

SRB  
SCALE  
1"=20' PLAN  
1"=5' PROFILE (V.)

REMOVE AND REPLACE  
CONCRETE PAVEMENT TO  
EXISTING JOINTS.

STATION 0+00.0  
CONSTRUCT STD. SHALLOW TYPE 7"  
MANHOLE OVER EXISTING 15" STORM  
SEWER. TOP ELEV. 118.29, 119.21

1179.3  
STATION 1+79.3  
CONSTRUCT 2'x4' DROP INLET.  
TOP ELEV. 118.29, 118.15

WELLINGTON PLACE

ADAMS RESERVE  
TURNERS ADDITION

UNION PACIFIC RAILROAD

APPROVED AS NOTED  
BY CITY ENGINEER OF WICHITA

Sanitary Sewers \_\_\_\_\_  
Storm Sewers VRH 5/20/97  
Driveway Approaches \_\_\_\_\_  
Water Mains \_\_\_\_\_  
Paving \_\_\_\_\_

NOTE TO CONTRACTORS  
Inspection and testing for this project are 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 standards construction engineering practices and certified by a Licensed Professional Engineer. No work shall be performed in dedicated easements or public right-of-way by the Contractor without such inspection, nor shall any work be commenced without written authorization by the City Engineer.

**GENERAL NOTES**

- All work on this project shall conform to the Standard Specifications for Storm Sewer Construction of the City of Wichita.
- Letting dimensions use to center of new inlet.
- All areas within public right-of-way which may be disturbed by Contractor's operations shall be restored in accordance with City of Wichita Administrative Regulation AR-78.
- The Contractor shall notify Kansas One-Call (687-2470) a minimum of 24 hours prior to any excavation.
- Traffic on 11th Street to be maintained in one direction at all times.
- Any roof drain connection to this storm sewer will require a permit from the City of Wichita.
- Construction within Union Pacific Railroad is permitted under an encroachment agreement with the adjacent property owner. The Contractor will be responsible for notification prior to construction. Contact Keith Davis at 268-9434.

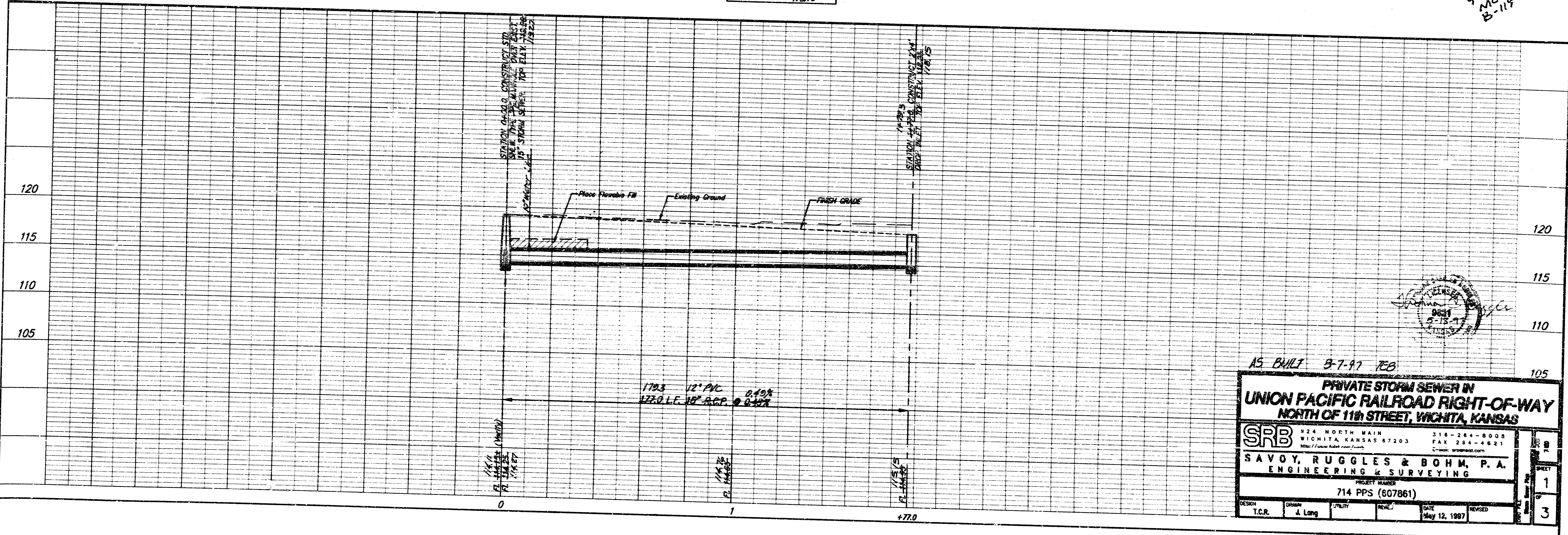
**RUNOFF CALCULATIONS:**

By Rational Formula:	0.00
Impervious Area	25,400 S.F.
Permeous Area	700 S.F.
P.A. (to storm sewer)	0.77 Acres
C <sub>impervious</sub>	0.85
C <sub>permeous</sub>	0.45
C <sub>average</sub>	0.84
Assumed time of concentration	10 min.
I <sub>15</sub>	5.34 in./hr.
I <sub>100</sub>	8.54 in./hr.
Q <sub>15</sub>	3.35 cfs
Q <sub>100</sub>	5.5 cfs
Inlet open area	2.58 S.F.
Capacity at 0.5' depth	6.75 cfs

**BENCH MARK:**

"4" Cut at N.E. Corner 11th and Wellington Place  
Elev. 118.10 (City Datum)

BOOKED  
9-4-96  
MCC  
E-119



AS BUILT 9-7-97 EB

**PRIVATE STORM SEWER IN  
UNION PACIFIC RAILROAD RIGHT-OF-WAY  
NORTH OF 11th STREET, WICHITA, KANSAS**

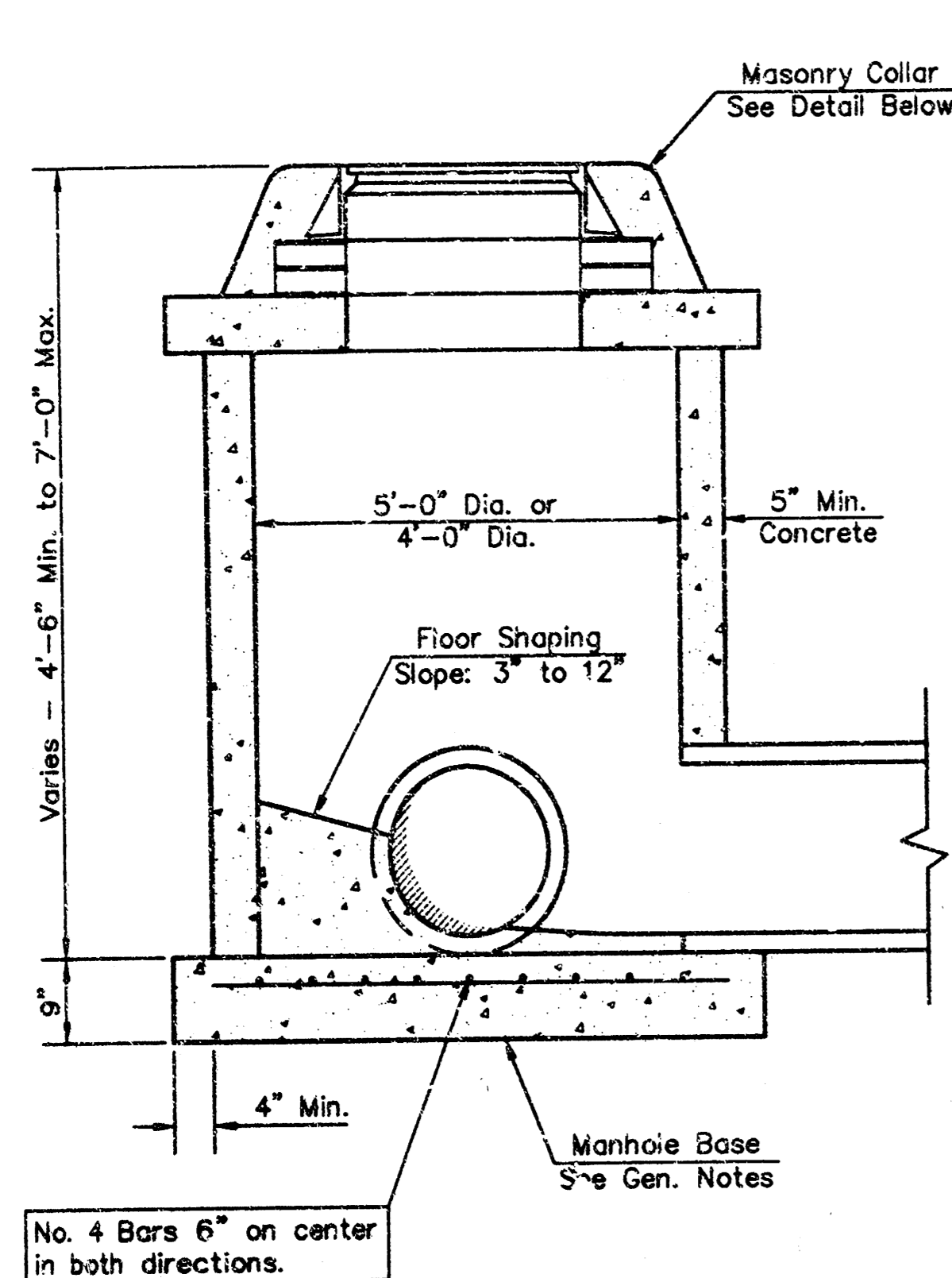
SRB 524 NORTH MAIN WICHITA, KANSAS 67203 318-284-8000 FAX 318-284-4621

SAVOY, RUGGLES & BOHM, P. A.  
ENGINEERING & SURVEYING

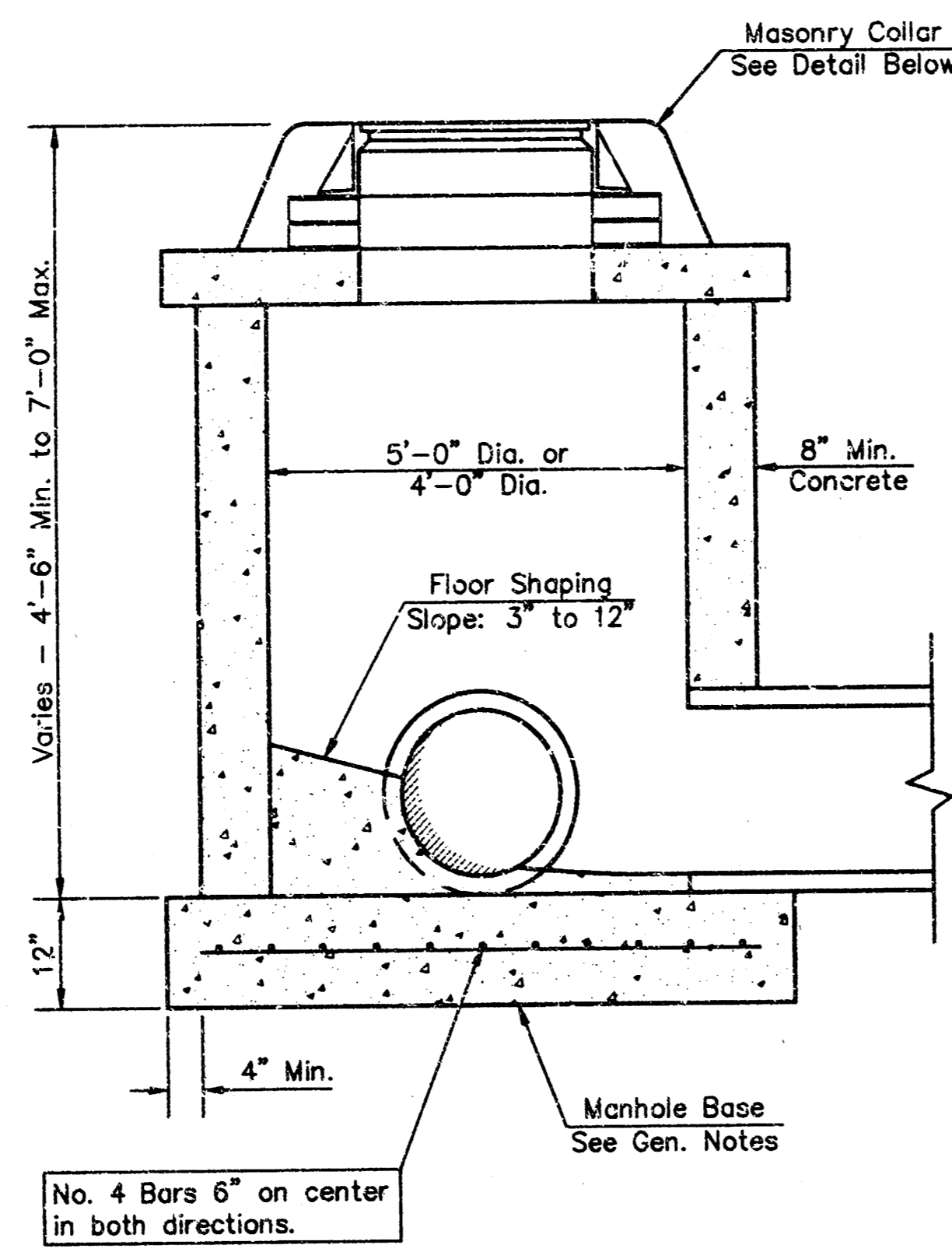
PROJECT NUMBER  
714 PPS (607861)

DESIGN	DRAWN	CHECKED	DATE	REVISED
T.C.R.	J. Long		May 12, 1997	

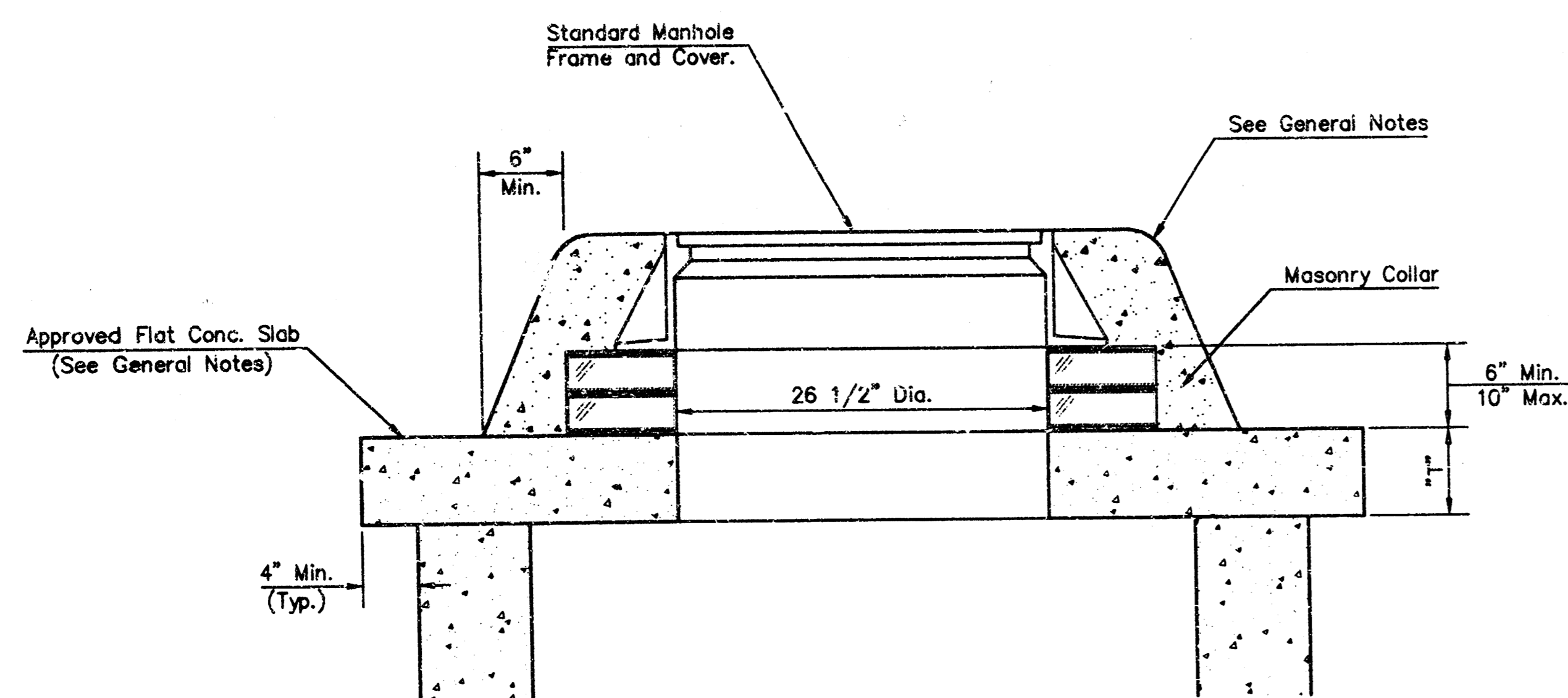
1  
3



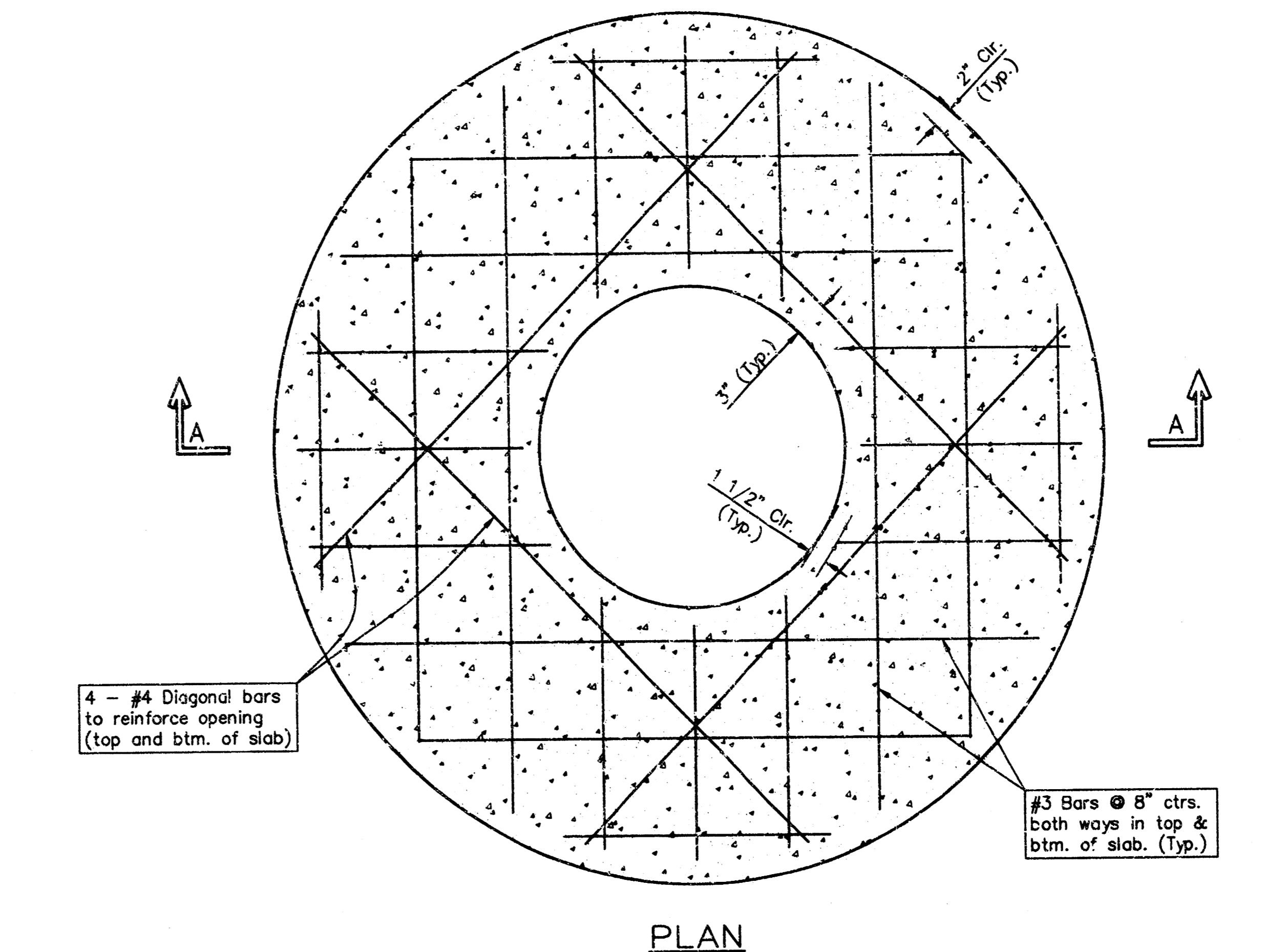
**SHALLOW TYPE "P" MANHOLE**



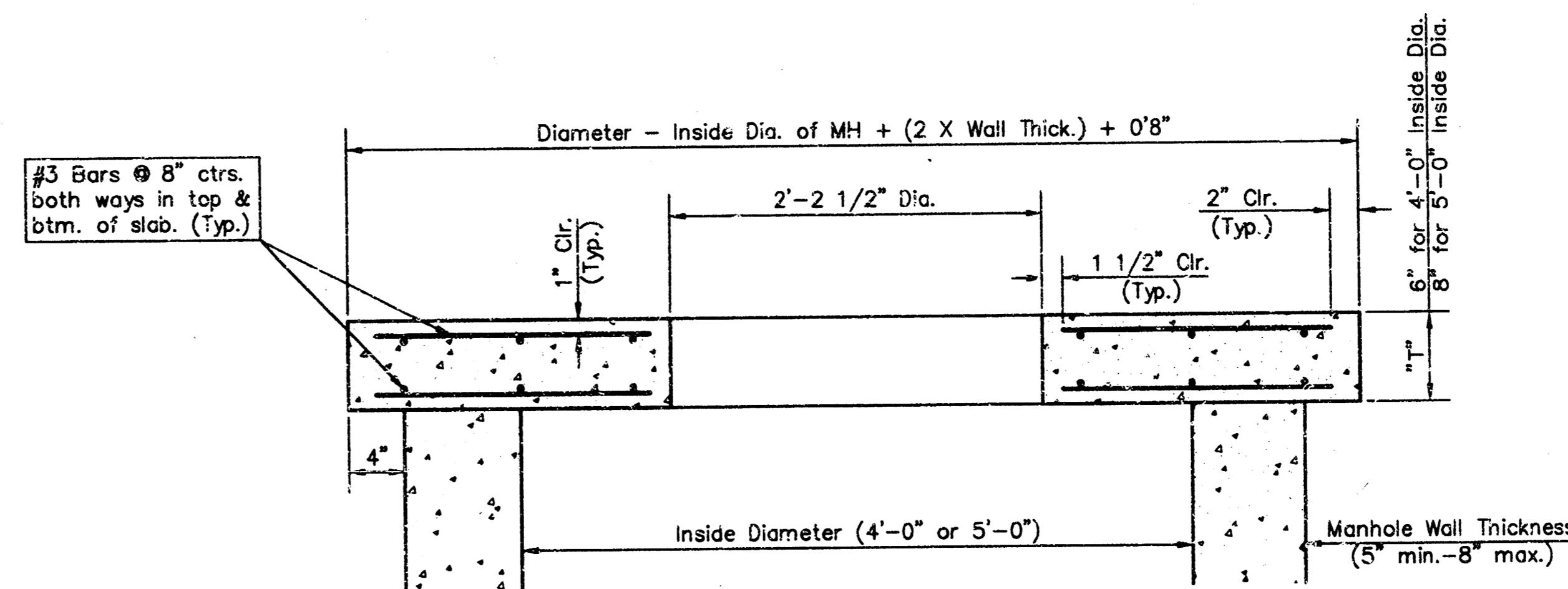
**SHALLOW TYPE "C" MANHOLE**



**MASONRY COLLAR DETAIL**



**PLAN**



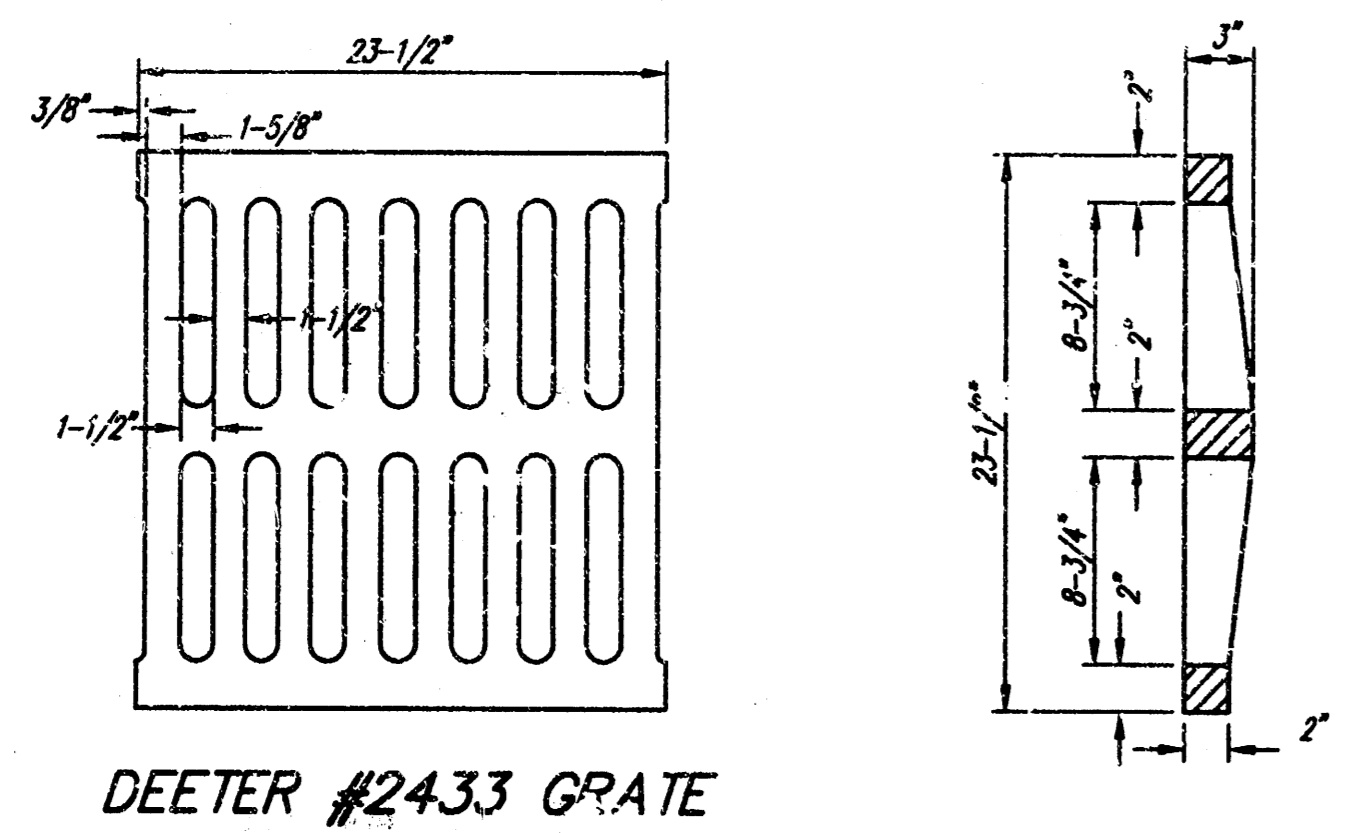
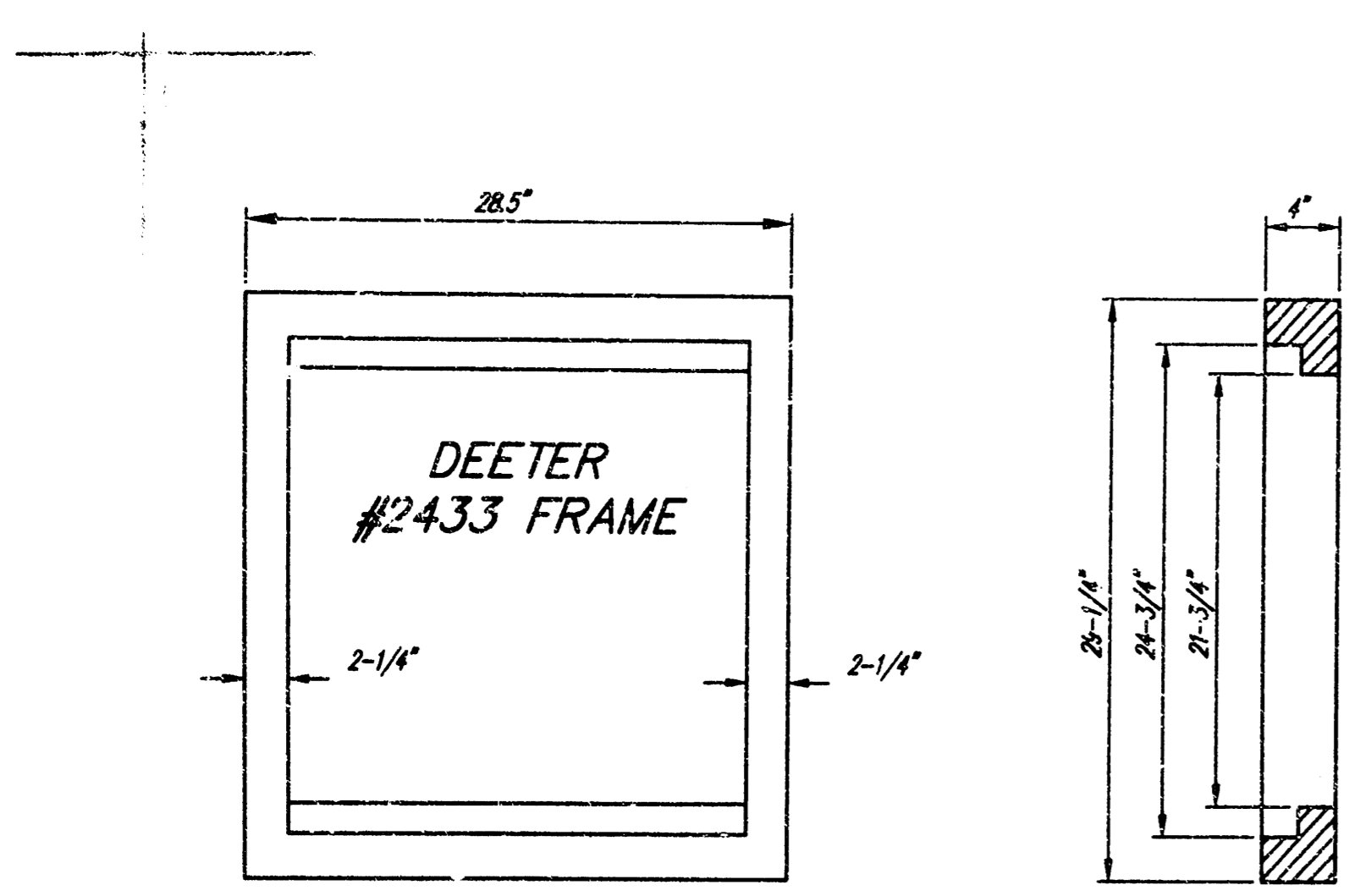
**SECTION A-A**

**FLAT CONCRETE SLAB DETAILS**

**GENERAL NOTES**

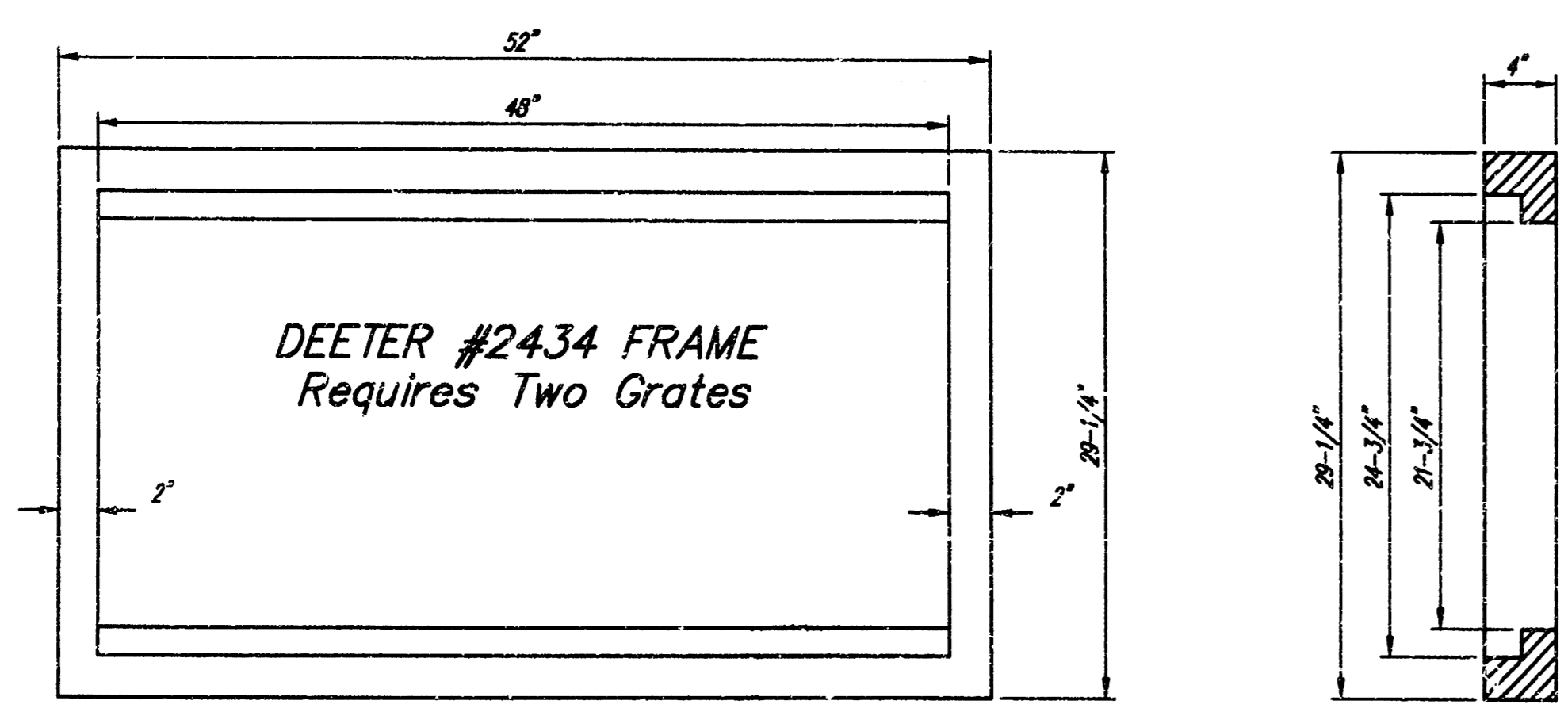
- Mortar used in masonry construction shall contain 8 sacks of cement per cubic yard. Concrete used in manhole bases shall conform to the requirements of concrete for concrete pavement construction as specified in the city standard paving specifications using city concrete cement mix without air entraining admixture. Mortar shall be placed around the manhole ring as shown on the drawings when manholes are constructed in unpaved areas. 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 shall be self cleaning and free of areas where solids could be deposited as sewage flows through the manhole from all 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 "P" and "C" shall be paid for at the unit price bid per each for the type and diameter indicated. All standard shallow manhole diameters will be 4' unless indicated otherwise.
- All brick used in manhole construction shall meet Grade SW of ASTM C852 or C62-87.

<p>THE CITY OF WICHITA</p>	<b>SHALLOW MANHOLES TYPE 'P' AND 'C'</b>	
	M. E. LINDEBAK P.E. - CITY ENGINEER	
<p>CITY ENGINEER'S OFFICE 400 NORTH MAIN STREET WICHITA, KANSAS 67202 (316) 266-4114 FAX</p>	PROJECT NUMBER <b>714 PPS</b>	INDEX CODE <b>607861</b>
	DATE <b>MAR 96</b>	SHEET <b>2</b> OF <b>3</b>

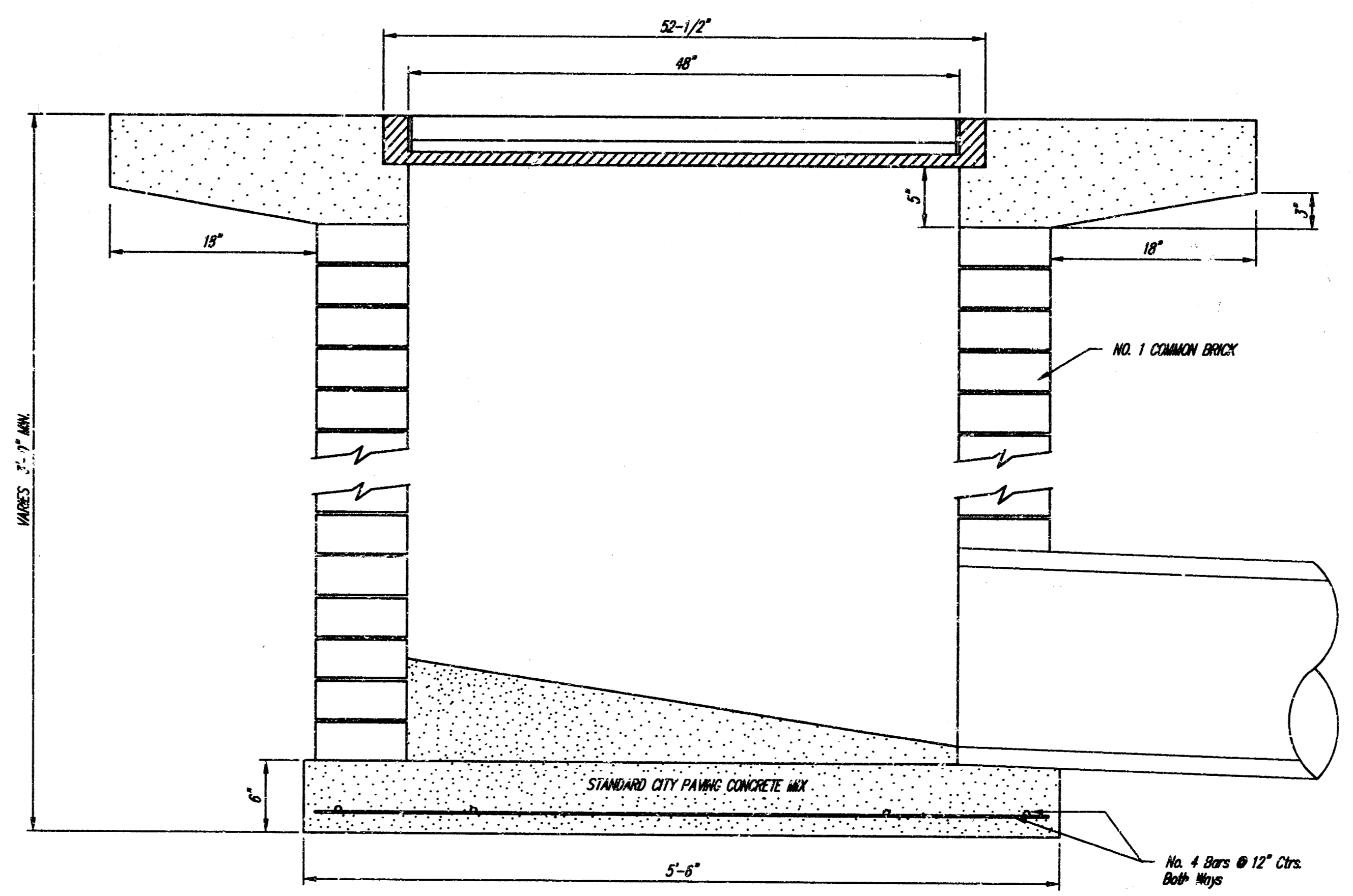
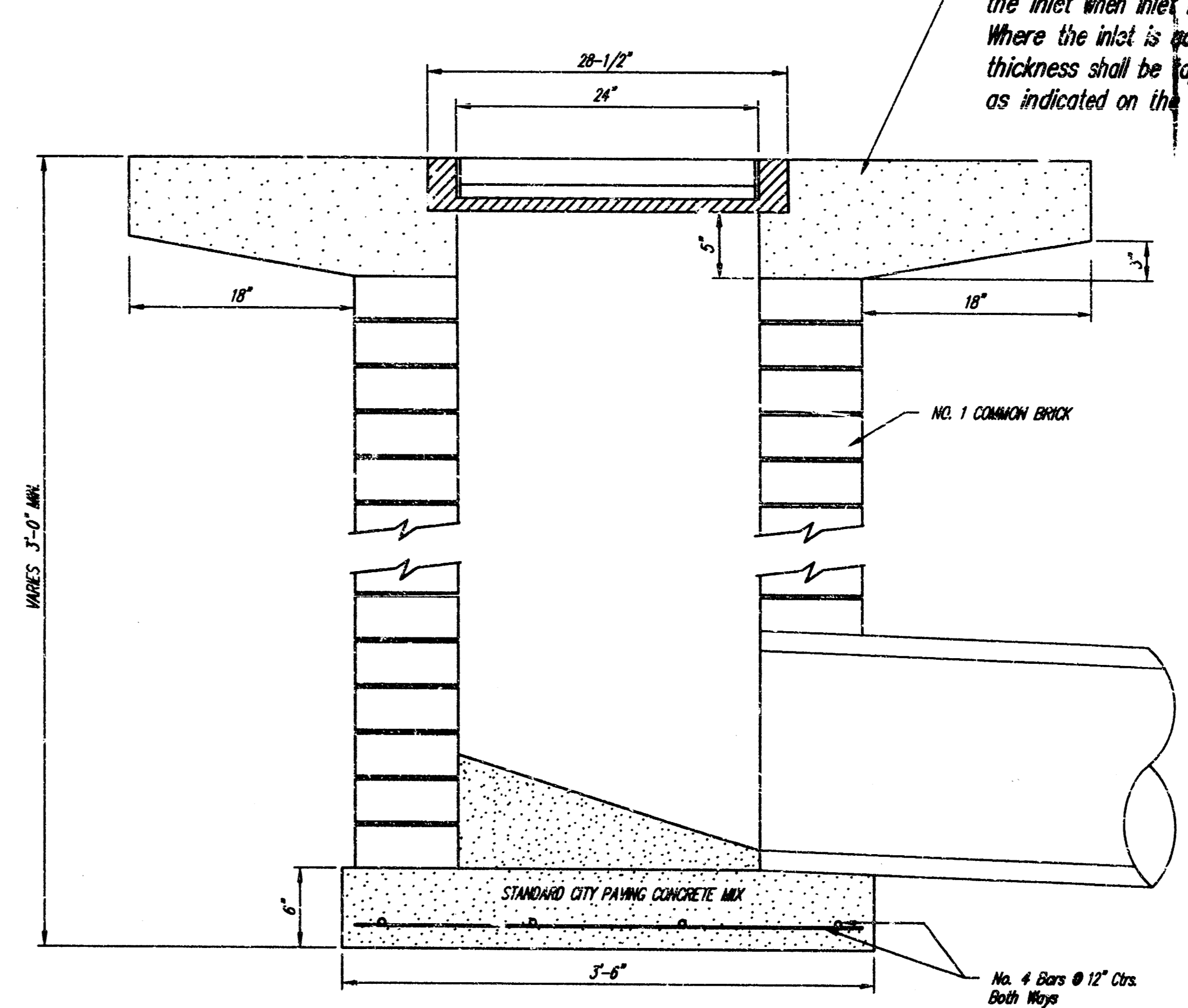
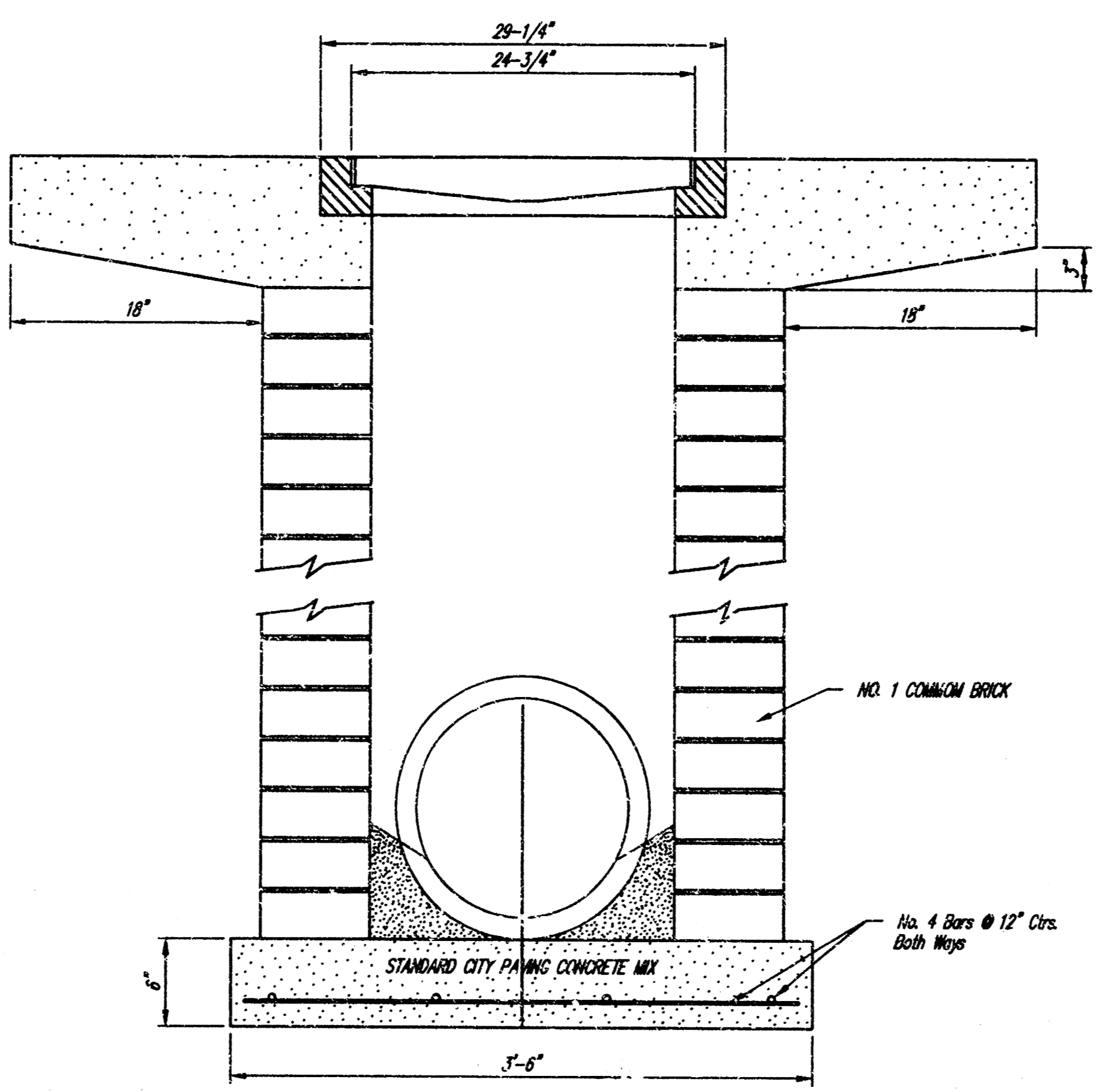


NOTE: Grates shall be imprinted on the top surface with "CITY OF WICHITA" using letters at least 1" in height. Other marking methods may be approved by the engineer.

24" x 24" Frame and Grate Detail



Double 24" x 24" Frame Detail



<p>THE CITY OF WICHITA</p> <p>CITY ENGINEER'S OFFICE CITY HALL - SEVENTH FLOOR ONE NORTH HAWK STREET WICHITA, KANSAS 67202 (316) 268-2200 (316) 268-4114 FAX</p>	<p><b>DROP INLET</b> 2'x2' / 2'x4'</p>	
	<p>M. E. LINDEBAK P.E. - CITY ENGINEER</p>	
<p>PROJECT NUMBER 714 PPS</p>	<p>INDEX CODE 607B61</p>	<p>DATE 10-25-08</p>
<p>SHEET 3 OF 3</p>		