

BA 3036
Site 37-637

FOUNDATION INVESTIGATION
PROPOSED BRIDGE
ISLINGTON AVENUE AND FINCH AVENUE
NORTH YORK, ONTARIO

68-F-210M YORK

Prepared for:

METRO ROADS
MUNICIPALITY OF METRO TORONTO

WILLIAM TROW ASSOCIATES LIMITED
Toronto, Hamilton, Sudbury, Ottawa

Project: J 4556
November 6, 1968

90 Milvan Drive,
Weston, Ontario.
749-1290

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William Trow

Project: J 4556

Soil Mechanics
Consultants
W. A. Trow
MSc. MEIC. P. Eng.
K. Peaker
PhD. MEIC. P. Eng.



Associates Ltd.

November 6th, 1968

Metro Roads,
Municipality of Metro Toronto,
14th Floor, East Toronto,
City Hall,
Toronto 1, Ontario.

Attention: Mr. T. French.

Foundation Investigation
Proposed Bridge
Islington Avenue and Finch Avenue
North York, Ontario

Dear Sir,

We include for your information the results of the two additional boreholes (Boreholes 5 and 6) together with a subsoil stratigraphy, interpreted from all the boreholes put down at the above site.

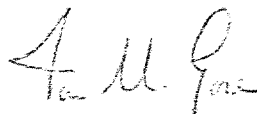
It can be seen that the soil conditions are similar to those encountered in the original four boreholes (see Trow Report No. 4556, dated October 11th, 1968). In particular, the bedrock surface, proved in these additional boreholes, appears to conform with the general trend established by the initial boreholes.

From the results of this supplementary investigation we envisage no change in our foundation recommendations, i.e. foundations should be supported by piles driven to refusal in the dense shale bedrock. These piles may be designed for the working loads outlined in our original report.

We trust that you now have sufficient information to finalize your foundation details.

Yours very truly,

WILLIAM TROW ASSOCIATES LIMITED



I.W. Gore, P.Eng.



K.R. Peaker, P.Eng.

IWG:BC

Enc.

Dist: Metro Roads (4)




BOREHOLE LOG




JOB No. J 4556

BOREHOLE No. 5

DRAWING No. 6

PROJECT Proposed Bridge,
 LOCATION Finch and Islington Avenues,
 North York, Ontario.

2" O.D. SPLIT TUBE 
 2" I.D. SHELBY TUBE 
 2" DIA. CONE 
 PUSHED _____ P
 VANE TEST AND SENSITIVITY (S) + S

NATURAL MOISTURE X
 PLASTIC AND LIQUID LIMIT 
 UNDRAINED TRIAXIAL AT OVERBURDEN PRESSURE 
 % STRAIN AT FAILURE 

HOLE LOCATION AND DATUM SEE DRAWING NO. 1

L & S	SYMBOL	SOIL DESCRIPTION	ELEV. FEET	DEPTH FT.	PENETRATION RESISTANCE		NATURAL MOISTURE CONTENT AND ATTERBERG LIMITS			NATURAL UNIT WEIGHT P.C.F.
					350 FT. LB. 20	BLOWS/FT. 40 60 80	% DRY WEIGHT	10	20	
		Topsoil-7 inches	437.7	0						
		SAND-alluvium, compact; predominantly of fine grade, scattered fine to medium gravel sizes, brown, moist.	432.7	5				X		
		SANDY SILT-alluvium, compact to dense, slightly clayey, brown, moist. Grey below 11 ft. depth.	426.4	10				X		130.
		SILT TILL-dense, slightly sandy and cohesive, grey, moist; occasional gravel sizes; traces of shale fragments around 25 ft. depth.	420.7	15				X		
		WEATHERED SHALE-very dense, grey, moist. Refusal on auger at 33.5 ft. depth.	412.7	25				X		137.
		BOREHOLE TERMINATED DUE TO REFUSAL ON SOUND SHALE	404.3	35						
		NOTES: 1) Hole advanced uncased using continuous flight auger equipment, Oct. 29, 1968. 2) Water level record: TIME W.L. AT HOLE OPEN TO End of bore -26.8' 33.4' After 2 hrs.-Wet 15.4' After 2 days-Wet 11.3'		40						
				45						
				50						

BOREHOLE LOG

JOB No. J 4556

BOREHOLE No. 6

DRAWING No. 7

PROJECT Proposed Bridge,

2" O.D. SPLIT TUBE

NATURAL MOISTURE

X

LOCATION Finch and Islington Avenues,

2" I.D. SHELBY TUBE

PLASTIC AND LIQUID LIMIT

—○—

North York, Ontario.

2" DIA. CONE

PUSHED

P

UNDRAINED TRIAXIAL AT
OVERBURDEN PRESSURE

HOLE LOCATION AND DATUM SEE DRAWING No. 1

VANE TEST AND SENSITIVITY (S)

+S

% STRAIN AT FAILURE

SYMBOL	SOIL DESCRIPTION	ELEV. FEET	DEPTH FEET	PENETRATION RESISTANCE 350 FT. LB. BLOWS/FT.				NATURAL MOISTURE CONTENT AND ATTERBERG LIMITS % DRY WEIGHT			NATURAL UNIT WEIGHT P.C.F.
				20	40	60	80	10	20	30	
	FILL-comprising silty sand; traces of hair roots, mottled, dark brown, moist.	424.9	0								
		420.9	5								
	SILTY SAND-alluvium, loose; brown with oxidized traces, moist. Hole wet at 7 ft. depth.	415.2	10								
		414.9	15								
	SILT TILL-compact to dense, slightly sandy and cohesive; occasional gravel sizes, grey, moist; traces of weathered shale fragments around 30 ft. depth.		20								136.
			25								136.
			30								140.
	WEATHERED SHALE-very dense, grey, moist; becoming harder; refusal on auger at 32.5 ft. depth.	396.4	35								
	END OF BOREHOLE	392.4	40								
	NOTES: 1) Hole advanced uncased using continuous flight auger equipment, Oct. 29, 1968. 2) Water level record: TIME W.L. AT HOLE OPEN TO End of bore 10.5' 19.3' After 2 days 8.5' 9.7'		45								
			50								

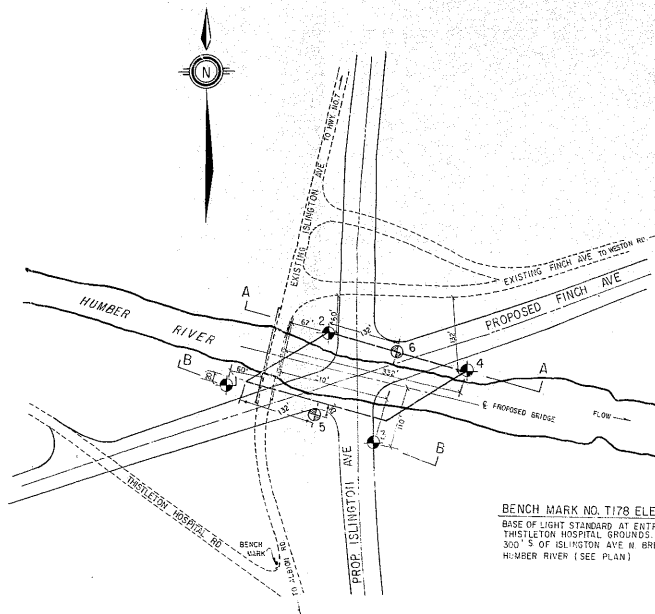
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ISLINGTON &

FINCH

HUMBER RIVER

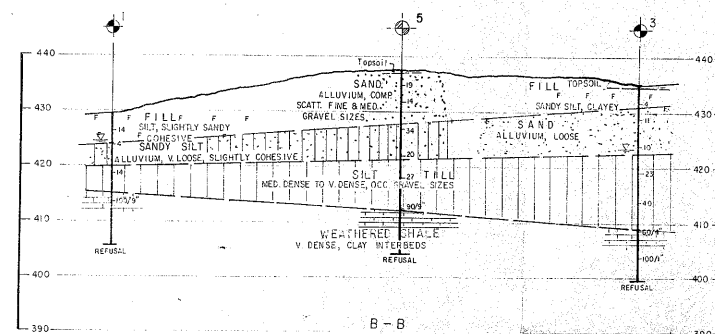
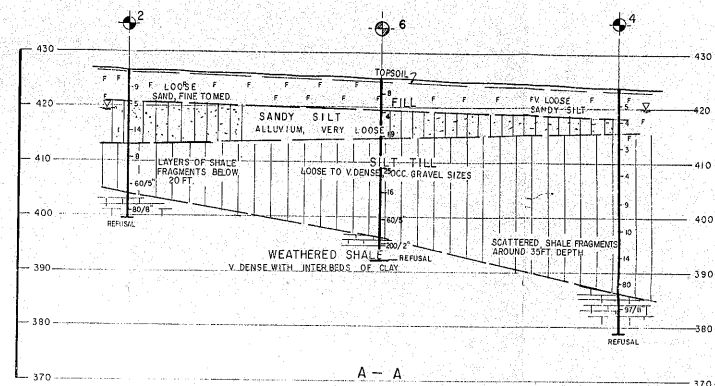
BRIDGE



BENCH MARK NO. T178 ELEV. 446.13
BASE OF LIGHT STANDARD AT ENTRANCE TO
THISTLETON HOSPITAL GROUNDS
300' S OF ISLINGTON AVE N. BRIDGE OVER
HUMBER RIVER (SEE PLAN)

NOTE

ADDITIONAL HOLES ADDED
LATE OCT. / 68



INTERPRETED SUBSOIL STRATIGRAPHY

SCALE VERT 1 IN. = 10 FT.
HORIZ 1 IN. = 30 FT.

NOTE

Samples will be kept for 3 months from the date of this report unless otherwise directed.

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.

William Trow & Associates Ltd.
FOUNDATION INVESTIGATION

**PROPOSED BRIDGE
OVER HUMBER RIVER
AT ISLINGTON & FINCH AVES**

PROJ. 4556 DATE OCT. 1968 DWG. No. 1