

9-7

I.C.H. 235
Sec. A
Logan Co. 28

Fed. Road Dist. No.	State	Proj. No.	Fiscal Year
10	Ohio	143	1921

STATE HIGHWAY DEPARTMENT OF OHIO

BUREAU OF CONSTRUCTION

SEC. A-BELLEFONTAINE-MARYSVILLE ROAD

I. C. H. 235 M. M. XIV PET. 3886

LOGAN COUNTY

LAKE AND JEFFERSON TOWNSHIPS

JAN. 1920

Sec. Field Book 433
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12		270 to 295+63
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Scales
 Plan 1" = 100'
 Profile (vertical) 1" = 10'
 Profile (horizontal) 1" = 100'
 Cross Sections 1" = 5'

County Line -----
 Township Line -----
 Section Line -----
 Center Line -----
 Village Line -----
 Wire Fence -----
 Hedge Fence -----
 Rail Road -----
 Telephone Line T T T T T T T T



Location Plan

Scale: one inch = one mile
 == Detour Roads
 ⊕ Detour Signs
 Section A. from Sta. 0 to 295+63.6

We, the Commissioners of Logan County hereby approve these plans and certify that the Right-of-Way of Sixty Feet width, from Sta 0+00 to Sta. 150, and Fifty Feet width from Sta. 150 to 295+63. is available for the construction, maintenance and repair of above highway.

Signed H. E. Niska
A. B. Jones
Chas. H. ...
 April 13, 1920 County Commissioners

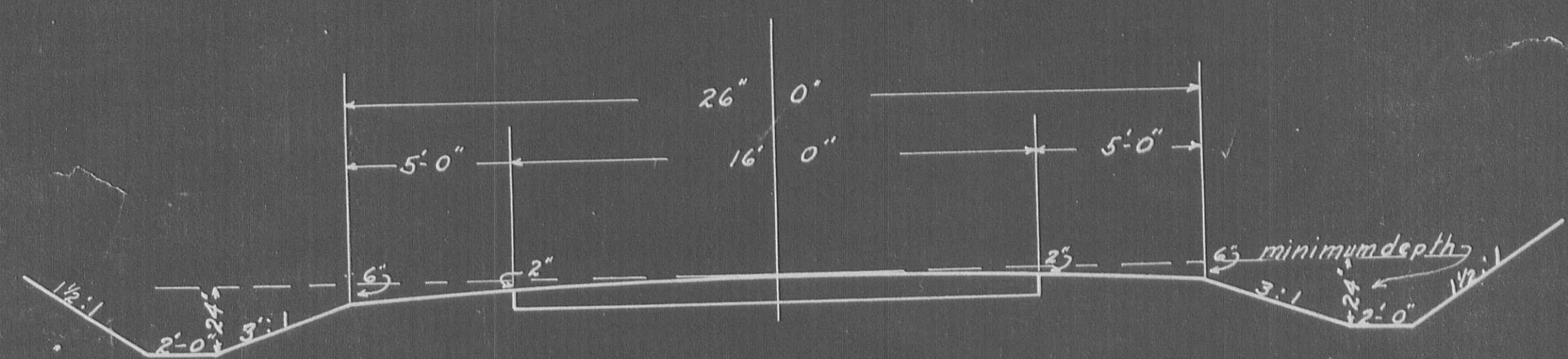
1919 Ohio State Standard
 Highway Specifications to Govern in
 making this improvement

I hereby approve these plans and declare that the making of the improvement will require the closing of the highway to traffic and that the detours will be indicated by signs as shown on the plans and estimates.

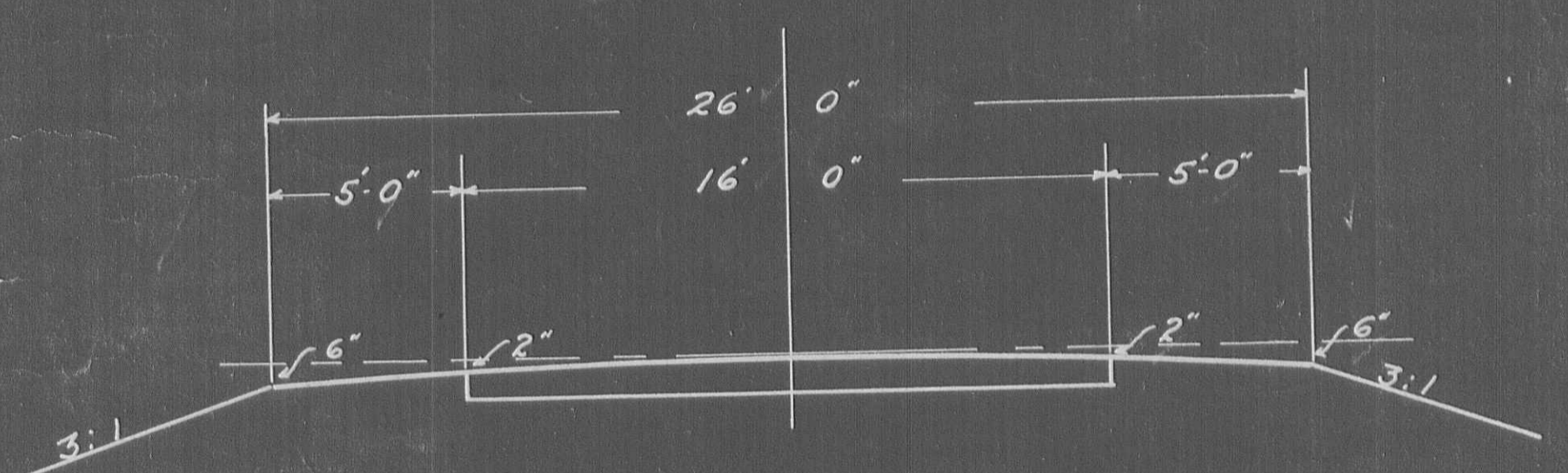
Date April 13, 1920 Oliver C. Wabey Resident Engineer
 Date Mar 18, 1921 Eugene W. Davis Division Engineer
 Date April 15, 1921 Ed S. Smith Chief Highway Engineer
 Date April 15, 1921 Lem C. Herrick State Highway Commissioner
 Recommended for approval
 Date _____ District Engineer Bureau of Public Road
 Recommended for approval
 Date _____ Chief Engineer Bureau of Public Road
 Date _____ Approved _____ Chief of Bureau

9-7

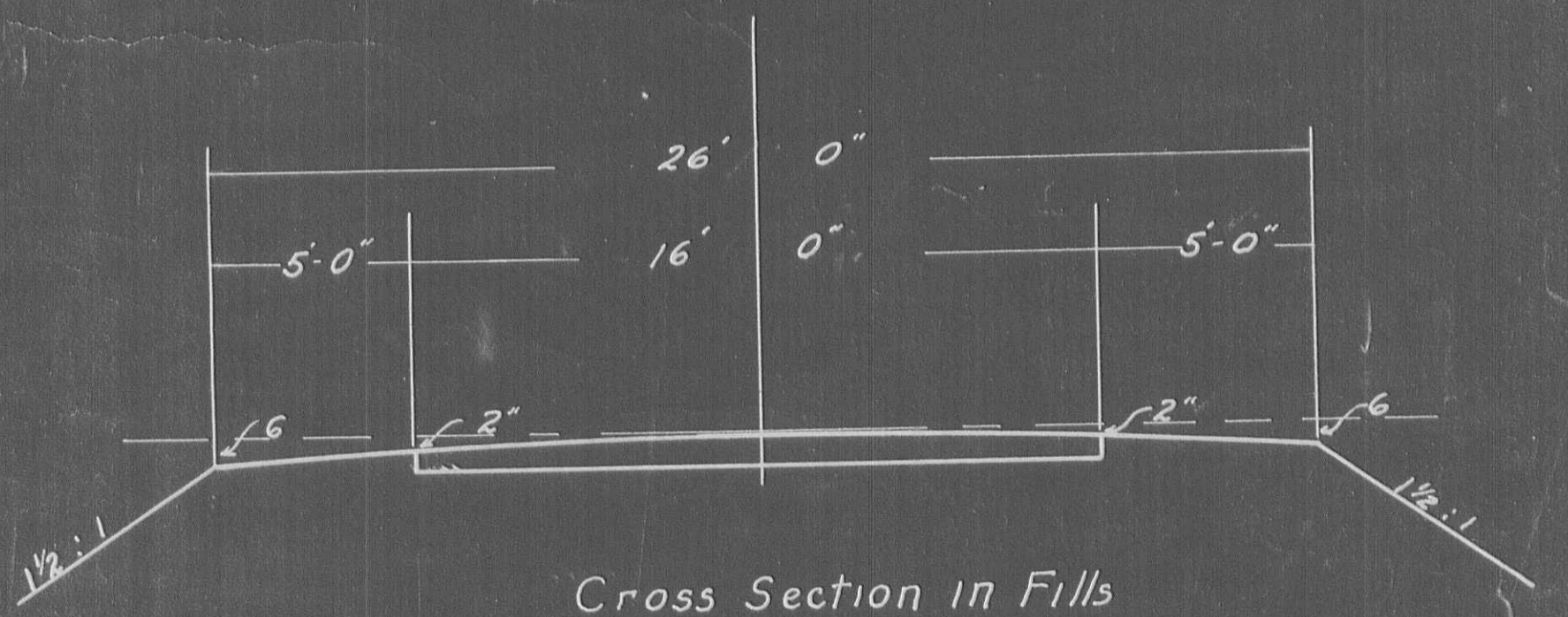
Fed Road Dist No	State	Fed Aid Proj No	Fiscal Year
10	Ohio	143	1921



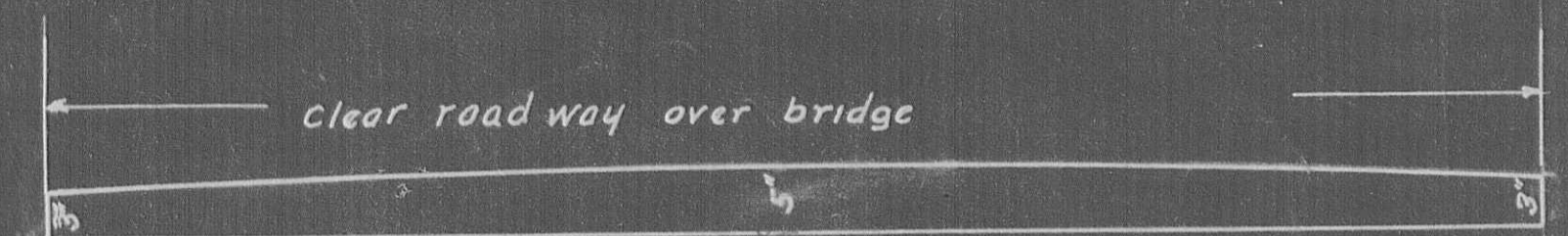
Cross Section in Cuts



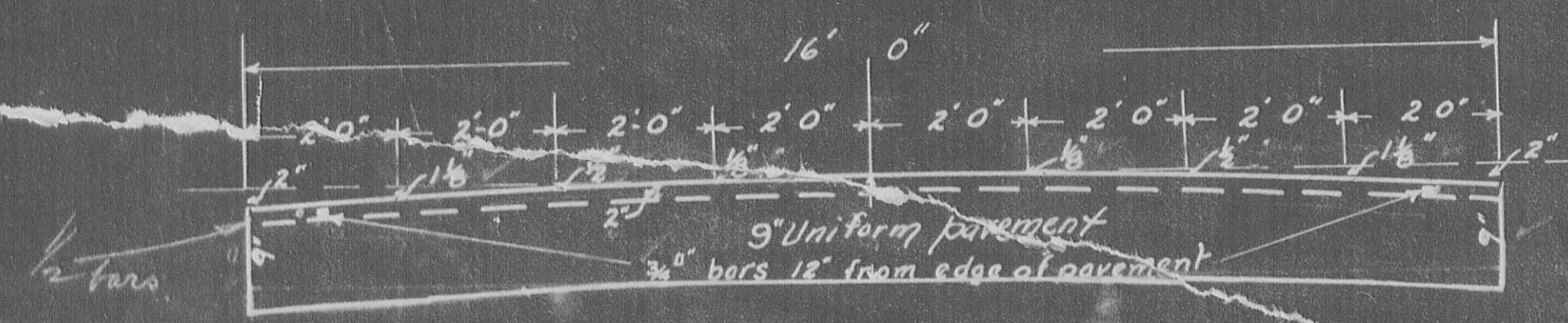
Cross Section in Fills of less than 5ft



Cross Section in Fills of 5ft or more

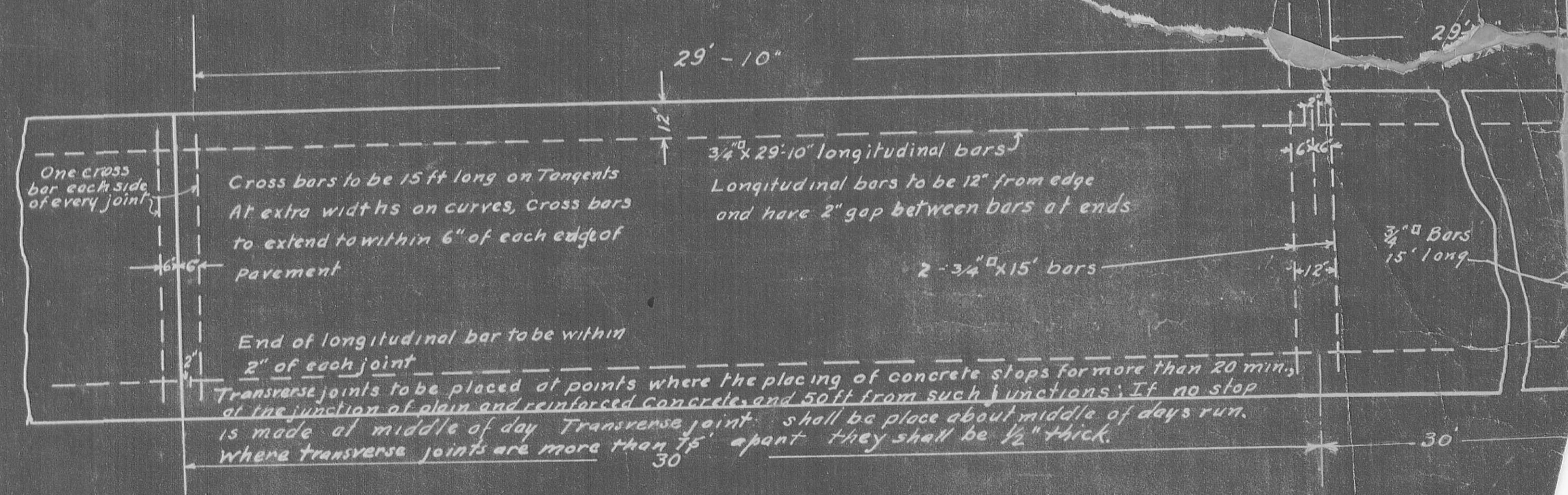


Section of pavement on bridges of more than 9' span
Where bridge floors are not crowned.



Section of Pavement on Tangent showing vertical location of Reinforcement

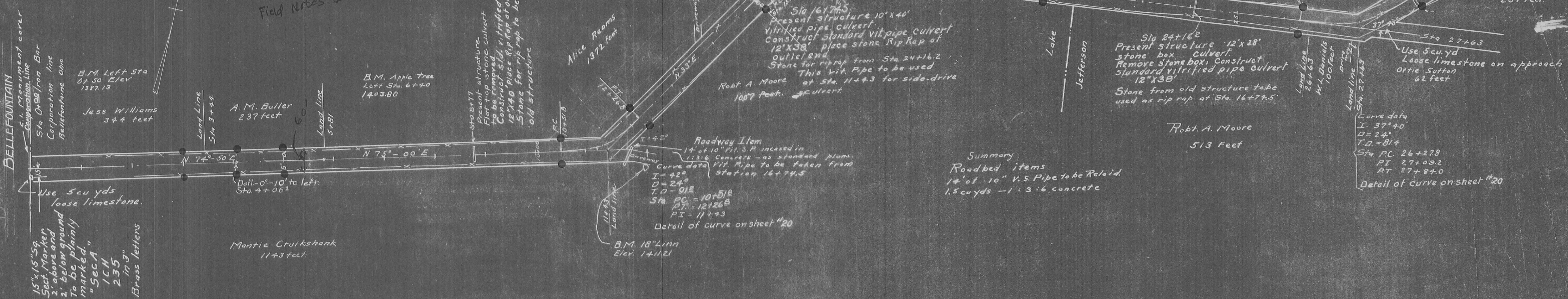
The excavation was calculated on a 9" thickness of concrete using a flat subgrade. The excavation has been adjusted to the crowned subgrade and all centre line grades are to be raised 0.08 ft. above those shown on the plans and profile.



Plan showing method of placing reinforcement

Fed. Road Dist. No.	State	Fed. Aid Proj. No.	Fiscal Year
10	Ohio	143	1921

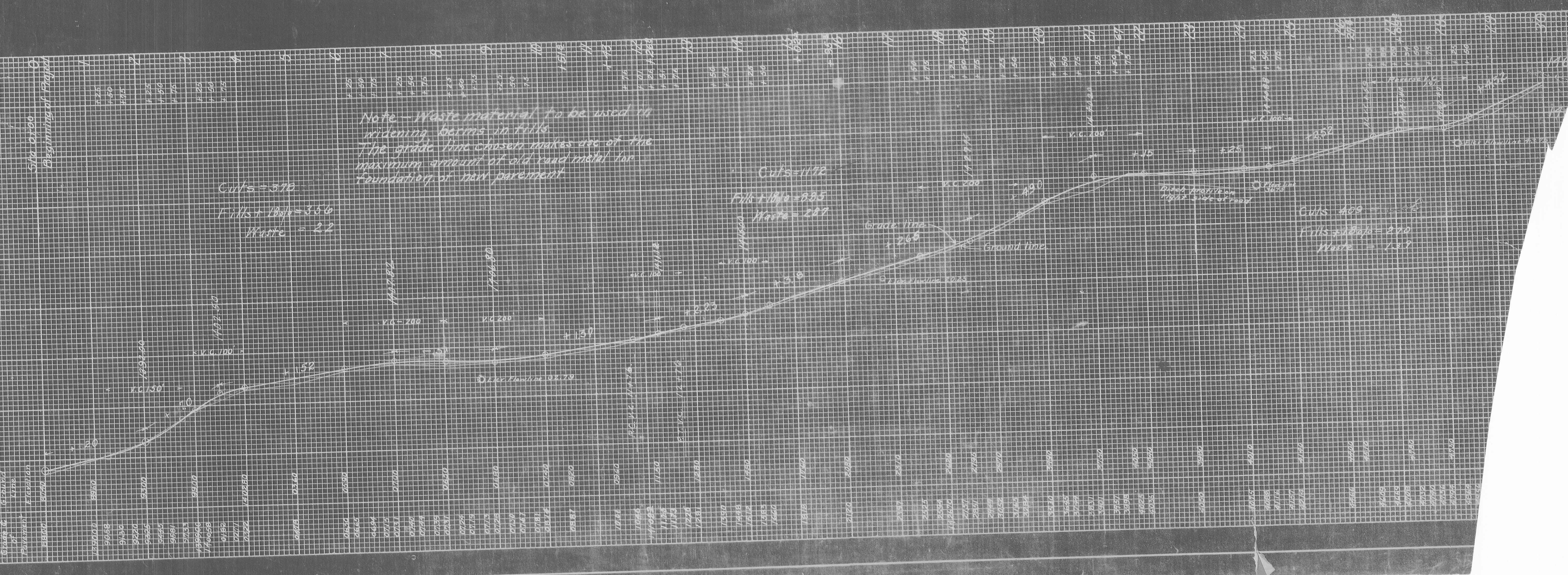
Monuments set 1930
Field Notes Book 520



15'x15" Sp. Set Marker 2' above and 2' below ground to be plainly marked "56CA" 1 1/2" 2 1/2" 1 1/2" Brass letters

Bellefontaine
C. Monument cover
C. Corporation Line
S. O. Iron Bar
C. Corporation Inc.
Bellefontaine Ohio

Summary
Roadbed items
14' of 10" V.S. Pipe to be Relaid.
1.5 cu yds - 1:3:6 concrete



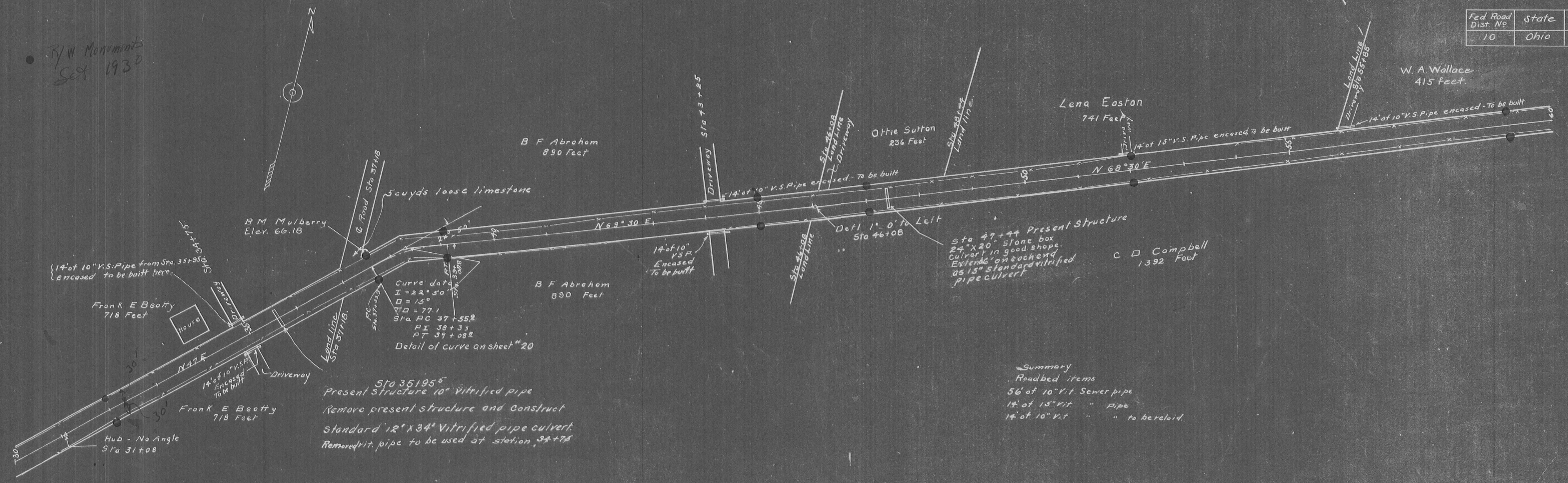
Note - Waste material to be used in widening berms in fills. The grade line chosen makes use of the maximum amount of old road metal for foundation of new pavement.

Cuts = 370
Fills + Waste = 356
Waste = 22

Cuts = 1172
Fills + Waste = 355
Waste = 207

Cuts = 409
Fills + Waste = 210
Waste = 147

Fed. Road Dist. No.	State	Fed. Aid Proj. No.	Fisco Year
10	Ohio	143	1921

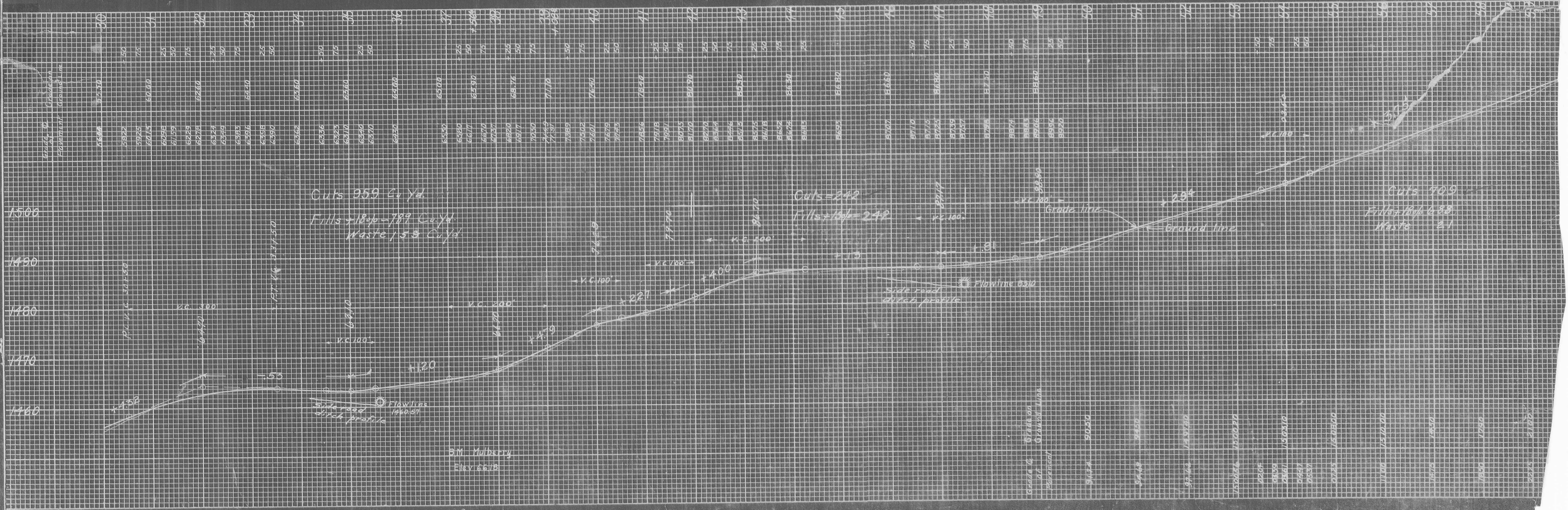


W Monument
 Set 1930

Curve data
 $I = 22^\circ 50'$
 $\Delta = 15^\circ$
 $TD = 77.1$
 Sta. PC 37+55.2
 PI 38+33
 PT 37+08.8
 Detail of curve on sheet "20"

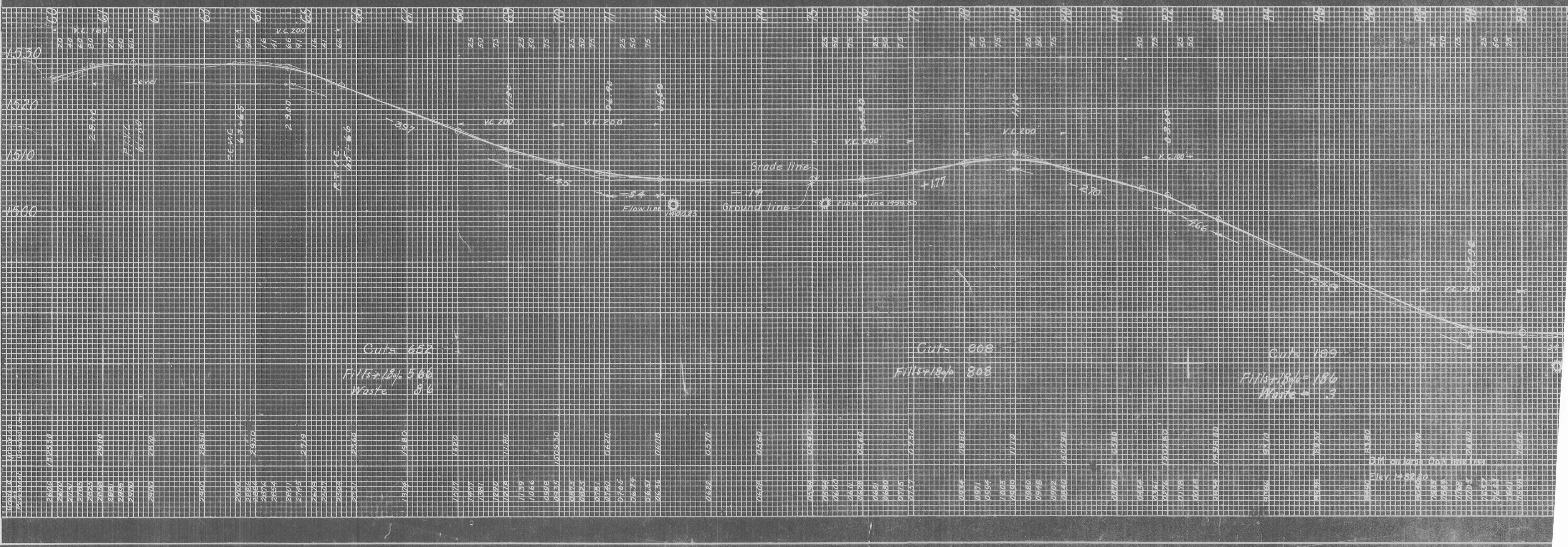
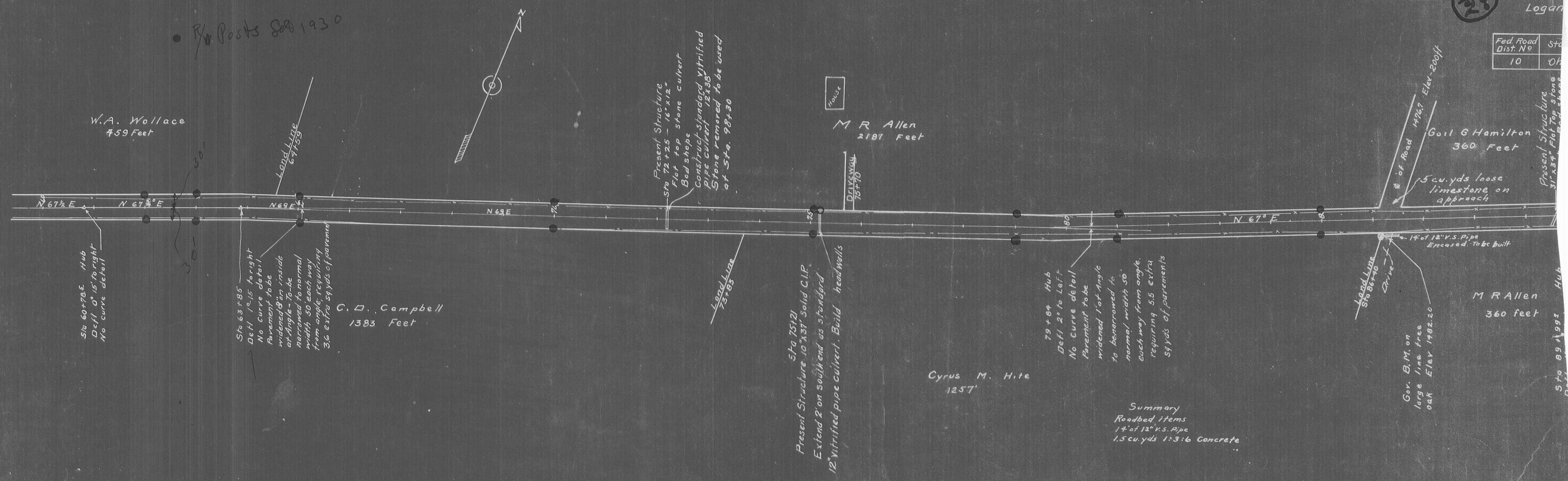
Sta 35+95
 Present Structure 10" vitrified pipe
 Remove present structure and construct
 standard 12" x 34" vitrified pipe culvert
 Remove dirt pipe to be used at station 37+78

Summary
 Roadbed items
 56' of 10" vit. sewer pipe
 14' of 15" vit. " pipe
 14' of 10" vit. " " to be laid



Fed. Road Dist. No.	Sta.
10	01

• R.R. Posts Sec 1930



Fed. Road Dist. No.	State	Fed. Aid Prod. No.	Fiscal Year
10	OHIO	143	1921

Gail G Hamilton
 955 Feet

MR Allen
 175 Feet

James Jamison
 1377 feet

Clara B Windsor
 2045 Feet

Webster Bell
 1018 Feet

Barbara Sherman
 132 Feet

R/W Monuments 1930

Sta 98+30
 Present structure 16"x45"
 C.I.P. culvert. Relay of
 16" C.I.P. Extend with 4'
 of 16" C.I.P. Build a head
 walls for 5th C.I.P. culvert
 Place 4 cu yds Rip Rap at
 outlet. Stone for Rip Rap
 to be hauled from sta.
 87+70 and 72+25

Pavement to be
 widened 10' at angle,
 pavement to be
 increased to 26' measured
 to normal. Sta 50 each
 way from approach
 46 cu yds Rip Rap at pavement

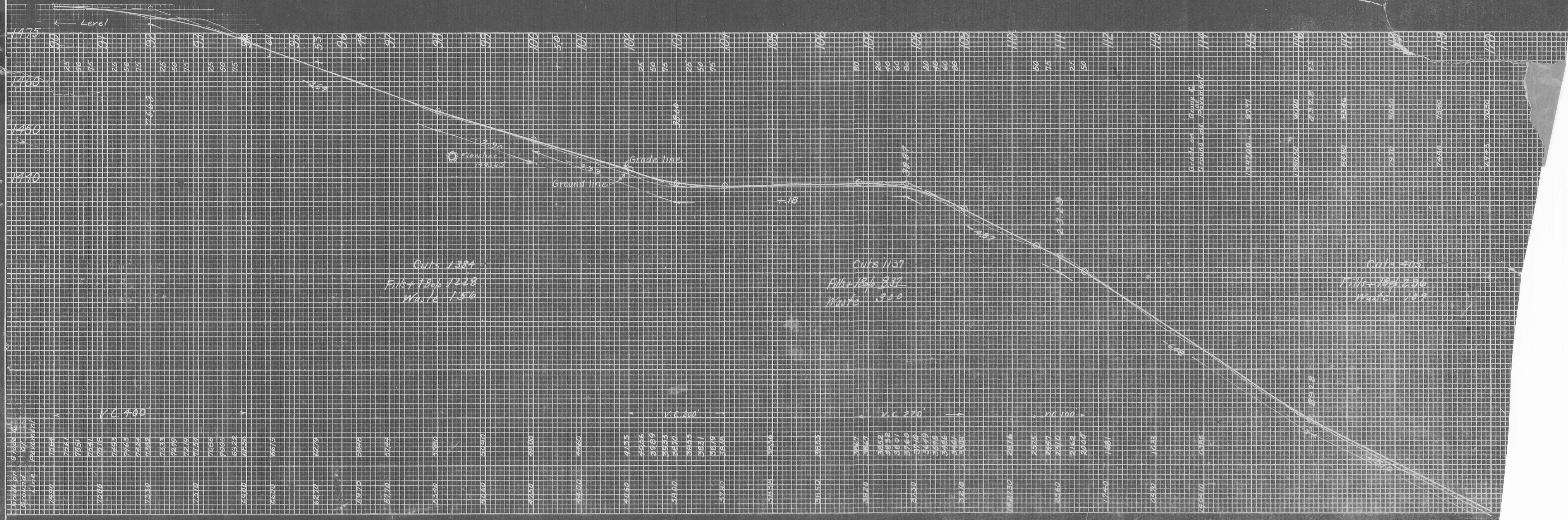
Sta 108+50
 Construct Sid side road culvert
 of vitrified pipe 12"x36"

5 cu yds loose
 limestone on
 approach

20' of 12"x36" pipe to be relayed and
 encased

Summary
 Roadbed items
 Relay 20' v.s. pipe - 12"
 2.2 cu. yds. 1:3:6 Concrete

Curve Data
 I = 18°-20'
 D = 10°
 TD = 92.6
 Ext = 74
 Sta PC = 94+60.5
 PI = 95+53
 PT = 96+44
 Detail of curve on sheet #20



• *R/W* monuments
 Sta 1930

Clara B. Windsor
 2660 Feet.

Sta. 132+00
 Present structure 12"x54"
 C.I.P. culvert
 Construct 2 standard head walls

Sta 122+00 Remove 24' of 16" C.I.P. from
 Sta 122+00 Relay and extend 10' as
 standard 15" vitrified pipe culvert
 Construct Std head walls for Hillside culvert

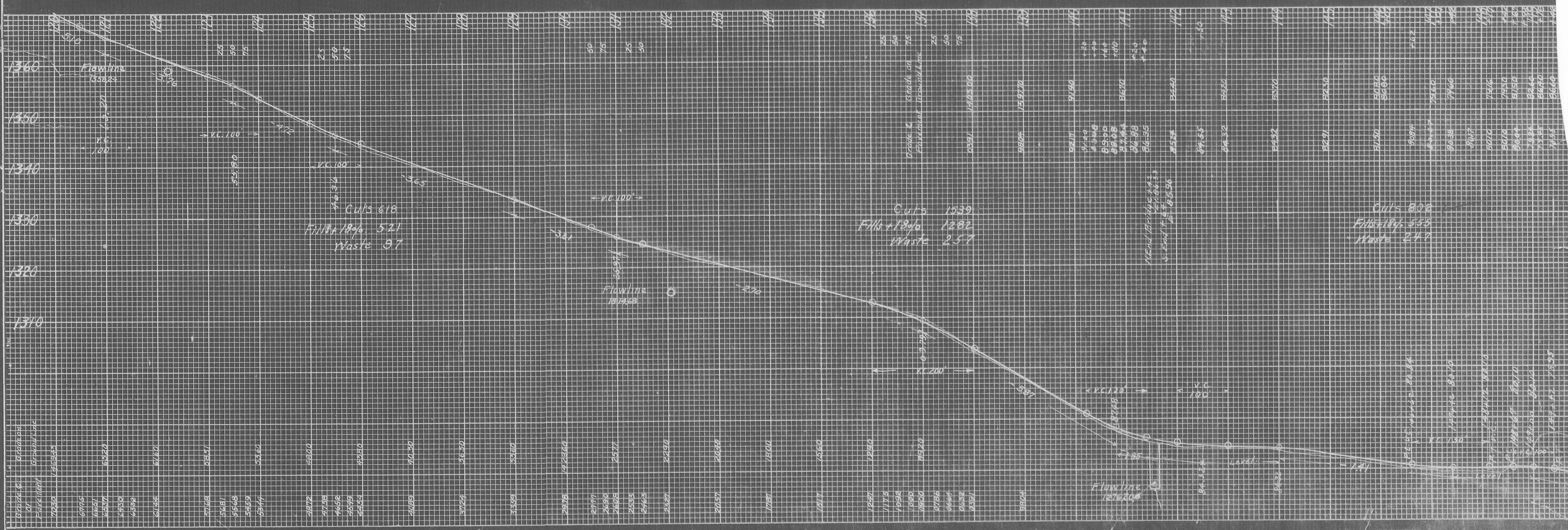
Barbara Sherman
 794 Feet

Mary E. Baker
 892 Feet

Mary E.
 224 Feet

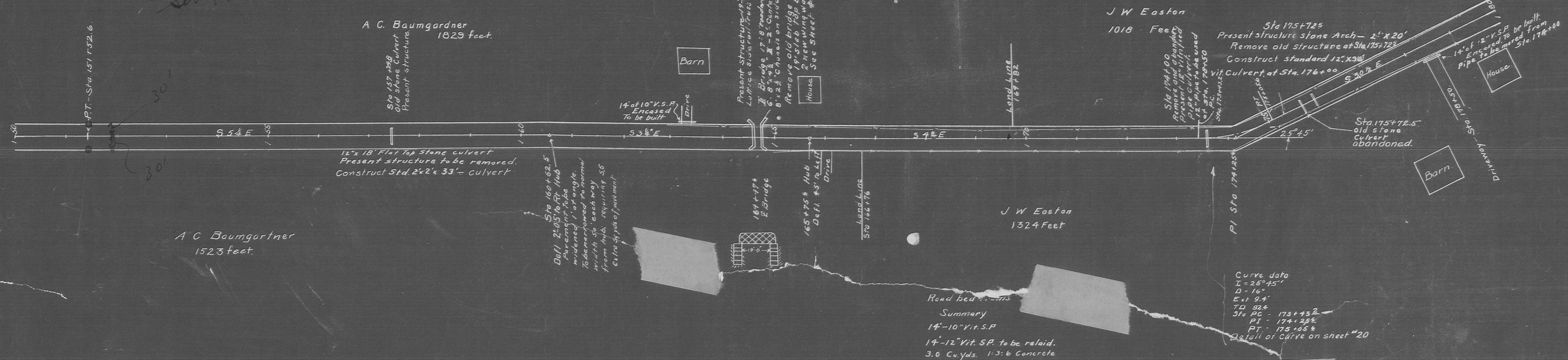
Summary
 Roadbed Items
 Relay 20' of 14" C.I. Pipe
 14' of 12" V.S. Pipe
 1.5 cu. yds. 1:3:6 Concrete

1930



Fed. Road Dist. No.	State	Fed. Aid Prod. No.	Fiscal Year
10	Ohio	143	1921

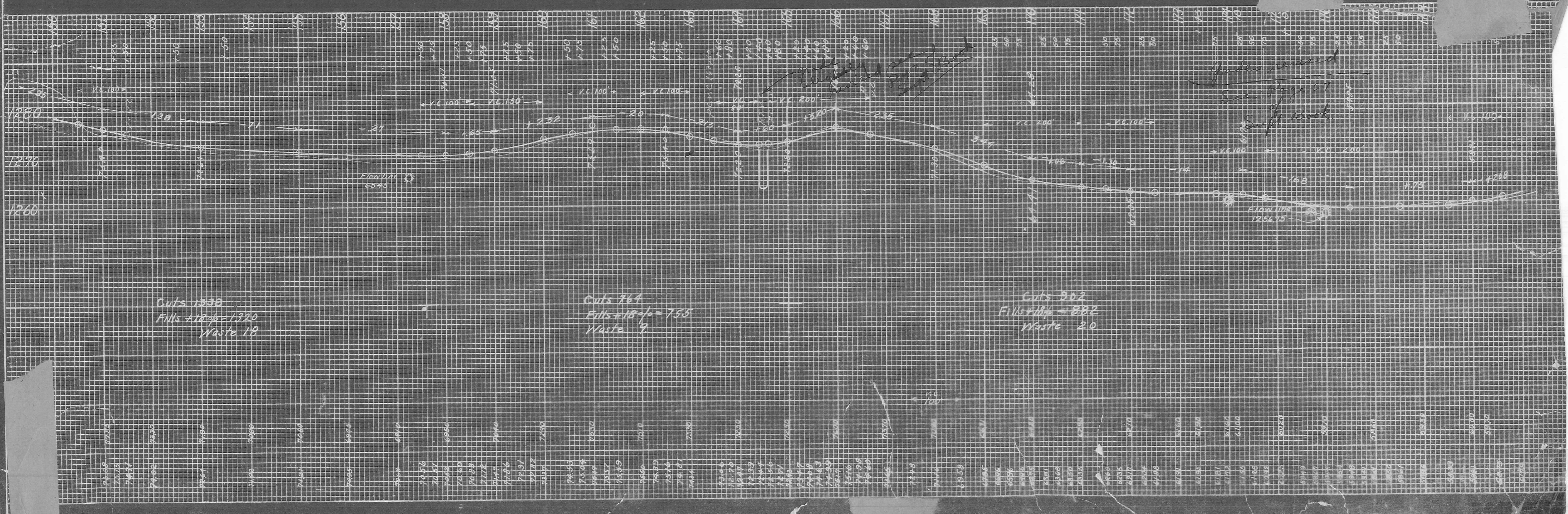
R/W monument
 Sep 1936



A.C. Baumgartner
 1523 feet.

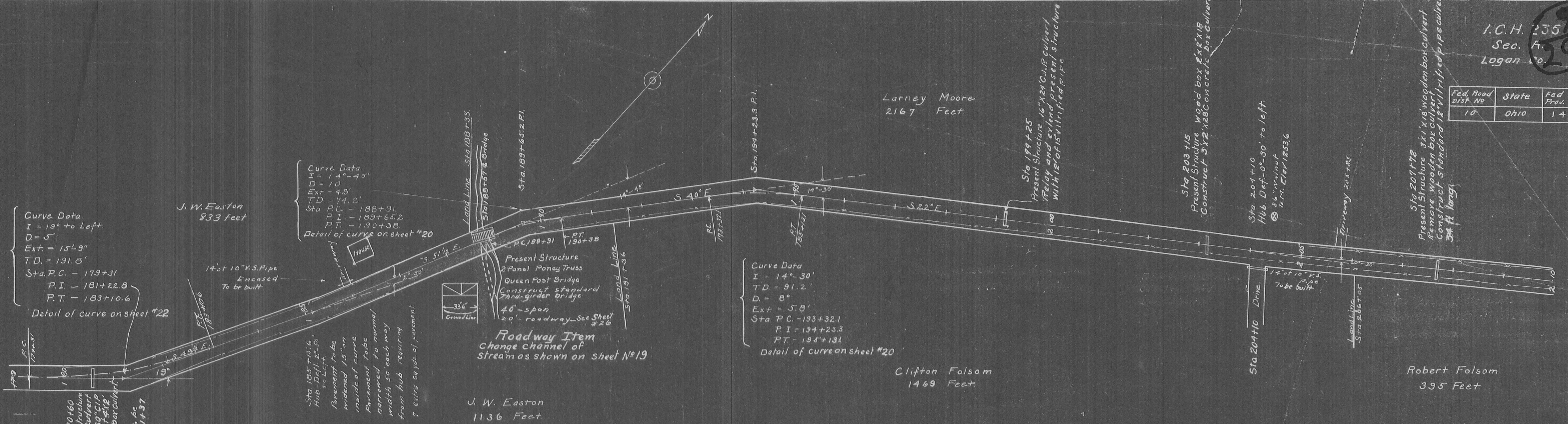
Road bed Summary
 14'-10" V.S.P.
 17'-12" V.S.P. to be relaid.
 3.0 Cu. Yds. 1:3:b Concrete

Curve data
 I = 28° 45'
 D = 160'
 E = 19.4'
 T = 82.4'
 370 PC = 173+43.2
 PT = 174+25.8
 PI = 173+05.5
 Detail of Curve on sheet #20



I.C.H. 235
 Sec. 4
 Logan No. 2

Fed. Road Dist. No.	State	Fed. Aid Prov. No.	Fisc. Year
10	Ohio	143	192



Curve Data
 I = 13° to Left
 D = 5'
 Ext = 15' 9"
 T.D. = 191.8'
 Sta. P.C. = 179+31
 P.I. = 181+22.8
 P.T. = 183+10.6
 Detail of curve on sheet #22

Curve Data
 I = 14°-45'
 D = 10'
 Ext = 4.8'
 T.D. = 74.2'
 Sta. P.C. = 188+91
 P.I. = 189+65.2
 P.T. = 190+38
 Detail of curve on sheet #20

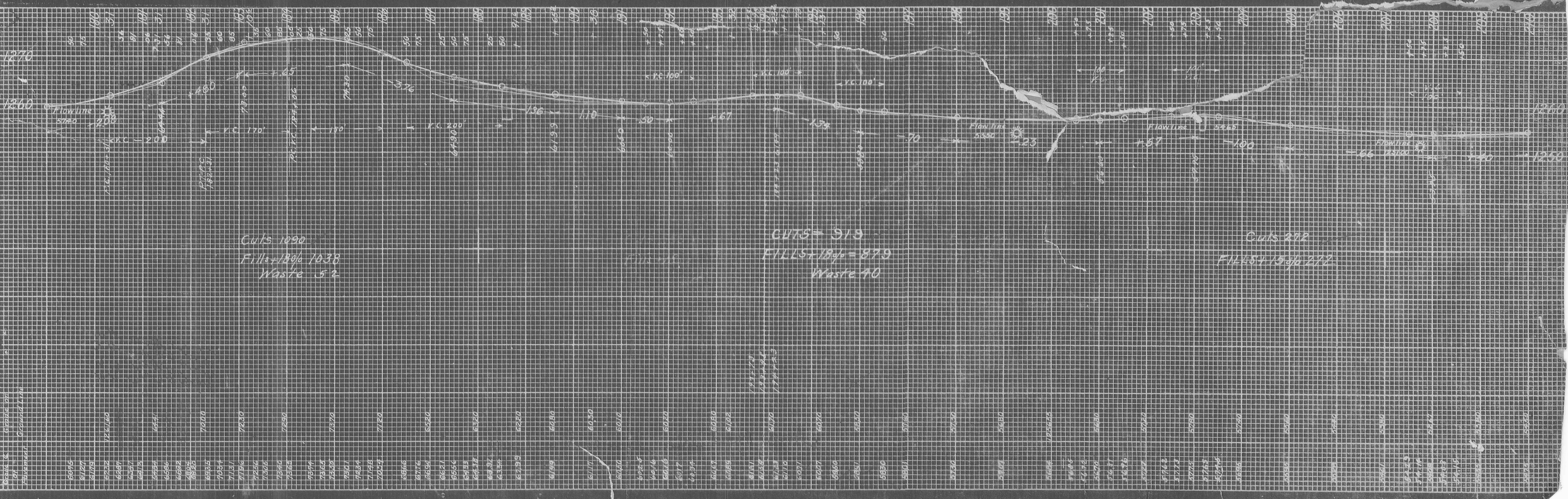
Curve Data
 I = 14°-30'
 D = 8'
 Ext = 5.0'
 Sta. P.C. = 193+32.1
 P.I. = 194+23.3
 P.T. = 195+13.1
 Detail of curve on sheet #20

Sta 180+60
 Present Structure
 30" C.I.P. Culvert
 Remove 30" C.I.P.
 Construct #12
 Concrete box culvert.
 30" C.I.P. to be
 used at 221+37

Sta 185+15.6
 Hub-Defl. 2'-50"
 to Left.
 Pavement to be
 widened 15' on
 inside of curve.
 Pavement to be
 narrowed to normal
 width so each way
 from hub, requiring
 7 extra cu. yds. of pavement.

Roadway Item
 Change channel of
 stream as shown on sheet #19

Summary
 Road bed items
 28'x10' R.S.
 3.0 cu. yds. 1.3% Concrete.

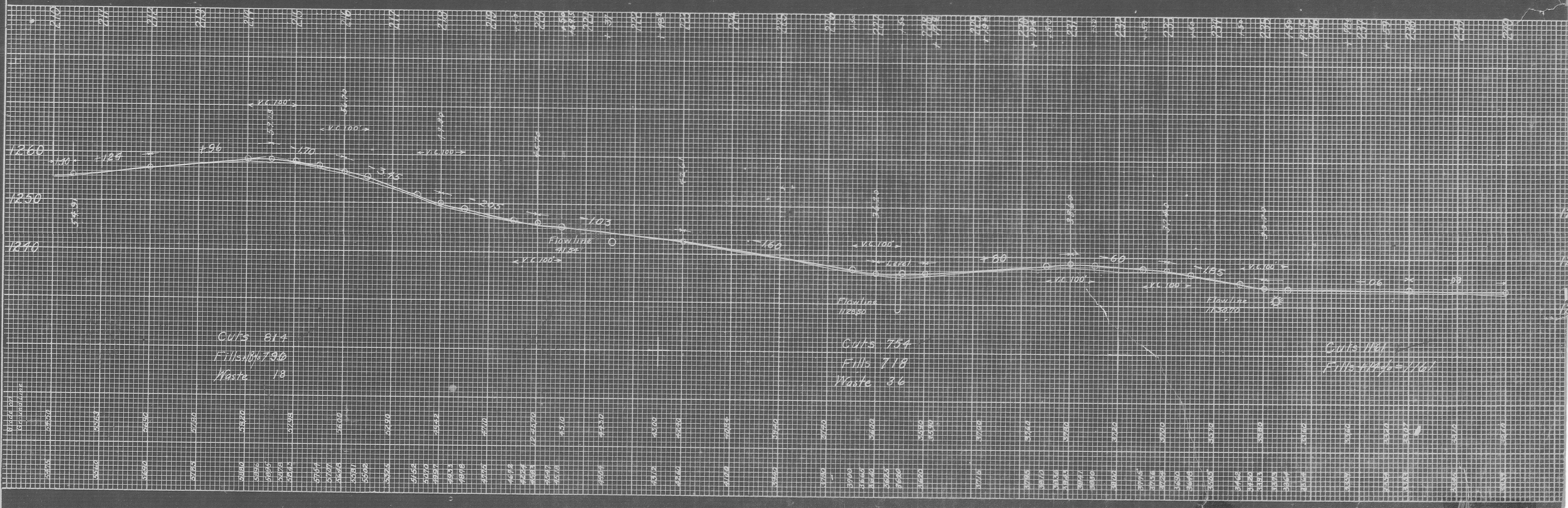
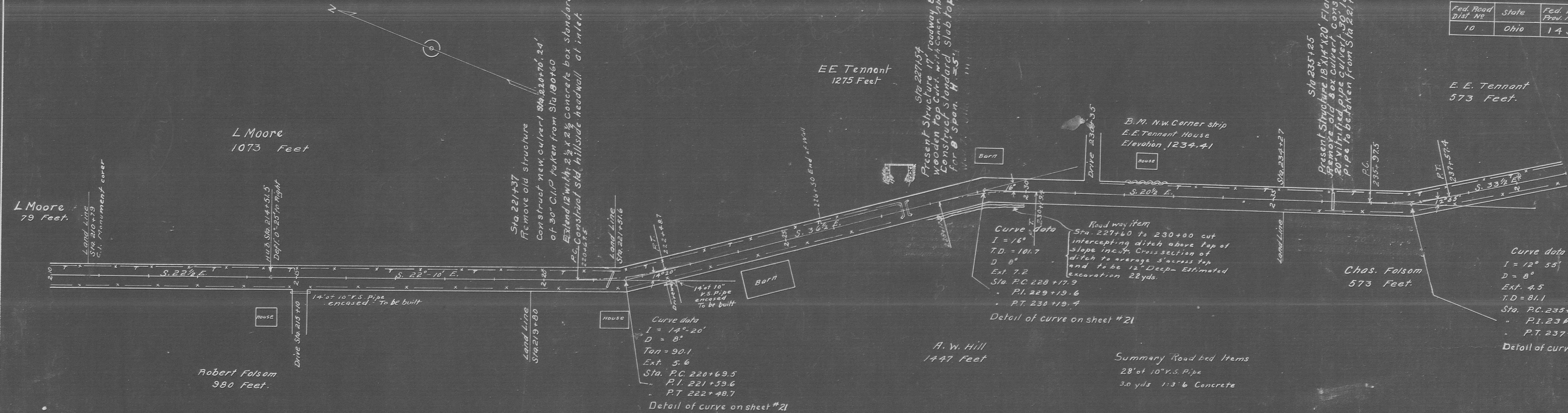


Cuts 1090
 FILLS 1896
 Waste 52

Cuts 919
 FILLS 1896
 Waste 40

Cuts 272
 FILLS 1559
 Waste 272

Fed. Road Dist. No.	State	Fed. Aid Proj. No.	Fiscal Year
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Fed. Road Dist. No.	State	Fed. Aid Proj. No.	Fiscal Year
10	Ohio	143	1921

E. E. Tennant
 2017 Feet

E. E. Tennant
 983 Feet

Chas. Folsom
 3000 Feet

Relay and extend present 15" vit. pipe

Sta 240+25
 Present Structure 15" x 120"
 vitrified pipe culvert
 Relay and extend with 15"
 vitrified pipe taken from
 Sta 242+70

Sta 242+170
 Present Structure 15" x 120"
 vitrified pipe culvert
 Abandon Structure, lay out
 vitrified pipe at Sta 242+25
 Sta 243+30 PI
 1-20-70 FH

14" of 10" V.S. Pipe
 Enclosed
 To be built
 Sta 249+89
 Present 4' x 4' stone arch
 remove stone arch
 construct 4' x 3' standard
 concrete box culvert

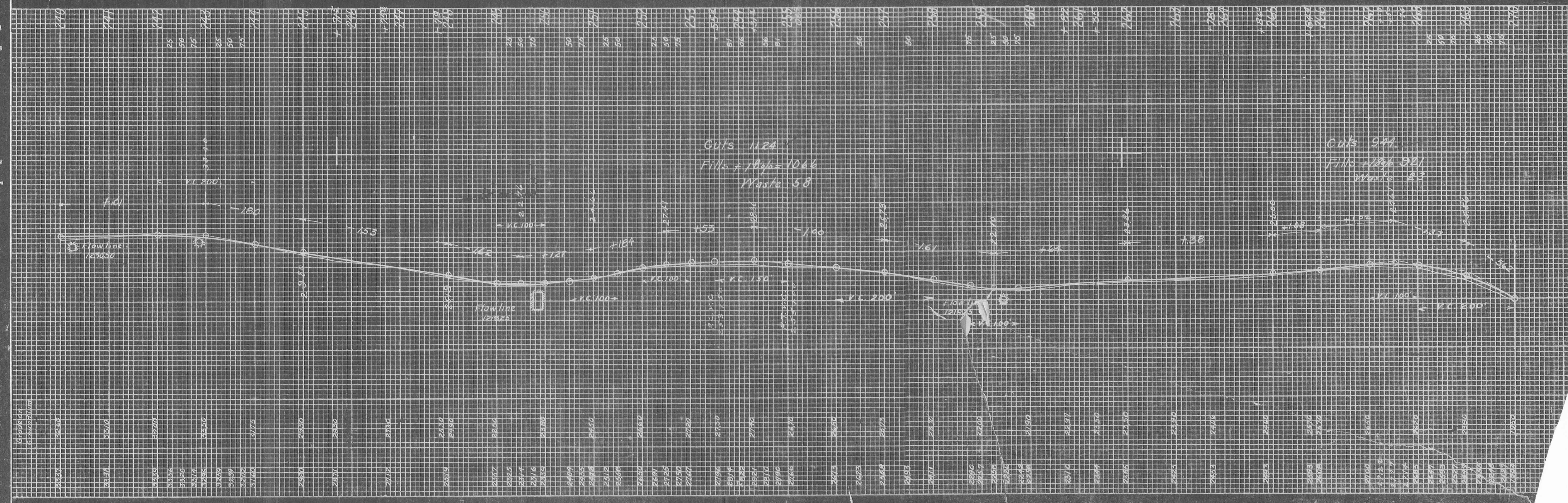
Curve Data
 I = 4°-15'
 TD = 104.3
 Ext = 2.0
 Sta. P.C. 245+71.5
 P.I. 246+75.0
 P.T. 247+79.9
 D = 3°
 Detail of curve on sheet #20

Curve Data
 I = 12°-05'
 D = 4°
 TD = 76.1
 Ext = 2.6
 Sta. P.C. 253+55.2
 P.I. 254+31.3
 P.T. 255+06.9
 Detail of curve on sheet #21

Curve Data
 I = 17°
 D = 16°
 T = 53.5'
 Ext = 4.0'
 Sta. P.C. 260+28.5
 P.I. 260+82
 P.T. 261+34.2
 Detail of curve sheet #21

Curve Data
 I = 41°-15'
 D = 20°
 TD = 107.8
 Ext = 13.6'
 Sta. P.C. = 263+74.8
 P.I. = 264+86.1
 P.T. = 265+84.4
 Detail of Curve on sheet #21

Summary
 Road bed items
 28' of 10" V.S. Pipe
 3.0 yds 1:3:6 Concrete



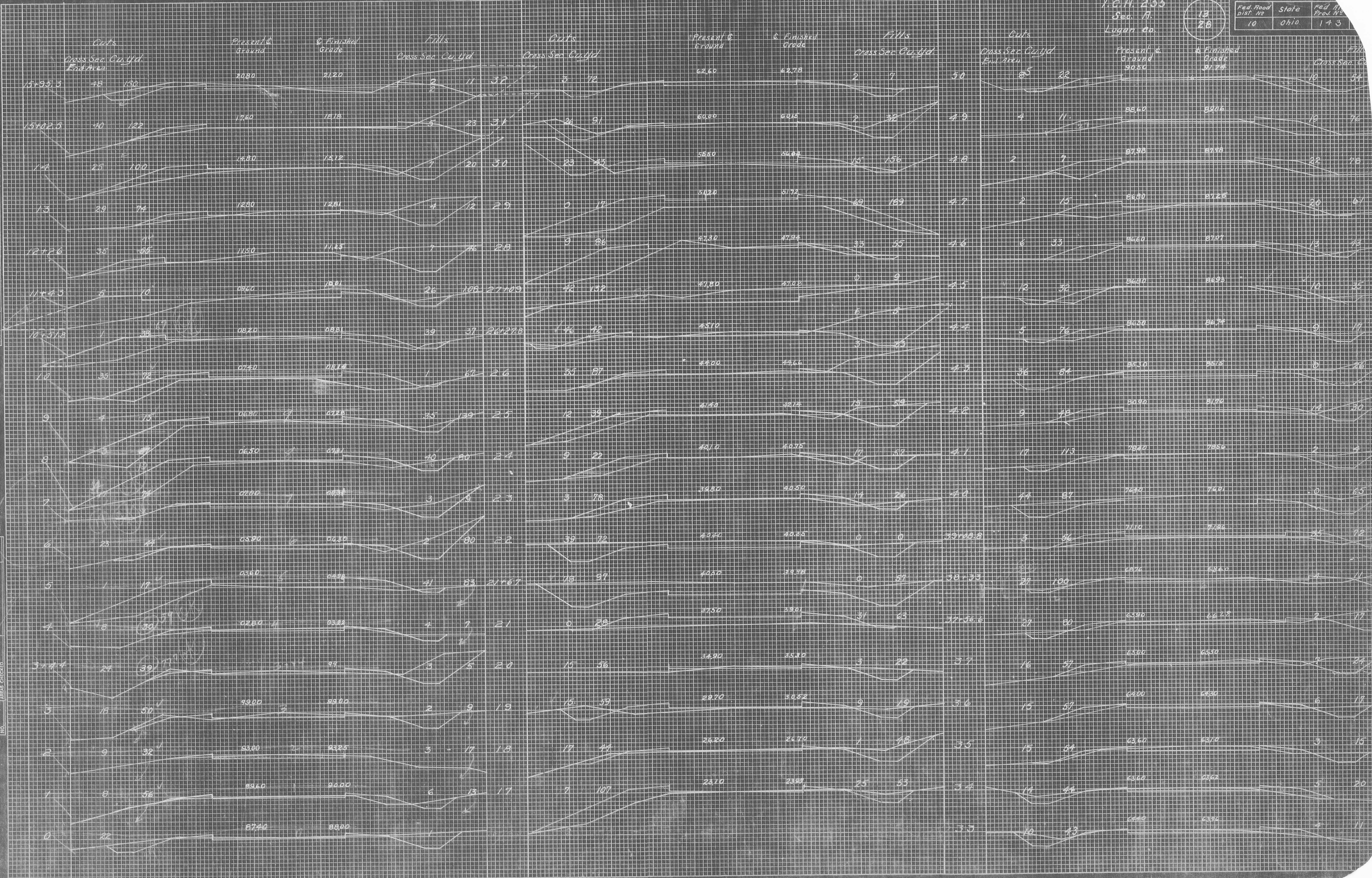
V.G.W. 2-35
Sec. 17
Logan Co.

13
26

Red. Road Dist. No. 10 State Ohio Red. No. From 143

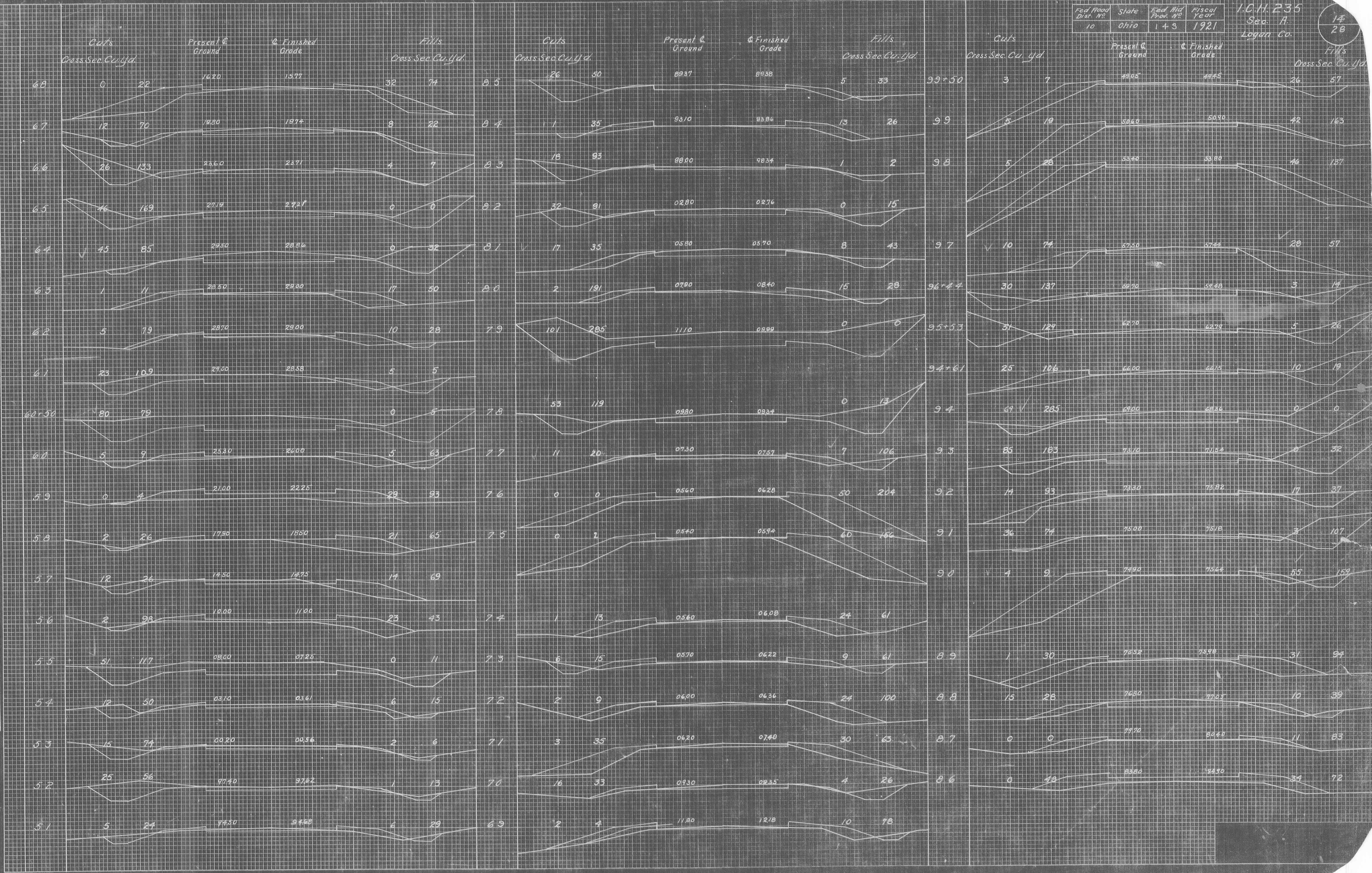
FINAL SURVEY BY DATE
SUPERVISED BY DATE
NOTED BY DATE
NOTE BOOK NO. AREAS CHECKED

ORIGINAL SURVEY BY DATE
SUPERVISED BY DATE
NOTED BY DATE
NOTE BOOK NO. AREAS CHECKED



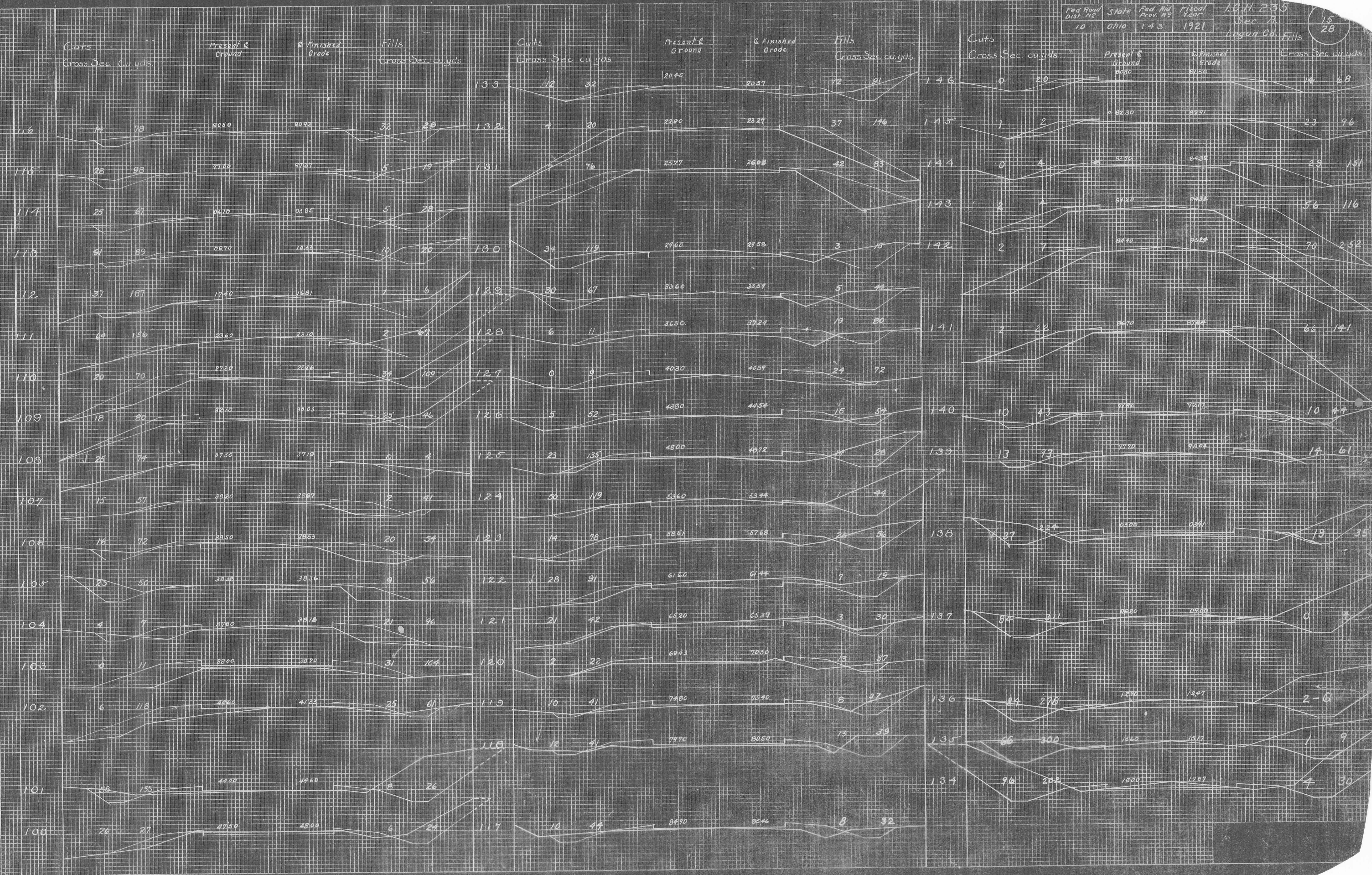
DATE _____ BY _____
 ORIGINAL SURVEYED, PLOTTED, AND CHECKED
 NOTE BOOK NO. _____ AREAS CHECKED _____

DATE _____ BY _____
 ORIGINAL SURVEYED, PLOTTED, AND CHECKED
 NOTE BOOK NO. _____ AREAS CHECKED _____



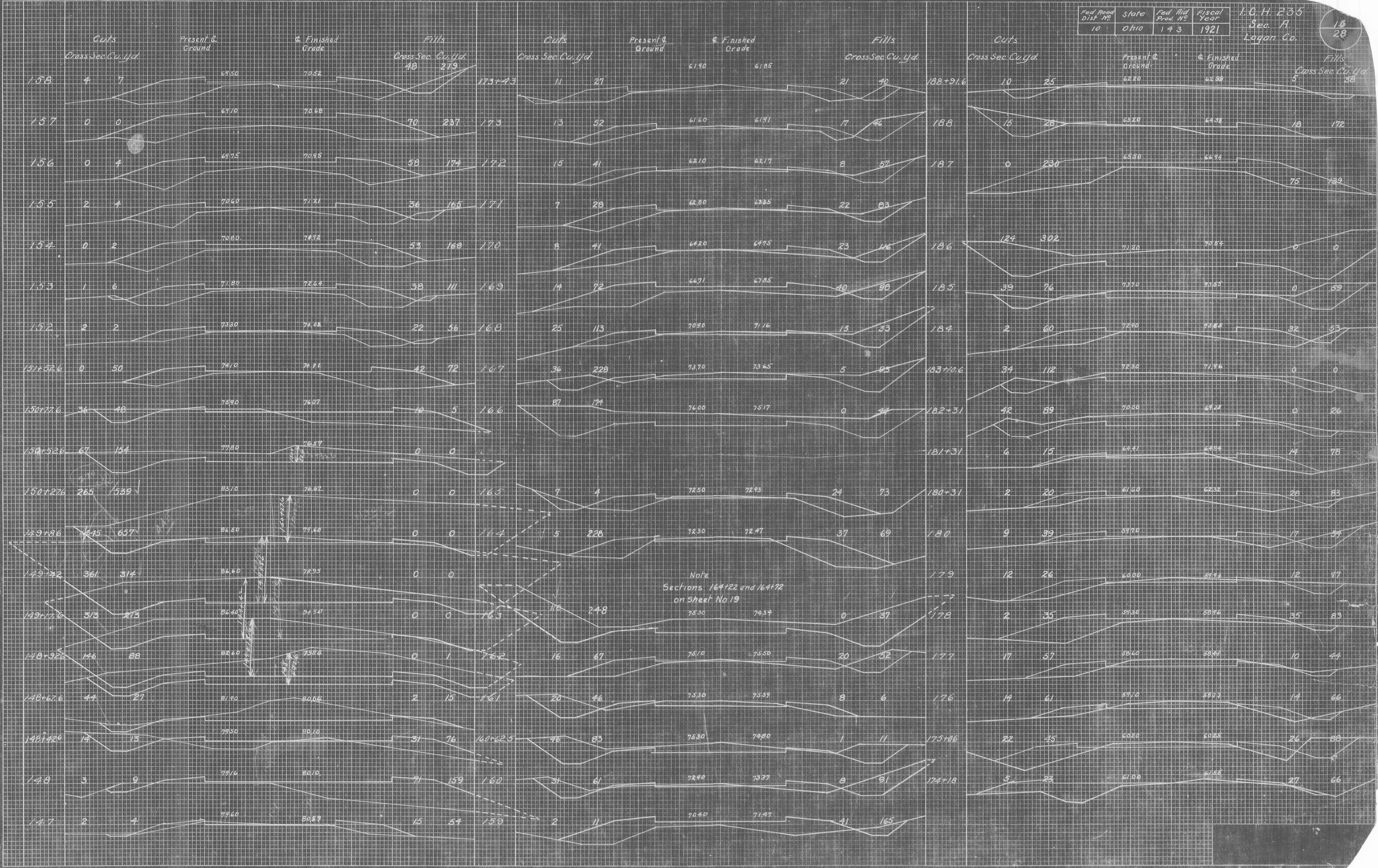
DATE _____ BY _____
 ORIGINAL SURVEY PLOTTED TEMPLATE
 NOTE BOOK NO. _____ AREAS CHECKED _____
 FINAL SURVEY PLOTTED TEMPLATE
 NOTE BOOK NO. _____ AREAS CHECKED _____

DATE _____ BY _____
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 NOTE BOOK NO. _____ AREAS CHECKED _____
 FINAL SURVEY PLOTTED TEMPLATE
 NOTE BOOK NO. _____ AREAS CHECKED _____



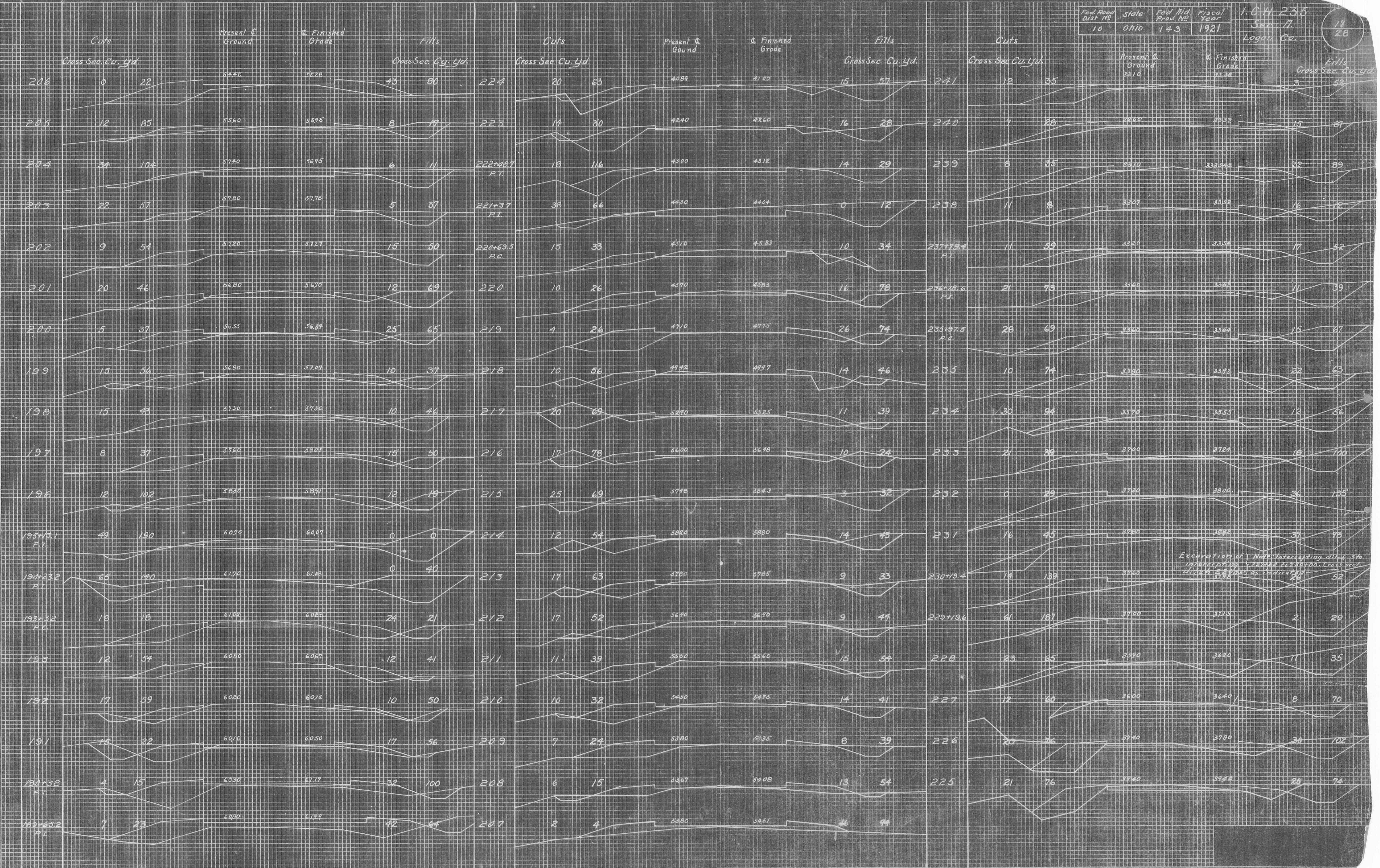
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SURVEYED BY
NOTE BOOK NO.
AREAS CHECKED

ORIGINAL SURVEY BY DATE
SURVEYED BY
NOTE BOOK NO.
AREAS CHECKED



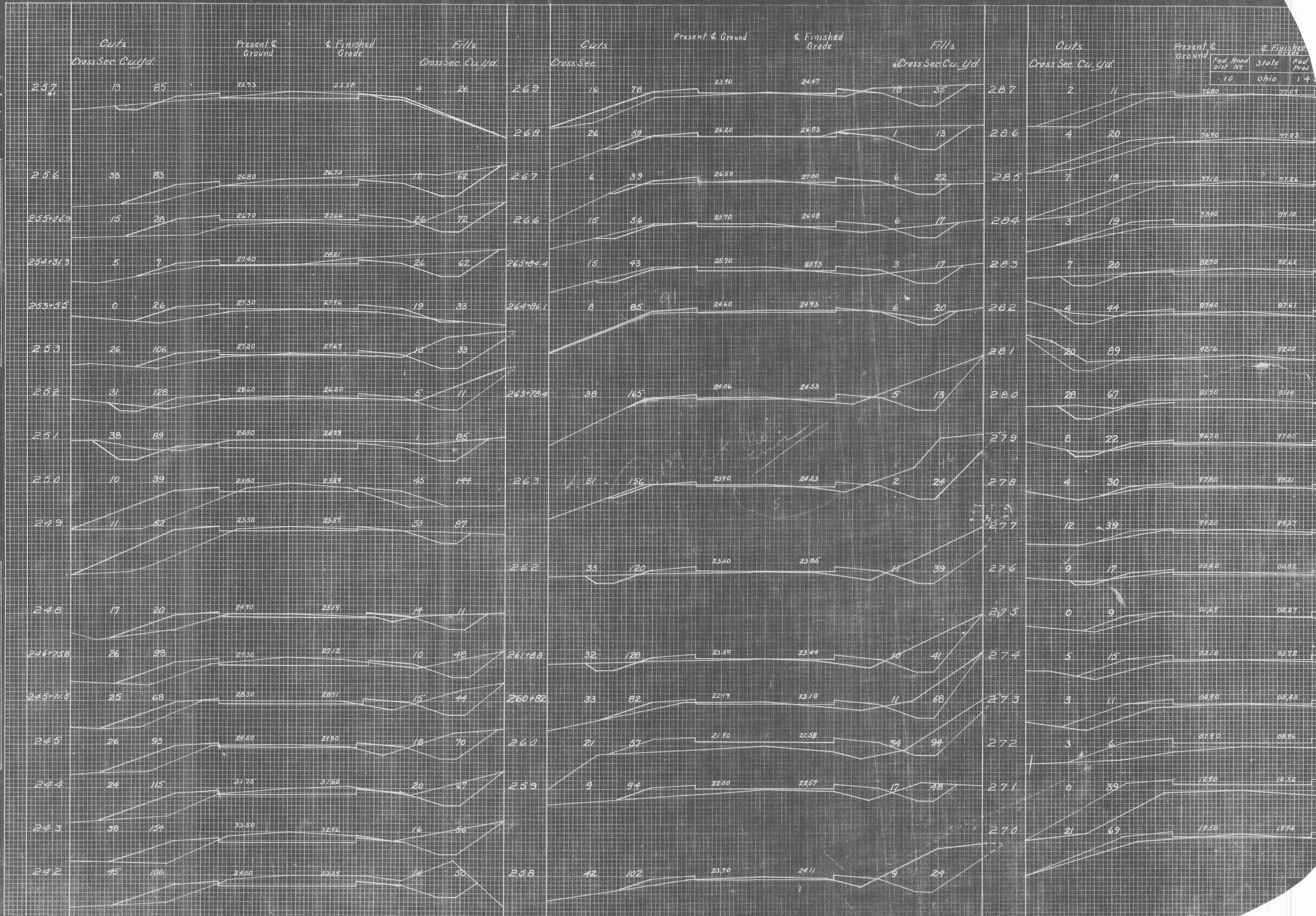
FINAL SURVEY PLOTTED AREAS CHECKED. BY DATE

ORIGINAL SURVEY PLOTTED AREAS CHECKED. BY DATE



DATE _____
 BY _____
 SURVEYED _____
 SURVEY _____
 TEMPLATE _____
 NOTE BOOK _____
 AREAS CHECKED _____
 NO. _____

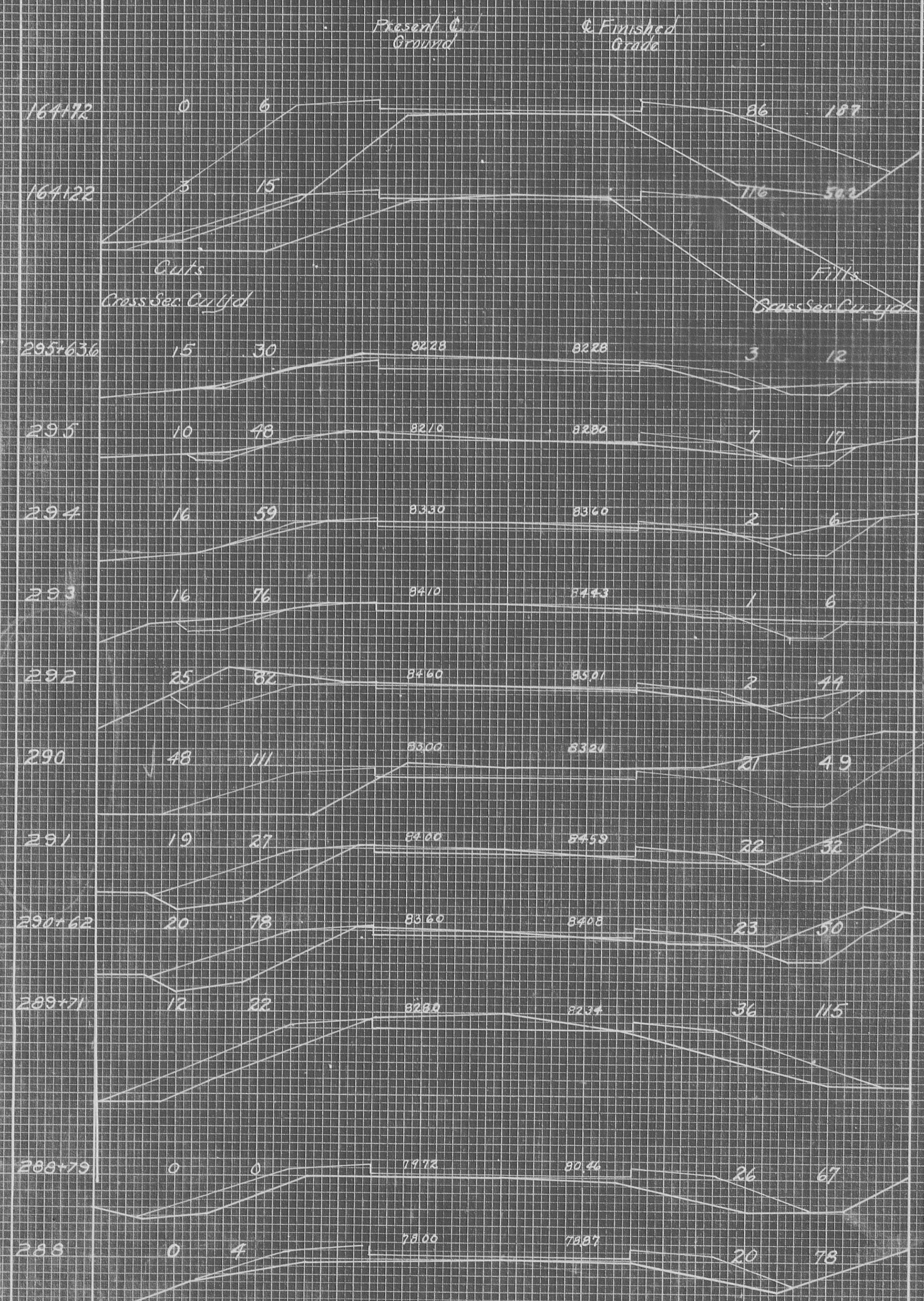
DATE _____
 BY _____
 SURVEYED _____
 SURVEY _____
 TEMPLATE _____
 NOTE BOOK _____
 AREAS CHECKED _____
 NO. _____



Present & Ground
 Fed. Road Dist. No. 10
 State Ohio
 & Finished Grade
 Fed. Prod. 14

DATE _____ BY _____
 SURVEYED _____
 PLOTTED _____
 TEMPLATE _____
 NOTE BOOK _____
 AREAS CHECKED _____
 NO. _____

DATE _____ BY _____
 SURVEYED _____
 PLOTTED _____
 TEMPLATE _____
 NOTE BOOK _____
 AREAS CHECKED _____
 NO. _____



SUMMARY of ROAD BED ITEMS

Station	Type	Material	Size	10" Vit. Sewer pipe New	12" Vit. Sewer pipe New	18" Vit. Sewer pipe New	Concrete 1:3:6	
11+43	Std.	V.S.P.	10"	14			1.5	
34+75	"	"	10"	14	14		3.0	
43+25	"	"	10"	28			3.0	
52+00	"	"	15"			14	1.5	
55+85	"	"	10"	14			1.5	
86+40	"	"	12"		14		1.5	
113+50	"	"	12"		20		2.2	
137+80	"	"	12"		14		1.5	
137+80	"	C.I.P.	14"					
163+30	"	V.S.P.	10"	14			1.5	
178+50	"	"	12"		14		1.5	
186+00	"	"	10"	14			1.5	
204+10	"	"	10"	14			1.5	
215+10	"	"	10"	14			1.5	
222+50	"	"	10"	14			1.5	
249+50	"	"	10"	14			1.5	
266+70	"	"	10"	14			1.5	
271+90	"	"	10"	16			1.7	
278+50	"	"	10"	14			1.5	
Totals				184	28	34	28	30.9

Pavement & Roadway Totals

Loose Limestone	Excavation	3" Uniform Pavement	Finishing	Cast Iron
Cu. Yds.	Cuts Cu. Yds. Fills	sq. yds.	Shoulders & Ditches Lin ft.	Monuments Covers
40	238.94	172.71	544.81	2
			215	2
			29563	
			185.55	

15" square to extend 2' abutments' below ground

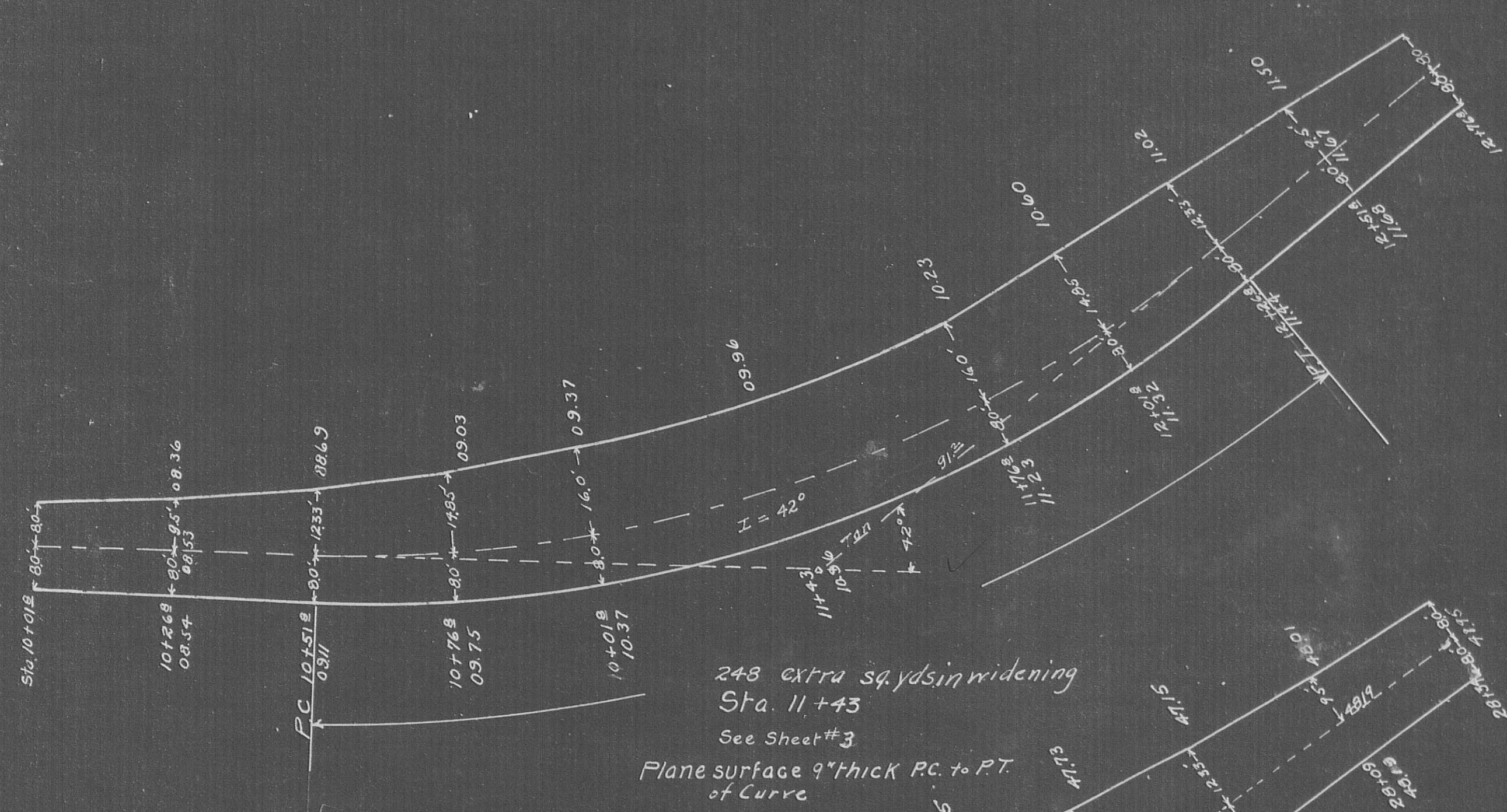
Note: 290 & 291 drawn O.K. & marked correct, but they are interchanged in position.

Indicated 197 for Budget

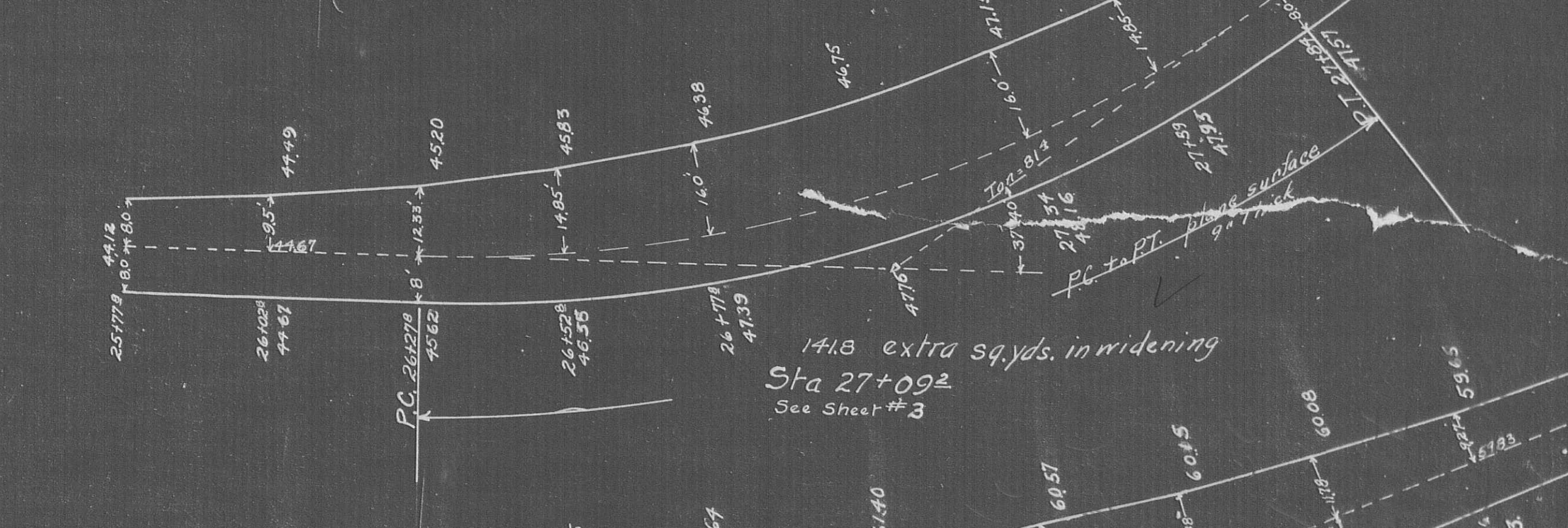
Gross Sections of Channel above bridge at 188+50



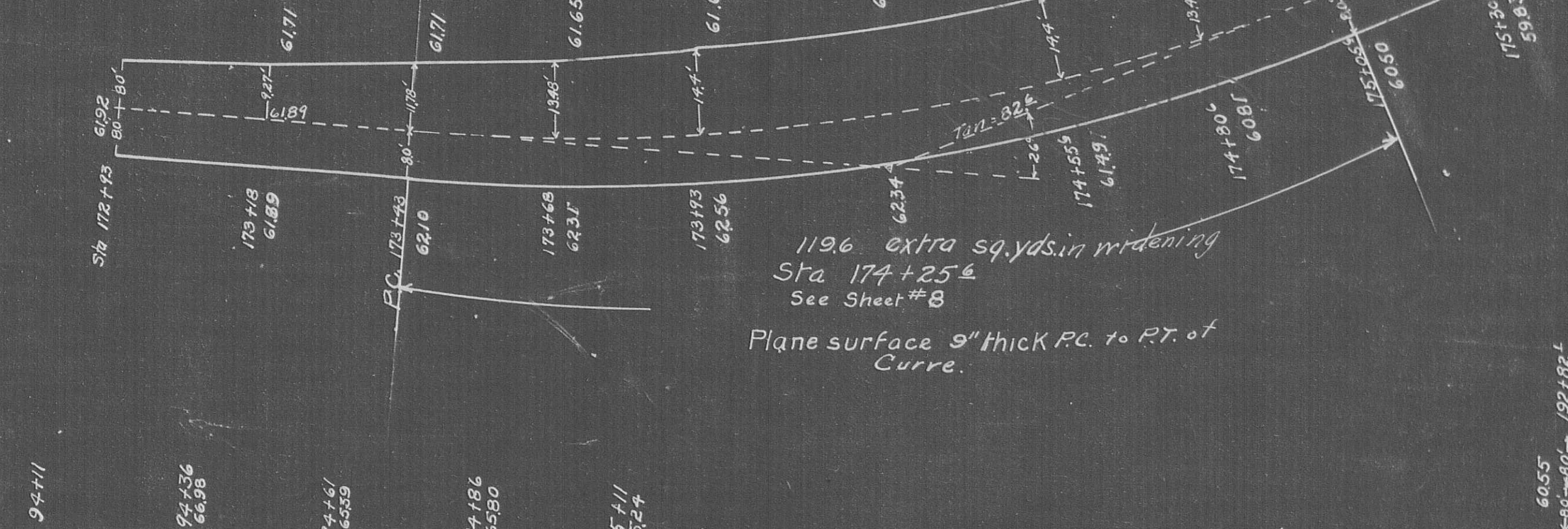
20
28



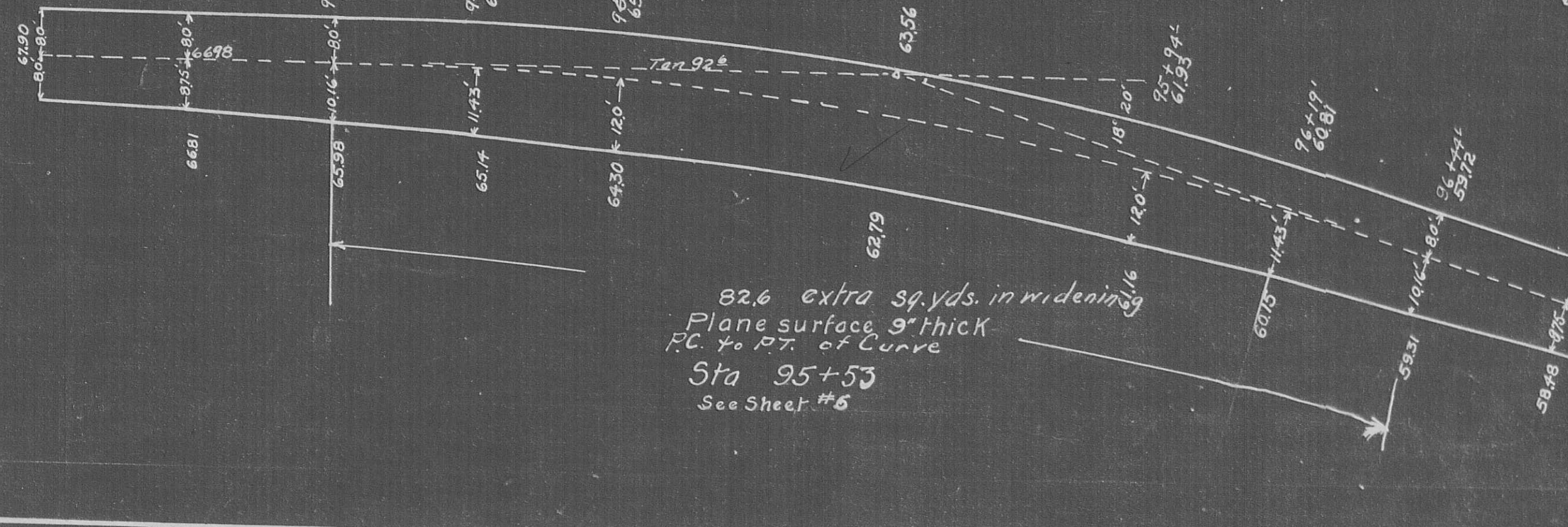
248 extra sq. yds. in widening
Sta. 11+43
See Sheet #3
Plane surface 9" thick PC. to PT. of Curve



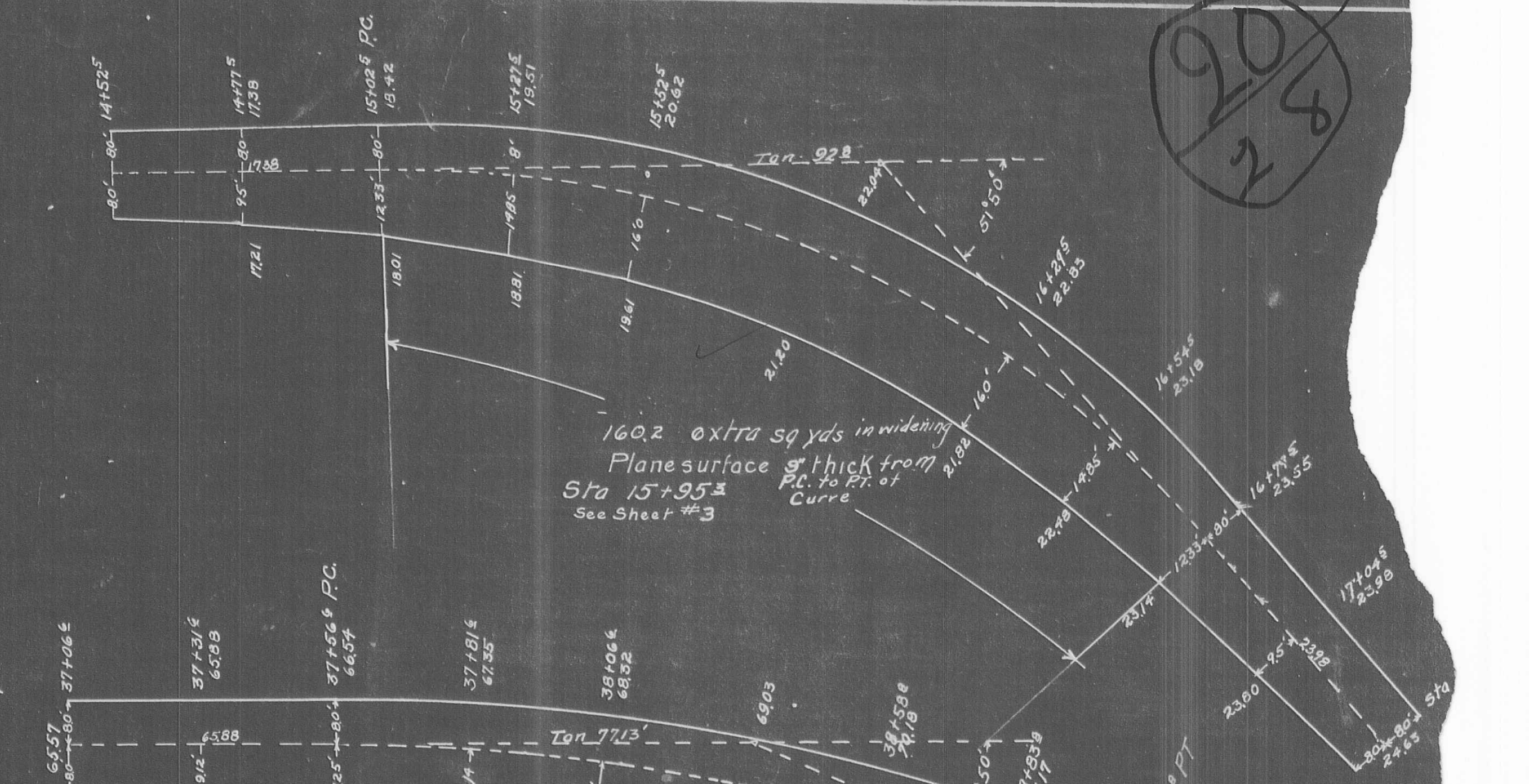
1418 extra sq. yds. in widening
Sta 27+09.2
See Sheet #3



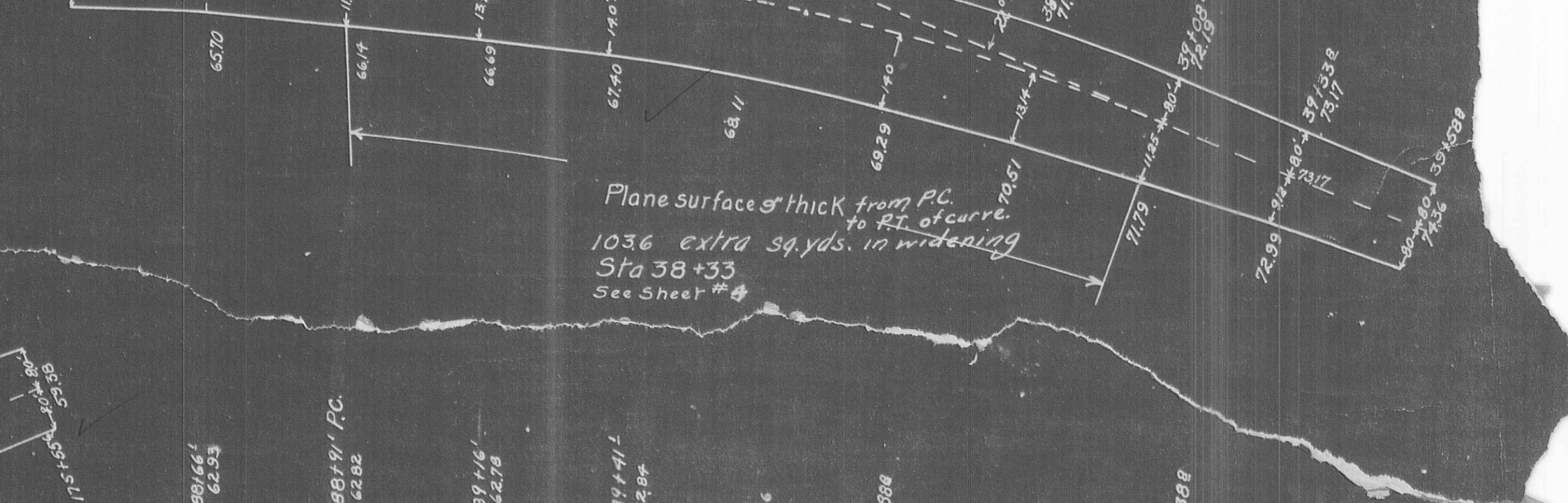
1196 extra sq. yds. in widening
Sta 174+25.4
See Sheet #8
Plane surface 9" thick PC. to PT. of Curve.



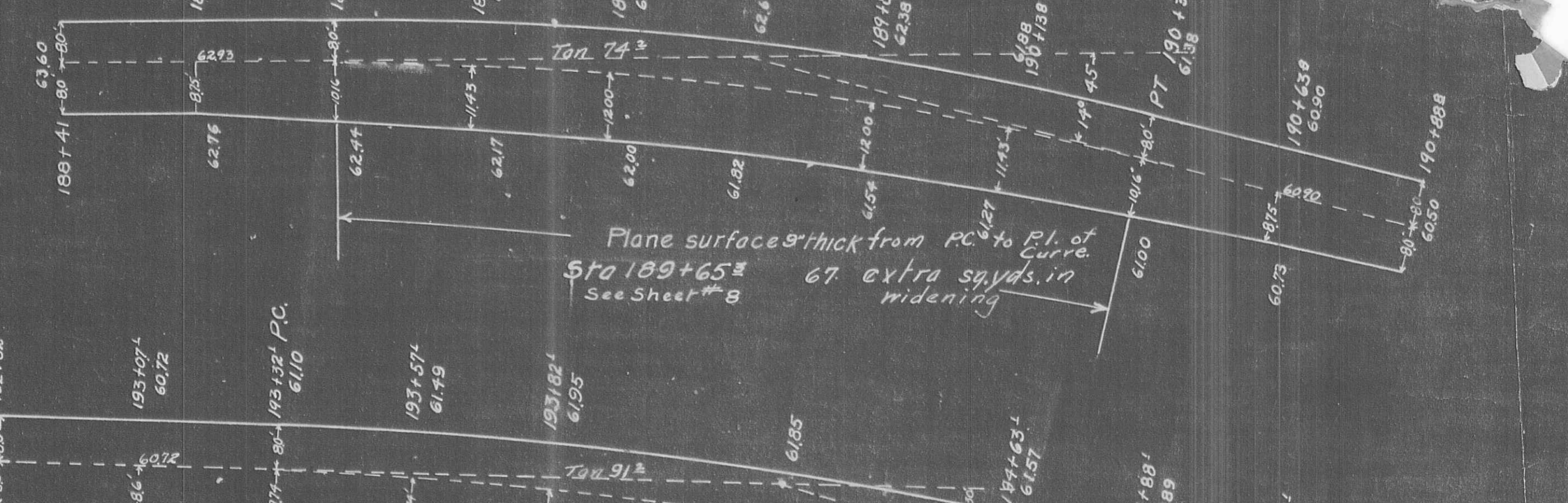
82.6 extra sq. yds. in widening
Plane surface 9" thick
PC. to PT. of Curve
Sta 95+53
See Sheet #5



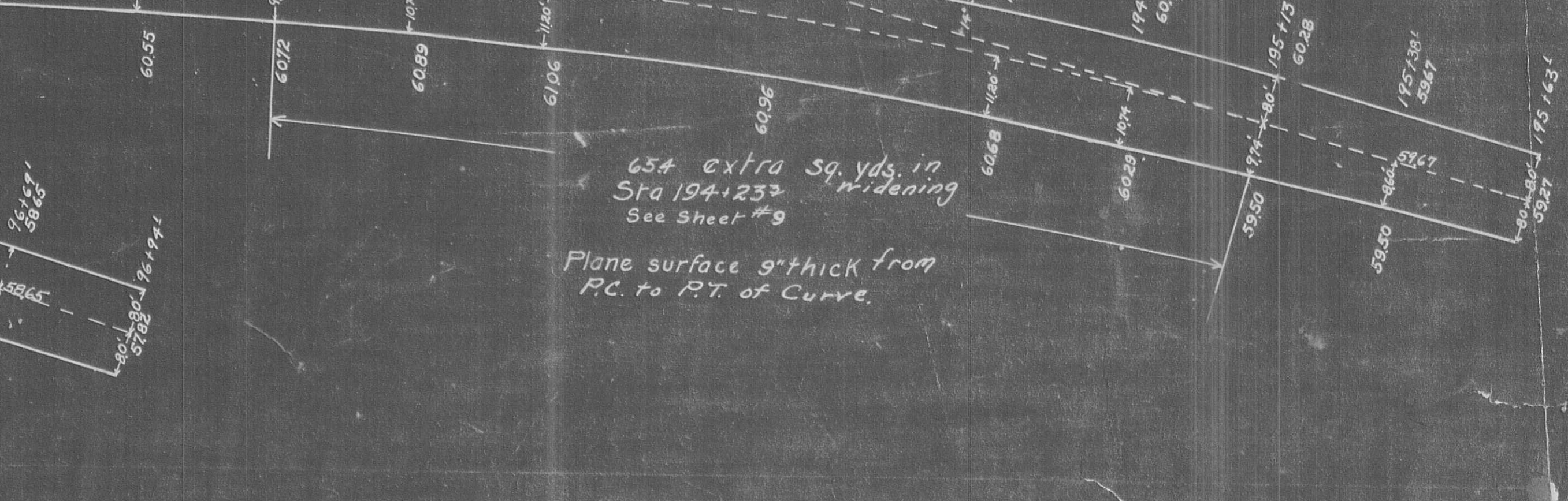
160.2 extra sq. yds. in widening
Plane surface 9" thick from
Sta 15+95.3
PC. to PT. of Curve
See Sheet #3



Plane surface 9" thick from PC.
to PT. of curve.
1036 extra sq. yds. in widening
Sta 38+33
See Sheet #4

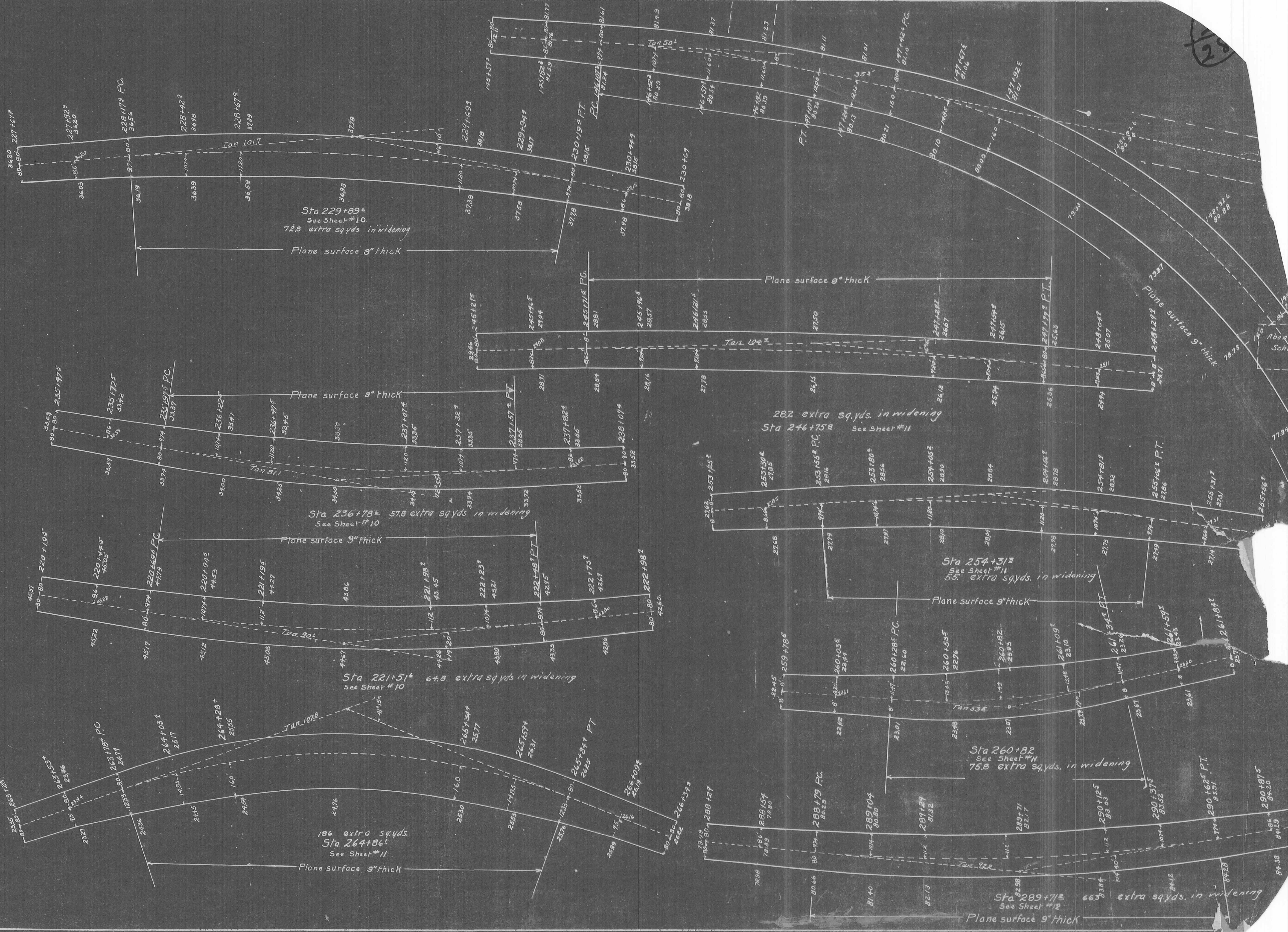


Plane surface 9" thick from PC. to PT. of Curve.
Sta 189+65.3
67 extra sq. yds. in widening
See Sheet #8



654 extra sq. yds. in widening
Sta 194+23.3
See Sheet #9
Plane surface 9" thick from
PC. to PT. of Curve.

28



Sta 229+89.2
See Sheet #10
72.8 extra sqyds in widening
Plane surface 9" thick

Plane surface 9" thick

Plane surface 9" thick

282 extra sqyds. in widening
Sta 246+75.2
See Sheet #11

Plane surface 9" thick

Sta 254+31.2
See Sheet #11
55 extra sqyds. in widening
Plane surface 9" thick

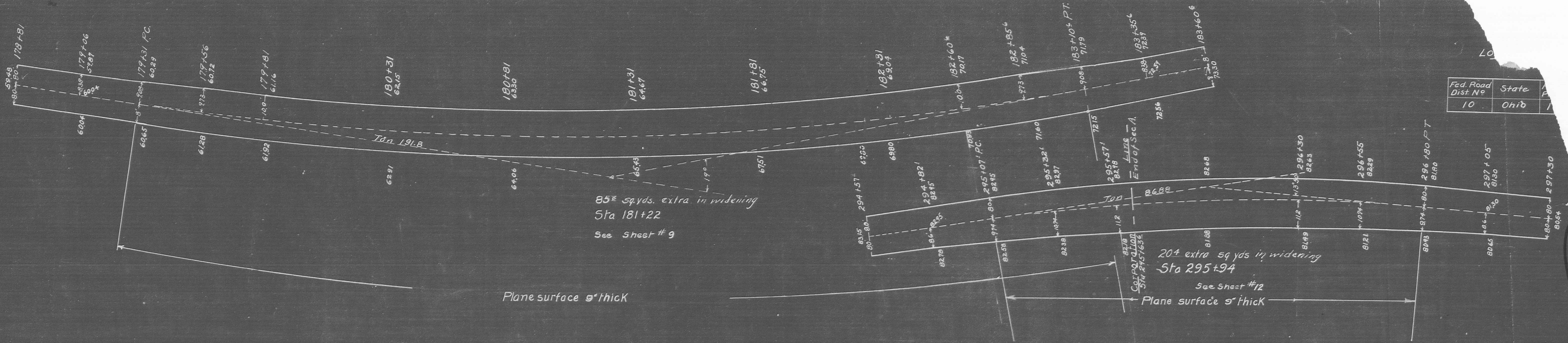
Sta 221+51.2
See Sheet #10
64.8 extra sqyds in widening

Sta 260+82.2
See Sheet #11
75.8 extra sqyds, in widening

186 extra sqyds.
Sta 264+86.2
See Sheet #11
Plane surface 9" thick

Sta 289+71.2
See Sheet #12
66.5 extra sqyds, in widening
Plane surface 9" thick

Fed. Road Dist. No.	State
10	Ohio



Plane surface 8" thick

85± sq. yds. extra in widening
Sta 181+22
See Sheet # 9

20± extra sq. yds. in widening
Sta 295+94
See Sheet # 12

Plane surface 8" thick

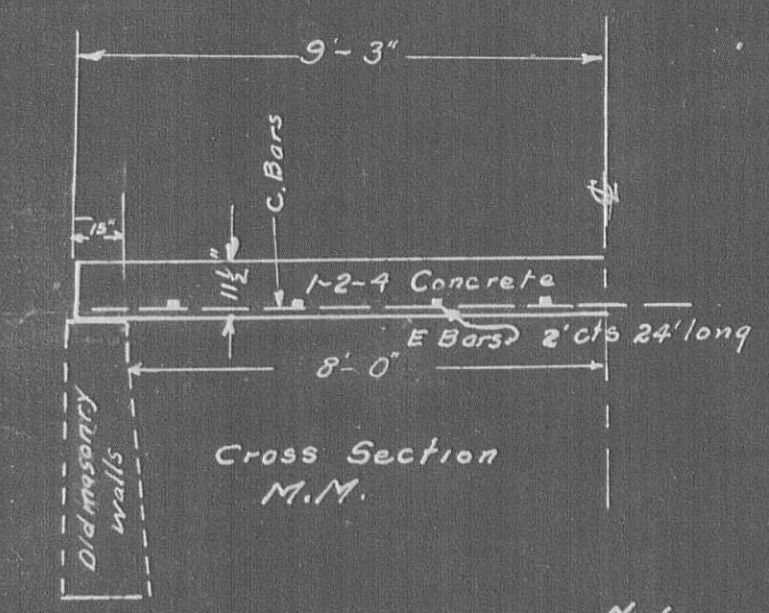
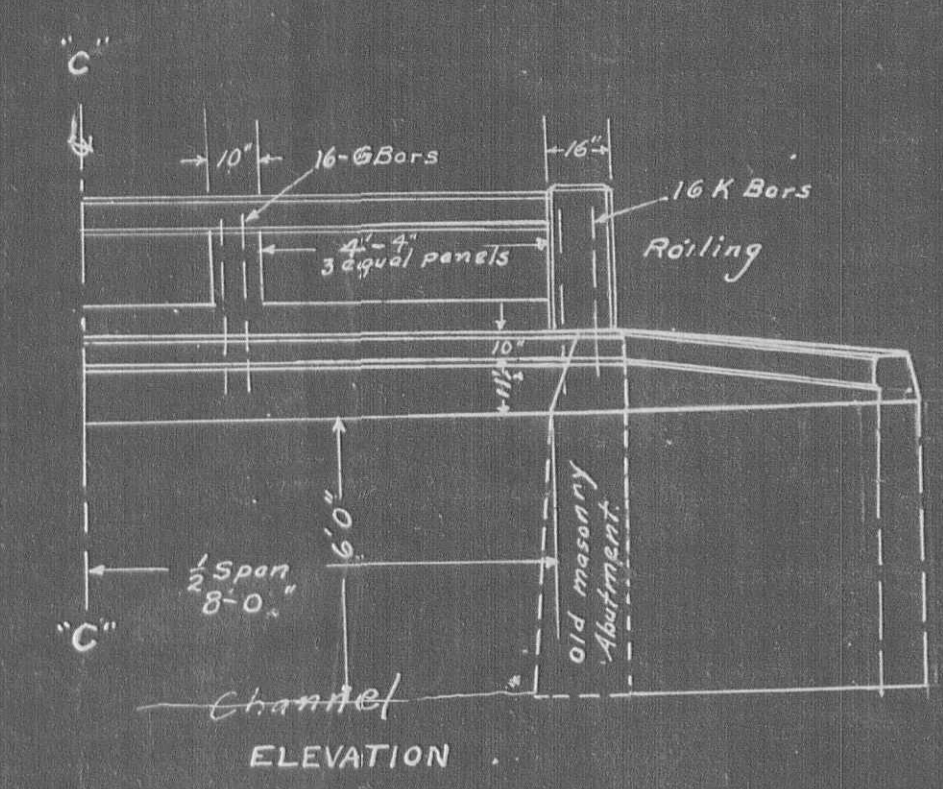
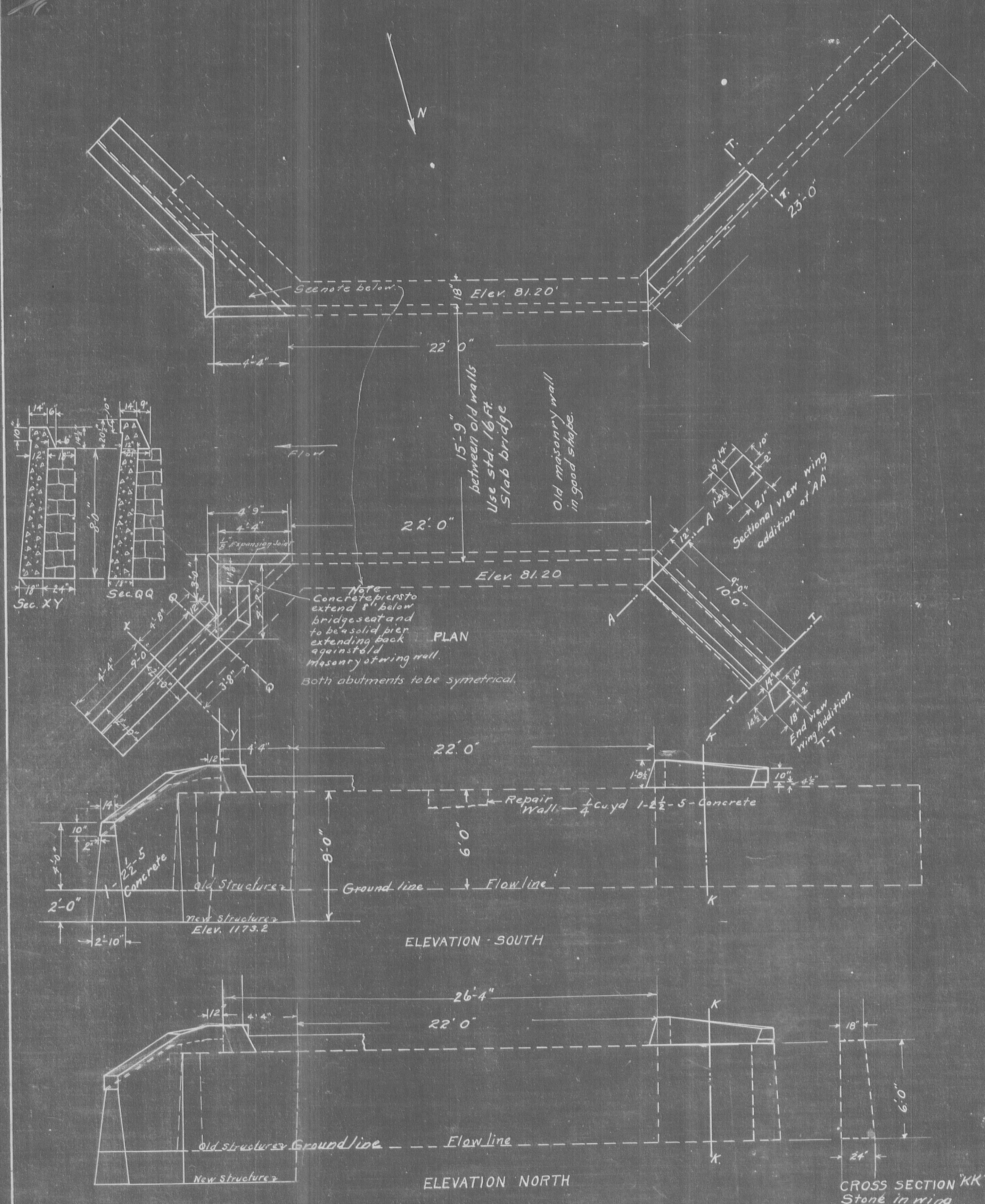
29
2

Fed. Road Dist. No.	State	Fed. Aid Proj. No.	Fiscal Year
10	Ohio	143	1921

Sta. 289+85-
**SUPERSTRUCTURE
 STANDARD
 SLAB BRIDGE**
 SPAN 16 FT
 LOADING:- CLASS T-15
 STATE HIGHWAY DEPARTMENT
 COLUMBUS, OHIO.
 MARCH, 1920 BUREAU OF BRIDGES

ESTIMATED QUANTITIES

Steel	2140 #
Concrete	1:2:4 - 18.5 yds
Concrete	1:2½:5 - 16.6 yds
Excavation	15 cu. yds.
Railing Type G	36 ft.
Remove present steel superstructure	
Point up masonry walls	30 sq. yd.



Note
 Material from old structure to be left to disposal of commissioners.

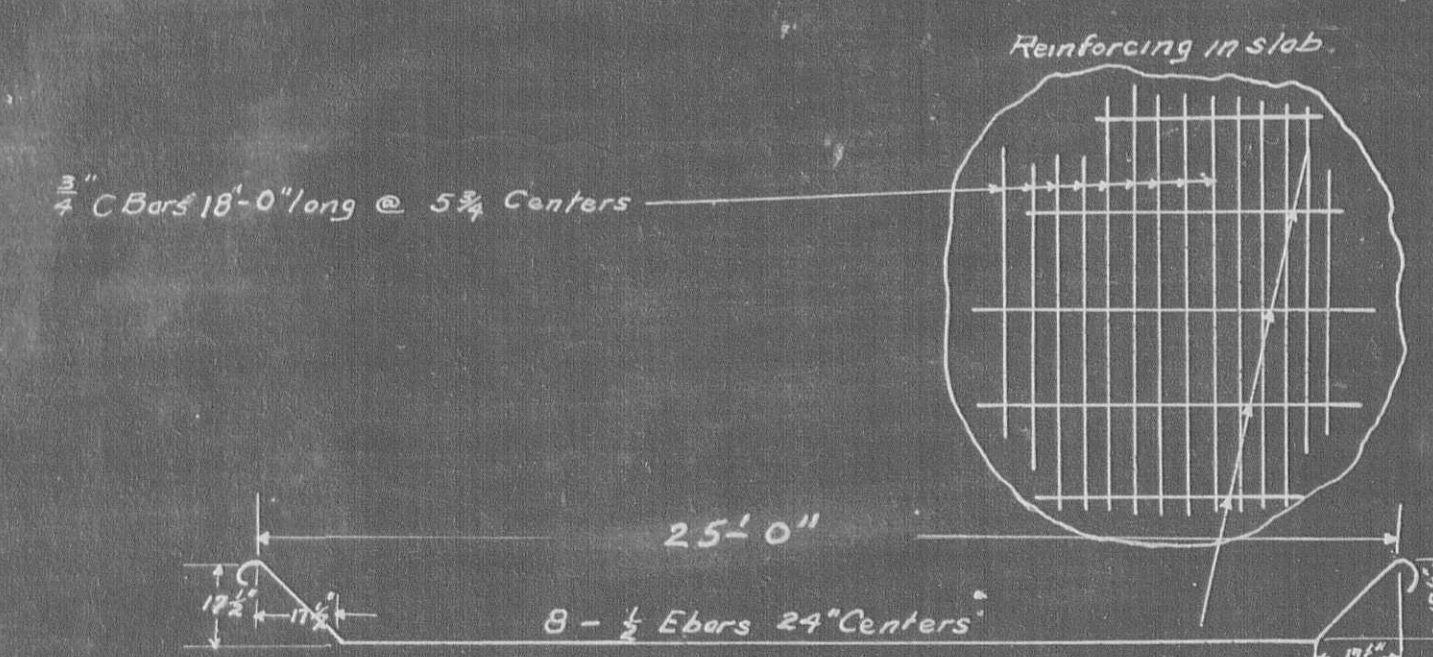
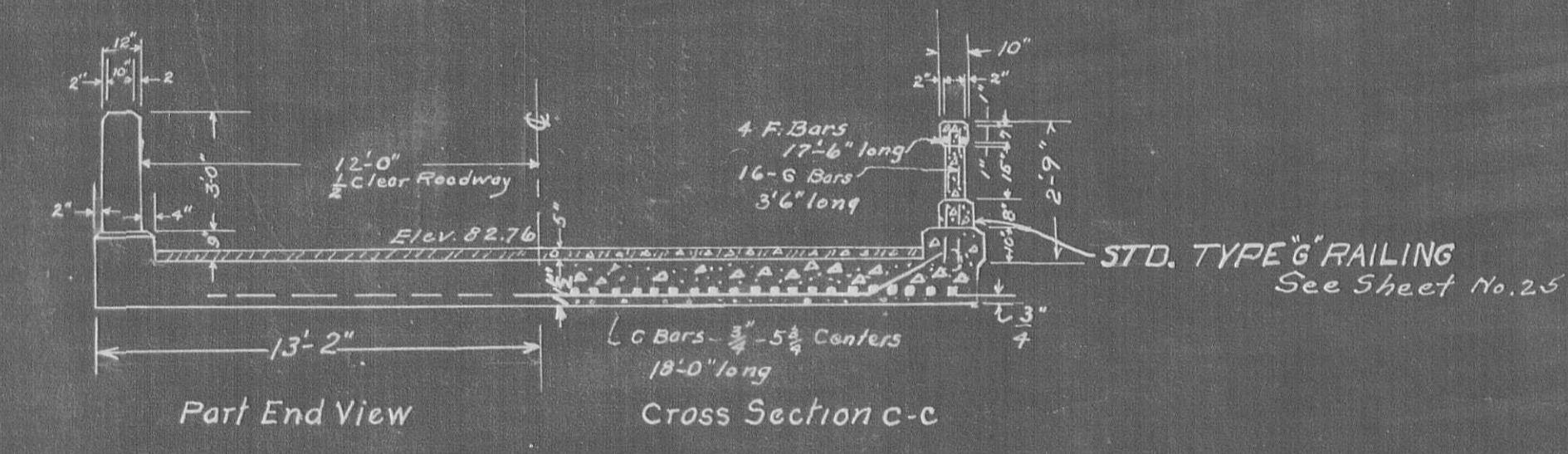
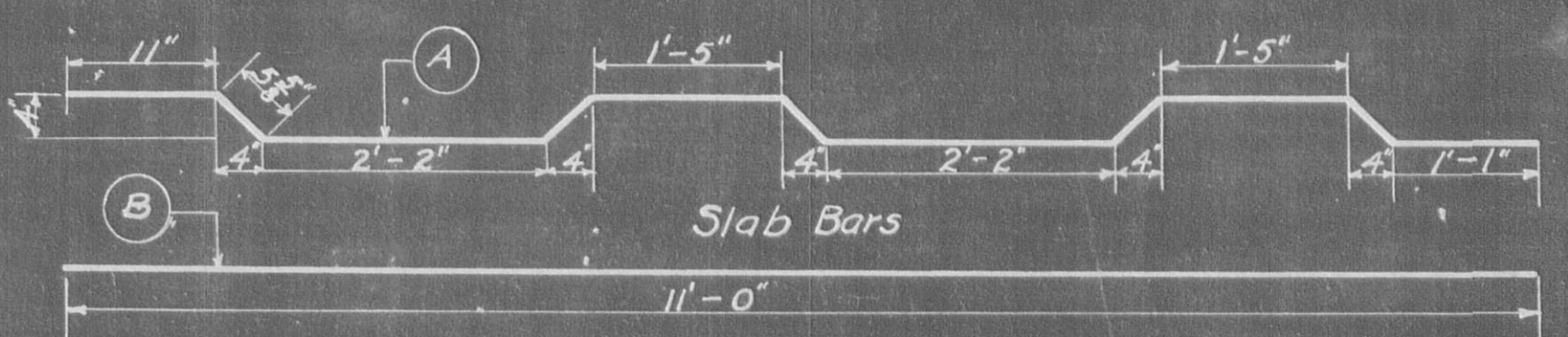
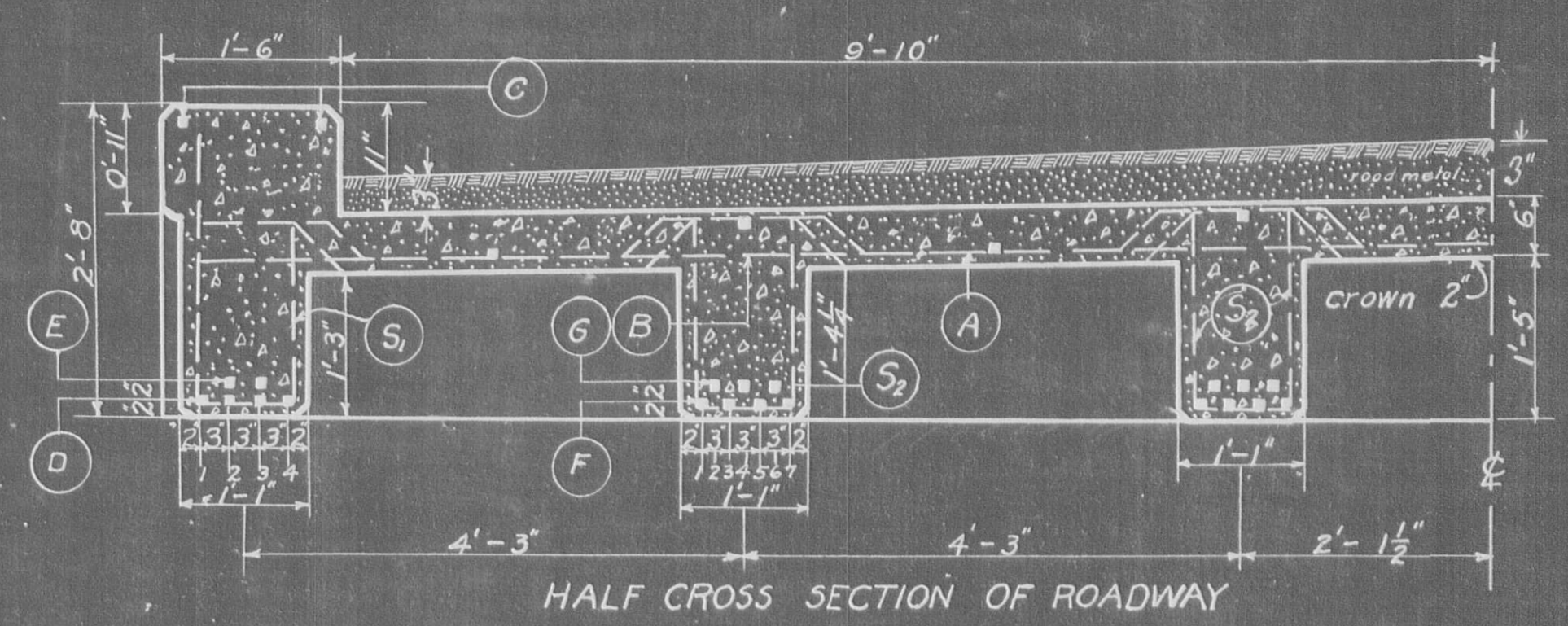
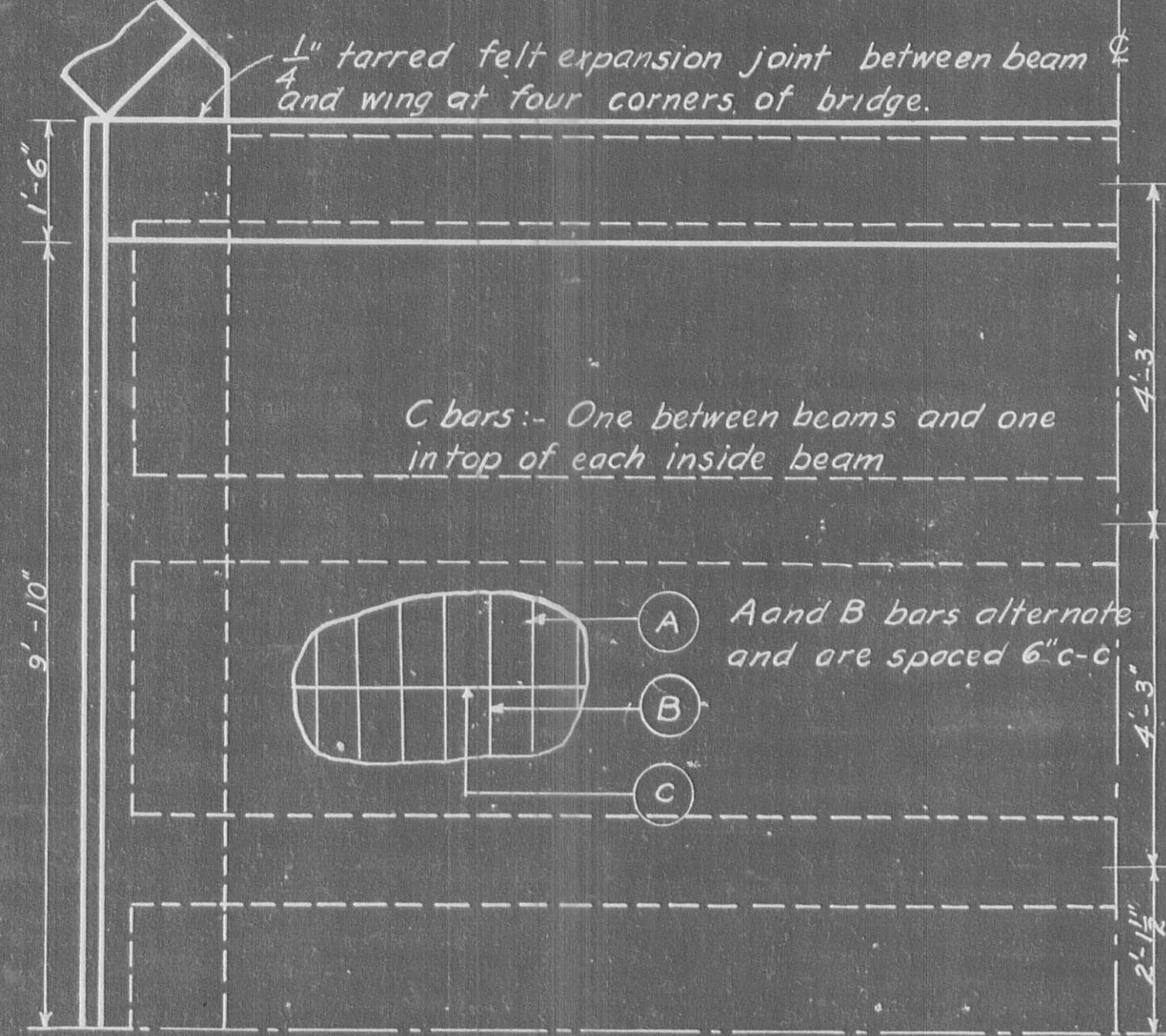
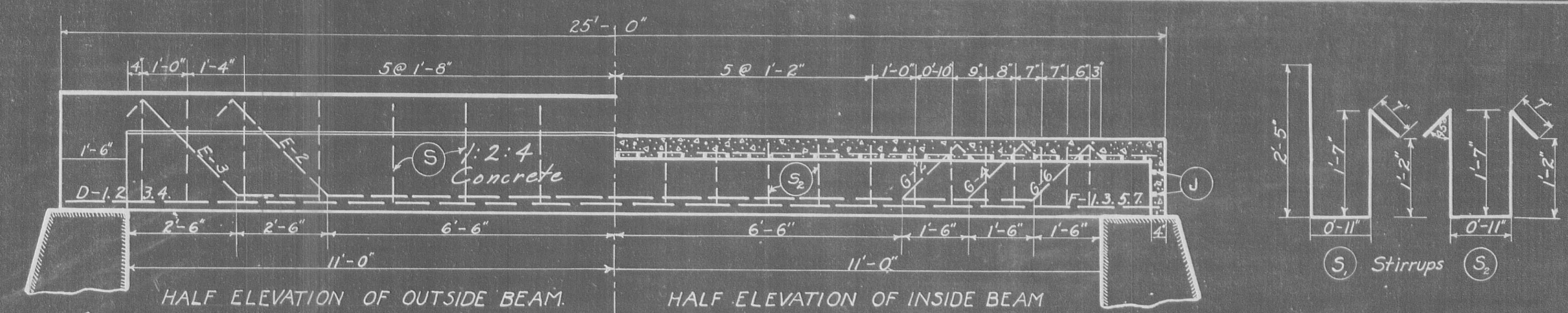


Table of Steel

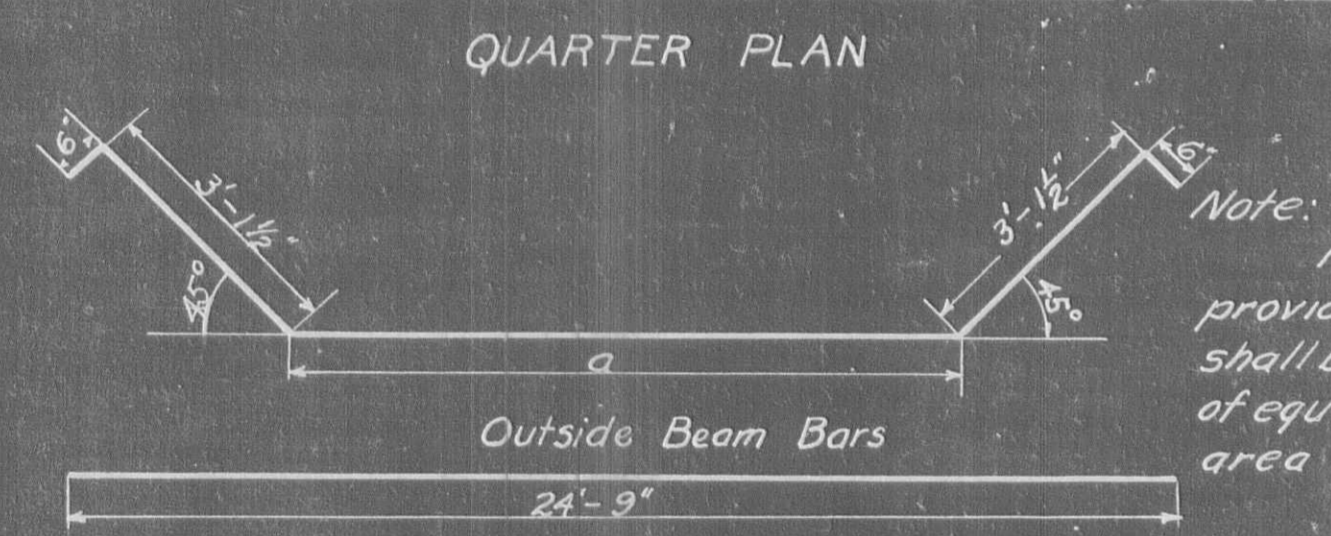
Bars	Size	No.	Spacing	Length	Wt.
C	3/8 Sq	90	5"	18 Ft	2050#
E	1/2 Sq	8	2'-0"	28 Ft	
G	3/8 Sq	16		3'-6"	90#
K	3/8 Sq	16		4'-0"	
F	3/8	7		17'-6"	

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The present steel superstructure is to be neatly piled at the north side of the road for disposal of County Commissioners.



Note: At option of builder, each A bar may be replaced by two B bars, one in top and one in bottom of slab.



Note: All reinforcing steel provided for on this drawing shall be square bars or bars of equivalent sectional area.

OUTSIDE BEAM.				
No.	mark.	size	length	total wt.
2	D-1	3/4" dia	24'-9"	94
2	D-2	"	24'-9"	94
2	D-3	"	24'-9"	94
2	D-4	"	24'-9"	94
2	E-2	1 1/2" dia	20'-3"	77
2	E-3	"	17'-0"	92
30	S1	3/8" dia	5'-6"	79

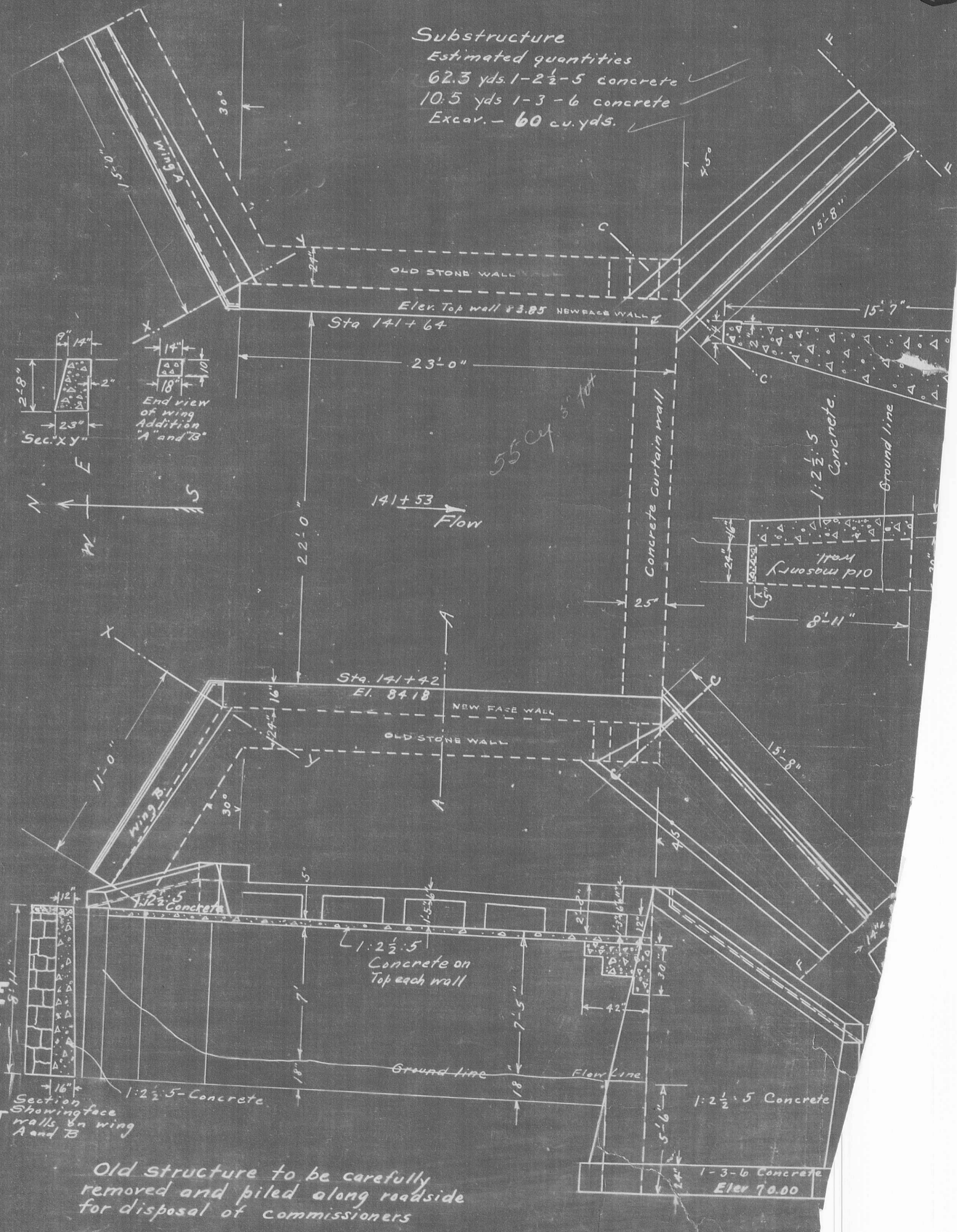
SLAB				
No.	mark.	size	length	total wt.
25	A	1/2" dia	23'-0"	489
24	B	"	22'-0"	449
13	C	3/8" dia	24'-6"	153
4	J	1/2" dia	22'-0"	75

INSIDE BEAM.				
No.	mark.	size	length	total wt.
4	F-1	1/2" dia	24'-9"	257
4	F-3	"	24'-9"	257
4	F-5	"	24'-9"	257
4	F-7	"	24'-9"	257
4	G-2	1 1/2" dia	18'-0"	187
4	G-4	"	16'-0"	218
4	G-6	"	18'-0"	250
100	S2	3/8" dia	5'-3"	232

See Type "G" Railing Sheet No. 25

Station 141+53
 STANDARD PLAN
CONCRETE BEAM BRIDGE
 CLEAR SPAN 22 FEET
 ROADWAY 20 FEET
 CLASS "B" LOADING

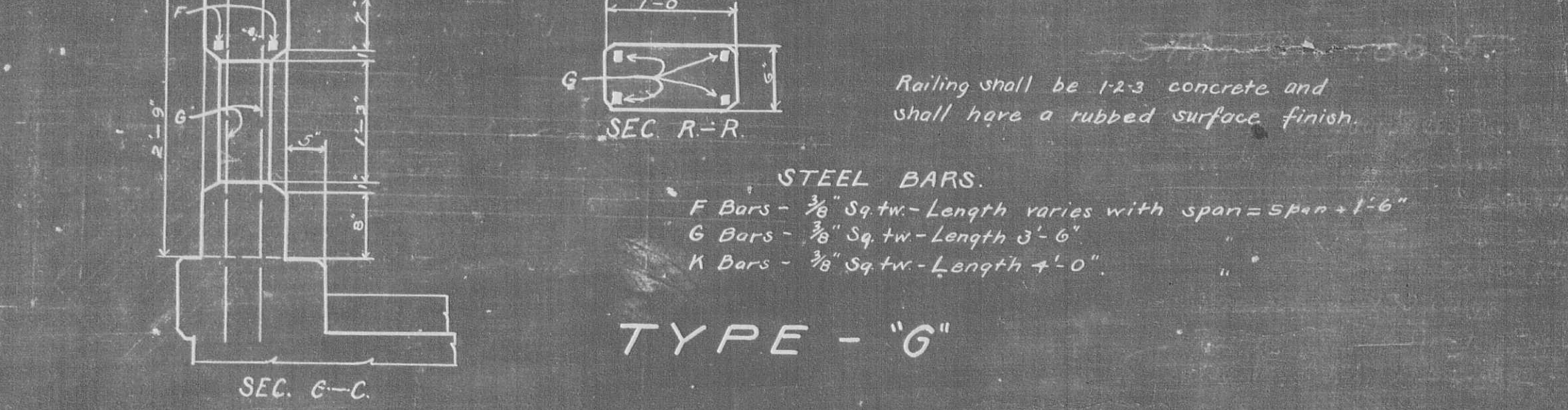
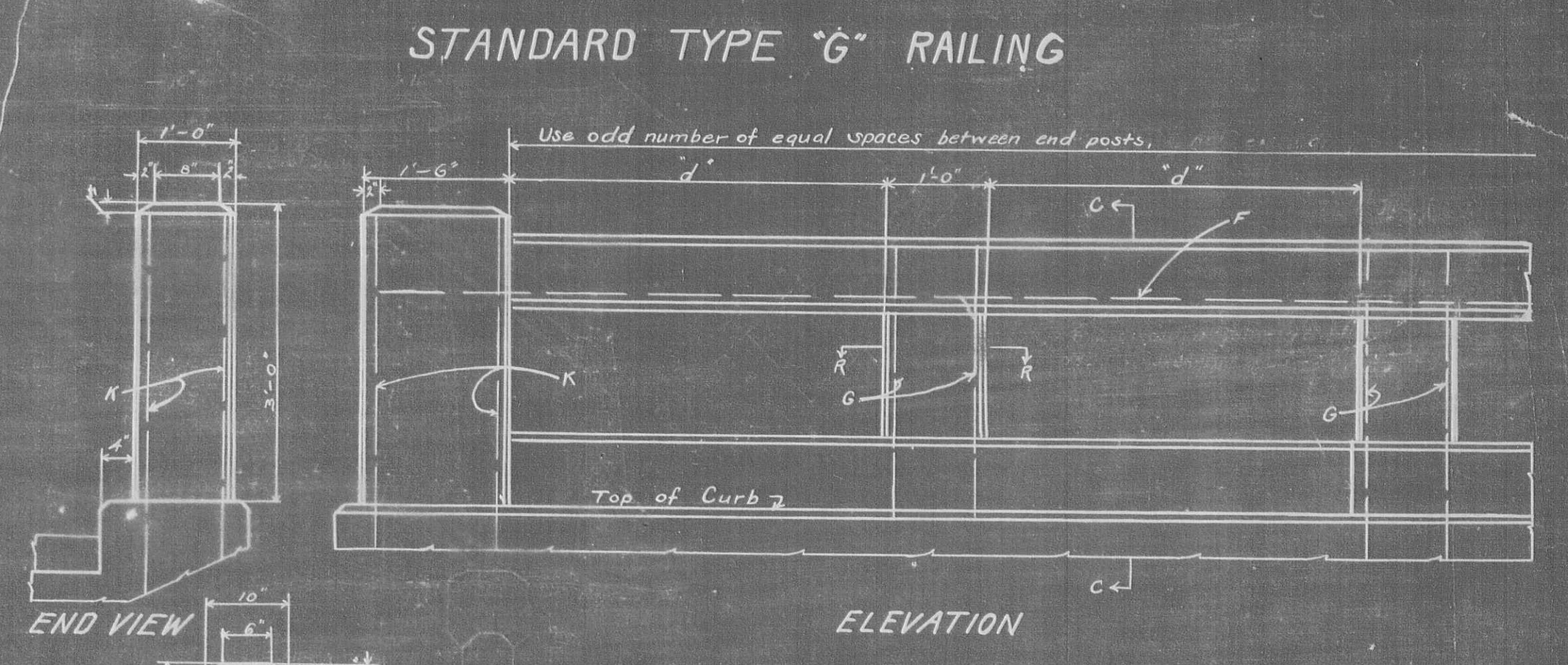
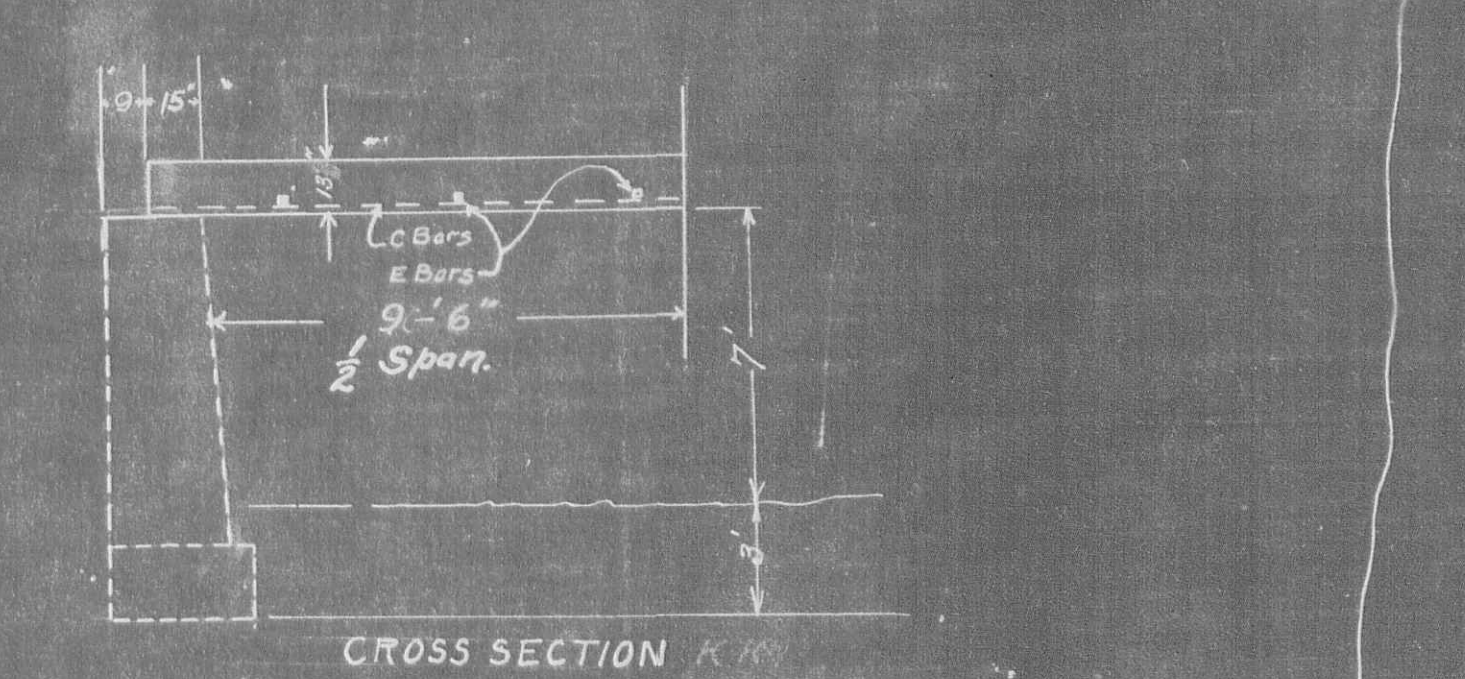
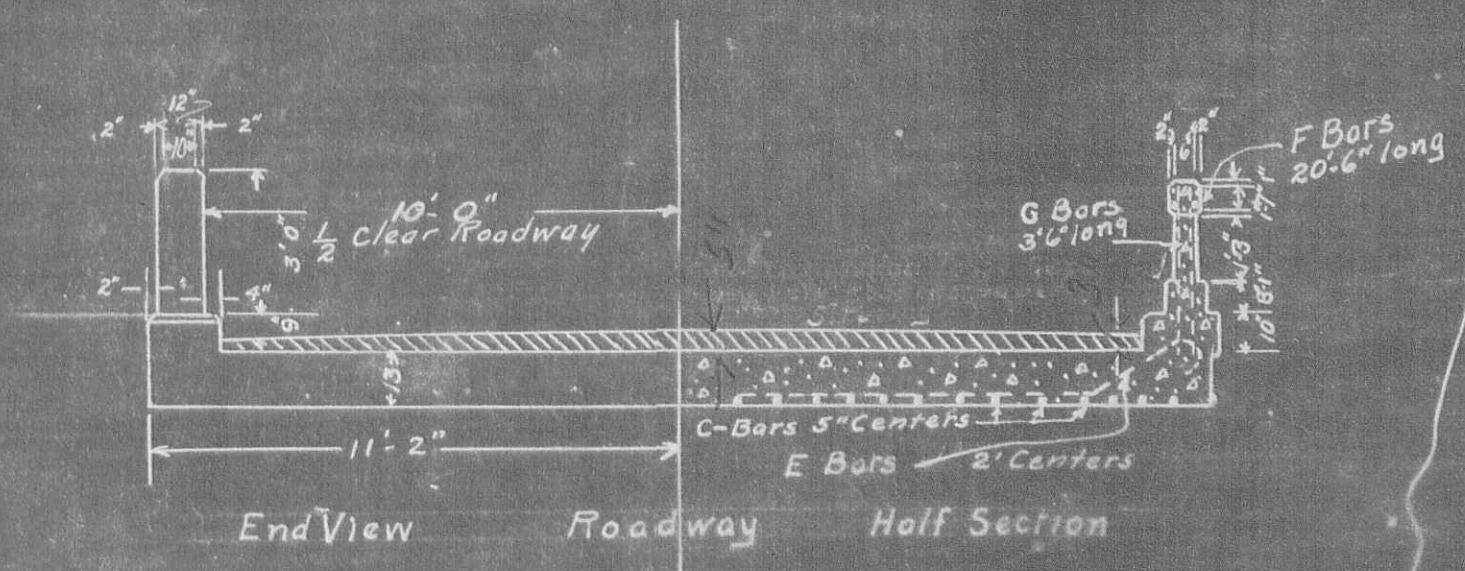
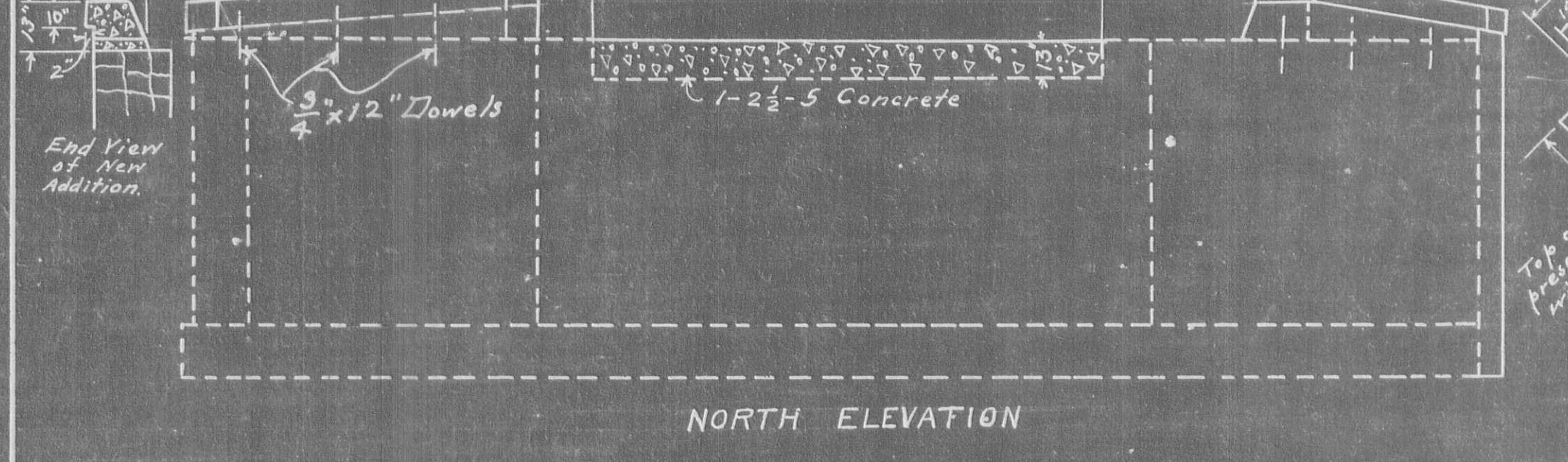
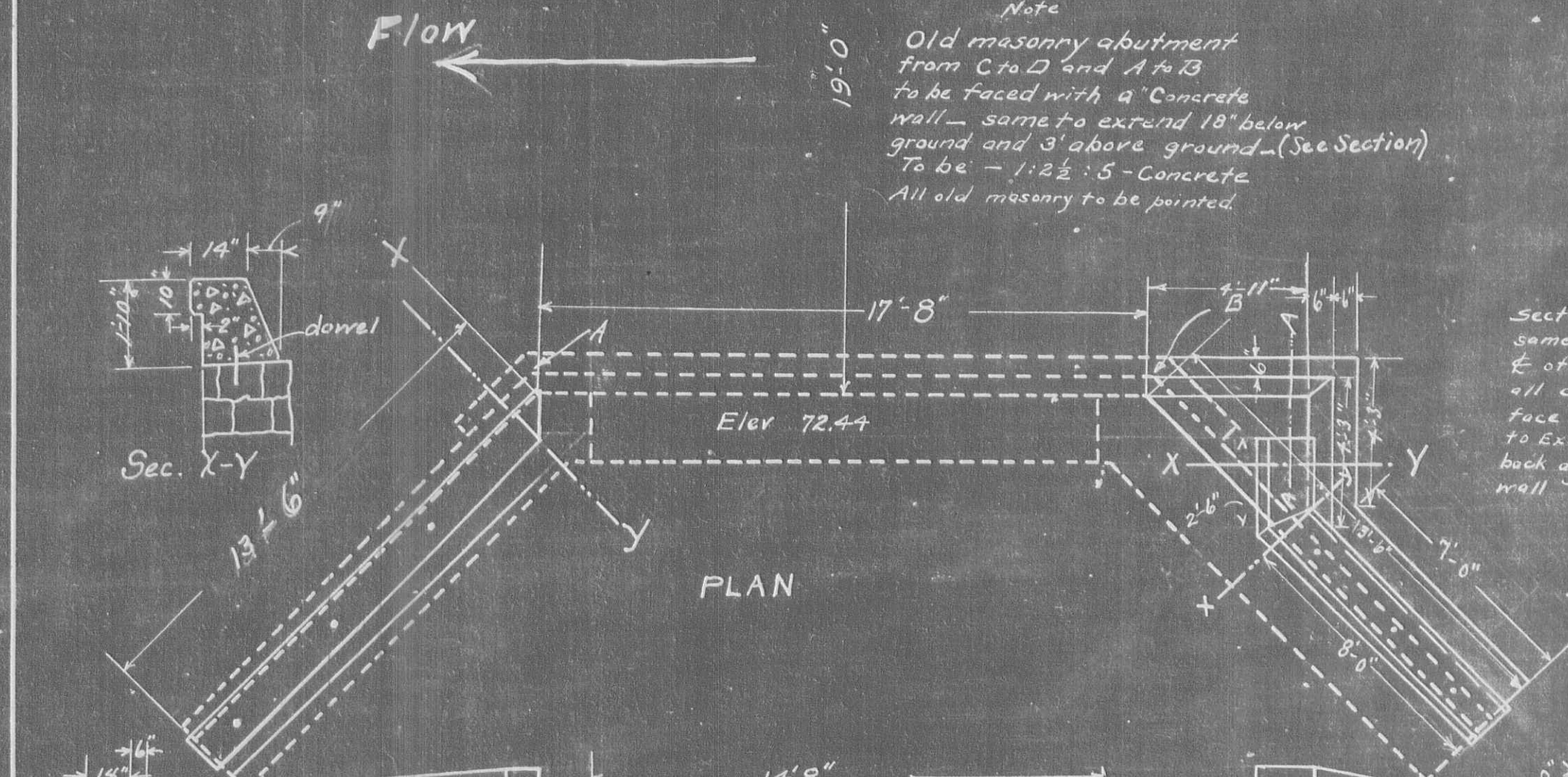
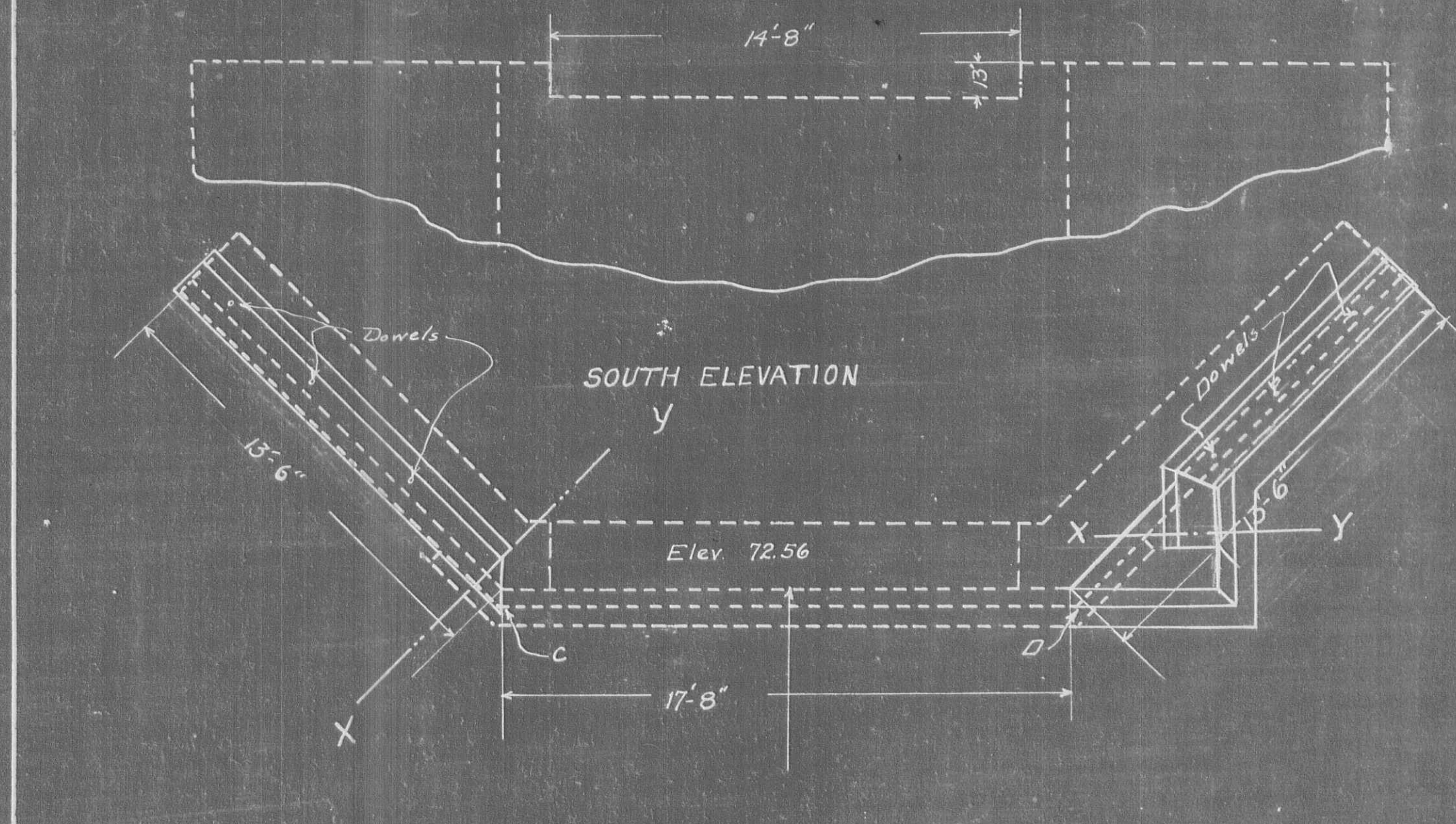
STATE HIGHWAY DEPARTMENT
 COLUMBUS, OHIO
 BUREAU OF BRIDGES



Superstructure ESTIMATED QUANTITIES
 1-2-4 concrete 2 1/2 cu. yd.
 Reinforcing steel 3832 lbs
 Type G railing 50 lin ft See Sheet #25
 Remove present steel bridge

Approved: _____
 Deputy, Bureau of Bridges
 State Highway Commissioner

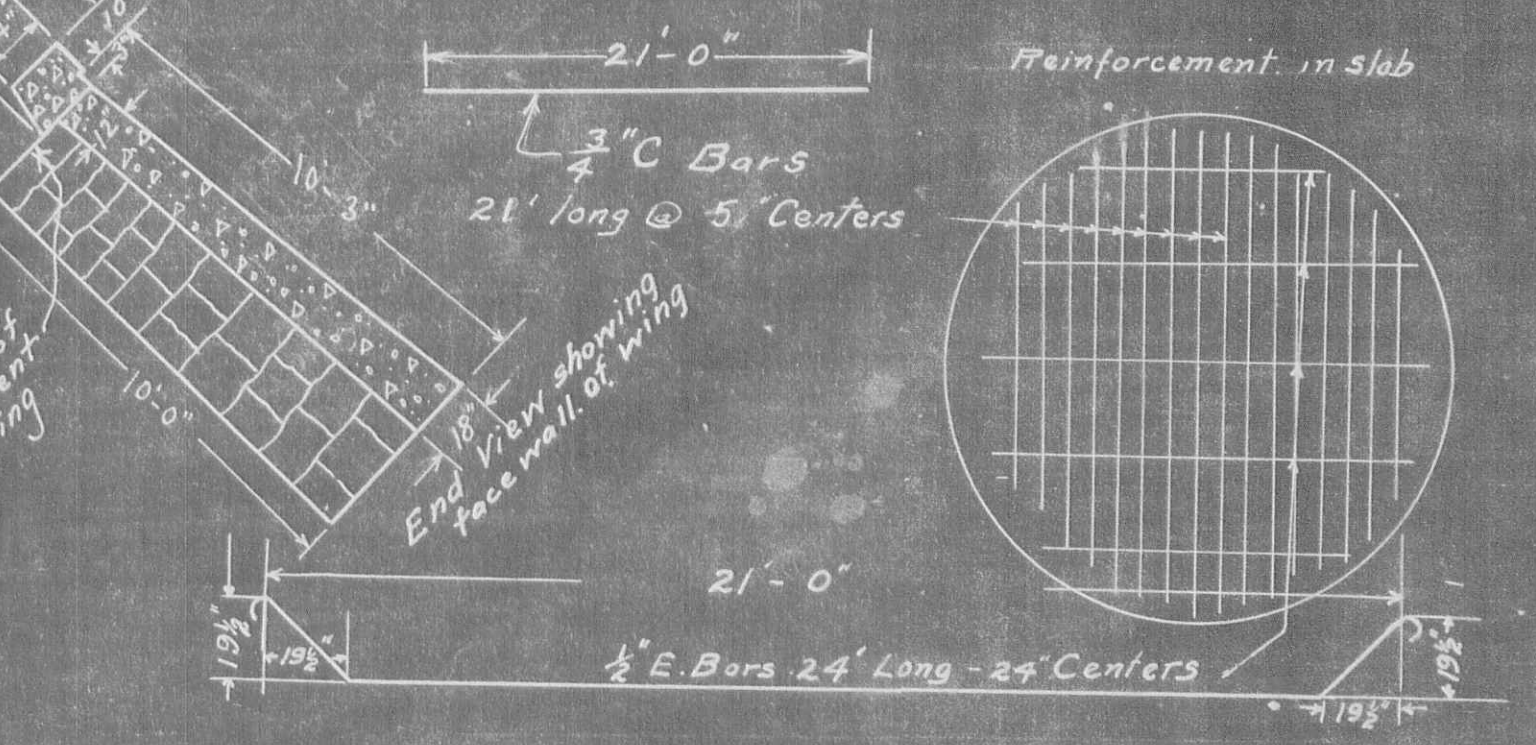
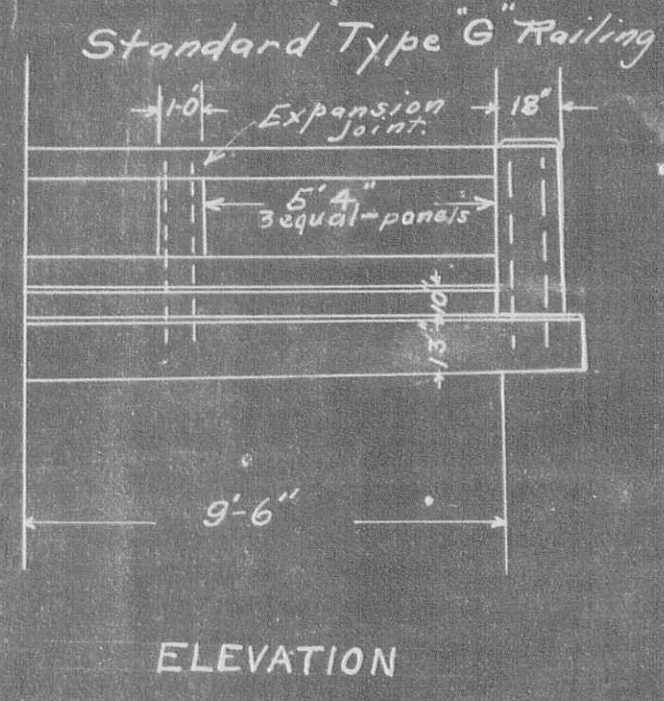
Old structure to be carefully removed and piled along roadside for disposal of commissioners



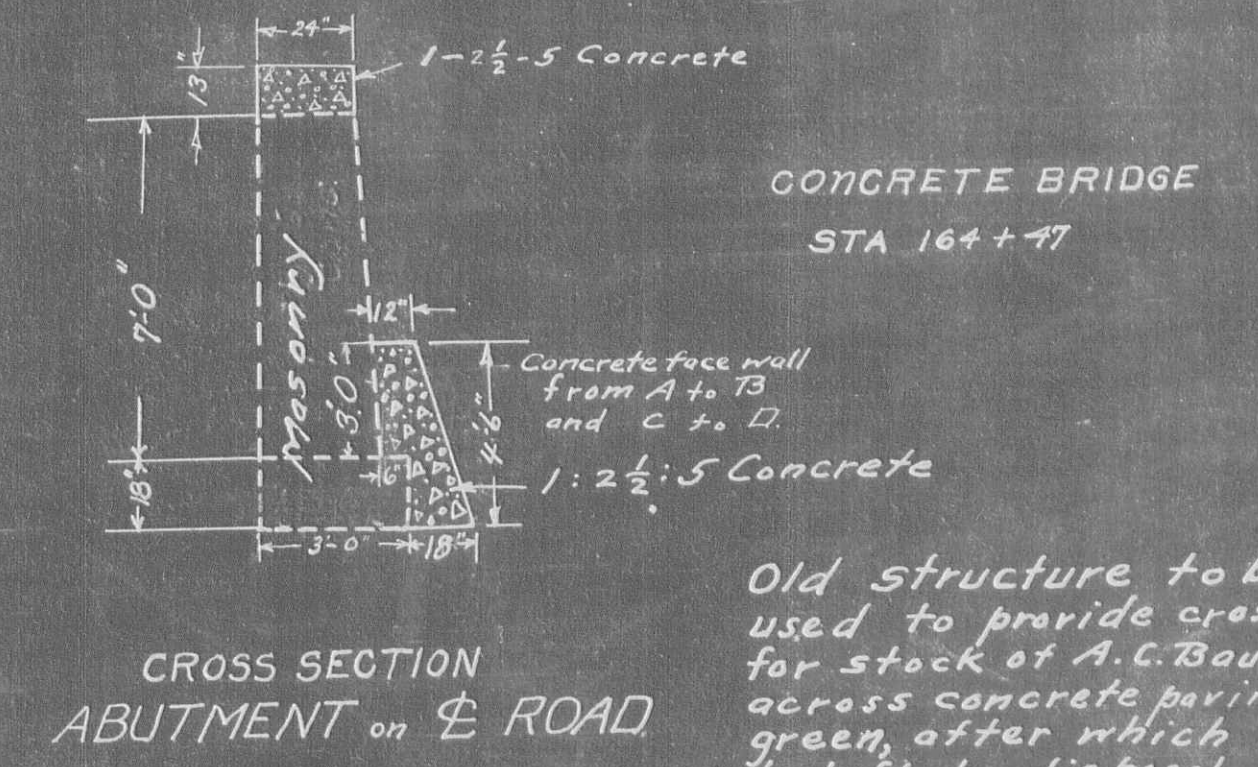
Note: Section 'A-A' same as abutment on E of road except to be all concrete and no face wall required. Concrete to extend solid from abutment back against present stone wing wall.

Table of Steel Reinforcement:

Bars	Size	No.	Spec.	Len.	Wt.
E	1/2"	9	2'-0"	75'-0"	2339
C	3/4"	53	5"	21'-0"	
G	3/8"	16	X	3'-6"	
K	3/8"	16	X	4'-0"	97#
F	3/8"	4	X	20'-6"	



STATION 164+50
STANDARD
SLAB BRIDGE
SPAN 19 FT HEIGHT 7 FT
LOADING CLASS T15
STATE HIGHWAY DEPT.
COLUMBUS OHIO
MARCH 1920 BUREAU BRIDGES



CONCRETE BRIDGE
STA 164+47

Old structure to be used to provide crossing for stock of A. C. Baumgartner across concrete paving while green, after which it is to be left to disposal of Commissioners.

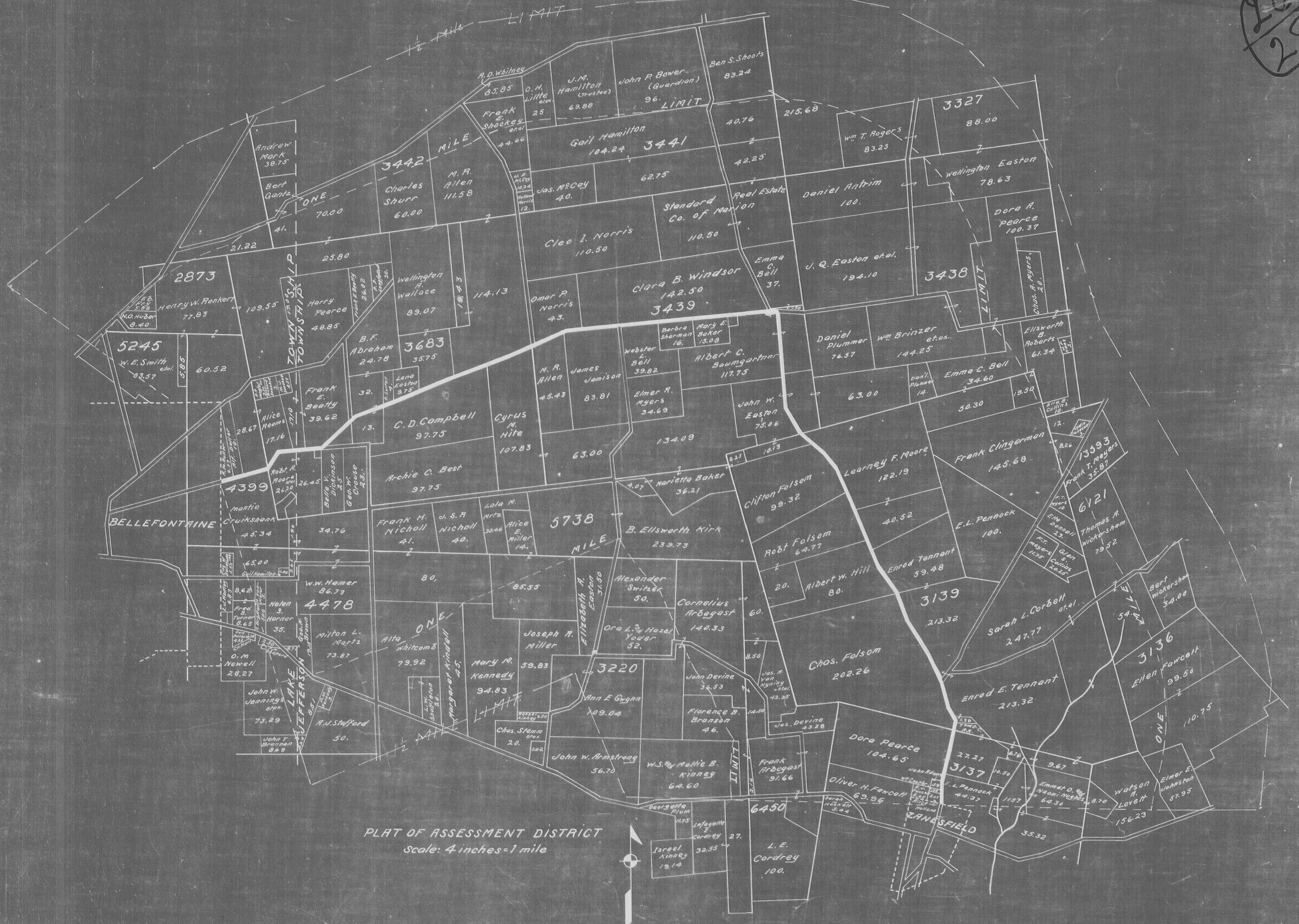
Superstructure
ESTIMATED QUANTITIES
Excavation None
Concrete 1-2-4 20.5 cu yds
Concrete 1-2 1/2-5
Reinforcing Steel 2452 lbs
Railing Type-G 42 Linft
Remove Present steel superstructure.

Substructure
Concrete - 1-2 1/2-5 263 cu yds
Pointup old masonry 15 sq yds
Excavation 18 cu yds.

OK. EHM

86
20

Fed Road Dist No	State
10	Ohio



PLAT OF ASSESSMENT DISTRICT
Scale: 4 inches=1 mile



Fed Road Dist No	State	Fed Aid Proj No	Fiscal Year
10	Ohio	143	1921

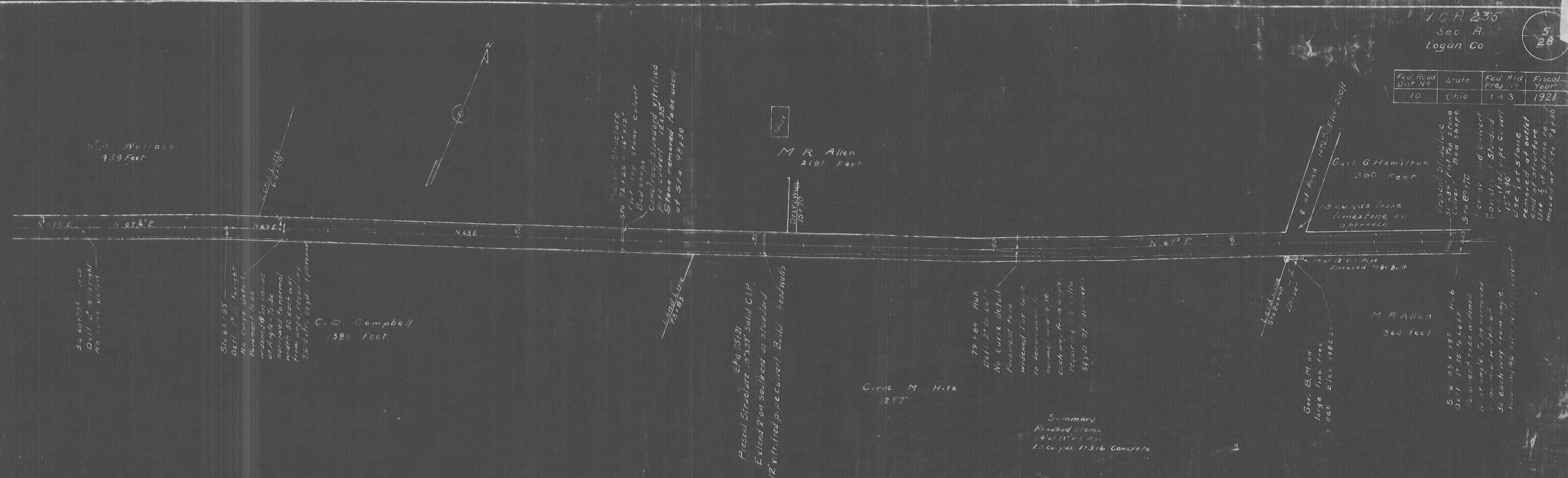
SUMMARY OF QUANTITIES STRUCTURES with SPANS LESS than 20 ft.

STATION	TYPE	MATERIAL	SIZE	Excavation cu. yds.	concrete cu.yds.			steel lbs	C.I.P 16"	C.I.P Relaid 16"	C.I.P Relaying 30"	Vitrified sewer pipe				Removal Bridges	Rip Rap 10" Thick Sqyds	Railing TYPE 'G' lin ft	Masonry Footings Sqyds	Rock Fill cu.yds	Notes
					1-2-4	1-2 1/2-5	1-3-6					Relaying 12"	12"	15"	Relaying 15"						
8+77	Standard	V.S.P.	12"x 40'	16	2.0		4.1	45				40'				3.0			Remove old structure Construct new culvert		
16+74.5	"	"	12"x 38'	12	2.0		3.9	45				38'				2.0			Remove 10" V.P. Culvert. Construct Std. V.P. Culvert		
24+16.2	"	"	12"x 38'	16	2.0		3.9	45				38'							Remove stone box Culvert		
28+33	"	"	12"x 48'	18	2.0		5.0	45				48'							Remove stone box Culvert		
35+59	"	"	12"x 34'	14	2.0		3.5	45				34'							Remove present V.P. Culvert		
47+44	Standard Extension	Stone V.S.P.	15"x 40'	5	2.3		1.6	50					12'						Construct 2 Std. Head walls		
72+25	Standard	V.S.P.	12"x 38'	30	2.0		3.9	45				38'							Remove stone culvert Construct Std. V.P. Culvert		
75+21	"	"	10" and 12" x 39'	2	1.7		0.2	38				2							Extend present C.I. Pipe Culvert 2' Construct Std. Head walls		
89+70	Standard	"	15"x 40'	40	2.3		5.0	50					40'			3.0			Remove present culvert Construct Std. V.P. Culvert		
98+30	Standard Extension	C.I.P.	16"x 49'	5	1.7		3.5	4	4									4.0	Extend present C.I. Culvert and place Rock Fill		
108+50	Standard	V.S.P.	12"x 36'	3	2.6		3.7	45				36'							Construct Std. side road culvert		
122+00	Standard Extension	"	15" and 16" x 34'	14	2.8		1.0	30		24			10'						Relay C.I.P. and Extend as Std. V.P. Hillside Culvert		
132+04	Standard	C.I.P.	12" x 54'	2	1.3		3.0												Build Std. Headwalls		
157+25	"	Box Concrete	2' x 2' x 33'	9	11.1		5.35												Remove Stone Culvert Construct Std. Box Culvert		
164+50	Standard Slab Top	Concrete	19' Span 20' Roadway	18	20.5	26.3	24.52							Remove 19' Beam Bridge	4.2	15'			Extend Abutments Face Abutments bridge 19' Span 20' Road		
174+00	"	"	12" x 30'	4															Remove 12" V.P. Culvert and abandon		
176+00	Standard	V.S.P.	12" x 36'	12	2.0		3.7	45				36'							Remove and fill up Arch Construct Std. V.P. Culvert		
180+60	St Box	Concrete	4 1/2' x 4 1/2'	50	17.3		10.53												Remove C.I.P. Culvert Construct Std. Concrete Box Culvert		
199+25	Standard Extension	C.I.P. V.S.P.	15" x 36'	6	2.0		1.6	43		24			12'						Relay present C.I.P. and Extend as 15" Std. V.P. Culvert		
203+15	Standard	Concrete	3' x 2' x 28'	24	11.1		6.12												Remove wood box culvert Construct Std. box Culvert		
207+72	"	V.S.P.	12" x 34'	5	2.0		3.5	45				34'							Remove " " " " " " " "		
220+70	"	Concrete and C.I.P.	30" x 36'	24	7.3		2.72			24									Remove present V.P. Lay 24" of 30" C.I.P. Construct 12' of standard V.P. Culvert		
227+54	Standard Slab Top	Concrete Culvert	8' span	50	10.2	28.8	6.52												Remove " structure - " Std. Span Culvert		
235+25	Standard	V.S.P.	20" x 30'	12	3.0		4.8	60								30'			Remove present stone culvert " " V.P. Culvert		
240+25	"	V.S.P.	15" x 30'	7	2.3		3.7	50											" " V.P. " Relay and Extend Pipe to be used at 240+25		
242+70	"	"	"	4															Remove and abandon present culvert		
249+50	Standard Box	Concrete	4' x 4' x 33'	40	22.6		9.80												" " Arch. Const. Std. Box Culvert		
259+56	Standard	V.S.P.	12" x 36'	8	2.0		3.7	45				36'							" " Box Culvert. Const. Std. V.P. Culvert		
284+93	"	C.I.P.	30" x 36	3	3.6		5.5												Const. Std. Head walls		
289+85	Standard Slab Top	Concrete	16' span 24' Road.	15	18.5	16.6	21.40							Remove 16' Beam Bridge	3.6	30			Extend Abutments Construct Std. 20' roadway 16' span slab bridge		
Totals				468	162.1	52.2	56.8	958.7	4	52	24	380	74	30	30	8	78	45	4		

SUMMARY OF QUANTITIES STRUCTURES OF TWENTY FEET OR MORE

STATION	TYPE	SIZE	MATERIAL	EXCAVATION cu. yds.	concrete cu. yds.			St. Steel lbs	C.I. Scuppers No.	Removal of Bridges	Railing Type G lin ft	Notes
					1-2-4	1-2 1/2-5	1-3-6					
141+53	Beam Bridge	22' span 20' roadway	Concrete	60	21.2	62.3	10.5	3832		24' Steel Truss	50	Remove old bridge Build 2 wing walls Face abutments - Construct 22' Beam
188+57	Girder Bridge	40' span 20' roadway	Concrete	180	63.0	71.2	27.0	10956	4	32'		Remove old steel bridge Construct Std. Girder Bridge 20' Roadway 40' Span
Totals				240	84.2	133.5	37.5	14788	4		50	

Fed Road Dist No	State	Fed Aid Proj No	Fiscal Year
10	Ohio	1-43	1921



Sta 60+35 Hub
 Defl 0.5 Right
 No curve detail

Sta 63+85
 Defl 1.0 Right
 No Curve detail
 Pavement to be widened 8' in 12' at right angle. To be narrowed to normal width 50' each way from angle. Requiring 3.6 cu yds. 1:3:6 pavement

Present Structure Sta 72+25 - 16' x 12' Flat top stone culvert
 Bed slope
 Construct standard vitrified pipe culvert 12x18
 Stone removed to be used at Sta. 98+30



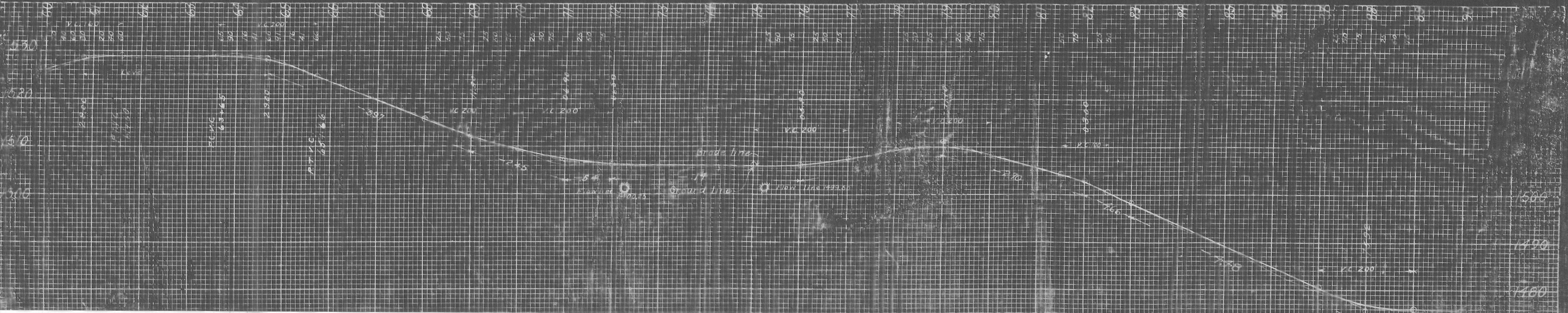
79+84 Hub
 Defl 2.10 Left
 No Curve detail
 Pavement to be widened 10' at angle to become normal 14' 50' each way from angle. Requiring 5.2 cu yds of pavement

Gov. B.M. on large line trees oak Elev 1982.26

Sta 84+95 Hub
 Defl 1.30 Left
 Pavement to be widened 4' at angle. To be narrowed to normal width at 50' each way from angle. Requiring 4.6 cu yds. 1:3:6 pavement

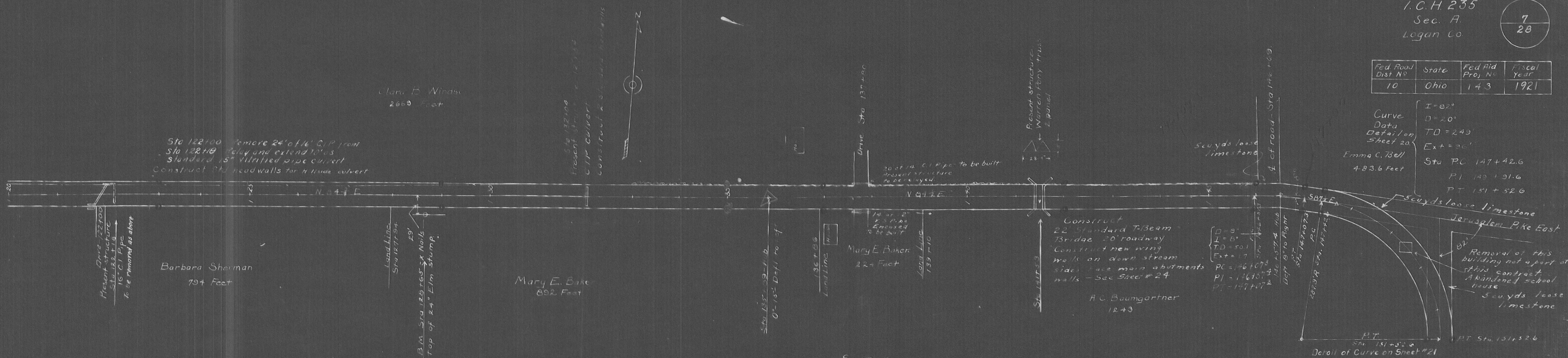
Present Structure
 3' Flat Top Stone Culvert - 50' x 30' shape
 Sta 88+70
 Pavement to be widened 2' at outlet end of structure Use 2' of Stone removed at Sta. 98+30

Summary
 Roadbed 11cms
 4' of 12" vit pipe
 1.3 cu yds 1:3:6 Concrete



Fed. Road Dist. No.	State	Fed. Aid Proj. No.	Fiscal Year
10	Ohio	143	1921

Curve Data
 Detail on Sheet 20.
 Emma C. Bell
 4.83.6 Feet
 $I = 82^\circ$
 $D = 20'$
 $TD = 243$
 $Ext = 30'$
 Sta. P.C. $147+42.6$
 P.I. $149+51.6$
 P.T. $151+52.6$



Summary
 Roadbed Items
 Relay 20' of 14" C.I. Pipe
 14' of 12" R.S. Pipe
 15 cu yds. 1:3:6 Concrete

