FED. ROAD DIST. NO.	STATE	FED. AID PROJ. NO.	FISCAL YEAR	SHEET NO.	TOTAL SHEETS
9	VT.	115A	1928	1	123

STATE OF VERMONT
STATE HIGHWAY DEPARTMENT

PLAN AND PROFILE OF PROPOSED STATE HIGHWAY

FEDERAL AID PROJECT

TOWNS OF ST. JOHNSBURY-LYNDON
ST. JOHNSBURY-LYNDONVILLE ROAD

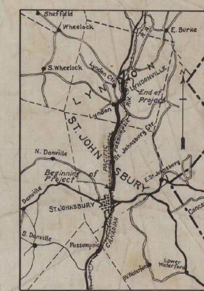
BEGINNING AT "HASTINGS" BRIDGE IN ST. JOHNSBURY VILLAGE AND EXTENDING NORTH TO THE PRESENT WOODEN BRIDGE NEAR THE LYNDONVILLE CREAMERY

LENGTH OF CONTRACT 43,667.9 FT. = 8.270 MILES

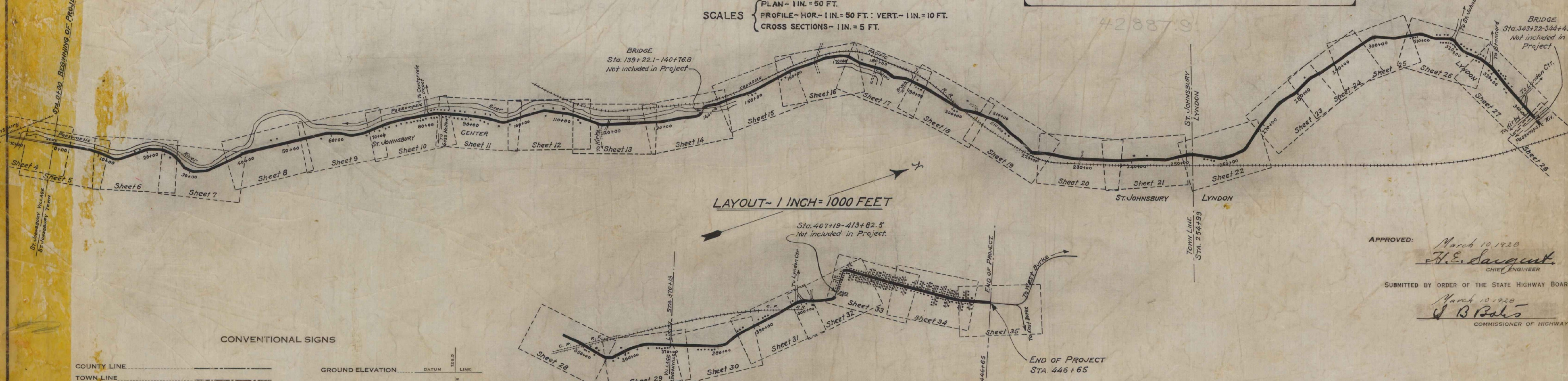
SCALES
- PLAN - 1 IN. = 50 FT.
- PROFILE - HOR. - 1 IN. = 50 FT. : VERT. - 1 IN. = 10 FT.
- CROSS SECTIONS - 1 IN. = 5 FT.

LENGTH OF PROJECT - 40,087.9 FT. = 7.592 MILES

42887.9



SCALE - 1 IN. = 4 MI.



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, except for Bituminous Macadam Surface Course, Item 22, for which revised Specifications have been submitted to the Bureau of Public Roads.

All structures on this project to be constructed in accordance with details given on Standard Structure Sheets, Series No.s 17, 18 and 19

THESE PLANS SUBJECT TO SUCH REVISIONS AS MAY BE REQUIRED BY THE BUREAU OF PUBLIC ROADS OR THE CHIEF ENGINEER.

CONVENTIONAL SIGNS

- COUNTY LINE
- TOWN LINE
- 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

GROUND ELEVATION ... DATUM ... LINE

GRADE ELEVATION ... DATUM ... LINE

CURVE DATA

DEFLECTION ANGLE	△
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.

APPROVED: March 10 1928
H. E. Sargent
CHIEF ENGINEER

SUBMITTED BY ORDER OF THE STATE HIGHWAY BOARD
March 10 1928
S B Bates
COMMISSIONER OF HIGHWAYS

RECOMMENDED [redacted]
[redacted]
DISTRICT ENGINEER BUREAU OF PUBLIC ROADS

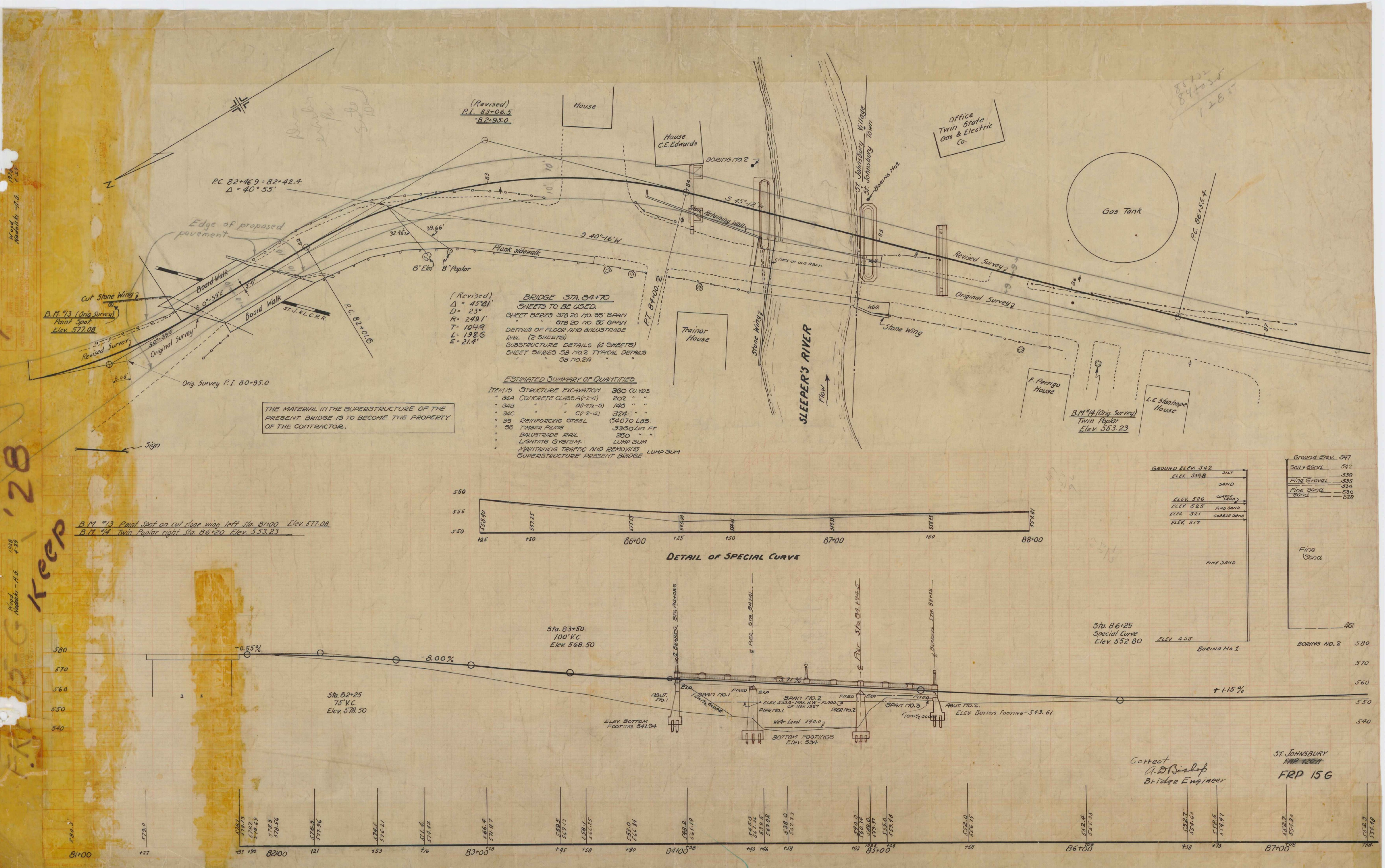
RECOMMENDED FOR APPROVAL [redacted]
[redacted]
CHIEF ENGINEER BUREAU OF PUBLIC ROADS

APPROVED [redacted]
[redacted]
DIRECTOR - BUREAU OF PUBLIC ROADS

SERIES F. NO. 115A FILED
SHEET 1 OF 123

St. Johnsbury 28

F 115A



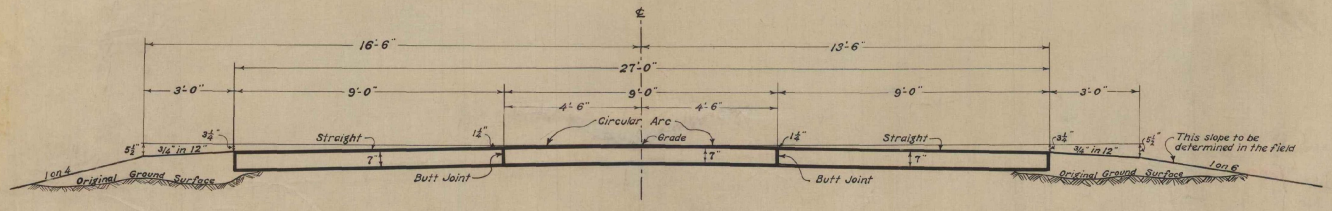
(Revised)
P.I. 83+06.5
82+95.0
House
House
C.E. Edwards
BORING NO. 2
Office
Twin State
Gas & Electric
Co.
P.C. 82+46.9 = 82+42.4
Δ = 40° 55'
Edge of proposed
pavement
S 45°-12'E
Retaining Wall
St. Johnsbury Village
St. Johnsbury Town
Boring No. 1
Gas Tank
P.C. 86+55.4
S 40°-16'W
Plank sidewalk
8" Elm
8" Poplar
Board Walk
Board Walk
Cut Stone Wing
B.M. #13 (Orig. Survey)
Paint Spot
Elev. 577.08
Revised Survey
Original Survey
St. J. & L.C. R.R.
P.C. 82+01.6
(Revised)
Δ = 45° 01'
D = 23°
R = 249.1'
T = 104.9
L = 195.6
E = 21.4'
BRIDGE STA. 84+70
SHEETS TO BE USED.
SHEET SERIES STB 20 NO. 35 SPAN
" " STB 20 NO. 50 SPAN
DETAILS OF FLOOR AND BALUSTRADE
RAIL (2 SHEETS)
SUBSTRUCTURE DETAILS (4 SHEETS)
SHEET SERIES SB NO. 2 TYPICAL DETAILS
" " SB NO. 2A " "
P.T. 84+00.2
Trainor
House
Stone Wing
SLEEPER'S RIVER
Flow
Walk
Stone Wing
Revised Survey
Original Survey
Orig. Survey P.I. 80+95.0
ESTIMATED SUMMARY OF QUANTITIES
ITEM 15 STRUCTURE EXCAVATION 360 CU. YDS.
" 34A CONCRETE CLASS A (1-2-4) 202 " "
" 34B " " B (1-2½-5) 196 " "
" 34C " " C (1-2-4) 324 " "
" 35 REINFORCING STEEL 64070 LBS.
" 58 TIMBER PILING 3350 LIN. FT.
BALUSTRADE RAIL 250 " "
LIGHTING SYSTEM. LUMP SUM
MAINTAINING TRAFFIC AND REMOVING SUPERSTRUCTURE PRESENT BRIDGE LUMP SUM
THE MATERIAL IN THE SUPERSTRUCTURE OF THE PRESENT BRIDGE IS TO BECOME THE PROPERTY OF THE CONTRACTOR.
F. Perrigo
House
B.M. #14 (Orig. Survey)
Twin Poplar
Elev. 553.23
L.C. Stanhope
House
Sign
B.M. #13 Paint Spot on cut stone wing left Sta. 81+00 Elev. 577.08
B.M. #14 Twin Poplar right Sta. 86+20 Elev. 553.23
DETAIL OF SPECIAL CURVE
86+00
87+00
88+00
GROUND ELEV. 542
ELEV. 539.8 SILT
SAND
ELEV. 526 COARSE SAND
ELEV. 525 FINE SAND
ELEV. 521 COARSE SAND
ELEV. 517
FINE SAND
ELEV. 455
BORING No. 1
Ground elev. 547
Silty sand
Fine Gravel
Fine Sand
Sand
Fine Sand
BORING NO. 2
Sta. 83+50
100' V.C.
Elev. 568.50
-0.55%
-8.00%
Sta. 82+25
75' V.C.
Elev. 578.50
Sta. 86+25
Special Curve
Elev. 552.80
+1.15%
ABUT. No. 1
SPAN No. 1
PIER No. 1
SPAN No. 2
PIER No. 2
SPAN No. 3
ABUT. No. 2
ELEV. BOTTOM FOOTING 541.94
Water Level 540.0
BOTTOM FOOTINGS
Elev. 534
ELEV. BOTTOM FOOTING 543.61
Correct
A. D. Bishop
Bridge Engineer
ST. JOHNSBURY
FAP 128A
FRP 15 G
81+00
82+00
83+00
84+00
85+00
86+00
87+00
St. Johnsbury
'28
Keep

FED. ROAD DIST. NO.	STATE	FED. AID PROJ. NO.	FISCAL YEAR	SHEET NO.	TOTAL SHEETS
9	VT.	115A	1928	2A	123

TYPICAL SECTIONS

ONE COURSE CEMENT CONCRETE PAVEMENT

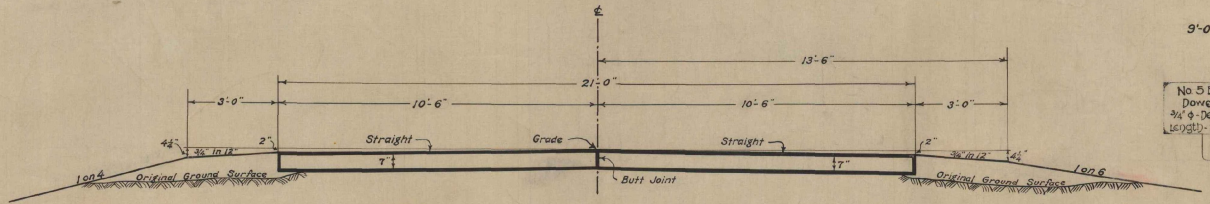
TYPE B ITEM 23B



SECTION R.C.5
27' PAVEMENT

SECTION AREA - 15.75 SQ. FT. FOR 27' WIDTH

The slope of fill outside of shoulder as used to be determined by Engineer.

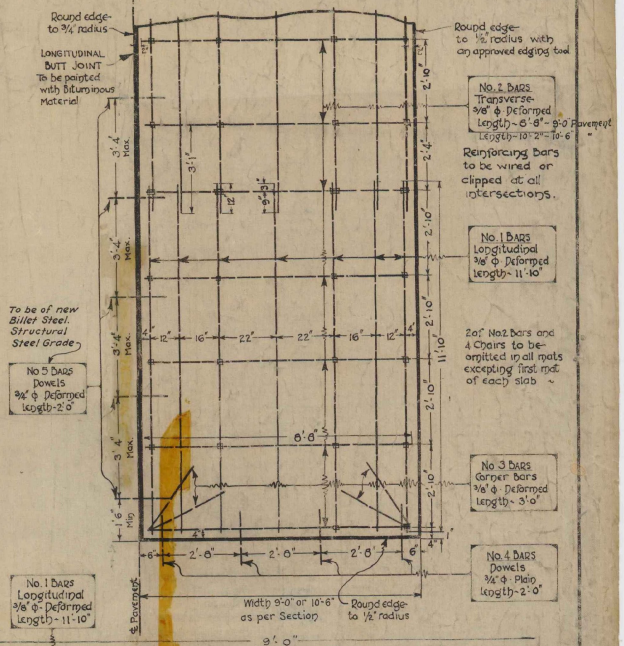


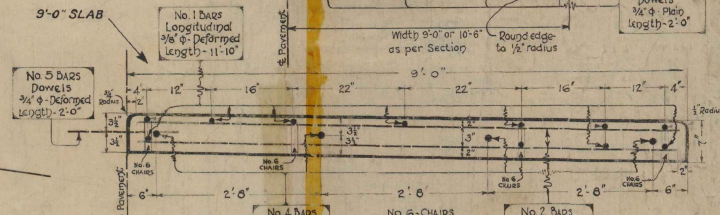
SECTION R.C.6
21' PAVEMENT

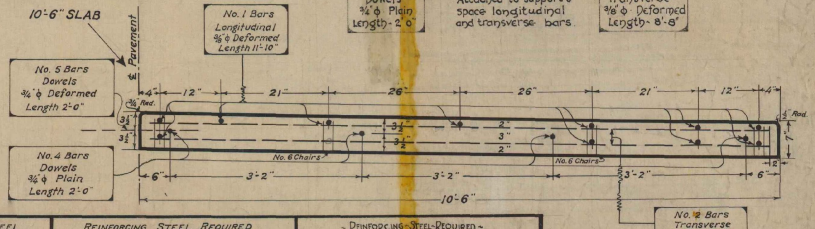
SECTION AREA - 12.25 SQ. FT.

For details of Transverse Expansion Joint, see Sheet No. 2

All Concrete in Pavement to be Class A (1:2:4)







REINFORCING STEEL PER 100 SQ. FT. OF PAVEMENT (Exclusive of Dowels and Chairs)	
9'-0 Pavement	10'-6 Pavement
19.5 Pounds	21.1 Pounds

REINFORCING STEEL REQUIRED FOR ONE 4 MAT SLAB 10'-6" WIDE - 44'-6" LONG

No. of Bars	Size	Plain or Deformed	Length	No. Required
No. 1 Bars	3/8" ϕ	Deformed	11'-10"	44
No. 2 Bars	5/8" ϕ	Deformed	10'-2"	34
No. 3 Bars	3/8" ϕ	Deformed	3'-0"	8
No. 4 Bars	3/4" ϕ	Plain	2'-0"	4
No. 5 Bars	3/4" ϕ	Deformed	2'-0"	14+4
No. 6 Chairs				68

Total Reinf. Steel per Cu. Yd. of Conc., exclusive of Chairs 36.44 lbs.

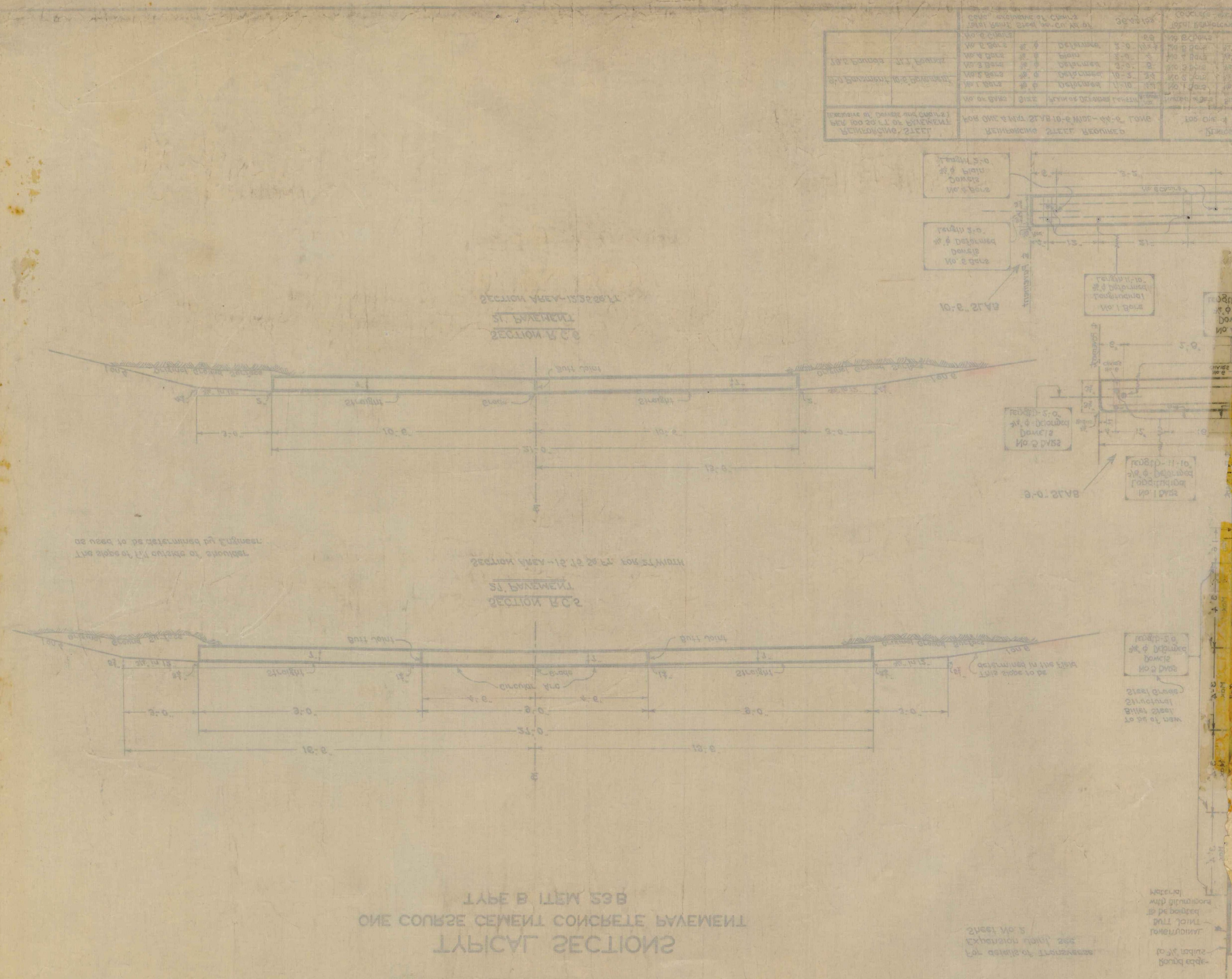
REINFORCING STEEL REQUIRED FOR ONE 4 MAT SLAB 9'-0" WIDE - 44'-6" LONG

Number of Bars	Size	Plain or Deformed	Length	Number Required
No. 1 Bars	3/8" ϕ	Deformed	11'-10"	44
No. 2 Bars	5/8" ϕ	Deformed	8'-8"	34
No. 3 Bars	3/8" ϕ	Deformed	3'-0"	8
No. 4 Bars	3/4" ϕ	Plain	2'-0"	4
No. 5 Bars	3/4" ϕ	Deformed	2'-0"	14+4
No. 6 Chairs				68

Total Reinforcing Steel per cuyd of Concrete - exclusive of Chairs 40.29 lbs.

Surveyed by	A. A. Doe	July-Aug. 1927
Designed by	H. E. Sargent	
Drawn by	L. T. Hayward	Feb. 1928
Traced by	K. W. Whitney	Feb. 1928
Checked by		

Series No. 115A Filed
Sheet 2A of 123 Sheets



F VERMONT — DEPARTMENT OF HIGHWAYS

F. A. P. NO 115-A. ST. JOHNSBURY - LYNDON

Summary Sheet No 1928

Type of Road CONCRETE MACADAM

STATION TO STATION — LENGTH Feet

INCLUDED IN GOV'T PARTICIPATION — CONCRETE

STA	STA	Length in Feet: 18 FT Wide	20 FT Wide	Misc Widths	Equations +	Equations −	Remarks
413+82.5	441+00			2717.5			413+82.5 27 2717.5
441+00	442+91.1			191.1			441+00 27 191.1
442+91.1	443+42.2	Bridge with	Special Slab	51.1			442+91.1 21 51.1
443+42.2	446+65.0			322.8			443+42.2 21 322.8 446+65.0 21
Totals		26,102.3	9405.5	4580.1	40,087.9 FT. 7.592 MILES		

SECTION NOT INCLUDED IN GOV'T PARTICIPATION

BITUMINOUS MACADAM

STA	STA				
180+00	180+76.5	76.5			
180+76.5	189+15.4		838.9		
189+15.4	200+75.8	1160.4			
200+75.8	205+69.8		494.0		
205+69.8	208+00	230.2			
342+00	343+22	122.0			
344+42.0	345+20.6		78.6		
345+20.6	351+00	579.4			
TOTAL		2168.5	1411.5	—	3580.0 FT

3580.0 FT = 0.678 MILES

~~CONCRETE PAVEMENT~~

~~-5+83.2~~	~~0+00~~	~~-583.2~~	~~583.2 FT~~

~~BRIDGE~~

~~-7+46.7~~	~~-5+83.2~~		~~163.5 FT~~

~~TOTAL GOV'T / NON GOV'T } PARTICIPATION 44,567.9 FT = 8.440 Mi.~~

SECTIONS NOT INCLUDED IN PROJECT

139+22.1	140+76.8	BRIDGE	154.7
343+22	344+42	BRIDGE	120.0
395+80	396+30	RAILROAD	50.0
407+19	413+82.5	BITUMINOUS MACADAM PAVEMENT	663.5
			} 988.2 ft

STATION TO STATION From	To	Included in Gov't Participation: Concrete	Not Included in Gov't Participation: Macadam	Concrete	Bridge	Not Included in Project
-9+00	-7+46.7	—		—	—	—
-7+46.7	-5+83.2	—	—	—		—
-5+83.2	0+00	—	—		—	—
0+00	139+26.2	*13935.6	—	—	—	—
139+22.1	140+76.8	—	—	—	—	
140+76.8	180+00	3923.2	—	—	—	154.7 FT (Bridge)
180+00	208+00	—	2800.0 FT	—	—	—
208+00	342+00	*13,387.1	—	—	—	—
342+00	343+22	—	122.0 FT	—	—	—
343+22	344+42	—	—	—	—	—
344+42	351+00	—	658.0	—	—	120.0 (BRIDGE)
351+00	395+80	4480.0	—	—	—	—
395+60	396+30			—	—	50.0 (Railroad)
396+30	407+19	1089.0	—	—	—	
407+19	413+82.5	—	—	—	—	663.5 (Macadam Street)
413+82.5	446+65.0	3282.5	—	—	—	
		40,087.9 FT.	3580. FT			
		40,087.9 FT	3580 FT			

TOTAL LENGTH OF SECTIONS INCLUDED IN GOV'T PARTICIPATION 40087.9 FT = 7.592 MILES

TOTAL LENGTH OF SECTIONS NOT INCLUDED IN GOV'T PARTICIPATION 3580.0 FT = 0.678 MILES

TOTAL LENGTH OF Contract 43667.9 ft = 8.270 MILES

* INCLUDES CORRECTIONS FOR EQUATIONS

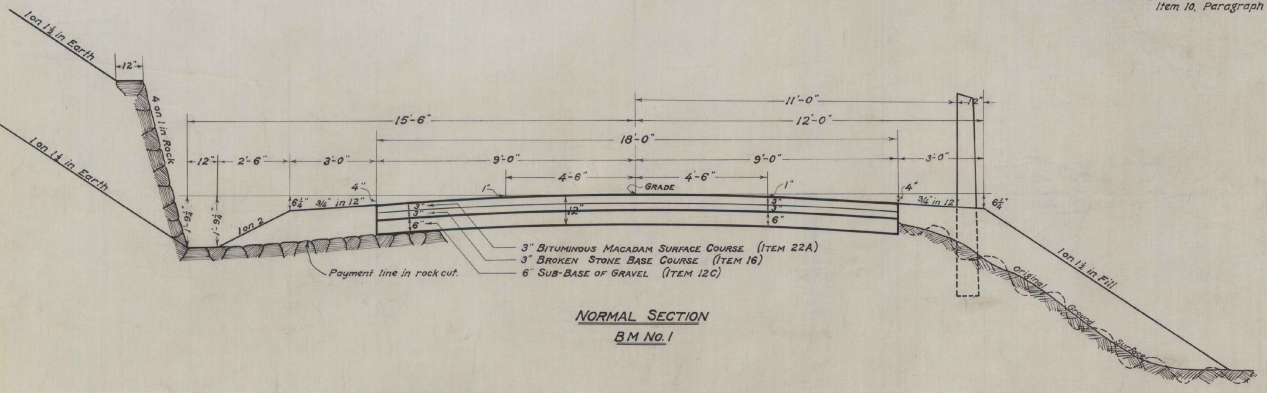
FED. ROAD DIST. NO.	STATE	FED. AID PROJ. NO.	FISCAL YEAR	SHEET NO.	TOTAL SHEETS
3	Vt.	115A	1928	3	123

TYPICAL SECTIONS

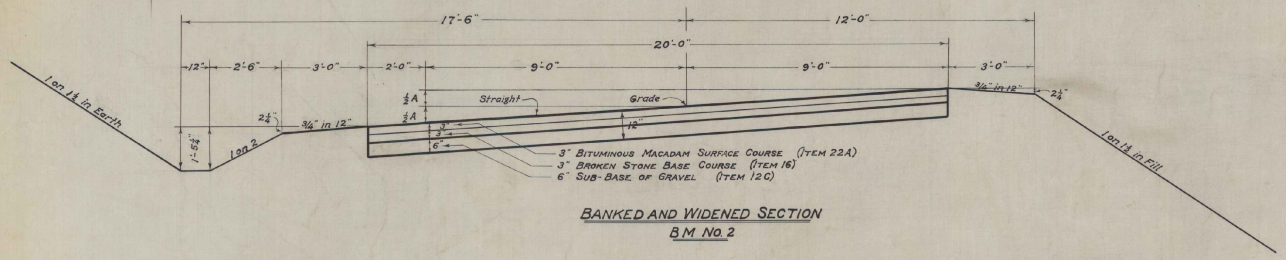
BITUMINOUS MACADAM SURFACE COURSE

When embankments are to be made on a hillside the slope of the original ground on which the embankments are to be placed shall be plowed deeply before the filling is commenced.

See Specifications: Pamphlet B Item 10, Paragraph 10.3



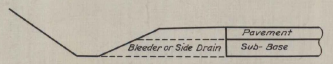
NORMAL SECTION
B.M. No. 1



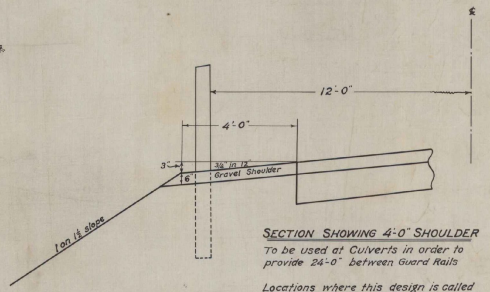
BANKED AND WIDENED SECTION
B.M. No. 2

BLEEDERS OR SIDE DRAINS

Bleeders or Side Drains from Sub-Base of Gravel to be located at frequent intervals to provide proper drainage to side of road.



Width of Drain = 3'-0"
Thickness of Drain = Thickness of Sub-Base
Construction methods and payment to be same as Sub-Base of Gravel. (Item 12C)



SECTION SHOWING 4'-0" SHOULDER

To be used at Culverts in order to provide 24'-0" between Guard Rails

Locations where this design is called for are shown on Cross Section Sheets

VALUE OF "A" IN BANKING

3°-00' to 4°-59' ~ 8 inches
5°-00' to 7°-00 ~ 10 "
7°-01' to 10°-00 ~ 12 "
10°-01' and over ~ 14 "

BANKING AND WIDENING CURVES

Begin to bank and widen curves 100' before reaching P.C. ~ Arrive at full bank and full widening at P.C.
Carry full bank and full widening from P.C. to P.T.
Reach normal section 100' beyond P.T.
Widen all curves greater than 5°00.

SECTION AREAS

ITEM	AREAS	NORMAL Sq. Ft.	WIDENED Sq. Ft.
22A	3" Bituminous Macadam Surface Course	4.5	5.0
16	3" Broken Stone Base Course	4.5	5.0
12C	6" Sub-Base of Gravel	9.0	10.0

Surveyed by	A.A. Doe	July-Aug. 1927
Designed by	H.E. Sargent	
Drawn by	L.T. Hayward	Feb. 1928
Traced by	K.W. Whitney	Feb. 1928
Checked by		
Series	No. 115A	Filed
	Sheet 3 of 123 Sheets	

FED. ROAD DIST. NO.	STATE	FED. AID PROJ. NO.	FISCAL YEAR	SHEET NO.	TOTAL SHEETS
9	VT.	77.5A	1928	5	123

WOOD GUARD RAIL REQUIRED on RIGHT

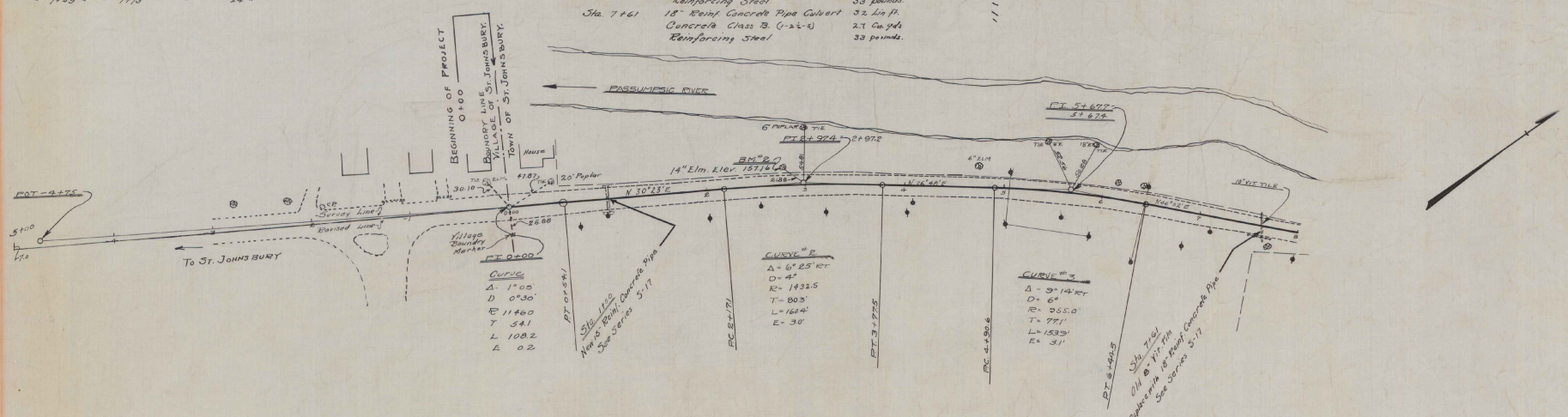
Sta. 0+88 to Sta. 1+12 Length 24 ft.
" 7+49 " 7+73 " 24 "

CABLE GUARD RAIL REQUIRED on LEFT

Sta. 0+88 to Sta. 8+00 Length 712 ft.

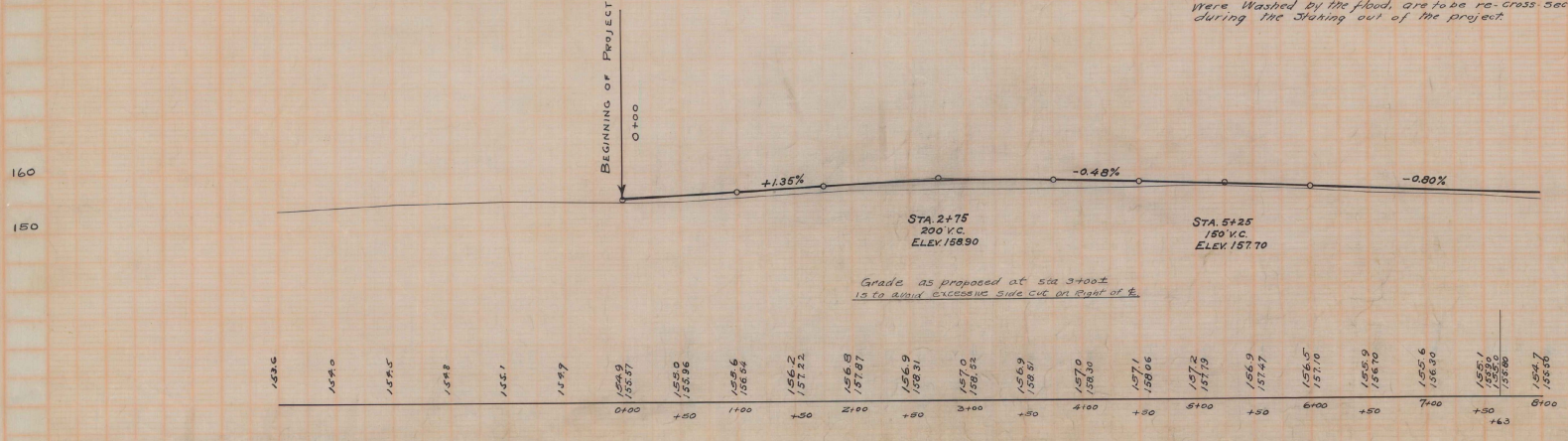
NEW CULVERTS REQUIRED

Sta. 1+00 -	15" Reinf. Concrete Pipe Culvert	32 Lin ft
	Concrete Class B. (1-2½-4)	2.1 Cu. Yds.
	Reinforcing Steel	33 pounds.
Sta. 7+61	18" Reinf. Concrete Pipe Culvert	32 Lin ft.
	Concrete Class B. (1-2½-4)	2.7 Cu. Yds
	Reinforcing Steel	33 pounds.



The Topography as Shown on Certain Sheets May be in Error in regard to Conditions as they Now are, Due to the flood of 1927.

The Same Conditions also exist in reference to Cross Sections, and those Sections of the project which were Washed by the flood, are to be re-Cross Sectioned during the Shaking out of the project.



BM 2. Spike in trunk 16" Elm. 16' Lt Sta 2+79 Elev 157.16

Series F No. 115 A
Sheet 5 of 123

FED. ROAD DIST. NO.	STATE	FED. AID PROJ. NO.	FISCAL YEAR	SHEET NO.	TOTAL SHEETS
9	VT.	115A	1928	6	123

WOOD GUARD RAIL REQUIRED
ON RIGHT

Sta. 9+38 to Sta.	9+62	Length	24 Lin. ft.
" 15+65 " "	15+89	"	24 "
" 11+44 " "	11+62	"	24 "
" 22+00 " "	24+00	"	200

CABLE GUARD RAIL REQUIRED.
ON LEFT

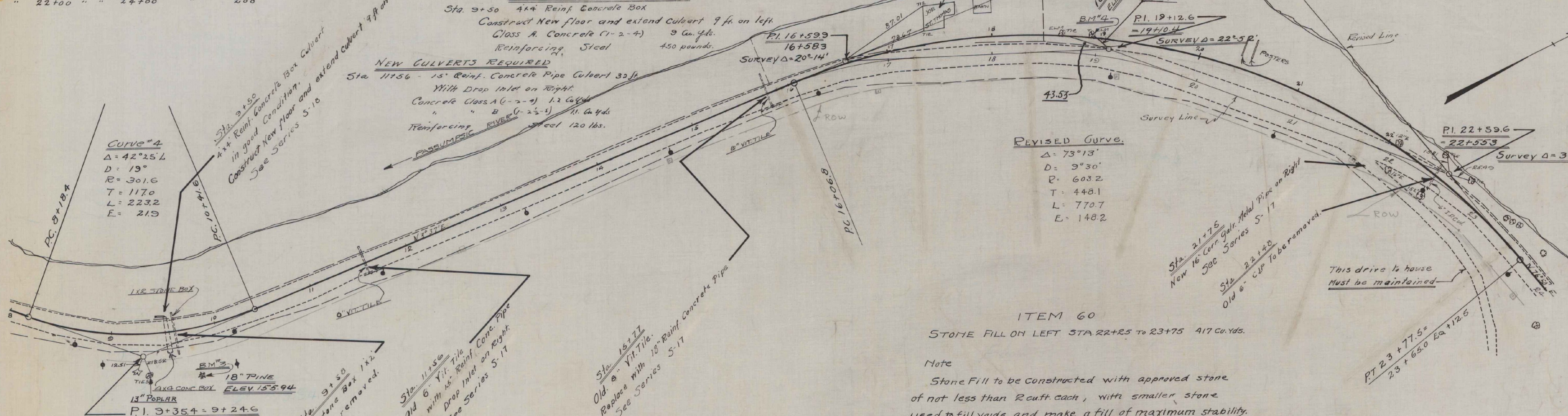
Sta. 8+00 to Sta. 10+00	Length	200 Lin. ft.
" 11+28 " " 24+00	"	1272 " "

NEW CULVERTS REQUIRED
Sta. 15+77 - 18" Reinf. Concrete Pipe Culvert 40 Lin. ft.
Concrete Class B- (1-2½-5) 2.7 Cu. Yds.
Reinforcing Steel 33 pounds.

CULVERT REPAIRS REQUIRED.
Sta. 9+50 4x4 Reinf. Concrete Box
Construct New floor and extend Culvert 9 ft. on left.
Class A. Concrete (1-2-4) 9 Cu. Yds.
Reinforcing Steel 450 pounds.

NEW CULVERTS REQUIRED
Sta 11+56 - 15" Reinf. Concrete Pipe Culvert 32 ft.
With Drop Inlet on Right.
Concrete Class A (1-2-4) 1.2 Cu. Yds
" " B (1-2½-5) 1.1 Cu. Yds
Reinforcing Steel 120 lbs.

DRIVEWAY CULVERTS REQUIRED.
Sta. 21+75 Right. 16" Corr. galv. Metal Pipe 30 Lin. ft.
Concrete Class B- (1-2½-5) 1.3 Cu. Yds.

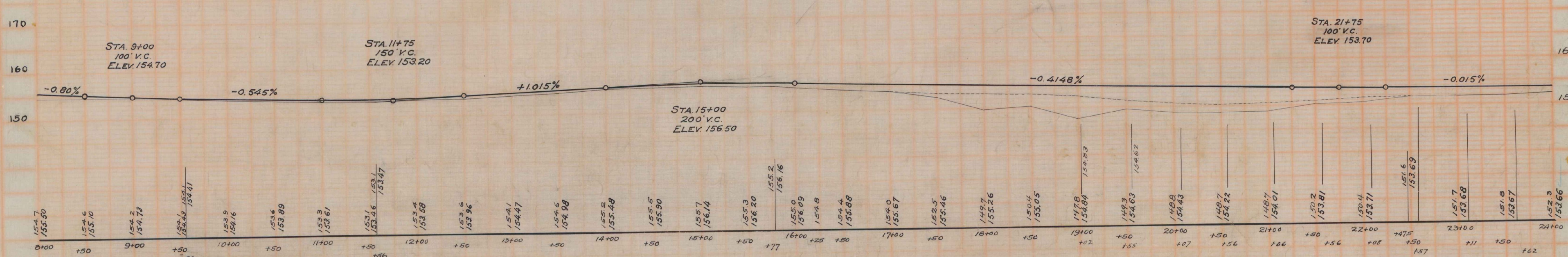


ITEM 60

STONE FILL ON LEFT STA 22+25 to 23+75 417 Cu. Yds.

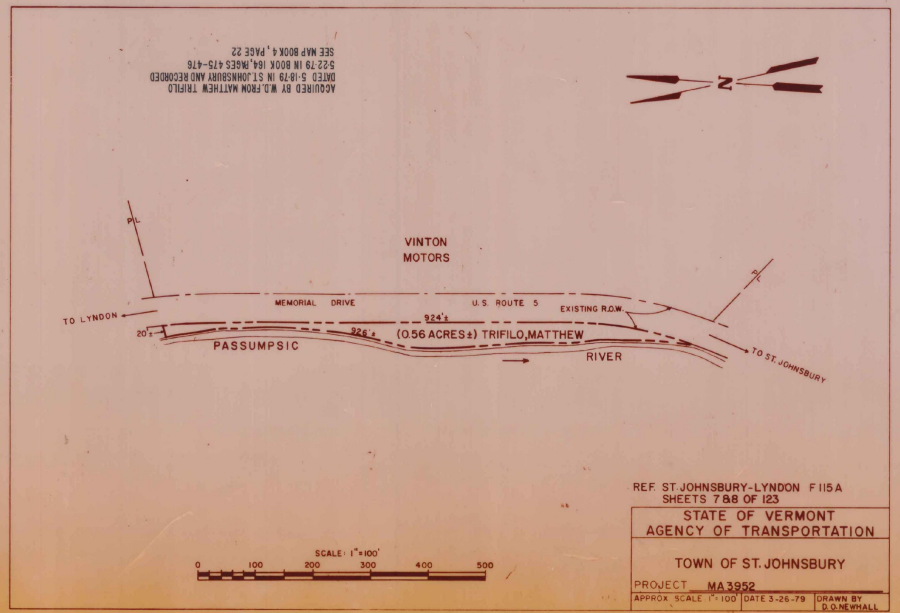
Note

Stone Fill to be constructed with approved stone of not less than 2 cu.ft. each, with smaller stone used to fill voids, and make a fill of maximum stability.



B.M.3 Spike in Root 18" Pine 43 FT RT. STA. 9+84 ELEV. 155.94
B.M.4 - in Trunk 10" ELM LT - 18+96 ELEV. 151.22

Series F. No. 115A
Sheet 6 of 123


ACQUIRED BY W.D. FROM MATTHEW TRIFILO
DATED 5-18-79 IN ST. JOHNSBURY AND RECORDED
5-22-79 IN BOOK 164, PAGES 475-476
SEE MAP BOOK 4, PAGE 22
N
P/L
VINTON
MOTORS
MEMORIAL DRIVE
U.S. ROUTE 5
EXISTING R.O.W.
TO LYNDON
20'±
924'±
926'±
(0.56 ACRES±) TRIFILO, MATTHEW
PASSUMPSIC
RIVER
TO ST. JOHNSBURY
SCALE: 1"=100'
0
100
200
300
400
500
REF. ST. JOHNSBURY-LYNDON F 115 A
SHEETS 7 & 8 OF 123
STATE OF VERMONT
AGENCY OF TRANSPORTATION
TOWN OF ST. JOHNSBURY
PROJECT MA 3952
APPROX. SCALE 1"=100'
DATE 3-26-79
DRAWN BY
D.O. NEWHALL

FED. ROAD DIST. NO.	STATE	FED. AID PROJ. NO.	FISCAL YEAR	SHEET NO.	TOTAL SHEETS
9	VT.	115A	1928	7	123

WOOD GUARD RAIL REQUIRED.

ON LEFT

Sta. 31+74 to Sta. 31+98 Length 24 ft.

ON RIGHT

Sta. 24+79 to Sta. 25+03 Length 24 ft.
" 31+82 " " 32+06 " 24

CABLE GUARD RAIL REQUIRED.

ON LEFT

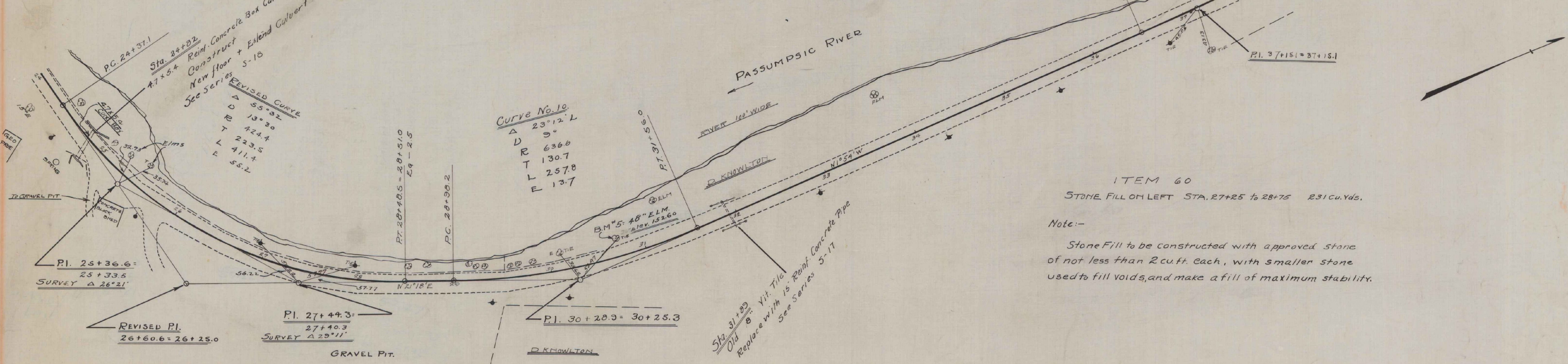
Sta. 24+00 to Sta. 29+76 Length 576 ft.
" 37+00 " " 38+00 " 100 "

NEW CULVERTS REQUIRED.

Sta. 31+89 - 15" Reinf. Concrete Pipe Culvert. 44 ft.
Concrete Class B (1-2½-5) 2.1 Cu. Yds.
Reinforcing Steel 33 lbs.

CULVERT REPAIRS REQUIRED.

Sta. 24+82 4.7 x 5.4 Reinf. Concrete Box.
Construct New floor + Extend Culvert 8 ft on left.
Concrete Class A. (1-2-4) 9 Cu. Yds.
Reinforcing Steel 520 lbs.

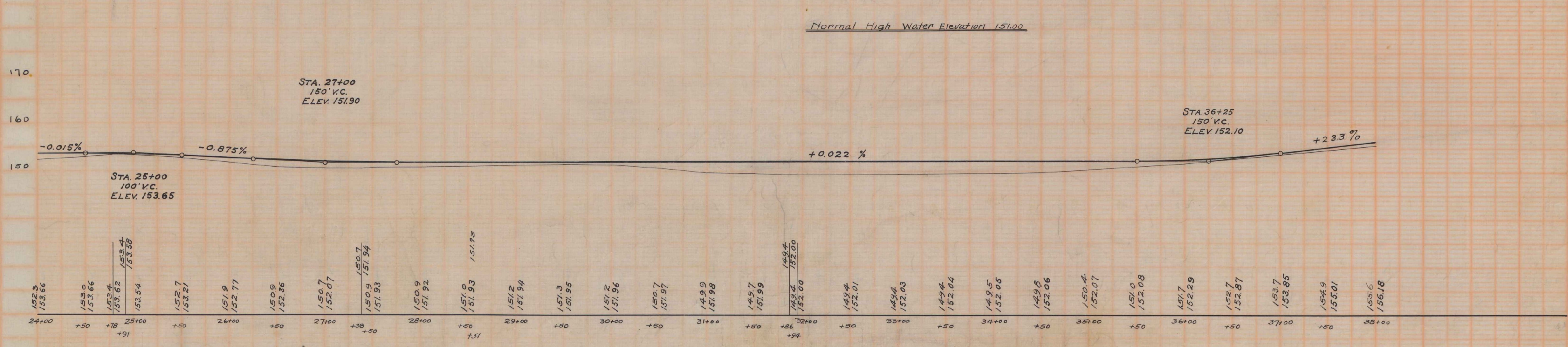


ITEM 60

STONE FILL ON LEFT STA. 27+25 to 28+75 231 Cu. Yds.

Note:-

Stone Fill to be constructed with approved stone of not less than 2 cu. ft. each, with smaller stone used to fill voids, and make a fill of maximum stability.



B.M. 5 SPIKE IN ROOT 48" ELM 17 FT. LEFT STA. 30+71 ELEV. 152.60

Series F No. 115A
Sheet 7 of 123

WOOD GUARD RAIL REQUIRED

	ON RIGHT			
Sta.	38+24	to Sta.	38+48	Length 24 ft.
"	42+08	" "	42+32	" 24 "
"	47+00	" "	47+24	" 24 "
"	50+38	" "	50+62	" 24 ft.

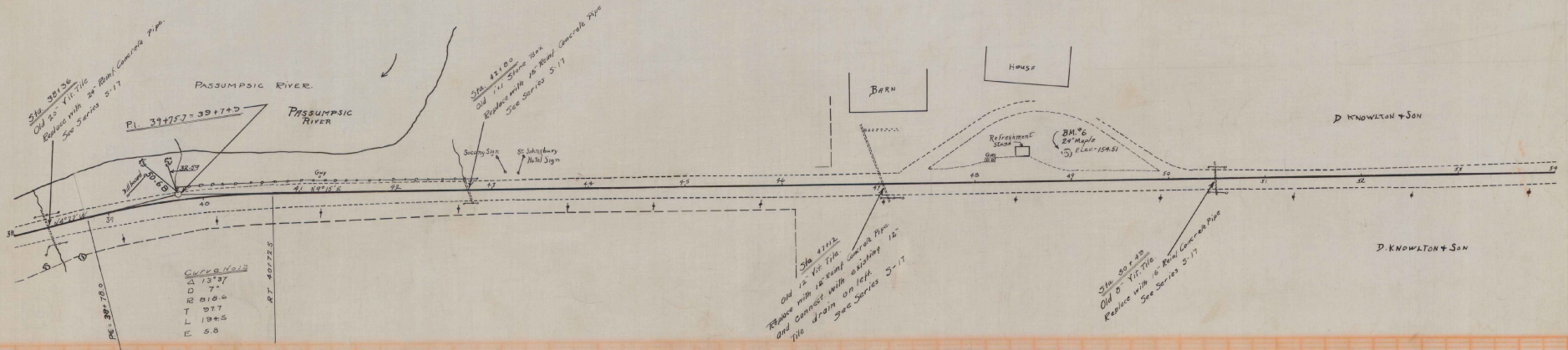
CABLE GUARD RAIL REQUIRED

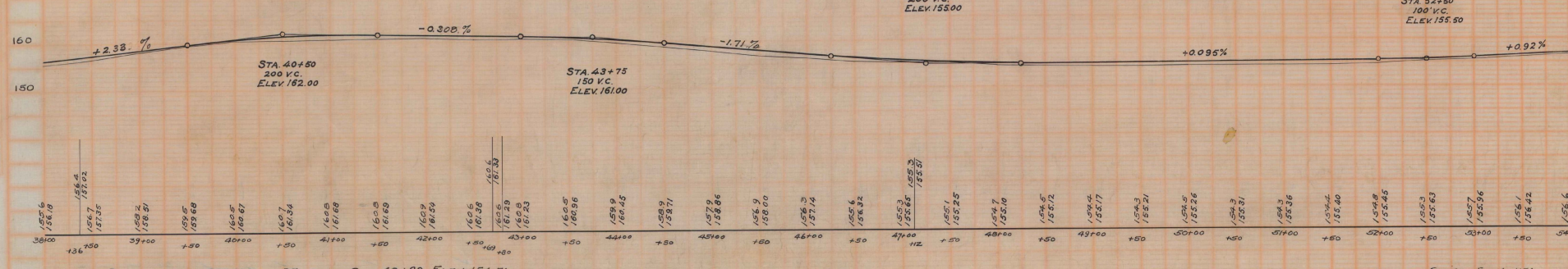
	ON LEFT			
Sta.	38+00	to Sta.	38+84	Length 84 ft.
"	39+84	" "	42+96	" 312 "
"	50+38	" "	51+74	" 136 "

NEW CULVERTS REQUIRED

Sta. 38+36 -	24" Reinf. Concrete Pipe Culvert	48 Lin. ft.
	Concrete Class A (1-2-4)	2.6 Cu. yds.
	Reinforcing Steel	60 lbs.
Sta. 42+80 -	15" Reinf. Concrete Pipe Culvert	32 Lin. ft.
	Concrete Class B (1-2½-4)	2.1 Cu. yds.
	Reinforcing Steel	33 lbs.
Sta. 47+12	12" Reinf. Concrete Pipe Culvert	32 Lin. ft.
	Concrete Class B (1-2½-4)	1.1 Cu. yds.
	Reinforcing Steel	17 lbs.
Sta. 50+49	15" Reinf. Concrete Pipe Culvert	36 Lin. ft.
	Concrete Class B (1-2½-4)	2.1 Cu. yds.
	Reinforcing Steel	33 lbs.

FED. ROAD DIST. NO.	STATE	FED. AID PROJ. NO.	FISCAL YEAR	SHEET NO.	TOTAL SHEETS
9	VT.	115A	1928	8	123





B.M 6 SPIKE IN ROOT 24" MAPLE 25 FT. LT. STA 48+99 ELEV. 154.51

FED. ROAD DIST. NO.	STATE	FED. AID PROJ. NO.	FISCAL YEAR	SHEET NO.	TOTAL SHEETS
3	VT.	115A	1928	9	123

WOOD GUARD RAIL REQUIRED

ON LEFT

Sta. 60+68 to 68+92 Length 24 Lin. ft.

ON RIGHT

Sta.	56+46	to 56+70	Length	24 Lin. ft
"	59+48	" 60+12	"	24 " "
"	63+71	" 63+25	"	24 " "
"	68+68	" 68+92	"	24 " "

CABLE GUARD RAIL REQUIRED.

ON LEFT

Sta. 57+60 to 66+64 Length 304 Lin. ft.

NEW CULVERTS REQUIRED.

Sta. 56+58	15" Reinf. Concrete Pipe Culvert	40 Lin. ft
	Concrete Class A (1-2½-5)	1.1 Cu. yds.
	Reinforcing Steel	17 lbs.
	Vitrified Clay Pipe	44 Lin. ft.
Sta. 60+00	15" Reinf. Concrete Pipe Culvert	32 Lin. ft.
	With Drop Inlet	
	Concrete Class A (1-2-4)	1.0 Cu. yds.
	" " (B. 1-2½-5)	1.1 " "
	Reinforcing Steel	103 lbs.
Sta. 68+80	15" Reinf. Conc. Pipe Culvert	32 Lin. ft.
	Concrete Class B (1-2½-5)	2.1 Cu. yds.
	Reinforcing Steel	33 lbs.

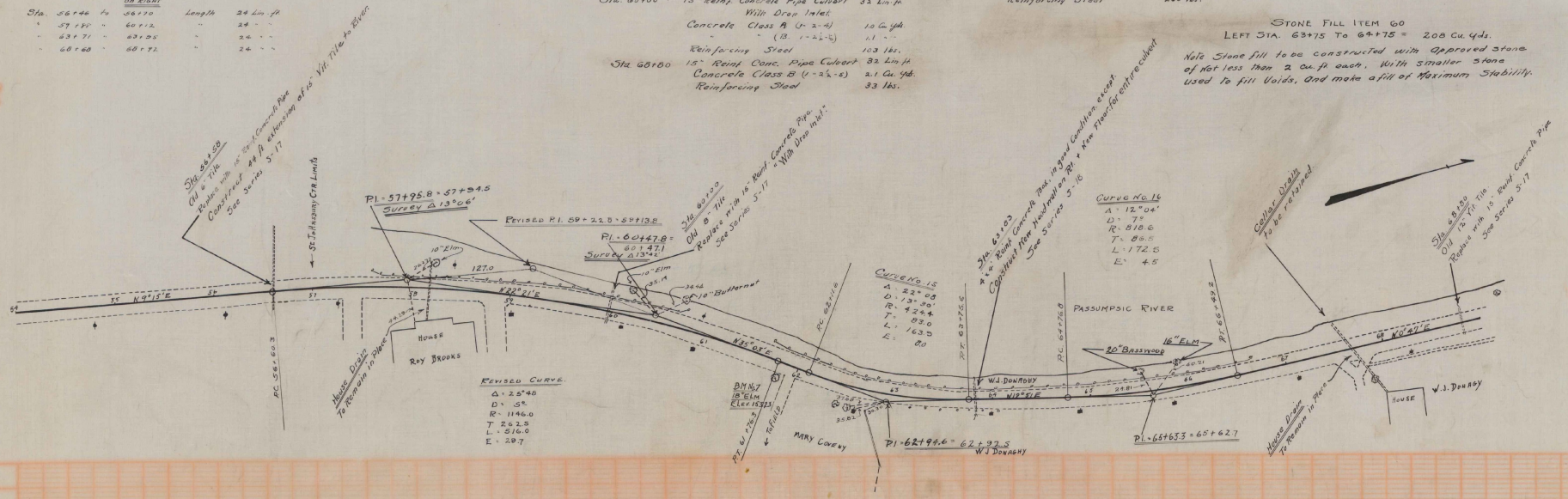
CULVERT REPAIRS REQUIRED.

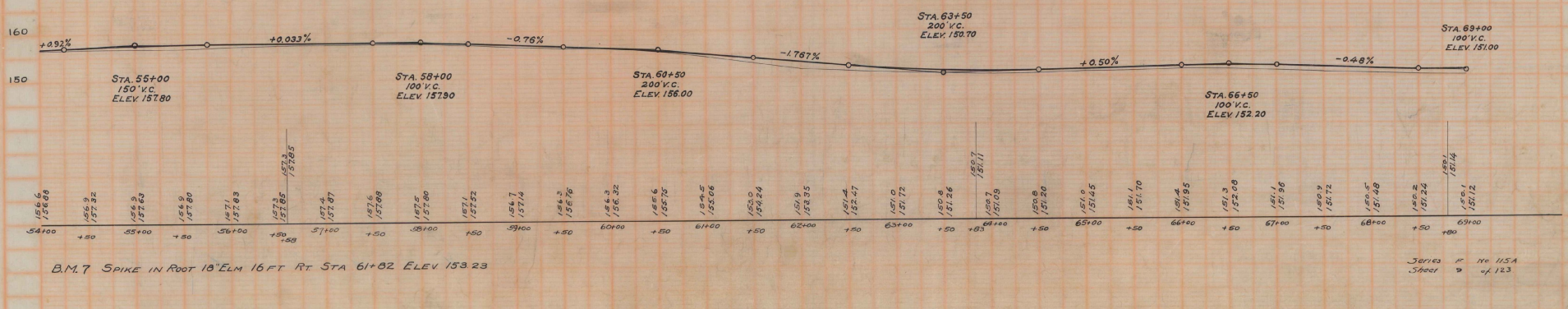
Sta 63+83 - 4'x4' Reinf. Concrete Box.
Construct New Headwall on Rt. & New Floor for entire culvert.
Concrete Class A (1-2-4) 12 Cu. yds.
Reinforcing Steel 240 lbs.

STONE FILL ITEM 60

LEFT STA. 63+75 To 64+75 = 208 Cu. yds.

Note Stone fill to be constructed with approved stone of not less than 2 cu. ft each. With smaller stone used to fill voids, and make a fill of Maximum Stability.





B.M. 7 Spike in Root 18" Elm 16 ft. Rt. Sta 61+82 Elev. 153.23

Series F No 115A
Sheet 9 of 123

WOOD GUARD RAIL REQUIRED.

ON LEFT

Sta 71+04	to Sta 71+28	length	24 ft
"	"	"	"
" 75+86	" " 75+90	"	24 "
" 83+72	" " 83+96	"	24 "

RIGHT

Sta 71+04	to Sta 71+28	Length	24 ft
"	"	"	"
" 83+64	" " 83+88	"	24 "

CABLE GUARD RAIL REQUIRED

ON LEFT

Sta. 77+80 to Sta 81+00 length 320 ft.
To be carried to Bridge

NEW CULVERTS REQUIRED.

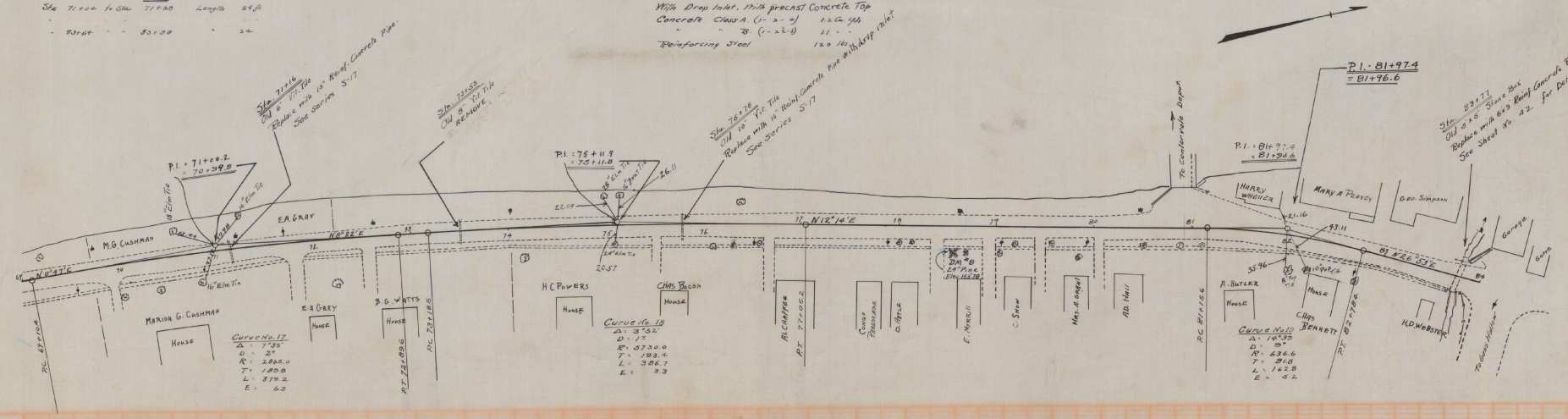
Sta. 71+16 -	15" Reinf. Concrete Pipe Culvert.	32 Lin.ft.
	Concrete Class B. (1-2½-4)	2.1 Cu.yds.
	Reinforcing Steel	33 lbs.

Sta. 75+78	15" Reinf. Concrete Pipe Culvert	36 Lin.ft.
	With Drop Inlet, With precast Concrete Top	
	Concrete Class A. (1-2-4)	1.2 Cu. yds.
	" " B. (1-2½-5)	1.1 " "
	Reinforcing Steel	120 lbs.

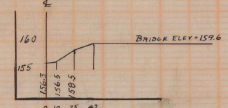
NEW BRIDGE REQUIRED.

Sta. 83+77 - 6'9" Reinf. Concrete Box Culvert
See Sheet No 42 for Details of Construction

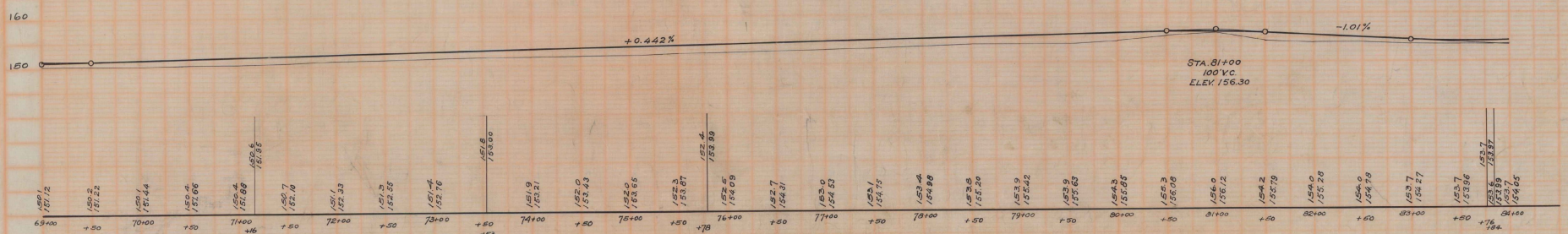
FED. ROAD DIST. NO.	STATE	FED. AID PROJ. NO.	FISCAL YEAR	SHEET NO.	TOTAL SHEETS
8	Vt.	115 A	1923	10	



NORMAL HIGH WATER OVERFLOWS OLD ROAD FROM STA 68+00 TO 80+00 ABOUT 6 TO 10 INCHES



Section Left of Sta 81+00



B.M. 8 SPIKE IN ROOT 24" PINE 25 FT. RT. STA 78+45 ELEV. 155.78

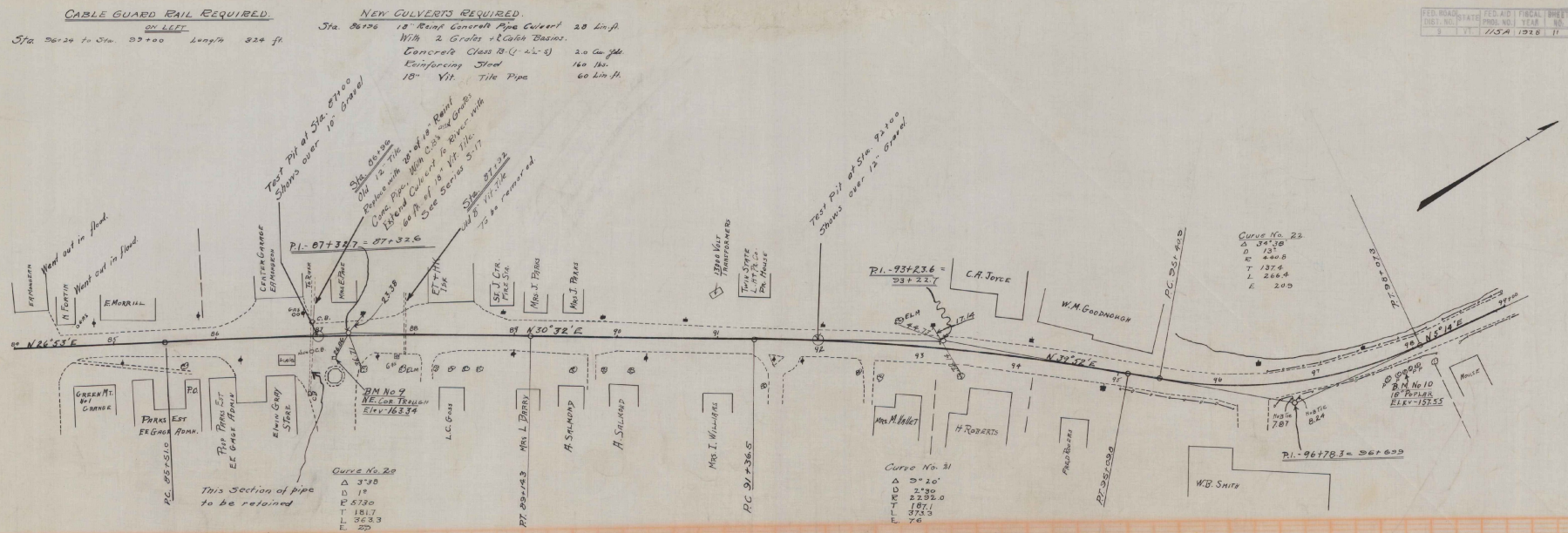
SERIES F No. 115 A
SHEET 10 OF

FED. ROAD DIST. NO.	STATE	FED. AID PROJ. NO.	FISCAL YEAR	SHEET NO.	TOTAL SHEETS
9	VT.	115A	1928	11	123

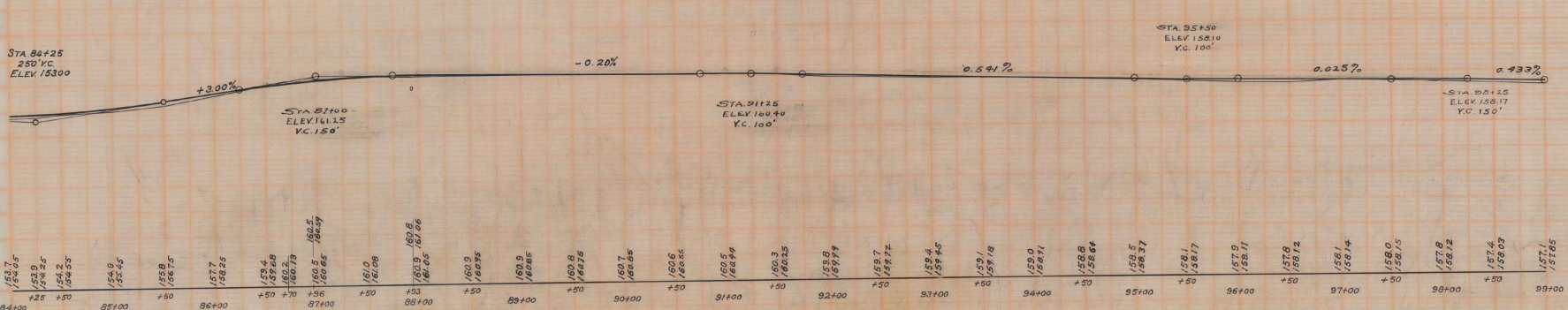
CABLE GUARD RAIL REQUIRED.
ON LEFT
Sta. 96+24 to Sta. 99+00 Length 324 ft.

NEW CULVERTS REQUIRED.

Sta. 86+26	18" Reinf. Concrete Pipe Culvert	28 Lin ft.
	With 2 Grates & Catch Basins.	
	Concrete Class B (1-2½-5)	2.0 Cu. Yds.
	Reinforcing Steel	160 lbs.
	18" Vit. Tile Pipe	60 Lin ft.



Topography through St. Johnsbury Center as shown on these sheets was taken before Flood of Nov. 1927.



B.M. 9 N.E. Cor Water Trough Rt. Sta. 87+17 Elev 163.34
B.M. 10 Spike in Root 18" Poplar Rt. Sta. 97+83 Elev 157.55

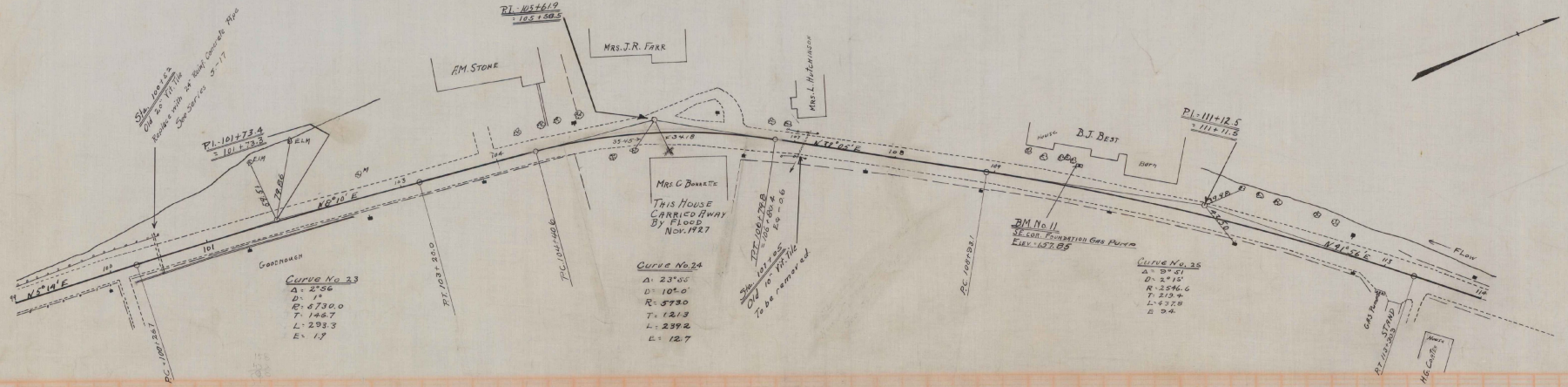
Sheet F No. 115A
Sheet 11 of 123

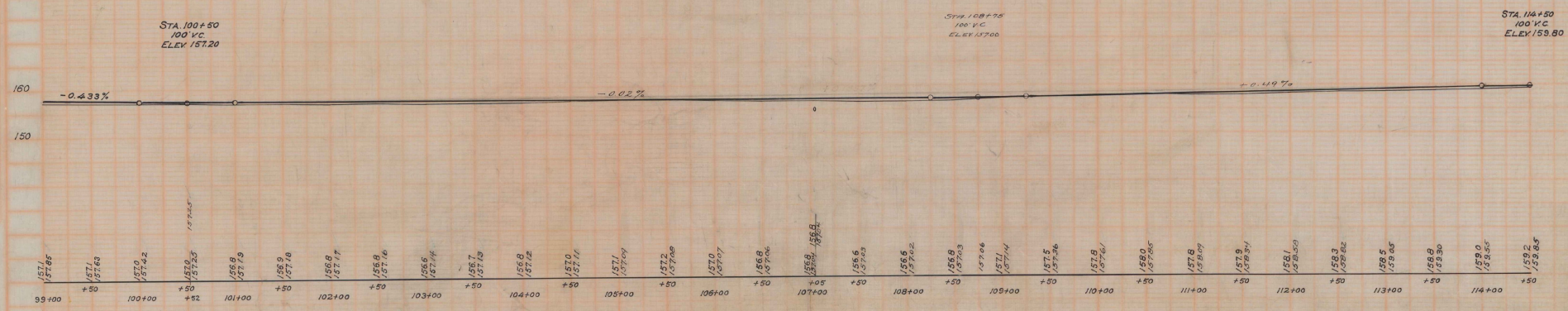
FED. ROAD DIST. NO.	STATE	FED. AID PROJ. NO.	FISCAL YEAR	SHEET NO.	TOTAL SHEETS
8	VT.	115A	1928	12	123

WOOD GUARD RAIL REQUIRED

CABLE GUARD RAIL REQUIRED
24 LEFT
Sta. 99+00 to Sta. 100+64 Length 164 Lin. ft.

NEW CULVERTS REQUIRED
Sta. 100+52 - 24" Reinf. Concrete Pipe Culvert 40 Lin. ft.
Concrete Class A (1-2-4) 2.6 Cu. Yds.
Reinforcing Steel 60 lbs.





BM 11 S.E. Cor. Gas Pump Foundation Lt. Sta. 109+79 Elev 157.85

FED. ROAD DIST. NO.	STATE	FED. AID PROJ. NO.	FISCAL YEAR	SHEET NO.	TOTAL SHEETS
1	VT.	115A	1923	13	123

WOOD GUARD RAIL REQUIRED

ON RIGHT

Sta. 127+47 to Sta. 127+71 Length 24 Lin.ft.

CABLE GUARD RAIL REQUIRED.

ON LEFT

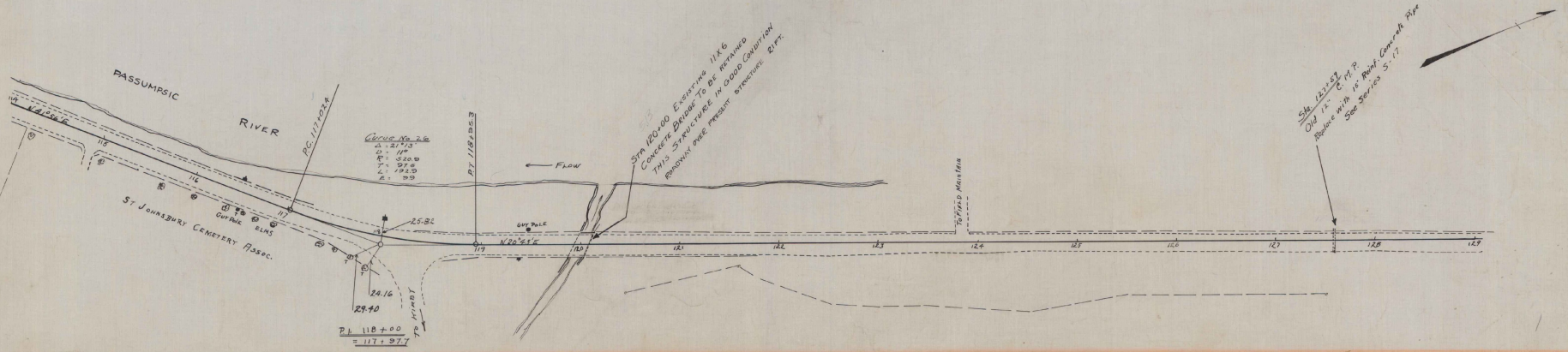
Sta.	114+24	to Sta.	117+20	Length 296 Lin.ft.
"	118+21	" "	123+73	" 552 " "
"	123+37	" "	128+69	" 472 " "

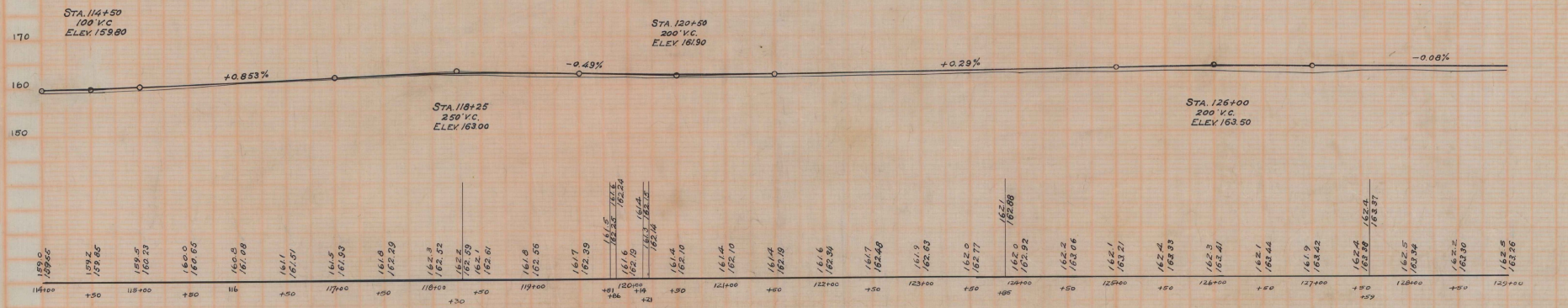
ON RIGHT

Sta. 118+24 to Sta. 121+60 Length 336 Lin.ft.

NEW CULVERTS REQUIRED.

Sta. 127+59-18" Reinf. Concrete Pipe Culvert 32 Lin.ft.
Concrete Class "B" - (1-2½-5) 2.1 Cu. Yds
Reinforcing Steel 38 lbs.





SERIES F No. 115A
SHEET 13 OF 123

FED. ROAD DIST. NO.	STATE	FED. AID PROJ. NO.	FISCAL YEAR	SHEET NO.	TOTAL SHEETS
1	VT.	115A	1928	14	123

WOOD GUARD RAIL REQUIRED.

ON LEFT.

Sta. 138+74	to Sta. 139+14	Length	40 Lin. ft.
" 140+71	" " 141+11	"	40 " "

ON RIGHT

Sta. 129+99	to Sta. 130+55	Length	56 Lin. ft.
" 133+09	" " 133+33	"	24 " "

CABLE GUARD RAIL REQUIRED.

ON LEFT

Sta. 129+57	to Sta. 133+33	Length	376 Lin. ft.

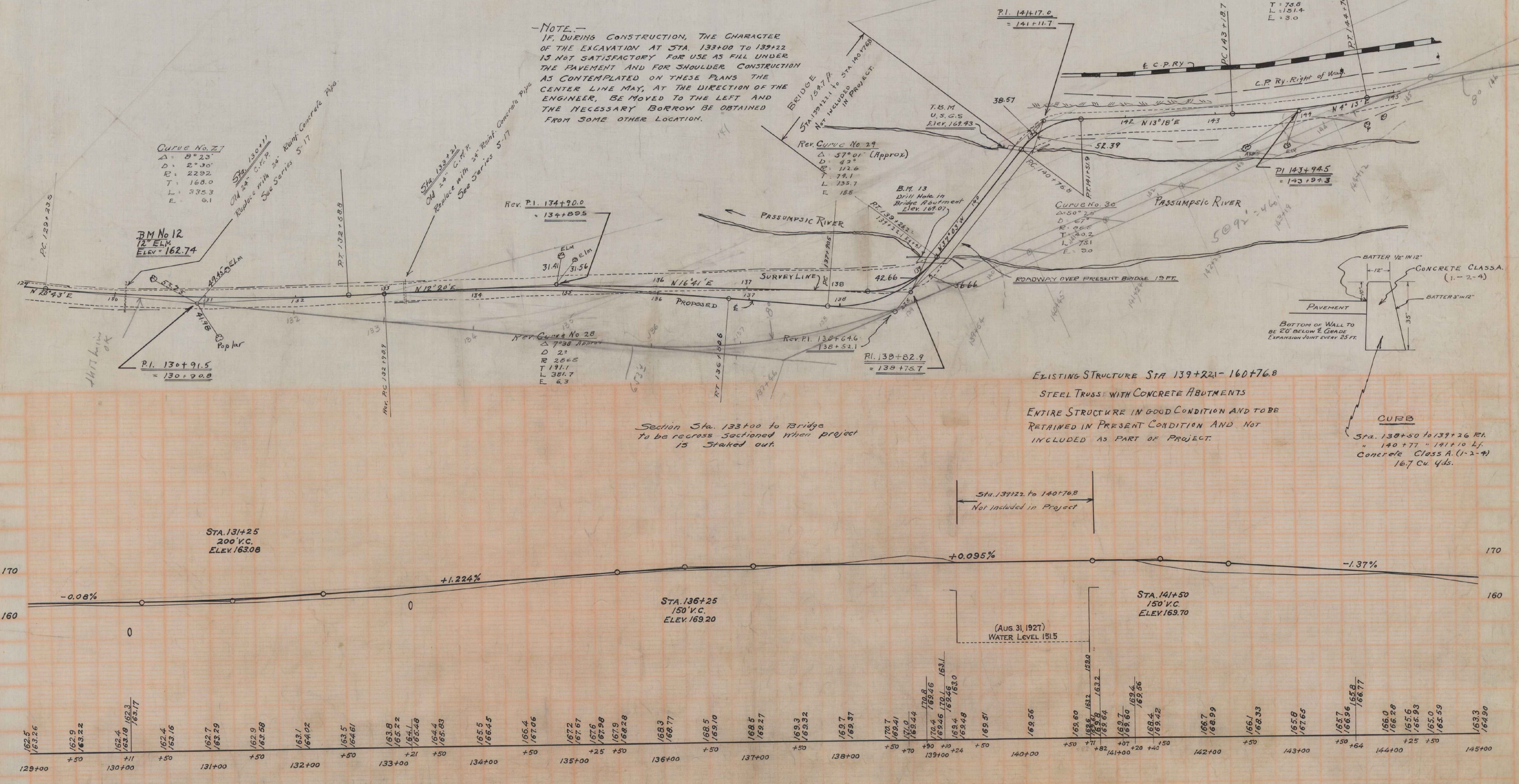
ON RIGHT

Sta. 140+82	to Sta. 142+50	Length	168 Lin. ft.
" 144+24	" " 145+00	"	76 " "

NEW CULVERTS REQUIRED.

Sta. 130+11	- 24" Reinf. Concrete Pipe Culvert	40 Lin. ft.
	Class B. Concrete (1-2½-5)	4.1 Cu. Yds.
	Reinforcing Steel	33 lbs.
Sta. 133+21	24" Reinf. Concrete Pipe Culvert	32 Lin. ft.
	Concrete Class A (1-2-4)	3.5 Cu. Yds.
	Reinforcing Steel	66 lbs.

-NOTE.-
IF, DURING CONSTRUCTION, THE CHARACTER OF THE EXCAVATION AT STA. 133+00 TO 139+22 IS NOT SATISFACTORY FOR USE AS FILL UNDER THE PAVEMENT AND FOR SHOULDER CONSTRUCTION AS CONTEMPLATED ON THESE PLANS THE CENTER LINE MAY, AT THE DIRECTION OF THE ENGINEER, BE MOVED TO THE LEFT AND THE NECESSARY BORROW BE OBTAINED FROM SOME OTHER LOCATION.



EXISTING STRUCTURE STA 139+22.1 - 160+76.8
STEEL TRUSS WITH CONCRETE ABUTMENTS
ENTIRE STRUCTURE IN GOOD CONDITION AND TO BE RETAINED IN PRESENT CONDITION AND NOT INCLUDED AS PART OF PROJECT.

CURB
Sta. 138+50 to 139+26 Rt.
" 140+77 - 141+10 Lt.
Concrete Class A (1-2-4)
16.7 Cu. Yds.

Section Sta. 133+00 to Bridge to be recross sectioned when project is staked out.

B.M. 12 SPIKE IN TRUNK 12" ELM 17 FT. LT. STA. 130+42 ELEV. 162.74
B.M. 13 DRILL HOLE S.W. COR. BRIDGE ABUTMENT ELEV. 169.07

SERIES F No. 115 A
SHEET 14 OF 123

FED. ROAD DIST. NO.	STATE	FED. AID PROJ. NO.	FISCAL YEAR	SHEET NO.	TOTAL SHEETS
9	VT.	115-A	1938	15	123

WOOD GUARD RAIL REQUIRED.

LEFT

Sta. 146+07 to Sta. 146+31 Length 24 ft.
" 155+42 - " 155+66 " 24 "

RIGHT

Sta. 155+12 to Sta. 155+36 Length 24 ft.

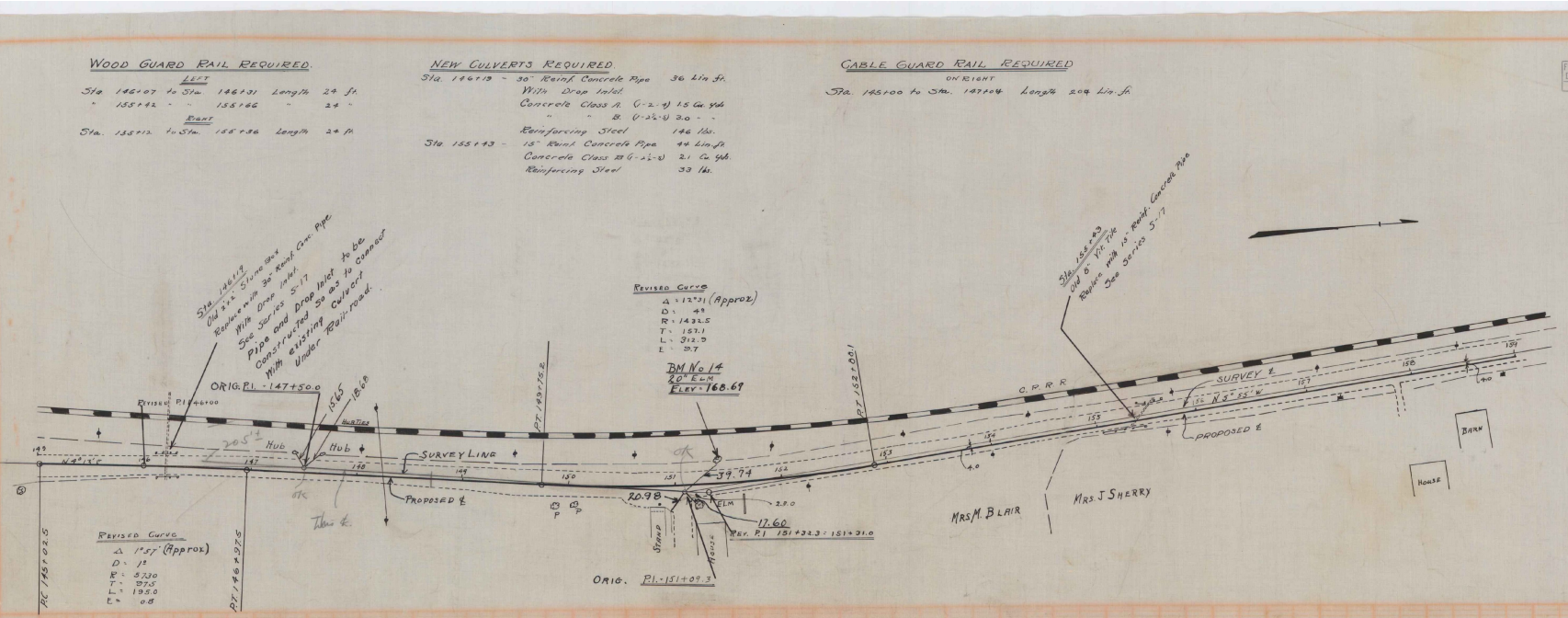
NEW CULVERTS REQUIRED.

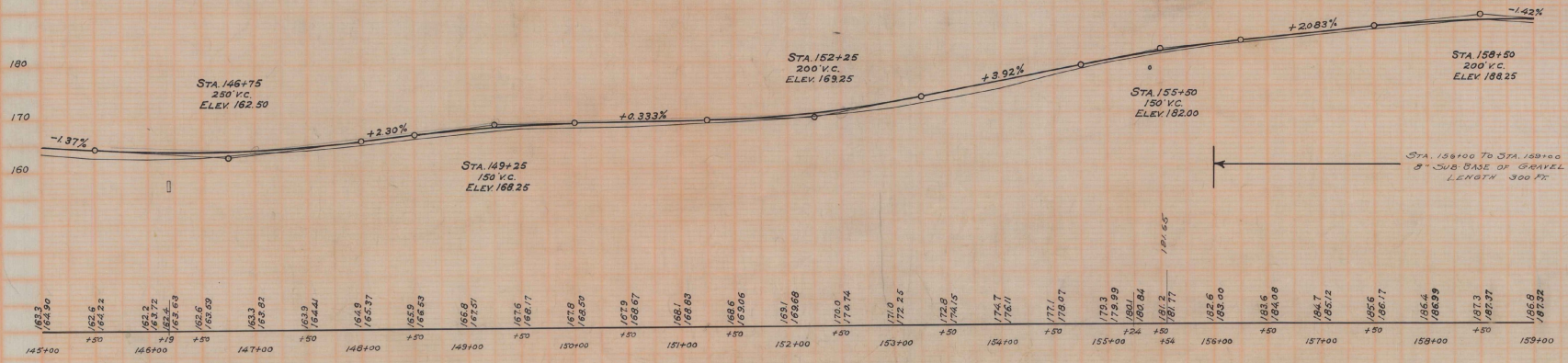
Sta. 146+13 - 30" Reinf. Concrete Pipe 36 Lin ft.
With Drop Inlet.
Concrete Class A (1-2-4) 1.5 Cu. Yds.
" B (1-2½-5) 3.0 - -
Reinforcing Steel 146 lbs.
Sta. 155+43 - 15" Reinf. Concrete Pipe 44 Lin. ft.
Concrete Class B (1-2½-5) 2.1 Cu. Yds.
Reinforcing Steel 33 lbs.

CABLE GUARD RAIL REQUIRED

ON RIGHT

Sta. 145+00 to Sta. 147+04 Length 204 Lin. ft.





B.M. 14. Spike in Root 20" Elm 16 Ft. Lt. Sta. 151+41 Elev 168.69

SERIES F No. 115-A
SHEET 15 OF 123

FED. ROAD DIST. NO.	STATE	FED. AID PROJ. NO.	FISCAL YEAR	SHEET NO.	TOTAL SHEETS
3	VT.	115A	1928	16	123

WOOD GUARD RAIL REQUIRED

Sta.	160+96 to Sta.	161+20	Length	24 ft.
"	165+33 " "	165+57	"	24 "
"	166+33 " "	166+57	"	24 "
"	170+65 " "	170+89	"	24 "
"	173+65 " "	174+09	"	24 "
	ON RIGHT			
Sta.	166+33 to Sta.	166+57	Length	24 ft.

CABLE GUARD RAIL REQUIRED

ON RIGHT

Sta.	160+35 to Sta.	165+55	Length	520 ft.
"	170+00 to Sta.	174+00	"	400 "

NEW CULVERTS REQUIRED

Sta. 161+08 - 15" Reinf. Concrete Pipe 40 ft.
Concrete Class B (1-2½-4) 2.1 Cu. Yds.
Reinforcing Steel 33 lbs.
Sta. 165+41 - 15" Reinf. Concrete Pipe 36 ft.
Concrete Class B (1-2½-4) 2.1 Cu. Yds.
Reinforcing Steel 33 lbs.

NEW CULVERTS REQUIRED

Sta. 166+45 - 18" Reinf. Concrete Pipe 32 Lin. ft.
Concrete Class B (1-2½-4) 2.7 Cu. Yds.
Reinforcing Steel 33 lbs.
Sta. 170+77 - 24" Reinf. Concrete Pipe 28 Lin. ft.
24" Corr. Galv. Metal Pipe 16 " "
With Drop Inlet
Concrete Class A 1-2-4 1.1 Cu. Yds.
Reinforcing Steel 86 lbs.
Sta. 173+93 3'x3' Reinf. Concrete Box Culvert 38 ft. Long.
Concrete Class A (1-2-4) 14.1 Cu. Yds.
Reinforcing Steel 1119 lbs.

Curve No. 35.
Δ = 2°56'
D = 1°
R = 5730.0
T = 146.7
L = 293.3
E = 1.9

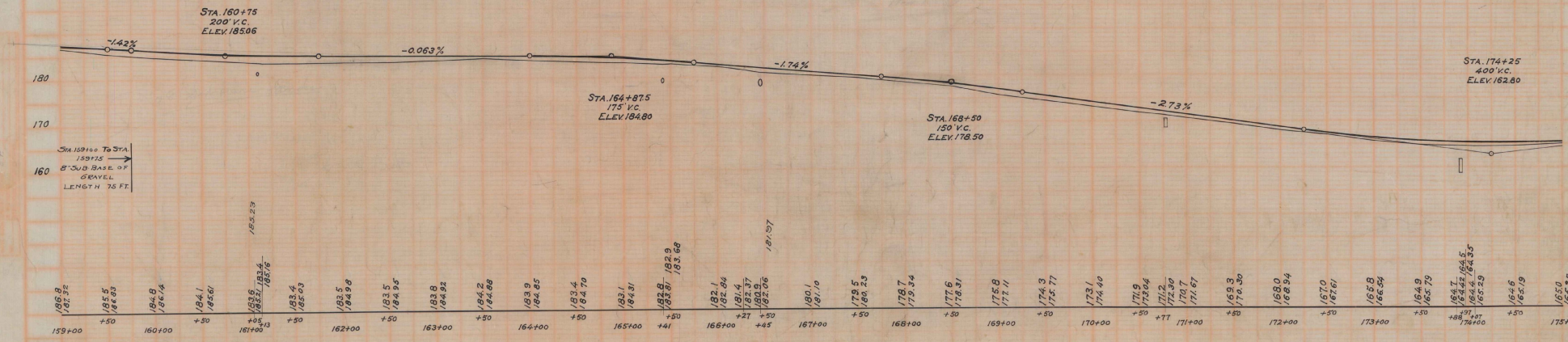
Curve No. 34
Δ = 9°49'
D = 3°30'
R = 1637.1
T = 140.6
L = 280.5
E = 6.0

Curve No. 36
Δ = 12°54'
D = 8°
R = 716.8
T = 81.0
L = 161.3
E = 4.5

Curve No. 37
Δ = 9°33'
D = 6°30'
R = 881.5
T = 73.6
L = 146.9
E = 0.3

Curve No. 38
Δ = 23°17'
D = 15°
R = 382.0
T = 99.8
L = 195.2
E = 12.8

Rock Fill Right Sta. 170+25 to 173+25
This Fill to be Constructed from Rock Excavation Sta. 215+00 ± and Sta. 310+00 ± and to be paid for under Item Solid Rock Excavation, Item 10.



B.M. 15 N.E. Cor. Foundation Signal Tower #648 Lt. Sta. 160+28 Elev 188.58
B.M. 16 Spike in Root 17" Elm 16 Ft. Rt. Sta. 165+95 Elev 181.27

PARCEL	INSTRUMENT	DATE	GRANTOR	GRANTEE	RECORDED ST JOHNSBURY BOOK	PAGE	DATE	REMARKS
A	WDGE	10-13-43	EMMA B GREENWOOD	ST OF VT	88	249	10-20-43	

FED. ROAD DIST. NO.	STATE	FED. AID PROJ. NO.	FISCAL YEAR	SHEET NO.	TOT. NO. SHEETS
V	VT	113A	'43	17	123

WOOD GUARD RAIL REQUIRED

ON LEFT

Sta 176+84	to Sta.	177+08	Length	24 ft.
" 181+53	"	181+77	"	24 ft.
" 183+00	"	183+24	"	24 ft.

ON RIGHT

Sta. 180+00	to Sta.	180+40	Length	40 ft.

CABLE GUARD RAIL REQUIRED

ON RIGHT

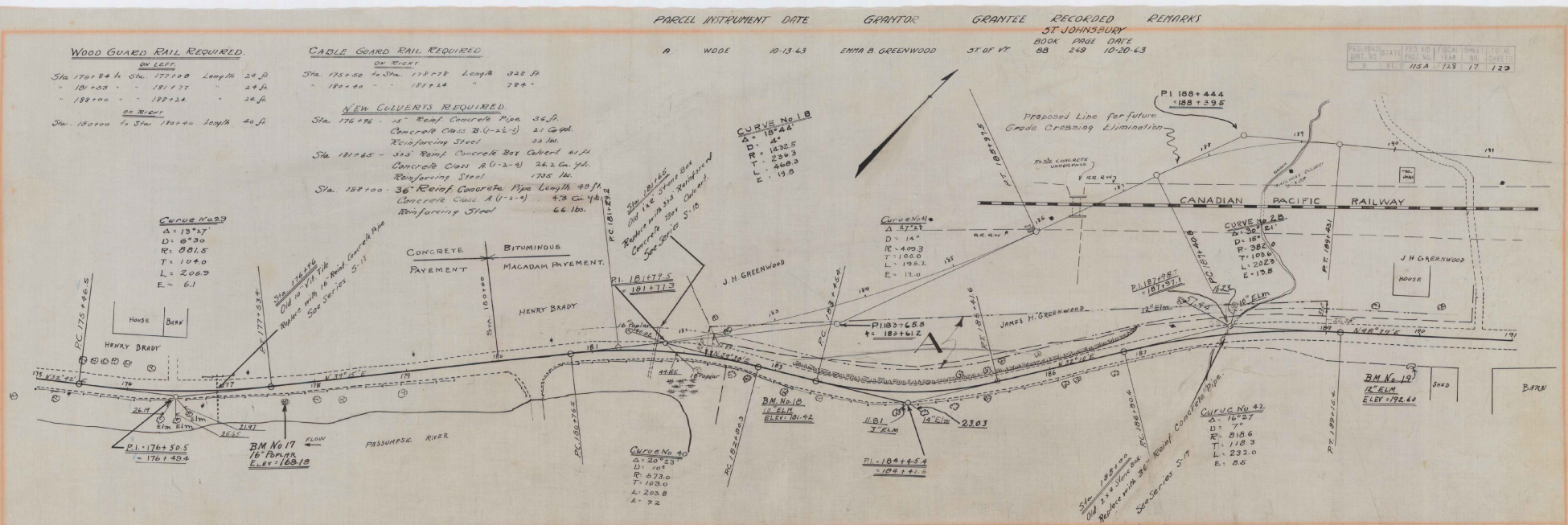
Sta. 175+50	to Sta.	179+78	Length	428 ft.
" 180+40	"	183+24	"	784 "

NEW CULVERTS REQUIRED

Sta. 176+76 - 18" Reinf. Concrete Pipe 36 ft.
Concrete Class B (1-2½-5) 2.1 Cu yd.
Reinforcing Steel 33 lbs.

Sta. 181+65 - 3x3' Reinf. Concrete Box Culvert 61 ft.
Concrete Class A (1-2-4) 26.2 Cu. yds.
Reinforcing Steel 1735 lbs.

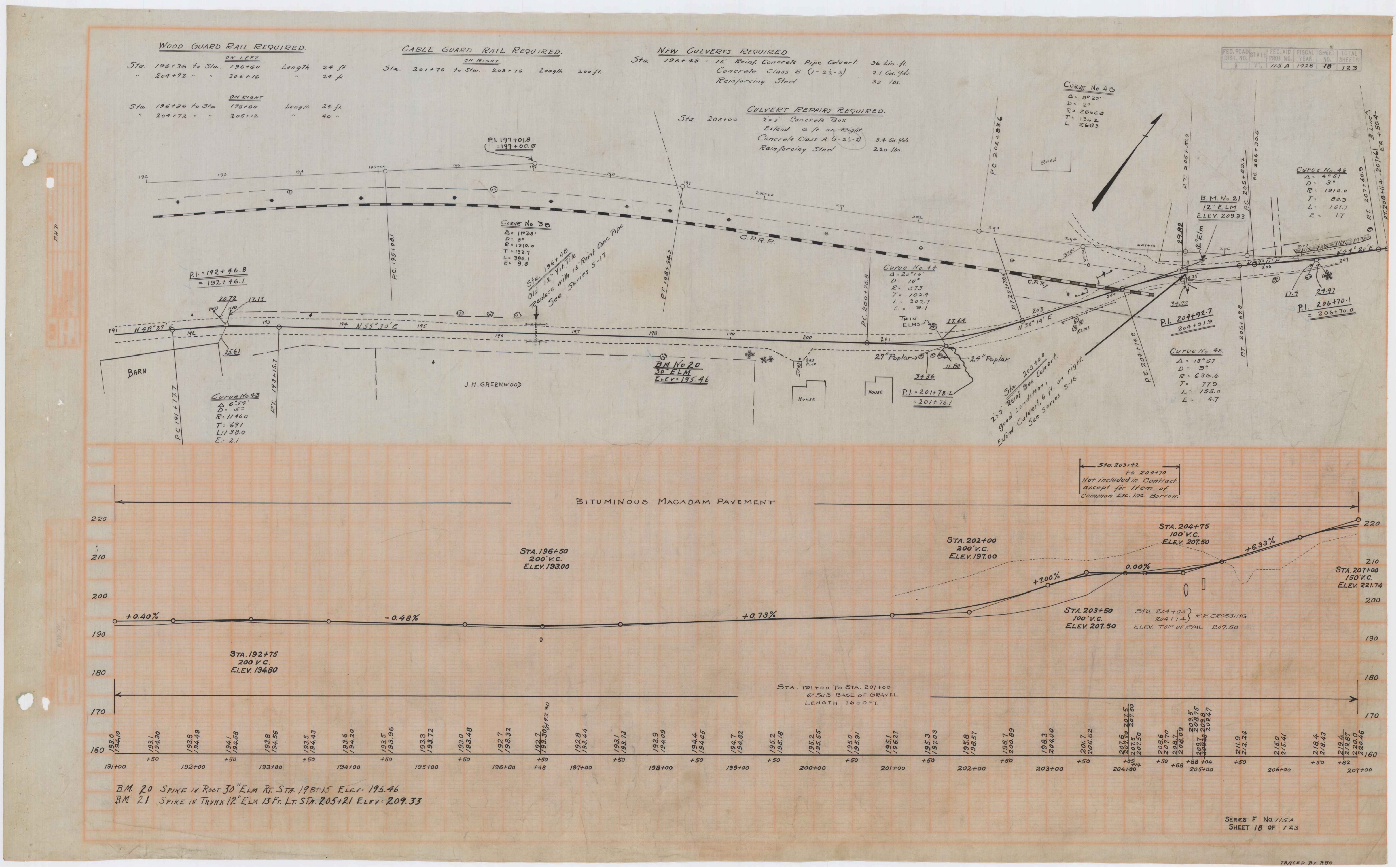
Sta. 188+00 - 36" Reinf. Concrete Pipe Length 40 ft.
Concrete Class A (1-2-4) 4.3 Cu. yds.
Reinforcing Steel 66 lbs.



B.M. 17 Spike in Root 16" Poplar 15' Rt. Sta 177+65 Elev. 168.18
B.M. 18 Spike in Base 10" Elm Rt. Sta. 183+13 Elev: 181.42
B.M. 19 Spike in Root 12" Elm Rt Sta 187+95 Elev. 192.60

SERIES F No 113A
SHEET 17 OF 123

TRACED BY RBG



WOOD GUARD RAIL REQUIRED.
ON LEFT
Sta. 196+36 to Sta. 196+60 Length 24 ft.
" 204+92 " " 205+16 " 24 ft.
ON RIGHT
Sta. 196+36 to Sta. 196+60 Length 24 ft.
" 204+72 " " 205+12 " 40 "
CABLE GUARD RAIL REQUIRED.
ON RIGHT
Sta. 201+76 to Sta. 203+76 Length 200 ft.
NEW CULVERTS REQUIRED.
Sta. 196+48 - 15" Reinf. Concrete Pipe Culvert. 36 Lin. ft.
Concrete Class B. (1-2½-5) 2.1 Cu. Yds.
Reinforcing Steel 33 lbs.
CULVERT REPAIRS REQUIRED.
Sta. 205+00 2'x3' Concrete Box
Extend 6 ft. on Right.
Concrete Class A. (1-2½-5) 3.4 Cu. Yds.
Reinforcing Steel 220 lbs.
FED. ROAD DIST. NO. | STATE | FED. AID PROJ. NO. 115 A | FISCAL YEAR 1928 | SHEET NO. 18 | TOTAL SHEETS 123
P.I. 197+01.8 = 197+00.5
P.I. = 192+46.8 = 192+46.1
P.I. = 201+78.2 = 201+76.1
P.I. 204+92.7 204+91.9
P.I. 206+70.1 = 206+70.0
Curve No 43
Curve No 38
Curve No. 44
Curve No. 45
Curve No 48
Curve No. 46
C.P.R.R.
BARN
J. H. GREENWOOD
House
BM No 20 30" ELM ELEV = 195.46
B.M. No 21 12" ELM ELEV. 209.33
Sta. 196+48 Old 12" Vit. Tile Replace with 15" Reinf. Conc. Pipe See Series 5-17
Sta. 205+00 2x3' Reinf. Box Culvert good condition, Extend Culvert, 6 ft. on right. See Series 5-18
27" Poplar
24" Poplar
TWIN ELMS
N 48°37' E
N 55°30' E
N 35°14' E
BITUMINOUS MACADAM PAVEMENT
Sta. 203+42 to 204+70 Not included in Contract except for Item of Common Exc. Inc. Borrow.
STA. 192+75 200' V.C. ELEV. 194.80
STA. 196+50 200' V.C. ELEV. 193.00
STA. 202+00 200' V.C. ELEV. 197.00
STA. 203+50 100' V.C. ELEV. 207.50
STA. 204+75 100' V.C. ELEV. 207.50
STA. 207+00 150' V.C. ELEV. 221.74
+0.40%
-0.48%
+0.73%
+7.00%
0.00%
+6.33%
Sta. 204+05 204+14 R.R. CROSSING
ELEV. TOP OF RAIL 207.50
STA. 191+00 TO STA. 207+00
6" SUB-BASE OF GRAVEL
LENGTH 1600 FT.
B.M. 20 SPIKE IN ROOT 30" ELM RT. STA. 198+15 ELEV. 195.46
B.M. 21 SPIKE IN TRUNK 12" ELM 13 FT. LT. STA. 205+21 ELEV. 209.33
SERIES F No. 115A
SHEET 18 OF 123
TRACED BY R.B.G.

FED. ROAD DIST. NO.	STATE	FED. AID PROJ. NO.	FISCAL YEAR	SHEET NO.	TOTAL SHEETS
9	VT.	115A	1928	19	123

WOOD GUARD RAIL REQUIRED

ON LEFT

Sta. 209+98 to Sta. 210+22 Length 24 ft.
" 218+88 " " 219+12 " 24 "

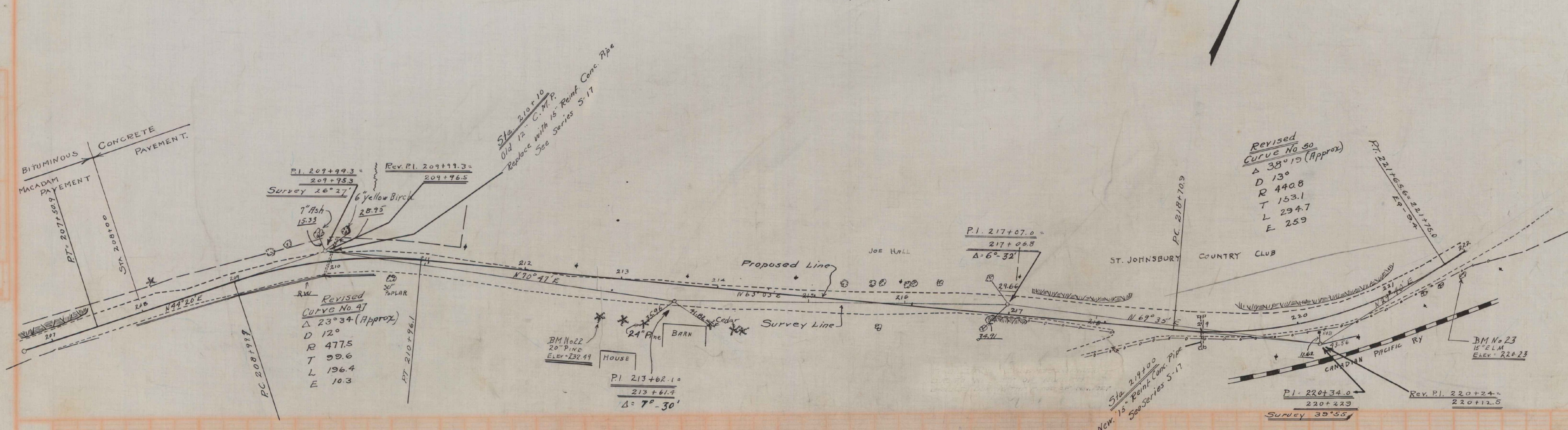
CABLE GUARD RAIL REQUIRED.

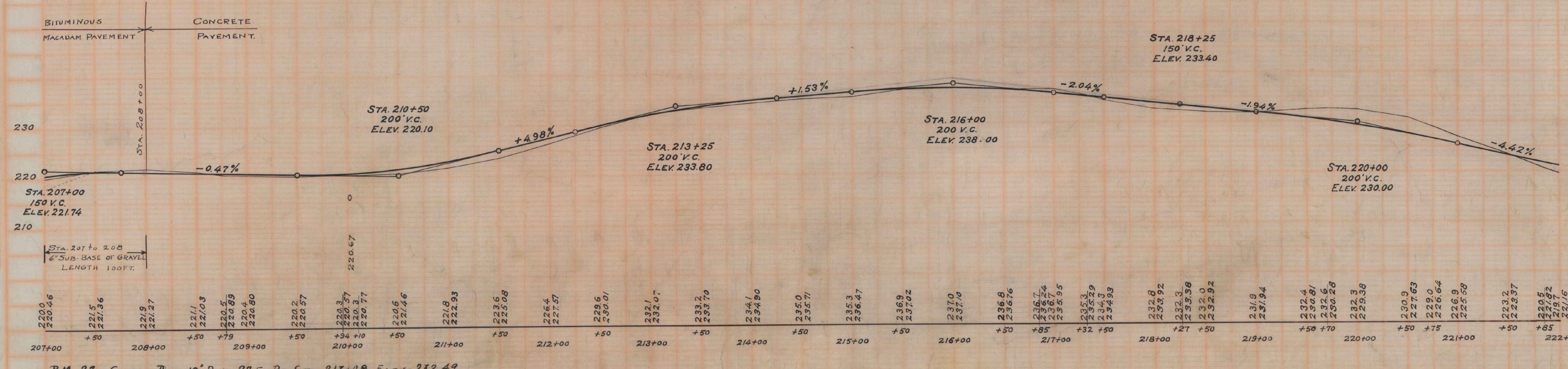
ON RIGHT

Sta. 207+88 to Sta. 211+40 Length 352 ft.
" 217+32 " " 222+20 " 488 "

NEW CULVERTS REQUIRED.

Sta. 210+10	15"	Reinf. Concrete Pipe Culvert.	40 ft.
		Concrete Class B. (1-2½-5)	2.1 Cu. Yds
		Reinforcing Steel	33 lbs.
Sta. 219+00	15"	Reinf. Concrete Pipe Culvert.	40 ft.
		Concrete Class B. (1-2½-5)	2.1 Cu. Yds.
		Reinforcing Steel	33 lbs.





BM 22 Spike in Root 18" Pine 29 Ft. Rt. Sta. 213+08 Elev. 232.49

BM 23 Spike in Trunk 15" Elm 17 Ft. Rt. Sta. 221+85 Elev. 220.23

SERIES F No. 115A
SHEET 19 OF 123

WOOD GUARD RAIL REQUIRED

ON LEFT

Sta. 225+71 to Sta. 225+95 Length 24 ft.

ON RIGHT

Sta. 225+71 to Sta. 225+95 Length 24 ft.

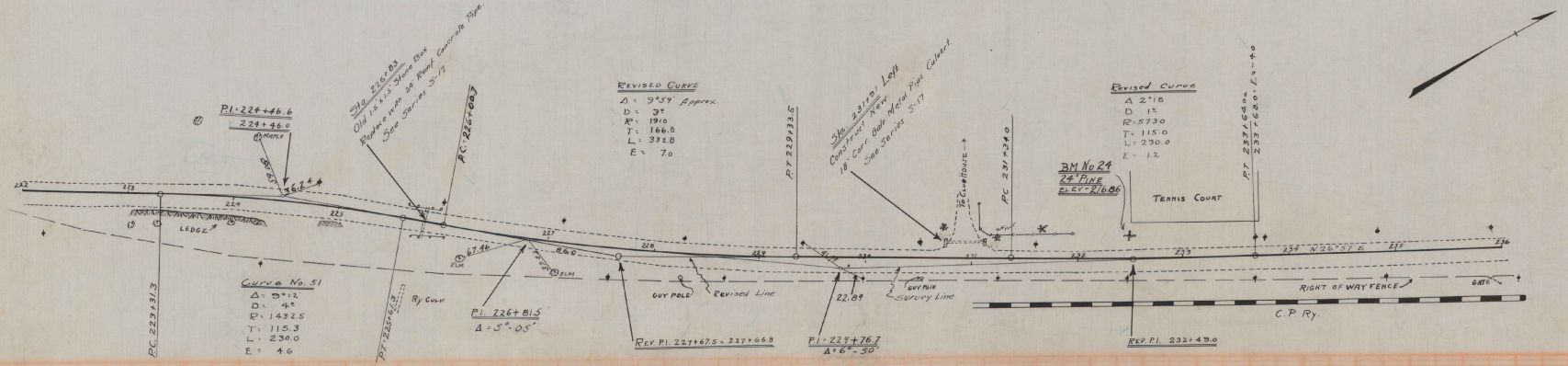
NEW CULVERTS REQUIRED

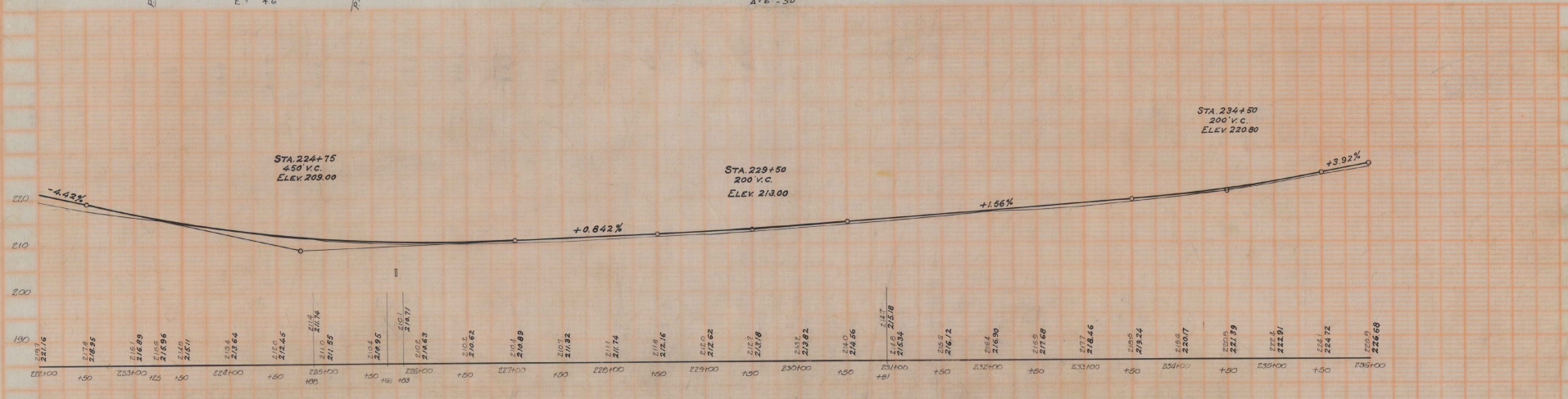
Sta. 225+83 — 24" Reinf. Concrete Pipe Culvert 40 ft.
Concrete Class B-(1-2½-3) 4.1 Cu. yds.
Reinforcing Steel 33 lbs.

DRIVEWAY CULVERTS REQUIRED.

Sta. 231+91 Lt. 18" Corr. Galv. Metal Pipe 36 ft.
Concrete Class B-(1-2½-3) 1.5 Cu. yds.

FED. ROAD DIST. NO.	STATE	FED. AID PROJ. NO.	FISCAL YEAR	SHEET NO.	TO. AL. SHEETS
9	VT.	115A	1928	20	123





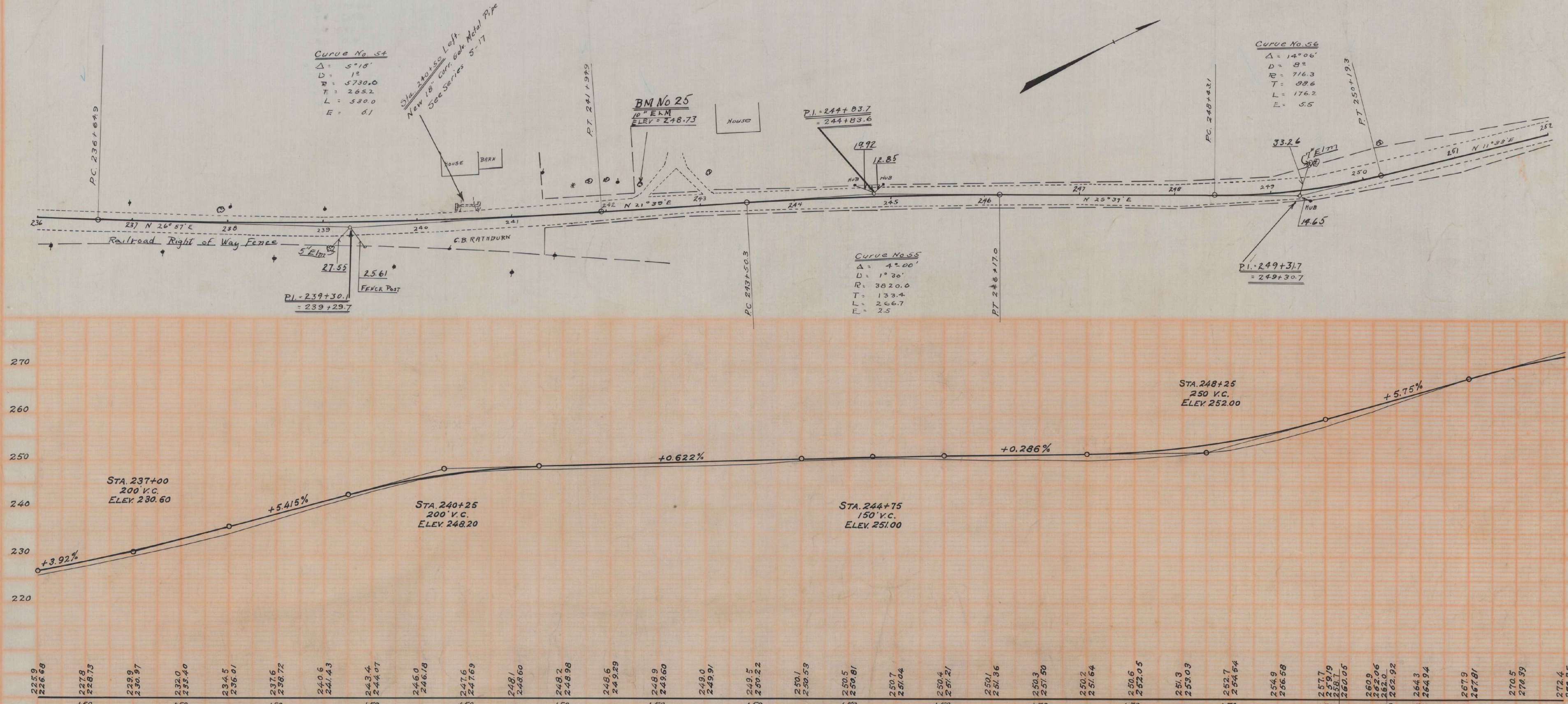
B. M. No. 24. Spike in Root of 24" Pine. Right of Sta. 232+49 Elev. 216.86

SERIES F. No. 115A
SHEET 20 OF 123

FED. ROAD DIST. NO.	STATE	FED. AID PROJ. NO.	FISCAL YEAR	SHEET NO.	TOTAL SHEETS
9	VT.	115A	1928	21	123

DRIVEWAY CULVERTS REQUIRED.

Sta 240+50 Lt. 18" Corr. Galv. Metal Pipe Culvert. 24 ft.
Concrete Class B- (1-2½-5) 1.5 Cu. Yds.



B.M. No. 25 Spike in trunk of 10" Elm. Left of Sta. 242+37 Elev. 248.73

SERIES F No. 115A
SHEET 21 OF 123

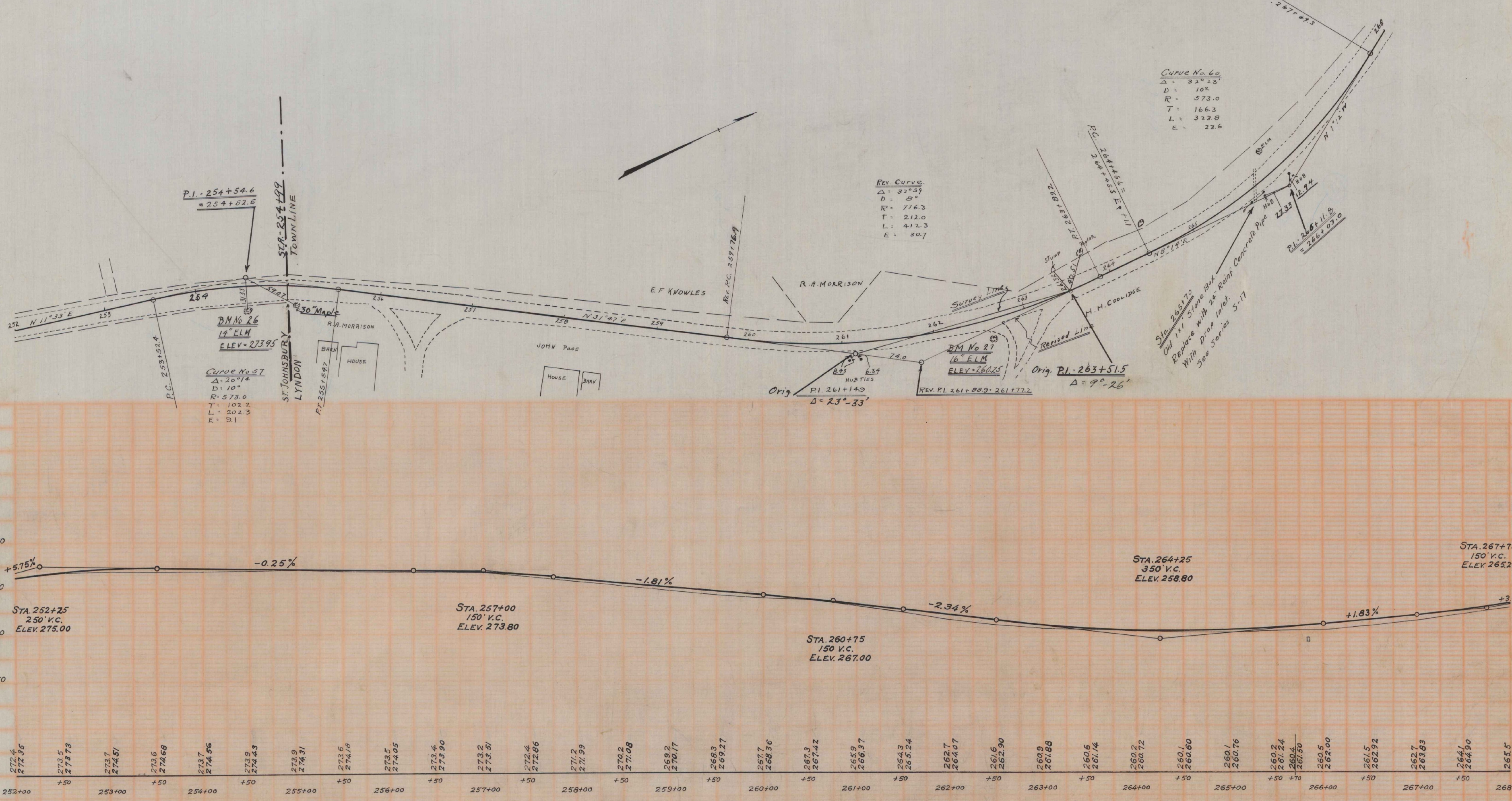
FED. ROAD DIST. NO.	STATE	FED. AID PROJ. NO.	FISCAL YEAR	SHEET NO.	TOTAL SHEETS
9	VT.	115A	1928	22	123

WOOD GUARD RAIL REQUIRED.
ON LEFT
Sta. 265+58 to Sta. 265+82 Length 24 ft.

CABLE GUARD RAIL REQUIRED.
ON RIGHT
Sta. 265+15 to Sta. 268+75 Length 360 ft.

NEW CULVERTS REQUIRED.
Sta. 265+70 - 24" Reinf. Concrete Pipe Culvert. 32 ft. With Drop Inlet.

Concrete Class A. (1-2½-5)		1.0 Cu.Yd.
" " B. (1-2-4)		2.1 " "
Reinforcing Steel		103 lbs.



B.M. No. 26 Spike in trunk of 14" Elm. Right of Sta. 254+54 Elev. 273.95
B.M. No. 27 Spike in trunk of 16" Elm Right of Sta. 262+61 Elev. 260.25

SERIES F No. 115A
SHEET 22 OF 123

FED. ROAD DIST. NO.	STATE	FED. AID PROJ. NO.	FISCAL YEAR	SHEET NO.	TOTAL SHEETS
8	VT.	115A	1928	23	123

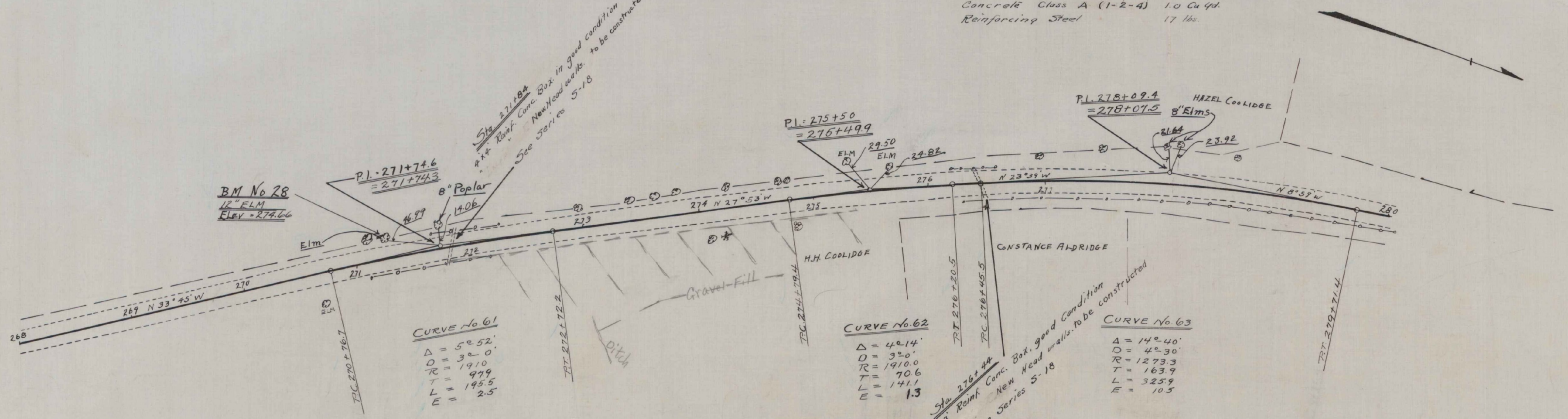
CABLE GUARD RAIL REQUIRED

		ON LEFT			
Sta.	271+76	to 272+80	Length	104	ft
"	275+50	" 276+94	"	144	ft
		ON RIGHT			
Sta.	270+86	to 272+22	Length	136	ft
"	276+38	" 280+00	"	362	"

CULVERT REPAIRS REQUIRED

Sta. 271+04 4'x4' Concrete Box in good Condition
New Head walls to be constructed
Concrete Class A (1-2-4) 10 Cu. Yd.
Reinforcing Steel 17 lbs.

Sta. 276+49 4'x3' Concrete Box in good condition.
New Headwalls to be constructed
Concrete Class A (1-2-4) 10 Cu Yd.
Reinforcing Steel 17 lbs.

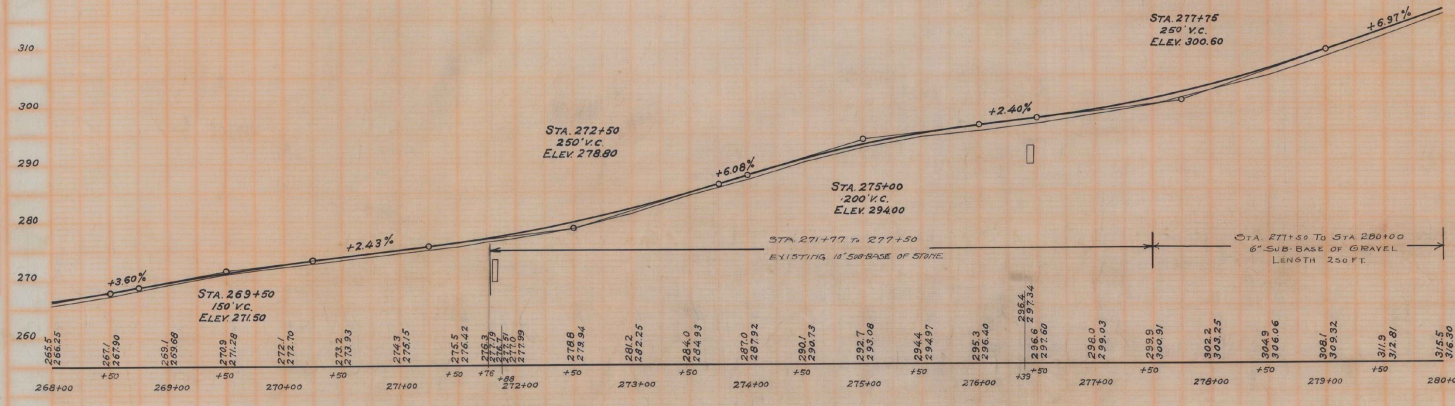


CURVE No. 61
Δ = 5°52'
D = 3°-0'
R = 1910
T = 979
L = 195.5
E = 2.5

CURVE No. 62
Δ = 4°14'
D = 3°0'
R = 1910.0
T = 706
L = 1411
E = 1.3

CURVE No. 63
Δ = 14°40'
D = 4°30'
R = 1273.3
T = 163.9
L = 325.9
E = 10.5

Note- 46' of 6" drain @ Sta. 266+50 ± North of R R X at Sta. 204+10



B. M. No. 28 Spike in Root of 12" Elm. Left of Sta. 271+28 Elev. 274.66

SERIES F No. 115A
SHEET 23 OF 123

FED. ROAD DIST. NO.	STATE	FED. AID PROJ. NO.	FISCAL YEAR	SHEET NO.	TOTAL SHEETS
1	VT.	115A	1938	24	123

WOOD GUARD RAIL REQUIRED.

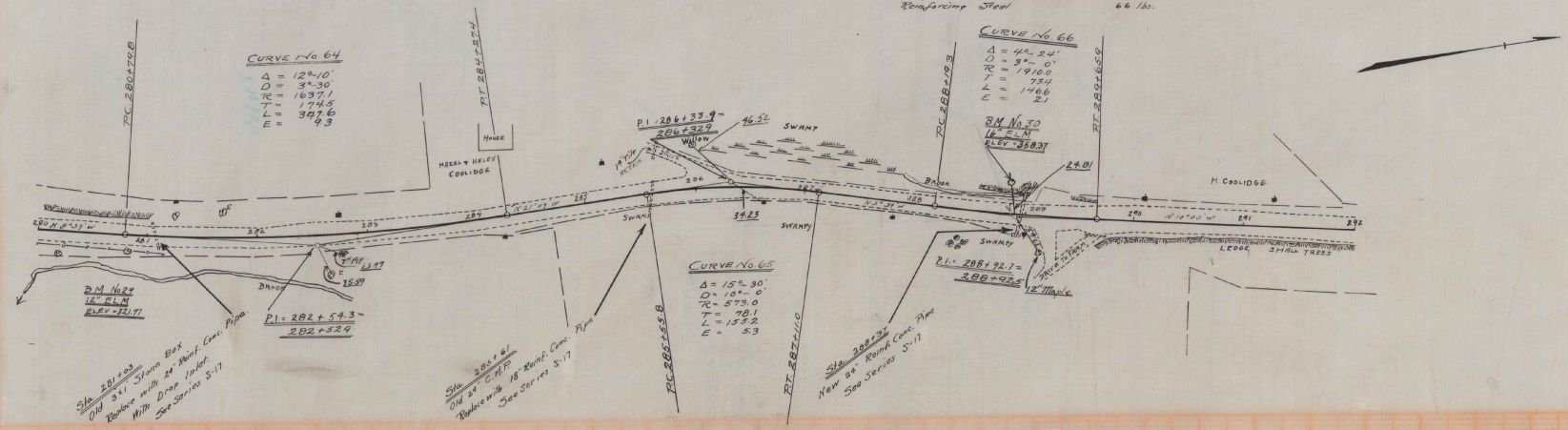
	ON LEFT			
Sta.	285+36 to	285+90	Length	64 ft.
"	280+95 "	281+19	"	24 "

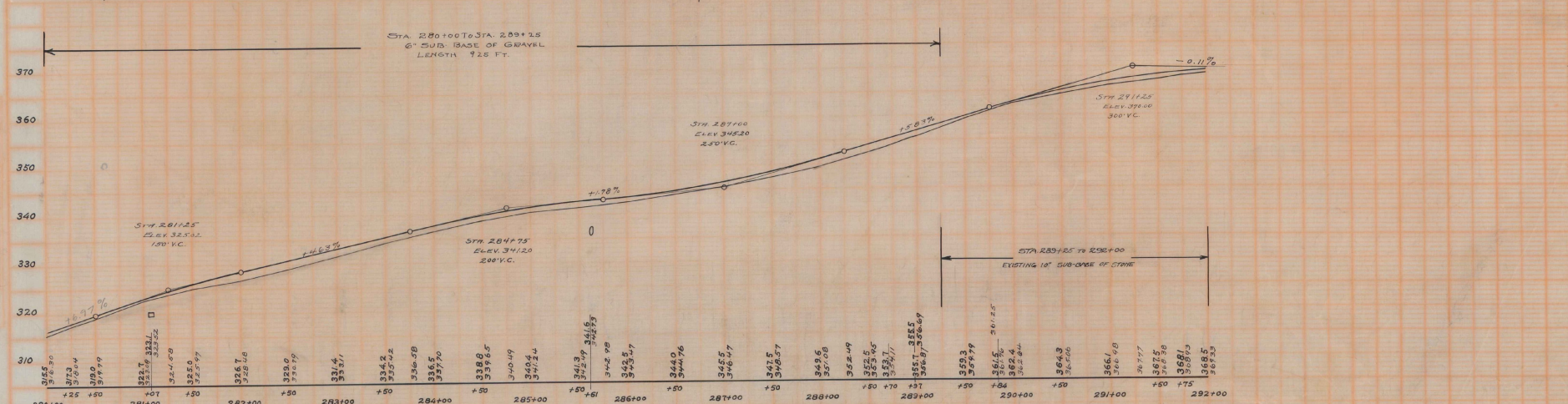
CABLE GUARD RAIL REQUIRED.

	ON LEFT			
Sta.	286+00 to	289+20	Length	320 ft.
	ON RIGHT			
Sta.	280+00 to	282+06	Length	206 ft.
"	284+17 "	289+21	"	504 ft.

NEW CULVERTS REQUIRED.

Sta. 281+03	24" Reinf. Concrete Pipe Culvert	36 ft.
	With Drop Inlet.	
	Concrete Class A (1-2-4)	1.0 Cu.Yd.
	" " B (1-2½-4)	1.2 " "
	Reinforcing Steel	103 lbs.
Sta. 285+61	18" Reinf. Concrete Pipe Culvert	44 ft.
	Concrete Class B (1-2½-4)	2.76 Cu. Yds.
	Reinforcing Steel	93 lbs.
Sta. 288+31	24" Reinf. Concrete Pipe Culvert	36 ft.
	Concrete Class A (1-2-4)	2.6 Cu. Yds.
	Reinforcing Steel	66 lbs.





B.M. No. 29 Spike in trunk of 12" Elm, Right of Sta. 280+82 Elev. 321.97
B.M. No. 30 " " root " 16" " Left " " 288+86 " 358.37

SERIES F No. 115 A
SHEET 24 OF 123

WOOD GUARD RAIL REQUIRED

ON LEFT

Sta 300+73 to Sta 300+37 Length 29 ft.

ON RIGHT

Sta. 292+69 to Sta. 292+33 Length 34 ft.
" 297+68 " " 297+82 " 14 "
" 300+73 " " 300+97 " 24 ft.

CABLE GUARD RAIL REQUIRED

ON LEFT

Sta. 292+82 to Sta. 297+42 Length 560 ft.

NEW CULVERTS REQUIRED

Sta. 292+81 — 24" Reinf. Concrete Pipe Culvert 86 ft.
Concrete Class B. (1-2½-8) 4.1 Cu.yds.
Reinforcing Steel 33 lbs.

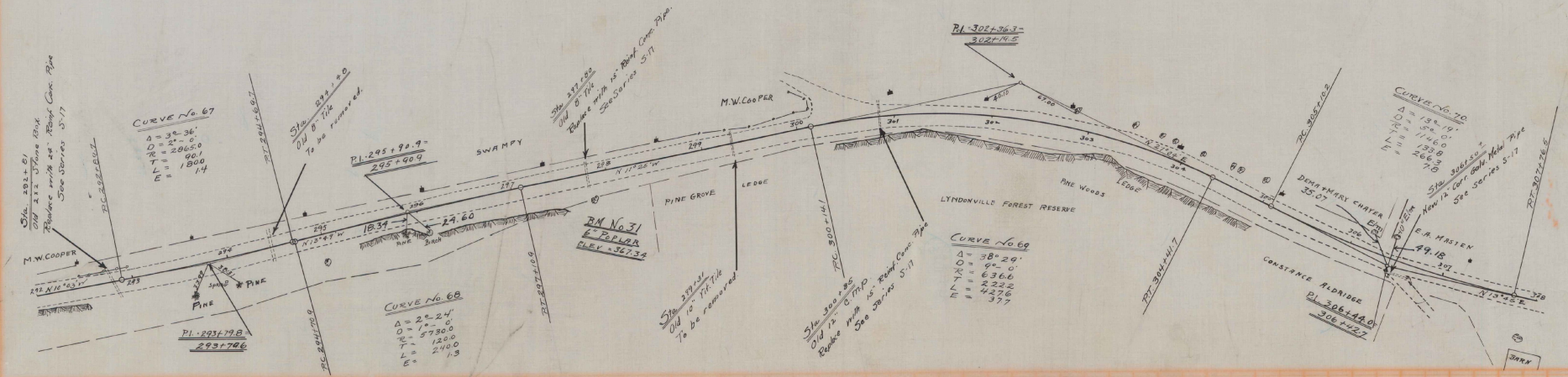
Sta. 297+80 — 18" Reinf. Concrete Pipe Culvert 86 ft.
Concrete Class B (1-2½-8) 2.1 Cu.yds.
Reinforcing Steel 33 lbs.

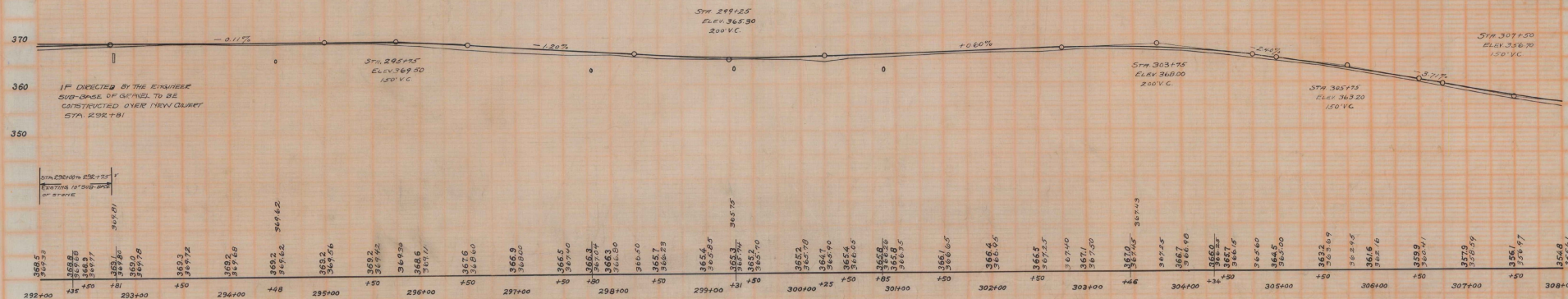
Sta 300+85 — 15" Reinf. Concrete Pipe Culvert 36 ft.
Concrete Class B. (1-2½-8) 2.1 Cu.yds.
Reinforcing Steel 33 lbs.

NEW DRIVEWAY CULVERTS REQUIRED.

Sta. 306+50± Rt. 12" Corr. Galv. Metal Pipe 24 ft.
Concrete Class B (1-1-2½-8) 1.1 Cu. yds.

FED. ROAD DIST. NO.	STATE	FED. AID PROJ. NO.	FISCAL YEAR	SHEET NO.	TOTAL SHEETS
1	VT.	115A	1939	25	123





B.M. No. 31 Spike in Back Side of 6" Poplar Right of Sta. 297+81 Elev. 367.34

SERIES F No. 115A
SHEET 25 OF 123

FED. ROAD DIST. NO.	STATE	FED. AID PROJ. NO.	FISCAL YEAR	SHEET NO.	TOTAL SHEETS
9	VT.	115 A	1928	26	123

WOOD GUARD RAIL REQUIRED.

ON LEFT

Sta. 315+16 to Sta 316+04 Length 88 ft.
" 323+72 " " 323+96 " 24 "

ON RIGHT

Sta 312+04 to Sta. 312+28 Length 24 ft.
" 314+13 " " 314+37 " 24 ft
" 315+44 " " 315+68 " 24 ft.

CABLE GUARD RAIL REQUIRED

ON LEFT

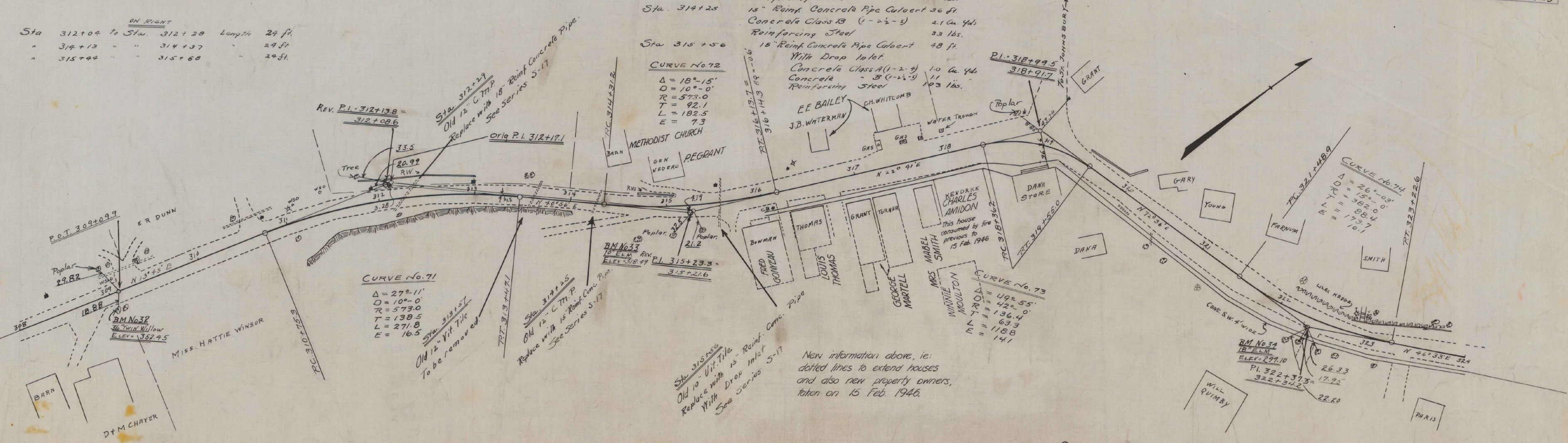
Sta. 311+57 to Sta. 314+77 Length 320 ft.

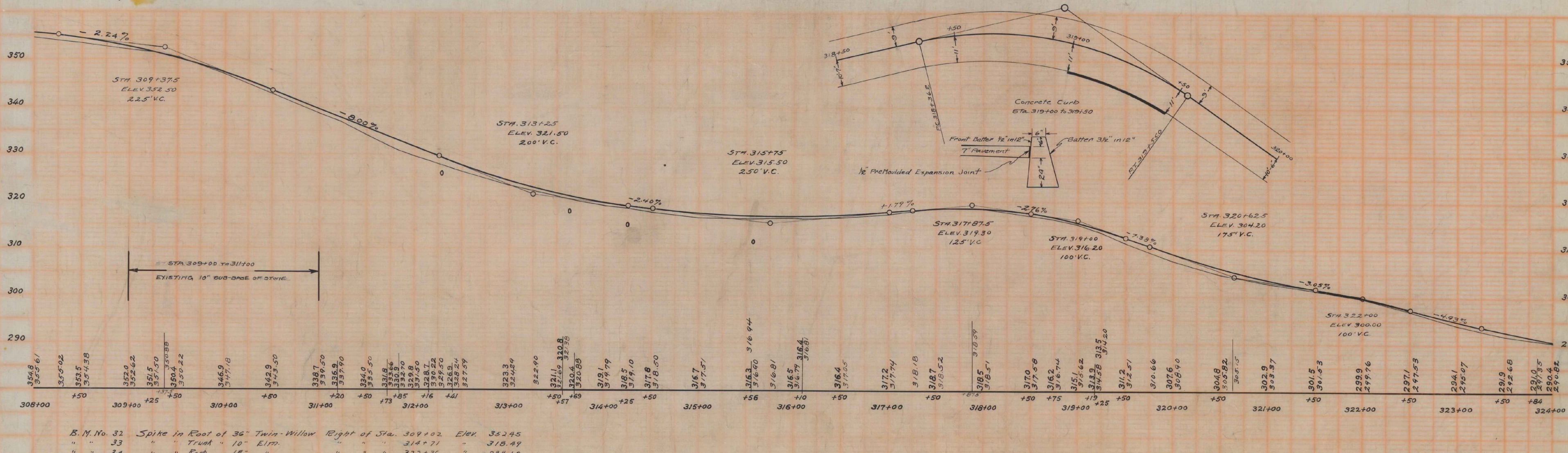
NEW CULVERTS REQUIRED.

Sta. 312+29 - 18" Reinf. Concrete Pipe Culvert. 44 ft.
Concrete Class A (1-2-4) 1.9 Cu. Yds
Reinforcing Steel 60 lbs.

Sta. 314+25 15" Reinf. Concrete Pipe Culvert 36 ft.
Concrete Class B (1-2½-5) 2.1 Cu. Yds
Reinforcing Steel 33 lbs.

Sta 315+56 15" Reinf. Concrete Pipe Culvert 48 ft.
With Drop Inlet.
Concrete Class A (1-2-4) 1.0 Cu. Yds
Concrete " B (1-2½-5) 1.1 "
Reinforcing Steel 103 lbs.





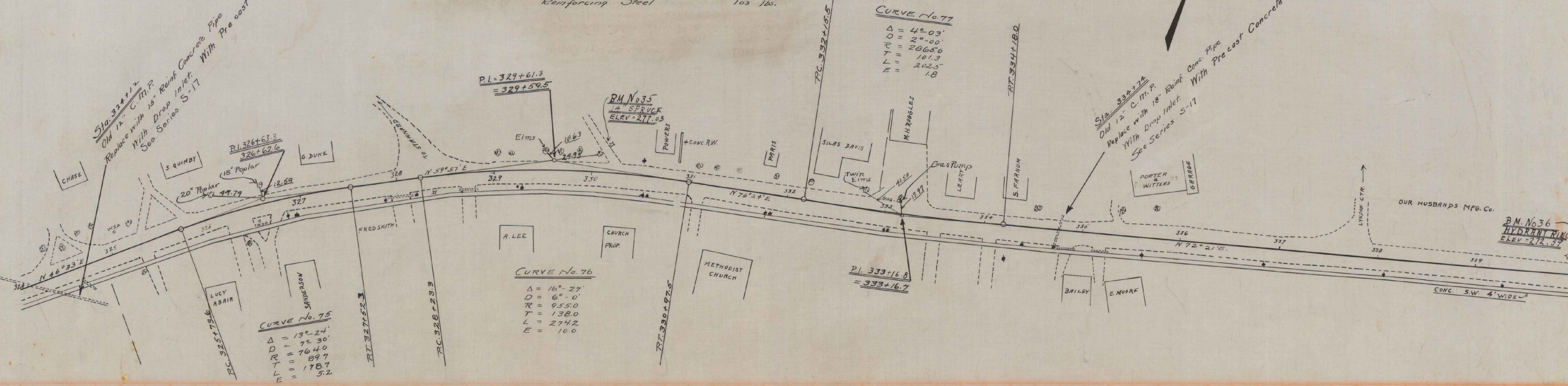
B. M. No. 32 Spike in Root of 36" Twin-Willow Right of Sta. 309+02 Elev. 352.45
" " 33 " " Trunk " 10" Elm. " " " 314+71 " 318.49
" " 34 " " Root " 18" " " " " 322+36 " 299.10

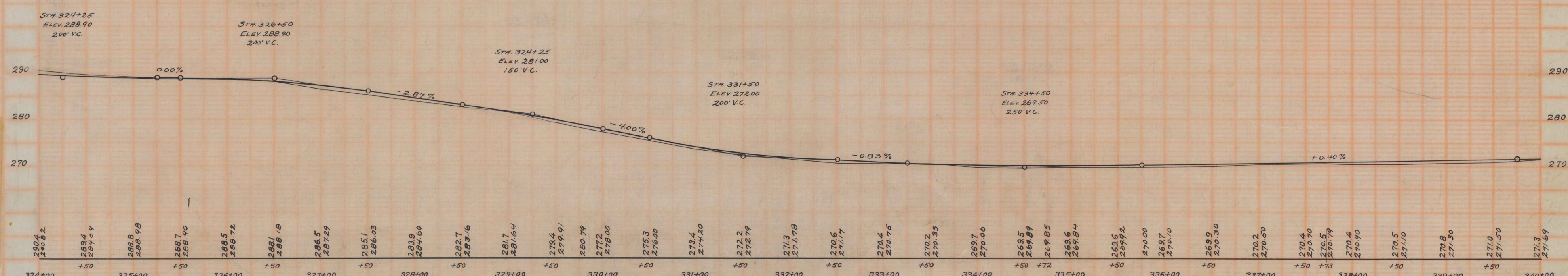
SERIES F No. 115 A
SHEET 26 OF 123

FED. ROAD DIST. NO.	STATE	FED. AID PROJ. NO.	FISCAL YEAR	SHEET NO.	TOTAL SHEETS
9	VT.	115A	1928	27	123

NEW CULVERTS REQUIRED.

Sta. 324+12	15" Reinf. Concrete Pipe Culvert	108 ft.
	With Drop Inlet at Sidewalk. With pre cast Concrete top.	
	Concrete Class A. (1-2-4)	1.3 Cu. Yds
	" " B. (1-2½-5)	2.1 " "
	Reinforcing Steel	120 lbs.
Sta. 334+74	18" Reinf. Concrete Pipe Culvert	36 ft
	With Drop Inlet on Rt. With pre cast Concrete top.	
	Concrete Class A. (1-2-4)	1.3 Cu. Yds.
	Concrete Class B. (1-2½-5)	1.1 Cu Yds.
	Reinforcing Steel	103 lbs.





B. M. No. 35 Spike in Root of 14" Spruce, Left of Sta. 330+16 Elev. 277.03
" " 36 Hydrant Ring, Left of Sta. 339+91 Elev. 272.59

SERIES F No. 115A
SHEET 27 OF 123

FED. ROAD DIST. NO.	STATE	FED. AID PROJ. NO.	FISCAL YEAR	SHEET NO.	TOTAL SHEETS
3	VT.	115 A	1928	28	123

WOOD GUARD RAIL REQUIRED.

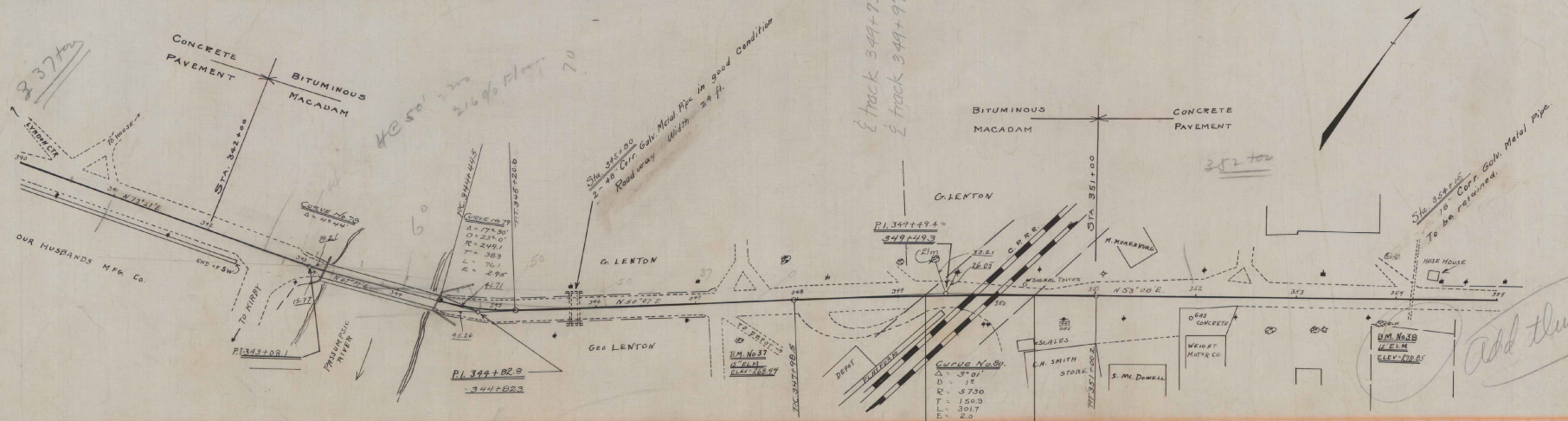
ON LEFT
Sta. 342+38 to Sta. 343+32 Length 94 ft.

ON RIGHT
Sta. 342+98 to Sta. 343+22 Length 24 ft.

CABLE GUARD RAIL REQUIRED.

ON LEFT
Sta. 344+42 to Sta. 347+22 Length 280 ft.
" 344+64 " " 345+00 " 36 ft.

ON RIGHT
Sta. 344+42 to Sta. 347+14 Length 272 ft.



Sta. 342+00 to 351+00.
East Bridge Approach washed out during flood of Nov. 1927 and since that date has been filled, and 2 - 48" Corr. Galv. Metal Pipes installed.

Sta. 349+28 to 350+35 Not included in Contract except for Item Earth Exc. Inc. Borrow.

Sta. 342+00

CONCRETE PAVEMENT — Sta. 342+00 to 343+22 6" Sub-base of gravel — Item 12c. Length 122 ft.

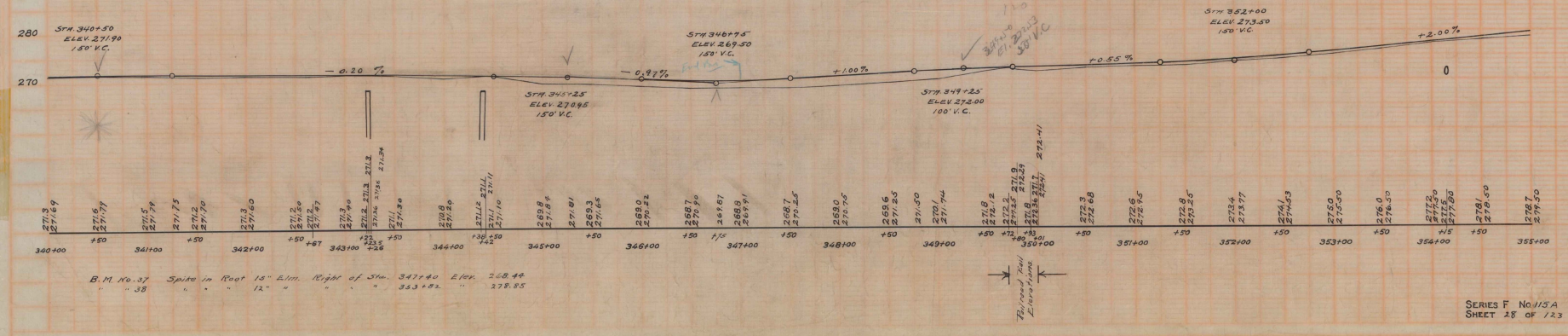
BRIDGE. 343+22 to 344+42 Not included in Contract

Sta. 344+42 To Sta. 351+00 6" Sub Base of Gravel Length 658 ft.

Sta. 351+00

CONCRETE PAVEMENT

Sta. 342+00 to 351+00 Not included in Government Participation.



B. M. No. 37 Spike in Root 14" Elm. Right of Sta. 347+40 Elev. 268.44
" " 38 " " " 12" " " " " 353+82 " 278.85

SERIES F No. 115 A
SHEET 28 OF 123

FED. ROAD DIST. NO.	STATE	FED. AID PROJ. NO.	FISCAL YEAR	SHEET NO.	TOTAL SHEETS
9	VT.	115A	1928	29	123

CABLE GUARD RAIL REQUIRED

ON LEFT

Sta. 355+00	to Sta. 357+26	Length	226 ft.
" 365+50	" " 371+00	"	550 "

ON RIGHT

Sta. 368+94	to Sta. 371+00	Length	206 ft.

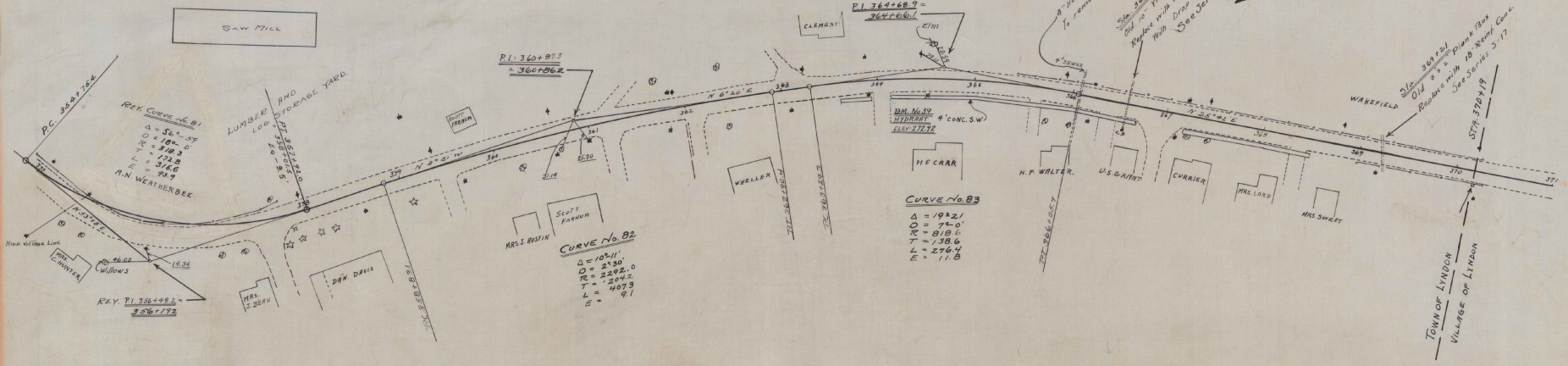
NEW CULVERTS REQUIRED

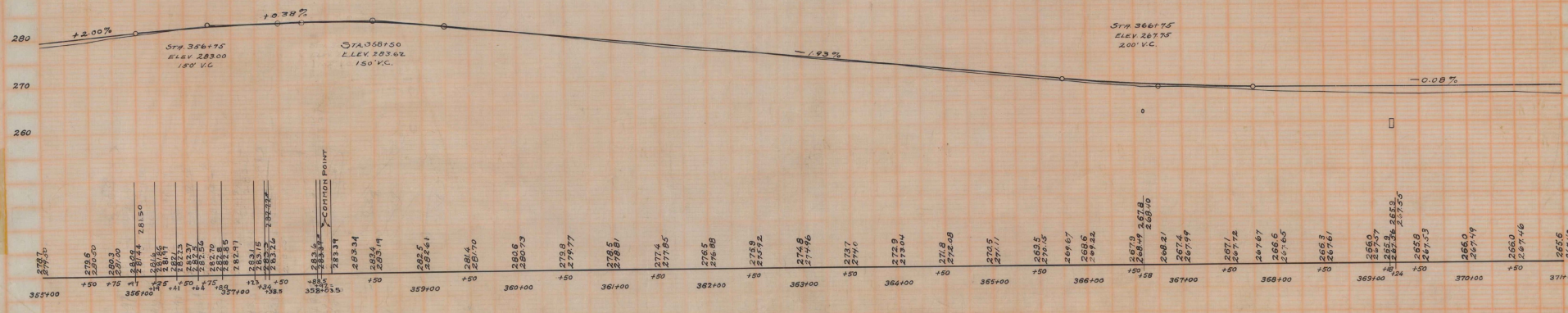
Sta. 366+58 — 15" Reinf. Concrete Pipe Culvert 62 ft.
With Drop Inlet & Precast Concrete Top.

Concrete Class A. (1-2-4)	1.3 Cu. Yds.
Concrete Class B. (1-2½-5)	1.1 " "
Reinforcing Steel	103 lbs.

Sta. 369+21 — 18" Reinf. Concrete Pipe Culvert 48 ft.

Concrete Class B. (1-2½-5)	1.4 Cu. Yds.
Reinforcing Steel	88 lbs.





B.M. No. 39 Hydrant Ring Right of Sta. 364+49 Elev. 272.92

SERIES F No. 115A
SHEET 29 OF 123

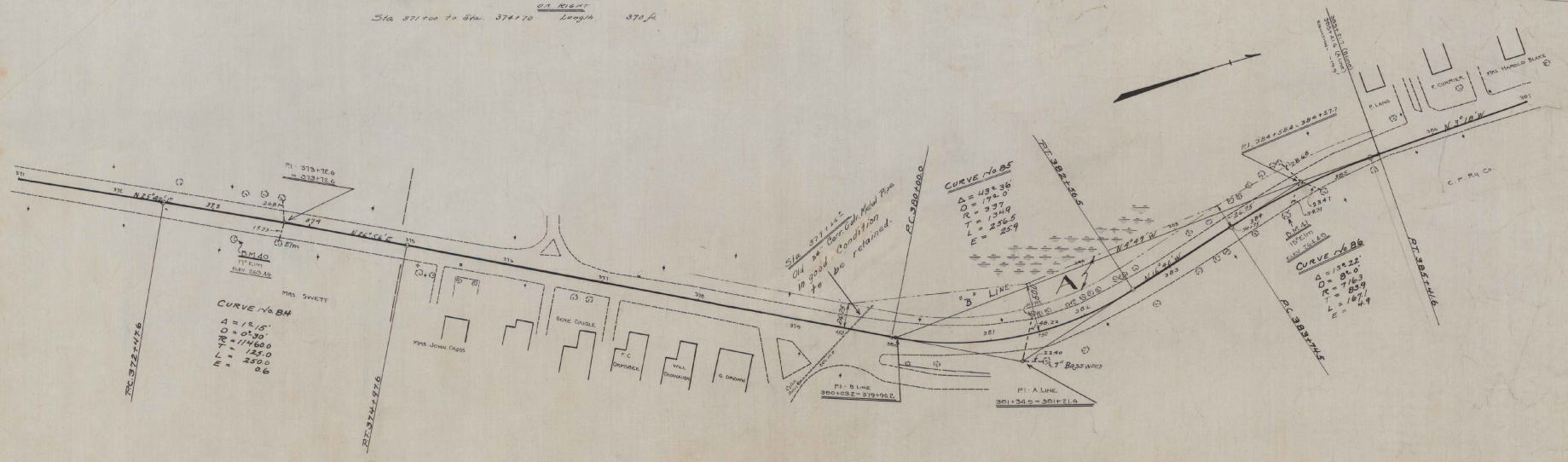
CABLE GUARD RAIL REQUIRED

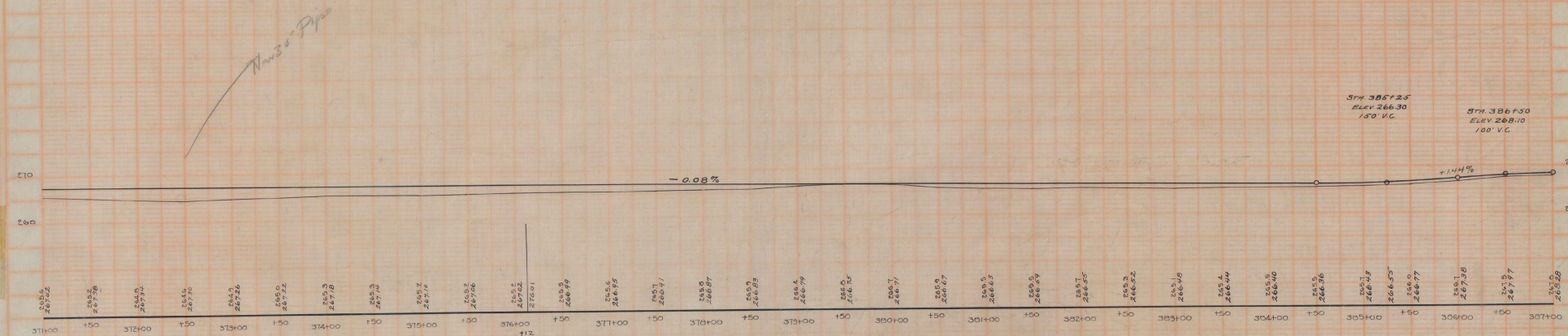
ON LEFT
Sta. 371+00 to Sta. 376+22 Length 522 ft.

ON RIGHT
Sta. 371+00 to Sta. 374+70 Length 370 ft.

PARCEL	INSTRUMENT	DATE	GRANTOR	GRANTEE	RECORDED	REMARKS
A	Q.C.D.	11-26-40	FRED & FLOSSIE BROOKS	ST OF VT.	LYNDON BOOK 38 PAGE 160 DATE 11-26-40	

FED. ROAD DIST. NO.	STATE	FED. AID PROJ. NO.	FISCAL YEAR	SHEET NO.	TOTAL SHEETS
3	VT.	115A	1938	30	123





B.M. 40 — Spike in root of 17" Elm., 21' rt. Sta. 373+24 Elev. 269.46.
B.M. 41 — Spike in root of 15" Elm, 15' rt. Sta. 384+29 Elev. 264.46.

SERIES F. NO. 115A
SHEET 30 OF 123

FED. ROAD DIST. NO.	STATE	FED. AID PROJ. NO.	FISCAL YEAR	SHEET NO.	TOTAL SHEETS
9	VT.	115A	1928	31	123

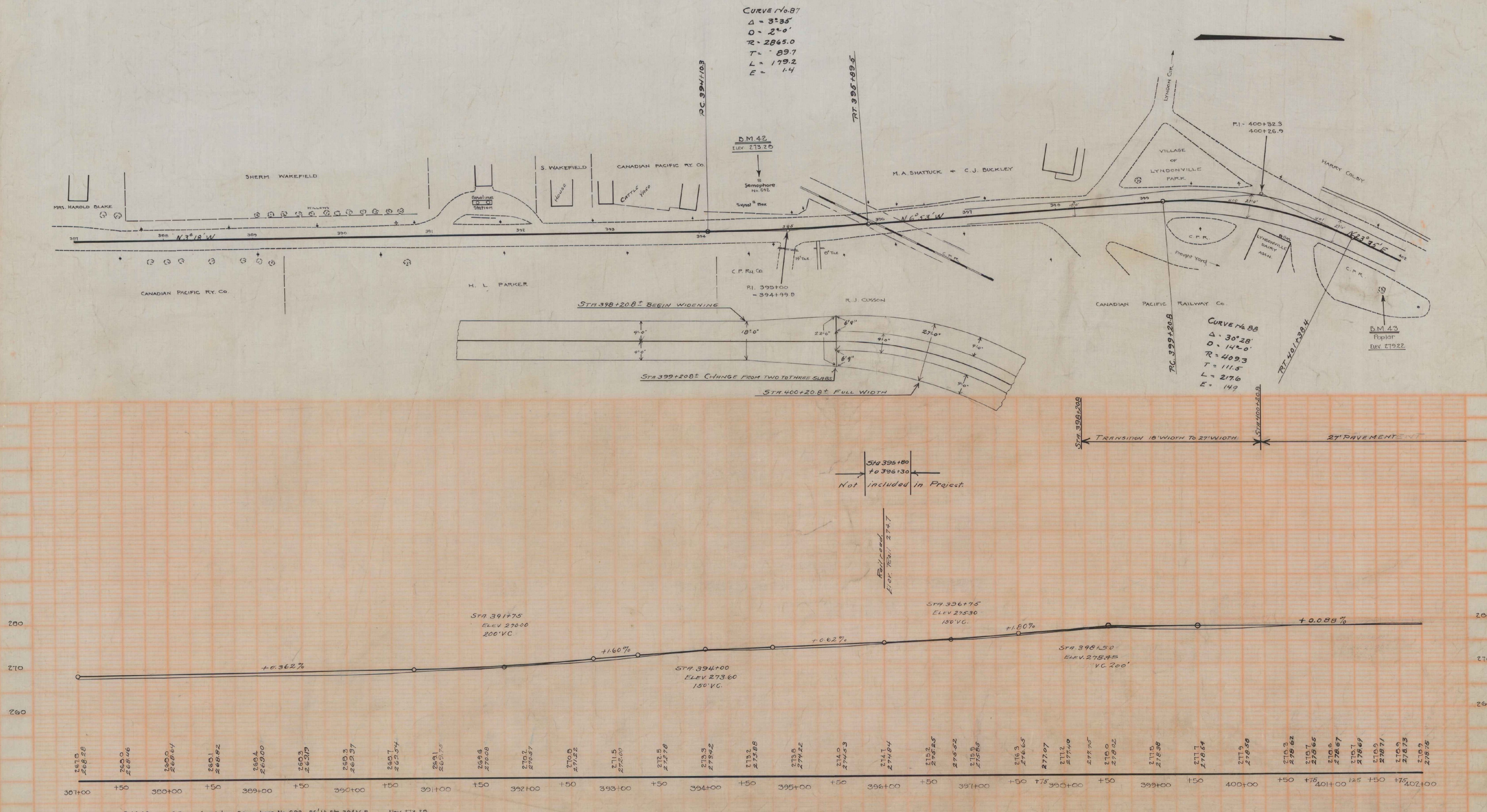
CABLE GUARD RAIL REQUIRED

ON LEFT

Sta. 396+00 to Sta 397+20 Length 120 ft.

ON RIGHT

Sta 387+16 to Sta 391+04 Length 388 ft.

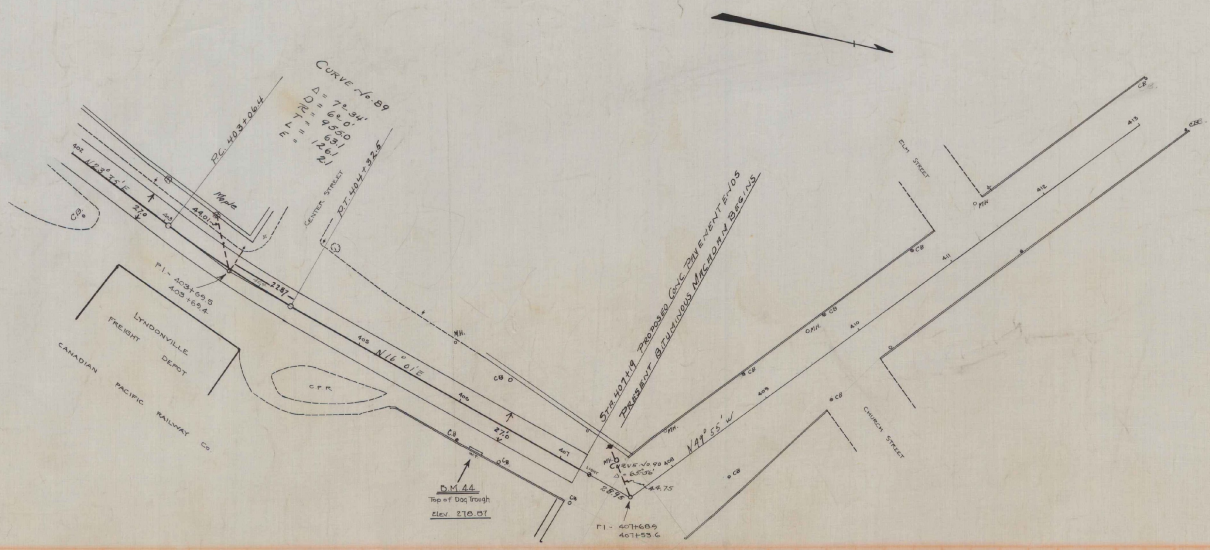


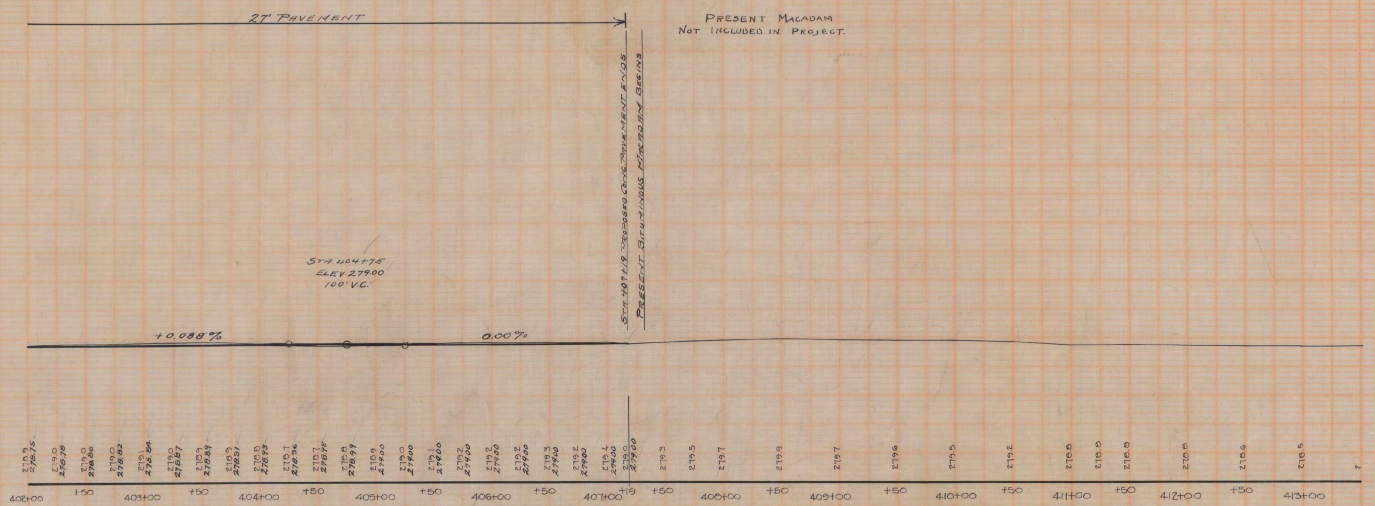
B.M. 42 ~ S.E. cor. foundation Semaphore No. 692, 56' Lt. Sta. 394+68 ~ Elev. 273.28.

B.M. 43 ~ Spike in Poplar, 36' rt. Sta. 401+95 ~ ~ ~ ~ ~ ~ ~ ~ Elev. 279.22.

SERIES F. No. 175A
SHEET 31 OF 123

FED. ROAD DIST. NO.	STATE	FED. AID PROJ. NO.	FISCAL YEAR	SHEET NO.	TOTAL SHEETS
9	VT.	115A	1928	32	123

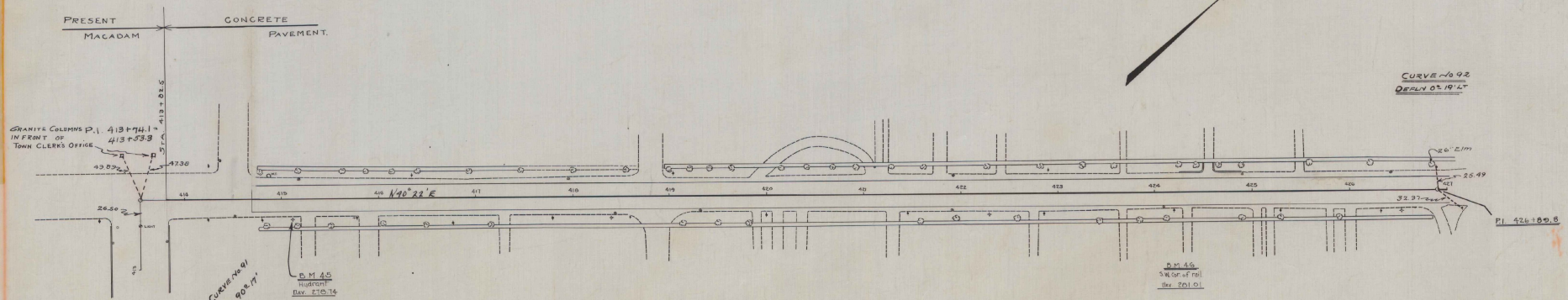


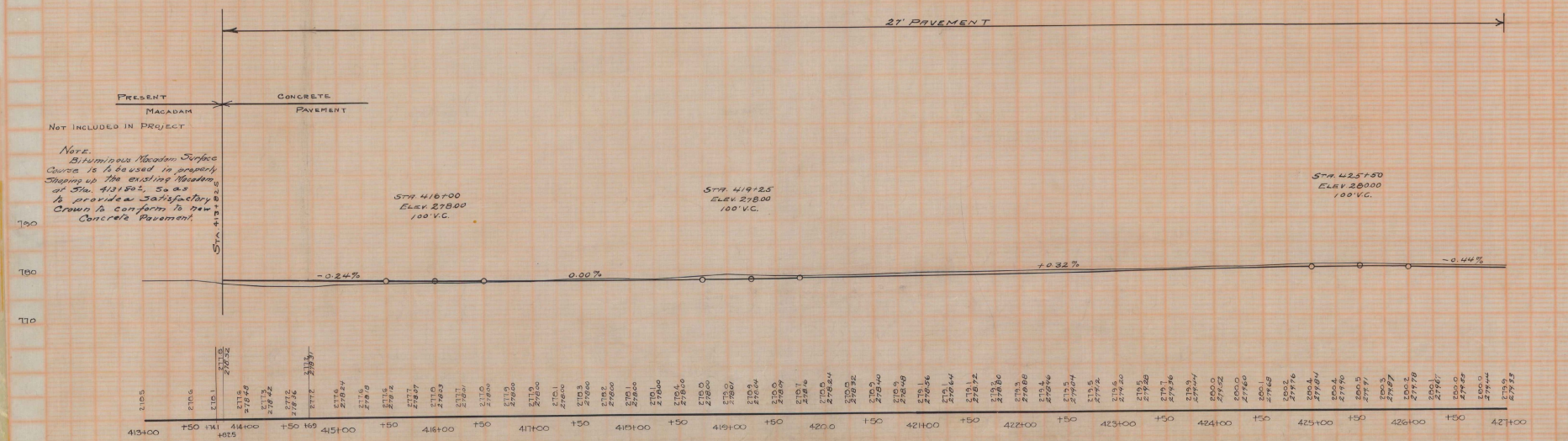


D.M. 44 — Top of Dog Trough, 29' Rt Sta 406+27 — Elev 276.87

Series F No. 115A
Sheet 32 of 123

FED. ROAD DIST. NO.	STATE	FED. AID PROJ. NO.	FISCAL YEAR	SHEET NO.	TOTAL SHEETS
9	VT	115-A	1928	33	



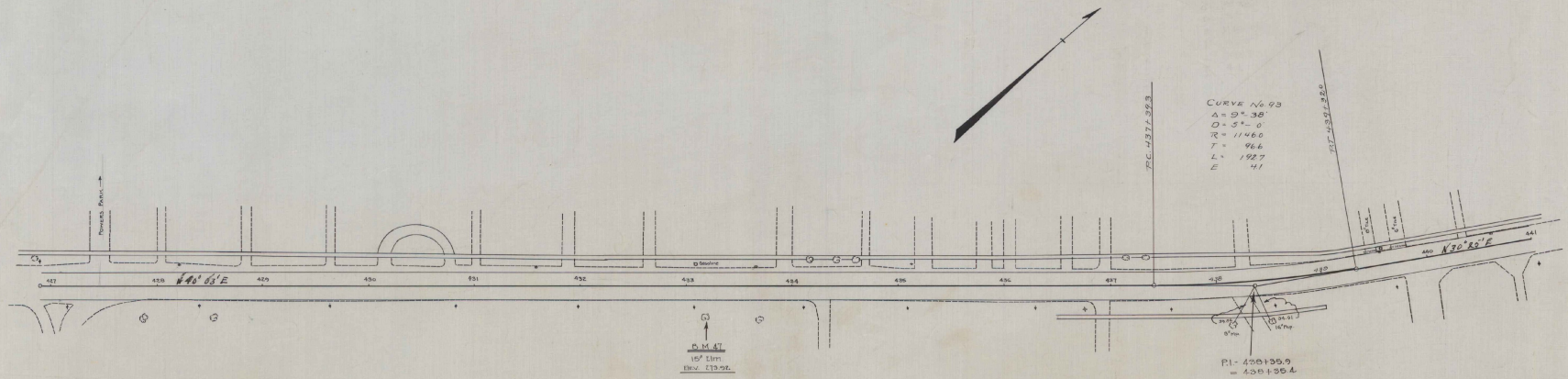


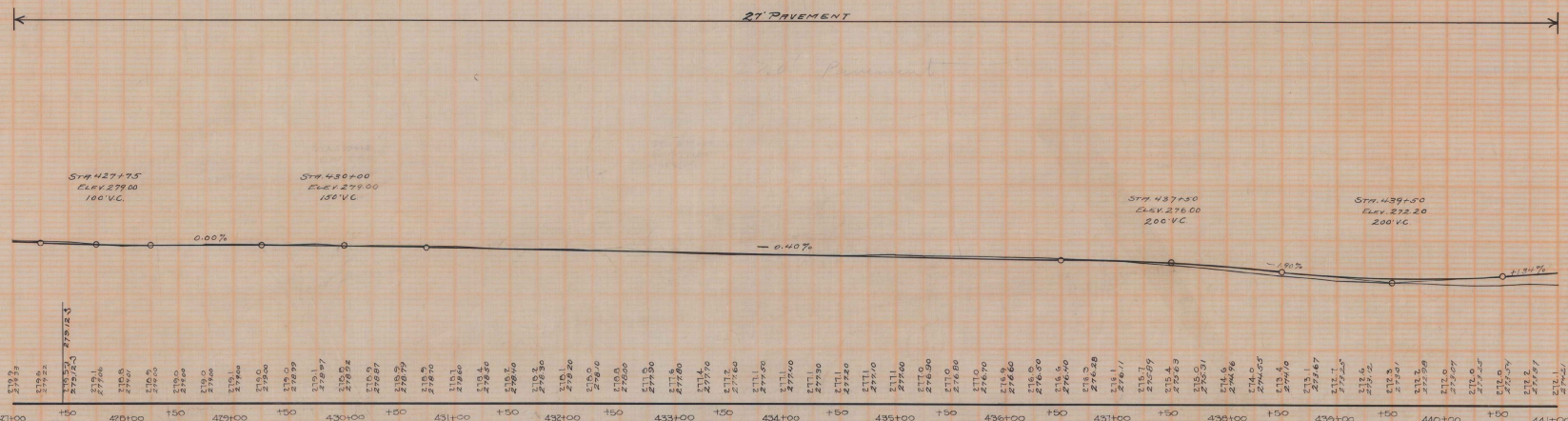
B.M. 45 — Top of hydrant, 21' Lt. Sta. 415+17 — Elev. 278.74

B.M. 46 — S.W. Cor. conc. rail to steps, 44' Rt. Sta. 424+04 — Elev. 281.01

SERIES F No. 115-A
SHEET 33 OF 123

FED. ROAD DIST. NO.	STATE	FED. AID PROJ. NO.	FISCAL YEAR	SHEET NO.	TOTAL SHEETS
9	VT.	115-A	1928	34	





B.M. 47 — Spike in root of 15" Elm, 26' ft. Sta. 433+16 → Elev. 273.92

SERIES F No. 115-A
SHEET 34 OF 123

FED. ROAD DIST. NO.	STATE	FED. AID PROJ. NO.	FISCAL YEAR	SHEET NO.	TOTAL SHEETS
9	VT.	115A	1928	35	123

WOOD GUARD RAIL REQUIRED.

ON LEFT.

Sta. 442+03 to Sta. 442+91 Length 88 ft.
" 446+72 " " 446+96 " 24

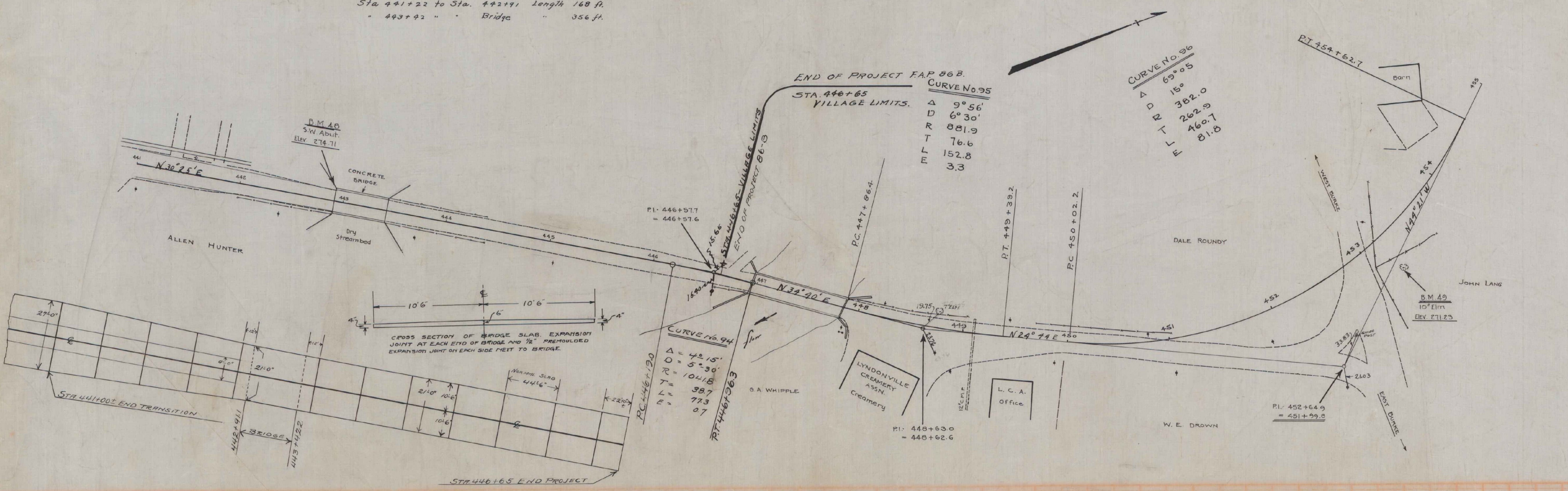
CABLE GUARD RAIL REQUIRED

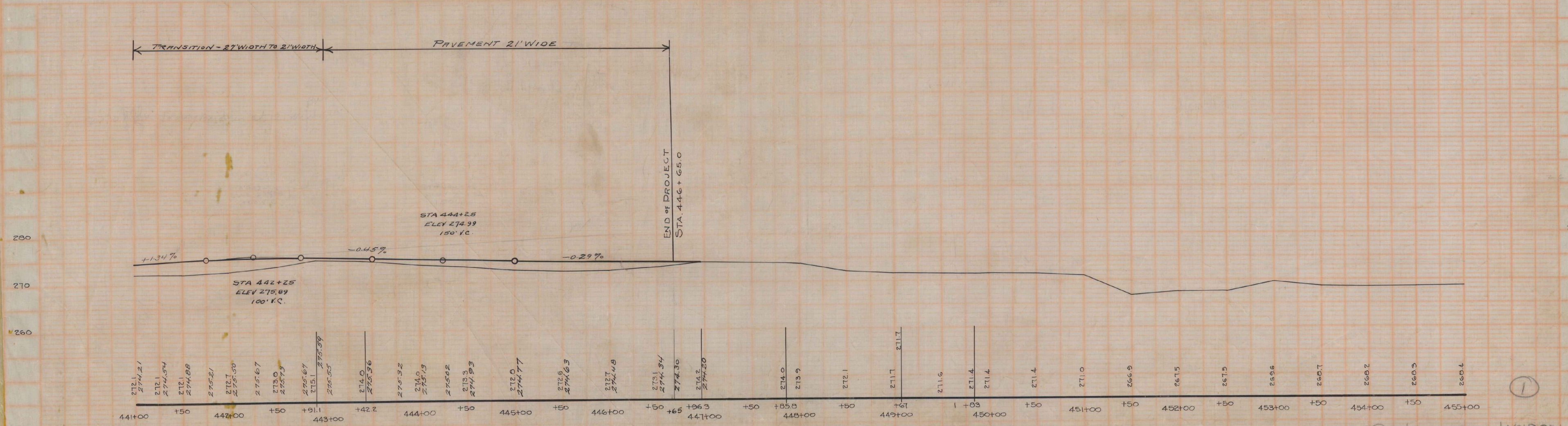
ON LEFT

Sta 443+42 to Sta. 446+78 Length 336 ft.

ON RIGHT

Sta 441+22 to Sta. 442+91 Length 168 ft.
" 443+42 " " Bridge " 356 ft.





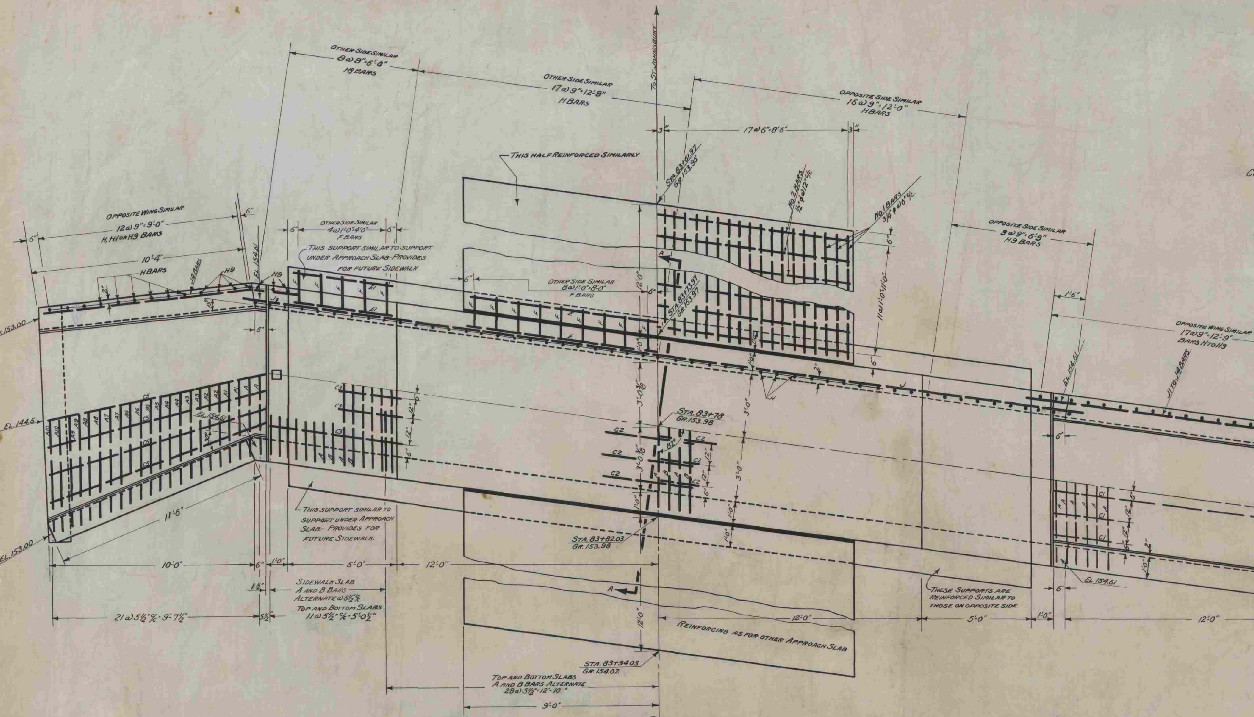
B.M. 48 ~ S.W. cor. bridge abutment, Lt. Sta. 442+92 ~ ~ Elev. 274.71.
B.M. 49 ~ Spike in root 15" Elm, 34' rt. Sta. 453+20 ~ ~ ~ Elev. 271.23.

ST. JOHNSBURY - LYNDON

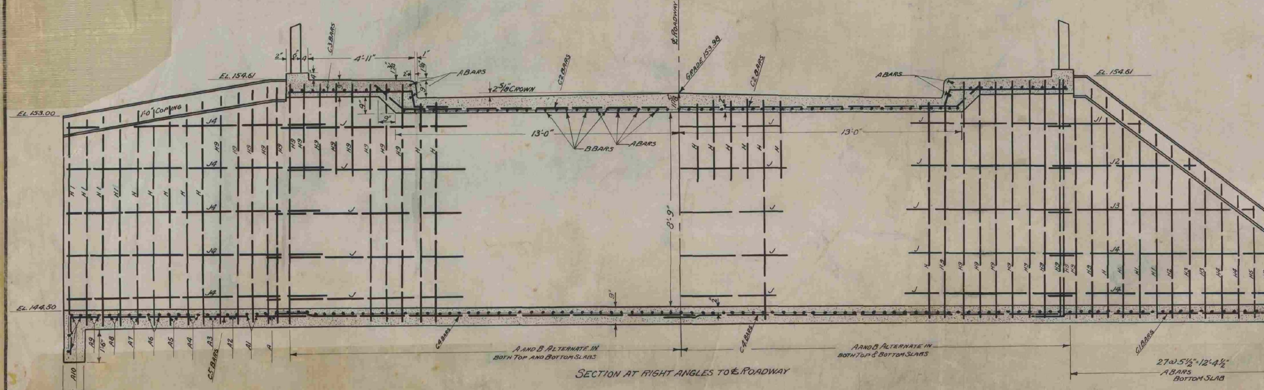
FR 15A

SERIES F No. 115A
SHEET 35 OF 123

FED. ROAD DIST. NO.	STATE	FED. AID PROJ. NO.	FISCAL YEAR	SHEET NO.	TOTAL SHEETS
9	VT.	115A	1928	36	123



PLAN



SECTION AT RIGHT ANGLES TO ℄ ROADWAY

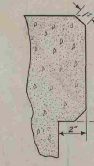
CONCRETE 1-2-4

All exposed edges shall be chamfered 1" which dimension shall be the total length across the finished chamfer.

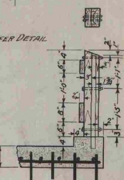
The length, angle and height of wings may be determined or changed by the Engineer to meet requirements found in the field.

Any suitable structure excavation used by the Contractor for any other purpose other than for back fill or approach fill shall be replaced by an equivalent quantity of borrow by the Contractor at his own expense unless same is ordered wasted by the Engineer.

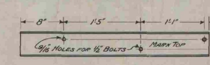
All work and materials shall conform to Standard Road and Bridge Specifications of the Vermont Department of Highways 1926.



COPING AND CHAMFER DETAIL



DETAIL OF RAILS
(OTHER SIDE SIMILAR)



Paint Channel 1-Shop Coat Approved Red Lead & Oil
1-Field Coat Approved Red Lead & Oil

Required for Each Post
2-3"x8" one notched to fit 5"[.
1-5"[@ 6.7# - 3'-3" Long
3-Std. 1/2"x7" Bolts.
2 Washers per Bolt.
Notch at top of post to be filled with putty before painting.
Bolts to be threaded 1 1/2"
2-Posts Required. To be included in unit price bid for Wooden Guard Rail

5/8" ROUNDS
E Bars 17'-8" Long — E1 Bars 4'-6" Long

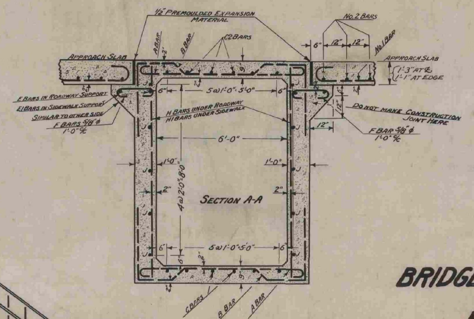
F BAR 5/8" ROUND — 2" Rad. — Total Length 2'-10" (3", 1'-4", 3")

5/8" ROUND

Bar	Length	Bar	Length
H Bar	9'-9"	H-5 Bar	5'-8"
H1 "	9'-0"	H-6 "	4'-8"
H-2 "	8'-4"	H-7 "	4'-0"
H3 "	7'-8"	H-9 "	10'-6"
H4 "	6'-8"		

1/2" ROUND

Bar	Length
J Bar	20'-0"
J1 "	4'-6"
J2 "	7'-6"
J3 "	10'-6"
J4 "	13'-0"



SECTION A-A

REINFORCING STEEL DETAILS

All steel to be deformed bars.

Reinforcing Steel to conform to Standard Specifications for Billett Steel Concrete Reinforcing Bars of the American Society for Testing Materials, Serial Designation, A-15-14.

APPROACH SLABS

No. 1 Bars — 3/4" Round — Total Length 13'-6" (4" Rad., 3", 10'-10", 3")

No. 2 Bars — 1/2" Round — 17'-8"

MAIN STRUCTURE

A Bars — 5/8" Round (3" R., 3", x, 3")

BAR	x	TOTAL LENGTH
A	7'-2"	9'-3"
A-1	7'-9"	9'-10"
A-2	8'-2"	10'-3"
A-3	8'-6"	10'-7"
A-4	8'-9"	10'-10"
A-5	9'-0"	11'-1"
A-6	9'-3"	11'-4"
A-7	9'-6"	11'-7"
A-8	9'-9"	11'-11"
A-9	10'-0"	12'-1"
A-10	10'-3"	12'-4"

B Bar — 5/8" Round — Total Length 14'-10" (1'-9", 5", 3'-2", 5", 1'-9")

1/2" ROUND
C4 Bar 19'-8" Long

BAR	x	TOTAL LENGTH
C1	13'-6"	15'-3"
C5	11'-9"	13'-6"

C2 Bar — 1/2" Round — Total Length 15'-9" (14'-0")

C3 Bar — 1/2" Round — Total Length 8'-0"

SCALE 3/8" = 1'-0"

BRIDGE AT STA. 83+78
F.A.P. 115A
ST. JOHNSBURY, VT.

Correct
A. D. Bishop
Bridge Engineer

APPROXIMATE QUANTITIES		
Structure Excavation	115	Cu. Yds.
Concrete Pavement Type B	19	Cu. Yds.
1-2-4 Concrete	64	Cu. Yds.
Reinforcing Steel	7179	Lbs.

Surveyed by Doe
Designed by H. P. Radigan
Drawn by H. P. Radigan & F. C. Larsen Jr.
Traced by F. C. Larsen Jr.
Checked by P. M. Stevens
Series F No. 115A Filed
Sheet 36 of 123 Sheets

1928

St. Johnsbury-Lyndon
FR. 115A

1928