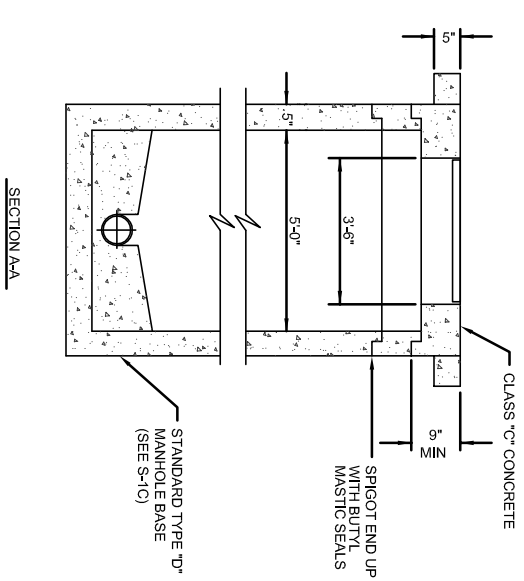
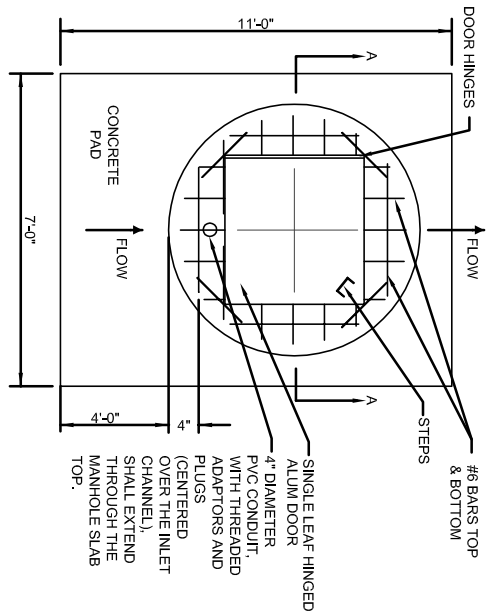


1. AN ALUMINUM 3'-6" SQUARE SINGLE LEAF HINGED DOOR (BILCO J-5AL, OR EQUAL) SHALL BE INSTALLED IN THE MANHOLE SLAB TOP. A 3'-0" DOOR SHALL BE ALLOWED IN A PRECAST TOP. THE HINGED SIDE OF THE SQUARE LIDS IS TO BE ORIENTED PARALLEL TO THE DOWNSTREAM FLOW DIRECTION.
2. STEPS IN THE BARREL SECTION OF THE PRE-CAST MANHOLE ARE TO BE INSTALLED IN ALIGNMENT WITH THE DOWNSTREAM CORNER OR THE SQUARE LID ON THE OPPOSITE SIDE FROM THE LID HINGE.
3. A SEVEN BY ELEVEN FOOT CONCRETE PAD, FIVE INCHES THICK AND LEVEL WITH THE MANHOLE SLAB TOP, SHALL BE CONSTRUCTED SUCH THAT A MINIMUM FOUR FOOT SECTION IS ORIENTED OVER THE INLET PIPE.
4. ALLOWABLE CONDUIT SLOPE ENTERING AND EXITING THE MANHOLE SHALL BE LIMITED TO A SPECIFIC MAXIMUM AND MINIMUM AS PER THE FOLLOWING TABLE:

PIPE SIZE	MIN % SLOPE	MAX % SLOPE
6"	2.00	2.2
8"	0.70	2.0
10"	0.50	1.8
12"	0.40	1.6
15"	0.30	1.5
18"	0.24	1.4
21"	0.19	1.4

5. NO BENDS, DROP MANHOLES, FLOW JUNCTIONS, ETC., SHALL BE LOCATED WITHIN 25 PIPE DIAMETERS UPSTREAM OF THE CENTER OF THE MANHOLE.
6. DOWNSTREAM CONDUIT SLOPE SHALL BE GREATER THAN OR EQUAL TO UPSTREAM CONDUIT SLOPE WITH NO OBSTRUCTION WITHIN TEN PIPE DIAMETERS DOWNSTREAM OF THE CENTER OF THE MANHOLE.
7. AN APPROPRIATELY SIZED FLUME (PLASTIFAB WITH INTEGRAL APPROACH, OR EQUAL) SHALL BE INSTALLED ACCORDING TO MANUFACTURER'S SPECIFICATIONS WITH THE FOLLOWING BUILT-IN ATTACHMENTS: ONE 1/8" STAINLESS STEEL BUBBLE LINE; ONE 3/8" STAINLESS STEEL SAMPLE LINE.
8. FLUMES ARE INSTALLED LEVEL WITH THE INCOMING INVERT. TURBULENCE IN THE INCOMING PIPE WILL CAUSE INACCURATE FLOW MEASUREMENT AND MUST BE PREVENTED BY THE DESIGN AND INSTALLATION. FLUME APPROACH CHANNELS MUST BE SMOOTH AND FREE OF ABRUPT CHANGES IN SLOPE. FLUMES MUST DRAIN FREELY THROUGH OUTGOING INVERT.



9. IMPROPER DOWNSTREAM SLOPES OR OBSTRUCTIONS INCLUDING FLUME EXIT GROUT WORK MAY NOT ALLOW WASTEWATER TO ADEQUATELY EMPTY OUT OF THE FLUME RESULTING IN FLUME FLOODING. FLUME FLOODING WILL CAUSE INACCURATE FLOW MEASUREMENT AND MUST BE PREVENTED BY DESIGN AND INSTALLATION.
10. A TWO OUTLET, 6PVC, 110 VOLT, AC ELECTRICAL SUPPLY SHALL BE SUPPLIED FOR EXCLUSIVE USE BY BOMS AT THE CONCRETE PAD, OR WITHIN FIFTY FEET SO THAT THE ROUTE OF AN EXTENSION CORD WILL NOT CROSS A TRAFFIC ZONE.
11. 6" LONG, 4" I.D. CAST IRON PIPE GUARD POSTS SHALL BE INSTALLED, AS DIRECTED BY THE ENGINEER, TO PREVENT VEHICULAR DAMAGE TO THE METERING MANHOLE. GUARD POSTS SHALL BE FILLED WITH CONCRETE AND INSTALLED 4" DEEP.
12. ALL LOCKING MECHANISMS SHALL UTILIZE DUAL LOCKS, ONE SUPPLIED BY MASON AND THE OTHER SUPPLIED BY THE OWNER.
13. ALL REINFORCING STEEL SHALL HAVE A MINIMUM COVER OF 2" BOTH SIDES.
14. JOINTS ON MANHOLE SECTIONS SHALL BE MADE WITH A RUBBER GASKET MEETING THE REQUIREMENT OF ASTM C-443, EXCEPT THAT ONLY "O" RING AND PROFILE GASKETS ARE ACCEPTABLE.
15. LIFT HOLES IN MANHOLES TO BE SEALED WITH HYDRAULIC CEMENT.
16. 1" PRECAST MANHOLE SECTION TO BE SET WHEN MANHOLE TOP IS POURED.
17. ALL OTHER CHARACTERISTICS ARE SIMILAR TO STANDARD MANHOLES.
18. ALL CONCRETE SHALL BE CLASS "C".
19. PRECAST CONCRETE BARRELS SHALL BE IN ACCORDANCE WITH ITEM 706.13 OF THE SPECIFICATIONS.
20. NO CAST IN PLACE OR BLOCK MANHOLES.

STANDARD SAMPLING & GAUGING MANHOLE DETAIL
(FOR USE IN NON-TRAFFIC AREAS)



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