

60-F-215

W.P. # 72-59-2

W.P. # 72-59-3

Hwy. # 401

PROP. CROSSING

COUNTY RD.

MARYSVILLE CR.

Mr. A. M. Tove,
Bridge Engineer.
Materials & Research Section.
Attention: Mr. S. McCombie.

May 3, 1960

FOUNDATION INVESTIGATION -- by
Associated Geotechnical Services
Limited.

Re: Creek Diversion - Marysville Creek,
at Proposed Interchange crossing of
Cty. Rd., Lots 30 & 31 and Hwy. 401,
Hastings County, Tyendinaga Township,
W.P.'s 72-59-2 & 3, District No. 8.

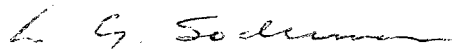
This memo accompanies the foundation investigation report submitted by Associated Geotechnical Services, Ltd., for the above described site.

Reference to the borehole logs presented in the report, shows that sound limestone bedrock occurs at a depth of not more than 3-1/2 feet below existing ground surface.

Footings for the two structures should be founded directly upon the bedrock.

If we can be of further assistance in connection with these projects, please contact our Office.

LG/plagf
Attach.


L. G. Sederman,
PRINCIPAL SOILS & FOUNDATIONS ENGINEER

cc: Messrs. A. M. Tove (2)
H. A. Tregaskes
D. C. Ransay
J. Ford
T. A. Sharpe
J. A. Cruser
A. Watt
Foundations Office
Gen. Files.

FOUNDATION INVESTIGATION REPORT

Proposed Structures: Creek Diversion -
Marysville Creek at Proposed Interchange
Crossing of Cty. Rd., Lots 30 & 31 and Hwy. 401
Hastings County, Tyendinaga Township,
W. P. 's 72-59-2 & 3, District No. 8.

DEPARTMENT OF HIGHWAYS OF ONTARIO

Submitted by

Associated Geotechnical Services Limited,
Toronto, Ontario.

April, 1960.

ASSOCIATED GEOTECHNICAL SERVICES
CONSULTING ENGINEERS

YOUR REF.
OUR REF.

211 DAVENPORT ROAD
TORONTO 5, ONTARIO
WA. 3-3271

April 22, 1960.

Department of Highways of Ontario,
Materials and Research Section,
Keele Street - Highway No. 401,
Toronto, Ontario.

Attention: Mr. A. Rutka,
A./Materials & Research Engineer

Dear Sir:

Re: Creek Diversion - Marysville Creek
at Proposed Interchange Crossing of
Cty. Rd. , Lots 30 & 31 and Hwy. 401,
Hastings County, Tyendinaga Township,
W. P.'s 72-59-2 & 3, District No. 8

We are submitting herewith ten (10) copies of the borehole logs, together with a borehole location plan of soils investigations conducted during the period April 18, 1960, to April 20, 1960, inclusive at the above-mentioned locations.

As specified in your letter of March 30, 1960, two (2) boreholes were placed in the proximity of each of the proposed structures. Borings and sampling were carried out by an experienced soil sampling crew employing one skid-mounted Boyles screw-feed drilling rig. The field work was under the full-time supervision of the undersigned.

Comments

- (1) Limestone bedrock was encountered at depths ranging from 2.2 ft to 3.5 ft from ground surface.
- (2) Continuous split-spoon soil samples to bedrock and bedrock corings were taken at each borehole. These are being retained in our Soils Testing Laboratory.

April 22, 1960.

- (3) All elevations indicated herein are referred to B.M. 34 (D.H.O. - Surveys): assumed elevation 350.0 (Actual elev. 335.92)

B.M. 34 = 45 ft North of North face of North abutment of Marysville Bridge, and 26-1/2 ft West of centreline of existing County Road - top of brass plug set flush in top of concrete post, 1 ft. 1 in. above ground surface.

- (4) Surface water elevations of Marysville Creek, as obtained on April 20, 1960, adjacent to the respective boreholes are listed below:-

W. L. at BH-1A = 346.2

W. L. at BH-2A = 346.3

W. L. at BH-1B = 346.8

W. L. at BH-2B = 346.9

Random creek soundings on April 20, 1960, in that reach between Borehole No. 1A and Borehole No. 2B (at water's edge of creek) indicated a maximum water depth of 3 ft.

We wish to express our appreciation in granting us the opportunity of performing the aforementioned work for you.

Yours very truly,

ASSOCIATED GEOTECHNICAL SERVICES LIMITED



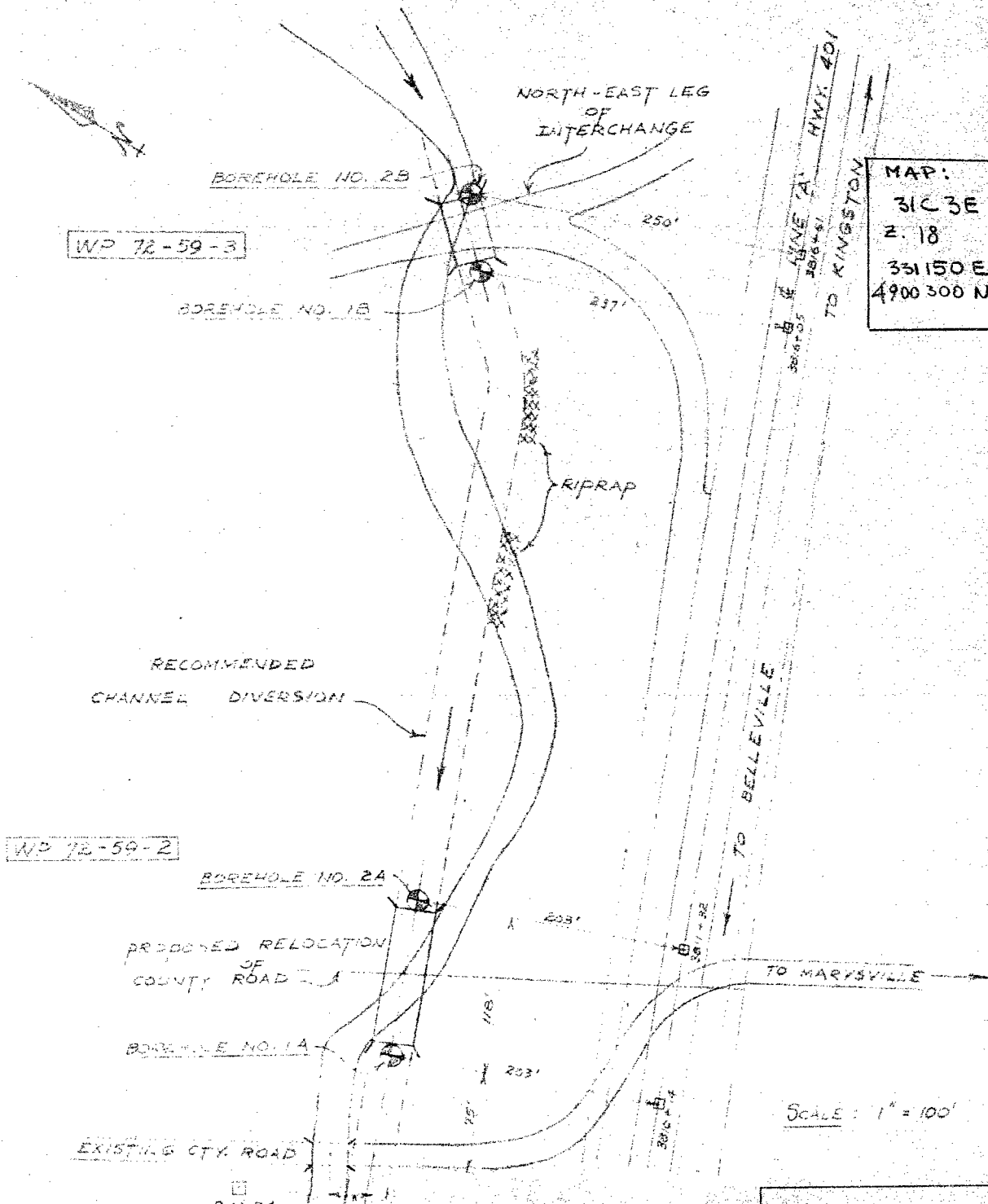
WN:dm

W. Naumko, P. Eng.

CLIENT DEPT. OF HIGHWAYS - ONTARIO
 JOB. NO. 5012 A & 6012 B LOCATION MARYSVILLE, ONT.
 BOREHOLE NUMBERS 1A - 2A - 1B - 2B DEPTH _____
 SAMPLE NUMBER _____ DATE Apr. 21/60

ASSOCIATED GEOTECHNICAL SERVICES
 Limited

PLAN SHOWING BOREHOLE SITES
PROP. HWY. 401 - MARYSVILLE CREEK







DEFECTS IN NEGATIVE DUE TO
CONDITION OF ORIGINAL DOCUMENT

CLIENT Department of Highways of Ontario
 JOB NO. 6012A LOCATION Marysville, Ontario.
 CO-ORDINATES Sta. 3810 + 14 - E : 203 ft left of E
 ELEVATION (SURFACE) 348.1 (COLLAR) _____ DATUM Assumed
 DATE (STARTED) April 18/60 (FINISHED) Apr. 18/60 (COMPILED) W. N.
 RIG. NO. 1 TYPE Boyles FIELD SUP. W. Naumko


















ASSOCIATED GEOTECHNICAL SERVICES
Limited

OFFICE BOREHOLE LOG

BOREHOLE NO. 1A

DEPTH FEET		DESCRIPTION	LOG	SHEAR STRENGTH TONS PER SQ. FT.			SAMPLE NO.	CONDITION	REMARKS
DEPTH FEET	ELEV. FEET			STANDARD PENETRATION BLOWS PER FOOT					
				2	4	6			
0	348.1	Ground surface							
1		Very loose peat (roots) and silt, some brown clay					1		
1.13	347.0								
2		Medium brown clay with sand, trace of gravel					2		1.7 ft: Water level in borehole
3									
3.23	344.9						3		At 3.0 ft: 3 blows for 3"
4		Limestone							Rock coring from 3.5 ft to 8.5 ft
5		bedrock							Total run = 60"
6									Recovery = 38"
7									
8									
9									Rock coring from 8.5 ft to 13.5 ft
10									Total run = 60"
11									Recovery = 60"
12									
13									
13.5	334.6								
14		End of borehole							

DEPTH FEET	ELEV. FEET	DESCRIPTION	LOG	SHEAR STRENGTH TONS PER SQ. FT.			SAMPLE NO.	CONDITION	REMARKS
				2	4	6			
0	347.3	Ground surface							
0.73	46.6	Loose peat					1		0.5 ft: Water level in borehole
2	2.23	Medium dense brown to grey sand with clay					2		10 blows for 9"
3		Limestone bedrock							Rock coring from 2.3 ft to 4.0 ft Total run = 20" Recovery = 20"
4									Rock coring from 4.0 ft to 9.0 ft Total run = 60" Recovery = 60"
5									
6									
7									
8									
9	38.3								
10		End of borehole							






DEPTH FEET		DESCRIPTION	LOG	SHEAR STRENGTH TONS PER SQ. FT.			SAMPLE NO.	CONDITION	REMARKS
ELEV. FEET				STANDARD PENETRATION BLOWS PER FOOT					
				2	4	6			
0	347.5	Ground surface 7							
1		Soft to medium brown clay with silt, some peat (roots)					1		0.2 ft: Water level in borehole
2	345.5								
3		Medium brown clay and sand, some gravel					2		
3.5	344.0	Medium dense brown sand and gravel with silt					3		8 blows for 6"
4		Limestone							Rock coring from 3.5 ft to 8.5 ft
5		bedrock							Total run = 60"
6									Recovery = 60"
7									
8									
9									
10									
11									
12									
13									
13.2	334.3	End of borehole 							Rock coring from 8.9 ft to 13.2 ft
14									Total run = 51"
									Recovery = 47"

CLIENT Department of Highways of Ontario
JOB NO. 6012B LOCATION Marysville, Ontario
CO-ORDINATES Sta. 3816+61 - 6: 250 ft left of C
ELEVATION (SURFACE) 346.9 (COLLAR) _____ DATUM Assumed
DATE (STARTED) Apr. 19/60 (FINISHED) Apr. 19/60 (COMPILED) W. N.
RIG. NO. 1 TYPE Boyles FIELD SUP. W. Naumko

ASSOCIATED GEOTECHNICAL SERVICES
Limited

OFFICE BOREHOLE LOG

BOREHOLE NO. 2B

DEPTH FEET	ELEV. FEET	DESCRIPTION	LOG	SHEAR STRENGTH TONS PER SQ. FT.			SAMPLE NO.	CONDITION	REMARKS
				STANDARD PENETRATION BLOWS PER FOOT					
0	346.9	South water edge of creek		2	4	6			
0.5	346.4	Loose peat							
1		Soft to medium brown clay and sand					1		
1.5	345.4								
2		Loose brown sand							
2.3	344.6	and silt, some clay					2		8 blows for 10"
3		Limestone							Rock coring from 2.7 ft to 4.4 ft. Total run = 20" Recovery = 20"
4		bedrock							Rock coring from 4.4 ft to 9.4 ft Total run = 60" Recovery = 60"
5									
6									
7									
8									
9									
9.4	337.5								
10		End of borehole	