

GENERAL NOTES

1. LOCAL BUSINESS TRAFFIC GENERATED WITHIN THE PROJECT AREA IS TO BE CARRIED THROUGH CONSTRUCTION.

2. UTILITY SERVICE LINES, POLES, VALVE COCKS, METERS, ETCETERA ARE TO BE ADJUSTED AS NECESSARY BY OTHERS PRIOR TO CONSTRUCTION UNLESS THE PLANS SPECIFICALLY CALL FOR THEIR ADJUSTMENT BY THE CONTRACTOR OR UNLESS THE PLANS SPECIFICALLY IDENTIFY A UTILITY TO BE ADJUSTED BY ITS OWNER DURING CONSTRUCTION. EXISTING UTILITIES AND THEIR LOCATION, AS SHOWN ON THE PLANS, REPRESENT THE BEST INFORMATION OBTAINABLE FOR DESIGN. THE PLAN LOCATIONS ARE NOT GUARANTEED AND ADDITIONAL UTILITIES MAY ALSO BE ENCOUNTERED. THE CONTRACTOR WILL BE REQUIRED TO WORK AROUND EXISTING UTILITIES WITHIN THE RIGHT-OF-WAY WHICH DO NOT CONFLICT WITH PROPOSED CONSTRUCTION.

3. RUBBLE FROM THE REMOVAL OF MISCELLANEOUS STRUCTURES AND EXCESS EXCAVATION WHICH IS TO BE WASTED SHALL BE DISPOSED OF ON SITES TO BE PROVIDED BY THE CONTRACTOR. THESE SITES SHALL BE APPROVED BY THE ENGINEER AS TO SUITABILITY, APPEARANCE AND SITE LOCATION. LOCATIONS, THAT IN THE OPINION OF THE ENGINEER, WILL LEAVE AN UNBRIGHTLY APPEARANCE WILL NOT BE APPROVED.

ALL DISPOSAL SITES MUST BE APPROVED BY THE KANSAS DEPARTMENT OF HEALTH AND ENVIRONMENT. MATERIAL EITHER STOCKPILED OR DISPOSED OF IN A FLOODPLAIN WOULD REQUIRE A KANSAS STATE BOARD OF AGRICULTURE PERMIT. ANY MATERIAL DUMPED IN WATERS OF THE UNITED STATES OR WETLANDS IS SUBJECT TO U.S. CORPS OF ENGINEERS PERMITTING REGULATIONS. ANY MATERIAL BURIED OR STOCKPILED BEYOND APPROVED CONSTRUCTION LIMITS WOULD REQUIRE ADDITIONAL ARCHAEOLOGICAL INVESTIGATIONS UNLESS BURIED IN A PREVIOUSLY APPROVED BORROW LOCATION.

4. CONTRACTOR WILL BE REQUIRED TO PROVIDE A MINIMUM ADVANCE NOTICE OF FORTY-EIGHT(48) HOURS TO UTILITY COMPANIES PRIOR TO STARTING ANY EXCAVATION AS FOLLOWS:

KANSAS ONE CALL 1-800-344-7233 OR 687-2470(LOCAL WICHITA)

THE CONTRACTOR MUST NOTIFY THE FOLLOWING IN CASE OF AN EMERGENCY:

SOUTHWESTERN BELL TELEPHONE 1-471-2115
 MULTIMEDIA CABLEVISION 282-0661
 K.P.M.L. GAS SERVICE COMPANY 282-7811
 KANSAS GAS & ELECTRIC 284-1141
 ARKLA GAS COMPANY 842-2460 OR 282-4161
 CITY OF WICHITA WATER & SEWER 288-4908
 CITY OF WICHITA SEWER 288-4071

THE CONTRACTOR SHALL NOTIFY PIPELINE COMPANIES AT LEAST 24 HOURS IN ADVANCE OF ANY WORK BEING PERFORMED ACROSS AND/OR ADJACENT TO PIPELINES.

THE CONTRACTOR SHALL NOT PERFORM ANY WORK WITHIN THE KANSAS GAS AND ELECTRIC EASEMENT WITHOUT A K&E REPRESENTATIVE PRESENT.

5. PROPERTIES WITHIN THE PROJECT LIMITS MAY HAVE UNDERGROUND SPRINKLER SYSTEMS IN PUBLIC RIGHT-OF-WAY WHICH CONFLICT WITH NEW CONSTRUCTION. CONTRACTOR WILL BE REQUIRED TO REMOVE SUCH IMPROVEMENTS SHOULD THEY NOT BE REMOVED BY THEIR OWNER AT THE TIME OF CONSTRUCTION OF THE PROJECT. THE CONTRACTOR WILL BE REQUIRED TO SALVAGE ALL SPRINKLER HEADS AND/OR VALVES AND GIVE SUCH MATERIAL TO THEIR OWNER. PORTIONS OF UNDERGROUND SPRINKLER SYSTEMS NOT IN CONFLICT WITH NEW CONSTRUCTION SHALL BE PROTECTED FROM DAMAGE AND SHALL REMAIN IN PLACE. ALL WORK IN CONSTRUCTION WITH UNDERGROUND SPRINKLER SYSTEMS SHALL BE CONSIDERED SUBSIDIARY TO THE STORM SEWER CONSTRUCTION.

6. THE CONTRACTOR SHALL BE RESPONSIBLE FOR PRESERVING PROPERTY IRONS. THE CONTRACTOR WILL BE REQUIRED TO RE-ESTABLISH ANY PROPERTY IRONS WHICH ARE DAMAGED OR DESTROYED BY HIS CONSTRUCTION OPERATIONS. SUCH IRONS SHALL BE RE-ESTABLISHED BY A LICENSED LAND SURVEYOR IN ACCORDANCE WITH STATE LAWS.

7. THE CONTRACTOR SHALL GIVE ALL PROPERTY OWNERS AND/OR TENANTS OF DEVELOPED PROPERTY DIRECTLY ADJUTING THE CONSTRUCTION OF THIS PROJECT A MINIMUM OF TEN(10) DAYS ADVANCE NOTICE PRIOR TO START OF CONSTRUCTION.

8. THE CONTRACTOR MUST EXAMINE THE CONSTRUCTION SITE PRIOR TO BIDDING AND BE SATISFIED AS TO THE WORK SHOWN FOR COMPLETION. AFTER BIDS HAVE BEEN RECEIVED, THE CONTRACTOR SHALL NOT ASSERT THAT THERE WAS A MISUNDERSTANDING OF THE QUANTITIES OF WORK OR OF THE NATURE OF THE WORK TO BE COMPLETED.

9. CONTRACTOR SHALL NOT START WORK ON THE PROJECT UNTIL THE PROJECT INSPECTOR IS ASSIGNED TO THE PROJECT IS PRESENT ON THE SITE. ANY WORK DONE WITHOUT INSPECTION WILL BE REQUIRED TO BE UNCOVERED FOR INSPECTION.

10. CONTRACTOR SHALL PROVIDE TRAFFIC CONTROL IN ACCORDANCE WITH THE CURRENT EDITION OF THE MANUAL OF UNIFORM TRAFFIC CONTROL DEVICES (MUTCD) TO ENSURE A SAFE WORK ZONE FOR THE TRAVELING PUBLIC.

11. EXISTING CONCRETE CURBS, PAVEMENT AND SIDEWALK REMOVAL WILL NOT BE PAID FOR DIRECTLY BUT WILL BE CONSIDERED SUBSIDIARY TO THE STORM SEWER CONSTRUCTION. LIMITS OF SUCH PAVEMENT REMOVAL AND REPLACEMENT SHALL BE SAWCUT ONE FOOT BEYOND THE LIMITS OF EXCAVATION MADE FOR THE SEWER OR THE STRUCTURE, EXCEPT WHEN SUCH LIMITS OF REMOVAL ARE WITHIN THREE(3) FEET OF AN EXISTING JOINT THE LIMITS OF THE REMOVAL SHALL BE EXTENDED TO THE EXISTING JOINT.

12. THE CONTRACTOR SHALL FERTILIZE, SEED AND MULCH ALL AREAS WHICH ARE DISTURBED AS A RESULT OF THIS PROJECT IN ACCORDANCE WITH THE CITY OF WICHITA STANDARD SPECIFICATIONS. ALL COSTS TO BE SUBSIDIARY TO THE COST FOR THE STORM SEWER CONSTRUCTION.

13. THE CONTRACTOR WILL BE REQUIRED TO HAVE THE INPLACE STORM SEWER TELEVISED AND THE TELEVISED LOG WILL BE SUBMITTED TO THE CITY ENGINEER'S OFFICE. THE COST FOR TELEVISING THE STORM SEWER SHALL BE SUBSIDIARY TO OTHER ITEMS OF WORK.

14. ALL CONSTRUCTION AND MATERIALS, UNLESS OTHERWISE NOTED, TO COMPLY WITH CITY OF WICHITA SPECIFICATIONS AND STANDARDS.

STORM SEWER INSTALLATION

FOR

NORTHEAST FAMILY PHYSICIANS

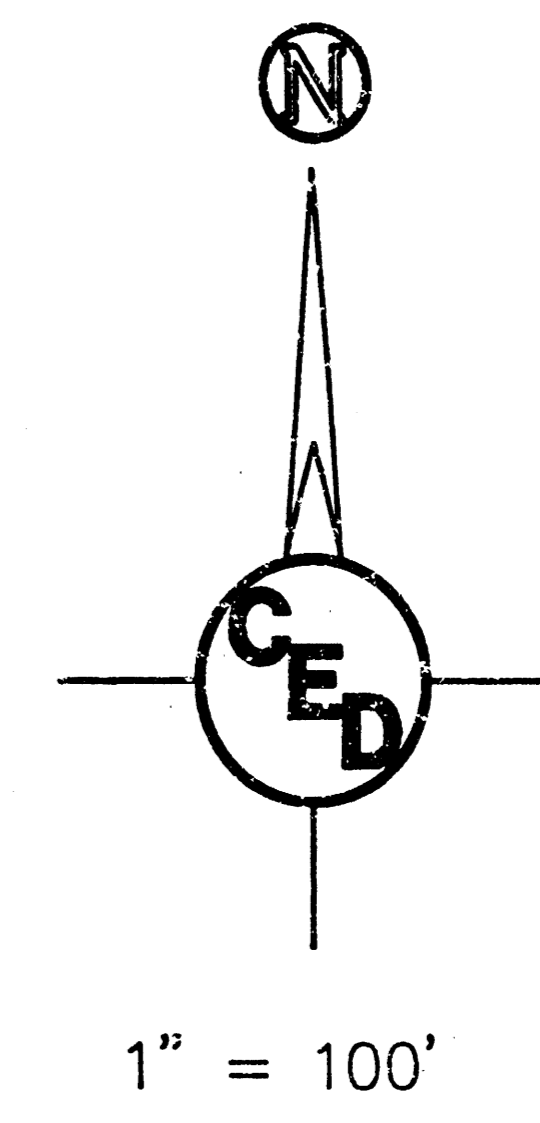
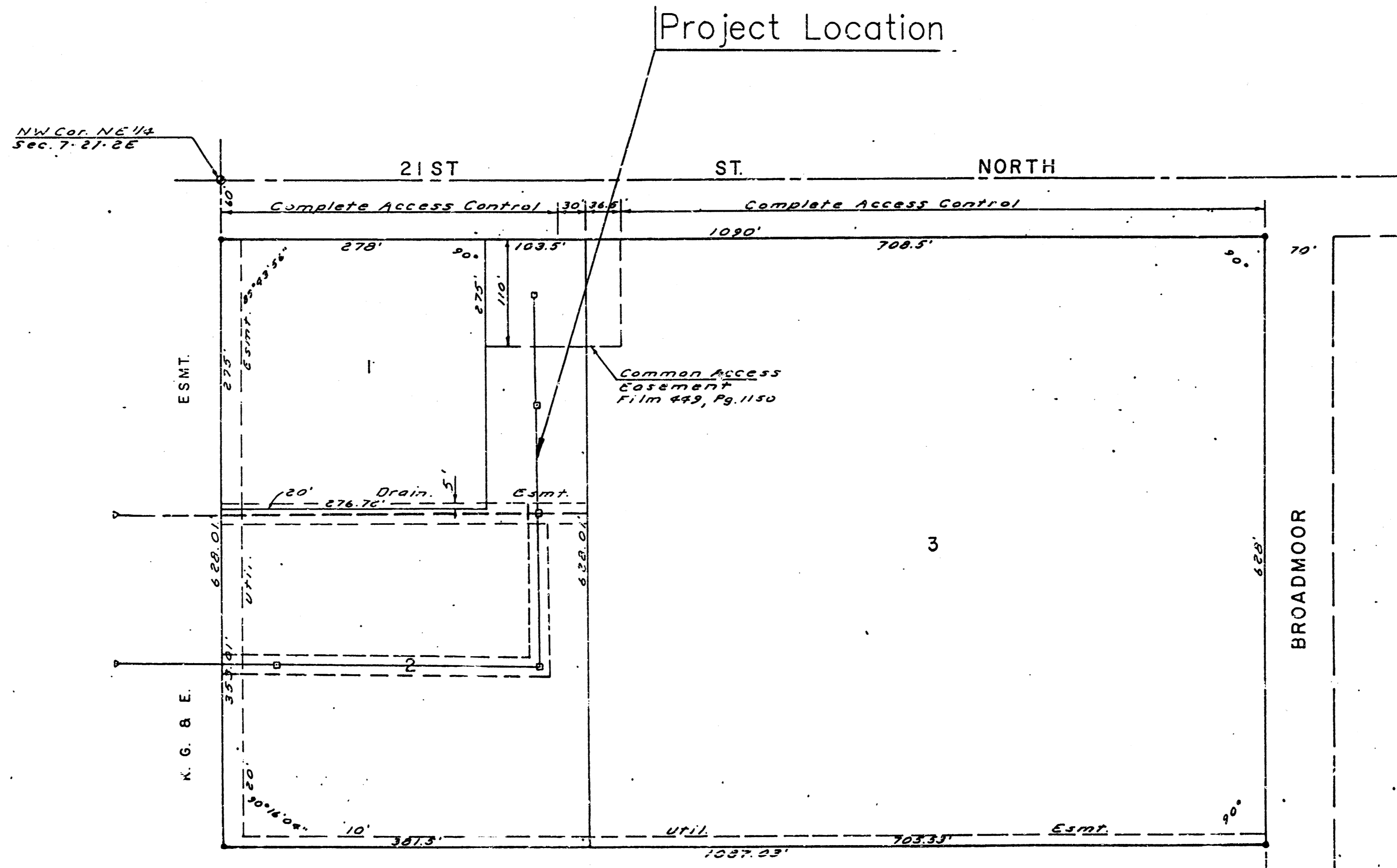
IN

LOT 1 & 2, CHELSEA NORTH ADDITION WICHITA, SEDGWICK COUNTY, KANSAS

CITY OF WICHITA PRIVATE PROJECT NO. 529PPS(607861)

MIKE LINDEBAK, P.E., CITY ENGINEER

JANUARY, 1995



- LEGEND**
- W = WATER LINE
 - SS = SANITARY SEWER
 - ⊙ = SANITARY SEWER MANHOLE
 - G = GAS LINE
 - GM = GAS METER
 - TSS = TELEPHONE SPLICE BOX
 - UT = UNDERGROUND TELEPHONE
 - UE = UNDERGROUND ELECTRIC
 - LP = LIGHT POLE
 - ⊕ = STORM WATER SEWER INLET
 - BM = BENCHMARK
 - ⊠ = ELEC. TRANSFORMER
 - + 2100 = PROPOSED SPOT ELEVATION
 - + 2095 = PROPOSED SPOT ELEVATION

*BOOKED
3-9-95
MCG
D-383*

APPROVED AS NOTED
By CITY ENGINEER OF WICHITA

Sanitary Sewers _____
 Storm Sewers VRH 2/1/95
 Driveway Approaches _____
 Water Mains _____
 Paving _____

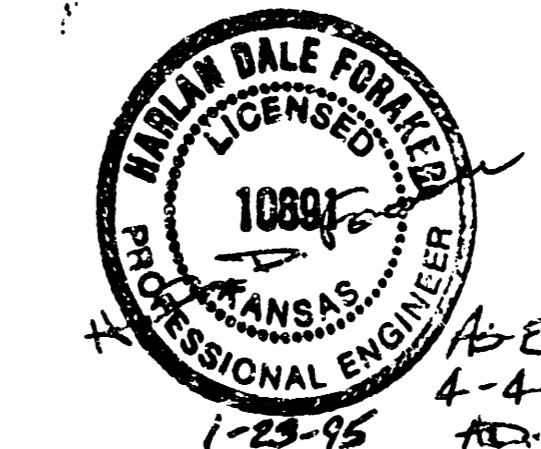
NOTE TO CONTRACTOR

INSPECTION AND TESTING FOR THIS PROJECT IS TO BE PROVIDED BY A LICENSED CONSULTING ENGINEERING FIRM UNDER CONTRACT WITH THE OWNER/DEVELOPER. SAID INSPECTION TO BE IN ACCORDANCE WITH THE CITY OF WICHITA STANDARD CONSTRUCTION ENGINEERING PRACTICES AND CERTIFIED BY A LICENSED PROFESSIONAL ENGINEER. NO WORK SHALL BE PERFORMED IN DEDICATED EASEMENTS OR THE PUBLIC RIGHT-OF-WAY BY THE CONTRACTOR WITHOUT SUCH INSPECTION NOR SHALL ANY WORK BE COMMENCED IN DEDICATED EASEMENTS OR PUBLIC RIGHT-OF-WAY WITHOUT WRITTEN AUTHORIZATION BY THE CITY ENGINEER.

INDEX OF SHEETS

1. Title Sheet
- 2.-3. Storm Sewer Plan-Profile
4. Type 1A Curb Inlet Detail
5. Reinforced Concrete Manhole
6. Drop Inlet Detail
7. Manhole Frame & Grate

CHELSEA NORTH ADDITION

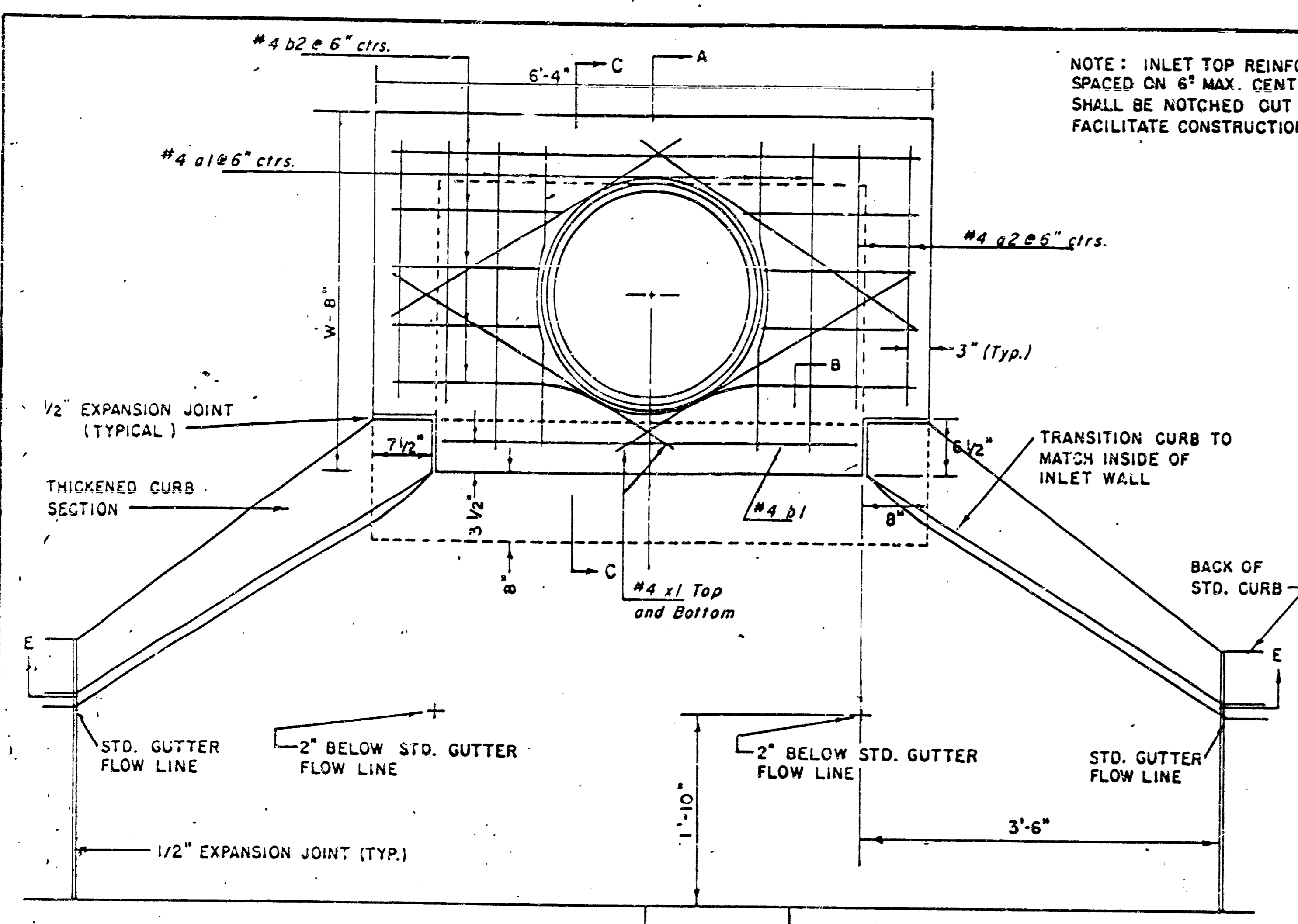


City of Wichita Private Proj. No. 529PPS(607861)

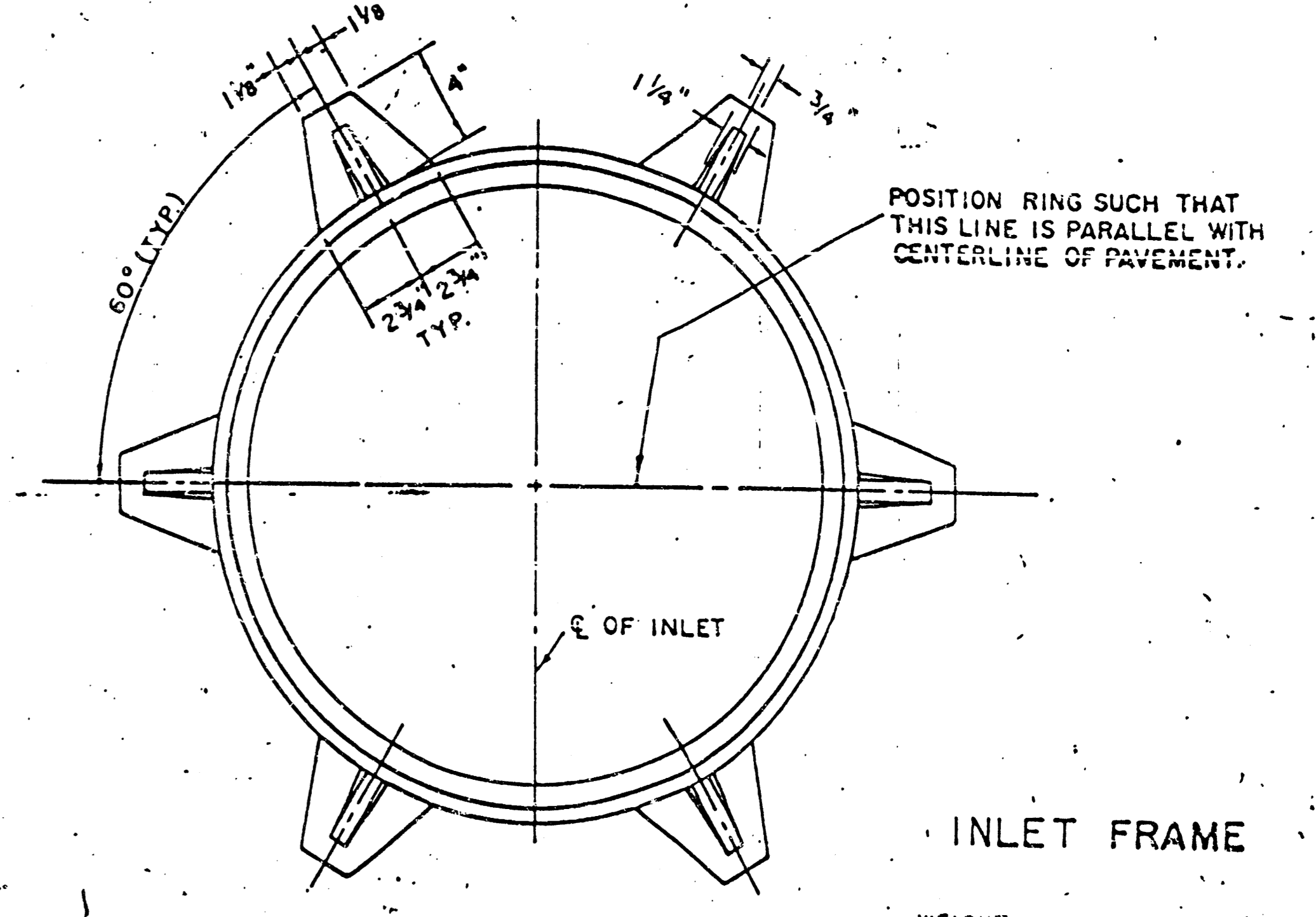
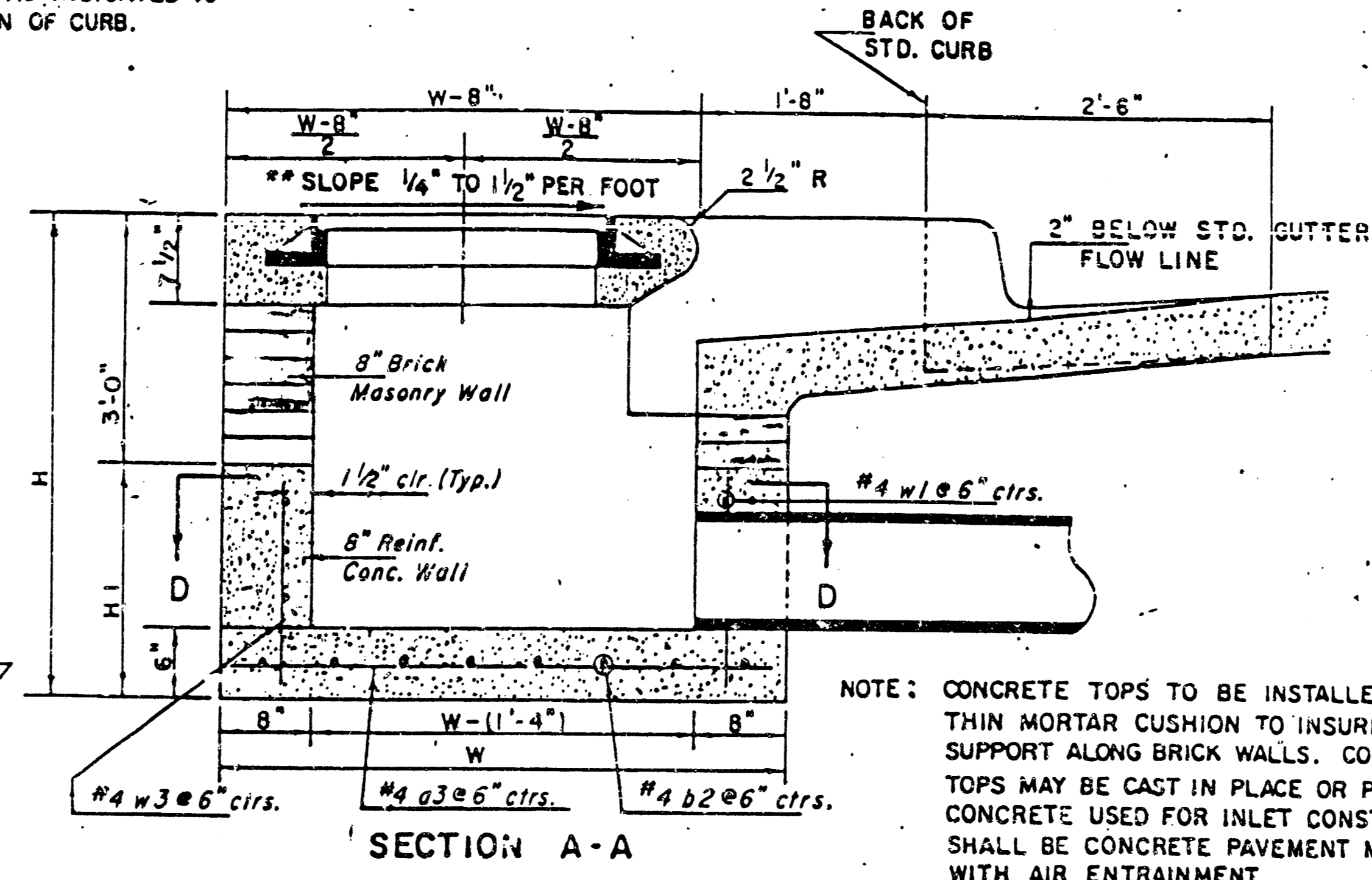
CERTIFIED ENGINEERING DESIGN

CED 1530 E. FIRST, # 113
WICHITA, KANSAS 67214
(316) 262-8808

SHEET 1
TOTAL 7



NOTE: INLET TOP REINFORCING SHALL BE SPACED ON 6" MAX. CENTERS. INLET LIDS SHALL BE NOTCHED OUT AS INDICATED TO FACILITATE CONSTRUCTION OF CURB.



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

PLAN

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 HOOKUP.

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.

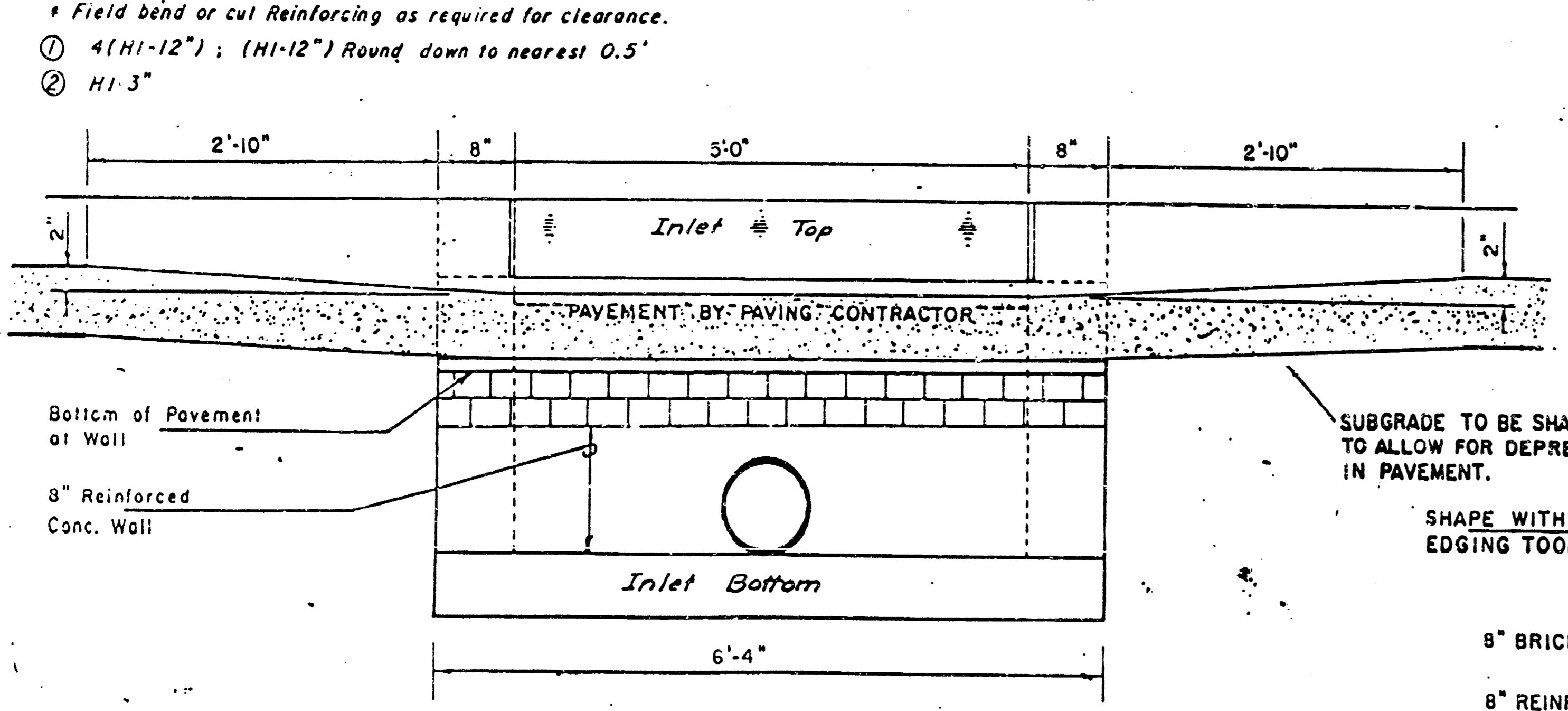
BENDING DIAGRAM

PRECAST SLAB AND FLOOR REINFORCING											
Mark	Size	No.	Length	No.	Length	No.	Length	No.	Length	No.	Length
1a1	#4	6	8'-7"	6	8'-7"	6	10'-7"	6	12'-7"	6	14'-7"
a2	#4	4	8'-0"	4	8'-0"	4	10'-0"	4	12'-0"	4	14'-0"
a3	#4	13	4'-1"	13	5'-1"	13	6'-1"	13	7'-1"	13	8'-1"
b1	#4	1	4'-9"	1	4'-9"	1	4'-9"	1	4'-9"	1	4'-9"
1b2	#4	23	6'-1"	29	6'-1"	35	6'-1"	41	6'-1"	47	6'-1"
x1	#4	8	3'-10"	8	4'-2"	8	4'-6"	8	4'-10"	8	5'-2"

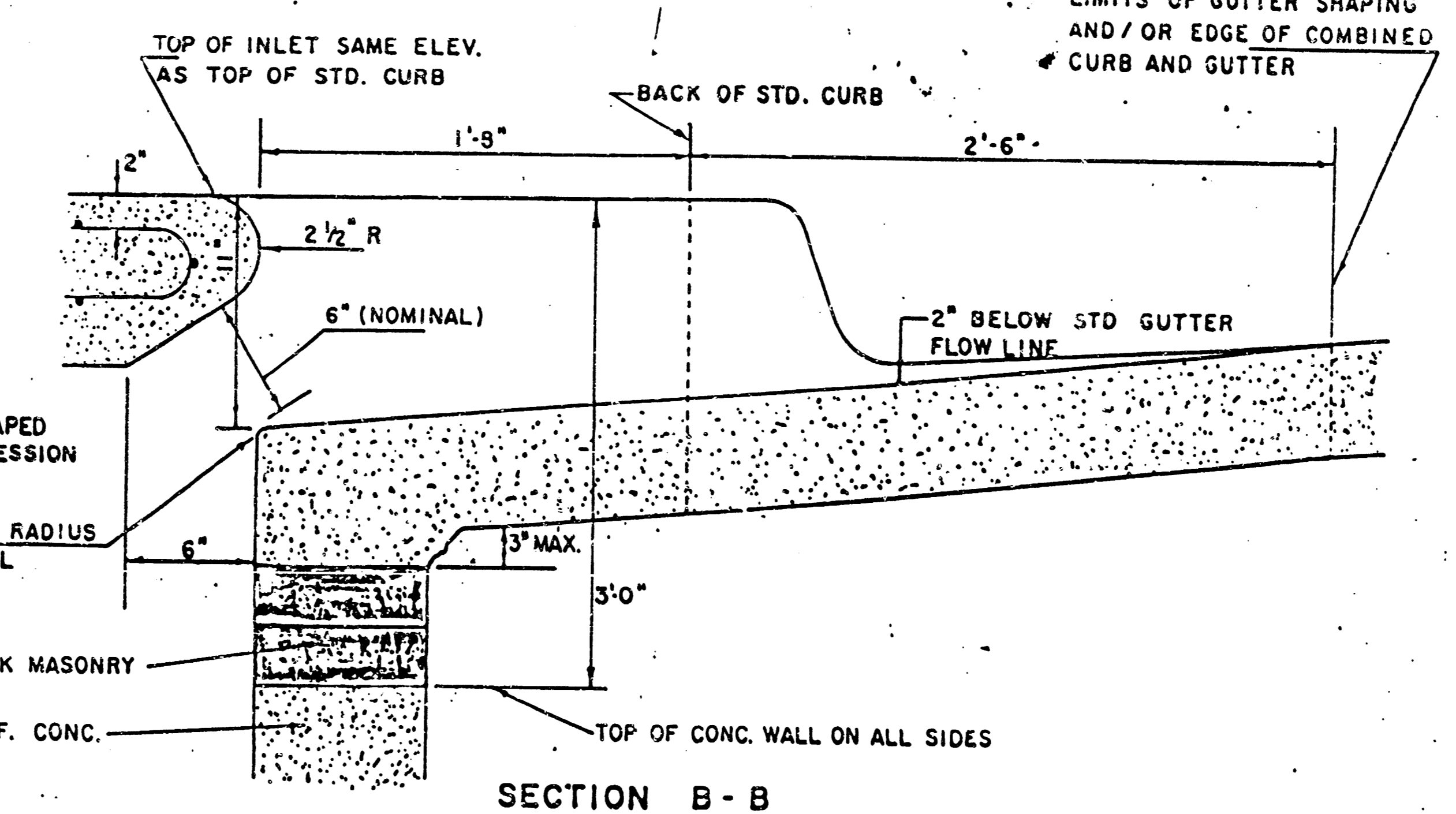
WALL REINFORCING											
Mark	Size	No.	Length	No.	Length	No.	Length	No.	Length	No.	Length
w1	#4	0	6'-1"	0	5'-1"	0	5'-1"	0	6'-1"	0	6'-1"
w2	#4	0	4'-1"	0	5'-1"	0	6'-1"	0	7'-1"	0	8'-1"
w3	#4	32	2	36	2	40	2	44	2	48	2

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

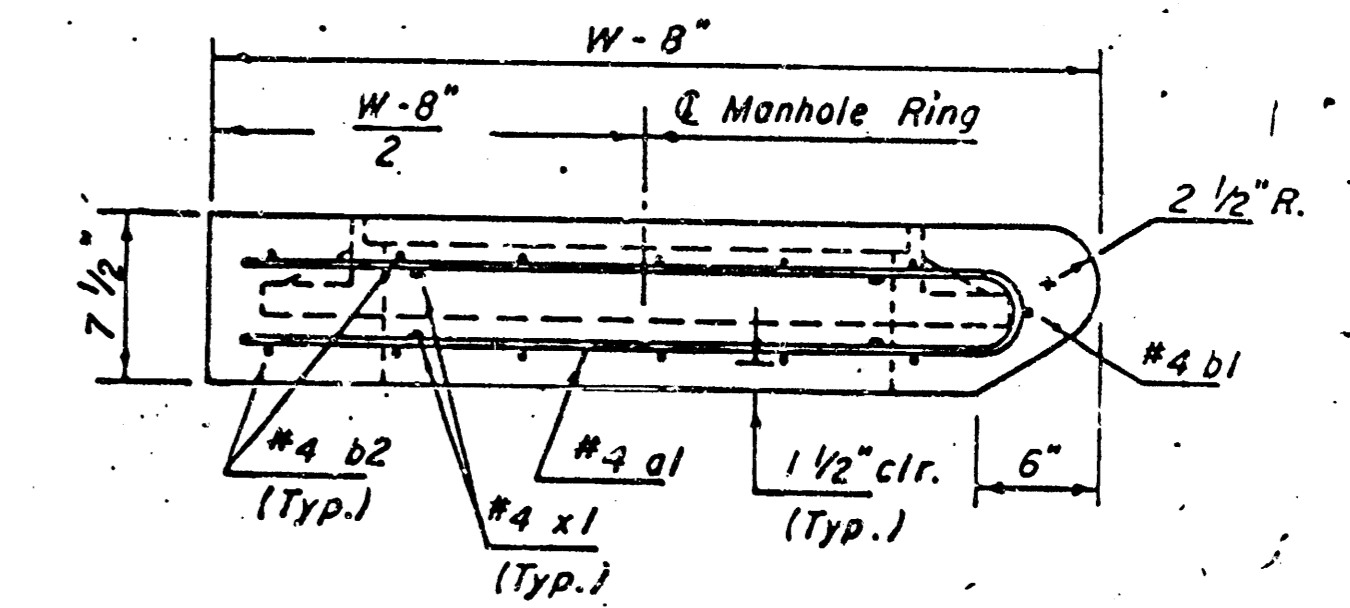
**NOTE: Slope of Inlet Tops to match Sidewalk or Parking Slopes within Limits indicated.



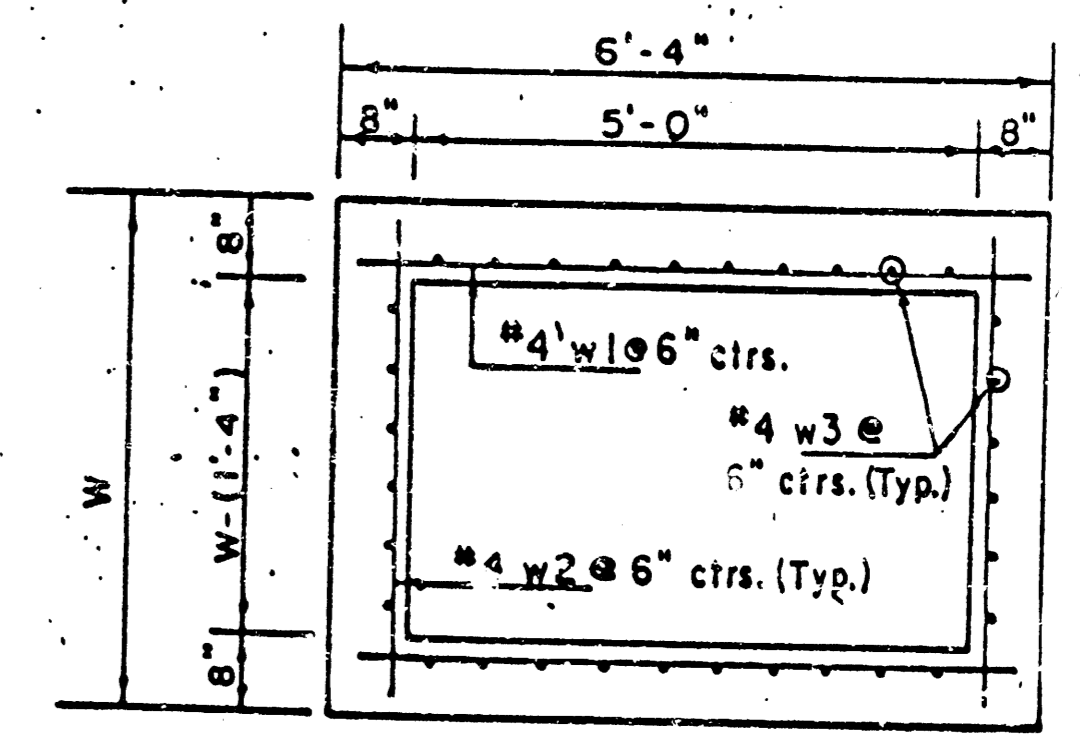
SECTION E-E



SECTION B-B



SECTION C-C

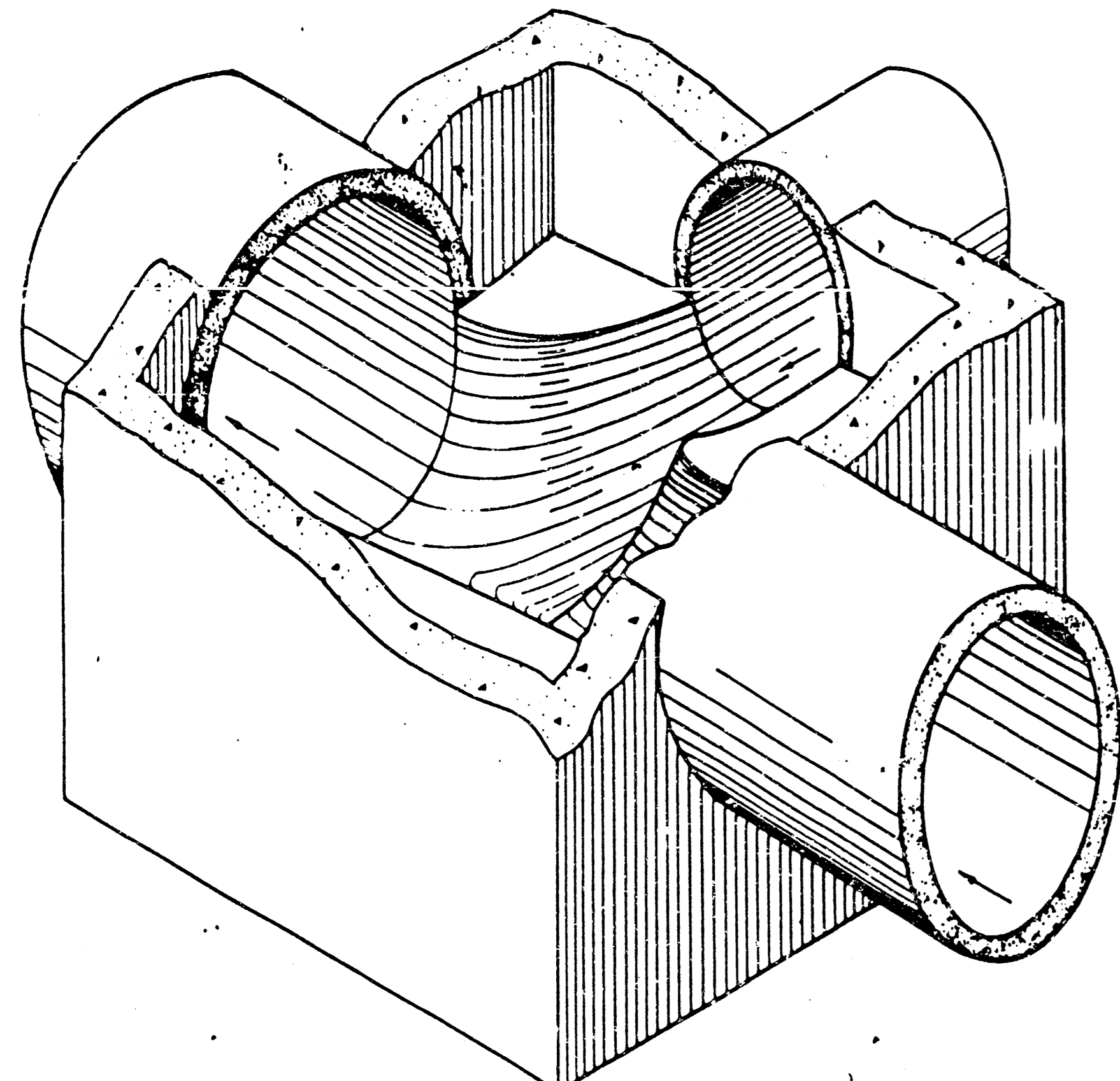


SECTION D-D

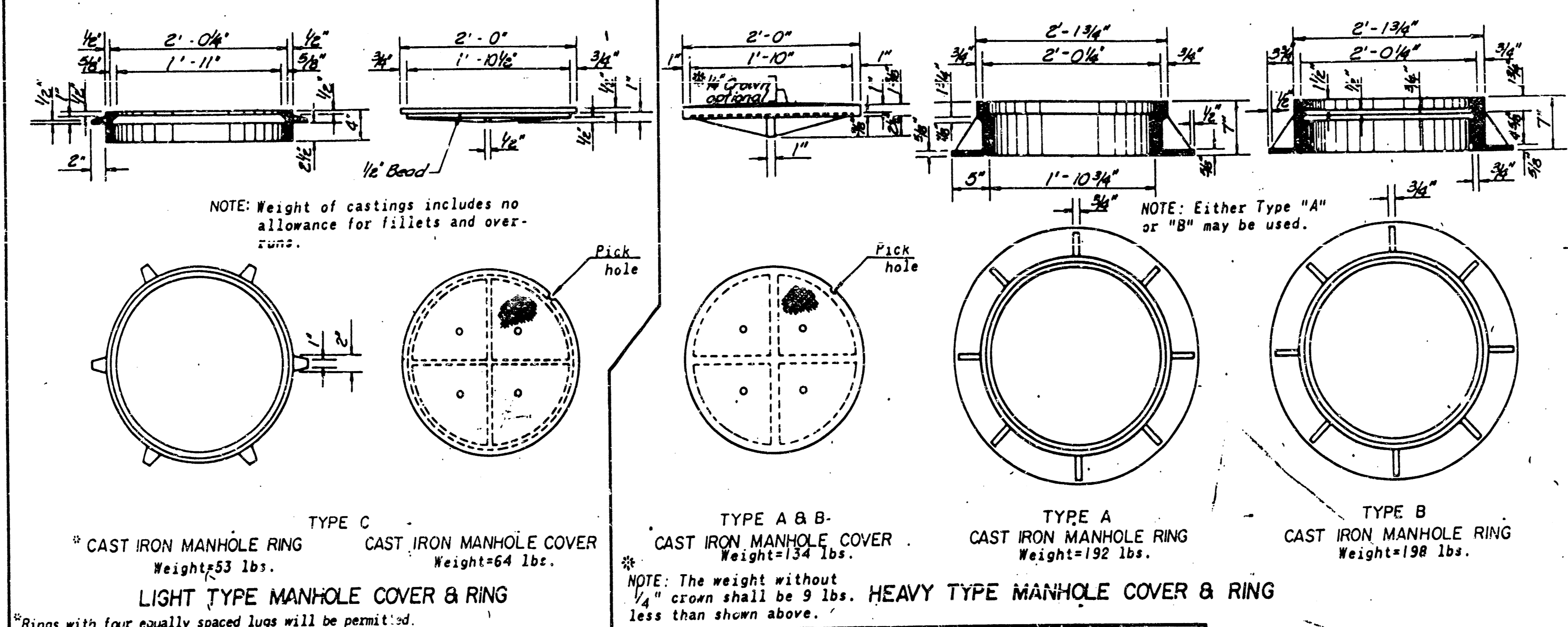
REVISED 12-31-1984 Revised 2-16-1989

DETAIL STANDARD TYPE IA CURB INLET
CITY OF WICHITA, KANSAS
INLET OPENING = 6" x 5' 0"
JUNE 1984

PLANS	STATE	PROJECT NO.	YEAR	SHEET	OF SHEETS
7	KANSAS		19	5	7

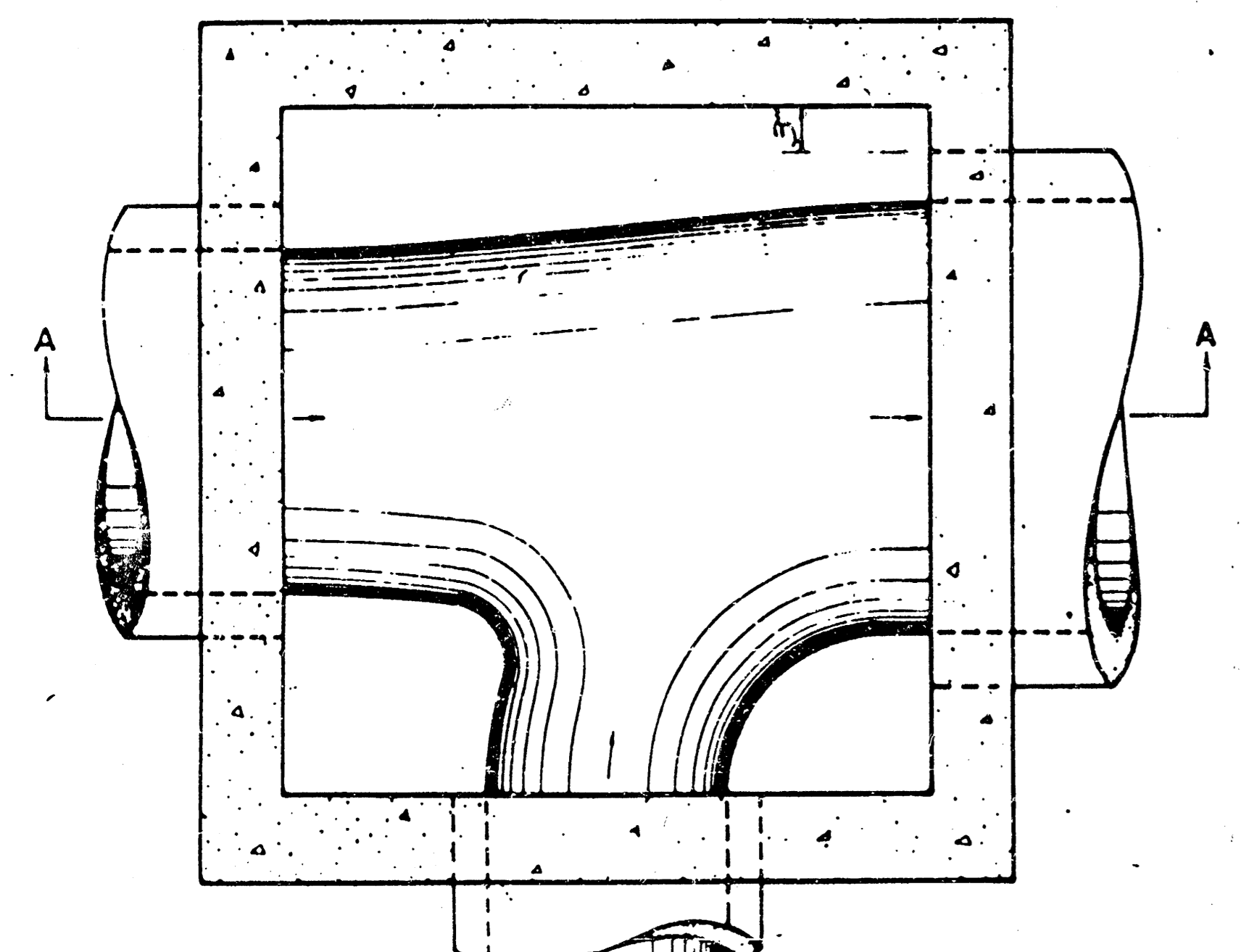


SECTIONAL VIEW (EXAMPLE IV)
Showing Floor Shaping

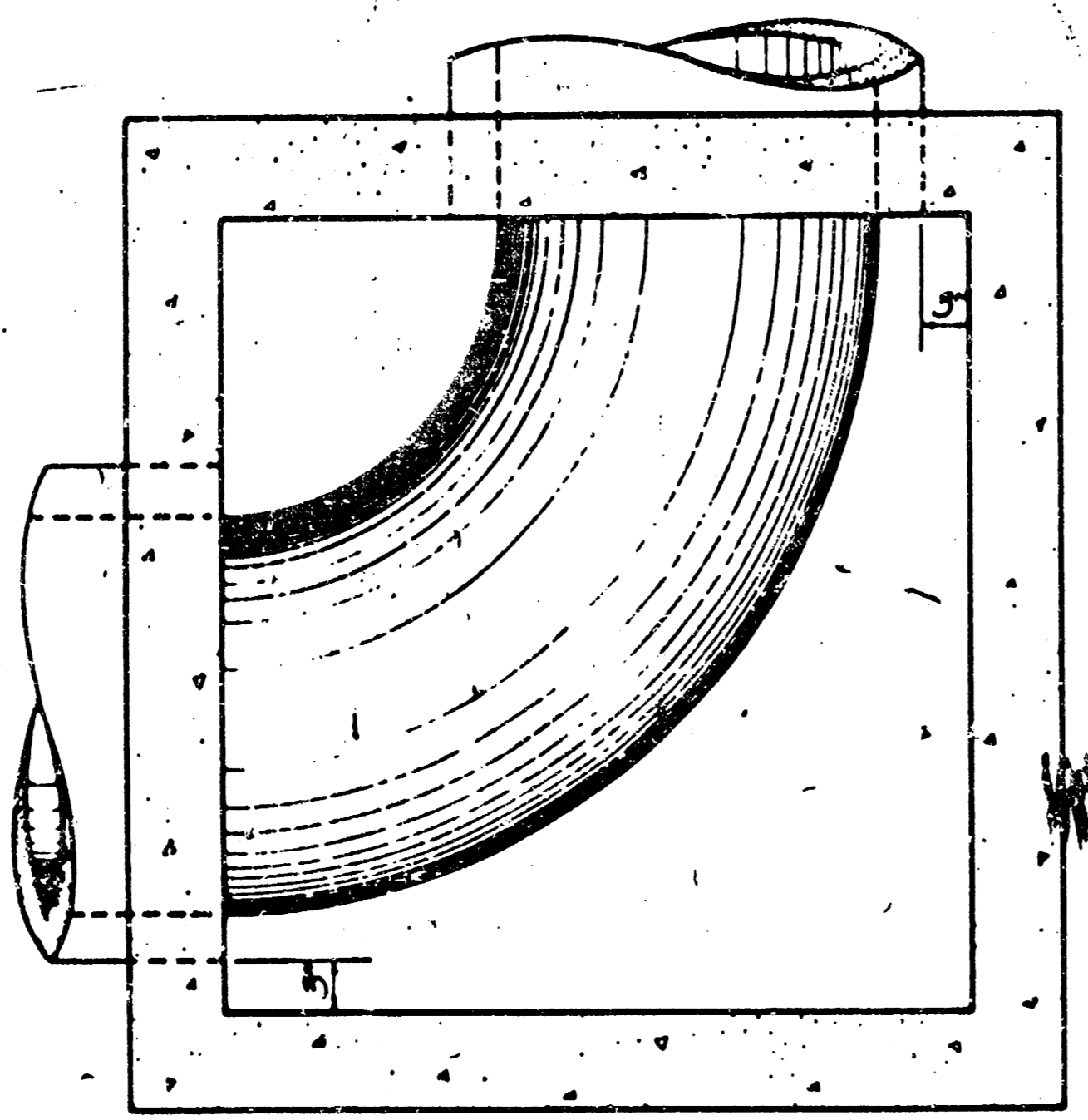


TYPICAL EXAMPLES OF VARIOUS PIPE COMBINATIONS

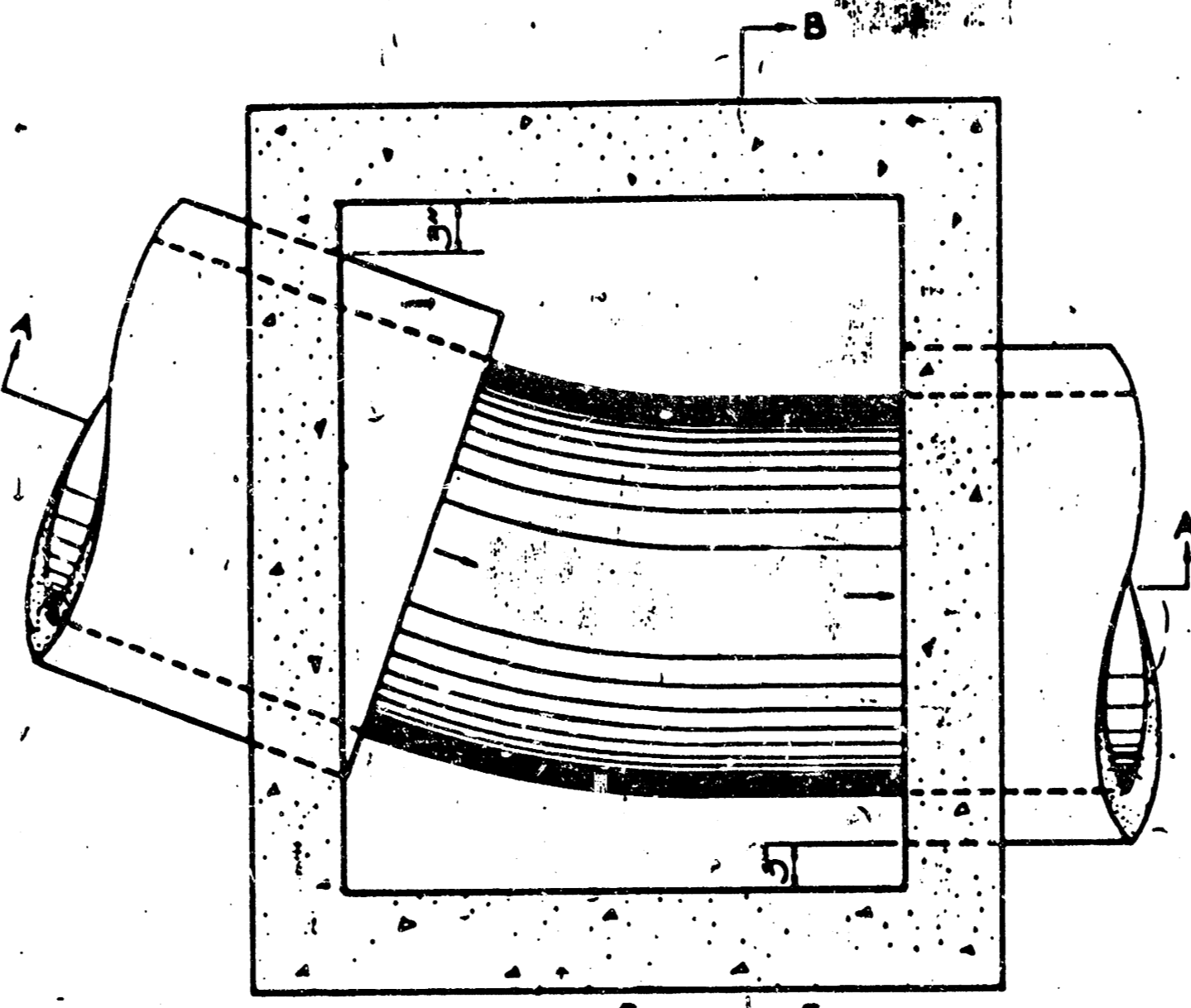
Showing method of shaping floor of manholes to provide increased hydraulic efficiency. For reinforcing & other features see "PLAN" and "SECTION"



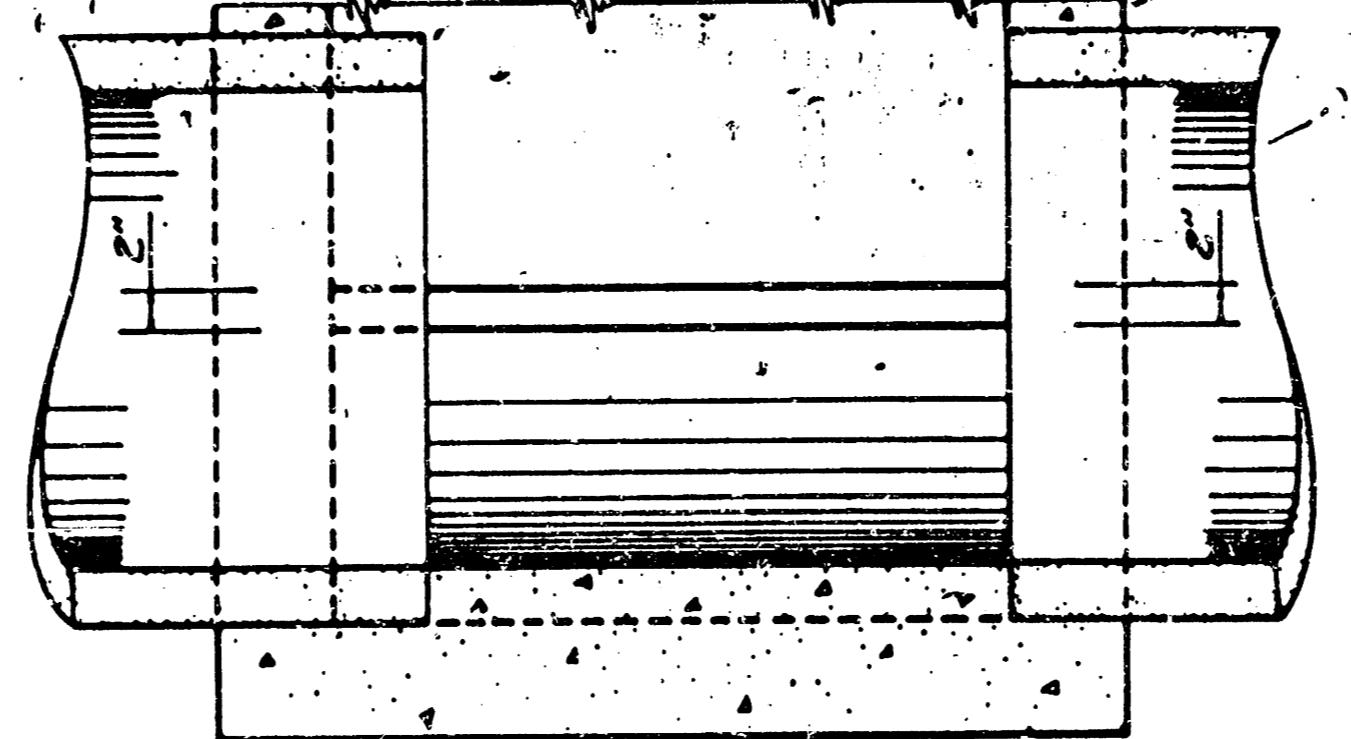
FLOOR PLAN (EXAMPLE IV)



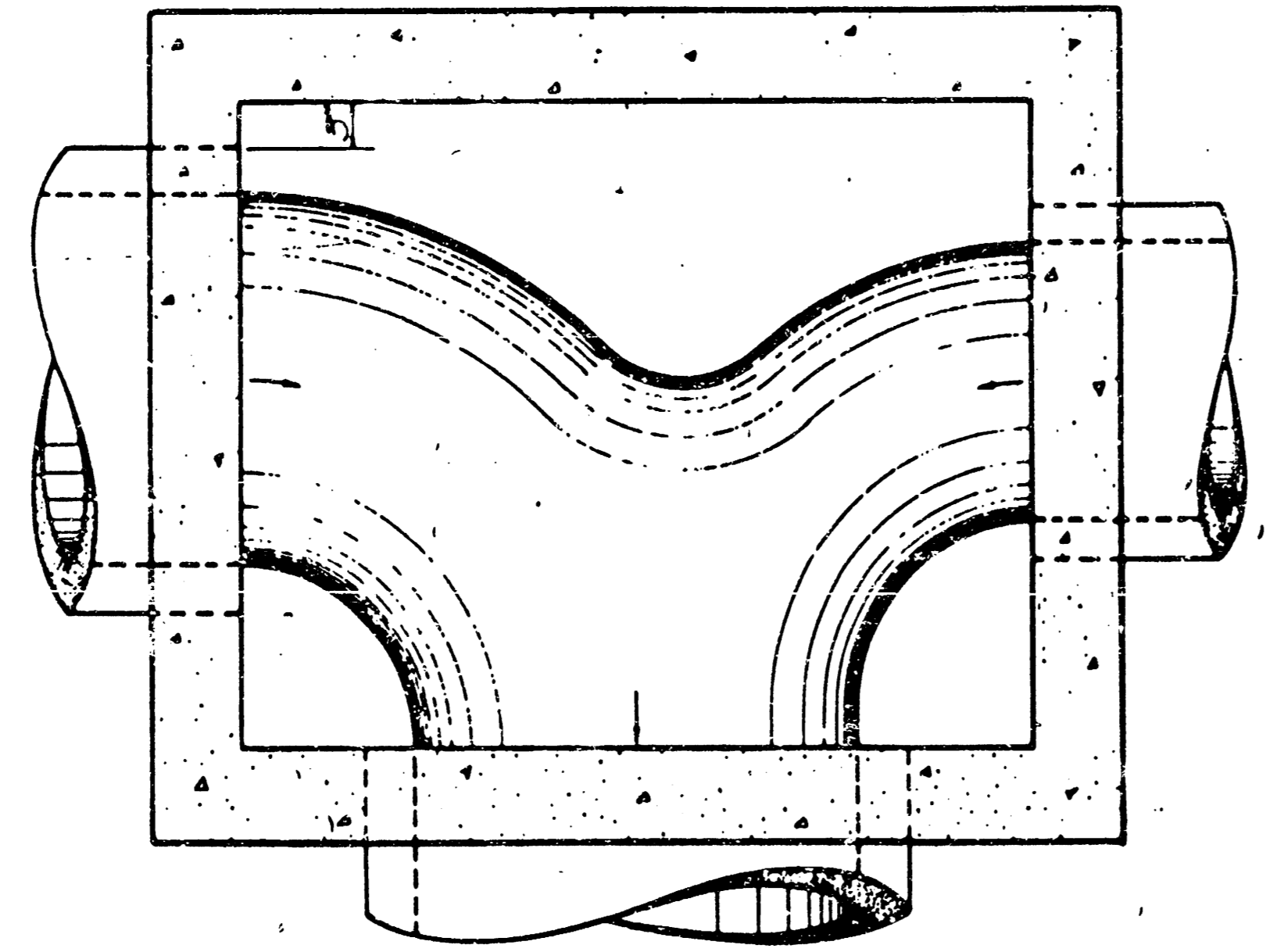
FLOOR PLAN (EXAMPLE II)



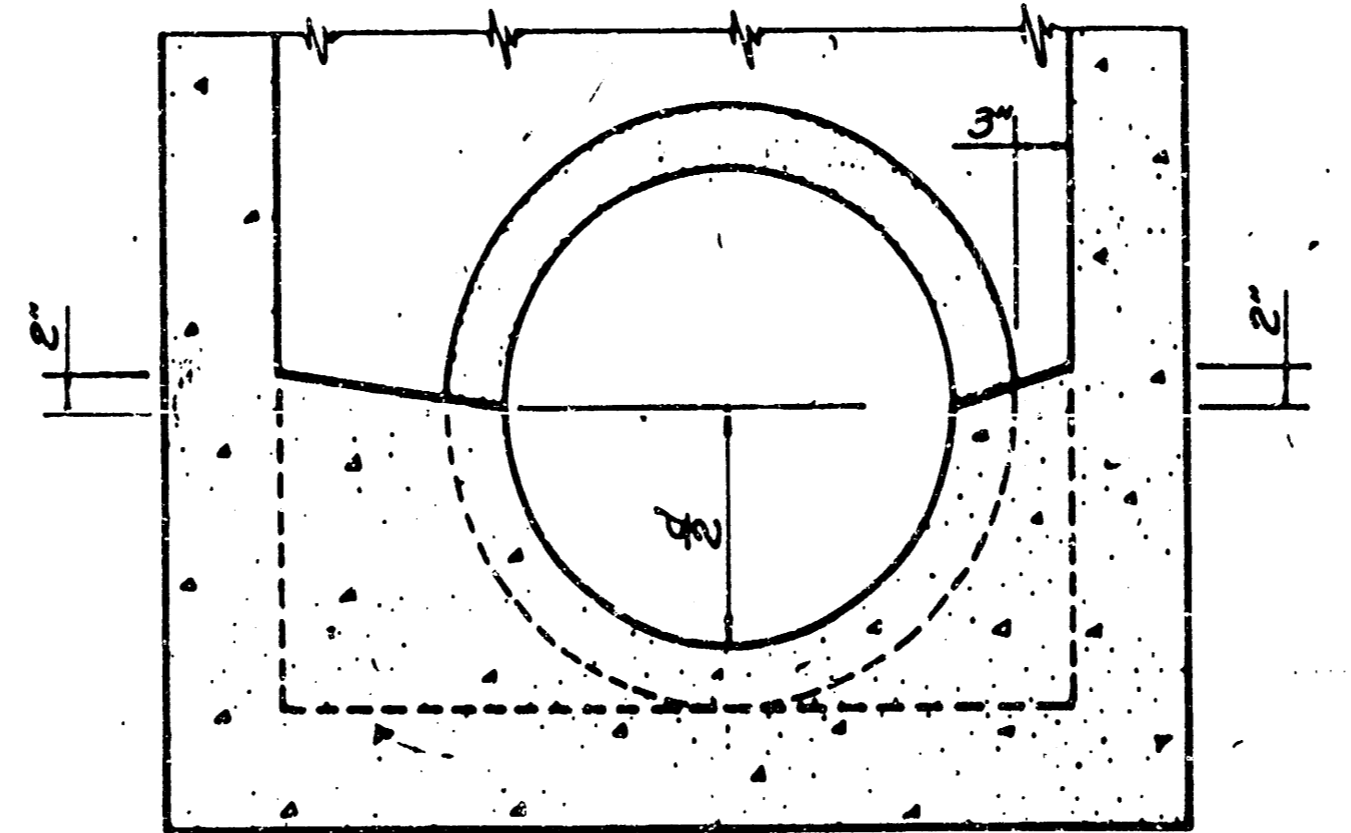
FLOOR PLAN (EXAMPLE I)



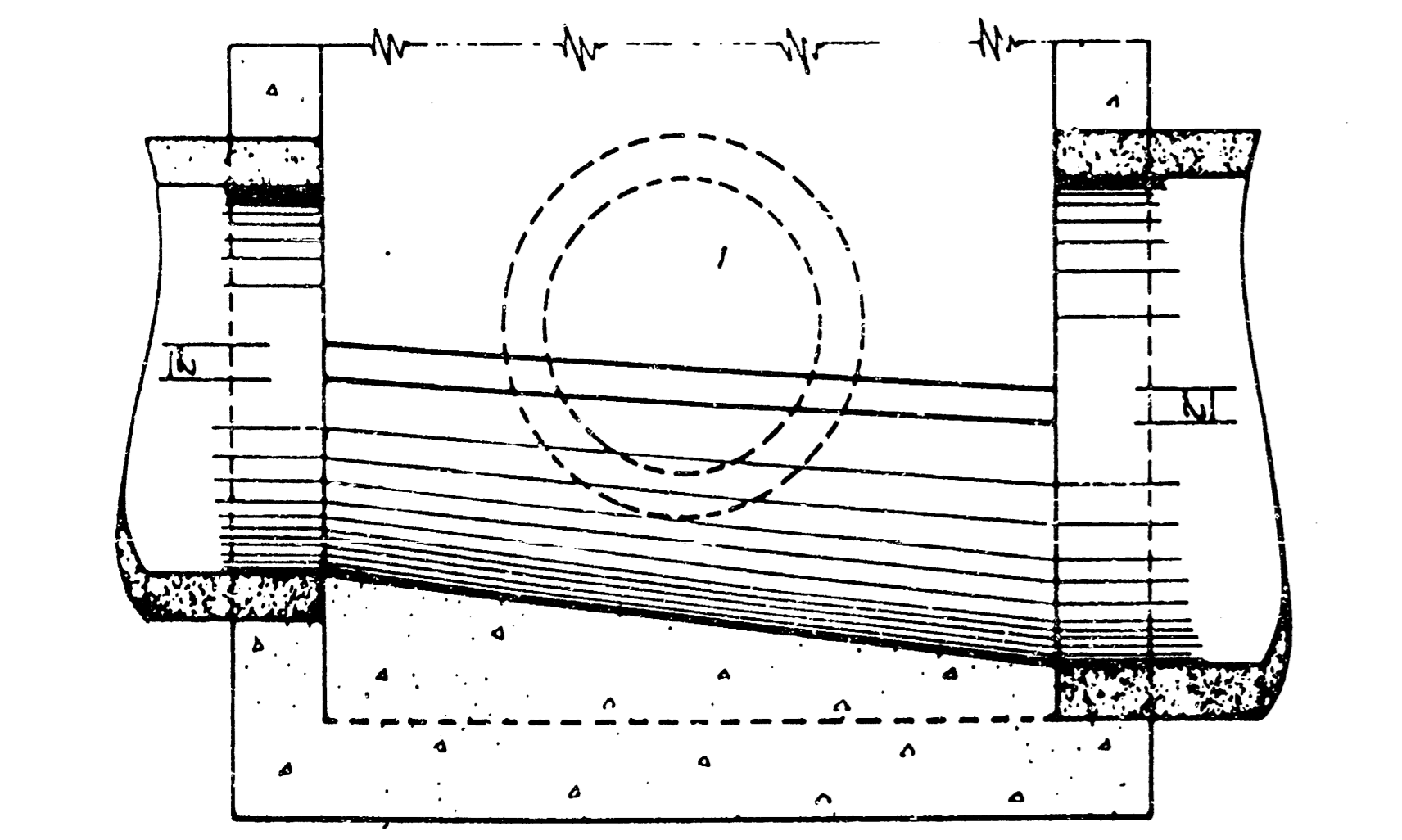
SECTION A-A (EXAMPLE I)



FLOOR PLAN (EXAMPLE III)



SECTION B-B (EXAMPLE I)



SECTION A-A (EXAMPLE IV)

NOTE: Use Class A Concrete throughout. All exposed edges shall be finished with an edging tool.

At the contractor's option Class A Concrete (AE) or mix used in Conc. Pvt. may be used throughout.

In general, pipes will enter and leave the manhole at various positions. Where possible bend bars around pipes.

Floor of manhole to be shaped as shown in various "EXAMPLES" with unreinforced Class "A" concrete.

Manhole opening and steps, where used, shall be placed to afford easy access to top of shaped invert. Top reinforcing bars to be adjusted accordingly.

All castings shall be gray iron and shall comply with the Standard Specifications.

All exposed cast iron surfaces (rings & covers) not subjected to traffic, shall be painted either in the shop or in the field with one coat of a zinc dust paint, followed by two field coats of aluminum paint.

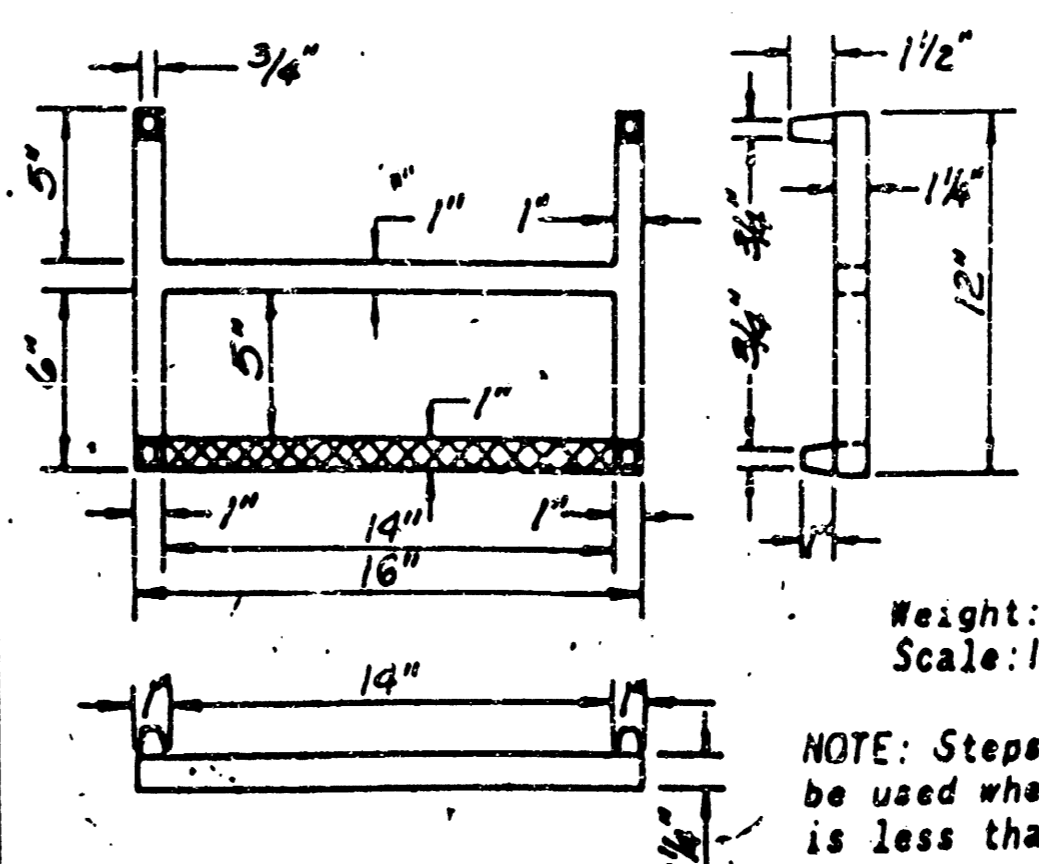
No deductions in concrete quantities shall be made for pipe openings.

No additions in concrete quantities shall be made for shaping floor of Manholes.

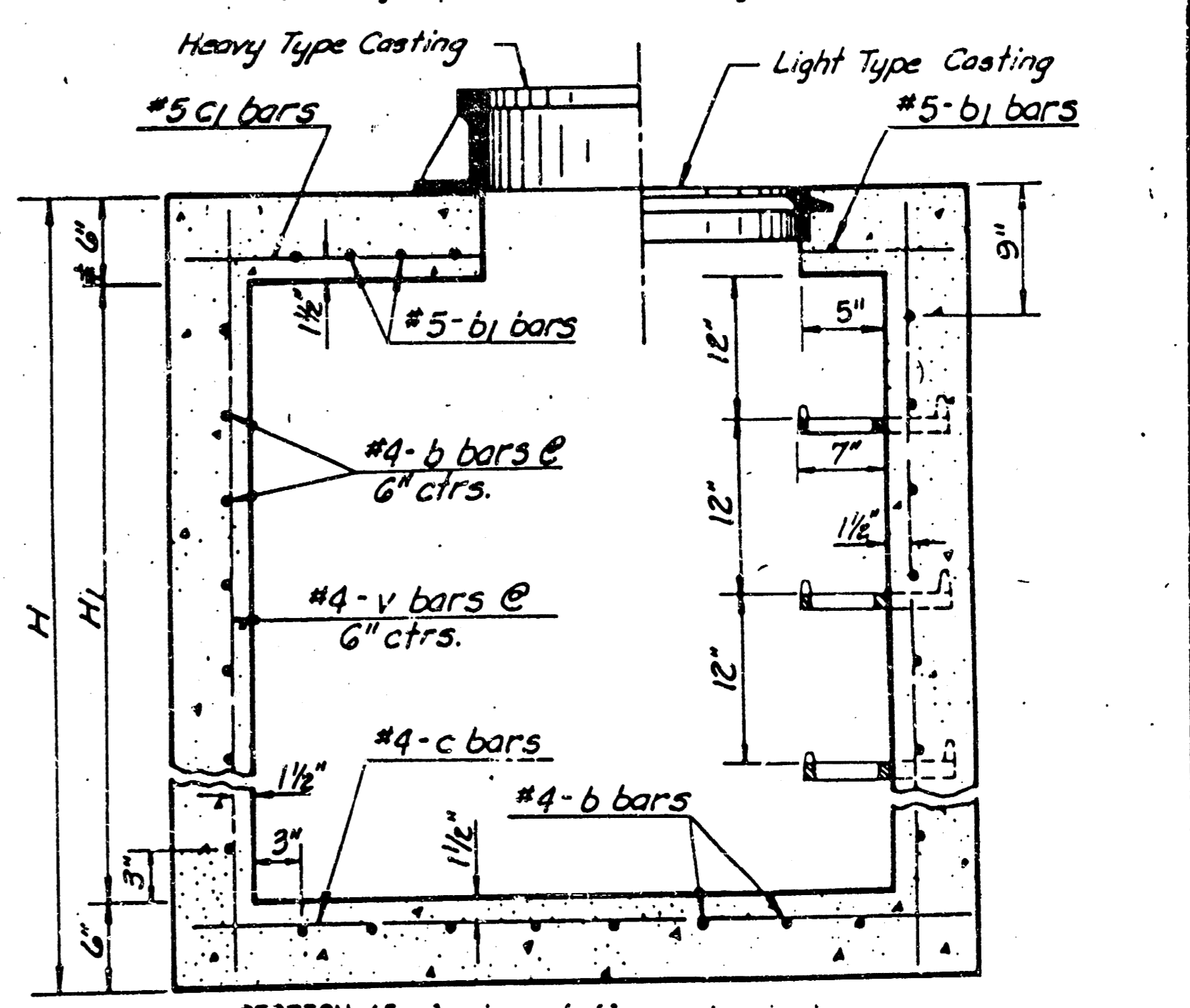
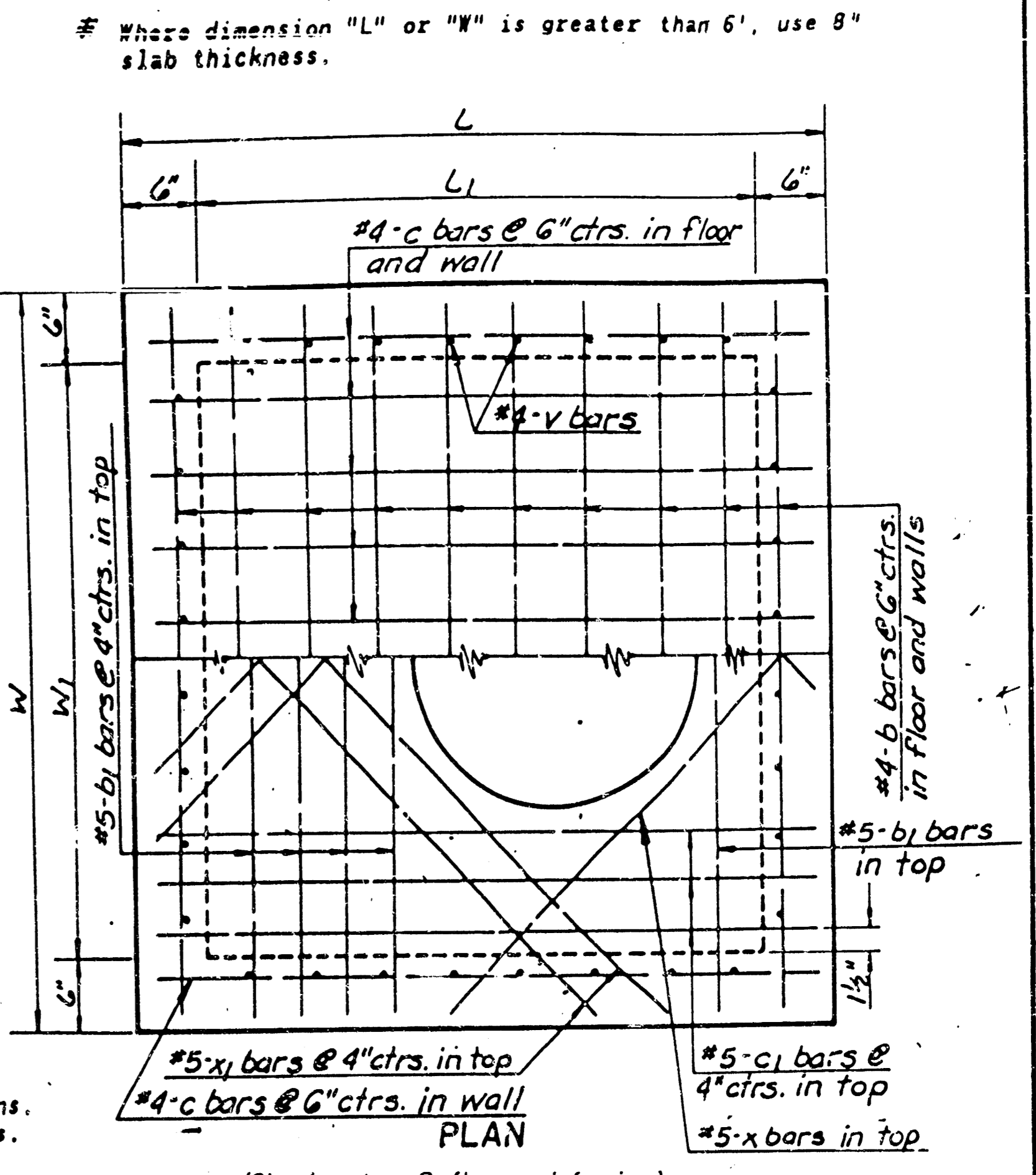
When so ordered by the Engineer, the top of the manhole shall be sloped slightly to approximately fit the ground line or other conditions.

Dimensions and weights of cast iron as shown on this sheet are minimum. Larger dimensions and/or heavier weights of cast iron may be used.

NOTE: Contractor has the option of using precast manholes, as approved by the Engineer (See Special Provision). Payment of quantities shall be on a cast-in-place basis.



CAST IRON STEP



SECTION (Exclusive of floor shaping)

As an alternate to the cast iron step shown, either an aluminum or a plastic coated steel step complying with the same minimum clear opening dimensions may be used. The minimum length of rung shall be 14 inches and the minimum distance of rung from wall shall be 6 inches.

The solid aluminum extruded bar (3/4" minimum) shall comply with the Standard Specifications (ASTM B 221 Alloy 6025-15).

The plastic coated step shall be made from a No. 3 steel reinforcing bar encased in plastic to provide a minimum cross section of 1 inch by 1 inch and shall comply with the special provision. The rung shall be designed so the foot cannot slide off the end.

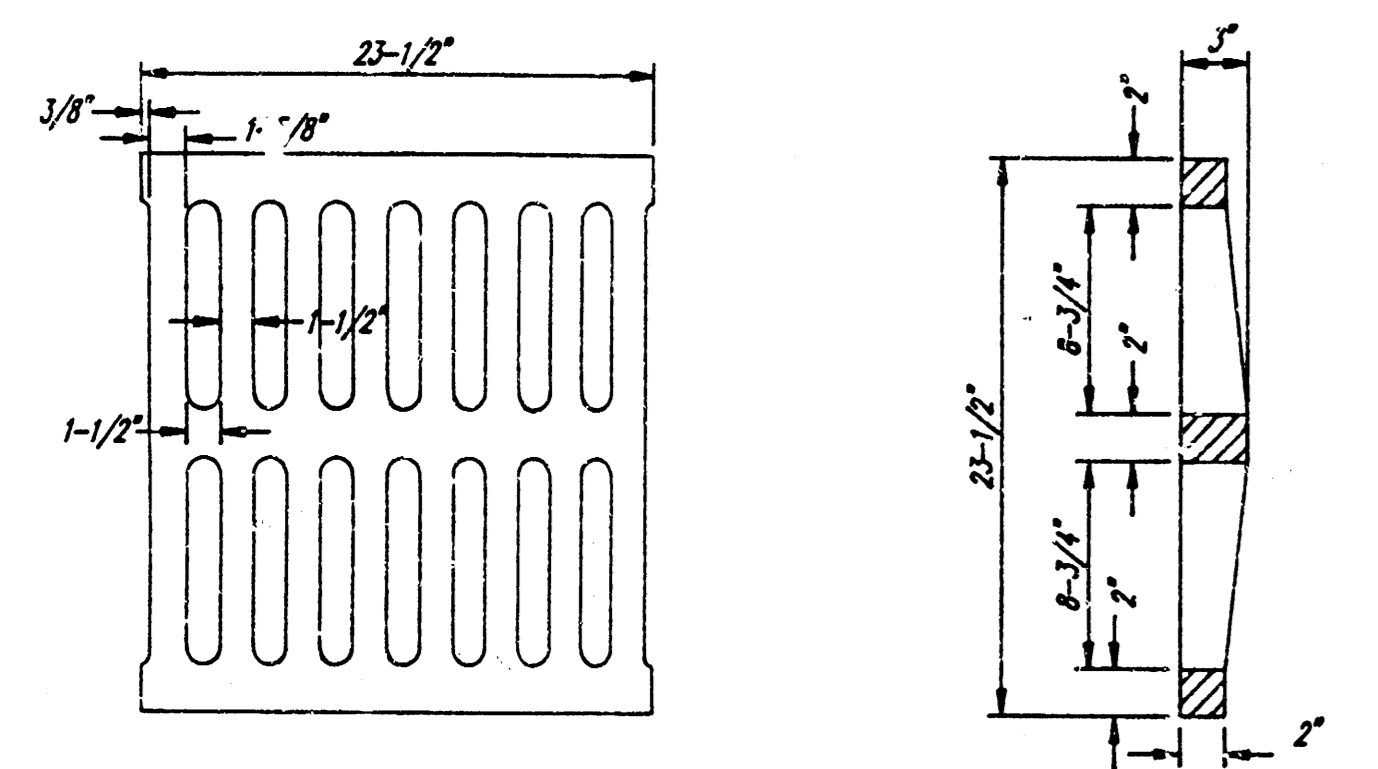
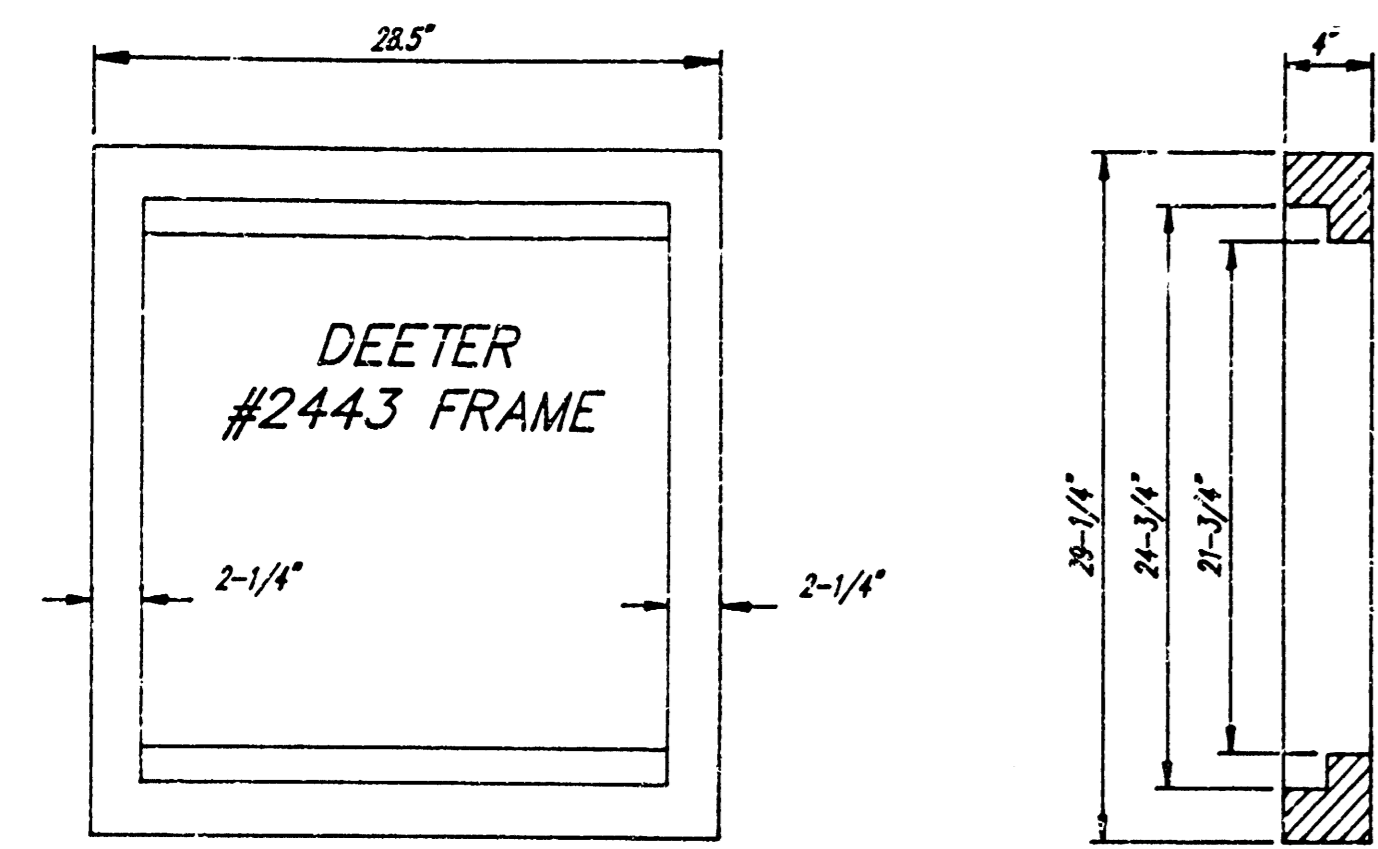
26	19-28-82	Rev. step from 16" to 14" clear opening	W.L.H.	L.R.P.
25	8-19-80	Revised to Standard Specs.	W.L.H.	L.R.P.
24	4-2-80	Labeled bars same as Steel table	W.L.H.	L.R.P.

KANSAS DEPARTMENT OF TRANSPORTATION

REINFORCED CONCRETE MANHOLE

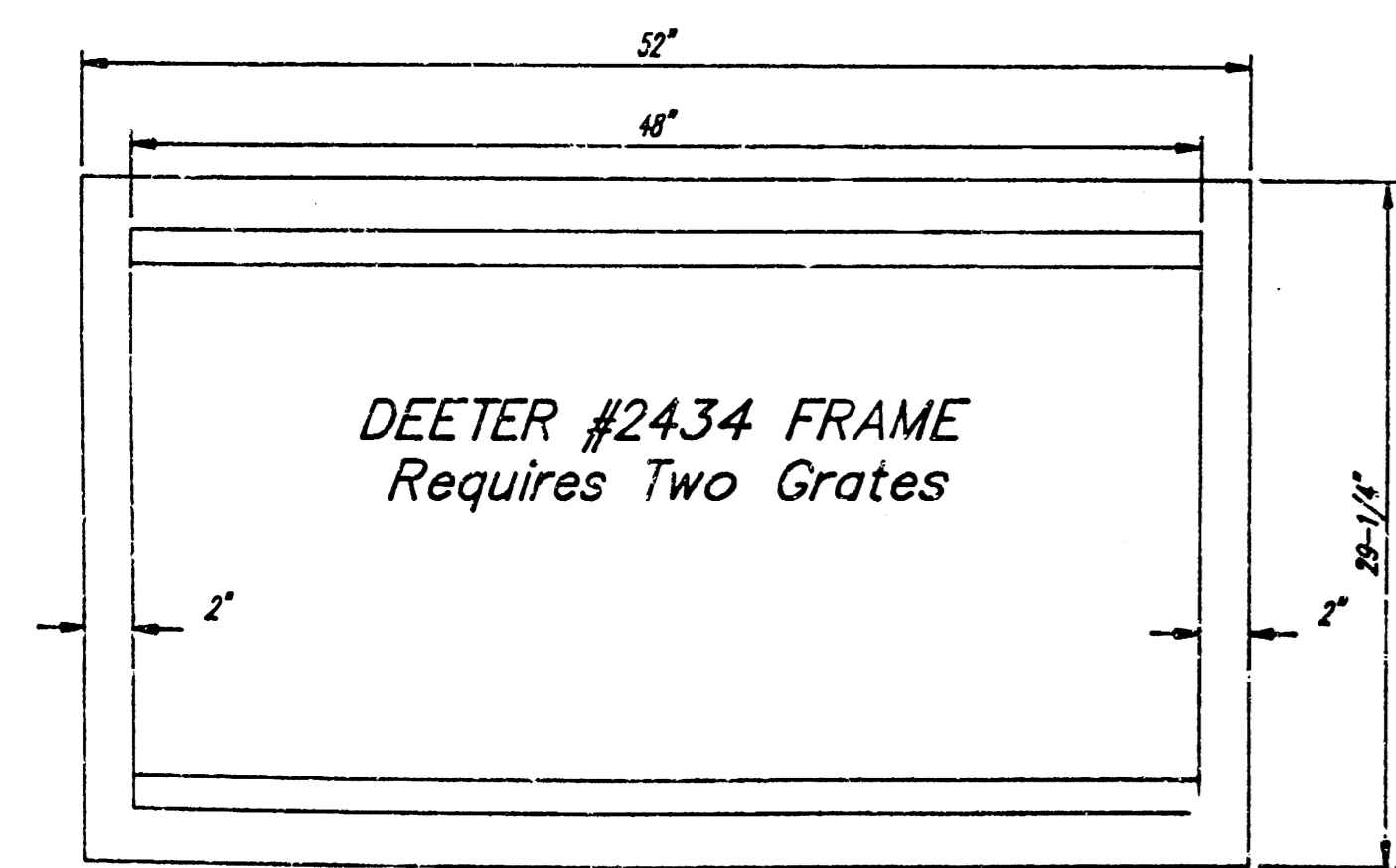
STD. NO. 633 4-5-44

SHEET NO.	OF	SCALE	1"=1'	APPROVED	BY	DATE
DESIGNED	BY	DATE	QUANTITIES	TRACED	BY	DATE
DRAWN	BY	DATE	QUANTITIES	TRACED	BY	DATE



DEETER #2433 GRATE

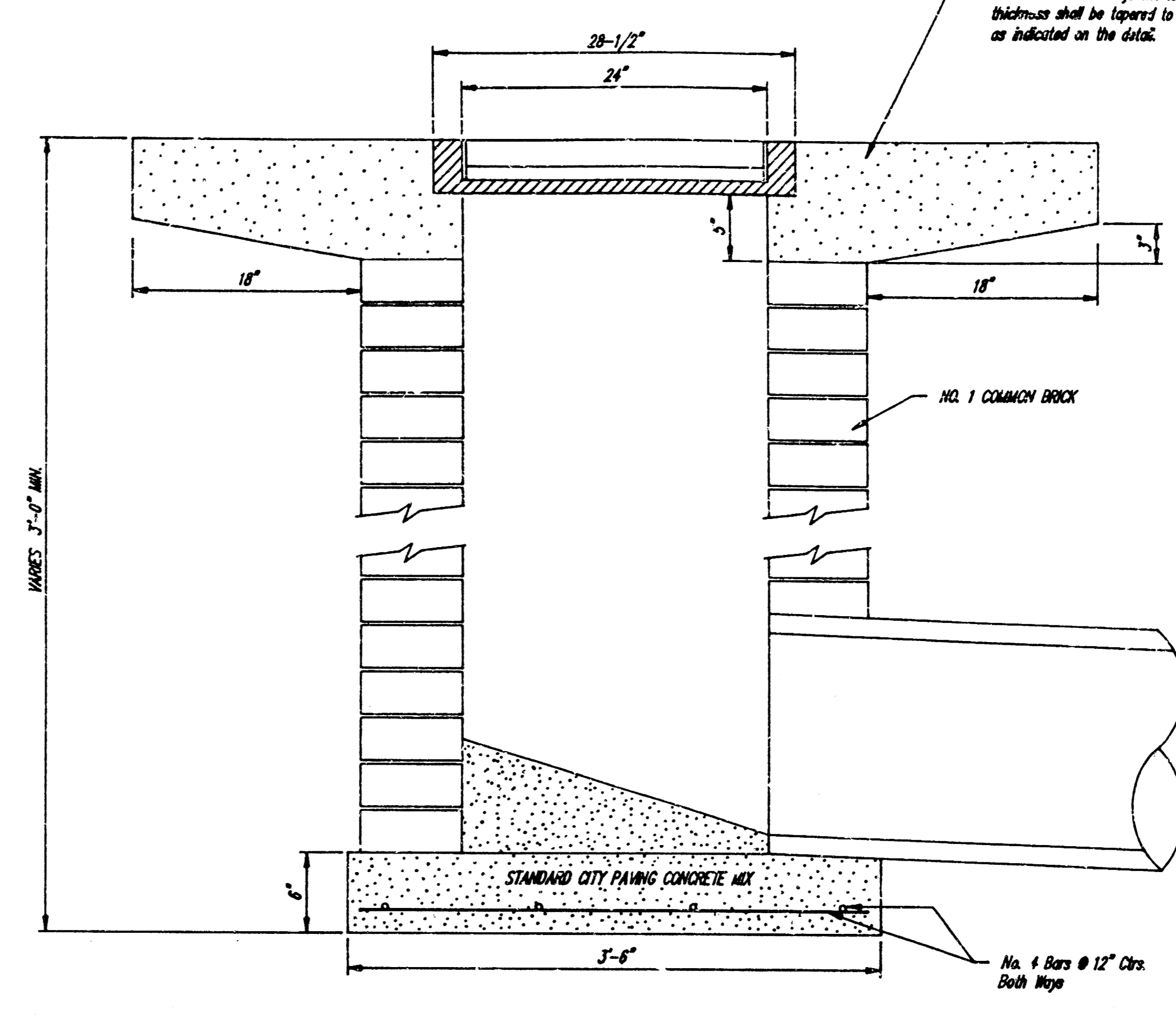
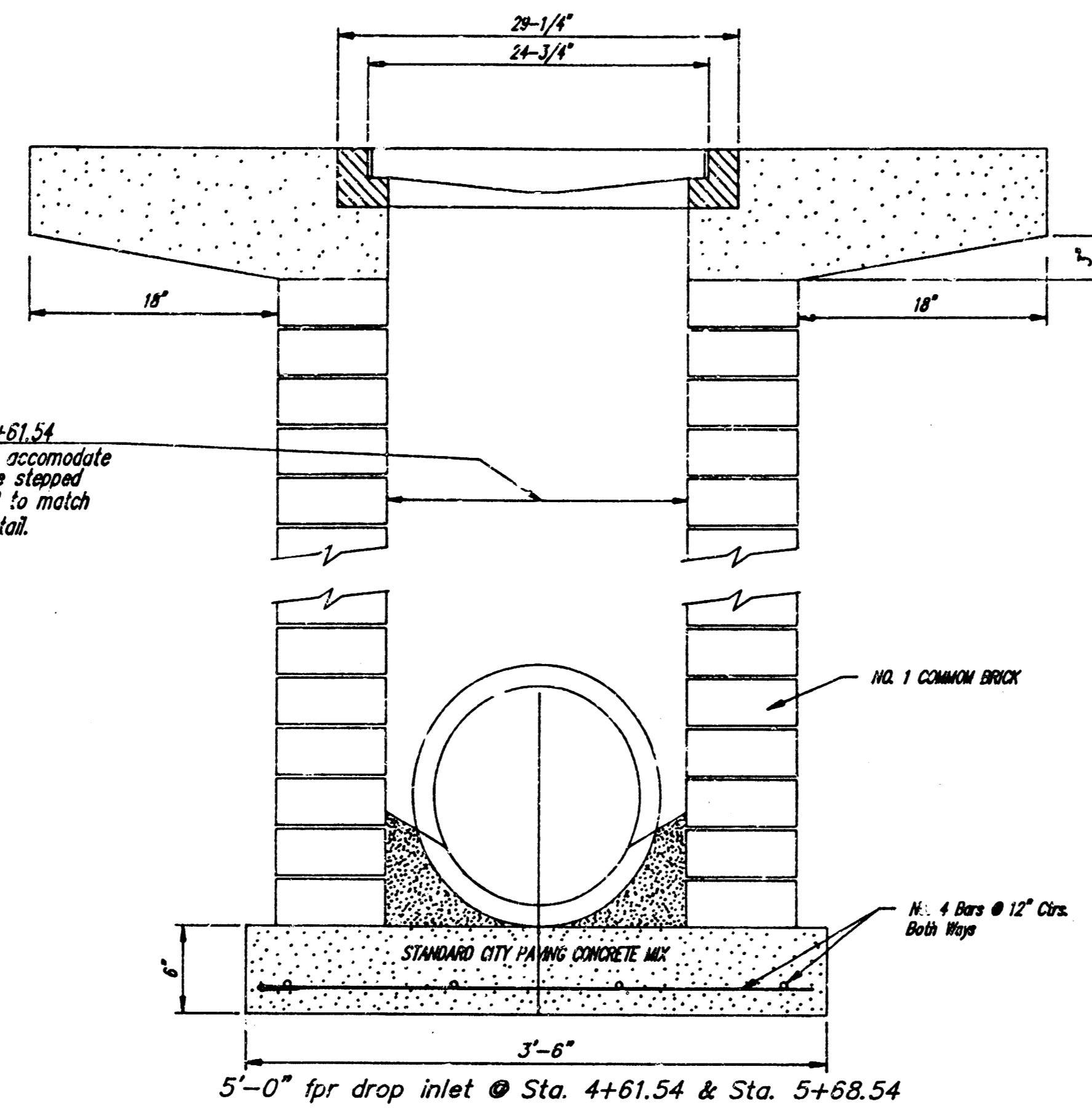
24" x 24" Frame and Grate Detail



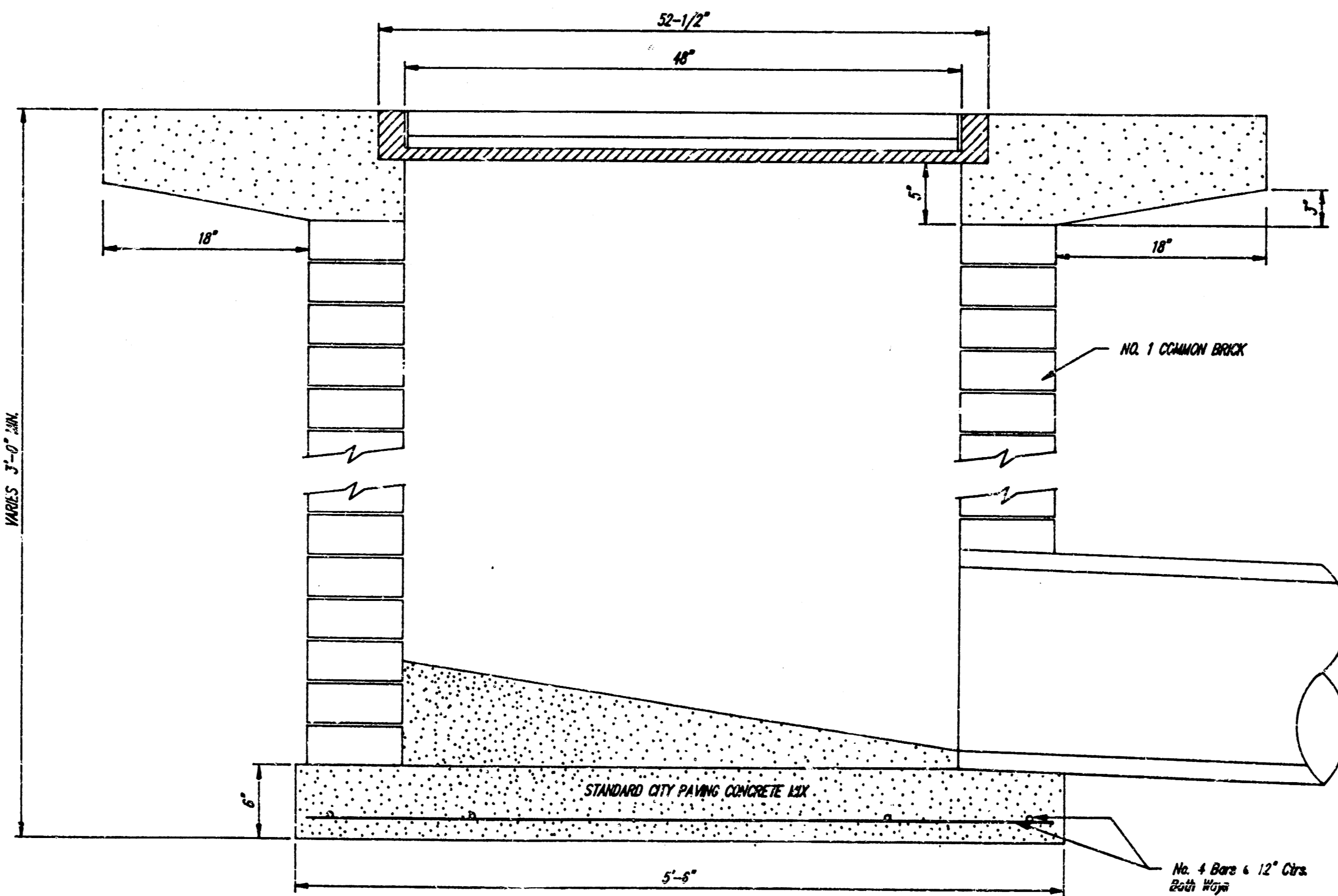
Double 24" x 24" Frame Detail

Inside width for drop inlet @ Sta. 4+61.54 & Sta. 5+68.54 shall be widened to accommodate the 30" ROP. Brick for walls shall be stepped inward from the top of the 30" ROP to match the inlet top width shown on this detail.

NOTE: Grates shall be imprinted on the top surface with "CITY OF WICHITA" using letters at least 1" in height. Other marking methods may be approved by the engineer.



Note: Concrete apron shall be constructed around the inlet when inlet is located in an unopened area. Where the inlet is adjacent to pavement, the pavement thickness shall be tapered to the inlet in 18 inches as indicated on the detail.



NORTHEAST FAMILY PHYSICIANS		
DROP INLET DETAIL		
LOT 155, CHELSEA NORTH ADDITION, WICHITA, KS.		
CITY OF WICHITA PRIV. PROJ. NO. 529PPS(607861)		
CERTIFIED ENGINEERING DESIGN		
CED	1930 E. FIRST, # 119	
	WICHITA, KANSAS 67214	
(316) 262-8808		
DESIGNED: HDF	SCALE: NTS	SHEET
DRAWN: HDF	DATE: 1-85	6
CHECKED: HDF	CED FILE: DROPI.NT.DWG	TOTAL 7

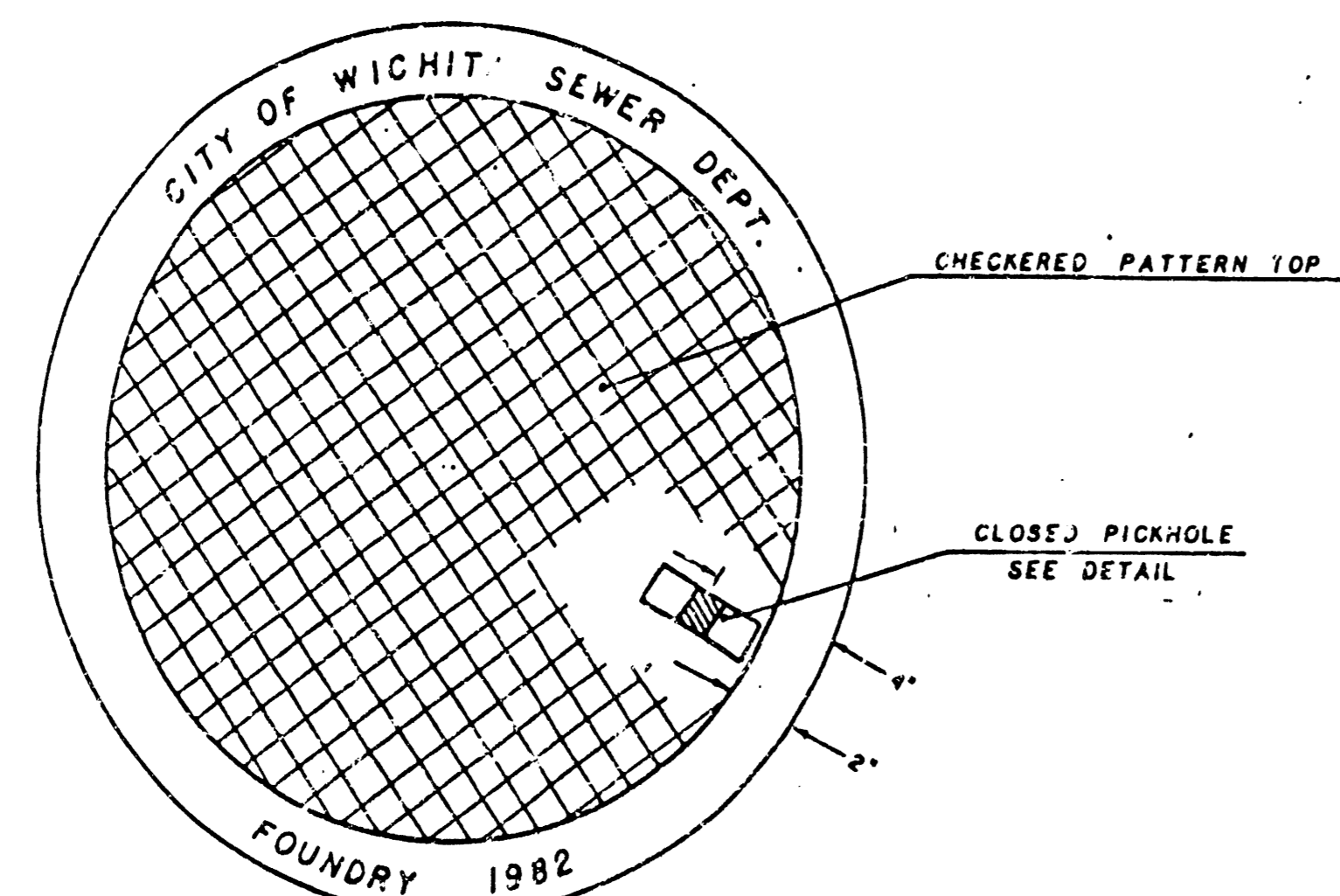
MANHOLE FRAME AND COVER DETAIL

ADOPTED AS STANDARD DESIGN

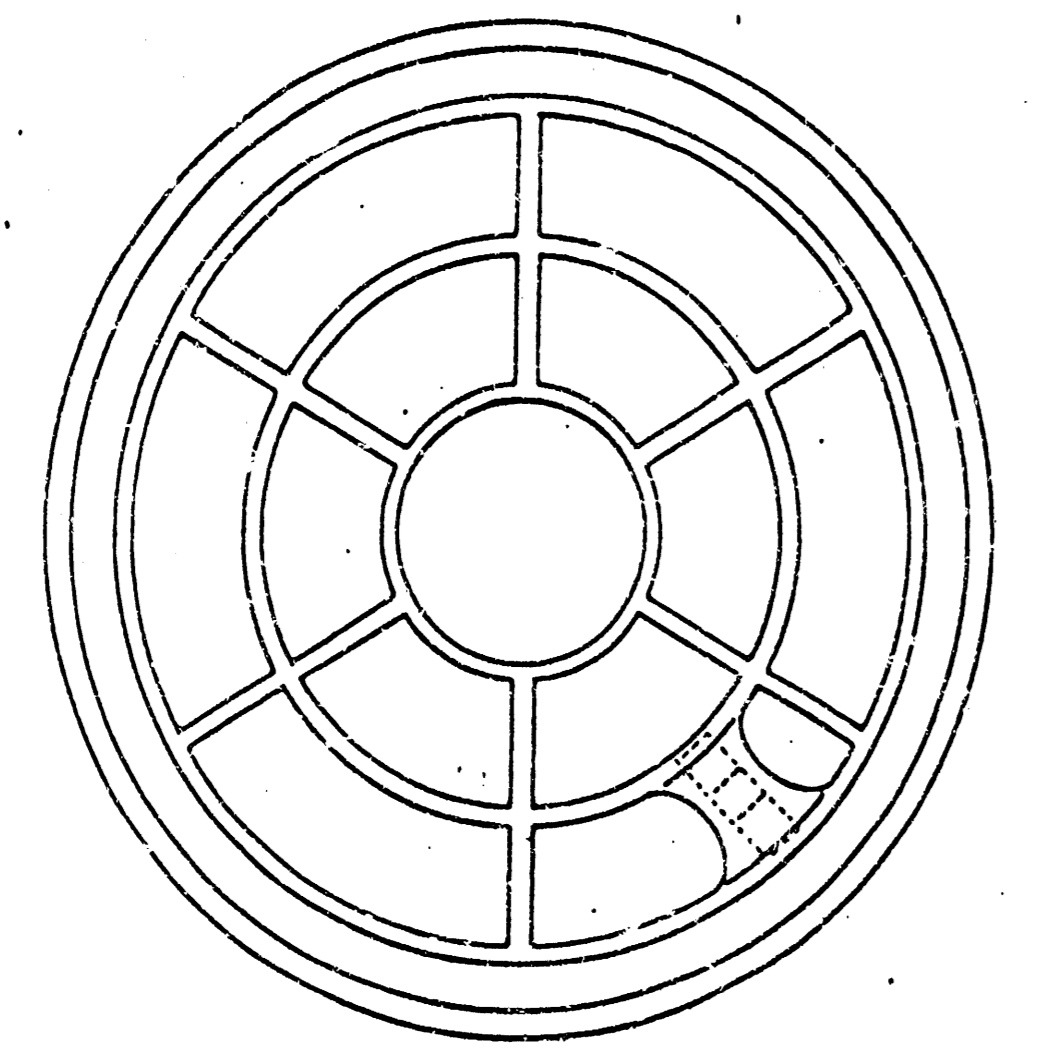
BY

City of Wichita, Kansas

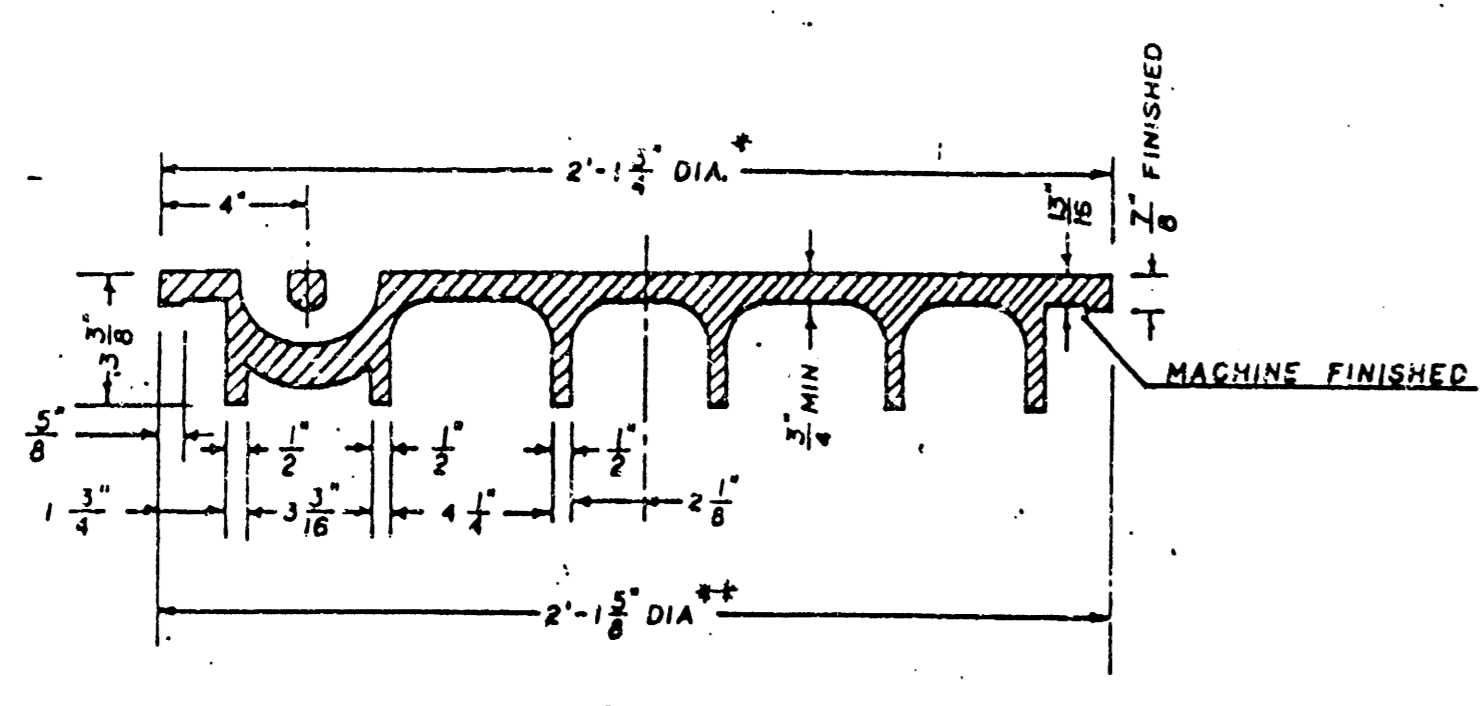
MANHOLE COVER
Weight: 180 Lbs.



TOP VIEW



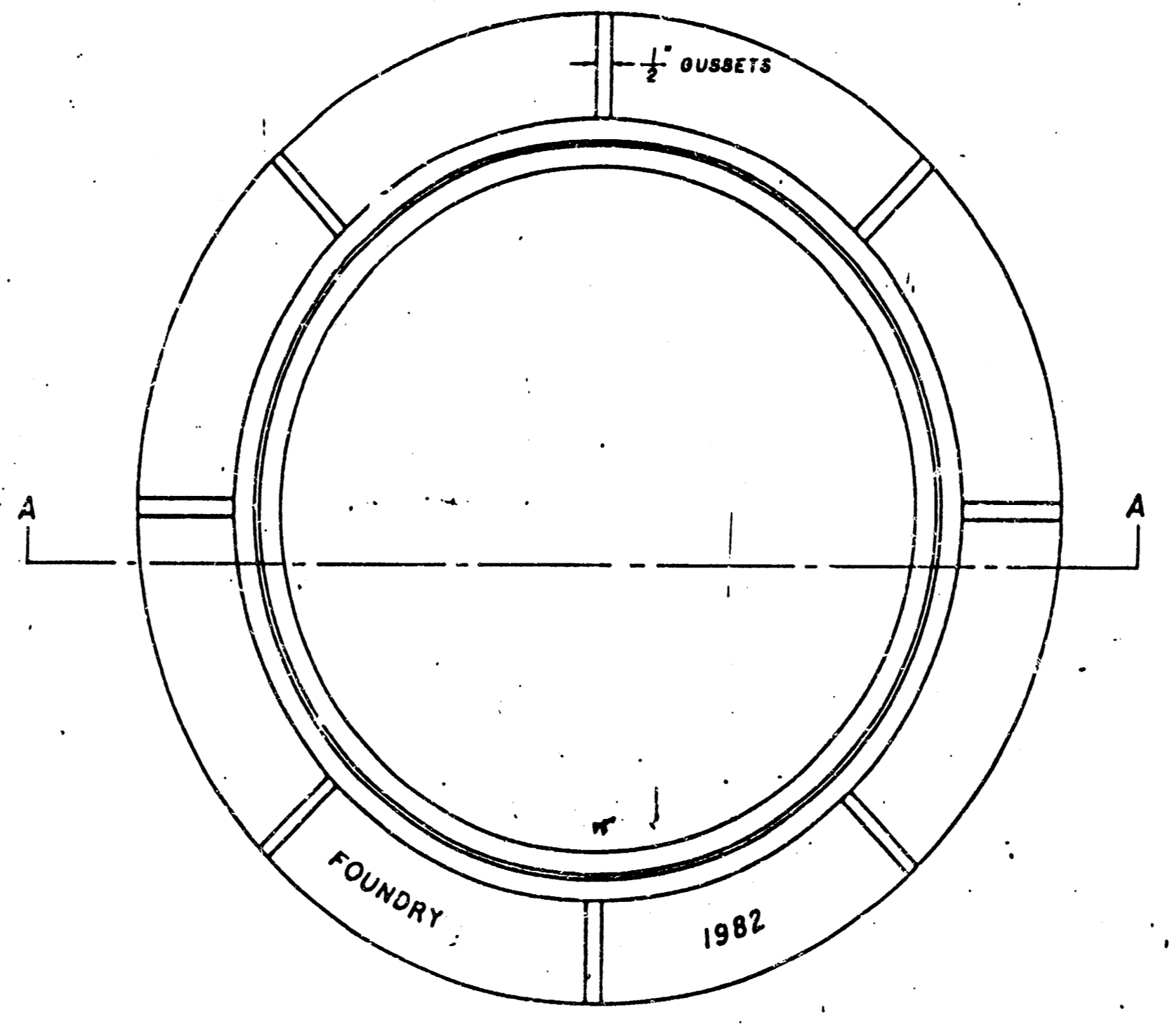
BOTTOM VIEW



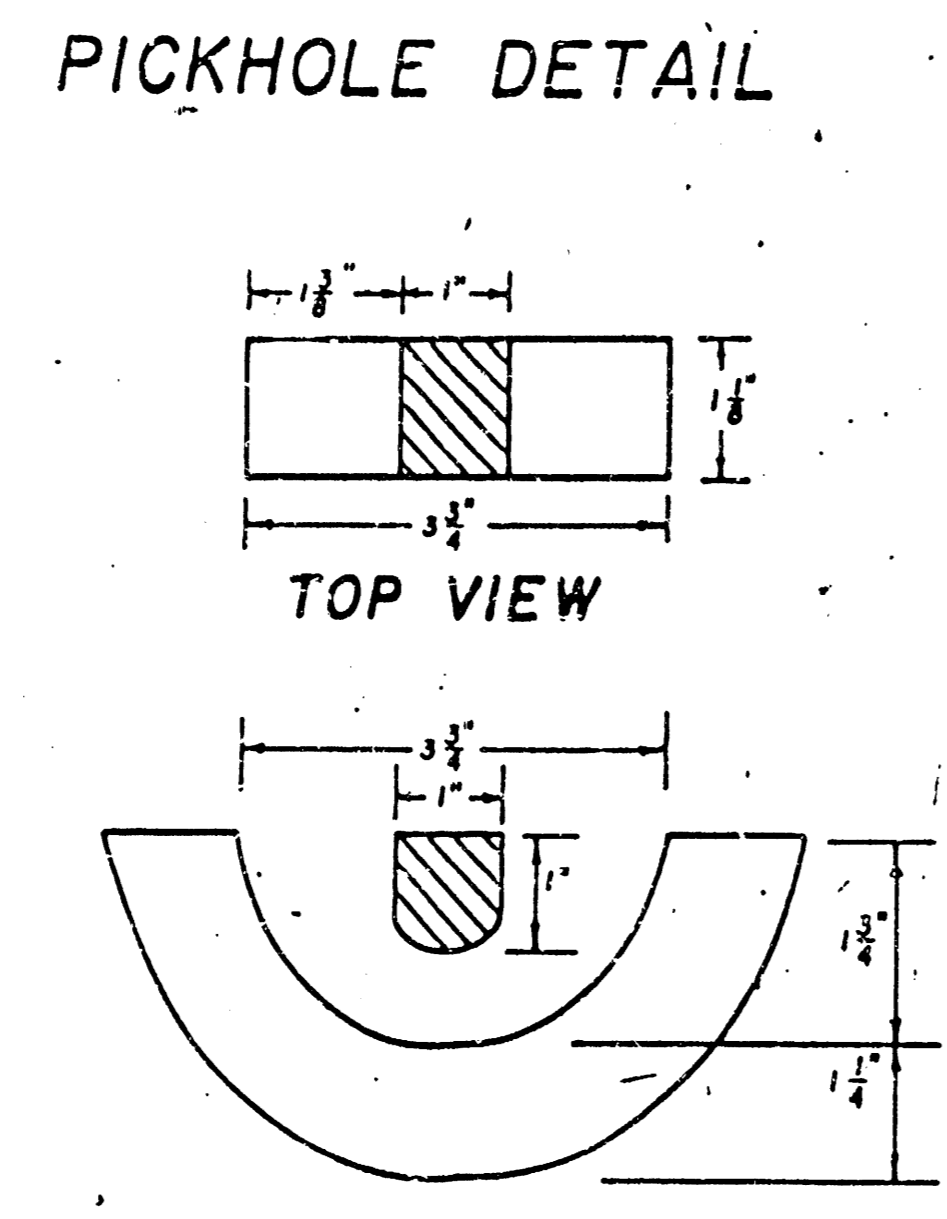
SECTION VIEW

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

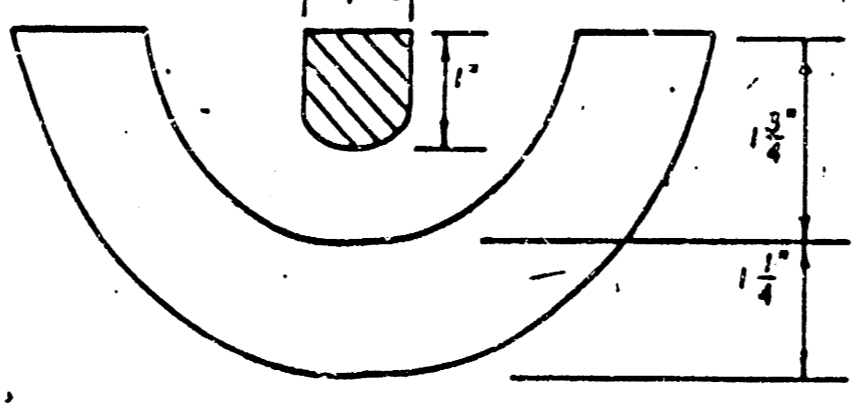
MANHOLE FRAME
Weight: 240 Lbs.



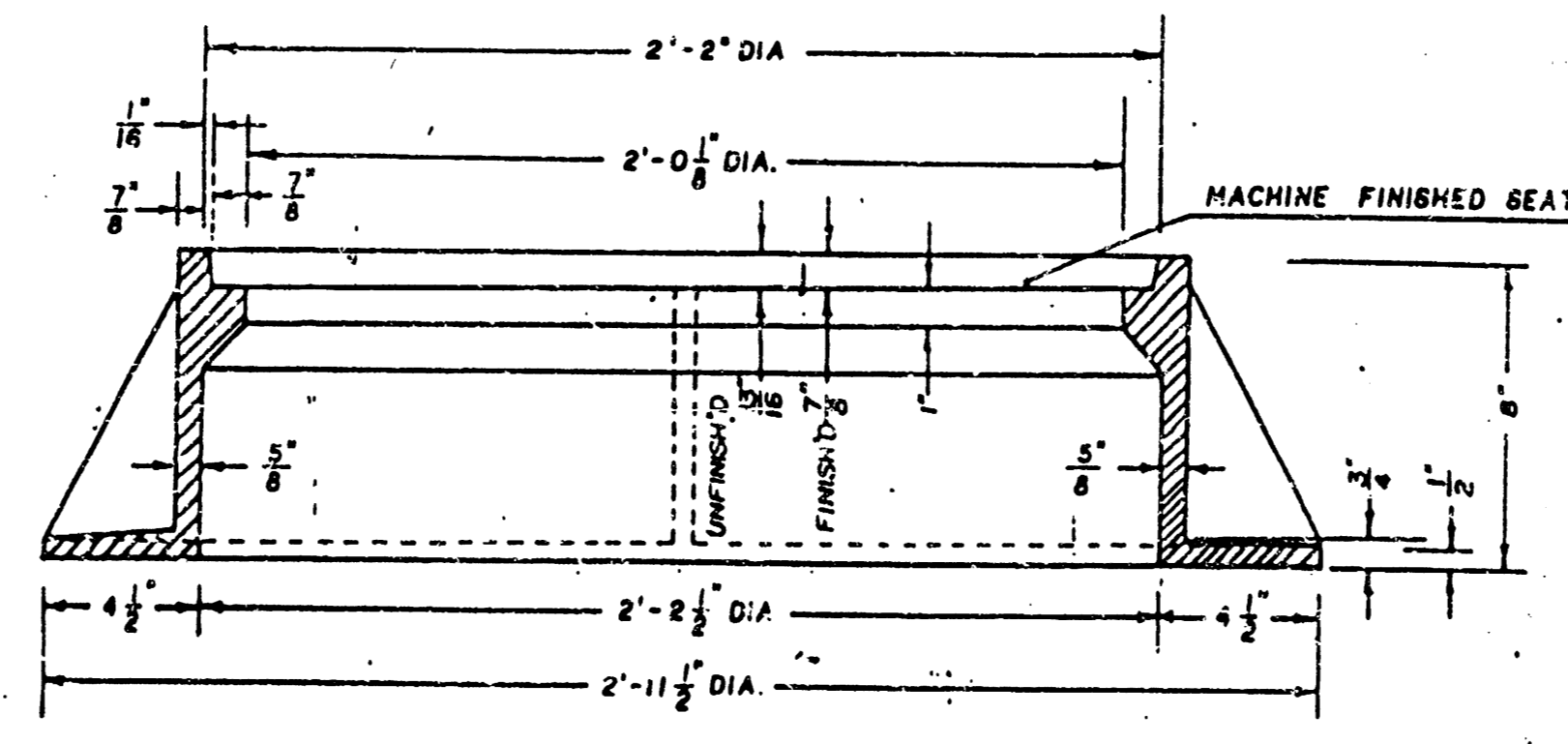
TOP VIEW



TOP VIEW



SECTION 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 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.
3. 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.
4. 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.