

- REV. 10-26-98: MODIFIED DRAWING BY CHANGING SIZE STRUCTURE FROM 7' X 7' TO 5'2" X 5'2".
- REV. 5-27-01: CHANGED ITEM NUMBERS IN GENERAL NOTE ①. ADDED MAXIMUM DEPTH NOTE.
- REV. 7-29-02: CHANGED ASTM SPECIFICATION IN GENERAL NOTE ②.
- REV. 9-11-02: CHANGED REINFORCING STEEL IN BASE SECTION.

MANHOLE MAXIMUM DEPTH NOTE

MAXIMUM DEPTH FOR THIS STRUCTURE IS 28.00'. WHEN DEPTH REQUIREMENTS EXCEED THIS DEPTH THE CONTRACTOR IS TO USE OTHER VERSIONS OF THE NO. 3 MANHOLE.

REINFORCING STEEL LEGEND

74"	A501	32"	H501	51"	H502
VARIABLE	A502	70"		70"	

MANHOLE DIMENSIONS

INSIDE WIDTH OF MANHOLE (INCHES)	WALL THICKNESS W (INCHES)	OUTSIDE WIDTH OF MANHOLE (INCHES)	MAX. INLET OR OUTLET CONC. PIPE SIZE - STR. (INCHES)	MAX. INLET OR OUTLET CONC. PIPE SIZE - 90° (INCHES)	DIMENSION C (INCHES)
62	8	78	48	42	2.6

MANHOLE MINIMUM DEPTH TABLE

INSIDE DIAMETER (X) OF PIPE (INCHES)	MINIMUM DEPTH - (FEET)		
	CONCRETE PIPE	CORRUGATED METAL PIPE	POLYETHYLENE PIPE
18	4.70	4.49	4.61
24	5.20	4.99	5.15
30	5.78	5.49	5.74
36	6.32	6.03	6.24
42	6.86	6.53	6.70
48	7.40	7.03	7.20

CUT-OUT HOLES FOR INLET & OUTLET PIPES

INSIDE DIAMETER (X) OF PIPE (INCHES)	DIAMETER OF CUT-OUT HOLES F & G - (INCHES)		
	CONCRETE PIPE	CORRUGATED METAL PIPE	POLYETHYLENE PIPE
18	26	21	24
24	32	27	31
30	40	33	39
36	47	40	45
42	54	46	50
48	61	52	56

- ① DEPTH MEASUREMENT MADE FROM TOP OF THE MANHOLE COVER TO OUTLET FLOW ELEVATION BASED ON INLET AND OUTLET PIPES BEING THE SAME DIAMETER, IF OUTLET PIPE IS GREATER ADJUSTMENT IN DEPTHS MUST BE MADE TO ACCOMMODATE THIS SITUATION.
- ② TO DETERMINE FLOOR OF MANHOLE ELEVATION, WHEN INLET AND OUTLET PIPES ARE THE SAME SIZE, ADD PIPE WALL THICKNESS PLUS 1.5' TO THE ABOVE MINIMUM DEPTHS.

GENERAL NOTES

(A) CAST-IN-PLACE CONCRETE MANHOLES SHALL BE CONSTRUCTED IN ACCORDANCE WITH STANDARD SPECIFICATIONS, SECTION 611 AND/OR SPECIAL PROVISIONS.

(B) THE CONTRACTOR MAY WITH PERMISSION FROM THE ENGINEER SUBSTITUTE PRECAST CATCH BASINS FOR CAST-IN-PLACE CATCH BASINS PROVIDED THAT ALL PRECAST ELEMENTS MEET ASTM M913 (CURRENT EDITION) UNLESS SUPERSEDED BY THIS DRAWING.

CONCRETE: $F_c = 4,000$ POUNDS PER SQUARE INCH AT 28 DAYS
 REINFORCING STEEL: ASTM A615, $F_y = 60,000$ POUNDS PER SQUARE INCH
 ALL REINFORCING IS TO BE INSTALLED AS DETAILED ON THIS DRAWING.

(C) PRECAST MANHOLE UNITS WHICH ARE DAMAGED DURING SHIPMENT OR INSTALLATION WILL BE REJECTED. IT SHALL BE THE RESPONSIBILITY OF THE CONTRACTOR TO REPLACE DAMAGED MANHOLE UNITS AT HIS OWN EXPENSE.

(D) ADDITIONAL REINFORCING STEEL NECESSARY ABOVE THE CORED OR FORMED CUT-OUT HOLES TO MAINTAIN THE INTEGRITY OF THE STRUCTURE DURING HANDLING AND PLACEMENT SHALL BE THE RESPONSIBILITY OF THE FABRICATOR.

(E) APPROPRIATE SIZING AND LOCATION OF LIFTING INSERTS SHALL BE THE RESPONSIBILITY OF THE FABRICATOR TO ASSURE BALANCED HANDLING DURING INSTALLATION OF THE MANHOLE.

(F) THE CONTRACTOR IS TO PATCH ALL LIFTING INSERT HOLES AND PLACE A MINIMUM OF ONE (1) INCH OF COVER OVER THE HARDWARE OF THESE DEVICES ON BOTH TOP AND BOTTOM SURFACES.

(G) INVERT ELEVATIONS ARE TO BE ADJUSTED AS DIRECTED BY THE ENGINEER IN ORDER TO ACCOMMODATE INLET AND OUTLET PIPES.

(H) SEE STANDARD DRAWING D-MH-4 FOR DETAILS REGARDING CAST IRON COVERS AND FRAMES, AND DETAILS FOR VARIOUS STEPS.

(I) PAYMENT FOR MANHOLE WILL BE MADE UNDER ITEM NUMBERS 611-01.02 MANHOLES, > 4'-8' DEPTH THROUGH 611-01.07 MANHOLE, > 24'-28' DEPTH PER EACH.

□ MINOR REVISION -- FHWA APPROVAL NOT REQUIRED.

STATE OF TENNESSEE
DEPARTMENT OF TRANSPORTATION

STANDARD
5'2" X 5'2" SQUARE
CONCRETE NO.3
MANHOLE

10-26-98 D-MH-5

