



1. THE DEPTH OF THE INVERT CHANNEL SHALL BE EQUAL TO  $\frac{3}{4}$  OF THE DIAMETER OF THE SEWER.
2. THE SHELVE SHALL SLOPE TOWARD THE INVERT CHANNEL AT A RATE OF 1" PER FOOT.
3. TYPE "B" MANHOLES (SHALLOW TYPE) TO BE PROVIDED WHERE REQUIRED BY DEPTH CONDITIONS. ALL OTHER MANHOLES TO BE TYPE "A". REFERENCE IS MADE TO THE STANDARD DETAILS FOR TYPE A & TYPE B MANHOLES.
4. FOR MANHOLES HAVING 5' DIA. AND 6' DIA. BASE REDUCTION IN DIAMETER TO 4' SHALL START AT THE FIRST JOINT ABOVE THE UPPERMOST PIPE CONNECTION TO WALL, WHERE DEPTH IS SUFFICIENT.
5. ALL MANHOLE FRAMES FOR "OFF THE ROAD" MANHOLES SHALL BE BOLTED TO THE CONE SECTION OR CONCRETE SLAB WITH 2- $\frac{3}{4}$ " DIA. BOLTS WITH WASHERS AND NUTS. BOLTS TO BE AT 180 DEGREES OR 90 DEGREES ON THE BOLT CIRCLE. FOR WATERTIGHT COVERS USE 4- $\frac{3}{4}$ " BOLTS AT 90 DEGREES ON THE BOLT CIRCLE.
6. SEE THE SPECIFICATIONS FOR LENGTH OF PIPE CONNECTIONS TO MANHOLES.
7. ALL CONCRETE SHALL BE 4000 PSI MINIMUM.
8. ENTIRE OUTSIDE SURFACE OF MANHOLE SHALL RECEIVE TWO COATS OF BITUMINOUS COATING, KOPPERS 300M, PENNOXY TAR 32-B-4, OR APPROVED EQUAL.
9. INSTALL PLASTIC PREFORMED JOINT SEALANT BETWEEN ALL SECTIONS AND UNDER FRAME.
10. MANHOLE CONSTRUCTION SHALL BE IN ACCORDANCE WITH ASTM C478.
11. STEPS TO BE ALUMINUM ALLOY WITH DEPRESSED TREAD, STEEL REINFORCED POLYPROPYLENE IS OPTIONAL.
12. 4' DIA. MANHOLE - 8" TO 15" PIPES.  
5' DIA. MANHOLE - 18" TO 27" PIPES.  
6' DIA. MANHOLE - 30" TO 48" PIPES.
13. FOR INSIDE DROP PIPE TYPE MANHOLES INCREASE DIAMETER BY 1'-0" OVER THOSE SHOWN ABOVE.
14. REFERENCE IS MADE TO THE DETAIL FOR STANDARD TYPE "A" MANHOLE.

BUTYL - RUBBER MANHOLE JOINT  
- A.S.T.M. C443/C361 RUBBER  
- A.S.T.M. D1056 NEOPRENE

## TYPE "A" DROP MANHOLE

PREPARED FOR:

PERKASIE REGIONAL AUTHORITY

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