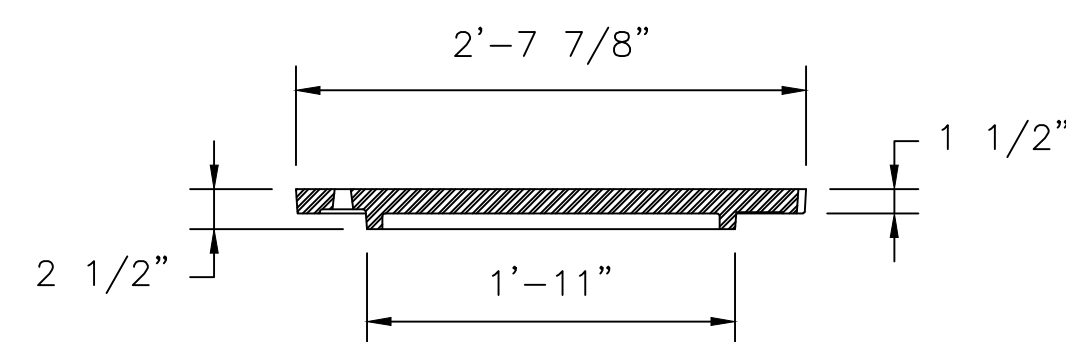
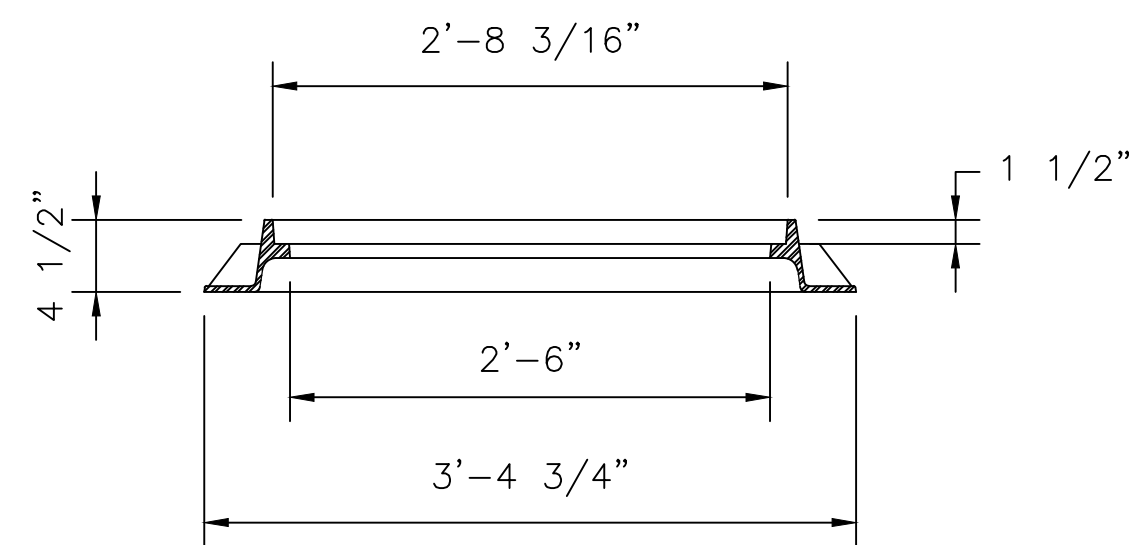


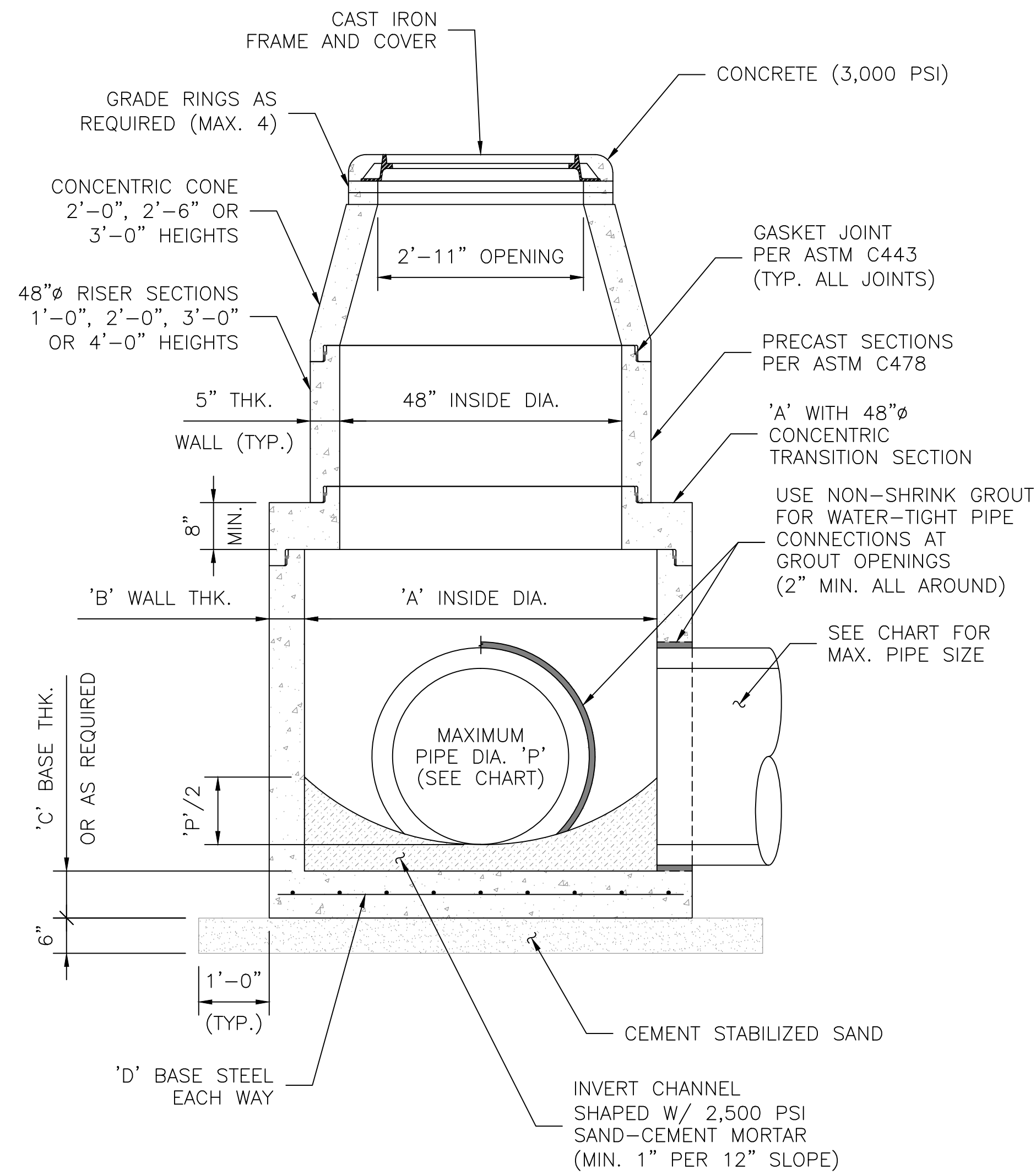
PLAN VIEW
FRAME AND COVER
SCALE: 1" = 1'-0"



COVER SECTION A-A
SCALE: 1" = 1'-0"

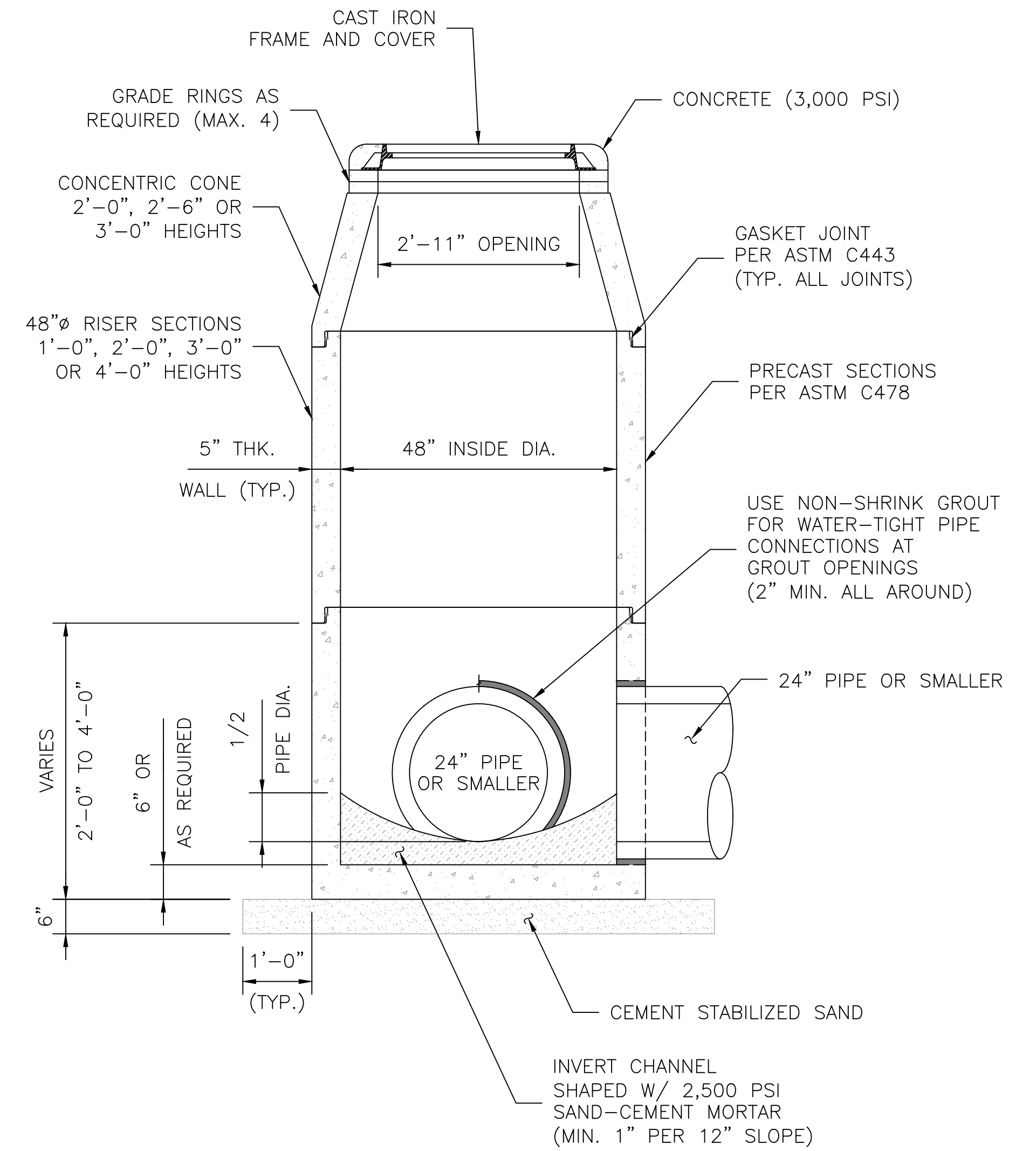


FRAME SECTION A-A
SCALE: 1" = 1'-0"



PRECAST CONCENTRIC MANHOLE
FOR PIPE SIZES GREATER THAN 24"
SCALE: 1" = 1'-6"

MAXIMUM PIPE DIA. 'P'	INSIDE DIA. 'A'	WALL THICKNESS 'B'	BASE THICKNESS 'C'	BASE STEEL 'D'
30"	5'-0"	6"	8"	#5 @ 8"
42"	6'-0"	7"	8"	#5 @ 8"
54"	7'-0"	8"	10"	#6 @ 12" (2 LAYERS)
60"	8'-0"	9"	10"	#6 @ 12" (2 LAYERS)



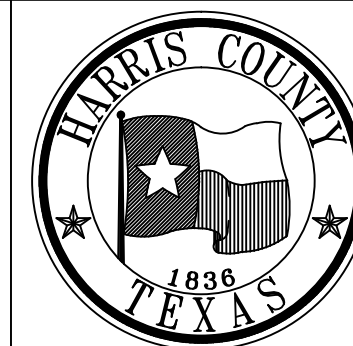
48"Ø PRECAST CONCENTRIC MANHOLE
FOR PIPE SIZES 24" OR SMALLER
SCALE: 1" = 1'-6"

GENERAL NOTES:

- CONSTRUCTION AND MATERIALS SHALL MEET REQUIREMENTS OF ITEM 471 "PRECAST CONCRETE MANHOLES".
- CONCRETE FOR MANHOLE: MINIMUM 4,000 PSI IN 28 DAYS
- HS-20 LOADING; MANHOLE DESIGN SHALL MEET OR EXCEED ASTM C478 REQUIREMENTS.
- GASKET JOINT: PER ASTM C443
- FRAME AND COVER SHALL BE EAST JORDAN IRON WORKS MODEL V-1420 OR APPROVED EQUAL.
- SHOP DRAWINGS WITH MANUFACTURER'S CERTIFICATION SHALL BE SUBMITTED FOR ENGINEER'S APPROVAL.
- KNOCK-OUTS ARE NOT PERMISSIBLE FOR THE PRECAST SECTION OF MANHOLE.

NO.	REVISIONS	DATE	NAME
1	UPDATED DEPARTMENT NAME	2/17/15	RS
2	ADDED NOTE 7	3/24/15	RS

HARRIS COUNTY
ENGINEERING DEPARTMENT



CONSULTANT
LOGO/INFORMATION

FOR INTERIM REVIEW ONLY
DOCUMENT INCOMPLETE:
NOT INTENDED FOR CONSTRUCTION,
BIDDING, OR PERMIT PURPOSES
ENGINEER:
P.E. SERIAL No.
DATE:

PROJECT TITLE:		HCED STANDARD
DRAWN BY: JDZ	SHEET DESCRIPTION: PRECAST CONCRETE STORM SEWER	18
CR'D BY: PDG		
SCALE: AS NOTED	MANHOLE DETAILS	SHEET NO: /
DATE: 4/3/13	APPROVED BY:	