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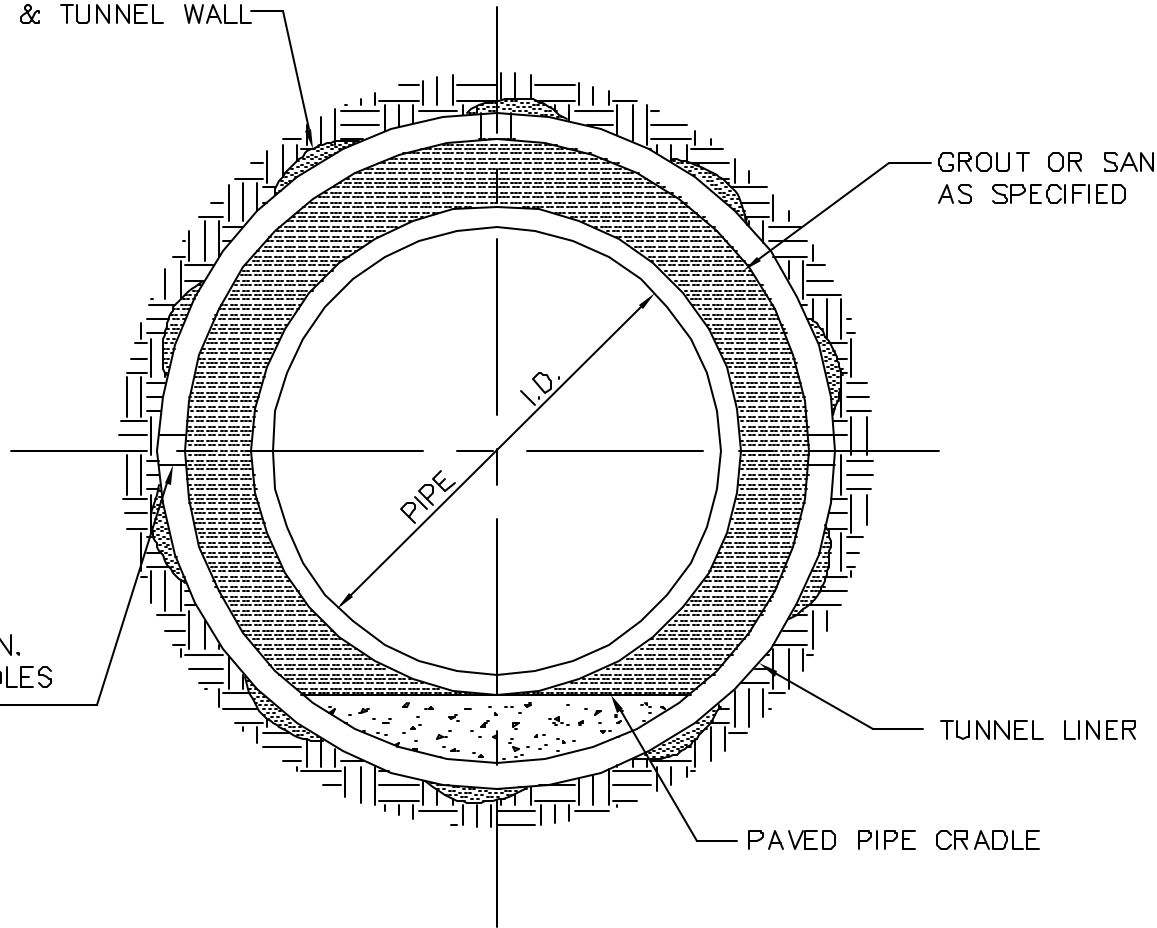
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PRESSURE GROUT VOID BETWEEN
TUNNEL LINER & TUNNEL WALL

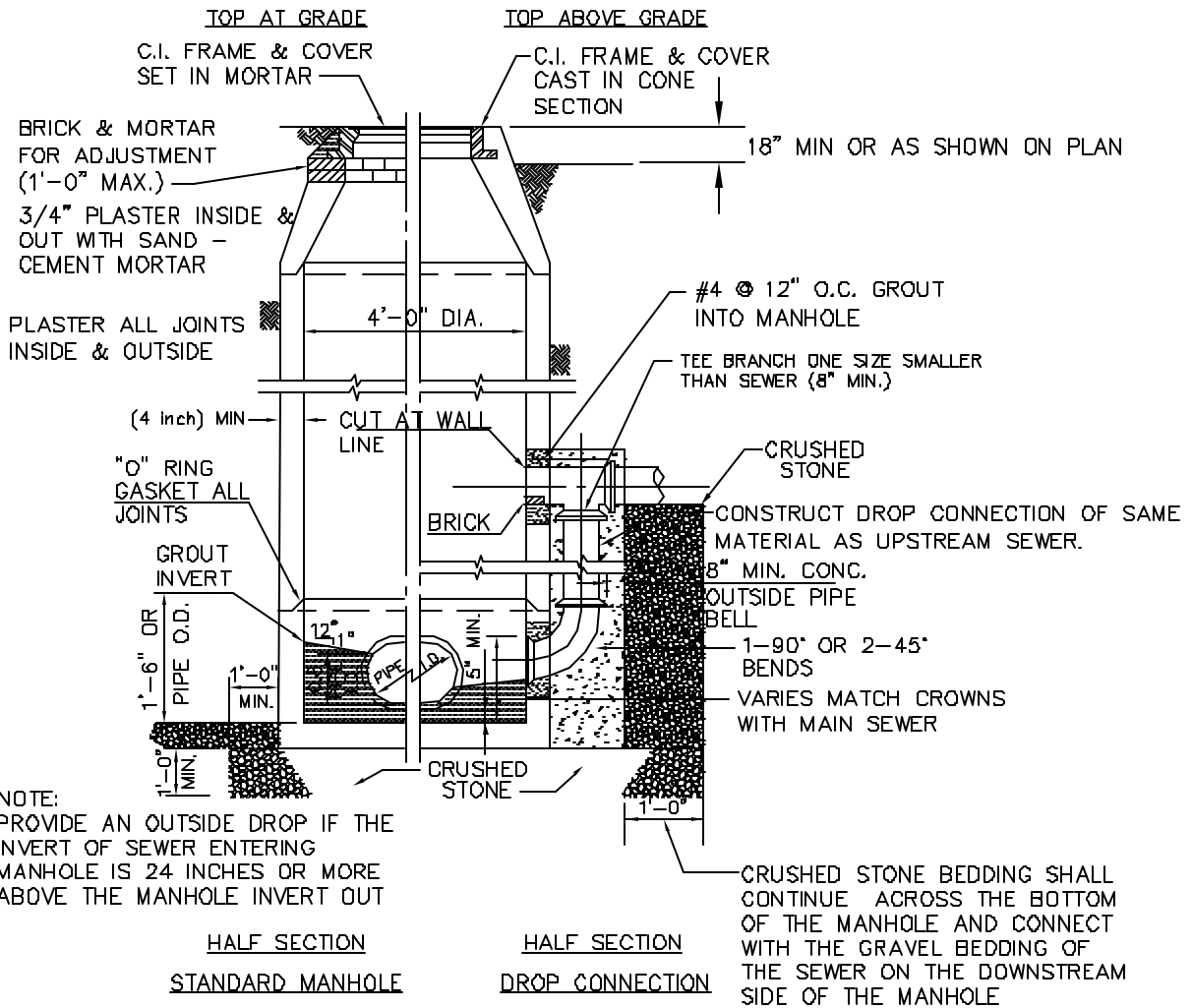
GROUT OR SAND
AS SPECIFIED

GROUT HOLES 2" ϕ MIN.
MINIMUM 3 GROUT HOLES
EVERY 3 RINGS



NOTE: STEEL SPACES SHALL BE
USED TO RESTRAIN THE
PIPE IN THE TUNNEL

STATUS	BY	APPROVED	DATE	MACON WATER AUTHORITY STANDARD DETAILS	RECOMMENDED BY THE MACON WATER AUTHORITY ENGINEERING DEPT.
ORIGINAL					
REVISION					



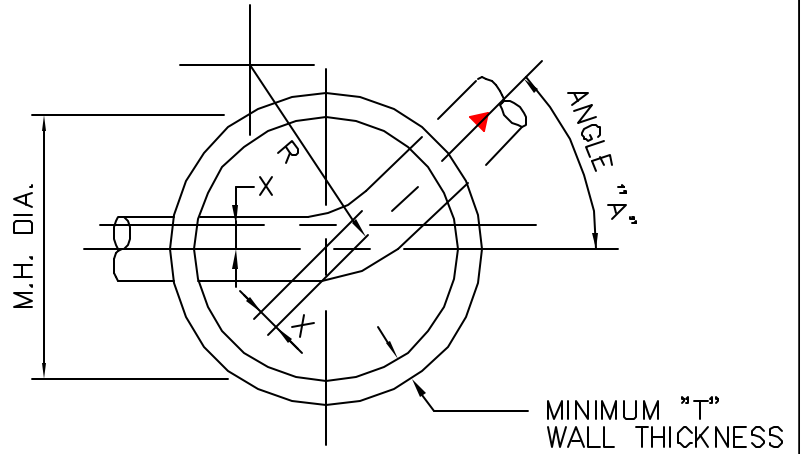
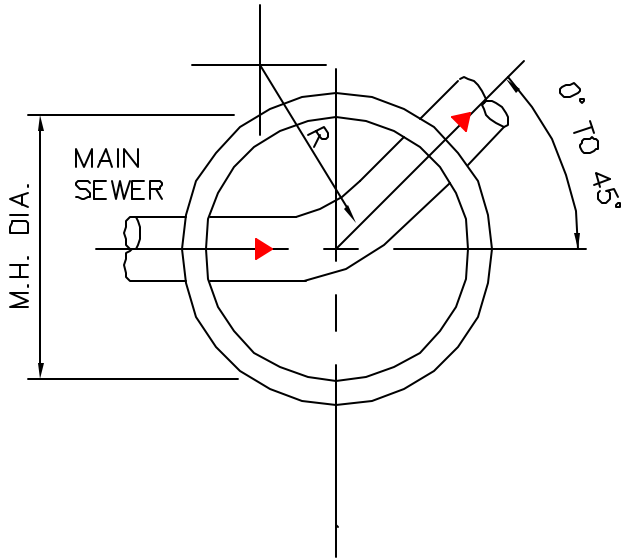
STATUS	BY	APPROVED	DATE
ORIGINAL			
REVISION			

MACON WATER AUTHORITY STANDARD DETAILS

PRECAST CONCRETE MANHOLE DETAIL
N.T.S.

RECOMMENDED BY THE MACON
WATER AUTHORITY ENGINEERING
DEPT.

DRAWING
NUMBER S-2

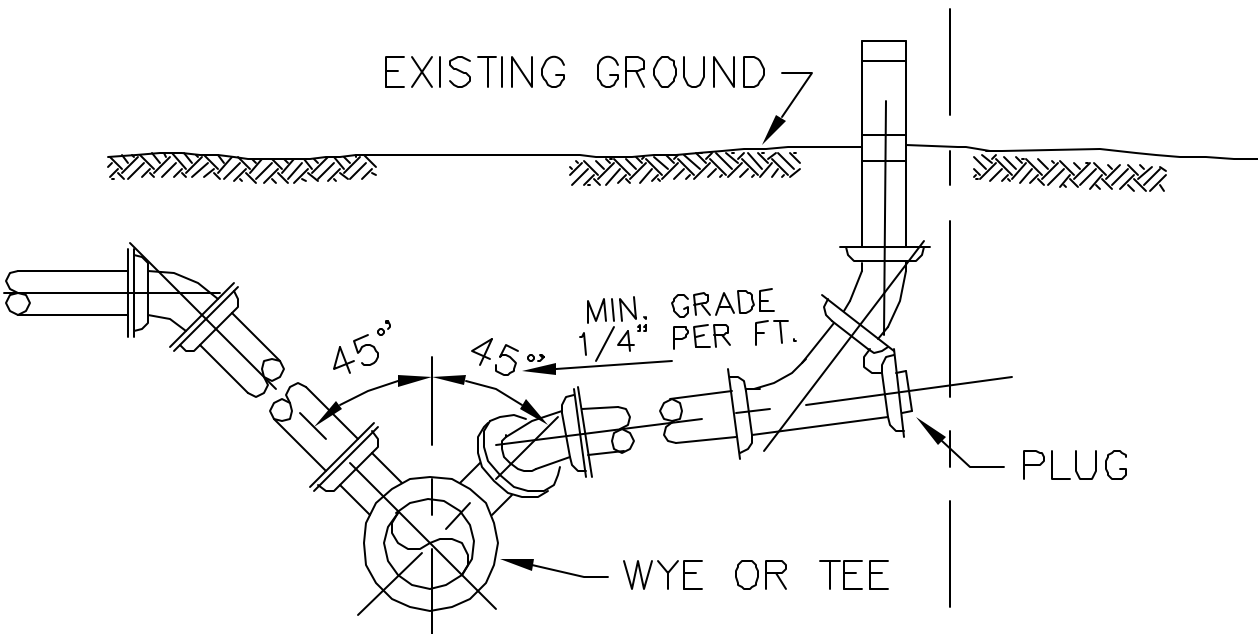
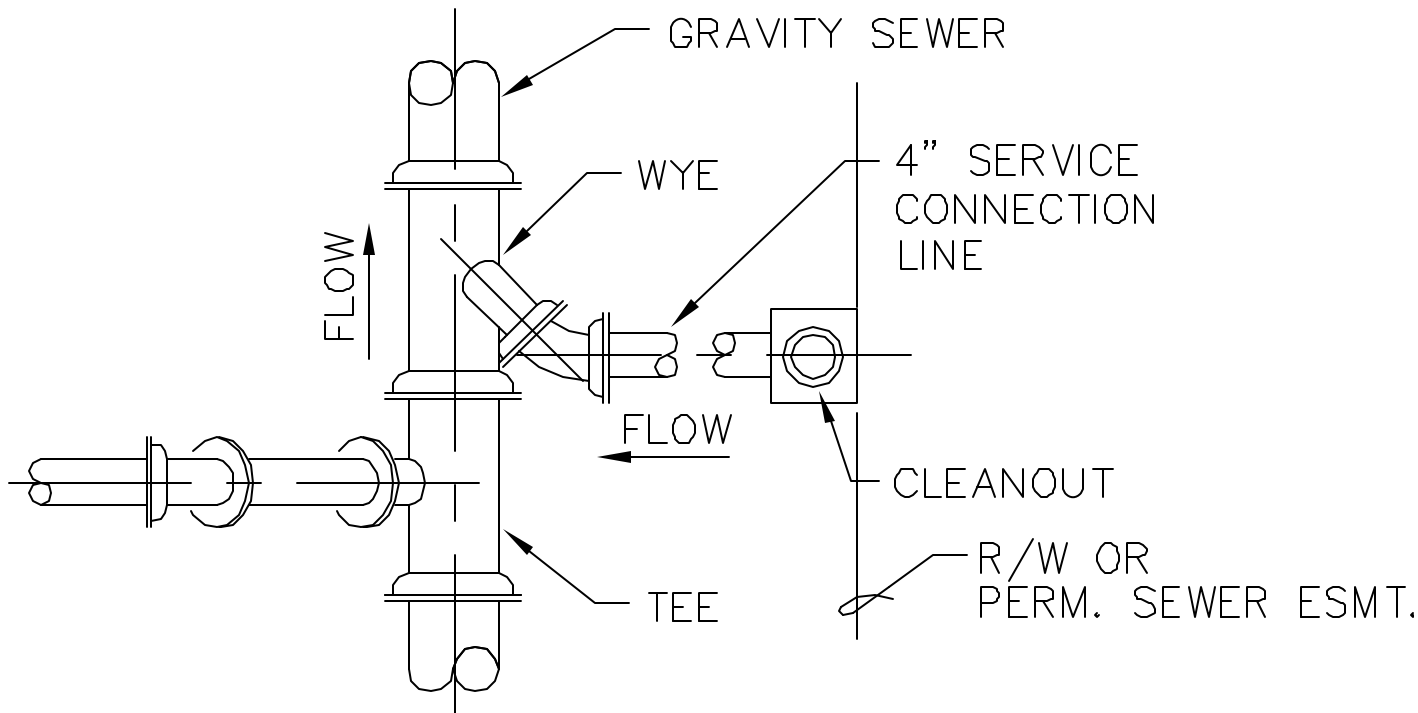


STANDARD MANHOLE SCHEDULE OF GOVERNING DIMENSIONS				
PIPE SIZE	ANGLE "A"	MH. DIA.	"T"	"X"
8" TO 16"	0° TO 90°	4'-0"	5"	0"
18" TO 24"	0° TO 60°	4'-0"	5"	0"
18" TO 24"	60° TO 90°	5'-0"	6"	6"

NOTE:
 MINIMUM ϕ RADIUS (R) OF M.H. INVERT
 = 1.5 x PIPE DIAMETER

TYPICAL PLANS

STATUS	BY	APPROVED	DATE	MACON WATER AUTHORITY STANDARD DETAILS	RECOMMENDED BY THE MACON WATER AUTHORITY ENGINEERING DEPT.
ORIGINAL					
REVISION				DIRECTION OF FLOW IN A MANHOLE N.T.S.	DRAWING NUMBER S-3



STATUS	BY	APPROVED	DATE
ORIGINAL			
REVISION			

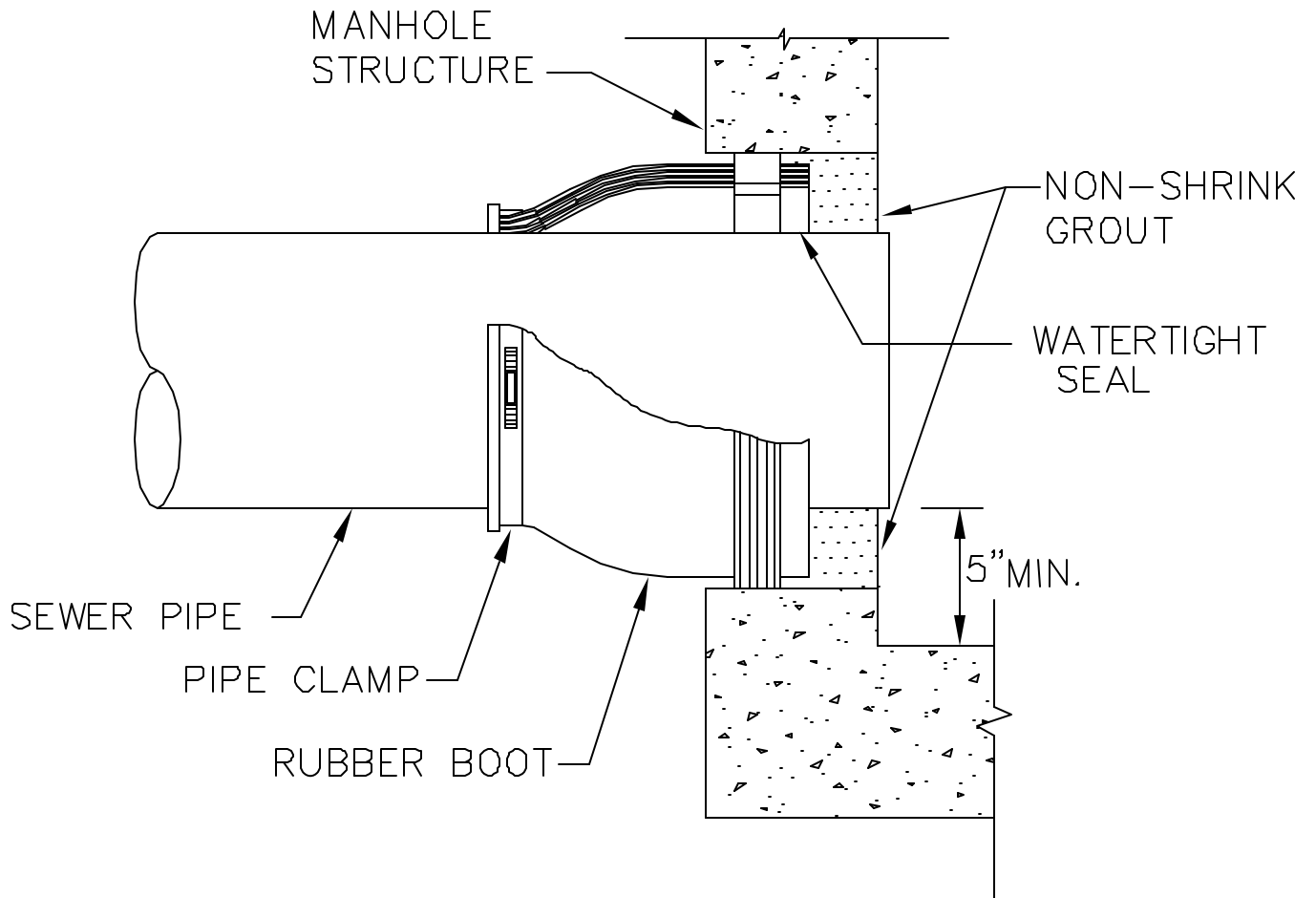
MACON WATER AUTHORITY STANDARD DETAILS

SERVICE CONNECTION DETAIL

N.T.S.

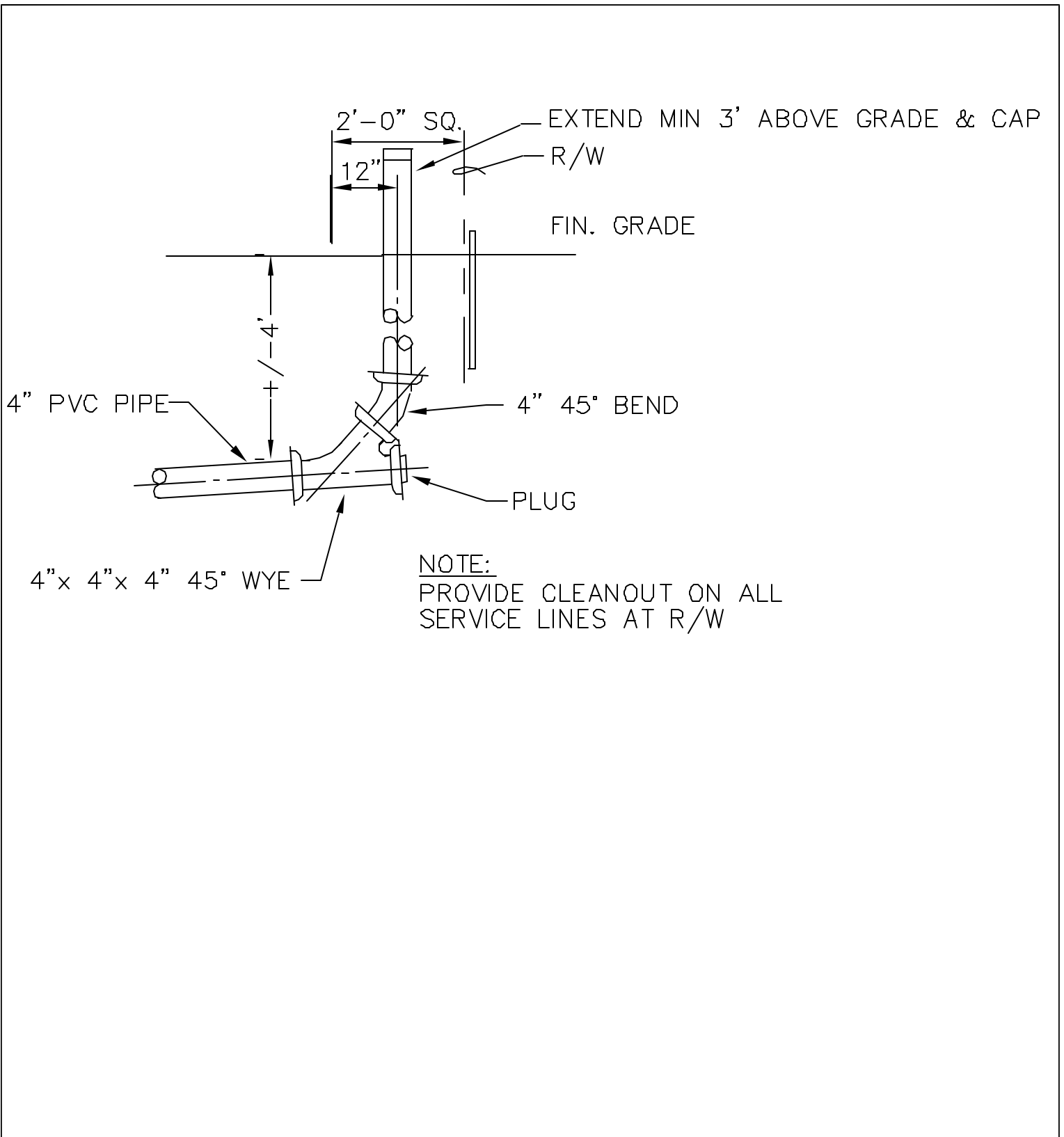
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DRAWING NUMBER S-4



NOTE: ALL PIPES SHALL BE CONNECTED TO MANHOLES BY RUBBER BOOT IN CORED OR PRECAST HOLE OF THE PROPER DIAMETER.

STATUS	BY	APPROVED	DATE	MACON WATER AUTHORITY STANDARD DETAILS	RECOMMENDED BY THE MACON WATER AUTHORITY ENGINEERING DEPT.
ORIGINAL					
REVISION					
				RUBBER BOOT DETAIL	
				N.T.S.	
					DRAWING NUMBER S-5

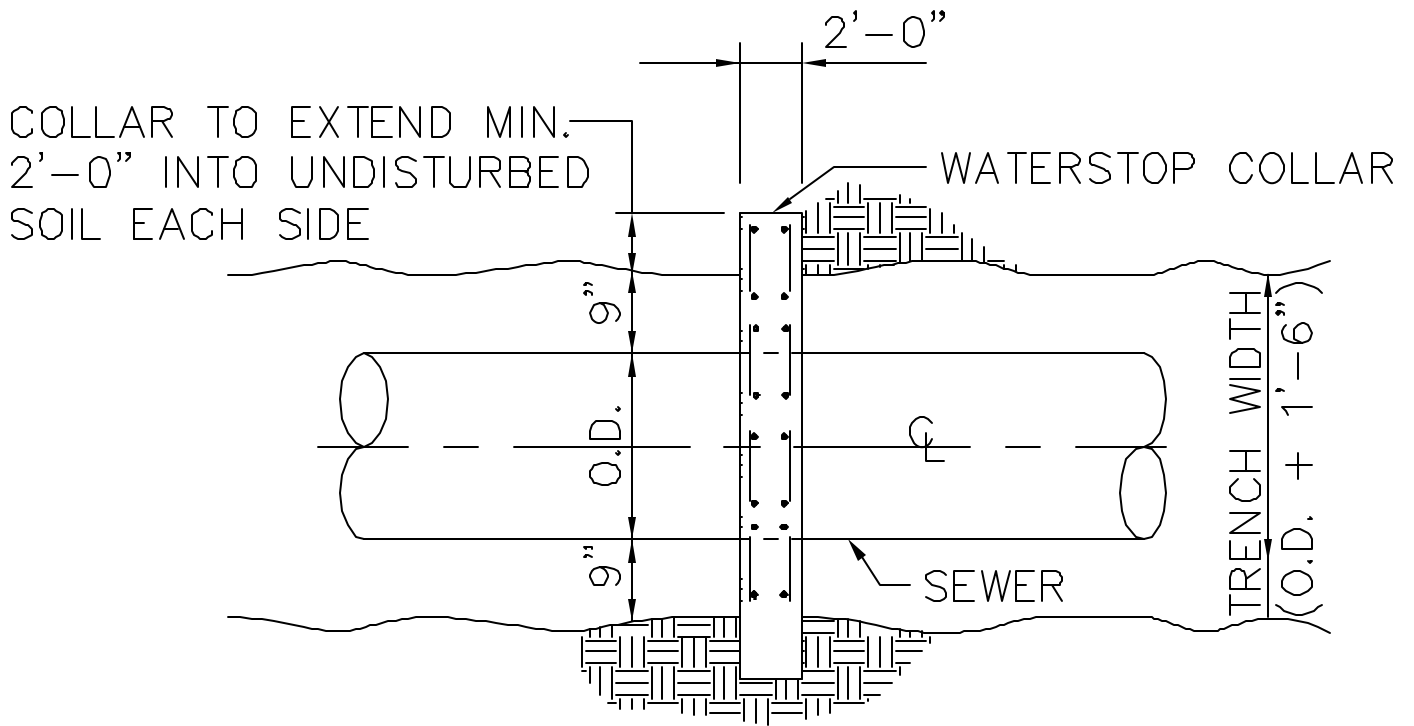
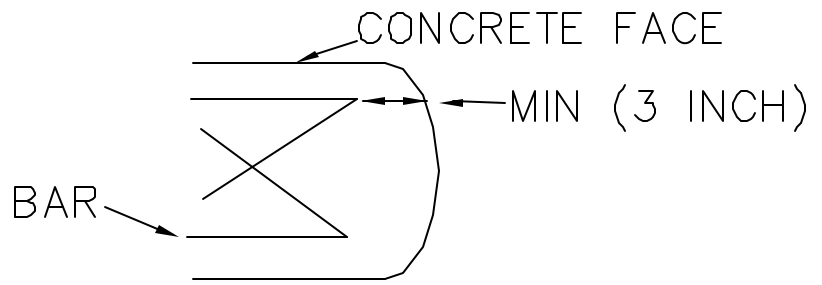


NOTE:
 PROVIDE CLEANOUT ON ALL
 SERVICE LINES AT R/W

STATUS	BY	APPROVED	DATE	MACON WATER AUTHORITY STANDARD DETAILS	RECOMMENDED BY THE MACON WATER AUTHORITY ENGINEERING DEPT.
ORIGINAL					
REVISION					

CLEANOUT DETAIL
 SIZE OF CLEANOUT IS 4" X 6"
 N.T.S.

DRAWING
 NUMBER S-6



PLAN

- #5 @ O.C. EACH WAY
EACH FACE 3" FROM FACE
- ALL CROSS POINT REQUIRE
A TIE

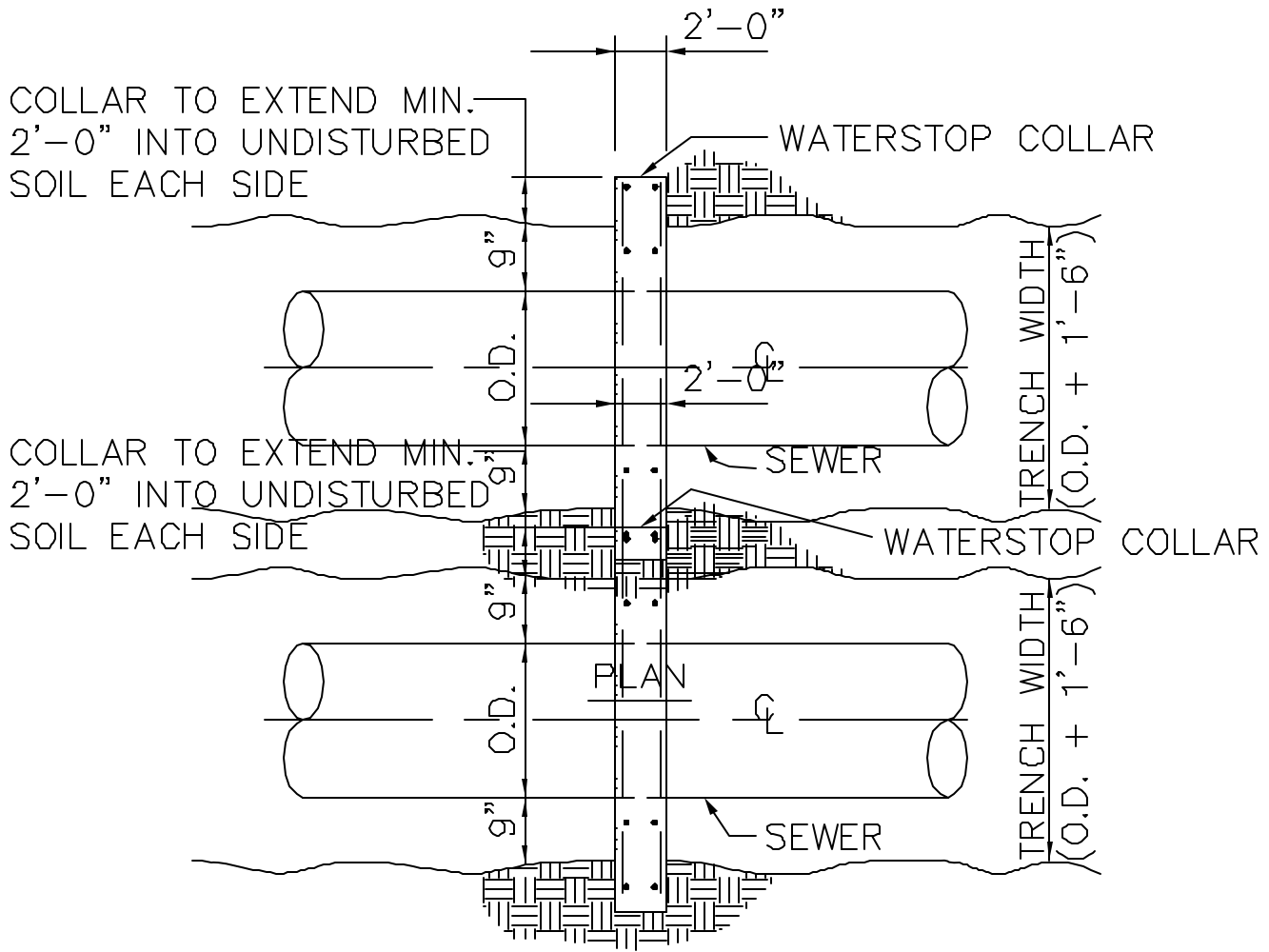
STATUS	BY	APPROVED	DATE
ORIGINAL			
REVISION			

MACON WATER AUTHORITY STANDARD DETAILS

WATERSTOP COLLAR DETAIL - A
N.T.S.

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WATER AUTHORITY ENGINEERING
DEPT.

DRAWING
NUMBER S-7



PLAN

#5 @ O.C. EACH WAY
EACH FACE 3" FROM FACE

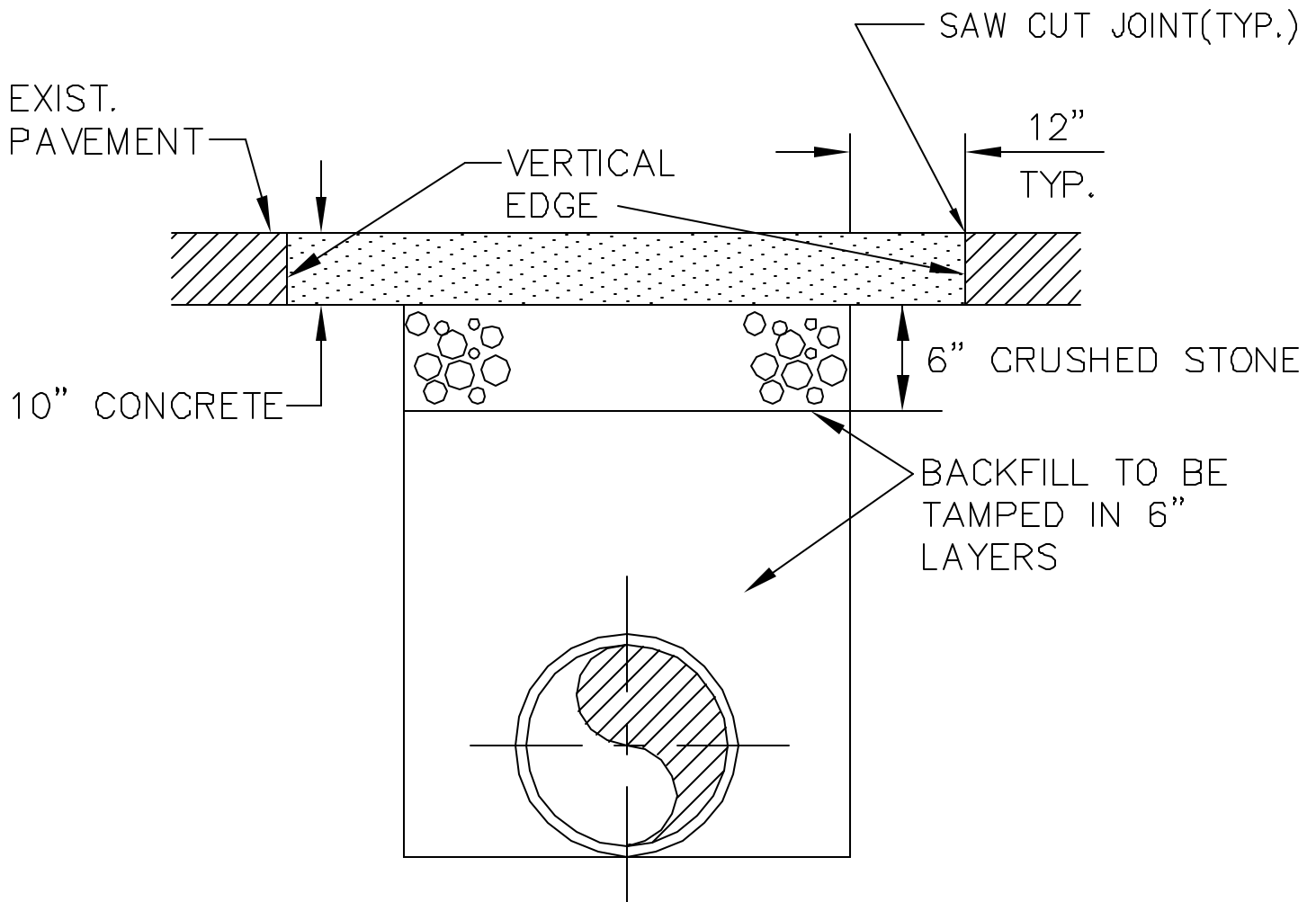
STATUS	BY	APPROVED	DATE
ORIGINAL			
REVISION			

MACON WATER AUTHORITY STANDARD DETAILS

WATERSTOP COLLAR DETAIL - B
N.T.S.

RECOMMENDED BY THE MACON
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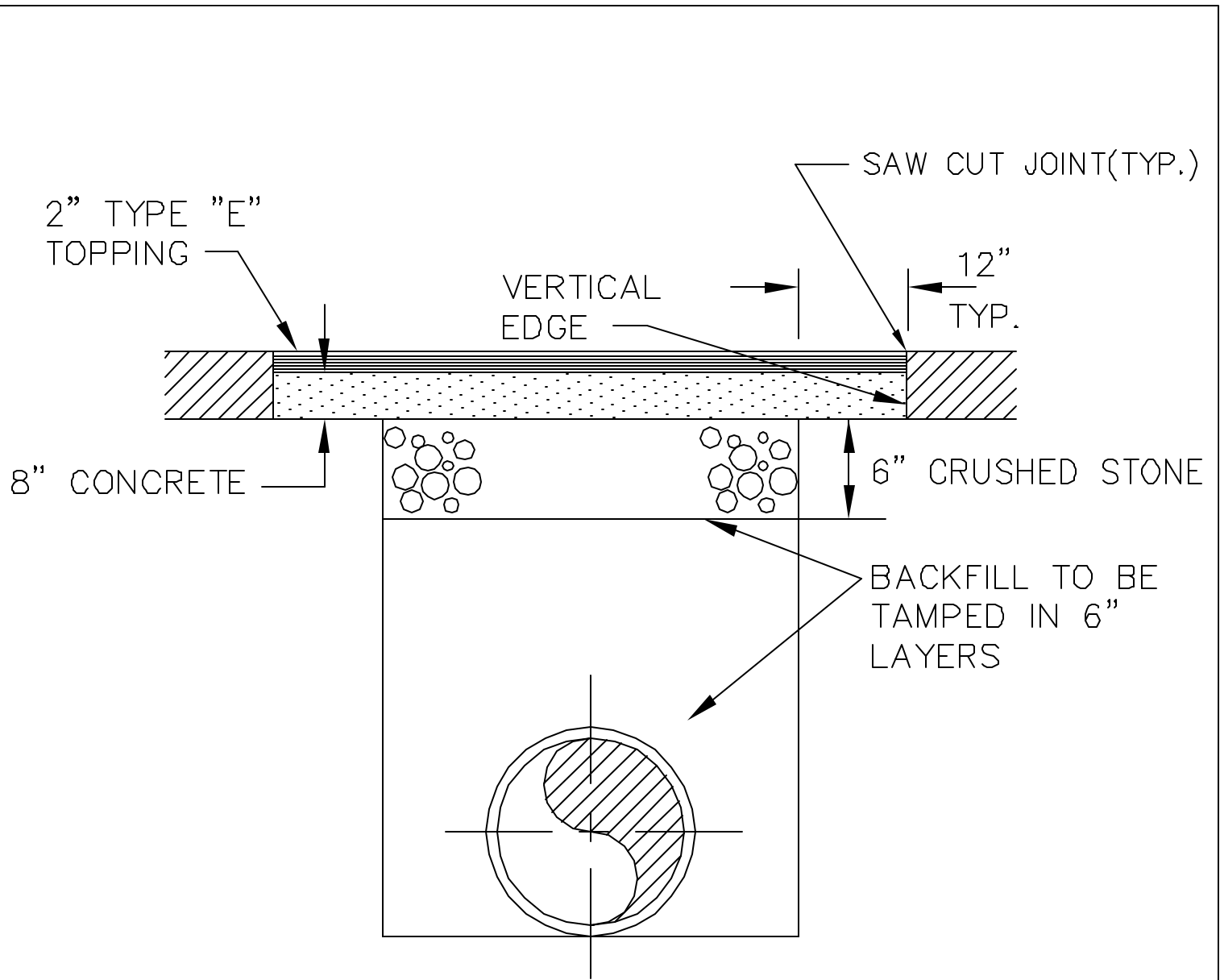
DRAWING
NUMBER S-8



NOTES:

- * USE CLASS "A" CONCRETE
- * BACKFILL @ 98% COMPACTION
- * TRAFFIC CONTROL ARE TO BE FOLLOWED

STATUS	BY	APPROVED	DATE	MACON WATER AUTHORITY STANDARD DETAILS	RECOMMENDED BY THE MACON WATER AUTHORITY ENGINEERING DEPT.
ORIGINAL					
REVISION					
				CONCRETE REPLACEMENT DETAIL	
				N.T.S.	
					DRAWING NUMBER S-9



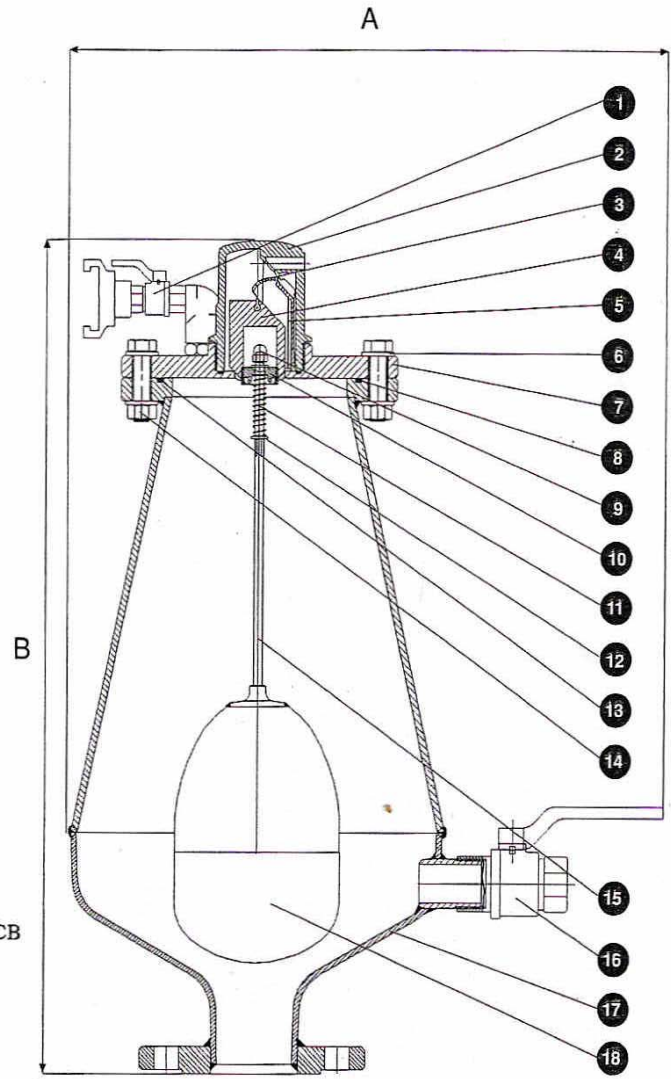
NOTES:

- * USE CLASS "A" CONCRETE
- * SURFACE FINISH TO BE WITH EXISTING TYPE MATERIALS IN ADJACENT AREA
- * BACKFILL @ 98% COMPACTION
- * TRAFFIC CONTROL ARE TO BE FOLLOWED
- * CUT IN CONCRETE SHALL BE REPLACED TO EXISTING THICKNESS UNLESS OTHERWISE SPECIFIED

STATUS	BY	APPROVED	DATE	MACON WATER AUTHORITY STANDARD DETAILS	RECOMMENDED BY THE MACON WATER AUTHORITY ENGINEERING DEPT.
ORIGINAL					
REVISION					
				ASPHALT REPLACEMENT DETAIL	
				N.T.S.	
					DRAWING NUMBER S-10

PARTS LIST AND SPECIFICATION

No.	Part	Material
1.	Flushing connection	Brass
2.	Body	Reinforced Nylon
3.	Rolling Seal	Rubber E.P.D.M.
4.	Float	Foamed Polypropylene
5.	Clamping Stem	Reinforced Nylon
6.	Washer	Teflon
7.	Cover	Steel DIN ST.37/St.SAE 316
8.	O-Ring	BUNA-N
9.	Crown Nut	Stainless Steel SAE 316
10.	Stopper	Acetal
11.	Spring	Stainless Steel SAE 316
12.	Washer	Stainless Steel SAE 316
13.	O-Ring	BUNA-N
14.	Bolts and Nuts	Stainless Steel SAE 316
15.	Stem	Stainless Steel SAE 316
16.	Ball Valve	Brass ASTM B-124/Polypropylene
17.	Body	Steel DIN ST.37/St.St.SAE 316/Steel WCB
18.	Float	Stainless Steel SAE 316

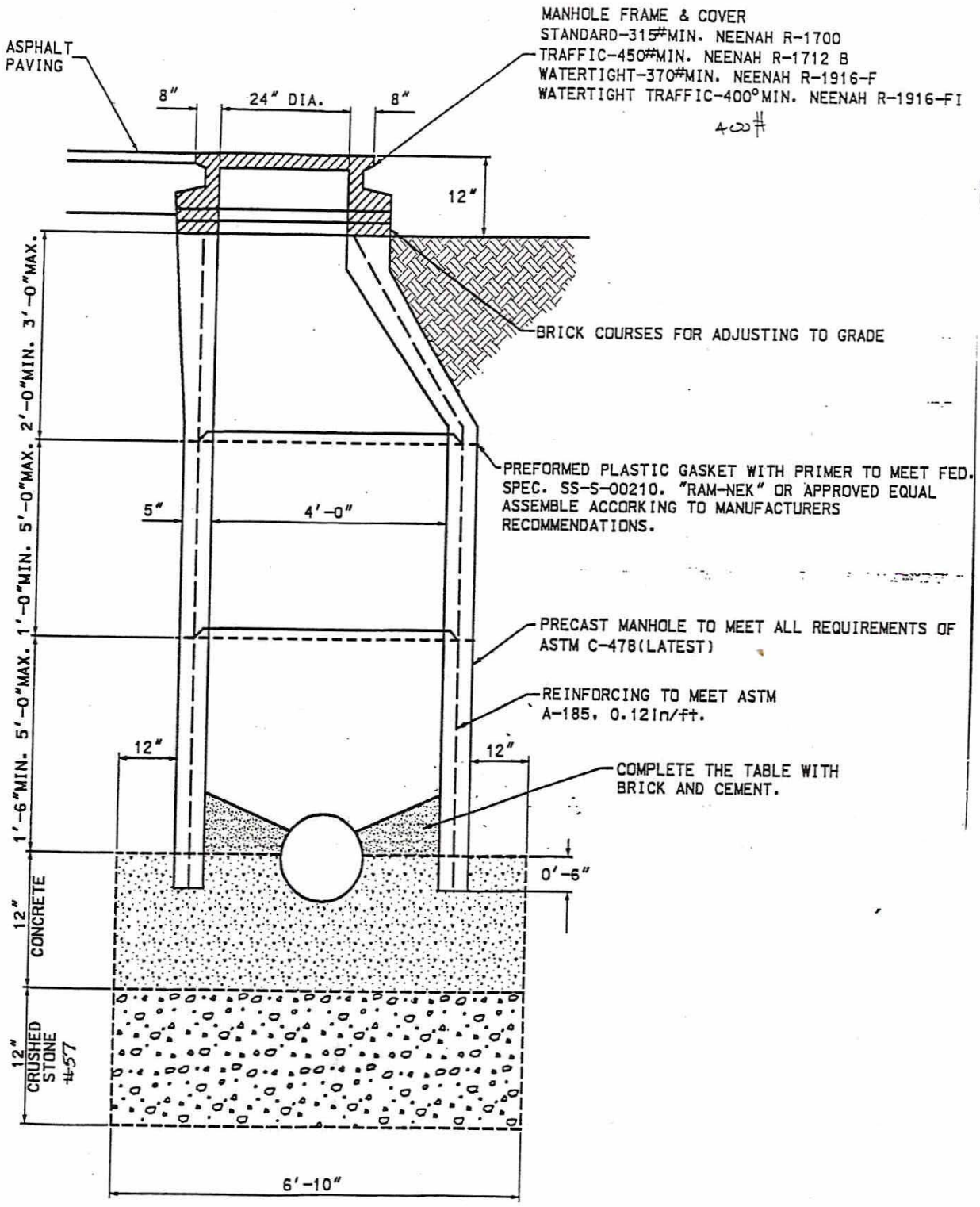


DIMENSIONS AND WEIGHTS

Nominal Size	A	B	Weight Lbs.	Orifice size area inch ²
2" Threaded	16 ⁵ / ₈	22 ²¹ / ₃₂	35.3	0.0186
2" Threaded	16 ⁵ / ₈	22 ²¹ / ₃₂	37.5	0.0186
3"	16 ⁵ / ₈	22 ²¹ / ₃₂	39.7	0.0186
4"	16 ⁵ / ₈	22 ²¹ / ₃₂	41.9	0.0186

A.R.I. - MWA APPROVED MANUFACTURER

STATUS	BY	APPROVED	DATE	MACON WATER AUTHORITY STANDARD DETAILS	RECOMMENDED BY THE MACON WATER AUTHORITY ENGINEERING DEPT.
ORIGINAL					
REVISION				S-020 AUTOMATIC AIR RELEASE DETAIL N.T.S.	DRAWING NUMBER S-12



STATUS	BY	APPROVED	DATE
ORIGINAL			
REVISION			

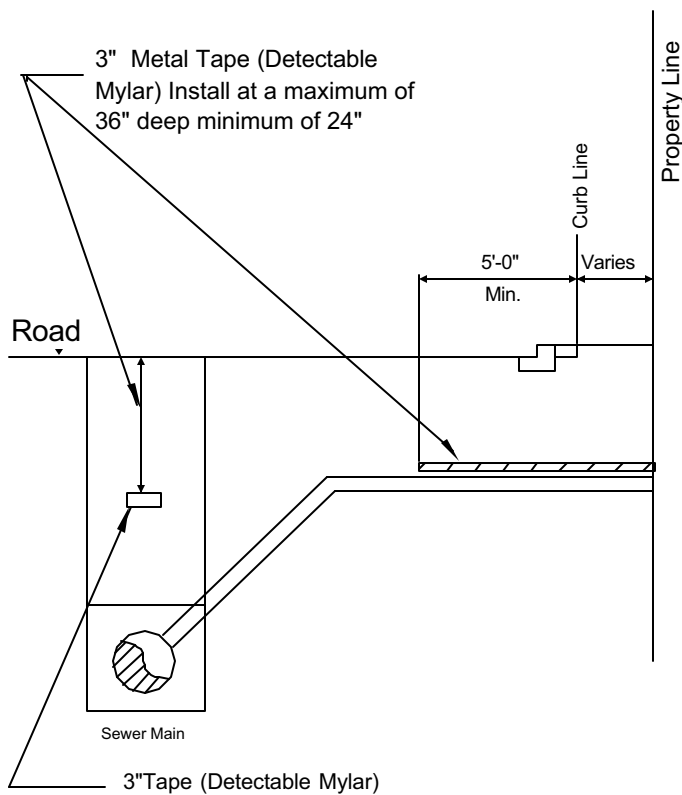
MACON WATER AUTHORITY STANDARD DETAILS

BUILT-IN-PLACE MANHOLE
 (DOGHOUSE MANHOLE)

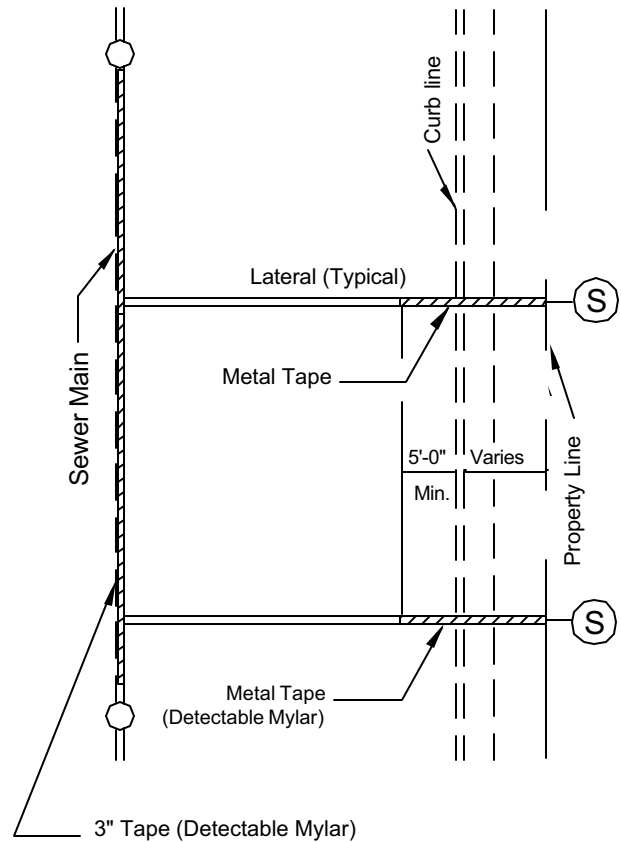
N.T.S.

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DRAWING NUMBER S-13



SECTION



PLAN

STATUS	BY	APPROVED	DATE
ORIGINAL			
REVISION			

MACON WATER AUTHORITY STANDARD DETAILS

METALLIC TAPE LOCATOR DETAIL
N.T.S.

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DEPT.

DRAWING
NUMBER S-14