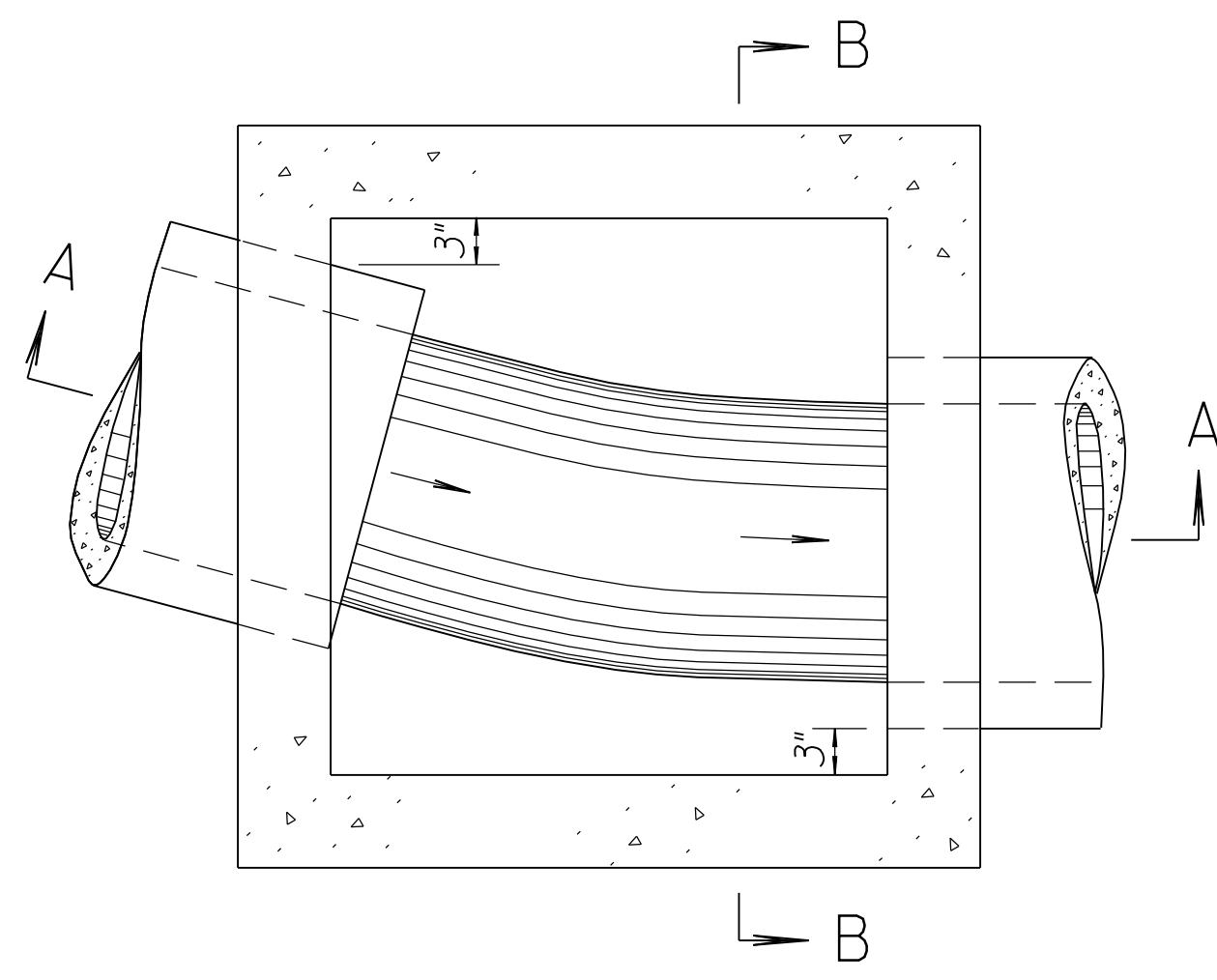
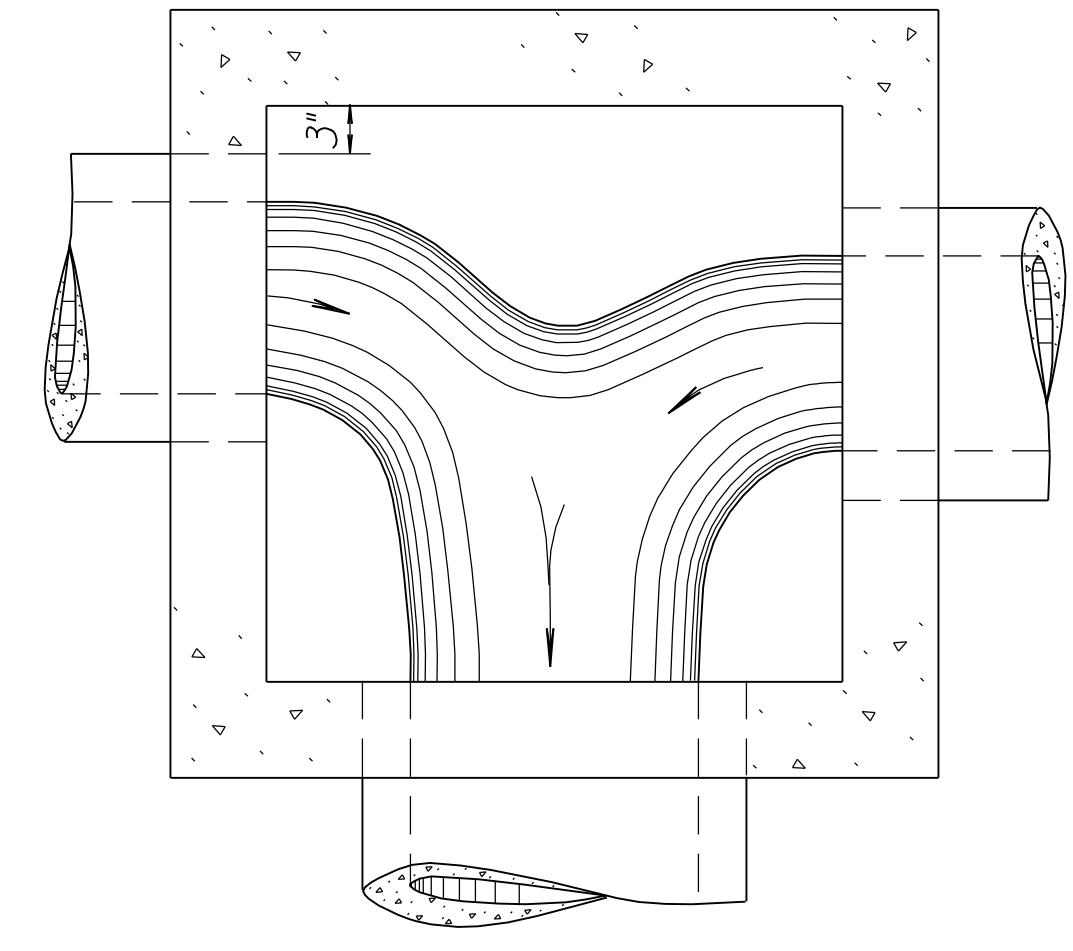


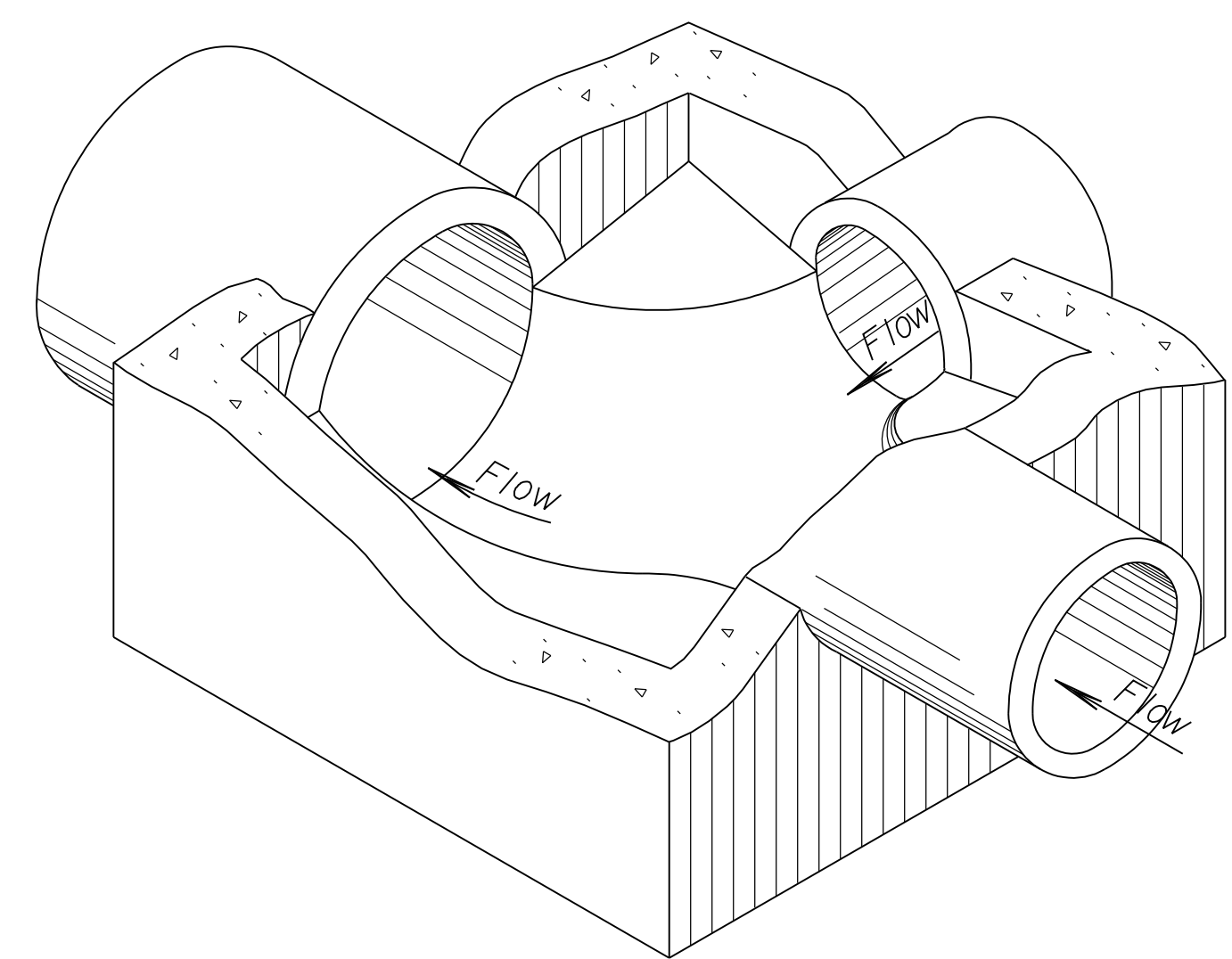
| | | | | |
|--------|-------------|------|-----------|--------------|
| STATE | PROJECT NO. | YEAR | SHEET NO. | TOTAL SHEETS |
| KANSAS | 472-84295 | 2010 | 56 | 194 |



PLAN - FLOOR (Example I)



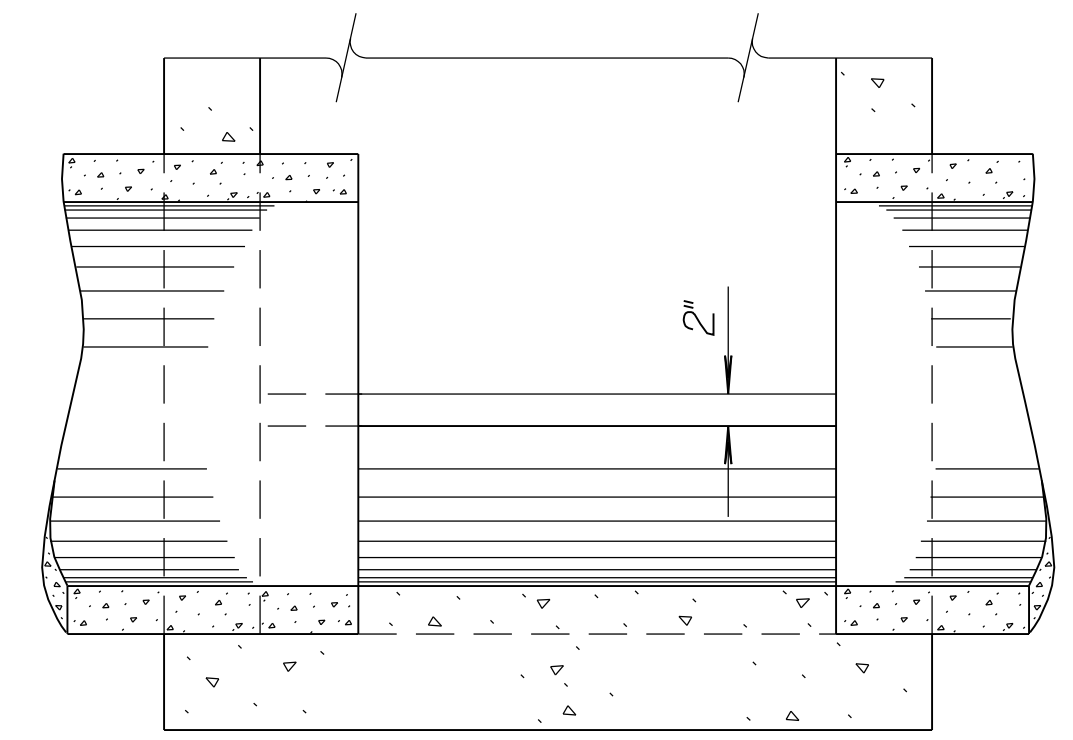
PLAN - FLOOR (Example III)



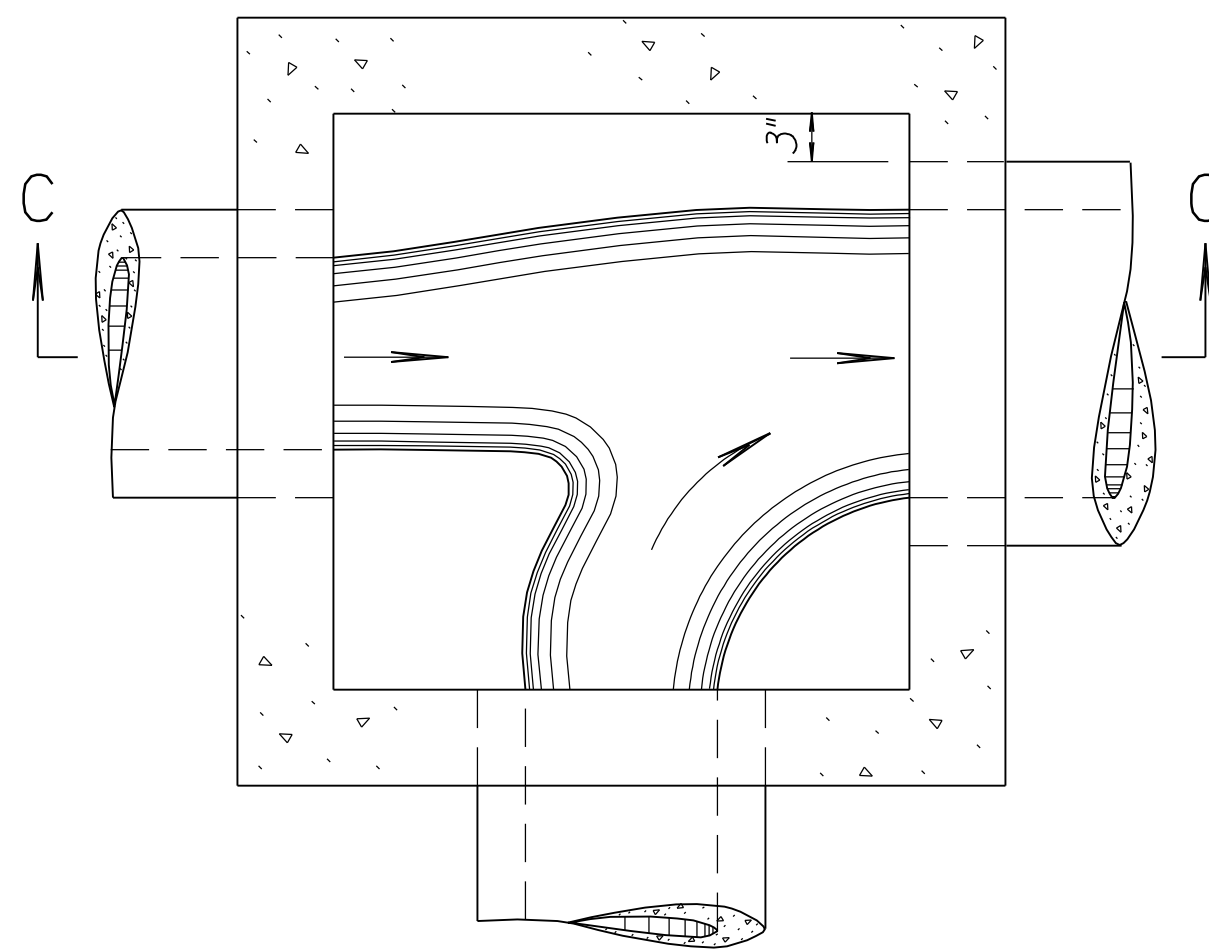
ISOMETRIC VIEW (Example IV)

Note: Use Concrete Grade 3.0 throughout. All exposed edges shall be finished with an edging tool.
 At the contractor's option Concrete Grade 3.0 (AE) or mix used in concrete pavement may be used throughout.
 In general, pipes will enter and leave manhole at various positions. Where possible bend bars around pipes.
 Floor of manhole shall be shaped as shown in various "EXAMPLES" with unreinforced Concrete Grade 3.0.
 Manhole opening and steps, where used, shall be placed to afford easy access to top of shaped invert.
 Top reinforcing bars shall be adjusted accordingly.
 All castings shall be gray iron and shall comply with the KDOT Standard Specifications.
 No deductions in concrete quantities shall be made for pipe openings or additions to concrete quantities shall be made for shaping floor of manholes.
 The top of the manhole shall be sloped slightly to approximately fit the ground line or other condition as directed by the Engineer.
 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.
 The Contractor has the option of using precast manholes, as approved by the Engineer.
 Steps shall be installed in all manholes when specified in the plans or when "H" is equal to or greater than six feet. Steps shall comply with the requirements of the KDOT Standard Specification.

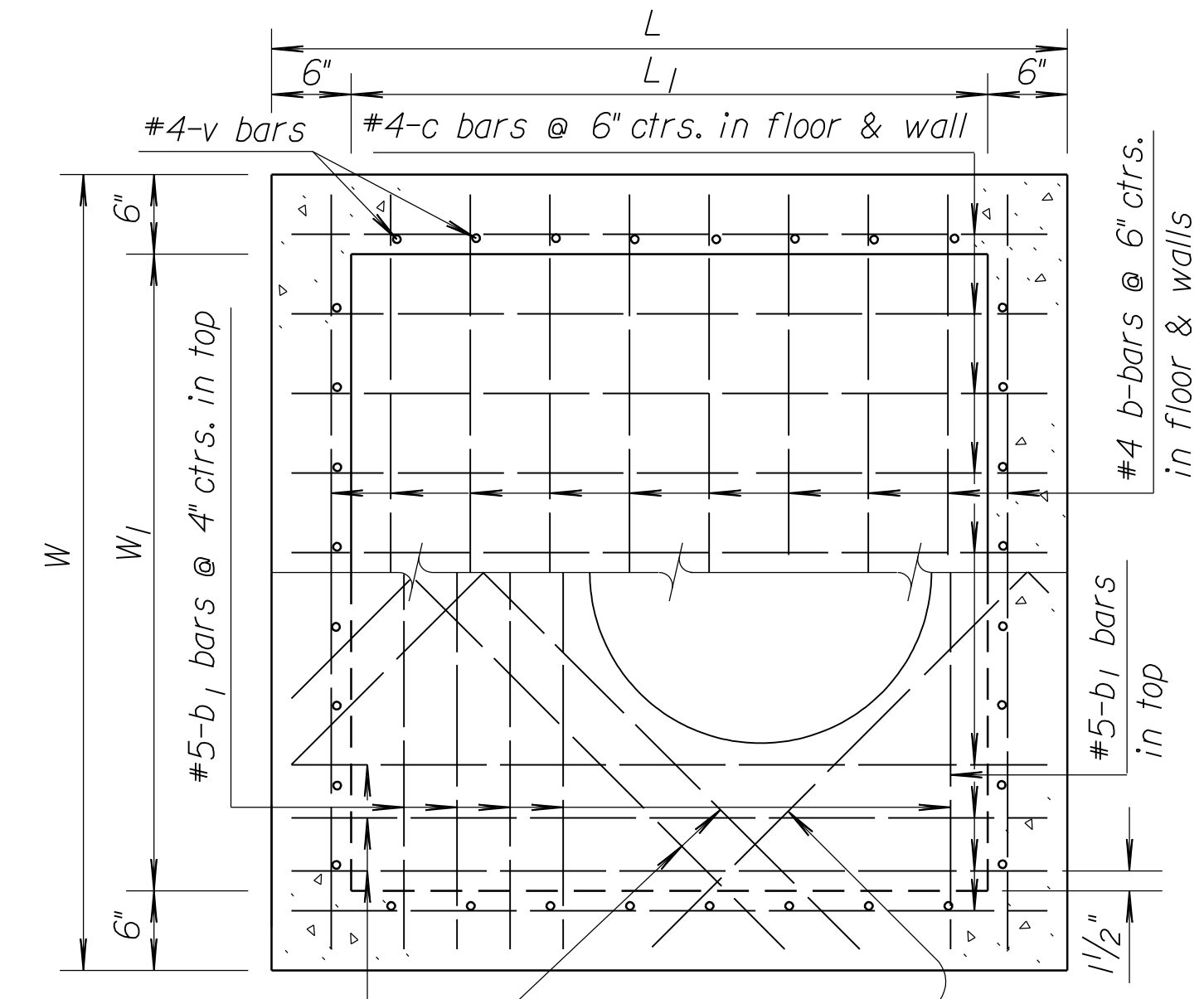
Floor of manhole shall be shaped as shown in the examples to increase hydraulic efficiency.



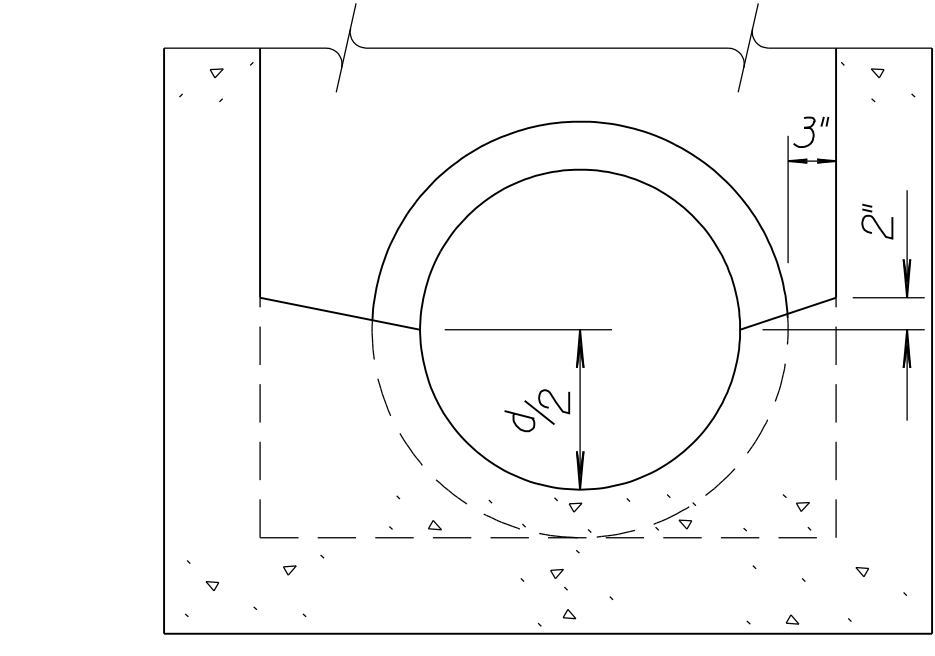
SECTION A-A (Example I)



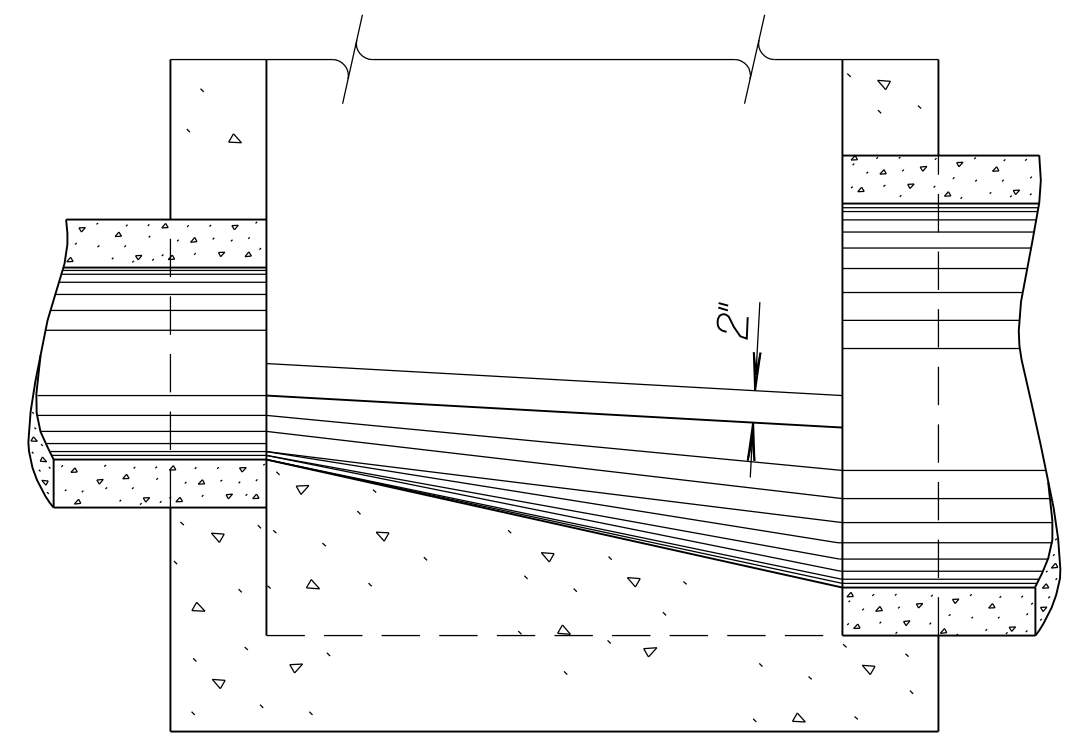
PLAN - FLOOR (Example IV)



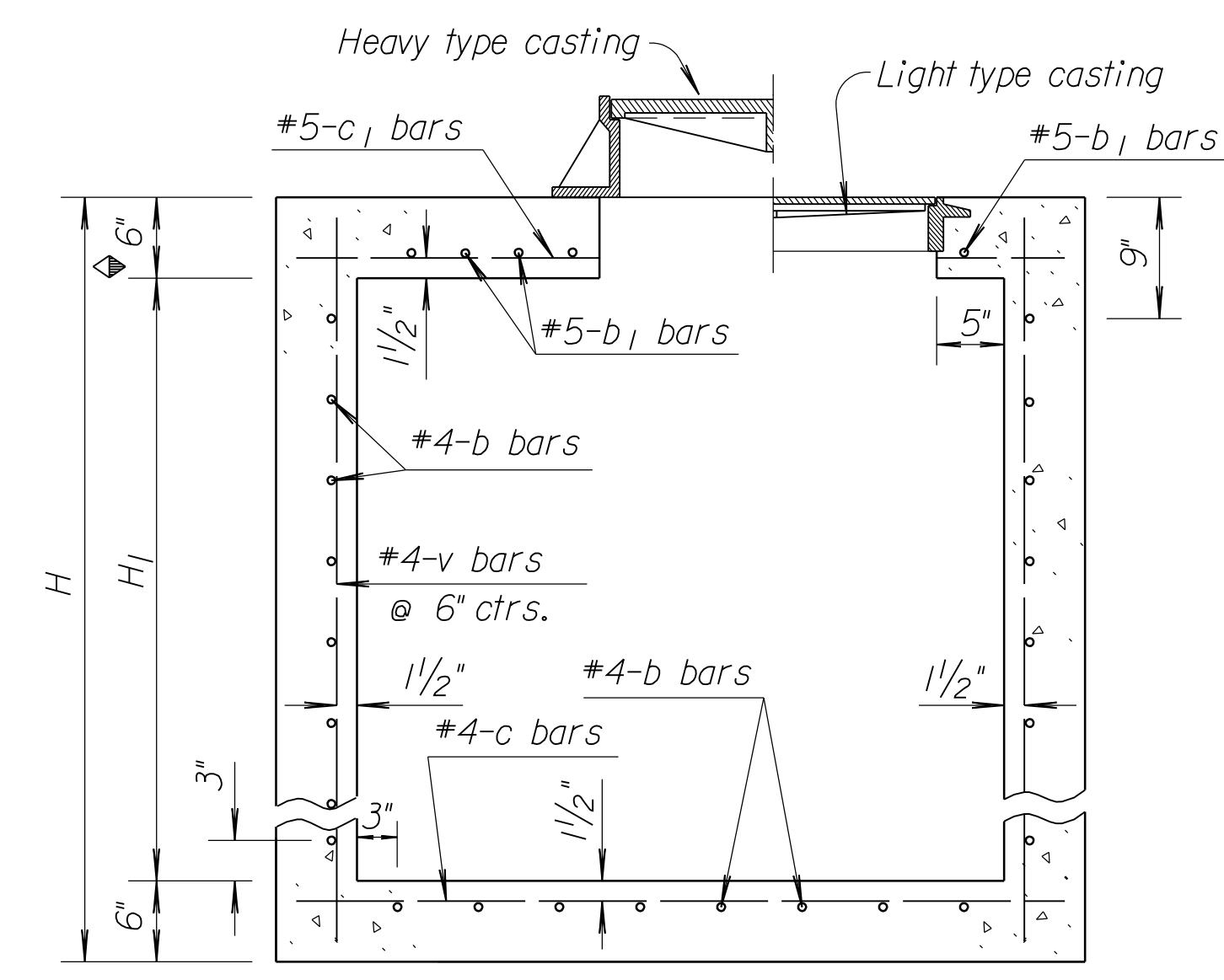
PLAN (Showing top & floor reinf.)



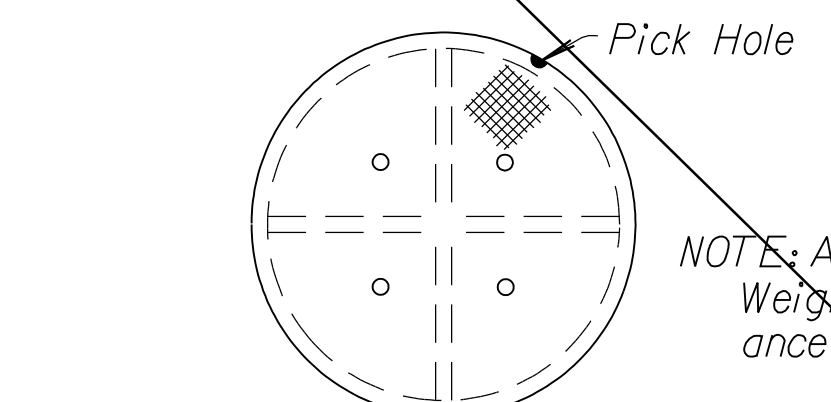
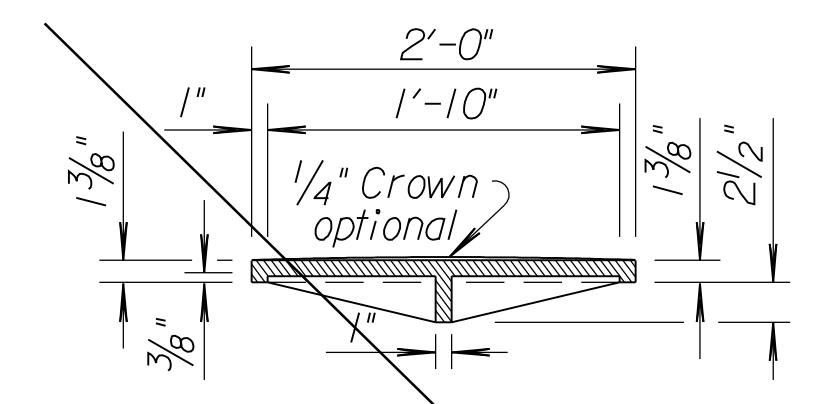
SECTION B-B (Example I)



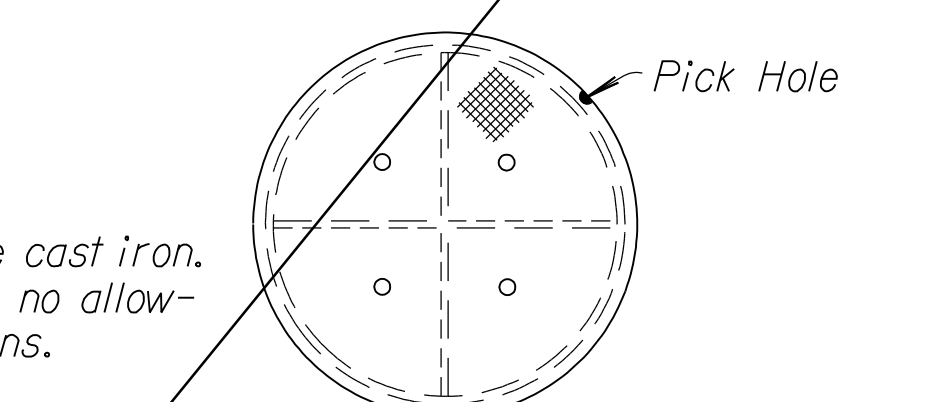
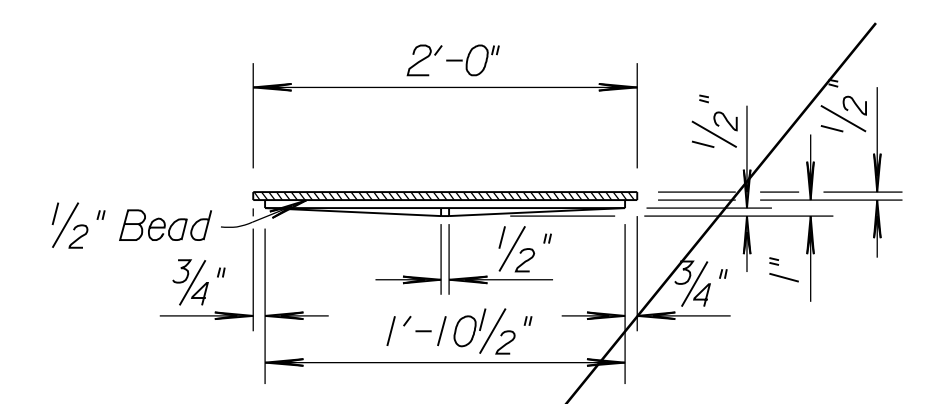
SECTION C-C (Example IV)



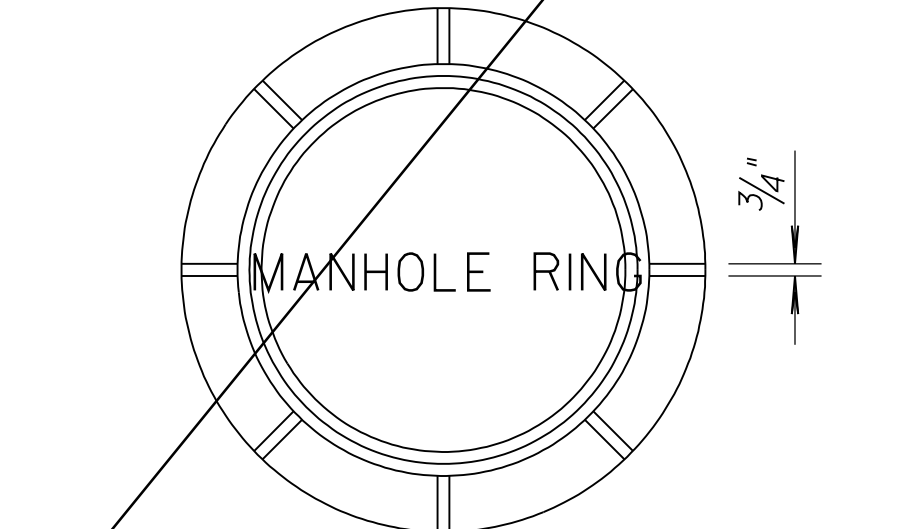
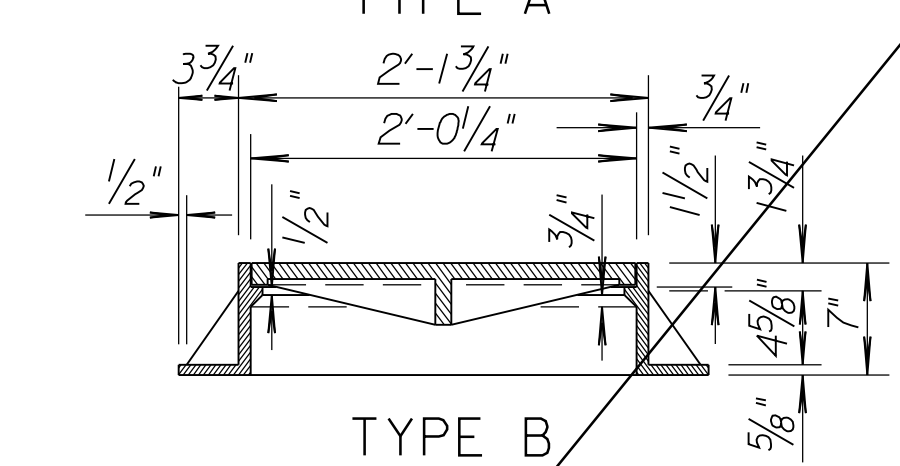
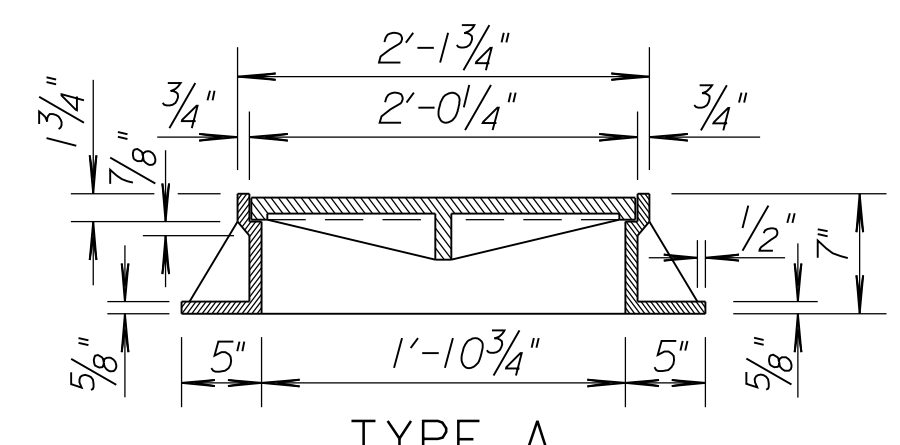
SECTION (Exclusive of floor shaping)



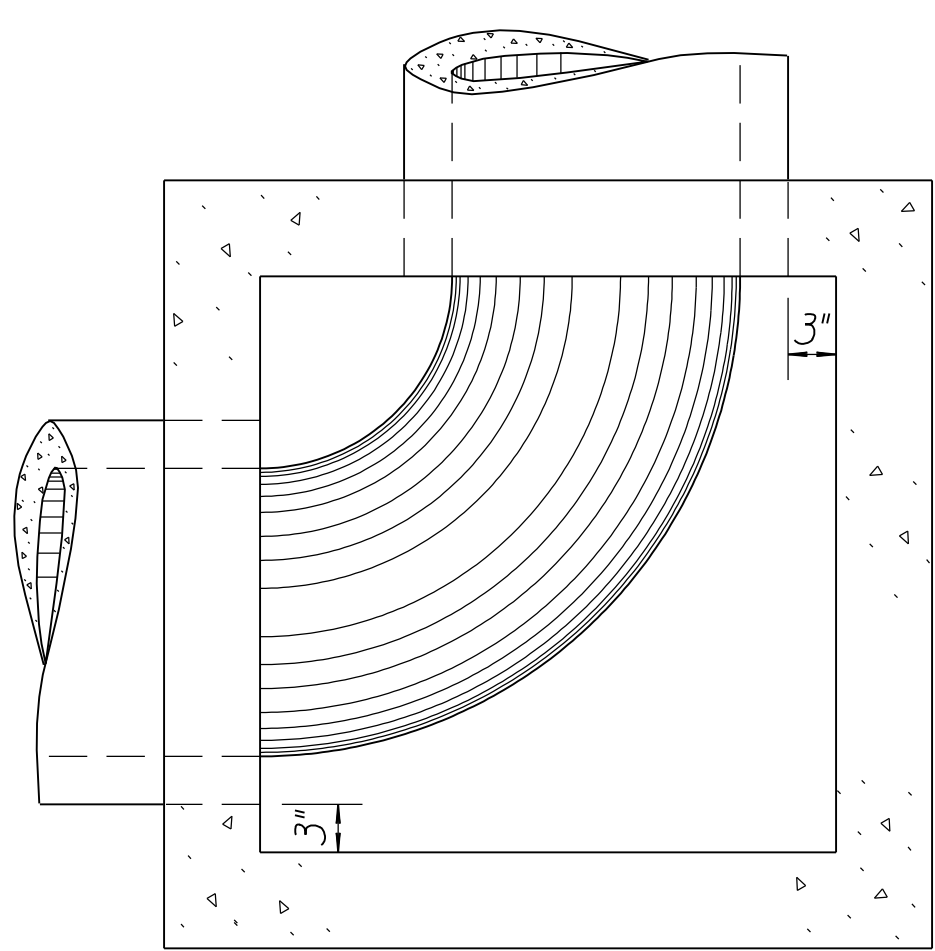
MANHOLE COVER TYPE A & B
(Weight=134 lbs.; without 1/4" Crown= 125 lbs.)



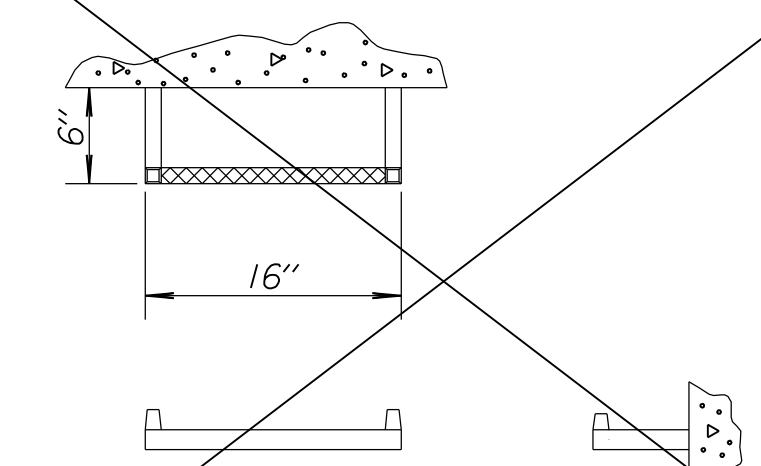
MANHOLE COVER TYPE C
(Weight= 64 lbs.)



(Type A Ring= 192 lbs., Type B Ring= 198 lbs.)
 HEAVY TYPE
 MANHOLE COVER AND RING
 Note: Either Type A or Type B may be used.



PLAN - FLOOR (Example II)



STEP DETAILS

Steps shall be uniformly spaced. Spacing shall be 12" minimum and 16 1/2" maximum.

NOTE: All manhole castings are cast iron. Weight of castings includes no allowance for fillets and overruns.

* LIGHT TYPE
 MANHOLE COVER & RING
 *Rings with four equally spaced lugs will be permitted.

| NO. | DATE | REVISIONS | BY | APP'D |
|-----|----------|---------------------------------------|--------|--------|
| 31 | 1-28-05 | Changed Class to Grade concrete | S.W.K. | J.O.B. |
| 30 | 12-12-97 | Revised step spacing | R.J.S. | J.O.B. |
| 29 | 12-27-93 | Delete paint note | R.J.S. | J.O.B. |
| 28 | 1-30-92 | Rev. paint & step notes, ent. on CADD | R.J.S. | J.O.B. |

KANSAS DEPARTMENT OF TRANSPORTATION

REINFORCED
 CONCRETE MANHOLE

| | | |
|------------|-----------------------|------------------------|
| RD633 | FHWA APPROVAL 6-10-05 | APP'D. James O. Brewer |
| DESIGNED | DETAILED | QUANTITIES |
| DESIGN CK. | DETAIL CK. | TRACE CK. |

Drawn By: danavarno
 Plotted: 1/18/2010
 File: g:\W05\0001\ROAD\rd633.sht