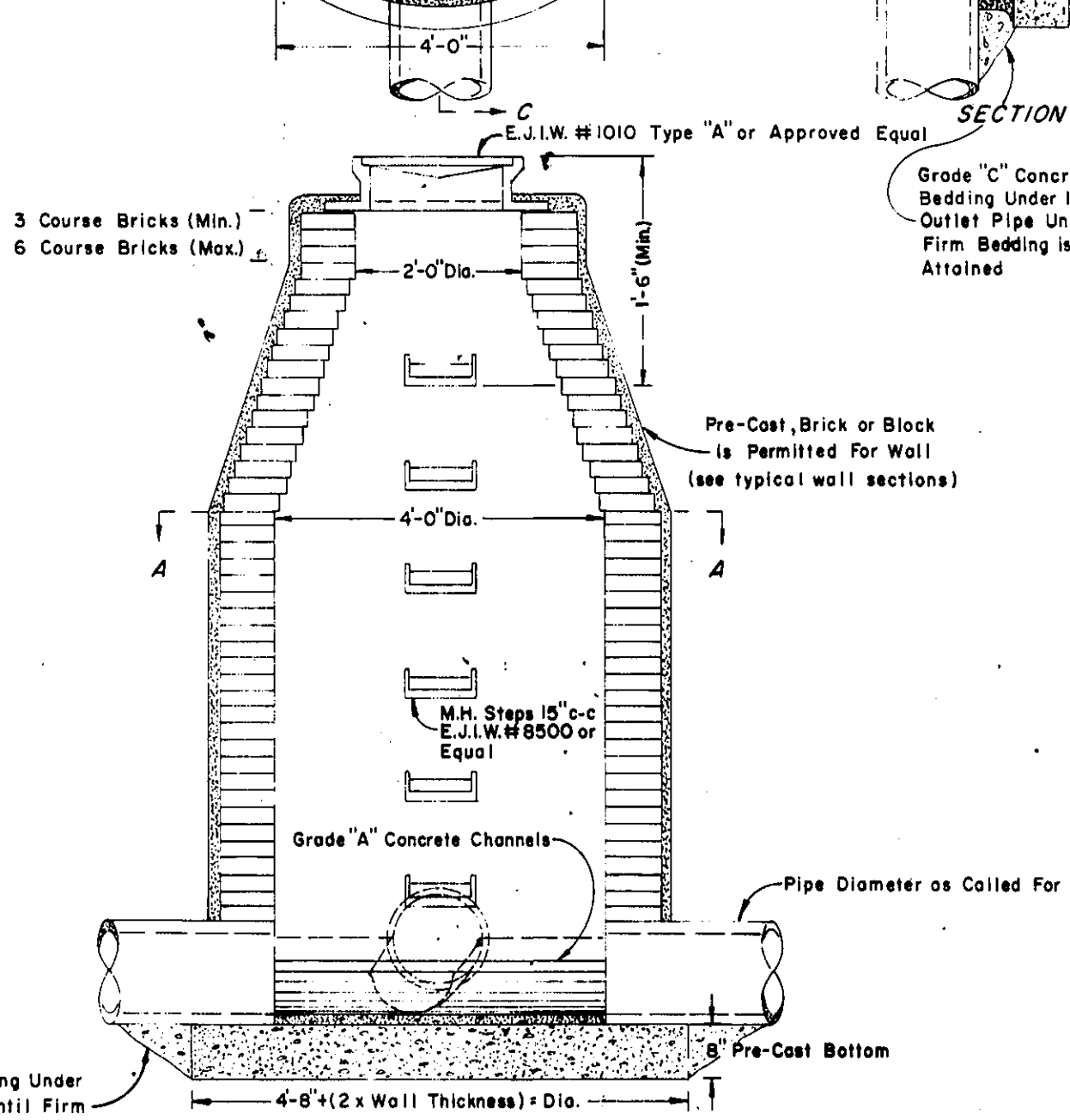
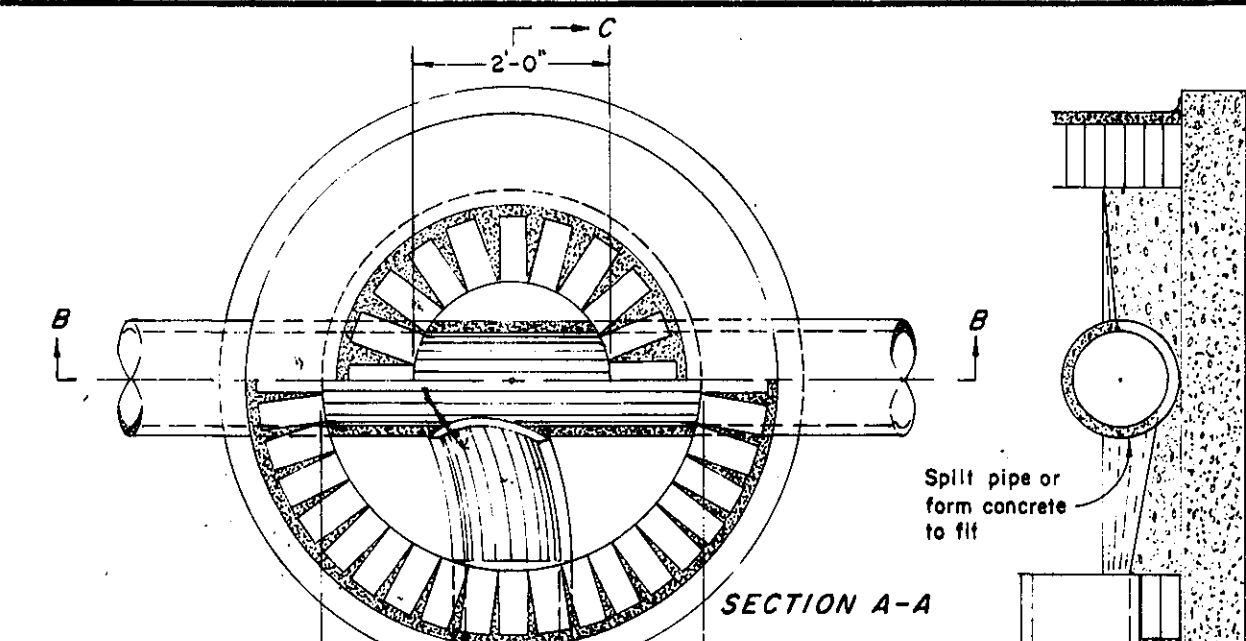
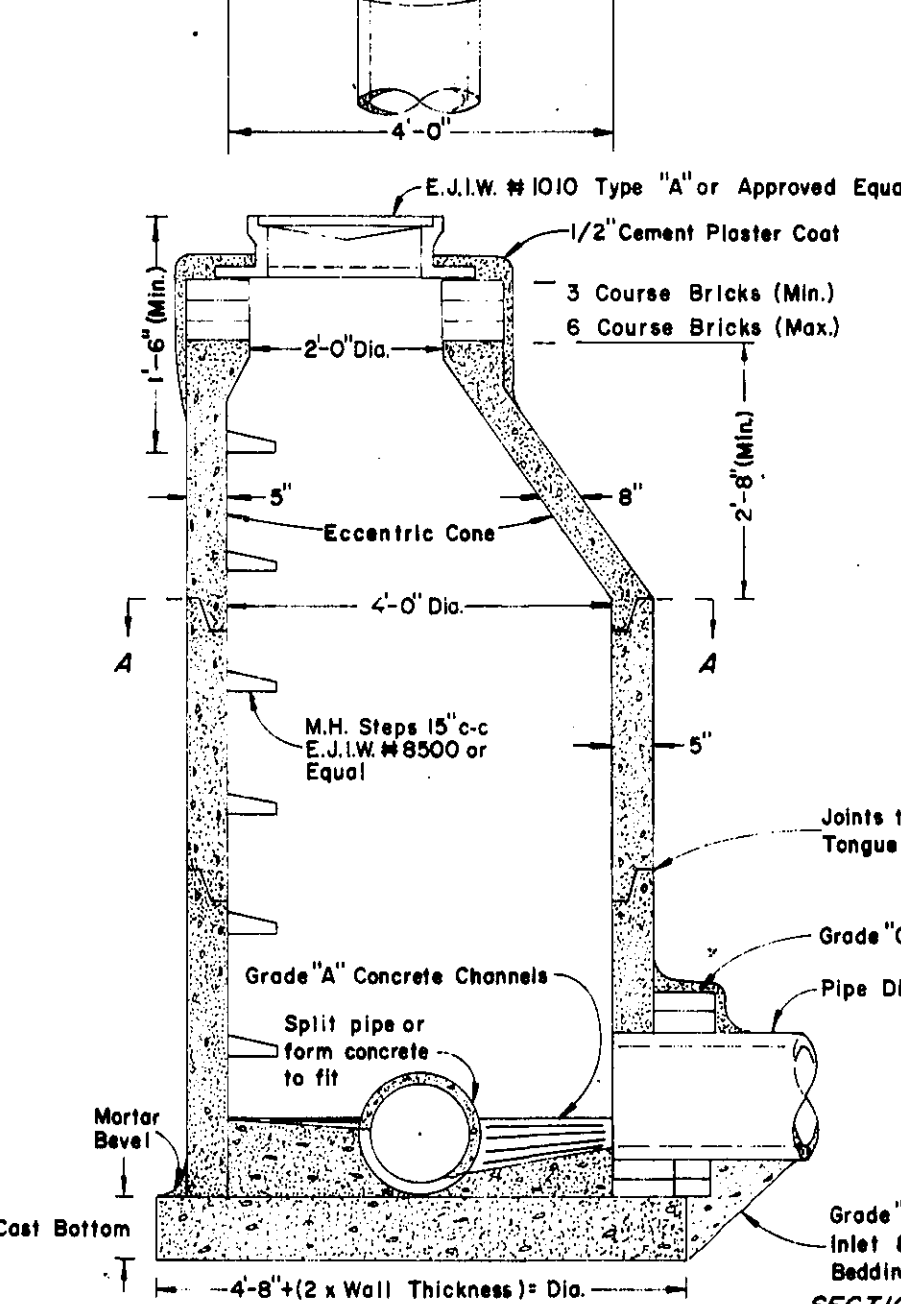
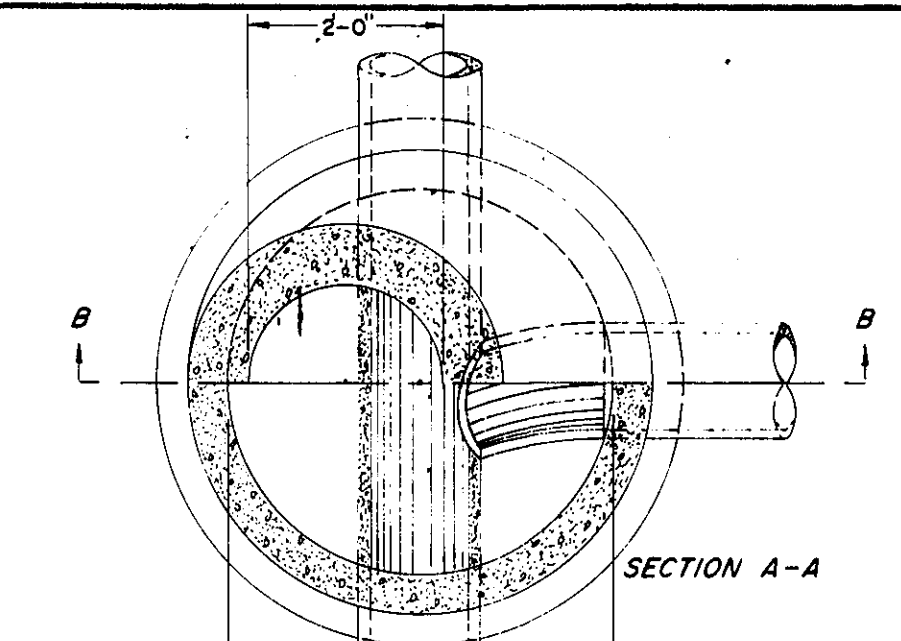


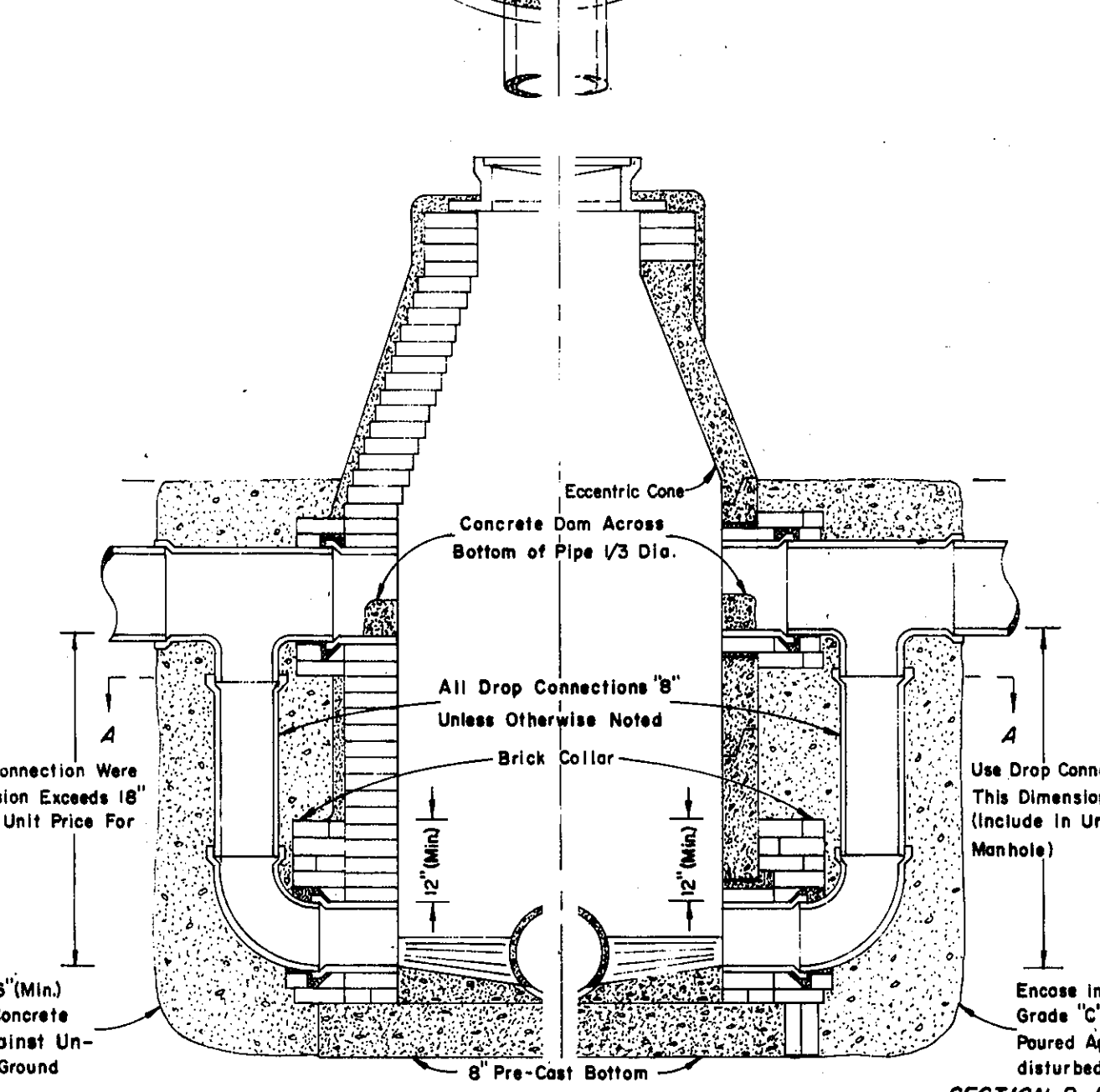
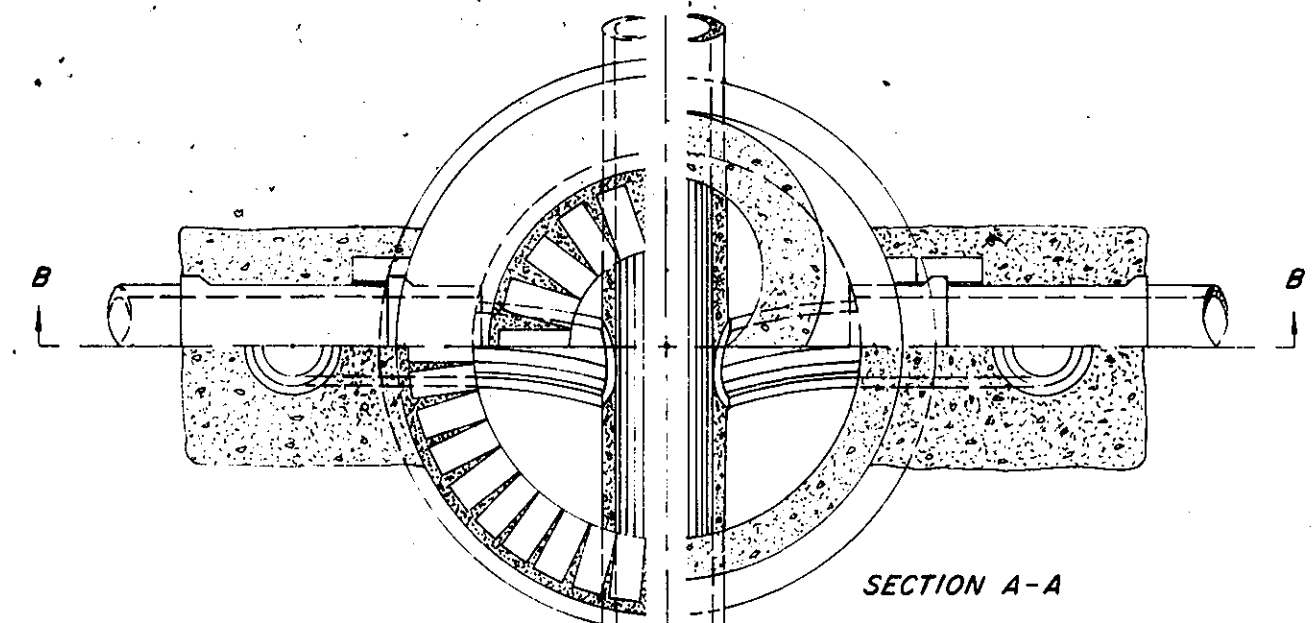
STANDARD MANHOLE
48" DIAMETER SEWERS & LARGER
SCALE 1"=3'



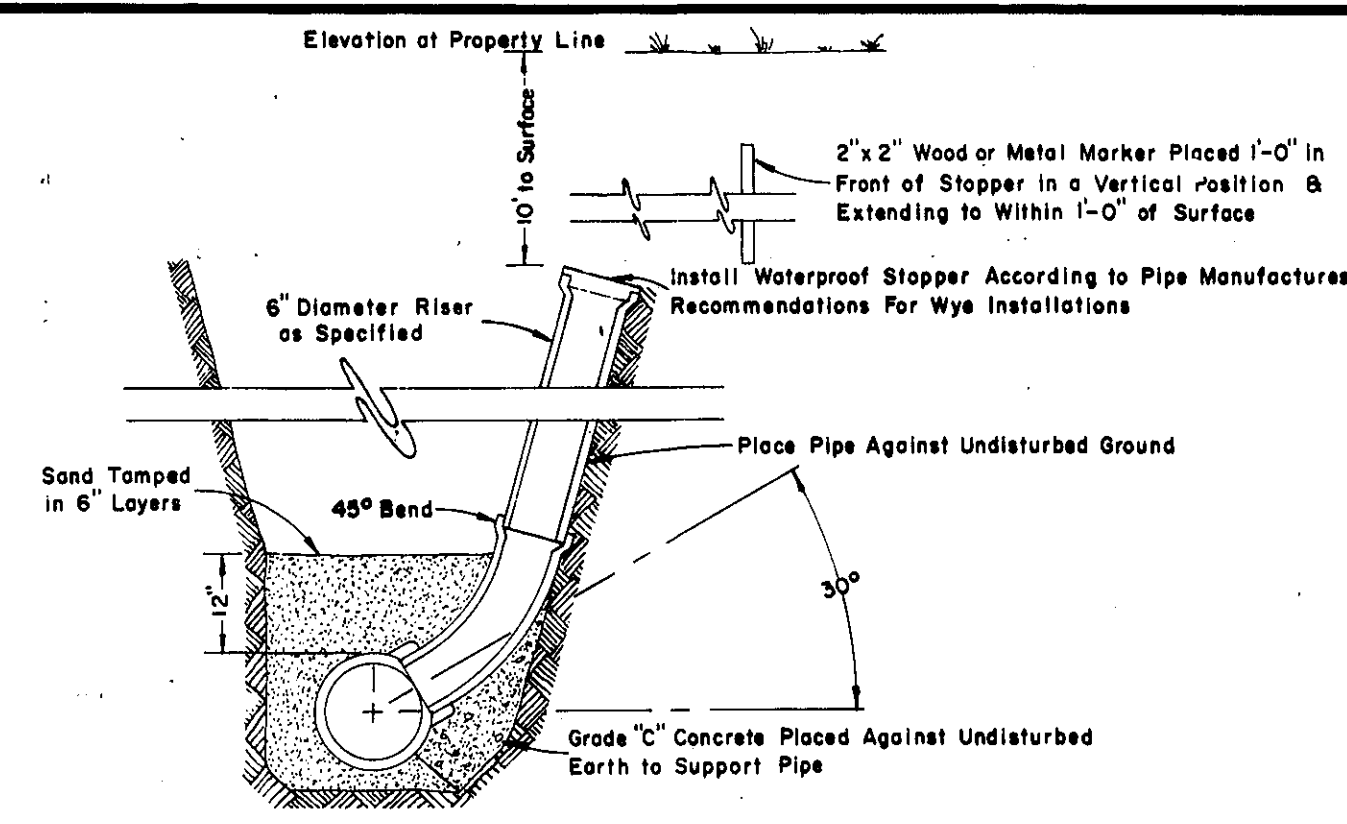
STANDARD SANITARY MANHOLE
LESS THAN 48" DIAMETER
SCALE 1"=2'



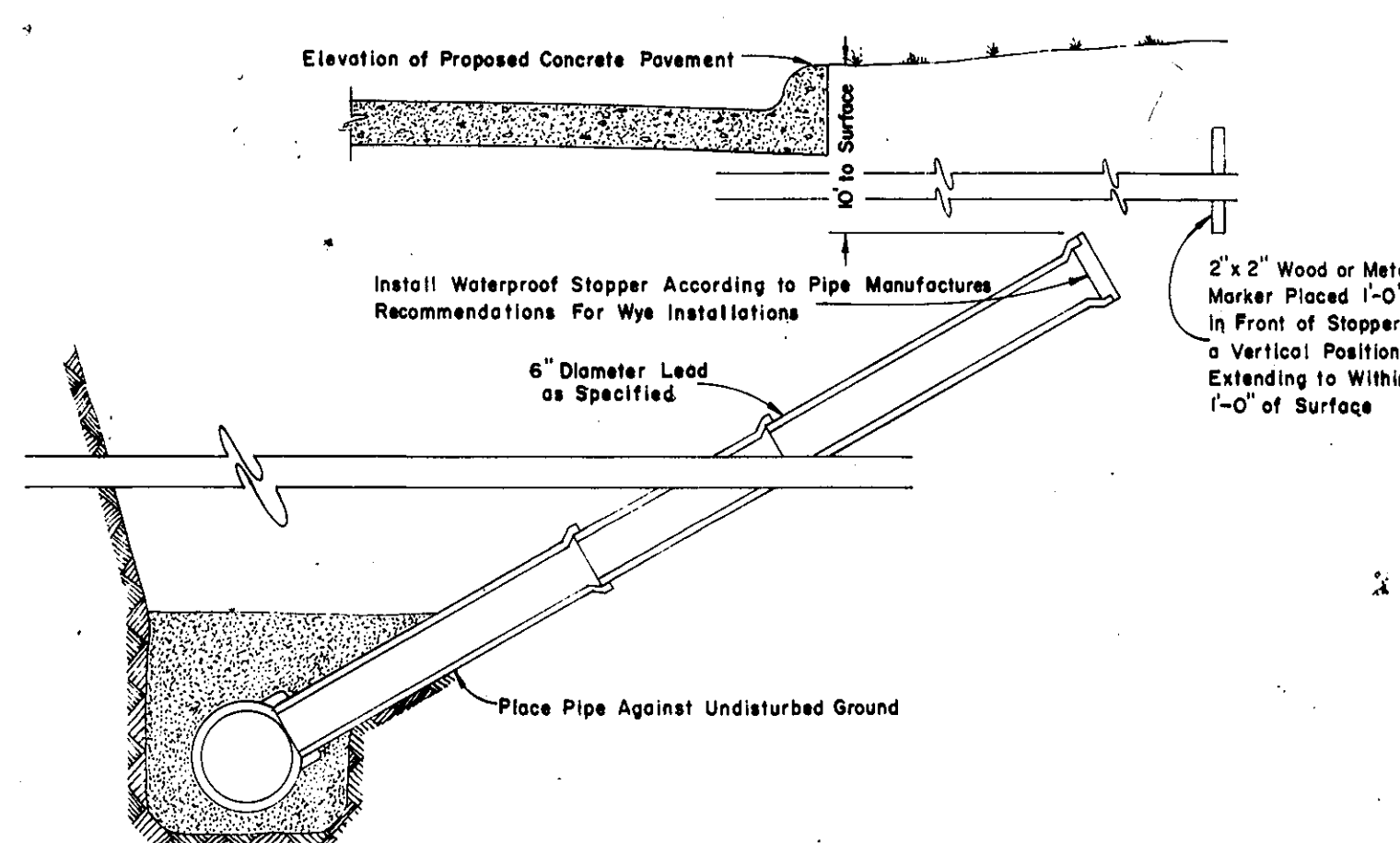
STANDARD PRE-CAST SANITARY MANHOLE
LESS THAN 48" DIAMETER
SCALE 1"=2'



STANDARD DROP CONNECTION
BRICK OR BLOCK MANHOLE WALL
PRE-CAST MANHOLE WALL
SCALE 1"=2'

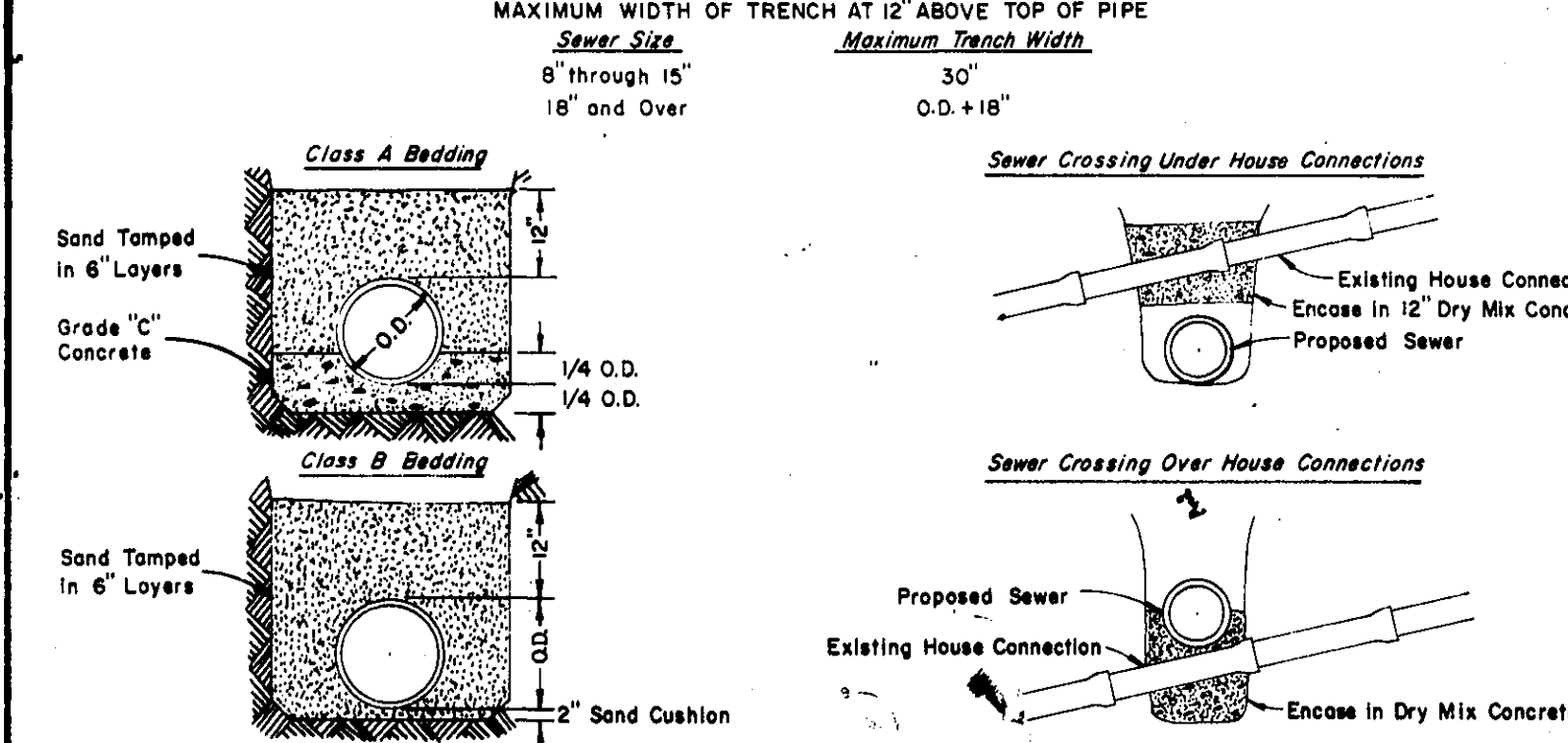


STANDARD SANITARY RISER DETAIL
NO SCALE



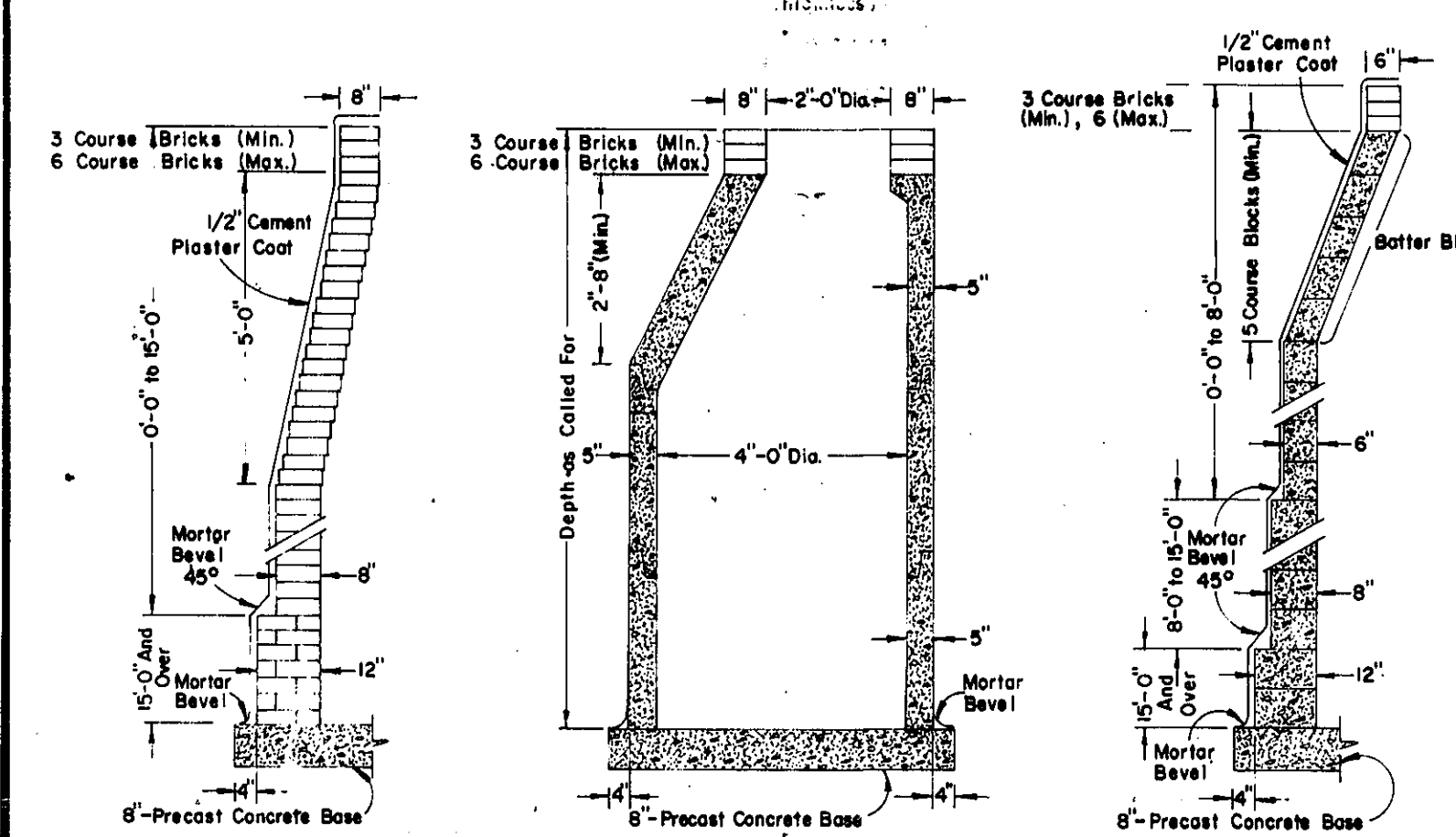
SANITARY ROAD CROSSING DETAIL
NO SCALE

TRENCH WIDTH REQUIREMENTS



SEWER BEDDING DETAIL
NO SCALE

CONCRETE ENCASEMENT AT HOUSE CONNECTION CROSSINGS
NO SCALE



TYPICAL MANHOLE WALL SECTIONS
SCALE 1"=3'

NOTE FOR SANITARY MANHOLE 48" Reinforced Concrete A.S.T.M. C-478 Pipe May be Used at Contractor's Option For Construction of Portion of Manhole Above a Point 8" Above the Top Highest Connecting Sewer. The Dome Shall be Not Less Than 3" Thick With 8" Top Thickness and Positioned to Provide Not Less Than 8" Nor Than 24" of Brickwork Beneath Manhole Ring and Cover. Pipe Joints Shall be 1:3 Cement Mortar. Pre-cast Concrete Base, Bottom Fill, Manhole Steps, Frame, Cover, etc. Shall Comply to Specifications For Standard Brick Manholes. Premium Joints Are Required on All Manholes.

NOTE FOR BLOCK MANHOLES Solid Concrete Block May be Used at Contractor's Option. Block Shall be 3,000 P.S.I. Concrete With Better Core Blocks Used For the Critical Section.

GENERAL CONSTRUCTION NOTES Top of Masonry Structures Shall be Sufficiently Low to Permit Proper Adjustment of Frame & Cover to Grade With Mortar & Brick as Directed by Engineer. Approved Granular Material Shall be Used Around All Structures. Place 4" Minimum Sand Under Pre-cast Bottoms Prior to Placement. All Sewer Extensions or Stubs to be Backfilled With Minimum of 1 Yard of Stone 1 1/2" Diameter or Less and Remaining Backfill With Sand or Select Material.

NOTE ON PUBLIC UTILITIES Public Utilities Locations Are Not Guaranteed as Accurate. Contractor Shall Check With Utility Companies For Information on Their Facilities Before Starting Work. Whether Shown on Plans or Not. Hand Excavated Test Holes Shall be Dug by Contractor to Locate Existing Utilities Which Cross, or Are in Close Proximity to Excavation. Adequate Support Shall be Installed by Contractor Where Necessary Under Existing Utilities.

- DESIGNATED BAG MIX WITH CLASS AND STRENGTH**
- 3,500 P.S.I. 6 SACK - CLASS "A"
 - 3,000 P.S.I. 5 SACK - CLASS "B"
 - 2,500 P.S.I. 4 SACK - CLASS "C"
- LEGEND**
- STANDARD PROFILE CONVENTIONS**
- NORTH OR EAST E. & SIDEWALK
 - SOUTH OR WEST E. & SIDEWALK
 - CENTERLINE
- STANDARD PLAN CONVENTIONS**
- SANITARY SEWER
 - STORM SEWER
 - WATER MAIN
 - GAS MAIN
 - UNDERGROUND CABLE
 - FIRE HYDRANT
 - GATE VALVE & WELL
 - MANHOLE
 - CATCH BASIN
 - INLET

CITY OF MADISON HEIGHTS, MICHIGAN ENGINEERING DEPARTMENT			
SANITARY SEWER MANHOLE & STANDARD DETAILS			
NO.	BY	CHANGE	DATE
REVISIONS			
SCALE: HORIZONTAL AS NOTED VERTICAL AS NOTED			
DRAWN BY: J.C.L. Base		DATE: 12/11/74	
DESIGNED BY: R.D. Peim		PAGE: _____	
PRELIMINARY BOOK		APPROVED BY: _____ DATE: _____	
LAYOUT BOOK		APPROVED BY: _____ DATE: _____	
CONSTRUCTED BY: _____		APPROVED BY: _____ DATE: _____	