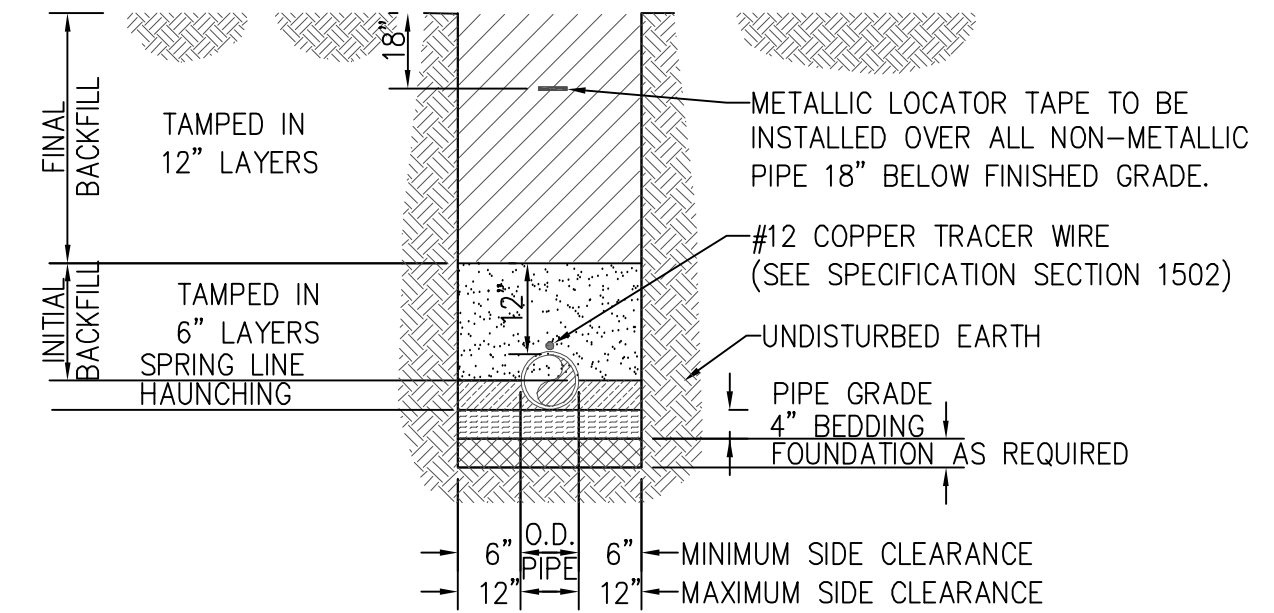


PROJECT REFERENCE NO.	SHEET NO.
R-5812	UC-3A
DESIGNED BY: WLY	7/15/2010
DRAWN BY: WLY	
CHECKED BY: -	
APPROVED BY: -	
REVISED:	
NORTH CAROLINA DEPARTMENT OF TRANSPORTATION UTILITIES ENGINEERING SECTION PHONE: (919) 707-6690 FAX: (919) 250-4151	
UTILITY CONSTRUCTION PLANS ONLY	

NCDOT TIP: 5812

PAY ITEM NUMBER	PAY ITEM DESCRIPTION	QUANTITIES BY SHEET			
		UC-04	UC-05	UC-06	UC-07
5326000000-E	10" WATER LINE	1,200	1,400	1,400	1,215
5329000000-E	DUCTILE IRON WATER PIPE FITTINGS	1,330	0	0	735
5552000000-E	10" VALVE	3	1	1	2
5648000000-N	RELOCATE WATER METER	1	0	0	0
5649000000-N	RECONNECT WATER METER	1	0	0	0
5686500000-E	WATER SERVICE LINE	20	0	0	0
5691300000-E	8" SANITARY GRAVITY SEWER	300	0	0	0
5775000000-E	4' DIA UTILITY MANHOLE	3	0	0	0
5802000000-E	ABANDON 10" UTILITY PIPE	1,170	1,400	1,400	1,180
5835800000-E	18" ENCASEMENT PIPE	0	0	0	180
5872500000-E	BORE AND JACK OF 18"	0	0	0	180
5872600000-E	DIRECTIONAL DRILLING OF 10" UTILITY PIPE	0	1,300	200	0



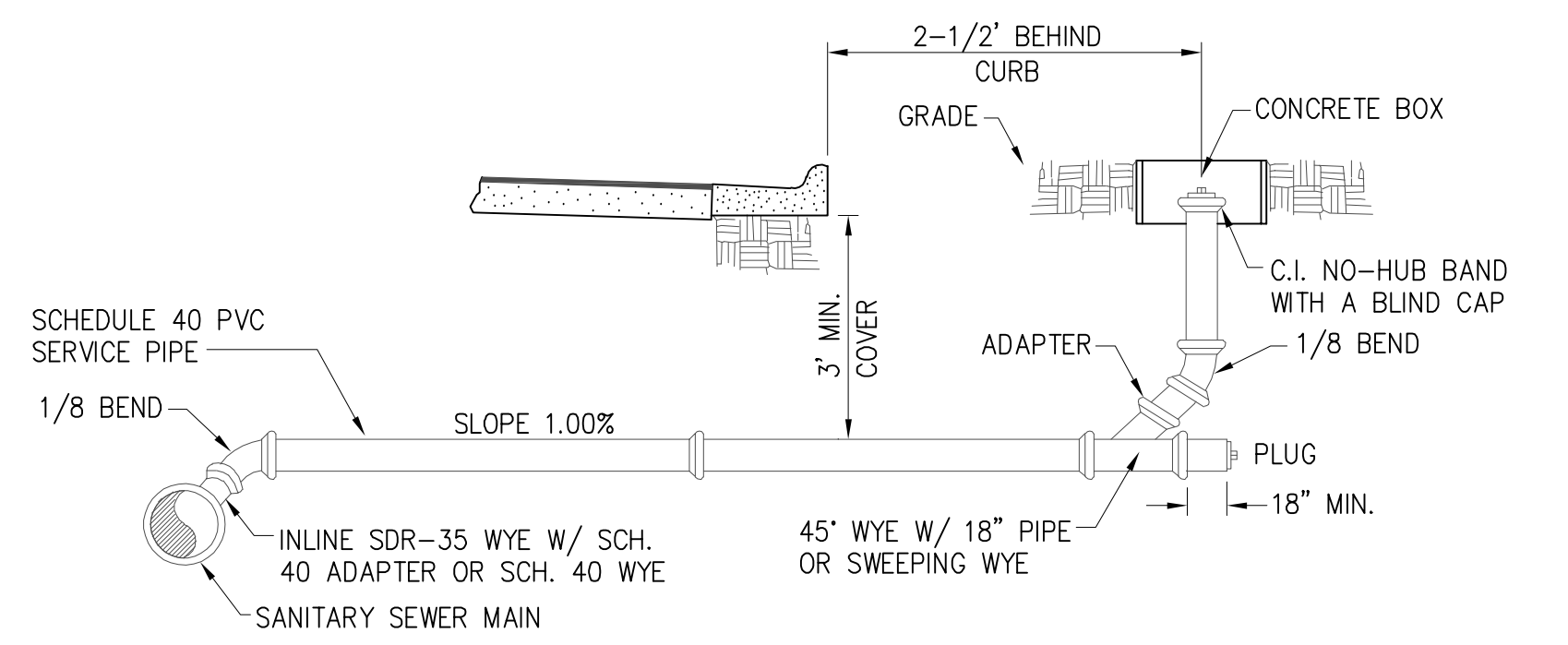
- NOTES:
- FOR TRENCHES REQUIRING SHORING AND BRACING, DIMENSIONS SHALL BE TAKEN FROM THE INSIDE FACE OF THE SHORING AND BRACING.
 - STONE BEDDING SHALL BE REQUIRED FOR PVC MAINS WHERE UNSUITABLE SUBSURFACE CONDITIONS EXIST AS DIRECTED BY THE ENGINEER.
 - NO ROCKS OR BOULDERS 4" OR LARGER TO BE USED IN THE INITIAL BACKFILL.
 - ALL BACKFILL MATERIAL SHALL BE SELECT BACKFILL UNLESS SPECIFIED BY THE ENGINEER.

Green Engineering TYPICAL BACKFILLING REQUIREMENTS AND TRENCH BOTTOM DIMENSIONS
 LAST REVISED: NOVEMBER 23, 2010 BY: JE SCALE: NONE
 DETAIL 33-01-08A SHEET 1 OF 1

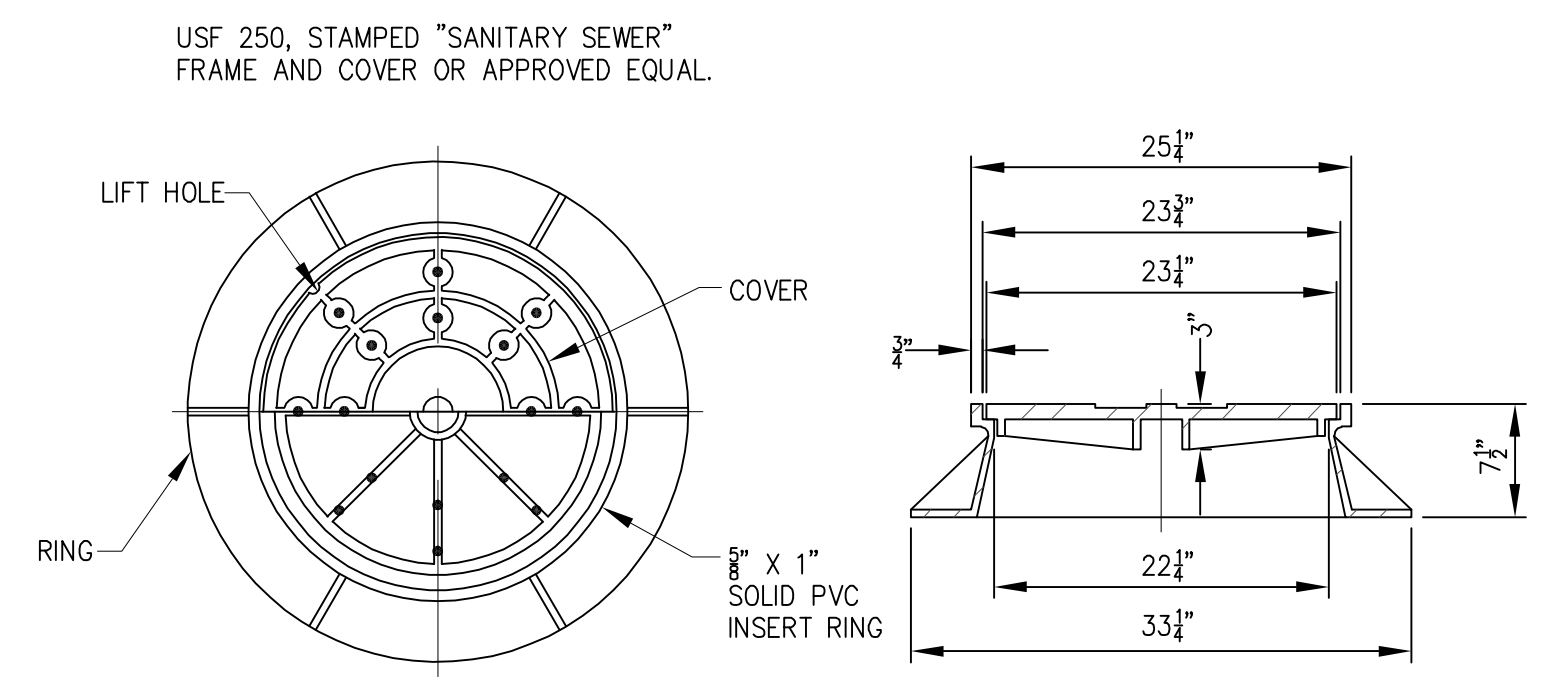
UTILITY CONSTRUCTION

GREEN ENGINEERING
 WATER, WASTEWATER, SURVEYING, PLANNING, PROJECT MANAGEMENT
 NC FIRM LICENSE: P-0115
 303 GOLDSBORO ST. E. P.O. BOX 609 WILSON, N.C. 27803
 TEL: (252) 237-6365 FAX: (252) 243-7489 office@greeneng.com

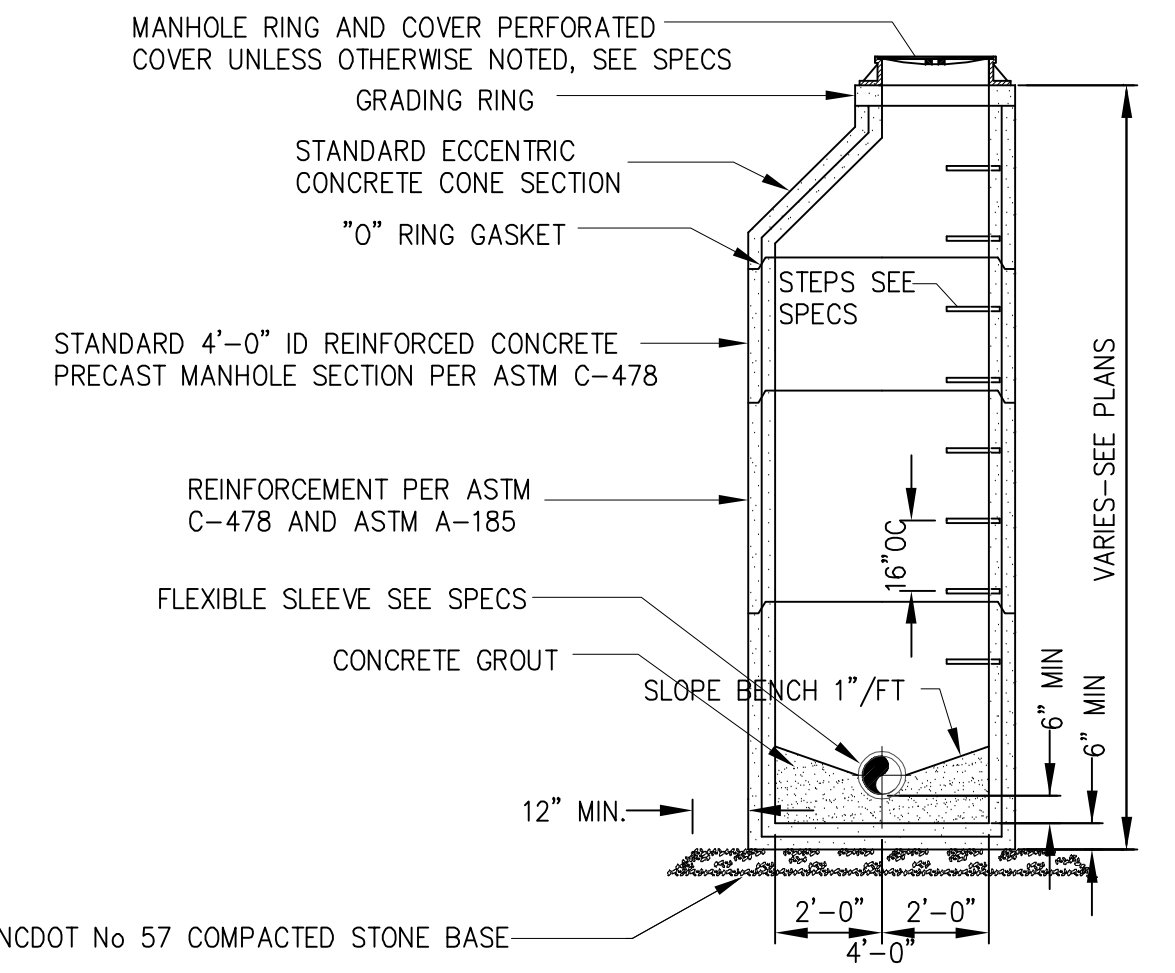
DOCUMENT NOT CONSIDERED FINAL UNLESS ALL SIGNATURES COMPLETED



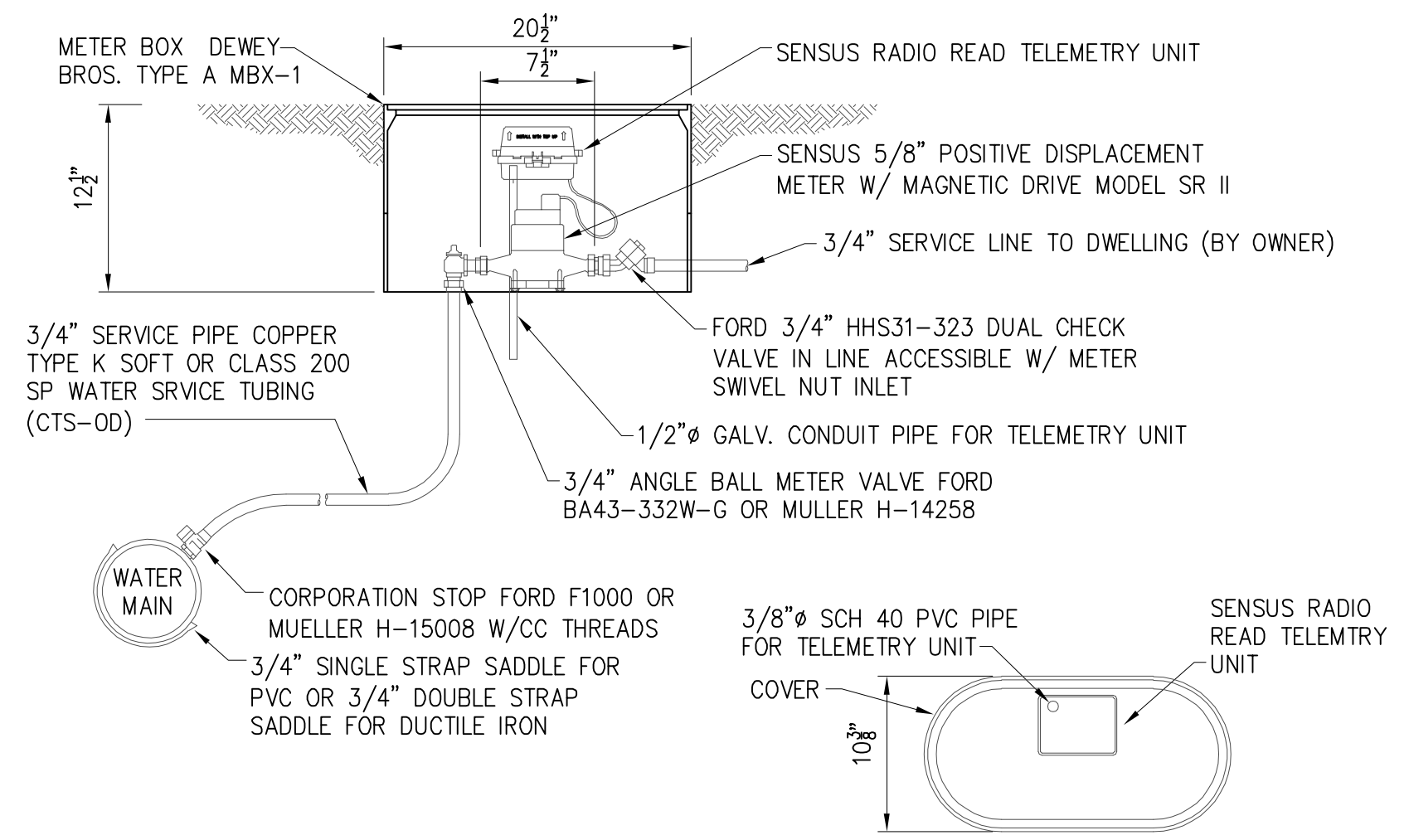
Green Engineering SANITARY SEWER DETAIL
 LAST REVISED: NOVEMBER 23, 2010 BY: JE SCALE: NONE
 DETAIL 33-30-06 SHEET 1 OF 1



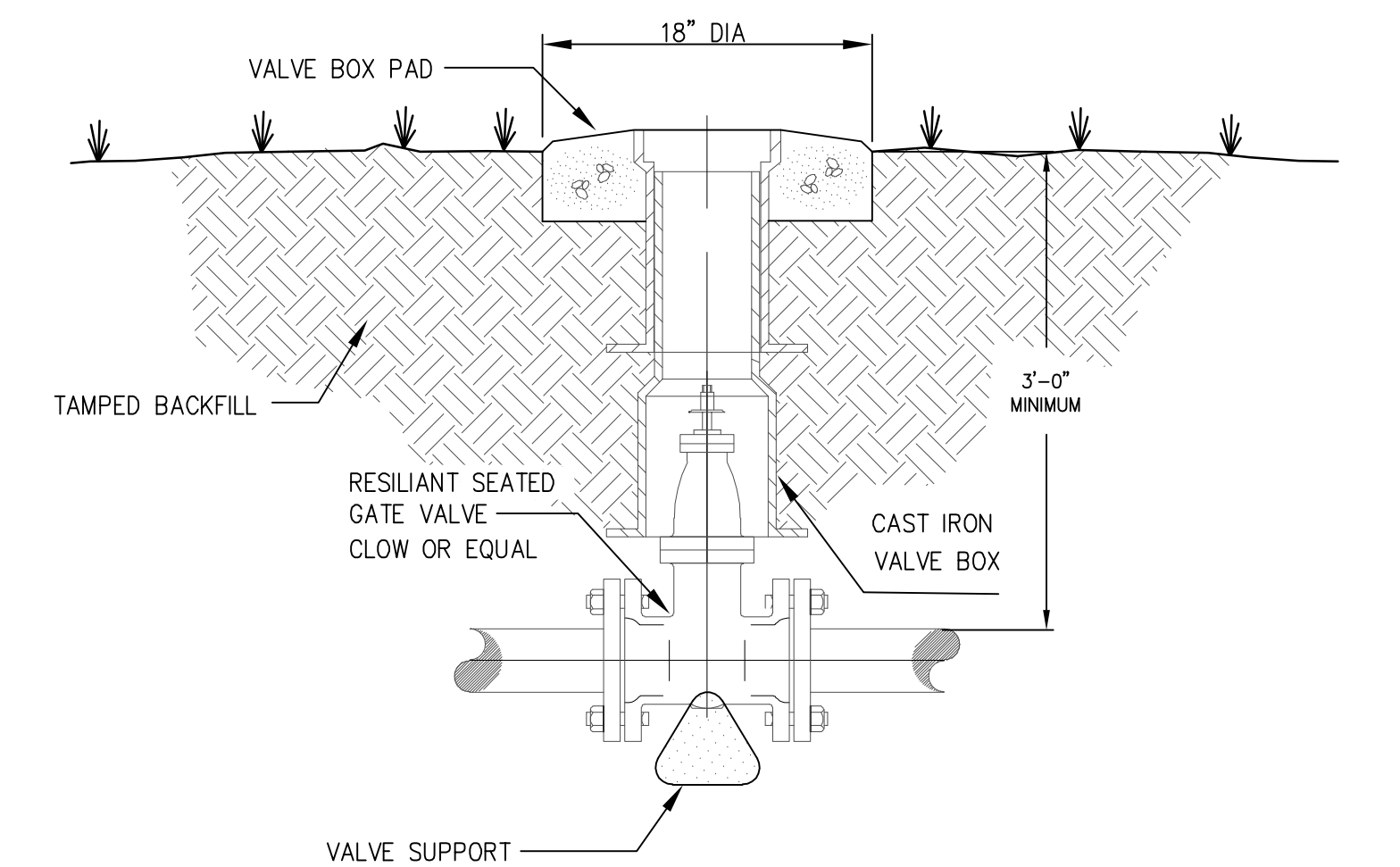
Green Engineering C.I. FRAME AND COVER
 LAST REVISED: NOVEMBER 23, 2010 BY: JE SCALE: NONE
 DETAIL 33-05-09 SHEET 1 OF 1



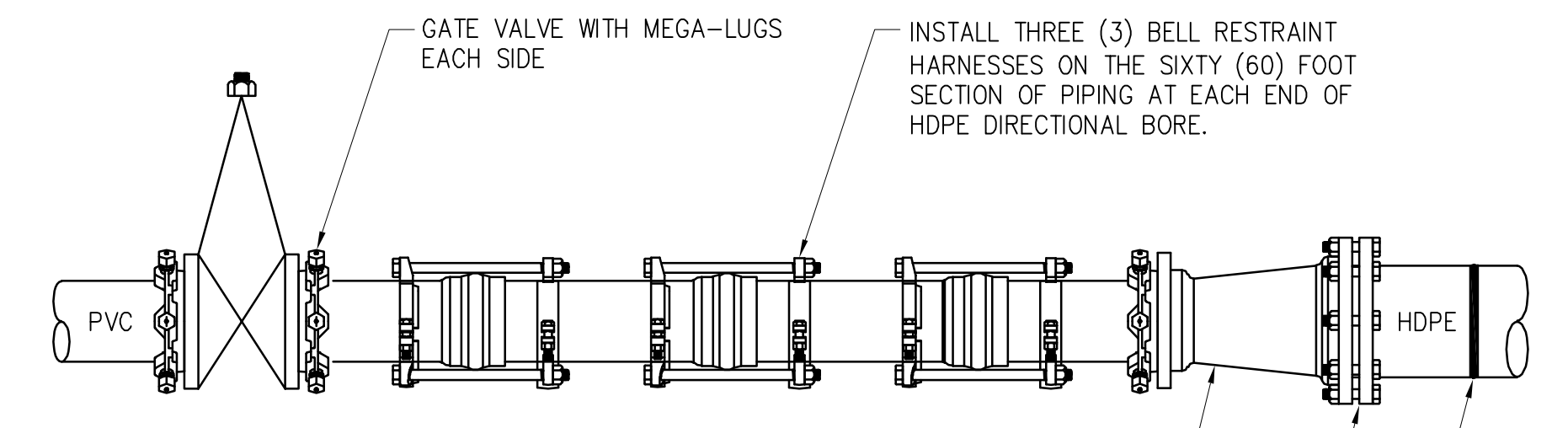
Green Engineering 4'-0" I.D. MANHOLE
 LAST REVISED: NOVEMBER 23, 2010 BY: JE SCALE: NONE
 DETAIL 33-05-01 SHEET 1 OF 1



Green Engineering WATER SERVICE DETAIL
 LAST REVISED: NOVEMBER 23, 2010 BY: JE SCALE: NONE
 DETAIL 33-10-08 SHEET 1 OF 1



Green Engineering VALVE BOX INSTALLATION & EXTENSION DETAIL
 LAST REVISED: NOVEMBER 23, 2010 BY: JE SCALE: NONE
 DETAIL 33-35-09 SHEET 1 OF 1



- NOTES:
- THE RESTRAINT SYSTEM SHOWN IS TYPICAL FOR BOTH ENDS OF DIRECTIONAL BORE.
 - ALL FITTINGS, RESTRAINT HARNESSSES, MEGA-LUGS, AND TRANSITION COUPLINGS SHALL BE INCLUDED IN THE UNIT PRICE FOR THE HDPE DIRECTIONAL BORE ITEMS.
 - GATE VALVES ARE SEPARATE PAY ITEMS AND ARE INCLUDED IN THE VALVE QUANTITIES IN THE PROPOSAL.
- M.J. DUCTILE IRON REDUCER WITH MEGA-LUGS
 PROVIDE MECHANICAL JOINT RESTRAINING GLAND TO HDPE ADAPTER
 PROVIDE FUSED-JOINT HDPE ADAPTER AT END OF DIRECTIONAL BORE PIPE

Green Engineering DIRECTIONAL BORE END RESTRAINT DETAIL (EACH END)
 LAST REVISED: AUGUST 1, 2017 BY: TKW
 DETAIL 33-30-05

Plotted on Tuesday, July 20, 2010 4:15:18 PM
 File Name: R-5812-UC-3A.dwg
 Plotter: HP DesignJet 5000 Series
 C:\Program Files\Autodesk\LTPlotter\