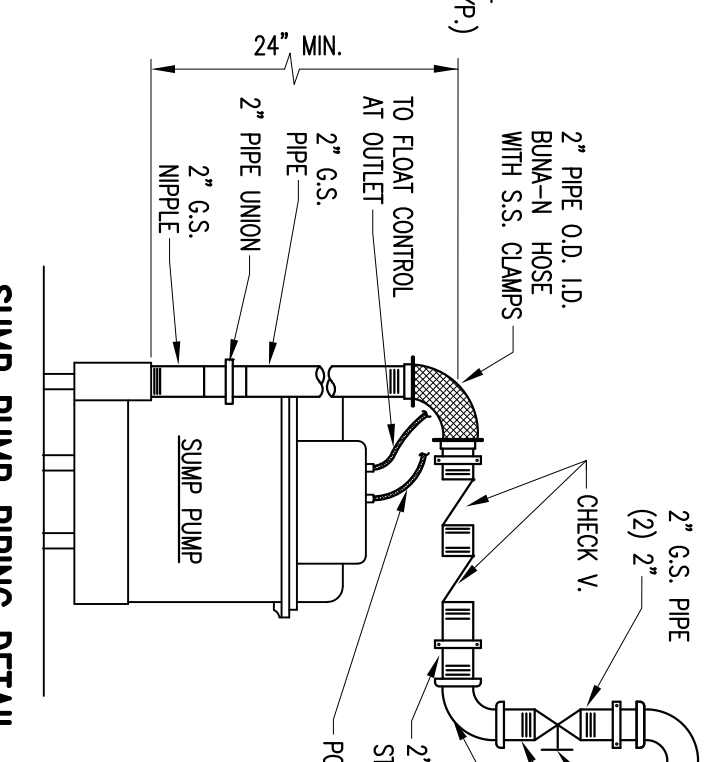
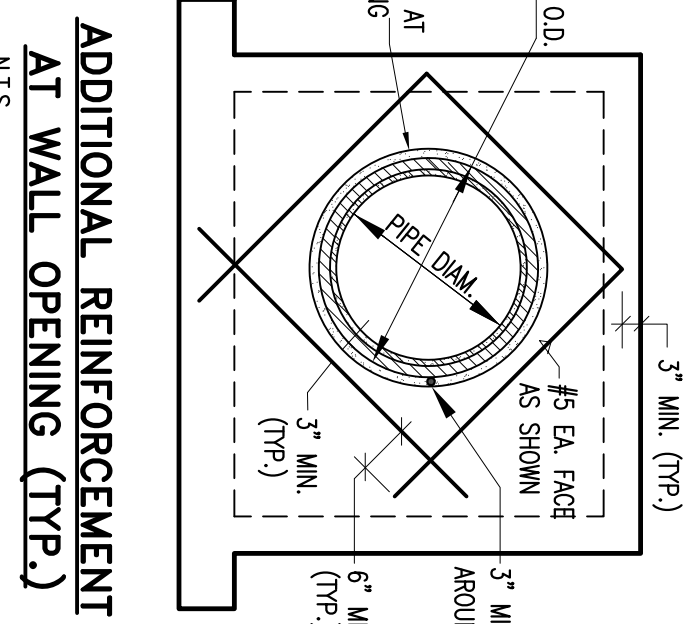
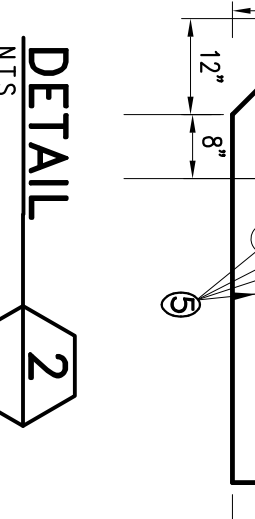
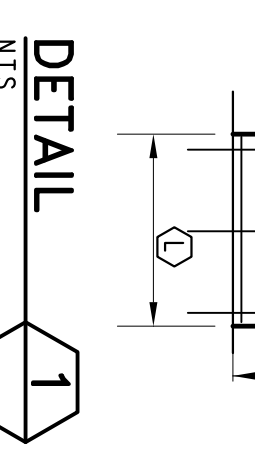
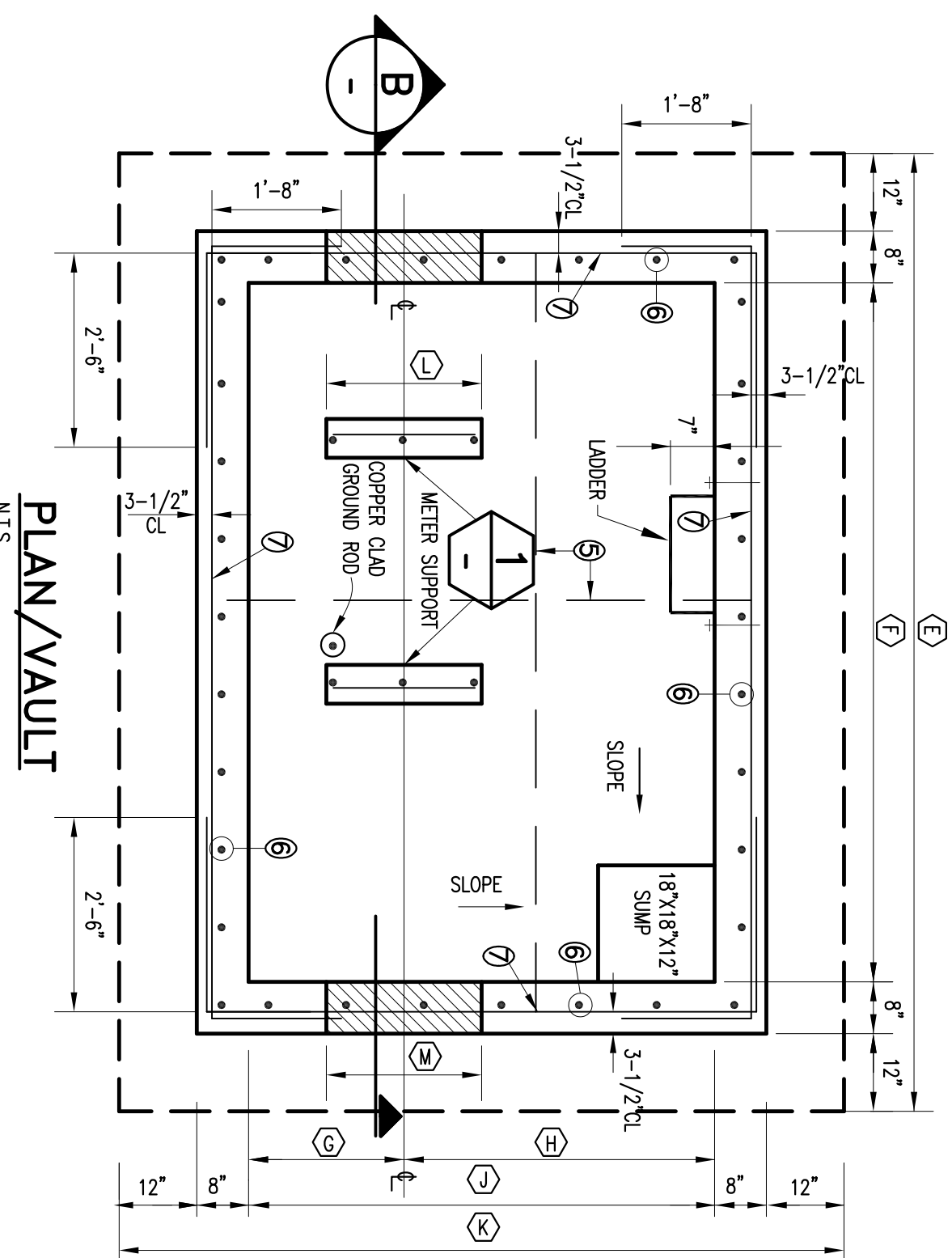
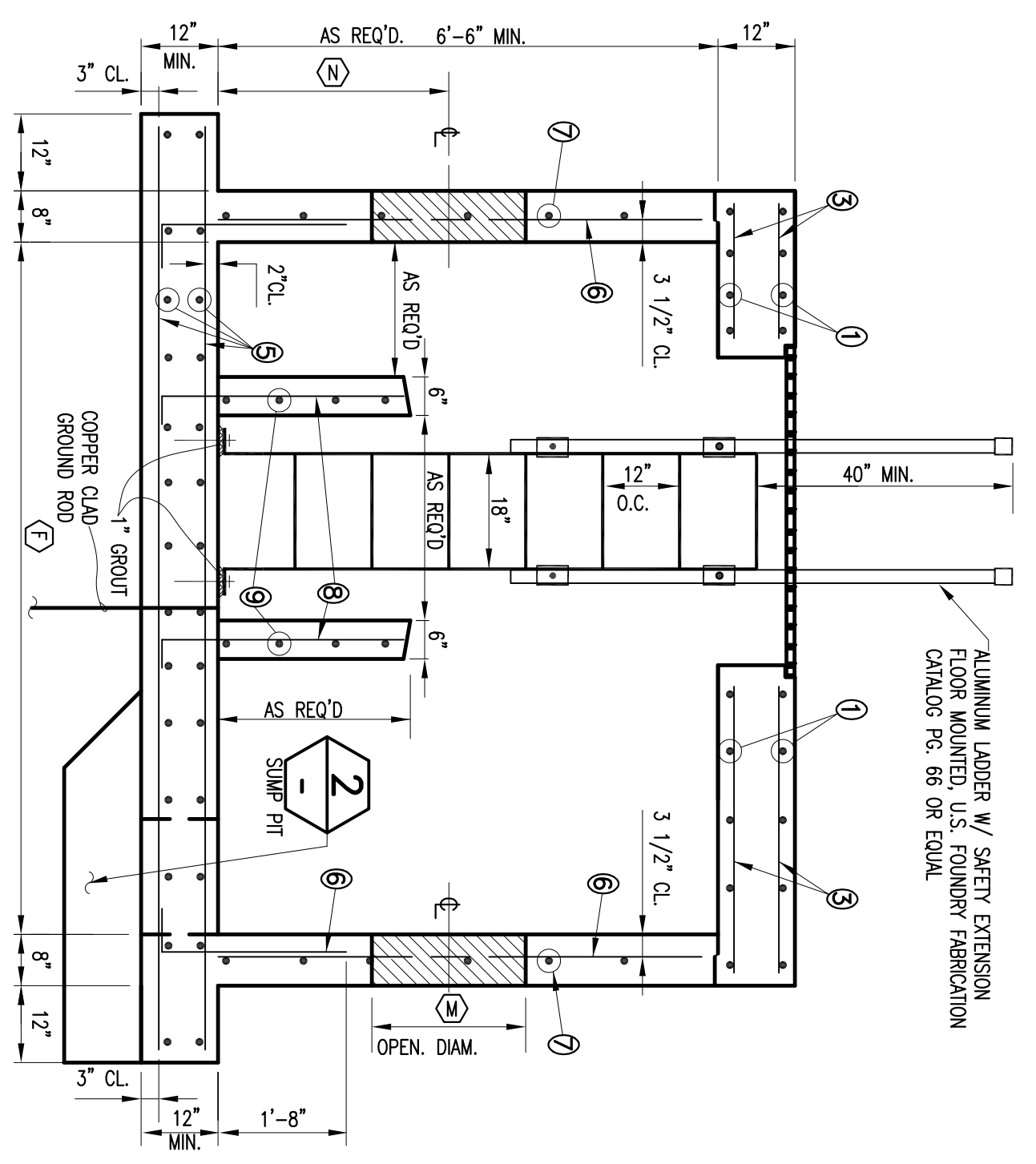
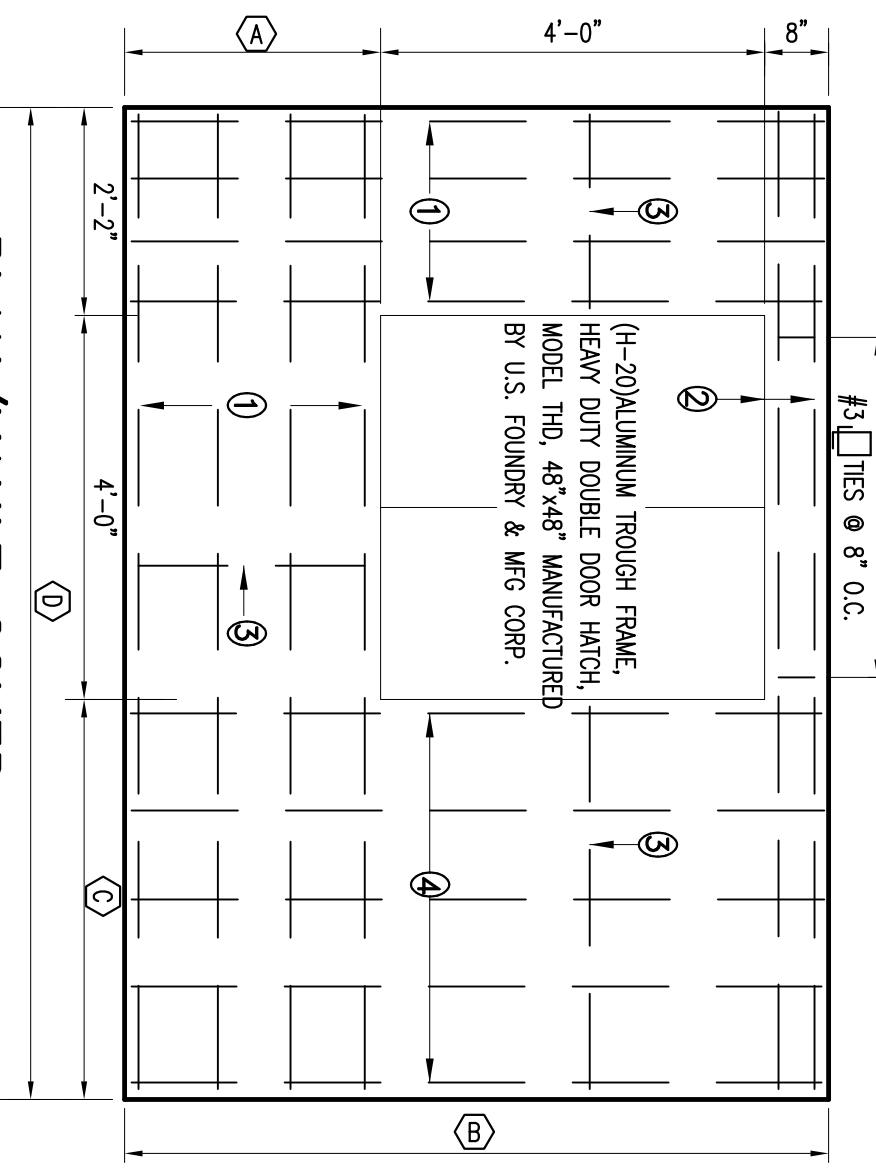


REINFORCEMENT SCHEDULE

- 1 - 4 #5 18B
- 2 - 2 #5 @ 4" 18B
- 3 - #4 @ 12" 18B
- 4 - 5 #5 18B
- 5 - #4 @ 12" EA. WAY 18B
- 6 - #4 @ 12" VERT.
- 7 - #5 @ 10" HORIZ.
- 8 - 3 #4 @ 9"
- 9 - 4 #4

TOP SLAB
WALLS
BOTTOM SLAB
PPE SUPPORT



USER MUST SHOW ACTUAL DIMENSIONS OF THESE THREE VIEWS ON HIS DESIGN DRAWING

SECTION B-B

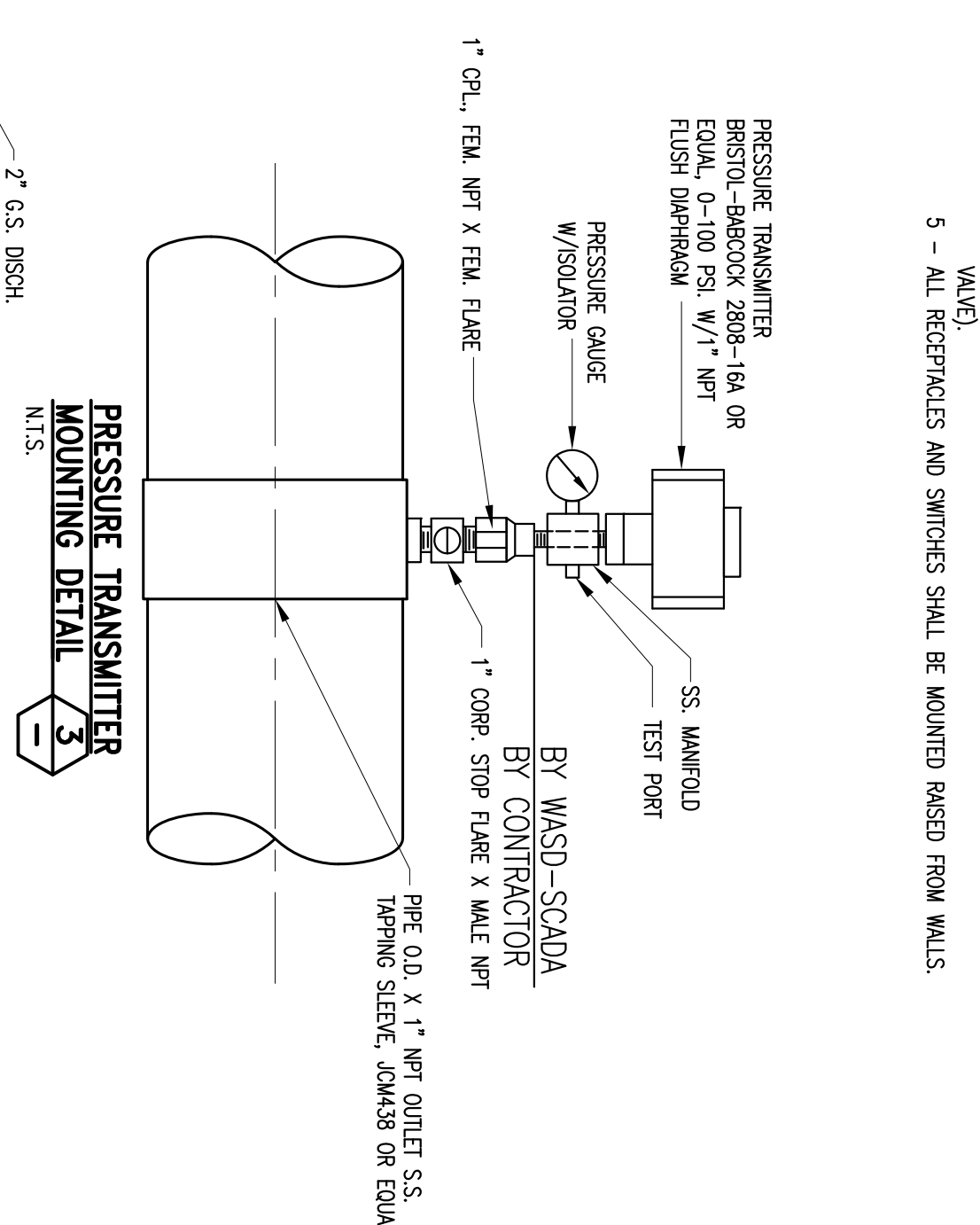
NOTES ABOUT THE USE OF THIS DESIGN GUIDE:

- THIS GUIDE REFLECTS THE MINIMUM DEPARTMENT DESIGN REQUIREMENTS. USER SHALL VERIFY AND MODIFY THE INFORMATION SHOWN HERE TO MAKE HIS DESIGN COMPLY WITH ALL APPLICABLE CODES AND STANDARDS.
- THE USER OF THIS GUIDE AGREES TO MODIFY THESE SAMPLE DRAWINGS IN ORDER TO REFLECT HIS ACTUAL DESIGN CONDITIONS. SPECIAL ATTENTION MUST BE PAID TO ADDITIONAL NOTE NO. 4 ON THE GENERAL NOTES.
- THE DEPARTMENT HAS THE RIGHT TO CALL FOR ADDITIONAL REQUIREMENTS.
- FOR LARGER (OR SMALLER) METERS SEE CONSULT WITH METER SECTION AND ENGINEERING.

ERASE THIS TABLE ON SPECIFIC APPLICATION.

VENTURI/MAGNETER DATA			
* VENTURI SIZE (INCHES)	** VENTURI LENGTH (INCHES)	*** MAGNETER ASSEMBLY LENGTH (INCHES)	OVERALL LENGTH (INCHES)
8 x 4	23.9	9.8	33.7
10 x 6	31.5	11.8	43.3
12 x 6	36.1	11.8	47.9
14 x 8	41.0	13.8	54.8
16 x 8	45.9	13.8	59.7
18 x 10	47.0	17.7	64.7
20 x 10	53.7	17.7	71.4
24 x 12	64.6	19.7	84.3
30 x 16	77.2	24.3	101.5
36 x 18	97.1	27.5	124.6

* FIRST NUMBER: VENTURI PIPE SIZE
 ** SECOND NUMBER: VENTURI THROAT/MAGNETER SIZE
 *** LARGEST LENGTH OF VENTURI AND MAGNETER MAY VARY
 ***) OPERATIONAL RECOMMENDATION: KEEP VELOCITIES THRU MAGNETER ABOVE 1.0 FTS. AND BELOW 25 FTS.



ERASE THIS TABLE AND SHOW DIMENSIONS ON VAULT DRAWINGS LEFT.

VAULT DIMENSIONS TABLE (FT.-INCHES)													
METER (INCHES)	A	B	C	D	E	F	G	H	J	K	L	M	N
8 x 4	3-4	8-0	2-8	8-10	10-10	7'-6"	2-8	4-0	6-8	10-0	1-6	1-8	2-4
10 x 6	3-4	8-0	3-4	9-6	11-6	8-2	2-8	4-0	6-8	10-0	1-9	1-10	2-6
12 x 6	3-4	8-0	3-10	10-0	12-0	8-8	2-8	4-0	6-8	10-0	1-9	2-0	2-6
14 x 8	3-4	8-0	4-4	10-6	12-6	9-2	2-8	4-0	6-8	10-0	2-0	2-2	2-8
16 x 8	3-6	8-2	4-10	11-0	13-0	9-8	2-10	4-0	6-10	10-2	2-0	2-4	2-8
18 x 10	3-6	8-2	5-6	11-8	13-8	10-4	2-10	4-0	6-10	10-2	2-3	2-6	2-10
20 x 10	3-8	8-4	6-0	12-2	14-2	10-10	3-0	4-0	7-0	10-4	2-3	2-9	2-10
24 x 12	4-0	8-8	7-0	13-2	15-2	11-10	3-2	4-2	7-4	10-8	3-2	3-0	3-0
30 x 16	4-8	9-4	8-10	15-0	17-0	13-8	3-8	4-4	8-0	11-4	3-8	3-8	3-4
36 x 18	5-0	9-8	10-4	16-6	18-6	15-2	3-8	4-8	8-4	11-8	3-8	4-2	3-8

LIST OF MATERIALS

MARK	DESCRIPTION	SIZE (in)	QTY.
1	TEL. W.I.	12 X 8	2
2	22.5\"/>		

LIST OF MATERIALS NOTES AND GENERAL NOTES:

Piping diameters and quantities in tables are shown for purpose of illustration, assuming that a sample 12 x 6 Venturi with a 6\"/>

MARK NUMBERS are as shown on the List of Materials.

BRISL. DIAMETERS COULD BE SMALLER THAN MARK.

MARK 2: TO OBTAIN APPROPRIATE DIFFERENTIALS (1.5 IN.H2O) AT MINIMUM HEADS, ON THE VENTURI METER, DEPRESS SECTION, WITH THE DROP ON THE SEWER MAIN EQUIPMENT, AT LEAST, TO ONE PIPE NOMINAL DIAMETER (IF THERE IS NO REDUCTION ON PIPE SIZE). IF THERE IS A REDUCTION, THE DROP MUST BE THE AVERAGE OF THE TWO DIAMETERS. DROP = $\frac{1}{2} (D1 + D2)$

MARK 7: SPECIFY THE PROPER BEND ANGLE IN EACH CASE (11.25° - 22.5° or 45°), IN ORDER TO ALLOW SPACE BETWEEN THE TWO M.I. BELLS.

MARK 8: CONNECTING PIECE BETWEEN M.I. BELLS: MINIMUM LENGTH, F.E. 6\"/>

MARK 12: CHECK VALVE: NEED WILL DEPEND ON DOWNSWHEM CONDITIONS (E.G., GRANT DISCHARGE). THIS SLEEVE NEEDED TO AVOID THE EXHAUST LOSSEING, DUE TO CORROSION OF THE COPP STOP, F THREADED DIRECTLY INTO THE PPE. MARK 13A, 13B.

SECONDARY METERS - VENTURI TUBE WITH MAGNETER SIZE THROAT. TUBE SHALL BE FABRICATED 304 S.S. WITH 304 S.S. FLANGES, AND MANUAL VENT CLEANERS. TWO PIECE ASSEMBLED SYSTEM COMPATIBLE WITH MAGNETER FLANGE CONNECTION.

Desirable Bed Ratio - * B = 0.594 (Max. allowed B = 0.67)
 Min. Differential - 1.5 IN.H2O - Max. 560 IN.H2O
 Meter shall be Model HRT-C1, by FRS (Primary Flow Signal) or approved equal

Mark 13: Bed Ratio: B = d. = Throat Size / Line Size

Mark 13c: PNEUMATIC METER: MAGNETER TYPE WITH 304 S.S. METER BODY AND FLANGES, NEOPRENE LINER AND 316 S.S. MODEL SERIES E10232 OR APPROVED EQUAL. RECORDER - 115/120 V. A.C. POWERED SINGLE PEN W/ROTALIZER 24 V. D.C. POWER SUPPLY, CHESSSEL 392, OR APPROVED EQUAL.

Mark 17: SLUMP PUMP - HIGH HEAD, TSUBURU MODEL 50SPR275S, 1 HP.; 115 V. A.C.; 60 HZ.; 1 PH. (SINGLE PHASE)

GENERAL NOTES:

- ALL PPE AND FITTINGS SHALL BE DUCTILE IRON, CERAMIC EPOXY UNED, POLYETHYLENE ENCASED WHEN BURRED.
- RESTRAIN ALL MECHANICAL JOINT FITTINGS WITH MEGALOC QUANDS OR APPROVED EQUAL.
- ALL WALL PIPES SHALL BE GROUDED WITH EPOXY NON-SHRINK GROUT AT WALLS AFTER COMPLETION OF INSTALLATION.
- ON EXISTING SEWER FORCE MAINS, METER SHALL BE INSTALLED ON A BRASS WORKED AROUND THE EXISTING MAIN WHICH WILL THEN SERVE AS BYPASS (PREVIOUS INSERTION OF ISOLATION VALVE).
- ALL RECEPTABLES AND SWITCHES SHALL BE MOUNTED RAISED FROM WALLS.

APPROVALS

PROJECT MGR. HS	CHECKED: JBF
DESIGNED: HS	DRAWN: HR
CHEF ENGINEER:	
SECTION HEAD:	
UNIT HEAD:	

REVISIONS

No.	DESCRIPTION	DATE	BY

DRAWING HISTORY

RELEASED FOR	DATE	BY

APPENDIX

FILE NAME:	SCALE:
MS-1.DWG	AS NOTED

MIAMI-DADE COUNTY
Advancing Excellence Every Day

WATER AND SEWER DEPARTMENT
 ENGINEERING DIVISION

3071 SW 38TH AVENUE
 MIAMI, FLORIDA 33135
 miami@dc.gov

METER FACILITY NAME
 OFFICIAL ADDRESS, FLORIDA 33100-0000

PROJECT TITLE
 CONTRACT/ PROJECT No.

SEWER METER STATION DESIGN GUIDE
 CASE OF 8" TO 36" W/VENTURI & MAG. METER PIPING, STRUCTURAL AND DETAILS

DATE: OCT. 17, 2016 SCALE: AS NOTED
 SHEET MS-1
 DWG. No. S-26263-D