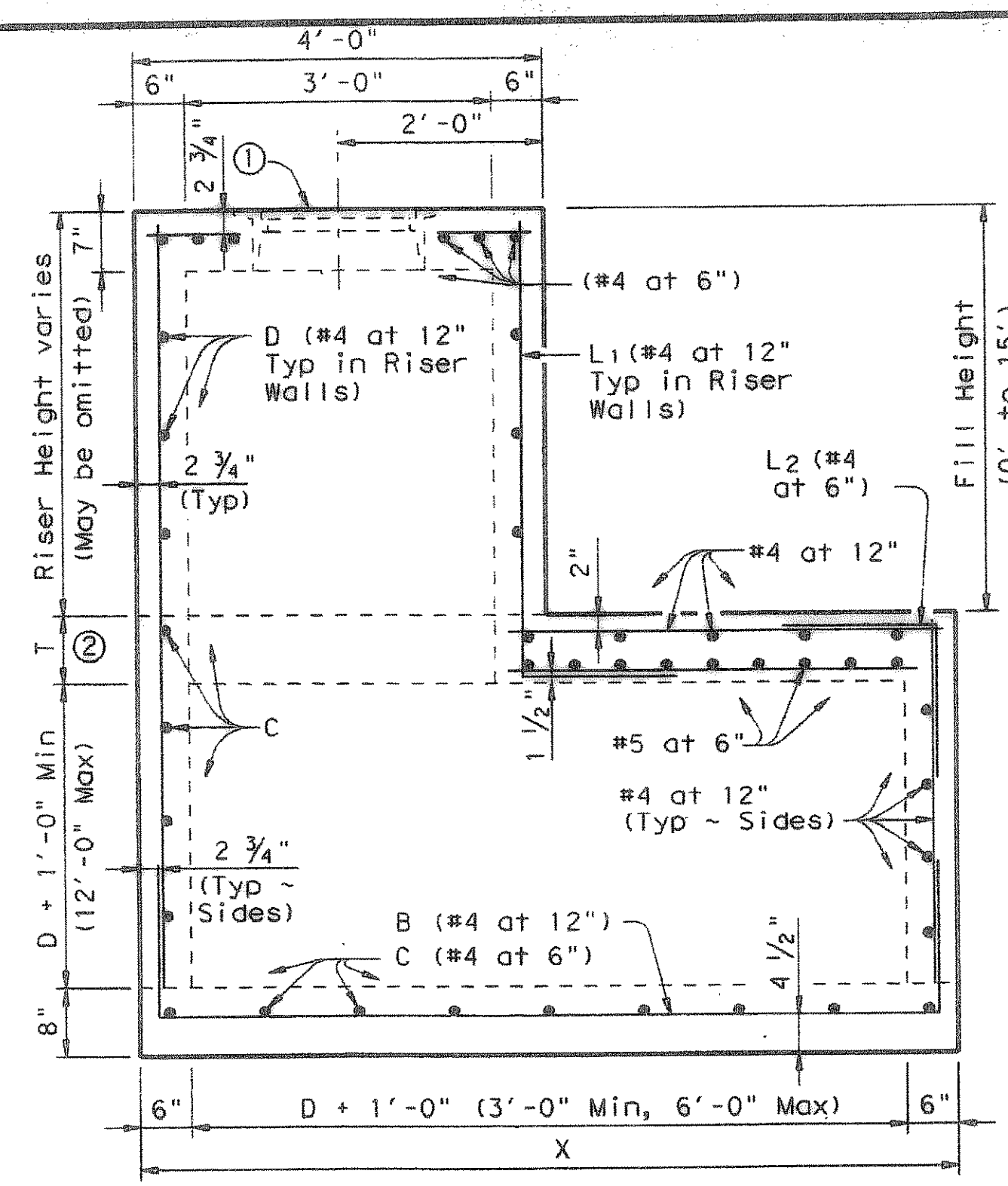
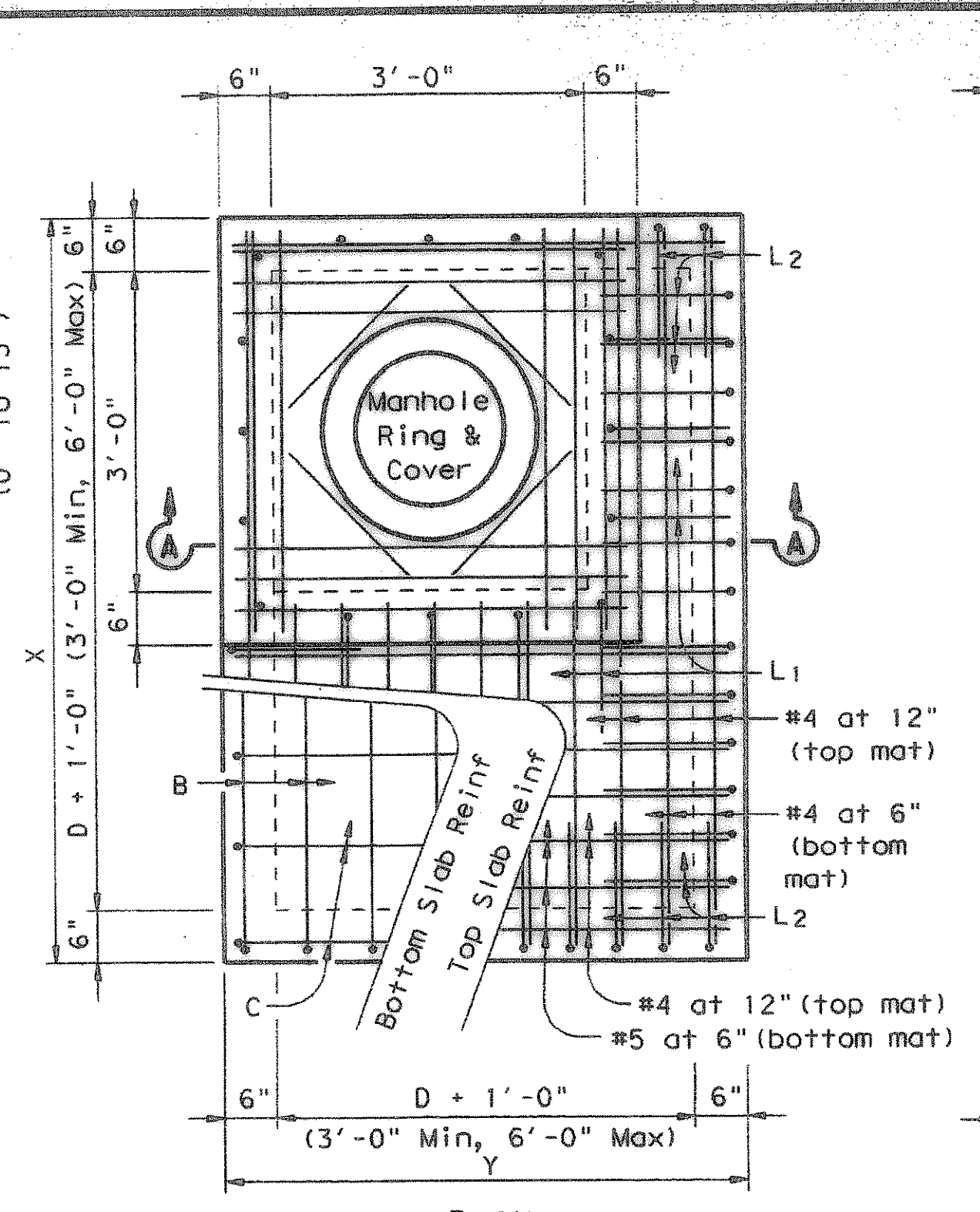


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ELEVATION

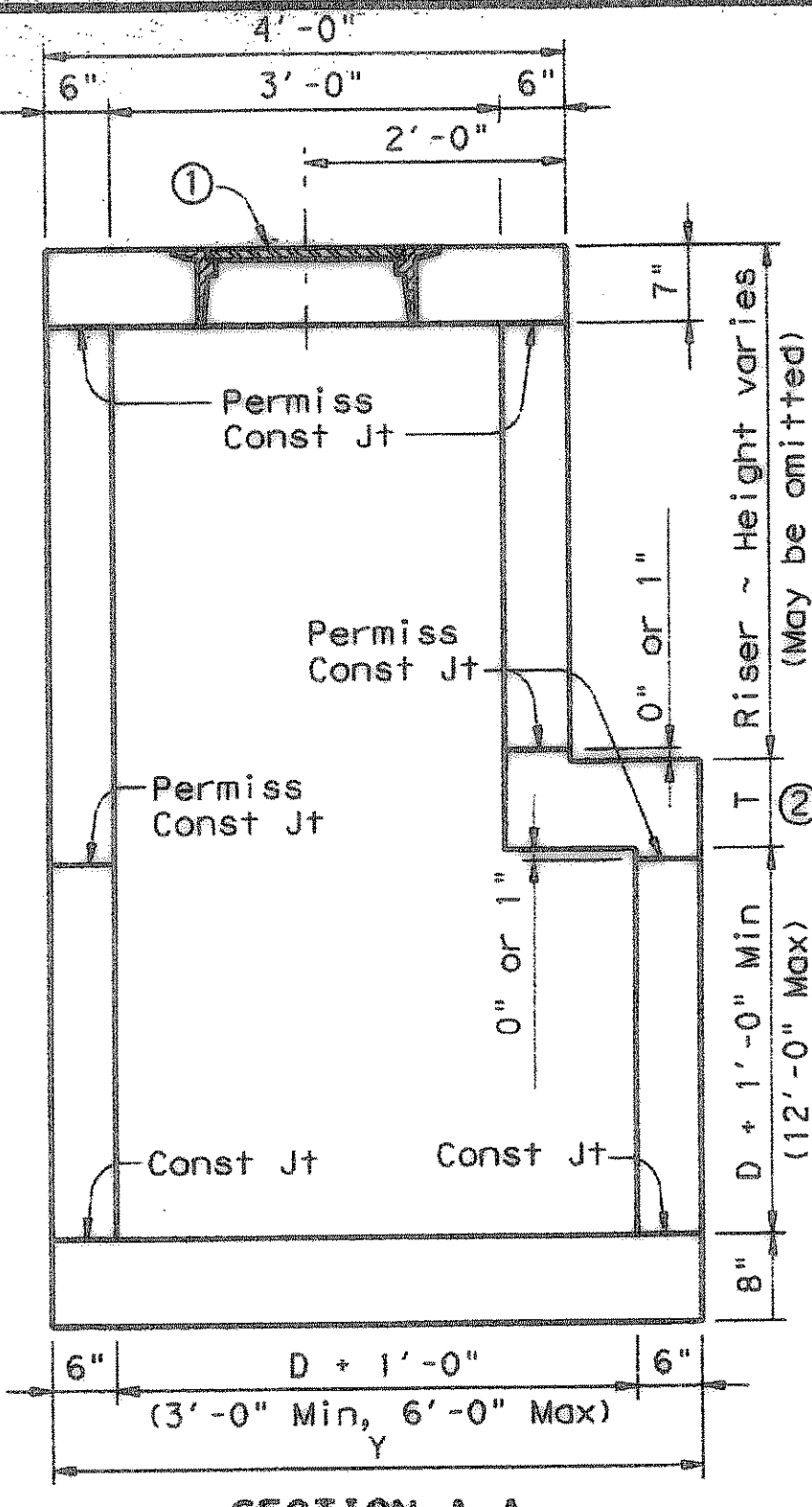
D = Maximum inside diameter of any pipe entering the side shown or the opposite side



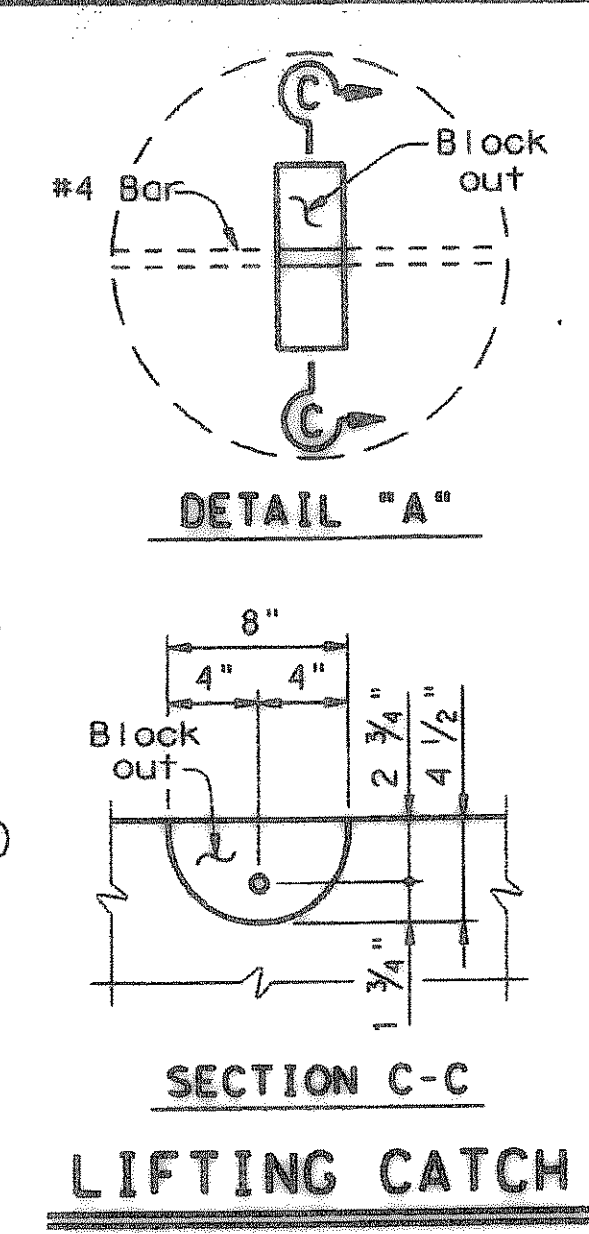
PLAN

MANHOLE WITH CAST-IN-PLACE RISER

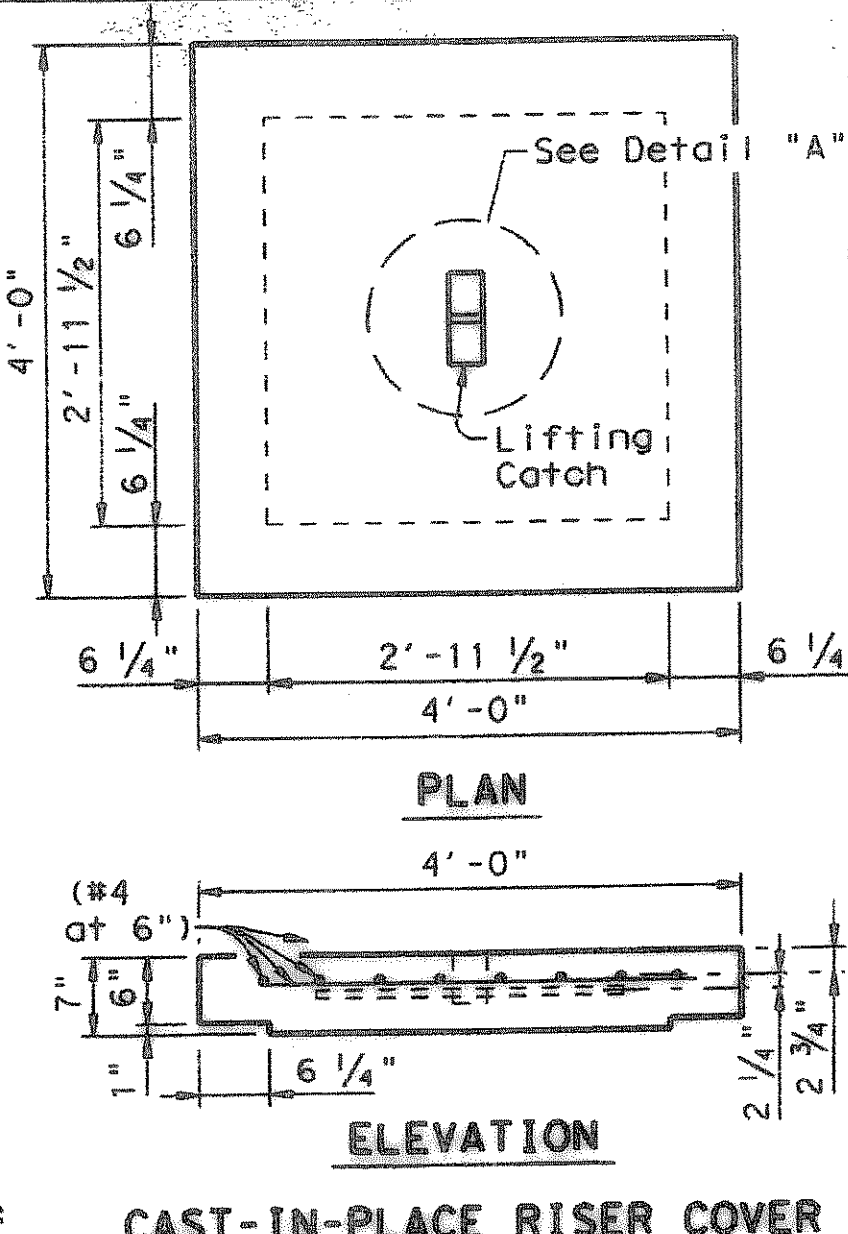
- ① See Ring and Cover Details
- ② For Fill Height less than or equal to 10', T=8". For Fill Height between 10' and 15', T=10".



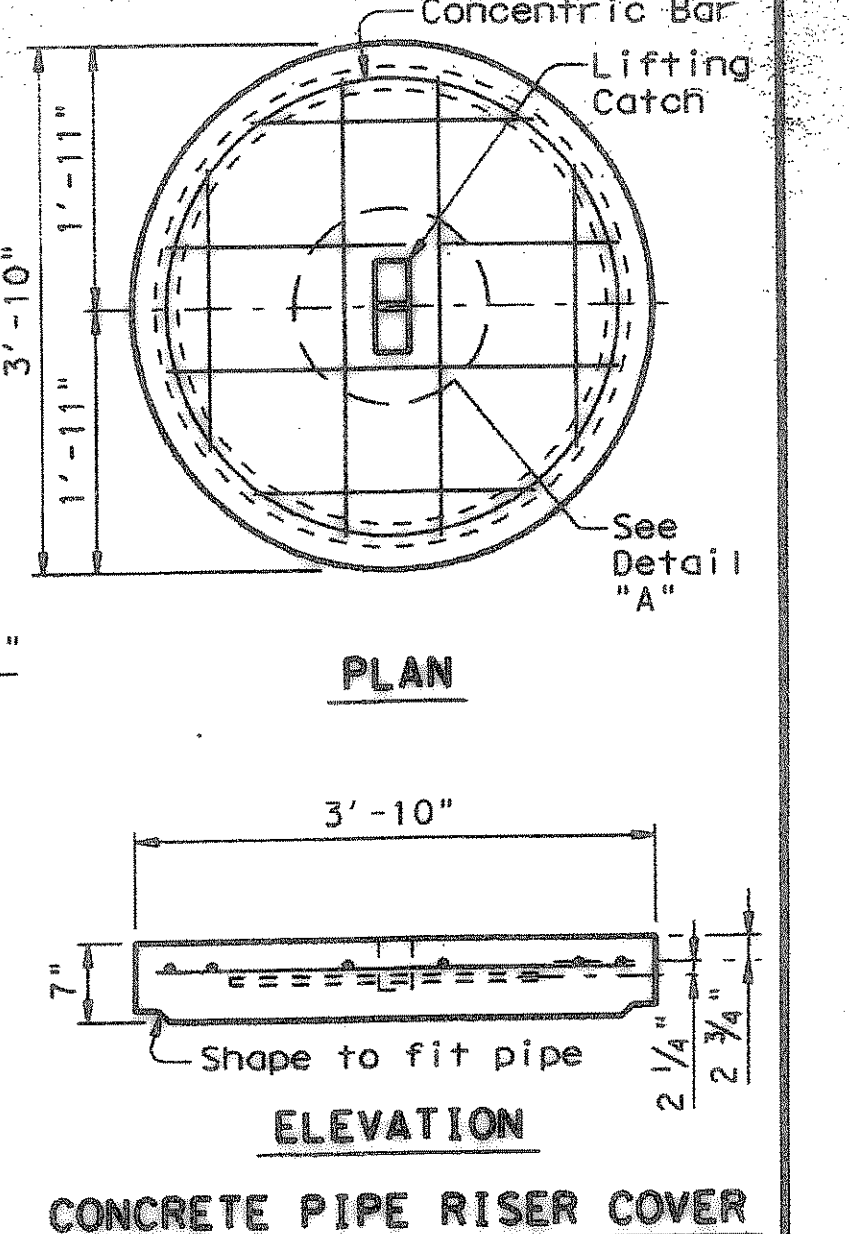
SECTION A-A



LIFTING CATCH



CAST-IN-PLACE RISER COVER

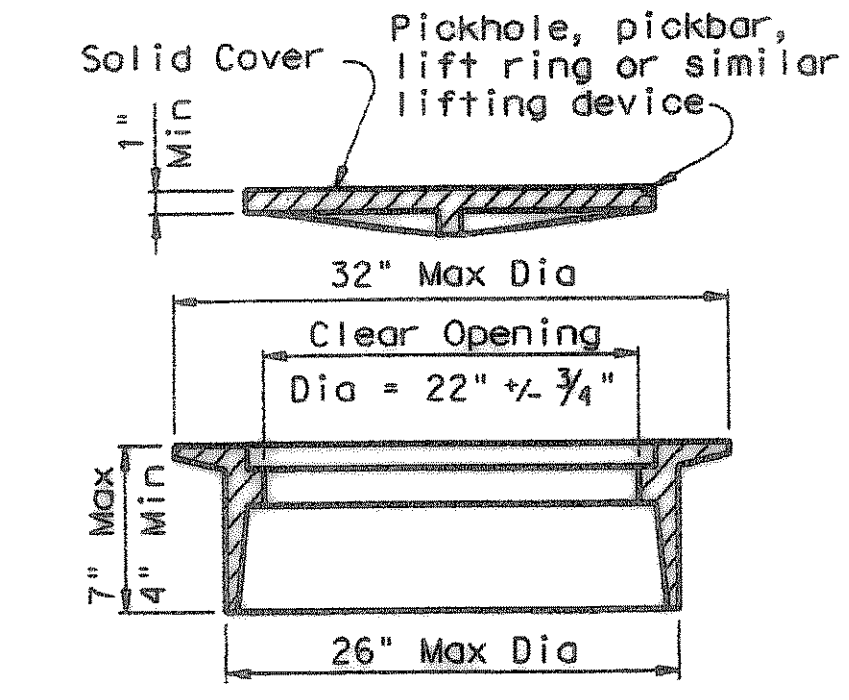


CONCRETE PIPE RISER COVER

OPTIONAL PRECAST CONCRETE LIFT-OFF COVERS

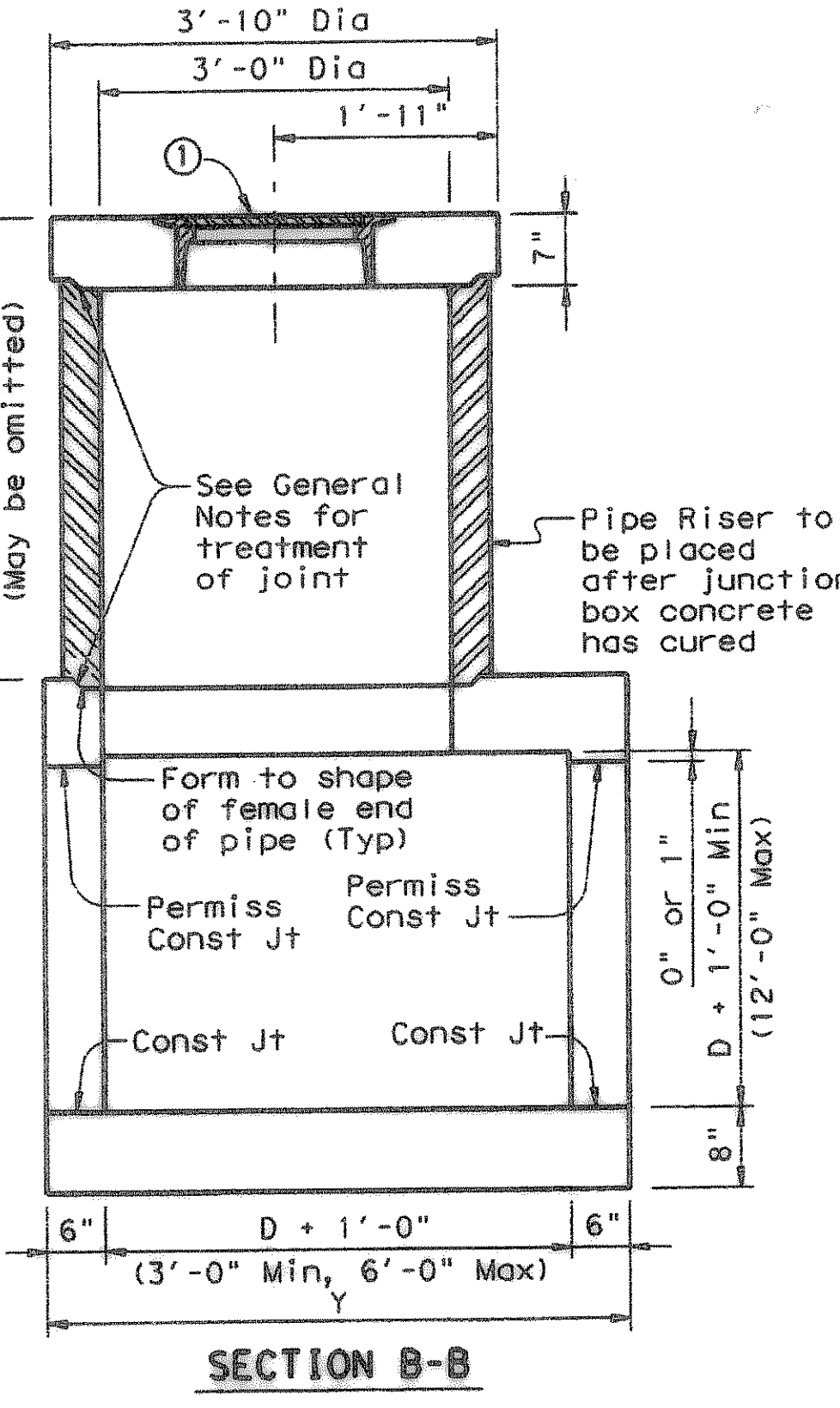
GENERAL NOTES:

Unless otherwise shown in the plans, payment will be made for each manhole of the Type M. When approved, precast inlets with equivalent structural capacity may be furnished. Sealed engineering calculations and drawings shall be submitted for approval prior to construction. Shop drawings will not be required. In areas of conflict between reinforcing steel, blockouts, pipes, anchor bolts or other reinforcing steel, the reinforcement shall be bent or adjusted to clear as directed by the Engineer. The riser may be constructed of reinforced concrete as shown or of Reinforced Concrete Pipe, Class III, in accordance with ASTM Designation C-76. If pipe is used, joints shall conform to the Item "Reinforced Concrete Pipe Culverts". Precast Concrete Lift-Off Cover may be substituted for Ring and Cover. The riser, either cast-in-place or concrete pipe, may be located in any corner. All reinforcing steel shall be #4 unless otherwise noted. Pipes may enter any or all walls. The maximum size of pipe that can be accommodated is 60". More than one pipe may enter a side, subject to the maximum box dimension shown. The clear distance between adjacent pipes should be 9" minimum. Ring and cover shall conform to the requirements of AASHTO M306, "Standard Specification for Drainage Structure Castings". Materials shall conform to ASTM A48, Class 35B for gray iron castings or ASTM A536, Grade 65-45-12 for ductile iron castings. Aluminum alloy castings shall not be permitted. All concrete shall be Class "A" (f'c = 3000 psi).

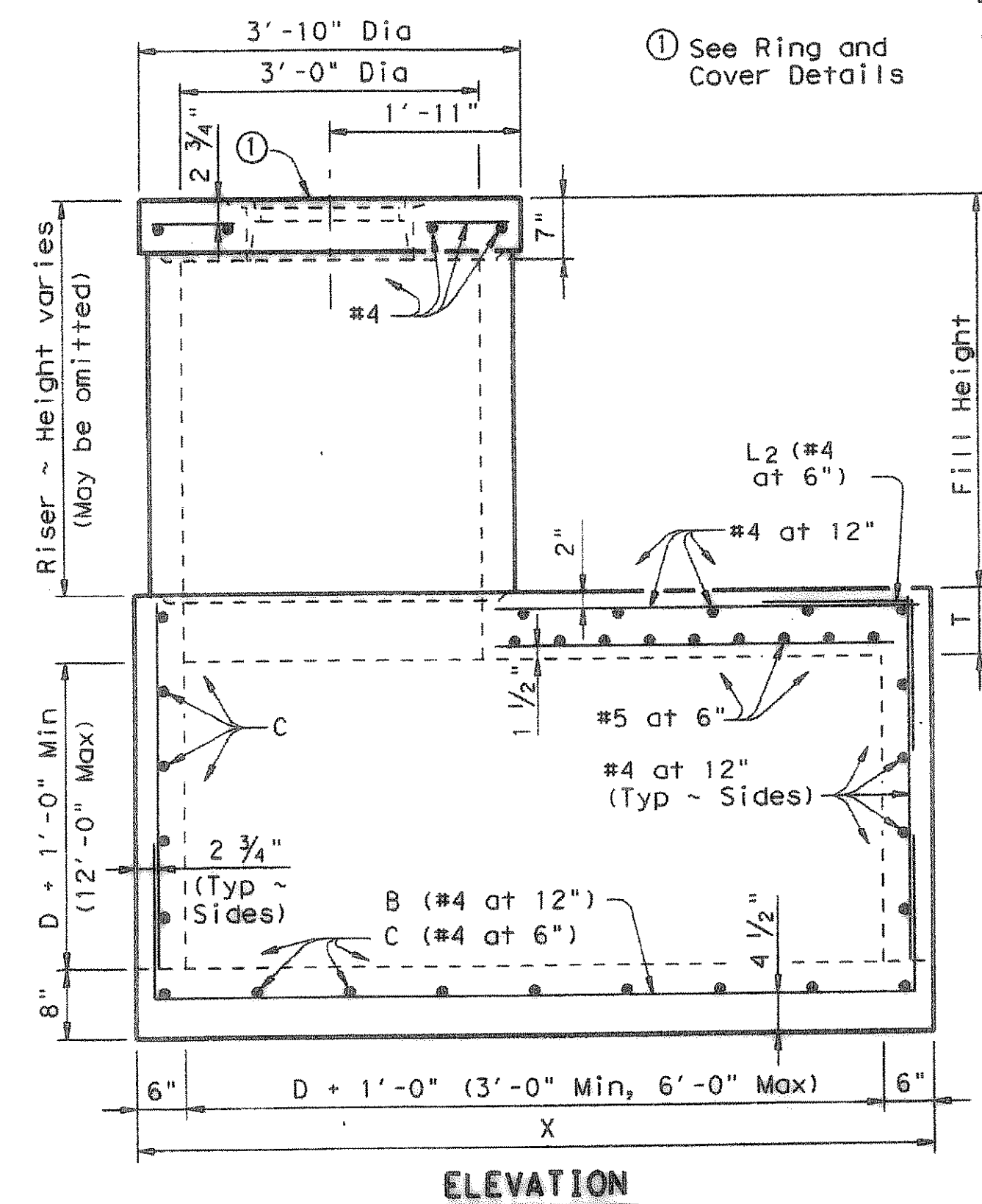


RING AND COVER DETAILS

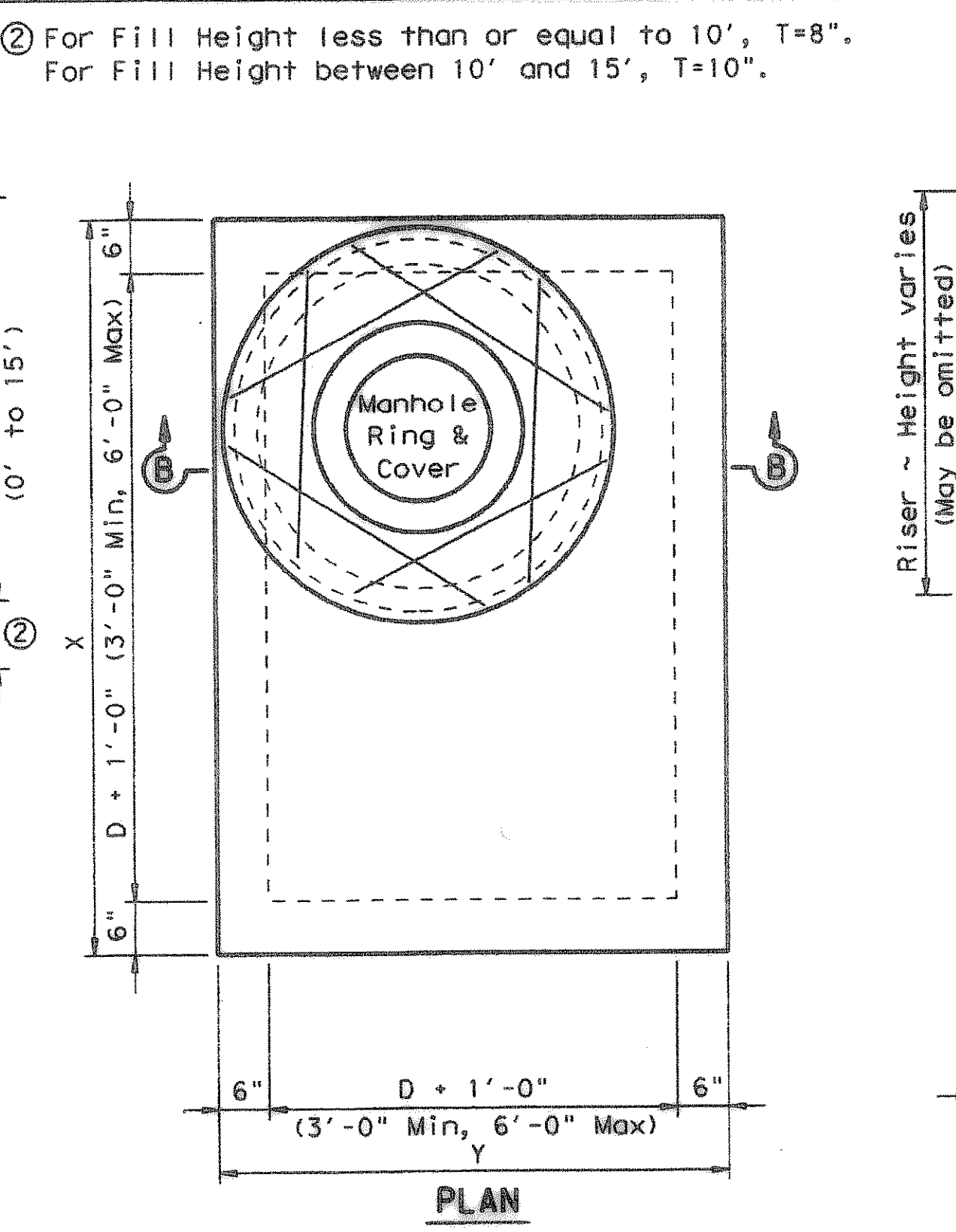
Approximate Weight = 245 lb



SECTION B-B

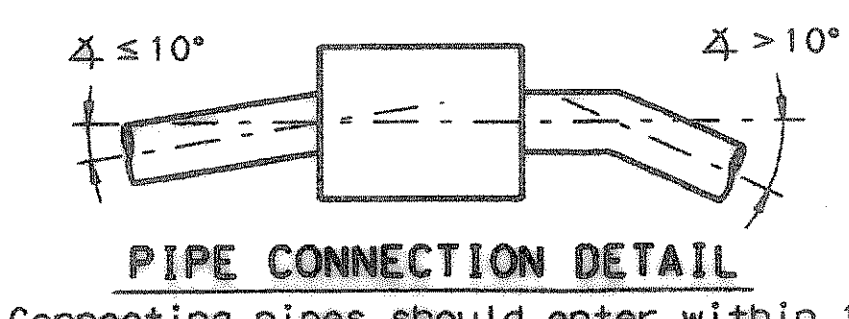


ELEVATION



PLAN

OPTIONAL MANHOLE WITH CONCRETE PIPE RISER

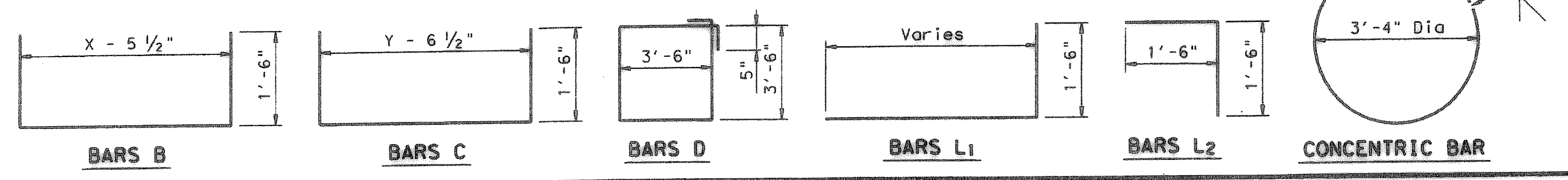


PIPE CONNECTION DETAIL

Connecting pipes should enter within 10° of normal to inlet wall. If necessary, pipe elbow or curved approach alignment should be used to stay within this limit.

LEVELS DISPLAYED

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RECORD DRAWING
01/16/09

Texas Department of Transportation
Bridge Division

MANHOLE TYPE M
(JUNCTION BOX WITH ACCESS)
15' MAX FILL

MH-M

FILE: mh-mstde.dgn	DW: TxDOT	CR: TER	DW: MCB	CR: TER/GAF
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