



FOLLOW MNDOT 2451.3-C - FOUNDATION PREPARATION AND COMPACTION REQUIREMENTS OF MNDOT 2105.3 F1 - SPECIFIED DENSITY METHOD (100% COMPACTION REQUIREMENTS OF STANDARD PROCTOR)  
 MNDOT DESIGN F, MODIFIED  
 CONTINUOUS INSIDE DIAMETER  
 USE MINNEAPOLIS SHORT CONE SECTION (MNDOT TYPE C ALTERNATE) OR TOP SLAB ONLY

- (A) BOTTOM TO BE SHAPED 2/3 OF PIPE DIAMETER WITH POURED CONCRETE TO PROVIDE EFFICIENT FLOW.
- (B) WHEN THE INVERT OF THE INLET PIPE IS BELOW THE SPRING LINE OF THE MAIN, THEN PROVIDE CONCRETE "POWER FLOWS" FOR POSITIVE DOWN STREAM FLOW THROUGH MANHOLE.
- (C) PRE-CAST CONCRETE MANHOLE SECTIONS.
- (D) FILL AROUND INLET PIPE AND LIFTING HOLES WITH CEMENT MORTAR, TYPE N AIR ENTRAINED, FINISH SMOOTH AS NECESSARY. ALL PIPES CONNECTING TO MH'S SHALL BE TRIMMED FLUSH TO THE INTERIOR WALL OF THE MH STRUCTURE.
- (E) MANHOLE CASTING SHALL BE SET ON A FULL MORTAR BED, TYPE N AIR ENTRAINED
- (F) THE NUMBER OF CONCRETE ADJUSTING RINGS SHALL BE LIMITED TO PROVIDE A MAXIMUM THICKNESS OF 8" INCLUDING MORTAR, TYPE N AIR ENTRAINED WITH A MINIMUM OF 1 - 2" ADJUSTING RING. ALL ADJUSTING RINGS TO BE NEATLY SEALED WITH CONCRETE GROUT, TYPE N AIR ENTRAINED, ON THE INTERIOR OF THE STRUCTURE. MINIMUM OF 2" OF ADJUSTING RINGS & MORTAR TYPE N AIR ENTRAINED REQUIRED. ALL WOOD AND NON-CONCRETE ADJUSTING DEVICES SHALL BE REMOVED.
- (G) CONCRETE MANHOLE BLOCK MAY BE USED WITH THE APPROVAL OF CITY ENGINEER. INTERIOR & EXTERIOR OF BLOCK WORK SHALL BE MORTAR PLASTERED, TYPE N AIR ENTRAINED, TO A SMOOTH FINISH, MIN. 1/2" THICKNESS.
- (H) SUITABLE BACKFILL UNIFORMLY DISTRIBUTED IN 8" OR LESS LAYERS AND COMPACTED BEFORE SUCCESSIVE LAYERS ARE ADDED. MNDOT 2451.3 D - BACKFILLING EXCAVATIONS, COMPACTION IN ACCORDANCE WITH MNDOT 2105.3 F1 - SPECIFIED DENSITY METHOD.
- (J) FILL ANNULAR SPACE ON BELL END OF 1ST RISER SECTION WITH BRICK AND MORTAR, TYPE N AIR ENTRAINED, IF REQUIRED.
- (I) WATER STOP REQUIRED ON PVC, DIP, VCP, HDPE, HOBAS, PPP.

MINNEAPOLIS SHORT CONE SECTION SHALL BE USED UNLESS OTHERWISE SPECIFIED IN THE PLANS AND PLASTER COATED WITH TYPE N AIR ENTRAINED MORTAR (TO A SMOOTH FINISH).  
 ALL PRE-CAST MH RISER SECTIONS SHALL BE CONFIGURED TO PLACE THE BELL END DOWN.

MINNEAPOLIS CUSTOM  
 MNDOT SPEC. REF. 2506  
 MODIFIED MNDOT 4000J, 4005L  
 NOT TO SCALE

	DRW: DCD	DATE: 12/09	TYPICAL MANHOLE CONSTRUCTION	STANDARD PLATE NO. SEWR-1000-R1
	APP: HRS	DATE: 12/09		