

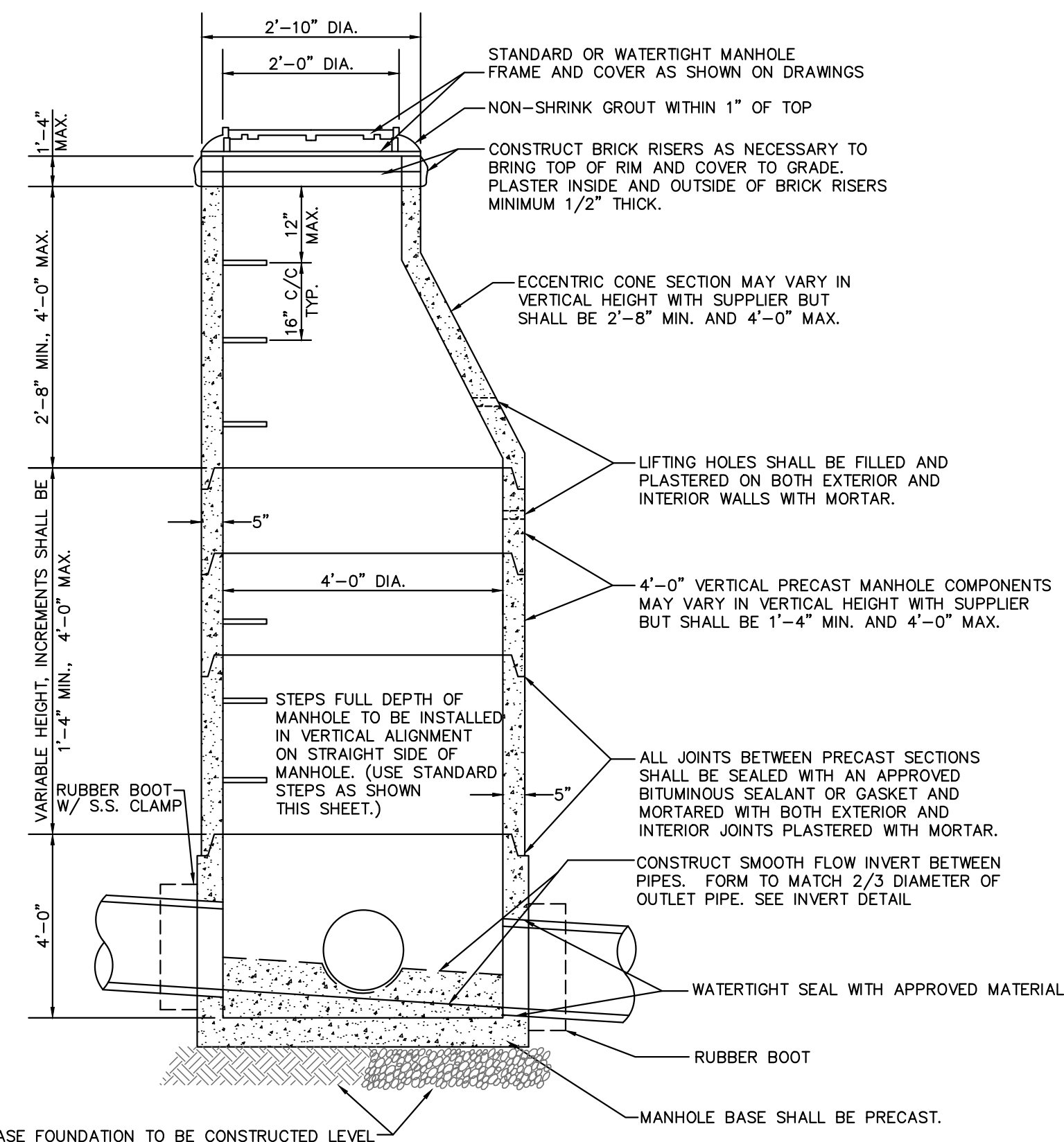
PROJECT REFERENCE NO.	SHEET NO.
R-3100B	UC-3C
DESIGNED BY: RJM	
DRAWN BY: RAB	
CHECKED BY: DGC	
APPROVED BY:	
REVISED:	UTILITY CONSTRUCTION PLANS ONLY
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DOCUMENT NOT CONSIDERED FINAL
UNTIL ALL SIGNATURES COMPLETE

UTILITY CONSTRUCTION

Prepared by

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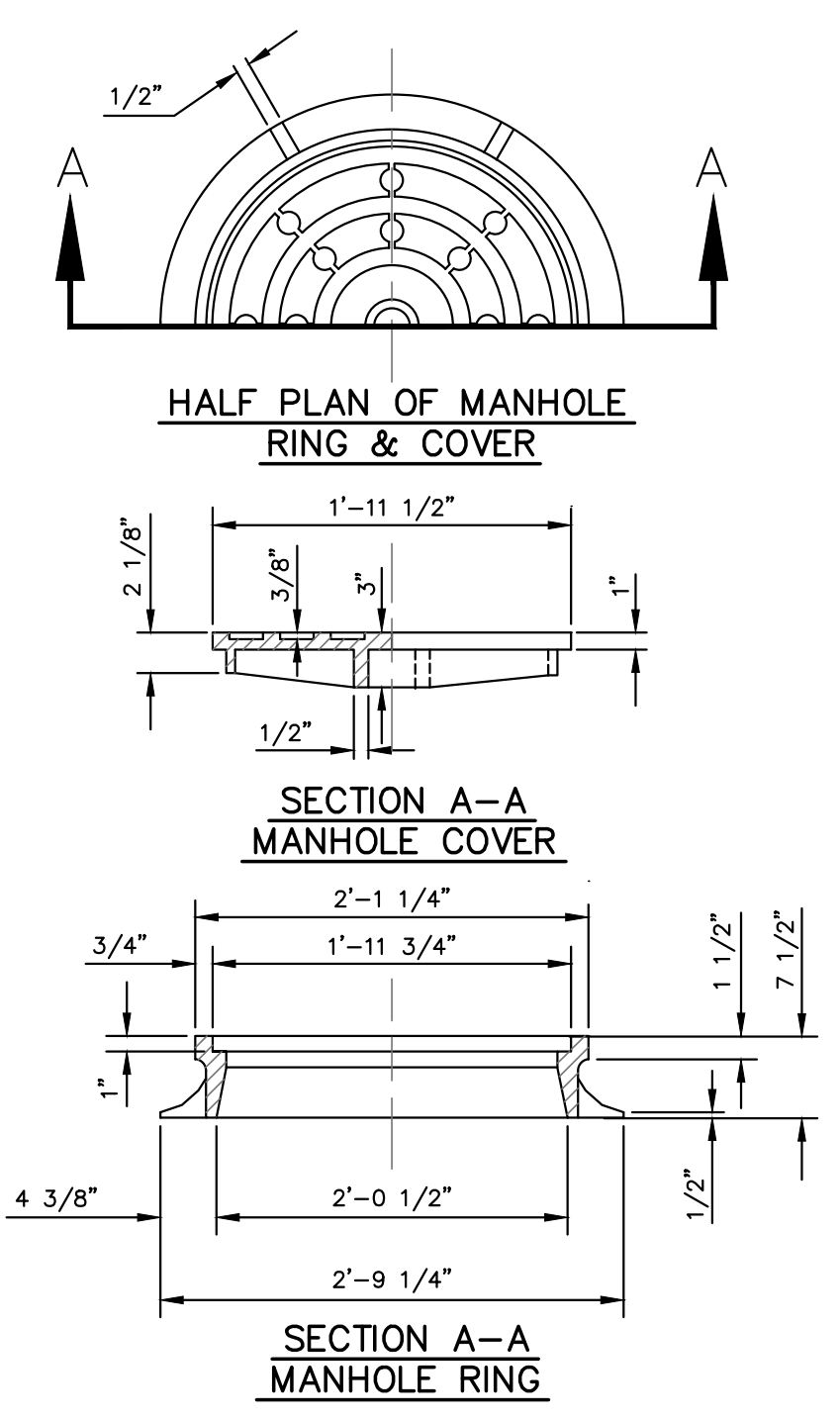


ELEVATION VIEW

PRECAST MANHOLE NOTES:

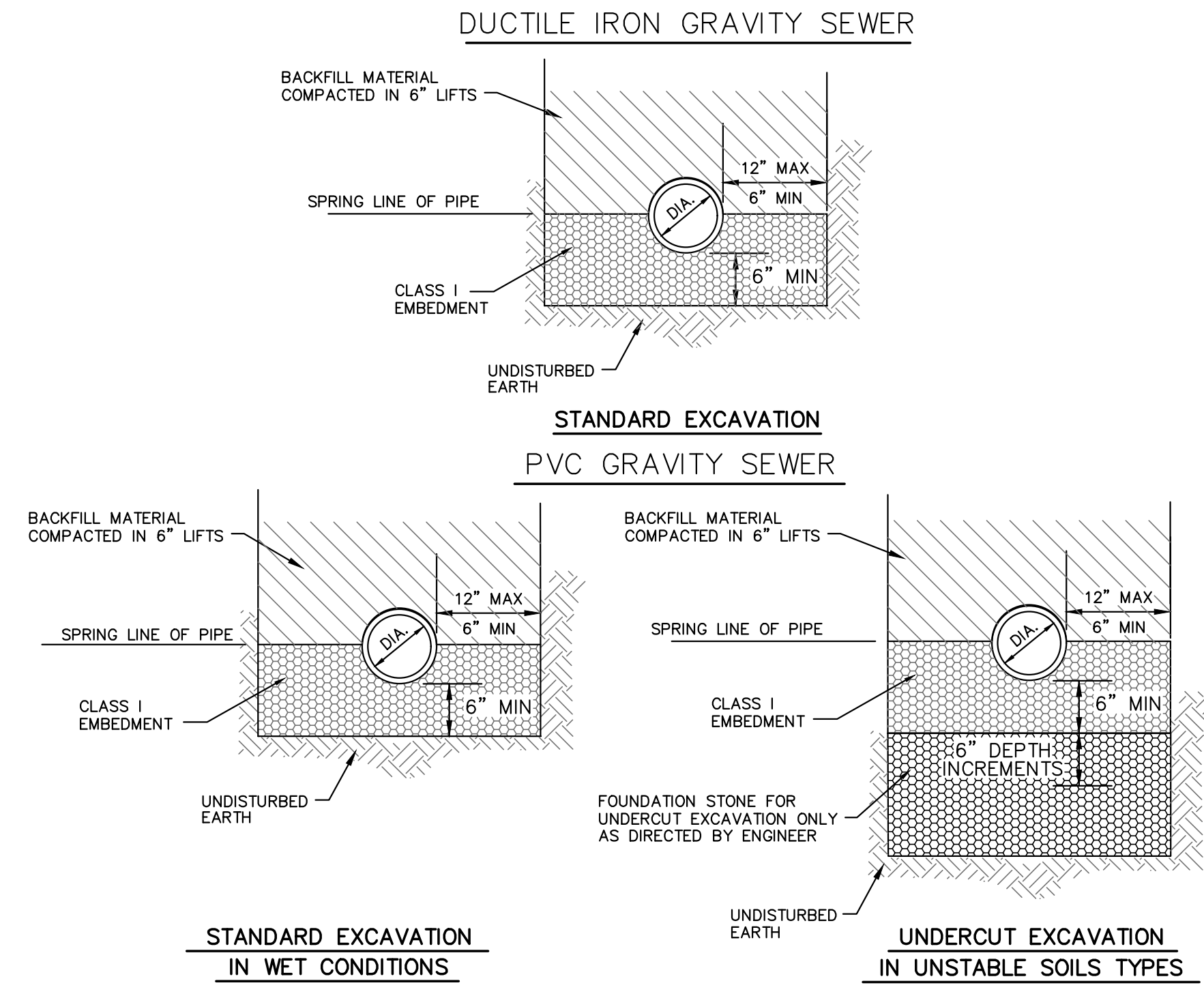
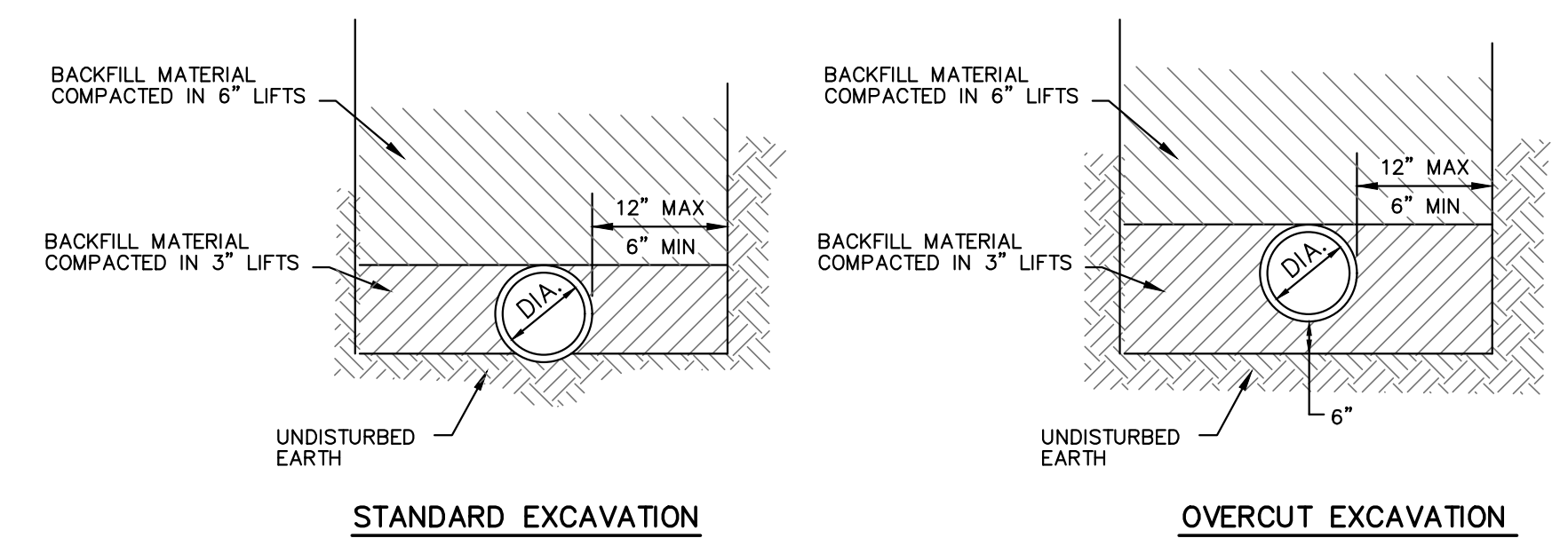
1. ALL PRECAST MANHOLE COMPONENTS SHALL MEET REQUIREMENTS OF ASTM C-478, LATEST REVISION.
2. ALL MANHOLES SHALL BE CONSTRUCTED PLUMB
3. ALL MANHOLE GRADES SHOWN ON THE PLANS ARE FOR THE INVERT OF THE MANHOLE CENTER.
4. IF MANHOLE IS SET IN LOCATION OF HIGH WATER TABLE OR UNDERGROUND WATER IS ENCOUNTERED, THE CONTRACTOR SHALL INSTALL UNDERDRAINS AND STONE AS DIRECTED IN THE FIELD BY THE ENGINEER.
5. STEPS SHALL BE INSTALLED ON STRAIGHT SIDE OF MANHOLE.

PRECAST CONCRETE MANHOLE



NOTE: TRAFFIC BEARING RING AND COVER. MINIMUM WEIGHT 315 POUNDS

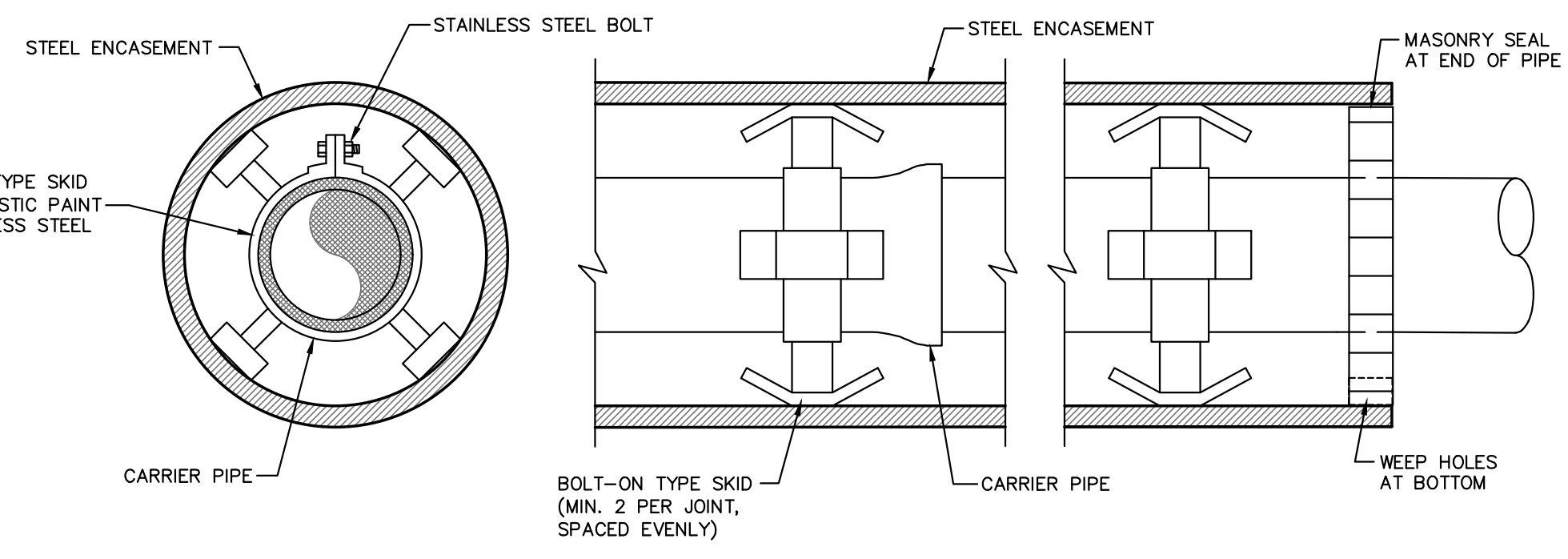
MANHOLE RING & COVER



PIPE IN WET OR UNSTABLE CONDITIONS ALL PIPE TYPES (AS DIRECTED BY ENGINEER)

- NOTE:
1. CONSTRUCTION OF TRENCHES SHALL COMPLY WITH ALL FEDERAL, STATE AND LOCAL SAFETY AND HEALTH REGULATIONS WHICH HAVE JURISDICTION AT THE PROJECT SITE. IT IS THE CONTRACTOR'S RESPONSIBILITY TO BE FAMILIAR WITH THE APPLICABLE REGULATIONS AND FOLLOW THEM ACCORDINGLY.
 2. FOR UNIT PRICE CONTRACTS ONLY, PAYMENT FOR ROCK EXCAVATION AND SELECT BACKFILL IN TRENCH SHALL BE FOR ACTUAL QUANTITIES AND SHALL NOT EXCEED THE WIDTH OF TRENCH SHOWN ON THIS DETAIL.
 3. FOR UNIT PRICE CONTRACTS ONLY, PAYMENT FOR FOUNDATION STONE UNDERCUT SHALL BE FOR THE LENGTH OF THE TRENCH REQUIRING UNDERCUT X 6" DEPTH INCREMENTS TO THE DEPTH REQUIRED.
 4. CLASS I EMBEDMENT SHALL BE NCDOT STANDARD # 67 STONE OR APPROVED EQUAL. FOUNDATION STONE SHALL BE NCDOT STANDARD # 57 OR # 67 STONE OR APPROVED EQUAL.

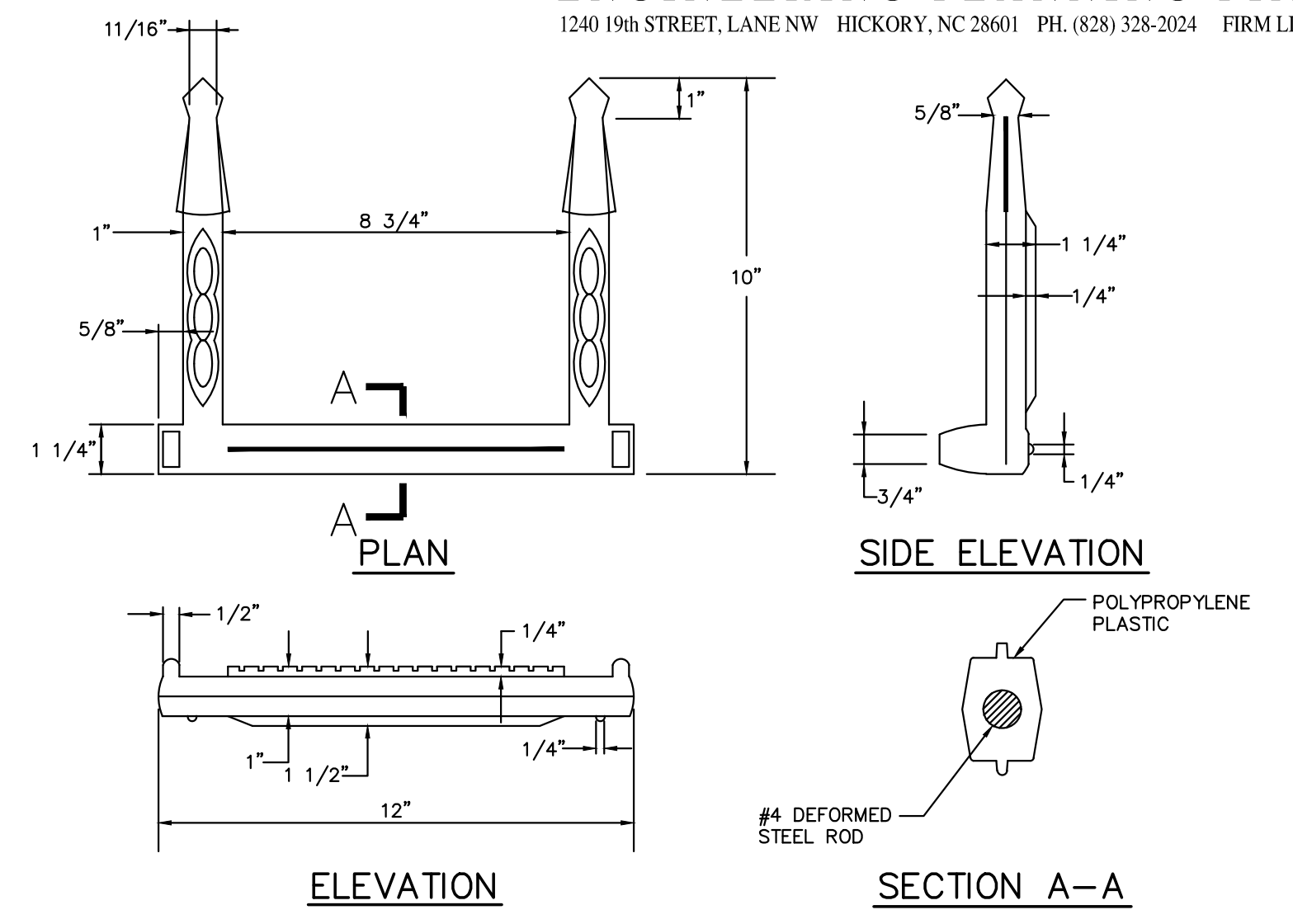
TYPICAL GRAVITY SEWER TRENCHING DETAILS



NOTE: FOR PRESSURE CARRIER PIPES, IF SUITABLE UNDISTURBED EARTH IS NOT AVAILABLE FOR THRUST BLOCKS DUE TO EXCAVATION, CONTRACTOR SHALL ATTACH THREADED RODS AS SPECIFIED IN THRUST BLOCK DETAILS TO THE ENCASEMENT AND ROD FITTINGS DIRECTLY TO THE ENCASEMENT PIPE. ATTACHMENT OF THE RODS SHALL BE BY WELDING DIRECTLY TO THE ENCASEMENT PIPE OR BY WELDING EYE BOLTS TO THE ENCASEMENT FOR ATTACHMENT OF THREADED RODS WITH NUTS. MINIMUM OF THREE RODS REQUIRED PER FITTING.

ENCASEMENT DETAIL

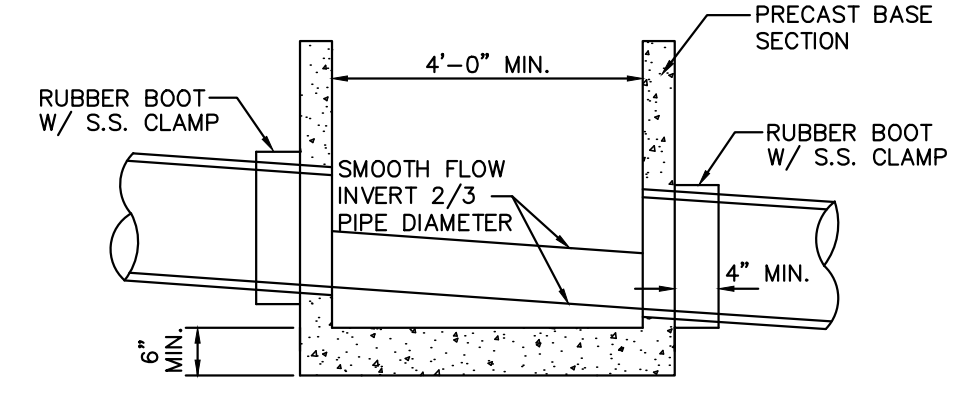
REVISION DATE - NOVEMBER 3, 2008



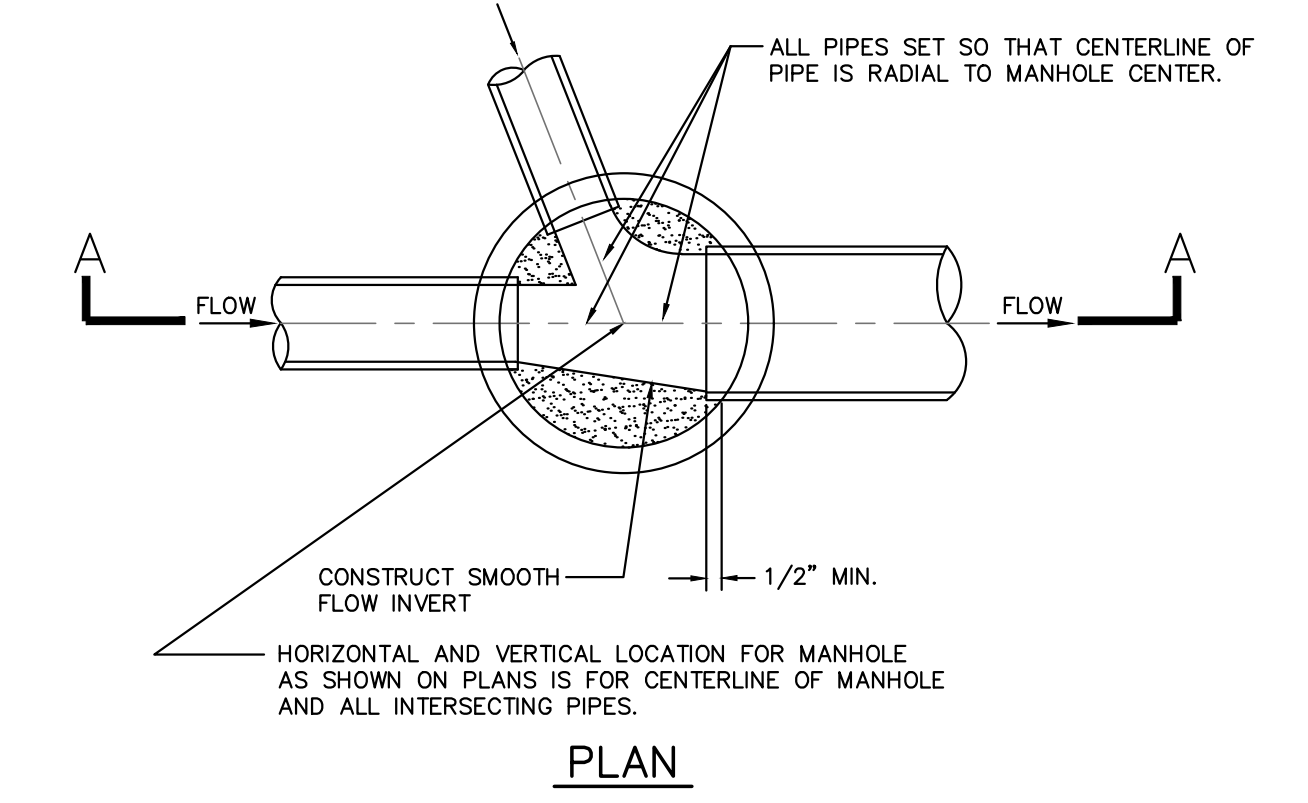
CONSTRUCTION NOTES

1. ALL STEPS SHALL PROTRUDE A MINIMUM OF 5" AND A MAXIMUM OF 7" FROM INSIDE FACE OF STRUCTURE WALL.
2. STEPS DIFFERING IN DIMENSIONS, CONFIGURATION, OR MATERIALS FROM THOSE SHOWN MAY ALSO BE USED PROVIDED THE CONTRACTOR HAS FURNISHED THE ENGINEER WITH DETAILS OF THE PROPOSED STEPS AND HAS RECEIVED PRIOR WRITTEN APPROVAL FROM THE ENGINEER FOR THE USE OF SAID STEPS.

MANHOLE STEPS



SECTION A-A



NOTE: MANHOLES ON PLANS NOTED AS HIGH VELOCITY MANHOLES SHALL RECEIVE TWO COATS OF SIKAGARD 62, HIGH-BUILD, EPOXY RESIN COATING OR APPROVED EQUAL ON INVERT CHANNEL.

MANHOLE INVERTS