

CCGS *Amundsen* Ship and Laboratories Plans



AMUNDSEN
SCIENCE 

Last Update: Jan. 2024

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Introduction

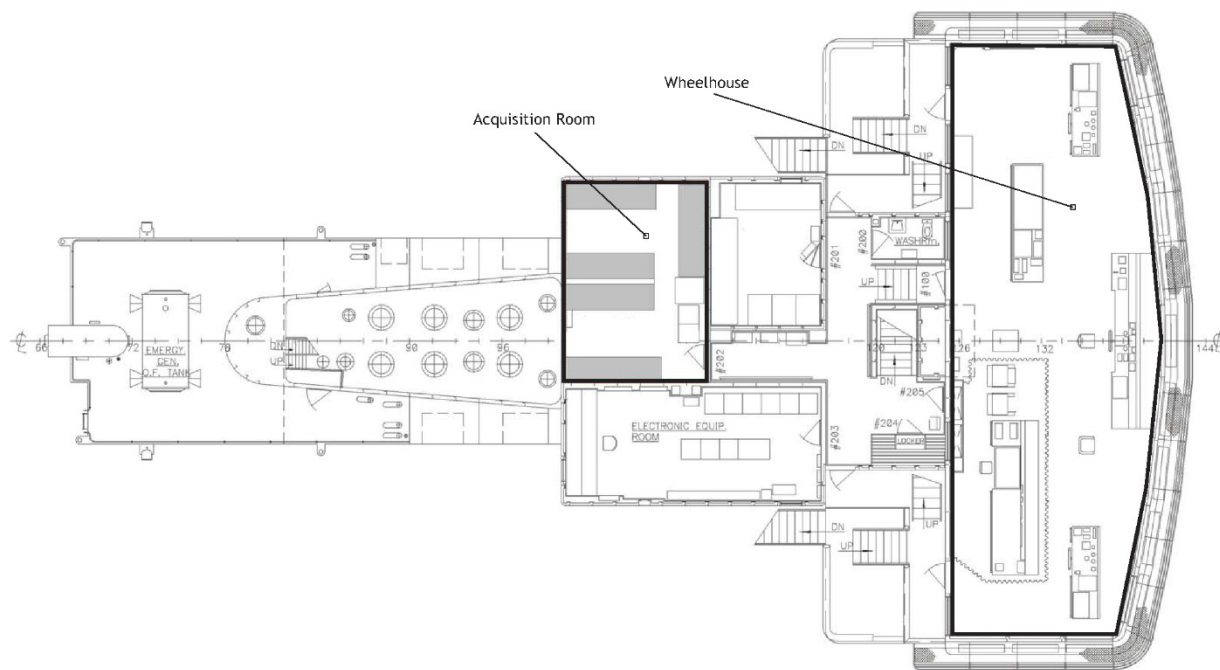
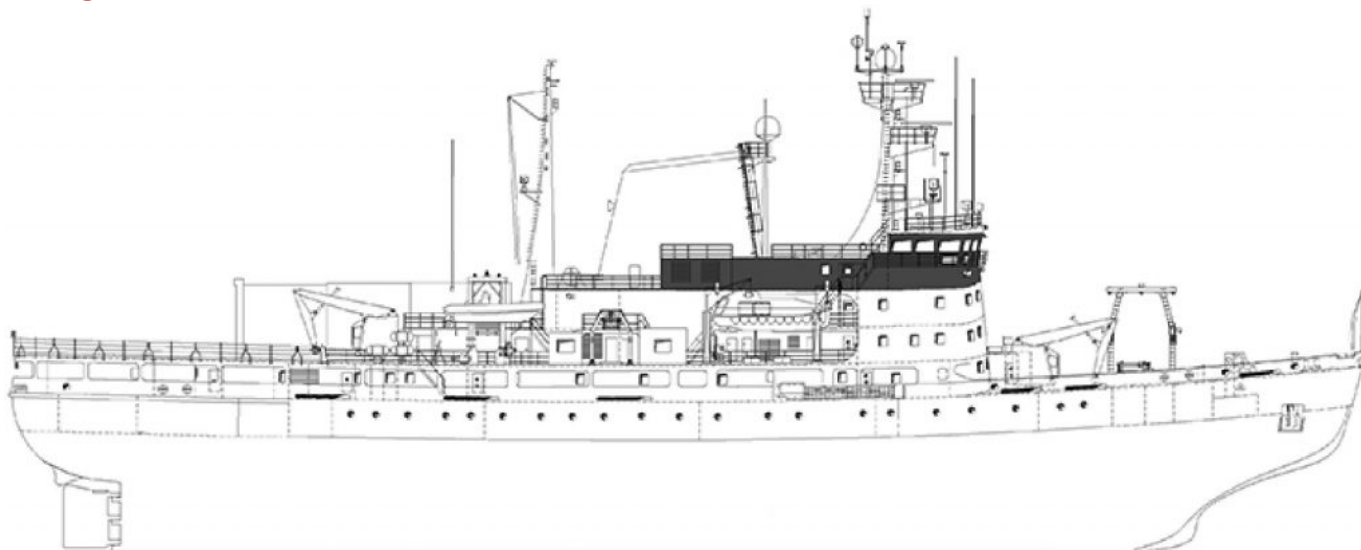
This document is designed for scientists boarding the CCGS *Amundsen* and for potential users of the facility. The first section presents the general plans of the icebreaker and the following sections present the plans of the laboratories and the portable containers.

Here are a few details useful to understand the laboratories and containers drawings:

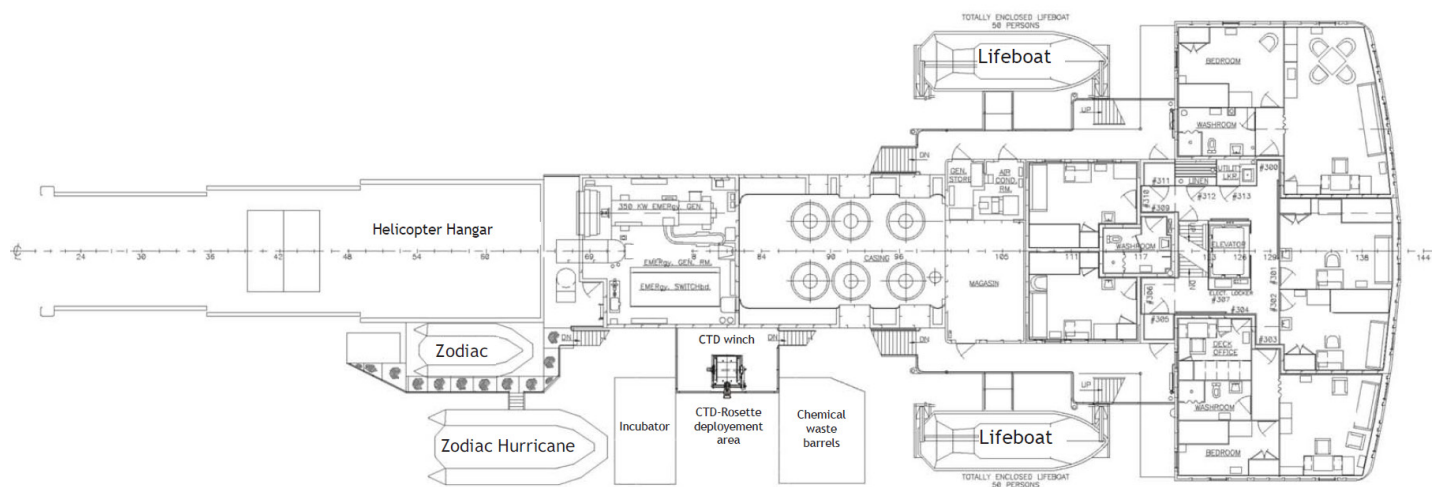
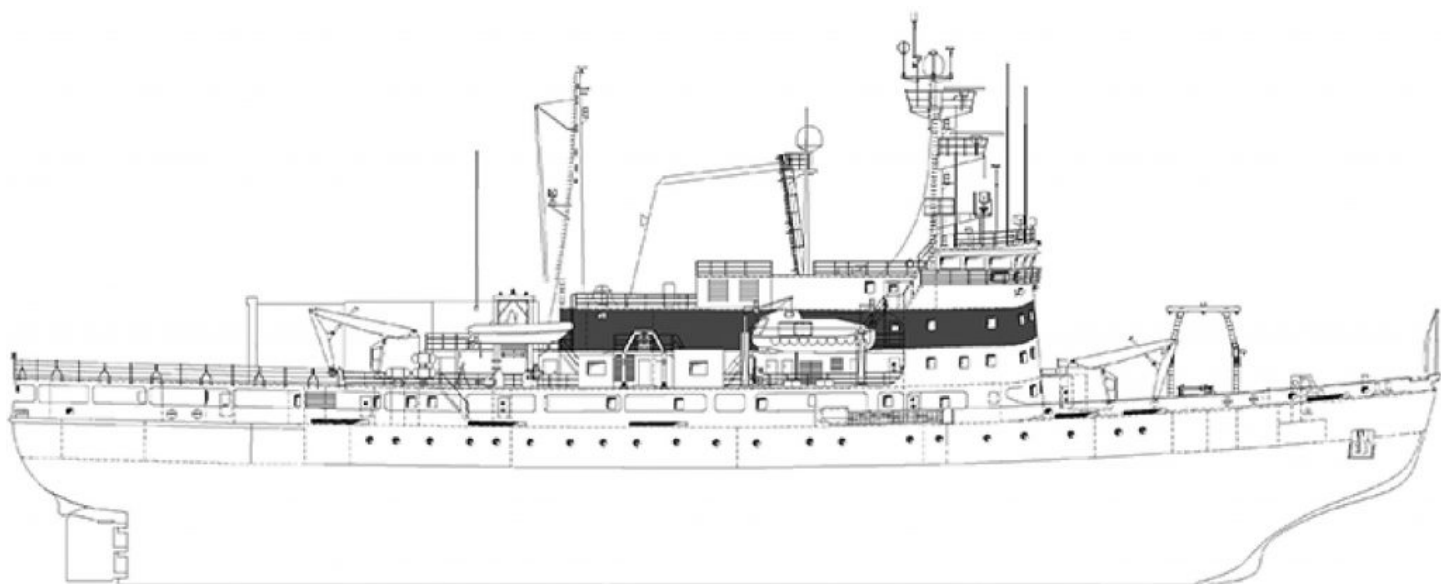
- All the drawing dimensions are in millimeter
- The drawings proportions are respected. The scales are between 1:40 and 1:100
- Electrical outlet name coding of the scientific room: *AAAnn-mm*
 - Where *AAA* is the kind of circuit, *nn* is the number of the circuit breaker panel and *mm* is the number of the circuit breaker
- Electrical outlet name coding of the container: *nA-nB #D* or *nA#D – nB#D*
 - Where *n* is the number of the plug panel, A and B are the identification of the plug of the plug panel and *D* is the number of the circuit breaker (there is one circuit breaker by container)
- All the circuit breakers have a limit of 15A or 20A. The most common is 15A.
- Electrical outlet color coding:
 - 220 V
 - 120 V
 - 120 V UPS

CCGS *Amundsen* Plans

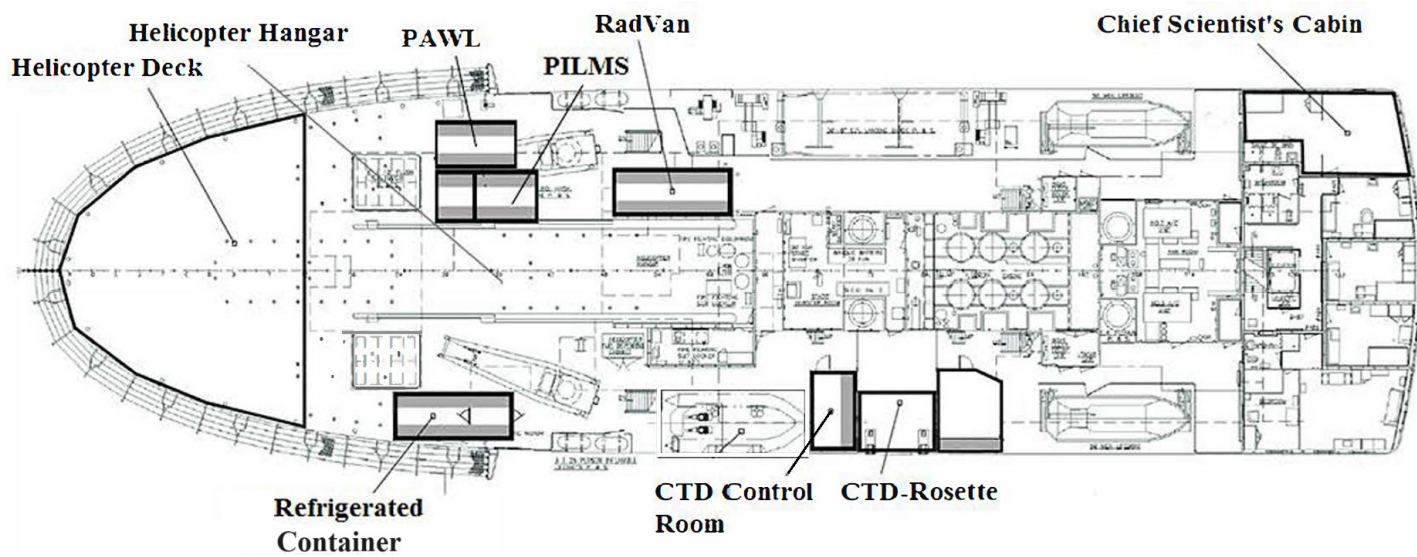
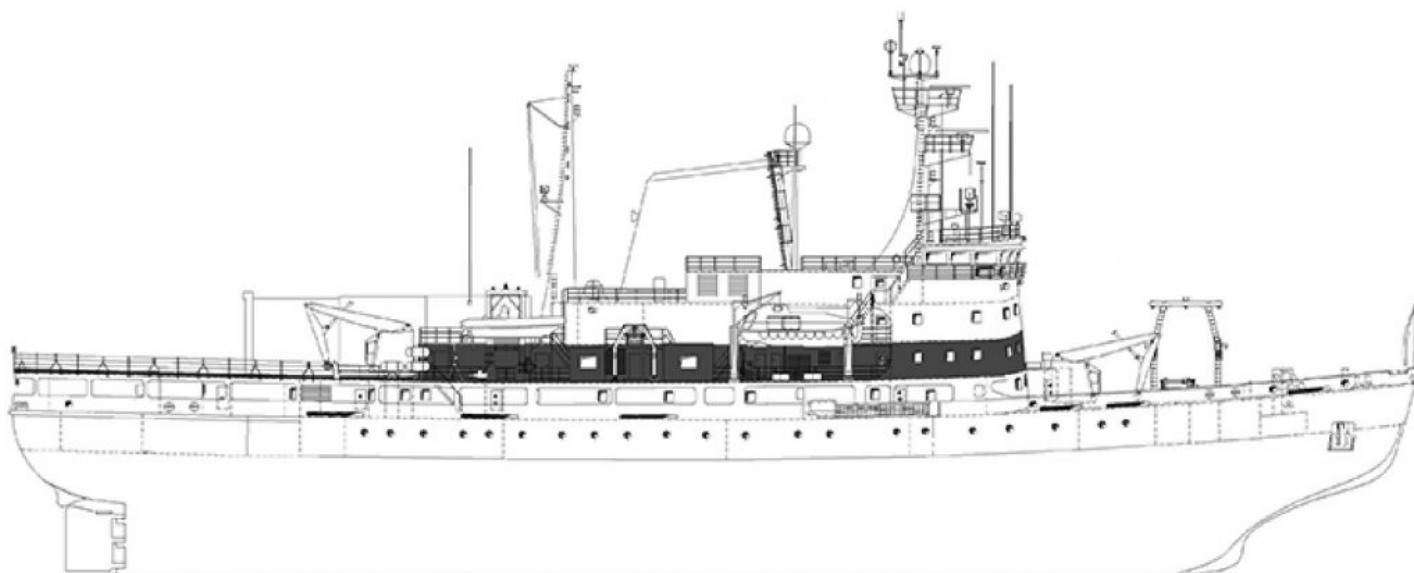
Navigation Deck



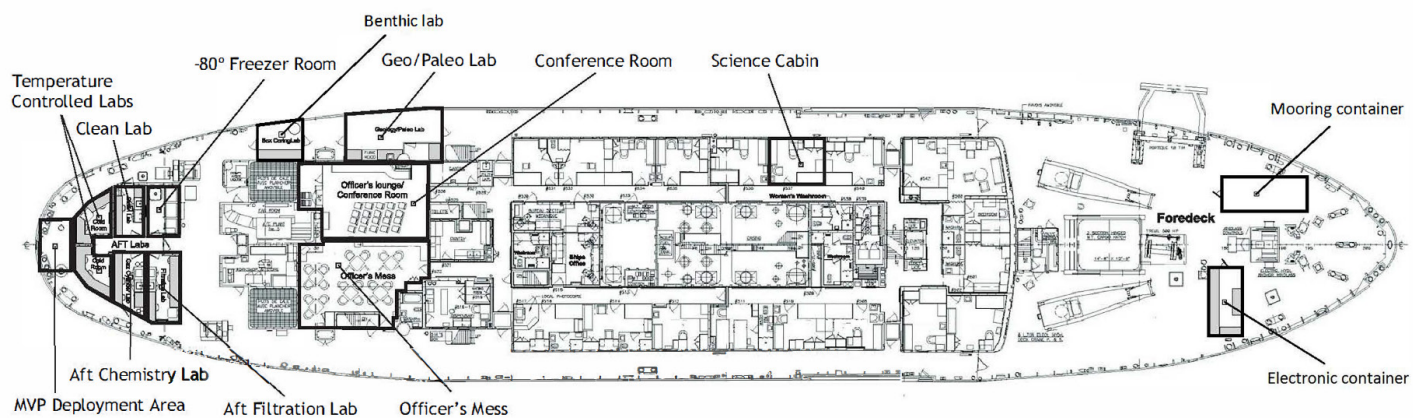
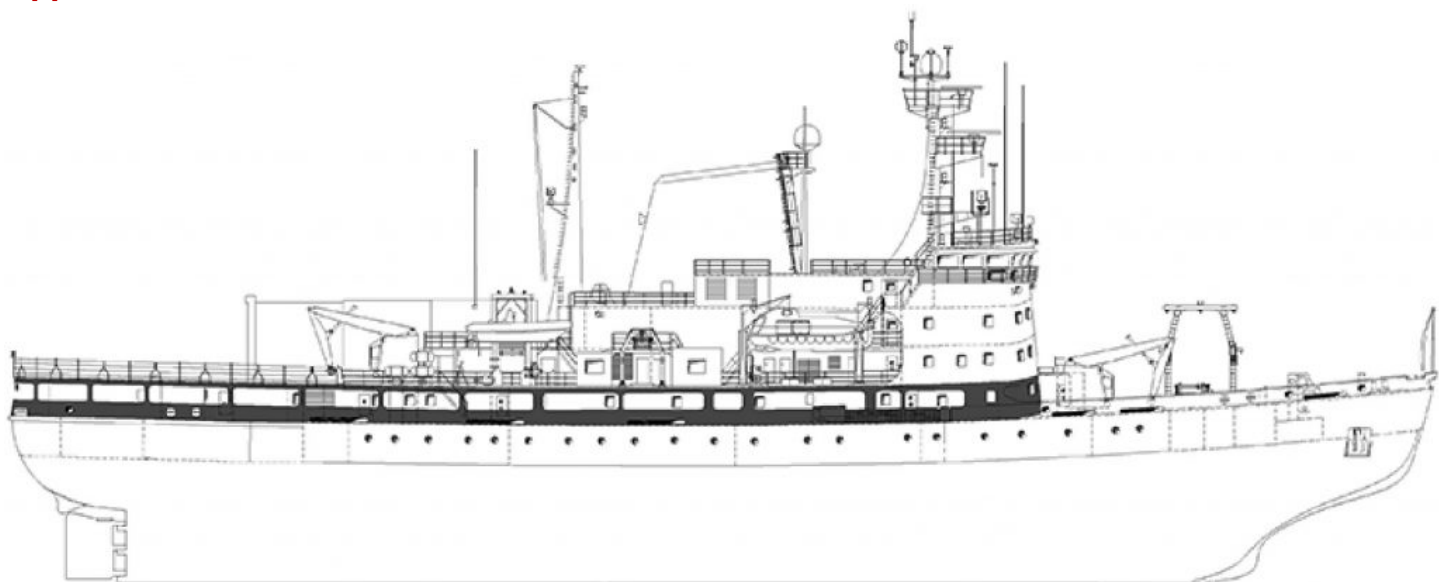
Officer's Deck



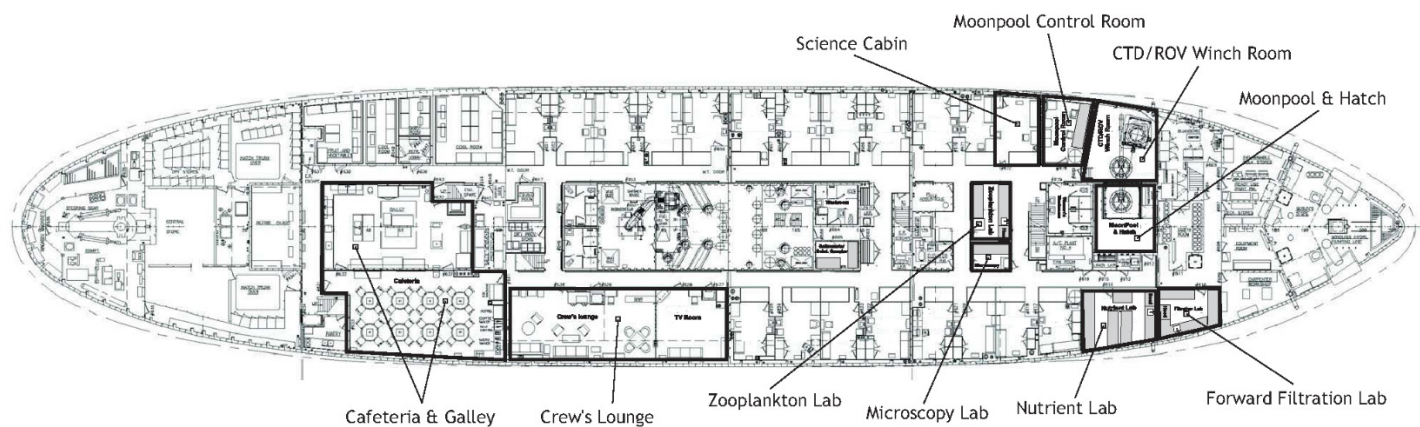
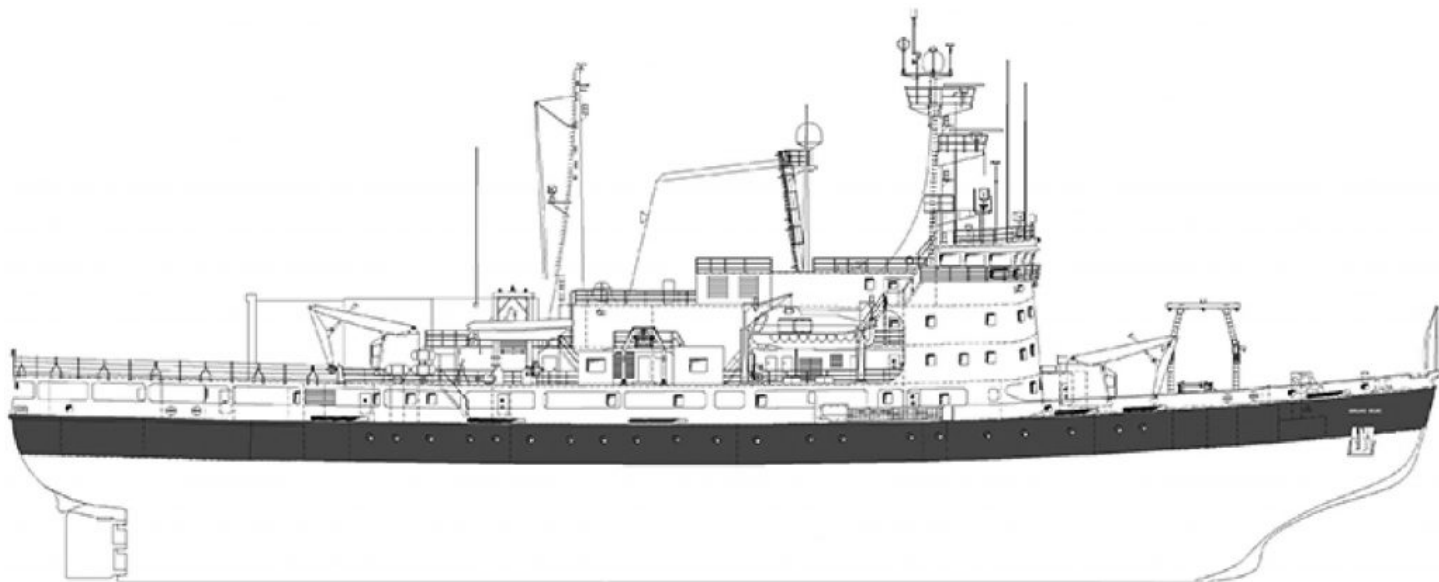
Boat Deck



Upper Deck



Main Deck



Scientific Laboratories

Acquisition Room

Floor level: Navigation deck

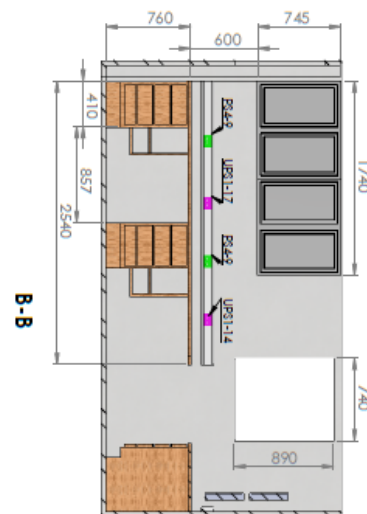
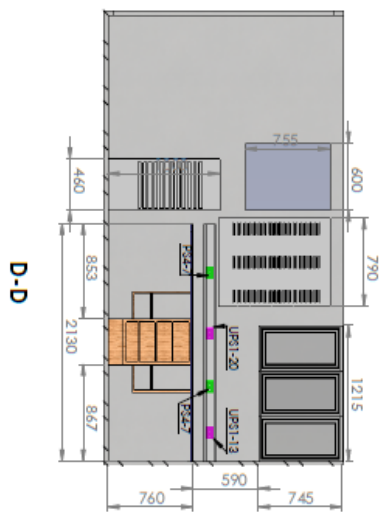
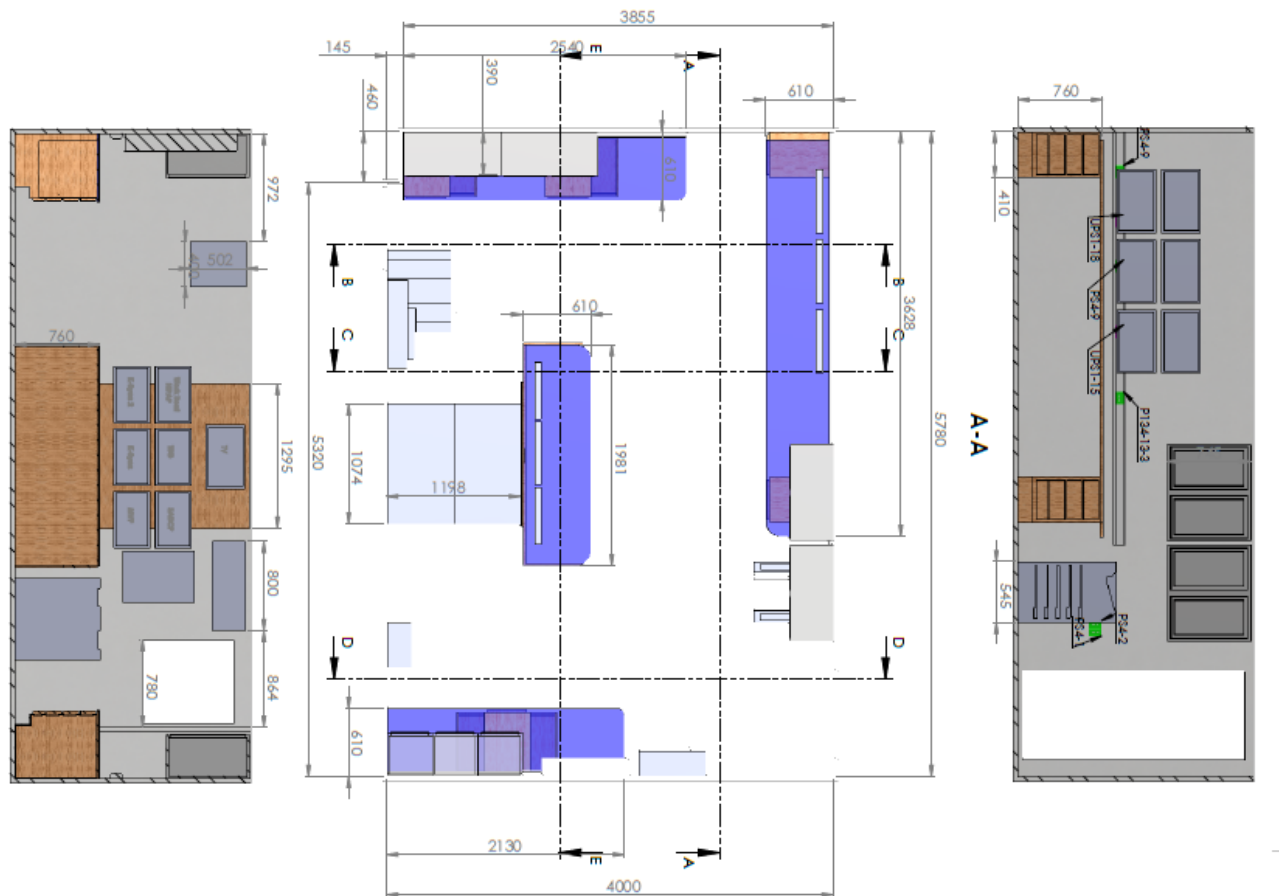
Floor surface: 23.05m²

Bench surface: 7.1m²

Number of electric circuit: 14

Breaker	Voltage	Nb Plug	Share room
P134-13-3	220V	1	
UPS1-13	120V	1	
UPS1-14	120V	1	
UPS1-15	120V	1	
UPS1-16	120V	1	
UPS1-17	120V	1	
UPS1-18	120V	1	
UPS1-19	120V	1	
UPS1-20	120V	1	
PS4-1	120V	1	
PS4-2	120V	1	
PS4-7	120V	2	
PS4-8	120V	2	
PS4-9	120V	4	





Starboard Temperature Controlled Lab (555)

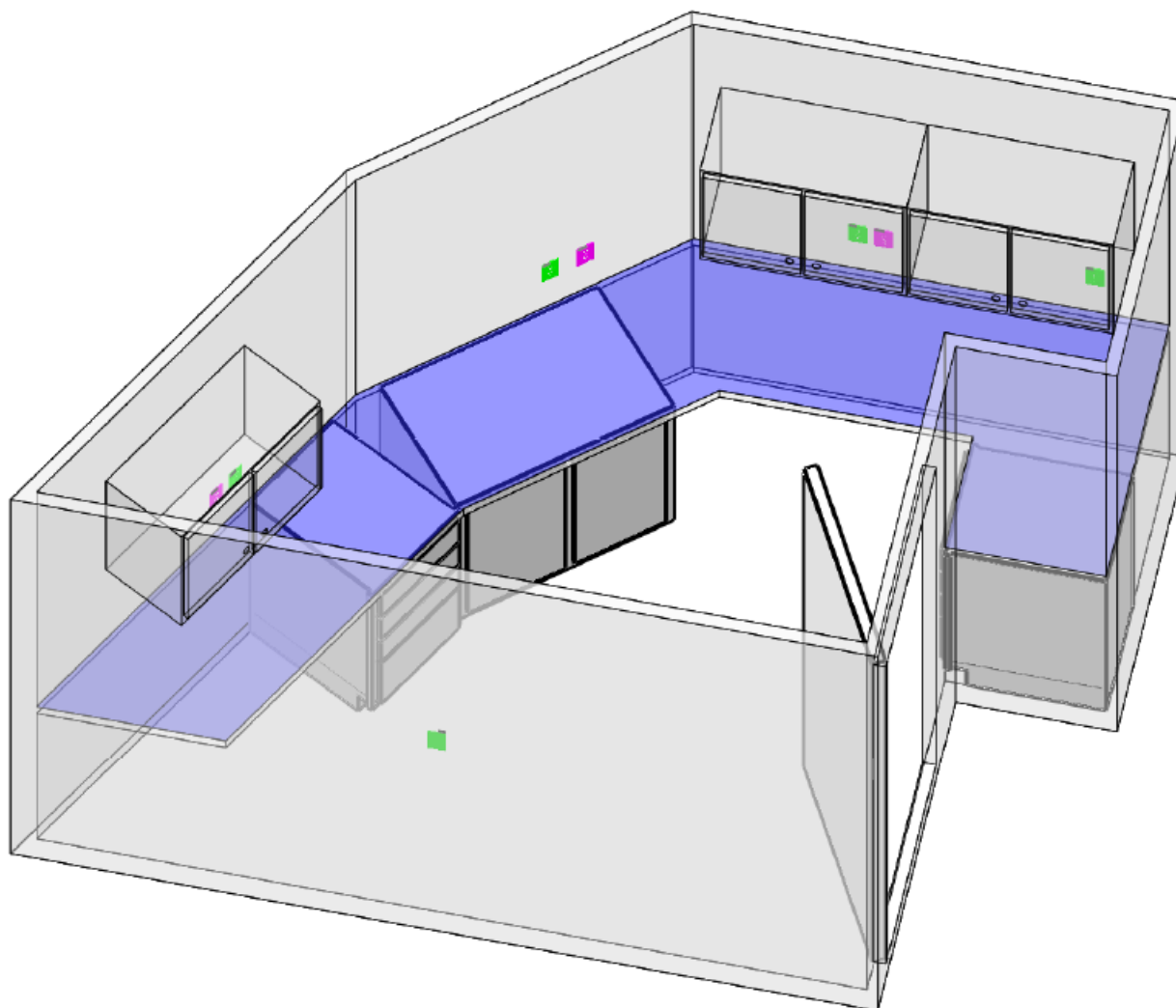
Floor level: Upper deck

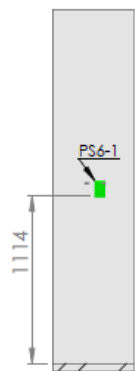
Floor surface: 6.19m²

Bench surface: 2.96m²

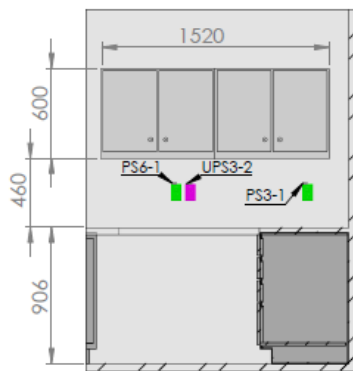
Number of electric circuit: 3

Breaker	Voltage	Nb Plug	Share Room
UPS3-2	120V	3	556, 554
PS6-1	120V	4	551, 553
PS3-1	220V	1	551, 553, 554, 556, 560, 561





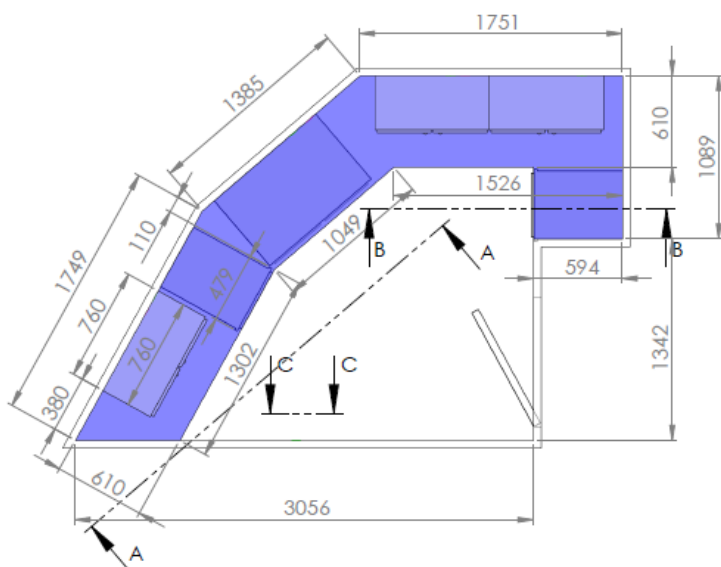
COUPE C-C
ECHELLE 1 : 30



COUPE B-B
ECHELLE 1 : 30



COUPE A-A
ECHELLE 1 : 30



Port Temperature Controlled Lab (556)

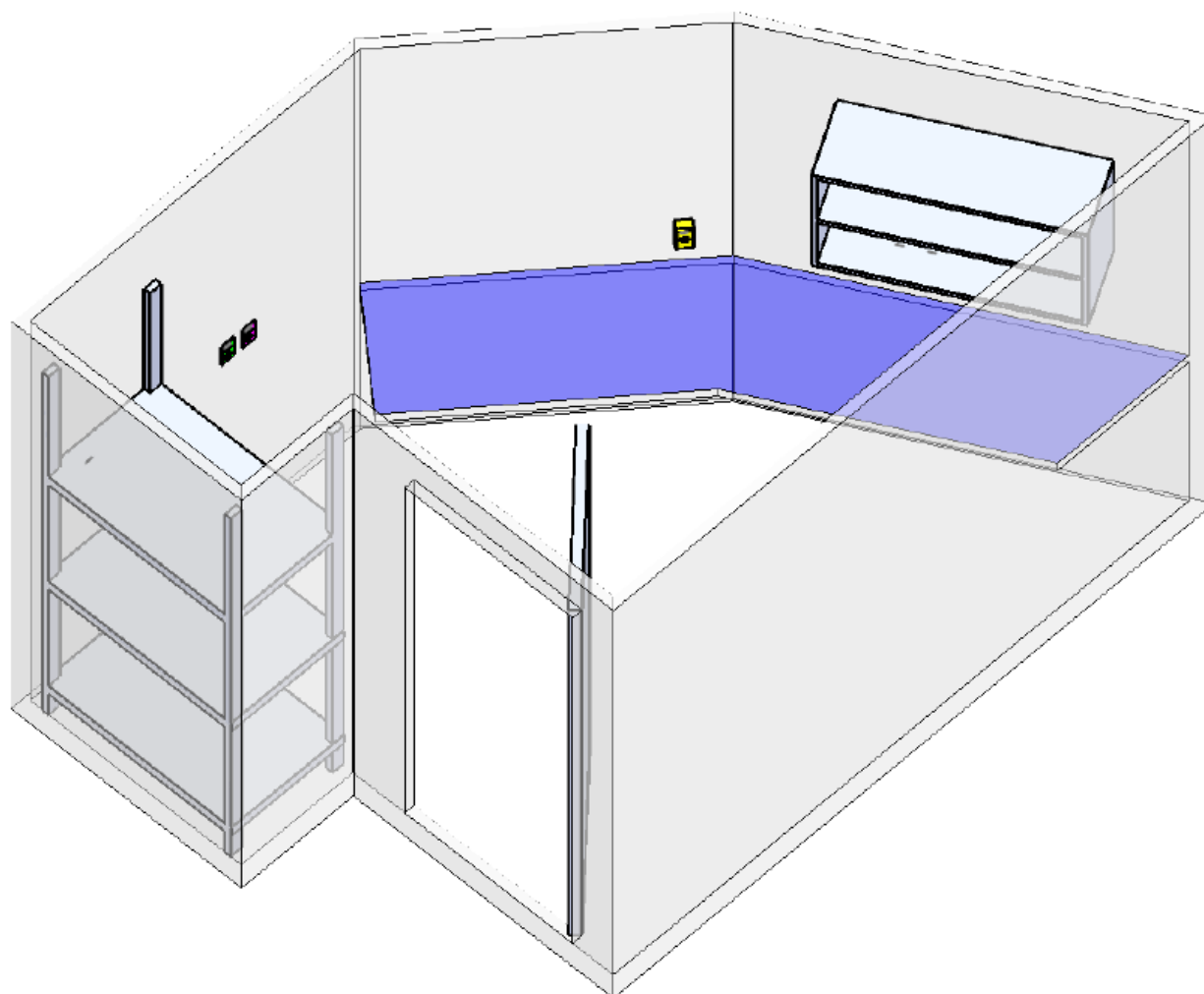
Floor level: Upper deck

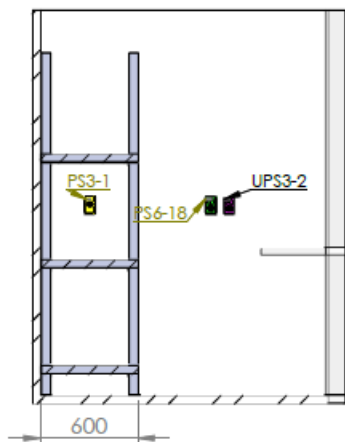
Floor surface: 6.19m²

Bench surface: 1.74m²

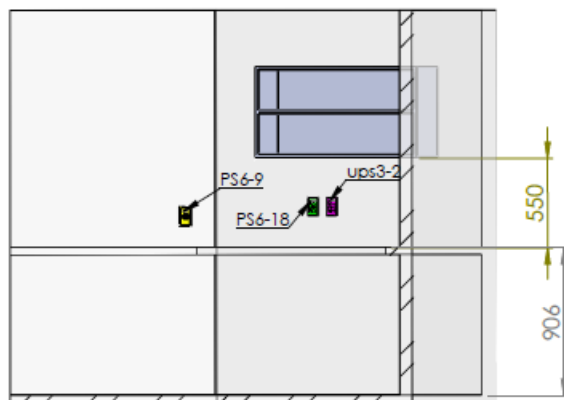
Number of electric circuit: 4

Breaker	Voltage	Nb Plug	Share room
PS6-9	220V	1	
PS3-1	220V	1	551, 553, 554, 555, 560, 561
UPS3-2	120V	2	555, 554
PS6-18	120V	2	552, 554

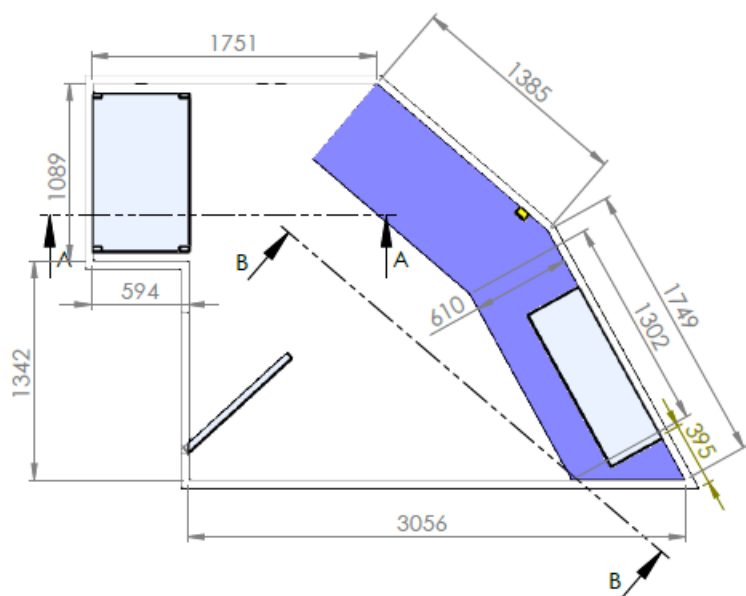




COUPE A-A



COUPE B-B



Chemistry Lab (553)

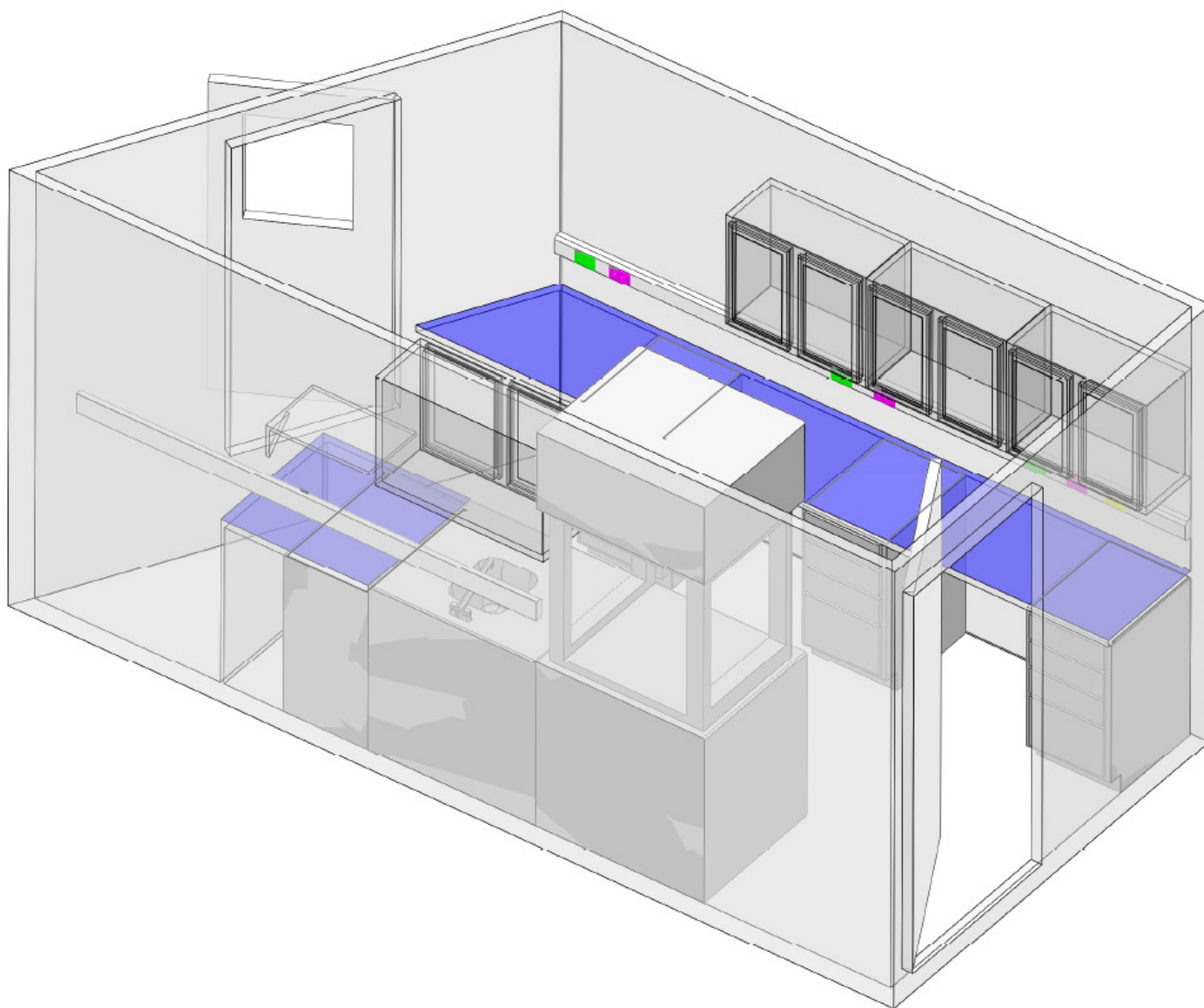
Floor level: Upper deck

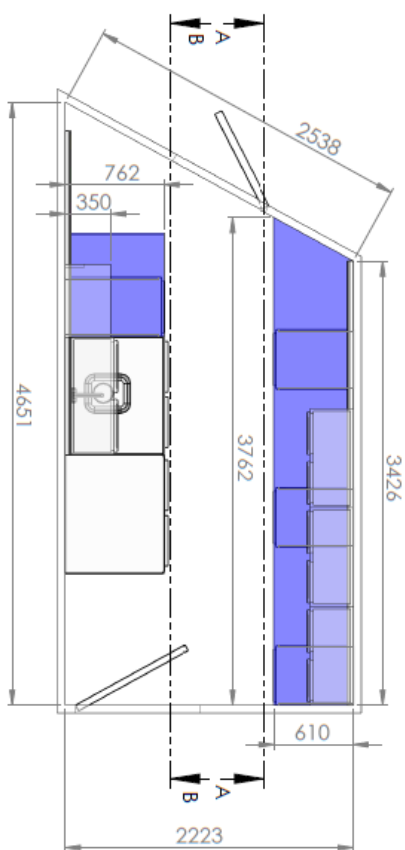
Floor surface: 8.96m²

Bench surface: 1.17m²

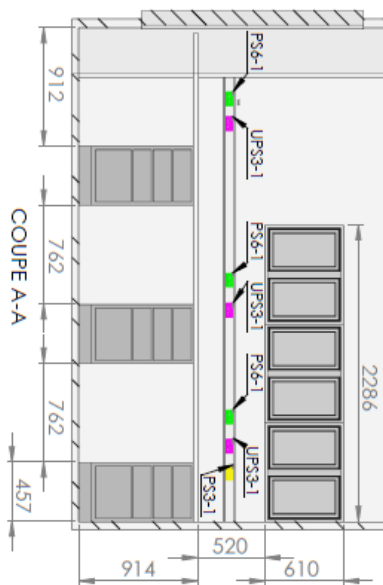
Number of electric circuit: 3

Breaker	Voltage	Nb Plug	Share room
PS3-1	220V	1	551, 554, 555, 556, 560, 561
UPS3-1	120V	3	551
PS6-17	120V	1	551
PS6-1	120V	3	551, 555

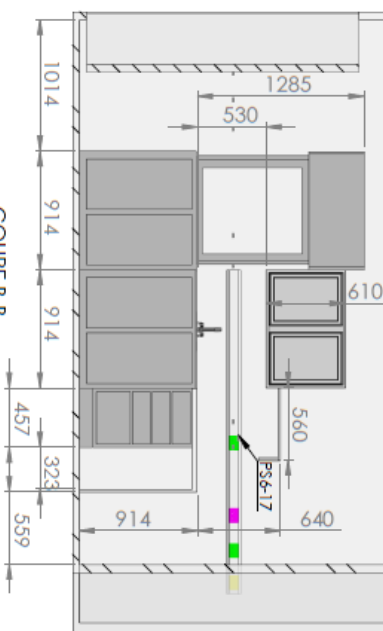




COUPE A-A
ECHELLE 1 : 35



COUPE B-B
ECHELLE 1 : 35



Aft filtration Lab (551)

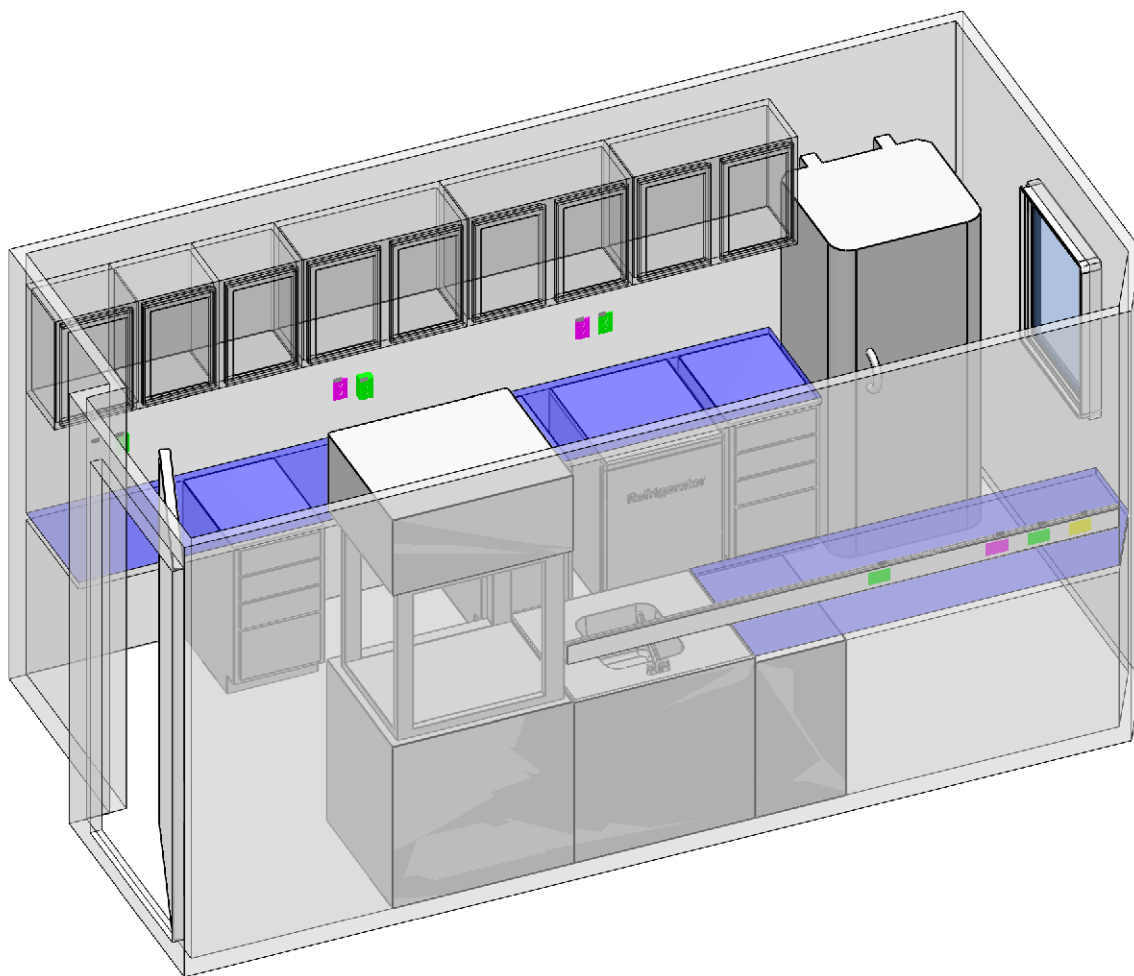
Floor level: Upper deck

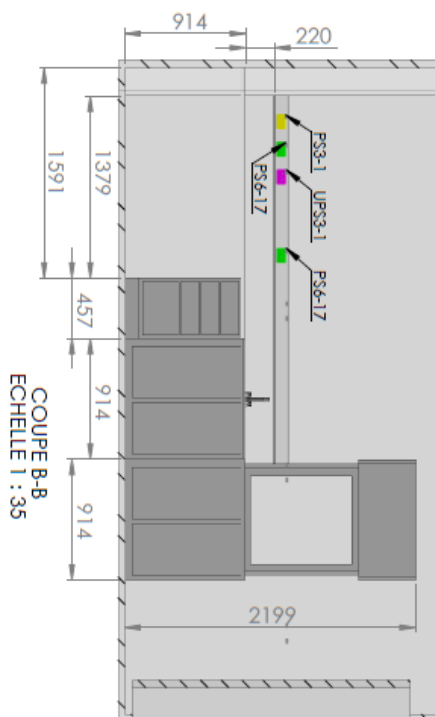
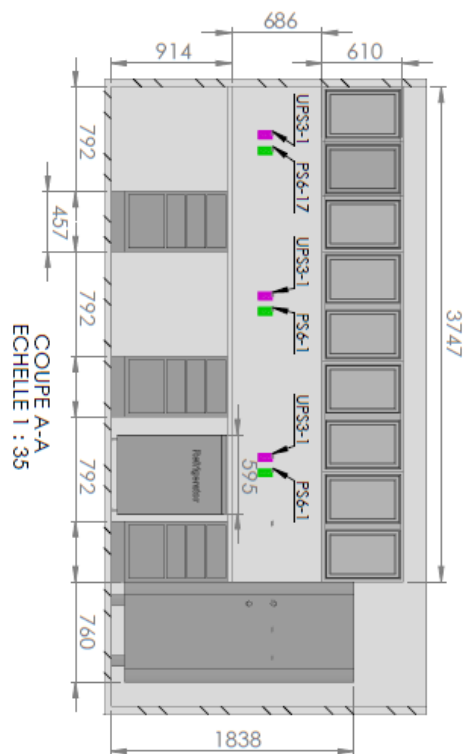
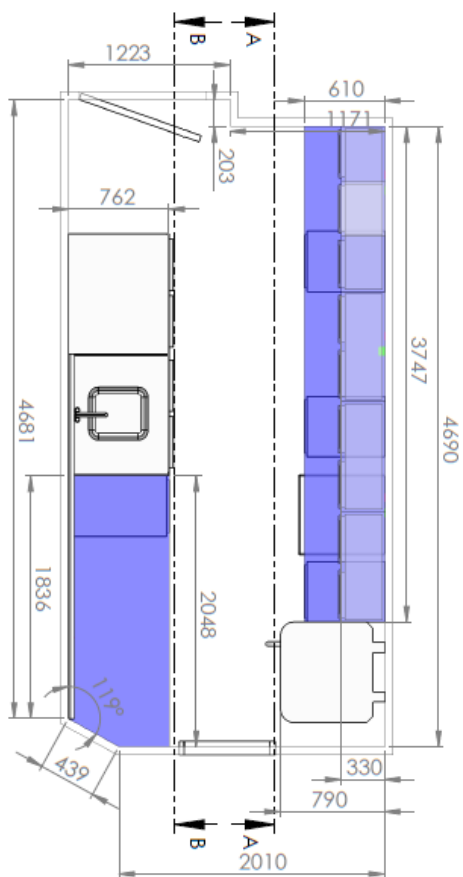
Floor surface: 11.43m²

Bench surface: 4.29m²

Number of electric circuit: 4

Breaker	Voltage	Nb Plug	Share room
PS3-1	220V	1	553, 554, 555, 556, 560, 561
UPS3-1	120V	4	553
PS6-17	120V	2	553
PS6-1	120V	3	553, 555





Clean Lab (554)

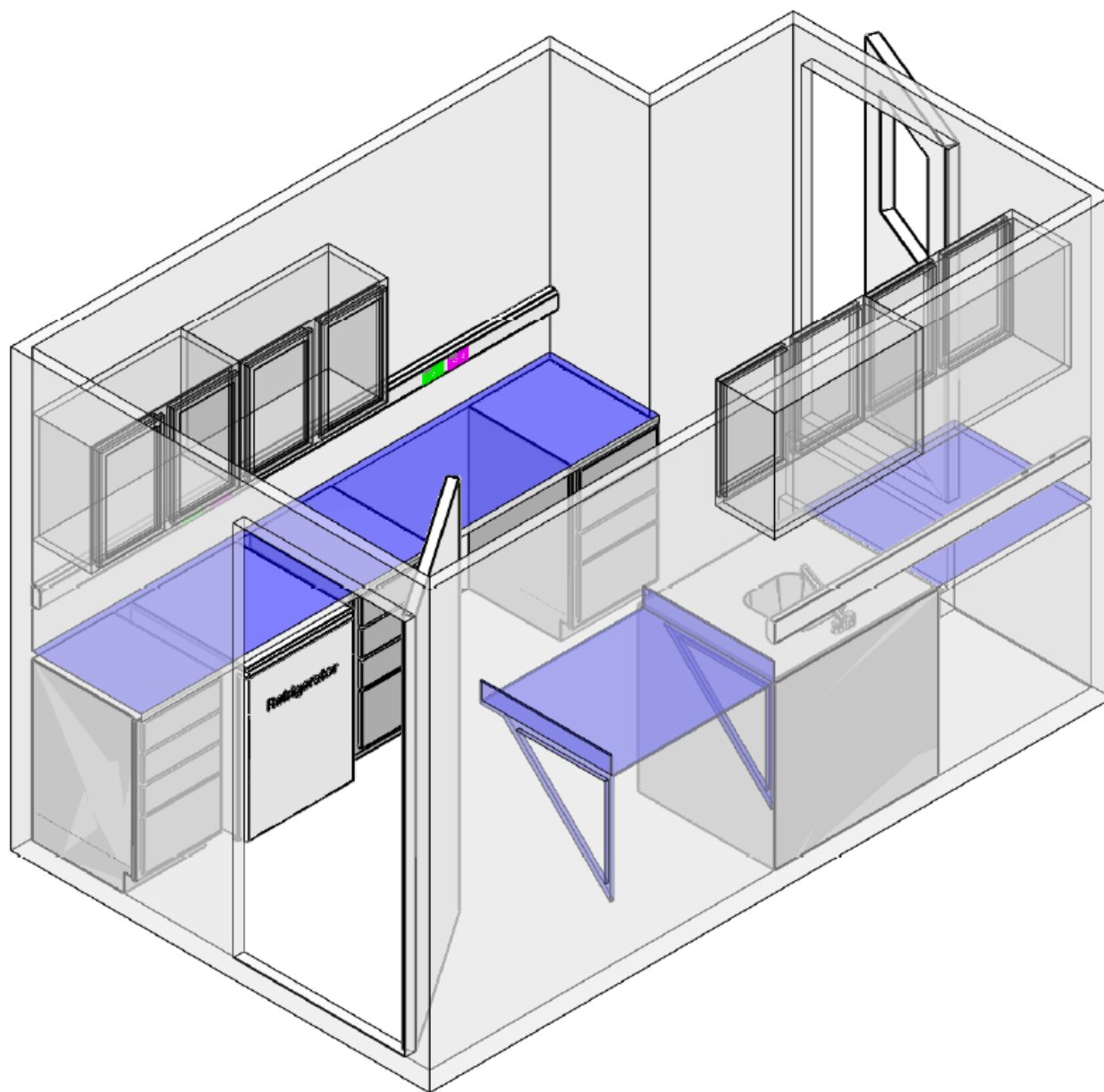
Floor level: Upper deck

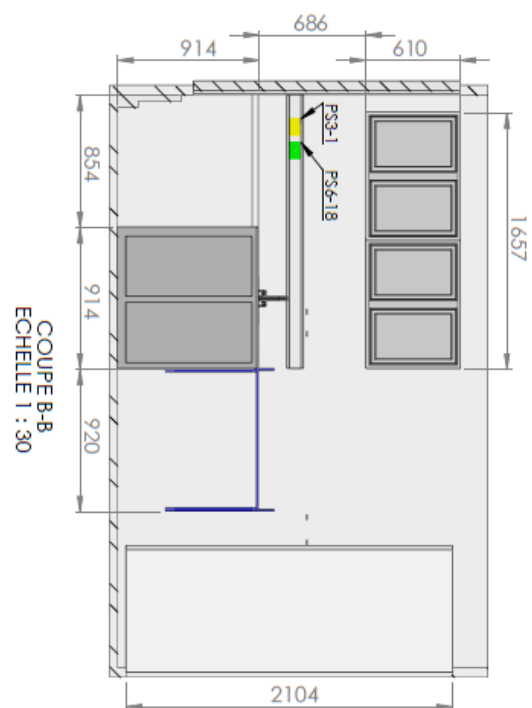
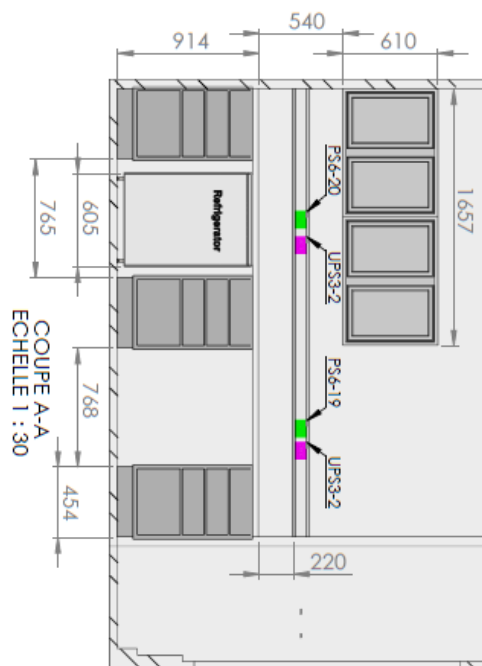
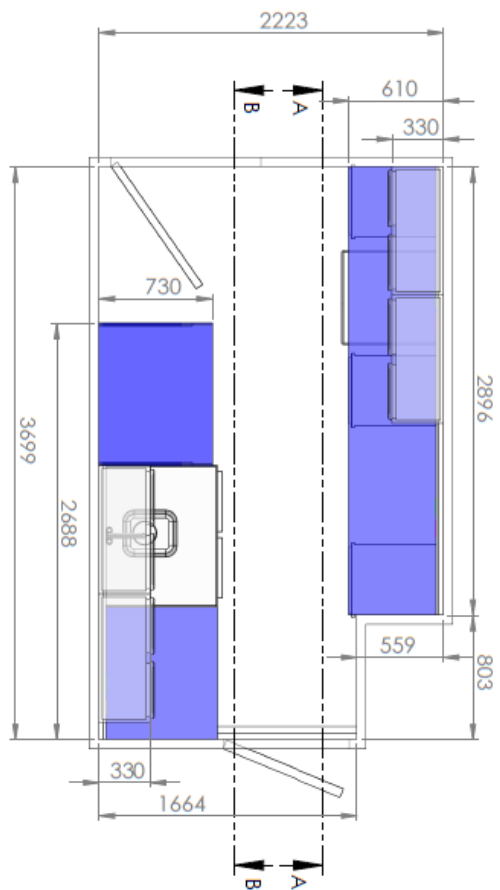
Floor surface: 7.70m²

Bench surface: 3.64m²

Number of electric circuit: 5

Breaker	Voltage	Nb Plug	Share room
PS3-1	220V	1	551, 553, 555, 556, 560, 561
UPS3-2	120V	2	555, 556
PS6-18	120V	1	552, 556
PS6-19	120V	1	
PS6-20	120V	1	



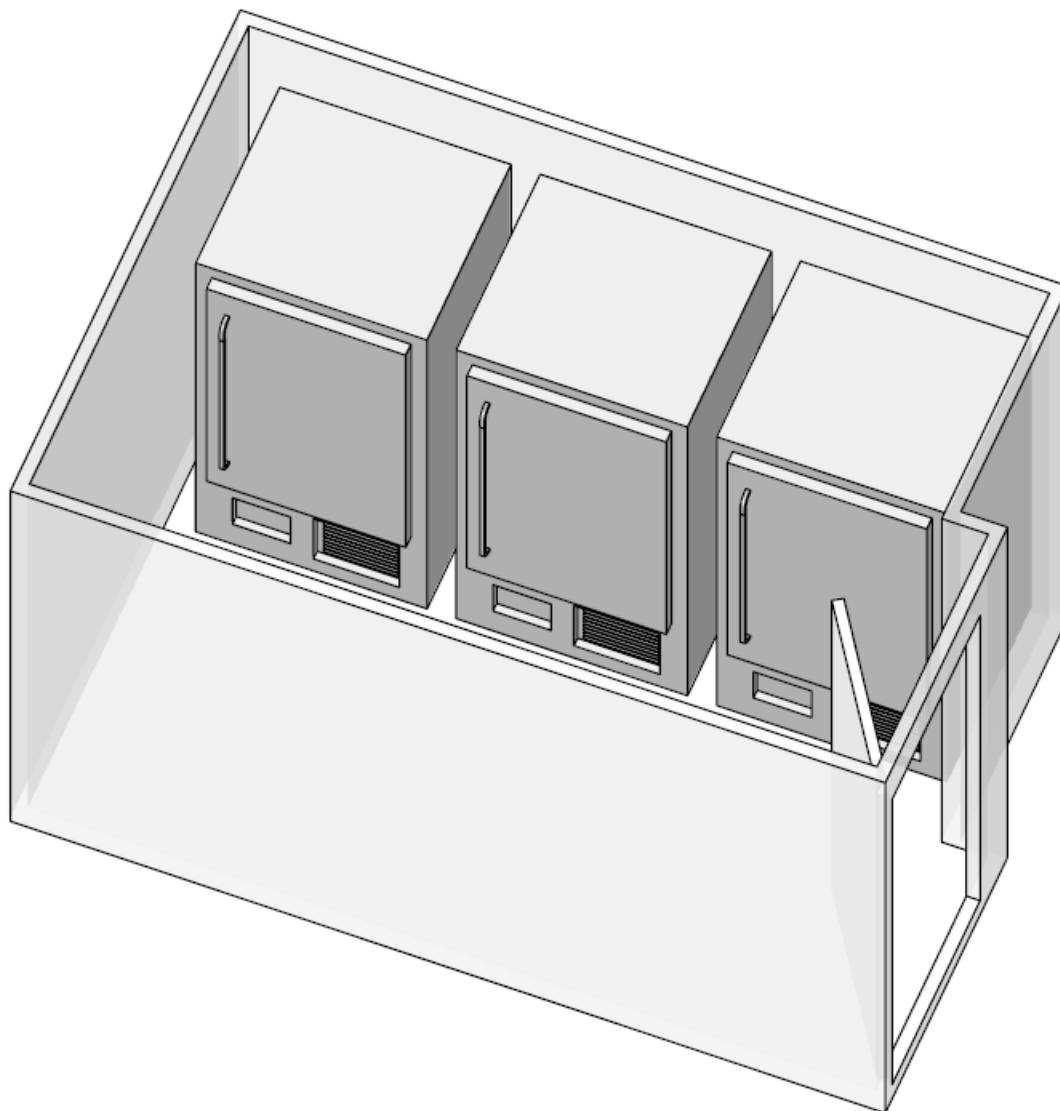


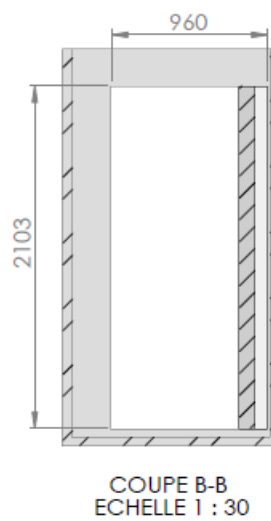
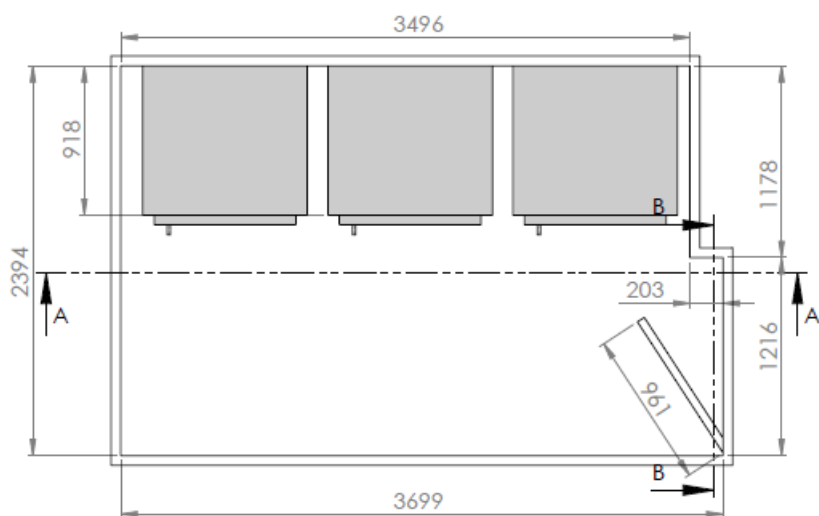
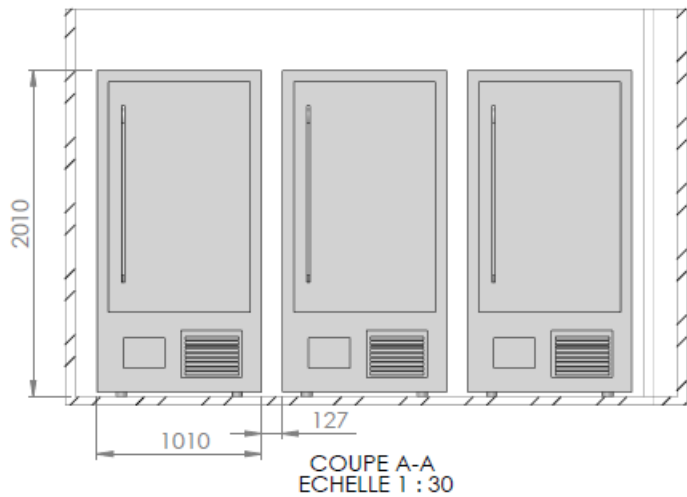
-80 freezer room

Floor level: Upper deck

Floor surface: 8.62m²

Bench surface: 0.00m²





Geology/Paleontology Laboratory (561)

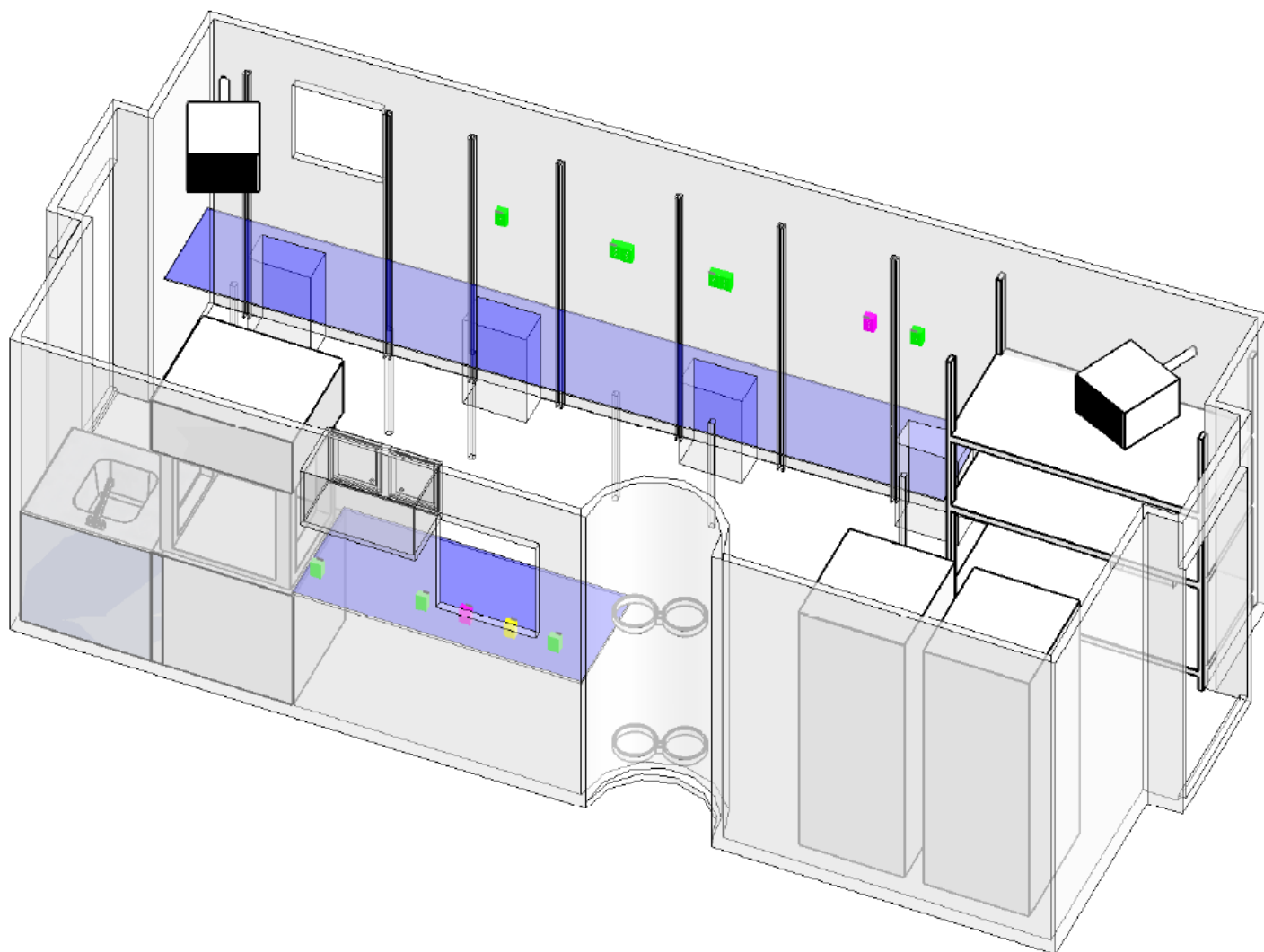
Floor level: Upper deck

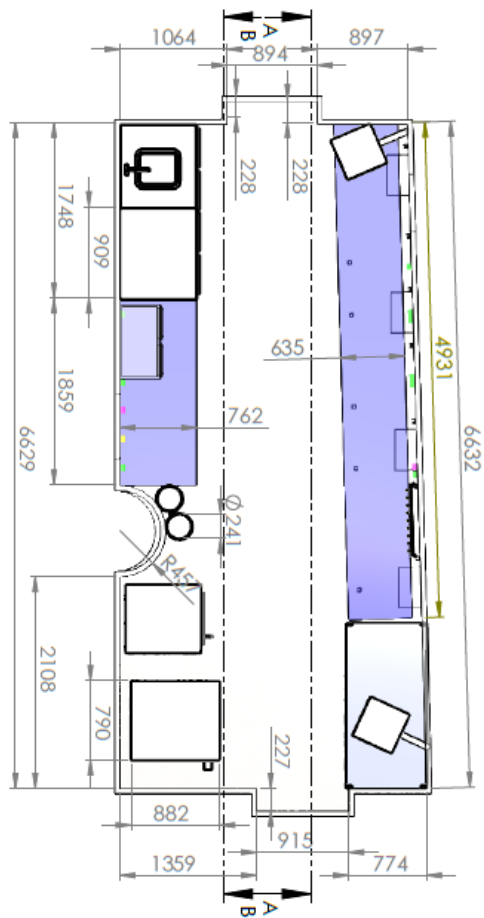
Floor surface: 19.19m²

Bench surface: 5.21m²

Number of electric circuit: 9

Breaker	Voltage	Nb Plug	Share room
PS3-1	220V	1	551, 553, 554, 555, 556, 560
UPS3-3	120V	1	560, 415, 412
UPS3-5	120V	1	
PS6-2	120V	2	552, 556, 560
PS6-14	120V	1	
P108-4	120V	1	
P108-6	120V	2	
P108-7	120V	2	
P108-12	120V	1	

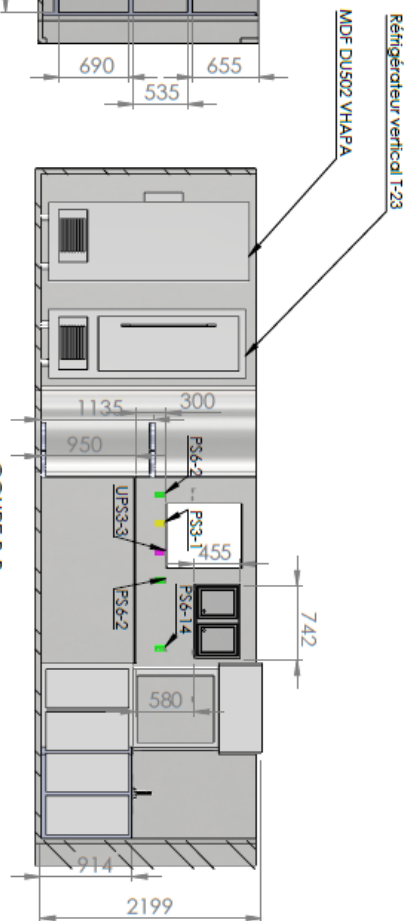




COUPE A-A
ECHELLE 1 : 45



COUPE B-B
ECHELLE 1 : 45



Benthic Laboratory

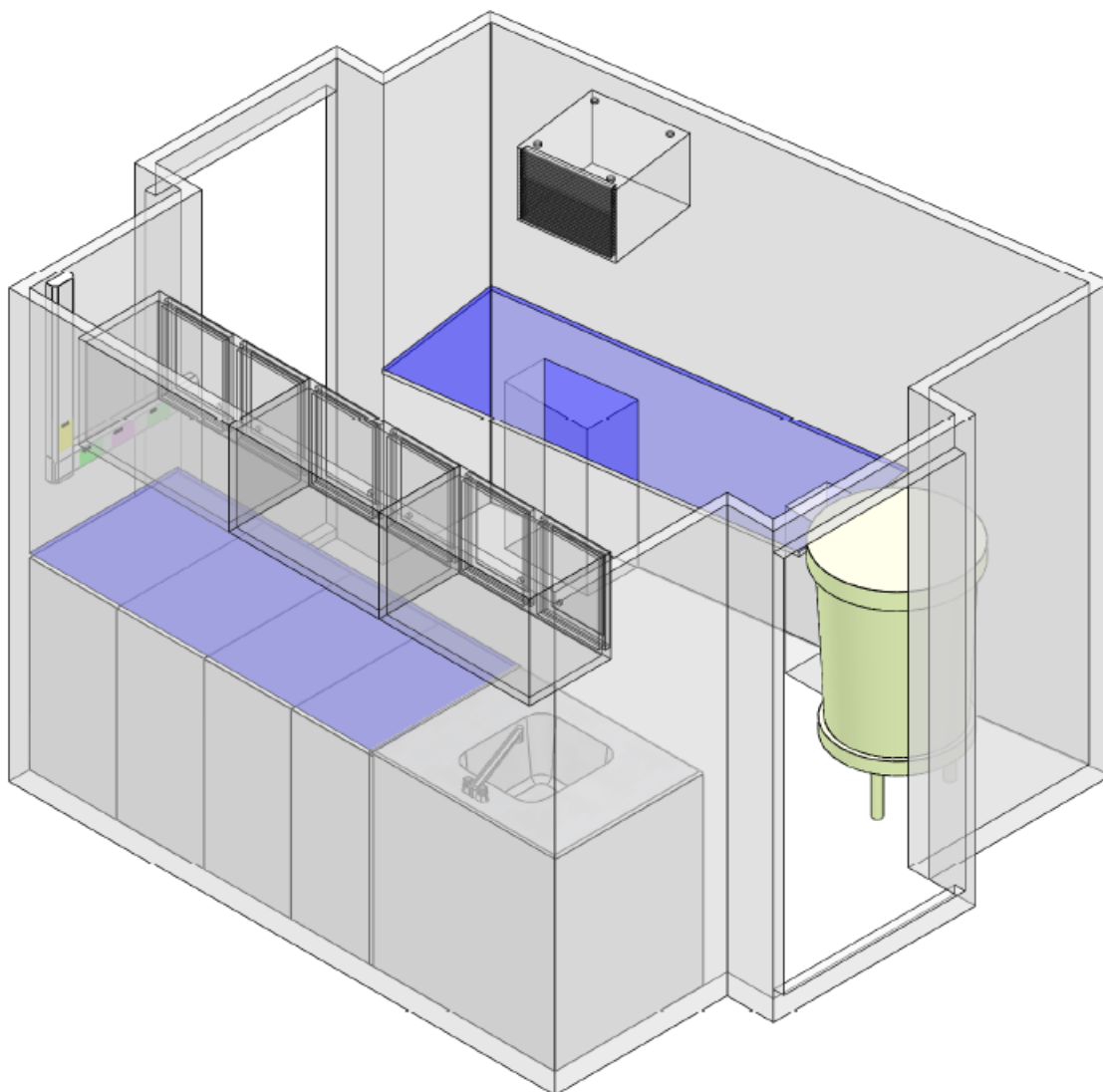
Floor level: Upper deck

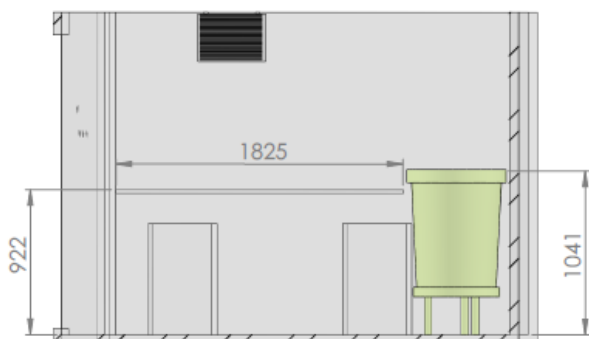
Floor surface: 6.58m²

Bench surface: 2.85m²

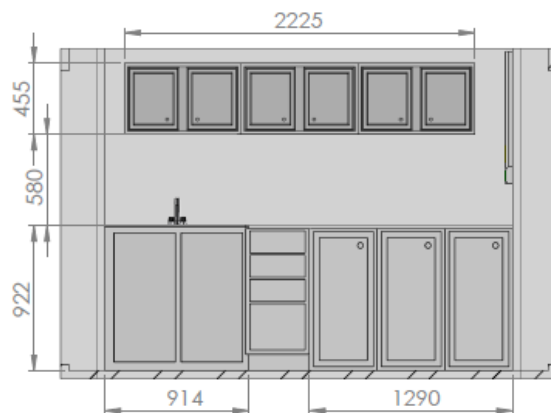
Number of electric circuit: 4

Breaker	Voltage	Nb Plug	Share room
PS3-1	220V	1	551, 553, 554, 555, 556, 561
UPS3-3	120V	1	561, 415, 412
PS6-2	120V	1	552, 556, 561
PS6-10	120V	1	

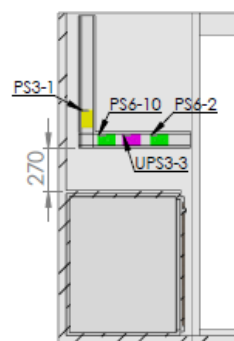
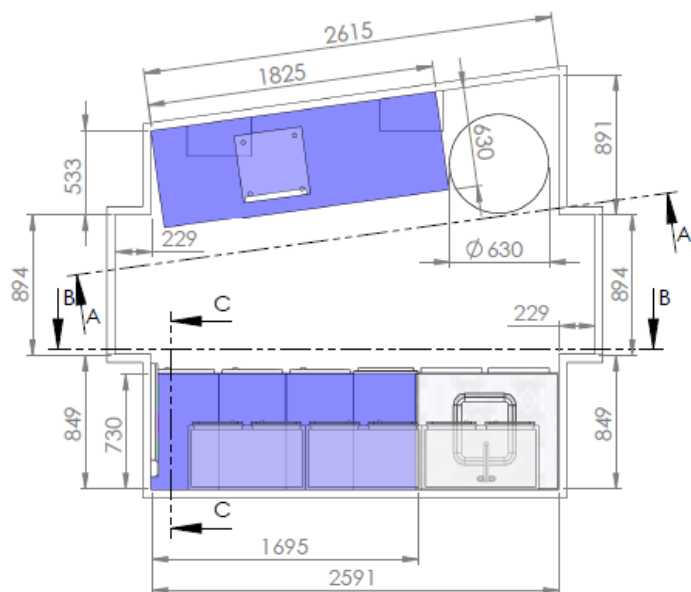




COUPE A-A
ECHELLE 1 : 30



COUPE B-B
ECHELLE 1 : 30



COUPE C-C
ECHELLE 1 : 30

Microscopy/Salinometer Laboratory (676)

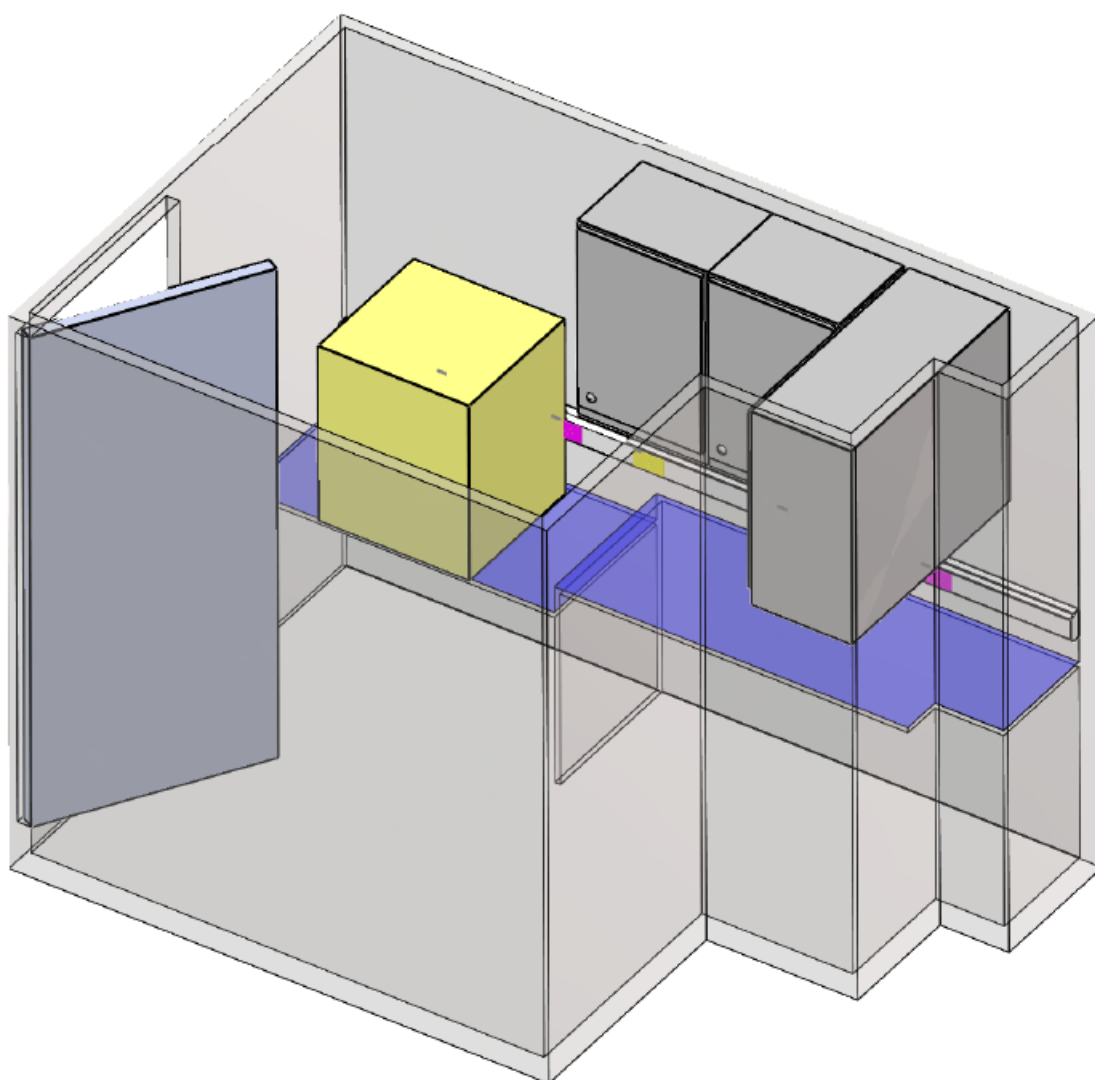
Floor level: Main deck

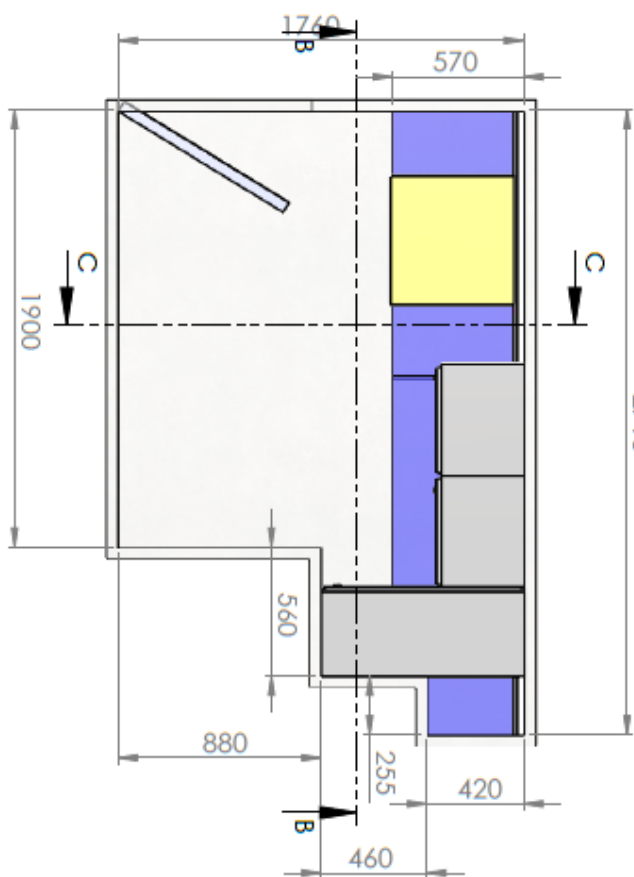
Floor surface: 3.93m²

Bench surface: 1.51m²

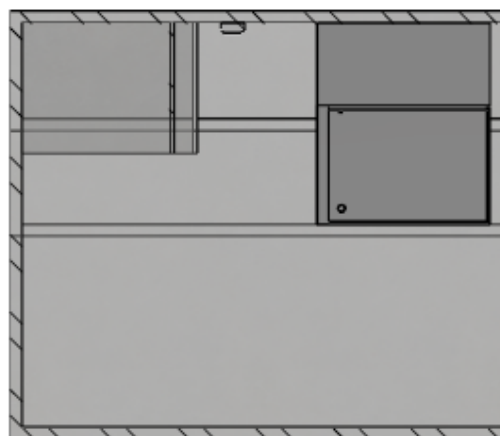
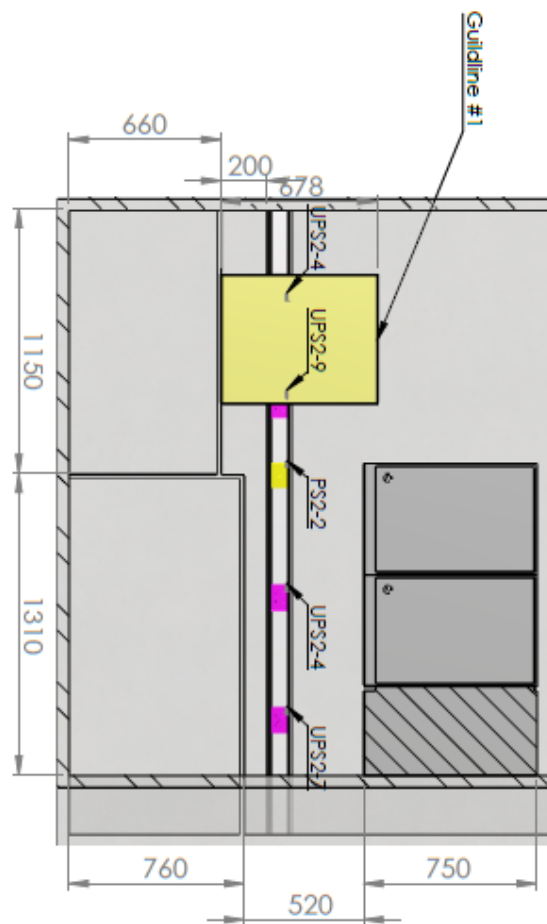
Number of electric circuit: 4

Breaker	Voltage	Nb Plug	Share room
PS2-2	220V	1	
UPS2-4	120V	2	
UPS2-7	120V	1	
UPS2-9	120V	1	





COUPE B-B
ECHELLE 1 : 25
2715



COUPE C-C
ECHELLE 1 : 25

Zooplankton Laboratory (675)

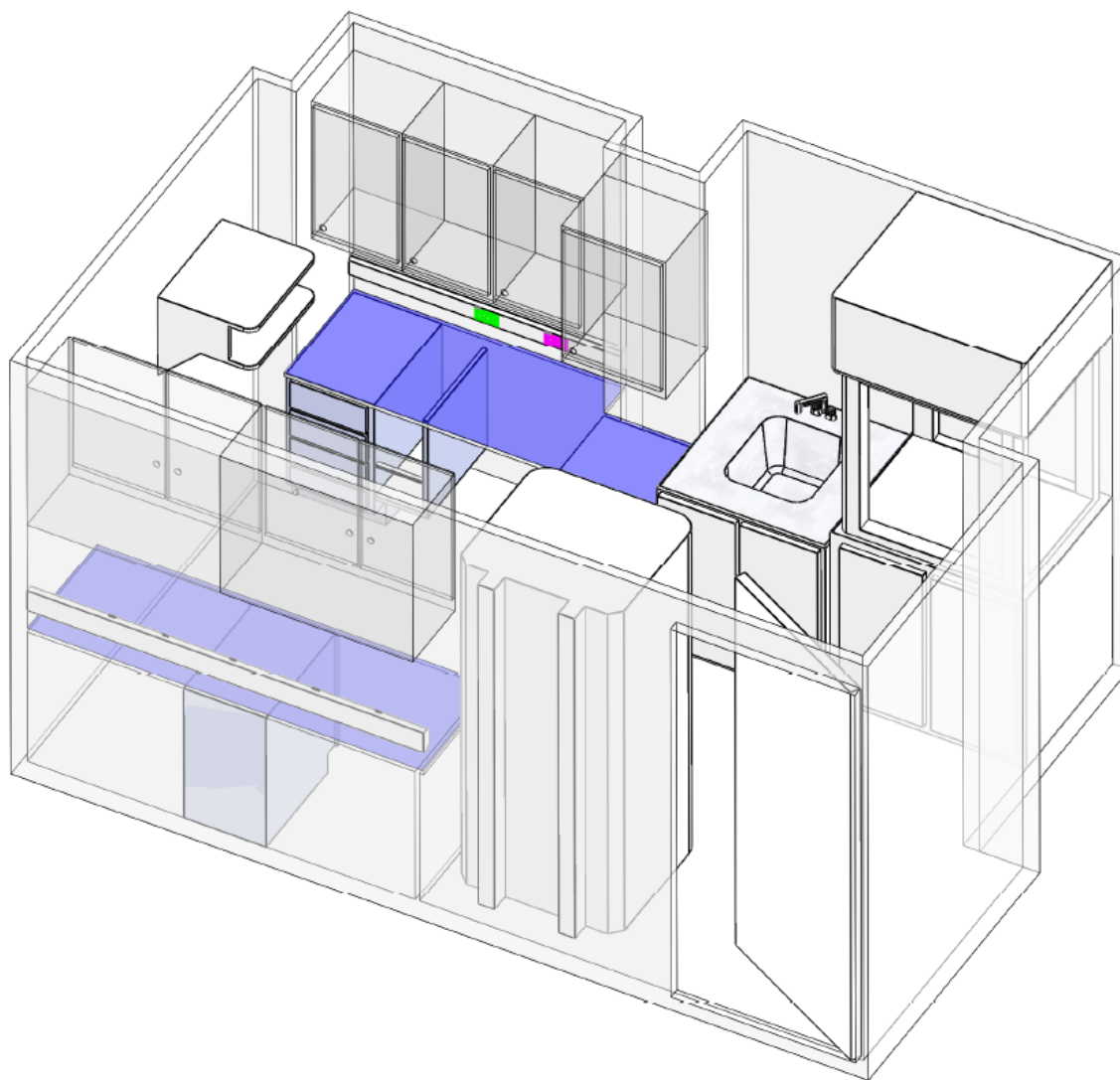
Floor level: Main deck

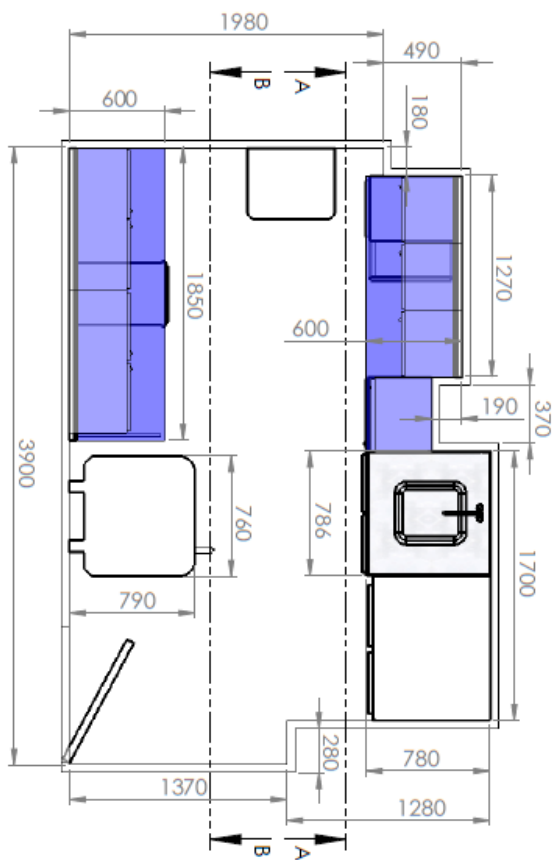
Floor surface: 9.44m²

Bench surface: 2.47m²

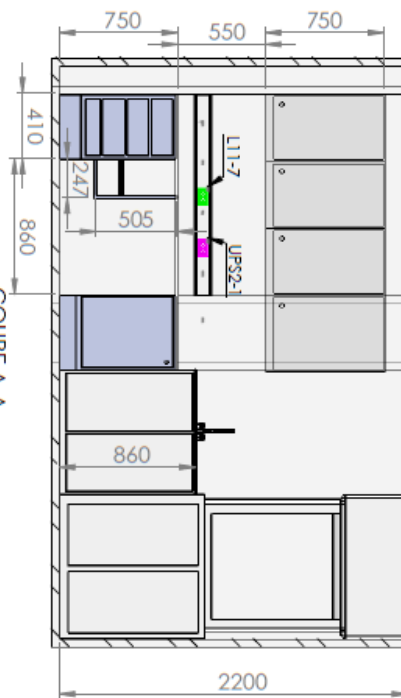
Number of electric circuit: 6

PS2-1	220V	1	Share room
UPS2-1	120V	1	
UPS2-3	120V	1	
UPS2-5	120V	1	
P-110	120V	2	
L11-7	120V	1	626, 662, 673, 676, 677

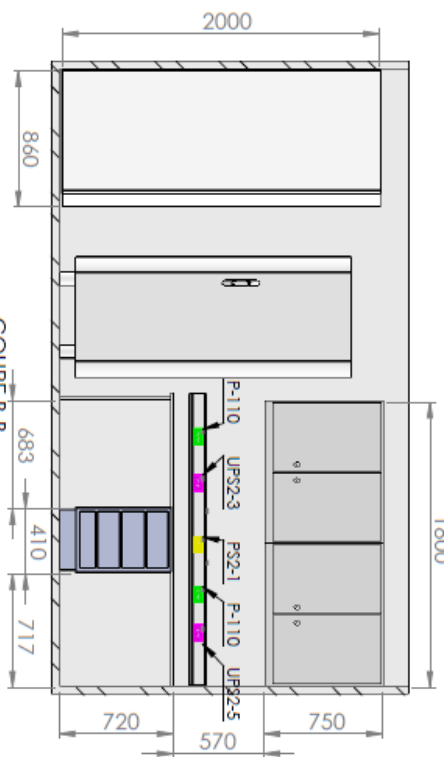




COUPE A-A
ECHELLE 1 : 30



COUPE B-B
ECHELLE 1 : 30



Nutrient Laboratory (614)

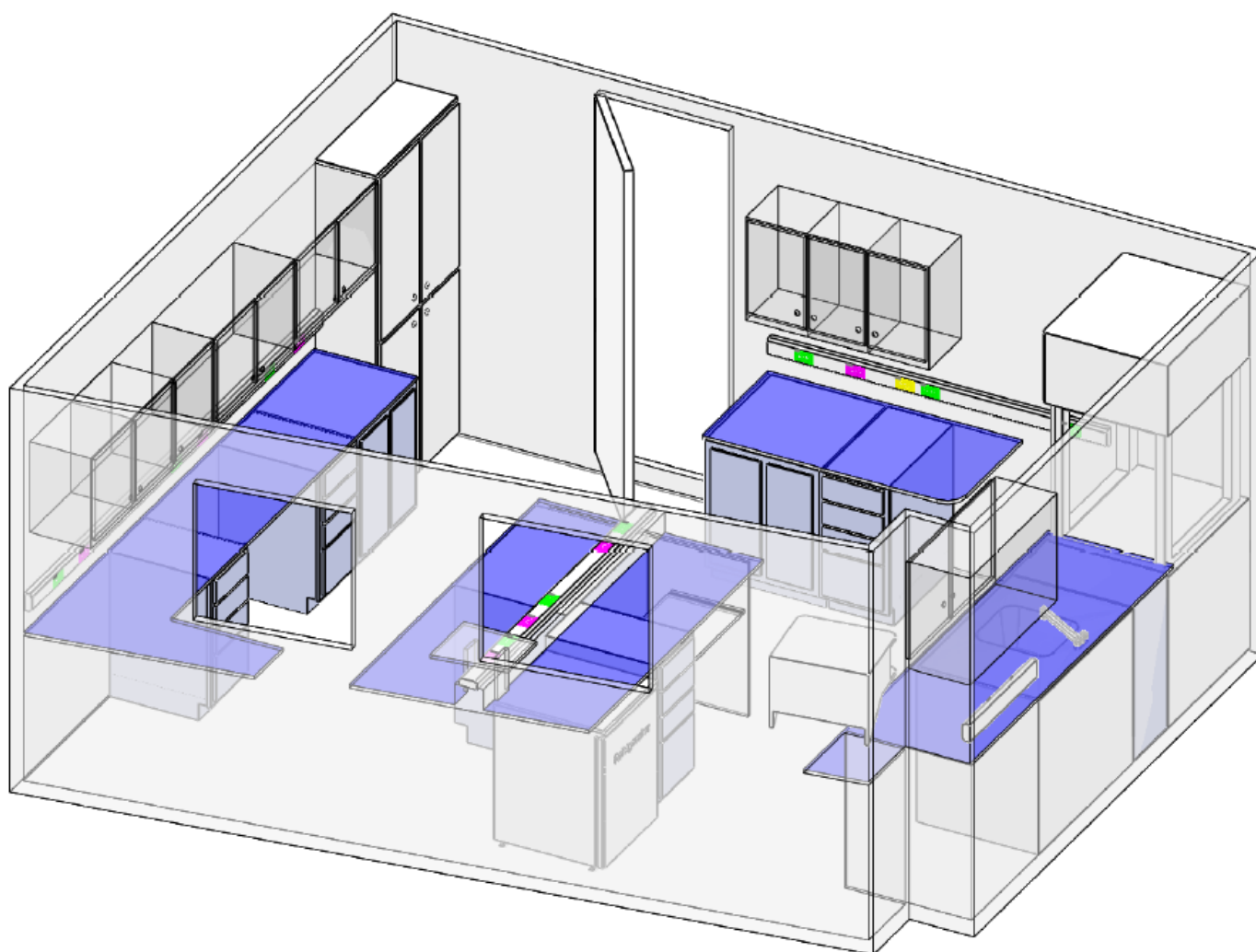
Floor level: Main deck

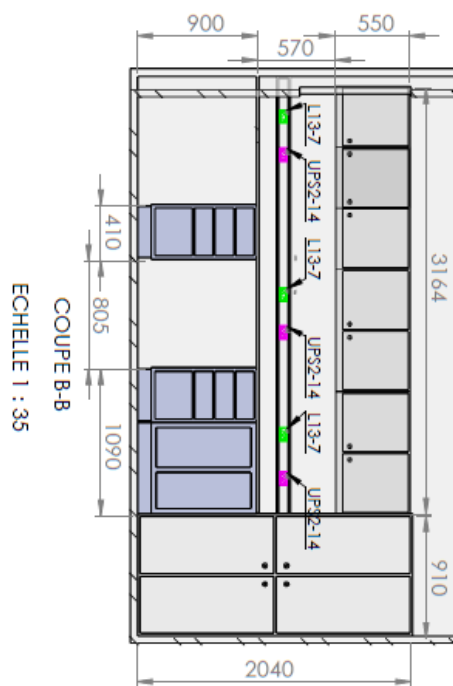
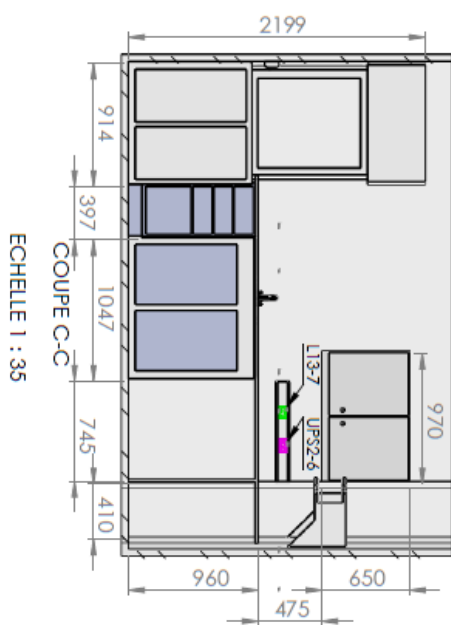
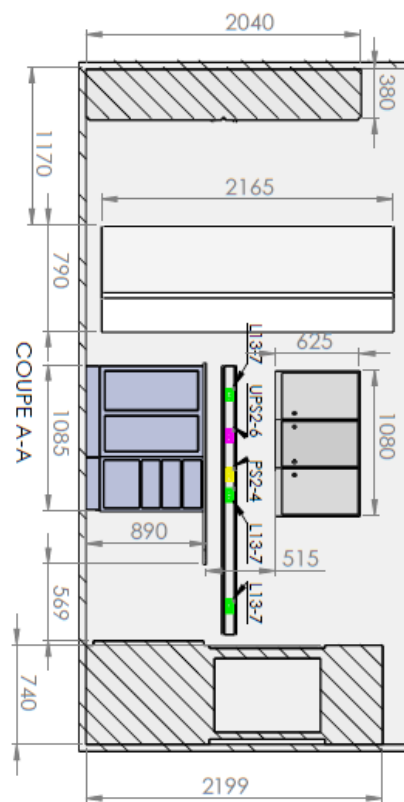
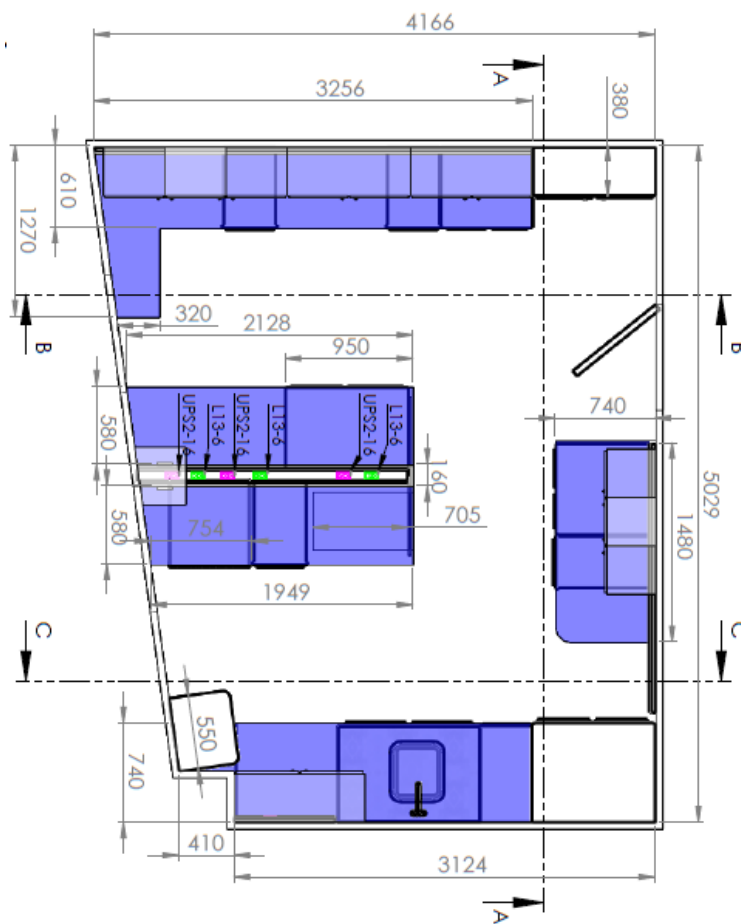
Floor surface: 19.05m²

Bench surface: 7.51m²

Number of electric circuit: 6

Breaker	Voltage	Nb Plug	Share room
PS2-4	220V	1	
UPS2-6	120V	2	
UPS2-14	120V	3	
UPS2-16	120V	3	
L13-6	120V	3	610, 617
L13-7	120V	7	





Forward Filtration Laboratory (610)

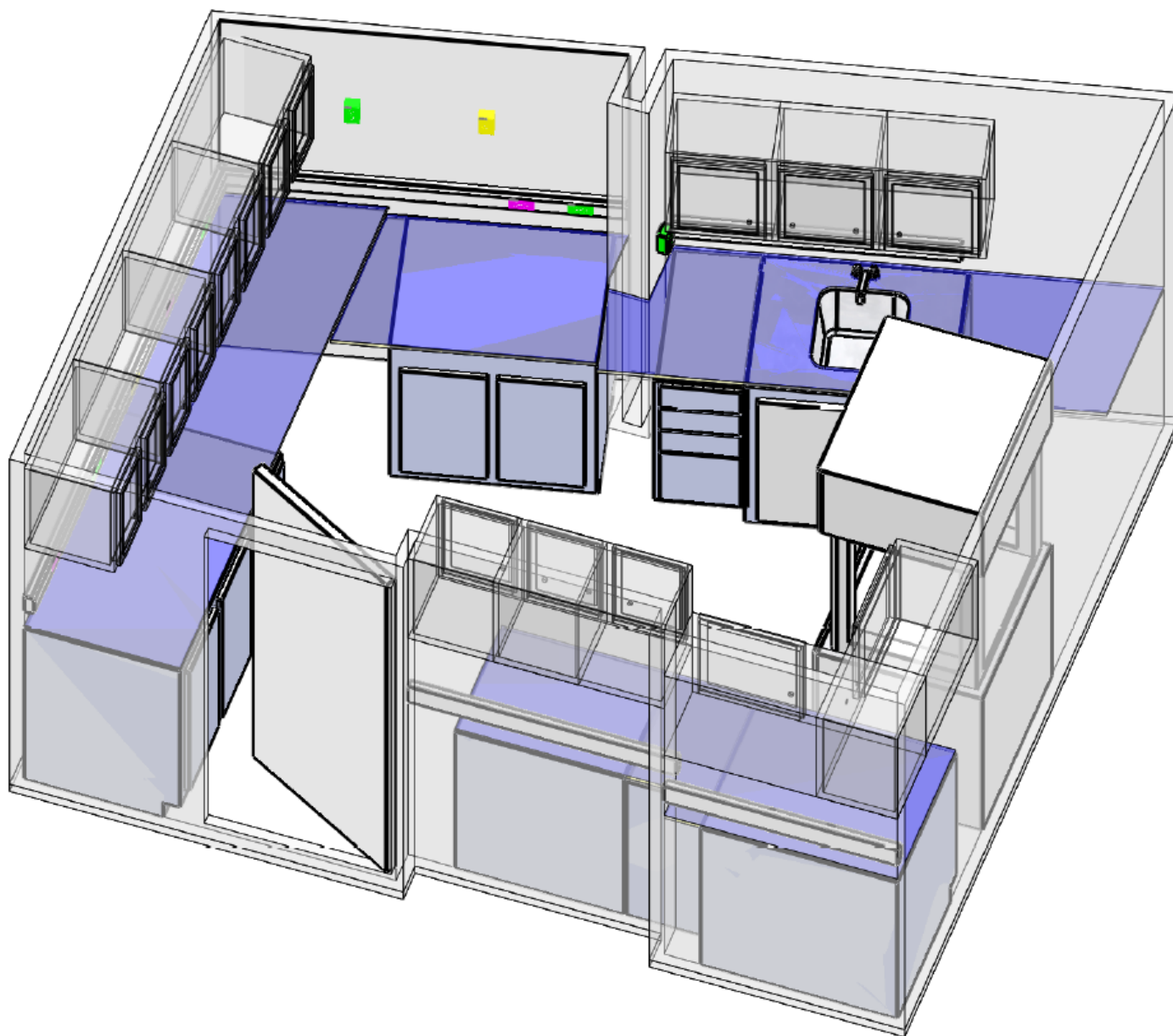
Floor level: Main deck

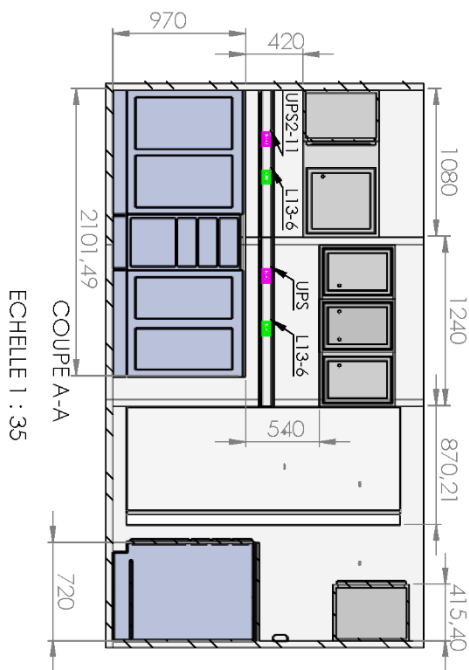
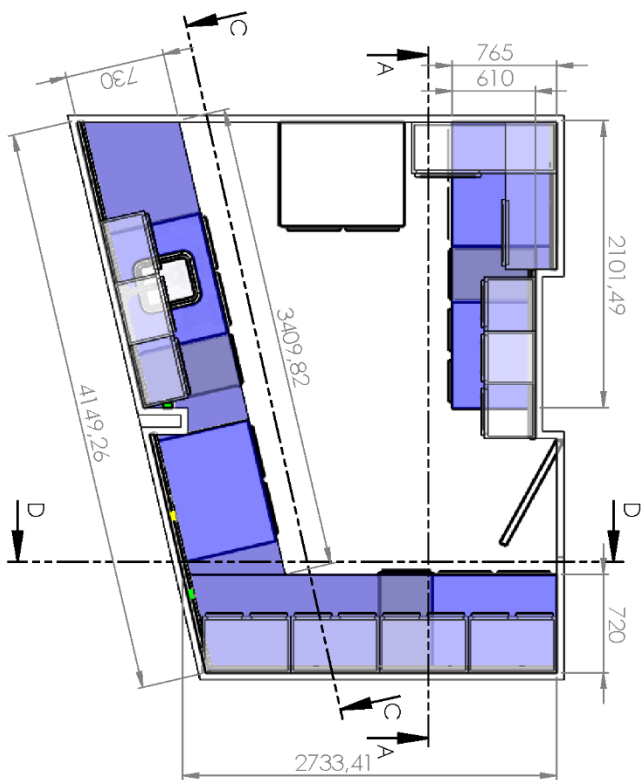
Floor surface: 12.83m²

Bench surface: 5.62m²

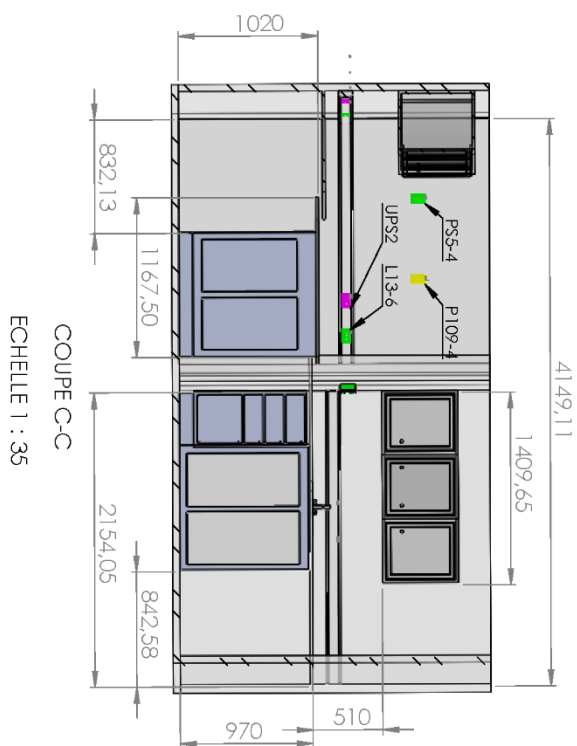
Number of electric circuit: 6

Breaker	Voltage	Nb Plug	Share room
PS2-7	220V	1	
P109-4	220V	1	
UPS2-10	120V	2	
UPS2-11	120V	2	
L13-6	120V	5	614, 617
PS5-4	120V	1	

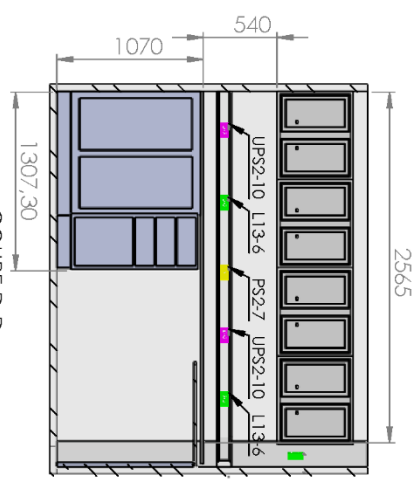




COUPE A-A
ECHELLE 1 : 35



COUPE C-C
ECHELLE 1 : 35



COUPE D-D
ECHELLE 1 : 35

CTD Control Room (415)

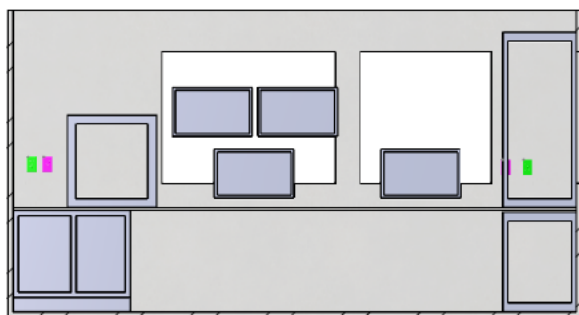
Floor level: Boat Deck

Floor surface: 8.95m²

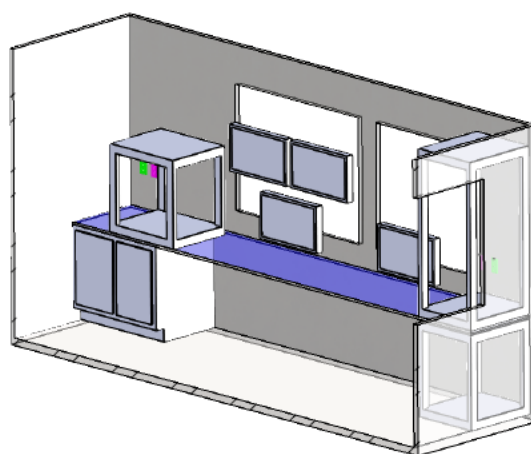
Bench surface: 3.16m²

Number of electric circuit: 2

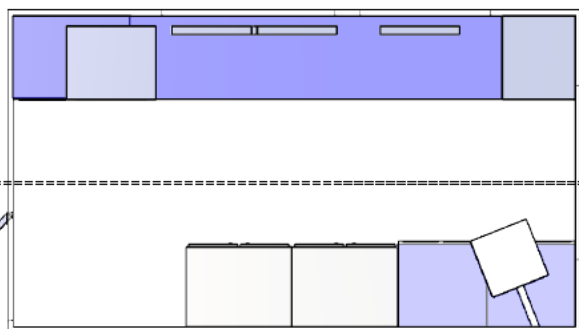
Breaker	Voltage	Nb Plug	Share room
UPS3-3	120V	2	560, 561, 412
L4-3	120V	2	412



COUPE -
ECHELLE 1 : 40



COUPE A-A
ECHELLE 1 : 40



AUTHOR	MORISSET SIMON	TITLE:	
DATE	2021/01/01		
MATER	STAINLESS 316		
UNIT	mm		
COMMENTS:			
		DWG. NO.	REV
		SALLE ROSETTE_3D	VI
SCALE: 1:50		SHEET 1 OF 1	

Moonpool/ROV Control Room (678)

Floor level: Main deck
 Floor surface: 10.78m²
 Bench surface: 3.68m²
 Number of electric circuit: 4

Breaker	Voltage	Nb Plug	Share room
UPS2-13	120V	3	
UPS2-15	120V	2	
UPS2-17	120V	1	673
L13-2	120V	3	603

An updated plan of the ROV control room will be available soon. Thank you for your understanding.

Scintillation counter room (665)

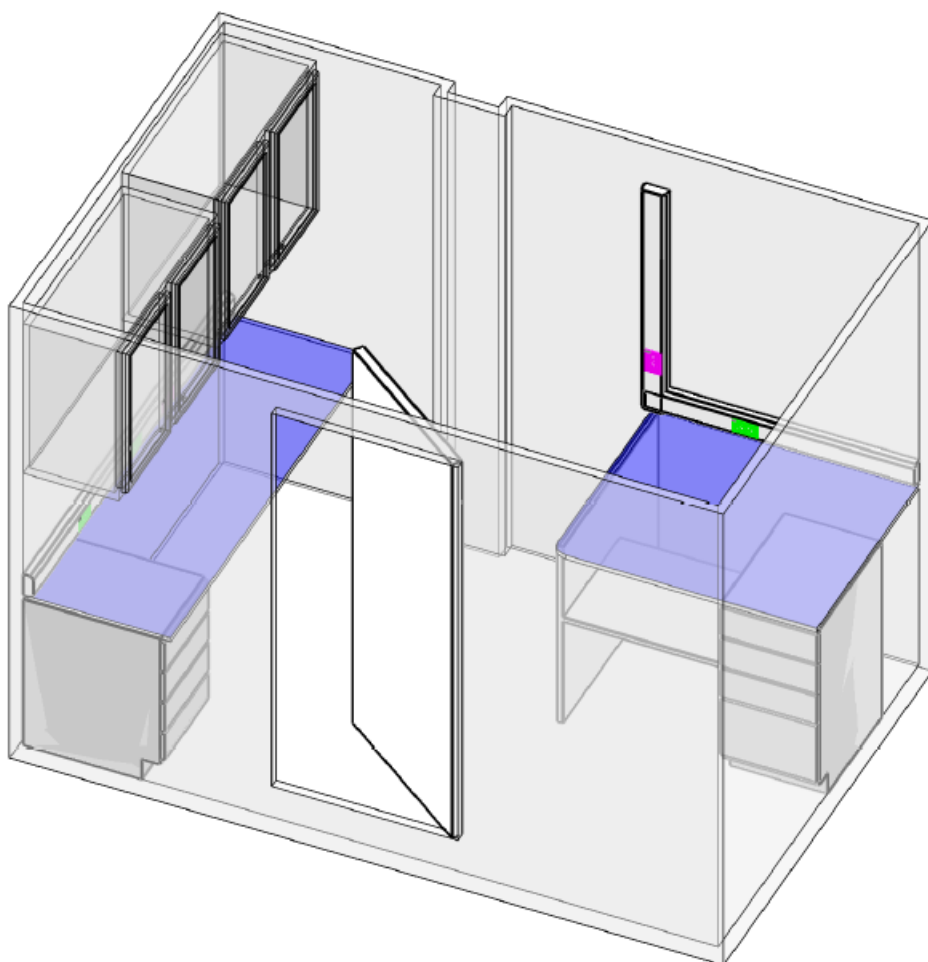
Floor level: Main deck

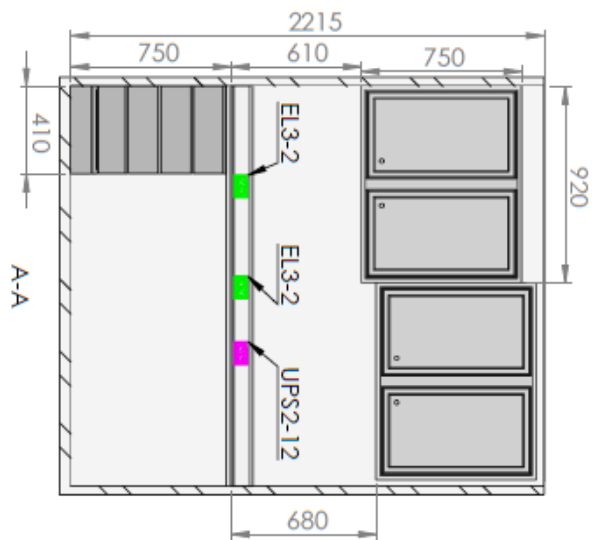
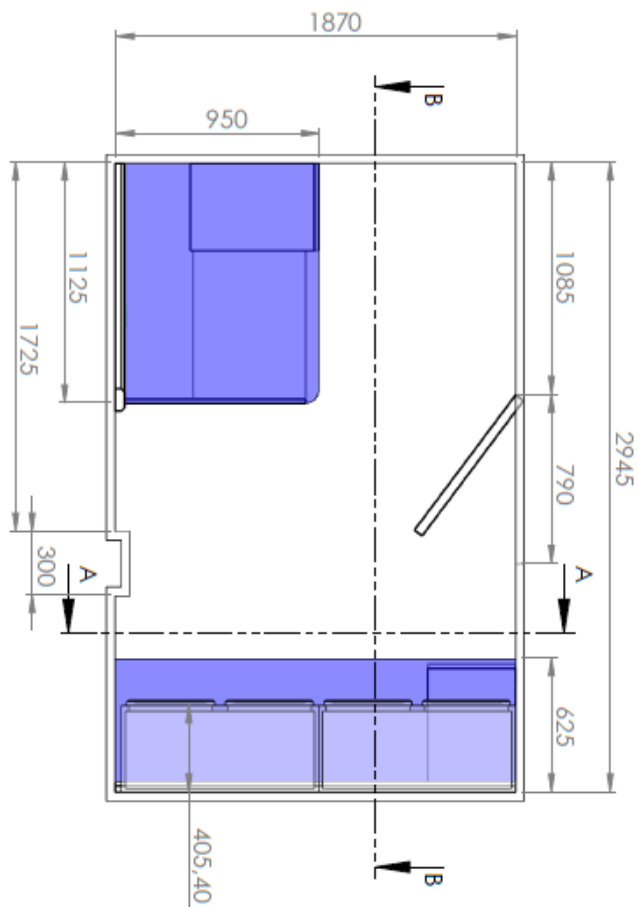
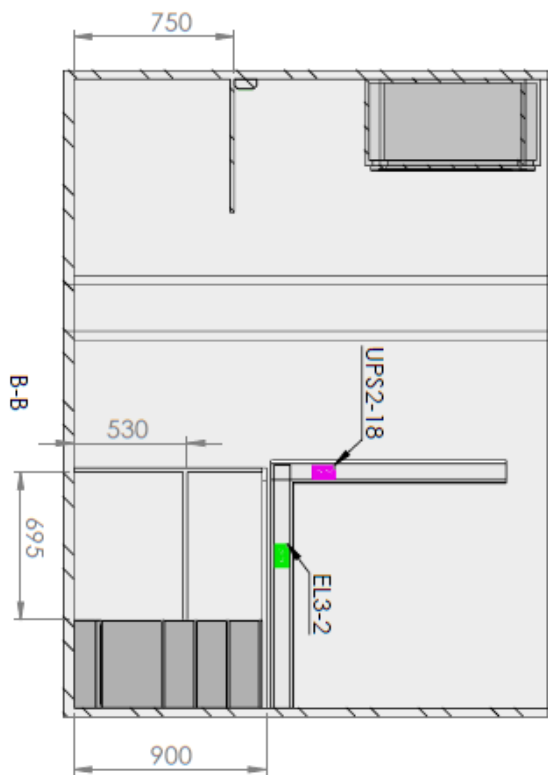
Floor surface: 5.49m²

Bench surface: 2.24m²

Number of electric circuit: 3

Breaker	Voltage	Nb Plug	Share room
UPS2-12	120V	3	
UPS2-18	120V	2	
EL3-2	120V	1	664





Scatterometer laboratory

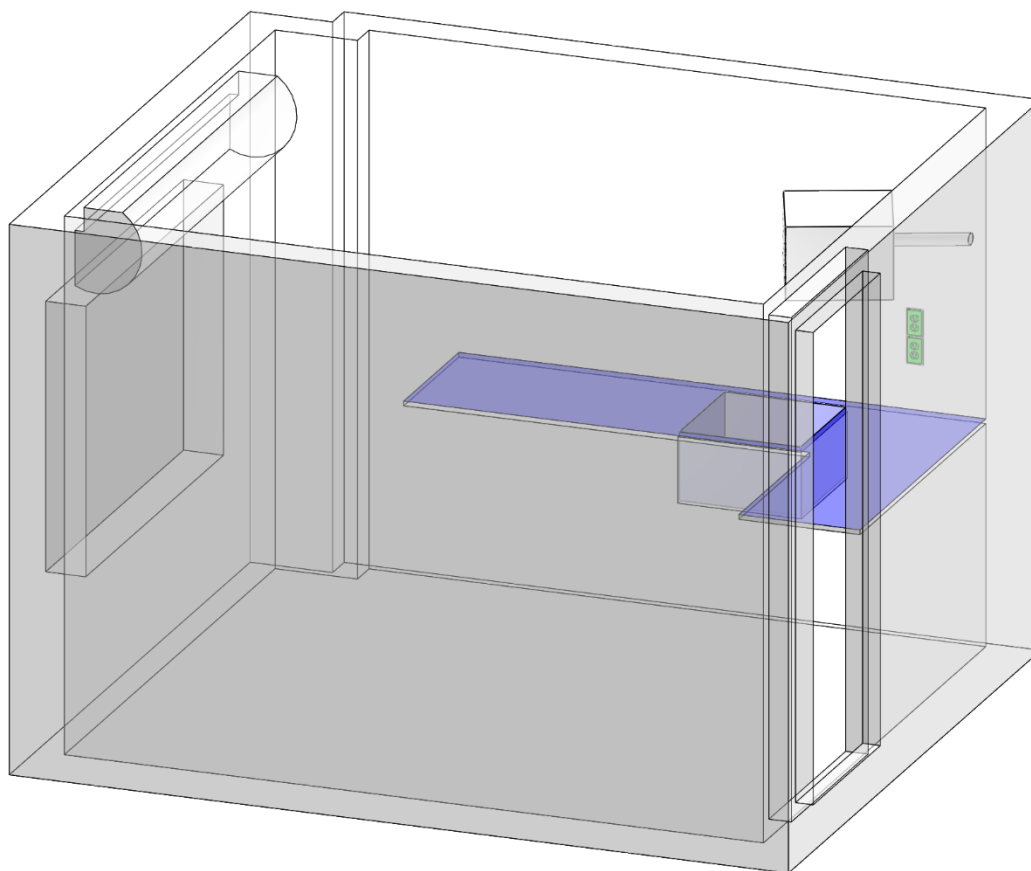
Floor level: Boat Deck

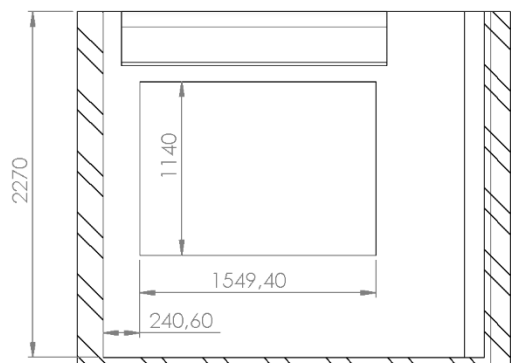
Floor surface: 7.38m²

Bench surface: 1.54m²

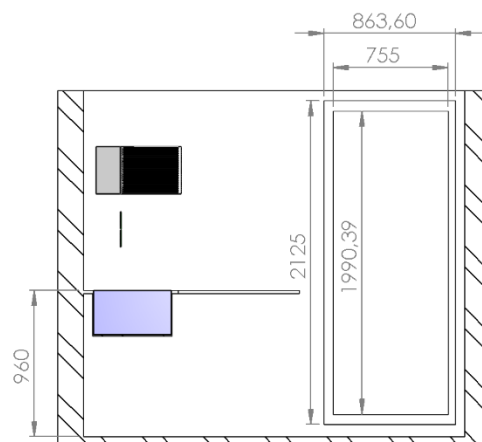
Number of electric circuit: 2

Breaker	Voltage	Nb Plug	Share room
L6-8	120V	2	Outdoor plugs

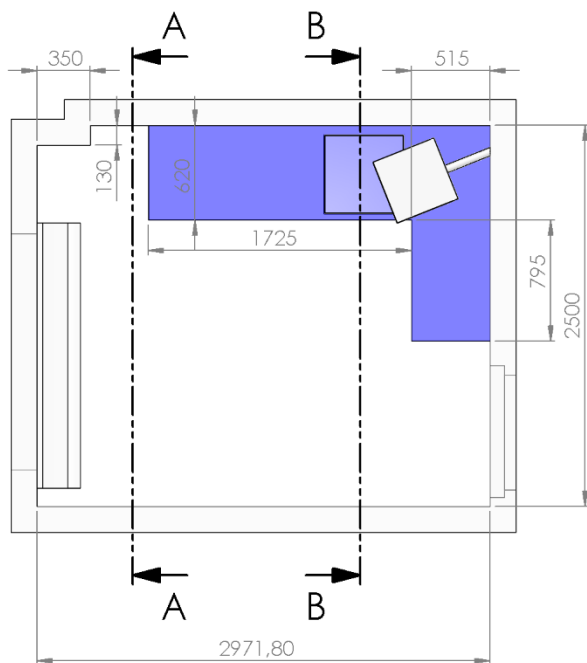




COUPE A-A



COUPE B-B



Scientific Containers

Electronic Container

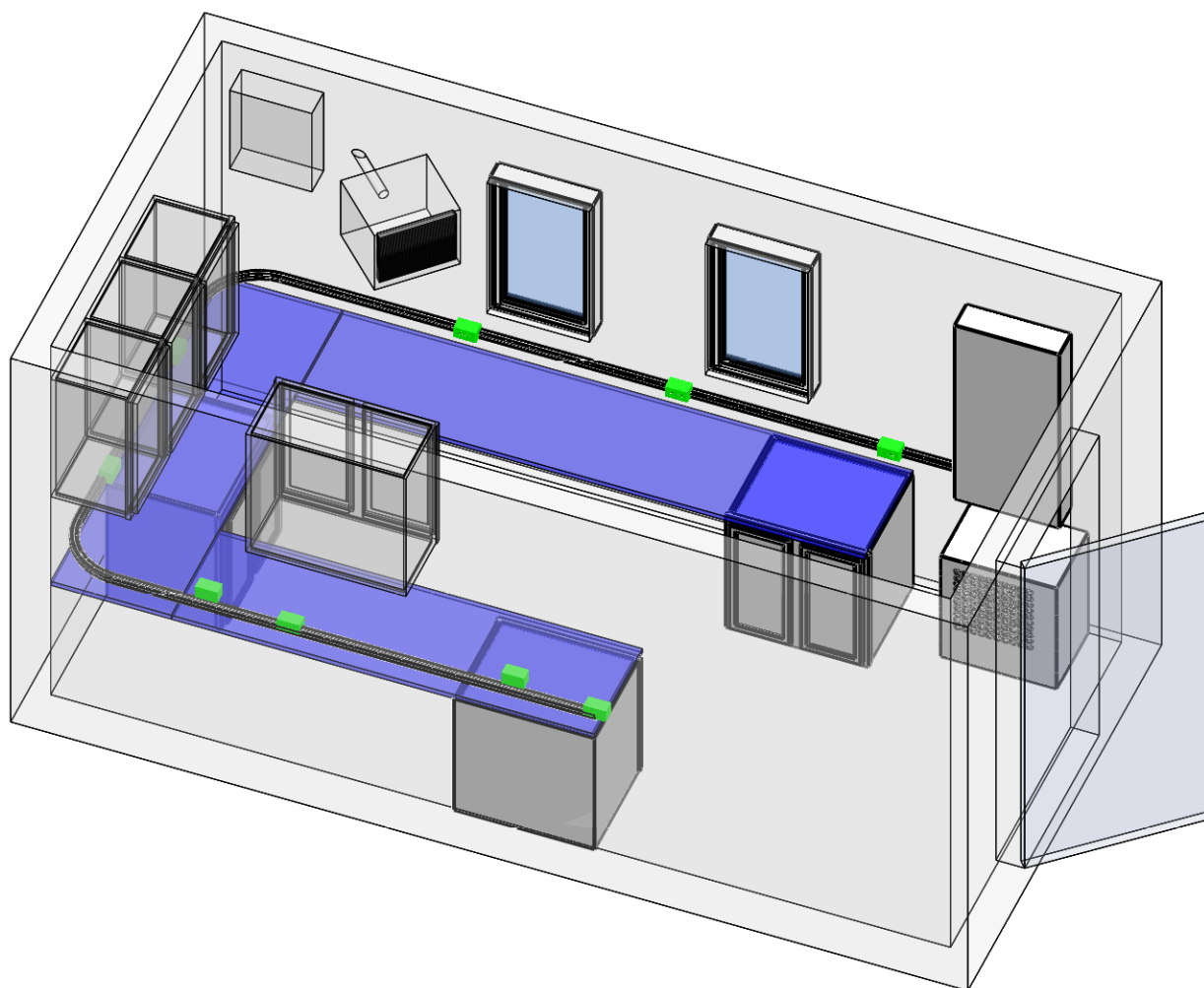
Floor level: Upper deck

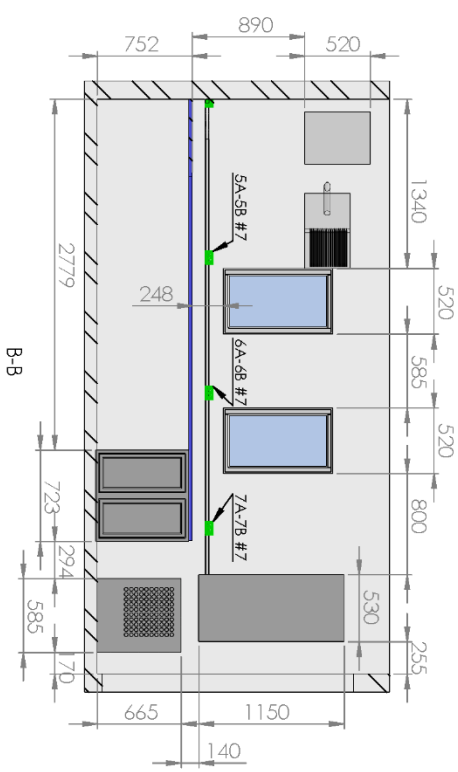
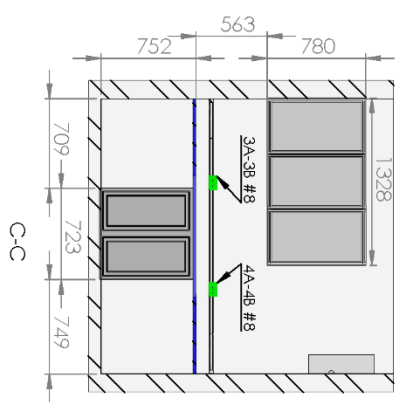
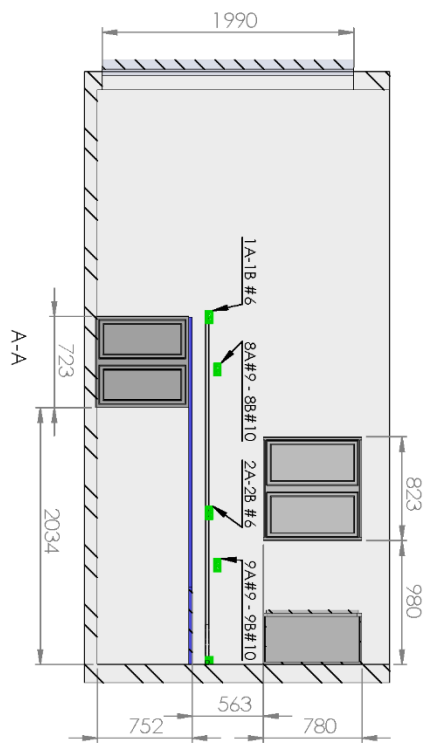
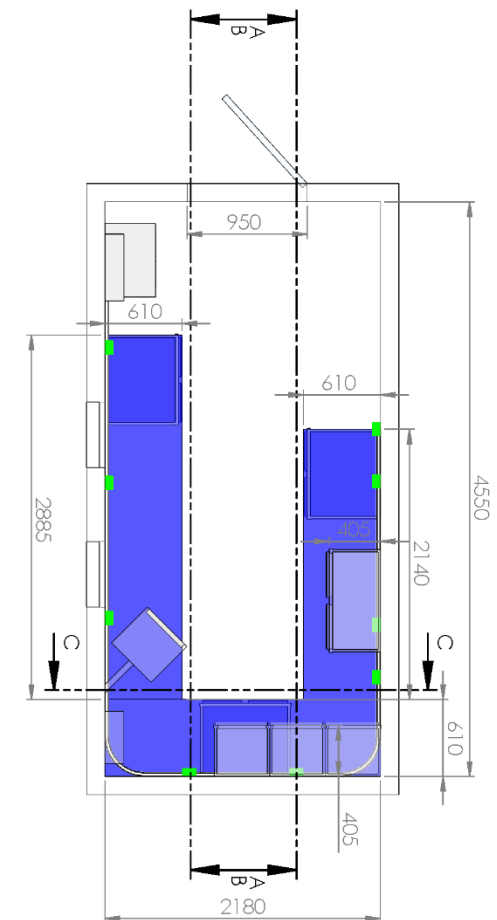
Floor surface: 9.92m²

Bench surface: 4.4m²

Number of electric circuit: 5

Breaker	Amperage	Voltage	Plug
#6	20A	120V	1(A-B), 2(A-B)
#7	15A	120V	5(A-B), 6(A-B), 7(A-B)
#8	20A	120V	3(A-B), 4(A-B)
#9	20A	120V	8A, 9A
#10	20A	120V	8B, 9B





Mooring Container

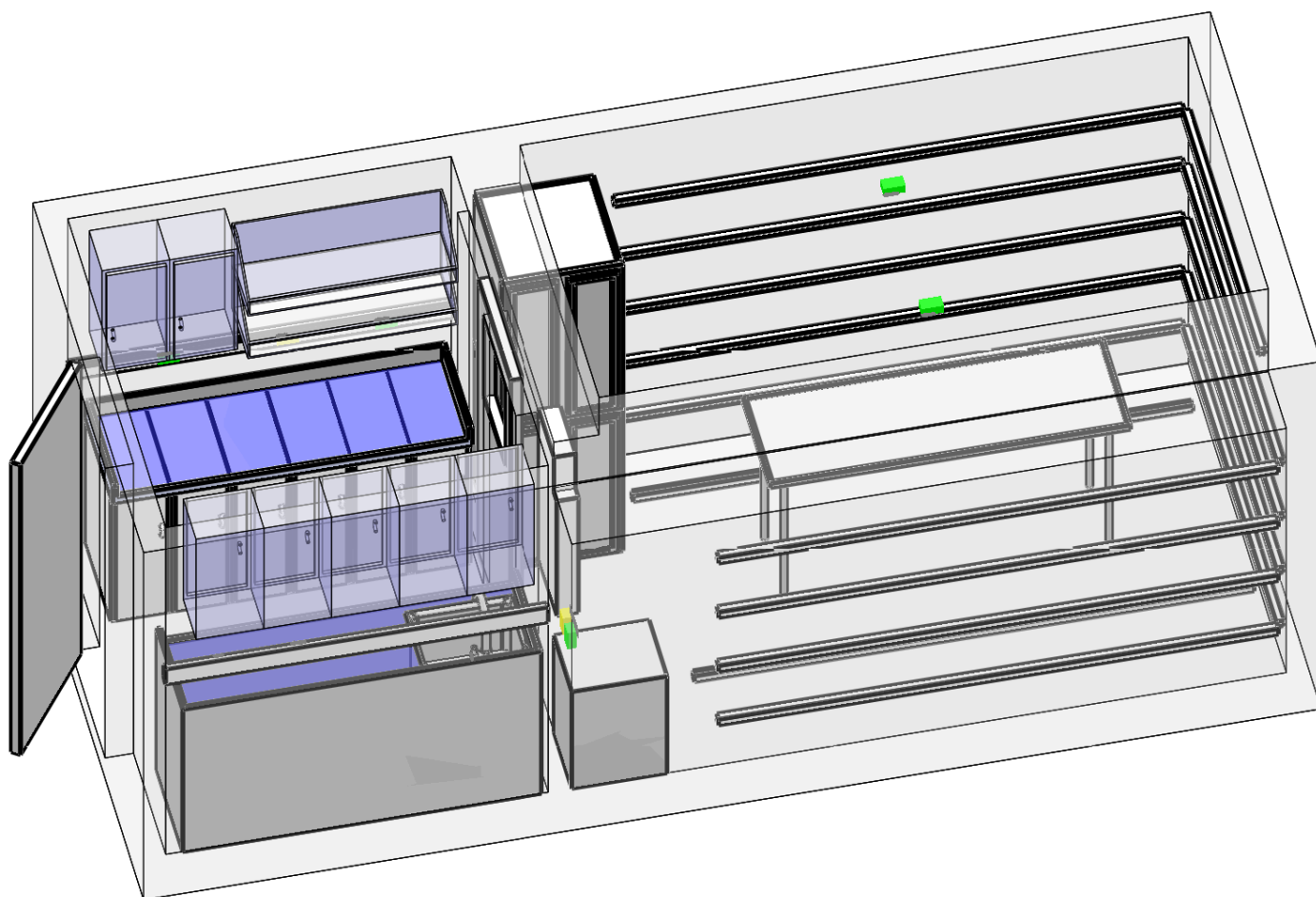
Floor level: Upper deck

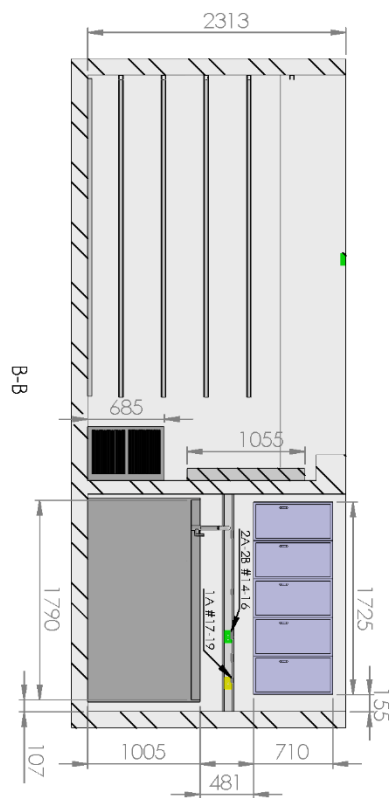
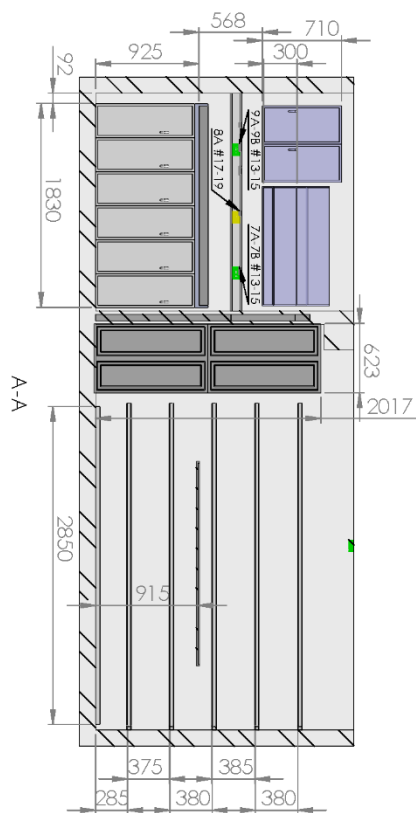
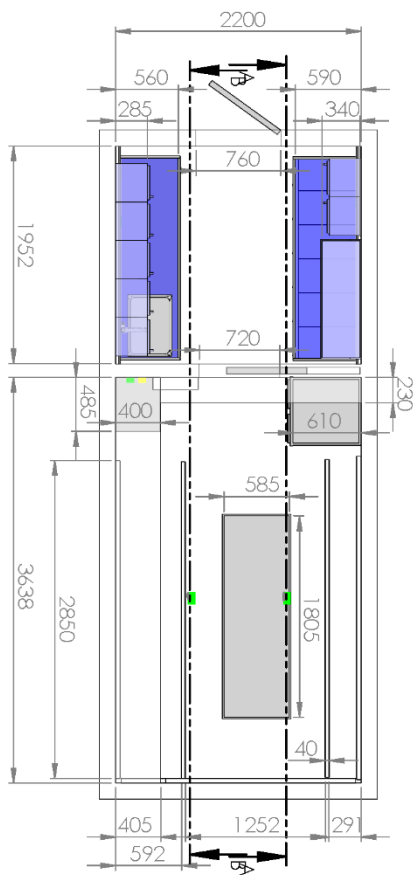
Floor surface: 12.54m²

Bench surface: 3.24m²

Number of electric circuit: 8

Breaker	Amperage	Voltage	Plug
#9-11	15A	120V	5(A-B)
#10-12	15A	120V	6(A-B)
#13-15	15A	120V	7(A-B), 9(A-B)
#14-16	15A	120V	2(A-B)
#17-19	15A	220V	1(A-B)
#18-20	15A	220V	8A
#21-23	15A	120V	4(A-B)
#30-32	15A	220V	3A





PAWL Container

PAWL: Portable Aft Wet Lab

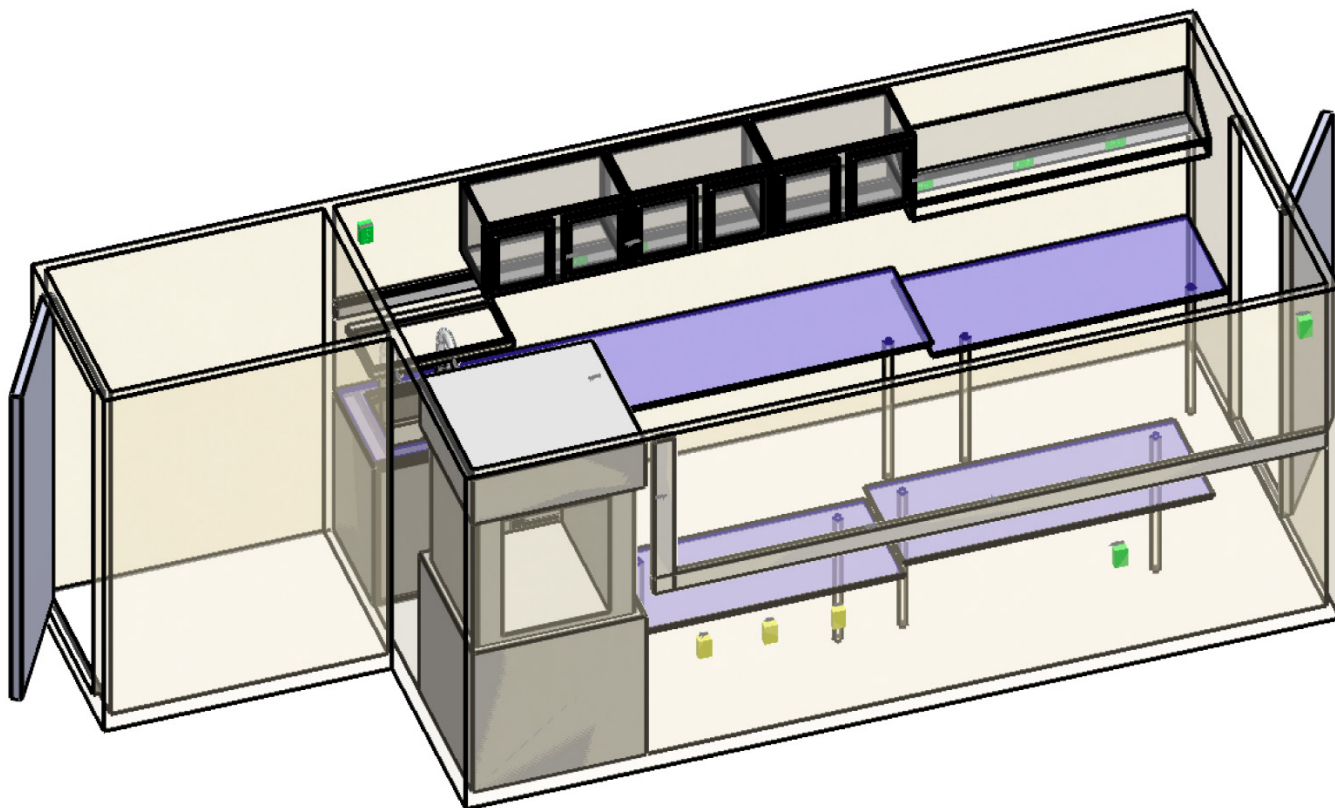
Floor level: Boat deck

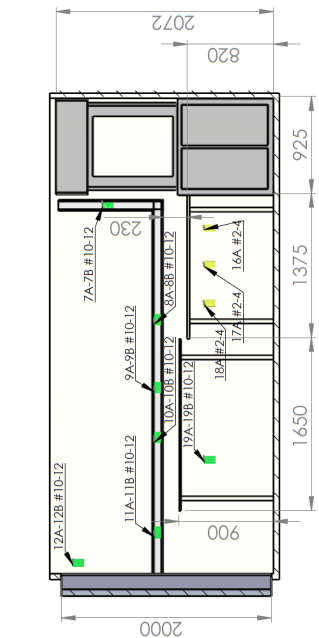
Floor surface: 11.41m²

Bench surface: 4.42m²

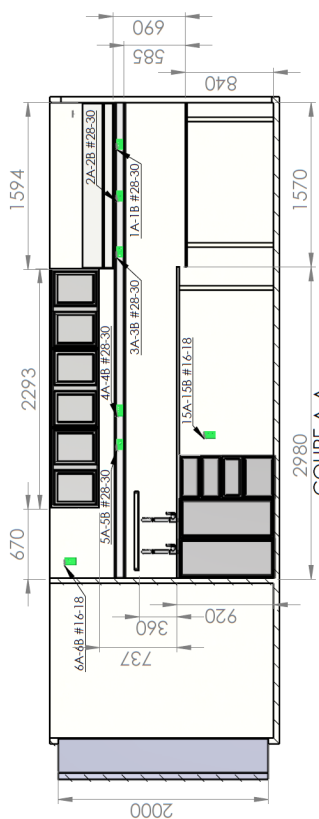
Number of electric circuit: 6

Breaker	Amperage	Voltage	Plug
#2-4	20A	220V	16A, 17A, 18A
#10-12	15A	120V	7(A-B), 8(A-B), 9(A-B), 10(A-B), 11(A-B), 12(A-B), 19(A-B)
#16-18	15A	120V	15(A-B)
#16-18	15A	220V	6(A-B)
#28-30	15A	120V	1(A-B), 2(A-B), 3(A-B), 5(A-B)
#28-30	15A	220V	4(A-B)

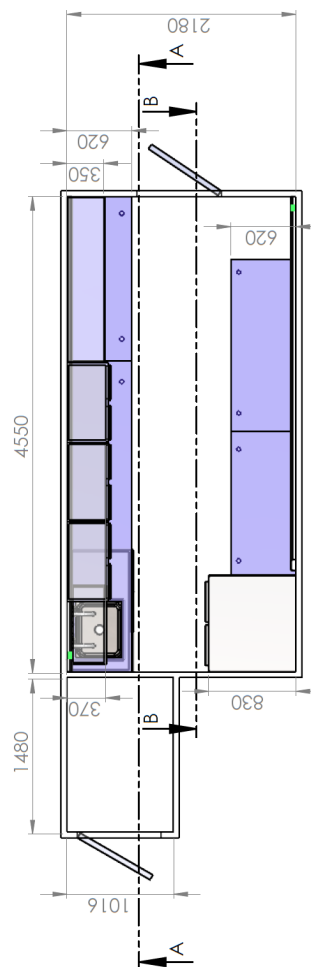




COUPE B-B
ECHELLE 1 : 40



COUPE A-A
ECHELLE 1 : 40



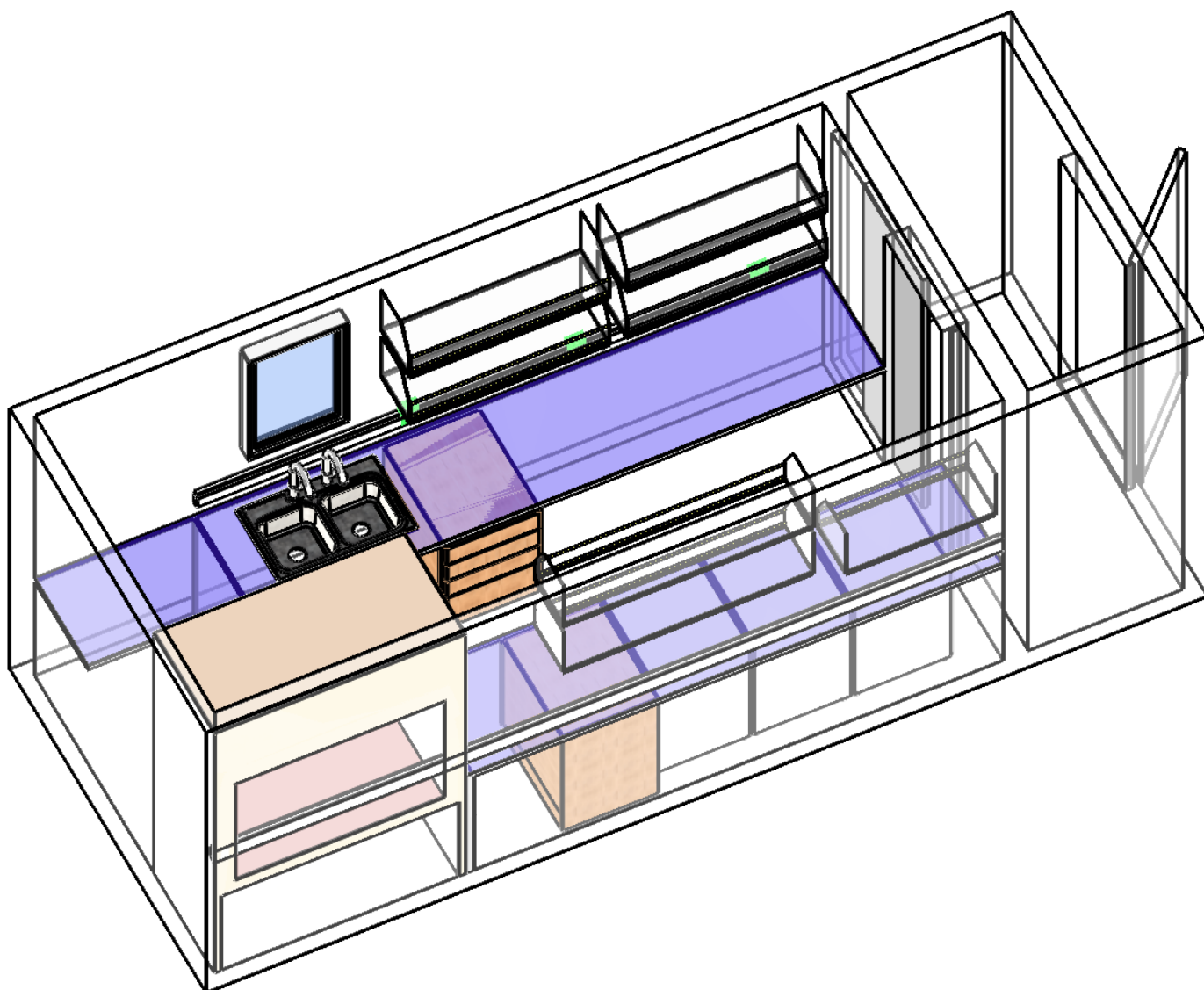
RadVan Container

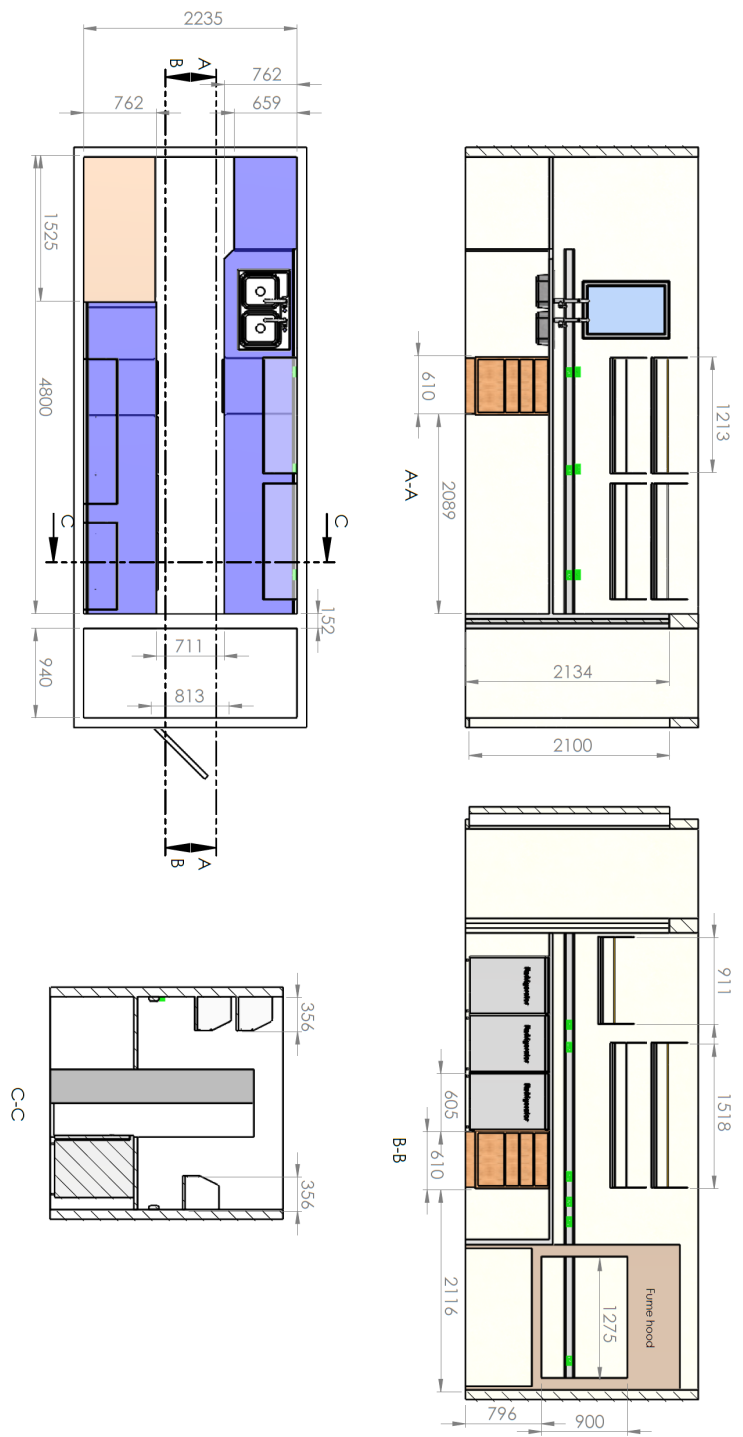
RadVan: Radioisotopes Laboratory

Floor level: Boat deck

Floor surface: 12.07m²

Bench surface: 6.84m²





PILMS Container

PILMS: Portable in-situ Laboratory for Mercury Speciation

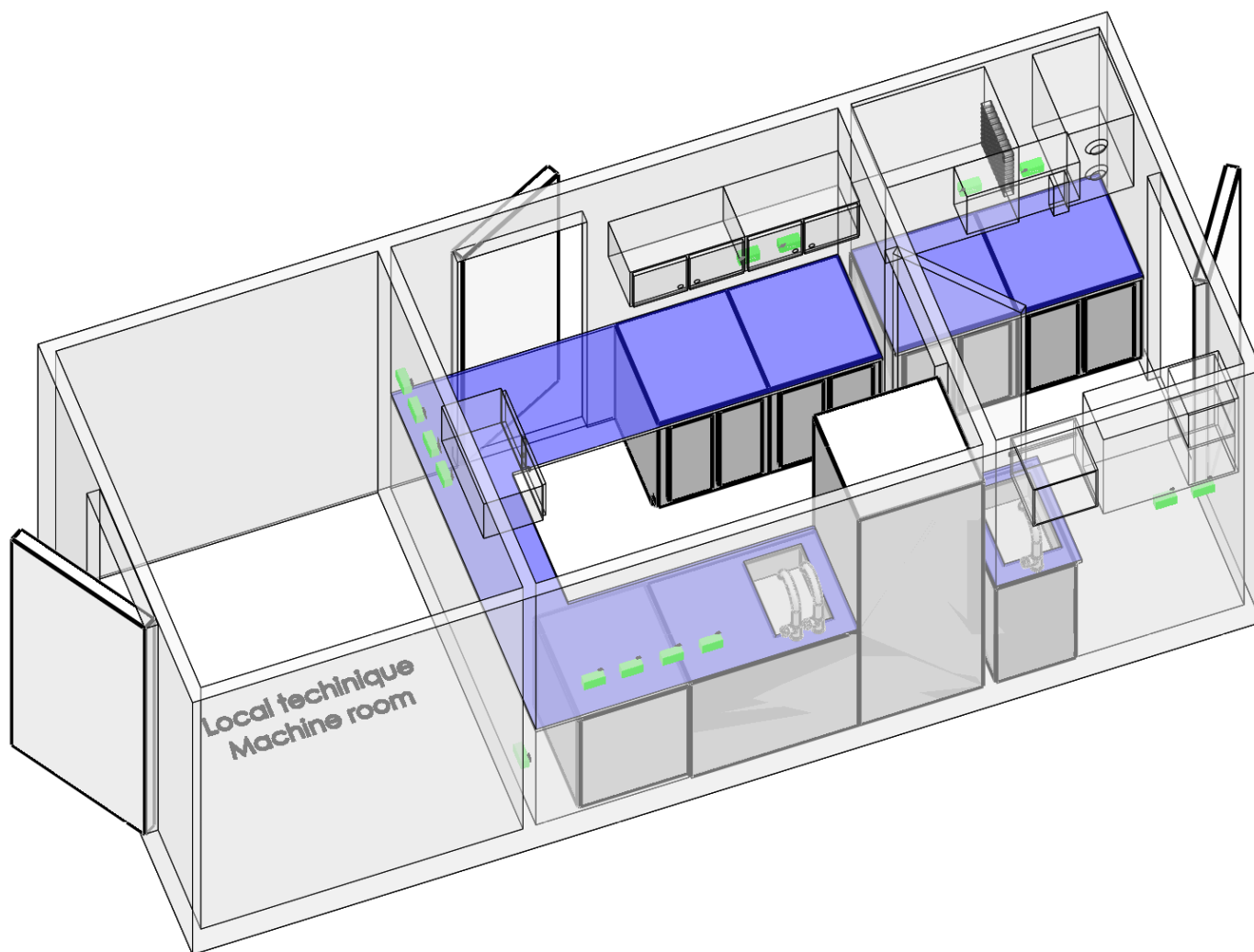
Floor level: Boat deck

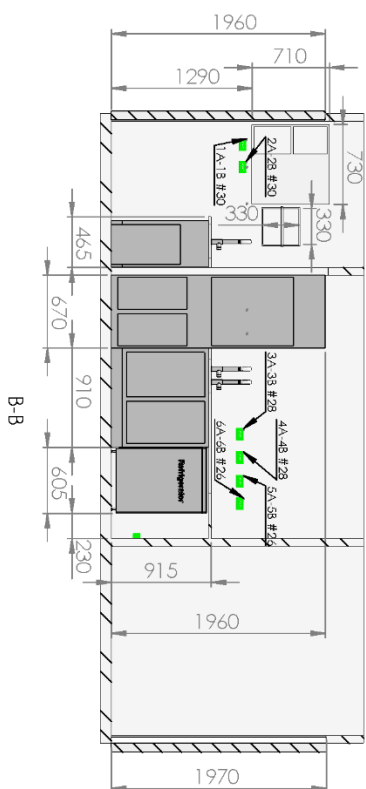
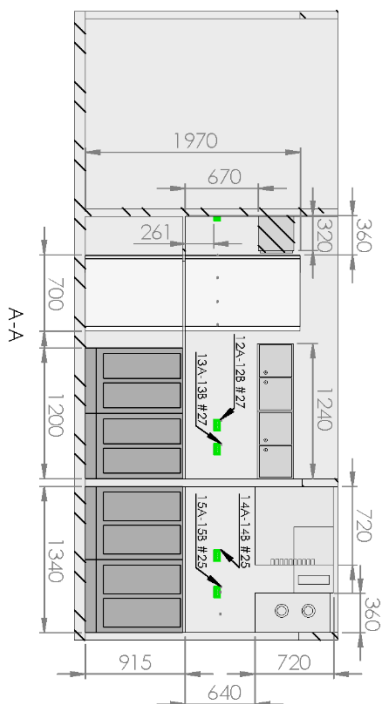
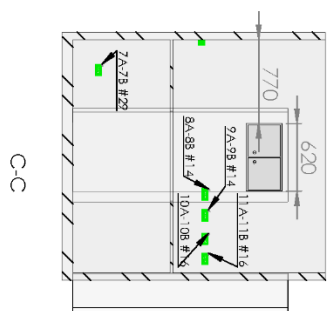
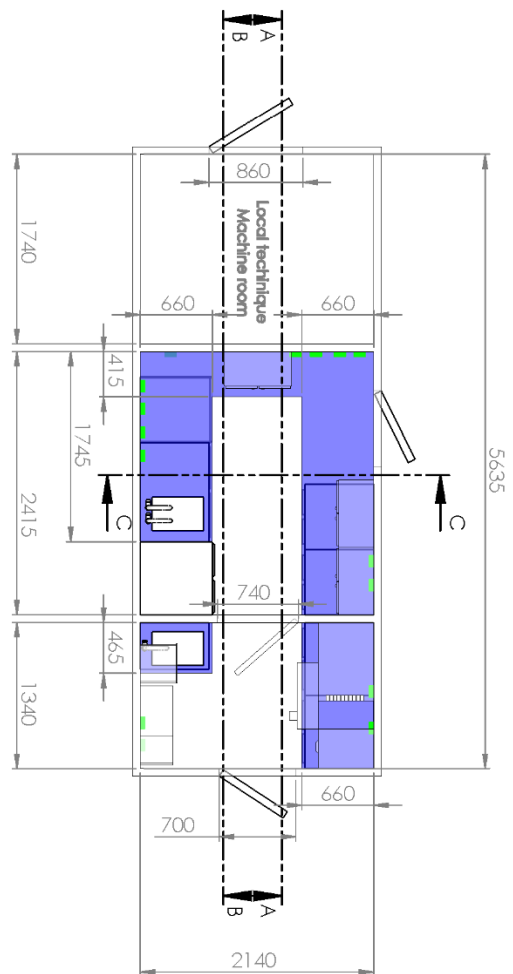
Floor surface: 8.19m²

Bench surface: 3.98m²

Number of electric circuit: 8

Breaker	Amperage	Voltage	Plug
#30		120V	1(A-B), 2(A-B)
#28		120V	3(A-B), 4(A-B)
#26		120V	5(A-B), 6(A-B)
#29		120V	7(A-B)
#14		120V	8(A-B), 9(A-B)
#16		120V	10(A-B), 11(A-B)
#27		120V	12(A-B), 13(A-B)
#25		120V	14(A-B), 15(A-B)





MetOcean Container

Floor level: Top Navigation deck

Floor surface: 7.06m²

Bench surface: 4.6m²

