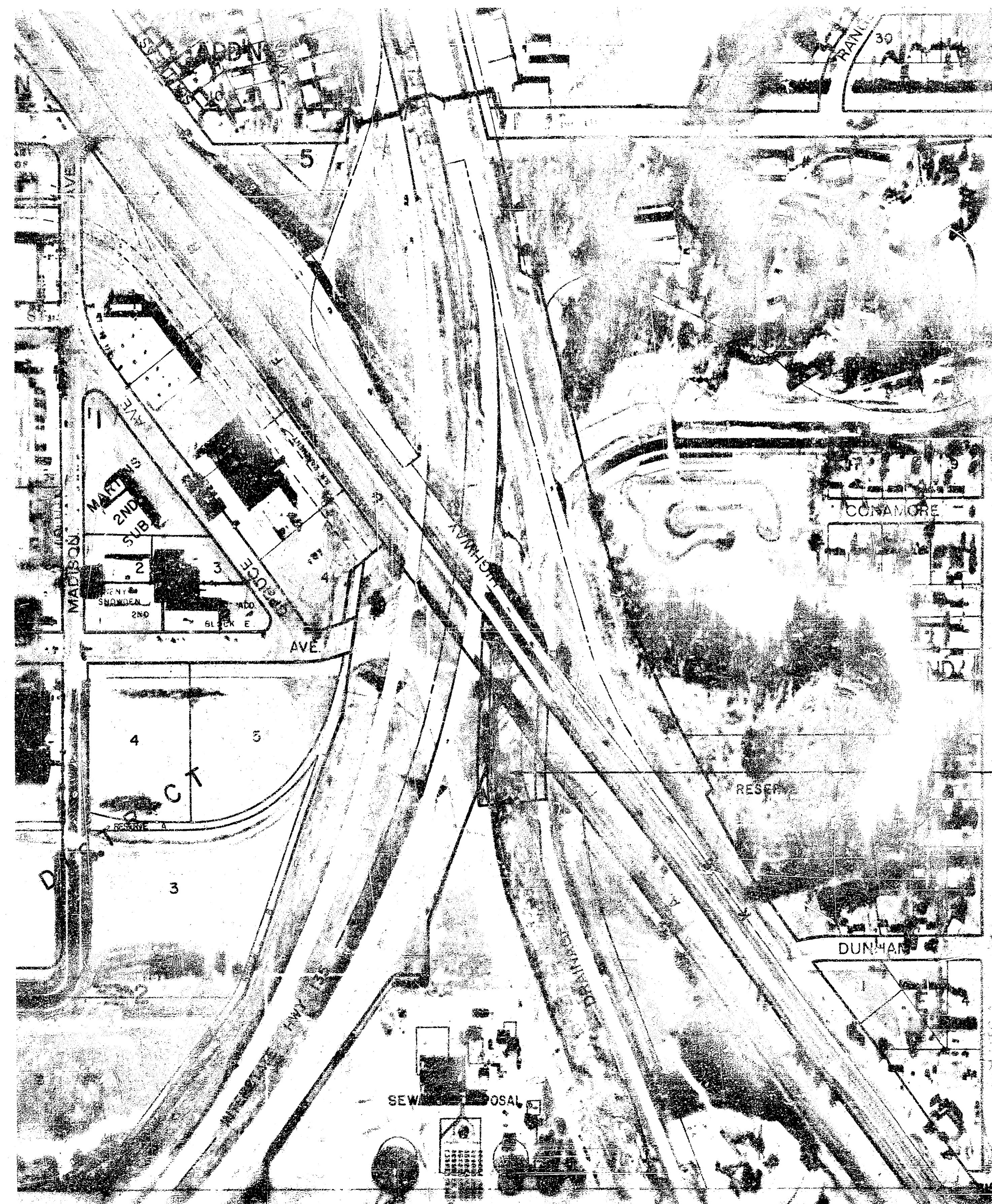


RECONSTRUCT CANAL LINING ARKANSAS RIVER TO K-15 HIGHWAY

GENERAL NOTES

1. THE FOLLOWING ITEMS SHALL BE INCLUDED IN THE BID PRICE FOR LIN. FT. OF CANAL LINING: ANY NECESSARY PIPE, CONCRETE BOX STRUCTURE, HEADWALLS, FLAP GATES, UNDERDRAIN, DRAIN MATERIAL AND 6" FILTER BLANKET.
2. LUMP SUM CLEARING RIGHT-OF-WAY SHALL INCLUDE ANY AND ALL ITEMS WHOSE REMOVAL IS NECESSARY TO CONSTRUCT PROJECT.
3. POWER POLE TO BE RELOCATED BY "OTHERS".
4. FIELD ENGINEER SHALL TAKE CROSS-SECTIONS BEFORE AND AFTER CONSTRUCTION. THESE CROSS-SECTIONS SHALL BE USED TO DETERMINE FINAL PAY QUANTITIES FOR EARTHWORK.
5. COST OF PROVIDING SITE PROTECTION DURING CONSTRUCTION, (I.E., DEWATERING, COFFERDAM, PUMPING, ETC.), SHALL BE INCIDENTAL TO PROJECT.
6. CONTRACTOR IS TO CONTACT DAVID STONE, DIRECTOR OF OPERATIONS AND MAINTENANCE AT 268-4422 FOR DISPOSAL OF ALL EXCESS MATERIAL AT CHAPIN LANDFILL.



Index

Sheet 1	Cover Sheet
Sheet 2	Plan & Profile
Sheet 3	Canal Lining Detail
Sheet 4	Outfall Structures
Sheet 5	Std. RC Manholes
Sheet 6	Underdrain Details
Sheet 7	Contraction Joint
Sheet 8,9	X-Sections

Construct Concrete Lining to connect existing linings

R.W. BRUGGEMAN, DIRECTOR OF ENGINEERING /
CITY ENGINEER
CITY OF WICHITA, KANSAS
PROJECT NO. 468 76 245 81104 000 000 001
DATE: _____

1/9

Sta. 161+80, Install Transverse Pipe Underdrain; Junction Manhole at E with 1 Pipe Plug; Outlet Manhole at 61' Lt. & Rt. with 2 Flap Gate & 1 Pipe Plug; Flowline at E. El. 70.92
Flowline in at 61' Lt. & Rt. El. 70.75
Remove Wood Stoppers in Existing Underdrain Pipes

Sta. 163+66, Remove Existing R.C. Box
Constr. New R.C. Box and Headwall for double 30" RCP. See Sheet 4, 5

Install Underdrain Pipes

Sta. 165+29.88
Match Existing Lining.
Remove Wooden Plug in existing underdrain pipes.

Sta. 163+10, Constr. 24" RCP Storm drain w/ Headwall & Flap gate, See Sheet 4

Curve Data
P.C. Sta. 158+92.17
P.T. Sta. 162+73.90
 $\Delta = 24^\circ 48' 44''$
 $D = 6^\circ 30'$
 $L = 381.73$
 $R = 881.47$
 $T = 193.90$

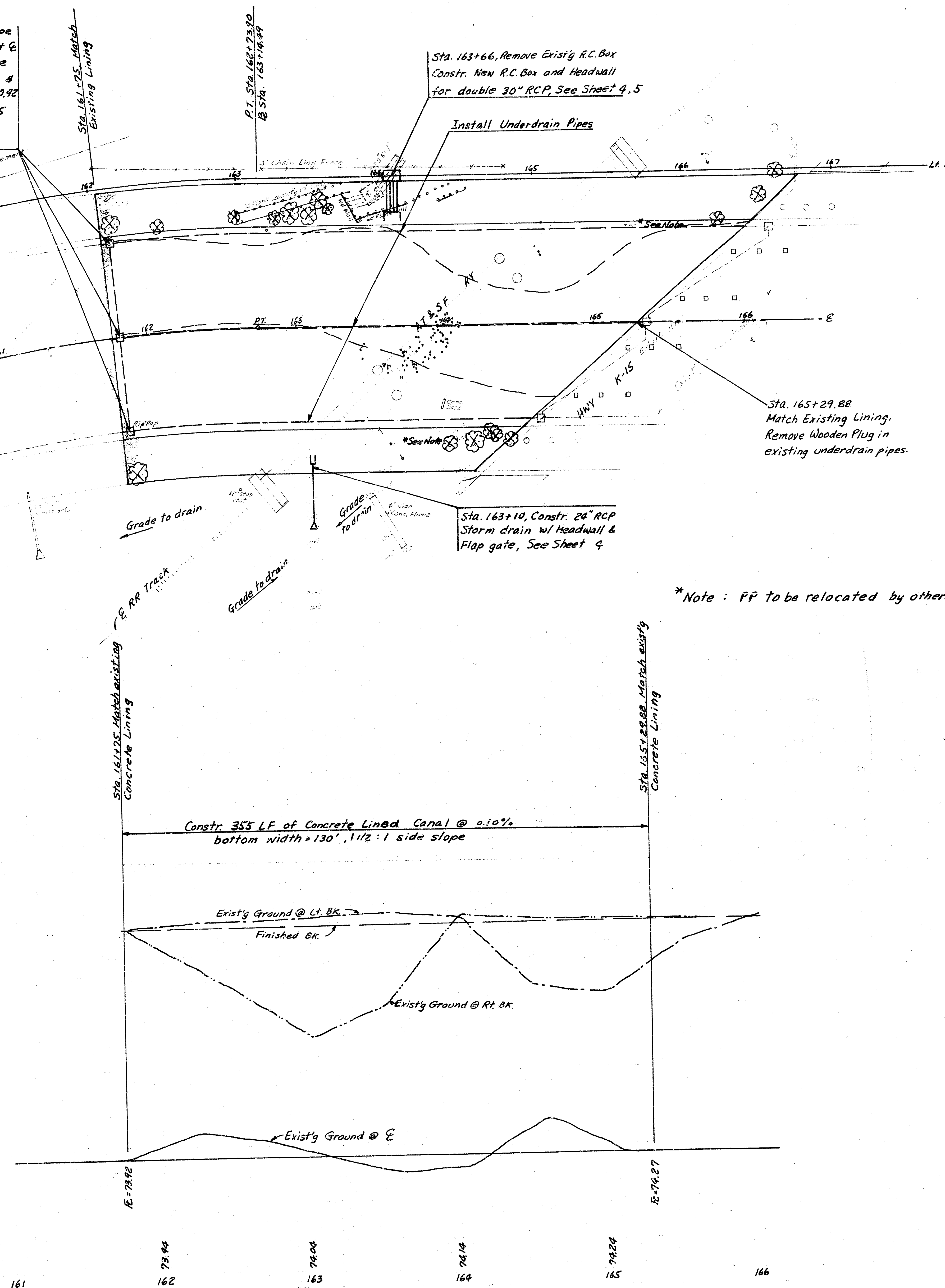
For this Project
Beginning Sta. 161+75
P.T. Sta. 162+73.90
 $\Delta = 6^\circ 25' 43''$
 $D = 6^\circ 30'$
 $L = 98.9$
 $R = 881.47$
 $T = 49.50$



Scale: Plan 1" = 40'
Profile 1" = 40' Horiz.
1" = 5' Vert.

B.M. 93.068 City Std. B.M. Disc, Hydraulic & Wassall.
42 ft. S. & 43.8 ft. E of E Both
B.M. 93.28 M in Mueller Fire Hydrant @ SW Cor.
Madison & Wassall

*Note: PF to be relocated by others.

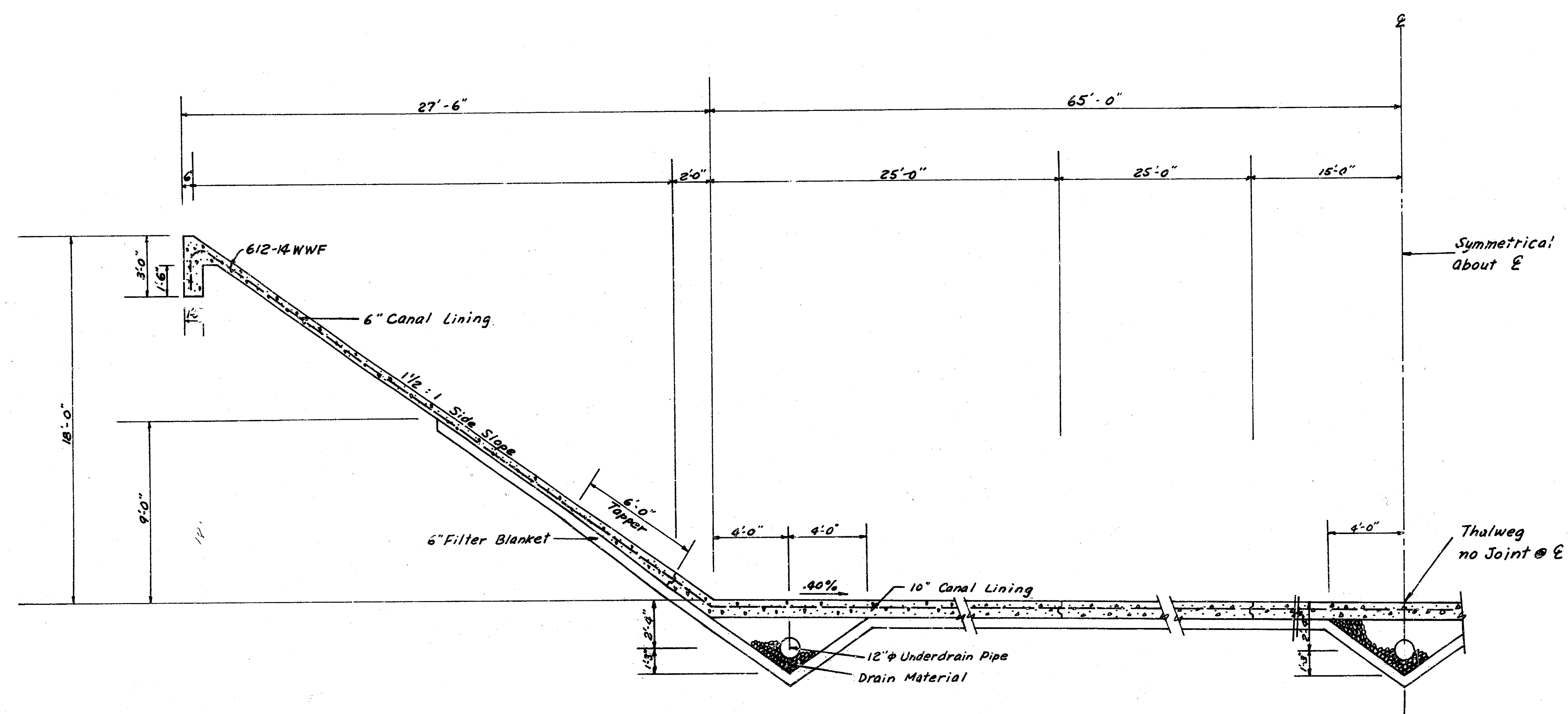


95
90
85
80
75
70

2/1 2/9

Reconstruct Canal Lining - Arkansas River to K-15 Hwy
Project No: 468-76-245-8/104-000-000-001

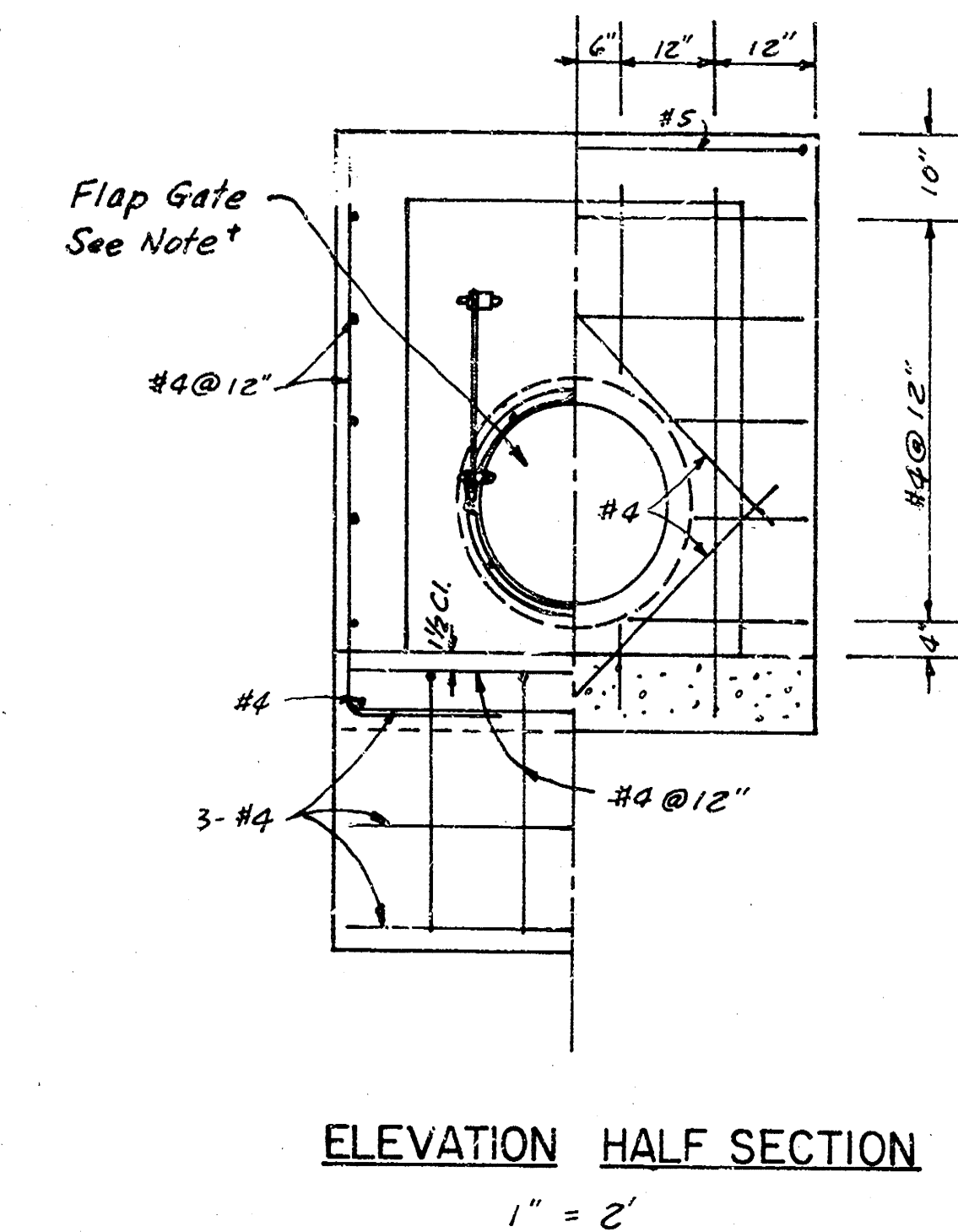
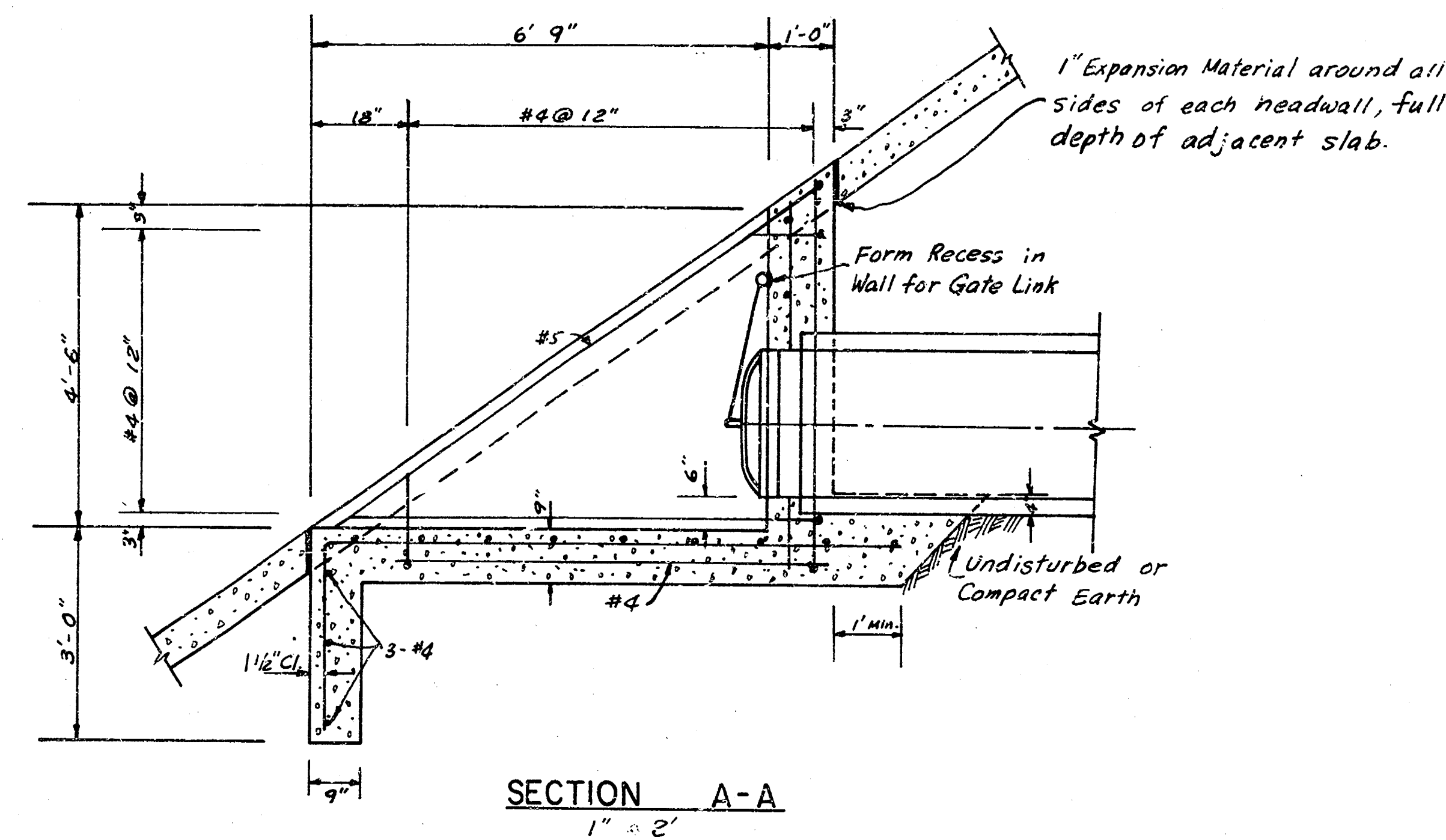
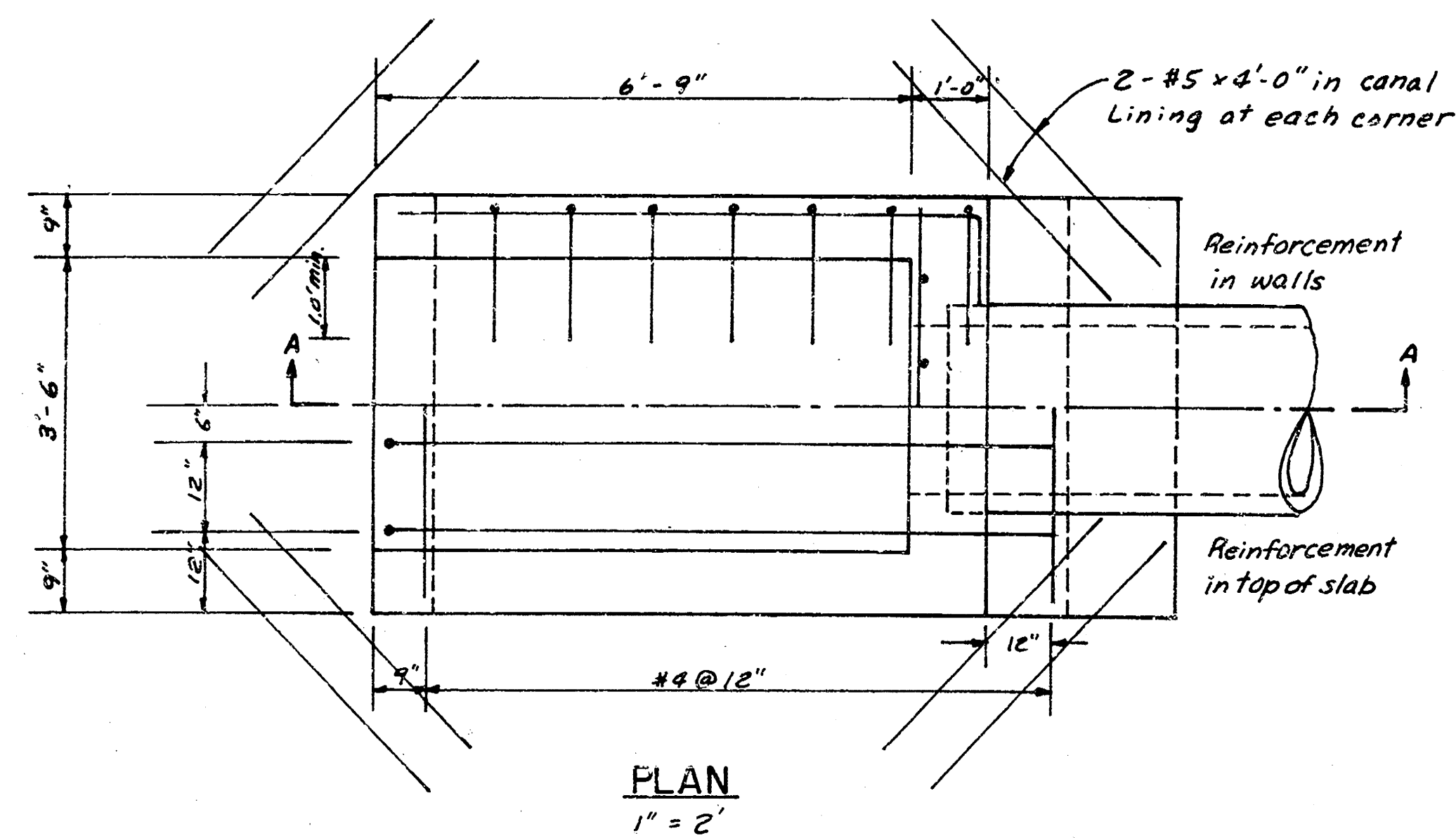
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AVAILABLE COPY



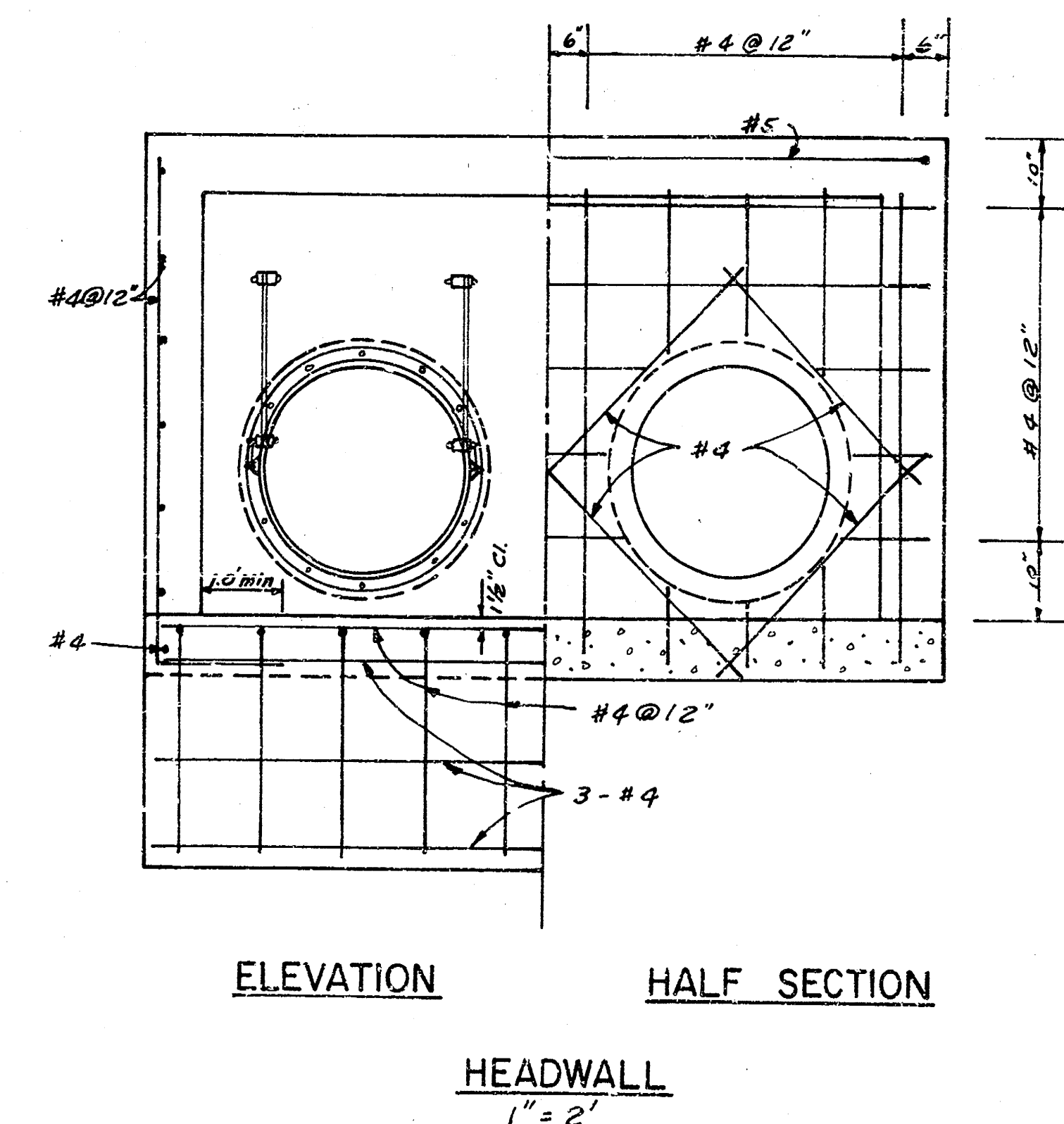
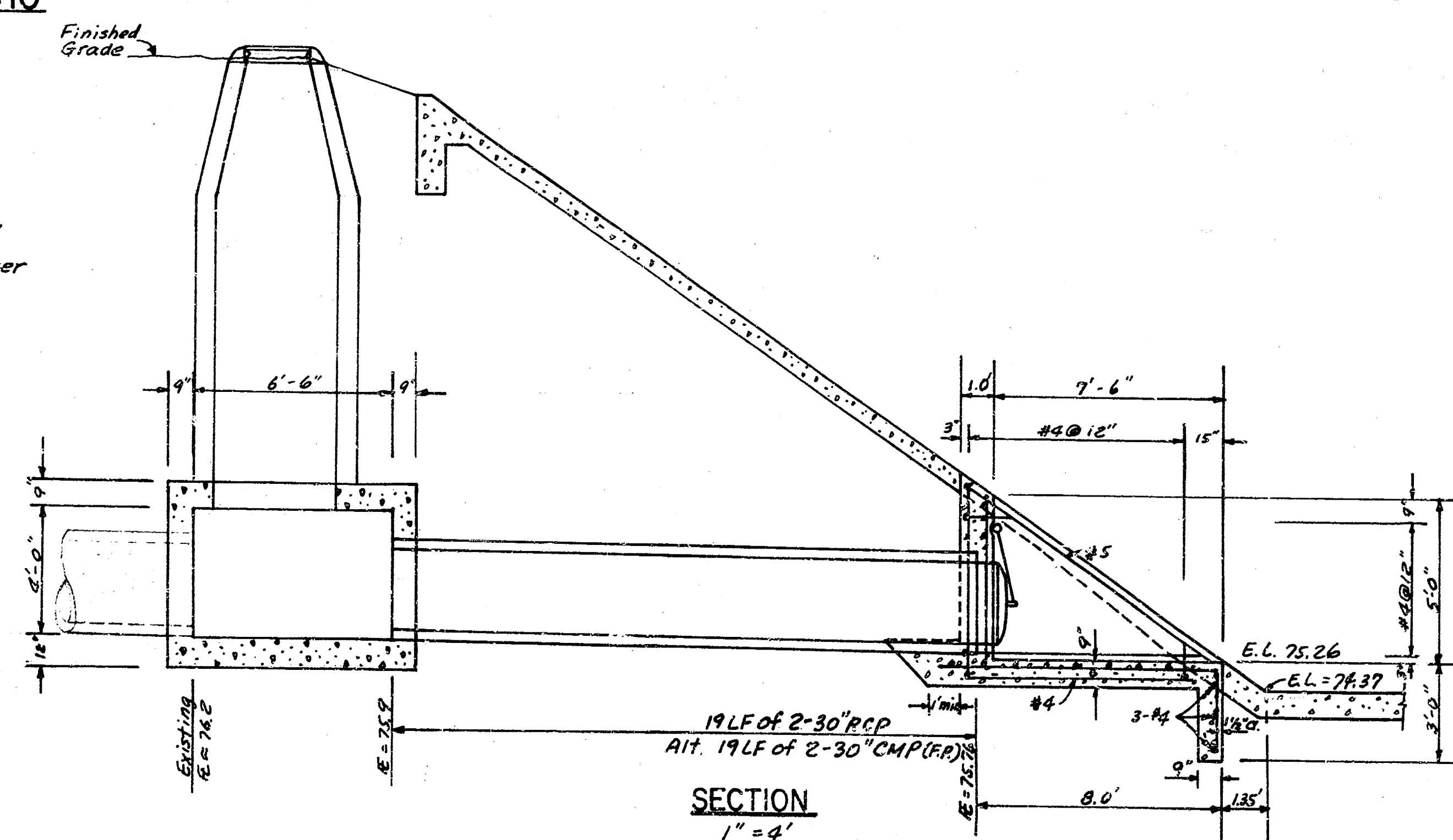
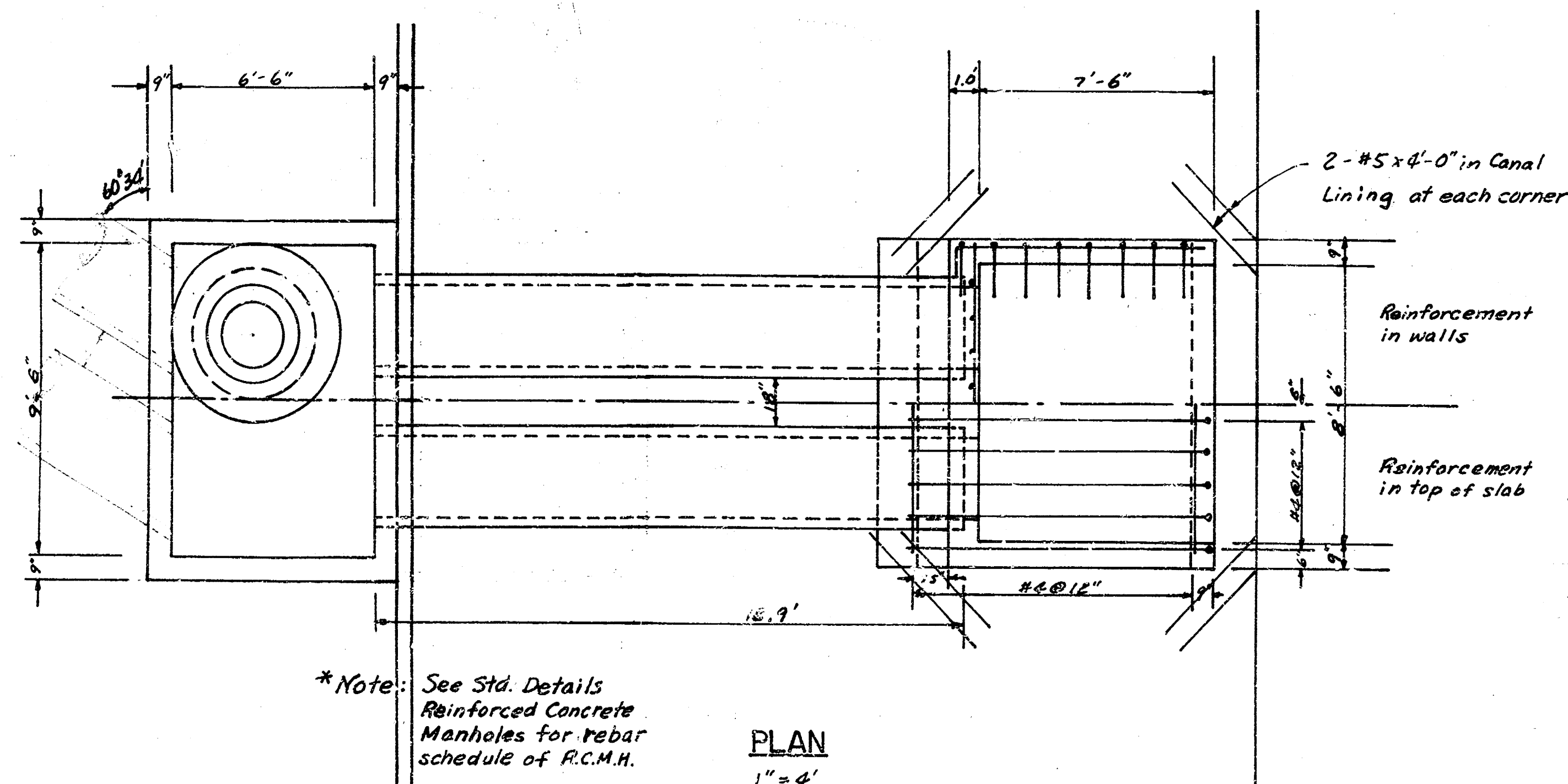
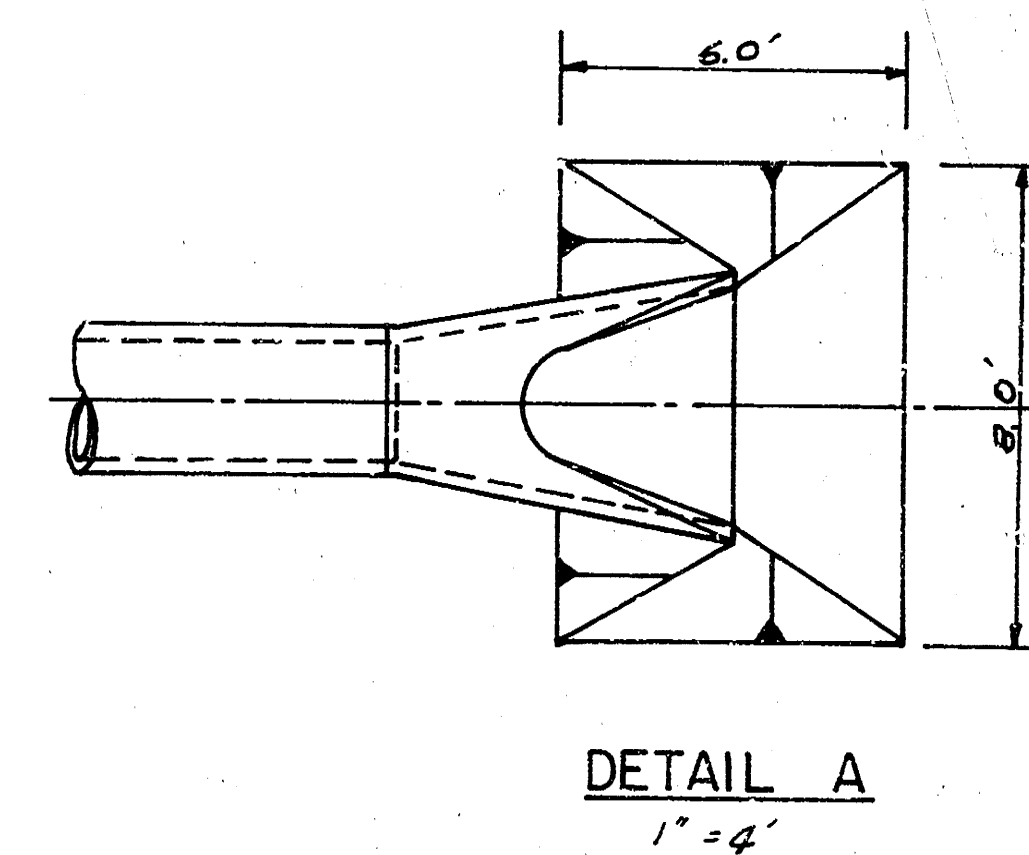
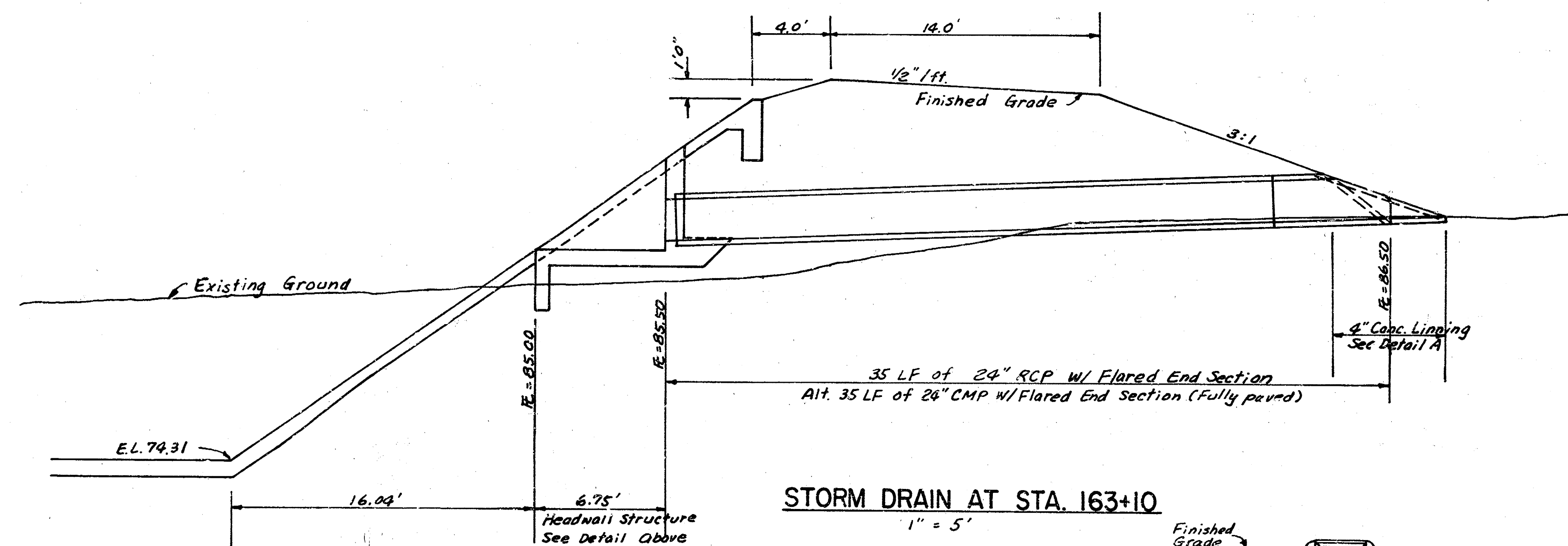
CANAL LINING DETAIL

Scale: 1" = 4'-0"

HEADWALL STRUCTURE AT STA. 163+10

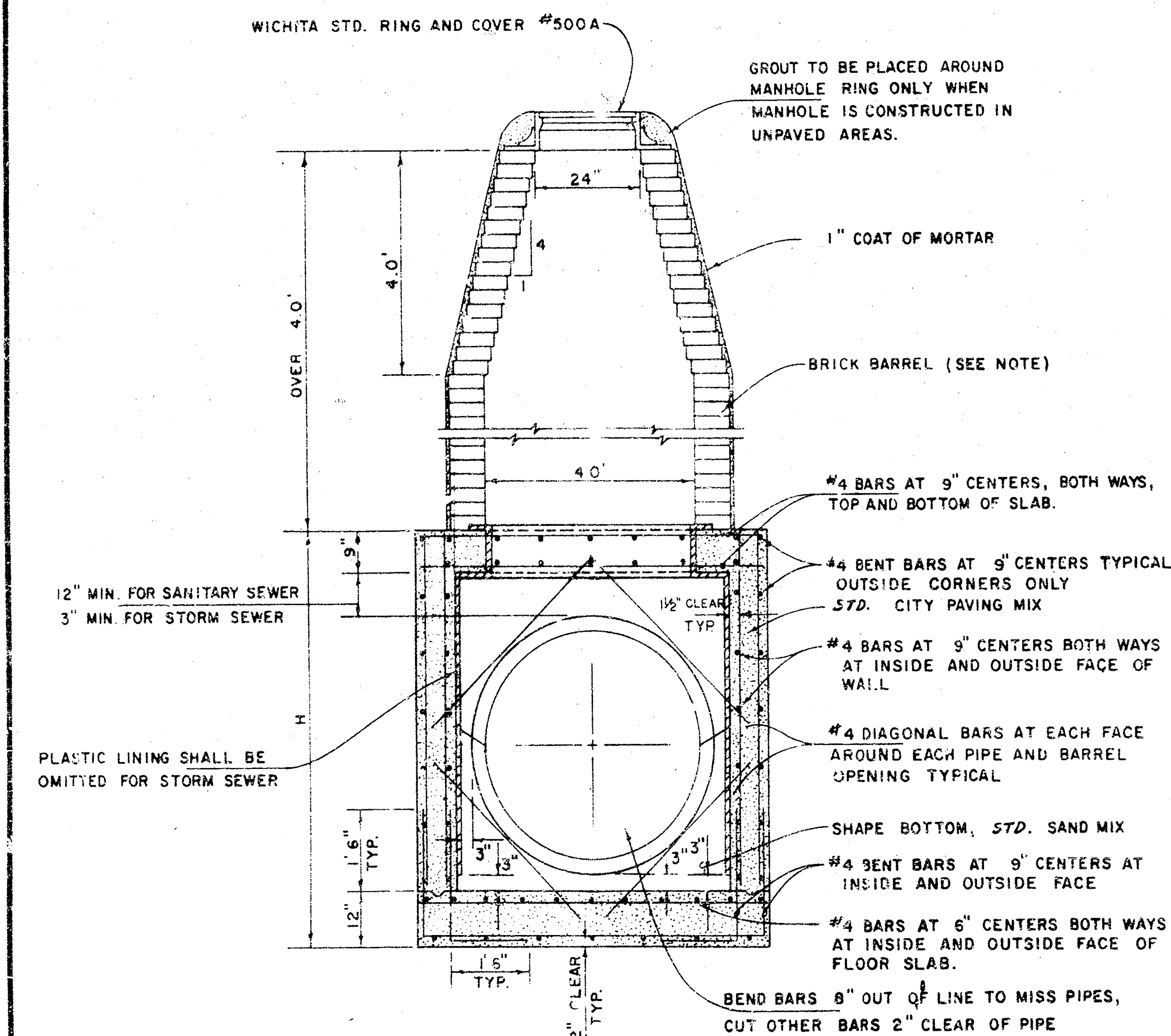
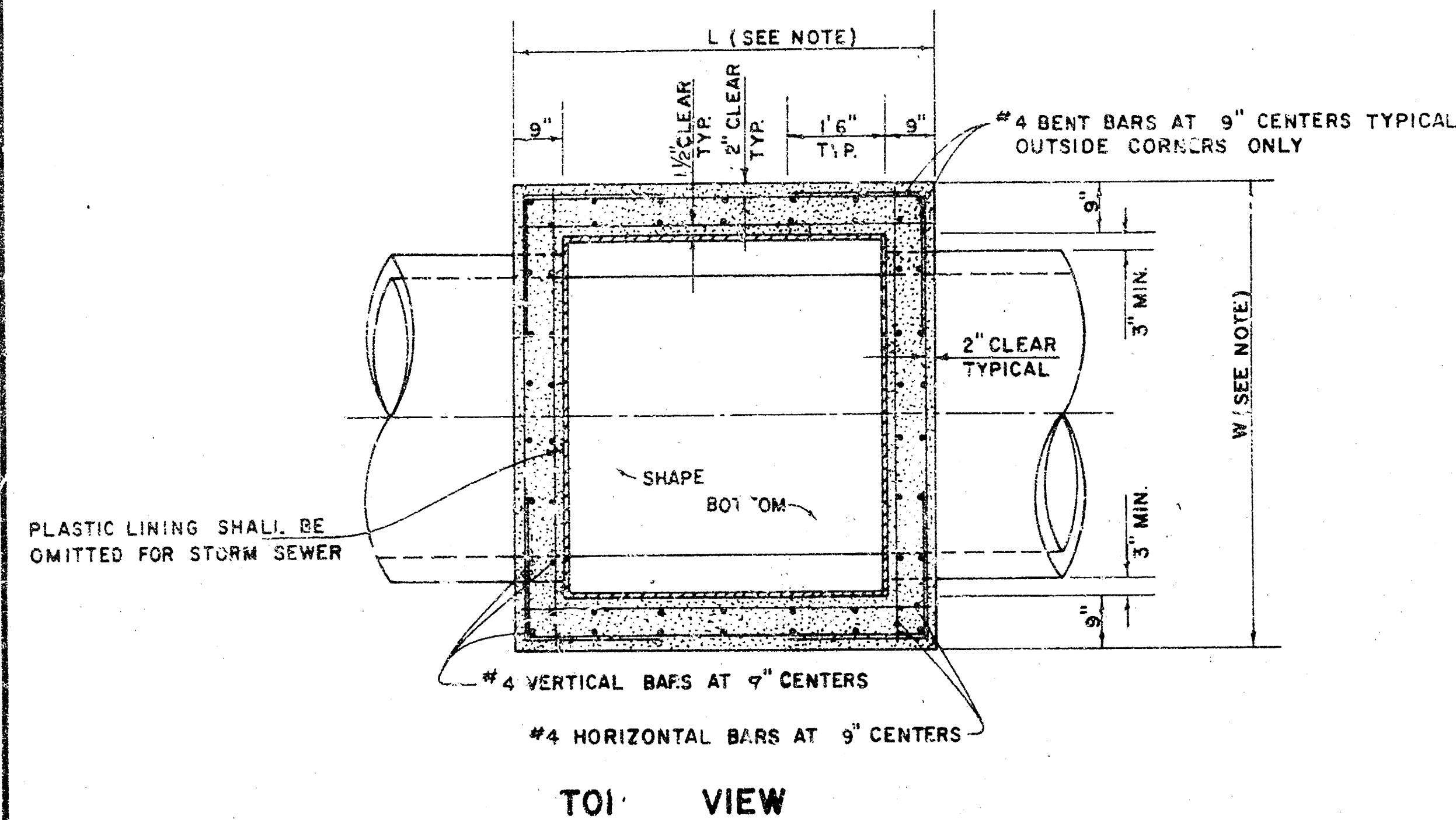


Note: The Gate Flap, frame and links shall be cast iron. Anchor bolts, assembly bolts and nuts shall be galvanized steel. The gate shall be designed to withstand an operating head of twenty (20) feet of water on the check side measured from the center line of the gate to the high water level. The gate shall be installed in accordance with manufacturer's recommendations. Gates to have one shopcoat of zinc dust paint followed with two field coats of aluminum paint.

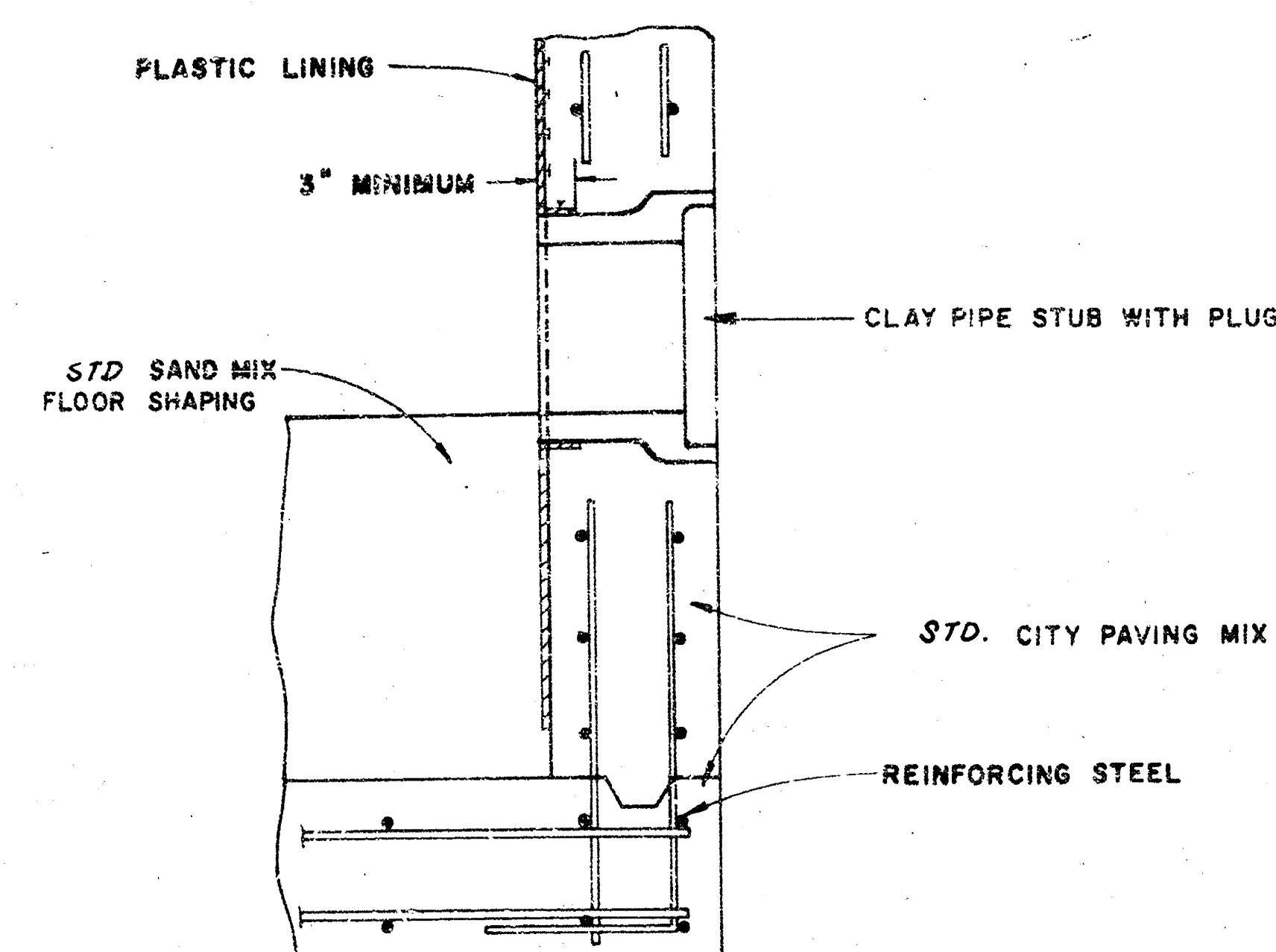


RC MANHOLE & OUTFALL STRUCTURE AT STA. 163+66

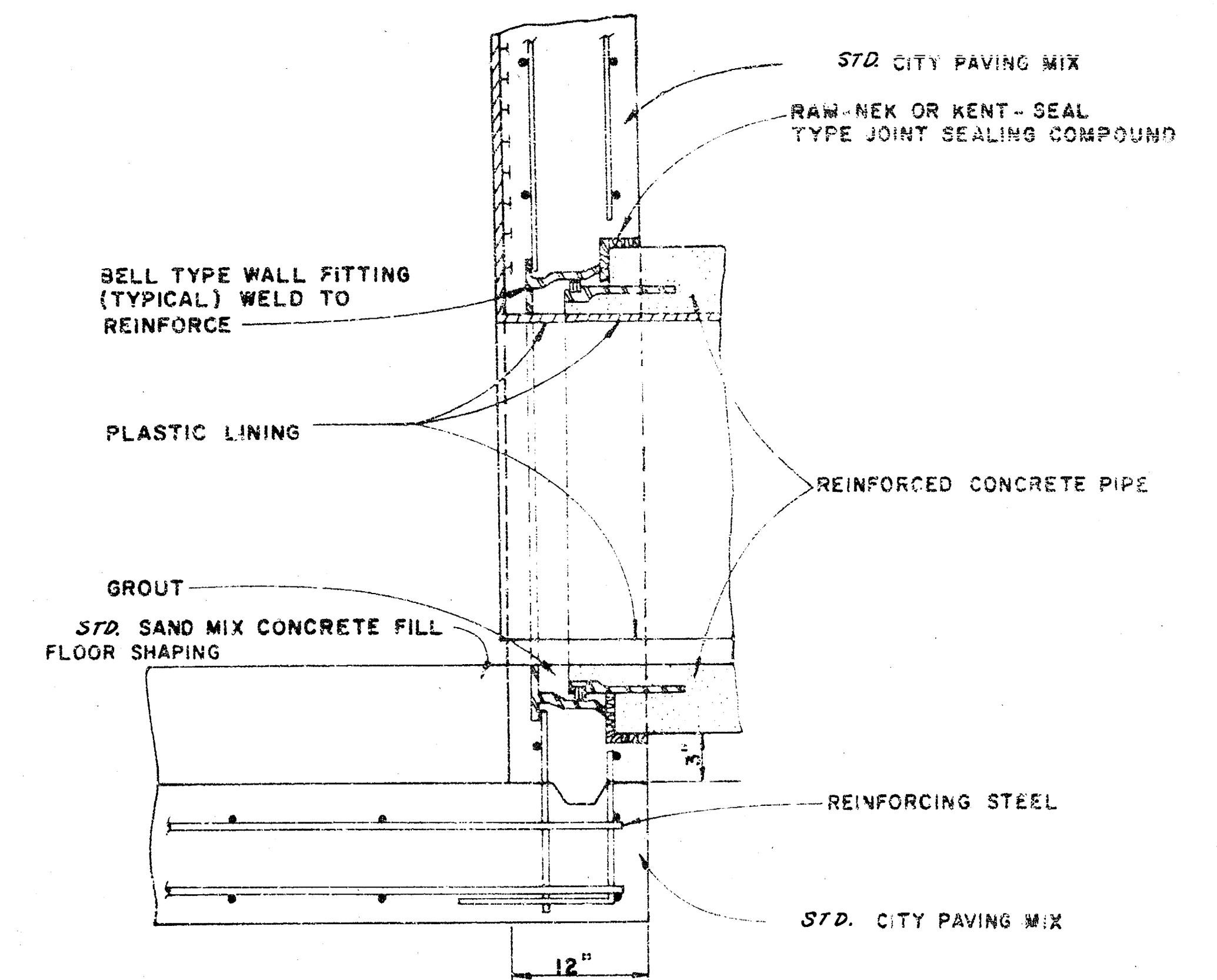
DETAILS OF OUTLET STRUCTURES
RECONSTRUCT CANAL LINING ARKR TO K-15



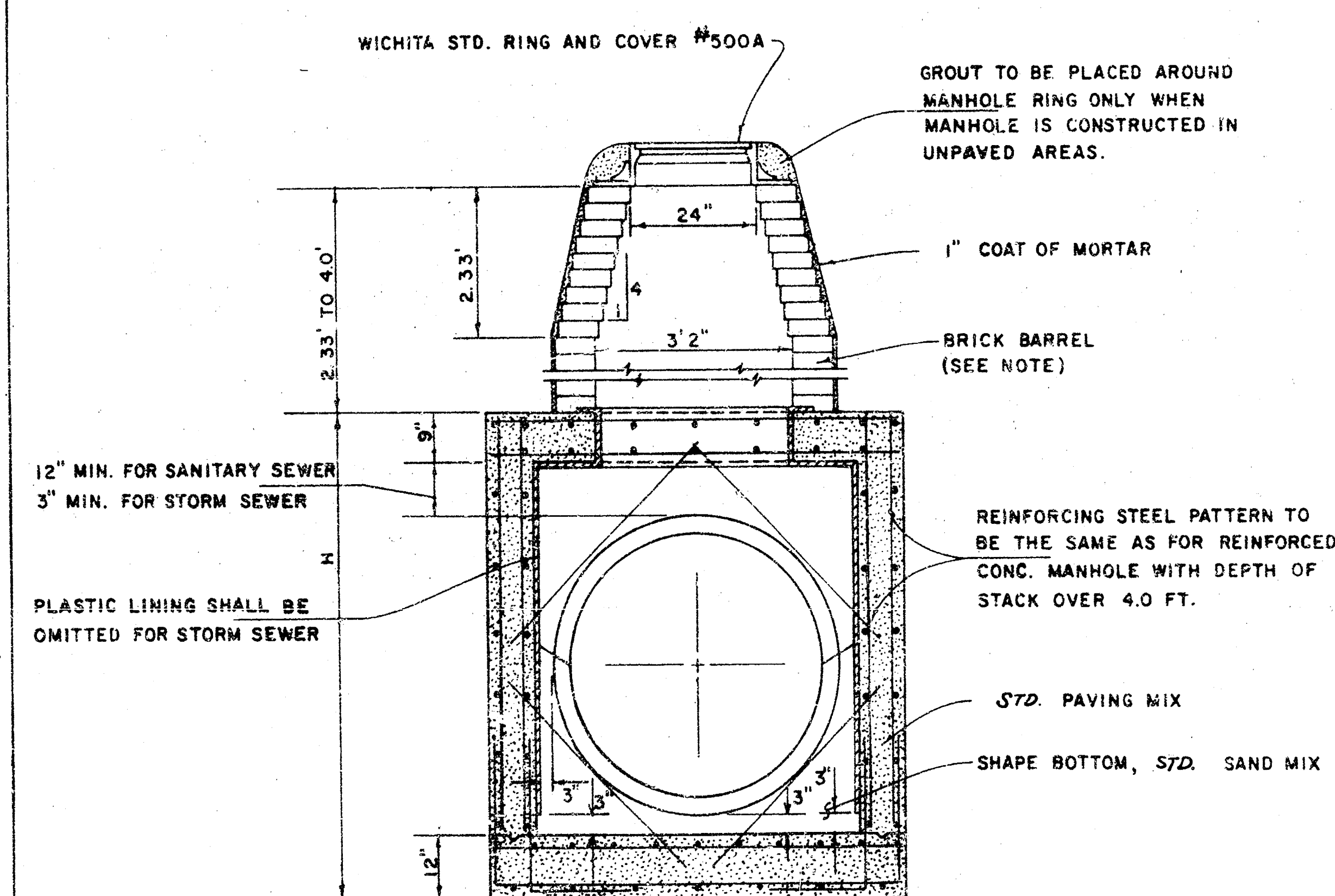
REINFORCED CONCRETE MANHOLE
DEPTH OF STACK: OVER 4.0'
SCALE 1" = 2'



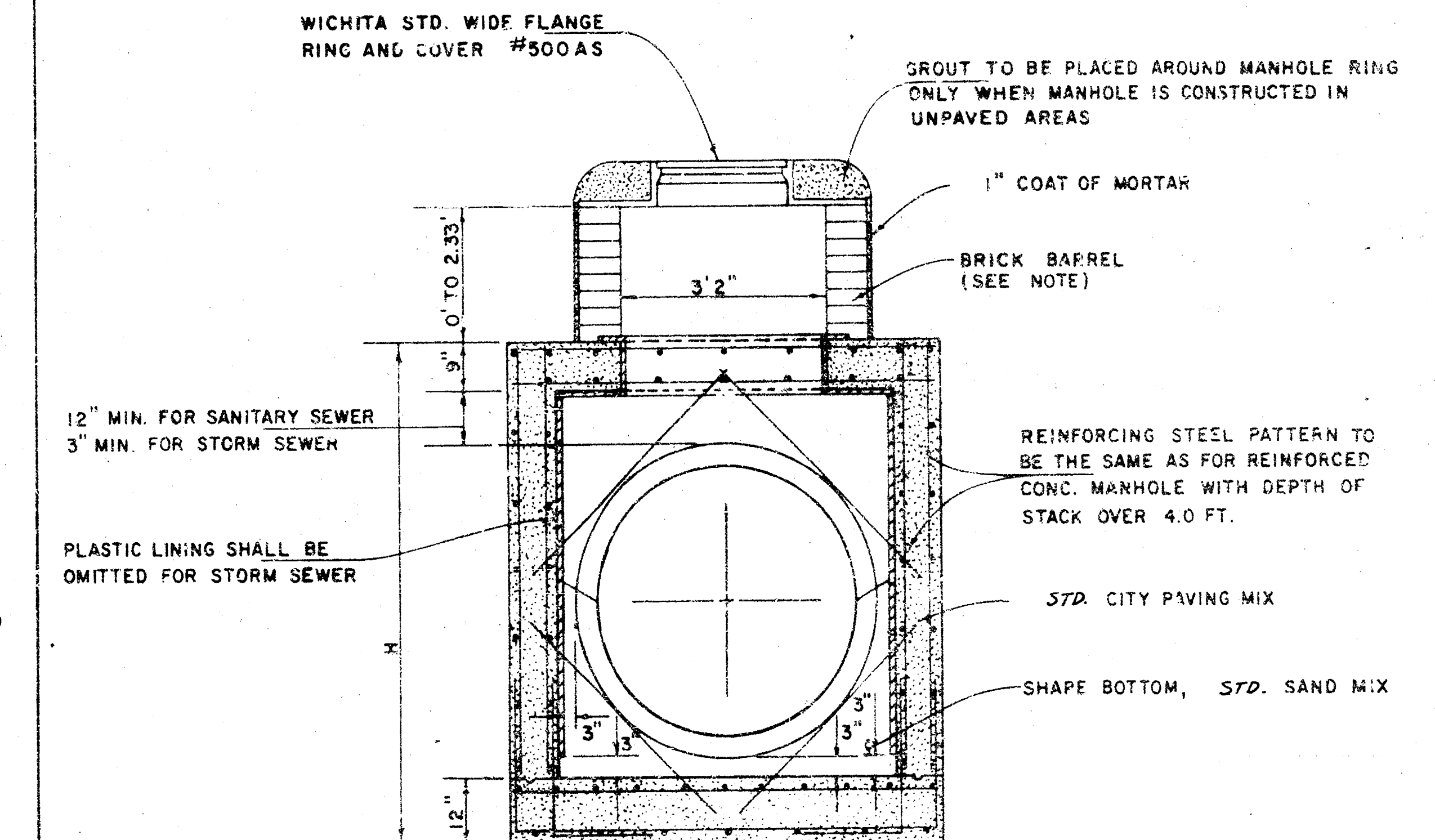
V.C.P. CONNECTION DETAIL
SANITARY SEWER ONLY



R.C.P. CONNECTION DETAIL
SANITARY SEWER ONLY

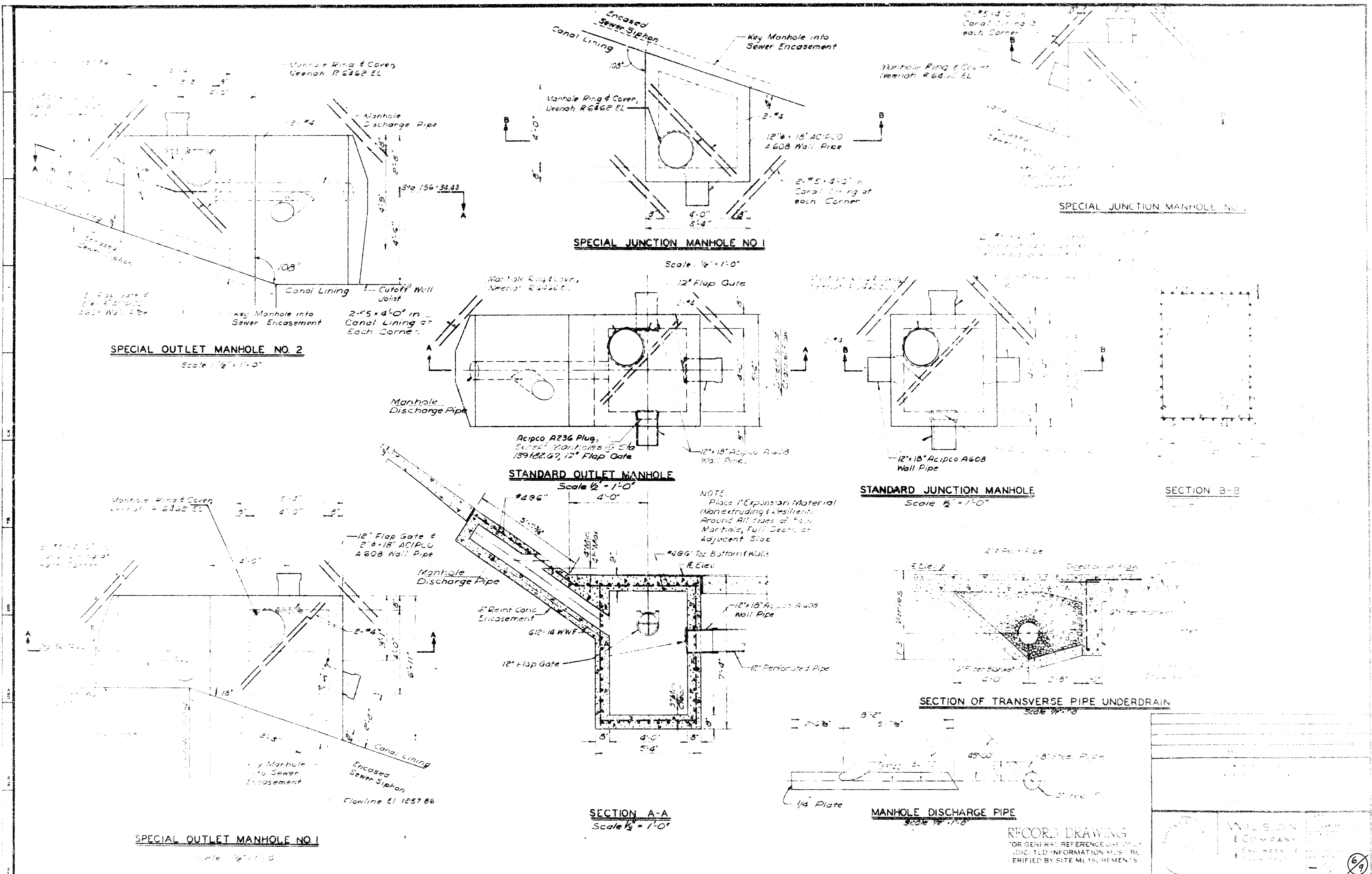


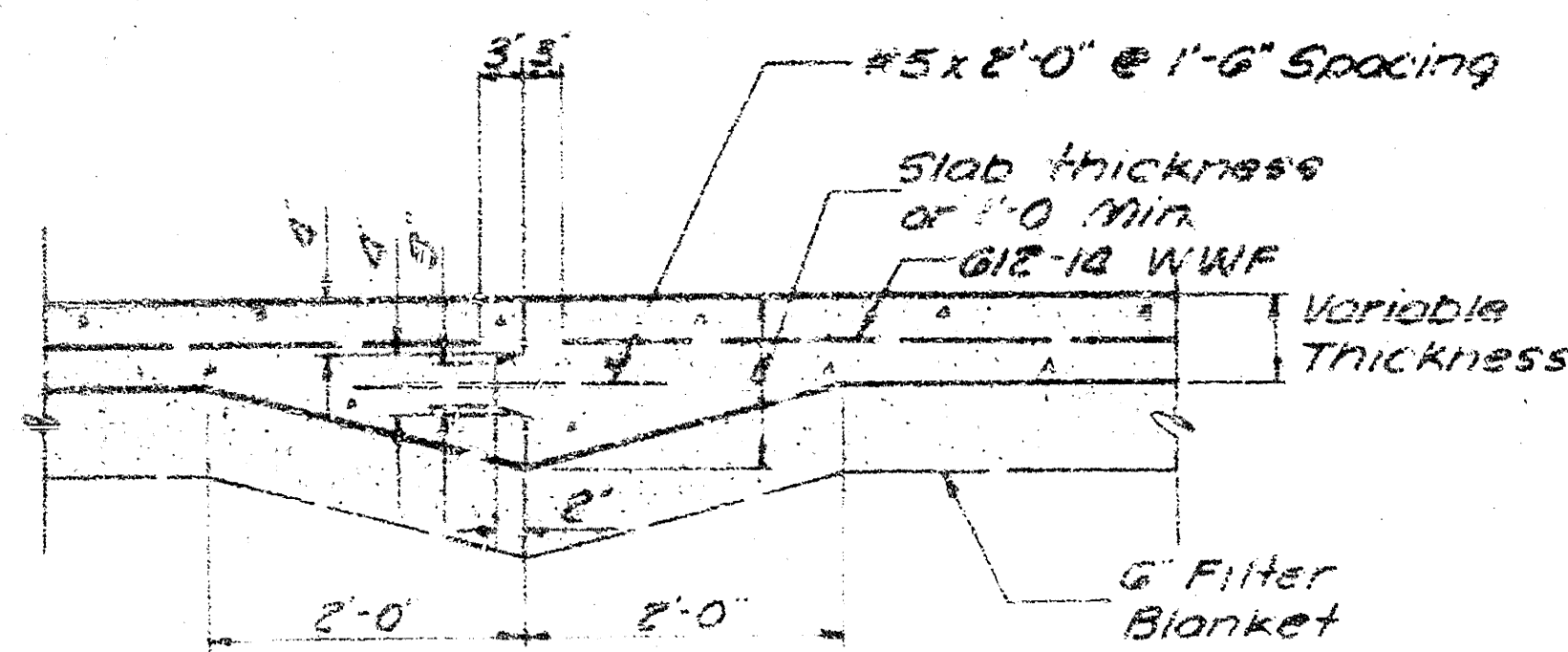
REINFORCED CONCRETE MANHOLE
DEPTH OF STACK: 2.33' TO 4.0'
SCALE 1" = 2'



REINFORCED CONCRETE MANHOLE
DEPTH OF STACK: 0' TO 2.33'
SCALE 1" = 2'

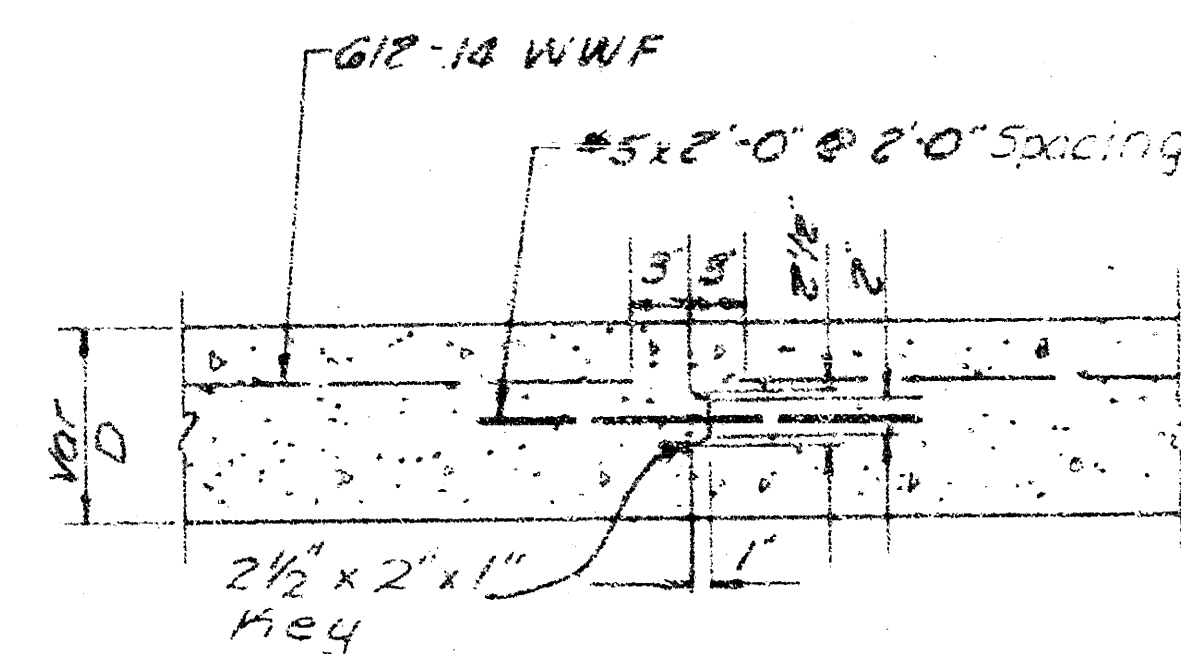
NOTE:
BRICK BARRELS LESS THEN 16' DEEP SHALL HAVE 8" WALLS EXCEPT WHEN LOCATED WITHIN PUBLIC STREET OR ALLEY PAVEMENT THEN THE WALL SHALL BE 12". BRICK BARRELS MORE THEN 16' DEEP SHALL HAVE 12" WALLS. THE "L" AND "W" DIMENSIONS SHALL BE A MINIMUM OF 5'6" FOR BRICK BARRELS WITH 8" WALLS AND 6'2" FOR BRICK BARRELS WITH 12" WALLS.





CONSTRUCTION JOINT DETAIL

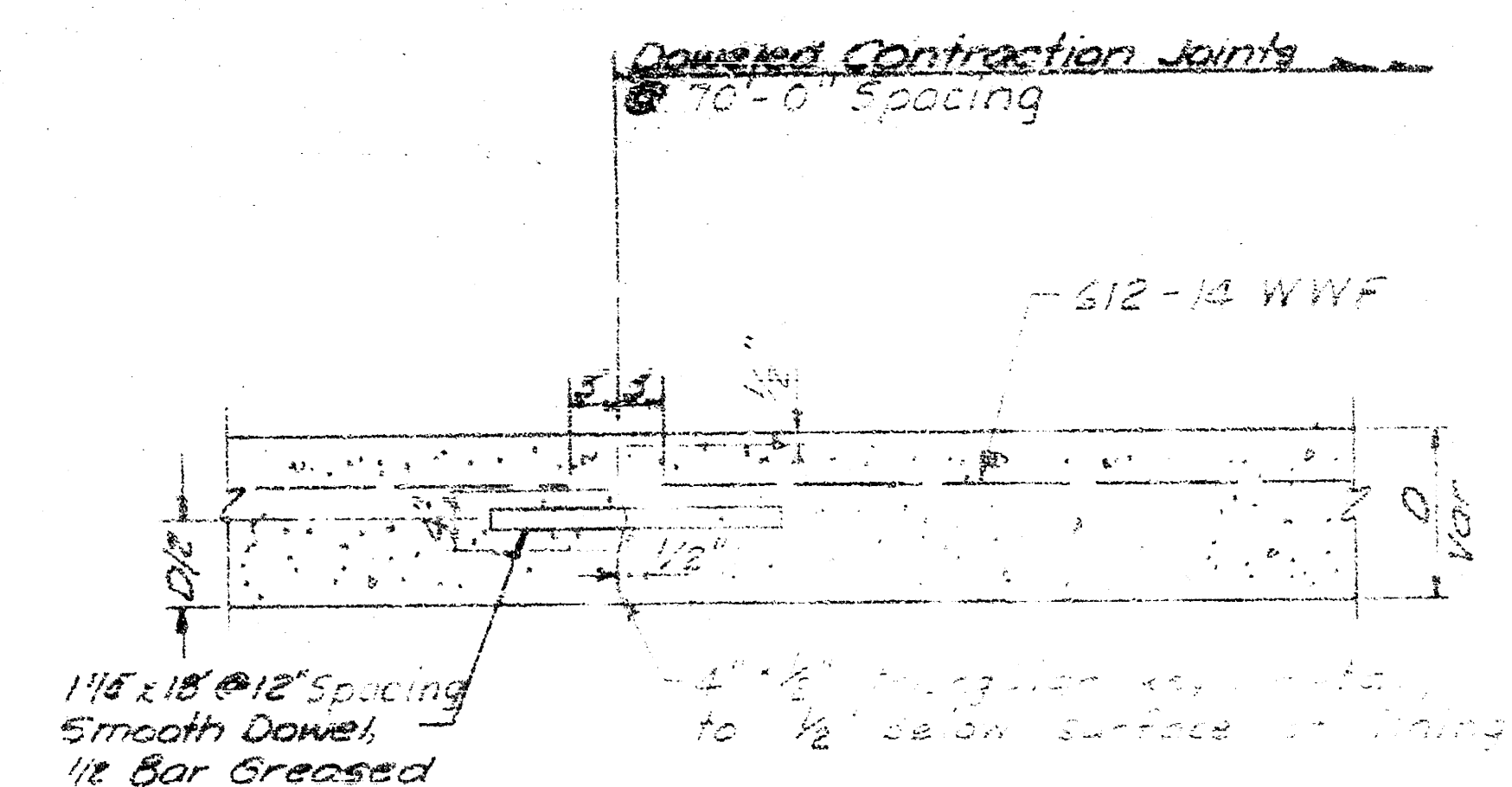
To be used for any construction joint not located at a doveled contraction joint or at a cutoff wall.
Scale: 3/4" = 1'-0"



LONGITUDINAL JOINT DETAIL

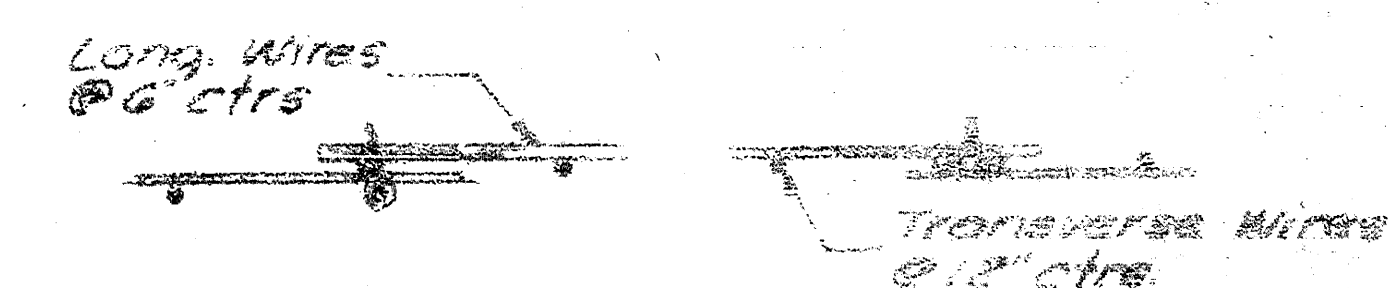
Scale: 1" = 1'-0"

NOTE:
6'x12" W.W.F. will be welded wire fabric.
Number 4 ga wires transverse @ 18" ctrs. and number 1 ga wires longitudinal @ 6" ctrs. Approximate wt of fabric = 61 lbs per 100 sq ft.



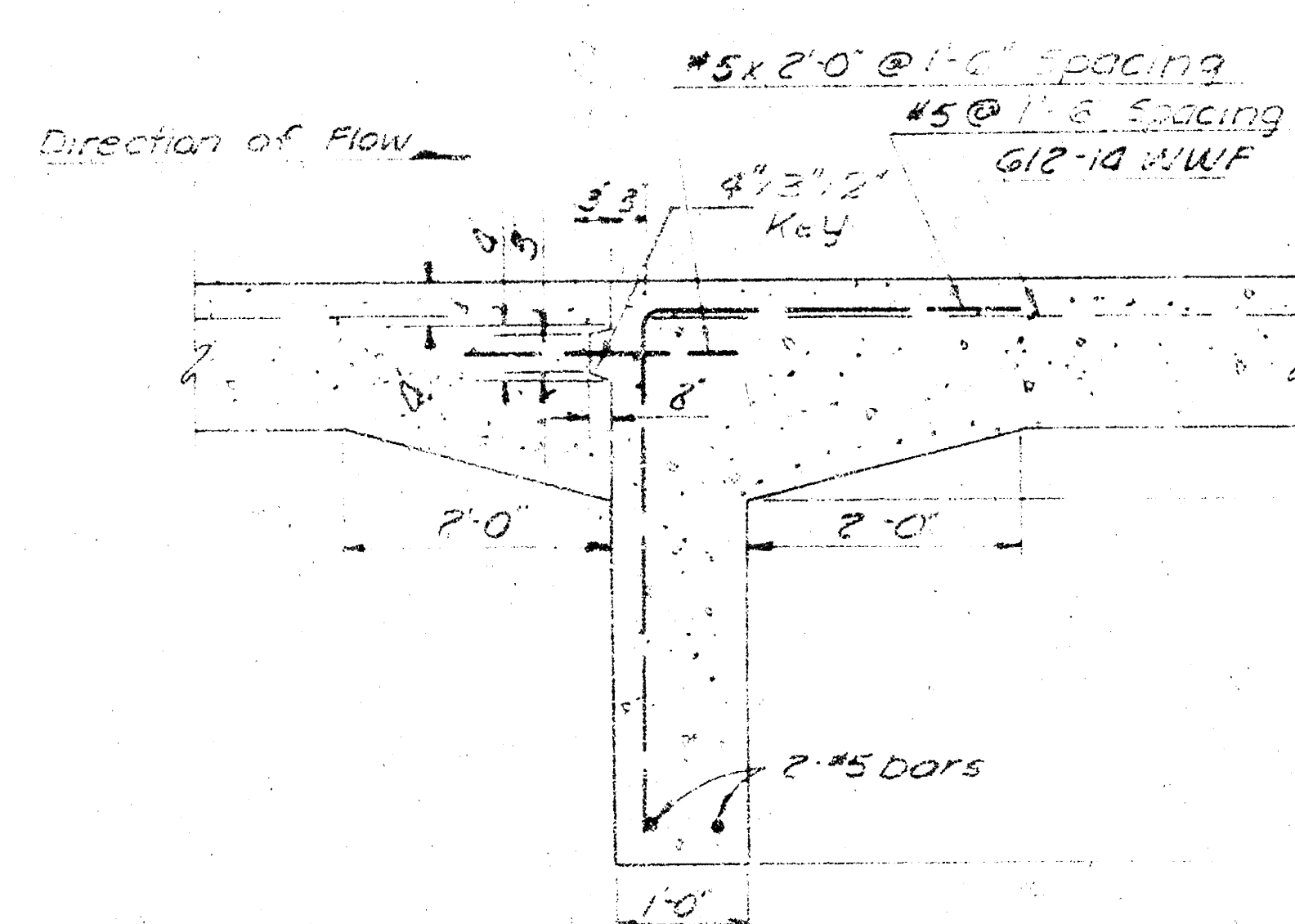
CONTRACTION JOINT DETAILS

Scale: 1" = 1'-0"



DETAIL OF LAP FOR WIRE MESH

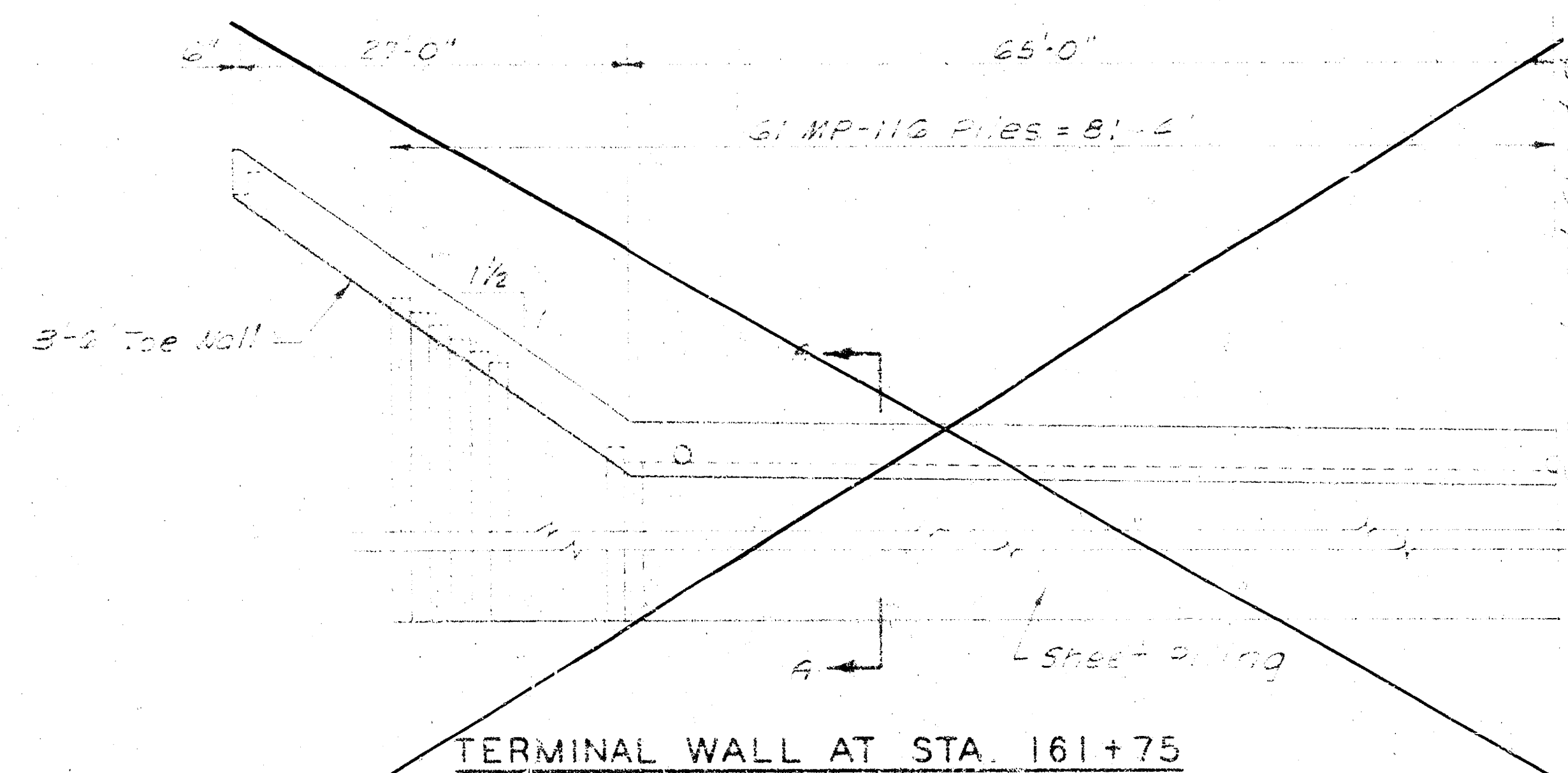
NOTE: The lap shall extend beyond the first transverse wire of each sheet. The sheets shall be wired securely at the edges and at intervals not to exceed 2'-0" for the full width of the sheet.



BOTTOM SLAB

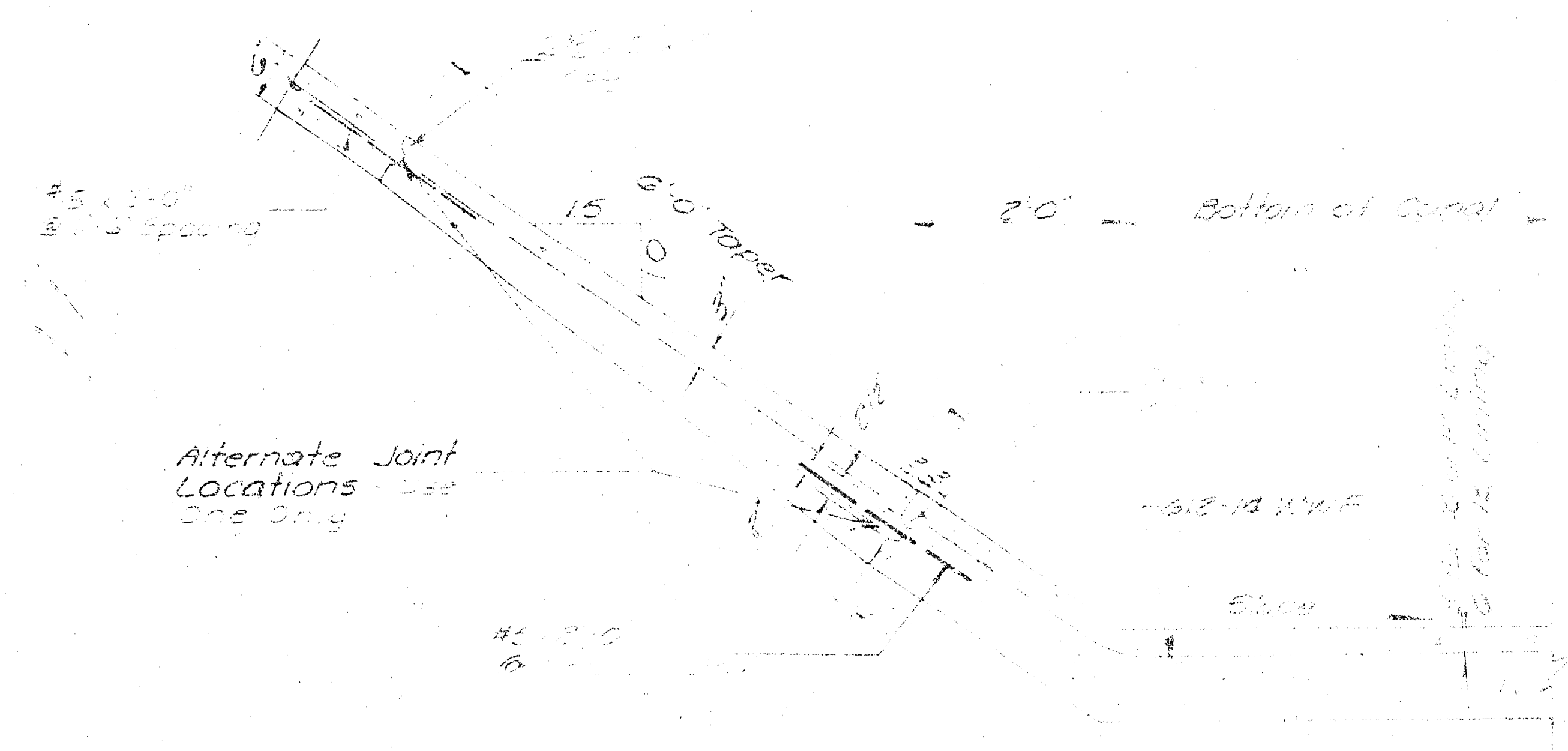
CUTOFF WALL

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



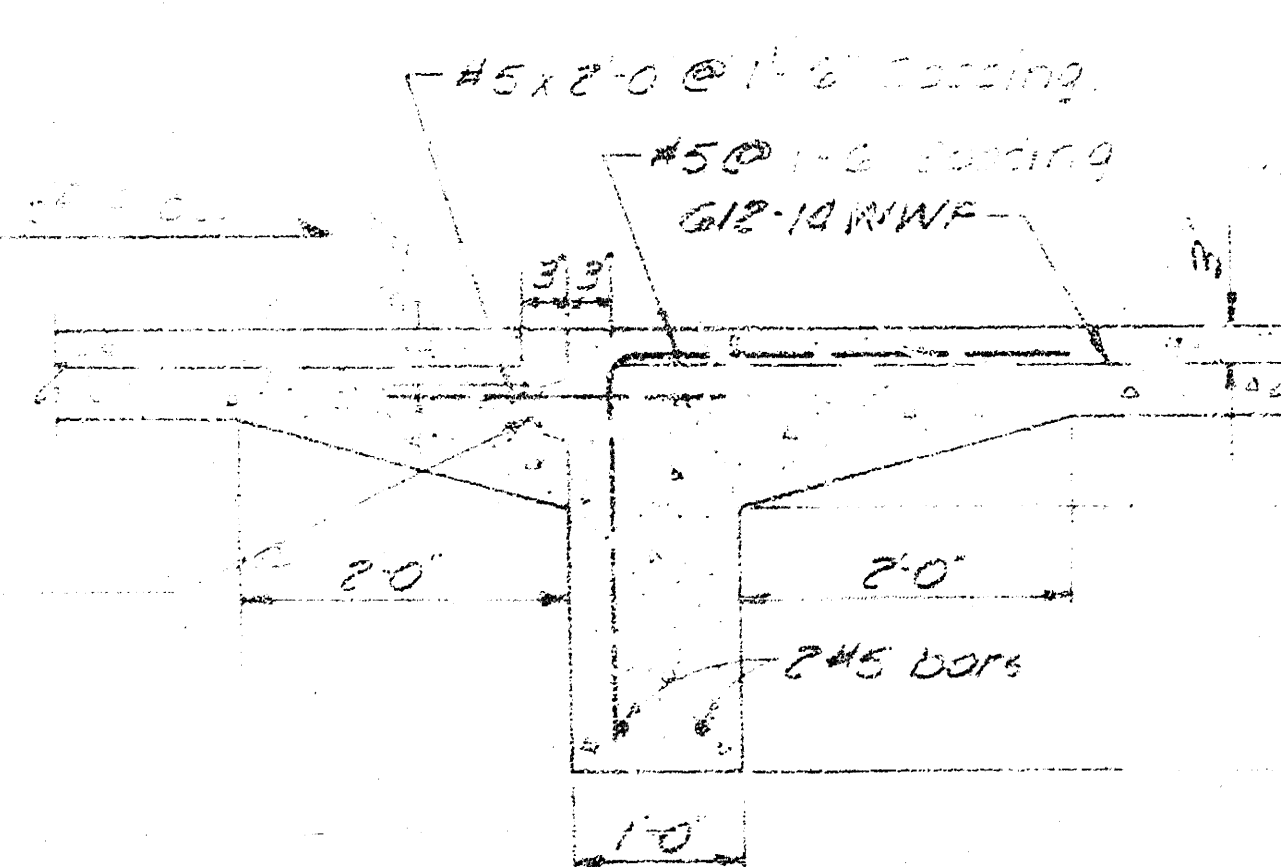
TERMINAL WALL AT STA. 161+75

Scale: 1" = 1'-0"



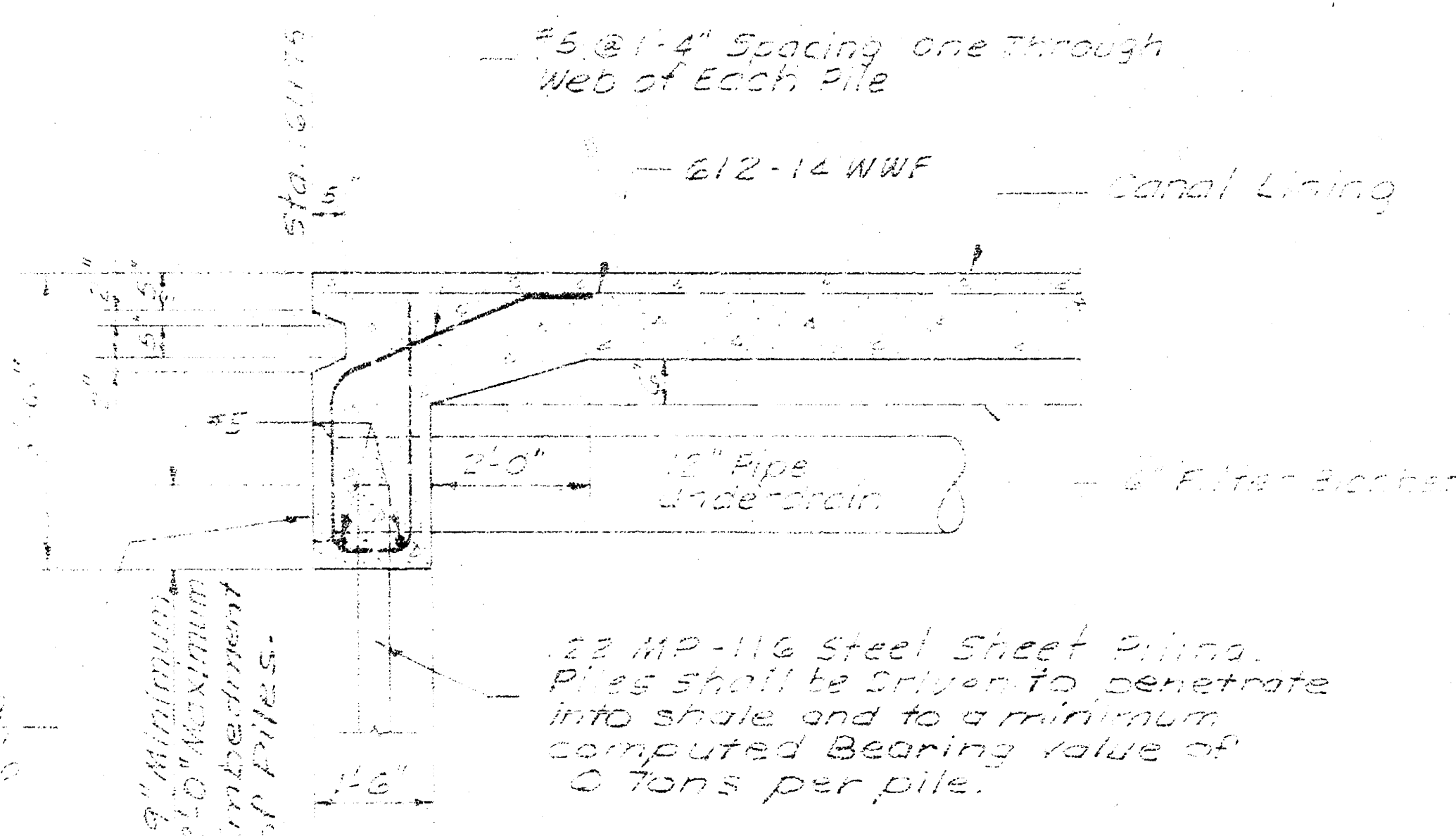
LONGITUDINAL EDGE JOINT DETAIL

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



SIDE SLOPES CUTOFF WALL

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



SECTION A-A

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

Plug Bell End of 15" Pipe with 2" Wooden Stopper and Seal with Mortar. Cut Piling to Clear Pipe.

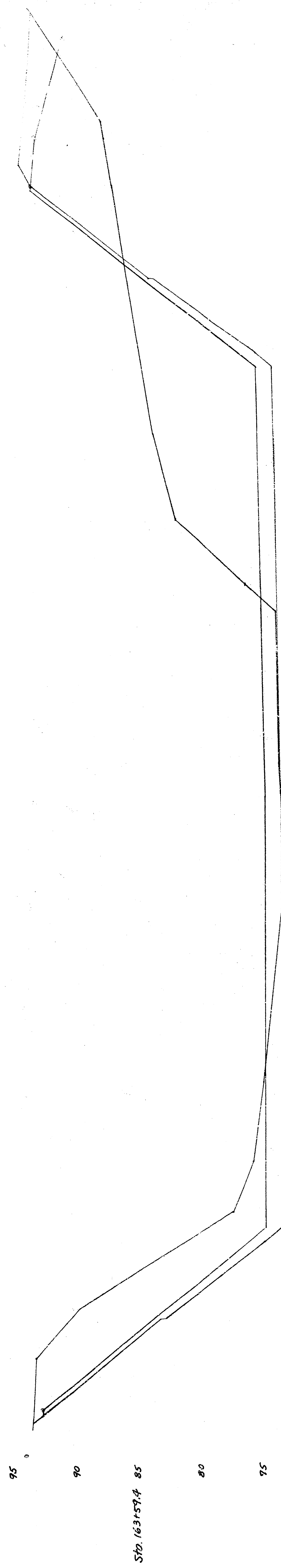
9" Minimum Embedment of Piles.

12 MP-116 Steel Sheet Piling. Piles shall be driven to penetrate into shale and to a minimum computed bearing value of 5 tons per pile.

RECORD DRAWING

DATE: 10/1/54
BY: [Signature]
CHECKED: [Signature]
APPROVED: [Signature]

PROJECT NO. 100-1000		SHEET NO. 100-1000	
DATE: 10/1/54		BY: [Signature]	
CHECKED: [Signature]		APPROVED: [Signature]	
WILSON COMPANY		ENGINEERS & ARCHITECTS	
100-1000		100-1000	



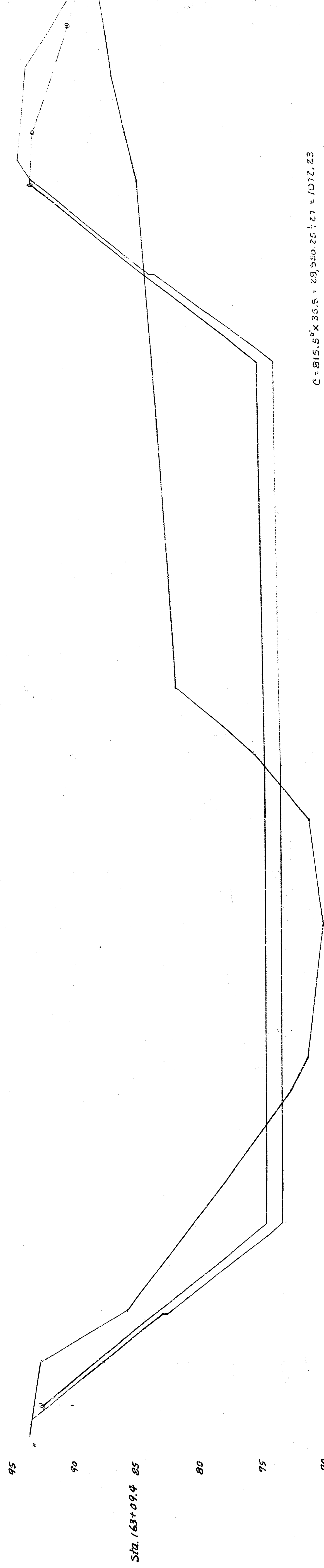
$$VC = 806 \text{ ft}^2$$

$$F = 140 \text{ ft}^2$$

$$F = 1190'$$

$$C = 685' \times 50 = 34250 \div 27 = 1268.52$$

$$F = 224.5' \times 50 = 11225 \div 27 = 415.74$$



$$VC = 730 \text{ ft}^2$$

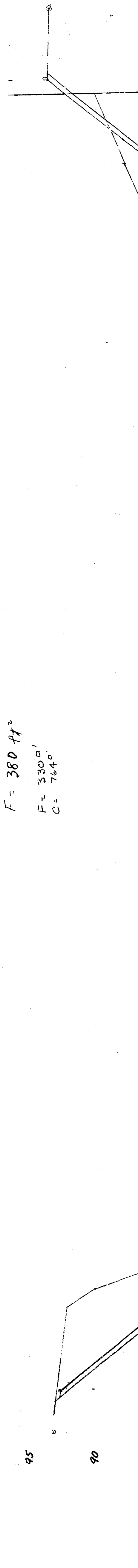
$$F = 380 \text{ ft}^2$$

$$F = 330'$$

$$C = 764'$$

$$C = 815.5' \times 35.5 = 29350.25 \div 27 = 1072.23$$

$$F = 430.0' \times 35.5 = 15267.75 \div 27 = 565.47$$



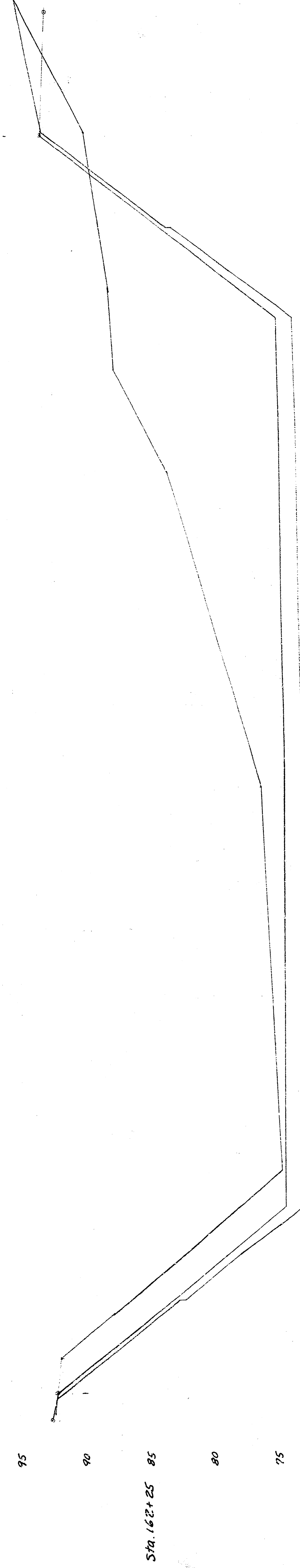
$$VC = 847 \text{ ft}^2$$

$$F = 116 \text{ ft}^2$$

$$F = 1405$$

$$C = 934.5' \times 48.9 = 45762.60 \div 27 = 1691.58$$

$$F = 84' \times 48.9 = 4107.6 \div 27 = 152.13$$



$$VC = 1001 \text{ ft}^2$$

$$F = 90 \text{ ft}^2$$

$$F = 575$$

$$C = 603.5' \times 20 = 12070 \div 27 = 447.04$$

$$F = 13.15' \times 20 = 263 \div 27 = 9.74$$



$$C = 0$$

$$F = 0$$

Final Totals
Exc. 10,124 CY
Fill 1883 CY

