## TYPICAL MANHOLE DIMENSIONS

| MAX PIPE DIAMETER | "H" MAX HEIGTH | MIN THICKNESS | | | MAX WIDTH ("W") | MAX LENGTH ("L") |
|---|---|---|---|---|---|---|
| | | WALL ("T") | FLOOR ("F") | ROOF ("R") | | |
| 48" | 8'-0" | 12" | 10" | 12" | 7'-0" | 6'-0" |

NOTES

1. MANHOLE DETAILS ARE BASED ON A MAXIMUM DESIGN WORKING PRESSURE OF 10 FEET OF HEAD ABOVE MANHOLE.
2. FOR CONCRETE SPECIFICATIONS, REFER TO AID GENERAL NOTES.
3. BACKFILL AND SUBGRADES SHALL BE COMPACTED TO MINIMUM 95% RELATIVE DENSITY PER ASTM D1557 AND SHALL BE MANUALLY COMPACTED WHEN WITHIN 12 INCHES OF TOP OF PIPE OR AS DIRECTED BY ALTA ID.
4. REFER TO ALTA IS DETAIL RFT-02, STEEL REINFORCEMENT FOR INFORMATION ABOUT ALL REBAR SPLICES. ADD STANDARD REINFORCEMENT AT OPENINGS. SEE ALTA ID DETAIL RFT-03, STEEL REINFORCEMENT.
5. FOR MINIMUM LAP LENGTHS, REFER TO AID STANDARDS. EXTEND REBAR INTO ADJACENT WALLS/SLABS AS REQUIRED TO MAINTAIN MINIMUM LAP LENGTHS.
6. ALL REINFORCING STEEL SHALL BE PLACED AT LEAST 2" FROM FACE OF CONCRETE, UNLESS SHOWN OTHERWISE.
7. AIR VENT SHALL BE EQUIPPED WITH A 1" TALL WEEP RING WELDED TO THE OUTER SURFACE OF THE VENT. GALVANIZE VENT AFTER WELDING WEEP RING TO VENT. CENTER WEEP RING SECTION OF VENT PIPE IN WALL.
8. ALL JOINTS SHALL BE WATERTIGHT.
9. COPOLYMER POLYPROPYLENE STEPS SHALL BE INSTALLED ON THE INSIDE WALL OF THE PRESSURE MANHOLE NOT CONNECTING TO A PIPELINE. STEPS SHALL CONFORM TO THE REQUIREMENTS OF ASTM D4101 AND SHALL CONSIST OF A ½" DIAMETER GRADE 60 REINFORCING BAR MEETING ASTM A615. STEPS SHALL BE LANE POLY STEPS P-14938.
10. IF CONCRETE PIPES ARE INSTALLED AT MANHOLE CONNECTIONS, USE SPIGOT END OF PIPE OR CUTOFF PIPE BELL AND SEAL EXPOSED REINFORCEMENT.
11. ALL MANHOLES SHALL BE EQUIPPED WITH A TRAFFIC RATED, HEAVY DUTY PRESSURE MANHOLE FRAME AND COVER EQUIPPED WITH A WATERTIGHT INNER PRESSURE PLATE (MINIMUM THICKNESS OF 5/16") COVERING A MINIMUM CLEAR OPENING OF 33". MANHOLE FRAME AND COVER SHALL BE CAST IRON CONFORMING TO THE LATEST VERSION OF ASTM A48, CLASS 35B, AS NOTED IN AASHTO M306. ALL FRAMES AND COVERS SHALL BE TOUGH, GRAY CAST IRON, FREE FROM WARPS, CRACKS, HOLES, SWELLS AND COLD-SHOT, AND SHALL HAVE A WORKMANLIKE FINISH. THE HORIZONTAL SEATING AND VERTICAL FACING SURFACES COMMON TO THE RING AND COVER SHALL BE MACHINE-FINISHED TO ENSURE FULL BEARING CONTACT AND NON-ROCKING FIT FOR THE ENTIRE WIDTH AND CIRCUMFERENCE OF THE BEARING SURFACE. MANHOLE FRAME, COVER, AND PRESSURE PLATE ASSEMBLY SHALL BE TESTED FOR ACCURATE FIT PRIOR TO DELIVERY TO THE JOB SITE AND MARKED IN SETS. ALL CASTINGS, EXCEPT MACHINED SURFACES, SHALL BE DIPPED TWICE IN ASHPHALT OR COAL TAR AND OIL PREPARATION, APPLIED AT A TEMPERATURE BETWEEN 290°F AND 310°F TO CREATE A PROTECTIVE, TENACIOUS COATING. MANHOLE FRAME AND COVER SHALL BE ALHAMBRA FOUNDARY A-1501.
12. MANHOLE FRAME SHALL BE ANCHORED INTO CONCRETE WITH 12–⅝" X 8" ANCHOR BOLTS WITH WASHERS.
13. THE PRESSURE PLATE SHALL BE STEEL CONFORMING TO ASTM A36, AND SHALL BE GALVANIZED AFTER FABRICATION, BUT BEFORE INSTALLATION OF ANY HARDWARE. PRESSURE PLATE SHALL BE FASTENED TO THE MANHOLE FRAME USING 12–½" X 4½" STAINLESS STEEL COARSE THREAD STUDS. PLATE SHALL BE EQUIPPED WITH TWO EYE BOLTS, SECURED WITH 2–½" DIAMETER NUTS AND A ½" DIAMETER WASHER. A 2" DIAMETER GASKET SHALL SEPARATE THE WASHER FROM THE PLATE.
14. CAP SCREWS AND EYEBOLTS, INCLUDING WASHERS AND NUTS ATTACHED THERETO, SHALL BE FABRICATED FROM ANY SERIES 300 STAINLESS STEEL.
15. ALL NON-PRESSURIZED MANHOLES SHALL BE FLUSH WITH ADJACENT CONCRETE, WHERE APPLICABLE, OR 3" HIGHER THAN FINISHED GRADE FOR A SOIL SURFACE.