

INDEX OF SHEETS

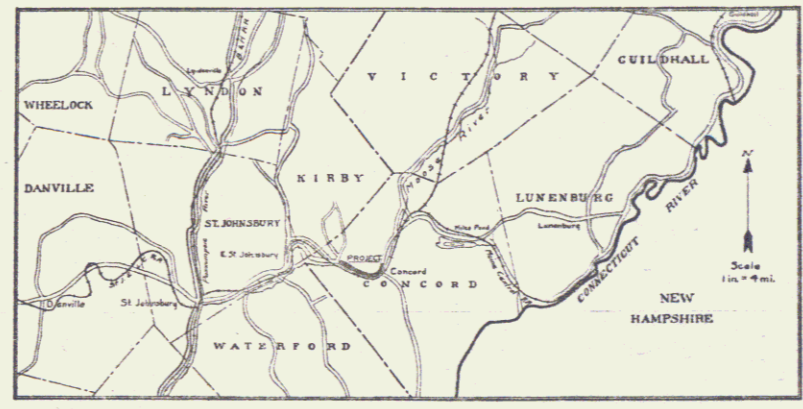
SHEET NO.	TITLE PAGE
2	TYPICAL CROSS-SECTION OF IMPROVEMENT
3	PLAN AND PROFILE STA. 0+00 TO STA. 15+00
4	" " " " 15+00 " " 30+00
5	" " " " 30+00 " " 45+00
6	" " " " 45+00 " " 60+00
7	" " " " 60+00 " " 75+00
8	" " " " 75+00 " " 89+00
9	" " " " 89+00 " " 103+00
10	" " " " 103+00 " " 113+50
11	BRIDGE - STA. 3+09.
12	CULVERT - STA. 108+25.
13-42	CROSS SECTIONS.

FED. ROAD DIST. NO.	STATE	FED. AID PROJ. NO.	FISCAL YEAR	SHEET NO.	TOTAL SHEETS
3	VT.	31	1921	1	42

STATE OF VERMONT
STATE HIGHWAY DEPARTMENT

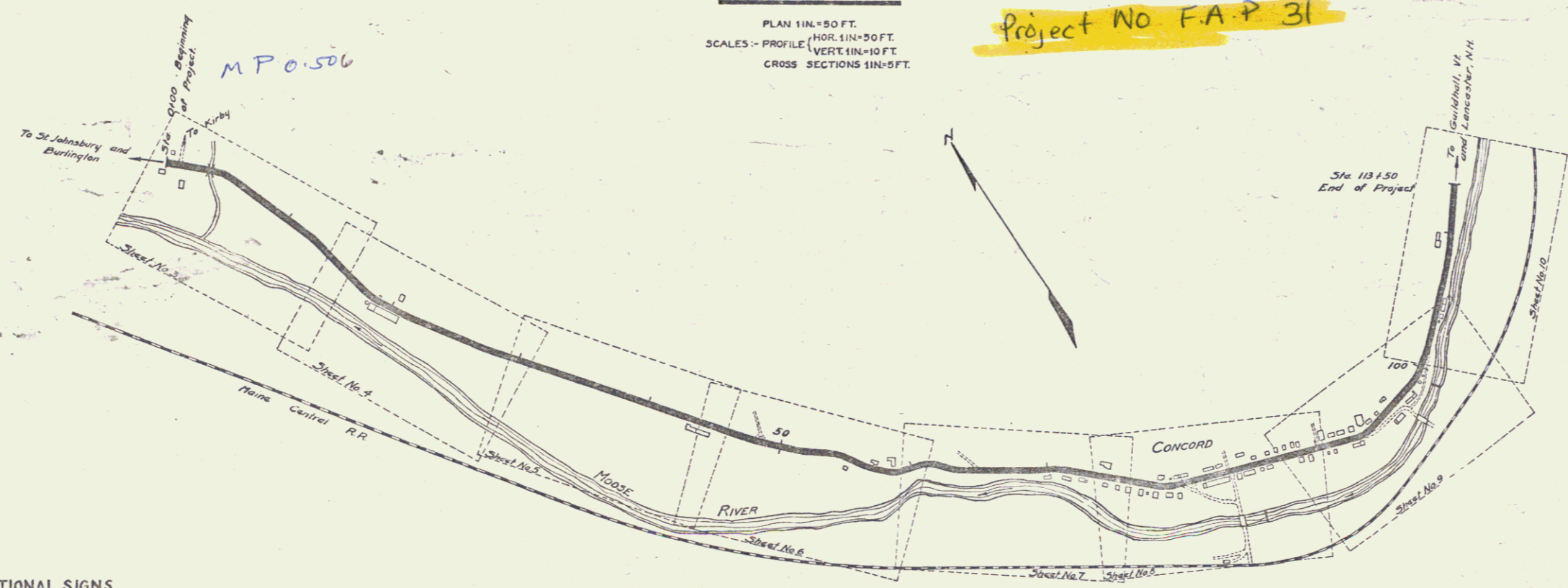
PLAN AND PROFILE OF PROPOSED
STATE HIGHWAY
FEDERAL AID PROJECT

TOWN OF CONCORD
RIVER ROAD
FROM RANNEY SISTERS' PLACE TO
.4 MI. E. OF CONCORD P.O.



PLAN 1"=50 FT.
SCALES - PROFILE (HOR. 1"=50 FT.
VERT. 1"=10 FT.
CROSS SECTIONS 1"=5 FT.

Project No. F.A.P. 31



MP 2.65

RIGHT-OF-WAY DIVISION
TOWN FILE
PERPETUAL
Rte. 102
From St. Johnsbury and Burlington
(To Be Returned To R.O.W. Division)

CONVENTIONAL SIGNS

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

GROUND ELEVATION

DATE	LINE
DATE	LINE

GRADE ELEVATION

DATE	LINE
DATE	LINE

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.

LAYOUT.
Scale 1"=500 FT.

RECOMMENDED

STATE ENGINEER

APPROVED

GOVERNOR

SUBMITTED BY ORDER OF THE STATE HIGHWAY BOARD

COMMISSIONER OF HIGHWAYS

RECOMMENDED

DISTRICT ENGINEER

BUREAU OF PUBLIC ROADS

RECOMMENDED FOR APPROVAL

CHIEF ENGINEER - BUREAU OF PUBLIC ROADS

APPROVED

DIRECTOR - BUREAU OF PUBLIC ROADS

01/01/31

Series F No. 31 Filed
Sheet 1 of 42

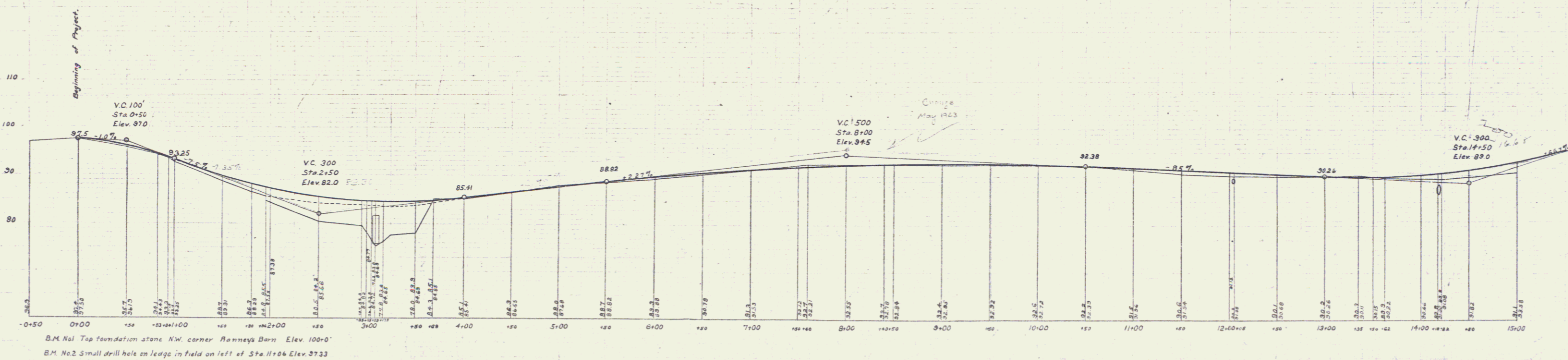
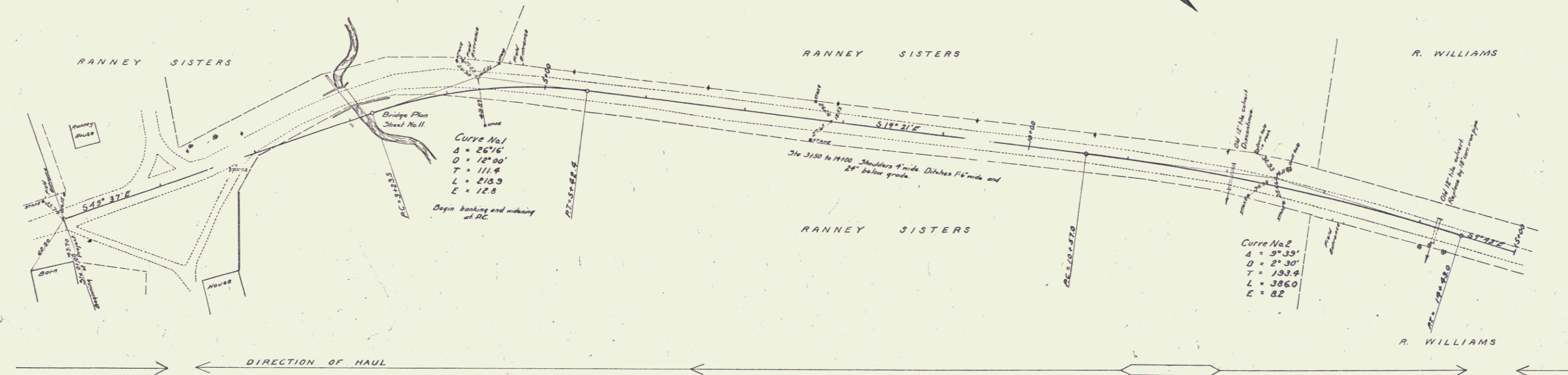
DIST. # 1 PLANS

GUARD RAIL REQUIRED ON LEFT
 Sta 19106 to 19130 Length 2911
ON RIGHT
 Sta 1188 to 3136 Length 20811
 Sta 19106 to 19130 " 29 -
TOTAL THIS SHEET 25641

NEW CULVERTS REQUIRED
 Sta 19118 18in Corr Iron Pipe 3011
 Concrete Headwalls 1-25-5 15 cu yds.

Sub Base Required
 Sta 9100 to 16100 Length 1000 ft

FED. ROAD DIST. NO.	STATE	FED. AID PROJ. NO.	FISCAL YEAR	SHEET NO.	TOTAL SHEETS
9	VT.	31	1921	3	42

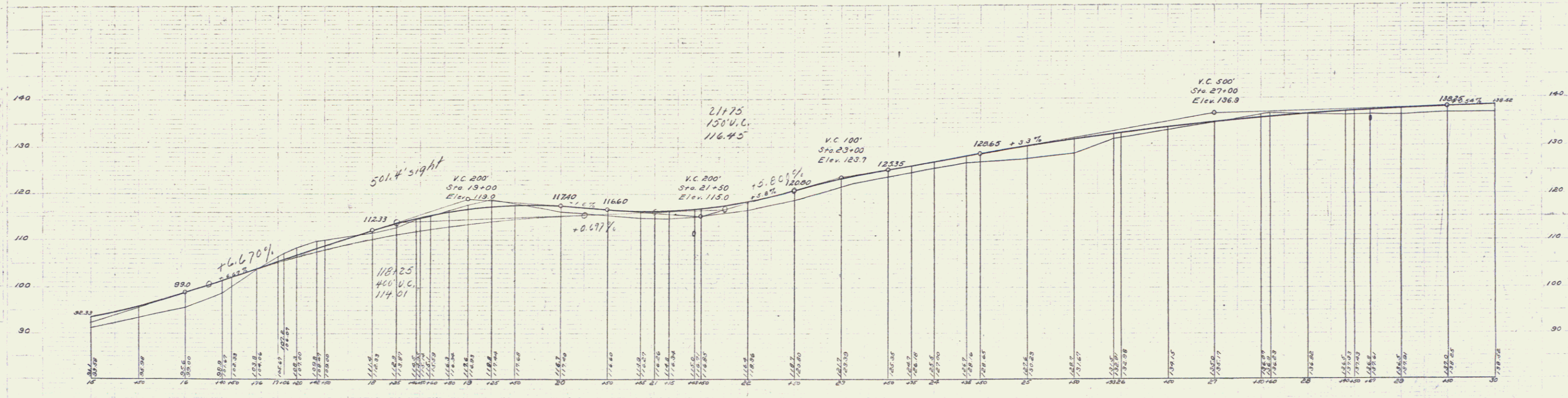
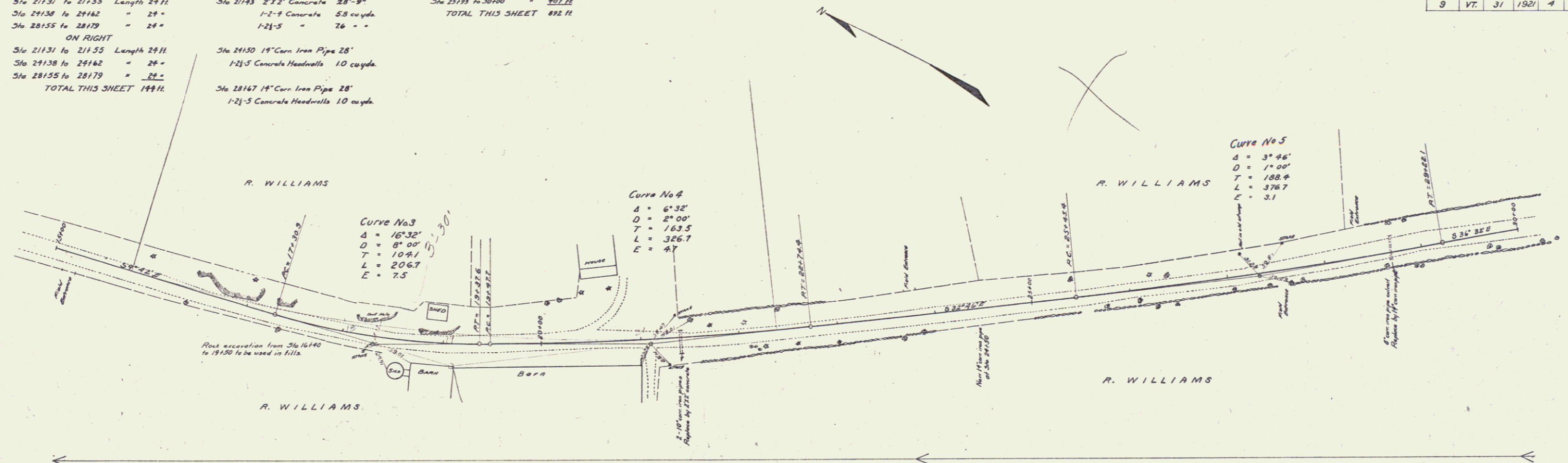


GUARD RAIL REQUIRED
ON LEFT
Sta 21131 to 21155 Length 24 ft.
Sta 29138 to 29162 = 24'
Sta 28155 to 28179 = 24'
ON RIGHT
Sta 21131 to 21155 Length 24 ft.
Sta 29138 to 29162 = 24'
Sta 28155 to 28179 = 24'
TOTAL THIS SHEET 144 ft.

NEW GULVERTS REQUIRED
Sta 21143 2'x2' Concrete 25'-9"
1-2-8 Concrete 5.8 cu yds.
1-2-5 = 76 - -
Sta 21150 14" Cor. Iron Pipe 28'
1-2-5 Concrete Headwalls 10 cu yds.
Sta 28167 14" Cor. Iron Pipe 28'
1-2-5 Concrete Headwalls 10 cu yds.

SUB BASE REQUIRED
Sta 19150 to 29135 Length 985 ft.
Sta 25119 to 30100 = 491 ft.
TOTAL THIS SHEET 892 ft.

FED. ROAD DIST. NO.	STATE	FISCAL YEAR	SHEET NO.	TOTAL SHEETS
9	VT.	31 1927	4	42



B.M. 3 Baseboard North Easterly corner of R. Williams barn. Elev 116.44

3 3

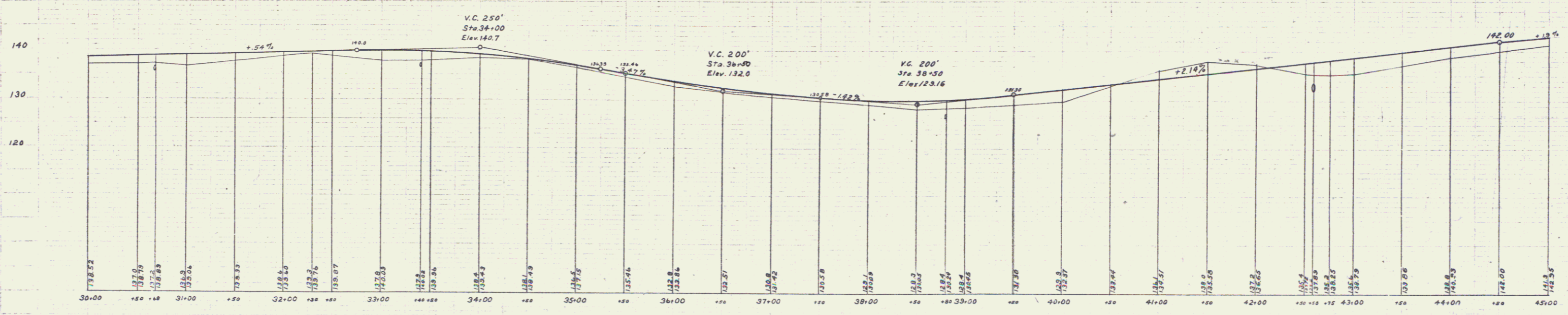
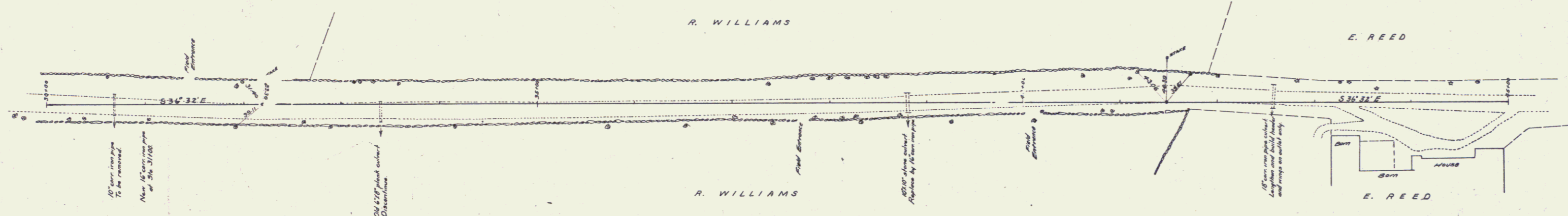
GUARD RAIL REQUIRED
ON LEFT
 Sta 30185 to 31112 Length 24 ft
 Sta 38168 to 38192 " 24"
 Sta 42146 to 42170 " 24"
ON RIGHT
 Sta 30185 to 31112 Length 24 ft
 Sta 38168 to 38192 " 24"
 Sta 42122 to 43110 " 88"
TOTAL THIS SHEET 208 ft

CULVERT REPAIRS REQUIRED
 Sta 42158 Extend 18 in. Corr. Iron Pipe 14 ft
 1-2 1/2 Concrete Headwalls 0.8 cu yds

NEW CULVERTS REQUIRED
 Sta 31100 16 in. Corr. Iron Pipe 28 ft
 1-2 1/2 Concrete Headwalls 1.5 cu yds
 Sta 38180 16" Corr. Iron Pipe 30 ft
 1-2 1/2 Concrete Headwalls 1.5 cu yds

SUB BASE REQUIRED
 Sta 30100 to 33100 Length 300 ft

FED. ROAD DIST. NO.	STATE	FED. AID FISCAL YEAR	SHEET NO.	TOTAL SHEETS
9	VT.	31	1927	5



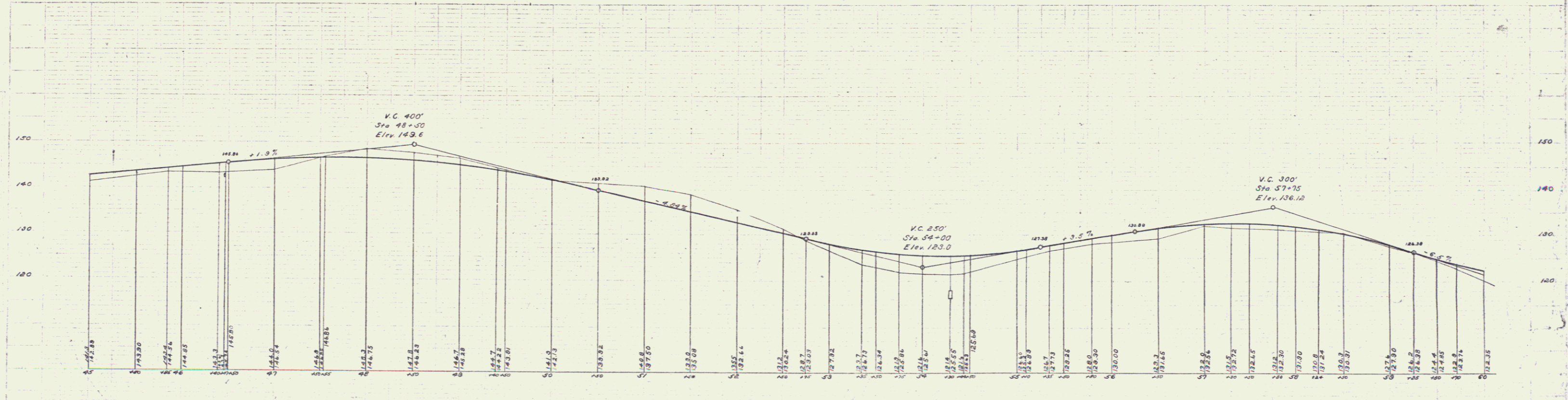
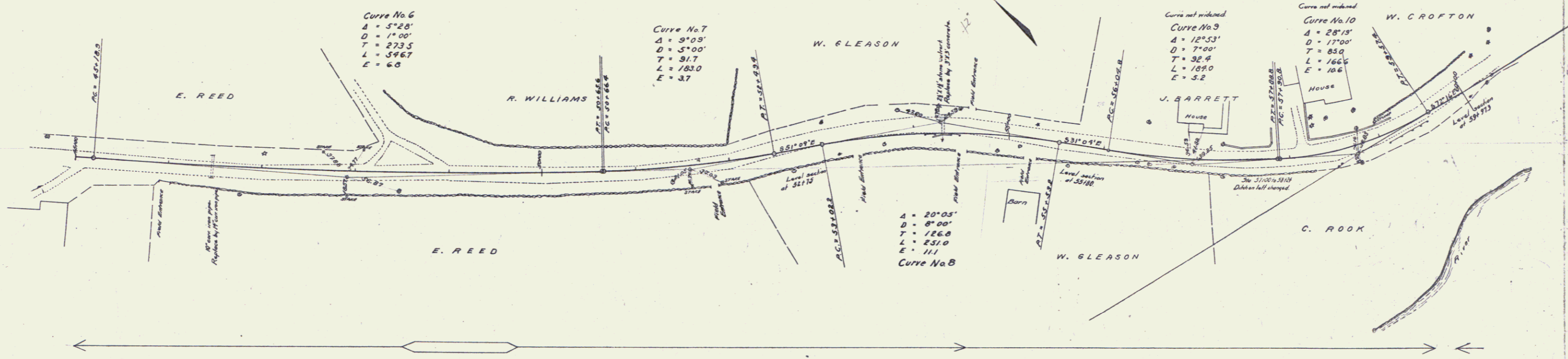
B.M. No. 4 Spike in 16" Elm on rt. Sta 36+52 Elev. 134.3
 B.M. No. 5 Base board N.E. corner E. Reed's barn on rt. Sta 43+47 Elev. 136.19

44

GUARD RAIL REQUIRED
ON LEFT
 Sta 96135 to 96159 Length 24 ft
 Sta 33104 to 33136 - 192 -
 Sta 39190 to 40100 - 10 -
ON RIGHT
 Sta 96135 to 96159 Length 24 ft
 Sta 33104 to 33136 - 192 -
 Sta 38120 to 40100 - 180 -
TOTAL THIS SHEET 622 ft

NEW CULVERTS REQUIRED
 Sta 96147 Min. Cor. Iron Pipe 30 ft
 1-21-5 Concrete Headwalls 10 cu yds.
 Sta 39130 3'x3' Concrete 48 ft
 1-24 Concrete 12.8 cu yds.
 1-21-3 - 16.5 -

FED. ROAD DIST. NO.	STATE	FED. AID FUNDING YEAR	ISSUED YEAR	SHEET NO.	TOTAL SHEETS
9	VT.	31	1921	6	42



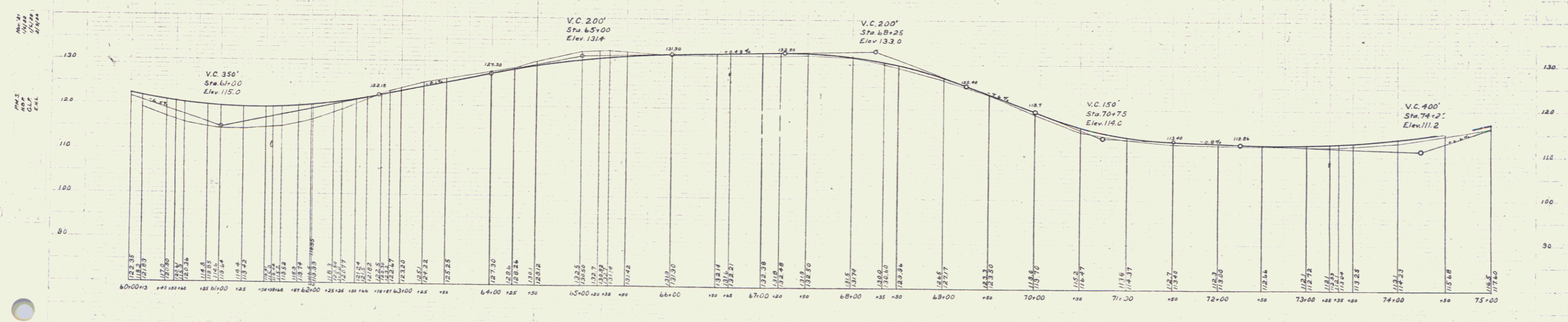
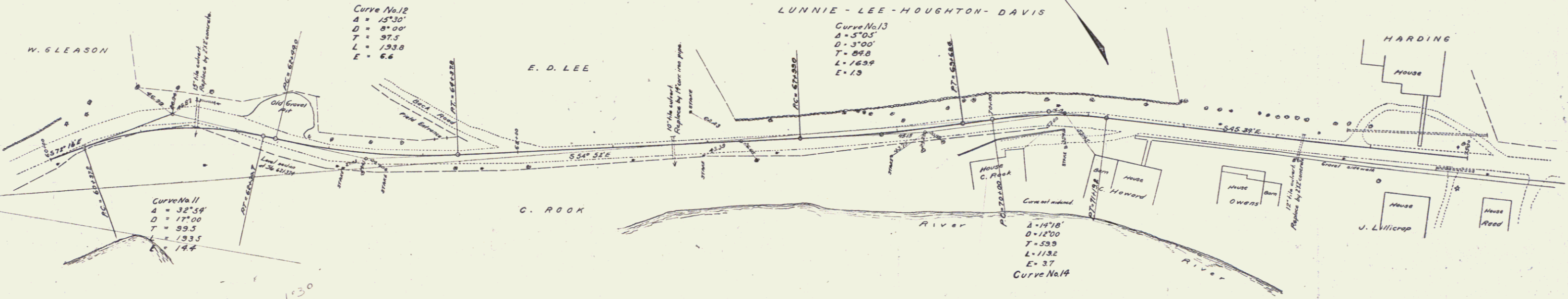
BM No 6 Spike on beam side 36" Elev. 137.41
 BM No 7 Small drill hole top surface emp. Sta 53+62 Elev. 124.57
 BM No 8 Small drill hole top concrete retaining wall east end Sta 58+93 Elev. 133.43

5

GUARD RAIL REQUIRED
ON LEFT
 Sta 60100 to 62130 Length 20311
 Sta 66133 to 66177 " 44"
 Sta 73113 to 73137 " 24"
ON RIGHT
 Sta 60100 to 62152 Length 25211
 Sta 66129 to 70177 " 448"
 Sta 73113 to 73137 " 24"
TOTAL THIS SHEET-1002H

NEW CULVERTS REQUIRED
 Sta 61158 2'x2' Concrete 97H.
 1-2' Concrete 93 cu yds.
 1-2'5" " 12'4" "
 Sta 66165 Min. Cor. Iron Pipe 32H.
 1-2'3" Concrete Headwalls 17 cu yds.
 Sta 73125 2'x2' Rein. Concrete 35.5H.
 1-2'4" Concrete 54 cu yds.
 1-2'5" " 85 "
 Reinforcing Steel 107 lbs.

FED. ROAD DIST. NO.	STATE	FED. AID PROJ. NO.	FISCAL YEAR	SHEET NO.	TOTAL SHEETS
9	VT	31	1927	7	42



B.M. No. 9 Spike unback side 12' elm on rt. Sta. 67+52 Elev. 128.53
 B.M. No. 10 Baseboard NW corner J. Lillcropp's house Sta. 74+19 Elev. 118.53

6

CULVERT REPAIRS REQUIRED

Sta 84+85 Catch basin with grate, connecting with old 10" tile culvert.
 1-2 1/2" Concrete 2.0 cu yds.
 Drop Inlet Grate 1.

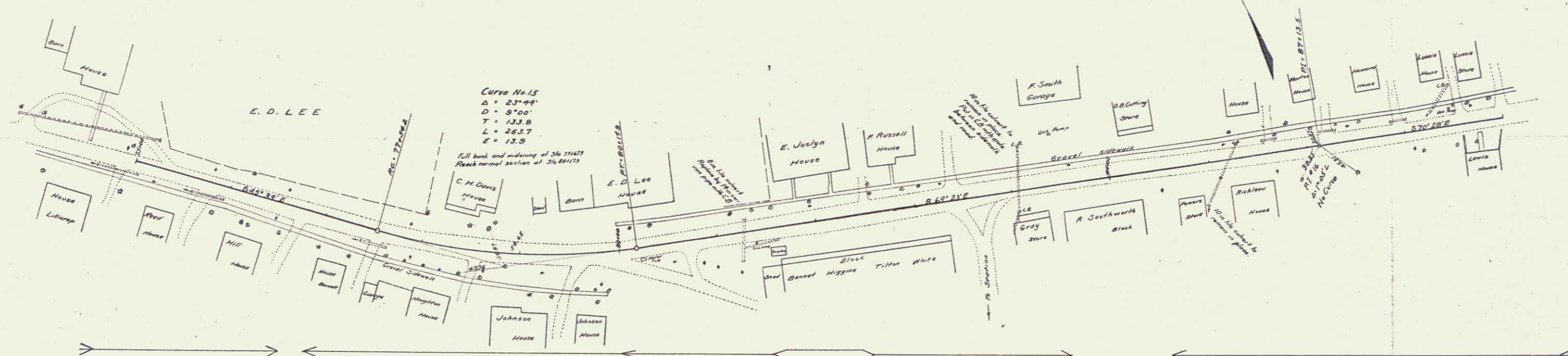
NEW CULVERTS REQUIRED

Sta 81+26.5 14" Con. Iron Pipe and Catch Basin with Grate.
 From inlet to catch basin 28 ft.
 From catch basin to outlet 16 ft.
 1-2 1/2" Concrete 3.2 cu yds.
 Drop Inlet Grate 1.

SUB BASE REQUIRED

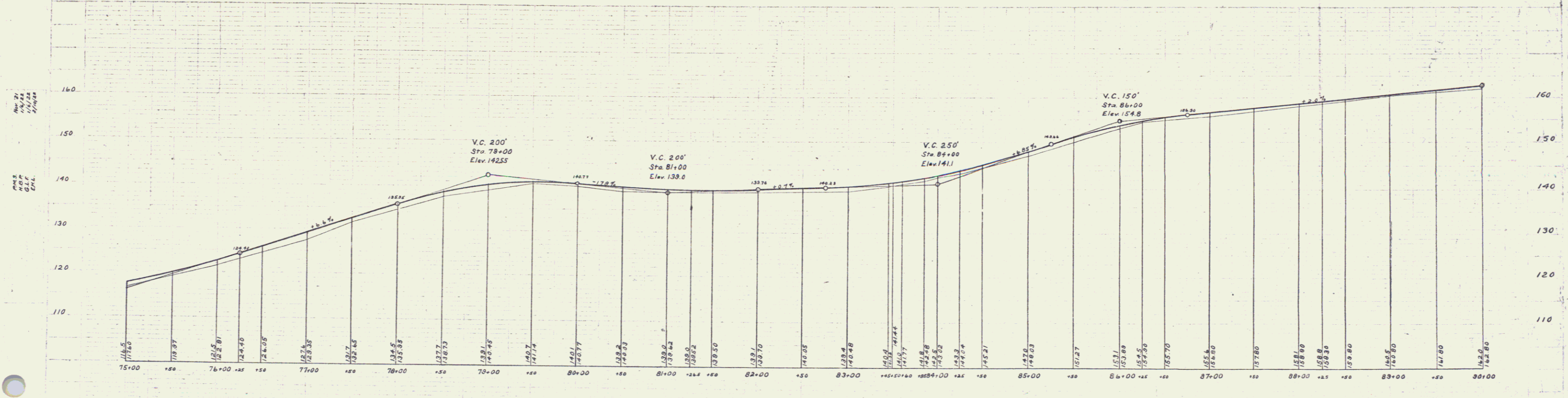
Sta. 78+00 to 83+45 Length 543 ft.

FED. ROAD DIST. NO.	STATE	FED. AID PROJ. NO.	FISCAL YEAR	SHEET NO.	TOTAL SHEETS
9	VT.	31	1927	8	42



Curve No. 15
 Δ = 23° 44'
 D = 97.00'
 T = 132.18'
 L = 263.7'
 E = 13.9'

Fill bank and widening of Sta 77+42.7
 Reach normal section of Sta 80+17.5



B.M. No. 11 NW corner of foundation on gasoline pump Sta. 81+38 Elev. 139.58
 B.M. No. 12 Top granite step on W. end O.B. Cutting's store Sta. 85+30 Elev. 148.47
 B.M. No. 13 Top concrete ref. wall next to piazza Lewis house Sta. 88+57 Elev. 153.44

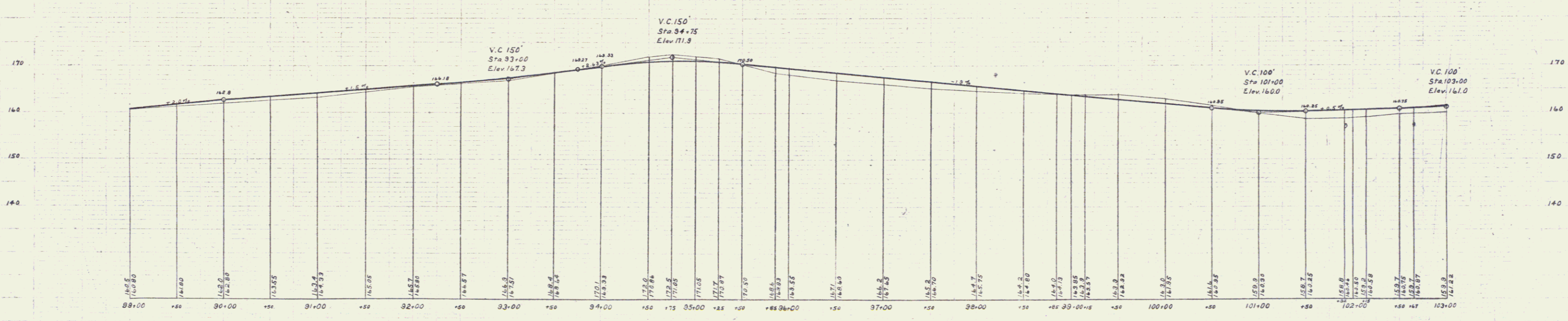
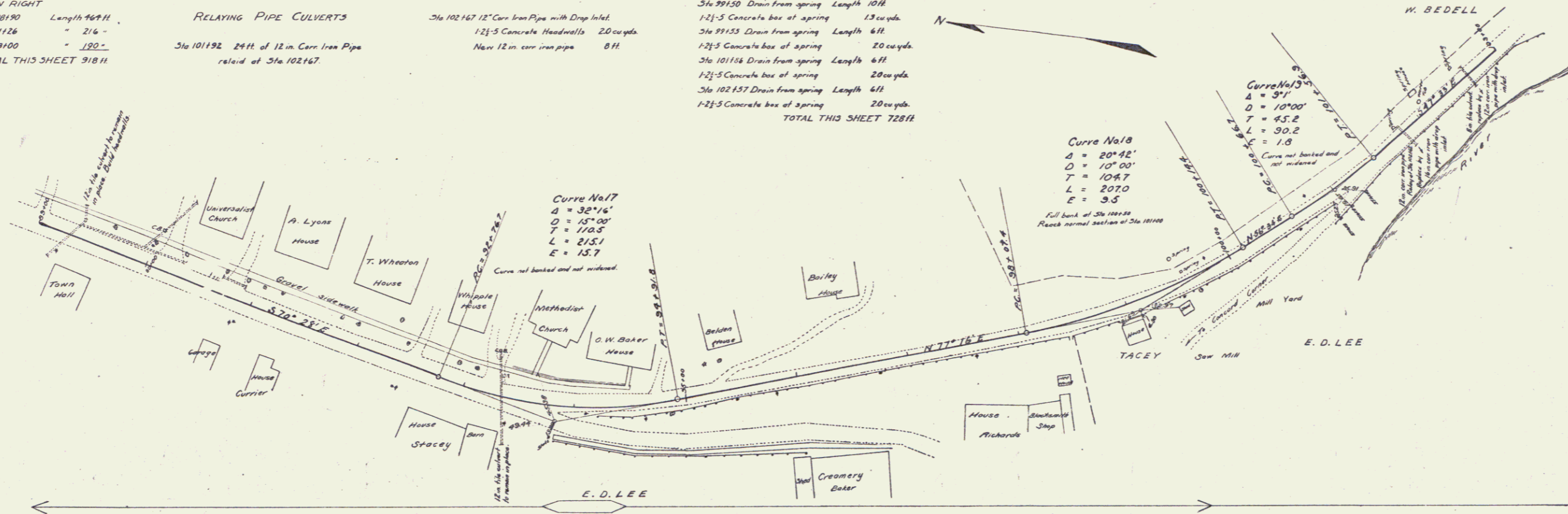
GUARD RAIL REQUIRED
ON LEFT
 Sta 101180 to 102104 Length 2411
 Sta 102153 to 102179 " 24 -
ON RIGHT
 Sta 99126 to 98190 Length 46911
 Sta 99110 to 101126 " 216 -
 Sta 101110 to 103100 " 190 -
TOTAL THIS SHEET 91811

CULVERT REPAIRS REQUIRED
 Sta 89128 Headwalls on old 12" dia culvert
 1-2 1/2 Concrete 10 cu yds
RELAYING PIPE CULVERTS
 Sta 101192 24 ft of 18 in. Cor. Iron Pipe
 relaid at Sta 102167

NEW CULVERTS REQUIRED
 Sta 101192 16" Cor. Iron Pipe with Drop Inlet 34 ft
 1-2 1/2 Concrete Headwalls 19 cu yds
 Sta 102167 12" Cor. Iron Pipe with Drop Inlet
 1-2 1/2 Concrete Headwalls 20 cu yds
 New 12 in. cor. iron pipe 8 ft

STANDARD UNDERDRAIN REQUIRED
 Sta 96100 to 103100 Length 700 ft
 Sta 99150 Drain from spring Length 10 ft
 1-2 1/2 Concrete box at spring 13 cu yds
 Sta 99135 Drain from spring Length 6 ft
 1-2 1/2 Concrete box at spring 20 cu yds
 Sta 101168 Drain from spring Length 6 ft
 1-2 1/2 Concrete box at spring 20 cu yds
 Sta 102157 Drain from spring Length 6 ft
 1-2 1/2 Concrete box at spring 20 cu yds
TOTAL THIS SHEET 728 ft

FED. ROAD DIST. NO.	STATE	FED. AID PROJ. NO.	FISCAL YEAR	SHEET NO.	TOTAL SHEETS
9	VT	31	1921	9	42



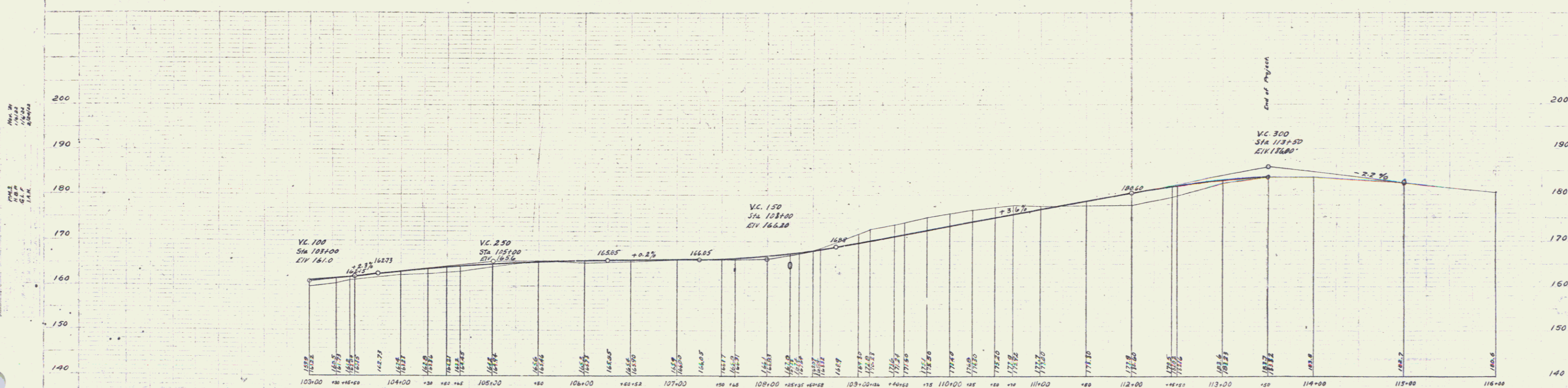
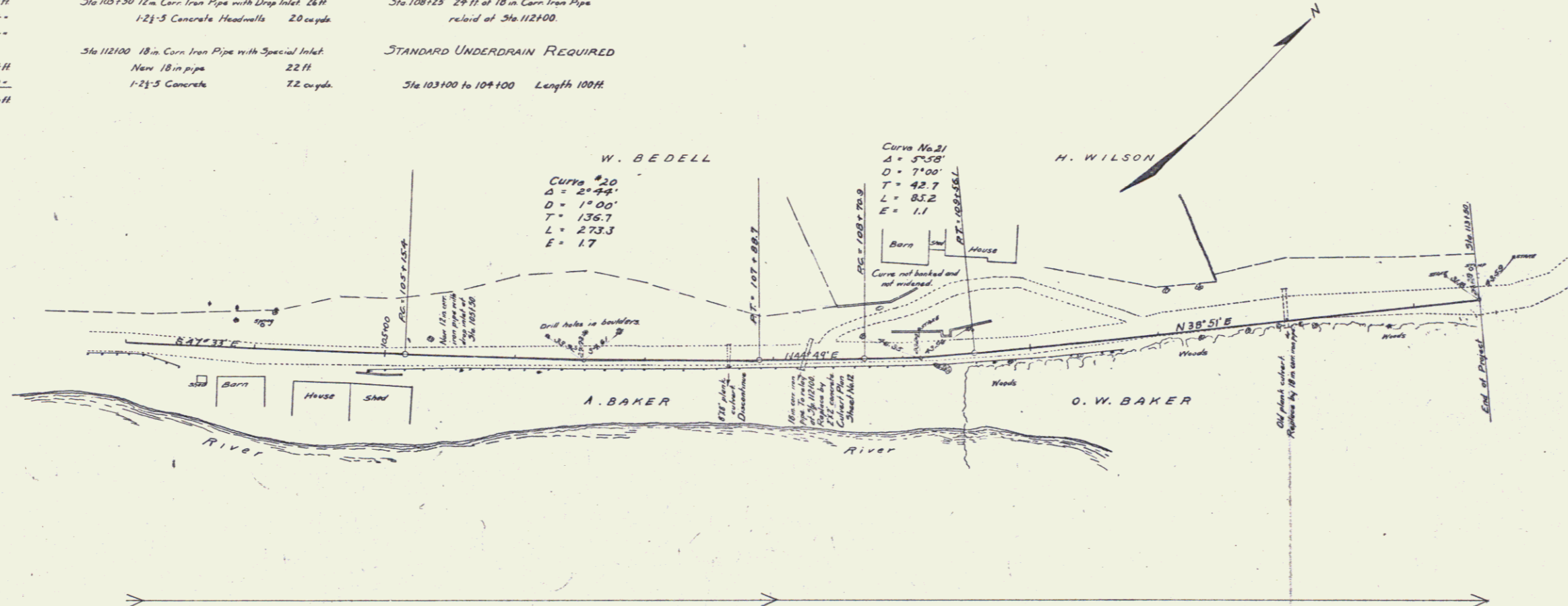
B.M. No. 14 Top granite s.p. S.E. corner A.W. Belmonts house Sta 35+40 Elev. 175.30

GUARD RAIL REQUIRED
ON LEFT
 Sta 105138 to 105162 Length 24 ft
 Sta 108113 to 108137 " 24"
 Sta 111188 to 112112 " 24"
ON RIGHT
 Sta 103100 to 103139 Length 39 ft
 Sta 104185 to 112185 " 800'-"
TOTAL THIS SHEET 906 ft

NEW CULVERTS REQUIRED
 Sta 105150 12 in. Cor. Iron Pipe with Drop Inlet 26 ft
 1-2 1/2 Concrete Headwalls 20 cu yds
 Sta 112100 18 in. Cor. Iron Pipe with Special Inlet
 New 18 in. pipe 22 ft
 1-2 1/2 Concrete 22 cu yds

RELAYING PIPE CULVERTS
 Sta 108125 24 ft of 18 in. Cor. Iron Pipe
 relaid at Sta 112100
STANDARD UNDERDRAIN REQUIRED
 Sta 103100 to 104100 Length 100 ft

FED. ROAD DIST. NO.	STATE	FED. AID PROJ. NO.	FISCAL YEAR	SHEET NO.	TOTAL SHEETS
9	VT.	31	1951	10	42



B.M. No. 15 Spike in pole on right of Sta 107+45 Elev. 161.20.
 B.M. No. 16 Spike in rest of 16" Diam Cherry on left of Sta 111+34 Elev. 179.45