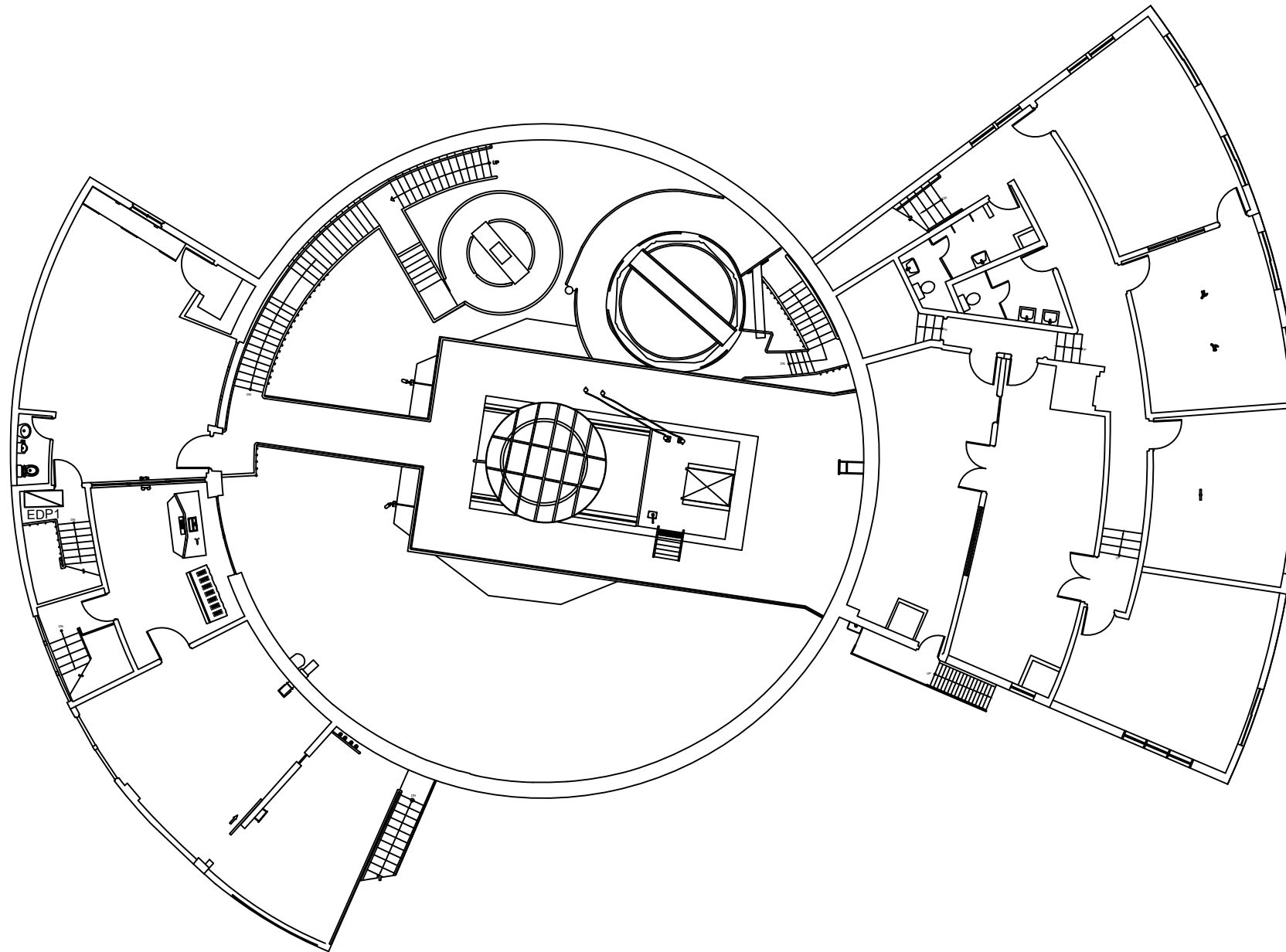


NROS

1
E - 06 GROUND FLOOR, REACTOR BUILDING (BLOW-UP)
 LIGHTING LAYOUT
 SCALE NTS

<p>Republic of the Philippines DEPARTMENT OF SCIENCE AND TECHNOLOGY PHILIPPINE NUCLEAR RESEARCH INSTITUTE COMMONWEALTH AVENUE, DILIMAN, QUEZON CITY</p>	PROJECT TITLE:	SHEET CONTENT/S:	PREPARED BY:	RECOMMENDING APPROVALS:	APPROVED BY:	DRAWN BY:	SHEET NO.	
	UPGRADING OF ARC BUILDING (C.Y. 2025)	GROUND FLOOR, REACTOR BUILDING (BLOW-UP) - LIGHTING LAYOUT	<u>ENGR. ANDREW C. BARRIDA</u> <small>SSRS, ESS</small> <u>ENGR. ROSALINO B. REJAS</u> <small>SSRS, ESS</small>	<u>ENGR. ARTURO F. SALIH</u> <small>ESS, HEAD</small> <u>NEIL RAYMUND D. GUILLERMO, M. Sc</u> <small>CHIEF, ARD</small> <u>ENGR. HAYDEE M. SOLOMON</u> <small>OIC-CHIEF, NSD</small>	<u>CHITHO P. FELICIANO, Ph.D.</u> <small>END-USER, HEAD, HPRS</small> <u>VALLERIE ANN I. SAMSON, Ph. D.</u> <small>DEPUTY DIRECTOR</small>	<u>ENGR. C. PELMONTE</u> <small>CHECKED BY:</small> <small>DATE:</small>	E - 06 <small>PAGE NO. OF TOTAL NO. OF PAGES</small> 67 of 84	
						<u>CARLO A. ARCILLA, Ph. D.</u> <small>DIRECTOR</small>		

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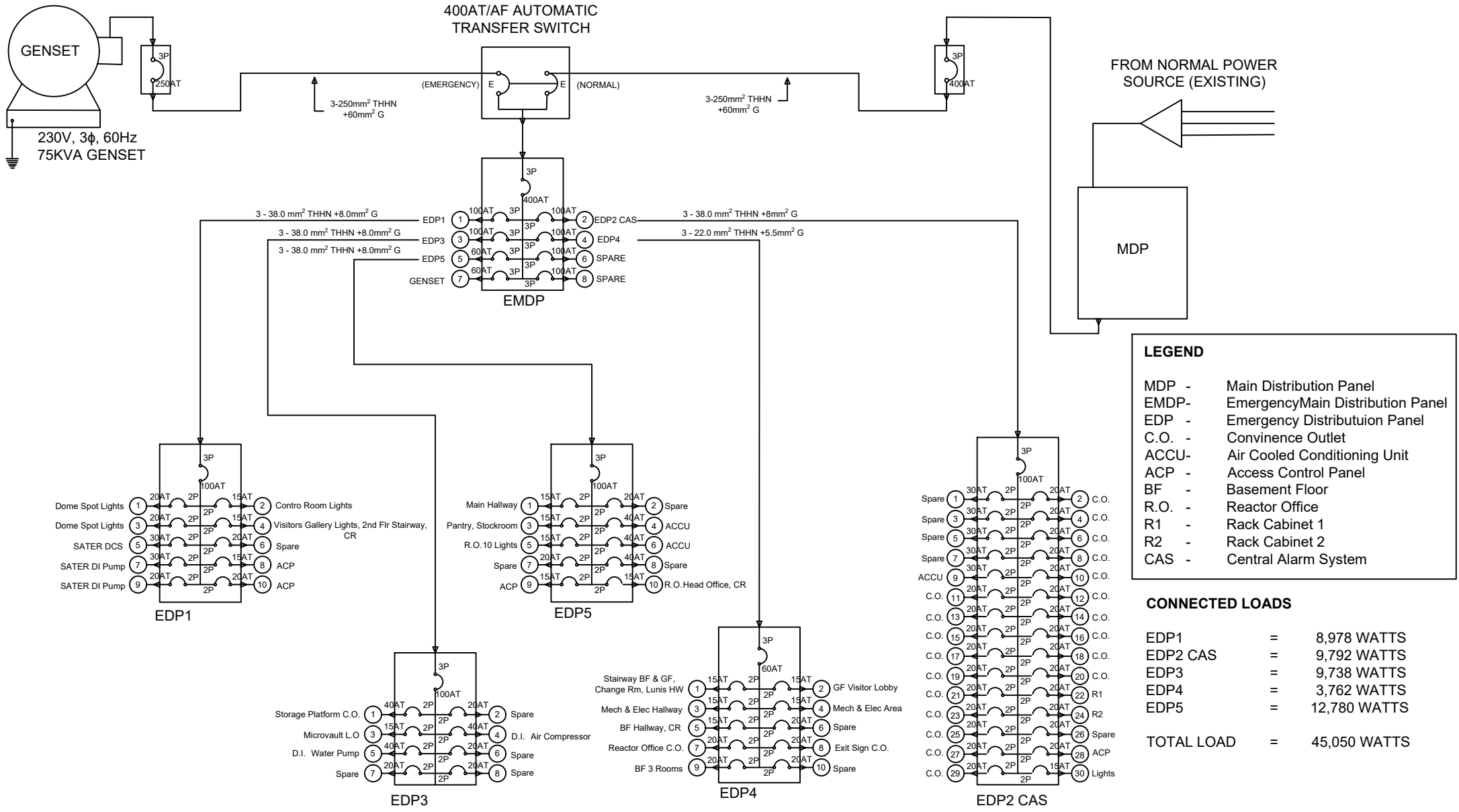


NROS

1
E - 07 SECOND FLOOR, REACTOR BUILDING (BLOW-UP)
LIGHTING LAYOUT
SCALE NTS

<p>Republic of the Philippines DEPARTMENT OF SCIENCE AND TECHNOLOGY PHILIPPINE NUCLEAR RESEARCH INSTITUTE COMMONWEALTH AVENUE, DILIMAN, QUEZON CITY</p>	PROJECT TITLE:	SHEET CONTENT/S:	PREPARED BY:	RECOMMENDING APPROVALS:	APPROVED BY:	DRAWN BY:	SHEET NO.	
	UPGRADING OF ARC BUILDING (C.Y. 2025)	SECOND FLOOR, REACTOR BUILDING (BLOW-UP) - LIGHTING LAYOUT	ENGR. ANDREW C. BARRIDA SSRS, ESS	ENGR. ARTURO F. SALIH ESS, HEAD NEIL RAYMUND D. GUILLERMO, M. Sc CHIEF, ARD	CHITHO P. FELICIANO, Ph.D. END-USER, HEAD, HPRS	ENGR. C. PELMONTE	E - 07	
			ENGR. ROSALINO B. REJAS SSRS, ESS	ENGR. HAYDEE M. SOLOMON OTC-CHIEF, NSD	VALLERIE ANN I. SAMSON, Ph. D. DEPUTY DIRECTOR	CARLO A. ARCILLA, Ph. D. DIRECTOR	CHECKED BY:	PAGE NO. OF TOTAL NO. OF PAGES
							DATE:	68 of 84

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LEGEND


- MDP - Main Distribution Panel
- EMDP- EmergencyMain Distribution Panel
- EDP - Emergency Distribuutaion Panel
- C.O. - Convience Outlet
- ACCU- Air Cooled Conditioning Unit
- ACP - Access Control Panel
- BF - Basement Floor
- R.O. - Reactor Office
- R1 - Rack Cabinet 1
- R2 - Rack Cabinet 2
- CAS - Central Alarm System

CONNECTED LOADS

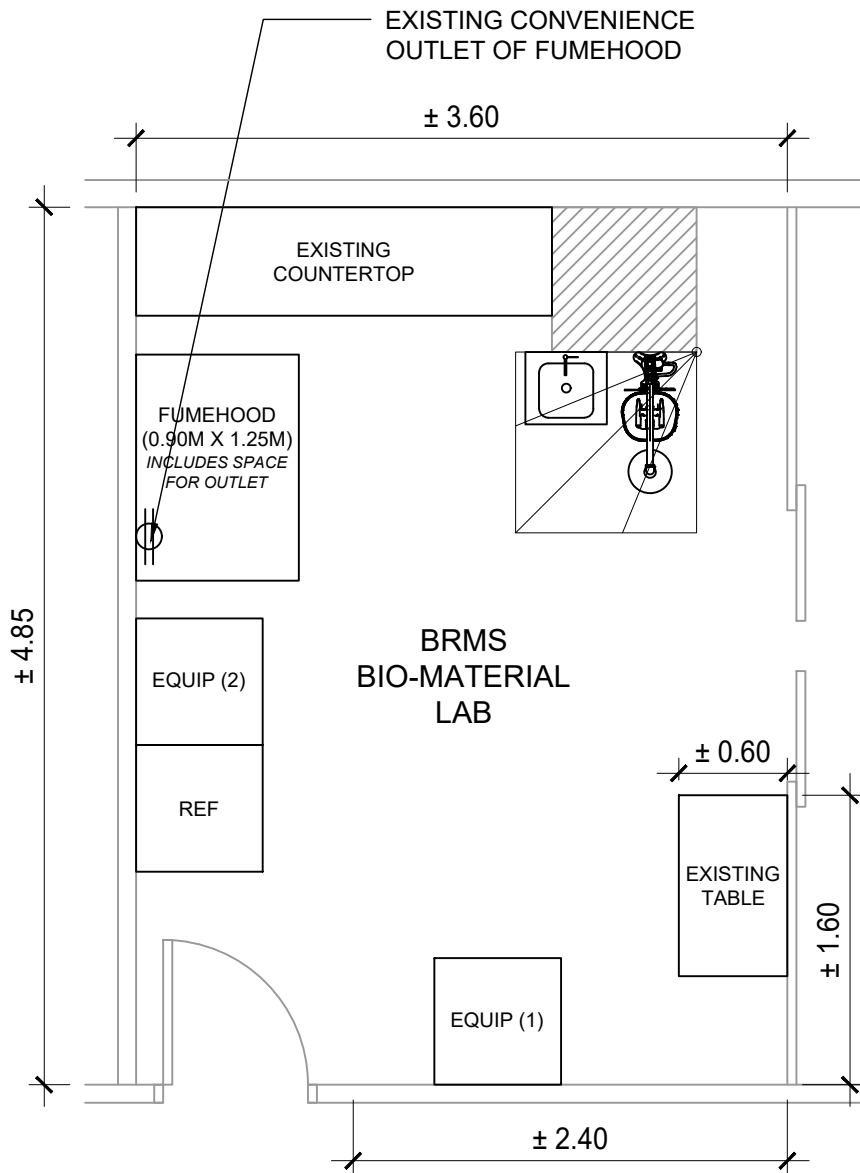
EDP1	=	8,978 WATTS
EDP2 CAS	=	9,792 WATTS
EDP3	=	9,738 WATTS
EDP4	=	3,762 WATTS
EDP5	=	12,780 WATTS
TOTAL LOAD	=	45,050 WATTS

NROS

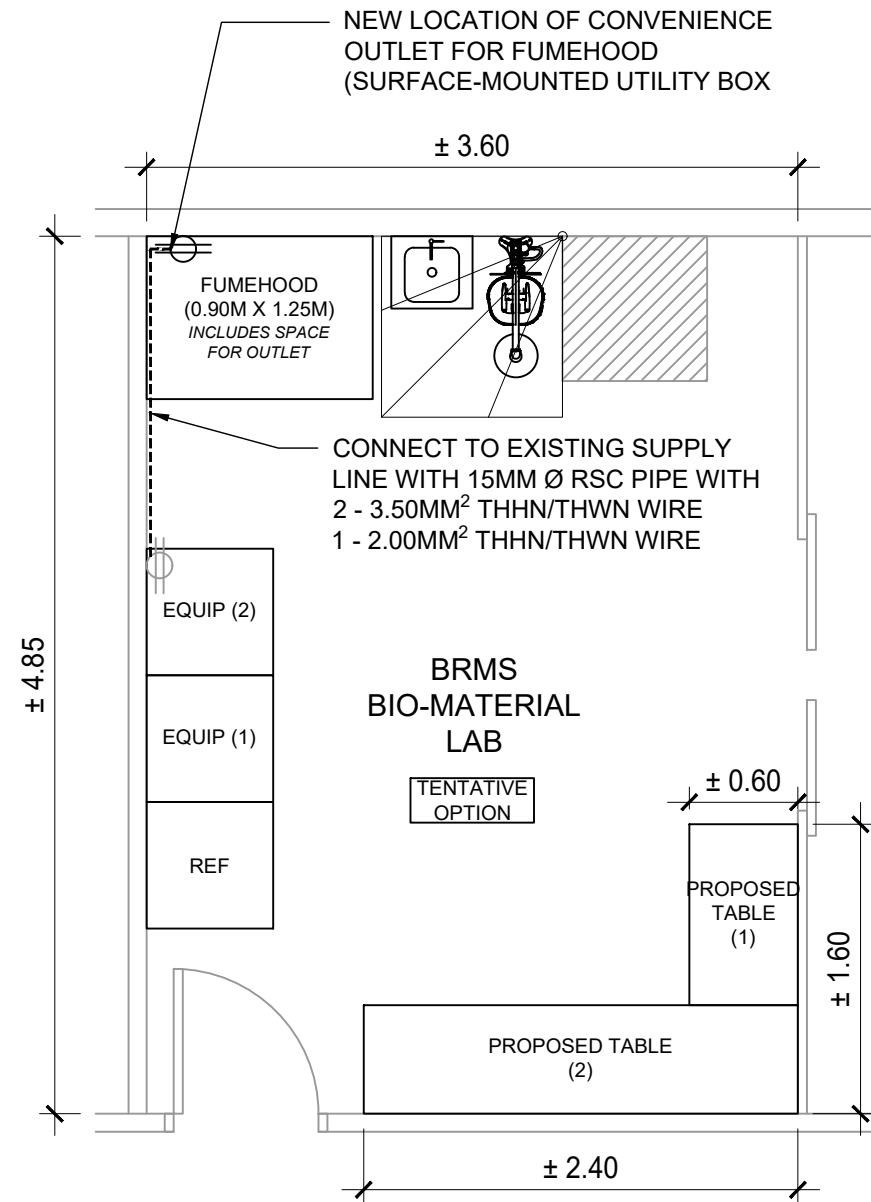
1 REACTOR BUILDING
 E - 08 NROS EMERGENCY POWER DIAGRAM
 SCALE NTS

 Republic of the Philippines DEPARTMENT OF SCIENCE AND TECHNOLOGY PHILIPPINE NUCLEAR RESEARCH INSTITUTE COMMONWEALTH AVENUE, DILIMAN, QUEZON CITY	PROJECT TITLE:	SHEET CONTENT/S:	PREPARED BY:	RECOMMENDING APPROVALS:	APPROVED BY:	DRAWN BY: ENGR. C. PELMONTE	SHEET NO.
	UPGRADING OF ARC BUILDING (C.Y. 2025)	REACTOR BUILDING - NROS EMERGENCY POWER DIAGRAM	ENGR. ANDREW C. BARRIDA SSRS, ESS	ENGR. ARTURO F. SALIH ESS, HEAD CHITHO P. FELICIANO, Ph.D. END-USER, HEAD, HPRS NEIL RAYMUND D. GUILLERMO, M. Sc CHIEF, ARD	CARLO A. ARCILLA, Ph. D. DIRECTOR	CHECKED BY:	E - 08
			ENGR. ROSALINO B. REJAS SSRS, ESS	ENGR. HAYDEE M. SOLOMON OIC-CHIEF, NSD	VALLERIE ANN I. SAMSON, Ph. D. DEPUTY DIRECTOR	DATE:	PAGE NO. OF TOTAL NO. OF PAGES
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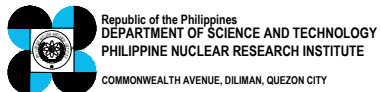


1
E - 09
GROUND FLOOR, BIO-MATERIAL LAB (BLOW-UP)
EXISTING GROUND FLOOR PLAN (POWER LAYOUT)
SCALE NTS



1
E - 09
GROUND FLOOR, BIO-MATERIAL LAB (BLOW-UP)
PROPOSED GROUND FLOOR PLAN (POWER LAYOUT)
SCALE NTS

BMRS



PROJECT TITLE:
UPGRADING OF ARC BUILDING (C.Y. 2025)

SHEET CONTENT/S:
GROUND FLOOR, BIO-MATERIAL LAB (BLOW-UP)
- EXISTING GROUND FLOOR PLAN (POWER LAYOUT)
- PROPOSED GROUND FLOOR PLAN (POWER LAYOUT)

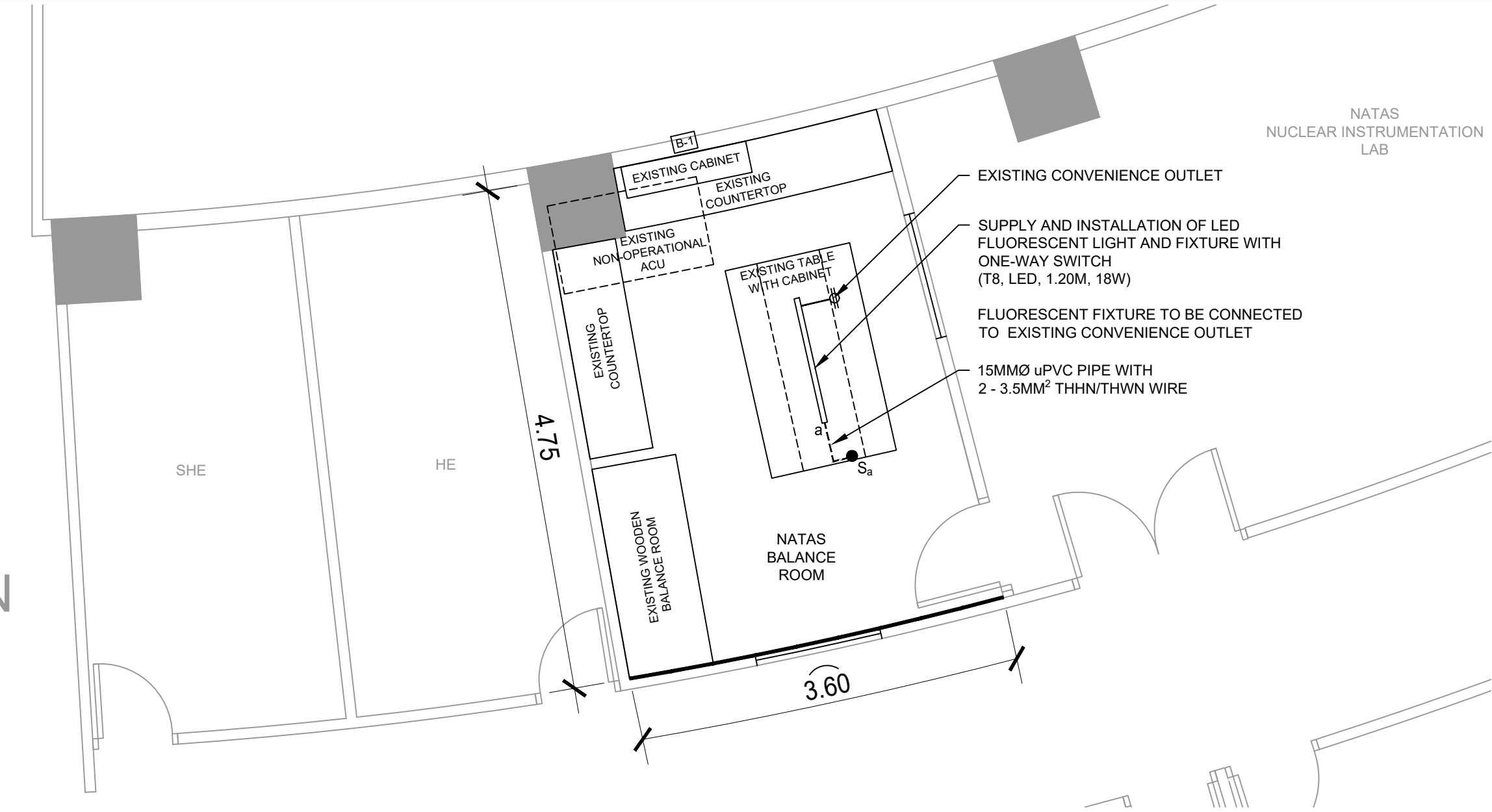
PREPARED BY:
ENGR. ANDREW C. BARRIDA
SSRS, ESS
ENGR. ROSALINO B. REJAS
SSRS, ESS

RECOMMENDING APPROVALS:
ENGR. ARTURO F. SALIH
ESS, HEAD
CHITHO P. FELICIANO, Ph.D.
END-USER, HEAD, HPRS
NEIL RAYMUND D. GUILLERMO, M. Sc
CHIEF, ARD
ENGR. HAYDEE M. SOLOMON
OIC-CHIEF, NSD
VALLERIE ANN I. SAMSON, Ph. D.
DEPUTY DIRECTOR

APPROVED BY:
CARLO A. ARCILLA, Ph. D.
DIRECTOR

DRAWN BY:
ENGR. C. PELMONTE
CHECKED BY:
DATE:
SHEET NO.:
E - 09
PAGE NO. OF TOTAL NO. OF PAGES:
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NATAS
NUCLEAR INSTRUMENTATION
LAB




- EXISTING CONVENIENCE OUTLET
- SUPPLY AND INSTALLATION OF LED FLUORESCENT LIGHT AND FIXTURE WITH ONE-WAY SWITCH (T8, LED, 1.20M, 18W)
- FLUORESCENT FIXTURE TO BE CONNECTED TO EXISTING CONVENIENCE OUTLET
- 15MMØ uPVC PIPE WITH 2 - 3.5MM² THHN/THWN WIRE

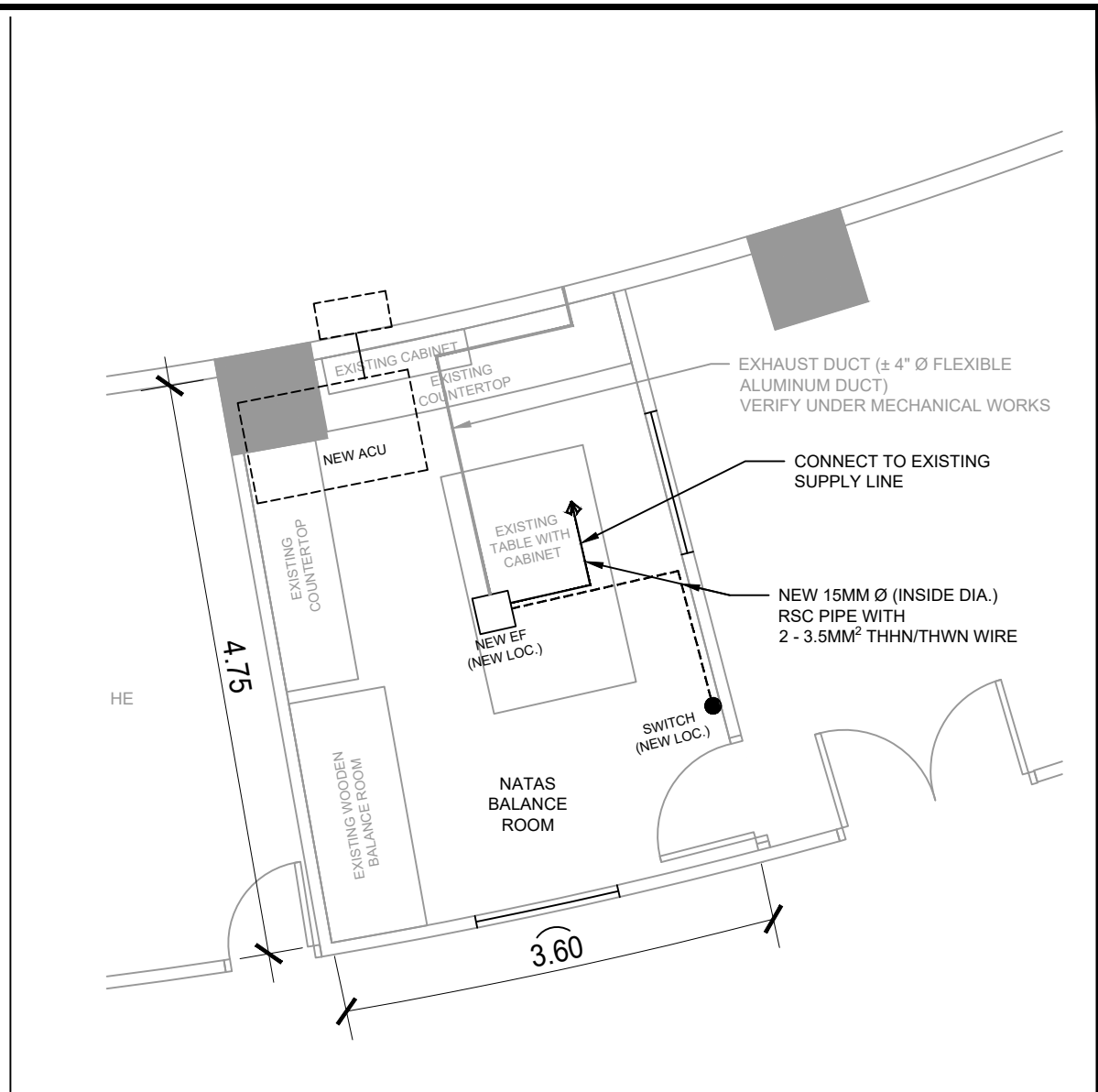
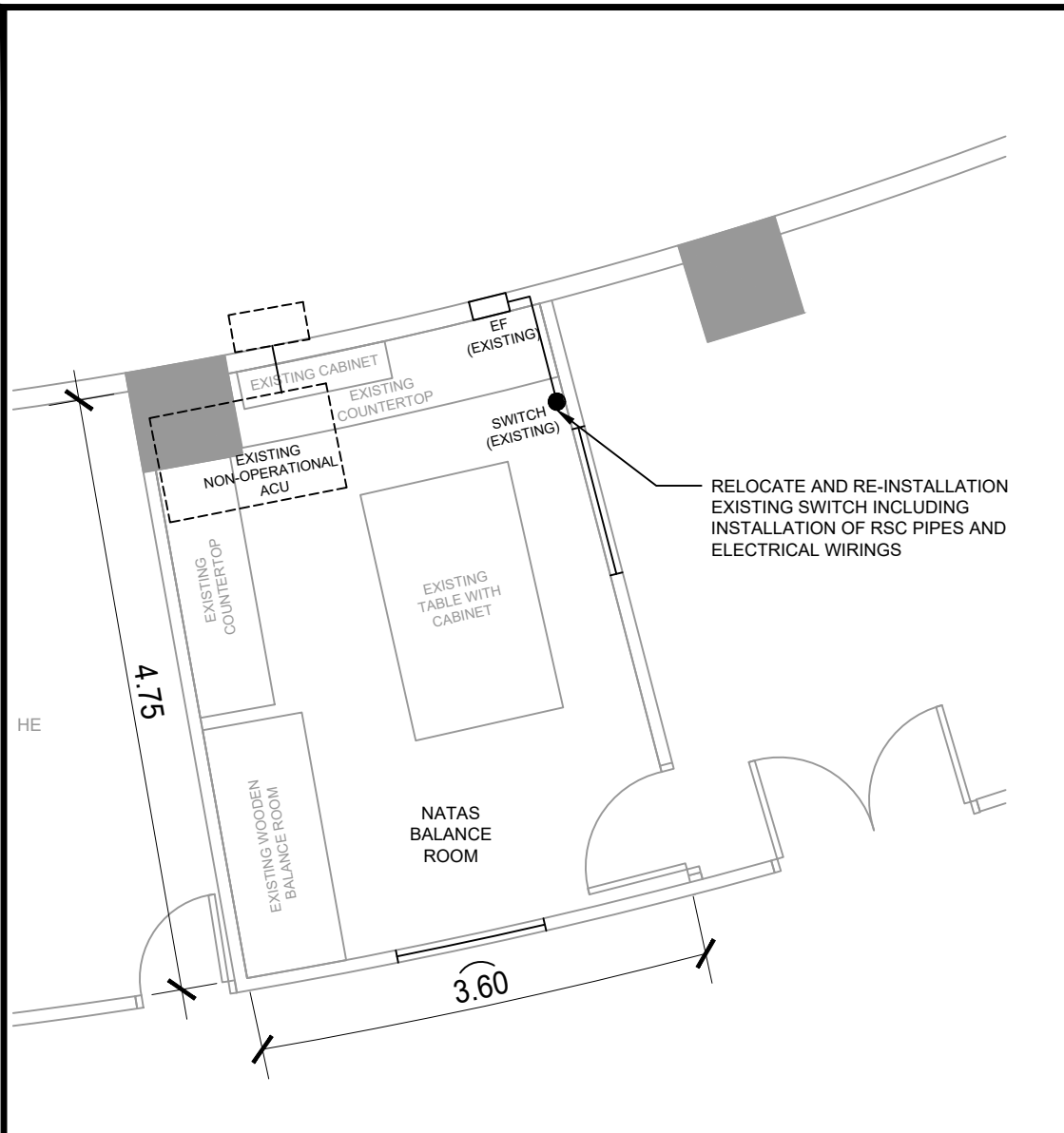
NATAS

1
E - 10
SCALE

GROUND FLOOR, BALANCE ROOM (BLOW-UP)
LIGHTING FIXTURE AT TABLE (LIGHTING LAYOUT)
NTS

 <p>Republic of the Philippines DEPARTMENT OF SCIENCE AND TECHNOLOGY PHILIPPINE NUCLEAR RESEARCH INSTITUTE COMMONWEALTH AVENUE, DILIMAN, QUEZON CITY</p>	PROJECT TITLE:	SHEET CONTENT/S:	PREPARED BY:	RECOMMENDING APPROVALS:	APPROVED BY:	DRAWN BY:	SHEET NO.	
	UPGRADING OF ARC BUILDING (C.Y. 2025)	GROUND FLOOR, BALANCE ROOM - LIGHTING FIXTURE AT TABLE (LIGHTING LAYOUT)	<u>ENGR. ANDREW C. BARRIDA</u> SSRS, ESS <u>ENGR. ROSALINO B. REJAS</u> SSRS, ESS	<u>ENGR. ARTURO F. SALIH</u> ESS, HEAD <u>NEIL RAYMUND D. GUILLERMO, M. Sc</u> CHIEF, ARD <u>ENGR. HAYDEE M. SOLOMON</u> OIC-CHIEF, NSD <u>CHITHO P. FELICIANO, Ph.D.</u> END-USER, HEAD, HPRS <u>VALLERIE ANN I. SAMSON, Ph. D.</u> DEPUTY DIRECTOR	<u>CARLO A. ARCILLA, Ph. D.</u> DIRECTOR	<u>ENGR. C. PELMONTE</u> CHECKED BY: DATE:	E - 10	
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								71 of 84

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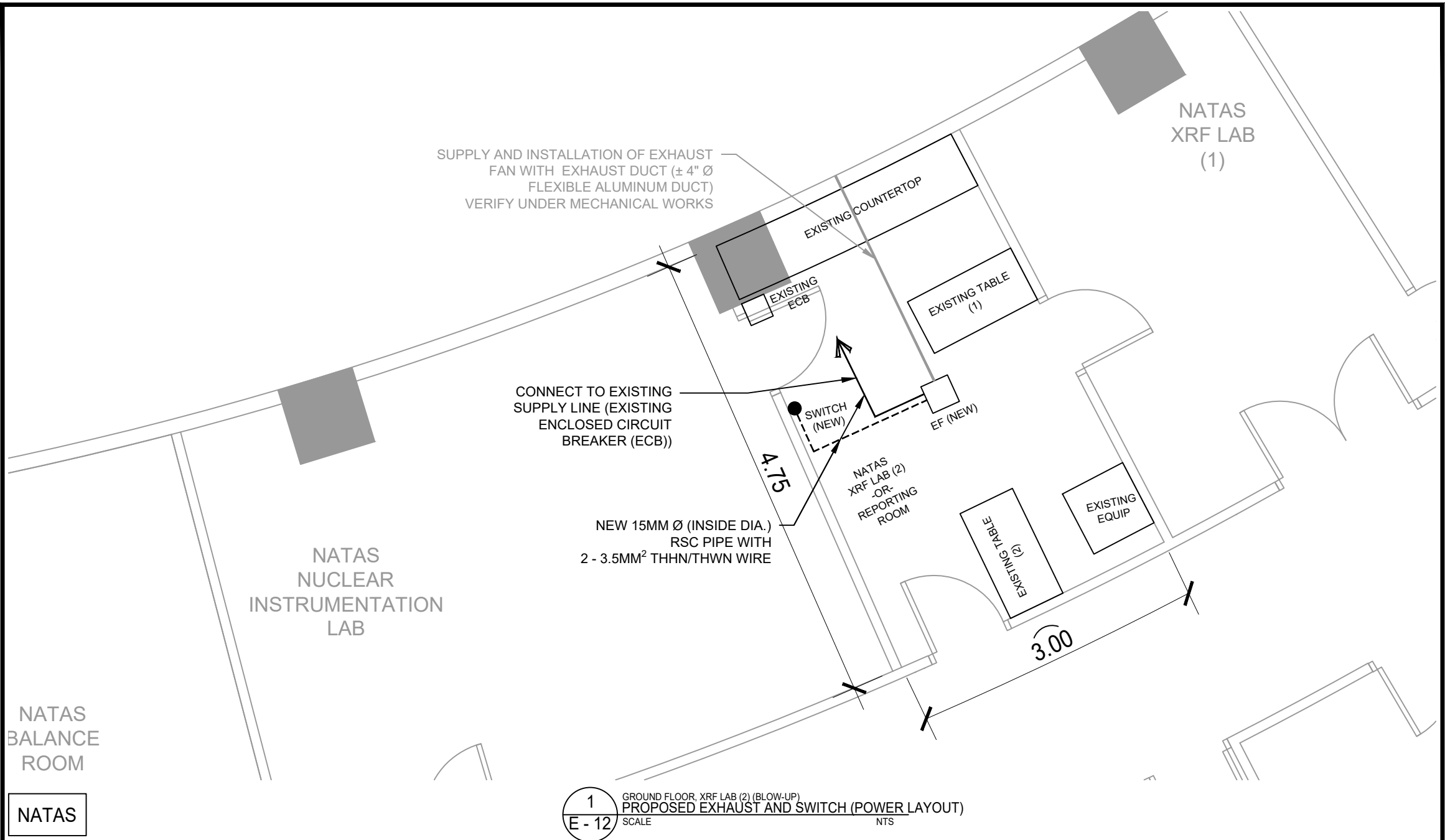
NATAS

1
E - 11
SCALE NTS

GROUND FLOOR BALANCE ROOM (BLOW-UP)
PROPOSED EXHAUST AND SWITCH (POWER LAYOUT)


<p>Republic of the Philippines DEPARTMENT OF SCIENCE AND TECHNOLOGY PHILIPPINE NUCLEAR RESEARCH INSTITUTE COMMONWEALTH AVENUE, DILIMAN, QUEZON CITY</p>	PROJECT TITLE:	SHEET CONTENT/S:	PREPARED BY:	RECOMMENDING APPROVALS:	APPROVED BY:	DRAWN BY:	SHEET NO.	
	UPGRADING OF ARC BUILDING (C.Y. 2025)	GROUND FLOOR BALANCE ROOM - PROPOSED EXHAUST AND SWITCH (POWER LAYOUT)	<u>ENGR. ANDREW C. BARRIDA</u> SSRS, ESS <u>ENGR. ROSALINO B. REJAS</u> SSRS, ESS	<u>ENGR. ARTURO F. SALIH</u> ESS, HEAD <u>NEIL RAYMUND D. GUILLERMO, M. Sc</u> CHIEF, ARD <u>ENGR. HAYDEE M. SOLOMON</u> OIC-CHIEF, NSD <u>CHITHO P. FELICIANO, Ph.D.</u> END-USER, HEAD, HPRS	<u>CARLO A. ARCILLA, Ph. D.</u> DIRECTOR	<u>ENGR. C. PELMONTE</u> CHECKED BY: DATE:	E - 11 PAGE NO. OF TOTAL NO. OF PAGES 72 of 84	

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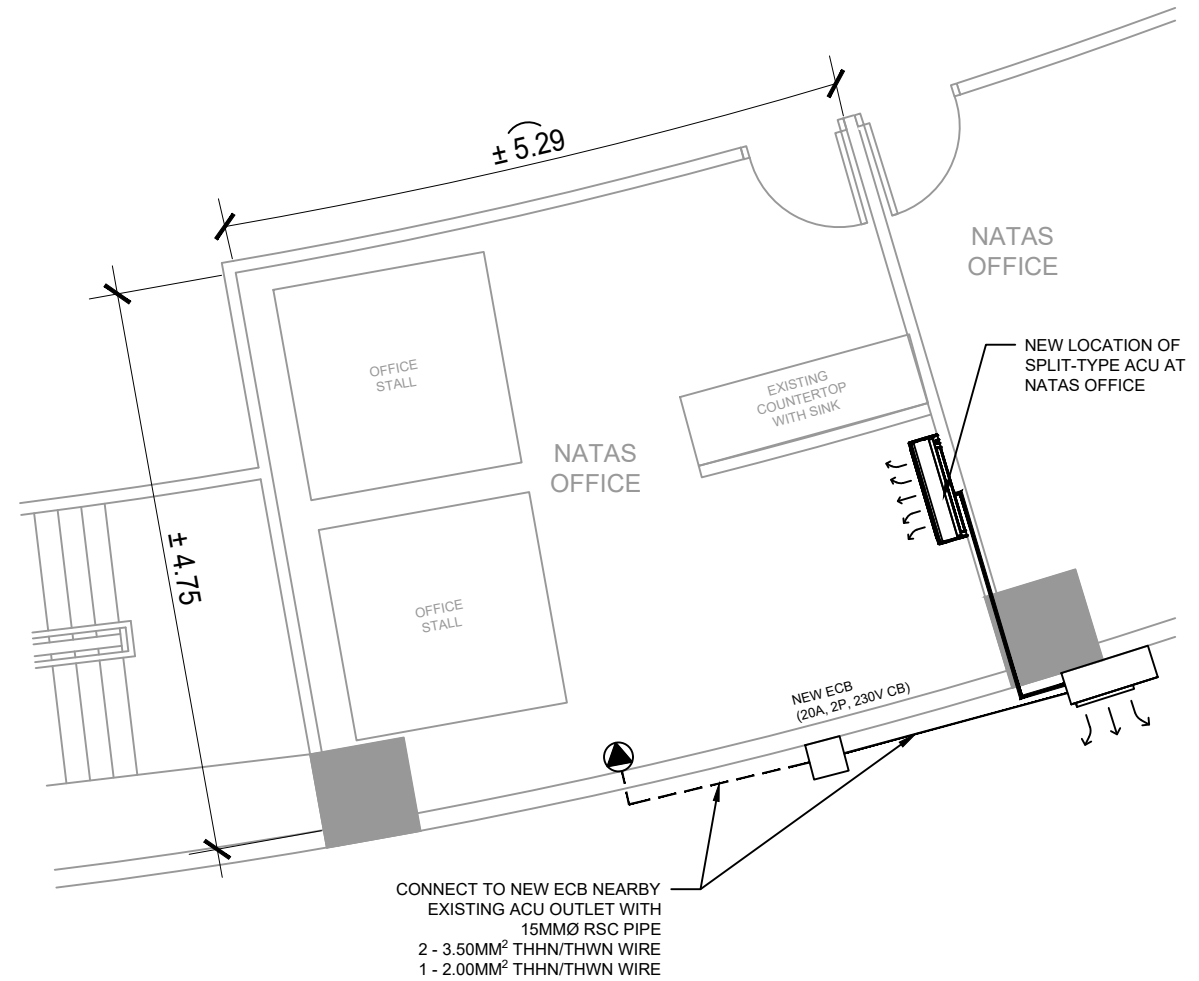
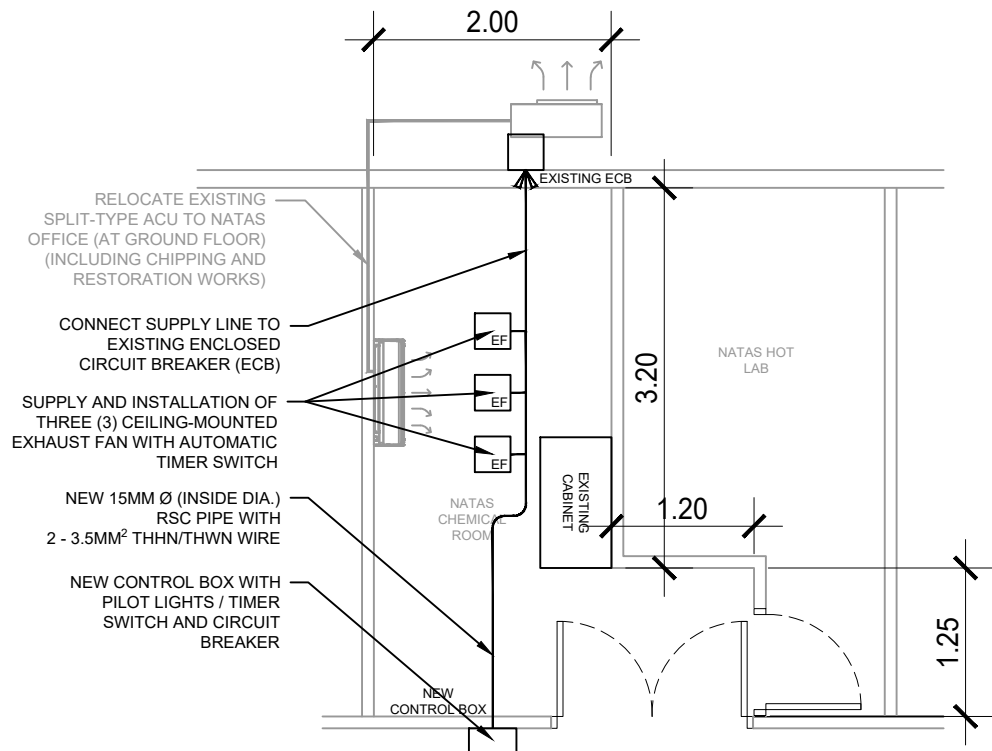


1
E - 12
GROUND FLOOR, XRF LAB (2) (BLOW-UP)
PROPOSED EXHAUST AND SWITCH (POWER LAYOUT)
SCALE NTS

NATAS


 <p>Republic of the Philippines DEPARTMENT OF SCIENCE AND TECHNOLOGY PHILIPPINE NUCLEAR RESEARCH INSTITUTE COMMONWEALTH AVENUE, DILIMAN, QUEZON CITY</p>	PROJECT TITLE:	SHEET CONTENT/S:	PREPARED BY:	RECOMMENDING APPROVALS:	APPROVED BY:	DRAWN BY:	SHEET NO.	
	UPGRADING OF ARC BUILDING (C.Y. 2025)	GROUND FLOOR, XRF LAB (2) (BLOW-UP) - PROPOSED EXHAUST AND SWITCH (POWER LAYOUT)	<u>ENGR. ANDREW C. BARRIDA</u> SSRS, ESS <u>ENGR. ROSALINO B. REJAS</u> SSRS, ESS	<u>ENGR. ARTURO F. SALIH</u> ESS, HEAD <u>NEIL RAYMUND D. GUILLERMO, M. Sc</u> CHIEF, ARD <u>ENGR. HAYDEE M. SOLOMON</u> OIC-CHIEF, NSD <u>CHITHO P. FELICIANO, Ph.D.</u> END-USER, HEAD, HPRS <u>VALLERIE ANN I. SAMSON, Ph. D.</u> DEPUTY DIRECTOR	<u>CARLO A. ARCILLA, Ph. D.</u> DIRECTOR	ENGR. C. PELMONTE	E - 12	
							CHECKED BY:	PAGE NO. OF TOTAL NO. OF PAGES
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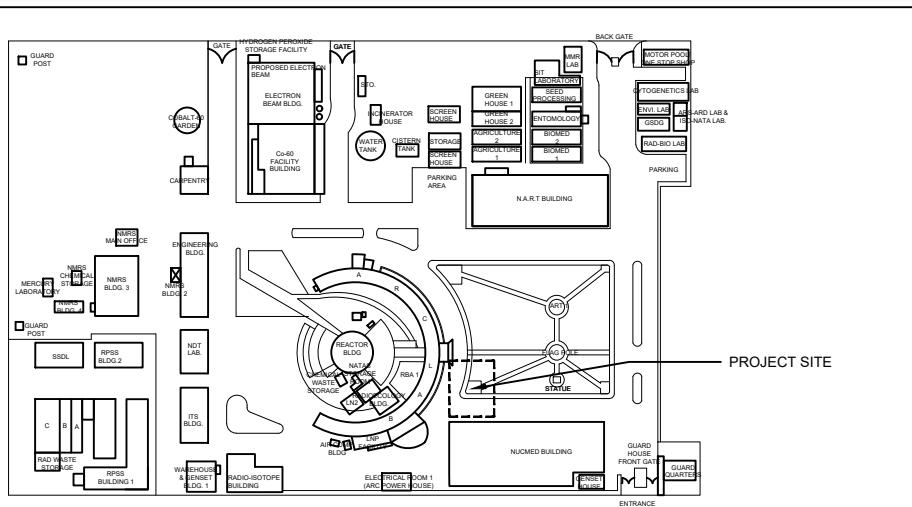


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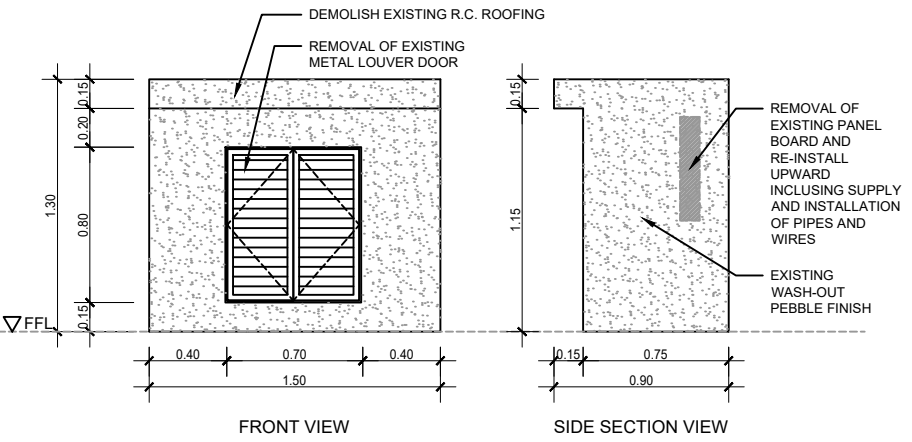
1
E - 13
GROUND FLOOR, CHEMICAL ROOM + OFFICE (BLOW-UP)
PROPOSED EXHAUST FAN AND RELOCATION OF ACU (POWER LAYOUT)
SCALE NTS

 Republic of the Philippines DEPARTMENT OF SCIENCE AND TECHNOLOGY PHILIPPINE NUCLEAR RESEARCH INSTITUTE COMMONWEALTH AVENUE, DILIMAN, QUEZON CITY	PROJECT TITLE:	SHEET CONTENT/S:	PREPARED BY:	RECOMMENDING APPROVALS:	APPROVED BY:	DRAWN BY:	SHEET NO.
	UPGRADING OF ARC BUILDING (C.Y. 2025)	GROUND FLOOR, CHEMICAL ROOM + OFFICE (BLOW-UP) - PROPOSED EXHAUST FAN AND RELOCATION OF ACU (POWER LAYOUT)	<u>ENGR. ANDREW C. BARRIDA</u> <small>SSRS, ESS</small> <u>ENGR. ROSALINO B. REJAS</u> <small>SSRS, ESS</small>	<u>ENGR. ARTURO F. SALIH</u> <small>ESS, HEAD</small> <u>NEIL RAYMUND D. GUILLERMO, M. Sc</u> <small>CHIEF, ARD</small> <u>ENGR. HAYDEE M. SOLOMON</u> <small>OIC-CHIEF, NSD</small>	<u>CHITHO P. FELICIANO, Ph.D.</u> <small>END-USER, HEAD, HPRS</small> <u>VALLERIE ANN I. SAMSON, Ph. D.</u> <small>DEPUTY DIRECTOR</small>	<u>ENGR. C. PELMONTE</u> <small>CHECKED BY:</small> <small>DATE:</small>	E - 13 <small>PAGE NO. OF TOTAL NO. OF PAGES</small> 74 of 84
						<u>CARLO A. ARCILLA, Ph. D.</u> <small>DIRECTOR</small>	

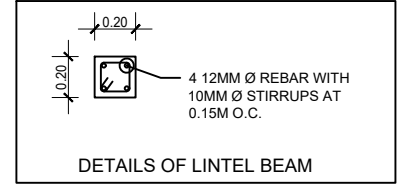
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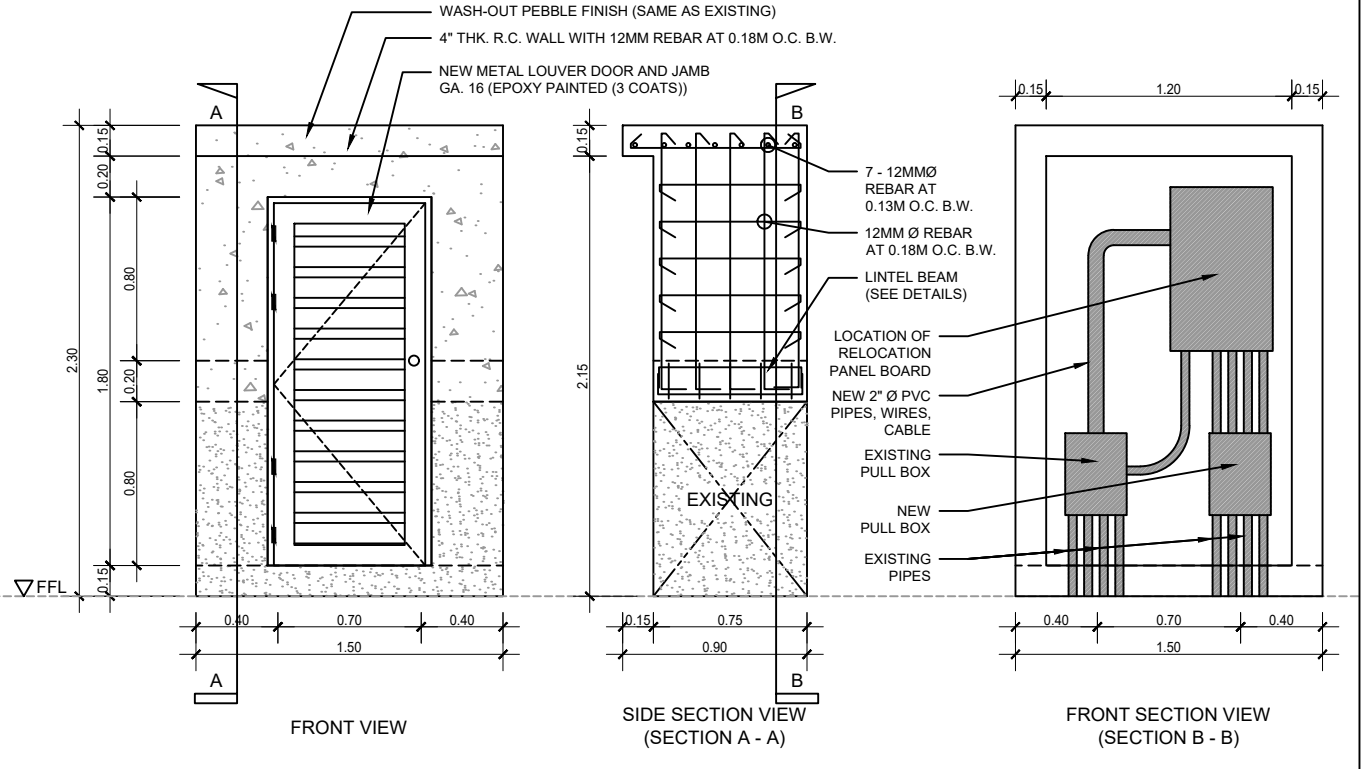
1 PNRI COMPOUND
E - 14 SITE DEVELOPMENT PLAN FOR PANELBOARD AT FLAGPOLE
 SCALE NTS



2 GROUND LEVEL
E - 14 EXISTING NEW PANEL BOARD AT FLAG POLE AREA
 SCALE NTS

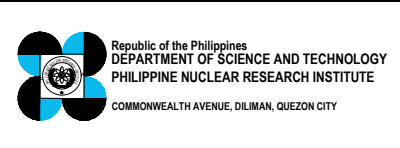


DETAILS OF LINTEL BEAM



3 GROUND LEVEL
E - 14 PROPOSED NEW PANEL BOARD AT FLAG POLE AREA
 SCALE NTS

ESS



PROJECT TITLE:
 UPGRADING OF ARC BUILDING (C.Y. 2025)

SHEET CONTENT/S:
 PNRI COMPOUND
 - SITE DEVELOPMENT PLAN FOR PANELBOARD AT FLAGPOLE GROUND LEVEL
 - EXISTING PANELBOARD AT FLAG POLE AREA
 - PROPOSED NEW PANEL BOARD AT FLAGPOLE AREA

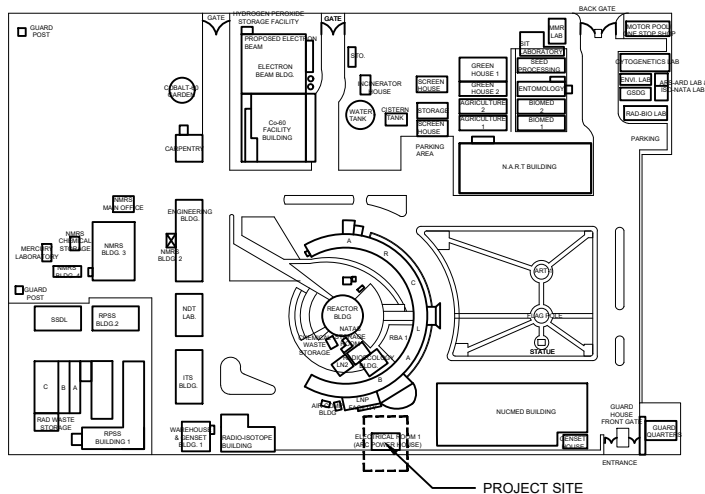
PREPARED BY:
 ENGR. ANDREW C. BARRIDA
 SSRS, ESS
 ENGR. ROSALINO B. REJAS
 SSRS, ESS

RECOMMENDING APPROVALS:
 ENGR. ARTURO F. SALIH
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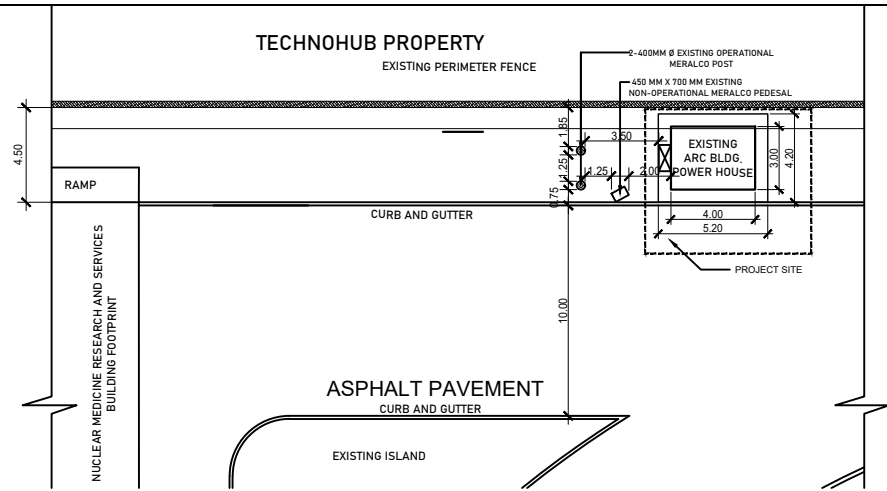
APPROVED BY:
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SHEET NO.
 E - 14
 PAGE NO. OF TOTAL NO. OF PAGES
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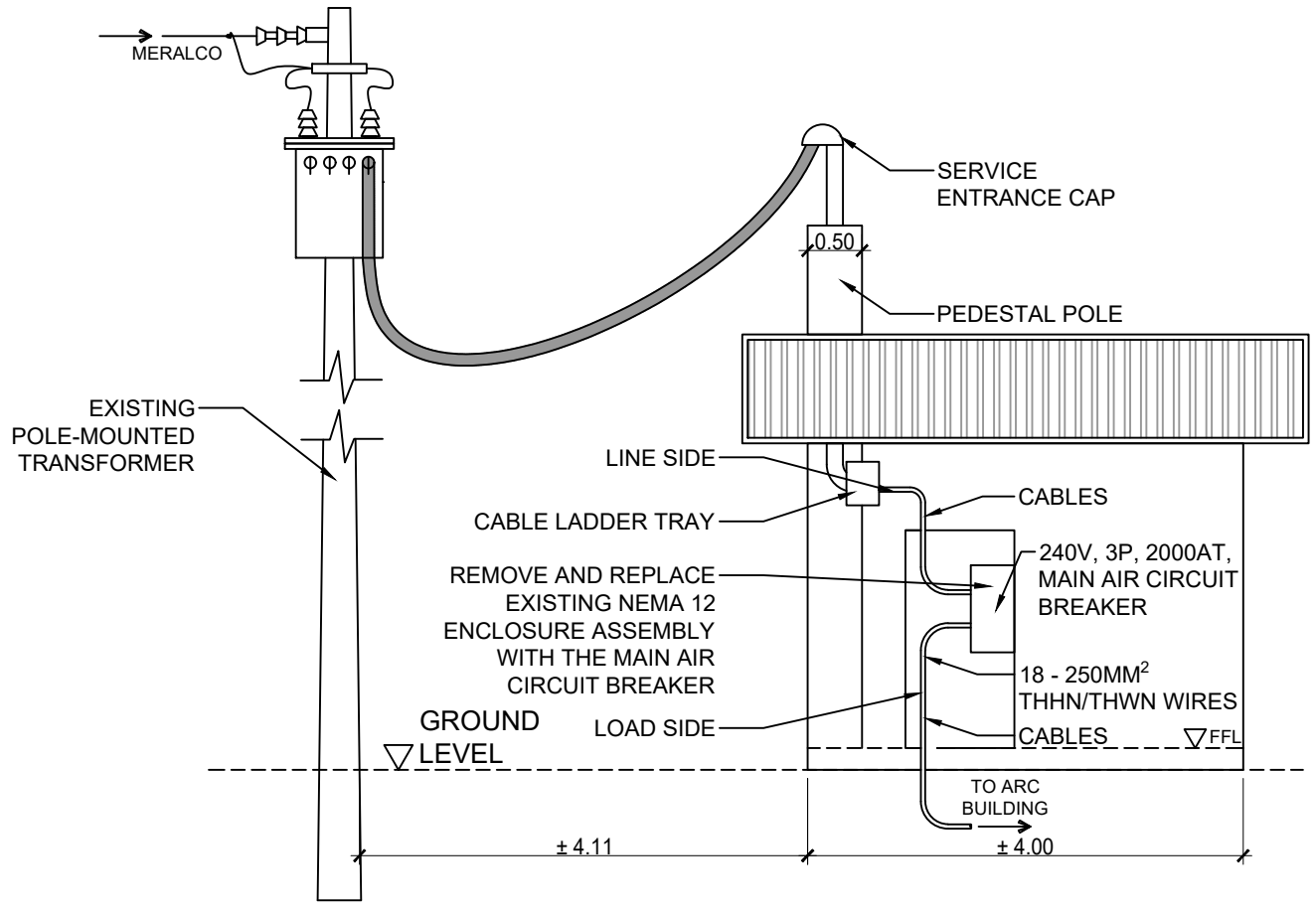
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1 PNRI COMPOUND
E - 15 SITE DEVELOPMENT PLAN FOR ARC POWER HOUSE
 SCALE NTS

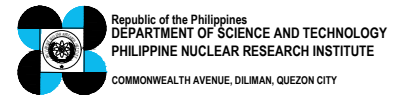


2 PNRI COMPOUND
E - 15 SITE DEVELOPMENT PLAN FOR ARC POWER HOUSE (BLOW-UP)
 SCALE NTS



3 GROUND LEVEL
E - 15 SIDE SECTION OF ARC POWER HOUSE
 SCALE NTS

ESS



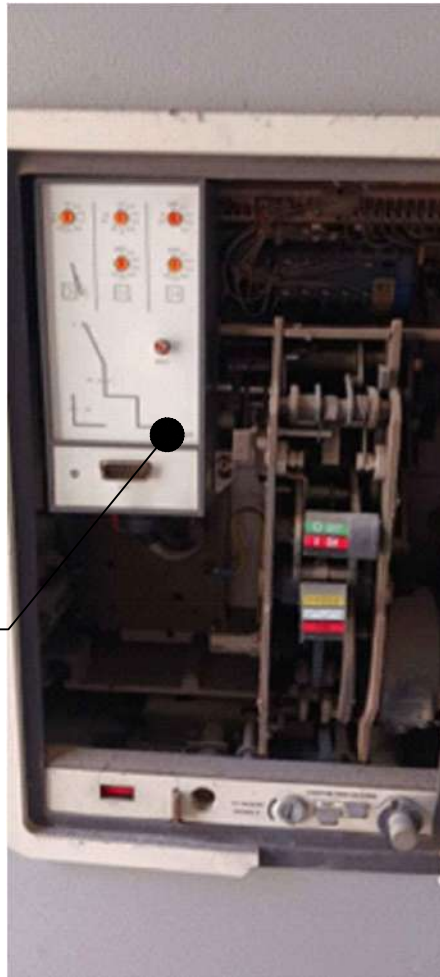
PROJECT TITLE:	SHEET CONTENT/S:	PREPARED BY:	RECOMMENDING APPROVALS:	APPROVED BY:	DRAWN BY:	SHEET NO.
UPGRADING OF ARC BUILDING (C.Y. 2025)	PNRI COMPOUND - SITE DEVELOPMENT PLAN FOR ARC POWER HOUSE - SITE DEVELOPMENT PLAN FOR ARC POWER HOUSE (BLOW-UP) GROUND LEVEL - SIDE SECTION OF ARC POWER HOUSE	ENGR. ANDREW C. BARRIDA SSRS, ESS	ENGR. ARTURO F. SALIH ESS, HEAD NEIL RAYMUND D. GUILLERMO, M. Sc CHIEF, ARD	CHITHO P. FELICIANO, Ph.D. END-USER, HEAD, HPRS VALLERIE ANN I. SAMSON, Ph. D. DEPUTY DIRECTOR	ENGR. C. PELMONTE CHECKED BY: DATE: CARLO A. ARCILLA, Ph. D. DIRECTOR	E - 15 PAGE NO. OF TOTAL NO. OF PAGES 76 of 84

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REMOVE AND REPLACE
EXISTING NEMA 12
ENCLOSURE ASSEMBLY
WITH THE MAIN AIR
CIRCUIT BREAKER

**MAIN AIR CIRCUIT
BREAKER
(FRONT VIEW)**



**MAIN AIR CIRCUIT
BREAKER
(BLOW-UP)**

EXISTING LINE SIDE

EXISTING COPPER
BUS BAR

EXISTING LOAD SIDE

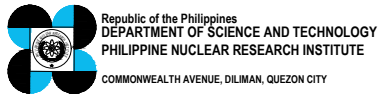
EXISTING SUPPORT
TERMINAL



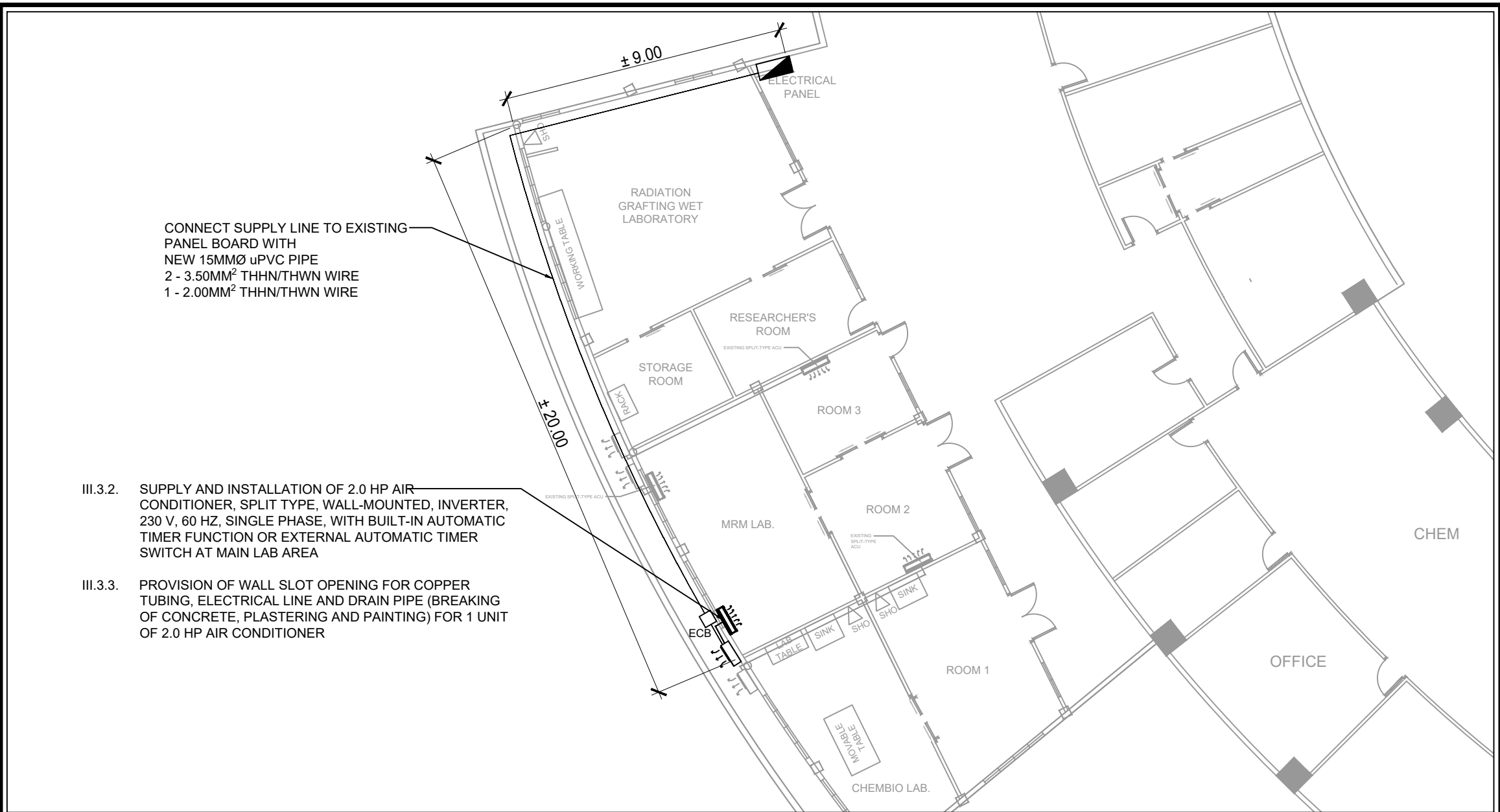
**MAIN AIR CIRCUIT
BREAKER
(REAR VIEW)**

ESS

1
E - 16 SAMPLE IMAGES
EXISTING MAIN AIR CIRCUIT BREAKER AT ARC POWER HOUSE
SCALE NTS




PROJECT TITLE:	SHEET CONTENT/S:	PREPARED BY:	RECOMMENDING APPROVALS:	APPROVED BY:	DRAWN BY:	SHEET NO.
UPGRADING OF ARC BUILDING (C.Y. 2025)	SAMPLE IMAGES - EXISTING MAIN AIR CIRCUIT BREAKER AT ARC POWER HOUSE	ENGR. ANDREW C. BARRIDA SSRS, ESS ENGR. ROSALINO B. REJAS SSRS, ESS	ENGR. ARTURO F. SALIH ESS, HEAD NEIL RAYMUND D. GUILLERMO, M. Sc CHIEF, ARD ENGR. HAYDEE M. SOLOMON OIC-CHIEF, NSD CHITHO P. FELICIANO, Ph.D. END-USER, HEAD, HPRS VALLERIE ANN I. SAMSON, Ph. D. DEPUTY DIRECTOR	CARLO A. ARCILLA, Ph. D. DIRECTOR	ENGR. C. PELMONTE CHECKED BY: DATE:	E - 16 PAGE NO. OF TOTAL NO. OF PAGES 77 of 84

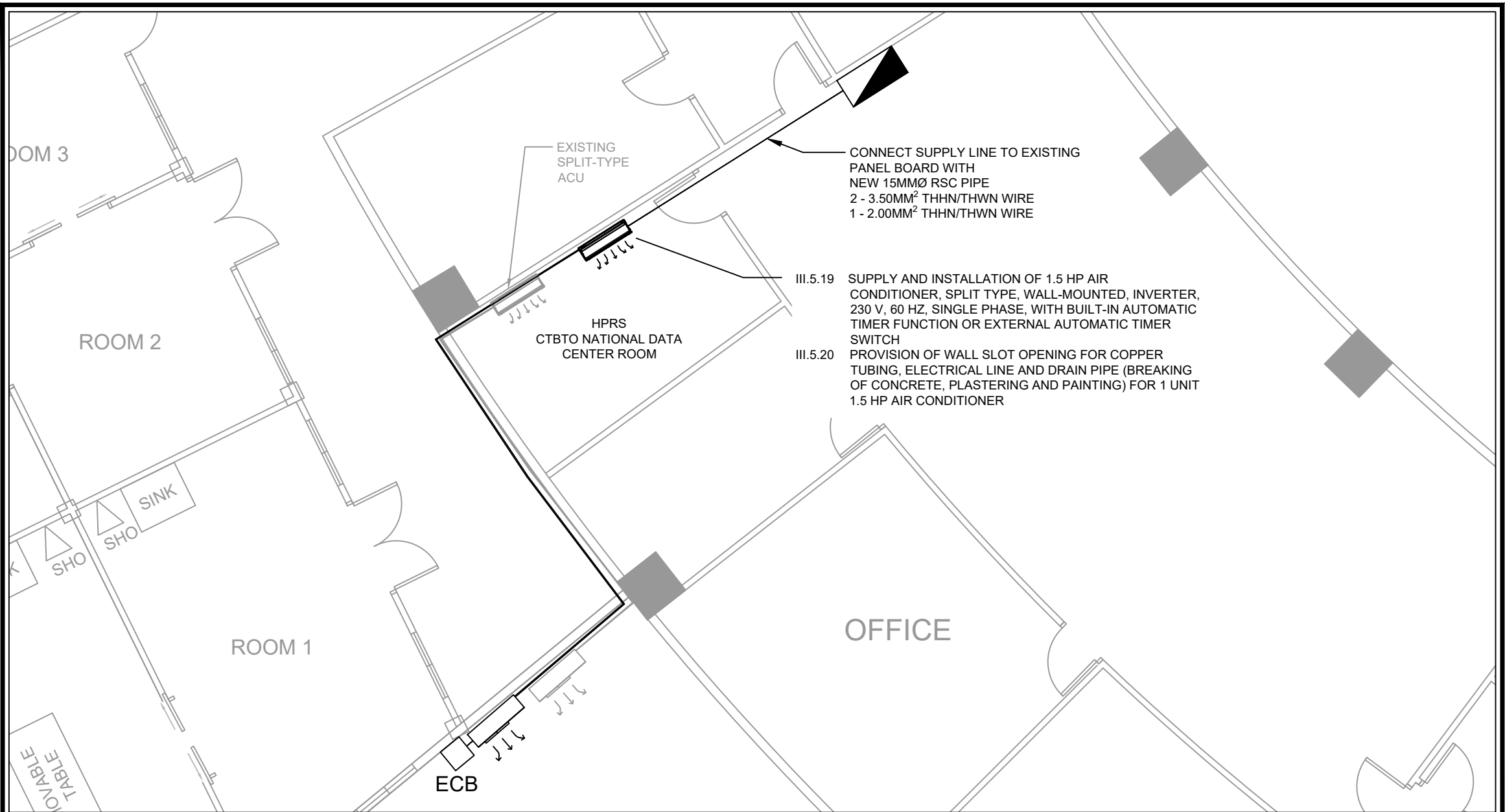


CRS

1
E - 17
SECOND FLOOR, MRM LAB (BLOW-UP)
LOCATION OF ACU (POWER LAYOUT)
SCALE NTS


 <p>Republic of the Philippines DEPARTMENT OF SCIENCE AND TECHNOLOGY PHILIPPINE NUCLEAR RESEARCH INSTITUTE COMMONWEALTH AVENUE, DILIMAN, QUEZON CITY</p>	PROJECT TITLE:	SHEET CONTENT/S:	PREPARED BY:	RECOMMENDING APPROVALS:	APPROVED BY:	DRAWN BY:	SHEET NO.
	UPGRADING OF ARC BUILDING (C.Y. 2025)	SECOND FLOOR, MRM LAB (BLOW-UP) - LOCATION OF ACU (POWER LAYOUT)	ENGR. ANDREW C. BARRIDA SSRS, ESS	ENGR. ARTURO F. SALIH ESS, HEAD CHITHO P. FELICIANO, Ph.D. END-USER, HEAD, HPRS	ENGR. C. PELMONTE	E - 17	
			ENGR. ROSALINO B. REJAS SSRS, ESS	NEIL RAYMUND D. GUILLERMO, M. Sc CHIEF, ARD	CARLO A. ARCILLA, Ph. D. DIRECTOR	PAGE NO. OF TOTAL NO. OF PAGES	
				ENGR. HAYDEE M. SOLOMON OIC-CHIEF, NSD	VALLERIE ANN I. SAMSON, Ph. D. DEPUTY DIRECTOR	78 of 84	

GENERAL NOTE: DRAWINGS MAY NOT BE IN SCALE. USE MARKED DIMENSIONS. VERIFY ACTUAL MEASUREMENTS. INFORM THE DESIGN TEAM OF ANY DISCREPANCIES FOUND IN THE DRAWINGS, DOCUMENTS, AND ACTUAL SITE CONDITIONS.



HPRS

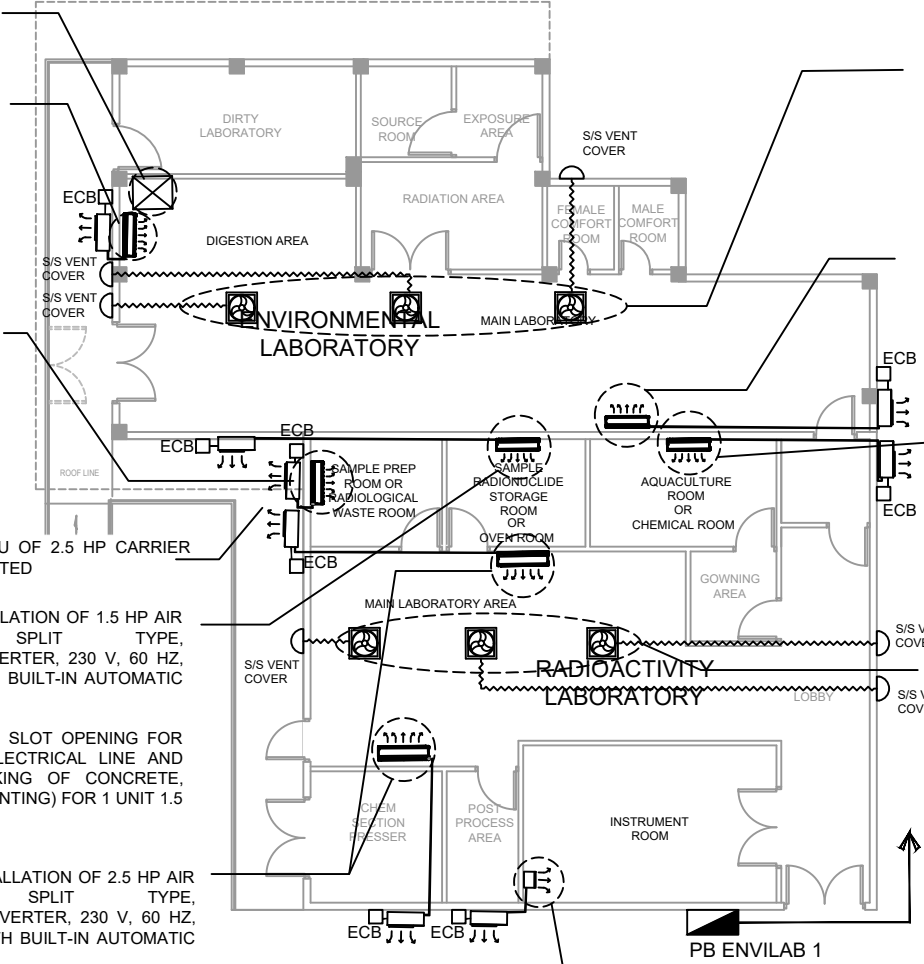
1 SECOND FLOOR, CTBTO NATIONAL DATA CENTER ROOM (BLOW-UP)
 E - 18 LOCATION OF ACU (POWER LAYOUT)
 SCALE NTS

 Republic of the Philippines DEPARTMENT OF SCIENCE AND TECHNOLOGY PHILIPPINE NUCLEAR RESEARCH INSTITUTE COMMONWEALTH AVENUE, DILIMAN, QUEZON CITY	PROJECT TITLE:	SHEET CONTENT/S:	PREPARED BY:	RECOMMENDING APPROVALS:	APPROVED BY:	DRAWN BY:	SHEET NO.	
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				ENGR. HAYDEE M. SOLOMON OIC-CHIEF, NSD	VALLERIE ANN I. SAMSON, Ph. D. DEPUTY DIRECTOR	CARLO A. ARCILLA, Ph. D. DIRECTOR	DATE:	PAGE NO. OF TOTAL NO. OF PAGES
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- III.5.18 SUPPLY AND INSTALLATION OF FUMEHOOD
- III.5.15 SUPPLY AND INSTALLATION OF 2.5 HP AIR CONDITIONER, SPLIT TYPE, WALL-MOUNTED, INVERTER, 230 V, 60 HZ, SINGLE PHASE, WITH BUILT-IN AUTOMATIC TIMER FUNCTION
- III.5.16 PROVISION OF WALL SLOT OPENING FOR COPPER TUBING, ELECTRICAL LINE AND DRAIN PIPE (BREAKING OF CONCRETE, PLASTERING AND PAINTING) FOR 2 UNITS 2.5 HP AIR CONDITIONER
- III.5.5 SUPPLY AND INSTALLATION OF 1.0 HP AIR CONDITIONER, SPLIT TYPE, WALL-MOUNTED, INVERTER, 230 V, 60 HZ, SINGLE PHASE, WITH BUILT-IN AUTOMATIC TIMER FUNCTION
- III.5.6 PROVISION OF WALL SLOT OPENING FOR COPPER TUBING, ELECTRICAL LINE AND DRAIN PIPE (BREAKING OF CONCRETE, PLASTERING AND PAINTING) FOR 1 UNIT 1.0 HP AIR CONDITIONER
- III.5.17 RELOCATION OF EXISTING ACCU OF 2.5 HP CARRIER BRAND, SPLIT TYPE, WALL-MOUNTED
- III.5.7 SUPPLY AND INSTALLATION OF 1.5 HP AIR CONDITIONER, SPLIT TYPE, WALL-MOUNTED, INVERTER, 230 V, 60 HZ, SINGLE PHASE, WITH BUILT-IN AUTOMATIC TIMER FUNCTION
- III.5.8 PROVISION OF WALL SLOT OPENING FOR COPPER TUBING, ELECTRICAL LINE AND DRAIN PIPE (BREAKING OF CONCRETE, PLASTERING AND PAINTING) FOR 1 UNIT 1.5 HP AIR CONDITIONER
- III.5.3 SUPPLY AND INSTALLATION OF 2.5 HP AIR CONDITIONER, SPLIT TYPE, WALL-MOUNTED, INVERTER, 230 V, 60 HZ, SINGLE PHASE, WITH BUILT-IN AUTOMATIC TIMER FUNCTION
- III.5.4 PROVISION OF WALL SLOT OPENING FOR COPPER TUBING, ELECTRICAL LINE AND DRAIN PIPE (BREAKING OF CONCRETE, PLASTERING AND PAINTING) FOR 2 UNITS 2.5 HP AIR CONDITIONER

ROTATED COUNTER CLOCKWISE




- III.5.13 SUPPLY AND INSTALLATION OF 150 CFM EXHAUST FAN, CEILING-MOUNTED, 12" GRILLE WITH 4" Ø ROUND FLEXIBLE ALUMINUM DUCT, 4" Ø PVC PIPE WALL STUB-OUT, HANGERS AND STAINLESS STEEL VENT COVER
- III.5.14 PROVISION OF WALL SLOT OPENING FOR THREE (3) - 4" Ø PVC WALL STUB OUT (BREAKING OF CONCRETE, RESTORATION & PAINTING)
- III.5.15 SUPPLY AND INSTALLATION OF 2.5 HP AIR CONDITIONER, SPLIT TYPE, WALL-MOUNTED, INVERTER, 230 V, 60 HZ, SINGLE PHASE, WITH BUILT-IN AUTOMATIC TIMER FUNCTION
- III.5.16 PROVISION OF WALL SLOT OPENING FOR COPPER TUBING, ELECTRICAL LINE AND DRAIN PIPE (BREAKING OF CONCRETE, PLASTERING AND PAINTING) FOR 2 UNITS 2.5 HP AIR CONDITIONER
- III.5.9 SUPPLY AND INSTALLATION OF 1.5 HP AIR CONDITIONER, SPLIT TYPE, WALL-MOUNTED, INVERTER, 230 V, 60 HZ, SINGLE PHASE, WITH BUILT-IN AUTOMATIC TIMER FUNCTION
- III.5.10 PROVISION OF WALL SLOT OPENING FOR COPPER TUBING, ELECTRICAL LINE AND DRAIN PIPE (BREAKING OF CONCRETE, PLASTERING AND PAINTING) FOR 1 UNIT 1.5 HP AIR CONDITIONER
- III.5.11 SUPPLY AND INSTALLATION OF 150 CFM EXHAUST FAN, CEILING-MOUNTED, 12" GRILLE WITH 4" Ø ROUND FLEXIBLE ALUMINUM DUCT, 4" Ø PVC PIPE WALL STUB-OUT, HANGERS AND STAINLESS STEEL VENT COVER
- III.5.12 PROVISION OF WALL SLOT OPENING FOR THREE (3) - 4" Ø PVC PIPE WALL STUB OUT (BREAKING OF CONCRETE, RESTORATION & PAINTING)
- III.5.1 SUPPLY AND INSTALLATION OF 3 TR (~4 HP) AIR CONDITIONER, SPLIT TYPE, FLOOR-MOUNTED, INVERTER, WITH BUILT-IN AUTOMATIC TIMER FUNCTION
- III.5.2 PROVISION OF WALL SLOT OPENING FOR COPPER TUBING, ELECTRICAL LINE AND DRAIN PIPE (BREAKING OF CONCRETE, PLASTERING AND PAINTING) FOR 1 UNIT 3 TR (~4 HP) AIR CONDITIONER

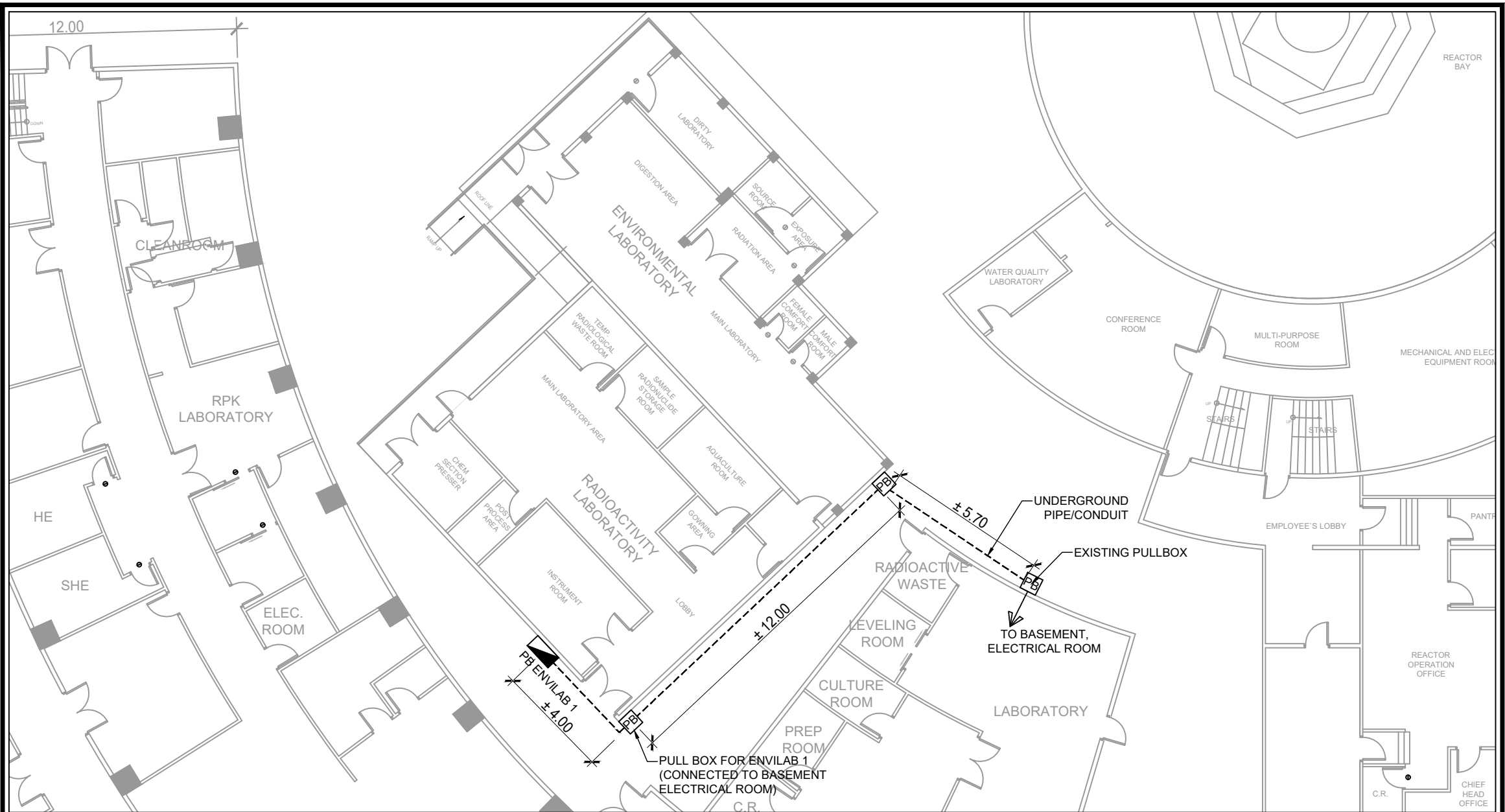
CONNECTED TO ELECTRICAL ROOM AT BASEMENT

1 GROUND FLOOR PLAN, ENVIRONMENTAL LABORATORY (BLOW-UP)
E - 19 LOCATION OF ACU (POWER LAYOUT)
SCALE NTS

HPRS

 <p>Republic of the Philippines DEPARTMENT OF SCIENCE AND TECHNOLOGY PHILIPPINE NUCLEAR RESEARCH INSTITUTE COMMONWEALTH AVENUE, DILIMAN, QUEZON CITY</p>	PROJECT TITLE:	SHEET CONTENT/S:	PREPARED BY:	RECOMMENDING APPROVALS:	APPROVED BY:	DRAWN BY:	SHEET NO.	
	UPGRADING OF ARC BUILDING (C.Y. 2025)	GROUND FLOOR PLAN, ENVIRONMENTAL LABORATORY (BLOW-UP) - LOCATION OF ACU (POWER LAYOUT)	ENGR. ANDREW C. BARRIDA SSRS, ESS	ENGR. ARTURO F. SALIH ESS, HEAD CHITHO P. FELICIANO, Ph.D. END-USER, HEAD, HPRS	ENGR. ROSALINO B. REJAS SSRS, ESS	ENGR. CARLO A. ARCILLA, Ph. D. DIRECTOR	ENGR. C. PELMONTE	E - 19
				NEIL RAYMUND D. GUILLERMO, M. Sc CHIEF, ARD	ENGR. HAYDEE M. SOLOMON OIC-CHIEF, NSD		CHECKED BY:	PAGE NO. OF TOTAL NO. OF PAGES
				VALLERIE ANN I. SAMSON, Ph. D. DEPUTY DIRECTOR		DATE:		80 of 84

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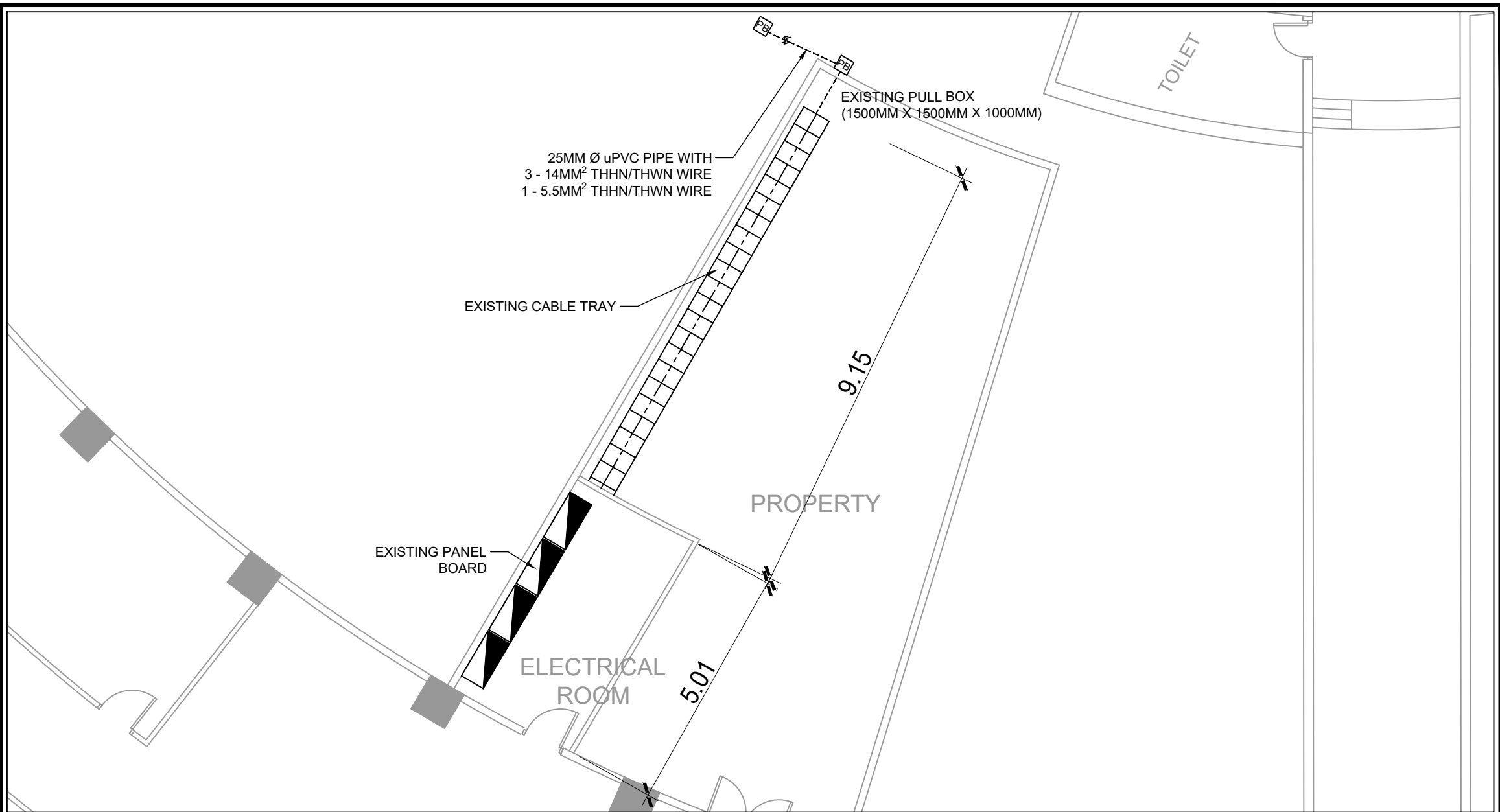
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E - 20

GROUND FLOOR PLAN, ENVIRONMENTAL LABORATORY + ARC BUILDING (BLOW-UP)
FEEDERLINE LAYOUT (01 OF 02)

SCALE NTS

 Republic of the Philippines DEPARTMENT OF SCIENCE AND TECHNOLOGY PHILIPPINE NUCLEAR RESEARCH INSTITUTE COMMONWEALTH AVENUE, DILIMAN, QUEZON CITY	PROJECT TITLE:	SHEET CONTENT/S:	PREPARED BY:	RECOMMENDING APPROVALS:	APPROVED BY:	DRAWN BY:	SHEET NO.
	UPGRADING OF ARC BUILDING (C.Y. 2025)	GROUND FLOOR PLAN, ENVIRONMENTAL LABORATORY + ARC BUILDING (BLOW-UP) FEEDERLINE LAYOUT (01 OF 02)	ENGR. ANDREW C. BARRIDA SSRS, ESS ENGR. ROSALINO B. REJAS SSRS, ESS	ENGR. ARTURO F. SALIH ESS, HEAD NEIL RAYMUND D. GUILLERMO, M. Sc CHIEF, ARD ENGR. HAYDEE M. SOLOMON OIC-CHIEF, NSD	CHITHO P. FELICIANO, Ph.D. END-USER, HEAD, HPRS VALLERIE ANN I. SAMSON, Ph. D. DEPUTY DIRECTOR	CARLO A. ARCILLA, Ph. D. DIRECTOR	ENGR. C. PELMONTE CHECKED BY: DATE:

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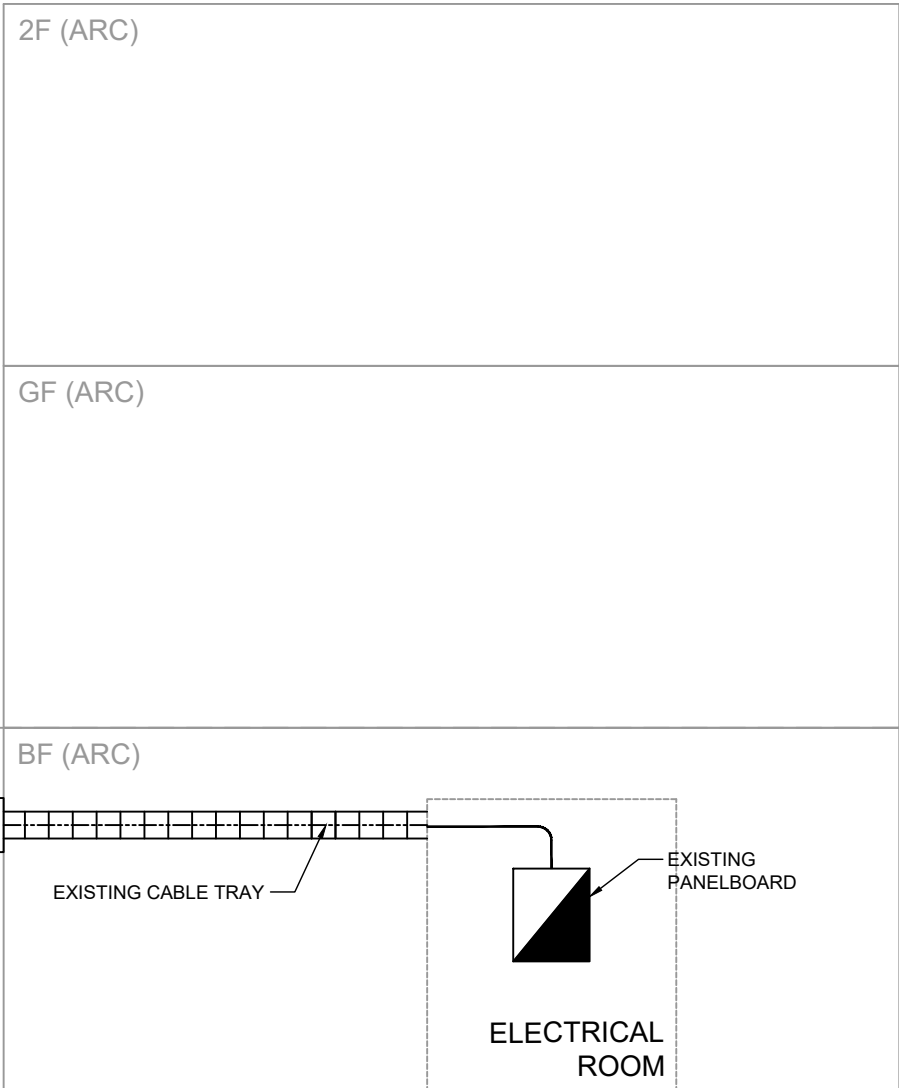
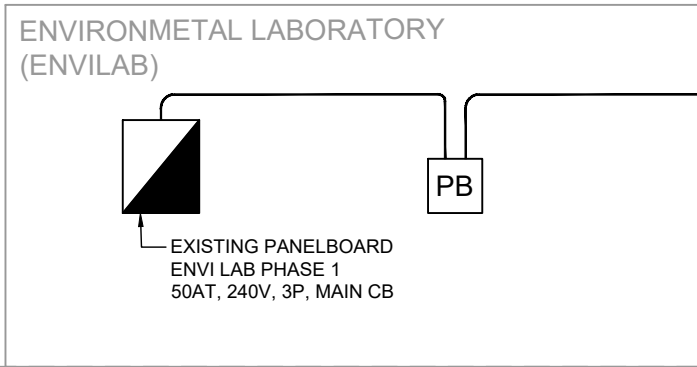
1
E - 21

BASEMENT FLOOR PLAN, ENVIRONMENTAL LABORATORY + ARC BUILDING (BLOW-UP)
FEEDERLINE LAYOUT (02 OF 02)

SCALE NTS

 <p>Republic of the Philippines DEPARTMENT OF SCIENCE AND TECHNOLOGY PHILIPPINE NUCLEAR RESEARCH INSTITUTE COMMONWEALTH AVENUE, DILIMAN, QUEZON CITY</p>	PROJECT TITLE:	SHEET CONTENT/S:	PREPARED BY:	RECOMMENDING APPROVALS:	APPROVED BY:	DRAWN BY:	SHEET NO.	
	UPGRADING OF ARC BUILDING (C.Y. 2025)	BASEMENT FLOOR PLAN, ENVIRONMENTAL LABORATORY + ARC BUILDING (BLOW-UP) - FEEDERLINE LAYOUT	<u>ENGR. ANDREW C. BARRIDA</u> SSRS, ESS <u>ENGR. ROSALINO B. REJAS</u> SSRS, ESS	<u>ENGR. ARTURO F. SALIH</u> ESS, HEAD <u>NEIL RAYMUND D. GUILLERMO, M. Sc</u> CHIEF, ARD <u>ENGR. HAYDEE M. SOLOMON</u> OIC-CHIEF, NSD <u>CHITHO P. FELICIANO, Ph.D.</u> END-USER, HEAD, HPRS	<u>CARLO A. ARCILLA, Ph. D.</u> DIRECTOR	<u>ENGR. C. PELMONTE</u> CHECKED BY: DATE:	E - 21	
								PAGE NO. OF TOTAL NO. OF PAGES
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▽ NGL

ENVIRONMENTAL LABORATORY (ENVILAB)



EXISTING PANELBOARD
ENVI LAB PHASE 1
50AT, 240V, 3P, MAIN CB



EXISTING PULL BOX
(1500MM X 1500MM X 1000MM)

2F (ARC)

GF (ARC)

BF (ARC)

25MM Ø uPVC PIPE WITH
3 - 14MM² THHN/THWN WIRE
1 - 5.5MM² THHN/THWN WIRE



EXISTING CABLE TRAY



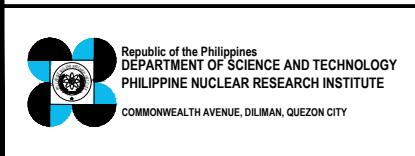
EXISTING
PANELBOARD

ELECTRICAL
ROOM

HPRS

1
E - 22

ENVIRONMENTAL LABORATORY + ARC BUILDING (BLOW-UP)
SINGLE LINE DIAGRAM
SCALE NTS



PROJECT TITLE:
UPGRADING OF ARC BUILDING (C.Y. 2025)

SHEET CONTENT/S:
ENVIRONMENTAL LABORATORY + ARC BUILDING (BLOW-UP) - SINGLE LINE DIAGRAM

PREPARED BY:
ENGR. ANDREW C. BARRIDA
SSRS, ESS
ENGR. ROSALINO B. REJAS
SSRS, ESS

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DIRECTOR

DRAWN BY:
ENGR. C. PELMONTE
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DATE:

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LOAD SCHEDULE
PANELBOARD , ENVILAB1_PHASE2

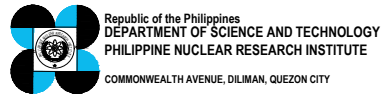
CIRCUIT NUMBER	VOLTS	LOAD DESCRIPTION	Watts/VA	PHASE LOADING			CIRCUIT BREAKER			HOMERUN/WIRE SIZE
				ØAB	ØBC	ØCA	POLE	KAIC	TRIP	
1	230	2.5 HP, INVERTER TYPE ACCU	2,072	9.01			2	22	30	2-5.5 mm ² , 1-2.0 mm ² THHN wire in 15mmØ RSC Pipe
2	230	1.0 HP, INVERTER TYPE ACCU	829	3.60			2	22	20	2-5.5 mm ² , 1-2.0 mm ² THHN wire in 15mmØ RSC Pipe
3	230	2.5 HP, INVERTER TYPE ACCU	2,072		9.01		2	22	30	2-5.5 mm ² , 1-2.0 mm ² THHN wire in 15mmØ RSC Pipe
4	230	1.5 HP, INVERTER TYPE ACCU	1,243		5.40		2	22	20	2-5.5 mm ² , 1-2.0 mm ² THHN wire in 15mmØ RSC Pipe
5	230	1.5 HP, INVERTER TYPE ACCU	1,243			5.40	2	22	20	2-5.5 mm ² , 1-2.0 mm ² THHN wire in 15mmØ RSC Pipe
6	230	3TR (4HP), INVERTER TYPE ACCU	3,315			14.41	2	22	40	2-8.0 mm ² , 1-3.5 mm ² THHN wire in 15mmØ RSC Pipe
7	230	Spare	2,072	9.01			2	22	40	
				21.62	14.41	19.82				
COMPUTATION:				MAIN FEEDER USE:				PROTECTION USE:		
$I_L = [(21.62)(1.732) + 25\% (14.41)] \times 80\% \text{ D.F.} = 32.83 \text{ A}$ $I_L = 32.83 \text{ Amperes}$				3 - 14 mm², 1 - 5.5mm² THHN/THWN Wire in 25 mm. Inside Diameter uPVC Pipe				50AT, 100AF, 3P, 230V, 22 KAIC Industrial Type Circuit Breaker		

HPRS

1
E - 23

ENVIRONMENTAL LABORATORY
LOAD SCHEDULE
SCALE

NTS



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