

CITY OF WICHITA SEDGWICK COUNTY, KANSAS

CONSTRUCTION PLANS FOR STORM WATER SEWER NO. 134 AMARADO ESTATES

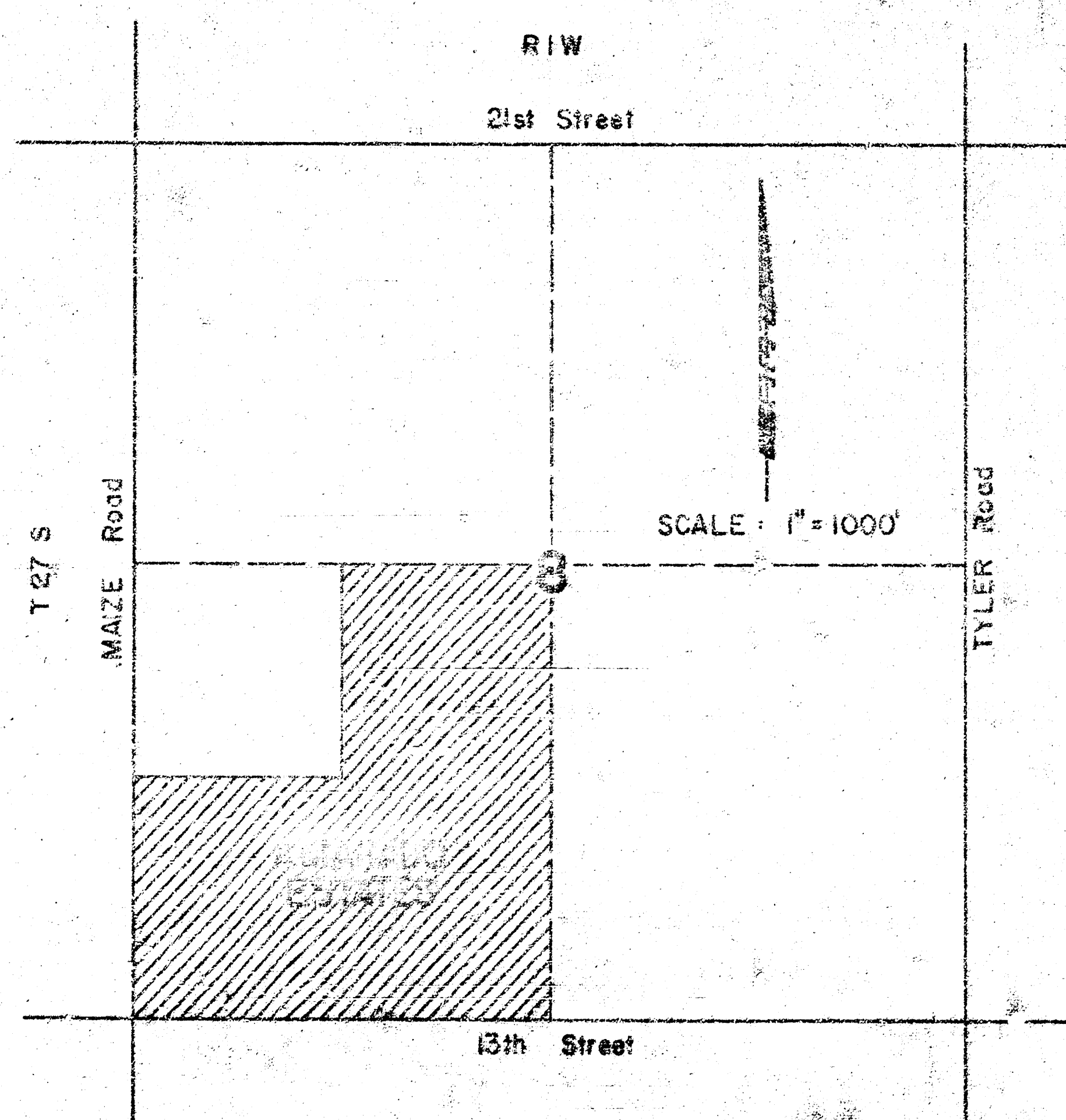
PHASE II

CITY PROJECT NO.

468-76-245-80531-000-000-001

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9. TYPE 1A CURB INLET DETAILS



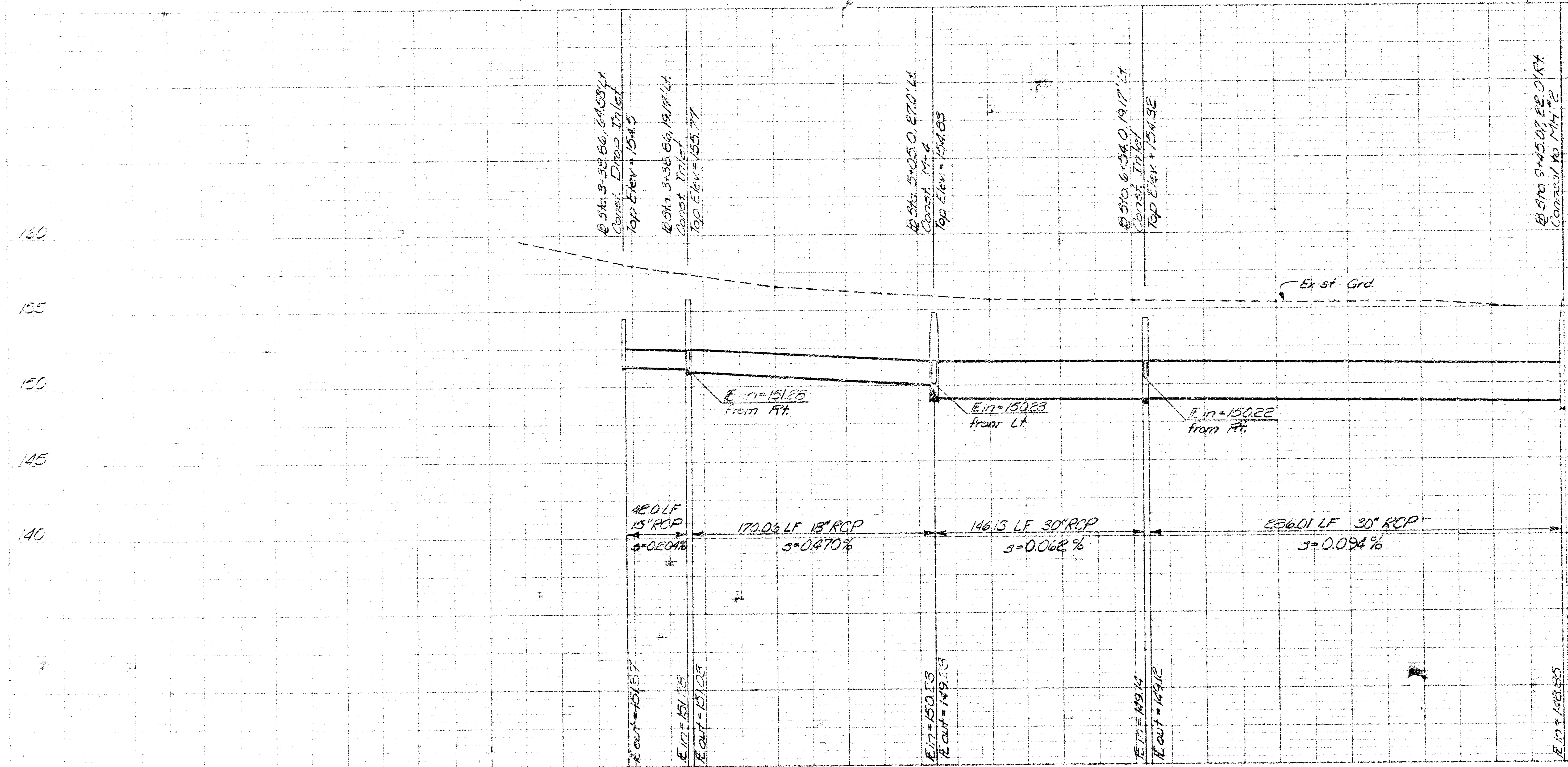
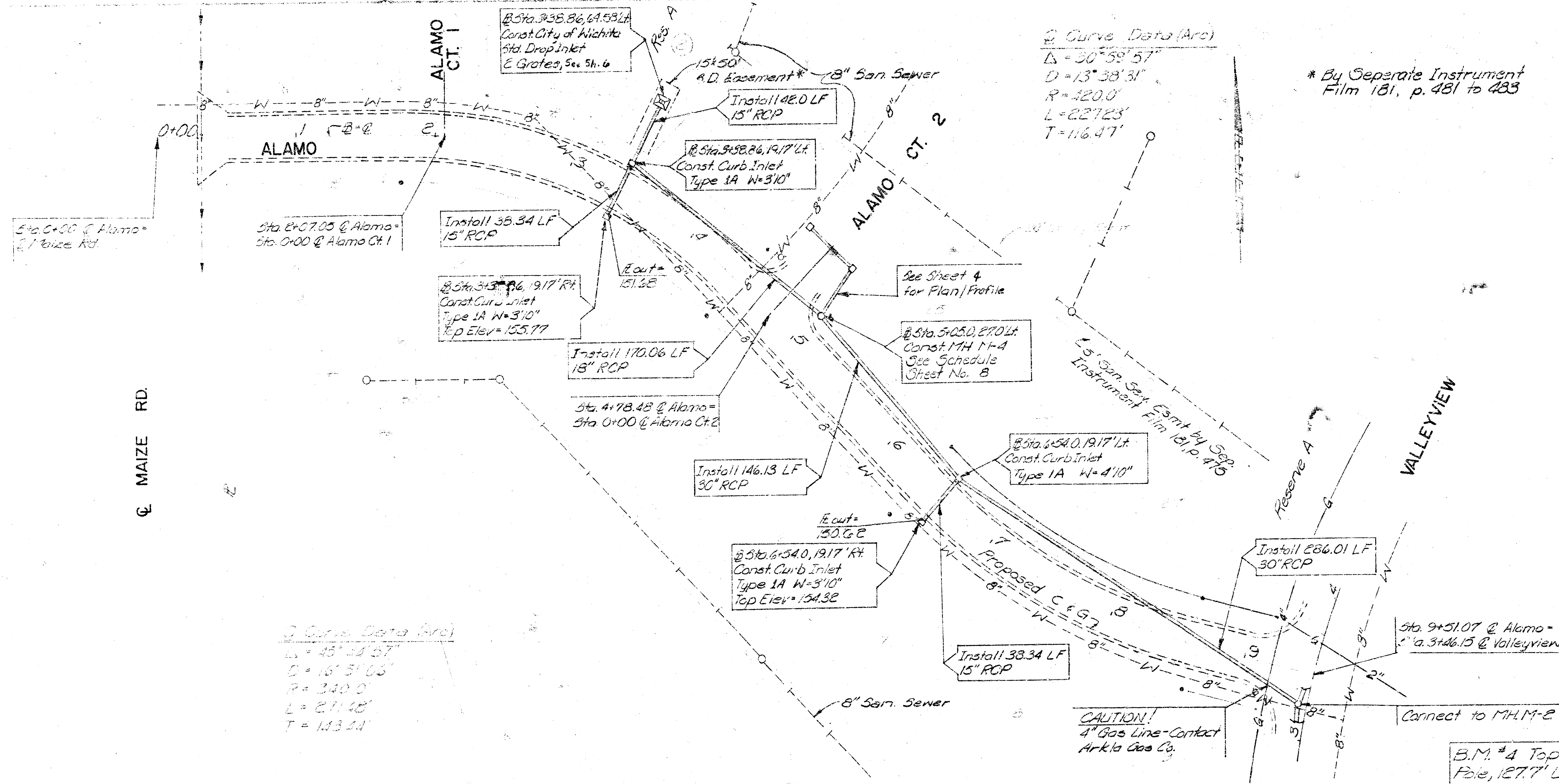
LOCATION MAP

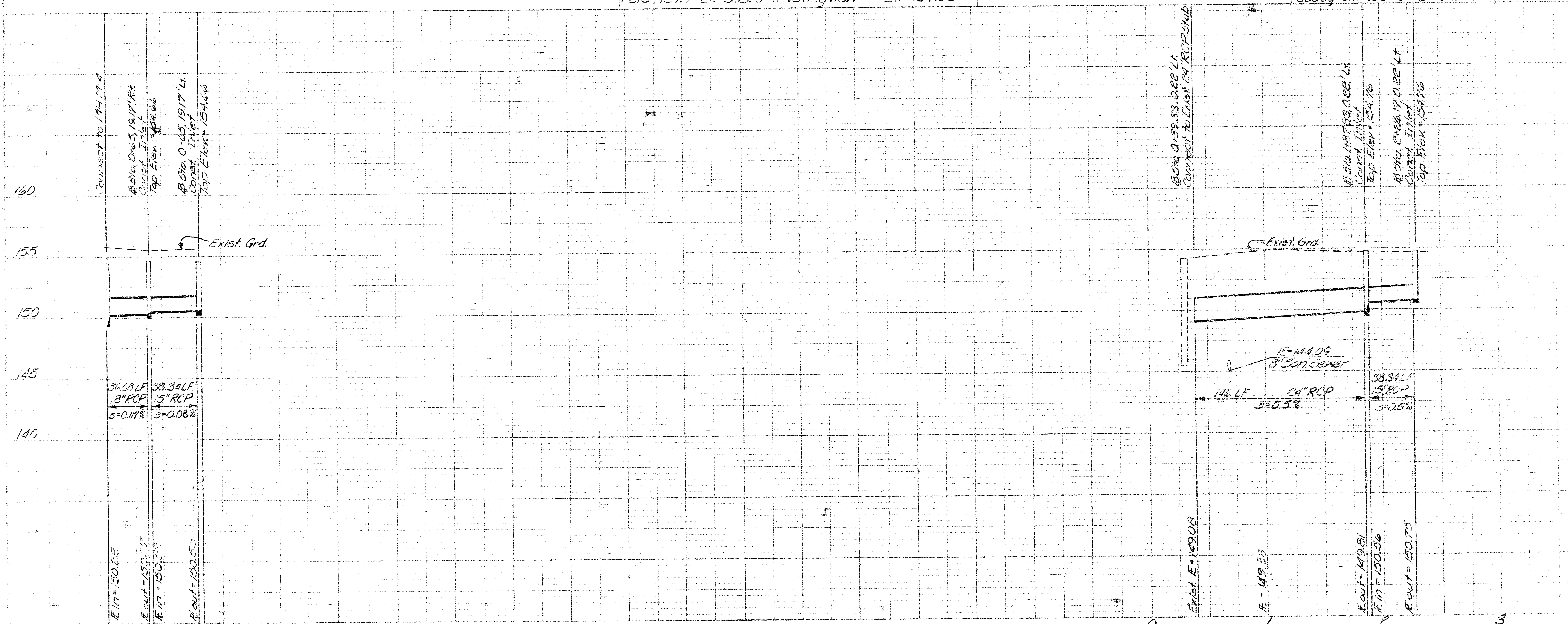
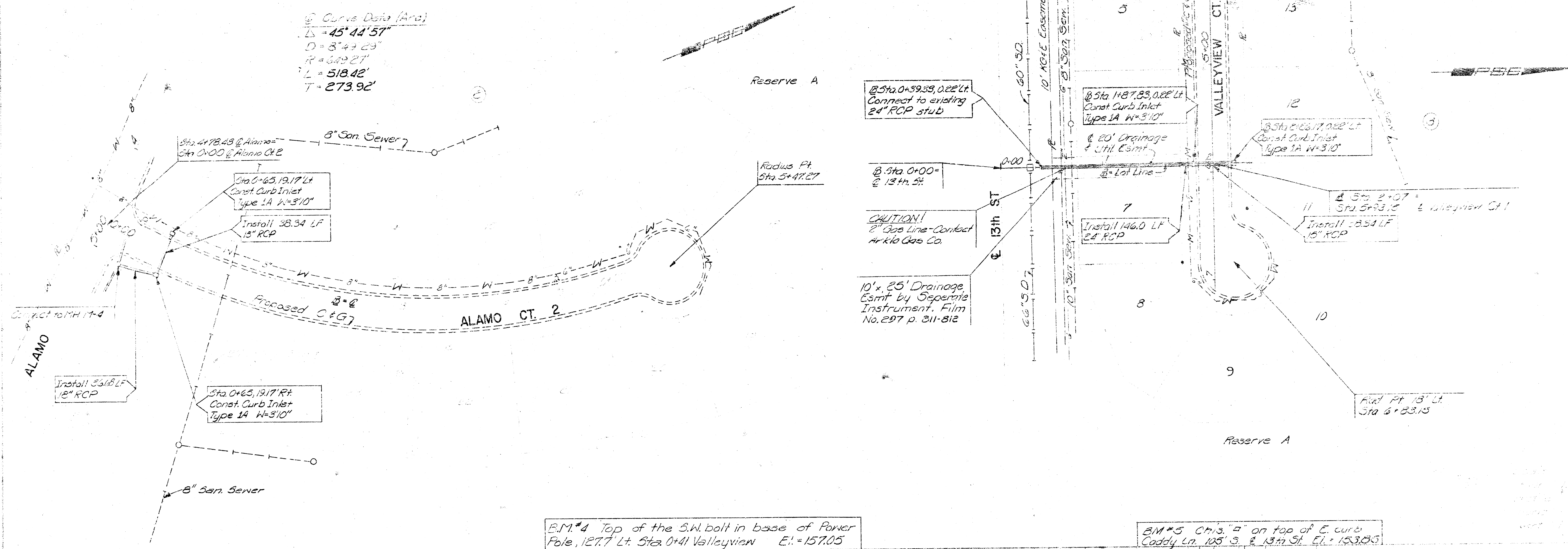
PROFESSIONAL ENGINEERING CONSULTANTS, P.A.
ENGINEERS
WICHITA, KANSAS

MAY 1978



No.	Revision	By
TITLE SHEET PHASE II AMARADO ESTATES STORM DRAIN IMPROVEMENT PROFESSIONAL ENGINEERING CONSULTANTS, P.A. ENGINEERS WICHITA, KANSAS		





GENERAL NOTES

- All Elevations are City of Wichita Datum
- 160.659291 - Coordinate North
2693.155186 - Coordinate East
- 0.00N 0.00E. = 13th St @ Maize Rd.
- All Storm Drain construction and materials to comply with City of Wichita Standards and Specifications.
- ③ A13 Section Letter or Detail No.
- Sheet on which Section or Detail is shown
- All radii shown are to back of curb

LEGEND

- Existing Iron to be maintained
- Existing Sanitary Sewer and Manhole
- Proposed Sanitary Sewer and Manhole
- Existing Water Line and Fire Hydrant
- Existing Gas Line
- Existing Underground Electric and Lightpole
- Existing Underground Electric and Transformer
- Proposed Water Line and Fire Hydrant

NOTE: Underground Electric Cable locations supplied by Kansas Gas & Electric and have not been verified by Survey.
Gas line sizes and locations supplied by Arkla Gas Co. and have not been verified by Survey.

SUMMARY OF QUANTITIES				
BID ITEM NO.	DESCRIPTION	UNIT	PROPOSED QUANTITIES	CONSTRUCTED QUANTITIES
1	15" RCP	LF	342	
2	18" RCP	LF	209	
3	24" RCP	LF	320	
4	30" RCP	LF	760	
5	42" RCP	LF	166	
6	60" x 38" RCPHE	LF	136	
7	18" x 11" CMPA	LF	97	
8	Curb Inlet Type 1A	Ea.	16	
9	Standard Drop Inlet (2 Grates)	Ea.	2	
10	Reinforced Conc. Manhole	Ea.	4	
11	Pipe Removal	LF	85	
12	Inlet Removal	Ea.	1	



BENCH MARKS

- BM *1- W. Rim of MH Sta. 16+49.8 Westlink San. Sew. Main #3 EI=155.13
- BM *2- W. Rim of MH Sta. 7+92.3 Westlink San. Sew. Main #3 EI=154.71
- BM *4- Top of SW bolt in base of P.P. 127.7' Lt. Sta. 0+41 Valleyview EI=157.03
- BM *5- Chis. "I" on Top of E. Curb Caddy Lane 105' S. & 13th Street EI=153.85
- BM *6- Brass Cap on NW Cor. of Handrail on RCB 204' W. & 40' N. S 1/4 Cor. Sec. 8, T21S, R1W. EI=155.67
- BM *7- RR Spike in Hedge Stump near Center Sec. 8, EI=160.72
- TBM- Iron at P.C. of curve @ Sta. 11+28.31, 32' Rt. EI=150.80

SUMMARY OF QUANTITIES AND GENERAL INFORMATION			
PHASE II			
AMARADO ESTATES STORM DRAIN IMPROVEMENTS			
PROFESSIONAL ENGINEERING CONSULTANTS			
ENGINEERS WICHITA KANSAS			
Designed by	CD, CB	Checked by	
Drawn by	SG, NH	Date	May 1978



54" Western Iron and Foundry No. 500A5)

③ Frame Detail

6

Hand-drawn technical drawing of a rectangular plate. The drawing includes dimensions for the plate's size and the spacing of its internal features. The overall width is 23 1/2 inches, and the overall height is 23 1/2 inches. The plate has a central rectangular area with rounded corners, containing a grid of 10 rounded rectangular slots. The slots are arranged in 2 rows and 5 columns. The spacing between the slots and the plate edges is specified as follows:

- Top edge: 3/8 inch from the top edge to the first row of slots.
- Left edge: 1 1/2 inch from the left edge to the first column of slots.
- Right edge: 1 1/2 inch from the right edge to the last column of slots.
- Bottom edge: 2 inches from the bottom edge to the first row of slots.
- Slot spacing: 8 3/4 inch between the centers of adjacent slots in both horizontal and vertical directions.

Below the drawing is a table with 4 columns: **Material**, **Weight**, **Temp.**, and **Notes**. The table contains 4 rows of data:

Material	Weight	Temp.	Notes
Aluminum	235 lbs.	100° F.	
Steel	235 lbs.	100° F.	
Brass	235 lbs.	100° F.	
Copper	235 lbs.	100° F.	

4 Grate Detail

2

A. C. 22.38 12/17

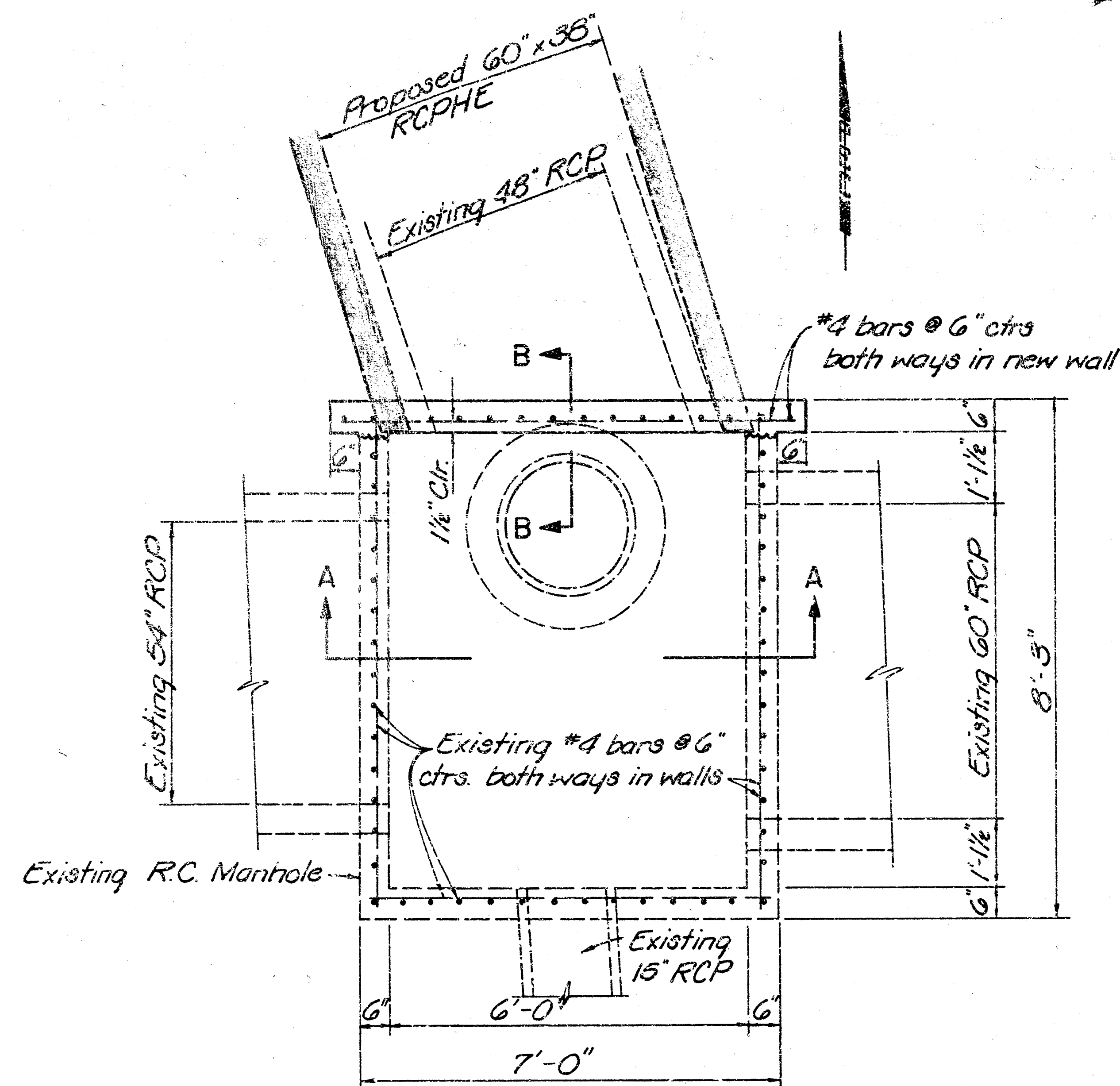
⑤ Drop Inlet

$$\left(\frac{5}{6}\right)$$

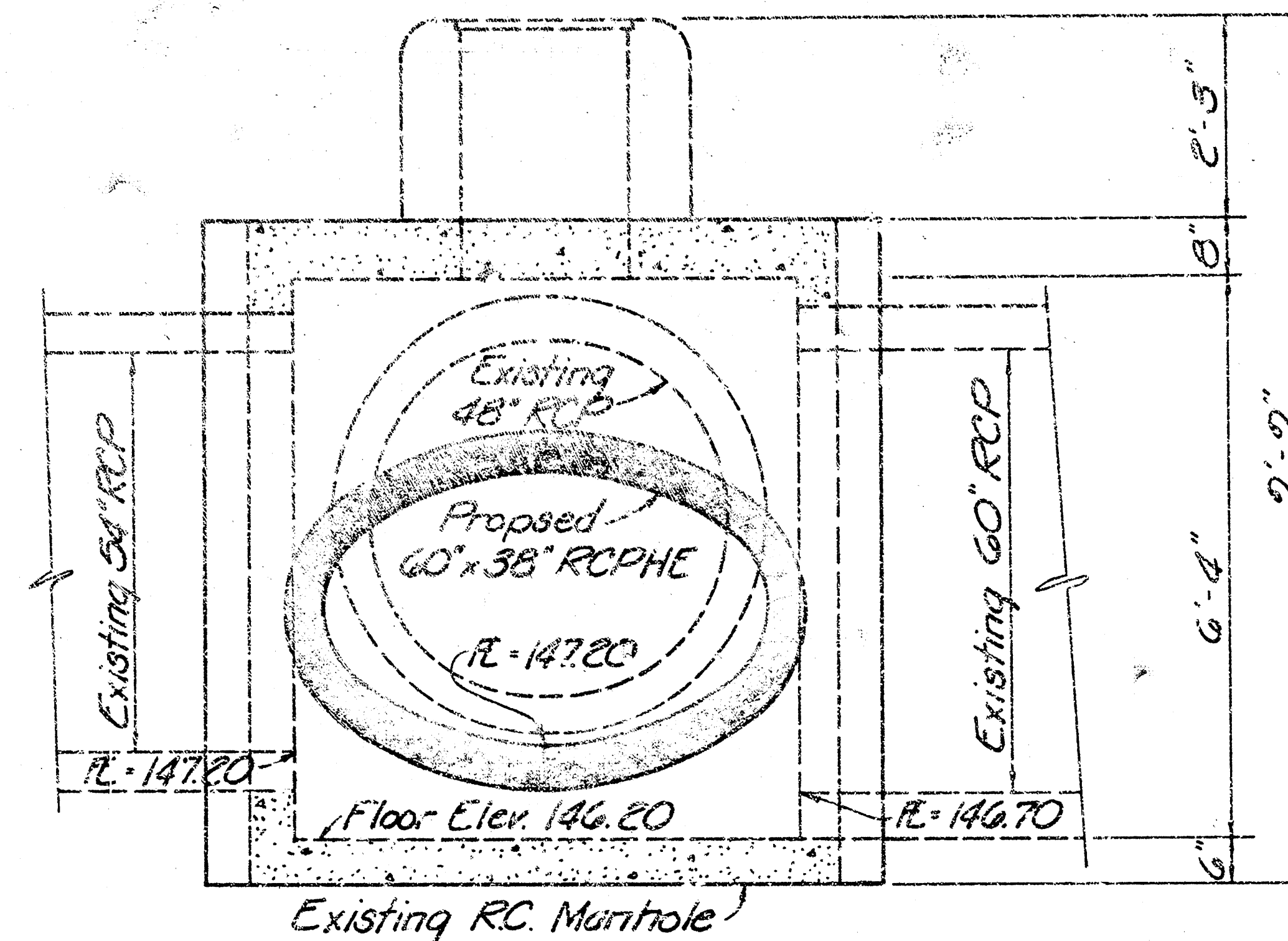
2000 1st Edition

PHASE II
STORM DRAIN

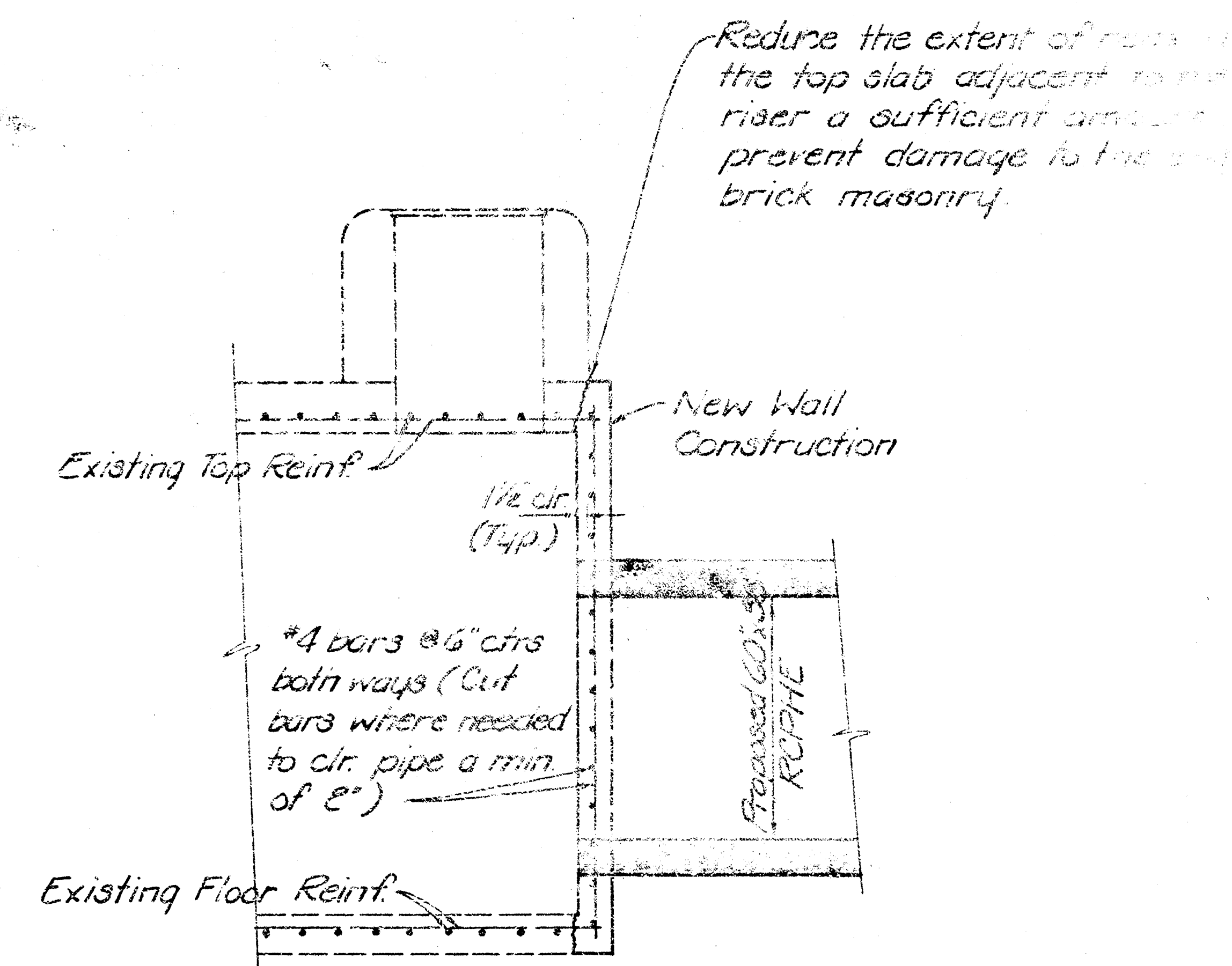
STORM WATER SEWER #134



PLAN
(Showing Wall Reinforcing)



SECTION A-A



SECTION B-B

CONNECTION DETAILS TO EXISTING R.C. MANHOLE

GENERAL NOTES

Contractor shall remove entire north wall of existing manhole and portions of top, floor and east & west walls even with inside face of north wall. Contractor shall preserve all exposed reinforcing steel when concrete is removed so that it may extend into new wall. New reinforcing steel in north wall shall be bent or cut to clear RCPHE storm drain pipe a minimum of 2" as directed by the Engineer.

Contractor shall remove existing shaped floor as directed by the Engineer to accommodate proposed storm drain pipeline and shall reshape floor with 8 sack sand mix.

No separate payment shall be made for alterations to existing manhole and storm drain connection thereto.

PIPING ALTERNATIVES			
R.C.P. n=0.013	R.C.P.H.E. n=0.013	C.M.P.* n=0.013	C.M.P.A.* n=0.013
15"	—	15"	18" x 11"
18"	23" x 14"	18"	22" x 13"
24"	30" x 19"	24"	29" x 18"
30"	38" x 24"	30"	36" x 22"
36"	45" x 29"	36"	43" x 27"
42"	53" x 34"	42"	50" x 31"
48"	60" x 38"	48"	58" x 36"
54"	68" x 43"	54"	65" x 40"
60"	76" x 48"	60"	72" x 44"

* Fully Paved except 15" x 13" and their equivalent C.M.P.A. which shall be Helically Corrugated.

NOTE:

1. Where Plan and Bid Items refer to Reinforced Concrete Pipe, Corrugated Metal Pipe may be substituted as shown in table above.

STORM DRAIN DETAILS

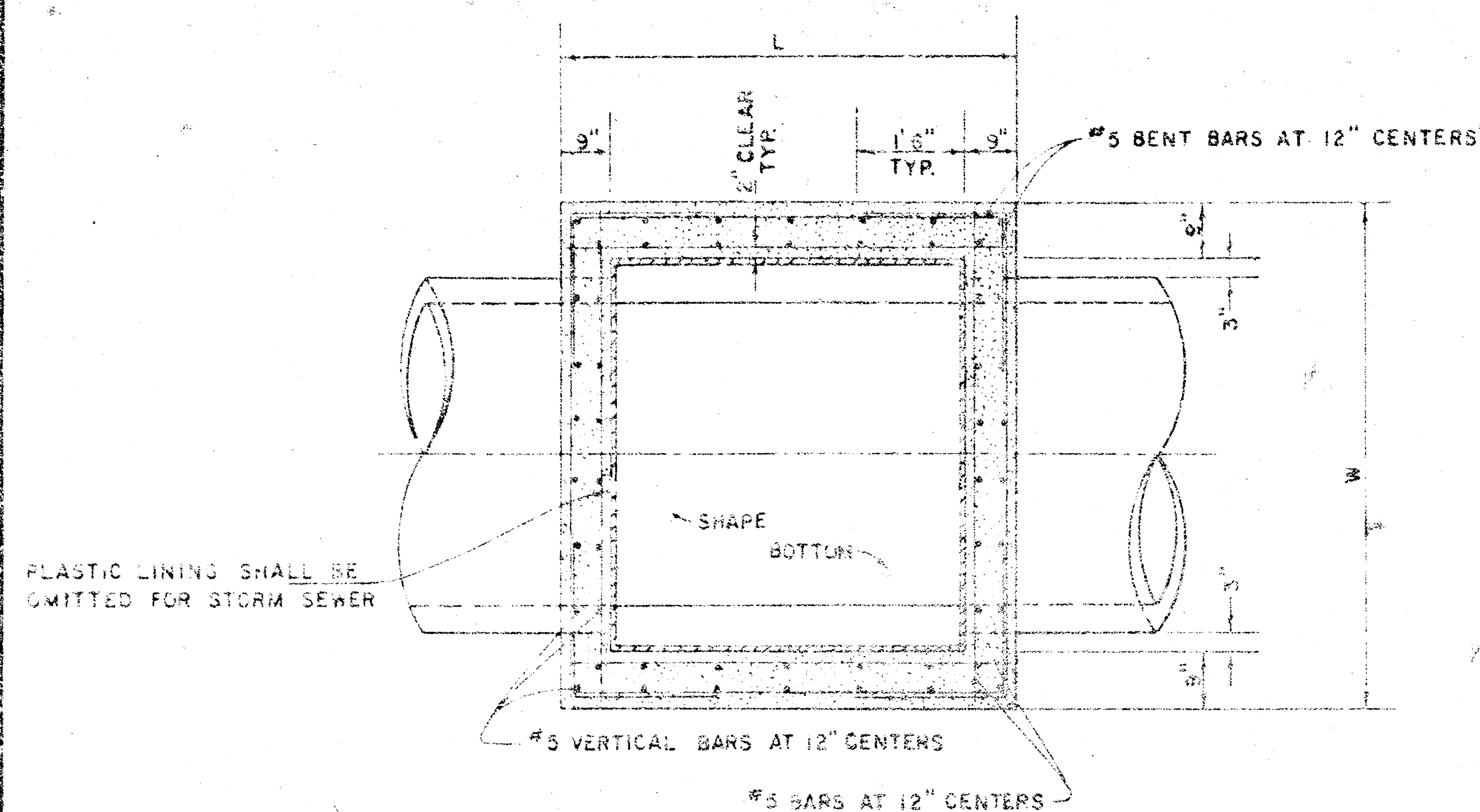
PHASE II
AMARADO ESTATES STORM DRAIN IMPROVEMENT

PROFESSIONAL ENGINEERING CONSULTANTS

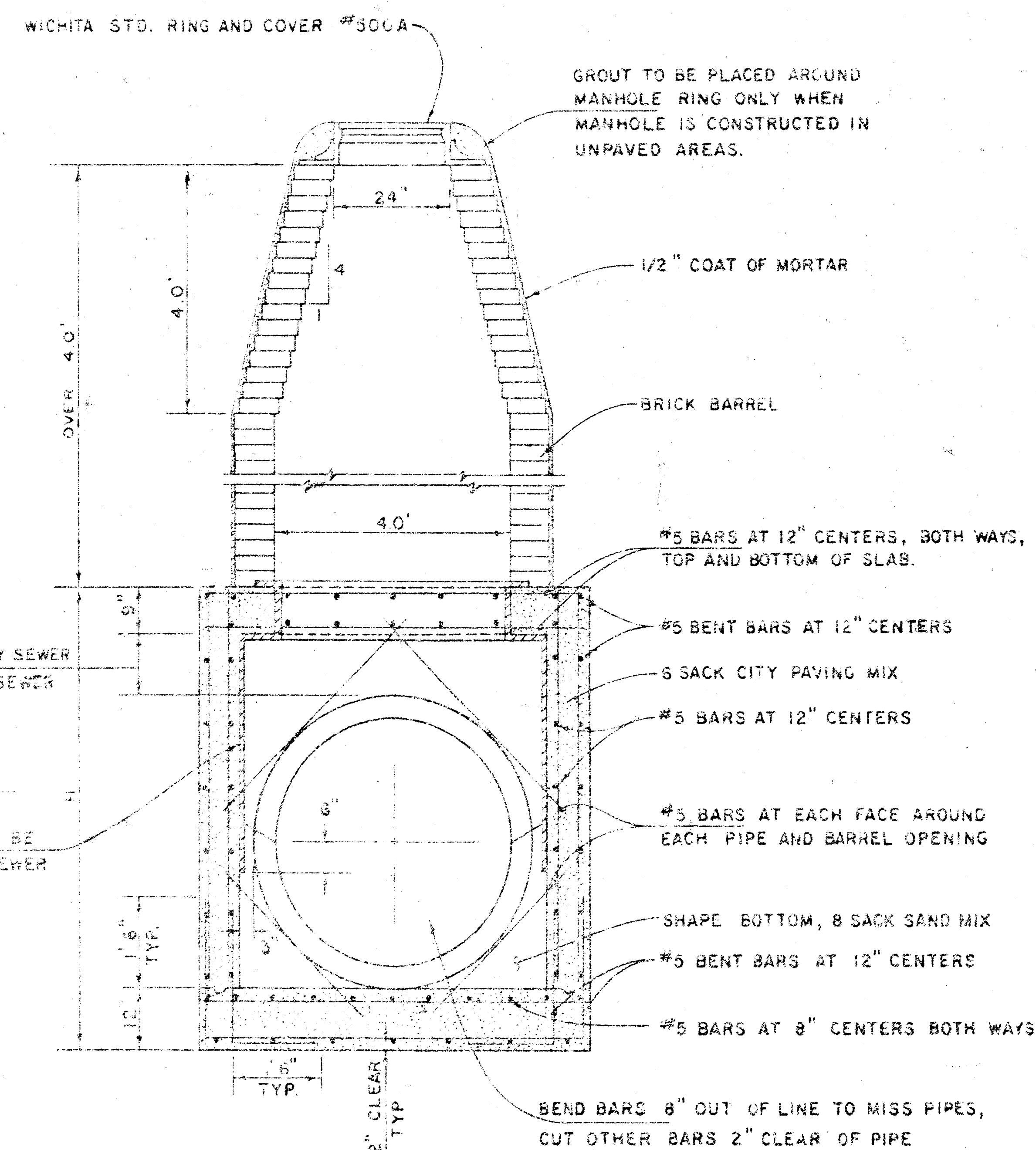
ENGINEERS
WICHITA, KANSAS

Designed by: **DD CB**
Drawn by: **SG CM**

Checked by: _____
Date: _____



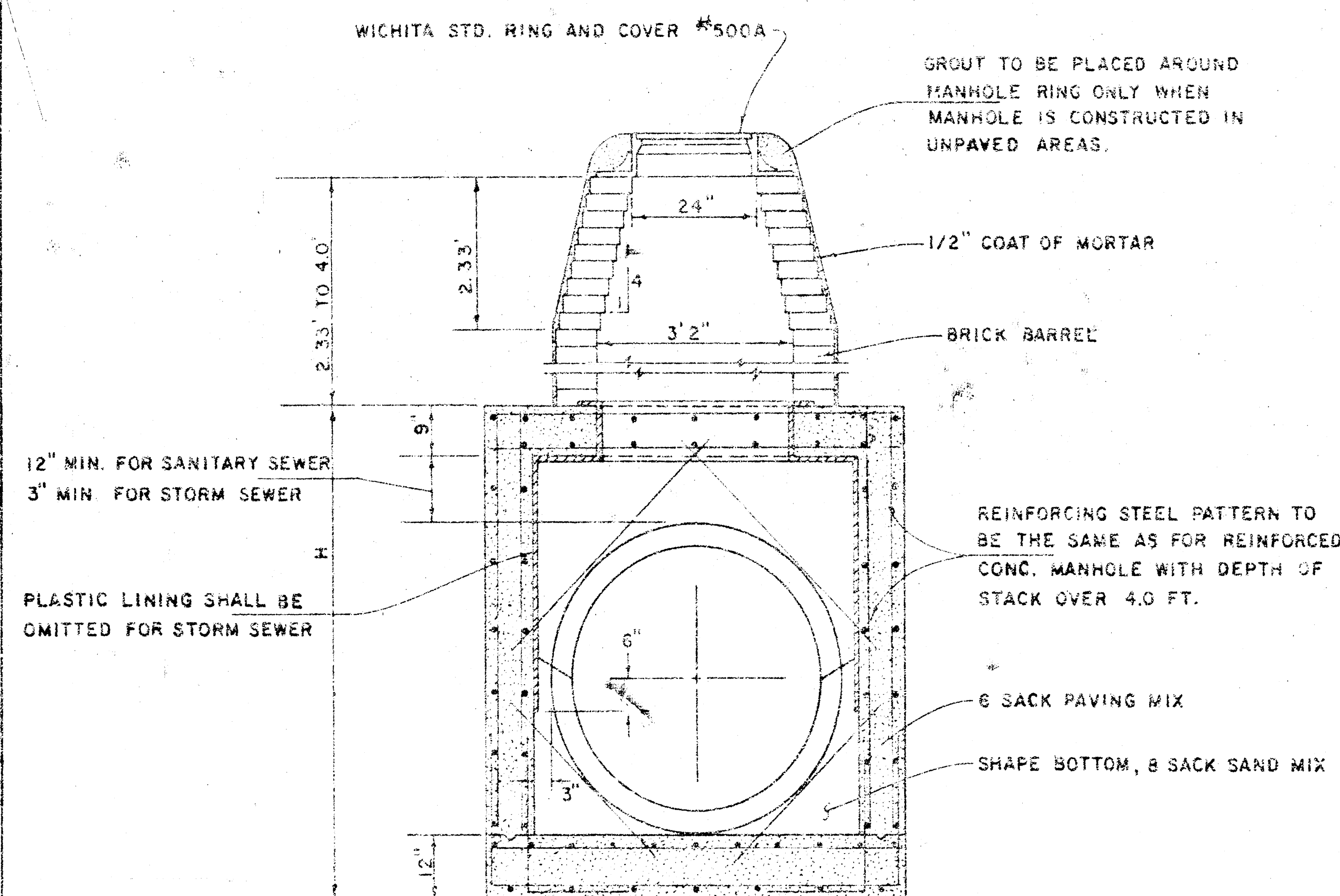
PLASTIC LINING SHALL BE OMITTED FOR STORM SEWER



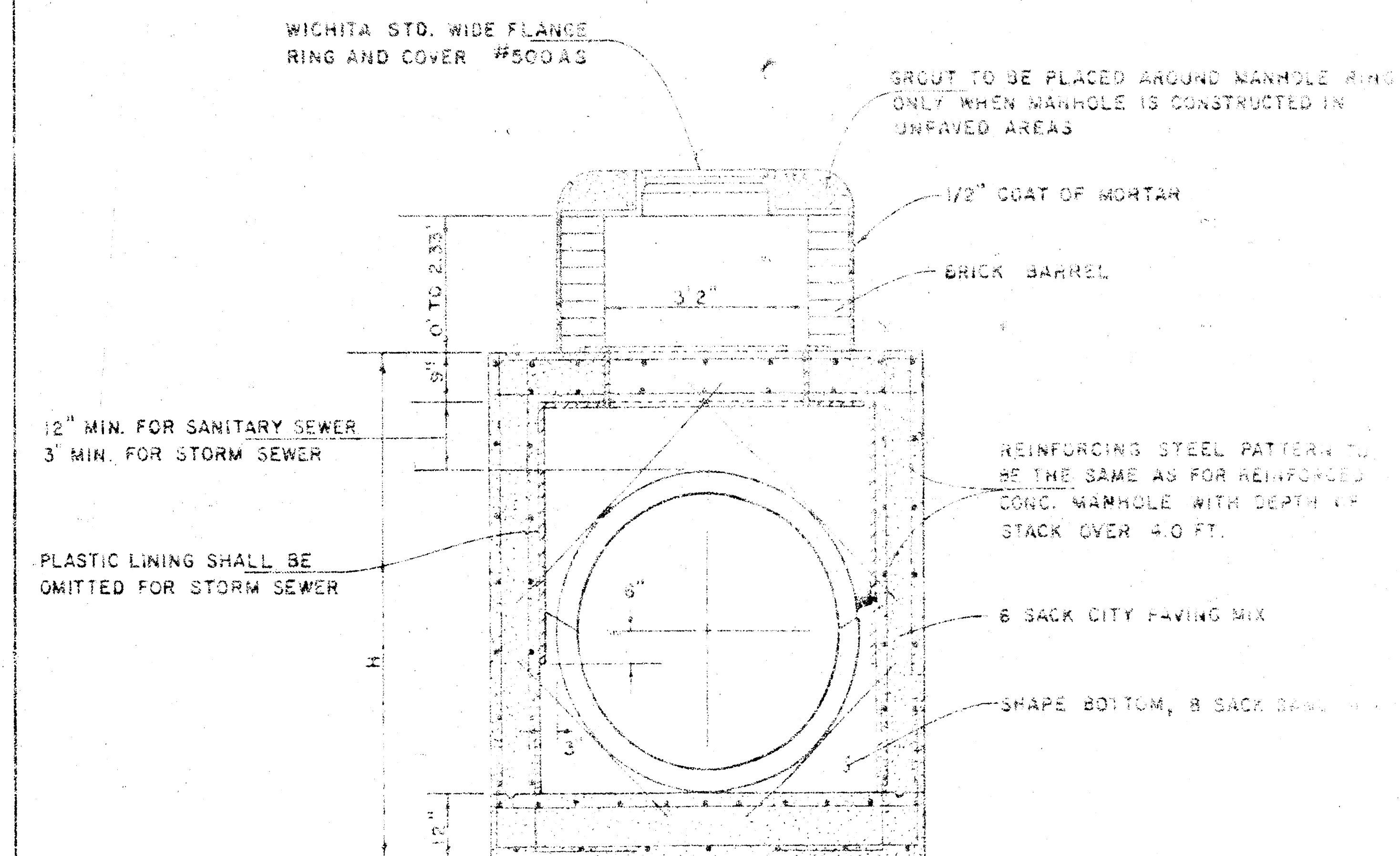
REINFORCED CONCRETE MANHOLE
DEPTH OF STACK: OVER 4.0'
SCALE 1" = 2'

MANHOLE SCHEDULE							
MANHOLE NO.	LOCATION	TYPE	L (FT.)	W (FT.)	H (FT.)	TYPE M.H. RING	REMARKS
1	@ Sta. 1+59.44 60' FT. Valleyview	R.C.	5.5	7.92	6.84	W.F.	Const. normal to 60" 38" SD.
2	@ Sta. 3+24.12 60' FT. Valleyview	R.C.	5.75	6.26	6.26	W.F.	Const. normal to 42" SD.
3	@ Sta. 4+20.42 60' FT. Valleyview	R.C.	5.5	5.08	5.08	W.F.	Const. normal to 30" SD.
4	@ Sta. 5+05.00 270' FT. Alamo	R.C.	5.5	5.08	5.08	W.F.	Const. normal to 30" SD.

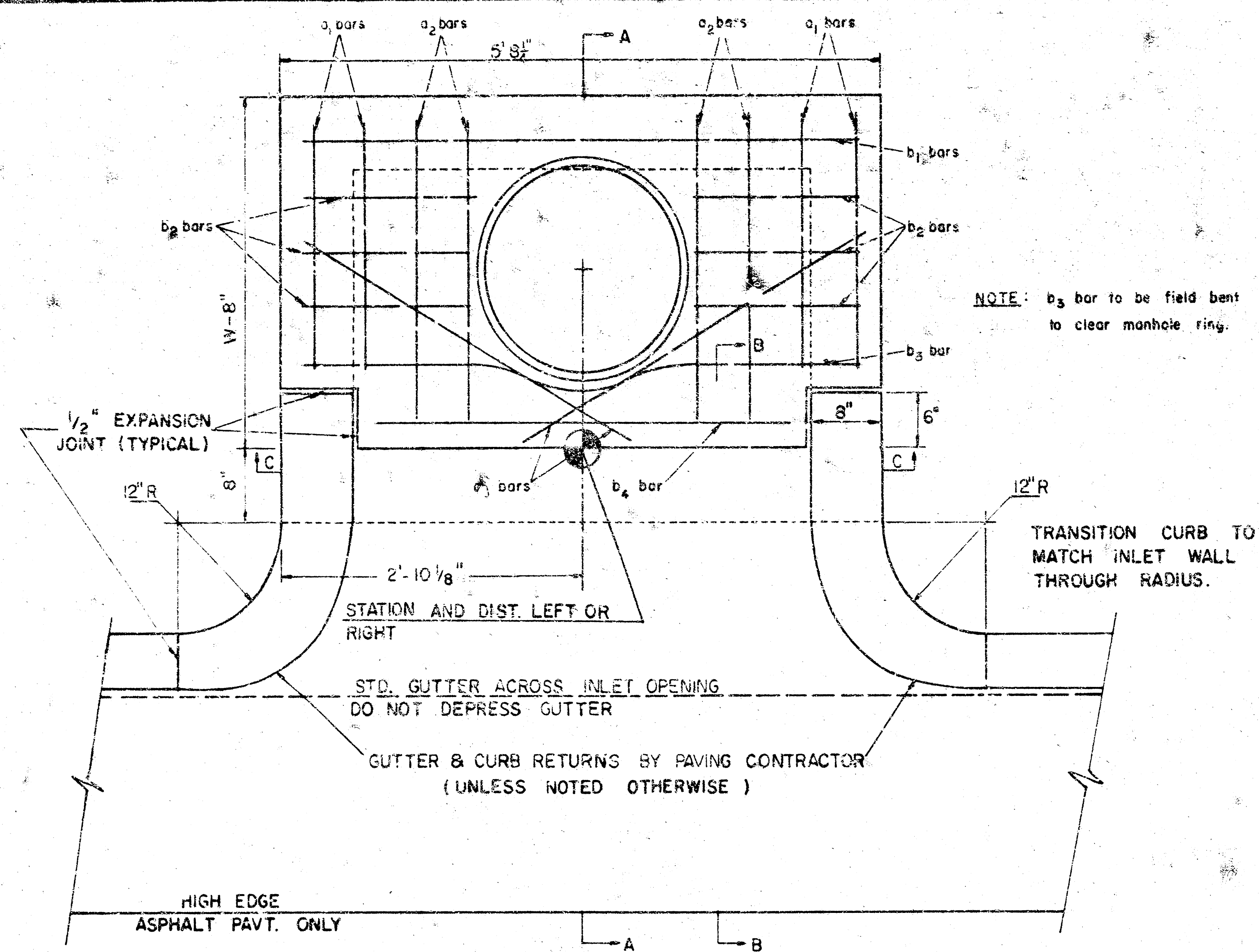
R.C. = Reinforced Concrete
W.F. = Wide Flange #500AS



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'

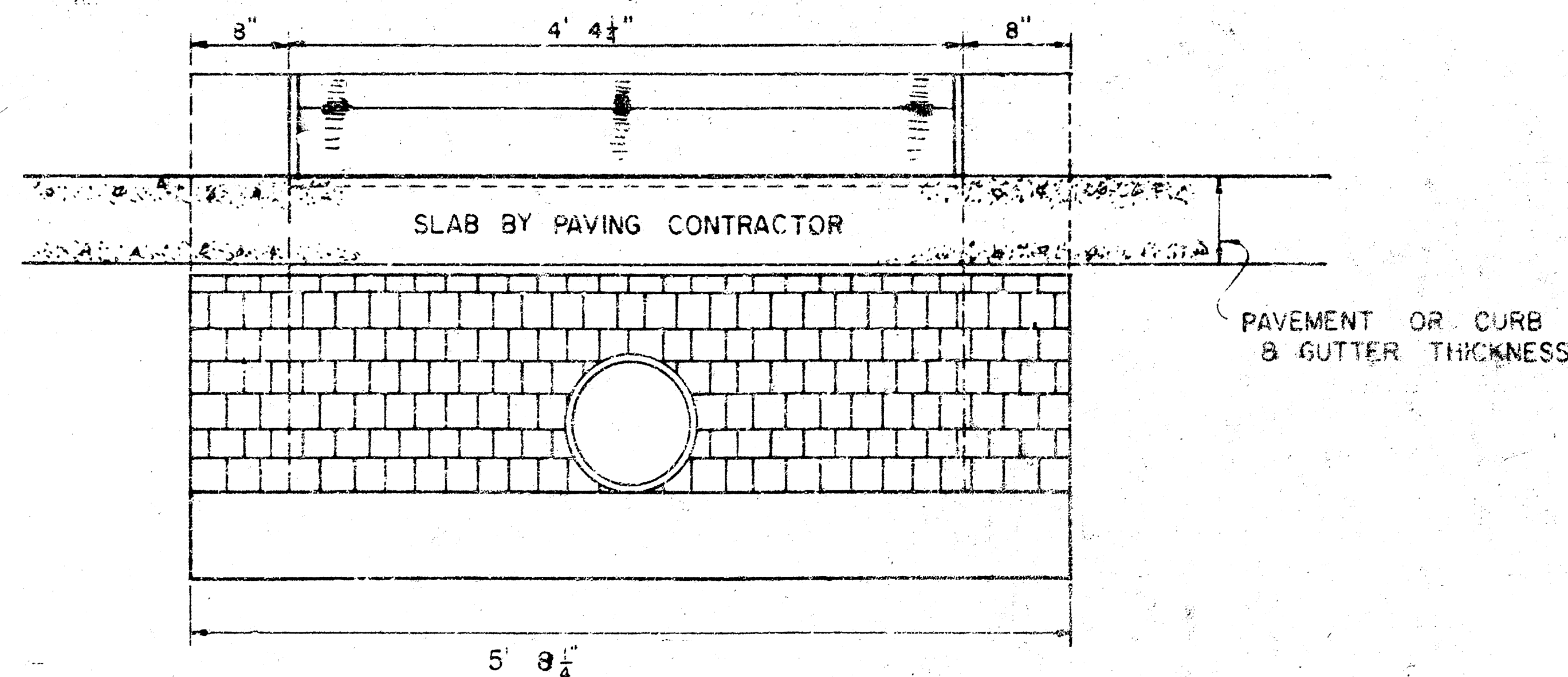


PLAN (SCALE: 1" = 1'0")

STEEL SCHEDULE

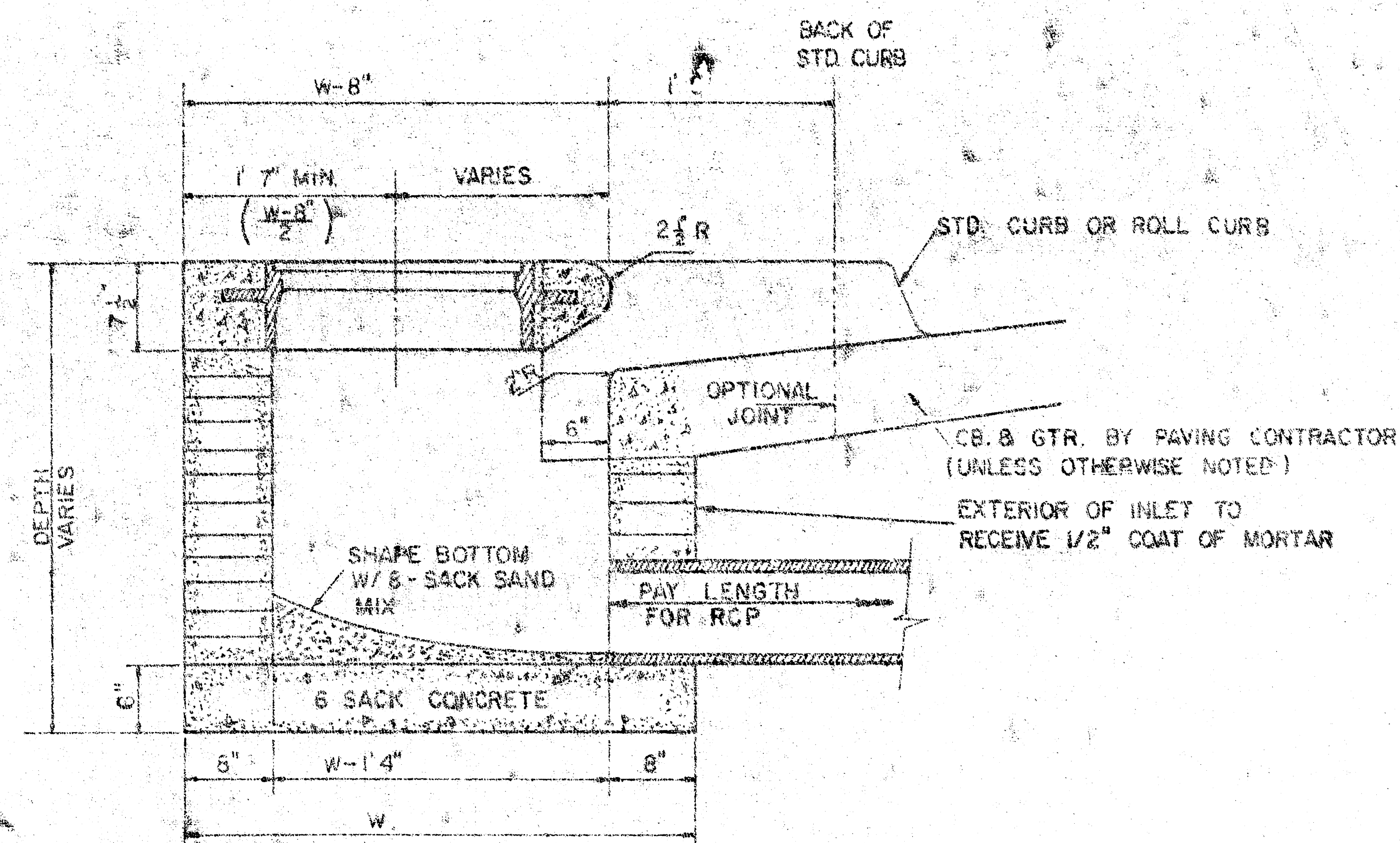
BAR	a_1	a_2	a_3	b_1				b_2	b_3	b_4	WT. Lbs.
NUMBER	4	4	2	1	3	5	7	6	1	1	
SIZE	#4	#4	#4	#4	#4	#4	#4	#4	#4	#6	
LENGTH	W-3'10"	4'9"	5'9"	3'7"	5'5"	—	—	1'7"	5'6"	4'0"	53
	W-4'10"	6'9"	7'9"	4'7"	—	5'5"	—	1'7"	5'6"	4'0"	72
	W-5'10"	8'9"	9'9"	5'7"	—	—	5'5"	1'7"	5'6"	4'0"	91
	W-6'10"	10'9"	11'9"	6'7"	—	—	5'5"	1'7"	5'6"	4'0"	110

* NOTE: a_3 BARS TO BE PLACED APPROX. 2" BELOW TOP OF INLET COVER.



SECTION C-C (SCALE 1" = 1'0")

BRICK FOR INLET CONSTRUCTION SHALL CONFORM WITH THE LATEST REVISION OF THE AMERICAN SOCIETY FOR TESTING AND MATERIALS DESIGNATION C32 FOR MANHOLE BRICK GRADE MS.

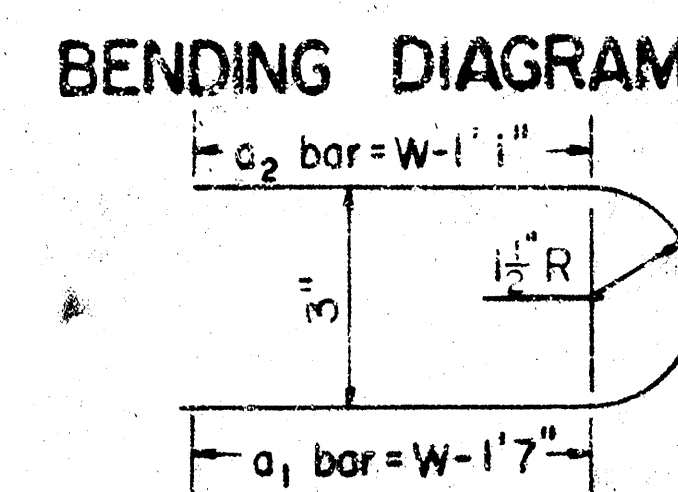


SECTION A-A (SCALE 1" = 1'0")

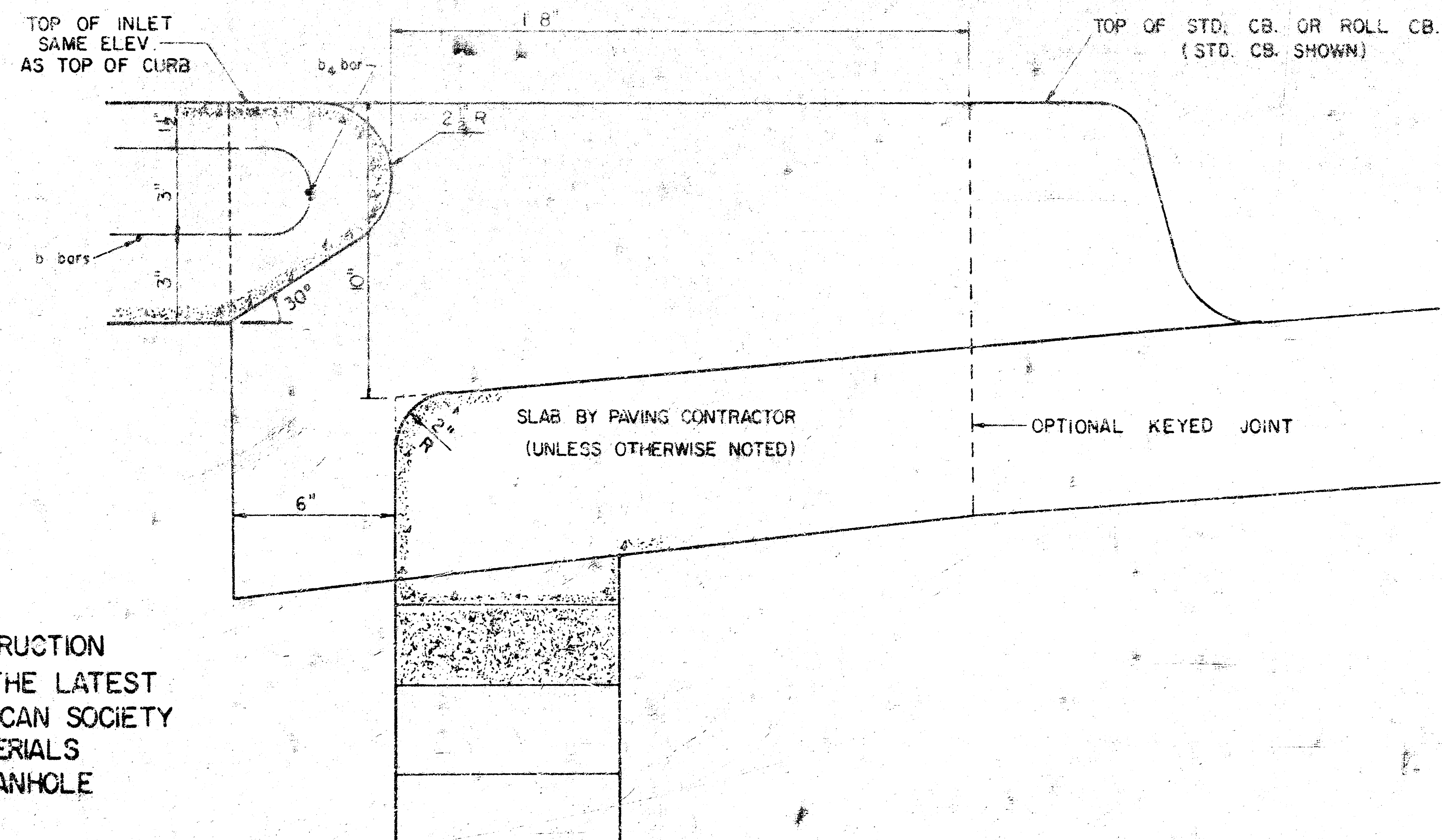
W	PRE-CAST TOP SIZE	PIPE SIZE	CU. YD. CONC.
3'0"	32" X 5'8" X 7 1/2"	18" & SMALLER	0.42 *
4'10"	42" X 5'8" X 7 1/2"	24" & 30"	0.59 *
5'10"	52" X 5'8" X 7 1/2"	36" & 42"	0.68 *
6'10"	62" X 5'8" X 7 1/2"	48" & 54"	0.82 *

* GROSS VOLUME
W = BASIS OF PAYMENT FOR INLETS. (EACH INLET DEPTH VARIES)

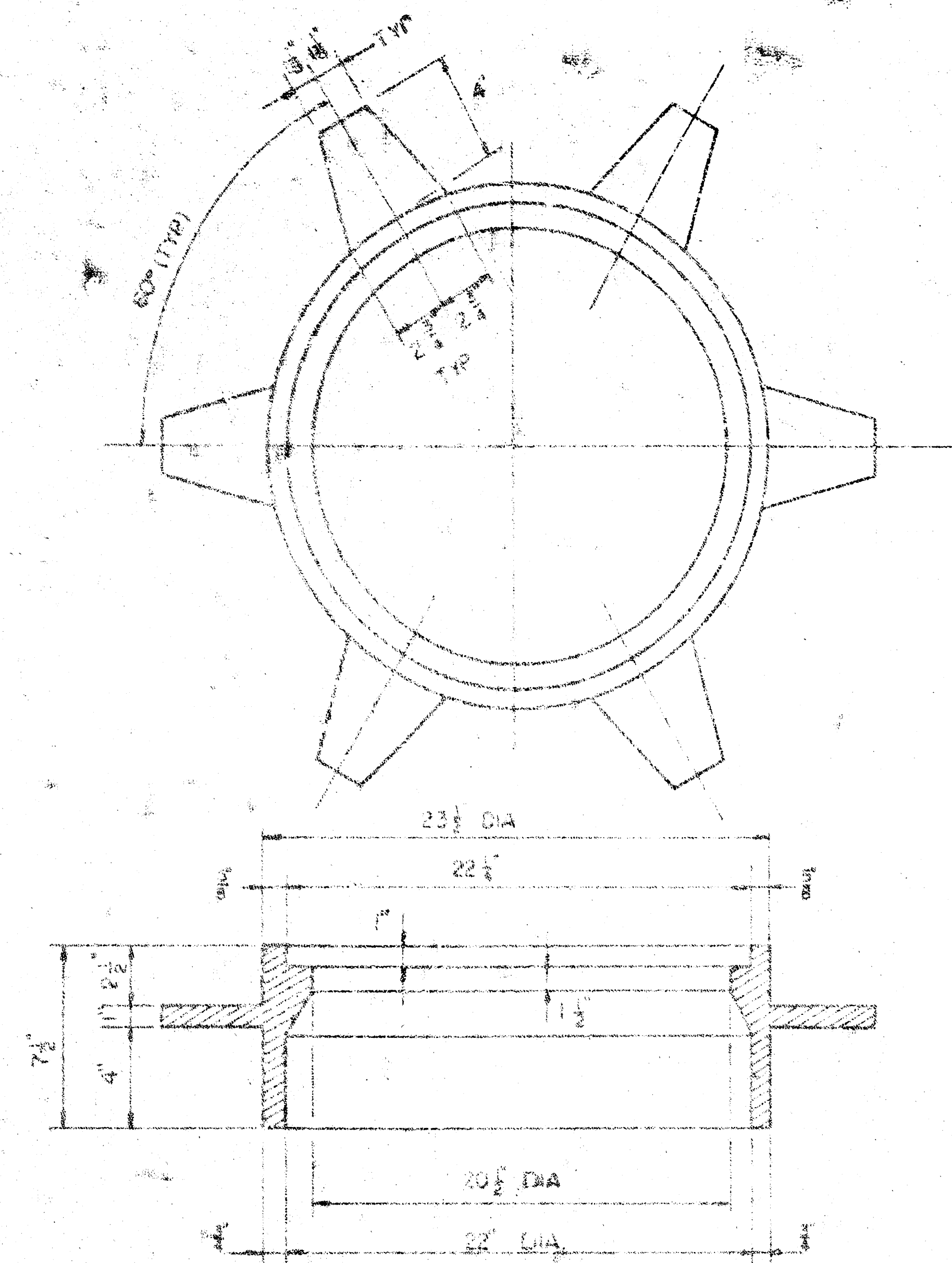
NOTE: CONCRETE TOPS TO BE INSTALLED ON THIN MORTAR CUSHION TO INSURE FULL SUPPORT ALONG BRICK WALLS. CONCRETE TOPS MAY BE CAST IN PLACE OR PRECAST. CONCRETE FOR INLET TOPS AND FLOORS SHALL BE 6 SACK PAVING MIX. STORM DRAIN PIPES TO BE INSTALLED THROUGH INLET WALLS IN A POSITION TO FACILITATE FLOOR SHAPING.



BENDING DIAGRAM



SECTION B-B (SCALE 3" = 1'0")



MANHOLE RING

(MANHOLE COVERS TO BE EQUIVALENT TO STANDARD CITY OF WICHITA NO. 500A)

STD. CITY OF WICHITA TYPE IA CURB INLET

No.	Revision	Date
TYPE IA CURB INLET DET.		
PHASE II		
AMARADO ESTATES STORM DRAIN IMPROV.		
PROFESSIONAL ENGINEERING CONSULTANTS		
ENGINEERS WICHITA, KANSAS		
Designed by	Job No.	17482-4
Drawn by	Date	Nov. 1975

