

**STORM WATER SEWER IMPROVEMENTS TO SERVE
LOT 21 & 22, COMOTARA INDUSTRIAL PARK FOURTH ADDITION**

GENERAL NOTES

KANSAS HEART HOSPITAL OFFICE PLAZA

Project Number
946 PPS(607861)

CITY OF WICHITA, KANSAS
Michael E. Lindebak, P. E., City Engineer

BENCHMARK:

Temporary Bench Mark. Box cut top
North Curb 34th St. 100+/- west
of Center Webb Rd. Elev. 244.04

INDEX:

1. Title Sheet
2. Plan and Profile of Line 1
3. Plan and Profile of Line 2
4. Standard/Special Shallow Manhole Type "A" & "B"
5. Standard Type 1-A Curb Inlet.

1. Contractor will be required to provide notice to utility companies a minimum of twenty-four (24) hours prior to any excavation, as follows:

Kansas One-Call 687-2470

The Contractor must notify the following in case of an emergency:

Cablevision	262-4270
or	263-2061
K.P.L. Gas Service Company	383-8650
Kansas Gas & Electric Company	383-8600
Peoples Natural Gas	942-8811
or	1-800-303-0357
Southwestern Bell Telephone Company	1-571-2611
City of Wichita Water Department	268-4908
City of Wichita Sewer Department	268-4071

2. Exist. utilities and their locations, 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 which do not conflict with proposed construction.

3. The Contractor to verify utility locations prior to construction of this project.

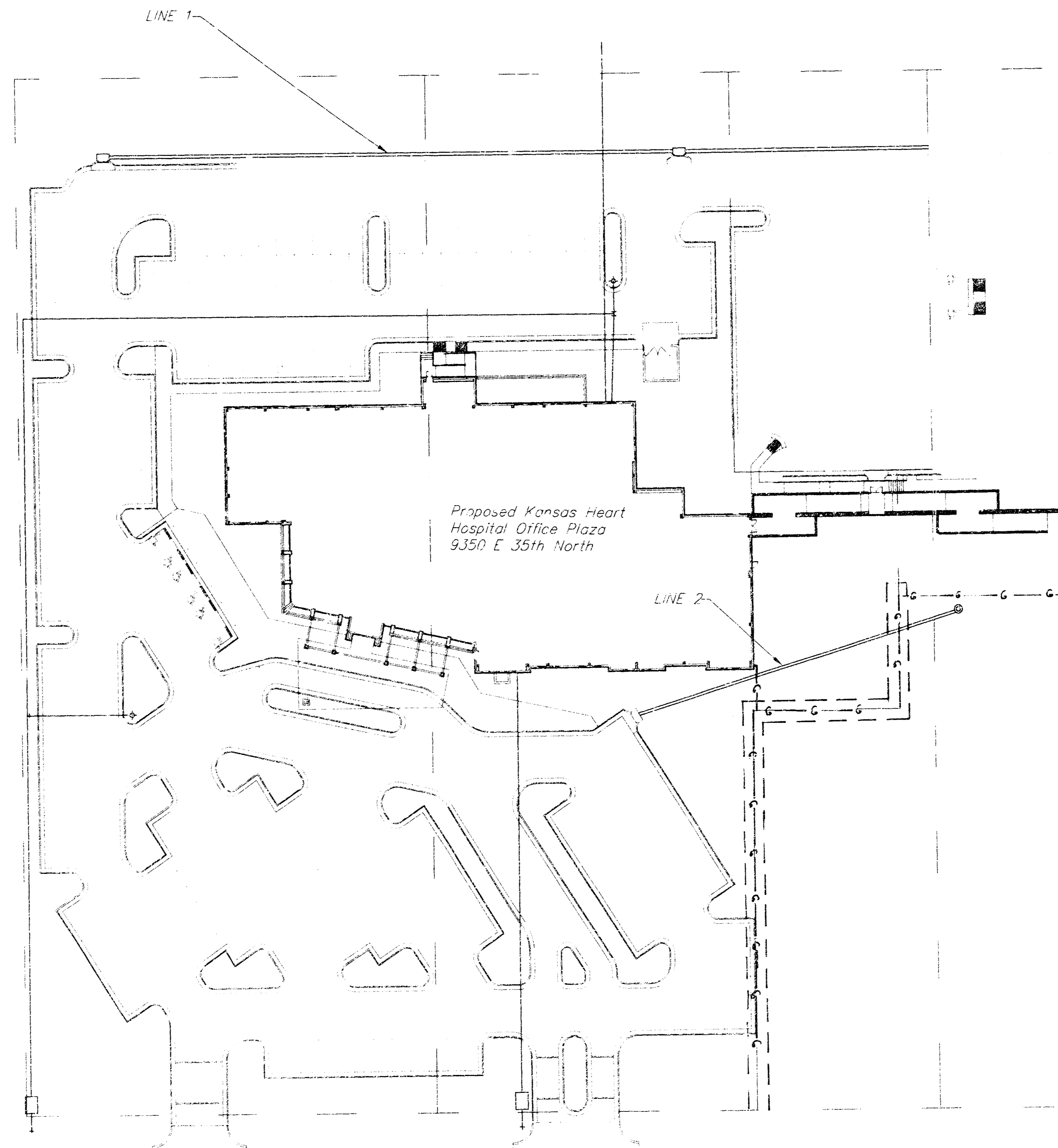
4. Utility service and installation shall be coordinated with the respective utility owners. Contacts are:

KG&E Gas	Steve Orth	261-6567
K.G. & E.	Miles Capps	261-6434
Wichita Water	Paul Bryant	268-4555
	Steve Palmer	268-4908
Southwestern Bell	Jim Tobin	268-2759

5. All areas disturbed by construction shall be seeded with rye Rebel II Fescue grass at a rate of 350 lbs./acre immediately following construction in that area.

6. Traffic affected by the construction of this project shall be handled in accordance with the latest edition of the Manual on Uniform Traffic Control Devices.

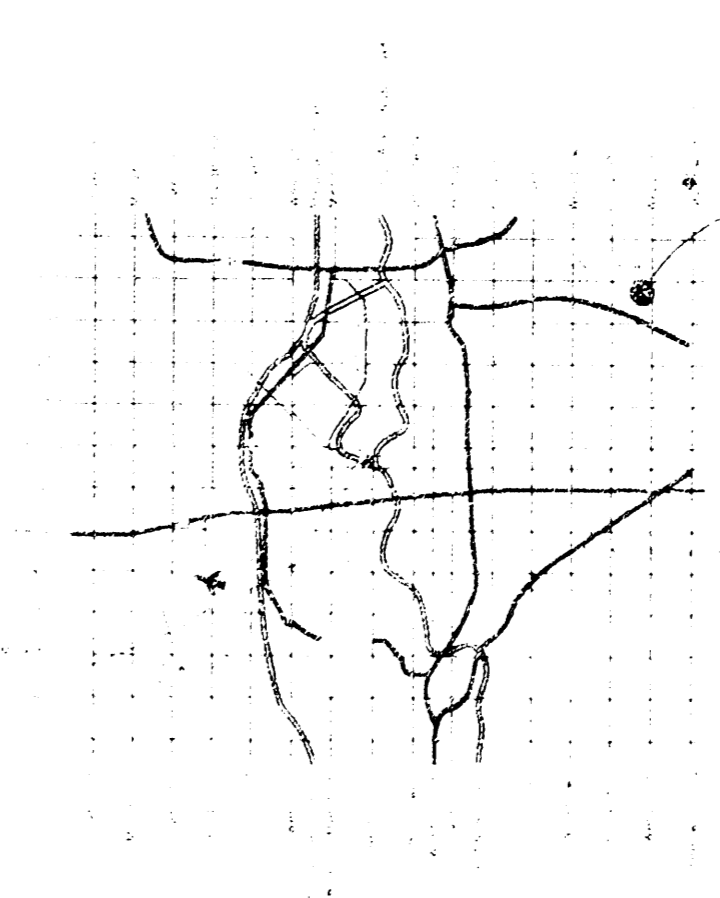
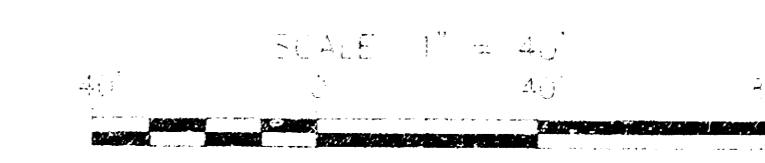
7. All lawn/turf areas disturbed by construction of proposed improvements shall be restored with the same grass/sod as existing. Restoration of disturbed areas shall include, but not be limited to, top soil preparation, seeding, mulch and/or reseeded. All seeding/sodding work shall be in accordance with the City of Wichita standard specifications and the City of Wichita administrative regulation No. AR78 which governs cleanup and replacement following construction. All costs for this work shall be subsidiary to the lump sum price bid for "Site Restoration."



AS-BUILT

Date: 7-1-80
Signed: R. G. J.

*HECKED
R-4-80
MCS
D-268*

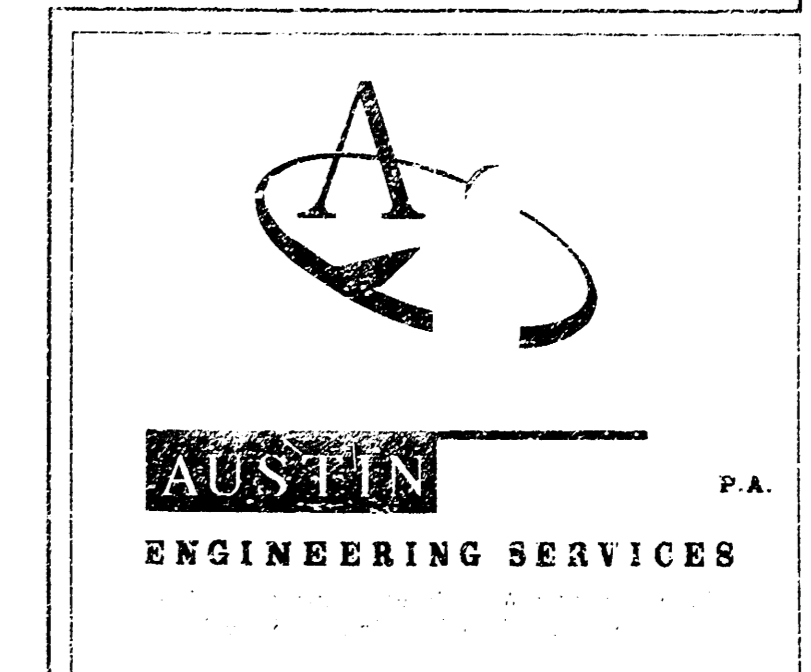


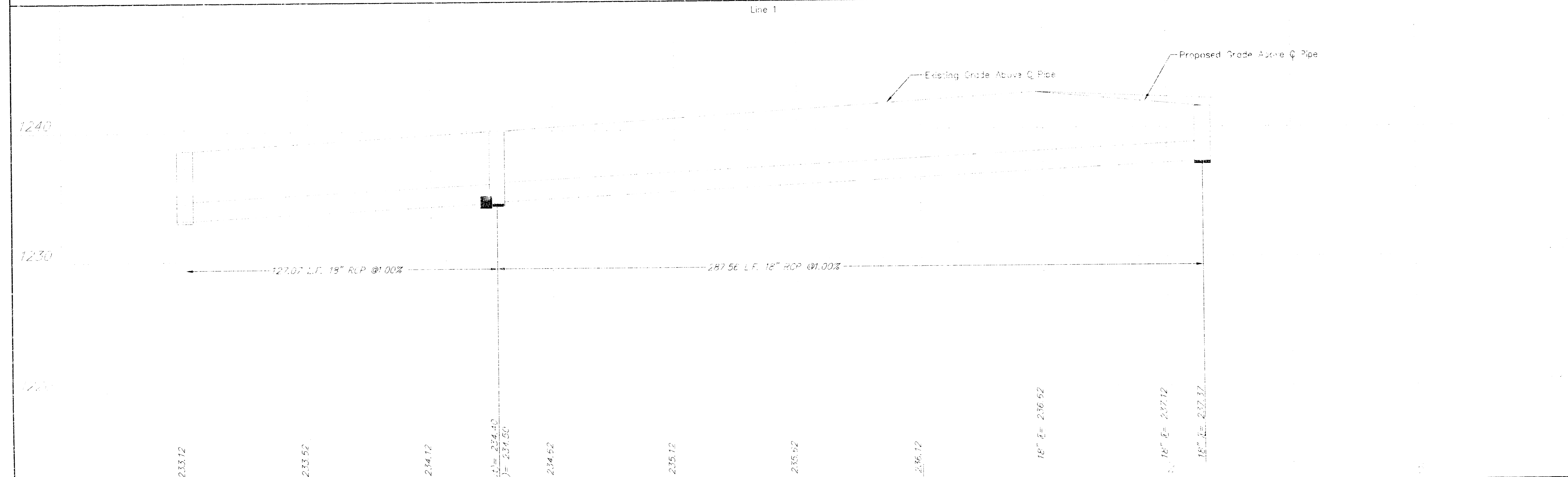
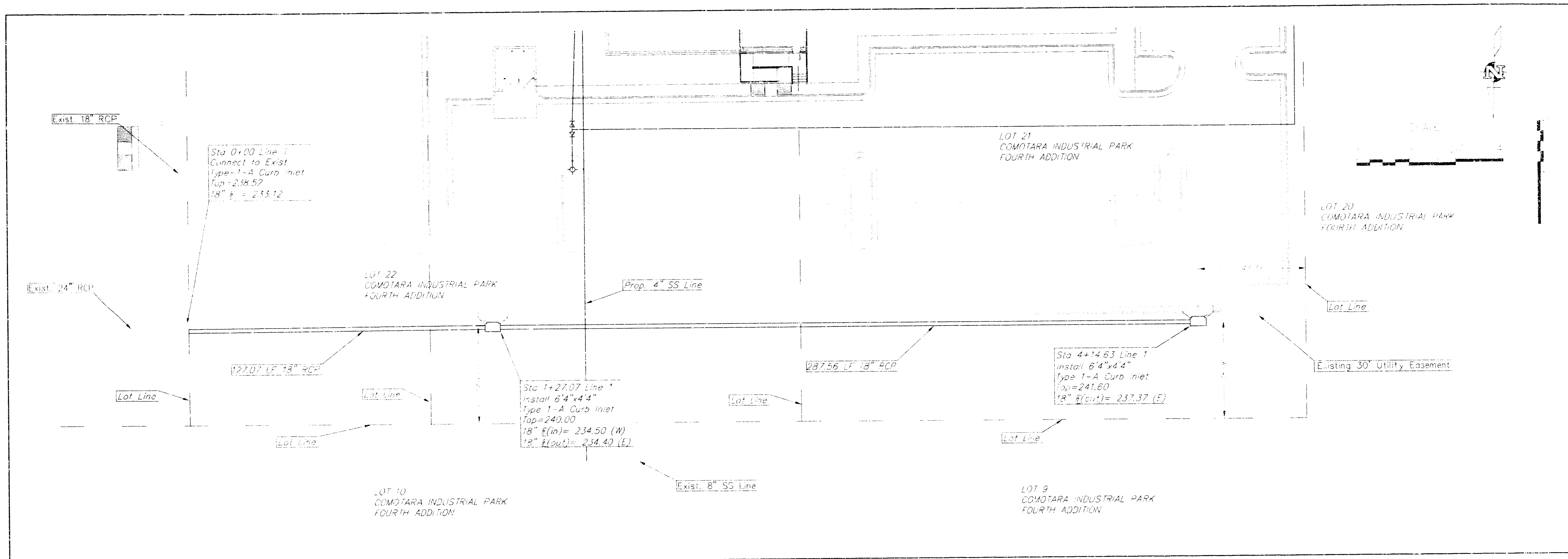
LOCATION MAP

APPROVED AS NOTED BY CITY ENGINEER OF WICHITA
STORM SEWERS VRH 11/30/99

Inspection and testing for this project shall be done by a Licensed Consulting Engineer registered in the State of Kansas. The Engineer shall be responsible for the design and construction of the project and shall be available for the City Engineer for construction and inspection. The City Engineer shall be responsible for the construction and inspection of the project and shall be available for the City Engineer for construction and inspection.

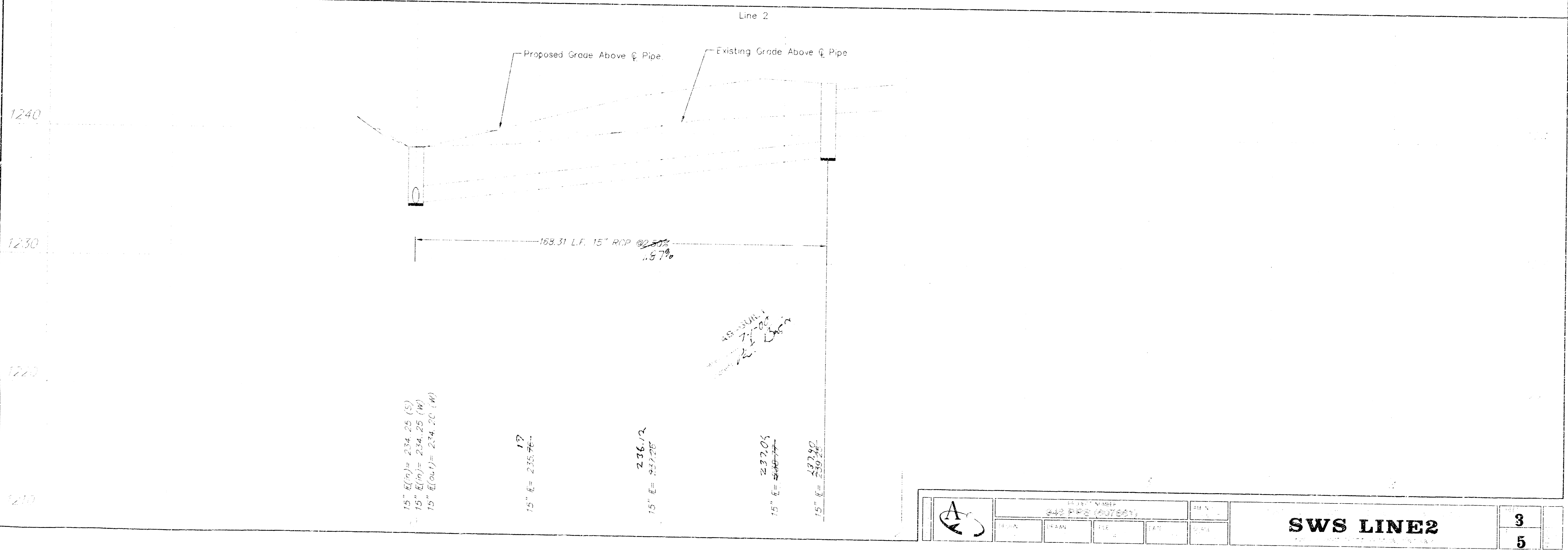
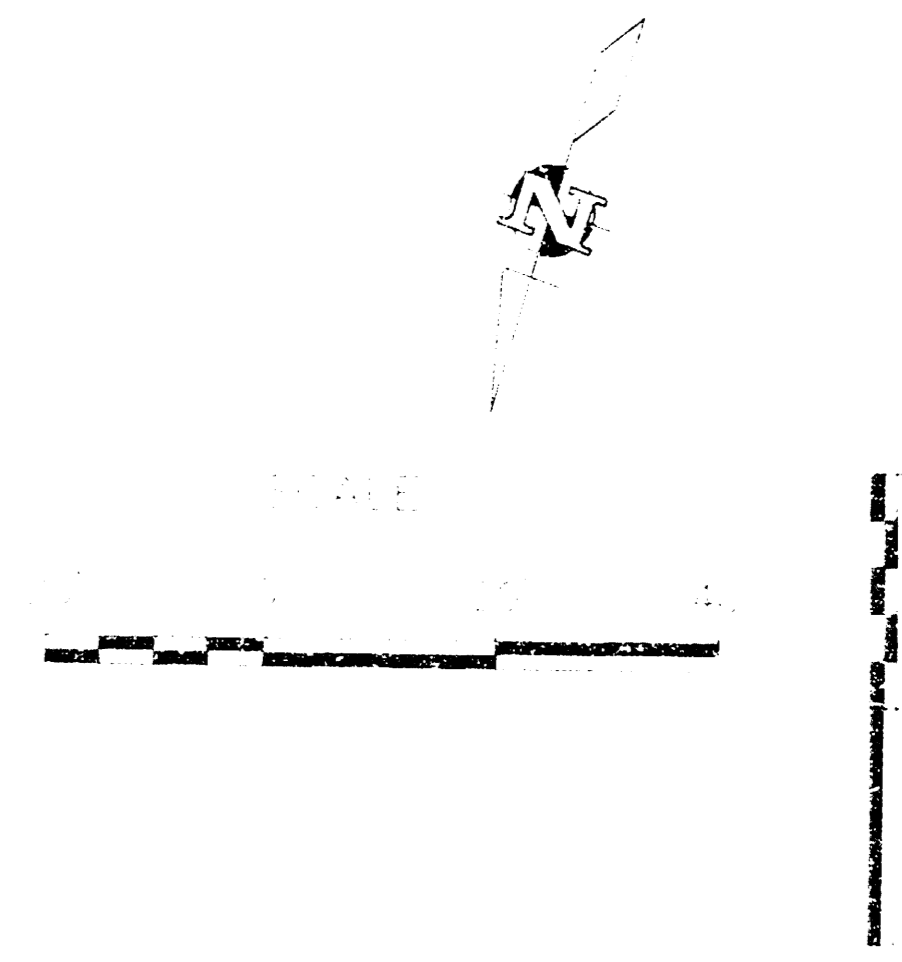
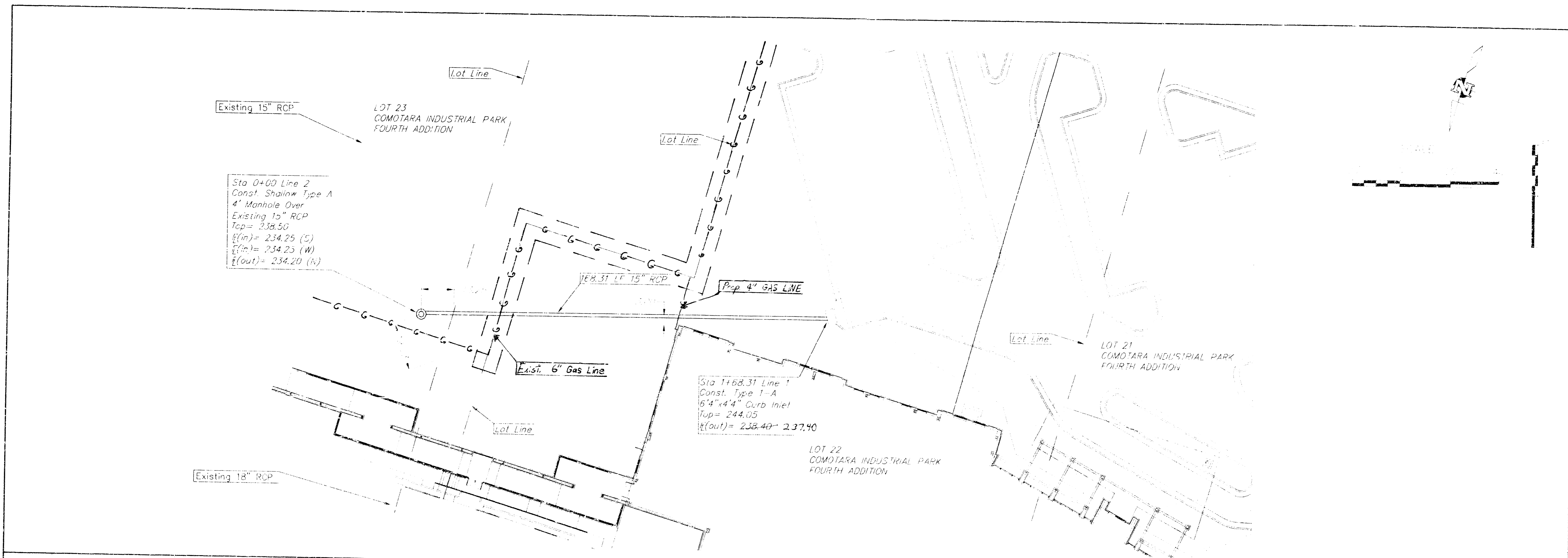
*Sub. Chg.
11/20/99*

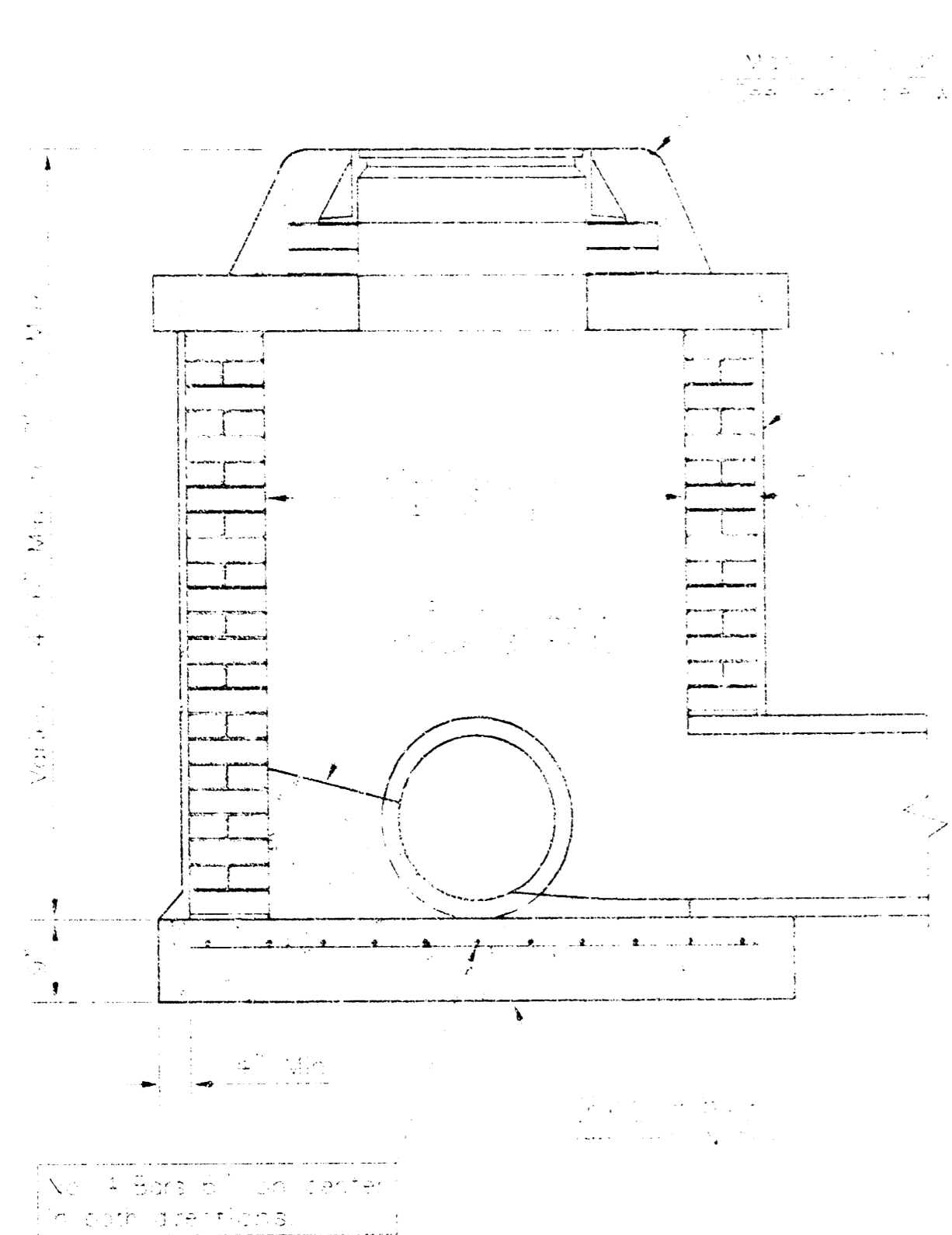




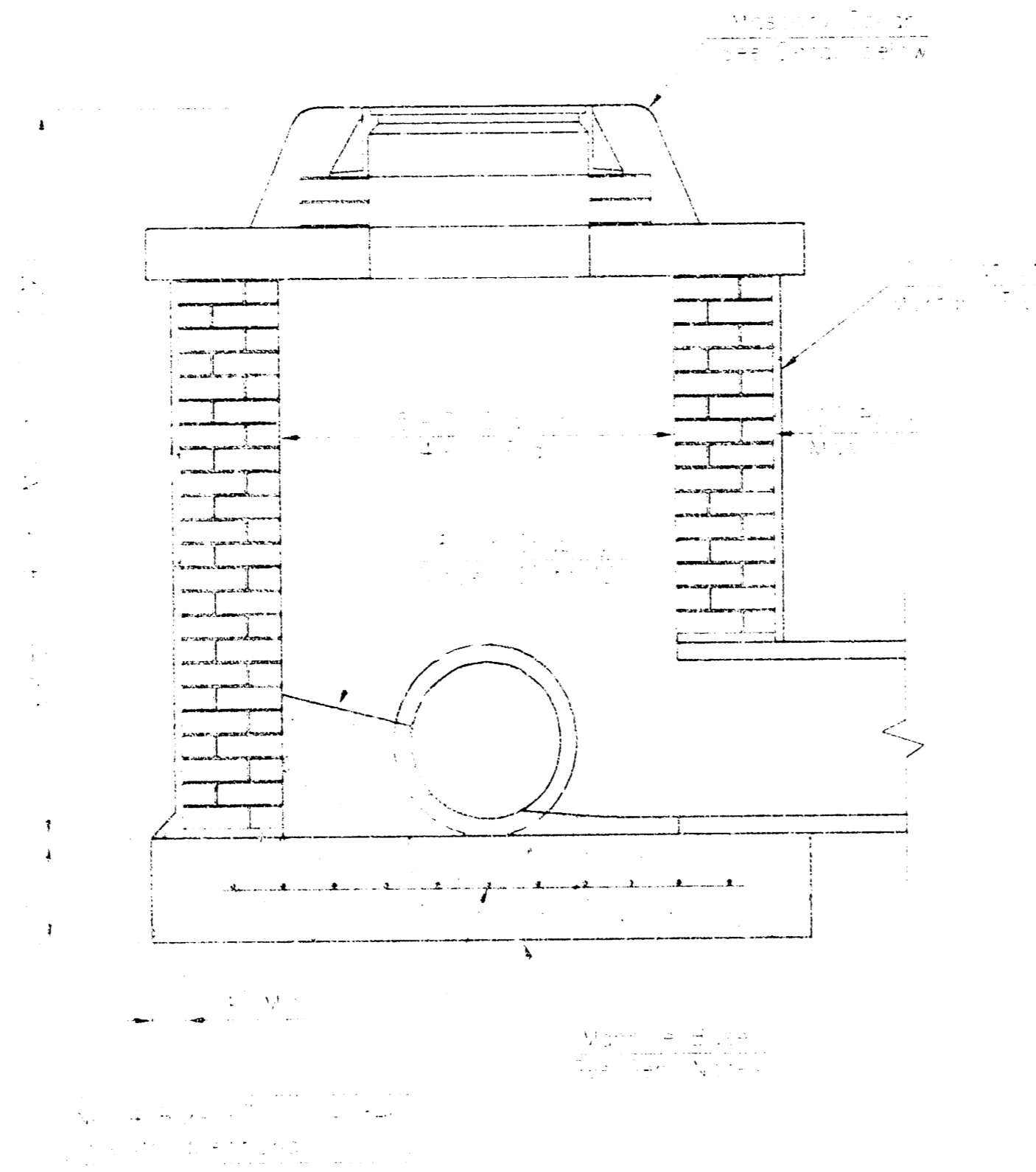
PROJECT NUMBER 2489V (07301)		DATE 11/11/11	SCALE AS SHOWN
DESIGNER S&B	DRAWN S&B	CHECKED S&B	DATE 11/11/11
SWS LINE 1			2
			5

10/10/2010

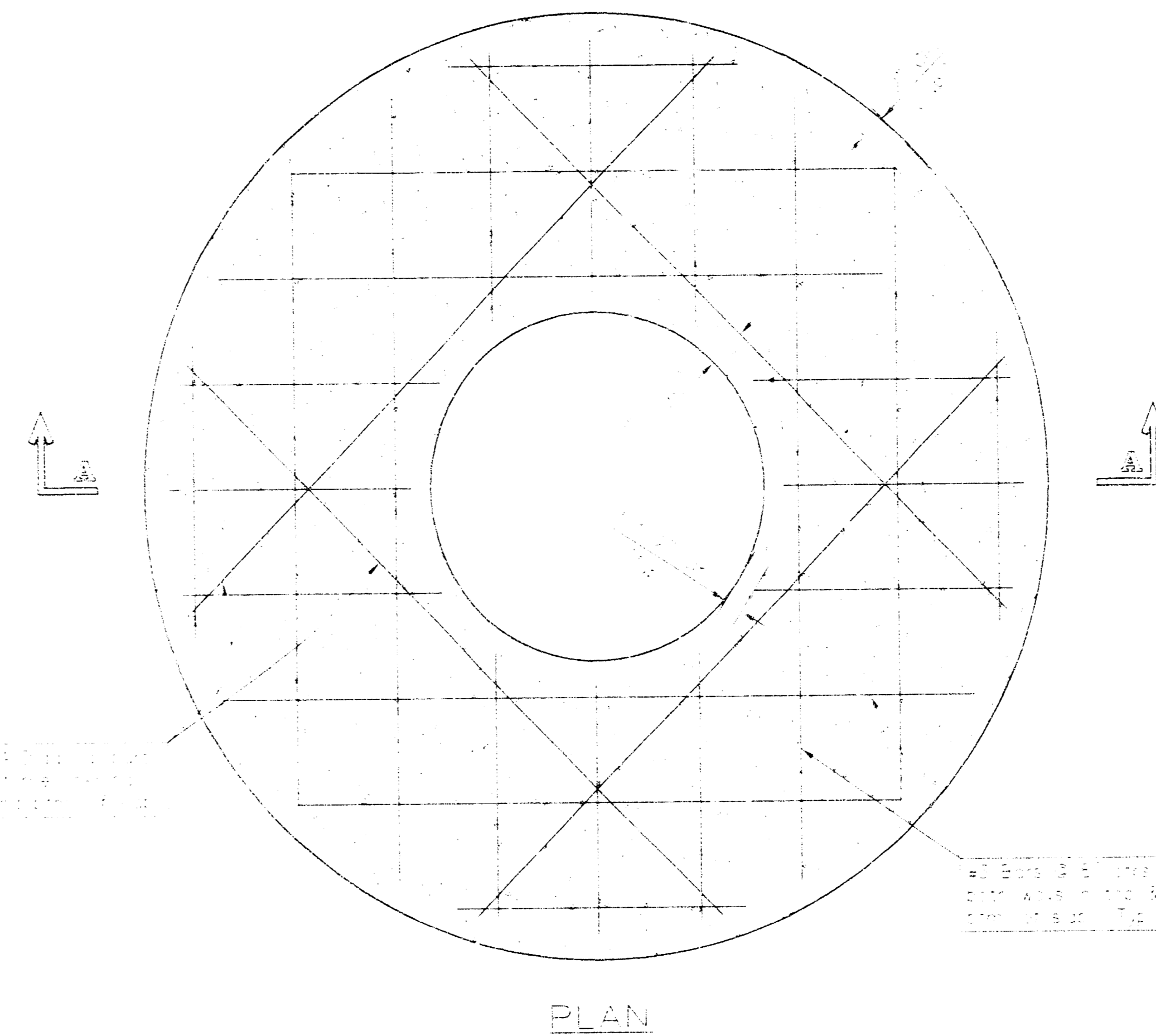




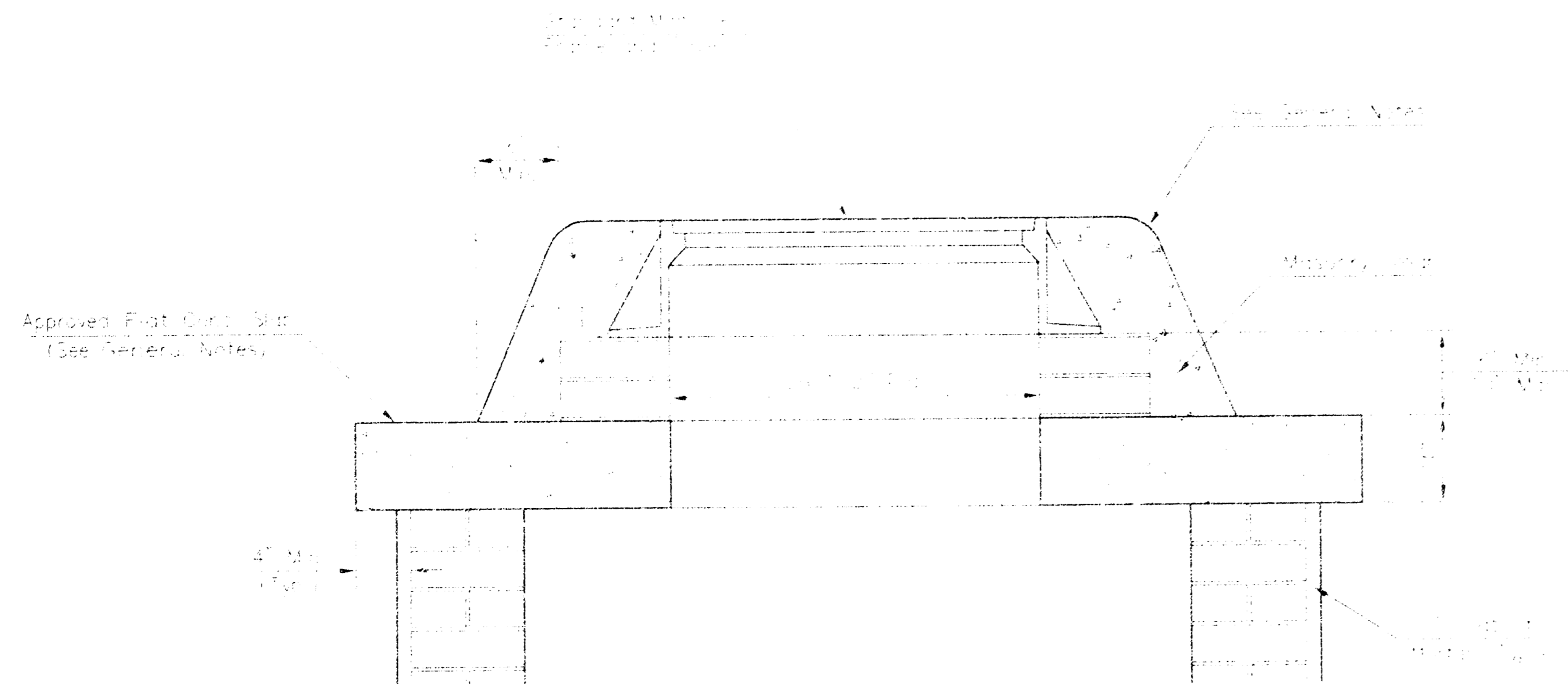
SHALLOW TYPE "A" MANHOLE



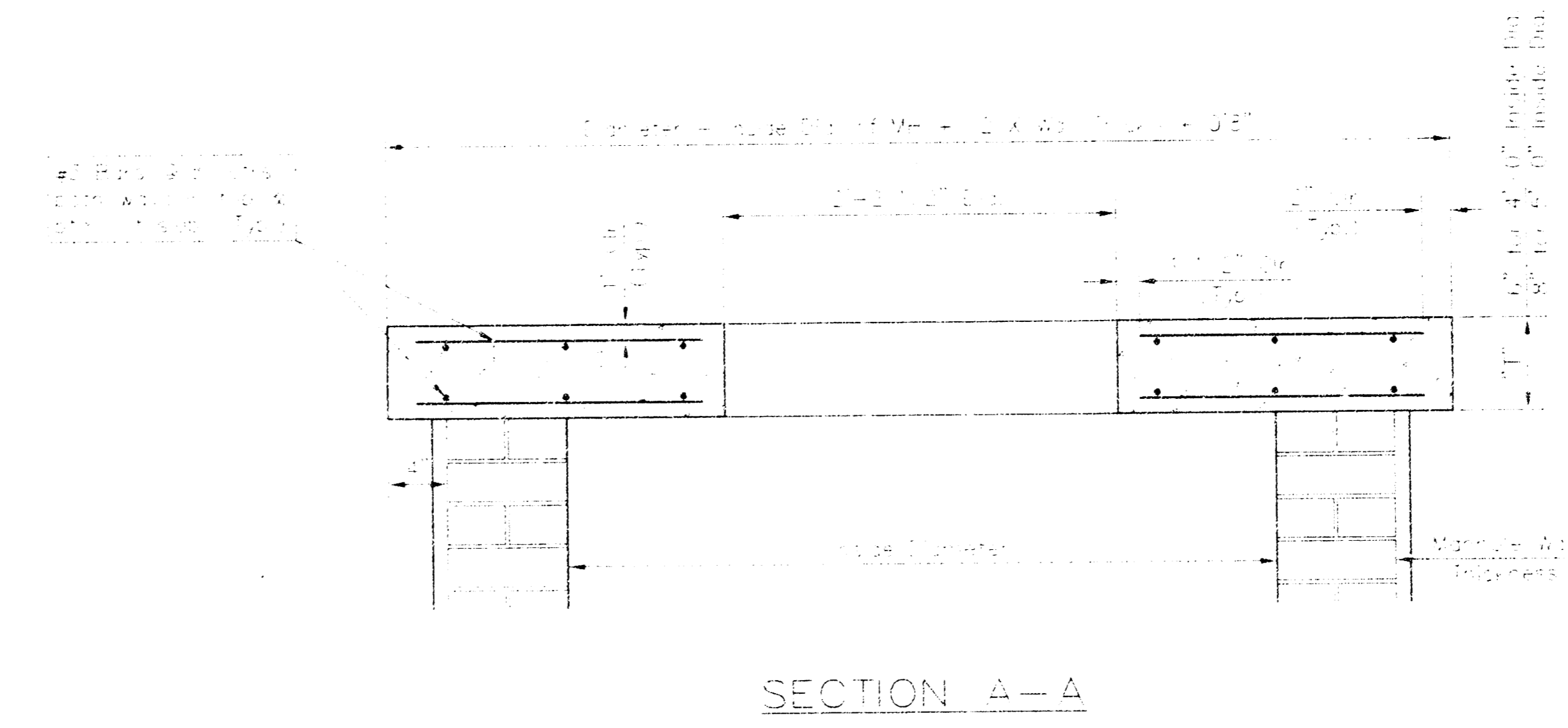
SHALLOW TYPE "B" MANHOLE



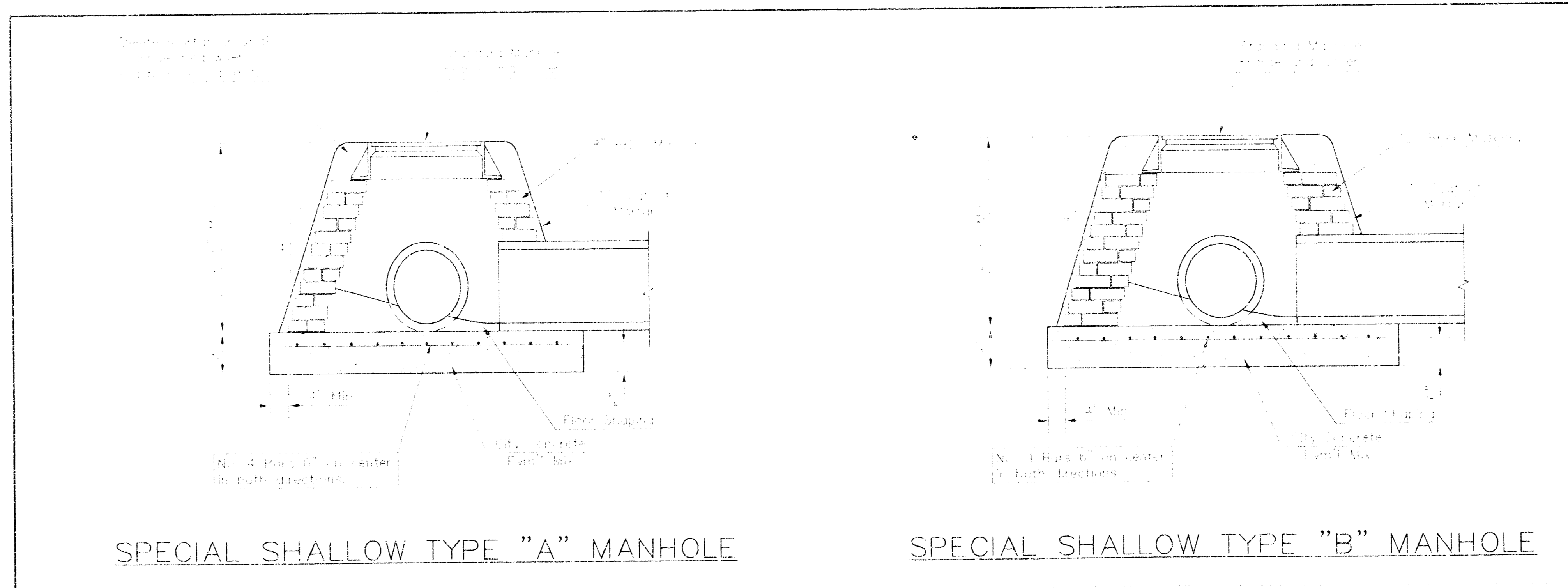
PLAN



MASONRY COLLAR DETAIL



FLAT CONCRETE SLAB DETAILS



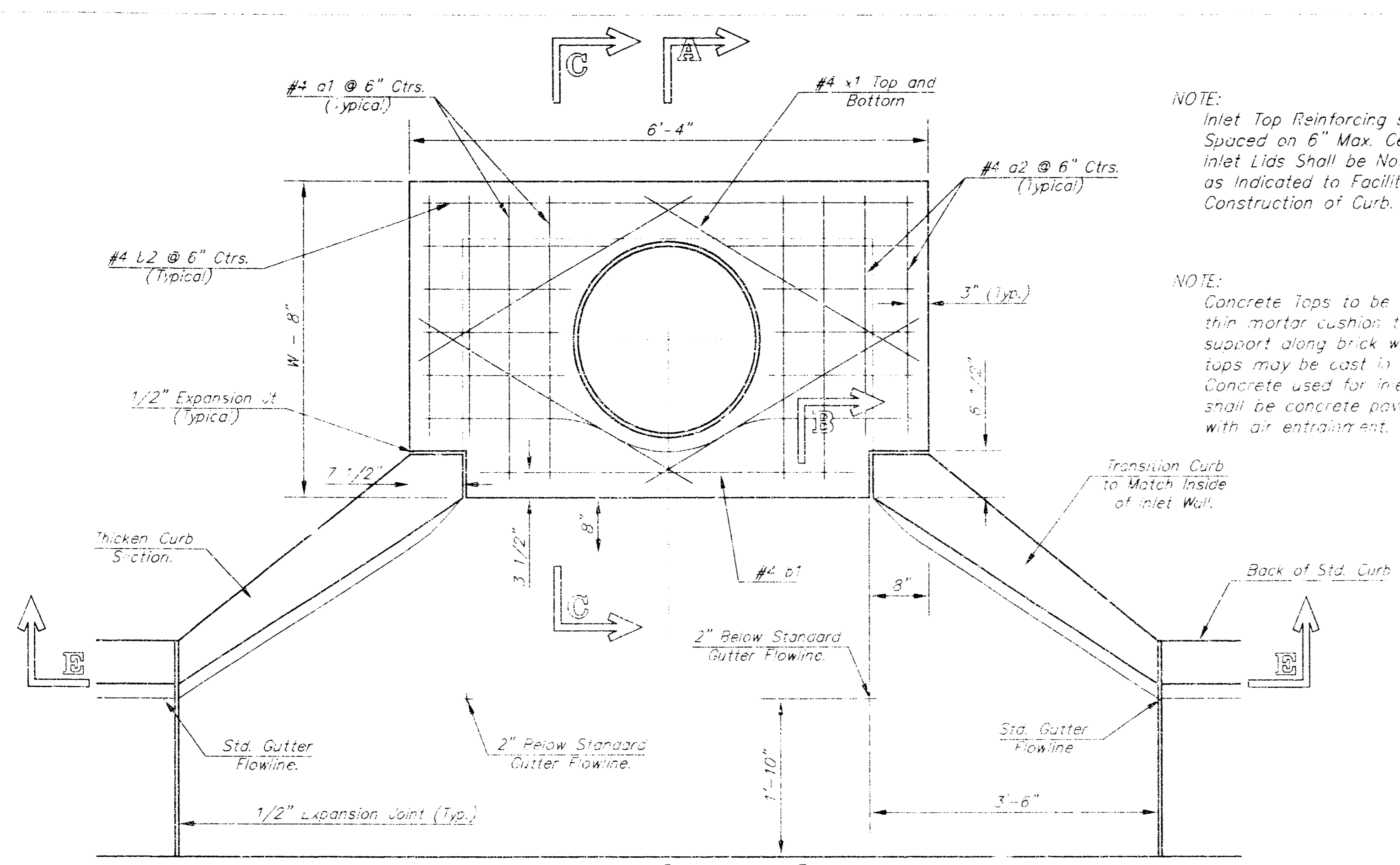
SPECIAL SHALLOW TYPE "A" MANHOLE

SPECIAL SHALLOW TYPE "B" MANHOLE

GENERAL NOTES

- Mortar used in masonry construction shall contain 8 sacks of cement per cubic yard. Concrete used in manhole bases shall conform to the requirements of concrete for concrete pavement construction as specified in the city standard paving specifications using city concrete cement mix without air entraining admixture. Mortar shall be placed around the manhole ring as shown on the drawings when manholes are constructed in unpaved areas. Type "A" shallow manholes can be used on sewers when the manhole is not located within public street pavement. Manholes constructed where pipe sizes are smaller than 24" shall have an inside diameter of 4". Manholes constructed where pipe sizes are 24" or larger shall have an inside diameter of 5". Completed manhole shall be without leaks and water tight.
- Reinforcing steel shall be installed in the manhole bases and shall consist of no. 4 bars placed on 6" centers in both directions. The manhole base reinforcement shall be placed 6" above the bottom of the manhole base. All costs for furnishing and installing reinforcing steel shall be included in the unit price bid for the manhole.
- The floors of all manholes shall be shaped with flow channels such that the manholes will be self cleaning and free of areas where solids could be deposited as sewage flows through the manhole from inlet pipes to the outlet pipe. Flow channels shall be formed to match the bottom halves of the inflowing pipes and the outflowing pipe as shown by the drawings. Manhole floors shall have slopes of 3 inches per foot in the areas outside of the flow channels sloped toward the flow channels. Pipes laid through manholes shall have the top half removed to neat lines for the full inside diameter of the manhole. Manhole floors shall then be shaped around the bottom half of the pipe which forms the flow channel.
- Pipes installed within the excavation made for the manhole shall be cradled with concrete to the limits of the manhole excavation. When clay pipe is used, the cradle shall extend to the first joint outside the manhole. The cradle shall be terminated at the clay pipe joint in a manner which will maintain the flexibility of the joint. Cost of cradle within manhole excavation or to clay pipe joints adjacent to manhole shall be included in the unit price bid for the manhole.
- Manhole cover castings and manhole frame castings shall conform to the requirements as indicated in the standard specifications and as shown in the standard detail drawings.
- The crowns of inflowing pipes shall never be set lower than the crown of the outflowing pipe.
- Standard shallow manholes type "A" and "B" shall be paid for at the unit price bid per each for the type and diameter indicated. Standard special shallow manholes type "A" and "B" shall be paid for at the unit price bid per each for the type indicated. All standard shallow manhole diameters will be 4' unless indicated otherwise.
- All brick used in manhole construction shall meet Grade Sw of ASTM C652 or C62-67.

<p>CITY ENGINEER'S OFFICE CITY HALL - SEVENTH FLOOR 145 NORTH MAIN STREET WICHITA, KANSAS 67202 (316) 268-2114 FAX</p>	STANDARD/SPECIAL SHALLOW MANHOLES TYPE "A" & "B"	
	M. E. LINDEBAK F.E. - CITY ENGINEER	
	PROJECT NUMBER XXX-XXXXX	INDEX CODE XXXXXX
	DATE MAR 95	SHEET 4 OF 5

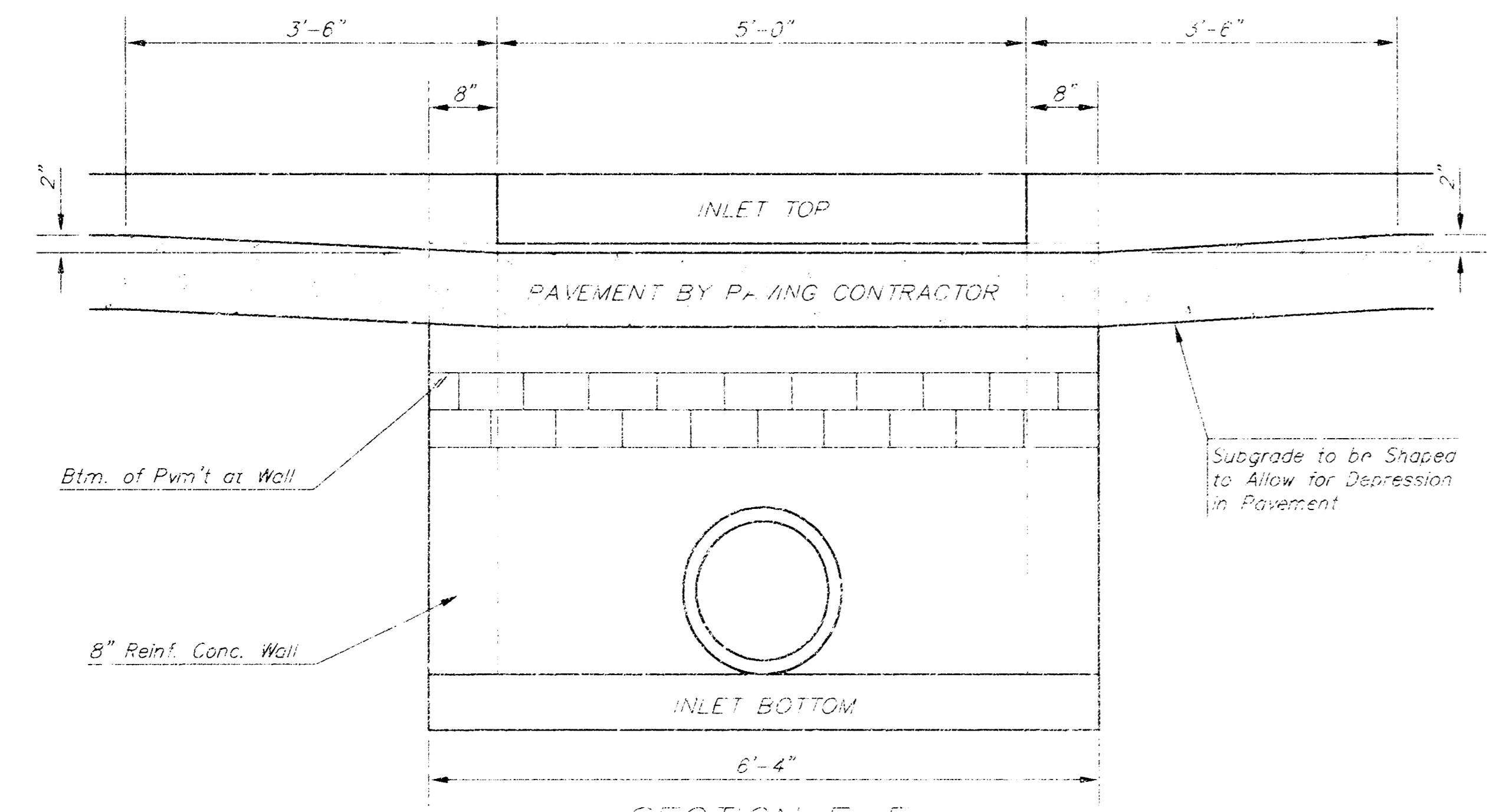


NOTE: Inlet Top Reinforcing shall be Spaced on 6" Max. Centers. Inlet Lids Shall be Notched Out as Indicated to Facilitate Construction of Curb.

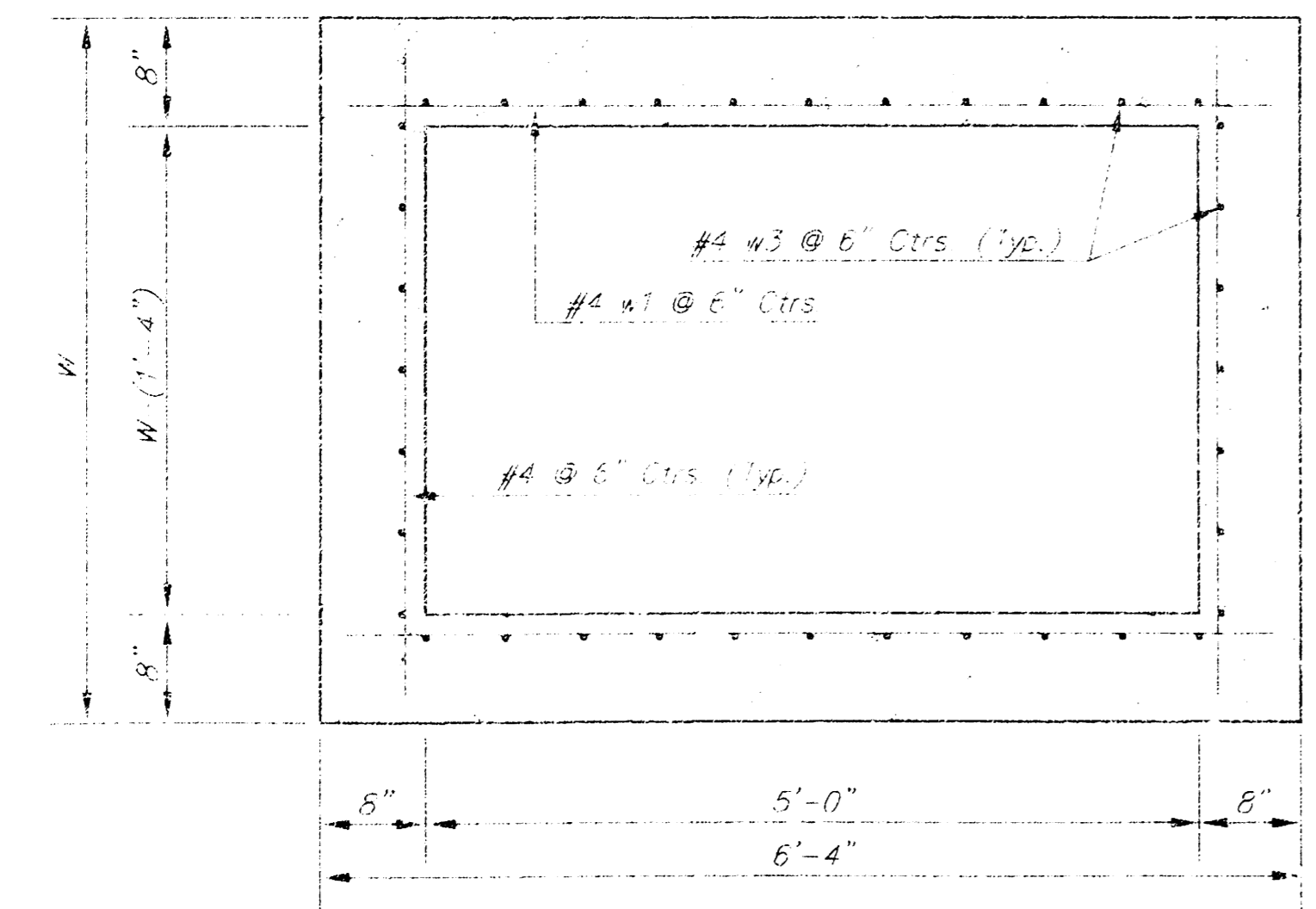
NOTE: Concrete tops to be installed on thin mortar cushion to insure full support along brick walls. concrete tops may be cast in place or precast. Concrete used for inlet construction shall be concrete pavement mix with air entrainment.

NOTE: Expansion Joint Only in Curb Area With Concrete Pavement.

PLAN



SECTION E-E



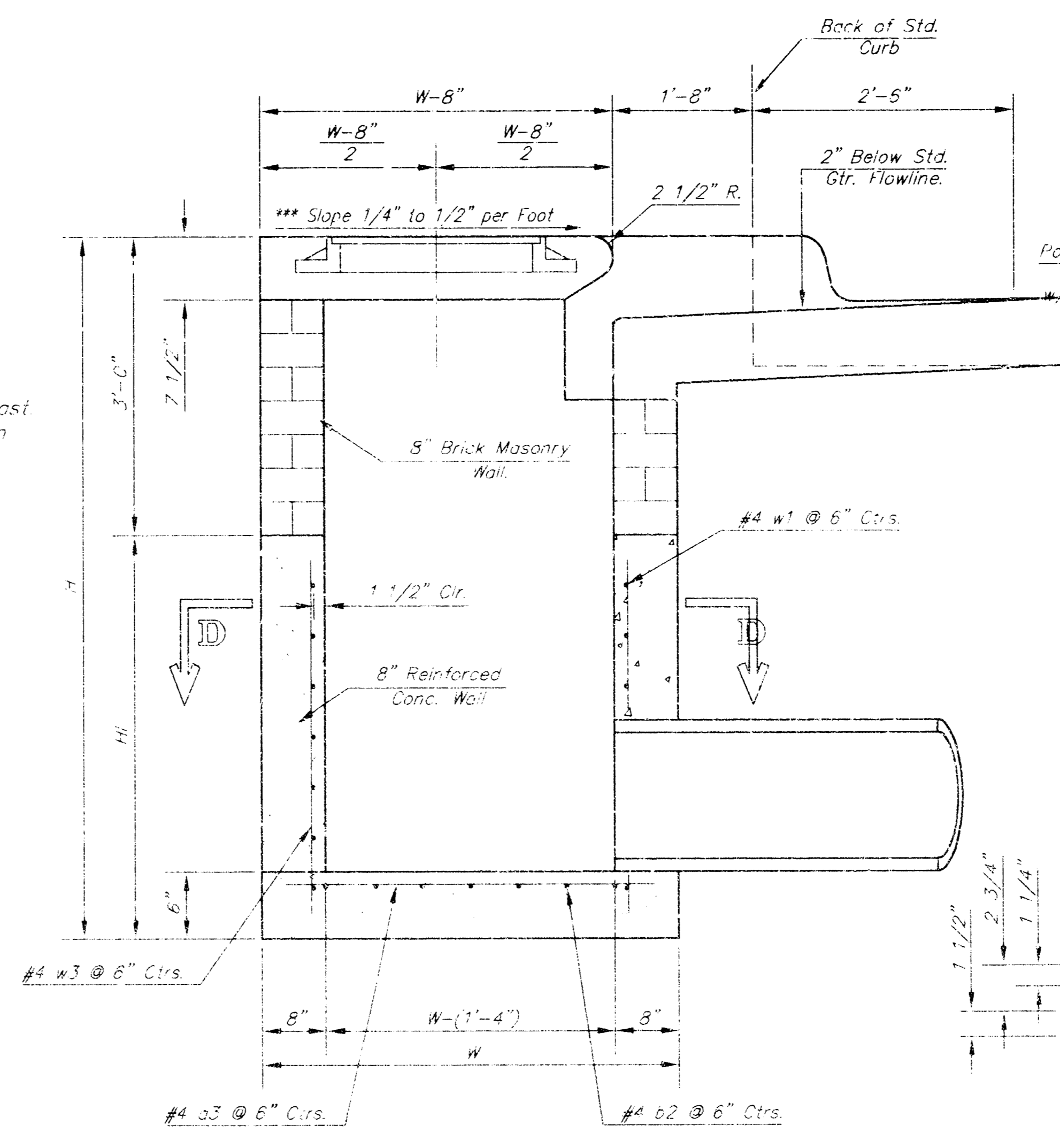
SECTION D-D

NOTE: Contractor shall have the option of constructing 8" brick masonry walls between the concrete inlet base and top in this inlet when W=6'-4" and W=7'-0" or less.

Additional curb and gutter construction necessary to complete set back inlet to pavement will be paid for at the unit price bid for each inlet hookup.

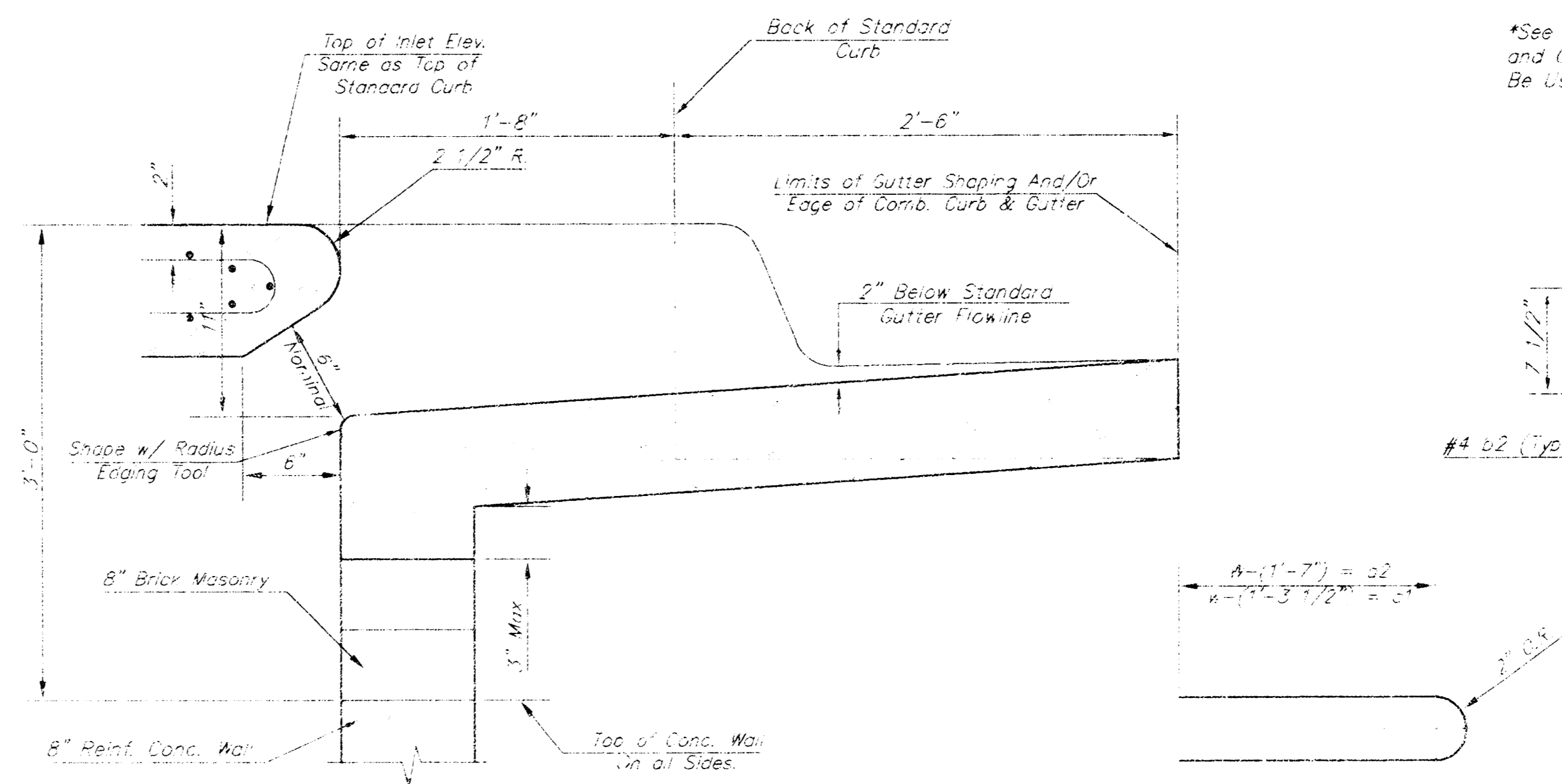
Inlet inlets shall be spaced with 8" bars and mix concrete to create flow channels and to increase hydraulic efficiency such that the inlet will be self-cleaning between all inlet and/or outlet pipes.

The ends of all pipes installed in inlets shall be cut off flush with the inside face of the inlet wall.



SECTION A-A

NOTE: Slope of inlet tops to match sidewalk or parking slopes within limits indicated.



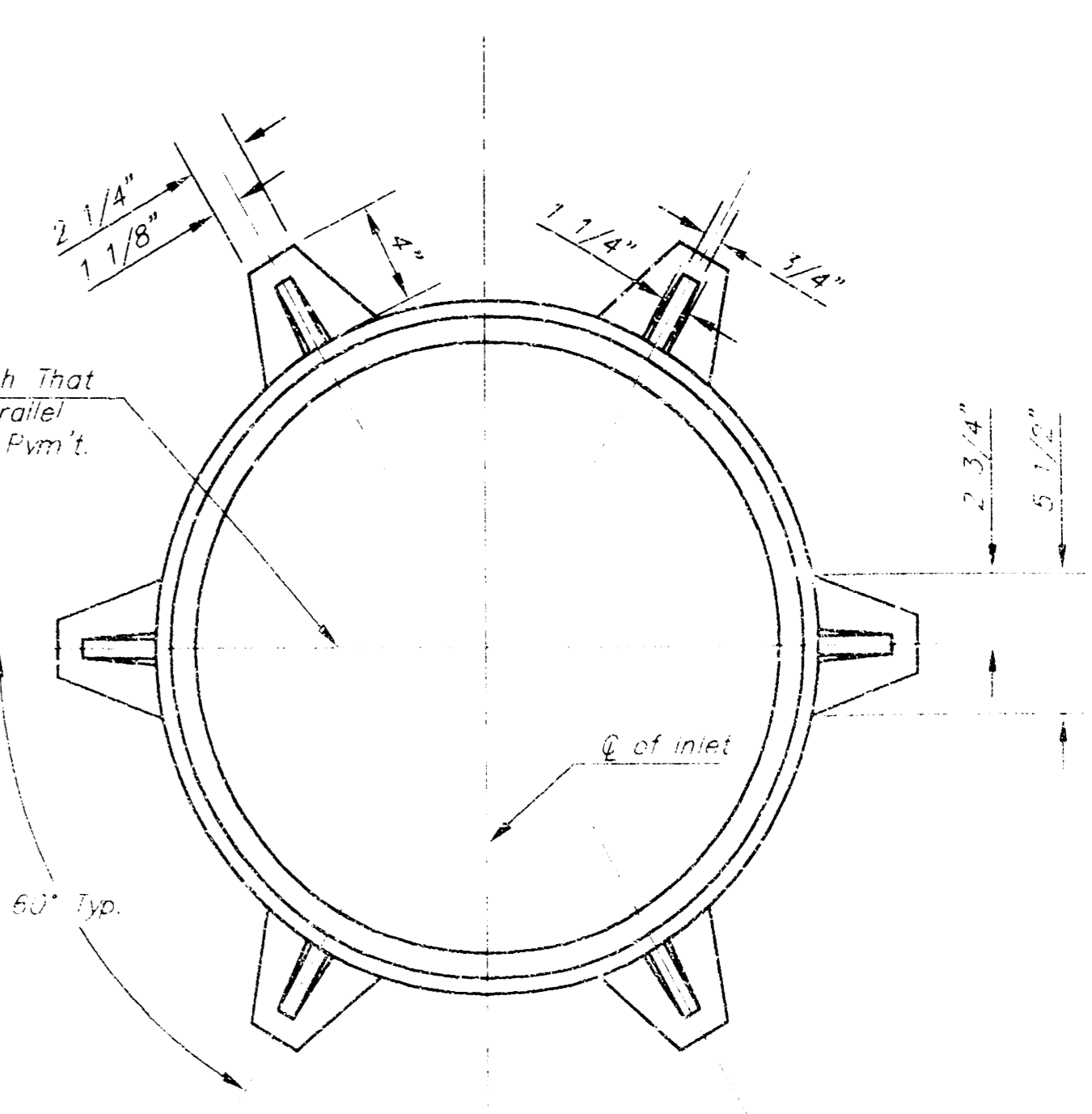
SECTION B-B

BENDING DIAGRAM

MARK	SIZE	PRECAST SLAB AND FLOOR REINFORCING									
		W = 4'-4"		W = 5'-4"		W = 6'-4"		W = 7'-4"		W = 8'-4"	
NO.	LENGTH	NO.	LENGTH	NO.	LENGTH	NO.	LENGTH	NO.	LENGTH	NO.	LENGTH
1	6'-0"	8	6'-0"	8	6'-0"	8	6'-0"	8	6'-0"	8	6'-0"
2	4'-11"	8	4'-11"	8	4'-11"	8	4'-11"	8	4'-11"	8	4'-11"
3	3'-10"	8	3'-10"	8	3'-10"	8	3'-10"	8	3'-10"	8	3'-10"

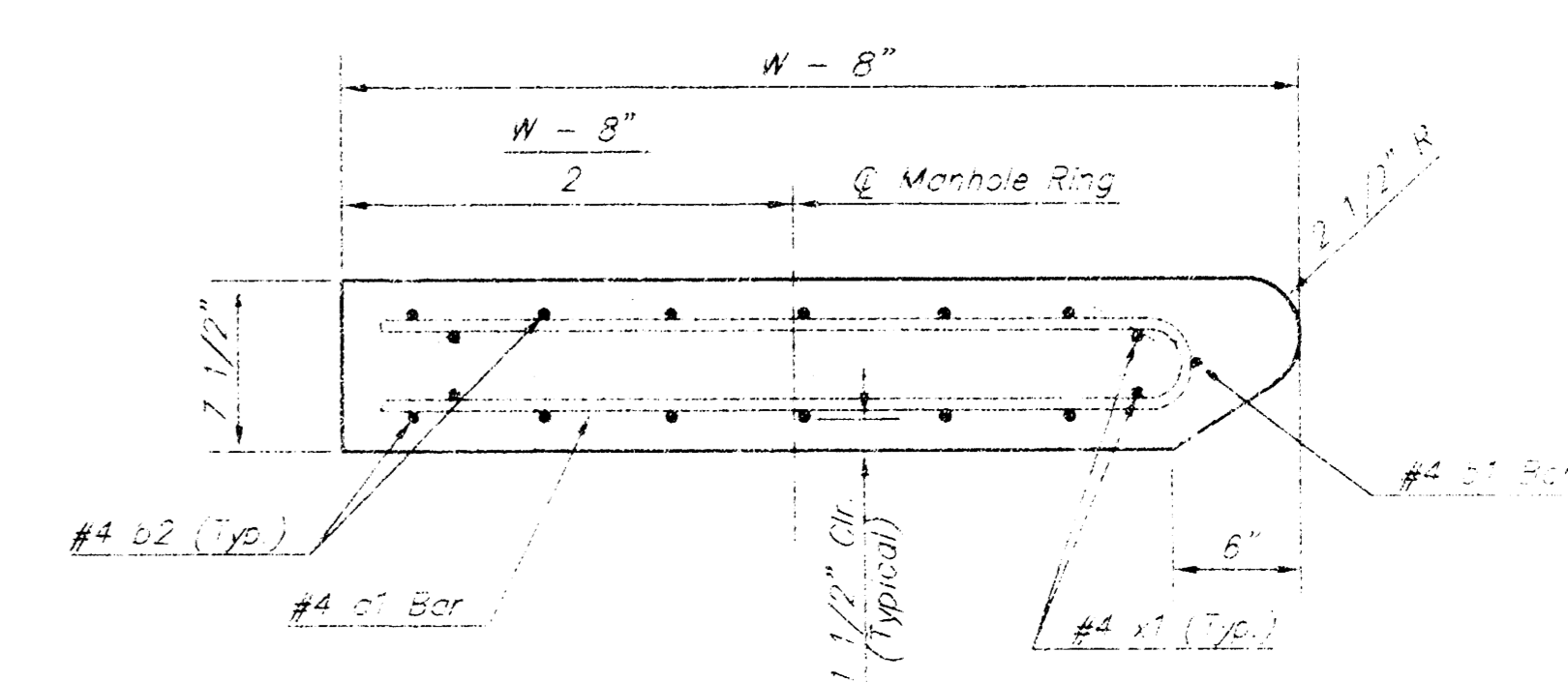
MARK	SIZE	PRECAST SLAB AND FLOOR REINFORCING									
		W = 4'-4"		W = 5'-4"		W = 6'-4"		W = 7'-4"		W = 8'-4"	
NO.	LENGTH	NO.	LENGTH	NO.	LENGTH	NO.	LENGTH	NO.	LENGTH	NO.	LENGTH
1	6'-0"	8	6'-0"	8	6'-0"	8	6'-0"	8	6'-0"	8	6'-0"
2	4'-11"	8	4'-11"	8	4'-11"	8	4'-11"	8	4'-11"	8	4'-11"
3	3'-10"	8	3'-10"	8	3'-10"	8	3'-10"	8	3'-10"	8	3'-10"

* Field Bend or Cut Reinforcing as Required for Clearance.
 ① 4 (H = 12") (H = 21") Rounder down to nearest 0.5"
 ② H = 3"



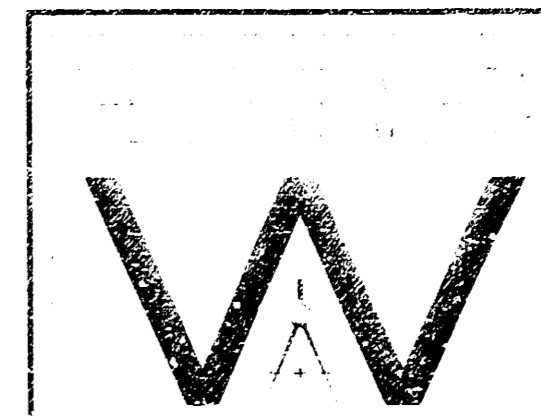
MANHOLE RING AND COVER

Weight = 180 lbs.
 *See City of Wichita Standard Manhole Ring and Cover Detail Sheet for Cover Details to Be Used With Inlet Frame.



SECTION A-A

STANDARD CURB INLET PRECAST TOPS			
W	PRE-CAST TOP SIZE	PRE-CAST TOP TO CURB	TO CURB
4'-4"	3'-9" x 6'-4" x 7 1/2"	2 1/2" & SMALLER	0.362
5'-4"	4'-8" x 6'-4" x 7 1/2"	2 1/2"	0.512
6'-4"	5'-8" x 6'-4" x 7 1/2"	3" & 4"	0.662
7'-4"	6'-8" x 6'-4" x 7 1/2"	4" & 5"	0.812
8'-4"	7'-8" x 6'-4" x 7 1/2"	5" & 6"	0.962



STANDARD TYPE 1-A CURB INLET OPENING 6" x 3"

M. E. LINDBERGH, P.E. - CIVIL ENGINEER
 PROJECT NUMBER: 797-APR-607661
 DATE: MAR 98