

72-62A-5

Mr. A. M. Toye,
Bridge Engineer.
Materials & Research Section,
(Foundations Office).
Attention: Mr. S. McCasbie.

June 8, 1961.

F.H.O. FOUNDATION INVESTIGATION
REPORT.
W.J. 61-F-31 -- W.P. 67-58.

Re: Barnesboro River Crossing - Hwy. #62,
County of Benfrew, Township of Hagarty,
Lots 5 & 6, Con. XIII, 5 Miles North of
Killelea Station -- District No. 10.

In response to a request from your Mr. J. B. Curtis, we have carried out a soils investigation along the revised Line 'F', Site Plan S 3963-1, with the main purpose of determining the bedrock profile. Line 'F' is situated some 100 ft. upstream from the present structure. Along this line, boreholes were placed where possible, at the exact footing locations.

The information obtained on the subsoil conditions is shown on the attached plan and profiles. Bedrock was proved in each borehole and the probable rock surface has been drawn from which it should be possible to determine the length of the previously recommended steel 'H' piles. Bedrock was found in excellent condition in B.H.'s 1, 3, 7, 8 and 14. In boreholes 6, 9, 11 and 15, it is weathered and shattered.

The organic silt found on the south shore is incapable of supporting an approach embankment and should be removed to expose the granular base found at an elevation of 350.0.

cont'd. /2

On the north bank, peat is found in the swamp varying in depth from 12.5' at Station 227 + 12, 20' at., to 1.0' at Station 228 + 30. This must be removed and the embankment placed on the underlying granular material.

The toes and faces of both embankments must be protected from scour by the use of rip-rap facing.

WFO/maef
Attach.

L. C. Sodergren,
PRINCIPAL FOUNDATION ENGR.
Per:

M. Devata

REPORT PREPARED BY *fu* (T. F. Widdis,
PROJECT FOUNDATION ENGR.)

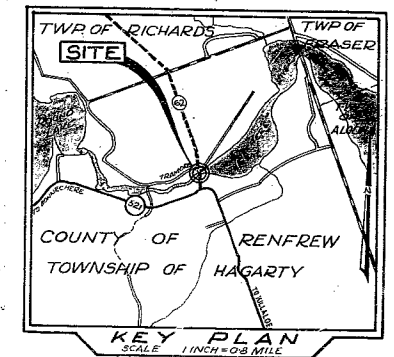
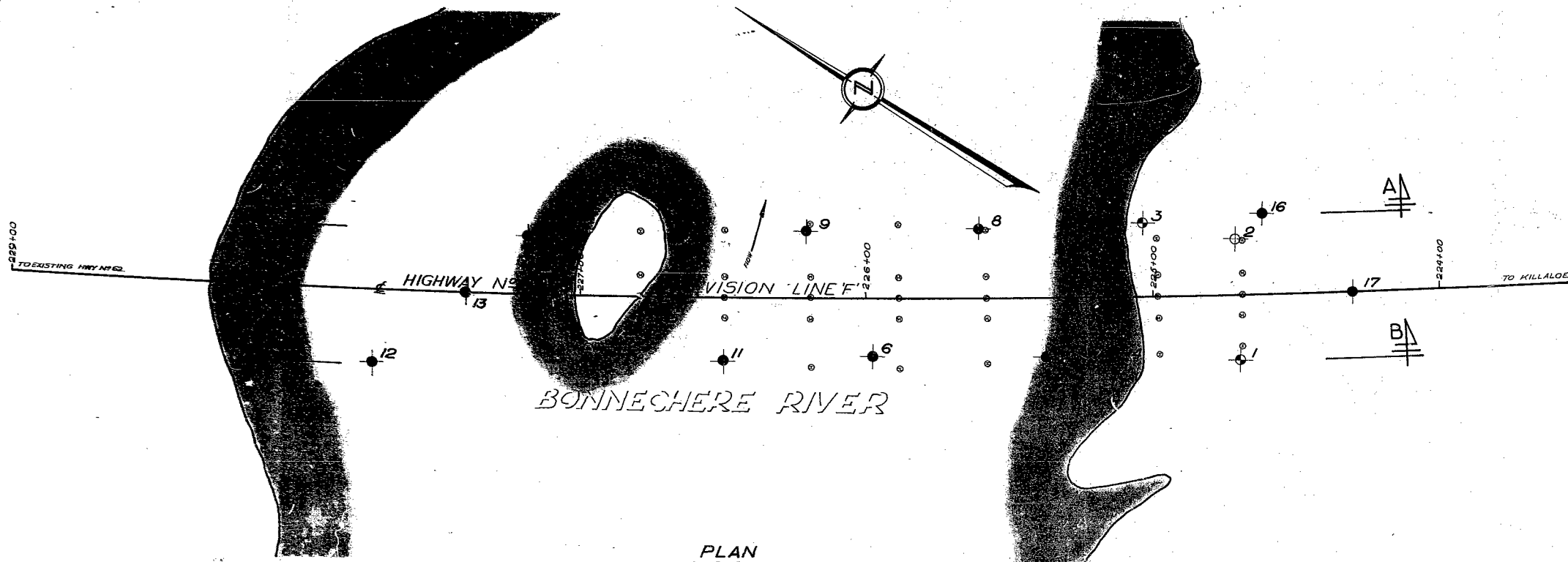
REPORT APPROVED BY *afternoon* (A. C. Starnes,
SUPERVISING FOUNDATION ENGR.)

cc: Messrs. A. H. Toye (2)
H. A. Tregaskes
F. D. Hamilton
J. Ford
C. B. Robertson
A. E. Crumpler
W. Roy
E. H. Saint
T. J. Kovich
W. Herman
A. Watt

Foundations Office
Gen. Files. */*

APPENDIX I.

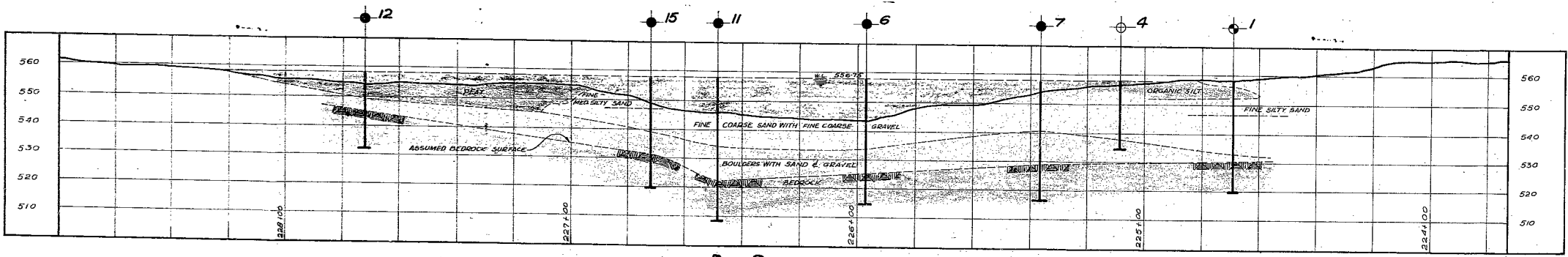
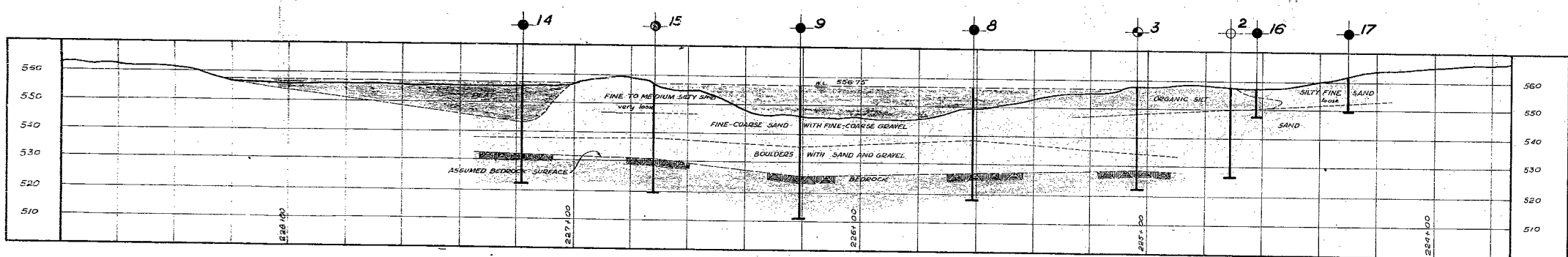
#61-F-31
W.P. #67-58
Hwy. #62
CROSSING
BONNECHERE R.
5 MILES N. OF
KILLALOE STN.



LEGEND

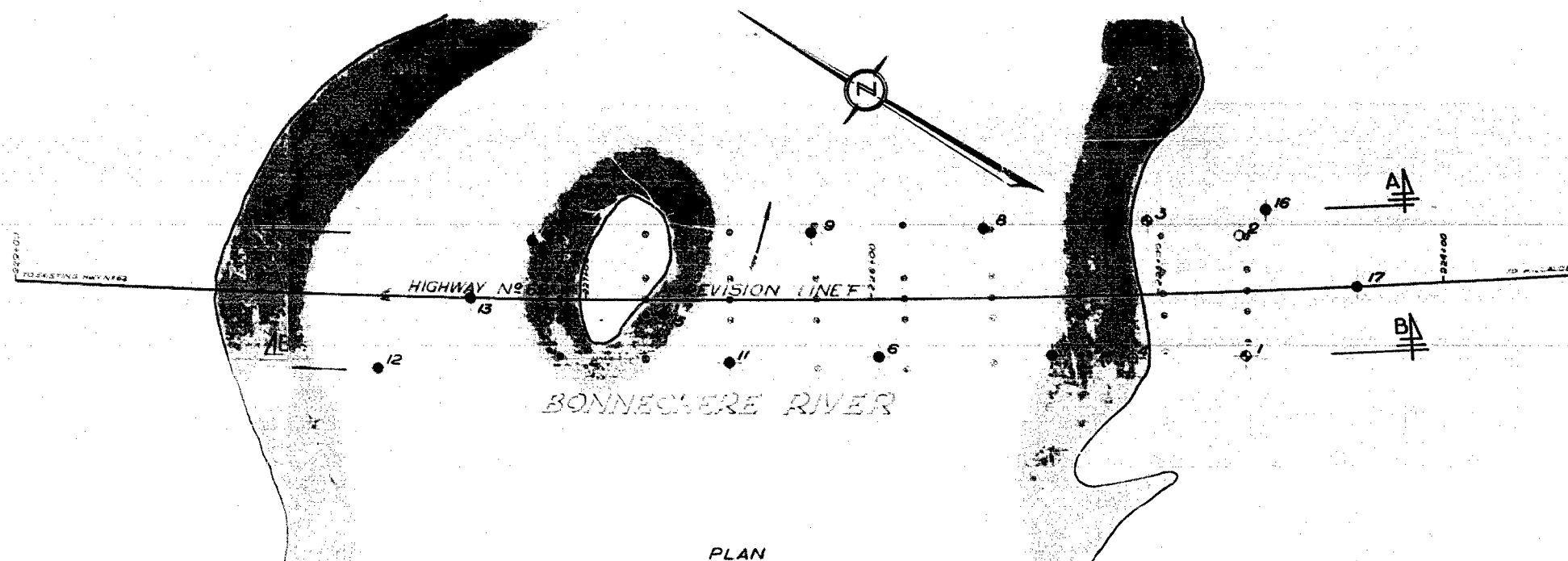
- BORE HOLE
- PENETRATION HOLE
- BORE AND PENETRATION HOLE
- PILE LOCATIONS

HOLE	ELEVATION	STATION	OFFSET
1	559.0	224+70	22 LT.
2	557.9	224+70	20 RT.
3	557.6	226+02	25 RT.
4	556.75	226+10	2'
6	556.75	225+98	
7	556.75	225+38	
8	556.75	225+58	
9	556.75	226+20	23 RT.
11	556.75	226+50	22 LT.
12	556.75	227+72	25 LT.
13	556.75	227+40	4'
14	556.75	227+18	20 RT.
15	556.75	226+75	5 LT.
16	558.0	224+60	28 RT.
17	562.0	224+30	8'

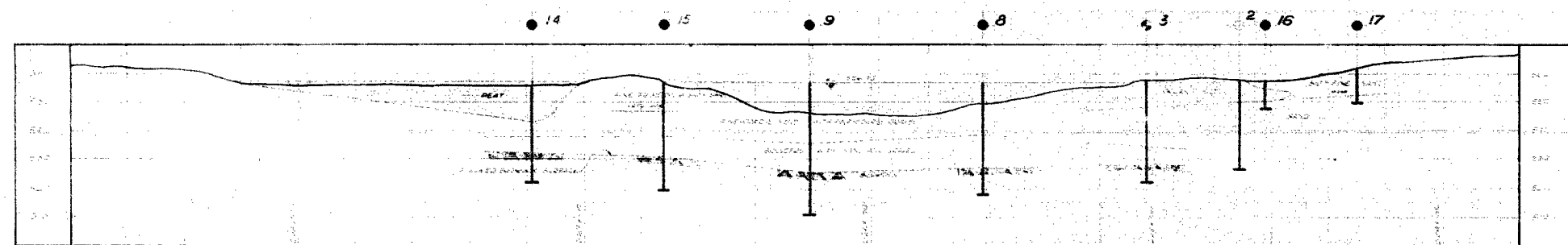


DEPARTMENT OF HIGHWAYS - ONTARIO		
MATERIALS & RESEARCH SECTION		
BONNECHERE RIVER AND PROPOSED HIGHWAY NO. 62		
ORIGINATED <i>T. Widdis</i>	DISTRICT NO. 10	DATE 8 JUNE 1961
DRAWN <i>W. G. G. G.</i>	W.P. NO. 67-58	JOB NO. 61-F-31
CHECKED <i>W. G. G. G.</i>	SCALE 1 inch = 20 feet	DRAWING NO.
APPROVED <i>M. Devoto</i>		61-F-31A

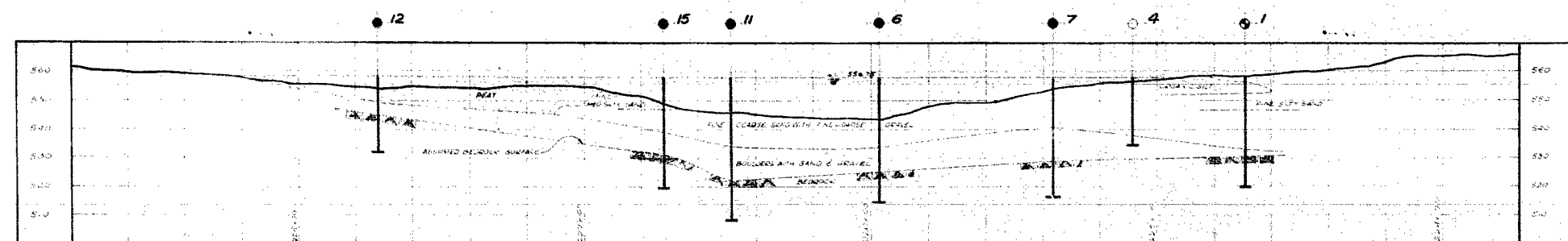
REF. PLAN NO. E-3863-1



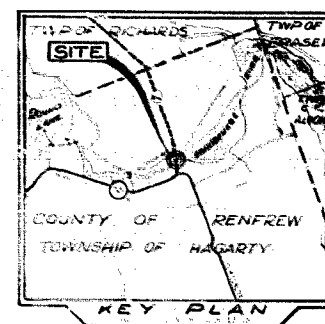
PLAN



A-A



B-B

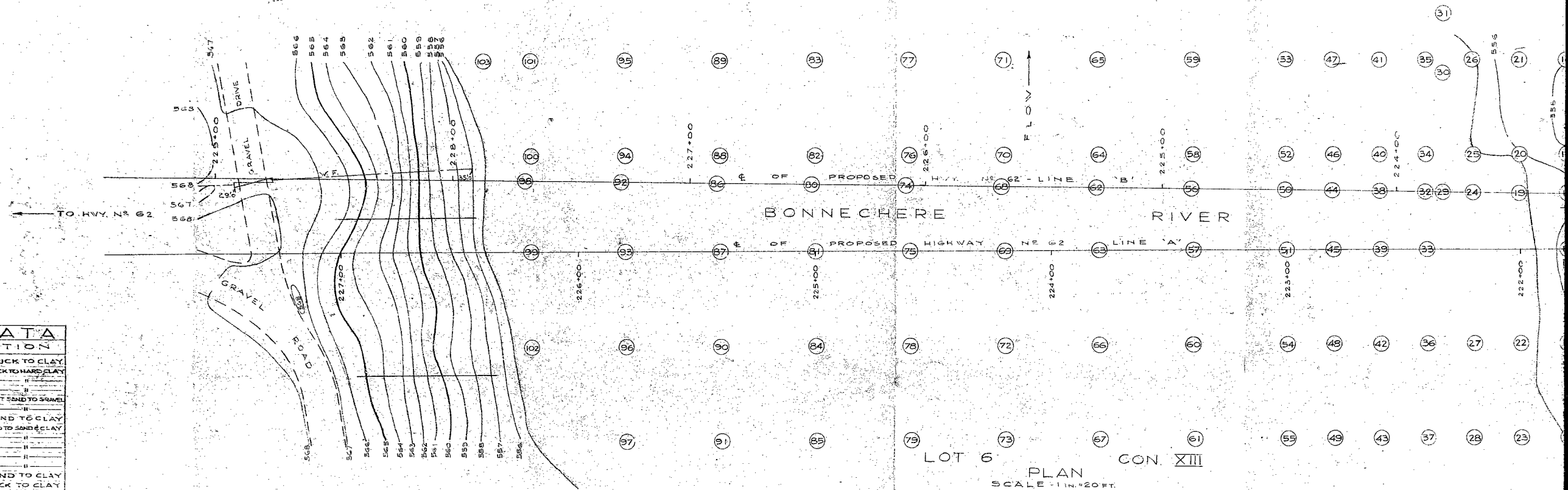


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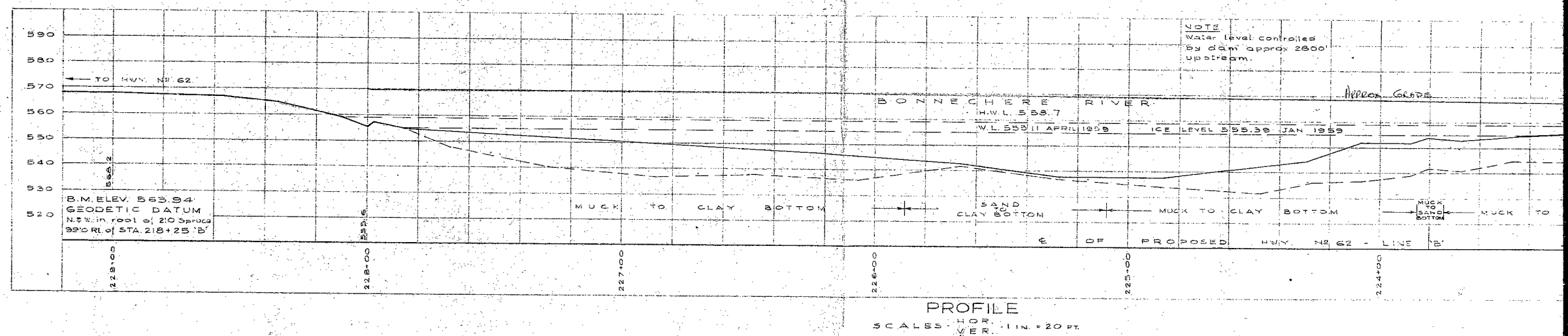
●	PROPOSED HIGHWAY
○	EXISTING HIGHWAY
+	PROPOSED BRIDGE
+	EXISTING BRIDGE
+	PROPOSED TUNNEL
+	EXISTING TUNNEL
+	PROPOSED CULVERT
+	EXISTING CULVERT
+	PROPOSED DRAINAGE
+	EXISTING DRAINAGE
+	PROPOSED FENCE
+	EXISTING FENCE
+	PROPOSED SIGN
+	EXISTING SIGN
+	PROPOSED LIGHT
+	EXISTING LIGHT
+	PROPOSED SOUND
+	EXISTING SOUND
+	PROPOSED VIBRATION
+	EXISTING VIBRATION
+	PROPOSED TEMPERATURE
+	EXISTING TEMPERATURE
+	PROPOSED HUMIDITY
+	EXISTING HUMIDITY
+	PROPOSED WIND
+	EXISTING WIND
+	PROPOSED PRECIPITATION
+	EXISTING PRECIPITATION
+	PROPOSED SOLAR RADIATION
+	EXISTING SOLAR RADIATION
+	PROPOSED AIR QUALITY
+	EXISTING AIR QUALITY
+	PROPOSED NOISE
+	EXISTING NOISE
+	PROPOSED VIBRATION
+	EXISTING VIBRATION
+	PROPOSED TEMPERATURE
+	EXISTING TEMPERATURE
+	PROPOSED HUMIDITY
+	EXISTING HUMIDITY
+	PROPOSED WIND
+	EXISTING WIND
+	PROPOSED PRECIPITATION
+	EXISTING PRECIPITATION
+	PROPOSED SOLAR RADIATION
+	EXISTING SOLAR RADIATION
+	PROPOSED AIR QUALITY
+	EXISTING AIR QUALITY
+	PROPOSED NOISE
+	EXISTING NOISE

REPORT OF HIGHWAYS - ONTARIO		
MATERIALS & RESEARCH SECTION		
BONNECHERE RIVER AND PROPOSED HIGHWAY NO. 62		
ORIGINATED BY: J. WOODS	DESIGNED BY: J. WOODS	DATE: 10/26/67
CHECKED BY: J. WOODS	APPROVED BY: J. WOODS	DATE: 10/26/67
UNCHECKED BY: J. WOODS	APPROVED BY: J. WOODS	DATE: 10/26/67
APPROVED BY: J. WOODS	APPROVED BY: J. WOODS	DATE: 10/26/67
		61-F-31A

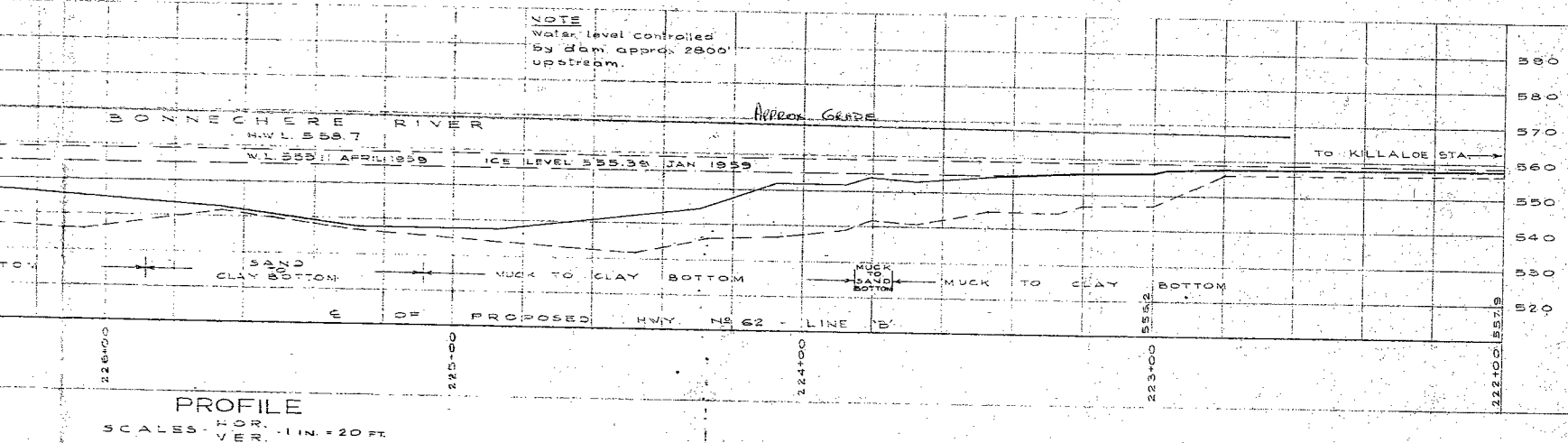
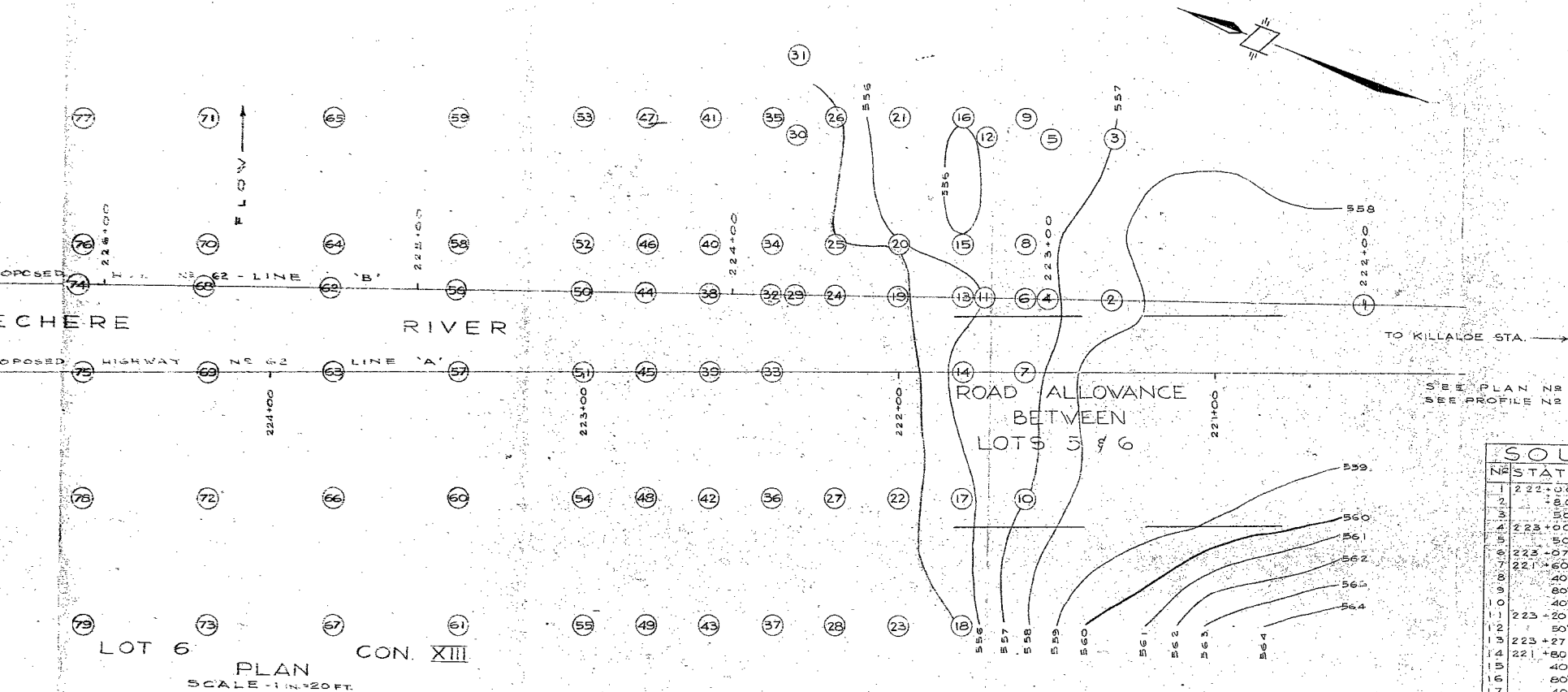
TOWNSHIP OF HAGARTY
COUNTY OF RENFREW
LOT 5 CON. XIII



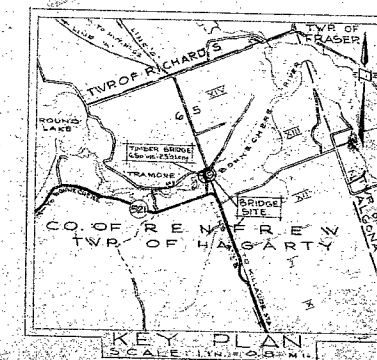
STATION	DESCRIPTION
56 224+87 E.B.	170 WATER 4'0 MUCK TO CLAY
57 225+00 E.A.	130 7'0 2'0 MUCK TO SAND
58 40' RL.A.	240 180 6'0
59 80' RL.A.	240 180 6'0
60 40' LL.A.	140 120 2'0 SAND TO GRAVEL
61 80' LL.A.	140 120 2'0
62 225+27 E.B.	80 7'0 1'0 SAND TO CLAY
63 225+80 E.A.	180 170 1'0 SAND TO SAND & CLAY
64 40' RL.A.	180 170 1'0
65 80' RL.A.	210 180 3'0
66 40' LL.A.	180 170 1'0
67 80' LL.A.	180 170 1'0
68 225+67 E.B.	130 120 1'0 SAND TO CLAY
69 224+50 E.A.	180 130 3'0 MUCK TO CLAY
70 40' RL.A.	130 120 1'0
71 80' RL.A.	70 60 1'0
72 40' LL.A.	180 130 3'0
73 80' LL.A.	180 130 3'0
74 226+07 E.B.	190 90 1'0
75 224+60 E.A.	180 100 3'0
76 40' RL.A.	80 80 3'0
77 80' RL.A.	200 100 3'0
78 40' LL.A.	180 90 1'0
79 80' LL.A.	70 70 1'0 SAND
80 225+47 E.B.	70 70 1'0 MUCK TO CLAY
81 225+00 E.A.	170 70 1'0 MUCK TO SAND
82 40' RL.A.	160 60 1'0 MUCK TO CLAY
83 80' RL.A.	70 100 7'0
84 40' LL.A.	35 60 7'5
85 80' LL.A.	30 40 5'0 MUCK TO SAND
86 225+87 E.B.	50 50 1'0 MUCK TO CLAY
87 225+40 E.A.	60 40 1'0 MUCK TO SAND
88 40' RL.A.	185 50 1'0 MUCK TO CLAY
89 80' RL.A.	80 50 1'0
90 40' LL.A.	110 40 7'0 MUCK TO SAND
91 80' LL.A.	30 25 5'0
92 227+27 E.B.	150 30 1'0 MUCK TO CLAY
93 225+80 E.A.	140 25 1'0 MUCK TO SAND
94 40' RL.A.	150 30 1'0
95 80' RL.A.	170 20 1'0 MUCK TO CLAY
96 40' LL.A.	110 20 1'0 MUCK TO SAND
97 80' LL.A.	25 20 5'0
98 227+67 E.B.	70 1'0 6'0 MUCK TO CLAY
99 226+20 E.A.	130 1'0 1'0 MUCK TO SAND
100 40' RL.A.	50 1'0 4'0
101 80' RL.A.	30 2'0 1'0
102 40' LL.A.	30 1'0 5'0
103 80' RL.A.	90 1'0 5'0



TOWNSHIP OF HAGARTY
COUNTY OF RENFREW
LOT 5 CON. XIII



SOUNDINGS DATA			
STATION	DESCRIPTION	DEPTH	REMARKS
1 222+00	CLAY	1.0	MUCK TO CLAY
2 222+00	CLAY	1.5	
3 222+00	CLAY	1.5	
4 223+00	CLAY	9.0	
5 223+00	CLAY	9.0	
6 223+07	CLAY	9.0	
7 221+60	CLAY	9.0	
8 221+60	CLAY	10.0	
9 221+60	CLAY	14.0	
10 221+60	CLAY	5.0	
11 223+20	CLAY	9.0	
12 223+20	CLAY	14.0	
13 223+27	CLAY	11.0	
14 221+80	CLAY	11.0	
15 221+80	CLAY	12.0	
16 221+80	CLAY	14.0	
17 221+80	CLAY	12.0	
18 221+80	CLAY	6.0	
19 223+47	CLAY	10.0	0.5 WATER 9.5 MUCK TO CLAY
20 222+00	CLAY	10.0	MUCK TO CLAY
21 222+00	CLAY	14.0	
22 222+00	CLAY	15.0	1.0 WATER 14.0 MUCK TO CLAY
23 222+00	CLAY	13.0	
24 223+67	CLAY	14.0	
25 222+20	CLAY	11.0	
26 222+20	CLAY	12.0	
27 222+20	CLAY	14.0	
28 222+20	CLAY	11.0	
29 223+80	CLAY	13.0	
30 223+80	CLAY	11.0	12.0 MUCK TO SAND
31 223+80	CLAY	14.0	
32 223+87	CLAY	16.0	13.0 MUCK TO CLAY
33 222+40	CLAY	18.0	14.0
34 222+40	CLAY	13.0	12.0 MUCK TO SAND
35 222+40	CLAY	11.0	10.0
36 222+40	CLAY	18.0	13.0 MUCK TO CLAY
37 222+40	CLAY	13.0	13.0 MUCK TO CLAY
38 224+07	CLAY	13.0	13.0 MUCK TO CLAY
39 222+60	CLAY	13.0	14.0 MUCK TO SAND
40 222+60	CLAY	18.0	16.0
41 222+60	CLAY	21.0	19.0
42 222+60	CLAY	19.0	15.0
43 222+60	CLAY	14.0	8.0 MUCK TO CLAY
44 224+27	CLAY	13.0	9.0
45 222+80	CLAY	20.0	10.0
46 222+80	CLAY	18.0	10.0 MUCK TO SAND
47 222+80	CLAY	21.0	9.0
48 222+80	CLAY	18.0	12.0
49 222+80	CLAY	13.0	2.0
50 224+47	CLAY	23.0	13.0
51 223+00	CLAY	22.0	9.0 MUCK TO SAND
52 223+00	CLAY	24.0	14.0
53 223+00	CLAY	23.0	10.0
54 223+00	CLAY	18.0	4.0
55 223+00	CLAY	23.0	10.0



KILLALOE
G.B.M. N° 519. ELEV. 594.642
C.N.R. bridge over Stennan Creek, 360 feet
west of station. South face of south stone retaining
wall at east end of bridge, 18 inches from east
end of wall and in first course above bridge
seat. Bolt set horizontally.

DEPARTMENT OF HIGHWAYS - ONTARIO
PLANNING & DESIGN BRANCH
DISTRICT NO. 10
PROPOSED CROSSING
AT
BONNECHERE RIVER
AND
THE PROPOSED KINGS HWY. N° 62
LINES 'A' & 'B'
KILLALOE STA. (HWY. N° 60) TO HWY. N° 62
LOT 5 & 6
TOWNSHIP OF HAGARTY
COUNTY OF RENFREW
CON. XIII
BRIDGE SITE
SURVEY BY: APPROVED:
CHIEF OF PARTY: D. G. LOVMAN
SUPERVISOR: J. T. DAVIS
DRAWN BY: SCALE: AS SHOWN
DRAFTSMAN: CAMILLERI & M. BRYKES
SUPERVISOR: S. BROWN
DATE OF SURVEY: JAN. - APRIL 1959
CHECKED BY: DATE OF PLAN: APRIL 1959
DRAFTSMAN: M. LENK
SUPERVISOR: H. PLEASANCE
PLAN E 3645-1