

TOWN OF MEAD GENERAL CONSTRUCTION NOTES – SANITARY

1. DISTRICT SHALL REFER TO THE TOWN OF MEAD IN THESE NOTES.
2. DISTRICT'S ACCEPTANCE OF THESE PLANS IS VALID FOR ONE YEAR.
3. ALL MATERIALS AND CONSTRUCTION SHALL CONFORM TO THE DISTRICT STANDARDS.
4. CONTRACTOR TO VERIFY LOCATIONS AND ELEVATIONS OF EXISTING UTILITIES PRIOR TO COMMENCING ANY CONSTRUCTION.
5. THE CONTRACTOR SHALL NOTIFY THE DISTRICT A MINIMUM OF 48 HOURS AND A MAXIMUM OF 96 HOURS PRIOR TO STARTING CONSTRUCTION OR PRIOR TO RESUMING CONSTRUCTION AFTER A BREAK.
6. SANITARY SEWER SHALL BE POLYVINYL CHLORIDE (PVC) PIPE, ASTM D3034, SDR-26, SDR-35, OR AS INDICATED ON THE PLANS.
7. ALL CONCRETE SHALL BE MINIMUM 4000 PSI AT 28 DAY STRENGTH.
8. MAINTAIN A MINIMUM OF 10 FEET HORIZONTAL SEPARATION OUTSIDE DIAMETER TO OUTSIDE DIAMETER BETWEEN WATER LINES AND ALL SEWER LINES AND MANHOLES.
9. ALL SEWER MAINS CROSSING WATER MAINS WITH LESS THAN 18 INCHES OF SEPARATION SHALL BE ENCASED IN CONCRETE.
10. RIM ELEVATIONS SHOWN ARE APPROXIMATE AND SHOULD NOT BE TAKEN AS FINAL. ALL MANHOLES SHALL BE FINAL ADJUSTED AFTER PAVING SUCH THAT THE RIM IS $\frac{1}{4}$ TO $\frac{1}{2}$ INCH BELOW FINISHED ASPHALT. MANHOLES IN UNPAVED AREAS SHALL BE SET SO THAT THE RIM IS 0.5' ABOVE FINISHED GRADE. BURIED MANHOLES ALLOWED IN CULTIVATED FIELDS AS APPROVED BY TOWN ENGINEER. AS-BUILTS SHALL ALLOW FINAL NORTHING/EASTING AND RIM ELEVATION OF ALL BURIED MANHOLES.
11. INVERT (AS-BUILT) DATA SHALL BE COLLECTED BY A LICENSED SURVEYOR ON EACH PIPE INVERT IN A MANHOLE. CENTER OF MANHOLE SURVEYING IS NOT ACCEPTABLE FOR SLOPE CALCULATIONS. RECORD DRAWINGS (AS-BUILTS) MUST DEMONSTRATE CONFORMANCE TO DISTRICT STANDARDS.
12. THE CONTRACTOR SHALL HAVE A SET OF APPROVED PLANS ON SITE AT ALL TIMES. THE CONTRACTOR SHALL BE RESPONSIBLE FOR RECORDING ACTUAL RECORD DRAWING DIMENSIONS AND DISTANCES AS WELL AS SERVICE LOCATIONS ON THESE PLANS AND SUBMITTING THEM TO THE ENGINEER FOR PREPARATION OF RECORD DRAWINGS. THESE DRAWINGS SHALL BE KEPT CURRENT AT ALL TIMES.
13. BEFORE ANY CONSTRUCTION COMMENCES, A PLUG SHALL BE INSTALLED TO PREVENT DRAINAGE THROUGH THE NEW SEWER LINE FROM ENTERING THE EXISTING SEWER LINE. THIS PLUG WILL BE INSTALLED IN THE MANHOLE, WHICH CONNECTS NEW WORK WITH THE EXISTING AND MAY NOT BE REMOVED UNTIL CONDITIONAL ACCEPTANCE.
14. UNDERDRAINS, IF INSTALLED, ARE THE RESPONSIBILITY OF THE DEVELOPER. DISTRICT ASSUMES NO LIABILITY FOR ANY PORTION OF OR ANY DAMAGE CAUSED BY UNDERDRAINS. ABSOLUTELY NO PART OF AN UNDERDRAIN SYSTEM, INCLUDING CLEAN OUTS, WILL BE ALLOWED INSIDE OF SANITARY SEWER MANHOLES. ALL UNDERDRAINS SHALL BE INSTALLED BELOW THE SANITARY SEWER AND OFFSET TO THE SIDE. PIPE MATERIAL SHALL BE DIFFERENT COLOR THAN SANITARY SEWER.
15. NO SERVICE LATERALS SMALLER THAN 8 INCH IN DIAMETER SHALL ENTER MANHOLES.
16. SERVICE CROSSINGS OF CURB SHALL BE MARKED WITH A CUT "S" IN CURB FACE. PAINT IS NOT ACCEPTABLE. SERVICE SHALL BE EXTENDED INTO THE LOT A MINIMUM OF 10 FEET.
17. CONTRACTOR SHALL MARK THE END OF ALL SEWER SERVICES WITH A CARBONITE COMPOSITE UTILITY MARKER WITH MINIMUM OF FOUR FEET ABOVE GRADE, PAINTED GREEN
18. ALL PIPES SHALL HAVE SQUEEGEE (CDOT #8 BEDDING) UNLESS OTHERWISE SHOWN OR THE DISTRICT MAY APPROVE AN ALTERNATE BEDDING IN SPECIAL CASES.
19. PRIOR TO APPROVAL, ALL SANITARY SEWER PIPES SHALL BE PRESSURE-TESTED PER ASTM C924. ALL MANHOLES SHALL BE VACUUM-TESTED PER UNI-B-98.
20. PRIOR TO REMOVAL OF PLUGS AT MANHOLES, PIPE SHALL BE JET-CLEANED AND VACUUMED TO REMOVE DEBRIS AND VIDEOED. NOTICE SHALL BE GIVEN TO THE DISTRICT INSPECTOR ONE (1) WEEK PRIOR TO CLEANING. INSPECTOR MUST BE PRESENT DURING THE OPERATION. ONCE APPROVAL HAS BEEN GIVEN BY INSPECTOR, PLUGS MAY ONLY BE REMOVED AFTER INITIAL ACCEPTANCE BY THE DISTRICT.
21. THE FINAL RECORDED PLAT AND RECORDED ADDRESS PLAT SHALL BE PROVIDED TO THE DISTRICT FOR INITIAL ACCEPTANCE.
22. TWENTY (20) MONTHS AFTER CONSTRUCTION AND PRIOR TO THE EXPIRATION OF WARRANTY, THE DEVELOPER SHALL CAMERA/VIDEO THE SANITARY SEWER LINES AND PROVIDE A DVD TO THE DISTRICT FOR REVIEW.

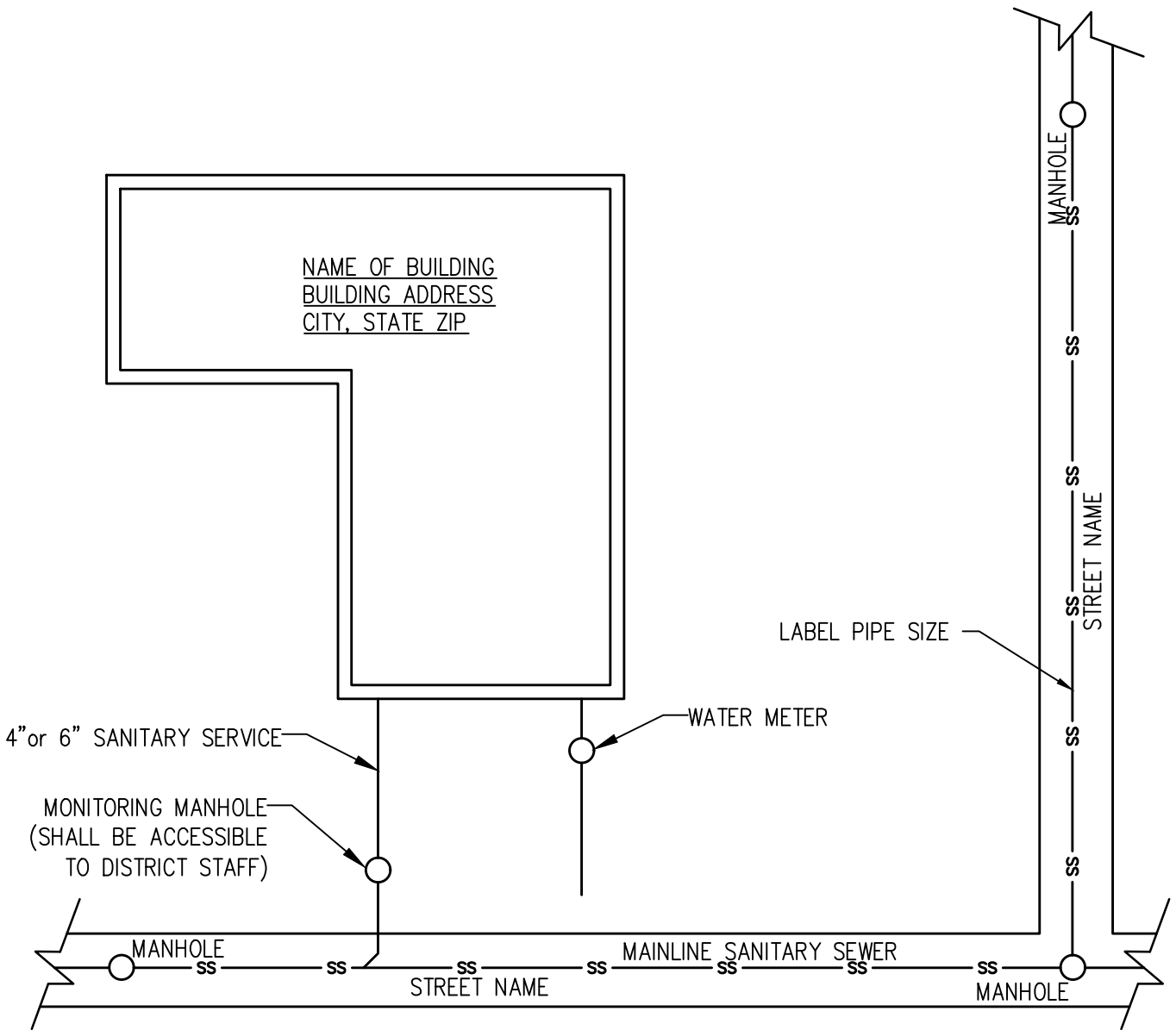


TOWN OF MEAD STANDARD DESIGN CRITERIA

GENERAL CONSTRUCTION NOTES

D4.01

DATE: 04/2021



NOTES:

1. COMMERCIAL AND RESIDENTIAL SANITARY SERVICE TO BE CONSTRUCTED IN A STRAIGHT THRU MONITORING MANHOLE, IF REQUIRED.
2. INDICATE SEWER SIZES (DIAMETERS).
3. INDICATE LOCATION OF SEWAGE FLOW METER, IF REQUIRED.
4. DETAIL OF MONITORING MANHOLE MUST BE SUBMITTED ON SEPARATE SHEET.

SCALE: NTS

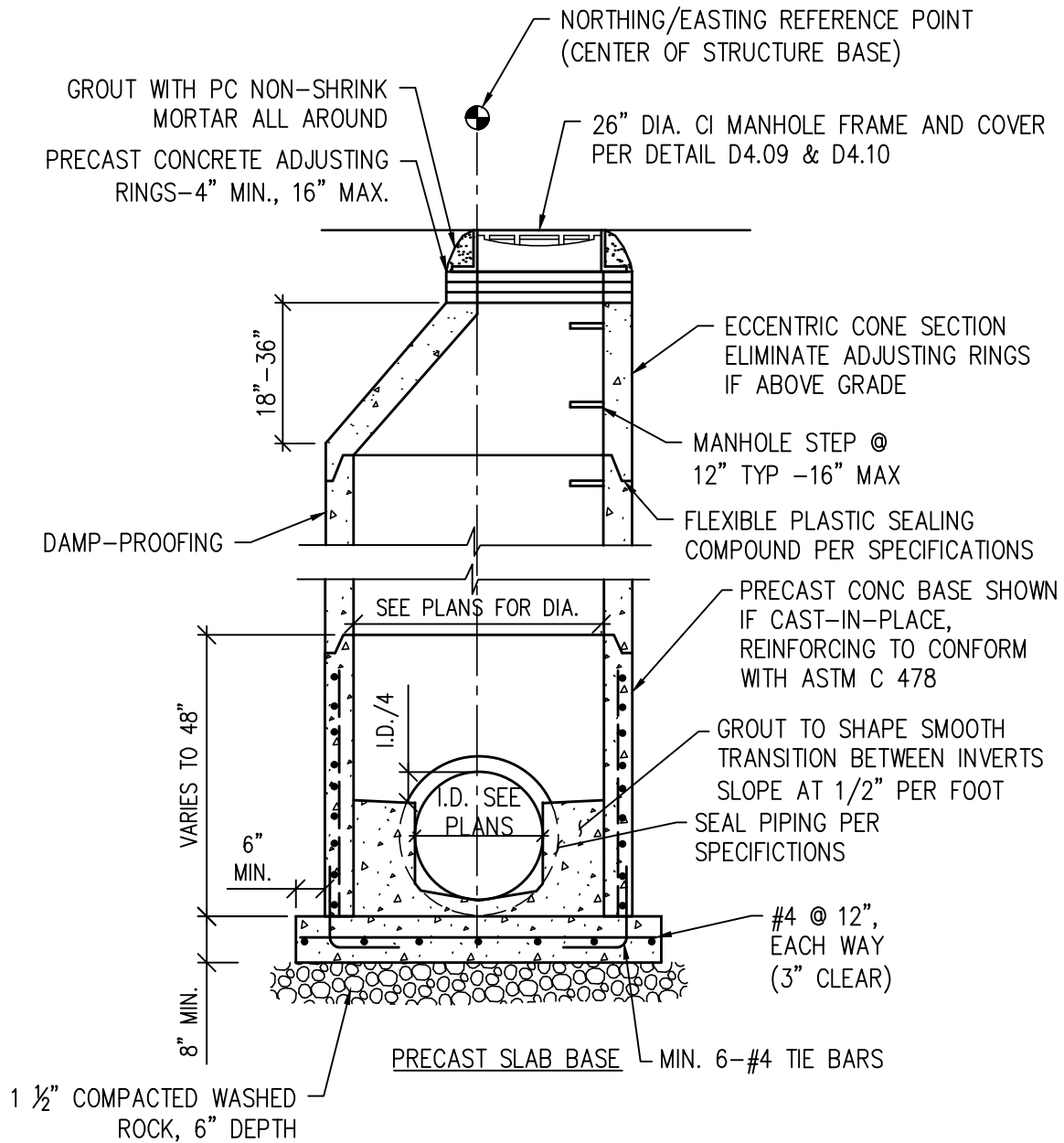


TOWN OF MEAD STANDARD DESIGN CRITERIA

EXAMPLE SITE PLAN

D4.02

DATE: 04/2021



NOTES:

1. SHAPING FOR SMOOTH MANHOLE INVERTS MUST BE DONE BY FORMING OR SHAPING BASE CONCRETE.
2. BLOCK-OUTS WHEN APPROVED SHALL EXTEND A MAX OF 6" PAST MANHOLE OD AND BE SATISFACTORILY PLUGGED AND SEALED.
3. CONCRETE MANHOLES MAY BE POURED IN PLACE ONLY WITH PRIOR APPROVAL.
4. ALL MORTAR SHALL BE MIXED WITH A TYPE II CEMENT.
5. BENCH MUST HAVE A BRUSHED, NON-SKID SURFACE.

SCALE: NTS

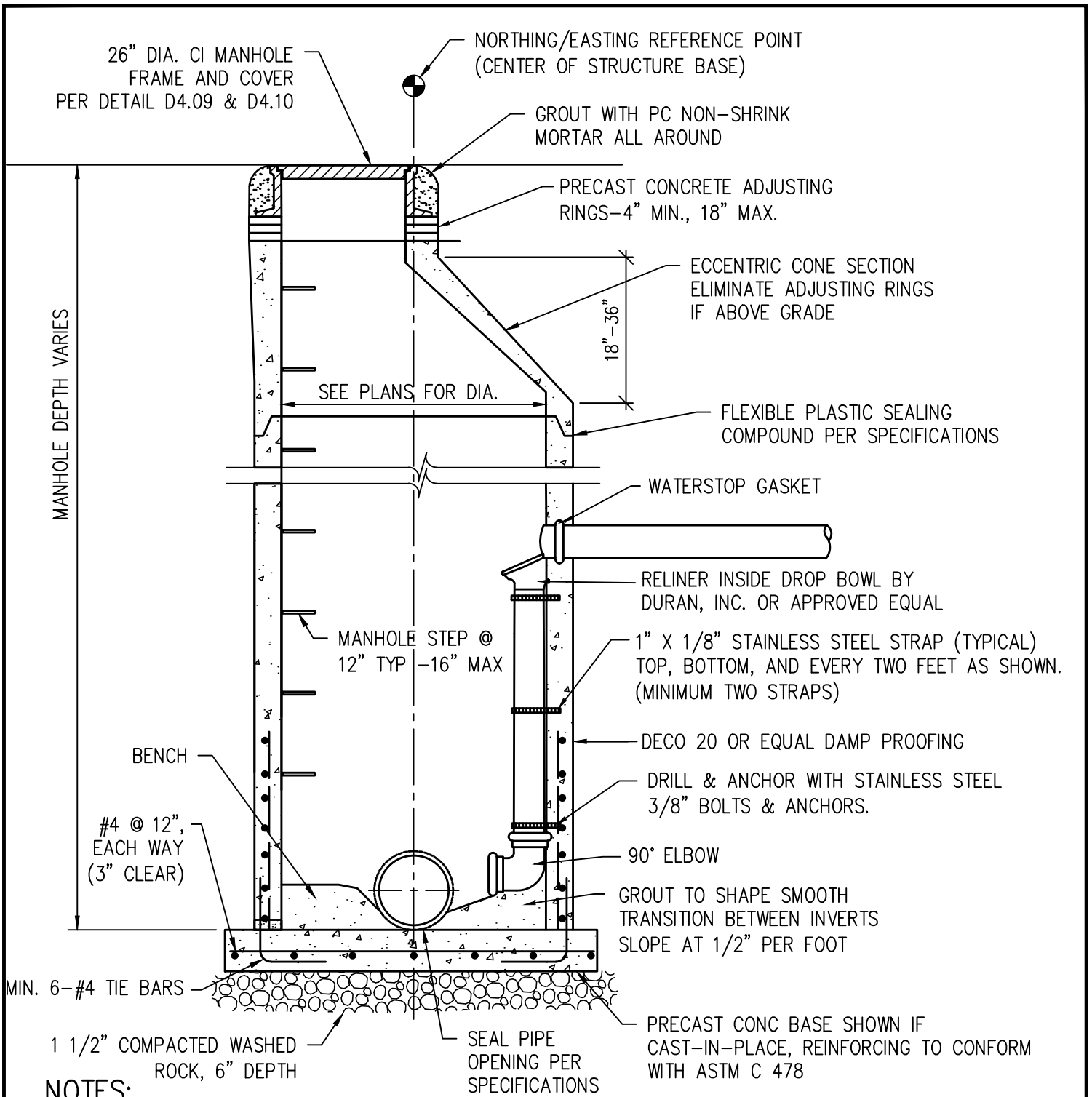


TOWN OF MEAD STANDARD DESIGN CRITERIA

STANDARD SANITARY MANHOLE

D4.03

DATE: 04/2021

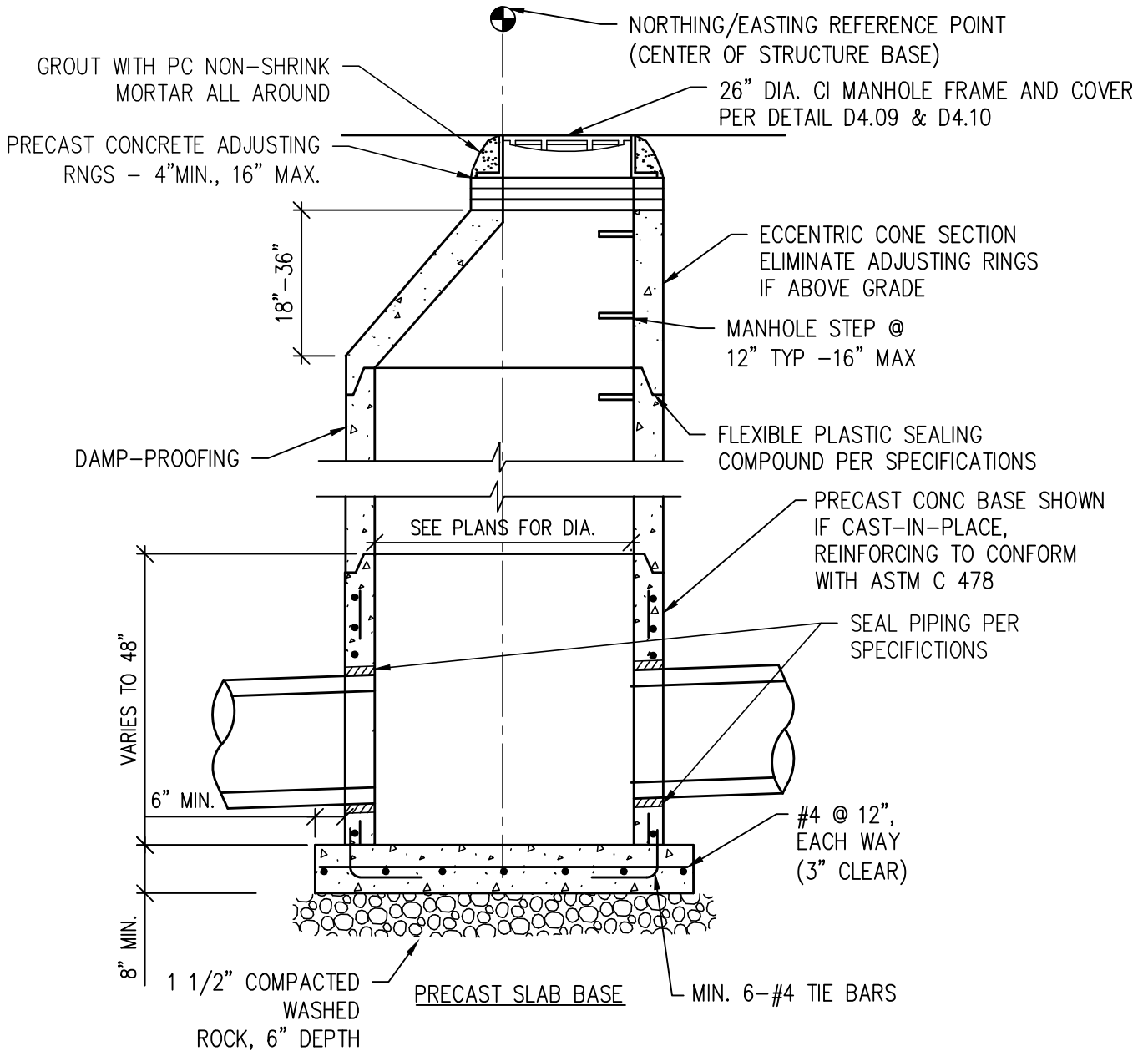


NOTES:

1. SHAPING FOR SMOOTH MANHOLE INVERTS MUST BE DONE BY FORMING OR SHAPING BASE CONCRETE.
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4. ALL MORTAR SHALL BE MIXED WITH A TYPE II CEMENT.
5. BENCH MUST HAVE A BRUSHED, NON-SKID SURFACE.

SCALE: NTS

	TOWN OF MEAD STANDARD DESIGN CRITERIA	D4.04
	SANITARY DROP MANHOLE	DATE: 04/2021



NOTES:

1. MANHOLES SHALL BE SEALED WATERTIGHT. NO GROUT ALLOWED. MANHOLE EXTERIORS SHALL BE DAMP-PROOFED.
2. DROP THROUGH MANHOLE TO BE EQUAL TO SLOPE OF SURROUNDING PIPE. FOR FLUME INSTALLATIONS, FLUME MUST BE SET LEVEL.
3. MONITORING MANHOLE TO BE LOCATED OUTSIDE OF PUBLIC RIGHT-OF-WAY, ON DISCHARGER'S PROPERTY. THE MANHOLE MUST BE SAFELY AND INDEPENDENTLY ACCESSIBLE FOR DISTRICT USE AT ALL TIMES.
4. FOR MANHOLE DEPTHS LESS THAN FOUR FEET FROM RIM TO TOP OF BENCH, VERTICAL MANHOLE BARRELS OR MINIMUM 30-INCH BY 30-INCH PRECAST BOX WITH PRECAST FLAT TOP SECTIONS ARE REQUIRED.
5. DESIGN AND LOCATION OF MONITORING MANHOLE SUBJECT TO DISTRICT APPROVAL.
6. THERE SHALL NOT BE ANY BENDS, DROP MANHOLES FLOW JUNCTIONS, CHANGES IN PIPE DIAMETER, ETC., WITHIN 25 PIPE DIAMETERS UPSTREAM OR DOWNSTREAM OF THE MANHOLE.

SCALE: NTS

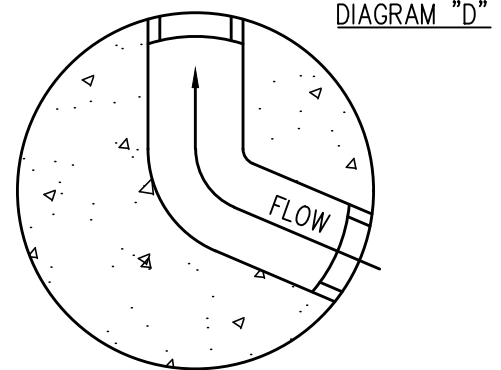
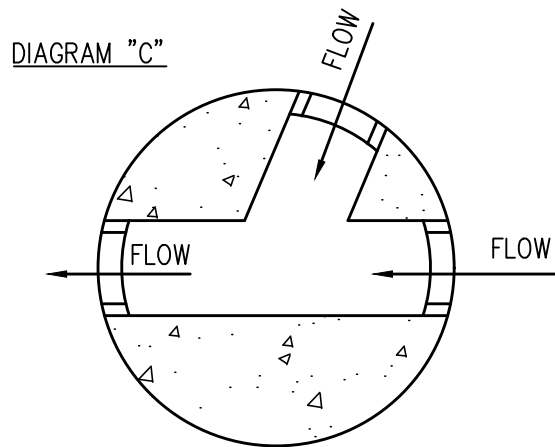
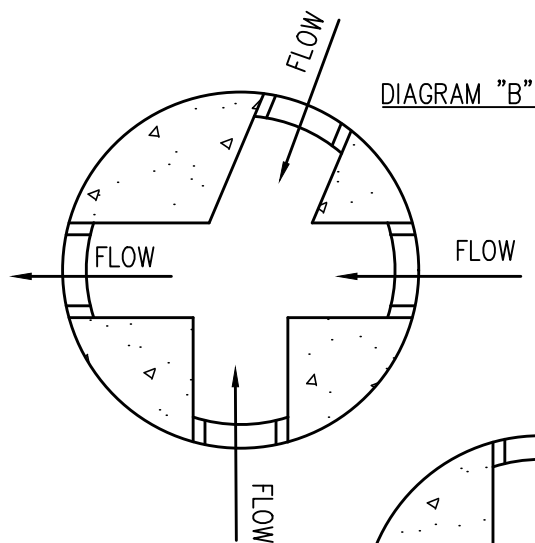
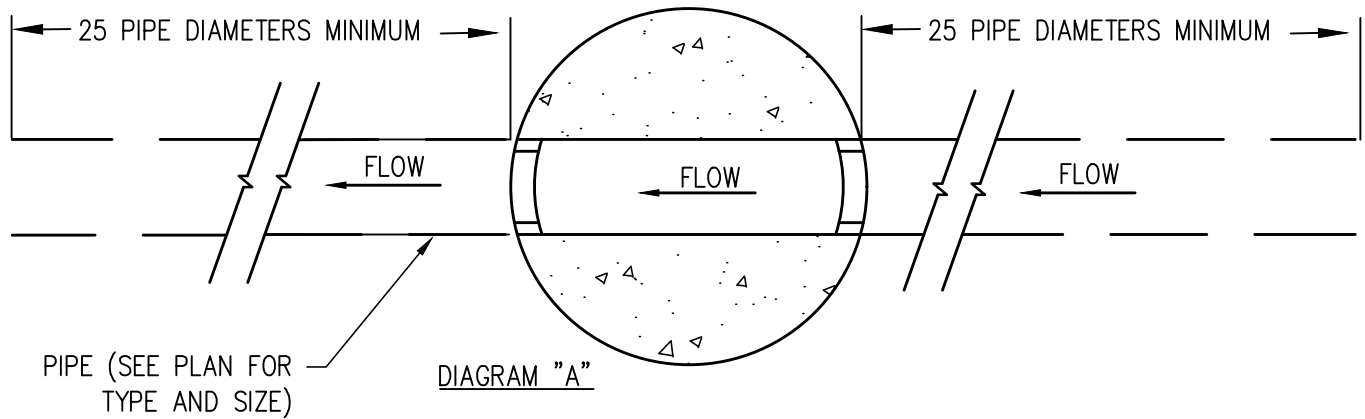


TOWN OF MEAD STANDARD DESIGN CRITERIA

MONITORING SANITARY MANHOLE

D4.05

DATE: 04/2021



NOTES:

1. DIAGRAM "A" IS COMPATIBLE FOR THE INSTALLATION OF A FLOWMETER OR FLUME IN THE INVERT.
2. DIAGRAMS "B", "C", "D" ARE NOT SUITABLE FOR THE INSTALLATION OF A FLOW MEASURING DEVICE DUE TO THE LOCATION OF THE SIDE SEWERS OR A BEND IN THE INVERT CHANNEL.

SCALE: NTS



TOWN OF MEAD STANDARD DESIGN CRITERIA

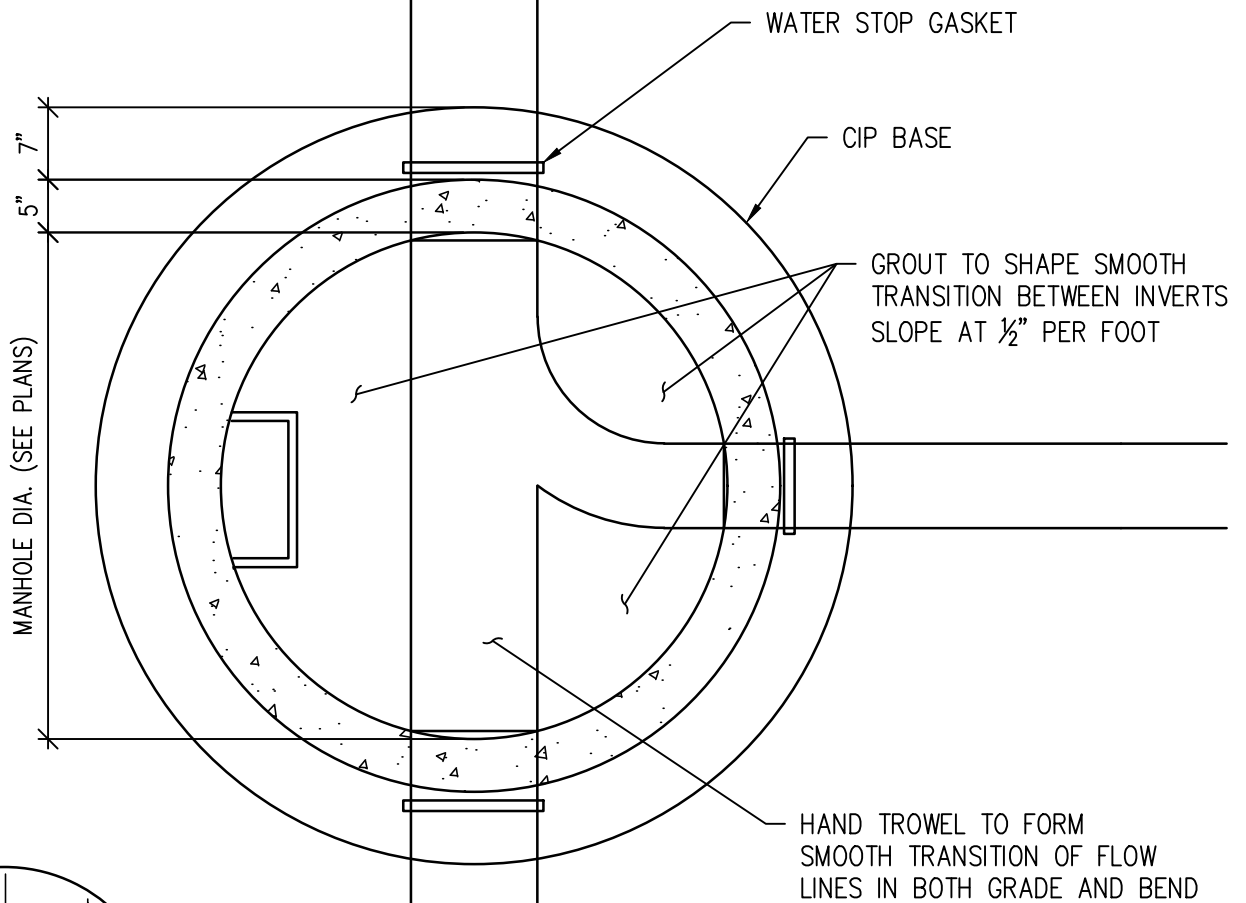
MONITORING SANITARY MANHOLE DIAGRAMS

D4.06

DATE: 04/2021

FLO

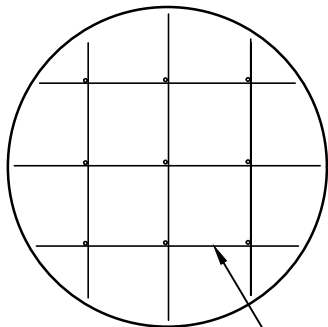
FLOW DIRECTION CHANGE
90 DEGREES, MAXIMUM.



MANHOLE DIA. (SEE PLANS)

7"

5"



No Scale

#4 REBAR IN BASE 12" O.C.E.W.

SCALE: NTS

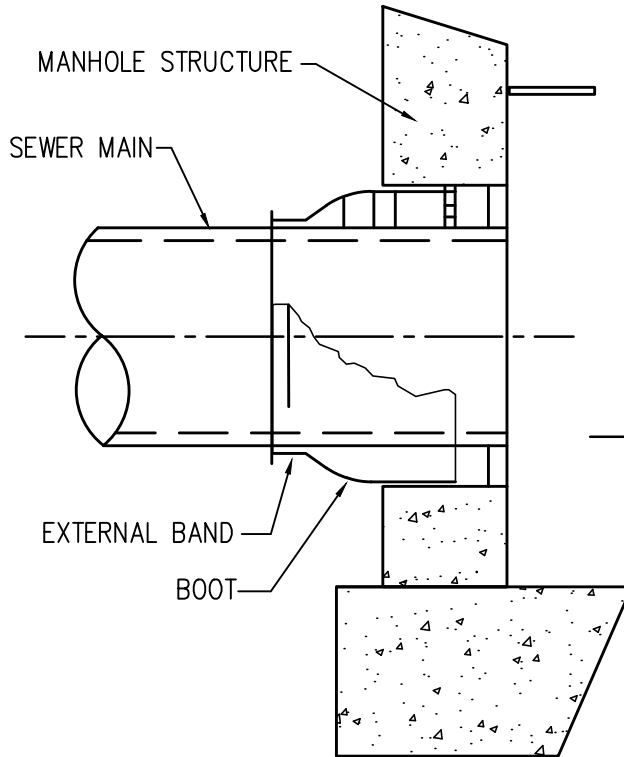
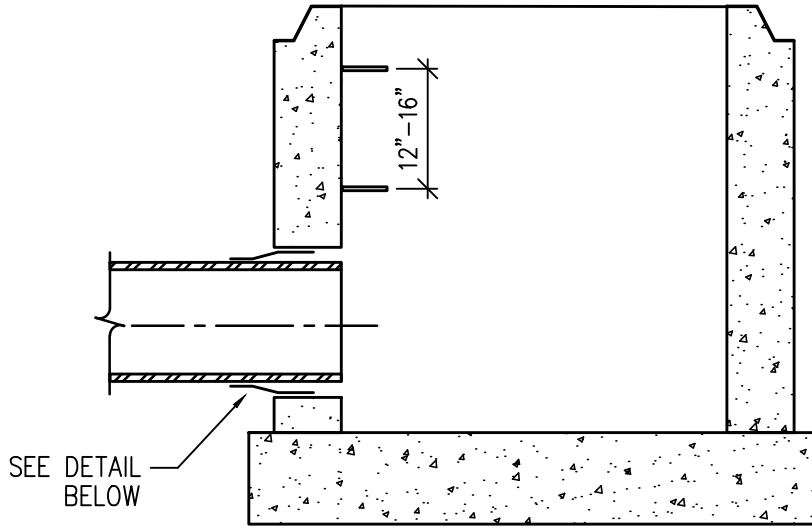


TOWN OF MEAD STANDARD DESIGN CRITERIA

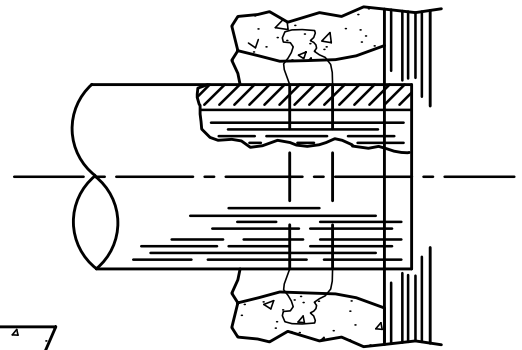
SANITARY MANHOLE BASE

D4.07

DATE: 04/2021



NOTE:
THIS DETAIL IS APPLICABLE FOR
ALL PIPE PENETRATIONS AT ALL
MANHOLES



A-LOK GASKET DETAIL

FLEXIBLE JOINT CONNECTION

SCALE: NTS



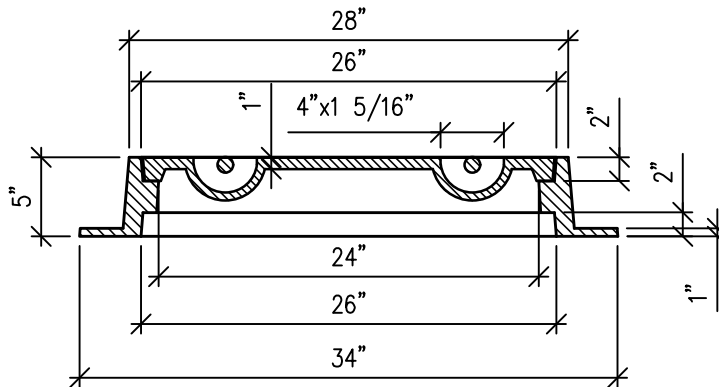
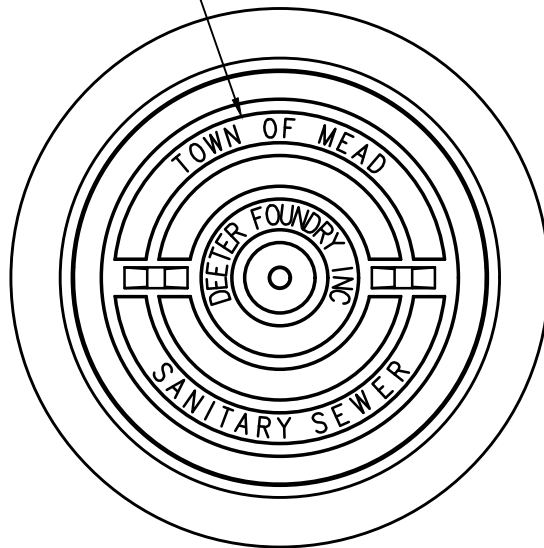
TOWN OF MEAD STANDARD DESIGN CRITERIA

FLEXIBLE JOINT PIPE PENETRATIONS

D4.08

DATE: 04/2021

1 1/2" LETTERS



NOTES:

1. RING AND COVER SHALL BE IRON (AS MANUFACTURED FOR CURRENT AWWA STANDARD).
2. SANITARY SEWER MANHOLE COVERS SHALL BE NONPERFORATED WITH "TOWN OF MEAD SANITARY SEWER" FORGED ON THE TOP OF THE LID AS SHOWN ABOVE.
3. COVER SHALL BE BOLTED (PER DETAIL D4.10), WATER RESISTANT IF LOCATED IN 100 YEAR FLOOD PLAIN, BACK YARDS, OPEN SPACE AND/OR DITCHES BELOW GROUND.
4. ALL MANHOLES SHALL BE EQUIVALENT TO DEETER MODEL NUMBER 1156.
5. MANHOLE LID AND RING SHALL BE FURNISHED WITH MACHINED HORIZONTAL BEARING SURFACES.

SCALE: NTS

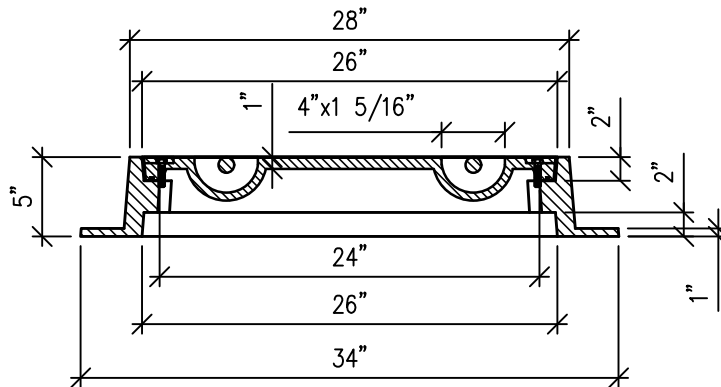
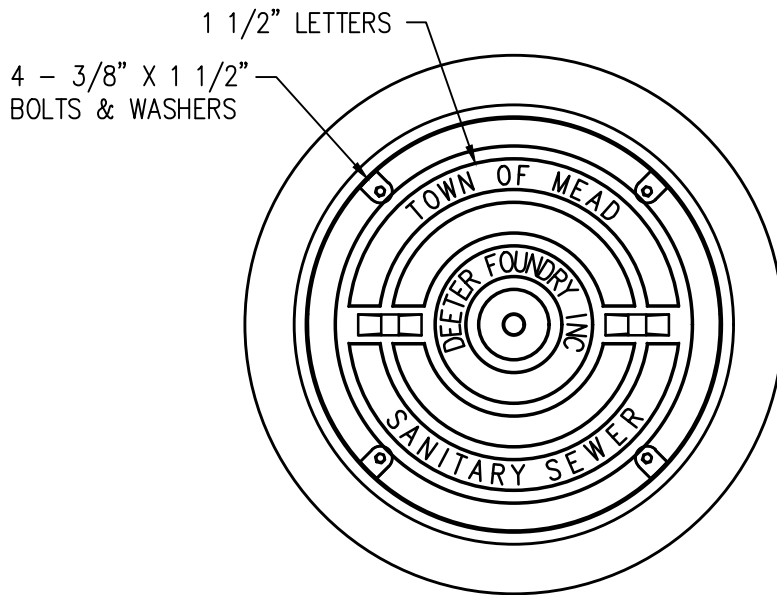


TOWN OF MEAD STANDARD DESIGN CRITERIA

MANHOLE RING AND COVER – NON-BOLTED

D4.09

DATE: 04/2021



NOTES:

1. RING AND COVER SHALL BE IRON (AS MANUFACTURED FOR CURRENT AWWA STANDARD).
2. SANITARY SEWER MANHOLE COVERS SHALL BE NONPERFORATED WITH "TOWN OF MEAD SANITARY SEWER" FORGED ON THE TOP OF THE LID AS SHOWN ABOVE.
3. COVER SHALL BE BOLTED, WATER RESISTANT IF LOCATED IN 100 YEAR FLOOD PLAIN, BACK YARDS, OPEN SPACE AND/OR DITCHES BELOW GROUND.
4. ALL MANHOLES SHALL BE EQUIVALENT TO DEETER MODEL NUMBER 1156.
5. MANHOLE LID AND RING SHALL BE FURNISHED WITH MACHINED HORIZONTAL BEARING SURFACES.
6. COVER IS BOLTED TO FRAME.
7. MANHOLE LID AND RING SHALL BE FURNISHED WITH GASKET.

SCALE: NTS

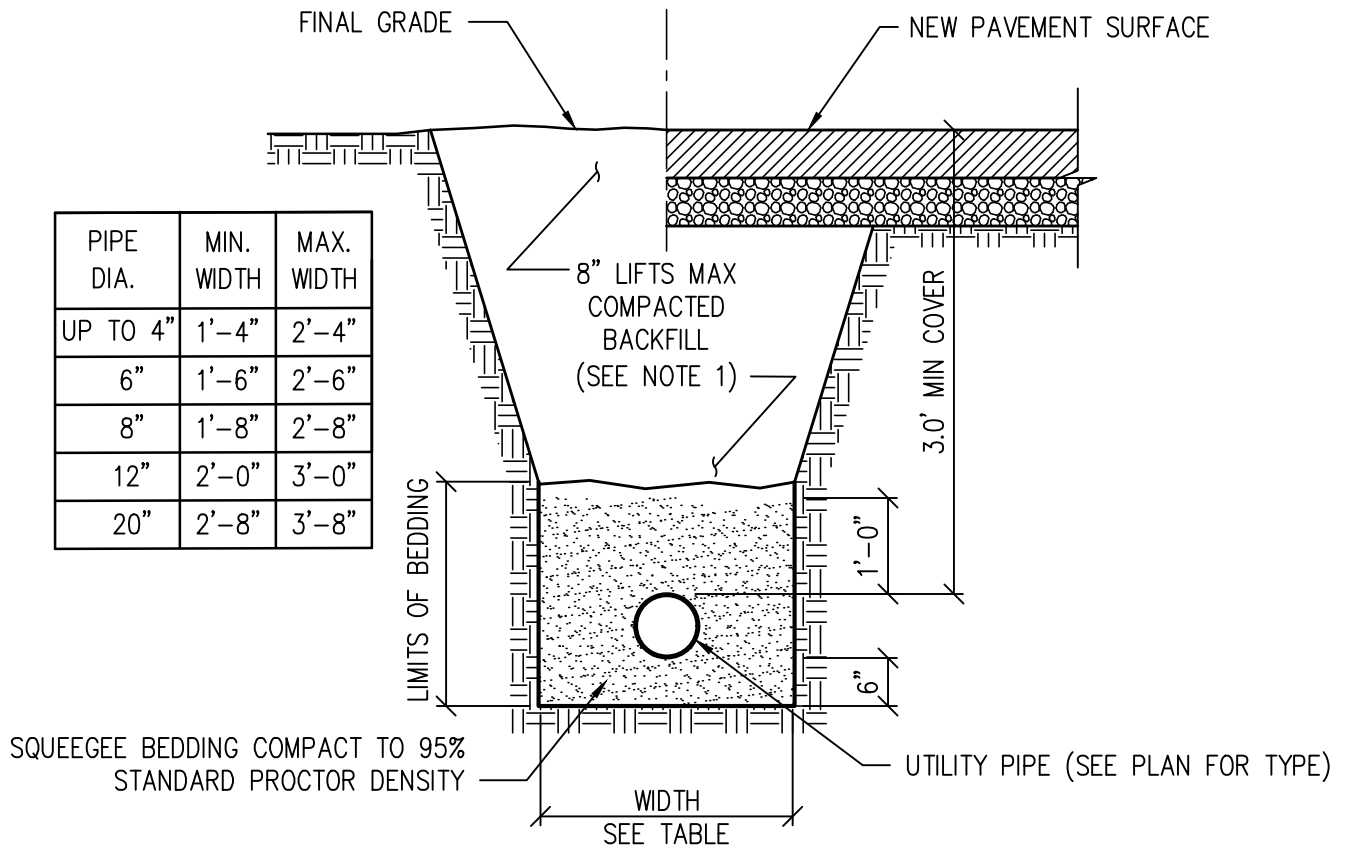


TOWN OF MEAD STANDARD DESIGN CRITERIA

MANHOLE RING AND COVER – BOLTED

D4.10

DATE: 04/2021



NOTES:

1. COMPACTED BACKFILL TO 90% STANDARD PROCTOR DENSITY IN NON-DRIVING SURFACES AND 98% UNDER PAVEMENT.
2. IF UNSTABLE MATERIALS ARE FOUND IN TRENCH BOTTOM, OVER EXCAVATE 12" BELOW STANDARD EMBEDMENT AND FILL WITH 3/4" CRUSHED ROCK, COMPACTED TO 95%.
3. SHOULD THE TRENCH BE EXCAVATED WIDER THAN ALLOWED A CONCRETE CRADLE SHALL BE PLACED WITH 2500 PSI CONCRETE FROM TRENCH BOTTOM TO PIPE SPRINGLINE.
4. TRENCH TO BE BRACED OR SHEETED AS NECESSARY FOR THE SAFETY OF THE WORKERS AND THE PROTECTION OF OTHER UTILITIES IN ACCORDANCE WITH LOCAL STATE AND FEDERAL SAFETY REGULATIONS.

SCALE: NTS



TOWN OF MEAD STANDARD DESIGN CRITERIA

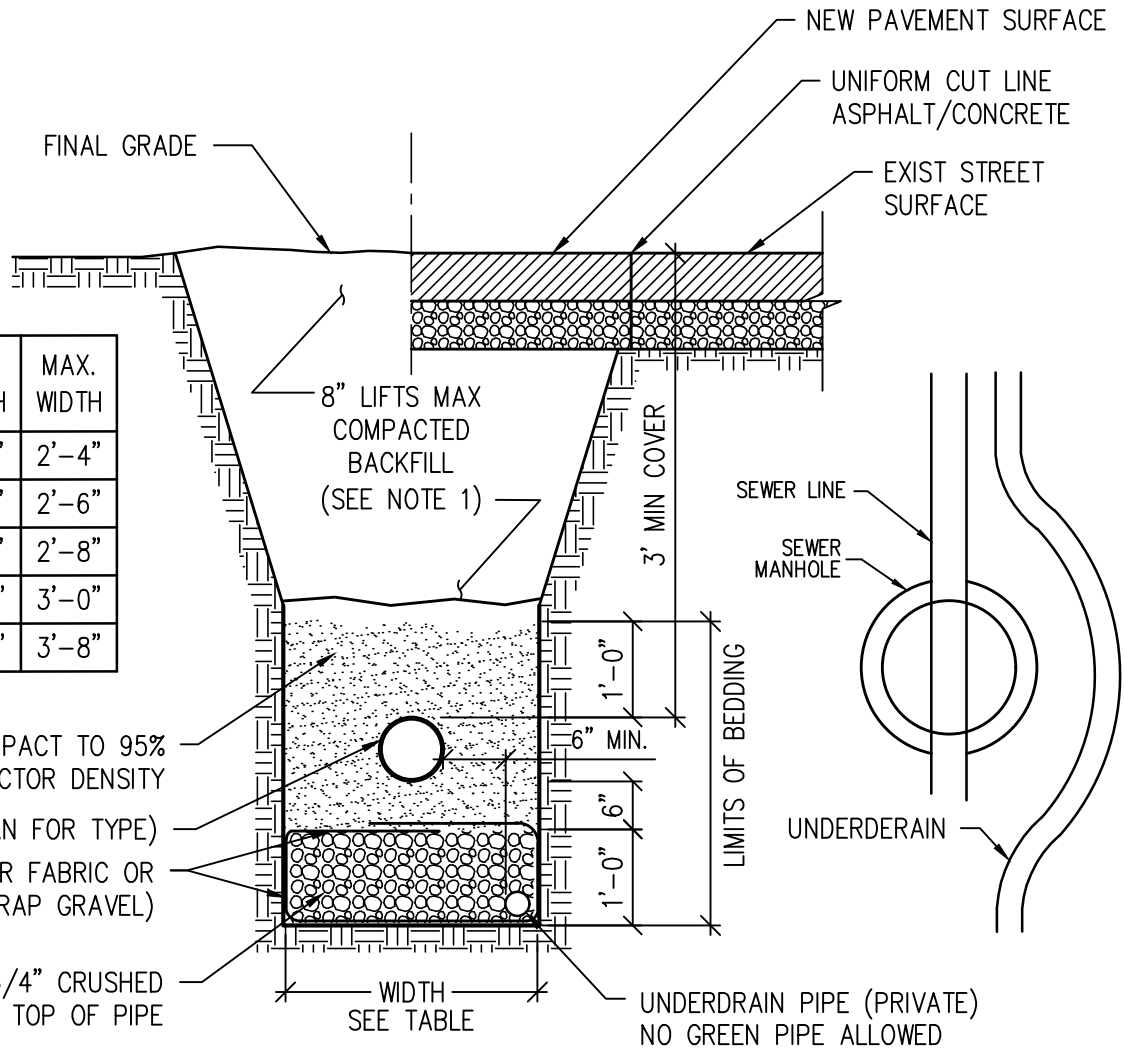
PIPE TRENCHING

D4.11

DATE: 04/2021

PIPE DIA.	MIN. WIDTH	MAX. WIDTH
UP TO 4"	1'-4"	2'-4"
6"	1'-6"	2'-6"
8"	1'-8"	2'-8"
12"	2'-0"	3'-0"
20"	2'-8"	3'-8"

SQUEEGEE BEDDING COMPACT TO 95% STANDARD PROCTOR DENSITY
 UTILITY PIPE (SEE PLAN FOR TYPE)
 MIRAFLI 140N FILTER FABRIC OR APPROVED EQUAL (WRAP GRAVEL)
 BEDDING 3/4" CRUSHED WASHED ROCK TO TOP OF PIPE



NOTES:

1. COMPACTED BACKFILL TO 90% STANDARD PROCTOR DENSITY IN NON-DRIVING SURFACES AND 98% IN STREET ROW.
2. SHOULD THE TRENCH BE EXCAVATED WIDER THAN ALLOWED, A CONCRETE CRADLE SHALL BE PLACED WITH 2500 PSI CONCRETE FROM TRENCH BOTTOM TO PIPE SPRINGLINE.
3. TRENCH TO BE BRACED OR SHEETED AS NECESSARY FOR THE SAFETY OF THE WORKERS AND THE PROTECTION OF OTHER UTILITIES IN ACCORDANCE WITH LOCAL, STATE AND FEDERAL SAFETY REGULATIONS.
4. DISTANCE BETWEEN UNDERDRAIN INVERT AND SEWER INVERT TO BE EQUAL TO THE DIAMETER OF THE DRAIN BELOW THE SEWER AND TO BE OFFSET TO SIDE.
5. MAINTAIN POSITIVE SLOPE OF UNDERDRAIN TO DAYLIGHT.
6. TOWN OF MEAD SHALL NOT ASSUME OWNERSHIP OF UNDERDRAINS AND WILL NOT BE RESPONSIBLE FOR MAINTENANCE.

SCALE: NTS



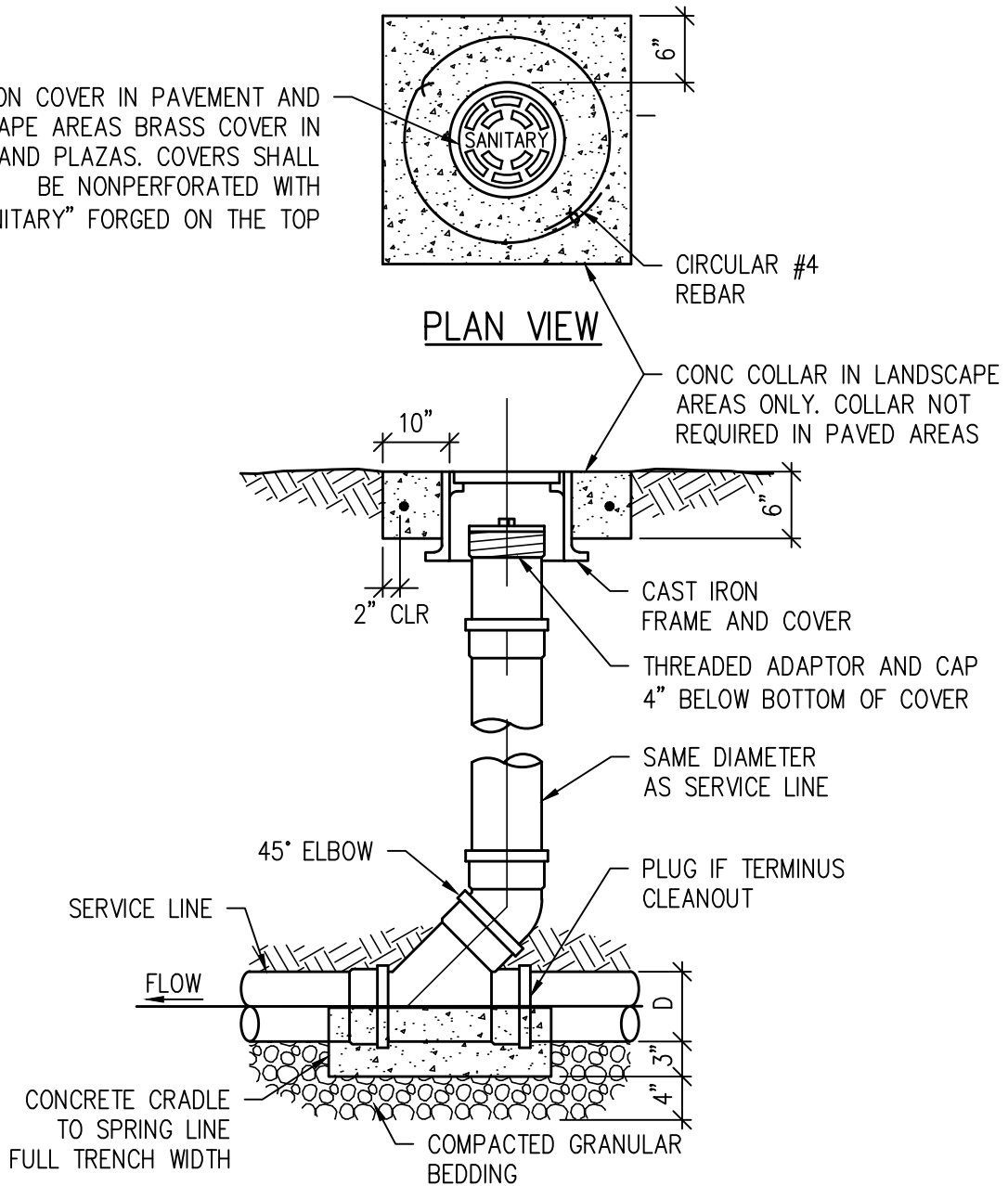
TOWN OF MEAD STANDARD DESIGN CRITERIA

PIPE TRENCHING WITH UNDERDRAIN SYSTEM

D4.12

DATE: 04/2021

CAST IRON COVER IN PAVEMENT AND LANDSCAPE AREAS BRASS COVER IN WALKS AND PLAZAS. COVERS SHALL BE NONPERFORATED WITH "SANITARY" FORGED ON THE TOP



NOTES:

1. CLEANOUT SHALL BE CONSTRUCTED SO THAT SURFACE LOAD WILL NOT BE TRANSFERRED TO MAIN.
2. SERVICE LINE CLEANOUT MAY BE INSTALLED APPROXIMATELY 5 FEET OUTSIDE THE BUILDING FOUNDATION.
3. A CLEANOUT IS REQUIRED ON ALL SERVICE LINES EVERY 100 FEET, AT EVERY "Y" OR AFTER A COMBINED TOTAL 135 DEGREES OF BEND.

SCALE: NTS

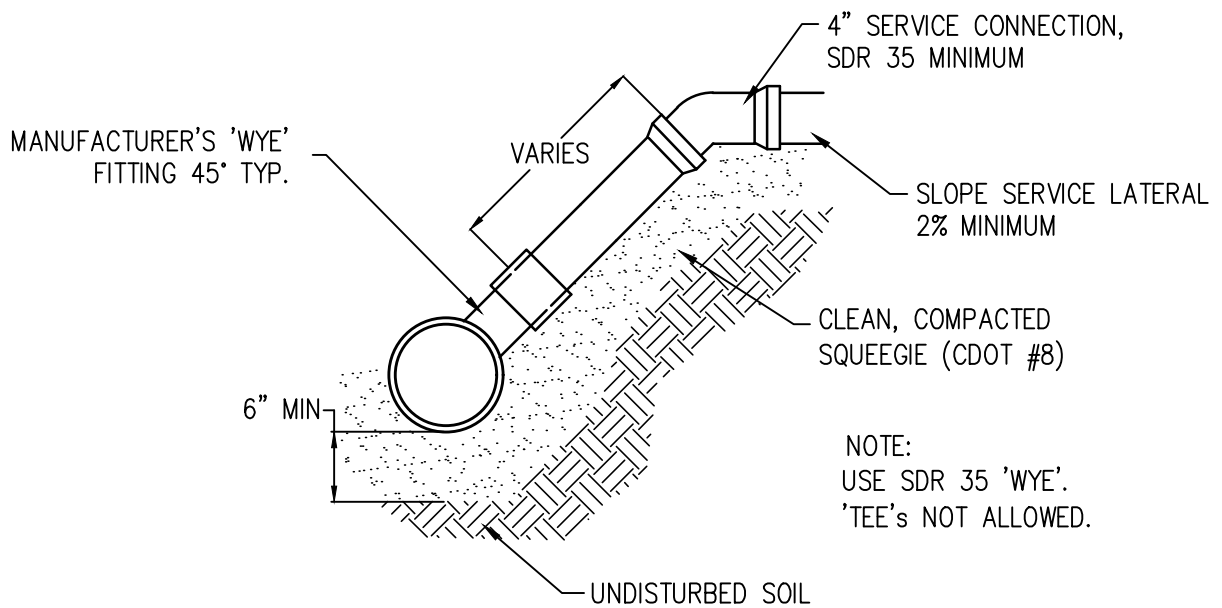
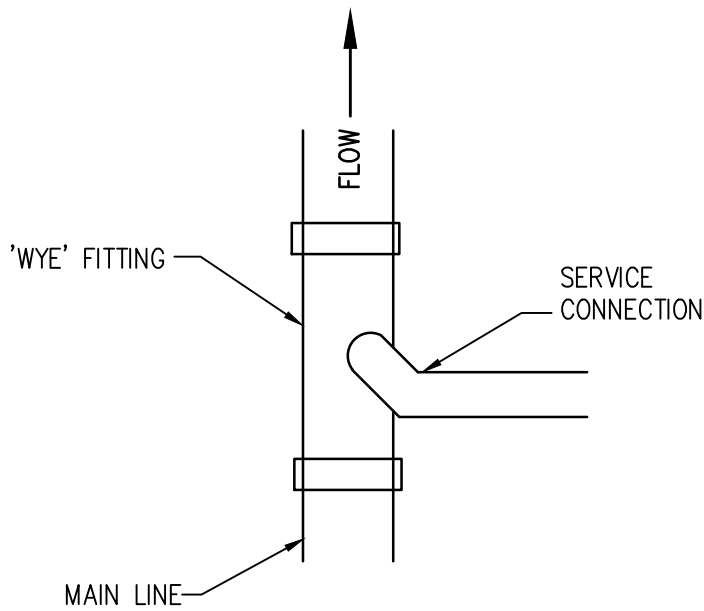


TOWN OF MEAD STANDARD DESIGN CRITERIA

SANITARY CLEANOUT

D4.13

DATE: 04/2021



SCALE: NTS

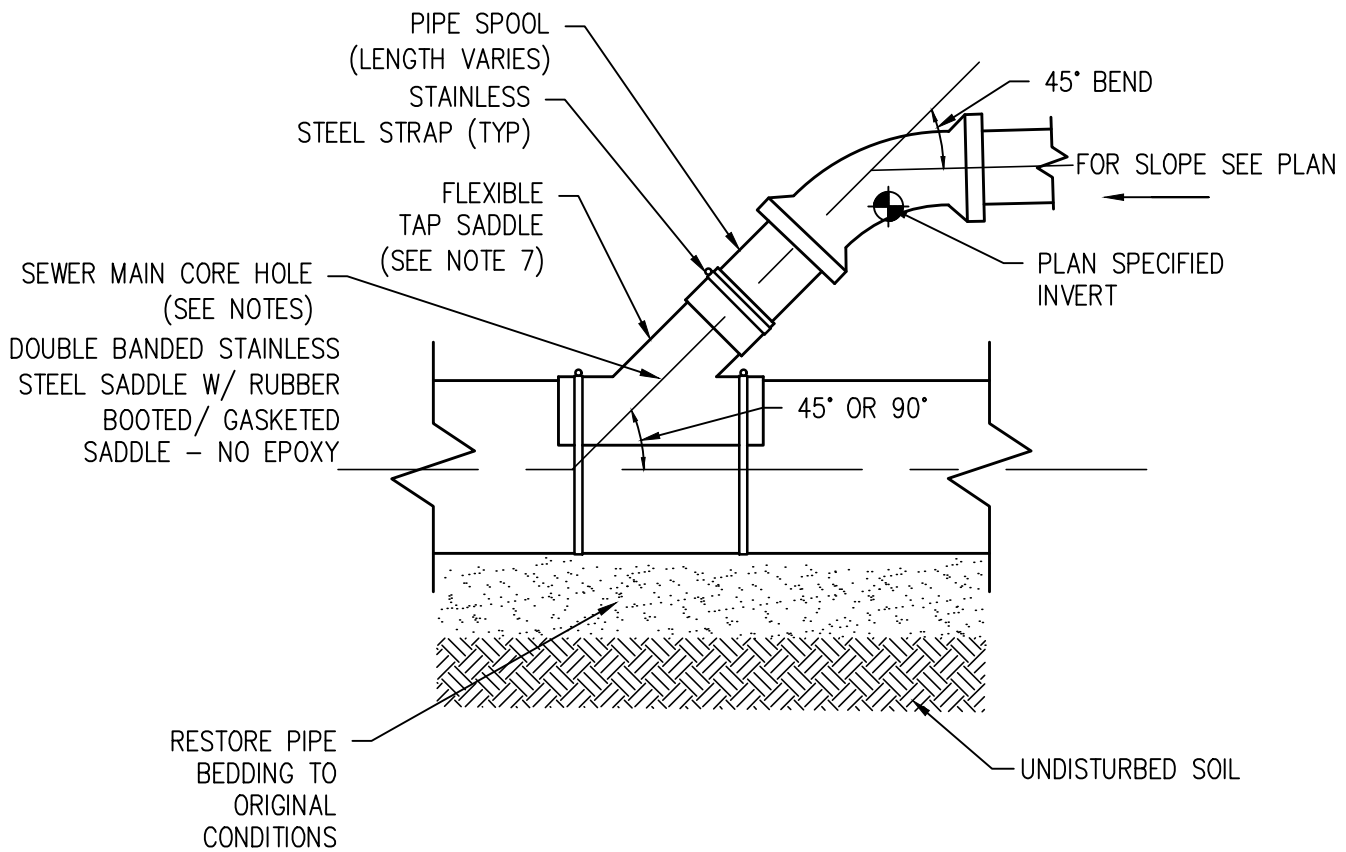


TOWN OF MEAD STANDARD DESIGN CRITERIA

TYPICAL SERVICE CONNECTION

D4.14

DATE: 04/2021



NOTE:

1. APPROVED TAPPING SADDLE TO BE USED FOR NEW SERVICES TO EXISTING MAINS SHALL BE TEES. PIPE PENETRATIONS SHALL BE MECHANICALLY DRILLED.
2. TAPHOLE MUST BE ABOVE THE SPRINGLINE.
3. 4" SEWER SERVICES SHALL HAVE A MINIMUM SLOPE OF 2.0%.
4. 6" SEWER SERVICES SHALL HAVE A MINIMUM SLOPE OF 1.0%.
5. SERVICES SHALL NOT BE CLOSER THAN 5 FT. FROM EACH OTHER ON THE MAIN.
6. AN INSERT A TEE MAY BE AN ACCEPTABLE SUBSTITUTION AS APPROVED BY THE TOWN ENGINEER.
7. REFERENCE SPECIFICATIONS FOR APPROVED TAP SADDLE MANUFACTURERS.

SCALE: NTS

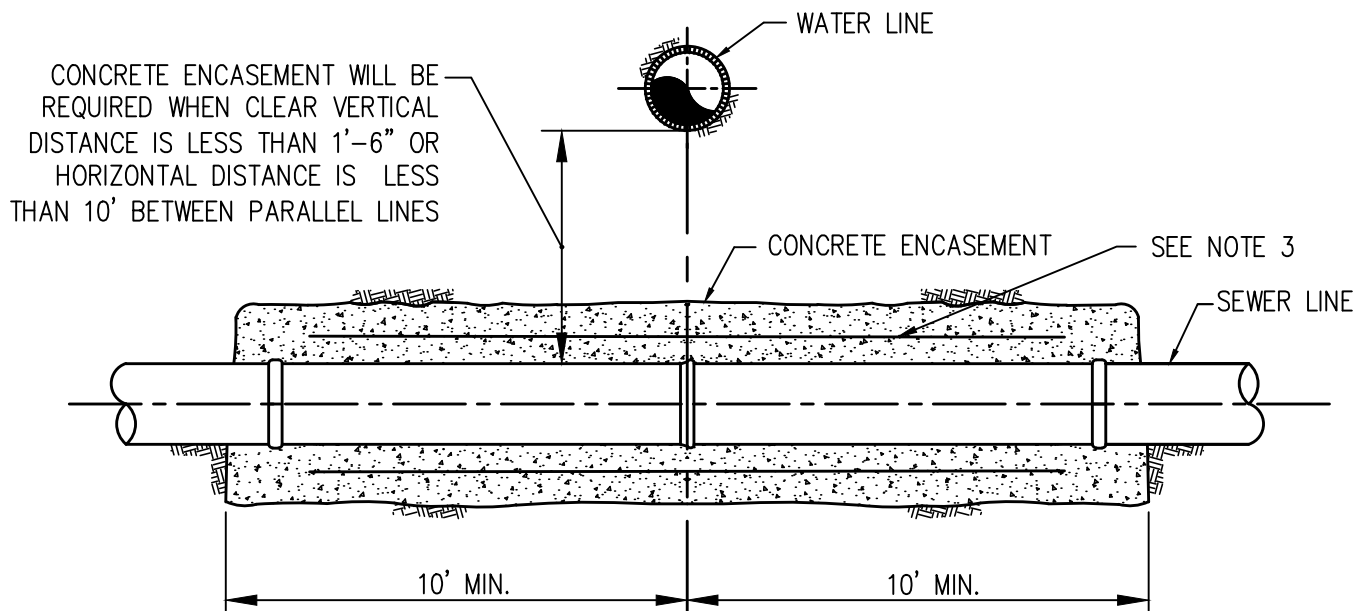


TOWN OF MEAD STANDARD DESIGN CRITERIA

TAPPING SADDLE

D4.15

DATE: 04/2021



NOTE:

1. CONCRETE ENCASEMENT REQUIRED IN ALL CASES WHERE SEWER LINE IS ABOVE WATER LINE.
2. MINIMUM WIDTH AND DEPTH ARE 12" + PIPE O.D.
3. INSTALL REBAR PER DETAIL D4.17.

SCALE: NTS

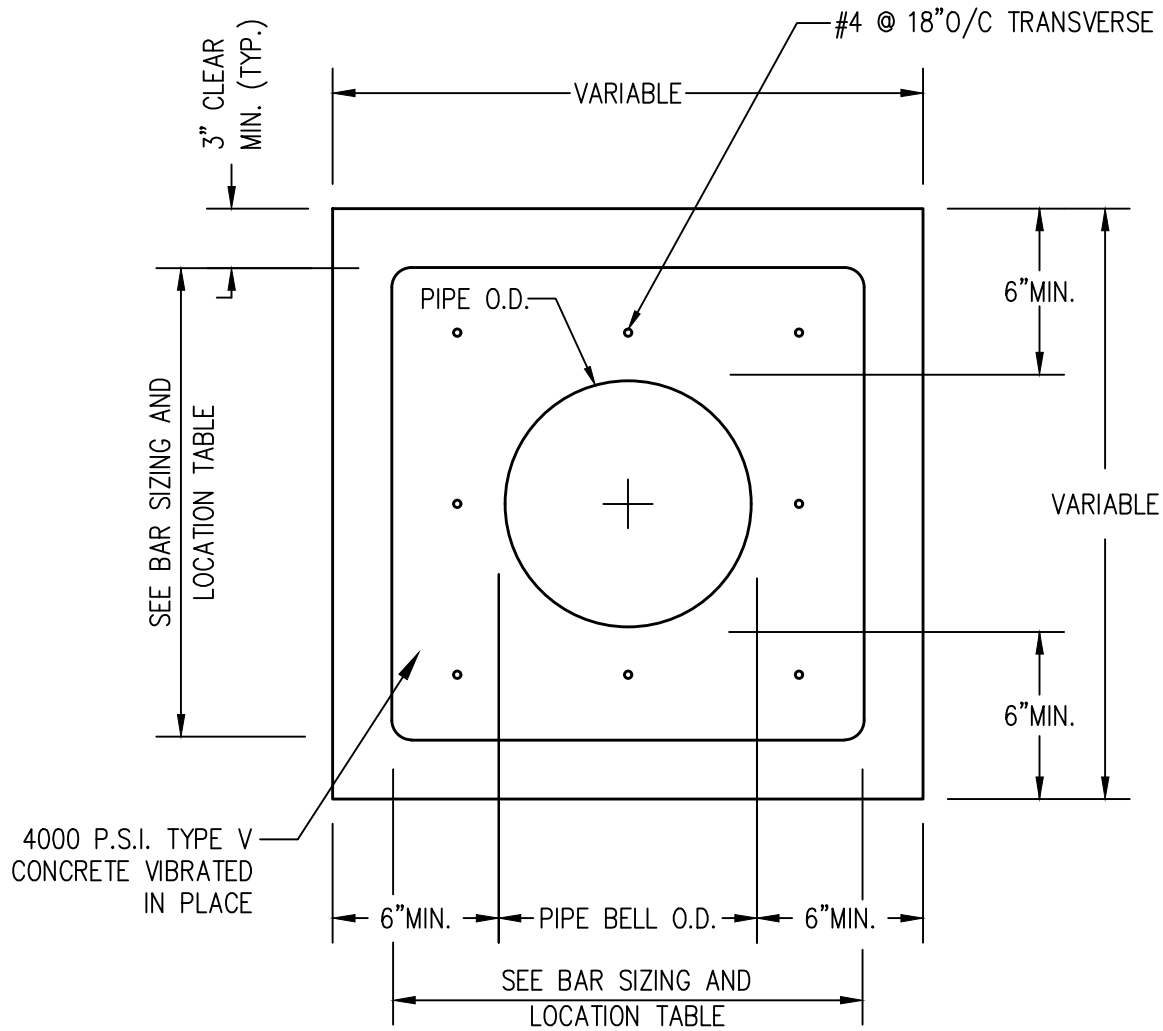


TOWN OF MEAD STANDARD DESIGN CRITERIA

PIPE ENCASEMENT

D4.16

DATE: 04/2021



PIPE I.D.	LONGITUDINAL BARS	LOCATION
6 IN.	4-#4 BARS	1 EACH CORNER
8 IN.	4-#4 BARS	1 EACH CORNER
10 IN.	8-#4 BARS	3 EACH SIDE
12 IN.	8-#4 BARS	3 EACH SIDE
15 IN.	8-#4 BARS	3 EACH SIDE
18 IN.	8-#4 BARS	3 EACH SIDE
21 IN.	12-#4 BARS	4 EACH SIDE
24 IN.	12-#4 BARS	4 EACH SIDE
27 IN.	12-#4 BARS	4 EACH SIDE
30 IN.	12-#4 BARS	4 EACH SIDE
33 IN.	12-#4 BARS	4 EACH SIDE
36 IN.	16-#4 BARS	5 EACH SIDE

SCALE: NTS

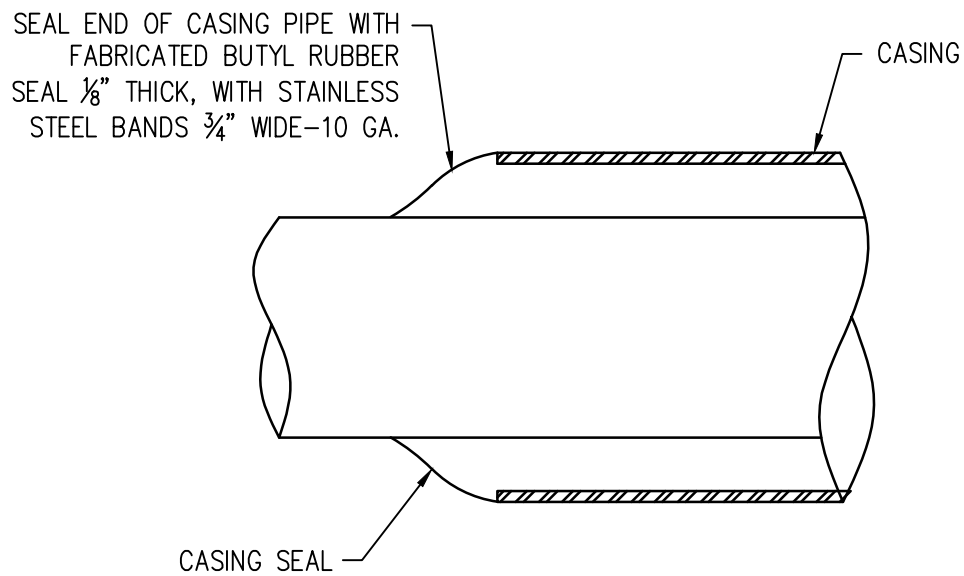
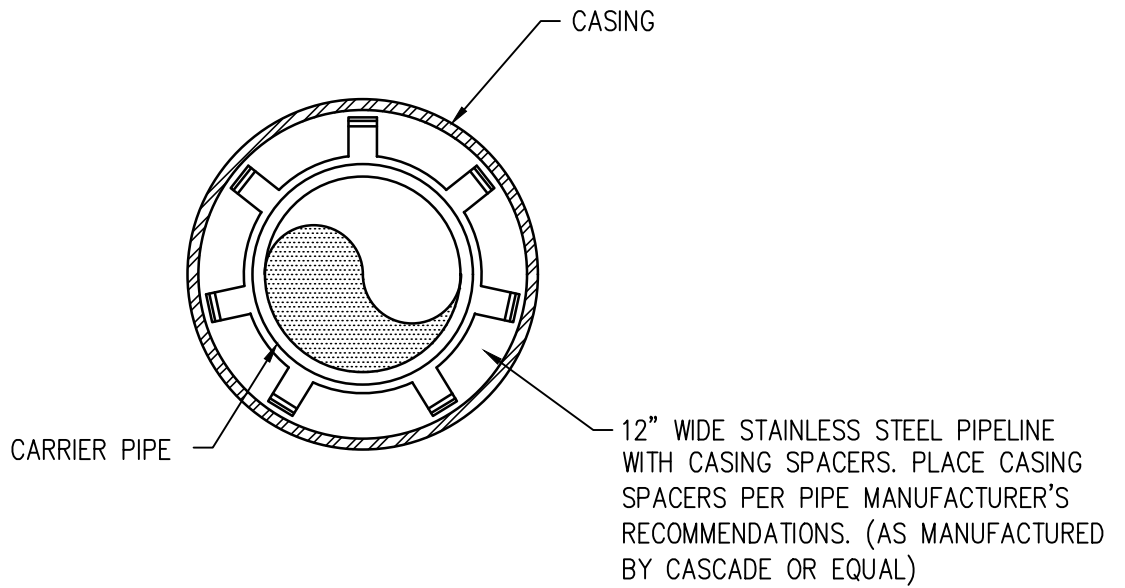


TOWN OF MEAD STANDARD DESIGN CRITERIA

PIPE ENCASEMENT SPECIFICATIONS

D4.17

DATE: 04/2021



SCALE: NTS

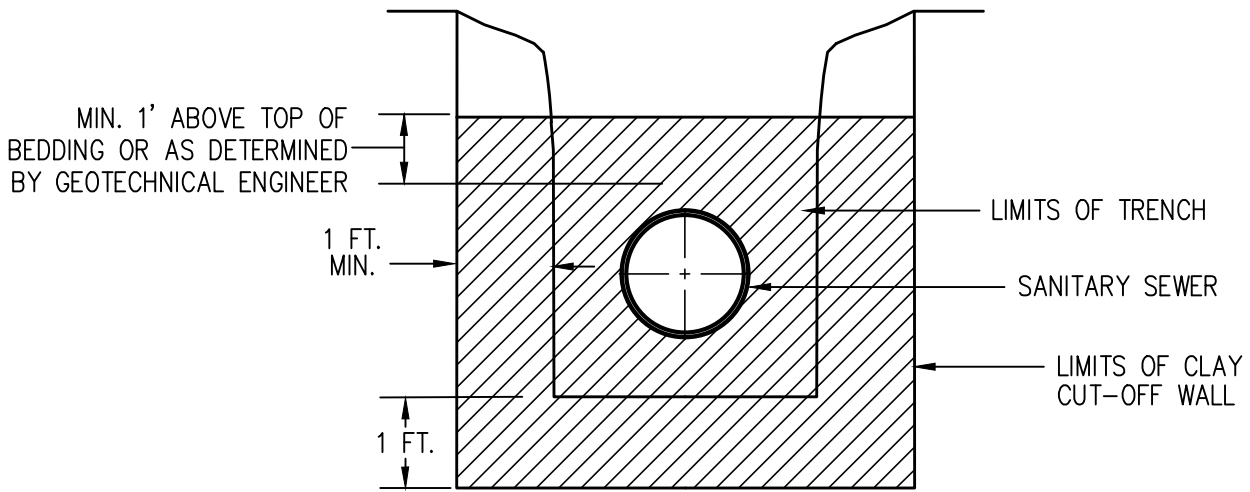
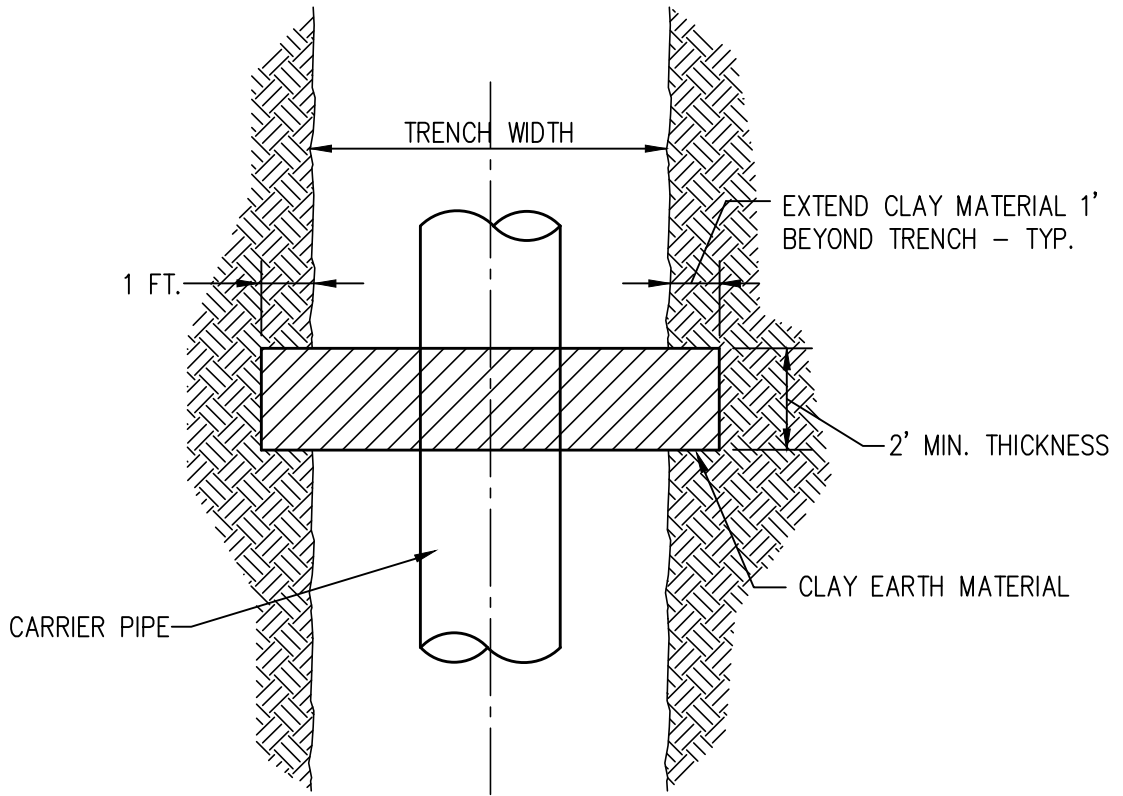


TOWN OF MEAD STANDARD DESIGN CRITERIA

STANDARD PIPE CASING

D4.18

DATE: 04/2021



NOTE:

1. CLAY WALL EXTENDS A MINIMUM OF 12 INCHES INTO UNDISTURBED SOIL ON EACH SIDE AND ON BOTTOM OF TRENCH.
2. CLAY MATERIAL TO BE CLASSIFIED AS CL, CH OR OH.
3. FLOWFILL MAY BE USED INSTEAD OF CLAY MATERIAL.

SCALE: NTS

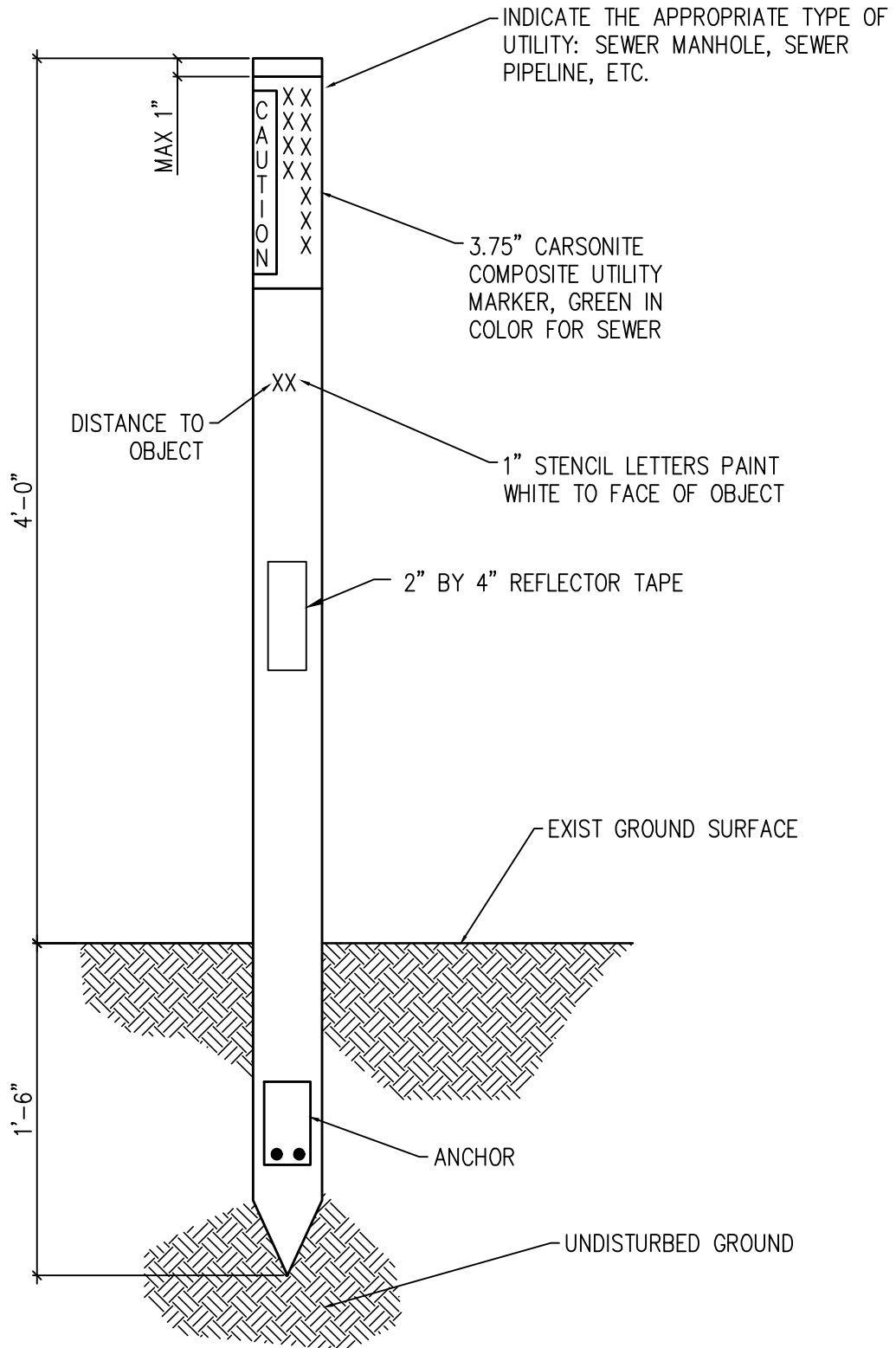


TOWN OF MEAD STANDARD DESIGN CRITERIA

CUT-OFF WALL

D4.19

DATE: 04/2021



SCALE: NTS



TOWN OF MEAD STANDARD DESIGN CRITERIA

SANITARY UTILITY MARKER POST

D4.20

DATE: 04/2021