



SECTION

INVERT PLAN

NOTES:

- MANHOLE TO CONFORM WITH ASTM C478 EXCEPT AS MODIFIED BELOW.
- WALL REINFORCING TO BE A MINIMUM OF 0.12 SQ. IN. PER LINEAR FOOT. EITHER TONGUE AND GROOVE OF JOINTS SHALL HAVE REINFORCING EQUAL IN AREA TO MINIMUM OF WALL SECTION.
- ALL JOINTS SHALL CONFORM WITH ASTM C443.
- STEPS SHALL BE COPOLYMER POLYPROPYLENE PLASTIC WITH 1/2" GRADE 60 STEEL REINFORCEMENT AND RESIST 1000 LB. PULLOUT TEST.
- ALL PIPE OPENINGS TO BE NO GREATER THAN 3" LARGER THAN O.D. OF PIPE AND ADDITIONALLY REINFORCED WITH A MINIMUM OF 0.20 SQ. IN. OF STEEL AT 90 DEGREES. PIPE TO BE CENTERED IN OPENINGS.
- ALL SURFACES SHALL BE SMOOTH EVEN TEXTURED WITH A MINIMUM OF HONEYCOMB, FINS AND OTHER IMPERFECTIONS.
- MANHOLE BASE SHALL BE 3600 P.S.I. CONCRETE PLACED AGAINST SHAPED BANKS IN LIEU OF FORMS.
- CARE MUST BE TAKEN TO FORM A SMOOTH FINISHED TROUGH FROM ENTRANCE PIPES TO EXIT PIPE, AND IN CURVED MANHOLES THE TROUGH MUST BE A SMOOTH CIRCULAR ARC TANGENT TO THE INSIDE WALLS OF THE PIPES AT THEIR ENDS. ALL CHANNELS TO BE 100% OF PIPE DIAMETER.
- ALL MANHOLE RINGS SHALL BE BOLTED THROUGH MANHOLE AND/OR CONCRETE GRADE RING WITH 1/2" DIAMETER KWIK BOLT STUD ANCHOR SYSTEM.
- MANHOLE GRADE SETTING SHALL BE AS FOLLOWS:
 - FLUSH WITH GRADE IN PAVED AREAS
 - 0.10' ABOVE GRADE IN MOWED PLAZA AREAS WITHIN OR ADJACENT TO STREET RIGHT-OF-WAY.
 - 2.0' ABOVE GRADE IN CROSS-COUNTRY UTILITY RIGHTS-OF-WAY.
 - A HEIGHT SPECIFIED BY THE WATER RESOURCES ENGINEER.
- PENETRATING LIFTING HOLES SHALL BE PLUGGED WITH EXPANSION GROUT.
- INFLOW DISHES/INSERTS SHALL BE INSTALLED ON ALL MANHOLES, 12-INCH SEWER MAINS OR LESS, WITH THE EXCEPTION TO CROSS COUNTRY MANHOLES.
- FLOW CHANNELS MUST ALLOW FOR PLACEMENT, REMOVAL AND PASSAGE OF CITY OF MONROE CCTV EQUIPMENT.

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