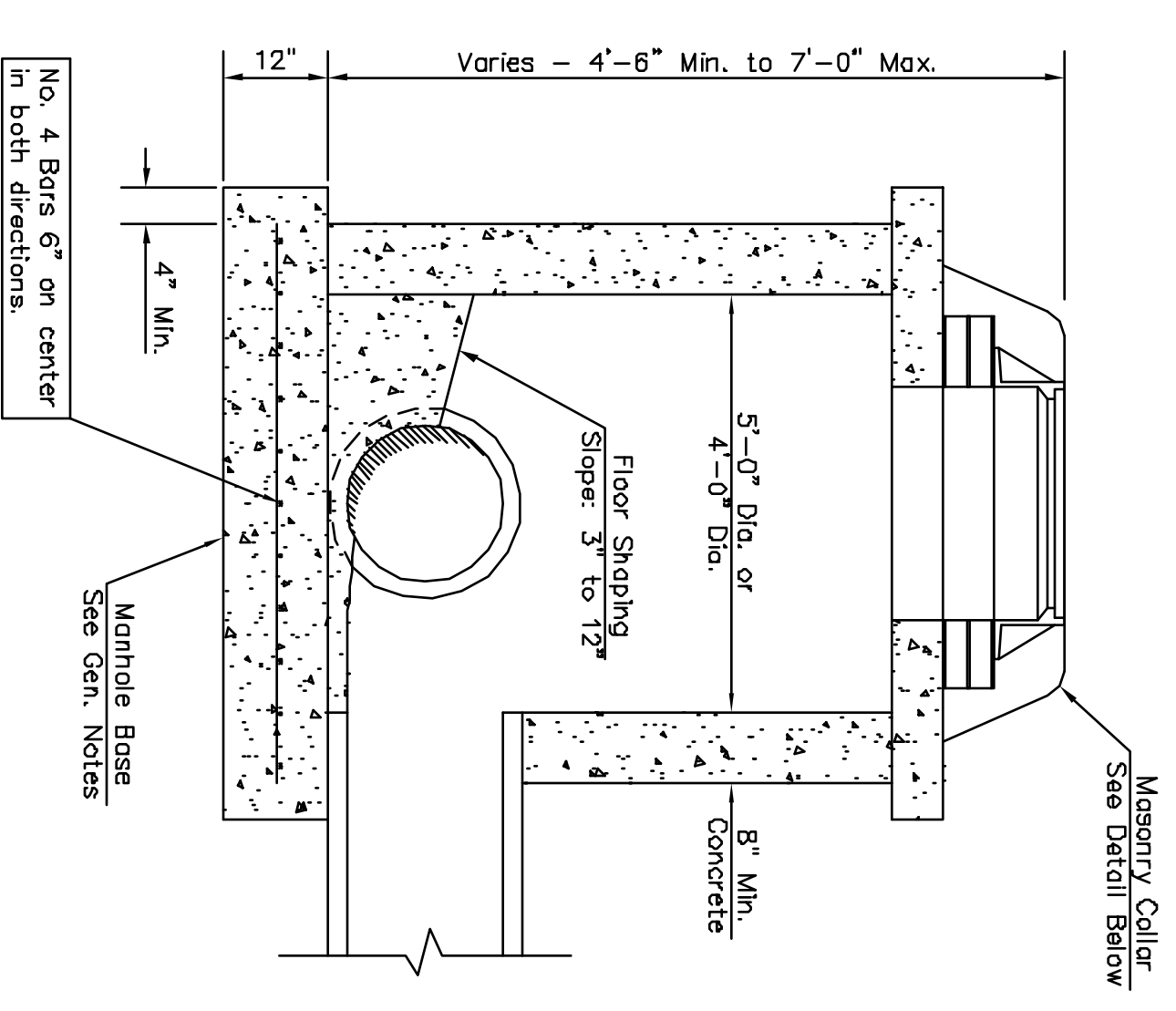
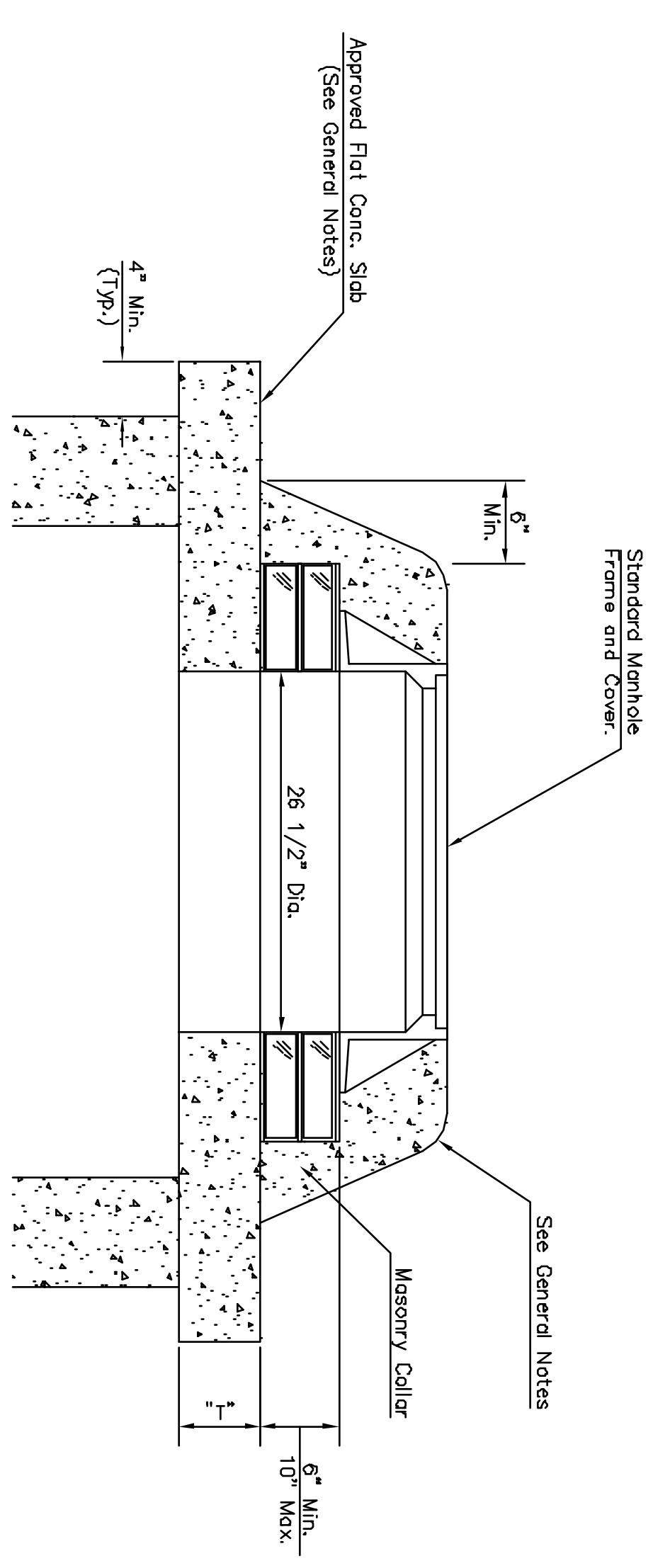


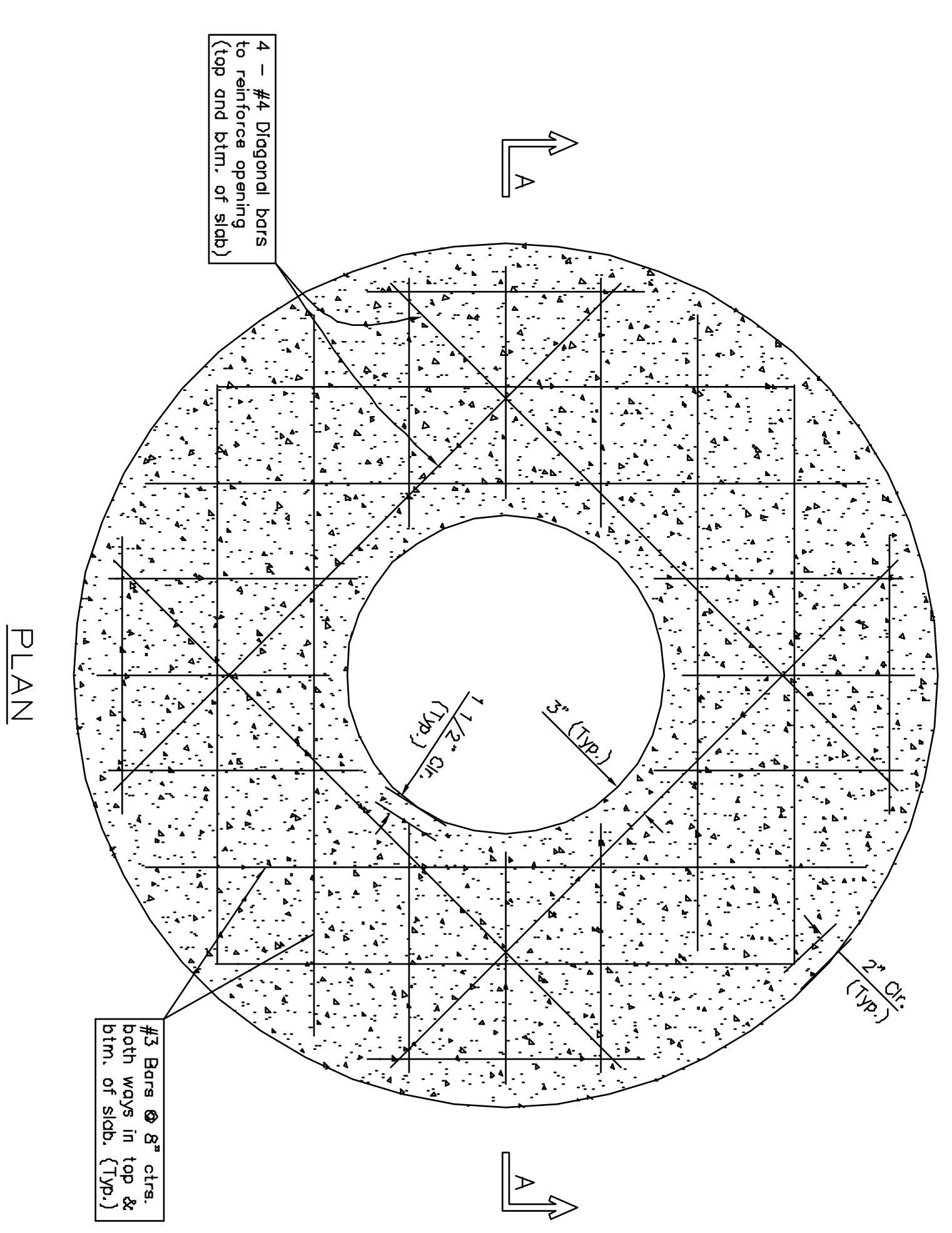
SHALLOW TYPE "P" MANHOLE



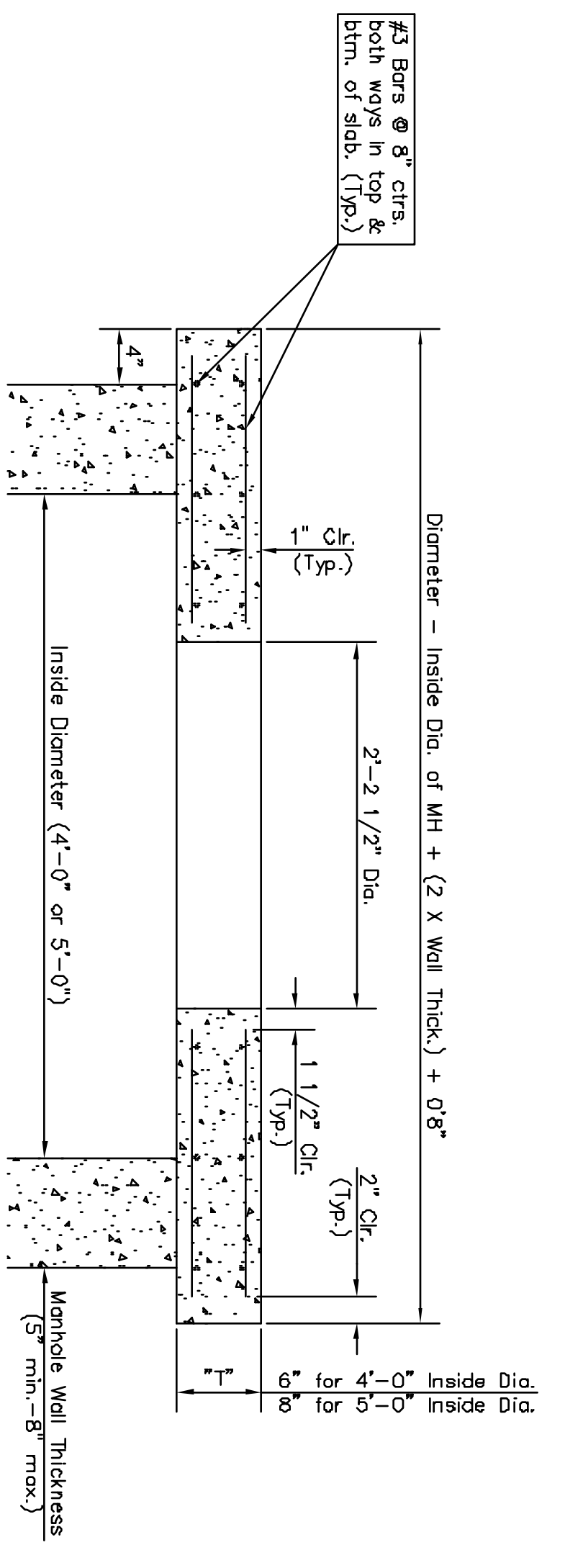
SHALLOW TYPE "C" MANHOLE



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 over 24" shall have an inside diameter of 4". Manholes constructed with pipe shall have a 24" or larger manhole collar and a 5" or larger manhole base. Casted manhole shall be without leads 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 sloped 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 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 flow channels. Pipes laid through manholes shall have flow channels. Pipes laid through manholes shall have the top hat removed to meet bases for the full inside diameter of the manhole. Manhole floors shall then be spaced 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 sized at the unit price bid per each for the manhole 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 C652 or C62-87.

 <p>CITY OF WICHITA ENGINEERING</p>		<p>SHALLOW MANHOLES TYPE 'P' & 'C'</p>	
		<p>JAMES L. ARMOUR, P.E., L.S.</p>	<p>09/2006</p>
<p>PROJECT NUMBER 465-84200</p>	<p>DATE 09/2006</p>	<p>DESIGN COW</p>	<p>DRAWN COW</p>
<p>CITY ENGINEER'S OFFICE CITY HALL - SEVENTH FLOOR WICHITA, KANSAS 67202-1520 (316) 253-1501 FAX (316) 253-1501 X</p>		<p>SHEET 4 OF 6</p>	