

8 7 6 5 4 3 2 1

BILL OF MATERIALS (QTY FOR ONE SHIP)

FIND NO.	QTY REQD	DESCRIPTION	SCIENCE OBSERVATION 07-49-0-S	FORWARD HANGAR 04-40-0-S	ATMOSPHERIC LAB 03-0-0-S	SCIENCE STORES 1-0-0-A	MARINE TECH LAB OFFICE 1-13-0-Q	IT OFFICE 1-20-0-Q	MICROSCOPE ROOM 1-25-0-S	SCIENCE OPS CENTER 1-32-1-S	ELECTRONICS TECH SHOP 1-13-2-C	ELECTRONICS LAB 1-27-2-Q	BIO/CHEM ANALYTICAL LAB 1-43-2-S	HYDRO LAB 1-58-2-S	AUTOSAL ROOM 1-57-2-S	COLD LAB 1-73-2-A	COLD LAB 1-76-2-A	MAIN LAB 1-54-3-S	WET LAB 1-89-1-S	AQUARIUM 1-103-1-S	MARINE TECH SHOP 1-103-0-A	BALTIC ROOM 1-81-0-S	SCIENCE HAZMAT LOCKER 1-125-2-K	CHANGING ROOM 1-109-6-E	TOTAL
1	-	UNUSED																							0
2	EA	SINK, DEEP STAINLESS STEEL							1					1				3	1					1	7
3	EA	COMBINATION EYE WASH STATION AND SAFETY SHOWER											1	1				1	1			1	2	1	7
4	EA	CABINET, SECURE, LOCKABLE	1		1		1	1		4	4	4	4	4					2			1	2		26
5	EA	MODULAR CABINET UNIT	1		1			1	1	4	5	4	4	4					2						29
6	EA	RACK FOR COMPRESSED GAS CYLINDER (5 BOTTLES)	1		1					1	1	3	3	3	1			1	1	1		1			15
7	EA	CHAIR, OFFICE	5		1		2	2		14		14	4	4				11	8						65
8	EA	BINOCULAR, LONG RANGE, BIG EYES	3																						3
9	EA	BANK, BATTERY		5																					5
10	EA	BENCH, WORKSHOP		1																					1
11	EA	WISE, HD SWIVEL BASE		1							1										2				4
12	-	UNUSED																							0
13	EA	TABLE, CHART AND LIGHT								2															2
14	EA	ADJUSTABLE STAINLESS STEEL SHELVING				9																6			15
15	-	UNUSED																							0
16	EA	MAKER, ICE											1	1				1	1						4
17	EA	FREEZER, -20C												1				2							3
18	EA	REFRIGERATOR											1	1				3	1						6
19	EA	CHEST, FREEZER, -80C											1					3							4
20	EA	LARGE FUME HOOD WITH INTEGRATED FLAMMABLE AND CORROSIVE STORAGE BASE CABINET												1				2							3
21	-	UNUSED																							0
22	EA	DEEP STAINLESS STEEL SINK, DOUBLE											2	2	1	1	1	4	2		1			1	15
23	EA	BENCH																							4
24	EA	LOCKER (16" WIDE X 24" DEEP X 71" HIGH)																							4
25	EA	LOCKER (39" WIDE X 20" DEEP X 71" HIGH)																							10
26	EA	TOOL CABINET, LOCKABLE (73"L X 15"W)		1																					6
27	EA	SMALL FUME HOOD WITH INTEGRATED FLAMMABLE AND CORROSIVE STORAGE BASE CABINET											2	1						1					1
28	-	UNUSED																							0
29	-	UNUSED																							0
30	-	UNUSED																							0
31	EA	LATHE, WORKSHOP																			1				1
32	EA	BANDSAW, HORIZONTAL																			1				2
33	EA	ARBOR PRESS, HAND, 30KN										1									1				1
34	EA	DRILL MACHINE, VERTICAL									1										1				2
35	EA	GRINDING MACHINE, PEDESTAL																			1				1
36	EA	BENCH, WORKSHOP				1															1				2
37	EA	WELDING MACHINE, MIG																			1				1
38	EA	STATION, WELDING, W/HOOD																			1				1
39	EA	CASE, BOOK						2		2	3	4									1				11
40	-	UNUSED																							0
41	-	UNUSED																							0
42	-	UNUSED																							0
43	EA	PLUMBED EYEWASH																				1			2
44	EA	SQUEEZE BOTTLE EYEWASH STATION																			1				1
45	-	UNUSED																							0
46	-	UNUSED																							0
47	EA	COMPRESSED AIR DROP	1		1								1	1				4	1	1		1			21
48	EA	STUBBED OUT PLUMBING																		3					3
49	EA	SALT WATER VALVE TANK ATTACHMENT POINT																							6
50	-	UNUSED																			6				0
51	EA	LARGE SHELVING WITH CABINET DOOR																							8
52	EA	FLAMMABLE STORAGE CABINET		2																		1			3
53	EA	DOUBLE ROW MONITOR WALL								2															4
54	-	UNUSED																							0
55	-	UNUSED																							0
56	EA	AQUARIUM TANK																							5
57	EA	ELECTRONICS RACK	1																						1
58	EA	BOOT DRYER																						2	2
59	EA	DESK					2	2																	4
60	EA	STOOL																							4
61	EA	ATMOSPHERIC LAB MAST ELECTRONICS INTERFACE			1																				1
62	EA	DRAWER CABINET																							2
63	EA	DIONIZED WATER STATION																							5
64	EA	AUTOCLAVE																	1						1
65	EA	CORROSIVE STORAGE CABINET																							2

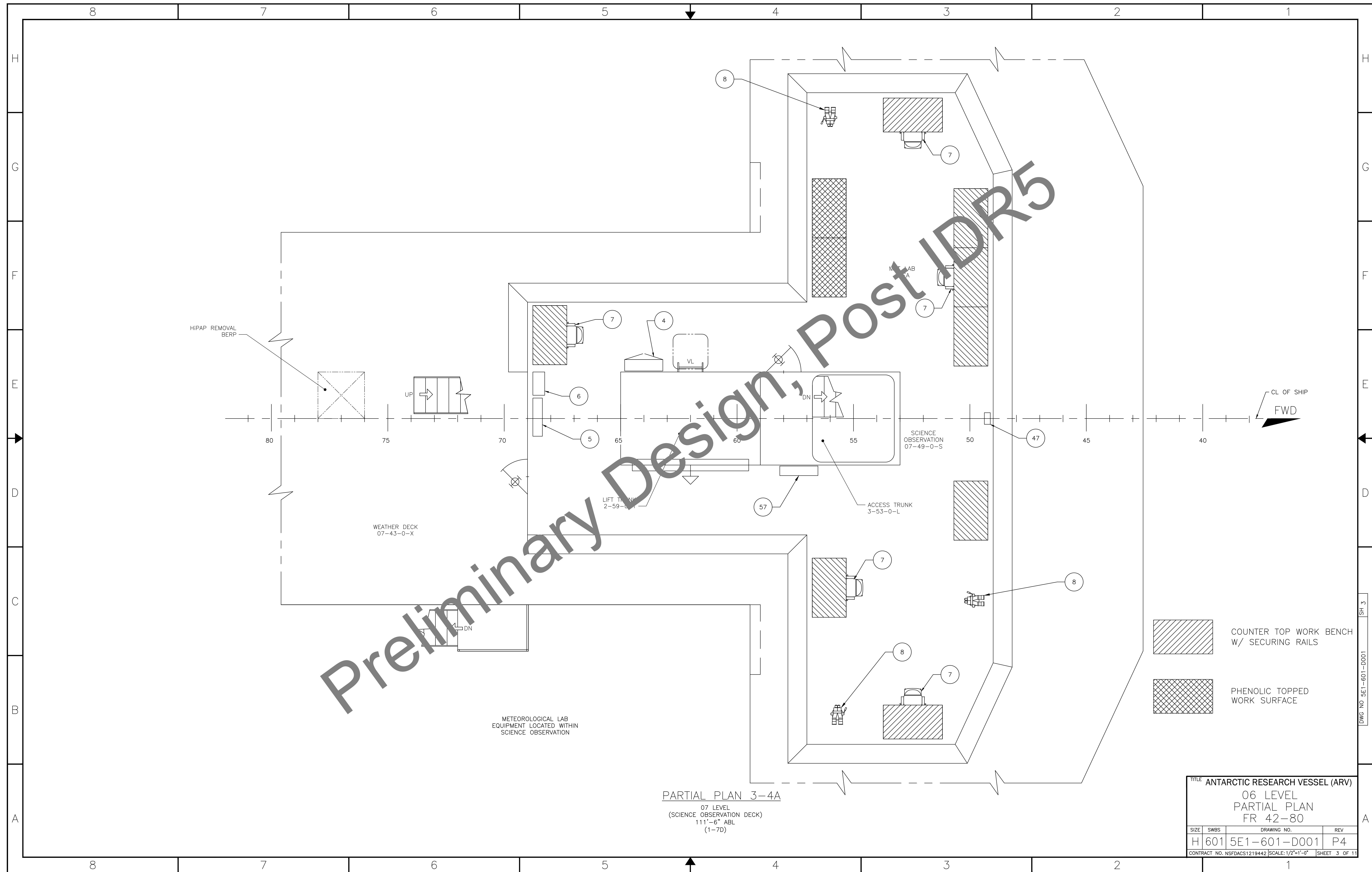
LAN DROPS			
SCIENCE SPACE	NO. OF AVAILABLE LAN DROPS	WIFI ACCESS	NUMBER OF ALLOCATED LAN DROPS (MFD/CCTV MONITORS)
SCIENCE OBSERVATION / MET LAB	8	YES	3
FORWARD HANGAR	4	YES	3
ATMOSPHERIC LAB	4	YES	3
ELECTRONICS TECH SHOP	12	YES	3
ELECTRONICS LAB	32	YES	3
BIO/CHEM/ ANALYTICAL LAB	22	YES	3
AUTO SAL ROOM	4	YES	0
HYDRO LAB	22	YES	3
COLD LAB (FORWARD)	2	YES	0
COLD LAB (AFT)	2	YES	0
CHANGE ROOM	0	YES	3
MARINE LAB TECH OFFICE	4	YES	3
IT OFFICE	8	YES	0
SOC	32	YES	3
MAIN LAB	32	YES	3
MICROSCOPE ROOM	6	YES	0
BALTIC ROOM	4	YES	3
WET LAB	26	YES	3
AQUARIUM ROOM	2	YES	3

ADDITIONAL LAB OUTFITTING PROVIDED			
SPACE PROVIDED	GAS DETECTORS (OLDHAM MX43 OR EQUIVALENT)	BULKHEAD UNISTRUT FRAMING	OVERHEAD UNISTRUT FRAMING
WET LAB	YES	YES	YES
MAIN LAB	YES	YES	YES
COLD LABS	YES	YES	YES
ELECTRONICS LAB	YES	YES	YES
BIO/CHEM/ANALYTICAL LAB	YES	YES	YES
AUTOSAL ROOM	YES	YES	YES
HYDRO LAB	YES	YES	YES
ATMOSPHERIC LAB	YES	YES	YES
LIQUID NITROGEN PLANT	YES	YES	YES

Preliminary Design, Post IDR5

TITLE ANTARCTIC RESEARCH VESSEL (ARV)			
BILL OF MATERIALS LAN DROPS, AND ADDITIONAL LAB OUTFITTING PROVIDED			
SIZE	SWBS	DRAWING NO.	REV
H	601	5E1-601-D001	P4
CONTRACT NO. NSFDACS1219442			SCALE: NONE
			SHEET 2 OF 11

DWS NO 5E1-601-D001 SH 2



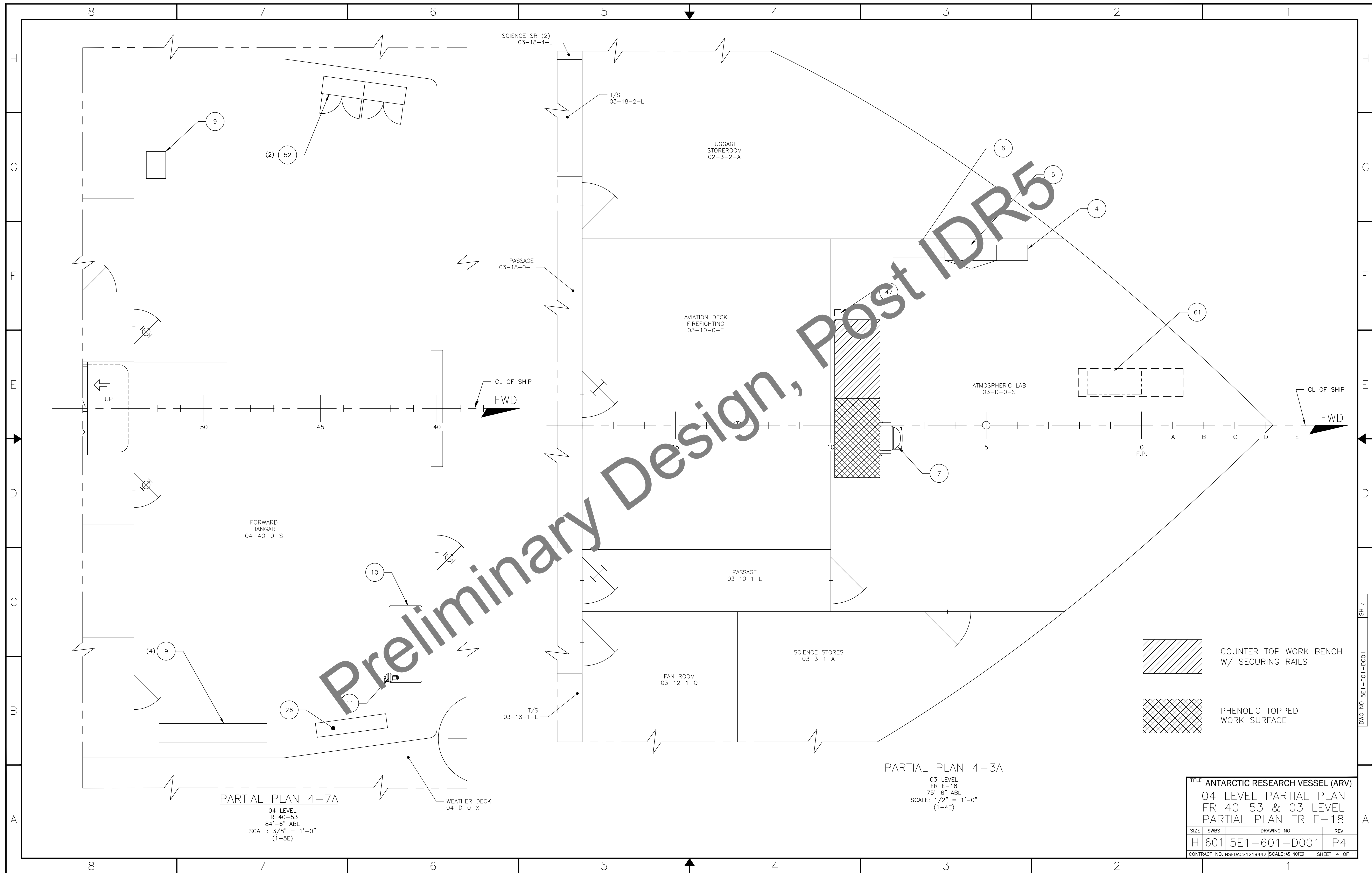
Preliminary Design, Post ID R5

PARTIAL PLAN 3-4A
 07 LEVEL
 (SCIENCE OBSERVATION DECK)
 111'-6" ABL
 (1-7D)

- COUNTER TOP WORK BENCH
W/ SECURING RAILS
- PHENOLIC TOPPED
WORK SURFACE

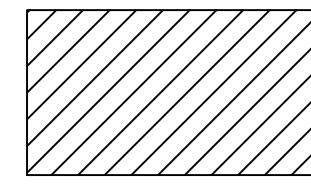
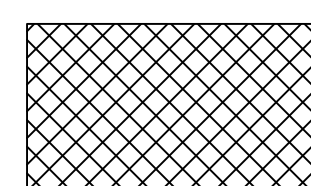
TITLE ANTARCTIC RESEARCH VESSEL (ARV)			
06 LEVEL PARTIAL PLAN FR 42-80			
SIZE	SWBS	DRAWING NO.	REV
H	601	5E1-601-D001	P4
CONTRACT NO. NSFDCS1219442 SCALE: 1/2"=1'-0" SHEET 3 OF 11			

DWG NO 5E1-601-D001 SH 3



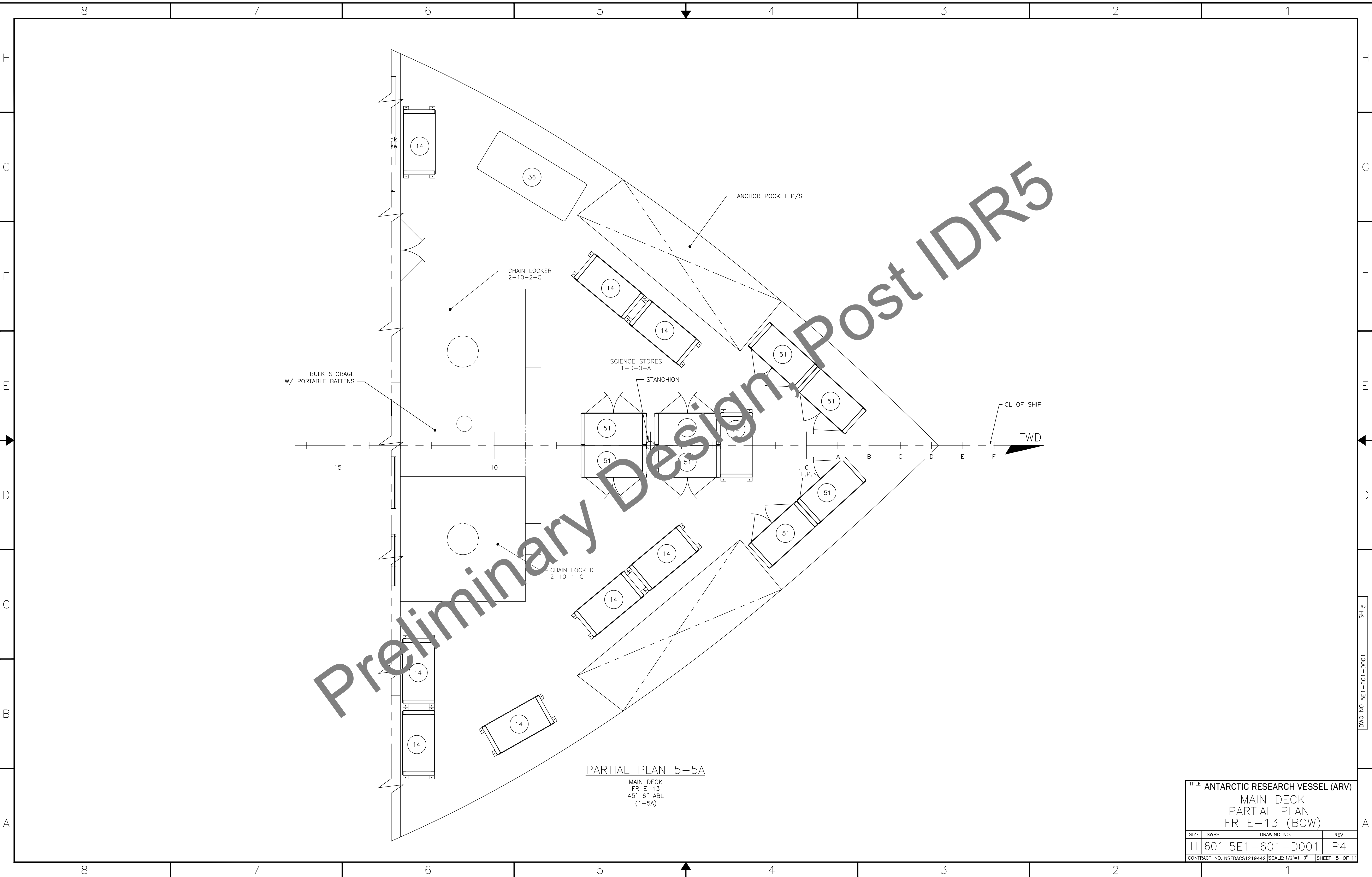
PARTIAL PLAN 4-7A
 04 LEVEL
 FR 40-53
 84'-8" ABL
 SCALE: 3/8" = 1'-0"
 (1-5E)

PARTIAL PLAN 4-3A
 03 LEVEL
 FR E-18
 75'-6" ABL
 SCALE: 1/2" = 1'-0"
 (1-4E)

 COUNTER TOP WORK BENCH W/ SECURING RAILS
 PHENOLIC TOPPED WORK SURFACE

TITLE ANTARCTIC RESEARCH VESSEL (ARV)			
04 LEVEL PARTIAL PLAN FR 40-53 & 03 LEVEL PARTIAL PLAN FR E-18			
SIZE	SWBS	DRAWING NO.	REV
H	601	5E1-601-D001	P4
CONTRACT NO. NSF/DACS1219442			SCALE: AS NOTED
			SHEET 4 OF 11

DWS NO 5E1-601-D001 SH 4

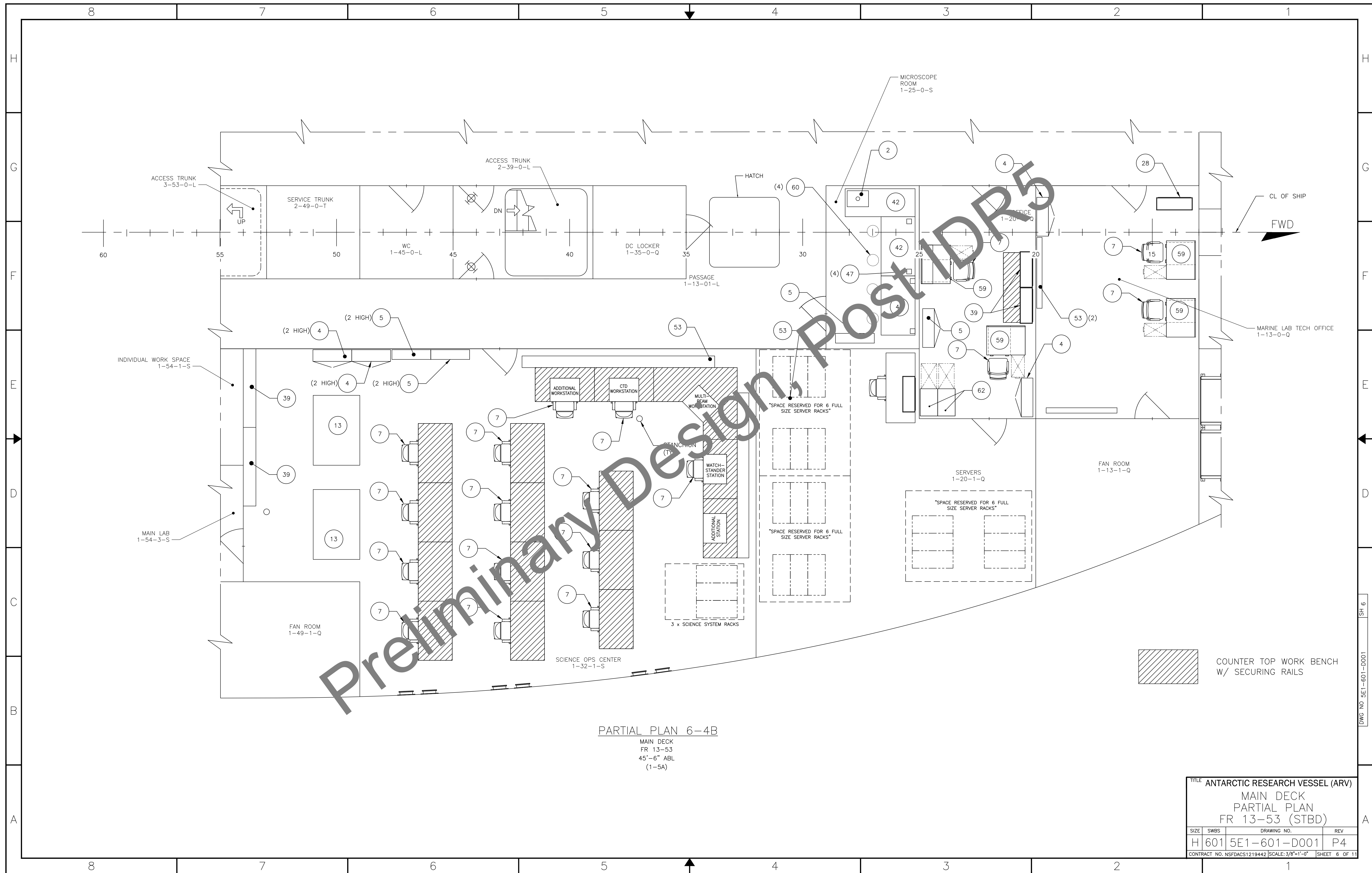


Preliminary Design Post IDR5

PARTIAL PLAN 5-5A
 MAIN DECK
 FR E-13
 45'-6" ABL
 (1-5A)

TITLE ANTARCTIC RESEARCH VESSEL (ARV)			
MAIN DECK PARTIAL PLAN FR E-13 (BOW)			
SIZE	SWBS	DRAWING NO.	REV
H	601	5E1-601-D001	P4
CONTRACT NO. NSFDACS1219442 SCALE: 1/2"=1'-0"			SHEET 5 OF 11

DWS NO 5E1-601-D001 SH 5

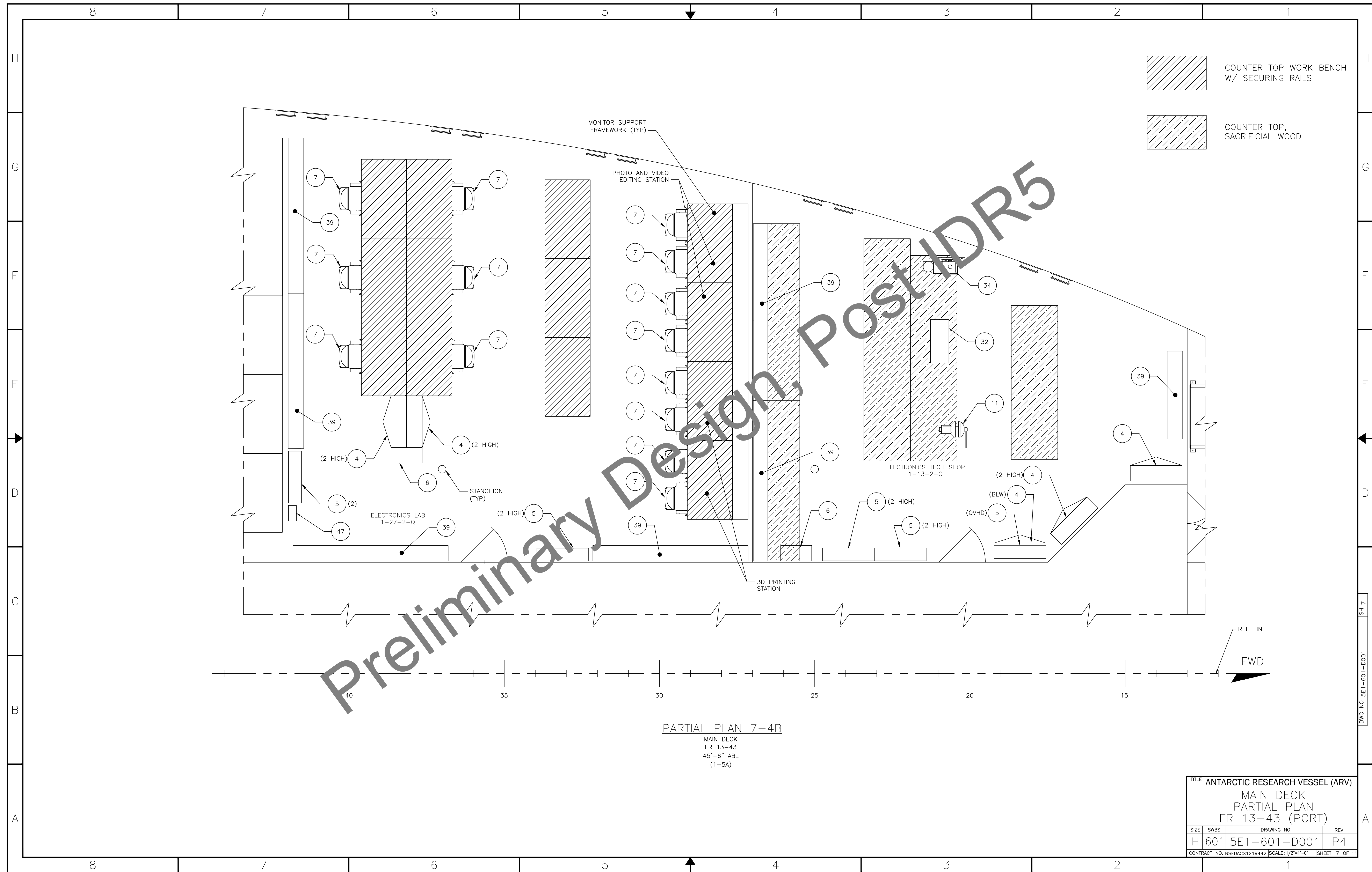


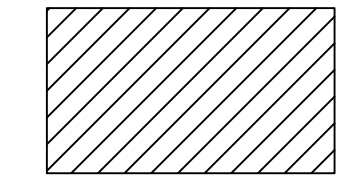
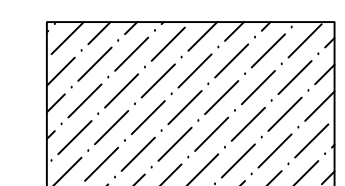
PARTIAL PLAN 6-4B
 MAIN DECK
 FR 13-53
 45'-6" ABL
 (1-5A)

 COUNTER TOP WORK BENCH
 W/ SECURING RAILS

TITLE ANTARCTIC RESEARCH VESSEL (ARV)			
MAIN DECK			
PARTIAL PLAN			
FR 13-53 (STBD)			
SIZE	SWBS	DRAWING NO.	REV
H	601	5E1-601-D001	P4
CONTRACT NO. NSFDACS1219442			SCALE: 3/8"=1'-0"
			SHEET 6 OF 11

DWS NO 5E1-601-D001 SH 6



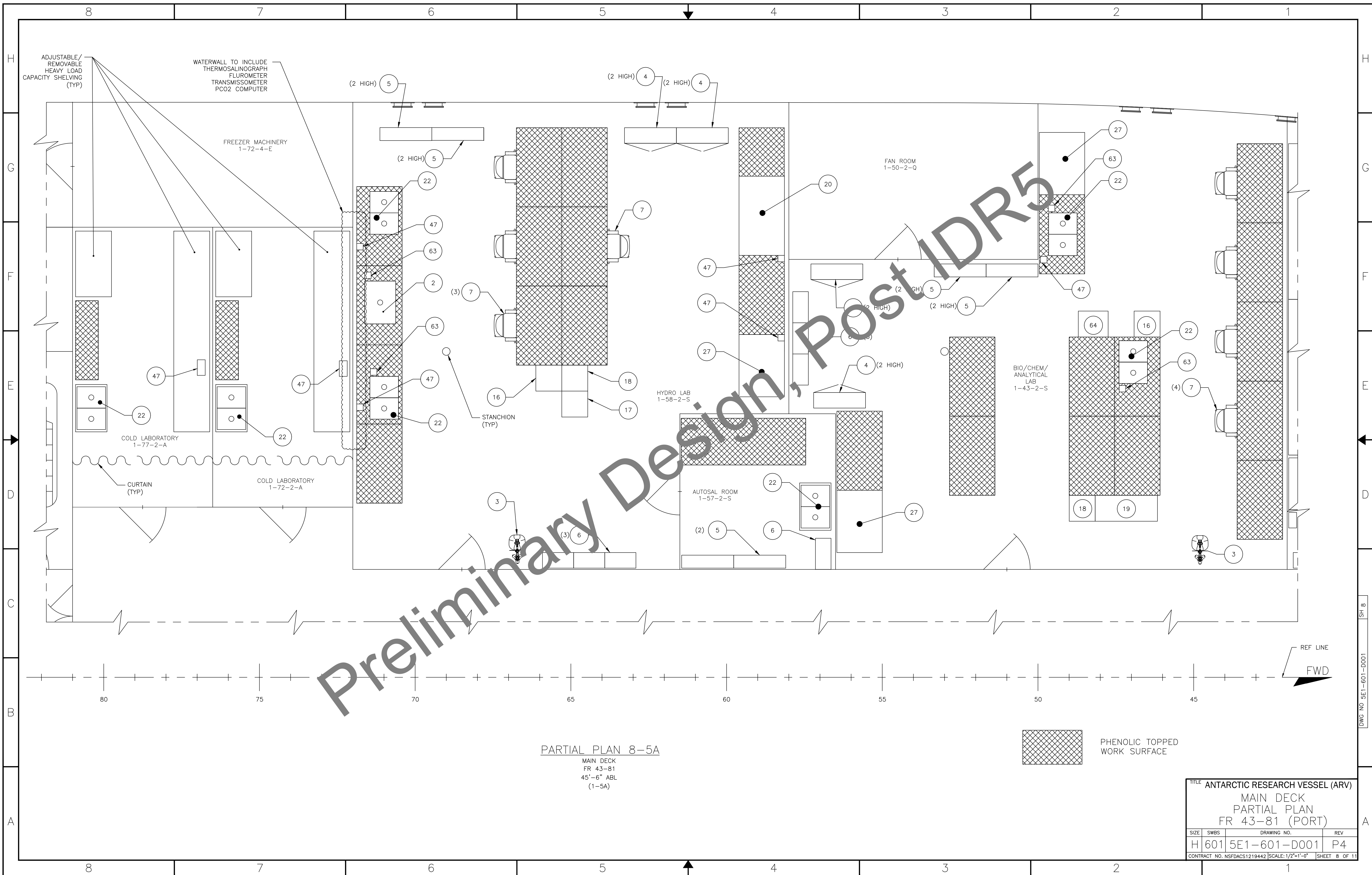
 COUNTER TOP WORK BENCH
W/ SECURING RAILS
 COUNTER TOP,
SACRIFICIAL WOOD

Preliminary Design, Post-DR5

PARTIAL PLAN 7-4B
 MAIN DECK
 FR 13-43
 45'-6" ABL
 (1-5A)

TITLE ANTARCTIC RESEARCH VESSEL (ARV)			
MAIN DECK			
PARTIAL PLAN			
FR 13-43 (PORT)			
SIZE	SWBS	DRAWING NO.	REV
H	601	5E1-601-D001	P4
CONTRACT NO. NSFDACS1219442			SCALE: 1/2"=1'-0"
			SHEET 7 OF 11

DWG NO 5E1-601-D001 SH 7



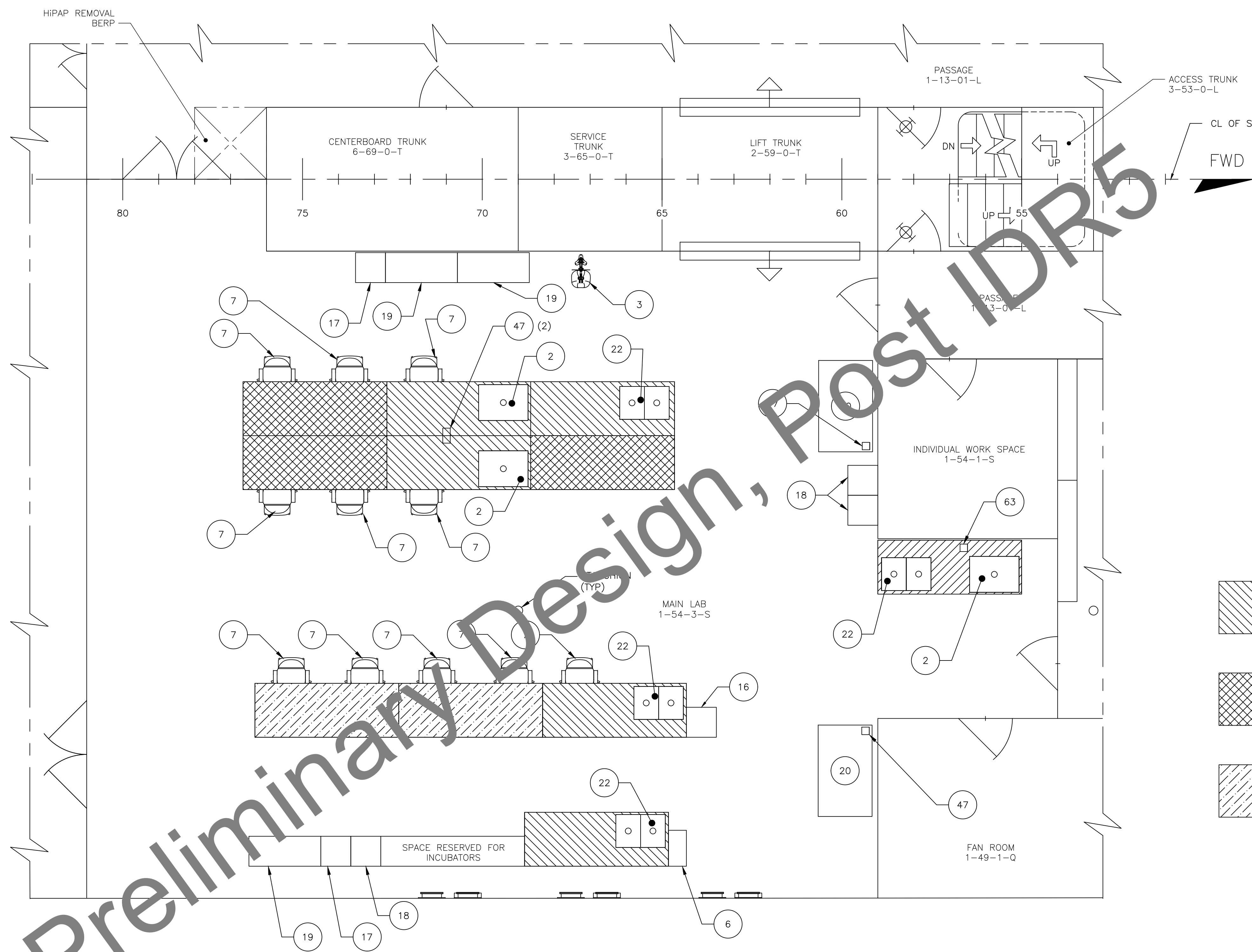
Preliminary Design, Post-DR5

PARTIAL PLAN 8-5A
 MAIN DECK
 FR 43-81
 45'-6" ABL
 (1-5A)

PHENOLIC TOPPED WORK SURFACE

TITLE ANTARCTIC RESEARCH VESSEL (ARV)			
MAIN DECK			
PARTIAL PLAN			
FR 43-81 (PORT)			
SIZE	SWBS	DRAWING NO.	REV
H	601	5E1-601-D001	P4
CONTRACT NO. NSFDACS1219442			SCALE: 1/2"=1'-0"
			SHEET 8 OF 11

DWS NO 5E1-601-D001 SH 8



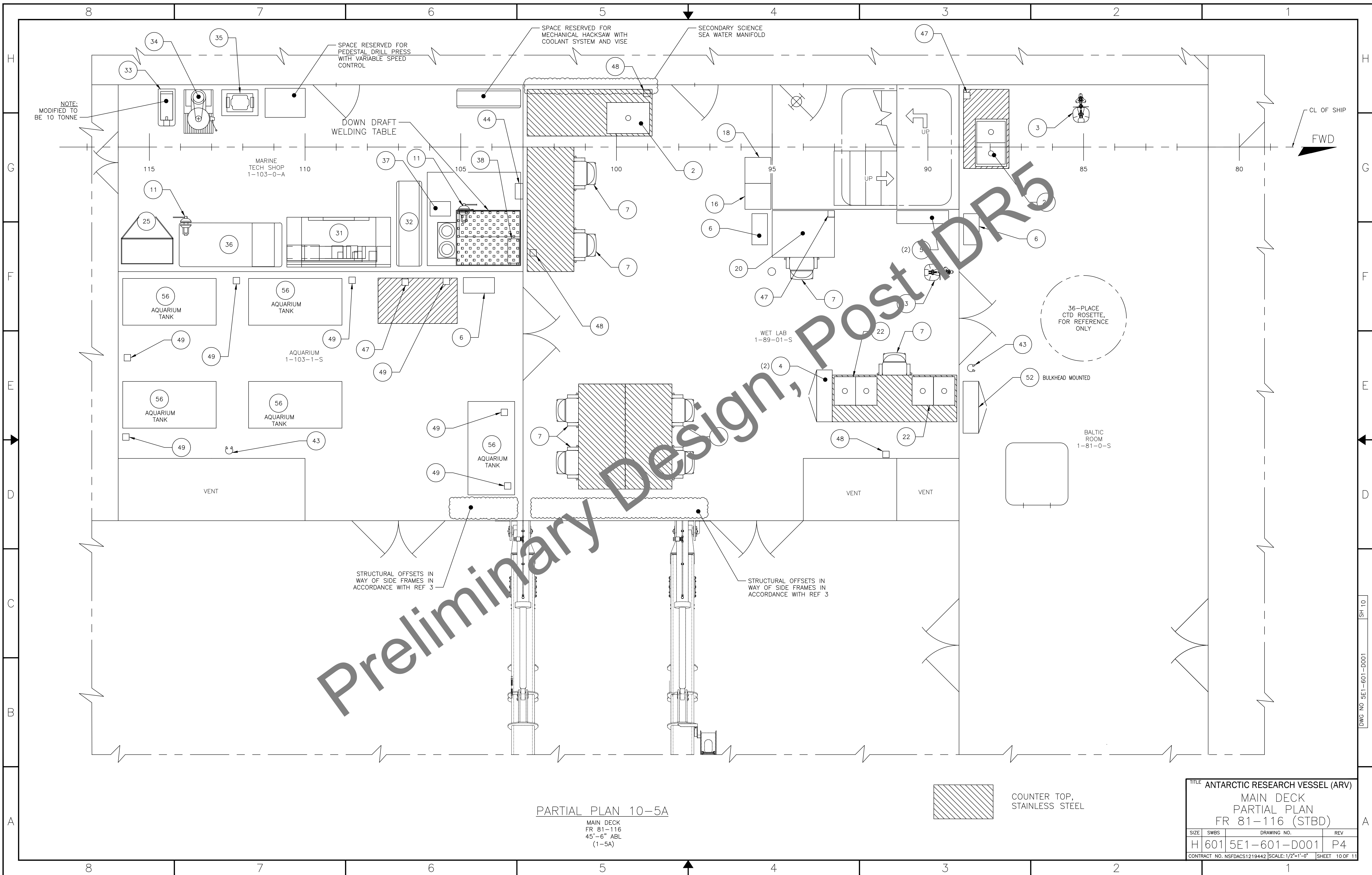
Preliminary Design, Post ID R5

PARTIAL PLAN 9-5B
 MAIN DECK
 FR 53-81
 45'-6" ABL
 (1-5A)

- COUNTER TOP, STAINLESS STEEL
- PHENOLIC TOPPED WORK SURFACE
- COUNTER TOP, SACRIFICIAL WOOD

TITLE ANTARCTIC RESEARCH VESSEL (ARV)			
MAIN DECK PARTIAL PLAN FR 53-81 (STBD)			
SIZE	SWBS	DRAWING NO.	REV
H	601	5E1-601-D001	P4
CONTRACT NO. NSFDACS1219442 SCALE: 3/8"=1'-0"			SHEET 9 OF 11

DWS NO 5E1-601-D001 SH 9



NOTE:
MODIFIED TO
BE 10 TONNE

MARINE
TECH SHOP
1-103-0-A

DOWN DRAFT
WELDING TABLE

SPACE RESERVED FOR
MECHANICAL HACKSAW WITH
COOLANT SYSTEM AND VISE

SECONDARY SCIENCE
SEA WATER MANIFOLD

115

110

37

11

105

38

100

18

95

90

85

80

CL OF SHIP

FWD

25

36

31

32

32

7

16

6

9

6

56

AQUARIUM
TANK

56

AQUARIUM
TANK

49

49

47

6

48

47

7

3

36-PLACE
CTD ROSETTE,
FOR REFERENCE
ONLY

56

AQUARIUM
TANK

56

AQUARIUM
TANK

49

49

47

6

48

(2) 4

22

7

43

52 BULKHEAD MOUNTED

56

AQUARIUM
TANK

56

AQUARIUM
TANK

49

49

43

56

AQUARIUM
TANK

7

48

22

BALTIC
ROOM
1-81-0-S

VENT

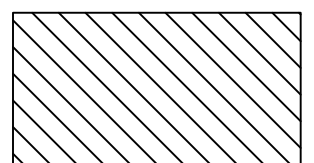
VENT

VENT

STRUCTURAL OFFSETS IN
WAY OF SIDE FRAMES IN
ACCORDANCE WITH REF 3

STRUCTURAL OFFSETS IN
WAY OF SIDE FRAMES IN
ACCORDANCE WITH REF 3

Preliminary Design, Post IDR5



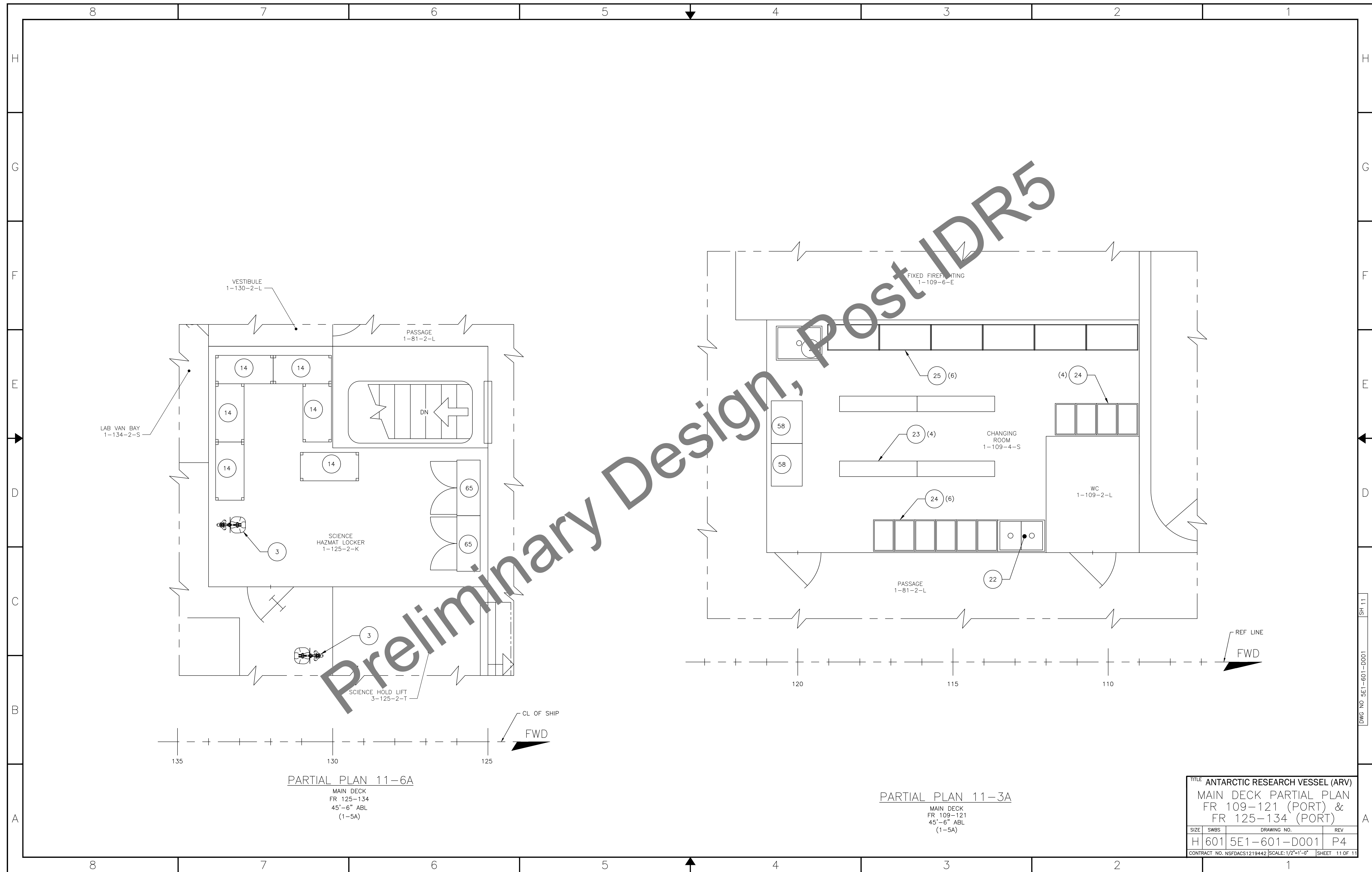
COUNTER TOP,
STAINLESS STEEL

PARTIAL PLAN 10-5A

MAIN DECK
FR 81-116
45'-6" ABL
(1-5A)

TITLE ANTARCTIC RESEARCH VESSEL (ARV)			
MAIN DECK PARTIAL PLAN FR 81-116 (STBD)			
SIZE	SWBS	DRAWING NO.	REV
H	601	5E1-601-D001	P4
CONTRACT NO. NSFDACS1219442			SCALE: 1/2"=1'-0"
			SHEET 10 OF 11

DWS NO 5E1-601-D001 SH 10



PARTIAL PLAN 11-6A
 MAIN DECK
 FR 125-134
 45'-6" ABL
 (1-5A)

PARTIAL PLAN 11-3A
 MAIN DECK
 FR 109-121
 45'-6" ABL
 (1-5A)

TITLE ANTARCTIC RESEARCH VESSEL (ARV)			
MAIN DECK PARTIAL PLAN			
FR 109-121 (PORT) &			
FR 125-134 (PORT)			
SIZE	SWBS	DRAWING NO.	REV
H	601	5E1-601-D001	P4
CONTRACT NO. NSFDCS1219442			SCALE: 1/2"=1'-0"
			SHEET 11 OF 11

DWS NO 5E1-601-D001 SH 11