

LEGEND

- | | | | |
|---|---|---|--|
|  | PENCIL, LED BULB, 9W, 870 |  | SURFACE MOUNTED CONVENIENCE OUTLET, DUPLEX |
|  | PULL LIGHT, LED BULB, 9W, 870, SURFACE MOUNTED |  | AIRCONDITIONING UNIT OUTLET |
|  | PANEL BOARD |  | SPECIAL PURPOSE OUTLET |
|  | LIGHTING FIXTURE, ARMORIZED-REFLECTOR, LED TUBE, 2 X 18W, TB, 120cm X 60 cm |  | EXHAUST FAN |
|  | LIGHTING FIXTURE, WEATHERPROOF, LED TUBE, 2 X 18W, TB, 120cm, IP65 |  | EXHAUST FAN OUTLET |
|  | LIGHTING FIXTURE, WEATHERPROOF, LED TUBE, 1 X 18W, TB, 120cm, IP65 |  | TELEPHONE OUTLET |
|  | EXIT LIGHT |  | LVN OUTLET |
|  | EMERGENCY EXIT LIGHT |  | MANUAL TRANSFER SWITCH |
|  | SWITCH, 1-GANG |  | ENCLOSED CIRCUIT BREAKER |
|  | SWITCH, 2-GANG |  | CONDUIT INDICATING NUMBER OF WIRES |
|  | SWITCH, 3-GANG |  | PULL BOX |
|  | SWITCH, 3-WAY |  | CIRCUIT BREAKER |
|  | CONVENIENCE OUTLET, DUPLEX |  | GROUND |
| | |  | CIRCUIT HOMERUN |

-
- NEMA 3R
- PP1 PP2
- EB31 40A/1P
ACCU 3P
- EB32 40A/1P
ACCU 3P
- EB33 30A/1P
ACCU
- EB34 30A/1P
ACCU
- EB35 30A/1P
ACCU
- EB36 30A/1P
ACCU
- EB37 30A/1P
ACCU
- EB38 120A/1P, 3P
PNEUMATIC
- EB39 120A/1P, 3P
PNEUMATIC
- TO ELECTRICAL ROOM AT BASEMENT (MPPA)
- TO MACHINE ROOM AT BASEMENT



PROJECT:

1

SHEET CONTENT:

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PREPARED BY:

RECOMMENDING APPROVAL:

DECEMBER

LABORATORY



Republic of the Philippines
Department of Science and Technology
PHILIPPINE NUCLEAR RESEARCH INSTITUTE

PROJECT:

OWNER:

SHEET CONTENT:

PREPARED BY:

RECOMMENDING APPROVAL:

APPROVED BY:

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REHABILITATION OF
ARC BUILDING
(CY 2018)

ARC BUILDING
BASEMENT

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Committee on Construction
Engr. Giuseppe Flam O. Doan
Vice Chairperson,
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GRACETA DELA CRUZ, DPA
Chairperson, Committee on Construction

SOLIDAD S. CASTAÑEDA, Ph.D.
Deputy Director

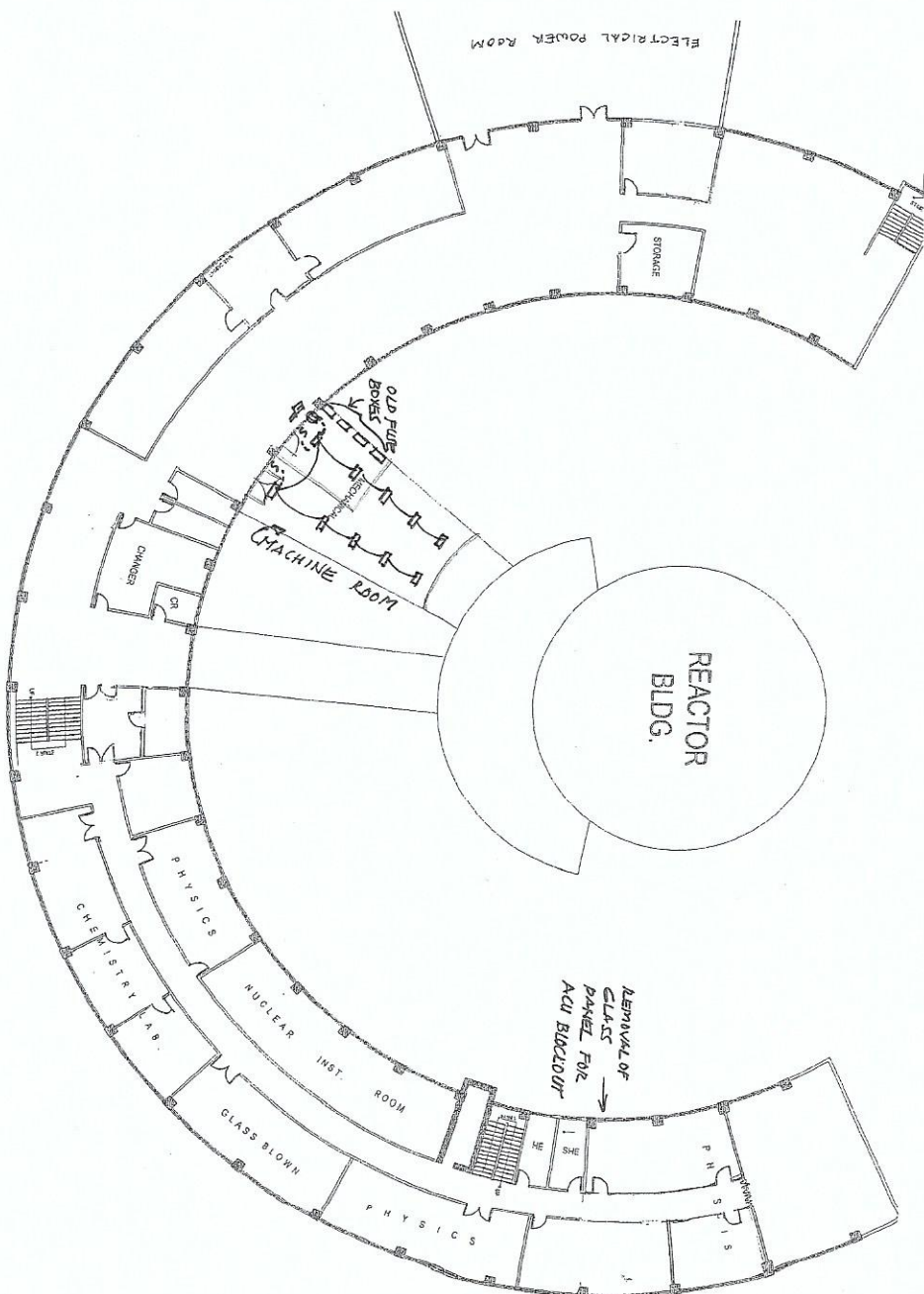
CARLO A. ARCILLA, Ph.D.
Director

R. Reyes
G. Doan
L. Lallio

E2

10

ARC BUILDING - BASEMENT





Republic of the Philippines
Department of Science and Technology
Philippine Nuclear Research Institute

PROJECT:

REHABILITATION OF
ARC BUILDING
(CY 2018)

OWNER:

SHEET CONTENT:

POWER OUTLETS LAYOUT
ARC BUILDING - GROUND FLOOR

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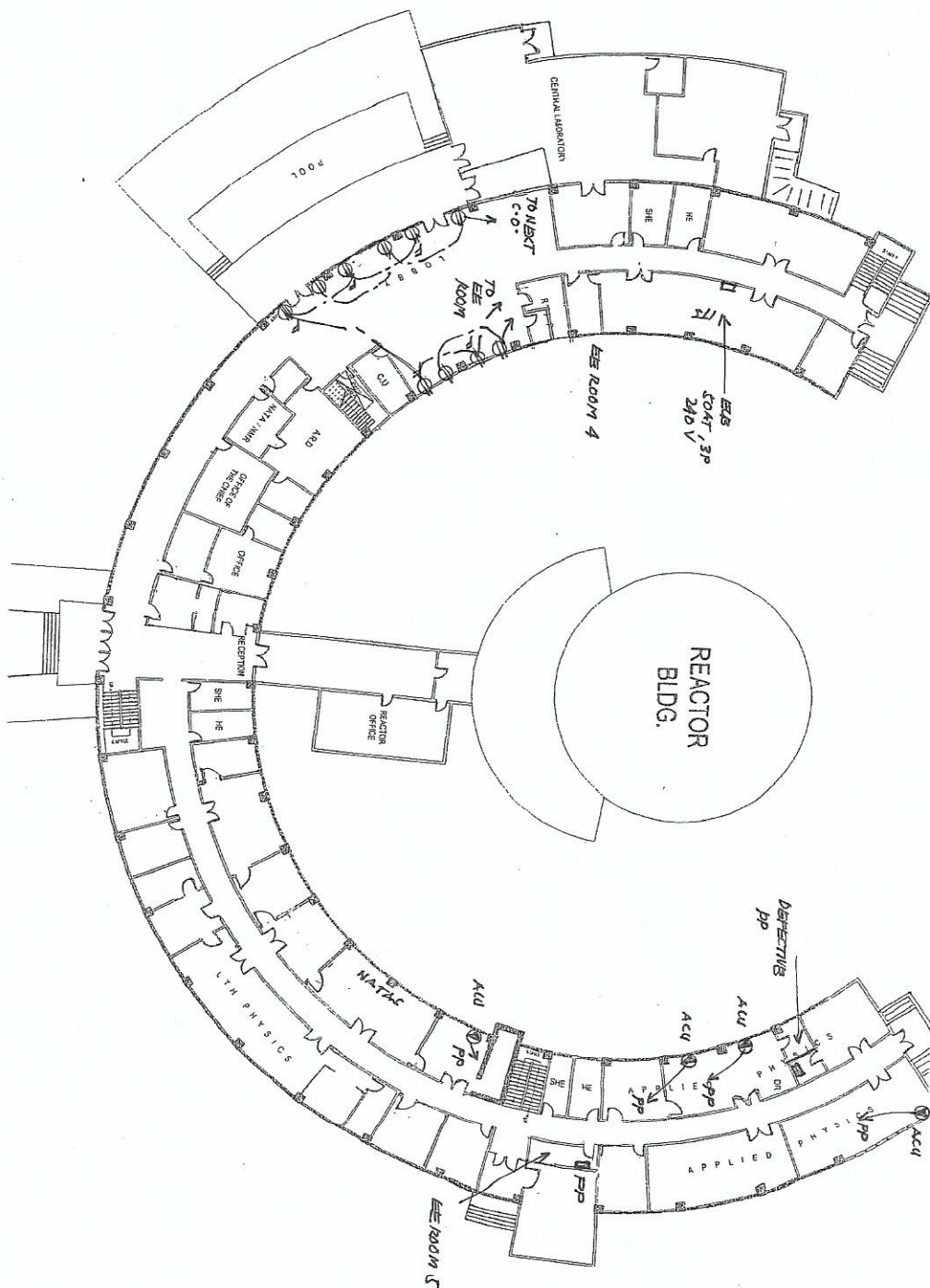
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L. Lallio

POWER OUTLETS LAYOUT ARC BUILDING - GROUND FLOOR





Republic of the Philippines
Department of Science and Technology
PHILIPPINE NUCLEAR RESEARCH INSTITUTE

PROJECT:

REHABILITATION OF
ARC BUILDING
(CY 2018)

OWNER:

SHEET CONTENT:

ARC BUILDING
SECOND FLOOR

PREPARED BY:

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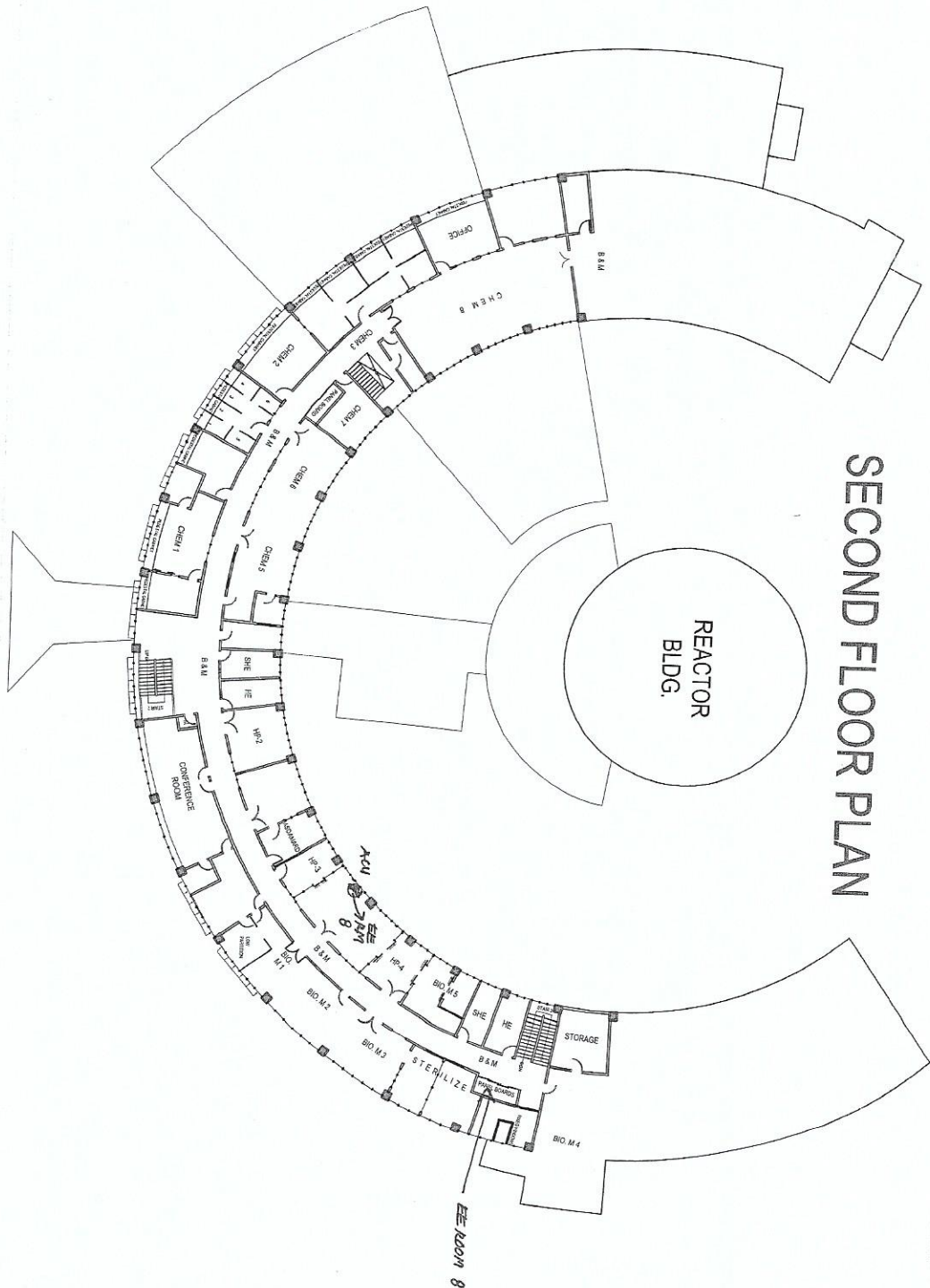
R. Rejas
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L. Latio

SHEET NO.

F4

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ARC BUILDING - SECOND FLOOR





Republic of the Philippines
Department of Science and Technology
Philippine Nuclear Research Institute

PROJECT:

REHABILITATION OF
ARC BUILDING
(CY 2018)

OWNER:

SHEET CONTENT:

LIGHTING LAYOUT
RADIOECOLGY LABORATORY

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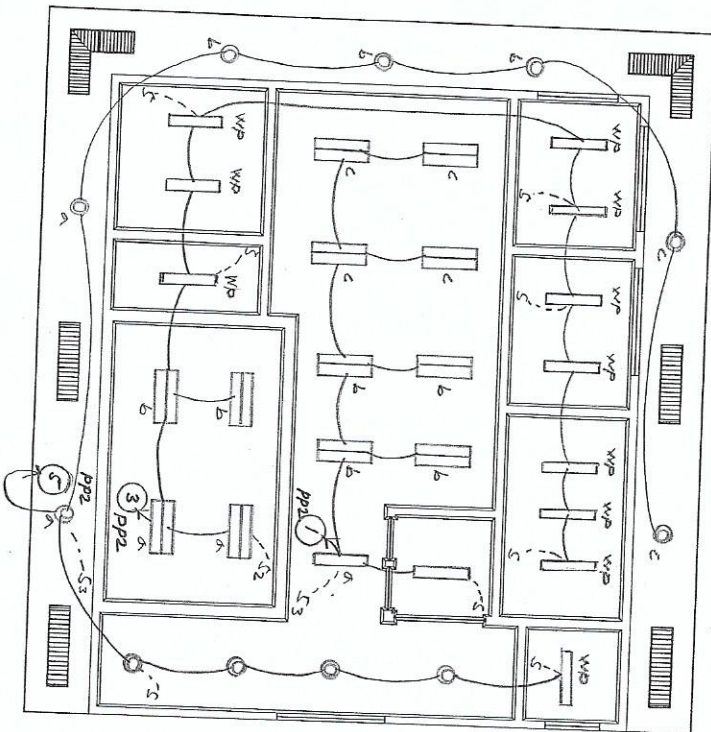
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LIGHTING LAYOUT RADIOECOLGY LABORATORY SCALE : 1:100 m



OWNER.

SHEET CONTENT:

PREPARED BY:

RECOMMENDING APPROVAL:

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REHABILITATION OF
ARC BUILDING
(CY 2018)CONVENIENCE OUTLETS LAYOUT
RADIOECOLOGY LABORATORY

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Vice Chairperson,
Committee on Construction

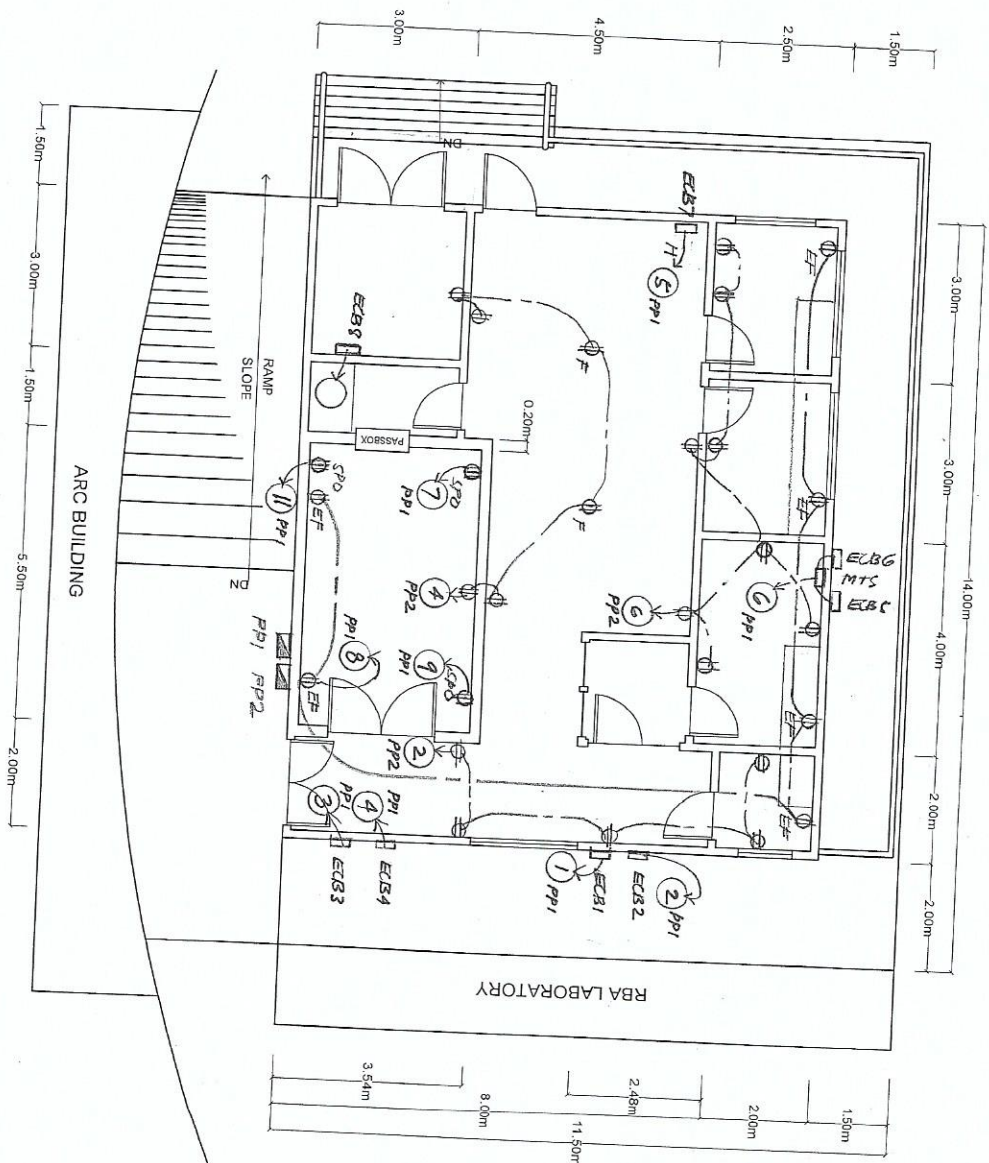
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Chairperson Committee on C

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CARLO A. ARCILLA, Ph.D.
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CONVENIENCE OUTLETS LAYOUT
RADIOECOLGY LABORATORY
SCALE: 1:100 m





Republic of the Philippines
Department of Science and Technology
PHILIPPINE NUCLEAR RESEARCH INSTITUTE

PROJECT:

REHABILITATION OF
ARC BUILDING
(CY 2018)

OWNER:

SHEET CONTENT:

AUXILIARY OUTLETS LAYOUT
RADIOECOLOGY LABORATORY

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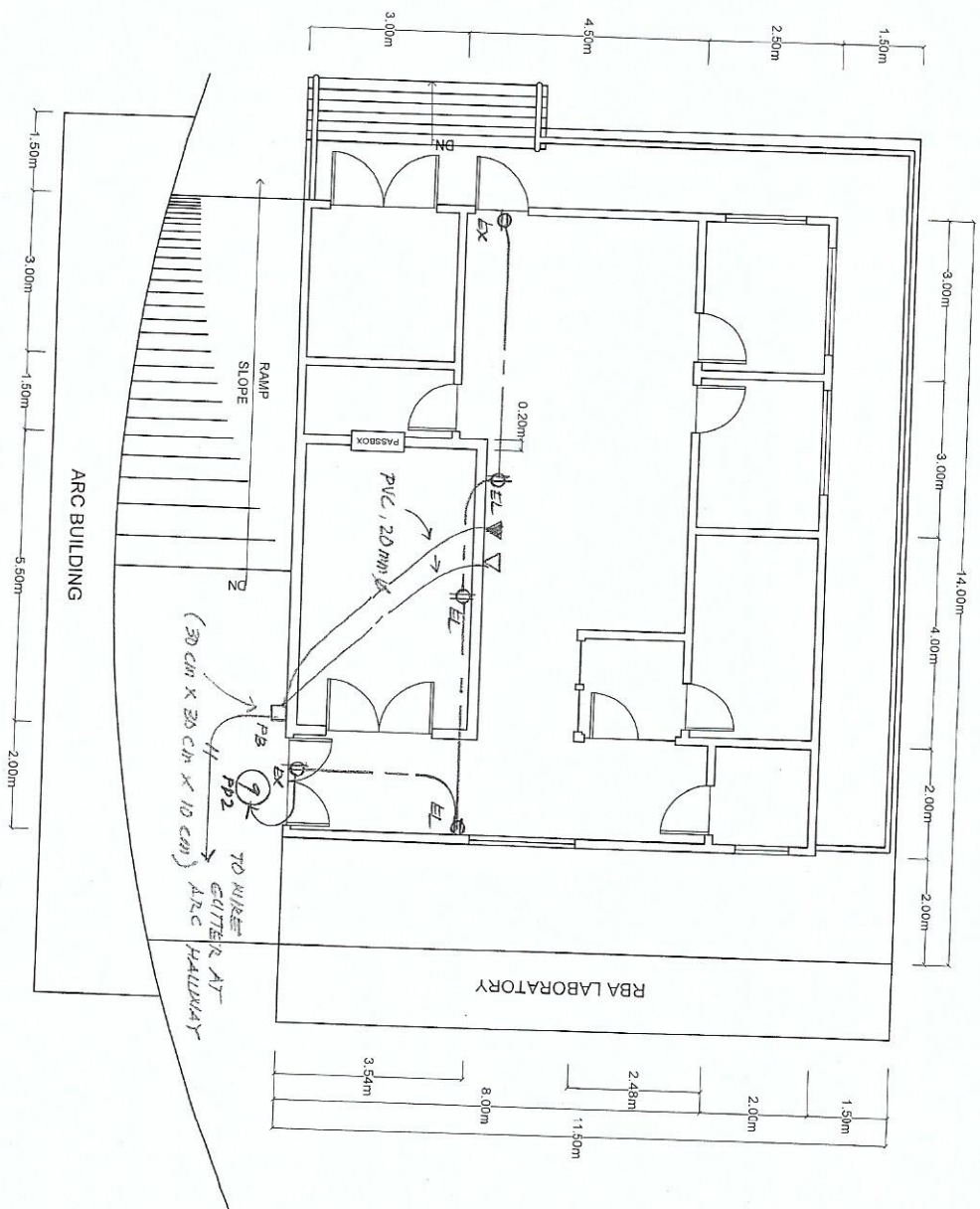
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AUXILIARY OUTLETS LAYOUT
RADIOECOLOGY LABORATORY
SCALE: 1:100 m

LOAD SCHEDULE RADIOECOTOLOGY LABORATORY

Pt1: 230 volts, three-phase, 60 Hz., Bolt-on, NEMA-1, surface mounted, industrial-type main MCB

Ckt. No.	Description of loads	Watts	Volts	Amperes			CB	Pole	Sizes of Wires and Conduits
				AB	BC	CA			
1	ECB1, ACCU (3 TR)	4,000	230	17.4			40	2	2-5.5- sq mm THHN/THWN, 1-3.5 THW 20 mm dia uPVC
2	ECB3, ACCU (2 HP)	2,760	230	12.0			30	2	2-5.5- sq mm THHN/THWN, 1-3.5 THW 20 mm dia uPVC
3	ECB2, ACCU (3 TR)	4,000	230			17.4	40	2	2-5.5- sq mm THHN/THWN, 1-3.5 THW 20 mm dia uPVC
4	ECB4, ACCU (2 HP)	2,760	230			12.0	30	2	2-5.5- sq mm THHN/THWN, 1-3.5 THW 20 mm dia uPVC
5	ECB7, Hood (1 HP)	2,300	230			10.0	30	2	2-5.5- sq mm THHN/THWN, 1-3.5 THW 20 mm dia uPVC
6	ECB5/ECB6, ACCU (2 HP)	2,760	230			12.0	30	2	2-5.5- sq mm THHN/THWN, 1-3.5 THW 20 mm dia uPVC
7	Special purpose outlet	1,000	230	4.3			30	2	2-5.5- sq mm THHN/THWN, 1-3.5 THW 20 mm dia uPVC
8	Exhaust fan, 6 -100 w	600	230	2.6			20	2	2-3.5- sq mm THHN/THWN, 1-3.5 THW 15 mm dia uPVC
9	Special purpose outlet	1,000	230			4.3	30	2	2-5.5- sq mm THHN/THWN, 1-3.5 THW 20 mm dia uPVC
10	Spare	500	230			2.2	20	2	2-5.5- sq mm THHN/THWN, 1-3.5 THW 20 mm dia uPVC
11	Special purpose outlet	1,000	230	4.3			20	2	2-5.5- sq mm THHN/THWN, 1-3.5 THW 20 mm dia uPVC
12	Spare	2,000	230	8.7			30	2	2-5.5- sq mm THHN/THWN, 1-3.5 THW 20 mm dia uPVC
13	Spare	500	230	2.2			30	2	2-5.5- sq mm THHN/THWN, 1-3.5 THW 20 mm dia uPVC
14	Spare	500	230	2.2			30	2	2-5.5- sq mm THHN/THWN, 1-3.5 THW 20 mm dia uPVC
15	Spare	500	230			2.2	30	2	2-5.5- sq mm THHN/THWN, 1-3.5 THW 20 mm dia uPVC
16	Spare	500	230			2.2	30	2	2-5.5- sq mm THHN/THWN, 1-3.5 THW 20 mm dia uPVC
17	PP2		230	10.1	11.8	11.0	30	3	
total				50.80	46.85	51.23	0		

COMPUTATION:
It = $[52 (1.73) + 0.25 (17.4) (1.73)] 80 \% DF = 84 \text{ Amperes}$
SERVICE FEEDER:
Three- 50.0 sq. mm THHN/THWN, One- 22.0 sq. mm THW wires; 50 mm dia RSC
MAIN CIRCUIT BREAKER:
Use 100 AT, 3P, 240 volt air circuit breaker.



Republic of the Philippines
Department of Science and Technology
PHILIPPINE NUCLEAR RESEARCH INSTITUTE

PROJECT:

REHABILITATION OF
ARC BUILDING
(CY 2018)

OWNER:

LOAD SCHEDULE
RADIOECOTOLOGY LABORATORY

SHEET CONTENT:

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Engr. Giuseppe Filam O. Dean
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LOAD SCHEDULE

RADIOECOLOGICAL LABORATORY

PP2: 230 volts, three-phase, 60 Hz., Bolt-on, NEMA-1, surface mounted, industrial-type main MCB

Ckt. No.	Description of loads	Watts	Volts	Amps			CB	Pole	Sizes of Wires and Conduits
				AB	BC	CA			
1	LED tube (2 x 18 w) - 8	324	230	1.4			15	2	2-3.5 sq mm THHN/THWN, 15 mm dia EMT
2	Conv. Outlets - 2	1,000	230	4.3			20	2	2-3.5 sq mm THHN/THWN, 1-3.5 sq mm THW
3	LED tube (2 x 18 w) - 4	324	230				15	2	2-3.5 sq mm THHN/THWN, 15 mm dia EMT
4	Conv. Outlets - 6	1,200	230				20	2	2-3.5 sq mm THHN/THWN, 1-3.5 sq mm THW
5	LED tube (1 x 18 w) - 1	117	230		0.5		15	2	2-3.5 sq mm THHN/THWN, 15 mm dia EMT
6	LED tube (1 x 9 w) - 11	1,800	230		7.0		20	2	2-3.5 sq mm THHN/THWN, 1-3.5 sq mm THW
7	Conv. Outlets - 8	1,600	230				20	2	2-3.5 sq mm THHN/THWN, 15 mm dia PVC
8	Spare	500	230	2.2			20	2	
9	Exlight - 2	500	230				20	2	
10	Emergency Light - 3	500	230		2.2		20	2	2-3.5 sq mm THHN/THWN, 1-3.5 sq mm THW
11	Spare	500	230		2.2		20	2	15 mm dia PVC
12	Spare	500	230		2.2		20	2	
COMPUTATION:				10.10	11.81	10.97	0		
Total									
Il = (11.8 (1.73)) 80 %DF = 16.3 Amperes									
SERVICE FEEDER: Three- 6.0 sq. mm THHN/THWN, One- 5.5 sq. mm THW wires, 20 mm dia RSC MAIN CIRCUIT BREAKER: Use 30 AT, 3P, 240 volt air circuit breaker.									



Republic of the Philippines
Department of Science and Technology
PHILIPPINE NUCLEAR RESEARCH INSTITUTE

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PREPARED BY:

RECOMMENDING APPROVAL:

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REHABILITATION OF
ARC BUILDING
(CY 2018)

LOAD SCHEDULE
RADIOECOLOGICAL LABORATORY

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Republic of the Philippines
Department of Science and Technology
PHILIPPINE NUCLEAR RESEARCH INSTITUTE

PROJECT: REHABILITATION OF
ARC BUILDING
(CY 2018)

OWNER:

SHEET CONTENT:

PANELBOARD DETAILS
RADIOECOLOGICAL LABORATORY

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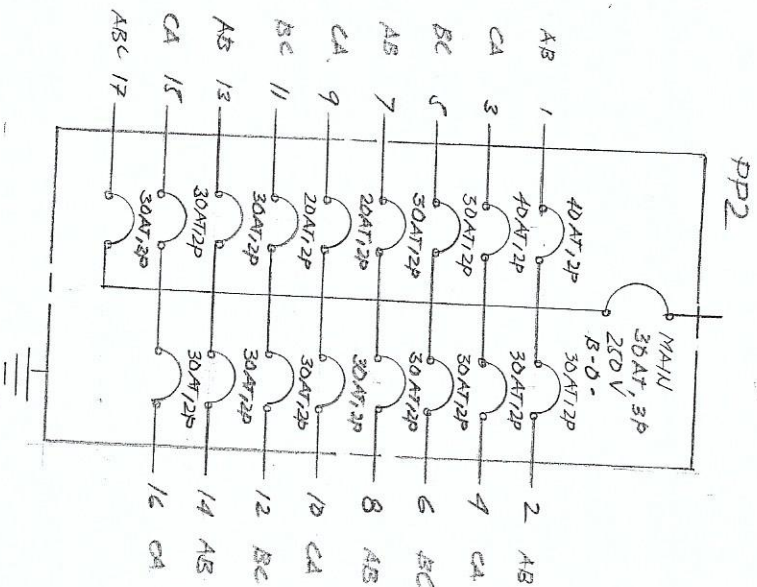
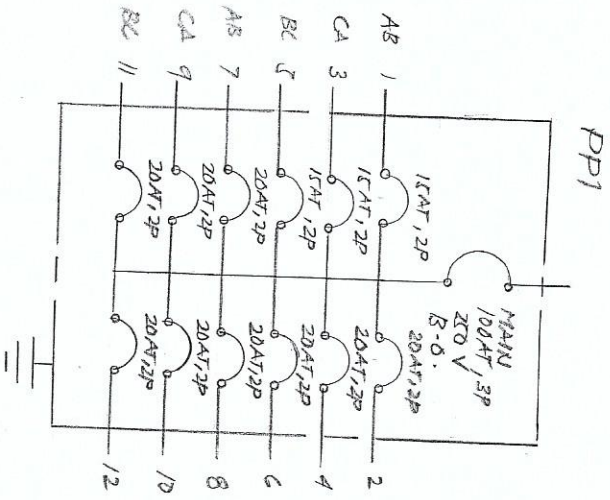
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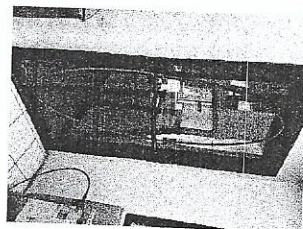
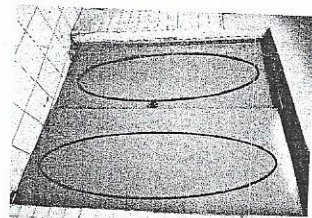
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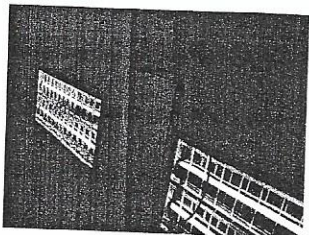
PANELBOARD DETAILS RADIOECOLOGICAL LABORATORY



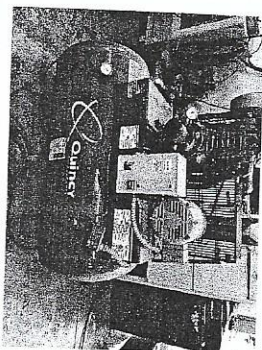
Supply and installation steel louver on the existing external steel door and replacement of internal aluminum Analok door to steel door with louver. (Liquid Nitrogen Plant)



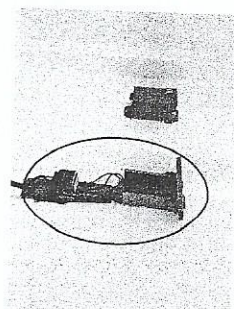
Repair of room ceiling. (Liquid Nitrogen Plant)



Transfer and installation of one (1) unit Air Compressor from Machine Shop, Engineering Building to Air Compressor Room.



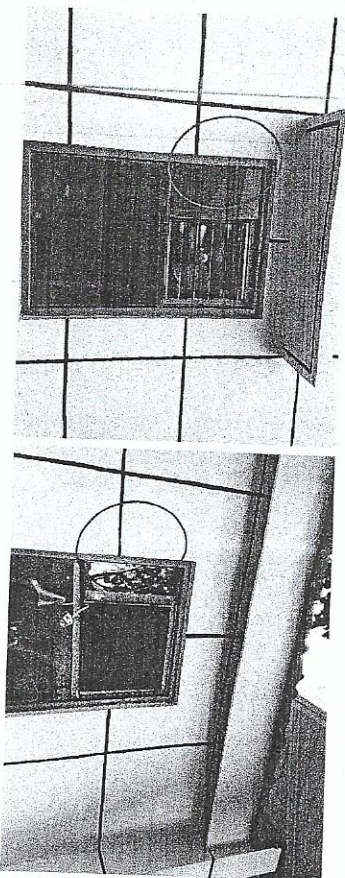
Supply and installation of new Enclosed Circuit Breaker (ECB) rated 40A, 230 volts, three (3) phase, Industrial Type and circuit breaker transfer switch (same rating) including supply line connection for the backup air compressor. (Air Compressor Room)



Supply and installation of air supply line including isolation valve and other related fittings for the backup compressor. (Air Compressor Room)



Installation of additional two (2) units exhaust fans with louver and provide canopy for one exhaust fan unit. (Air Compressor Room)



Republic of the Philippines
Department of Science and Technology
PHILIPPINE NUCLEAR RESEARCH INSTITUTE

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SHEET CONTENT:

LIQUID
NITROGEN PLANT

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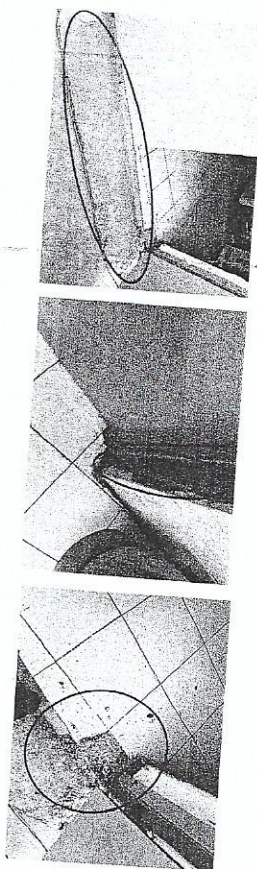
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Department of Science and Technology
PHILIPPINE NUCLEAR RESEARCH INSTITUTE

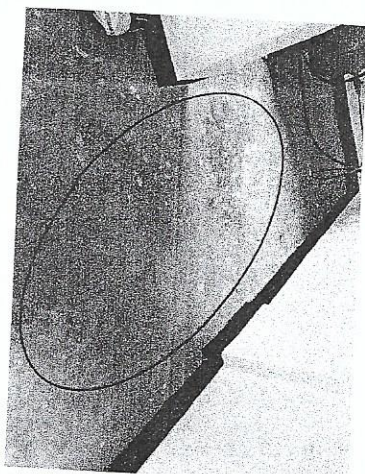
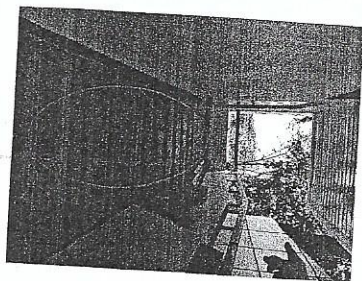
Repair of broken ceramic floor tiles. (Liquid Nitrogen Plant)



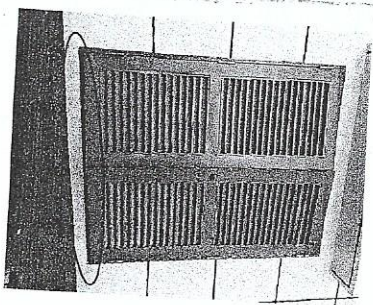
Wall painting inside the Liquid Nitrogen Plant.



Painting and application of epoxy paint on floorings: Outside Liquid Nitrogen Plant and inside the Air Compressor Room.



Supply and installation of detachable skirt brush covering the gap/opening between the flooring and bottom of the steel door. (Air Compressor Room)



PROJECT:

OWNER:

SHEET CONTENT:

LIQUID NITROGEN
PLANT

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