

CITY OF WICHITA, KANSAS
 MICHAEL E. LINDEBAK, P.E., CITY ENGINEER
STORM WATER SEWER NO. 331
 TALLGRASS EAST ADDITION

CITY OF WICHITA PROJECT NO. 468-76-245-81660-000-000-001

INDEX OF SHEETS

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12. STANDARD DETAILS R.C. MANHOLE
13. DETAIL STANDARD TYPE 1A CURB INLET (L=11'-4")
14. DETAIL STANDARD TYPE 1A CURB INLET (L=6'-4")
15. MANHOLE FRAME AND COVER DETAIL

GENERAL NOTES

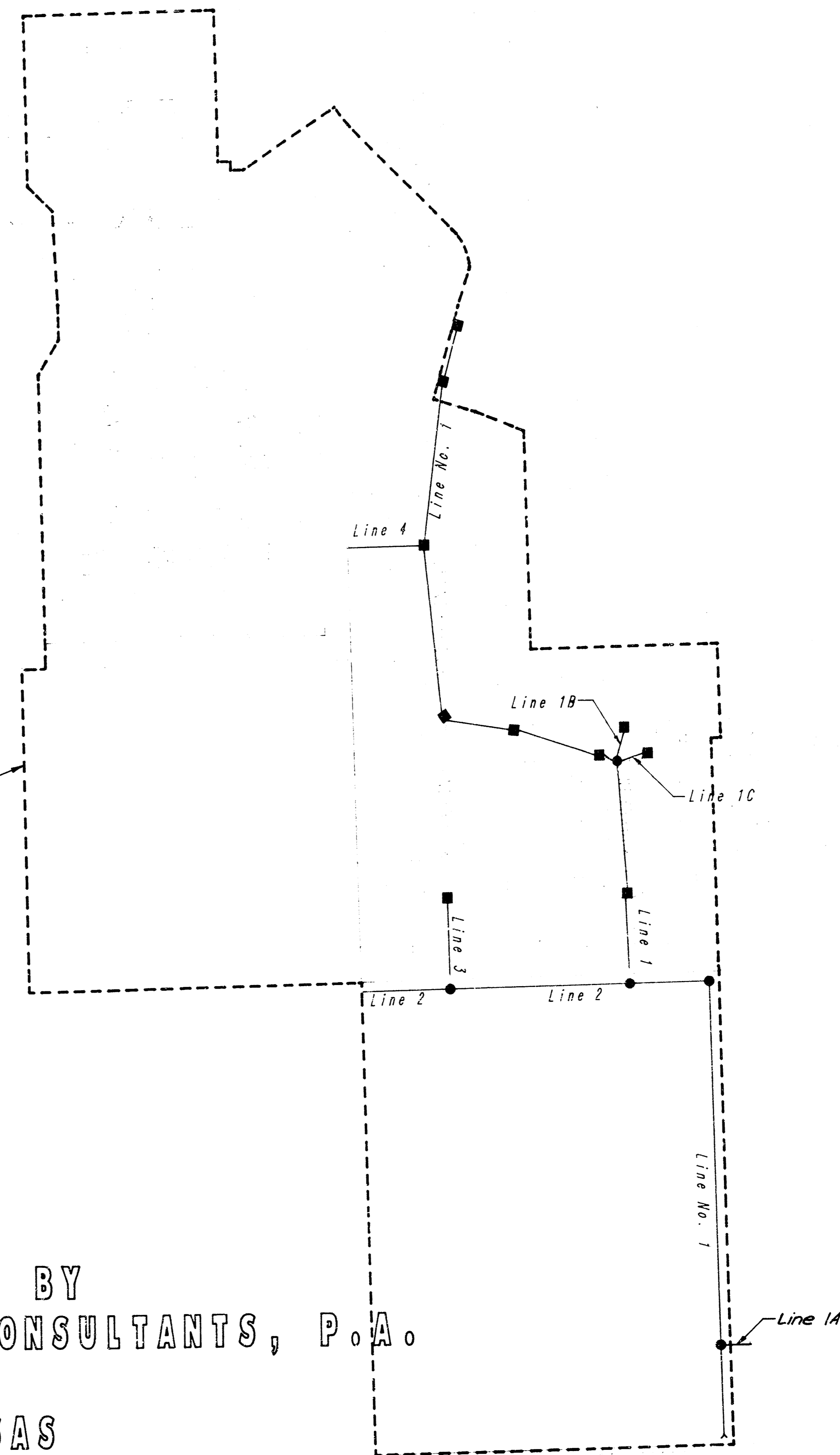
UNDERGROUND UTILITY SERVICE LINES AND OVERHEAD UTILITY POLE LINES ARE TO BE ADJUSTED AS NECESSARY BY OTHERS PRIOR TO CONSTRUCTION UNLESS THE PLANS SPECIFICALLY CALL FOR THEIR ADJUSTMENT BY THE CONTRACTOR. EXISTING UTILITIES AND THEIR LOCATION, AS SHOWN ON THE PLANS, REPRESENT THE BEST INFORMATION OBTAINABLE FOR DESIGN. LOCATION INFORMATION HAS BEEN OBTAINED FROM THE VARIOUS UTILITY COMPANIES AND IS EITHER FROM COMPANY RECORD DRAWINGS OR COMPANY PROVIDED FIELD LOCATIONS. THE CONTRACTOR WILL BE REQUIRED TO WORK AROUND EXISTING UTILITIES WITHIN THE RIGHT-OF-WAY WHICH DO NOT CONFLICT WITH PROPOSED CONSTRUCTION.

The Contractor shall fertilize, seed and mulch the swale between Lots 25 and 26, Block E, the swale between Lots 42 and 43, Block E and the drainage ditch along the North side of 21st Street, as directed by the Engineer. This work shall be subsidiary to the Project.

PROJECT SURVEY CONTROL

VERTICAL DATUM:	CITY OF WICHITA DATUM
DATUM BENCH MARK:	C.O.W. DISC 44' SOUTH AND 48' EAST OF 6 WEBB RD. AND 21ST STREET NORTH. ELEV.+205.24
BENCH MARK NO. 1:	CHISELED "d" N.E. CORNER HEADWALL R.C.B. APPROX. 1050' EAST OF WEBB ROAD ON 21ST STREET NORTH. ELEV.+202.55
BENCH MARK NO. 2:	CHISELED "d" TOP OF CURB AT EAST END OF 6 MEDIUM ISLAND AT PLOWTHICKET CIRCLE AND WEBB ROAD. ELEV.+228.75
BENCH MARK NO. 3:	C.O.W. DISC 32' NORTH AND 28' EAST OF W. 1/4 COR. SEC. 4, T27S, R2E AT WEBB ROAD AND 25TH STREET NORTH. ELEV.+225.05
BENCH MARK NO. 4:	R.R. SPIKE IN N.E. FACE 17" OSAGE ORANGE APPROX. 150' LT. CLUBHOUSE DRIVE STA. 4+00. ELEV.+229.92
BENCH MARK NO. 5:	R.R. SPIKE IN EAST FACE 18" ASH APPROX. 90' RT. CLUBHOUSE DRIVE STA. 13+80. ELEV.+214.54
BENCH MARK NO. 6:	STEP-NAIL IN SOUTH FACE LAMINATED H.L.P. APPROX. 275' EAST AND 30' NORTH OF N.E. CORNER OF LOT 36, BLOCK 1. ELEV.+207.69

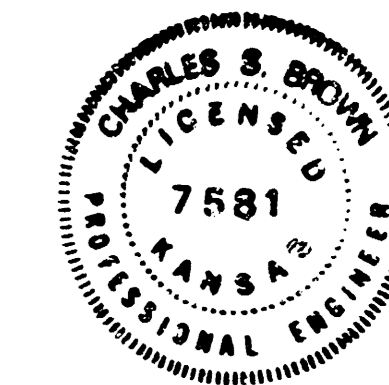
IMPROVEMENT DISTRICT
BOUNDARY



SCALE: 1" = 150'

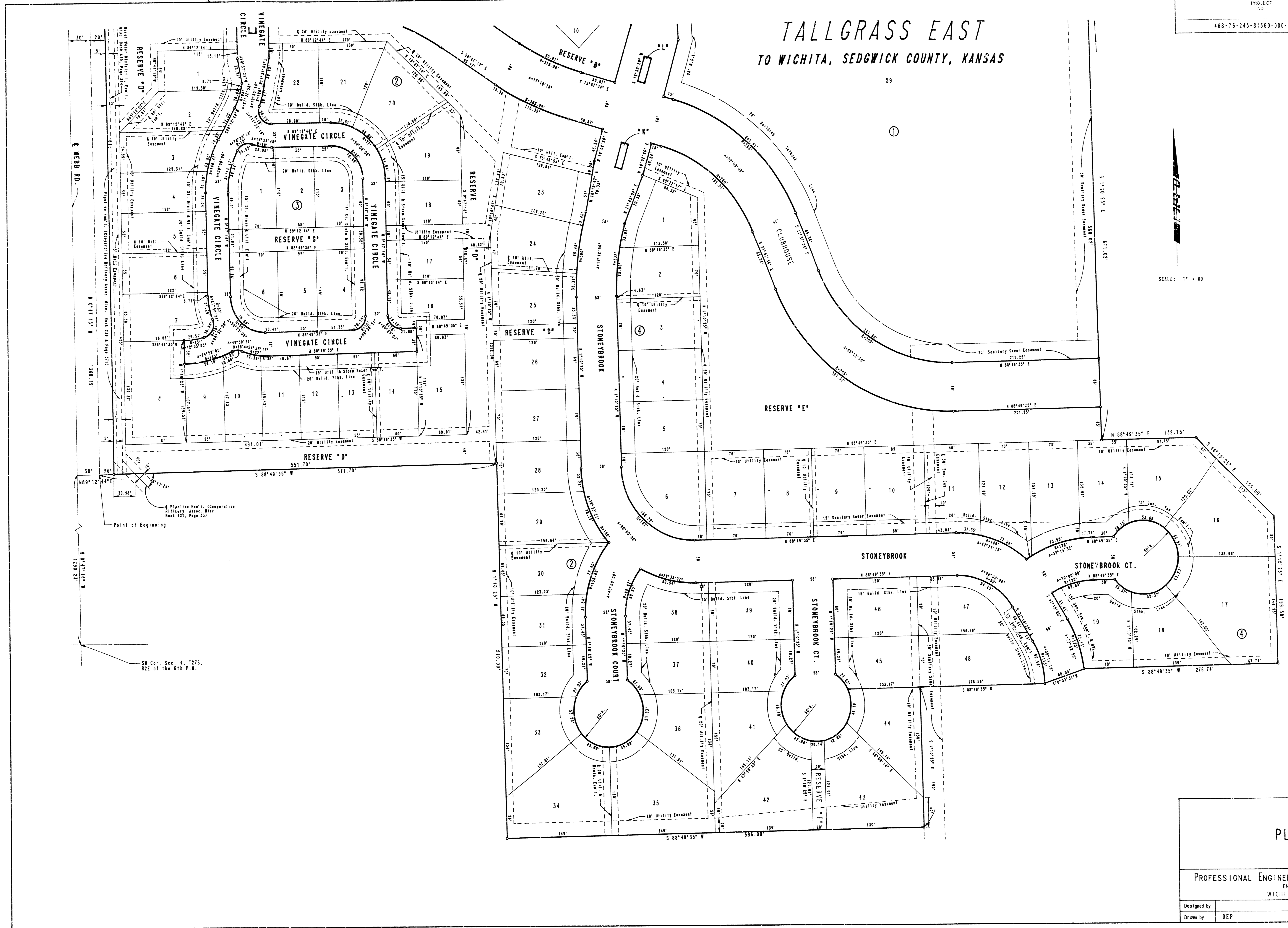
AS BUILT
1/88
mcs

JUNE, 1987
 PLANS PREPARED BY
 PROFESSIONAL ENGINEERING CONSULTANTS, P.A.
 ENGINEERS
 WICHITA, KANSAS



TALLGRASS EAST TO WICHITA, SEDGWICK COUNTY, KANSAS

PROJECT NO.	SHEET NO.	TOTAL SHEETS
468-76-245-81660-000-001	2	15



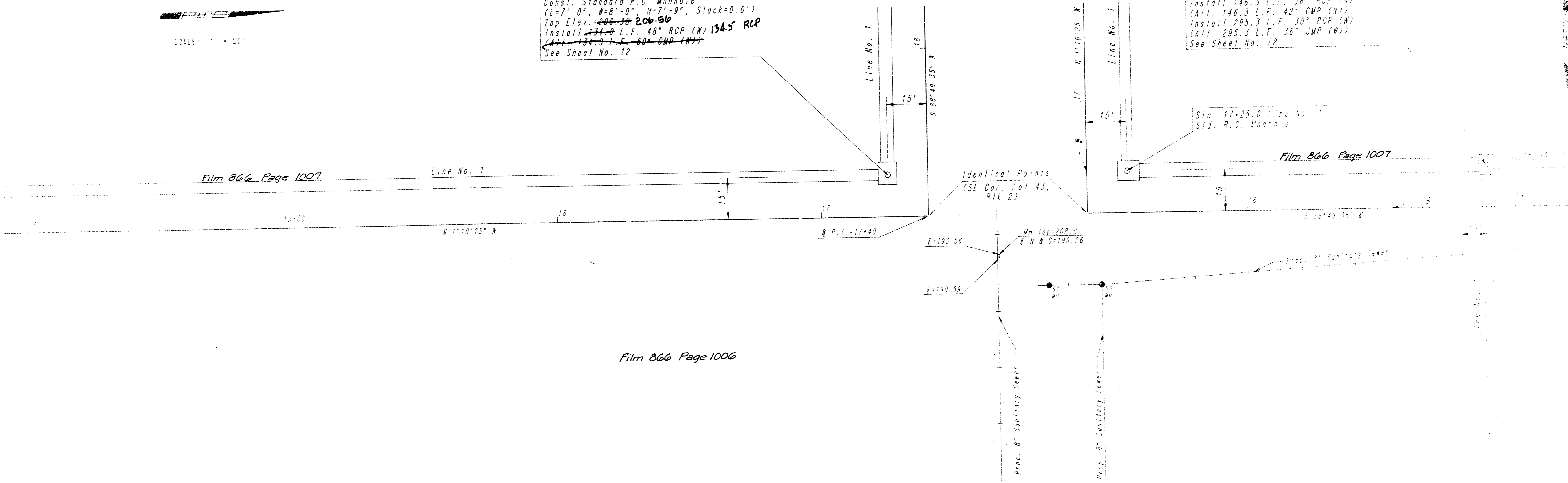
PLAT	
PROFESSIONAL ENGINEERING CONSULTANTS, P.A. ENGINEERS WICHITA, KANSAS	
Designed by	Checked by
Drawn by DEP	Date: MAR., 1987 Job No. 86478-4

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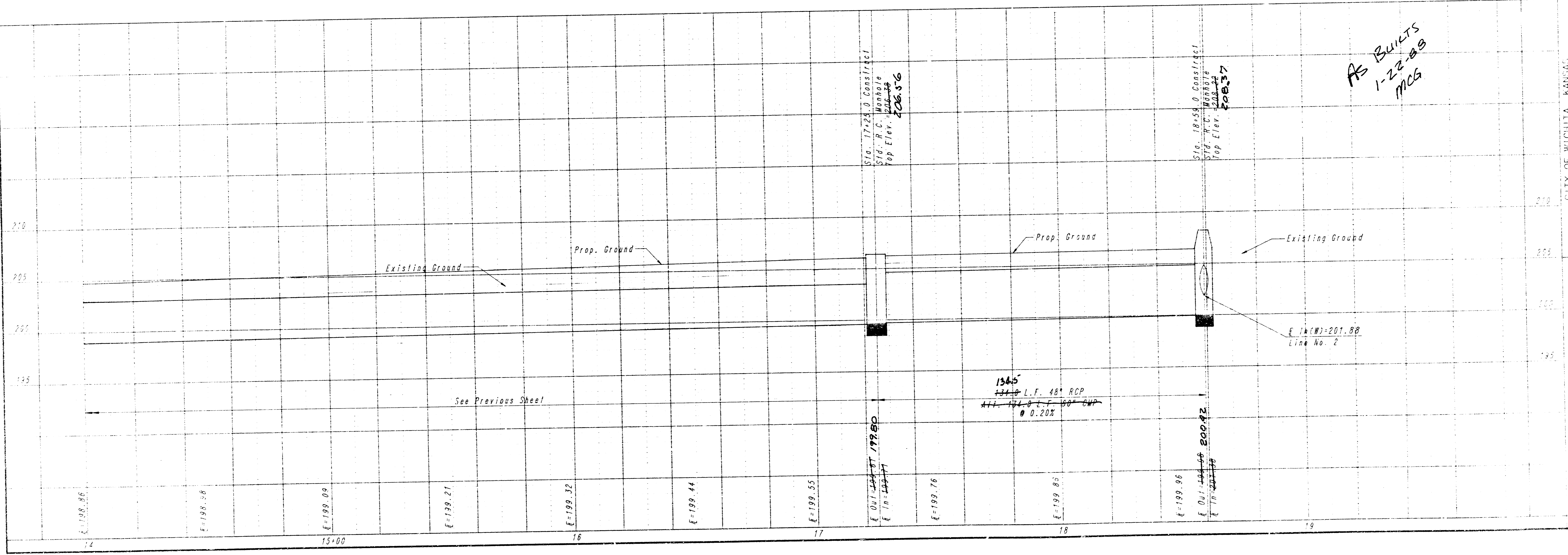
SCALE: 1" = 20'

Sta. 17+25.0 Line No. 1
Const. Standard R.C. Manhole
(L=7'-0", W=8'-0", H=7'-9", Stack=0.0')
Top Elev. ~~206.90~~ 206.90
Install ~~146.3 L.F. 36" RCP (W)~~ 134.5' RCP
(Alt. 134.5 L.F. 36" CMP (W))
See Sheet No. 12

Sta. 18+59.0 Line No. 1
Const. Standard R.C. Manhole
(L=5'-9", W=7'-0", H=7'-8", Stack=1.49')
Top Elev. ~~208.37~~ 208.37
Install 146.3 L.F. 36" RCP (W)
(Alt. 146.3 L.F. 42" CMP (W))
Install 295.3 L.F. 30" POP (W)
(Alt. 295.3 L.F. 36" CMP (W))
See Sheet No. 12



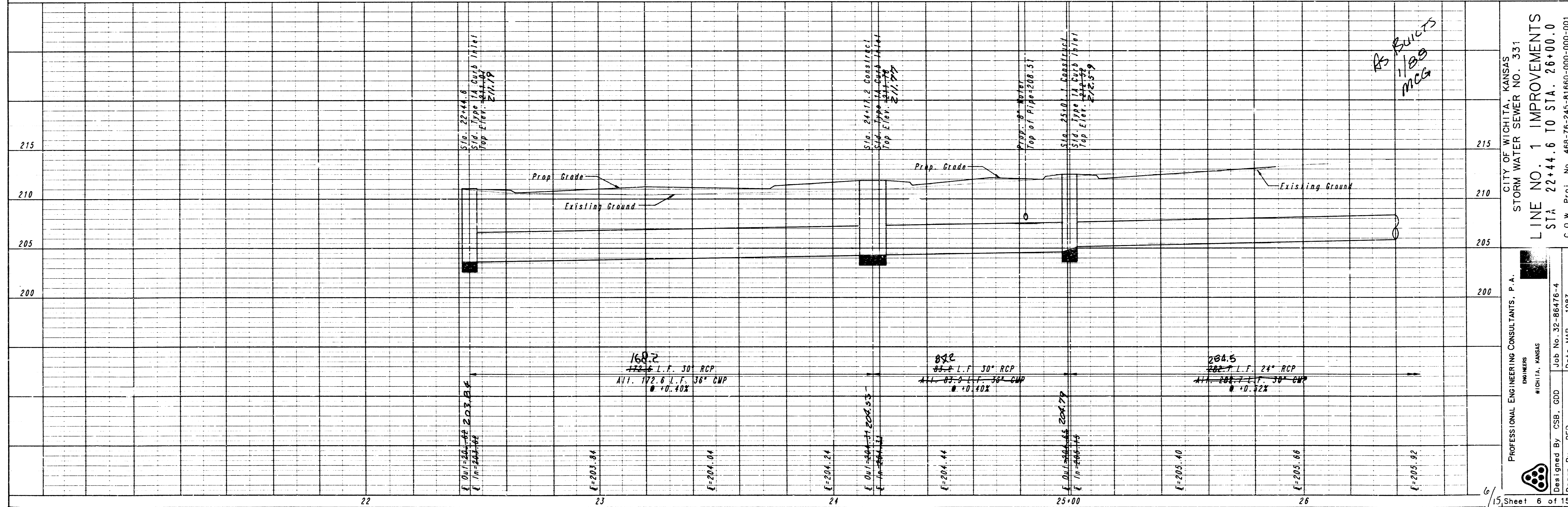
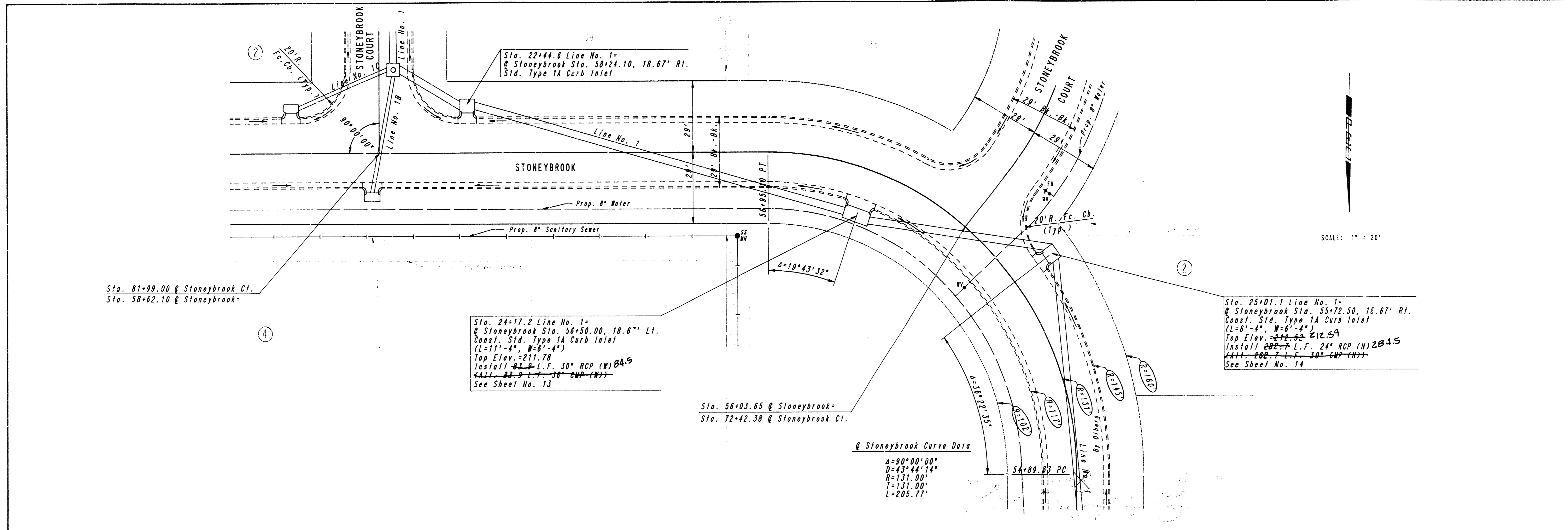
Film 866 Page 1006



CITY OF WICHITA, KANSAS
STORM WATER SEWER NO. 331
LINE NO. 1 IMPROVEMENTS
STA. 14+00 TO STA. 18+59.0

ENGINEERING CONSULTANTS, P.A.
1001 N. W. 10th St., Suite 100
Wichita, Kansas 67202
Tel. (316) 261-4444
Fax (316) 261-4444
E-mail: wcc@wcc.com

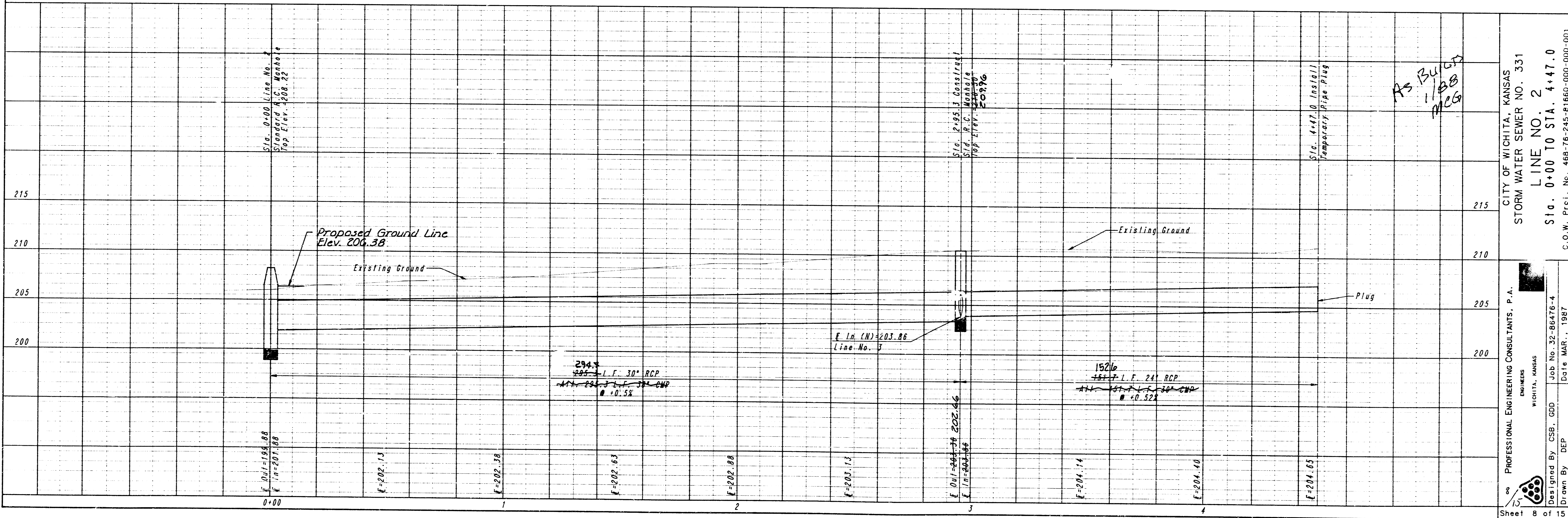
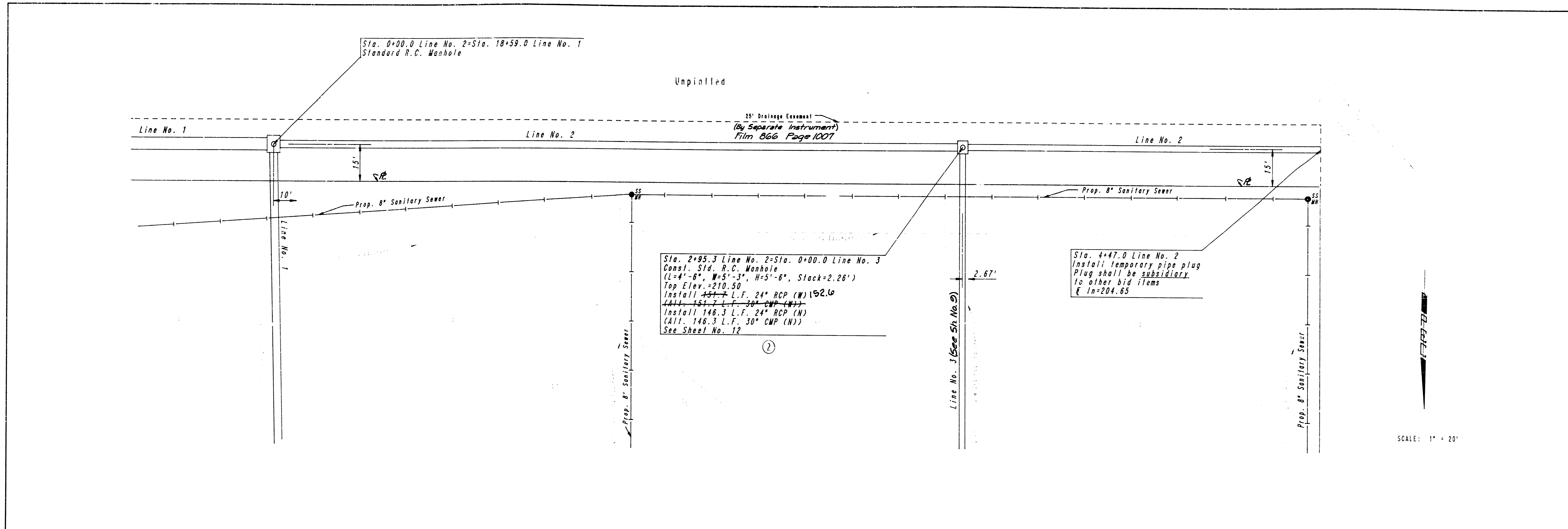
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CITY OF WICHITA, KANSAS
 STORM WATER SEWER NO. 331
LINE NO. 1 IMPROVEMENTS
 STA. 22+44.6 TO STA. 26+00.0
 C.O.W. Proj. No. 468-76-245-81660-000-001

PROFESSIONAL ENGINEERING CONSULTANTS, P.A.
 ENGINEERS
 WICHITA, KANSAS
 Job No. 32-86476-4
 Designed By CSB, GDD
 Drawn By DEP
 Date MAR., 1987

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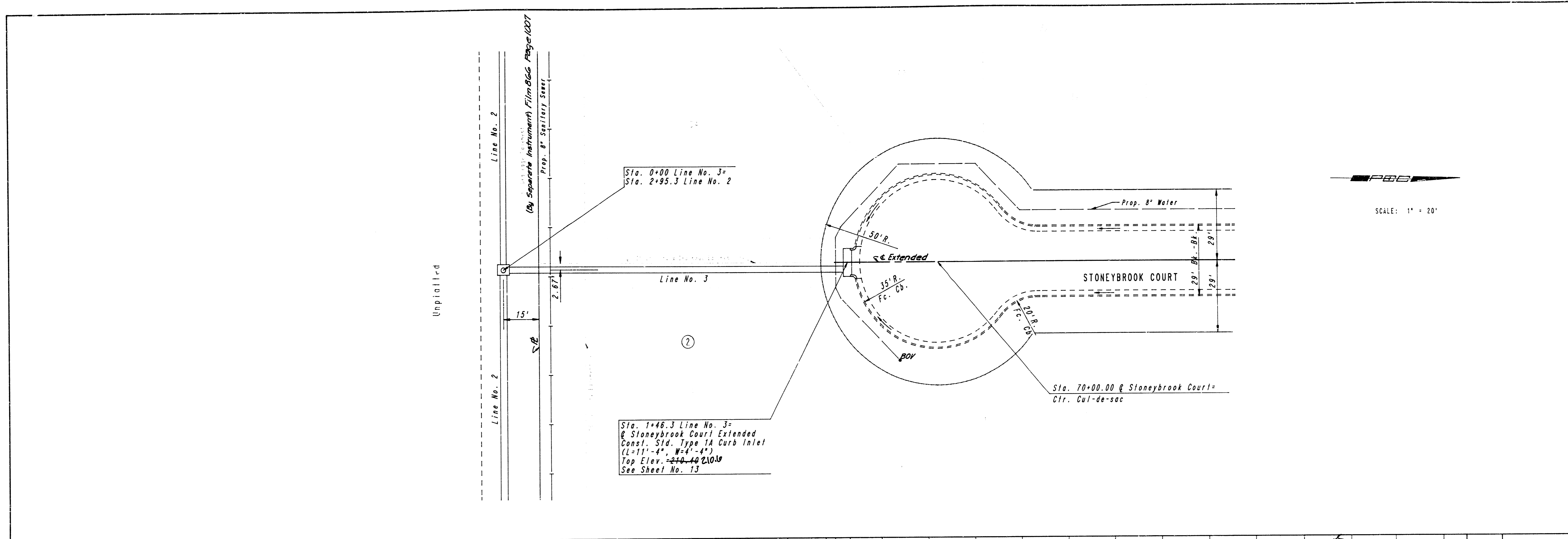


CITY OF WICHITA, KANSAS
 STORM WATER SEWER NO. 331
 LINE NO. 2
 Sta. 0+00 TO STA. 4+47.0

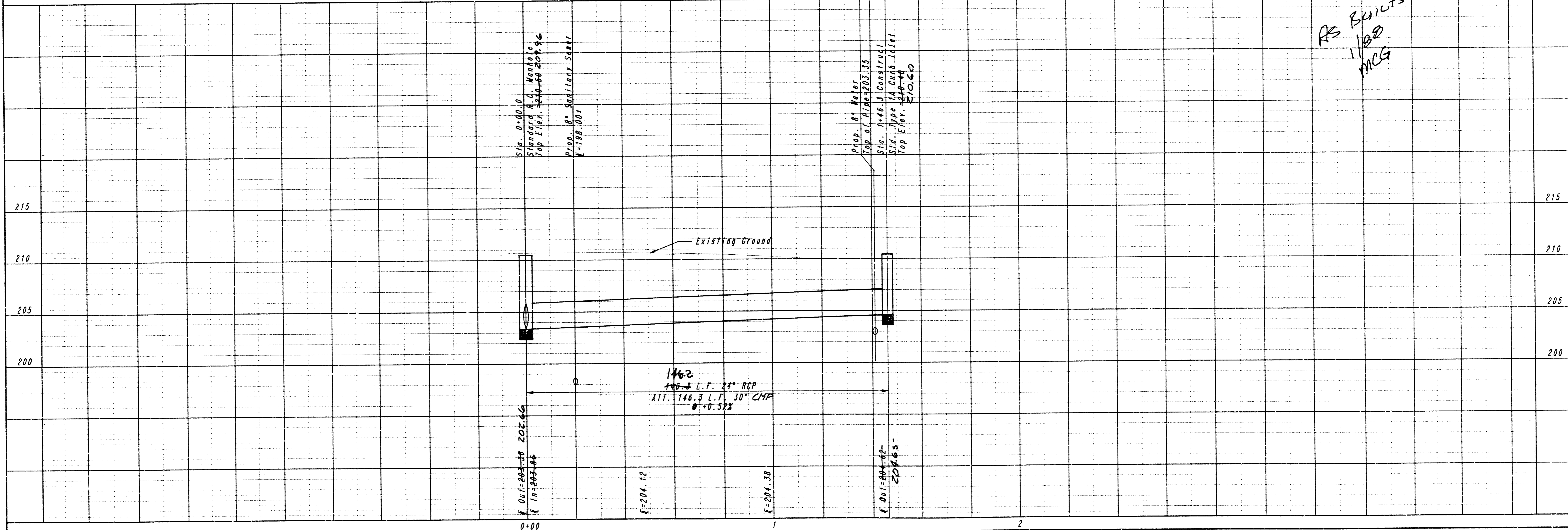
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 WICHITA, KANSAS
 DESIGNED BY CSB, GDD
 DRAWN BY DEP
 JOB NO. 32-86476-4
 DATE MAR., 1987

Sheet 8 of 15

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SCALE: 1" = 20'



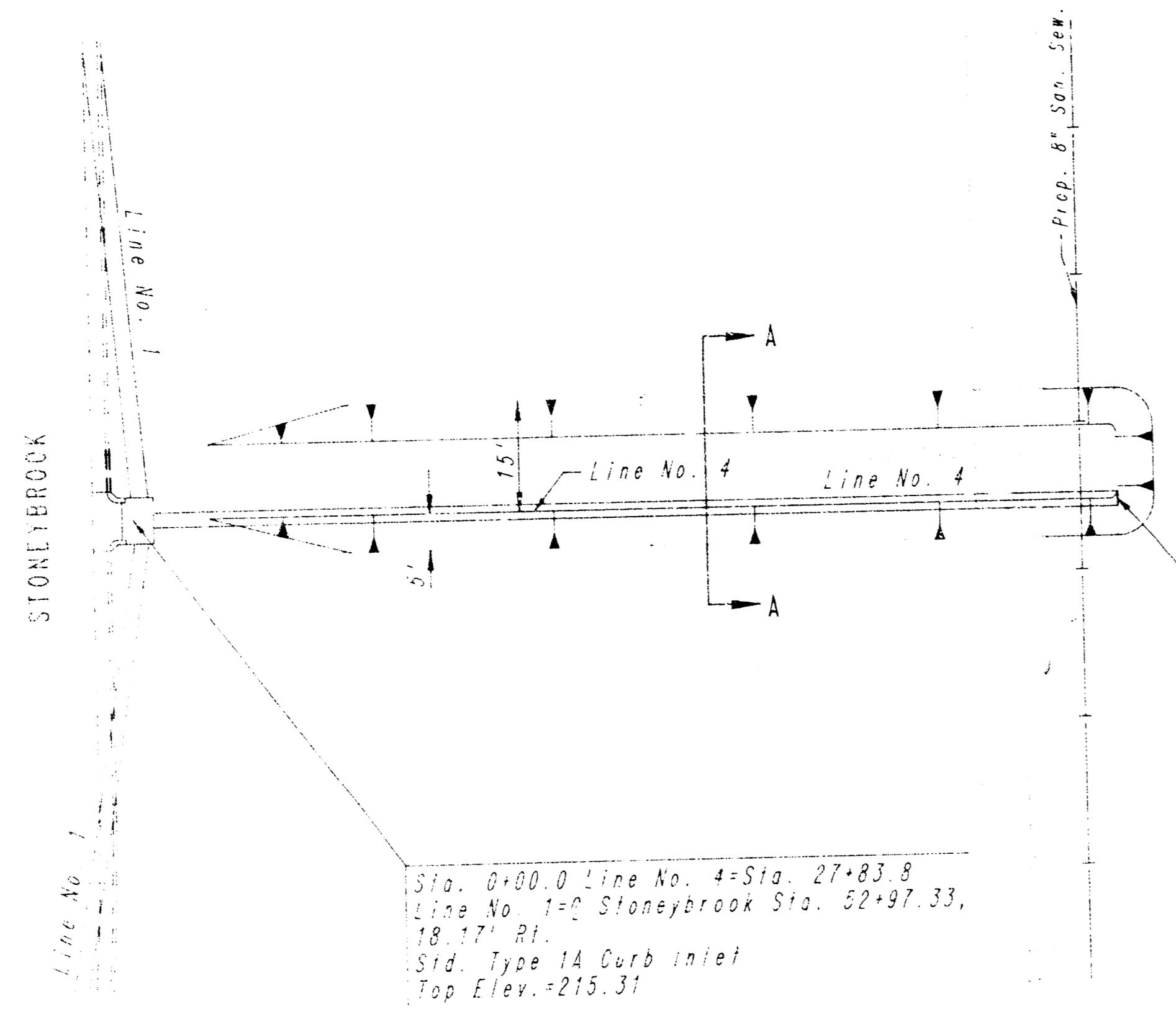
AS BUILT
MCS

CITY OF WICHITA, KANSAS
 STORM WATER SEWER NO. 331
LINE NO. 3
 STA. 0+00 TO STA. 1+46.3
 C.O.W. Proj. No. 468-76-245-81660-000-000-001

PROFESSIONAL ENGINEERING CONSULTANTS, P.A.
 ENGINEERS
 WICHITA, KANSAS
 Job No. 32-86476-4
 Designed By CSB, GDD
 Drawn By DEP
 Date MAR., 1987

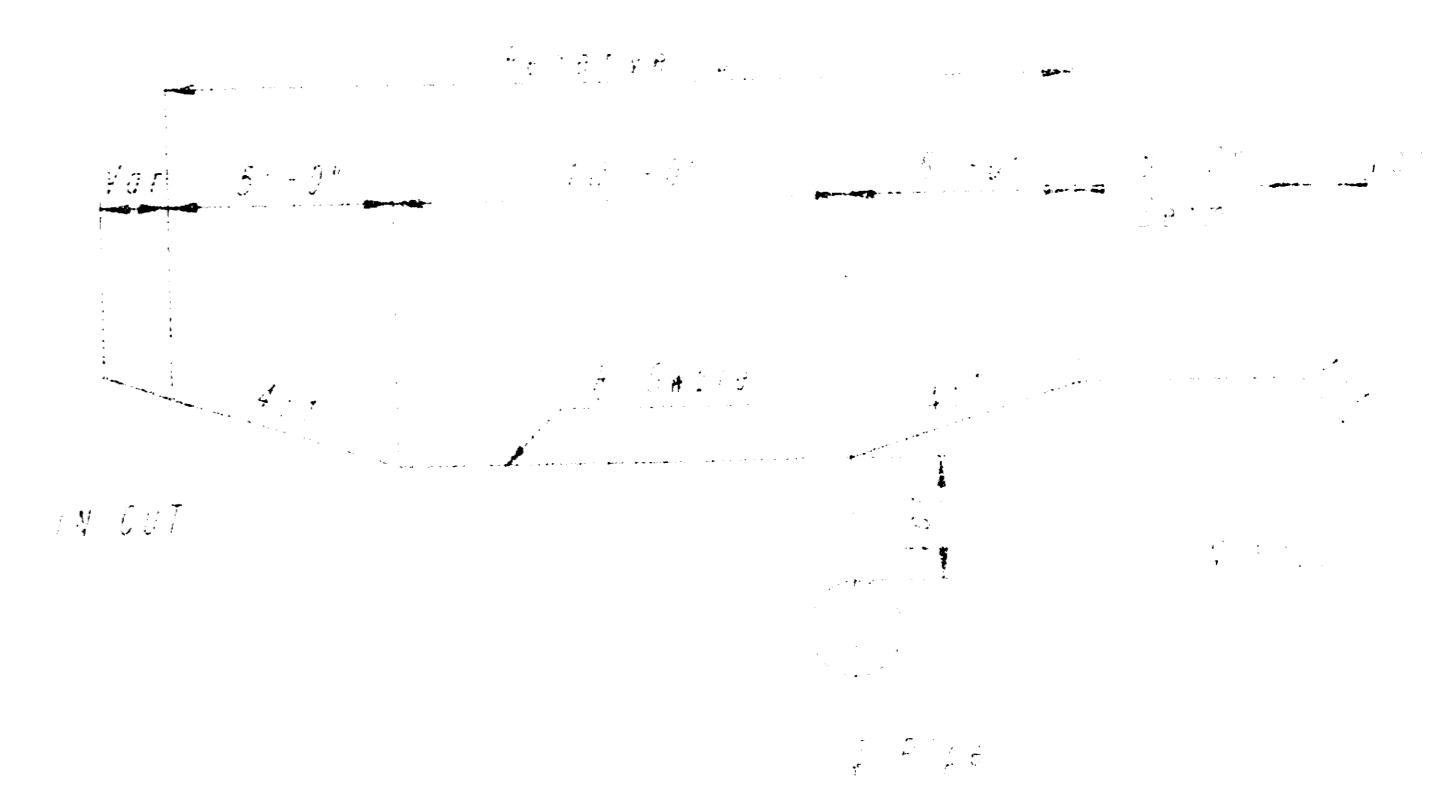
Sheet 9 of 15

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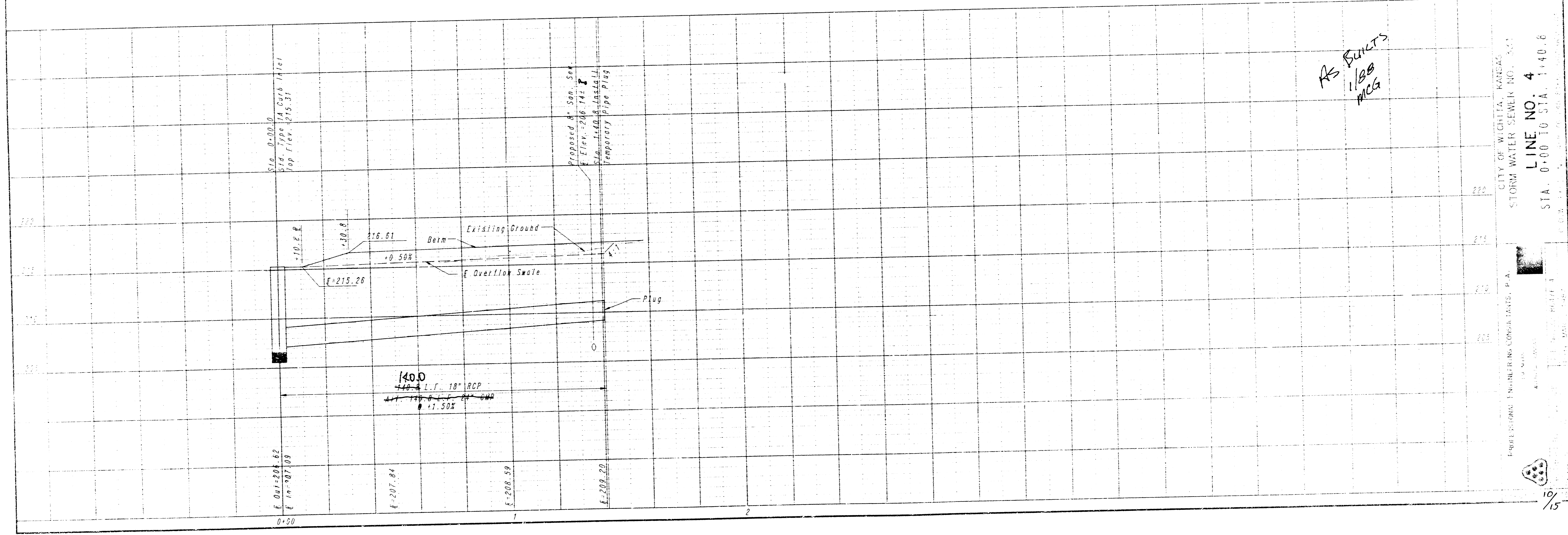


Sta. 0+00.0 Line No. 4 - Sta. 27+83.8
 Line No. 1 - Stonebrook Sta. 22+97.33,
 18" 11" PI
 Sid. Type 1A Curb Inlet
 Top Elev. = 215.31

Sta. 1+40.8 Line No. 4
 Install temporary pipe plug
 Plug shall be subsidiary
 to other bid items



As Builts
 1/88
 MCG



Sta. 0+00.0
 Sid. Type 1A Curb Inlet
 Top Elev. = 215.31

Proposed 18" San. Sewer
 Elev. = 216.14
 Sta. 1+40.8 Install
 Temporary Pipe Plug

14.0 D
 1.5% SLOPE
 18" RCP

0.50% SLOPE
 Overflow Swale

Existing Ground

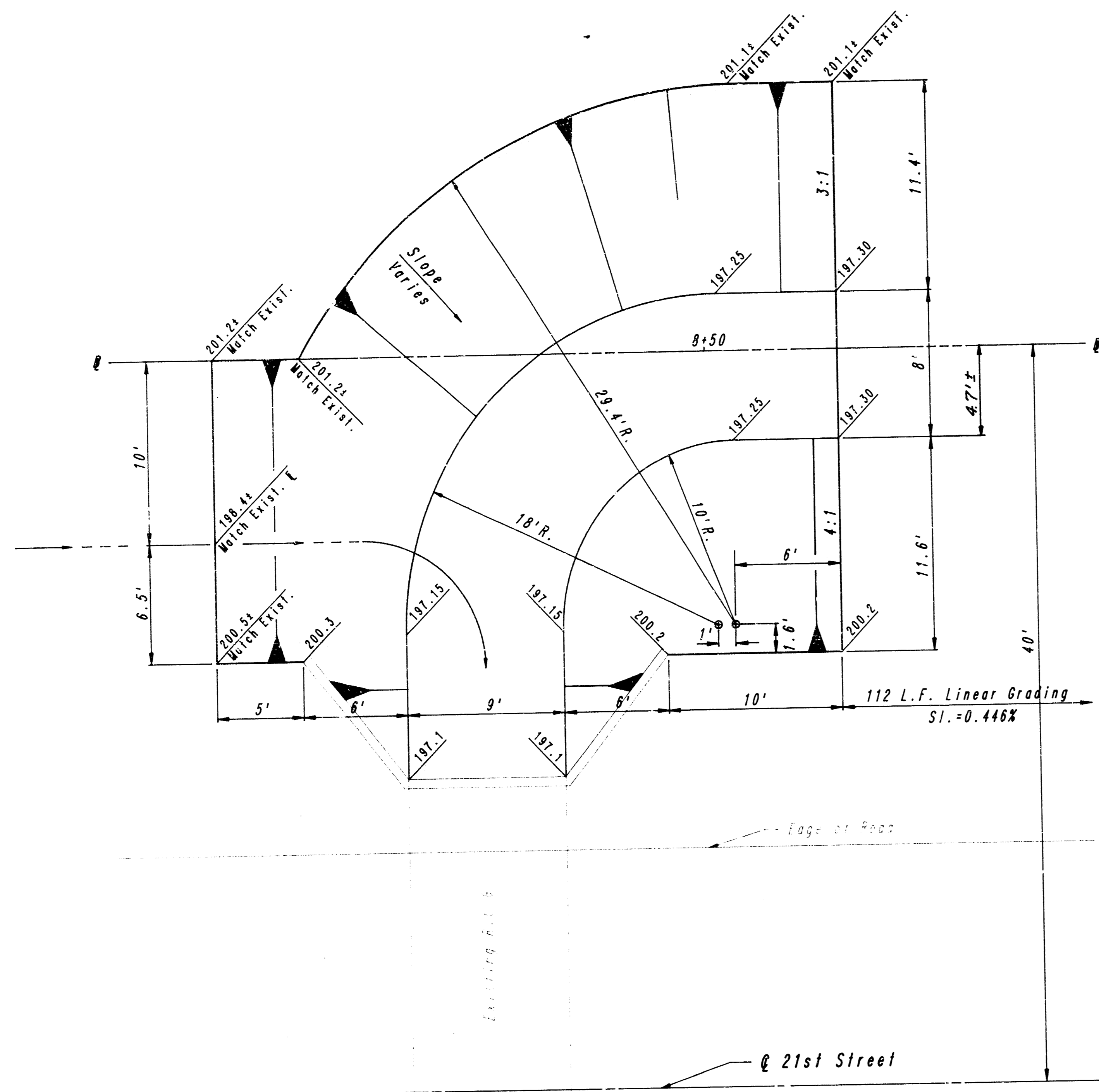
Plug

Elevations: 215.26, 216.61, 207.84, 208.59, 208.00

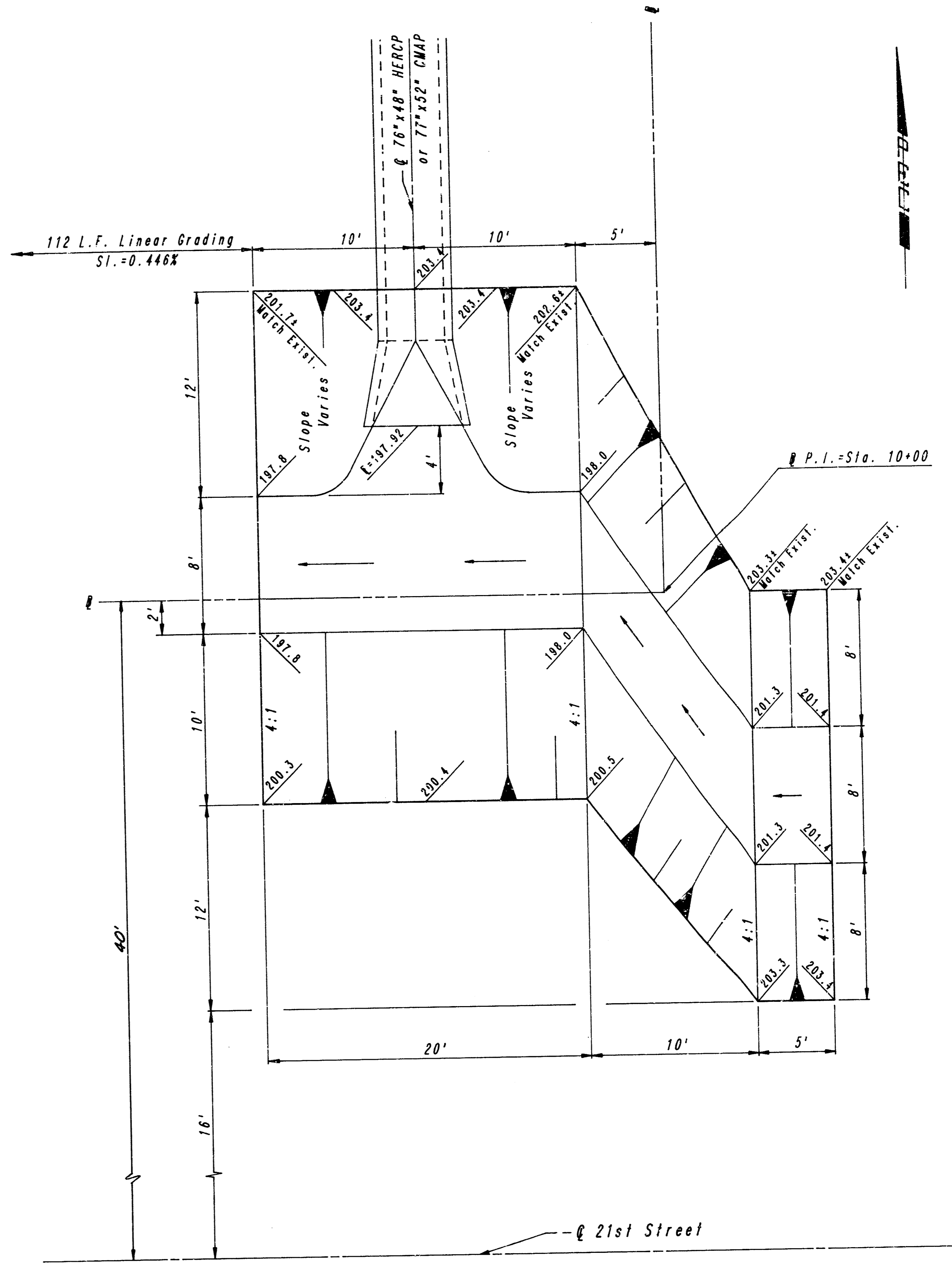
CITY OF WIGHTIA, KANSAS
 STORM WATER SEWER NO. 501
 LINE NO. 4
 STA. 0+00 TO STA. 1+40.8

PROFESSIONAL ENGINEER IN CHARGE, P. A.
 ENGINEER
 10/15

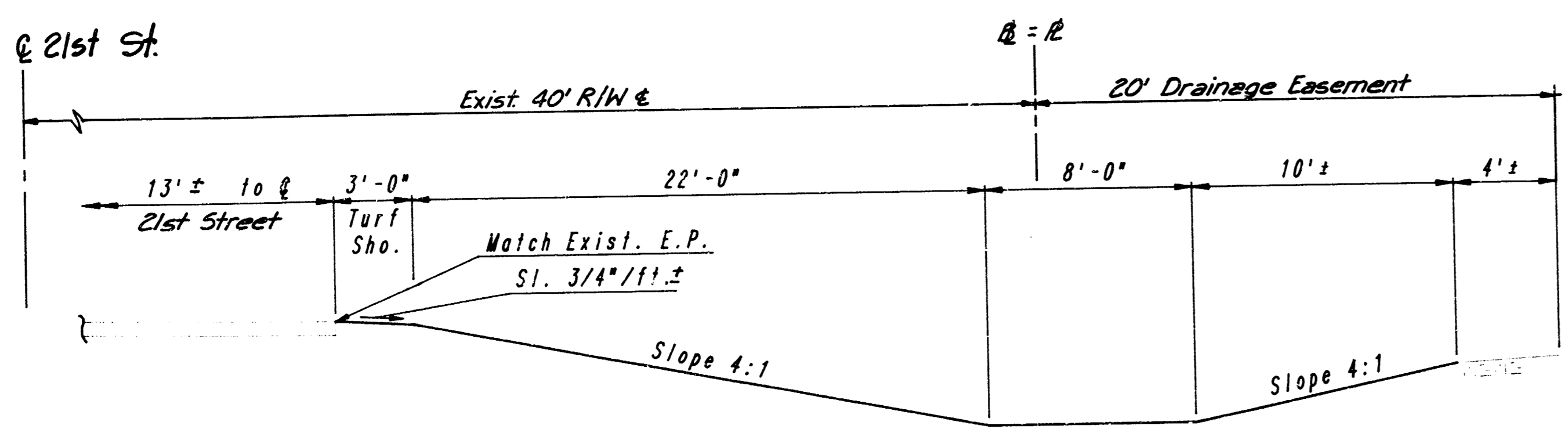
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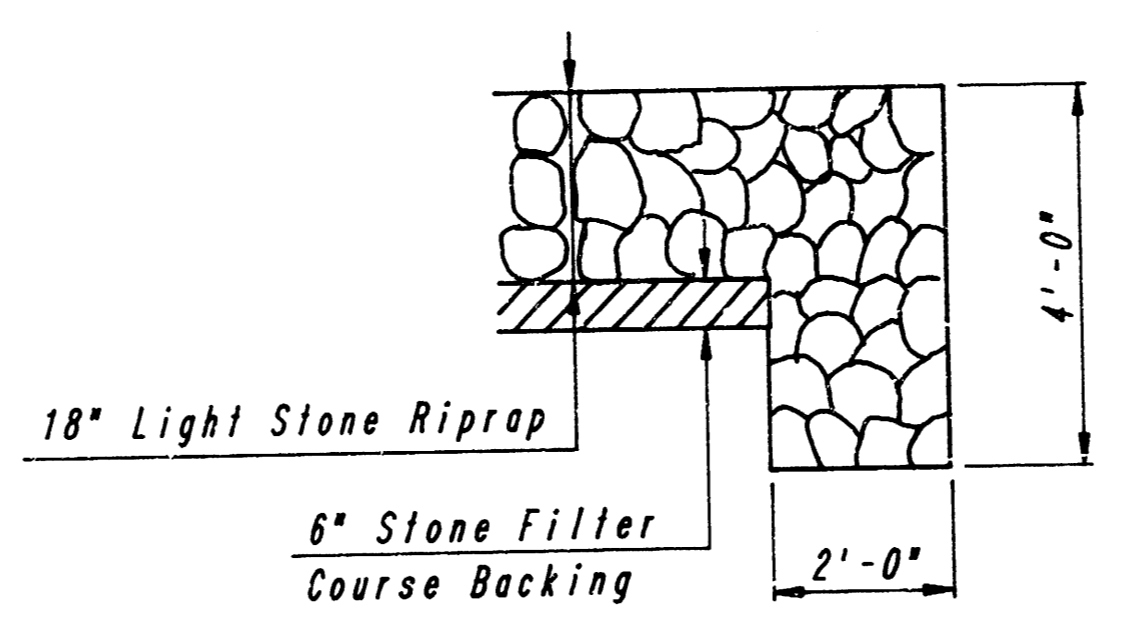
RIPRAP PLAN
SCALE: 1" = 5'



RIPRAP PLAN
SCALE: 1" = 5'



SECTION A-A
See Sheet No. 3



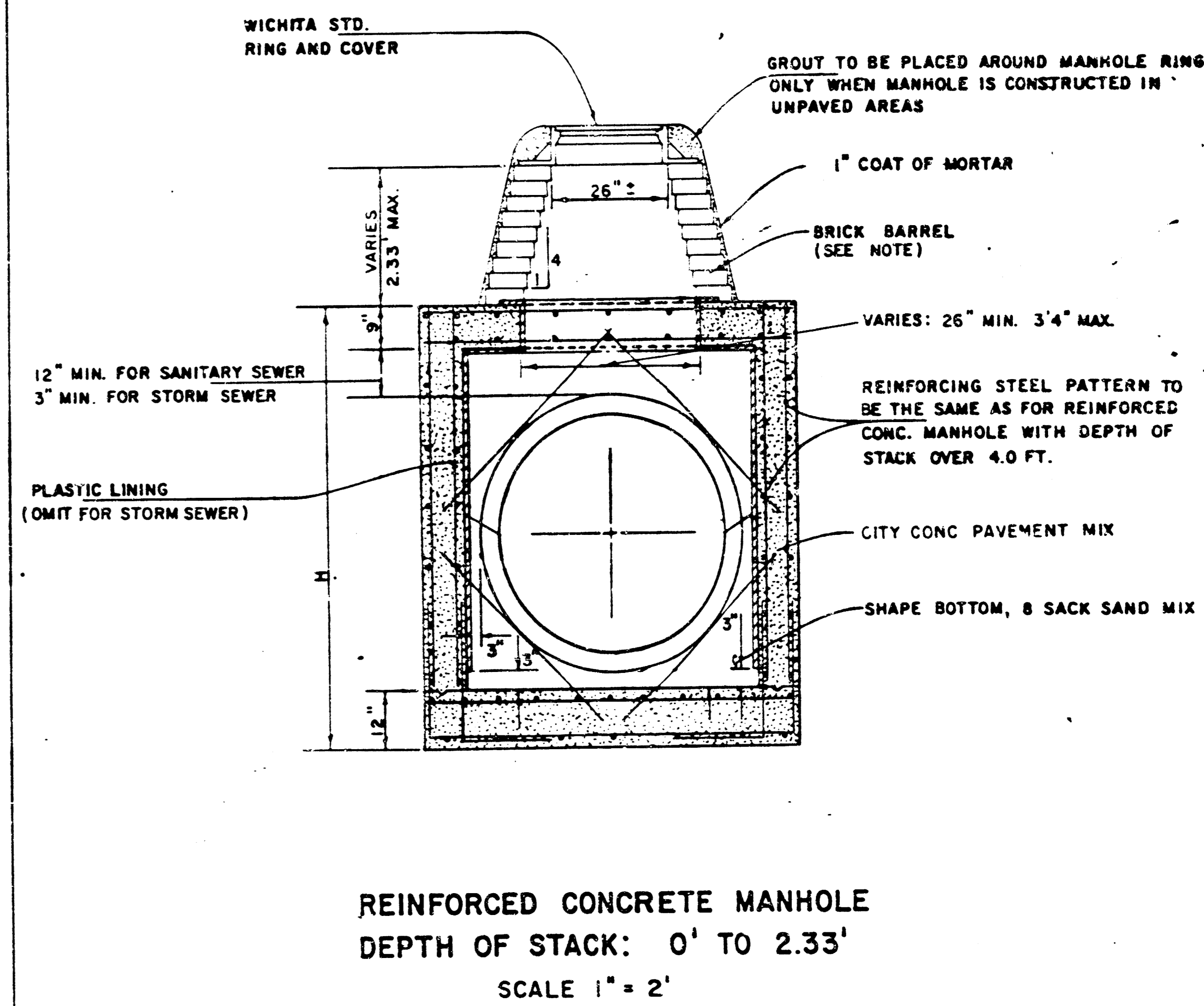
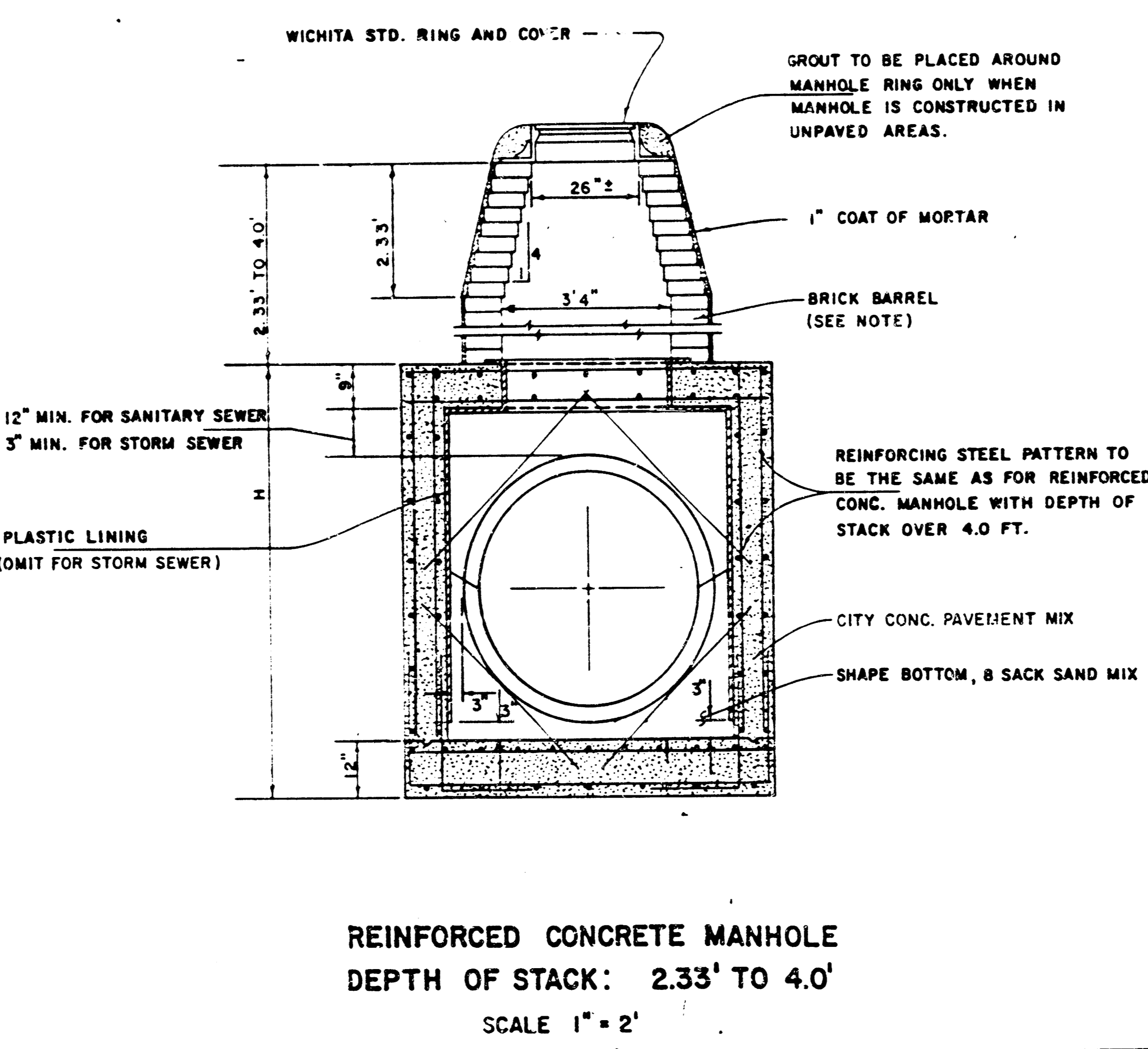
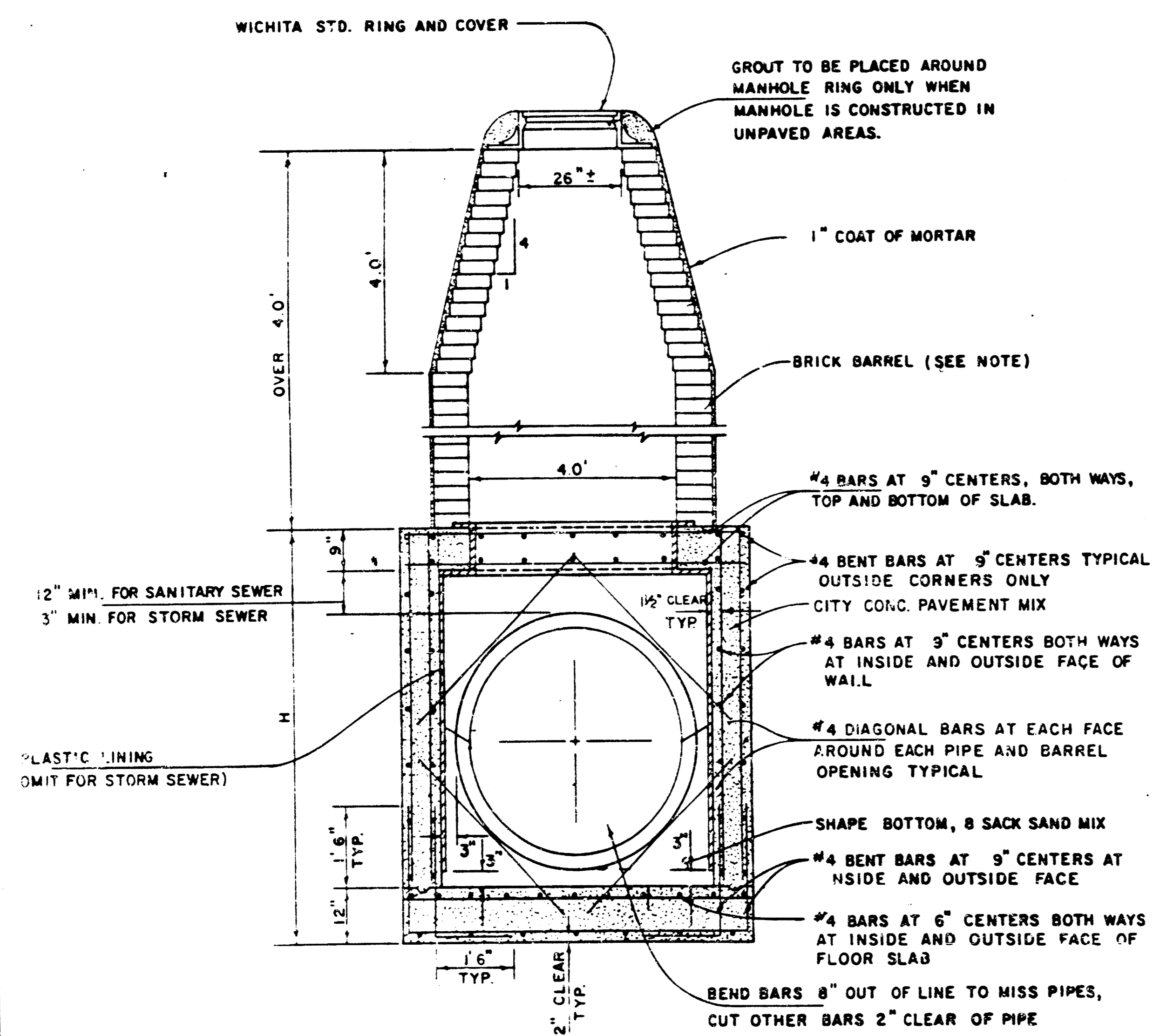
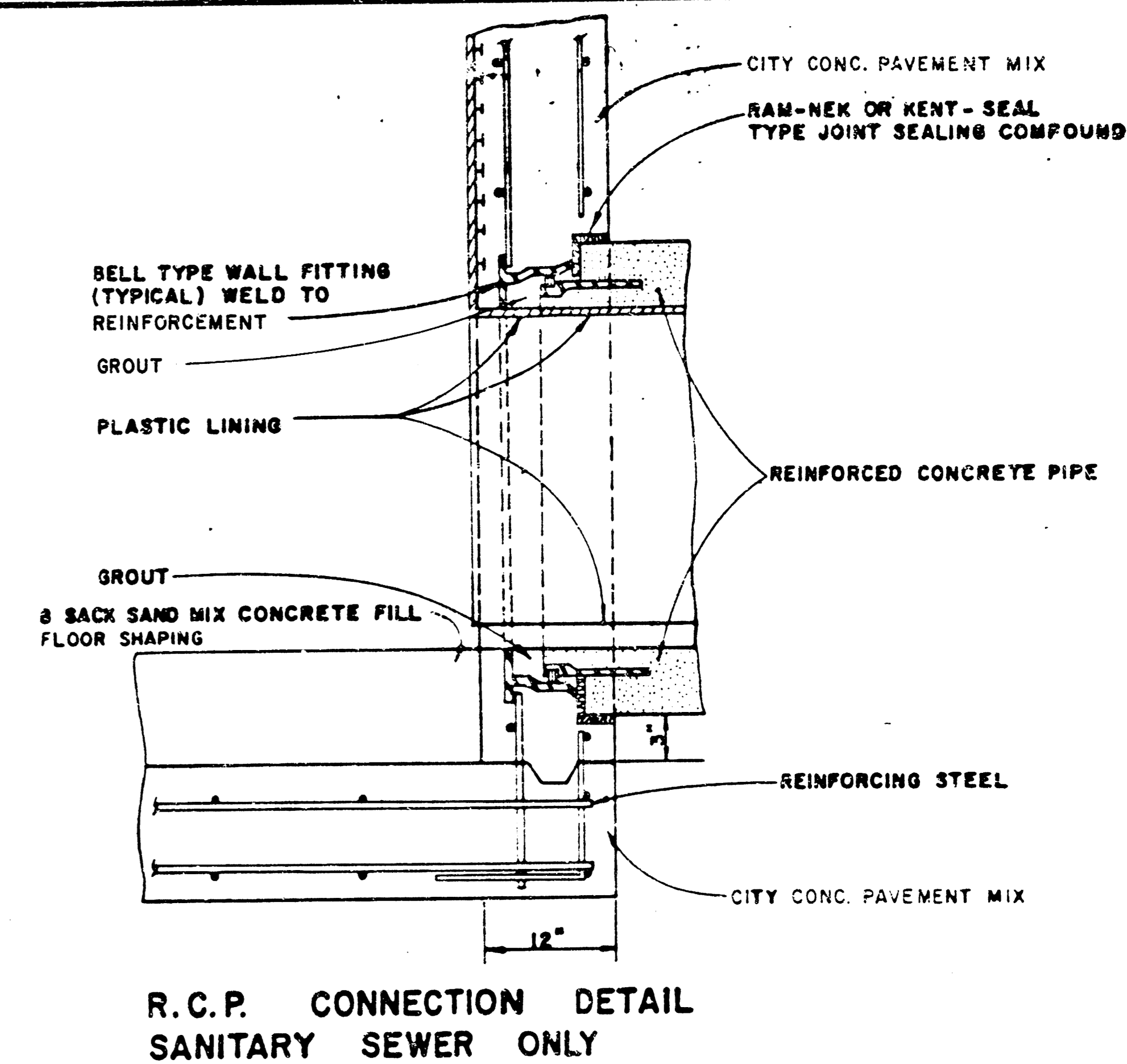
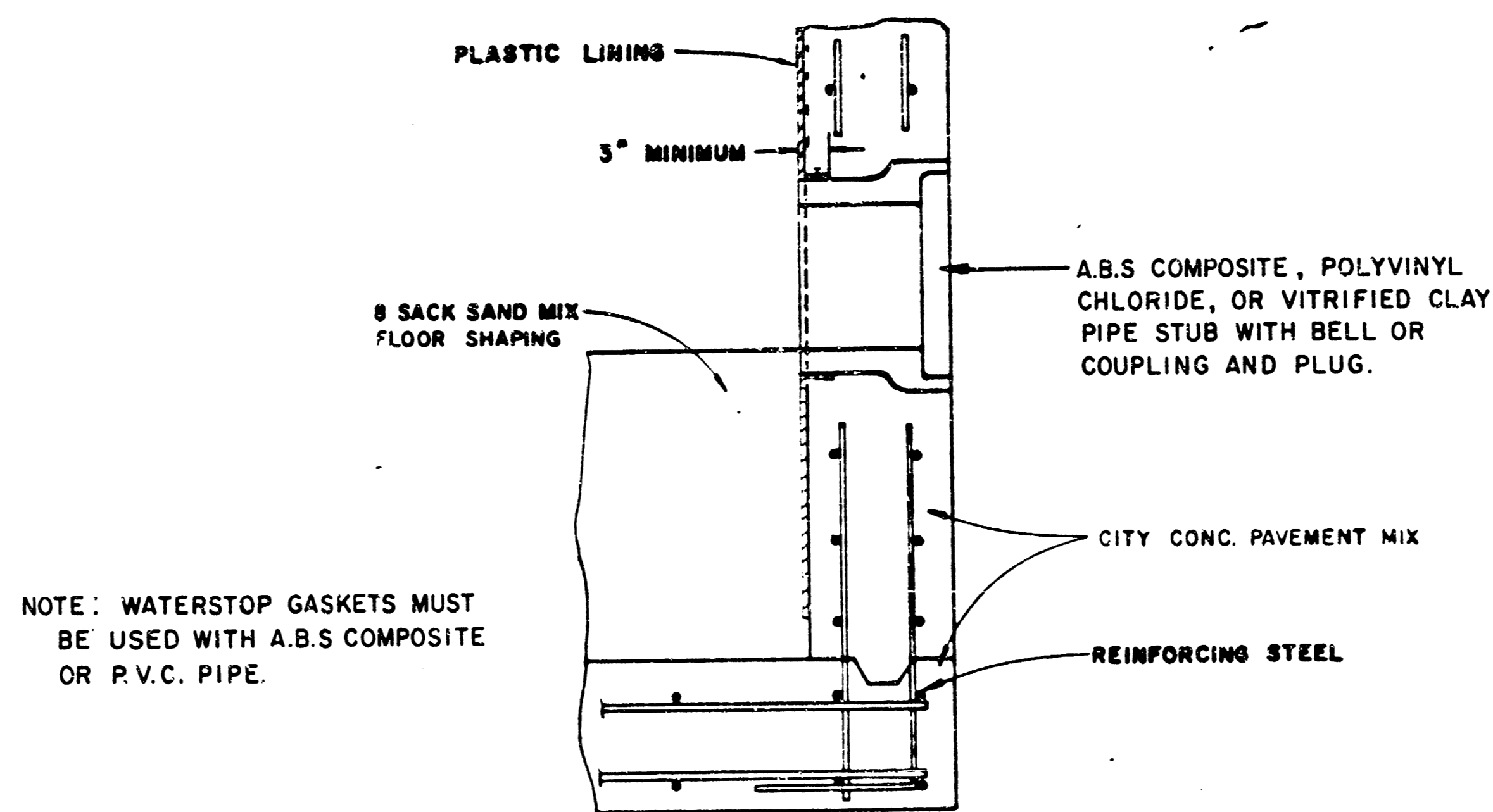
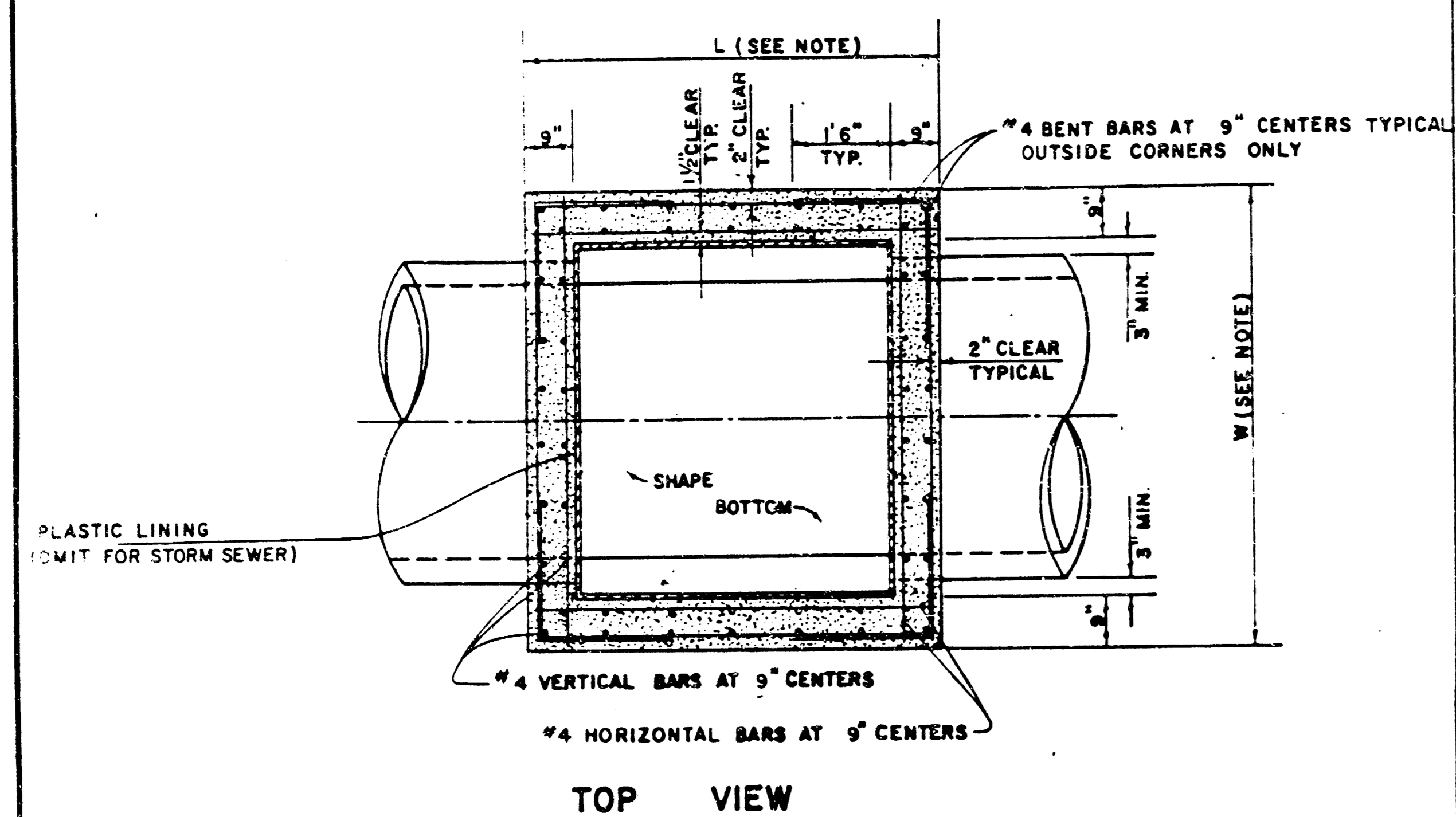
TYPICAL SECTION THRU TOEWALL

RIPRAP DETAILS

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

Designed by CSB, GDD	Checked by EPP	Date MAR., 1987	Job No. 86476-4
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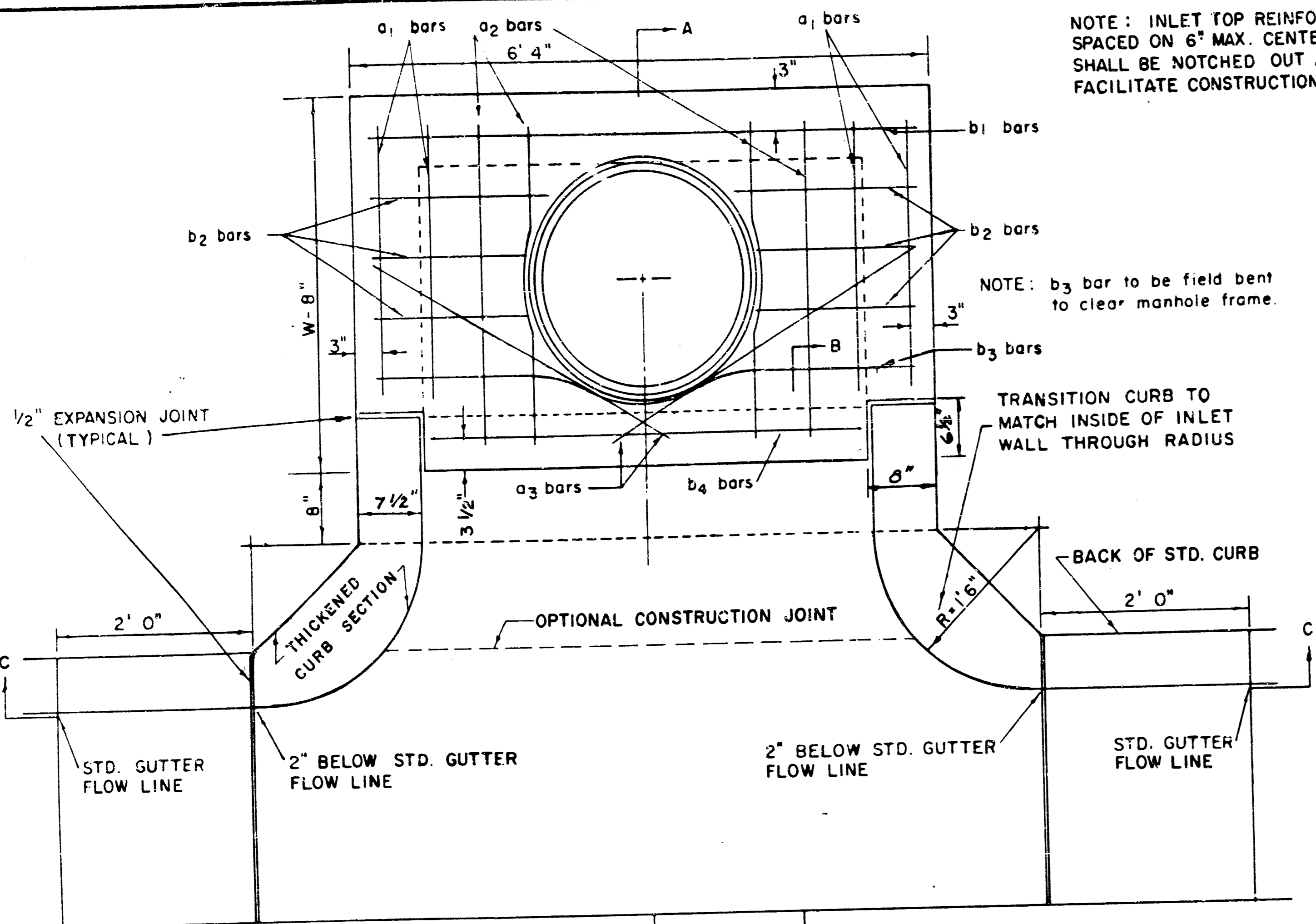
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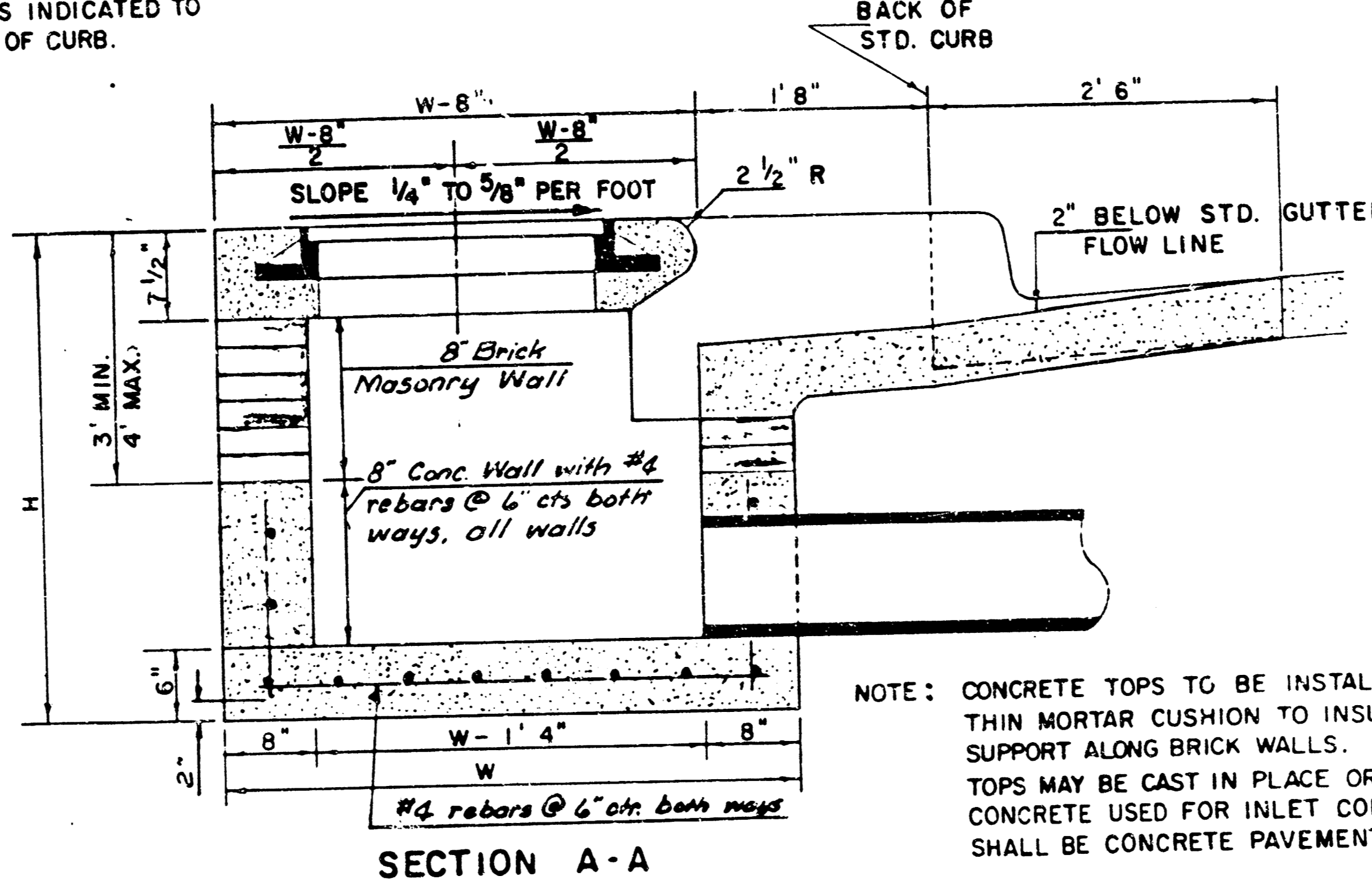
NOTE:
BRICK BARRELS LESS THEN 16' DEEP SHALL HAVE 8" WALLS EXCEPT WHEN LOCATED WITHIN PUBLIC STREET OR ALLEY PAVEMENT THEN THE WALL SHALL BE 12". BRICK BARRELS MORE THEN 16' DEEP SHALL HAVE 12" WALLS. THE "L" AND "W" DIMENSIONS SHALL BE A MINIMUM OF 5'6" FOR BRICK BARRELS WITH 8" WALLS AND 6'2" FOR BRICK BARRELS WITH 12" WALLS WHEN THE BRICK BARRELS ARE OVER 4 FT. IN HEIGHT. COMPLETED MANHOLE SHALL BE WITHOUT LEAKS AND WATERTIGHT.

REVISED 1-7-85 Proj. No. 468 76 245 81660 000 000 001
STANDARD DETAILS
REINFORCED CONCRETE MANHOLES
CITY OF WICHITA
FEBRUARY 1984 Sheet No. 12 of 15

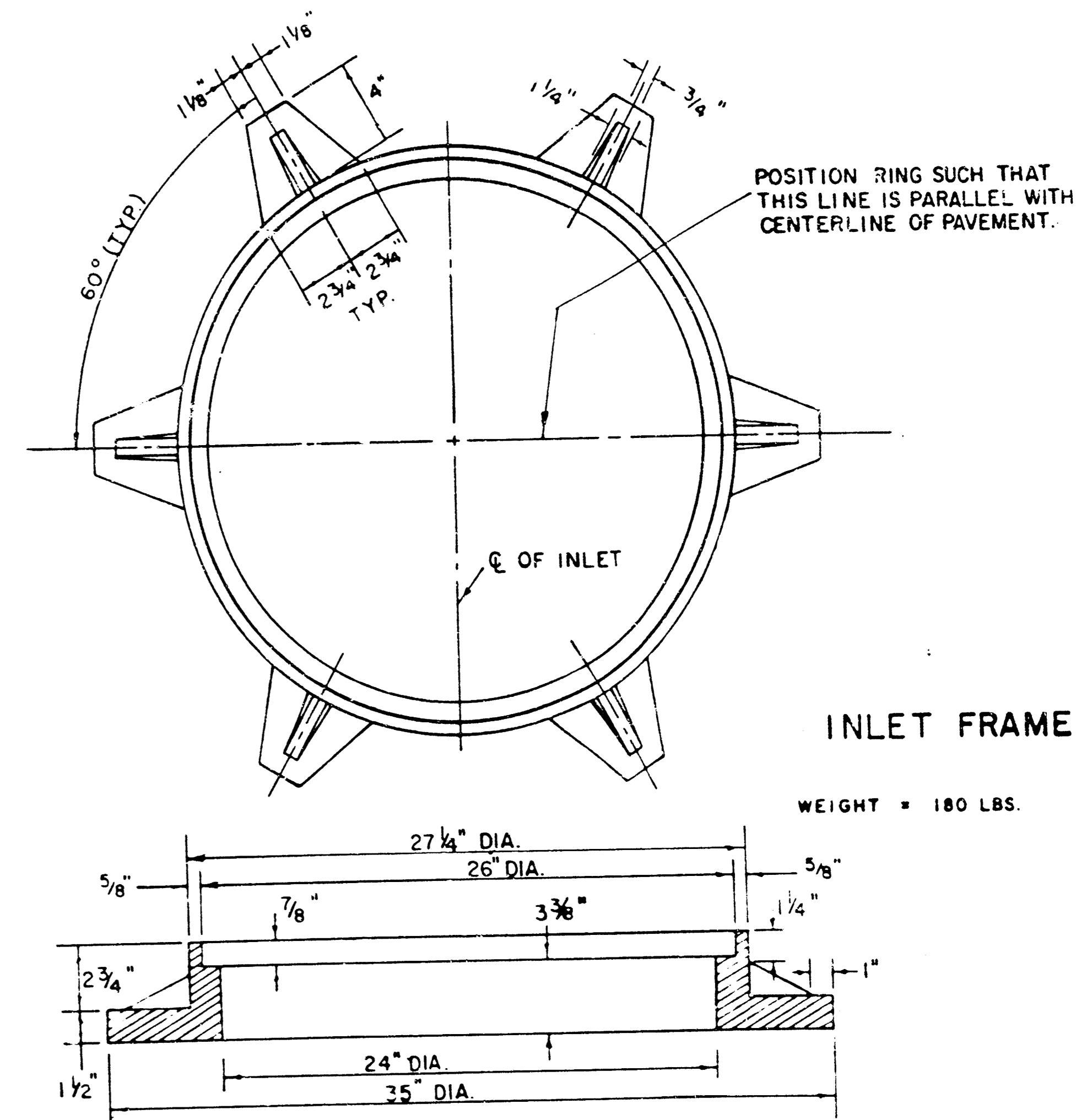
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PLAN



SECTION A-A



INLET FRAME

NOTE: EXPANSION JOINT ONLY IN CURB AREA WITH CONC. PAVEMENT.

STEEL SCHEDULE

BAR NUMBER	u ₁	u ₂	u ₃	b						b ₂	b ₃	b ₄	WT. LBS.
				w=4'4"	w=5'4"	w=6'4"	w=7'4"	w=8'4"					
4	4	2	1	3	5	7	9	6	1	1			
SIZE	#4	#4	#4	#4	#4	#4	#4	#4	#4	#6			
W=4'4"	5'7"	6'7"	4'0"	6'1"	-	-	-	1'9"	6'2"	4'8"	60±		
W=5'4"	7'7"	8'7"	5'0"	6'1"	-	-	-	1'9"	6'2"	4'8"	81±		
W=6'4"	9'7"	10'7"	6'0"	6'1"	-	-	-	1'9"	6'2"	4'8"	101±		
W=7'4"	11'7"	12'7"	7'0"	6'1"	-	-	-	1'9"	6'2"	4'8"	121±		
W=8'4"	13'7"	14'7"	8'0"	6'1"	1'9"	6'2"	4'8"				141±		

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

BENDING DIAGRAM

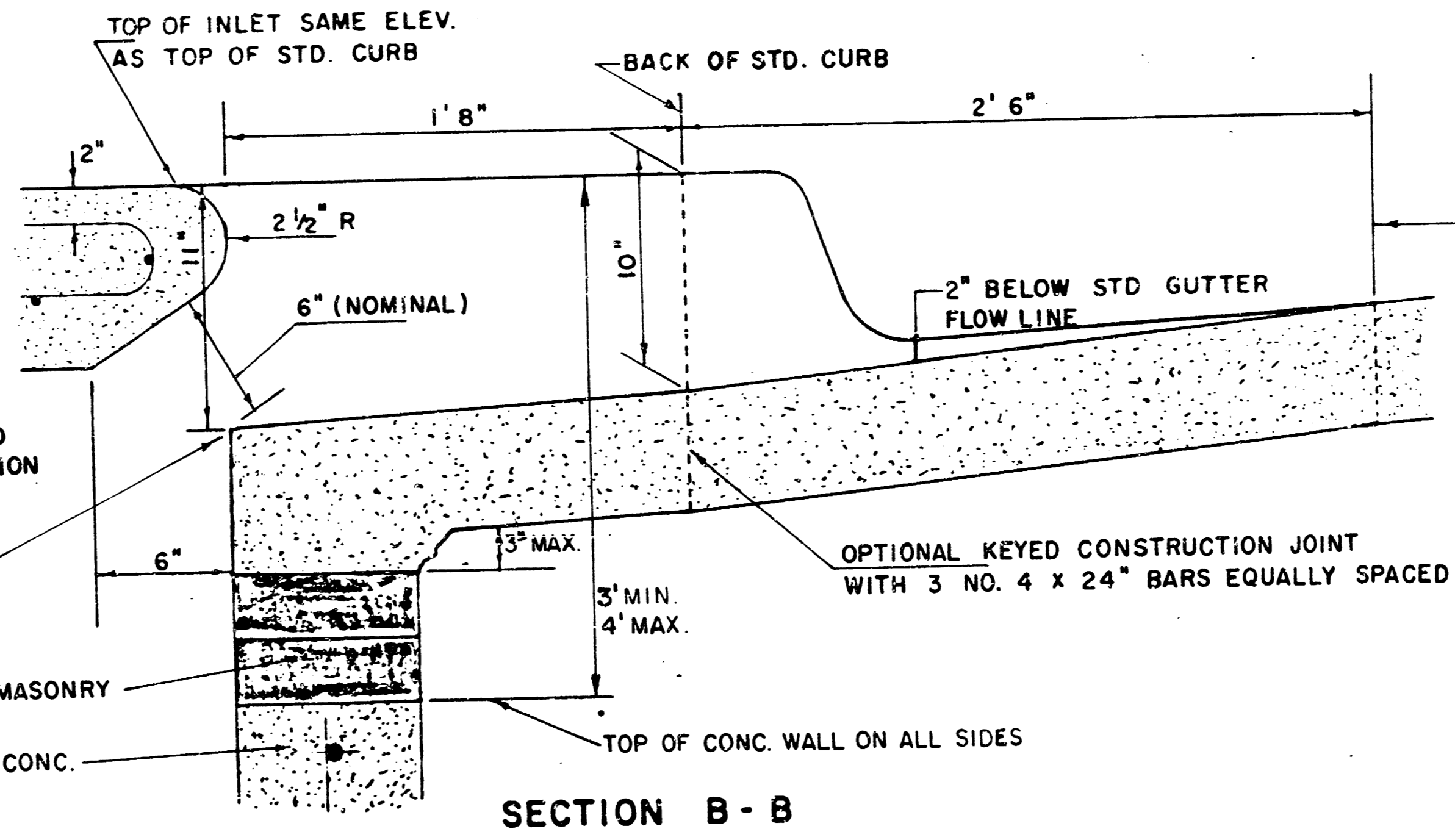
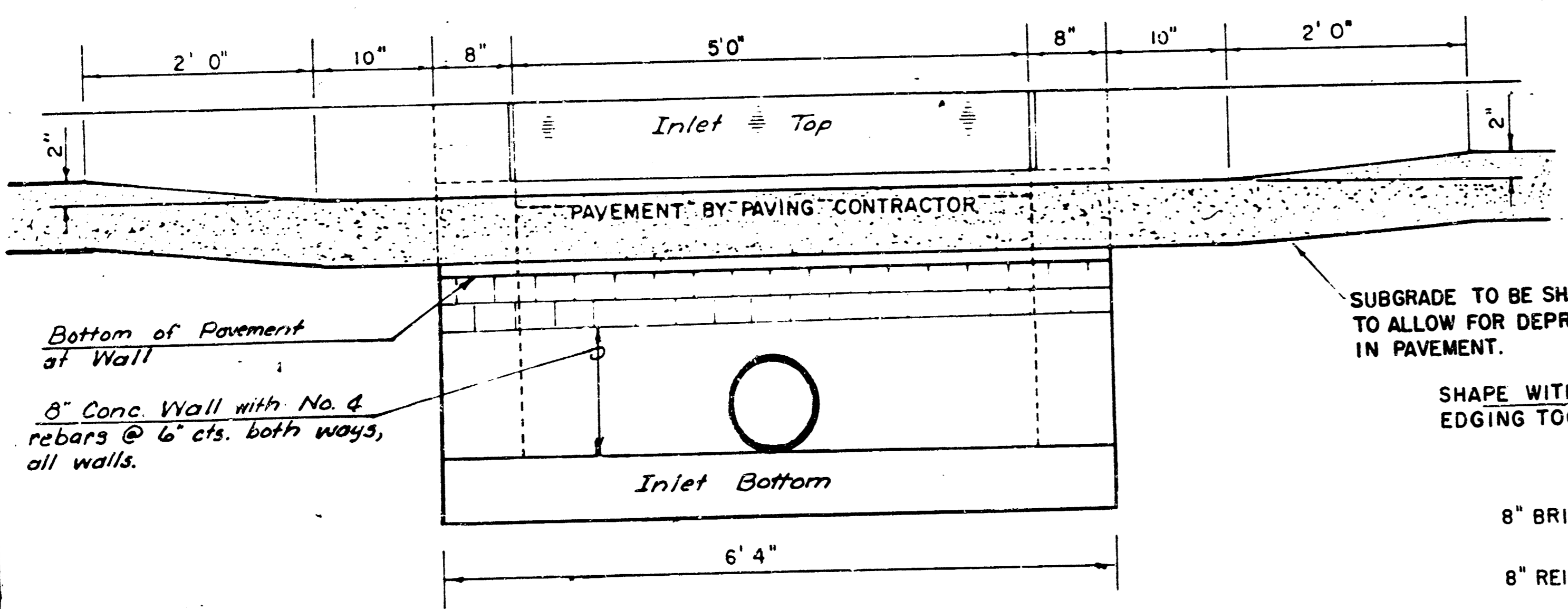
STANDARD CURB INLET PRECAST TOPS			
W	PRE-CAST TOP SIZE	PIPE SIZE	CJ. YD. CONC.
4' 4"	3'8" x 6'4" x 7 1/2"	21" B SMALLER	0.38 ±
5' 4"	4'8" x 6'4" x 7 1/2"	24" B 30"	0.51 ±
6' 4"	5'8" x 6'4" x 7 1/2"	36" B 42"	0.64 ±
7' 4"	6'8" x 6'4" x 7 1/2"	48" B 54"	0.77 ±
8' 4"	7'8" x 6'4" x 7 1/2"	60" B 66"	0.90 ±

NOTE: CONTRACTOR SHALL HAVE THE OPTION OF CONSTRUCTING 8" BRICK MASONRY WALLS BETWEEN THE CONCRETE INLET BASE AND TOP ON THIS INLET WHEN W = 6'4" AND H = 7'0" OR LESS.

ADDITIONAL CURB AND GUTTER CONSTRUCTION NECESSARY TO CONNECT SET-BACK INLET TO PAVEMENT WILL BE PAID FOR AT THE UNIT PRICE BID FOR EACH INLET HOODUP.

INLET INVERT SHALL BE SHAPED WITH 8 SACK SAND MIX CONCRETE TO CREATE FLOW CHANNELS AND TO INCREASE HYDRAULIC EFFICIENCY SUCH THAT THE INLET WILL BE SELF-CLEANING BETWEEN ALL INLET AND/OR OUTLET PIPES.

THE ENDS OF ALL PIPES INSTALLED IN INLETS SHALL BE CUT OFF FLUSH WITH THE INSIDE FACE OF THE INLET WALL.



LIMITS OF GUTTER SHAPING AND/OR EDGE OF COMB. CURB AND GUTTER

REVISED 12-21-1984 Proj. No. 468 76 245 81640 000 000 001

DETAIL STANDARD TYPE IA CURB INLET
CITY OF WICHITA, KANSAS
INLET OPENING = 6" x 5'0"
JUNE 1984 Sheet No. 14 of 5

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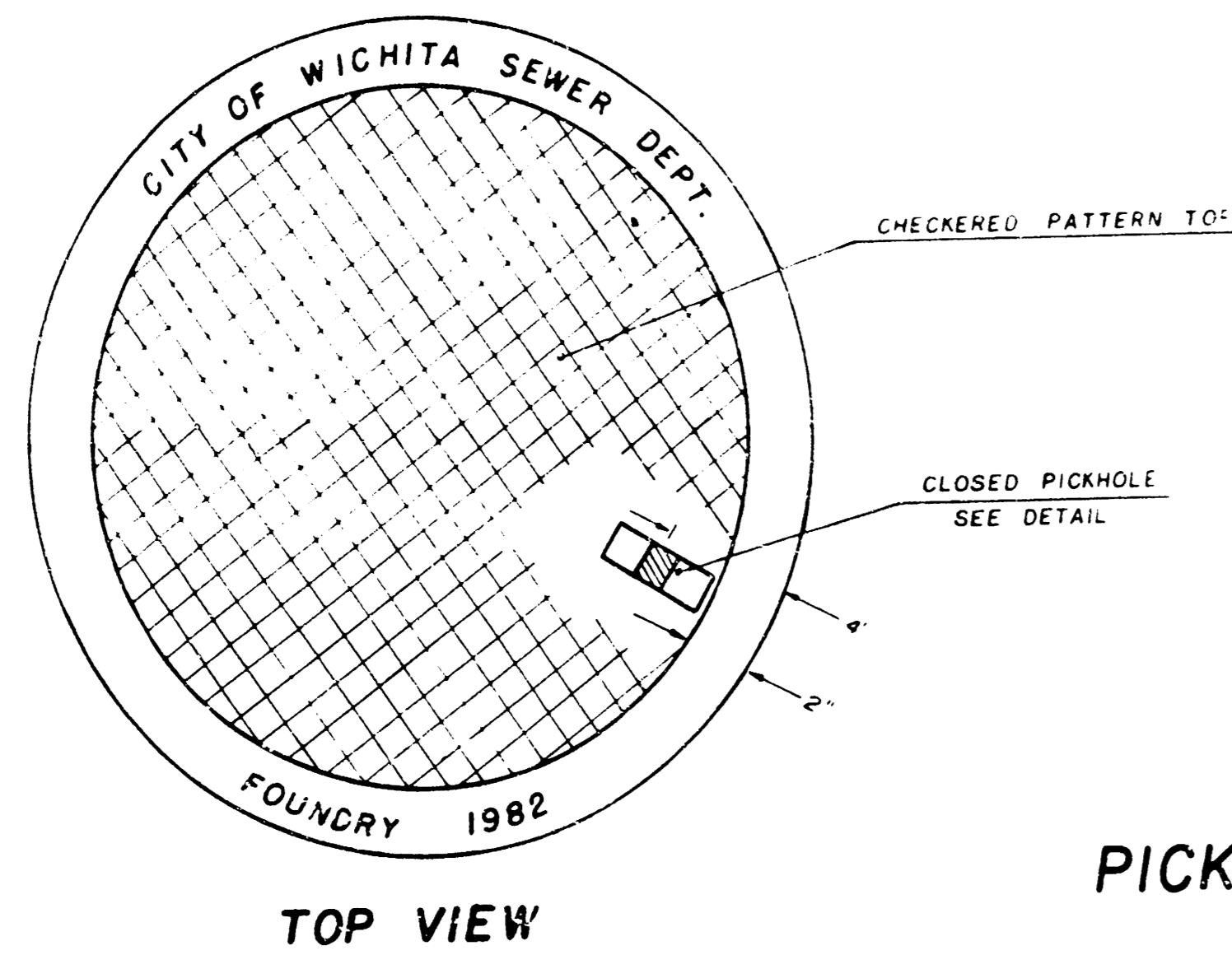
MANHOLE FRAME AND COVER DETAIL

ADOPTED AS STANDARD DESIGN

BY

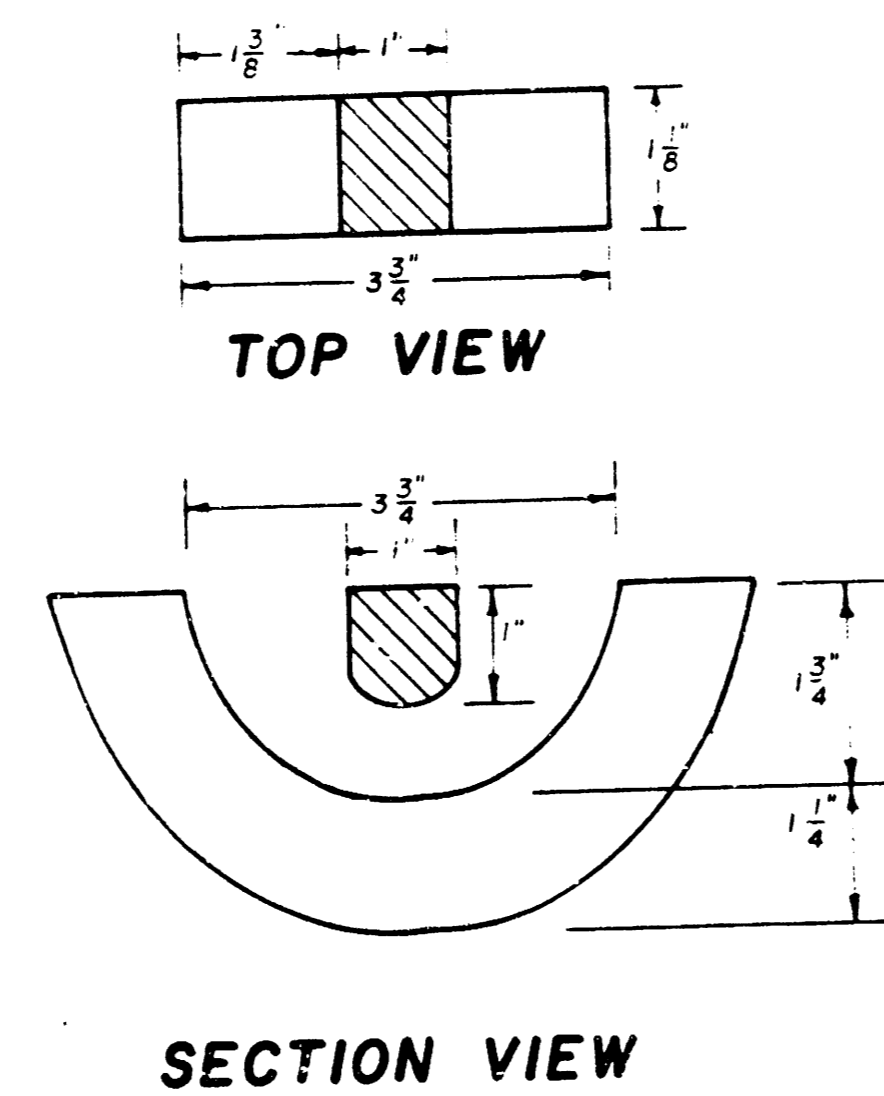
City of Wichita, Kansas

MANHOLE COVER
Weight: 180 Lbs.



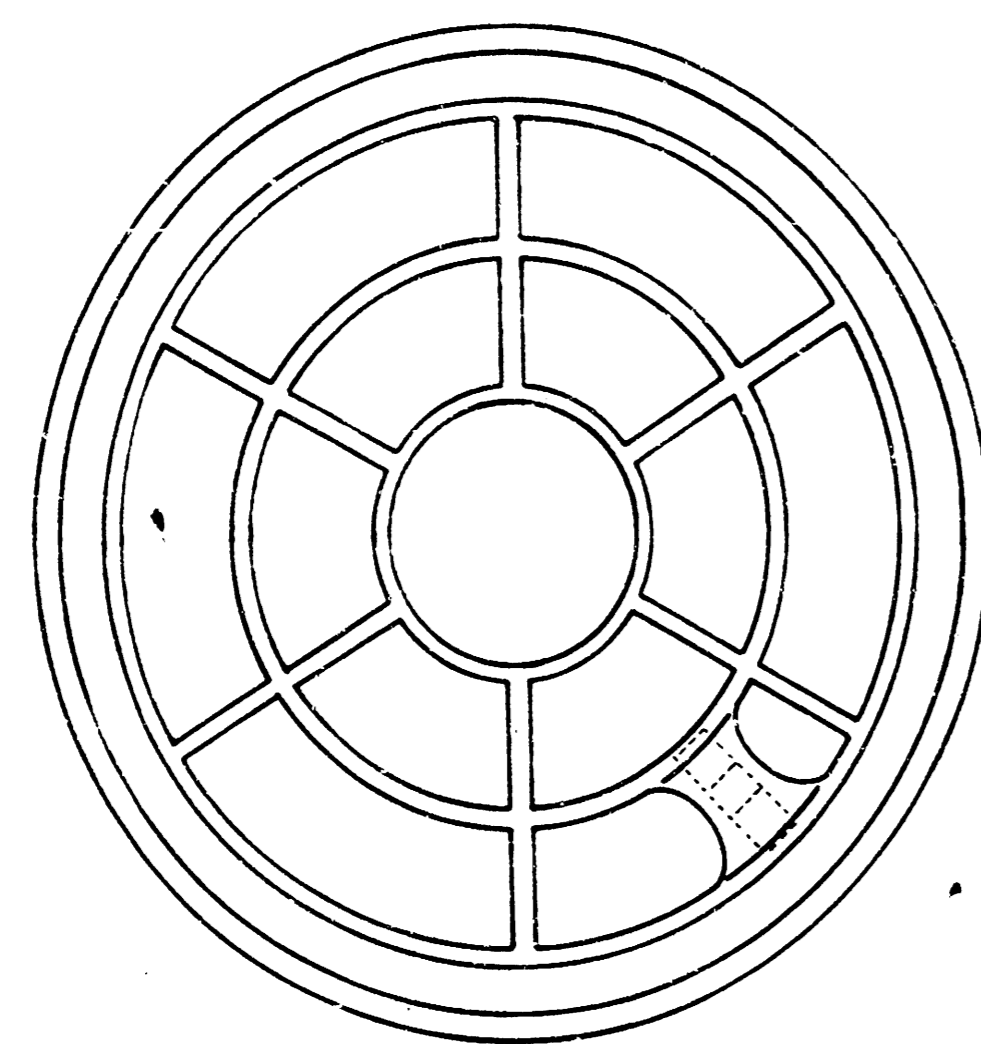
TOP VIEW

PICKHOLE DETAIL

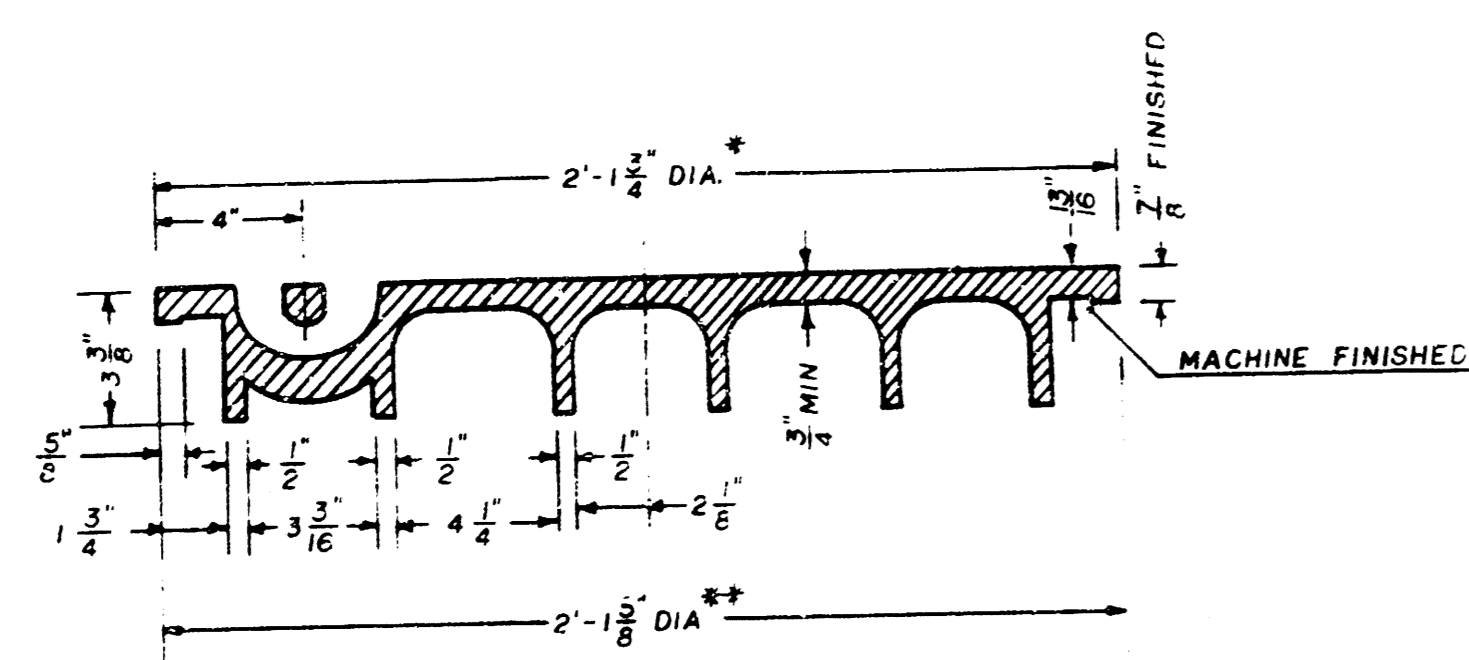


TOP VIEW

SECTION VIEW



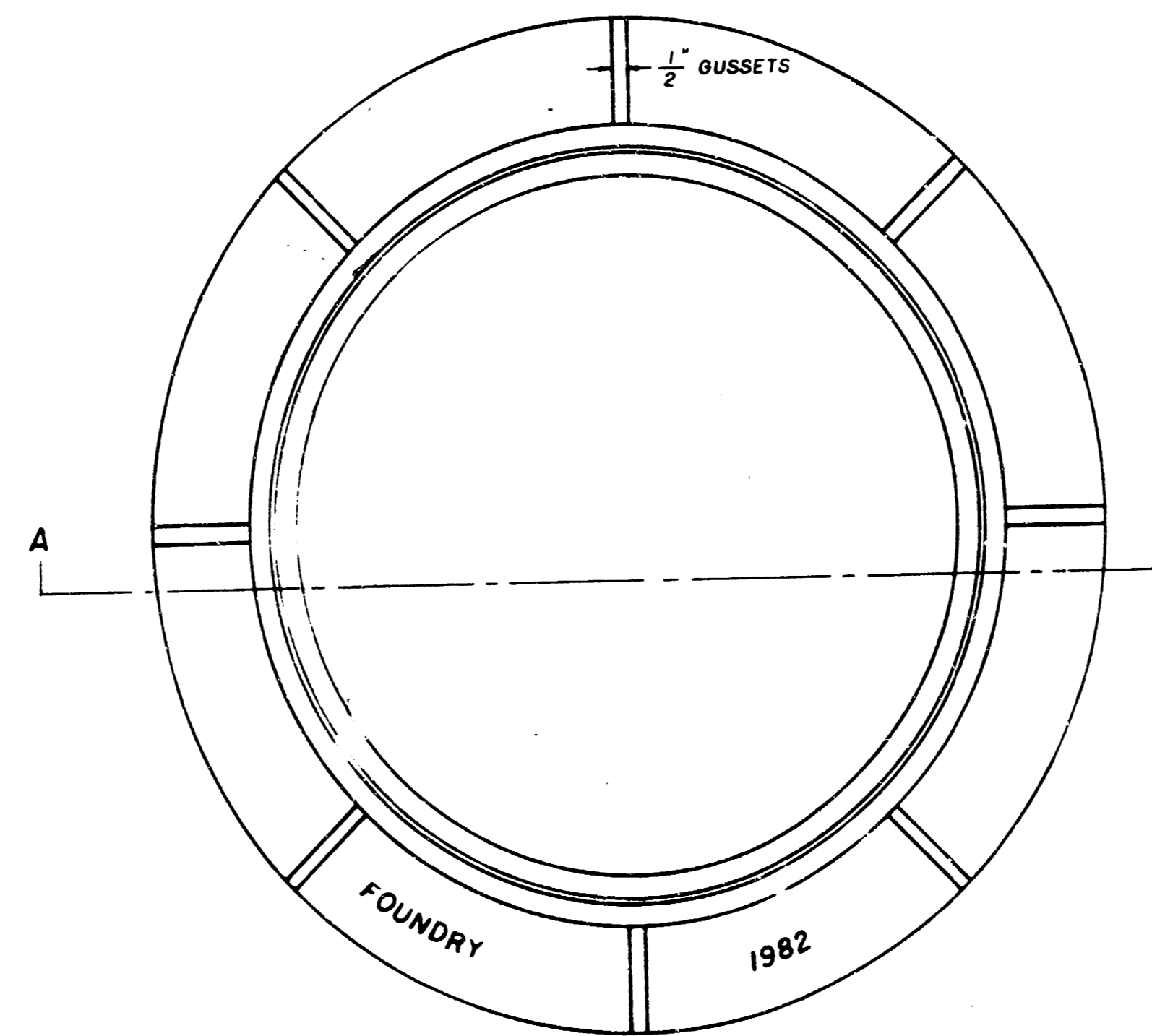
BOTTOM VIEW



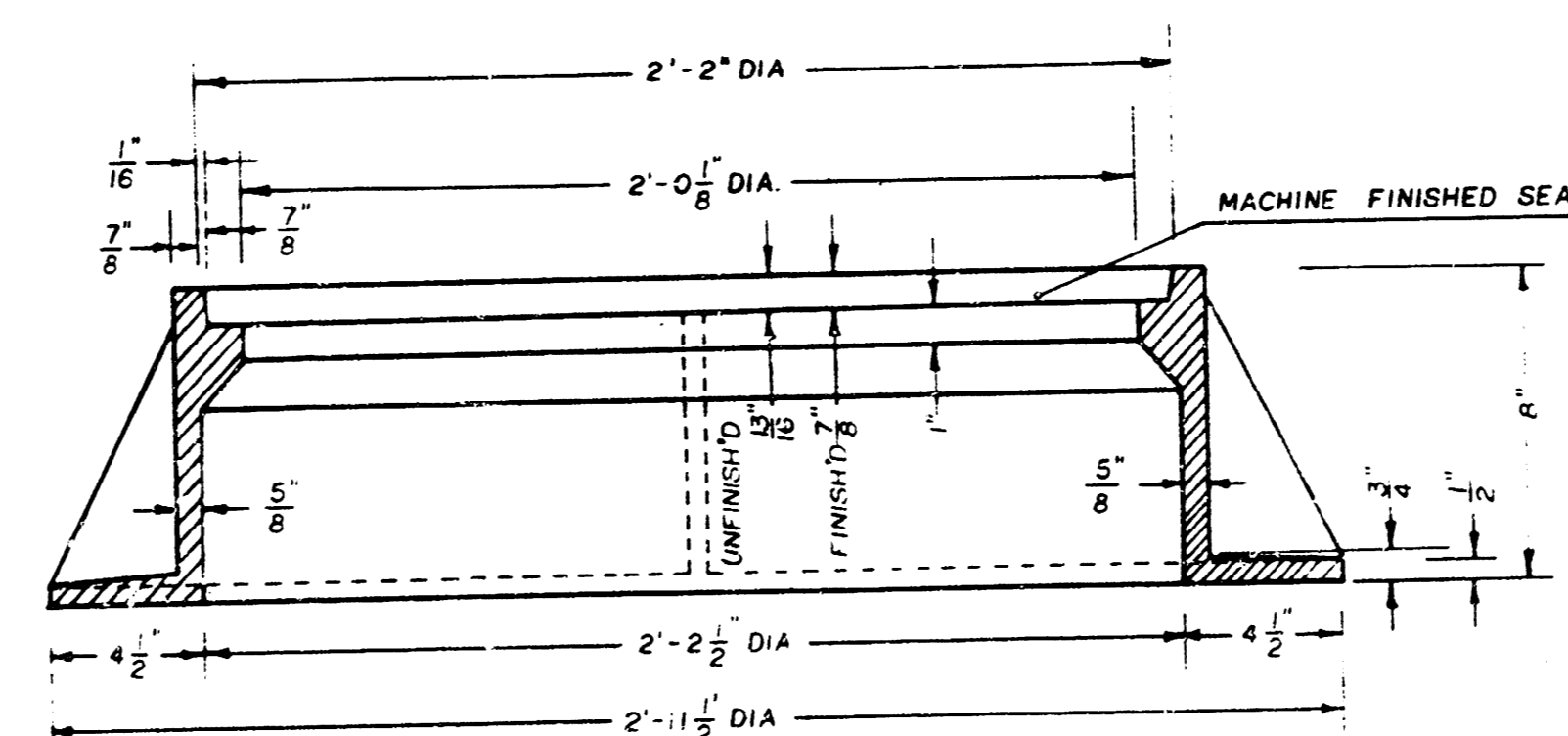
SECTION VIEW

* OUTSIDE DIA TOP OF COVER
** OUTSIDE DIA BOTTOM OF COVER

MANHOLE FRAME
Weight: 240 Lbs.



TOP VIEW



SECTION A-A

GENERAL NOTES

1. MANHOLE CASTINGS SHALL BE MANUFACTURED USING GOOD QUALITY GRAY IRON CONFORMING TO CLASS 30 OF A.S.T.M. DESIGNATION A-48. DIMENSIONS AND WEIGHTS SHOWN ON THE DETAILED DRAWINGS SHALL BE CONSIDERED AS MINIMUM REQUIREMENTS AND ANY DEVIATIONS FROM THE DIMENSIONS SHOWN MUST BE SPECIFICALLY APPROVED. THE FINISHED CASTINGS SHALL BE OF UNIFORM QUALITY, FREE FROM BLOWHOLES, POROSITY, HARD SPOTS, SHRINKAGE DISTORTIONS OR OTHER DEFECTS.
2. MANHOLE CASTINGS SHALL BE COATED WITH AN ASPHALT PAINT RESULTING IN A SMOOTH, TOUGH AND TENACIOUS COATING WHICH IS NOT BRITTLE OR TACKY.
3. MANHOLE CASTINGS SHALL BE MANUFACTURED SUCH THAT A COVER MANUFACTURED BY ANY ONE FOUNDRY WILL FIT INTERCHANGEABLY INTO A FRAME MANUFACTURED BY ANOTHER FOUNDRY AND STILL MEET ALLOWABLE CLEARANCES AND NON-ROCKING REQUIREMENTS. THIS WILL REQUIRE MANUFACTURING OF THE MATCHING FACES ON THE COVER AND THE FRAME TO CLOSE TOLERANCES.
4. THE OUTSIDE CIRCUMFERENCE OF THE VERTICAL FACE OF THE COVER AND THE INSIDE CIRCUMFERENCE OF THE VERTICAL FACE IN THE FRAME RECESS SHALL BE MANUFACTURED TO TOLERANCES SUCH THAT THE CLEARANCE BETWEEN THE COVER AND FRAME WILL NOT EXCEED 1/8" AT ANY POINT AROUND THE CIRCUMFERENCE OF THE COVER. THE SEATING SURFACES BETWEEN THE COVER AND FRAME SHALL BE MACHINED SUCH THAT THESE SURFACES SHALL MAKE FULL CONTACT FOR THEIR FULL CIRCUMFERENCE TO PRECLUDE THE COVER FROM ROCKING IN THE FRAME.
5. THE MANHOLE FRAME AND COVER SHALL BE MARKED WITH LETTERING INDICATING THE NAME OF THE MANUFACTURER AND THE YEAR WHEN THE COVER OR FRAME WAS CAST. THE COVER SHALL BE FURTHER IDENTIFIED WITH REGARDS TO OWNERSHIP USING LETTERS AT LEAST 1" IN HEIGHT. THIS IDENTIFICATION SHALL BE "CITY OF WICHITA SEWER DEPARTMENT". THE WORD DEPARTMENT MAY BE ABBREVIATED. THE TEXTURE OF THE TOP SURFACE OF THE COVER SHALL BE MANUFACTURED IN A CHECKERED PATTERN DESIGN AS INDICATED ON THE DRAWINGS. SMOOTH BLOCKOUTS SHALL BE UTILIZED TO HIGHLIGHT THE LETTERING ON THE COVER SURFACE. THE TOTAL AREA OF SMOOTH SURFACE BLOCKOUT SHALL NOT EXCEED THE AREA AS INDICATED ON THE DRAWING. POSITIONING OF SMOOTH BLOCKOUTS AND LETTERING MAY VARY FROM THAT SHOWN ON THE DETAILED DRAWING.