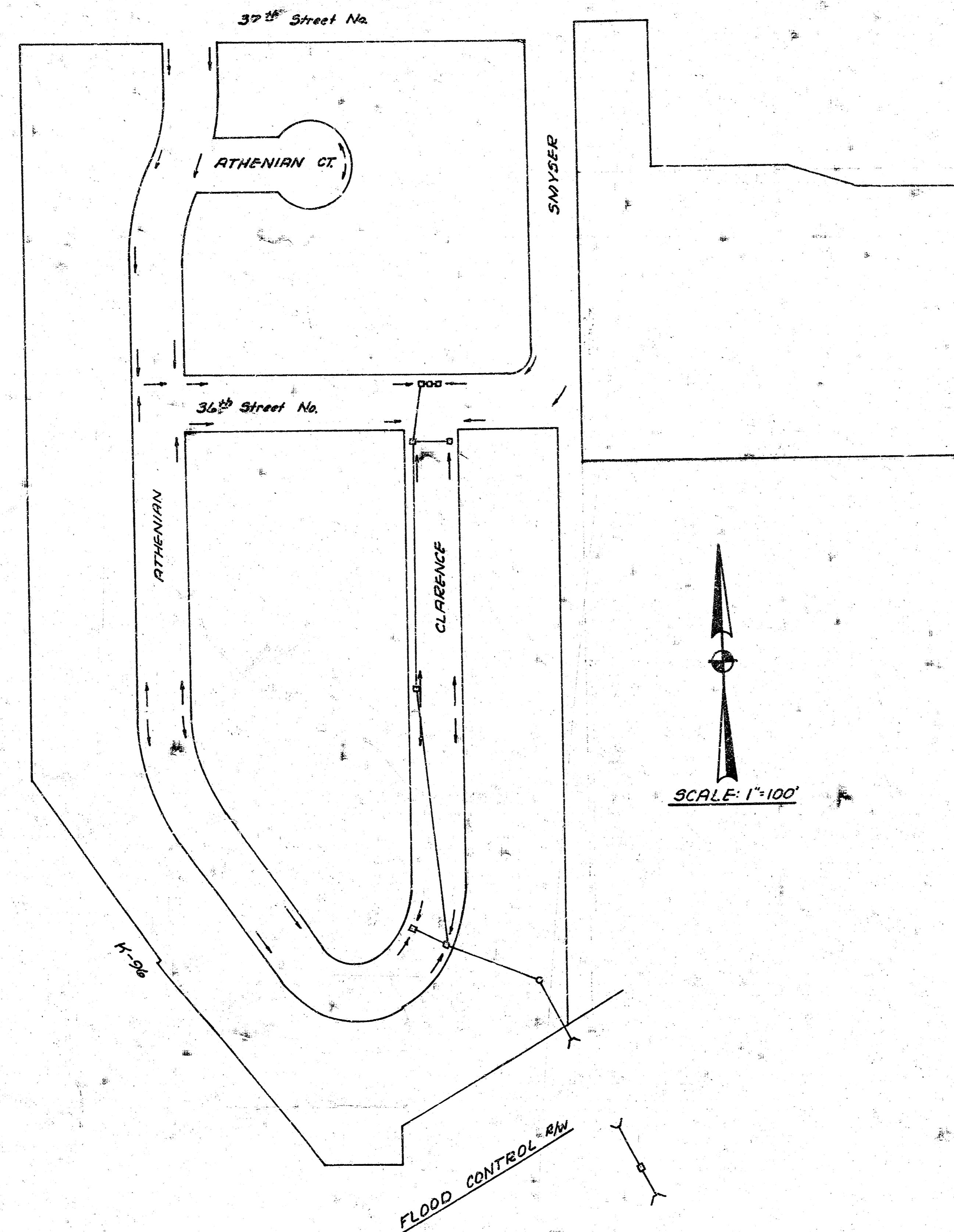


# STORM WATER SEWER NO. 148



### GENERAL NOTES

- FLAP-GATES TO BE INSTALLED ARE ARMO MED. DUTY FLAP GATES FOR HEADS TO 20 FEET OR APPROVED EQUAL.
- SLUICE-GATES SHALL BE ARMO MEDIUM DUTY SLUICE GATES, MODEL 50-10, A ROUND OPENING WITH NAVEL BRONZE SEATING FACES, FLAT BACK, CPE 4 LIFT WITH STEM COVER AND COUNTER, 1 1/2" DIA. STAINLESS STEEL STEM, 2 STEM GUIDES (1A), STEM SELVICE (STAINLESS), 8" F TYPE WALL THIMBLE, OR APPROVED EQUAL.
- ALL METAL PIPES SHALL BE HELICALLY CORRUGATED METAL PIPES FOR SIZES 21" IN DIAMETER (OR EQUIVALENT ARCH PIPE) OR SMALLER, AND FULLY PAVED CORRUGATED METAL PIPE FOR SIZES 24 INCHES IN DIAMETER (OR EQUIVALENT ARCH PIPE) OR LARGER, EXCEPT AS FOLLOWS:
  - 48" C.M.P. SHALL BE FULLY COATED, FULLY PAVED, 12 GA. CORRUGATED METAL PIPE IN ACCORDANCE WITH THE STANDARD SPECIFICATIONS EXCEPT AS FOLLOWS:  
JOINTS SHALL BE WATER-TIGHT USING ARMO RUGGER BANDS WITH O-RINGS GASKETS OR APPROVED EQUAL.
  - 48" R.C.P. SHALL BE CLASS II IN ACCORDANCE WITH THE STANDARD SPECIFICATIONS EXCEPT AS FOLLOWS:  
JOINTS SHALL BE WATER-TIGHT USING CONFINED O-RING TYPE JOINTS WITH CONCRETE SURFACES WITH A GROOVE ON THE SPISOT FOR THE O-RING RUBBER GASKET.
- FILTER ROCK: AN 18-INCH ANNUAL THICKNESS OF SELECT FILL SHALL BE PROVIDED AROUND THE TOP AND BOTH SIDES OF THE PIPES FOR A DISTANCE OF 22 FT. FROM THE INLET END. THIS FILTER MATERIAL SHALL BE A SAND ADEQUATE MEETING THE FOLLOWING GRAMMATION REQUIREMENTS:

SIEVE SIZE	% PASSING
3/8"	100
NO. 4	95-100
NO. 15	45-80
NO. 50	10-30
NO. 100	0-5

- BACKFILL: EXCAVATED LEVEE MATERIAL SHALL BE BACKFILLED OVER THE 2-48" LEVEE STRUCTURE. THIS MATERIAL SHALL BE COMPACTED TO AT LEAST 70% RELATIVE DENSITY CONFORMING TO SPECIFICATION ASTM D 2045-69.
- TYPE 3 RIP-RAP SHALL BE 12" RIP-RAP ON 6" SAND AND GRAVEL BEDDING. THE ROCK FOR RIP-RAP AND GRAVEL PROTECTION SHALL BE HARD, DENSE, DURABLE AND SHALL BE REASONABLY WELL GRADED. THE SIZE RANGE OF ROCK FOR RIP-RAP SHALL HAVE A MAXIMUM SIZE OF ONE CUBIC FOOT AND A MINIMUM SIZE OF 1 1/2 INCH. THE 6 INCH SAND AND GRAVEL BEDDING SHALL BE A CONTINUOUS LAYER OF SAND AND GRAVEL OR SAND AND CRUSHED ROCK, REASONABLY WELL GRADED TO A MAXIMUM OF 1 1/2 INCH IN SIZE.
- TYPE 4 RIP-RAP SHALL BE 18" RIP-RAP ON 6" SAND AND GRAVEL BEDDING. THE ROCK FOR RIP-RAP AND GRAVEL PROTECTION SHALL BE HARD, DENSE, DURABLE, AND SHALL BE REASONABLY WELL GRADED. THE SIZE RANGE OF ROCK USED SHALL HAVE A MAXIMUM SIZE OF 1/6 CUBIC YARD AND A MINIMUM SIZE OF 1/10 CUBIC FOOT. THE 6 INCH SAND AND GRAVEL BEDDING FOR RIP-RAP SHALL BE A CONTINUOUS LAYER OF SAND AND GRAVEL OR SAND AND CRUSHED ROCK, REASONABLY WELL GRADED TO A MAXIMUM OF 1 1/2 INCH IN SIZE.
- LOCATION OF CURB INLETS TO BE DETERMINED FROM BACK-OF-CURS LOCATION AS SHOWN ON STREET PAVING PLANS. ALL CURB INLETS TO BE TYPE I-A. SEE PAVING PLANS FOR STREET LAYOUT.
- CONTRACTOR TO COORDINATE WORK WITH PAVING AND SANITARY CONTRACTORS.
- CONTRACTOR TO COORDINATE THEIR WORK EFFORTS WITH UTILITY COMPANIES, AND OTHER AGENCIES RELATED WITH THE PROJECT SITE DEVELOPMENT.
- FIELD ENGINEER SHALL TAKE TIES TO ALL IRONS AND THIMBLES WHICH MAY BE DESTROYED. FIELD ENGINEER SHALL REPLACE ALL IRONS AND THIMBLES AS EXISTED PRIOR TO CONSTRUCTION.
- ALL CONCRETE UNLESS OTHERWISE NOTED SHALL BE "6-SACK CONCRETE".

DEAN SELLERS, ACTING CITY ENGINEER

CITY OF WICHITA, KANSAS

PROJECT NO. 468-76-245-80664-000-000-001

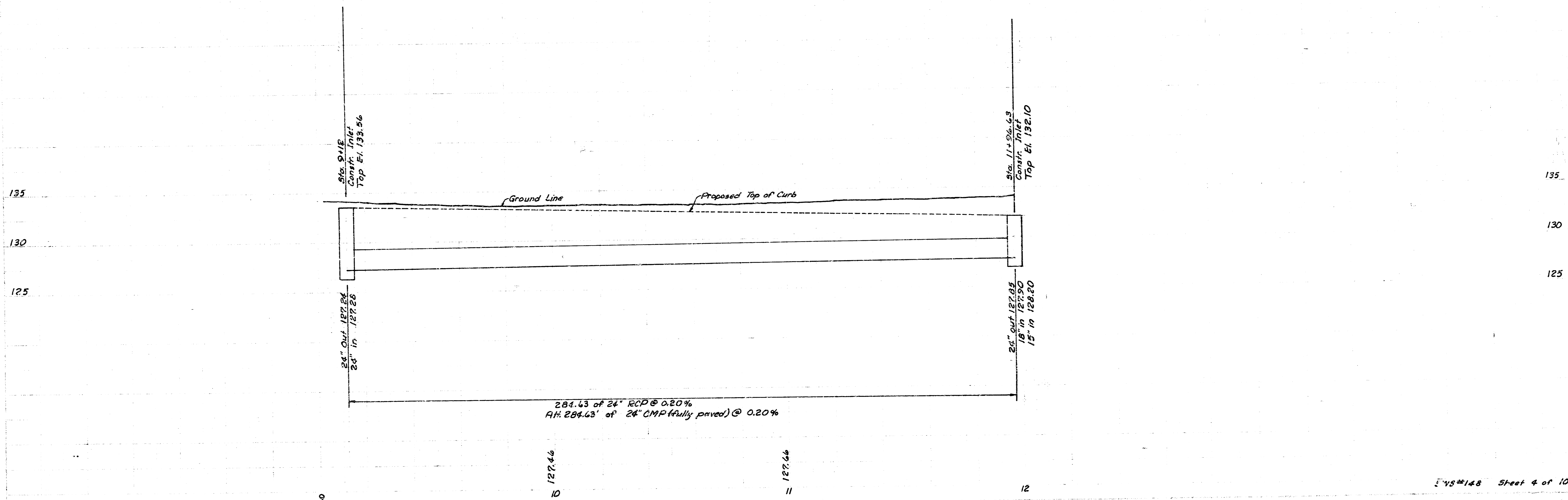
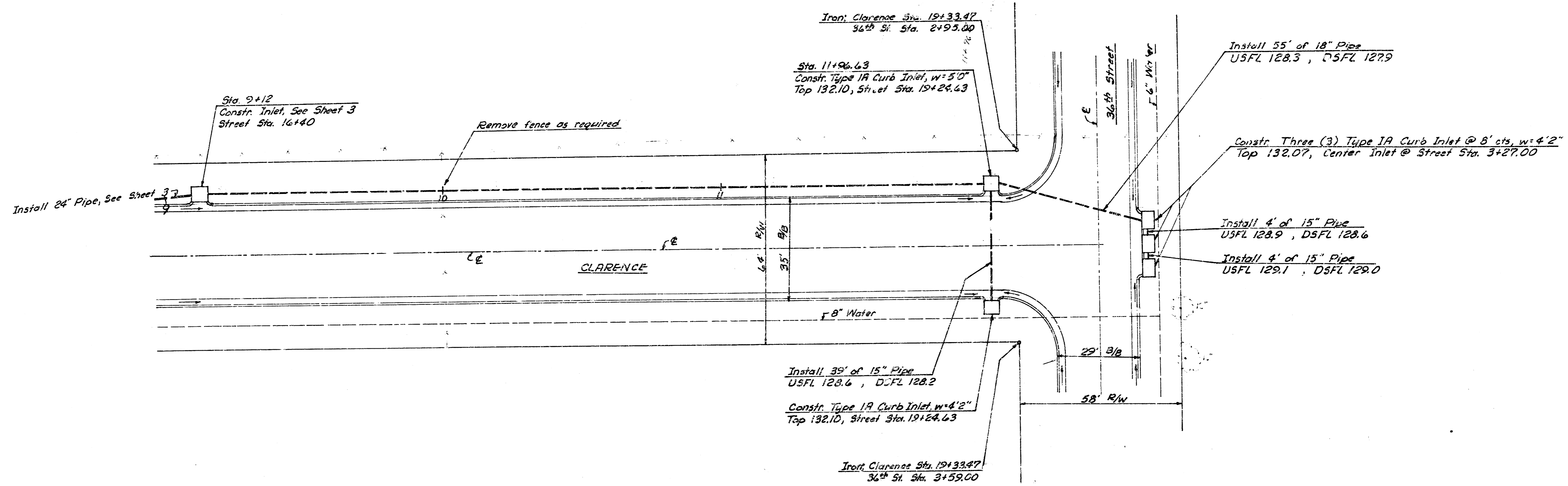
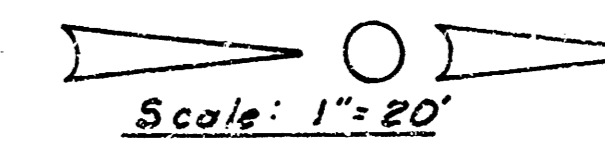
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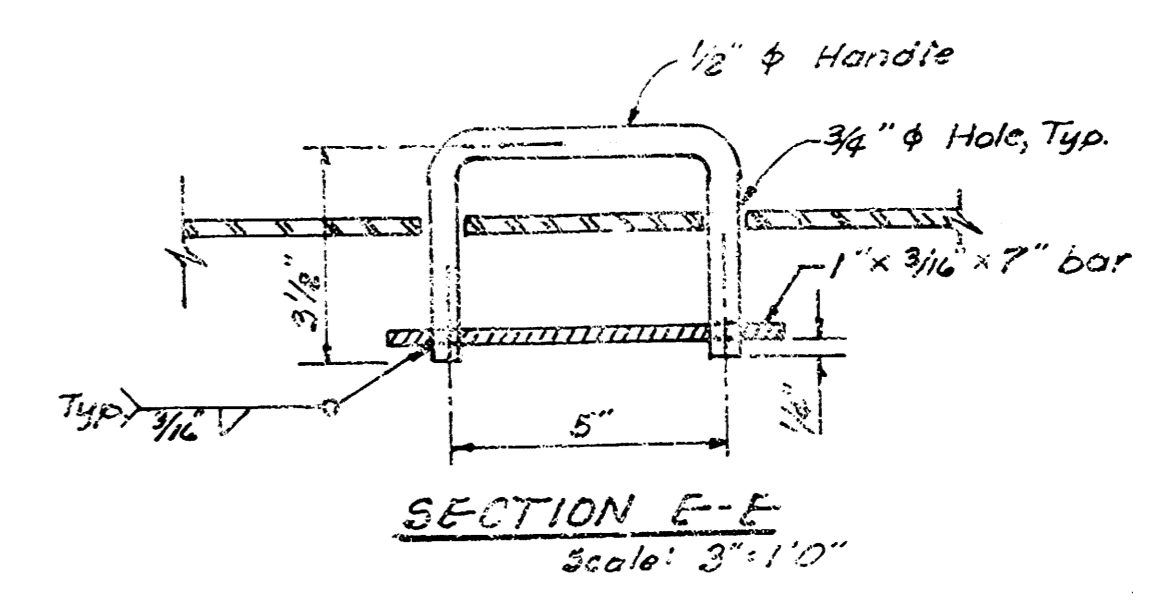
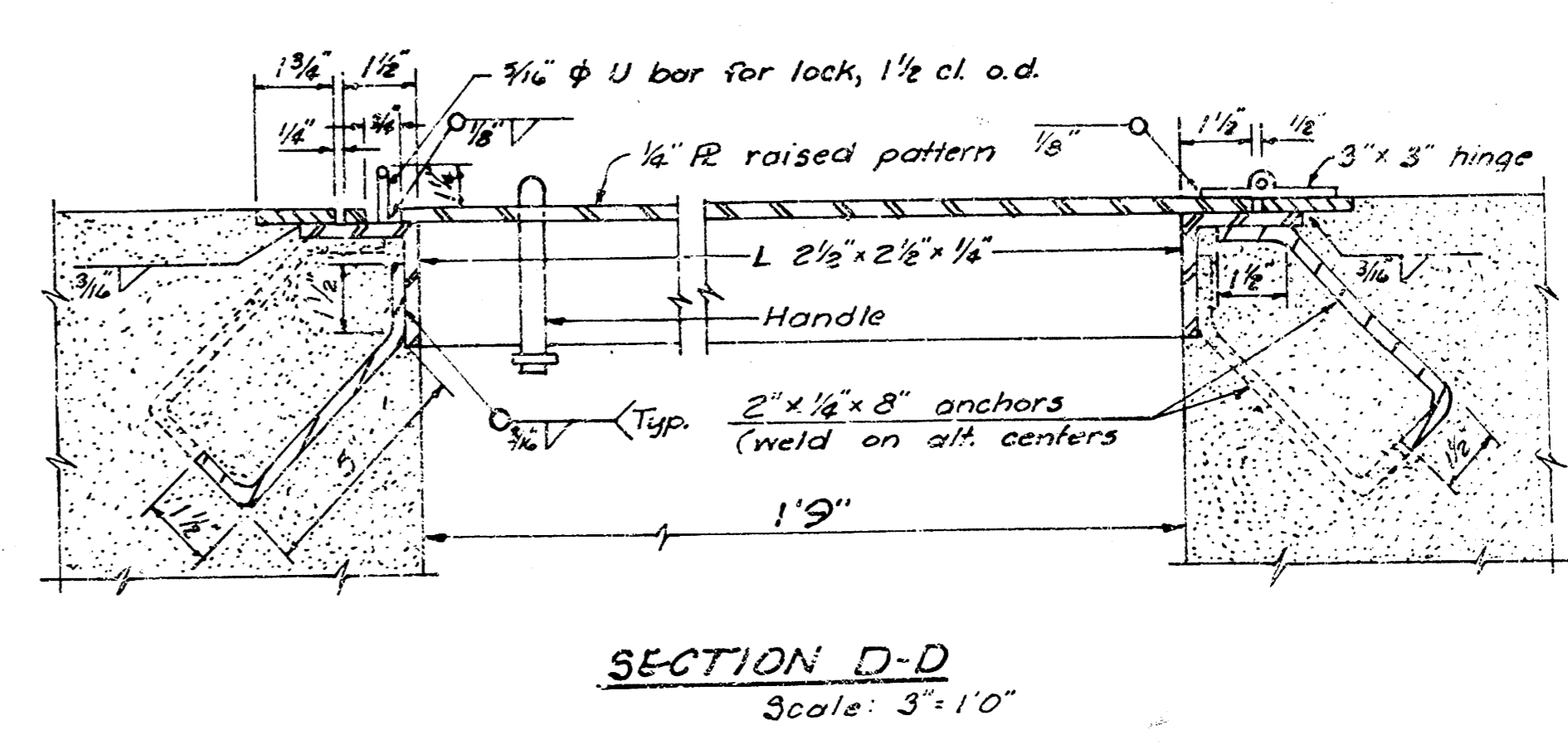
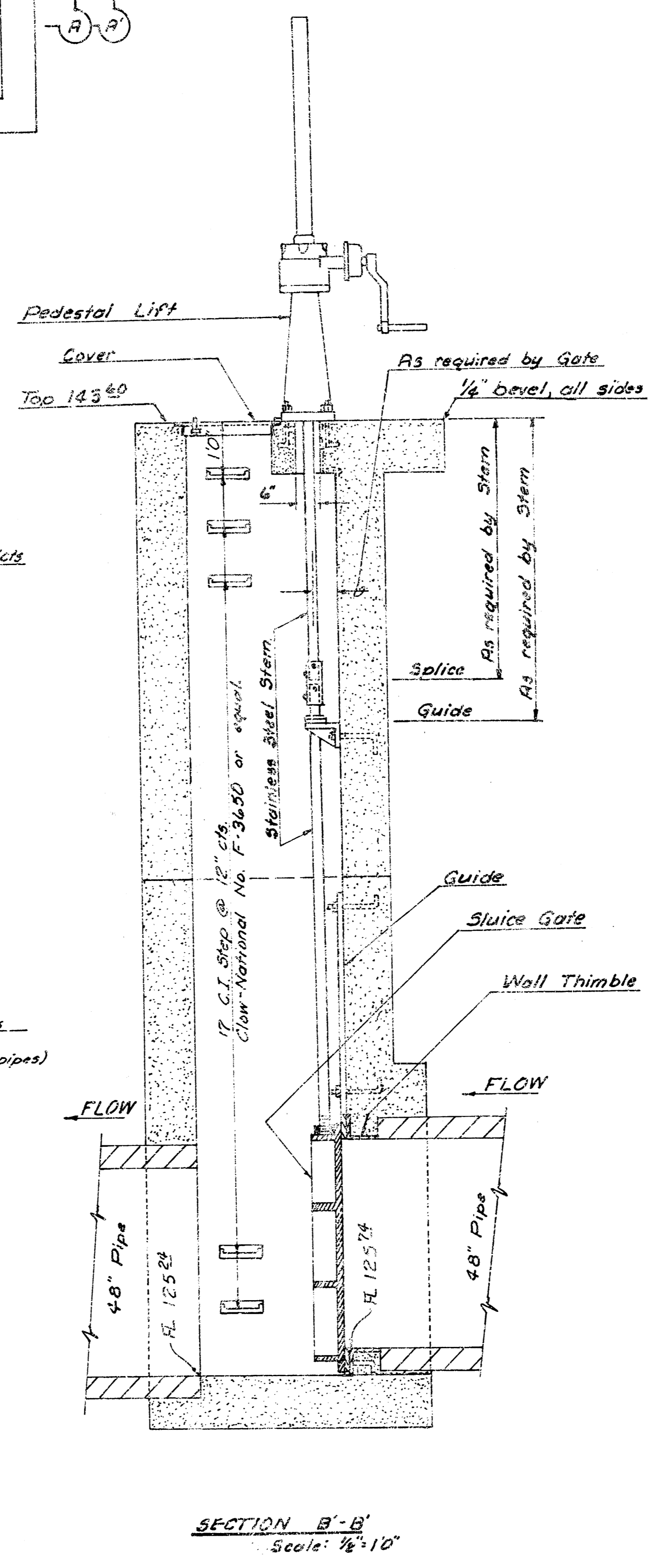
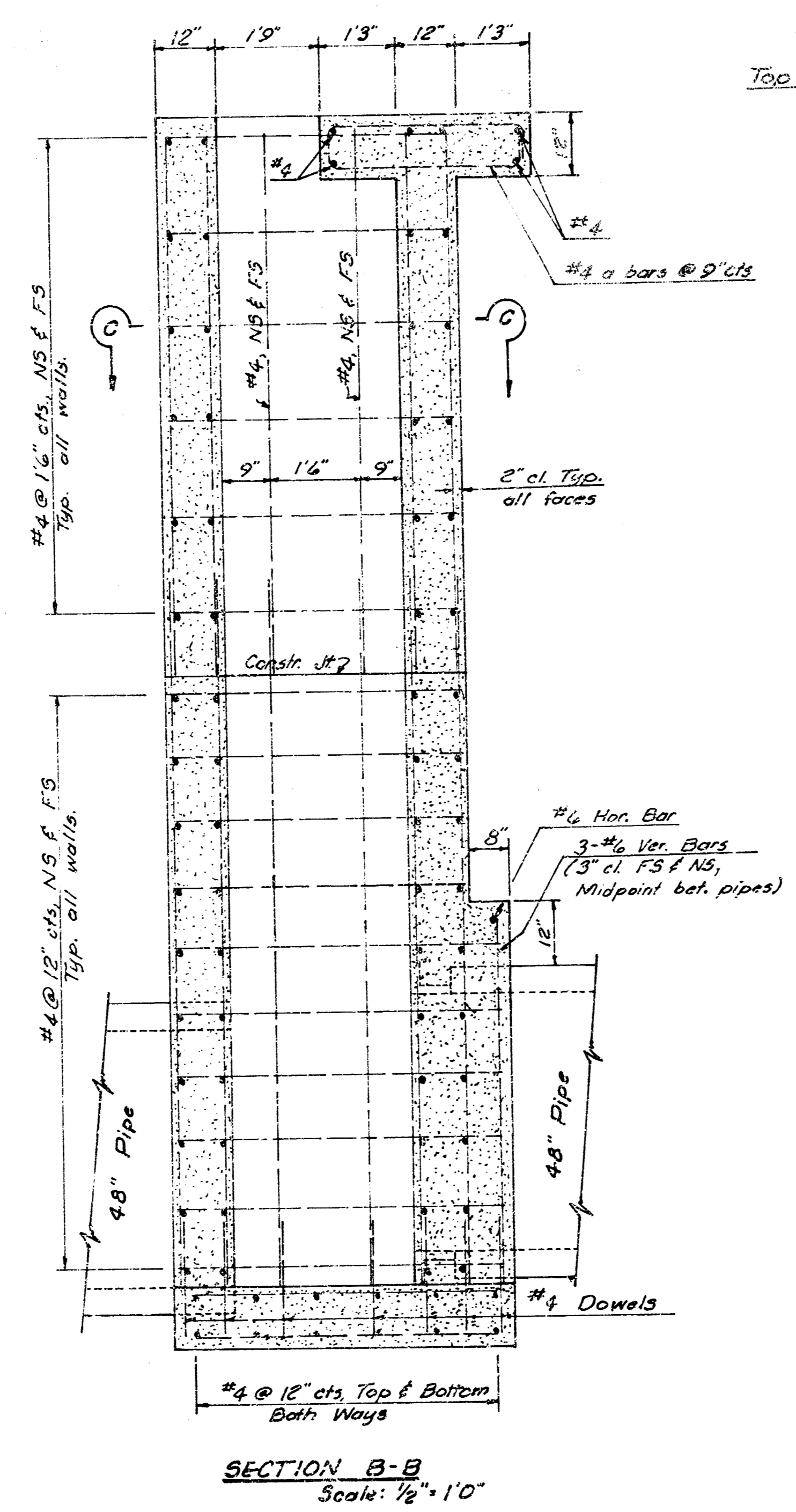
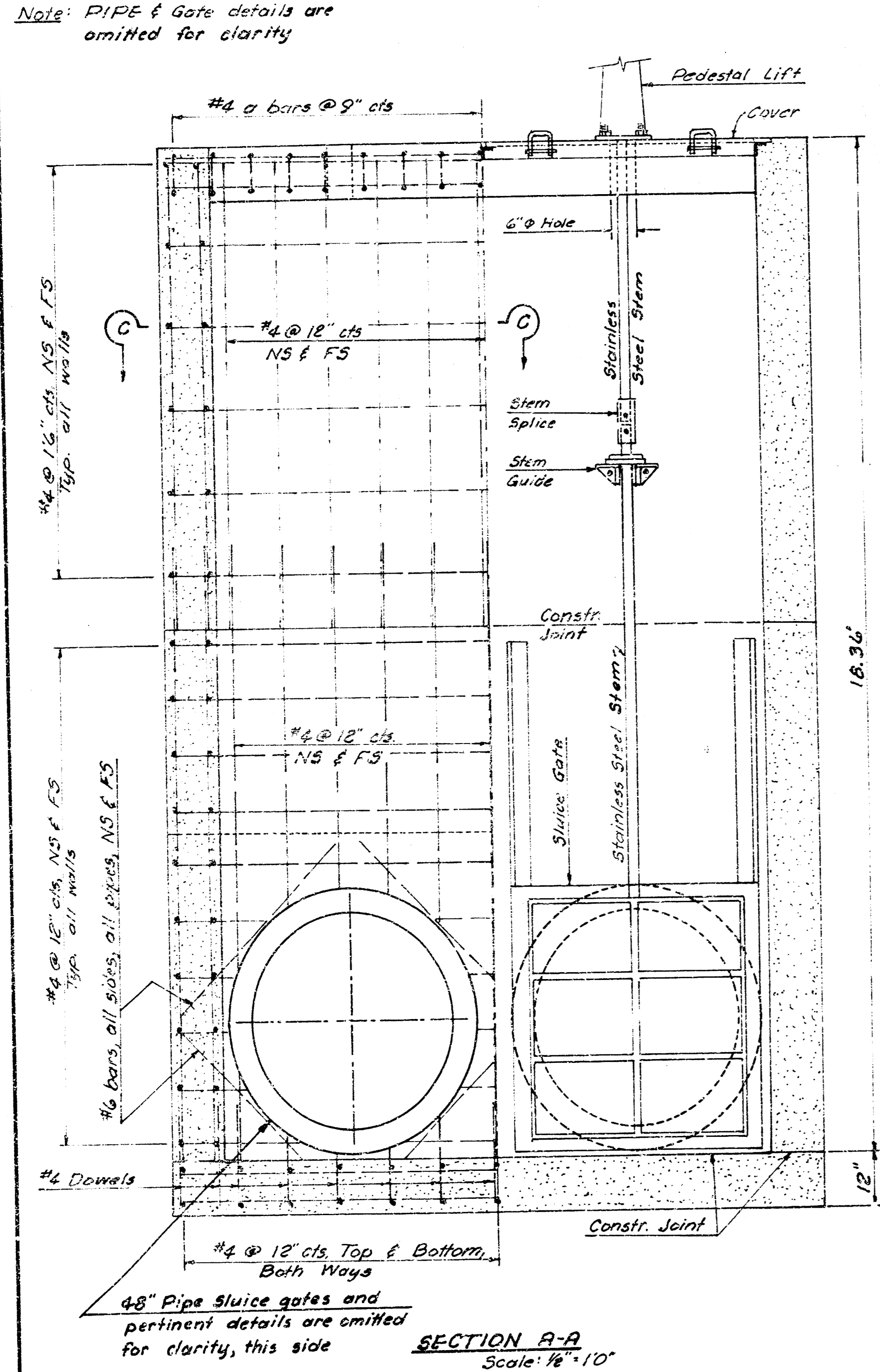
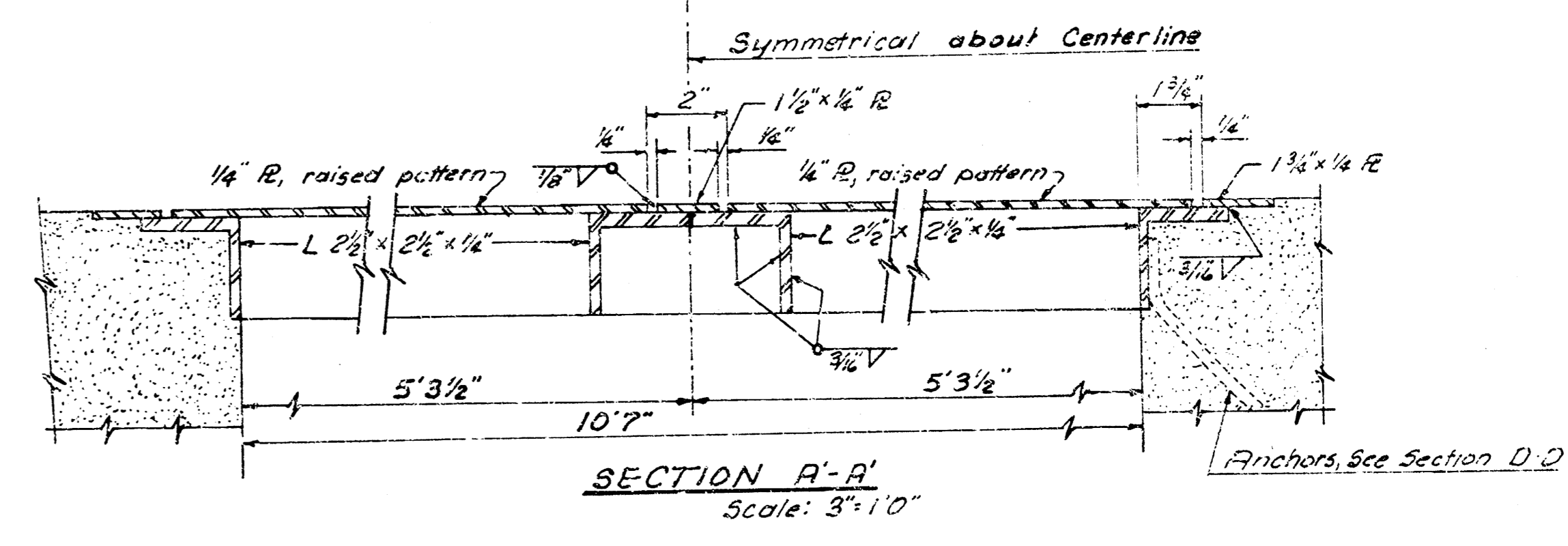
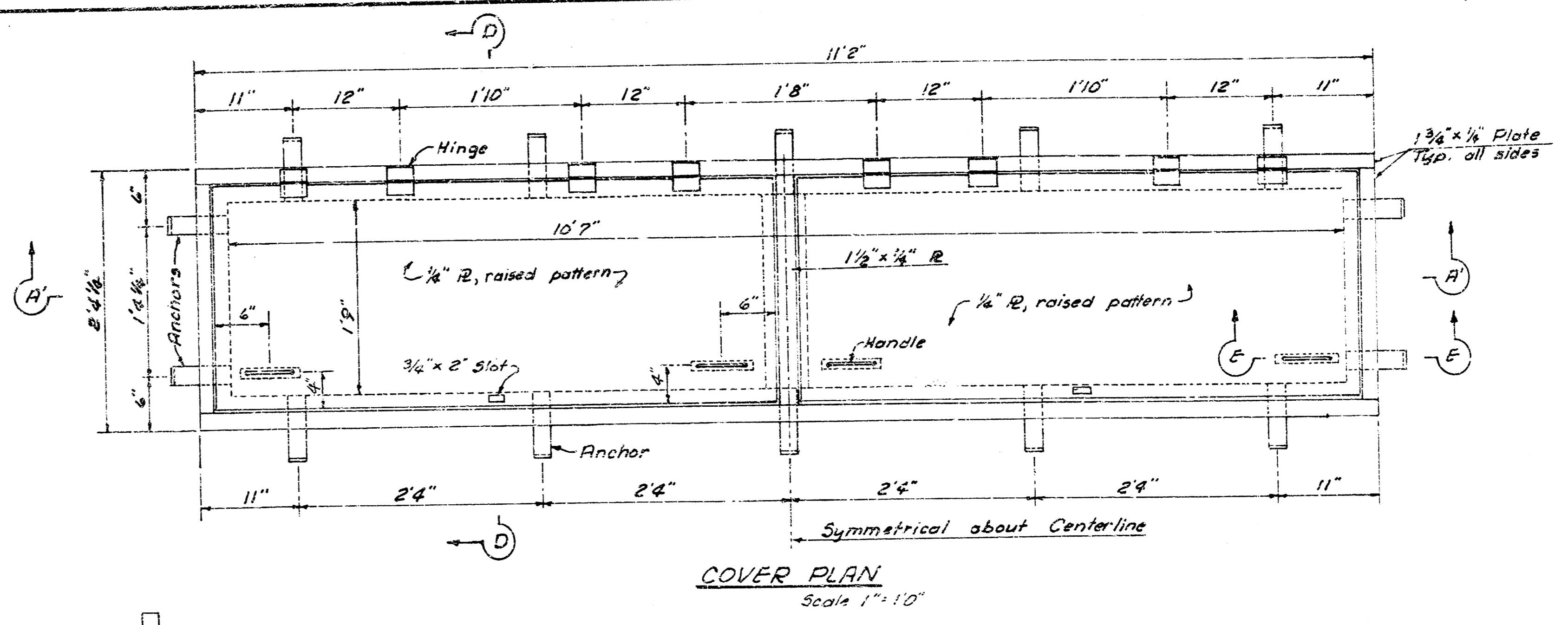
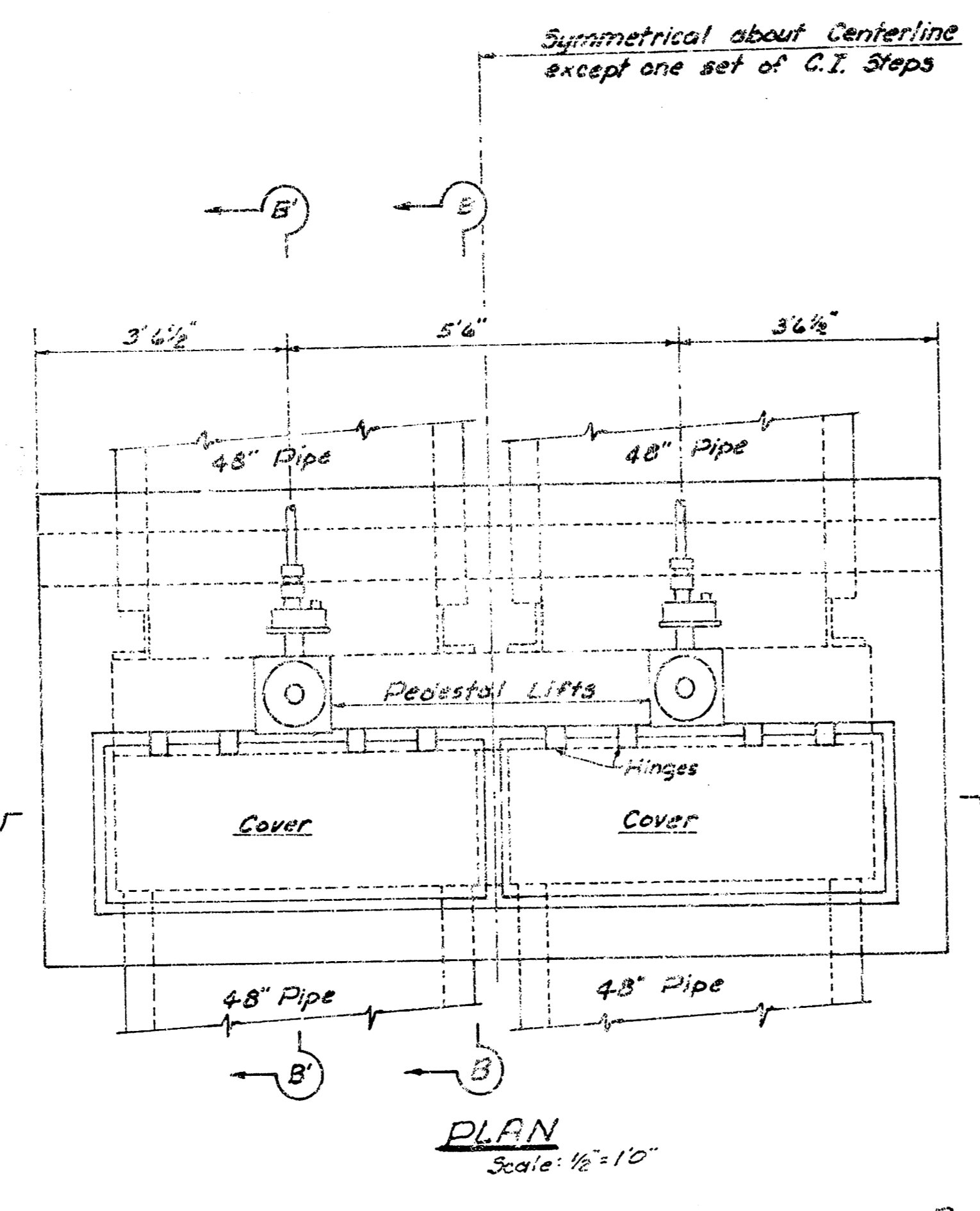
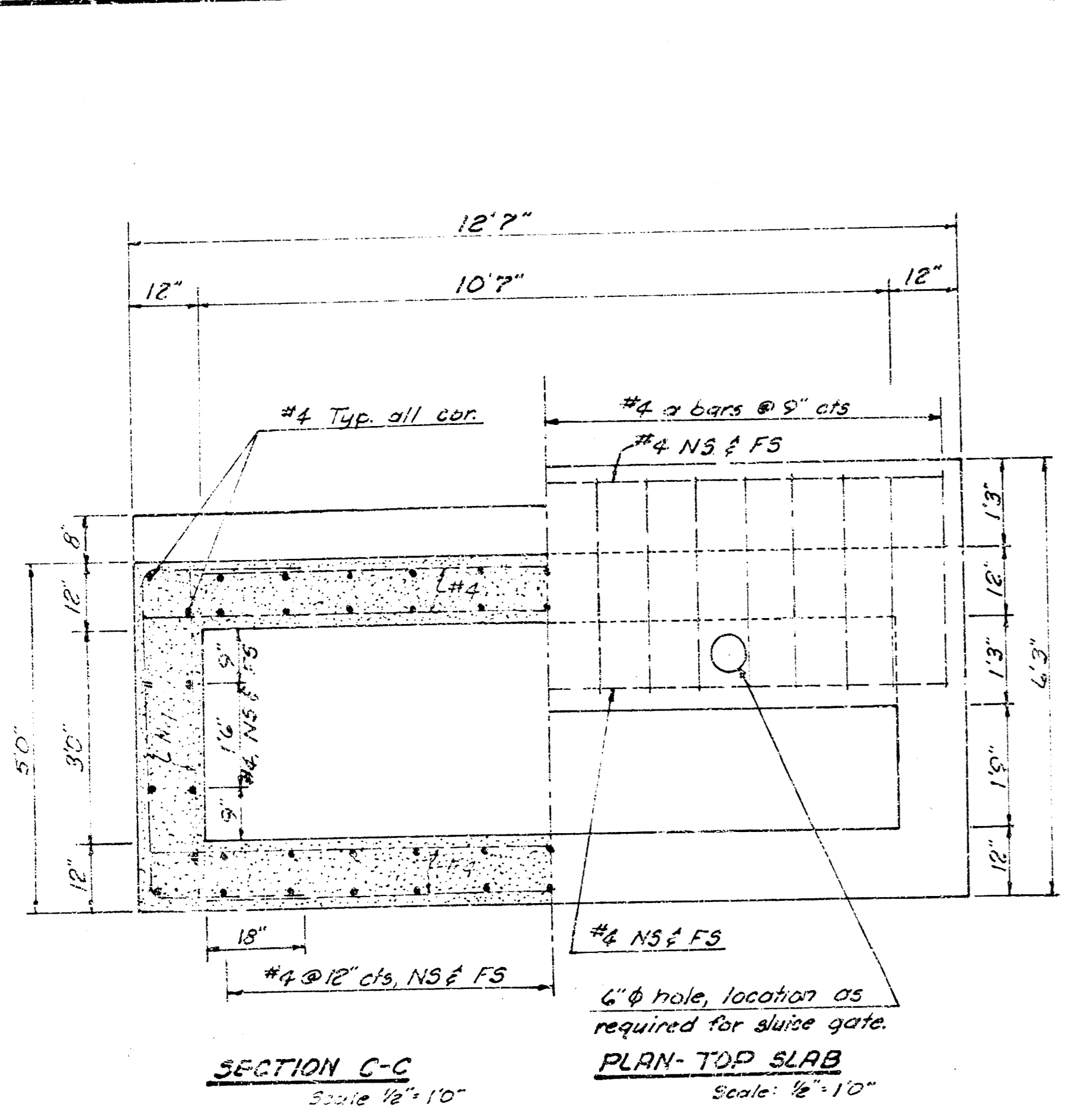




B.M. 135.76 Top of sign post approx. 5' S. of S.L. of 36th St. No. and is approx. on E. Smyser.  
 B.M. 135.53 S.E. Cor. front conc. porch @ 3801 N. Clarence.

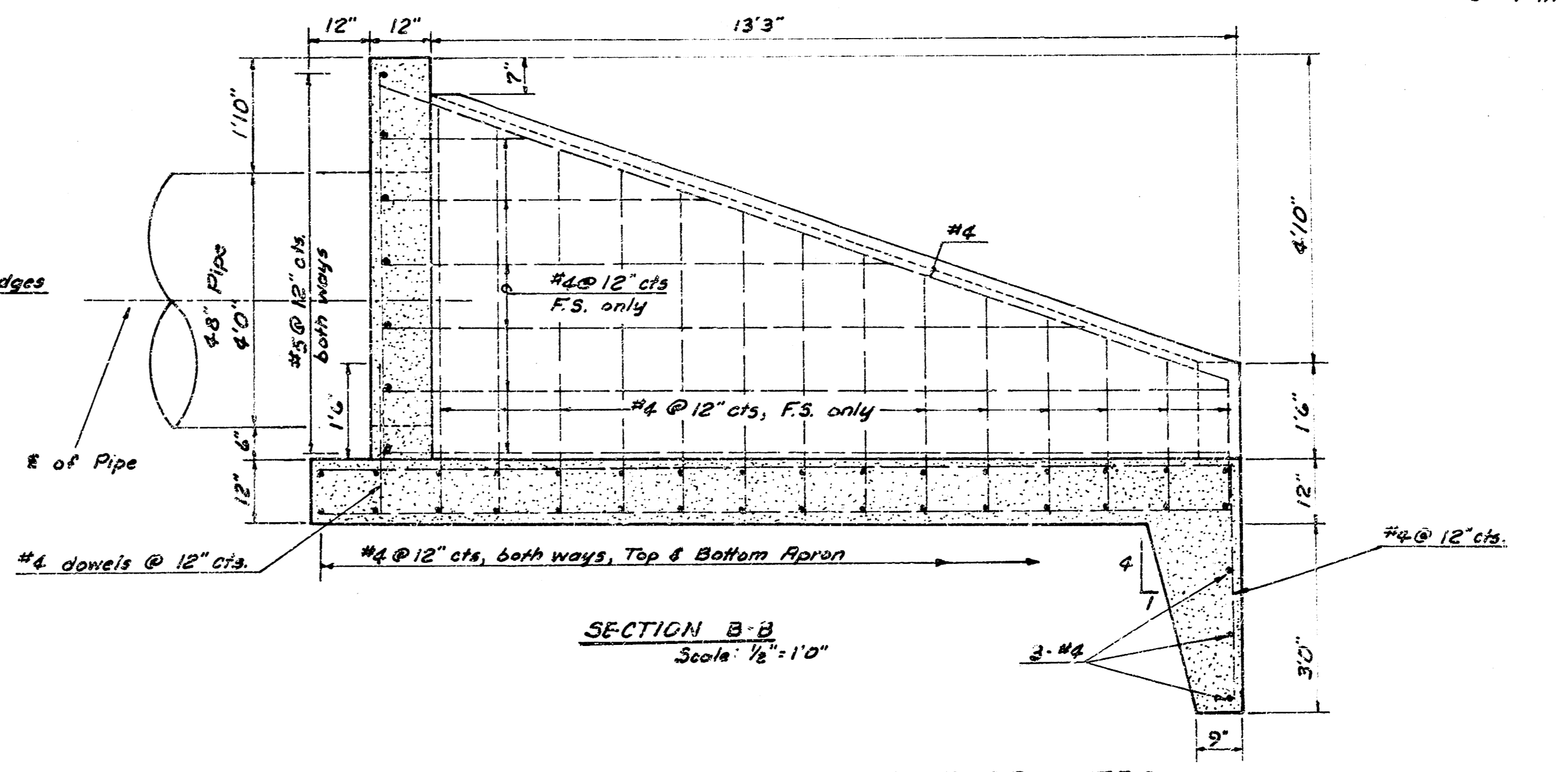
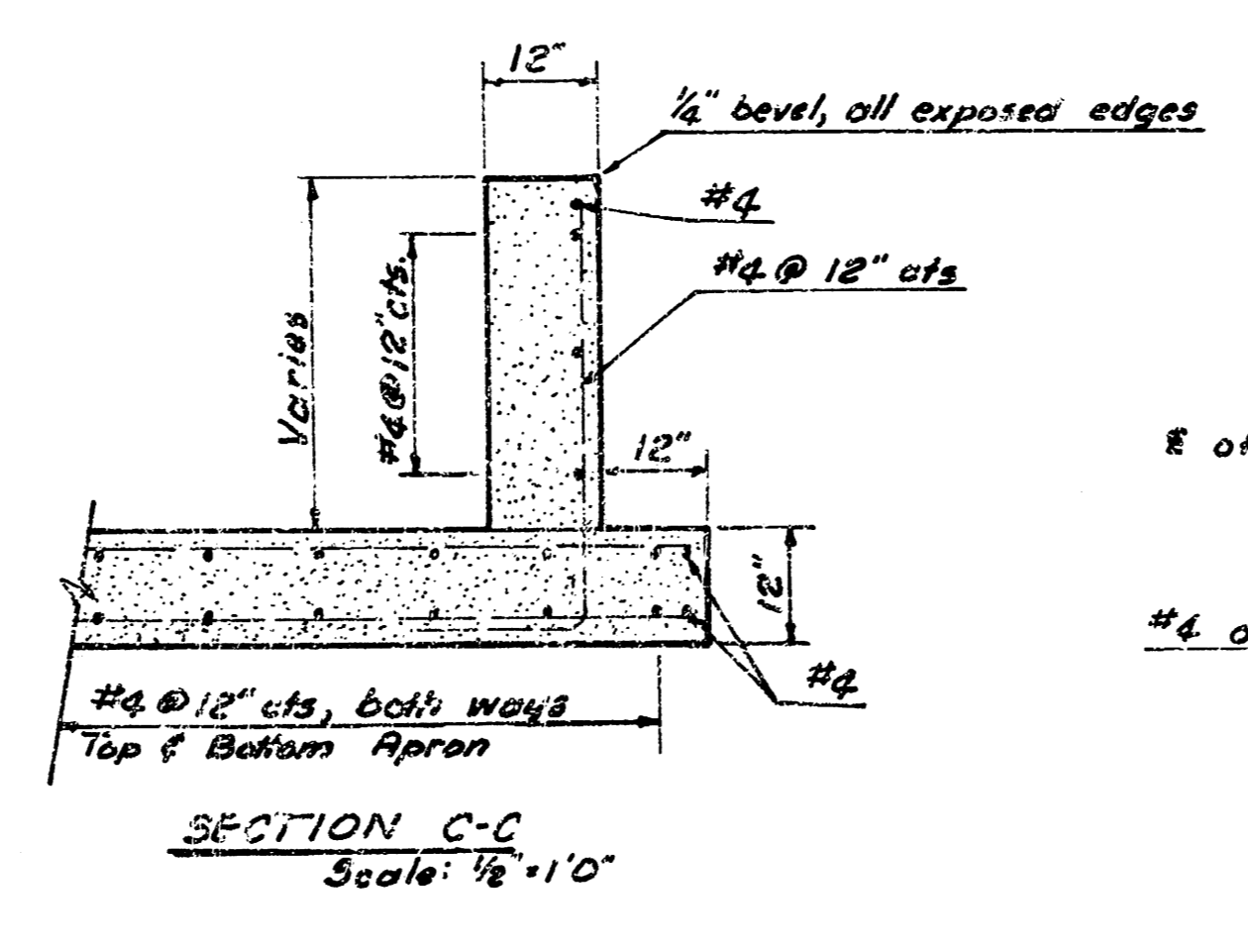
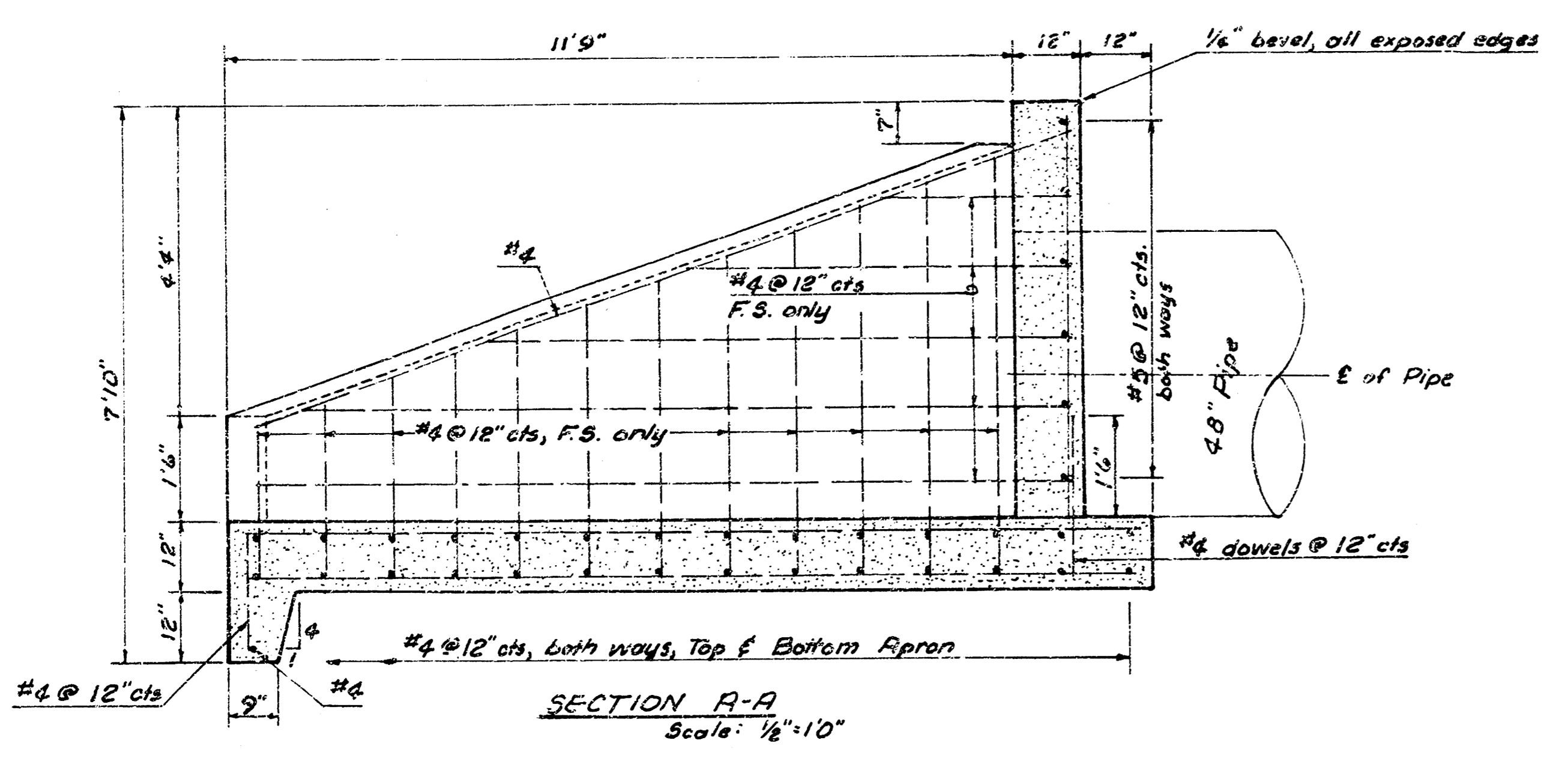
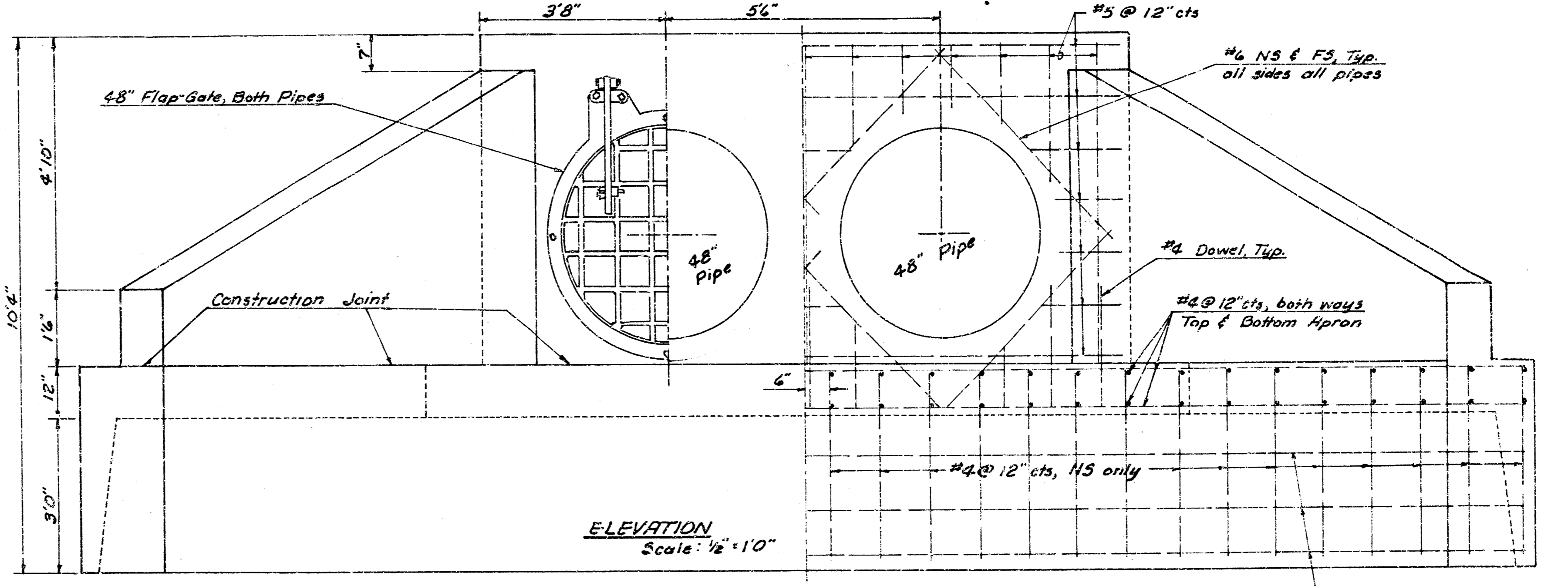
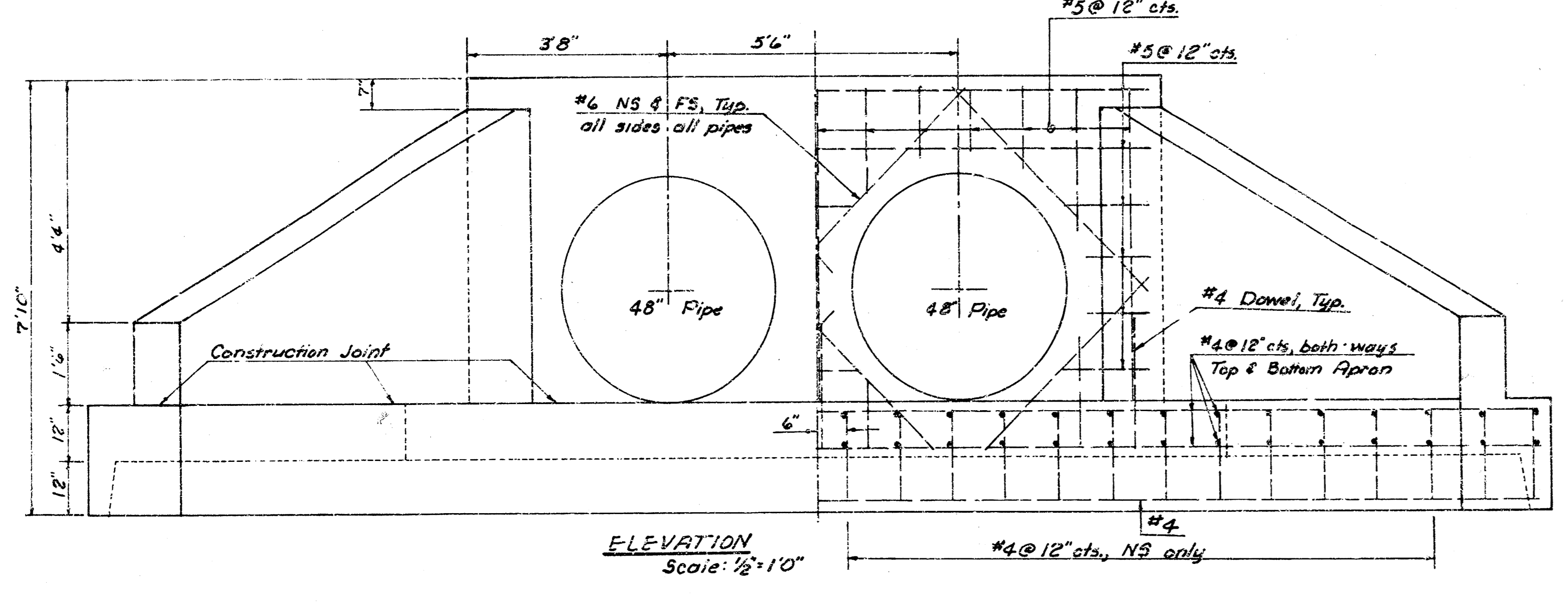
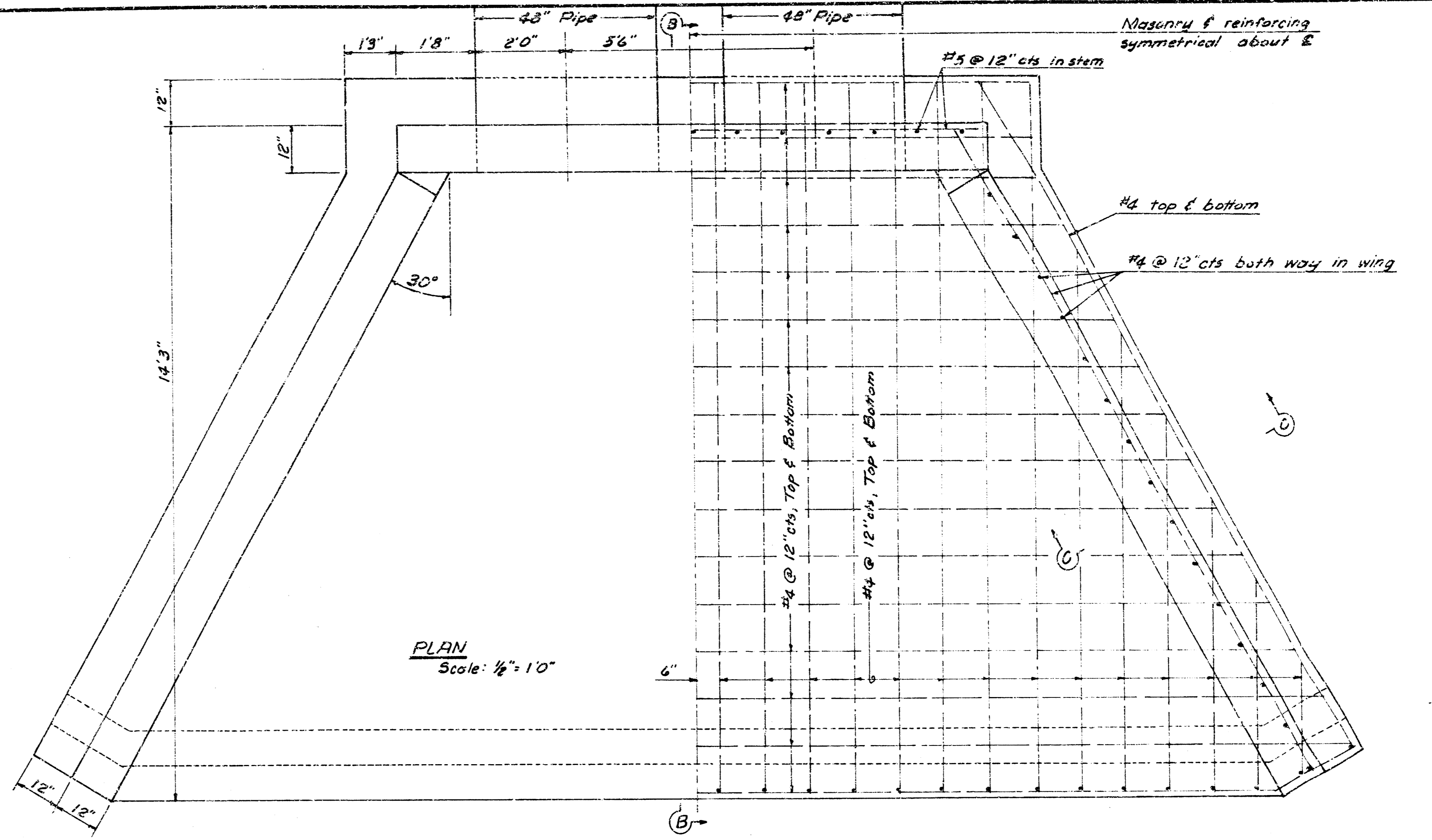
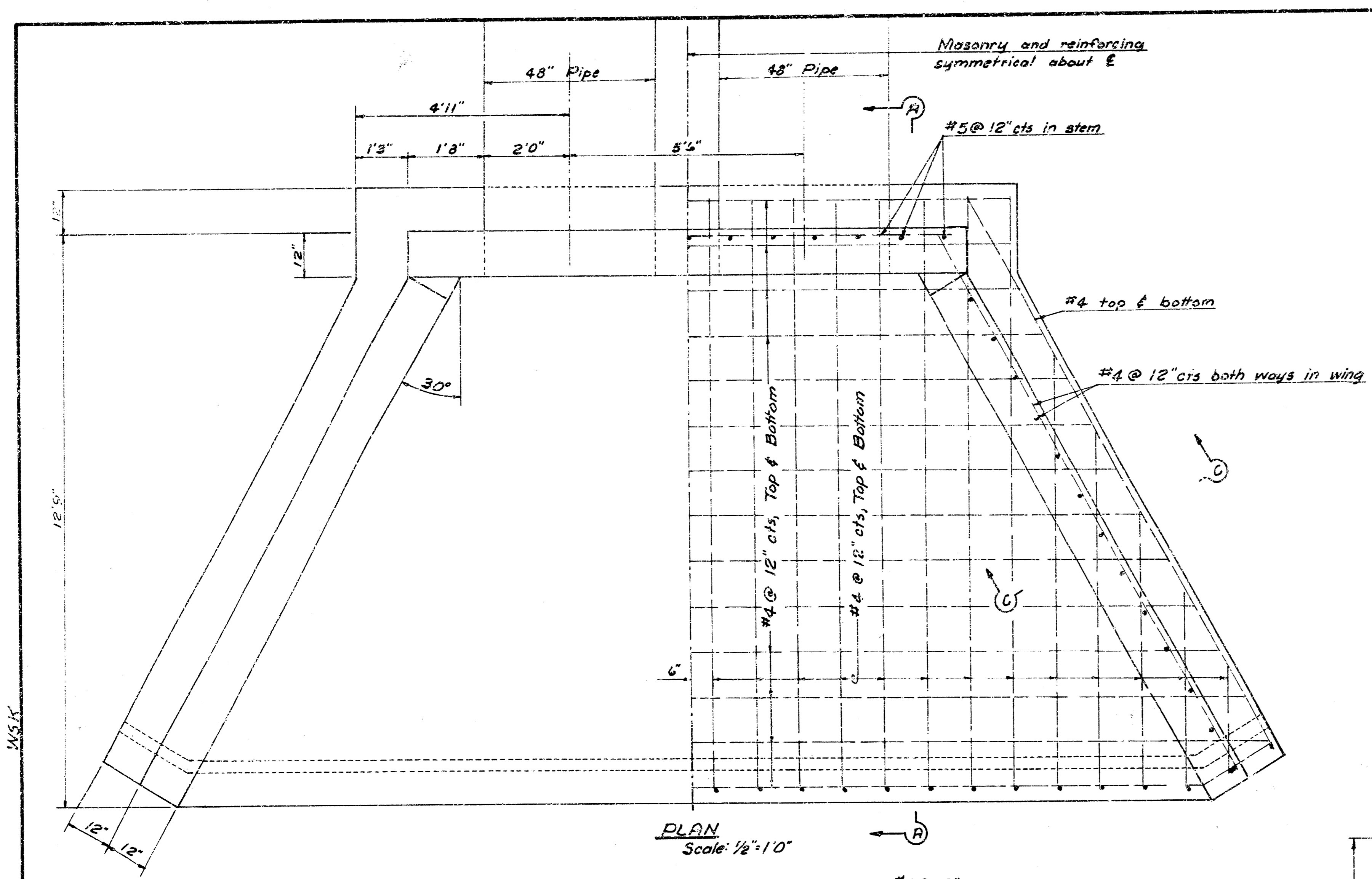


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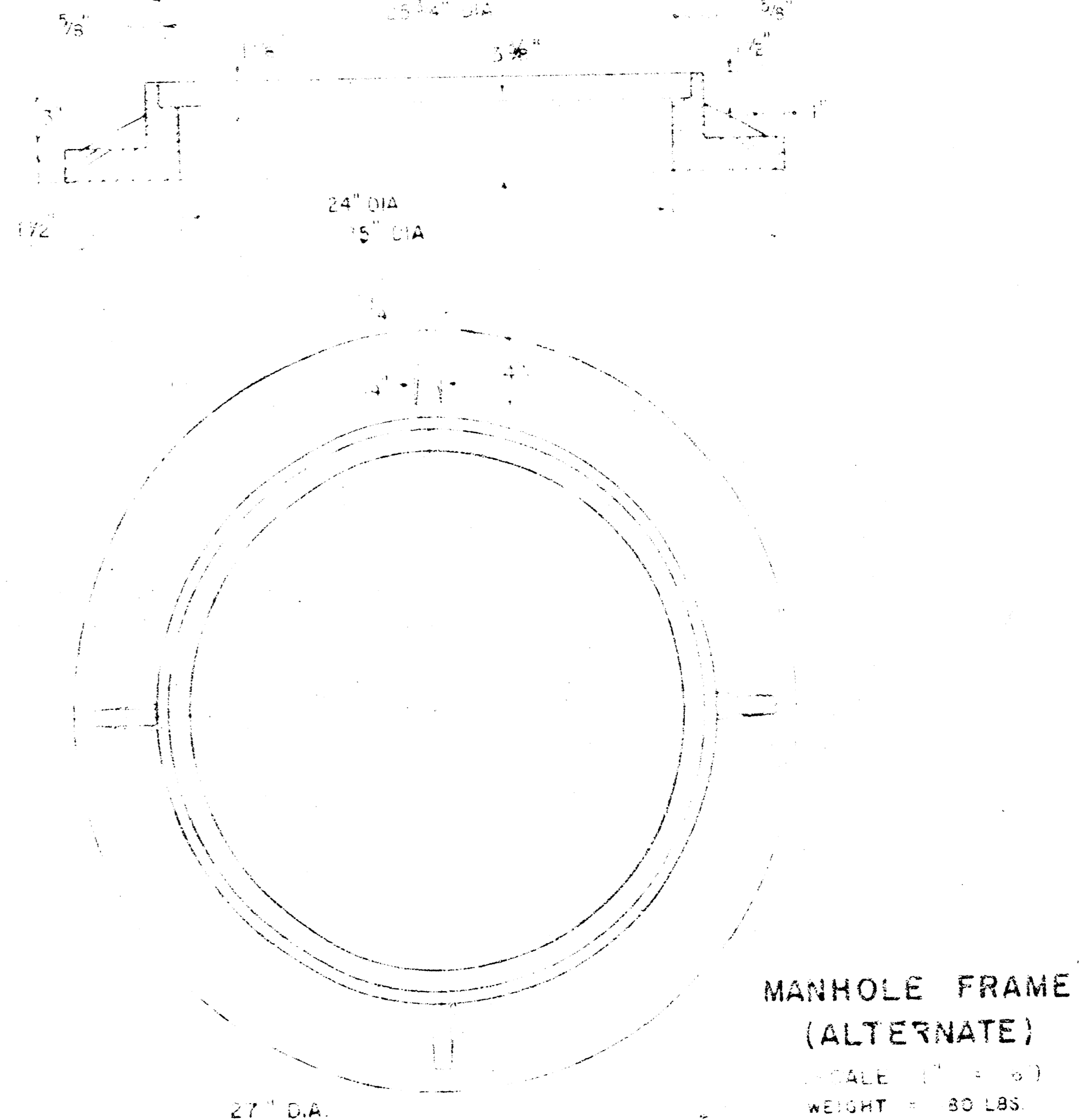
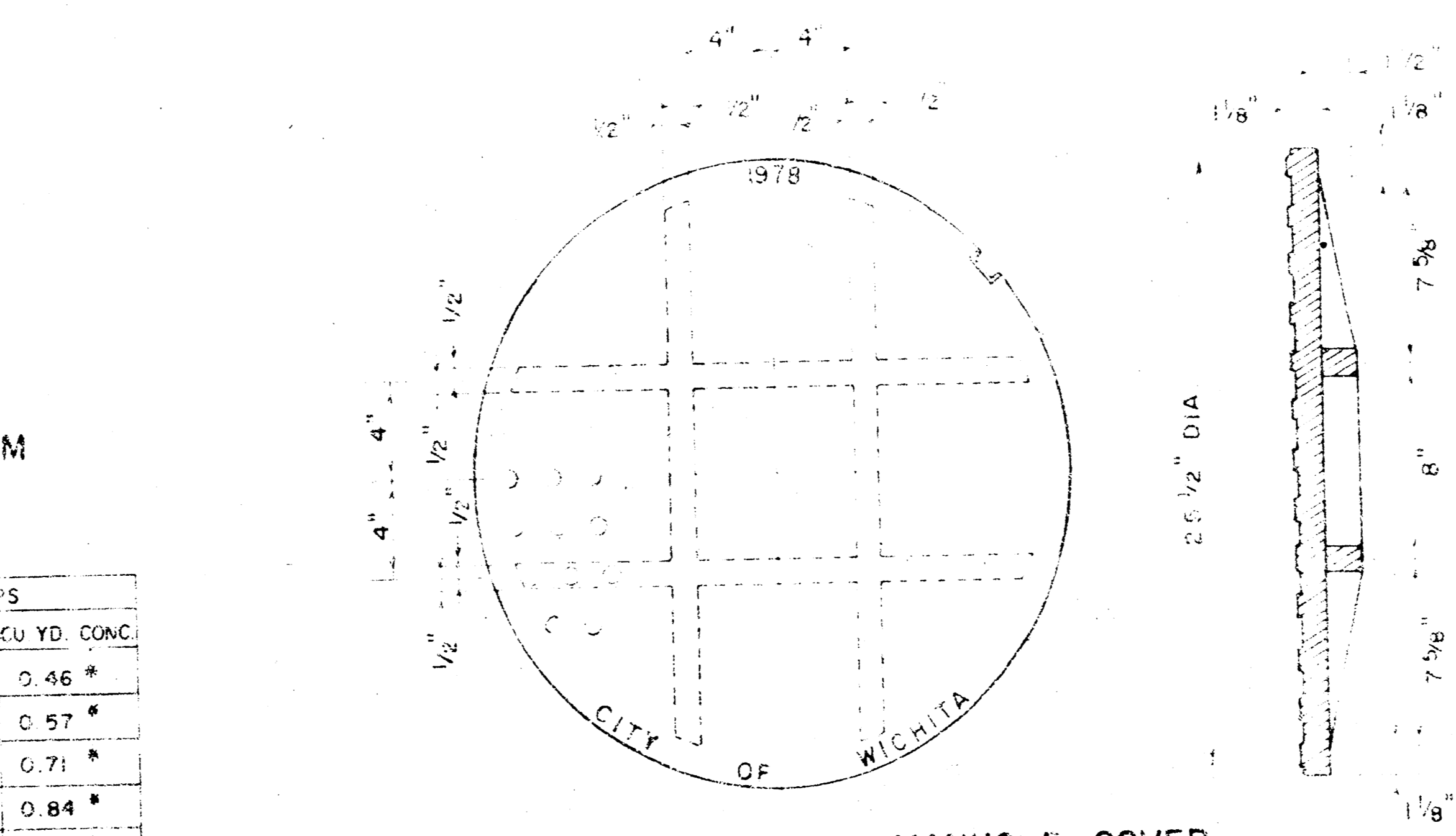
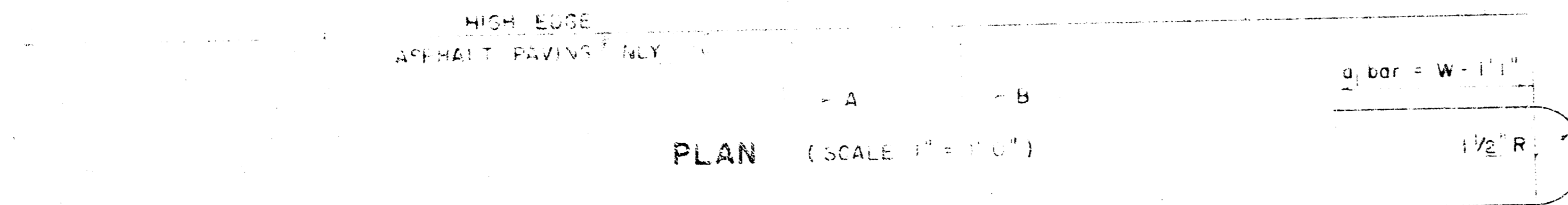
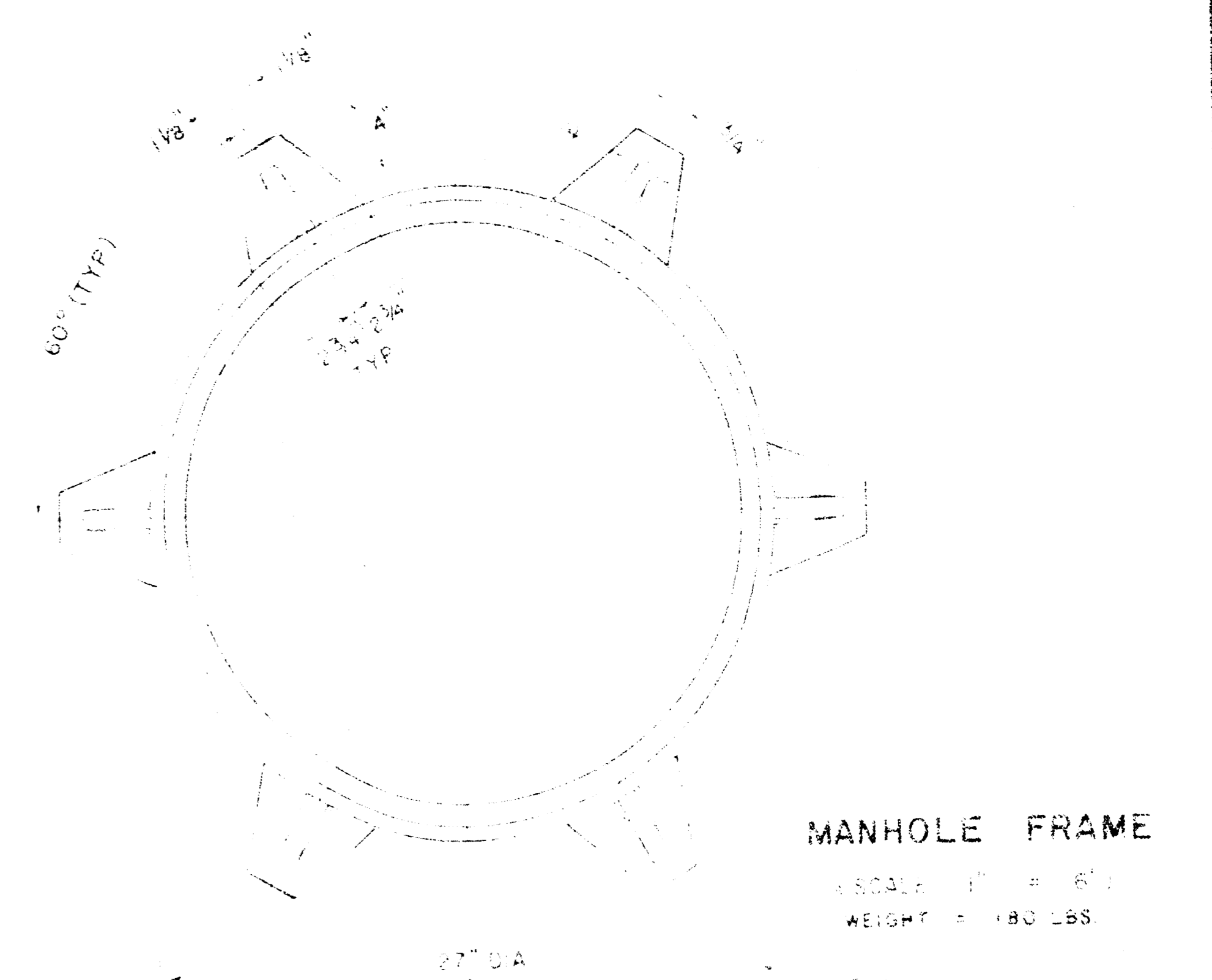
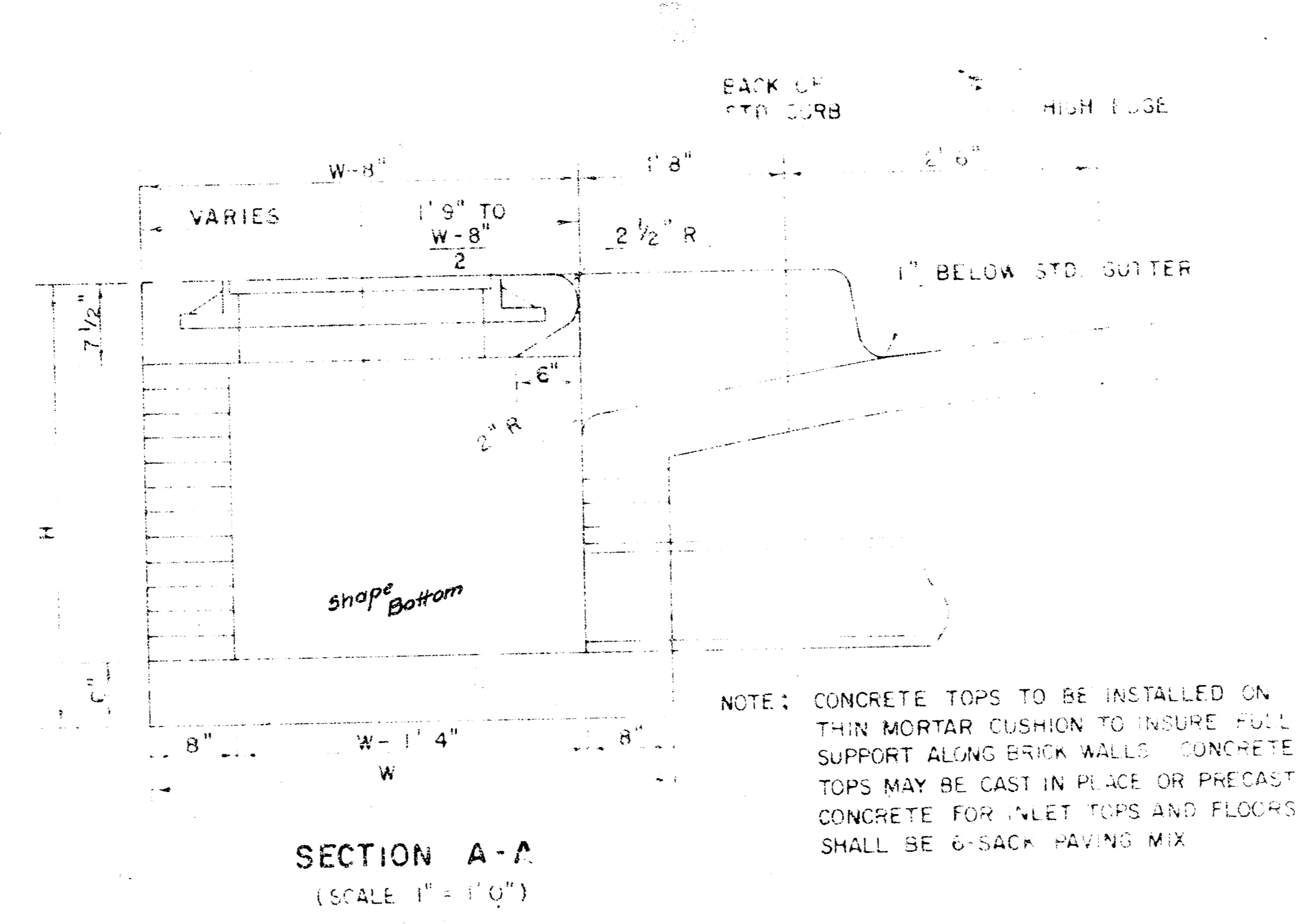
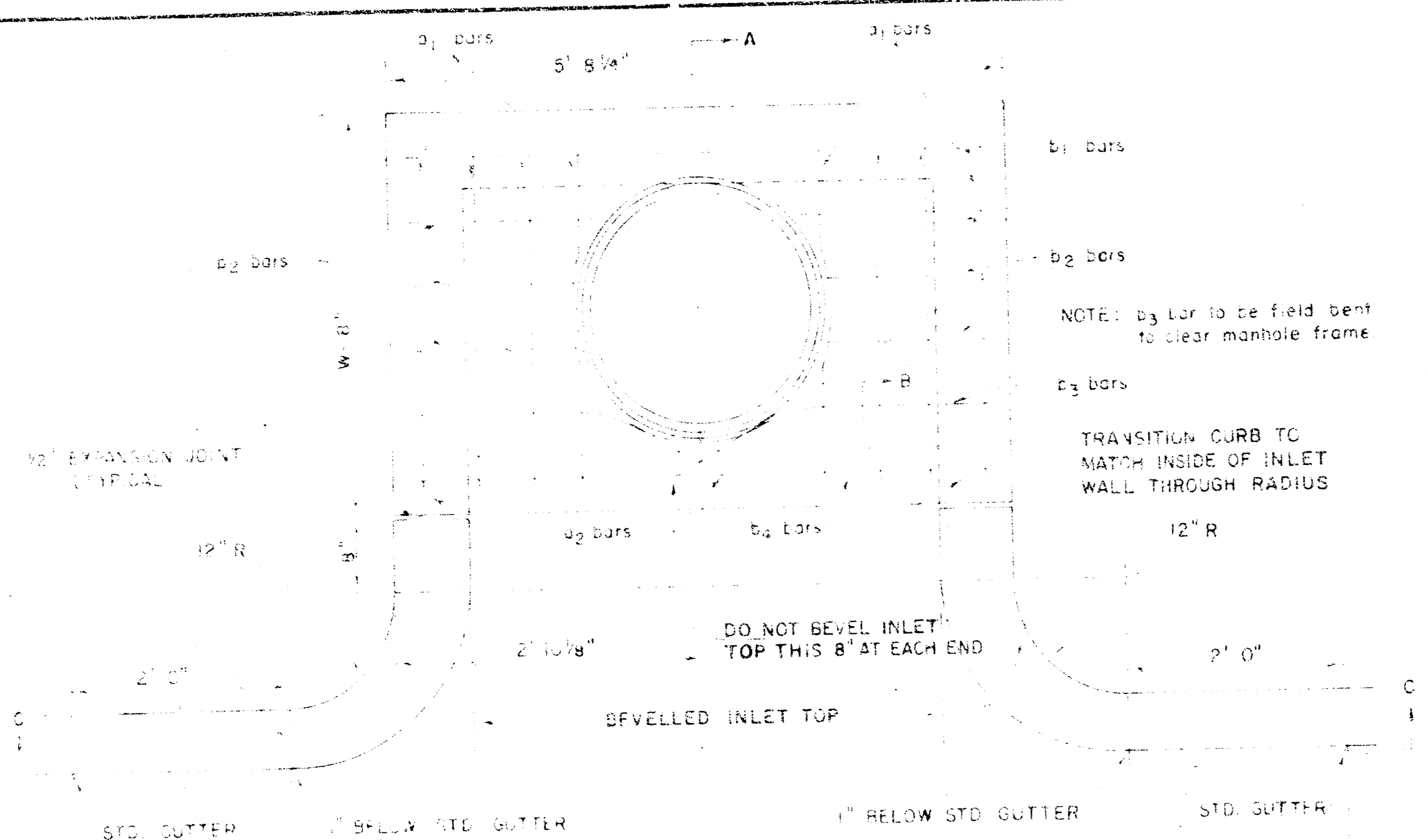
Note: PIPE & Gate details are omitted for clarity

48" Pipe sluice gates and pertinent details are omitted for clarity, this side



INLET STRUCTURE

OUTLET STRUCTURE W/ FLAP-GATES



**STEEL SCHEDULE**

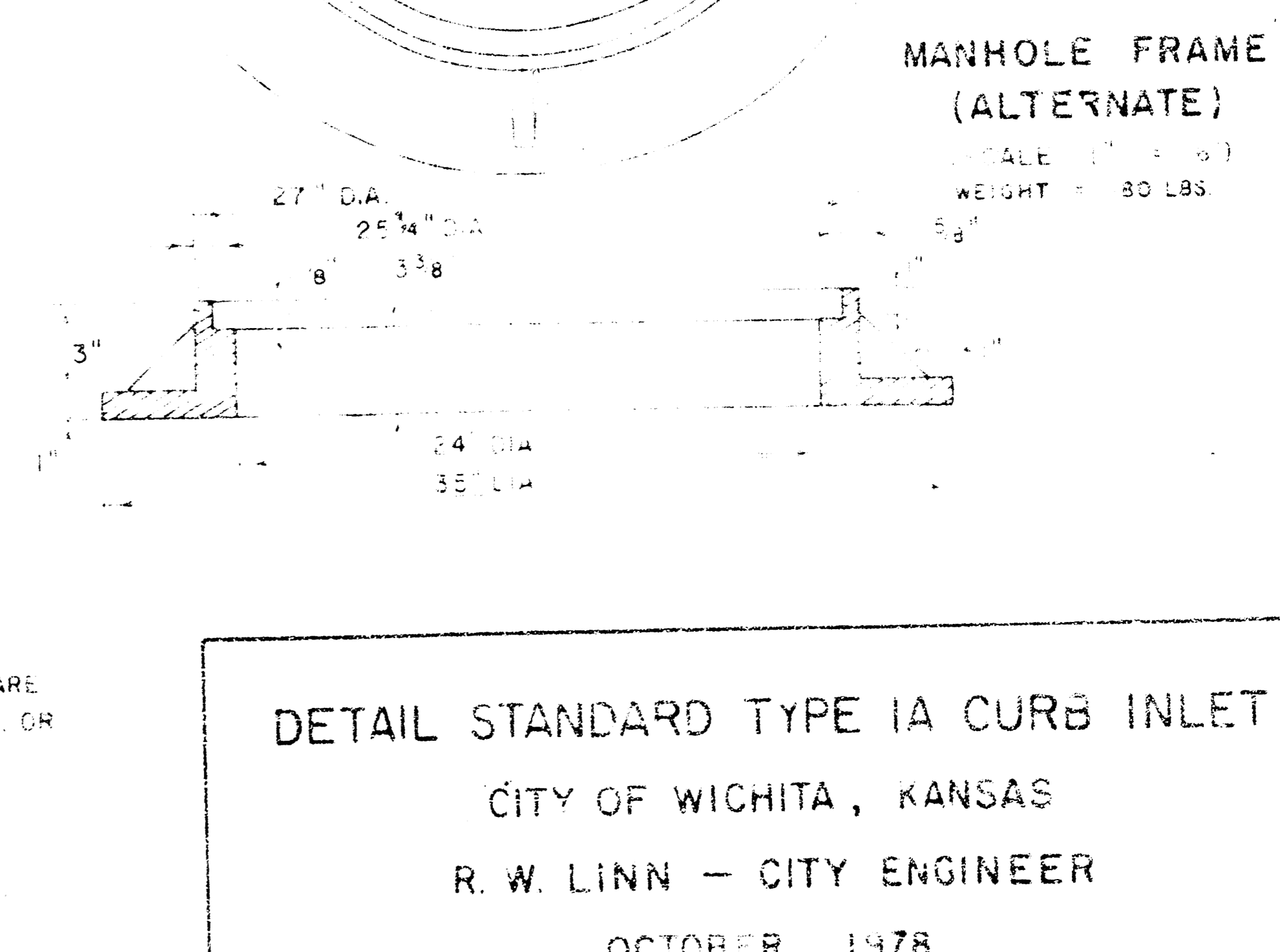
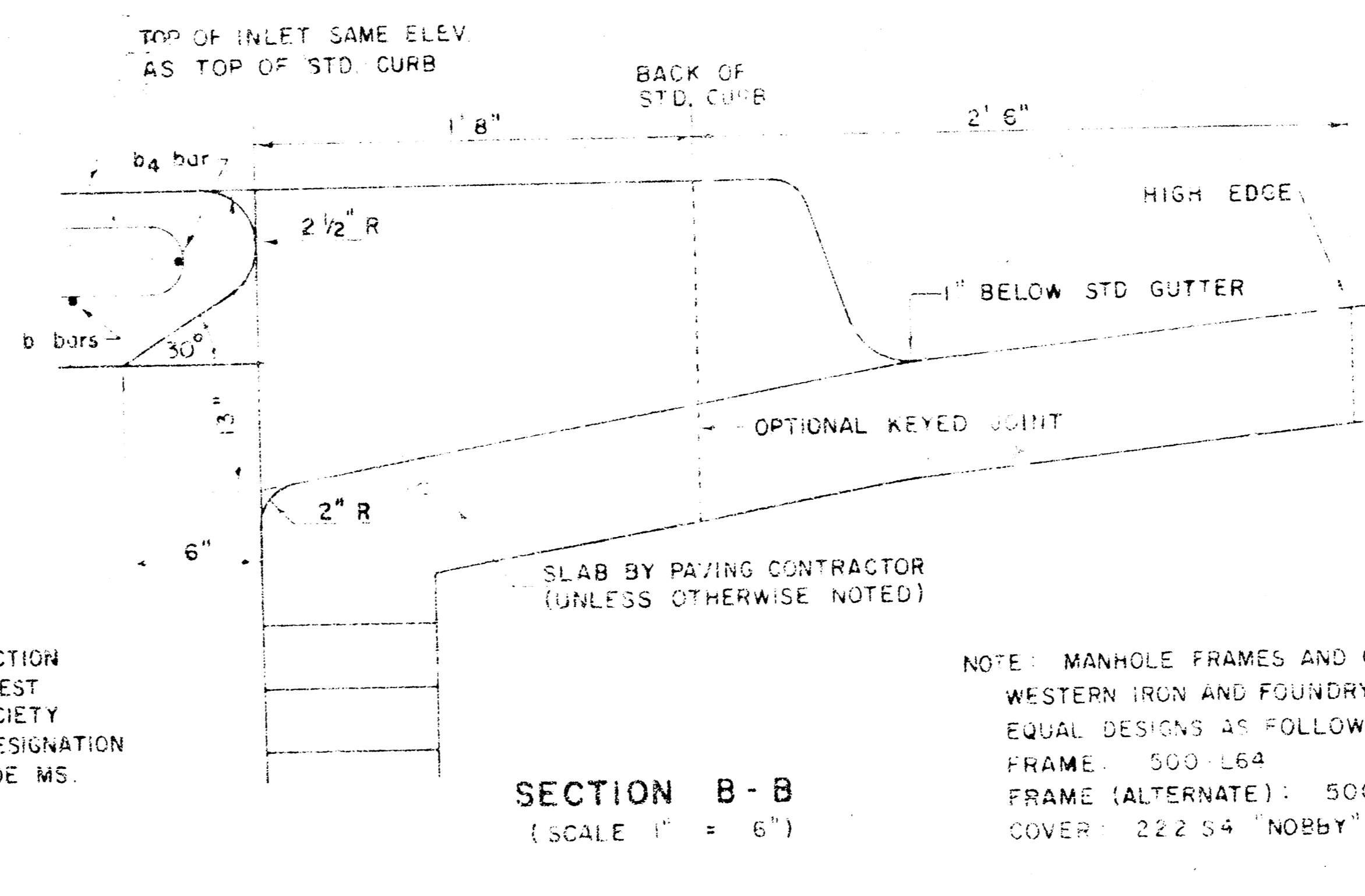
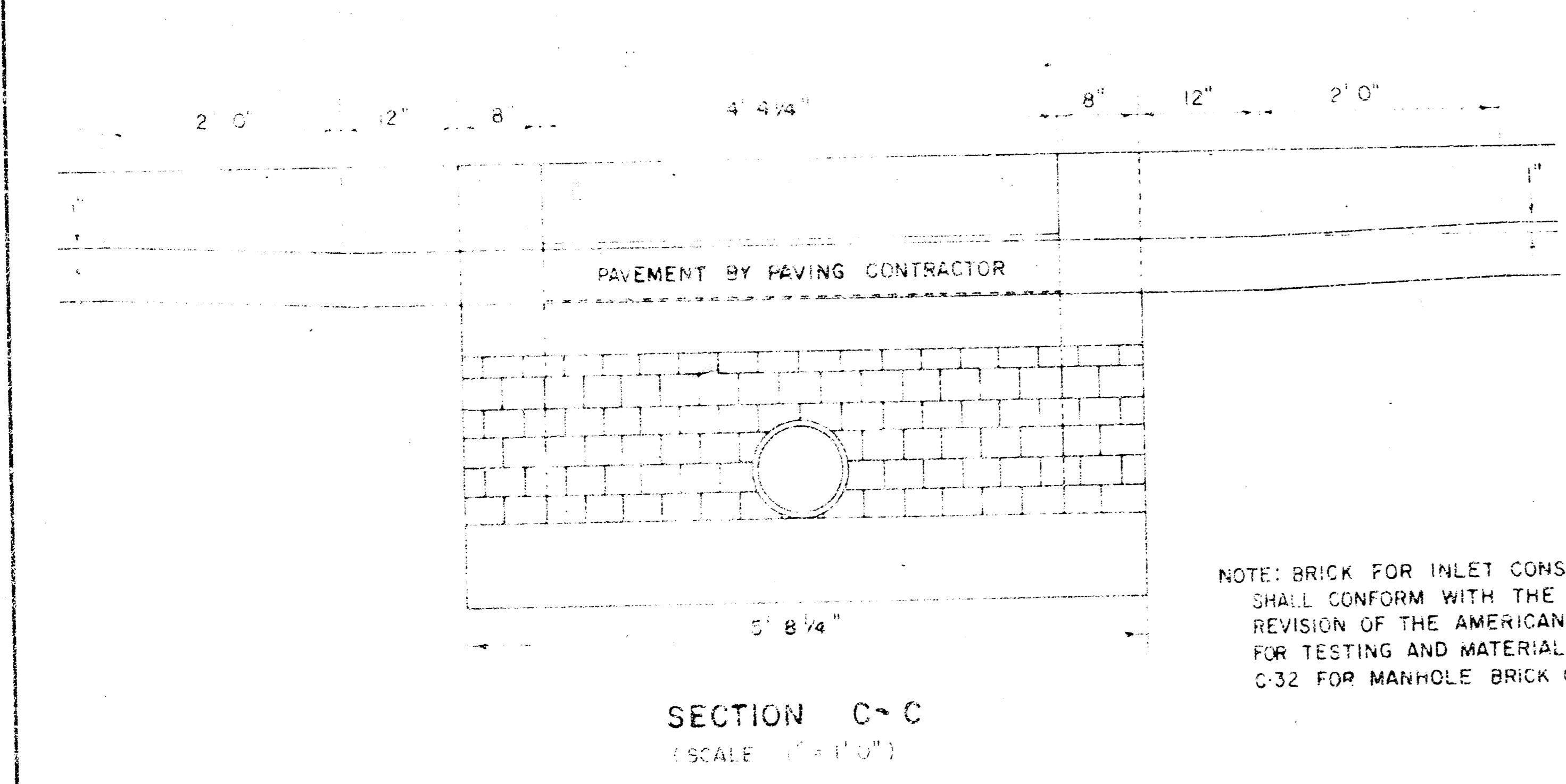
BAR	d1	d2	d3	d4	WT	LBS
NUMBER	8	2	2	2	7	5
SIZE	#4	#4	#4	#4	#4	#4
W	4'2"	5'5"	5'4"	5'5"	1'5"	5'6"
H	5'0"	8'1"	4'4"	5'5"	1'5"	5'6"
L	6'0"	10'1"	5'4"	5'5"	1'5"	5'6"
B	7'0"	11'1"	6'4"	5'5"	1'5"	5'6"
T	8'0"	12'1"	7'4"	5'5"	1'5"	5'6"
						12'4"

\* NOTE: d2 BARS TO BE PLACED APPROX 2" BELOW TOP OF INLET COVER

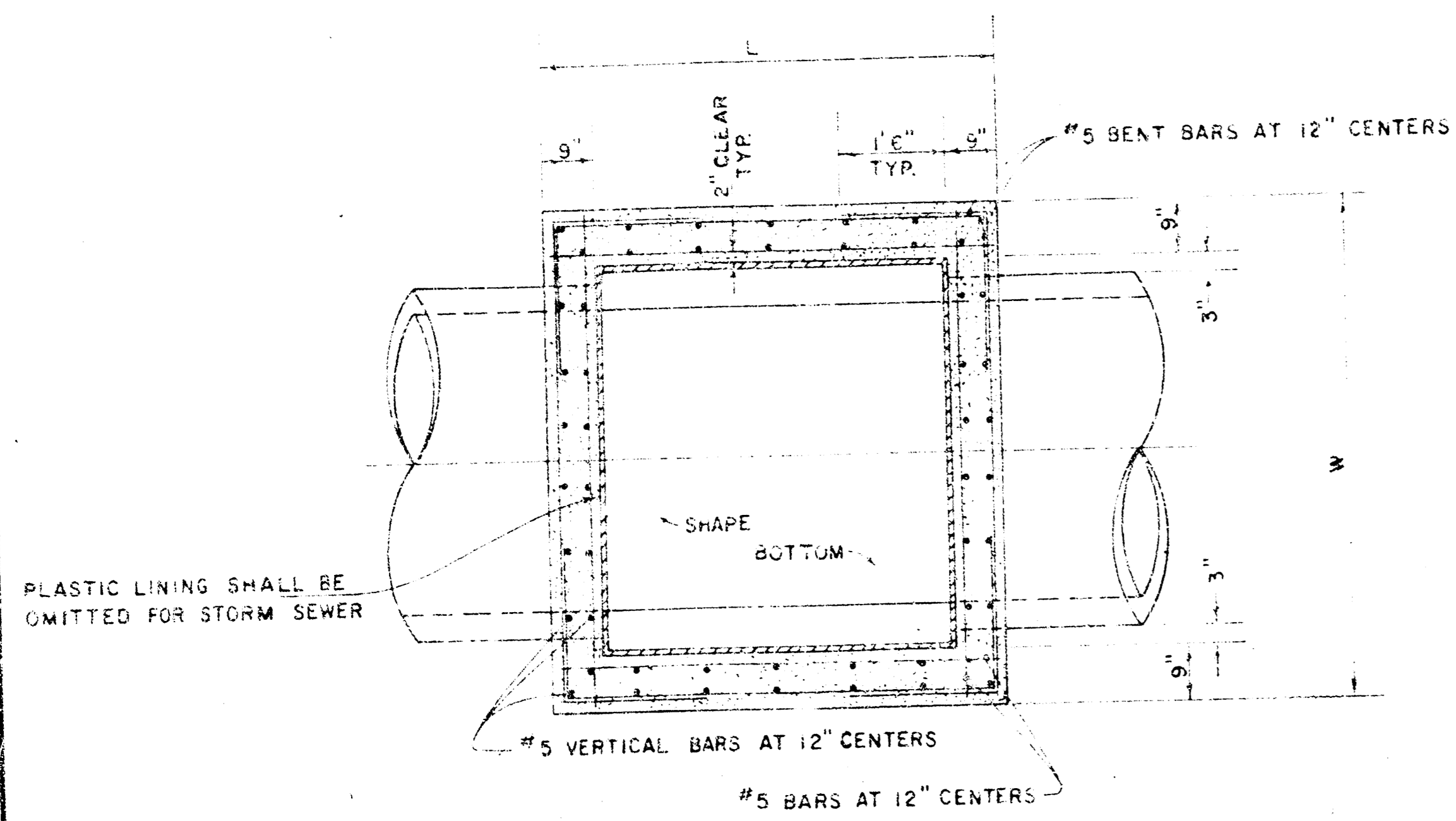
**STANDARD CURB INLET PRECAST TOPS**

W	PRE-CAST TOP SIZE	PIPE SIZE	CU YD CONC
4' 2"	36" x 5' 8 1/4" x 7 1/2"	24" & SMALLER	0.46 *
5' 0"	44" x 5' 3 1/4" x 7 1/2"	24" & 30"	0.57 *
6' 0"	54" x 5' 8 1/4" x 7 1/2"	36" & 42"	0.71 *
7' 0"	64" x 5' 8 1/4" x 7 1/2"	48" & 54"	0.84 *
8' 0"	74" x 5' 8 1/4" x 7 1/2"	60" & 66"	0.97 *

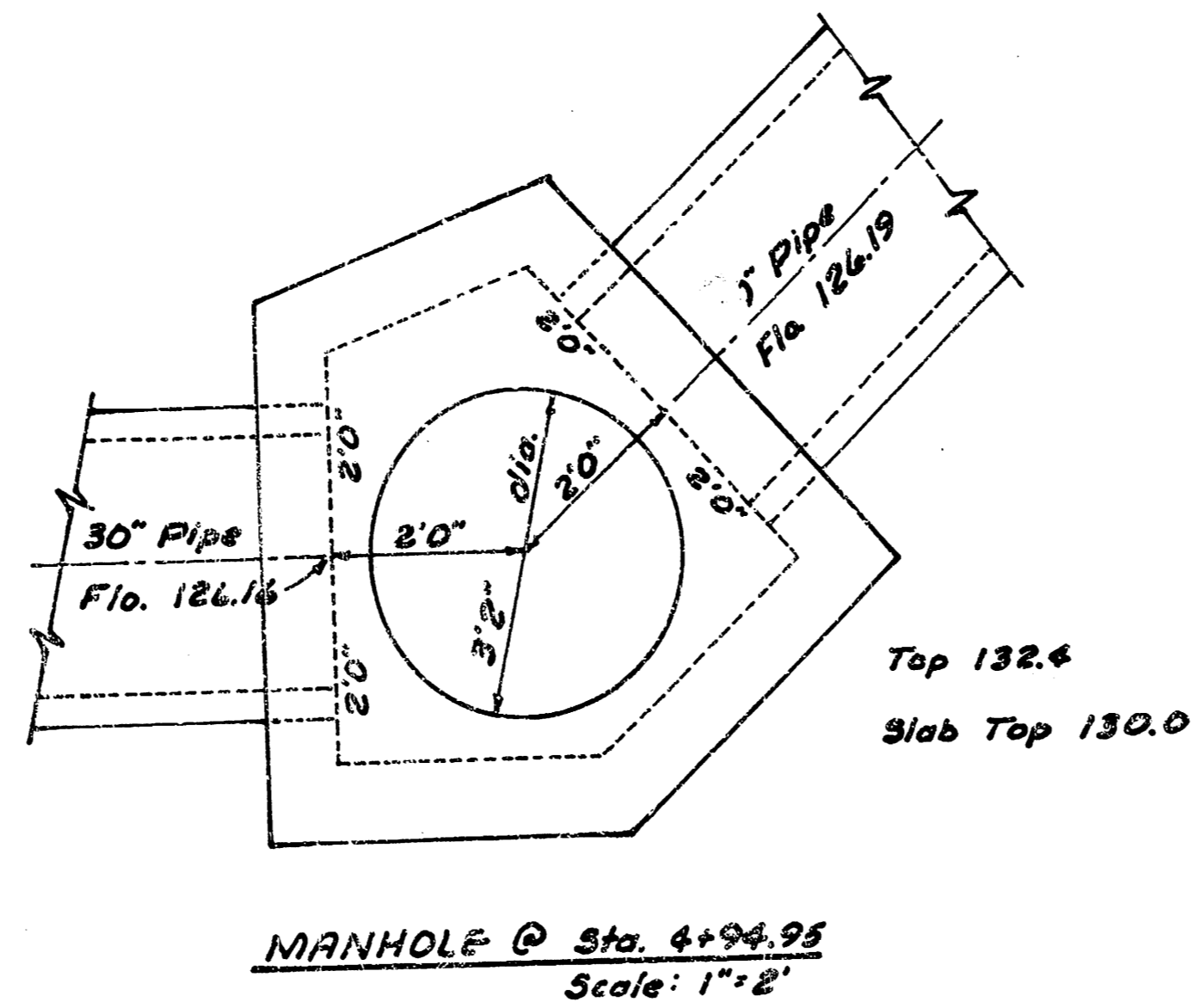
\* GROSS VOLUME



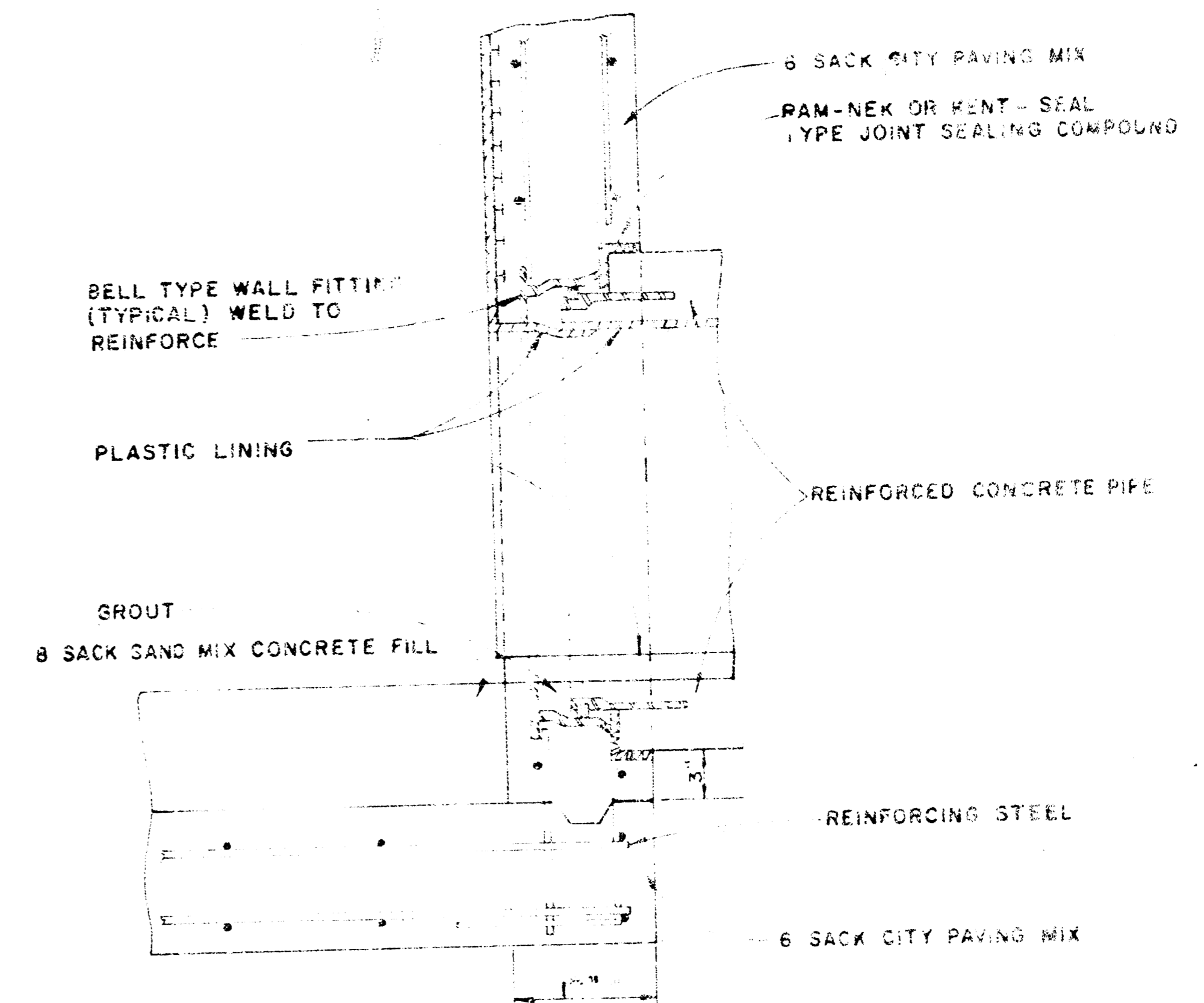
**DETAIL STANDARD TYPE IA CURB INLET**  
 CITY OF WICHITA, KANSAS  
 R. W. LINN — CITY ENGINEER  
 OCTOBER 1978  
 SWS 148 Sheet 7 of 10



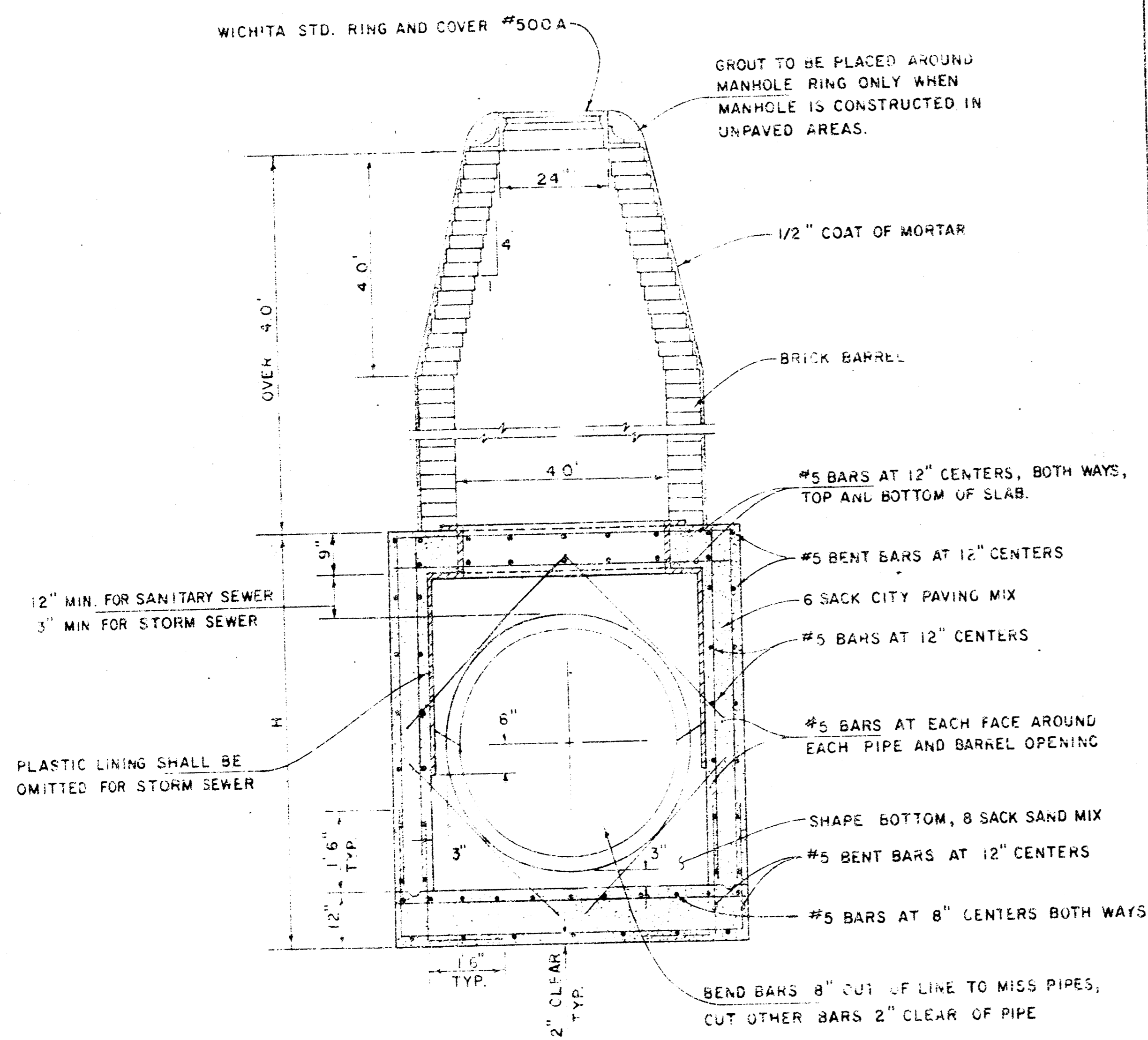
TOP VIEW



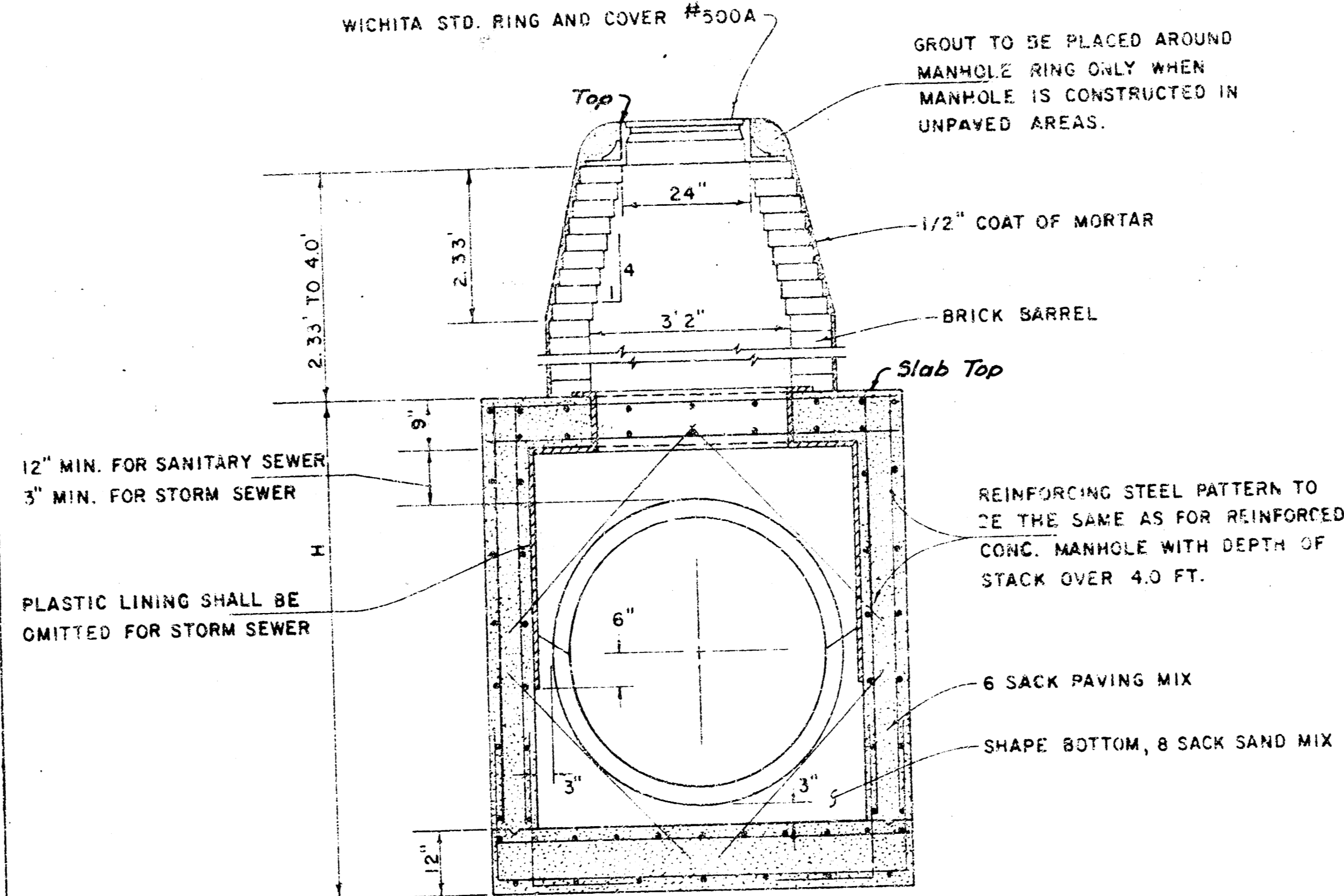
MANHOLE @ Sta. 4+96.95  
Scale: 1" = 2'



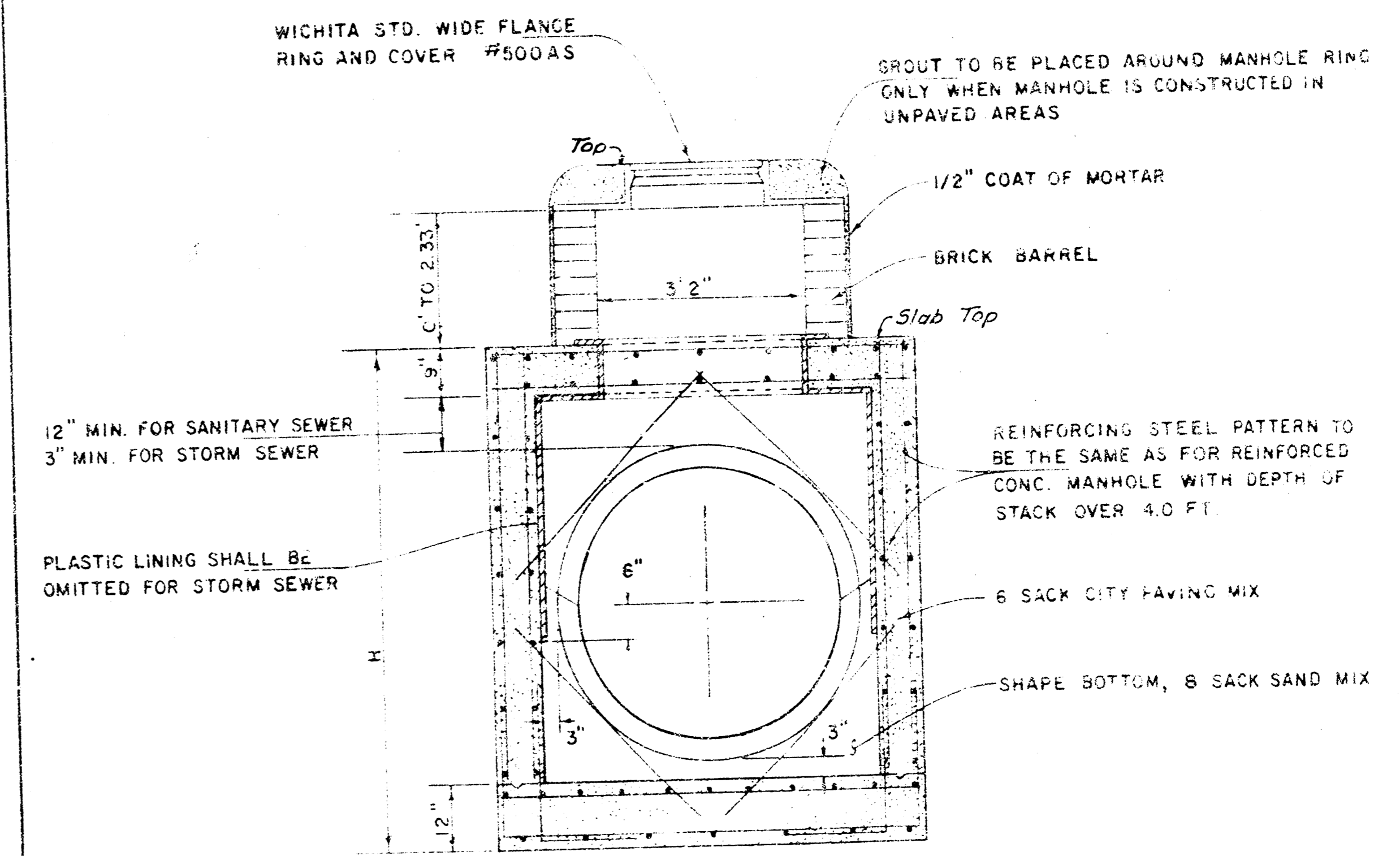
R.C.P. CONNECTION DETAIL  
SANITARY SEWER ONLY



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



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'

STANDARD DETAILS  
REINFORCED CONCRETE MANHOLES  
CITY OF WICHITA  
R. W. LINN - CITY ENGINEER  
SWS #148 Sheet 9 of 10