

Material Specification – 35 for CONCRETE MANHOLES

1. GENERAL

Concrete manhole riser sections, cone sections, flat covers, grade rings, grade beams and flat base slabs shall be in accordance with ASTM C 478 and [MS-20](#) with the following additional requirements or exceptions.

2. BASE BEAMS

Manhole base beams shall be constructed of precast, reinforced concrete. The beams shall be 12 inches wide by 9 inches deep by 8 feet long. The reinforcement shall consist of three No. 5 reinforcing bars that are evenly spaced and No. 4 reinforcing bars at 12 inch centers transversely.

3. BASE SLABS

Manhole base slabs may be cast-in-place or precast. The slab shall be designed to uniformly support the earth load and any other reasonable loads that may occur. The minimum slab thickness shall be 6 inches. The minimum reinforcement shall consist of No. 4 reinforcing bars placed 12 inches on center, each way. Concrete shall be in accordance with [MS-20](#); concrete reinforcement shall be in accordance with [MS-22](#).

4. COREHOLES AND BLOCKOUTS

Openings through the manhole riser shall be cored or cast-in with blockouts. No breakouts or doghouse openings allowed.

5. JOINT SEALANT

Joint sealants shall be a preformed flexible plastic gasket conforming to ASTM C 990. It shall be packaged in extruded pre-formed rope shapes of proper size to completely fill the joint when completely compressed. The material shall be protected by a suitable, renewable two-piece wrapper that may be removed as the material is applied to the joint without disturbing the other wrapper.

6. MANHOLE STEPS

Manhole steps shall be comprised of #4, grade 60 deformed reinforcing bar encased in a polypropylene copolymer plastic with a tread width of 14 inches. The steps shall be M.A. Industries No. PS2-PF Double Face.

7. ACCEPTABLE MANUFACTURERS

Copeland Precast, Inc.
Oldcastle Precast

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