proctor & Redfern - Ref. No. E.O. 59115.

We have completed the necessary borings at the above noted structure location. The purpose of these borings was to define the elevation at which the footings should be placed to ensure that these footings are founded on the dense till stratum. Enclosed, please find Drawing No. F-59-110A showing the location of our borings, the subsoil profile as defined by these borings, and the foundation layout by Proctor & Redfern (Proctor & Redfern Drawing No. D-4350-2).

Reference to Proctor & Redfern's Drawing No. D-4350-2 shows that the formation elevations for the footings proposed by them are as follows:-

East Abutment:

Centre Footing	Elev. 675'
North Wingwall Footing ...	Elev. 676'
South Wingwall Footing ...	Elev. 675'

West Abutment:

Centre Footing	Elev. 675'
North Wingwall Footing ...	Elev. 676'
South Wingwall Footing ...	Elev. 673'

It appears that with the exception of the centre footing at the East abutment, footings placed at the elevations proposed by Proctor & Redfern, will be founded in the dense till stratum. For the centre footing at the East abutment, we recommend that the footing be founded at Elev. 673'. If the elevation of this footing is desired to be maintained at Elev. 675', it is our recommendation that the material between Elev. 675' and Elev. 673' be excavated and replaced with lean mix concrete or well-compacted free-draining granular material. A safe allowable bearing pressure of 3 t.s.f. can be used for footings founded in the dense till at the aforementioned elevations.

If there are any queries in connection with the foregoing, please do not hesitate to contact our Office.

L. G. Soderman,
PRINCIPAL SOILS & FOUNDATIONS ENGR.
per:

AKGL

(A. K. Loh,
PROJECT FOUNDATION ENGR.)

AKL/MdeF
Attach.

cc: Messrs. A. M. Toye (2)
Proctor & Redfern, Consultants (1)
Mr. J. Roy, Reg. Soils Engr. (1)

Foundation Section (1)

Gen. Files (1) ✓