

~~RESTRICTED~~

~~SECURITY INFORMATION~~

THIS MATERIAL CONTAINS INFORMATION AFFECTING
THE NATIONAL DEFENSE OF THE UNITED STATES
WITHIN THE MEANING OF THE ESPIONAGE LAWS, TITLE
18 U.S.C. SECTIONS 793 AND 794, THE TRANSMISSION
OR REVELATION OF WHICH IN ANY MANNER TO AN
UNAUTHORIZED PERSON IS PROHIBITED BY LAW.

MARINE SS418

OF GENERAL PLANS

CO

~~RESTRICTED~~

~~SECURITY INFORMATION~~

PLATE NO. 1 TITLE COVER
PLATE NO. 2 GENERAL DIMENSIONS
PLATE NO. 3 OUTBOARD PROFILE
PLATE NO. 4 INBOARD PROFILE
PLATE NO. 5 MAIN DECK
PLATE NO. 6 PLATFORM DECK
PLATE NO. 7 HOLD
PLATE NO. 8 TYPICAL SECTIONS

NAVAL SHIPYARD

PORTSMOUTH, N. H.

DRAWN CARR

DATE 11-20-53

CHECKED BY R.R.H.

Math

HEAD ENGINEER

UNIT HEAD R. HUNTINGTON CD

SECTION HEAD *Al Hinkley*

TECHNICAL OFFICER

BRANCH HEAD *E.E. Tucker*

Van Dyke Johnson
DESIGN SUPT

BUSHIPS NO. SS418-SO103-1418512

SUBMAR BOOKLET OF C

CORRECTED TO SUIT SHIP

PLACE	DATE	DESIGN SUPT
NAVSHIPYD PTSMH	27 JAN. '56	J. J. Kassarow
REVISED AT CHASNAVS. PVD IN ACCORD WITH INFORMATION FURNISHED BY SHIP	6/29/56	Reginald W. Knowlton
REVISED AT CHASNAVSHIPYD TO AGREE WITH SHIP AS CHECKED.	5-27-59	R. L. York
ADDED HTS OF ALL LIGHTS ABOVE BASE LINE	3-12-62	C. B. Dancy
CHARLESTON NAVAL SHIPYARD	2-16-65	C. B. Dancy
CHAS NAV SHYD.	6-24-68	McClennan
CHASNAVSHYD		

REV C.
REV D.

REV E.
REV F.
REV G.

PLATE NO. 1
PLATE NO. 2
PLATE NO. 3
PLATE NO. 4
PLATE NO. 5
PLATE NO. 6
PLATE NO. 7
PLATE NO. 8

HEIGHTS		FRAME SPACING	
KEEL TO TOP OF STRENGTH HULL AMIDSHIPS	19'-10"	0 TO FR 35	24"
KEEL TO TOP OF CT FAIRWATER	47'-10"	FR 35 TO FR 62	30"
KEEL TO TOP OF HIGHEST PERISCOPE EXTENDED	66'-"	FR 62 TO FR 69	24"
KEEL TO TOP OF CONNING TOWER PLATING	28'-4 1/4"	FR 69 TO FR 105	30"
KEEL TO TOP OF PERISCOPE FOUNDATION	33'-2"	FR 105 TO FR 137	24"
KEEL TO TOP OF PERISCOPE SUPPORT	47'-5 1/2"		
KEEL TO TOP OF NO. 1 PERISCOPE EXTENDED	62'-6 5/16"		
KEEL TO TOP OF SNORKEL IND VALVE EXTENDED	61'-4 1/2"		
LIGHT ABOVE BASE LINE	32'-1 7/8"		
LIGHT ABOVE BASE LINE	43'-11 1/4"	NUMBER OF FRAMES	137
ABOVE BASE LINE	29'-5 3/4"		
RN LIGHT ABOVE BASE LINE	27'-1 5/8"		
NG LIGHT ABOVE BASE LINE	23'-6 3/8"		
OR LIGHT ABOVE BASE LINE	24'-6 3/8"		

COMPARTMENT CAPACITIES (FLOODABLE VOL.)					
COMPARTMENT	CAPACITY		C.G. ABV. BOT. KEEL	C.G. FWD FR. GB	C.G. AFT. FR. GB
	CU. FT.	TONS S.W.			
FORD TORPEDO ROOM	4460	127.4	13.00	97.50	—
FORD BATTERY ROOM	4224	120.69	13.52	62.97	—
CONTROL & PUMP RM.	4301	125.17	11.93	35.09	—
CONNING TOWER	670	19.10	24.38	30.65	—
AFTER BATTERY COMPT.	6364	181.83	13.14	—	0.06
FORD. ENGINE ROOM	4127	117.91	12.34	—	35.51
AFT. ENGINE ROOM	4038	115.37	12.32	—	60.36
MOTOR & MANEUVR. RM.	3138	89.66	12.21	—	89.06
AFT. TORPEDO ROOM	3590	102.06	15.30	—	115.00

~~RESTRICTED~~
~~SECURITY INFORMATION~~

SUBMARINE SS418
GENERAL DIMENSIONS

PLATE NO. 2

PRINCIPAL DIMENSIONS

HEIGHT

LENGTH OVERALL	306'-6"	LOWEST POINT OF KEEL TO TOP OF STRENGTH
LENGTH BETWEEN PERPENDICULARS	304'-11 1/4"	LOWEST POINT OF KEEL TO TOP OF C T FAIR
PROJECTION FWD OF F P	16 1/4"	LOWEST POINT OF KEEL TO TOP OF HIGHEST
LENGTH OF STRAIGHT KEEL	154'-8 1/2"	LOWEST POINT OF KEEL TO TOP OF CONNING
BREADTH, MOLDED	27'-1 3/4"	LOWEST POINT OF KEEL TO TOP OF PERISCO
BREADTH, EXTREME	27'-3 1/4"	LOWEST POINT OF KEEL TO TOP OF PERISCO
RATIO - LENGTH TO BEAM	11 33	LOWEST POINT OF KEEL TO TOP OF NO. 1 PE
DRAFT - SURFACE CONDITION TO UNDERSIDE OF KEEL PLATES (MEAN) N D T	15 45'	LOWEST POINT OF KEEL TO TOP OF SNORKE
SHAFTS - DIVERGE AT ANGLE WITH C. OF SHIP	2°-49'	C. BOW ANCHOR LIGHT ABOVE BA
SHAFTS - C. AT MAIN MOTOR (6-3/4" AFT OF FR 104) FROM C. OF SHIP	3'-3.7632	C. MASTHEAD LIGHT ABOVE BA
SHAFTS - C. FROM BASELINE AT FR 128	6'-9"	C. SIDE LIGHTS ABOVE BASE LIN
SHAFTS RAKE OUTBOARD 8 AFT PER INCH FROM C.	.04914"	C. EMERG. STERN LIGHT ABOVE
SHAFTS RAKE FROM BASELINE 8 FWD PER INCH	.01473"	C. STERN RUNNING LIGHT ABOVE
SHAFTS - C. AT MAIN MOTOR (6-3/4" AFT OF FR 104) ABOVE BASELINE	7'-5.676"	C. STERN ANCHOR LIGHT ABOVE
PROPELLER CENTER FWD OF A P	18'-6"	
RUDDER AXIS FWD OF A P	10'-6"	
NUMBER OF FRAMES	137	

ACCOMMODATIONS

COMPARTMENT	OFFICERS	C. P. O.	CREW
FORWARD TORPEDO ROOM			14
OFFICERS' QUARTERS	9	5	
CREW'S QUARTERS			36
AFTER TORPEDO ROOM			16 + 5
TOTAL	9	5	71
TOTAL ACCOMMODATIONS	MEN 85		

COMPARTMENT

COMPARTMENT
FORD TORPEDO ROOM
FORD BATTERY ROOM
CONTROL & PUMP ROOM
CONNING TOWER
AFTER BATTERY ROOM
FORD. ENGINE ROOM
AFT. ENGINE ROOM
MOTOR & MANEUVERING
AFT. TORPEDO ROOM

GAL	TONS(OIL)	LUBRICATING OIL TANKS		GAL	TONS(OIL)
11400	35.40	NO. 1 ENGINE STOWAGE	95% CAP.	605	2.08
13050	40.53	NO. 2 ENGINE STOWAGE	95%CAP	1067	3.67
20413	63.39	NO. 3 ENGINE STOWAGE	95%CAP.	350	1.20
10827	33.62	NO. 4 ENGINE STOWAGE	95%CAP	201	0.69
2210	6.86	NO. 5 ENGINE STOWAGE	95%CAP	1473	5.06
2210	6.86	TOTAL		3696	12.70
379	1.18	NO. 1 MAIN ENGINE SUMP	75%CAP.	444	1.53
379	1.18				
60868	189.02	NO. 3 MAIN ENGINE SUMP	75%CAP.	444	1.53
		NO. 4 MAIN ENGINE SUMP	75%CAP.	444	1.53
3065	9.52	TOTAL		1332	4.59
9364	29.08	MAIN MOTOR SUMP	75%CAP.	118	0.41
12429	38.60	COMBINED TOTAL		5146	17.70

NOTES

1. MBT CAPACITIES ARE GROSS TANK MINUS RESIDUAL WATER. GROSS TANK IS TANK PLUS VENT PIPING. VOLUME OCCUPIED BY LEAD BALLAST HAS NOT BEEN ACCOUNTED FOR IN THESE CALCULATIONS.
2. FUEL OIL TANK CAPACITIES: "GALLONS" IS GROSS TANK. "TONS OIL" IS USEABLE CAPACITY WHICH IS TANK CAPACITY MINUS WATER SEAL.

GAL	TONS(FW)
3375	12.53
1980	7.35
5355	19.88
598	2.22
598	2.22
1196	4.44
6551	24.32

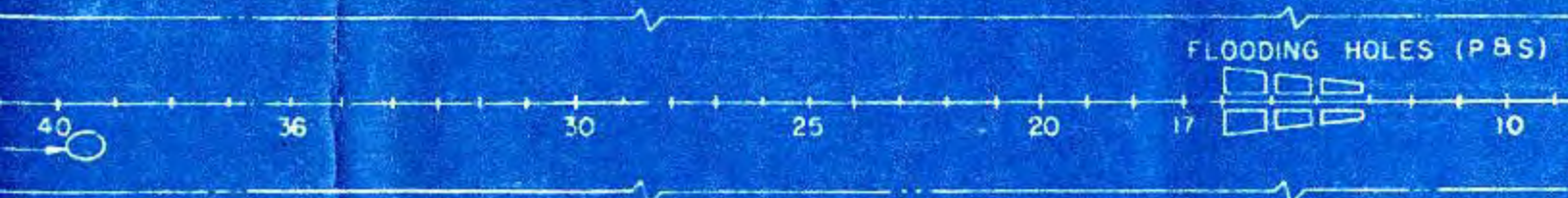
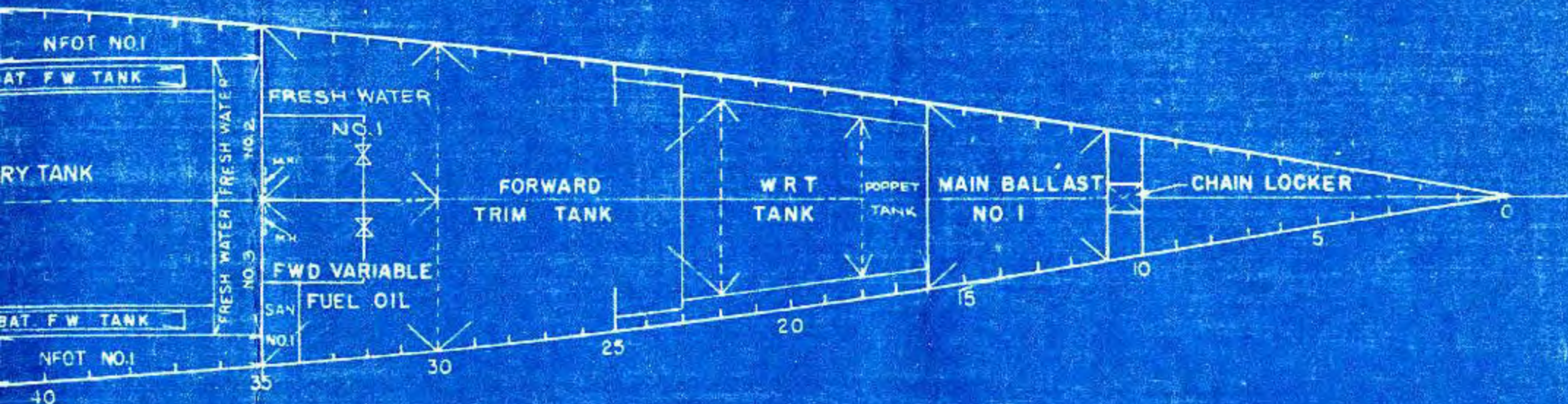
CAPACITIES

FUEL OIL TANKS				
GAL	TONS(SW)		GAL	TONS(OIL)
6964	26.61	NO. 1 NORMAL FUEL OIL	11400	35.40
16367	62.54	NO. 2 NORMAL FUEL OIL	13050	40.53
27000	103.17	NO. 4 NORMAL FUEL OIL	20413	63.39
30836	117.83	NO. 6 NORMAL FUEL OIL	10827	33.62
26190	100.04	FUEL OIL COLLECTING	2210	6.86
6343	24.23	FUEL OIL EXPANSION	2210	6.86
113700	434.42	NO. 1 CLEAN FUEL OIL 95% CAP.	379	1.18
17730	67.75	NO. 2 CLEAN FUEL OIL 95% CAP.	379	1.18
		TOTAL	60868	189.02
20055	76.63	VARIABLE FUEL OIL		
37785	144.38	FWD STBD 95% CAP.	3065	9.52
151485	578.80	AFTER PORT & STBD 95% CAP.	9364	29.08
GAL	TONS(SW)	TOTAL	12429	38.60
3262	12.46	FUEL BALLAST		
3262	12.46	NO. 3A & 3B	17368	53.94
6980	26.66			
1621	6.19	NO. 5A & 5B	19614	60.91
5035	19.24	TOTAL	36982	114.85
1382	5.28	COMBINED TOTAL	110279	342.47
3168	12.10	FRESH WATER TANKS	GAL	TONS(FW)
24710	94.39	NO. 1	3375	12.53
		NO. 2 & 3	1980	7.35
3834	14.65	TOTAL	5355	19.88
		BATTERY FRESH WATER		
		FWD	598	2.22
320	1.22	AFT	598	2.22
830	3.17	TOTAL	1196	4.44
		COMBINED TOTAL	6551	24.32
1150	4.39			

~~RESTRICTED~~
~~SECURITY INFORMATION~~

CAPACITIES

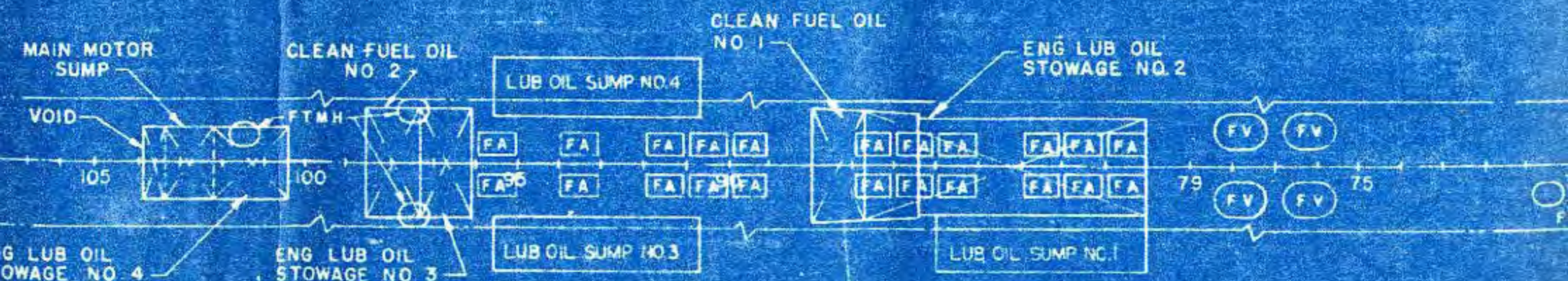
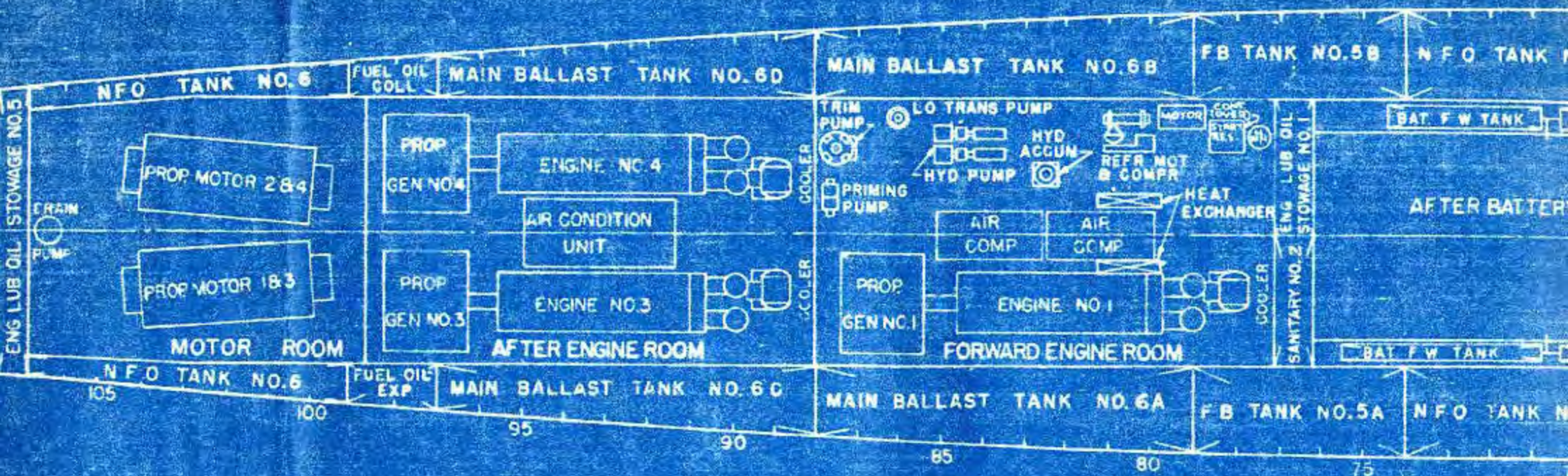
BALLAST TANKS	GAL	TONS(SW)	FUEL OIL TANKS	
NO. 1 MAIN BALLAST	6964	26.61	NO. 1 NORMAL FUEL OIL	
NO. 2A & 2B	16367	62.54	NO. 2 NORMAL FUEL OIL	
NO. 2C & 2D	27000	103.17	NO. 4 NORMAL FUEL OIL	
NO. 6A & 6B	30836	117.83	NO. 6 NORMAL FUEL OIL	
NO. 6C & 6D	26190	100.04	FUEL OIL COLLECTING	
SAFETY	6343	24.23	FUEL OIL EXPANSION	
TOTAL	113700	434.42	NO. 1 CLEAN FUEL OIL	95% CAP
NO. 3 FUEL BALLAST (NO. 3A & 3B)	17730	67.75	NO. 2 CLEAN FUEL OIL	95% CAP
			TOTAL	
NO. 5 FUEL BALLAST (NO. 5A & 5B)	20055	76.63	VARIABLE FUEL OIL	
TOTAL	37785	144.38	FWD STBD	95% CAP
COMB. TOTAL	151485	578.80	AFTER PORT & STBD	95% CAP
VARIABLE BALLAST TANKS	GAL	TONS(SW)	TOTAL	
NO. 1 AUXILIARY	3262	12.46	FUEL BALLAST	
NO. 2 AUXILIARY	3262	12.46	NO. 3A & 3B	
FORWARD TRIM	6980	26.66		
FORWARD WRT	1621	6.19	NO. 5A & 5B	
AFTER TRIM	5035	19.24	TOTAL	
AFTER WRT	1382	5.28	COMBINED TOTAL	
NEGATIVE	3168	12.10	FRESH WATER TANKS	
TOTAL	24710	94.39	NO. 1	
			NO. 2 & 3	
BOW BUOYANCY	3834	14.65	TOTAL	
			BATTERY FRESH WATER	
SANITARY TANKS			FWD	
NO. 1 SANITARY (FWD)	320	1.22	AFT	
NO. 2 SANITARY (AMIDSHIPS)	830	3.17	TOTAL	
			COMBINED TOTAL	
TOTAL	1150	4.39		

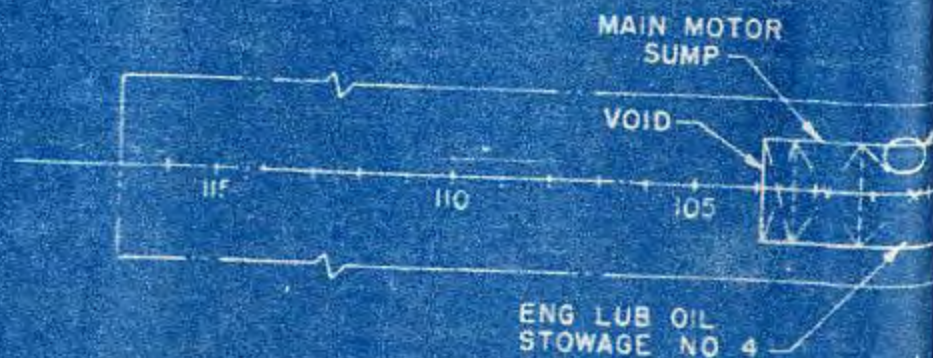
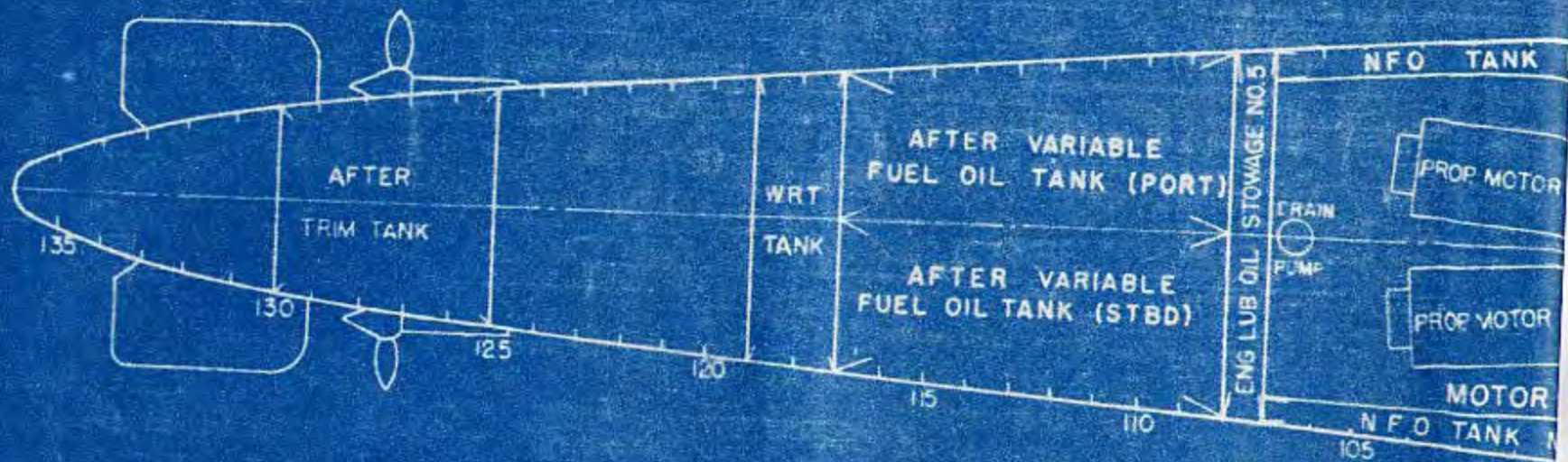


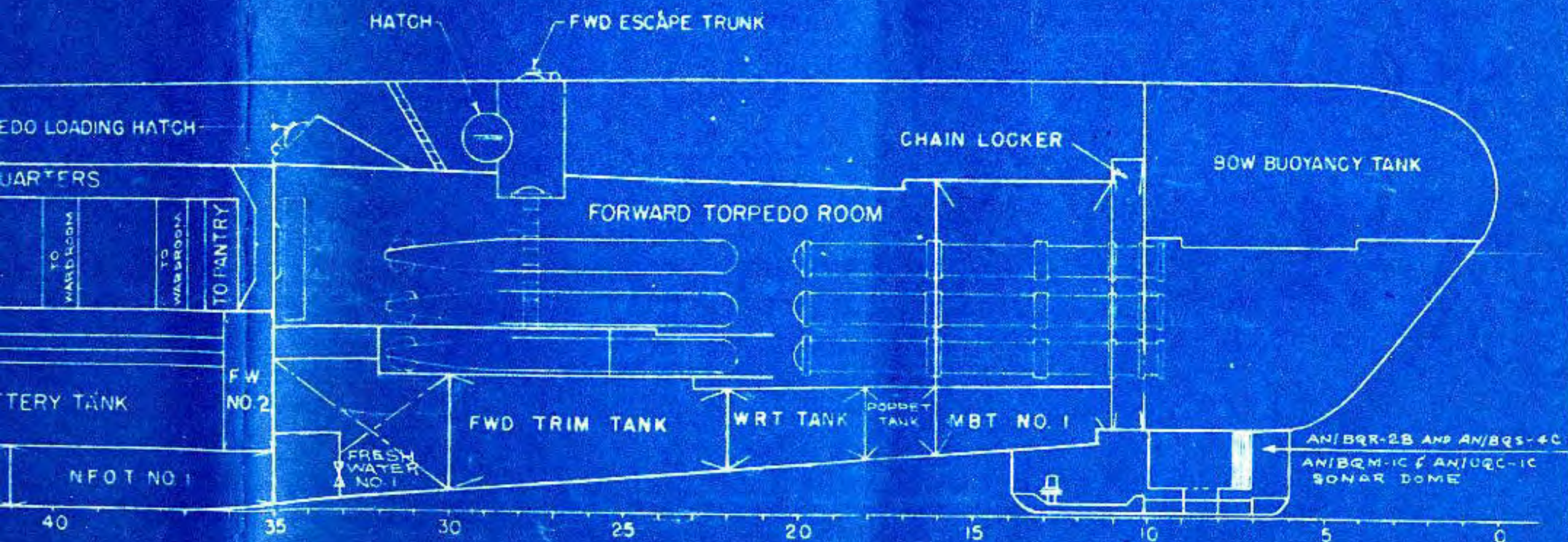
~~CONFIDENTIAL~~

~~RESTRICTED~~
~~SECURITY INFORMATION~~

SUBMARINE SS418
HOLD
SCALE 1/8" = 1 FOOT PLATE NO. 7
BUSHIPS NO. SS418-SOI03-1418512







SUBMARINE SS418
INBOARD PROFILE
SCALE 1/8"=1 FOOT PLATE NO. 4
BUSHIPS NO SS418-SOI03-1418512

/BRD-6A ANTENNA

C RETRACTABLE WHIP ANT.

SNORKEL HEAD VALVE

SNORKEL EXHAUST

SS-2 RADAR ANT

PERISCOPE NO 2

PERISCOPE NO 1

SNORKEL IND VALVE - STBD

MAIN SNORKEL EXH VALVE (PORT)

MAIN AIR IND VALVE

ACCESS HATCH (STBD)

CONNING TOWER

TORPEDO LOADING HATCH

CREW'S QUARTERS

CREW'S MESS

GALLEY

RADIO RM

CONTROL ROOM

DIVING
STATION

OFFICER'S QUARTERS

TO QTRS
CPOTO
S.R. NO. 2TO
WARD ROOMTO
WARD ROOMTO
PANTRY

AFTER BATTERY TANK

MEAT
ROOMSTOREROOM
NO. 2AFT
ELEX.
EQUIP.
SPACE

MASTER GYRO

FWD ELEX.
EQUIP. SPACE

FORWARD BATTERY TANK

NFO TANK NO. 4

AUX
NO. 2

SAFETY

FBT NO. 3A B 3B

MBT NO. 2C & 2D

NEGATIVE

MBT NO. 2A & 2B

NFOT NO. 2

NFOT NO. 1

70

65

60

55

50

45

40

AN/BRD-6A ANTEN

AT-8/BRC RETRACTABLE W

SNORKEL HEAD V

SNORKEL EXHAUS

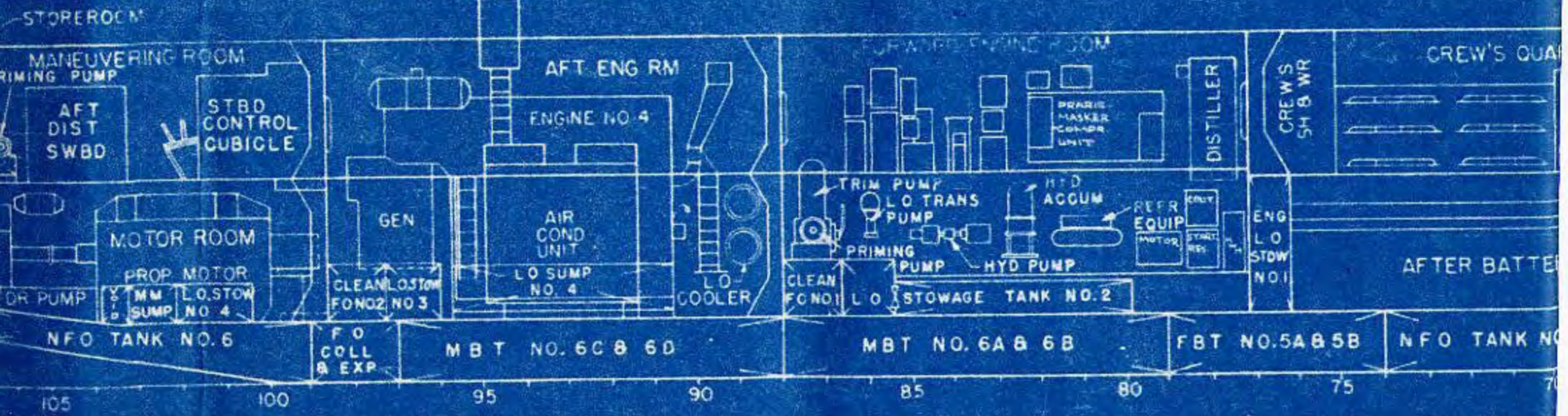
SNORKEL IND VAL

MAIN SNORKEL EX

MAIN AIR IND VALV

ACCESS HATCH (

DO LOADING HATCH



ESCAPE HATCH

TORPEDO LOADING

STORER

MANEU
PRIMING PUM

AFT
DIST
SWBD

AFTER

AFTER TORPEDO ROOM

TRIM TANK

WRT
TANK

AFTER VARIABLE FUEL OIL
(PORT & STBD)

LO
STOW
NO
5

DR PUMP

NFO

137

135

130

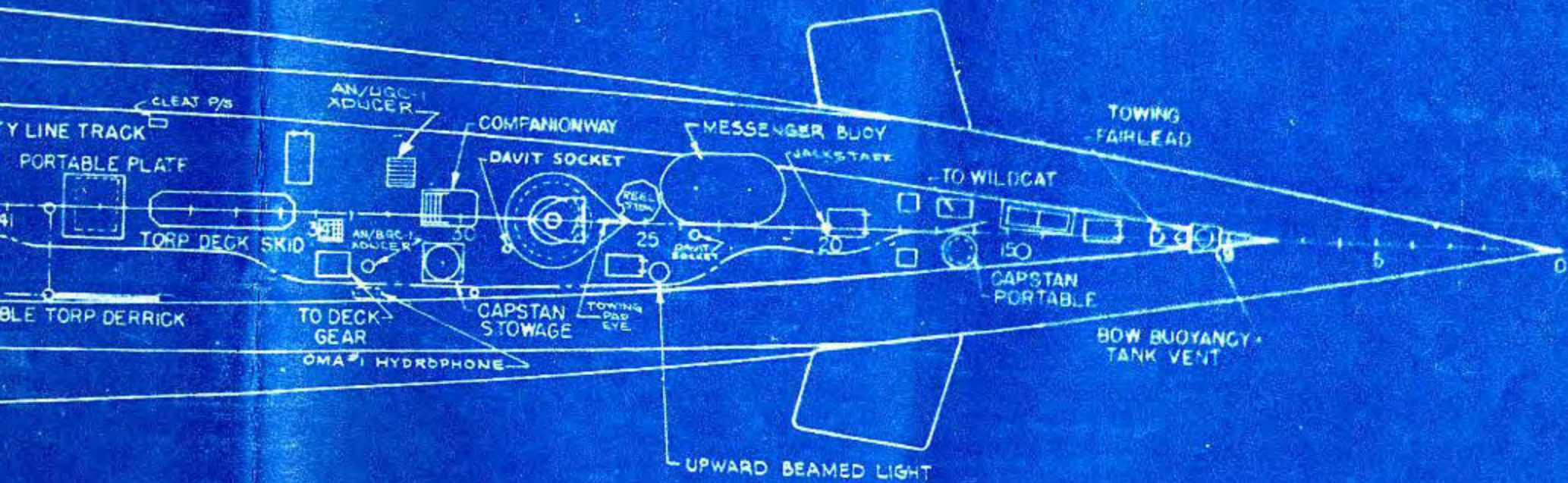
125

120

115

110

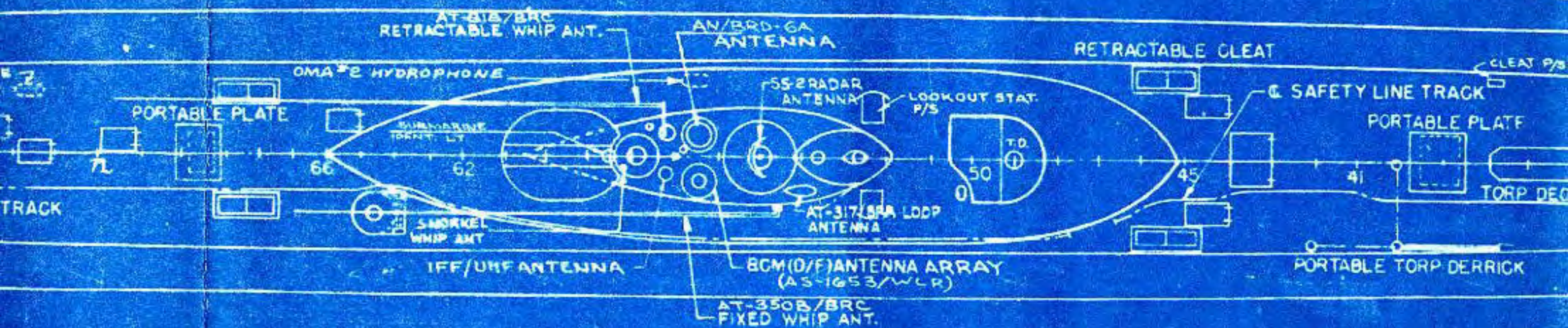
105

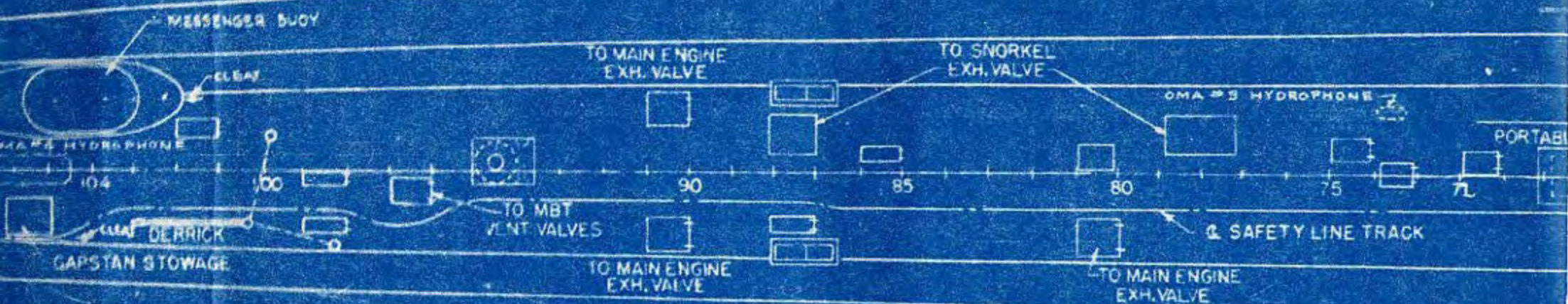


CONFIDENTIAL

~~RESTRICTED~~
~~SECURITY INFORMATION~~

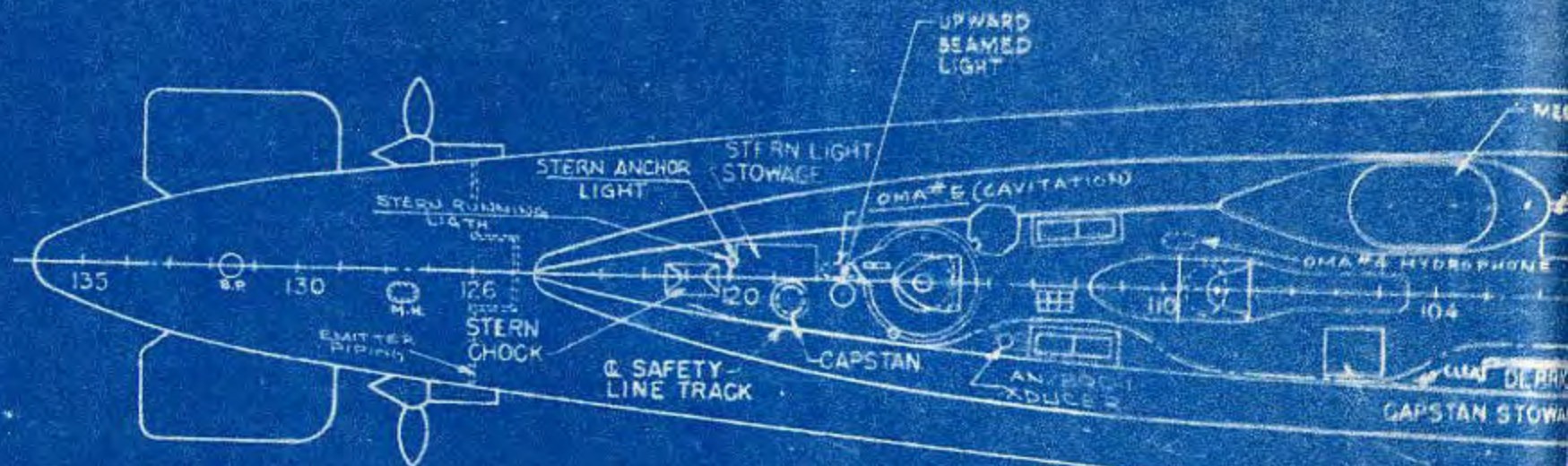
SUBMARINE	SS418
MAIN DECK	
SCALE 1/8" = 1 FOOT	PLATE NO 5





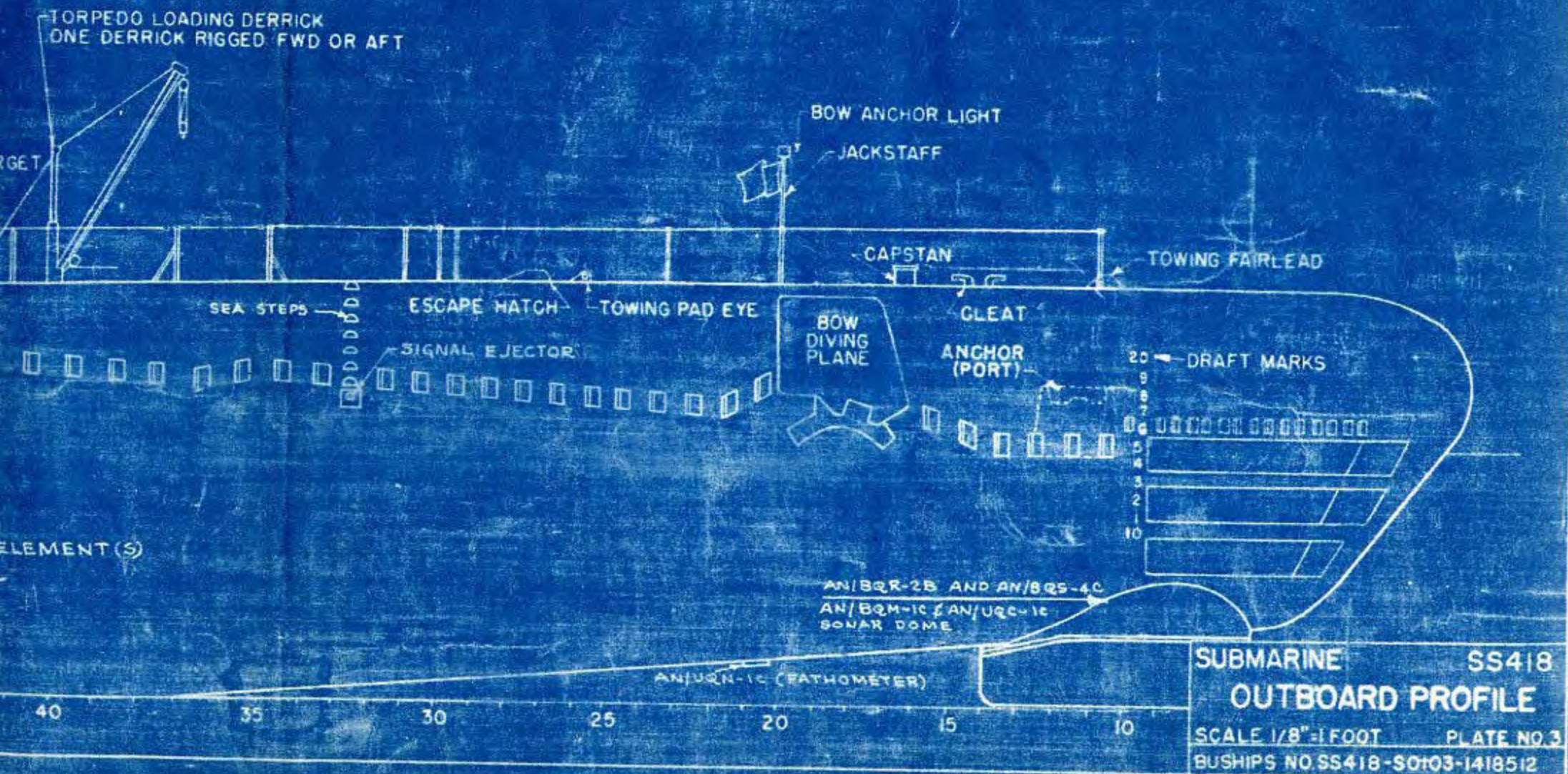
RESTRICTED

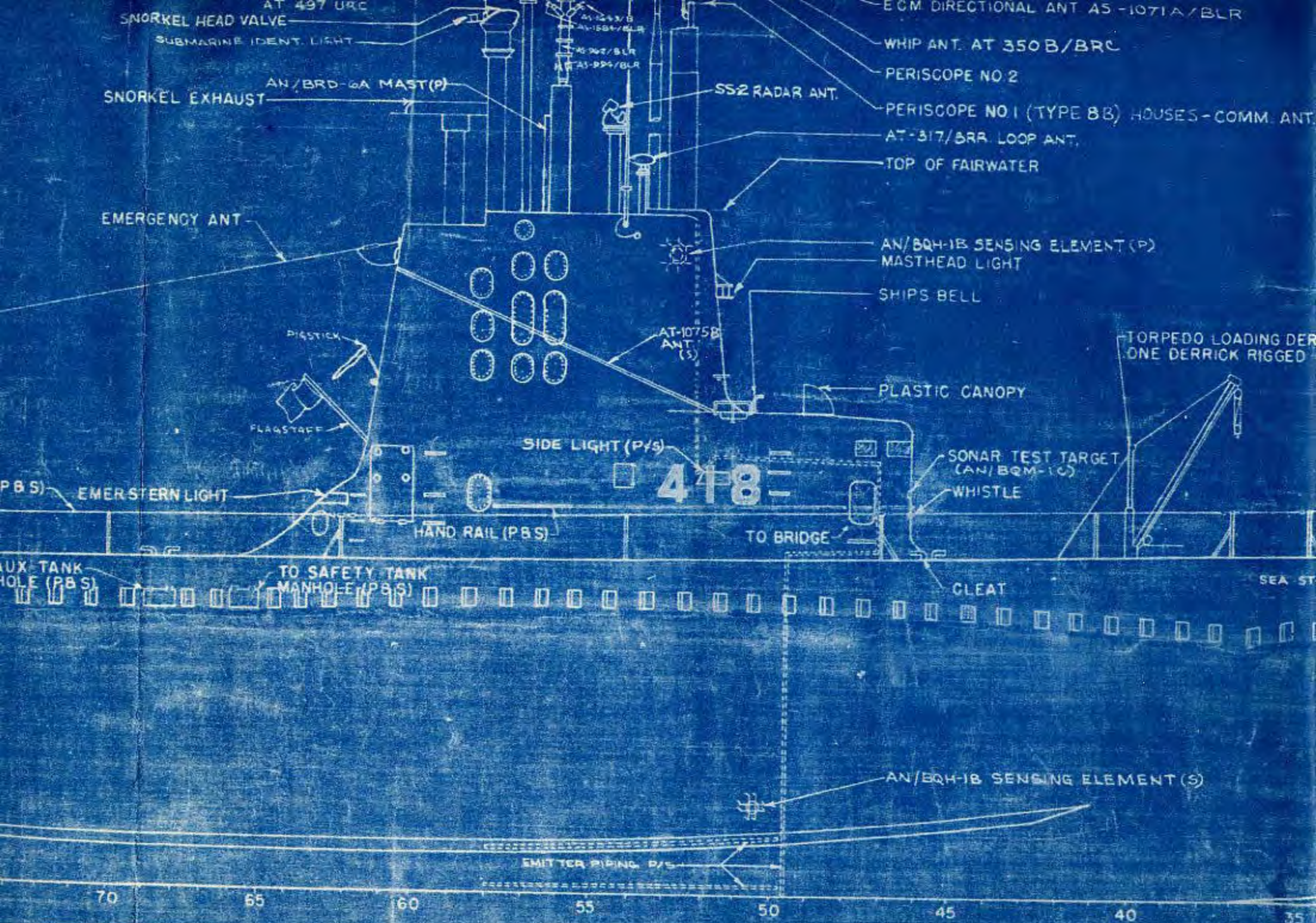
SECURITY INFORMATION

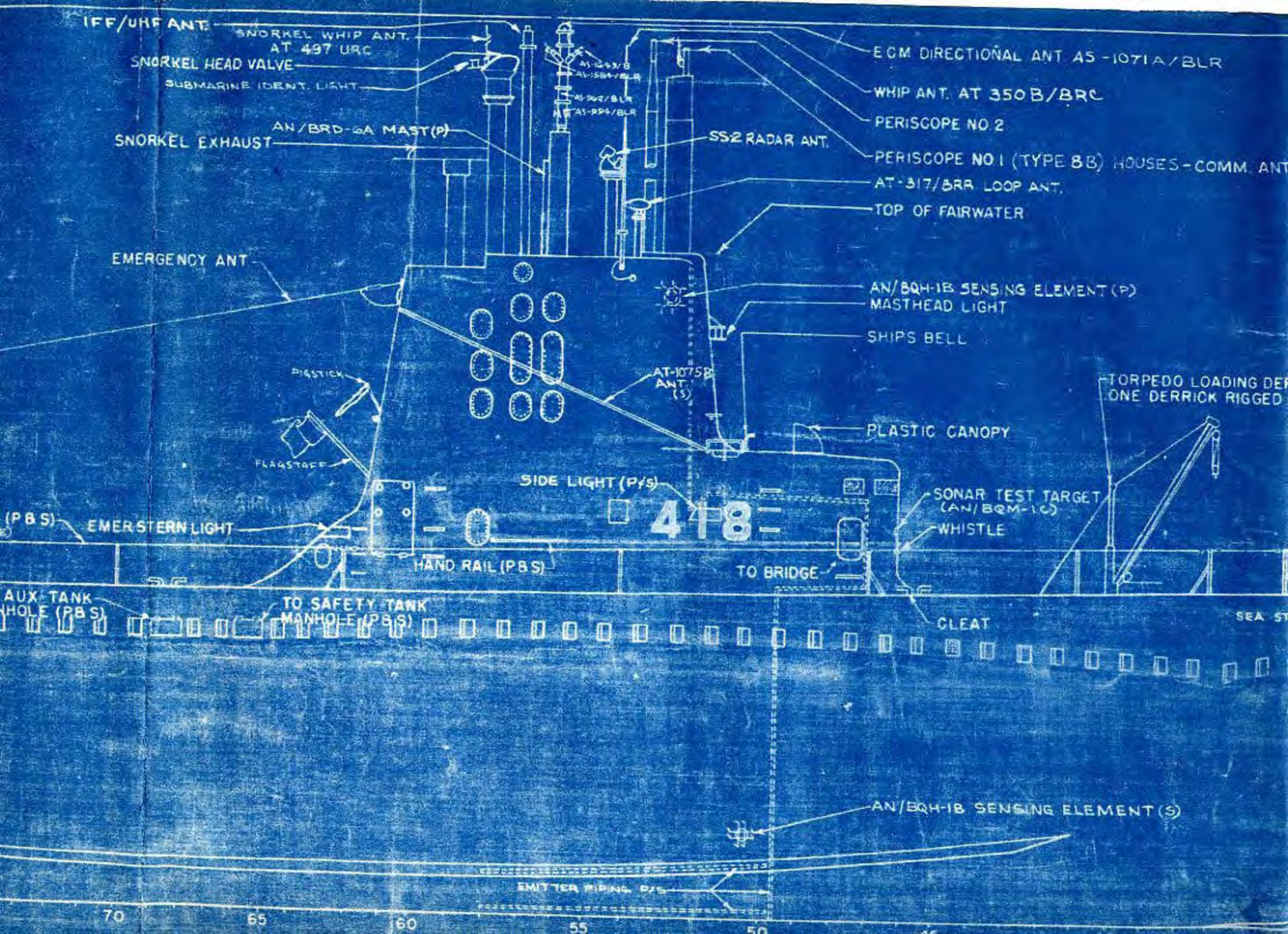


8B) HOUSES - COMM. ANT, RADAR INTERCEPT ANT, RANGE RADAR ANT.

MENT (P)







ALL DECK FITTINGS ARE
PORTABLE OR RETRACTABLE

TORPEDO LOADING DERRICK
ONE DERRICK RIGGED FWD OR AFT

LIFE LINES (P B S) EMER
(PORTABLE)

IG HATCH

HATCH

CLEAT

TO MAIN ENG EXH
VALVE LINKAGE

TO AUX TANK
MANHOLE (P B S)

BILGE KEEL

EMITTER PIPING P/S

100

95

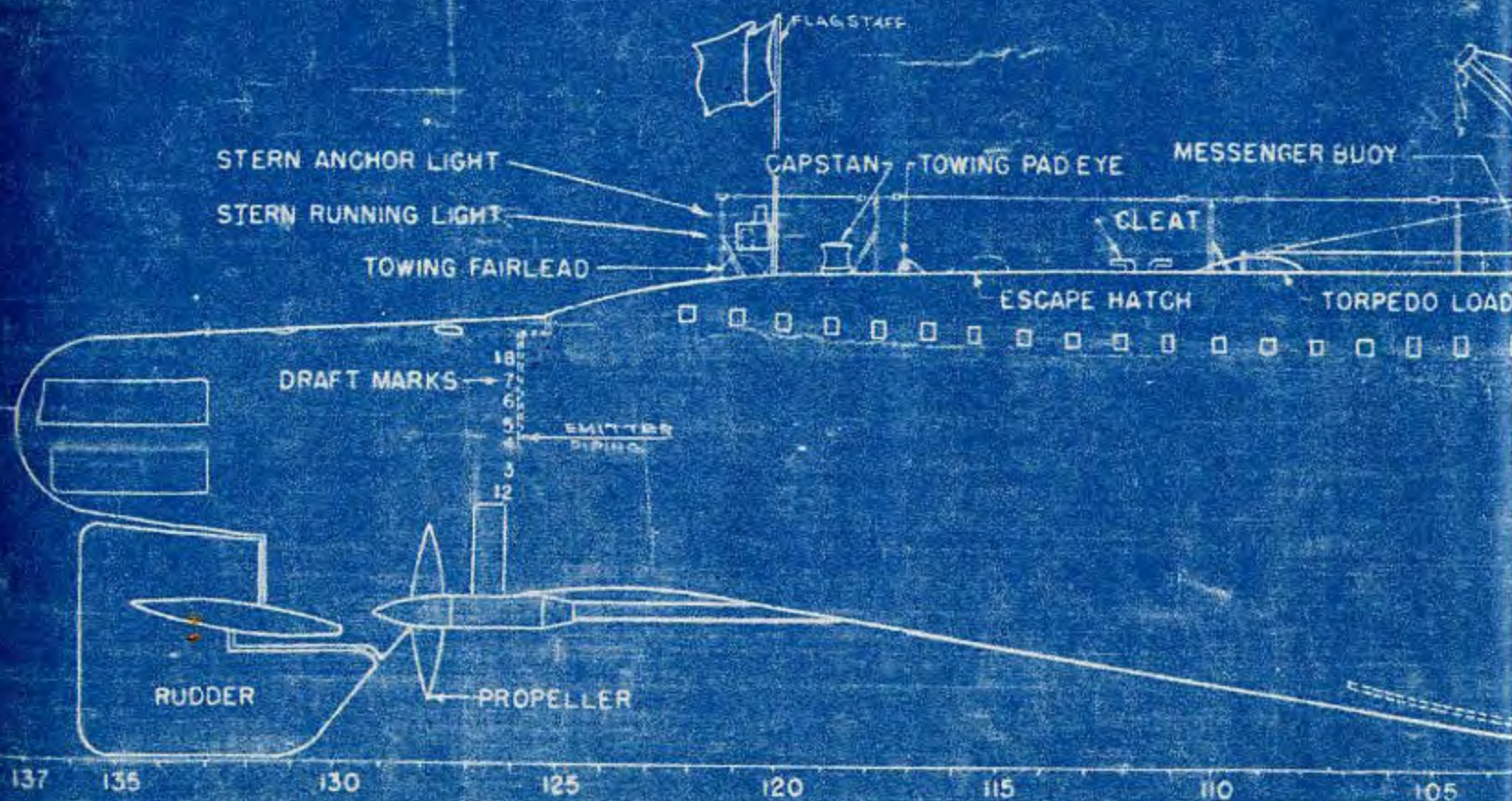
90

85

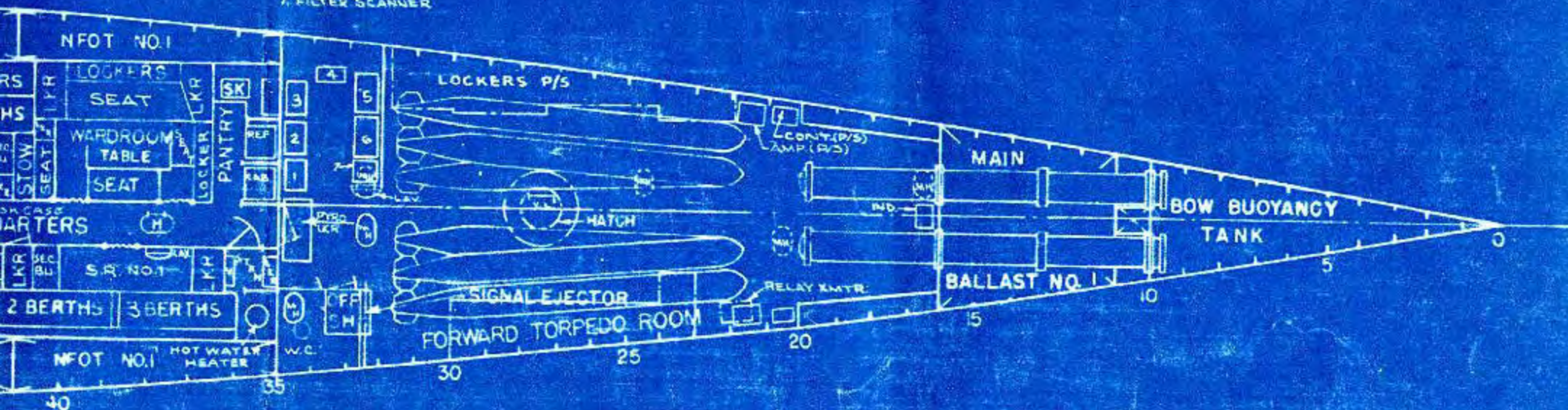
80

75

70



1. SONAR XMTR
2. DWR SUP. ASSY
3. SWITCH ASSY
4. IND. XMTR (UW LOG)
5. DSC. AMP (UW LOG)
6. AF AMP
7. FILTER SCANNER



~~CONFIDENTIAL~~

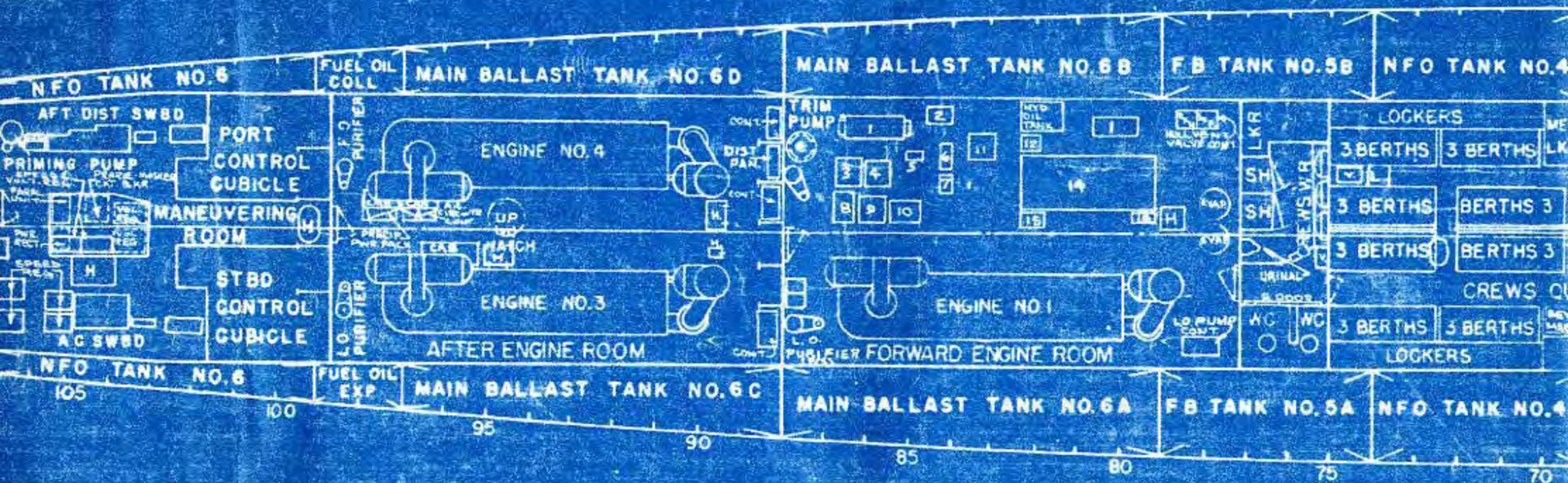
~~RESTRICTED~~
~~SECURITY INFORMATION~~

SUBMARINE SS418
PLATFORM DECK
SCALE 1/8"=1FOOT PLATE NO. 6
BUSHIPS NO. SS418-SO103-1418512

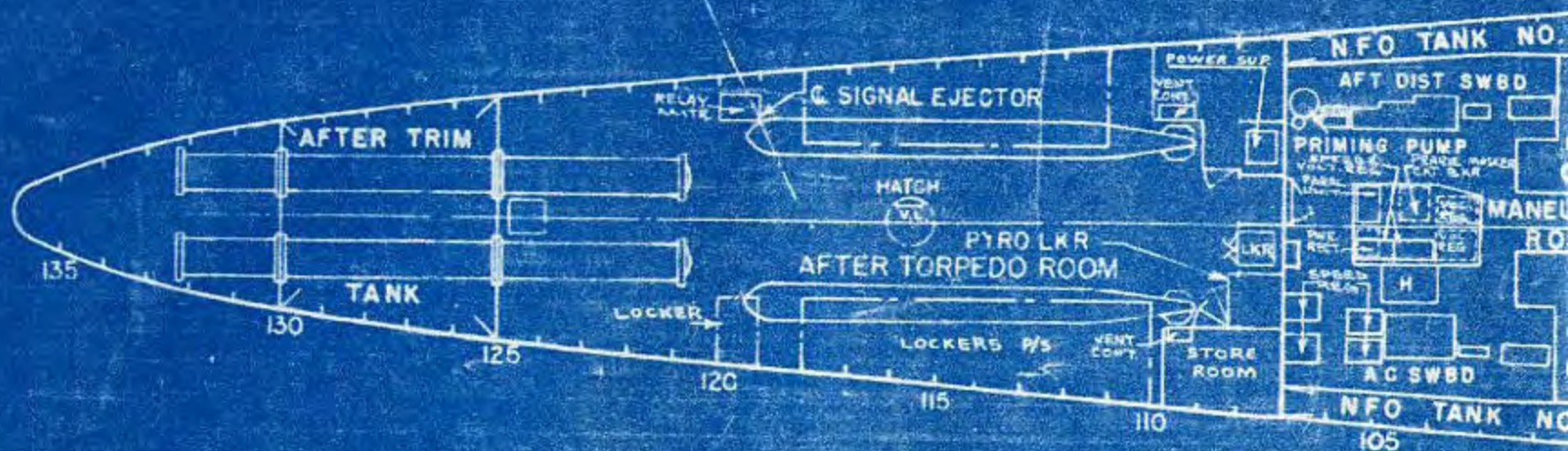
- [illegible]

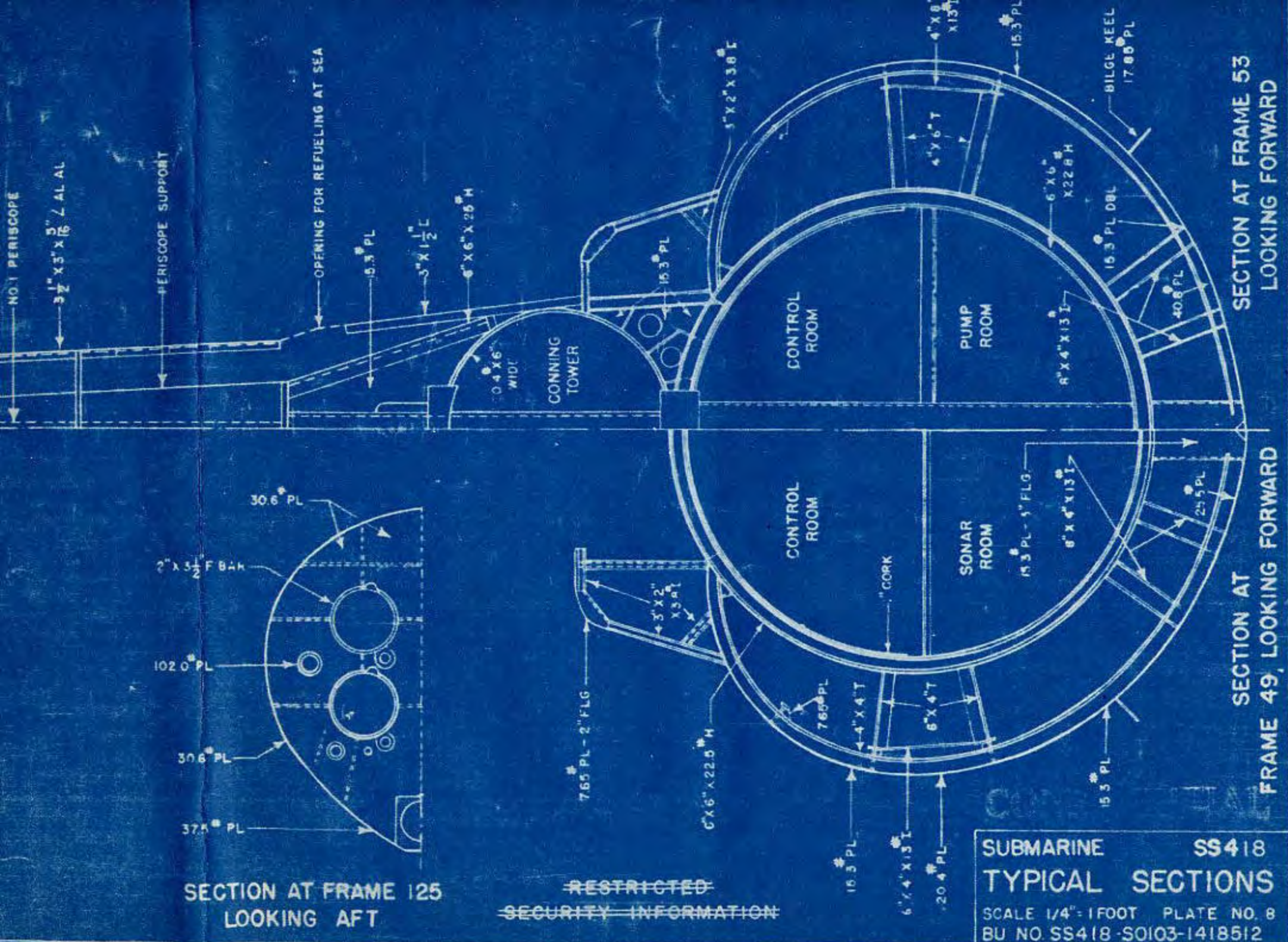
- 1 25 KVA M/G
- 2 CYRO COMP. M/G SET
- 3 25 KVA CONT.
- 4 25 KVA VOL. REG.
- 5 AUX. PWR. PNL.
- 6 25 KVA CONT.
- 7 HYD. PWR. PLANT CONT.
- 8 25 KVA VOL. REG.
- 9 HYD. PWR. PLANT CONT.
- 10 HWH. CONT.
- 11 25 KVA CONT.
- 12 FEEDER DIST. BOX

- 14 FRIDGE-MARKER COMP. UNIT
- 15 COMP. CONT. PNL. NO. 1
- 16 COMP. CONT. PNL. NO. 2

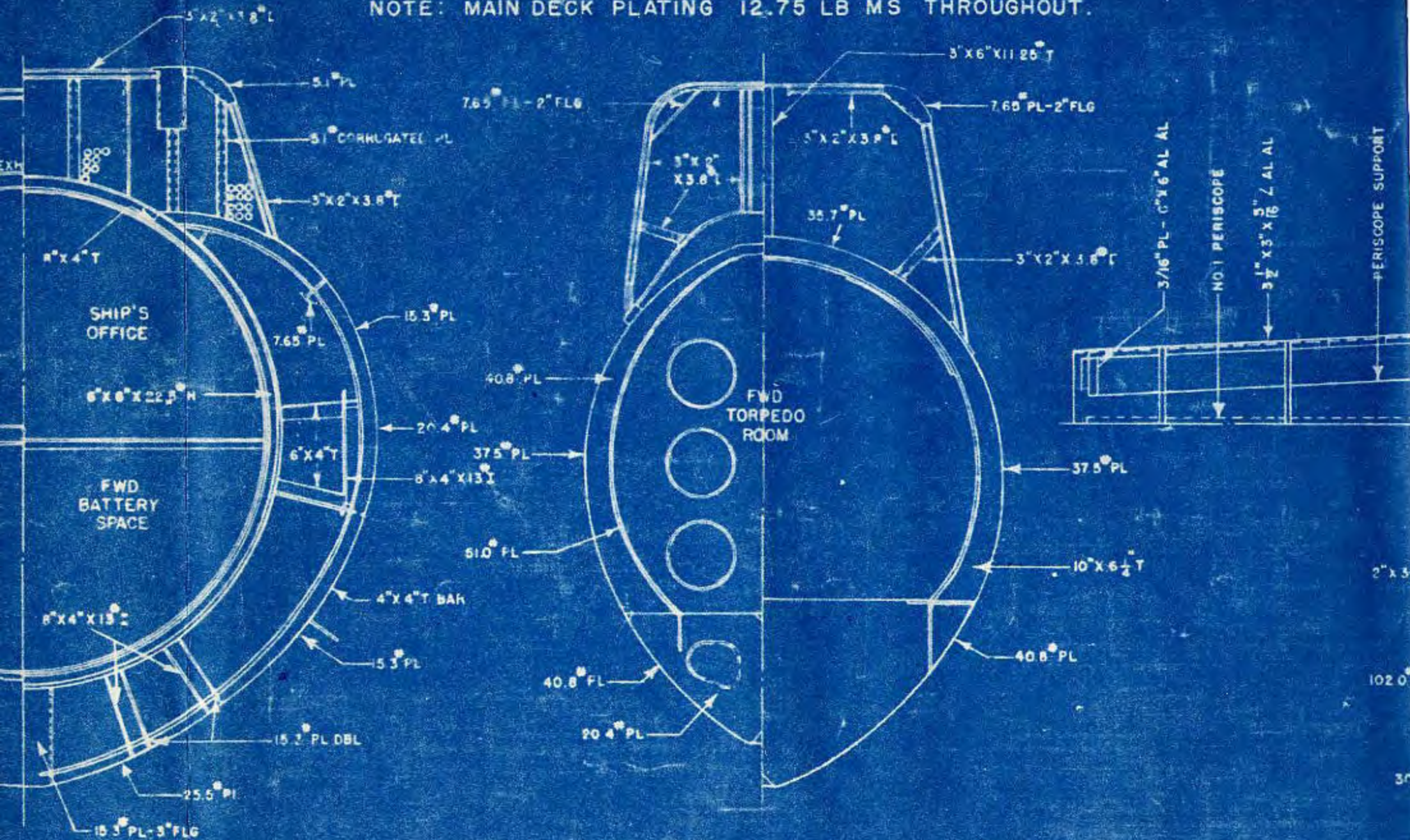


CONFIDENTIAL





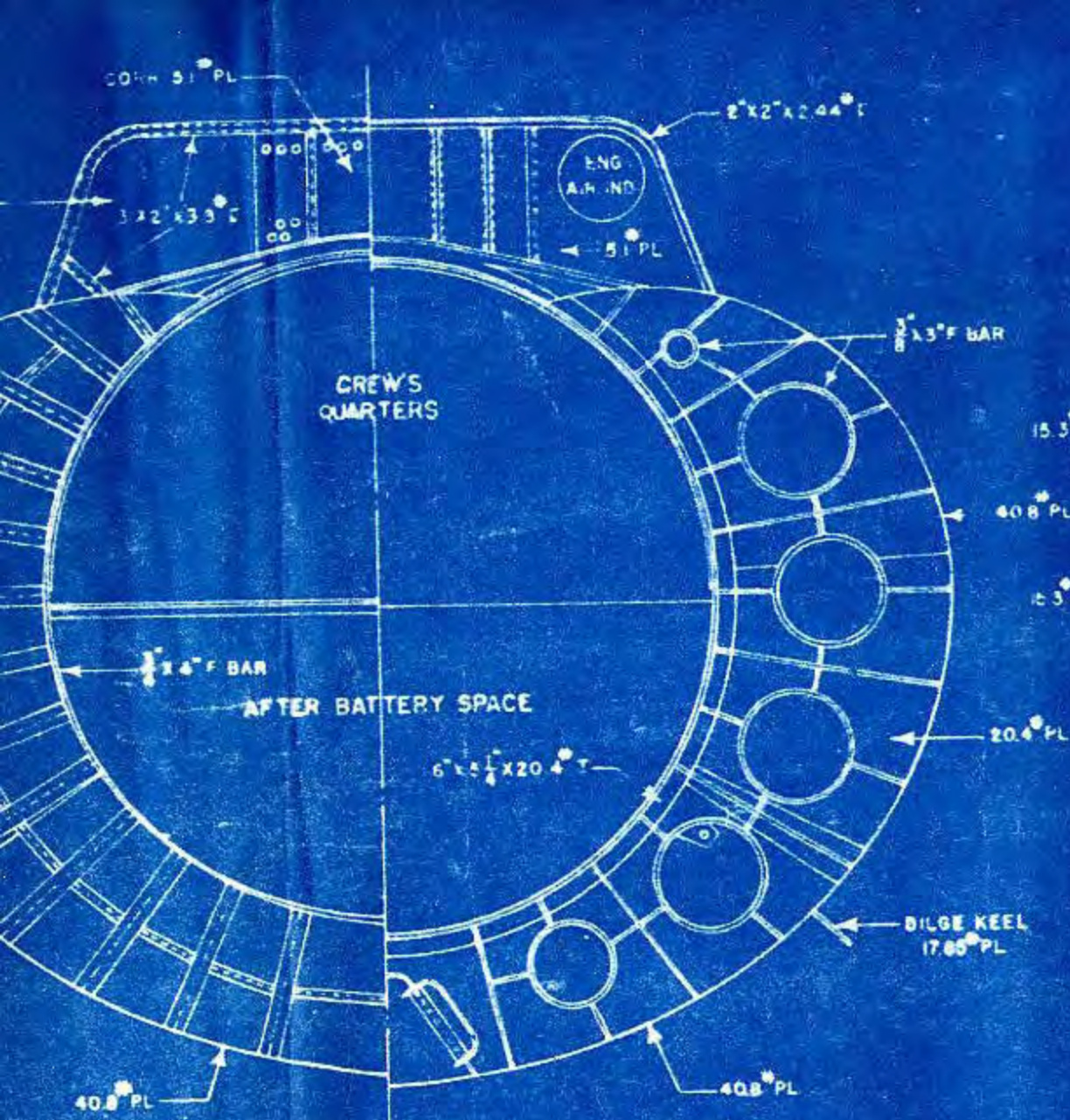
NOTE: MAIN DECK PLATING 12.75 LB MS THROUGHOUT.



TYPICAL INNER & OUTER
HULL FRAMES

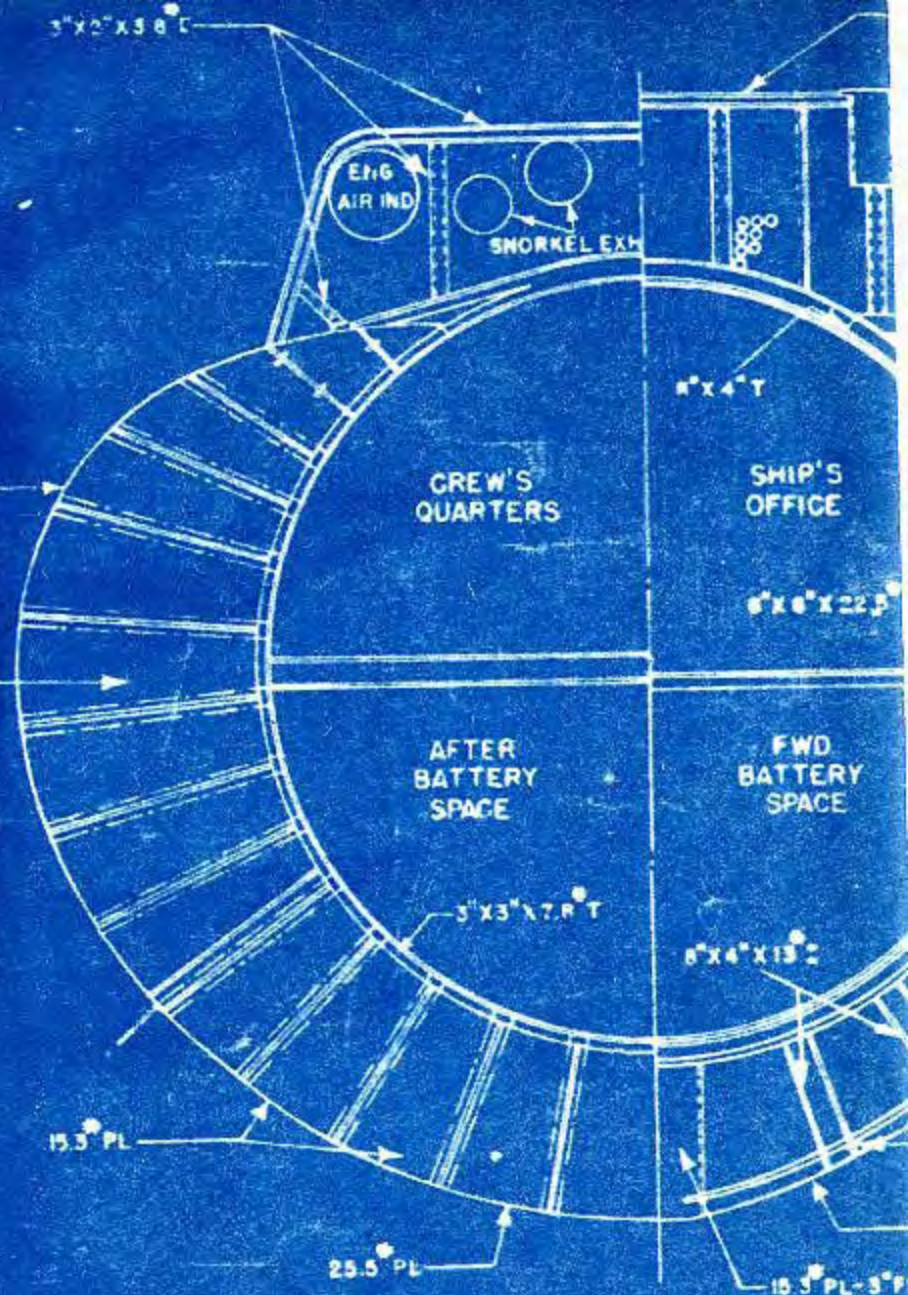
SECTION AT FRAME 17
LOOKING FORWARD

SECTION AT FRAME 26
LOOKING FORWARD



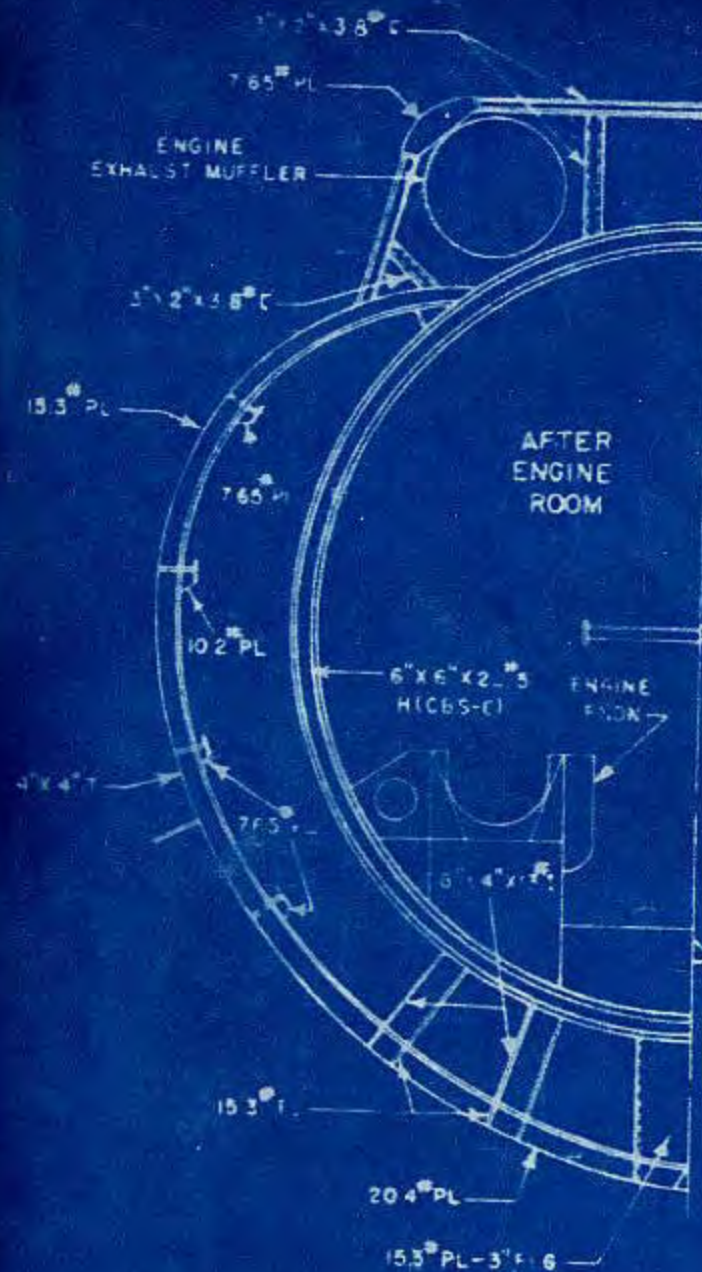
TYPICAL SAFETY & AUXILIARY
TANK BULKHEADS

TYPICAL SAFETY & AUXILIARY
TANK FRAMING

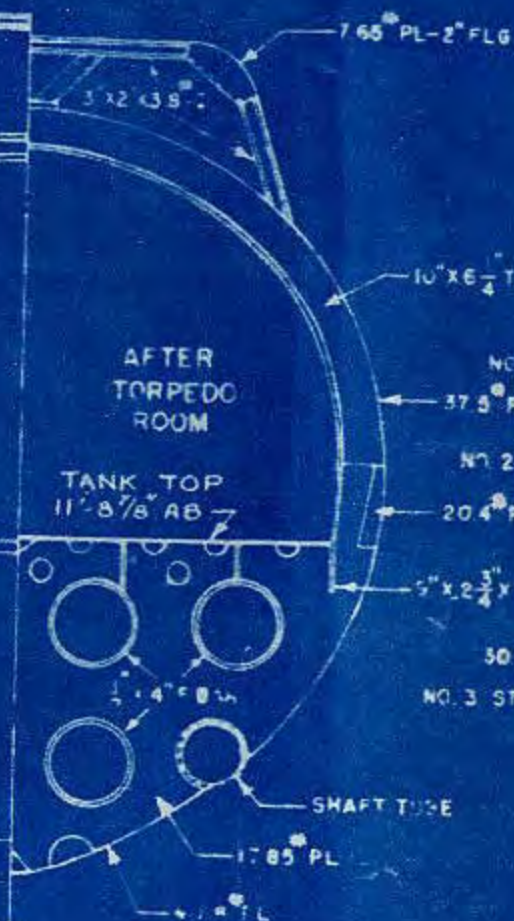


TYPICAL WING BULKHEAD

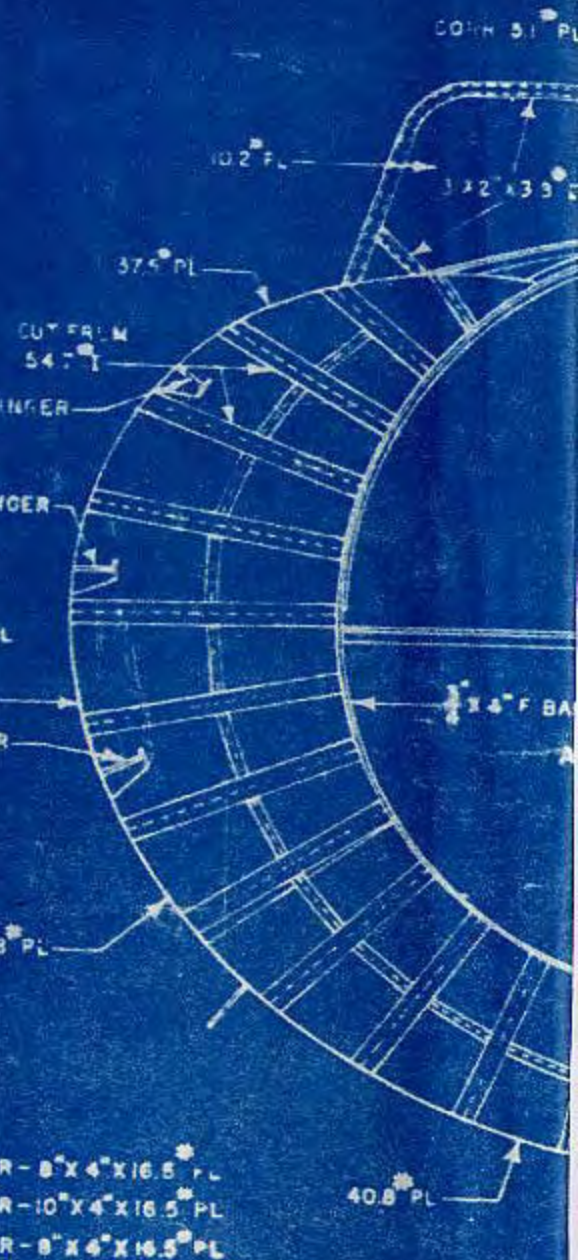
TYPICAL HULL



SECTION AT FRAME 95
LOOKING AFT



SECTION AT FRAME 113
LOOKING AFT



TYPICAL SAFETY & AUXILIARY
TANK BULKHEADS