

NOTES:

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 LID IS TO BE ORIENTED PARALLEL TO THE DOWNSTREAM FLOW DIRECTION.

STEPS IN THE BARREL SECTION OF THE PRE-CAST MANHOLE ARE TO BE INSTALLED IN ALIGNMENT WITH THE DOWNSTREAM CORNER OF THE SQUARE LID ON THE OPPOSITE SIDE FROM THE LID HINGE.

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.

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

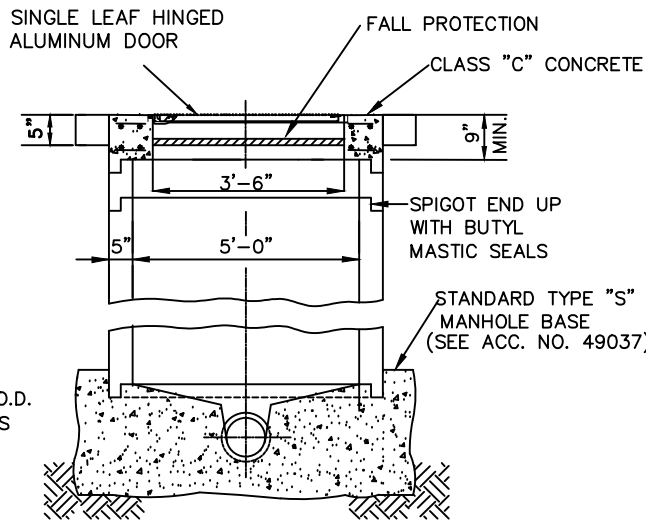
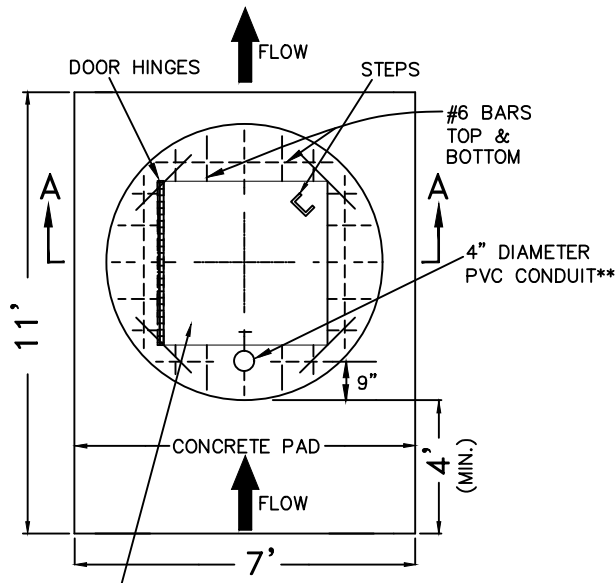
* 10" CONDUIT NOT APPROVED FOR NEW INSTALLATIONS
NO BENDS, DROP MANHOLES, FLOW JUNCTIONS, ETC., SHALL BE LOCATED WITHIN 25 PIPE DIAMETERS UPSTREAM OF THE CENTER OF THE MANHOLE.

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.

AN APPROPRIATELY SIZED FLUME (PLASTIFAB WITH INTEGRAL APPROACH, OR EQUAL) SHALL BE INSTALLED ACCORDING TO MANUFACTURER'S SPECIFICATIONS WITH THE FOLLOWING "BUILT-IN ATTACHMENTS: THE FLUME SHALL HAVE TWO 1/4" O.D. STAINLESS STEEL BUBBLE LINES AND ONE 3/8" O.D. STAINLESS STEEL SAMPLE LINE. THE TWO BUBBLE LINES PLUMBED TO THE SURFACE THROUGH THE 4" CONDUIT IN A MANNER THAT DOES NOT RESTRICT WORKING IN THE MANHOLE. PLEASE CALL THE DIVISION OF INDUSTRIAL WASTE AT 557-7012 FOR INSPECTION OF THE FLUME AND BUBBLE TUBE INSTALLATION."

A TWO OUTLET, GFCI, 110 VOLT, AC ELECTRICAL SUPPLY SHALL BE SUPPLIED FOR EXCLUSIVE USE BY MSD AT THE CONCRETE PAD, OR WITHIN FIFTY FEET SO THAT THE ROUTE OF AN EXTENSION CORD WILL NOT CROSS A TRAFFIC ZONE.

GENERAL AREA LIGHTING SHALL BE PROVIDED TO ILLUMINATE THE VICINITY OF THE METERING MANHOLE.



SECTION A-A

NOTES:

**4" DIAMETER PVC CONDUIT, WITH THREADED ADAPTOR AND PLUG (CENTERED OVER THE INLET CHANNEL), SHALL EXTEND THROUGH THE MANHOLE SLAB TOP.

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.

PARKING SHALL BE PROVIDED WITHIN 100 FEET OF THE MANHOLE FOR TWO MSD CONFINED SPACE ENTRY SUPPORT VANS. THE ROUTE FROM PARKING TO THE MANHOLE, FOR BREATHING AIR LINES, SHALL NOT CROSS A TRAFFIC ZONE.

ALL LOCKING MECHANISMS SHALL UTILIZE DUAL LOCKS, ONE SUPPLIED BY MSD AND THE OTHER SUPPLIED BY THE OWNER.

ALL REINFORCING STEEL SHALL HAVE A MINIMUM COVER OF 2" BOTH FACES

ALL OTHER CHARACTERISTICS ARE SIMILAR TO STANDARD MANHOLES.

FALL PROTECTION REQUIREMENT:

A GRATED COVER CAPABLE OF SUPPORTING AT LEAST 1,600 POUNDS AND SECURED TO PREVENT ACCIDENTAL DISPLACEMENT SHALL BE PROVIDED. THE COVER SHALL BE OF A SLOTTED MATERIAL TO ALLOW VISUAL INSPECTION, VENTILATION, AND PASS THROUGH OF SAMPLE & BUBBLE LINES AS NEEDED. ADDITIONALLY, THE COVER MUST HAVE A HATCH OR FLOOR HOLE CENTRALLY LOCATED OVER THE PRIMARY MEASURING DEVICE THAT IS AT LEAST 8", BUT NOT MORE THAN 12"x12", THROUGH WHICH SAMPLES CAN BE TAKEN. THIS REQUIREMENT IS WAIVED FOR MANHOLES LESS THAN 4' IN DEPTH.

THE
METROPOLITAN SEWER DISTRICT
OF
GREATER CINCINNATI
STANDARD TYPE "C"
SAMPLING & GAUGING MANHOLE
(FOR USE IN NON-TRAFFIC AREAS ONLY)

NO SCALE

DATE: JULY 2021

APPROVED:

Kyra Well

SEWERS CHIEF ENGINEER