



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

	MINNEAPOLIS DEPARTMENT OF PUBLIC WORKS		TYPICAL MANHOLE CONSTRUCTION	STANDARD PLATE NO. SEWR-1000-R1
	DRAWN: DCD	DATE: 12/09		
APPROVED: HRS	DATE: 12/09			