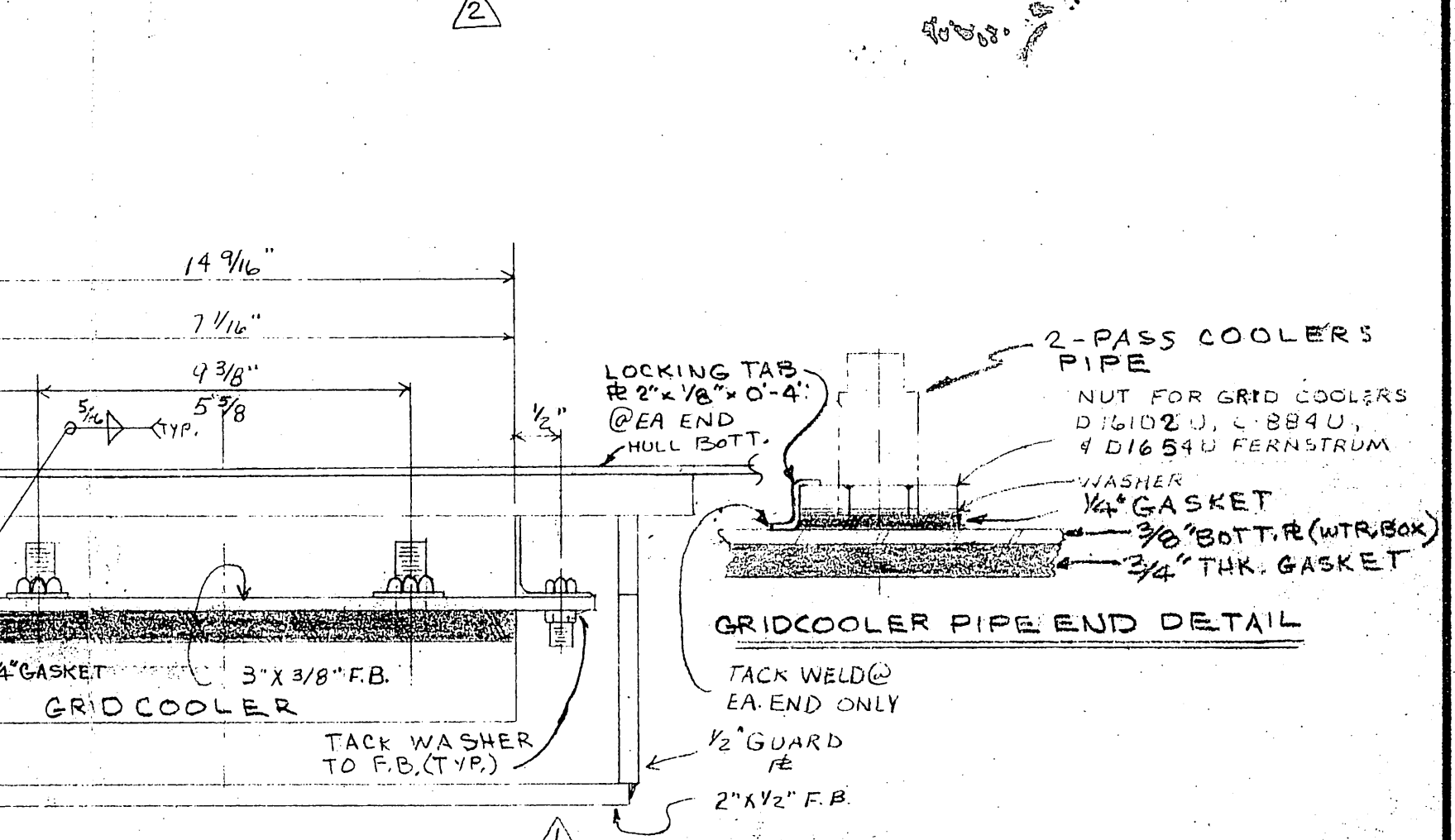
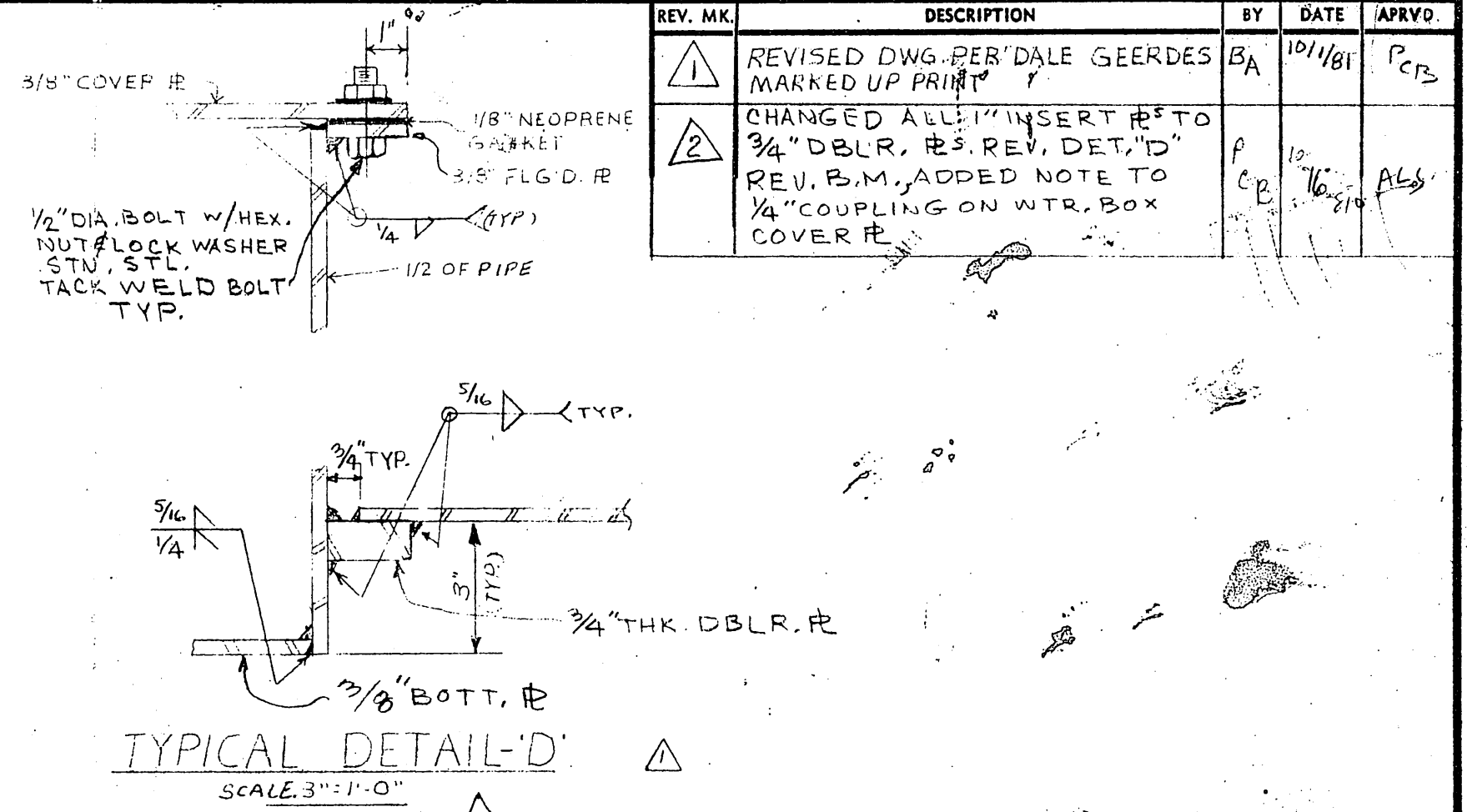
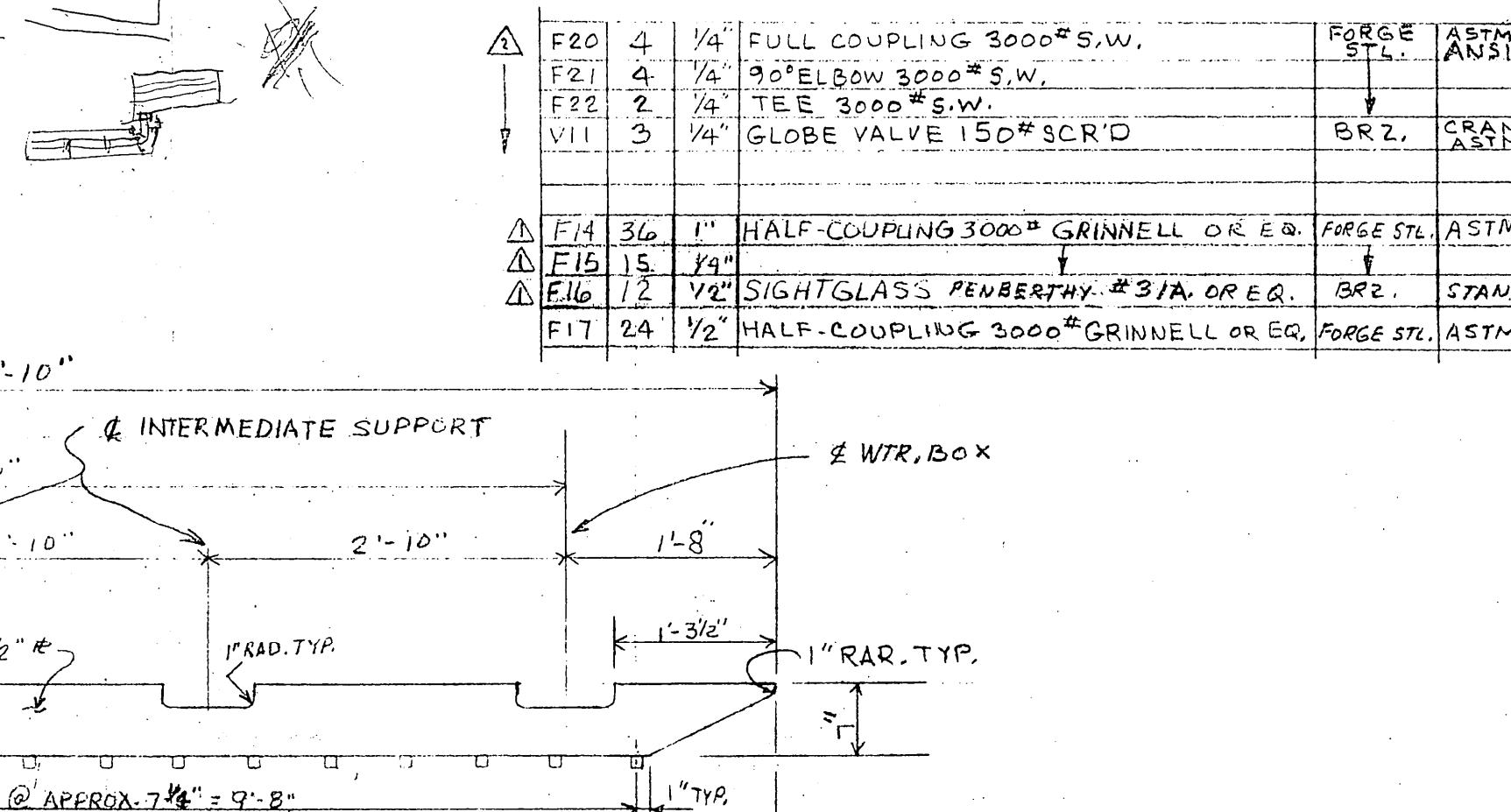
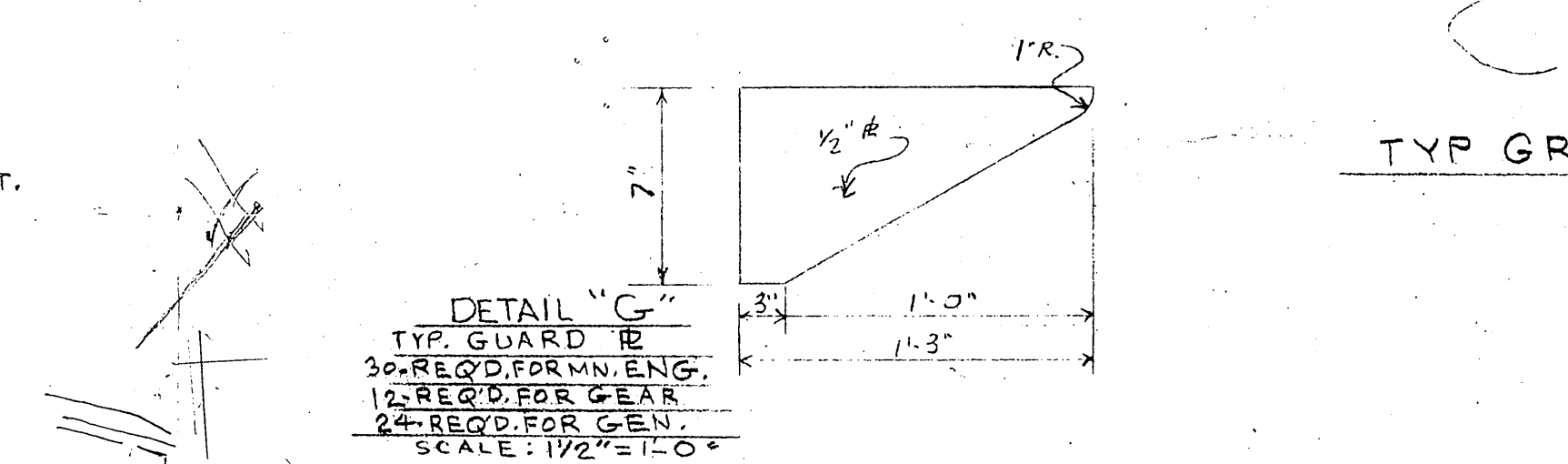
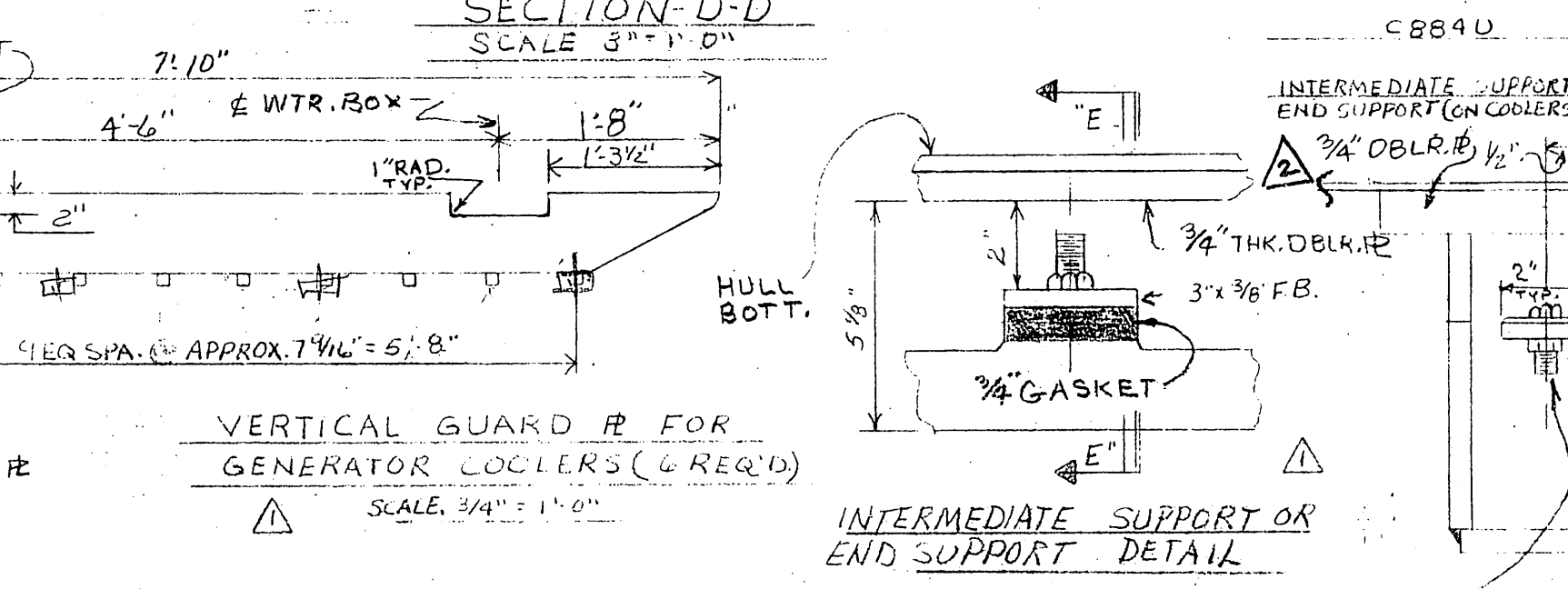
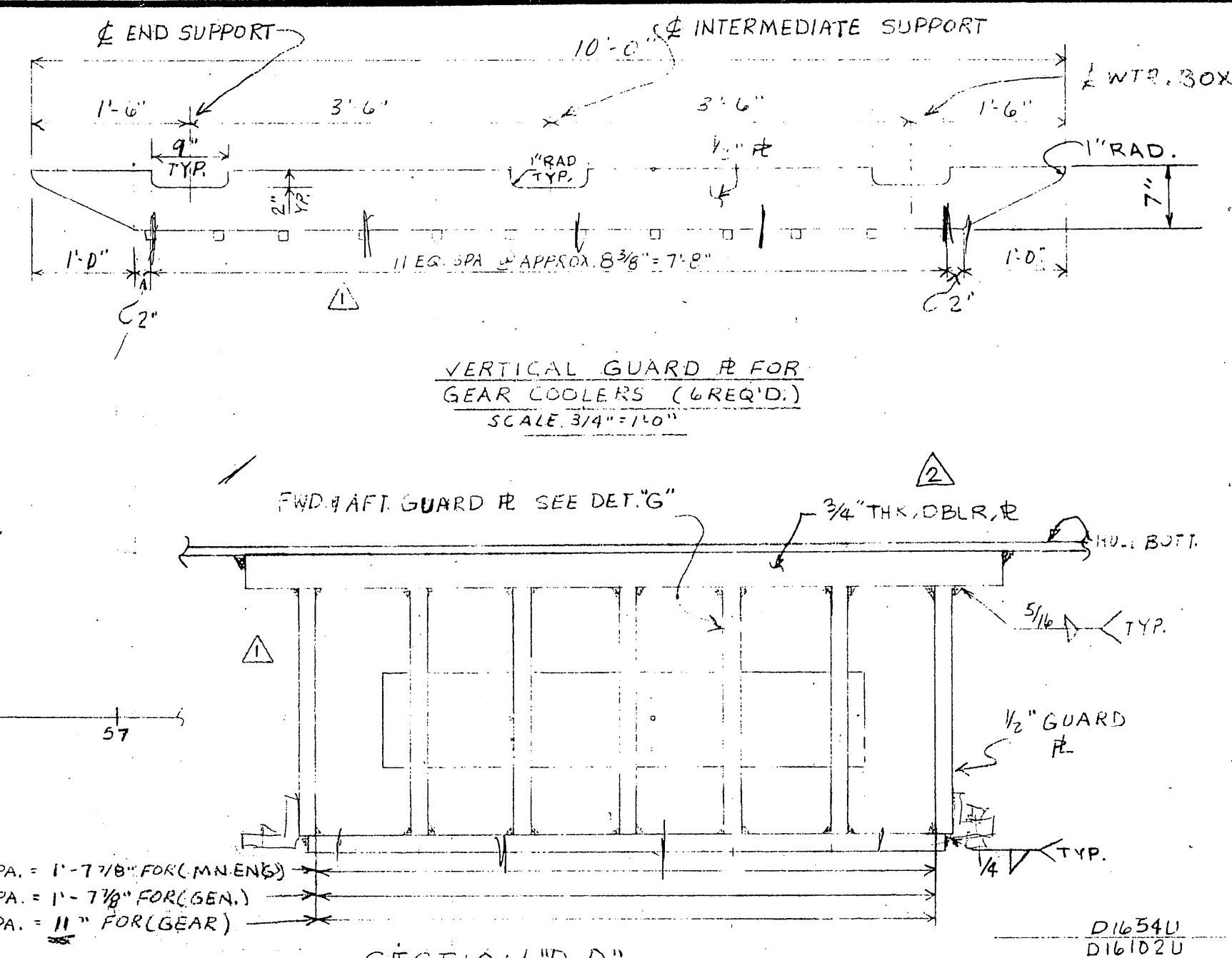
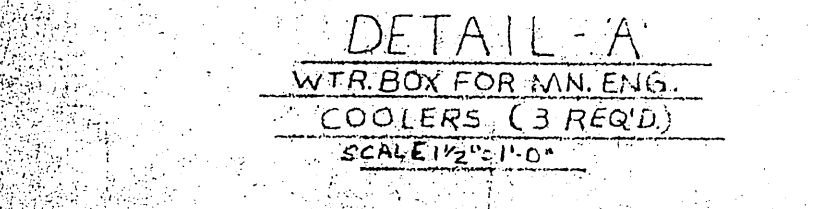
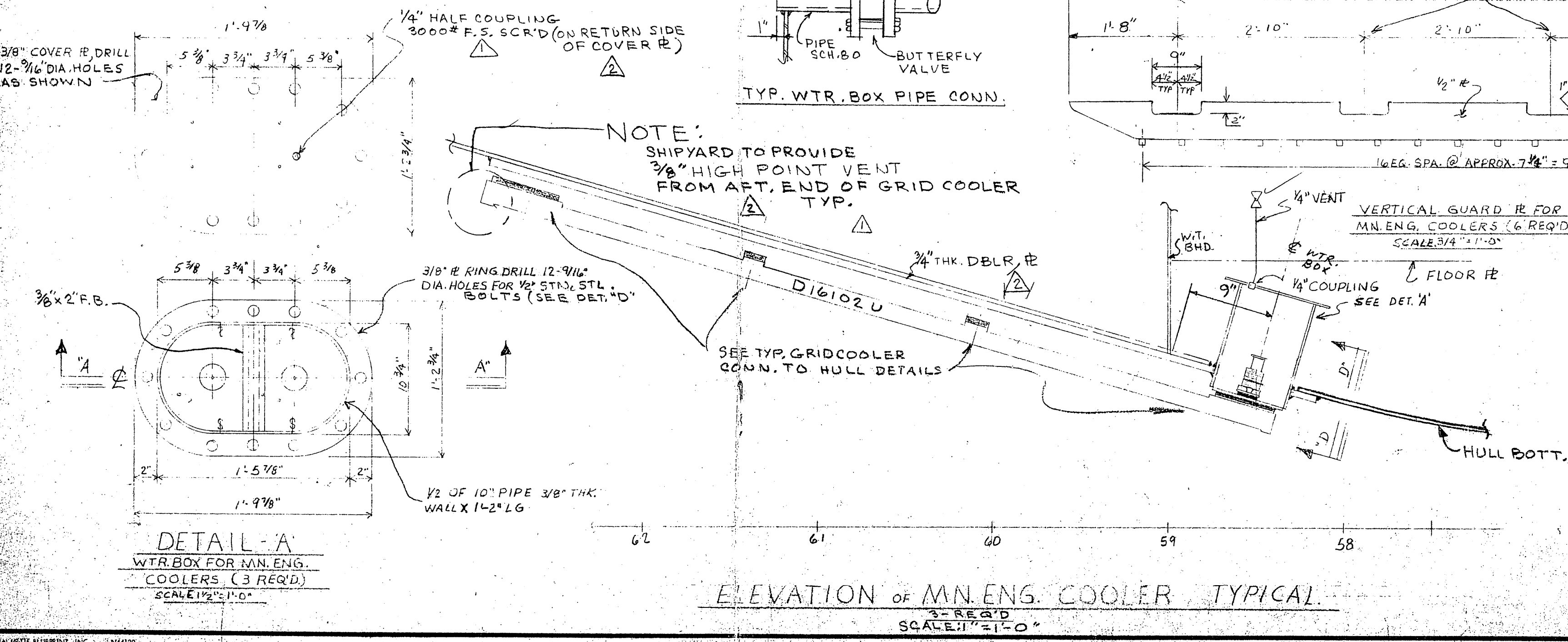
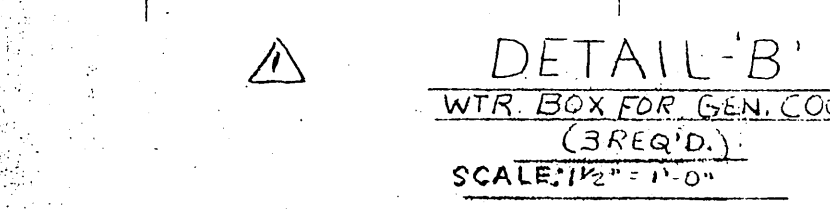
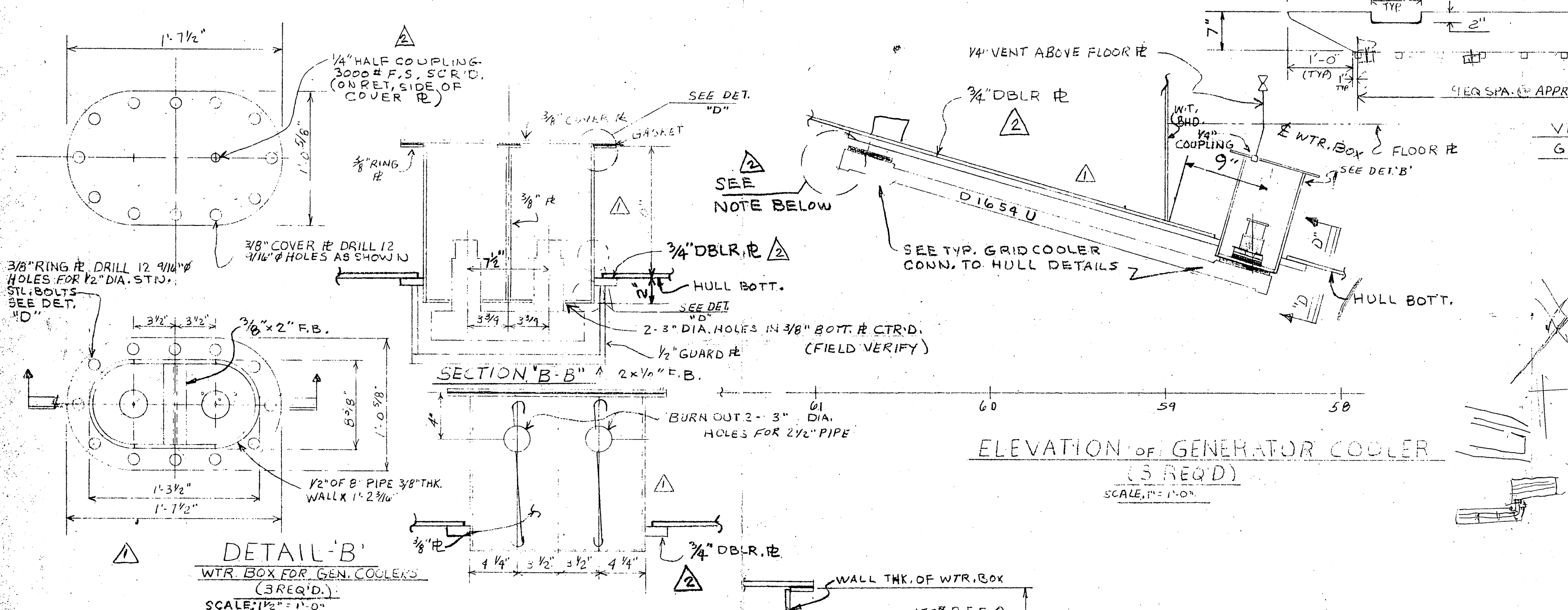
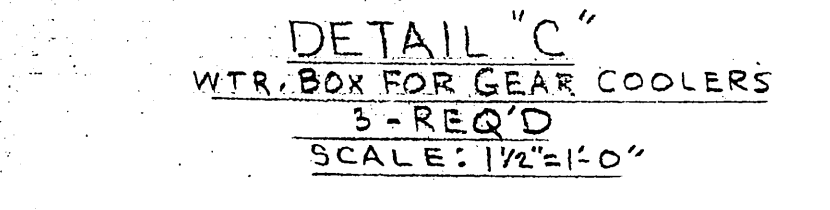
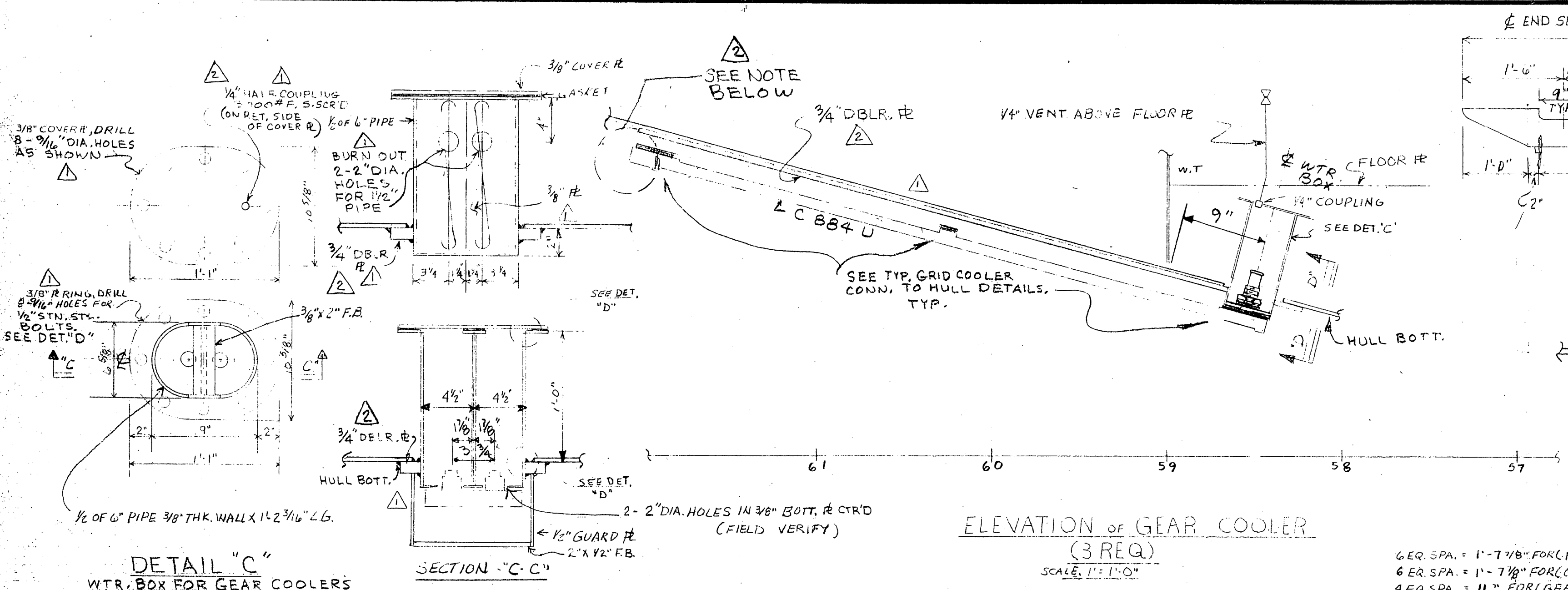


REV. NO.	DESCRIPTION	BY	DATE	APPROV.
1	REVISED DWG. PER DALE GEERDES MARKED UP PRINT	BA	10/1/01	PCB
2	CHANGED ALL "I" INSERT # TO 3/4" DBLR. #S. REV. DET. 'D' REV. P.M. ADDED NOTE TO 1/4" COUPLING ON WTR. BOX COVER #	PCB	10/2/01	ALB



BILL OF MATERIAL

ITEM	QTY	SIZE	DESCRIPTION	MAT'L	REMARKS
P1	36	4"	PIPE SCH. 80 SMLS	ANSI B36.10	BLK. STL. ASTM A53 GR.B
P2	133	2 1/2"			
P3	24	2"			
P4	60	1 1/2"			
F1	18	2 1/2"	90° ELBOWS L.R. B.W. 80 SMLS	GRINNELL OR EQ.	ASTM A234 ANSI B16.9
F2	18	2 1/2"			
F3	5	2"			
F4	14	1 1/2"	90° ELBOW 300# SCR'D.		M.I. BLK. ASTM A97 ANSI B16.3
F5	3	1 1/2"	TEE 300# SCR'D		M.I. BLK. ASTM A97 ANSI B16.3
F6	4	4"	DUO STAINLESS STL. HOSE AMERICAN BDA		STN. STL. B2-1 BRAIDED FLOID.
F7	6	2 1/2"			
F8	6	1 1/2"			
F9	12	1 1/2"	UNIONS 300# SCR'D.		M.I. BLK. ASTM A47 ANSI B16.39
F10	6	4"	FLANGED 150# SLIP ON GRINNELL OR EQ.		F. STL. ASTM A234 ANSI B16.5
F11	3	2 1/2"			
F12	4	2"			
F13	4	2"			
V1	6	4"	BUTTERFLY VALVE KEYSTONE #139 OR EQ.		DUCTILE IRON ASTM A395 FLANGED
V2	8	2 1/2"			
V3	4	2"			
V4	12	1 1/2"	GATE VALVE 150# SCR'D. CRANE # 431 UB		BLK. STL. ASTM B62
P5	10	10"	PIPE SMLS 3/8" THK. WALL (WTR. BOXES)		BLK. STL. ASTM A53 GR.B ANSI-B36.10
P6	8	8"			
P7	6	6"			
F14	3	1 1/2"	CONC. REDUCER 300# SCR'D.		M.I. BLK. ASTM A47 GRINNELL OR EQ.
V5	24	1"	GATE VALVE 150# SCR'D. CRANE # 431 UB OR EQ.		BLK. STL. ASTM B62
F20	4	2 1/2"	CONC. REDUCER 300# SCR'D		M.I. BLK. ASTM A47
F18	3	1"	COUPLING 3000# SCR'D. GRINNELL OR EQ.		FORGE. ASTM A105 GR. II
F19	2	2" X 1"	CONC. REDUCER 200# SCR'D		M.I. BLK. ASTM A47 GRINNELL OR EQ.
P10	140	1"	PIPE SCH. 80 SMLS		BLK. STL. ASTM A53 GR. B
P8	41	1"	PIPE SMLS. SCH. 80		ANSI B36.10 BLK. STL. ASTM A53 GR. B
P9	83	3/8"	WATER TUBING TYPE 'K'		COPPER ASTM B88
F11	9	3/8"	HALF COUPLING 3000# GRINNELL OR EQ.		FORGE. STL. ASTM A
F12	14	3/8"	MALE CONJUGATE CR. WA. BELT CR. G6012 OR EQ.		BRASS
G1	3	1/4"	PRESS. GAUGE ASHCROFT 10ID OREG.		BR. Z.
G2	3	1/4"	GAUGE COCK CRANE #7440R EQ.		BR. Z.

NOTES:

- 1) ALL PIPING COMING OUT OF WTR. BOX TO BE WELDED WATER TIGHT
- 2) ALL WORK MUST MEET WABS & USCS. REQ.
- 3) WORK THIS DWG. W/ DWG. C-2062-35

MISSISSIPPI MARINE HULL # 90

DESIGN ASSOCIATES, INC.
NAVAL ARCHITECTS
NEW ORLEANS, LA.

MARINE ENGINEERS

TIDEWATER MARINE SERVICE

143' X 36' X 10' SEISMIC VESSEL

GRID COOLER DETAILS - SECTION SHEET # 2

Drawn: BA/ST	Date: 7/2/01	Checked: PCB
Traced:	Date:	Checked:
Apprvd:	Date:	Scale: AS NOTED
Sheet 1 of 1	Drawing No. C-2062-19	Revision Mark:

