

FED. ROAD DIST. NO.	STATE	FED. AID PROJ. NO.	FISCAL YEAR	SHEET NO.	TOTAL SHEETS
9	VT	FR 78	1926	1	77

INDEX OF SHEETS

SHEET NO.	TITLE PAGE
1	TYPICAL CROSS-SECTION OF IMPROVEMENT
2	PLAN AND PROFILE STA. 22400 TO 33100
3	33100 - 46100
4	46100 - 63100
5	63100 - 76100
6	76100 - 90100
7	90100 - 105100
8	105100 - 121100
9	121100 - 136100
10	136100 - 149100
11	149100 - 163100
12	163100 - 179100
13	179100 - 195100
14	195100 - 204100
15	204100 - 216100
16	216100 - 233100
17	233100 - 246100
18	246100 - 259100
19	259100 - 274100
20	274100 - 289100
20A	PIPE CULVERTS 520
21	STANDARD STRUCTURE SHEETS
22	DETAIL SHEET (conc. rail, timber grillage, conc. curbs & gutters)
22	CROSS SECTIONS

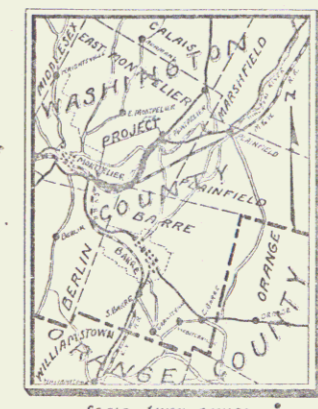
STATE OF VERMONT
STATE HIGHWAY DEPARTMENT

PLAN AND PROFILE OF PROPOSED
STATE HIGHWAY
FLOOD RELIEF PROJECT

TOWNS OF BERLIN-BARRE-EAST MONTPELIER

MONTPELIER-ST. JOHNSBURY ROAD

Pin # 99R116

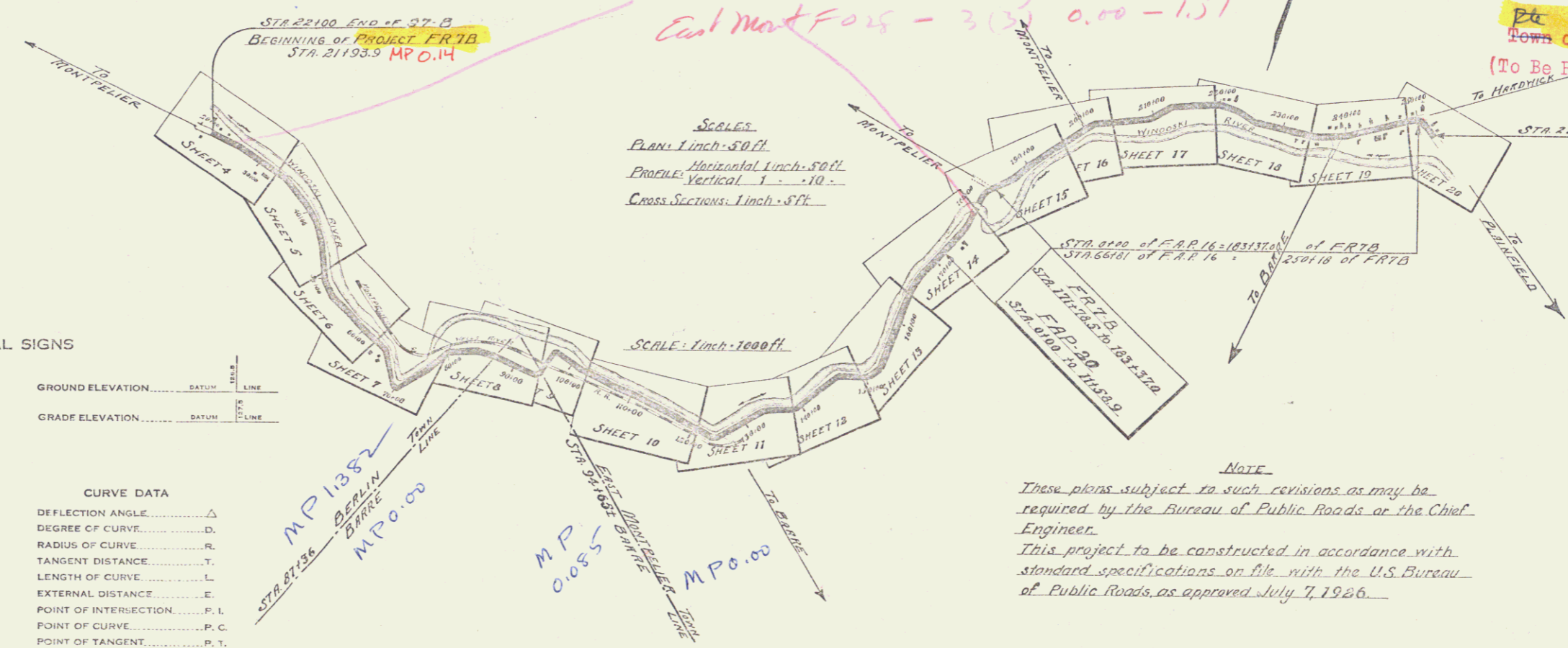


FROM THE END OF PROJECT 97 B EASTERLY 4.399 MILES
TO ITS INTERSECTION WITH THE EAST MONTPELIER-HARDWICK ROAD

LENGTH OF PROJECT 232300 FT. = 4399 MILES.

RIGHT-OF-WAY DIVISION
TOWN FILE
PERPETUAL
Town of US2
(To Be Returned To R.O.W. Division)

See F028-3(1)
Eul Mont F028-3(2) 0.00-1.51



CONVENTIONAL SIGNS

COUNTY LINE	GROUND ELEVATION
TOWN LINE	GRADE ELEVATION
FENCE LINE	
STONE WALL	
UNFENCED PROPERTY	
GUARD RAIL	
TRAVELED WAY	
RAILROAD	
RETAINING WALL	
CENTER LINE	
SURVEY LINE	
CULVERT	
DROP INLET	
TROLLEY POLE	
POWER POLE	
TELEPHONE POLE	
TREES	
HEDGE	

CURVE DATA

DEFLECTION ANGLE	Δ
DEGREE OF CURVE	D
RADIUS OF CURVE	R
TANGENT DISTANCE	T
LENGTH OF CURVE	L
EXTERNAL DISTANCE	E
POINT OF INTERSECTION	P. I.
POINT OF CURVE	P. C.
POINT OF TANGENT	P. T.
POINT ON TANGENT	P. O. T.

NOTE
These plans subject to such revisions as may be required by the Bureau of Public Roads or the Chief Engineer.
This project to be constructed in accordance with standard specifications on file with the U.S. Bureau of Public Roads, as approved July 7, 1926.

APPROVED: *[Signature]*
CHIEF ENGINEER
SUBMITTED BY: *[Signature]*
COMMISSIONER OF HIGHWAYS

RECOMMENDED: *[Signature]*
DISTRICT ENGINEER
BUREAU OF PUBLIC ROADS
RECOMMENDED FOR APPROVAL: *[Signature]*
CHIEF ENGINEER
BUREAU OF PUBLIC ROADS
APPROVED: *[Signature]*
DIRECTOR - BUREAU OF PUBLIC ROADS

SERIES F.R. NO. 78 FILED
SHEET 1 OF 77

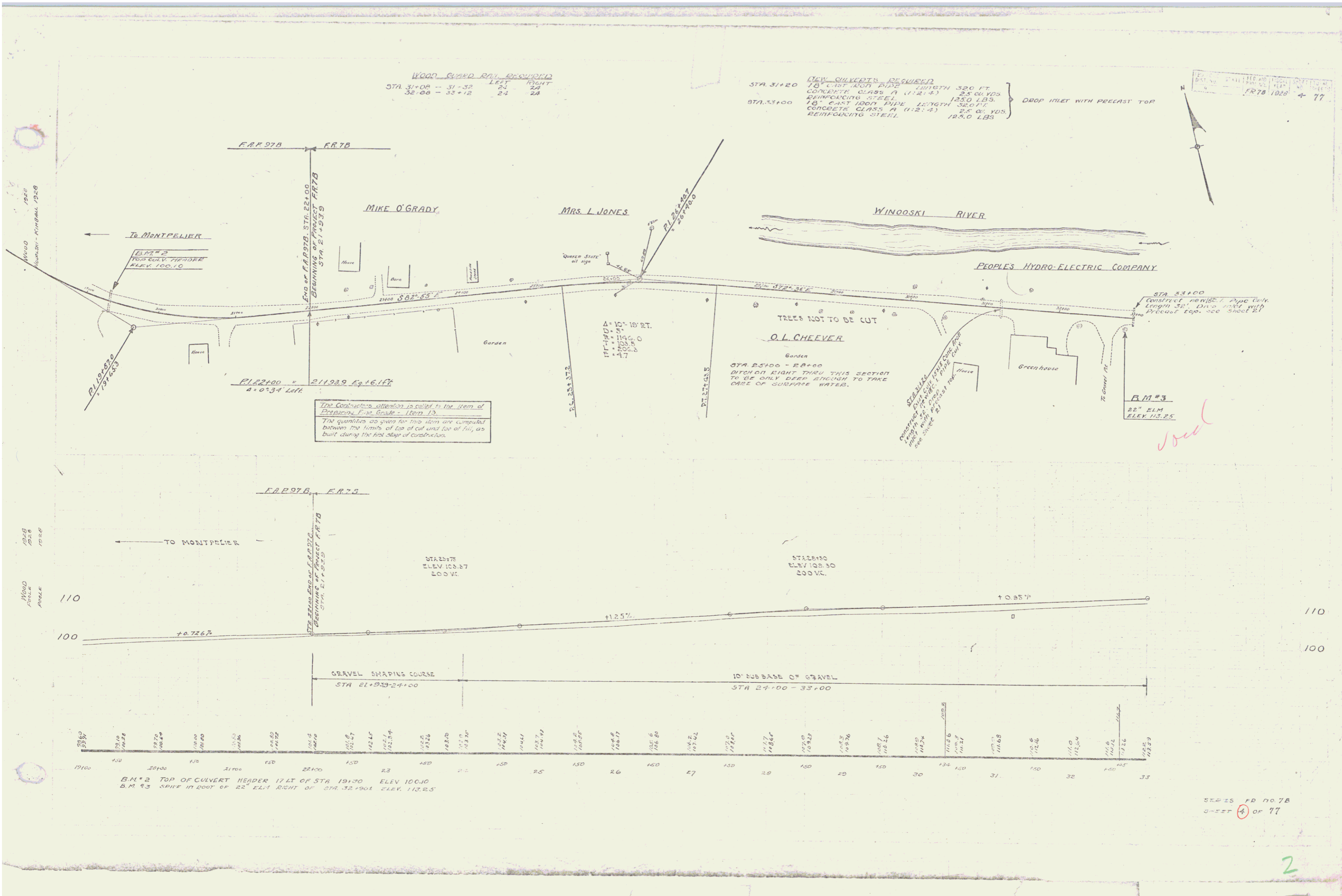
SHEET #6 MISSING
STA 4100 TO 6300

DATE: 1928
 DRAWN BY: [unclear]
 CHECKED BY: [unclear]
 PROJECT: FR78 1028 4-77

WOOD GUARD RAIL REQUIRED
 STA 31+00 - 31+32 LEFT 24 24
 32+00 - 33+12 24 24

NEW CULVERTS REQUIRED
 STA 31+20 18" CONC. AND PIPE LENGTH 320 FT. CONCRETE CLASS A (1:2:4) 25.0 YDS. REINFORCING STEEL 1250 LBS.
 STA 33+00 18" CONC. AND PIPE LENGTH 320 FT. CONCRETE CLASS A (1:2:4) 25.0 YDS. REINFORCING STEEL 1250 LBS.

DROP INLET WITH PRECAST TOP

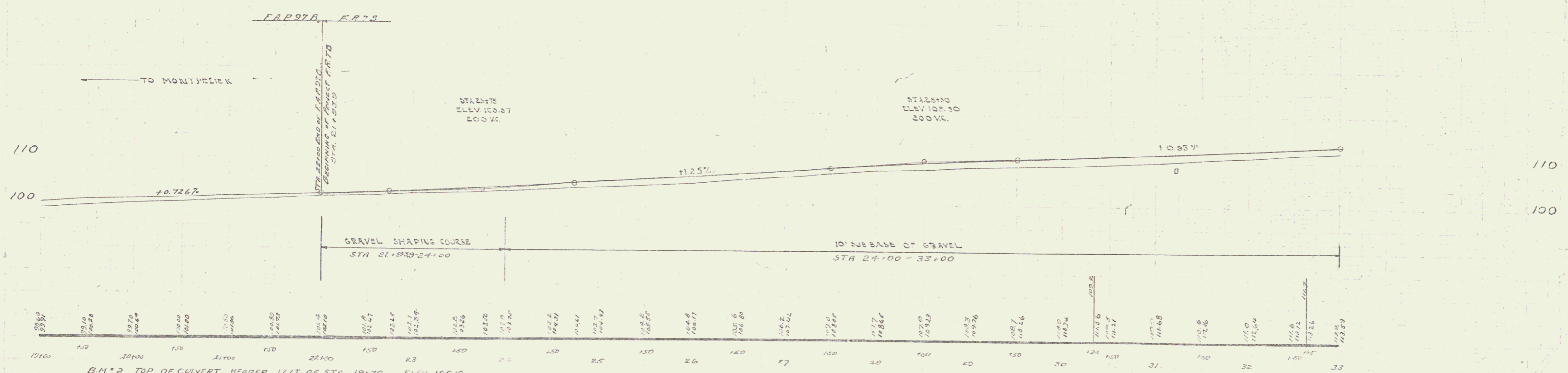


The Contractor's attention is called to the item of Preparation Final Grade - (Item 13). The quantities as shown for this item are computed between the limits of top of cut and top of fill, as built during the first stage of construction.

STRAIGHTENING OF CURVE TO BE MADE WITH CONC. AND PIPE. CURVE TO BE MADE WITH CONC. AND PIPE. CURVE TO BE MADE WITH CONC. AND PIPE.

B.M. #3
 22" ELM
 ELEV. 113.25

1928
 1028
 1028
 1028



B.M. #2 TOP OF CULVERT HEADER 11 FT. LT. OF STA 19+30 ELEV. 100.10
 B.M. #3 SPIKE IN ROOF OF 22" ELM. RIGHT OF STA 32+90.1 ELEV. 113.25

SERIES PD NO. 78
 SHEET 4 OF 77

2

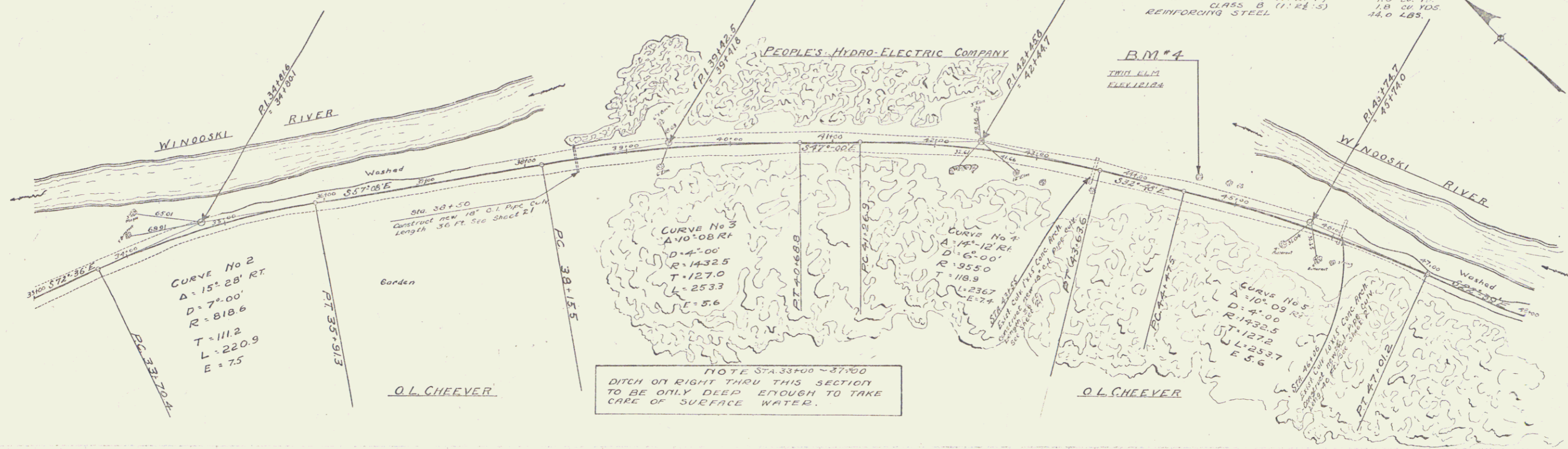
CABLE GUARD RAIL REQUIRED
 STA 34+80 - 38+72 392 LINEAR FEET
 45+72 - 48+00 228 " "

WOOD GUARD RAIL REQUIRED
 STA 38+30 - 50+62 24 LINEAR FEET
 43+94 - 46+18 24 " "
 43+42 - 43+67 24 " "

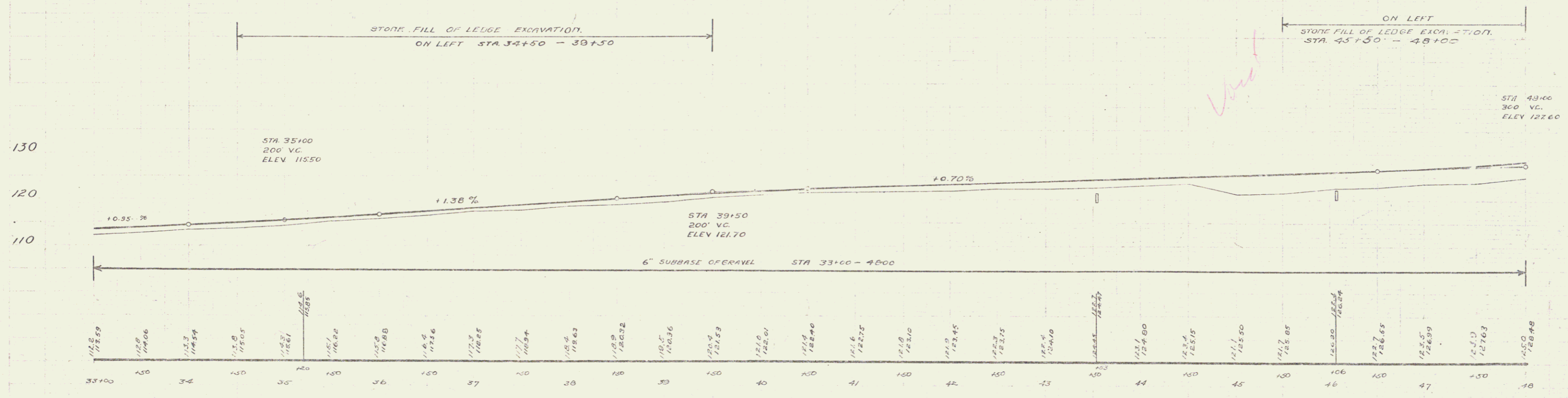
NEW CULVERTS REQUIRED

18" CAST IRON PIPE LENGTH	36.0 FT.
CONCRETE CLASS B (1:2:4)	31.0 CU. YDS.
REINFORCING STEEL	33.0 LBS.
18" CAST IRON PIPE LENGTH	36.0 FT.
CONCRETE CLASS A (1:2:4)	0.9 CU. YD.
CLASS B (1:2:4)	4.6 CU. YDS.
REINFORCING STEEL	4.6 LBS.
24" CAST IRON PIPE LENGTH	40.0 FT.
CONCRETE CLASS A (1:2:4)	1.0 CU. YD.
CLASS B (1:2:4)	1.8 CU. YDS.
REINFORCING STEEL	44.0 LBS.

DESIGNED BY STATE ENGINEER
 EST. NO. 2278 SHEET NO. 5 OF 77

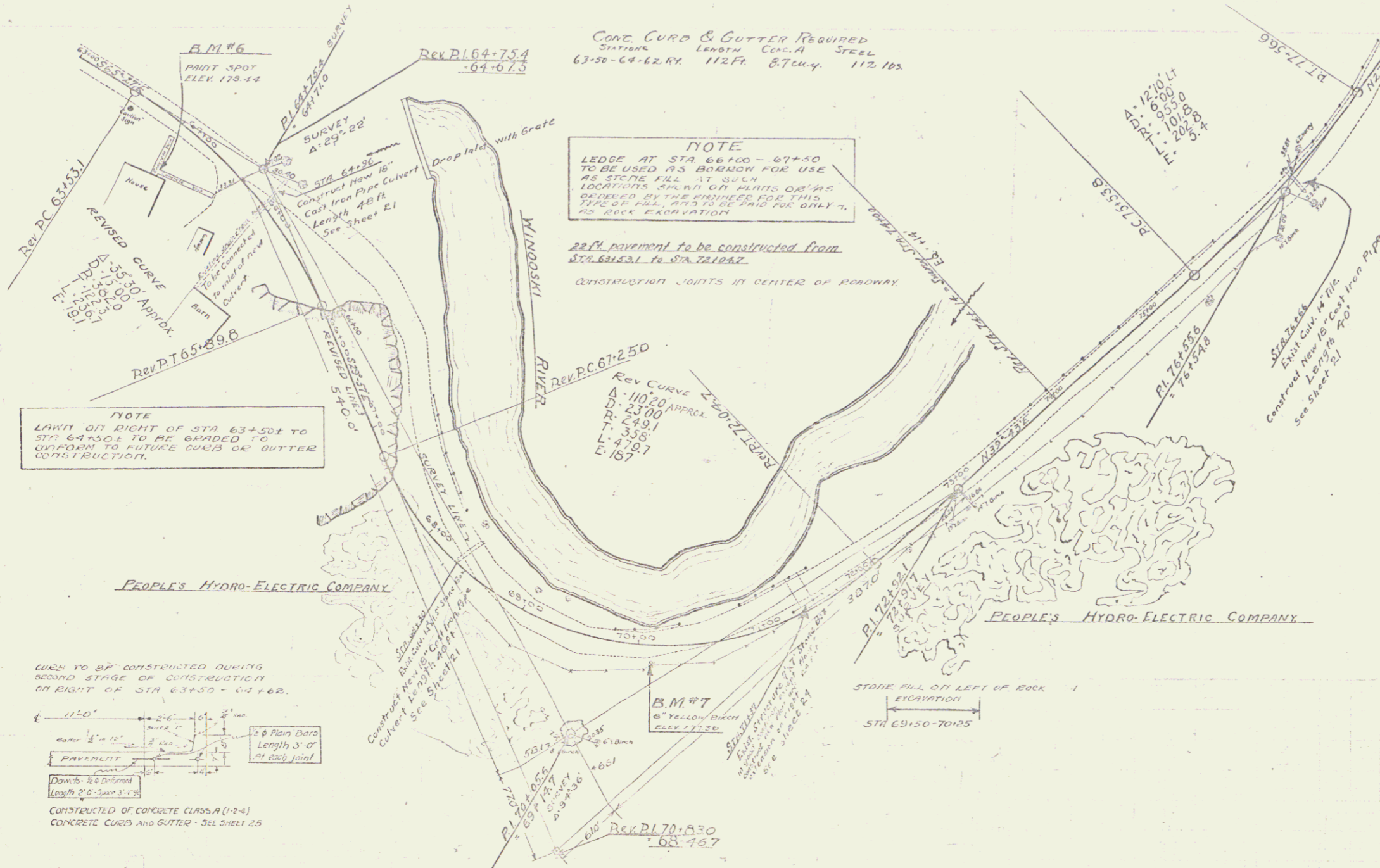


NOTE STA 33+00 - 37+00
 DITCH ON RIGHT THRU THIS SECTION
 TO BE ONLY DEEP ENOUGH TO TAKE
 CARE OF SURFACE WATER.



B.M. # 4 SPIKE IN ROOT OF TWIN ELM LEFT OF STA 44+60.2 ELEV 121.89

SERIES FD NO. 70
 SHEET 5 OF 77



NOTE
 LEDGE AT STA 64+00 - 67+50
 TO BE USED AS BORDERS FOR USE
 AS STONE FILL AT SUCH
 LOCATIONS. SHALL BE PAID FOR ONLY
 AS DELIVERED BY THE ENGINEER FOR THIS
 TYPE OF FILL. THIS TO BE PAID FOR ONLY
 AS ROCK EXCAVATION

22 FT PAVEMENT TO BE CONSTRUCTED FROM
 STA 64+00 TO STA 72+00
 CONSTRUCTION JOINTS IN CENTER OF ROADWAY

NEW CULVERTS REQUIRED

STA 64+96	18" Cast Iron Pipe Length 40 FT	Concrete Class A (1-2-4) 1.2 Cu yds	Reinforcing Steel 91.8 lbs
STA 68+30	18" Cast Iron Pipe Length 40 FT	Concrete Class A (1-2-4) 1.9 Cu yds	Reinforcing Steel 57.0 lbs
STA 76+67	18" Cast Iron Pipe Length 40.9 FT	Concrete Class A (1-2-4) 1.9 Cu yds	Reinforcing Steel 57.0 lbs

CABLE GUARD RAIL REQUIRED

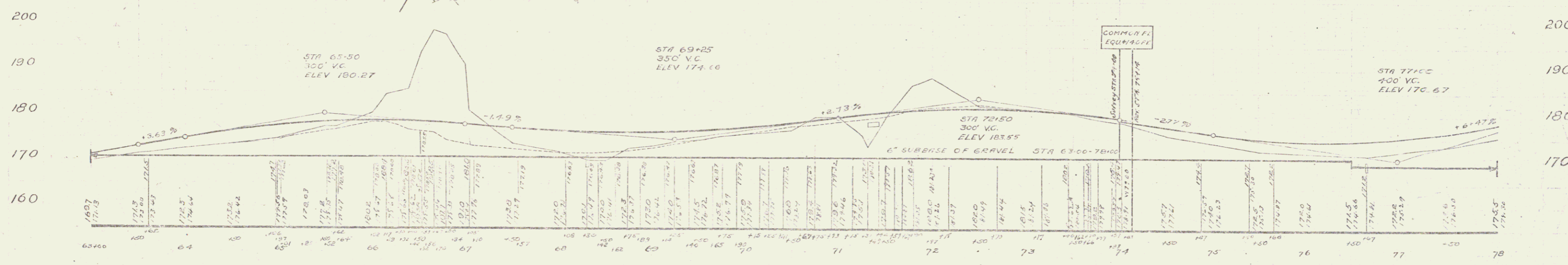
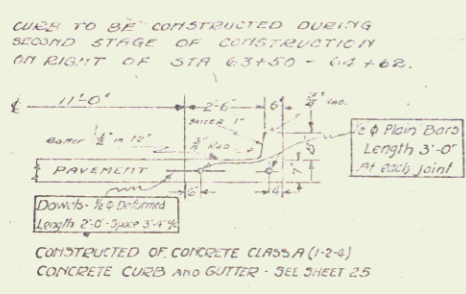
STA 64+00 - 64+40	48 LINEAR FEET
68+06 - 68+58	48
75+50 - 76+08	48
76+44 - 76+60	16

WOOD GUARD RAIL REQUIRED

STA 76+55 - 76+70	15 FT	RIGHT
69+78 - 65+02	24	24
69+15 - 68+42	24	24
STA 71+37	15 FT	LEFT

CONCRETE CLASS A (1-2-4) 25.0 CU YDS.
 REINFORCING STEEL 2105.0 LBS.

NOTE
 LAWN ON RIGHT OF STA 63+50 TO
 STA 64+50 TO BE GRADED TO
 CONFORM TO FUTURE CURB & GUTTER
 CONSTRUCTION.



B.M. #6 PAINT SPOT ON CONCRETE STEP RIGHT OF STA 64+00.1 ELEV 178.44
 B.M. #7 SPIKE IN ROOT OF 6" YELLOW BIRCH RIGHT OF STA 70+100.1 ELEV 177.36

SEE 55 FOR NO. 78
 SHEET 9 OF 11

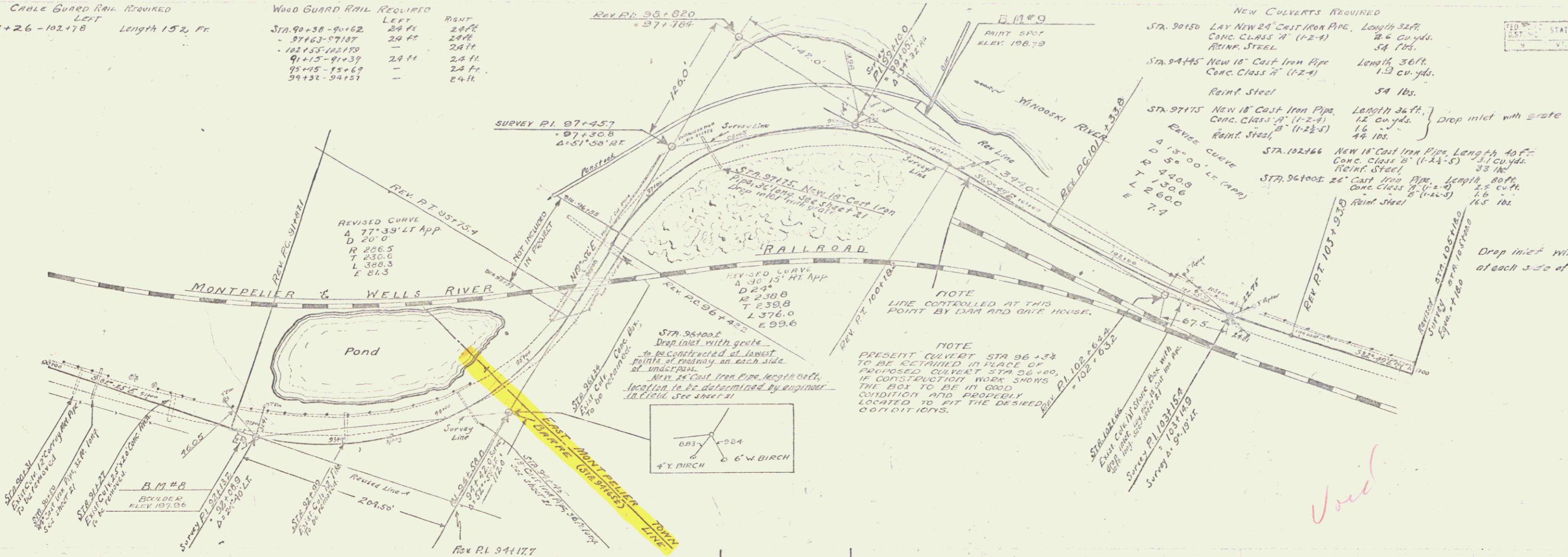
Void

5

CABLE GUARD RAIL REQUIRED
LEFT
STA. 101+26 - 102+78 Length 152 Ft.

WOOD GUARD RAIL REQUIRED
LEFT
STA. 90+30 - 90+62 24 Ft. 24 Ft.
91+63 - 91+87 24 Ft. 24 Ft.
91+53 - 91+59 24 Ft. 24 Ft.
91+45 - 91+69 24 Ft. 24 Ft.
91+31 - 91+31 - 24 Ft.

FED. ROAD DIST. NO.	STATE	FED. AID PROJ. NO.	FISCAL YEAR	SHEET NO.	TOTAL SHEETS
	Vt.	FR 78	1978	9	17



CABLE GUARD RAIL REQUIRED
LEFT

STA. 105+00 - 106+00	Length 100 ft.
109+70 - 110+18	" 48 "
113+35 - 117+53	" 42 "
119+40 - 121+00	" 60 "

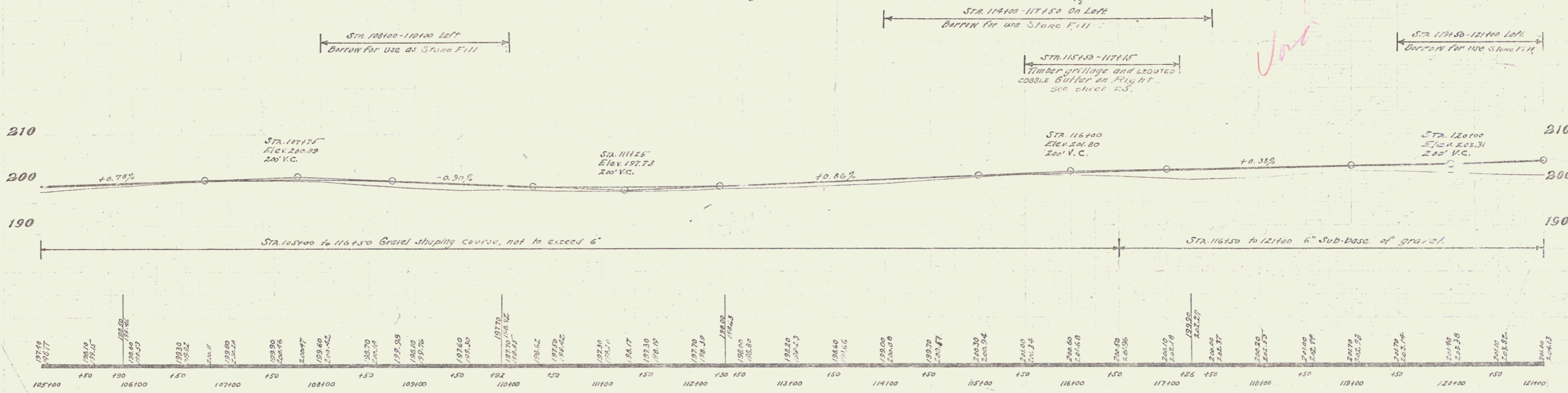
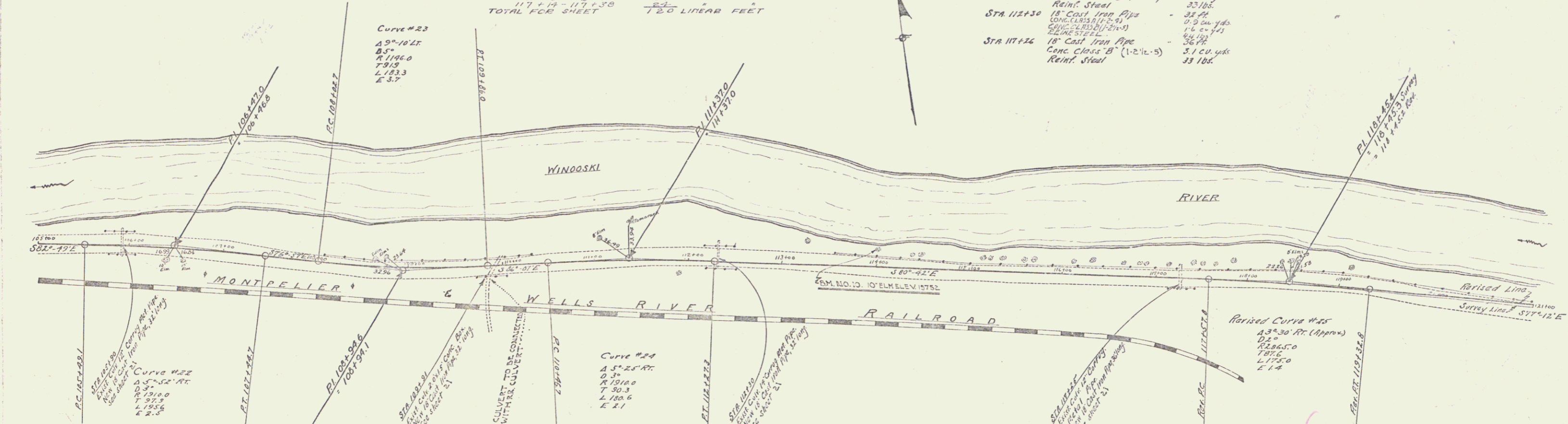
WOOD GUARD RAIL REQUIRED
ON LEFT 2-4 LINEAR FEET
ON RIGHT " " " " " "

STA 112+18 - 112+42	24
105+78 - 106+02	24
109+78 - 110+02	24
112+18 - 112+42	24
117+14 - 117+38	24
TOTAL FOR SHEET	120 LINEAR FEET

NEW CULVERTS REQUIRED

STA. 115+50	18" Cast Iron Pipe, Length 32 ft.	19 cu. yds.
	Conc. Class B (1-2-4)	34 lbs.
	Reinf. Steel	
STA. 109+52	18" Cast Iron Pipe, Length 32 ft.	3/4 cu. yds.
	Conc. Class B (1-2-4)	35 lbs.
	Reinf. Steel	
STA. 112+30	18" Cast Iron Pipe, Length 32 ft.	0.5 cu. yds.
	Conc. Class B (1-2-4)	1.4 cu. yds.
	Reinf. Steel	34 lbs.
STA. 117+24	18" Cast Iron Pipe, Length 32 ft.	3/4 cu. yds.
	Conc. Class B (1-2-4)	33 lbs.
	Reinf. Steel	

DATE	1 FEB 1928	SHEET	10	TOTAL SHEETS	77
PROJECT	FRYB 1928	NO.			



BENCH MARK NO. 10 SPIKE IN 10' ELM. LEFT STA. 114+00 ELEV. 197.52

SERIES PR NO. 78
SHEET 10 OF 77

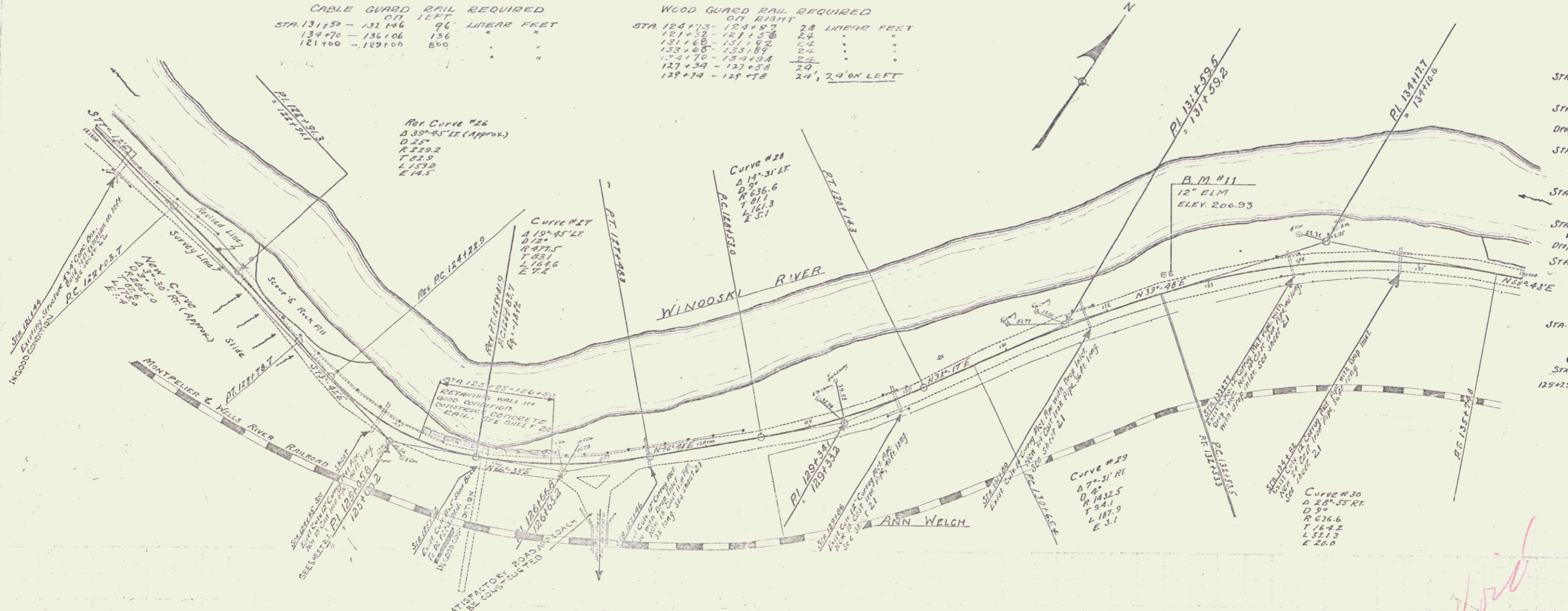
CABLE GUARD RAIL REQUIRED
ON LEFT

STA	LEFT	LINEAR FEET
131.59 - 131.94	96	
134.70 - 136.06	136	
121.00 - 129.00	800	

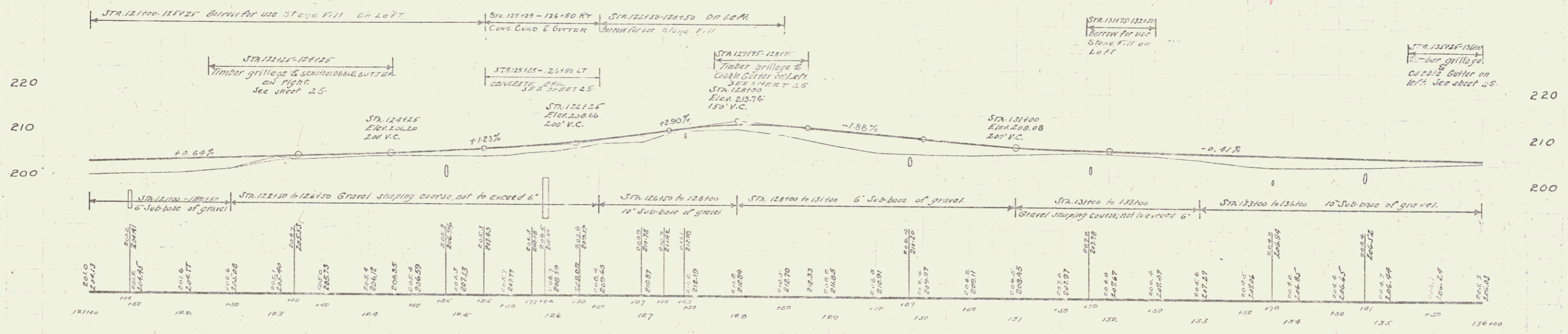
WOOD GUARD RAIL REQUIRED
ON RIGHT

STA	RIGHT	LINEAR FEET
124.73 - 124.97	24	
121.52 - 121.58	6	
131.68 - 131.82	14	
133.68 - 133.84	16	
134.70 - 134.84	14	
127.39 - 127.58	19	
127.74 - 127.78	4	
	241	2.4' ON LEFT

FR 1028 11 77



- NEW CULVERTS REQUIRED**
- STA. 124185 18" Cast Iron Pipe Length 40ft. Conc. Class B (1-2-5) 32cu yds. Reinf. Steel 33 lbs.
 - STA. 127+43 18" Cast Iron Pipe with Drop Inlet Conc. Class B (1-2-5) 15cu yds. 16' Reinf. Steel 113 lbs.
 - STA. 129186 18" Cast Iron Pipe Conc. Class B (1-2-5) 0.3cu yds. 16' Reinf. Steel 43 lbs.
 - STA. 131480 24" Cast Iron Pipe Conc. Class B (1-2-5) 2.0cu yds. 53 lbs. Reinf. Steel
 - STA. 133177 18" Cast Iron Pipe Conc. Class A (1-2-4) 2.0cu yds. 125 lbs. Drop Inlet Reinf. Steel
 - STA. 134182 24" Cast Iron Pipe Conc. Class A (1-2-4) 5.6 cu yds. 160 lbs. Reinf. Steel
- CULVERT REPAIRS**
- STA. 121+94 Conc. Class B (1-2-4) 12cu yds. Reinf. Steel 158 lbs.
- CONC. CURB & GUTTER REQUIRED STATIONS LEFT CONC. BTRCL**
- 125+25 - 126+50 = 125 FT. 9.7 cu yd. 128 lbs.



B.M. #11 SPIKE IN ROOT OF 12" ELM LEFT STA. 132+65.2 ELEV. 206.93

SERIES FB NO. 7B
SHEET 11 OF 77

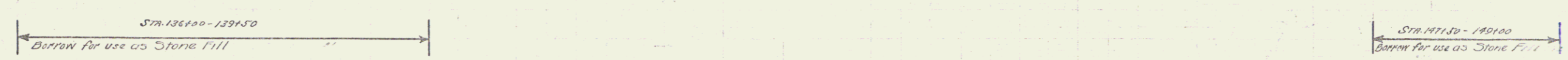
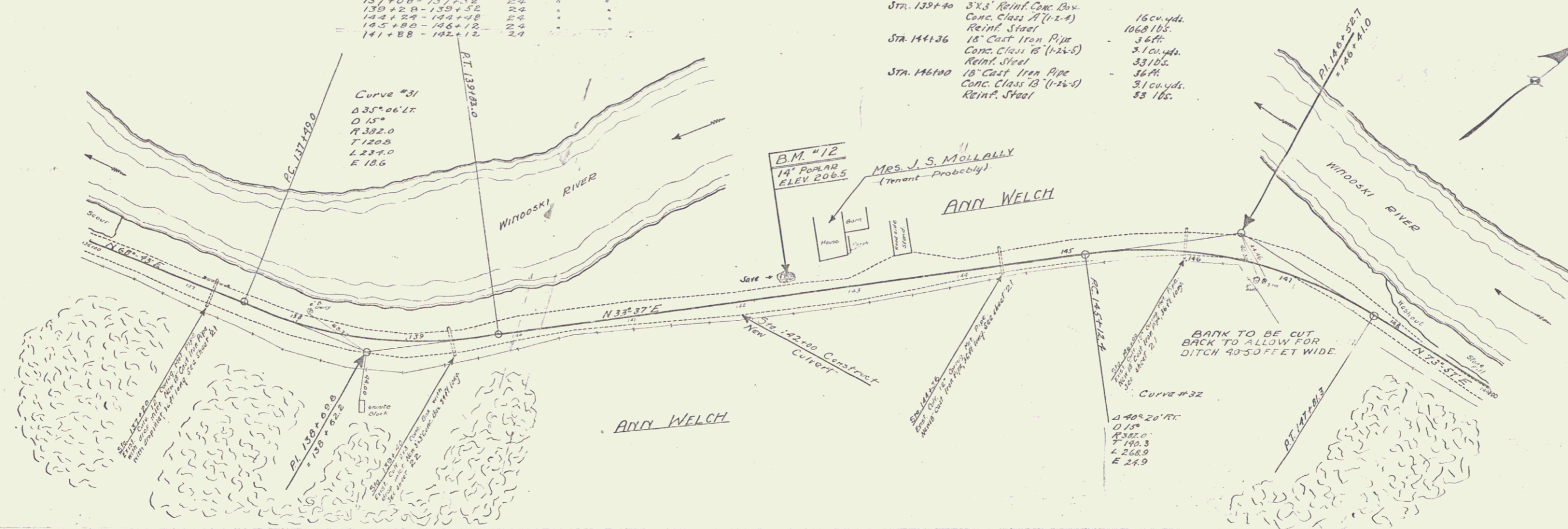
9

CABLE GUARD RAIL REQUIRED
 STA 139+16 - 139+64 48' LINEAR FEET
 147+24 - 149+00 176'

WOOD GUARD RAIL REQUIRED
 STA 144+24 - 144+48 24' LINEAR FEET
 145+88 - 146+12 24'
 137+00 - 137+72 72'
 139+28 - 139+52 24'
 144+24 - 144+48 24'
 145+88 - 146+12 24'
 141+88 - 142+12 24'

NEW CULVERTS REQUIRED
 STA 137+20 18" Cast Iron Pipe, Length 36 ft. with Conc. Class A (1-2-4) Reinf. Steel (0-25-5) 1.5 cu. yds.
 STA 139+40 3X3' Reinf. Conc. Box, Conc. Class A (1-2-4) Reinf. Steel 16 cu. yds.
 STA 144+36 18" Cast Iron Pipe, Conc. Class B (1-2-5) Reinf. Steel 3.0 cu. yds.
 STA 146+00 18" Cast Iron Pipe, Conc. Class B (1-2-5) Reinf. Steel 3.1 cu. yds.

FR 7B 1020 12 77



Station	Elevation
136+00	205.57
137	206.43
138	207.00
139	207.66
140	208.00
141	208.46
142	208.96
143	209.29
144	209.54
145	209.74
146	209.89
147	209.99
148	210.04
149	210.16
150	210.25
151	210.31
152	210.34
153	210.35
154	210.35
155	210.37
156	210.38
157	210.38
158	210.37
159	210.35
160	210.31
161	210.25
162	210.16
163	210.04
164	209.89
165	209.74
166	209.54
167	209.29
168	208.96
169	208.46
170	207.66
171	206.43
172	205.57

B.M. #12 SPIKE IN ROOT OF 14' POPLAR LEFT STA. 142+40! ELEV. 206.5

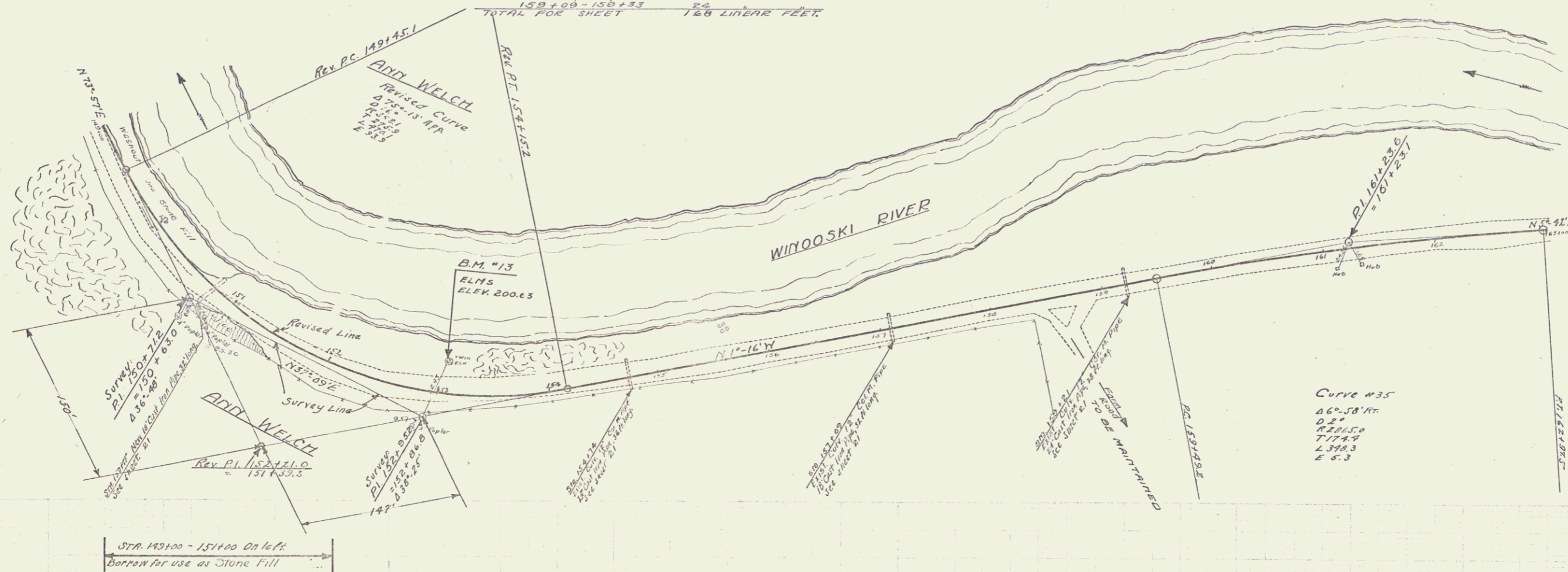
SERIES FR 7B
 SHEET 12 OF 77

10

CABLE GUARD RAIL REQUIRED
ON LEFT
STA. 149+00 - 151+00 200 LINEAR FEET

WOOD GUARD RAIL REQUIRED
STA. 154+62 - 157+86 24 LINEAR FEET
156+27 - 157+21 24 " "
159+03 - 159+33 24 " "
150+63 - 150+87 24 " "
154+62 - 154+86 24 " "
156+07 - 157+21 24 " "
159+03 - 159+33 24 " "
TOTAL FOR SHEET 188 LINEAR FEET

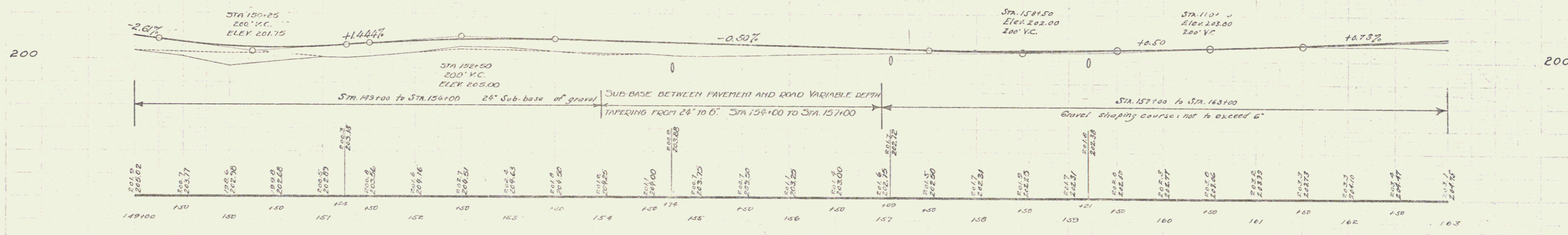
19
DEC 1978
PR 78 1028 13 77



NEW CULVERTS REQUIRED
Sta. 150+15 18" Cast Iron Pipe, Length 36ft.
Conc. Class B (12-4) 3.1 cu yds.
Reinf. Steel 33 lbs.
Sta. 154+74 24" Cast Iron Pipe, Length 36ft.
Conc. Class A (12-4) 2.6 cu yds.
Reinf. Steel 39 lbs.
Sta. 157+09 18" Cast Iron Pipe, Length 36ft.
Conc. Class B (12-4) 3.1 cu yds.
Reinf. Steel 33 lbs.
Sta. 159+21 24" Cast Iron Pipe, Length 36ft.
Conc. Class A (12-4) 2.6 cu yds.
Reinf. Steel 39 lbs.

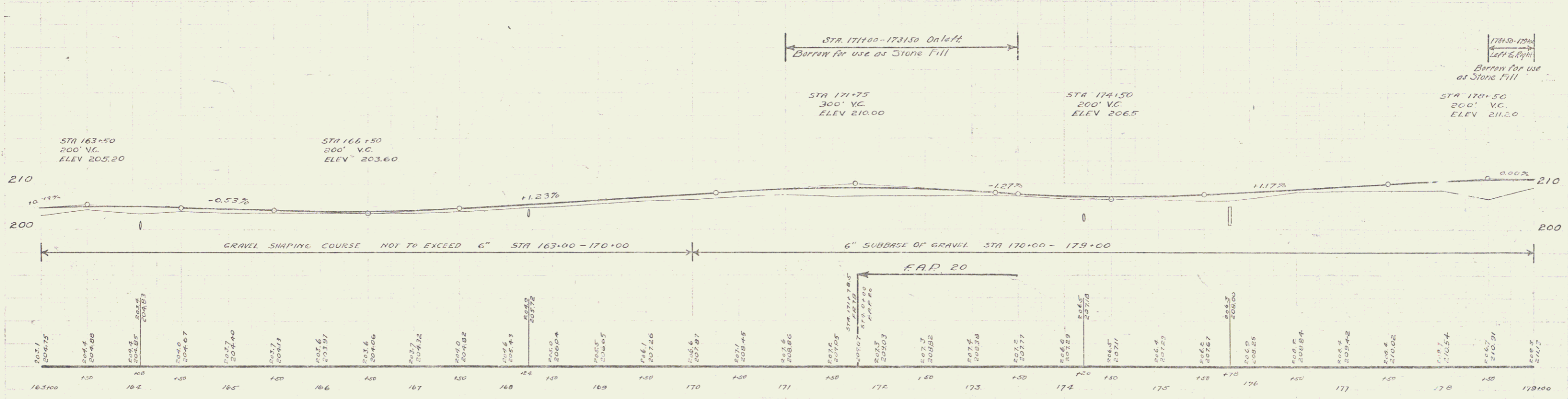
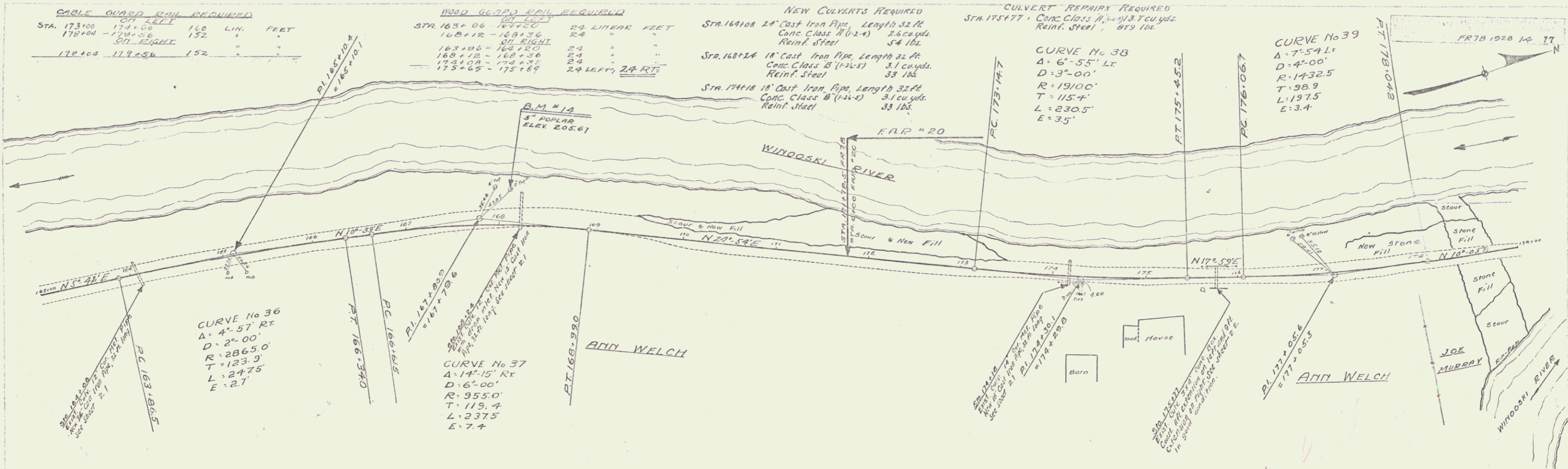
Curve #35
46'-58" R.C.
0.2%
1520.50
717.49
2.3783
4'-5.3

STA. 149+00 - 151+00 On left
Barron for use as Stone Fill



B.M. #13 SPIKE IN ROOT OF GROUP OF ELMS LEFT STA. 153+00 ± ELEV. 200.63

SERIES PR 78.7B
SHEET 13 OF 77



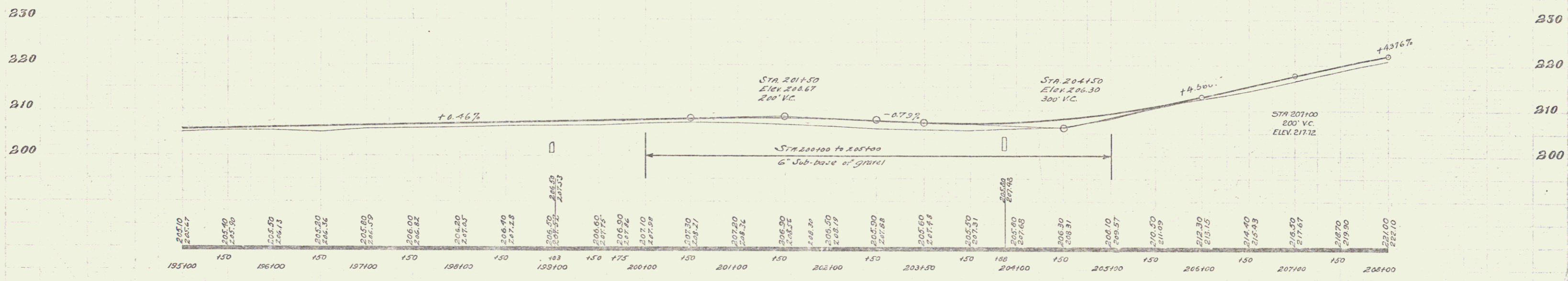
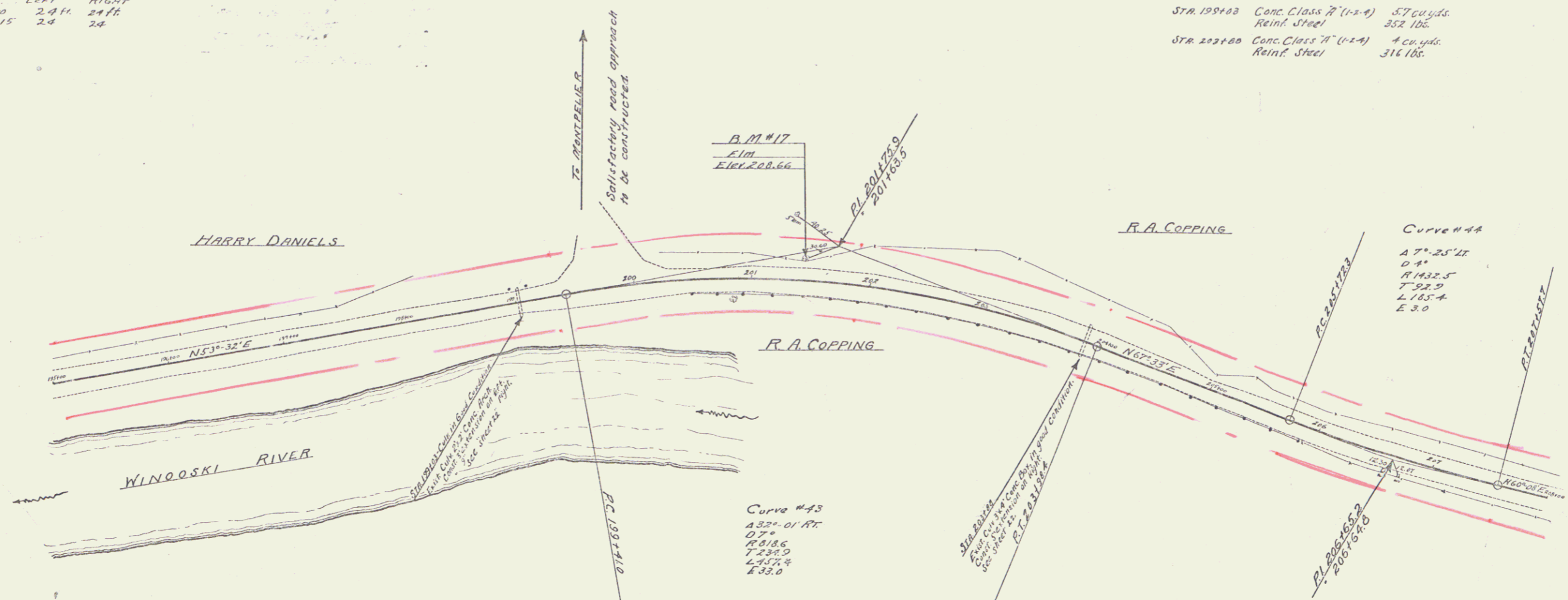
B.M. #14 SPIKE IN 5' POPLAR LEFT STA. 161+80 ELEV. 205.67

SERIES PP 107B
 SHEET 14 OF 77

WOOD GUARD RAIL REQUIRED
 STA 20376-209100 LEFT RIGHT
 18'-0" 19'-15" 24' 24'

CULVERT REMAINS
 STA 199100 Conc. Class 7 (11-2-A) 57 cu. yds.
 Reinf. Steel 352 lbs.
 STA 202100 Conc. Class 7 (11-2-A) 4 cu. yds.
 Reinf. Steel 316 lbs.

FIG. NO.	DATE	BY	NO.	SHEET	OF
351-A	10/22	FR	7520	76	77



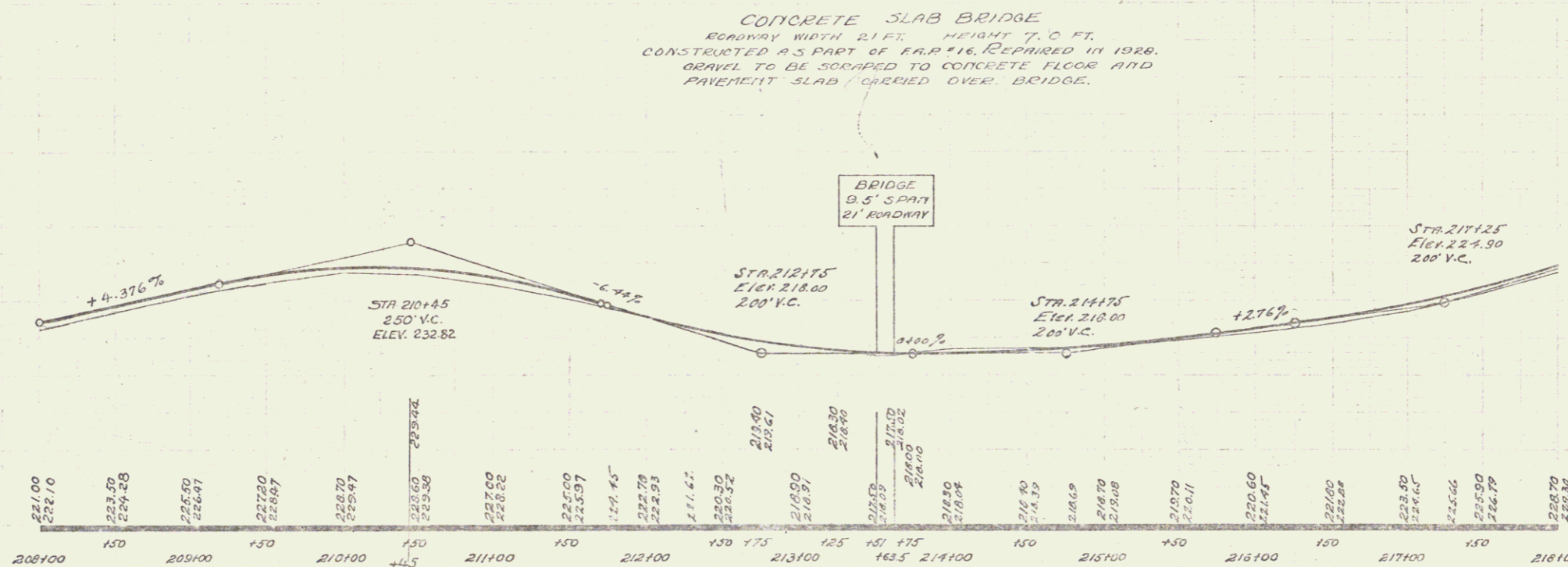
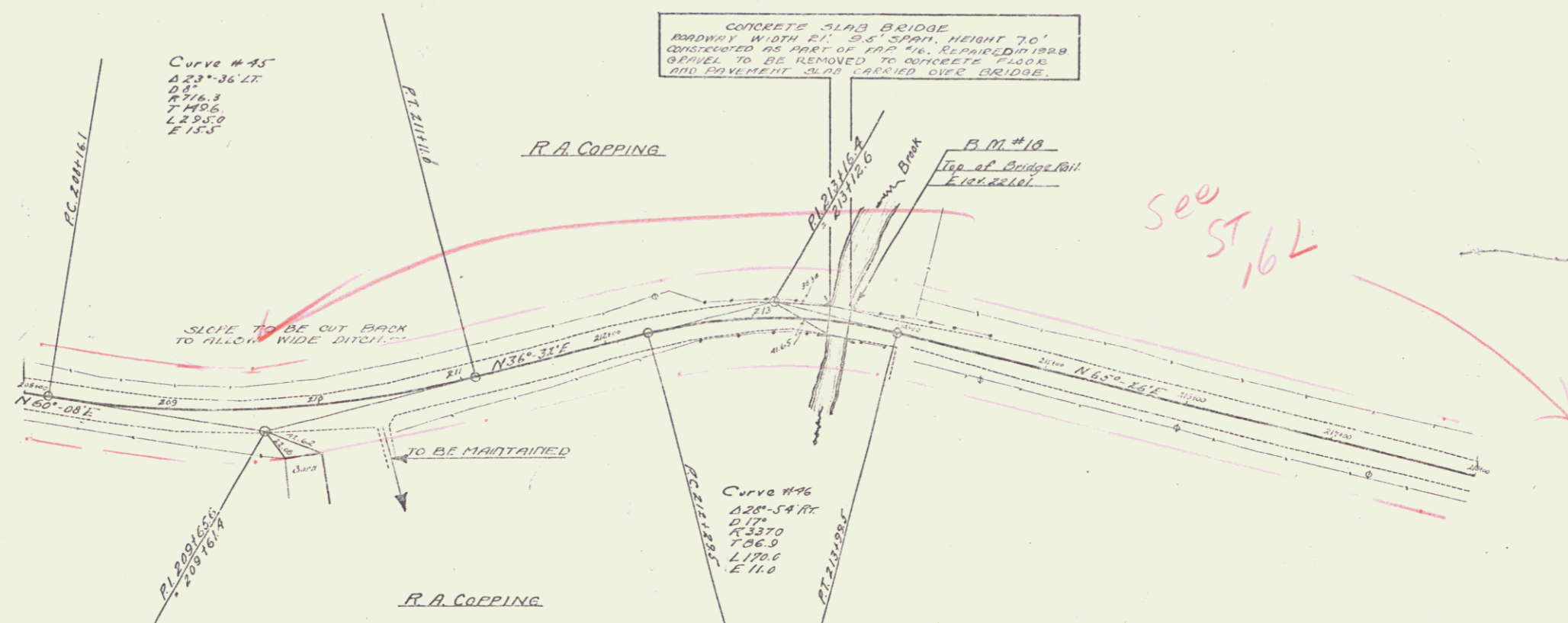
B.M. #17 Spike in root of 16" Elm 16 ft. Lr. Sta. 201144. Elev. 208.66

SERIES FR No. 7 B
 SHEET 12 OF 97

14

WOOD GUARD RAIL REQUIRED
 Left
 STA 213+27-213+57 24 FT
 213+57-213+88 24 FT
 Right
 STA 213+27-213+51 24 FT
 213+51-213+88 24 FT
 TOTAL FOR SHEET 96 FT.

Proj. No. 1024
 DSI No. 1024
 State No. 1024
 SHEET NO. 12
 OF 17



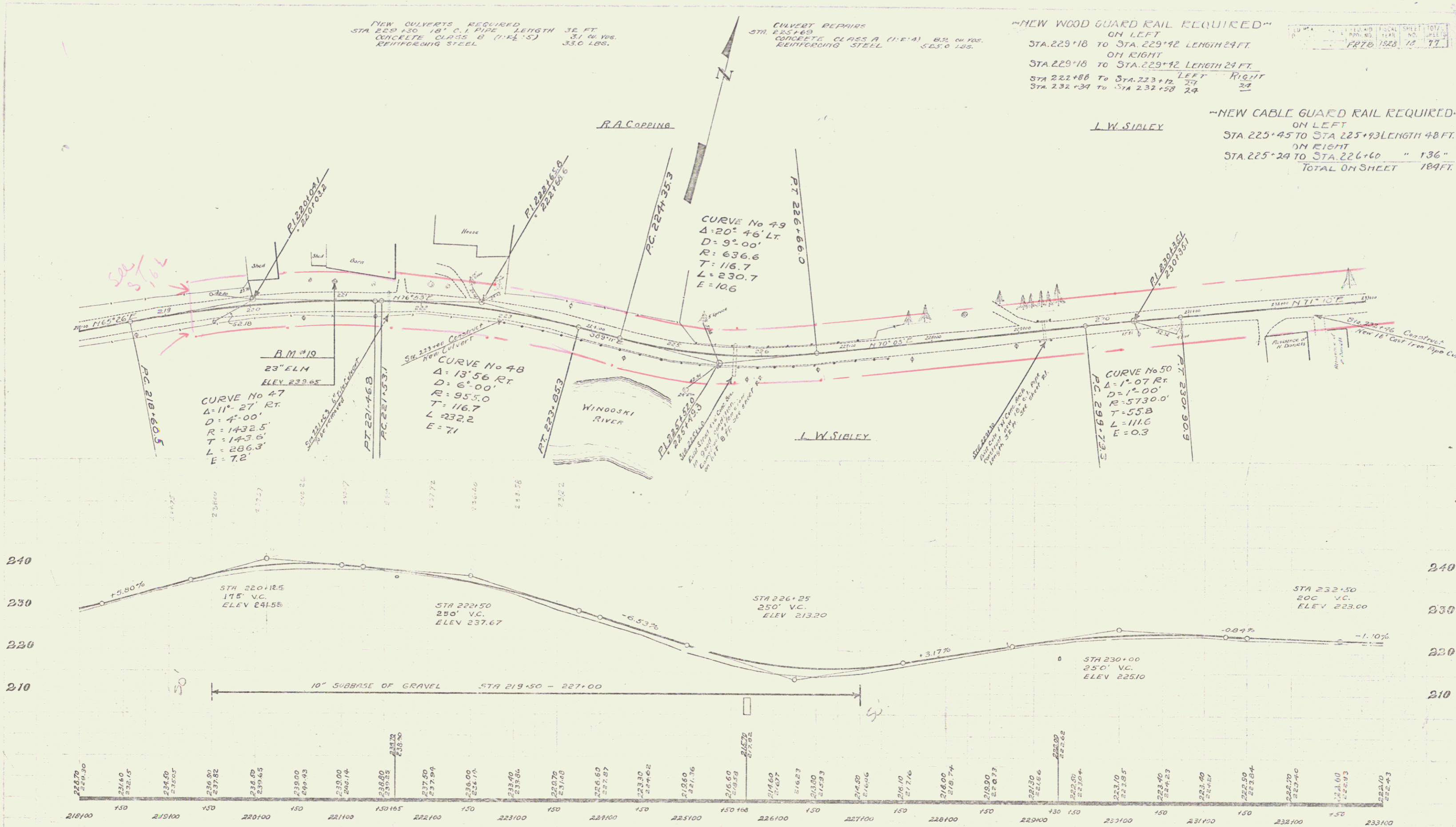
B.M. #18 Top of NE end of bridge rail Elev. 221.01

SERIES ER No. 7B
 SHEET 12 OF 17

15

Wind
Direction
1922
1923
1924

Wind
Dir
1922
1923
1924



B.M.#19 Spike in roof of 23' Elm, 21.3 ft Lt. Sta 220+99, Elev 239.65

SERIES FB No. 7B
SHEET 18 OF 77

16

