

GENERAL NOTES AND SPECIFICATIONS

1. ALL ELECTRICAL WORKS SHALL BE DONE IN ACCORDANCE WITH THE PROVISION OF THE LATEST EDITION OF THE PHILIPPINE ELECTRICAL CODE RULE AND REGULATION OF MERALCO AND LOCAL AUTHORITIES.
2. WIRING METHOD SHALL BE AS FOLLOWS:

a. ALL PIPES AND JUNCTION BOXES FOR LIGHTING OUTLETS INCLUDING CIRCUIT HOME RUNS SHALL BE EXPOSED ABOVE THE ACOUSTIC CEILING.

b. ALL PVC PIPES AND UTILITY BOXES FOR POWER OUTLETS MUST BE EMBEDDED IN CONCRETE.

c. ALL EXPOSED PIPES MUST HAVE A LOOP HANGER WITH HANGER ROD INGRAINED IN SLAB CEILING THAT WILL SERVE AS A SUPPORT TO PREVENT PIPES FROM DECLINING.

d. NO PIPES WILL AFFIXED OR ATTACHED TO CEILING FRAMES AS A SUPPORT. FOR ACCESSIBLE AND UNCOMPLICATED MAINTENANCE PURPOSES.

e. ALL EXPOSED PIPES THAT ARE CONNECTED TO JUNCTION BOXES MUST HAVE A ADAPTER WITH LOCKNUT AND BUSHING. PVC CEMENT MUST APPLY TO PVC COUPLINGS TO KEEP THE PIPES INTACT.

f. MUST USE FLEXIBLE METALLIC CONDUIT IN CONNECTION OF LIGHTING LOADS FROM JUNCTION BOXES AND USE MICA TUBE AT THE END OF THE FLEXIBLE METALLIC CONDUIT TO PREVENT THE WIRE INSULATION FROM SCRATCHES.
3. MOUNTING HEIGHTS SHALL BE AS FOLLOWS:

a. LIGHT SWITCHES ----- 1.30M ABOVE FLOOR FINISH (AFF)

b. POWER OUTLET ----- 0.30M AFF

c. SPECIAL OUTLETS ----- AT CONVENIENT HEIGHT NEAR THE EQUIPMENT

d. PANEL BOARDS ----- 1.50M AFF

e. EMERGENCY LIGHTS OUTLETS----- AT CONVENIENT HEIGHT NEAR THE EQUIPMENT
4. ALL MATERIALS SHALL BE NEW AND APPROVED TYPE FOR THE PURPOSED INTENDED
5. ALL CONDUCTORS SHALL BE COPPER WIRE TYPE 600V INSULATION, PHELPS DODGE.
6. PROVIDE EFFECTIVE AND ADEQUATE GROUNDS.
7. ALL ELECTRICAL WORKS IS UNDER THE PROVISION OF REGISTERED ELECTRICAL ENGINEER OR ELECTRICAL PRACTITIONER UNDER THE SUPERVISION OF REGISTERED ELECTRICAL ENGINEER.
8. MINIMUM SIZE OF WIRE AND CONDUIT SHALL BE 3.5MM² THHN/THWN AND 15MMØ NOMINAL DIAMETER RESPECTIVELY OTHERWISE SPECIFIED ON PLANS.
- 9.UNLESS OTHERWISE SPECIFIED PULLBOXES OR JUNCTION BOXES SHALL BE PROVIDED WHENEVER REQUIRED AND NECESSARY, ALTHOUGH SUCH BOXES ARE NOT INDICATED ON THE PLANS.
10. FOR EACH SPARE CIRCUIT IN PANEL BOARD, PROVIDE AN EMPTY CONDUIT SPECIFIED ON THE PLAN TERMINATING TO A COVERED SQUARE BOX.
11. ALL MATERIALS AND EQUIPMENT TO BE USED SHALL BE BRAND NEW AND APPROVED TYPE FOR BOTH LOCATION AND PURPOSES.
12. ALL METAL FRAMES SHALL BE PROPERLY AND ADEQUATELY GROUNDED. GROUND WIRE SHALL BE PROVIDED ON ALL EQUIPMENT FEEDER.
13. THE JOB SHALL BE EXECUTED IN THE MOST THROUGH PROMPT AND WORKMAN LIKE MANNER, EMPLOYING STANDARD TOOLS, EQUIPMENT, METHODS AND GOOD ENGINEERING PRACTICES. THE JOB SHALL BE DONE COMPLETE IN ALL ASPECTS AS REQUIRED IN PLANS AND SPECIFICATIONS AND READY FOR OPERATION.
14. ADDITIONAL MATERIALS SPECIFICATIONS:

a. ELECTRICAL METALLIC TUBING (EMT) ----- SMART TUBE, PANASONIC

b. POLYVINYL CHLORIDE CONDUIT (PVC) ----- CROWN SUPREME SCH. 40

c. WIRES AND CABLES ----- PHELPS DODGE

d. CIRCUIT BREAKER (BOLT-ON TYPE) ----- SCHNEIDER ELECTRIC

e. WIRING DEVICES ----- SCHNEIDER ELECTRIC/NATIONAL/PANASONIC
15. ELECTRICAL CONTRACTOR IS RESPONSIBLE FOR THE PROPER IDENTIFICATION AND LABELING OF ALL CIRCUIT BREAKER. EACH PANEL WILL BE PROVIDED WITH A TYPE WRITTEN CIRCUIT DIRECTORY.
16. THE DRAWING AND SPECIFICATIONS ARE INTENDED TO PRESENT A GENERAL LAYOUT AND BROAD OUTLINE AND DESCRIPTION OF THE PROJECT AND NOT NECESSARY INDICATE, DESCRIBE NATIONAL ADJUSTMENT AT THE JOBSITE AS LOCATIONS, LEVEL AND DISTANCES ARE GOVERNED BY ACTUAL FIELD CONDITIONS.
17. WIRES SHALL BE COLOR CODED:







LINE 1 ----- RED

LINE 2 ----- YELLOW

LINE 2 ----- BLUE

GROUND ----- GREEN
18. NO REVISION IN THE DESIGN SHALL BE DONE WITHOUT THE PRIOR KNOWLEDGE AND APPROVAL OF THE DESIGNER AND THE OWNER. ANY SUCH REVISION DONE WITHOUT THE APPROVAL SHALL CAUSE RESPONSIBILITY OF THE DESIGNER TO CEASED AS A WHOLE.

LEGEND:

	LIGHTING LED PANEL (600MMX600MM)
●S _a	SINGLE GANG ONE WAY SWITCH
●S _{ab}	TWO GANG ONE WAY SWITCH
●S _{abc}	THREE GANG ONE WAY SWITCH
	SURFACE DOWNLIGHT FIXTURE
	DUPLEX POWER OUTLET
	CIRCUIT HOME RUN
	EMERGENCY LIGHT
	PANEL BOARD
ACCU	AIR COOLED CONDENSING UNIT
FCU	FAN COIL UNIT



PROJECT TITLE:
RENOVATION OF HYDROMETEOROLOGY DIVISION (HMD) OPERATION
LOCATION: GROUND FLOOR, PAGASA WFFC COMPOUND, BIR RD., DILIMAN, QUEZON CITY

SHEET NO.:
E 1

DRAWN BY:
ARIEL N. GALLEGO JR.
WFS-I, INFRA UNIT, ETSD

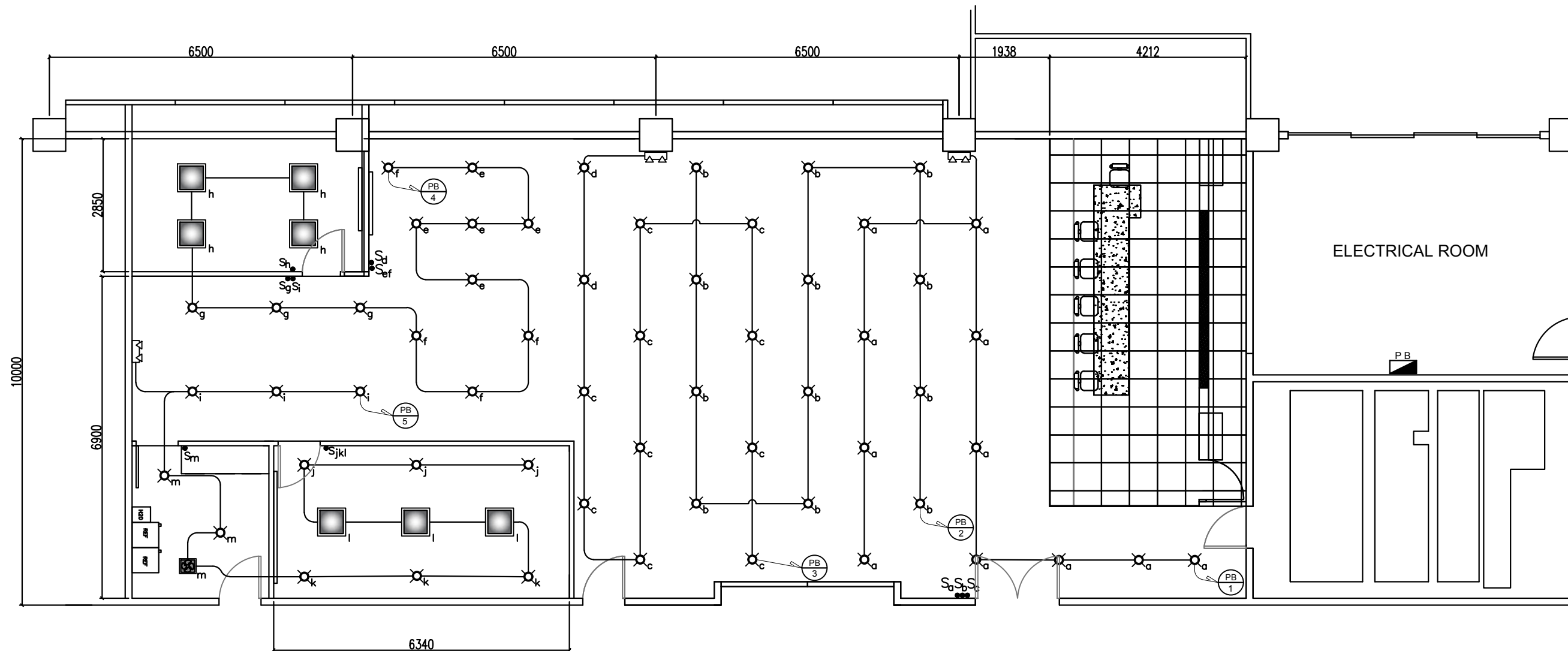
CHECKED BY:
DIOSDADO S. ORNUM
WFS-III, METTS, ETSD

VERIFIED BY:
JESSIE B. ARCE
CHIEF, MEIES, ETSD


NOTED BY:
EDWIN F. MANRESA
CHIEF, ETSD

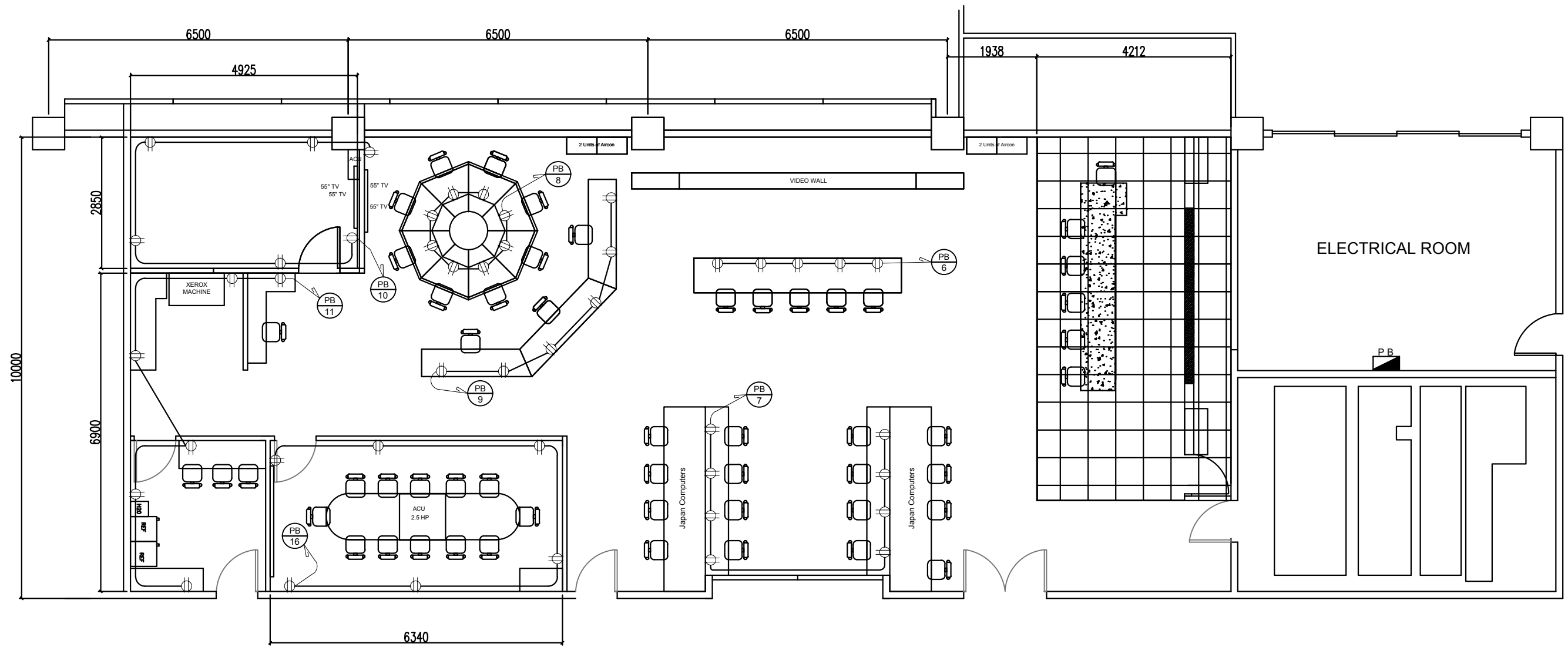
RECOMMENDING APPROVAL:
CATALINO L.DAVIS
DA FOR A & ES

APPROVED BY:
DR. VICENTE B. MALANO
ADMINISTRATOR

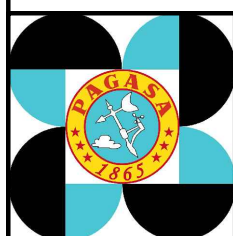


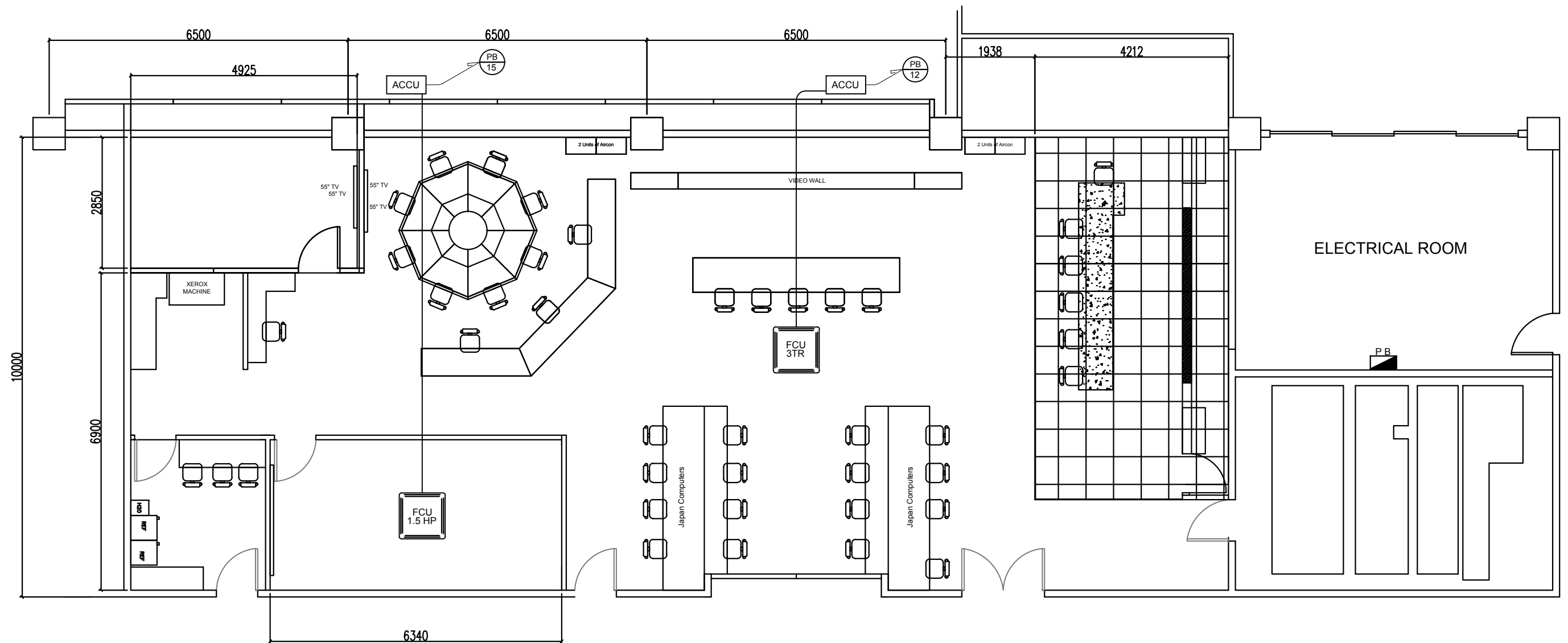
E-2
1
LIGHTING LAYOUT
 SCALE NTS

	PROJECT TITLE:	SHEET NO.:	DRAWN BY:	CHECKED BY:	VERIFIED BY:	NOTED BY:	RECOMMENDING APPROVAL:	APPROVED BY:
	RENOVATION OF HYDROMETEOROLOGY DIVISION (HMD) OPERATION LOCATION: GROUND FLOOR, PAGASA WFFC COMPOUND, BIR RD., DILIMAN, QUEZON CITY	<div style="font-size: 48px; font-weight: bold;">E</div> <div style="font-size: 48px; font-weight: bold;">2</div>	ARIEL N. GALLEG0 JR. <small>WFS-I, INFRA UNIT, ETSD</small>	DIOSDADO S. ORNUM <small>WFS-III, METTS, ETSD</small>	JESSIE B. ARCE <small>CHIEF, MEIES, ETSD</small>	EDWIN F. MANRESA <small>CHIEF, ETSD</small>	CATALINO L.DAVIS <small>DA FOR A & ES</small>	DR. VICENTE B. MALANO <small>ADMINISTRATOR</small>



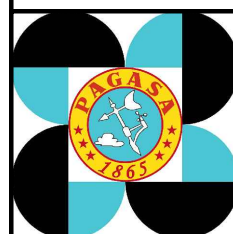
E-3
1
POWER LAYOUT
SCALE NTS

	PROJECT TITLE:	SHEET NO.:	DRAWN BY:	CHECKED BY:	VERIFIED BY:	NOTED BY:	RECOMMENDING APPROVAL:	APPROVED BY:
	RENOVATION OF HYDROMETEOROLOGY DIVISION (HMD) OPERATION LOCATION: GROUND FLOOR, PAGASA WFFC COMPOUND, BIR RD., DILIMAN, QUEZON CITY	E 3	ARIEL N. GALLEGU JR. WFS-I, INFRA UNIT, ETSD	DIOSDADO S. ORNUM WFS-III, METTS, ETSD	JESSIE B. ARCE CHIEF, MEIES, ETSD	EDWIN F. MANRESA CHIEF, ETSD	CATALINO L.DAVIS DA FOR A & ES	DR. VICENTE B. MALANO ADMINISTRATOR



E-4
1

ACU LAYOUT
 SCALE NTS



PROJECT TITLE:	SHEET NO.:	DRAWN BY:	CHECKED BY:	VERIFIED BY:	NOTED BY:	RECOMMENDING APPROVAL:	APPROVED BY:
RENOVATION OF HYDROMETEOROLOGY DIVISION (HMD) OPERATION	<div style="font-size: 48px; font-weight: bold; text-align: center;">E 4</div>	ARIEL N. GALLEG0 JR.	DIOSDADO S. ORNUM	JESSIE B. ARCE	EDWIN F. MANRESA	CATALINO L.DAVIS	DR. VICENTE B. MALANO
LOCATION: GROUND FLOOR, PAGASA WFFC COMPOUND, BIR RD., DILIMAN, QUEZON CITY		WFS-I, INFRA UNIT, ETSD	WFS-III, METTS, ETSD	CHIEF, MEIES, ETSD	CHIEF, ETSD	DA FOR A & ES	ADMINISTRATOR

LOAD SCHEDULE

CKT. NO.	DESCRIPTION	I _{ab}	I _{bc}	I _{ca}	I _{3Φ}	VOLTS	VA	WIRE SIZE (THHN/THWN)	PVC PIPE	CB RATING			
										AT	AF	P	KAIC
1	LIGHTING OUTLET (12)	5.22				230	1200	2-2.0mm ² + 1-2.0mm ² (G)	15mmØ	20	60	2	10
2	LIGHTING OUTLET (12)	5.22				230	1200	2-2.0mm ² + 1-2.0mm ² (G)	15mmØ	20	60	2	10
3	LIGHTING OUTLET (13)		5.65			230	1300	2-2.0mm ² + 1-2.0mm ² (G)	15mmØ	20	60	2	10
4	LIGHTING OUTLET (16)		6.96			230	1600	2-2.0mm ² + 1-2.0mm ² (G)	15mmØ	20	60	2	10
5	LIGHTING OUTLET (16)			6.96		230	1600	2-2.0mm ² + 1-2.0mm ² (G)	15mmØ	20	60	2	10
6	POWER OUTLET (5)			3.91		230	900	2-3.5mm ² + 1-2.0mm ² (G)	15mmØ	20	60	2	10
7	POWER OUTLET (8)	6.26				230	1440	2-3.5mm ² + 1-2.0mm ² (G)	15mmØ	20	60	2	10
8	POWER OUTLET (8)	6.26				230	1440	2-3.5mm ² + 1-2.0mm ² (G)	15mmØ	20	60	2	10
9	POWER OUTLET (6)		4.70			230	1080	2-3.5mm ² + 1-2.0mm ² (G)	15mmØ	20	60	2	10
10	POWER OUTLET (6)		4.70			230	1080	2-3.5mm ² + 1-2.0mm ² (G)	15mmØ	20	60	2	10
11	POWER OUTLET (6)			4.70		230	1080	2-3.5mm ² + 1-2.0mm ² (G)	15mmØ	20	60	2	10
12	3TR CASSETTE TYPE ACU			17.00		230	3910	2-8.0mm ² + 1-3.5mm ² (G)	20mmØ	50	60	2	10
13	SPARE	6.52				230	1500			20	60	2	10
14	SPARE	6.52				230	1500			20	60	2	10
15	1.5HP CASSETTE TYPE ACU		10.00			230	2300	2-5.5mm ² + 1-2.0mm ² (G)	20mmØ	30	60	2	10
16	POWER OUTLET (6)		4.70			230	1080	2-3.5mm ² + 1-2.0mm ² (G)	15mmØ	20	60	2	10
TOTAL		36.00	36.69	32.56	60.77	230	13977	2-22mm ² + 1-8.0mm ² (G)	32mmØ	80	100	3	22

TOTAL CURRENT 3Φ = 60.77A X 90%DF = 54.69A

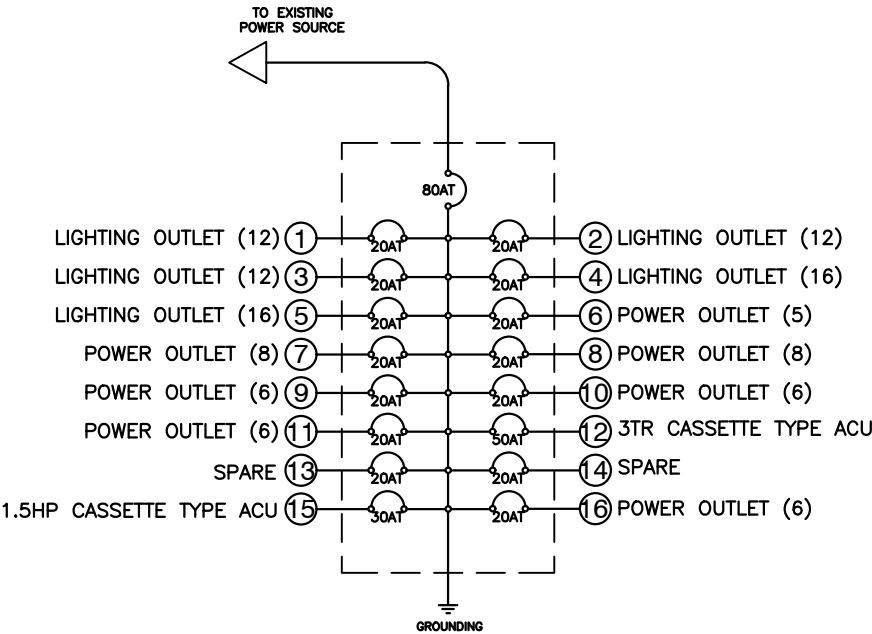
FEEDER SIZE COMPUTATION:

I' = 54.69A + 25%(17A) = 58.94A
PROVIDE: 2-22mm² + 1-8.0mm² (G) THHN/THWN wire @32mmØ

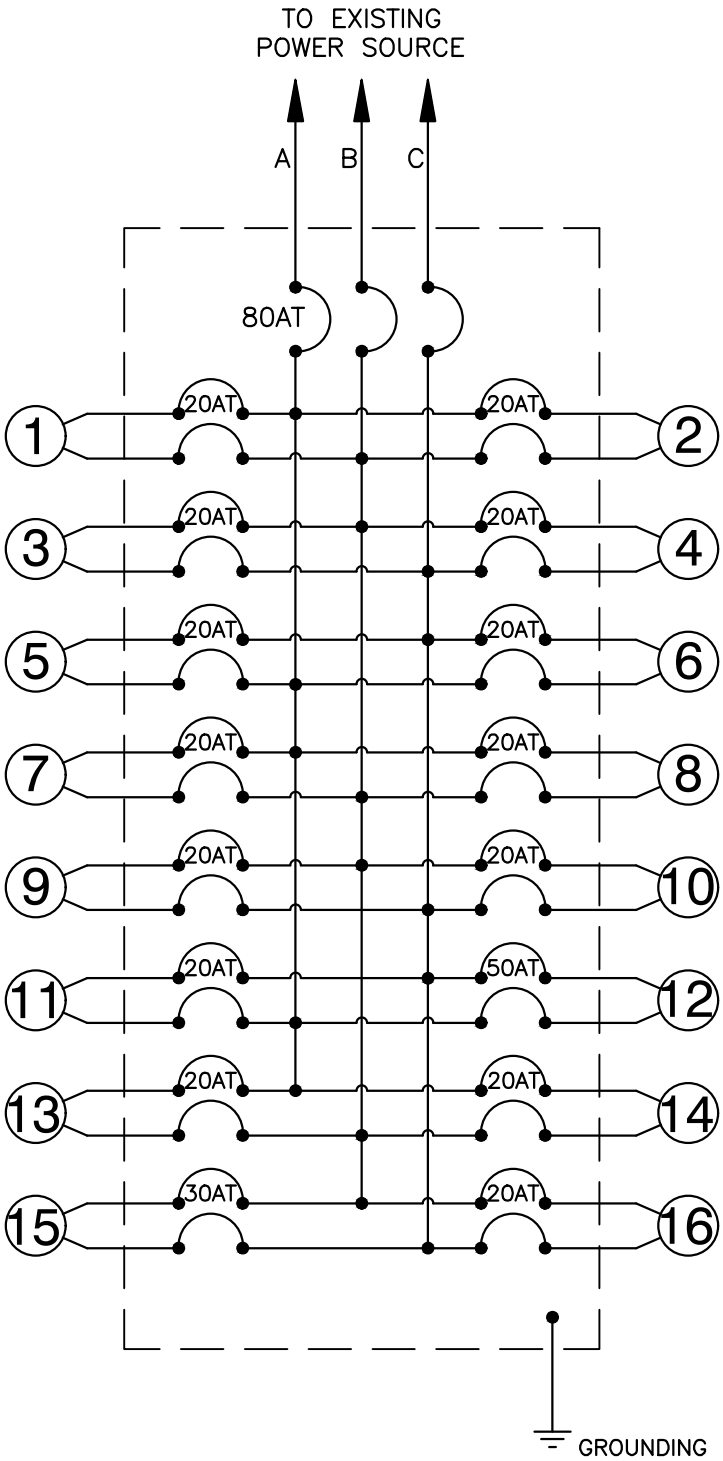
CIRCUIT BREAKER COMPUTATION:

I' = 54.69A - 17A + 250%(17A) = 80.19A
PROVIDE: 1 - 80AT, 100AF, 3P, 240VAC, 22KAIC, BOLT-ON

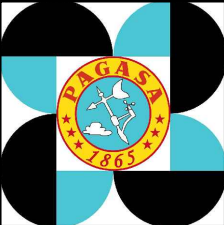
E-5
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LOAD SCHEDULE
SCALE NTS



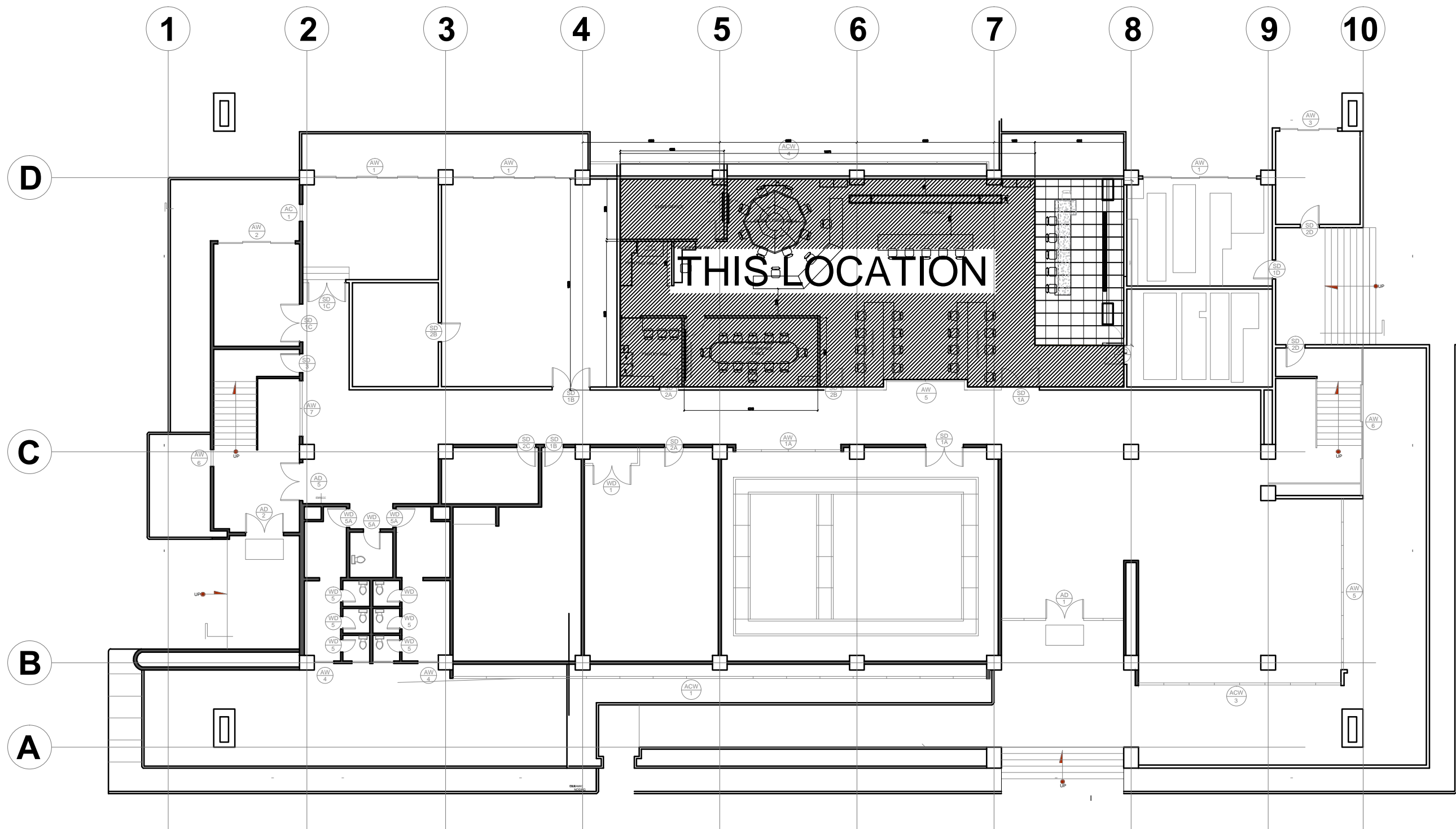
E-5
2
CIRCUIT DIAGRAM
SCALE NTS



E-5
3
PANEL BOARD CONNECTION
SCALE NTS



PROJECT TITLE:	SHEET NO.:	DRAWN BY:	CHECKED BY:	VERIFIED BY:	NOTED BY:	RECOMMENDING APPROVAL:	APPROVED BY:
RENOVATION OF HYDROMETEOROLOGY DIVISION (HMD) OPERATION	E 5	ARIEL N. GALLEG0 JR.	DIOSDADO S. ORNUM	JESSIE B. ARCE	EDWIN F. MANRESA	CATALINO L.DAVIS	DR. VICENTE B. MALANO
LOCATION: GROUND FLOOR, PAGASA WFFC COMPOUND, BIR RD., DILIMAN, QUEZON CITY		WFS-I, INFRA UNIT, ETSD	WFS-III, METTS, ETSD	CHIEF, MEIES, ETSD	CHIEF, ETSD	DA FOR A & ES	ADMINISTRATOR

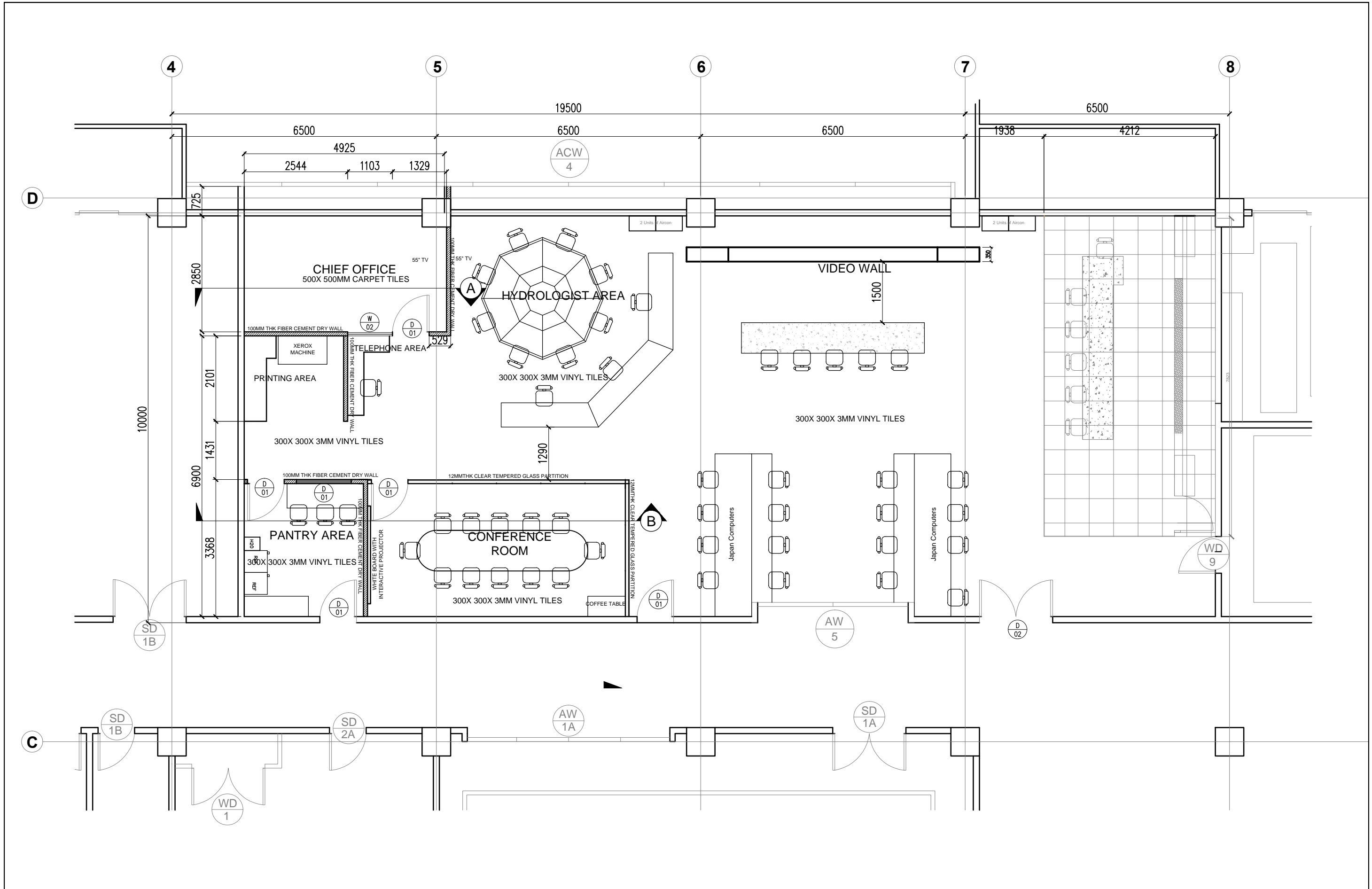


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A-1

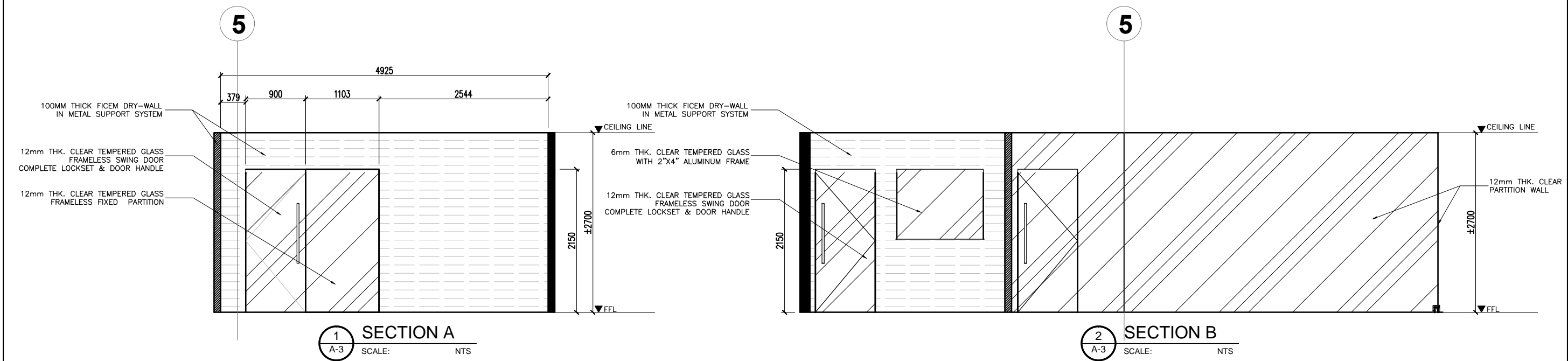
GROUND FLOOR
SITE LOCATION

SCALE: NTS

PROJECT TITLE	SHEET NO.	DRAWN BY:	CHECK BY	VERIFIED BY	NOTED BY	RECOMMENDING APPROVAL	APPROVED BY:
RENOVATION OF HYDROMETEOROLOGY DIVISION (HMD) OPERATION	A-1						
LOCATION FIRST FLOOR PAGASA, WFFC COMPOUND, AGHAM RD., DILIMAN, QUEZON CITY		LALAIN BLANCO JO	ROMEO M. PELAGIO OIC, INFRA UNIT, ETSD	JESSIE B. ARCE CHIEF, MEIES, ETSD	EDWIN F. MANRESA CHIEF, ETSD	CATALINO L. DAVIS DA, AES	DR. VICENTE B. MALANO ADMINISTRATOR



PROJECT TITLE	SHEET NO.	DRAWN BY:	CHECK BY	VERIFIED BY	NOTED BY	RECOMMENDING APPROVAL	APPROVED BY:
RENOVATION OF HYDROMETEOROLOGY DIVISION (HMD) OPERATION	A-2						
LOCATION FIRST FLOOR PAGASA, WFFC COMPOUND, AGHAM RD., DILIMAN, QUEZON CITY		LALAINÉ D. BLANCO JO	ROMEO M. PELAGIO OIC, INFRA UNIT, ETSD	JESSIE B. ARCE CHIEF, MEIES, ETSD	EDWIN F. MANRESA CHIEF, ETSD	CATALINO L. DAVIS DA, AES	DR. VICENTE B. MALANO ADMINISTRATOR



SCHEDULE OF WINDOW

DOOR MARK	W 01	W 02
LOCATION	PANTRY	CHIEF OFFICE
DESCRIPTION	FIXED GLASS WITH ALUMINUM FRAME	FIXED GLASS FRAMELESS WITH CLIP ON GROOVE
NO. OF SETS	ONE (1)	ONE (1)
USE	6mm THICK TEMPERED GLASS COLOR: CLEAR	12mm THICK TEMPERED GLASS COLOR: CLEAR
HARDWARE		

SCHEDULE OF DOOR

DOOR MARK	D 01	D 02
LOCATION	PANTRY, CHIEF'S OFFICE, HMD OPERATION, CONFERENCE	HMD OPERATION MAIN ENTRY
DESCRIPTION	FRAMELESS SWING DOOR	FRAMELESS SWING DOOR
NO. OF SETS	FIVE (5)	ONE (1)
USE	12mm THICK TEMPERED GLASS COLOR: CLEAR	12mm THICK TEMPERED GLASS COLOR: CLEAR
HARDWARE	GCC BRAND FOR TOP FITTING (PSS), BOTTOM FITTING (PSS), CORNER LOCK (PSS) WITH 9125 CYLINDER & 9137S, FLOOR SPRING SET- 25NM (9123)- MEDIUM DUTY, PIVOT SUS 304, DOOR HANDLE - GENTRY BRAND 32 X 900 (PSS)	GCC BRAND FOR TOP FITTING (PSS), BOTTOM FITTING (PSS), CORNER LOCK (PSS) WITH 9125 CYLINDER & 9137S, FLOOR SPRING SET- 25NM (9123)- MEDIUM DUTY, PIVOT SUS 304, DOOR HANDLE - GENTRY BRAND 32 X 900 (PSS)

PROJECT TITLE	SHEET NO.	DRAWN BY:	CHECK BY	VERIFIED BY	NOTED BY	RECOMMENDING APPROVAL	APPROVED BY:
REHABILITATION OF HYDROMETEOROLOGY DIVISION (HMD) OPERATION	A-3						
LOCATION PAGASA, WFFC COMPOUND, AGHAM RD., DILIMAN, QUEZON CITY		LALAIN BLANCO JO	ROMEO M. PELAGIO OIC, INFRA UNIT, ETSD	JESSIE B. ARCE CHIEF, MEIES, ETSD	EDWIN F. MANRESA CHIEF, ETSD	CATALINO L. DAVIS DA, AES	DR. VICENTE B. MALANO ADMINISTRATOR