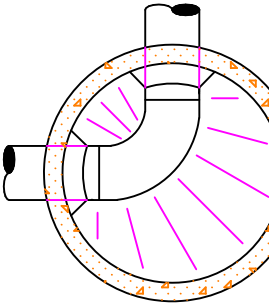
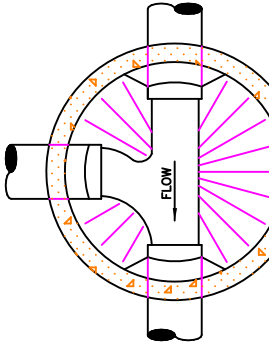


THROUGH SECTION



90° BEND



"T" SECTION

CONCRETE BASE MAY BE 64" DIAMETER FOR 48" MANHOLES; 92" DIAMETER FOR 72" MANHOLES.

TYPICAL PLAN SECTIONS

DEPRESS MANHOLE LID BELOW PAVEMENT SURFACE (TYP)

SOLID DUCTILE IRON MANHOLE LID AND FRAME RATED FOR H-20 LOADING WITH LETTERS "SEWER" (TYP) IFCO NO. 741 OR EQUAL

ADJUSTMENT RINGS OR MORTAR & BRICK (TYP)

SEAL ALL AROUND WITH PREFORMED FLEXIBLE PLASTIC JOINT SEALANT (TYP ALL RISER JOINTS)

2" INSULATION (PER SPECS) & 3 LAYERS OF 6 MIL POLYETHYLENE SHEETING ALL AROUND (TYP)

WATER PROOF COATING OF INSULATION REQUIRED AT OR BELOW WATER TABLE UNLESS OTHERWISE NOTED (TYP)

48" FOR 8"-24" PIPE DIAMETER UNLESS OTHERWISE NOTED (TYP)

25 1/2" #3 REBAR OR 4/8, 4/9 WWF (TYP)

4" MINIMUM

1/2" CDX PLYWOOD

4 TIE HOOKS EQUALLY SPACED AROUND BASE. SEE DETAIL THIS SHEET.

BASE & FIRST RISER SECTION SHALL BE CAST TOGETHER (TYP)

2" RIGID BOARD EXPANDED POLYSTYRENE INSULATION IN ALL SANITARY MANHOLES 12" SELECT GRAVEL (MIN) 95% PROCTOR

INVERT

SLOPE 1" PER FOOT (TYP)

TOP OF CONCRETE THROUGH

8" MINIMUM (TYP)

FORM SMOOTH POURED CONCRETE INVERT AT CONSTANT SLOPE

WATER STOP GASKETS TYPICAL OF ALL CONNECTIONS TO MANHOLES

NON-SHRINK GROUT INSIDE AND OUTSIDE AT MANHOLES TO MANHOLE (TYP)

PIPE CONTINUOUS THROUGH MANHOLE

FLOW

TOP OF PIPE CUT OUT PER ENGINEER'S DIRECTION

72" TYPE I

TYPICAL THROUGH SECTION

8" MINIMUM (TYP)

TOP OF CONCRETE THROUGH

FORM SMOOTH POURED CONCRETE INVERT AT CONSTANT SLOPE

WATER STOP GASKETS TYPICAL OF ALL CONNECTIONS TO MANHOLES

NON-SHRINK GROUT INSIDE AND OUTSIDE AT MANHOLES TO MANHOLE (TYP)

PIPE CONTINUOUS THROUGH MANHOLE

FLOW

TOP OF PIPE CUT OUT PER ENGINEER'S DIRECTION

8" MINIMUM (TYP)

TYPICAL THROUGH SECTION

8" MINIMUM (TYP)

TYPICAL THROUGH SECTION

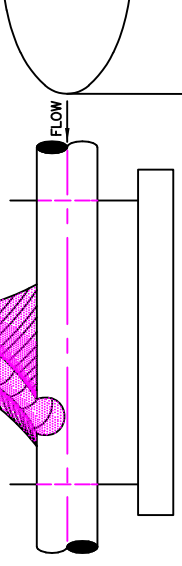
SECTION	MANHOLE SIZE	MANHOLE SIZE
FLAT BASE	48"	72"
	0.39 SQ IN/FT EACH WAY	0.39 SQ IN/FT EACH WAY
RISER SECTION*	0.12 SQ IN/FT	0.18 SQ IN/FT
CONE SECTION*	0.12 SQ IN/FT	0.18 SQ IN/FT
ADJUSTING RING	0.024 SQ IN	0.024 SQ IN

*CIRCUMFERENTIAL REINFORCING ALL AREAS ARE MINIMUM CROSS-SECTIONAL AREA OF REINFORCEMENT PER FOOT OF SECTION.

MANHOLE REINFORCEMENT SCHEDULE

(SHALL COMPLY WITH AASHTO M-199-ASTM 478)

WHEN INSTALLING A BEAVER SLIDE THAT INTERCEPTS AN EXISTING SEWER AT A RIGHT ANGLE, THE CONNECTING INVERT OF THE BEAVER SLIDE IS TO BE LOCATED 2" ABOVE THE EXISTING SPRINGLINE AS SHOWN.



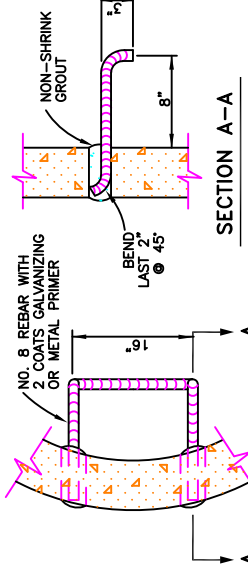
MAXIMUM VERTICAL DROP FOR BEAVER SLIDE (MEASURED CROWN TO CROWN):

32" FOR 12" PIPE
30" FOR 10" PIPE
28" FOR 8" PIPE

WHEN INSTALLING A BEAVER SLIDE WHERE FLOW THROUGH THE EXISTING SEWER MANHOLE, THE BEAVER SLIDE IS TO MATCH THE INVERT OF THE EXISTING LINE AND NOT EXTEND MORE THAN HALF WAY THROUGH THE MANHOLE.

TYPICAL BEAVER SLIDES

NOT TO SCALE



MANHOLE STEP

NOT TO SCALE

2-1/4" X 3-5/8" X 7-5/8" CONCRETE BRICK, TWO COURSES MINIMUM AS SHOWN, SET IN GROUT

ALL GROUT SHALL BE NON-SHRINK

1.5" R

#4 REBAR

5"

5"

NON-SHRINK GROUT

8"

BEND LAST 2" @ 45°

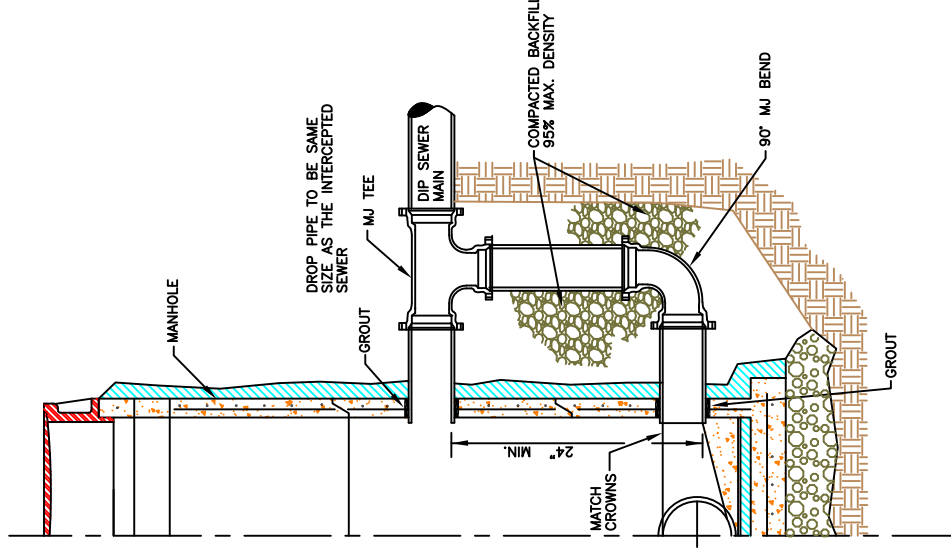
NO. 8 REBAR WITH 2 COATS GALVANIZING OR METAL PRIMER

SECTION A-A

NOT TO SCALE

TIE HOOK

NOT TO SCALE



DROP CONNECTION MANHOLE DETAIL

NOTE: DROP MANHOLES TO BE USED WHEN NO. 8 REBAR INVERT IS GREATER THAN 24" ABOVE MANHOLE INVERT

TYPICAL MANHOLES

NOT TO SCALE

TYPICAL DROP SECTION

NOT TO SCALE

DESIGNED	APPROVED
DRAWN	NBB
CHECKED	MJB
DATE	FEB 98
FILE:	STANDARD DETAILS SS1

PLAN SCALE:	NOT TO SCALE
PLOT SCALE:	1=1

DATE	12/15/20	CWH	BY
REVISION	NEW LOGOS		



LID, FRAME & MANHOLE INSERT

NOT TO SCALE

SANITARY SEWER SYSTEM MANHOLES

SS1