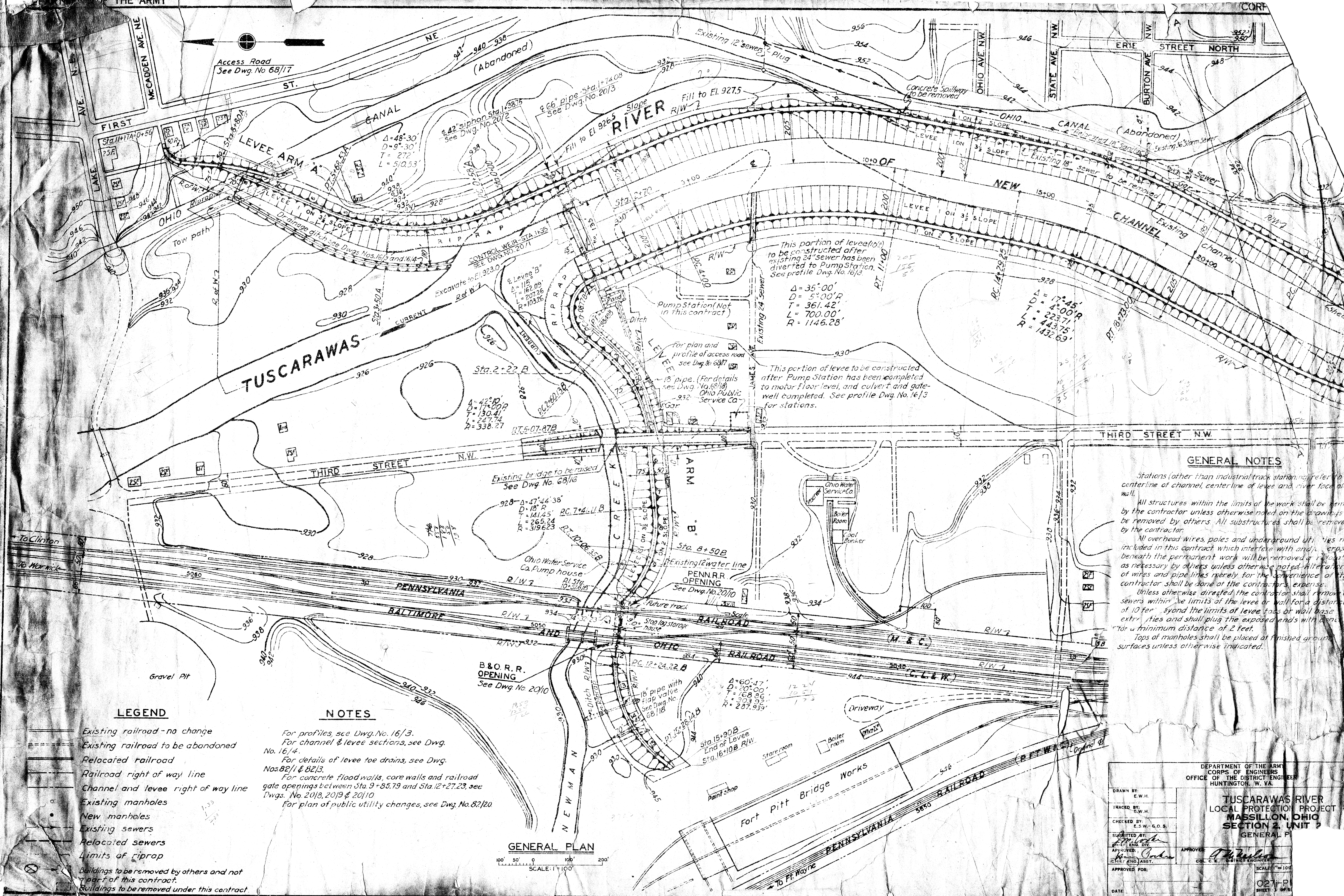




GENERAL NOTES

Stations (other than industrial track stations) refer to centerline of channel, centerline of levee and river face of wall.

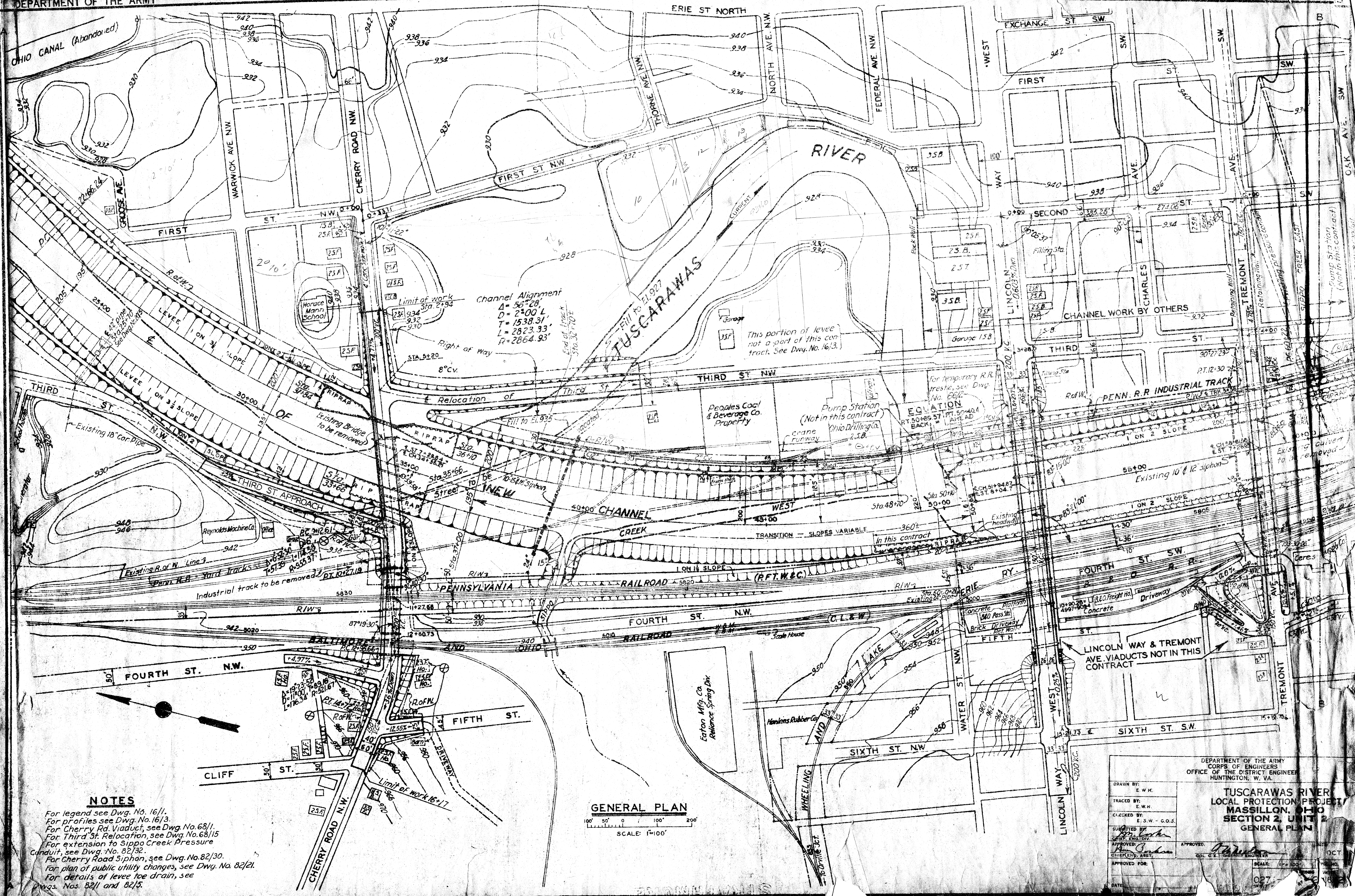
All structures within the limits of the work shall be removed by the contractor unless otherwise noted on the drawings. All substructures shall be removed by the contractor.

All overhead wires, poles and underground utilities included in this contract which interfere with and/or cross beneath the permanent work will be removed or relocated as necessary by others unless otherwise noted. Alteration of wires and pipe lines merely for the convenience of the contractor shall be done at the contractor's expense.

Unless otherwise directed, the contractor shall remove sewers within the limits of the levee or wall for a distance of 10 feet beyond the limits of levee face or wall base extraneous and shall plug the exposed ends with concrete for a minimum distance of 2 feet.

Tops of manholes shall be placed at finished ground surfaces unless otherwise indicated.

DRAWN BY: E.W.H.		DEPARTMENT OF THE ARMY CORPS OF ENGINEERS OFFICE OF THE DISTRICT ENGINEER HUNTINGTON, W. VA.	
TRACED BY: E.W.H.		TUSCARAWAS RIVER LOCAL PROTECTION PROJECT MASSILLON, OHIO SECTION 2, UNIT 2 GENERAL PLAN	
CHECKED BY: E.S.W.-G.O.S.		APPROVED: <i>[Signature]</i> CHIEF ENGINEER	
SUBMITTED BY: <i>[Signature]</i>		APPROVED FOR: <i>[Signature]</i> CHIEF ENGINEER ASST.	
DATE: _____		SCALE: 1" = 100'	

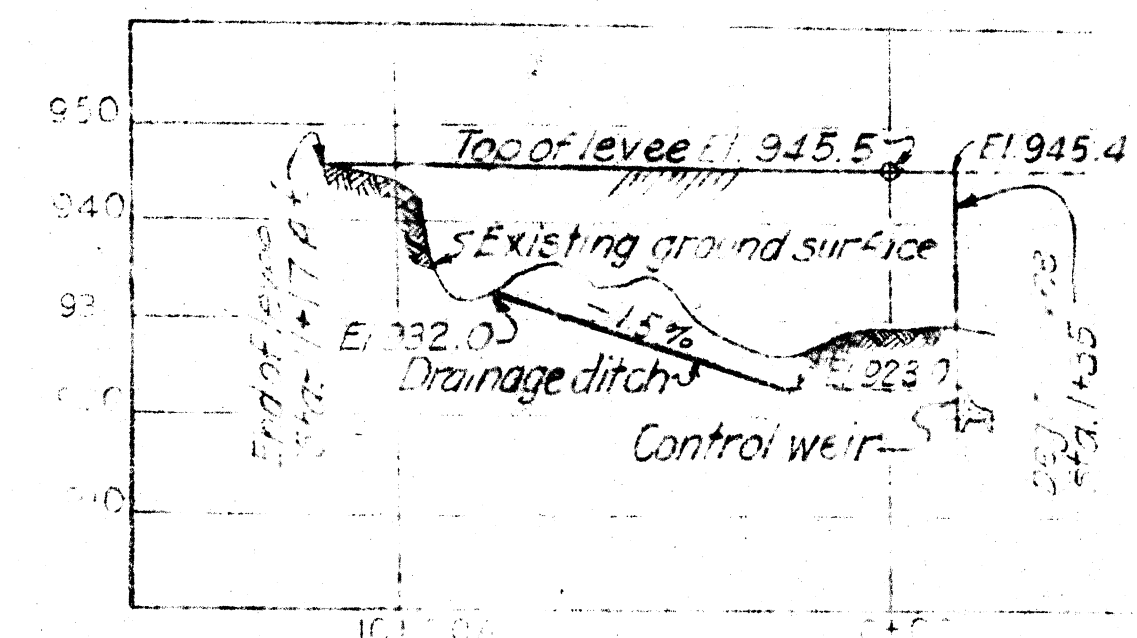
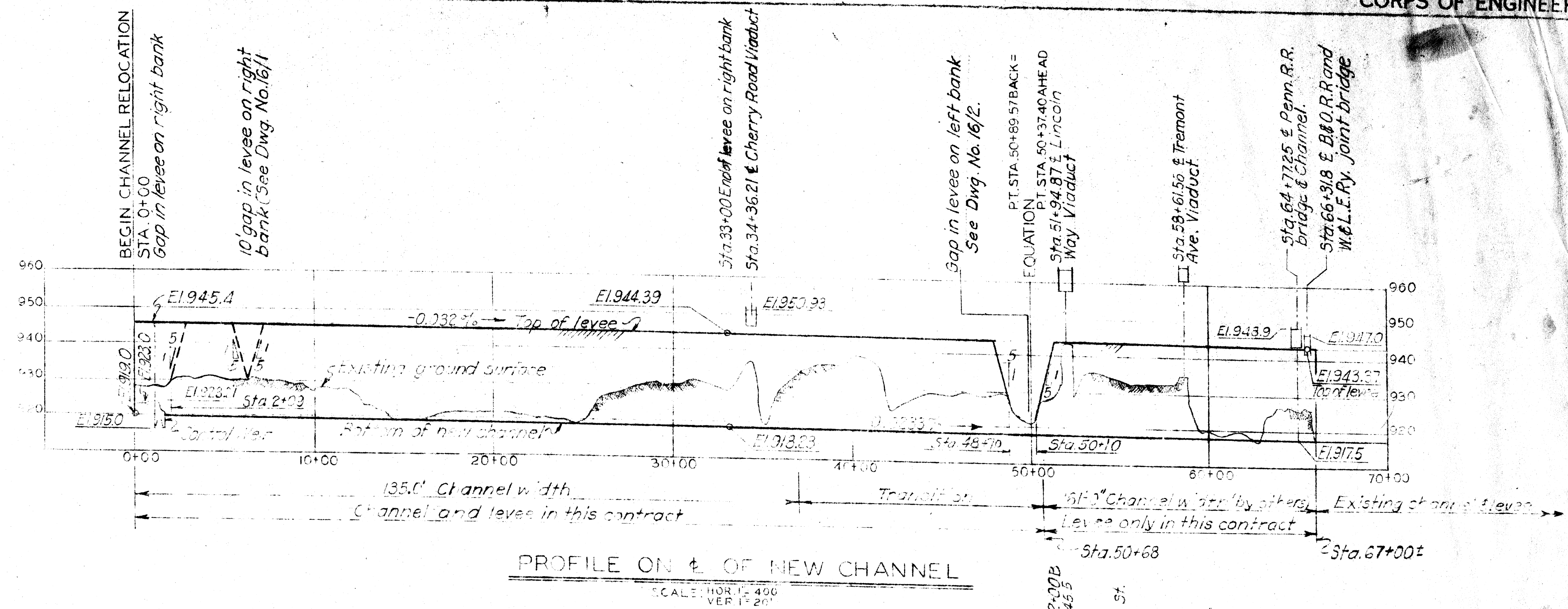


I N D E X

SHEET NO.	DRAWING NO.	DESCRIPTION	SHEET NO.	DRAWING NO.	DESCRIPTION
GENERAL			CHERRY ROAD VIADUCT		
1	027i-PM2-2-0/1	Index	26	027i-PM2-2-68/1	General Plan and Profile
2	10/1	Site Map	27	68/2	Abutment No. 1
I-1*	10/2	Plan of Foundation Explorations	28	68/3	Piers Nos. 2, 3 and 4
I-2*	10/3	Test Borings	29	68/4	Abutment No. 5
I-3*	10/4	Test Borings	30	68/5	Abutment No. 6
I-4*	10/5	Test Borings	31	68/6	Piers Nos. 7, 8 and 9
			32	68/7	Abutment No. 10
3	027i-PM2-2-16/1	General Plan	33	68/8	Approach Sections and Details
4	16/2	General Plan	34	68/9	Steel Plan and Design Data
5	16/3	General Plan and Profiles	35	68/10	Anchor Bolt Plan and Erection Data
6	16/4	Typical Channel and Levee Sections	36	68/11	Floor Plan and Details
7	16/5	Grading Distribution	37	68/12	Typical Sections and Details
8	16/6	Payment Lines for Excavation and Embankment	38	68/13	Railing Details
9	16/7	Modification of Wetmore Pressure Conduit Outlet	39	68/14	Castings and Splices
	16/8	Plan, Profile & Misc. Details - Penna. R.R. Industrial Track	MISCELLANEOUS		
10	027i-PM2-2-20/1	Control Weir	40	68/15	Third St. at Cherry Road and Newman Creek - Plan and Profile
11	20/2	42" Siphon at Control Weir	41	68/16	Raising Third Street Bridge over Newman Creek
12	20/3	66" Culvert and Gate Well - Sta. 1+74.08 - Masonry Details	42	68/17	Access Roads - Levee Arm A and Third St. N.W.
13	20/4	66" Culvert and Gate Well - Sta. 1+74.08 - Reinforcing Details	43	68/18	Pipe Culvert Details
14	20/5	42" Culvert and Gate Well - Sta. 25+70 - Masonry Details		68/19	Remedial Work - West Sipco Creek
15	20/6	42" Culvert and Gate Well - Sta. 25+70 - Reinforcing Details	LEVEE TOE DRAIN		
16	20/7	Gate Wells and 42" Siphon - Miscellaneous Metal Details	44	027i-PM2-2-83/1	Profile and Details
17	20/8	Typical Wall Section and Stop Log Storage House	45	82/2	Plan, Profile and Details
18	20/9	Typical Wall Sections and Miscellaneous Wall Details	46	82/3	Flume at Sta. 8+35
19	20/10	B & O R.R. and Penna. R.R. Openings - Masonry Details	47	82/4	Flume at Sta. 94+83
20	20/11	B & O R.R. Opening - Reinforcing Details	48	82/5	Notched Weir at Sta. 38+00 Deleted
21	20/12	Penna. R.R. Opening - Reinforcing Details	49	82/6	Recorder House - Miscellaneous Details
22	20/13	B & O R.R. and Penna. R.R. Openings - Trestle and Misc. Details	50	82/7	Miscellaneous Metal Details
23	20/14	B & O R.R. and Penna. R.R. Openings - Miscellaneous Details	UTILITIES		
I-5*	20/15	B & O R.R. Opening - Track Shoring	51	82/20	Public Utilities Location Plan
I-6*	20/16	Penna. R.R. Opening - Track Shoring	52	82/21	Public Utilities Location Plan
			53	82/25	Sewer Changes - Cherry Road and Warwick Ave.
24	027i-PM2-2-66/1	Penna. R.R. Industrial Track - Details and Roadbed Section	54	82/26	Sewer Changes - Commonwealth Ave. to Burton Ave.
25	66/2	Penna. R.R. Industrial Track - Temporary Trestle	55	82/27	Sewer changes - Goose Ave. to Tuscarawas River and at Newman Cr.
				82/30.1A	Cherry Road Siphon - Inlet Structure
				82/30.1B	Cherry Road Siphon - Outlet Structure
			57	82/32	Pressure Conduit - Sipco Creek - Plan, Profile and Details
			58	82/36	Miscellaneous Sewer Details
			59	82/37	Ohio Water Service Co. Changes - Goose Ave. and Newman Cr.
			60	82/38	Ohio Water Service Co. Changes - Cherry Road

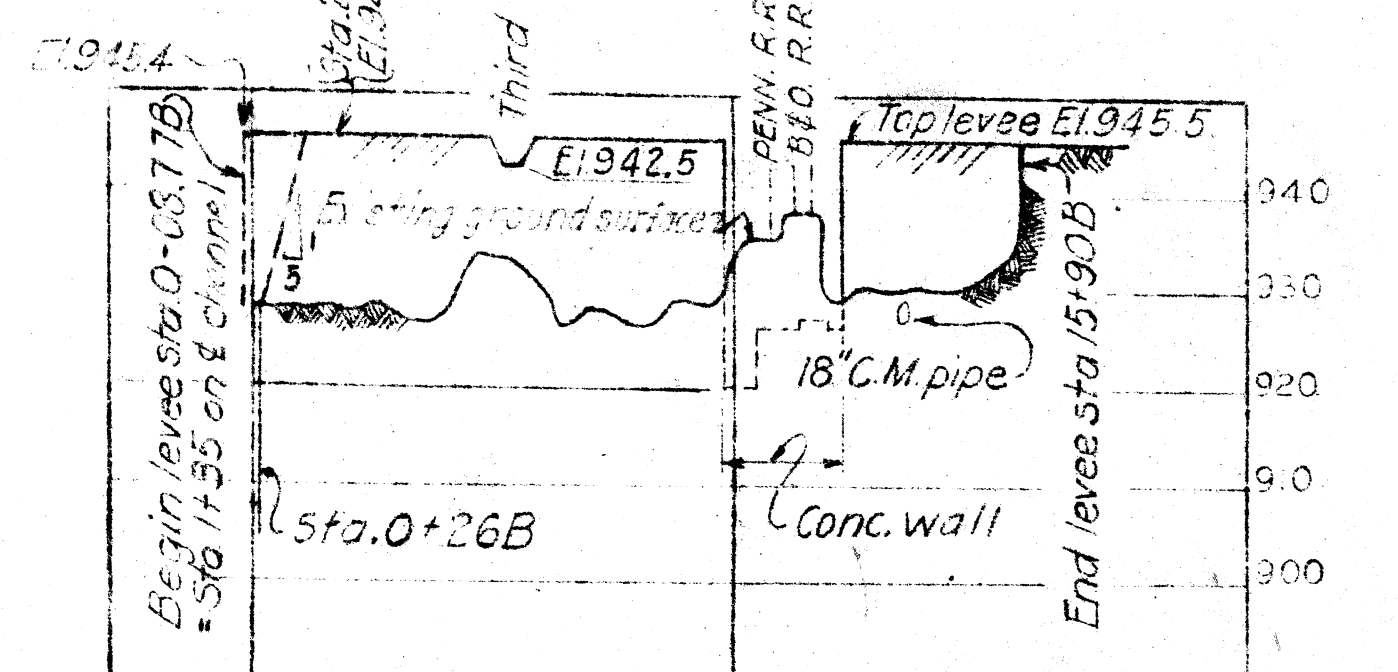
* FOR INFORMATION PURPOSES ONLY (Attached after sheet No. 60)

REVISION	DATE	REVISED	CONSTRUCTED
DESCRIPTION			
DEPARTMENT OF THE ARMY CORPS OF ENGINEERS OFFICE OF THE DISTRICT ENGINEER HUNTINGTON, W. VA.			
DRAWN BY: E. W. H.		TUSCARAWAS RIVER LOCAL PROTECTION PROJECT MASSILLON, OHIO SECTION 2, UNIT 2 INDEX	
TRACED BY:		DATE	
CHECKED BY: E. S. W. & H. F. B.		APPROVED:	
SUBMITTED BY: M. Cook		APPROVED:	
CHIEF ENG. DIV.		COL. C. E. DISTRICT ENGINEER	
CHIEF ENG. ASST.		SCALE:	
APPROVED FOR:		DRAWING NO.	
DATE:		027i-PM2	



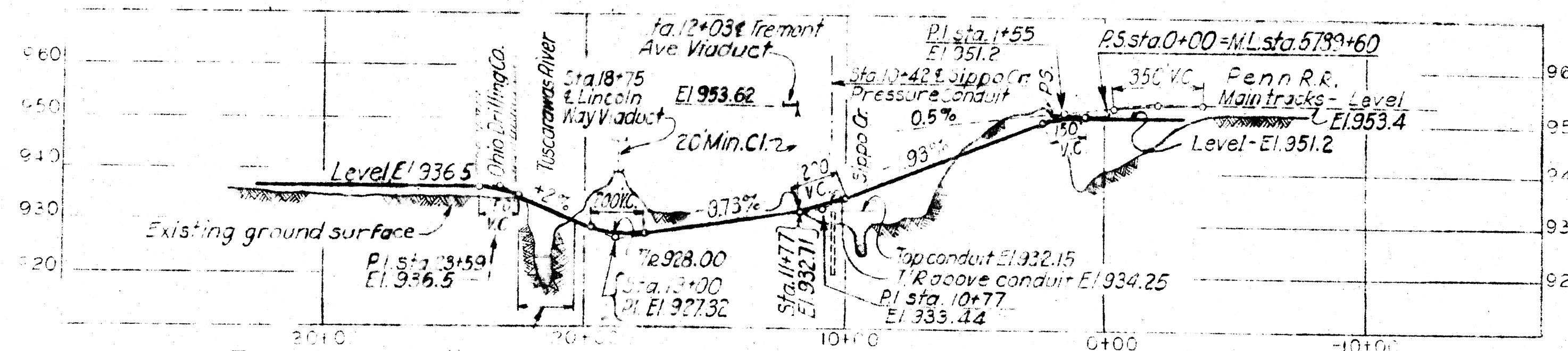
PROFILE ON ϕ OF LEVEE ARM A

SCALE: HOR: 1"=40'
VERT: 1"=20'



PROFILE ON E OF LEVEE ARM B

SCALE: HOR: 1" = 400'
VERT: 1" = 20'



PROFILE ON E OF PENN. R.R. INDUSTRIAL TRACK

SCALE: HOR: 1"=40'
VERT: 1"=20'

NOTES

For legend, see Dwg. No. 16/1.
For details of levee toe drain, see Dwg. No. 83.
Temporary gaps in levees are to be provided
until work by others is completed in that area.

channel Alignment
 $\Delta = 5^{\circ} 39'$
 $D = 1^{\circ} 00' L$
 $T = 282.73'$
 $L = 565.00'$
 $R = 5729.65'$

Note:
East edge of channel is parallel to 1000'
chord from sta. 60+00 to sta. 70+00.

GENERAL PLAN

100' 50' 0 100' 200'

SCALE: 1"=100'

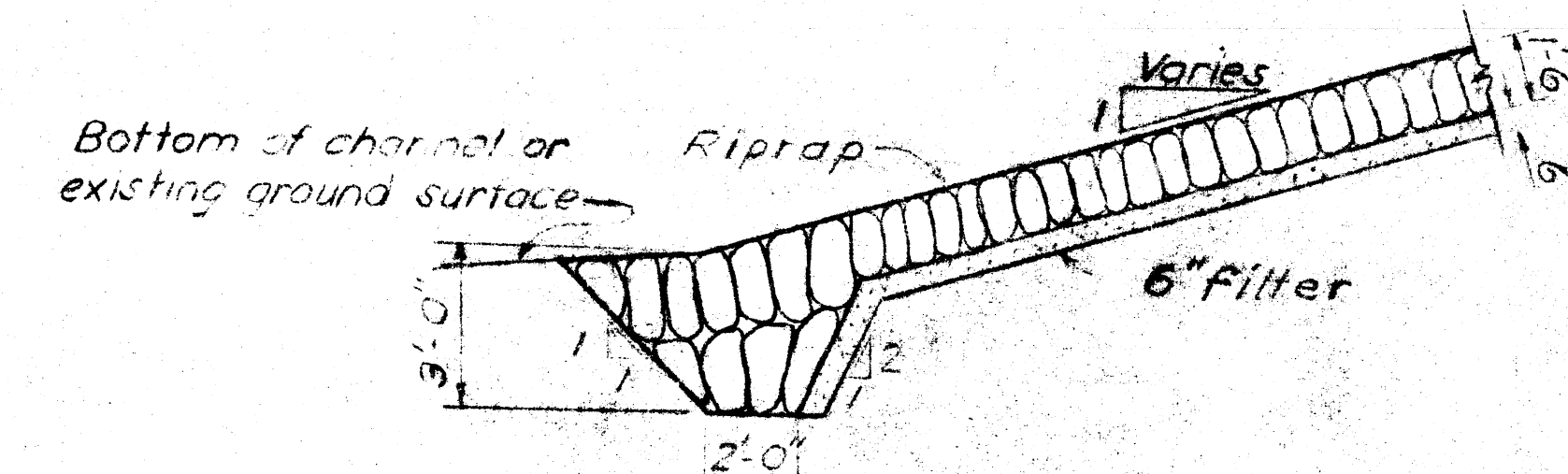
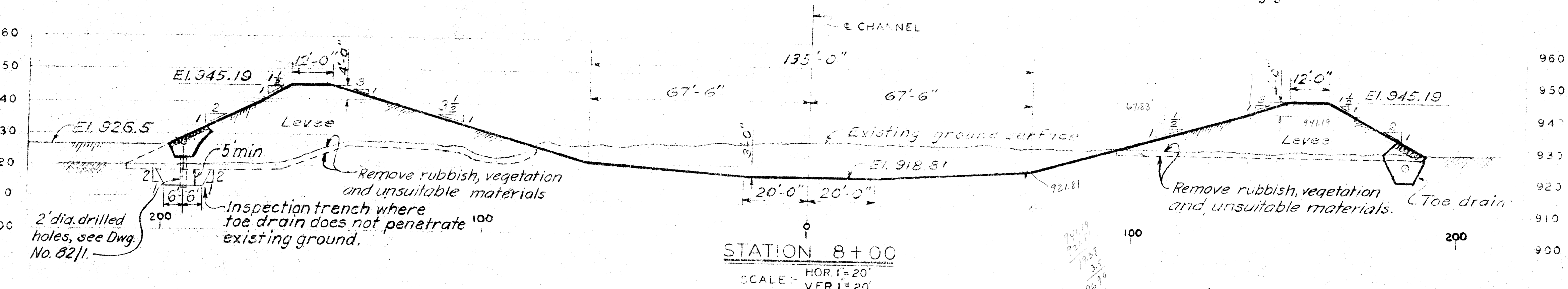
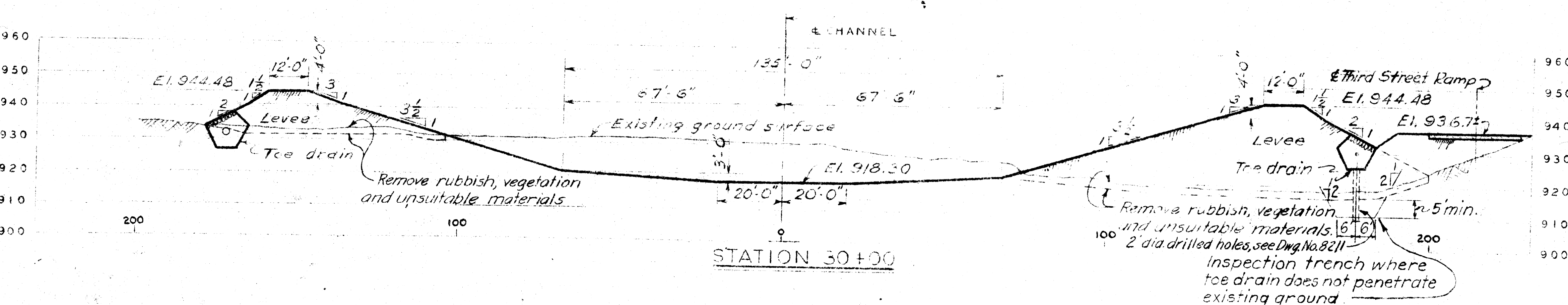
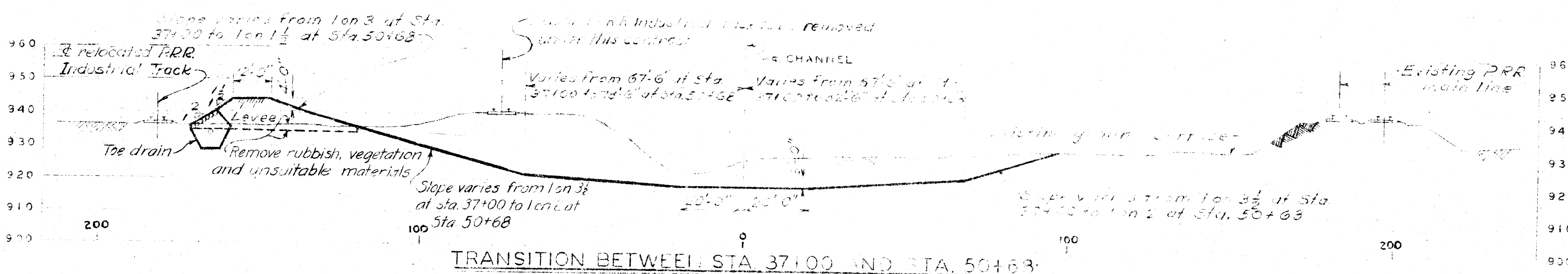
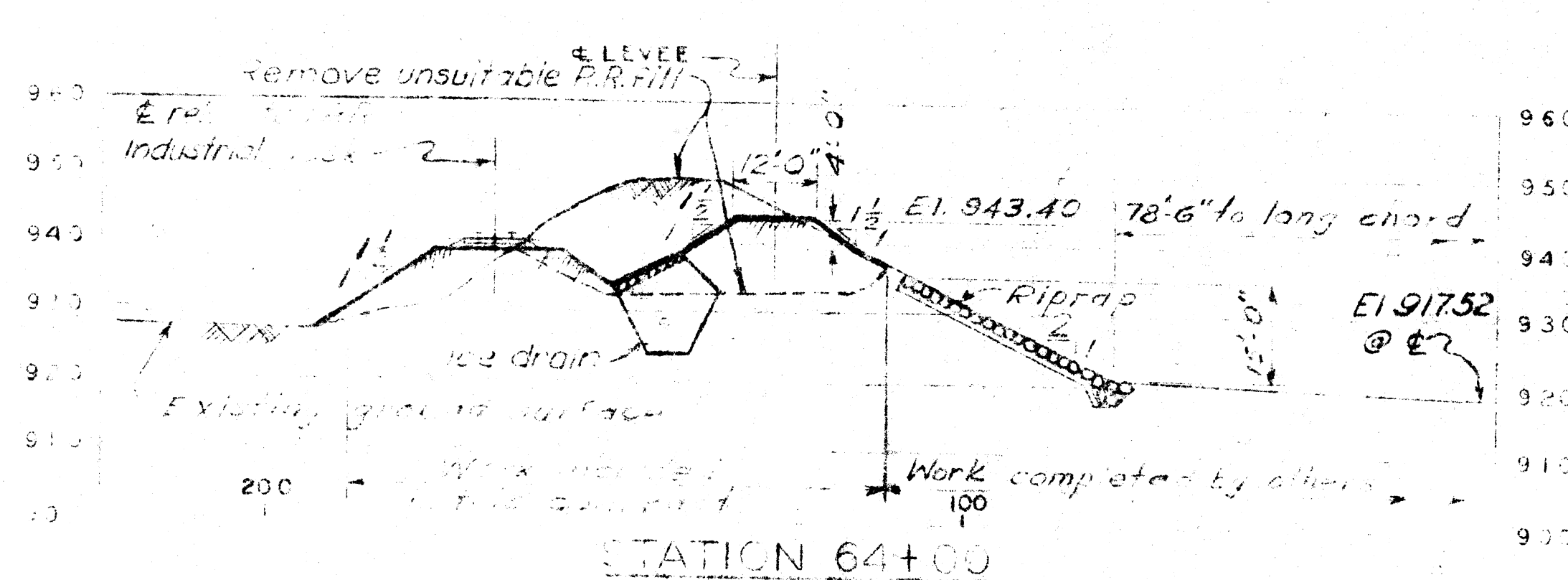
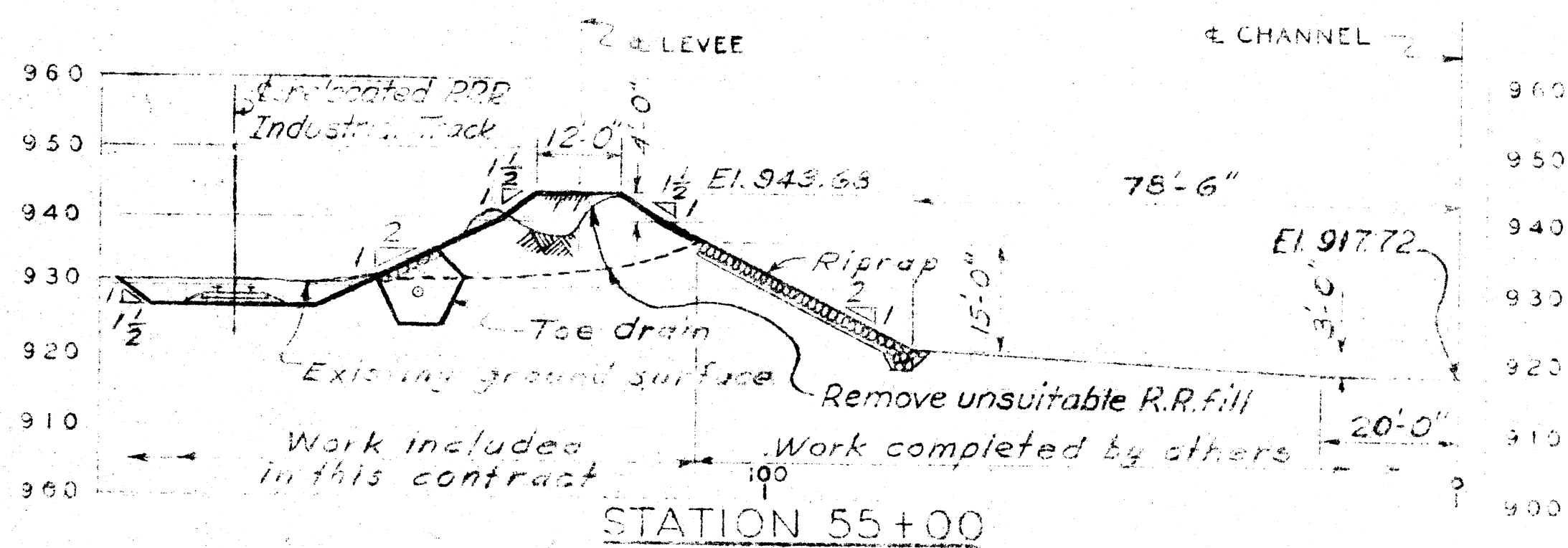
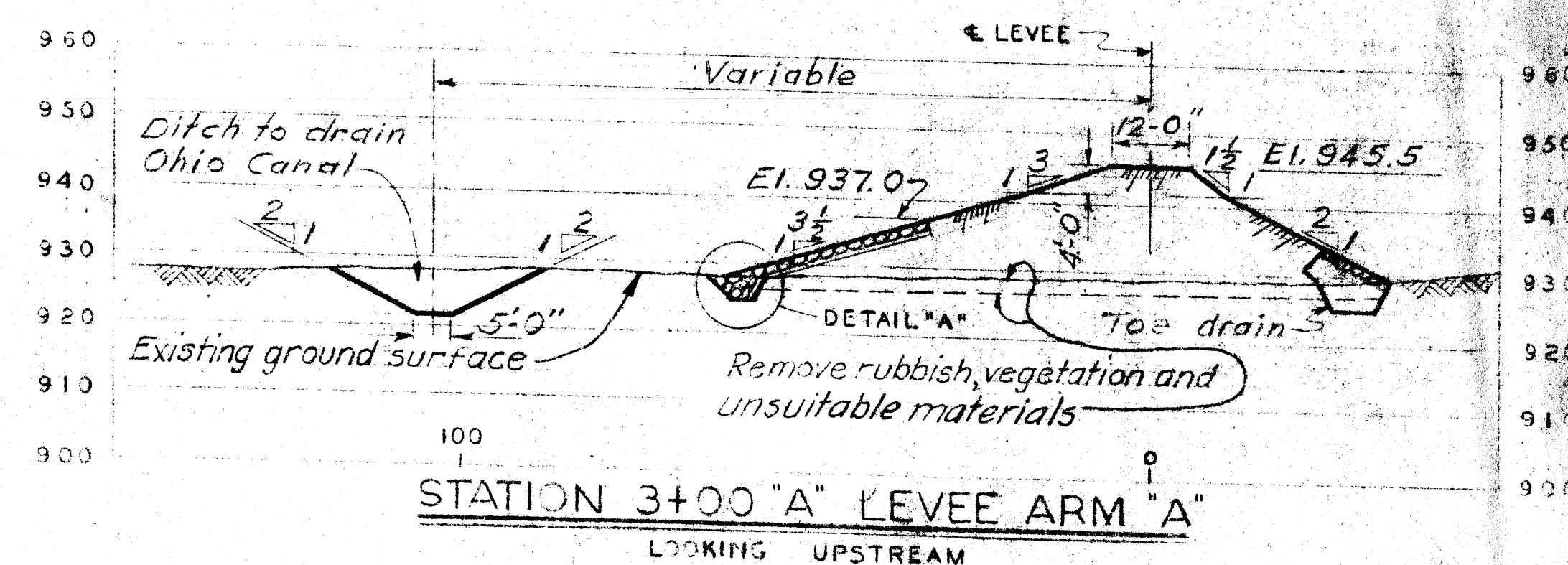
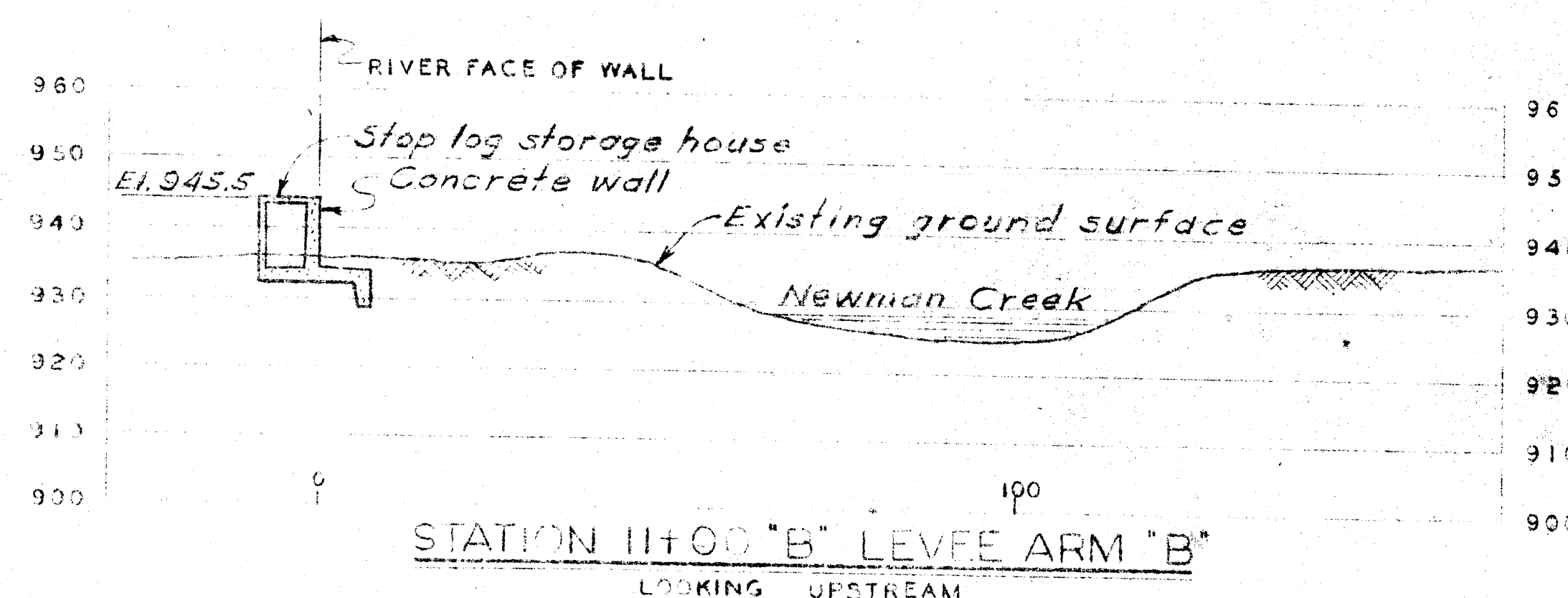
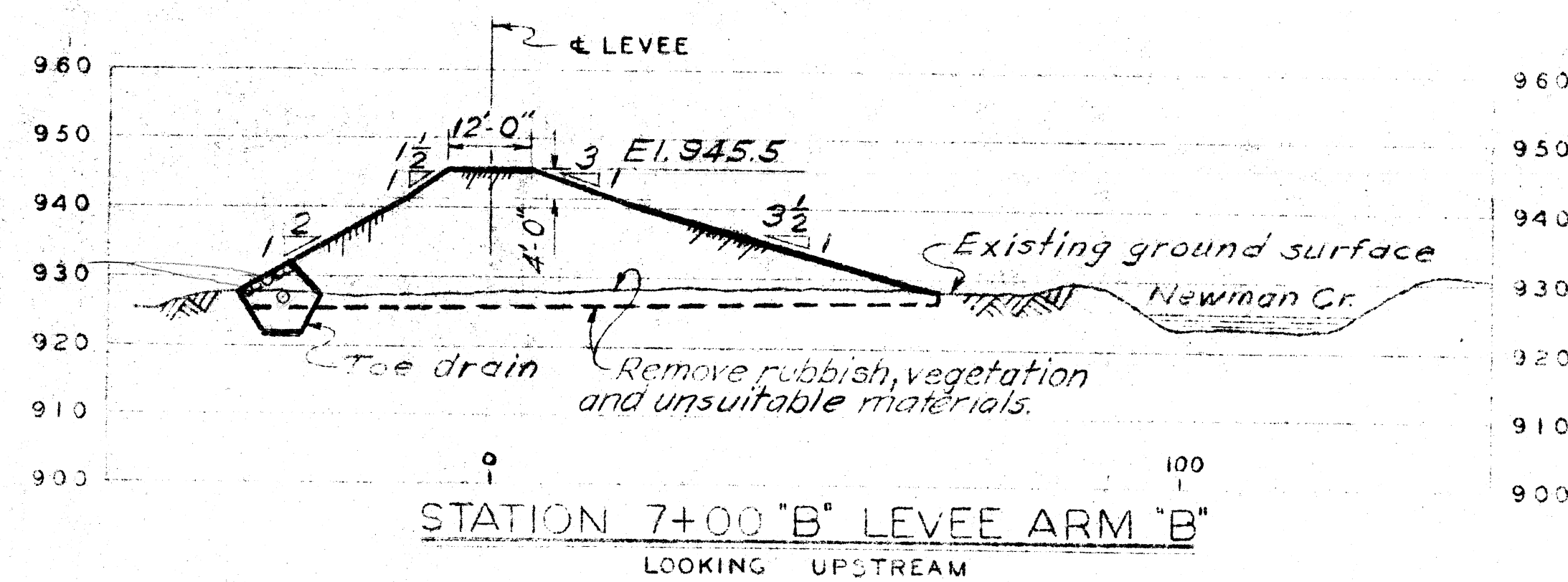
DEPARTMENT OF THE ARMY
CORPS OF ENGINEERS
OFFICE OF THE DISTRICT ENGINEER
HUNTINGTON, W. VA.

**TUSCARAWAS RIVER
LOCAL PROTECTION PROJECT
MASSILLON, OHIO
SECTION 2, UNIT 2
GENERAL PLAN & PROFILES**

DRAWN BY:	E.W.H
TRACED BY:	
CHECKED BY:	E.S.W
SUBMITTED BY:	<i>[Signature]</i>
CHIEF, ENG. DIV.	
APPROVED:	<i>[Signature]</i>
CHIEF, ENG. ASST.	

APPROVED: J. H. Keeler
CH. C.E. DISTRICT ENGINEER

SCALE: 1" = 100'	DE-EC. NO.
DRAWING NUMBER	
027i-PM2-2-16/3	



TYPICAL FOR ALL RIPRAPPED SLOPES
SCALE: 1"=1'-0"

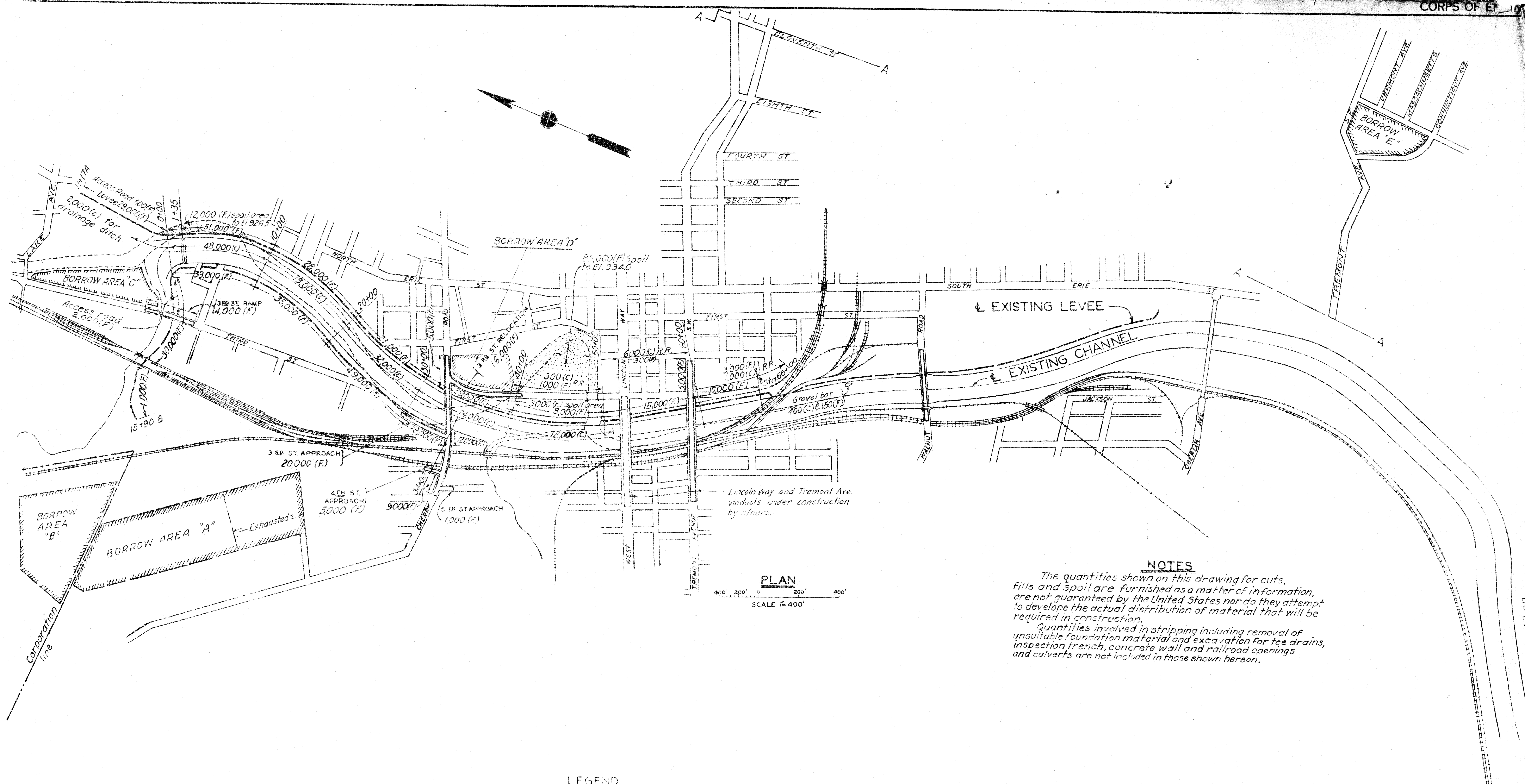
NOTES

Sections looking downstream unless otherwise noted.
Payment lines not shown, see Dwg. No. 1616.
For profiles and details of toe drains, see Dwg. No. 8211.

DEPARTMENT OF THE ARMY CORPS OF ENGINEERS OFFICE OF THE DISTRICT ENGINEER HUNTINGTON, W. VA.	
DRAWN BY: C.A.T.	TUSCARAWAS RIVER LOCAL PROTECTION PROJECT MASSILLON, OHIO SECTION 2, UNIT 2 TYPICAL CHANNEL & LEVEE SECTION
TRACED BY:	
CHECKED BY: E.S.W.-CCM	
SUBMITTED BY: J.H. Voth	
APPROVED BY: J.H. Voth	APPROVED BY: J.H. Voth
DATE:	DATE:
APPROVED FOR:	APPROVED FOR:
DATE:	DATE:

SCALE: HOR. 1"=20'
VERT. 1"=20'

DRAWING NUMBER: 10271-PM2-2-16
SHEET 6 OF 80



NOTES

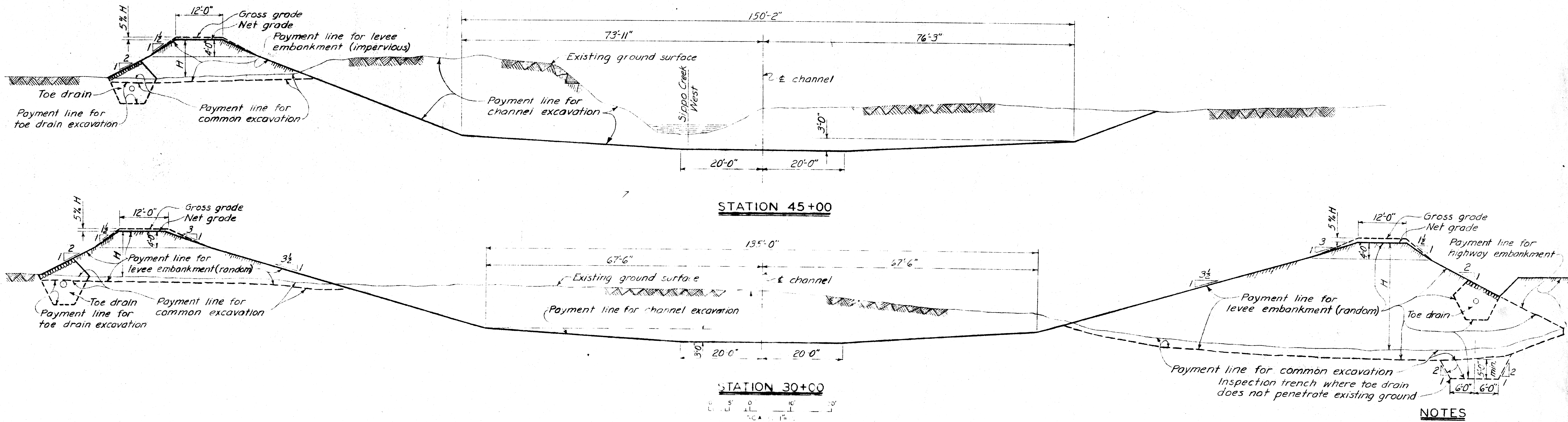
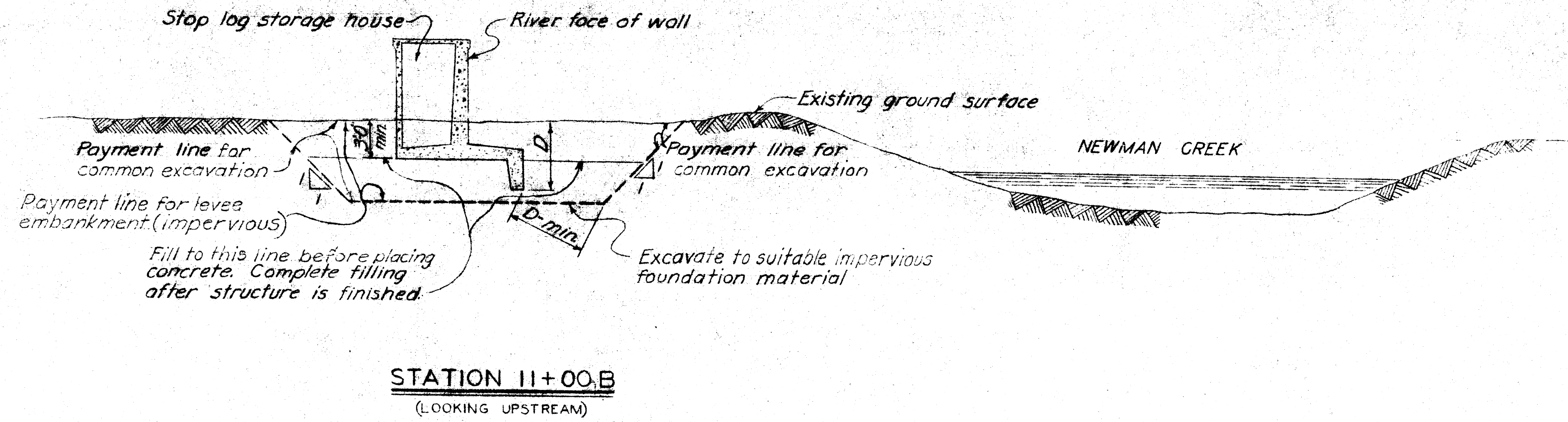
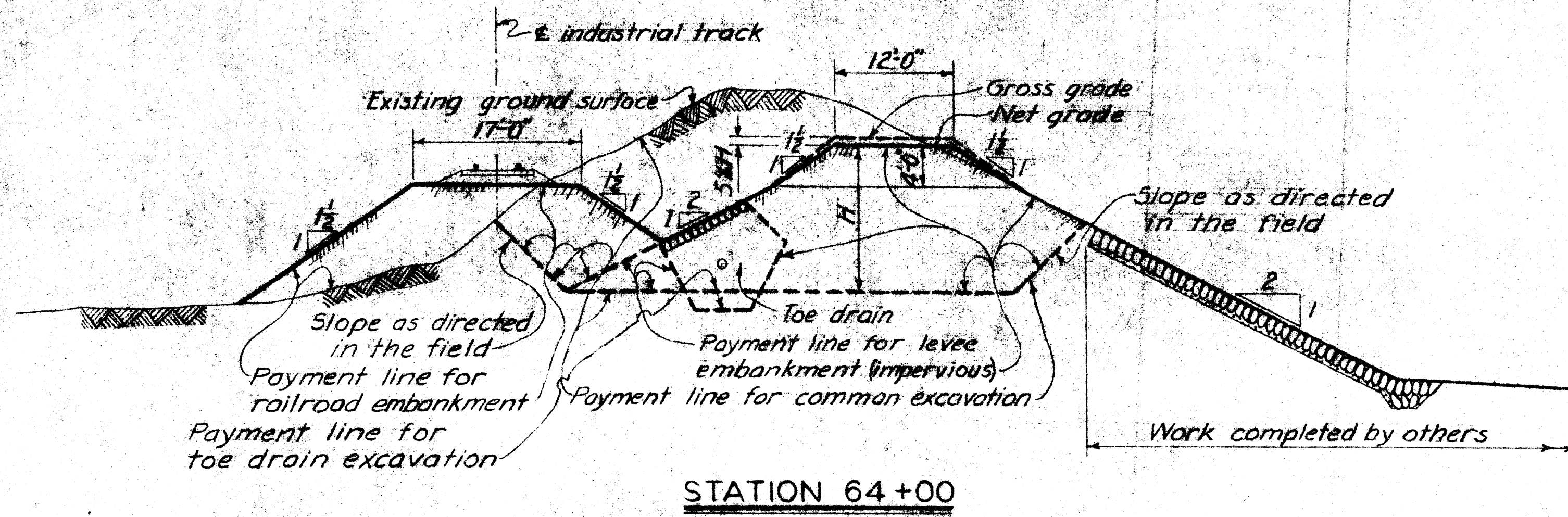
The quantities shown on this drawing for cuts, fills and spoil are furnished as a matter of information, are not guaranteed by the United States nor do they attempt to develop the actual distribution of material that will be required in construction.

Quantities involved in stripping including removal of unsuitable foundation material and excavation for tee drains, inspection trench, concrete wall and railroad openings and culverts are not included in those shown hereon.

LEGEND

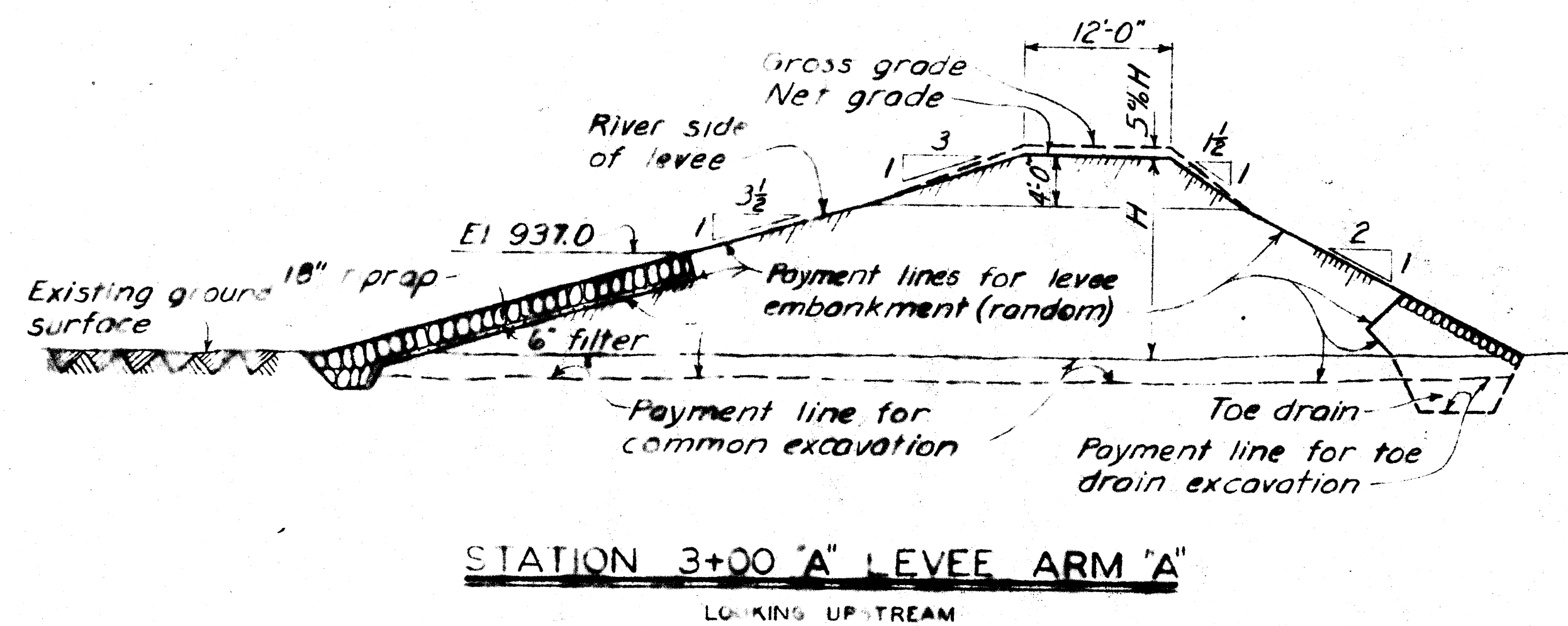
- Channel edge
- Levee
- ▨ Available spoil areas
(Required spoil areas shown on general plan sheets)

DEPARTMENT OF THE ARMY CORPS OF ENGINEERS OFFICE OF THE DISTRICT ENGINEER HUNTINGTON, W. VA.	
DRAWN BY: W.B.S. - R.G.P.	TUSCARAWAS RIVER LOCAL PROTECTION PROJECT MASSILLON, OHIO SECTION 2, UNIT 2 GRADING DISTRIBUTION
TRACED BY: D.R.J. - R.G.P.	
CHECKED BY: C.C.M. - G.O.S.	
SUBMITTED BY: [Signature]	
APPROVED: [Signature] CHIEF ENG. ASST.	
APPROVED FOR: [Signature] COL. C.E. DISTRICT ENGINEER	DATE: OCT. 1948
SCALE: 1" = 400'	
DRAWING NUMBER 0271-PM2-2-16/8	
SHEET 7 OF 80	

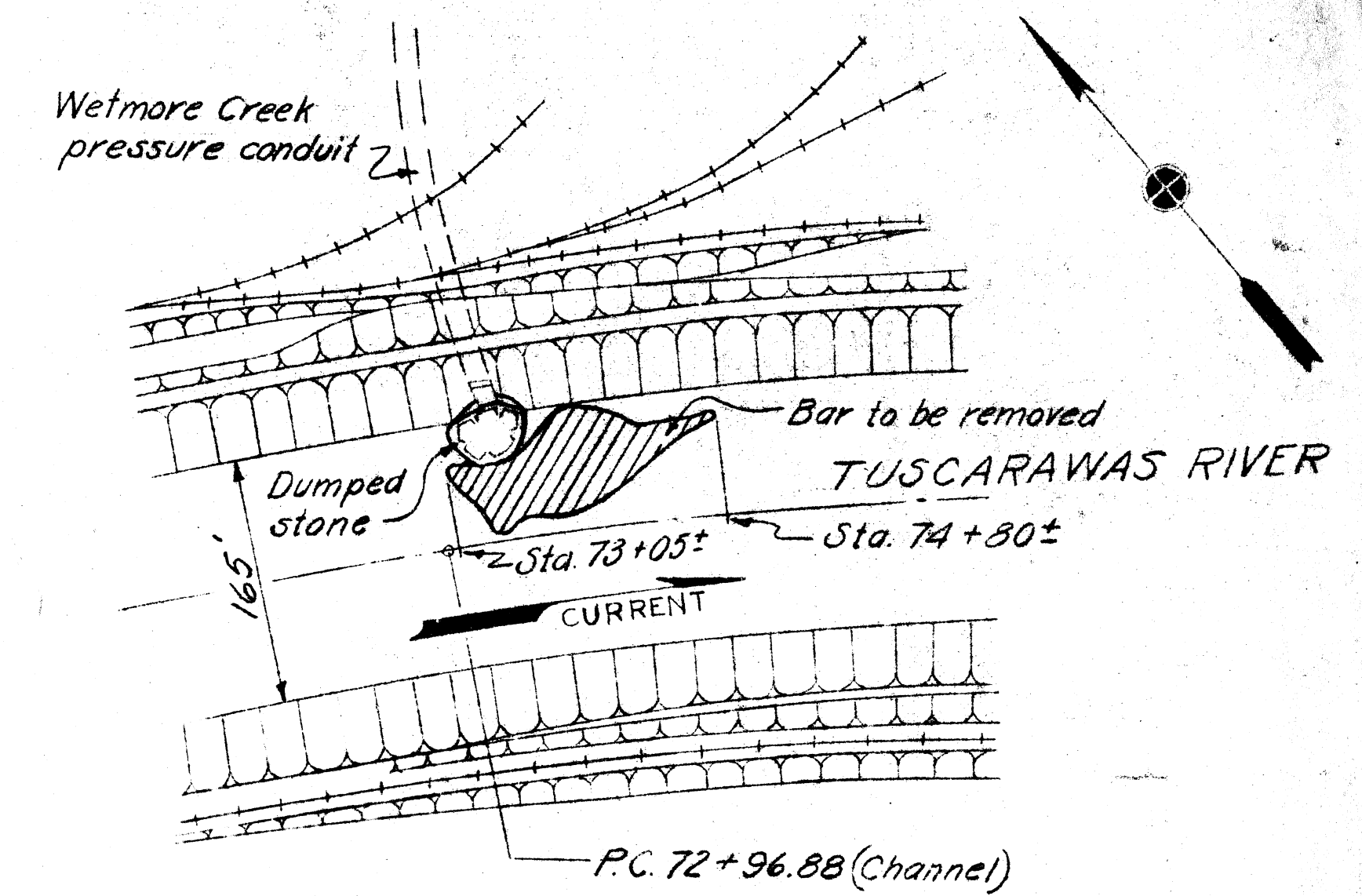
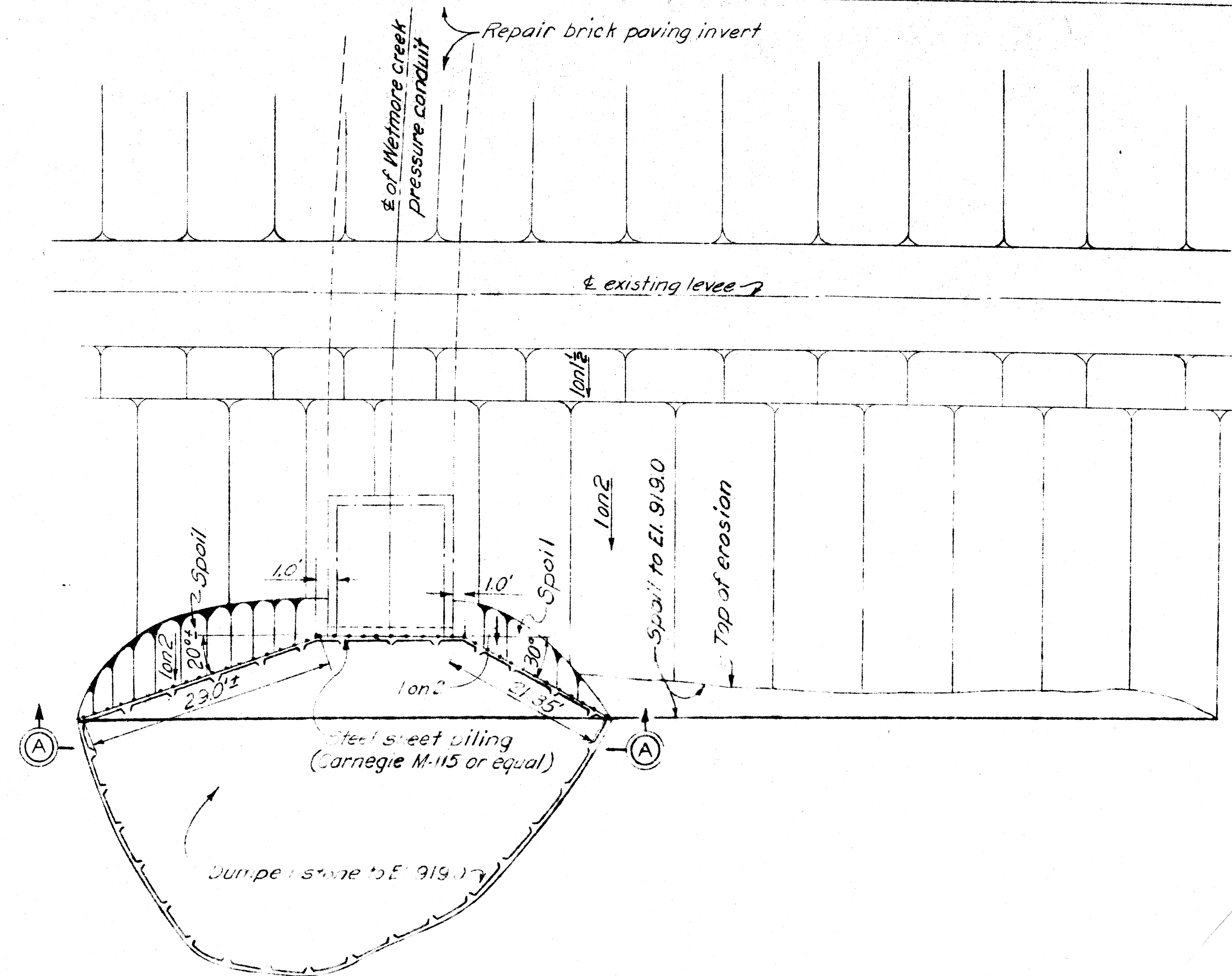
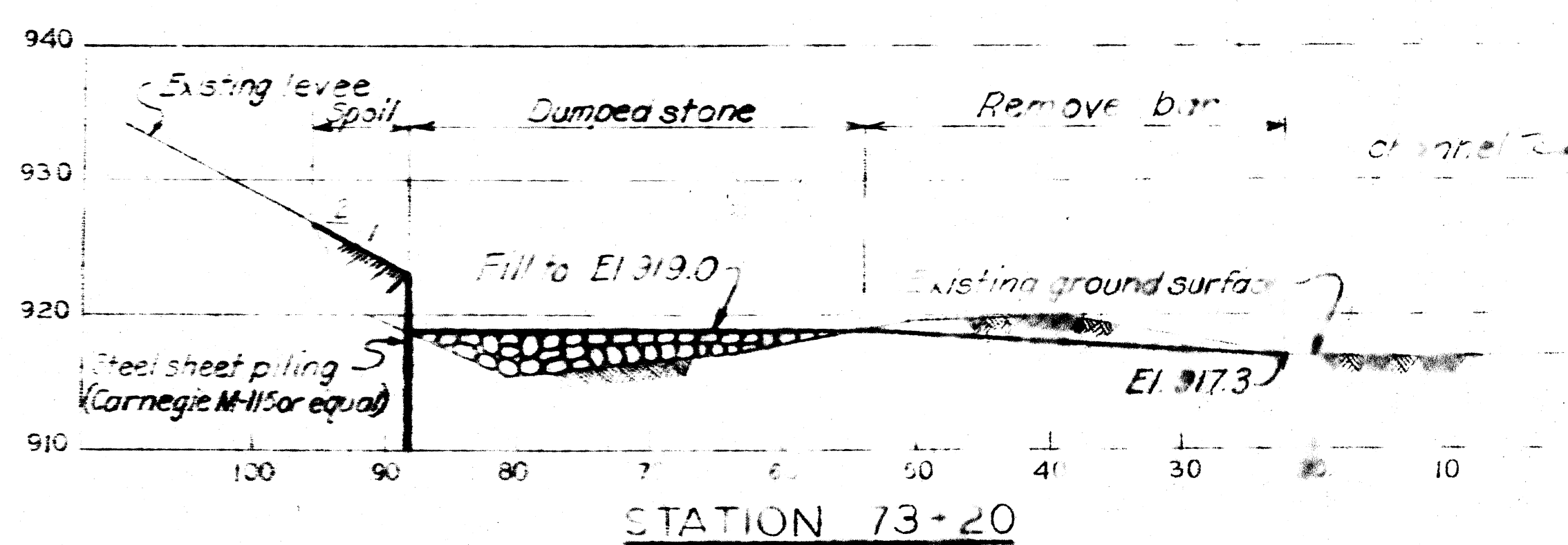
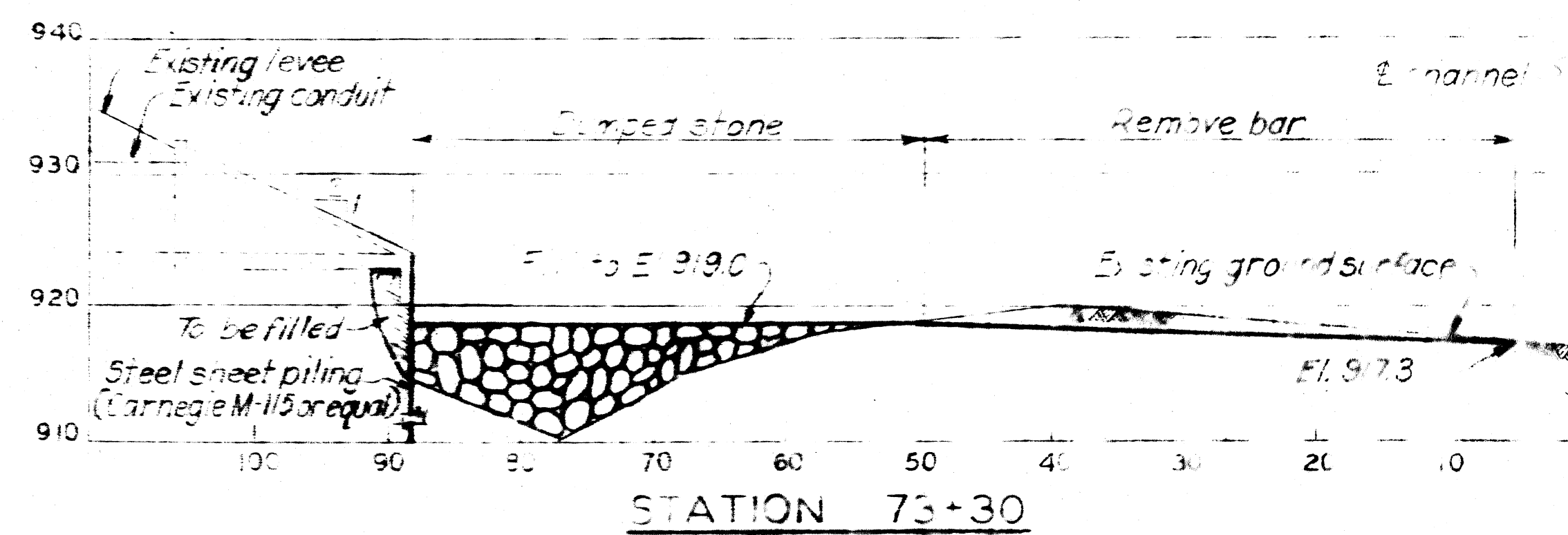
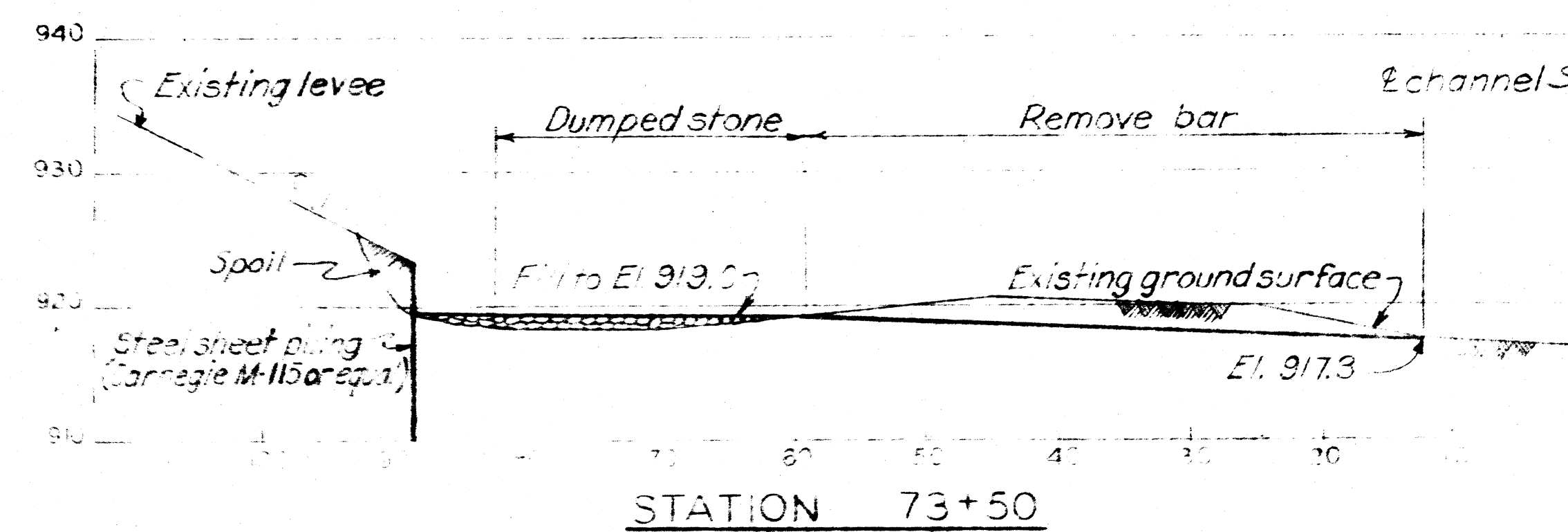
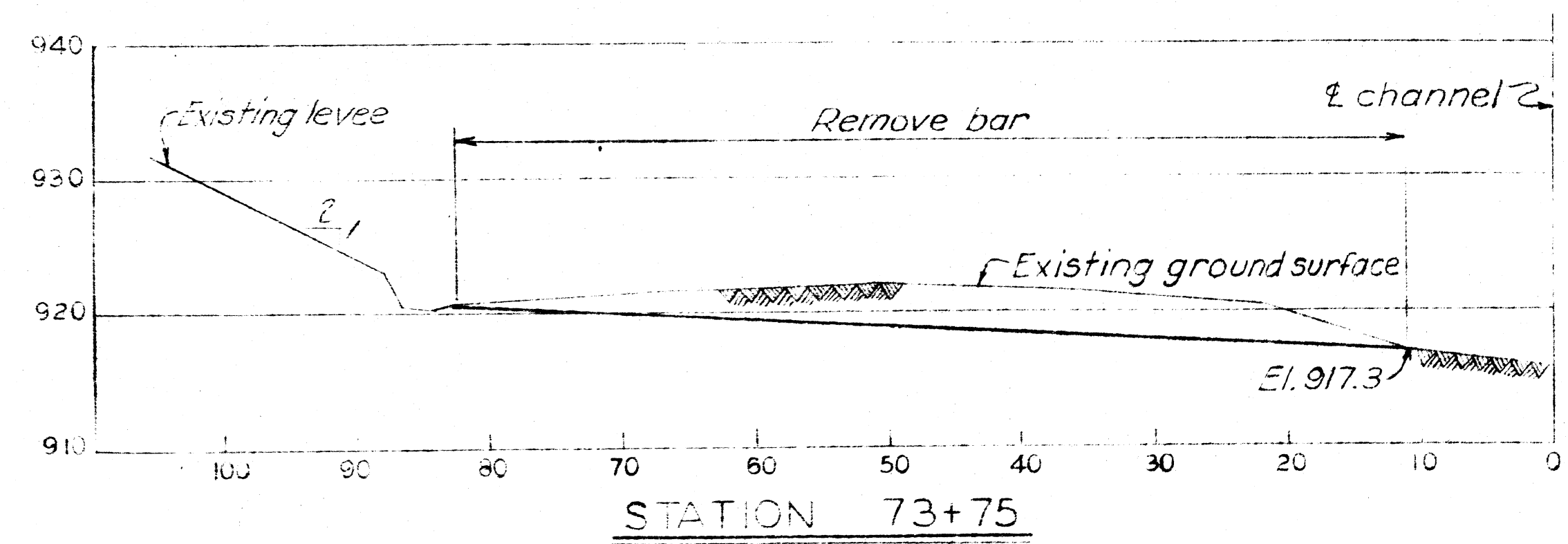
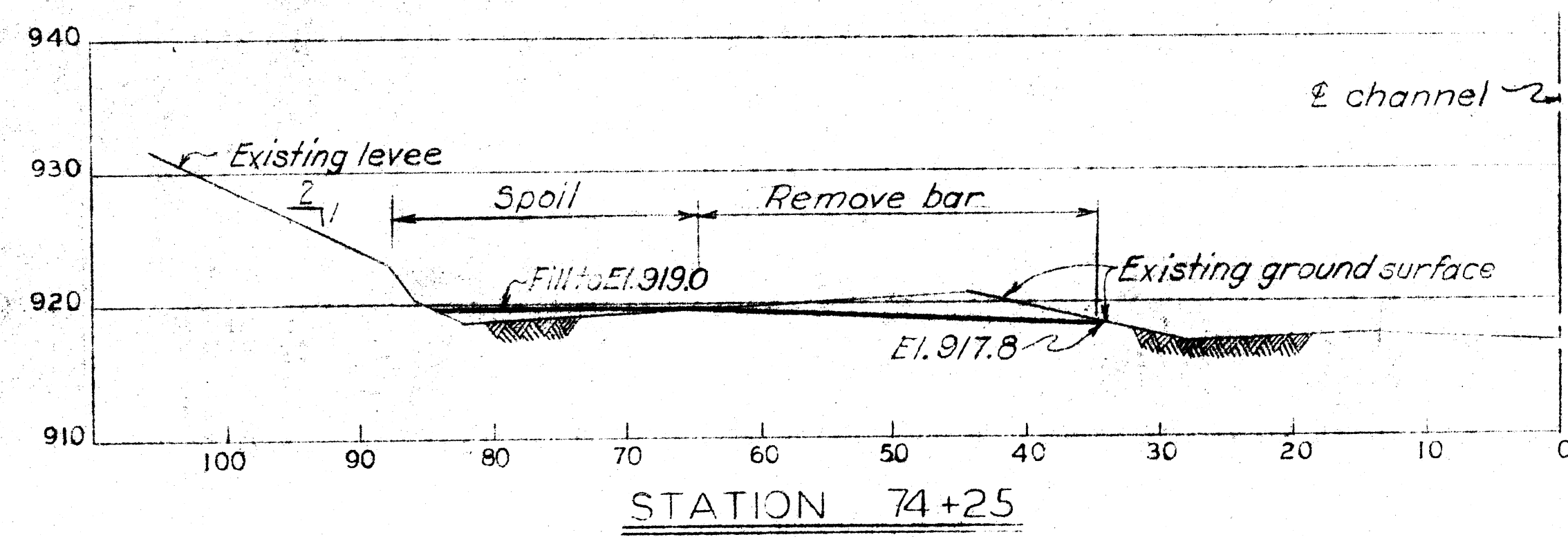


NOTES

- No payment to be made for filling of low places in new channel to conform to specified line and grade.
- Sections looking downstream unless otherwise noted.
- For profiles and details of toe drains, see Dwg. No. 82/1.
- For recommended track shoring, see Dwg. Nos. 20/15 and 20/16.
- For spoil areas, see Dwg. No. 16/5.

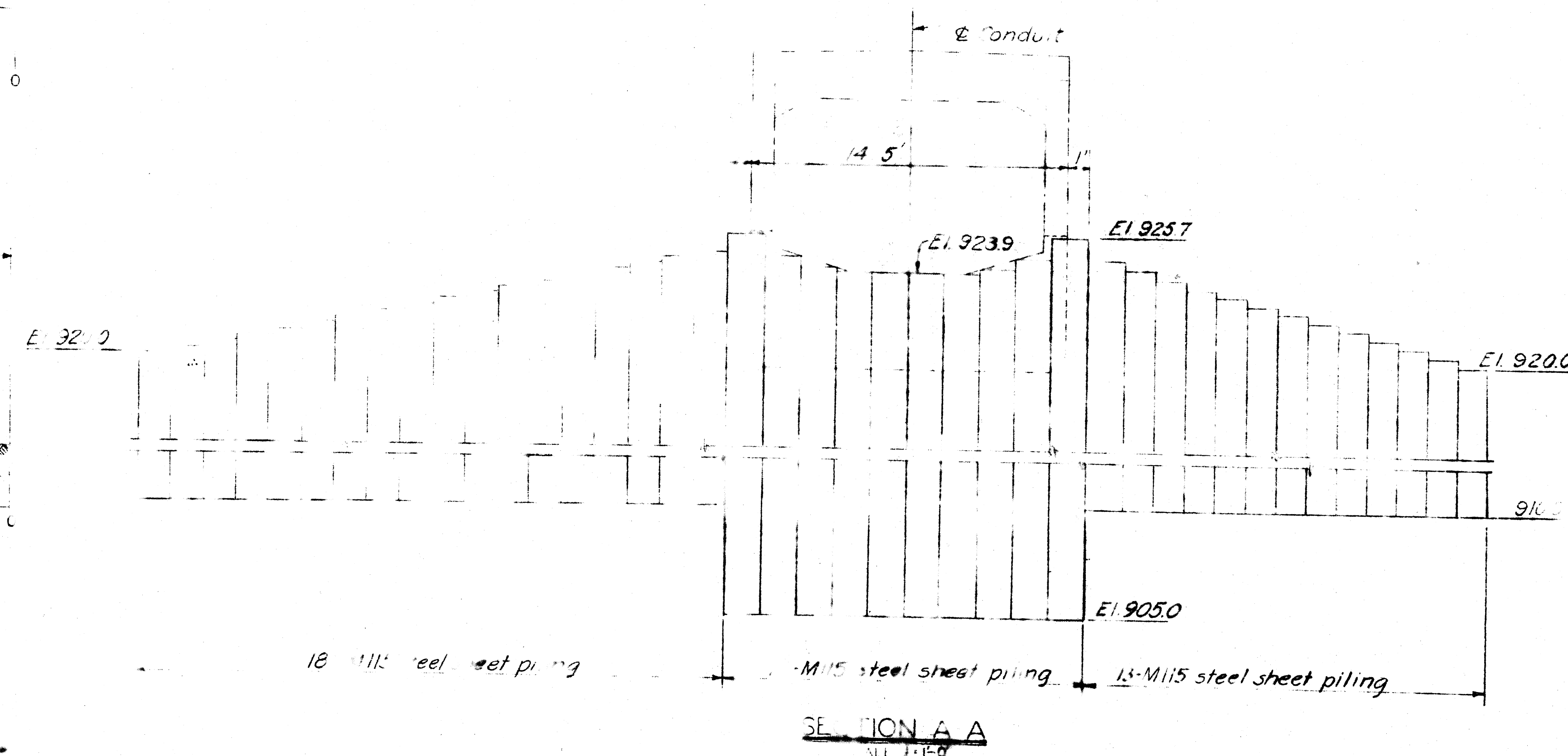


DRAWN BY: R.G.P.		DEPARTMENT OF THE ARMY CORPS OF ENGINEERS OFFICE OF THE DISTRICT ENGINEER HUNTINGTON, W. VA.	
TRACED BY:		TUSCARAWAS RIVER LOCAL PROTECTION PROJECT MASSILLON, OHIO SECTION 2, UNIT 2 PAYMENT LINES FOR EXCAVATION & EMBANKMENT	
CHECKED BY: C.G.M.-G.O.S.		DATE: OCT 194	
SUBMITTED BY: CHIEF CIVIL DIV.		APPROVED: <i>[Signature]</i> COL. C. E. DISTRICT ENGINEER	
APPROVED FOR:		SCALE: 1" = 10'-0"	
DATE:		SHEET 4 OF 40	



LOCATION PLAN

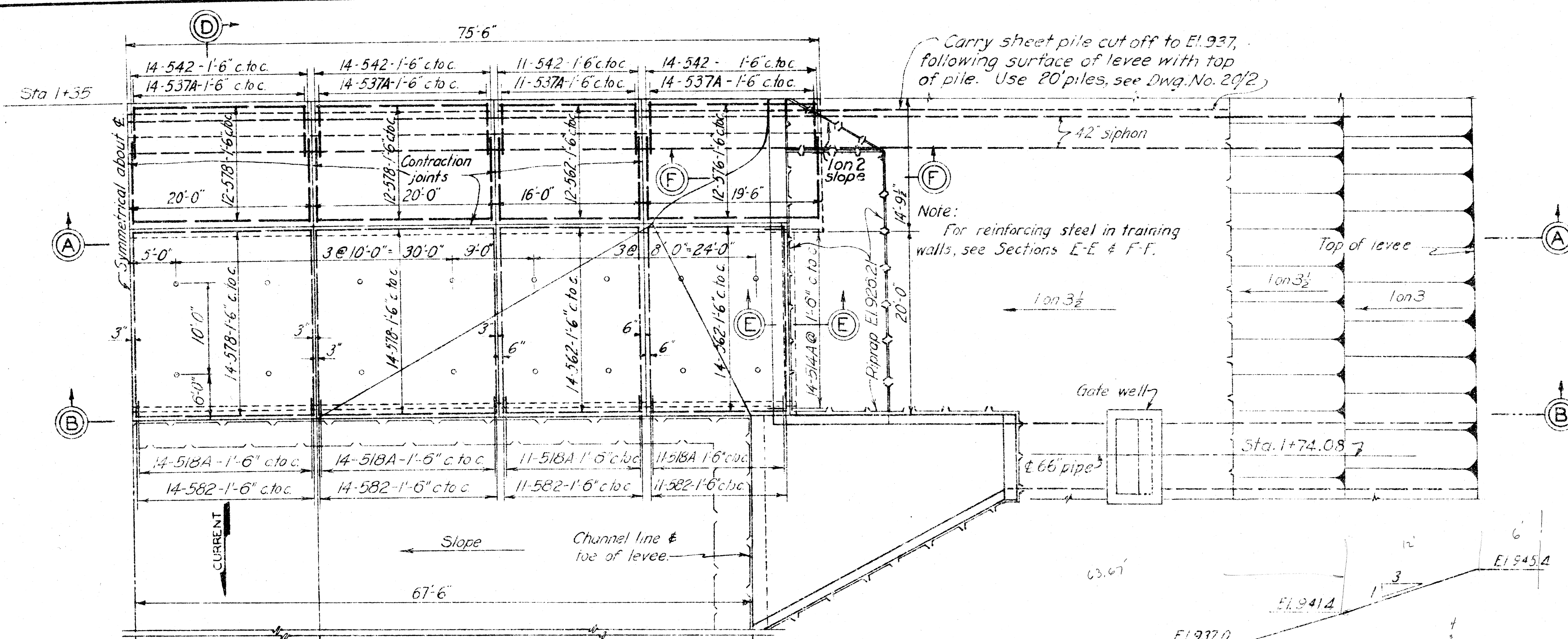
SCALE: 1"=100'



NOTES

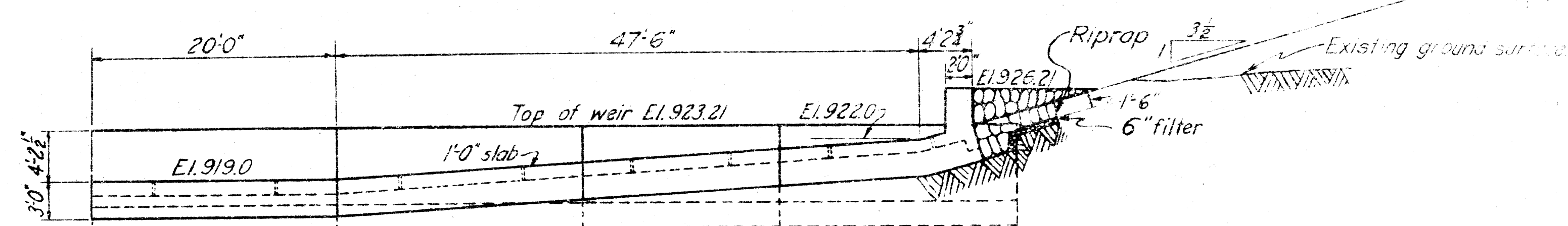
For general plan, see Dwg. No. 16/3

DEPARTMENT OF THE ARMY CORPS OF ENGINEERS OFFICE OF THE DISTRICT ENGINEER HUNTINGTON, W. VA.		TUSCARAWAS RIVER LOCAL PROTECTION PROJECT MASSILLON, OHIO SECTION 2, UNIT 2 MODIFICATION OF WETMORE PRESSURE CONDUIT OUTLET	
DRAWN BY: N.M.G.-E.W.H.	CHECKED BY: C.C.M.-E.S.W.	APPROVED BY: SOL. C. E. DISTRICT ENGINEER	DATE: OCT. 1948
APPROVED FOR:		DRAWING NUMBER 0271-PM2-2-16/7	
DATE:		SHEET 8 OF 80	

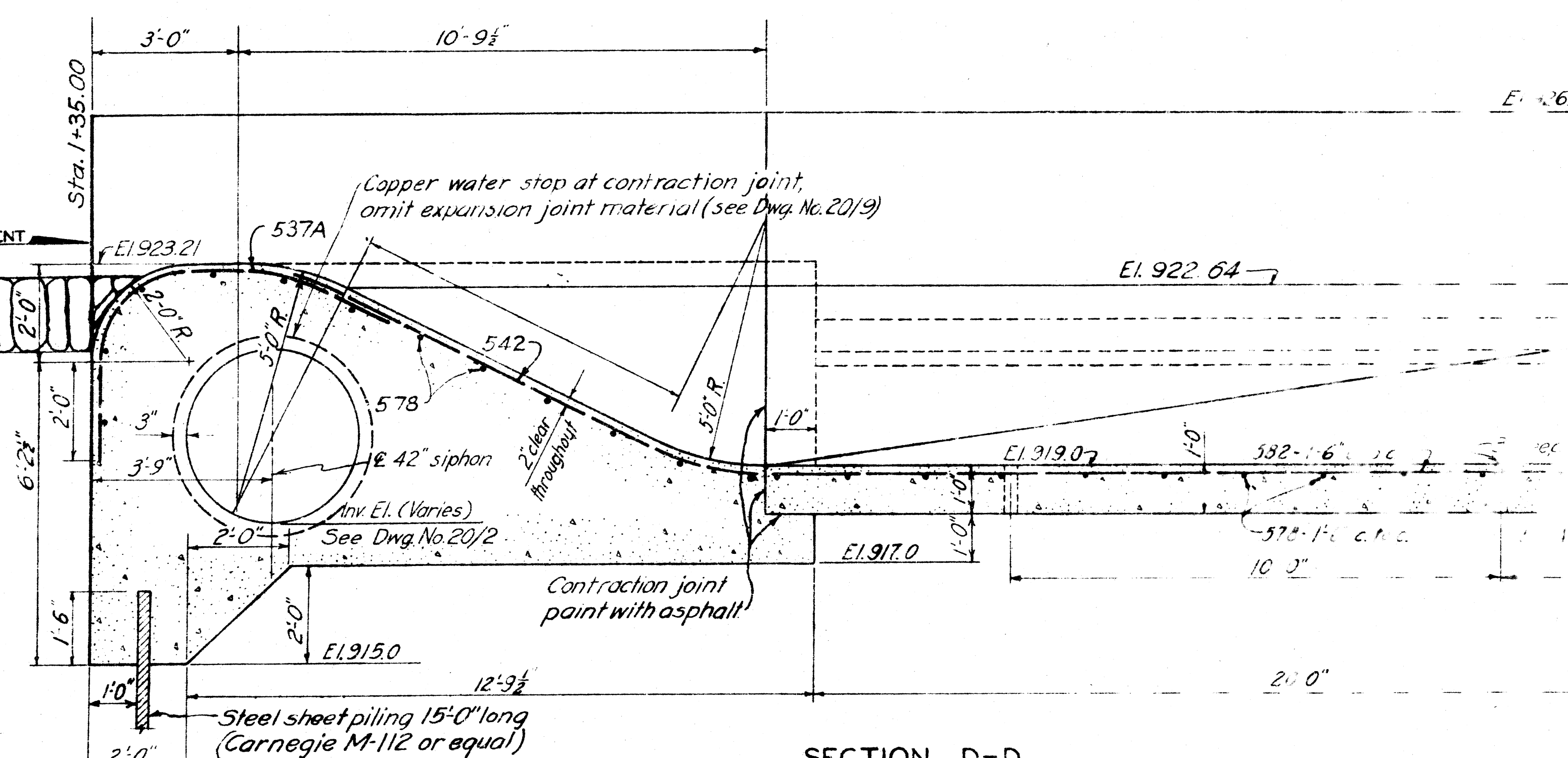


HALF PLAN

SECTION A-A



SECTION B-B

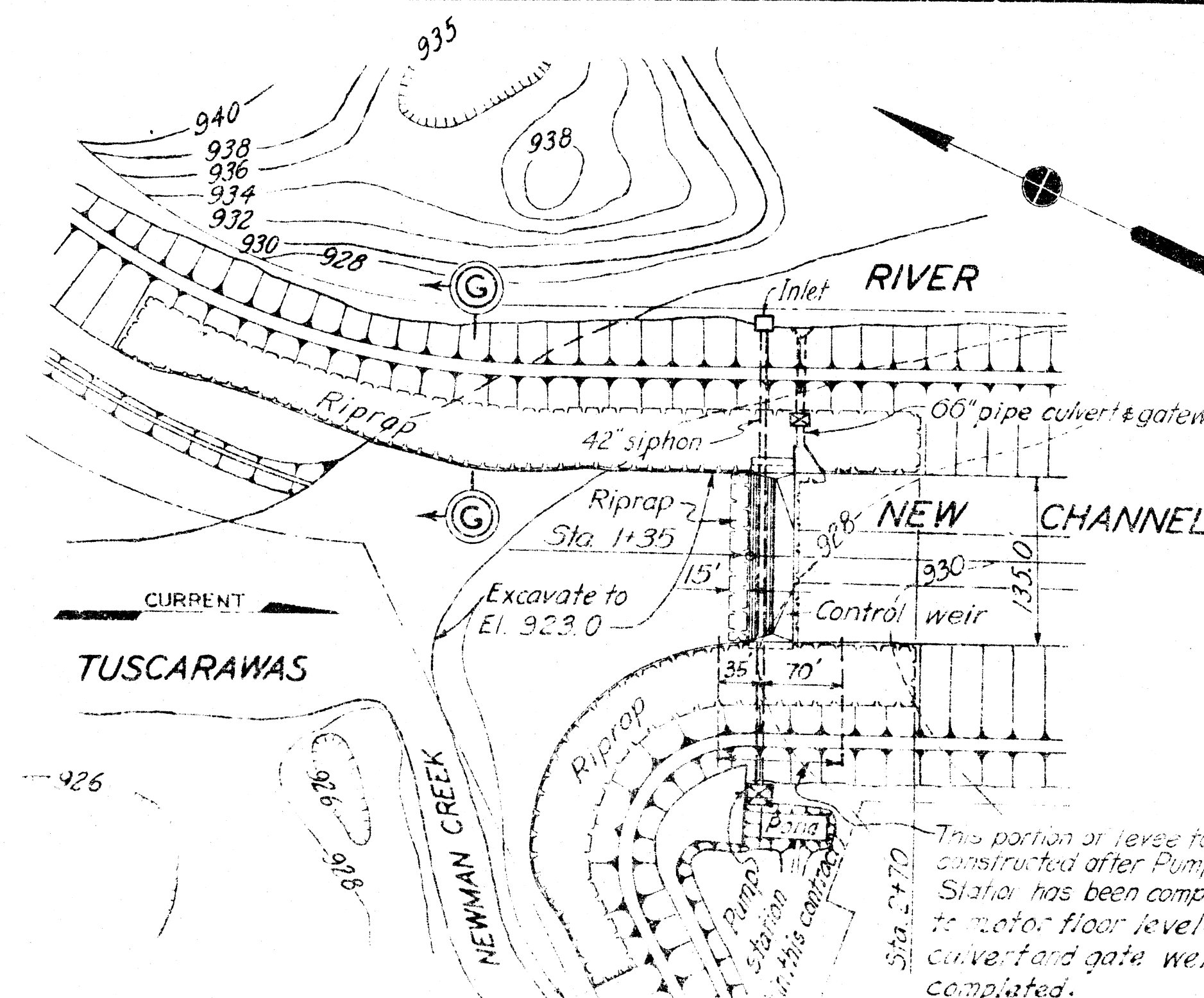


SECTION D-D

SCALE: 1/2" = 1'-0"

Carry sheet pile cut off to El. 937, following surface of levee with top of pile. Use 20 piles, see Dwg. No. 20/2.

Note:
For reinforcing steel in training walls, see Sections E-E & F-F.



LOCATION PLAN

SECTION F-F

SCALE: 1/2" = 1'-0"

SECTION E-E

SCALE: 1" = 1'-0"

SECTION G-G

SCALE: 1/2" = 1'-0"

REINFORCING SCHEDULE

MARK	SIZE	LGTH	BENDING DIAGRAM	NO.	UNIT WT.
514A	3/4"	3'-6"		28	3.65
518A	3/4"	4'-6"		100	4.69
520	3/4"	5'-0"		28	5.22
537A	3/4"	9'-3"		106	9.65
543A	3/4"	10'-9"		46	11.21
542	3/4"	10'-6"		106	10.95
553	3/4"	13'-3"		8	13.82
562	3/4"	15'-6"		80	16.17
576	3/4"	19'-0"		24	19.82
578	3/4"	19'-6"		104	20.34
582	3/4"	20'-6"		114	21.38
Total					9850

REINFORCING STEEL CODE

Bar numbers indicate the size and lengths thus: The first digit indicates the size in eighths of an inch (except 1/4" & 1/2"); the next 2 or 3 digits indicate the length in fourths of a foot. Thus a bar marked 543 means 5/8" or 3/4" and 10.75 or 10'-9" long. If a letter is suffixed, a bent bar is indicated and is detailed in the bending diagram and schedule.

Symbols used for abbreviations are as follows:
 FS for Far Side OS for Outside
 NS for Near Side IS for Inside
 EF for Each Face BS for Both Sides

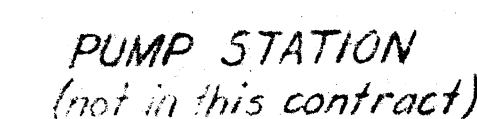
MASONRY NOTES

Unless otherwise shown or noted provide 1" chamfer on all exposed concrete corners.
 All reinforcing steel shall be spaced a clear distance from concrete surfaces as shown or noted.
 All bends in reinforcing steel shall be made to a radius of 4 bar diameters (inside) unless otherwise noted.
 All hooked reinforcing bars extending from base slabs into walls shall be hooked around horizontal bars in bottom of base.

NOTES

All steel unless otherwise indicated to be bent in field to suit conditions.
 Omit 6" filter where underlying material is free draining.
 For general plan, see Drawing No. 16/1.
 For details of gatewell and 66" pipe culvert, see Drawing No. 20/3.
 For details of siphon, see Drawing No. 20/2.

DEPARTMENT OF THE ARMY CORPS OF ENGINEERS OFFICE OF THE DISTRICT ENGINEER HUNTINGTON, W. VA.		TUSCARAWAS RIVER LOCAL PROTECTION PROJECT MASSILLON, OHIO SECTION 2, UNIT 2 CONTROL WEIR	
DRAWN BY: R.M.C.-R.G.P.	TRACED BY: W.E.C.-R.G.P.	CHECKED BY: E.S.W.-C.C.M.	APPROVED BY: [Signature]
SUBMITTED BY: [Signature]		APPROVED BY: [Signature]	
APPROVED FOR: [Signature]		DATE: OCT. 1948	
DATE:		DRAWING NUMBER 0271-PM2-2-20/1 SHEET 10 OF 60	

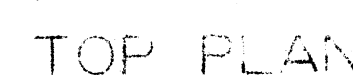


PROFILE OF SYPHON-STA. 1+38.75

LOOKING DOWNSTREAM



SCALE: $\frac{3}{8}'' = 1'-0''$



TOP PLAN



SECTION B-E



DETAIL "E"



SECTION C-C



DETAIL A



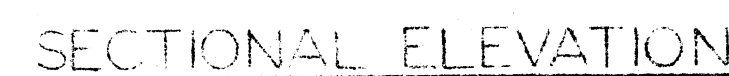
PLAN AT BASE



SECTION A-A



ELEVATION D-D



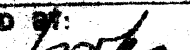
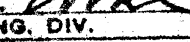
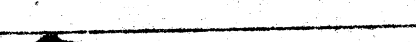
SECTIONAL ELEVATION

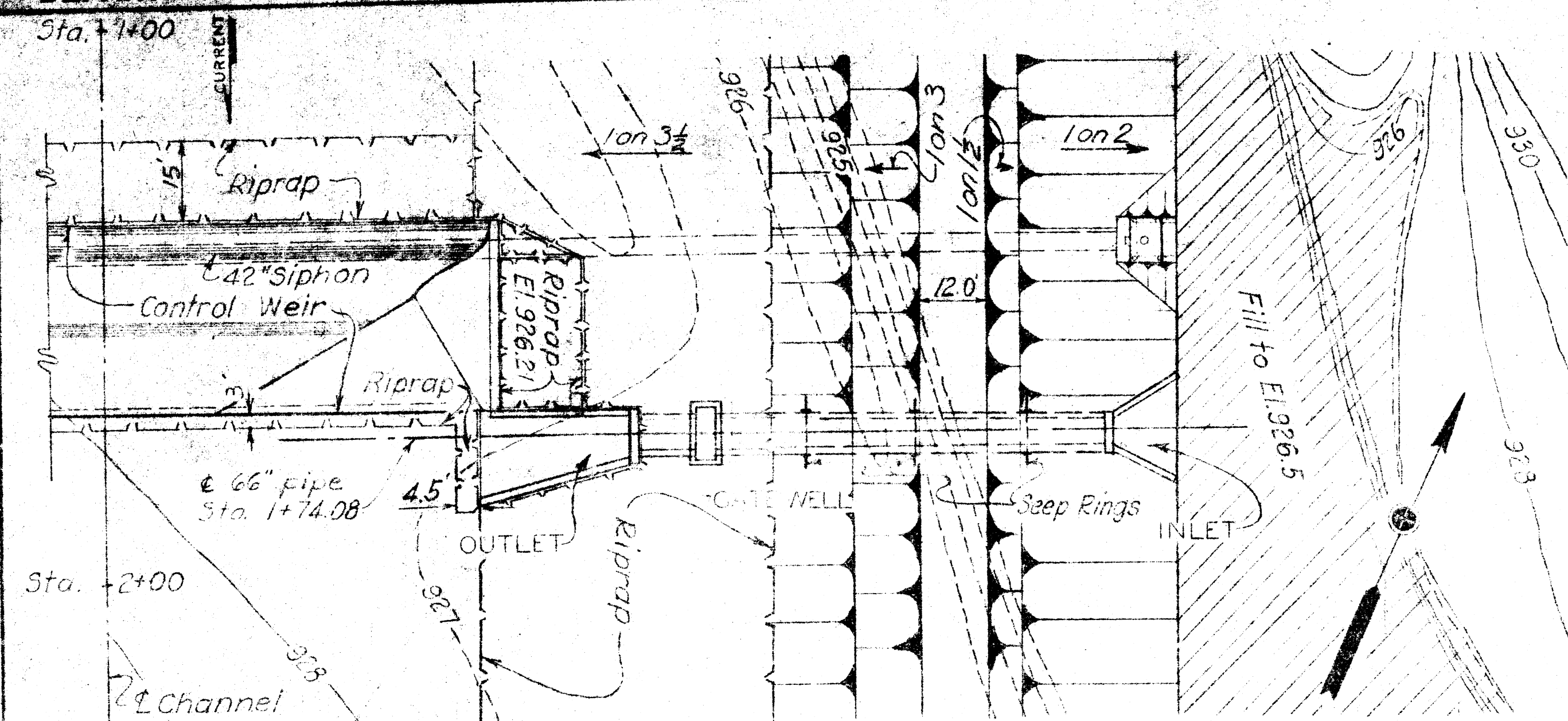
(OPPOSITE WALL SIMILAR)

REINFORCING SCHEDULE					
MARK	SIZE	LGTH	BENDING DIAGRAM	NO.	UNIT WT.
322A	3/8"	5'-6"		4	2.07
324A	3/8"	6'-0"	2'-5"	6	2.26
326A	3/8"	6'-6"	2'-6" 2'-11"	4	2.44
410A	3/8"	2'-6"	1'-9"	4	1.57
413A	3/8"	3'-3"	2'-0"	4	2.17
414	1/2"	3'-6"	2'-3"	4	2.34
416A	1/2"	4'-0"		4	2.67
415A	1/2"	3'-9"	1'-9"	4	2.51
419A	1/2"	4'-9"	2'-6"	4	2.17
420	1/2"	5'-0"	3'-3"	4	3.34
426	1/2"	6'-6"	3'-0"	4	4.34
419A	1/2"	7'-6"	4'-0"	6	5.01
428	1/2"	7'-0"	6'-3"	12	4.45
428A	1/2"	7'-0"	8'-0"	12	4.68
430	1/2"	7'-6"	3'-4"	27	5.01
432	1/2"	8'-0"		4	5.34
435A	1/2"	8'-9"		9	5.85
439A	1/2"	9'-9"		5	6.51
446A	1/2"	11'-6"		3	7.68
533	3/8"	8'-3"		16	3.60
540A	3/8"	10'-0"		4	10.43
617A	3/8"	4'-3"		2	6.38
630	3/8"	7'-6"	7'-5"	2	11.27
630A	3/8"	7'-6"	7'-5"	4	11.17
634B	3/8"	8'-6"		4	12.77
636A	3/8"	3'-0"		5	13.52
650A	3/8"	12'-6"		2	18.78
737A	3/8"	9'-3"		8	13.91
837A	1"	9'-3"		10	24.70
Total					136.5

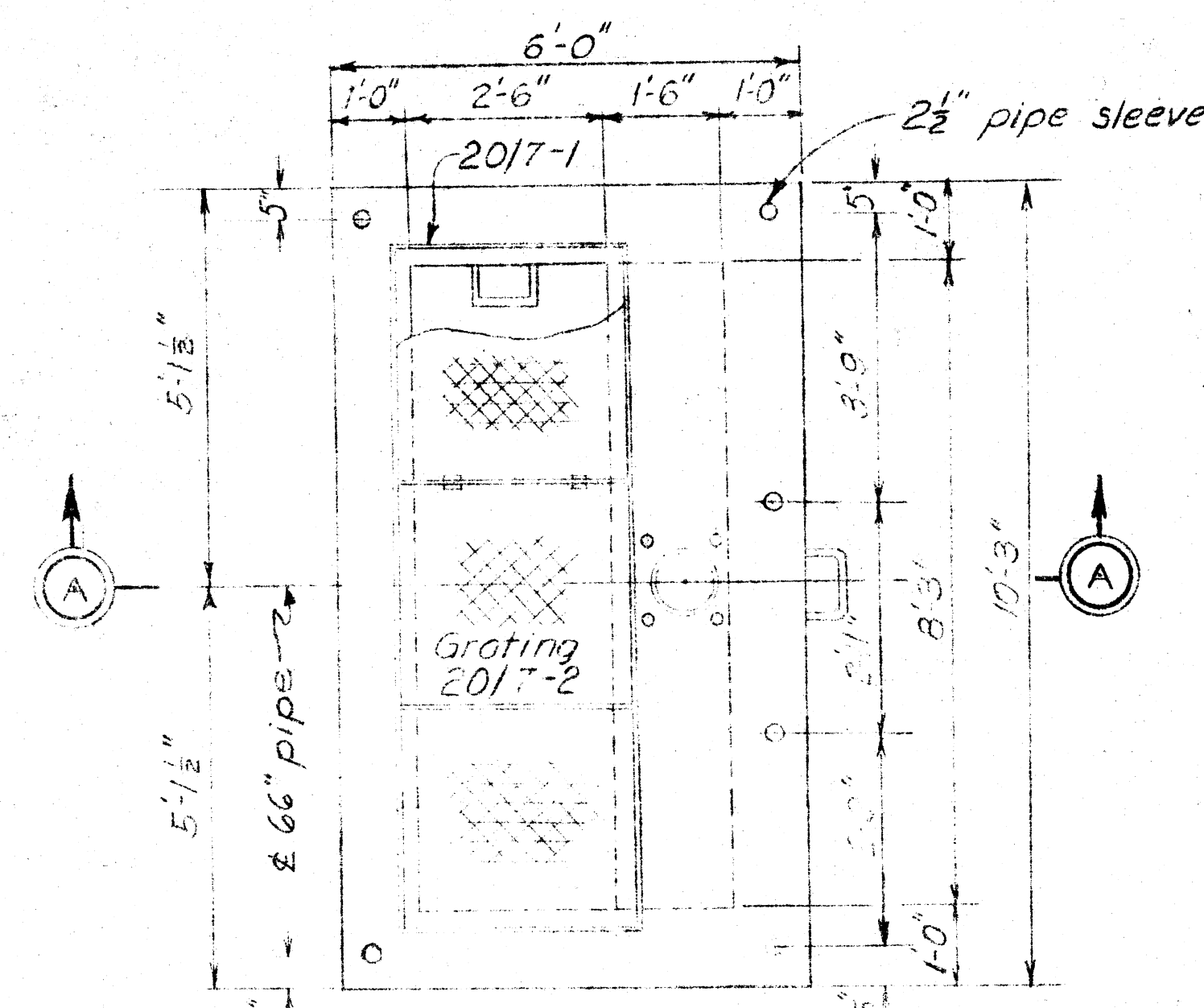
NOTES

For masonry notes and explanation of reinforcing steel code, see Dwg. No. 20/1.
For general plan, see Dwg. No. 16/1.
For structural steel details, see Dwg. No. 20/7
For details of sleep rings, see Dwg. No. 68/18.

DRAWN BY: R.G.P.		TUSCARAWAS RIVER LOCAL PROTECTION PROJECT MASSILLON, OHIO SECTION 2, UNIT 2 42" SIPHON AT CONTROL WEIR	
TRACED BY:			
CHECKED BY: C.C.M.-E.S.W.		DATE: OCT. 1948	
SUBMITTED BY:  CHIEF, ENG. DIV.			
APPROVED:  CHIEF ENG. ASST.		APPROVED:  COL. C.E., DISTRICT ENGINEER	
APPROVED FOR:		SCALE: 3/8" = 1'-0"	SPEC. NO.
		DRAWING NUMBER 0271-PM2-2-20/2	
DATE:		SHEET 11 OF 80	

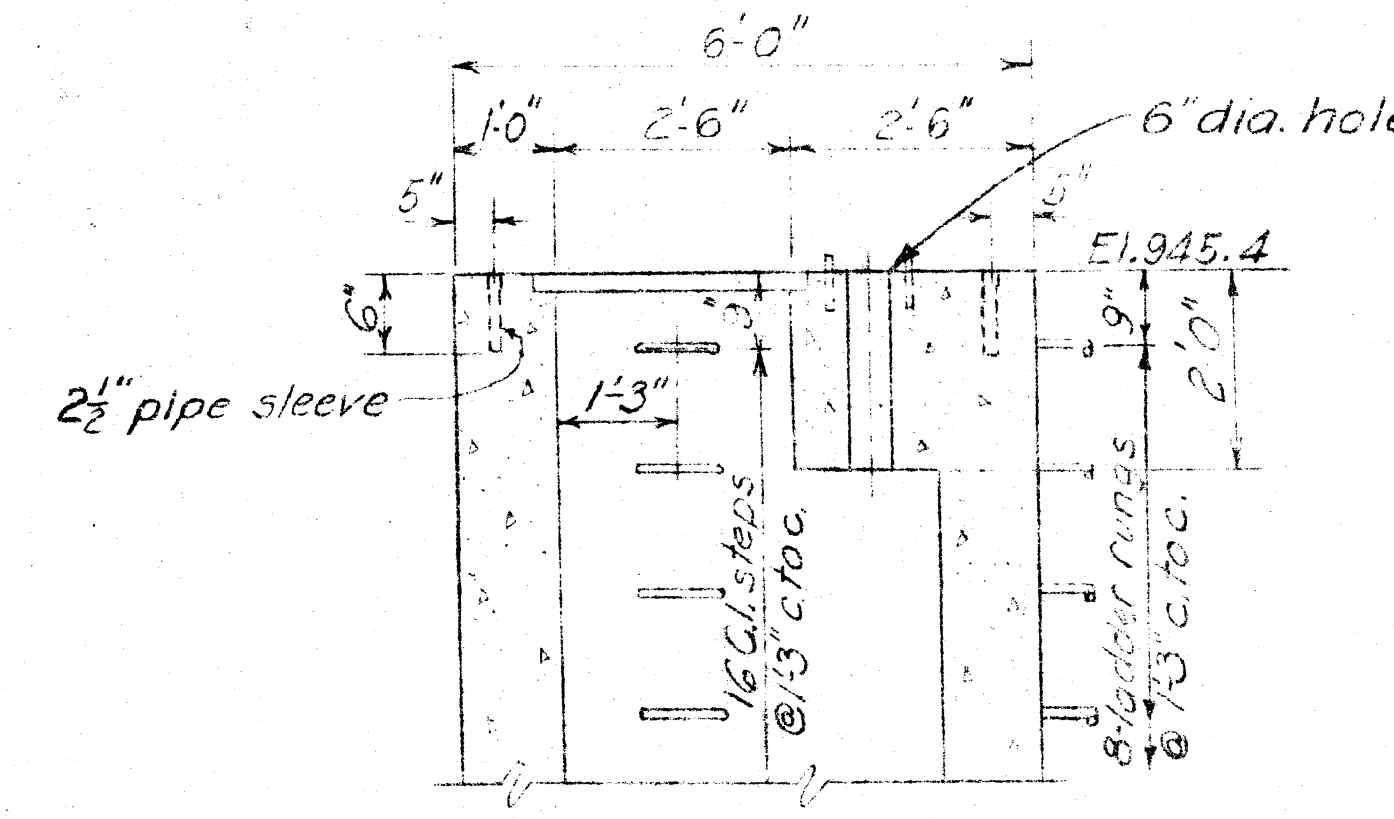


PLAN



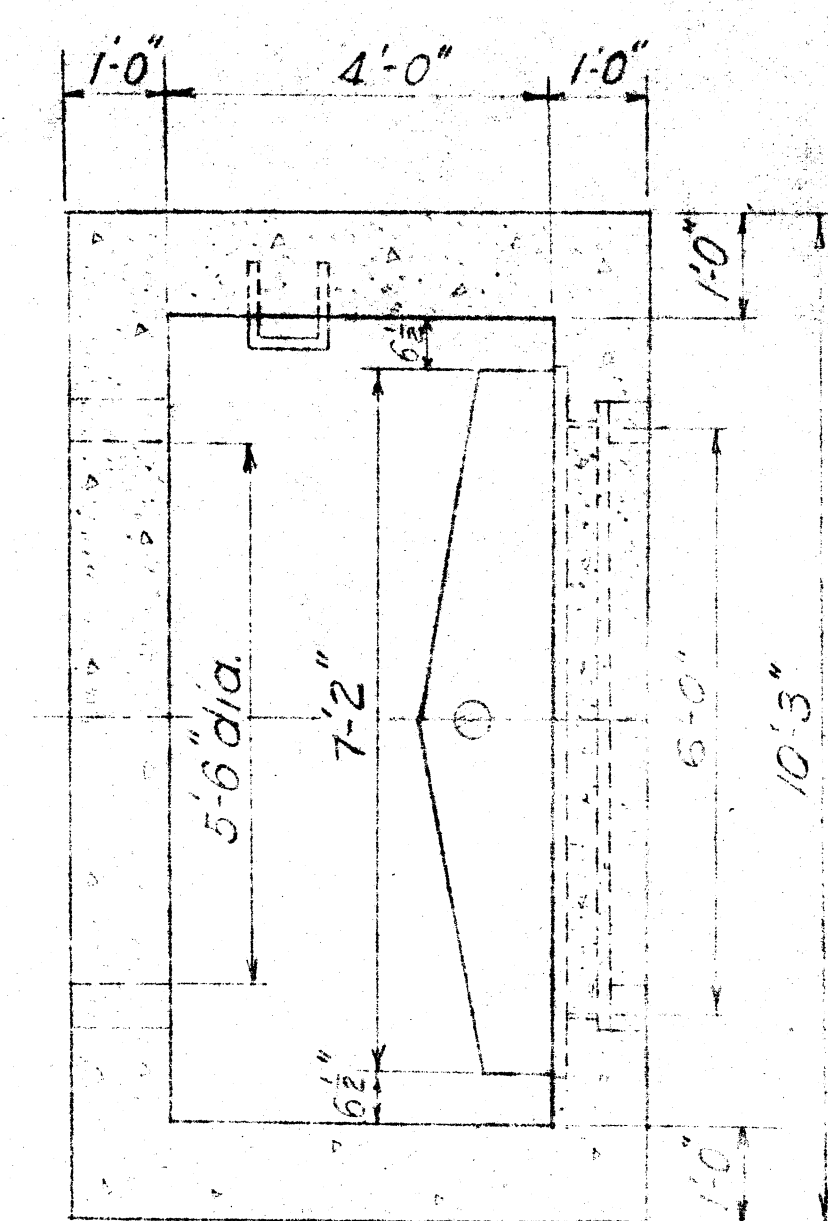
GATEWELL PLAN AT ELEV 945.4

SCALE: 1/4" = 1'-0"



SECTION A-A

SCALE: 1/2" = 1'-0"

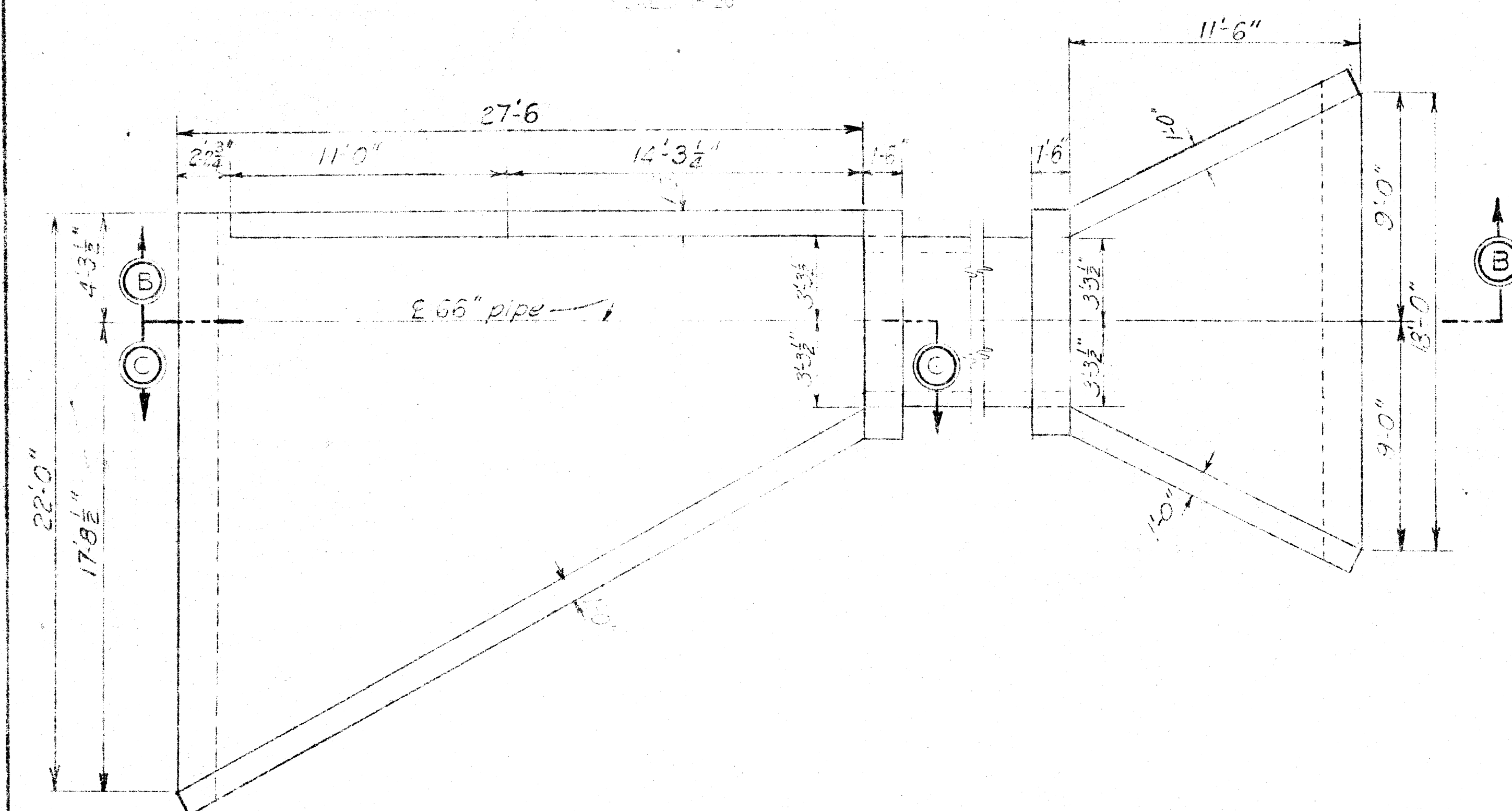


GATEWELL PLAN AT ELEV 932.0

SCALE: 1/2" = 1'-0"

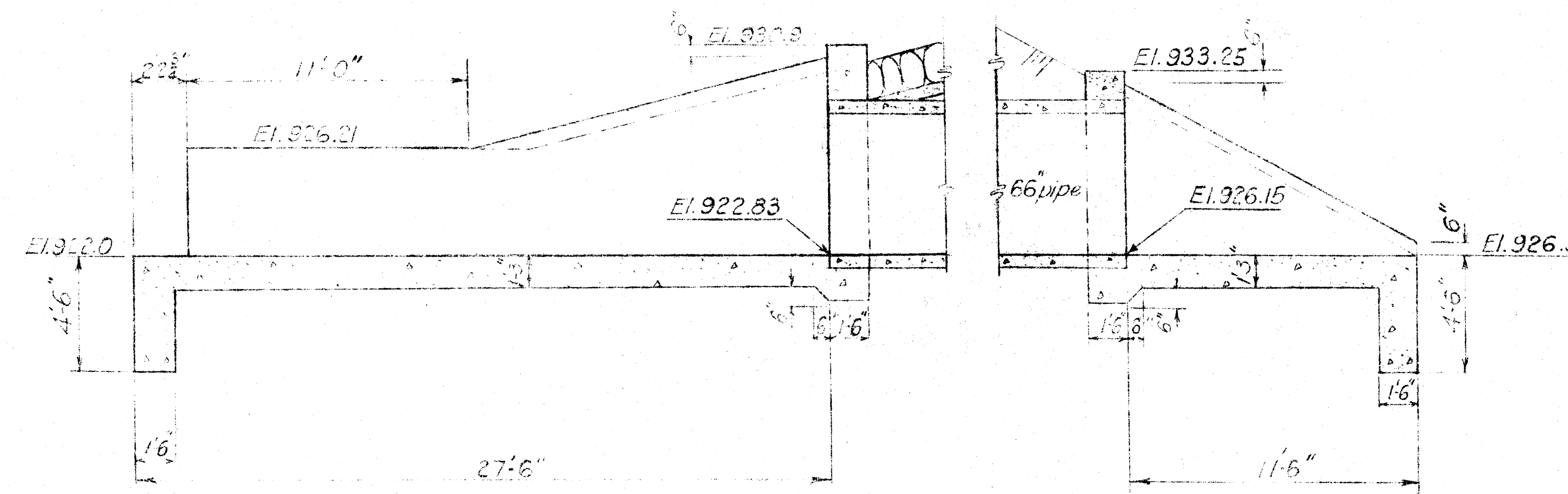
NOTES

- For masonry notes, see Dwg. No. 20/1.
 For general plan, see Dwg. No. 16/1.
 For details of control weir, see Dwg. No. 20/1.
 For reinforcing details, see Dwg. No. 20/4.
 For details of seep rings, see Dwg. No. 66/18.
 For structural steel details, see Dwg. No. 20/7.
 For details of 42" siphon, see Dwg. No. 20/2.



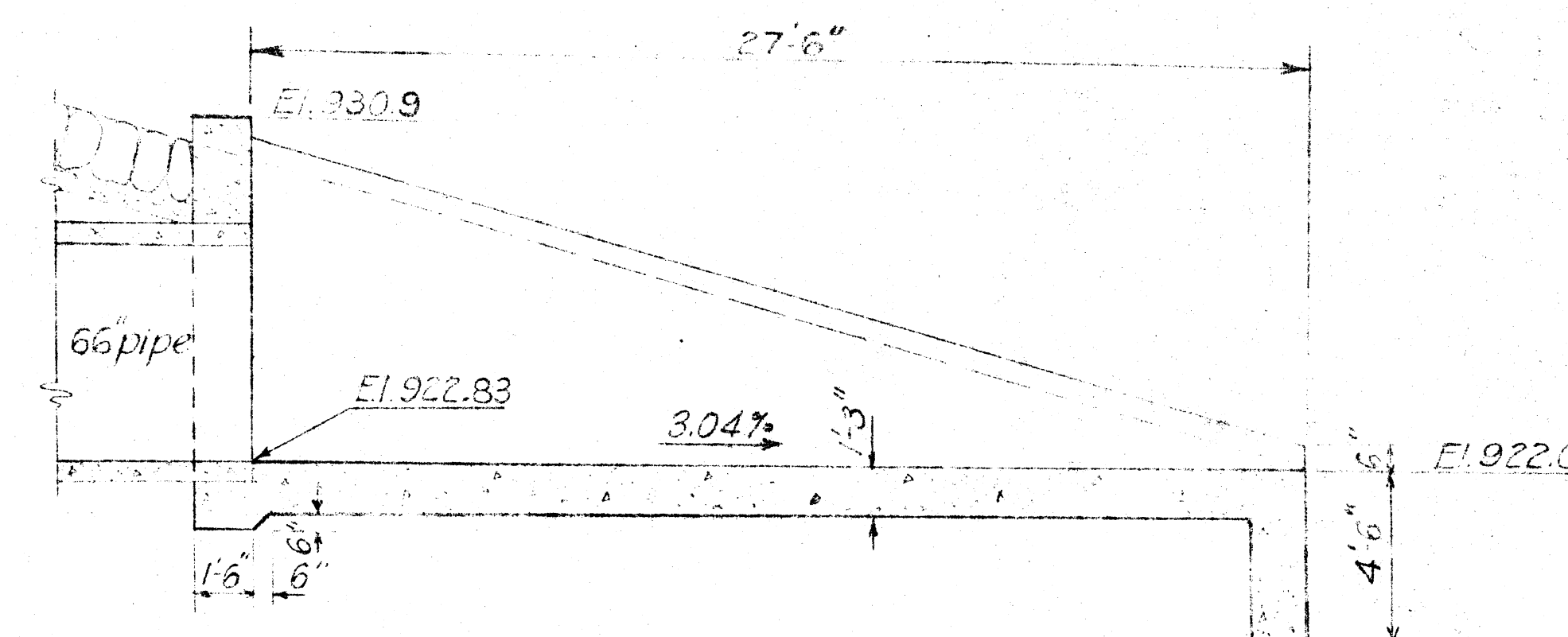
PLAN OF INLET AND OUTLET STRUCTURES

SCALE: 1/4" = 1'-0"



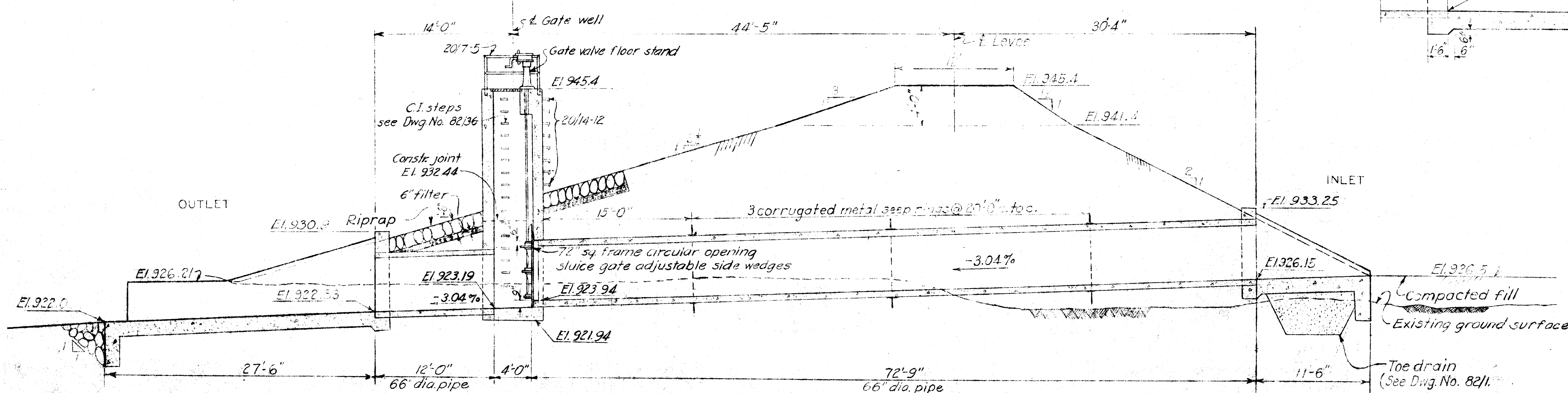
SECTION B-B

SCALE: 1/4" = 1'-0"



SECTION C-C

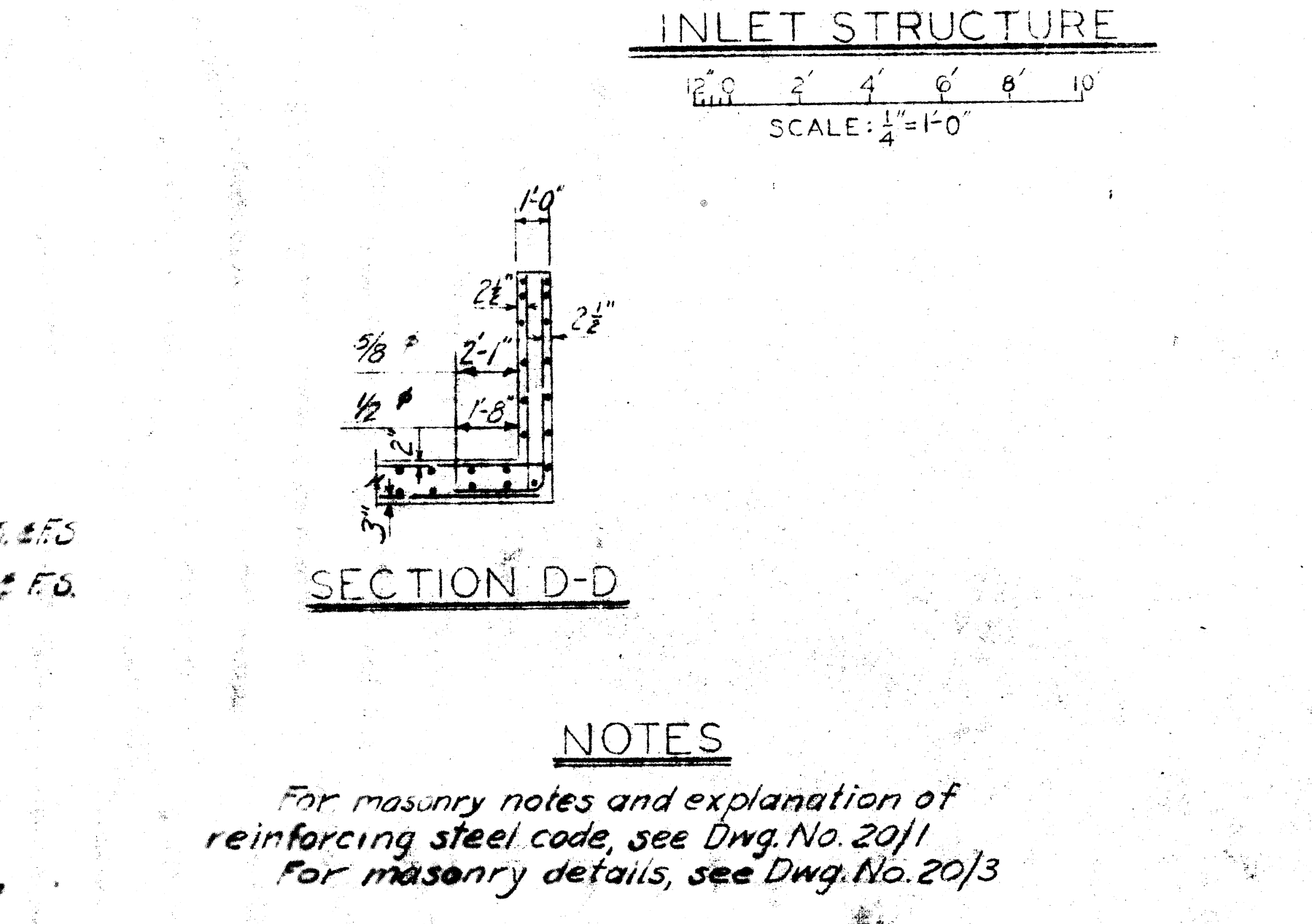
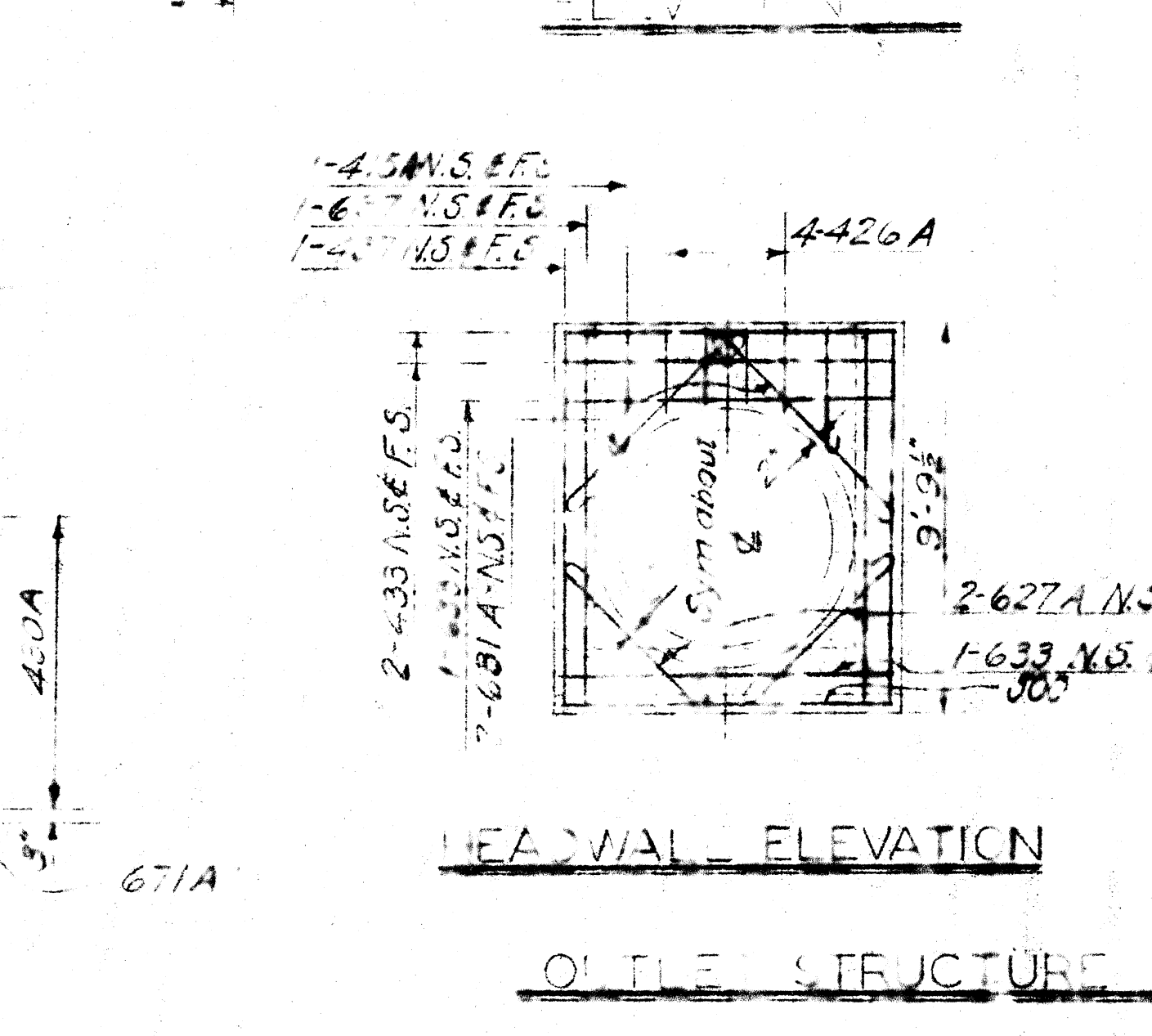
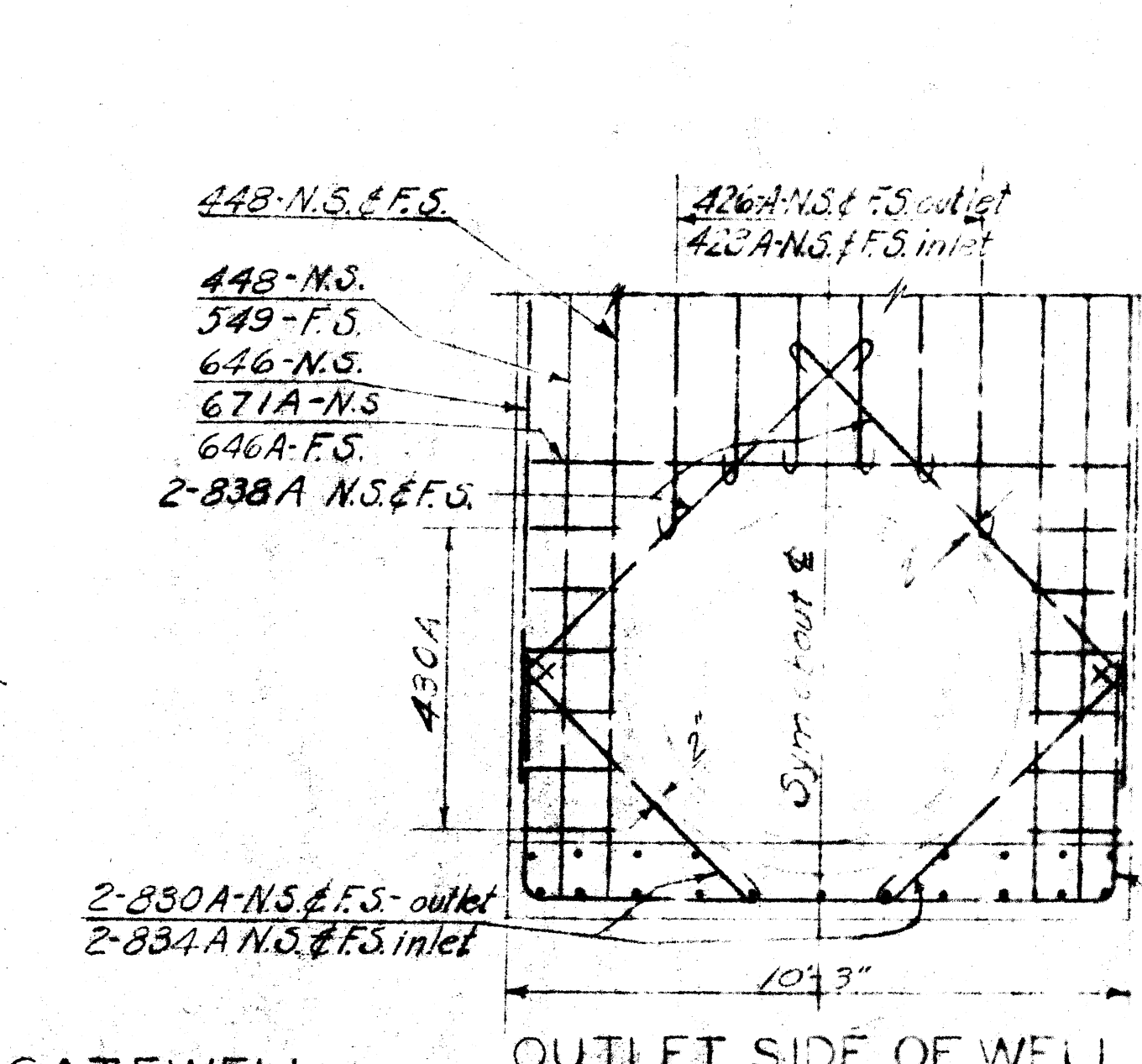
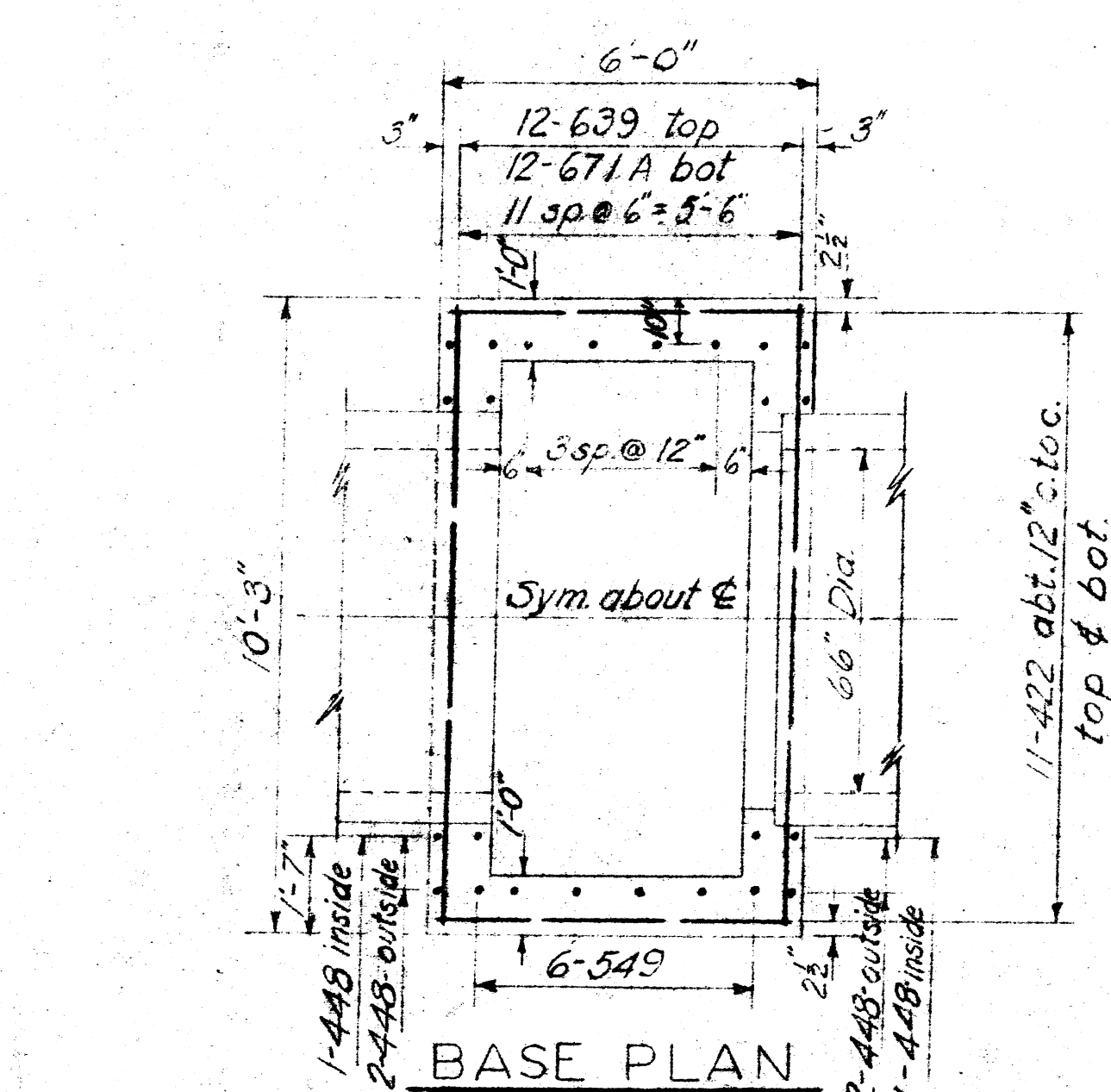
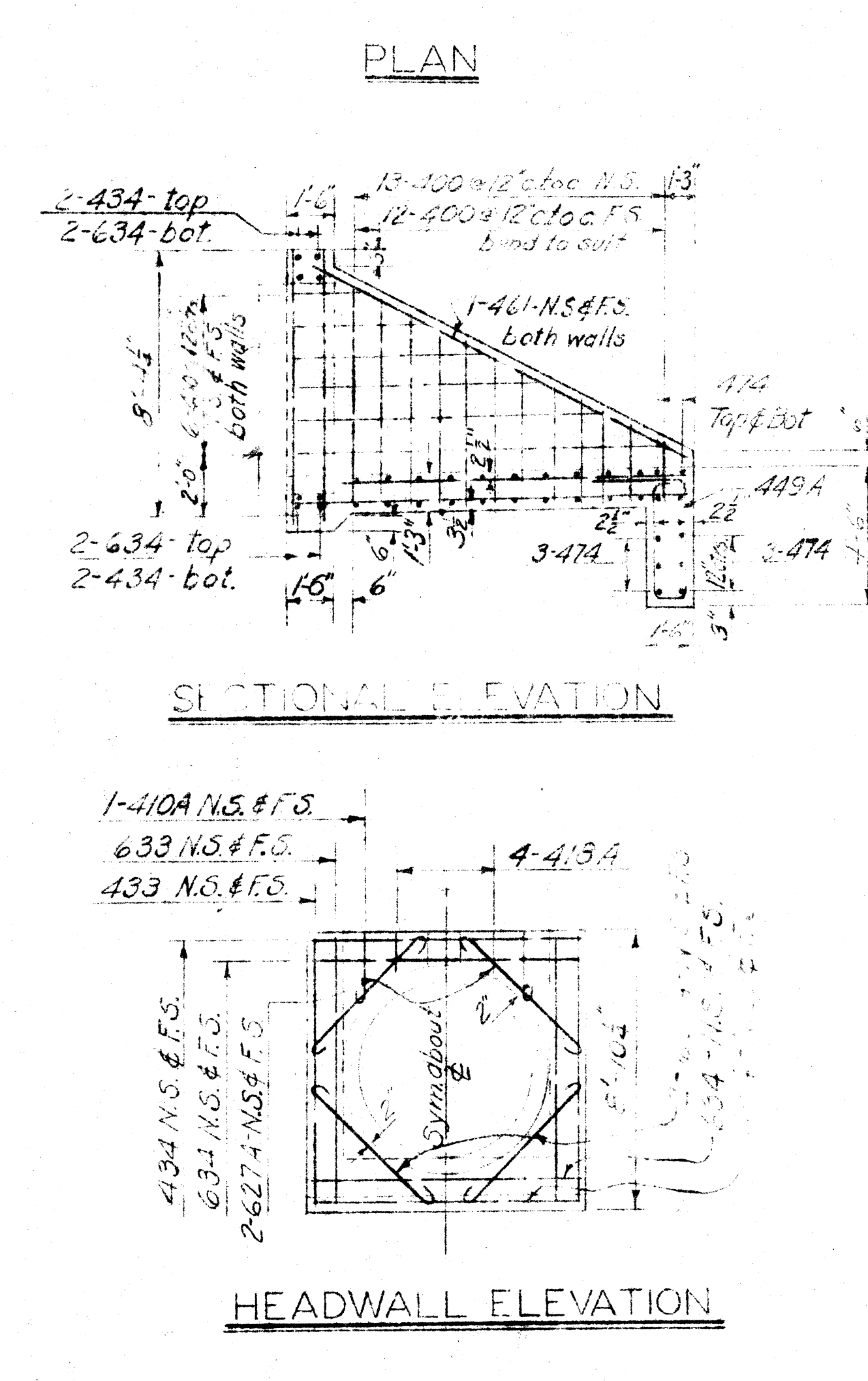
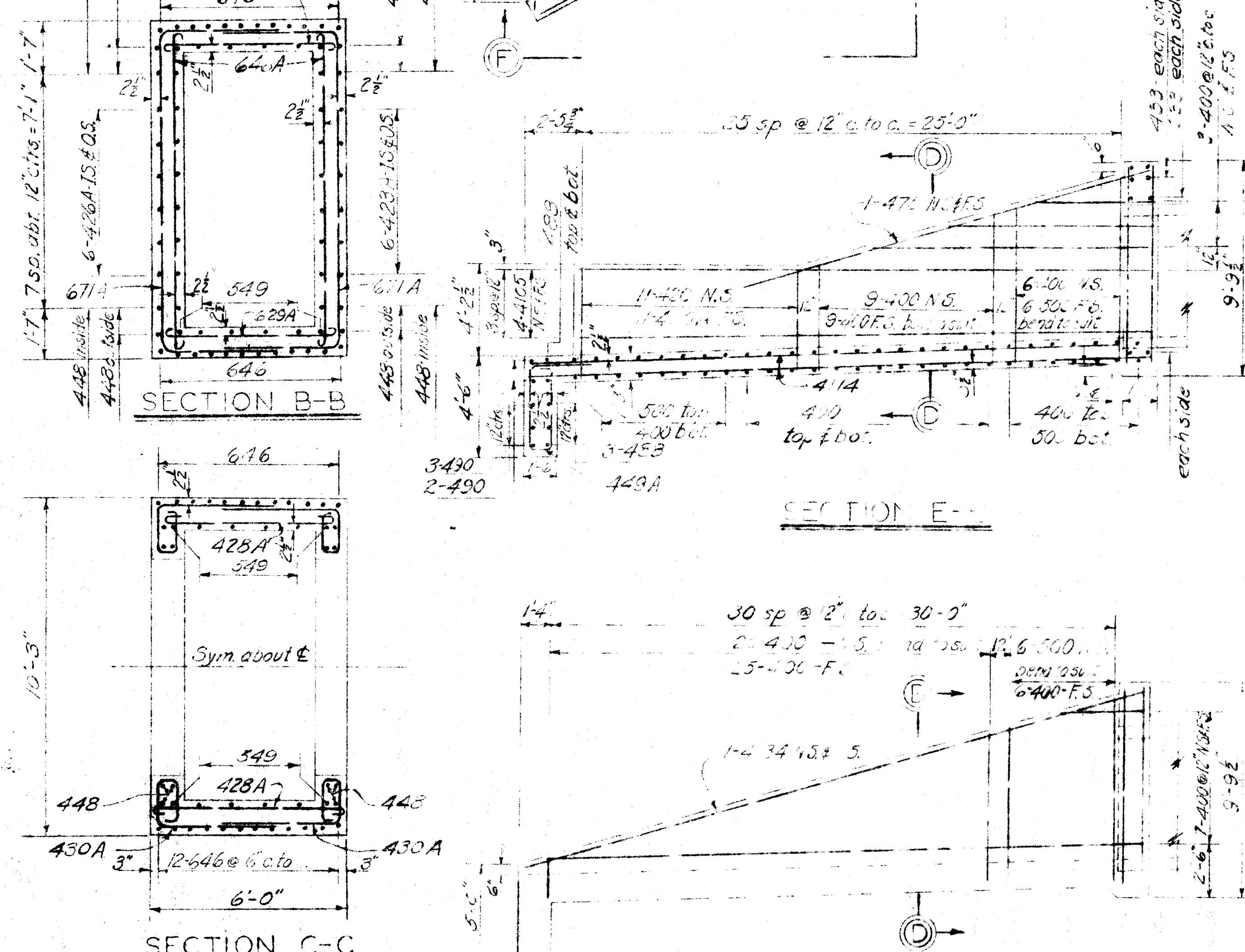
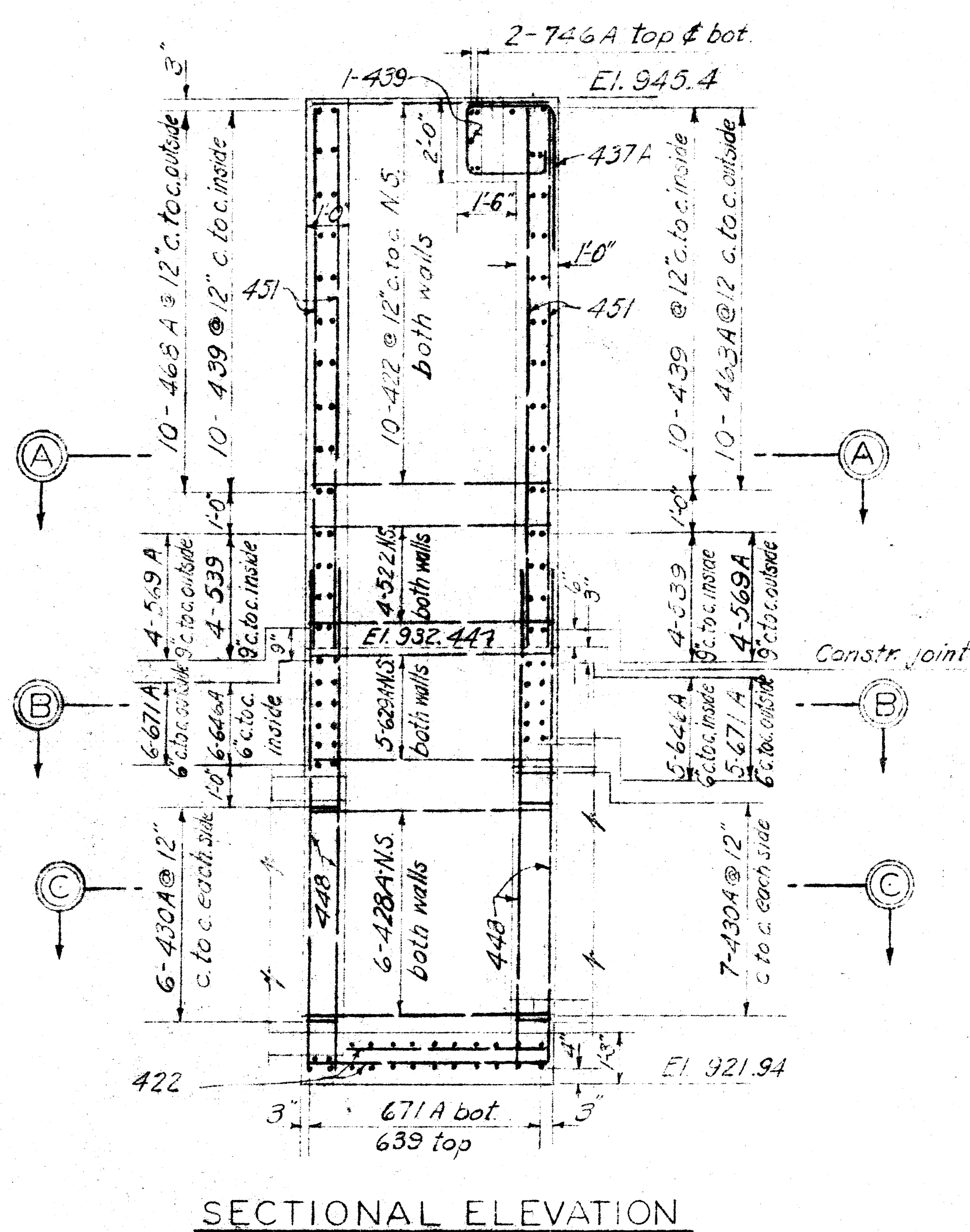
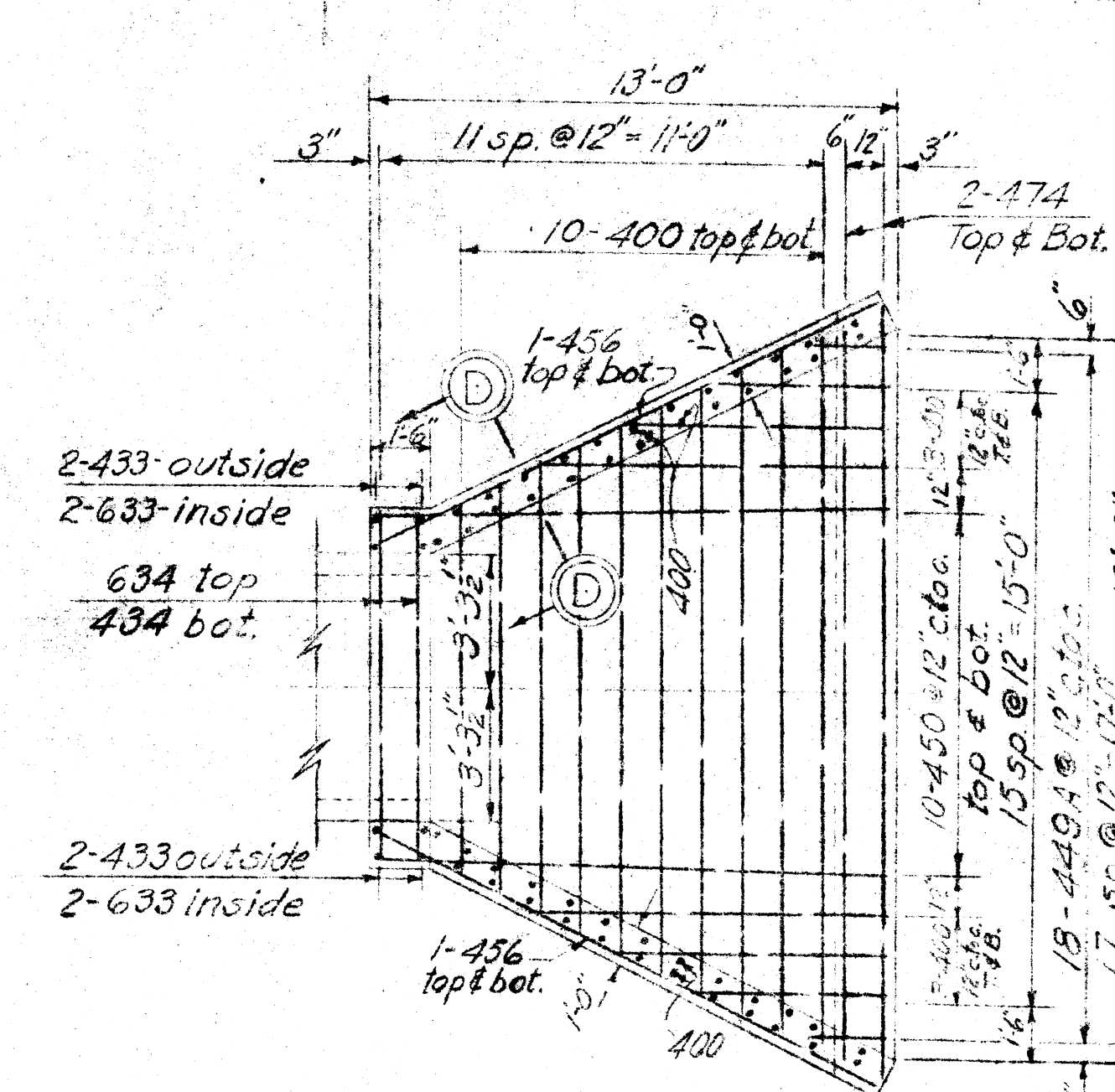
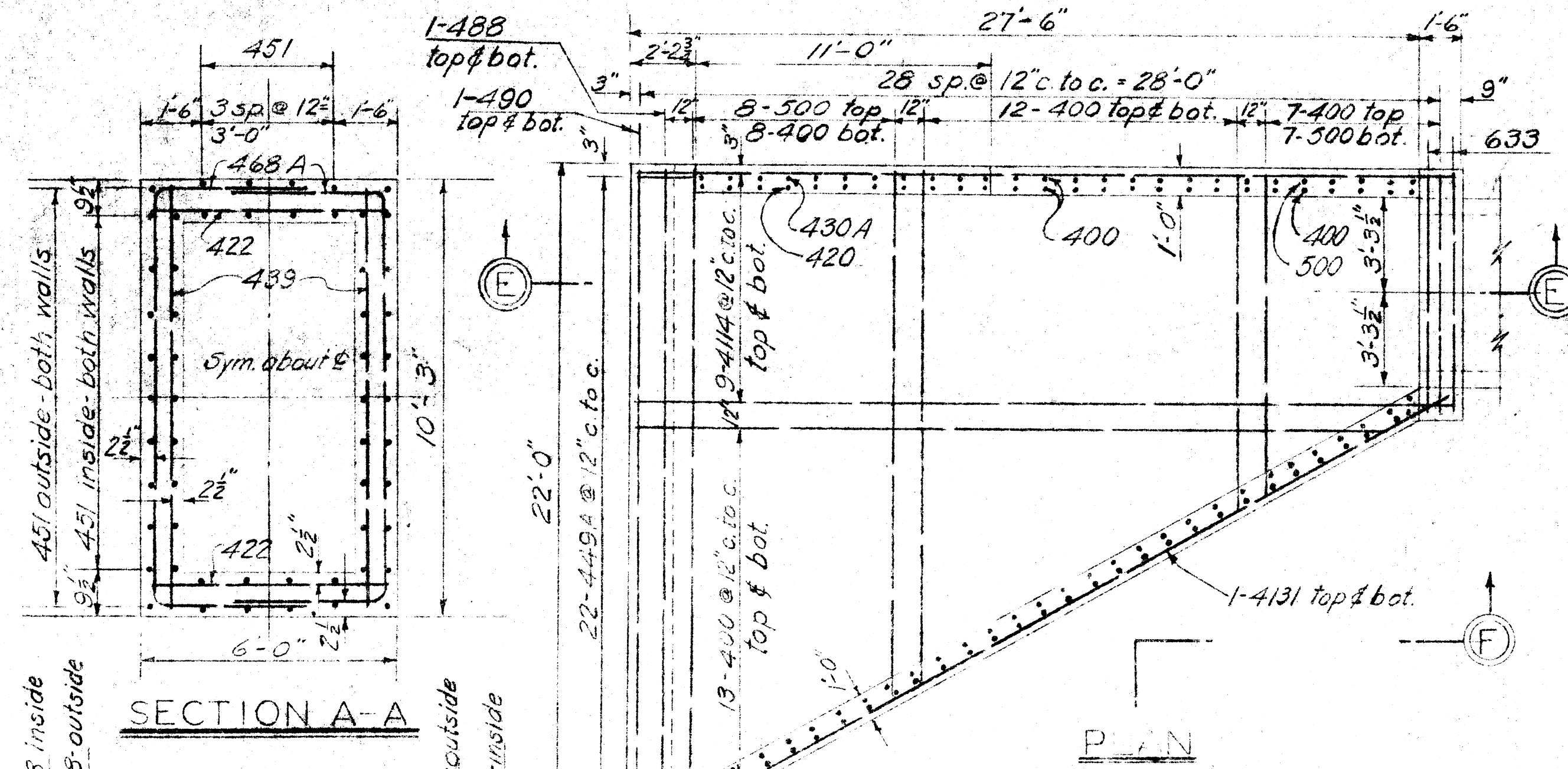
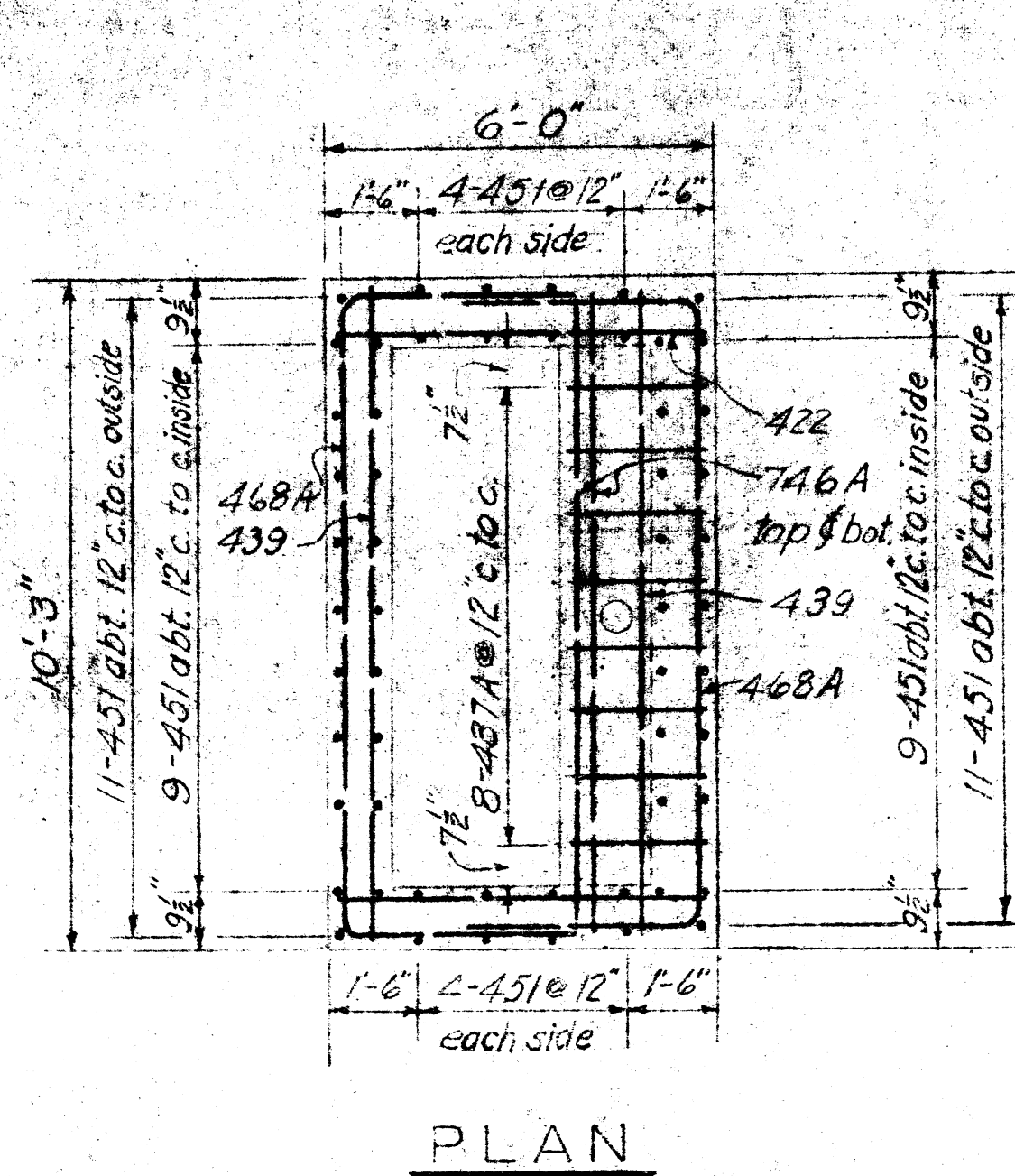
SCALE: 1/4" = 1'-0"



SECTION ON E OF PIPE CULVERT

SCALE: 3/16" = 1'-0"

DEPARTMENT OF THE ARMY CORPS OF ENGINEERS OFFICE OF THE DISTRICT ENGINEER HUNTINGTON, W. VA.		TUSCARAWAS RIVER LOCAL PROTECTION PROJECT MASSILLON, OHIO SECTION 2, UNIT 2 66" CULVERT & GATE WELL - STA. 1+74.08 MASONRY DETAILS	
DRAWN BY: E. W. H.	CHECKED BY: N. J. B. & E. S. W.	APPROVED BY: [Signature] CHIEF ENGINEER	DATE: OCT. 1948
TRACED BY:	SUBMITTED BY: [Signature] CHIEF ENGINEER	APPROVED FOR:	SPEC. NO.
SCALE: 3/16" = 1'-0"		DRAWING NUMBER 0271-PM2-2-2	
DATE:		SHEET 12 OF 20	



REINFORCING SCHEDULE

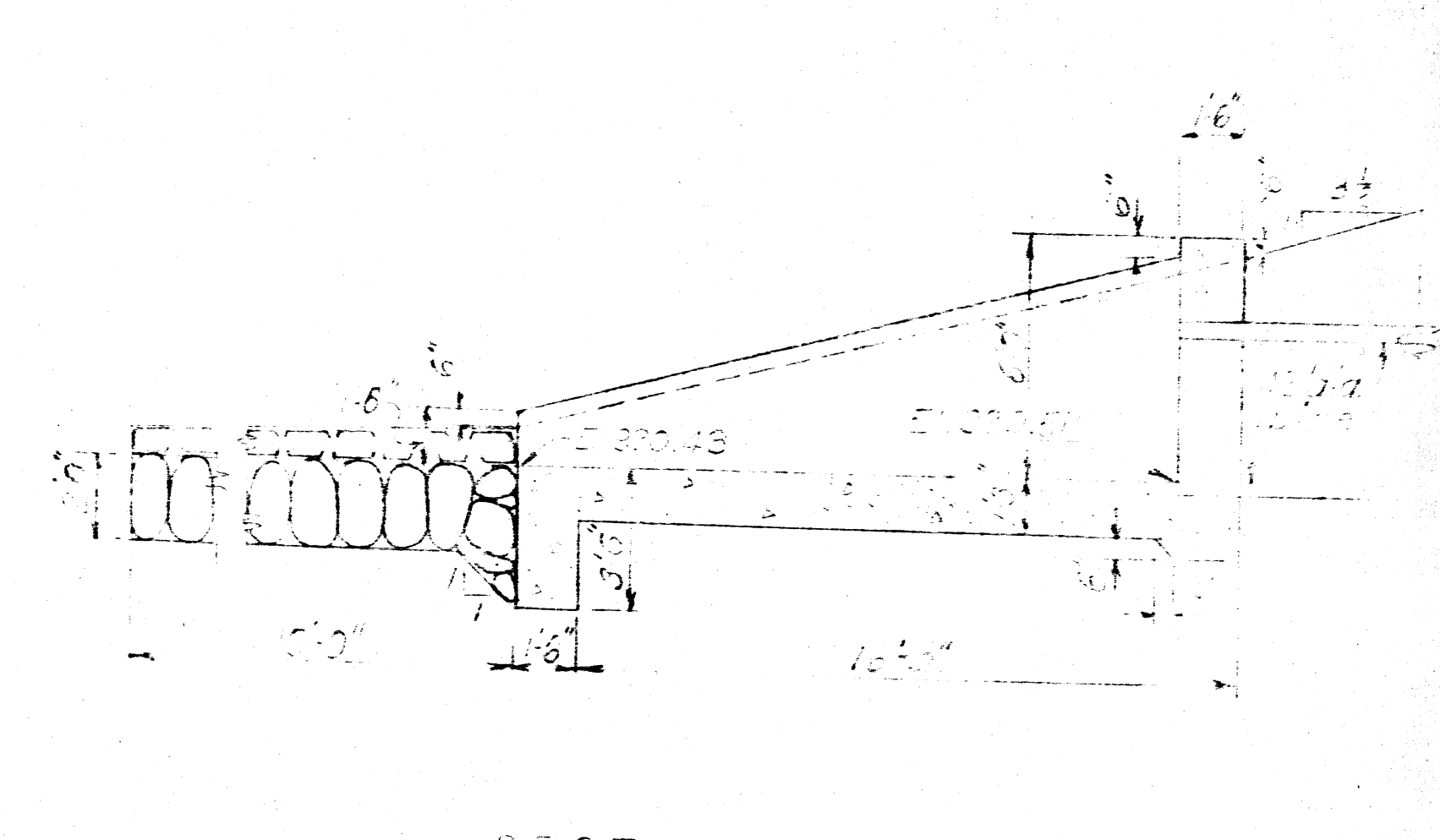
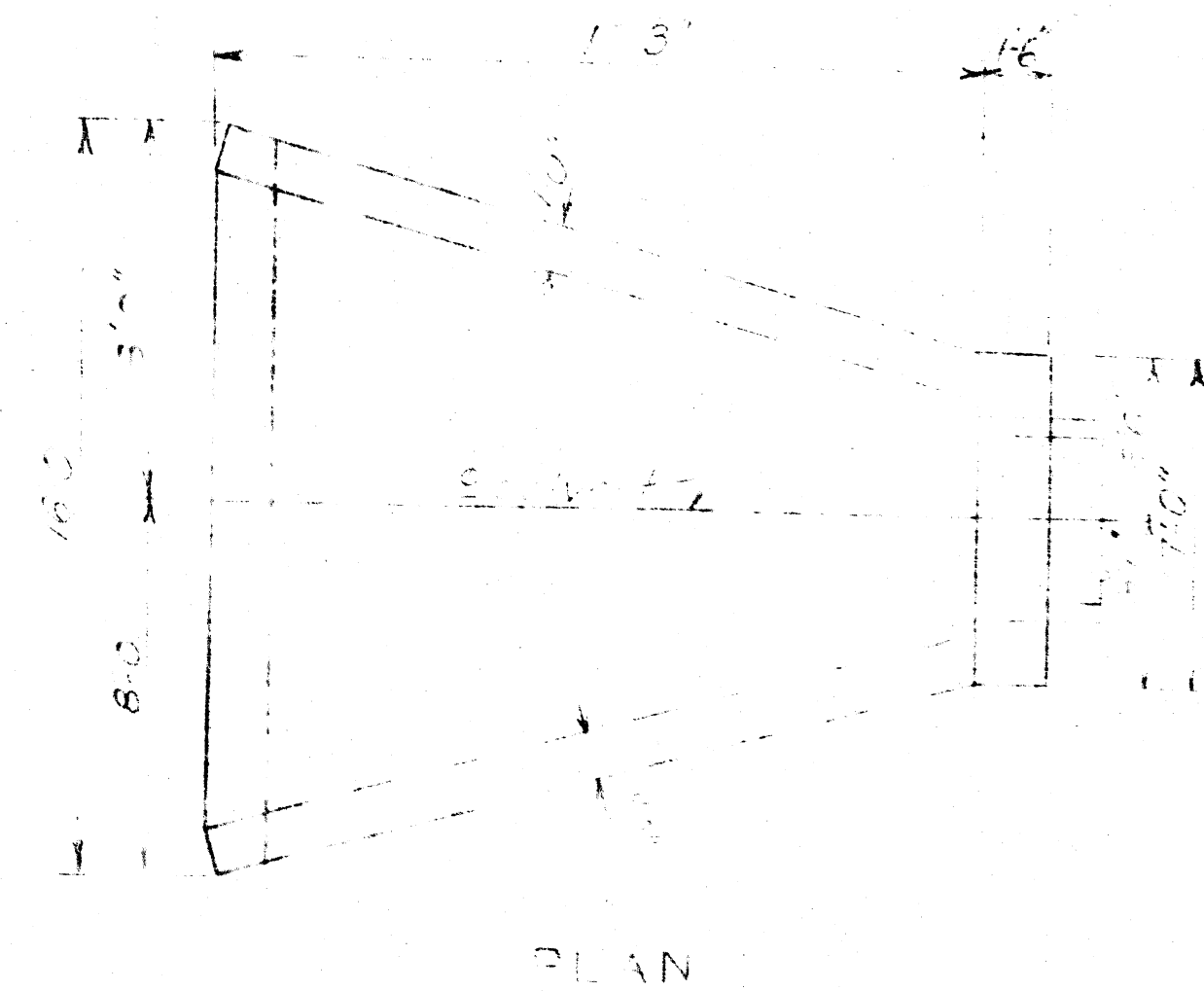
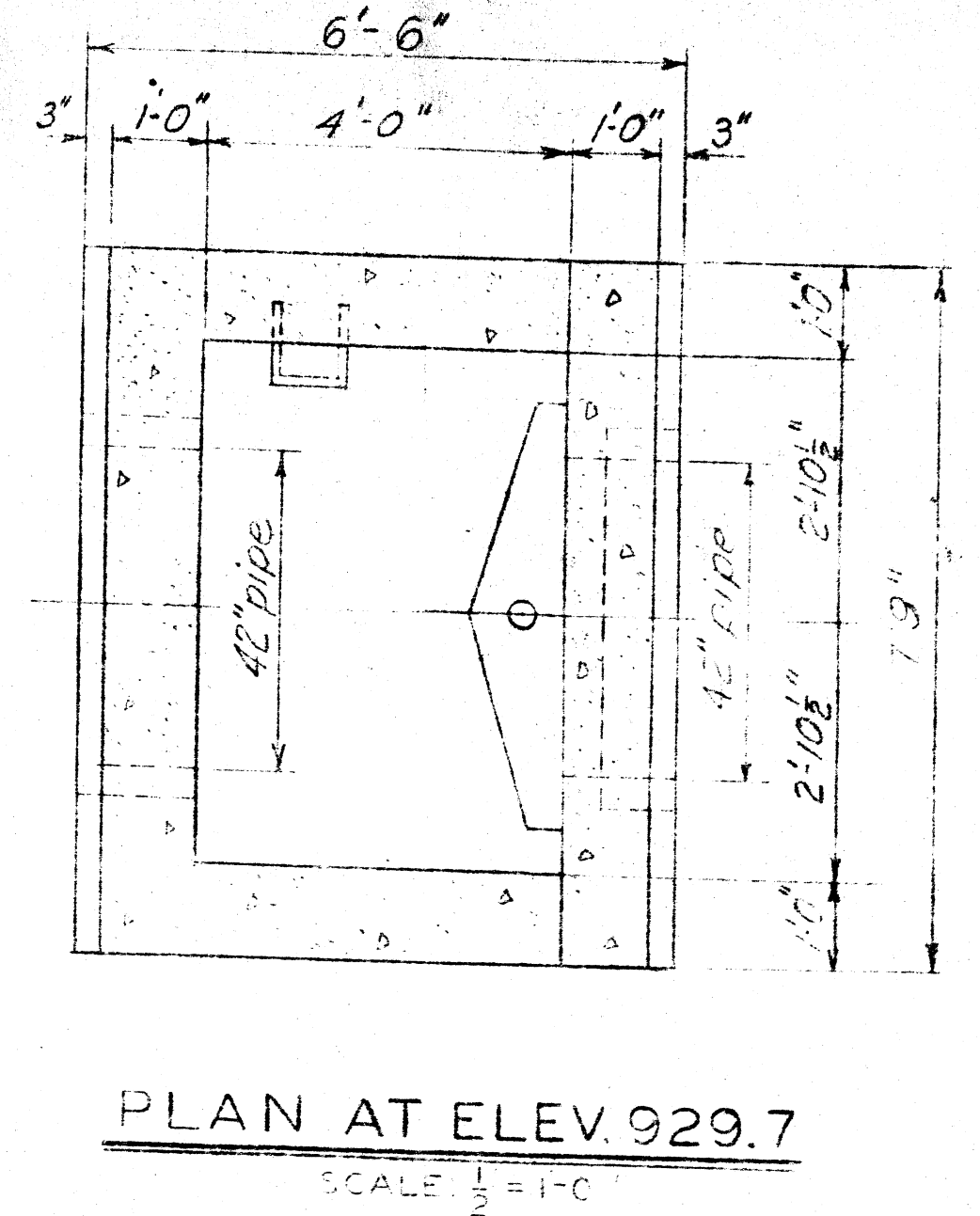
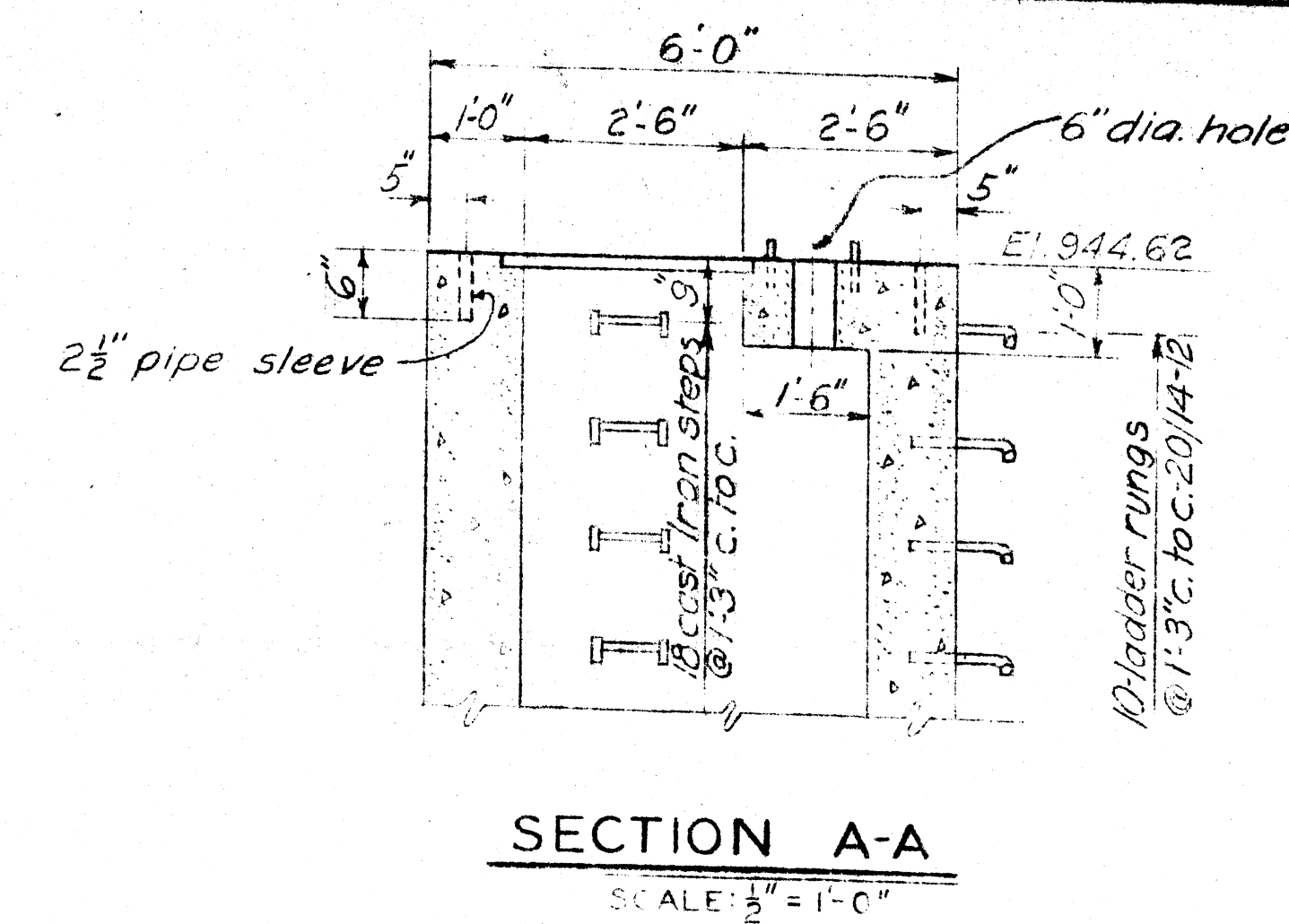
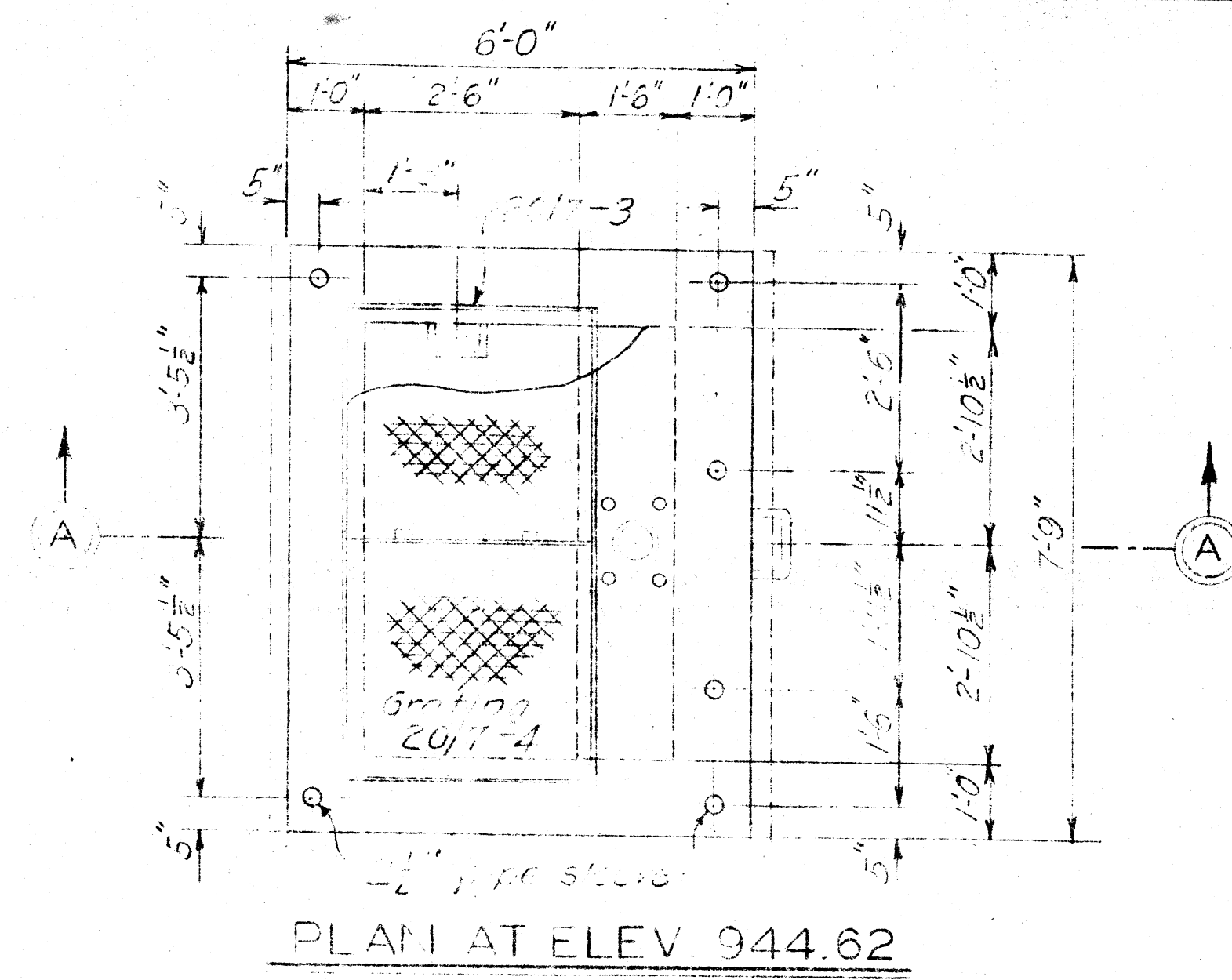
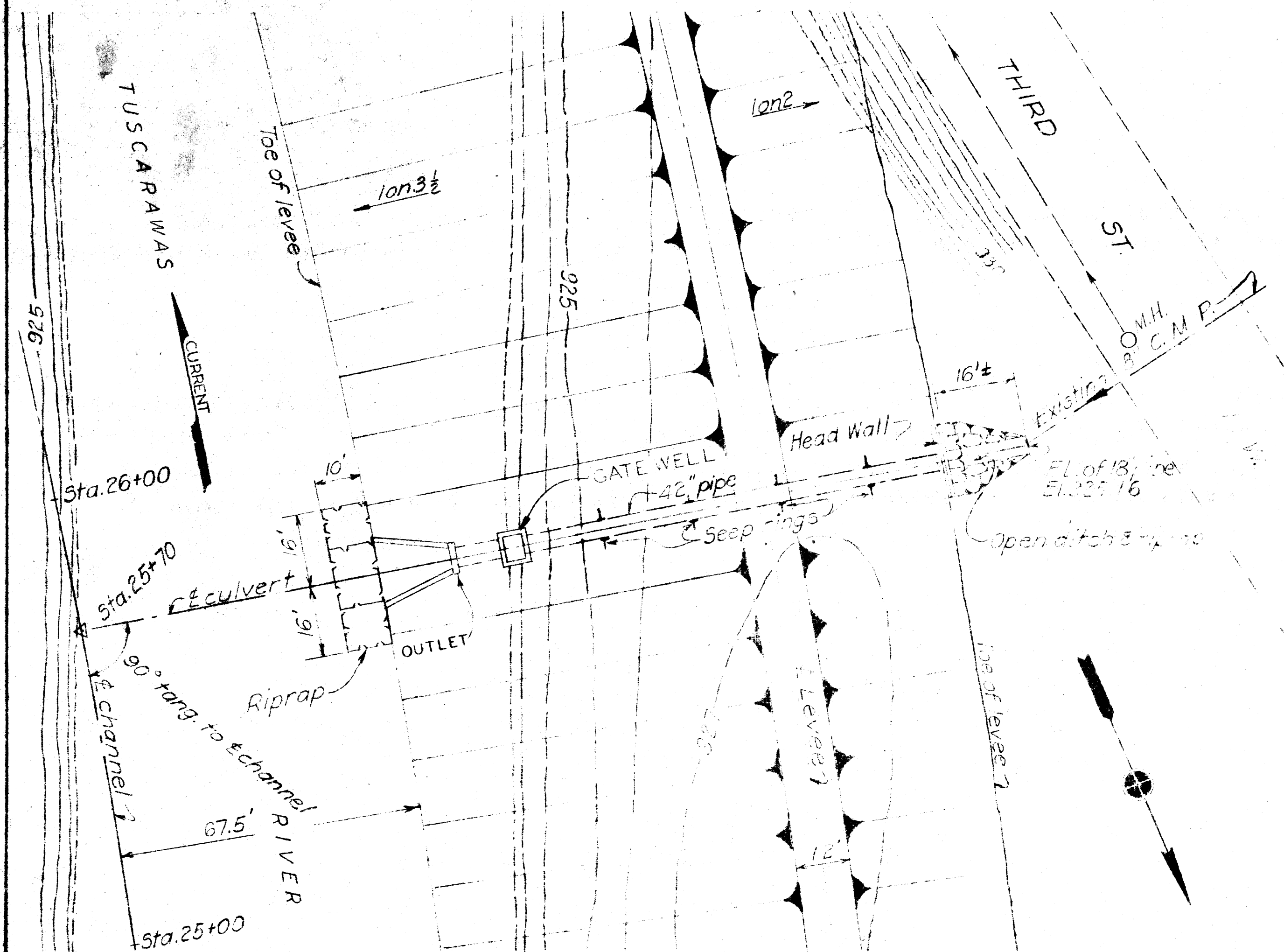
MARK	SIZE	LGTH	BENDING SCHEDULE	NO.	UNIT WT.	TOTAL WT.
			SATEWELL			
422	$\frac{1}{2}"$	5'-6"		42	3.67	154
423A		5'-9"		12	3.84	46
426A		6'-6"		12	4.34	52
428A		7'-0"		12	4.68	56
430A		7'-6"		26	5.01	130
437A		9'-3"		8	6.18	49
439		9'-9"		21	6.51	137
448		12'-0"		12	8.02	96
451		12'-0"		56	8.52	477
468A		17'-0"		20	11.36	227
522	$\frac{3}{8}"$	5'-6"		8	5.74	46
539		9'-9"		8	10.17	81
549		12'-3"		12	12.38	153
569A		17'-3"		9	17.99	164
629A	$\frac{3}{8}"$	7'-3"		10	10.89	109
639		9'-9"		12	14.64	176
646		11'-6"		23	17.27	414
646A		11'-6"		11	17.27	190
671A		17'-9"		23	26.66	613
746A	$\frac{3}{8}"$	11'-6"		4	23.51	94
830A	1"	7'-6"		4	20.03	80
834A		8'-6"		4	22.70	91
838A		9'-6"		8	25.57	203
				Total 3,613		
			OUTLET STRUCTURE			
400	$\frac{1}{2}"$	19'-0"		-	0.668	126
415A		3'-9"		4	5.51	10
420		5'-0"		11	5.84	37
430A		7'-6"		11	5.01	55
433		8'-3"		4	5.51	22
437		9'-3"		4	6.18	25
449A		12'-3"		2	8.19	166
475		18'-3"		2	12.53	25
483		22'-0"		5	14.70	74
490		22'-6"		5	15.03	75
4105		26'-3"		8	17.54	140
4114		28'-6"		18	19.04	343
4131		32'-3"		2	21.88	44
4134		33'-6"		2	22.39	45
426A		6'-6"		4	4.34	17
500	$\frac{3}{8}"$	35'-0"		-	1.048	365
627A	$\frac{3}{4}"$	6'-9"		4	10.14	41
631A		7'-9"		4	11.64	47
633		8'-3"		4	12.39	50
637		9'-3"		4	13.89	56
				Total 295.0		
			INLET STRUCTURE			
400	$\frac{1}{2}"$	19'-0"		-	0.668	670
433		8'-3"		4	5.51	22
434		8'-6"		4	5.68	23
449A		12'-3"		18	8.19	147
450		12'-6"		20	8.35	167
456		14'-0"		4	9.35	37
461		15'-3"		4	10.19	41
474		18'-6"		10	12.36	124
410A		2'-0"		4	1.67	7
415A		4'-6"		4	3.01	12
627A	$\frac{3}{4}"$	6'-9"		8	10.14	81
633		8'-3"	4	12.39	50	
634		8'-6"	4	12.77	51	
				Total 1,432		
				Grand total 2170		

NOTES

For masonry notes and explanation of reinforcing steel code, see Dwg. No. 20/1

For masonry details, see Dwg. No. 20/3

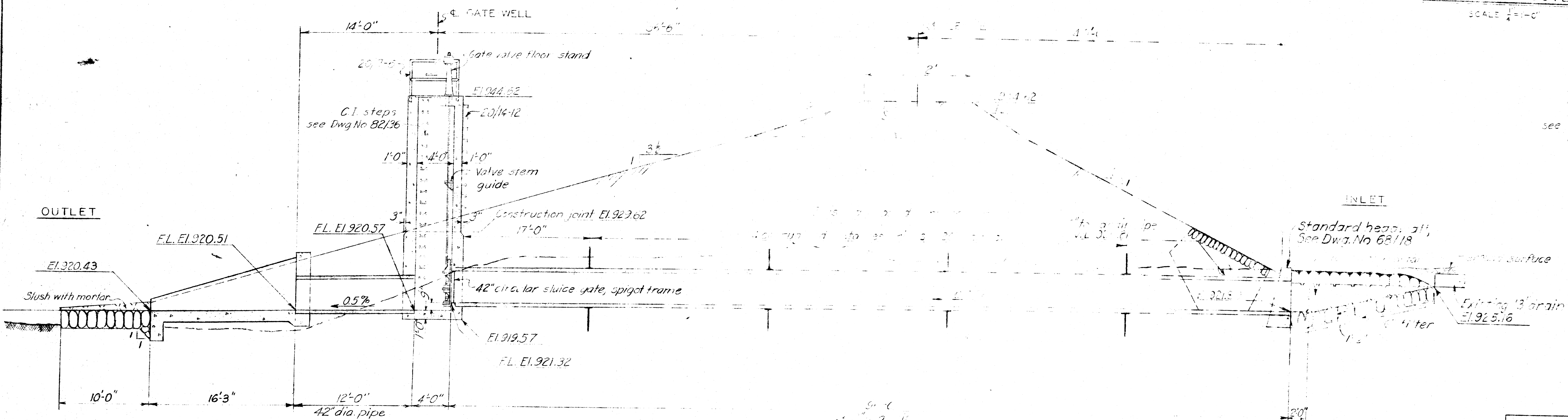
DEPARTMENT OF THE ARMY CORPS OF ENGINEERS OFFICE OF THE DISTRICT ENGINEER HUNTINGTON, W. VA.		
DRAWN BY: N. W. G.	TUSCARAWAS RIVER LOCAL PROTECTION PROJECT MASSILLON, OHIO SECTION 2, UNIT 2 66" CULVERT & GATE WELL - STA. 1+74.08 REINFORCING DETAILS	
TRACED BY:		
CHECKED BY: C. C. M. & E. S. W.		
SUBMITTED BY: <i>On file</i> CHIEF, ENG. DIV.		
APPROVED: <i>[Signature]</i> CHIEF ENG. ASST.	APPROVED: <i>[Signature]</i> COL. C. E. DISTRICT ENGINEER	DATE OCT. 1948
APPROVED FOR:	SCALE: $\frac{1}{4} = 1'-0"$	SPEC. NO.
DATE:	DRAWING NUMBER 0271-PM2-2-20/4	



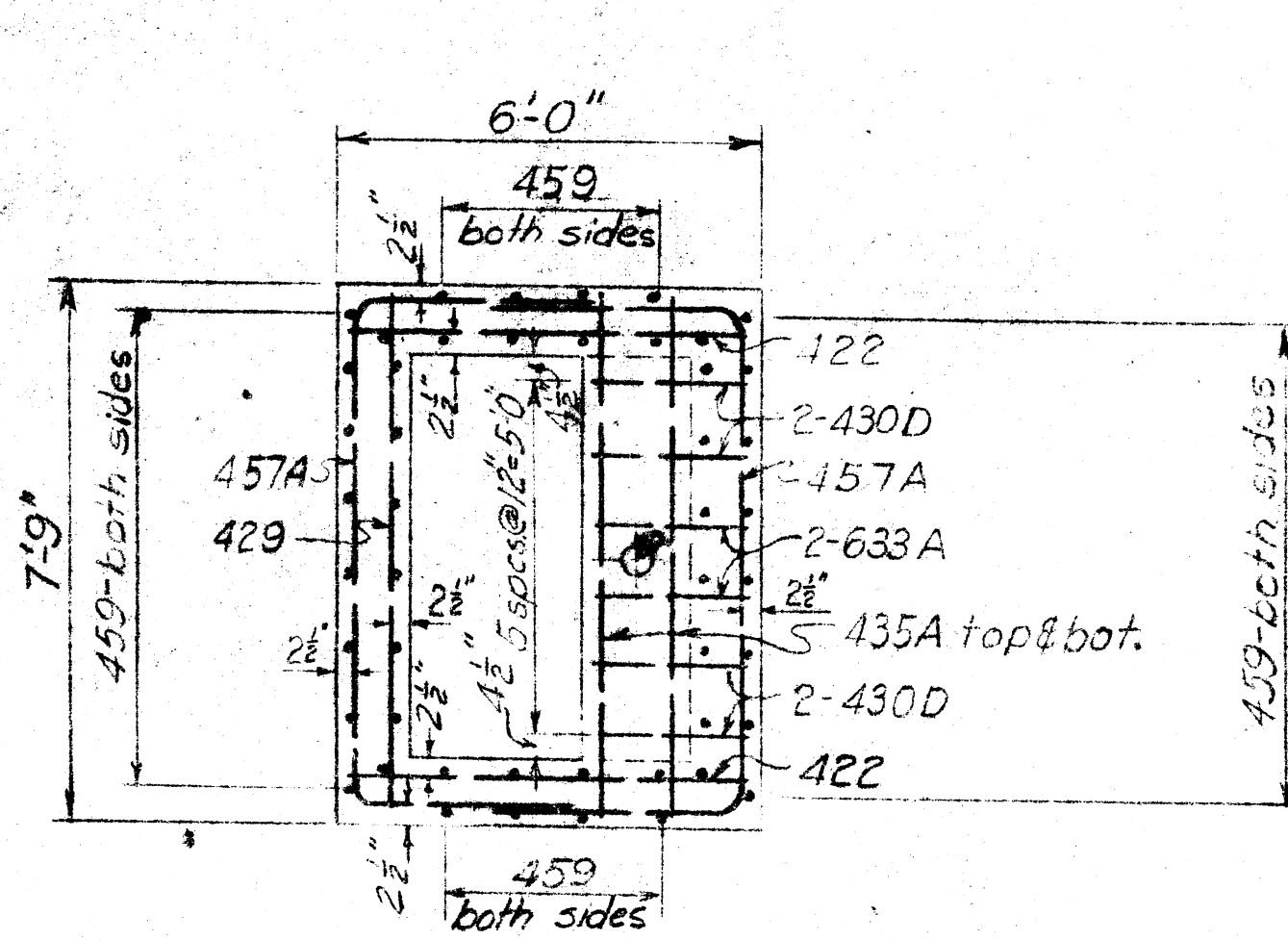
DETAILS AT OUTLET
SCALE 1/4" = 1'-0"

NOTES

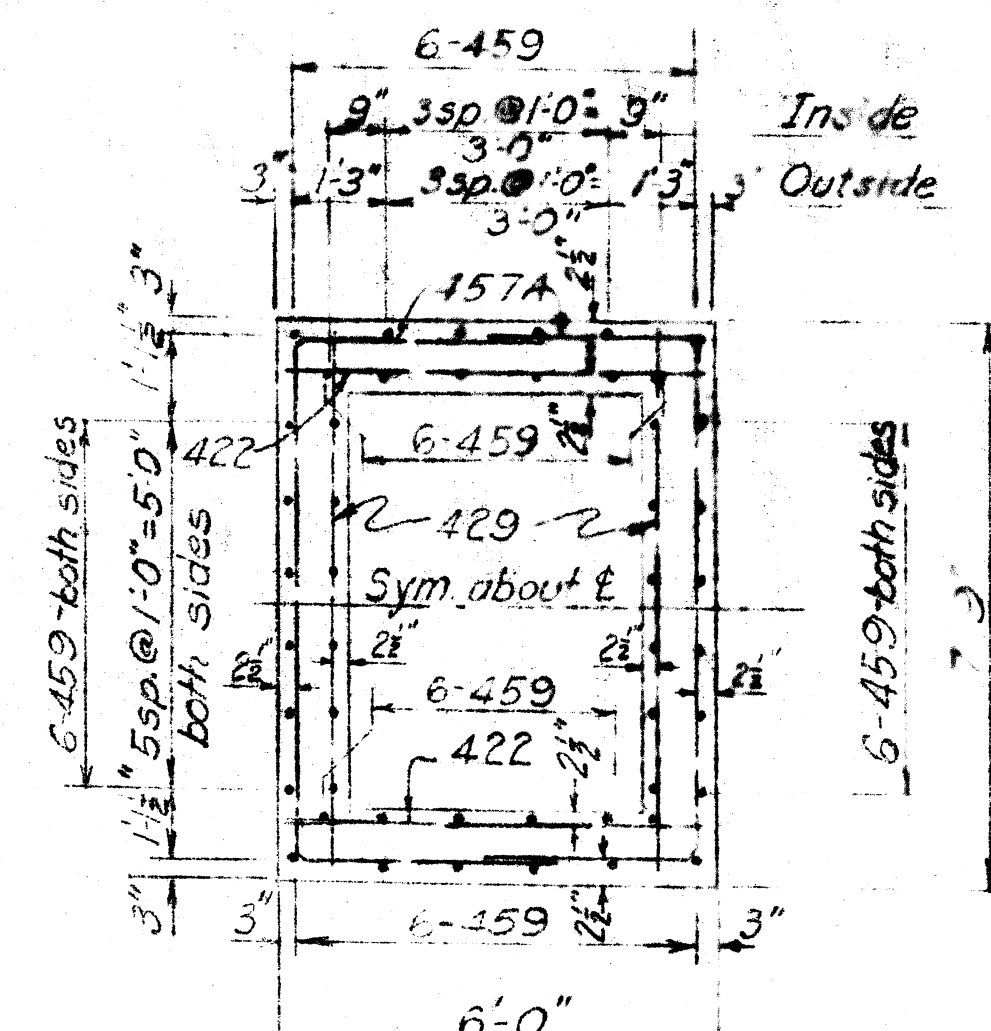
- For general notes, see Dwg. No. 20/1.
For general plan, see Dwg. No. 14/2.
For reinforcing details, see Dwg. No. 20/3.
For details of seep rings and head wall, see Dwg. No. 68/18.
For structural steel details, see Dwg. No. 20/7.



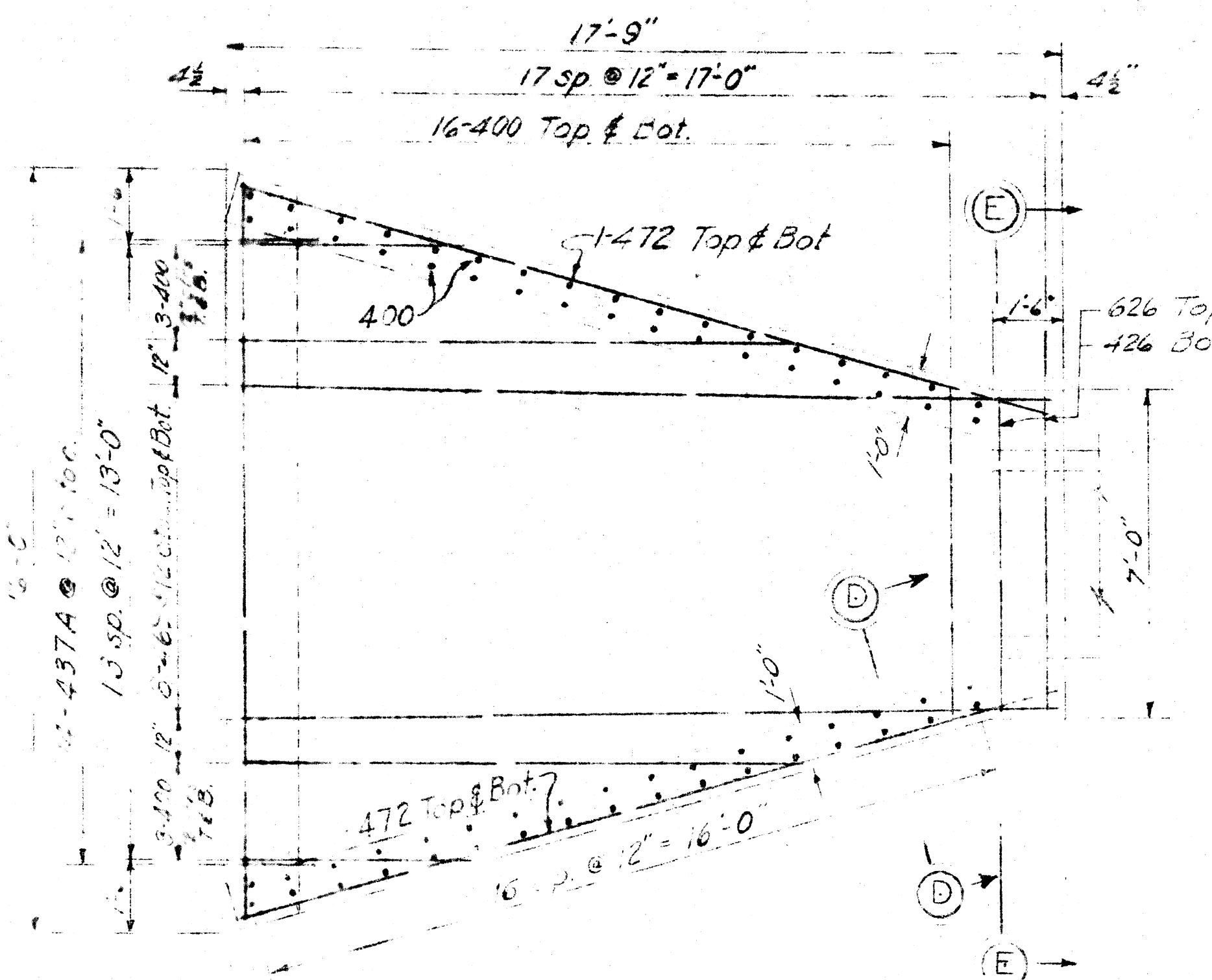
DEPARTMENT OF THE ARMY CORPS OF ENGINEERS OFFICE OF THE DISTRICT ENGINEER HUNTINGTON, W. VA.		TUSCARAWAS RIVER LOCAL PROTECTION PROJECT MASSILLON, OHIO SECTION 2, UNIT 2 42" CULVERT & GATE WELL - STA. 25+70 MASONRY DETAILS	
DRAWN BY: E. W. H.	CHECKED BY: N. J. B. & E. S. W.	APPROVED: COL. C. E. DISTRICT ENGINEER	DATE: OCT. 1948
APPROVED FOR:		DRAWING NUMBER 027i-PM2-2-20/5 SHEET 14 OF 60	



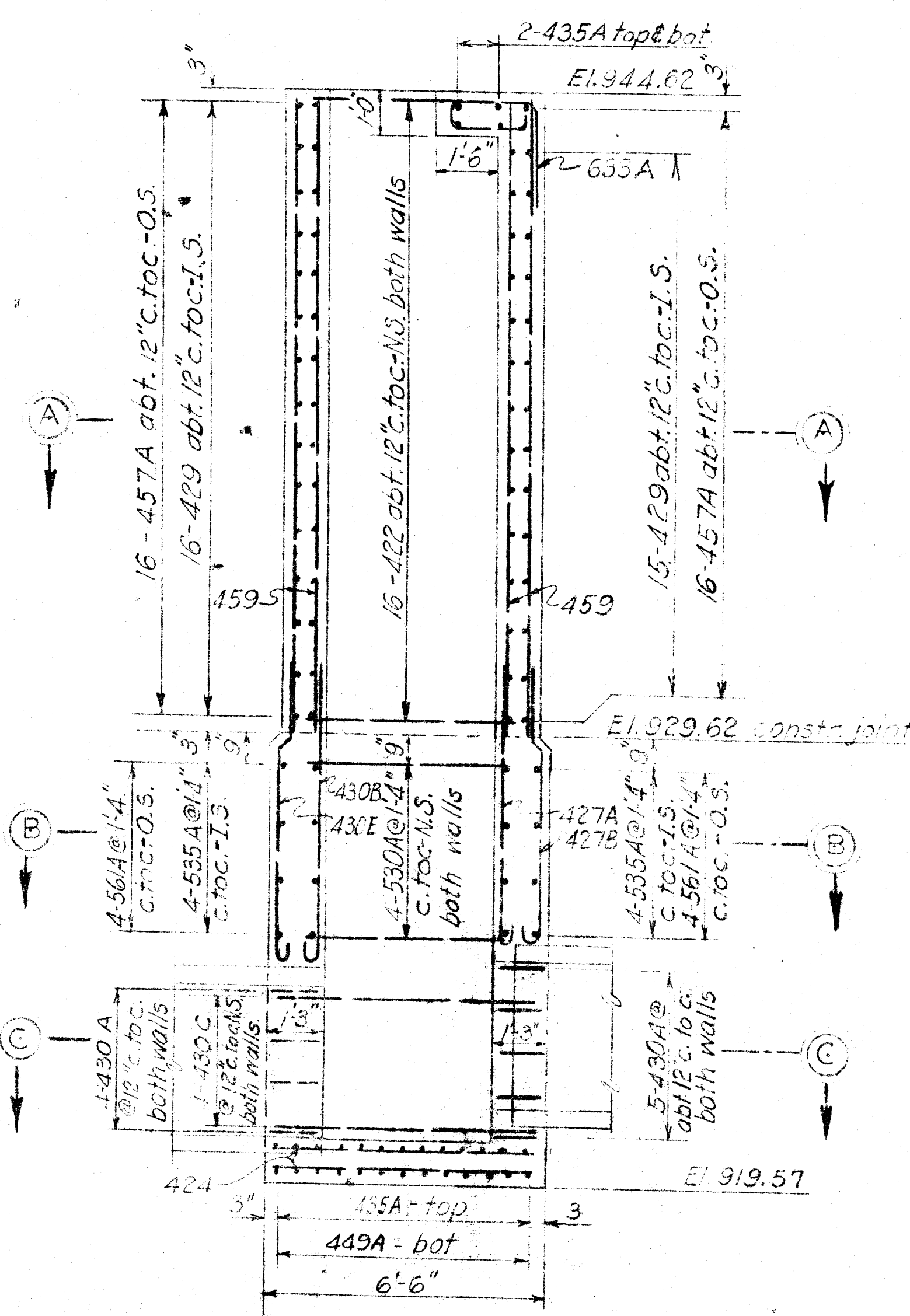
PLAN



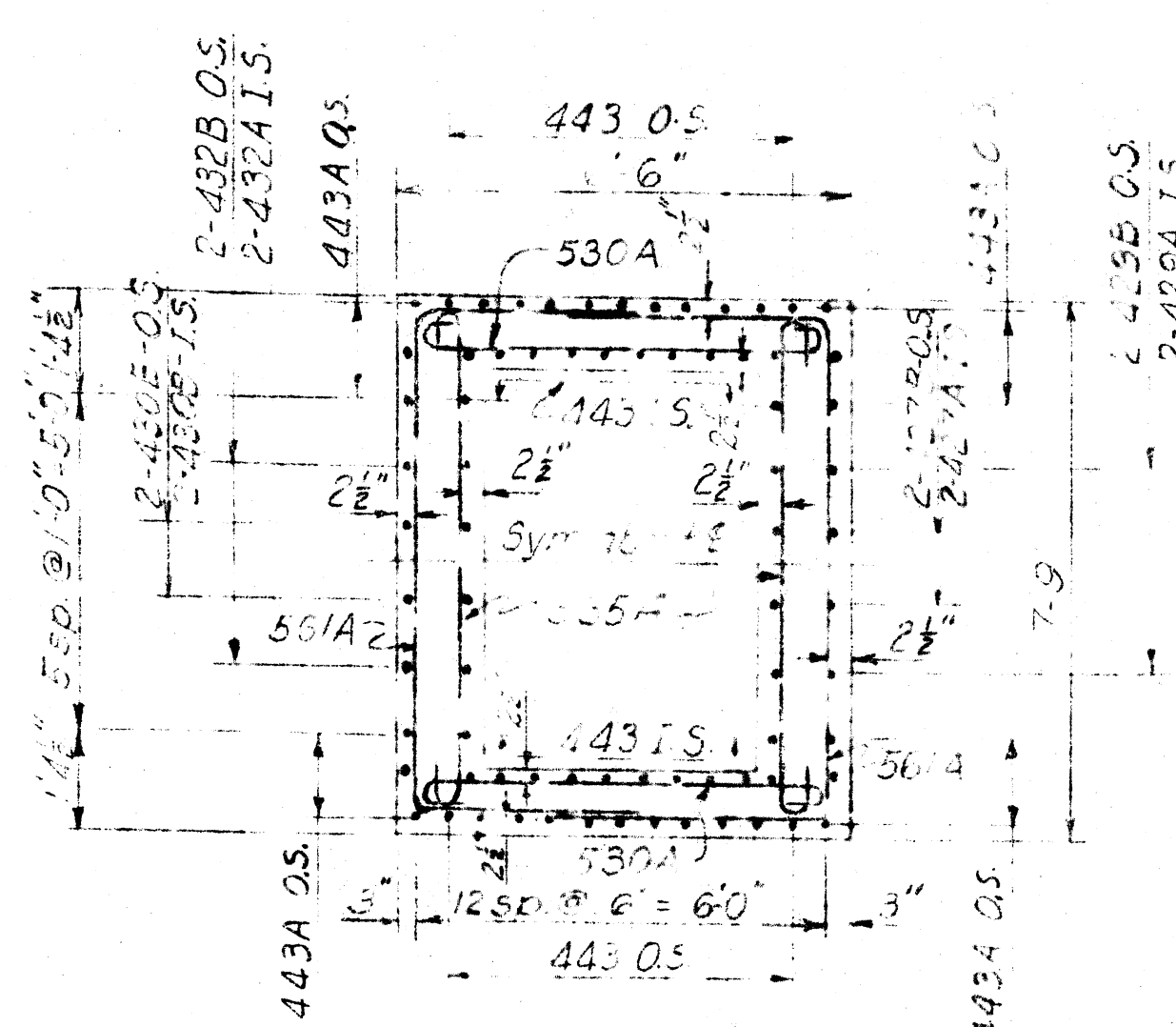
SECTION A-A



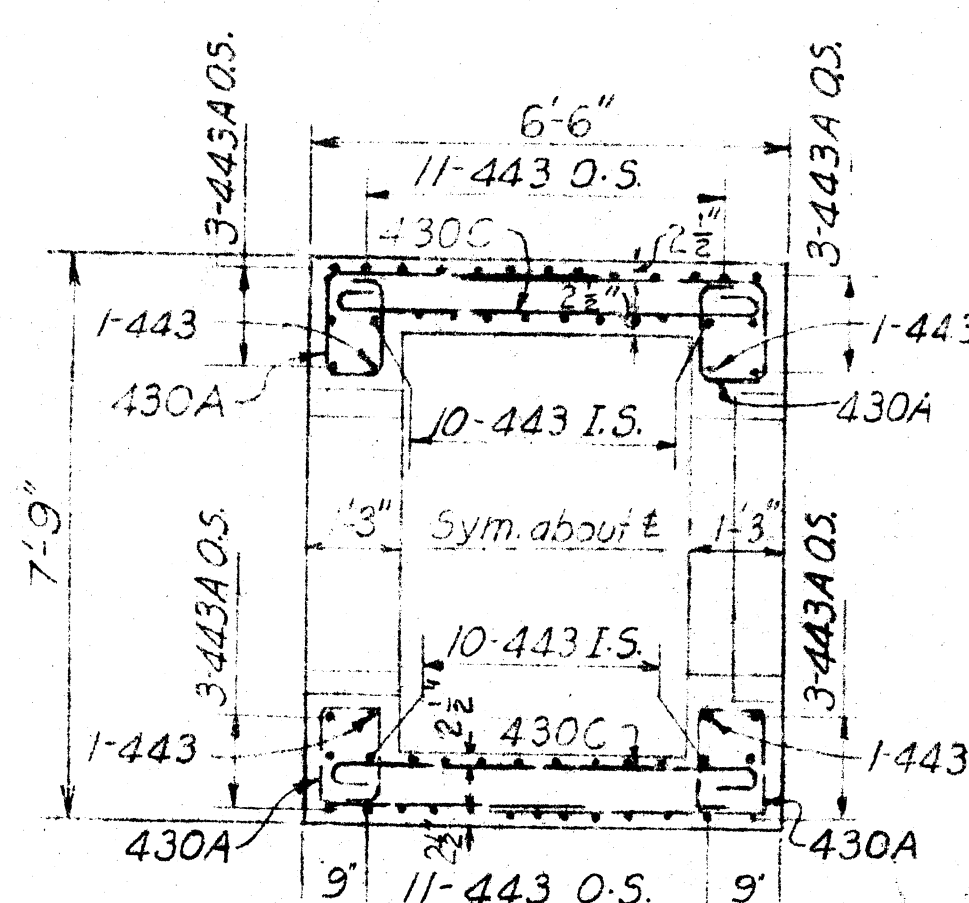
PLAN



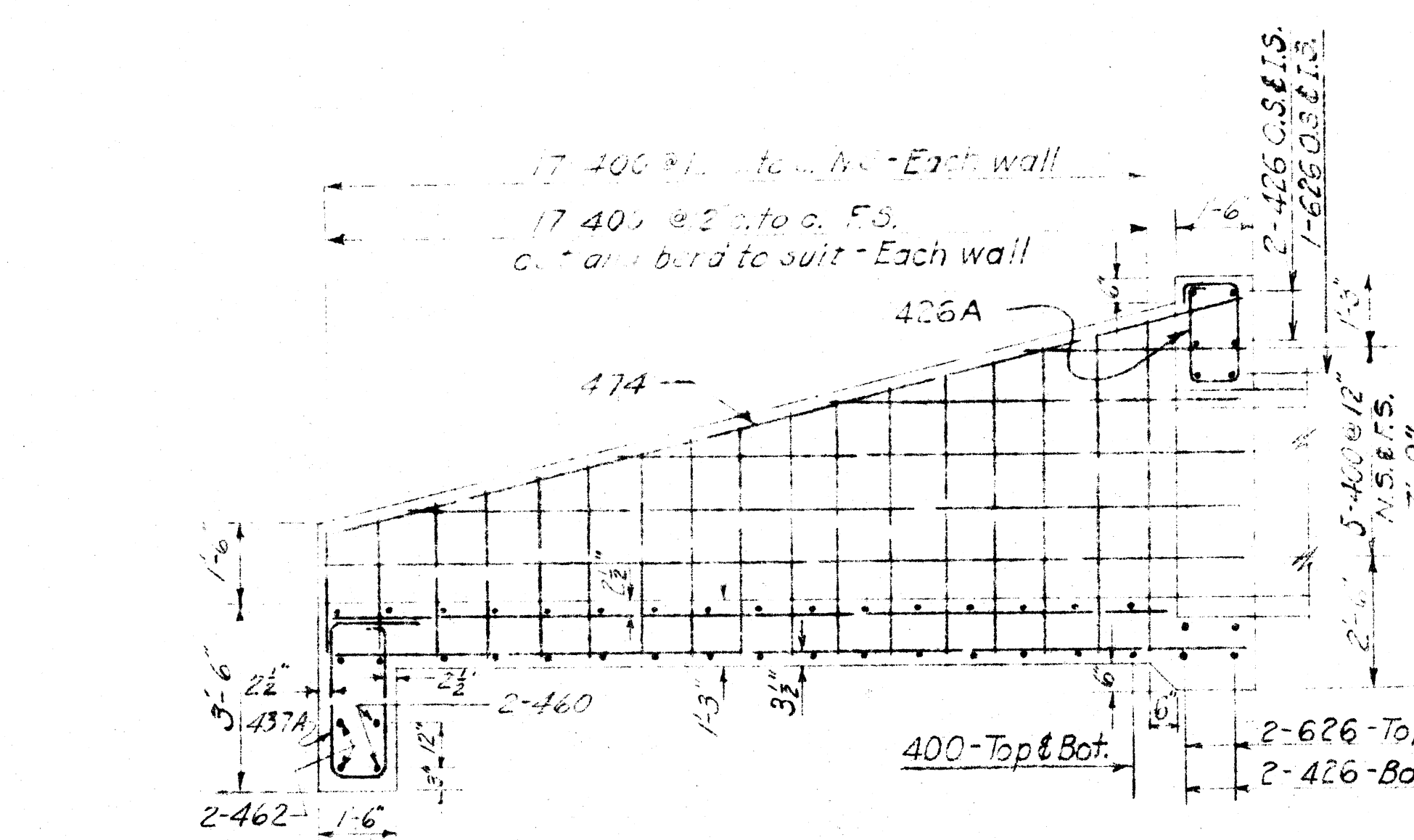
SECTIONAL ELEVATION



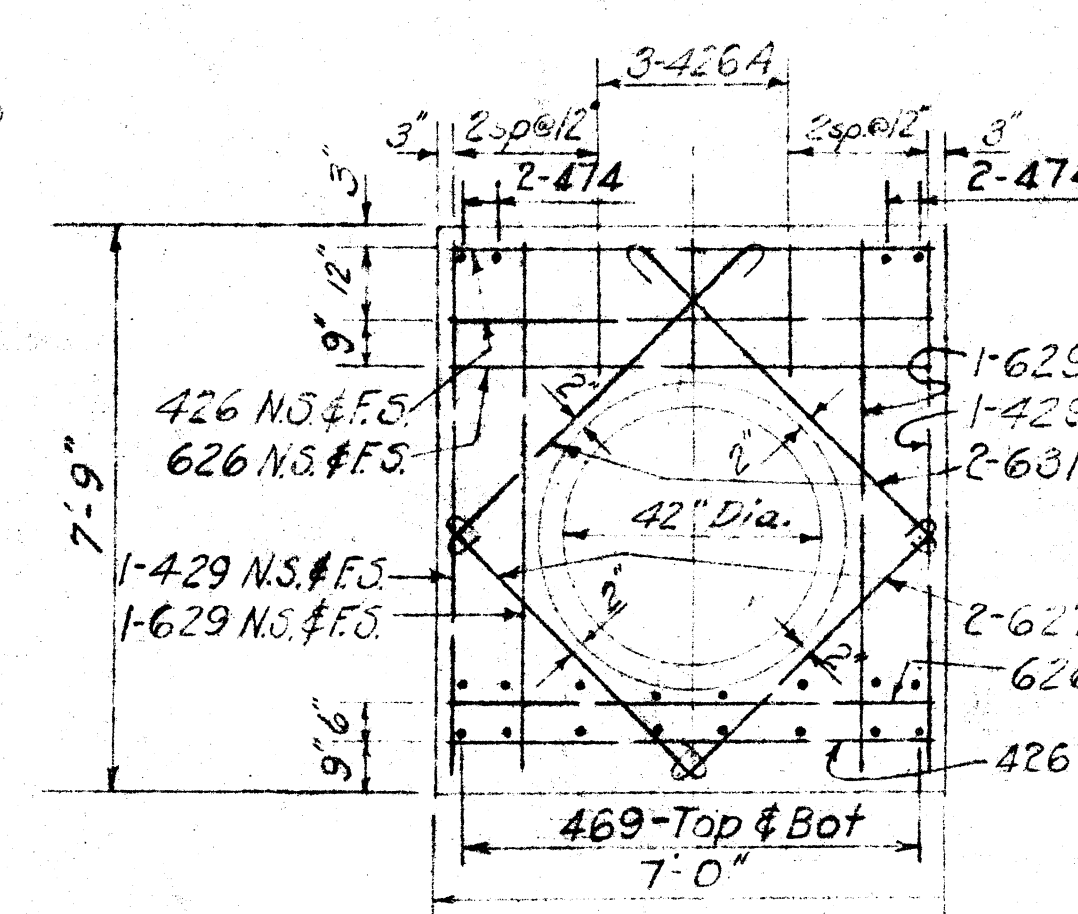
SECTION B-B



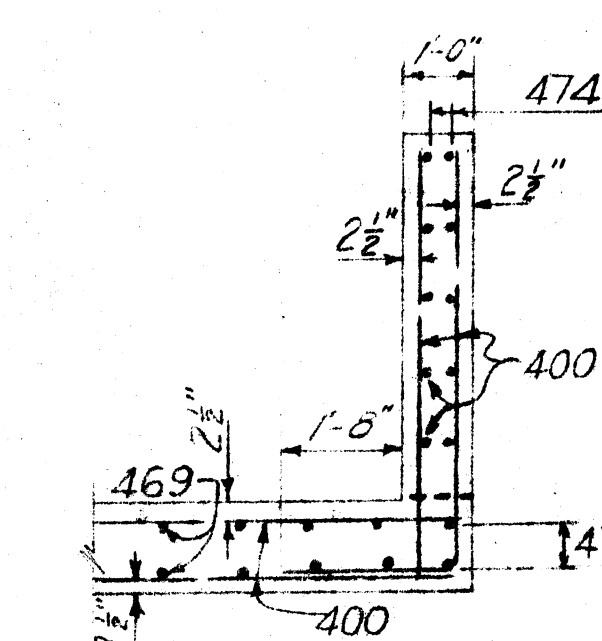
SECTION C-C



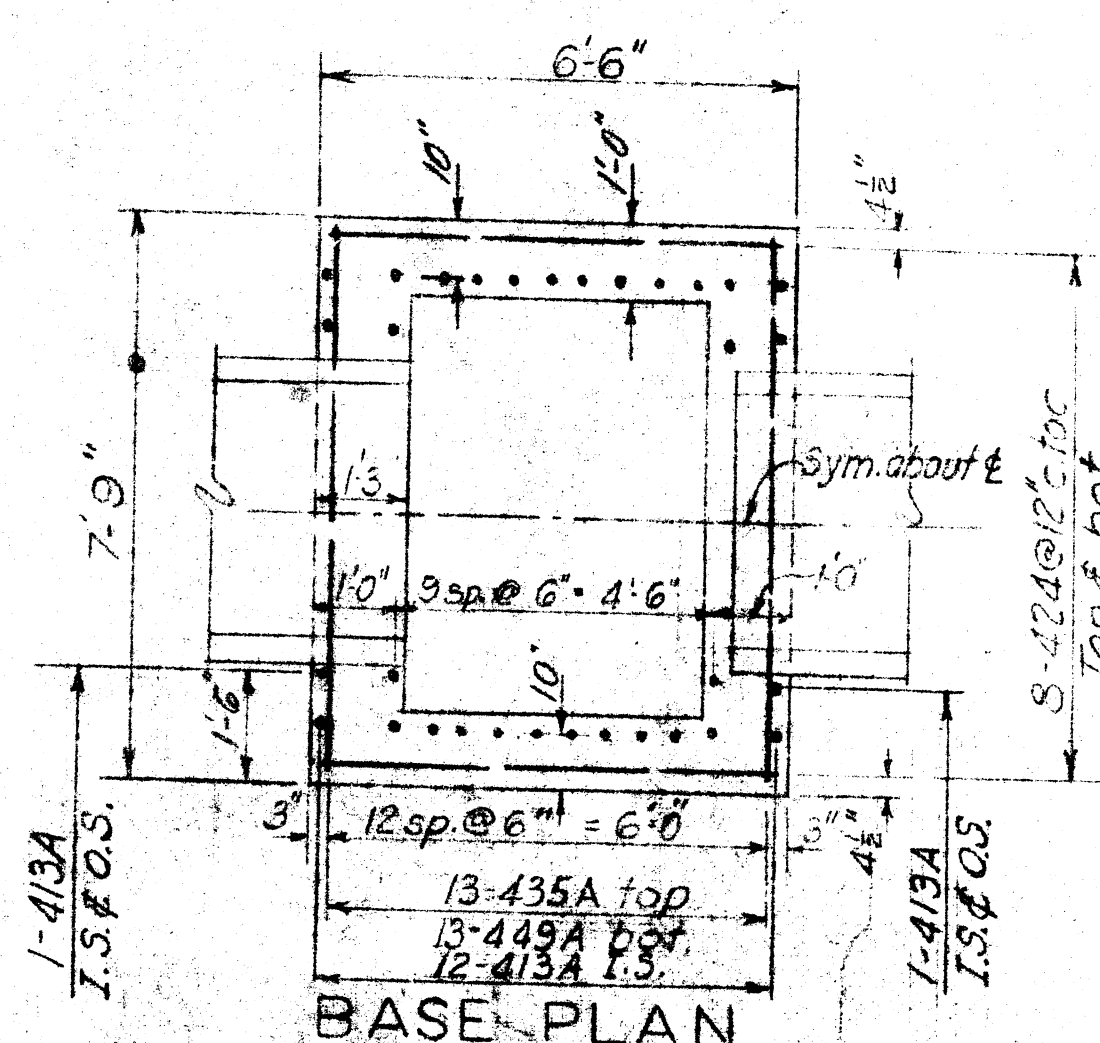
SECTIONAL ELEVATION



SECTION E-E

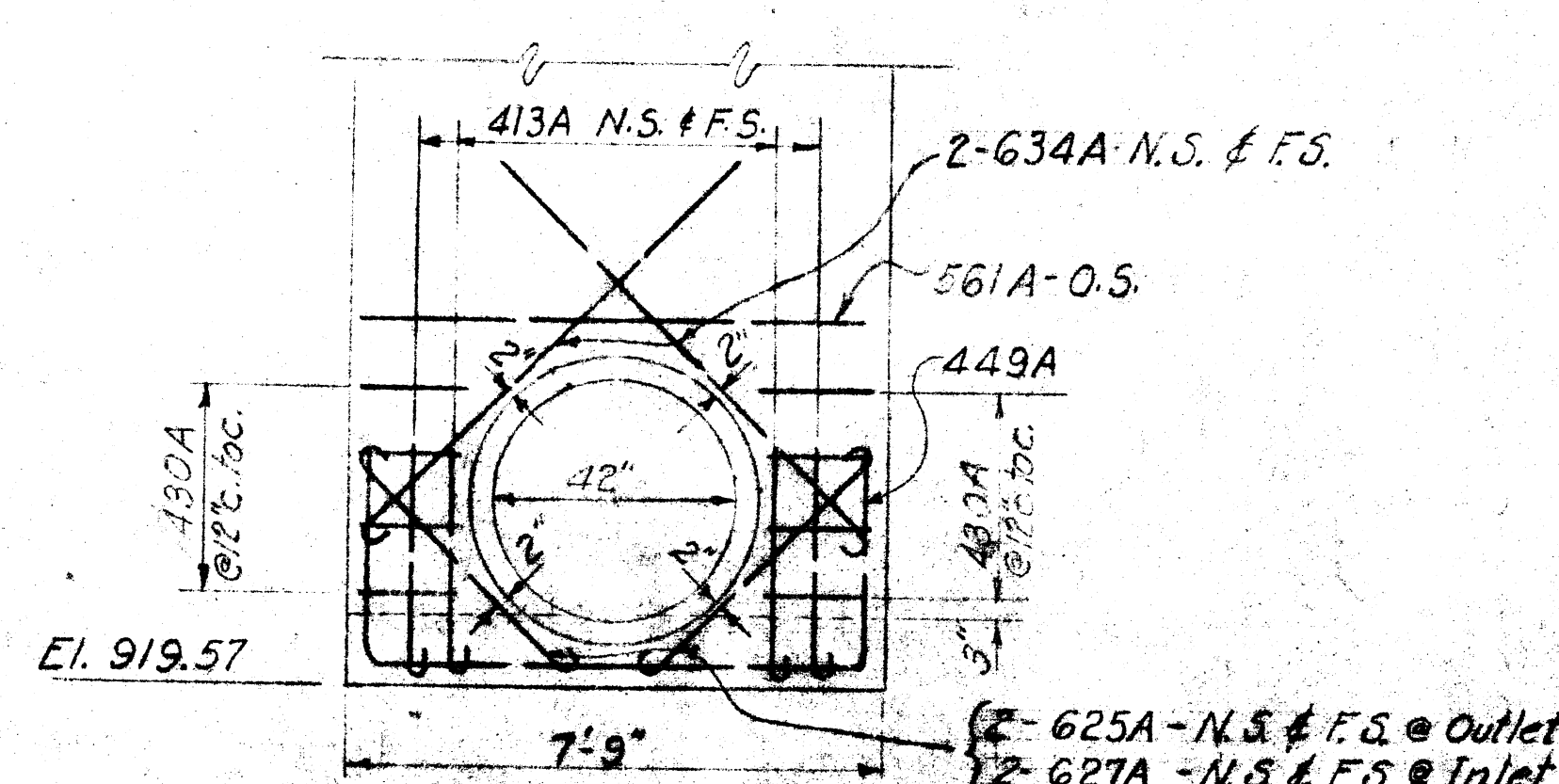
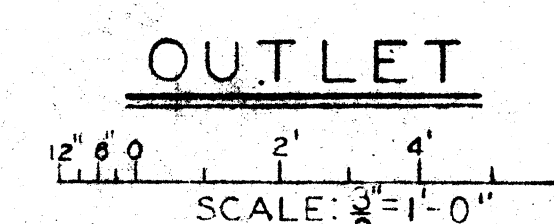


SECTION D-D



BASE PLAN

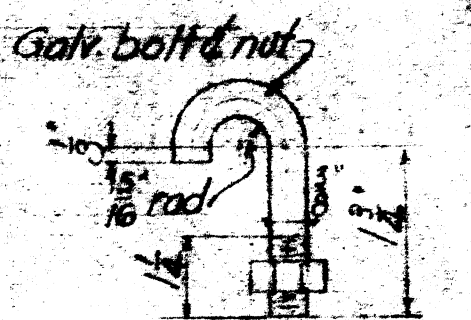
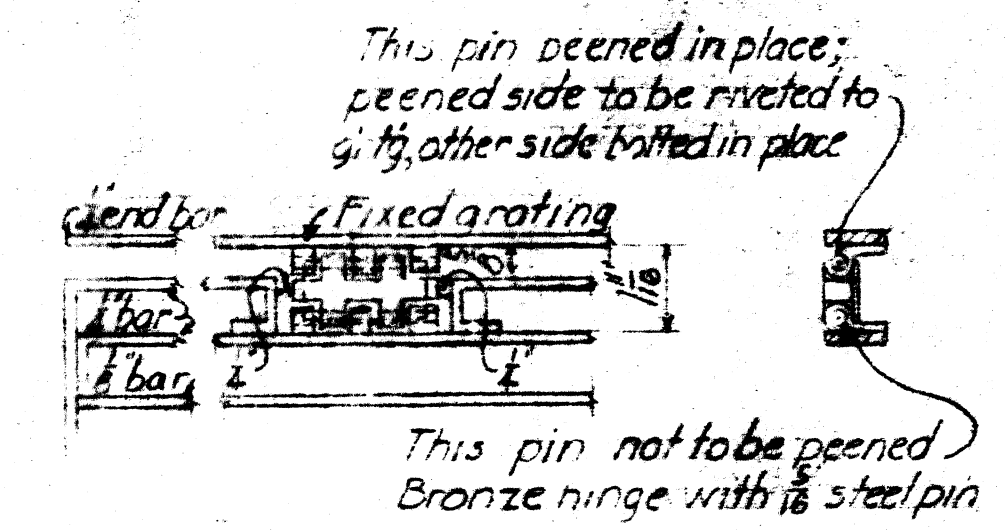
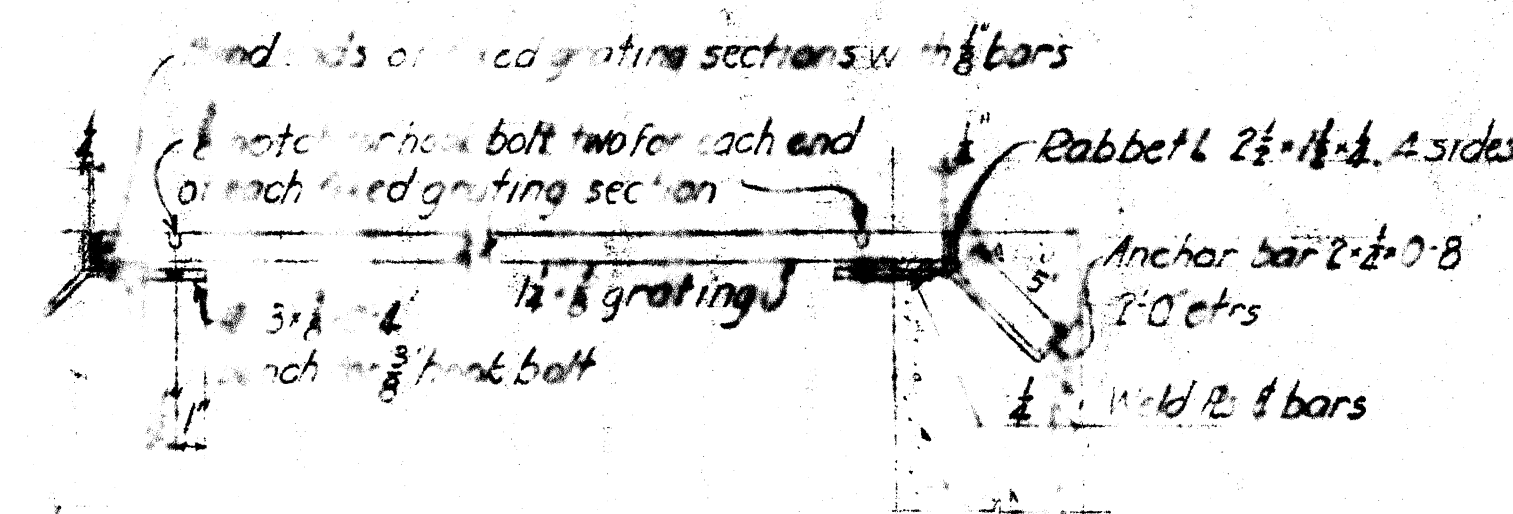
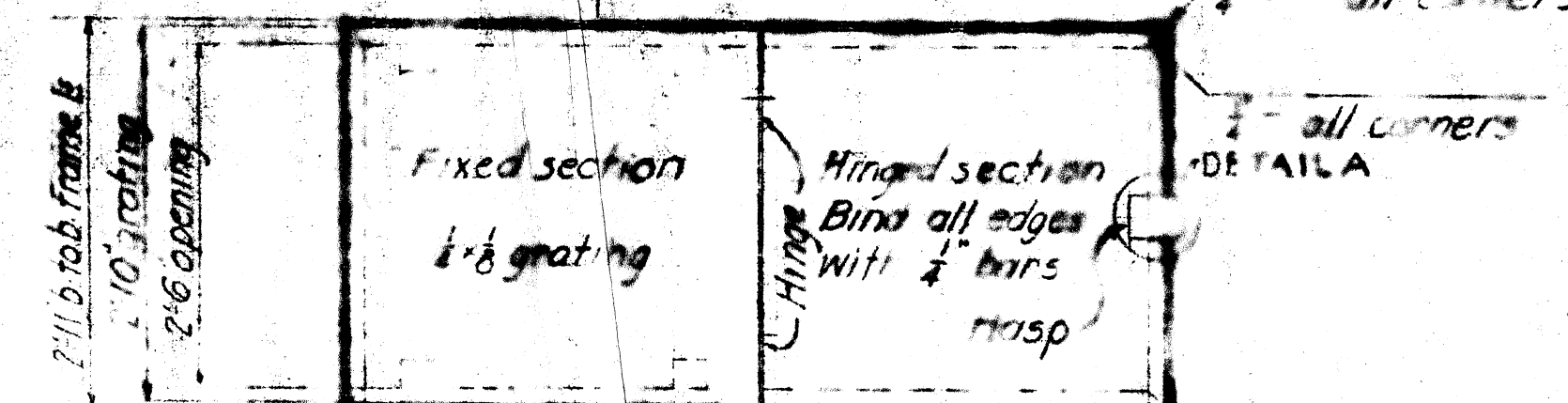
GATEWELL

OUTLET SIDE OF WELL
INLET SIDE SIMILAR

OUTLET

REINFORCING SCHEDULE

MARK	SIZE	LGTH	BENDING DIAGRAM	NO.	UNIT WT.	TOTAL WT.
GATE WELL						
413A	1/2" Φ	3'-3"		32	2.17	69
422	1/2" Φ	5'-6"		32	3.67	117
424	1/2" Φ	6'-0"		16	4.01	64
427A	1/2" Φ	6'-9"		2	4.51	9
427B	1/2" Φ	6'-9"		2	4.51	9
429	1/2" Φ	7'-3"		31	4.84	150
429A	1/2" Φ	7'-3"		2	4.84	10
429B	1/2" Φ	7'-3"		2	4.84	10
430A	1/2" Φ	7'-6"		18	5.01	90
430B	1/2" Φ	7'-6"		2	5.01	10
430C	1/2" Φ	7'-6"		8	5.01	40
430D	1/2" Φ	7'-6"		4	5.01	20
430E	1/2" Φ	7'-6"		2	5.01	10
432A	1/2" Φ	8'-0"		2	5.34	11
432B	1/2" Φ	8'-0"		2	5.34	11
435A	1/2" Φ	8'-9"		17	5.85	99
443	1/2" Φ	10'-9"		46	7.18	330
443A	1/2" Φ	10'-9"		12	7.18	86
449A	1/2" Φ	12'-3"		13	8.18	106
457A	1/2" Φ	14'-3"		32	9.52	305
459	1/2" Φ	14'-9"		43	9.85	413
462A	1/2" Φ	14'-9"		8	9.85	79
462B	1/2" Φ	14'-9"		8	9.85	79
467A	1/2" Φ	14'-9"		4	10.14	41
463A	1/2" Φ	8'-3"		2	12.39	25
463A	1/2" Φ	8'-6"		3	12.77	102
				Total	2492	
CULVERT-OUTLET						
427	1/2" Φ	13'-0"		6	4.84	29
426	1/2" Φ	6'-6"		3	2.33	13
426A	1/2" Φ	6'-6"		4	4.84	19
427	1/2" Φ	7'-3"		14	6.18	87
427A	1/2" Φ	9'-3"		2	10.02	20
427B	1/2" Φ	15'-0"		3	9.85	29
429	1/2" Φ	5'-6"		16	11.51	184
429A	1/2" Φ	17'-3"		4	12.32	49
472	1/2" Φ	8'-9"		4	12.36	49
474	1/2" Φ	8'-6"		4	12.36	49
				Total	1553	
626	3/4" Φ	6'-6"		4	9.76	39
627A	3/4" Φ	6'-9"		4	10.14	41
629	3/4" Φ	7'-3"		4	10.89	44
631A	3/4" Φ	7'-3"		4	11.64	47
				Total	1553	



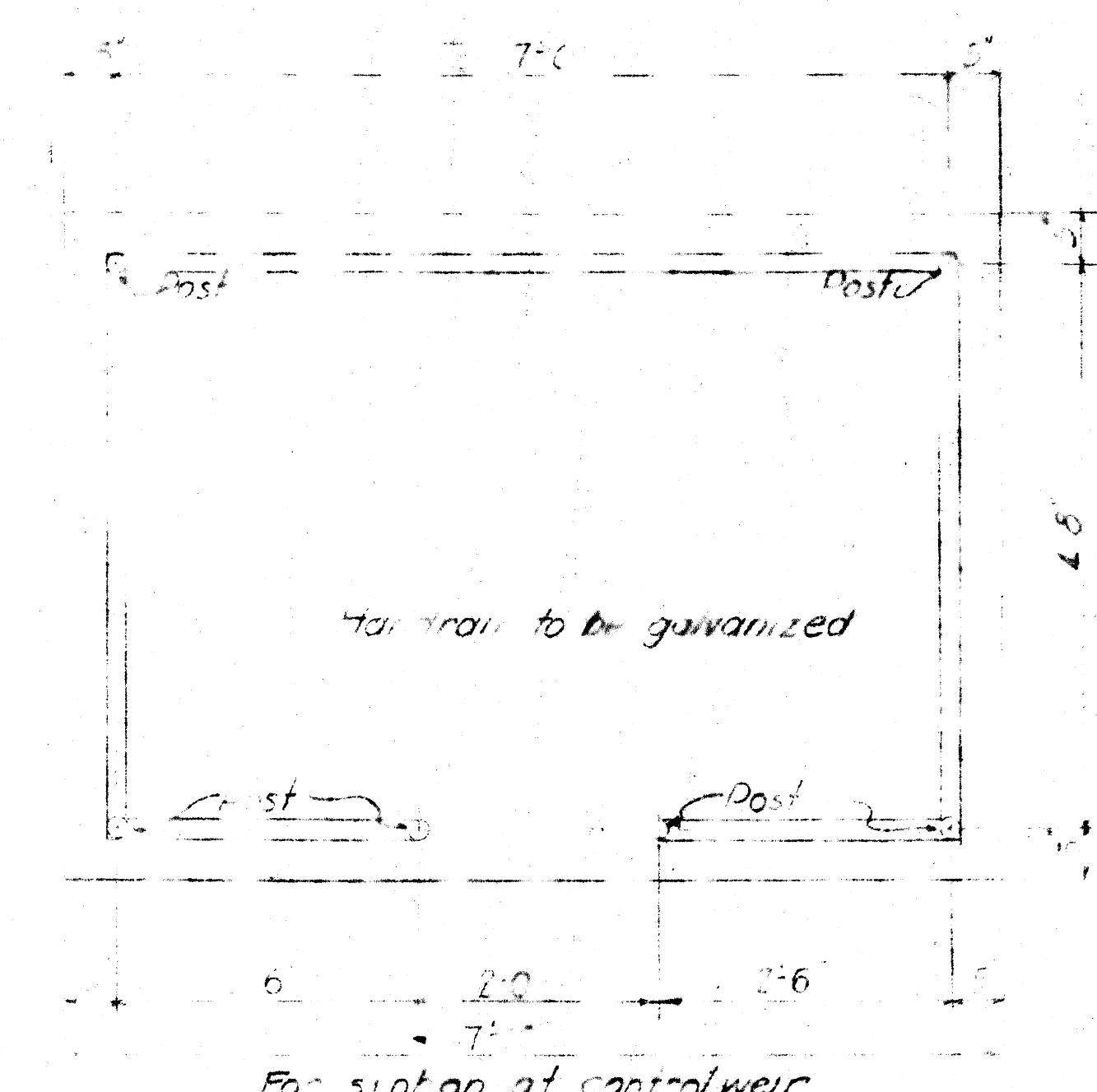
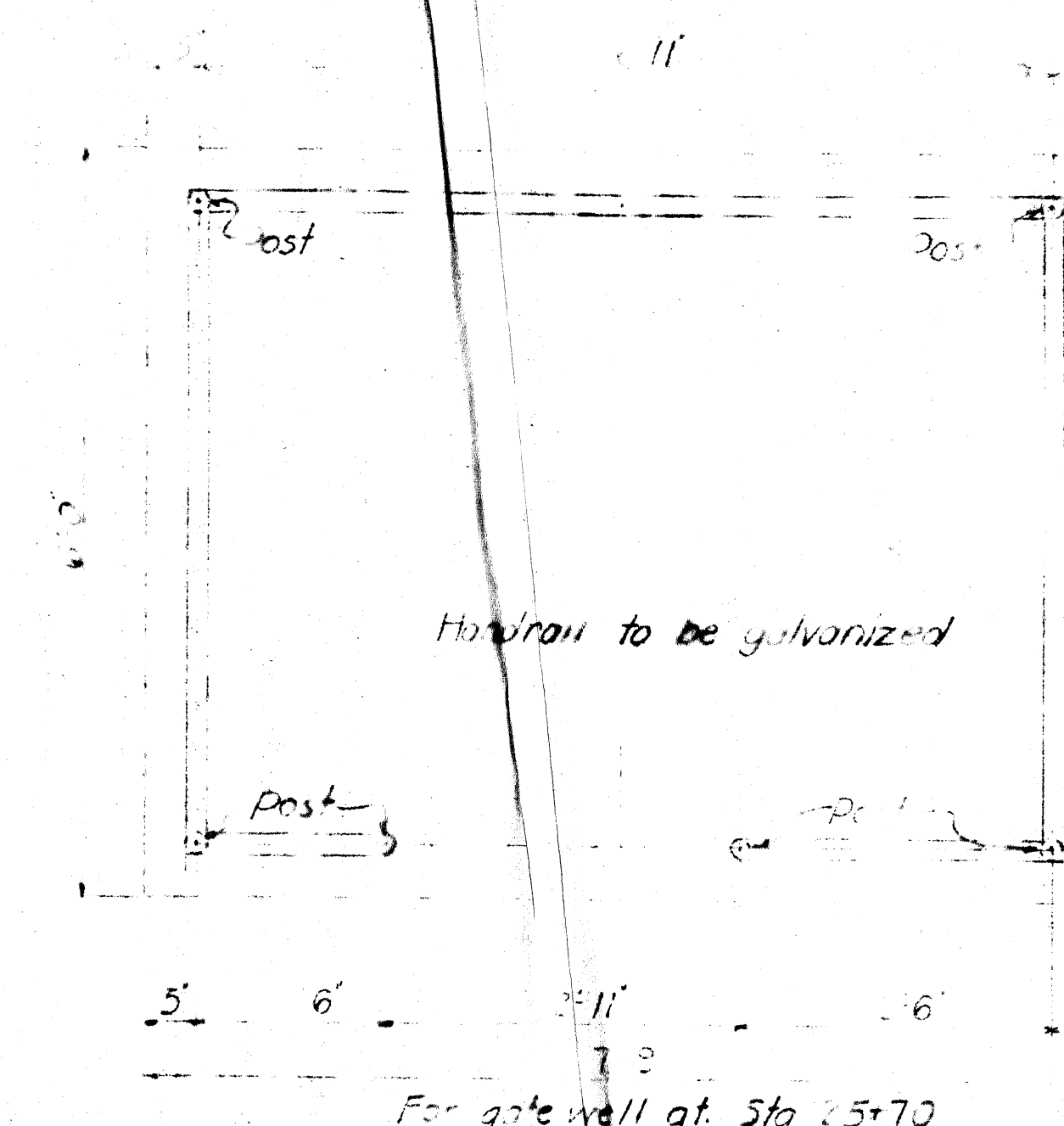
• (C) Grating to be 70 nominal
1" x 1" sections
3' x 6' covering
2' b' ab. frame
For pile well at Sta. 25+70
FRAME AND GRATING

STRUCT. STEEL	MARK	QTY	MADE	WT.	6. 10
GRATING	MARK	1007-4	M/S	7	SC 11

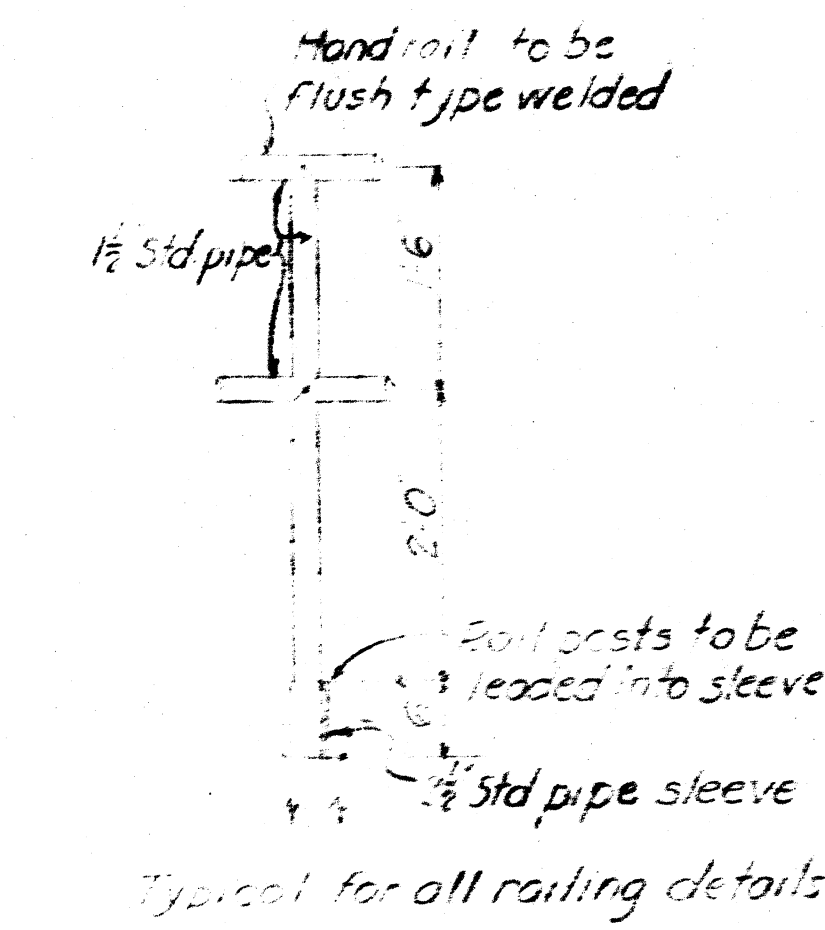
SECTION A-

HINGE DETAIL
SCALE: 3"=1'-0"

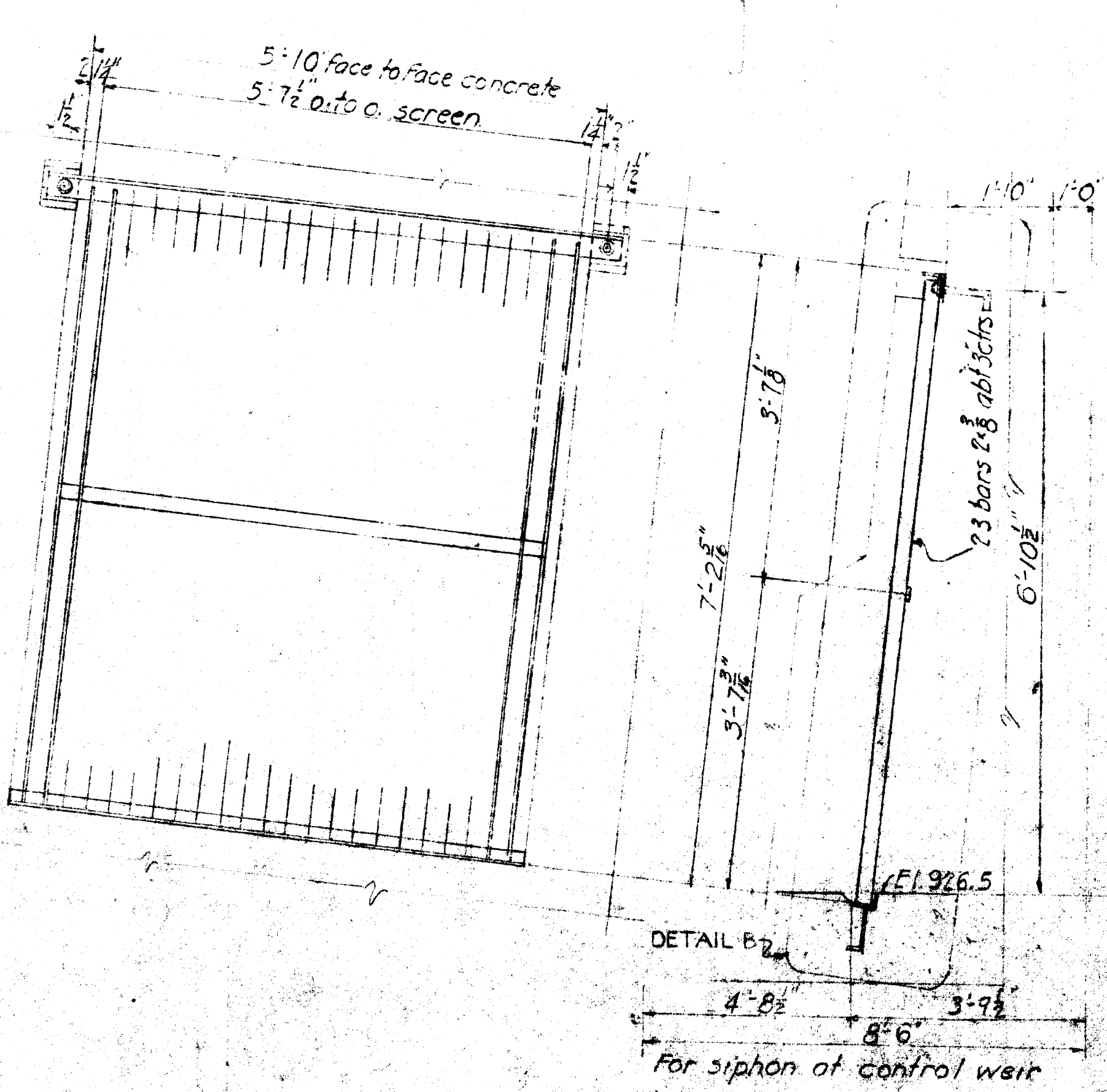
HOOK BOLT DETAIL
SCALE: 6"=1'-0"



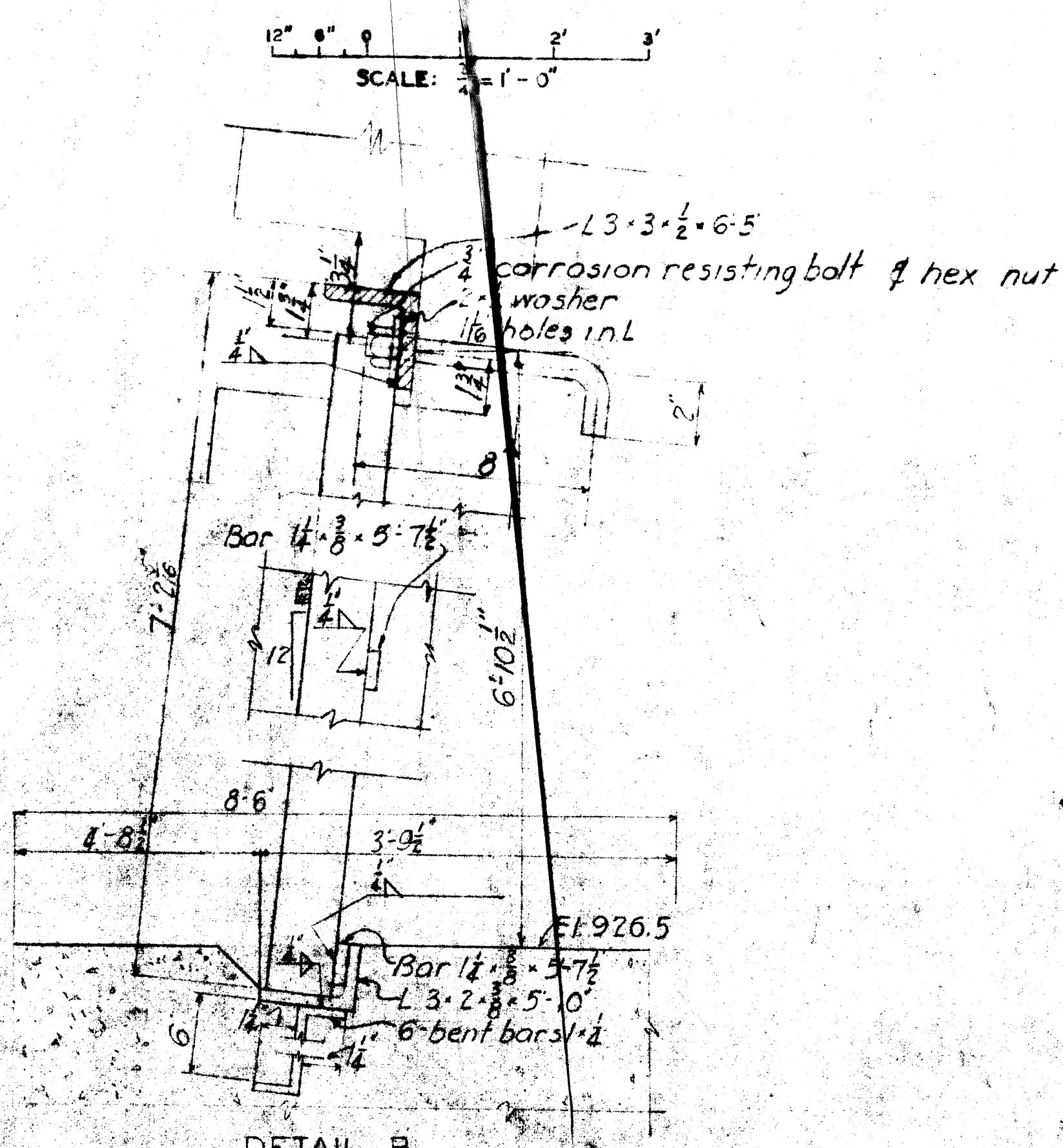
HANDRAIL



SECTION P-3



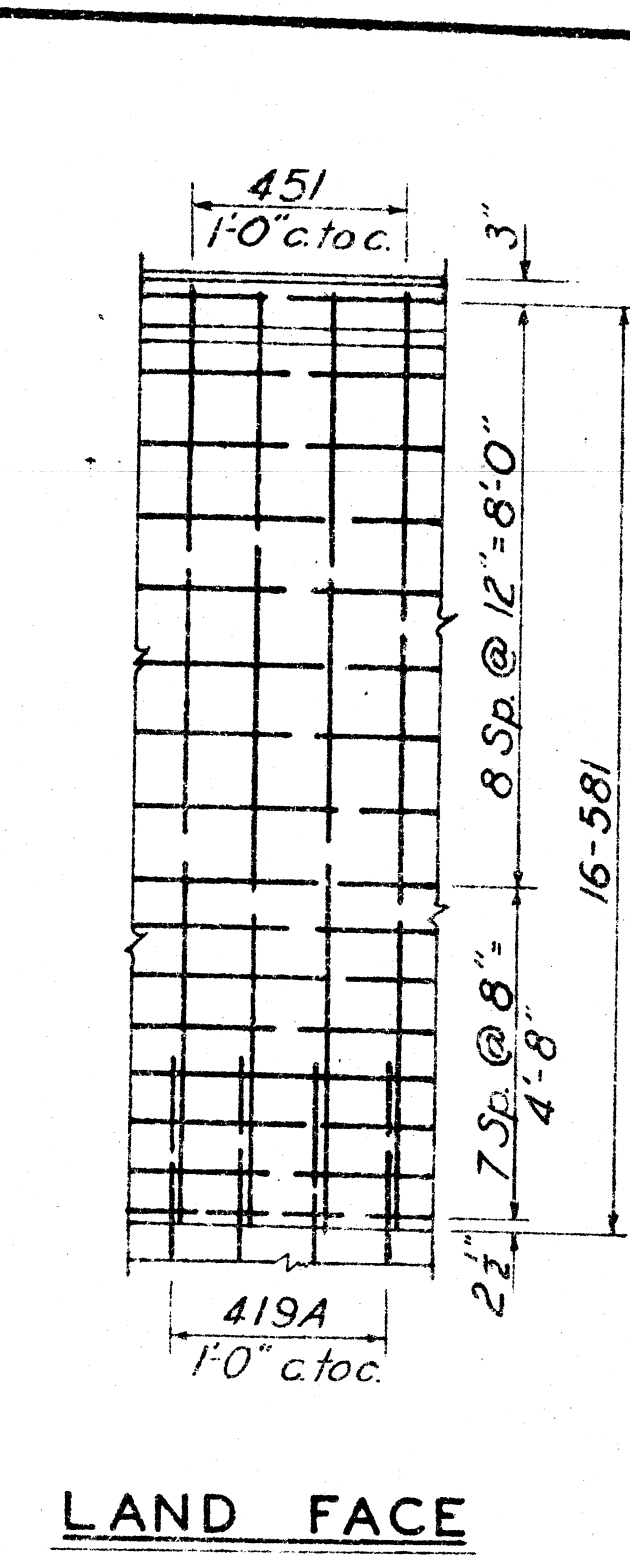
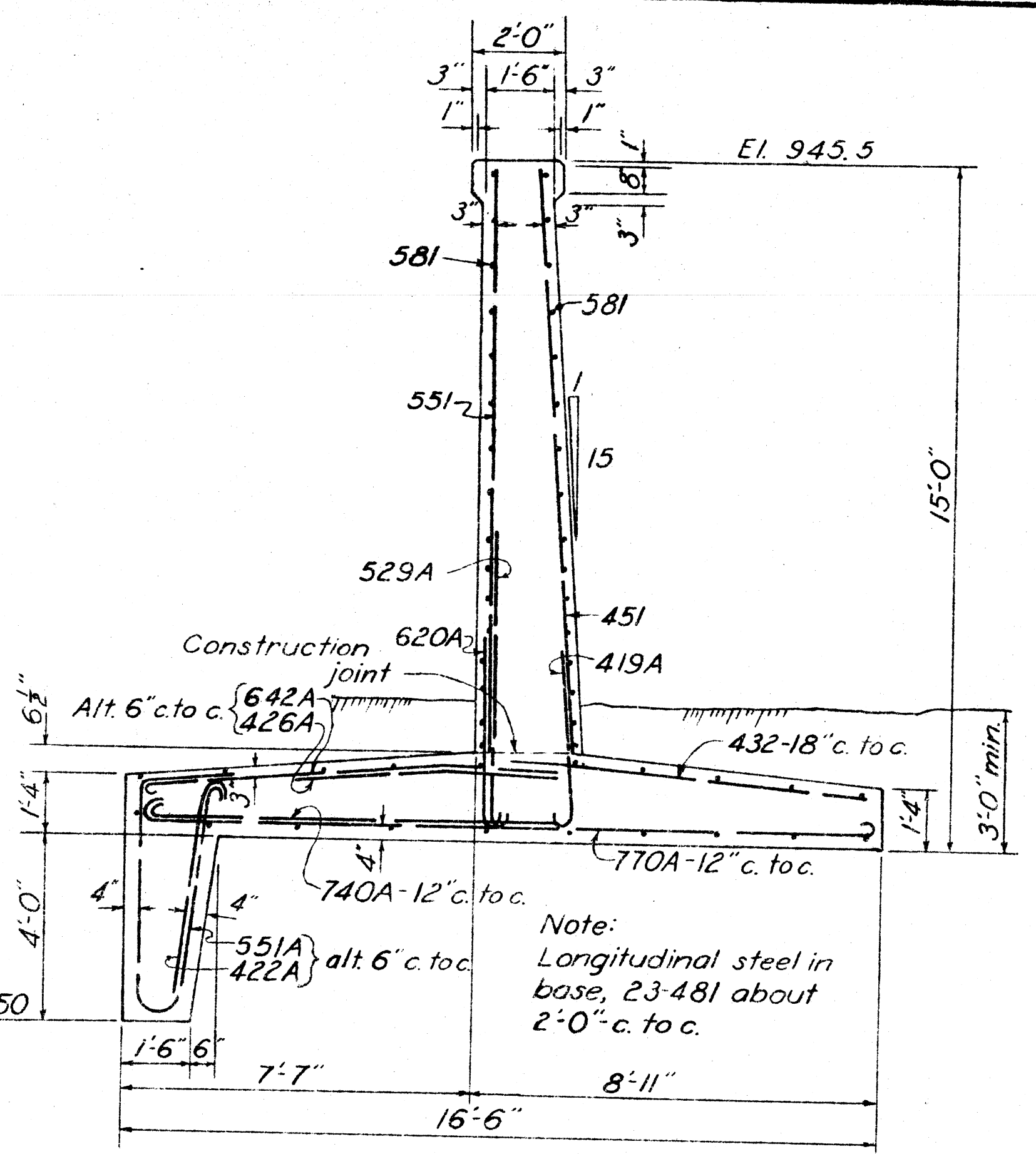
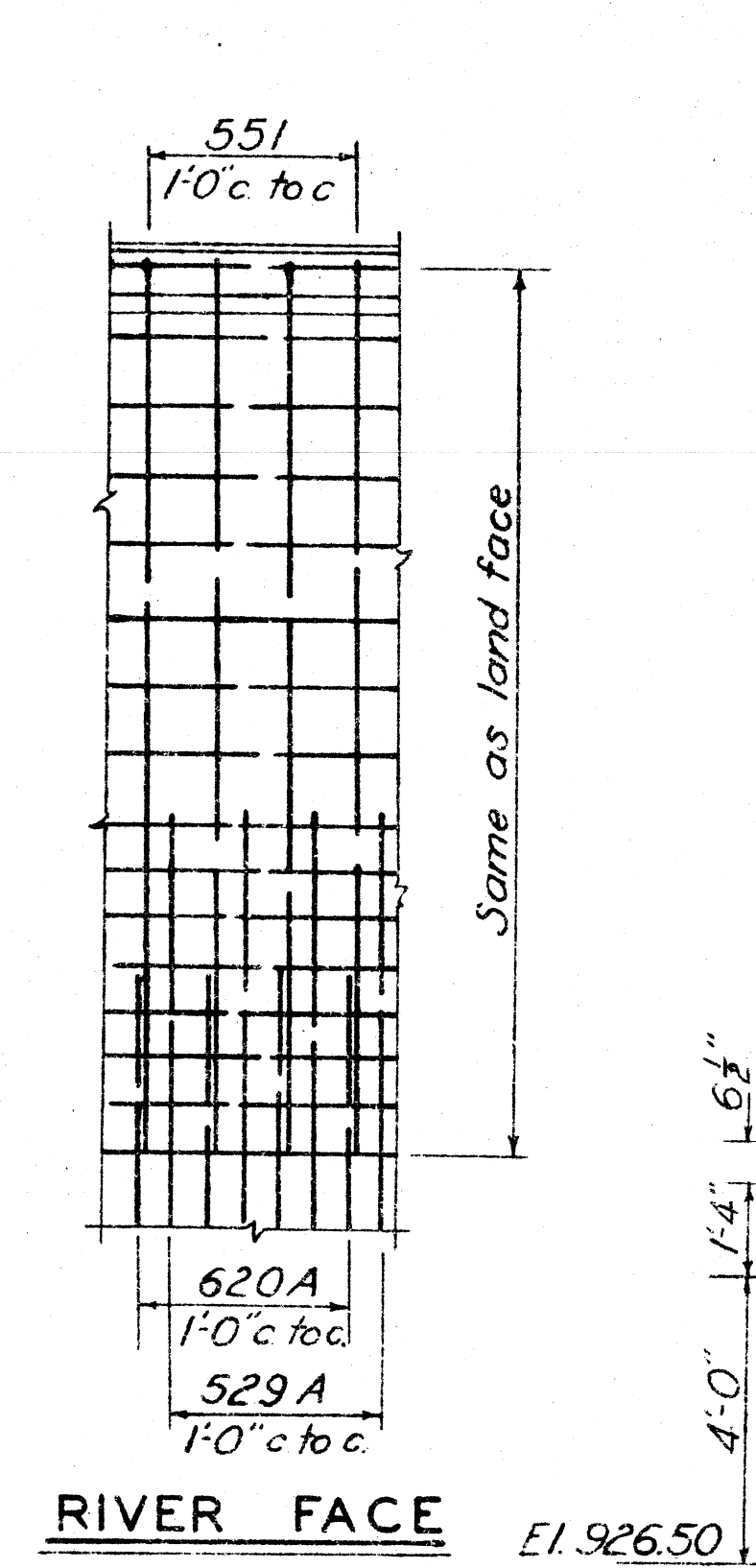
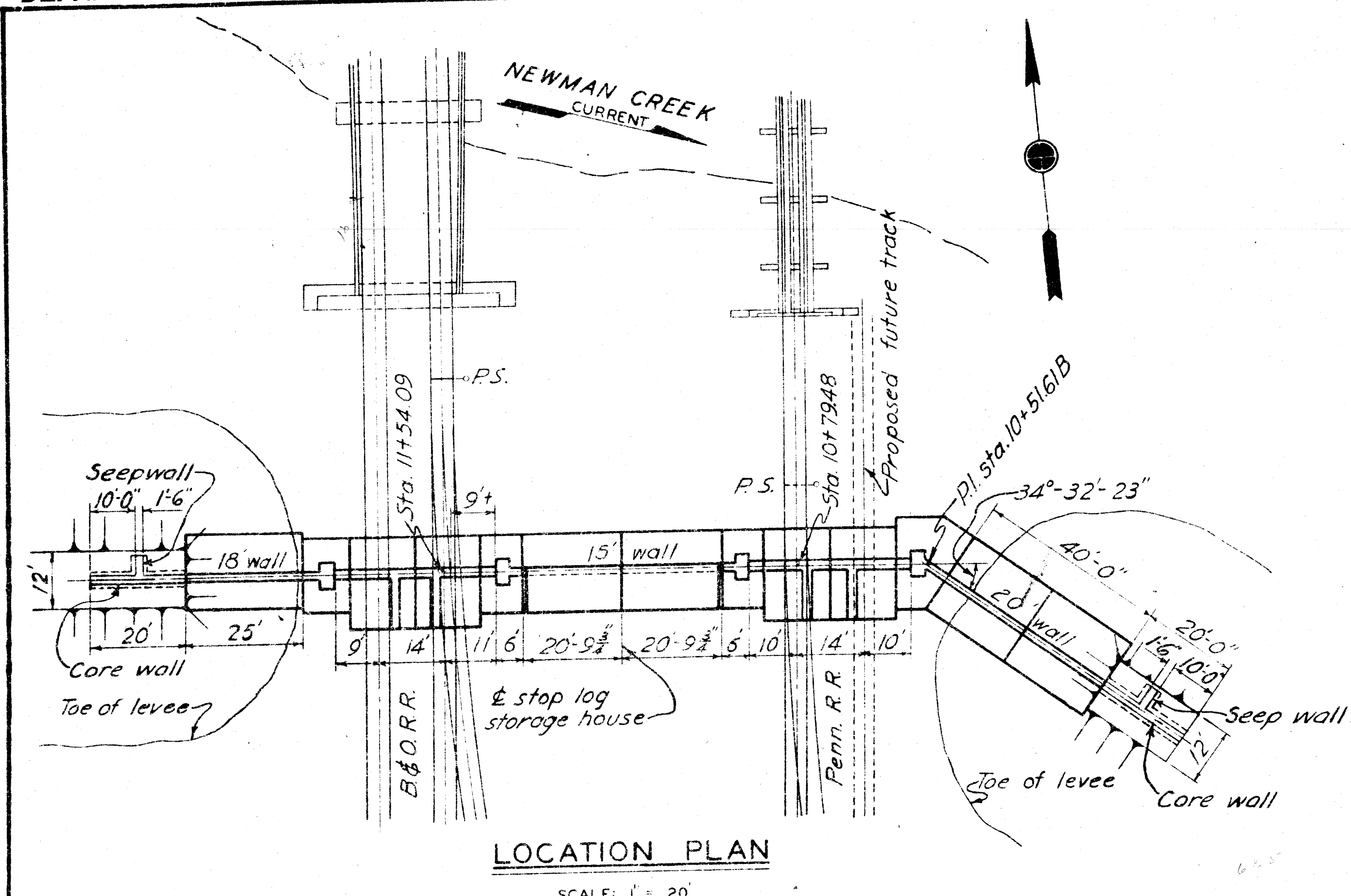
BAR SCREEN



DETAIL B

For masonry details of Siphon at Control Weir see Dwg. No. 20/2
For masonry details of Gate Well at Sta 1 + 74.08 see Dwg. No. 20/3
For masonry details of Gate Well at Sta 25 + 70 see Dwg. No. 20/5

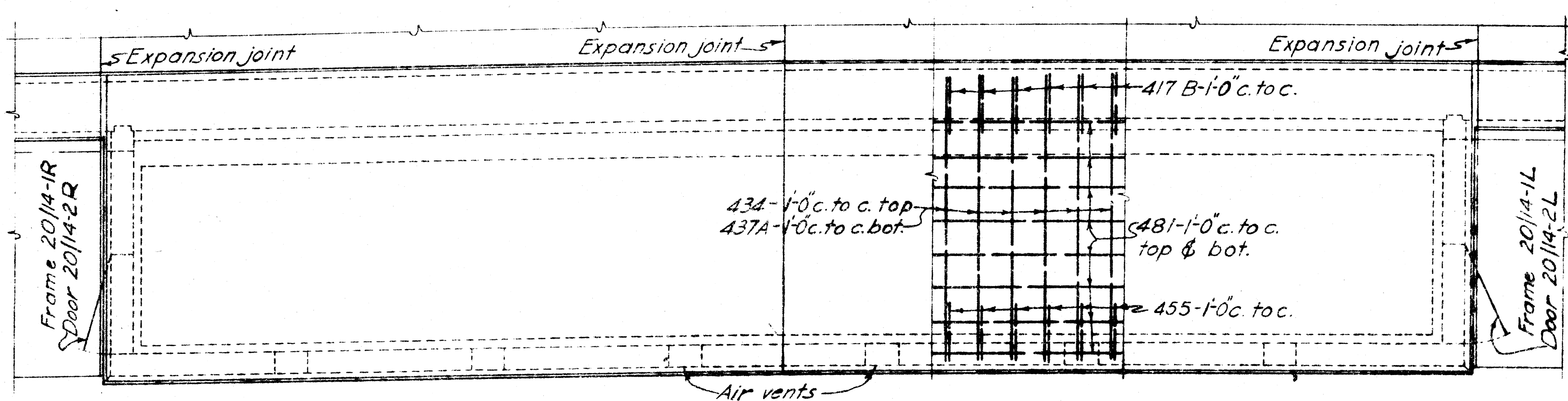
DEPARTMENT OF THE ARMY CORPS OF ENGINEERS OFFICE OF THE DISTRICT ENGINEER HUNTINGTON, W. VA.	
DRAWN BY: A. W. S. TRACED BY: CHECKED BY: APPROVED BY: SPECIAL AGENT IN CHARGE:	TUSCARAWAS RIVER LOCAL PROTECTION PROJECT MASSILLON, OHIO SECTION 2, UNIT 2 GATE WELL & 42" SIPHON MISCELLANEOUS METAL DETAILS DATE: OCT 14 1945



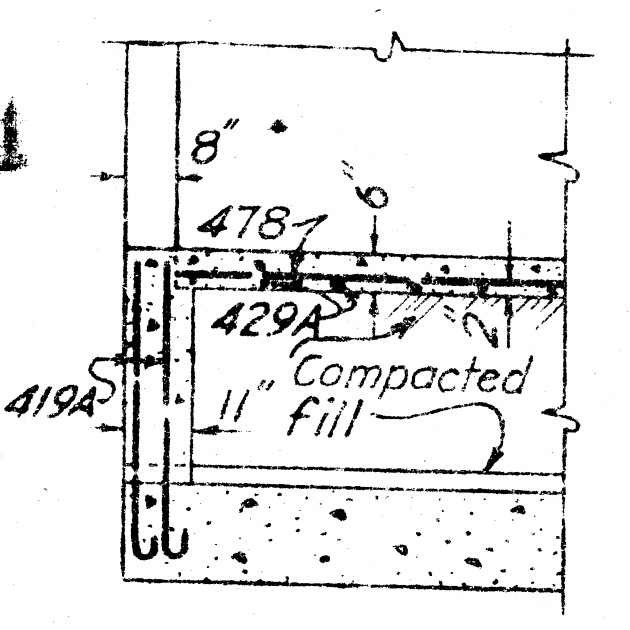
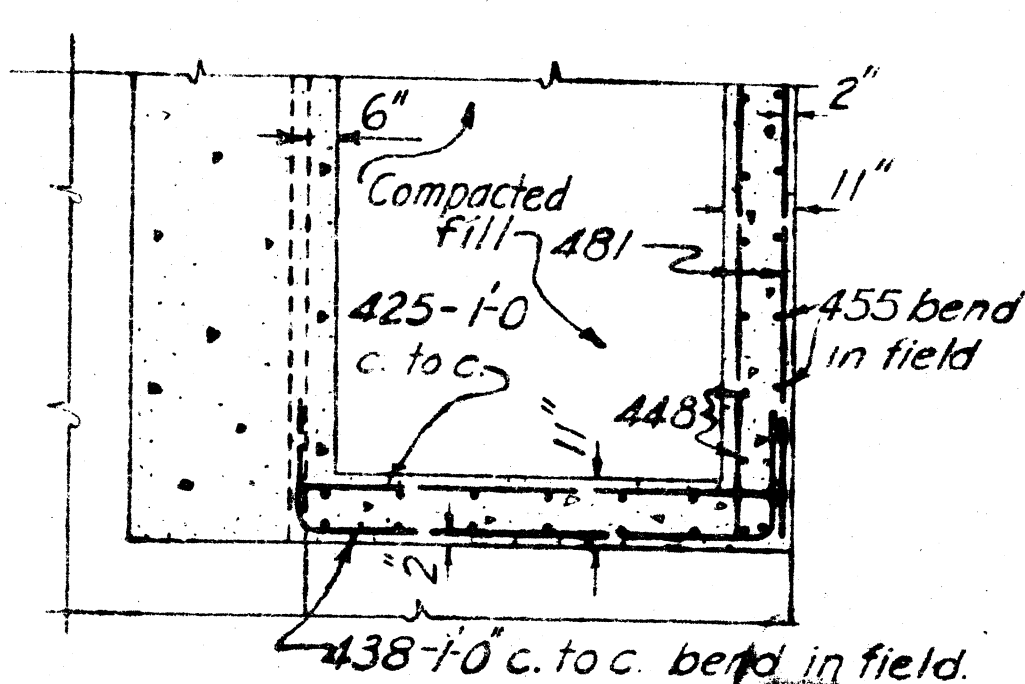
REINFORCING SCHEDULE

15-FOOT WALL

MARK	SIZE	LGTH	BENDING DIAGRAM	NO	UNIT WT.	TOTAL WT.
419A	1/2"	4'-9"		42	3.17	133
422A	3/8"	5'-6"		42	3.67	154
426A	1/2"	6'-6"		42	4.34	182
432	1/2"	8'-0"		28	5.34	150
451	1/2"	12'-9"		42	8.52	358
481	1/2"	20'-3"		46	13.53	622
529A	1/2"	7'-3"		42	7.56	318
551	1/2"	12'-9"		42	13.30	559
551A	1/2"	12'-9"		42	13.30	559
581	1/2"	20'-3"		64	21.12	1352
620A	1/2"	5'-0"		42	7.51	315
642A	1/2"	10'-6"		42	15.77	662
740A	1/2"	10'-0"		42	20.44	858
770A	1/2"	17'-6"		42	35.77	1502
770A	1/2"	17'-6"				
					Total	7724

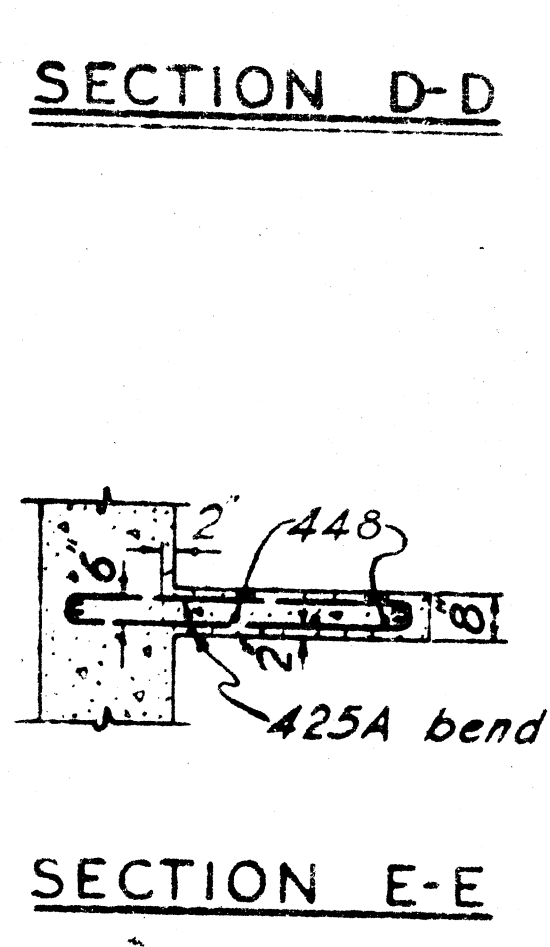
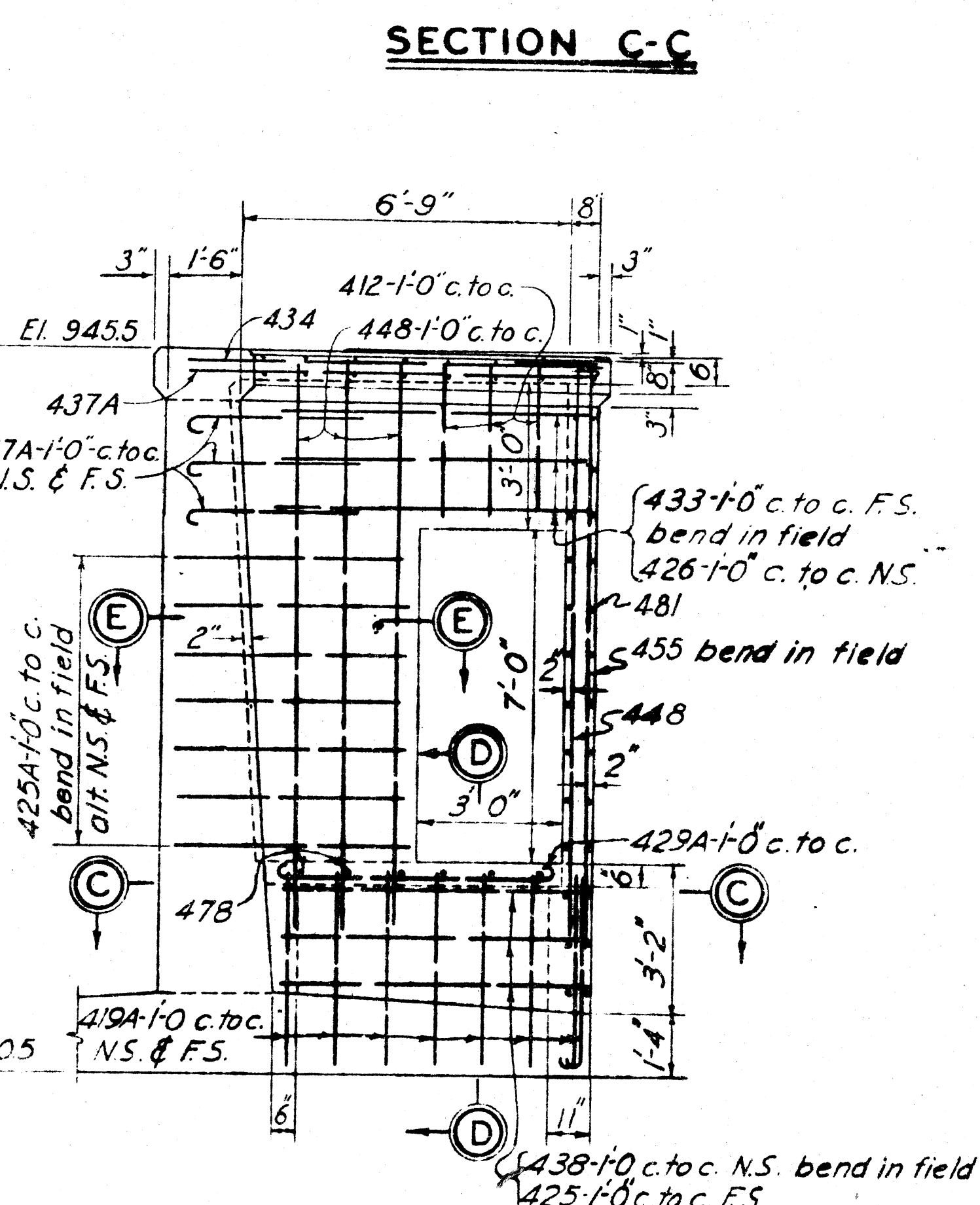
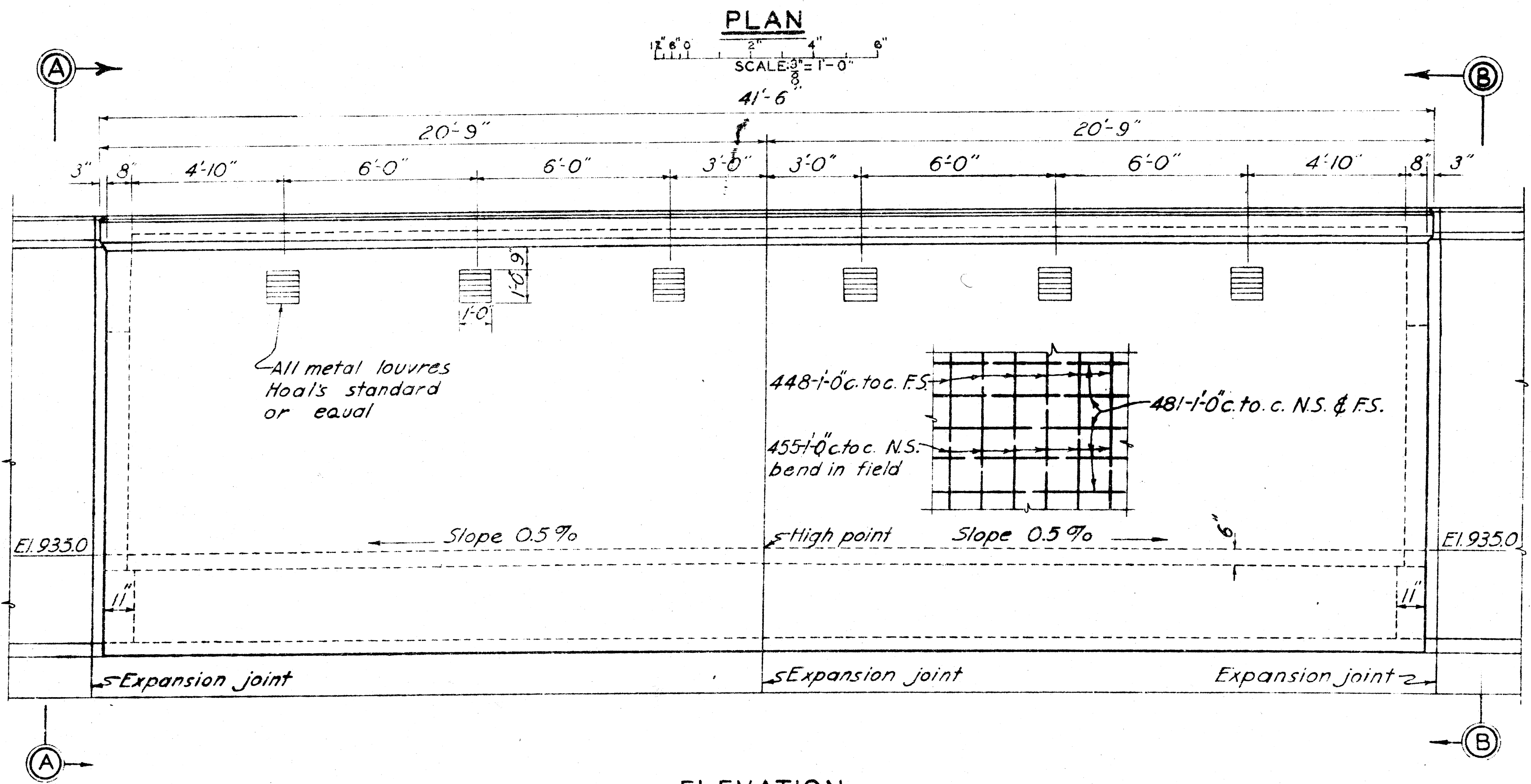


15 FOOT WALL



STOP LOG HOUSE

MARK	SIZE	LGTH	BENDING DIAGRAM	NO	UNIT WT.	TOTAL WT.
417A	1/2"	4'-3"		12	2.84	34
417B	1/2"	4'-3"		40	2.84	114
419A	1/2"	4'-0"		106	3.17	336
425A	1/2"	6'-3"		14	4.18	59
425	1/2"	6'-3"		6	4.18	25
426	1/2"	6'-6"		6	4.34	26
429A	1/2"	7'-3"		40	4.84	194
433	1/2"	8'-3"		6	5.51	33
434	1/2"	8'-6"		40	5.68	227
437A	1/2"	9'-3"		40	6.18	247
438	1/2"	9'-6"		6	6.35	38
448	1/2"	12'-0"		47	8.02	377
455	1/2"	13'-9"		47	9.19	432
478	1/2"	19'-6"		12	13.03	156
481	1/2"	20'-3"		84	13.53	1136
412	1/2"	3'-0"		6	2.00	12
Total					3446	



NOTES

For masonry notes and explanation of reinforcing steel code, see Dwg. No. 20/1.
For structural steel details, see Dwg. No. 20/1A.
For details of 18 and 20 foot walls, core walls and water stops, see Dwg. No. 20/9.

DEPARTMENT OF THE ARMY
CORPS OF ENGINEERS
OFFICE OF THE DISTRICT ENGINEER
HUNTINGTON, W. VA.

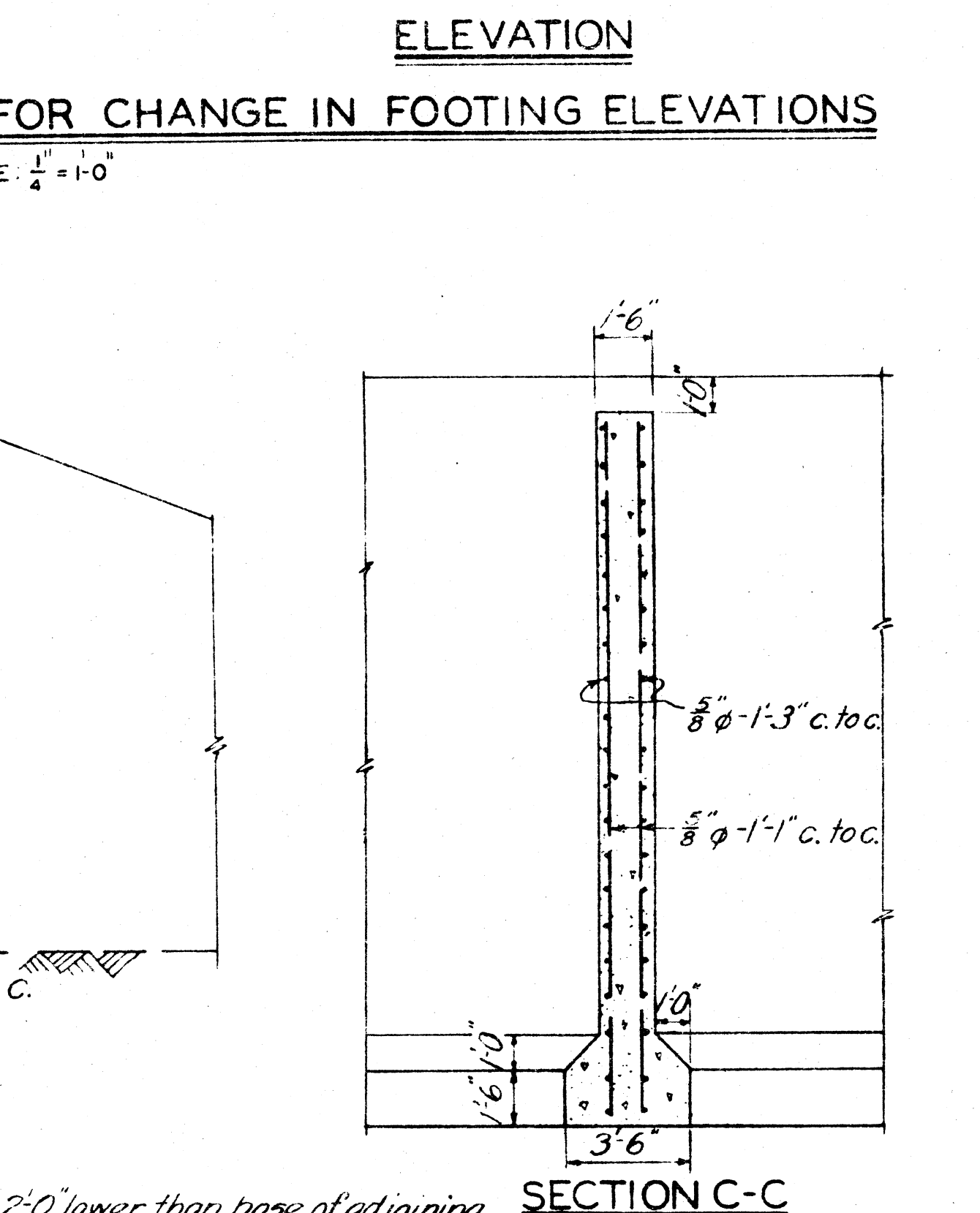
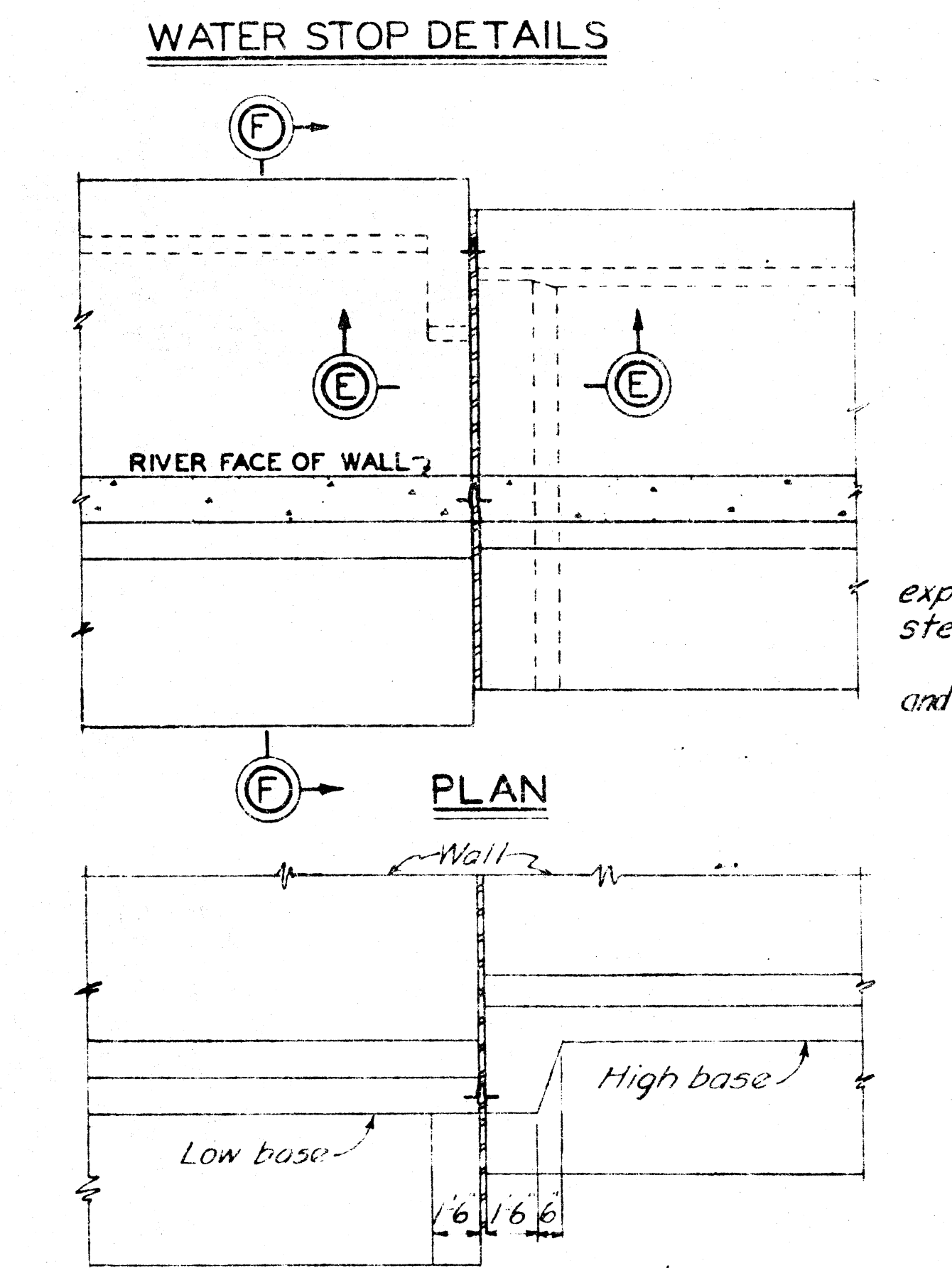
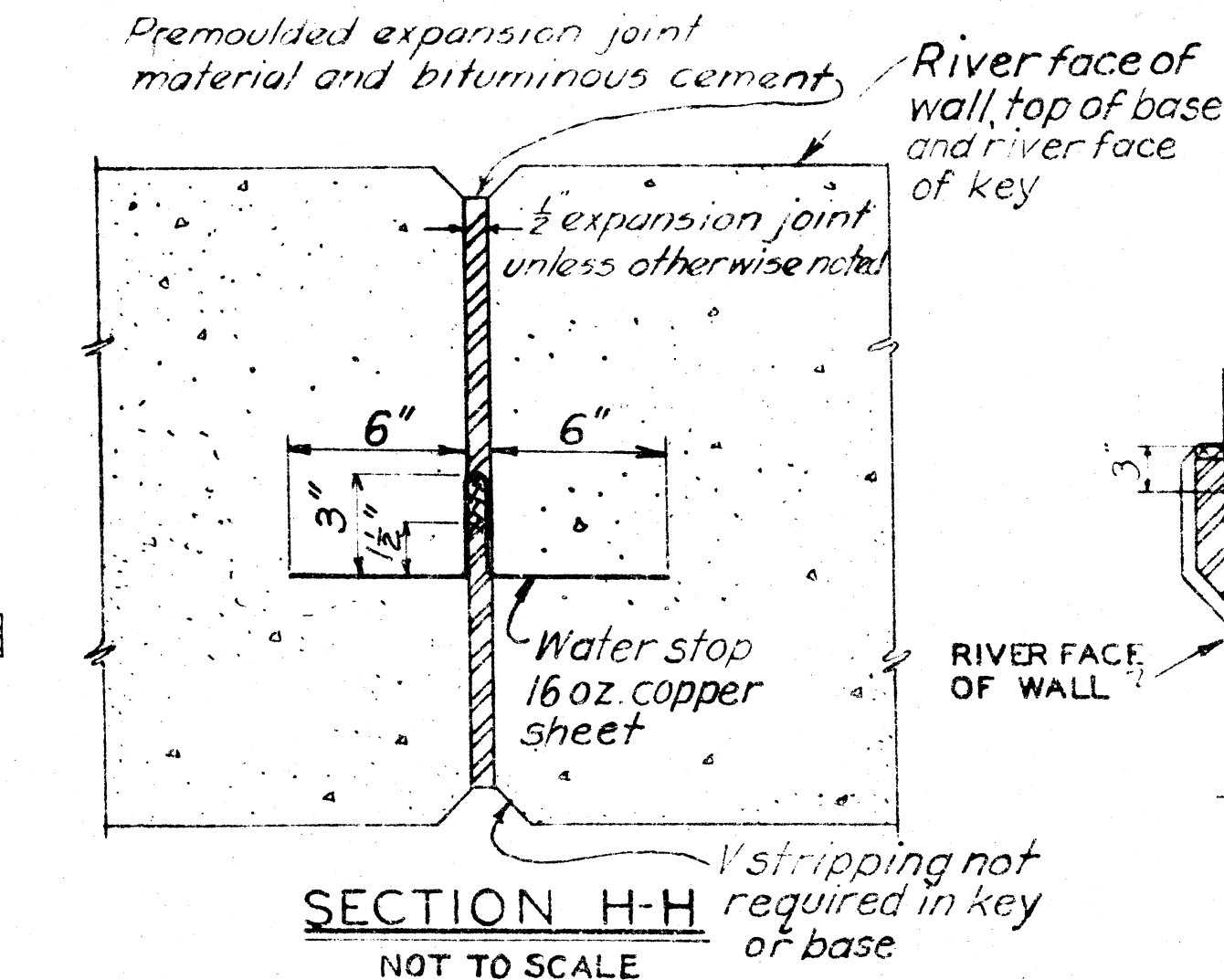
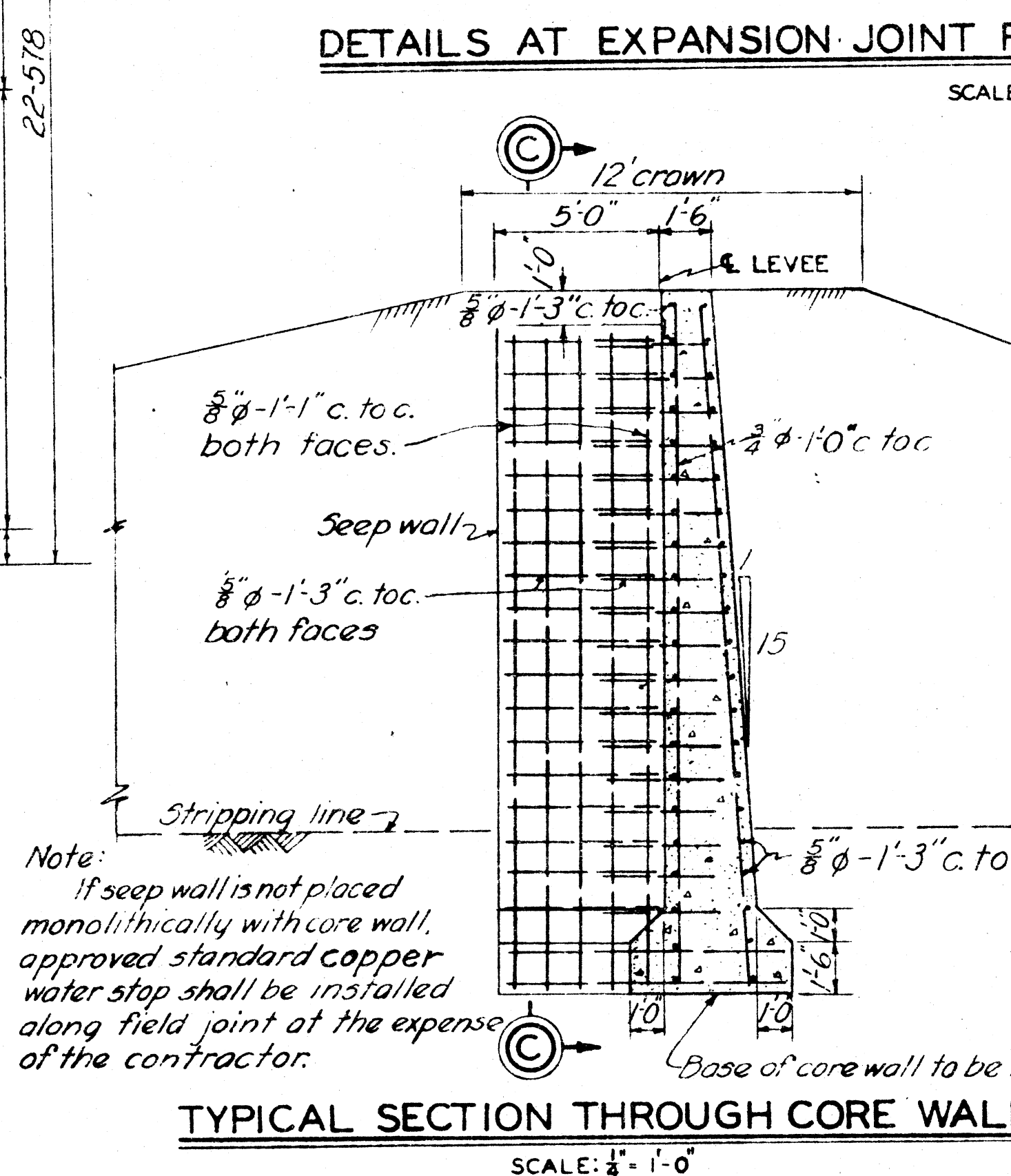
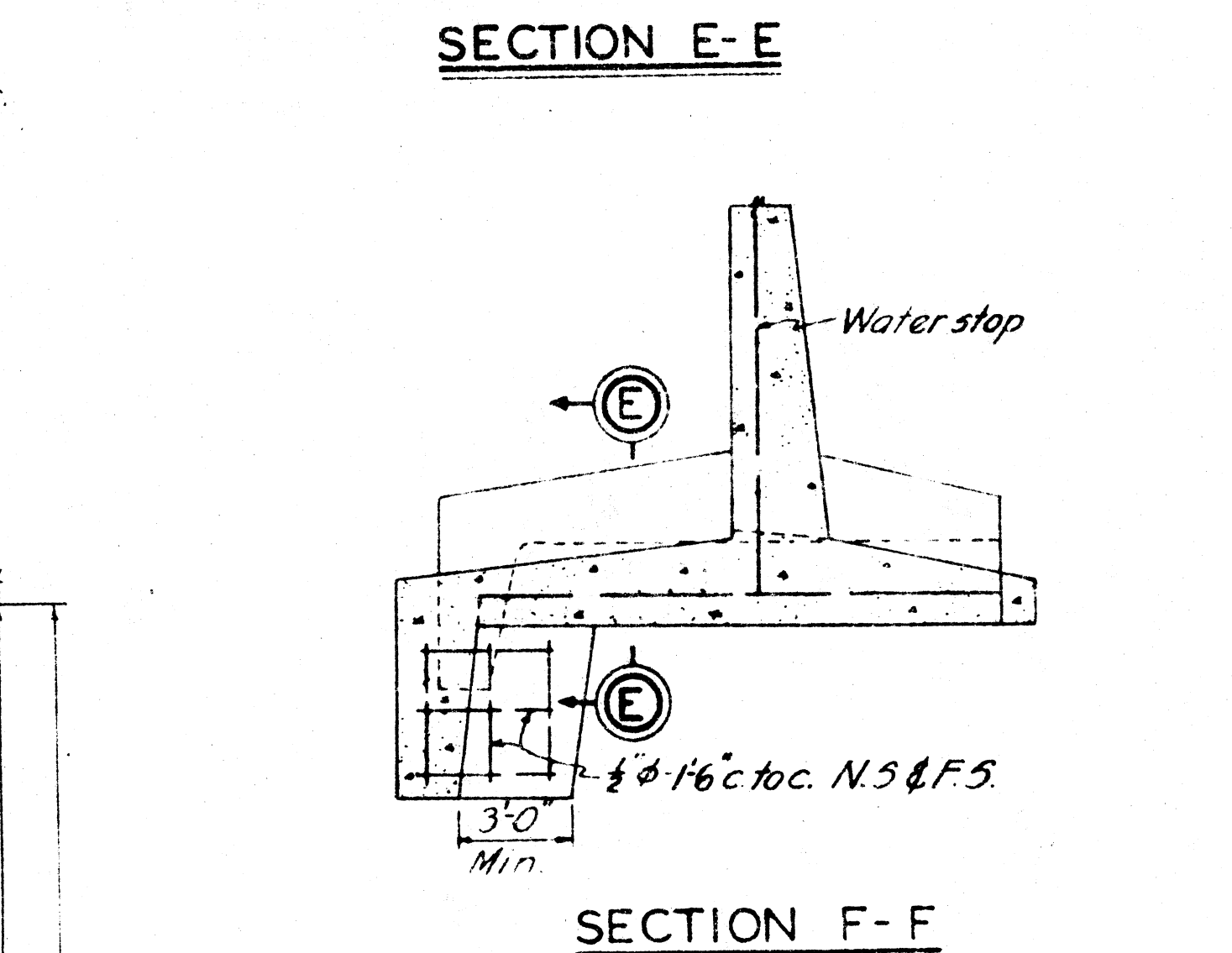
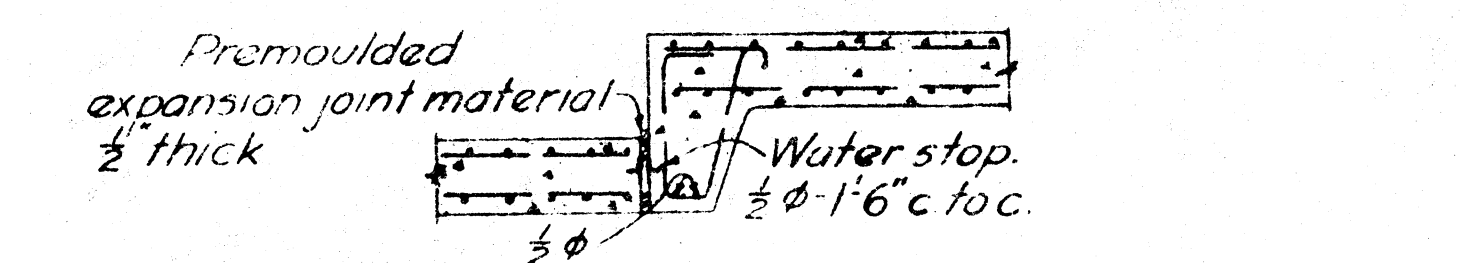
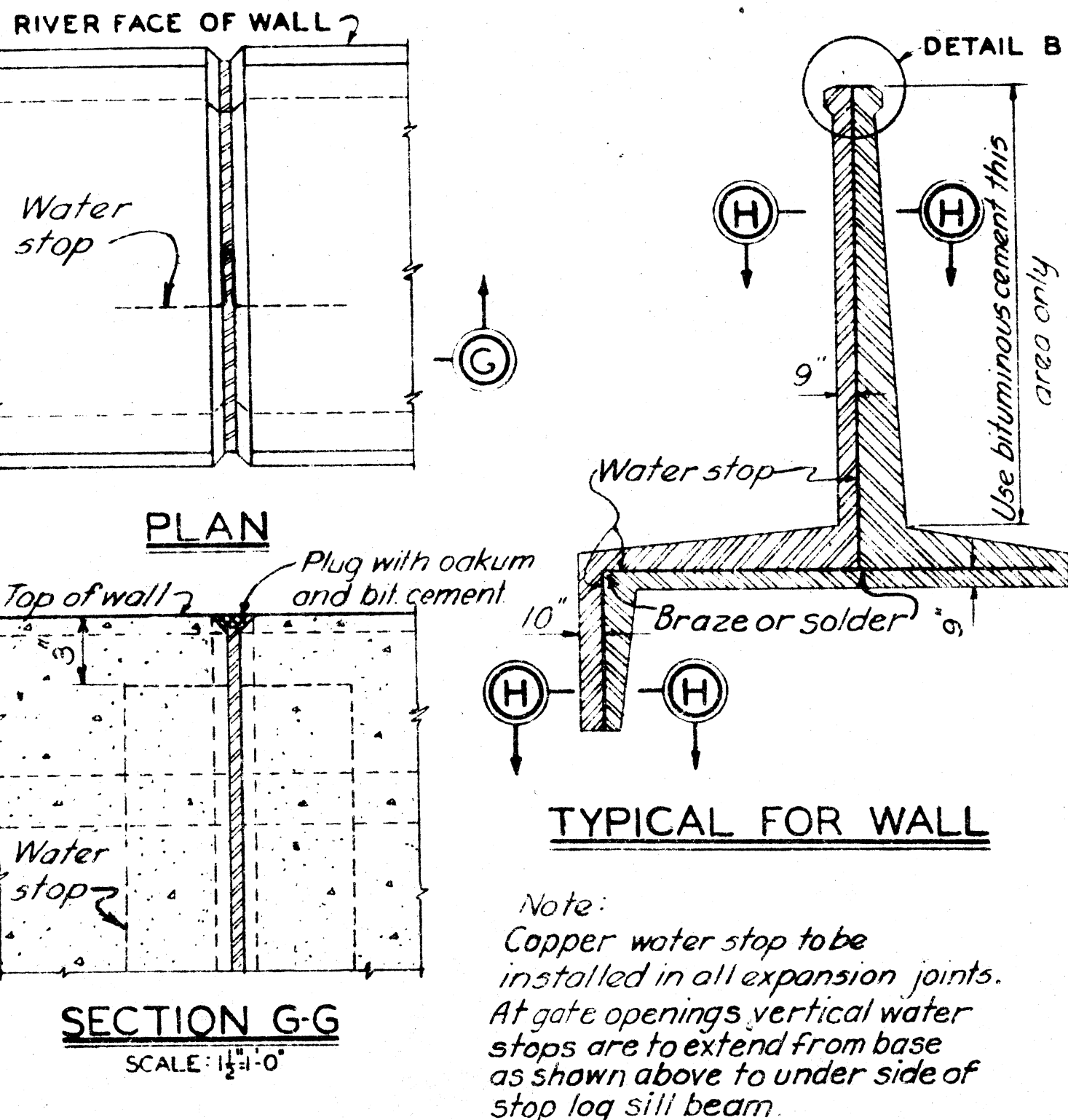
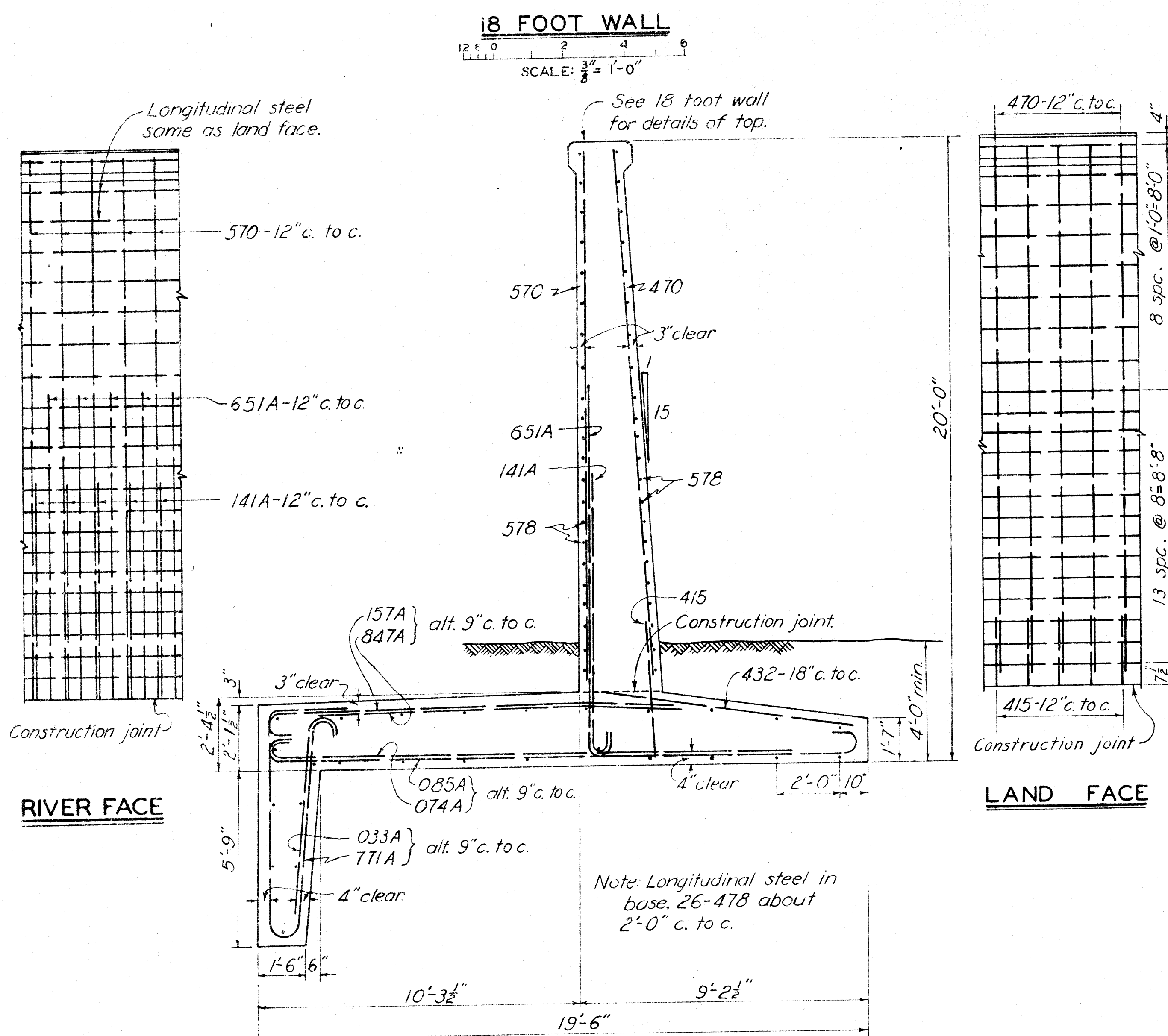
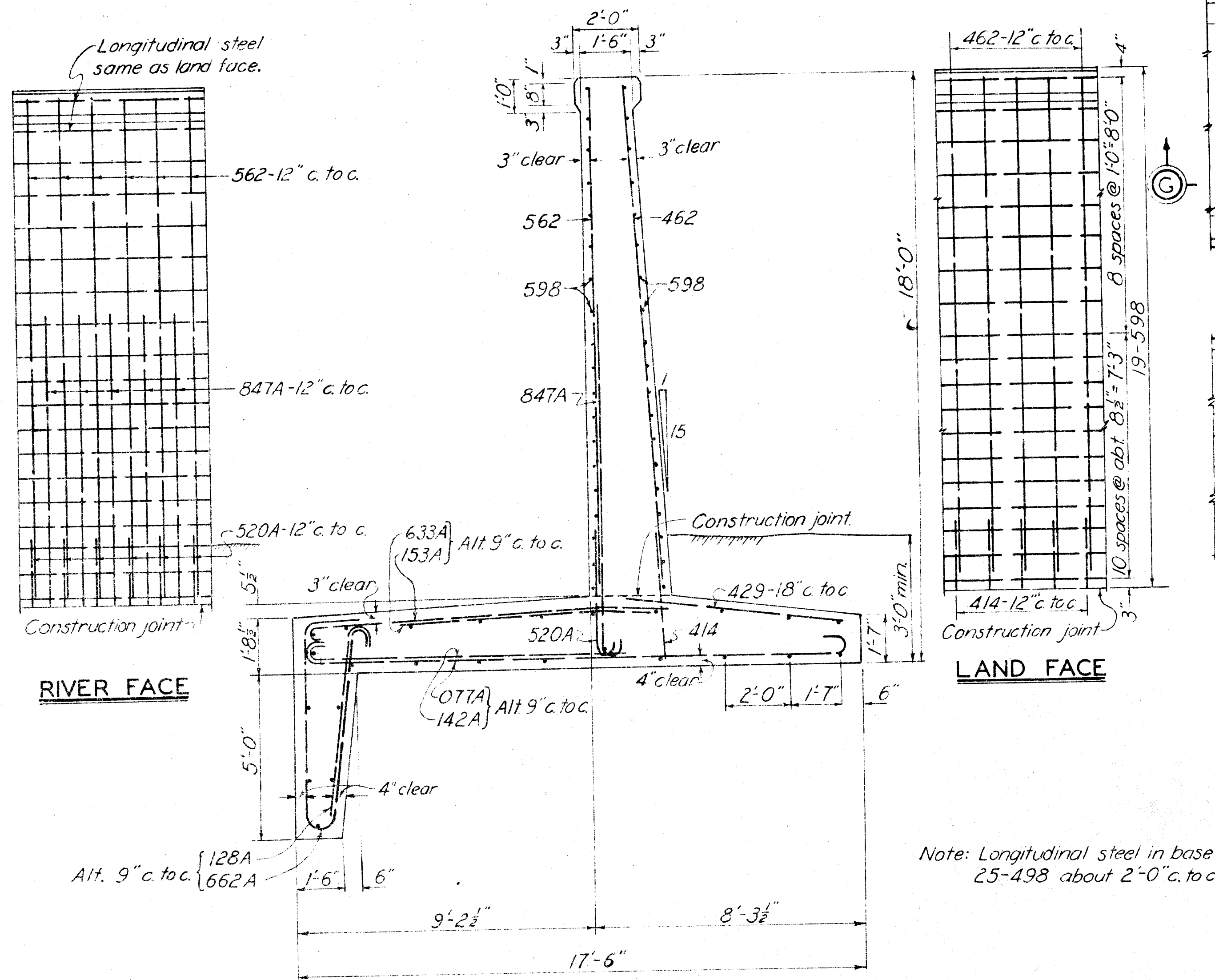
**TUSCARAWAS RIVER
LOCAL PROTECTION PROJECT
MASSILLON, OHIO
SECTION 2, UNIT 2
TYPICAL WALL SECTION
& STOP LOG STORAGE HOUSE**

DATE: OCT. 1948

SCALE: 3/4" = 1'-0"

DRAWING NUMBER: 027i-PM2-2-20/8

SHEET 17 OF 80



Note: Steel shown in reinforcing schedule for the 20 foot wall is for 20 foot monolith (two required).

NOTES

For masonry notes and explanation of reinforcing steel code, see Dwg. No. 20/1. For location of 18 ft, 20 ft, and core walls Dwg. No. 20/8.

REINFORCING SCHEDULE

18- FOOT WALL									
MARK	SIZE	LGTH	BENDING DIAGRAM	NO	UNIT WT.	TOTAL WT.			
414	3/8"	3'-6"		25	2.34	59			
429	3/8"	7'-3"		17	4.84	82			
462	3/8"	15'-6"		25	10.35	259			
498	3/8"	24'-6"		25	16.37	409			
520A	3/8"	4'-0"		25	4.17	104			
562	3/8"	15'-6"		25	16.17	404			
598	3/8"	24'-6"		38	25.55	971			
633A	3/8"	8'-3"		17	12.39	211			
662A	3/8"	15'-6"		17	23.28	396			
847A	1"	11'-9"		25	31.37	784			
128A	1"	7'-0"		17	23.80	405			
142A	1"	10'-6"		17	35.70	607			
153A	1"	13'-3"		17	45.05	766			
077A	1 1/4"	19'-3"		17	102.28	1,739			
						Total	7,196		

20-FOOT WALL									
MARK	SIZE	LGTH	BENDING DIAGRAM	NO	UNIT WT.	TOTAL WT.			
415	3/8"	3'-9"		20	2.51	50			
432	3/8"	8'-0"		14	5.34	75			
470	3/8"	17'-6"		20	11.69	234			
478	3/8"	19'-6"		26	13.03	339			
570	3/8"	17'-6"		20	18.25	365			
578	3/8"	19'-6"		44	20.34	895			
651A	3/8"	12'-9"		20	19.15	383			
771A	1 1/4"	17'-9"		14	36.28	508			
847A	1"	11'-9"		13	31.37	408			
141A	1"	10'-3"		20	34.85	697			
157A	1"	14'-3"		14	48.45	678			
033A	1 1/4"	8'-3"		13	43.83	570			
074A	1 1/4"	18'-6"		13	98.29	1,278			
085A	1 1/4"	21'-3"		14	112.90	1,581			
						Total	8,061		

20-FOOT CORE WALL									
MARK	SIZE	LGTH	BENDING DIAGRAM	NO	UNIT WT.	TOTAL WT.			
517	3/8"	4'-3"		26	4.43	115			
519	3/8"	4'-9"		26	4.95	129			
533	3/8"	8'-3"		4	8.60	34			
574	3/8"	18'-6"		10	19.30	193			
578	3/8"	19'-6"		32	20.34	651			
678	3/8"	19'-6"		40	29.29	1,172			
						Total	2,294		

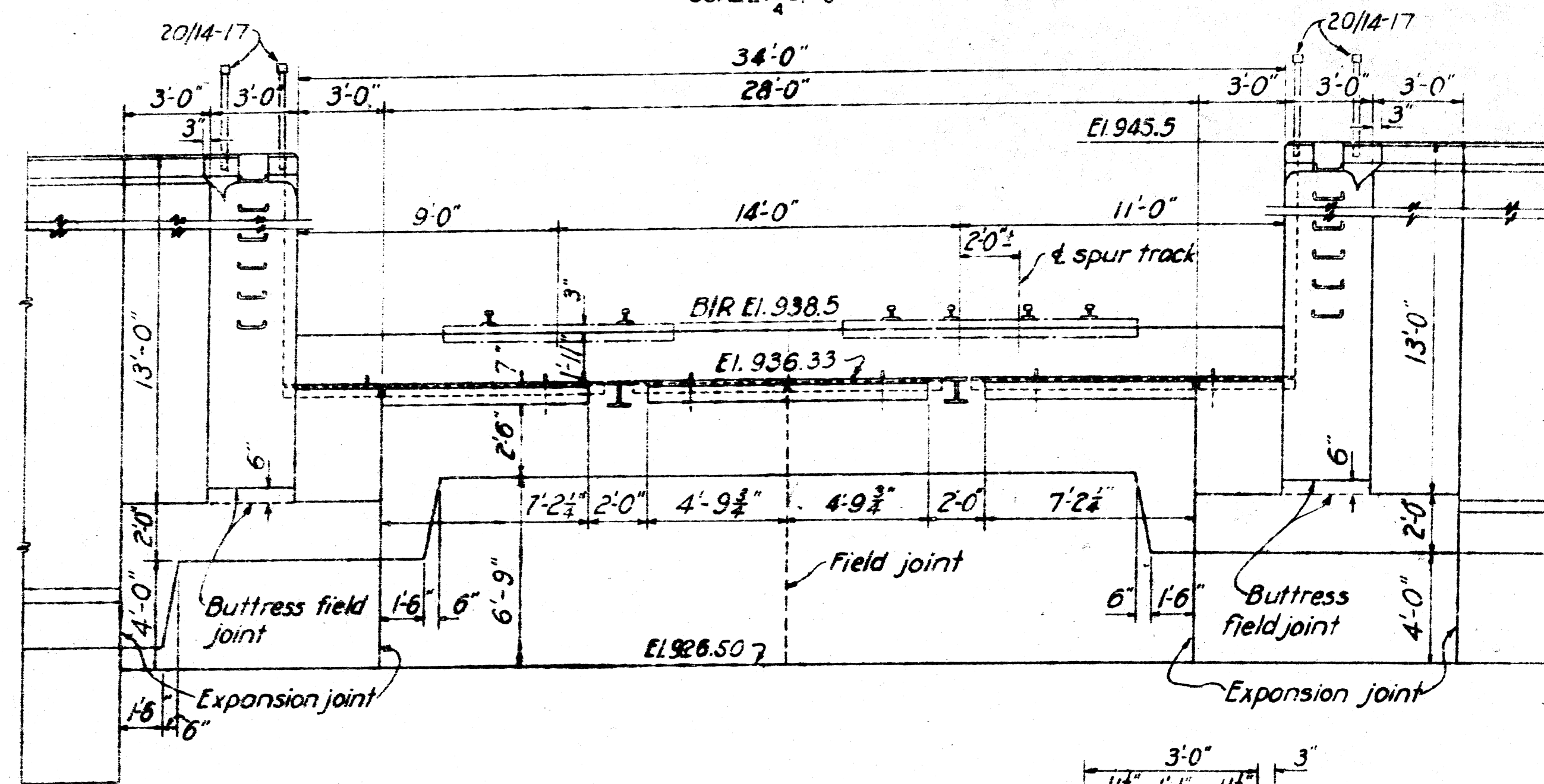
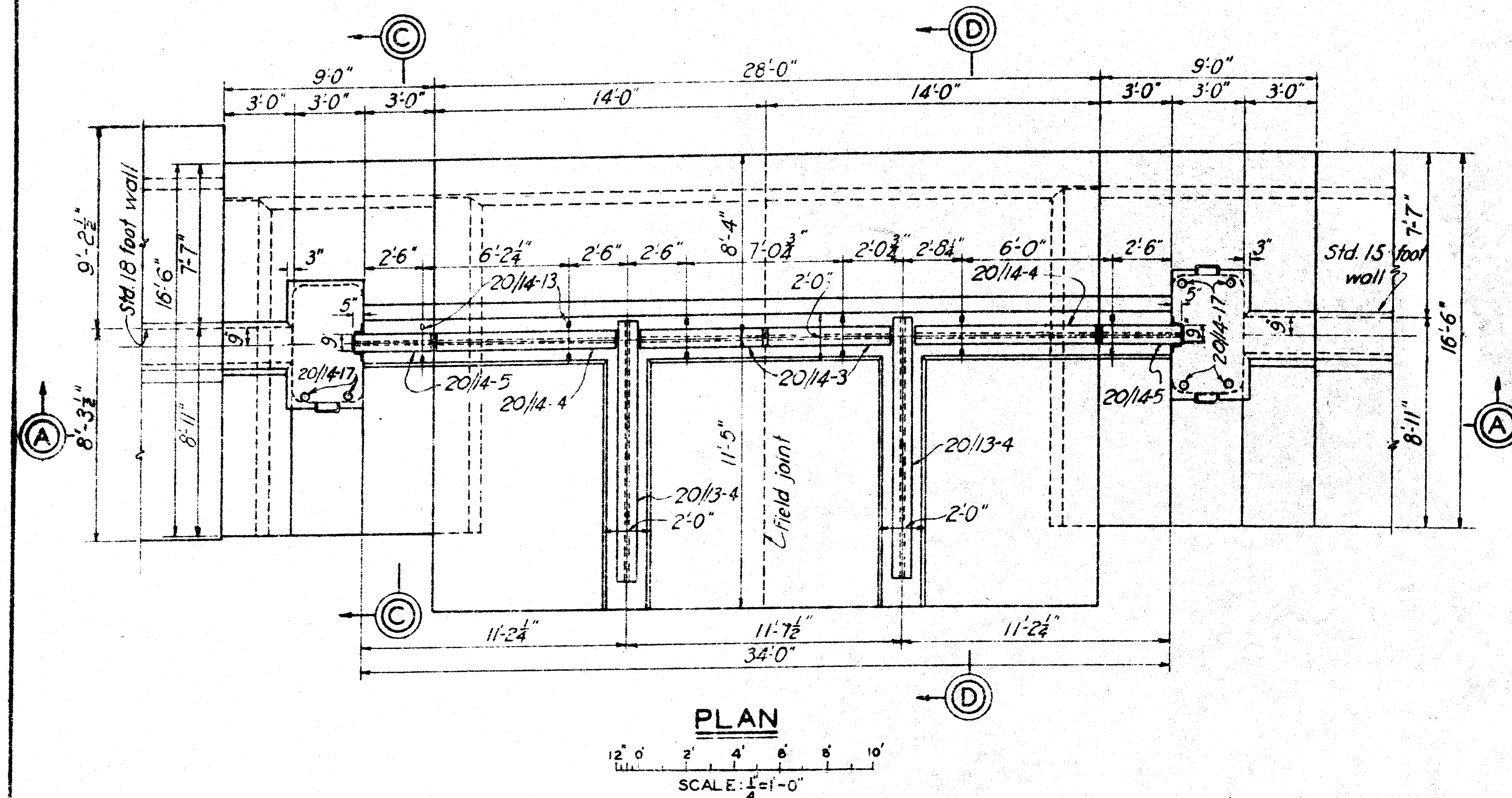
22- FOOT CORE WALL									
MARK	SIZE	LGTH	BENDING DIAGRAM	NO	UNIT WT.	TOTAL WT.			
517	3/8"	4'-3"		30	4.43	133			
519	3/8"	4'-9"		30	4.95	149			
534	3/8"	8'-6"		4	8.87	36			
578	3/8"	19'-6"		36	20.34	732			
582	3/8"	20'-6"		10	21.38	214			
686	3/8"	21'-6"		40	32.29	1,292			
						Total	2,556		

DEPARTMENT OF THE ARMY
CORPS OF ENGINEERS
OFFICE OF THE DISTRICT ENGINEER
HUNTINGTON, W. VA.

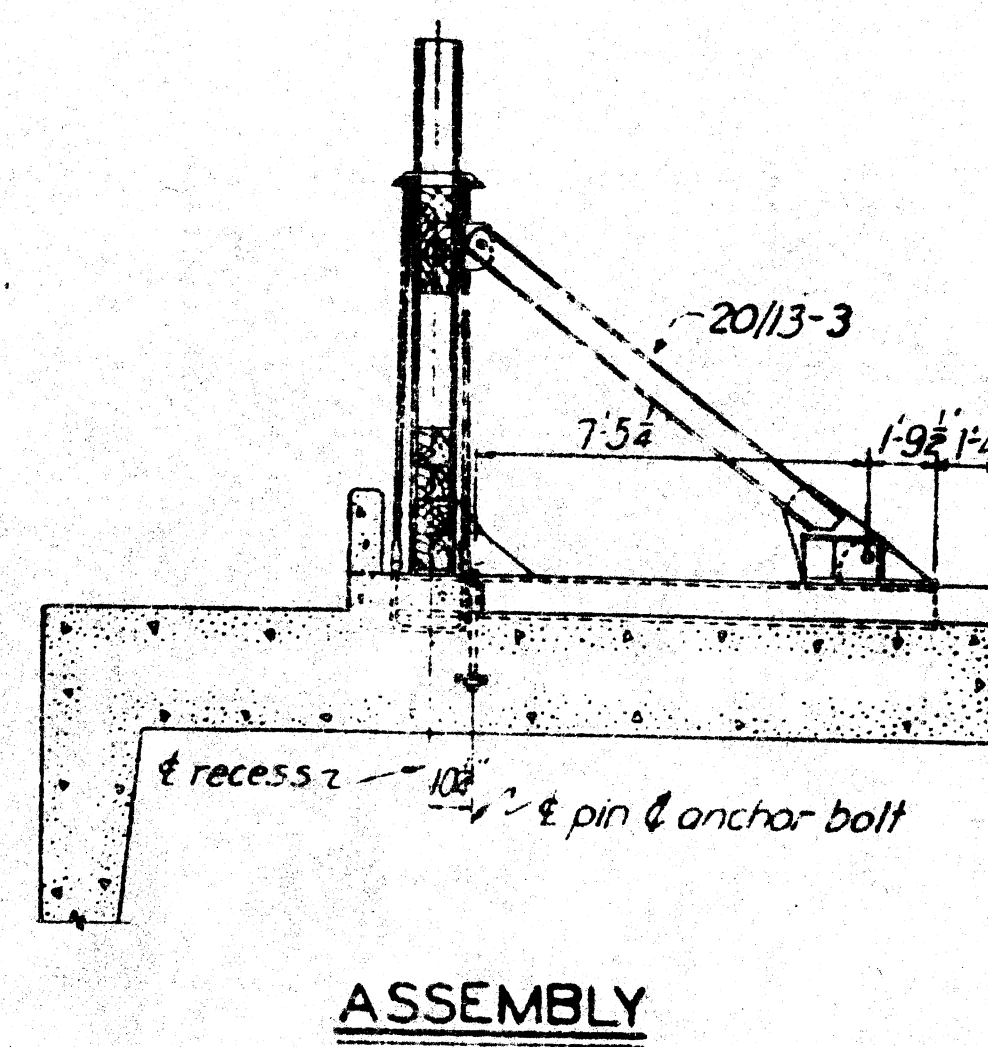
TUSCARAWAS RIVER
LOCAL PROTECTION PROJECT
MASSILLON, OHIO
SECTION 2, UNIT 2
TYPICAL WALL SECTIONS
& MISCELLANEOUS WALL DETAILS

DRAWN BY: E.S.W.
TRACED BY: B.T.C.
CHECKED BY: G.O.S.
SUBMITTED BY: [Signature]
APPROVED: [Signature]
APPROVED FOR: [Signature]
DATE: OCT 19 48

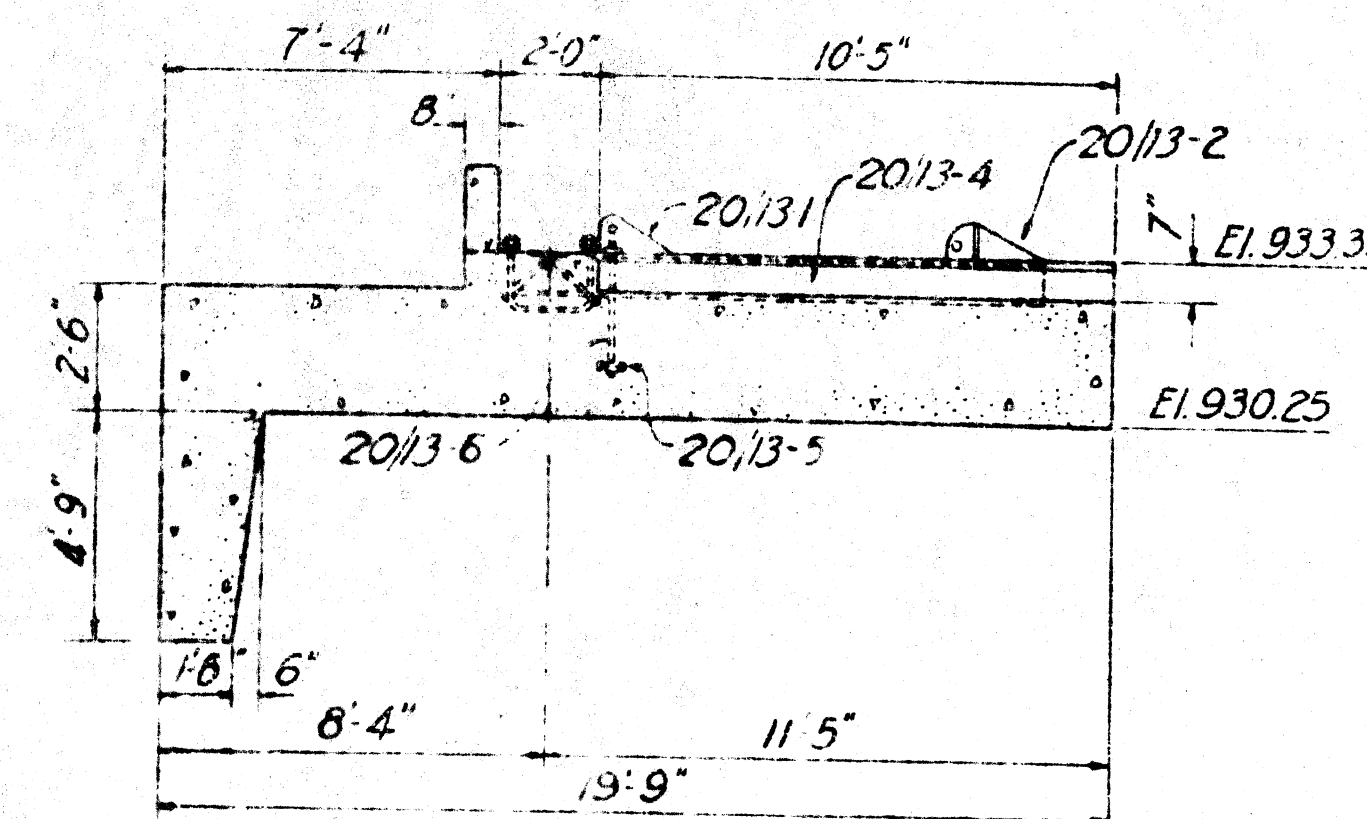
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DRAWING NUMBER
027i-PM2-2-20/9
SHEET 16 OF 60



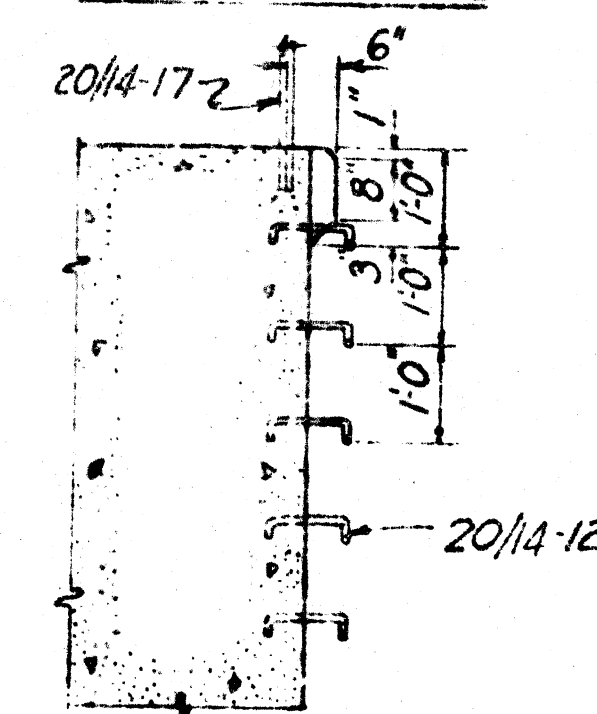
SECTION A-A
B.& O.R.R. OPENING



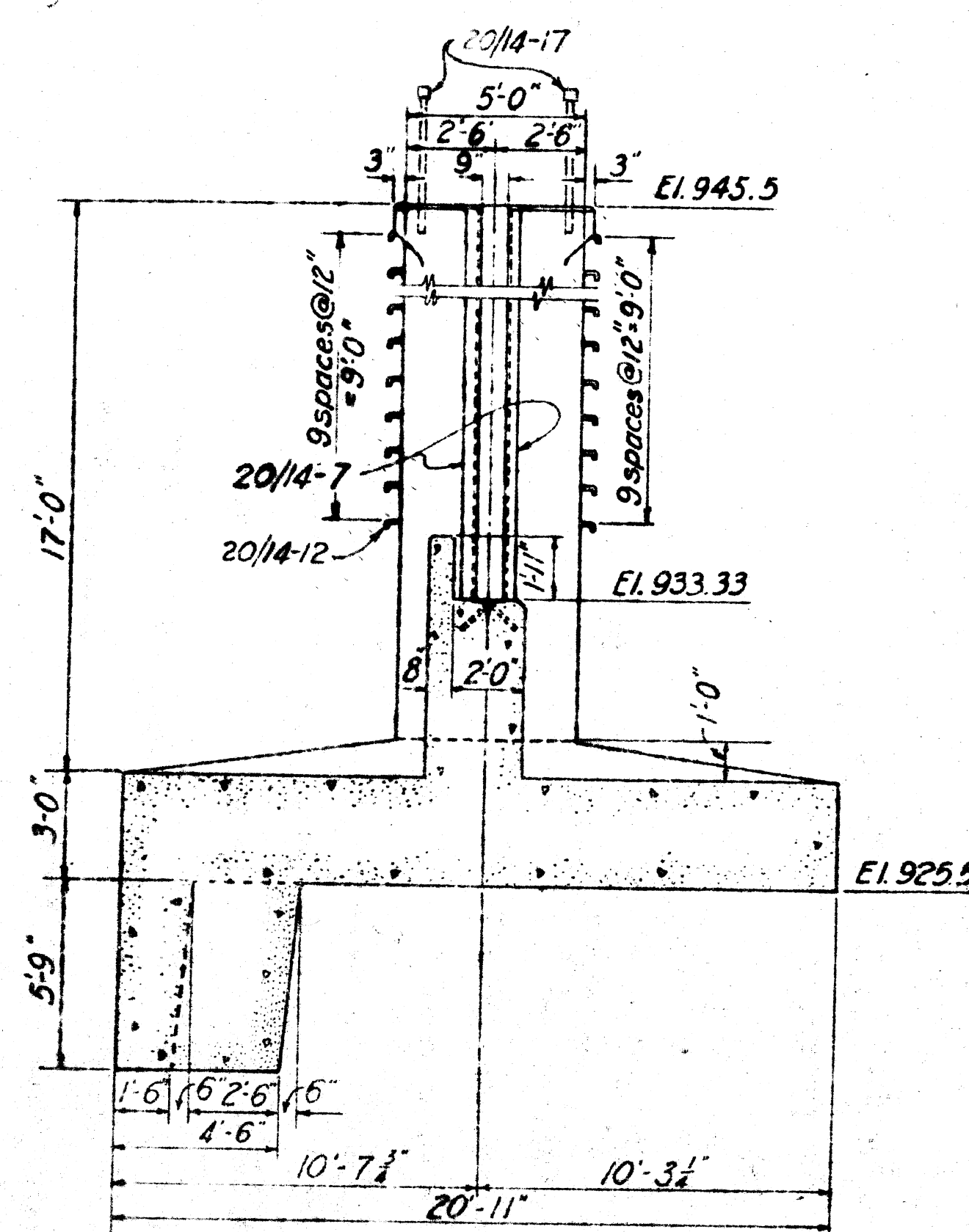
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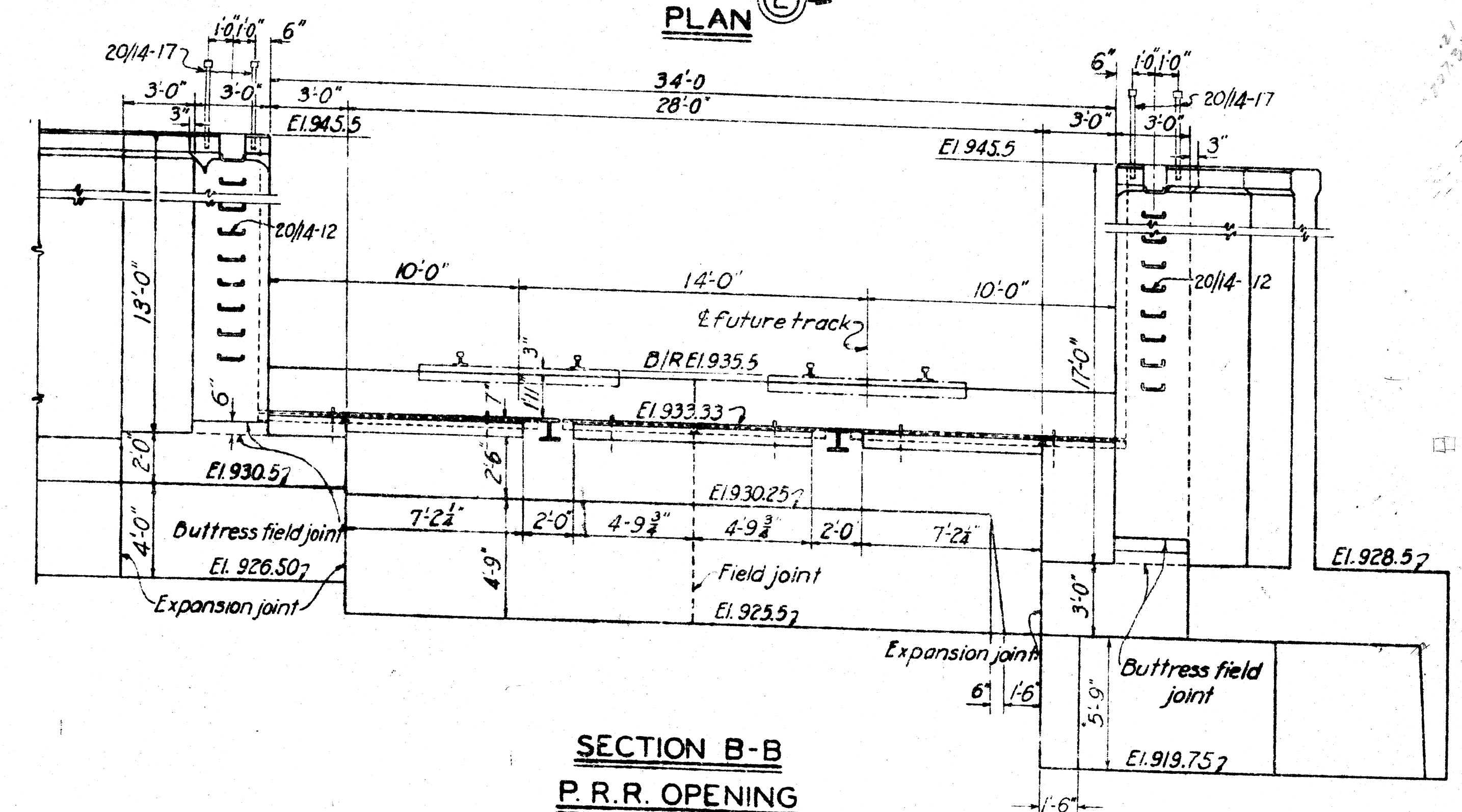
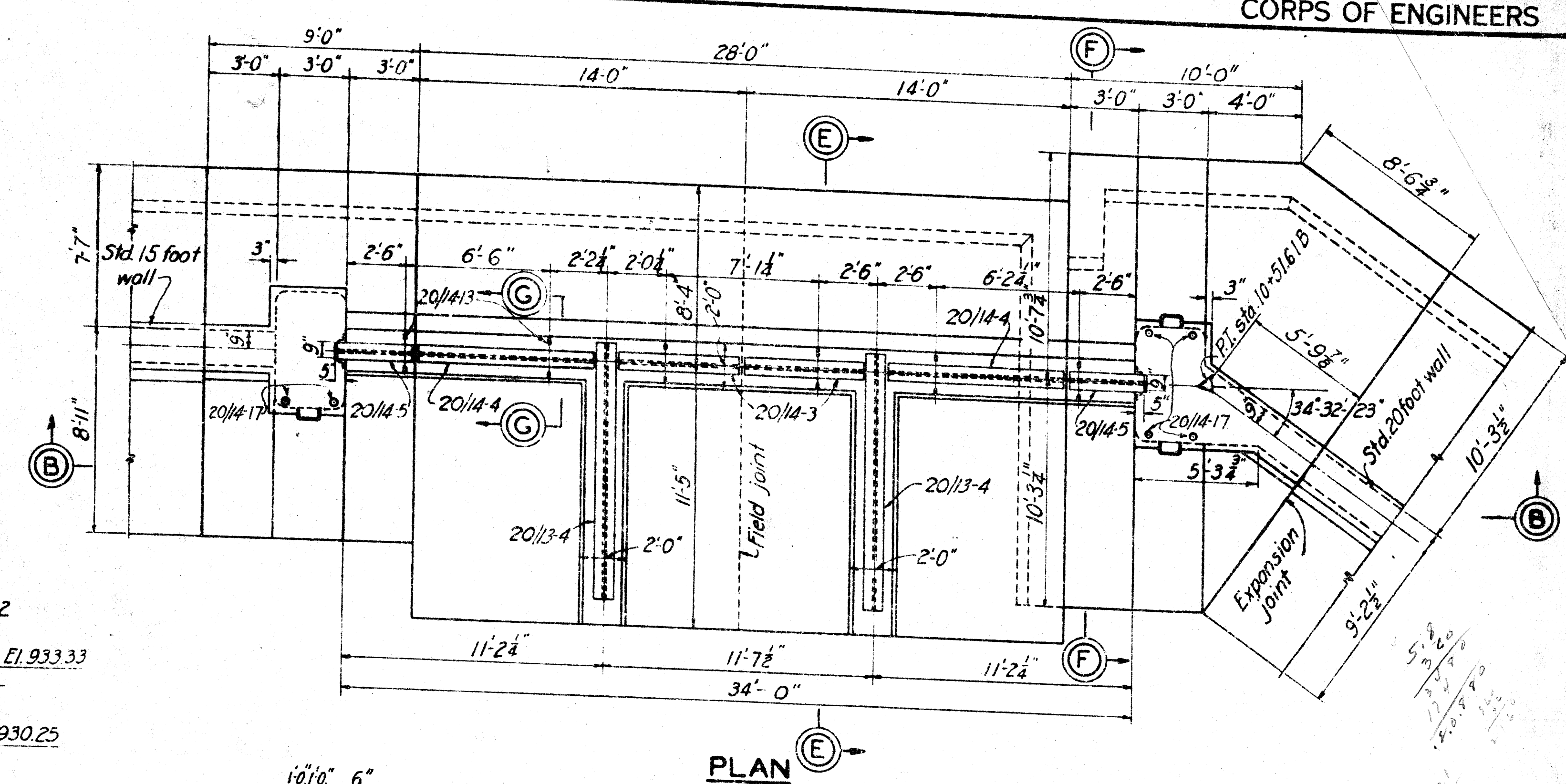
SECTION E-E



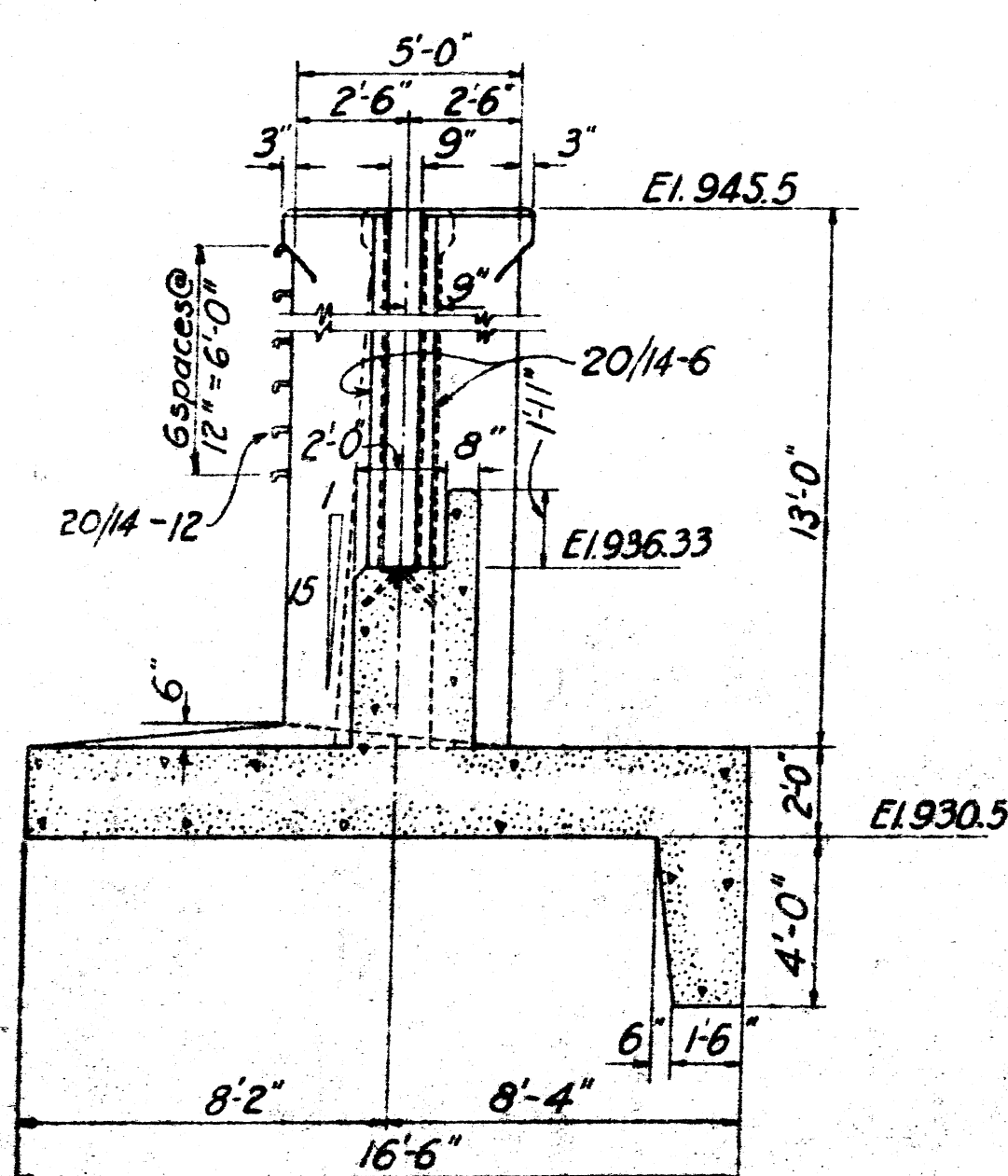
SECTION H-H
SCALE $\frac{1}{2}'' = 1'-0''$



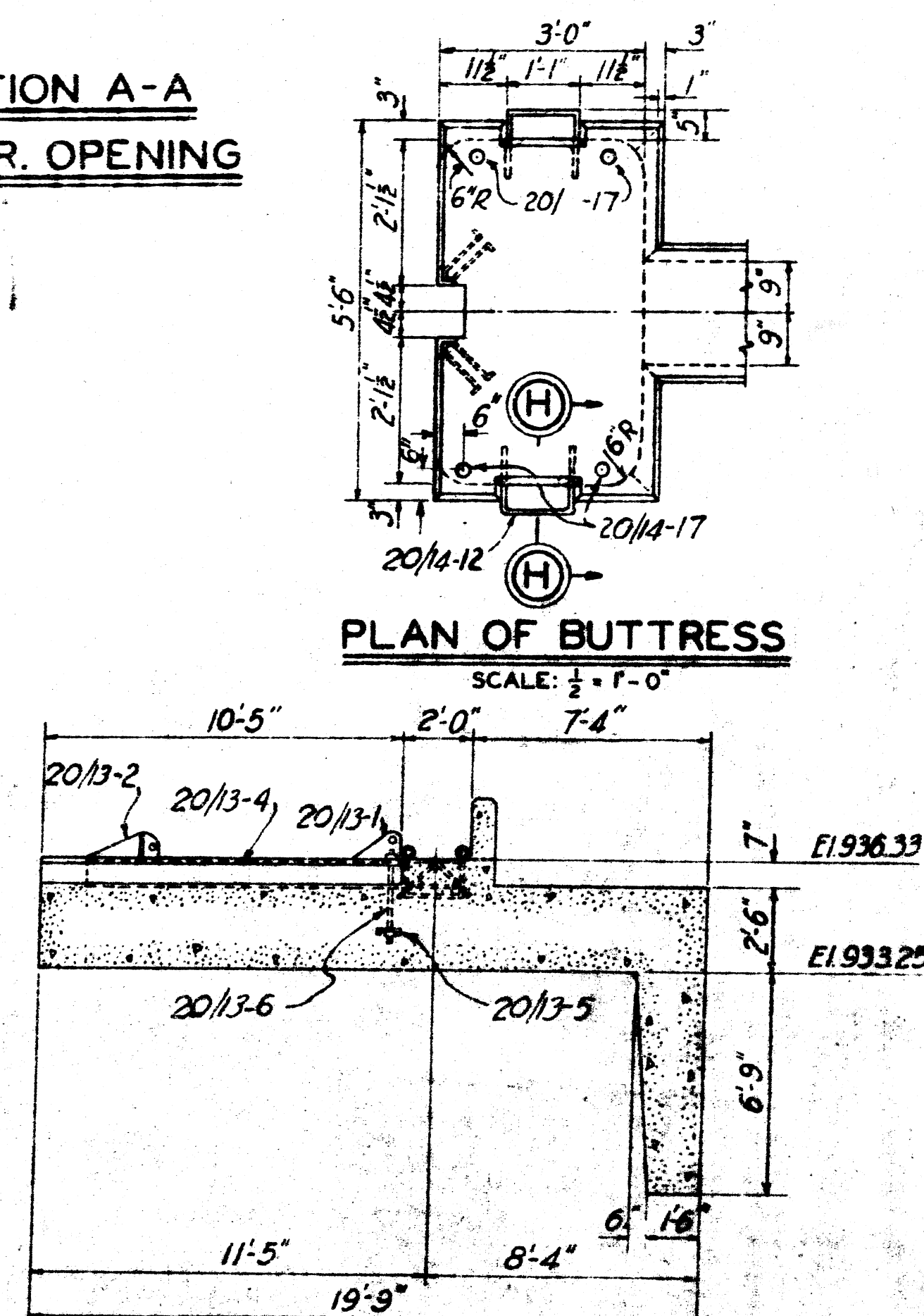
SECTION F-F



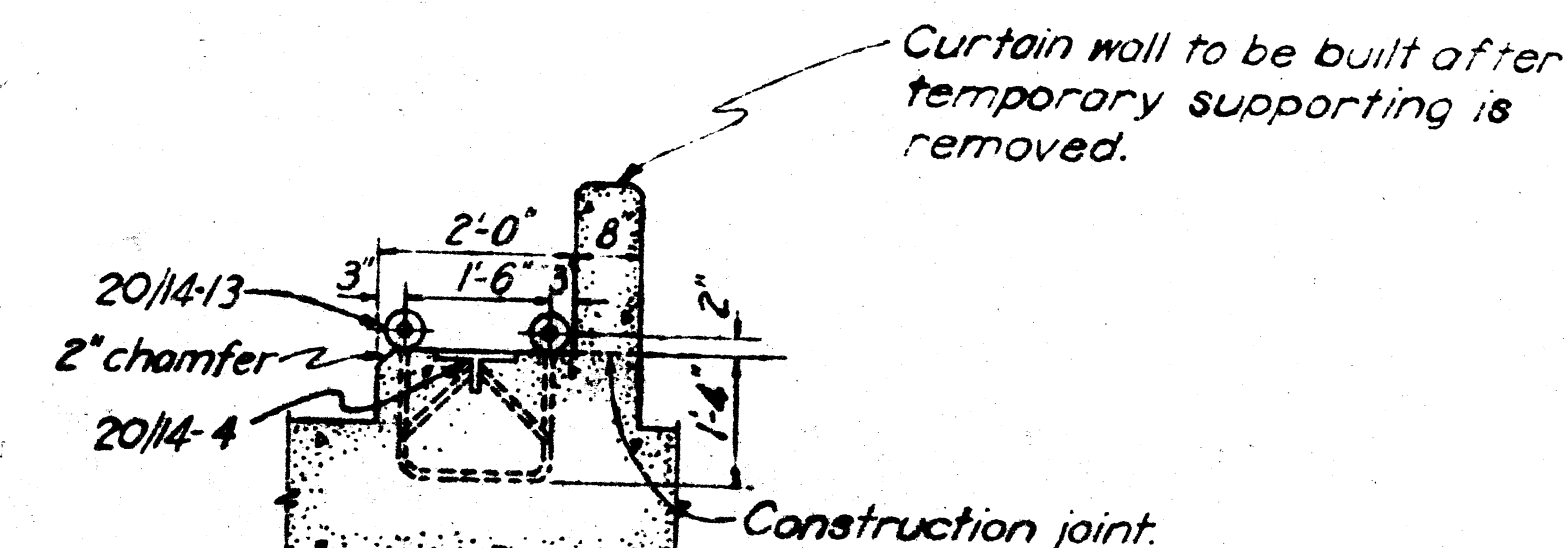
SECTION B-B
P. R. R. OPENING



SECTION C-C



SECTION D-D

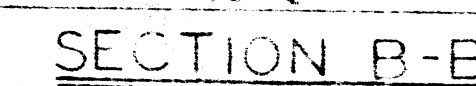
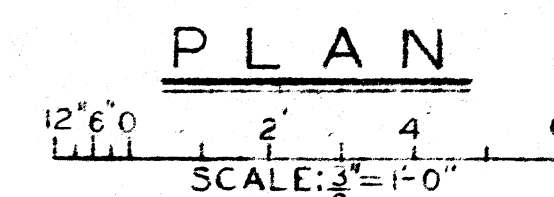


SECTION G-G
SCALE: $\frac{1}{2}" = 1'-0"$

NOTES

Chamber all exposed edges 1" unless otherwise noted.
For reinforcing steel, see Dwgs. Nos. 20/11 & 20/12.
For steel details, see Dwgs. Nos. 20/13 & 20/14.
For general plan, see Dwg. No. 16/1.
For location plan, see Dwg. No. 20/3.
For foundation treatment, see Dwg. No. 16/6.
For recommended track shoring, see Dwg. Nos. 20/15 & 20/16.

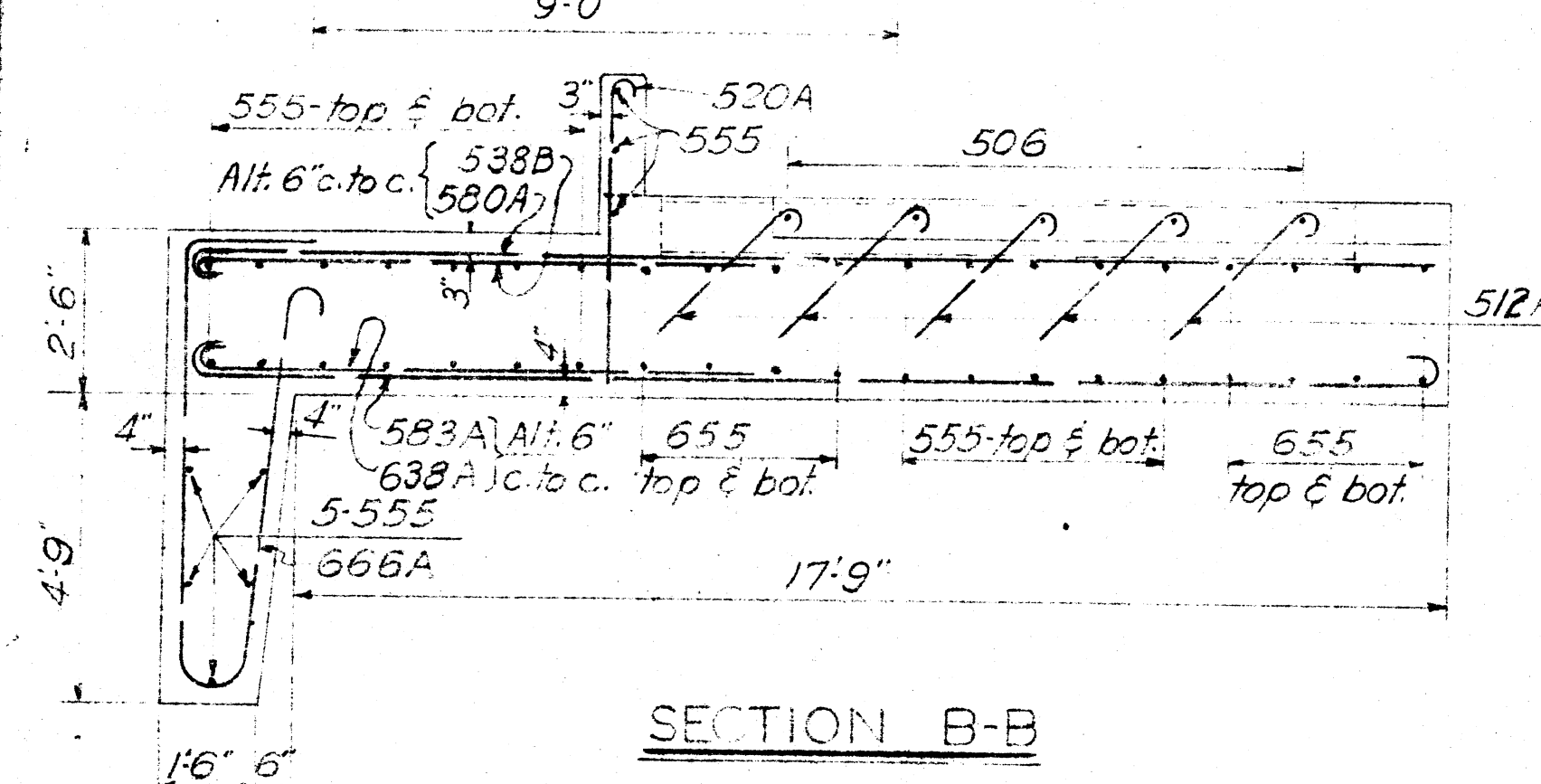
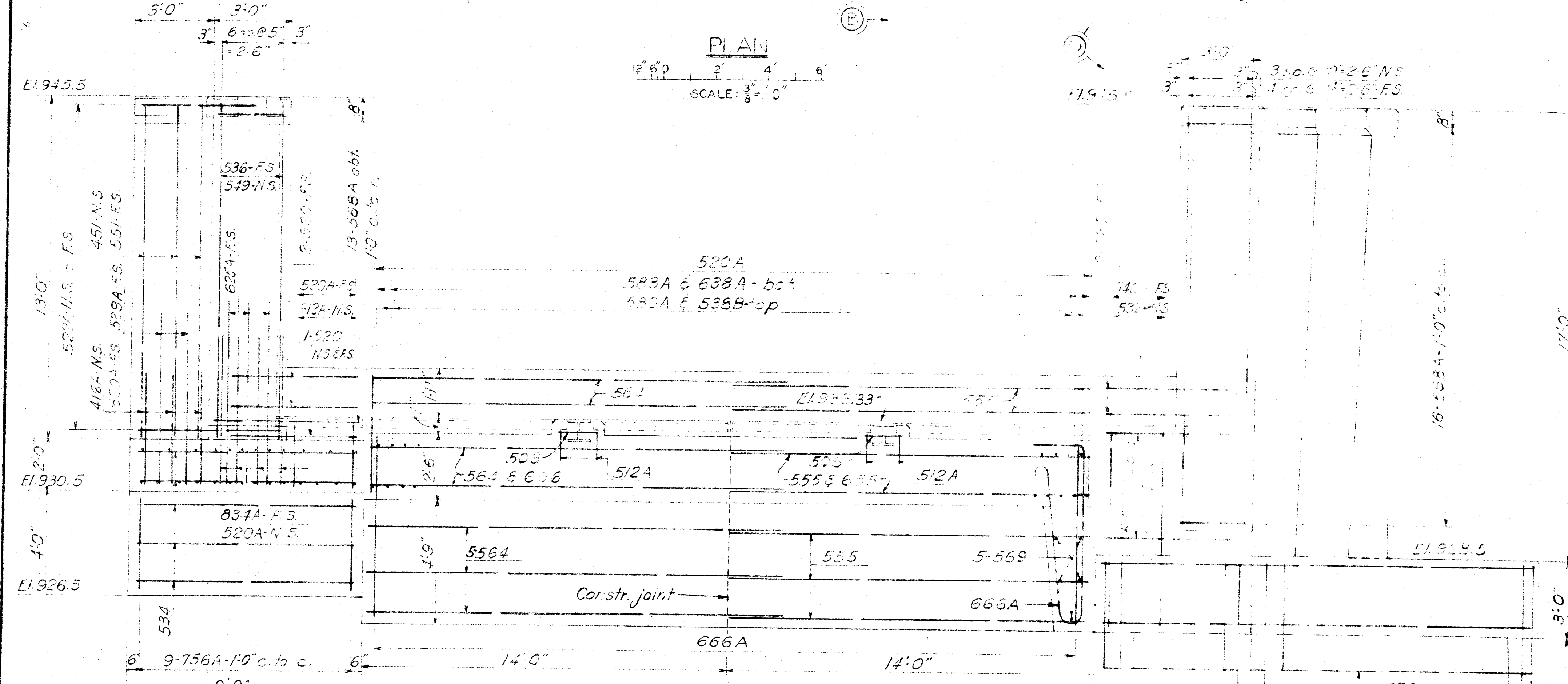
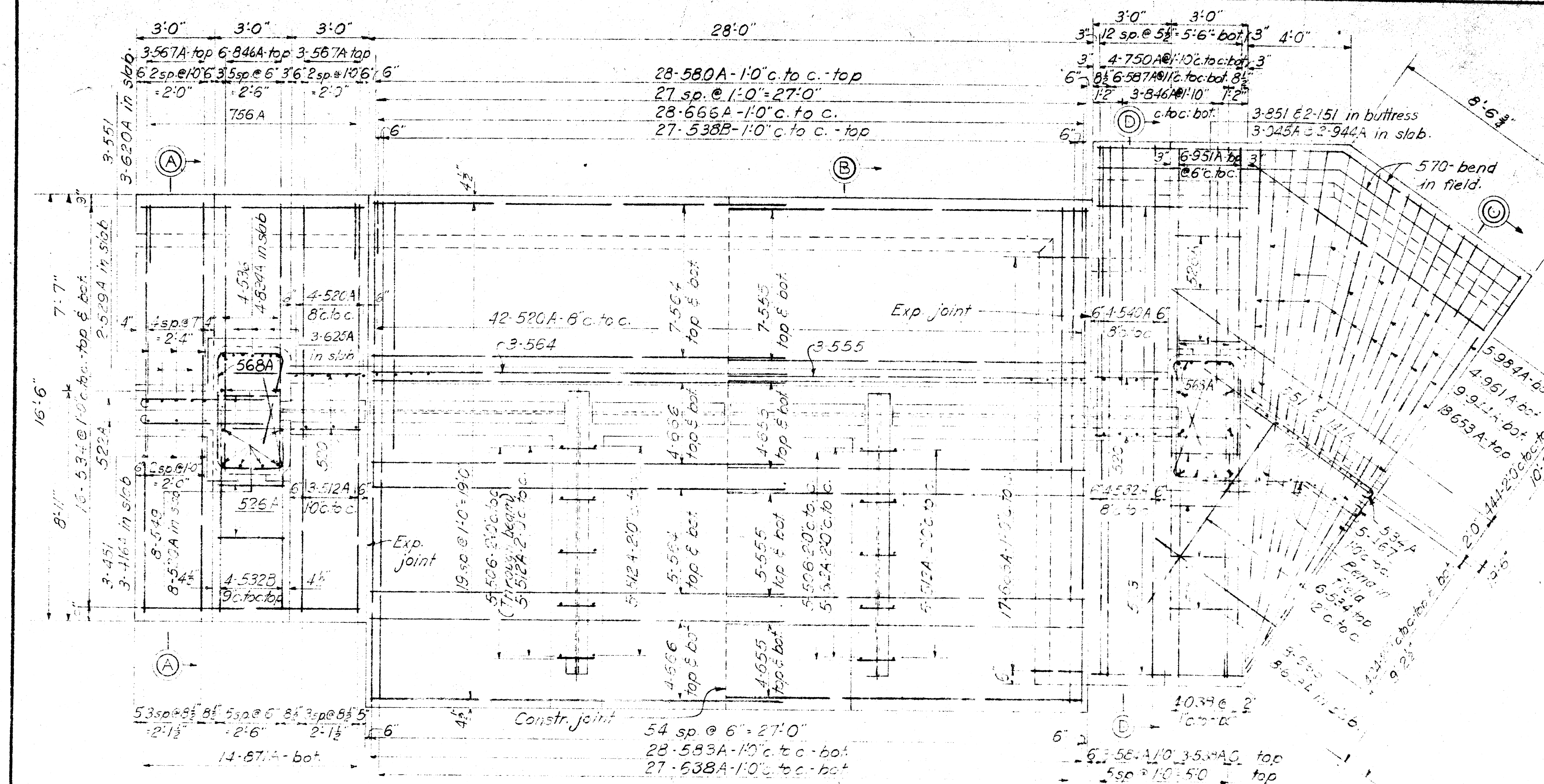
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TRACED BY: M.C. & C.C.			
CHECKED BY: E.S.W. & N.J.B.			
SUBMITTED BY: <i>[Signature]</i> CHIEF ENG. DIV.			
APPROVED: <i>[Signature]</i> CHIEF ENG. ASST.		APPROVED: <i>[Signature]</i> COL. C.E., DISTRICT ENGINEER	
APPROVED FOR: 		SCALE: $\frac{1}{4}'' = 1' - 0''$ DRAWING NUMBER 0271-PM2-2-20/10 SHEET 19 OF 80	SPEC. NO.
DATE: 10-20-48			

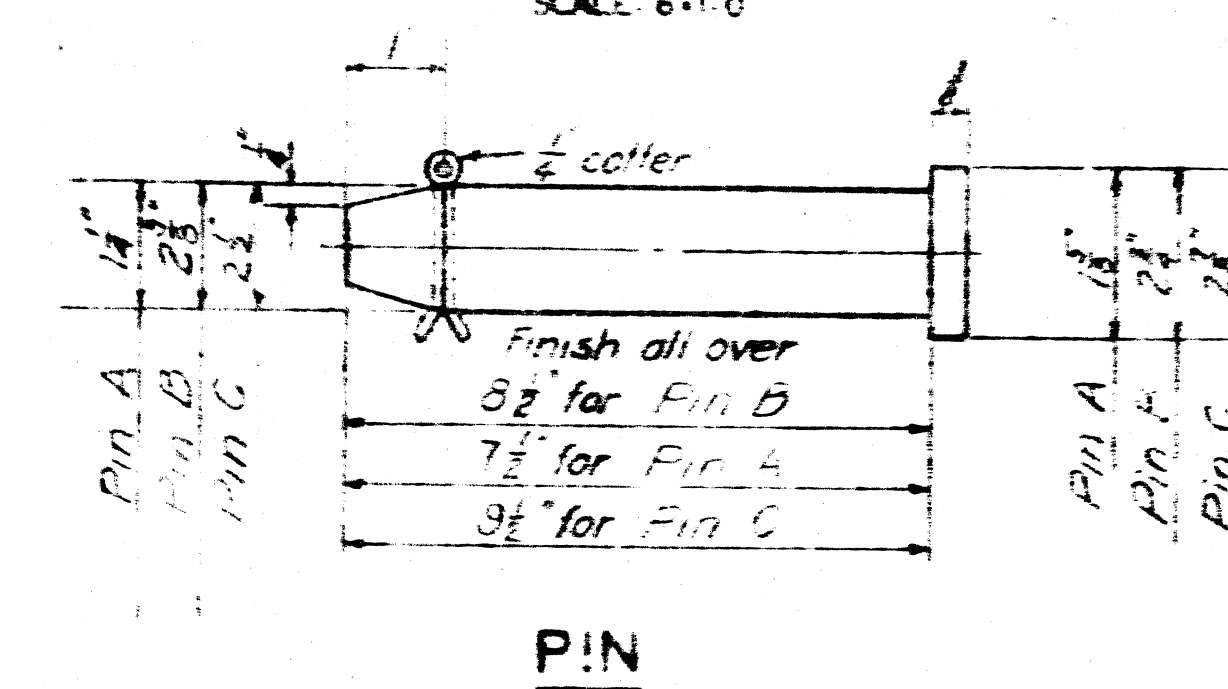
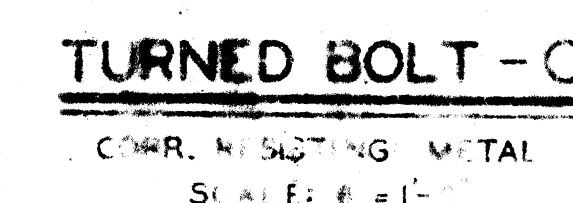
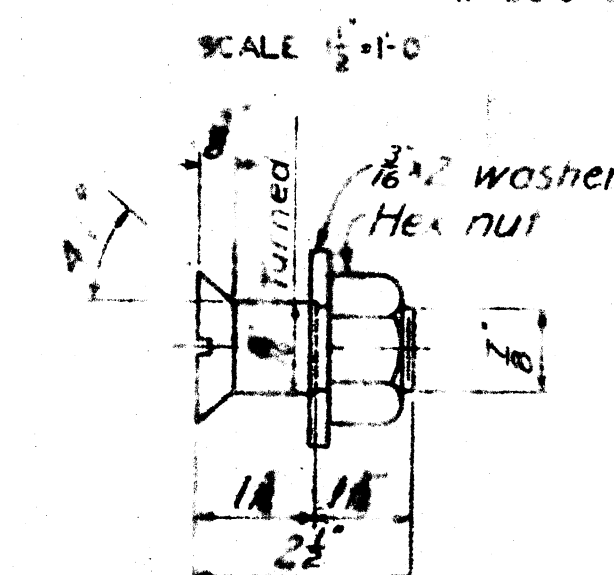
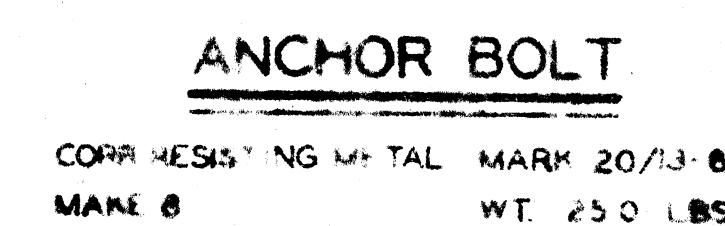
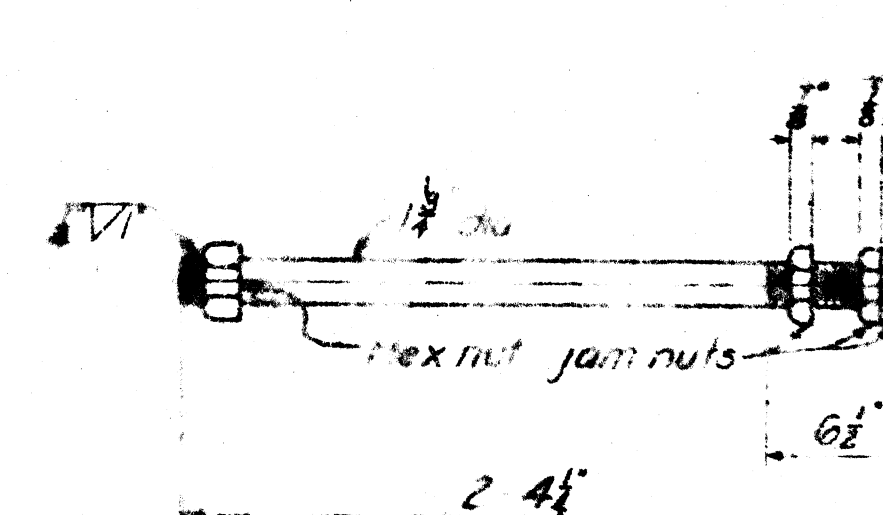
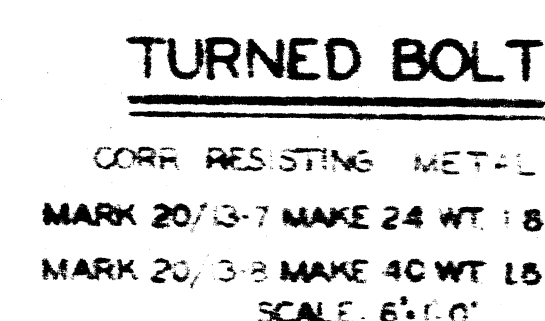
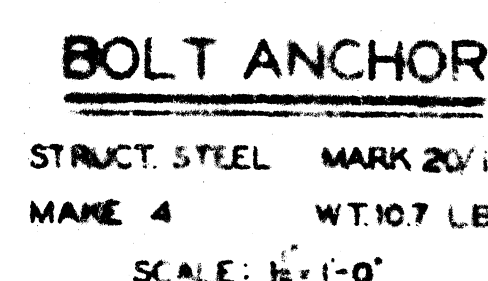
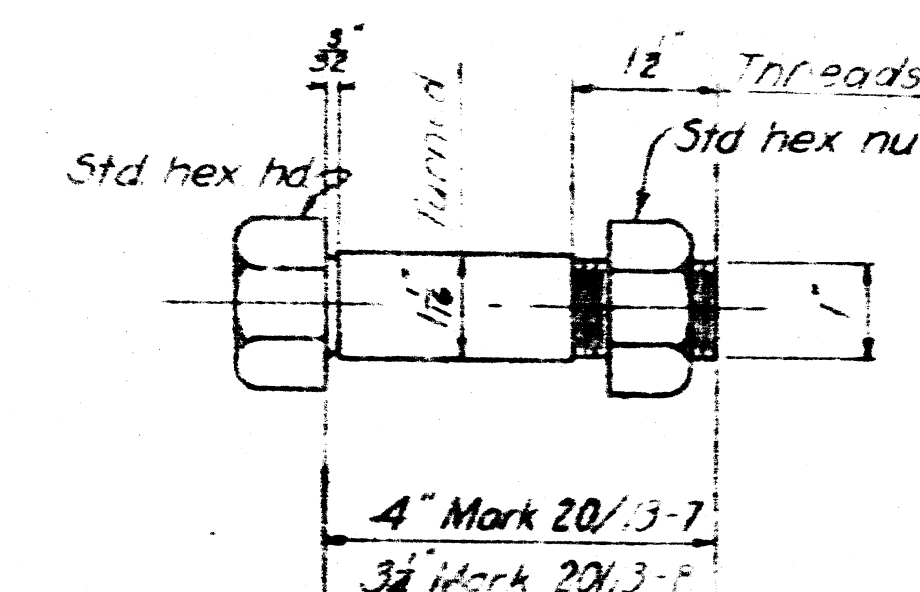
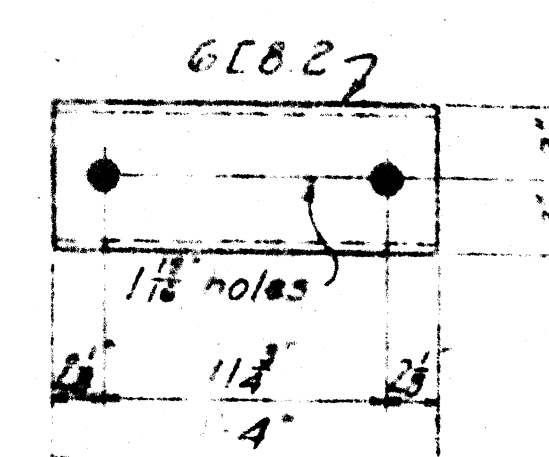
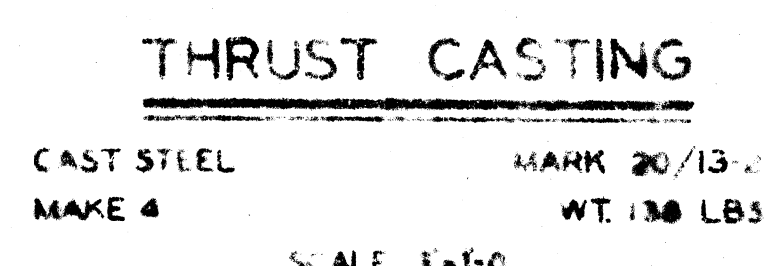
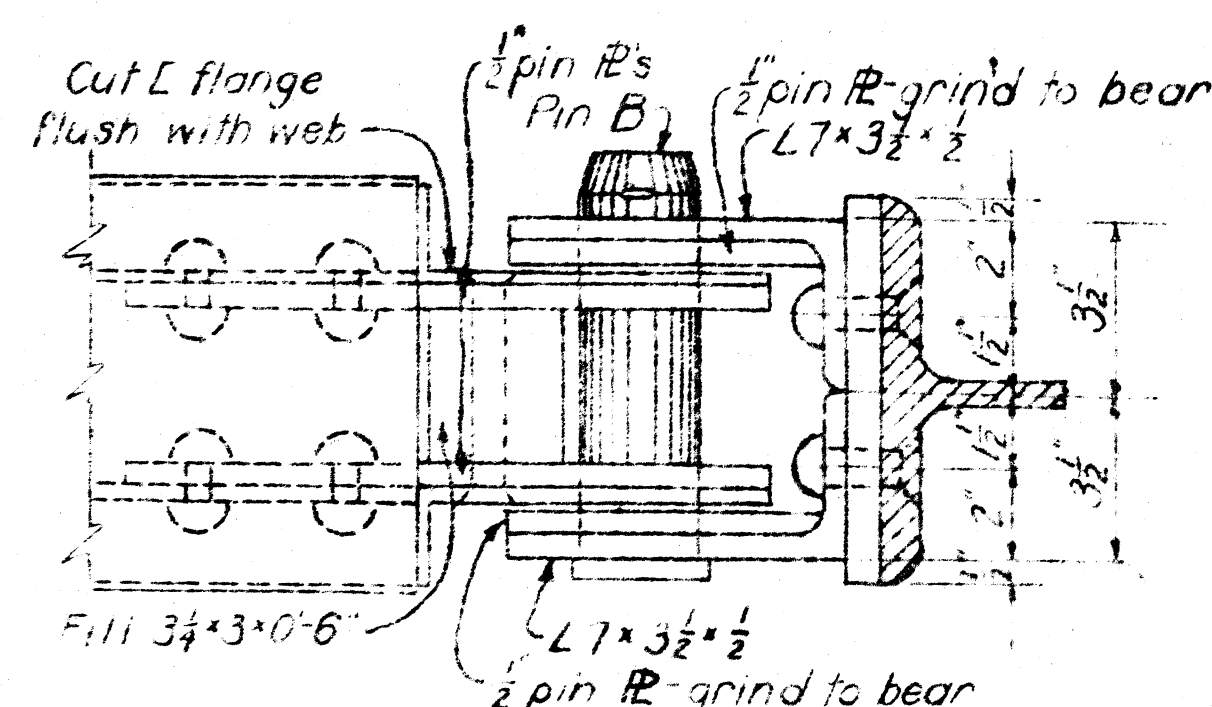
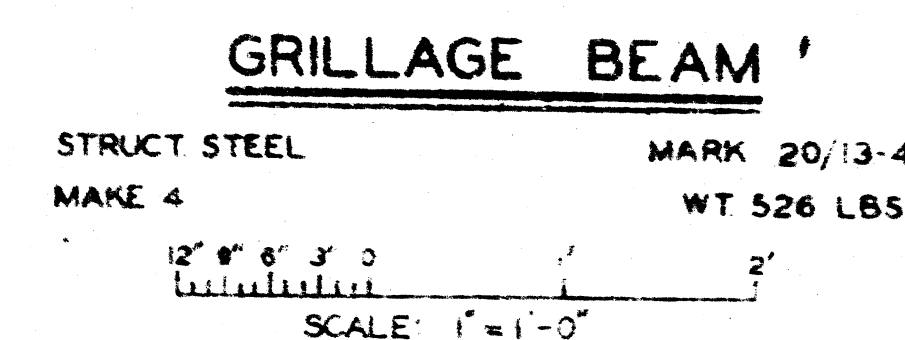
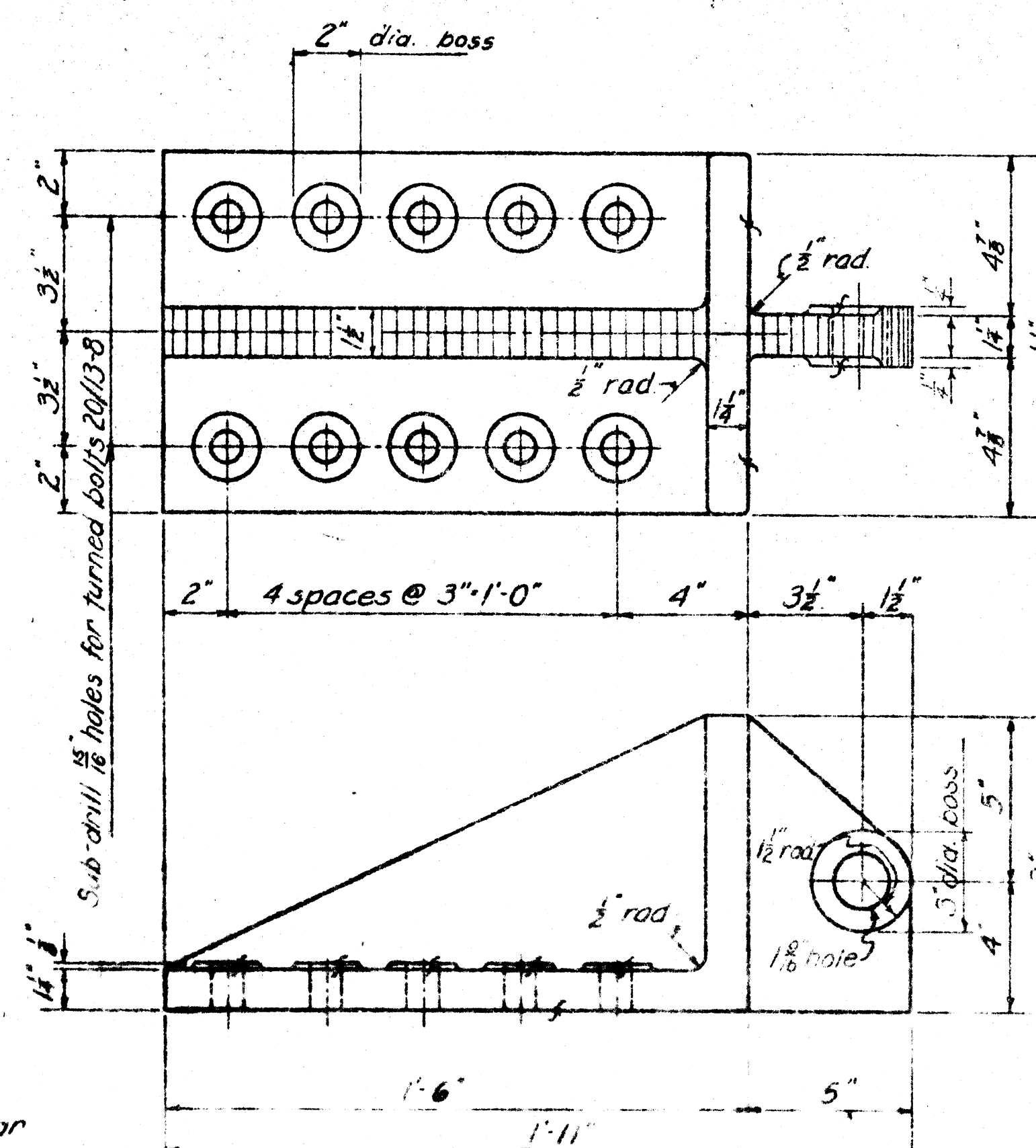


NOTES

For masonry notes and explanation of reinforcing steel code, see Dwg. No. 20/1
For masonry details, see Dwg. No. 20/10

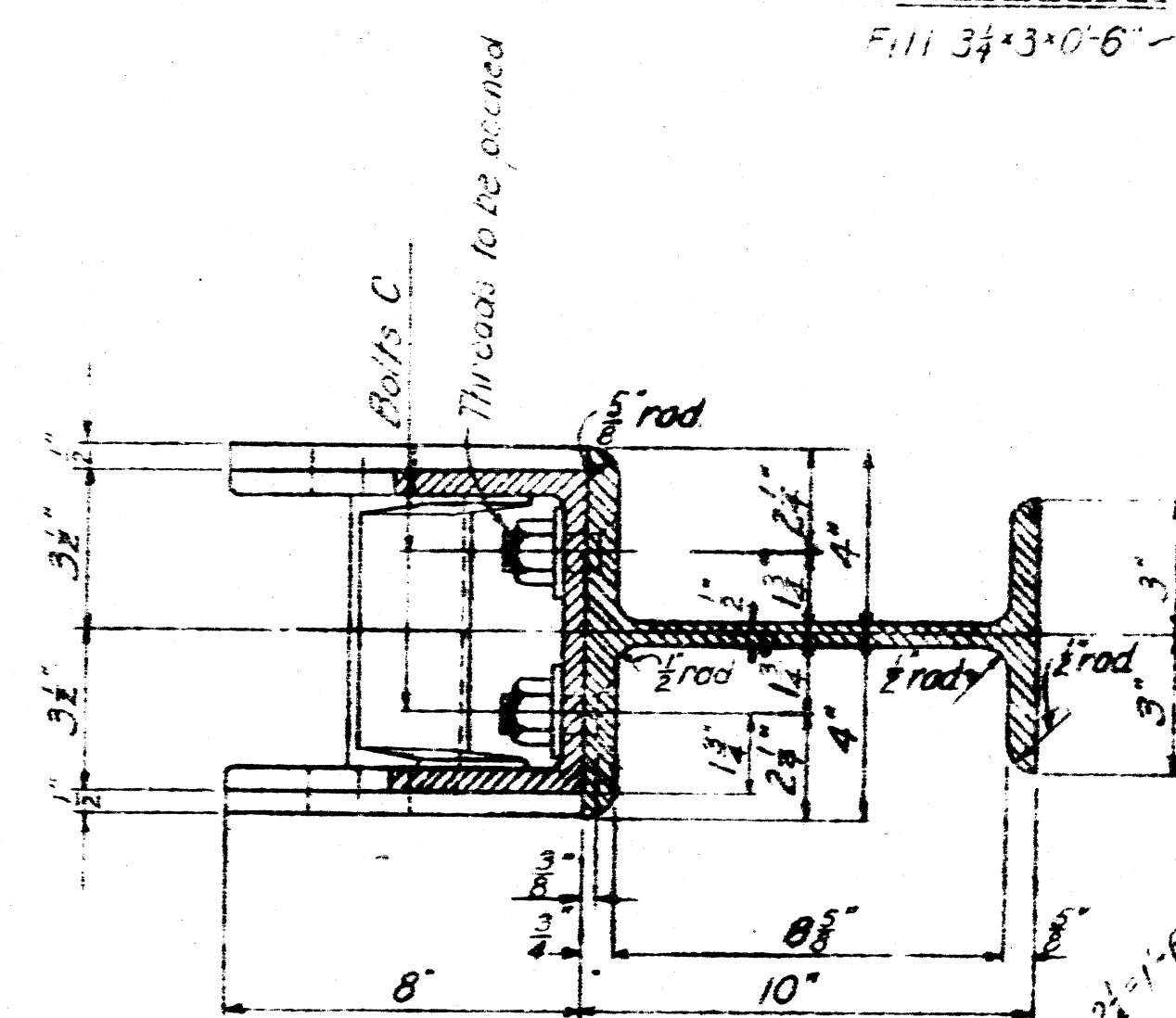
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TRACED BY:			
CHECKED BY: E.S.M. & G.O.S.			
SURVEYED BY: J. H. [Signature]			
CHIEF, CIVIL ENG.		SCALE: 1" = 50' DRAWING NUMBER: 027-PM2-2-20/1 SHEET 20 OF 50	
APPROVED: [Signature] CHIEF CIVIL ENGR.			
APPROVED: [Signature] CH. C.E. DISTRICT ENGINEER			
APPROVED FOR:			





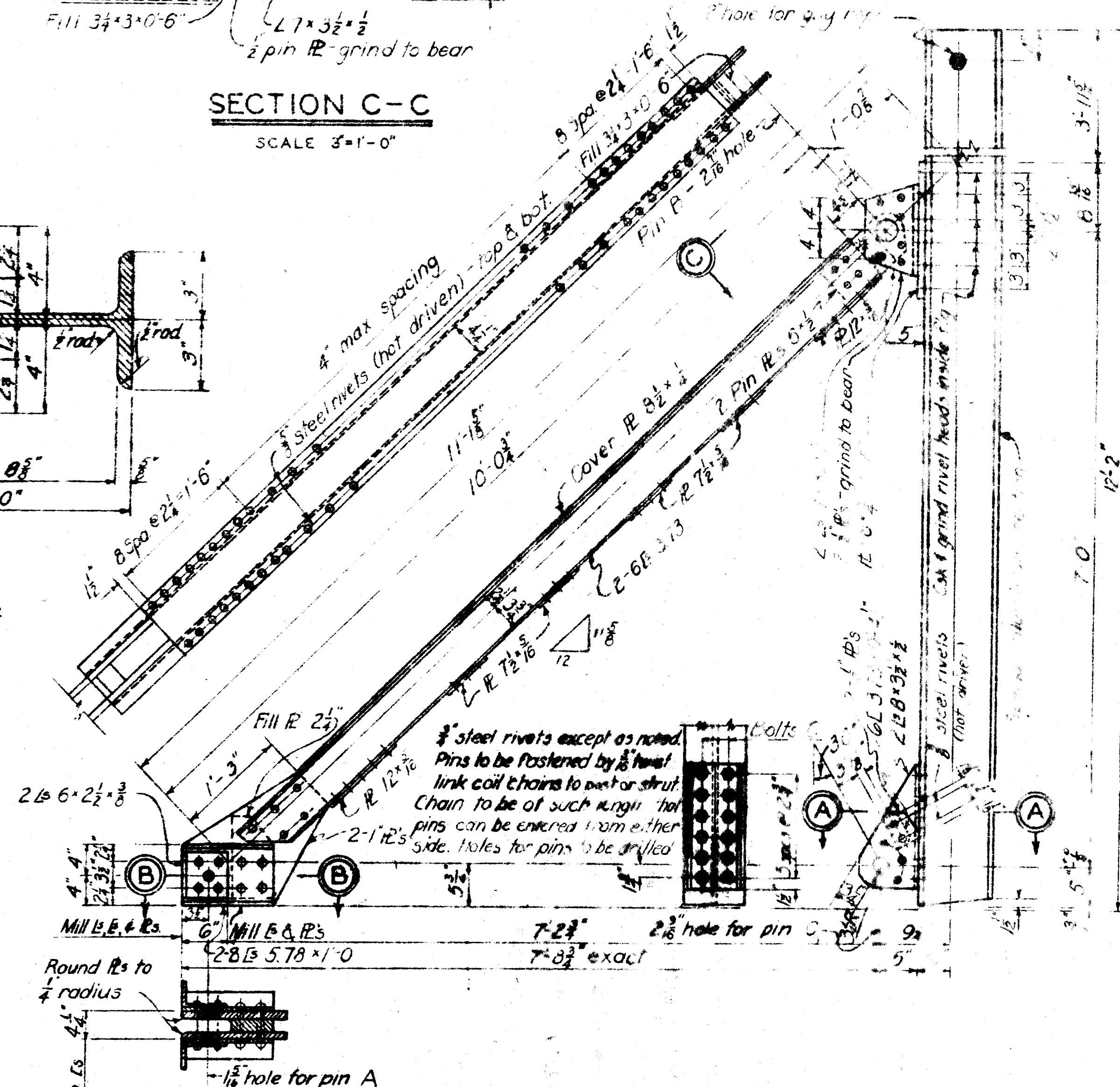
NOTES

For assembly, see Dwg. No. 20/10
For stop logs & misc. metal details,
see Dwg. No. 20/14



SECTION A-A

SCALE: 3" = 1'-0"

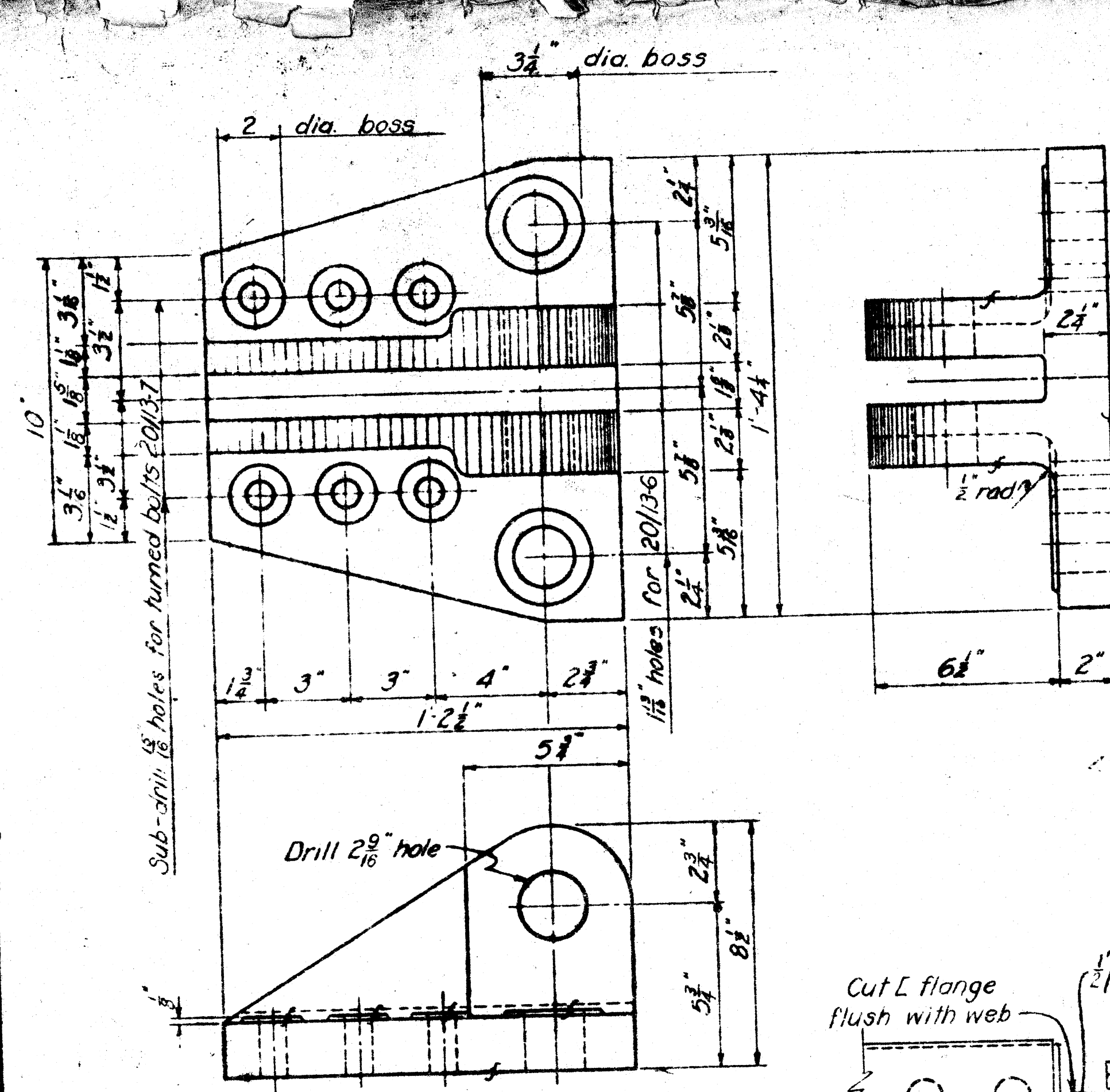


SECTION B-B

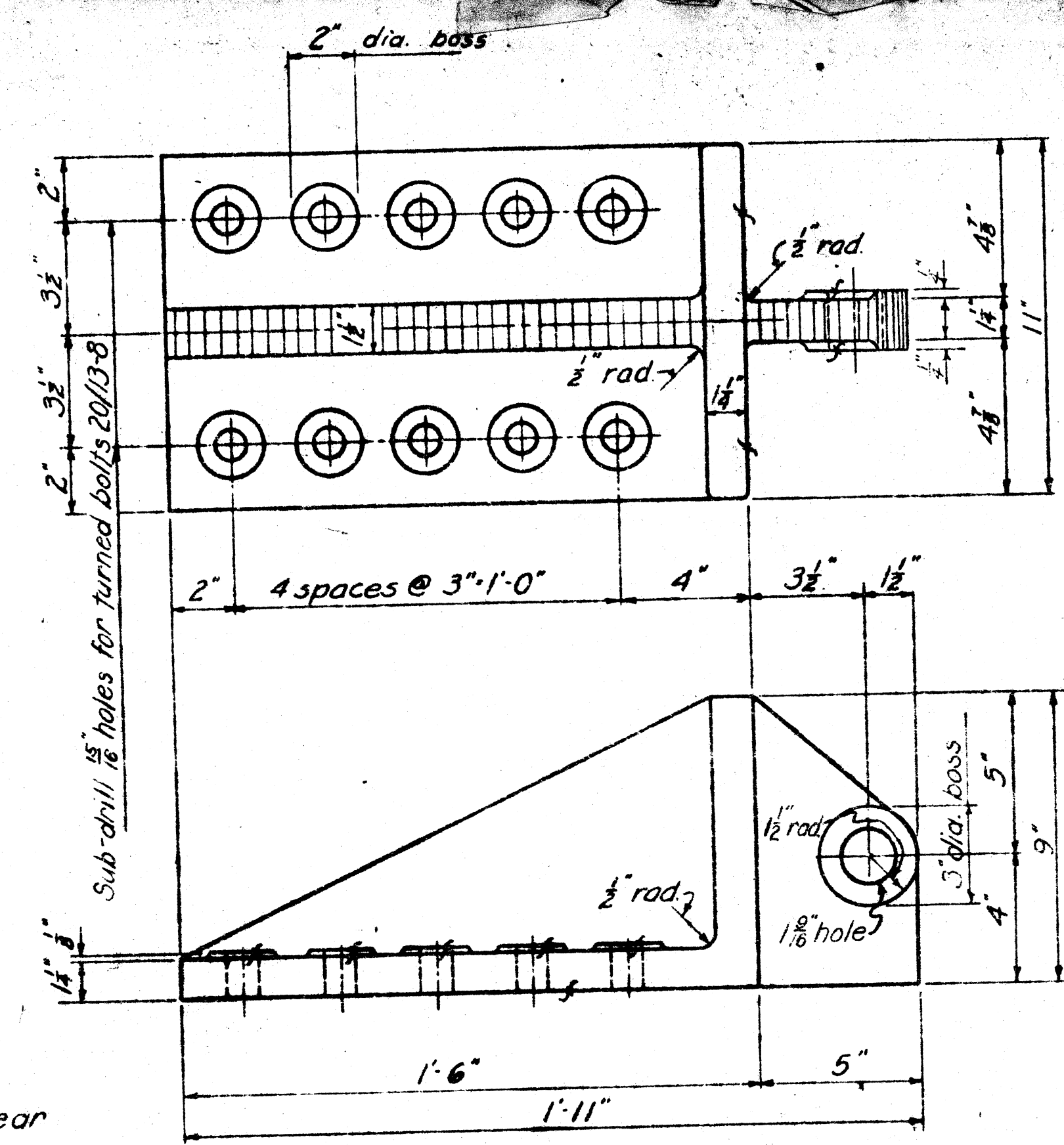
TRESTLE

STRUCT. ALUMINUM WITH CORR. RESISTING METAL & STEEL RIVETS
MARK 20/13-3 MAKE 4 WT. STRUCT. ALUMINUM 133.0 BS
WT. CORR. RESISTING METAL 38.0 LBS. WT. RIVET STEEL 62.0 LBS.

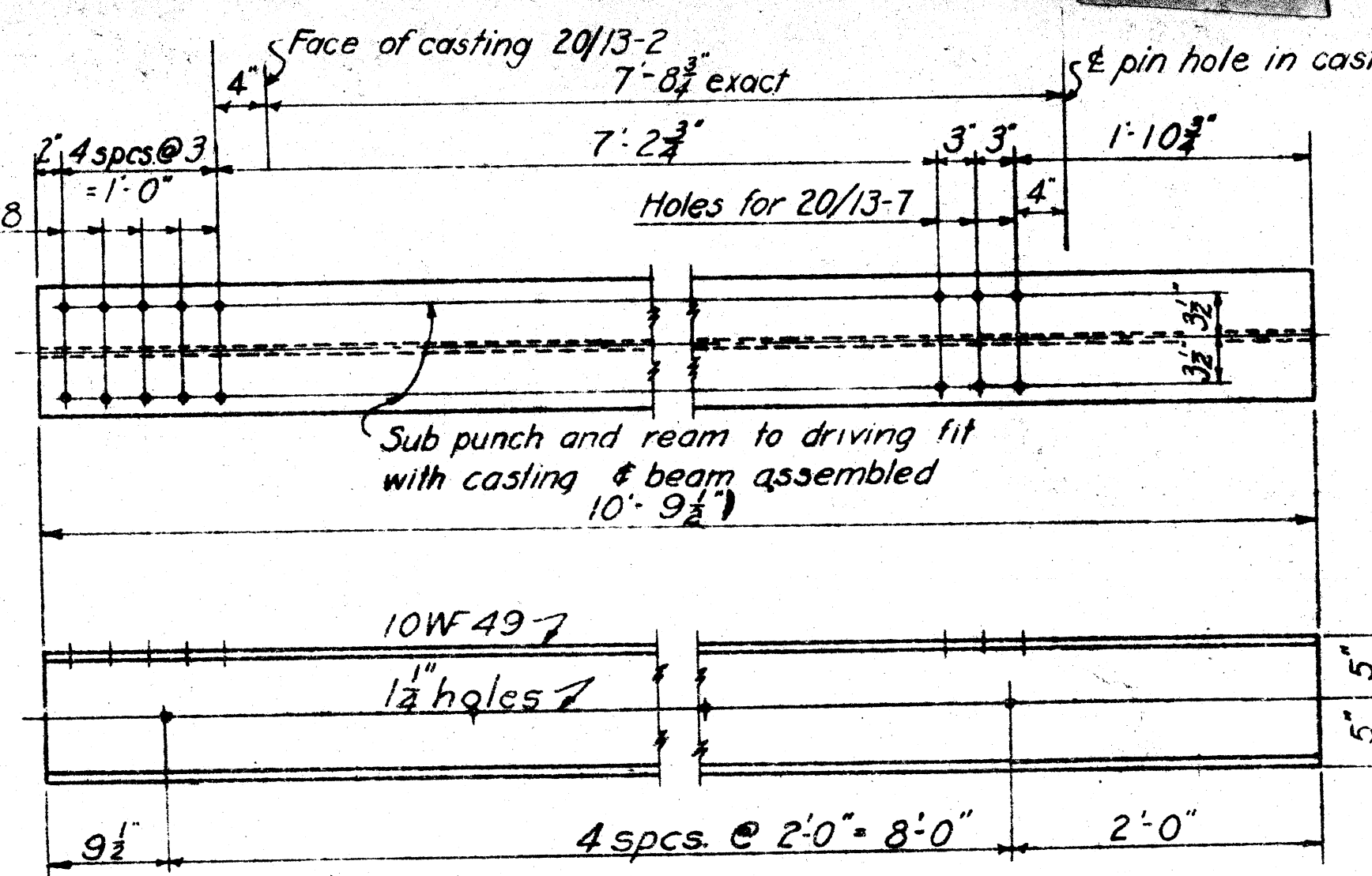
DRAWN BY: F. W. L.		TUSCARAWAS RIVER LOCAL PROTECTION PROJECT MASSILLON, OHIO, SECTION 2, UNIT 2 B. & O. R.R. & PENNA. R.R. OPENINGS TRESTLE & MISCELLANEOUS DETAILS	DATE: OCT. 1948
TRACED BY: F. W. L.			
CHECKED BY: A. W. S.			
SUBMITTED BY: <i>[Signature]</i> CHIEF ENG. DIV.			
APPROVED: <i>[Signature]</i> CHIEF ENG. ASST.			
APPROVED: <i>[Signature]</i> COL. C. E. DISTRICT ENGINEER		SCALE: 1" = 1'-0" SPEC. NO.	
APPROVED FOR:		DRAWING NUMBER 027i-PM2-2-20/13 SHEET 22 OF 50	
DATE:			



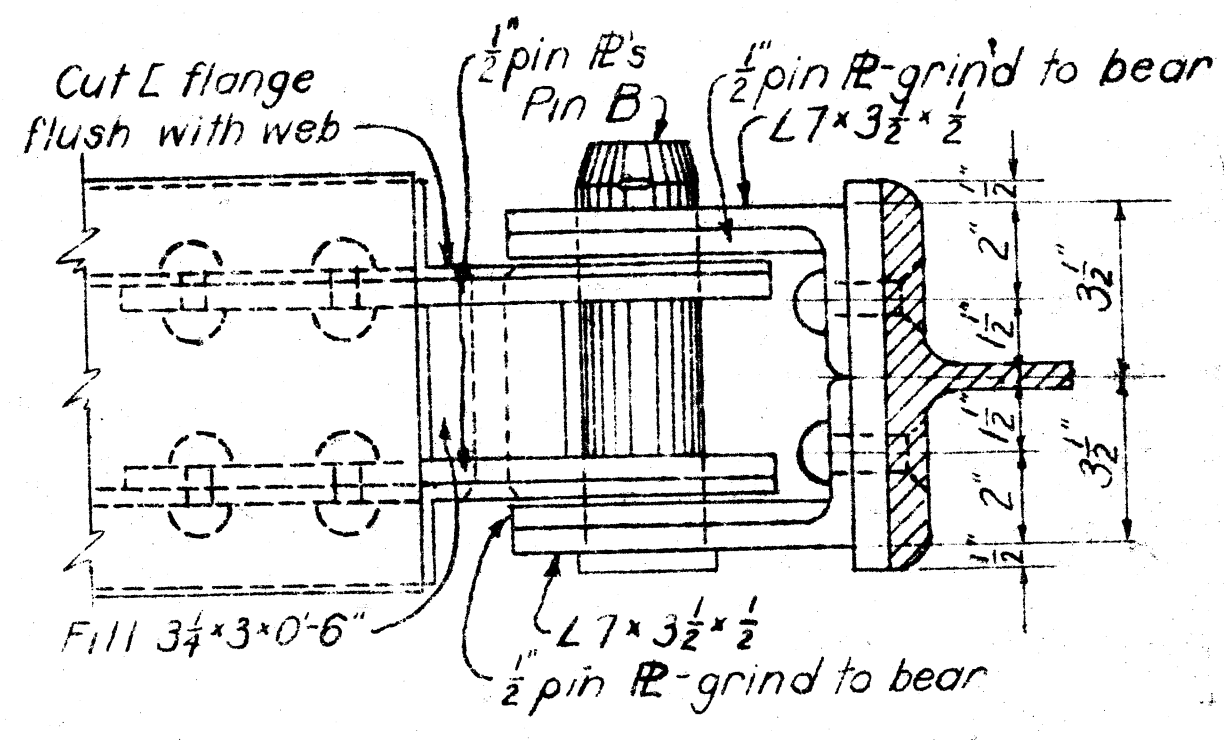
ANCHOR CASTING
CAST STEEL MARK 20/13-1
MAKE 4 WT 183 LBS.
SCALE: 3" = 1'-0"



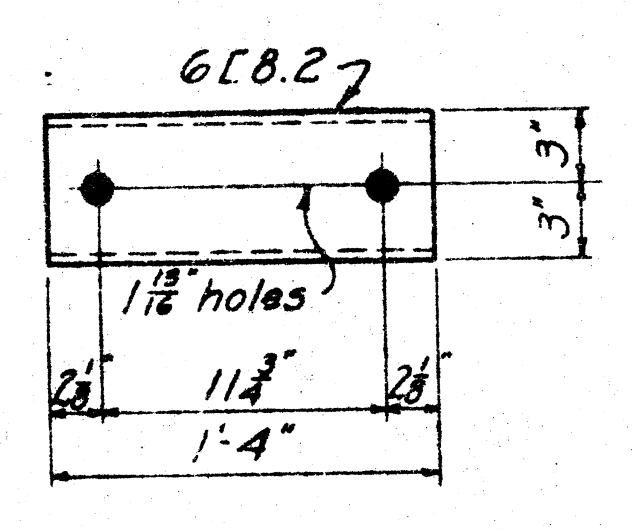
THRUST CASTING
CAST STEEL MARK 20/13-2
MAKE 4 WT 138 LBS.
SCALE: 3" = 1'-0"



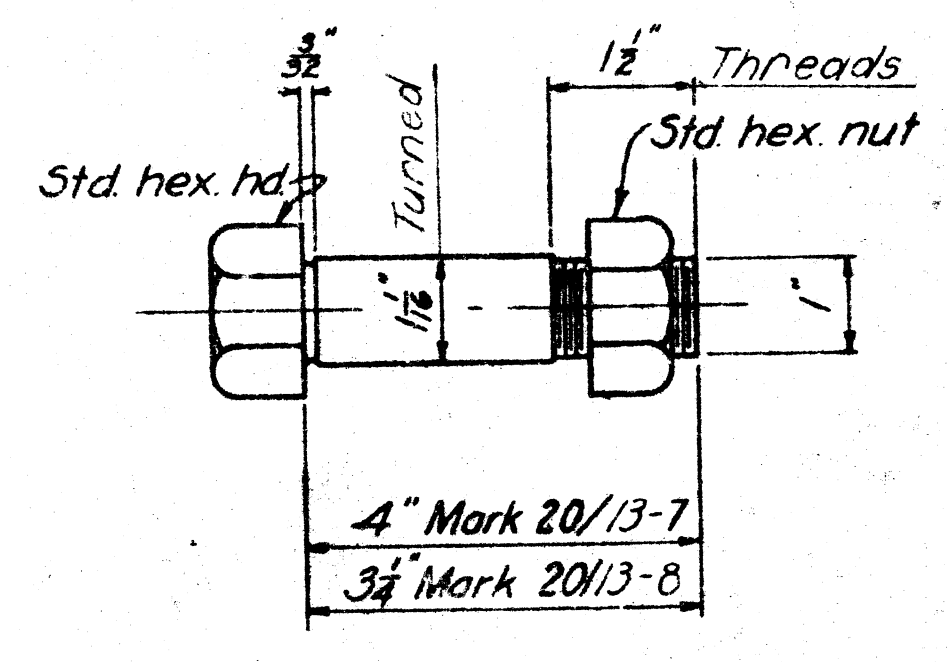
GRILLAGE BEAM
STRUCT. STEEL MARK 20/13-4
MAKE 4 WT 526 LBS.
SCALE: 1" = 1'-0"



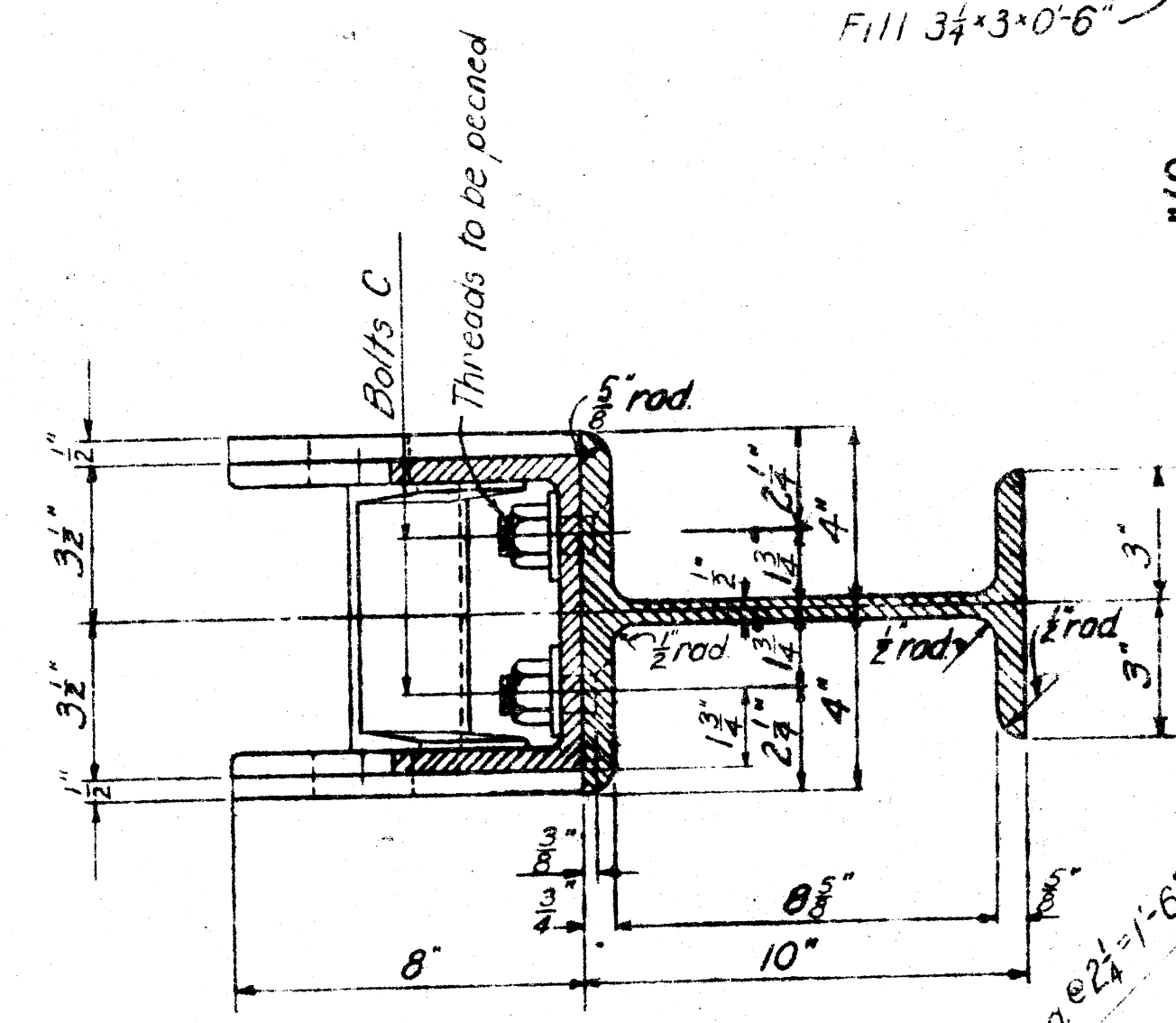
SECTION C-C
SCALE: 3" = 1'-0"



BOLT ANCHOR
STRUCT. STEEL MARK 20/13-5
MAKE 4 WT 107 LBS.
SCALE: 1 1/2" = 1'-0"



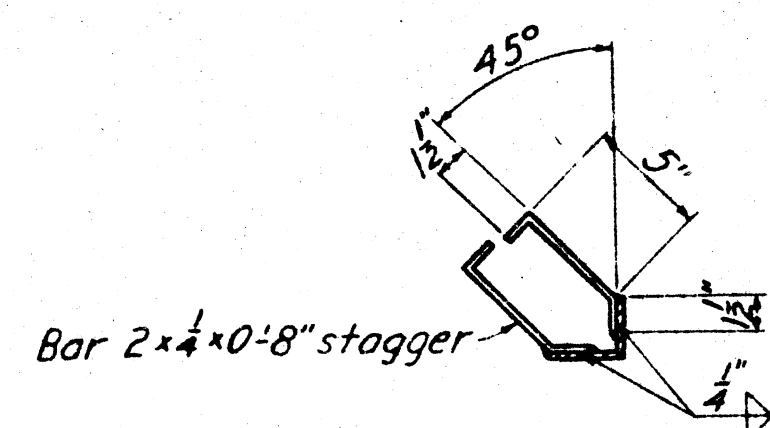
TURNED BOLT
CORR. RESISTING METAL MARK 20/13-7
MAKE 24 WT 1.8 LBS.
SCALE: 6" = 1'-0"



STOP LOGS

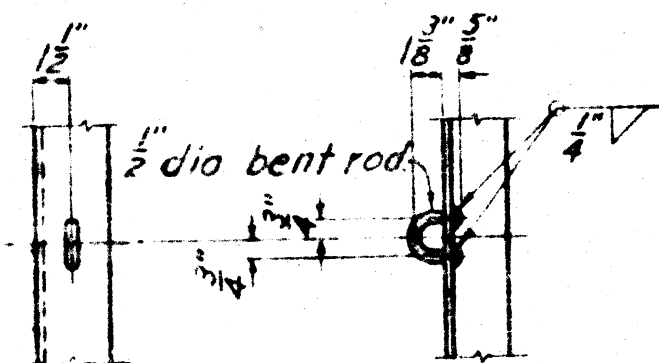
MARK	LOCATION	SIZE	LGTH.	NO	F.B.M.
20/14-9	B & O R.R.	6x8	11'-6"	60	2760
20/14-10	Penna. R.R.	6x8	11'-6"	81	3726

All stop logs to be commercial size timber.



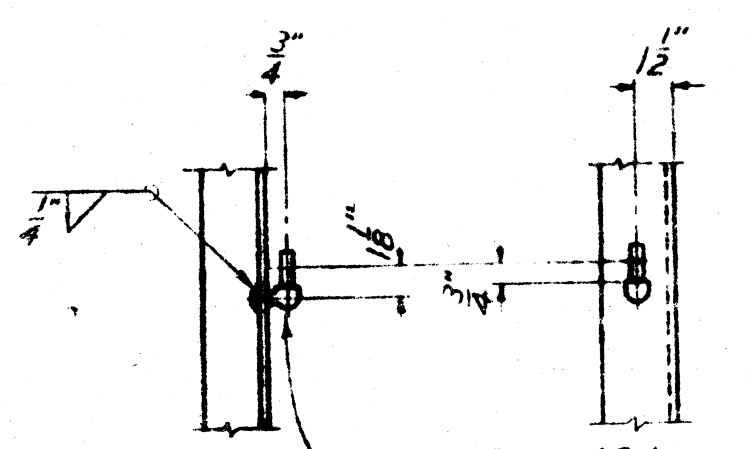
SECTION A-A

SCALE: 1 1/2" = 1'-0"



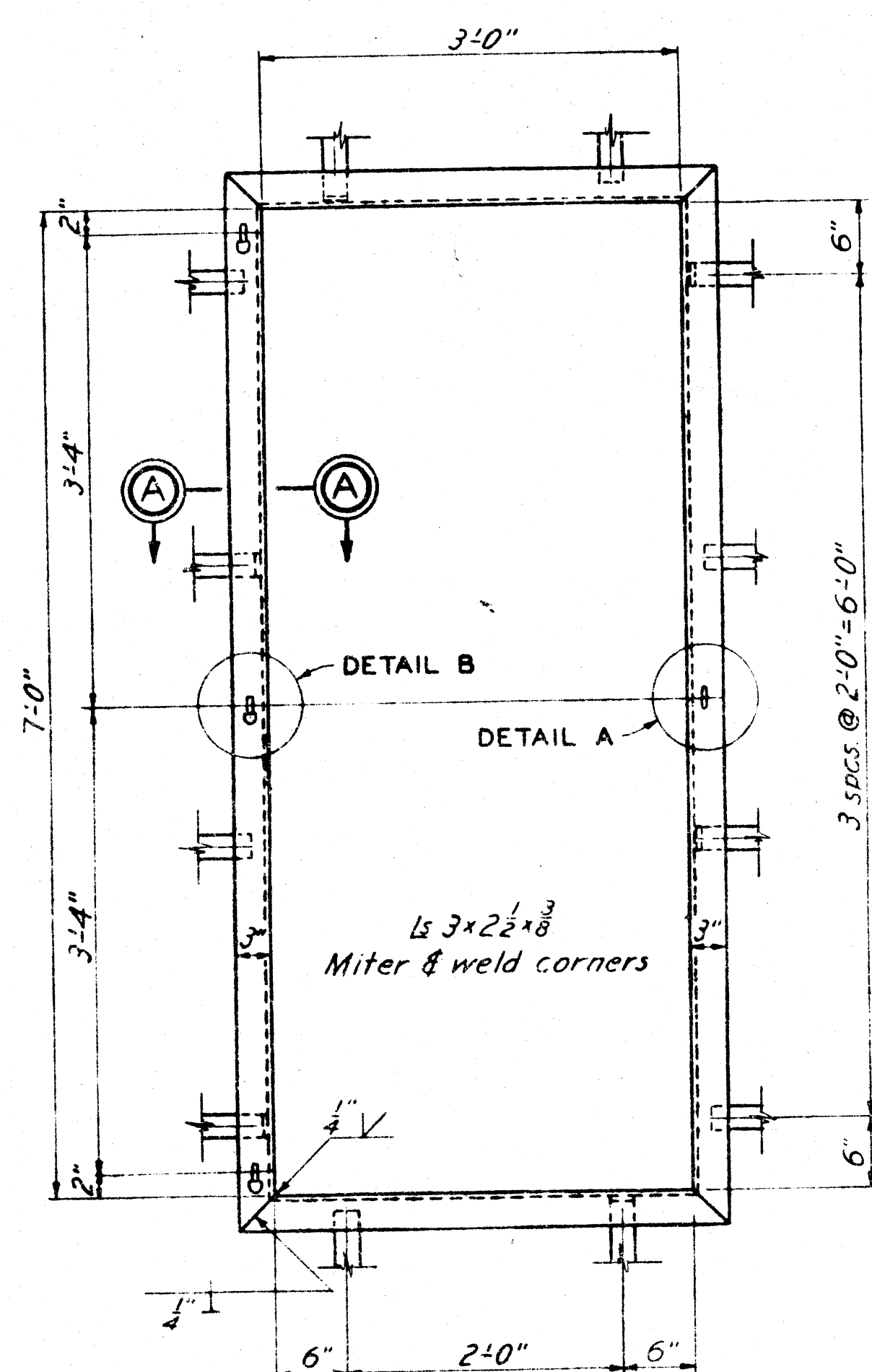
DETAIL A

SCALE: 1 1/2" = 1'-0"



DETAIL B

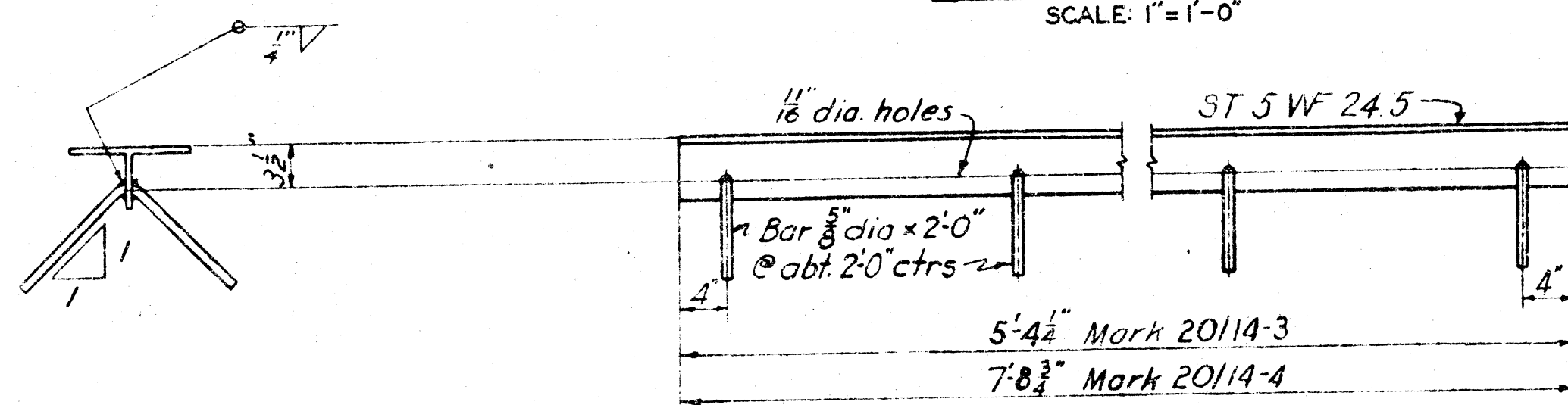
SCALE: 1 1/2" = 1'-0"



DOOR FRAME

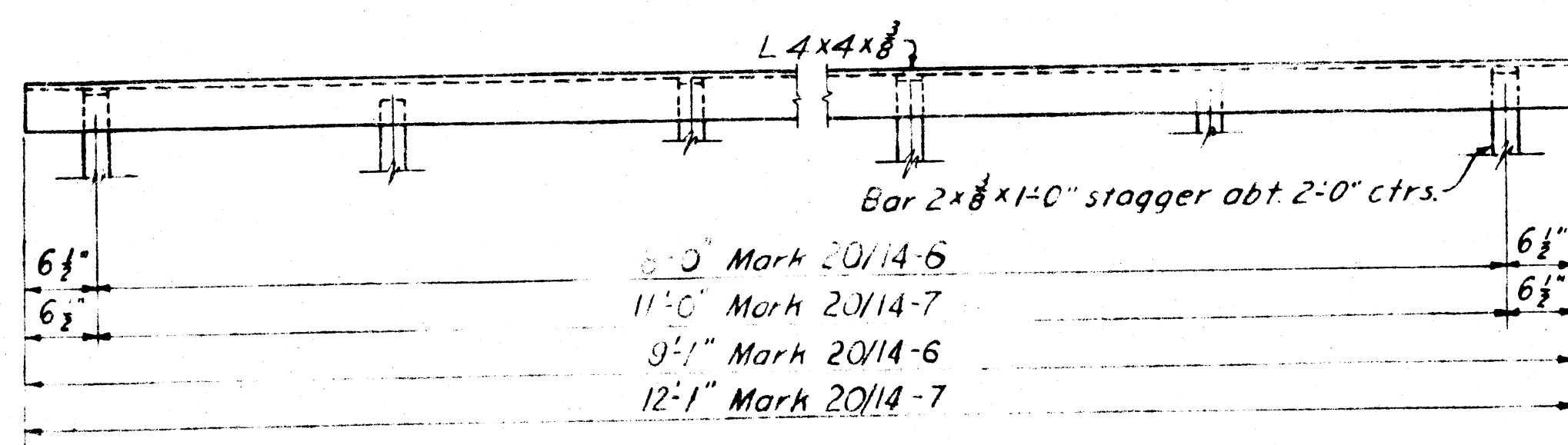
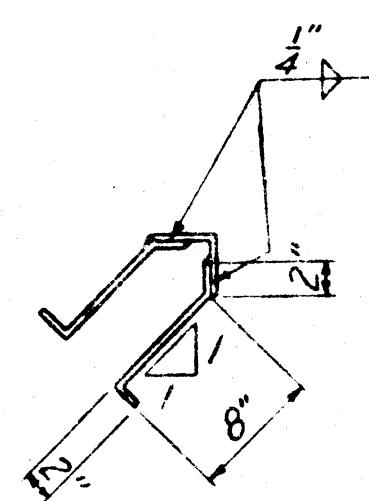
STRUCTURAL STEEL
 MARK 20/14-1R MAKE 1 WT. 152.0 LBS.
 MARK 20/14-1L MAKE 1 WT. 152.0 LBS.

SCALE: 1" = 1'-0"



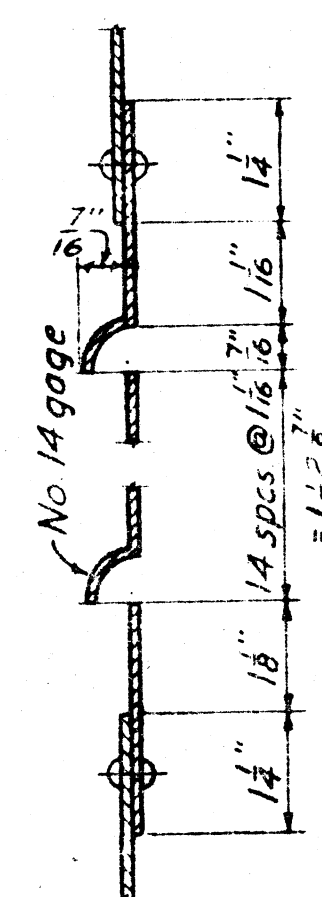
SILL BEAM

STRUCTURAL STEEL
 MARK 20/14-3 MAKE 4 WT. 137.0 LBS.
 MARK 20/14-4 MAKE 4 WT. 197.0 LBS.



STOP LOG RECESS ANGLE

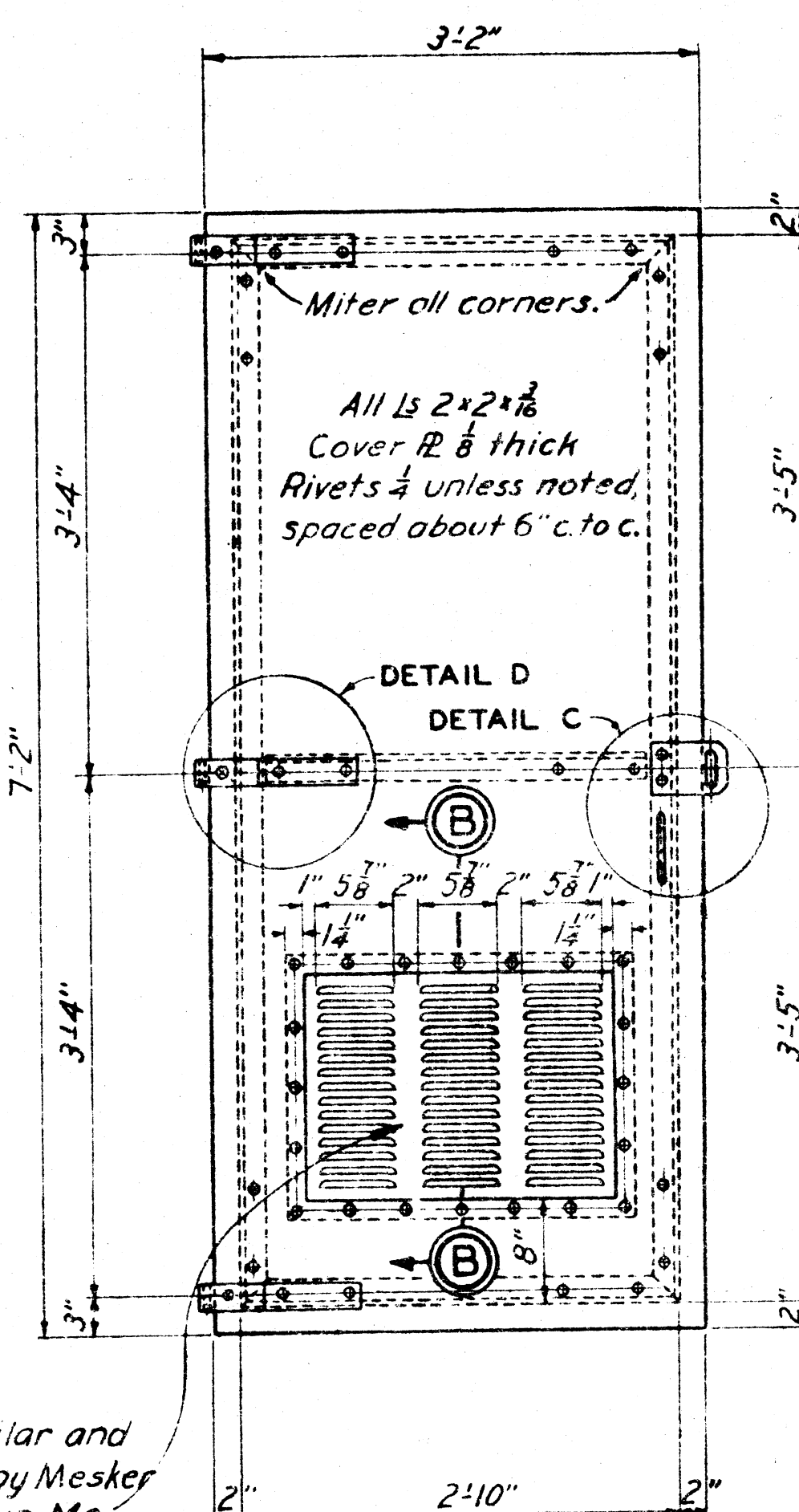
STRUCTURAL STEEL
 MARK 20/14-6 MAKE 4 WT. 102.0 LBS.
 MARK 20/14-7 MAKE 4 WT. 137.0 LBS.



SECTION B-B

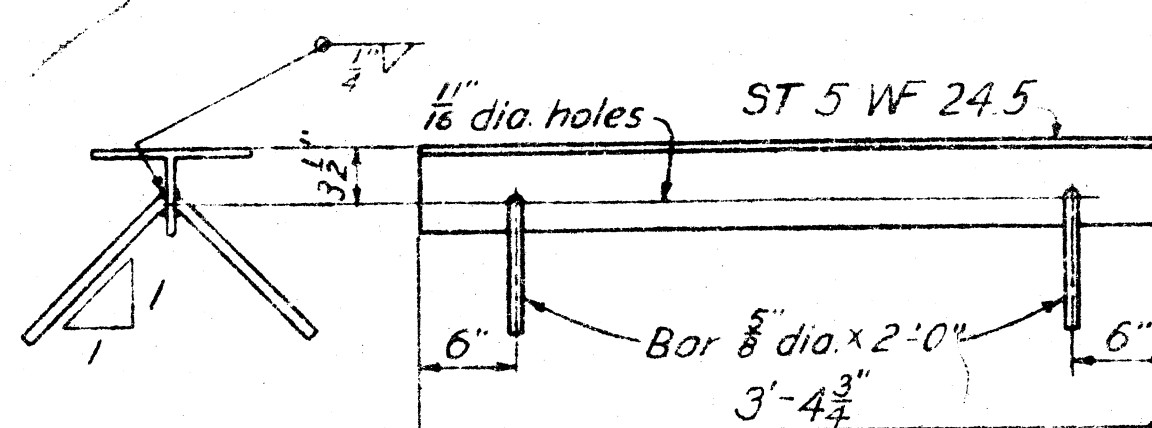
SCALE: 6" = 1'-0"

Louvre to be similar and
 equal to that mfgd. by Mesker
 Bros. Iron Co. St. Louis, Mo.



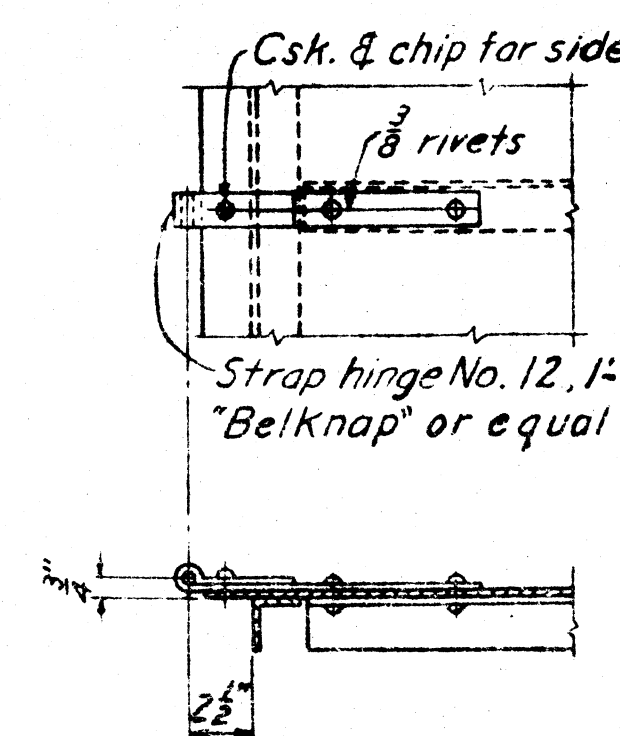
DOOR

STRUCTURAL STEEL
 MARK 20/14-2R MAKE 1 WT. 176.0 LBS.
 MARK 20/14-2L MAKE 1 WT. 176.0 LBS.



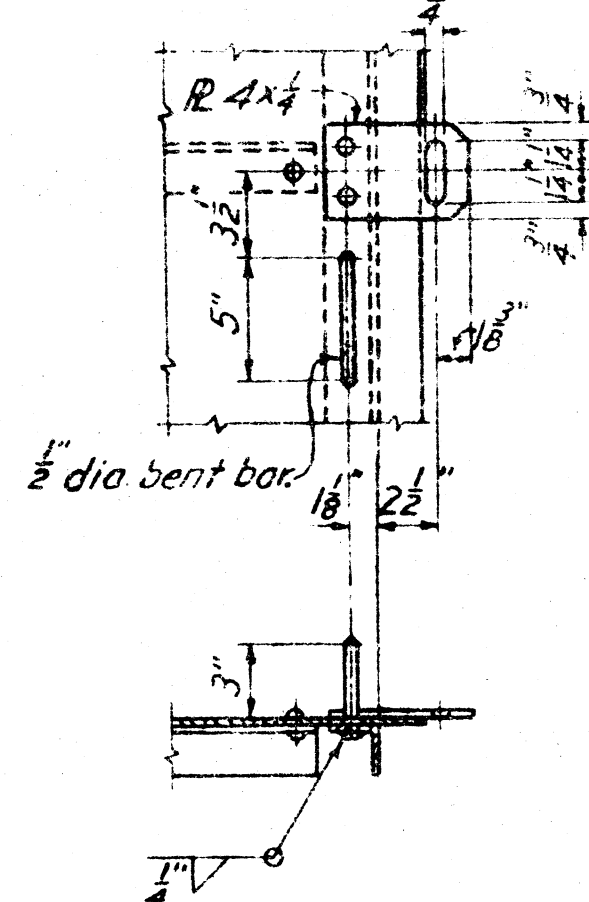
SILL BEAM

STRUCTURAL STEEL MARK 20/14-5
 MAKE 4 WT. 88.0 LBS.



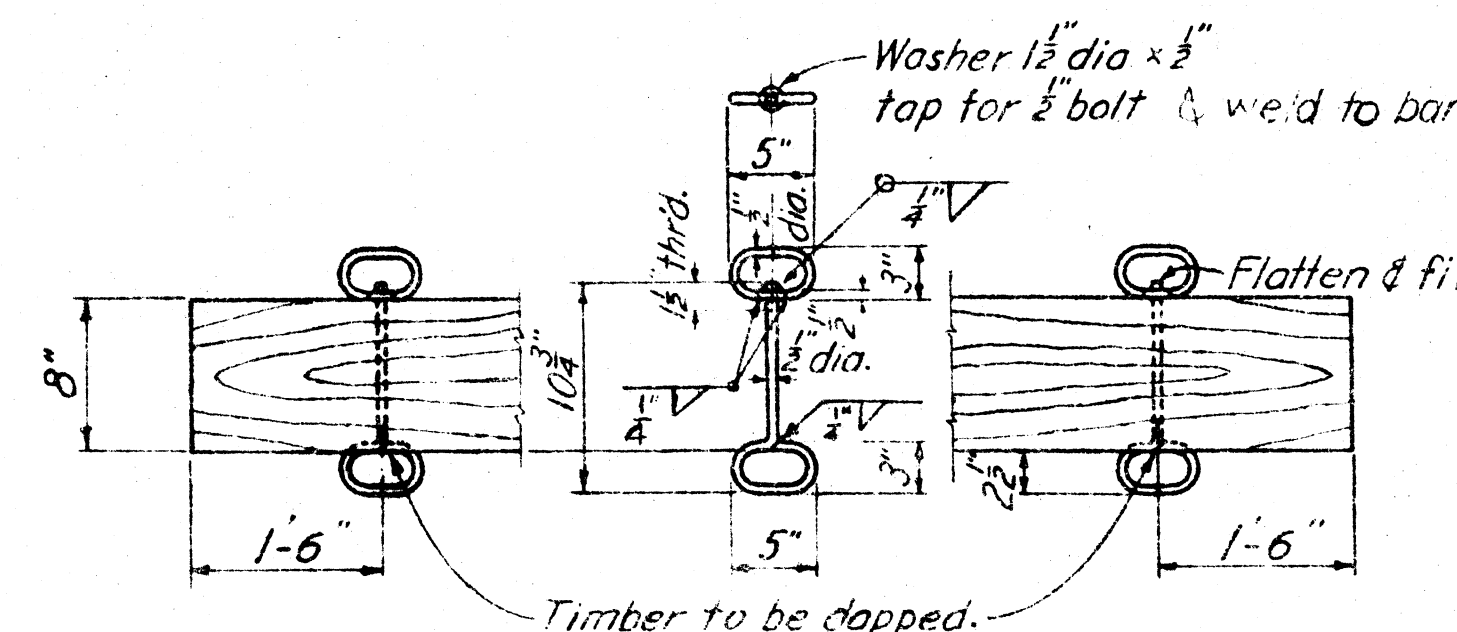
DETAIL D

SCALE: 1 1/2" = 1'-0"



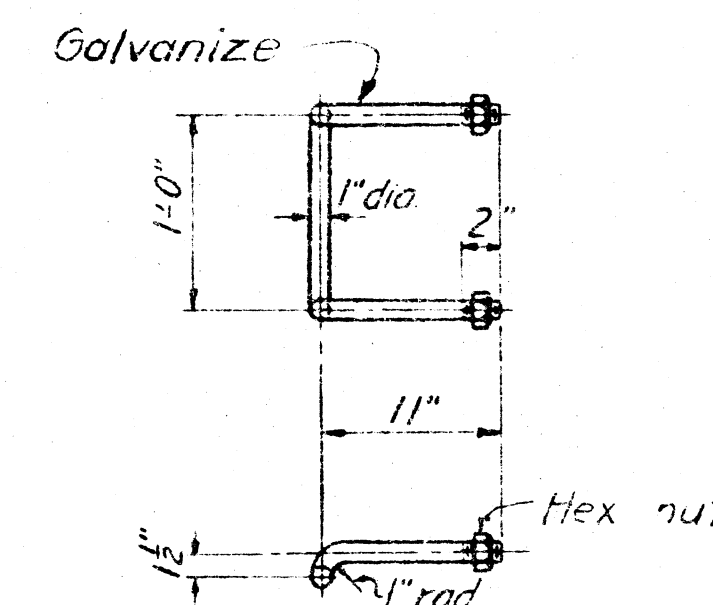
DETAIL C

SCALE: 1 1/2" = 1'-0"



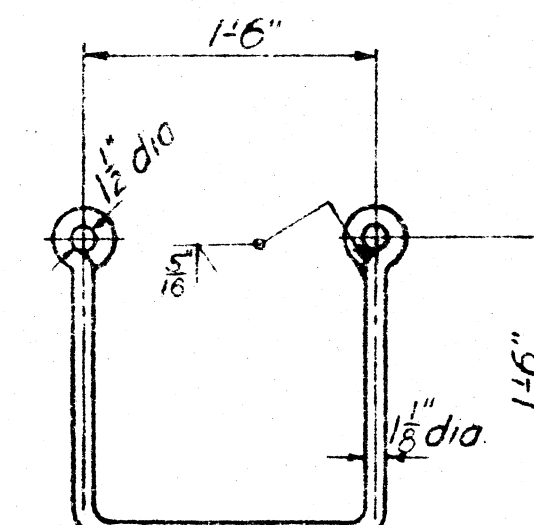
TYPICAL STOP LOG HAND HOLD

STRUCTURAL STEEL MARK 20/14-8
 MAKE 292 WT. 1.9 LBS.



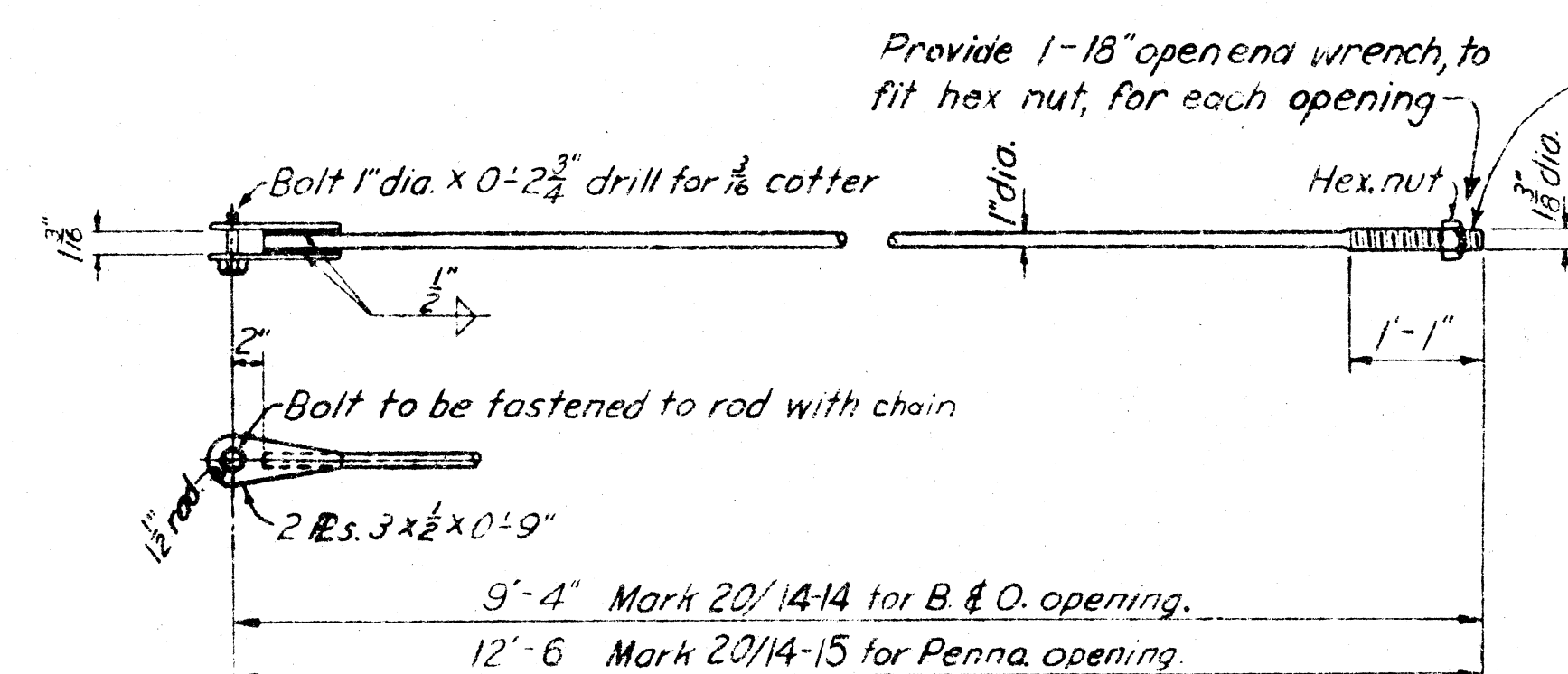
LADDER RUNG

STRUCTURAL STEEL MARK 20/14-12
 MAKE 74 WT. 8.6 LBS.



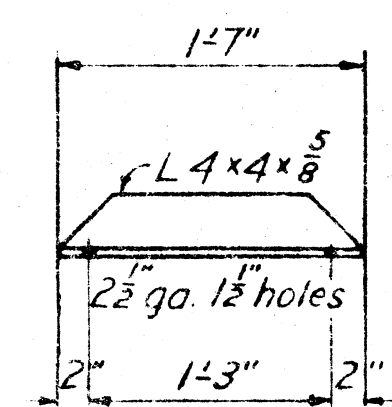
CLAMP BOLT

STRUCT. STEEL MARK 20/14-13
 MAKE 12 WT. 18.4 LBS.



CLAMP ROD

STRUCTURAL STEEL
 MARK 20/14-14 MAKE 12 WT. 34.0 LBS.
 MARK 20/14-15 MAKE 12 WT. 42.0 LBS.

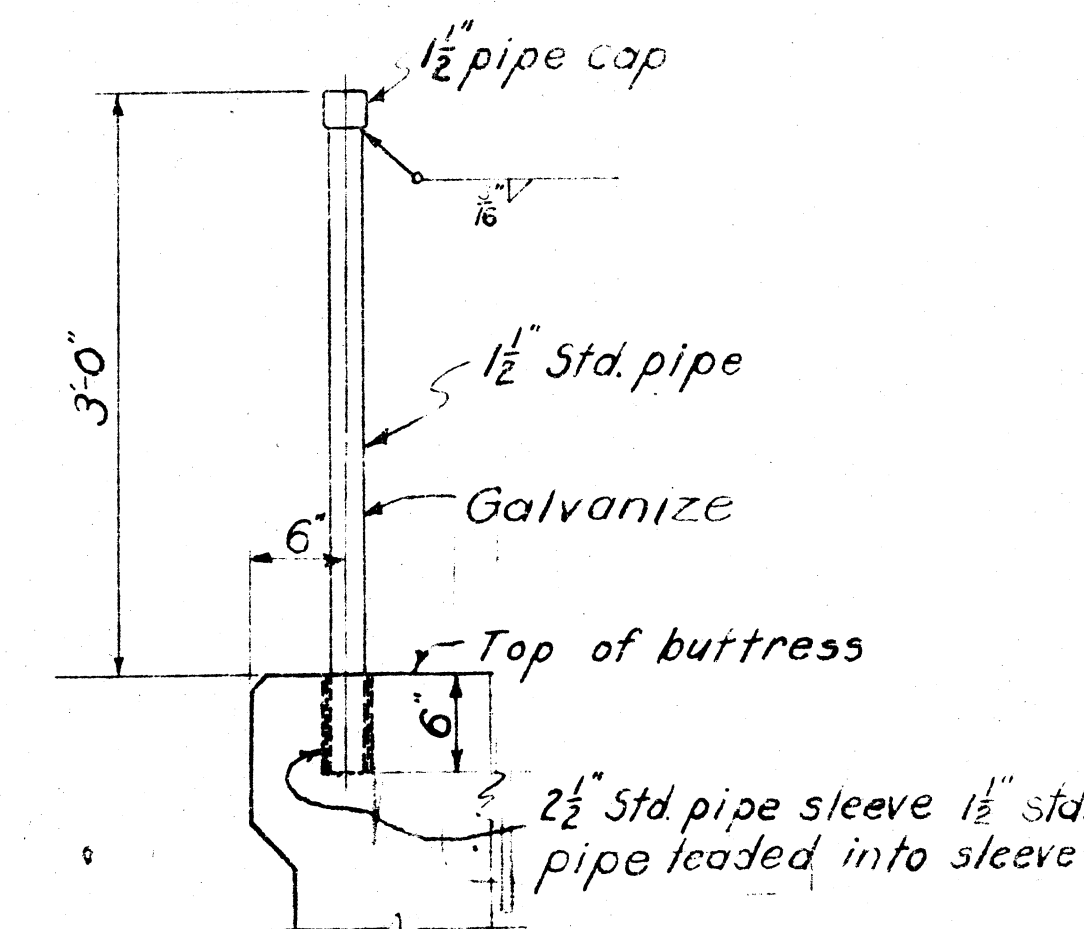


CLAMP

STRUCT. STEEL MARK 20/14-16
 MAKE 12 WT. 23.0 LBS.

NOTES

For stop log storage house, see Dwg. No. 20/8
 For assembly, see Dwg. No. 20/10

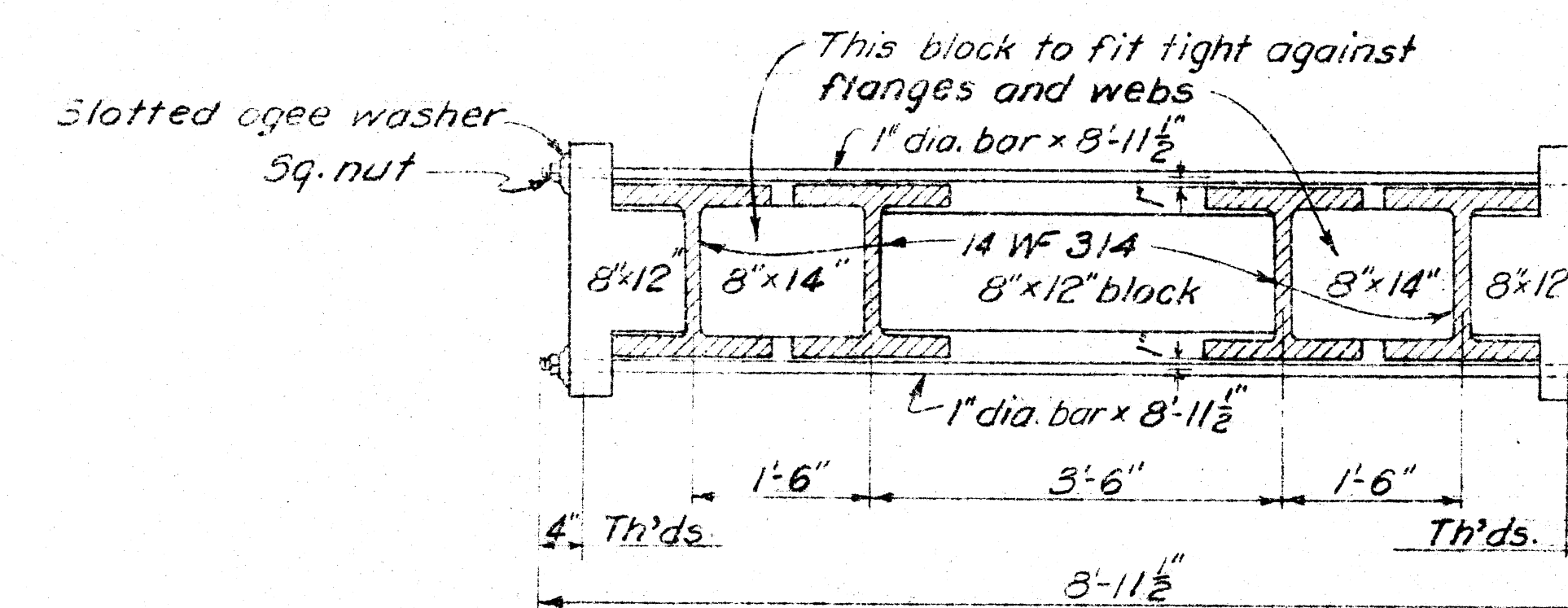


HAND HOLD

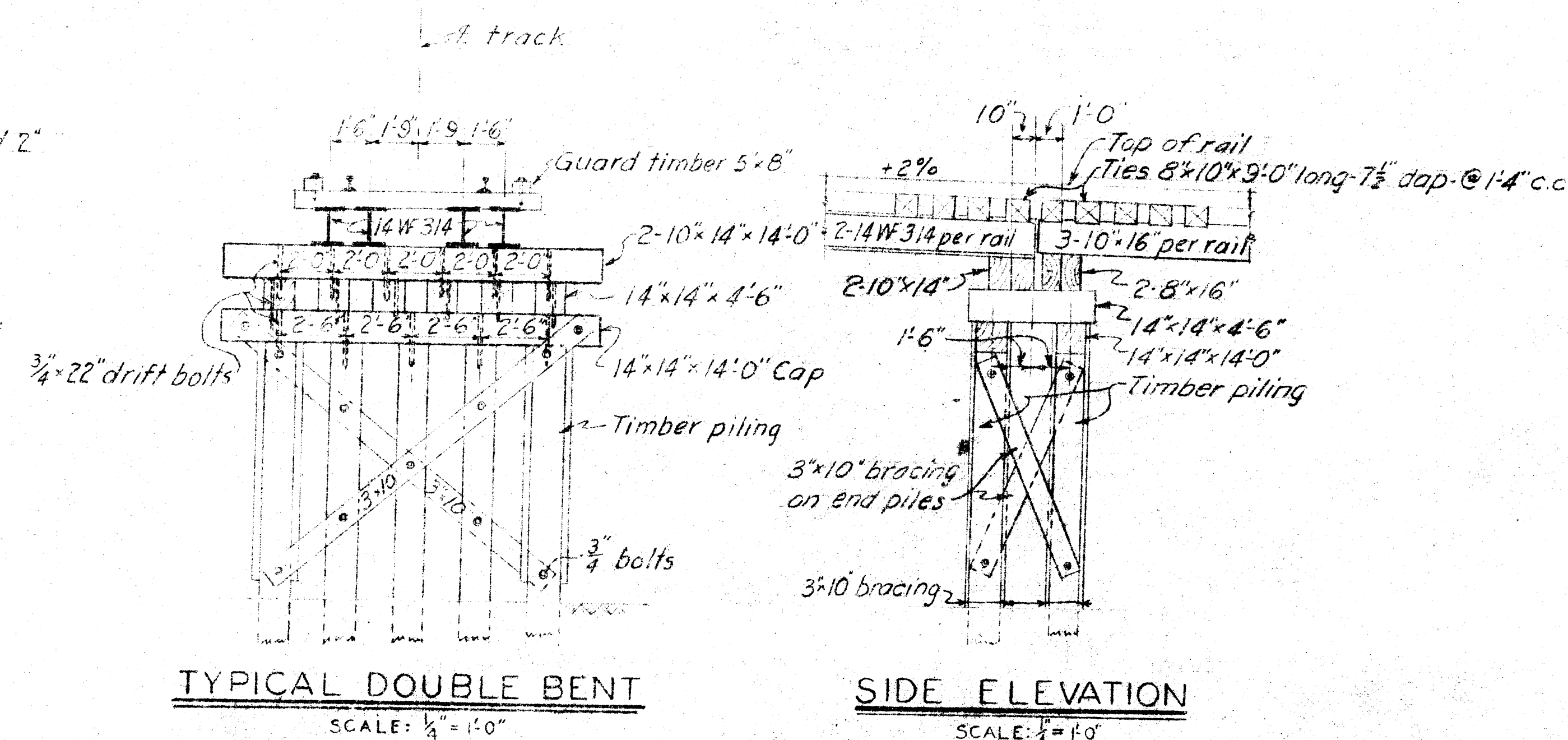
PIPE STEEL MARK 20/14-17
 MAKE 12 WT. 18.0 LBS.

DRAWN BY: H. S. M. & F. W. L.		TUSCARAWAS RIVER LOCAL PROTECTION PROJECT MASSILLON, OHIO SECTION 2, UNIT 2 B. & O. R. R. & PENNA. R. R. OPENINGS MISCELLANEOUS DETAILS	
TRACED BY: N. W. D. & F. W. L.		DATE: OCT. 1948	
CHECKED BY: A. R. N. & A. W. S.		APPROVED: COL. C. E. DISTRICT ENGINEER	
SUBMITTED BY: CHIEF ENG. DIV.		APPROVED FOR: DATE:	
BY DATE		CHARACTER	
REVISIONS		DRAWING NUMBER 0271-PM2-2-20/14	
DATE:		SHEET 23 OF 60	

DEPARTMENT OF THE ARMY CORPS OF ENGINEERS OFFICE OF THE DISTRICT ENGINEER HUNTINGTON, W. VA.	
DRAWN BY: O. A. L.	TUSCARAWAS RIVER LOCAL PROTECTION PROJECT MASSILLON, OHIO SECTION 2, UNIT 2. PENNA. R.R. INDUSTRIAL TRACK DETAILS AND ROADBED SECTION
TRACED BY:	
CHECKED BY: S.W.H.-E.C.M.	
SUBMITTED BY: <i>[Signature]</i> CHIEF ENGR. DIV.	
APPROVED: <i>[Signature]</i> CHIEF ENGR. ASST.	
APPROVED: <i>[Signature]</i> DATE: OCT 1948 COL. G. E. DISTRICT ENGINEER	
APPROVED FOR:	SCALE: 1/2" = 1'-0" DRAWING NUMBER: 0271-PM2-2-667 SHEET 24 OF 20
DATE:	



DETAIL OF BEAM YOKE
SCALE: $\frac{3}{4}'' = 1'-0''$



NOTES

Securely spike steel stringers to caps and blocking with track spikes, and timber stringers to caps and blocking with $\frac{3}{4}$ diameter drift bolts.

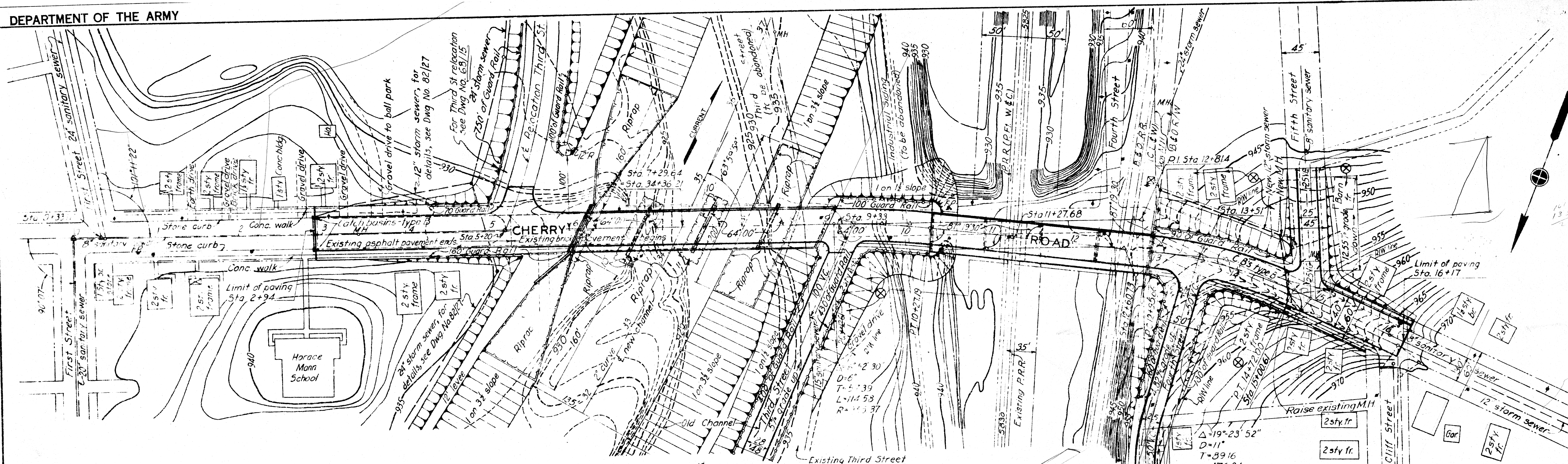
Fasten blocking to blocking, blocking to caps and caps to piling with $\frac{3}{4}$ dia. drift bolts.

Lag screws shall not be driven but must be screwed into position.

Holes in guard timber and ties for lag screws and bolts shall be bored on the job. Holes in ties for lag screws shall be bored $\frac{1}{2}$ in diameter.

Std. ogee washers shall be used under bolt heads and nuts bearing on timber except as noted.

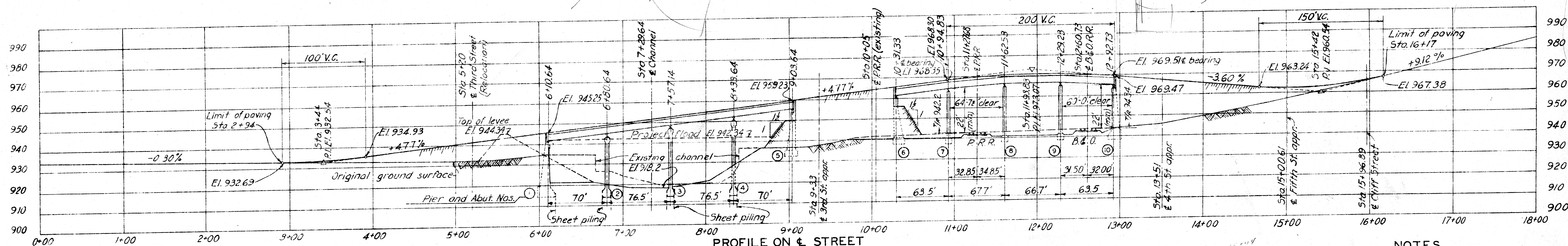
DEPARTMENT OF THE ARMY CORPS OF ENGINEERS OFFICE OF THE DISTRICT ENGINEER HUNTINGTON, W. VA.	
DRAWN BY: A.A.G.-A.W.S. TRACED BY: W.E.T. CHECKED BY: S.B. SUBMITTED BY: <i>[Signature]</i> CHIEF ENG. DIV. APPROVED: <i>[Signature]</i> CHIEF ENG. ASST.	TUSCARAWAS RIVER LOCAL PROTECTION PROJECT MASSILLON, OHIO SECTION 2, UNIT 2 PENNA. R.R. INDUSTRIAL TRACK TEMPORARY TRESTLE APPROVED: <i>[Signature]</i> COL. C.E. DISTRICT ENGINEER DATE: OCT. 19, 1962
APPROVED FOR: _____ DATE: _____	SCALE: AS SHOWN SPEC. NO. _____ DRAWING NUMBER: 027I-Pi-M2-2-66/2 SHEET 24 OF 40



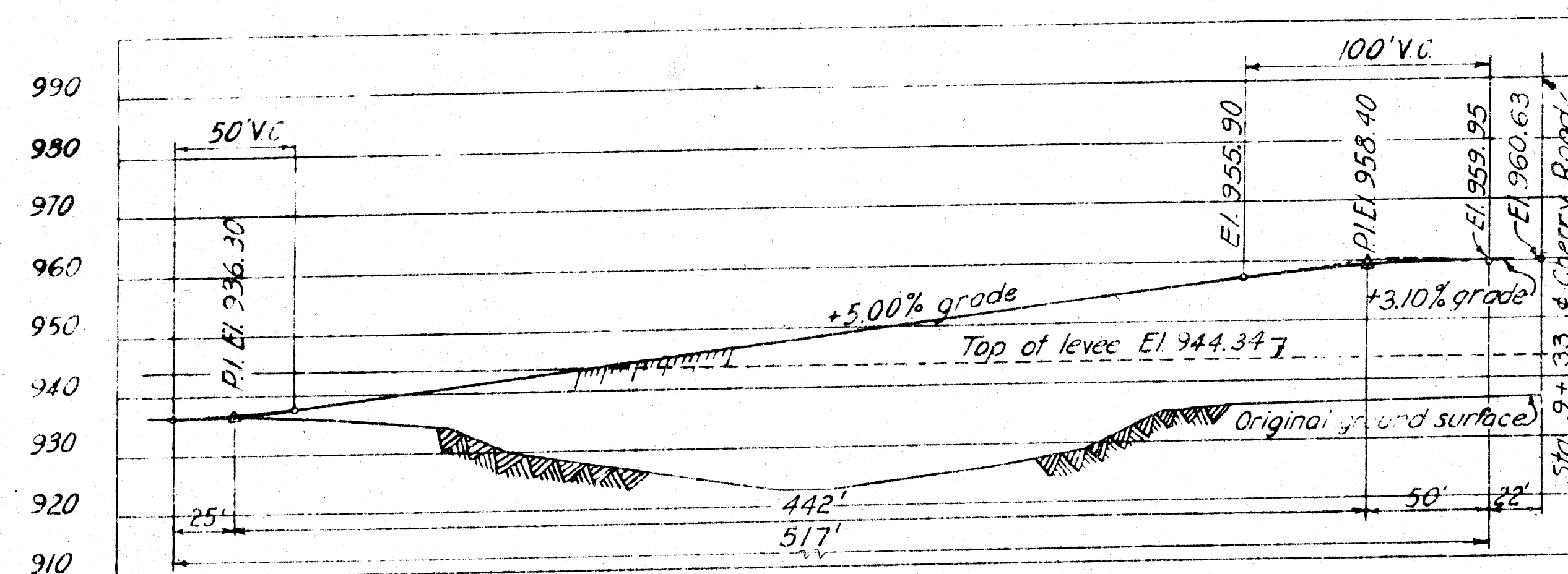
Note:
Connections to sewers from catch
basins to be 12" pipe

PLAN

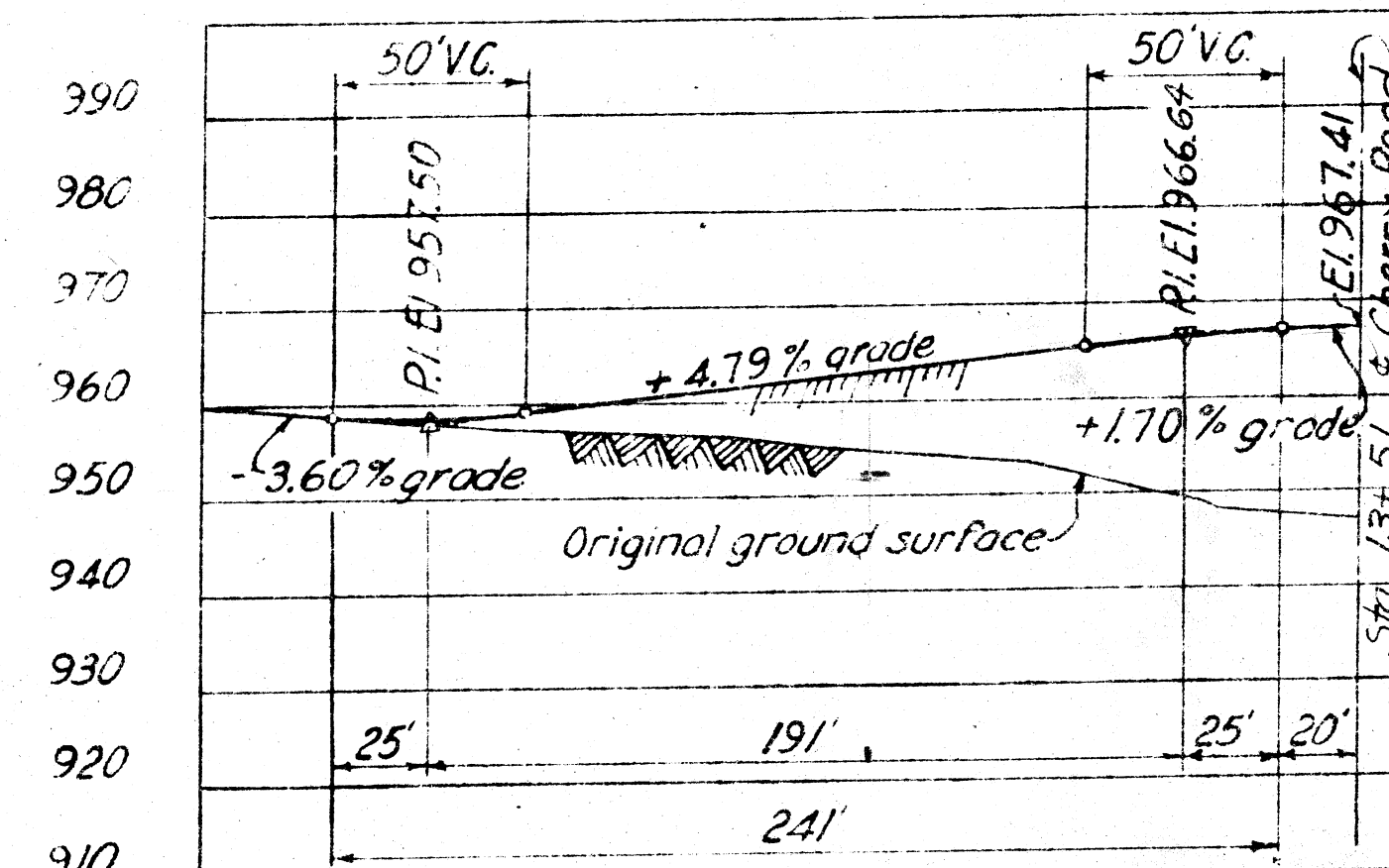
SCALE: 1"=50'



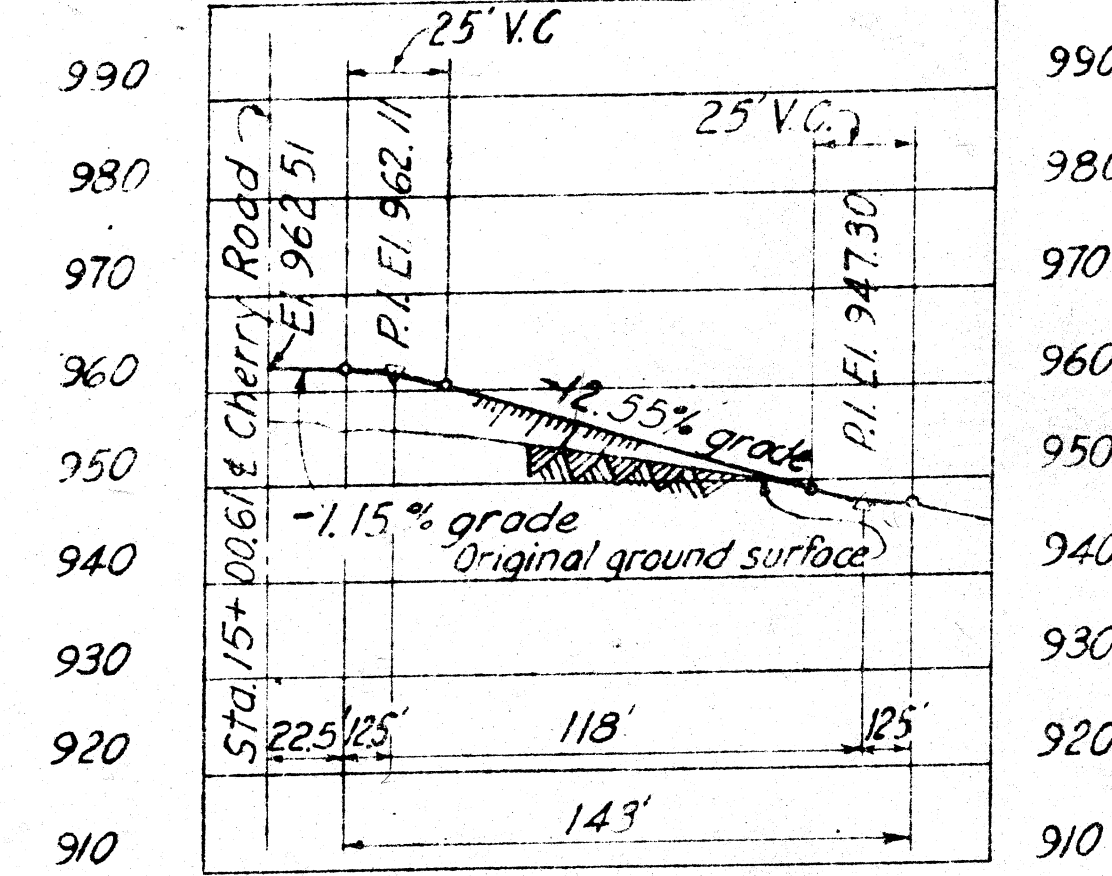
PROFILE ON CHERRY STREET

SCALE: HORIZ. 1"=50'
VERT. 1"=20'

PROFILE OF THIRD ST. APPROACH

SCALE: HORIZ. 1"=50'
VERT. 1"=20'

PROFILE OF FOURTH ST. APPROACH

SCALE: HORIZ. 1"=50'
VERT. 1"=20'

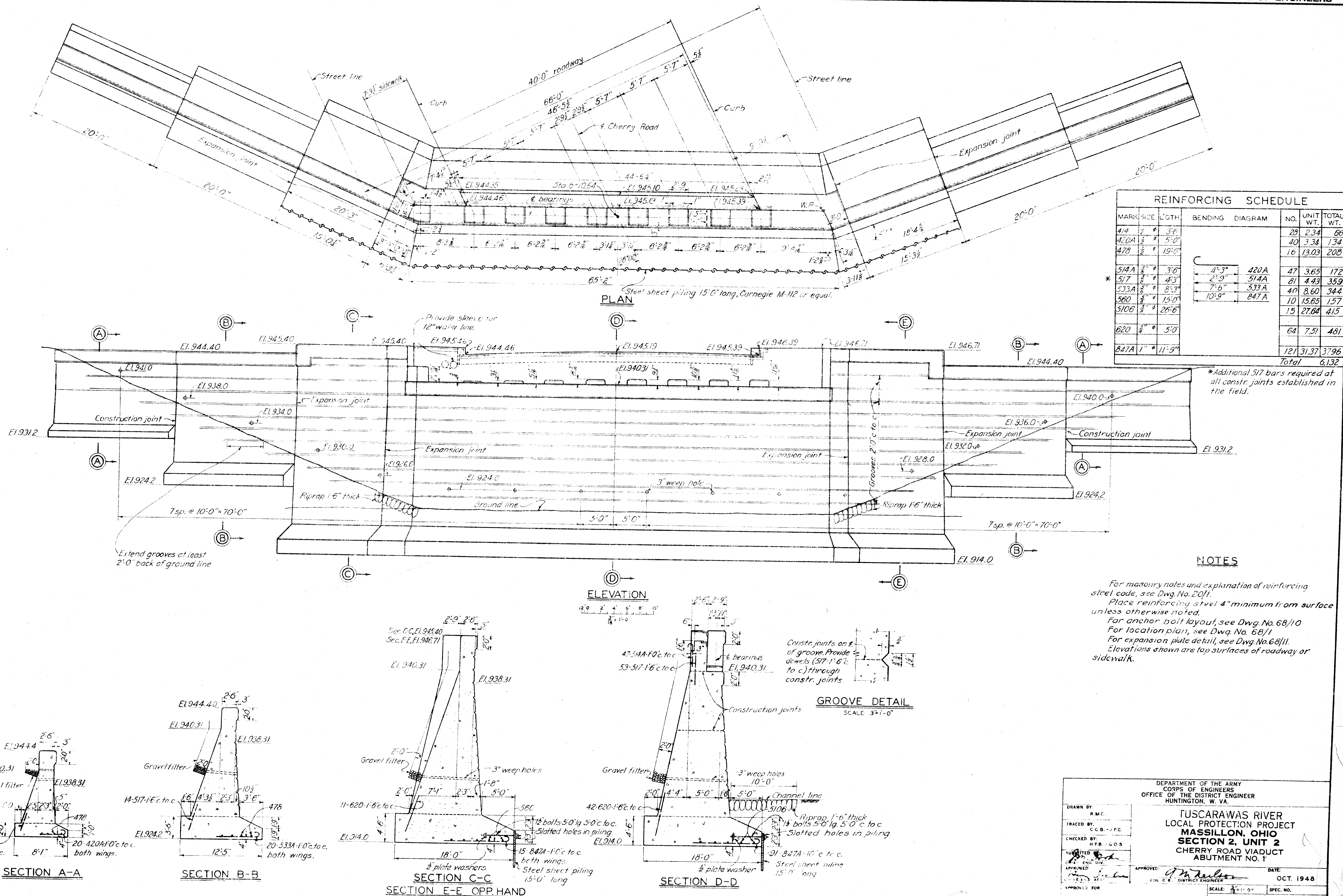
PROFILE OF FIFTH ST. APPROACH

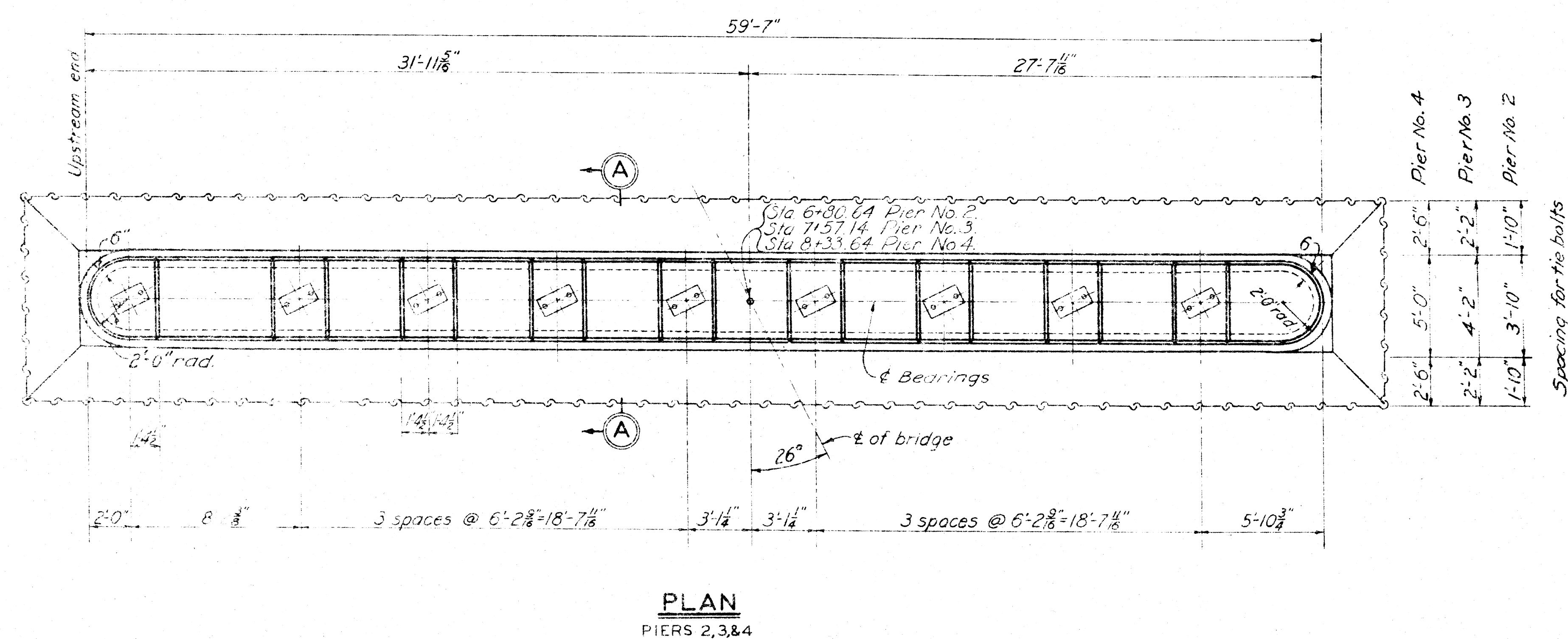
SCALE: HORIZ. 1"=50'
VERT. 1"=20'

NOTES

For legend, see Dwg. No. 16/1.
For general plan, see Dwg. No. 16/2.
For guard rail details and approach
sections, see Dwg. No. 68/8.
25' approach slabs required at abutments
1, 5, 6 & 10. See Dwg. No. 68/9 for details.
For pavement details, see Dwg. Nos. 68/8
and 68/17.
For sewer and utility work, see Dwg. Nos.
82/21, 82/25, 82/27, 82/36 and 82/38.

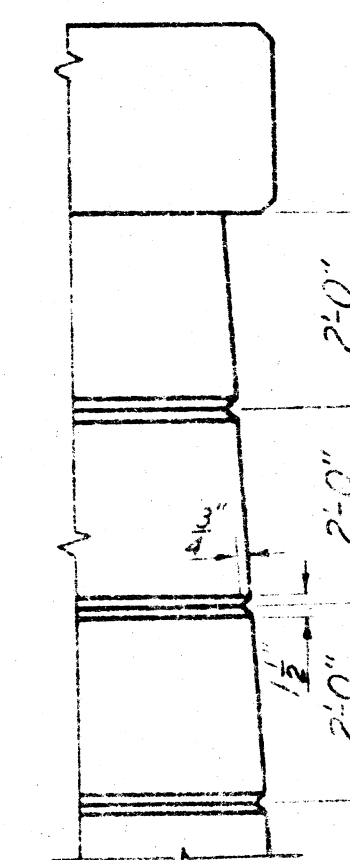
DEPARTMENT OF THE ARMY CORPS OF ENGINEERS OFFICE OF THE DISTRICT ENGINEER HUNTINGTON, W. VA.		TUSCARAWAS RIVER LOCAL PROTECTION PROJECT MASSILLON, OHIO SECTION 2, UNIT 2 CHERRY ROAD VIADUCT GENERAL PLAN & PROFILE	
DRAWN BY: H.G.H.	TRACED BY: A.F.-J.B.P.	CHECKED BY: H.F.B.-G.O.S.	SUBMITTED BY: H.G.H.
APPROVED: H.G.H.	APPROVED: H.G.H.	DATE: OCT. 1948	
APPROVED FOR:		SCALE: 1"=50'	SPEC. NO.
DATE:		DRAWING NUMBER 0271-PM2-2-68/1	
		SHEET 26 OF 60	





GROOVE DETAIL

SCALE 1/2" = 1'-0"

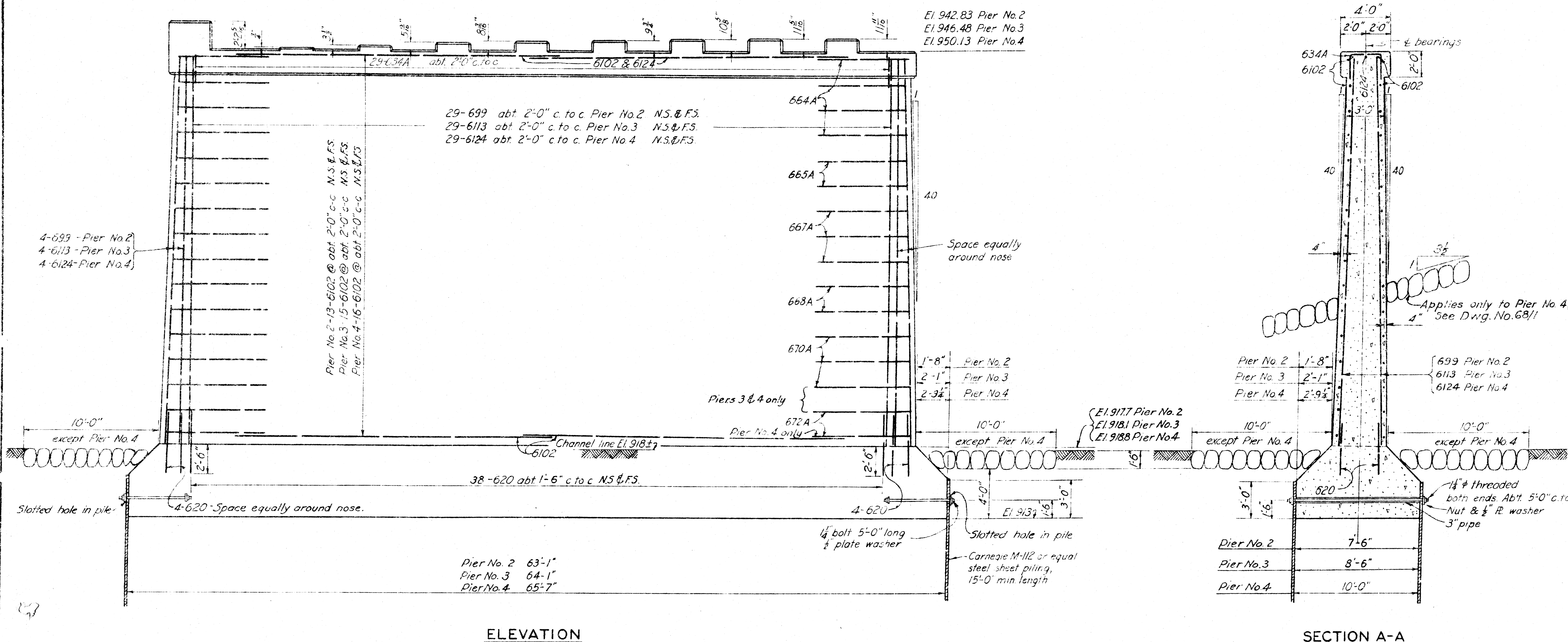


REINFORCING SCHEDULE

MARK	SIZE	LGTH.	BENDING DIAGRAM	NO.	UNIT WT.	TOTAL WT.
620	3/8"	5'-0"		84	7.51	631
634A	3/8"	8'-6"		29	12.77	370
664A	3/8"	16'-0"		8	24.03	192
665A	3/8"	16'-3"		4	24.41	98
667A	3/8"	16'-9"		6	25.16	151
668A	3/8"	17'-0"		4	25.53	102
670A	3/8"	17'-6"		6	26.29	158
699	3/8"	24'-9"		66	37.17	2453
6102	3/8"	25'-6"		52	38.30	1992
6124	3/8"	31'-0"		2	46.56	93
				Total	6187	
620	3/8"	5'-0"		84	7.51	631
634A	3/8"	8'-6"		29	12.77	370
664A	3/8"	16'-0"		8	24.03	192
665A	3/8"	16'-3"		4	24.41	98
667A	3/8"	16'-9"		6	25.16	151
668A	3/8"	17'-0"		4	25.53	102
670A	3/8"	17'-6"		6	26.29	158
672A	3/8"	18'-0"		4	27.04	108
6102	3/8"	25'-6"		60	38.30	2298
6113	3/8"	28'-3"		66	42.43	2800
6124	3/8"	31'-0"		2	46.56	93
				Total	6947	
620	3/8"	5'-0"		84	7.51	631
634A	3/8"	8'-6"		29	12.77	370
664A	3/8"	16'-0"		8	24.03	192
665A	3/8"	16'-3"		4	24.41	98
667A	3/8"	16'-9"		6	25.16	151
668A	3/8"	17'-0"		4	25.53	102
670A	3/8"	17'-6"		6	26.29	158
672A	3/8"	18'-0"		4	27.04	108
6102	3/8"	25'-6"		64	38.30	2451
6124	3/8"	31'-0"		68	46.56	3166
				Total	7427	

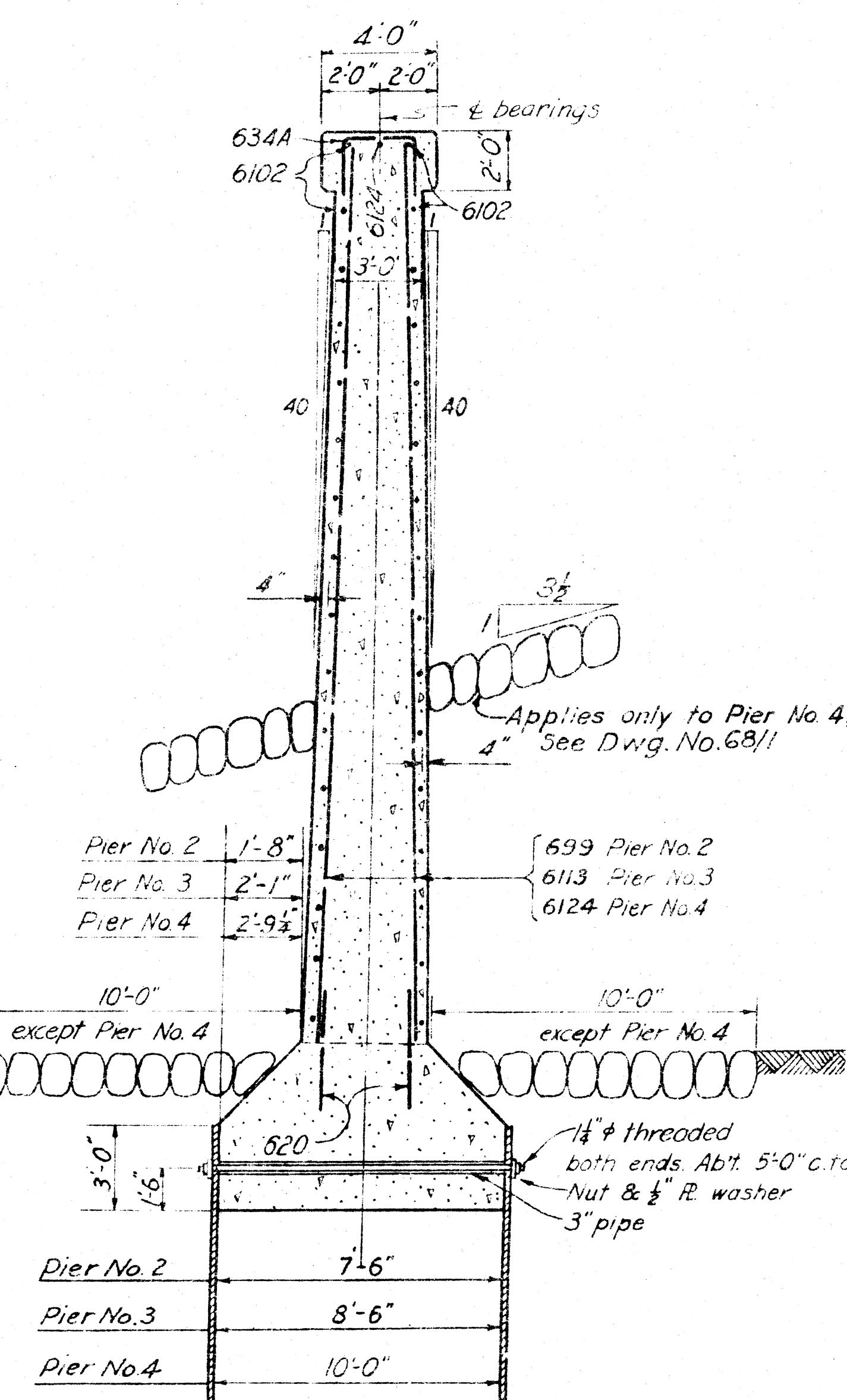
NOTES

For masonry notes and explanation of reinforcing steel code, see Dwg. No. 20/1.
For anchor bolt layout, see Dwg. No. 68/10.
Location of construction joints shall be on & of grooves and determined in field by contracting officer.
For location plan and for riprap around piers, see Dwg. No. 68/1.



SECTION A-A

SCALE 1/4" = 1'-0"



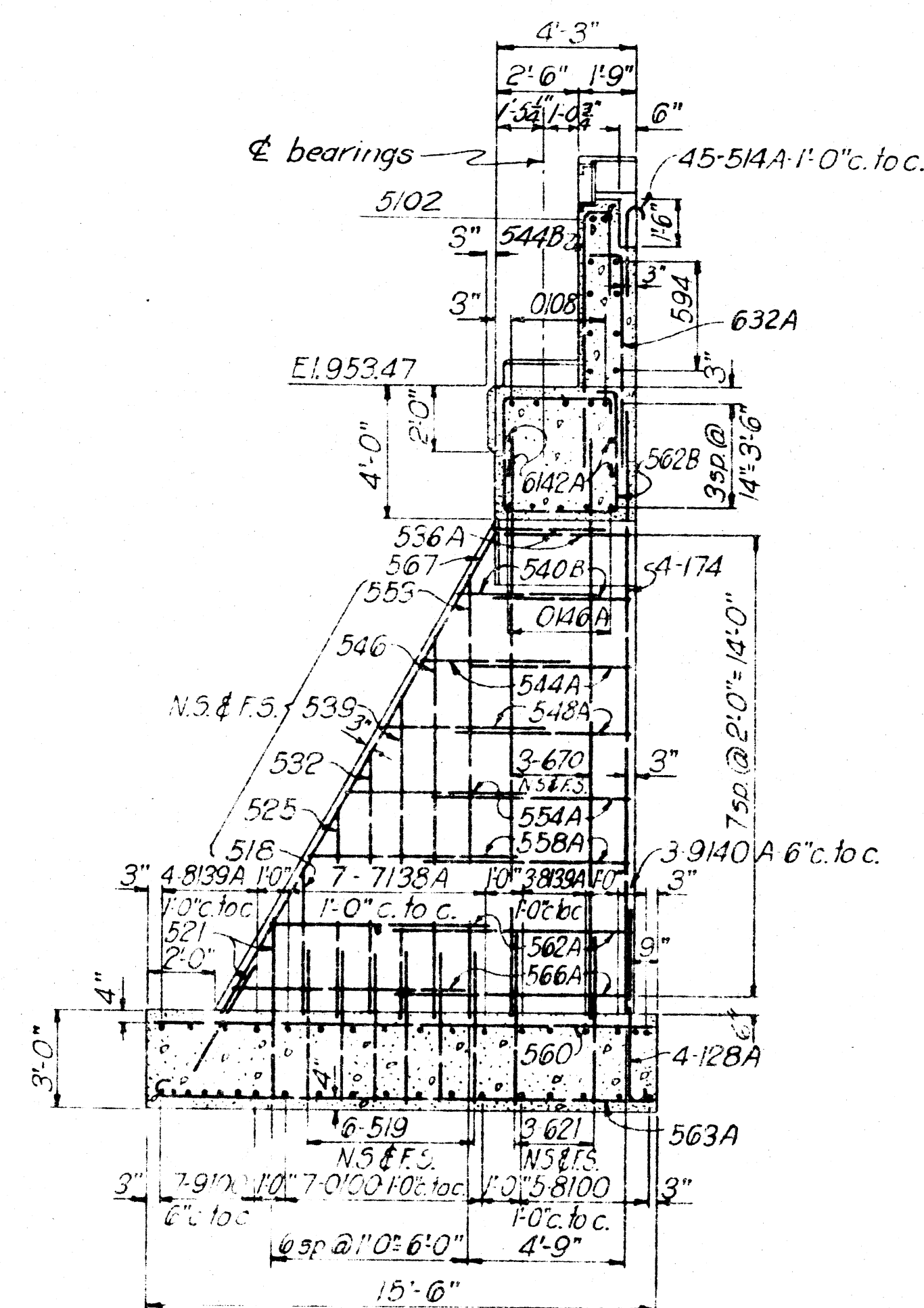
DRAWN BY: A.C.H.		TUSCARAWAS RIVER LOCAL PROTECTION PROJECT MASSILLON, OHIO SECTION 2, UNIT 2 CHERRY ROAD VIADUCT PIERS NOS. 2, 3 & 4	
TRACED BY: C.A.L. - B.T.C.		APPROVED: <i>[Signature]</i> DATE: OCT. 1948	
CHECKED BY: H.P.B. - G.O.S.		APPROVED: <i>[Signature]</i> DATE: OCT. 1948	
SUBMITTED BY: <i>[Signature]</i>		APPROVED: <i>[Signature]</i> DATE: OCT. 1948	
APPROVED FOR: <i>[Signature]</i>		APPROVED: <i>[Signature]</i> DATE: OCT. 1948	
DATE: _____		SCALE: 1/4" = 1'-0" SPEC. NO. _____	
		DRAWING NUMBER 0271-PM2-2-68/3	
		SHEET 28 OF 60	

REINFORCING SCHEDULE

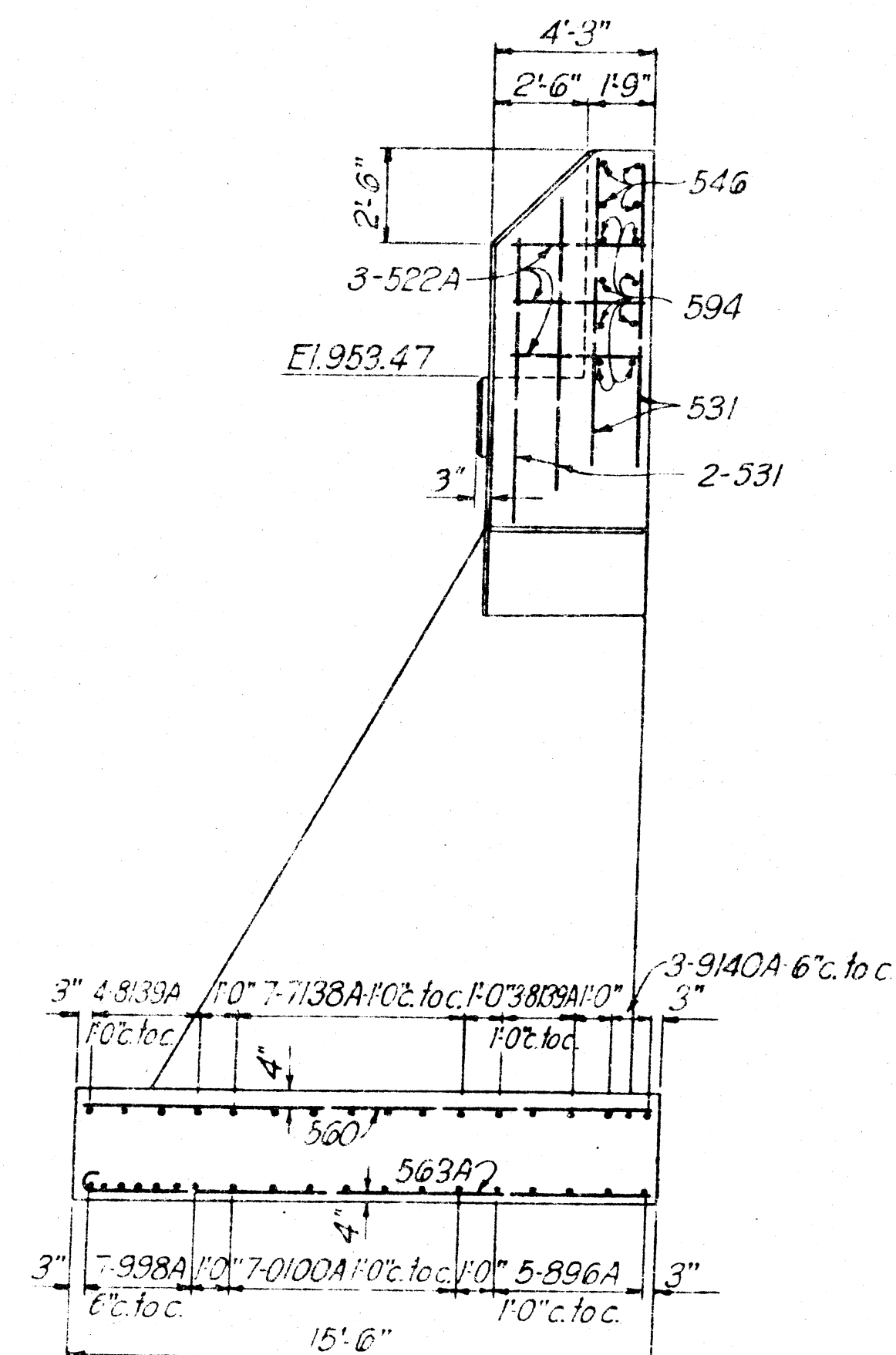
MARK	SIZE	L'GTH	BENDING DIAGRAM	NO.	UNIT WT.	TOTAL WT.
514A	1/2"	3'-6"		45	3.65	164
518	3/8"	4'-6"		6	4.69	28
519	3/8"	4'-9"		36	4.95	178
521	3/8"	5'-3"		15	5.48	82
522A	3/8"	5'-6"		6	5.74	34
525	3/8"	6'-3"		6	6.52	39
531	3/8"	7'-9"		48	8.08	388
532	3/8"	8'-0"		24	8.34	200
537	3/8"	9'-3"		4	9.65	39
536A	3/8"	9'-0"		6	9.39	5
539	3/8"	9'-9"		6	10.17	6
540A	3/8"	10'-0"		4	10.43	4
540B	3/8"	10'-0"		6	10.43	63
546	3/8"	11'-6"		10	11.99	120
544A	3/8"	11'-0"		6	11.47	69
550A	3/8"	12'-6"		6	13.04	78
553	3/8"	13'-3"		6	13.82	83
554A	3/8"	13'-6"		6	14.08	84
558A	3/8"	14'-6"		6	15.12	91
560	3/8"	15'-0"		43	15.65	673
562A	3/8"	15'-6"		6	16.17	97
562B	3/8"	15'-6"		23	16.17	372
563A	3/8"	15'-9"		65	16.43	1068
566A	3/8"	16'-6"		6	17.21	103
567	3/8"	16'-9"		9	17.47	157
594	3/8"	23'-6"		24	24.51	588
5102	3/8"	25'-6"		4	26.60	106
544B	3/8"	11'-0"		45	11.47	516
621	3/8"	5'-3"		18	7.89	142
632A	3/8"	8'-0"		45	12.02	541
670	3/8"	17'-6"		18	26.29	473
6142A	3/8"	35'-6"		8	53.32	427
7138A	3/8"	34'-6"		14	70.52	987
896A	1/2"	24'-0"		10	64.08	641
8100	1/2"	25'-0"		5	66.75	334
8139A	1/2"	34'-9"		14	92.78	1299
128A	1/2"	7'-0"		12	23.80	286
174	1/2"	18'-6"		12	62.90	755
998A	1/2"	24'-6"		14	105.42	1476
9100	1/2"	25'-0"		7	107.58	753
9140A	1/2"	35'-0"		6	150.61	904
0100	1/2"	25'-0"		7	132.83	930
0100A	1/2"	25'-0"		24	132.83	3188
0108	1/2"	27'-0"		5	143.45	717
0146A	1/2"	36'-6"		10	193.92	1939
Total					21,371	

NOTES

For masonry notes and explanation of reinforcing steel code, see Dwg. No. 20/1.
 For anchor bolt layout, see Dwg. No. 68/10.
 For location plan, see Dwg. No. 68/1.
 For expansion plate detail, see Dwg. No. 68/11.
 Elevations shown are to top surfaces of roadway or sidewalk.

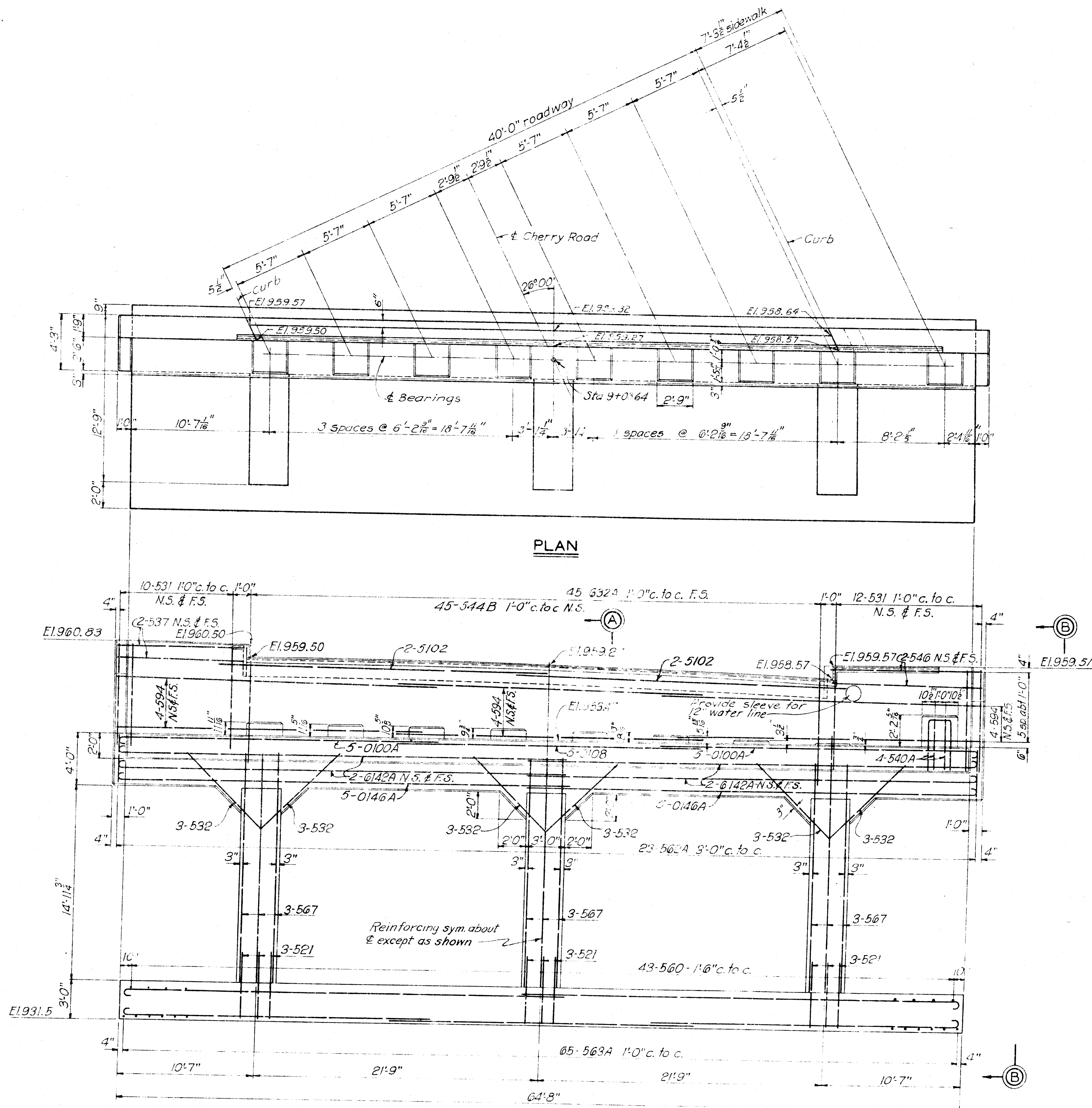


SECTION A-A

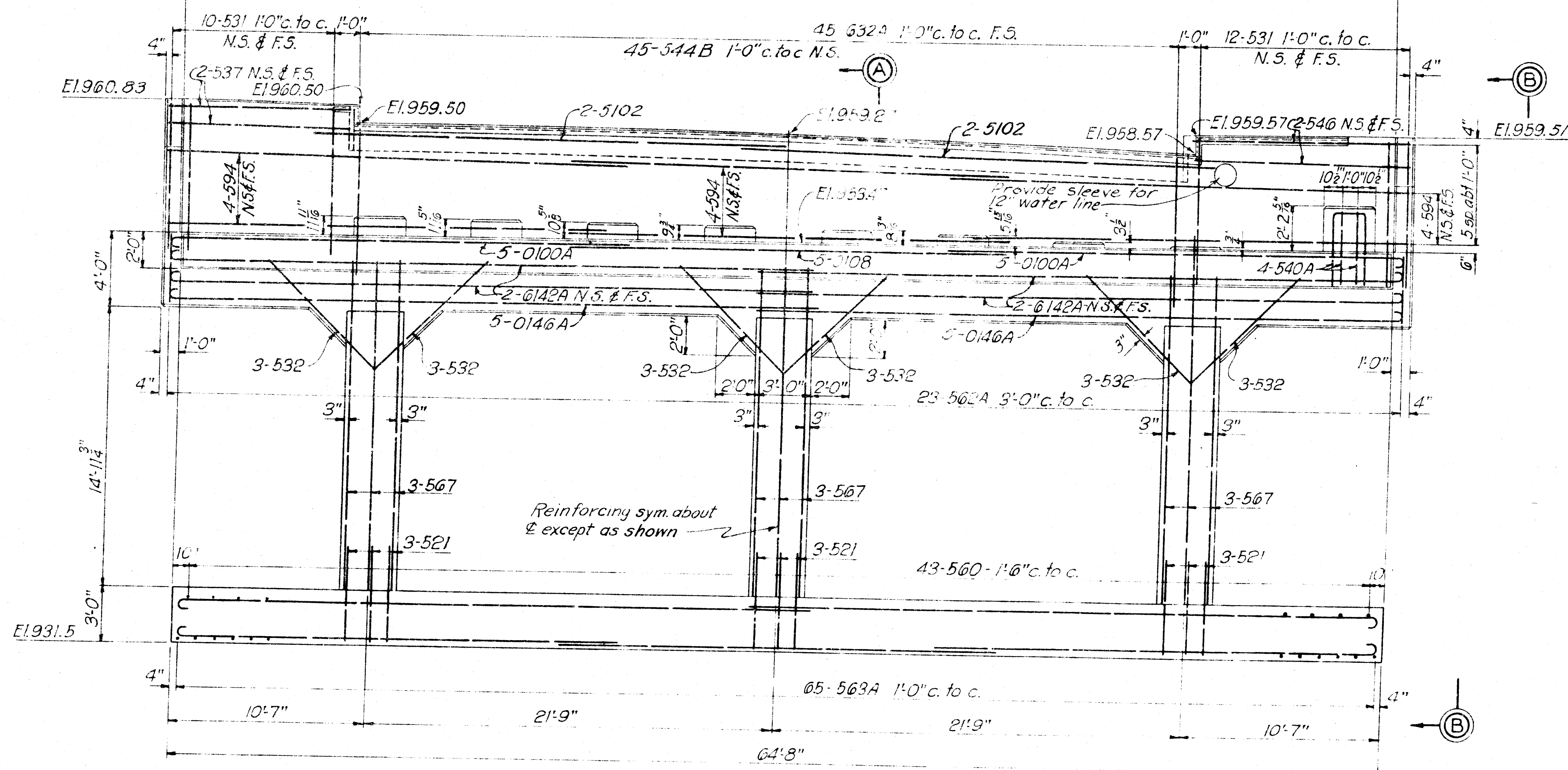


END VIEW B-B

SCALE: 1/4" = 1'-0"

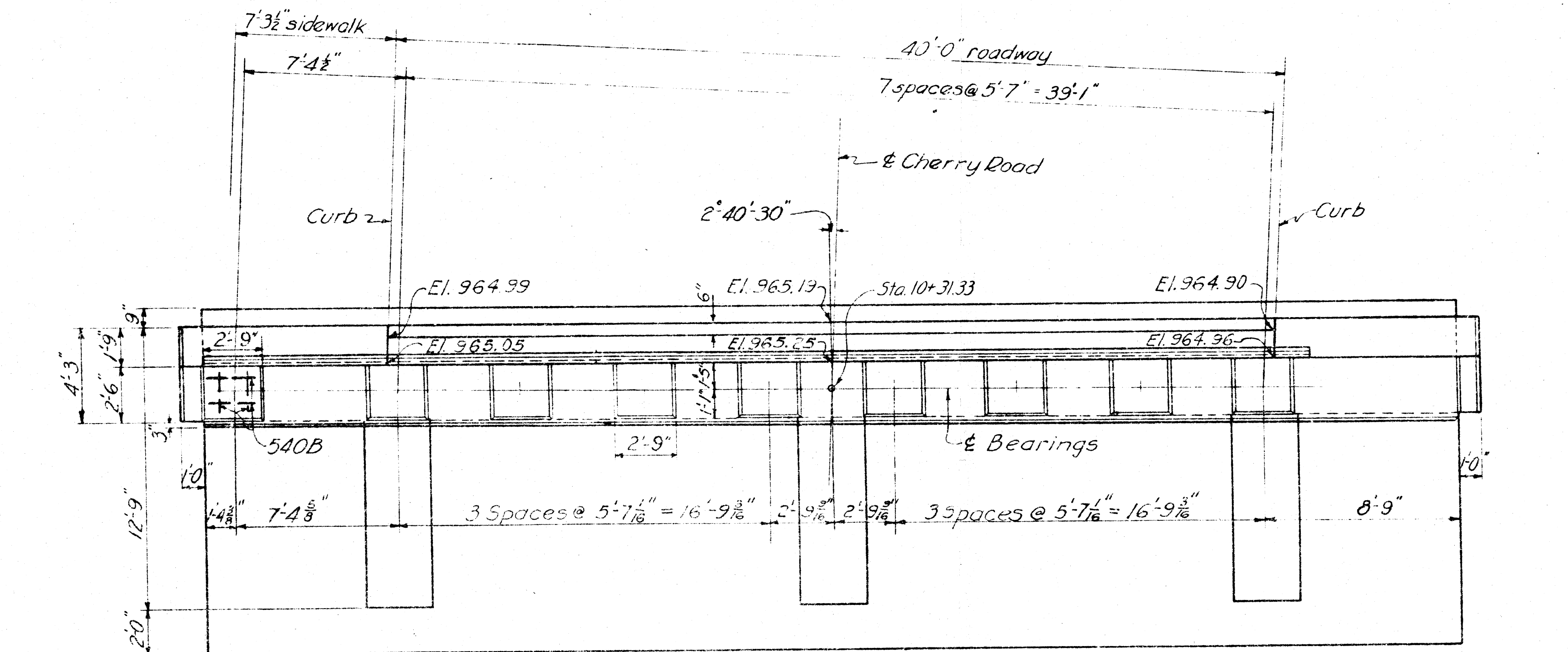


PLAN

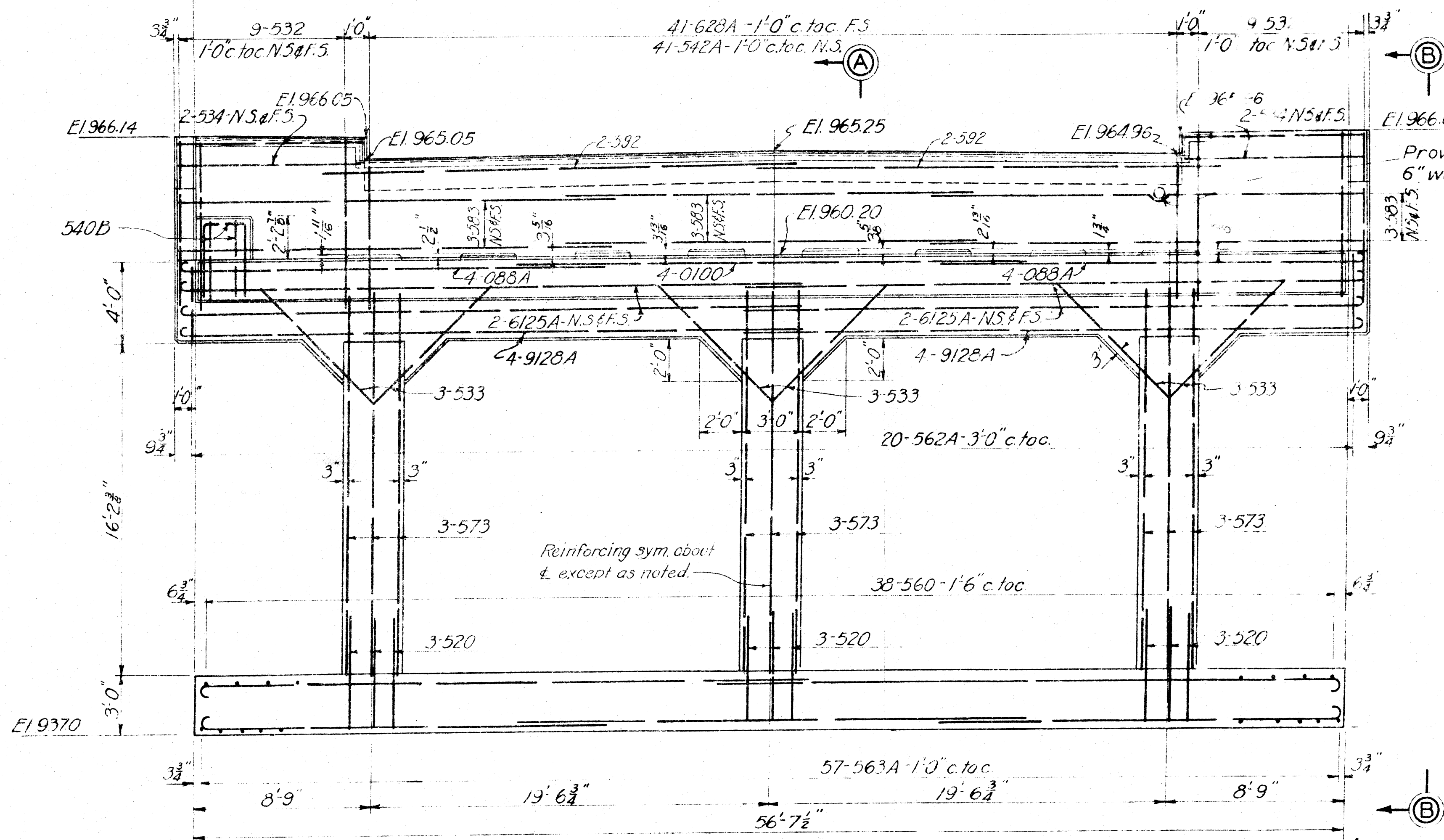


ELEVATION

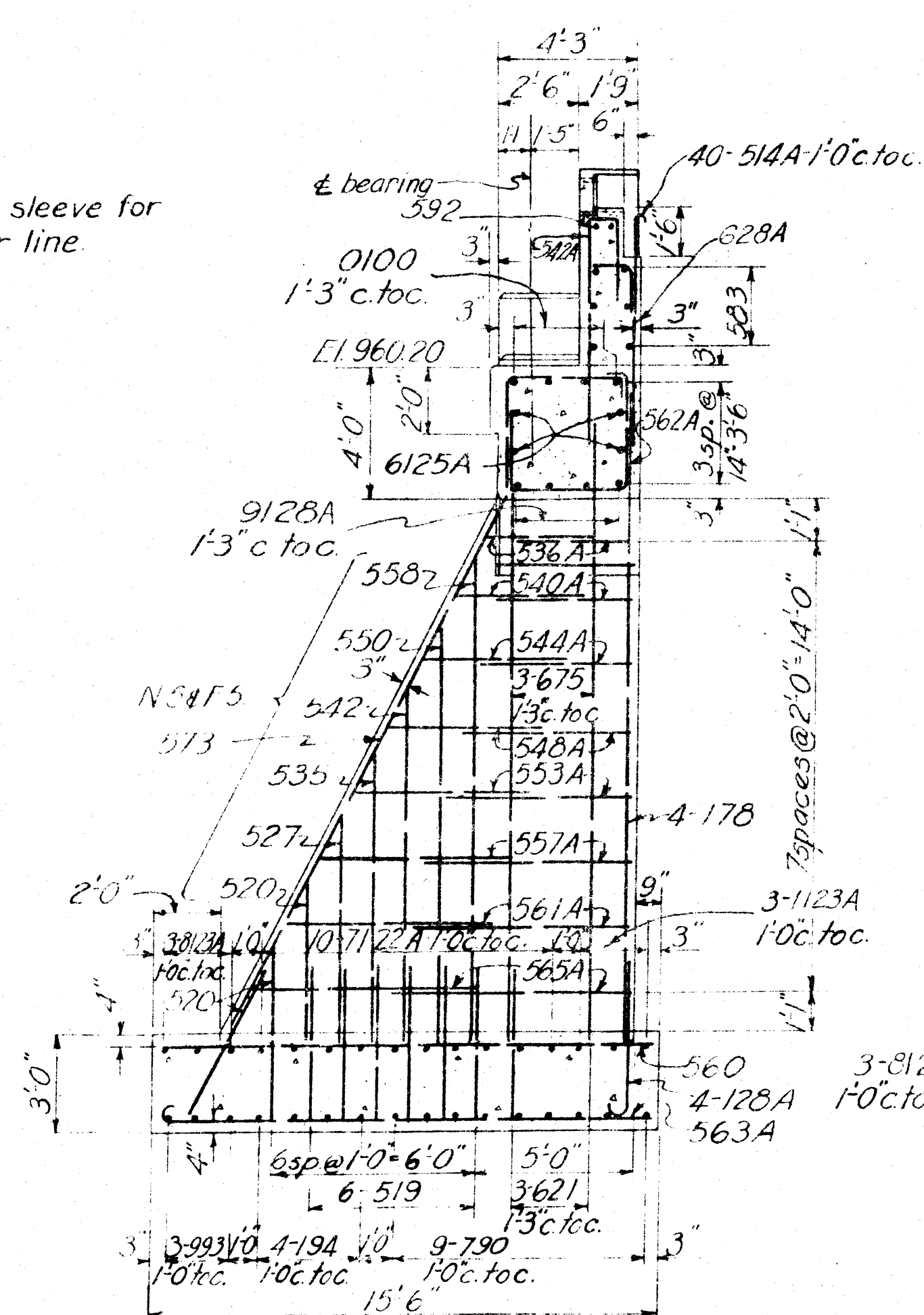
DRAWN BY: R.M.C.		DEPARTMENT OF THE ARMY CORPS OF ENGINEERS OFFICE OF THE DISTRICT ENGINEER HUNTINGTON, W. VA.	
TRACED BY: H.E.C.-J.F.C.		TUSCARAWAS RIVER LOCAL PROTECTION PROJECT MASSILLON, OHIO SECTION 2, UNIT 2 CHERRY ROAD VIADUCT ABUTMENT NO. 5	
CHECKED BY: H.F.B.-C.O.S.		DATE: OCT. 1948	
APPROVED: [Signature]		APPROVED: [Signature]	
APPROVED FOR: [Signature]		SCALE: 1/4" = 1'-0"	
DATE: [Blank]		SPEC. NO. [Blank]	
DRAWING NUMBER: 0271-PM2-2-68/4		SHEET 29 OF 30	



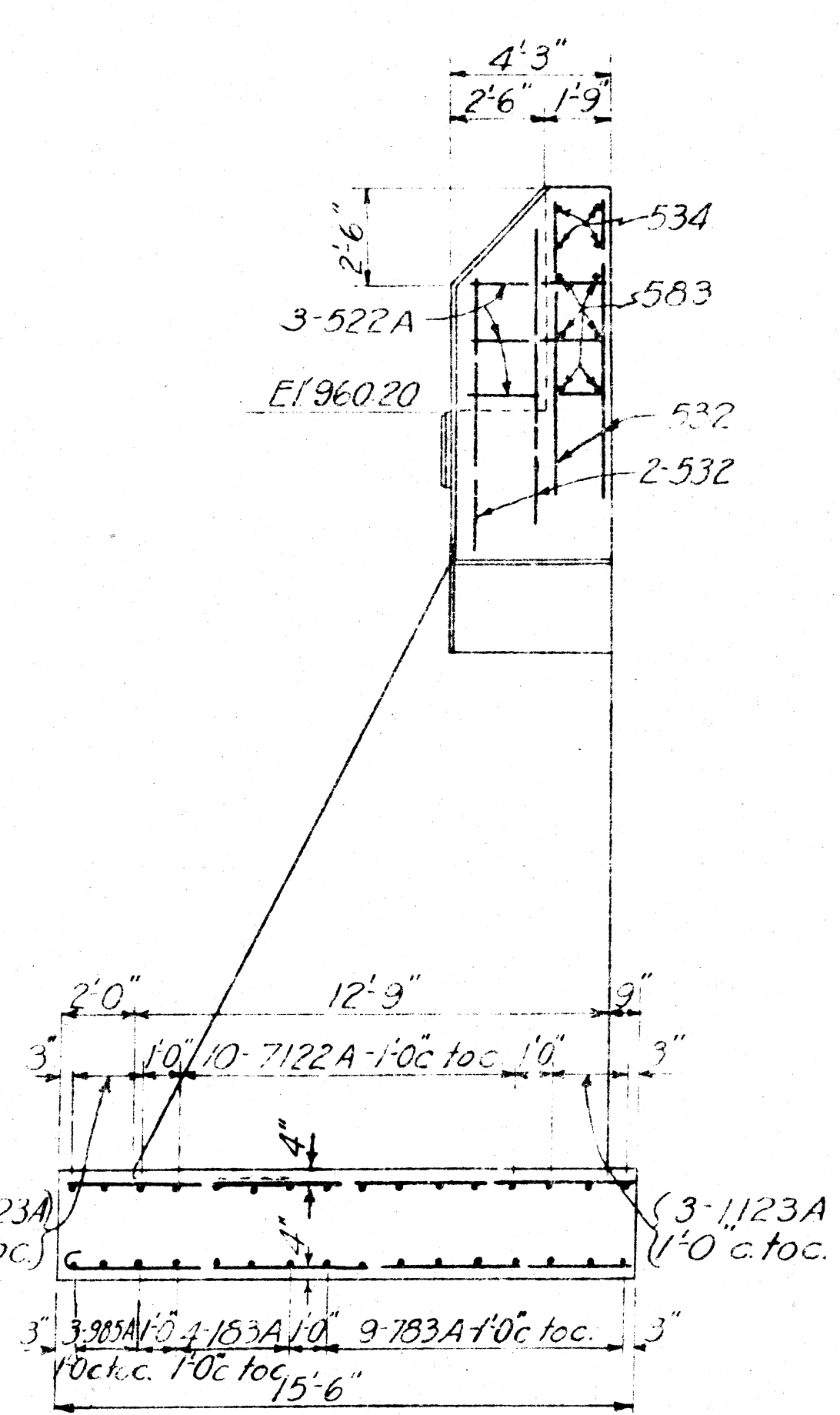
PLAN



ELEVATION



SECTION A-A



ELEVATION B-B

SCALE: 1/4" = 1'-0"

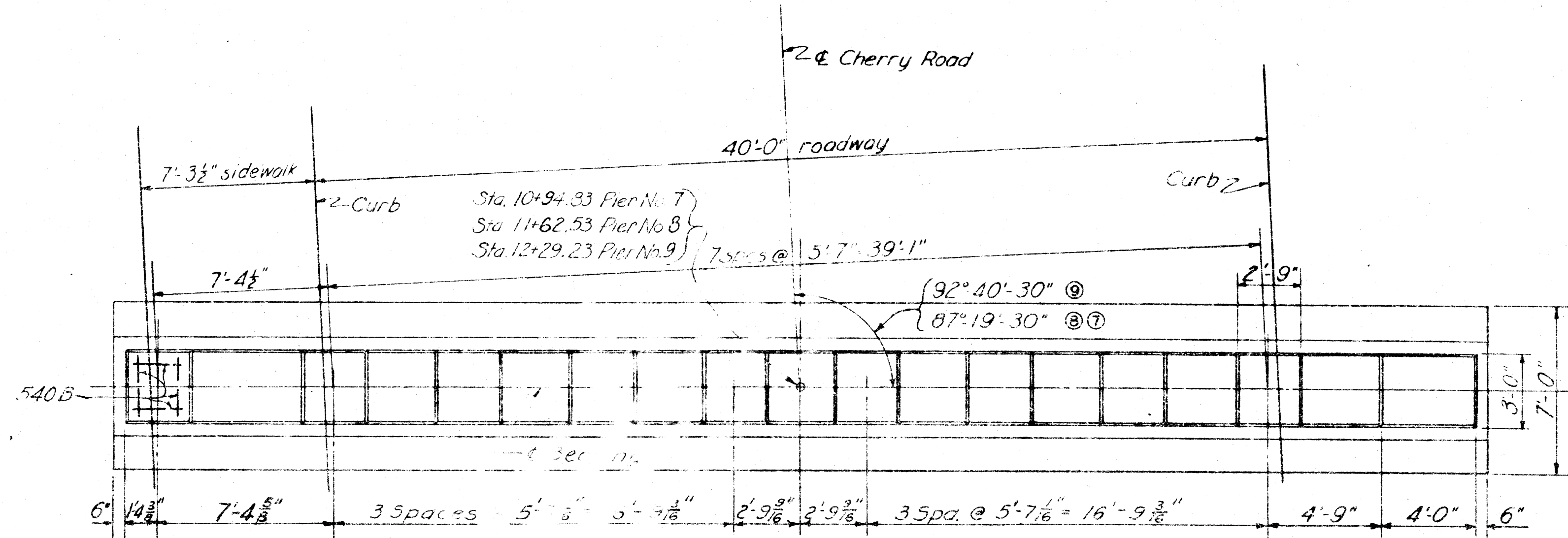
REINFORCING SCHEDULE

MARK	SIZE	LGTH	BENDING DIAGRAM	NO.	UNIT WT.	TOTAL WT.
514A	#8	3'-6"		40	3.65	146
519	#8	4'-9"		36	4.95	178
520	#8	5'-0"		21	5.22	110
522A	#8	5'-6"	15'-0"	6	5.74	34
527	#8	6'-9"	29'-9"	6	7.04	42
532	#8	8'-0"	30'-5"	40	8.34	334
533	#8	8'-3"	30'-11"	18	8.60	155
534	#8	8'-6"	19'-10"	8	8.87	71
535	#8	8'-9"	19'-9"	6	9.13	55
536A	#8	9'-0"	20'-9"	6	9.39	56
540A	#8	10'-0"	29'-7"	6	10.43	63
540B	#8	10'-0"	29'-9"	4	10.43	42
542	#8	10'-6"	6'-0"	6	10.95	66
544A	#8	11'-0"	2'-9"	6	11.47	69
548A	#8	12'-0"	20'-2"	6	12.52	75
550	#8	12'-6"		6	13.04	78
553A	#8	13'-3"		6	13.82	83
557A	#8	14'-3"	3'-3"	6	14.86	89
558	#8	14'-6"	3'-9"	6	15.12	91
560	#8	15'-0"	4'-3"	38	15.65	595
561A	#8	15'-3"	4'-9"	6	15.91	95
562A	#8	15'-6"	5'-4 1/2"	20	16.17	323
563A	#8	15'-9"	5'-10 1/2"	57	16.43	937
565A	#8	16'-3"	6'-4 1/2"	6	16.95	102
573	#8	20'-9"	6'-10 1/2"	9	13.03	171
583	#8	20'-9"		18	21.64	390
542A	#8	10'-6"		41	10.95	449
592	#8	23'-0"	5'-9"	4	23.99	96
621	#8	5'-3"	3'-6"	18	7.89	142
675	#8	18'-9"		18	28.16	507
6125A	#8	31'-3"		8	46.94	376
628A	#8	7'-0"		41	10.51	431
733A	#8	20'-9"		13	42.41	763
790	#8	22'-6"		9	45.99	414
1122A	#8	30'-6"		20	62.34	1247
5123A	#8	30'-9"		6	62.10	493
128A	#8	7'-0"	3'-9"	12	23.80	286
178	#8	19'-6"		12	66.30	796
183A	#8	20'-9"		8	70.55	564
194	#8	23'-6"		4	79.90	320
1123A	#8	30'-9"		6	104.55	627
993	#8	23'-3"	4'-0"	3	100.04	300
9128A	#8	32'-0"		8	137.70	1102
983A	#8	21'-3"		6	91.44	549
088A	#8	22'-0"		8	116.89	935
0100	#8	25'-0"		4	152.83	531
Total						15,378

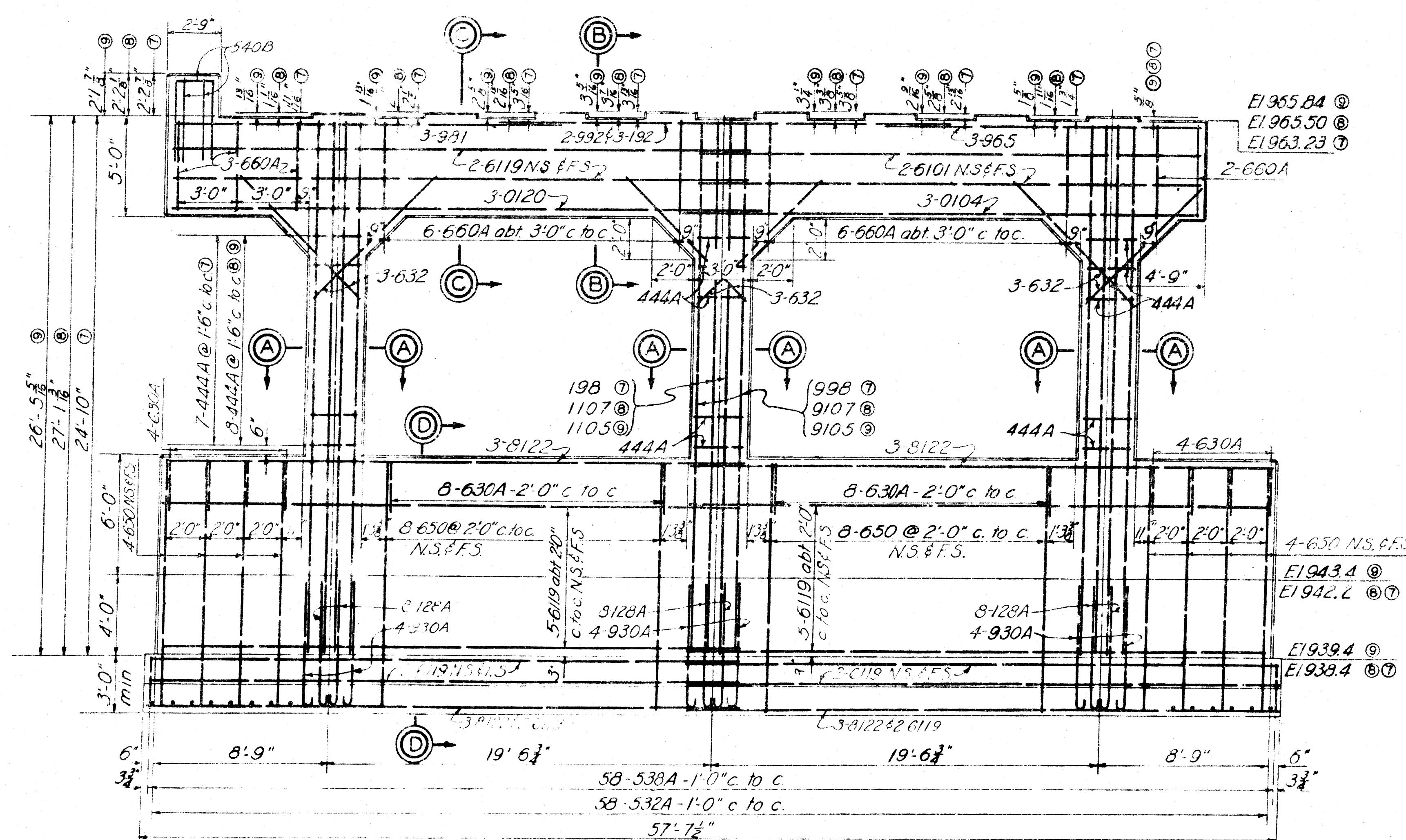
NOTES

For masonry notes and explanation of reinforcing steel code, see Dwg. No. 20/1.
 For anchor bolt layout, see Dwg. No. 68/10.
 For location plan, see Dwg. No. 68/11.
 For expansion plate detail, see Dwg. No. 68/11.
 Elevations shown are to top surfaces of roadway or sidewalk.

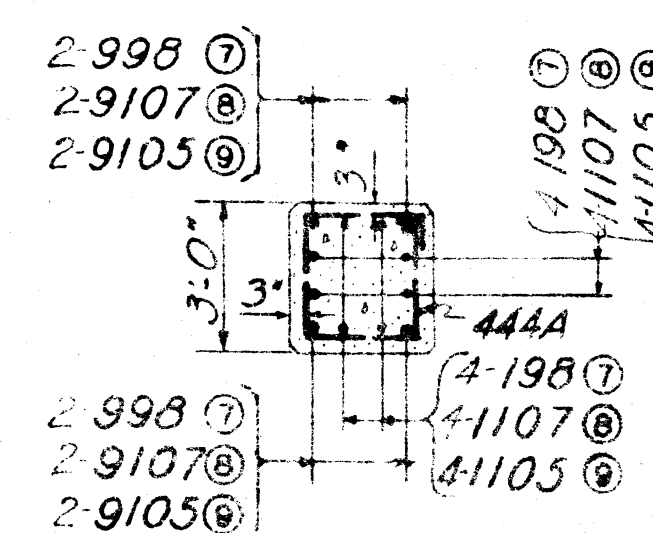
DRAWN BY: R.M.C.		TUSCARAWAS RIVER LOCAL PROTECTION PROJECT MASSILLON, OHIO SECTION 2, UNIT 2 CHERRY ROAD VIADUCT ABUTMENT NO. 6	
TRACED BY: L.D.H. - B.T.C.		DATE: OCT. 1948	
CHECKED BY: H.F.B. - G.O.S.		APPROVED: COL. C.E. DISTRICT ENGINEER	
SUBMITTED BY: H.M.C.		APPROVED FOR: SCALE: 1/4" = 1'-0"	
APPROVED: H.M.C.		SPEC. NO.	
DATE:		DRAWING NUMBER 0271-PM2-2-68/5	
		SHEET 30 OF 60	



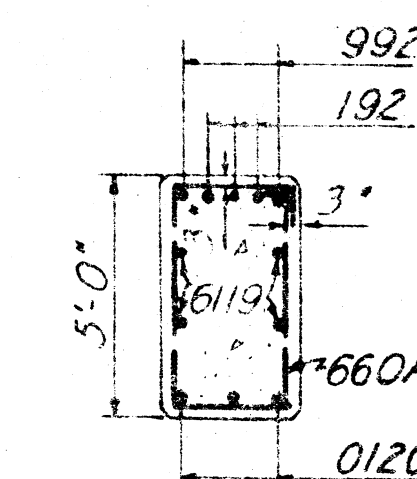
PLAN
PIERS 7, 8, & 9



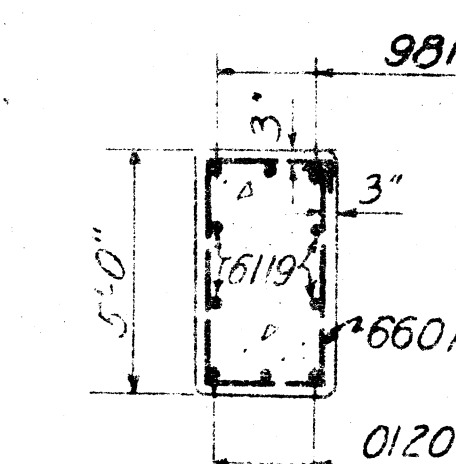
ELEVATION



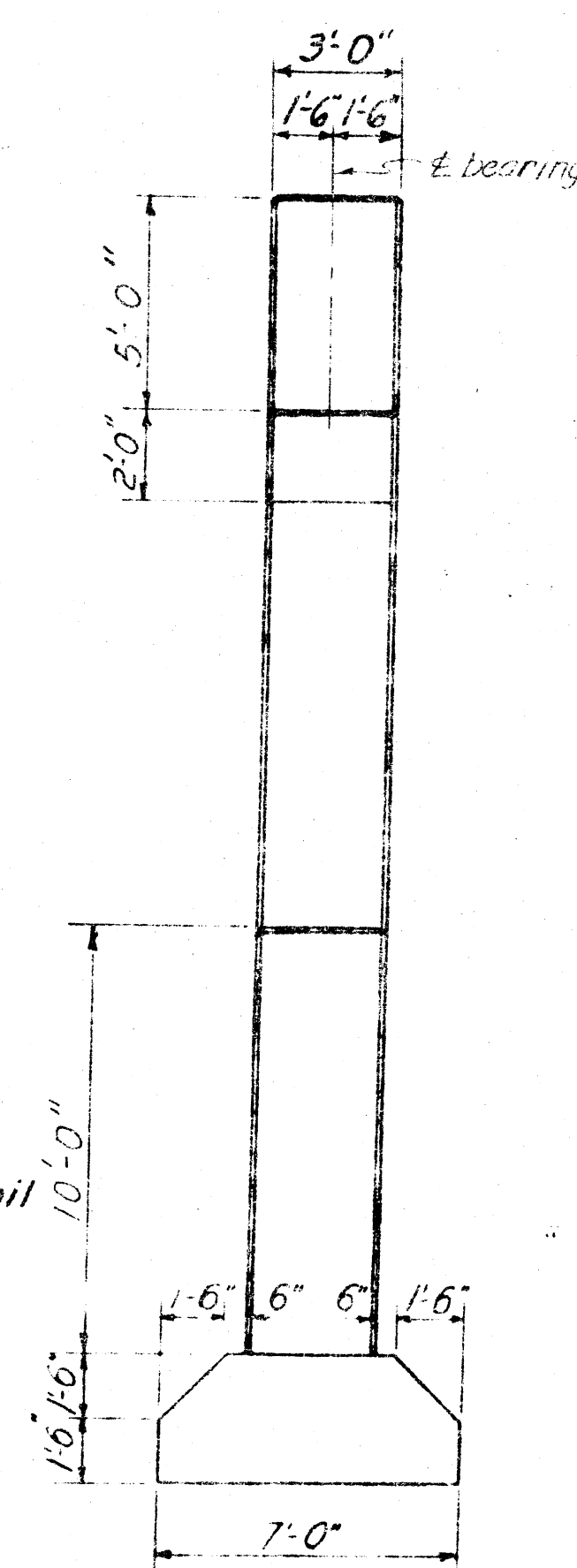
SECTION A-A



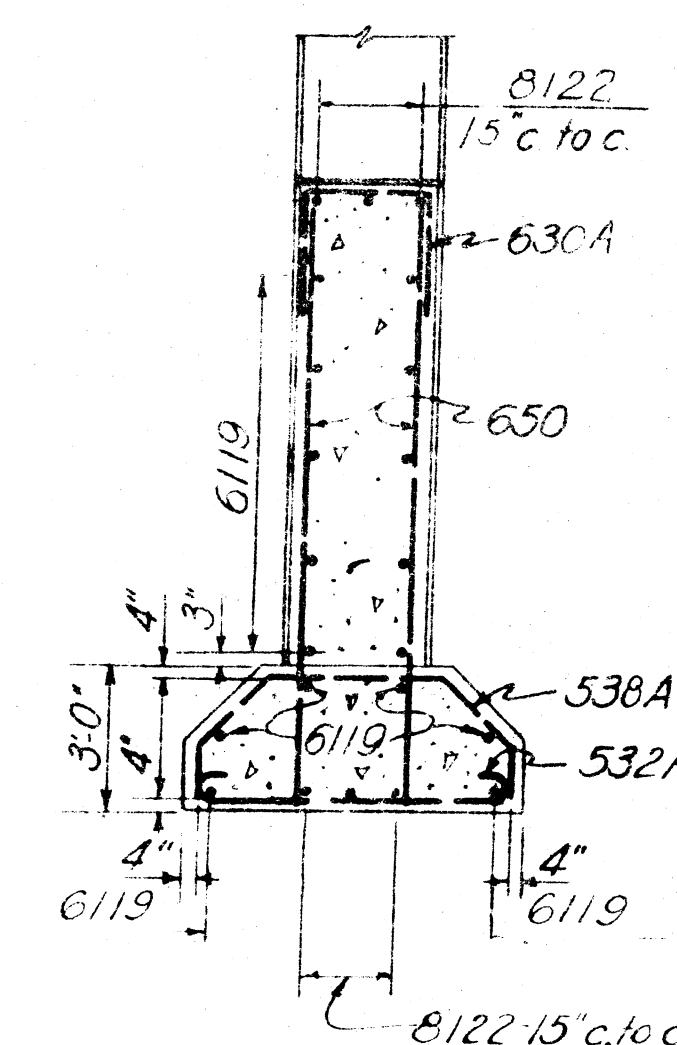
SECTION B-B



SECTION C-C



END ELEVATION



SECTION D-D

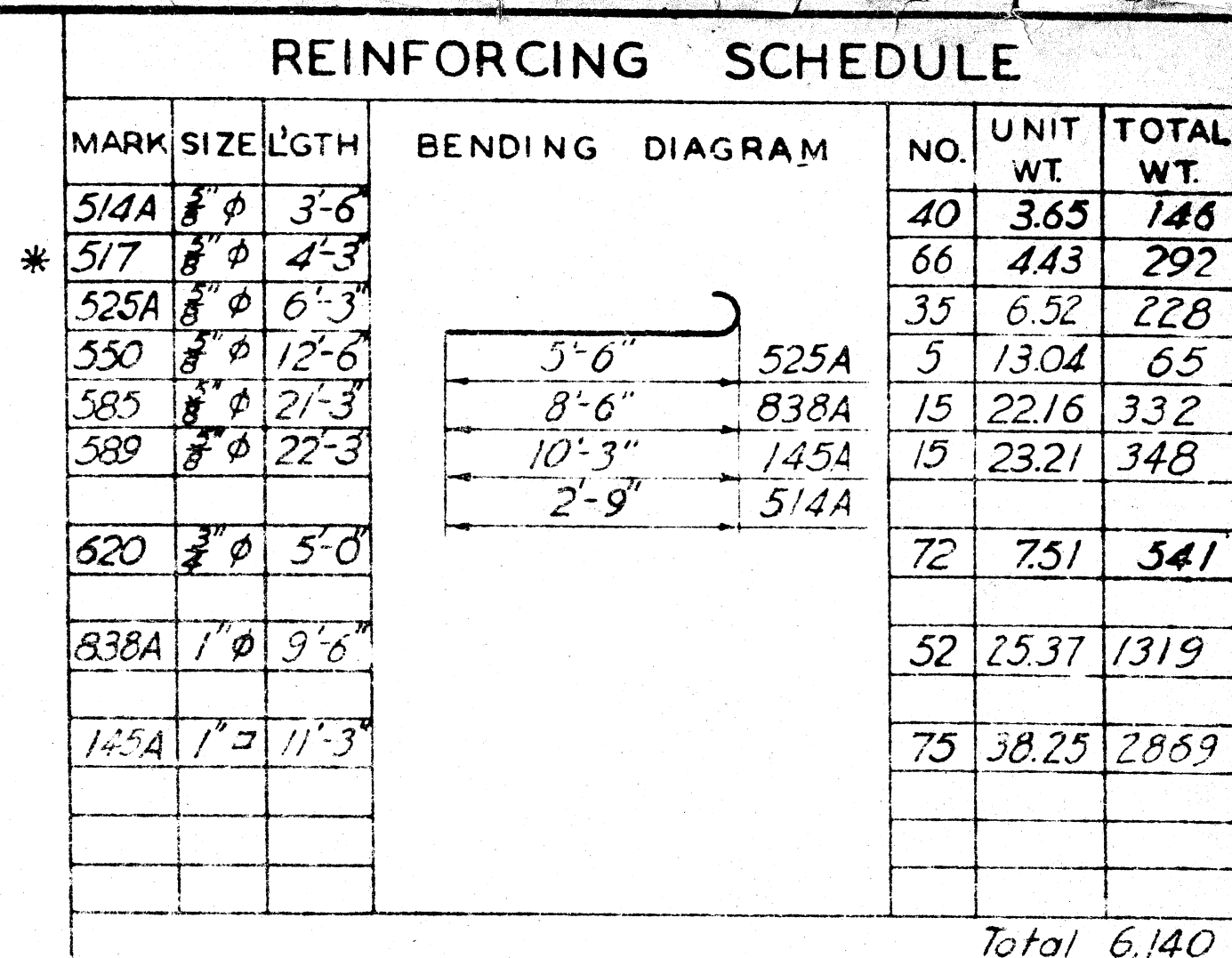
REINFORCING SCHEDULE

MARK	SIZE	L'GTH	BENDING DIAGRAM	NO. EACH PIER	TOTAL	UNIT	TOTAL
NO. 7	NO. 8	NO. 9	NO.	WT.	WT.		
444A	1/2"	11'-0"		21	24	24	69
532A	3/8"	8'-0"		58	58	58	174
538A	3/8"	9'-6"		58	58	58	174
540B	3/8"	10'-0"		4	4	4	16
630A	3/8"	7'-6"		24	24	24	72
632	3/8"	8'-0"		18	18	18	54
650	3/8"	12'-6"		48	48	48	144
660A	3/8"	15'-0"		17	17	17	51
6101	3/8"	25'-3"		4	4	4	12
6119	3/8"	29'-9"		36	36	36	108
8122	1/2"	30'-6"		12	12	12	36
128A	1/2"	7'-0"		24	24	24	72
192	1/2"	23'-0"		3	3	3	9
198	1/2"	24'-6"		24			24
1105	1/2"	26'-3"					24
1107	1/2"	26'-9"					24
930A	1/2"	7'-6"		12	12	12	36
965	1/2"	16'-3"		3	3	3	9
981	1/2"	20'-3"		3	3	3	9
992	1/2"	23'-0"		2	2	2	6
998	1/2"	24'-6"		12			12
9105	1/2"	26'-3"					12
9107	1/2"	26'-9"					12
0104	1/2"	26'-0"		3	3	3	9
0120	1/2"	30'-0"		3	3	3	9
Total				35,964			

NOTES

For masonry notes and explanation of reinforcing steel code, see Dwg. No. 20/1.
For anchor bolt plan, see Dwg. No. 68/10.
For location plan, see Dwg. No. 68/1.

DEPARTMENT OF THE ARMY CORPS OF ENGINEERS OFFICE OF THE DISTRICT ENGINEER HUNTINGTON, W. VA.		TUSCARAWAS RIVER LOCAL PROTECTION PROJECT MASSILLON, OHIO SECTION 2, UNIT 2 CHERRY ROAD VIADUCT PIERS NOS. 7, 8 & 9	
DRAWN BY: L.D.C.	TRACED BY: R.C.H.-C.C.C.	CHECKED BY: H.F.B.-G.O.S.	APPROVED BY: H.F.B.-G.O.S.
SUBMITTED BY: H.F.B.-G.O.S.	APPROVED BY: H.F.B.-G.O.S.	APPROVED BY: H.F.B.-G.O.S.	APPROVED BY: H.F.B.-G.O.S.
DATE:	DATE:	DATE:	DATE:
SCALE: 1/4" = 1'-0"	SCALE: 1/4" = 1'-0"	SCALE: 1/4" = 1'-0"	SCALE: 1/4" = 1'-0"
DRAWING NUMBER 027i-PM2-2-68/6	DRAWING NUMBER 027i-PM2-2-68/6	DRAWING NUMBER 027i-PM2-2-68/6	DRAWING NUMBER 027i-PM2-2-68/6

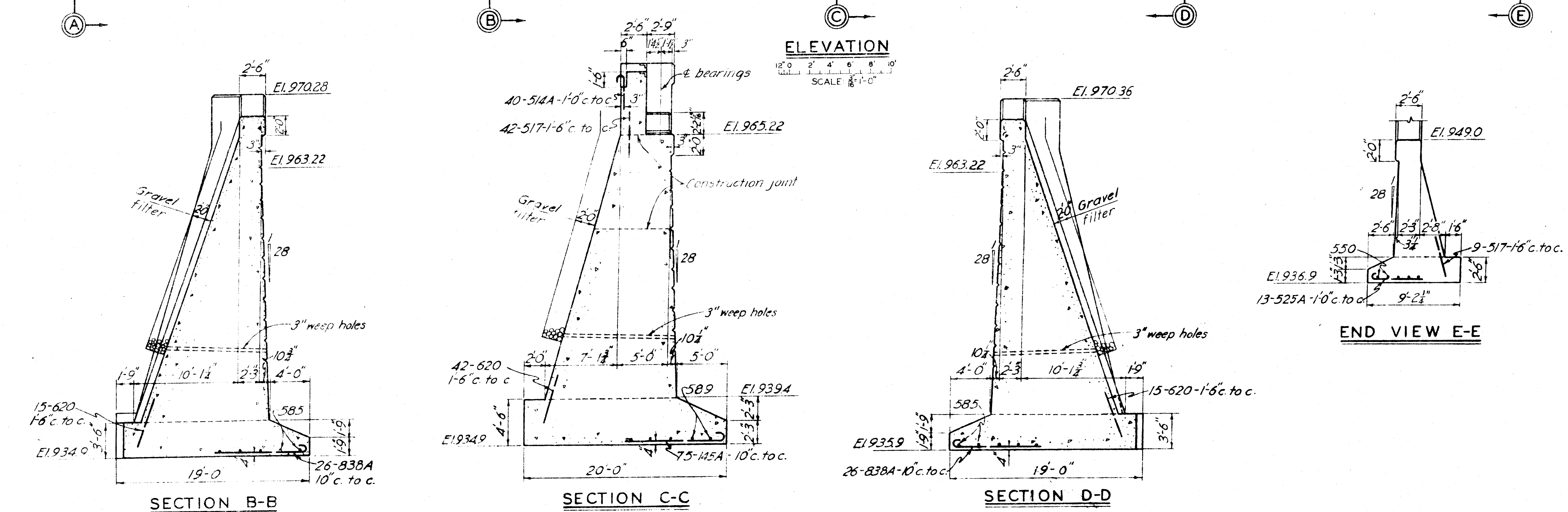


* Additional 517 bars required at all constr. joints established in the field.

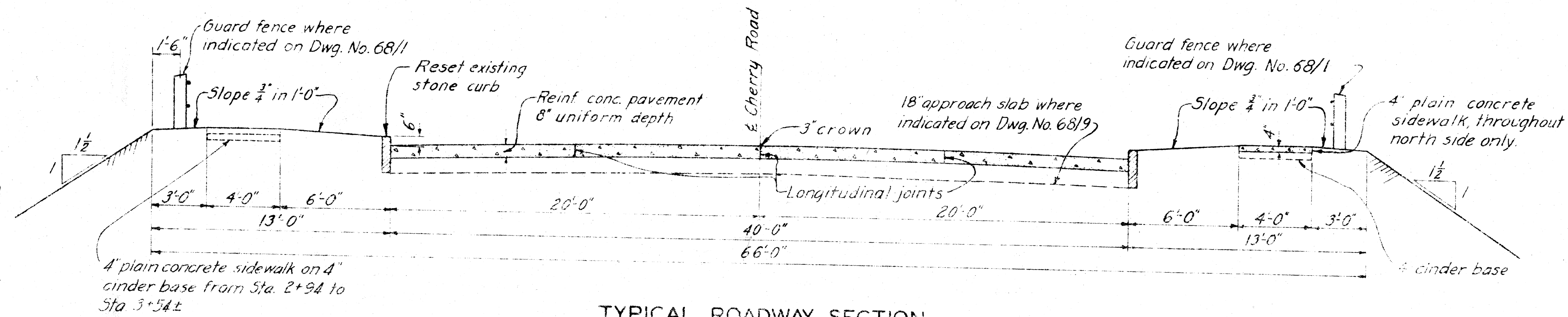


For masonry notes and explanation of reinforcing steel code, see Dwg. No. 20/11.
Place all reinforcing steel 4" minimum from surfaces unless otherwise noted.
For groove detail, see Dwg. No. 68/12.
For anchor bolt layout, see Dwg. No. 68/10.
For location plan, see Dwg. No. 68/1.
For expansion plate detail, see Dwg. No. 68/11.

Elevations shown are to top surfaces of roadway or sidewalk.



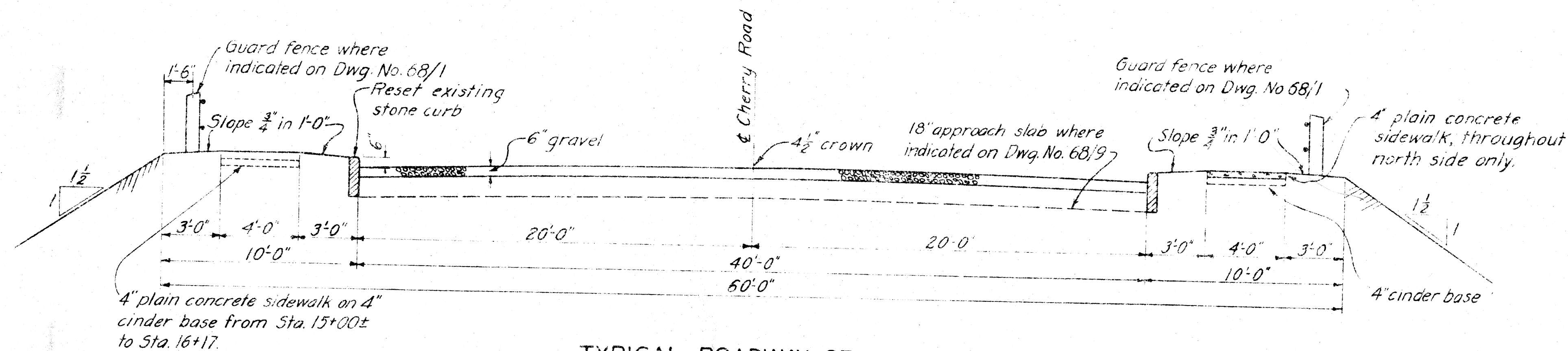
DRAWN BY: R.M.C.		DEPARTMENT OF THE ARMY CORPS OF ENGINEERS OFFICE OF THE DISTRICT ENGINEER HUNTINGTON, W. V.	
TRACED BY: A. R. M. - J.F.C.		TUSCARAWAS RIVER LOCAL PROTECTION PROJECT MASSILLON, OHIO SECTION 2, UNIT 2 CHERRY ROAD VIADUCT ABUTMENT NO. 10	
CHECKED BY: H.B. - G.O.S.		DATE: OCT. 1948	
SUBMITTED BY: <i>[Signature]</i> CARET. ENG. DIV.		APPROVED: <i>[Signature]</i>	
APPROVED: <i>[Signature]</i> CHIEF ENGR. ASST.		COL C.E. DISTRICT ENGINEER	
APPROVED FOR:		SCALE 3/16" = 1'-0"	SPEC. NO.
DATE:		DRAWING NUMBER O27i-PM2-2-68/7	SHEET 32 OF 50



TYPICAL ROADWAY SECTION
FROM STA. 2+94 TO STA. 6+07
AND STA. 9+06 TO STA. 10+29

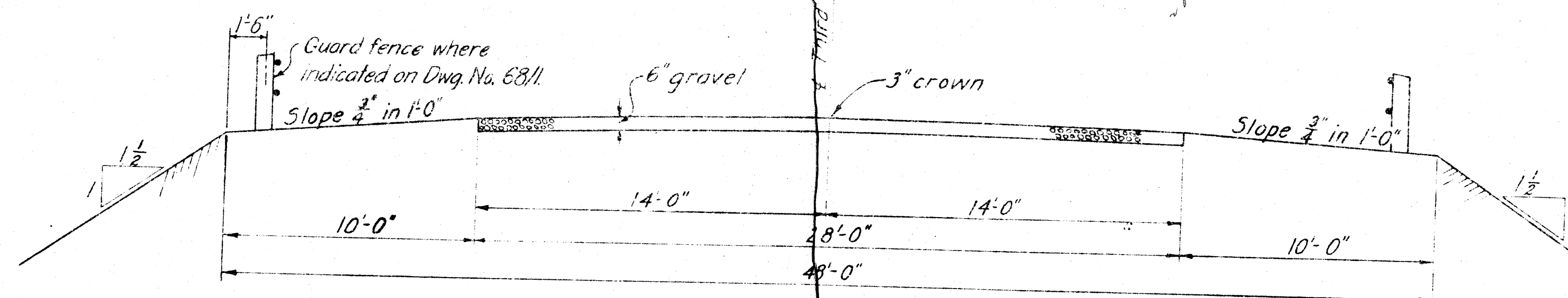
SCALE: $\frac{1}{4}$ " = 1'-0"

Note: Curb and sidewalks to be 6" higher at bridge. Run out to typical section in 50 feet, except as noted on Dwg. No. 68/1.

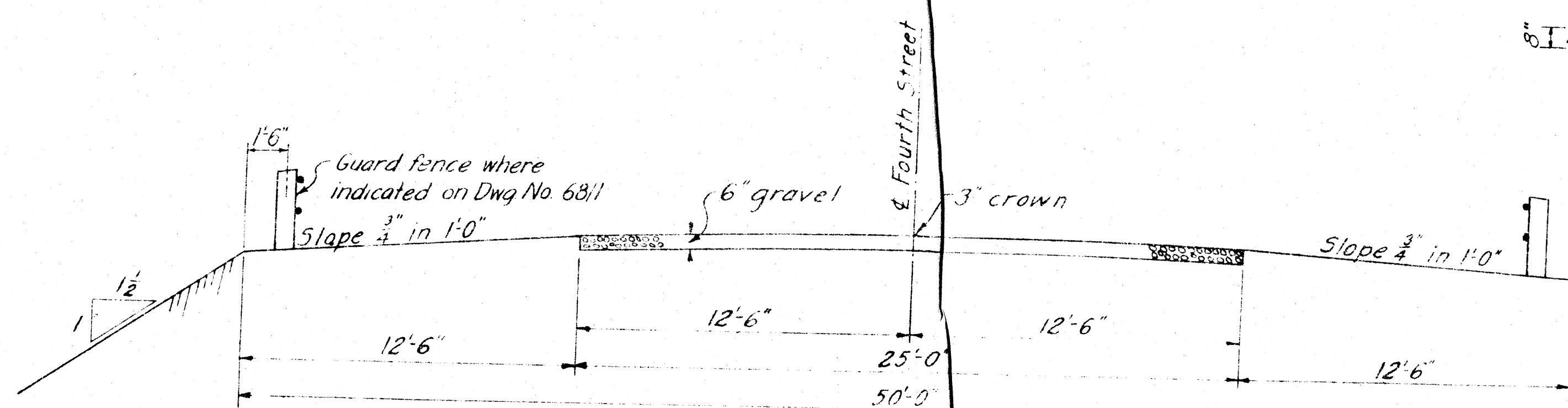


TYPICAL ROADWAY SECTION
FROM STA. 12+96 TO STA. 16+17

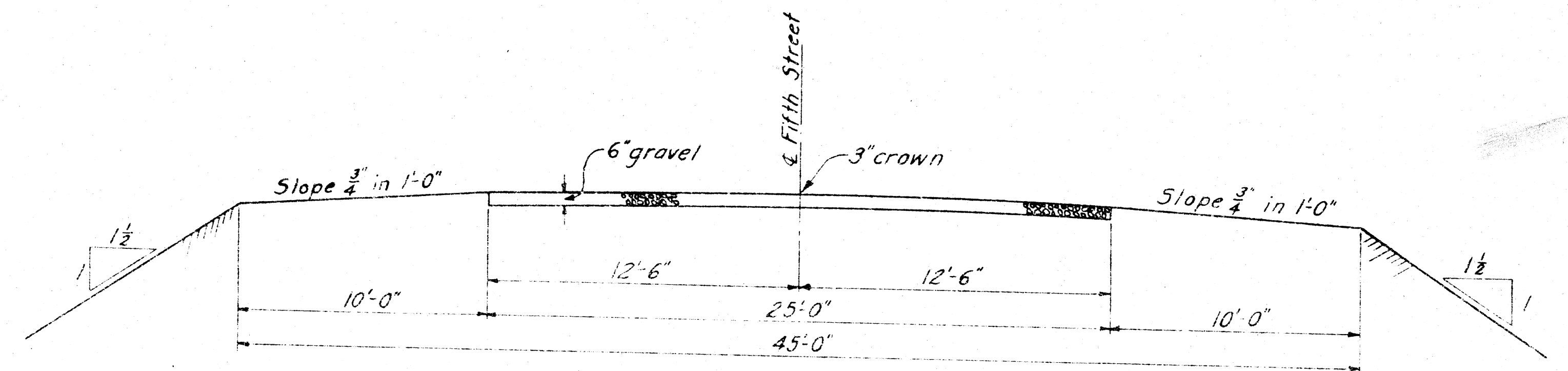
Note: Expansion joints to be placed in reinf. concrete pavement at intervals of not more than 60 feet; these joints shall be continuous across entire width of pavement, and at right angles to E of pavement. Construction joints, where necessary, shall be constructed similar to transverse expansion joints except that spacer tubes and premoled joint material shall be omitted. Laps in bar mat reinforcing to be 1'-0" minimum.



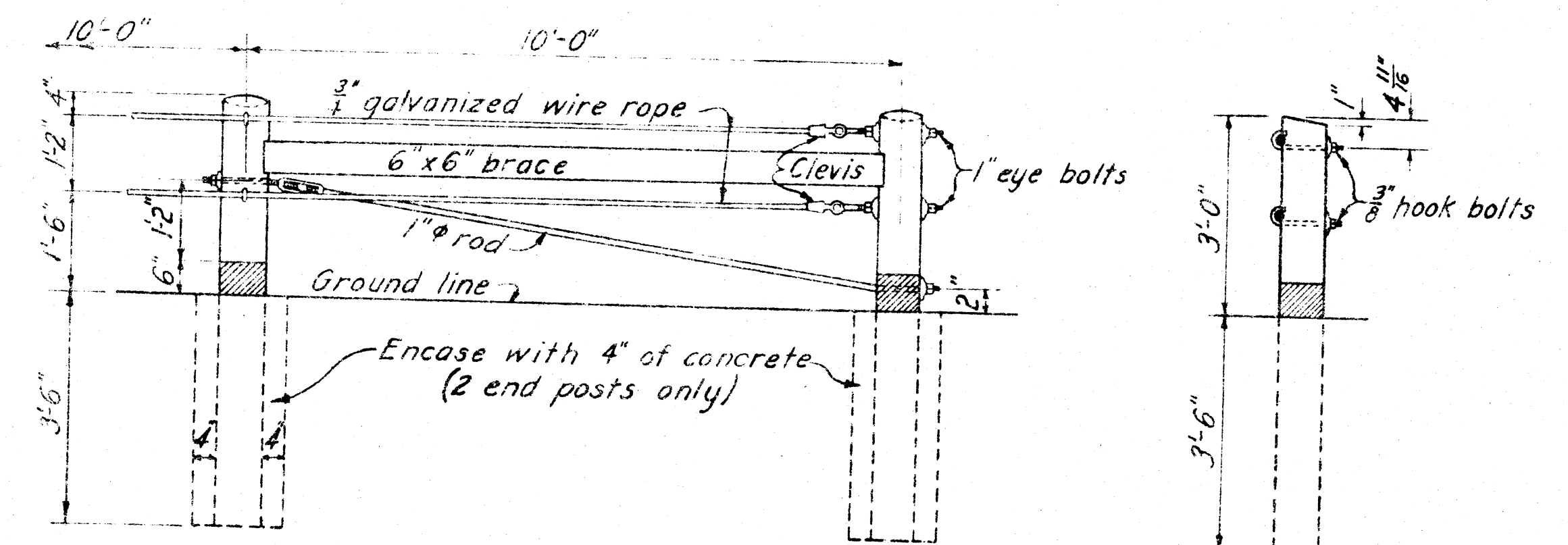
TYPICAL ROADWAY SECTION
THIRD ST. NORTH OF CHERRY ROAD



TYPICAL ROADWAY SECTION
FOURTH ST. NORTH OF CHERRY ROAD

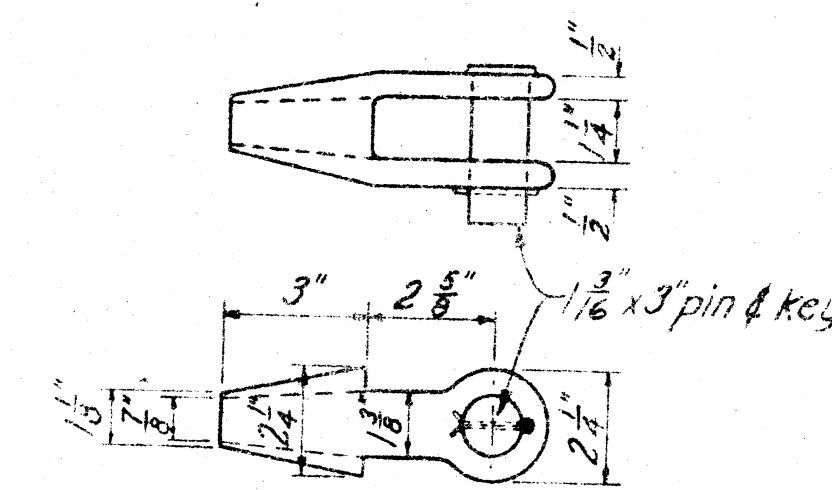


TYPICAL ROADWAY SECTION
FIFTH ST. SOUTH OF CHERRY ROAD

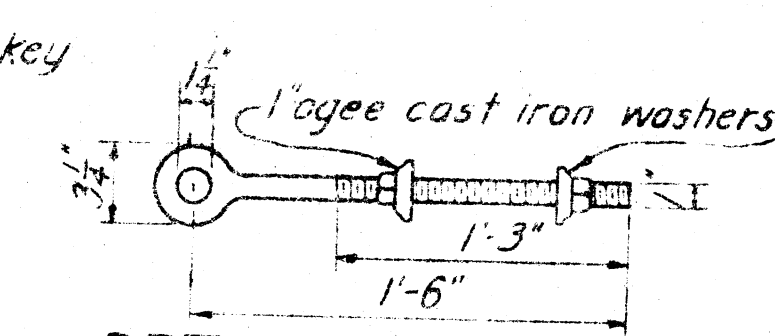


ELEVATION
SCALE: $\frac{1}{4}$ " = 1'-0"

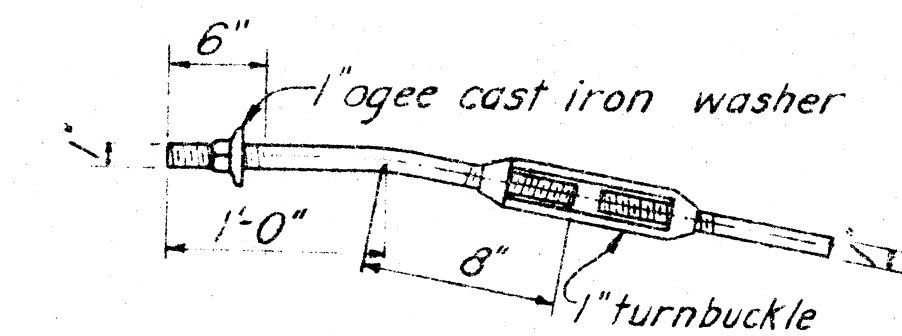
INTERMEDIATE POST
SCALE: $\frac{1}{4}$ " = 1'-0"



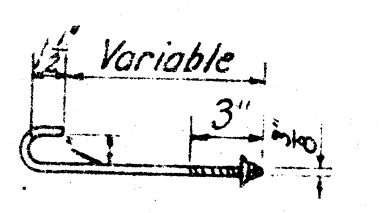
DETAIL OF CLEVIS
SCALE: $\frac{1}{4}$ " = 1'-0"



DETAIL OF EYE BOLT
SCALE: $\frac{1}{4}$ " = 1'-0"



DETAIL OF TIE ROD FITTING
SCALE: $\frac{1}{4}$ " = 1'-0"

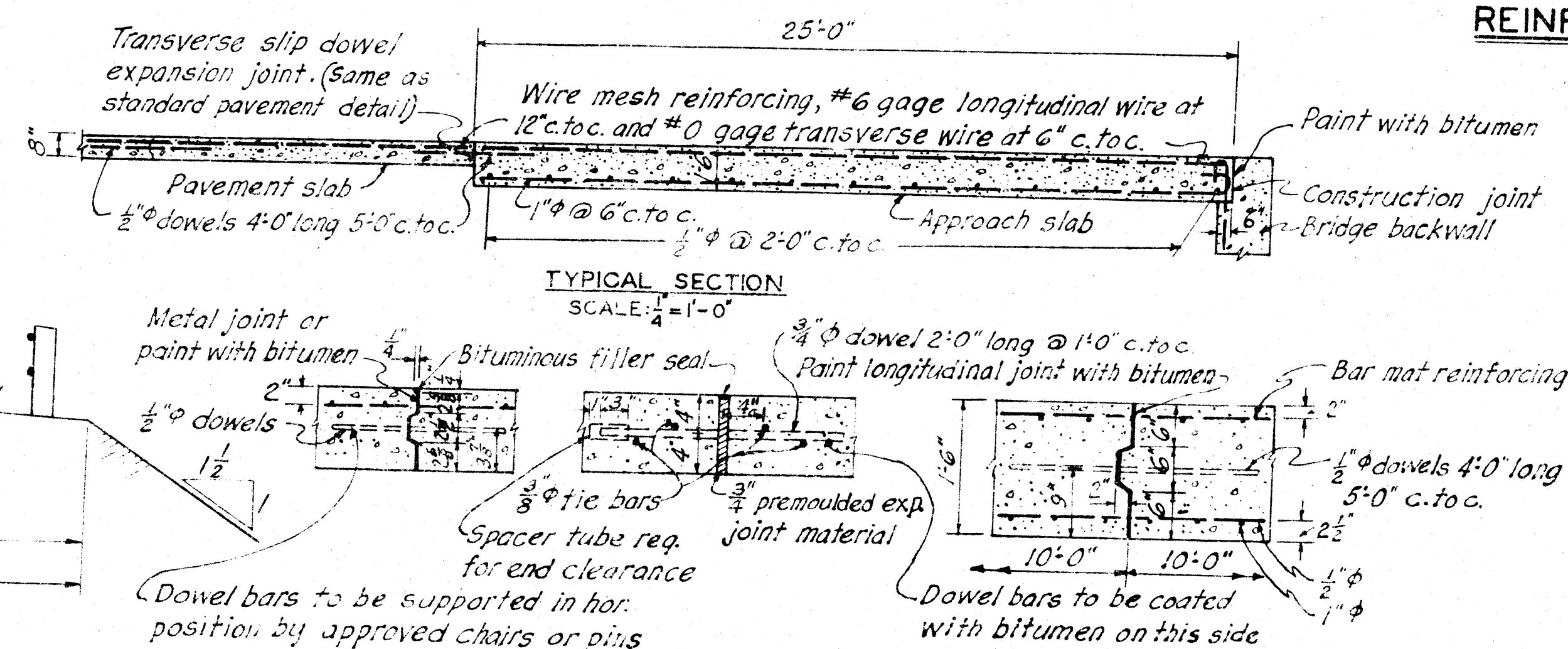


DETAIL OF HOOK BOLT
SCALE: $\frac{1}{4}$ " = 1'-0"

GUARD FENCE DETAILS

WIDTH	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20
40'	0686	1457	2314	3257	4286	5400	6600	7886	9250	10715	12283	13887	15601	17401	19287	21258	23316	25459	27691	30000
26'	0727	1539	2387	3279	4297	5431	6681	7929	9263	10675	12253	13887	15601	17401	19287	21258	23316	25459	27691	30000
24'	0694	1528	2300	3111	4111	5250	6488	7778	9144	10591	12201	13887	15601	17401	19287	21258	23316	25459	27691	30000
15'	0673	1549	2628	3911	5396	7085	8977	10000	(7.5' from E)											

ORDINATES FOR CROWN
REINF. CONCRETE PAVEMENT

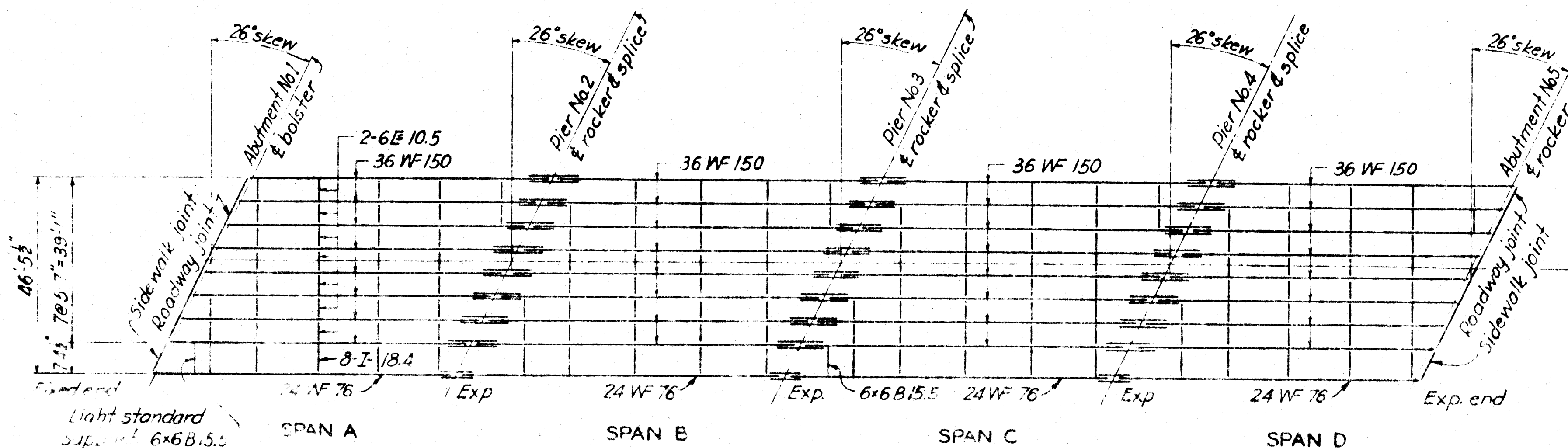


PAVEMENT DETAILS

NOTE

For location plan, see Dwg. No. 68/1.

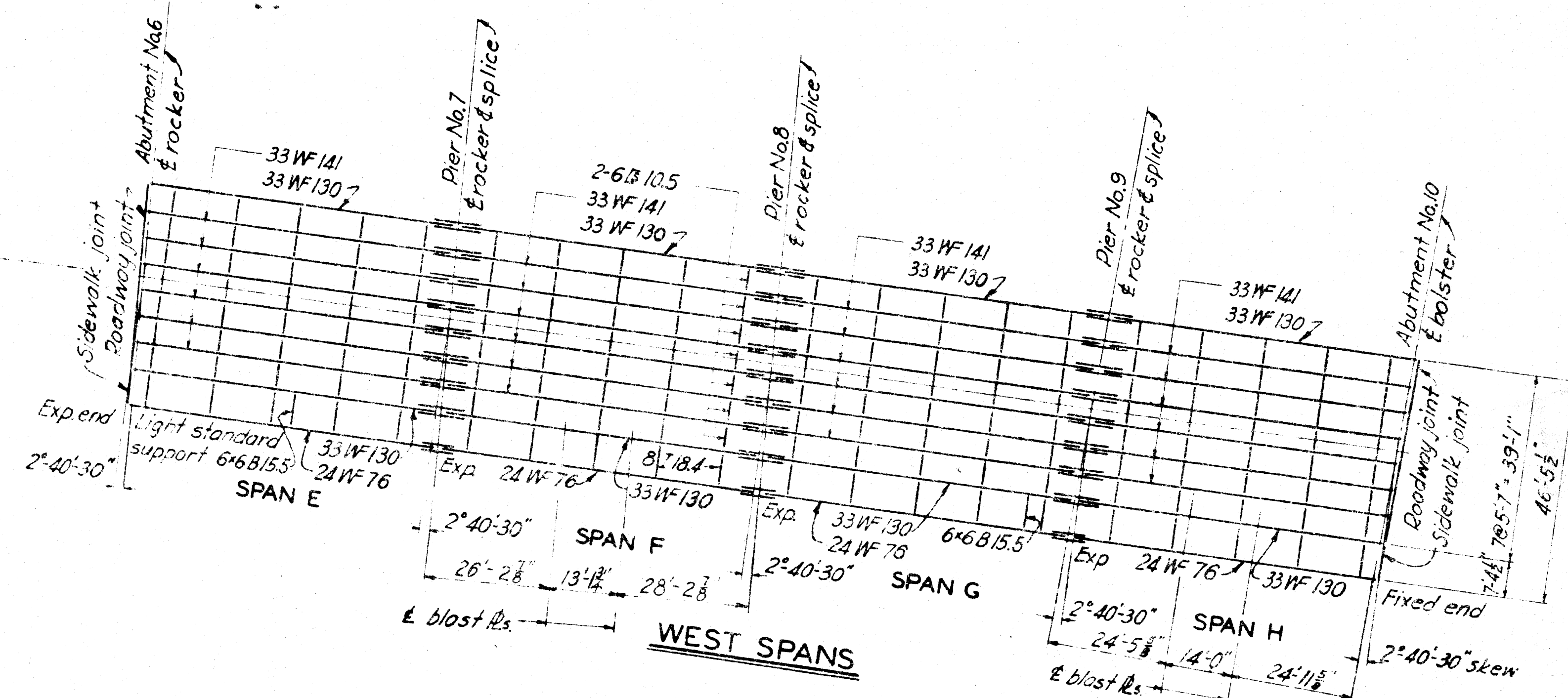
DRAWN BY: H.G.H.		DEPARTMENT OF THE ARMY CORPS OF ENGINEERS OFFICE OF THE DISTRICT ENGINEER HUNTINGTON, W. VA.	
TRACED BY: W.E.C. - B.T.C.		TUSCARAWAS RIVER LOCAL PROTECTION PROJECT MASSILLON, OHIO SECTION 2, UNIT 2 CHERRY ROAD VIADUCT APPROACH SECTIONS & DETAILS	
CHECKED BY: H.F.B. - G.O.S.		DATE: OCT 1948	
SUBMITTED BY: [Signature]		APPROVED: [Signature]	
APPROVED FOR: [Signature]		SCALE: $\frac{1}{4}$ " = 1'-0"	
DATE:		DRAWING NUMBER 0271-PM2-2-68/8 SHEET 33 OF 80	



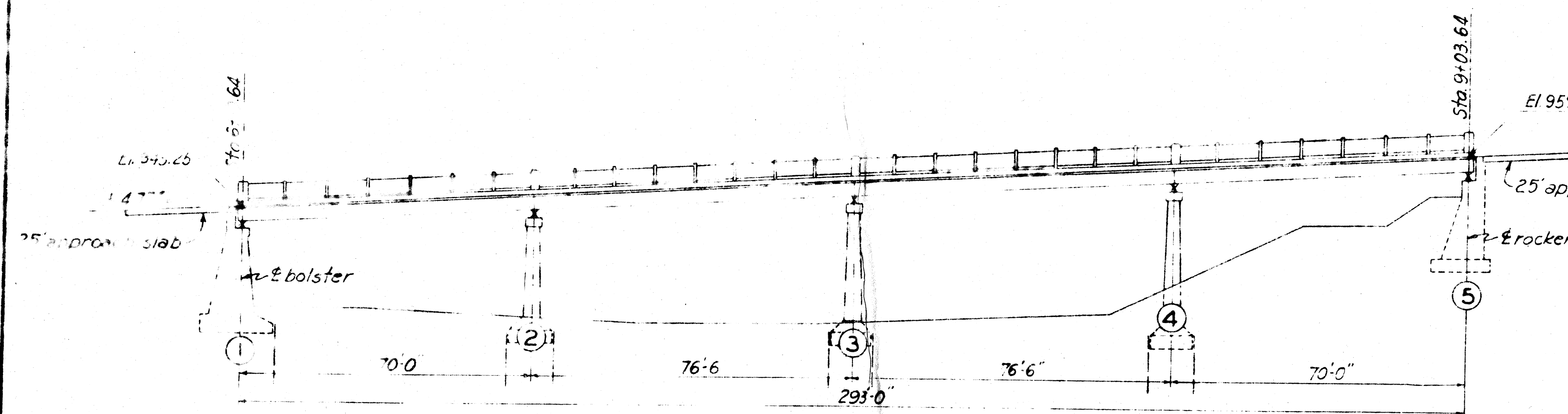
RIVER SPANS

SCALE 1" = 20'

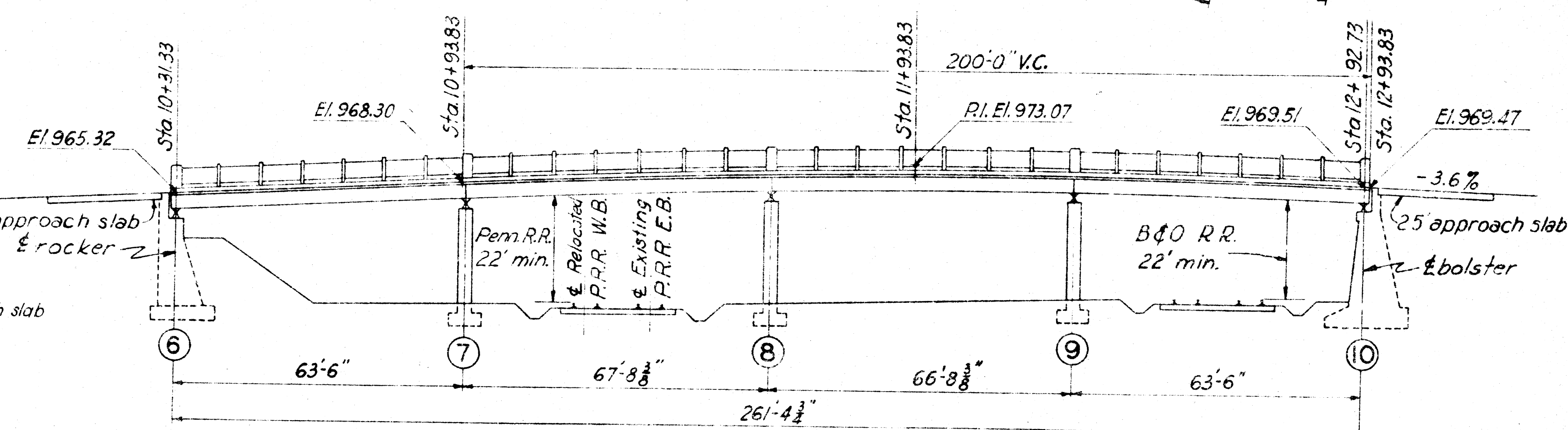
STRUCTURAL STEEL PLAN



WEST SPANS

RIVER SPANS
CONTINUOUS OVER PIERS

SECTION AT ROADWAY

WEST SPANS
CONTINUOUS OVER PIERS

POSITIVE MOMENTS IN FT.-LBS.

LOADS	RIVER SPANS						WEST SPANS					
	SPANS A & D			SPANS B & C			SPANS E & H			SPANS F & G		
	INTERIOR BEAM	CURB BEAM	HANDRAIL BEAM	INTERIOR BEAM	CURB BEAM	HANDRAIL BEAM	INTERIOR BEAM	CURB BEAM	HANDRAIL BEAM	INTERIOR BEAM	CURB BEAM	HANDRAIL BEAM
DEAD LOAD	228,000	223,000	98,000	196,000	193,000	88,000	185,000	173,000	91,000	143,000	137,000	66,000
LIVE LOAD	416,000	270,000		375,000	243,000		370,000	239,000		333,000	216,000	
IMPACT	107,000	69,000		93,000	60,000		98,000	64,000		87,000	56,000	
SIDEWALK LL		97,000	109,000		90,000	102,000		79,000	89,000		69,000	78,000
TOTAL	751,000	659,000	207,000	664,000	586,000	190,000	653,000	555,000	179,000	563,000	473,000	144,000

NEGATIVE MOMENTS IN FT.-LBS.

LOADS	RIVER SPANS						WEST SPANS					
	PIER NOS 2 & 4			PIER NO 3			PIER NOS 7 & 9			PIER NO 8		
	INTERIOR BEAM	CURB BEAM	HANDRAIL BEAM	INTERIOR BEAM	CURB BEAM	HANDRAIL BEAM	INTERIOR BEAM	CURB BEAM	HANDRAIL BEAM	INTERIOR BEAM	CURB BEAM	HANDRAIL BEAM
DEAD LOAD	109,000	202,000	81,000	172,000	166,000	67,000	166,000	160,000	65,000	124,000	120,000	48,000
LIVE LOAD	149,000	291,000		444,000	287,000		401,000	260,000		397,000	258,000	
IMPACT	83,000	54,000		80,000	52,000		78,000	51,000		76,000	49,000	
SIDEWALK LL		121,000	136,000		123,000	139,000		99,000	111,000		92,000	104,000
TOTAL	741,000	668,000	217,000	696,000	628,000	206,000	645,000	570,000	176,000	597,000	519,000	152,000

REACTIONS IN LBS.

LOADS	RIVER SPANS									WEST SPANS								
	ABUTMENT NOS 1 & 5			PIER NOS 2 & 4			PIER NO 3			ABUTMENT NOS 6 & 10			PIER NOS 7 & 9			PIER NO 8		
	INTERIOR BEAM	CURB BEAM	HANDRAIL BEAM	INTERIOR BEAM	CURB BEAM	HANDRAIL BEAM	INTERIOR BEAM	CURB BEAM	HANDRAIL BEAM	INTERIOR BEAM	CURB BEAM	HANDRAIL BEAM	INTERIOR BEAM	CURB BEAM	HANDRAIL BEAM	INTERIOR BEAM	CURB BEAM	HANDRAIL BEAM
DEAD LOAD	15,400	15,000	6,500	41,900	40,800	17,400	39,300	38,300	16,500	13,700	12,900	6,000	36,900	34,800	15,600	33,100	31,300	14,200
LIVE LOAD	32,100	19,400		56,000	36,300		55,100	35,700		31,400	19,100		53,200	34,400		52,300	33,900	
IMPACT	8,200	5,000		10,300	6,700		9,900	6,400		8,400	5,100		10,400	6,700		10,100	6,500	
SIDEWALK LL		6,200	7,000		17,400	19,600		17,100	19,300		5,600	6,300		15,500	17,400		14,800	16,700
TOTAL	55,700	45,600	13,500	108,200	101,200	37,000	104,300	97,500	35,800	53,500	42,700	12,300	100,500	91,400	33,000	95,500	86,500	30,900

DESIGN DATA

Dead load = Actual weight plus 10% for future asphalt surface.
 Live load = H-20-33 loading (see Ohio State Highway Specifications 1933).
 Truck Wheel Loading or Traffic Lane Loading used, whichever gives greater stress. More than one span loaded when it causes maximum stress. Minimum clearance between trucks equals 30 feet.
 Impact = $\frac{50}{L} \times \text{live load}$, where L = loaded length of span in feet.
 $M_z = \frac{5}{8} M_1$ = Bending moment in interior beams due to lateral distribution of wheel loads; where M_1 = bending moment due to one line of wheels and s = beam spacing in feet.

Unit stresses

Tension

Axial tension, net section

18,000

Bending on extreme fiber

20,000

Compression in flanges

18,000

but not to exceed $\frac{18,000}{(b/L)}$, where L = length in inches of unsupported flange and b = flange width in inches

Shear

Girder web, gross section

12,000

Pins and shop driven rivets

13,500

Power driven field rivets and turned bolts

12,000

Bearing

Pins and shop driven rivets in double shear

27,000

Shop driven rivets in single shear and power driven field rivets and turned bolts in double shear

24,000

Power driven field rivets and turned bolts in single shear

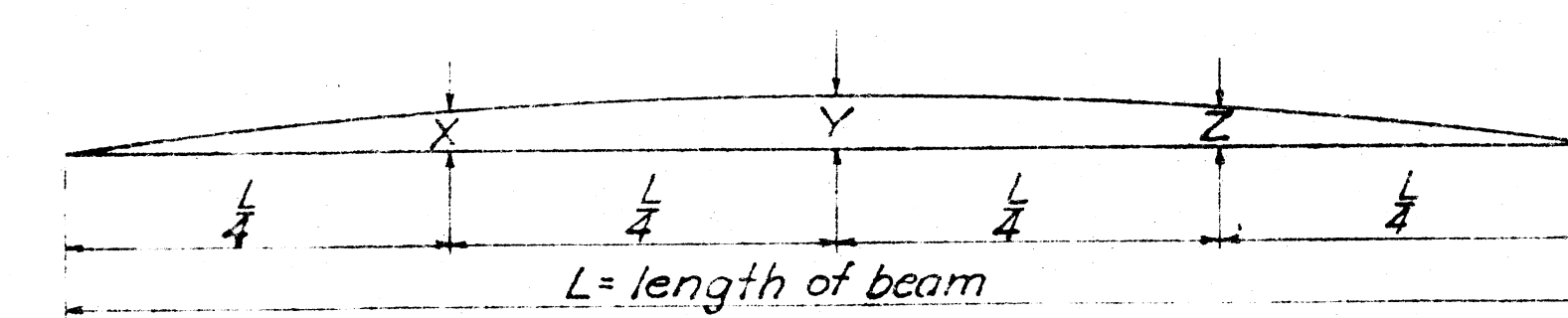
20,000

DEPARTMENT OF THE ARMY
 CORPS OF ENGINEERS
 OFFICE OF THE DISTRICT ENGINEER
 HUNTINGTON, W. VA.

TUSCARAWAS RIVER
 LOCAL PROTECTION PROJECT
 MASSILLON, OHIO
 SECTION 2, UNIT 2
 CHERRY ROAD VIADUCT
 STEEL PLAN & DESIGN DATA

DRAWN BY: J.H.
 TRACED BY: C.D.H.
 CHECKED BY: A.R.H.
 A.W.S.
 SUBMITTED BY: [Signature]
 APPROVED: [Signature]
 CHIEF, ENG. DIV.
 APPROVED FOR: [Signature]
 DATE: OCT. 1948

SCALE: 1" = 20'
 SPEC. NO. 1
 DRAWING NUMBER 0271-PM2-2-68/9
 SHEET 34 OF 60



CAMBER DIAGRAM

TABLE OF CAMBER									
SPAN	INTERIOR BEAM			CURB BEAM			HANDRAIL BEAM		
	X	Y	Z	X	Y	Z	X	Y	Z
A & D	$\frac{1}{16}$	$\frac{3}{8}$	$\frac{7}{16}$	$\frac{1}{16}$	$\frac{3}{8}$	$\frac{7}{16}$	$\frac{11}{16}$	$\frac{1}{2}$	$\frac{11}{16}$
B & C	$\frac{1}{16}$	$\frac{3}{8}$	$\frac{7}{16}$	$\frac{1}{16}$	$\frac{3}{8}$	$\frac{7}{16}$	$\frac{1}{2}$	$\frac{1}{2}$	$\frac{1}{2}$
E	$\frac{3}{8}$	$\frac{1}{2}$	$\frac{3}{4}$	$\frac{3}{8}$	$\frac{1}{2}$	$\frac{3}{4}$	$\frac{9}{16}$	$\frac{1}{2}$	$\frac{9}{16}$
F & G	$2\frac{1}{8}$	$3\frac{3}{8}$	$2\frac{1}{2}$	$2\frac{1}{8}$	$3\frac{3}{8}$	$2\frac{1}{2}$	$2\frac{3}{8}$	$3\frac{3}{8}$	$2\frac{1}{2}$
H	$2\frac{1}{4}$	$3\frac{1}{2}$	$2\frac{3}{4}$	$2\frac{1}{4}$	$3\frac{1}{2}$	$2\frac{3}{4}$	$2\frac{1}{2}$	$3\frac{1}{2}$	$2\frac{3}{4}$

TABLE NO.2

DISTANCE "A" FOR ROCKER ON
ABUTMENT NO. 5

TEMPERATURE						
0°	20°	40°	60°	80°	100°	120°
	$\frac{1}{16}$ "	$1\frac{1}{16}$ "	$1-0\frac{3}{4}$ "	$1-0\frac{5}{16}$ "	$1\frac{1}{2}$ "	$1\frac{1}{2}$ "

TABLE NO.3

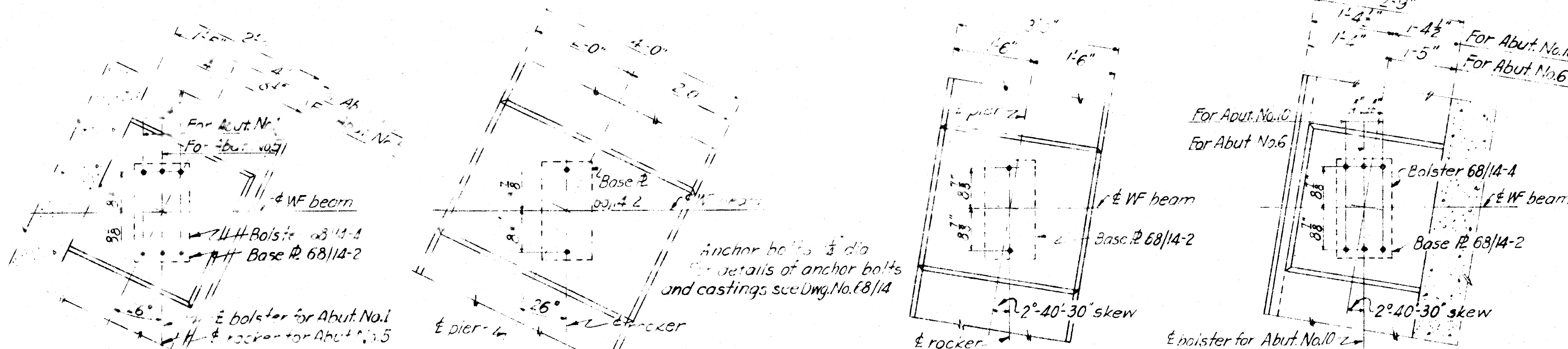
DISTANCE "B" FOR ROCKER ON
ABUTMENT NO. 6

TEMPERATURE						
0°	20°	40°	60°	80°	100°	120°
1-6 1/8"	1-5 1/4"	1-5 1/8"	1-5"	1-4 5/8"	1-4 1/4"	1-3 3/4"

TABLE NO.1

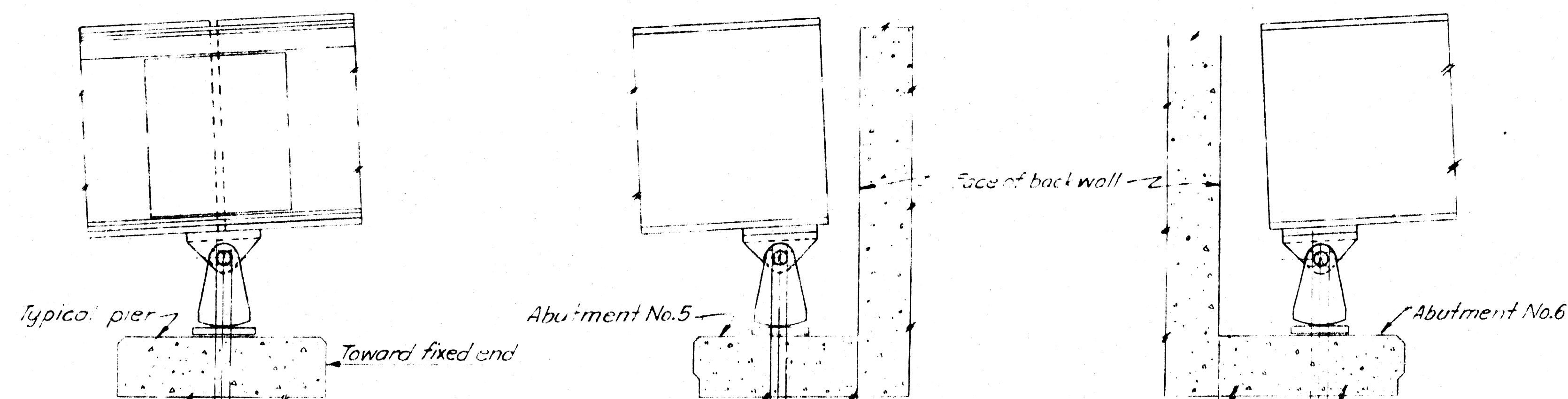
TEMPERATURE CORRECTION FOR SETTING EXPANSION ROCKERS

ROCKER		TEMPERATURE					
LOCATION	0°	20°	40°	60°	90°	100°	120°
PIER NO 2	$-\frac{7}{16}$	$-\frac{7}{16}$	$-\frac{8}{16}$	0	$+\frac{7}{16}$	$+\frac{7}{16}$	$+\frac{7}{16}$
PIER NO 3	$-\frac{5}{16}$	$-\frac{7}{16}$	$-\frac{8}{16}$	0	$+\frac{7}{16}$	$+\frac{7}{16}$	$+\frac{8}{16}$
PIER NO 4	$-\frac{7}{16}$	$-\frac{7}{16}$	$-\frac{8}{16}$	0	$+\frac{7}{16}$	$+\frac{7}{16}$	$+\frac{7}{16}$
ABUT NO 5	$-\frac{1}{4}$	$-\frac{7}{16}$	$-\frac{7}{16}$	0	$+\frac{7}{16}$	$+\frac{8}{16}$	$+\frac{1}{16}$
ABUT NO 6	$-\frac{1}{8}$	$-\frac{7}{16}$	$-\frac{8}{16}$	0	$+\frac{7}{16}$	$+\frac{7}{16}$	$+\frac{1}{16}$
PIER NO 7	$-\frac{7}{16}$	$-\frac{5}{16}$	$-\frac{7}{16}$	0	$+\frac{5}{16}$	$+\frac{7}{16}$	$+\frac{7}{16}$
PIER NO 8	$-\frac{7}{16}$	$-\frac{8}{16}$	$-\frac{7}{16}$	0	$+\frac{7}{16}$	$+\frac{8}{16}$	$+\frac{7}{16}$
PIER NO 9	$-\frac{7}{16}$	$-\frac{8}{16}$	$-\frac{7}{16}$	0	$+\frac{7}{16}$	$+\frac{8}{16}$	$+\frac{7}{16}$



TYPICAL ANCHOR BOLT LAYOUTS

SCALE: $\frac{3}{4}" = 1'-0"$

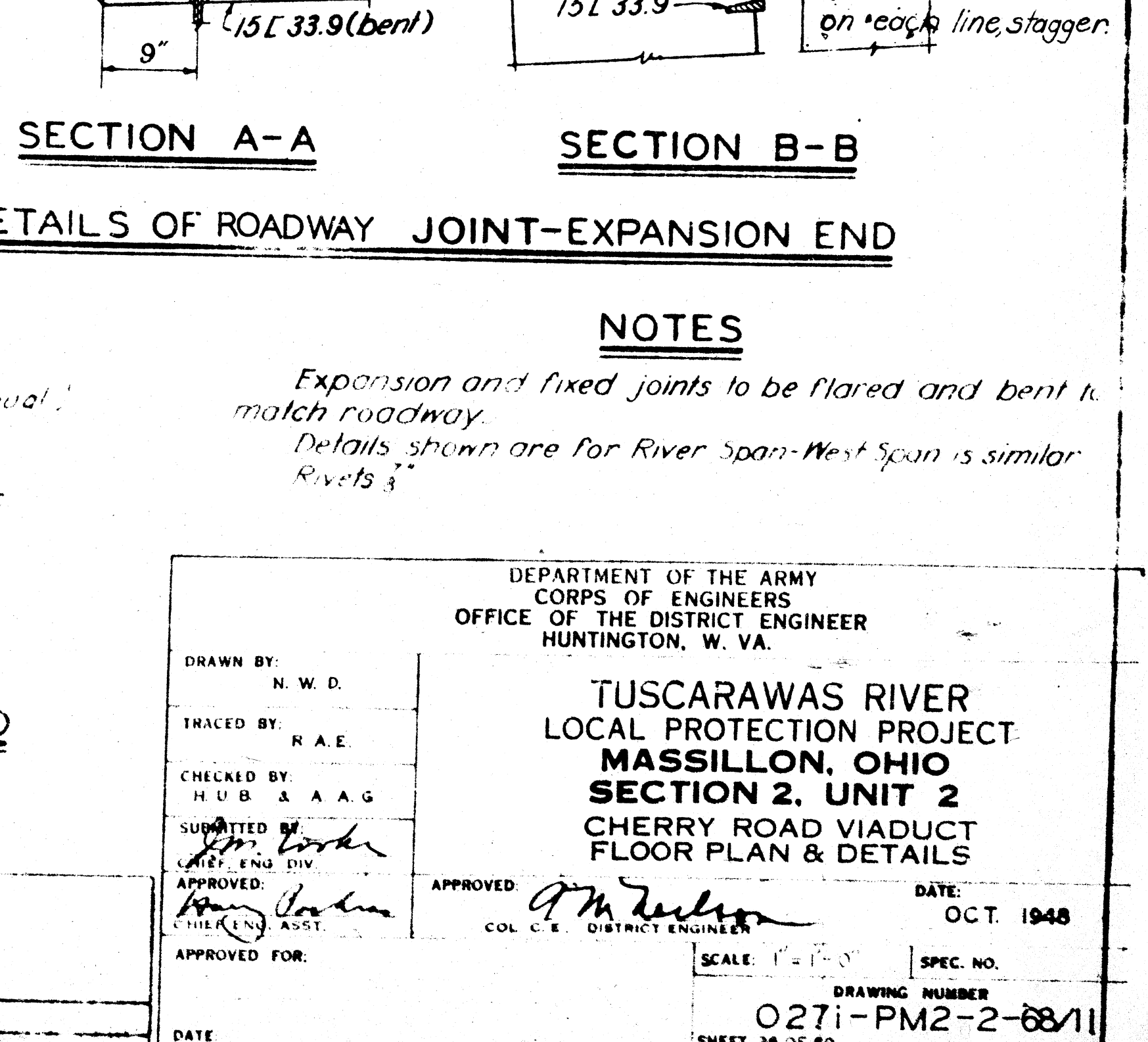
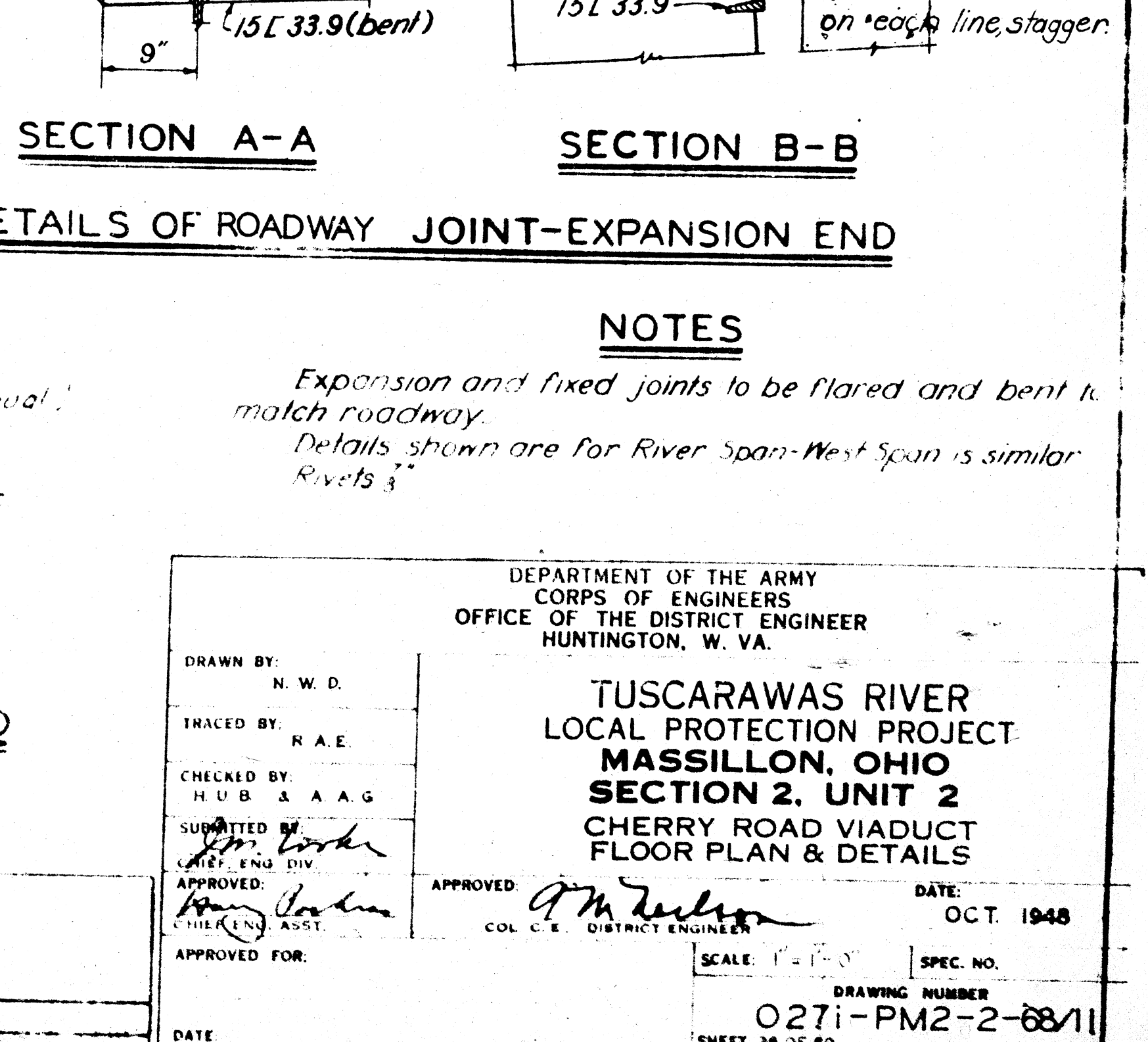
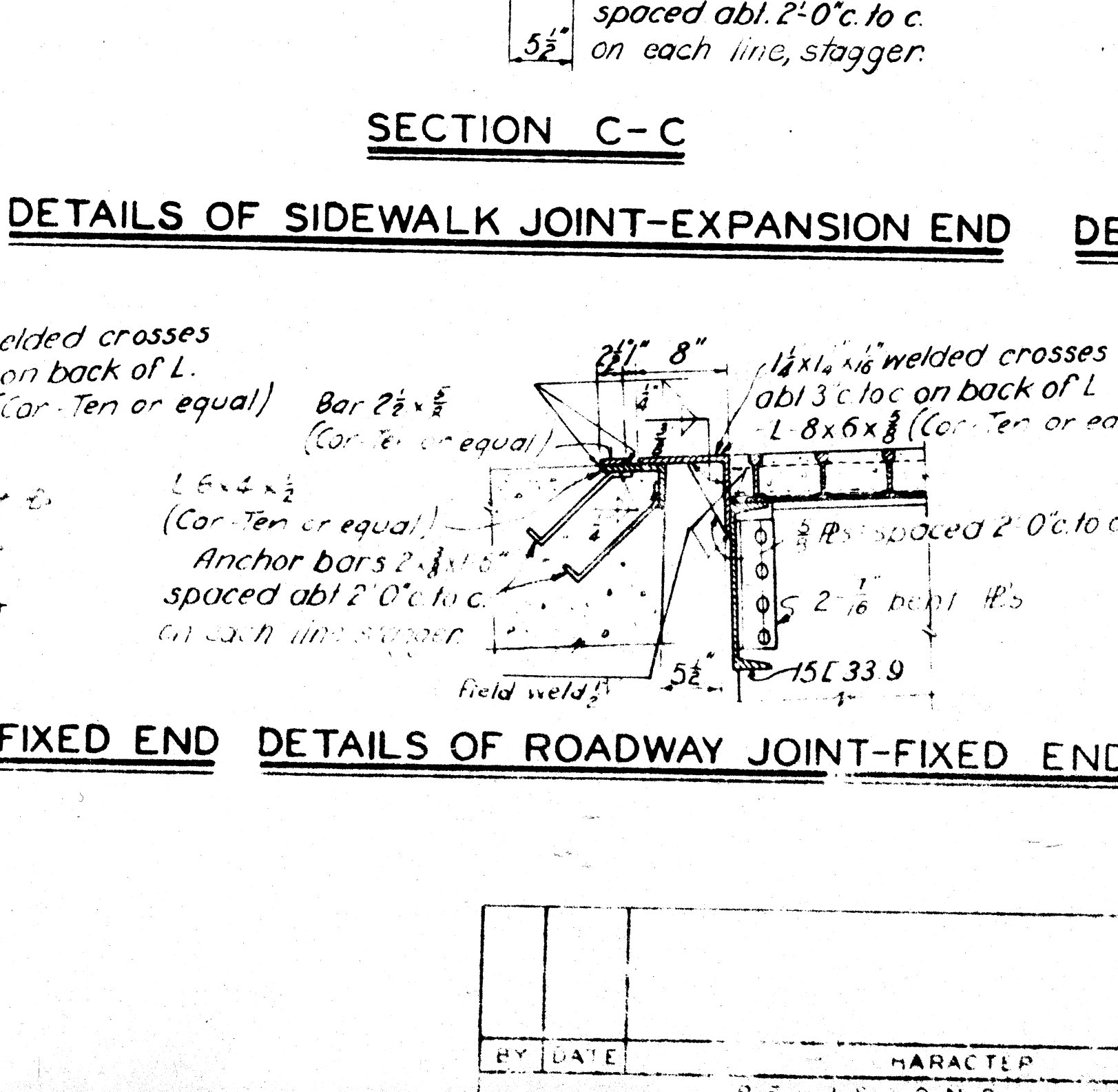
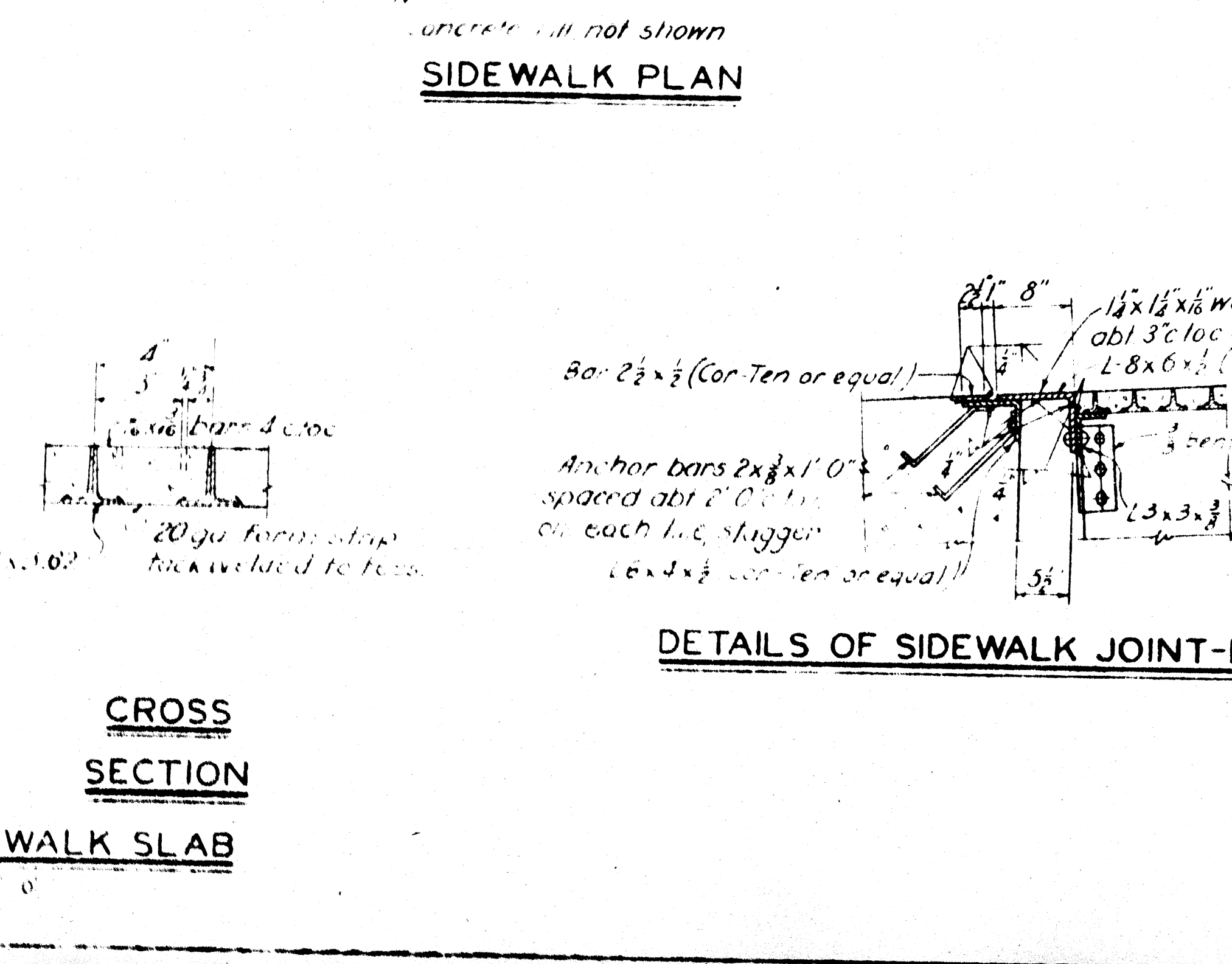
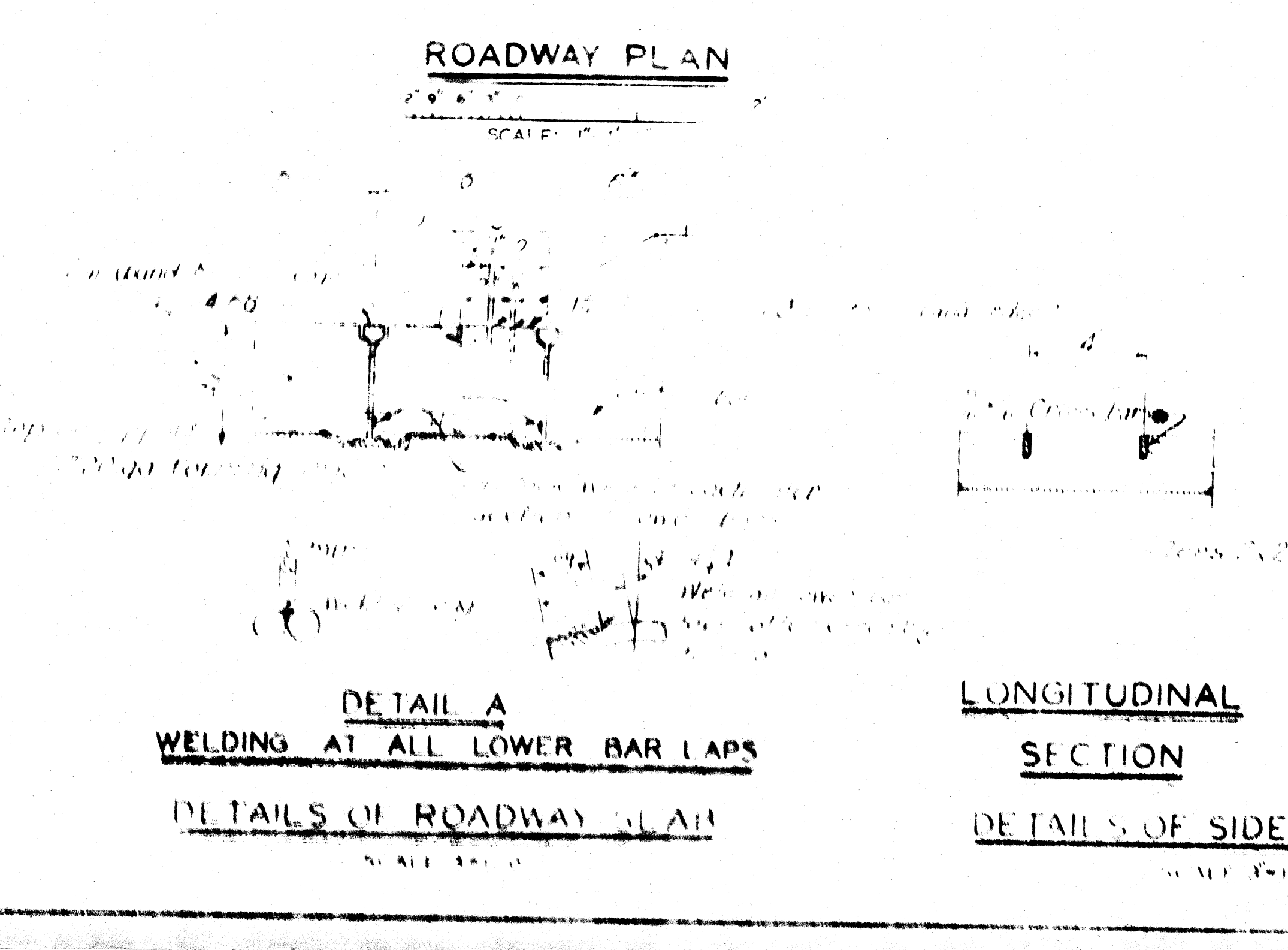
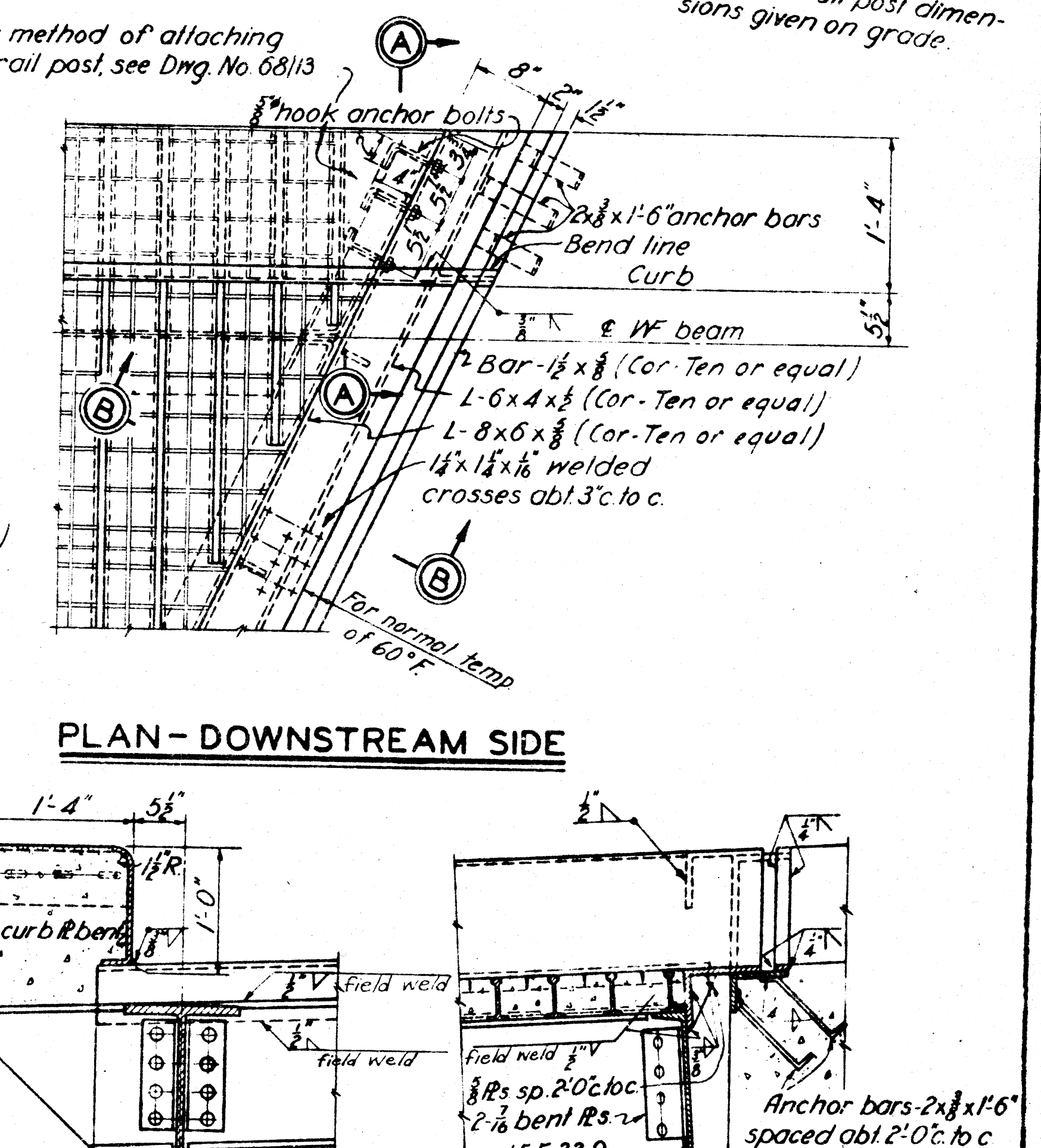
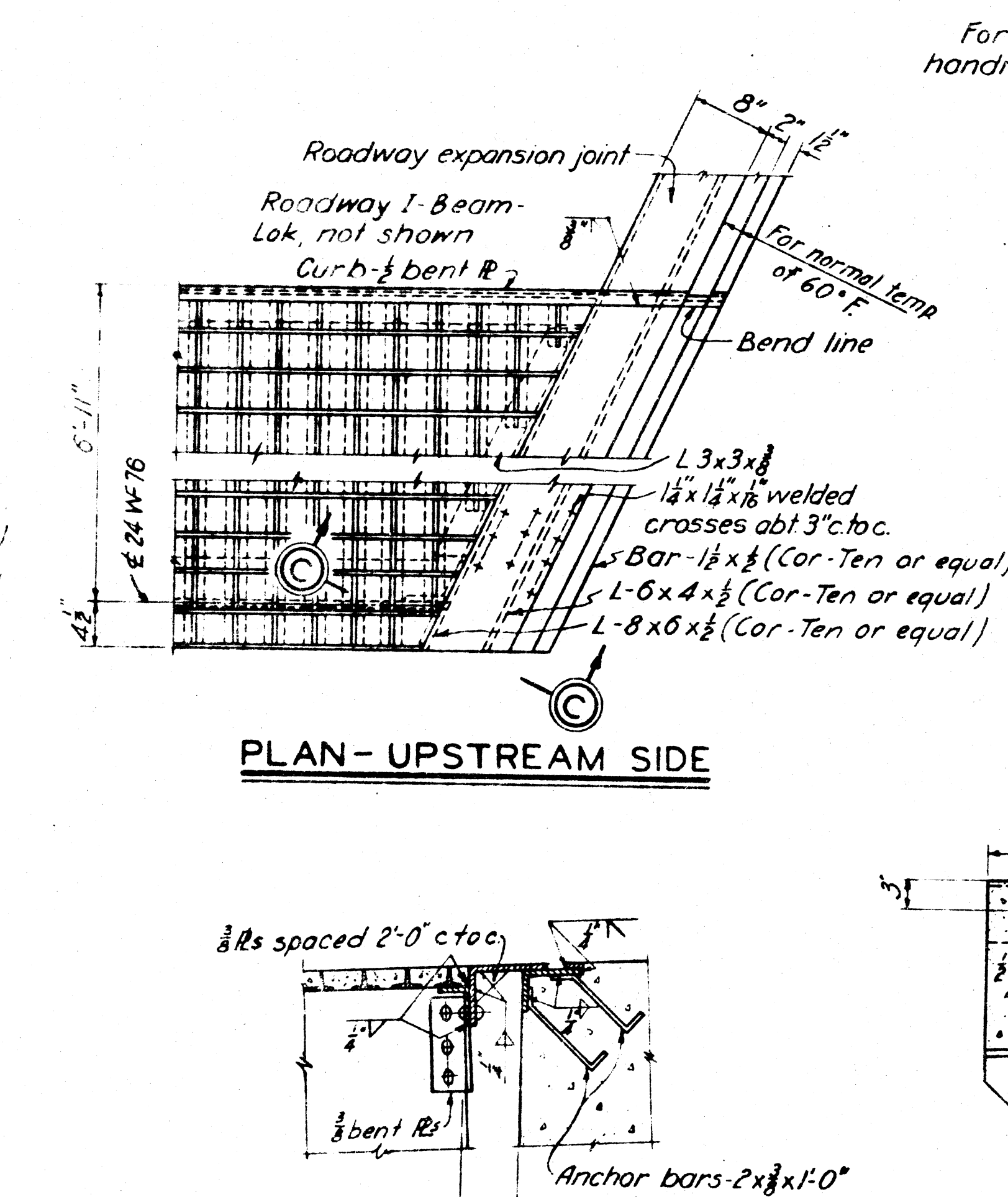
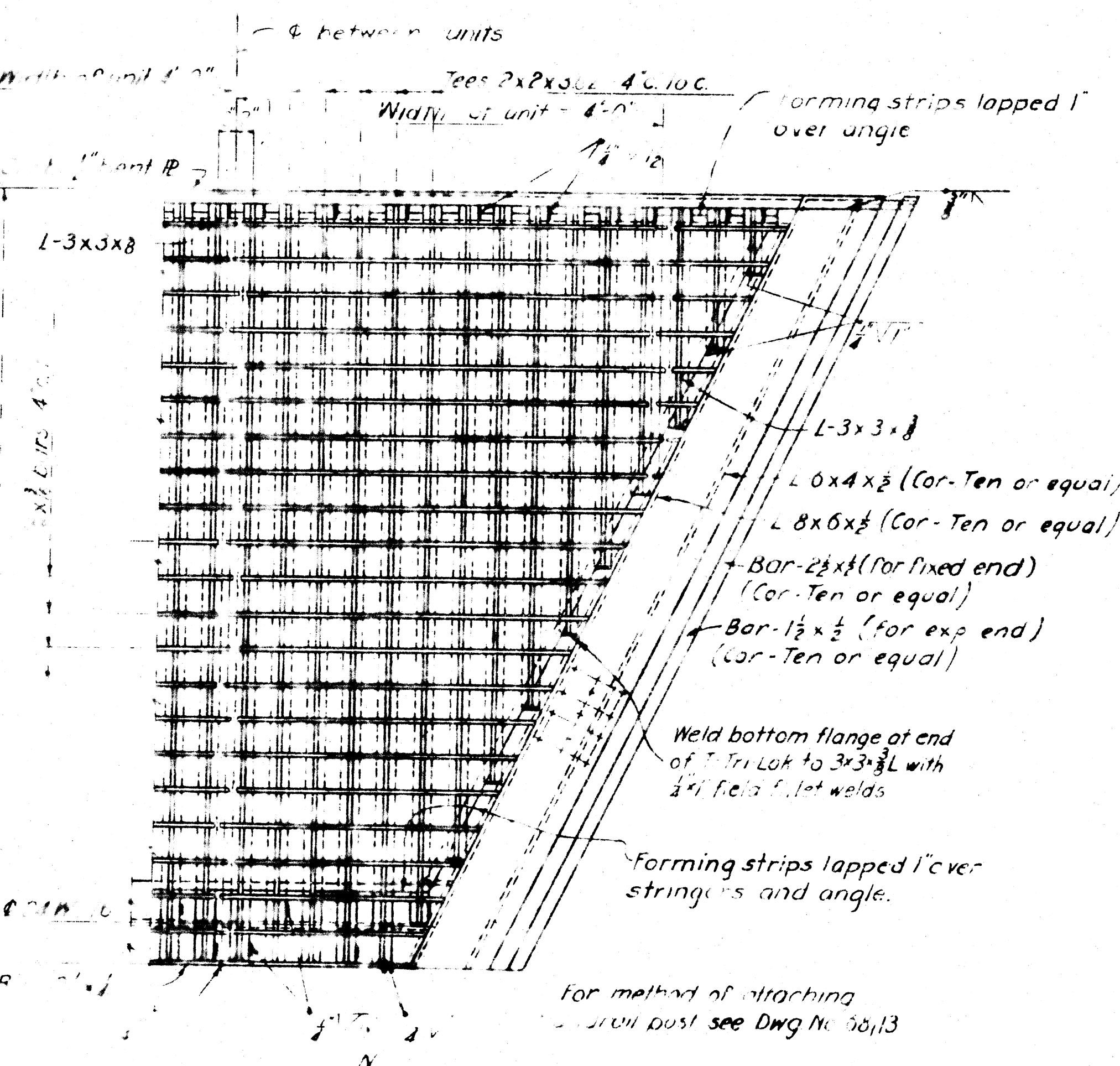
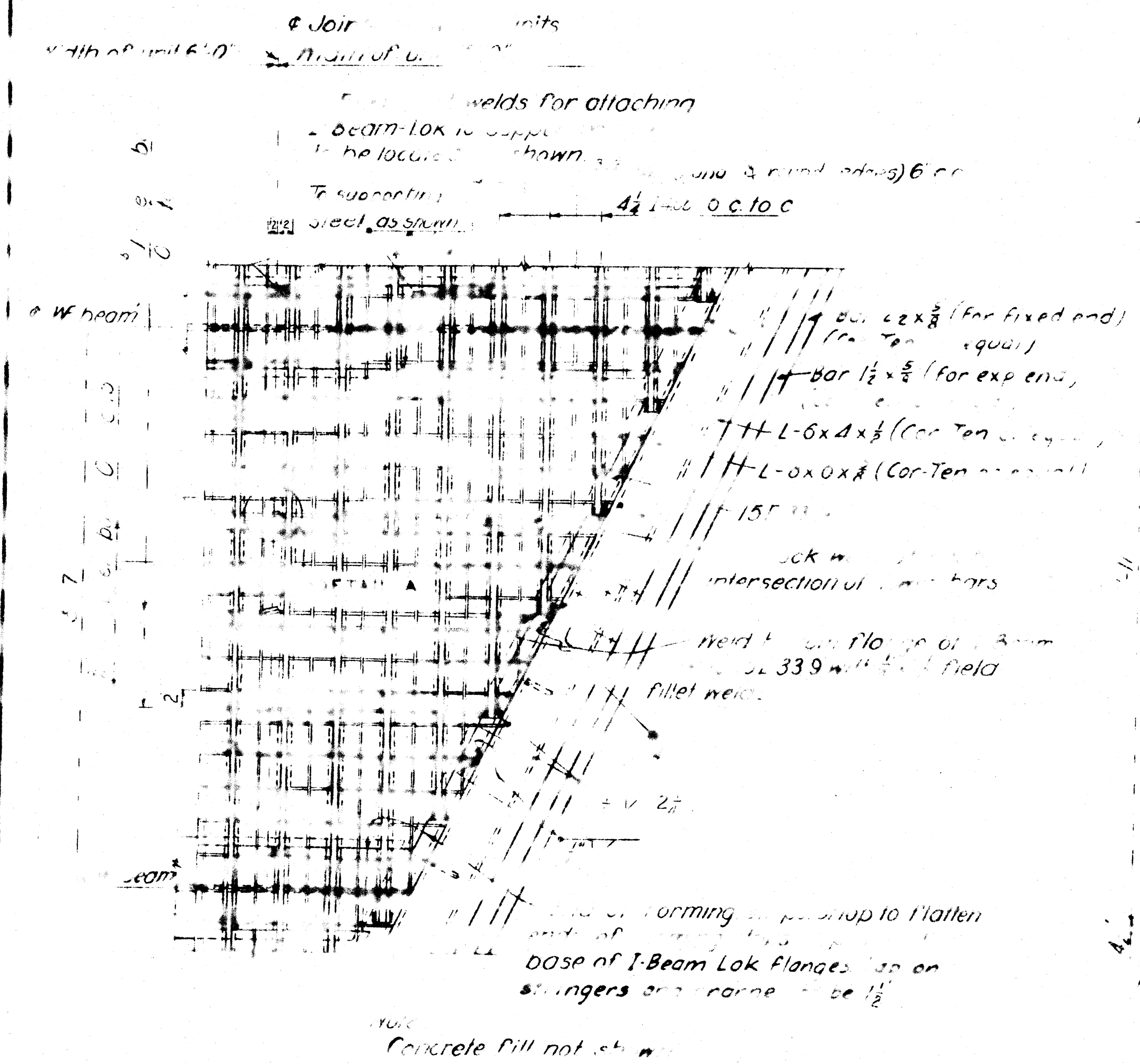
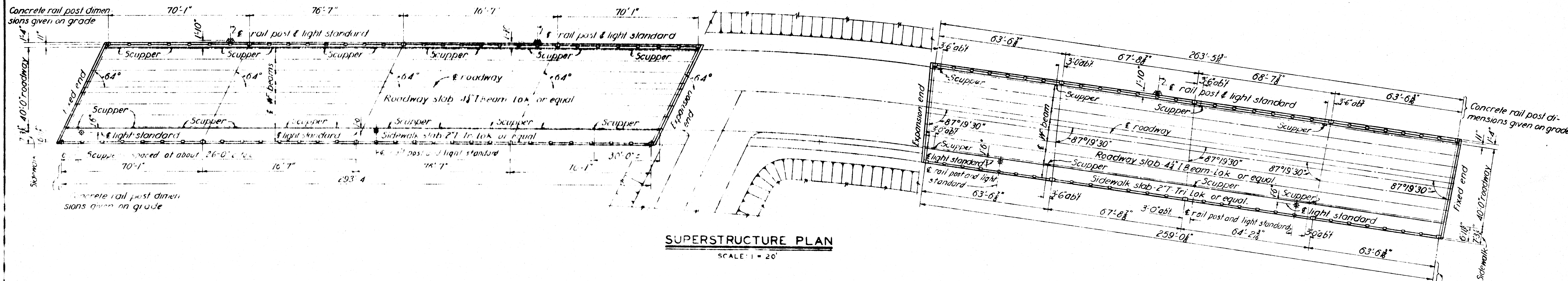


ROCKER SETTING

SCALE: $\frac{3}{4}$ in. = 1'-0"

Note: Distances A & B are measured perpendicular to the face of backwall

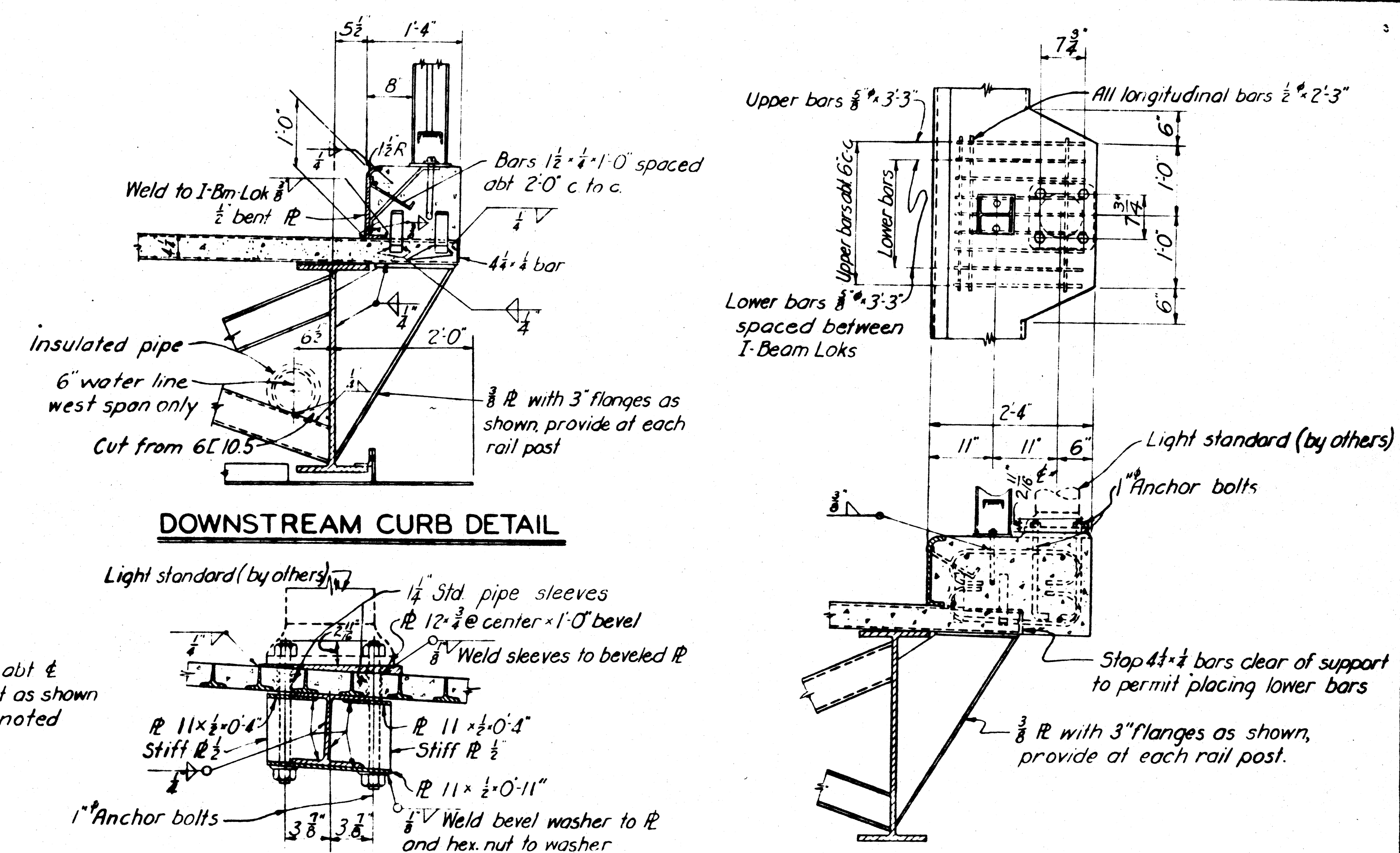
DRAWN BY: N.W.D.		TUSCARAWAS RIVER LOCAL PROTECTION PROJECT MASSILLON, OHIO SECTION 2, UNIT 2 CHERRY ROAD VIADUCT ANCHOR BOLT PLAN & ERECTION DATA	DATE:
TRACED BY: C.D.H.			OCT. 1948
CHECKED BY: H.U.B.			SCALE: AS SHOWN
SUBMITTED BY: <i>[Signature]</i> CHIEF ENG. DIV.			SPEC. NO.
APPROVED: <i>[Signature]</i> CHIEF ENG. ASST.			DRAWING NUMBER 0271-PM2-2-68/10
APPROVED: <i>[Signature]</i> COL. C.E. DISTRICT ENGINEER		SHEET 35 OF 60	
DATE:			



NOTES

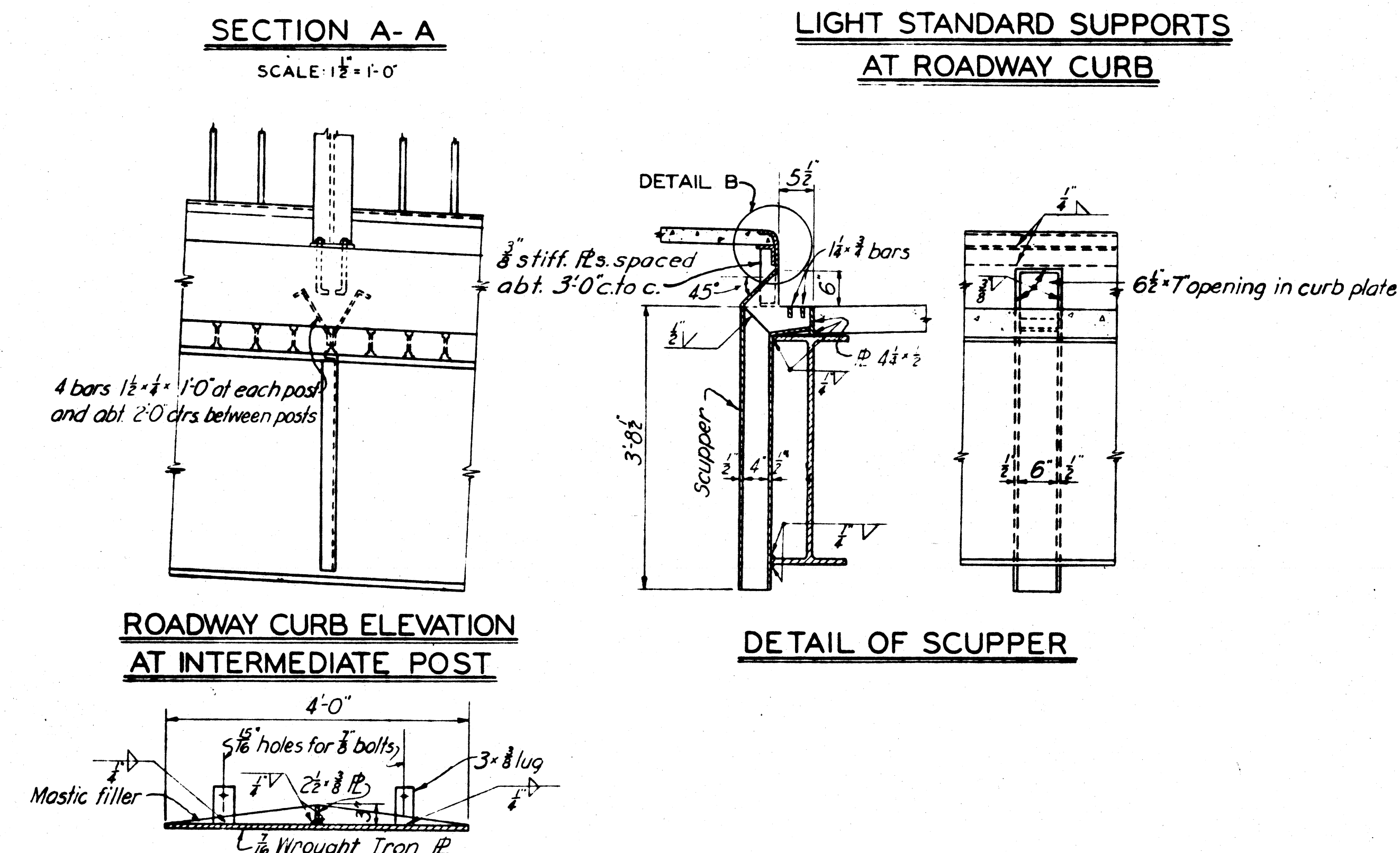
Expansion and fixed joints to be flared and bent to match roadway.
Details shown are for River Span-West Span is similar.
Rivets 3"

DEPARTMENT OF THE ARMY CORPS OF ENGINEERS OFFICE OF THE DISTRICT ENGINEER HUNTINGTON, W. VA.		TUSCARAWAS RIVER LOCAL PROTECTION PROJECT MASSILLON, OHIO SECTION 2, UNIT 2 CHERRY ROAD VIADUCT FLOOR PLAN & DETAILS	
DRAWN BY: N. W. D.	TRACED BY: R. A. E.	CHECKED BY: H. O. B. & A. A. G.	SUBMITTED BY: J. L. C.
APPROVED: J. L. C.	APPROVED: J. L. C.	APPROVED: J. L. C.	APPROVED: J. L. C.
DATE: OCT. 1948	DATE: OCT. 1948	DATE: OCT. 1948	DATE: OCT. 1948
DRAWING NUMBER 0271-PM2-2-68/11		SHEET 36 OF 80	



DOWNSTREAM CURB DETAIL

LIGHT STANDARD SUPPORTS AT ROADWAY CURB



TYPICAL SECTION OF BLAST PLATE
203 LIN. FT REQ'D

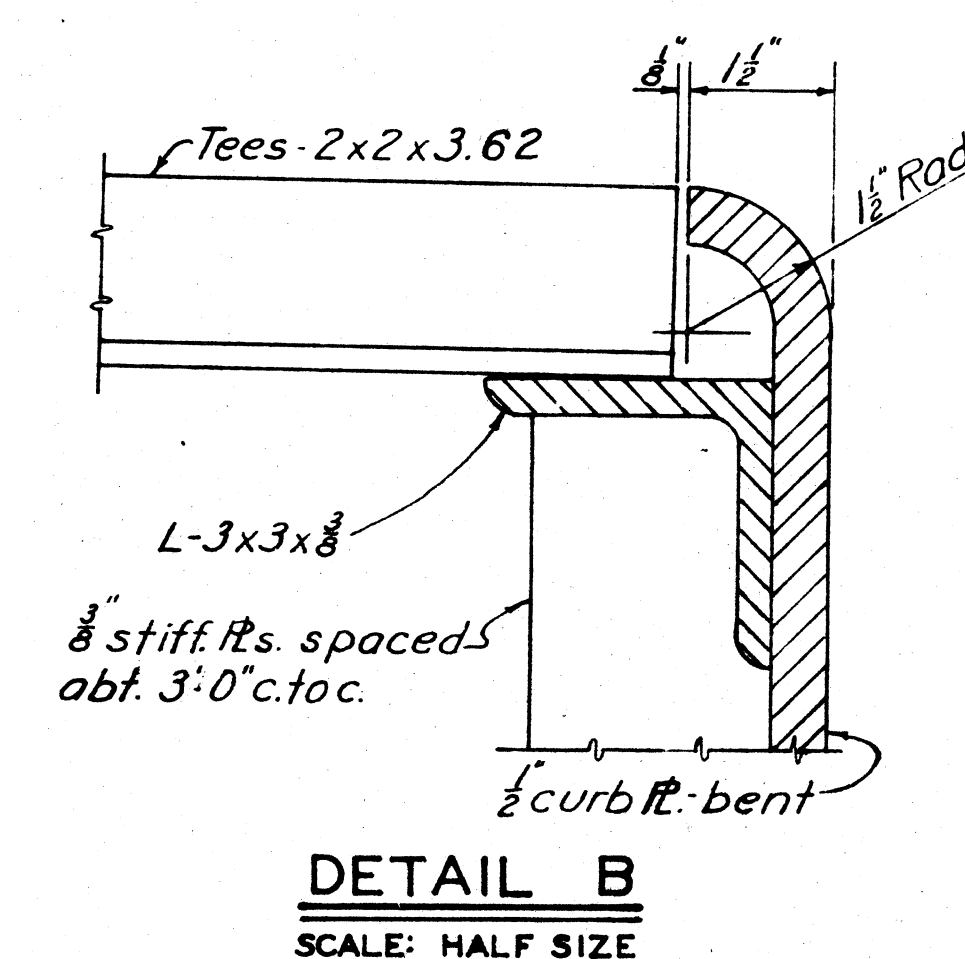
DETAIL OF SCUPPER

NOTES

For location of blast plates, see Dwg. No. 68/9.

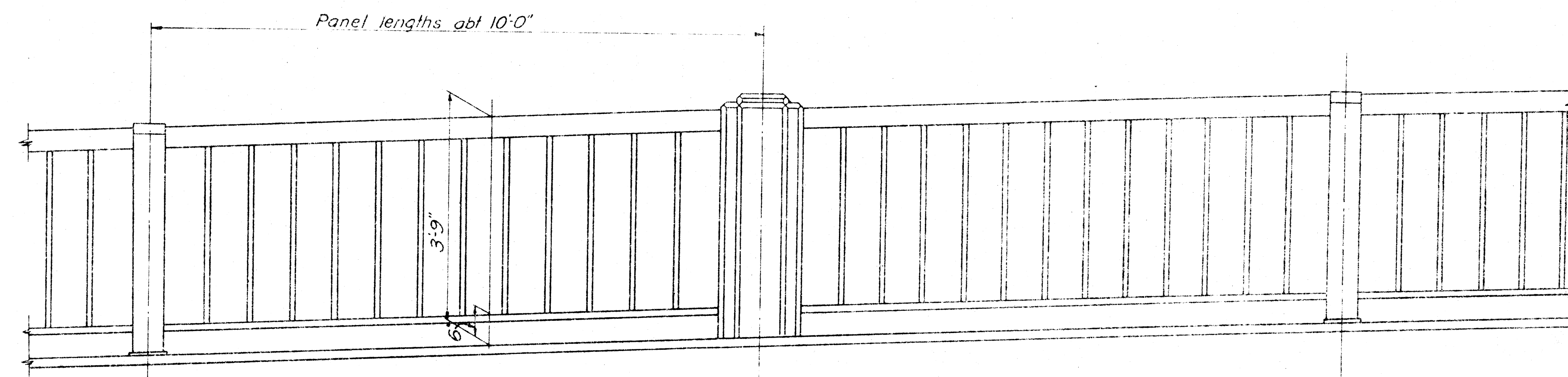
HEIGHT OF PEDESTALS UNDER BOLSTERS									BRIDGE SEAT ELEVATION	PLATE PLUS 1/4" NORMAL SHIMS		
LOCATION	F	G	H	J	K	K-1	J-1	H-1		G-1	SIDEWALK BEAM	ROADWAY BEAMS
ABUT. NO.1	2'-2 5/8"	2'-2 5/8"	3'-2"	5'-6"	8'-8"	9'-3"	10'-3"	11'-5"		11'-6"	940.31	1 1/2"
ABUT. NO.10	2'-2 5/8"	2'-2 5/8"	3'-6"	3'-6"	3'-6"	3'-2"	2'-2"	1'-6"	1'-6"	965.22	1 1/2"	1 1/2"

For shims see Dwg. No. 68/14.



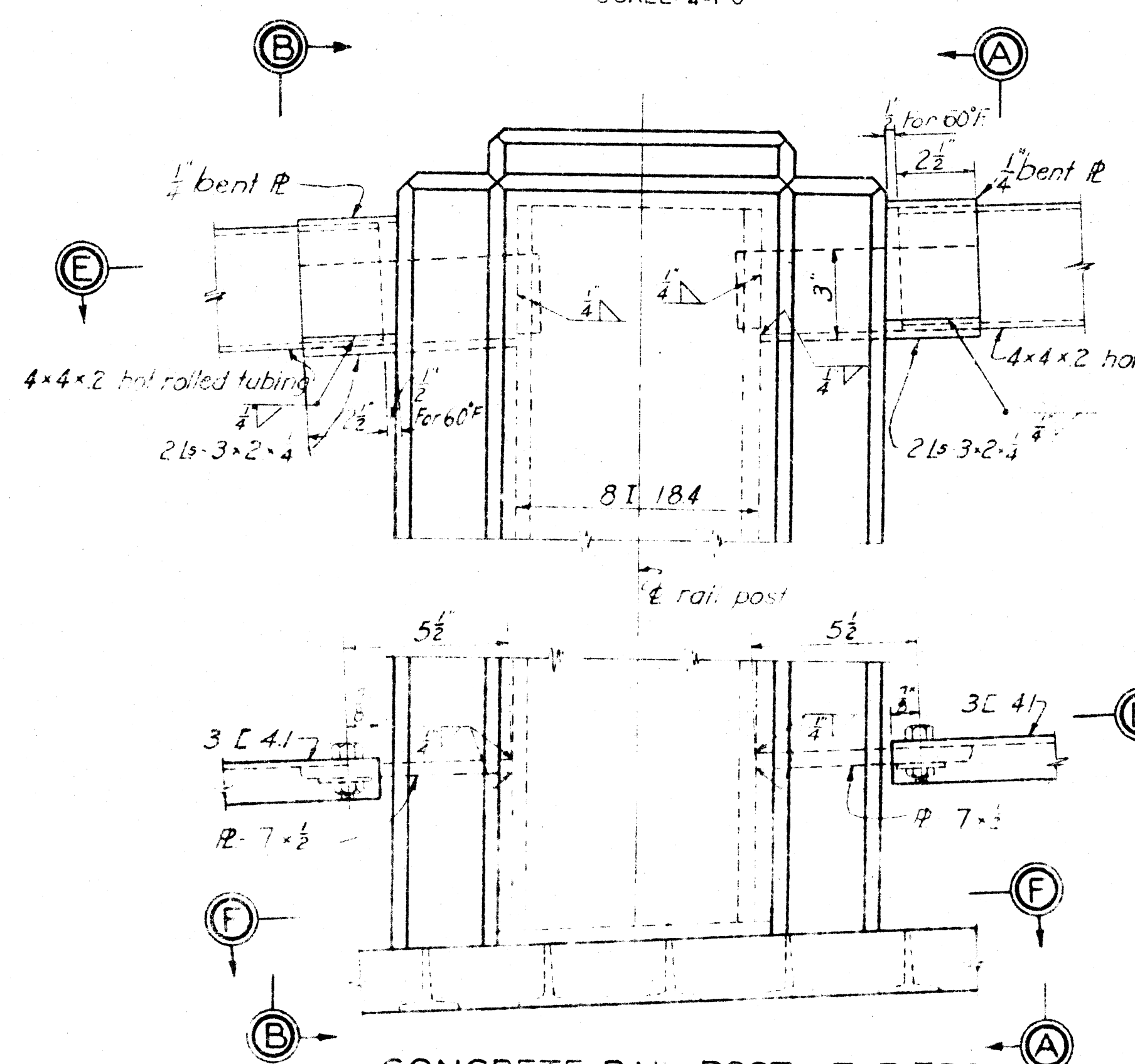
DETAIL B
SCALE: HALF SIZE

		CHIEF, ENG. DIV.		APPROVED: <i>[Signature]</i>		DATE: OCT. 1964	
		APPROVED: <i>[Signature]</i>		CHIEF, ENG. ASST.		COL. C. E. DISTRICT ENGINEER	
		APPROVED FOR:		SCALE: $\frac{3}{4} = 1'-0"$		SPEC. NO.	
BY: _____		DATE: _____		DRAWING NUMBER 0271-PM2-2-68/12		SHEET 37 OF 60	
		CHARACTER					
		REVISIONS					



TYPICAL RAILING PANELS

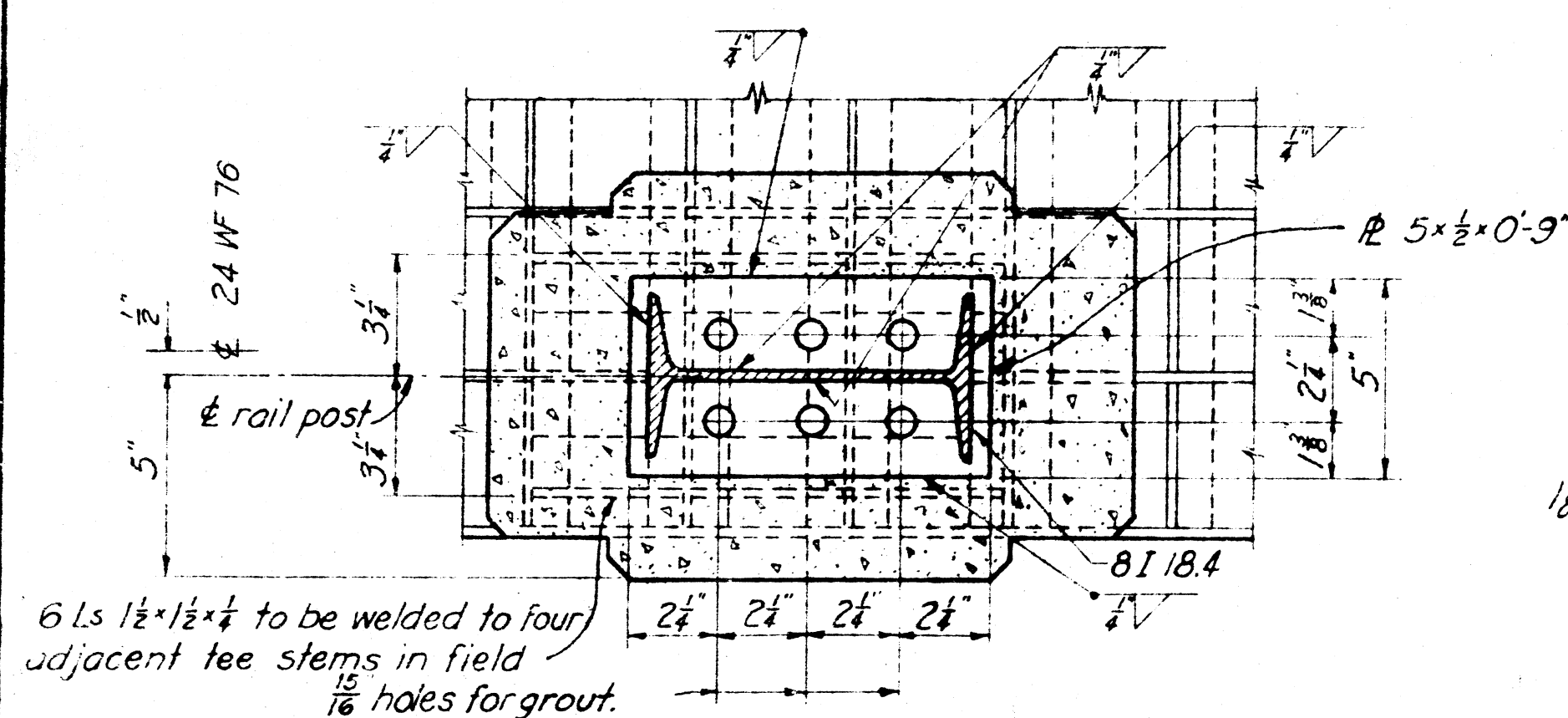
SCAF: $\frac{3}{2} = 1.5$



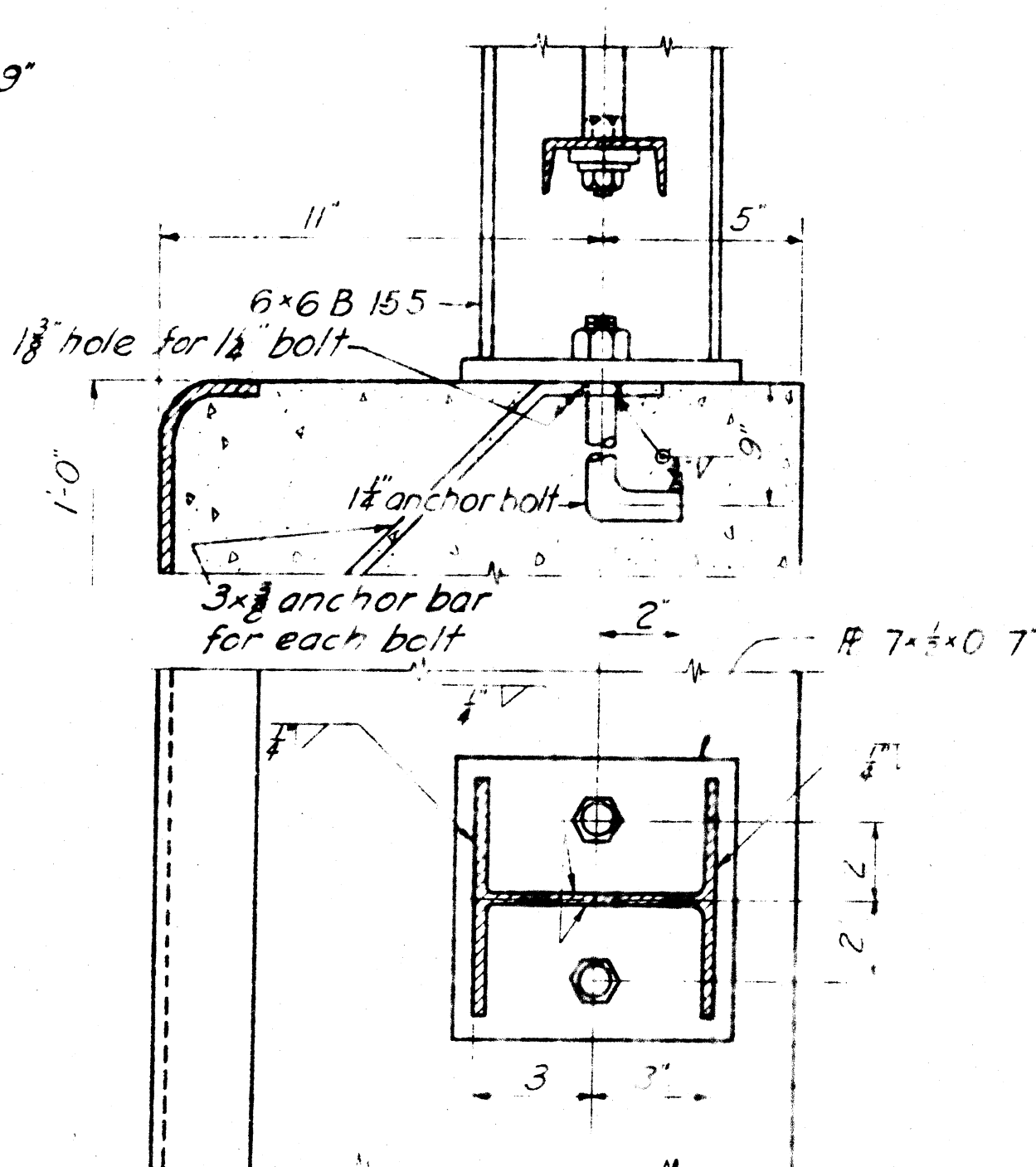
CONCRETE RAIL POST AT ABUTMENT

SECTION A-A AS SHOWN

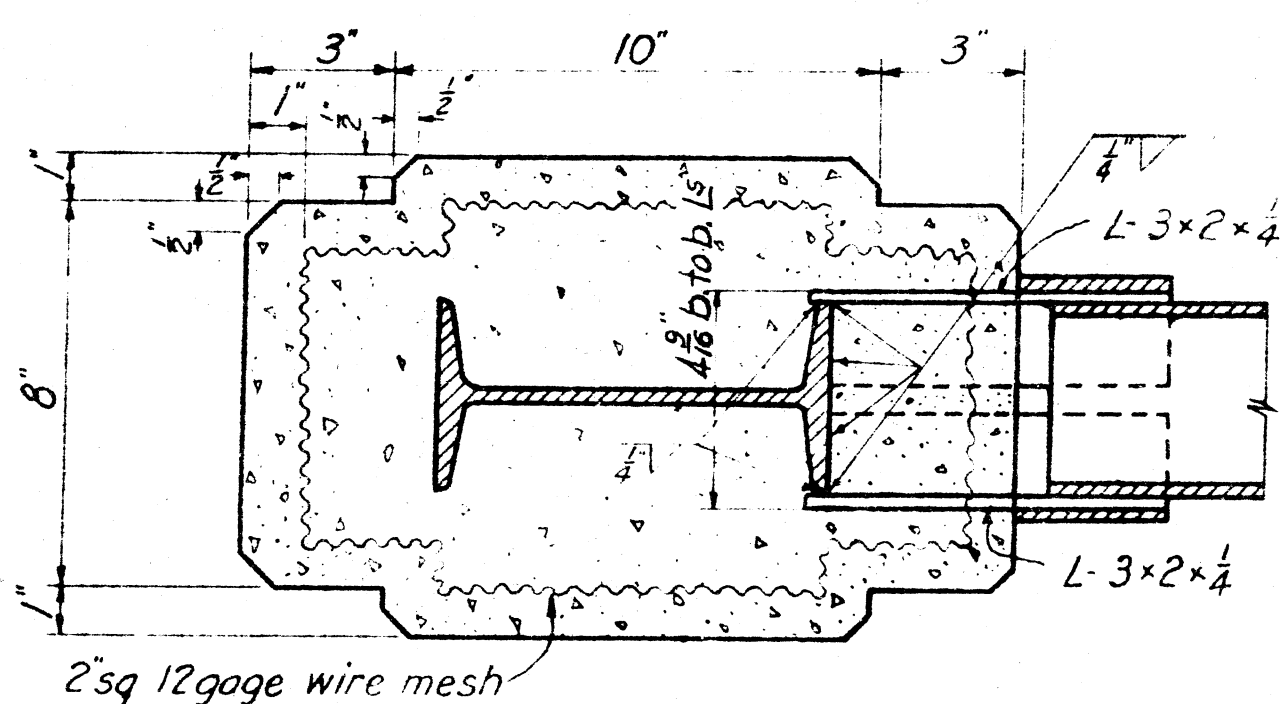
SECTION B-B OPP. HAND



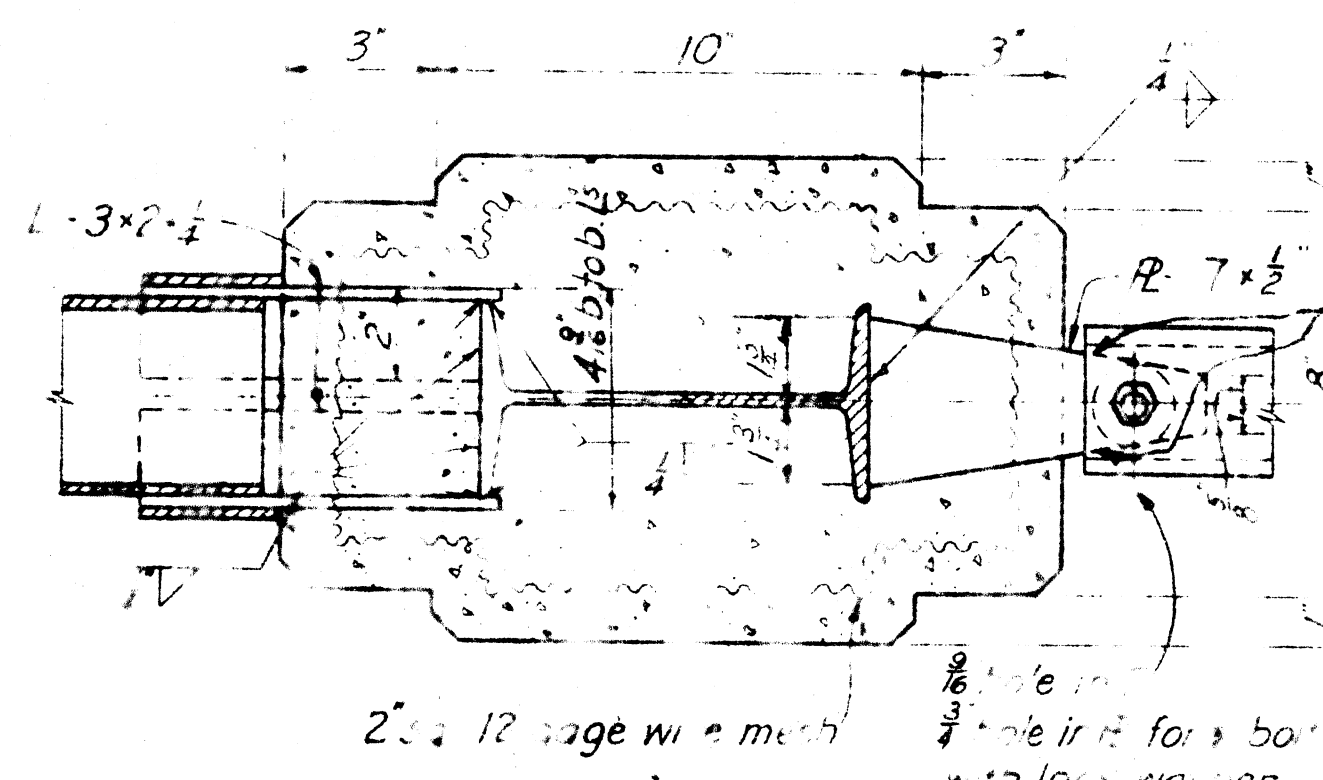
SECTION F-F



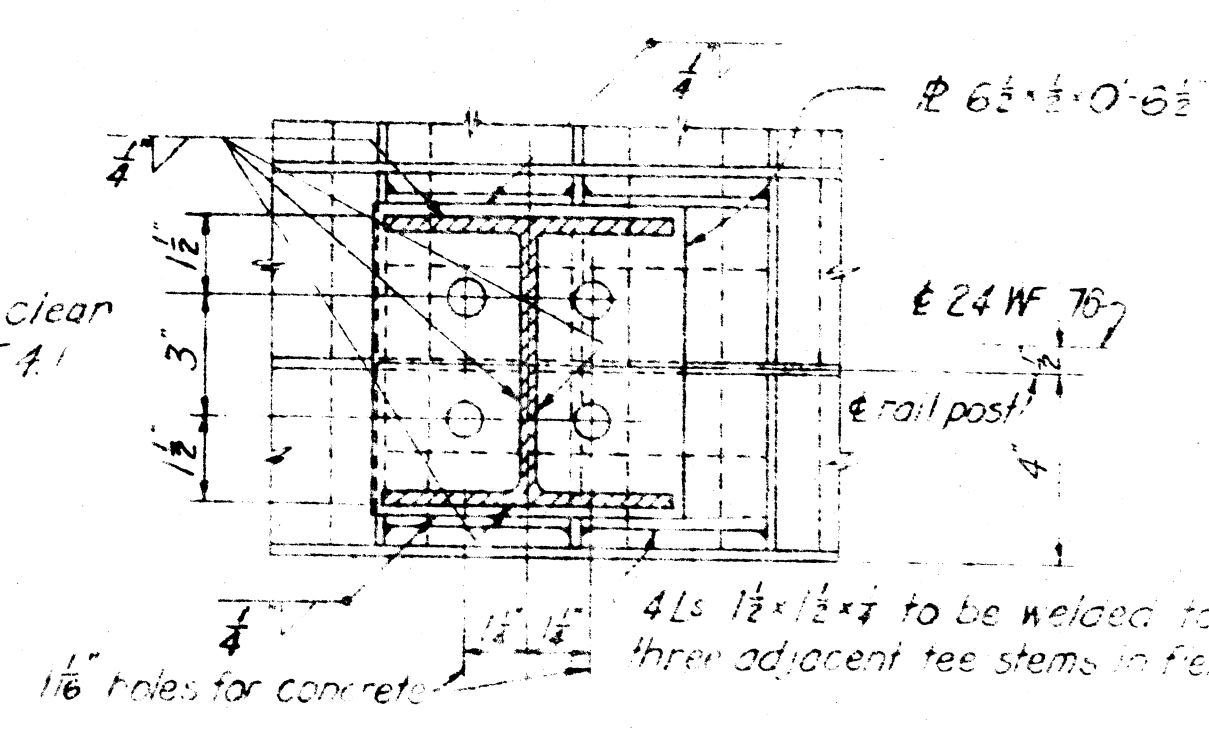
INTERMEDIATE RAIL POST
DOWNSIDE



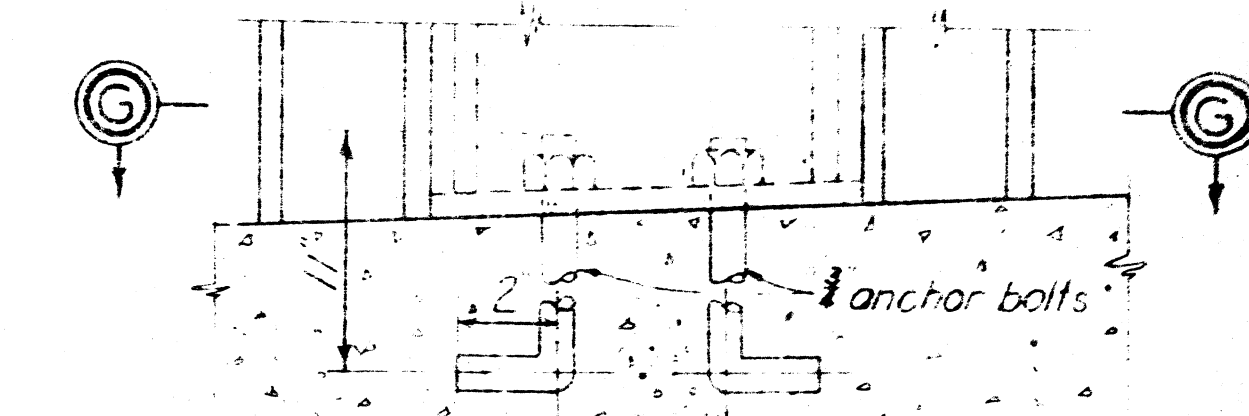
SECTION D-D



SECTION E-E



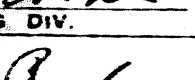
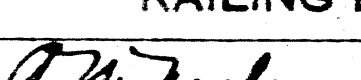
SECTION H-H

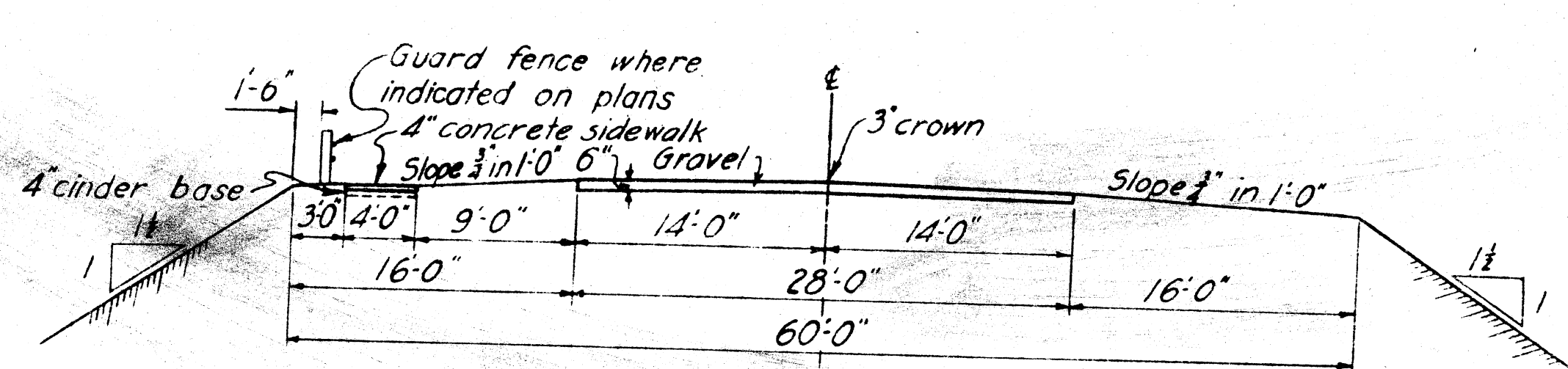
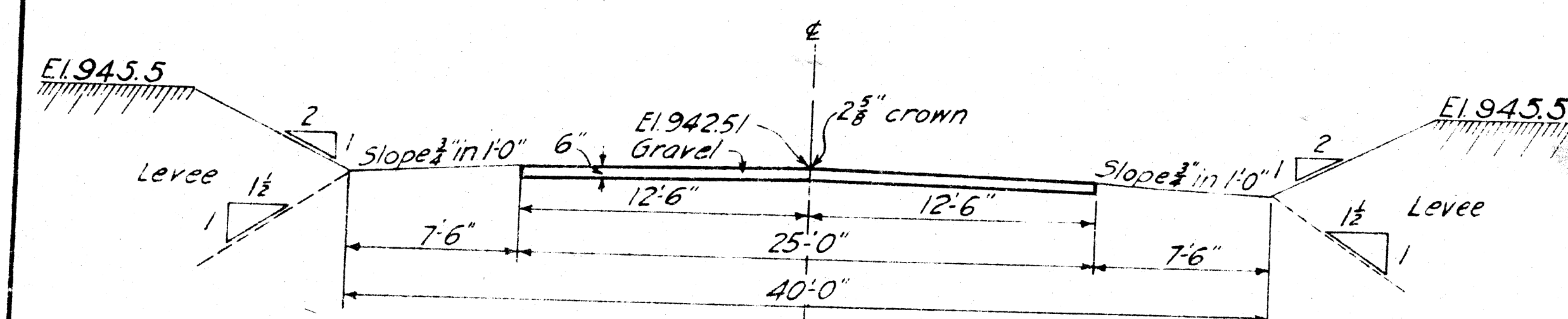
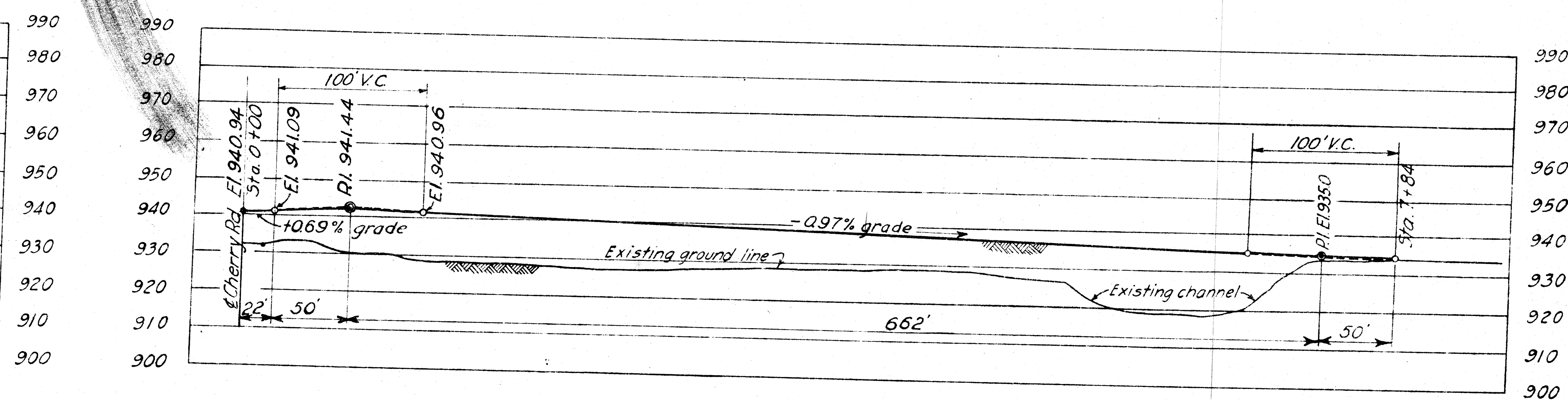
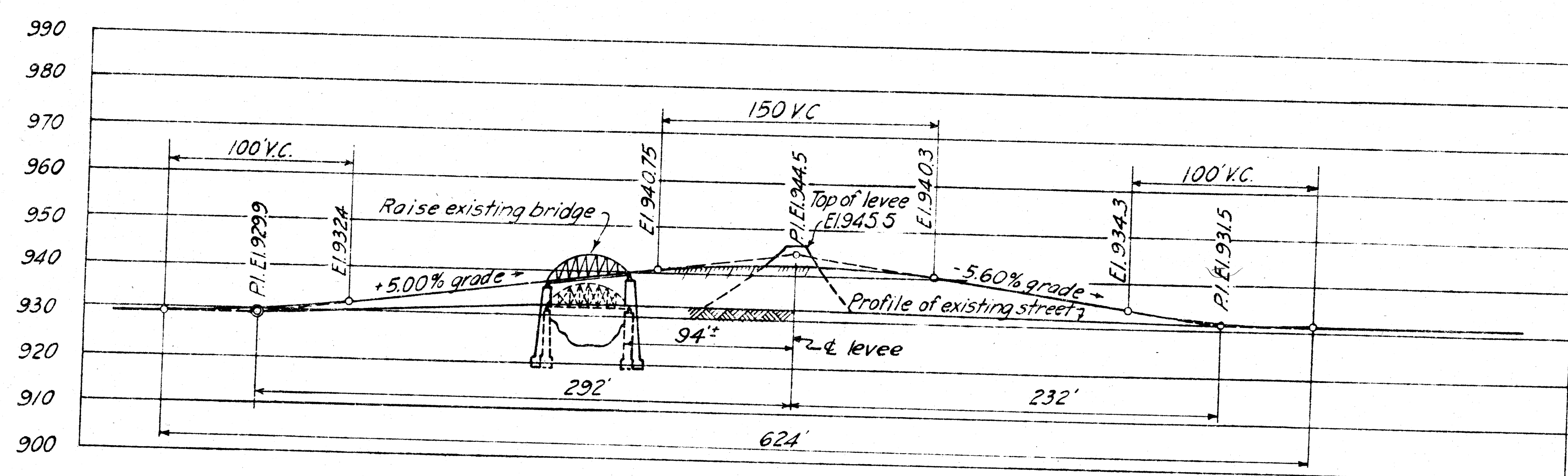
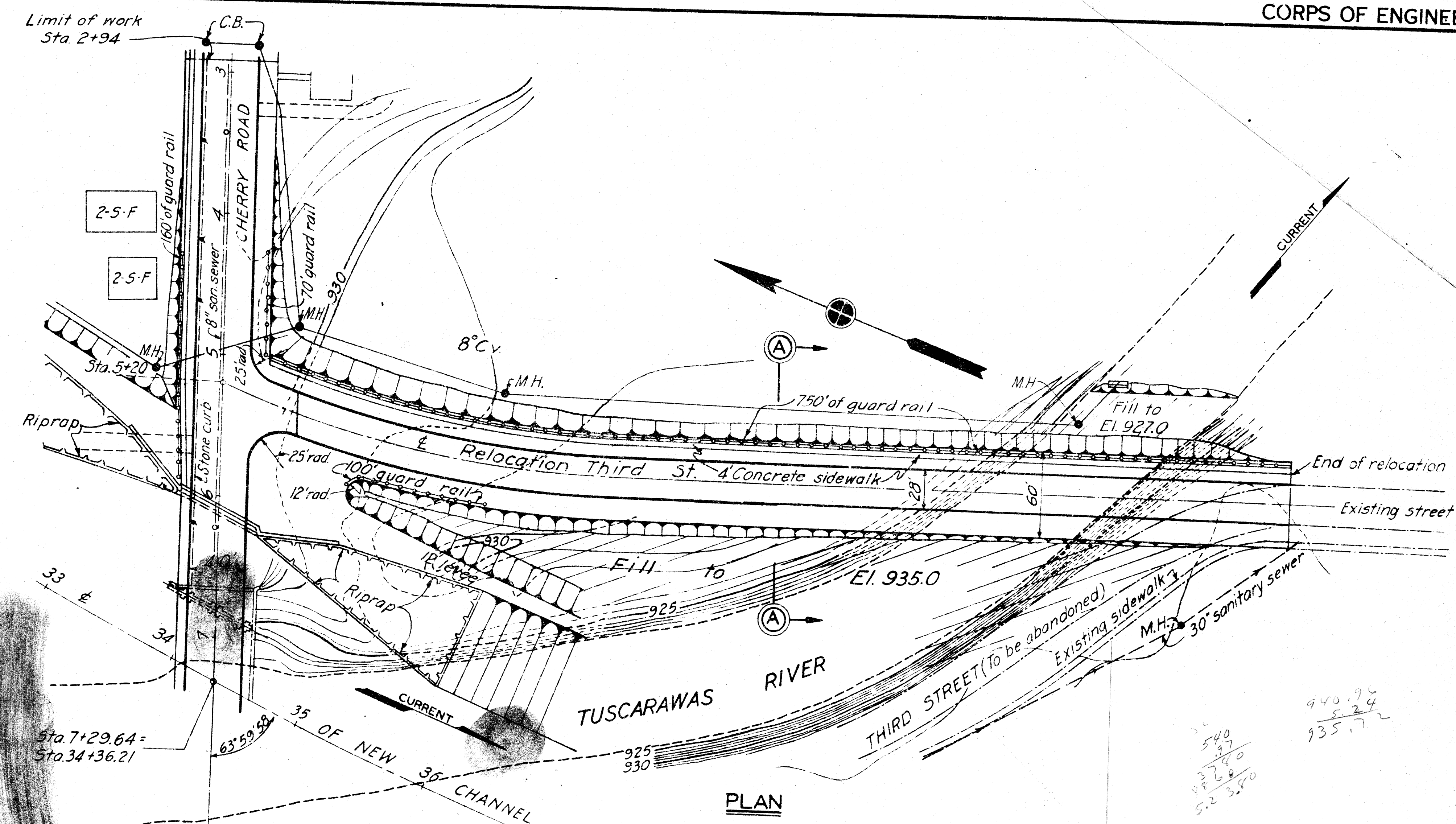
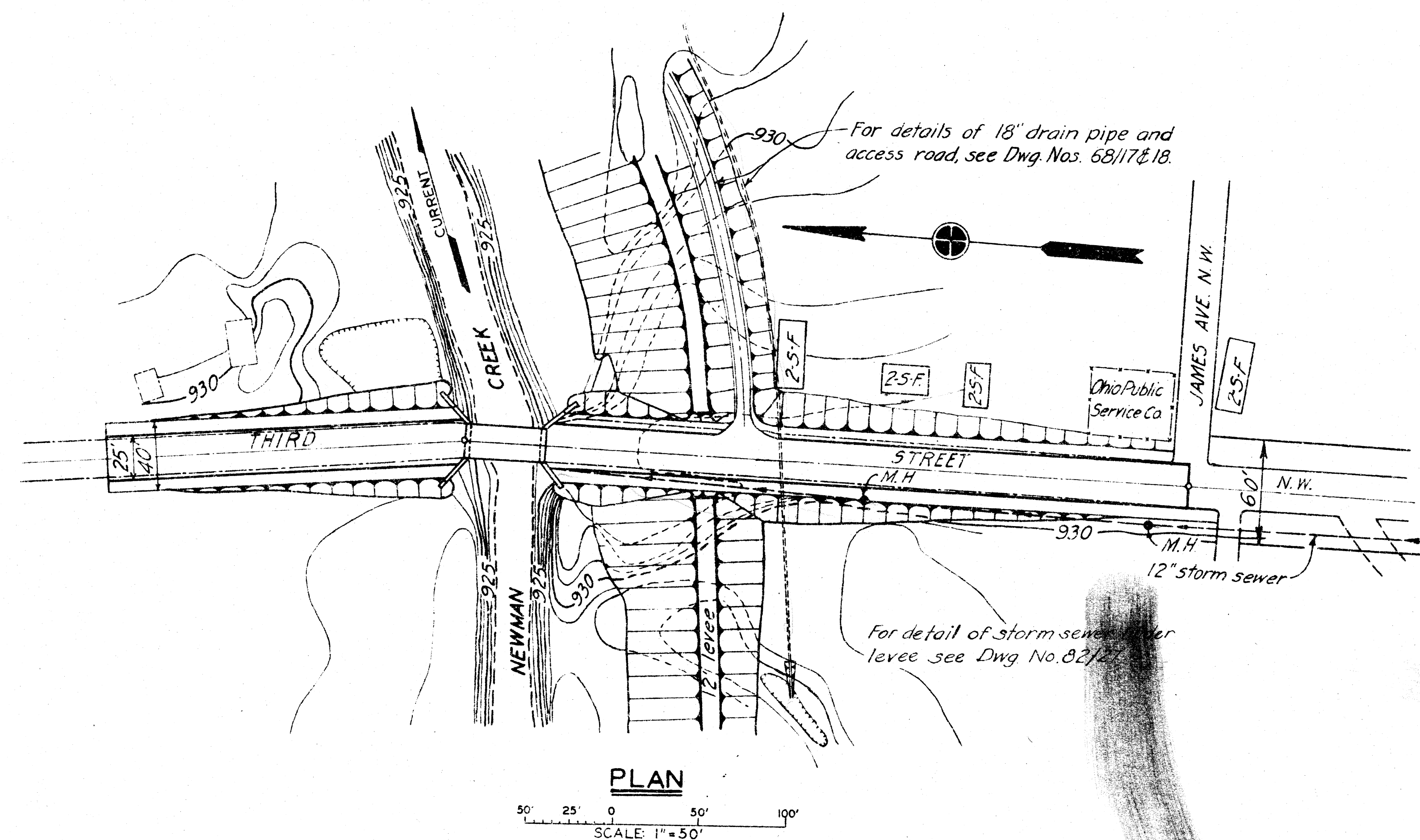


CONCRETE RAIL POST AT PIERS
AND ABUTMENTS-DOWNSTREAM SIDE

NOTES

Material for railing to be structural steel.
Steel railing posts are to be welded in place before sidewalk
is poured.
All railing posts shown are for upstream side except as noted.
Railing posts to be beveled to take care of sidewalk slope and
grade of roadway.

DRAWN BY: A. J. M.		TUSCARAWAS RIVER LOCAL PROTECTION PROJECT MASSILLON, OHIO SECTION 2, UNIT 2 CHERRY ROAD VIADUCT RAILING DETAILS		DATE: OCT. 19 1968	
TRACED BY: H. C.				SCALE: 3" = 1'-0"	
CHECKED BY: H. C. B. & A. W. S.				SPEC. NO.	
SUBMITTED BY:  CHIEF ENG. DIV.				DRAWING NUMBER 0271-PM2-2-68	
APPROVED:  CHIEF ENGR. ASST.		APPROVED:  COL. C. E. DISTRICT ENGINEER		SHEET 39 OF 80	
DATE:					



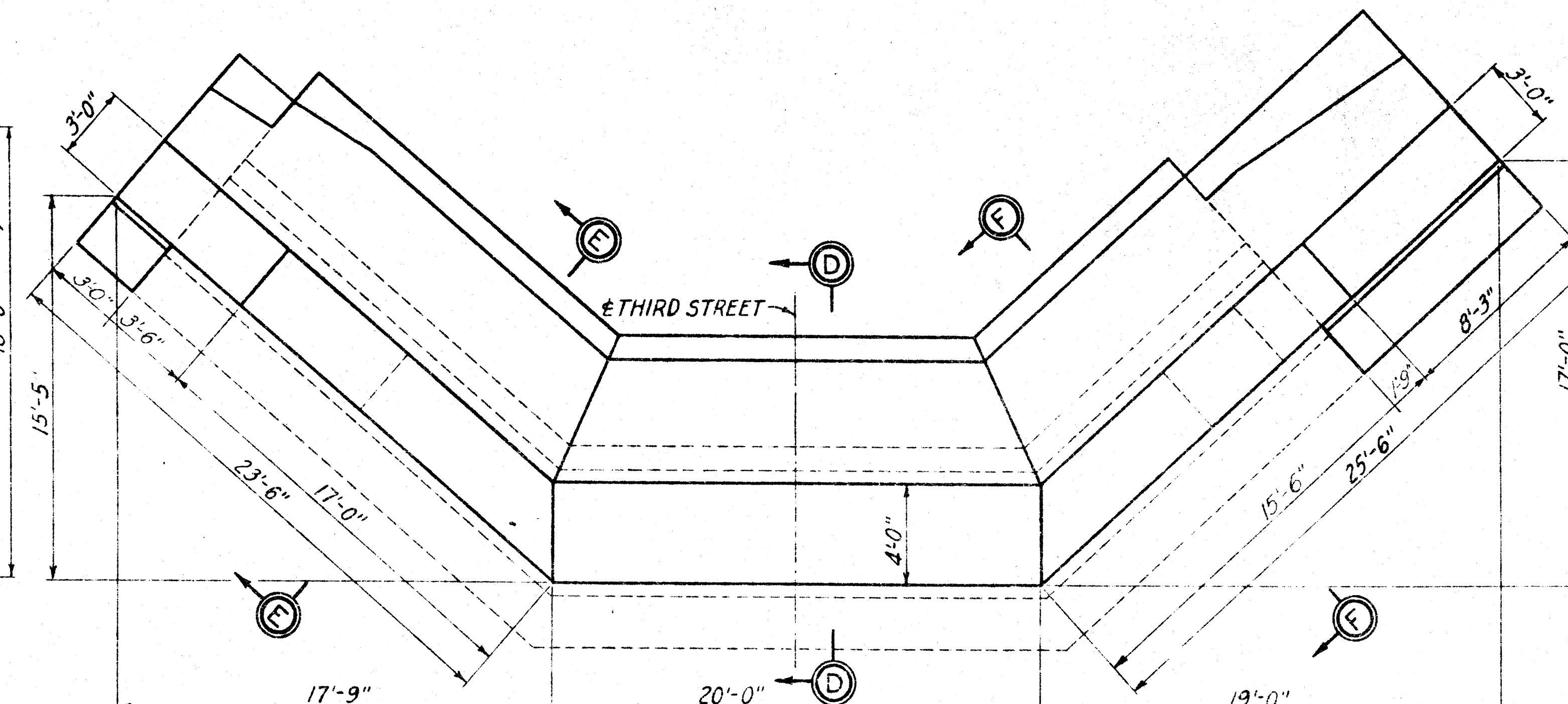
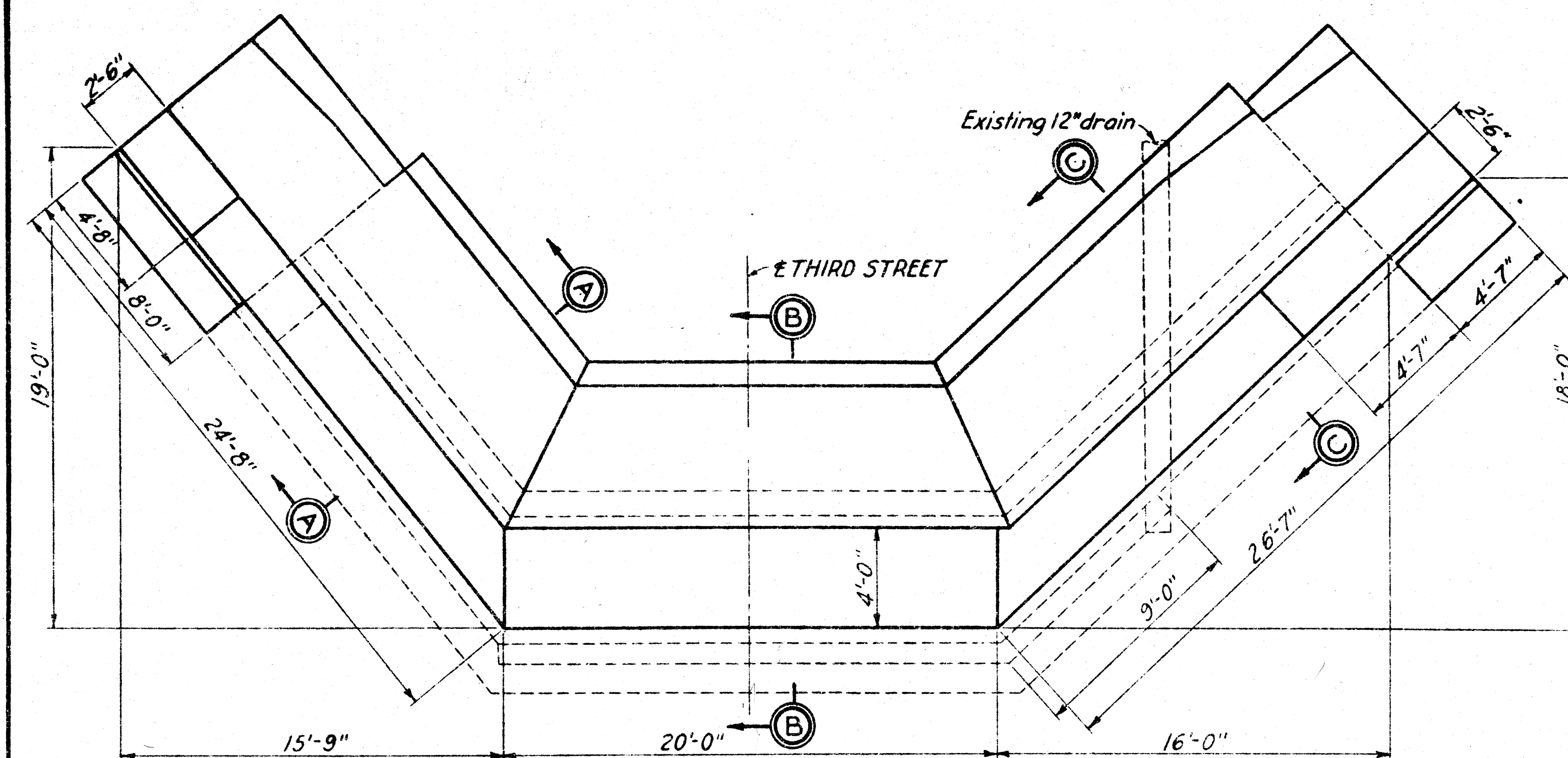
THIRD STREET BRIDGE OVER
NEWMAN CREEK

THIRD STREET RELOCATION AT
CHERRY ROAD

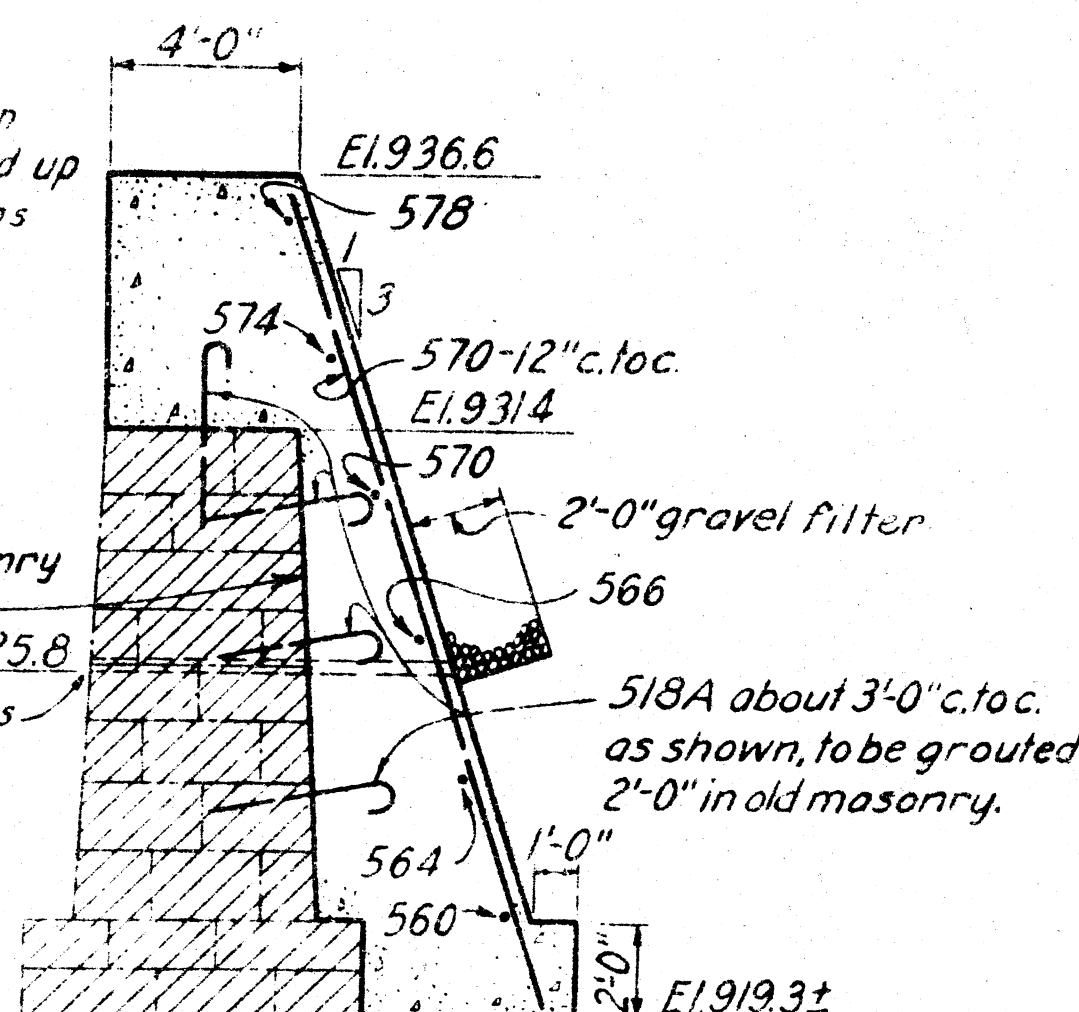
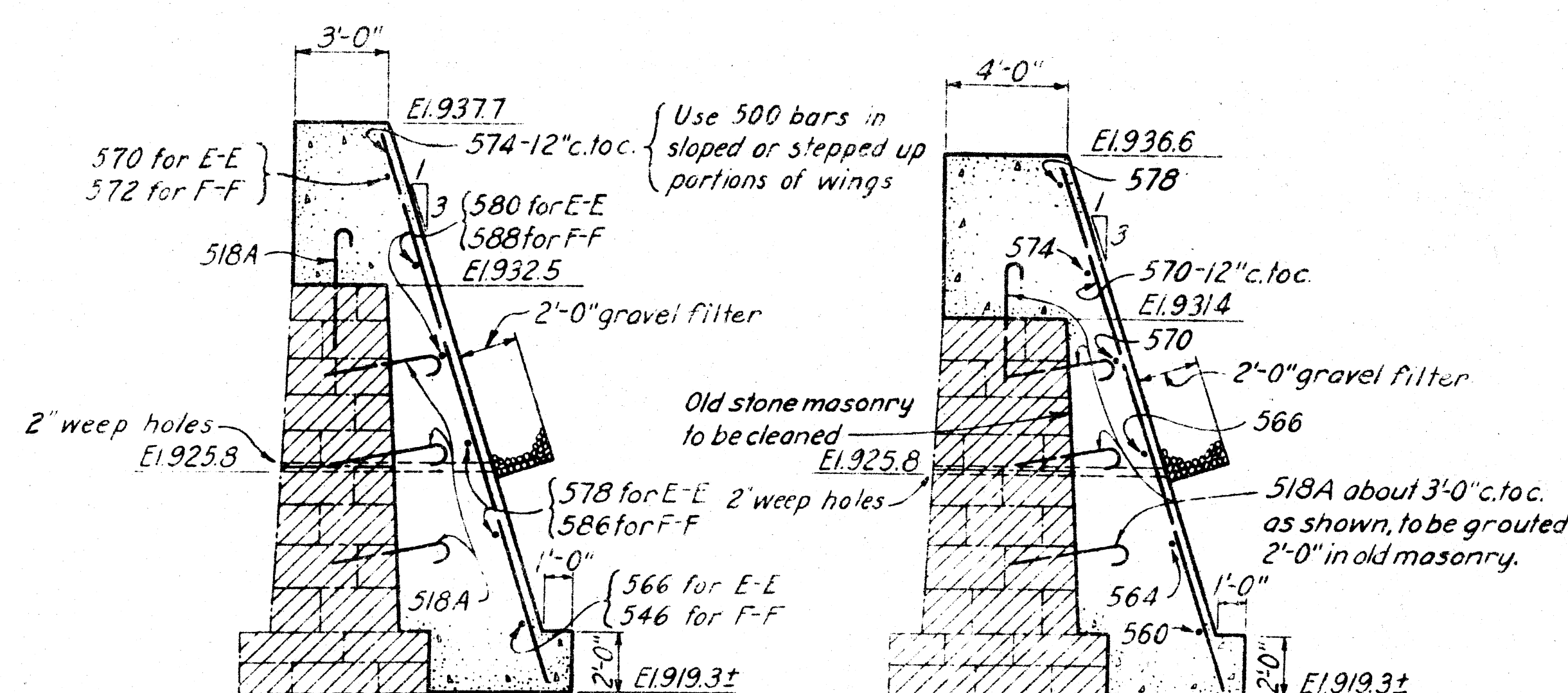
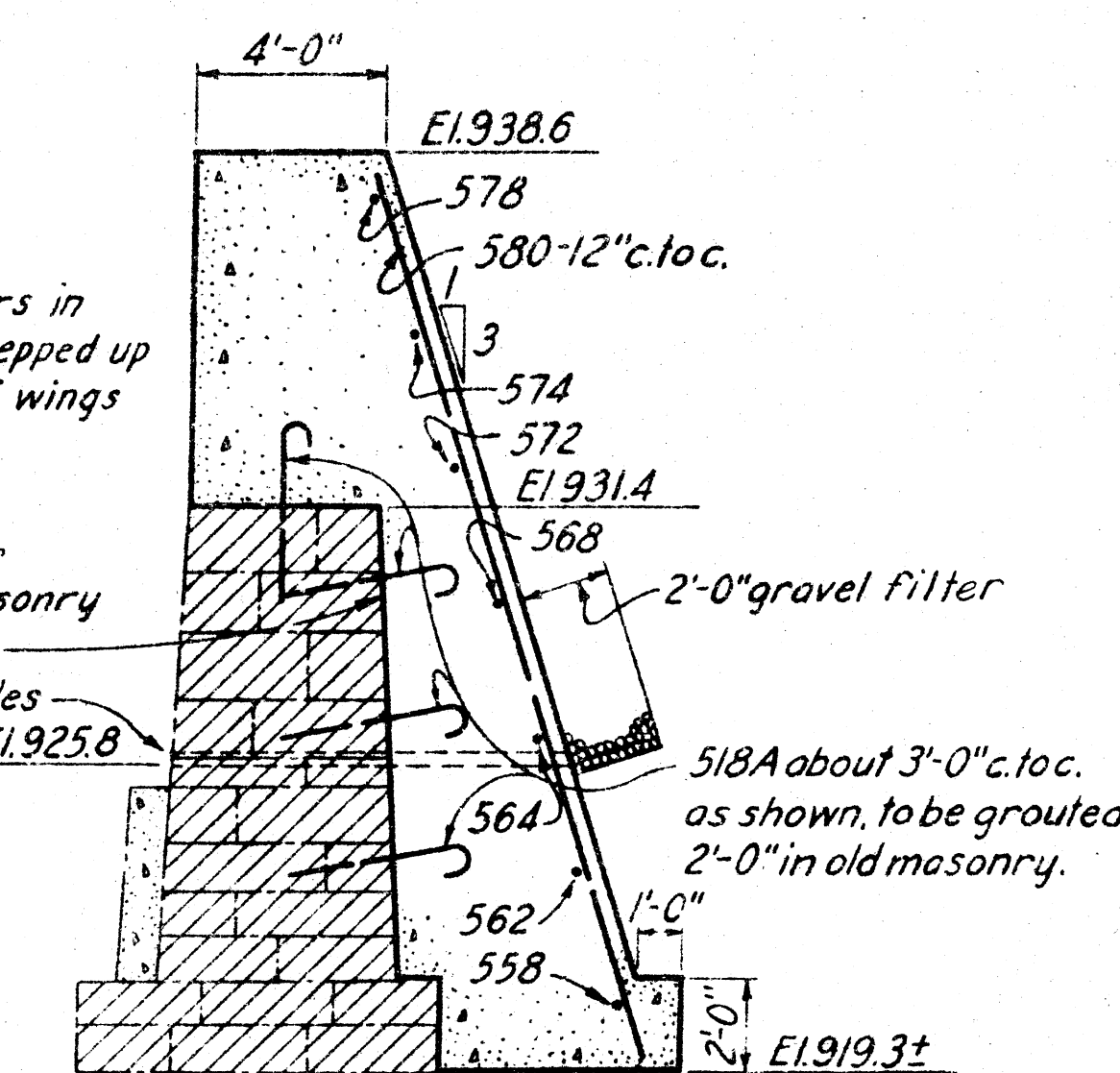
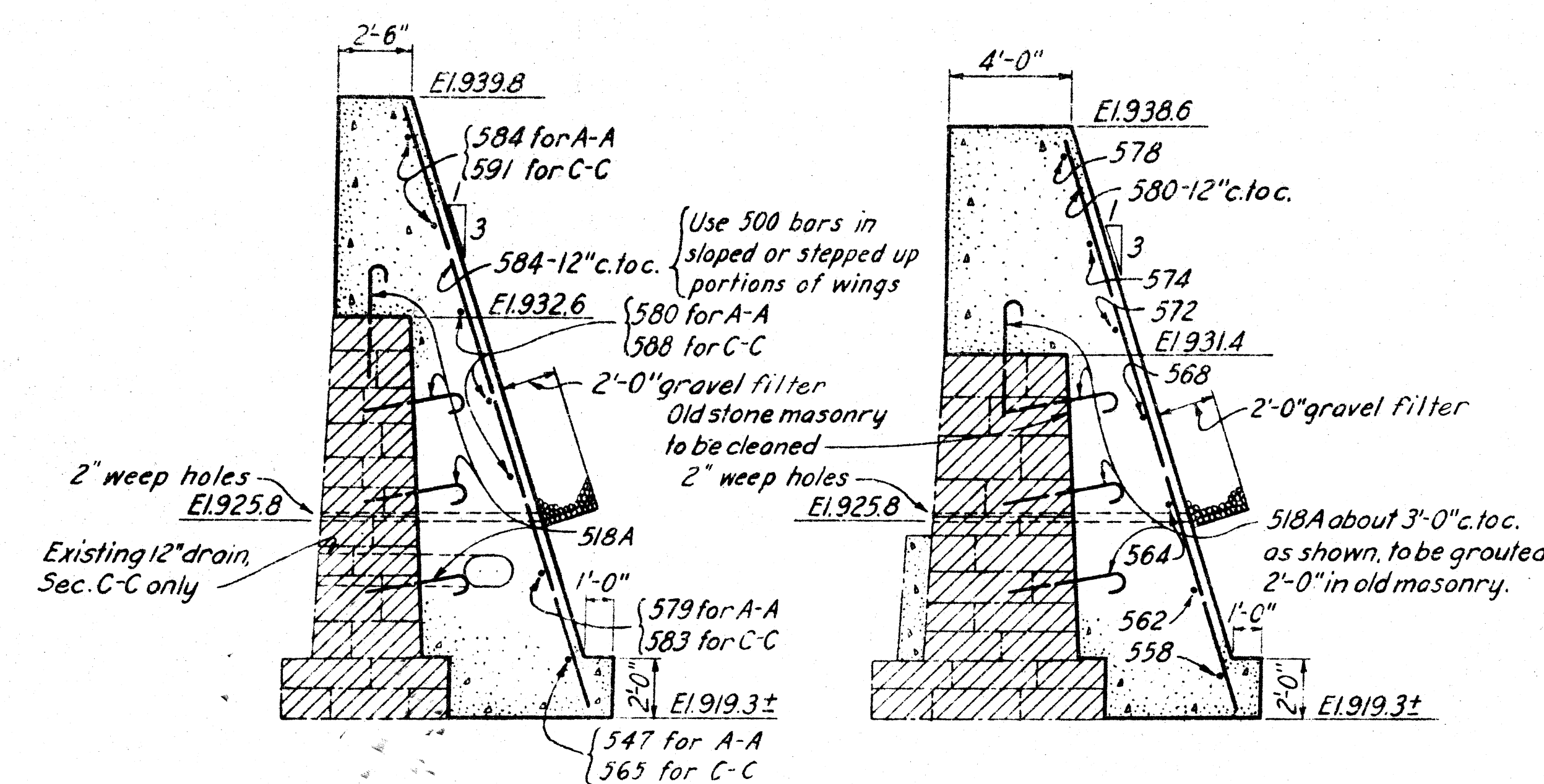
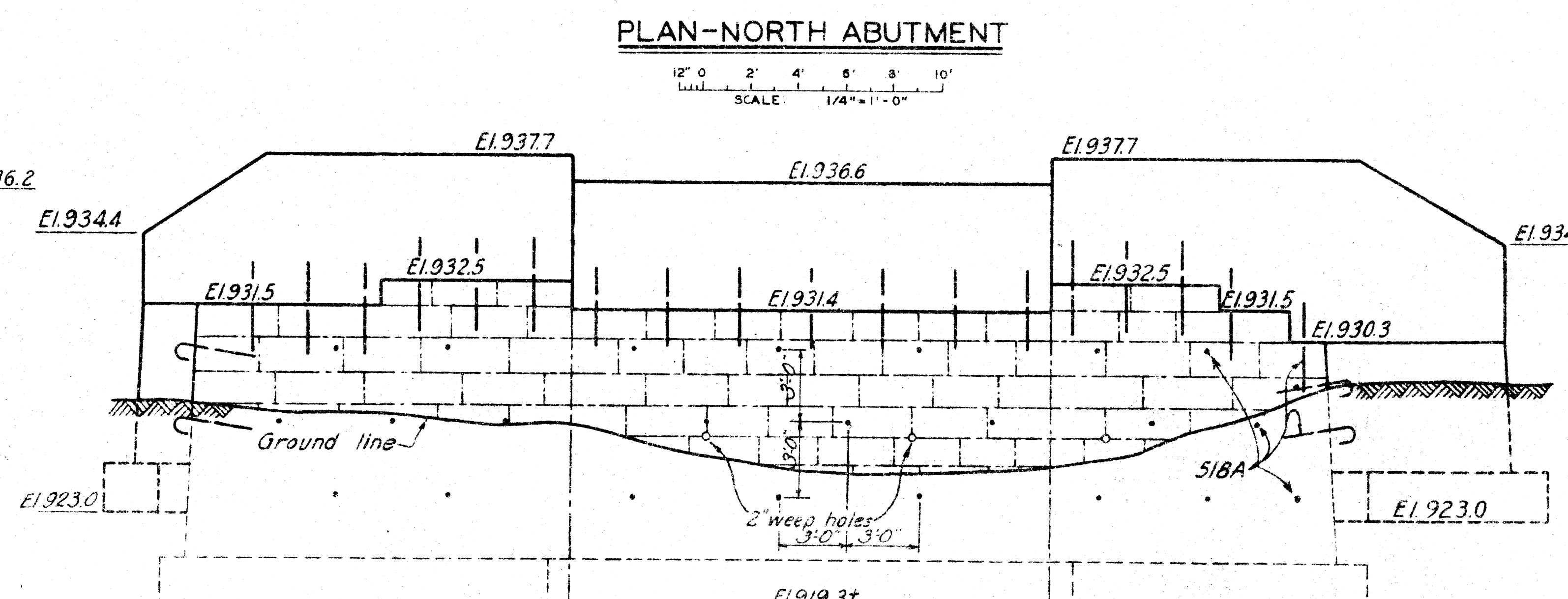
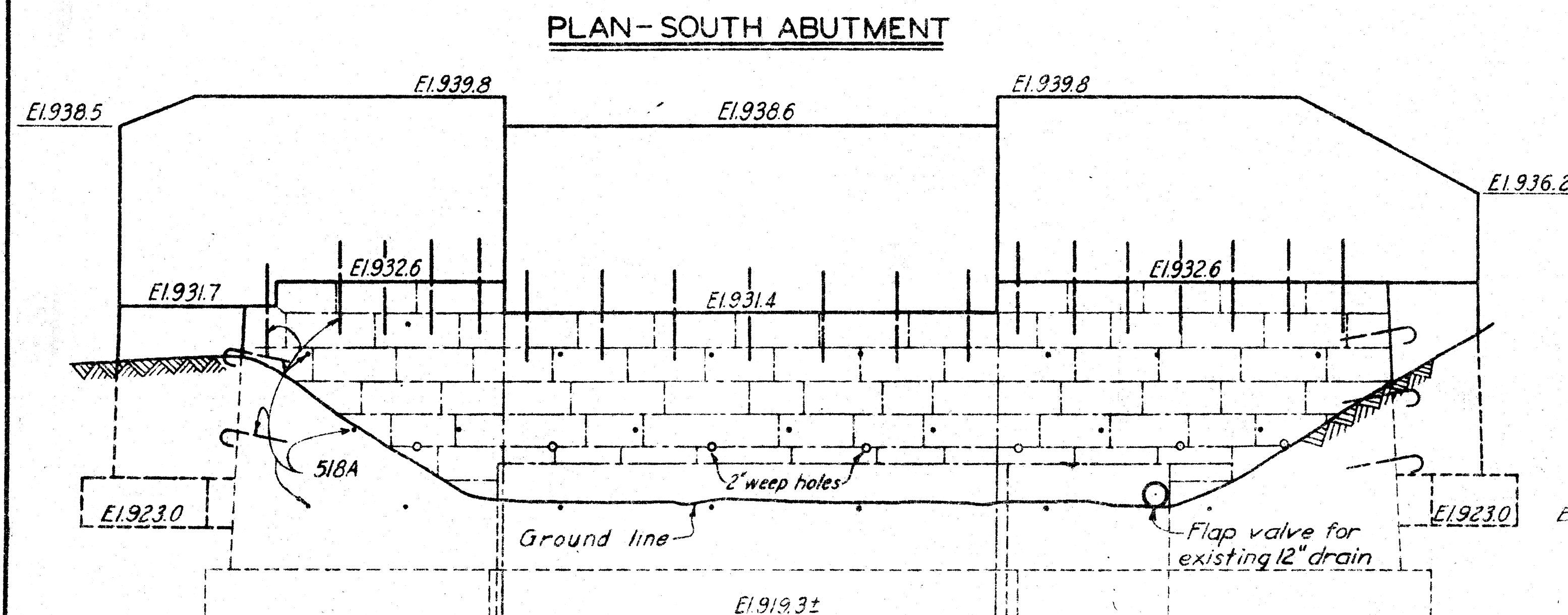
NOTES

For details of raising Third Street bridge over Newman Creek, see Dwg. No. 68/16.
For Cherry Road Viaduct General Plan and Profile, see Dwg. No. 68/11.
For general plans, see Dwg. Nos. 16/1 and 16/2.
For details of pavement return of Cherry Road, see Dwg. No. 68/17.
For details of guard rail, see Dwg. No. 68/18.

DEPARTMENT OF THE ARMY CORPS OF ENGINEERS OFFICE OF THE DISTRICT ENGINEER HUNTINGTON, W. VA.		TUSCARAWAS RIVER LOCAL PROTECTION PROJECT MASSILLON, OHIO SECTION 2, UNIT 2 THIRD ST. AT CHERRY ROAD AND NEWMAN CREEK PLAN AND PROFILE	
DRAWN BY: H.G.H.	TRACED BY: D.R.J. - C.C.C.	CHECKED BY: H.F.B. - E.S.W.	APPROVED BY: [Signature] CHIEF ENGINEER, DISTRICT
APPROVED FOR:		APPROVED: [Signature] COL. C.E. DISTRICT ENGINEER	
DATE:		DATE: OCT. 1948	
SCALE: 1"=50'		SCALE: 1"=50'	
DRAWING NUMBER 0271-PM2-2-68/15		SHEET 40 OF 60	



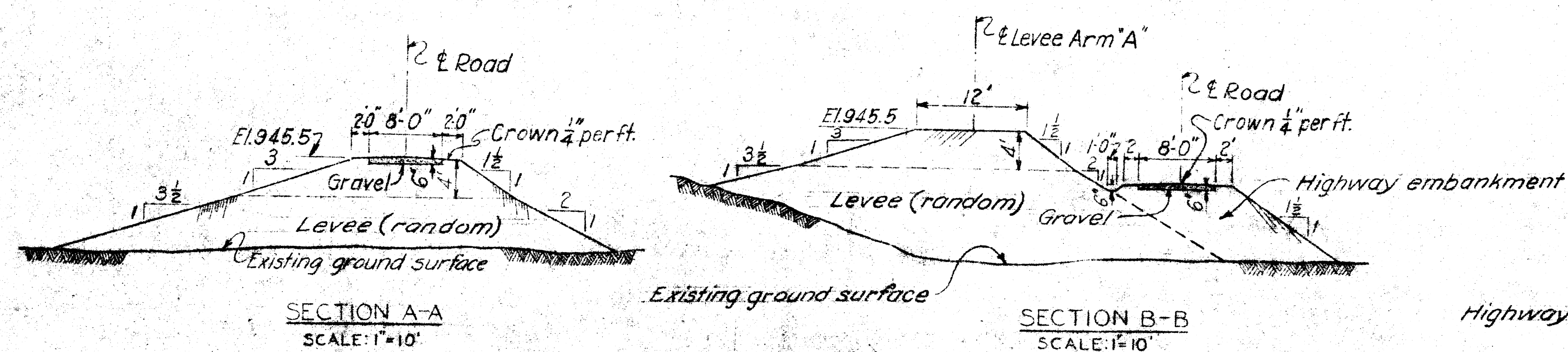
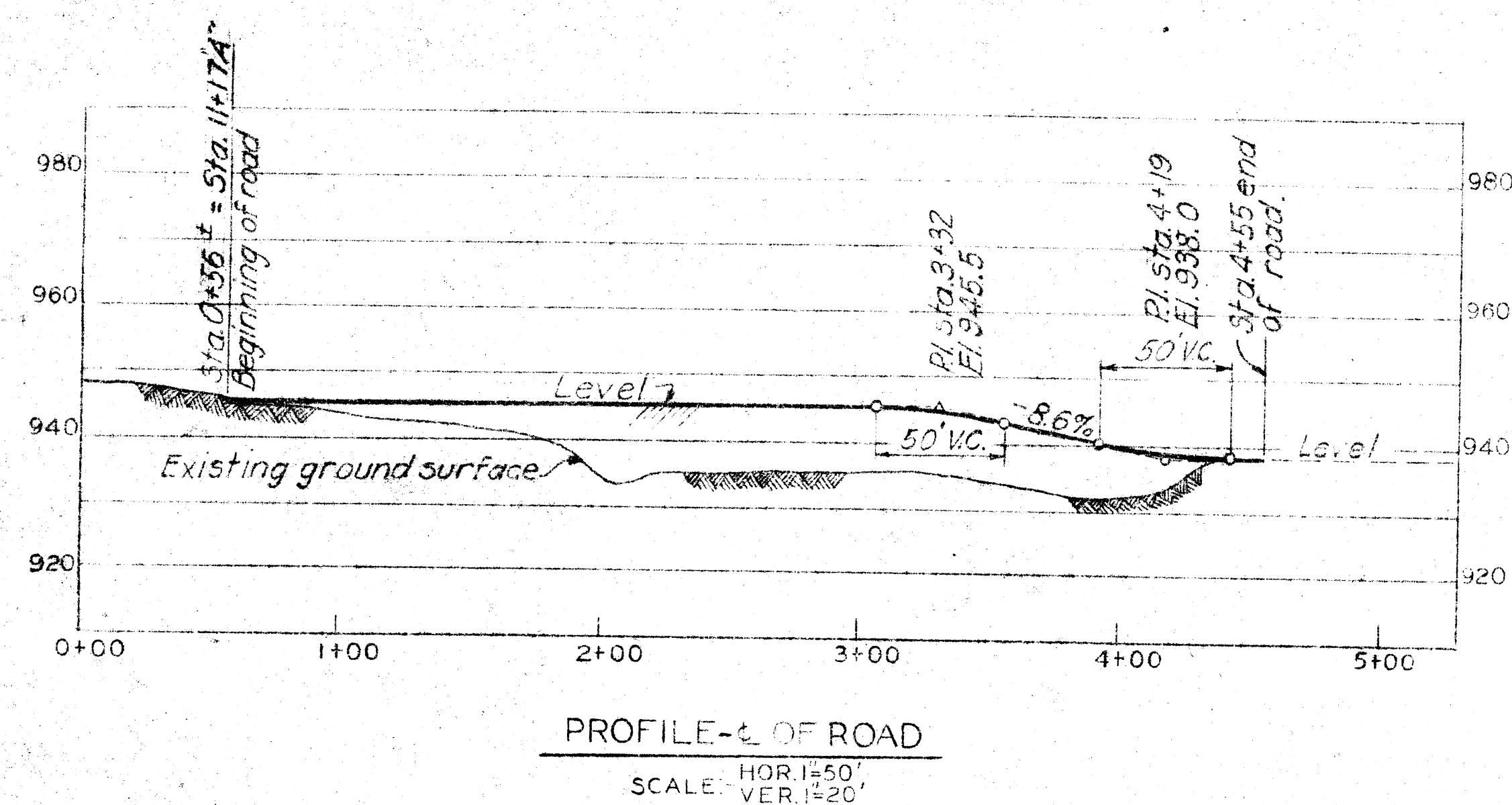
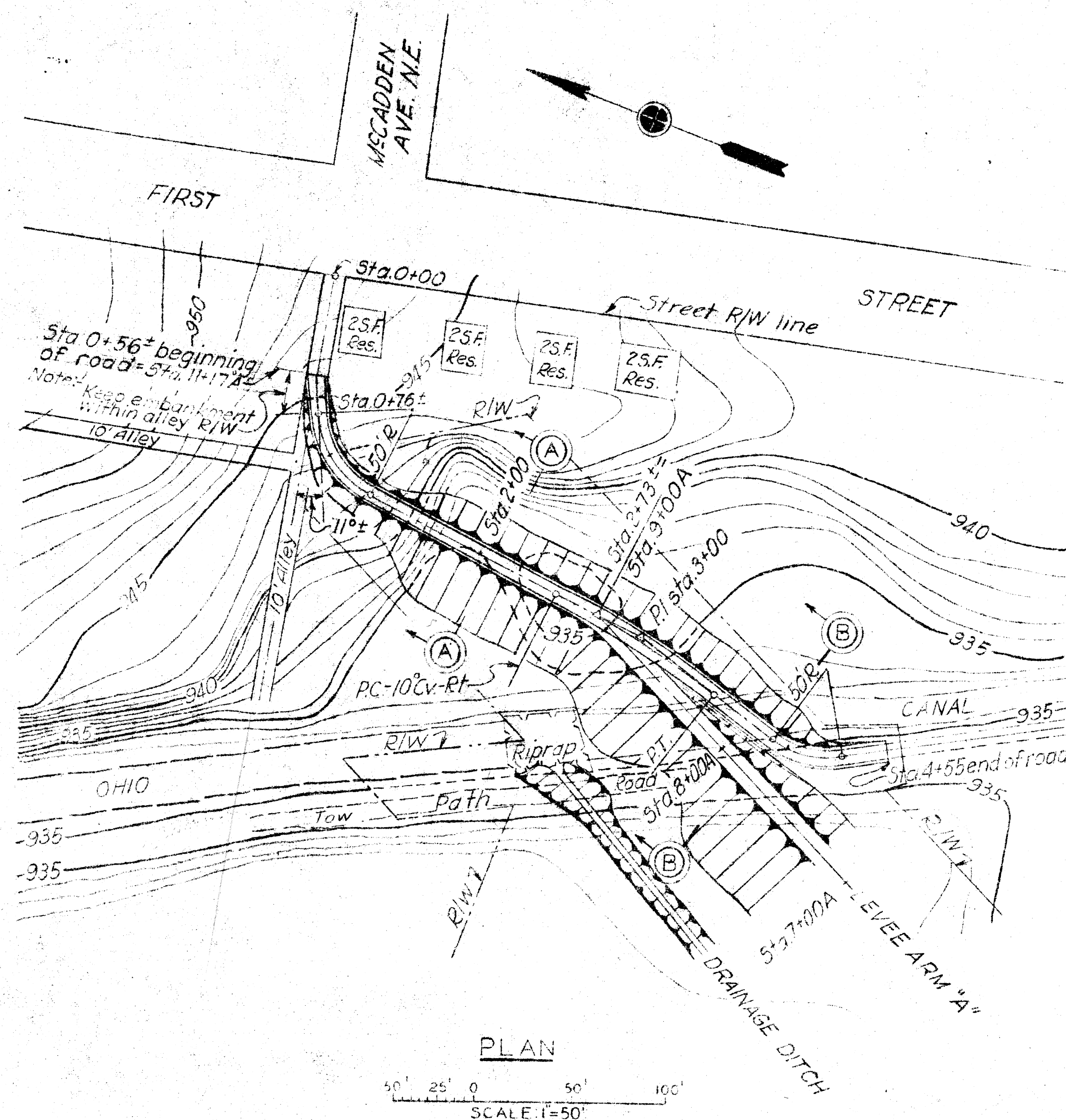
REINFORCING SCHEDULE						
MARK	SIZE	L'GTH.	BENDING DIAGRAM	NO.	UNIT WT.	TOTAL WT.
518A	5/8"	4'-6"		23	169.436	15
558	5/8"	14'-6"		1	15.12	15
560	5/8"	15'-0"		1	15.65	16
562	5/8"	15'-6"		1	16.17	16
564	5/8"	16'-0"		2	16.69	33
565	5/8"	16'-3"		1	16.95	17
566	5/8"	16'-6"		2	17.21	34
568	5/8"	17'-0"		1	17.73	18
570	5/8"	17'-6"		21	18.25	383
572	5/8"	18'-0"		2	18.77	37
574	5/8"	18'-6"		27	19.30	524
578	5/8"	19'-6"		4	20.34	81
579	5/8"	19'-9"		1	20.60	21
580	5/8"	20'-0"		24	20.86	501
584	5/8"	21'-0"		27	21.90	591
586	5/8"	21'-6"		2	22.42	45
588	5/8"	22'-0"		5	22.95	115
590	5/8"	22'-9"		1	23.73	574
591	5/8"	22'-9"		2	23.73	47
593	5/8"	20'-9"		1	21.64	22
547	5/8"	11'-9"		1	12.26	12
546	5/8"	11'-6"		1	11.99	12
Total					3,547	



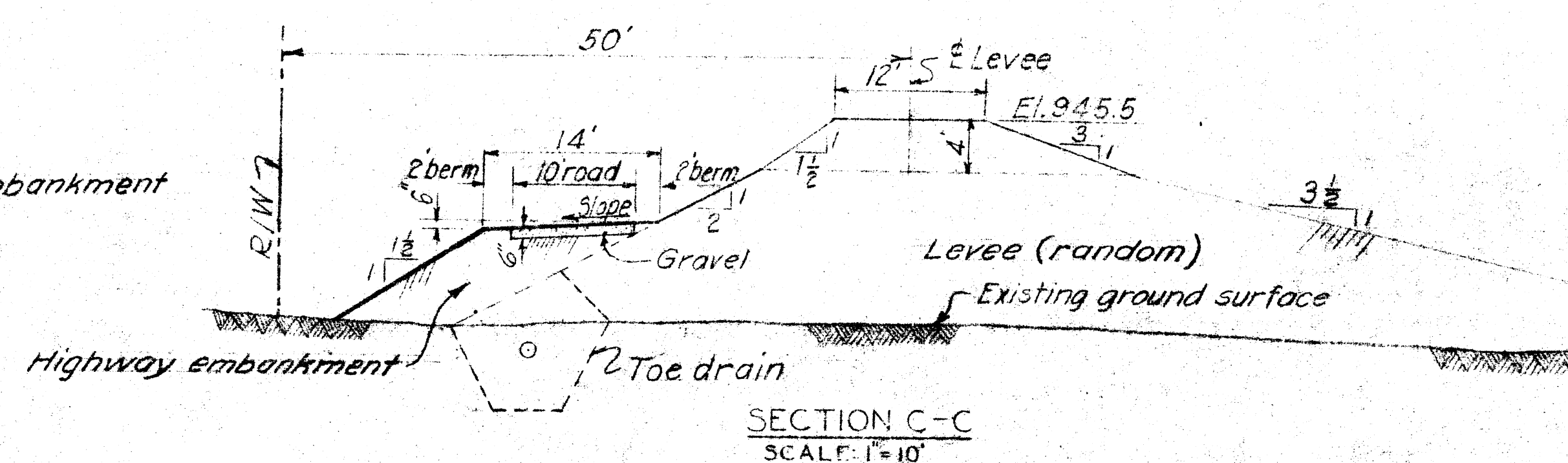
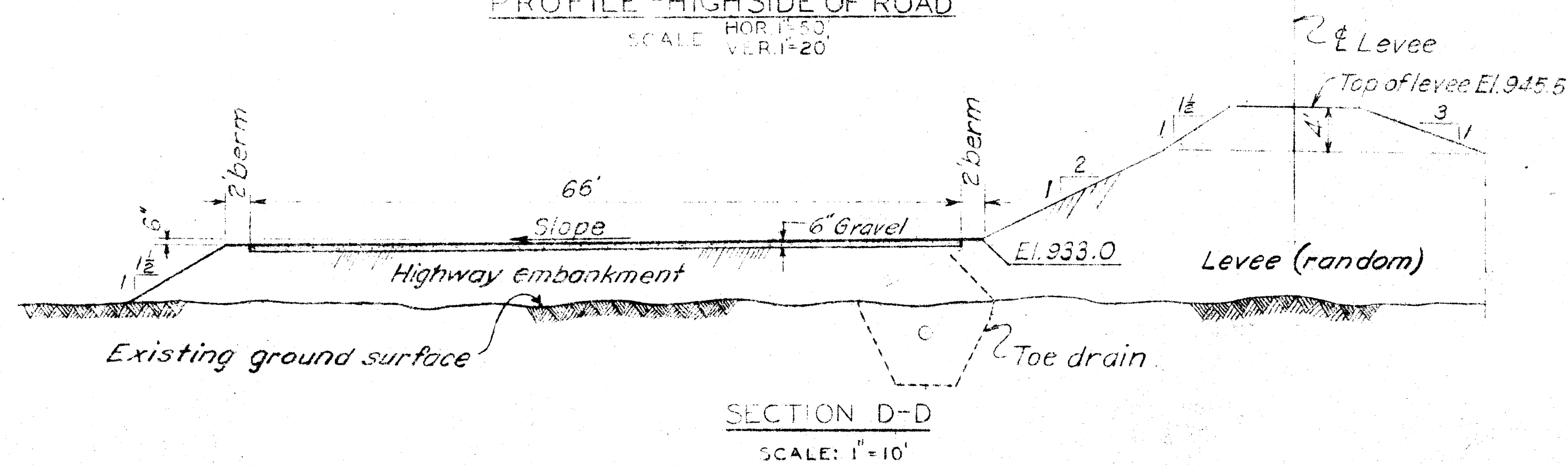
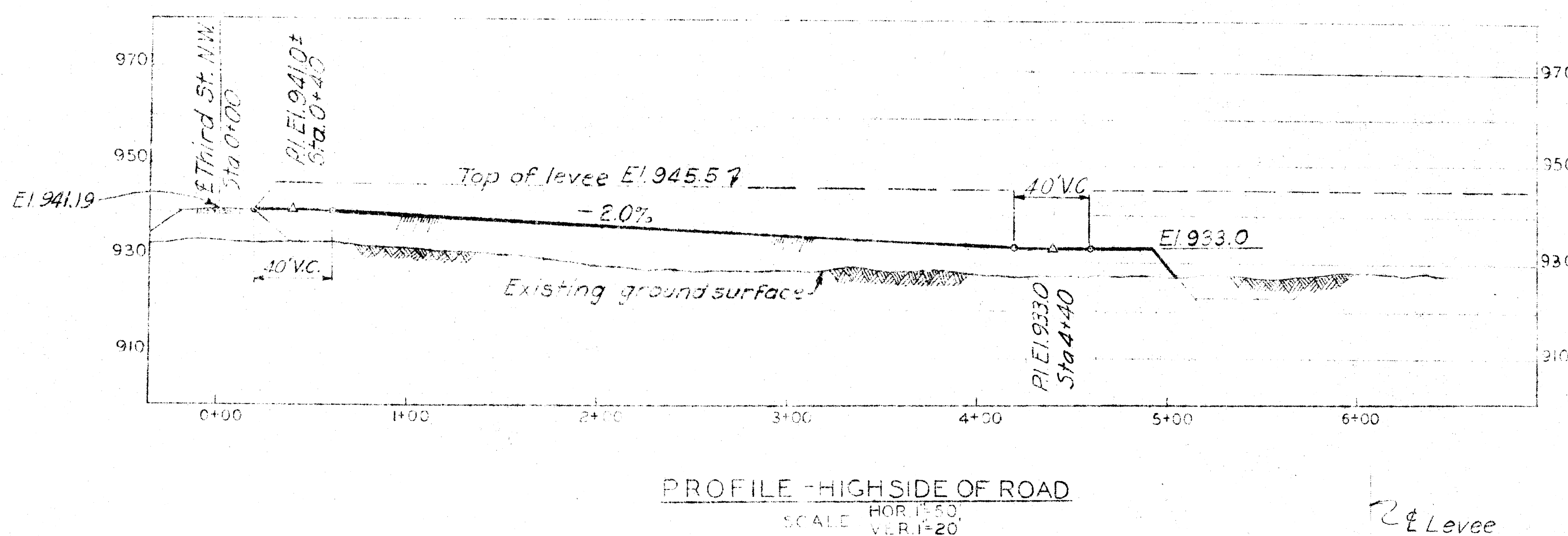
NOTE

For general information and explanation of reinforcing steel code, see Dwg. No. 20/1.
For plan and profile, see Dwg. No. 68/15.
For general plan, see Drawing No. 16/1.

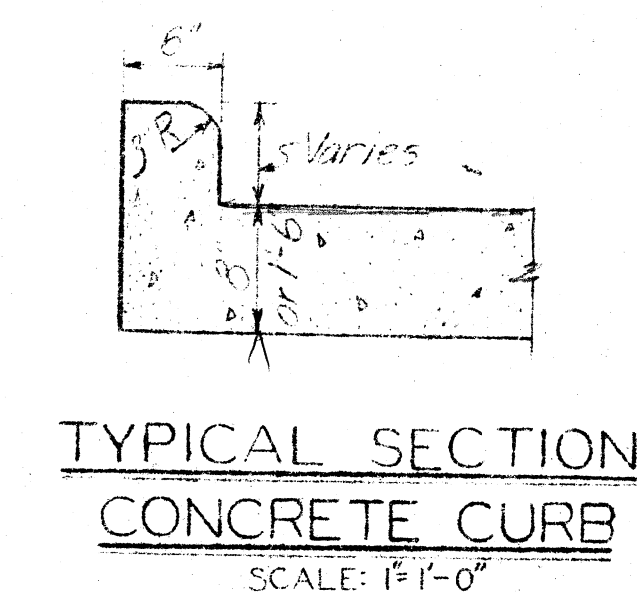
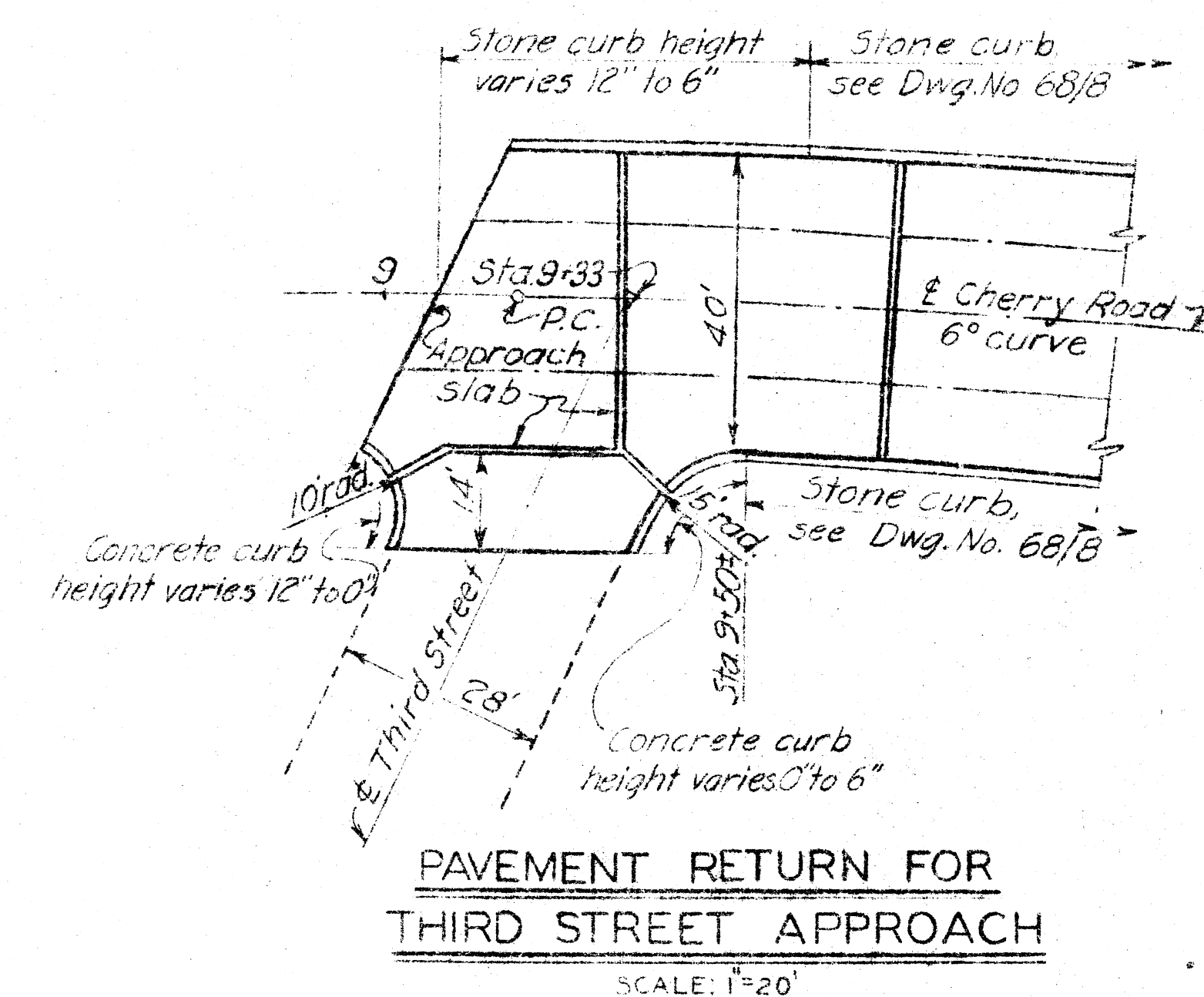
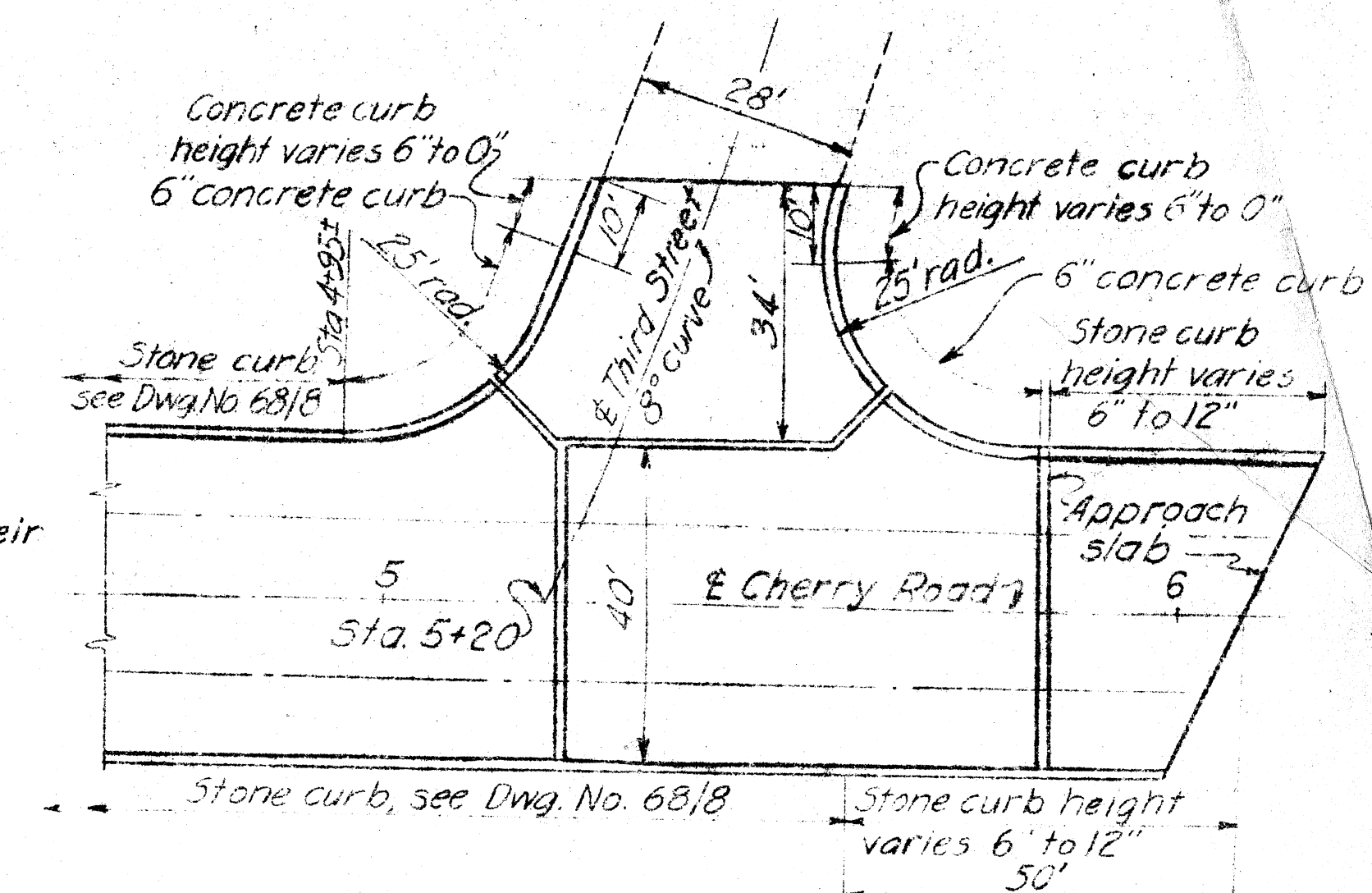
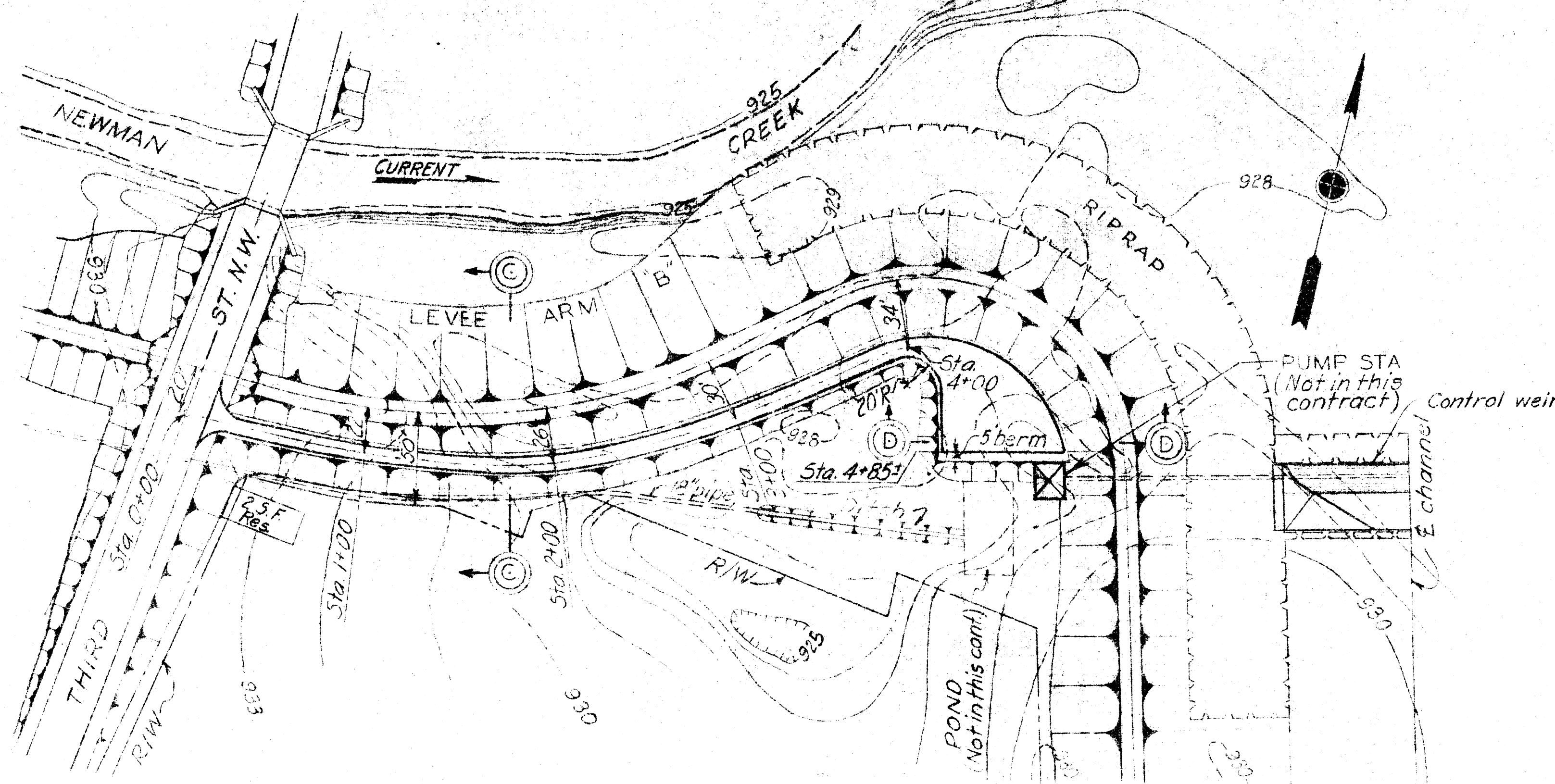
DEPARTMENT OF THE ARMY CORPS OF ENGINEERS OFFICE OF THE DISTRICT ENGINEER HUNTINGTON, W. VA.		TUSCARAWAS RIVER LOCAL PROTECTION PROJECT MASSILLON, OHIO SECTION 2, UNIT 2 RAISING THIRD ST. BRIDGE OVER NEWMAN CREEK	
DRAWN BY: R.M.C.	TRACED BY: J.G.G.-J.F.C.	CHECKED BY: H.F.B.-G.O.S.	DATE: OCT. 1948
SUBMITTED BY: H.M. [Signature]		APPROVED: [Signature] COL. C.E. DISTRICT ENGINEER	
APPROVED FOR: [Signature]		SPEC. NO. 027i-PM2-2-68/16	



ACCESS ROAD - LEVEE ARM "A"



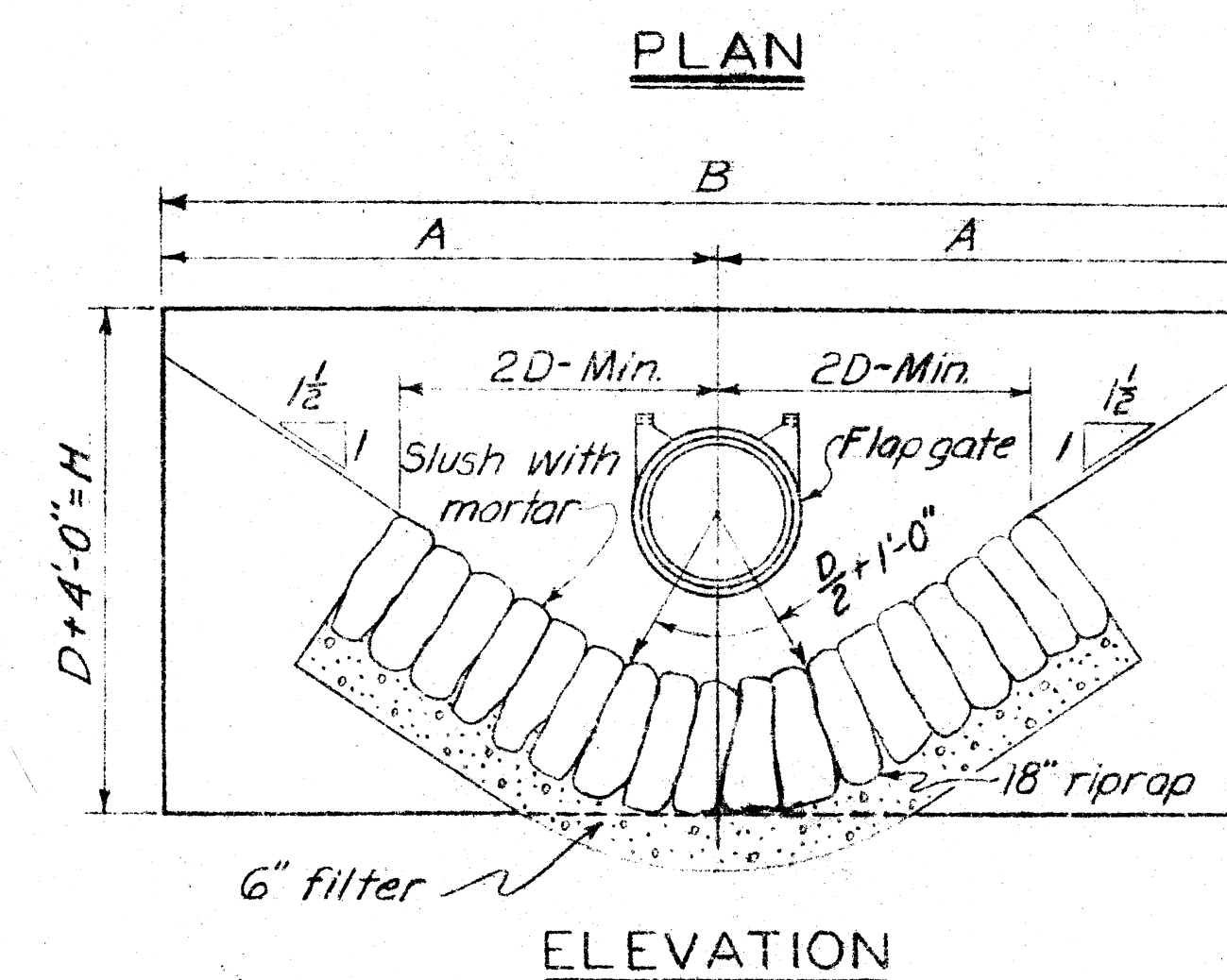
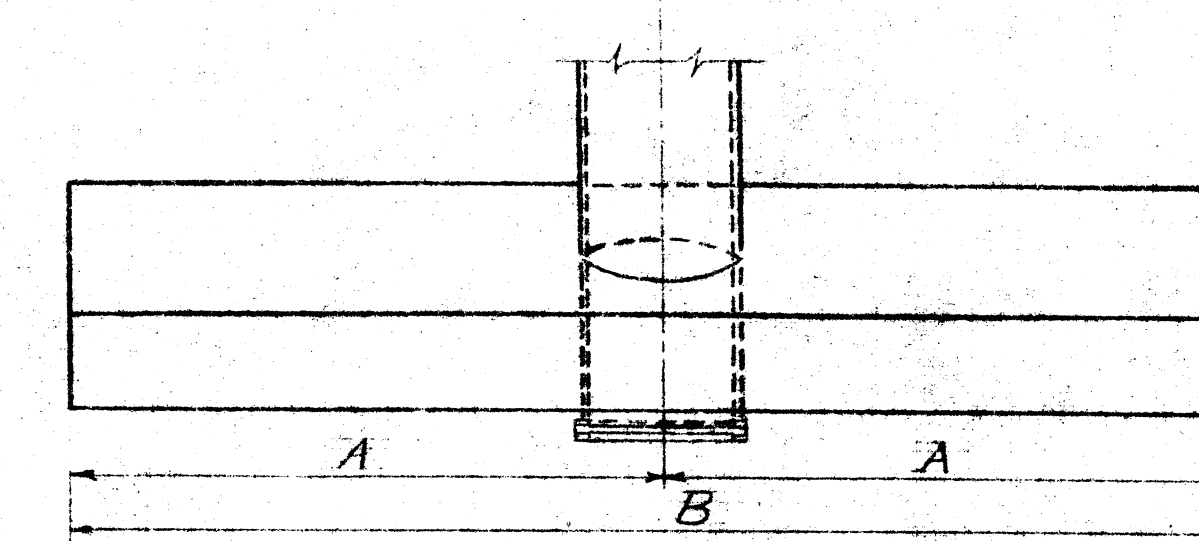
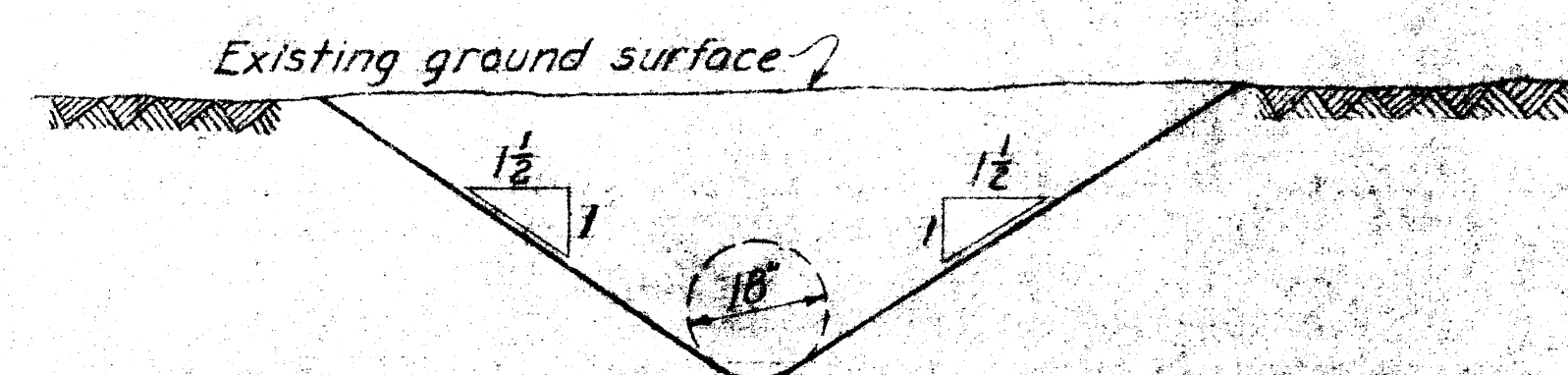
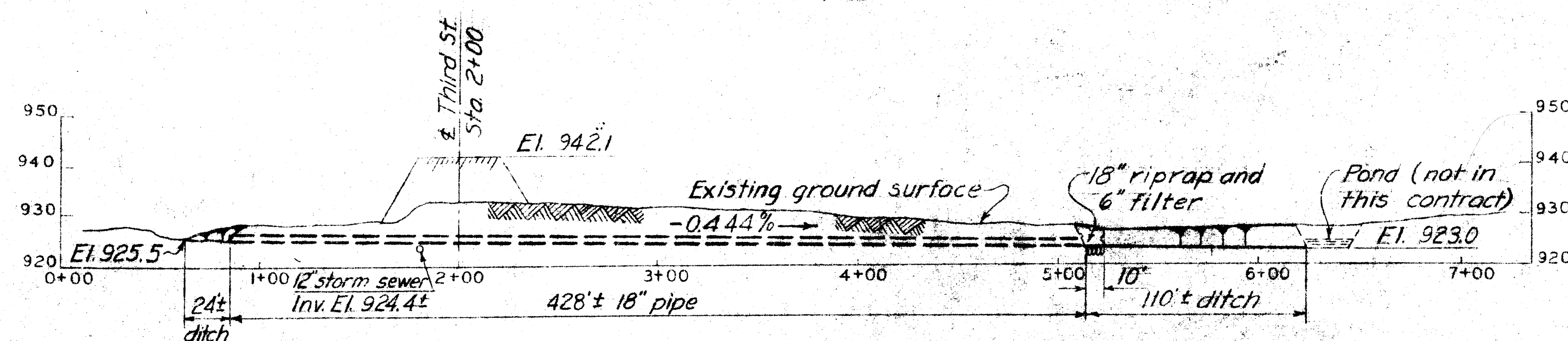
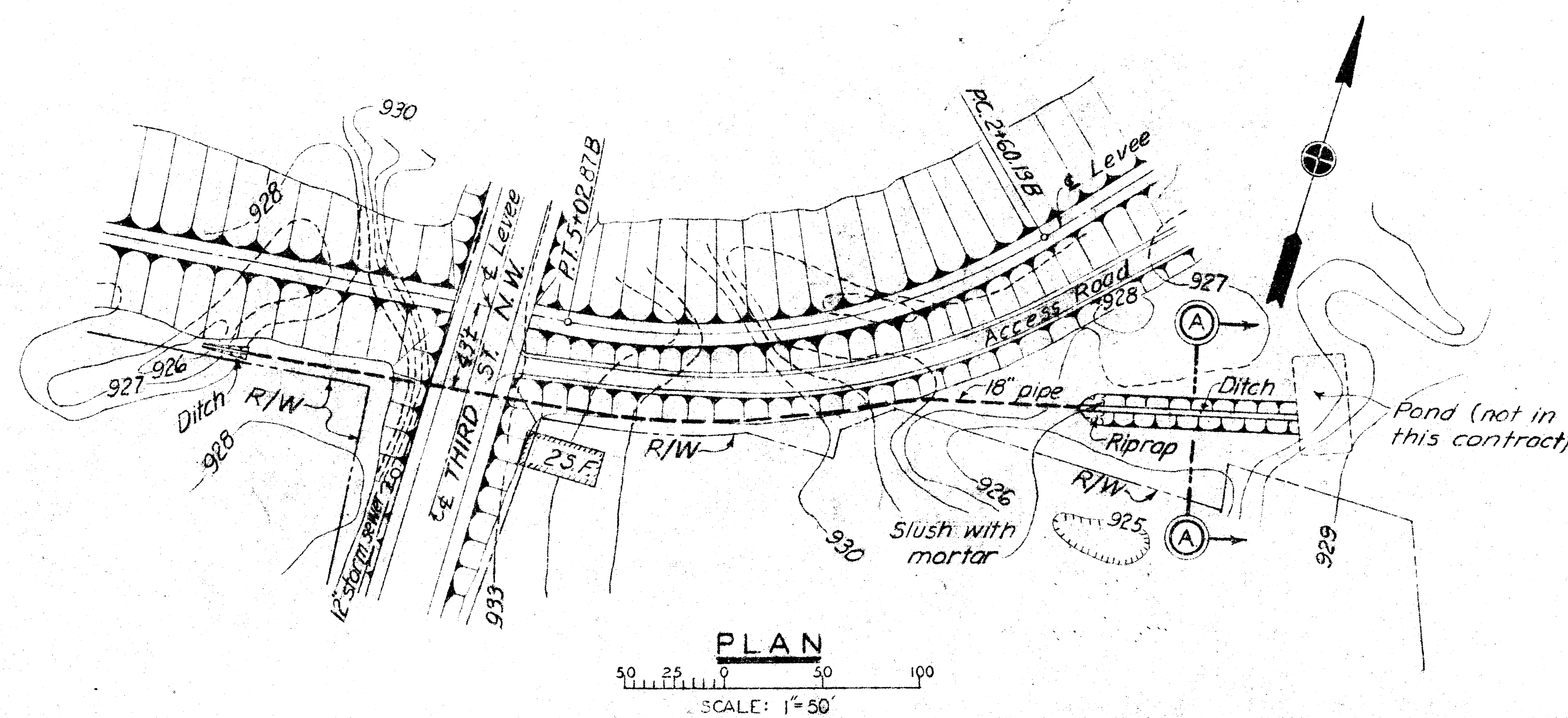
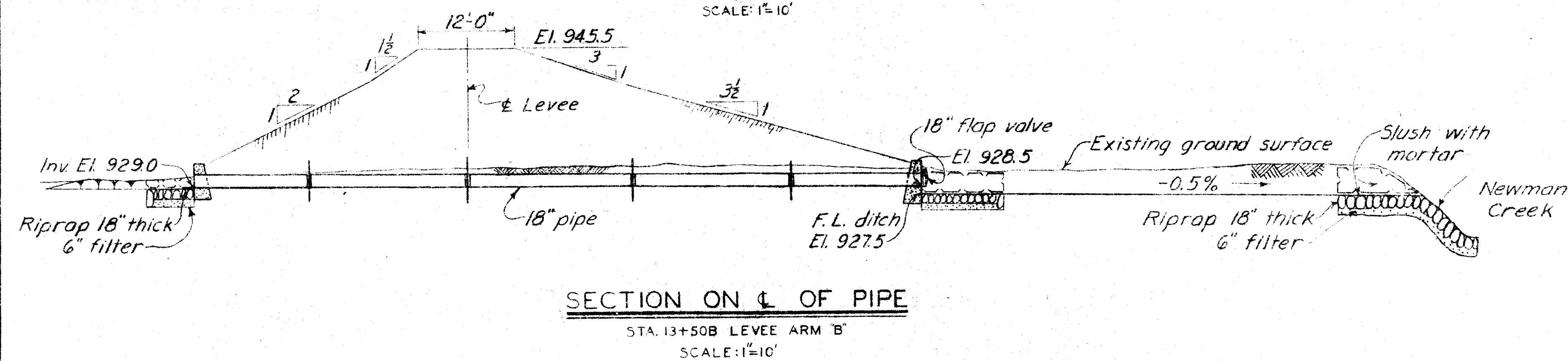
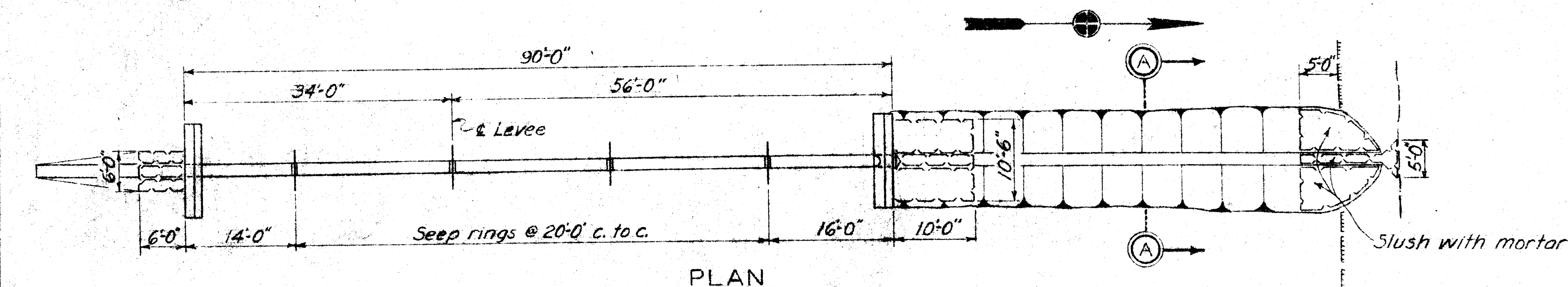
ACCESS ROAD AT THIRD STREET N.W.



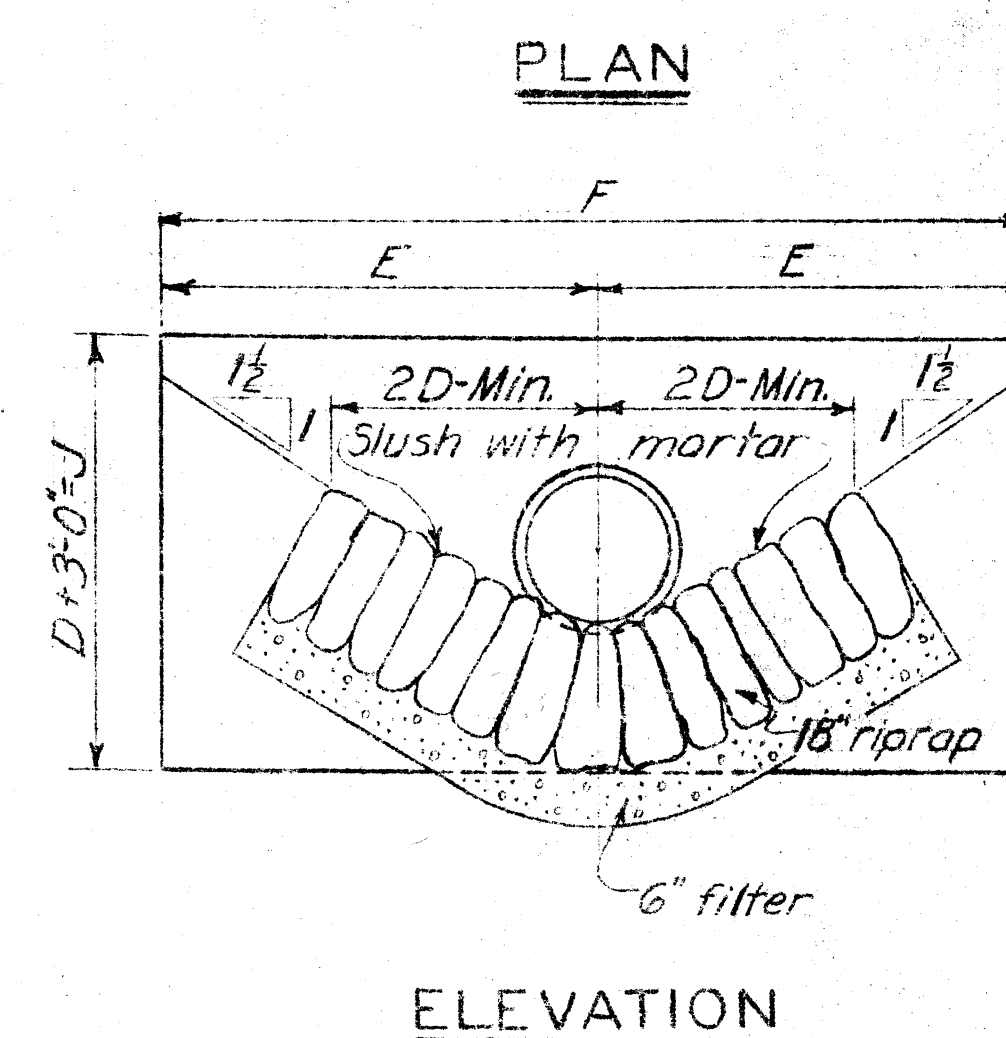
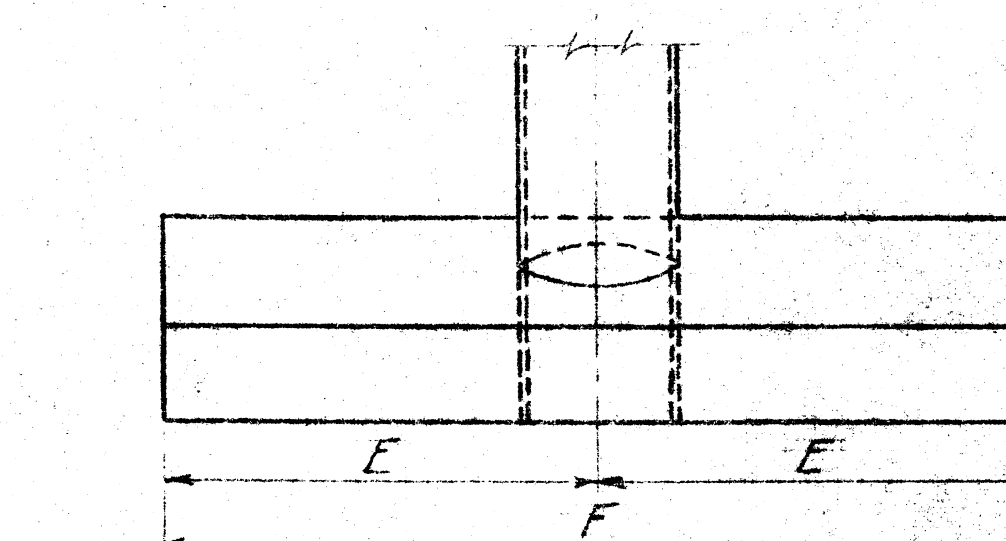
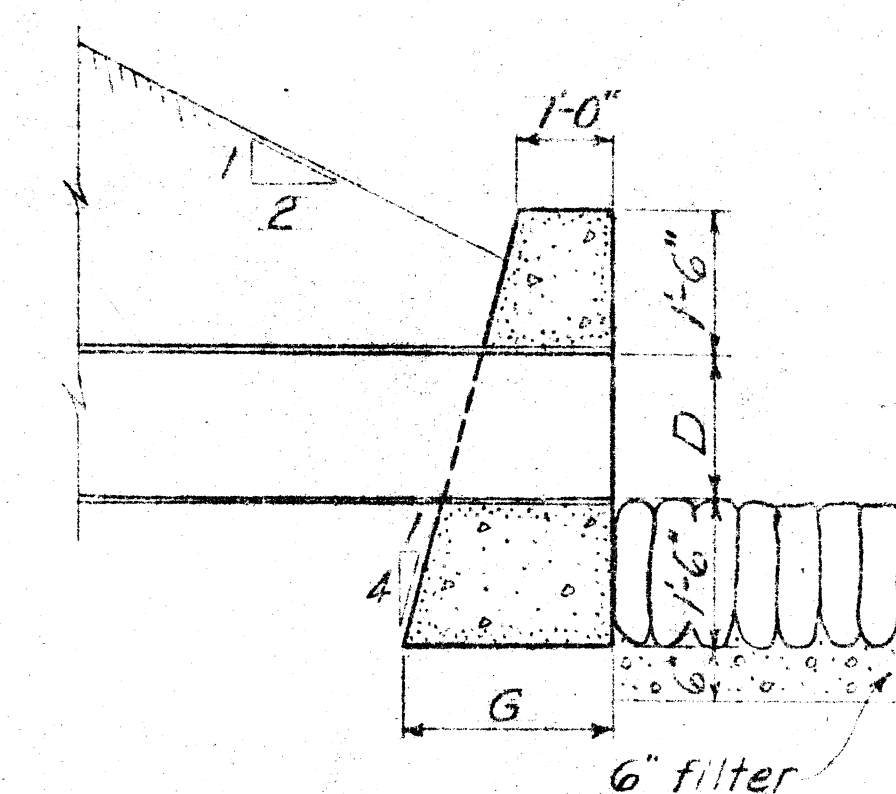
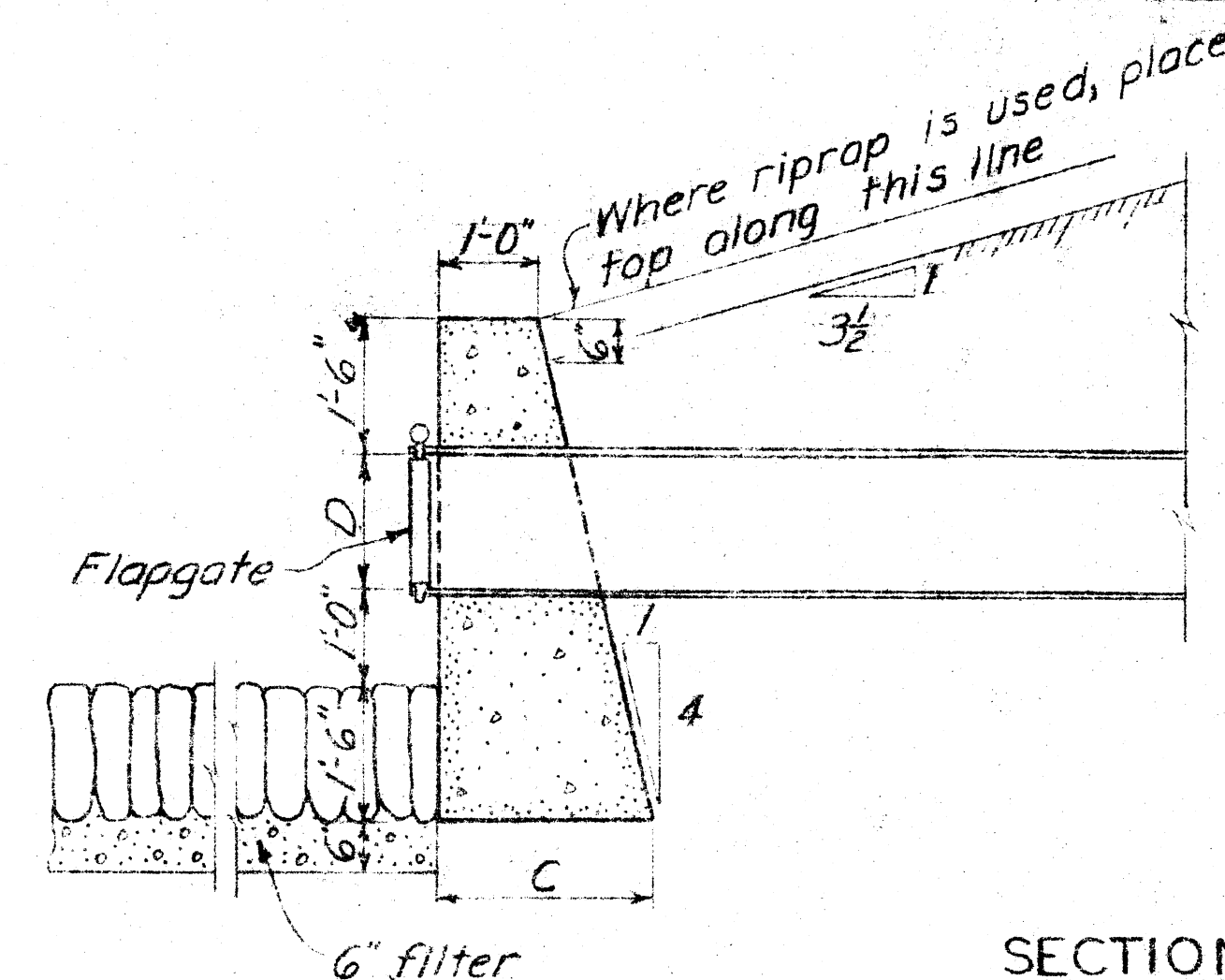
NOTES

For general plan, see Dwg. No. 16/1.
For plan and profile of Third Street N.W. see Dwg. No. 68/15.
For details of pavement reinforcing, see Dwg. No. 68/2.

DEPARTMENT OF THE ARMY CORPS OF ENGINEERS OFFICE OF THE DISTRICT ENGINEER HUNTINGTON, W. VA.		TUSCARAWAS RIVER LOCAL PROTECTION PROJECT MASSILLON, OHIO SECTION 2, UNIT 2 ACCESS ROADS LEVEE ARM A & THIRD ST. N.W.	
DRAWN BY: E. W. P.	CHECKED BY: E. W. P.	DATE: OCT 1948	SCALE AS SHOWN
APPROVED FOR:	DATE: OCT 1948	SHEET NO. 22 OF 30	0271-PM2-2-68/17



HEADWALL WITH FLAP GATE



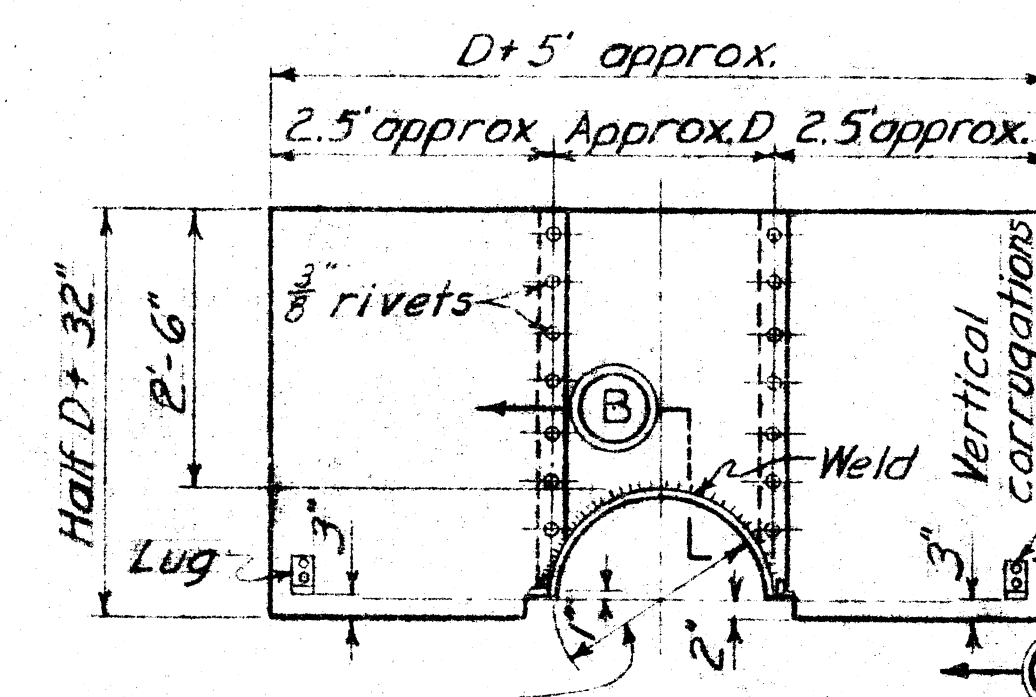
HEADWALL WITHOUT FLAP GATE

DIA. OF PIPE	DIMENSIONS							
D	A	B	C	H	E	F	G	J
12"	5'-3"	10'-6"	2'-3"	5'-0"	3'-9"	7'-6"	2'-0"	4'-0"
18"	6'-0"	12'-0"	2'-4"	5'-6"	4'-6"	9'-0"	2'-1 1/2"	4'-6"
24"	6'-9"	13'-6"	2'-6"	6'-0"	5'-3"	10'-6"	2'-3"	5'-0"
30"	7'-6"	15'-0"	2'-7 1/2"	6'-6"	6'-0"	12'-0"	2'-4 1/2"	5'-6"
36"	8'-3"	16'-6"	2'-9"	7'-0"	6'-9"	13'-6"	2'-6"	6'-0"
42"	9'-0"	18'-0"	2'-10 1/2"	7'-6"	7'-6"	15'-0"	2'-7 1/2"	6'-6"

1.5
5.5 High
12' wide
2'-4 1/2"

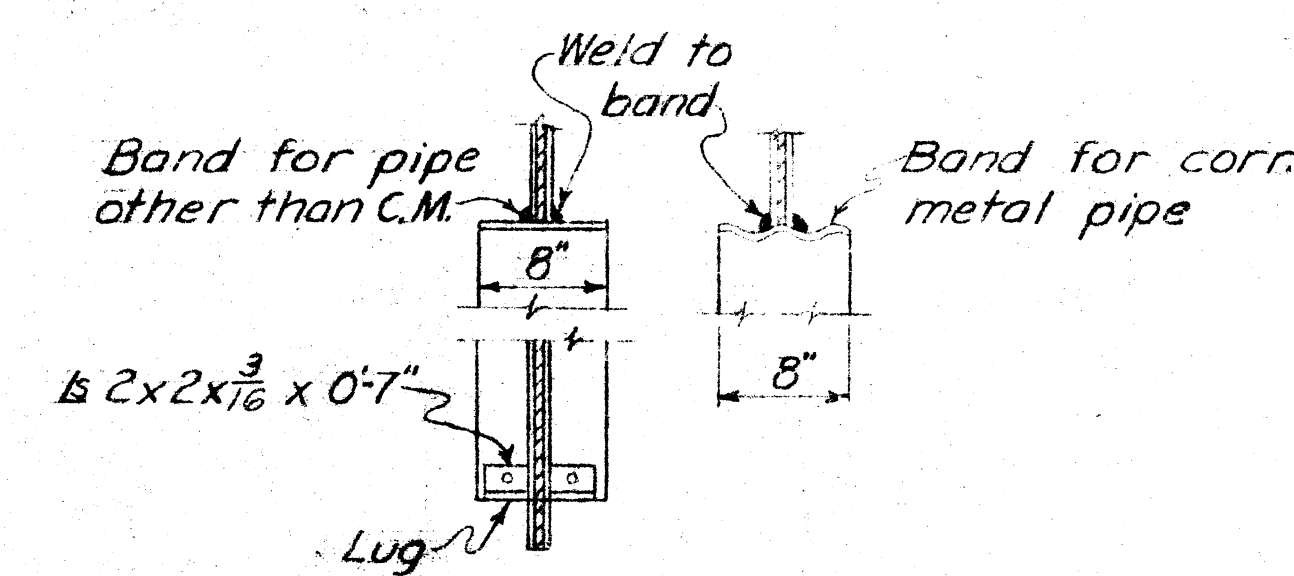
NOTES

For general plan, see Dwg. No. 16/1.
For plan and profile of access road, see Dwg. No. 68/17.



Band diameter to suit pipe furnished.
Diaphragm #14 gage galvanized corrugated sheet metal fully coated with asphalt.
One half diaphragm shown, other half identical.
Seep rings not to be placed at pipe joints.

SECTION B-B



DEPARTMENT OF THE ARMY CORPS OF ENGINEERS OFFICE OF THE DISTRICT ENGINEER HUNTINGTON, W. VA.		TUSCARAWAS RIVER LOCAL PROTECTION PROJECT MASSILLON, OHIO SECTION 2, UNIT 2 PIPE CULVERT DETAILS	
DRAWN BY: E.W.H. - J.W.D.	TRACED BY:	APPROVED BY: COL. C.E. DISTRICT ENGINEER	DATE: OCT. 1946
CHECKED BY: C.E.M. - G.O.S.	SUBMITTED BY: GRIFF. ENG. DIV.	APPROVED FOR:	SCALE AS SHOWN
DATE:		DRAWING NUMBER 0271-PM2-2/8/18 SHEET 43 OF 60	

DEPARTMENT OF THE ARMY

REINFORCING SCHEDULE

MARK	SIZE	LGTH	BENDING DIAGRAM	NO.	UNIT WT.	TOTAL WT.
514A	3/8"	3'-6"		28	3.65	102
518A	3/8"	4'-6"		100	4.69	469
520	3/8"	5'-0"		28	5.22	146
537A	3/8"	9'-3"		106	9.65	1023
543A	3/8"	10'-9"		46	11.21	516
542	3/8"	10'-6"		106	10.95	1161
553	3/8"	13'-3"		8	13.82	111
562	3/8"	15'-6"		80	16.17	1294
576	3/8"	19'-0"		24	19.82	476
578	3/8"	19'-6"		104	20.34	2115
582	3/8"	20'-6"		114	21.38	2437
					Total	9850

REINFORCING STEEL CODE

Bar numbers indicate the size and lengths thus: The first digit indicates the size in eighths of an inch (except 1/8 & 1/4); the next 2 or 3 digits indicate the length in fourths of a foot. Thus a bar marked 543 means 5/8" and 43 = 10.75 or 10'-9" long. If a letter is suffixed, a bent bar is indicated and is detailed in the bending diagram and schedule.

1 for 1" 5 for 5/8" 8 for 1" 1/2
3 for 3/8" 6 for 3/4" 9 for 1 1/4"
4 for 1/2" 7 for 7/8" 0 for 1 1/2"

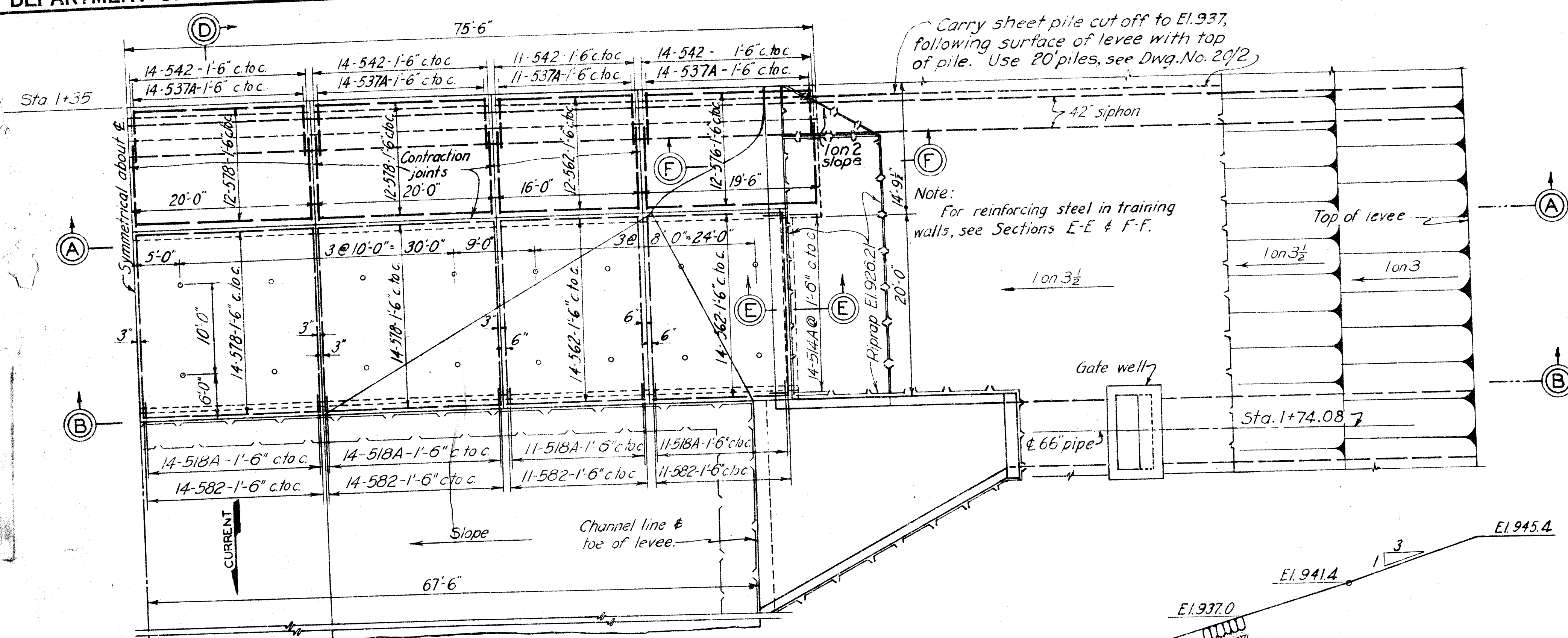
Symbols used for abbreviations are as follows:
F.S. for Far Side O.S. for Outside
N.S. for Near Side I.S. for Inside
E.F. for Each Face B.S. for Both Sides

MASONRY NOTES

Unless otherwise shown or noted provide 1" chamfer on all exposed concrete corners.
All reinforcing steel shall be spaced a clear distance from concrete surfaces as shown or noted.
All bends in reinforcing steel shall be made to a radius of 4 bar diameters (inside) unless otherwise noted.
All hooked reinforcing bars extending from base slabs into walls shall be hooked around horizontal bars in bottom of base.

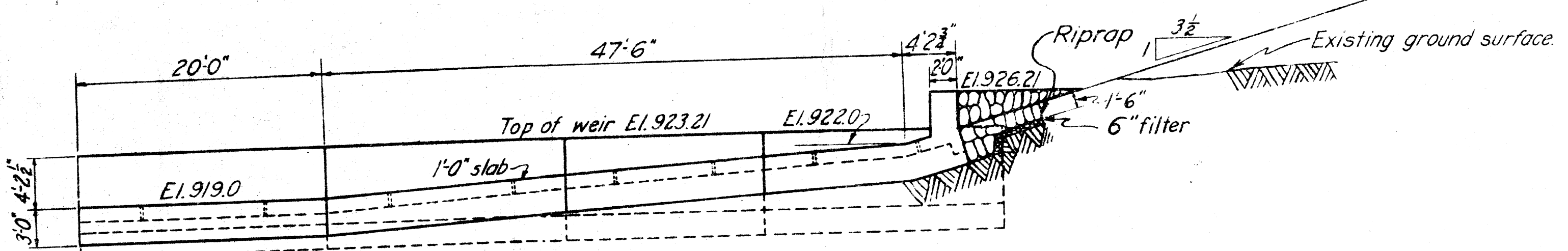
NOTES

All steel unless otherwise indicated to be bent in field to suit conditions.
Omit 6" filter where underlying material is free draining.
For general plan, see Drawing No. 16/1.
For details of gatewell and 66" pipe culvert, see Drawing No. 20/3.
For details of siphon, see Drawing No. 20/2.

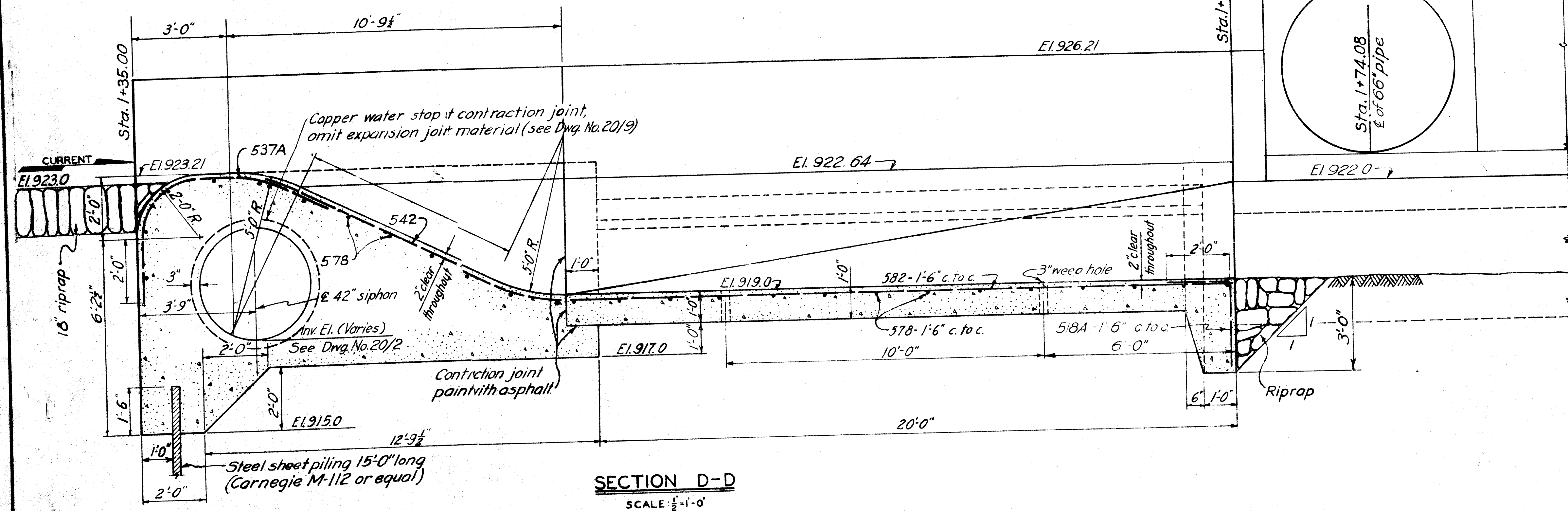


HALF PLAN

SECTION A-A

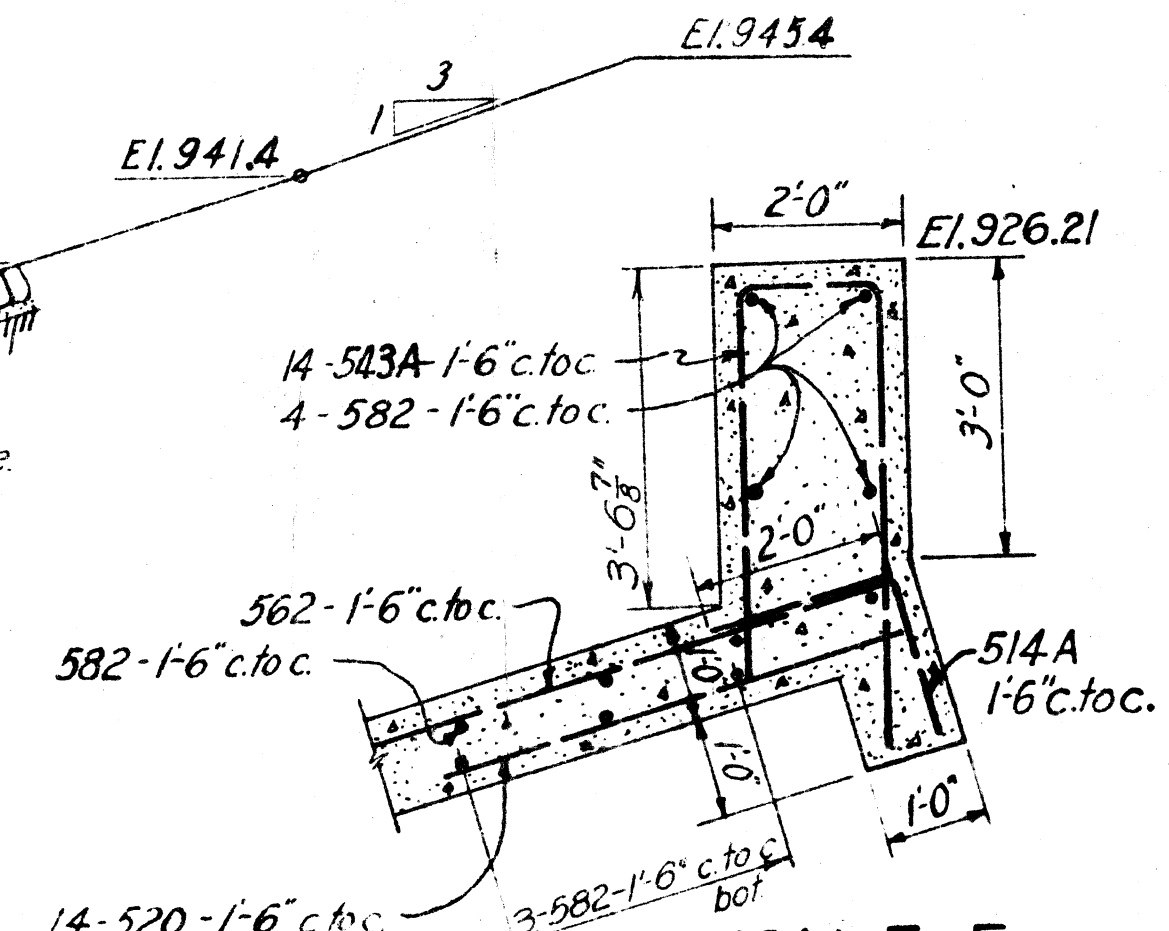


SECTION B-B

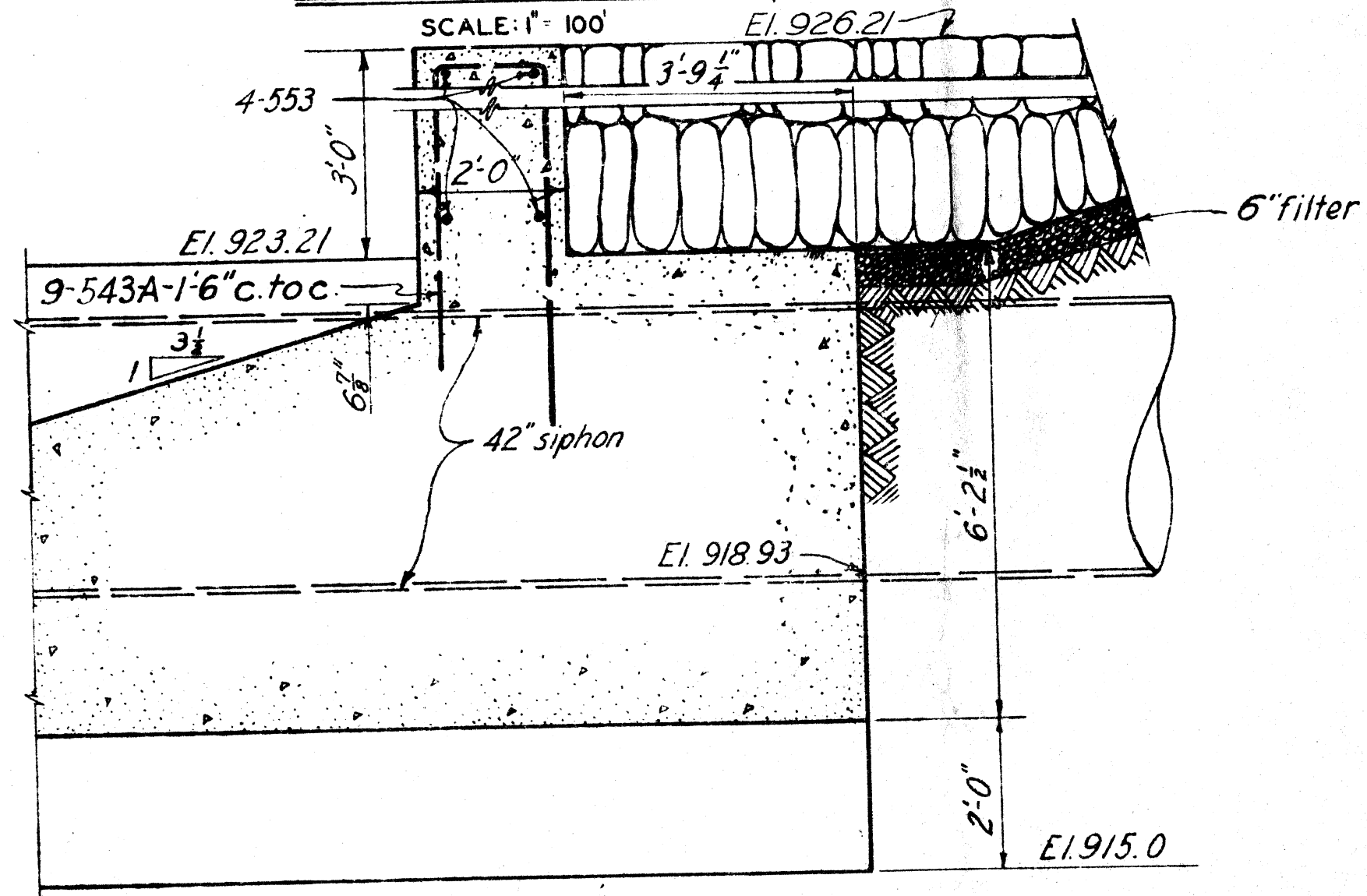


SECTION D-D

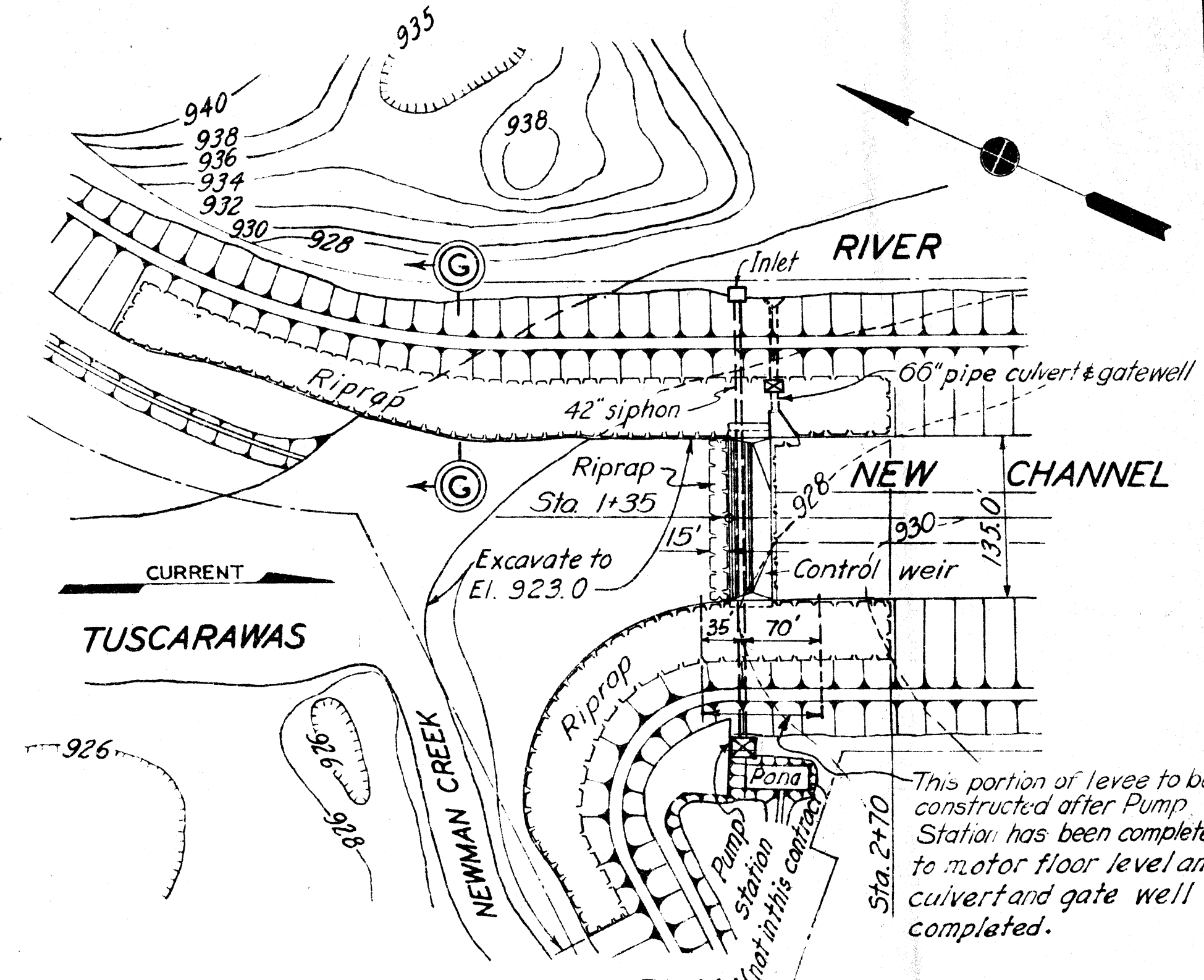
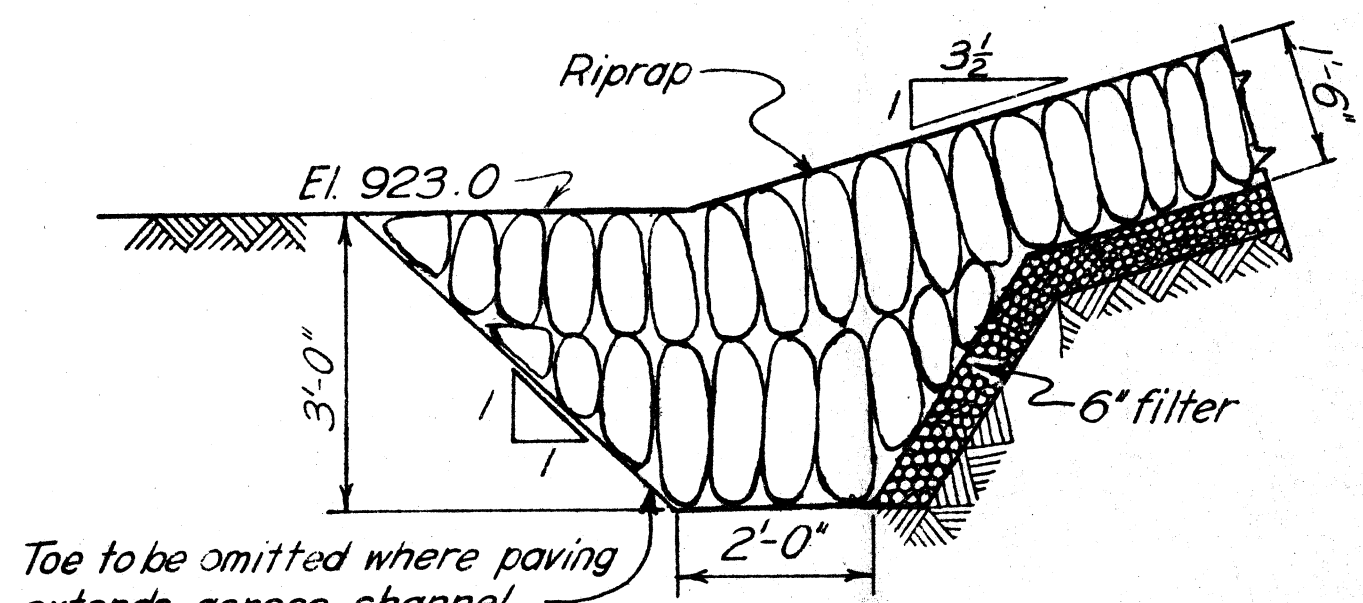
SECTION E-E



SECTION F-F

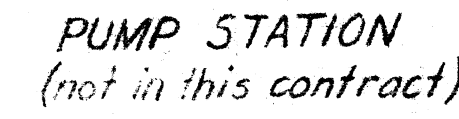


SECTION G-G



LOCATION PLAN

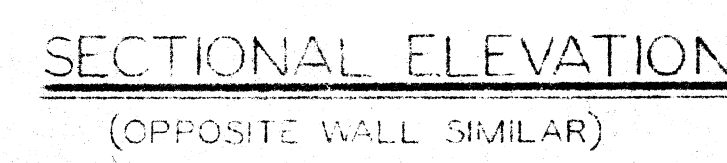
DEPARTMENT OF THE ARMY CORPS OF ENGINEERS OFFICE OF THE DISTRICT ENGINEER HUNTINGTON, W. VA.			
DRAWN BY: R.M.C.-R.G.P.		TUSCARAWAS RIVER LOCAL PROTECTION PROJECT MASSILLON, OHIO SECTION 2, UNIT 2 CONTROL WEIR	
TRACED BY: W.E.C.-R.G.P.		DATE: OCT. 1948	
CHECKED BY: E.S.W.-C.C.M.		APPROVED: [Signature] COL. C.E., DISTRICT ENGINEER	
SUBMITTED BY: [Signature]		APPROVED FOR: [Signature]	
CHIEF, ENG. DIV.		CHIEF, ENG. ASST.	
APPROVED: [Signature]		APPROVED: [Signature]	
DATE:		DRAWING NUMBER 0271-PM2-2-20/1 SHEET 10 OF 80	



LOOKING DOWNSTREAM
SCALE 1"=20'



TOP PLAN

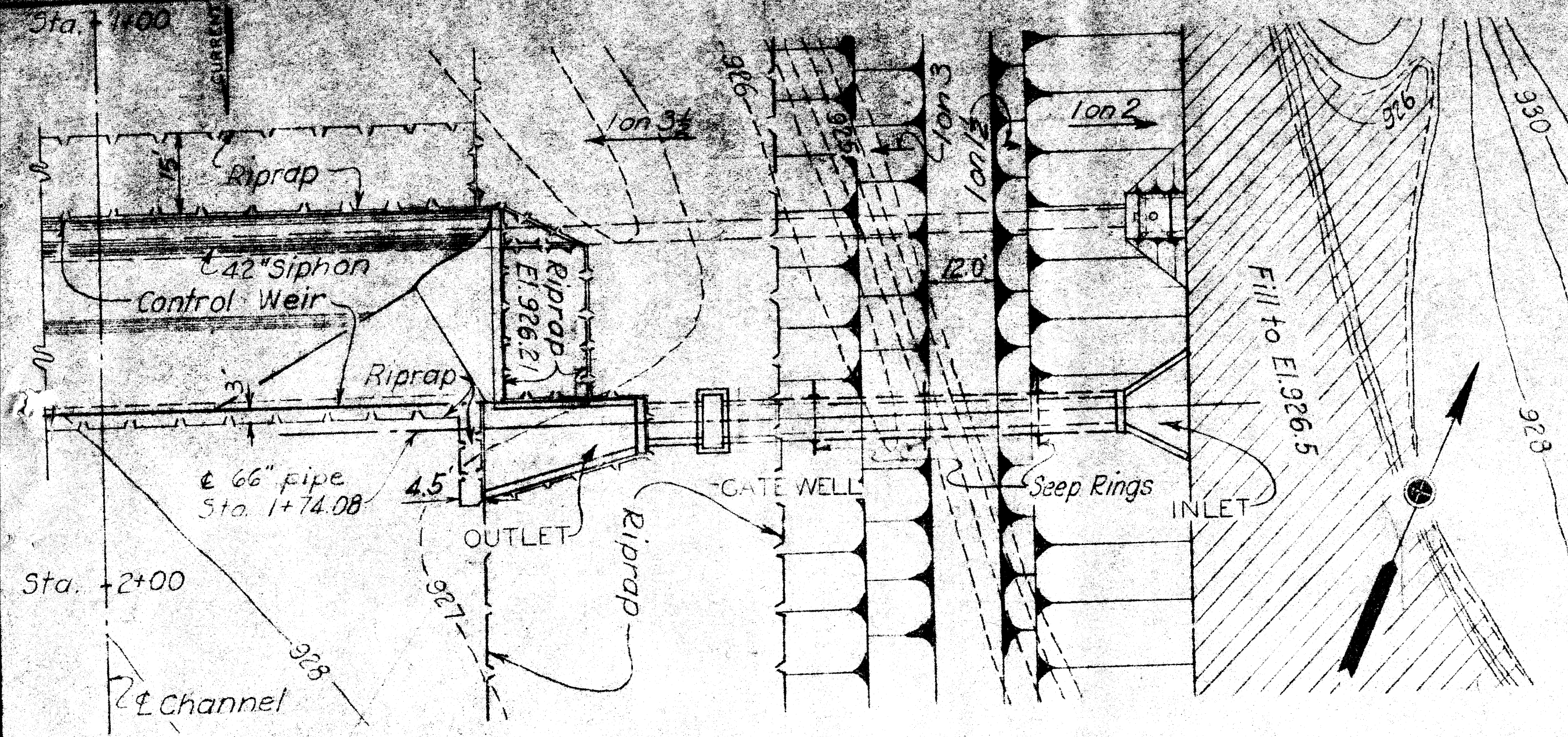


MARK	SIZE	LGTH	BENDING DIAGRAM	NO.	UNIT WT.	TOTAL WT.	
322A	3/8"	5'-6"		4	2.07	8	
324A	3/8"	6'-0"		6	2.26	14	
326A	3/8"	6'-6"		4	2.44	10	
410A	1/2"	2'-6"		4	1.68	7	
413A	1/2"	3'-3"		4	2.17	9	
414	1/2"	3'-6"		4	2.34	9	
416A	1/2"	4'-0"		4	2.67	11	
415A	1/2"	3'-9"		4	2.51	10	
419A	1/2"	4'-9"		4	3.17	13	
420	1/2"	5'-0"		4	3.34	13	
426	1/2"	6'-6"		4	4.34	17	
430A	1/2"	7'-6"		6	5.01	30	
428	1/2"	7'-0"		12	4.68	56	
428A	1/2"	7'-0"		12	4.68	56	
430	1/2"	7'-6"		27	5.01	135	
432	1/2"	8'-0"		4	5.34	21	
435A	1/2"	8'-9"		9	5.85	53	
439A	1/2"	9'-9"		5	6.51	33	
446A	1/2"	11'-6"		9	7.68	69	
533	5/8"	8'-3"		16	8.60	138	
540A	5/8"	10'-0"		4	10.43	42	
617A	3/4"	4'-3"			2	6.38	13
630	3/4"	7'-6"			2	11.27	23
630A	3/4"	7'-6"	4		11.27	45	
634B	3/4"	8'-6"	2		12.77	26	
636A	3/4"	3'-0"		5	13.52	68	
650A	3/4"	12'-6"		2	18.78	38	
737A	3/8"	9'-3"			8	18.91	151
837A	1"	9'-3"				10	24.70
439A	1"	9'-3"					
540A	1"	9'-3"					

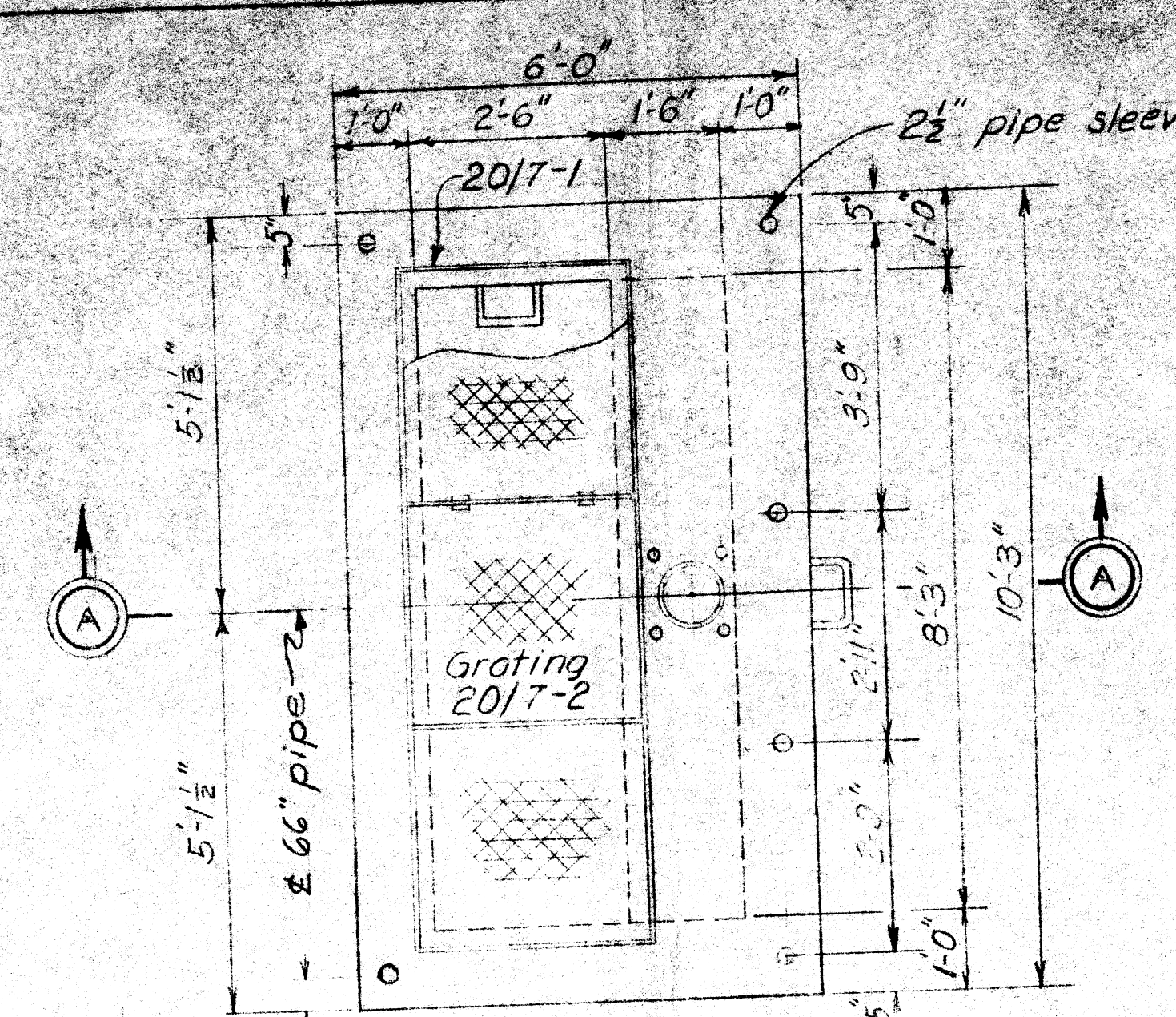
Total **1365**

For masonry notes and explanation of reinforcing steel code, see Dwg. No. 20/1.
For general plan, see Dwg. No. 16/1.
For structural steel details, see Dwg. No. 20/7
For details of seep rings, see Dwg. No. 68/18.

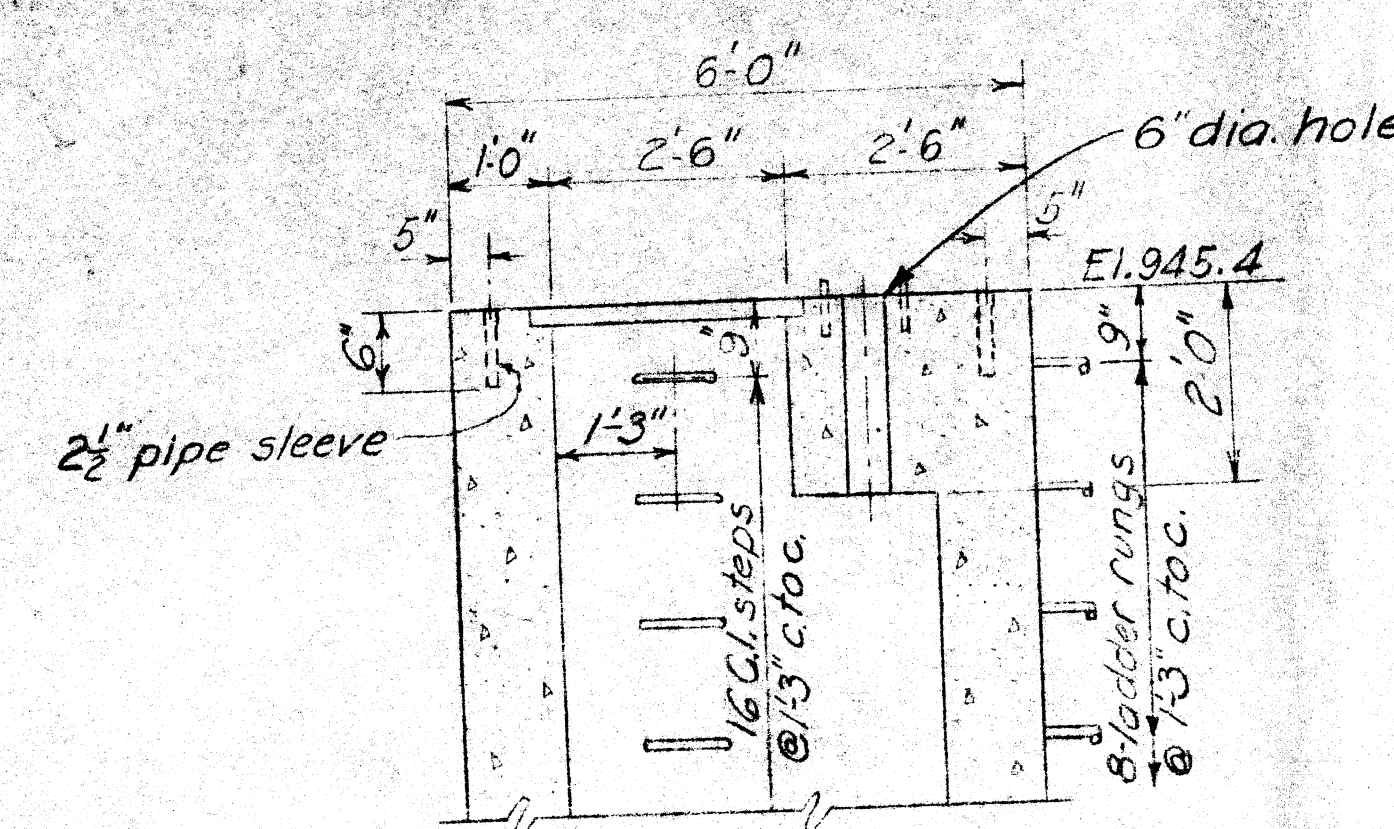
DRAWN BY: R. G. P.		TUSCARAWAS RIVER LOCAL PROTECTION PROJECT MASSILLON, OHIO SECTION 2, UNIT 2 42" SIPHON AT CONTROL WEIR
TRACED BY:		
CHECKED BY: C.C.M.-E.S.W.		
SUBMITTED BY: <i>[Signature]</i>		
CHIEF, ENGR. DIV.		
APPROVED: <i>[Signature]</i> CHIEF ENGR. ASST.	APPROVED: <i>[Signature]</i> COL. C. E. DISTRICT ENGINEER	DATE: OCT. 1948
APPROVED FOR:		SCALE: 3/8" = 1' - 0" DRAWING NUMBER 0271-PM2-2 - 20/2 SHEET 11 OF 63
DATE:		



PLAN
SCALE: 1/2" = 1'-0"



GATEWELL PLAN AT ELEV. 945.4
SCALE: 1/2" = 1'-0"

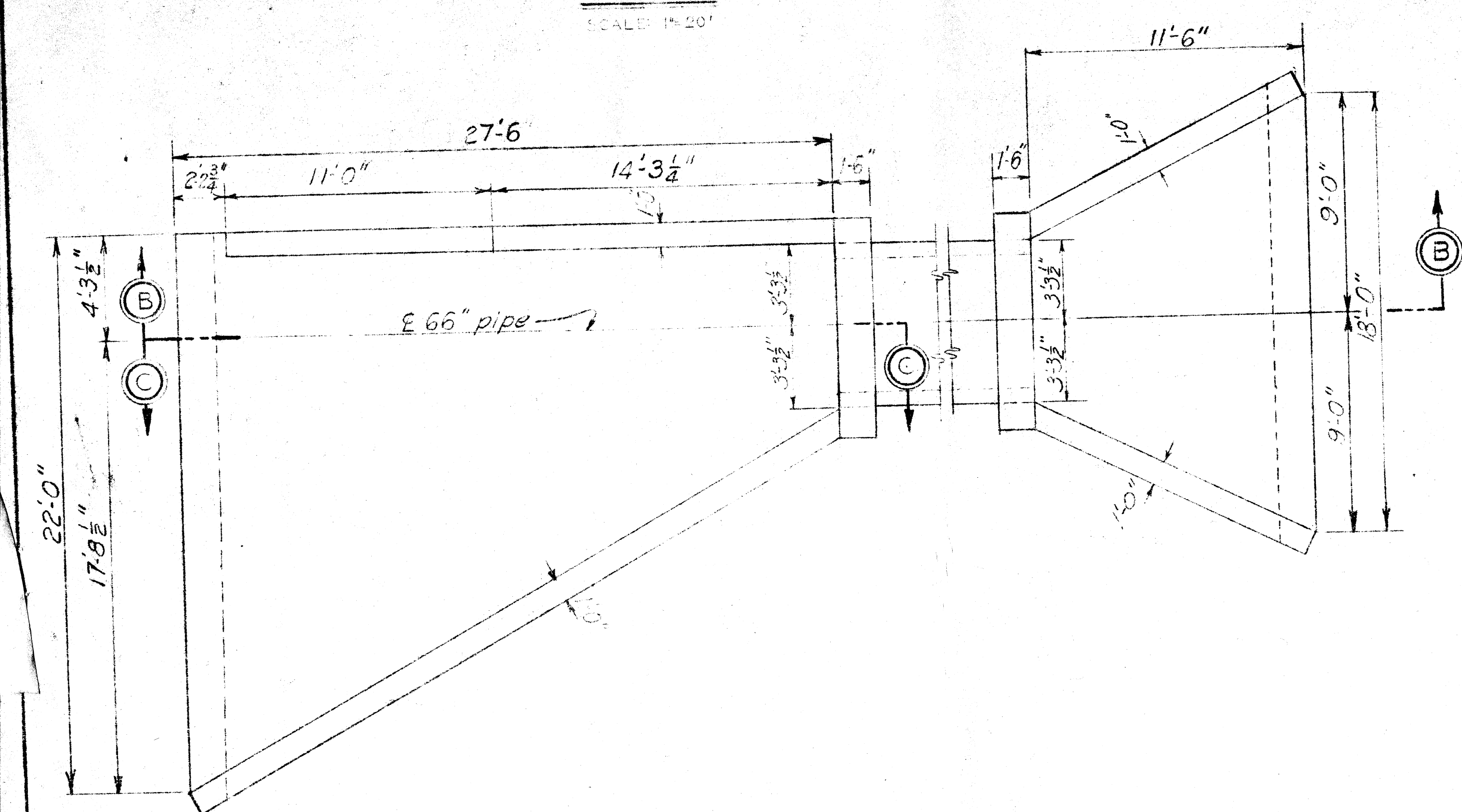


SECTION A-A
SCALE: 1/2" = 1'-0"

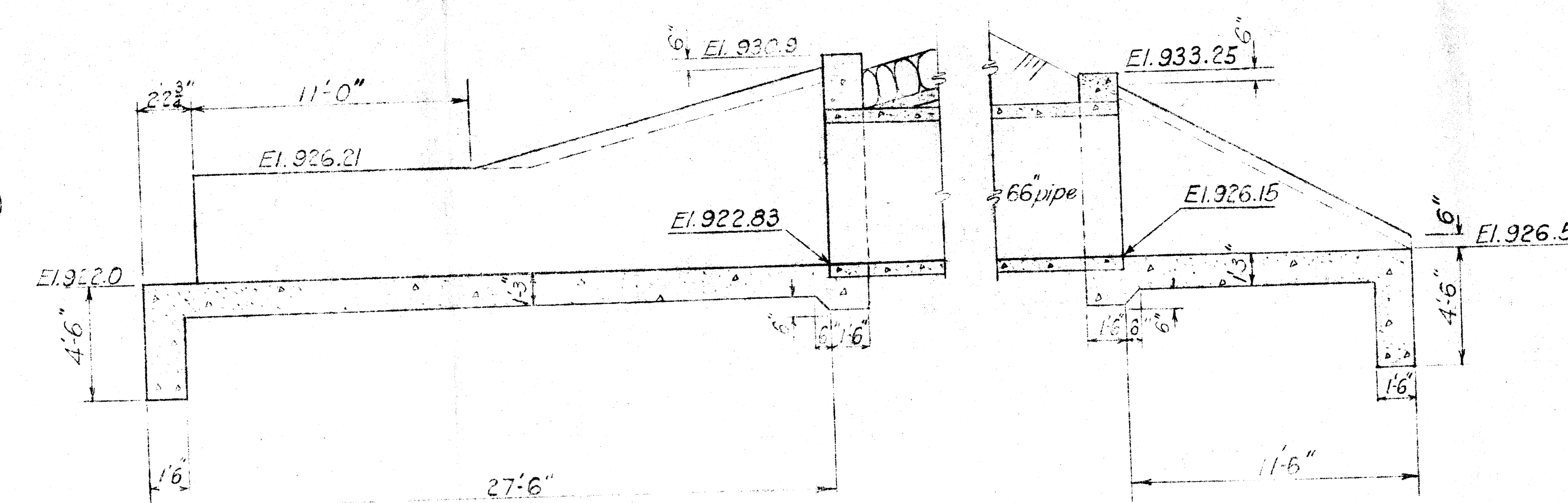
GATEWELL PLAN AT ELEV. 932.0
SCALE: 1/2" = 1'-0"

NOTES

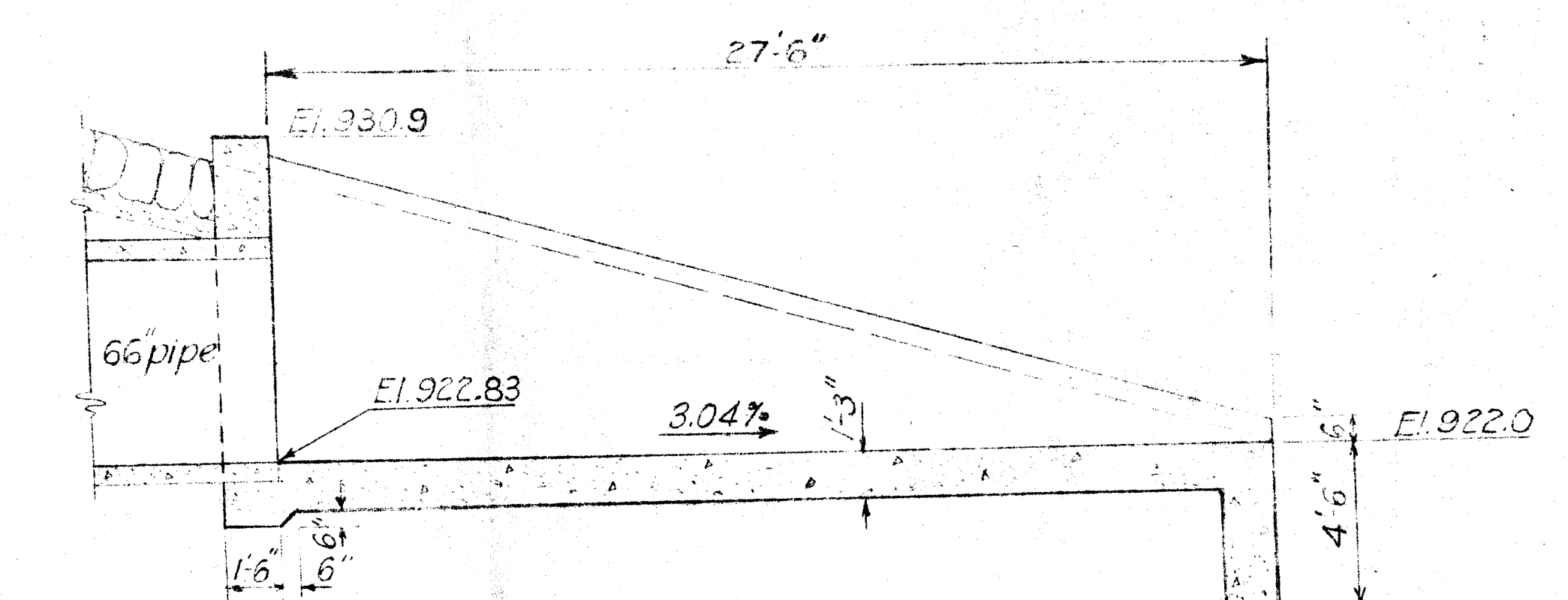
- For masonry notes, see Dwg. No. 20/1.
- For general plan, see Dwg. No. 16/1.
- For details of control weir, see Dwg. No. 20/1.
- For reinforcing details, see Dwg. No. 20/4.
- For details of seep rings, see Dwg. No. 60/18.
- For structural steel details, see Dwg. No. 20/7.
- For details of 42" siphon, see Dwg. No. 20/2.



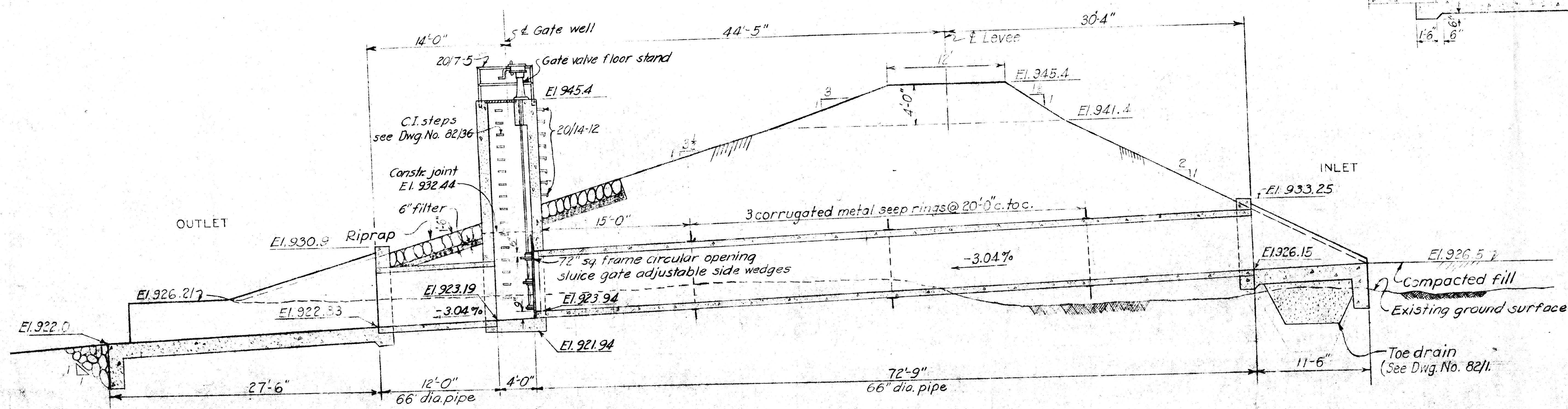
PLAN OF INLET AND OUTLET STRUCTURES
SCALE: 1/4" = 1'-0"



SECTION B-B
SCALE: 1/4" = 1'-0"



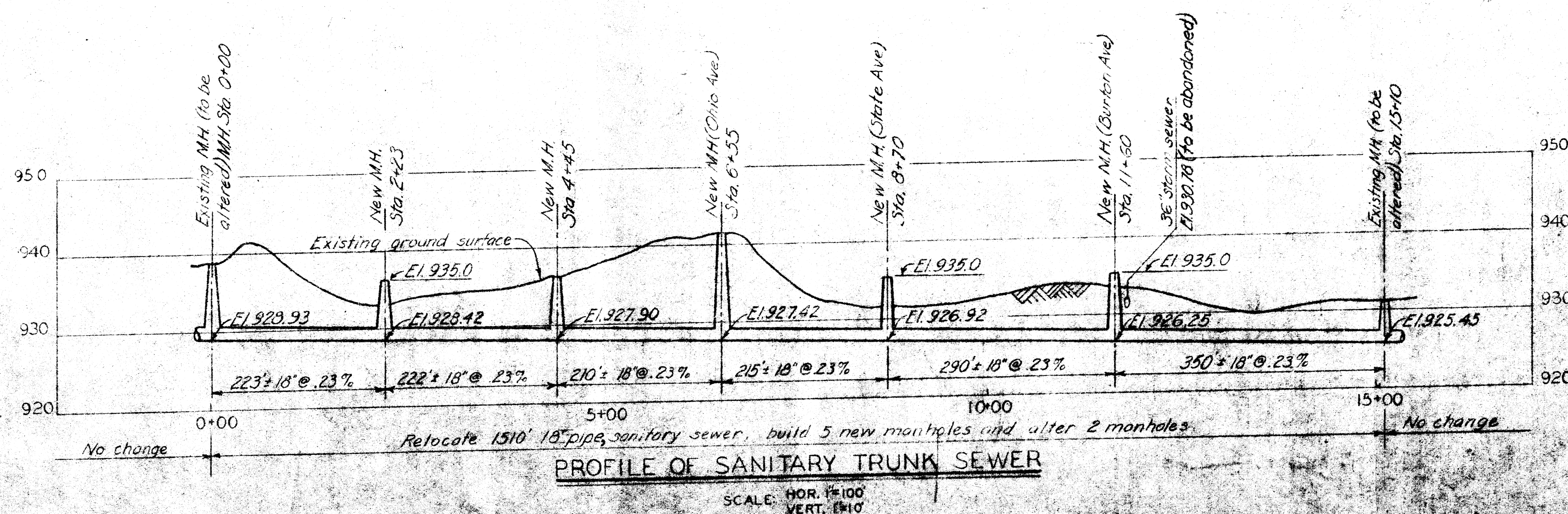
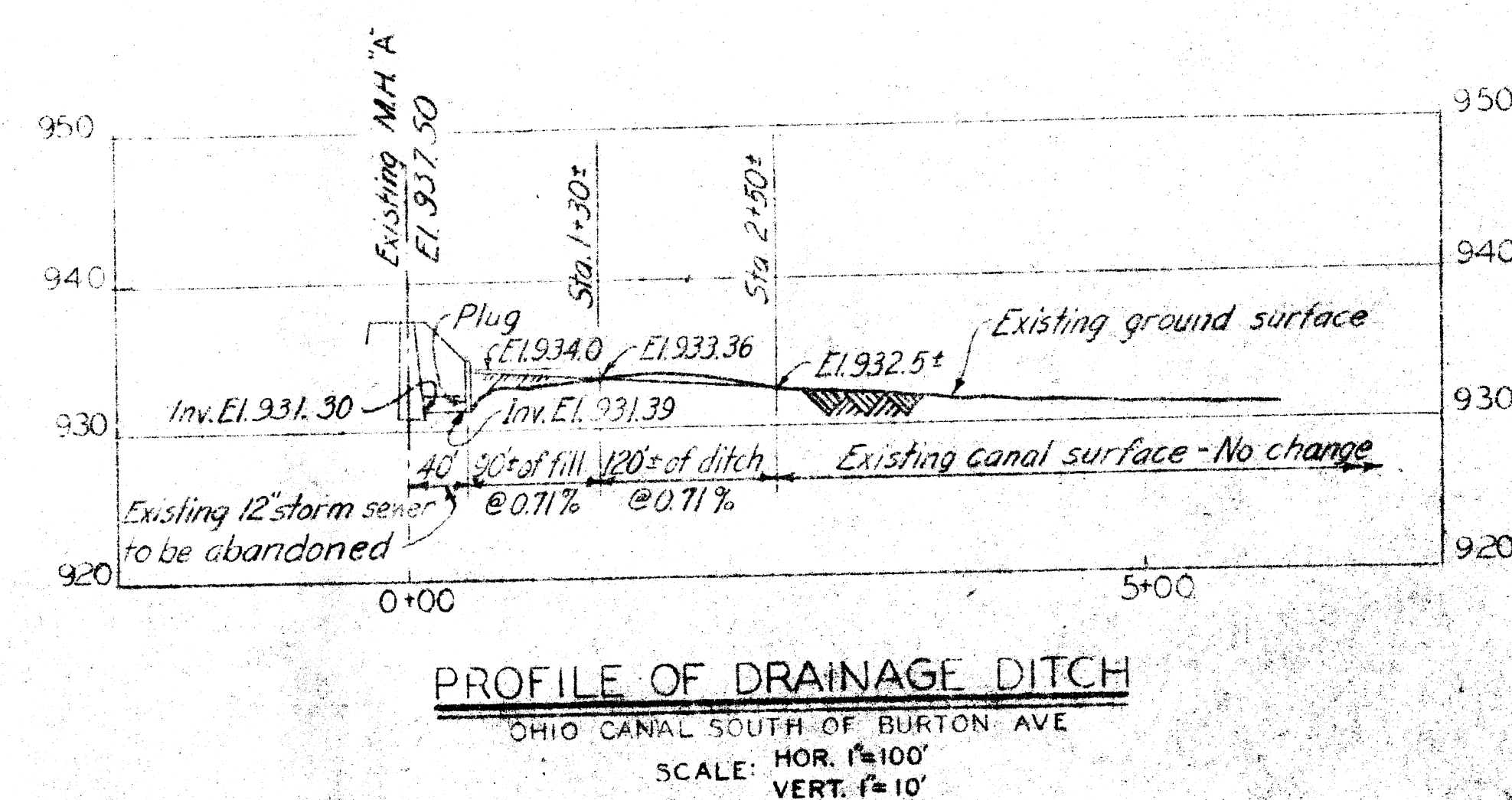
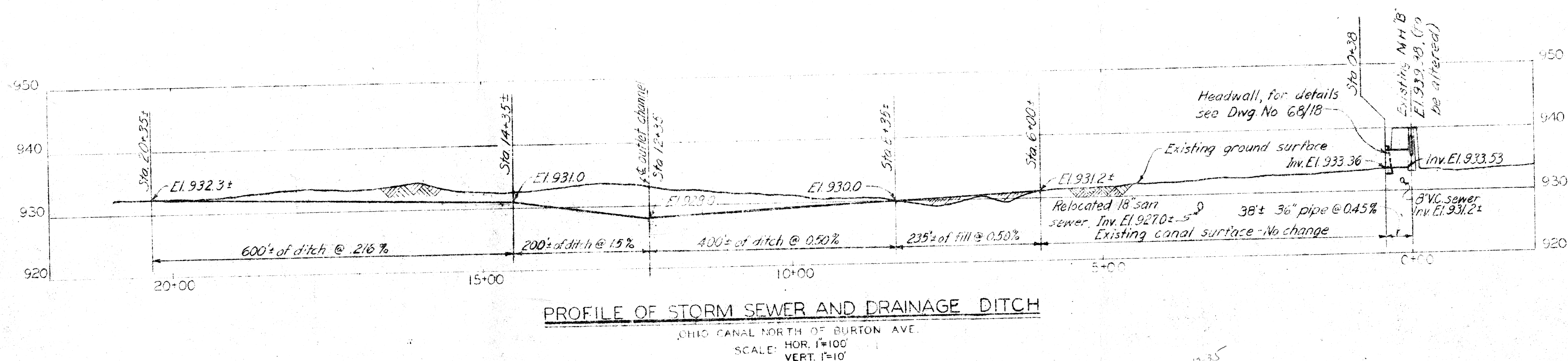
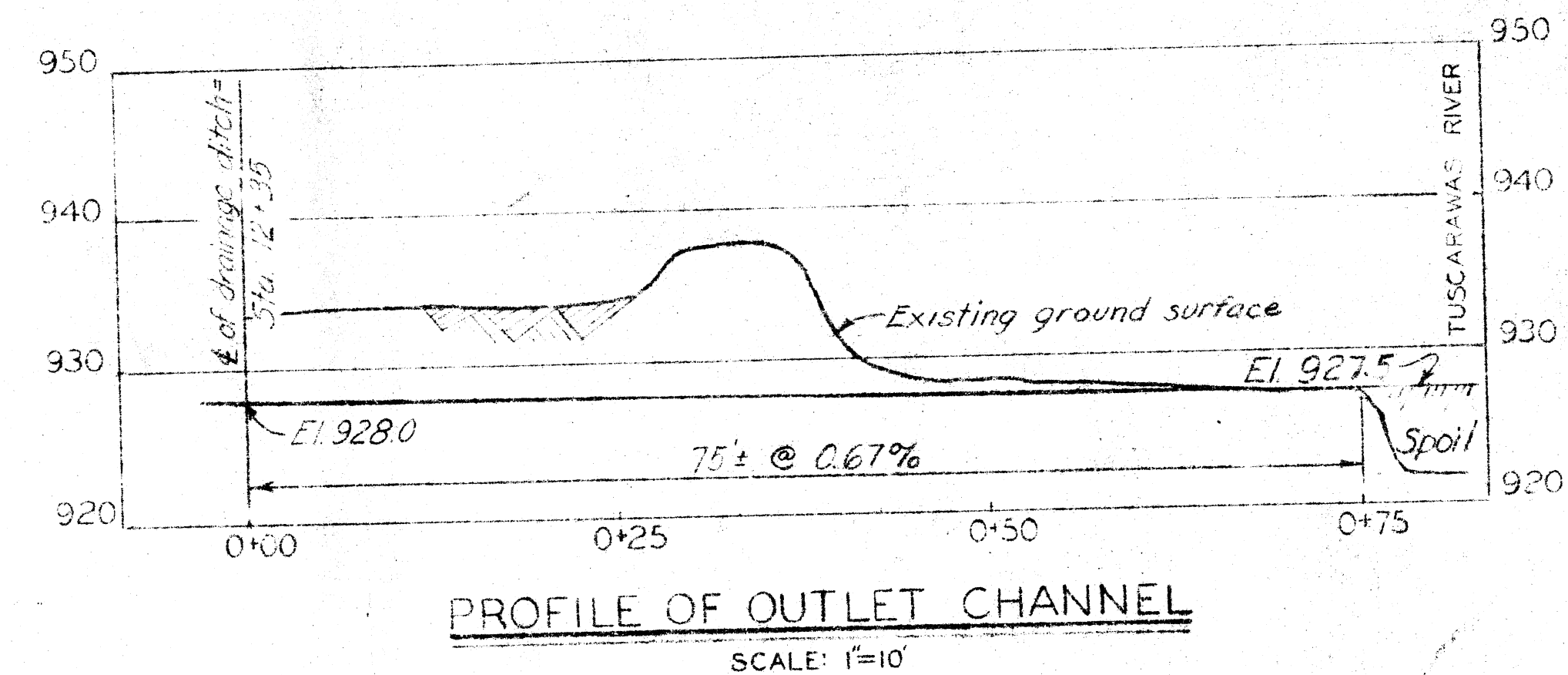
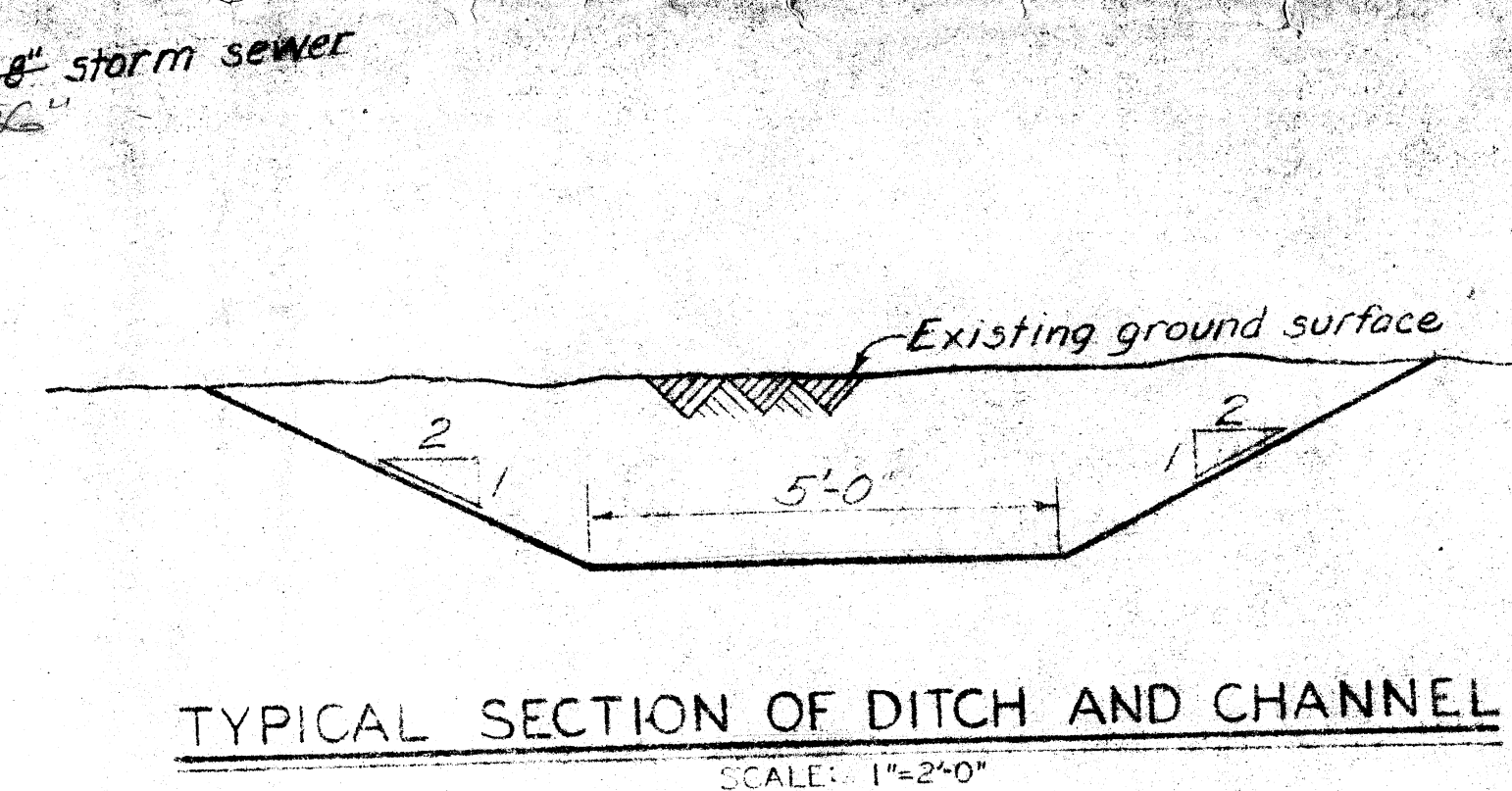
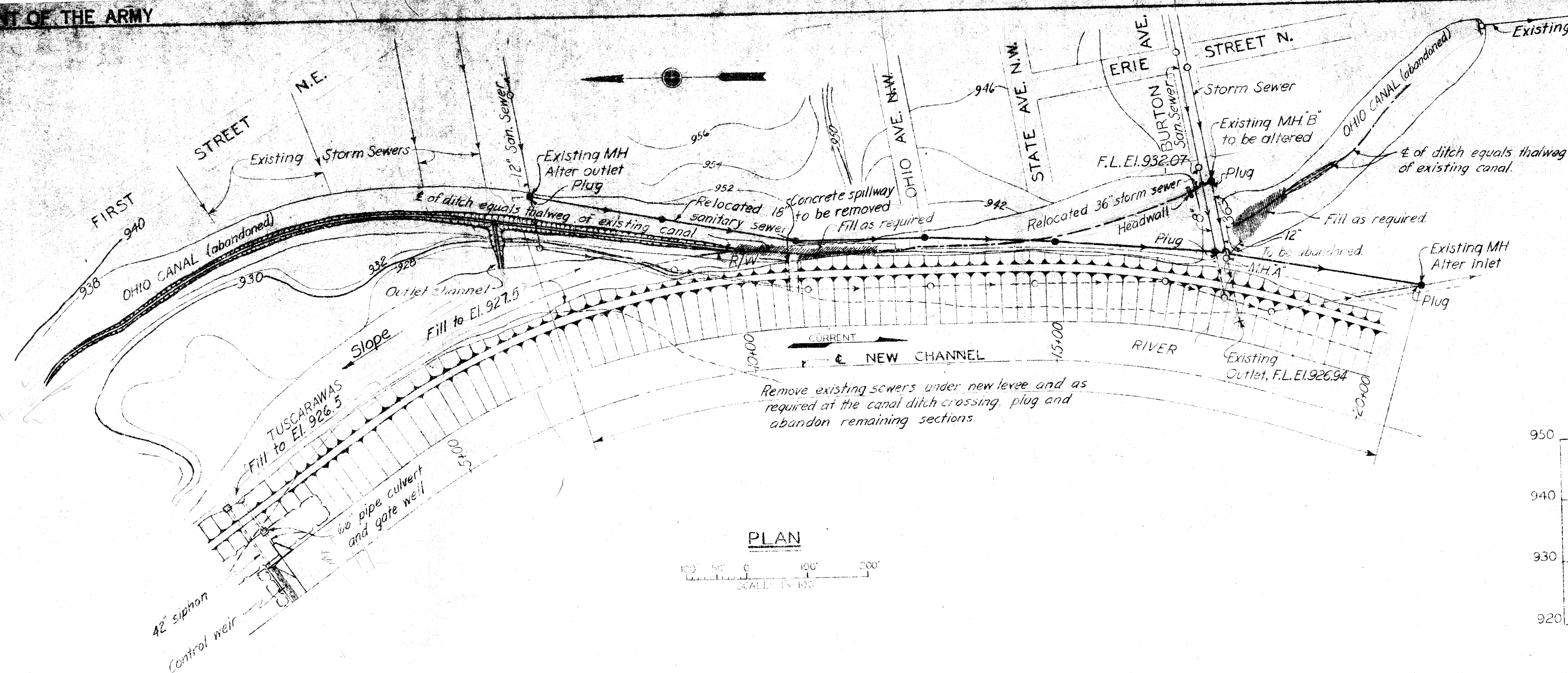
SECTION C-C
SCALE: 1/4" = 1'-0"



SECTION ON & OF PIPE CULVERT
SCALE: 3/8" = 1'-0"

DEPARTMENT OF THE ARMY CORPS OF ENGINEERS OFFICE OF THE DISTRICT ENGINEER HUNTINGTON, W. VA.	
TUSCARAWAS RIVER LOCAL PROTECTION PROJECT SECTION 2, UNIT 2 66" CULVERT & GATE WELL - STA. 1+74.08 MASONRY DETAILS	
DRAWN BY: E. W. H.	DATE: OCT. 1948
CHECKED BY: N. J. B. & E. S. W.	APPROVED: COL. C. E. DISTRICT ENGINEER
SUBMITTED BY: G. M. B.	APPROVED FOR: G. M. B.
CHIEF ENG. DIV.	CHIEF ENG. ASST.
SCALE: 3/8" = 1'-0"	SPEC. NO.
DRAWING NUMBER 0271-PM2-2-20/3 SHEET 12 OF 60	

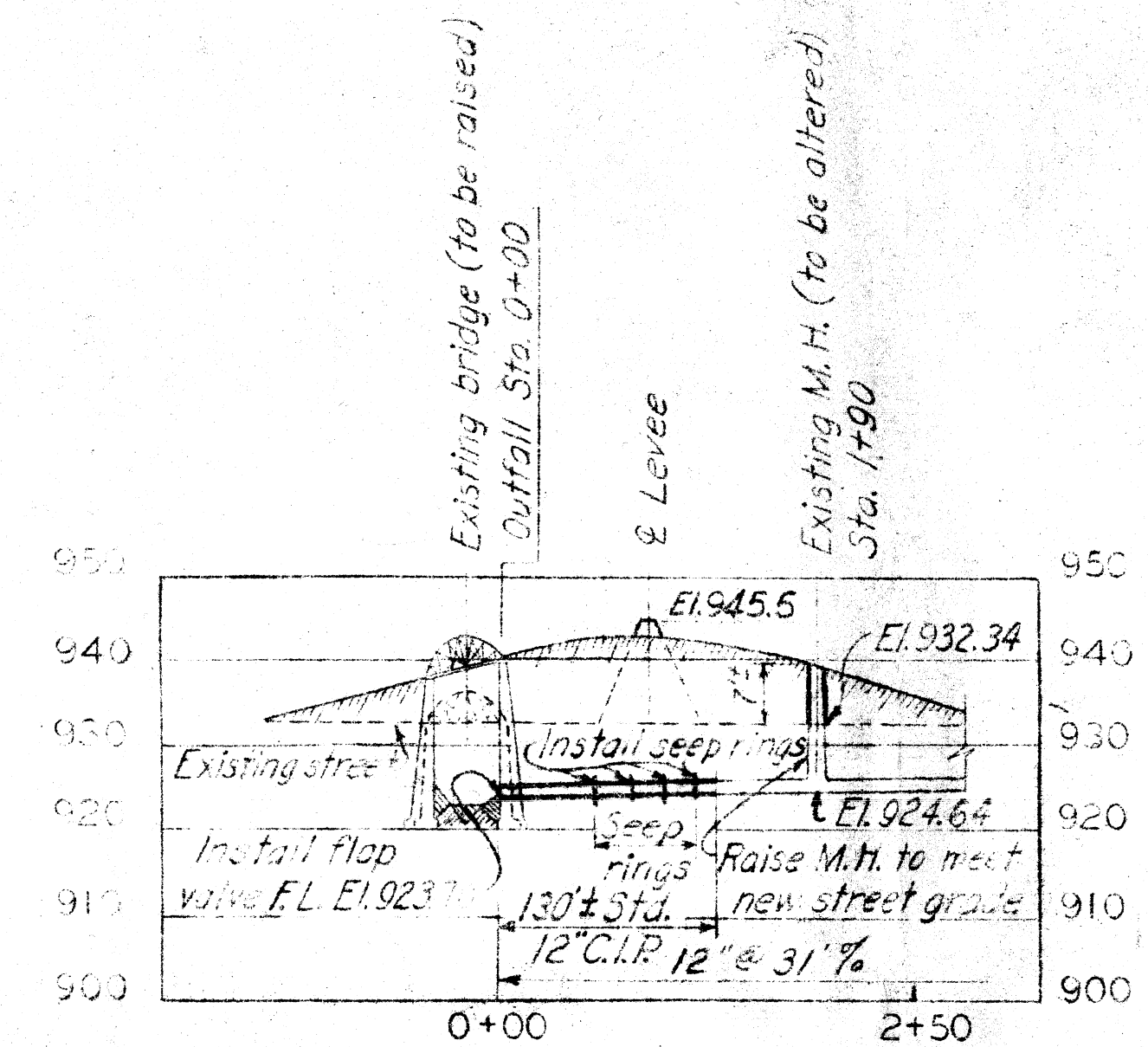
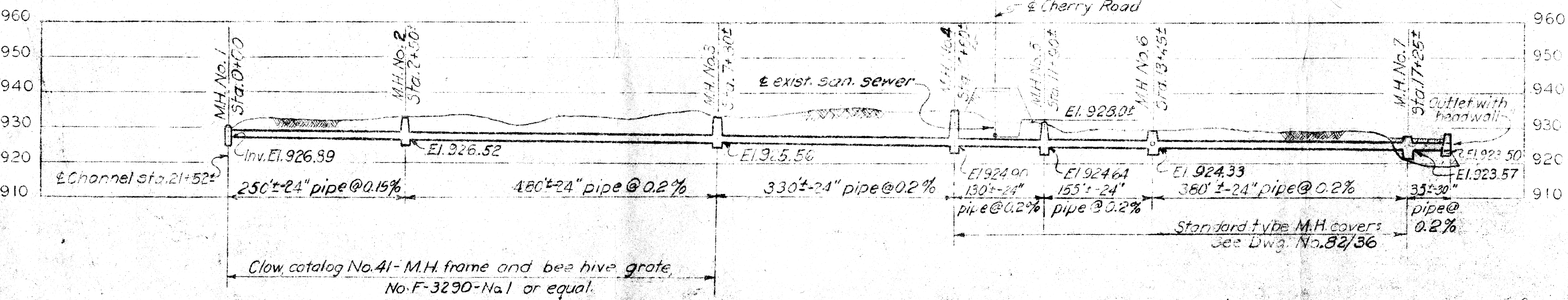
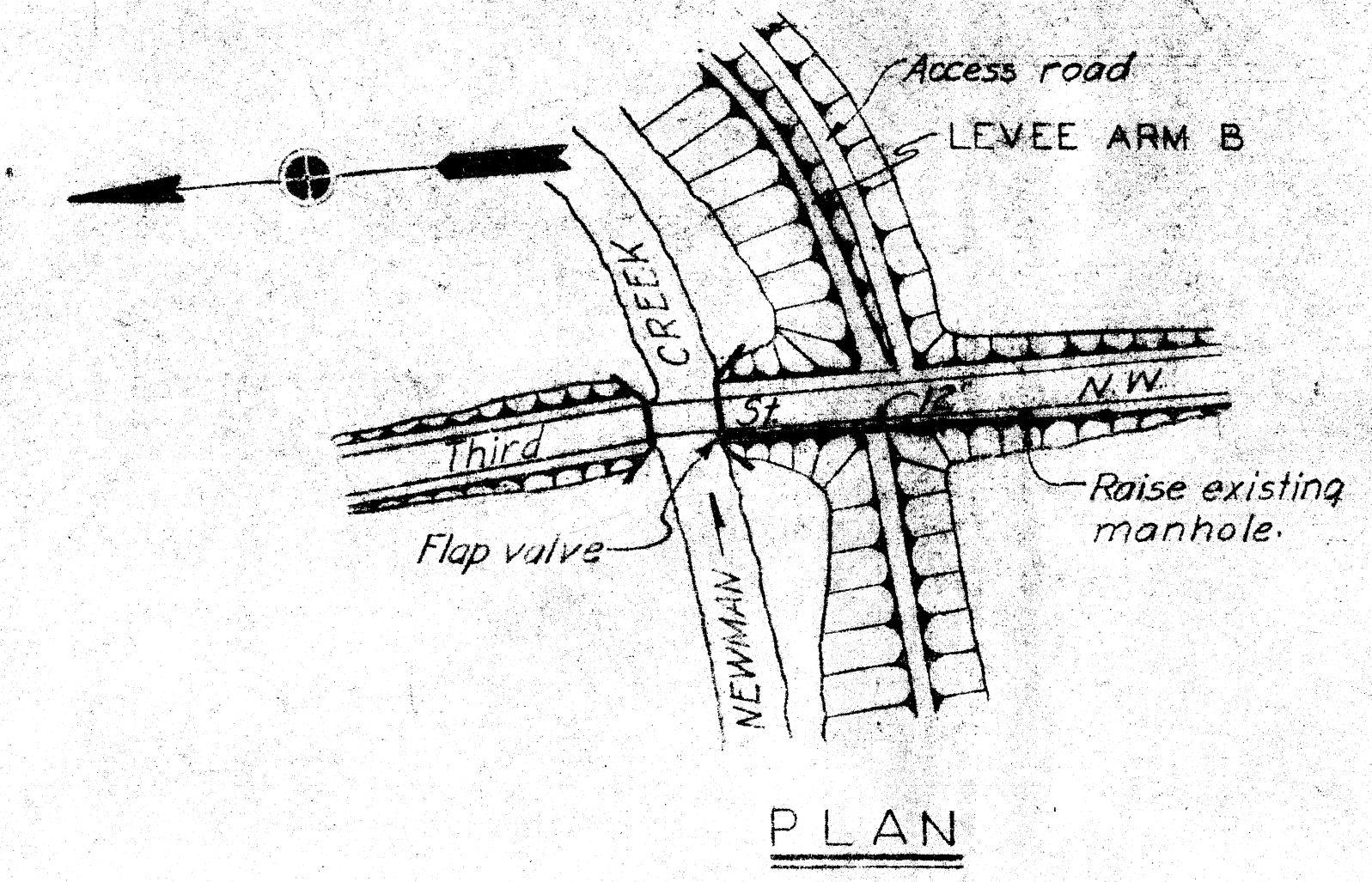
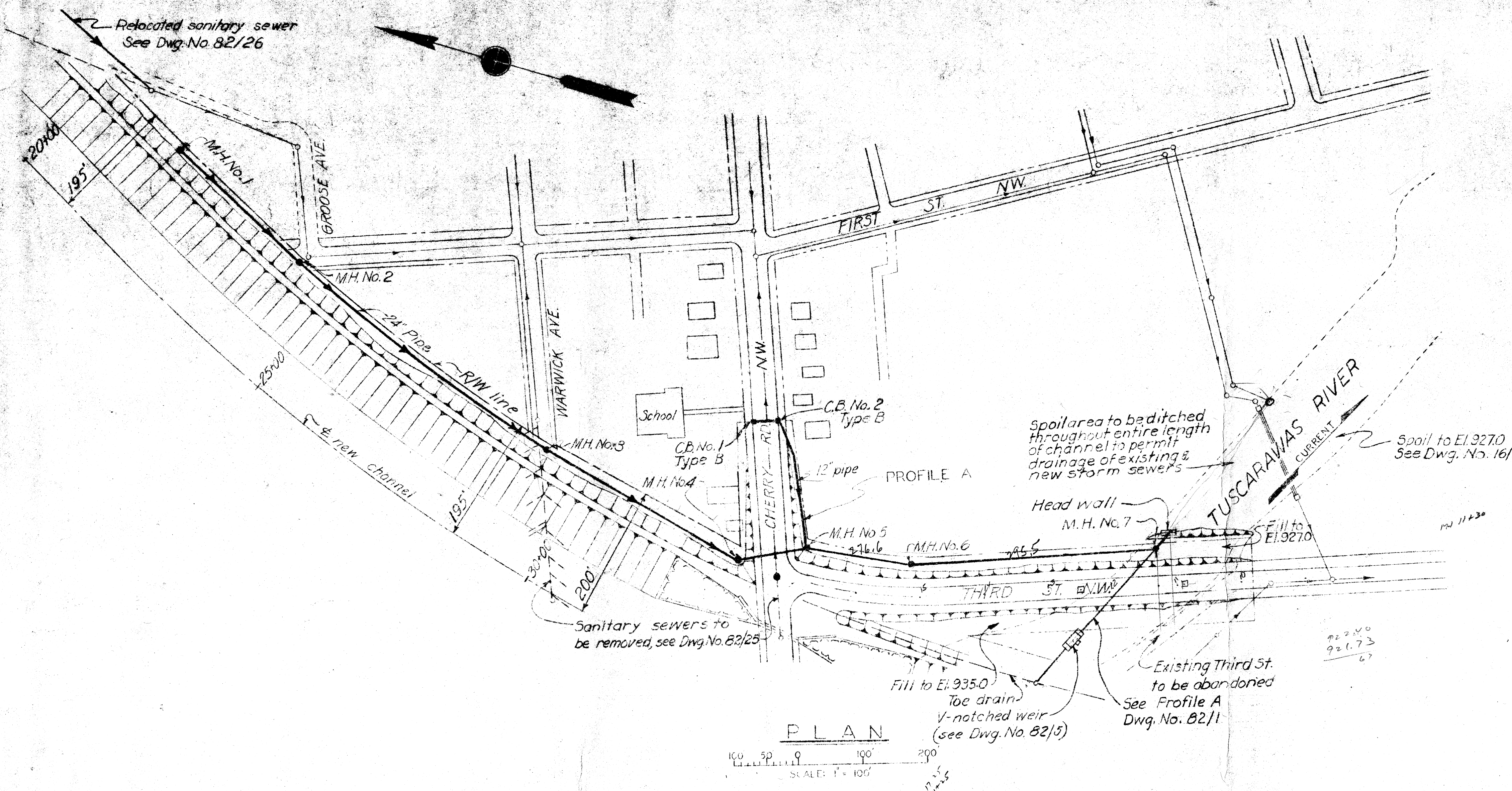
DRAWN BY: R.L.E. - G.O.S.		TUSCARAWAS RIVER LOCAL PROTECTION PROJECT MASSILLON, OHIO SECTION 2, UNIT 2 SEWER CHANGES CHERRY ROAD & WARWICK AVE.
TRACED BY: R.C.H. - N.W.G.		
CHECKED BY: C.S.W. - G.O.S.		
SUBMITTED BY: <i>Rm. [Signature]</i> CHIEF, ENG. DIV.		
APPROVED: <i>[Signature]</i> CHIEF, ENG. ASST.		
APPROVED FOR: DATE:		APPROVED: <i>[Signature]</i> COL. C.E. DISTRICT ENGINEER
DATE:		DATE: OCT. 1948
APPROVED FOR:		SCALE: 1" = 100' DRAWING NUMBER: 0271-PM2-2-82/25 SHEET 53. OF 60



NOTES

For general plan see Dwg. No. 16/1.
For general utility plans, see Dwg. No. 82/20.
For manholes and miscellaneous sewer details, see Dwg. No. 82/36.
For headwall details see Dwg. No. 68/18.

DEPARTMENT OF THE ARMY CORPS OF ENGINEERS OFFICE OF THE DISTRICT ENGINEER HUNTINGTON, W. VA.	
TUSCARAWAS RIVER LOCAL PROTECTION PROJECT MASSILLON, OHIO SECTION 2, UNIT 2 SEWER CHANGES COMMONWEALTH AVE. TO BURTON AVE.	
DRAWN BY: O.A.L.	CHECKED BY: J.S. 11-2-50
TRACED BY:	APPROVED BY: J.S. 11-2-50
DATE: 11-2-50	SCALE: 1"=100'
0271-PM2-2-82/26	

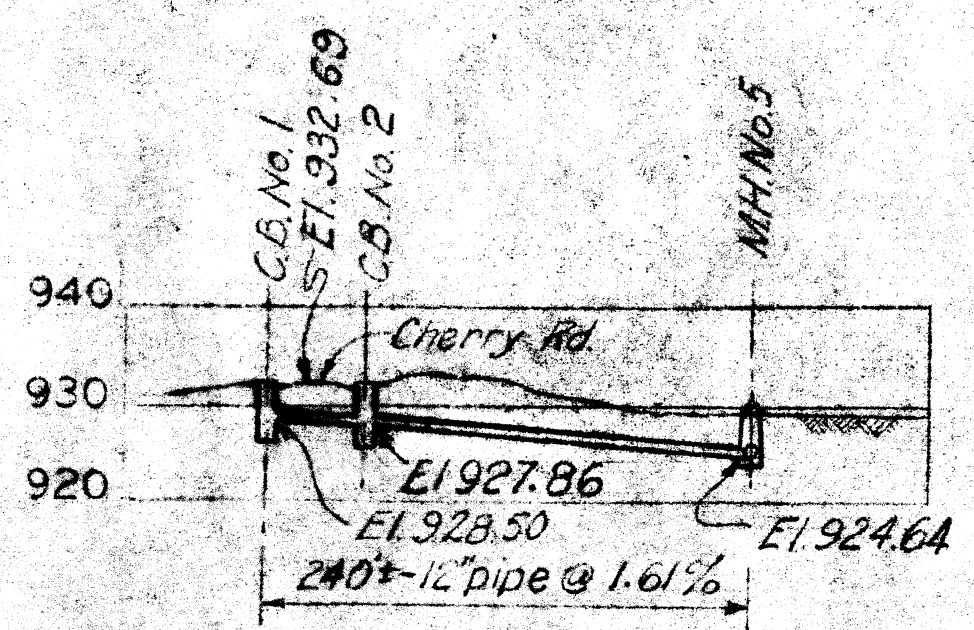


THIRD ST. SOUTH OF NEWMAN CREEK - STORM SEWER

NOTES

- For general plans, see Dwg. No. 16/1 & 16/2
- For details of headwall and seep rings, see Dwg. No. 63/18.
- For details of raising Newman Creek Bridge, see Dwg. Nos. 63/15 and 63/16.
- For general utility plan, see Dwg. No. 82/20 & 82/21.
- For details of standard manholes and Type B catch basins, see Dwg. No. 82/36.

GROOSE AVE. - TUSCARAWAS RIVER - STORM SEWER



DEPARTMENT OF THE ARMY CORPS OF ENGINEERS OFFICE OF THE DISTRICT ENGINEER HUNTINGTON, W. VA.	
TUSCARAWAS RIVER LOCAL PROTECTION PROJECT MASSILLON, OHIO SECTION 2, UNIT 2 SEWER CHANGES GROOSE AVE. TO TUSCARAWAS RIVER AND AT NEWMAN CREEK	
DRAWN BY: G.A.L.	CHECKED BY: G.A.L.
TRACED BY:	APPROVED BY:
DATE: 10/1/50	

REINFORCING SCHEDULE

MARK	SIZE	LGTH	BENDING DIAGRAM	NO	UNIT WT.	TOTAL WT.
410	1/2"	8'6"				

NOTES

- All reinforcing steel, unless otherwise indicated in schedule, to be bent in field to suit conditions.
- Clear distance from face of concrete to nearest reinforcing bar shall be 2" unless otherwise indicated.
- For details of bar plates and flume lining, see Dwg. No. 82/7.
- For recorder house details, see Dwg. No. 82/16.
- For profile of toe drain, see Dwg. No. 82/1.
- For general plans, see Dwg. No. 16/1.
- For masonry notes and explanation of reinforcing steel code, see Dwg. No. 20/1.
- For details of standard manhole frame and cover and C.I. steps, see Dwg. No. 82/36.

REINFORCING SCHEDULE

MARK	SIZE	LGTH	BENDING DIAGRAM	NO	UNIT WT.	TOTAL WT.
410	1/2"	8'6"				

NOTES

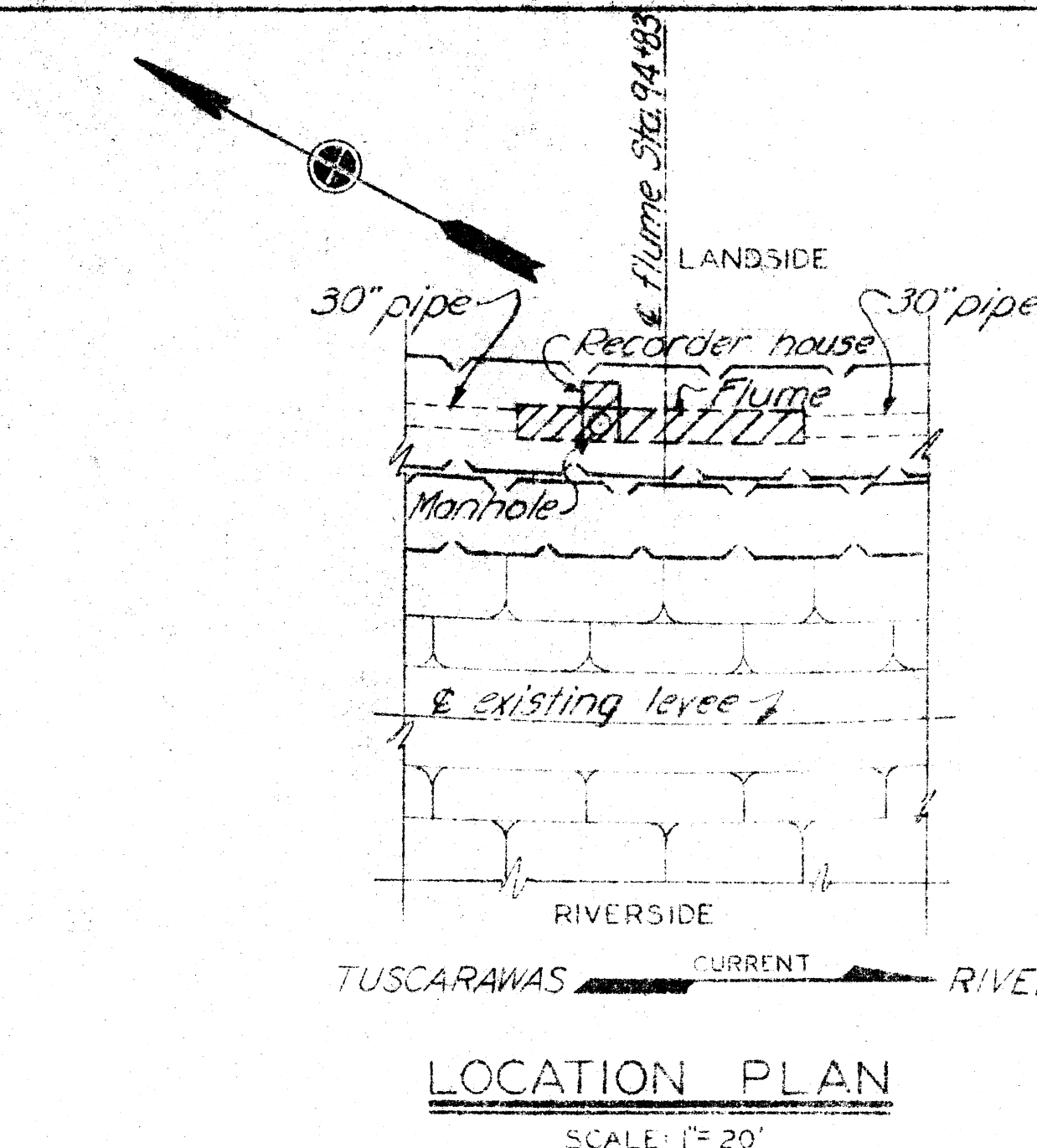
- All reinforcing steel, unless otherwise indicated in schedule, to be bent in field to suit conditions.
- Clear distance from face of concrete to nearest reinforcing bar shall be 2" unless otherwise indicated.
- For details of bar plates and flume lining, see Dwg. No. 82/7.
- For recorder house details, see Dwg. No. 82/16.
- For profile of toe drain, see Dwg. No. 82/1.
- For general plans, see Dwg. No. 16/1.
- For masonry notes and explanation of reinforcing steel code, see Dwg. No. 20/1.
- For details of standard manhole frame and cover and C.I. steps, see Dwg. No. 82/36.

REINFORCING SCHEDULE

MARK	SIZE	LGTH	BENDING DIAGRAM	NO	UNIT WT.	TOTAL WT.
410	1/2"	8'6"				

NOTES

- All reinforcing steel, unless otherwise indicated in schedule, to be bent in field to suit conditions.
- Clear distance from face of concrete to nearest reinforcing bar shall be 2" unless otherwise indicated.
- For details of bar plates and flume lining, see Dwg. No. 82/7.
- For recorder house details, see Dwg. No. 82/16.
- For profile of toe drain, see Dwg. No. 82/1.
- For general plans, see Dwg. No. 16/1.
- For masonry notes and explanation of reinforcing steel code, see Dwg. No. 20/1.
- For details of standard manhole frame and cover and C.I. steps, see Dwg. No. 82/36.

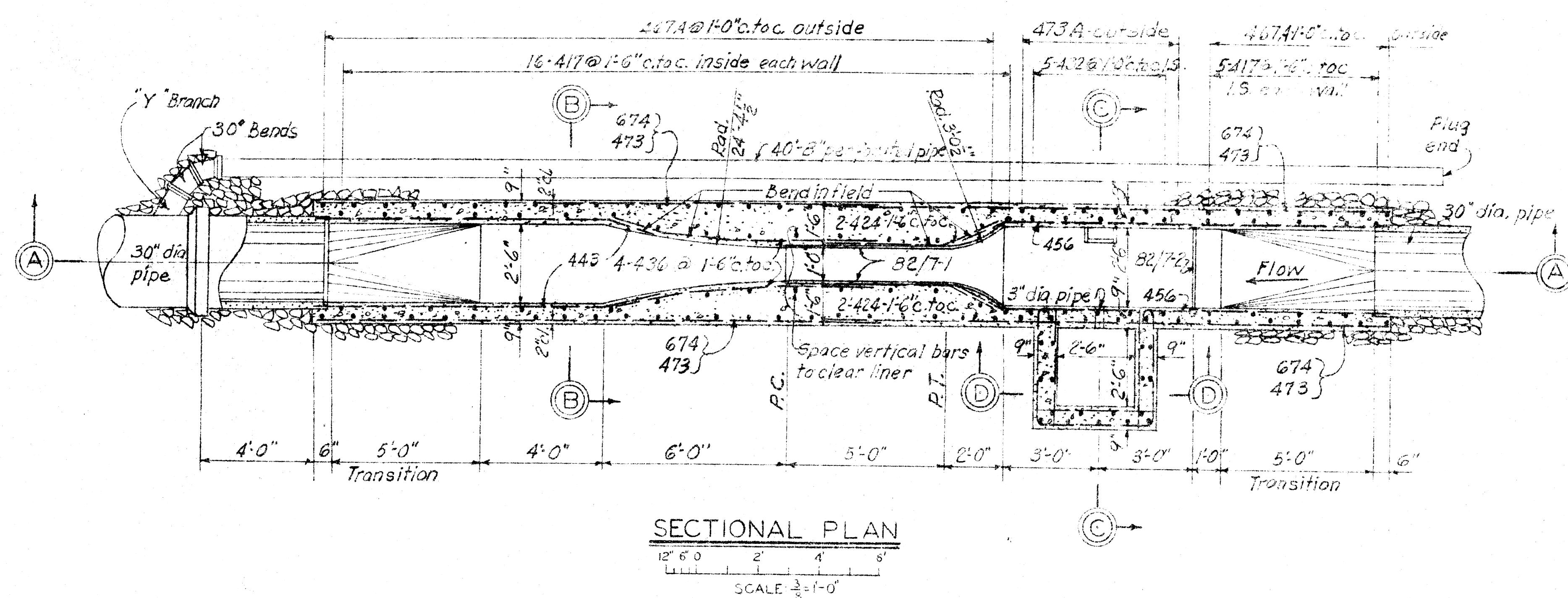


ROOF PLAN
SCALE: 1/2" = 1'-0"

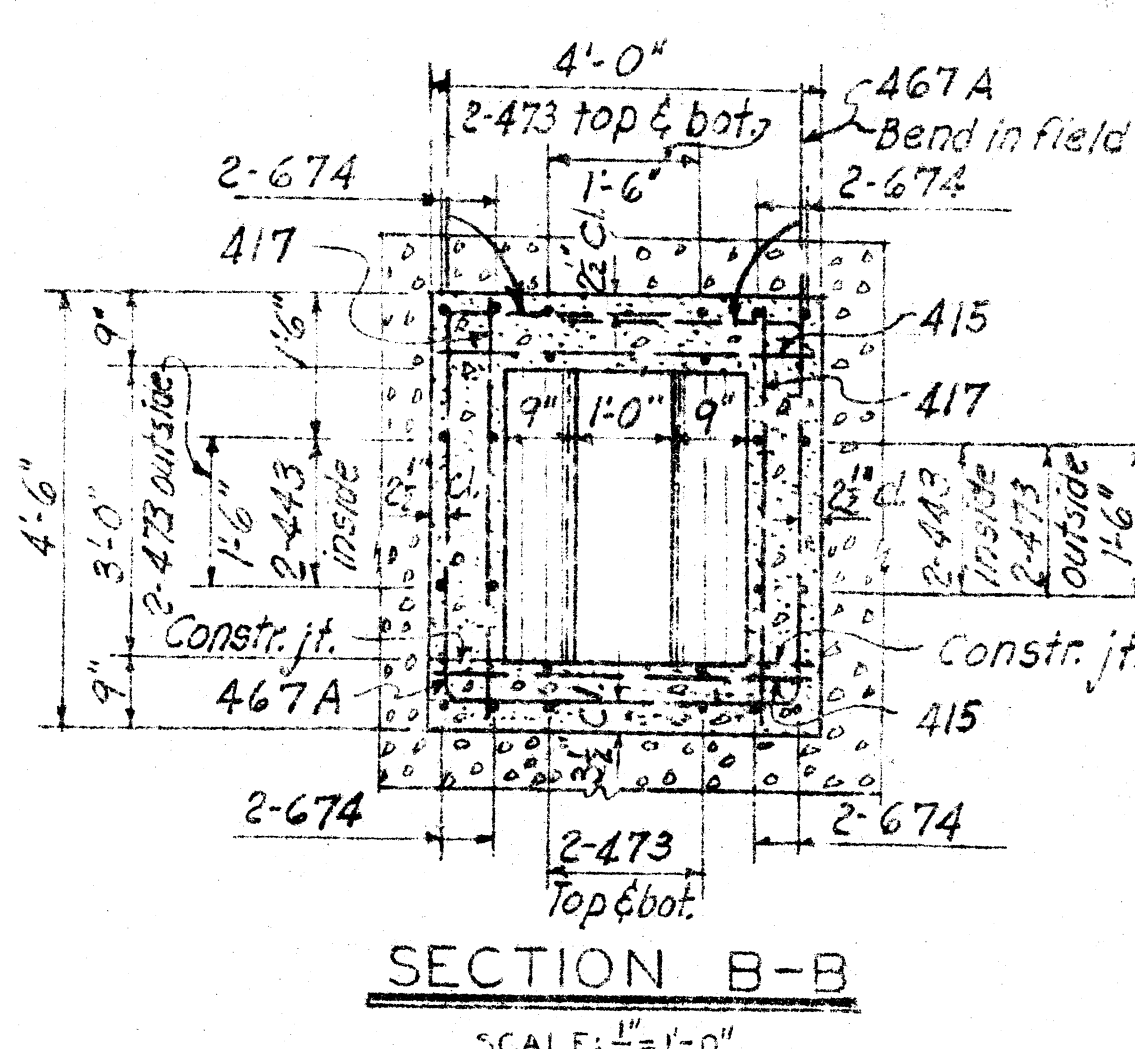
SECTION E-E
SCALE: 1/2" = 1'-0"

SECTION F-F
SCALE: 1/2" = 1'-0"

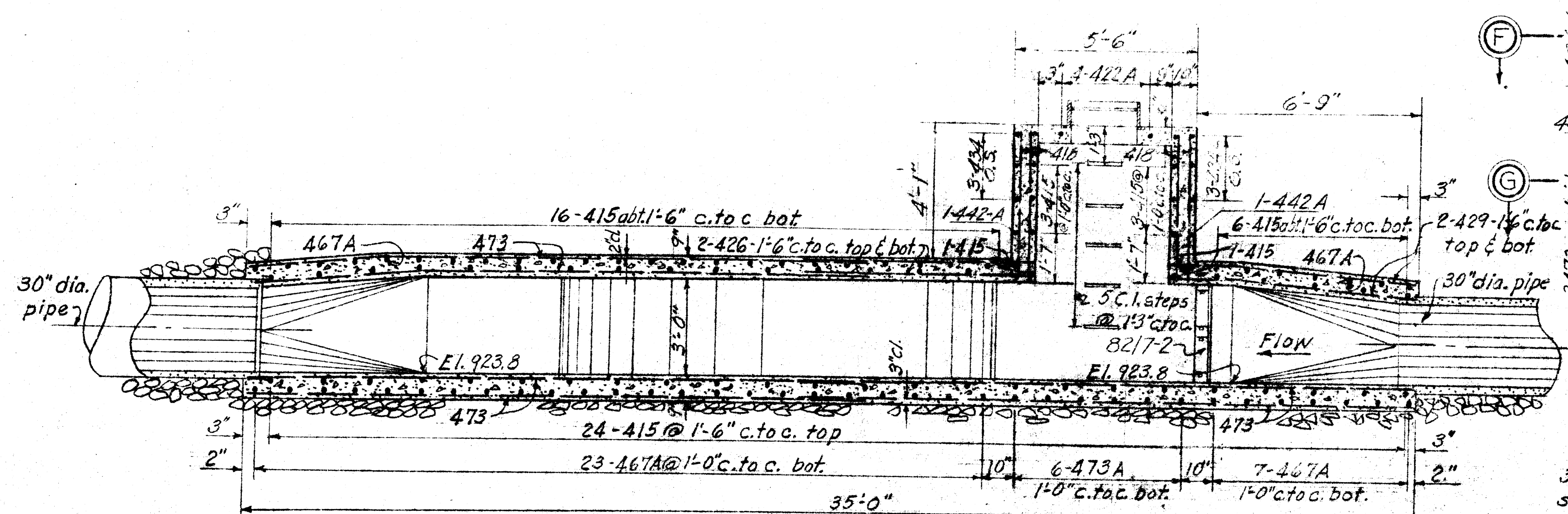
SECTION G-G
SCALE: 1/2" = 1'-0"



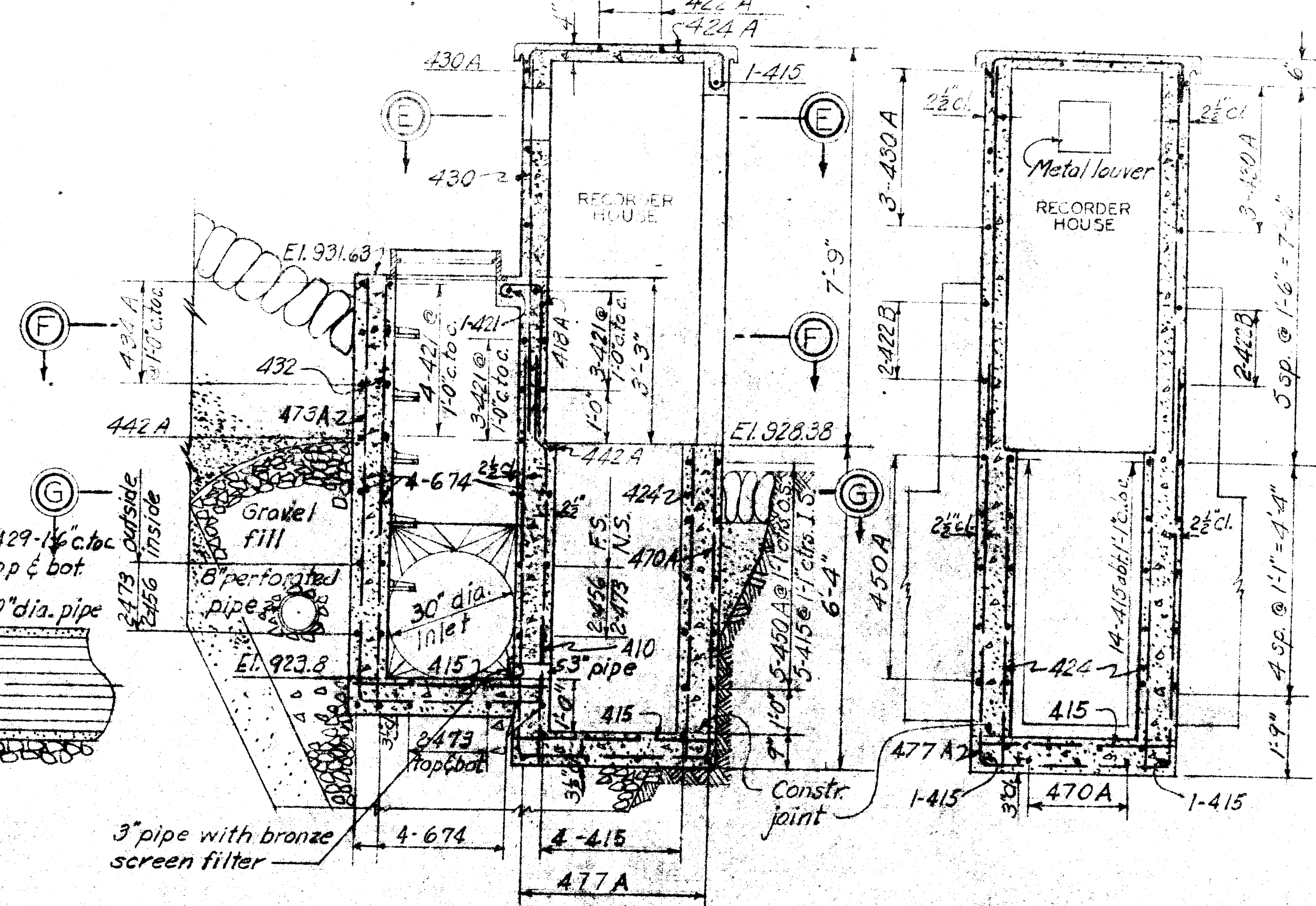
SECTIONAL PLAN
SCALE: 3/8" = 1'-0"



SECTION B-B
SCALE: 1/2" = 1'-0"



SECTION A-A
SCALE: 1/2" = 1'-0"



SECTION C-C
SCALE: 1/2" = 1'-0"

SECTION D-D
SCALE: 1/2" = 1'-0"

REINFORCING SCHEDULE

MARK	SIZE	LENGTH	BENDING DIAGRAM	NO.	UNIT	TOTAL WT.
410	2-6	2-6		4	1.67	7
415	2-6	3-9		80	2.51	201
417	2-6	4-3		42	2.88	119
418A	2-6	4-6		3	3.01	9
421	2-6	5-3		11	3.97	39
422A	2-6	5-6		6	3.67	22
422B	2-6	5-6		4	3.67	15
424	2-6	6-0		12	4.01	48
424A	2-6	6-0		2	4.01	8
426	2-6	6-6		4	4.34	17
429	2-6	7-3		7	4.94	19
430	2-6	7-6		12	5.01	60
430A	2-6	7-6		6	5.01	30
434A	2-6	8-6		6	5.68	34
436	2-6	9-0		8	6.01	48
436A	2-6	9-0		4	6.01	24
442A	2-6	10-6		7	7.01	14
442B	2-6	10-6		7	7.18	29
445	2-6	10-6		5	8.35	42
450A	2-6	12-6		4	9.25	37
456	2-6	14-0		30	11.79	336
467A	2-6	16-9		30	12.19	344
473	2-6	18-3		3	11.88	36
470A	2-6	17-6		6	12.19	73
475A	2-6	18-3		4	12.86	51
477A	2-6	18-3		16	27.79	445
674	2-6	18-6				
Total						2012

NOTES

Top of manhole and recorder house floor sill elevation may vary from 0' to 2' to suit conditions if special treatment is required for toe drain due to insufficient R/W (see Dwg. No. 82/2).

Elevations shown are to be verified in the field before reinforcing steel is installed.

All reinforcing steel, unless otherwise indicated in schedule, to be bent in field to suit conditions.

Clear distance from face of concrete to nearest reinforcing bars shall be 2" unless otherwise indicated.

For baffle plates and liner for flume, see Dwg. No. 82/7.

For details of recorder house, see Dwg. No. 82/36.

For masonry notes and explanation of reinforcing steel code, see Dwg. No. 20/1.

For details of standard manhole frame and cover and C.I. steps, see Dwg. No. 82/36.

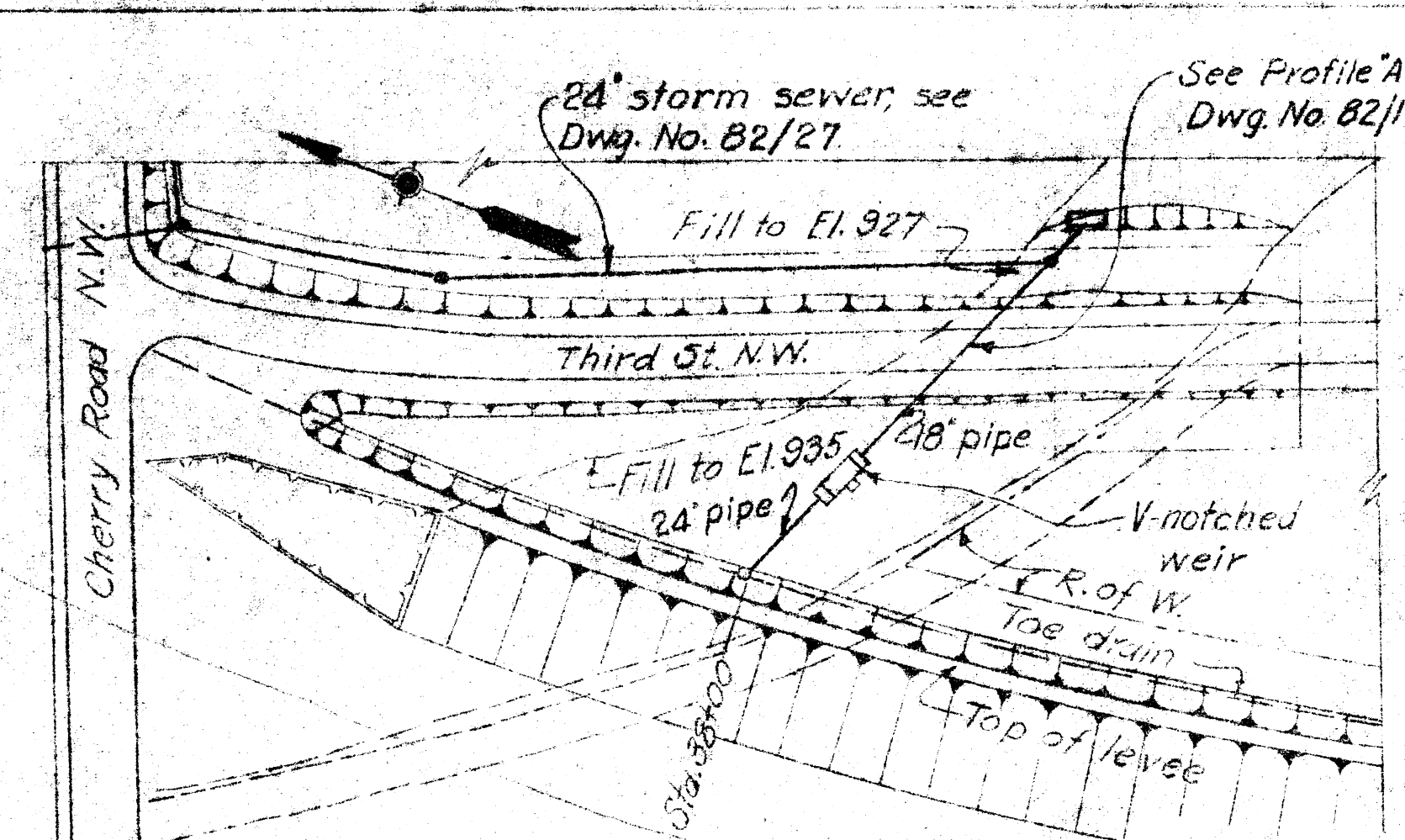
For profile of toe drain, see Dwg. No. 82/2.

DEPARTMENT OF THE ARMY
CORPS OF ENGINEERS
OFFICE OF THE DISTRICT ENGINEER
HUNTINGTON, W. VA.

TUSCARAWAS RIVER
LOCAL PROTECTION PROJECT
MASSILLON, OHIO
SECTION 2, UNIT 2
LEVEE TOE DRAIN
FLUME AT STA. 94+83

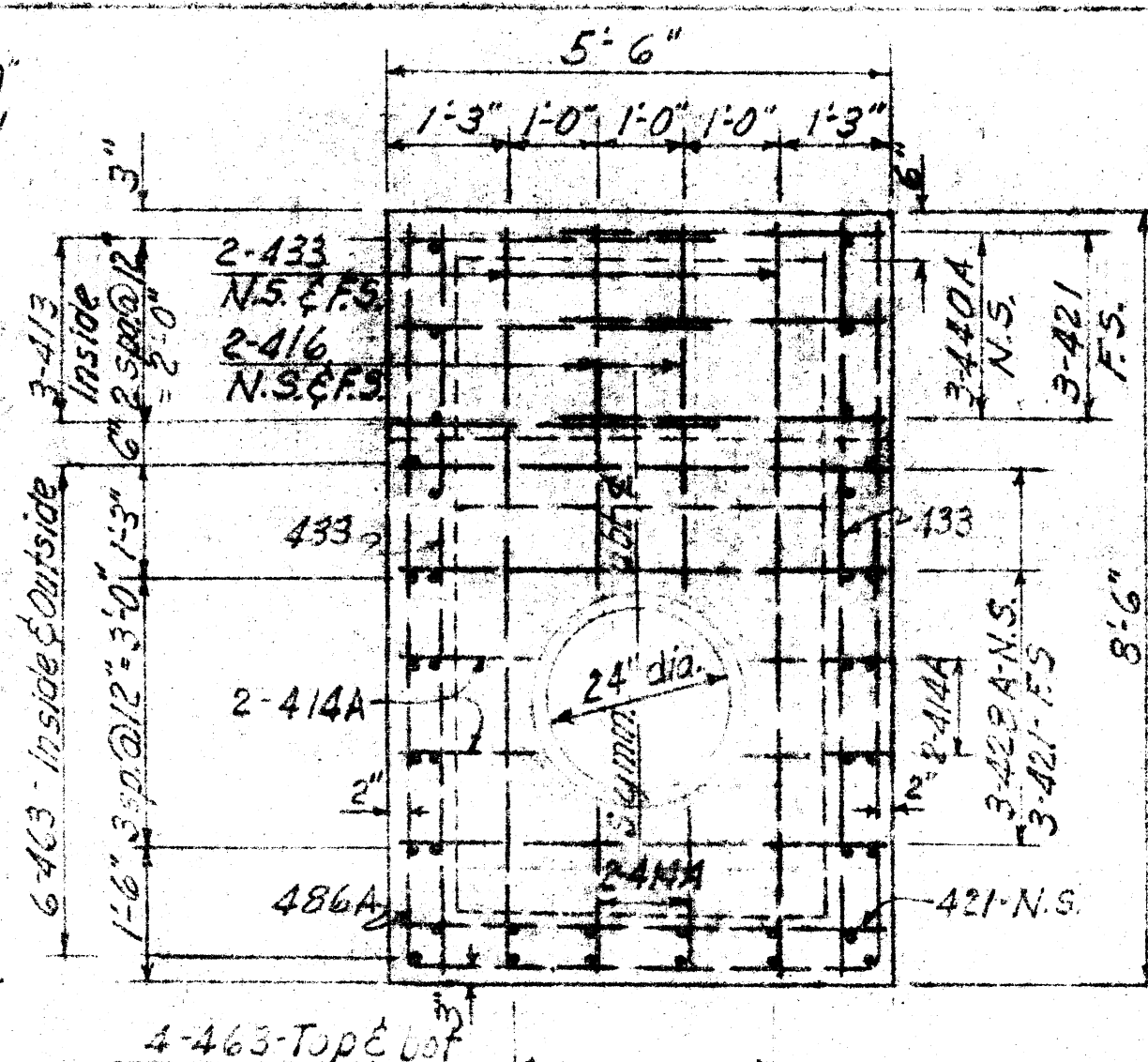
DRAWN BY: A.E.P.
CHECKED BY: HUB-G.O.S.
SUBMITTED BY: [Signature]
APPROVED: [Signature]
DATE: OCT. 1948

SCALE: 1/2" = 1'-0"
DRAWING NUMBER: 0271-PM2-2-82/4
SHEET 47 OF 60



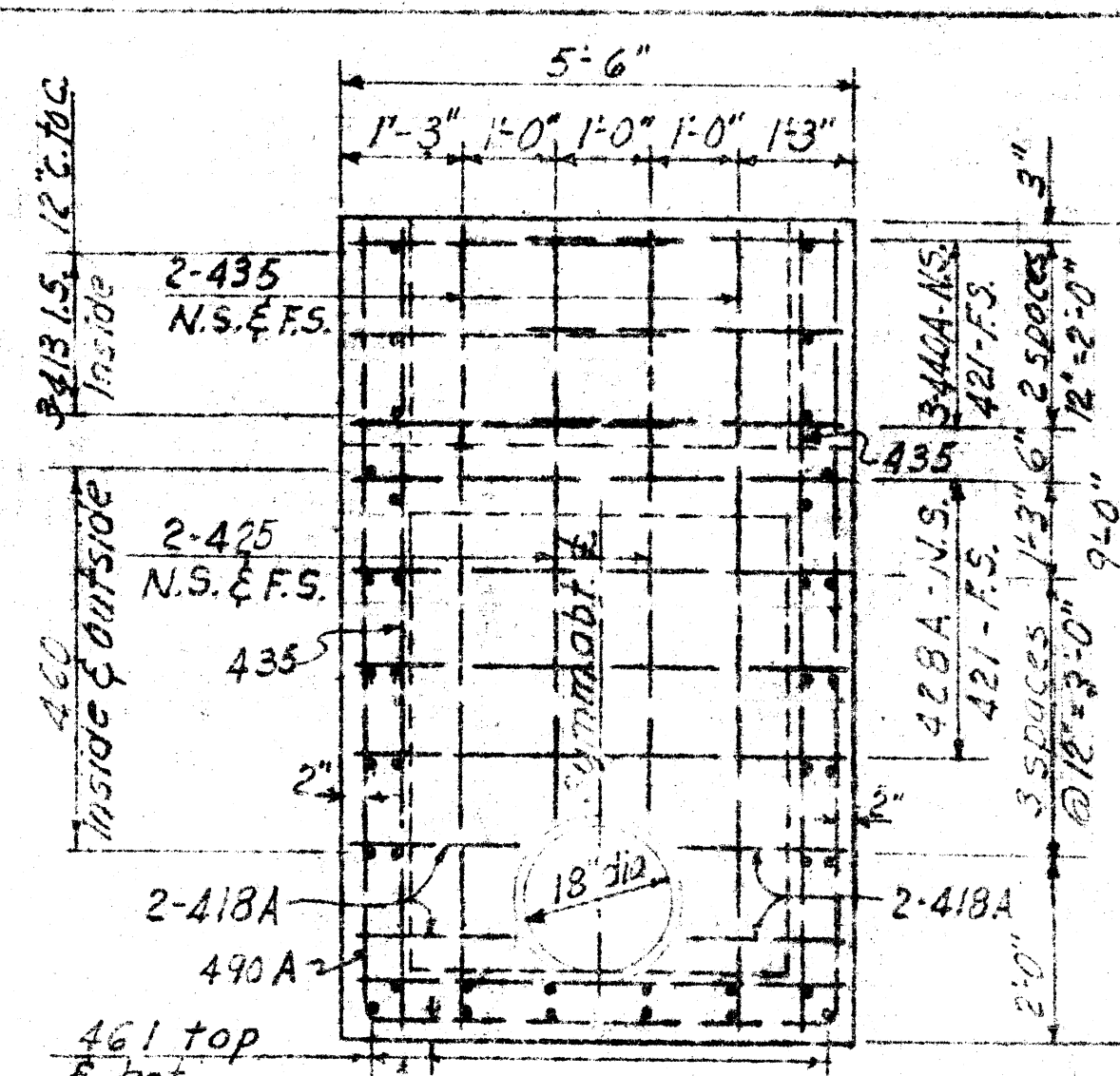
LOCATION PLAN

SCALE: 1"=100'



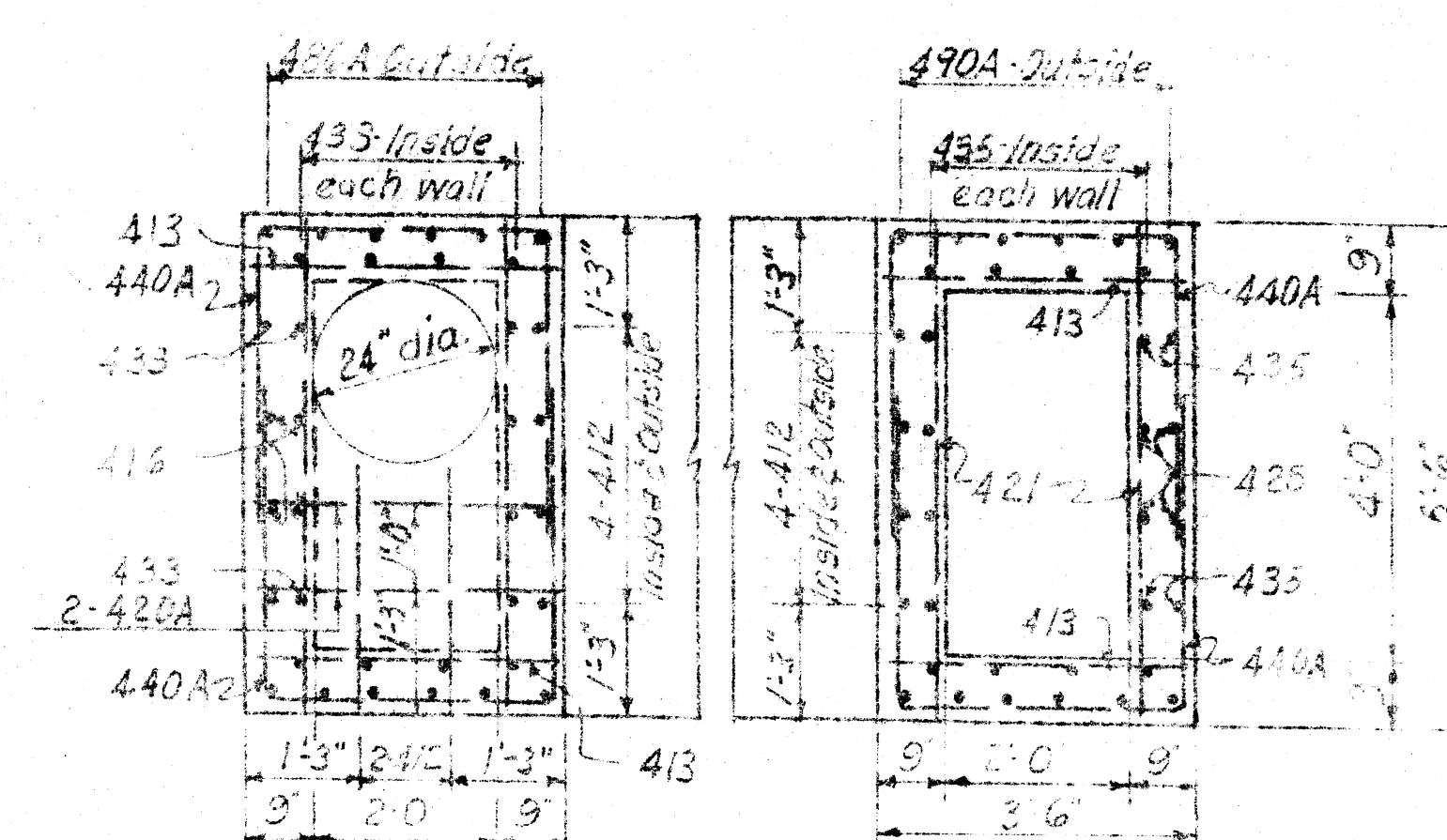
INLET

SCALE: 1/2"=1'-0"



OUTLET

SCALE: 1/2"=1'-0"

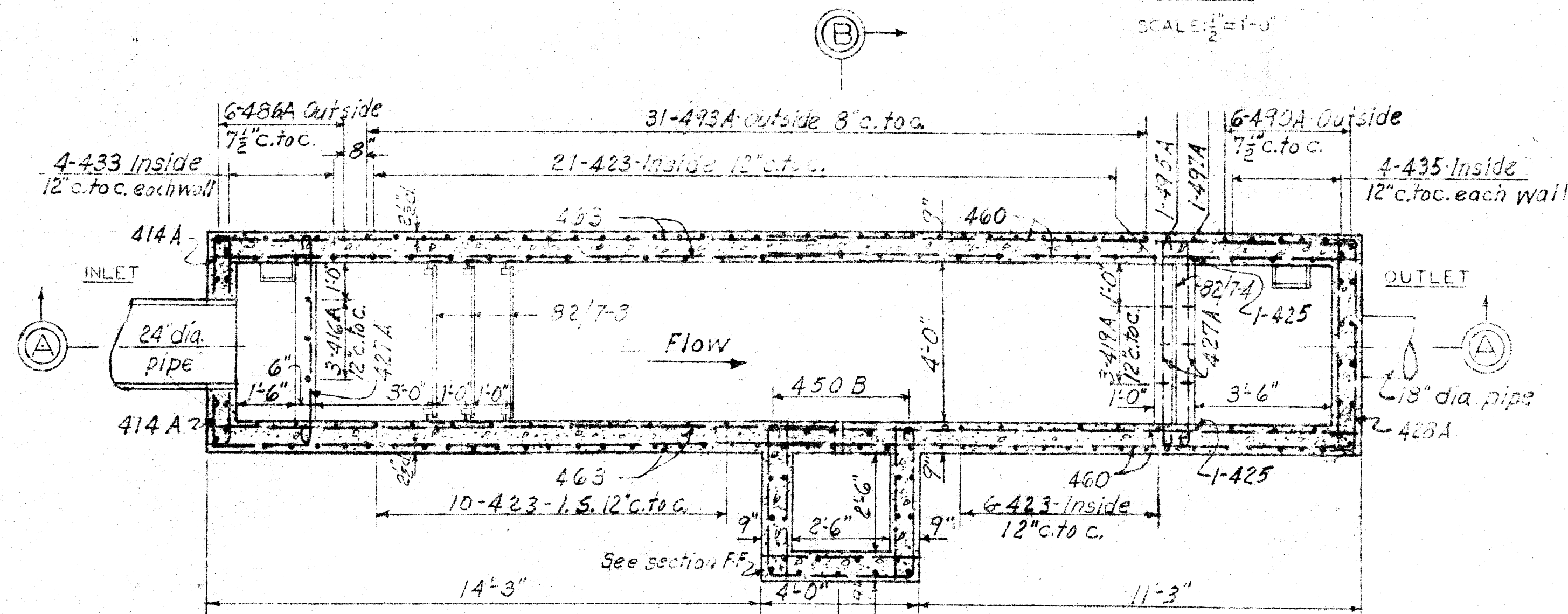


PLAN G-G

SCALE: 1/2"=1'-0"

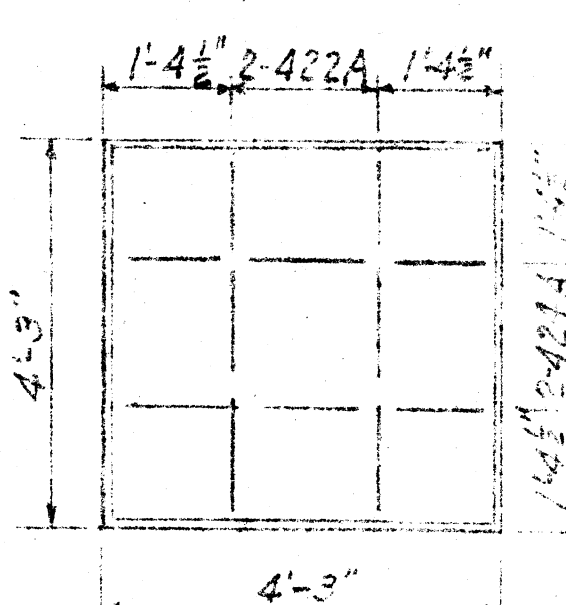
PLAN H-H

SCALE: 1/2"=1'-0"



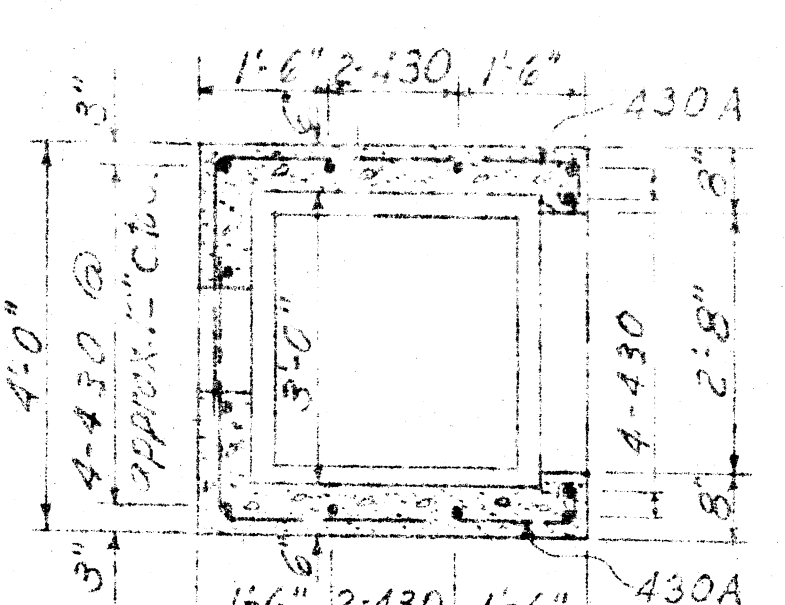
SECTIONAL PLAN

SCALE: 3/8"=1'-0"



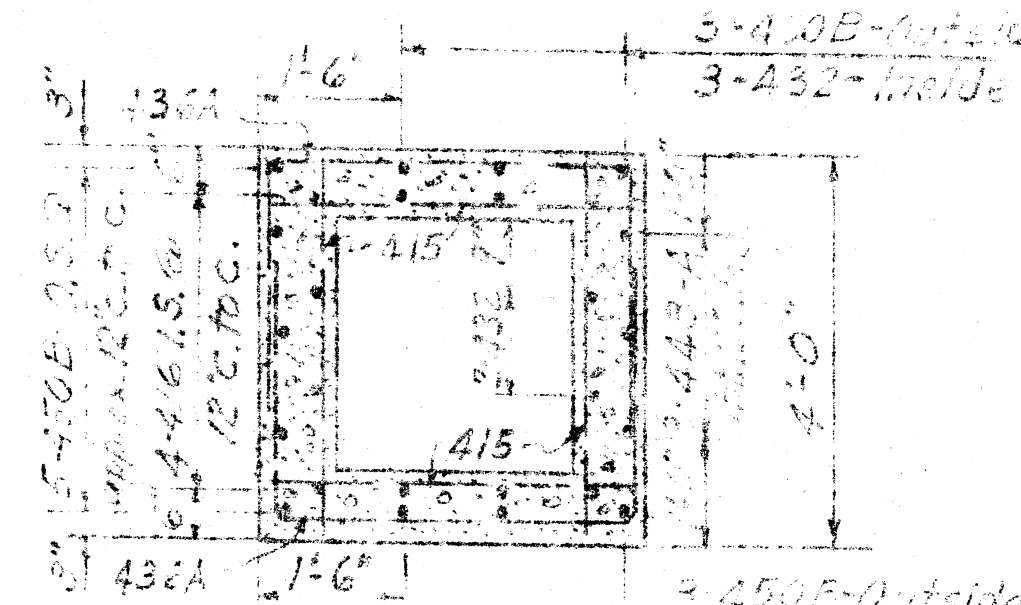
ROOF PLAN

SCALE: 1/2"=1'-0"



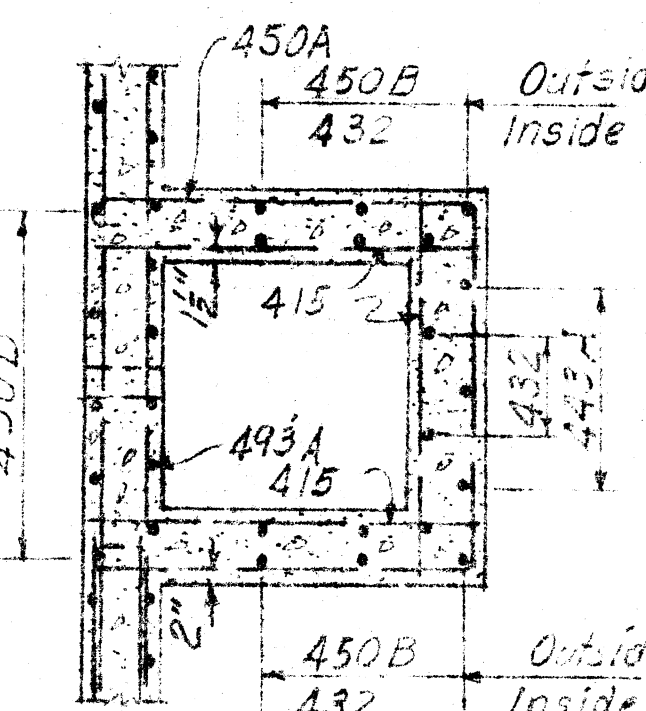
SECTION D-D

SCALE: 1/2"=1'-0"



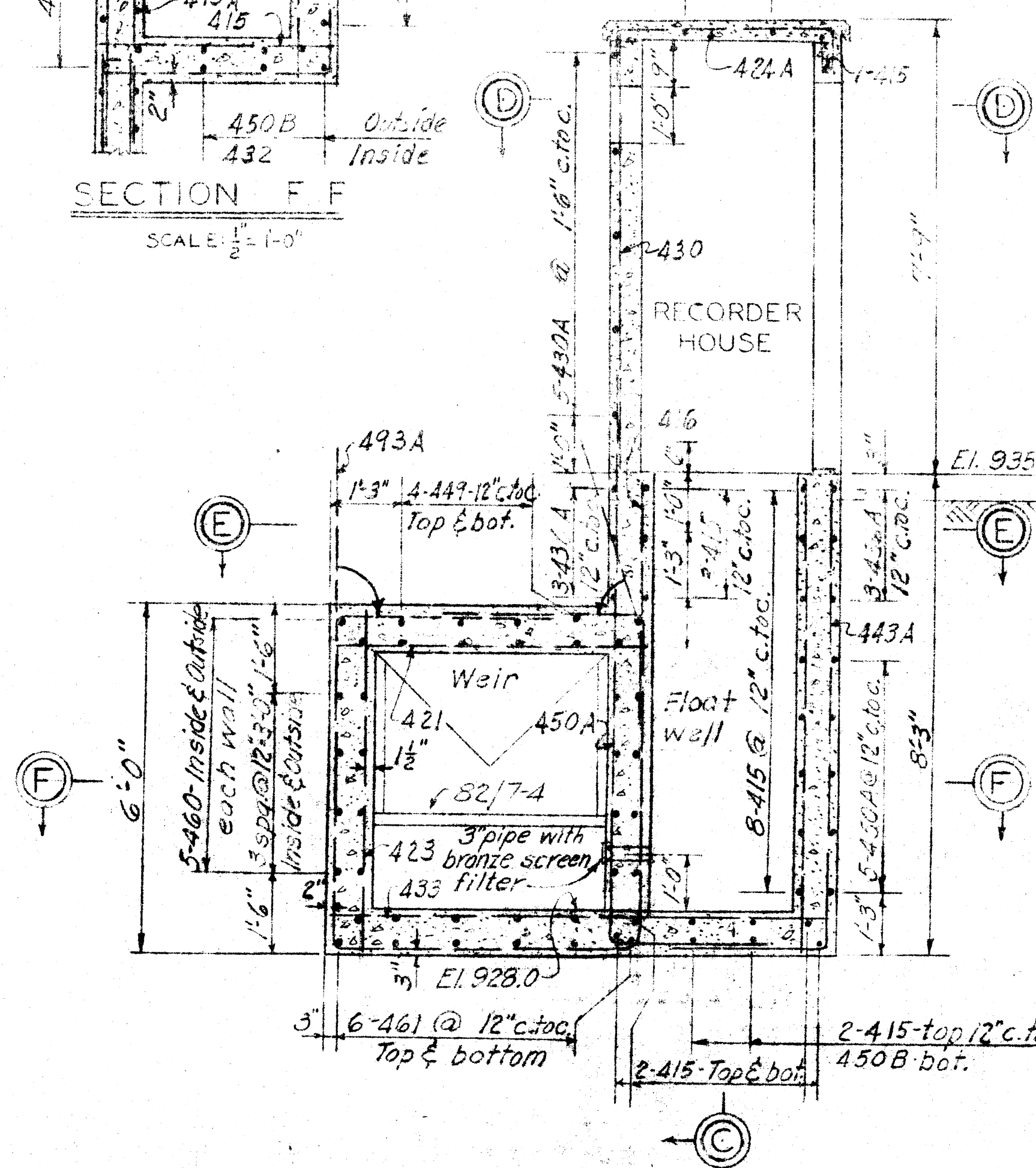
SECTION E-E

SCALE: 1/2"=1'-0"



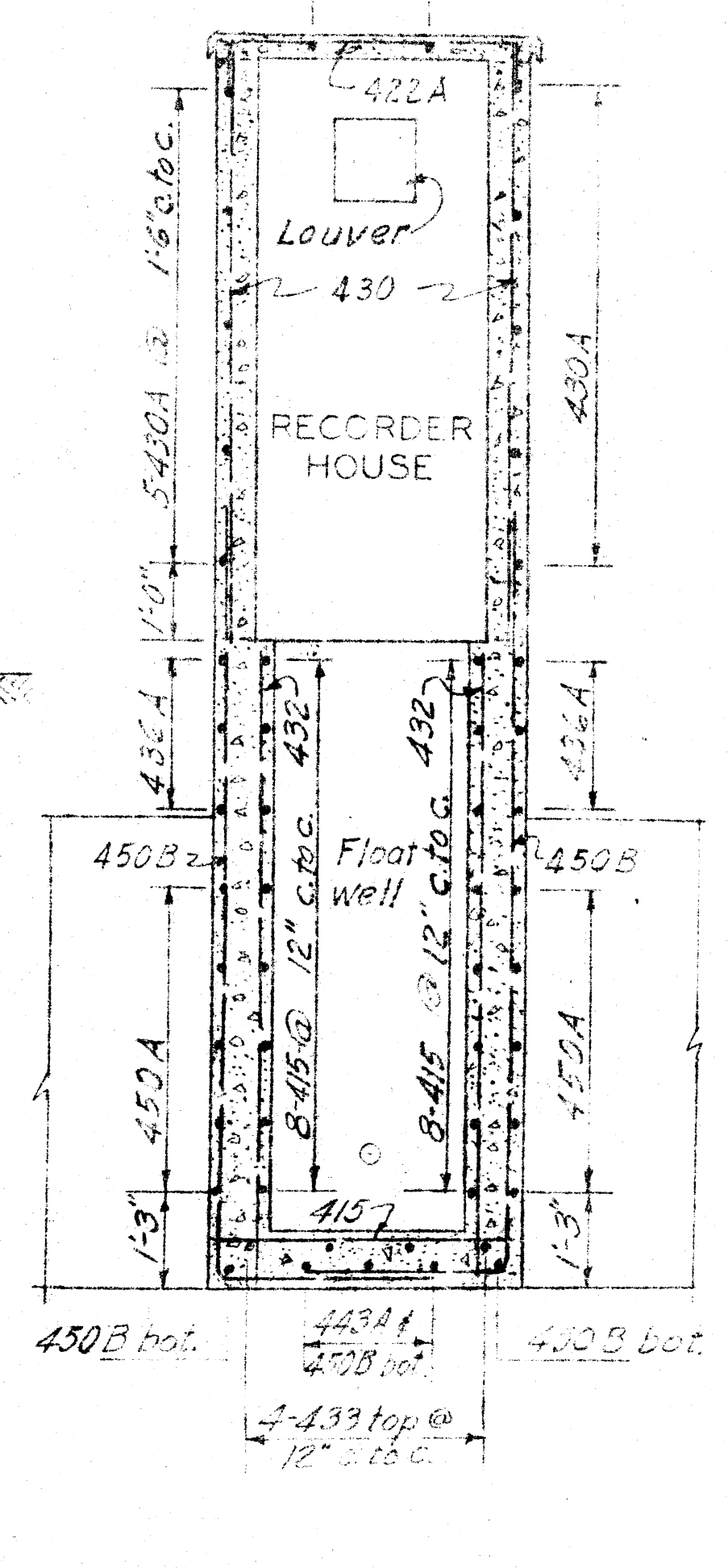
SECTION F-F

SCALE: 1/2"=1'-0"



SECTION B-B

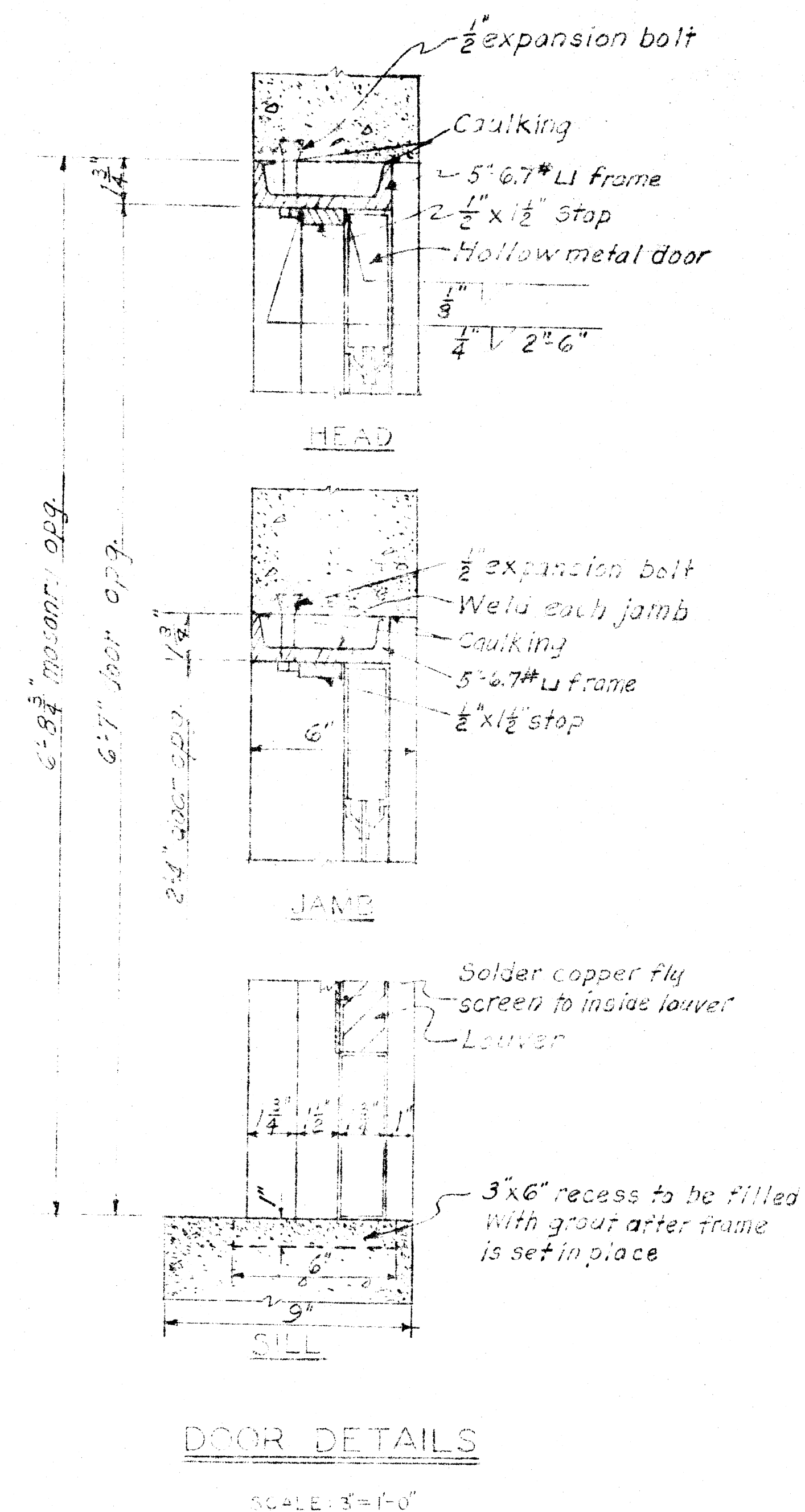
SCALE: 1/2"=1'-0"



SECTION C-C

SCALE: 1/2"=1'-0"

CORPUS OF ENGINEERS									
REINFORCING SCHEDULE									
MARK	SIZE	LGTH	BENDING DIAGRAM	NO	UNIT	TOTAL	WT	WT	
412	20	8'-0"		18	36				
413	20	3'-3"		12	36				
414A	20	8'-6"		6	234	14			
415	20	3'-9"		3	251	35			
416A	20	4'-0"		3	267	8			
416	20	4'-0"		3	267	8			
418A	20	4'-6"		4	301	12			
419A	20	4'-9"		3	317	10			
420A	20	5'-0"		3	321	7			
421	20	5'-3"		3	321	7			
422A	20	5'-6"		3	321	7			
423	20	5'-9"		3	321	7			
424A	20	6'-0"		3	321	7			
425	20	6'-3"		3	321	7			
426A	20	6'-6"		3	321	7			
427A	20	6'-9"		3	321	7			
428A	20	7'-0"		3	321	7			
429	20	7'-3"		3	321	7			
430	20	7'-6"		3	321	7			
431A	20	7'-9"		3	321	7			
432A	20	8'-0"		3	321	7			
433	20	8'-3"		3	321	7			
434	20	8'-6"		3	321	7			
435	20	8'-9"		3	321	7			
436A	20	9'-0"		3	321	7			
437A	20	9'-3"		3	321	7			
438A	20	9'-6"		3	321	7			
439A	20	9'-9"		3	321	7			
440A	20	10'-0"		3	321	7			
441A	20	10'-3"		3	321	7			
442A	20	10'-6"		3	321	7			
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445A	20	11'-3"		3	321	7			
446A	20	11'-6"		3	321	7			
447A	20	11'-9"		3	321	7			
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450A	20	12'-6"		3	321	7			
451A	20	12'-9"		3	321	7			
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455A	20	13'-9"		3	321	7			
456A	20	14'-0"		3	321	7			
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462A	20	15'-6"		3	321	7			
463A	20	15'-9"		3	321	7			
464A	20	16'-0"		3	321	7			
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467A	20	16'-9"		3	321	7			
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472A	20	18'-0"		3	321	7			
473A	20	18'-3"		3	321	7			
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476A	20	19'-0"		3	321	7			
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485A	20	21'-3"		3	321	7			
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488A	20	22'-0"		3	321	7			
489A	20	22'-3"		3	321	7			
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515A	20	28'-9"		3	321	7			
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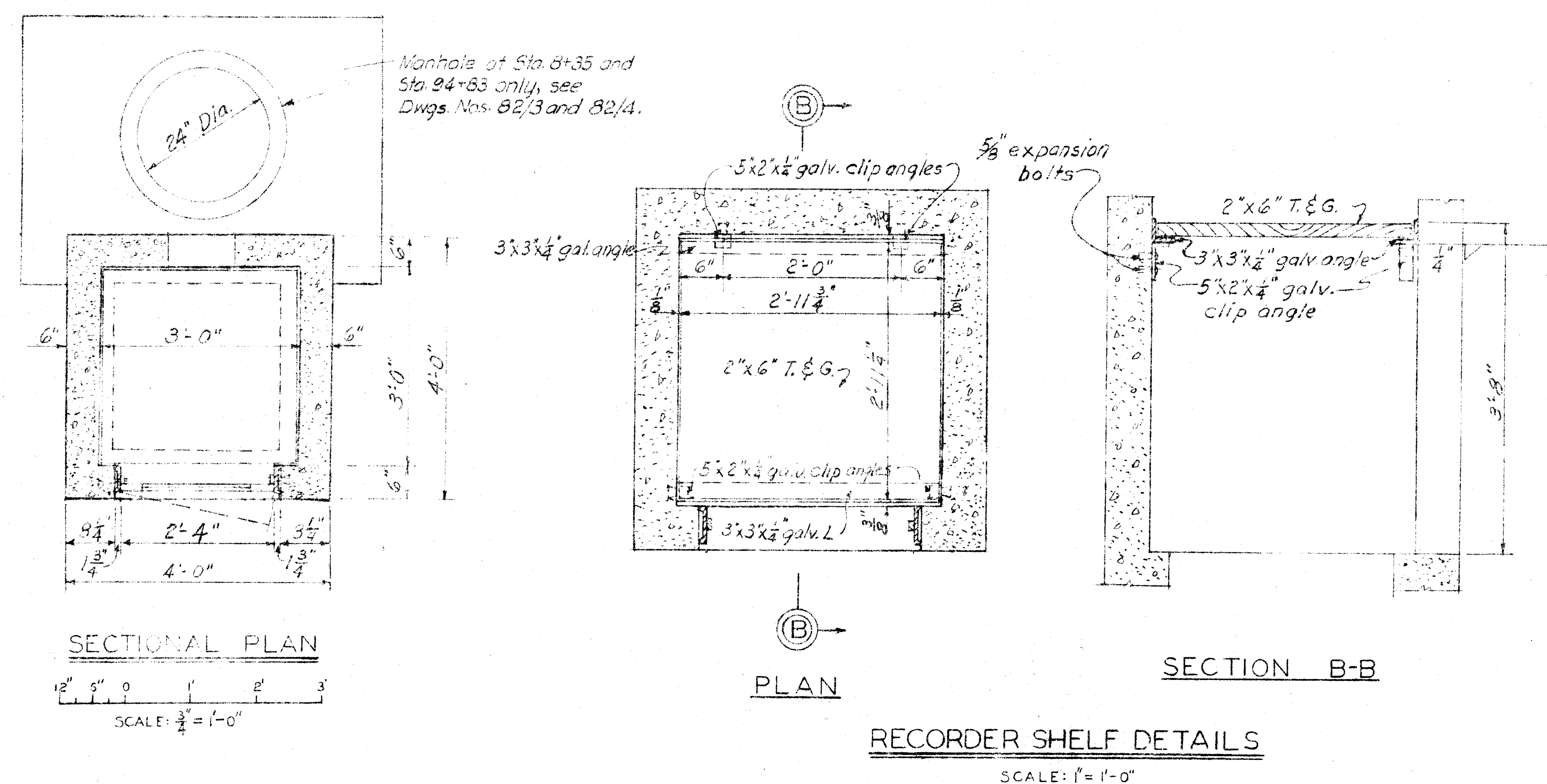


DOOR DETAILS

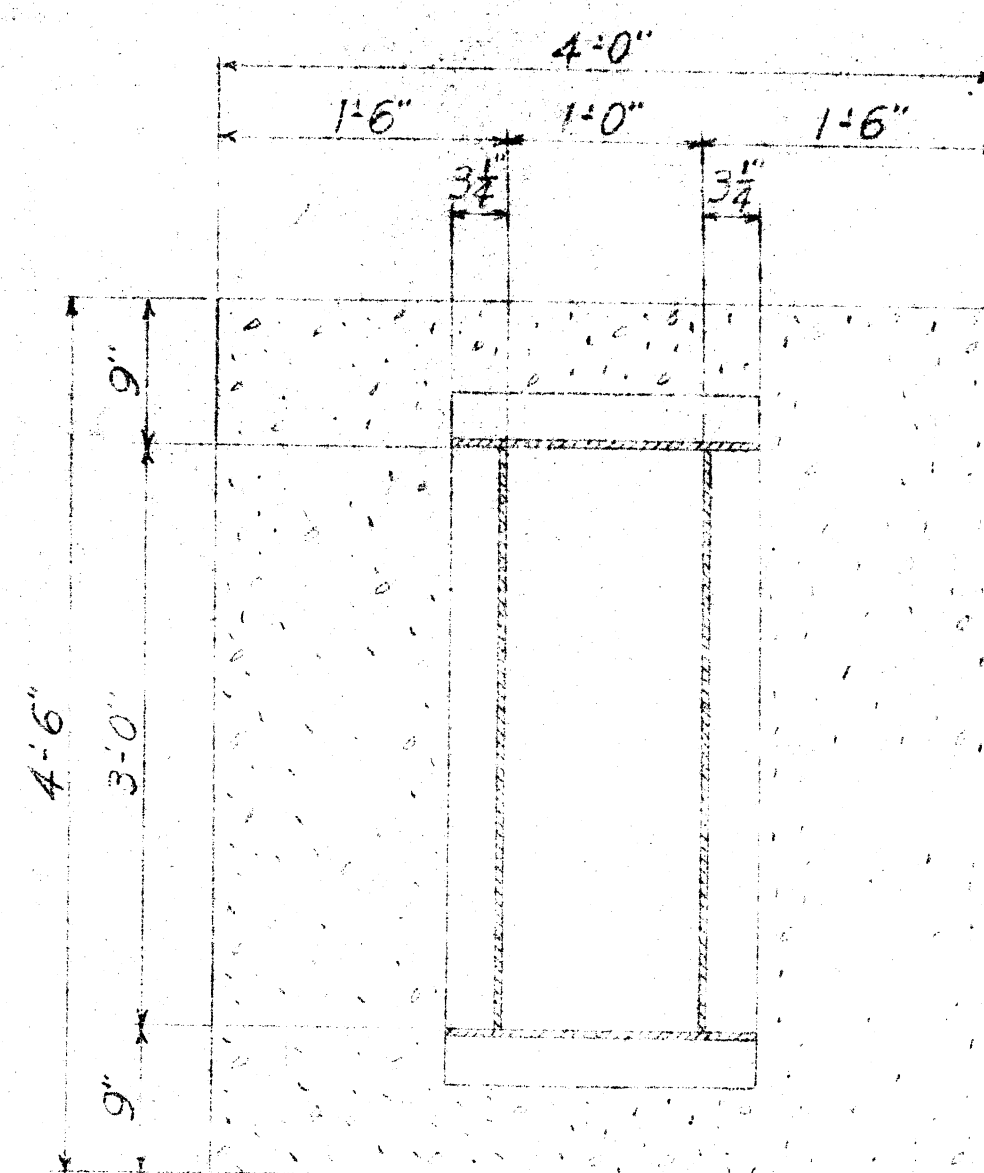
SCALE: 3"=1'-0"

NOTES

For details of flume and reinforcing details of recorder house Sta. 51+53.5 see Dwg. No. 82/3.
For details of flume and reinforcing details of recorder house Sta. 94+83, see Dwg. No. 82/4.
For details of V notched weir and reinforcing details of recorder house, see Dwg. No. 82/5.

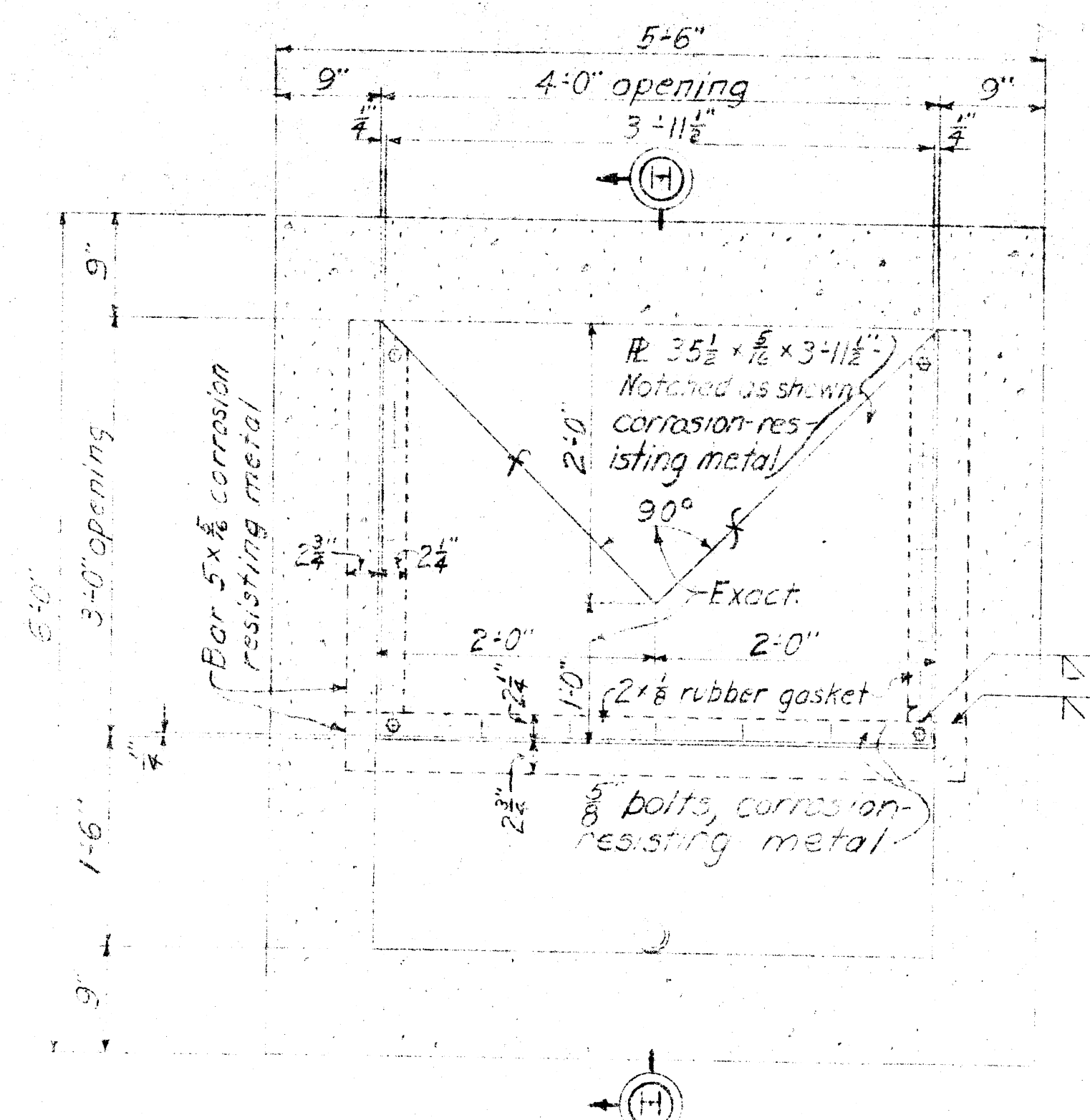


DRAWN BY: A. E. P.		TUSCARAWAS RIVER LOCAL PROTECTION PROJECT MASSILLON, OHIO SECTION 2, UNIT 2 LEVEE TOE DRAIN RECORDER HOUSE MISCELLANEOUS DETAILS	OCT. 1948
TRACED BY:			
CHECKED BY: C.C.M. & G.O.S.			
SUBMITTED BY: CHIEF ENG. DIV.			
APPROVED: <i>[Signature]</i> CHIEF ENGS. ASST.	APPROVED: <i>[Signature]</i> COL. C.E. DISTRICT ENGINEER	DATE:	
APPLICATION FOR:		SCALE 3/4" = 1'-0"	SPEC. NO.
DATE:		DRAWING NUMBER 0271-PM2-2-82/6 SHEET 49 OF 50.	



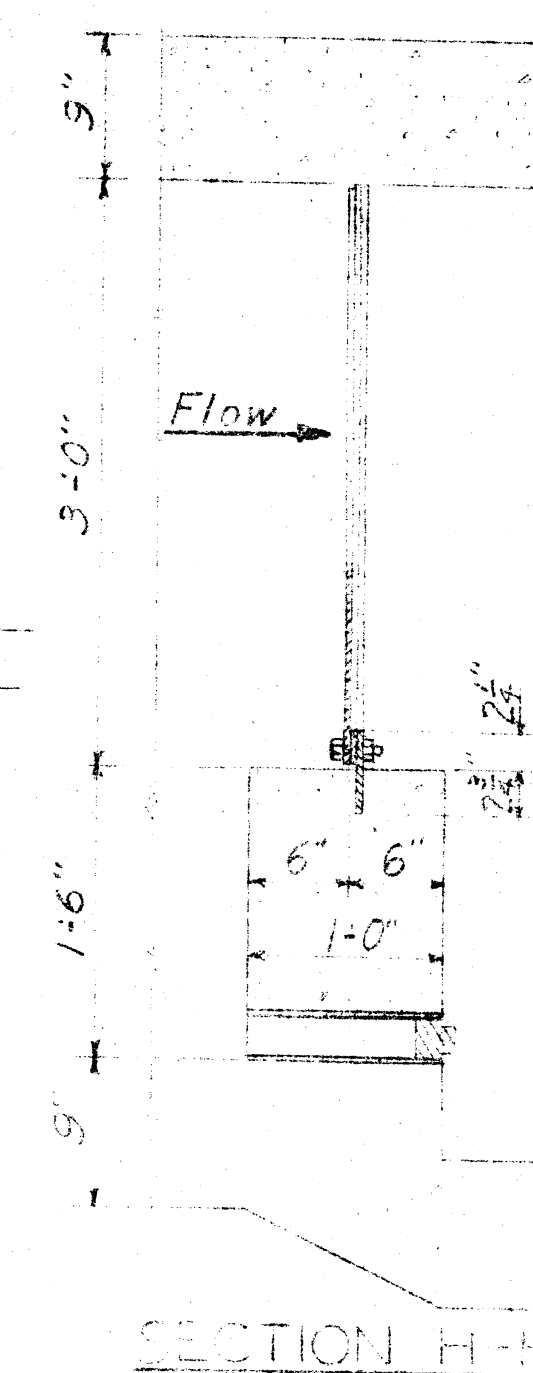
SECTION A-A

SECTION B-B

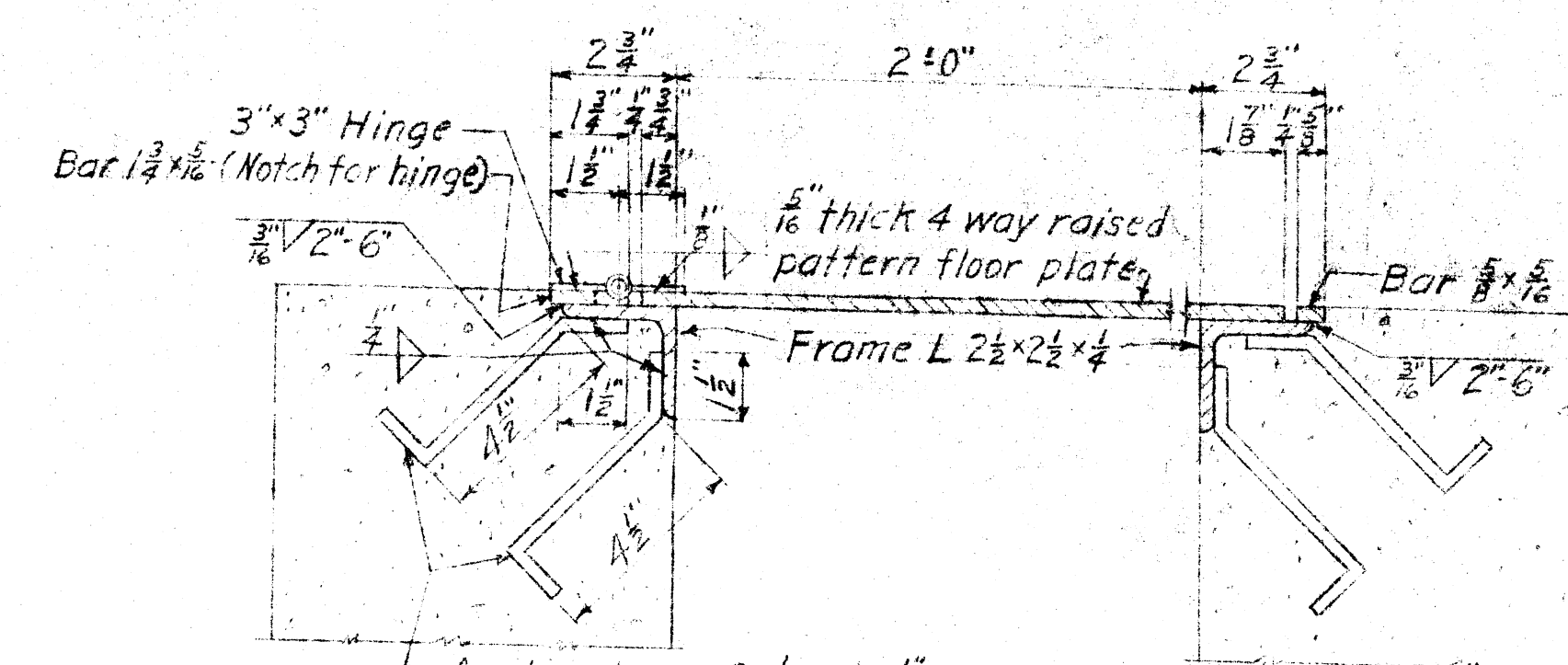


V NOTCH WEIR PLATE & FRAME

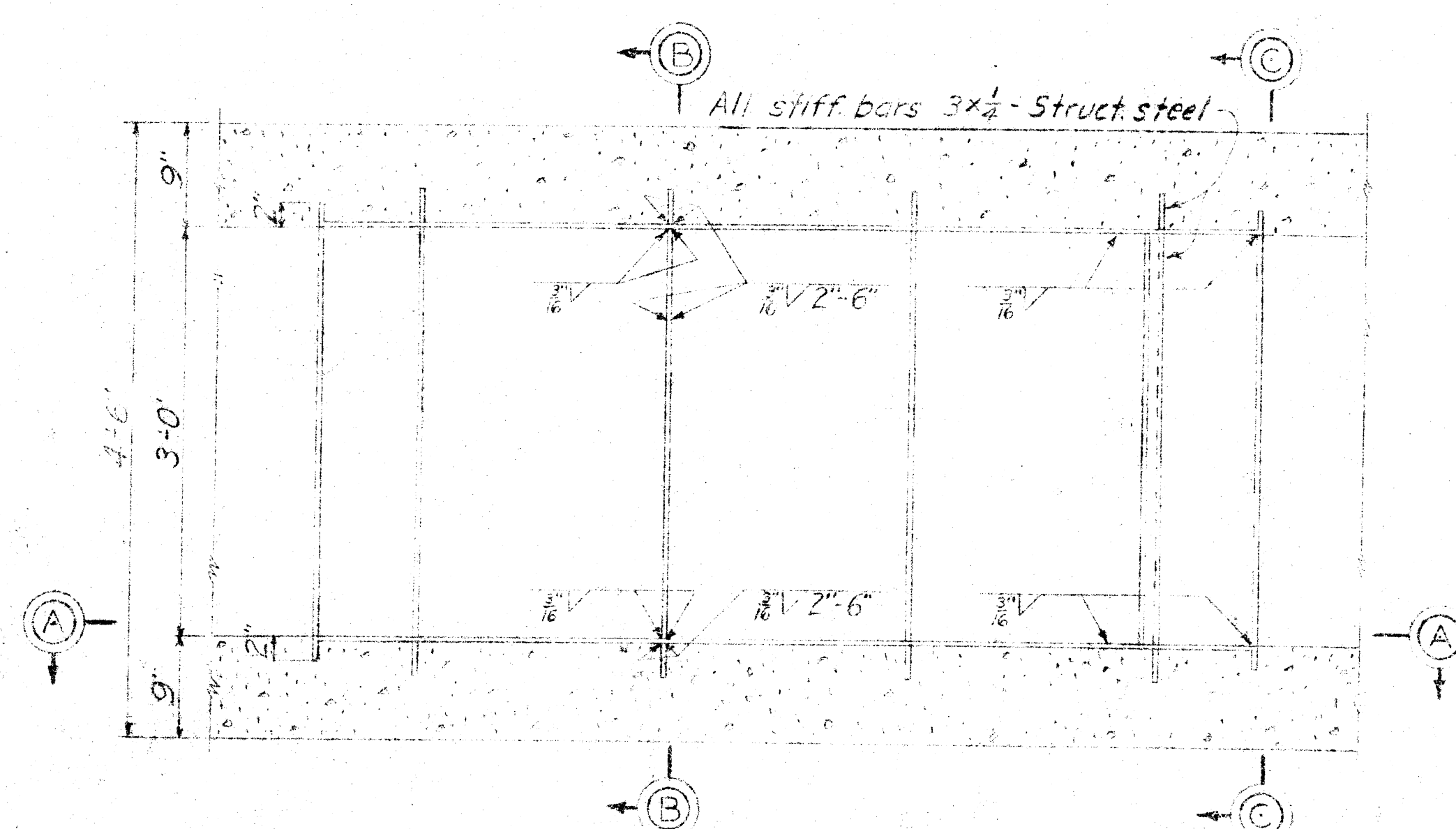
NON-RESISTING METAL
MAKE 1



SECTION H-1

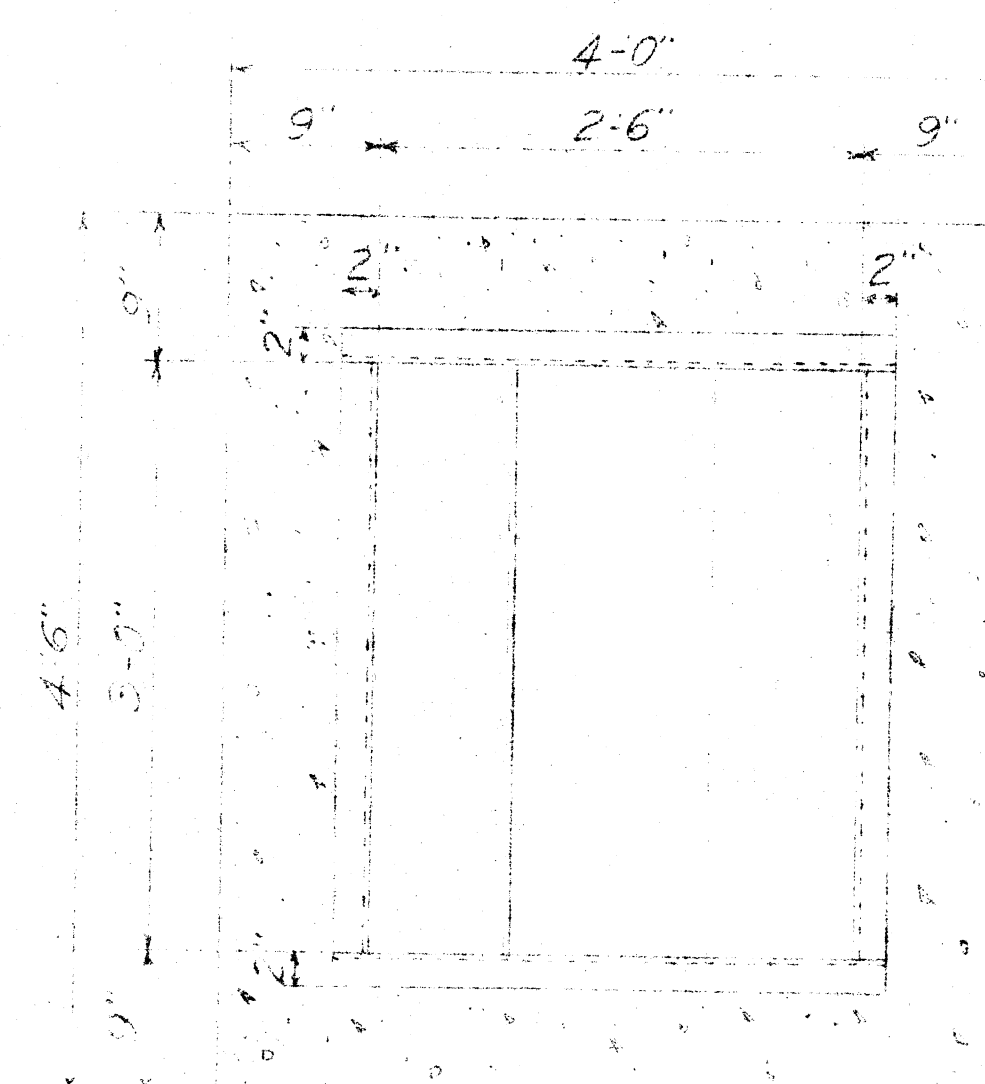


SECTION J-

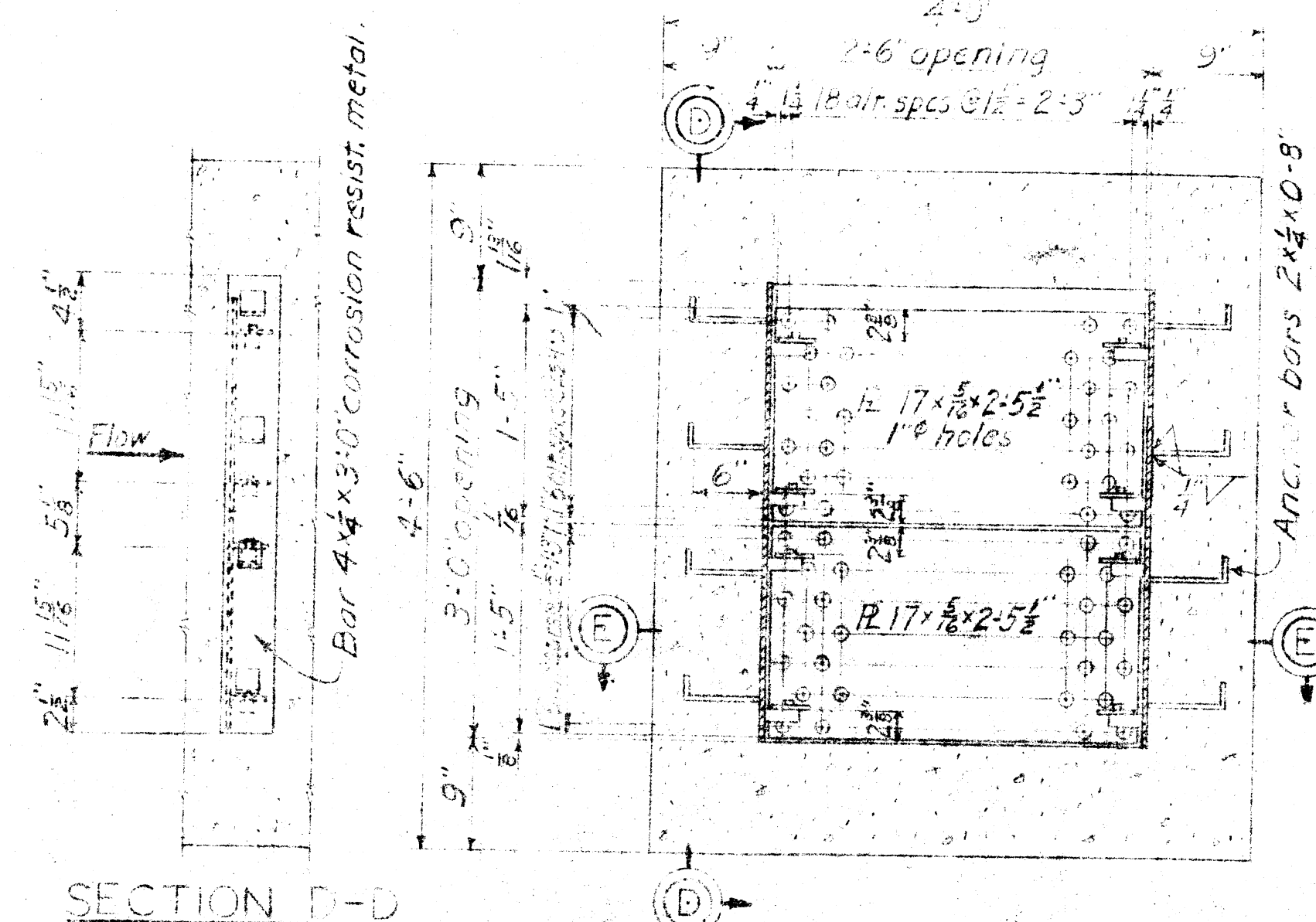
$$SCA(F): 3'' = 1 \frac{1}{2}''$$


FLUME LINER

CORR-RESISTING METAL WITH STRUCT. STEEL			
MARK 82/7-1	WT. CORR-RESISTING METAL	712	LBS.
MAKE 2	WT. STRUCT. STEEL	105	LBS.



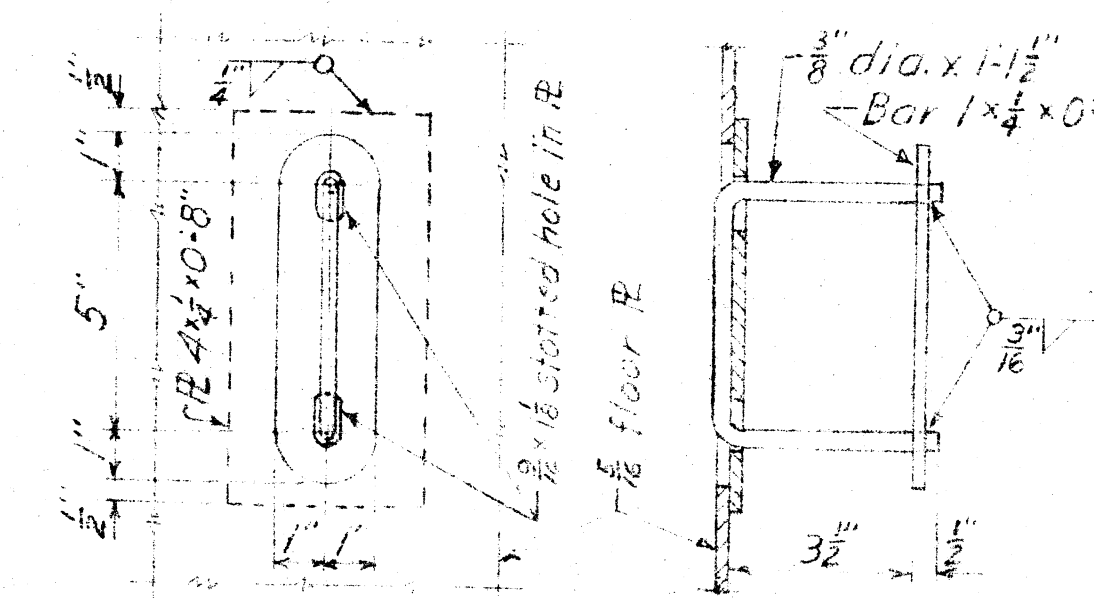
SECTION C-C



SECTION D-E

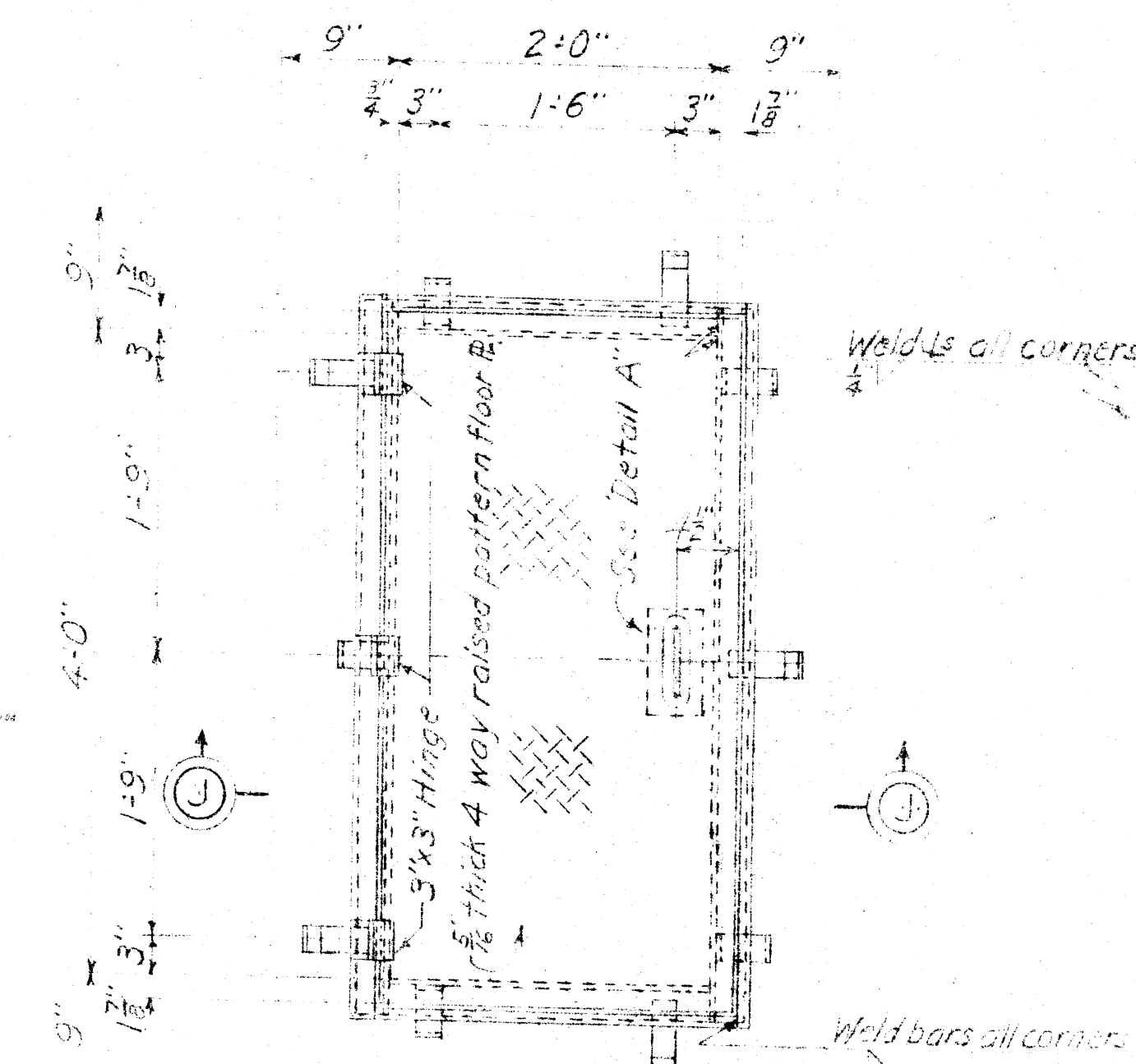
BAFFLE PLATE & FRAME

STRUCT. STEEL WITH CORR-RESISTING METAL
MARK 82/7-2 WT CORR-RESISTING METAL 20 LBS.
MAKE 2 WT. STRUCT. STEEL 104 LBS.



DETAIL A

SCALE: 3"=1'-0"



MANHOLE FRAME & COVER

STRUCTURAL STEEL MARK 82/7-5
MAKE 1 WT. 214 LBS

2' 9" 6" 3" 0' 1'

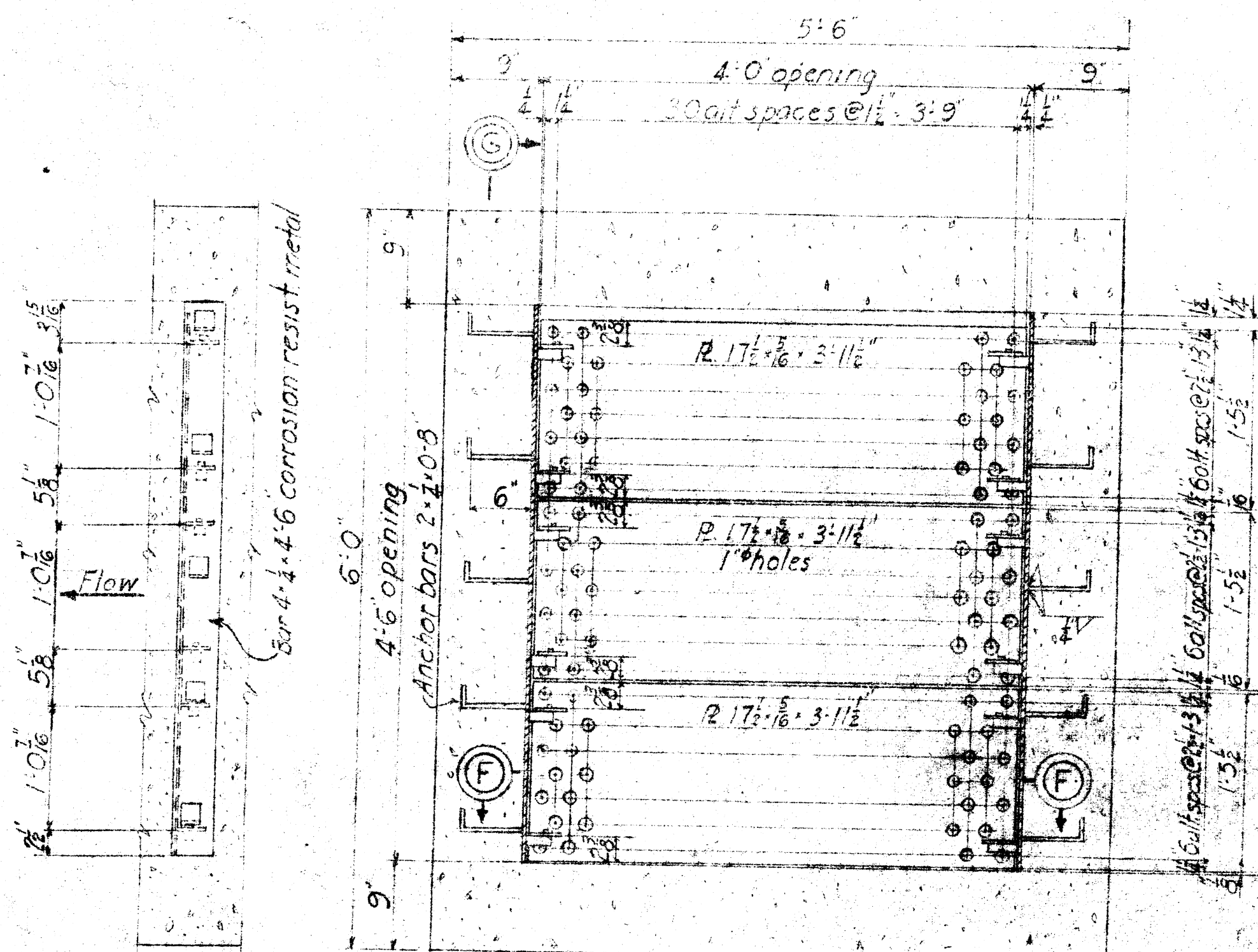
SCALE 1" = 1'-0"

NOTES

All material structural steel unless otherwise noted.

For location of flume liners, and baffle plates 82/7-2, see Dwg. Nos. 82/3 & 82/4.

For location of baffle plates 82/7-3, V notch weir, and manhole cover, see Dwg. No. 82/5.

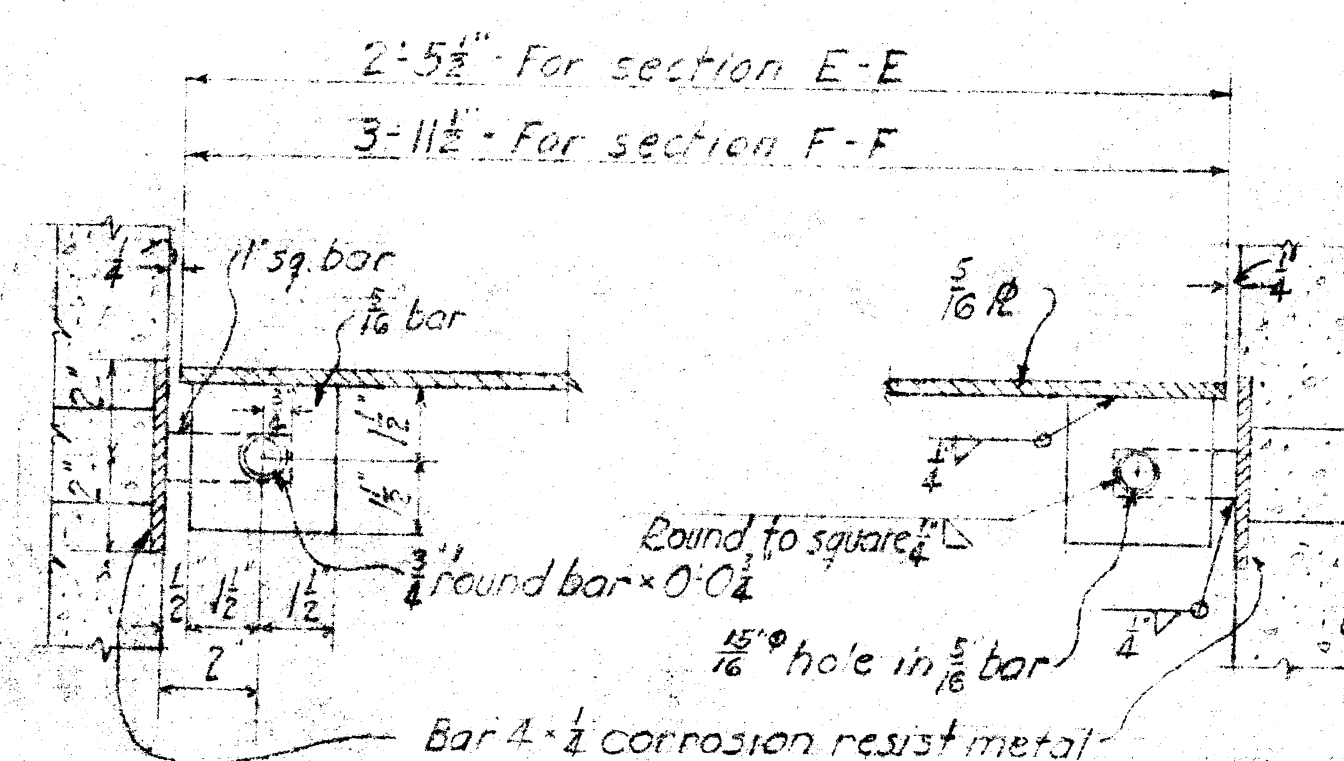


SECTION G G

BAFFLE PLATE & FRAME

STRUCT. STEEL WITH CORR.-RESISTING METAL

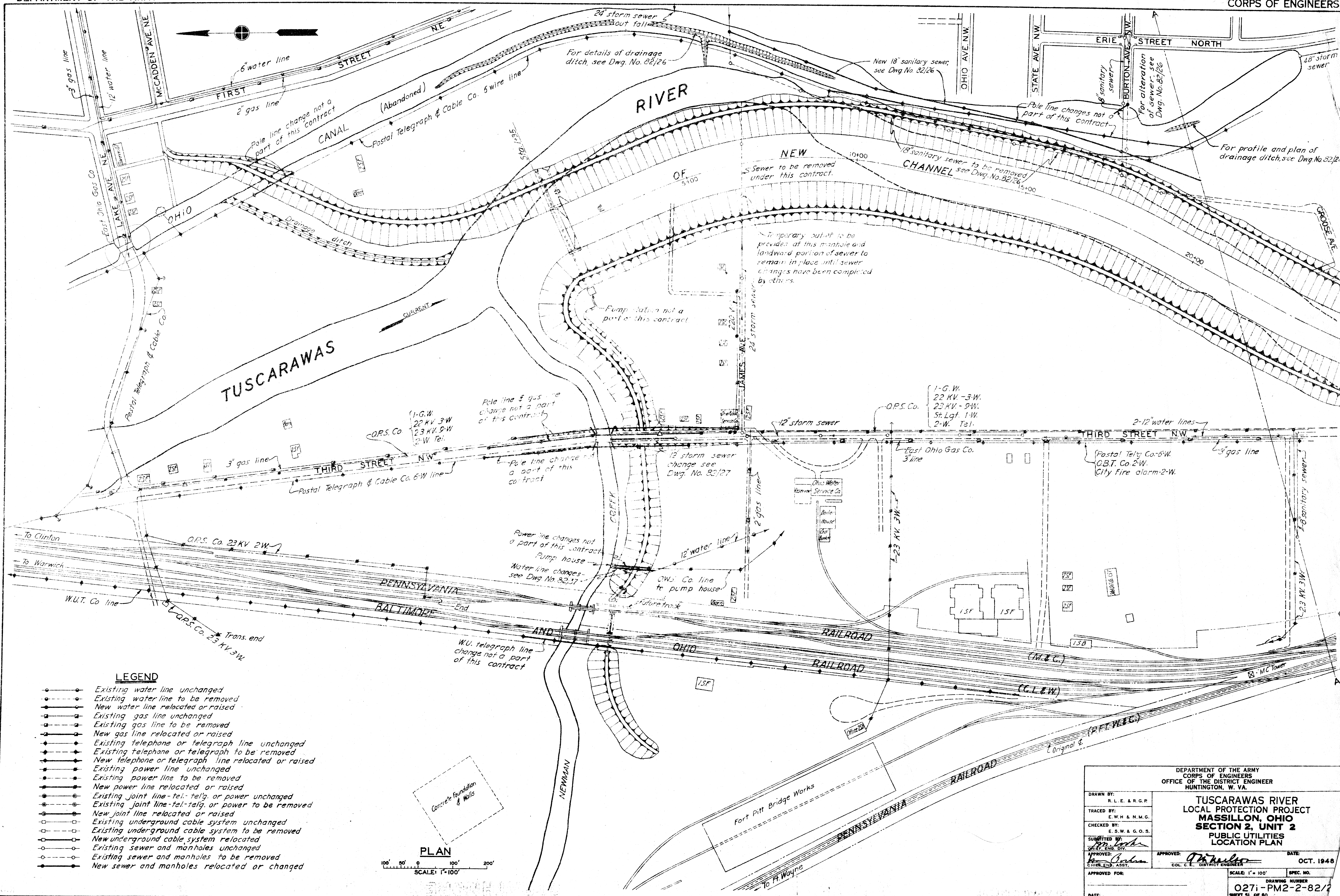
MARK	82/7-3	WT. CORR. RESISTING METAL	31	LBS.
MAKE	3	WT. STRUCT. STEEL	233	LBS.

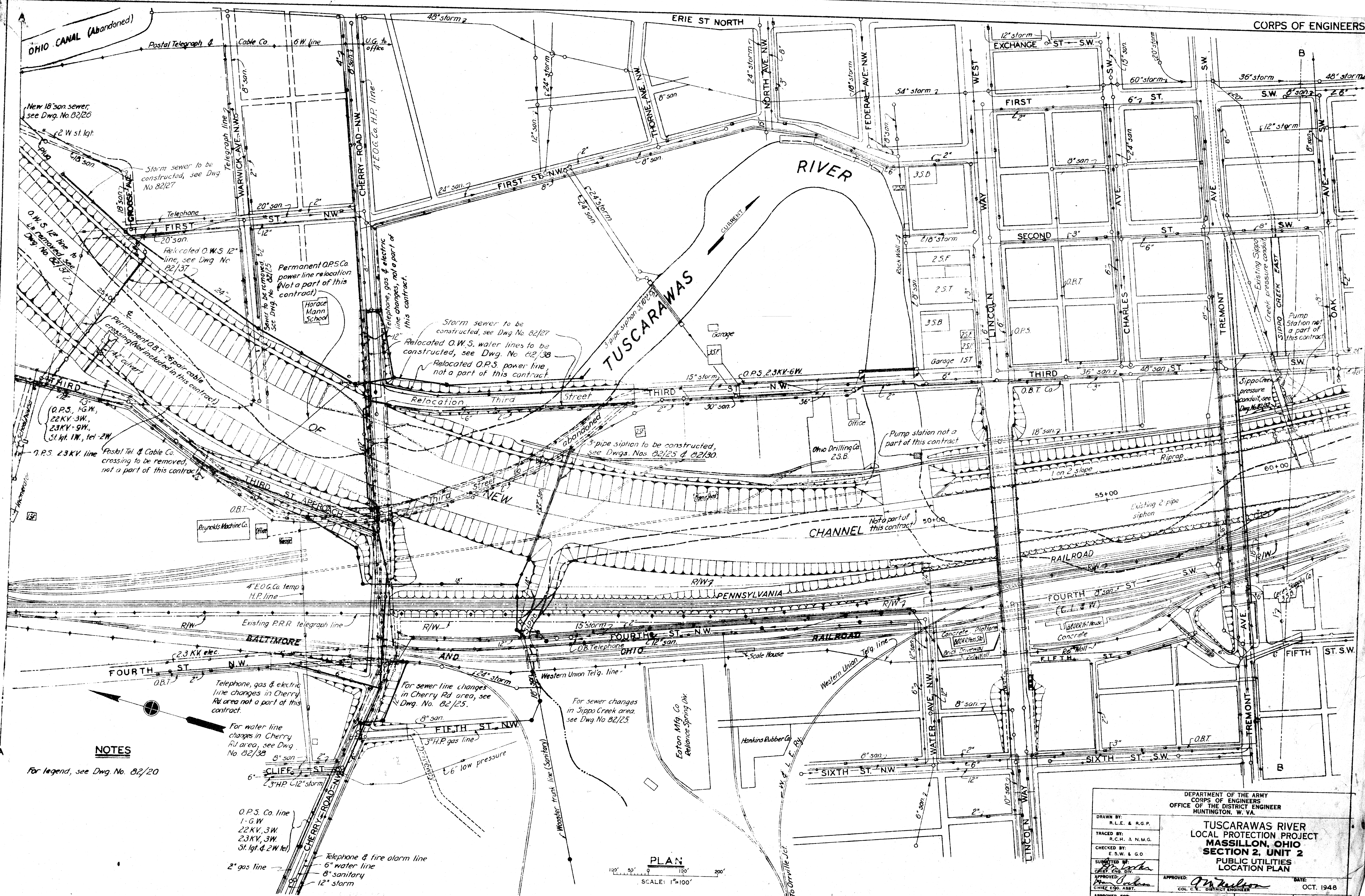


SECTION E-E

SECTION F-F

SCALE: 3" = 1'-0"





NOTES

For legend, see Dwg. No. 82/20

DEPARTMENT OF THE ARMY
CORPS OF ENGINEERS
OFFICE OF THE DISTRICT ENGINEER
HUNTINGTON, W. VA.

**TUSCARAWAS RIVER
LOCAL PROTECTION PROJECT
MASSILLON, OHIO
SECTION 2, UNIT 2
PUBLIC UTILITIES
LOCATION PLAN**

DRAWN BY:	R. L. E. & R. G. P.
TRACED BY:	R. C. H. & N. M. G.
CHECKED BY:	E. S. W. & G. O.
SUBMITTED BY:	<i>[Signature]</i>
CHIEF, ENG. DIV.	
APPROVED:	<i>[Signature]</i>
CHIEF, ENG. ASST.	

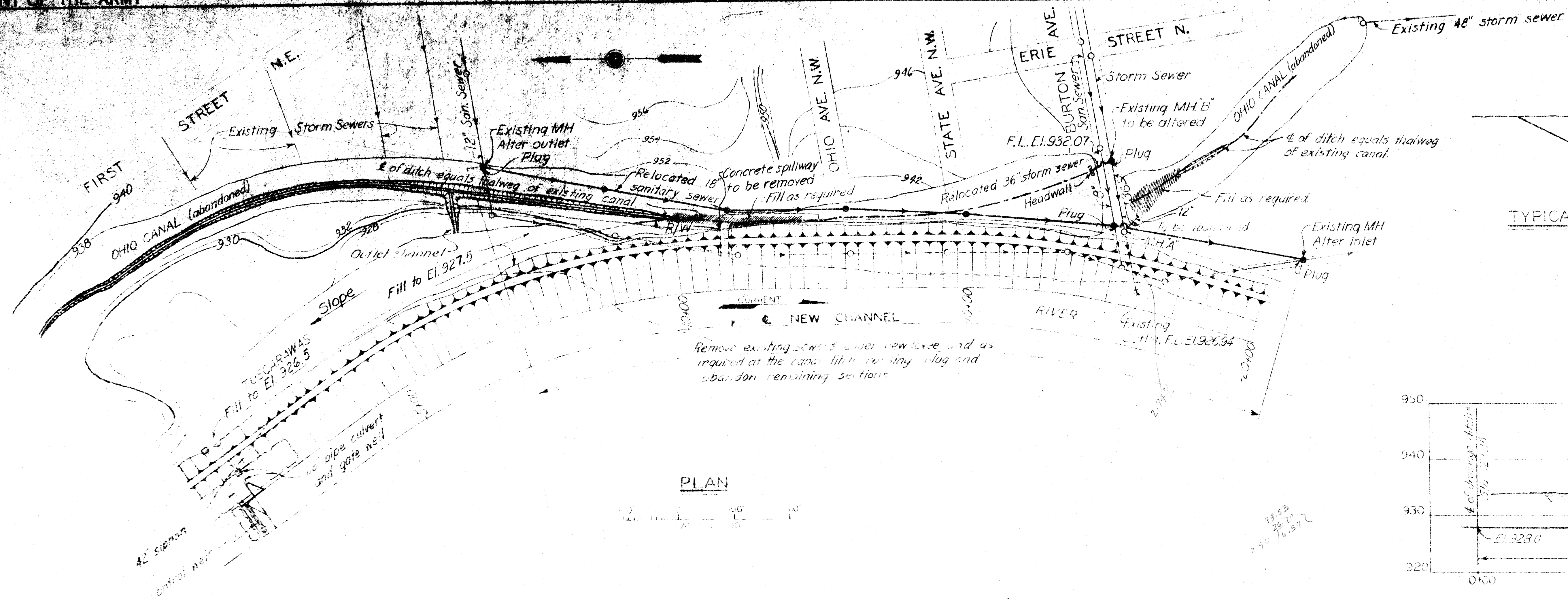
APPROVED: *J. M. Neilson* DATE: OCT. 1948
COL. C. E. DISTRICT ENGINEER

APPROVED FOR:

DATE:

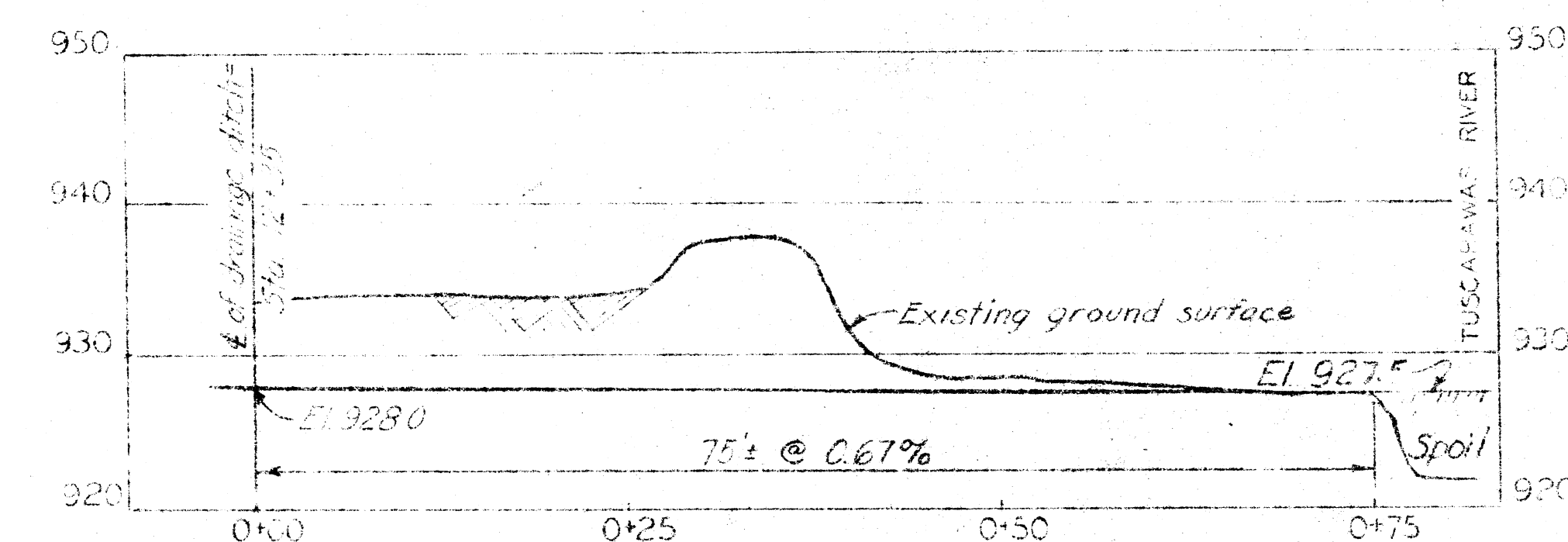
SCALE: 1" = 100'	SPEC. NO.
DRAWING NUMBER	
0271-PM2-2-82/2	

DRAWN BY: R.L.E. - G.O.S.		TUSCARAWAS RIVER LOCAL PROTECTION PROJECT MASSILLON, OHIO SECTION 2, UNIT 2 SEWER CHANGES CHERRY ROAD & WARWICK AVE.	
TRACED BY: R.C.H. - N.W.G.		DATE: OCT. 1948	
CHECKED BY: C.S.W. - G.O.S.		APPROVED: <i>[Signature]</i> COL. C.E. DISTRICT ENGINEER	
SUBMITTED BY: <i>[Signature]</i> DIST. ENG. DIV.		SCALE: 1" = 100' SPEC. NO.	
APPROVED: <i>[Signature]</i> CHIEF E.G. ASST.		DRAWING NUMBER 0271-PM2-2-32/25 SHEET 53 OF 60	
APPROVED FOR:		DATE:	



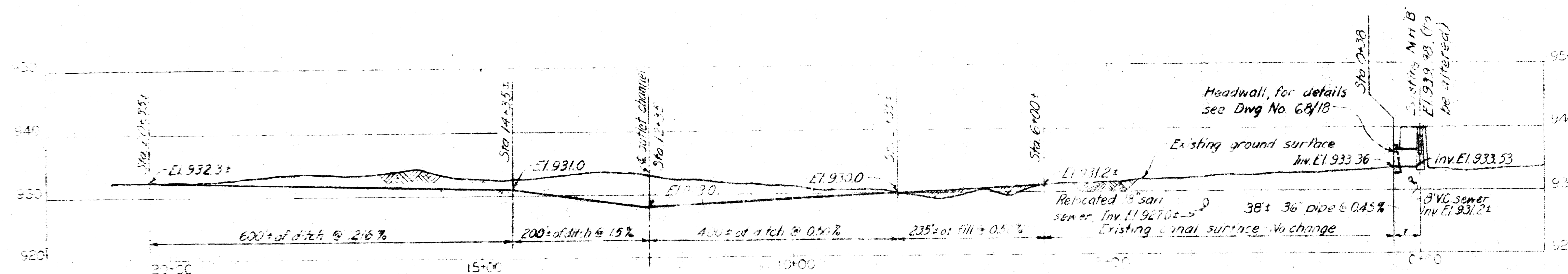
TYPICAL SECTION OF DITCH AND CHANNEL

SCALE: 1"=20'



PROFILE OF OUTLET CHANNEL

SCALE: 1"=10'

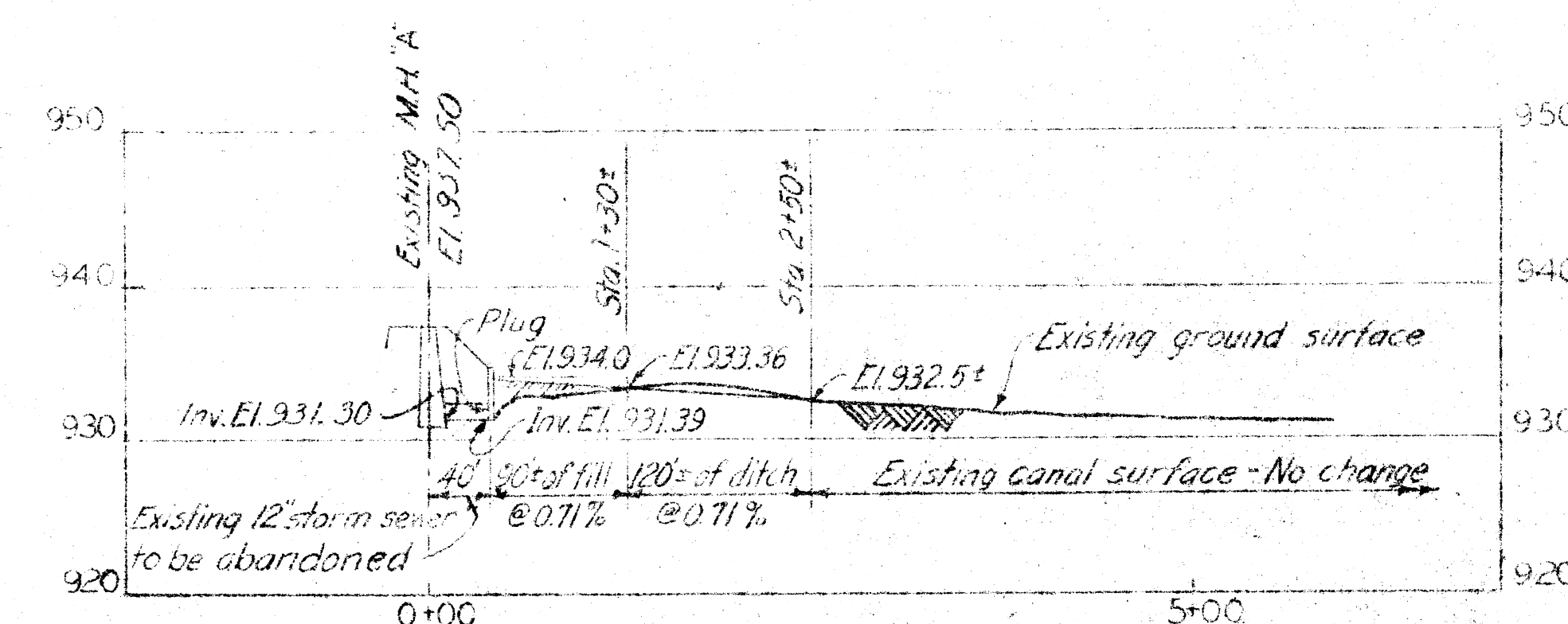


PROFILE OF STORM SEWER AND DRAINAGE DITCH

OHIO CANAL NORTH OF BURTON AVE

SCALE: HOR. 1"=100'

VERT. 1"=10'

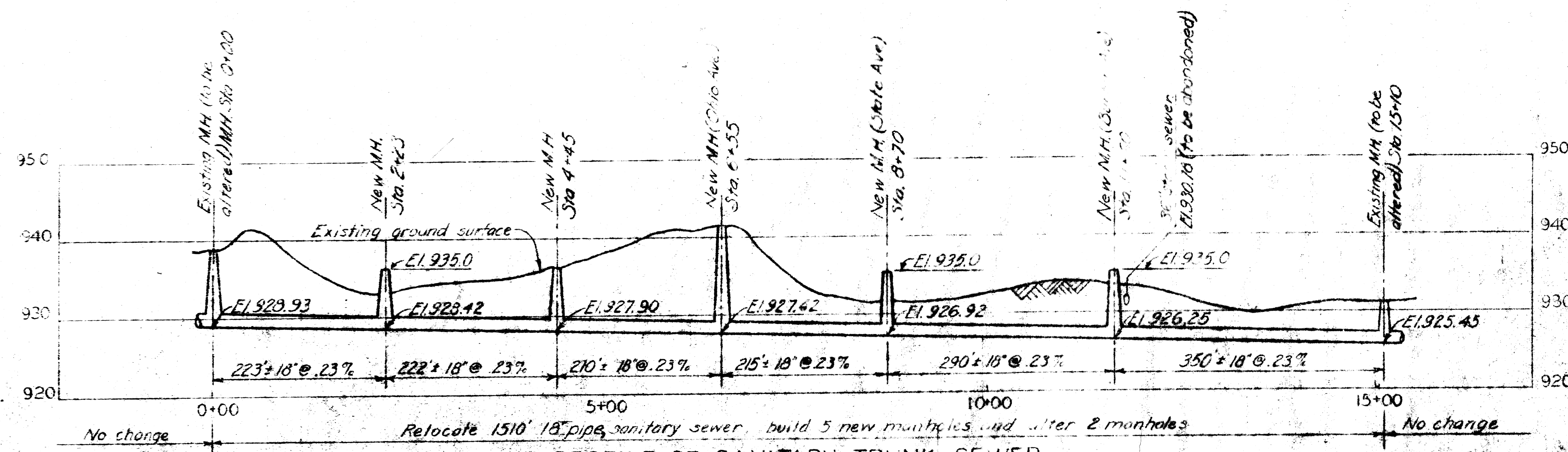


PROFILE OF DRAINAGE DITCH

OHIO CANAL SOUTH OF BURTON AVE

SCALE: HOR. 1"=100'

VERT. 1"=10'



PROFILE OF SANITARY TRUNK SEWER

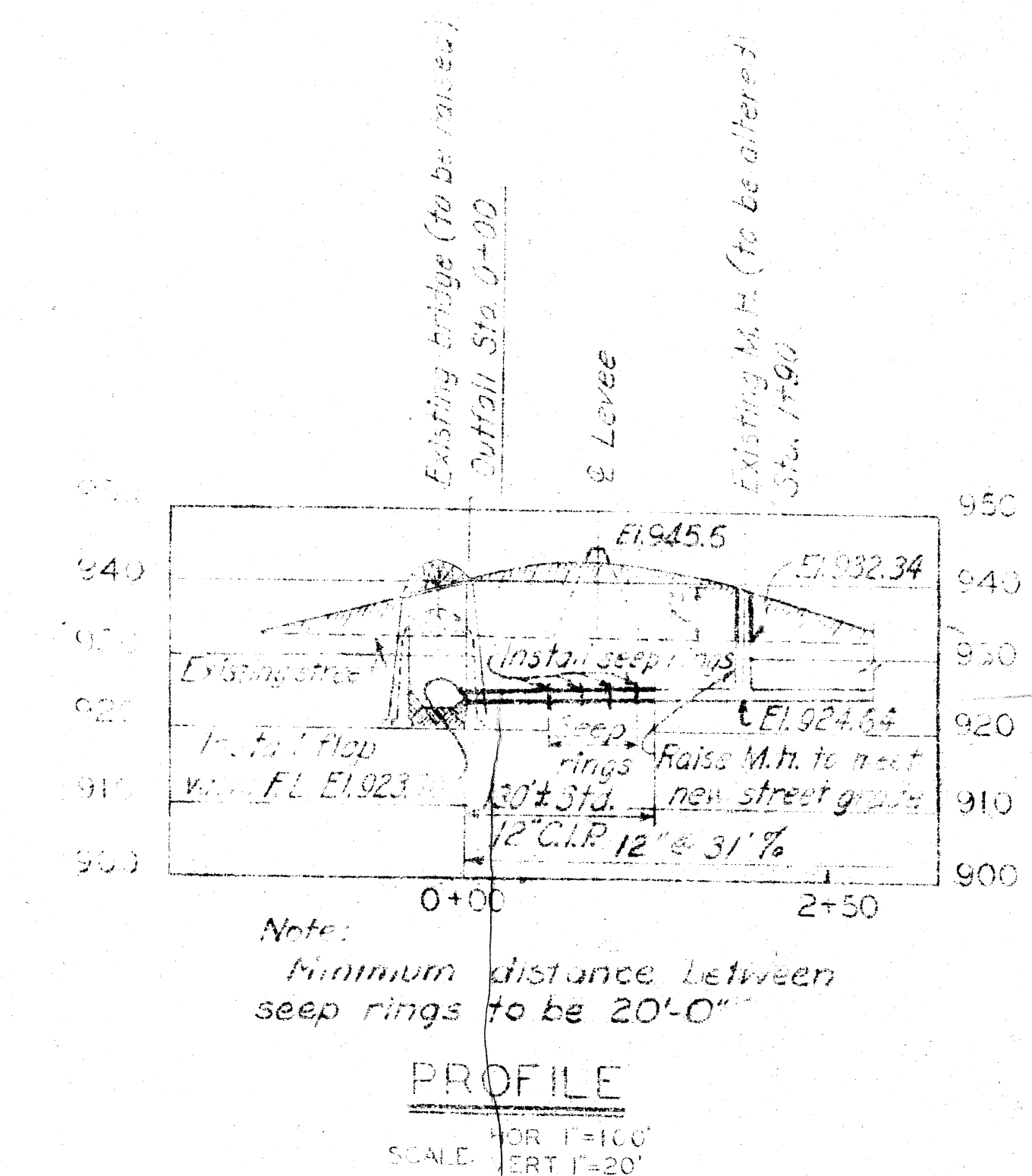
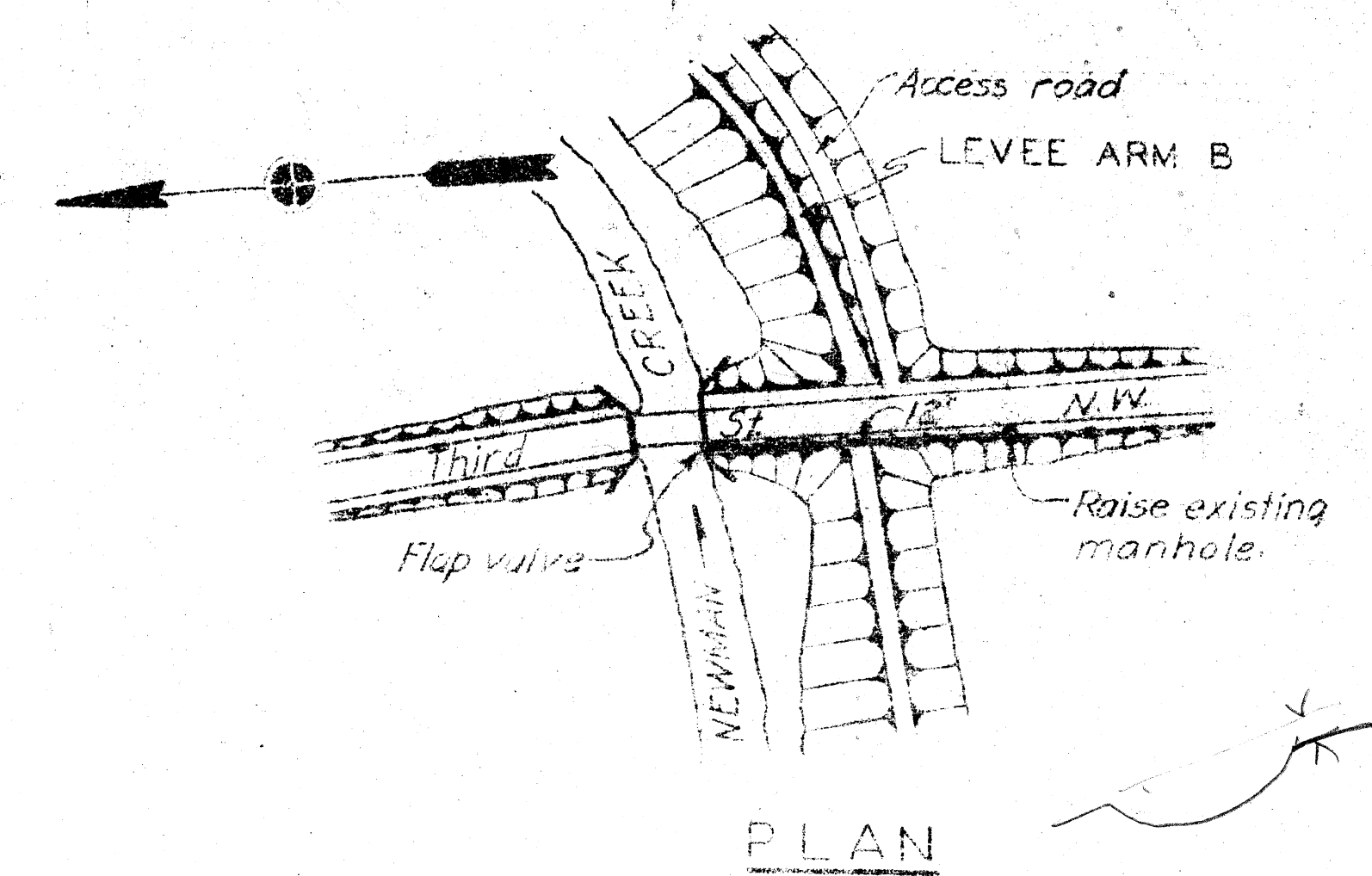
SCALE: HOR. 1"=100'

VERT. 1"=10'

NOTES

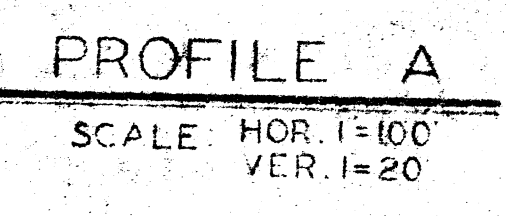
- For general plan, see Dwg. No. 16/1.
 For general utility plans, see Dwg. No. 82/20
 For manholes and miscellaneous sewer details, see
 Dwg. No. 82/36
 For headwall details see Dwg. No. 68/18

DEPARTMENT OF THE ARMY CORPS OF ENGINEERS OFFICE OF THE DISTRICT ENGINEER HUNTINGTON, W. VA.		TUSCARAWAS RIVER LOCAL PROTECTION PROJECT MASSILLON, OHIO SECTION 2, UNIT 2 SEWER CHANGES COMMONWEALTH AVE. TO BURTON AVE.	
DRAWN BY: O.A.L.	CHECKED BY: E.S.W. & G.S.	APPROVED FOR: [Signature]	DATE: OCT. 1948
APPROVED FOR: [Signature]		SCALE: 1"=100'	
APPROVED FOR: [Signature]		DRAWING NUMBER: 0271-PM2-2-82/26	

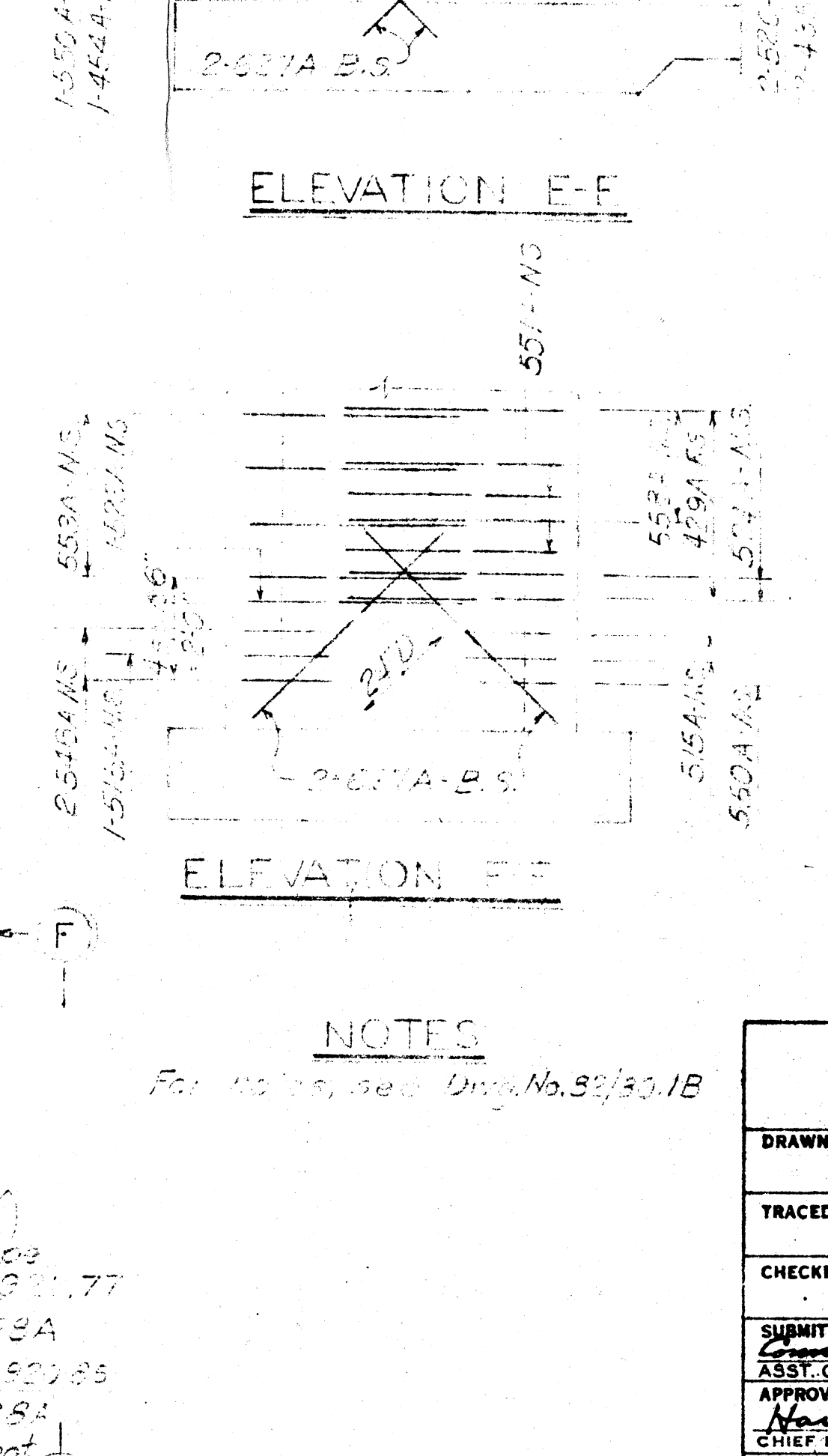
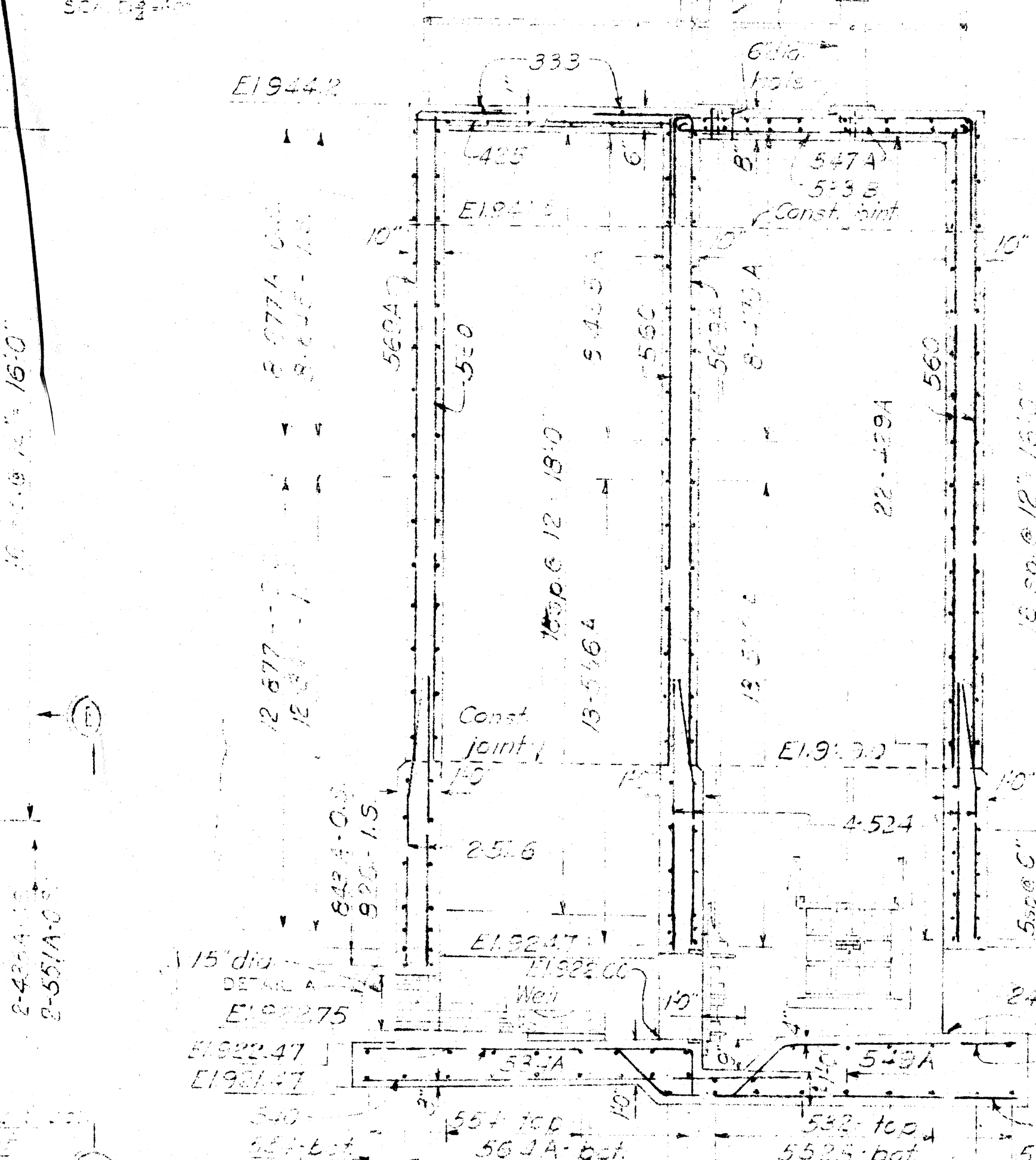
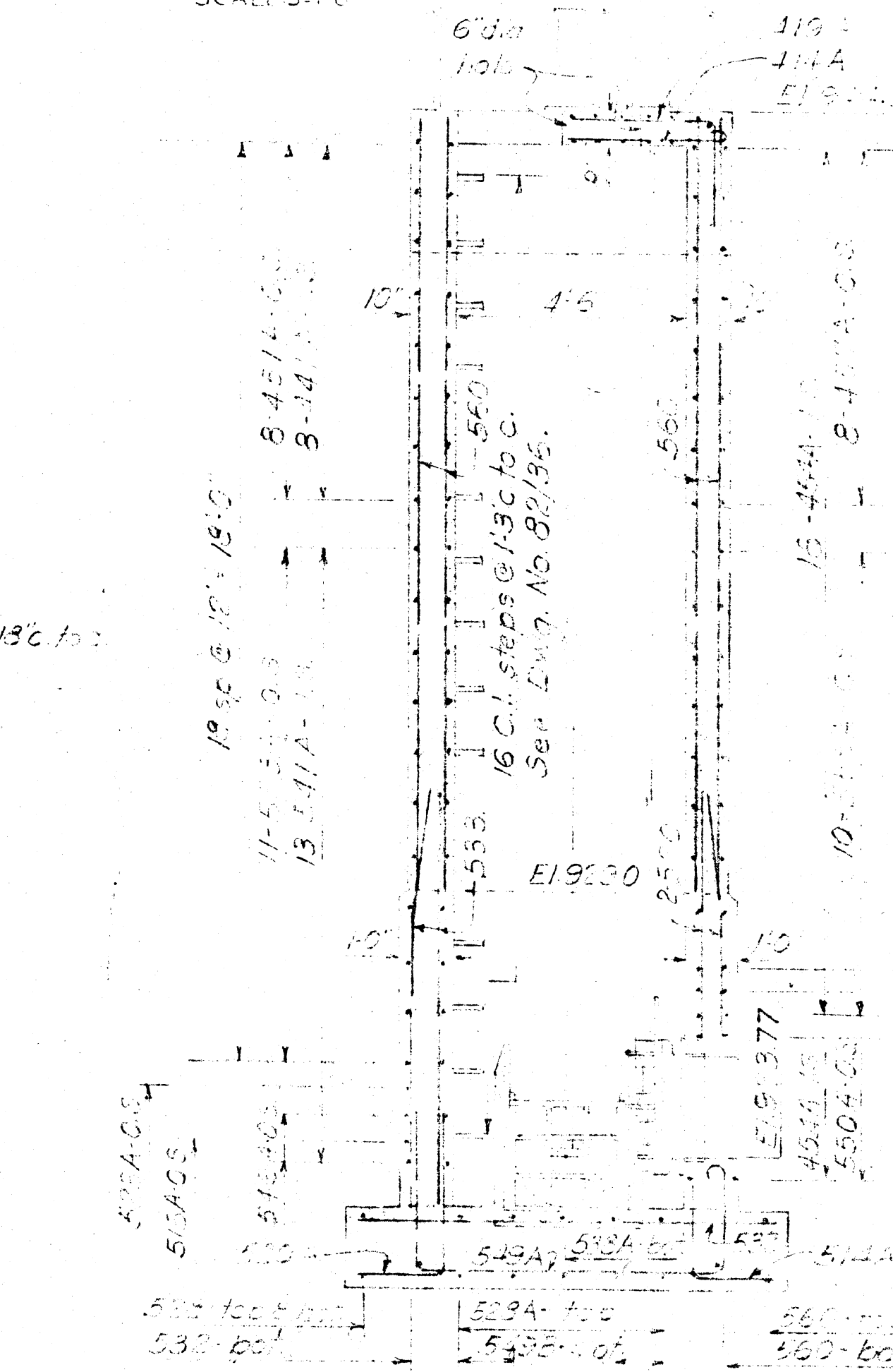
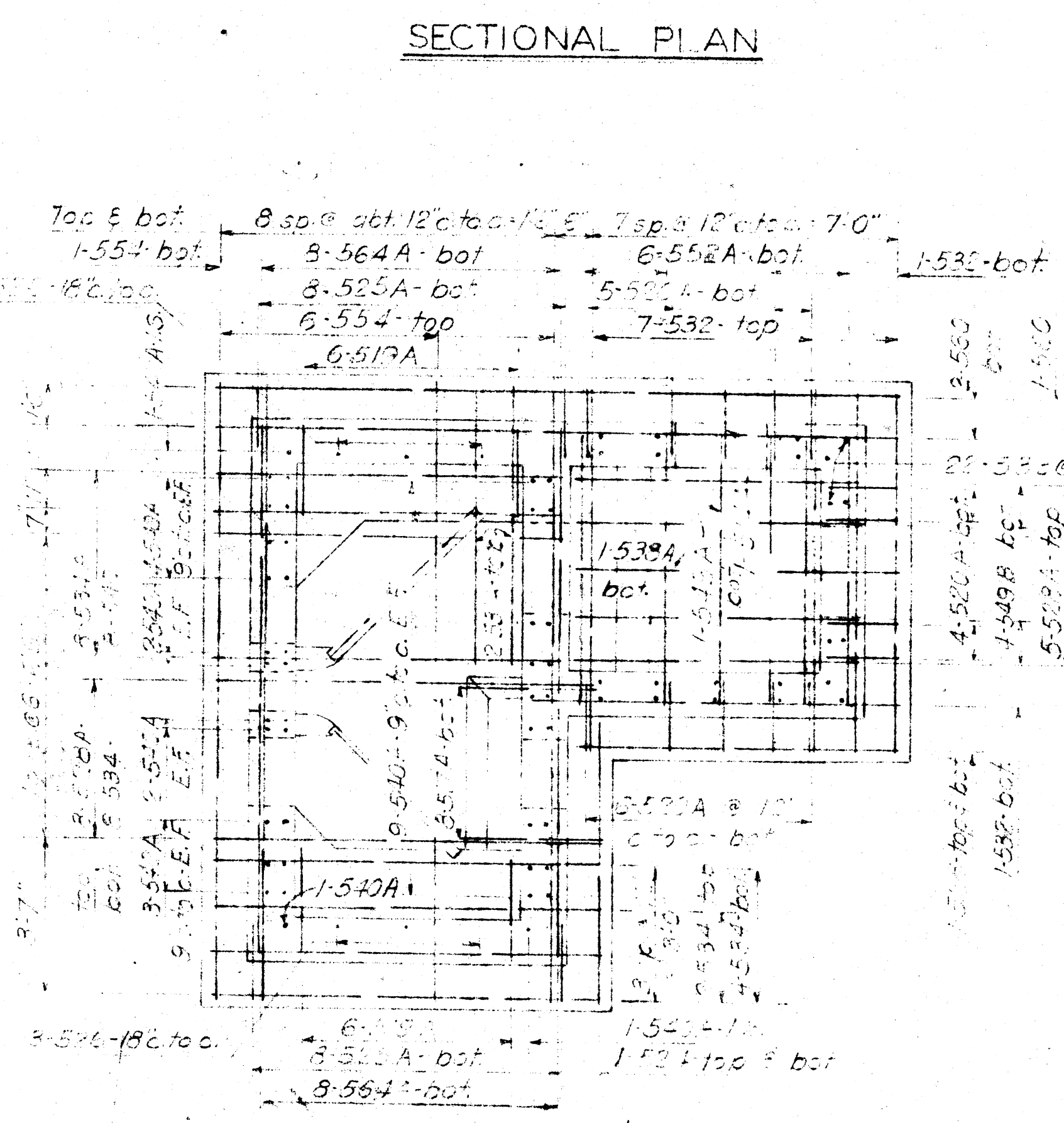
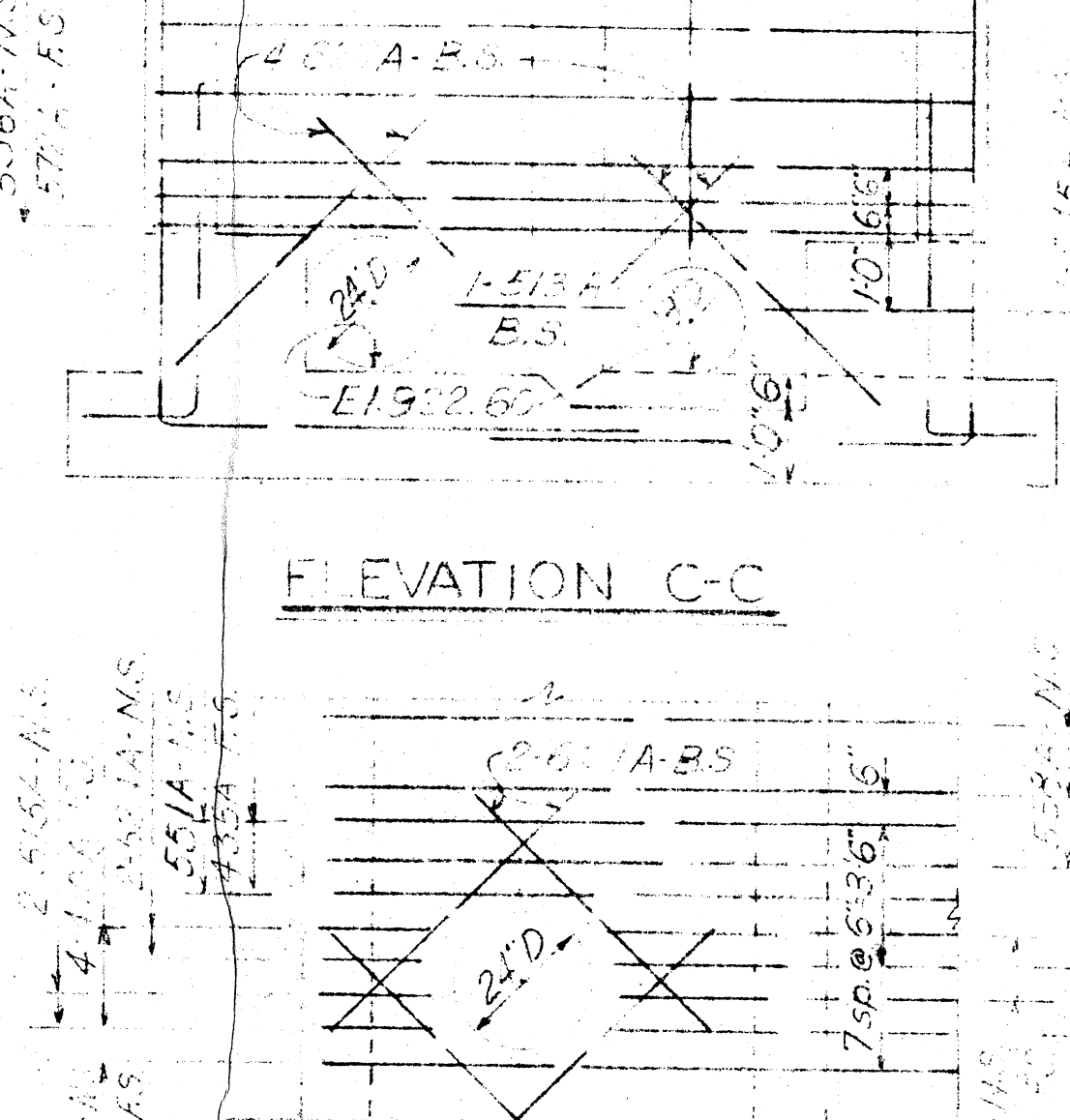
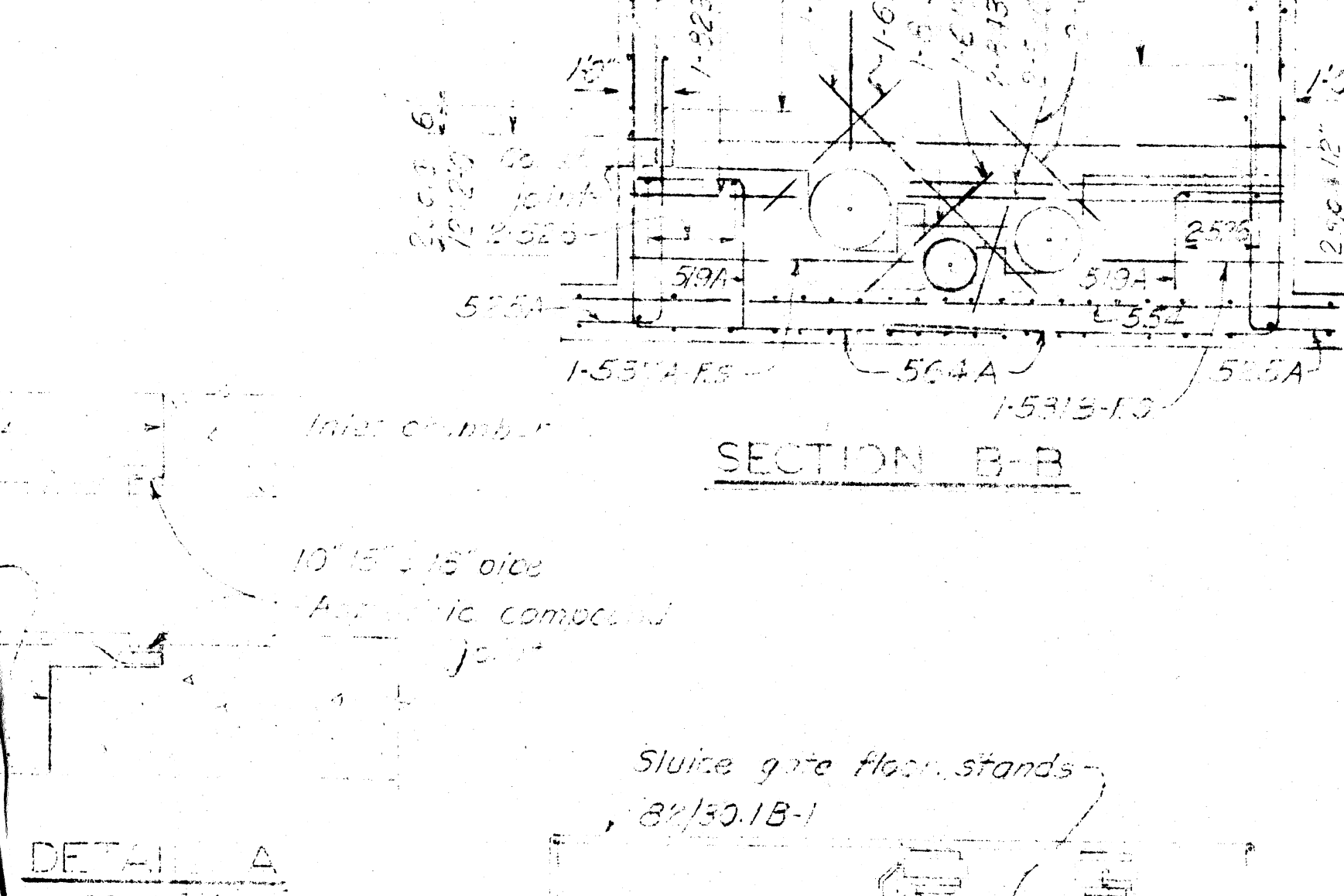
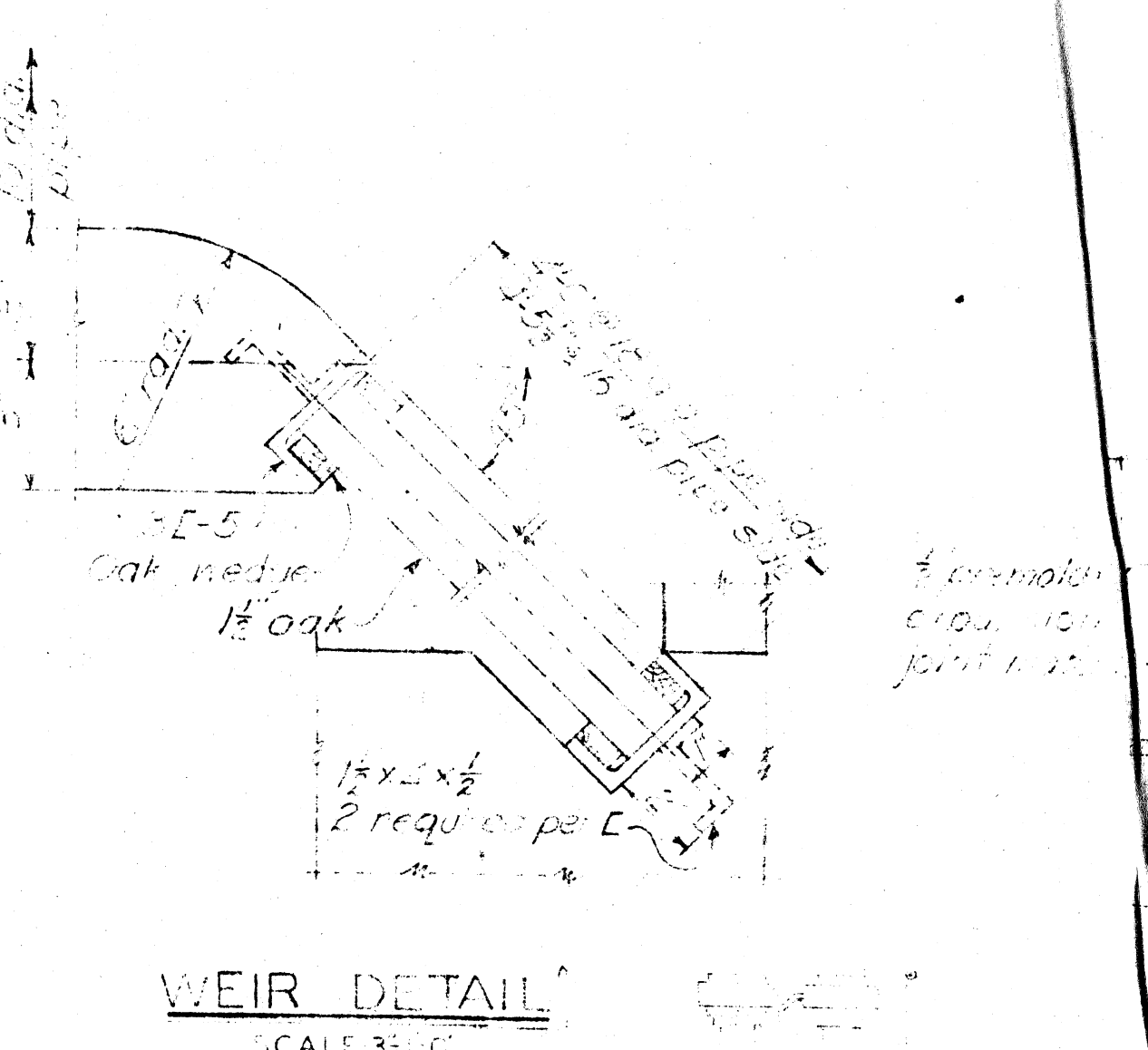
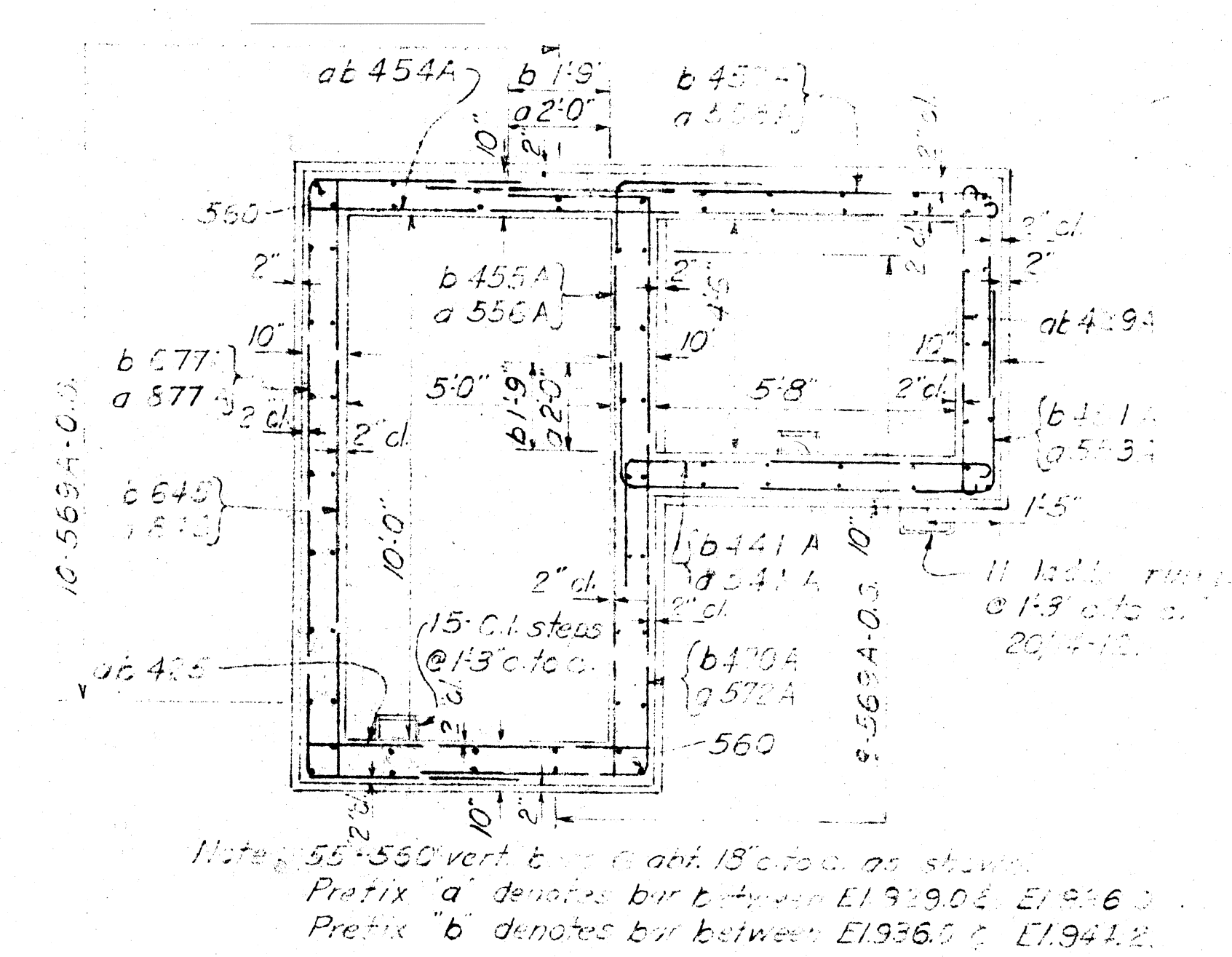
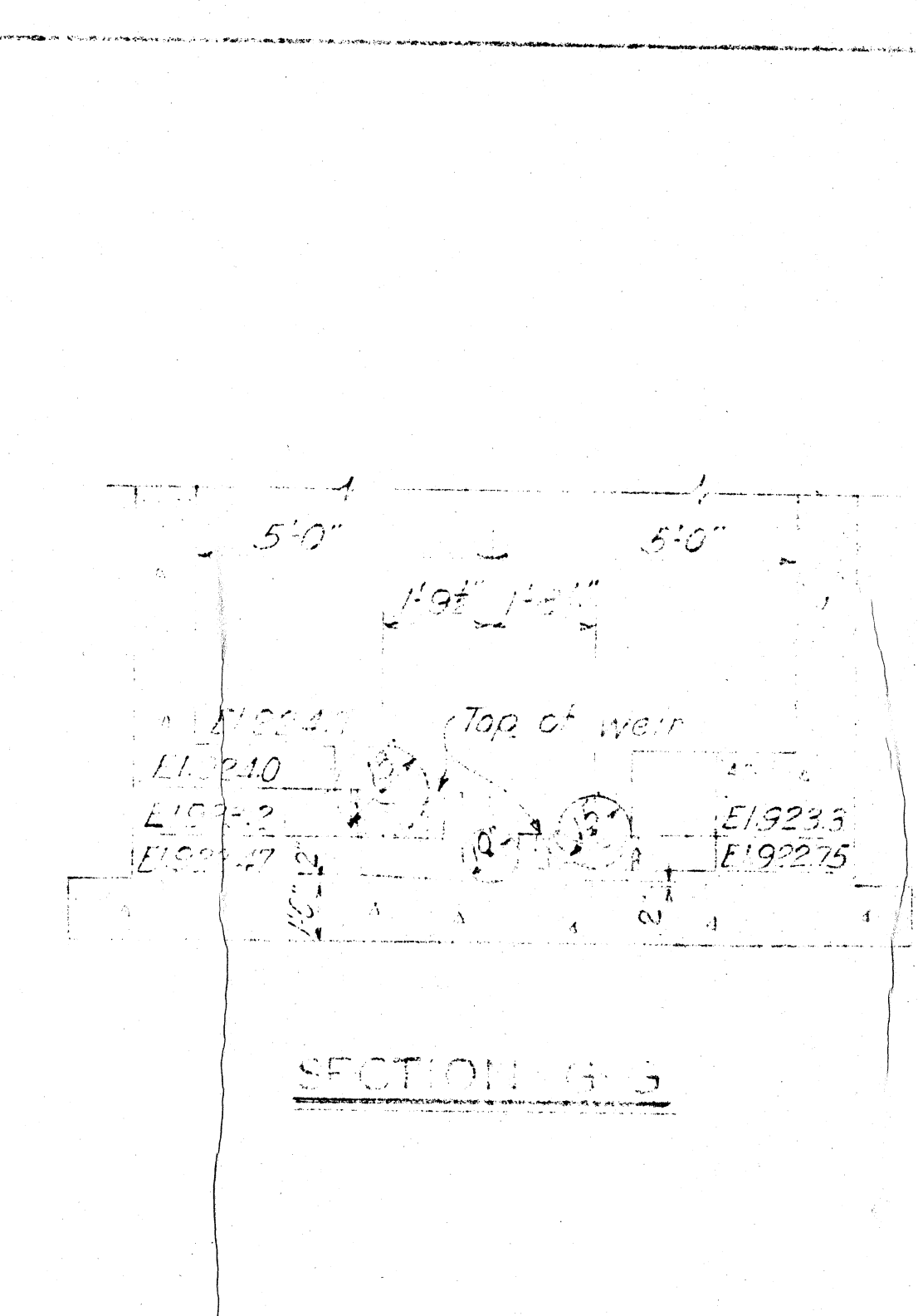
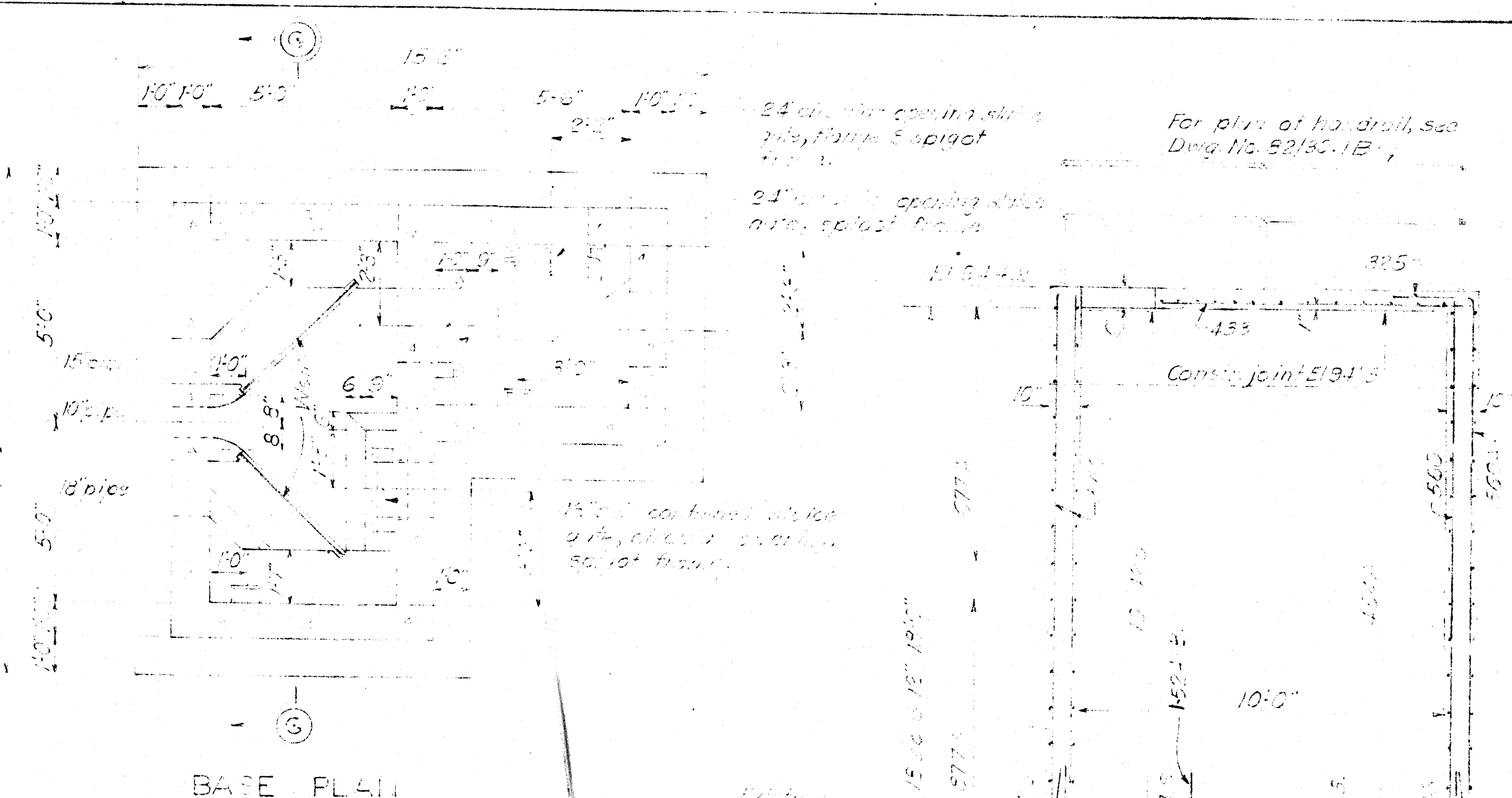
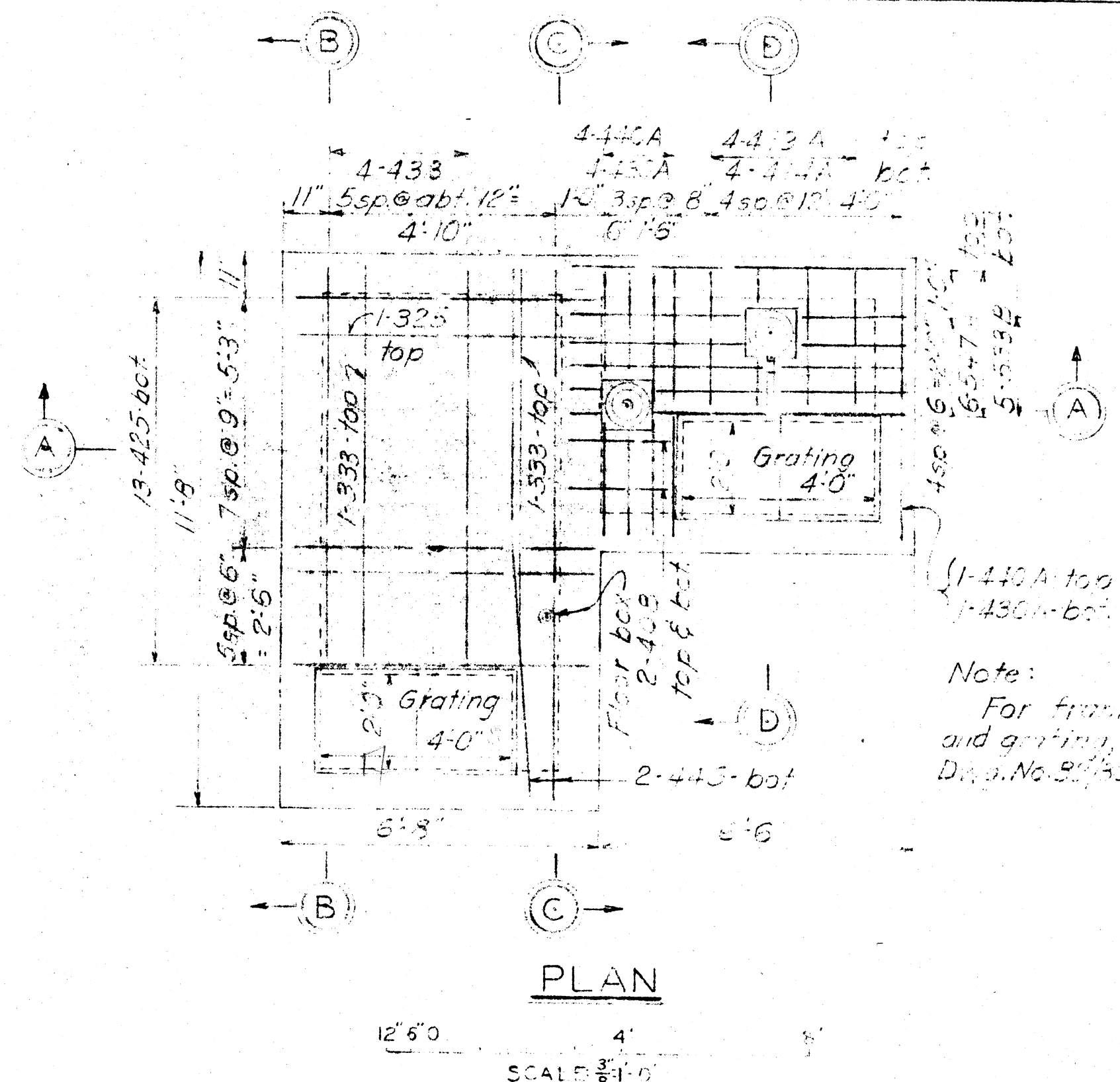


NOTES

GROOSE AVE.-TUSCARAWAS RIVER-STORM SEWER



DEPARTMENT OF THE ARMY CORPS OF ENGINEERS OFFICE OF THE DISTRICT ENGINEER HUNTINGTON, W. VA.	
DRAWN BY: O.A.L.	TUSCARAWAS RIVER LOCAL PROTECTION PROJECT MASSILLON, OHIO SECTION 2, UNIT 2 SEWER CHANGES GROOSE AVE. TO TUSCARAWAS RIVER AND AT NEWMAN CREEK
TRACED BY:	
CHECKED BY: E.S.W. - C.O.S.	
SUBMITTED BY: <i>[Signature]</i>	
DATE: <i>Aug 22</i>	
CHIEF ENG. ASST. <i>[Signature]</i>	APPROVED: <i>[Signature]</i> DATE: <i>Aug 22</i>
APPROVED FOR: <i>[Signature]</i>	LOCAL ENGR. DISTRICT ENGINEER HUNTINGTON, W. VA.
DATE:	SCALE: 1" = 100' HORIZ. 1" = 10' VERT. DRAWING NUMBER: 0271-PM2-2-82-27 SHEET 55 OF 60



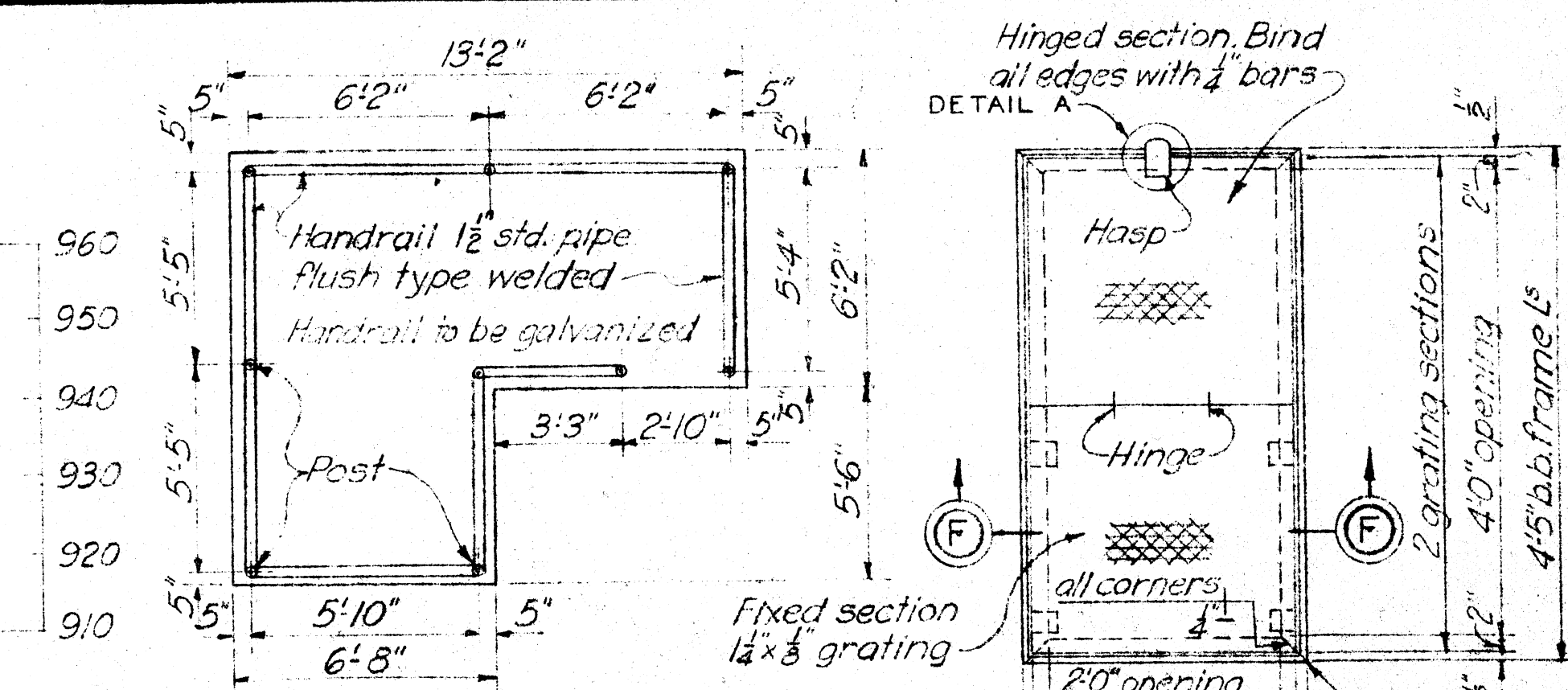
CORPS OF ENGINEERS

REINFORCING SCHEDULE

MARK	SP	SIZE	BRIDGE DIAGRAM	IN.	UNIT	WT.
517A	2'-0"	6'-0"		1	2	3.0
517B	2'-0"	6'-0"		2	3	3.0
517C	2'-0"	6'-0"		3	4	3.0
517D	2'-0"	6'-0"		4	5	3.0
517E	2'-0"	6'-0"		5	6	3.0
517F	2'-0"	6'-0"		6	7	3.0
517G	2'-0"	6'-0"		7	8	3.0
517H	2'-0"	6'-0"		8	9	3.0
517I	2'-0"	6'-0"		9	10	3.0
517J	2'-0"	6'-0"		10	11	3.0
517K	2'-0"	6'-0"		11	12	3.0
517L	2'-0"	6'-0"		12	13	3.0
517M	2'-0"	6'-0"		13	14	3.0
517N	2'-0"	6'-0"		14	15	3.0
517O	2'-0"	6'-0"		15	16	3.0
517P	2'-0"	6'-0"		16	17	3.0
517Q	2'-0"	6'-0"		17	18	3.0
517R	2'-0"	6'-0"		18	19	3.0
517S	2'-0"	6'-0"		19	20	3.0
517T	2'-0"	6'-0"		20	21	3.0
517U	2'-0"	6'-0"		21	22	3.0
517V	2'-0"	6'-0"		22	23	3.0
517W	2'-0"	6'-0"		23	24	3.0
517X	2'-0"	6'-0"		24	25	3.0
517Y	2'-0"	6'-0"		25	26	3.0
517Z	2'-0"	6'-0"		26	27	3.0
517AA	2'-0"	6'-0"		27	28	3.0
517AB	2'-0"	6'-0"		28	29	3.0
517AC	2'-0"	6'-0"		29	30	3.0
517AD	2'-0"	6'-0"		30	31	3.0
517AE	2'-0"	6'-0"		31	32	3.0
517AF	2'-0"	6'-0"		32	33	3.0
517AG	2'-0"	6'-0"		33	34	3.0
517AH	2'-0"	6'-0"		34	35	3.0
517AI	2'-0"	6'-0"		35	36	3.0
517AJ	2'-0"	6'-0"		36	37	3.0
517AK	2'-0"	6'-0"		37	38	3.0
517AL	2'-0"	6'-0"		38	39	3.0
517AM	2'-0"	6'-0"		39	40	3.0
517AN	2'-0"	6'-0"		40	41	3.0
517AO	2'-0"	6'-0"		41	42	3.0
517AP	2'-0"	6'-0"		42	43	3.0
517AQ	2'-0"	6'-0"		43	44	3.0
517AR	2'-0"	6'-0"		44	45	3.0
517AS	2'-0"	6'-0"		45	46	3.0
517AT	2'-0"	6'-0"		46	47	3.0
517AU	2'-0"	6'-0"		47	48	3.0
517AV	2'-0"	6'-0"		48	49	3.0
517AW	2'-0"	6'-0"		49	50	3.0
517AX	2'-0"	6'-0"		50	51	3.0
517AY	2'-0"	6'-0"		51	52	3.0
517AZ	2'-0"	6'-0"		52	53	3.0
517BA	2'-0"	6'-0"		53	54	3.0
517BB	2'-0"	6'-0"		54	55	3.0
517BC	2'-0"	6'-0"		55	56	3.0
517BD	2'-0"	6'-0"		56	57	3.0
517BE	2'-0"	6'-0"		57	58	3.0
517BF	2'-0"	6'-0"		58	59	3.0
517BG	2'-0"	6'-0"		59	60	3.0
517BH	2'-0"	6'-0"		60	61	3.0
517BI	2'-0"	6'-0"		61	62	3.0
517BJ	2'-0"	6'-0"		62	63	3.0
517BK	2'-0"	6'-0"		63	64	3.0
517BL	2'-0"	6'-0"		64	65	3.0
517BM	2'-0"	6'-0"		65	66	3.0
517BN	2'-0"	6'-0"		66	67	3.0
517BO	2'-0"	6'-0"		67	68	3.0
517BP	2'-0"	6'-0"		68	69	3.0
517BQ	2'-0"	6'-0"		69	70	3.0
517BR	2'-0"	6'-0"		70	71	3.0
517BS	2'-0"	6'-0"		71	72	3.0
517BT	2'-0"	6'-0"		72	73	3.0
517BU	2'-0"	6'-0"		73	74	3.0
517BV	2'-0"	6'-0"		74	75	3.0
517BW	2'-0"	6'-0"		75	76	3.0
517BX	2'-0"	6'-0"		76	77	3.0
517BY	2'-0"	6'-0"		77	78	3.0
517BZ	2'-0"	6'-0"		78	79	3.0
517CA	2'-0"	6'-0"		79	80	3.0
517CB	2'-0"	6'-0"		80	81	3.0
517CC	2'-0"	6'-0"		81	82	3.0
517CD	2'-0"	6'-0"		82	83	3.0
517CE	2'-0"	6'-0"		83	84	3.0
517CF	2'-0"	6'-0"		84	85	3.0
517CG	2'-0"	6'-0"		85	86	3.0
517CH	2'-0"	6'-0"		86	87	3.0
517CI	2'-0"	6'-0"		87	88	3.0
517CJ	2'-0"	6'-0"		88	89	3.0
517CK	2'-0"	6'-0"		89	90	3.0
517CL	2'-0"	6'-0"		90	91	3.0
517CM	2'-0"	6'-0"		91	92	3.0
517CN	2'-0"	6'-0"		92	93	3.0
517CO	2'-0"	6'-0"		93	94	3.0
517CP	2'-0"	6'-0"		94	95	3.0
517CQ	2'-0"	6'-0"		95	96	3.0
517CR	2'-0"	6'-0"		96	97	3.0
517CS	2'-0"	6'-0"		97	98	3.0
517CT	2'-0"	6'-0"		98	99	3.0
517CU	2'-0"	6'-0"		99	100	3.0

NOTES
For notes, see Dir. No. 32/30.1B

DEPARTMENT OF THE ARMY CORPS OF ENGINEERS OFFICE OF THE DISTRICT ENGINEER HUNTINGTON, W. VA.	
DRAWN BY: E.S.W.	TUSCARAWAS RIVER LOCAL PROTECTION PROJECT MASSILLON, OHIO SECTION 2, UNIT 2 CHERRY ROAD SIPHON INLET STRUCTURE
TRACED BY:	
CHECKED BY: D.E.S.-G.O.S.	
SUBMITTED BY: <i>Edward M. Ryan</i> ASST. CHIEF, ENG. DIV.	
APPROVED: <i>Harry J. Jones</i> CHIEF ENG. ASST.	
APPROVED FOR:	APPROVED: _____ DATE: NOV. 194____
_____ _____ DATE: _____	COL. C. E. DISTRICT ENGINEER SCALE: $\frac{3}{8}'' = 1' - 0''$ SPEC. NO. DRAWING NUMBER 0271-PM2-2-82 SHEET OF 30

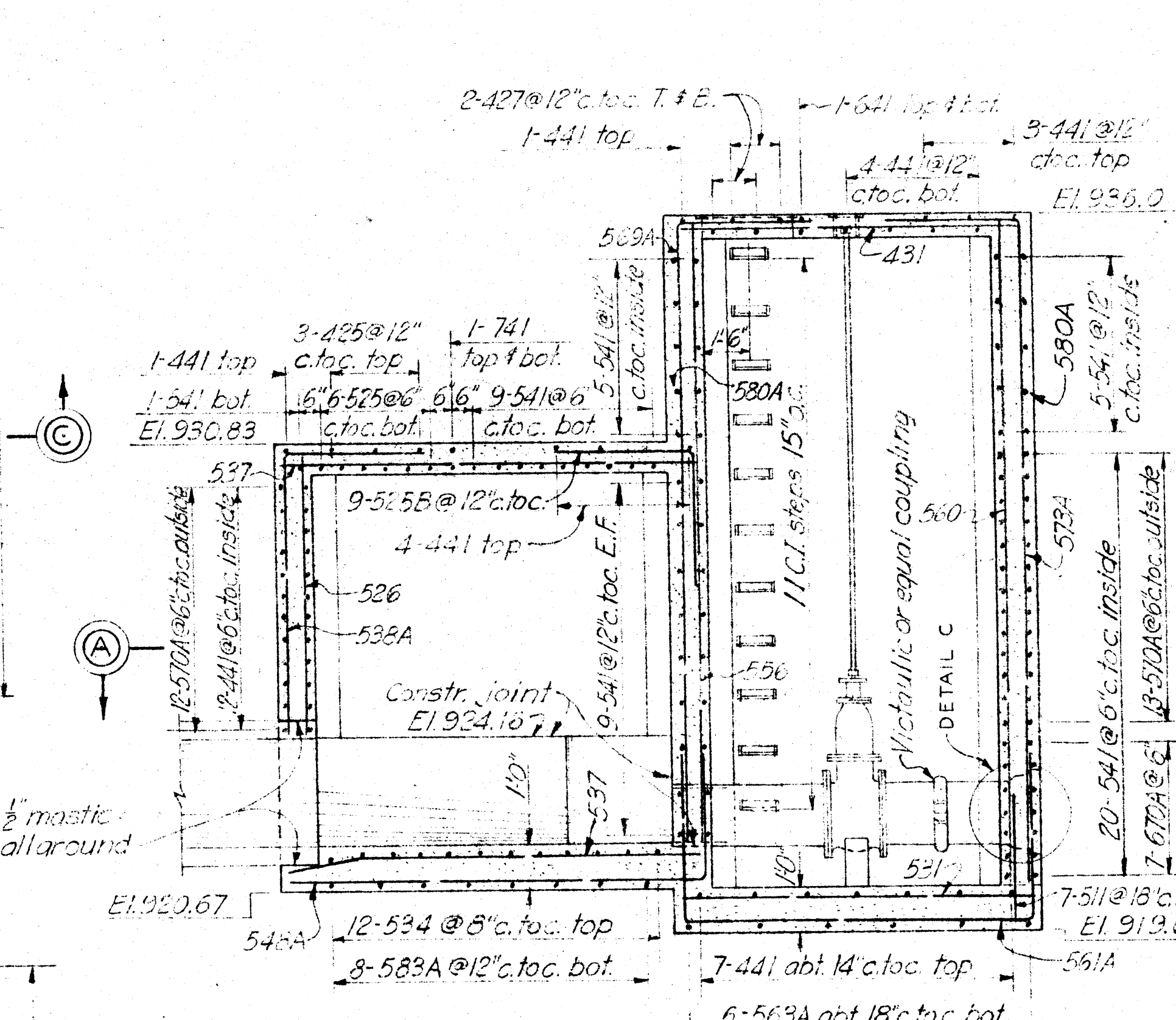


HANDRAIL - INLET

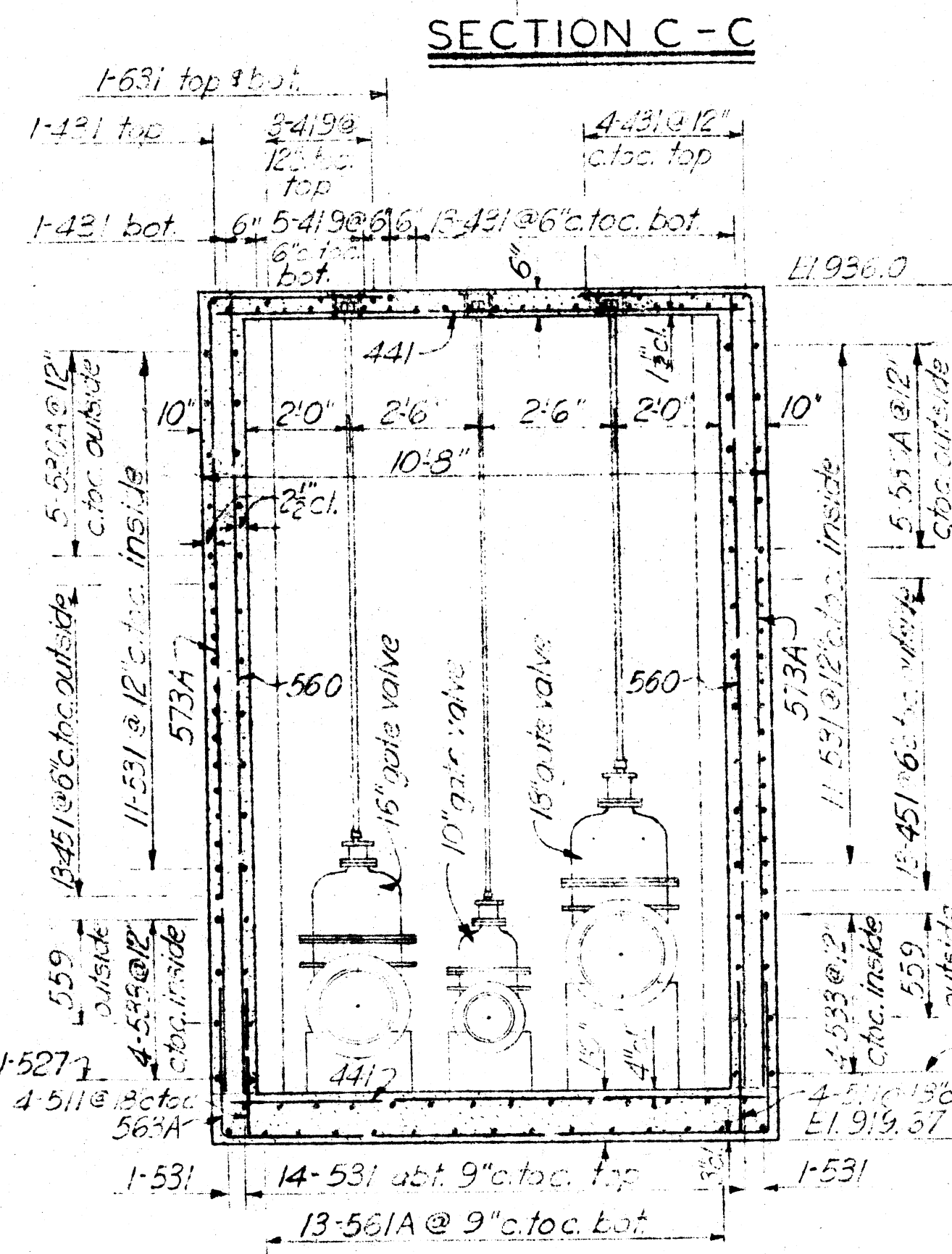
FRAME AND GRATING - INLET

STRUCT. STEEL MARK 62/30.1B-2 MAKE 2 WT. 58.1

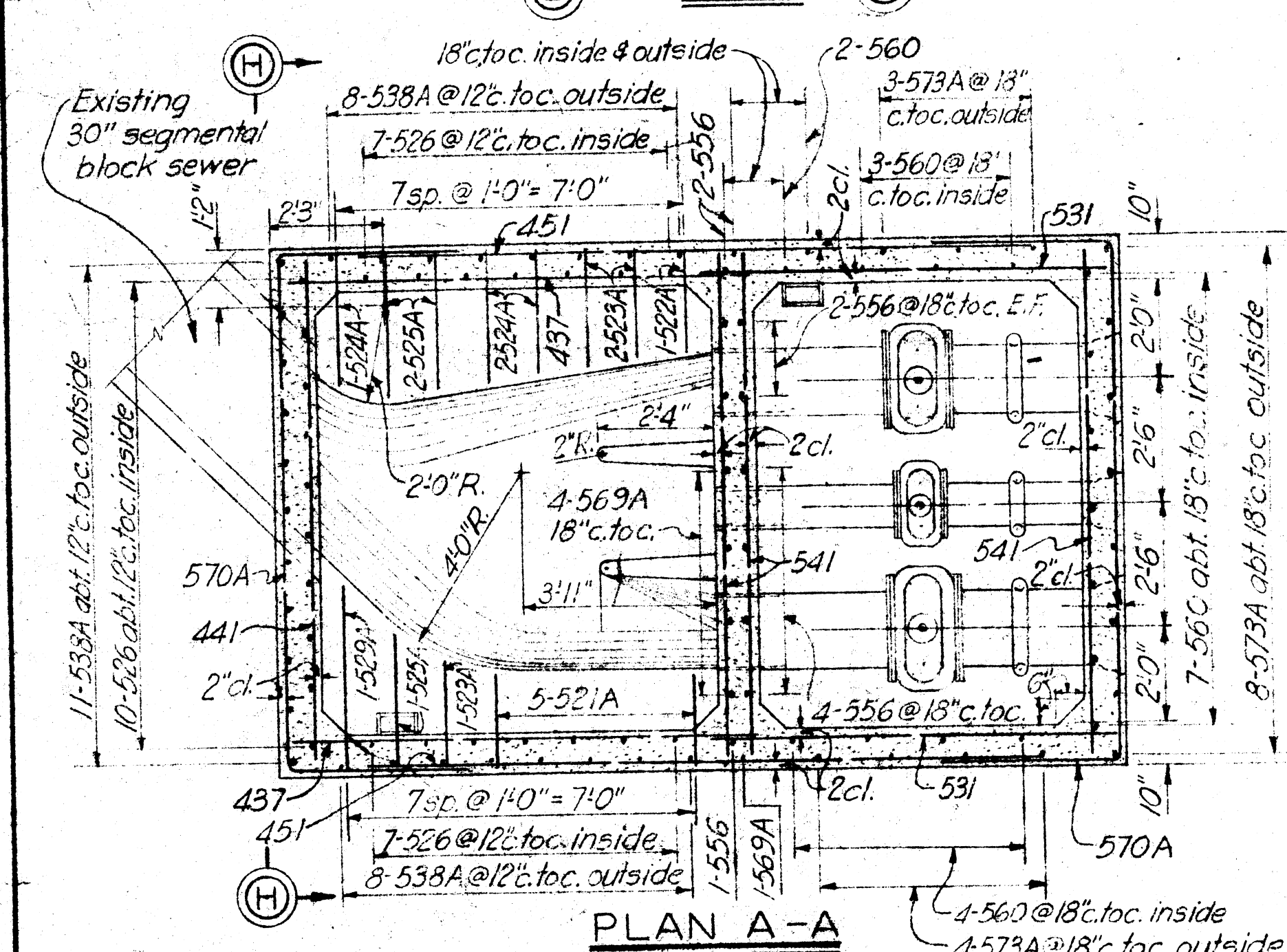
ARK 82/30.1B-3 M



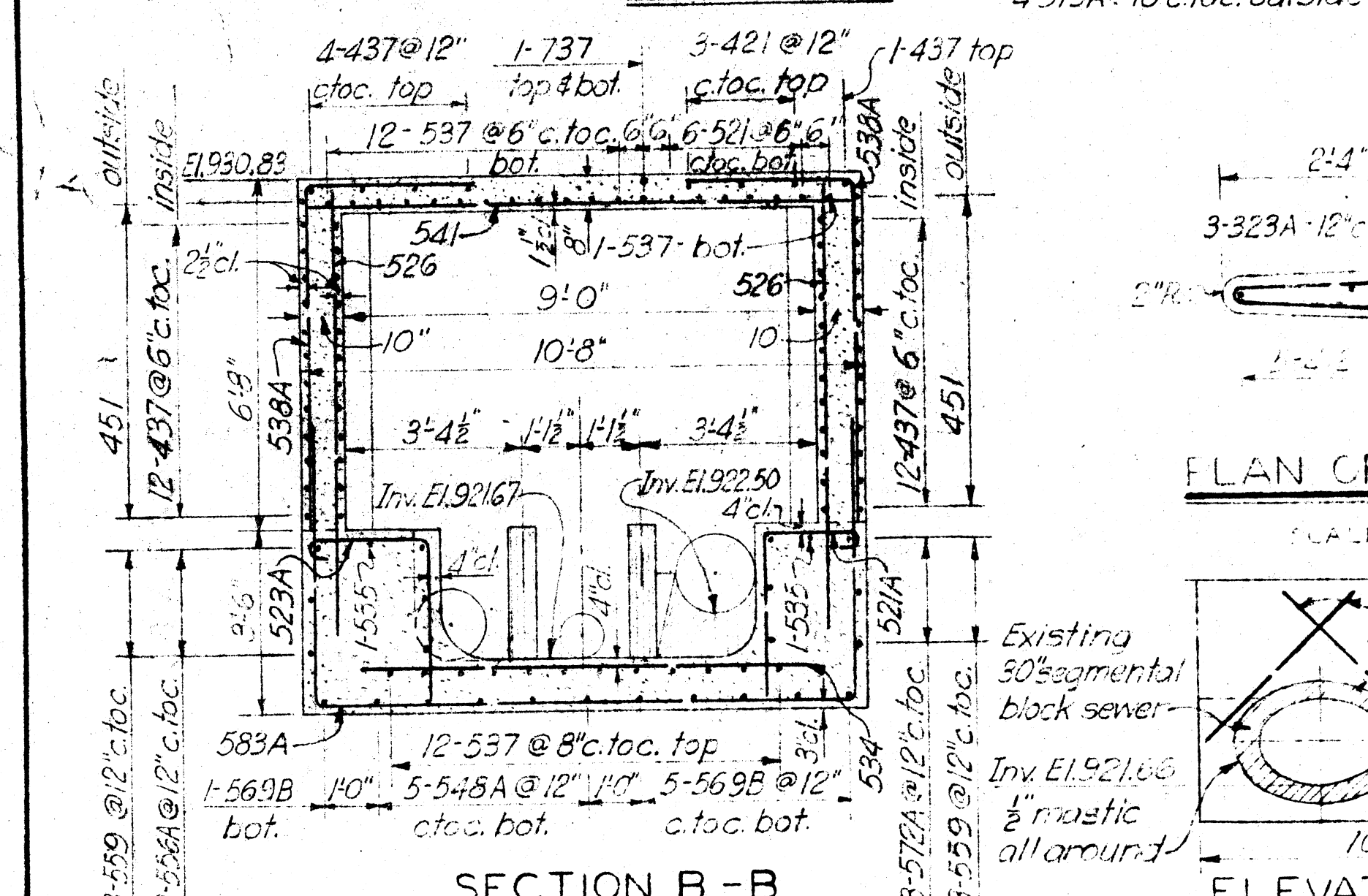
SECTION C-C



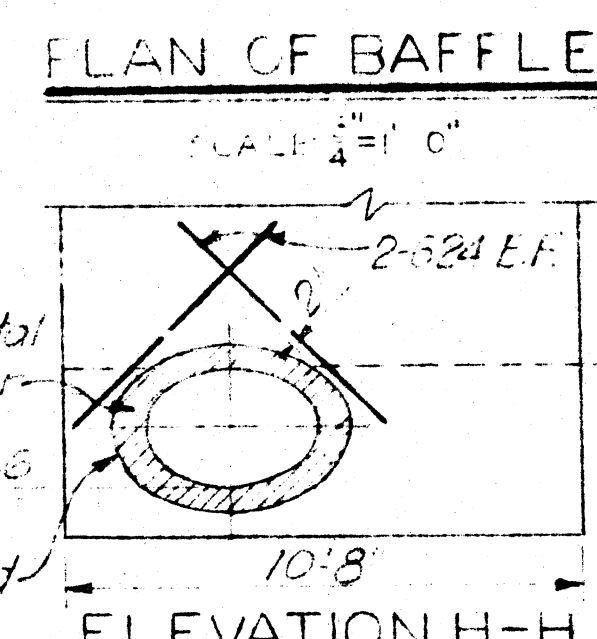
SECTION D-D



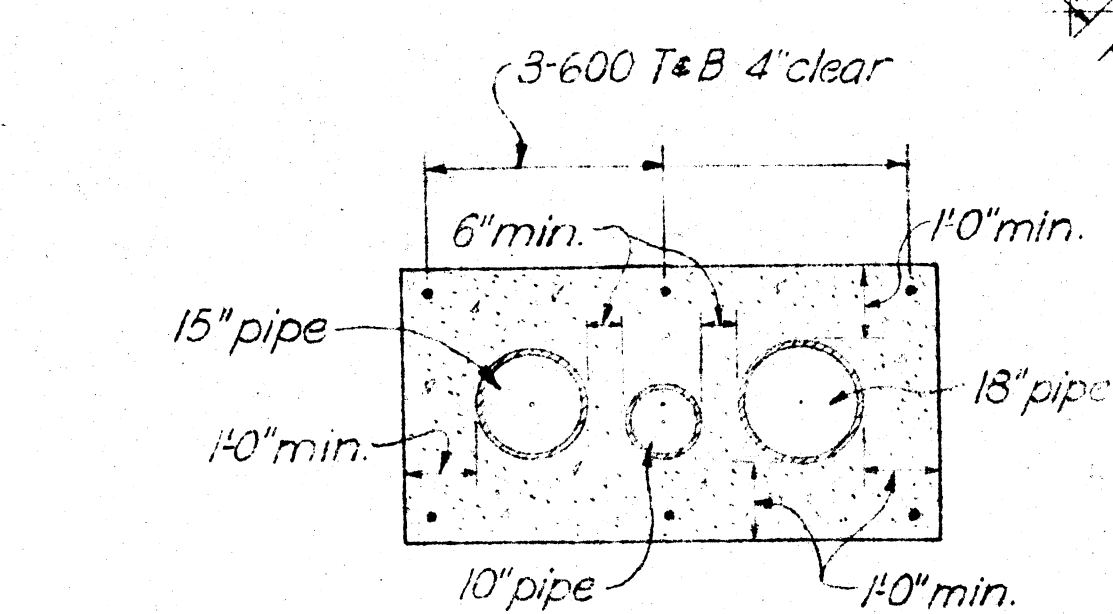
PLAN A-A



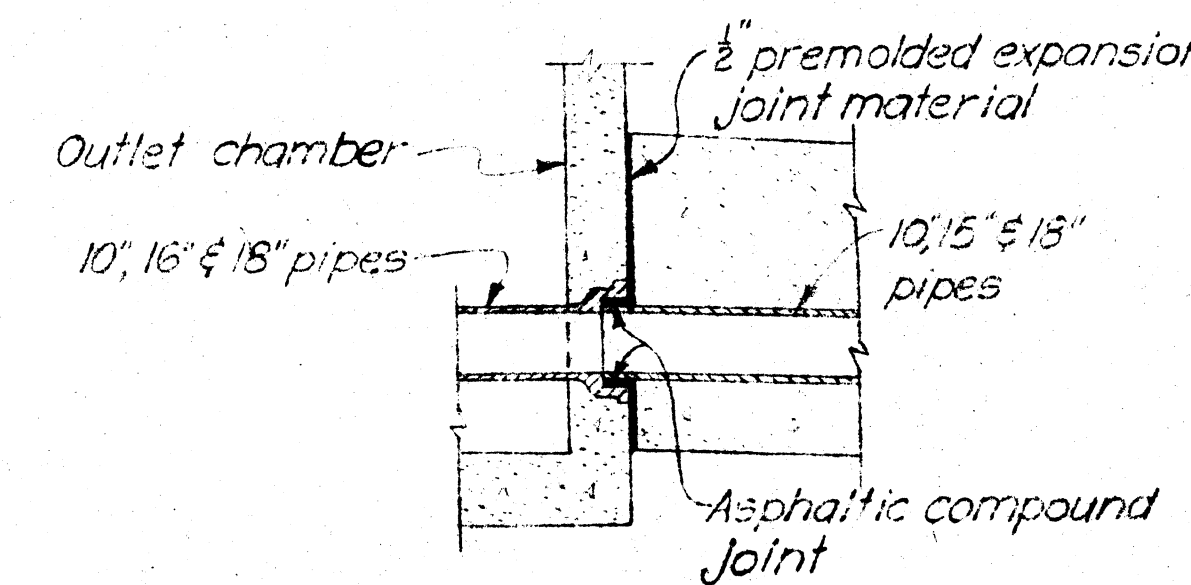
SECTION B-B



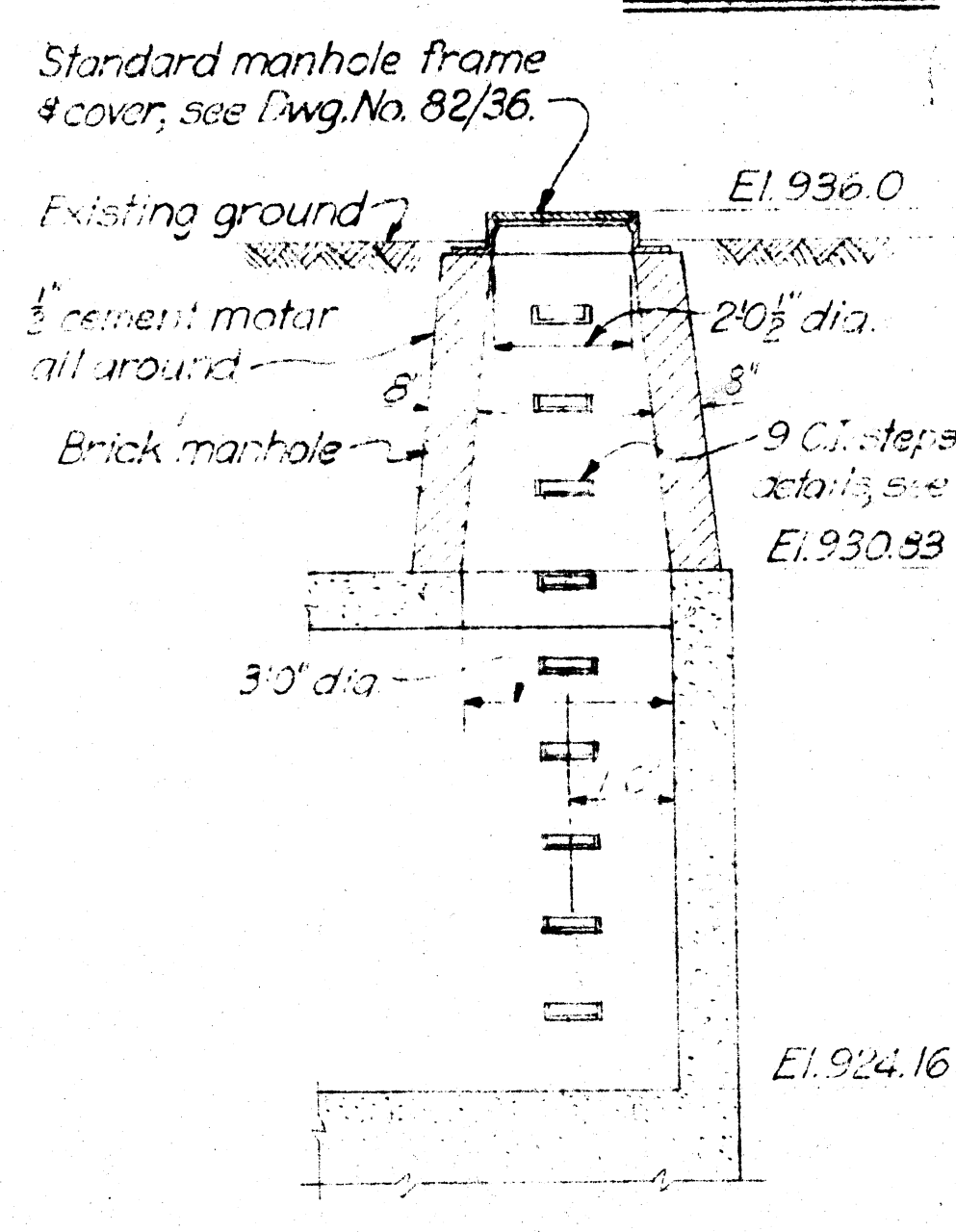
ELEVATION H-H



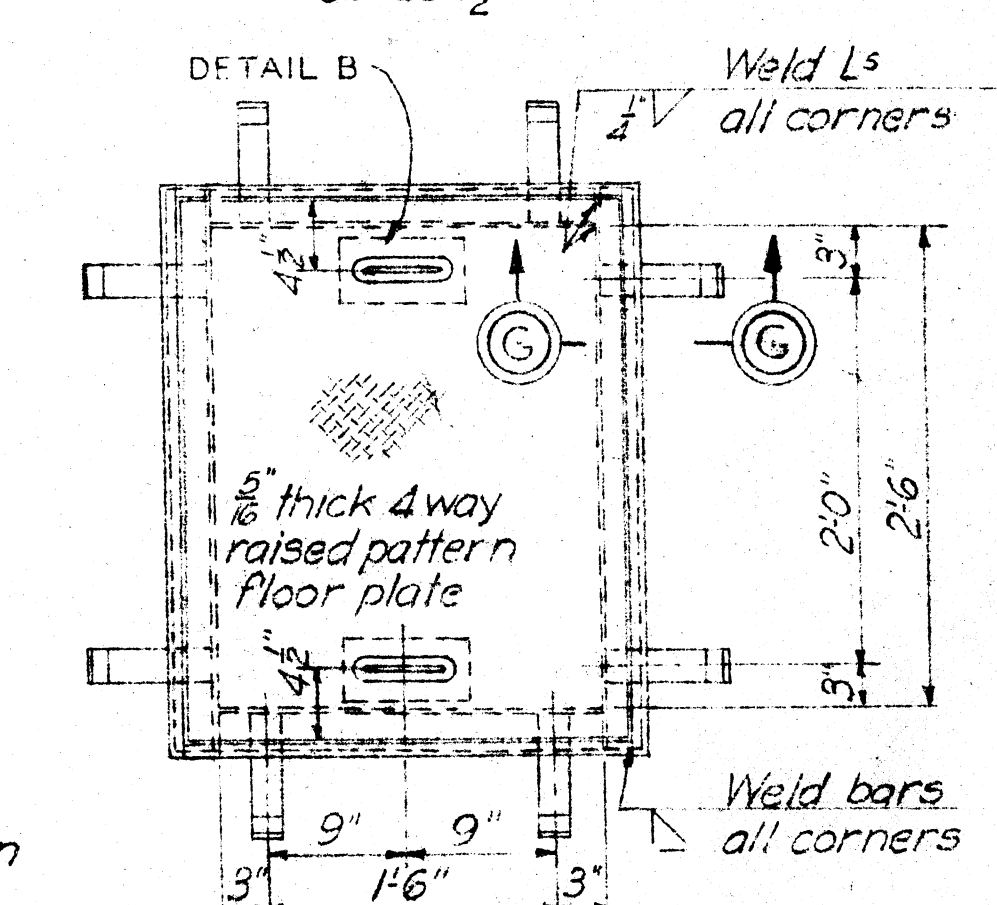
TYPICAL SECTION



DETAIL C

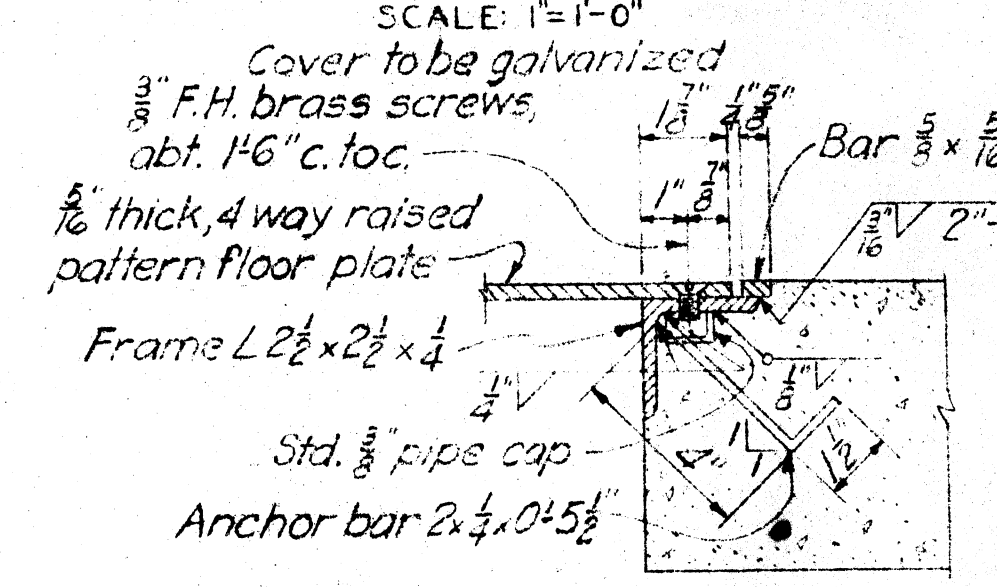


SECTION E-E



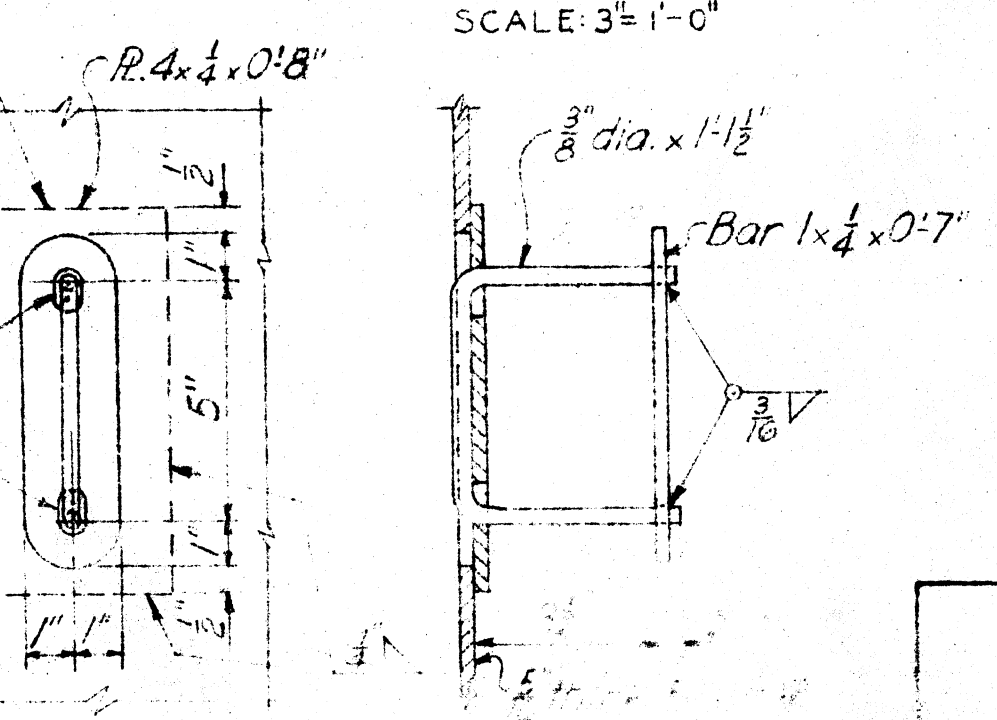
FRAME AND COVER - OUTLET

STRUCT. STEEL MARK 82/3018-4 MAKE 1 WT. 1488 LBS



SECTION G - G

SCALE: 3" = 1'-0"



DETAIL E

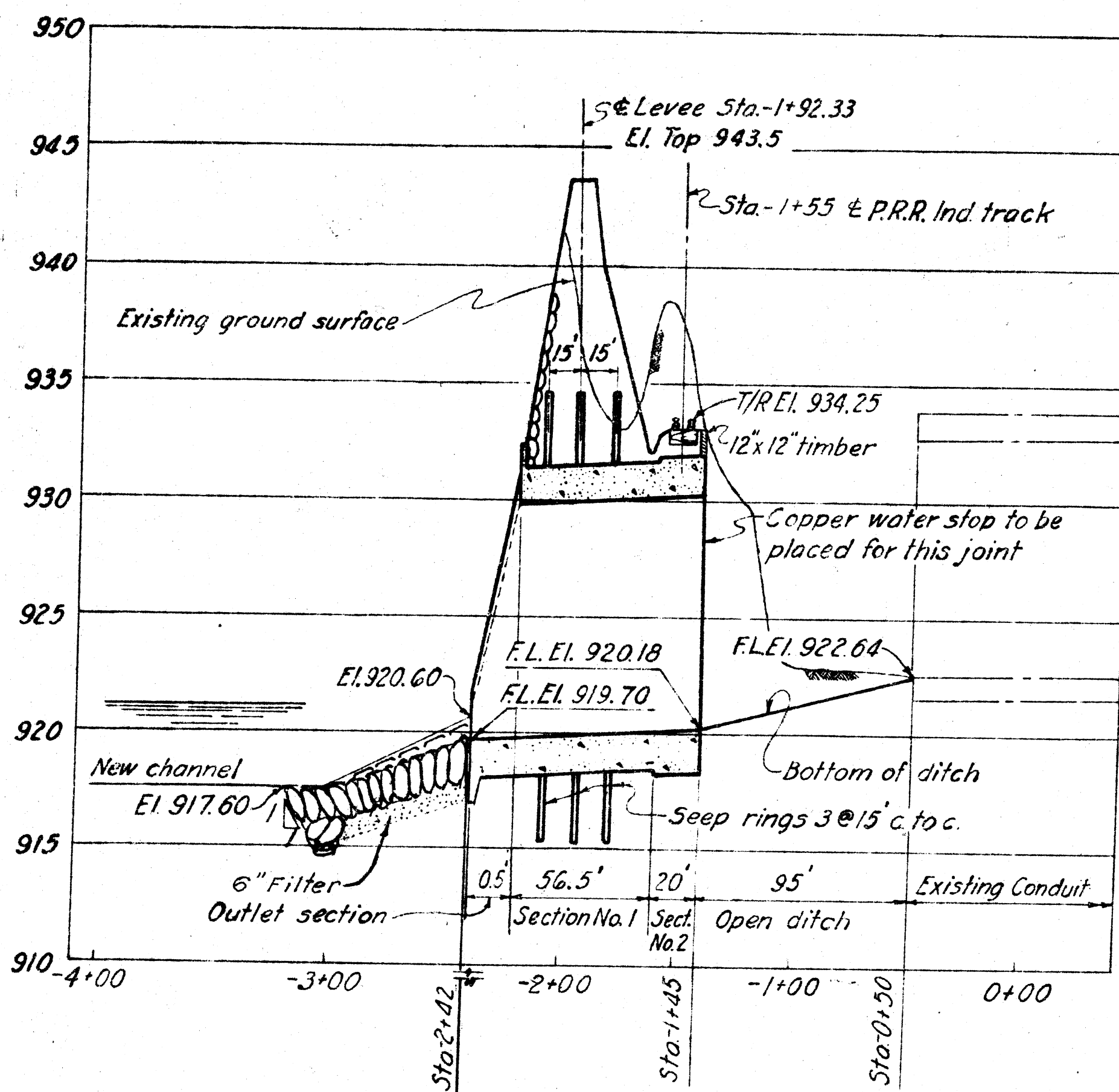
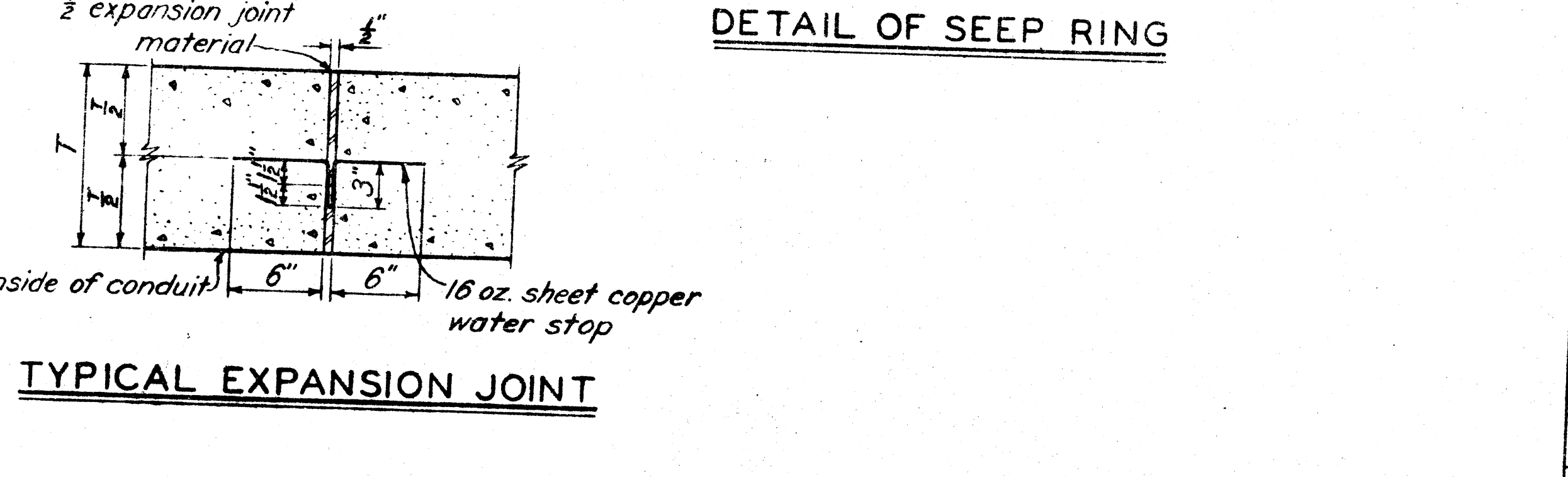
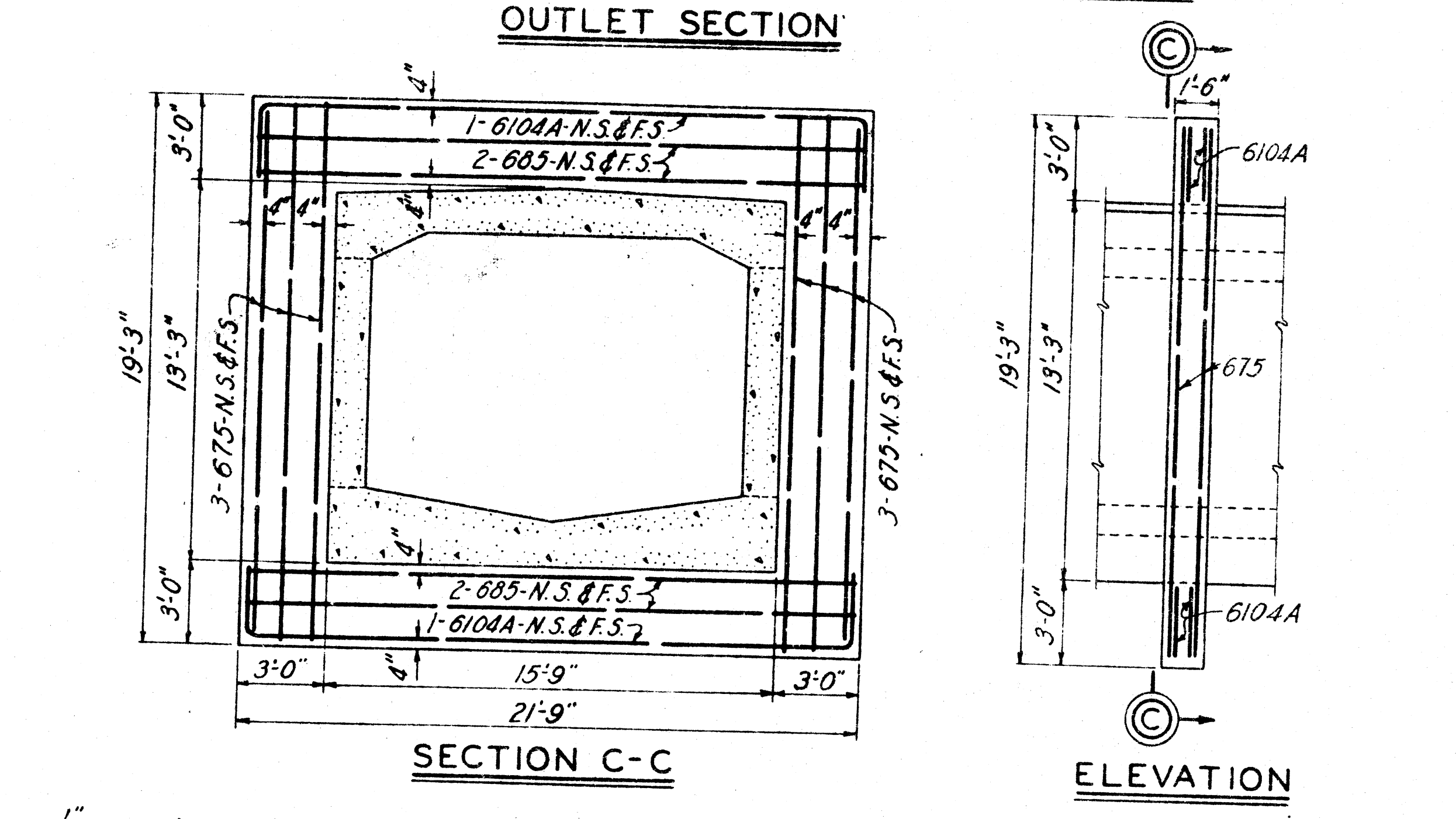
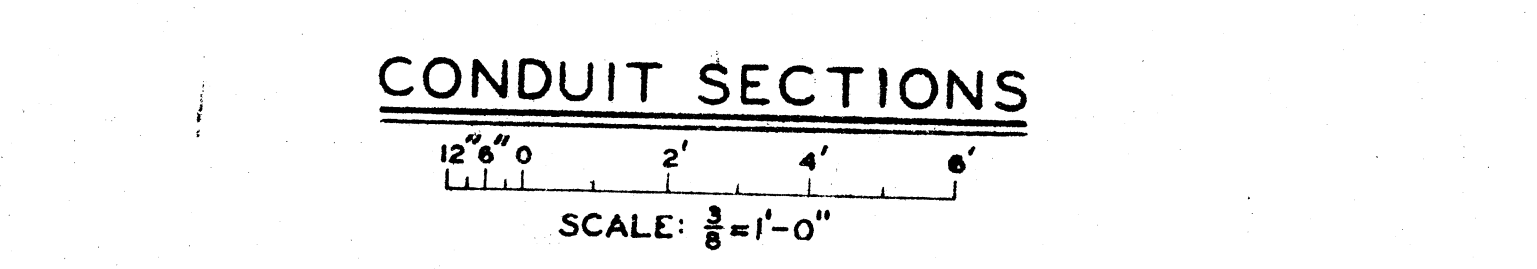
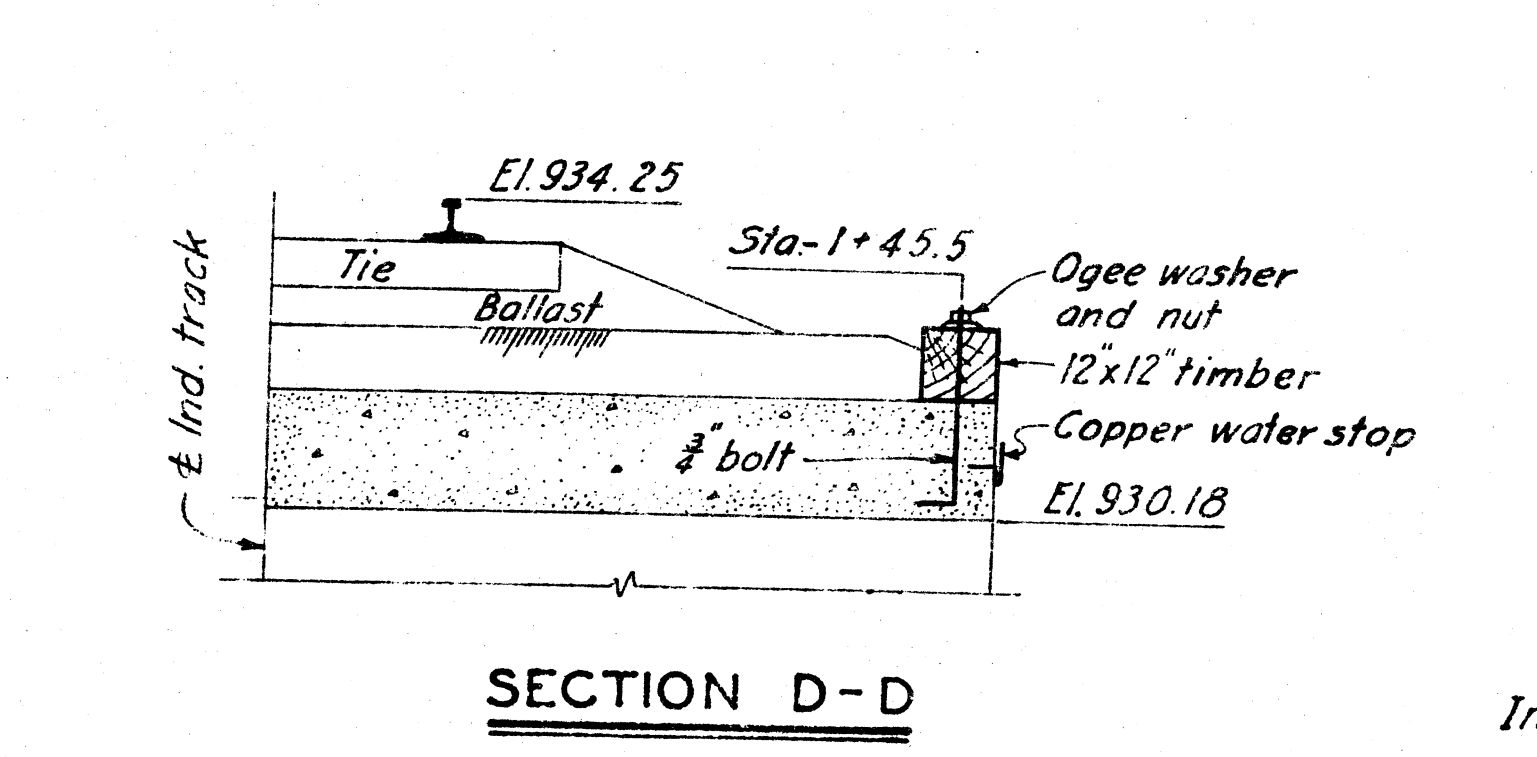
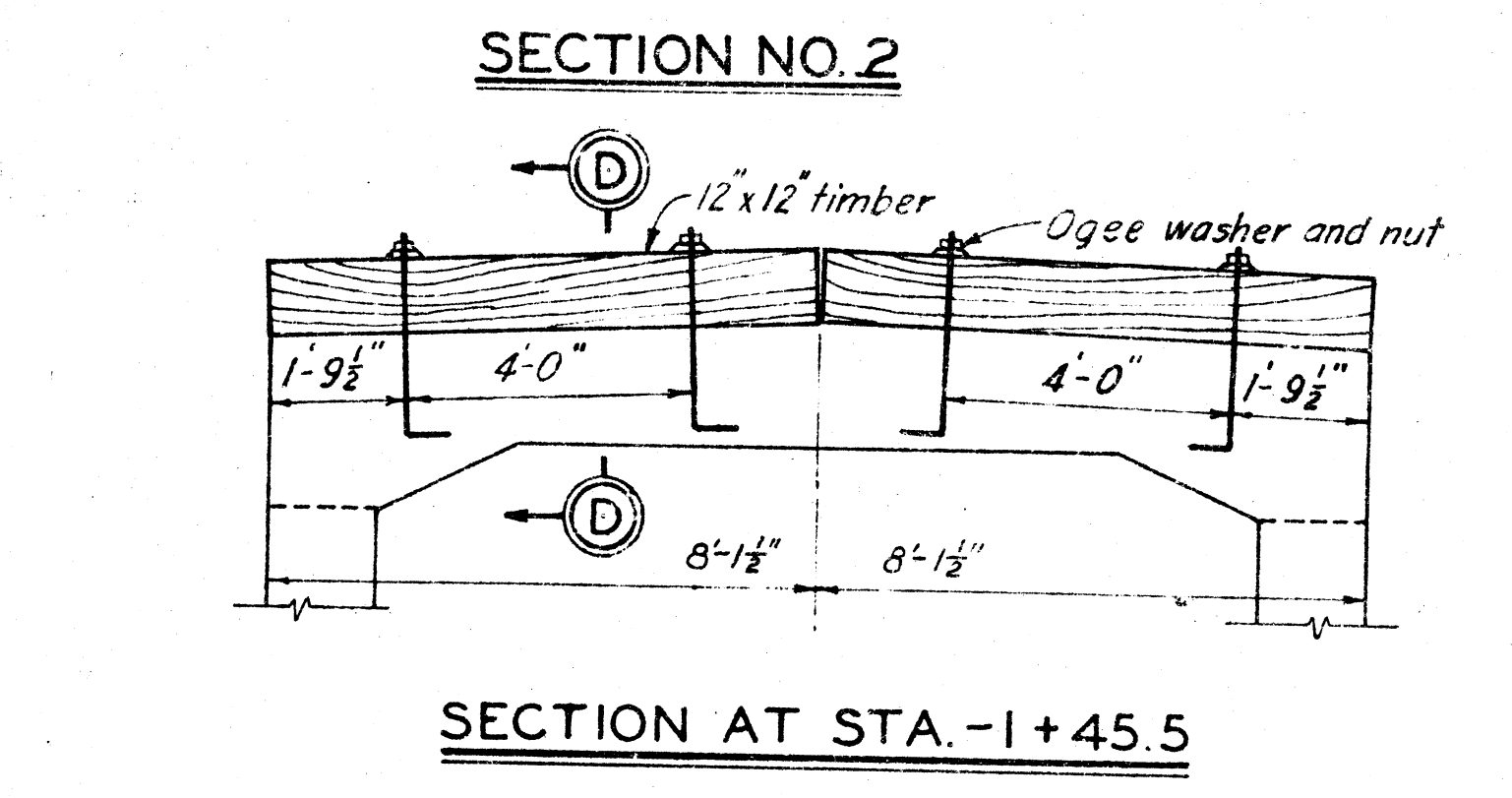
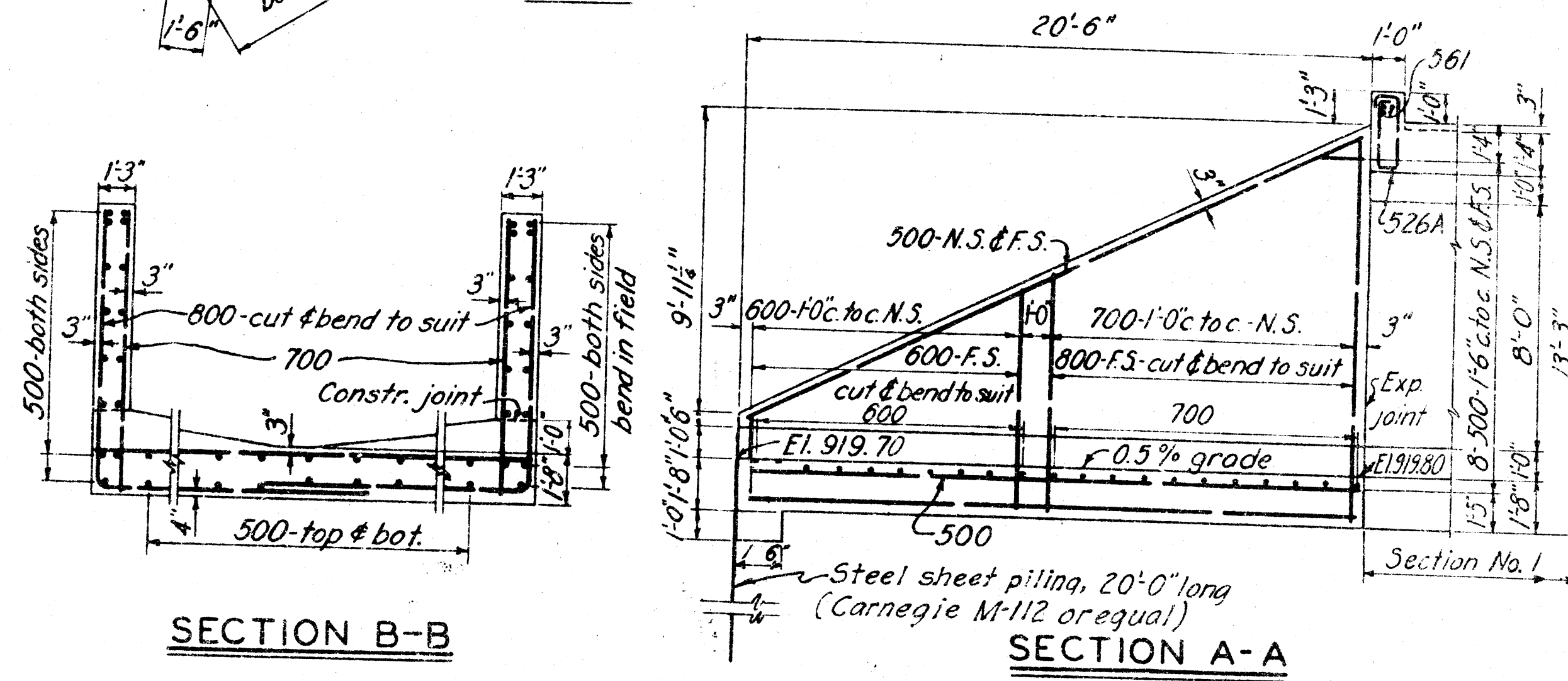
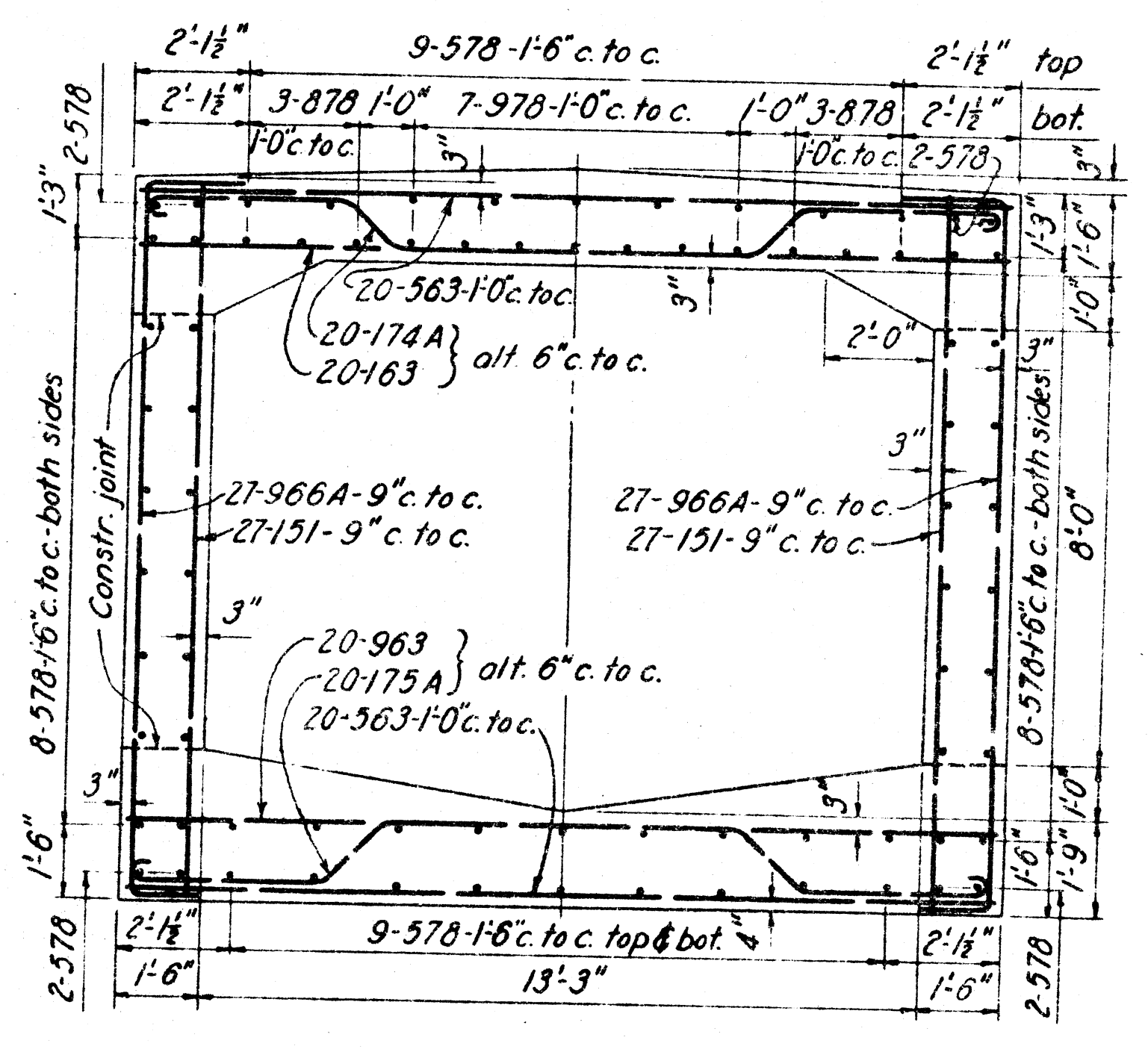
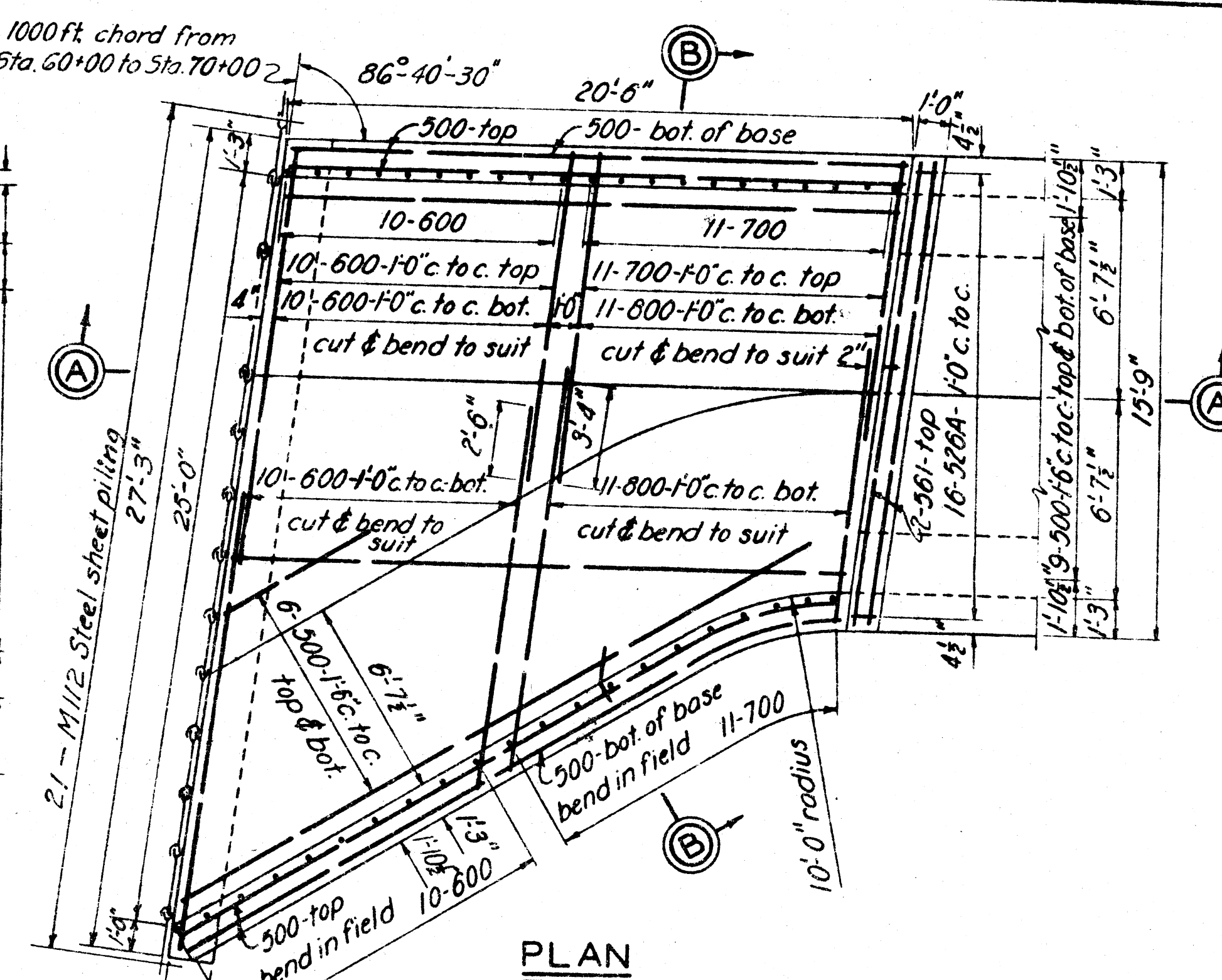
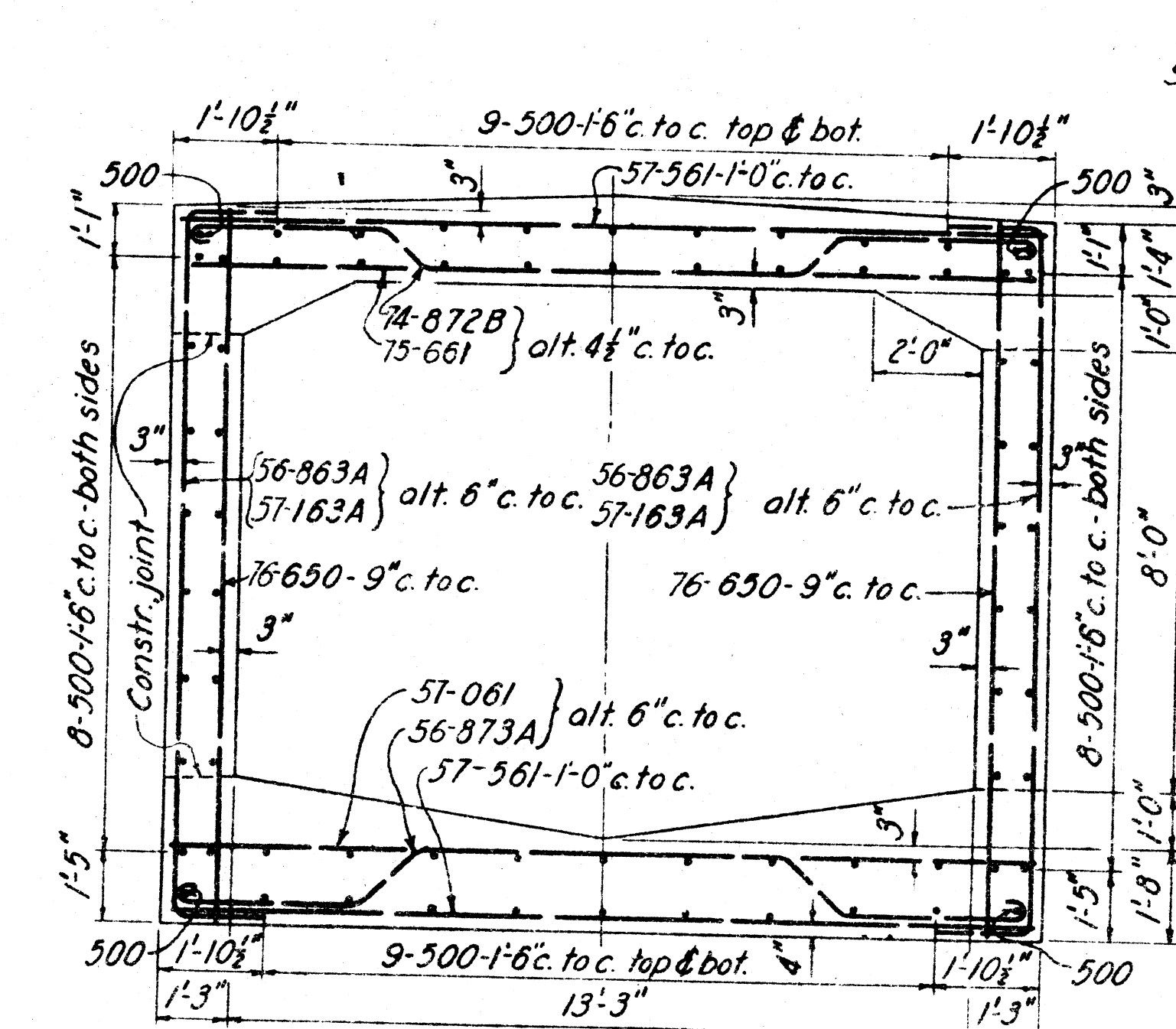
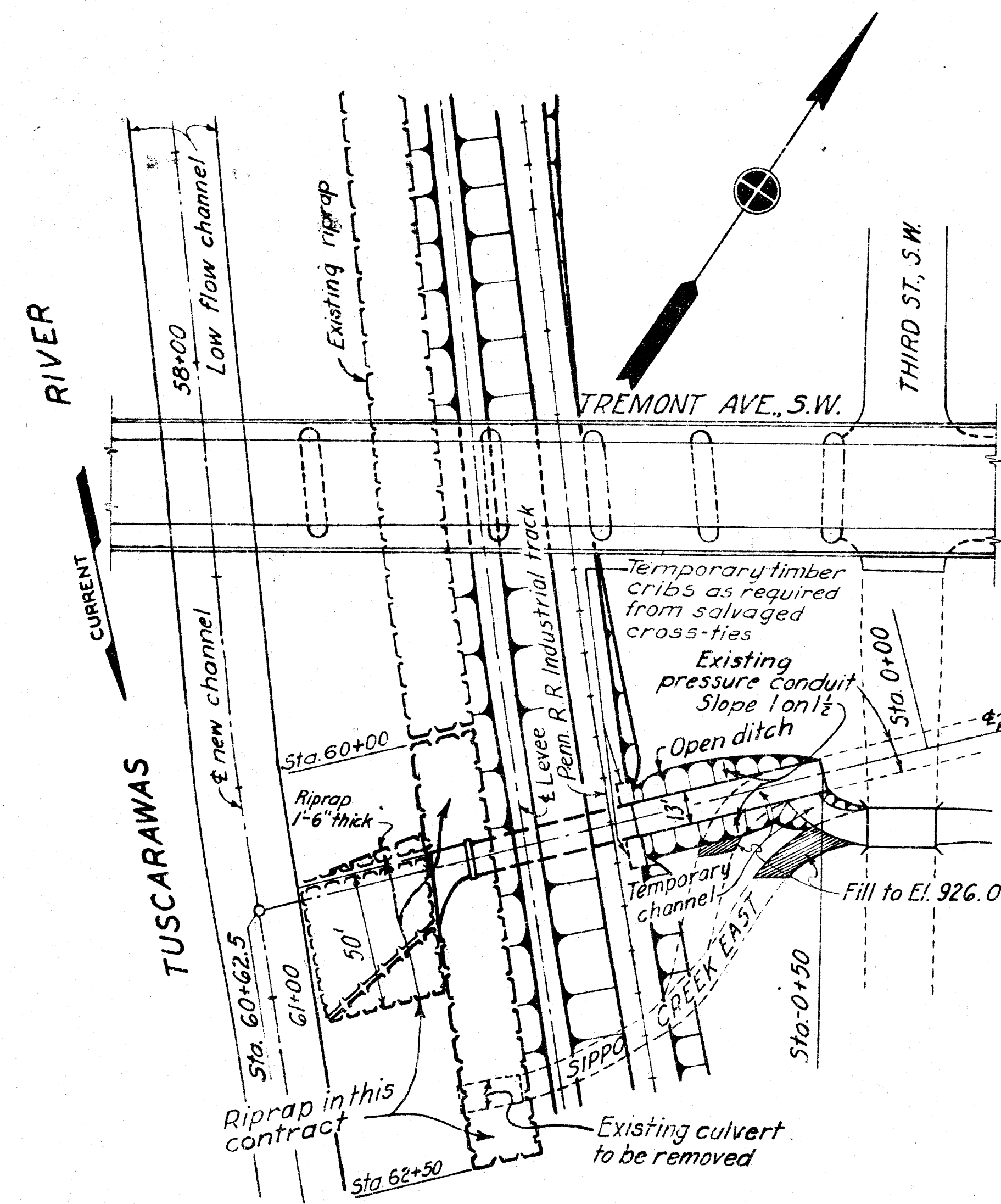
REINFORCING SCHEDULE						
MARK	SIZE	LGTH	BENDING DIAGRAM	NO.	UNIT WT.	TOTAL WT.
323A	3/8	5'-9"		6	2.15	13
412	3/8	3'-0"	1" R	10	2.00	20
419	3/8	4'-9"	2'-9"	8	3.77	25
421	3/8	5'-3"		3	3.51	11
425	3/8	6'-3"		3	4.13	13
427	3/8	6'-9"		4	4.51	18
431	3/8	7'-9"	3'-1 1/2"	19	5.13	98
437	1/2	9'-3"	6'-5"	29	6.13	179
441	3/8	10'-3"	9'-3"	32	6.35	219
451	3/8	12'-9"	14'-0"	26	3.52	222
			15'-0"			
511	3/8	2'-9"		15	2.37	43
521	3/8	5'-9"		6	5.48	38
521A	3/8	5'-3"		5	5.48	27
522A	3/8	5'-6"	3'-9"	1	5.74	6
523A	3/8	5'-9"	2'-9"	3	6.00	19
524A	3/8	6'-0"	9'-3"	3	6.26	19
525	3/8	6'-9"	10'-3"	6	6.52	39
525A	3/8	6'-9"	7'-9"	3	6.52	20
525B	3/8	6'-9"		9	6.52	59
526	3/8	6'-6"	3'-1 1/2"	24	6.73	163
527	3/8	6'-9"	3'-1 1/2"	2	7.04	14
529A	3/8	7'-9"	10'-9"	1	7.56	8
531	3/8	7'-9"	10'-3"	35	3.33	307
533	3/8	8'-3"		3	8.60	69
534	3/8	8'-6"	5'-9"	12	8.97	106
535	3/8	8'-9"	6'-1 1/2"	2	9.13	18
537	3/8	9'-3"	7'-9"	25	9.65	241
533A	3/8	9'-6"	10'-3"	27	9.91	266
541	3/8	10'-3"	3'-0"	58	10.69	620
548A	3/8	12'-0"		5	12.52	63
556	3/8	14'-0"	1'-6"	11	14.60	161
556A	3/8	14'-0"	1'-9"	3	14.60	44
559	3/8	14'-9"	2'-0"	6	15.53	92
569B	3/8	17'-3"	2'-3"	6	17.99	293
561A	3/8	15'-3"	2'-6"	15	15.91	237
563A	3/8	15'-9"	3'-6"	6	16.43	94
560	3/8	15'-0"		16	15.65	250
569A	3/8	17'-9"	2'-6"	5	17.99	90
570A	3/8	17'-6"	3'-5"	25	18.25	456
572A	3/8	18'-0"	4'-6"	3	13.77	56
573A	3/8	18'-3"	4'-4" R	15	19.03	285
580A	3/8	20'-0"	3'-0"	10	20.86	209
583A	3/8	20'-9"		8	21.64	173
600	3/8	22'-0"			1.502	3320
624	3/8	6'-0"	1'-3"	4	9.01	36
631	3/8	7'-9"	45°	2	11.64	23
641	3/8	10'-3"	1'-3"	2	15.40	31
670A	3/8	17'-6"	1'-9"	7	26.29	134
737	3/8	9'-3"	1'-9"	2	13.91	36
741	3/8	10'-3"	1'-9"	2	22.95	46

NOTES

For general plan, see Dwg. No. 16/2.
For general utility plan, see Dwg. No. 82/21.
For details of sewer changes, see Dwg. No. 82/25.
For details of inlet, see Dwg. No. 82/30.1A.
For location of Inlet handrail, frame and grating, see Dwg. No. 82/30.1A.
For detail A, hook bolt and hinge details, see Dwg. No. 20/7.
For details of handrail posts, see section B-r Dwg. No. 20/7.
Reinforcing bars may be rotated, bent or cut in field to clear pipes.
For reinforcing steel code and masonry notes, see Dwg. No. 20/1.

**TUSCARAWAS RIVER
LOCAL PROTECTION PROJECT
MASSILLON, OHIO
SECTION 2, UNIT 2
CHERRY ROAD SIPHON
OUTLET STRUCTURE**

APPROVED: <i>[Signature]</i> ASST. CHIEF ENG. DIV. CHIEF ENG. ASST.		APPROVED: _____ COL. C.E., DISTRICT ENGINEER	DATE: NOV. 1948
APPROVED FOR: _____ DATE: _____		SCALE: $\frac{1}{8}'' = 1' - 0''$ DRAWING NUMBER 0271-PM2-2-82/301 SHEET OF	SPEC. NO. _____



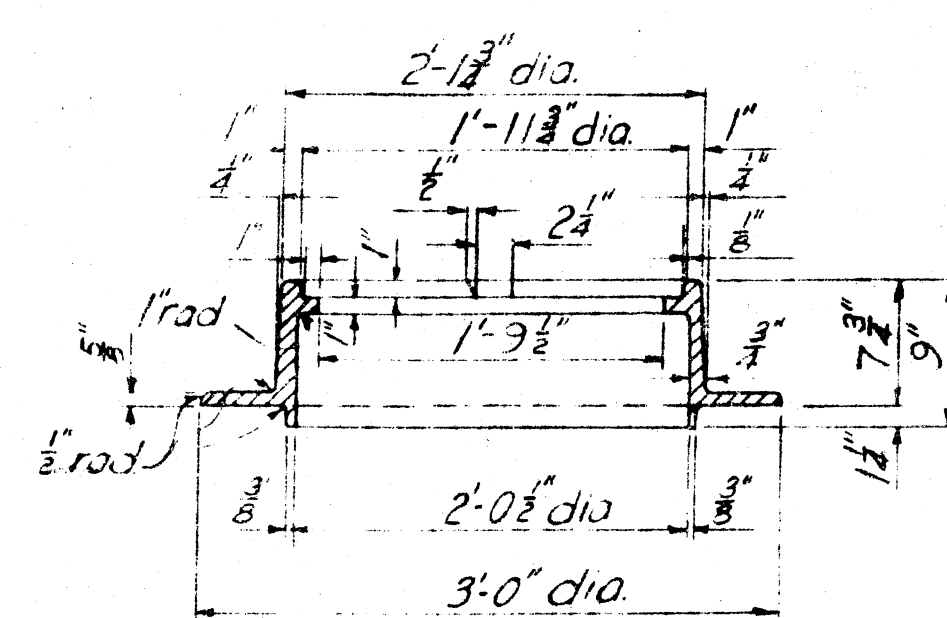
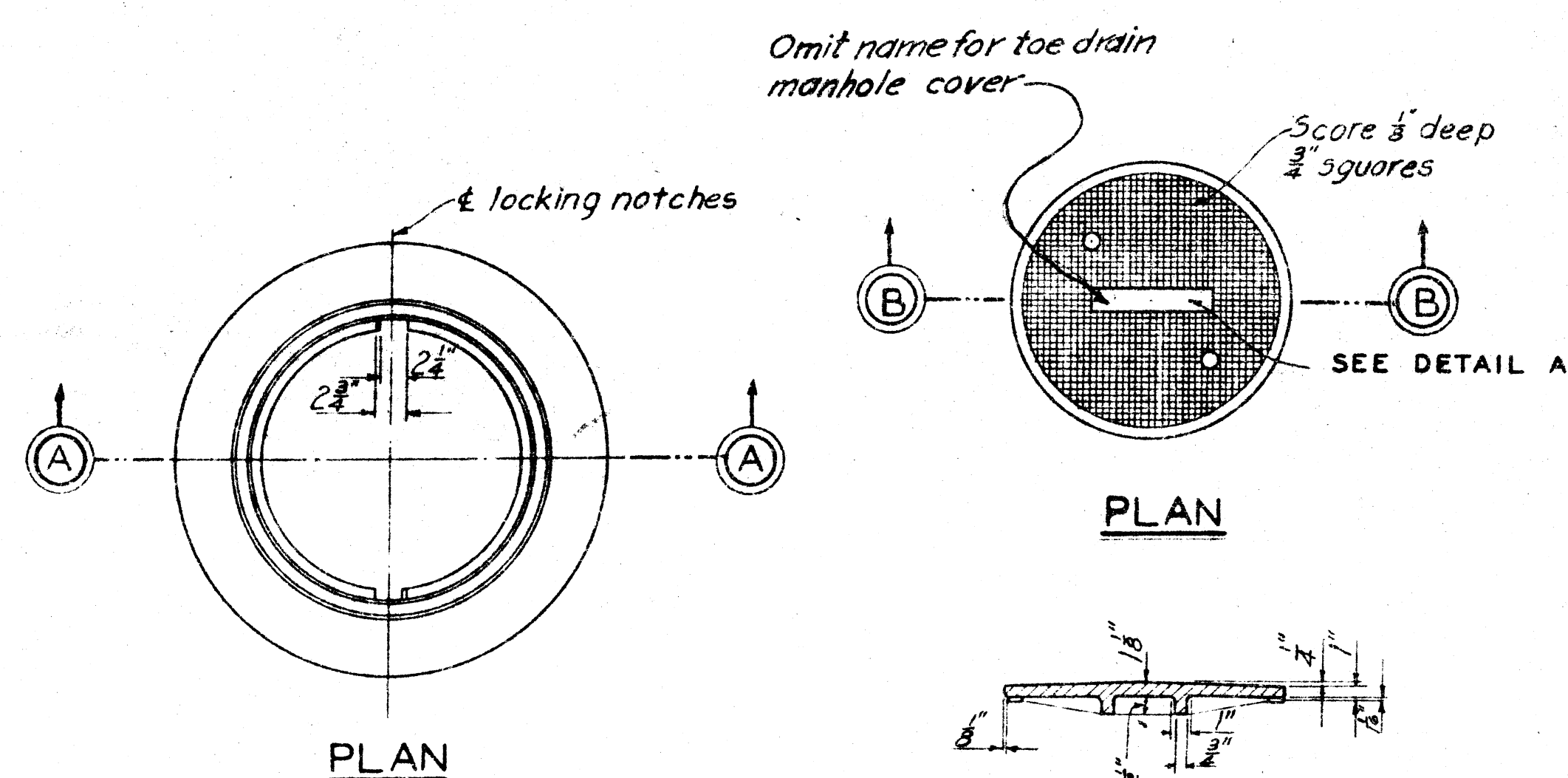
REINFORCING SCHEDULE

MARK	SIZE	L'GTH	BENDING DIAGRAM	NO.	UNIT WT.	TOTAL WT.
SECTION NO. 1						
500	$\frac{3}{4}" \phi$	4180'		-	1043	4360
561	$\frac{3}{4}" \phi$	15'3"		116	15.91	1846
526A	$\frac{3}{4}" \phi$	6'6"		16	6.78	108
650	$\frac{3}{4}" \phi$	12'6"		152	18.78	2855
661	$\frac{3}{4}" \phi$	15'3"		75	22.91	1718
863A	1" ϕ	15'9"		112	42.05	4710
872B	1" ϕ	18'0"		74	48.06	3556
873A	1" ϕ	18'3"		56	48.73	2729
163A	1" ϕ	15'9"		114	53.55	6105
061	$\frac{1}{2}" \phi$	15'3"		57	81.02	4618
					Total	32,605
SEEP RINGS						
675	$\frac{3}{4}" \phi$	18'9"		36	28.16	1014
685	$\frac{3}{4}" \phi$	21'3"		24	31.92	766
6104A	$\frac{3}{4}" \phi$	26'0"		12	33.05	469
					Total	2,249
SECTION NO. 2						
563	$\frac{3}{4}" \phi$	15'9"		40	16.43	657
578	$\frac{3}{4}" \phi$	19'6"		67	20.34	1363
878	1" ϕ	19'6"		6	52.07	312
151	1" ϕ	12'9"		54	43.35	2331
163	1" ϕ	15'9"		20	53.55	1071
174A	1" ϕ	18'6"		20	62.90	1258
175A	1" ϕ	18'9"		20	63.75	1275
963	$1\frac{1}{4}" \phi$	15'9"		20	67.77	1355
966A	$1\frac{1}{4}" \phi$	16'6"		54	71.60	3854
978	$1\frac{1}{4}" \phi$	19'6"	7	83.91	587	
					Total	14,035
OUTLET SECTION						
500	$\frac{3}{4}" \phi$	1200'		-	1,043	1252
600	$\frac{3}{4}" \phi$	750'		-	1,502	1127
700	$\frac{3}{4}" \phi$	450'		-	2,044	920
800	1" ϕ	500'		-	2,670	1335
					Total	4634

NOTES

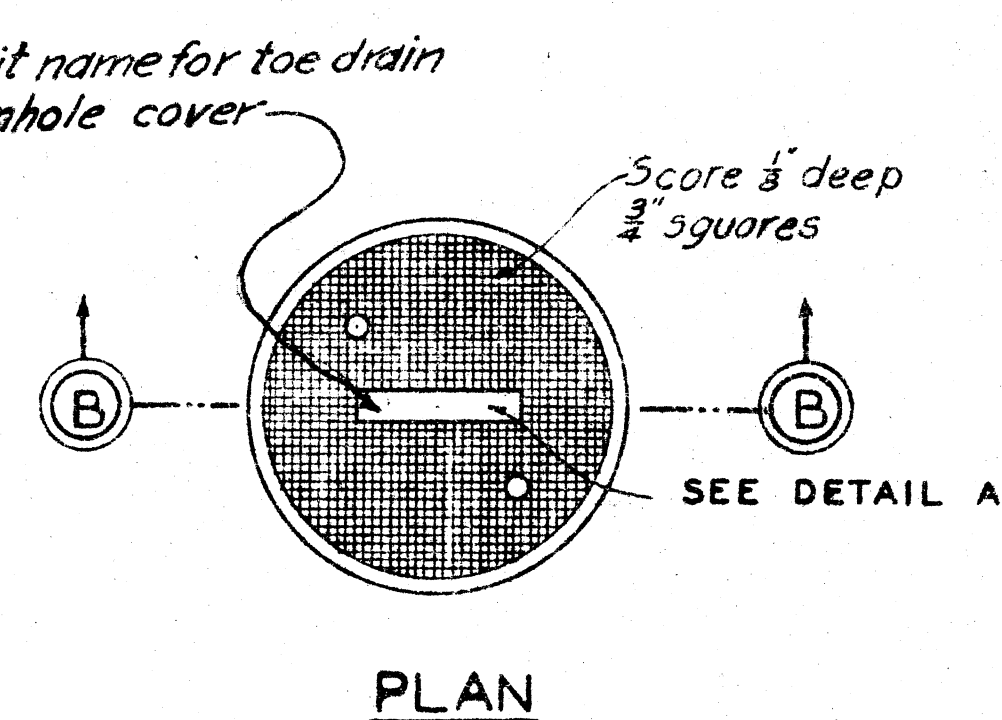
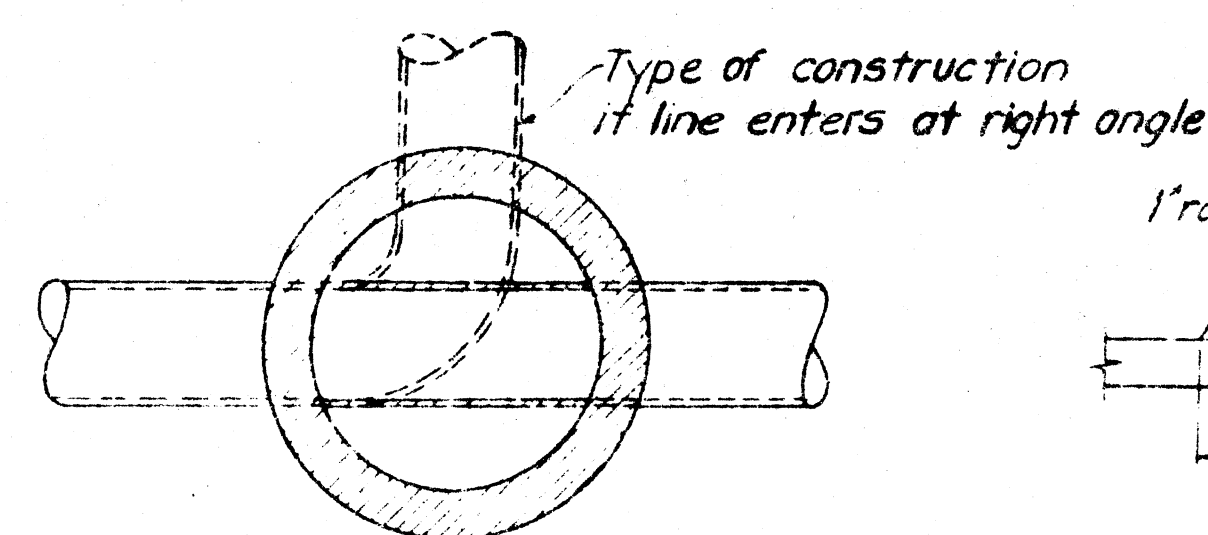
- Copper water stop to be installed in all conduit monolith joints. Monoliths not to exceed 40 lin. ft.
All main reinforcing steel to be spaced a clear distance from concrete surfaces as shown.
For masonry notes and explanation of reinforcing steel code, see Dwg. No. 20/1
For general plan see Dwg. No. 16/2

DRAWN BY: M.C.S.-E.S.W.		DEPARTMENT OF THE ARMY CORPS OF ENGINEERS OFFICE OF THE DISTRICT ENGINEER HUNTINGTON, W. VA.	
TRACED BY: H.A.E.-C.C.C.		TUSCARAWAS RIVER LOCAL PROTECTION PROJECT MASSILLON, OHIO SECTION 2, UNIT 2 PRESSURE CONDUIT-SIPPO CREEK PLAN, PROFILE & DETAILS	
CHECKED BY: H.F.B.-G.O.S.		APPROVED: <i>[Signature]</i> DATE: OCT. 1948	
SUBMITTED BY: CHIEF ENG. DIV.		APPROVED: <i>[Signature]</i> DATE: OCT. 1948	
APPROVED: <i>[Signature]</i>		APPROVED: <i>[Signature]</i> DATE: OCT. 1948	
APPROVED FOR:		SCALE: 3/8"=1'-0"	
DATE:		DRAWING NUMBER 027i-PM2-2-82/32 SHEET 57 OF 60	

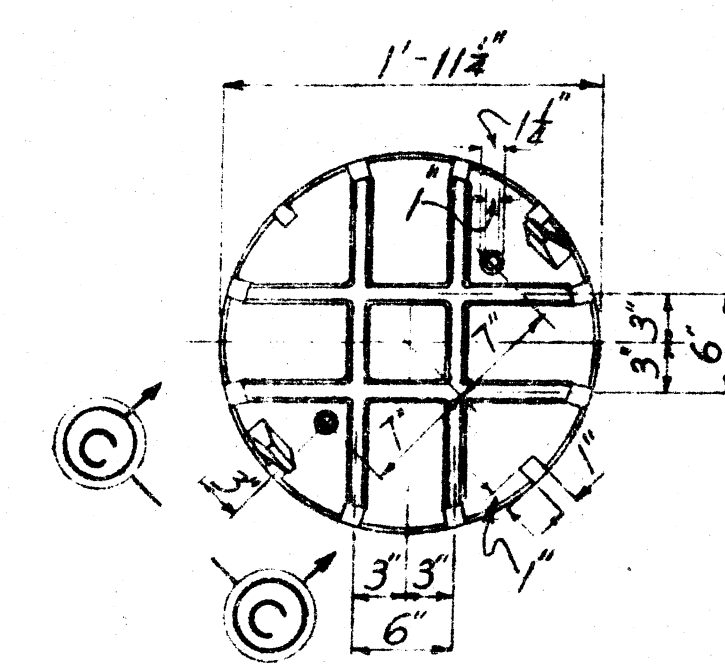


FRAME

CAST IRON
SCALE: 1"=1'-0"
NO. REQ'D. 30
RECLAIMED & SALVAGED 34

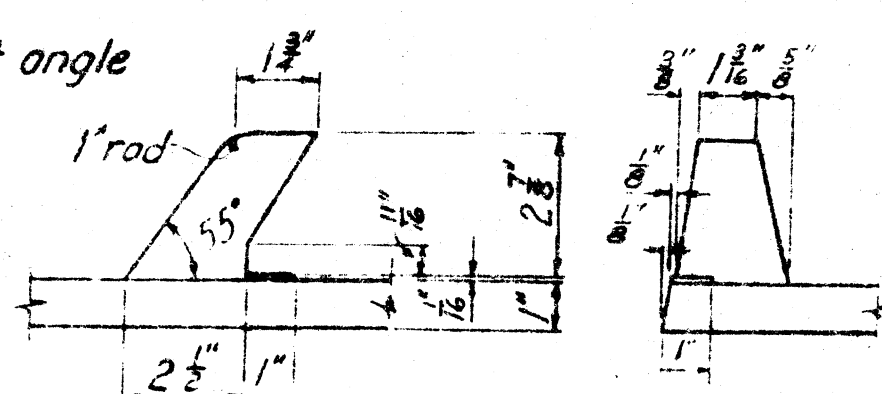


SECTION B-B

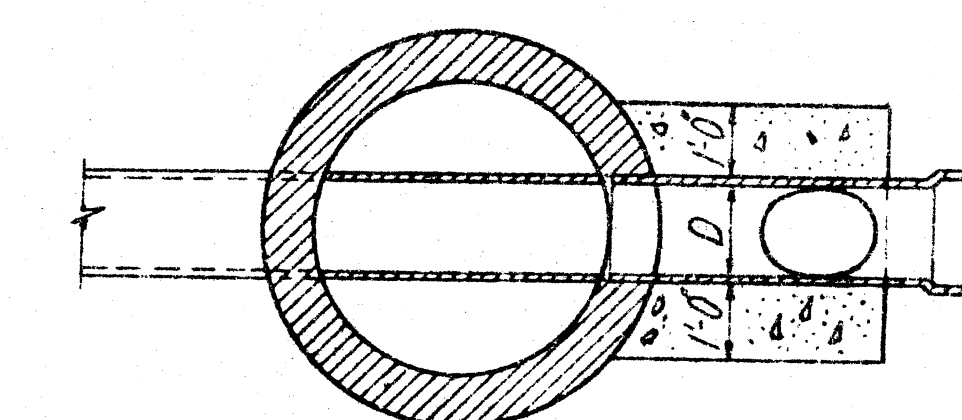


COVER

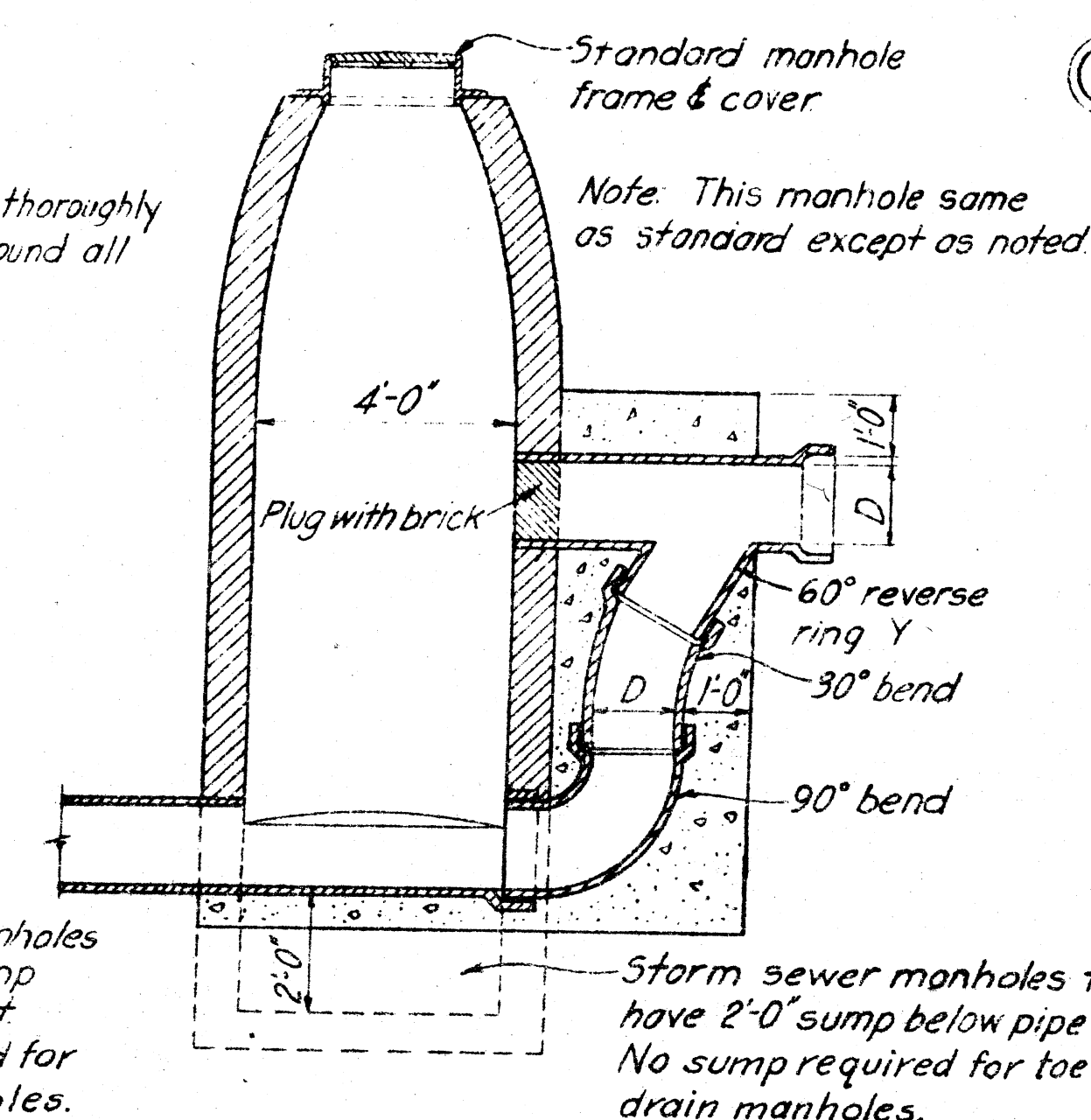
CAST IRON
SCALE: 1"=1'-0"



SIDE



SECTIONAL PLAN



DROP MANHOLE

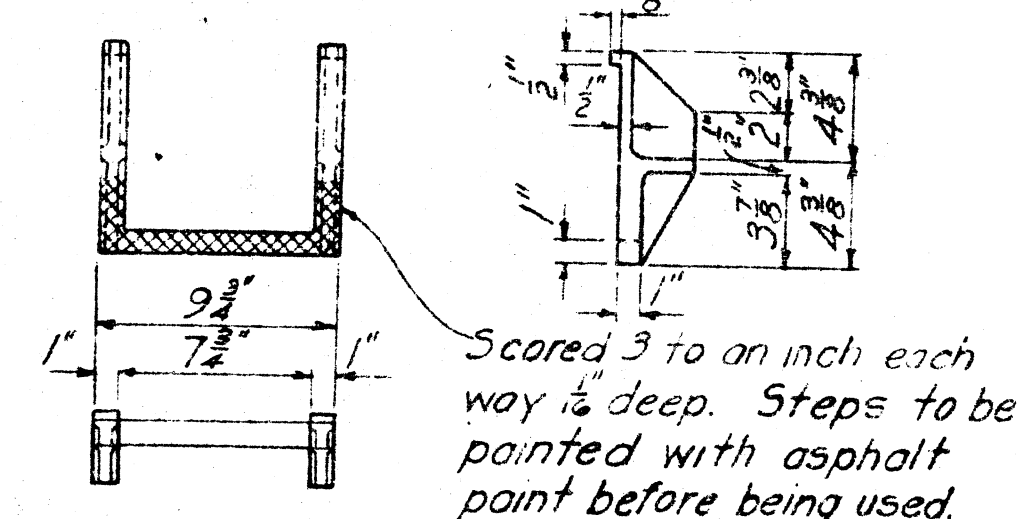
SAN. SEWER

STM. SEWER

Name to indicate type of sewer

DETAIL A

SCALE: 3"=1'-0"



DETAIL CAST IRON STEP

SCALE: 1/2"=1'-0"

NO. REQ'D. 272

MANHOLE DEPTH	THICKNESS
From 0 to 16 feet	8 1/2 inches
From 16 to 22 feet	13 inches
Over 22 feet	18 inches

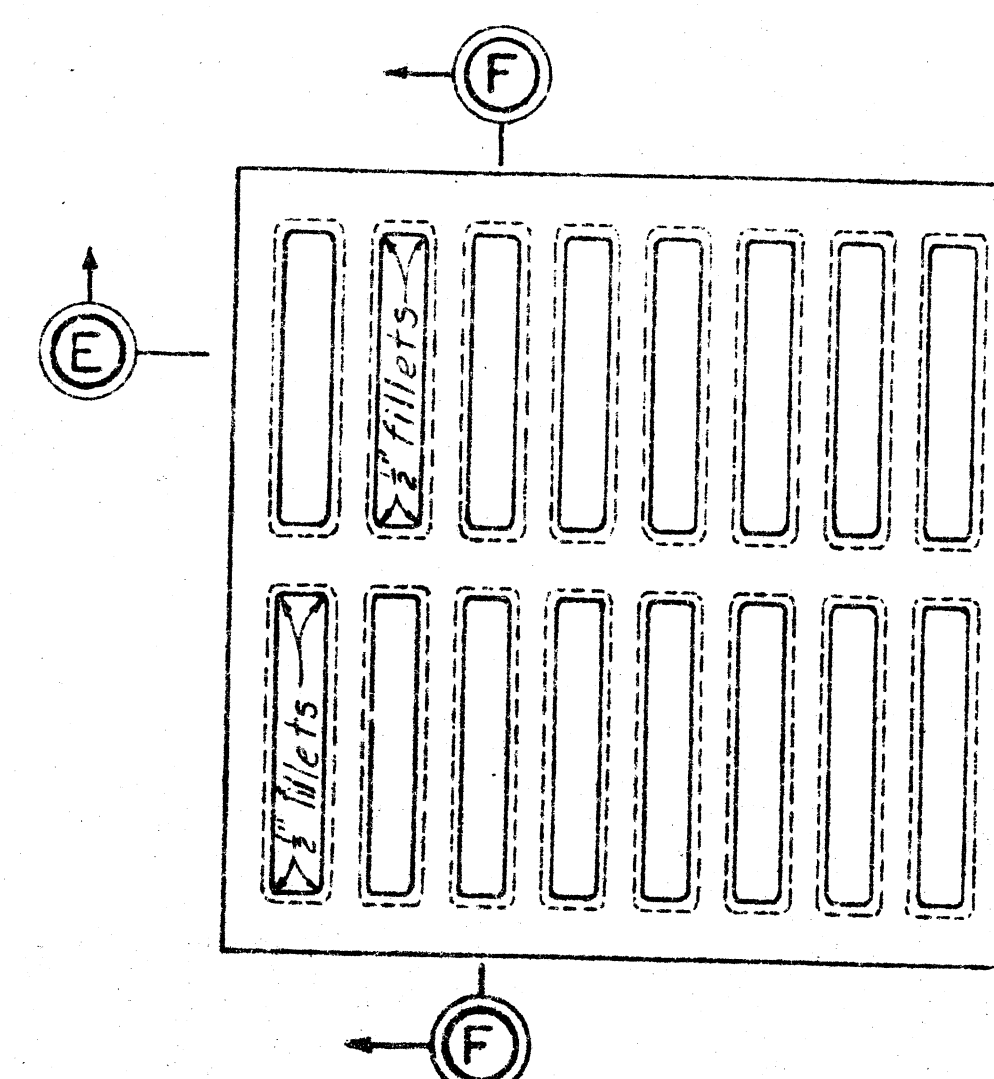
WALL THICKNESS

MANHOLE DEPTH THICKNESS

From 0 to 16 feet 8 1/2 inches

From 16 to 22 feet 13 inches

Over 22 feet 18 inches



PLAN

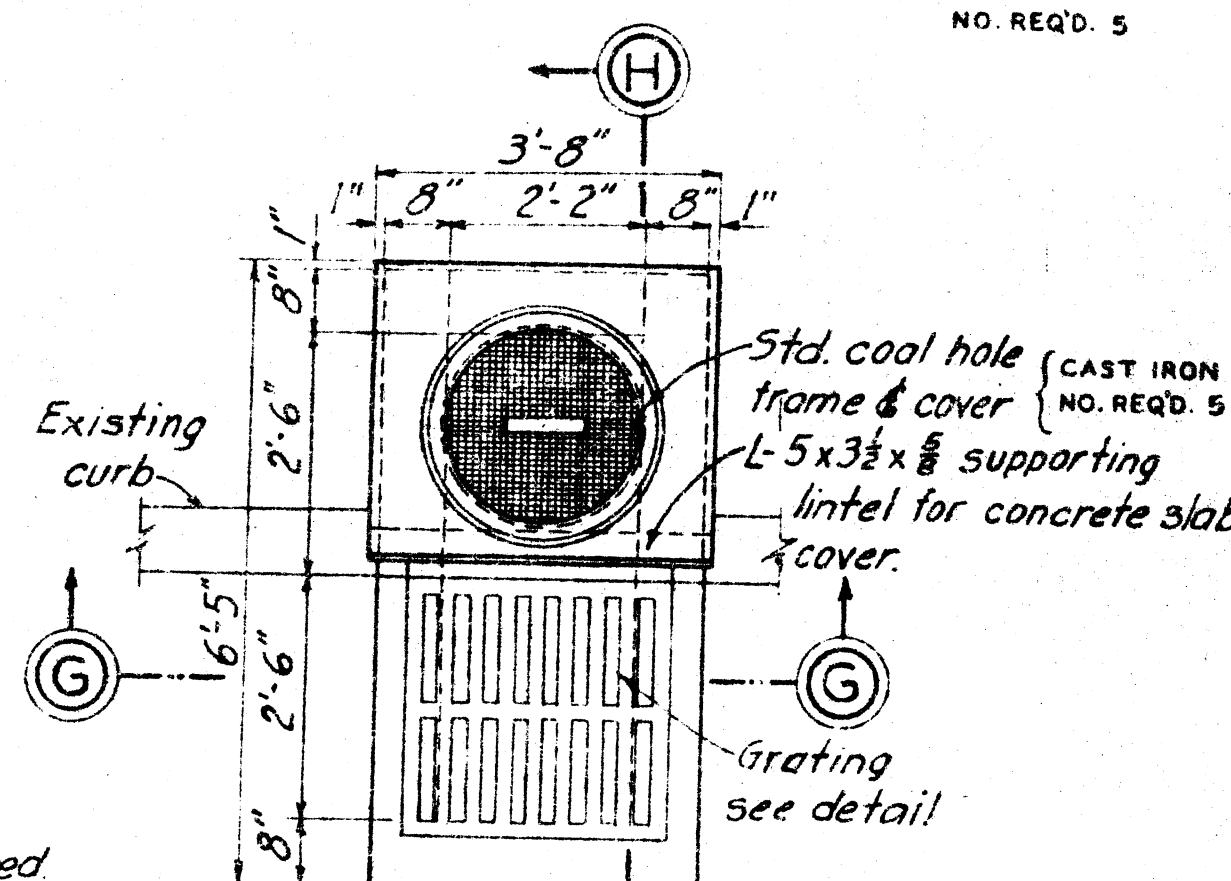
INLET GRATING

SCALE: 1/2"=1'-0"

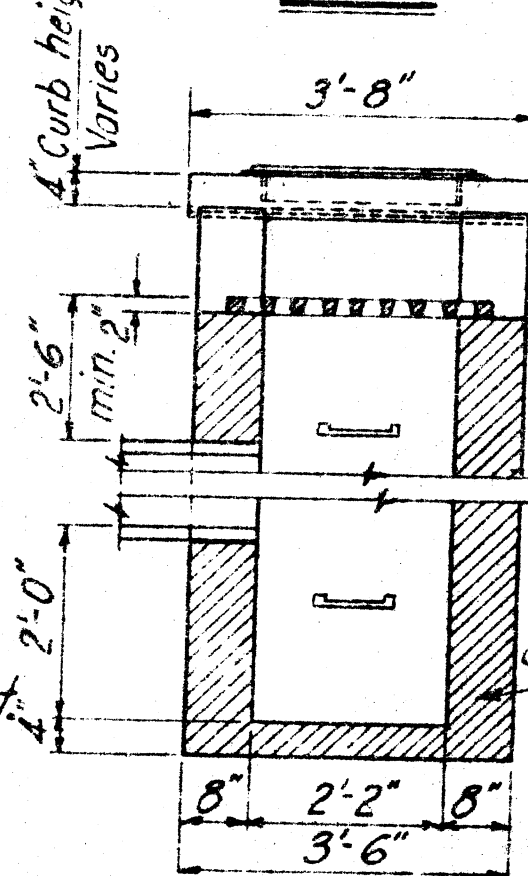
CAST IRON

NO. REQ'D. 5

NEW 5



PLAN

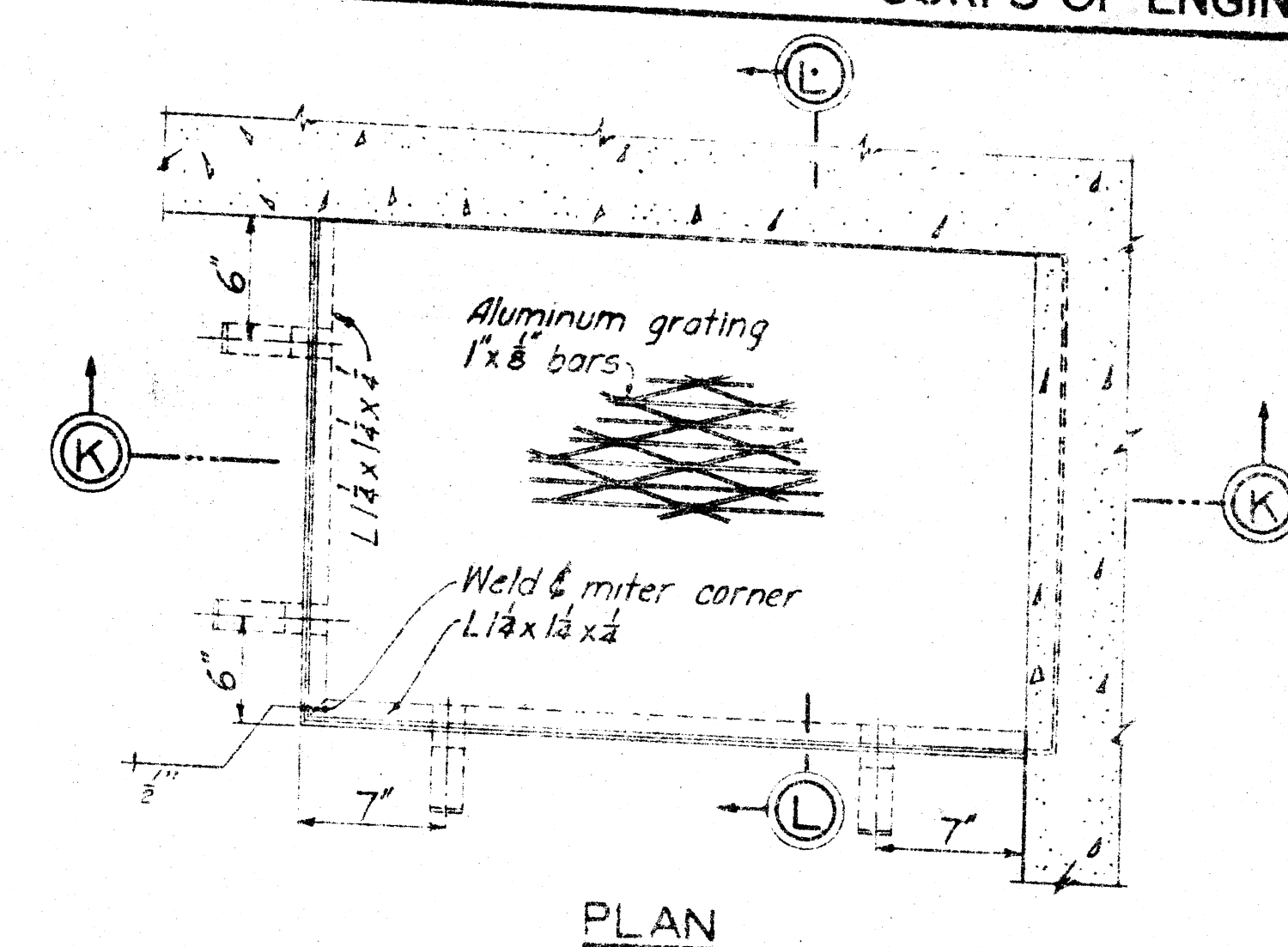


SECTION H-H

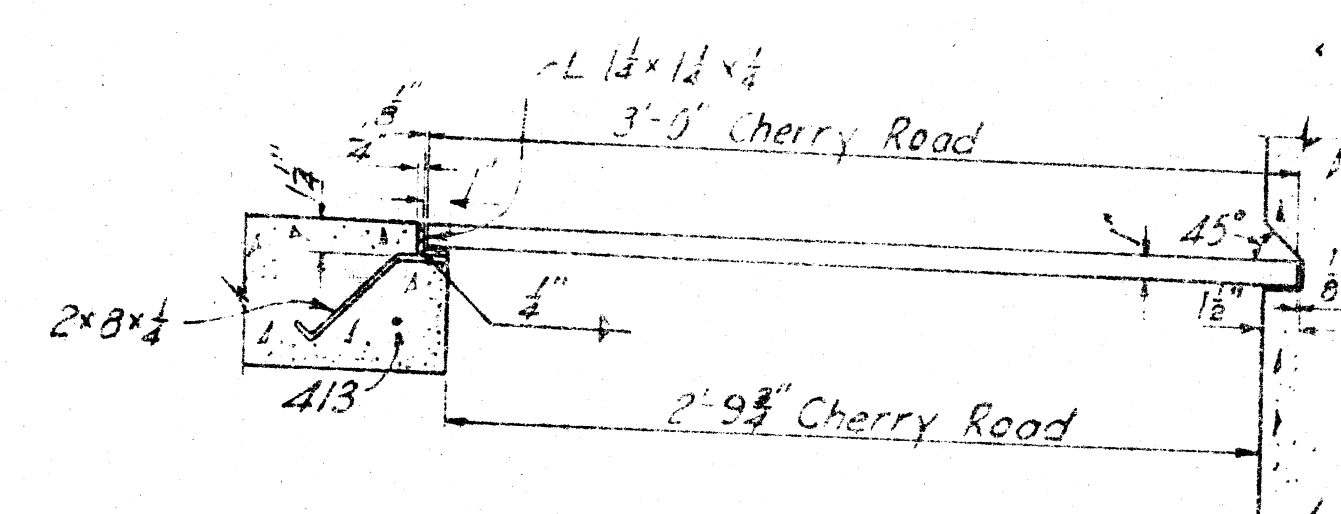
SECTION G-G

DETAILS OF TYPE B CATCH BASIN

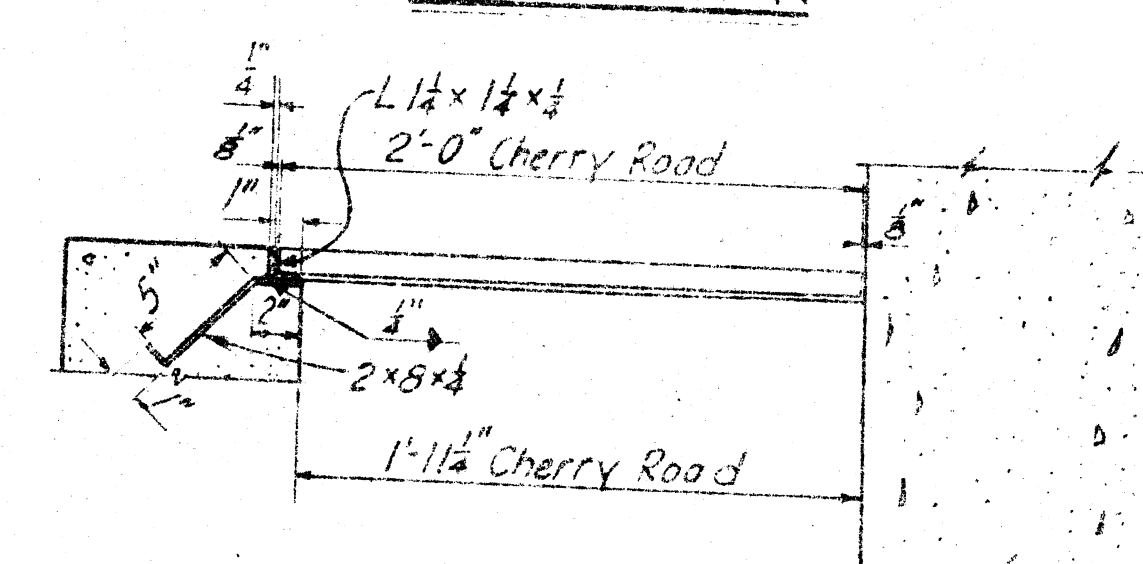
SCALE: 1/2"=1'-0"



PLAN



SECTION K-K



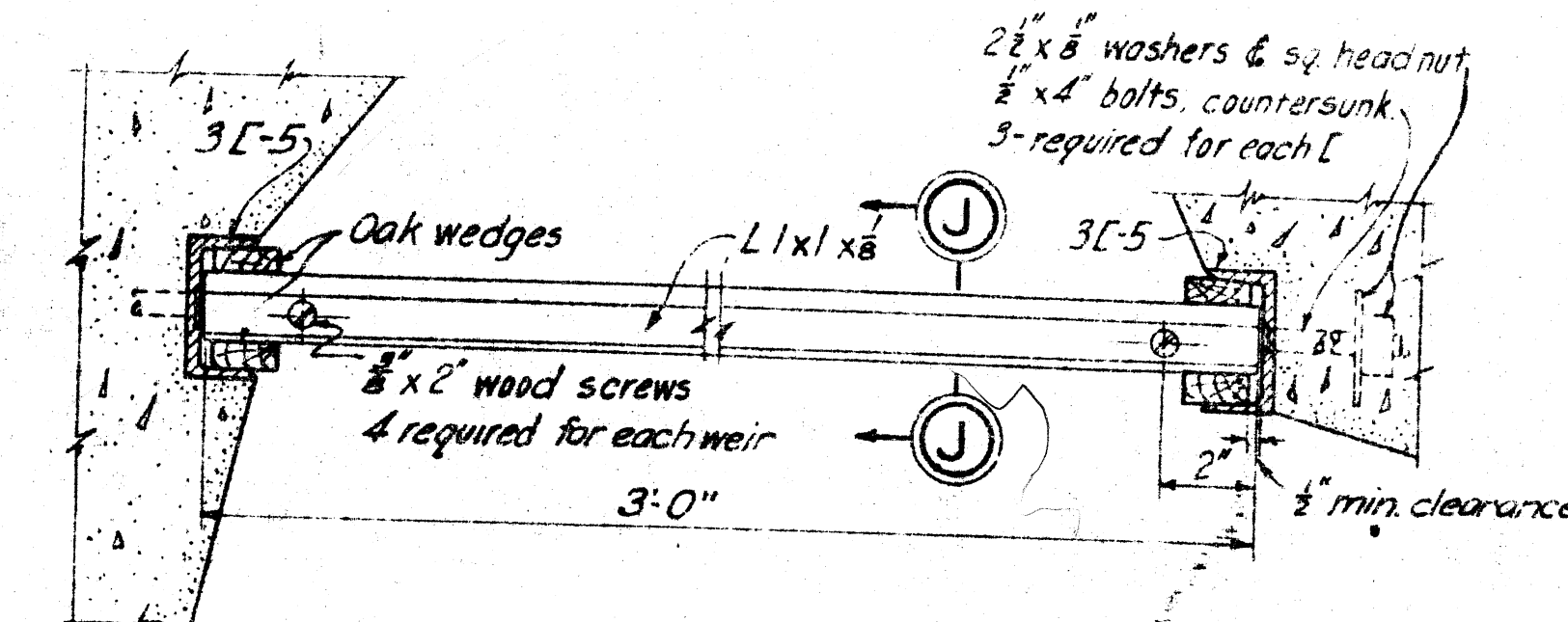
SECTION L-L

FLOOR GRATING
FOR SIPHON CHAMBERS

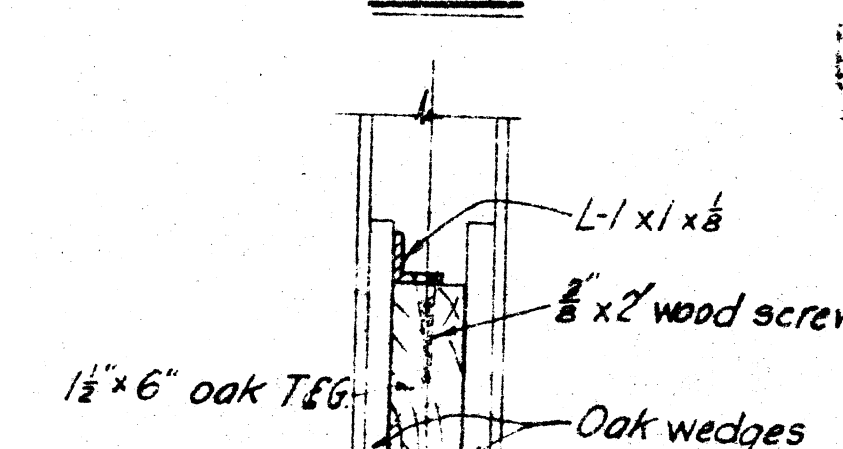
SCALE: 1/2"=1'-0"

STRUCTURAL ALUM.

NO. REQ'D. 2



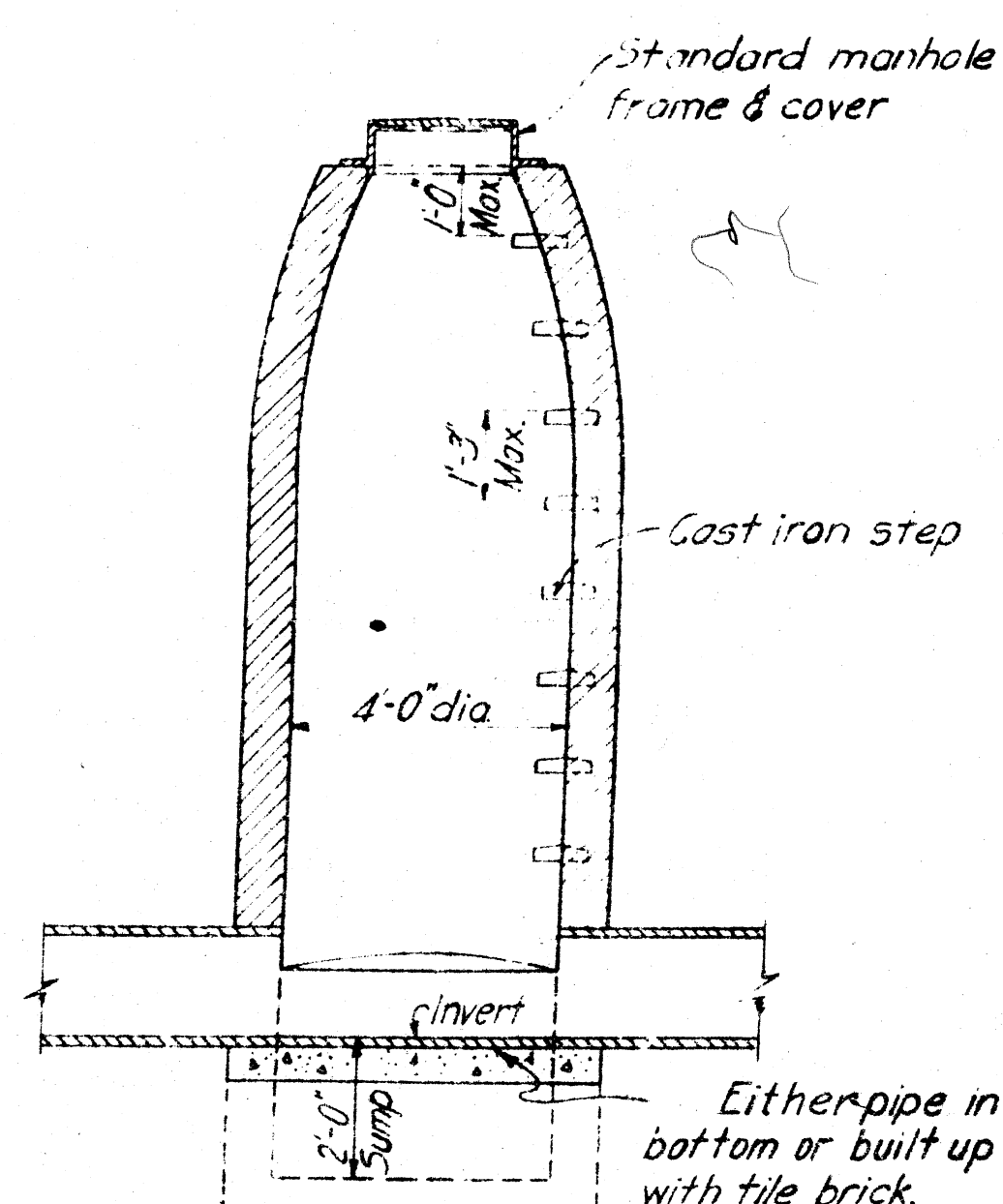
PLAN



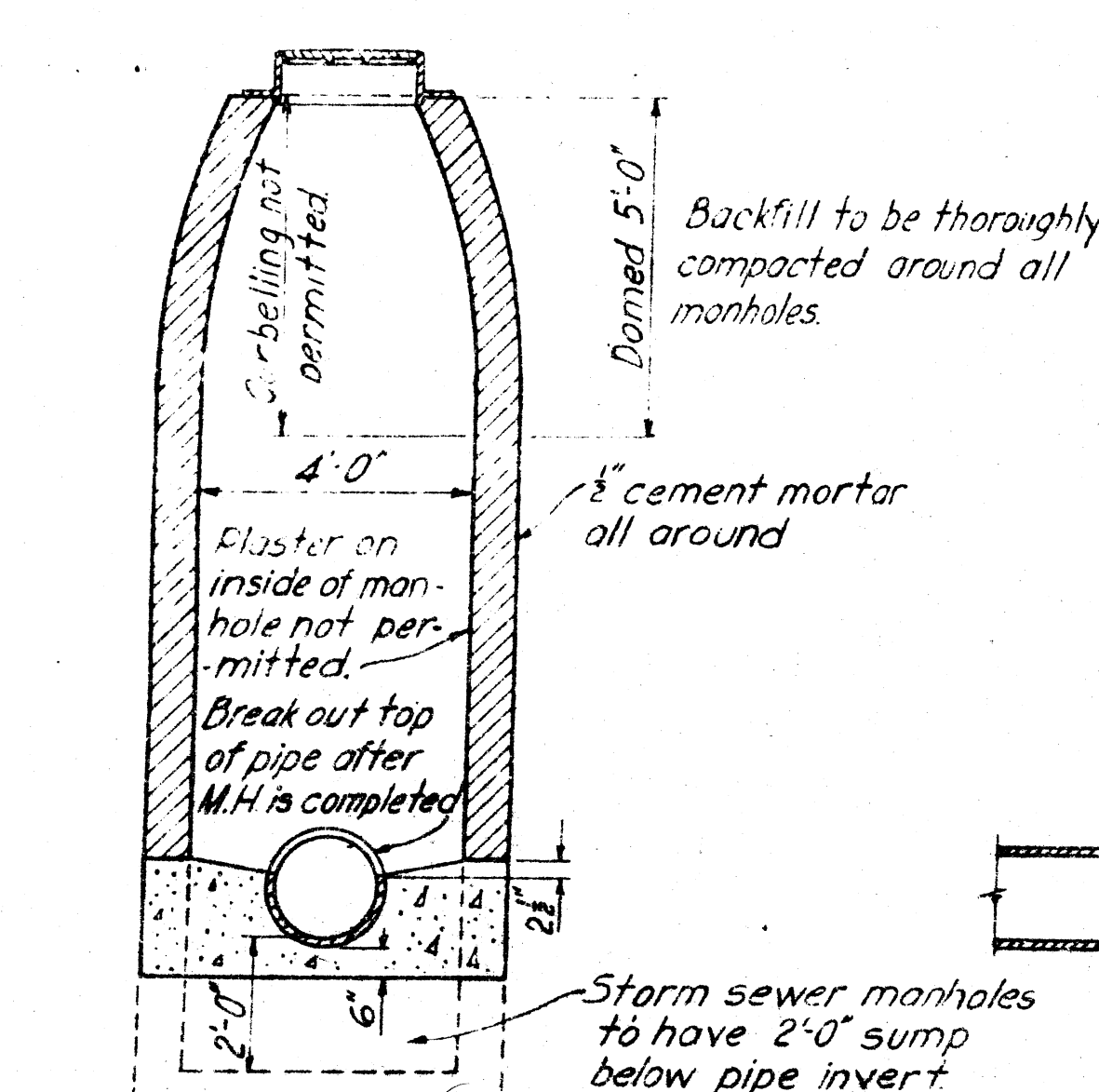
SECTION J-J

WEIR FOR
SIPHONS

SCALE: 3"=1'-0"



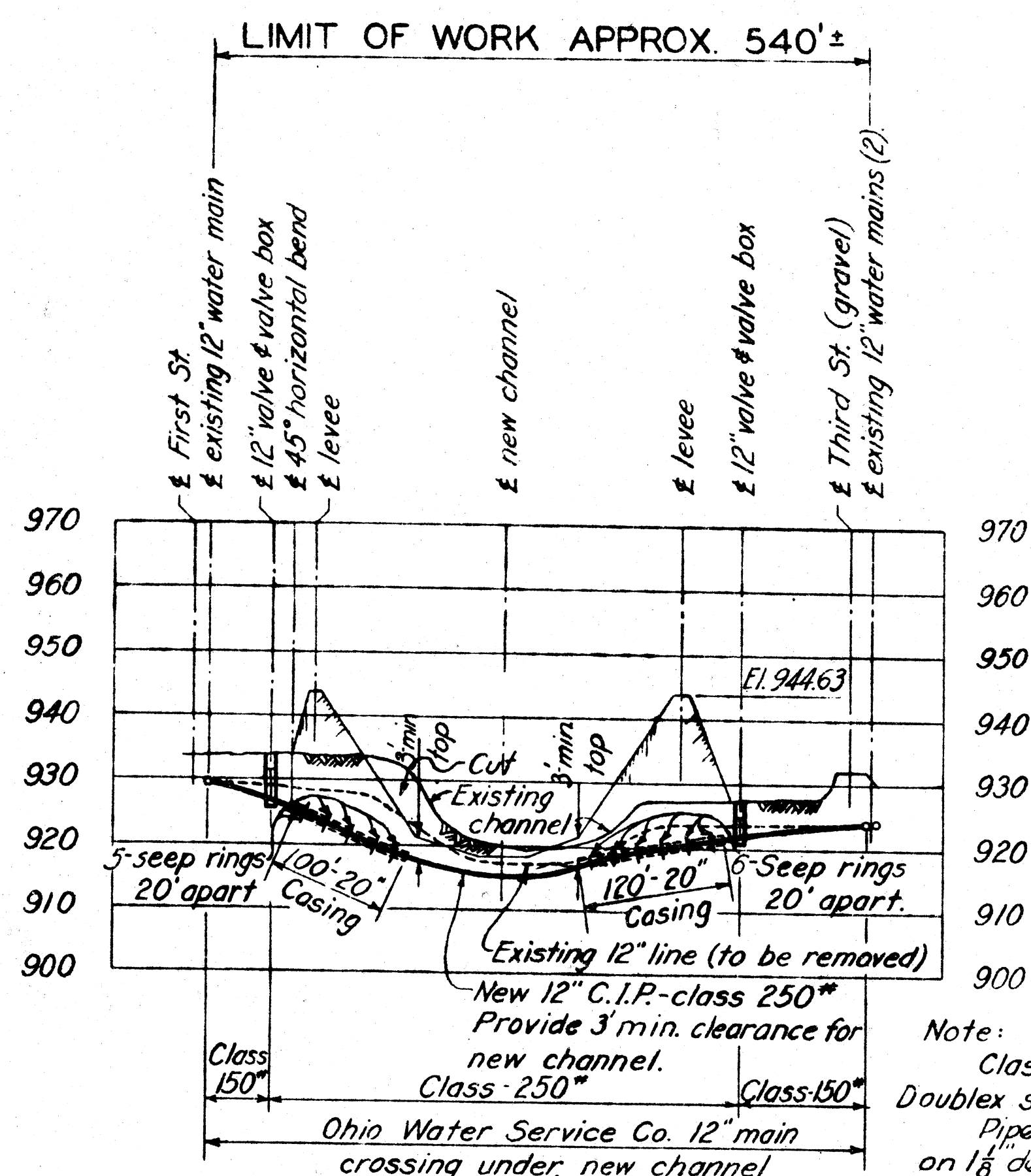
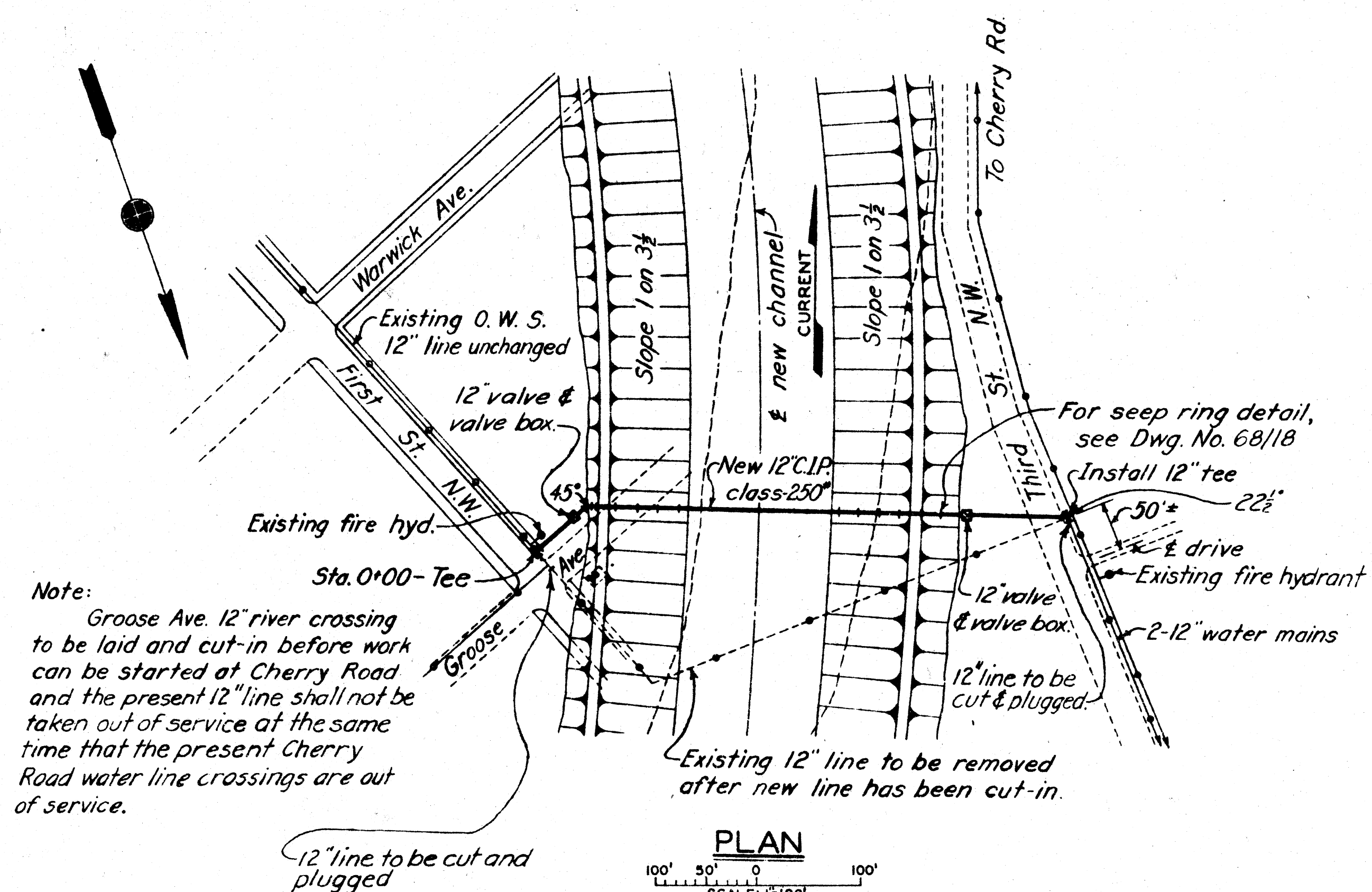
TYPICAL MANHOLE



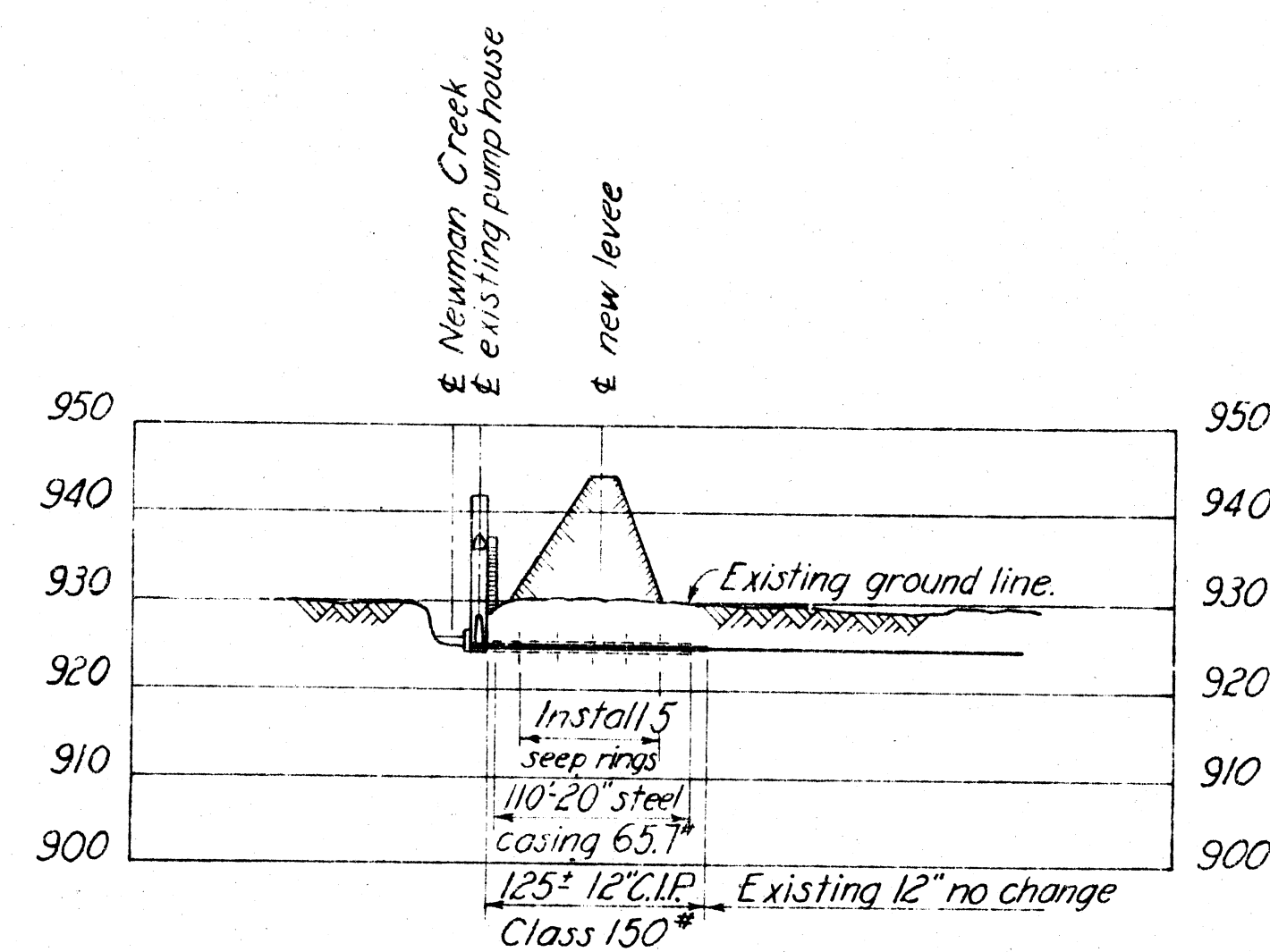
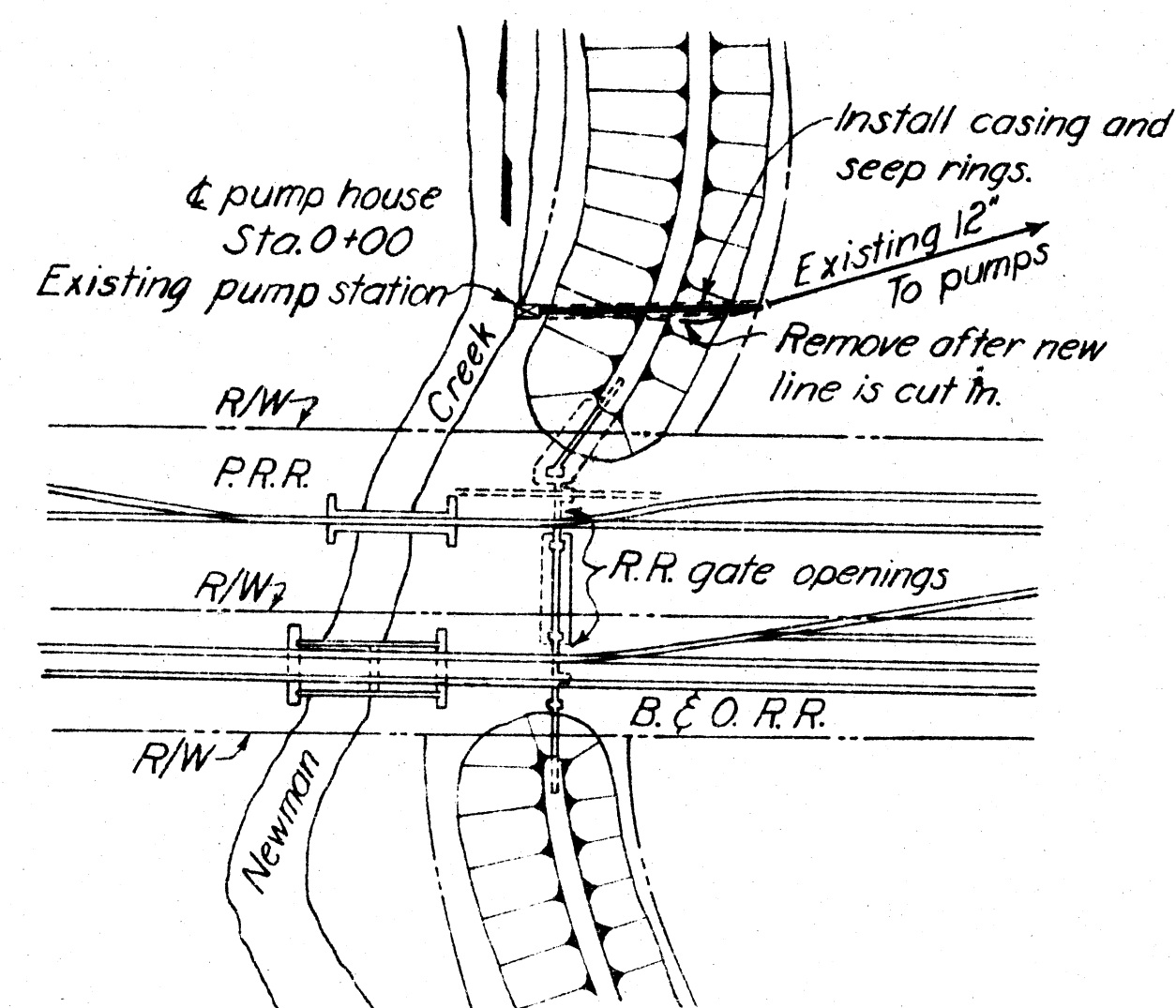
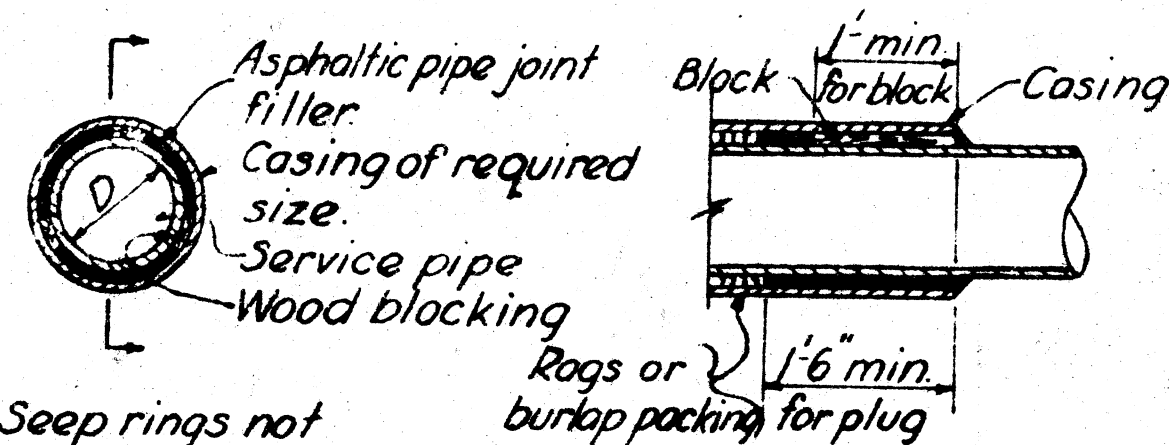
STORM AND SANITARY SEWER MANHOLES

SCALE: 3/8"=1'-0"

DEPARTMENT OF THE ARMY CORPS OF ENGINEERS OFFICE OF THE DISTRICT ENGINEER HUNTINGTON, W. VA.	
DRAWN BY: R.L.E.	TUSCARAWAS RIVER LOCAL PROTECTION PROJECT MASSILLON, OHIO SECTION 2, UNIT 2 MISCELLANEOUS SEWER DETAILS
TRACED BY: A.F.	
CHECKED BY: E.S.W.-G.O.S.	
SUBMITTED BY: [Signature]	
APPROVED BY: [Signature]	
DATE: OCT. 1948	DATE: OCT. 1948
APPROVED FOR: [Signature]	APPROVED FOR: [Signature]
SCALE: AS SHOWN	SPEC. NO.
027i-PM2-2-82/36	SHEET 58 OF 80



THIRD ST. TO GROOSE AVE.

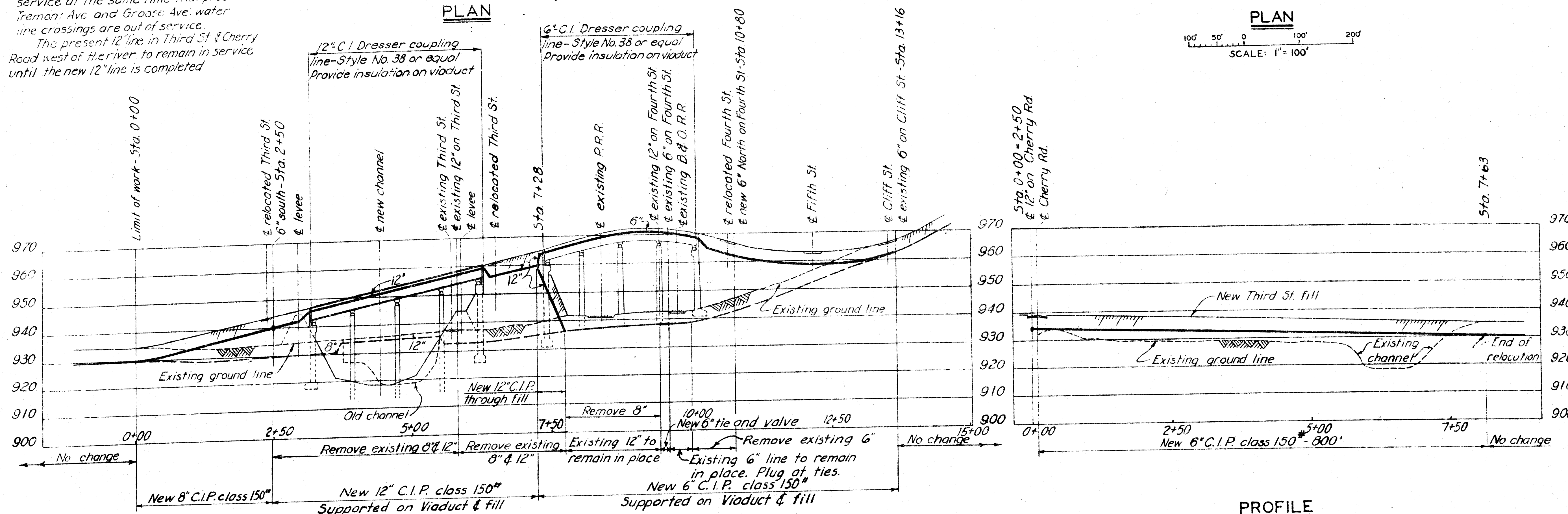
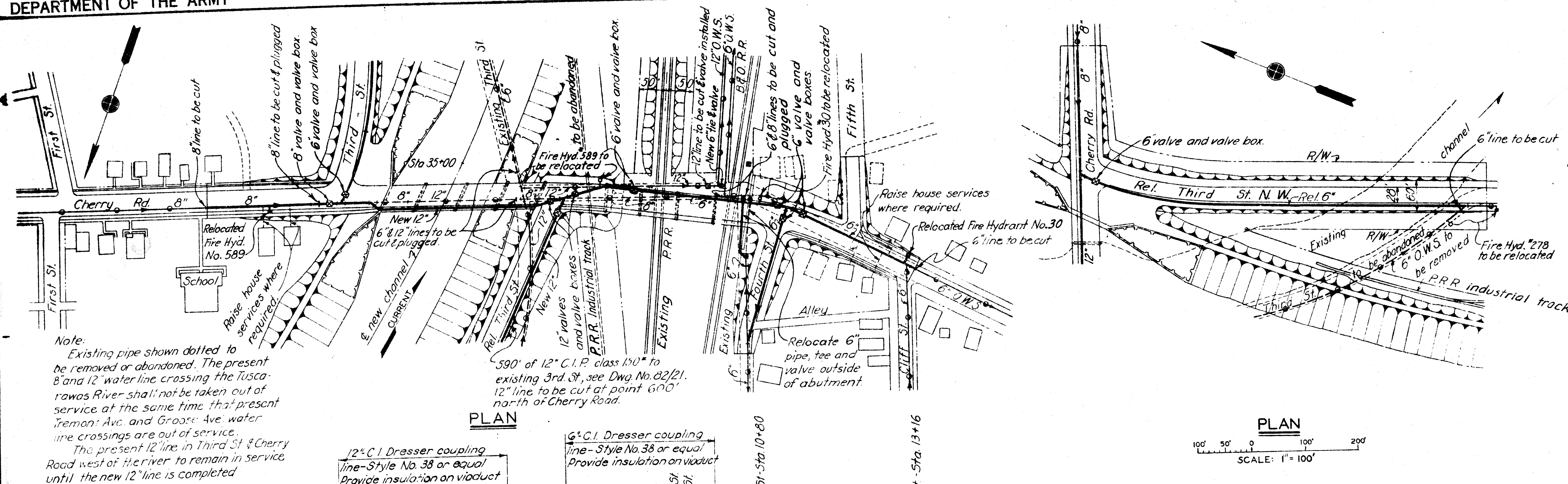


NEWMAN CREEK-12 LINE UNDER LEVEE

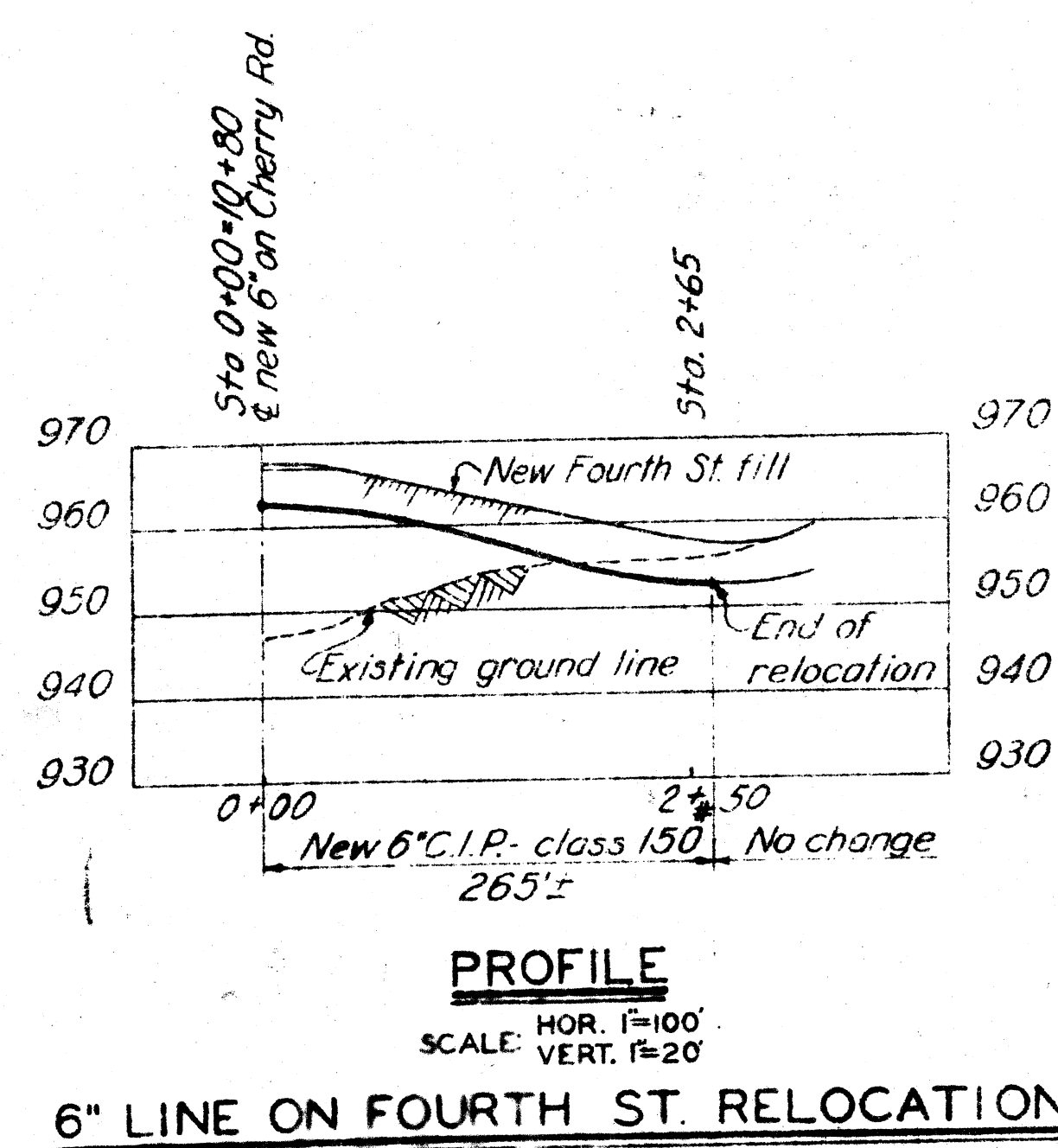
NOTES

For general plans, see Dwg. Nos. 16/11 and 16/12.
For utility location plans, Dwg. Nos. 8/1 and 8/2.
For details of seep rings, see Dwg. No. 68/18.

DEPARTMENT OF THE ARMY CORPS OF ENGINEERS OFFICE OF THE DISTRICT ENGINEER HUNTINGTON, W. VA.	
DRAWN BY: R.L.E.-T.C.G.	TUSCARAW LOCAL PROTECTION MASSILLON SECTION 2 OHIO WATER SERVICE GROOSE AVE. & 1
TRACED BY: C.C.B.-T.C.G.	OCT. 1948
CHECKED BY: D.G.J.-E.S.W.	027-821
SUBMITTED BY: C.M.P. ENG. DIV.	027-821
APPROVED: C.M.P. ENG. ASST.	027-821
APPROVED FOR:	027-821
DATE:	027-821



MAIN LINE CHANGES ON CHERRY RD.



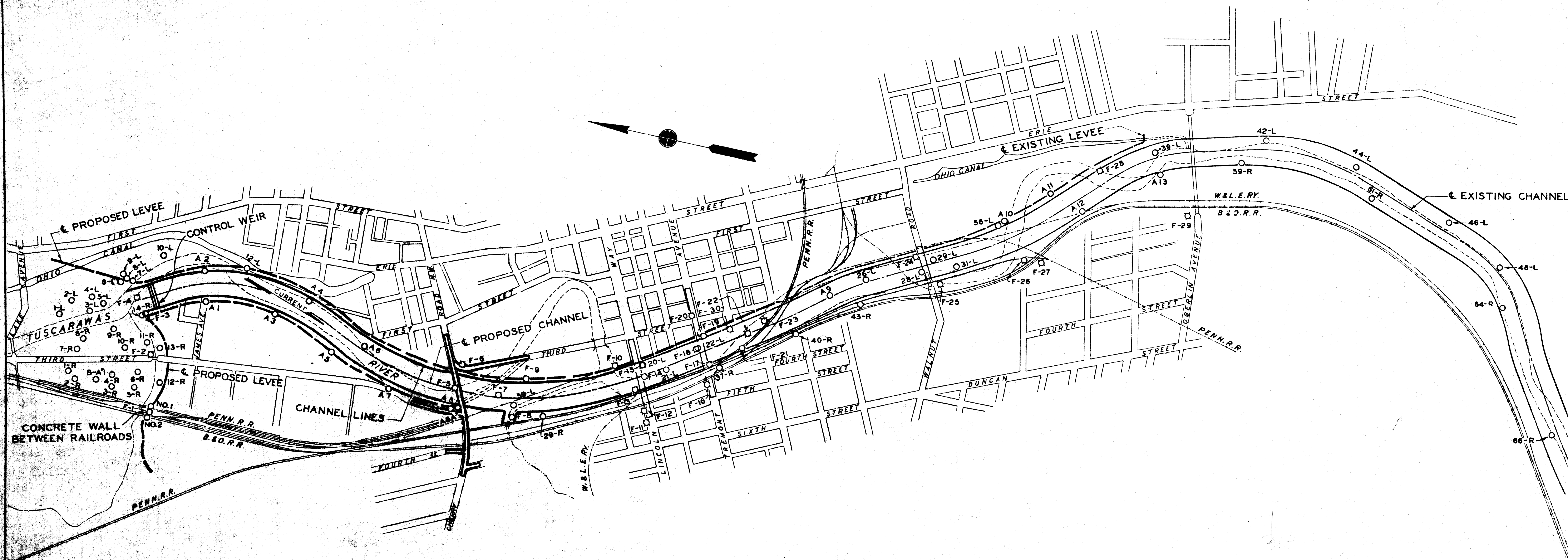
6" LINE ON FOURTH ST. RELOCATION

6" LINE ON THIRD ST. RELOCATION

NOTES

For general plan, see Dwg.
For general utility plan, see
For Cherry Road Viaduct, see Dwg.
For detail of plug at end of casing

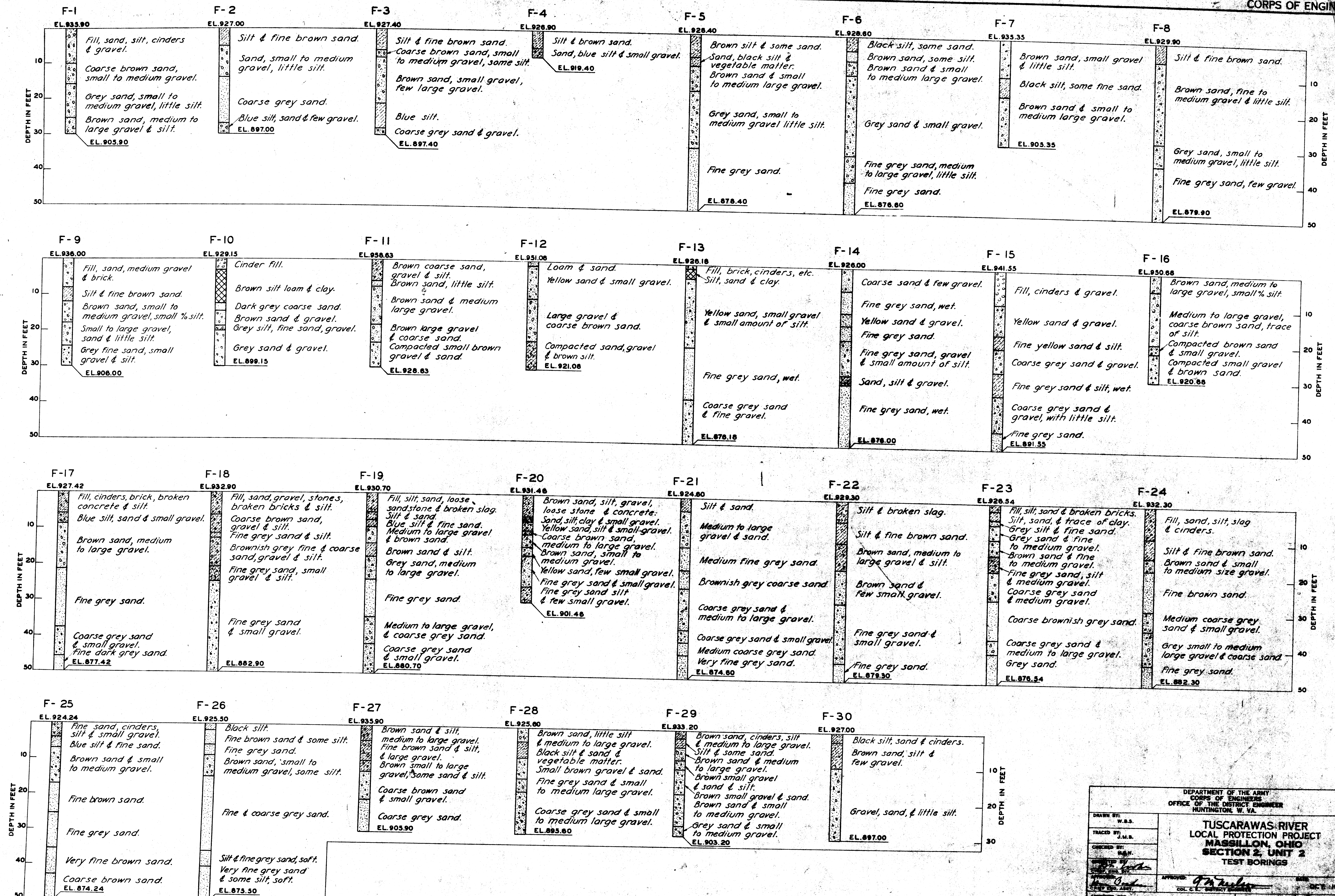
DRAWN BY: R.L.E. - T.C.G.		TUSCARAW LOCAL PROTECT MASSILLI SECTION AGES OHIO WATER SERVICE CHERRY	
TRACED BY: R.C.H. - T.C.G.		APPROVED: <i>[Signature]</i> CT. 1948	
CHECKED BY: D.G.J. - E.S.W.		APPROVED: <i>[Signature]</i> NO.	
SUBMITTED BY: CHIEF ENGR. DIV.		APPROVED FOR: <i>[Signature]</i> NO.	
DATE: <i>[Signature]</i>		SCALE: 1" = 100'	
		82/38	
		0271	
		SHEET 94	



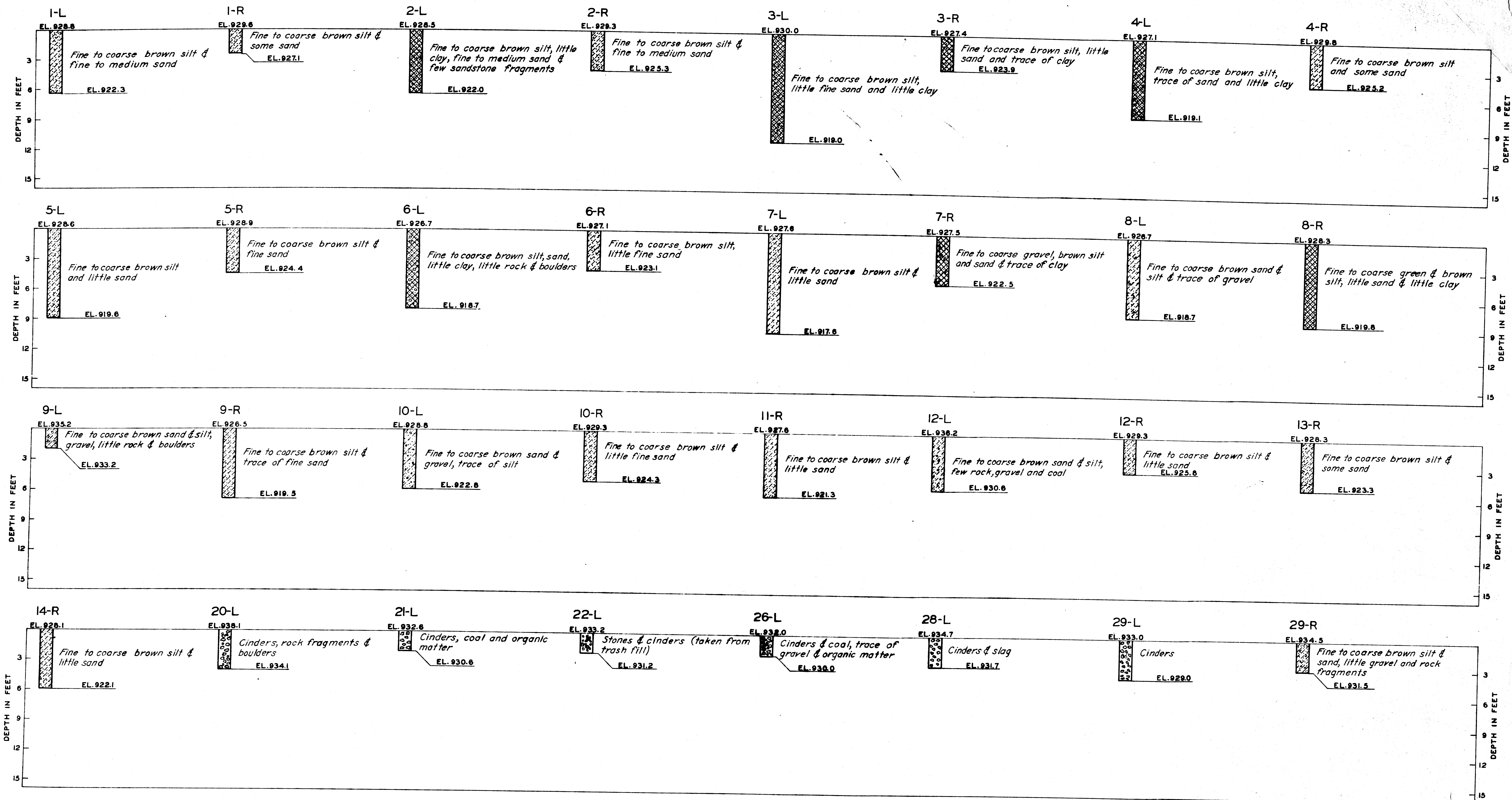
PLAN
400' 200' 0 400' 800'
SCALE: 1"=400'

LEGEND
DRILLED HOLES □
AUGER HOLES ○

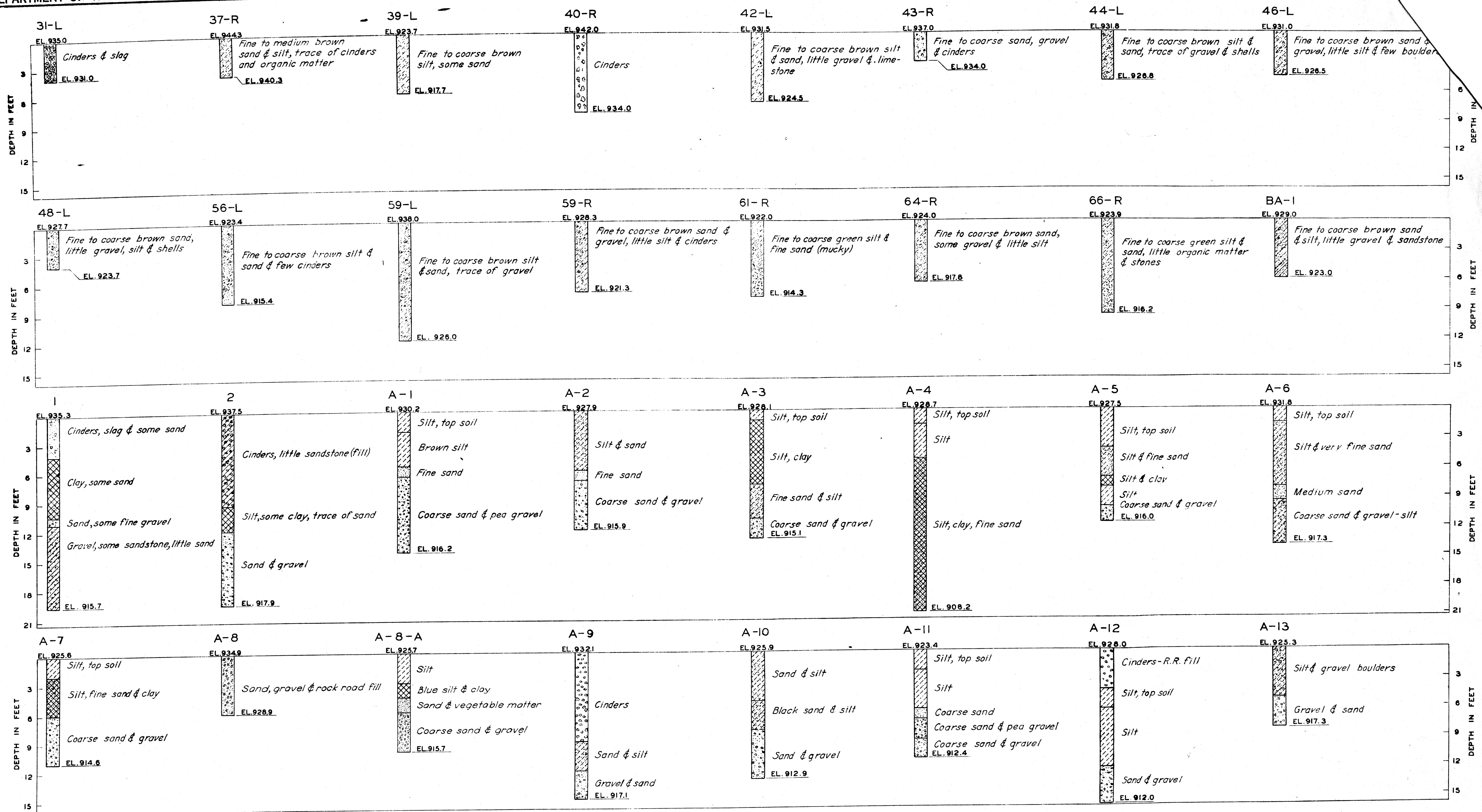
DEPARTMENT OF THE ARMY CORPS OF ENGINEERS OFFICE OF THE DISTRICT ENGINEER HUNTINGTON, W. VA.	
TUSCARAWAS RIVER LOCAL PROTECTION PROJECT MASSILLON, OHIO SECTION 2, UNIT 2 PLAN OF FOUNDATION EXPLORATIONS	
DRAWN BY: M.B.A.	DATE: OCT. 1948
TRACED BY: R.A.E.-C.C.G.	
CHECKED BY: CCM-608	
SUBMITTED BY: [Signature]	
APPROVED: [Signature]	
APPROVED FOR: [Signature]	
DATE: [Blank]	
SCALE: 1"=400'	DRAWING NUMBER: 027i-PM2-2-10/2
	SHEET 1-1 OF 6



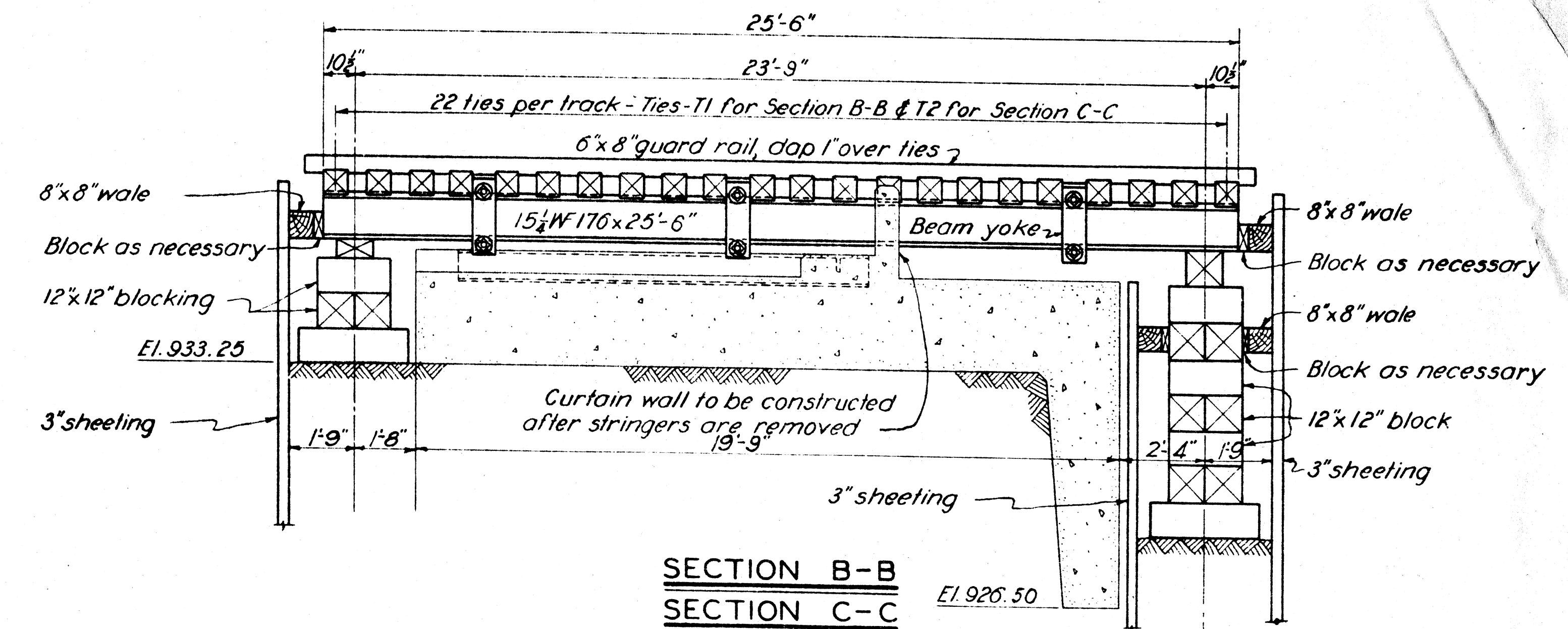
DEPARTMENT OF THE ARMY CORPS OF ENGINEERS OFFICE OF THE DISTRICT ENGINEER HUNTINGTON, W. VA.	
TUSCARAWAS RIVER LOCAL PROTECTION PROJECT MASSILLON, OHIO SECTION 2, UNIT 2 TEST BORINGS	
DRAWN BY: W.B.S.	APPROVED: [Signature] DATE: OCT 10 1948
TRACED BY: W.B.S.	CDL E.C. SUBJECT: [Signature]
CHECKED BY: W.B.S.	
APPROVED: [Signature]	
SCALE: 1"=10'-0" (SEE PLAN)	
0271-PM2-2-40/3 Sheet 1 of 6	



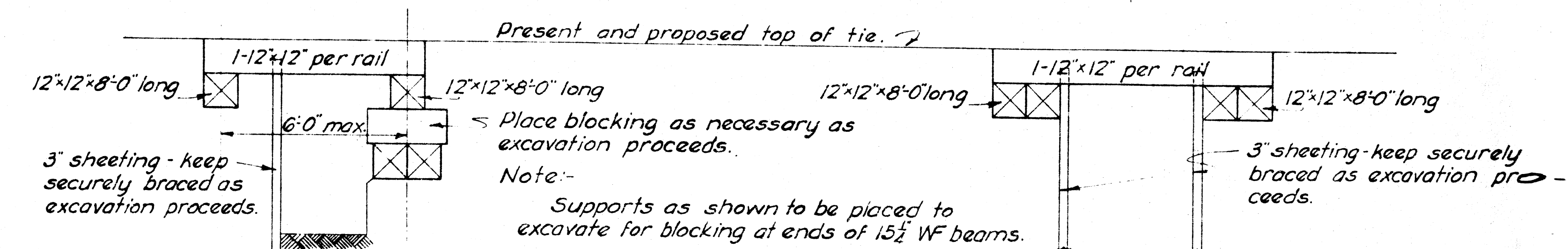
DEPARTMENT OF THE ARMY CORPS OF ENGINEERS OFFICE OF THE DISTRICT ENGINEER HUNTINGTON, W. VA.		TUSCARAWAS RIVER LOCAL PROTECTION PROJECT MASSILLON, OHIO SECTION 2, UNIT 2 TEST BORINGS	
DRAWN BY: T.F.C.			
TRACED BY: A.R.M.		DATE: OCT. 1948	
CHECKED BY: D.G.J.		APPROVED: <i>[Signature]</i>	
SUBMITTED BY: <i>[Signature]</i>		CHIEF ENG. ASST. <i>[Signature]</i>	
APPROVED FOR: <i>[Signature]</i>		SCALE: 1/4" = 1'-0"	
DATE: _____		SHEET 1-3 OF 6	



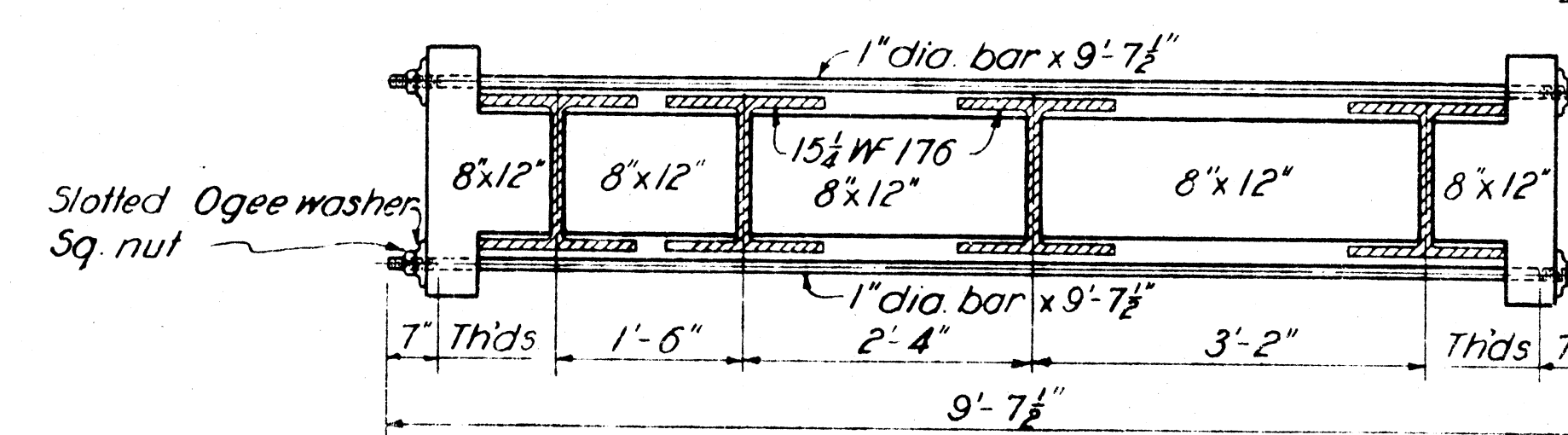
DEPARTMENT OF THE ARMY CORPS OF ENGINEERS OFFICE OF THE DISTRICT ENGINEER HUNTINGTON, W. VA.	
TUSCARAWAS RIVER LOCAL PROTECTION PROJECT MASSILLON, OHIO SECTION 2, UNIT 2 TEST BORINGS	
DRAWN BY: T.R.D.	DATE OCT. 1948
TRACED BY: ARM.-G.H.H.	
CHECKED BY: D.G.J.	
SUBMITTED BY: [Signature]	
APPROVED: [Signature] CHIEF ENG. ASST.	APPROVED: [Signature] COL. C. E. DISTRICT ENGINEER
APPROVED FOR:	SCALE: 1" = 10'
DATE:	SPEC. NO.
DRAWING NUMBER 0271-PM2-2-10/5 SHEET 1-4 OF 6	



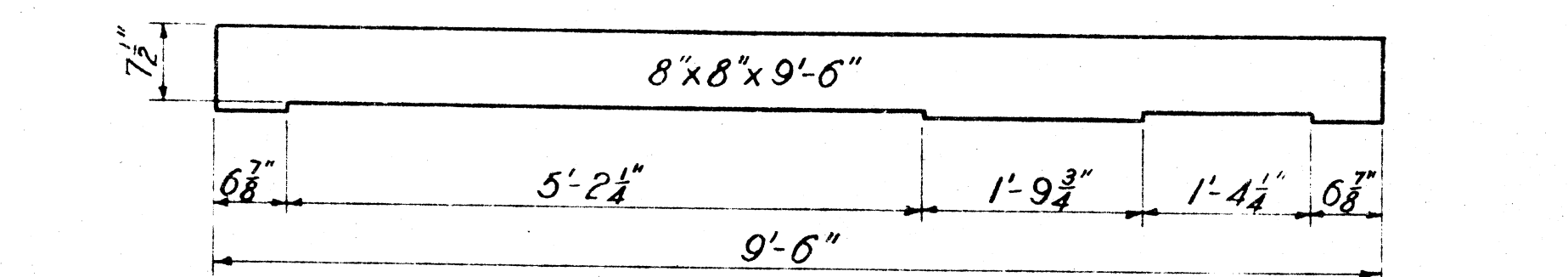
SECTION B-B
SECTION C-C



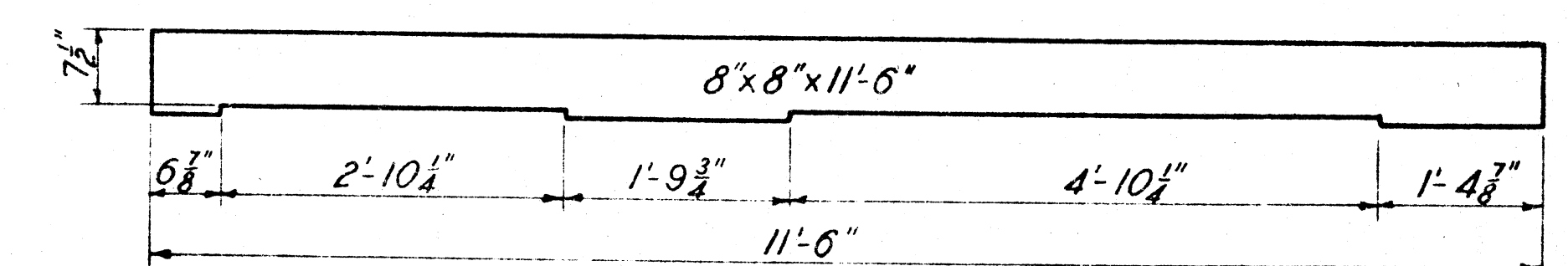
TEMPORARY SUPPORTS



DETAIL OF BEAM YOKE-Y



DETAIL OF TIE-TI

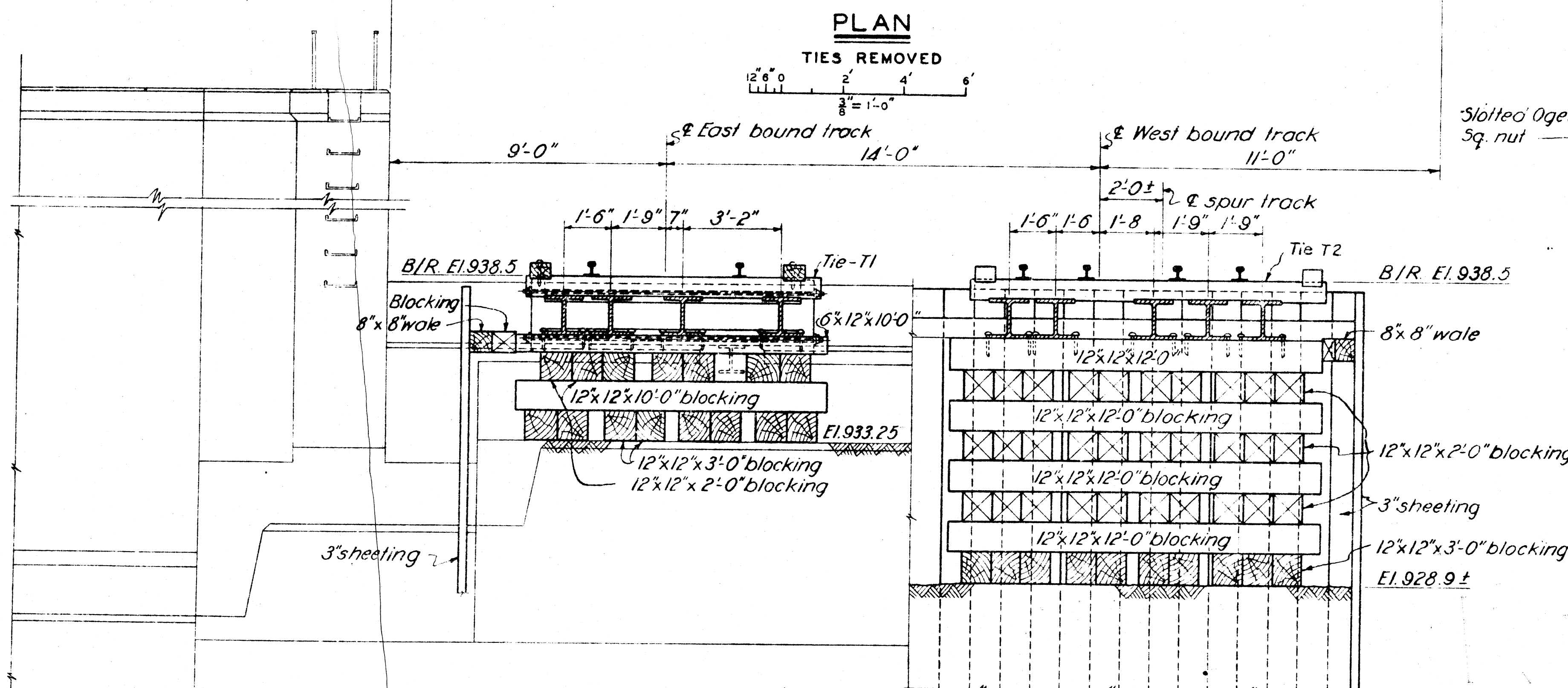


DETAIL OF TIE-T2

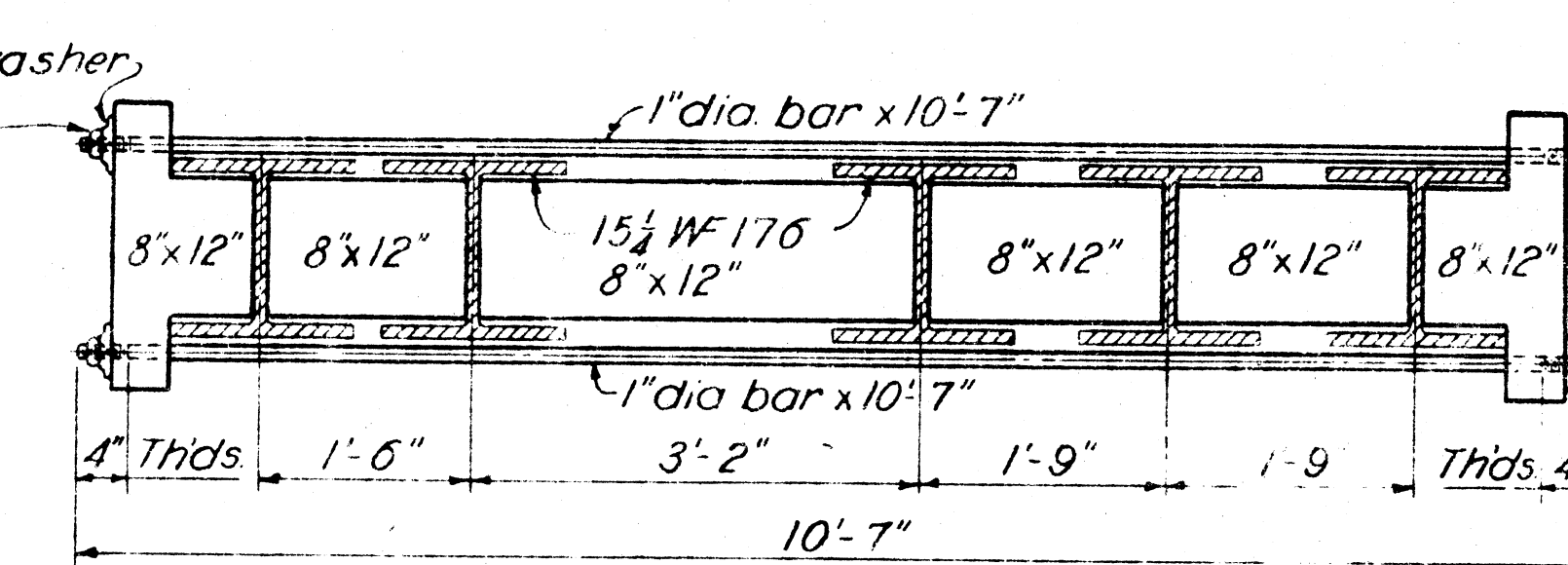
NOTES

Securely spike stringers to blocking with track spikes and blocking to blocking with $\frac{3}{4}$ " drift bolts.

Guard rail to be spiked to every other tie with $\frac{3}{8}$ " x 10" boat spikes, driven in staggered lines. Extra boat spike each side of splice.

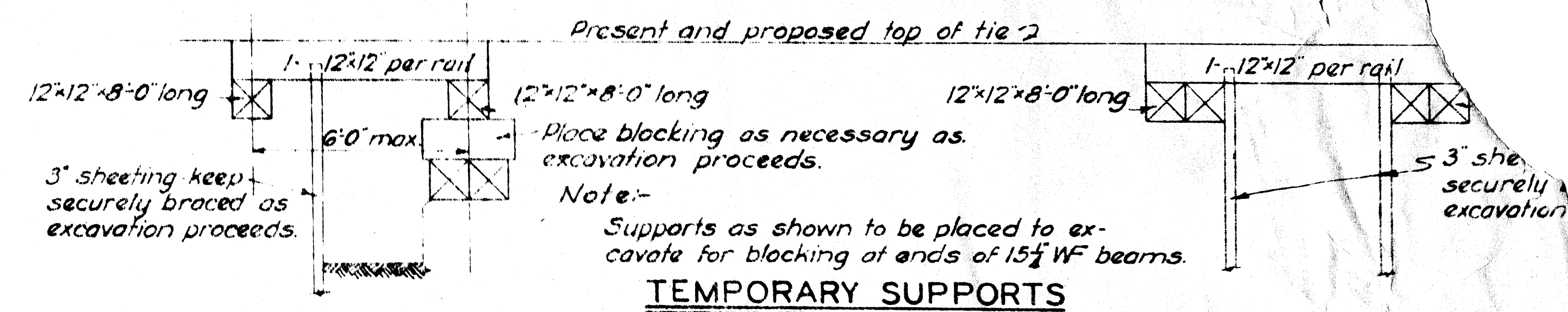


SECTION A-A

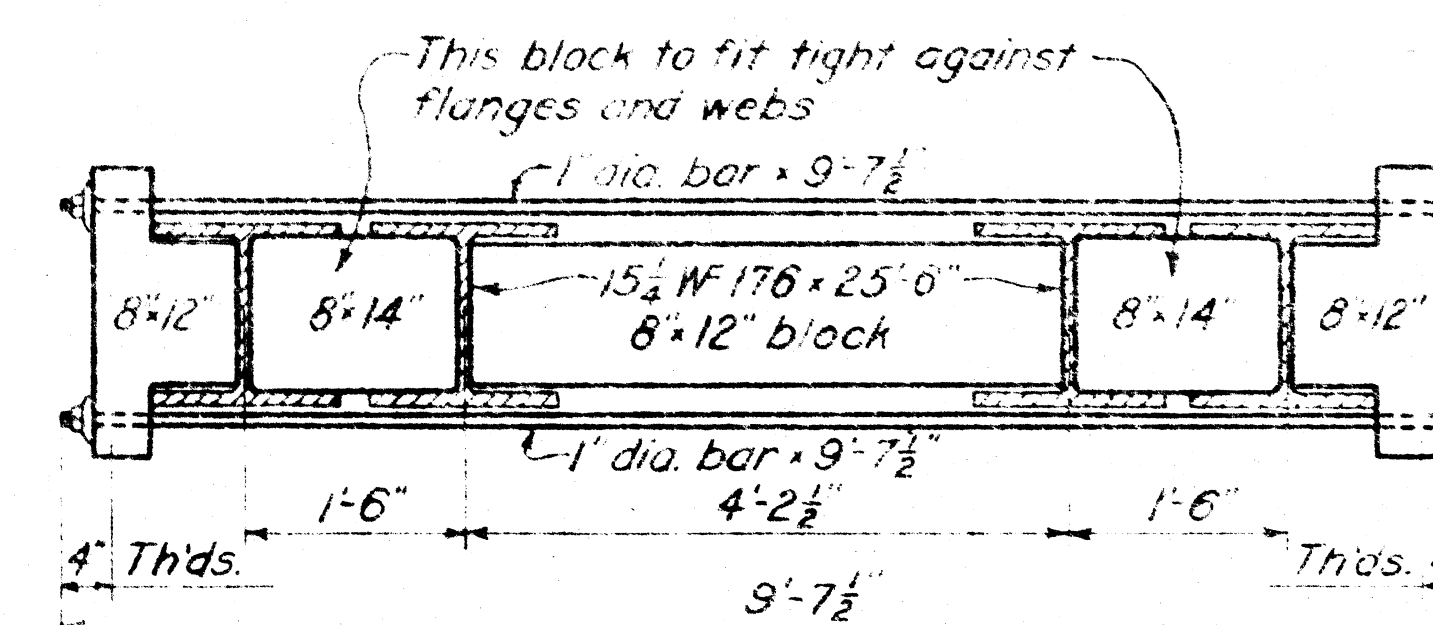


DETAIL OF BEAM YOKE-Y2

DRAWN BY: S.B.		TUSCARAWAS RIVER LOCAL PROTECTION PROJECT MASSILLON, OHIO SECTION 2, UNIT 2 B. & O. R.R. OPENING TRACK SHORING	DATE: OCT. 1948
TRACED BY: R.A.E.			
CHECKED BY: A.R.N.&A.W.S.			
SUBMITTED BY: <i>[Signature]</i> CHIEF, ENG. DIV.			
APPROVED: <i>[Signature]</i> CHIEF ENG. ASST.			
APPROVED: <i>[Signature]</i> COL. C. E., DISTRICT ENGINEER		SCALE: $\frac{1}{8}'' = 1'-0''$ SPEC. NO.	
APPROVED FOR:		DRAWING NUMBER 027-17M2-P-20/15	

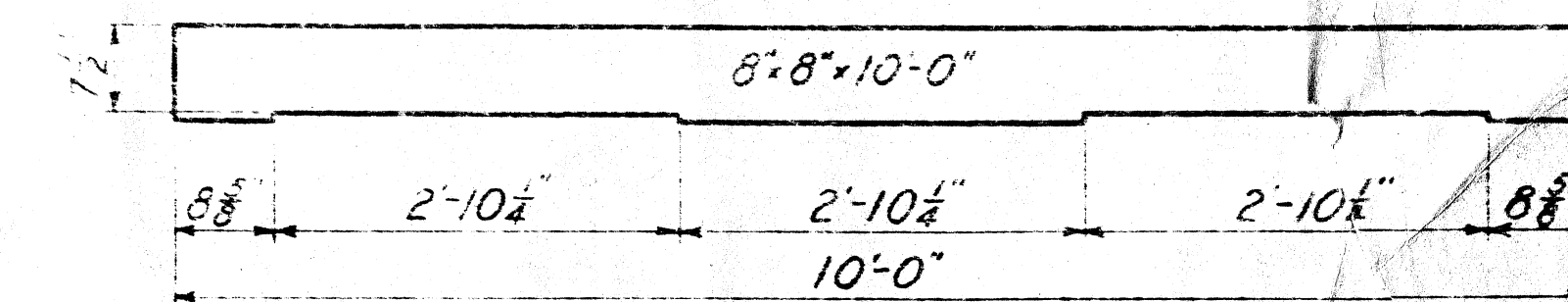


SECTION C-C



DETAIL OF BEAM YOKE

4 REQUIRED
SCALE: $\frac{3}{4} = 1 - 0$

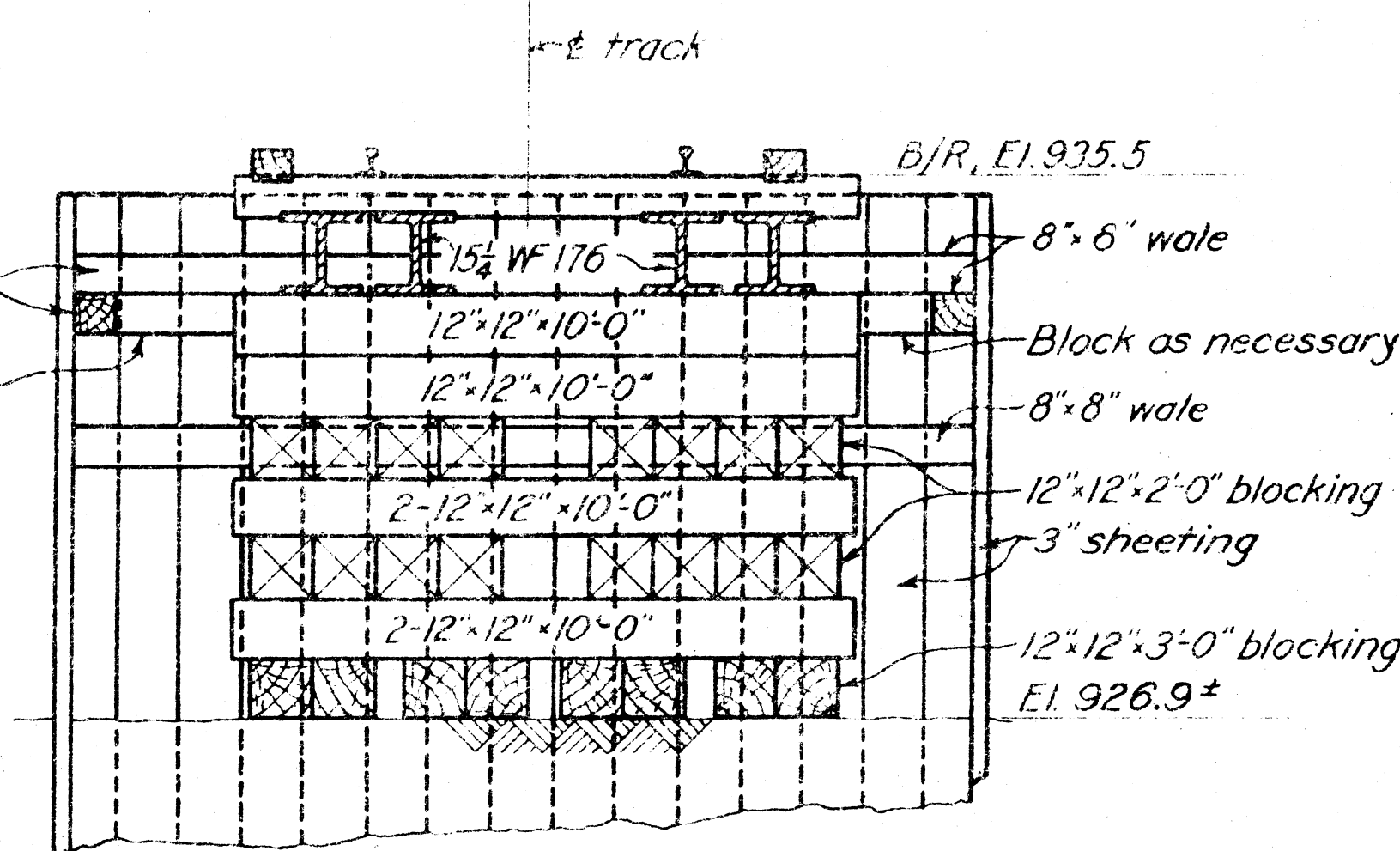


DETAIL OF TIE

22 REQUIRED
SCALE: $\frac{3}{4}'' = 1' - 0''$

NOTES

Securely spike stringers to cap with track spikes and blocking to blocking with $\frac{3}{4}$ " drift bolts. Guard rail to be spiked to every other tie with 10" boat spikes, driven in staggered lines. Extra boat spike each side of splice.



SECTION A-A

SECTION B-B

DRAWN BY:	S.B.
TRACED BY:	C.C.B.
CHECKED BY:	A.R.N.&A.W.
SUBMITTED BY:	<i>[Signature]</i>
CHIEF, ENG.	
APPROVED:	

DEPARTMENT OF THE ARMY
CORPS OF ENGINEERS
OFFICE OF THE DISTRICT ENGINEER
HUNTINGTON, W. VA.

**TUSCARAWAS RIVER
LOCAL PROTECTION PROJECT
MASSILLON, OHIO
SECTION 2, UNIT 2
PENNA. OPENING
TRACK**