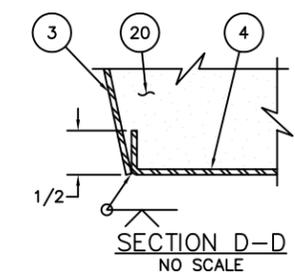
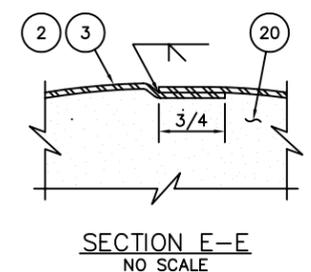
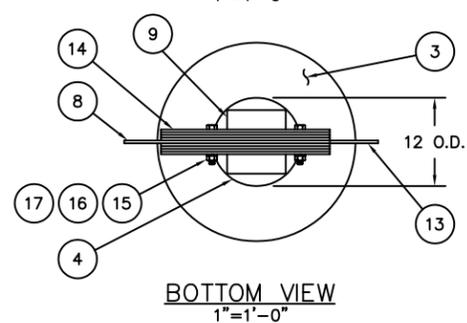
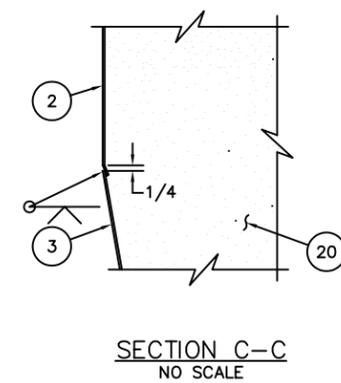
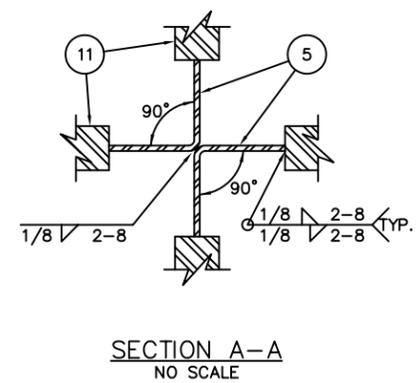
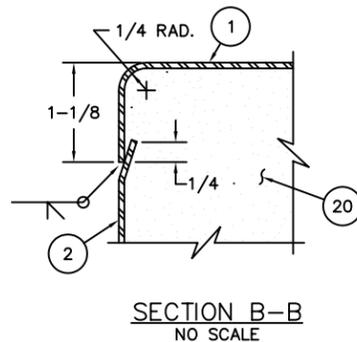
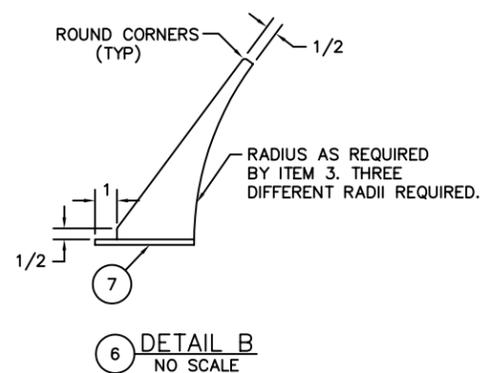
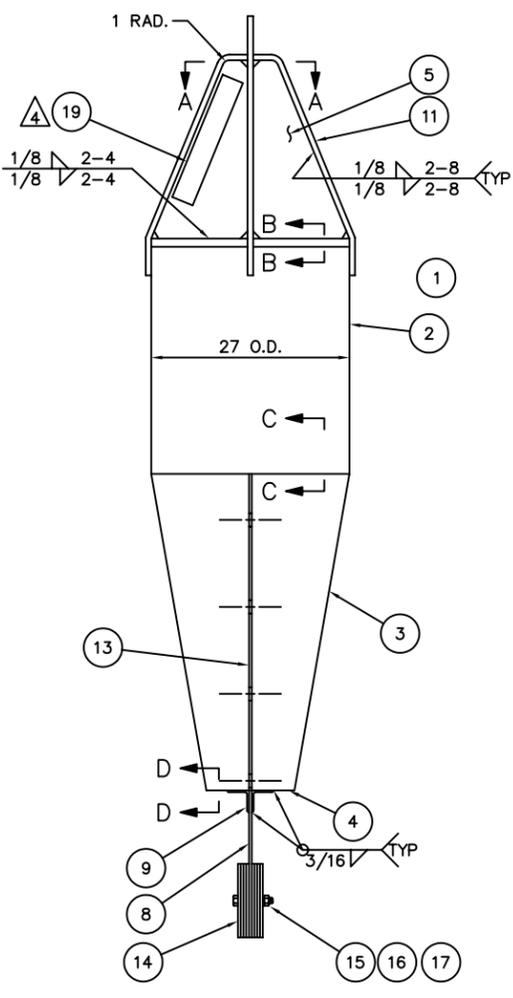
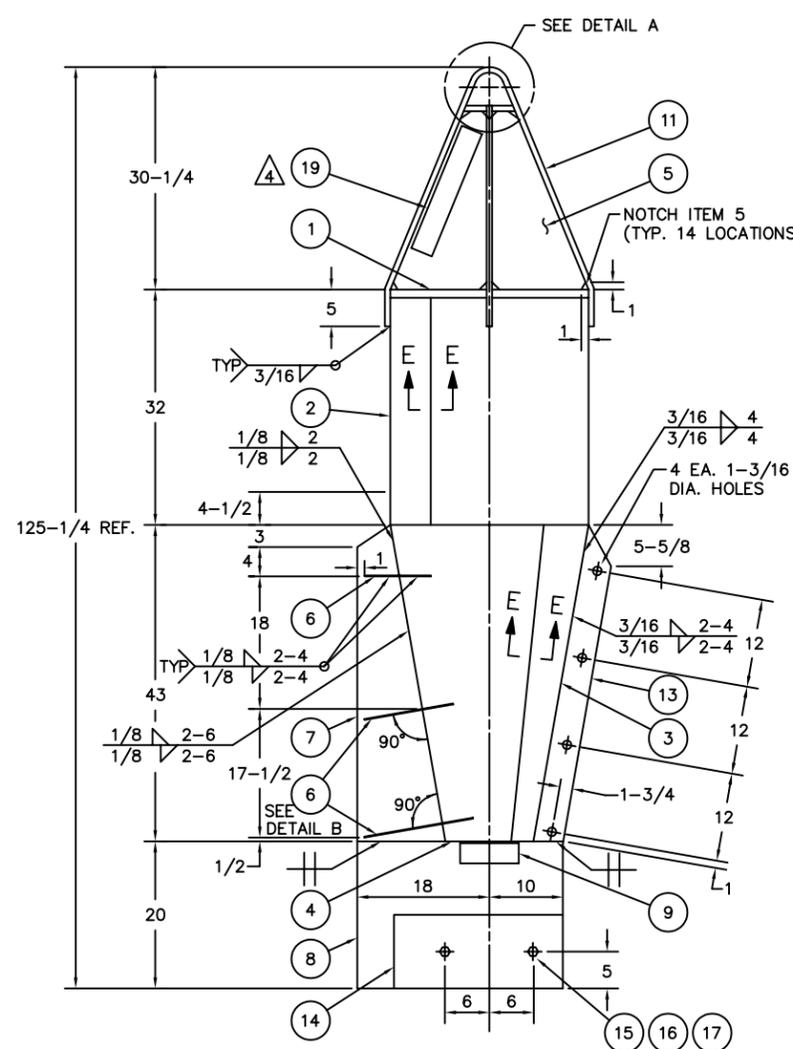
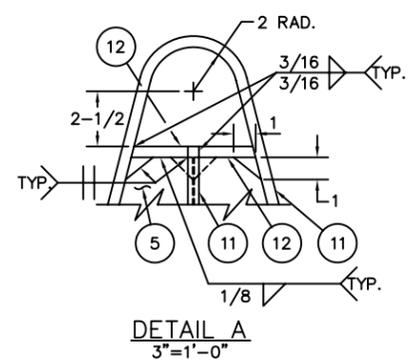
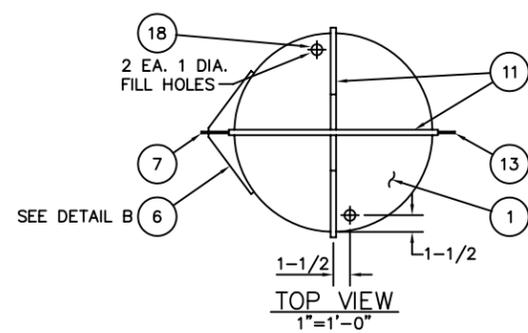


BILL OF MATERIALS

ITEM NO.	NO. REQ.	DESCRIPTION	MATL.	REMARKS
1	1	TOP HEAD	STEEL SHEET	MIN. THICKNESS=.0827 MAX. THICKNESS=.0967
2		BODY WRAPPER		
3		BOTTOM CONICAL WRAPPER		
4		BOTTOM HEAD		
5	2	RADAR REFLECTOR		
6	6	RUDDER GUSSET		MIN. THICKNESS=.1116 MAX. THICKNESS=.1276
7	1	UPPER RUDDER		
8		LOWER RUDDER	STEEL	1/4 THK.
9	2	RUDDER ANGLE	STEEL	L 3 x 3 x 1/4 x 8 LG.
11	2	RADAR REFLECTOR BAR	STEEL	3/4 SQ.
12		SPACER BAR		3/4 SQ.
13	1	MOORING BAR		4 WD. x 3/8 THK.
14	8	COUNTERWEIGHT PLATE		10 WD. x 23 LG. x 3/8 THK.
15	2	HEX BOLT		3/4-10 UNC - 2A x 4 LG.
16		HEX NUT		3/4-10 UNC - 2B
17		LOCK WASHER		SIZE TO SUIT ITEM 15
18		FILL HOLE CAP	PLASTIC OR RUBBER	SIZE TO SUIT FILL HOLES
19	4	RETROREFLECTIVE MATERIAL		RED. 3 WD. x 12 LG.
20	1	FOAM FILLING	POLY-URETHANE	2.0 ±0.5 PCF

- NOTES:**
- SEE LATEST REVISION OF CIVIL ENGINEERING SPECIFICATION NO. 455 FOR FABRICATION REQUIREMENTS.
 - THIS DRAWING SUPERCEDES U.S. COAST GUARD SECOND DISTRICT DRAWING NO. 3449.
 - DESIGN AND CONSTRUCTION OF THE 4NR AND 4NRWO BUOYS IS IDENTICAL. THE ONLY DIFFERENCES ARE IN THE PAINTING REQUIREMENTS, AS DESCRIBED IN SPEC. NO. 455.
 - INSTALL ITEMS 19 ON THE LEFT HAND SIDE OF ITEMS 5 AS SHOWN.
 - ITEM 19 IS NOT REQUIRED FOR 4NRWO BUOYS.



REV.	DATE	APPR.	DESCRIPTION	BY
C	2/5/92	SW	DELETED ITEM 10. MODIFIED NO. REQ. FOR ITEM 14.	S.M.
B	1/21/91	SW	REDRAWN USING AUTOCAD	S.M.
A	2-20-90	SW	CHANGED WELD ORIENTATION ON ITEM 8. CHANGED HEIGHT OF ITEM 4.	W.D.

DESIGNED:	U.S. COAST GUARD	HEADQUARTERS
DRAWN:	W.D.	
TRACED:	JKM	
CHECKED:	S.M.	
REVIEWED BY:		
PROJECT ENGINEER	CIVIL ENGINEERING	
REVIEWED BY:	RIVER BUOY, 4th CLASS NUN	
	RADAR REFLECTOR TYPE	
	(4NR)	
REVIEWED BY:	APPROVED:	DATE
	<i>James D. Garrison</i>	
	CHIEF OF OCEAN ENGINEERING BRANCH	
UNLESS OTHERWISE SPECIFIED: ALL DIMENSIONS ARE IN INCHES. TOLERANCES: DIM. ±1/8 ANG. ±1°	DRAWING NUMBER	REV.
	121116	C
SCALE: NOTED	SHEET 1 OF 1	