

GENERAL NOTES: FOR REFERENCE ONLY, EXCLUDED IN PHASE 1

GENERAL NOTES

- ALL ELECTRICAL WORKS HEREIN SHALL BE DONE IN ACCORDANCE WITH THE PROVISIONS OF THE LATEST EDITION OF THE PHILIPPINE ELECTRICAL CODE, THE RULES, REGULATIONS AND REQUIREMENTS OF THE DISTRIBUTION UTILITY AND/OR THE LAWS AND ORDINANCES OF THE LOCAL CODE ENFORCING AUTHORITY.
- PRIMARY ELECTRIC SERVICE SHALL BE 13.2KV 3Ø, 3-WIRE, 60HZ
- SECONDARY ELECTRICAL SYSTEM SHALL BE 230V 3-WIRE + GROUND, 3Ø, 60HZ
- WIRE COLOR CODING SHALL BE AS FOLLOWS:
 - = PHASE CONDUCTORS - (R,Y,B) RED, YELLOW, and BLUE FOR LINES 1, 2 AND 3 RESPECTIVELY.
 - = NEUTRAL - WHITE
 - = GROUND - GREEN
- METHOD OF WIRING SHALL BE AS FOLLOWS; UNLESS OTHERWISE SPECIFIED IN AND DATA LINES WHICH SHALL BE IMC.
 - EMBEDDED IN CONCRETE = USE PVC SCH.40 CONDUIT EXCEPT COMMUNICATION AND DATA LINES WHICH SHALL BE IMC.
 - NOT EMBEDDED IN CONCRETE :
 - = USE EMT CONDUITS WITH SIZE NOT LARGER THAN 25mm DIAMETER.
 - = USE IMC WITH SIZE LARGER THAN 25mm DIAMETER.
 - = USE METALLIC WIREWAY WHERE INDICATED IN DRAWINGS.
- USE SHORT LENGTH FLEXIBLE METALLIC CONDUIT FOR CONDUIT TERMINATION TO EQUIPMENT SUBJECT TO VIBRATION.
- MINIMUM SIZE OF CONDUIT SHALL BE 13mm NOMINAL DIAMETER "USE UL Listed EMT AND IMC CONDUITS AND FITTINGS". CONDUIT SIZE IS BASED ON INTERNAL DIAMETER
- MINIMUM SIZE OF WIRES SHALL BE 2.0mm THHN/THWN-2. UNLESS OTHERWISE SPECIFIED IN DRAWING.
- ALL MATERIALS SHALL BE BRAND NEW AND OF SUITABLE AND APPROVED TYPE FOR LOCATION AND PURPOSE.
- ALL 20 AMPERE CIRCUIT HOMERUNS TO PANELBOARD MORE THAN 230 METERS IN LENGTH SHALL BE 5.5mm MINIMUM, UNLESS OTHERWISE NOTED.
- STANDARD TYPE OF ACCESSORIES, SPlicing DEVICES, TERMINATION AND OTHER APPURTENANCES FOR THE ENTIRE ELECTRICAL INSTALLATION SHALL BE USED.
- ALL NON-CURRENT CARRYING METAL PARTS OF ELECTRICAL EQUIPMENTS SHALL BE EFFECTIVELY GROUNDING.
- WHENEVER NECESSARY, PULL BOX SHALL BE PROVIDED EVEN IF NOT INDICATED IN THE PLANS.
- ALL DIMENSIONS SHOWN ON THE PLANS ARE APPROXIMATE AND SHALL BE VERIFIED AS ACTUAL LOCATIONS, DISTANCES, AND LEVELS ARE GOVERNED BY FIELD CONDITIONS.
- MINIMUM GROUNDING RESISTANCE SHALL BE 5 OHMS.
- WIRE GUTTERS SHALL BE SIZED NOT TO EXCEED TEN (10) PERCENT CONDUCTOR FILL.
- WIRE GUTTERS SHALL NOT CONTAIN MORE THAN 20 CONDUCTORS AT ANY CROSS SECTION.
- MAXIMUM SPACING BETWEEN CONDUIT SUPPORTS SHALL BE 1500mm AND 300mm BETWEEN SUPPORT AND FITTINGS OR BOXES.
- PANEL BOARDS, BOXES AND CABINETS SHALL BE EFFECTIVELY GROUNDING. WHERE NON METALLIC RACEWAYS ARE USED GROUNDING TERMINALS SHALL BE PROVIDED TOGETHER WITH GROUNDING CONDUCTORS, THIS HOWEVER SHALL BE SUBJECT TO THE APPROVAL OF DESIGNER.
- COPPER BUS BARS SHALL BE SIZED IN ACCORDANCE WITH THE CODE REQUIREMENT OF 1.55 AMPERE PER ONE(1) SQUARE MILLIMETER OF CROSS SECTION.
- ALL WORKS SHALL BE DONE IN A NEAT AND WORKMAN LIKE MANNER.
- ALL UTILITY AND JUNCTION BOXES SHALL BE GAUGE 16 DEEP TYPE. CONCENTRIC KNOCK OUTS SHALL NOT BE ALLOWED.
- CONDUIT BODIES, JUNCTIONS, PULL AND OUTLETS/BOXES SHALL BE INSTALLED SO THAT THE WIRING CONTAINED IN THEM CAN BE RENDERED ACCESSIBLE WITHOUT REMOVING ANY PART OF THE BUILDING OR IN UNDERGROUND CIRCUITS, WITHOUT EXCAVATING SIDEWALKS, PAVING EARTH OR OTHER SUBSTANCE THAT IS TO BE USED TO ESTABLISH THE FINISHED GRADE.
- METAL BOXES, CONDUIT BODIES AND FITTINGS SHALL BE CORROSION RESISTANT OR SHALL BE WELL GALVANIZED, ENAMELED OR OTHERWISE PROPERLY BE PROVIDED IN ACCORDANCE WITH THE REQUIREMENTS OF SECTION 3.70.2.1.14(a) COATED INSIDE AND OUT TO PREVENT CORROSION.
- SHEET METAL AUXILIARY GUTTERS SHALL BE SUPPORTED THROUGHOUT THEIR ENTIRE LENGTH AT INTERVALS NOT EXCEEDING 1000 MM.
- BONDING JUMPERS SHALL BE USED TO CONNECT SECTIONS OF CABLES TRAYS AND WIRE WAYS TO ENSURE CONTINUITY OF GROUNDING.
- RUNNING THREADS SHALL NOT BE USED ON CONDUITS FOR CONNECTION AT COUPLINGS.
- CONDUIT BENDS SHALL BE MADE IN SUCH A WAY THAT THE INTERNAL DIAMETER WILL NOT BE EFFECTIVELY REDUCED.
- WHERE CONDUITS ENTER A BOX, FITTING OR OTHER ENCLOSURE, BUSHINGS SHALL BE PROVIDED TO PROTECT THE WIRE FROM ABRASION.
- ALL WIRES AND CIRCUIT BREAKERS SHALL BE LOADED NOT MORE THAN EIGHTY PERCENT (80%) OF RATED CAPACITY.
- PROVIDE ALL THE NECESSARY SUPPORTS, FITTINGS,ETC. FOR A COMPLETE INSTALLATION. (SUBMIT SHOP DRAWING TO BE APPROVED BEFORE ANY INSTALLATION.
- NO PIPE OR DUCT SYSTEM FOREIGN TO THE ELECTRICAL INSTALLATION SHALL ENTER OR PASS THRU ANY ELECTRICAL ROOM.
- ALL WORKS SHALL BE DONE UNDER THE SUPERVISION OF A DULY LICENSED ELECTRICAL ENGINEER.
- REFER TO TECHNICAL SPECIFICATIONS.

DRAWING INDEX

E-01	DRAWING INDEX, GENERAL NOTES, LEGEND AND SYMBOL, VICINITY PLAN, ABBREVIATION
E-02	SINGLE LINE DIAGRAM
E-03	ELECTRICAL SITE DEVELOPMENT
E-04	BASEMENT LIGHTING LAYOUT GROUND FLOOR LIGHTING LAYOUT
E-05	SECOND FLOOR LIGHTING LAYOUT THIRD FLOOR LIGHTING LAYOUT
E-06	ROOF DECK LIGHTING LAYOUT TYPICAL LIGHTING INSTALLATION DETAIL
E-07	BASEMENT POWER LAYOUT GROUND FLOOR POWER LAYOUT
E-08	SECOND FLOOR POWER LAYOUT THIRD FLOOR POWER LAYOUT
E-09	ROOF DECK POWER LAYOUT BASEMENT MECHANICAL EQUIPMENT AND SIGNAGES POWER LAYOUT
E-10	GROUND FLOOR MECHANICAL EQUIPMENT AND SIGNAGES POWER LAYOUT SECOND FLOOR MECHANICAL EQUIPMENT AND SIGNAGES POWER LAYOUT
E-11	THIRD FLOOR MECHANICAL EQUIPMENT AND SIGNAGES POWER LAYOUT ROOF DECK MECHANICAL EQUIPMENT POWER LAYOUT
E-12	BASEMENT FLOOR GROUNDING SYSTEM LAYOUT ROOF DECK LIGHTNING PROTECTION SYSTEM LAYOUT
E-13	LOAD SCHEDULE
E-14	LOAD SCHEDULE ELECTRICAL LOAD CALCULATIONS
E-15	SHORT CIRCUIT CALCULATIONS VOLTAGE DROP CALCULATIONS
E-16	MISCELLANEOUS DETAILS
E-17	MISCELLANEOUS DETAILS

POWER LEGEND

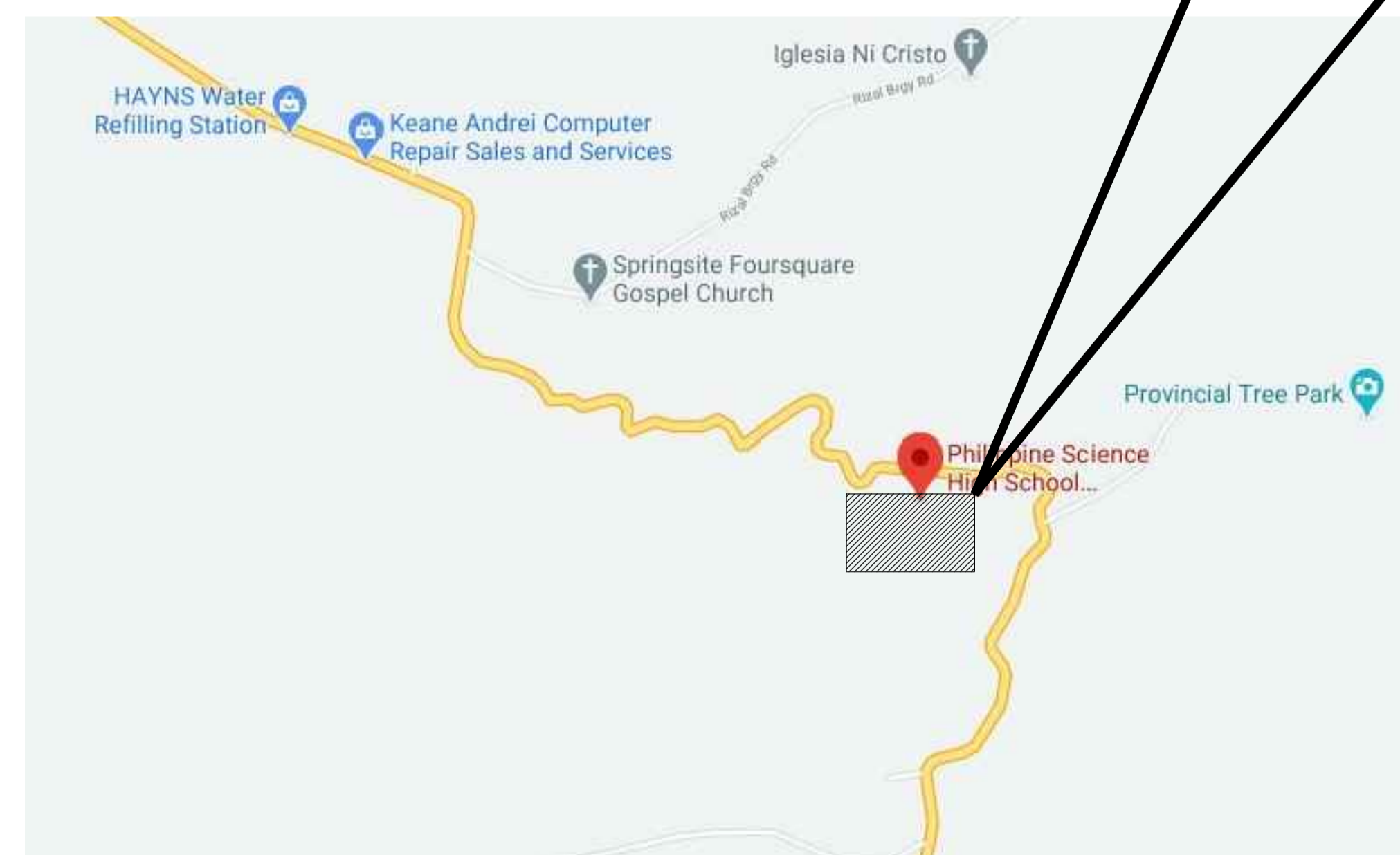
	DUPLEX RECEPTACLE, 16A, 250V, PARALLEL BLADE GROUNDING SLOT
	GROUND-FAULT CIRCUIT INTERRUPTER, DUPLEX RECEPTACLE, 16A, 250V, PARALLEL BLADE GROUNDING SLOT
	WEATHERPROOF, DUPLEX RECEPTACLE, 16A, 250V, PARALLEL BLADE GROUNDING SLOT
	TAMPER-RESISTANT, DUPLEX RECEPTACLE, 16A, 250V, PARALLEL BLADE GROUNDING SLOT
	HAND DRYER OUTLET, SIMPLEX RECEPTACLE, 16A, 250V, PARALLEL BLADE GROUNDING SLOT
	REF OUTLET, SIMPLEX RECEPTACLE, 16A, 250V, PARALLEL BLADE GROUNDING SLOT
	WATERPROOF FLOOR OUTLET, DUPLEX RECEPTACLE, 16A, 250V, PARALLEL BLADE GROUNDING SLOT
	SQUARE BOX / JUNCTION BOX
	PULLBOX
	PANELBOARD
	MOLDED CASE CIRCUIT BREAKER
	ENCLOSED CIRCUIT BREAKER
	MOTOR CONTROLLER
	KILOWATT-HOUR METER
	ELECTRIC MOTOR
	CIRCUIT HOMERUN
	CONDUIT EMBEDDED IN CONCRETE
	CONDUIT IN EXPOSED INSTALLATION OR ABOVE CEILING
	CONDUIT IN UNDERGROUND INSTALLATION
	AIR CIRCUIT BREAKER, DRAW-OUT TYPE
	VACUUM CIRCUIT BREAKER, ABOVE 600V
	TRANSIENT VOLTAGE SURGE SUPPRESSOR (TVSS)
	TRANSFORMER, DELTA-WYE CONNECTION
	GENERATOR SET

ABBREVIATION			
AMPS	AMPERES	LBS	LOAD BREAK SWITCH
AT	AMPERE TRIP	LC	LIGHTING CONTACTOR
AF	AMPERE FRAME	MC	METER CENTER
CB	CIRCUIT BREAKER	MDB	MAIN DISTRIBUTION BOARD
CT	COUNTER TOP	MSG	MAIN SWITCH GEAR
DIA.	DIAMETER	MVA	MEGAVOLT-AMPERE
DS	DISCONNECT SWITCH	NC	NORMALLY CLOSED
FH	FUME HOOD	NO	NORMALLY OPEN
FT	FLY TRAP	PB	PULLBOX
GSG	GENERATOR SWITCH GEAR	PCB	POWER CIRCUIT BREAKER
GFCI	GROUND-FAULT CIRCUIT INTERRUPTER	PF	POWER FUSE
KAIC	KILOAMPERE INTERRUPTING CAPACITY	RH	RANGE HOOD
KV	KILOVOLT	S.E.	SERVICE ENTRANCE
KVA	KILOVOLT-AMPERE	TR	TRANSFORMER
KW	KILOWATT	TVSS	TRANSIENT VOLTAGE SURGE SUPPRESSOR
KWH	KILOWATT-HOUR	WP	WEATHERPROOF
LA	LIGHTNING ARRESTER	PQM	POWER QUALITY METER
GSB	GENSET SWITCH BOARD	LSIG	LONG-TIME, SHORT-TIME, INSTANTANEOUS AND GROUND-FAULT RELAY
LVSG	LOW VOLTAGE SWITCHGEAR	ACB	AIR CIRCUIT BREAKER
CT's	CURRENT TRANSFORMER	NFDS	NON-FUSIBLE DISCONNECT SWITCH
PT's	POTENTIAL TRANSFORMER	MCCB	MOLDED-CASE CIRCUIT BREAKER
M/E	MECHANICAL/ELECTRICAL INTERLOCK		

1 LEGENDS AND SYMBOLS
E-01 SCALE: NTS

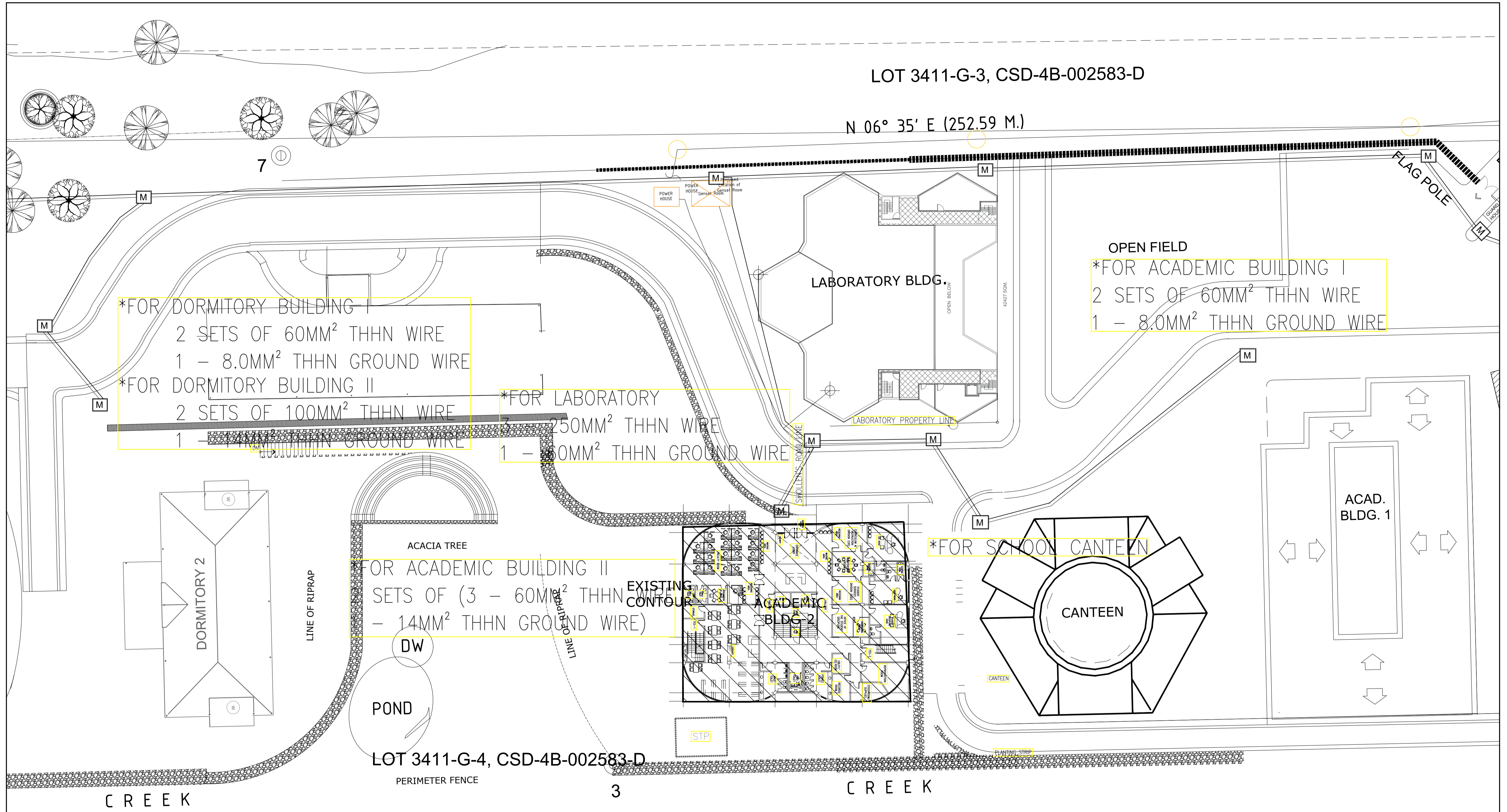
2 ABBREVIATION
E-01 SCALE: NTS

SITE

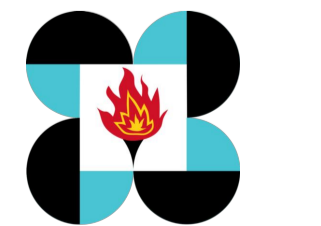


3 VICINITY PLAN
E-01 SCALE: NTS

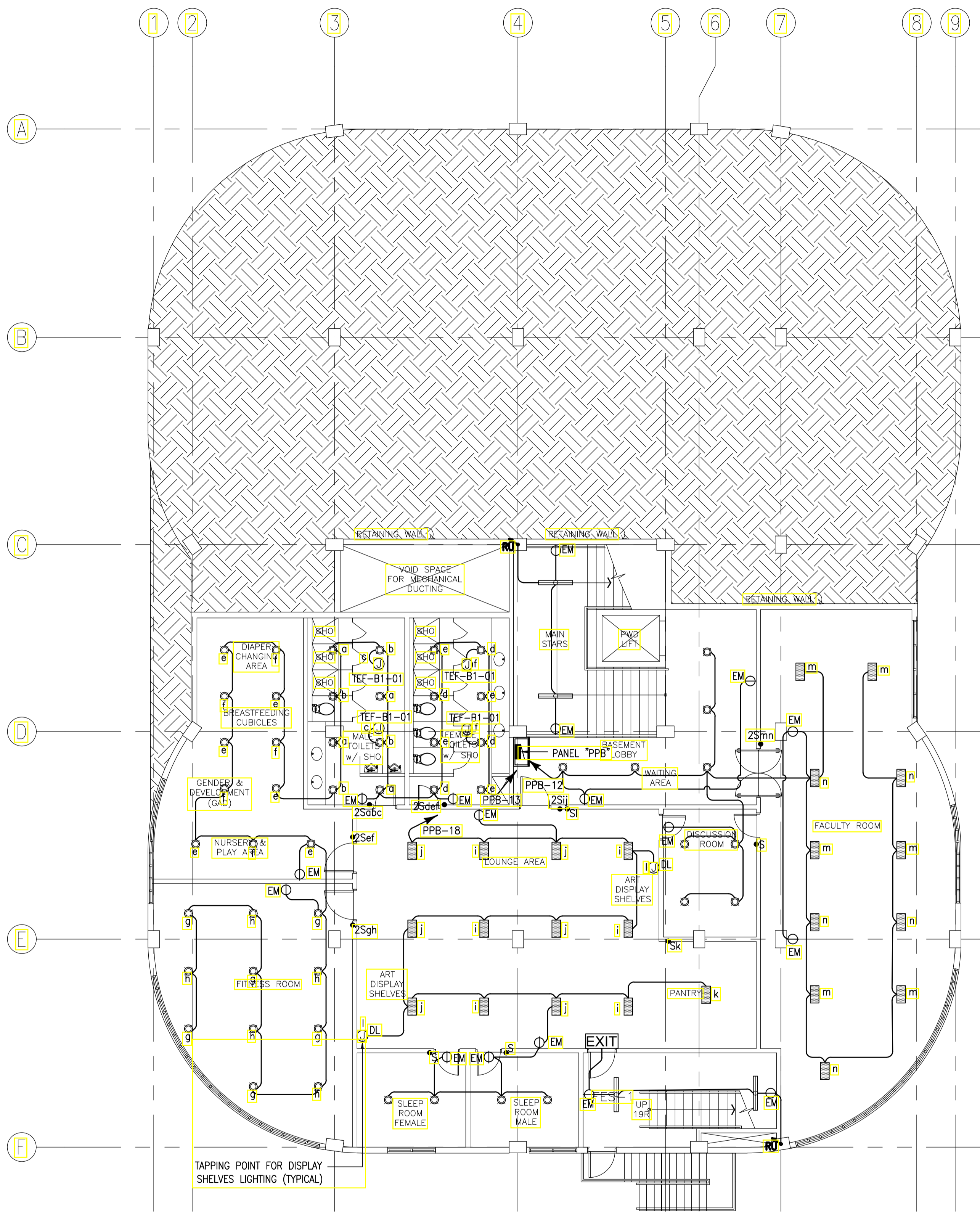
<p>ENRIQUE O. OLANON & ASSOCIATES ARCHITECTS ENGINEERS CONSULTANTS</p> <p>IN JOINT VENTURE WITH</p> <p>ENRIQUE O. OLANON & ASSOCIATES, CO. ARCHITECTS ENGINEERS CONSULTANTS</p>	DESIGNER: MANUEL V. PANIS PROFESSIONAL ELECTRICAL ENGINEER PRC No. 1210 Validity: 10/13/2023 PTR No. 7731829 Date: 01/04/2021 Place: ANTIPOLLO CITY TIN: 132-466-222	REPUBLIC ACT 9266 DRAWINGS AND SPECIFICATIONS AND OTHER CONTRACT DOCUMENTS DULY SIGNED, STAMPED OR SEALED, AS INSTRUMENTS OF SERVICE, ARE THE INTELLECTUAL PROPERTY AND DOCUMENT OF THE ARCHITECT. WHETHER THE OBJECT FOR WHICH THEY ARE MADE IS EXECUTED OR NOT, IT SHALL BE UNLAWFUL FOR ANY PERSON TO DUPLICATE OR TO MAKE COPIES OF SAID DOCUMENTS FOR USE IN THE REPEITION OF AND FOR OTHER PROJECTS OR BUILDINGS, WHETHER EXECUTED PARTY OR IN WHOLE, WITHOUT THE WRITTEN CONSENT OF ARCHITECT OR AUTHOR OF SAID DOCUMENT.	PROJECT: PROPOSED ACADEMIC BUILDING II / MULTI-PURPOSE GYMNASIUM LOCATION: Brgy. Rizal, Odiangan, Romblon	DESIGNED FOR: REPUBLIC OF THE PHILIPPINES PHILIPPINE SCIENCE HIGH SCHOOL - MIMAROPA REGIONAL CAMPUS	RECOMMENDING APPROVAL: MERIAM F. FALLAR FAD CHIEF	APPROVED BY: EDWARD C. ALBARACIN CAMPUS DIRECTOR	SHEET CONTENTS: DRAWING INDEX, GENERAL NOTES, LEGEND AND SYMBOL, ABBREVIATION, VICINITY PLAN	SHEET NO: E 1 17
---	--	---	--	---	--	---	---	-------------------------------



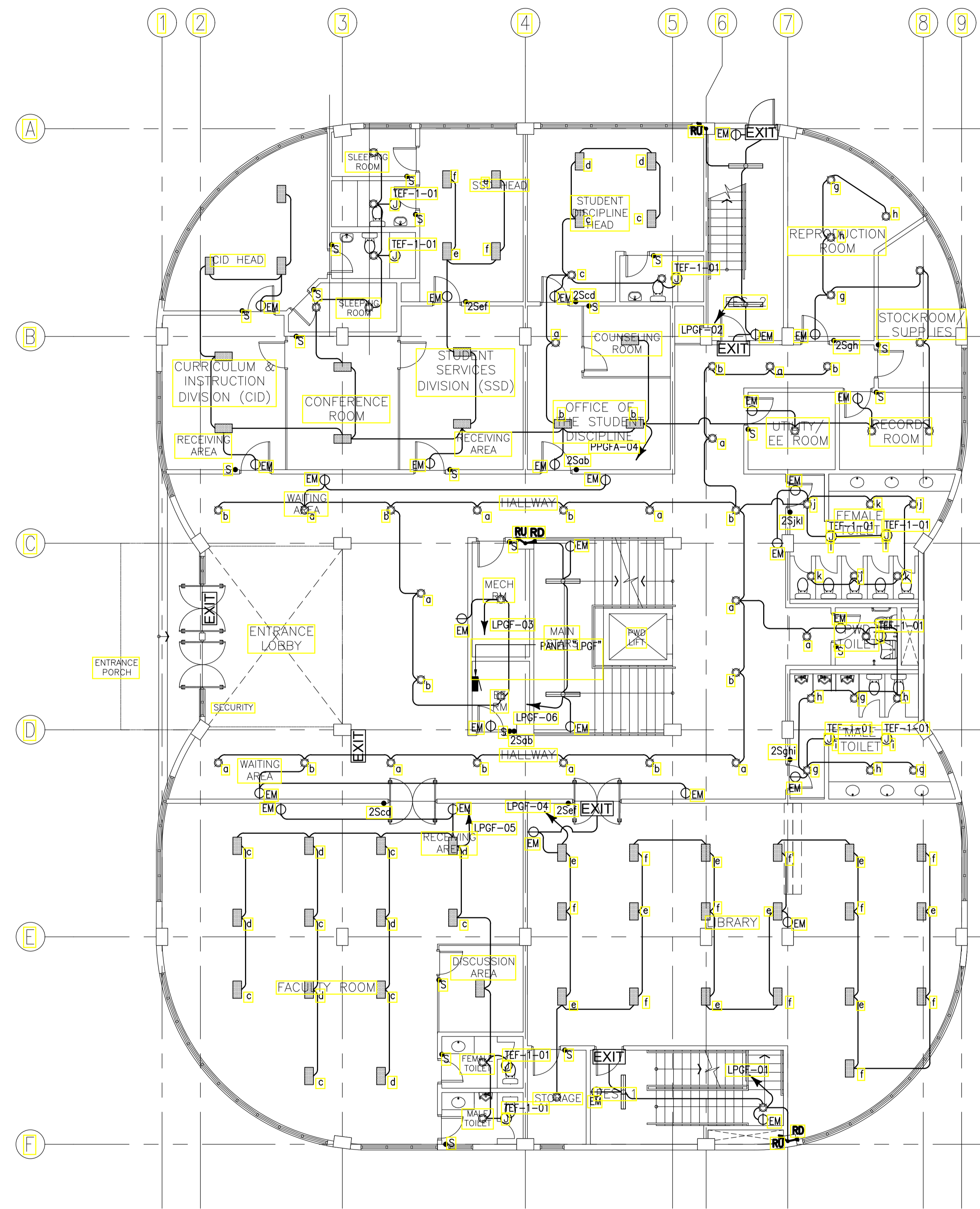
1 ACADEMIC BUILDING II
ELECTRICAL SITE DEVELOPMENT LAYOUT
SCALE 1:300MTRS
E-03

<p>ENRIQUE O. OLANAN & ASSOCIATES ARCHITECTS ENGINEERS CONSULTANTS</p> <p><i>IN JOINT VENTURE WITH</i></p> <p>ENRIQUE O. OLANAN & ASSOCIATES, CO. ARCHITECTS ENGINEERS CONSULTANTS</p> <p>SUITE 305 XAVIERVILLE SQUARE CONDOMINIUM NO. 38 XAVIERVILLE AVENUE, LORONA HEIGHTS, QUEZON CITY, 1108 TEL NOS: 426 7009; 426 3000-04 FAX NOS: 927 0608; 426 7214</p>	<p>DESIGNER:</p> <p>MANUEL V. PANIS PROFESSIONAL ELECTRICAL ENGINEER</p> <p>PRC No. 1210 Validity: 10/13/2023 PTR No. 7731829 Date: 01/04/2021 Place: ANTIPOLLO CITY TIN: 132-466-222</p>	<p>REPUBLIC ACT 9266</p> <p><small>DRAWINGS AND SPECIFICATIONS AND OTHER CONTRACT DOCUMENTS DULY SIGNED, STAMPED OR SEALED, AS INSTRUMENTS OF SERVICE, ARE THE INTELLECTUAL PROPERTY AND DOCUMENT OF THE ARCHITECT. WHETHER THE OBJECT FOR WHICH THEY ARE MADE IS EXECUTED OR NOT, IT SHALL BE UNLAWFUL FOR ANY PERSON TO DUPLICATE OR TO MAKE COPIES OF SAID DOCUMENTS FOR USE IN THE REPRODUCTION OF AND FOR OTHER PROJECTS OR BUILDINGS, WHETHER EXECUTED PARTLY OR IN WHOLE, WITHOUT THE WRITTEN CONSENT OF ARCHITECT OR AUTHOR OF SAID DOCUMENT.</small></p>	<p>PROJECT:</p> <p>PROPOSED ACADEMIC BUILDING II / MULTI-PURPOSE GYMNASIUM</p> <p>LOCATION: Brgy. Rizal, Odiongan, Romblon</p>	<p>DESIGNED FOR:</p>  <p>REPUBLIC OF THE PHILIPPINES PHILIPPINE SCIENCE HIGH SCHOOL - MIMAROPA REGIONAL CAMPUS</p>	<p>RECOMMENDING APPROVAL:</p> <p>MERIAM F. FALLAR FAD CHIEF</p>	<p>APPROVED BY:</p> <p>EDWARD C. ALBARACIN CAMPUS DIRECTOR</p>	<p>SHEET CONTENTS:</p> <p>ELECTRICAL SITE DEVELOPMENT LAYOUT</p>	<p>SHEET NO:</p> <p>E 3 17</p>
--	--	---	---	---	--	---	--	---

GENERAL NOTES: PROVIDE EMBEDDED ELECTRICAL ROUGHING-INS IN BASEMENT AND GROUND FLOOR



1 ACADEMIC BUILDING II
BASEMENT FLOOR LIGHTING LAYOUT
 SCALE: 1:100MTRS
 E-04



2 ACADEMIC BUILDING II
GROUND FLOOR LIGHTING LAYOUT
 SCALE: 1:100MTRS
 E-04

ENRIQUE O. OLONAN & ASSOCIATES
 ARCHITECTS ENGINEERS CONSULTANTS
 IN JOINT VENTURE WITH
ENRIQUE O. OLONAN & ASSOCIATES, CO.
 ARCHITECTS ENGINEERS CONSULTANTS

DESIGNER:
MANUEL V. PANIS
 PROFESSIONAL ELECTRICAL ENGINEER
 PRC No. 1210 Validity: 10/13/2023
 PTR No. 7731829 Date: 01/04/2021
 Place: ANTIPOLLO CITY TIN: 132-466-222

REPUBLIC ACT 9266
 DRAWINGS AND SPECIFICATIONS AND OTHER CONTRACT DOCUMENTS DULY SIGNED, STAMPED OR SEALED, AS INSTRUMENTS OF SERVICE, ARE THE INTELLECTUAL PROPERTY AND DOCUMENT OF THE ARCHITECT. WHETHER THE OBJECT FOR WHICH THEY ARE MADE IS EXECUTED OR NOT, IT SHALL BE UNLAWFUL FOR ANY PERSON TO DUPLICATE OR TO MAKE COPIES OF SAID DOCUMENTS FOR USE IN THE REPRODUCTION OF AND FOR OTHER PROJECTS OR BUILDINGS, WHETHER EXECUTED PARTY OR IN WHOLE, WITHOUT THE WRITTEN CONSENT OF ARCHITECT OR AUTHOR OF SAID DOCUMENT.

PROJECT:
PROPOSED ACADEMIC BUILDING II / MULTI-PURPOSE GYMNASIUM
 LOCATION: Brgy. Rizal, Odiongan, Romblon

DESIGNED FOR:

 REPUBLIC OF THE PHILIPPINES
 PHILIPPINE SCIENCE HIGH SCHOOL - MIMAROPA REGIONAL CAMPUS

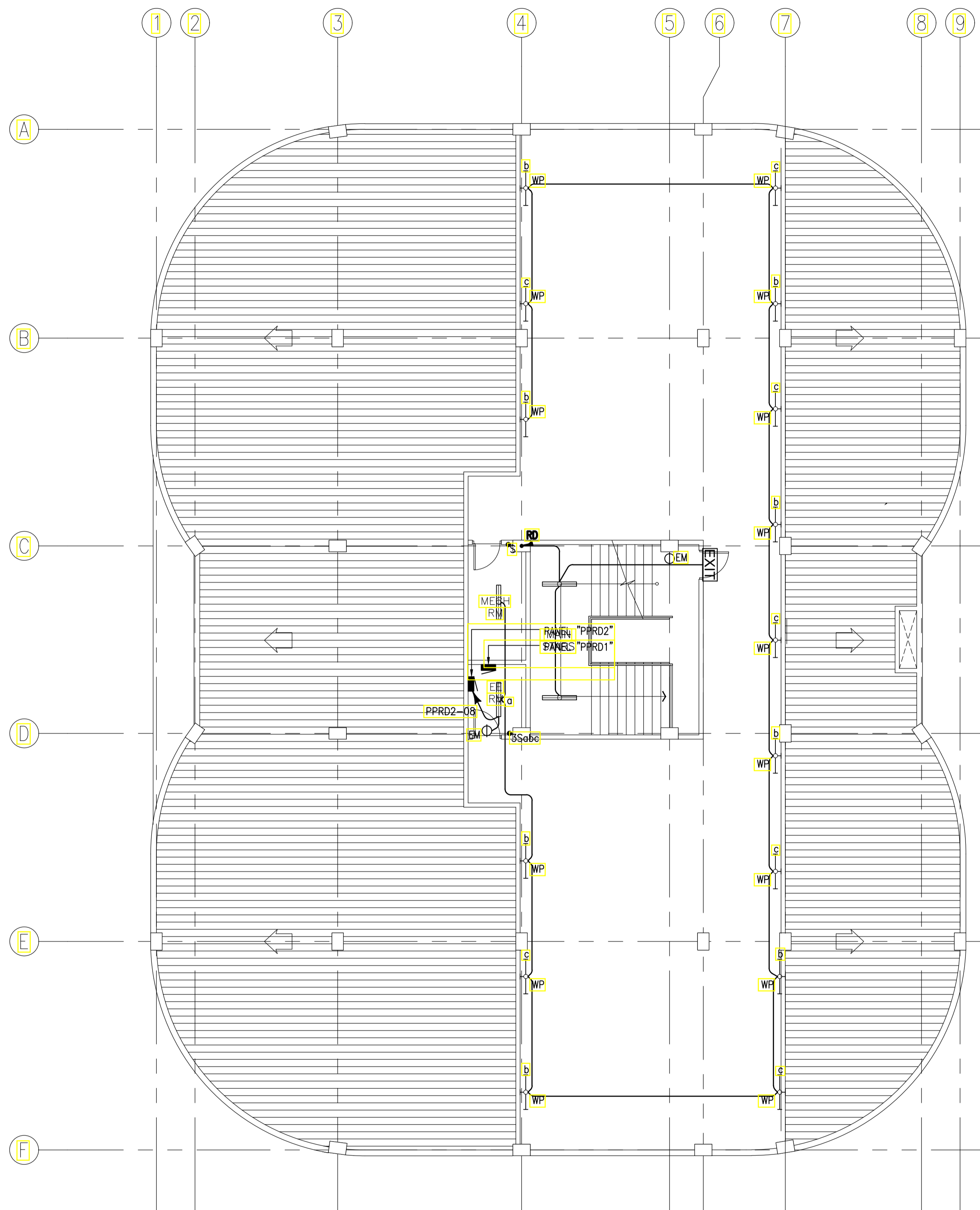
RECOMMENDING APPROVAL:
MERIAM F. FALLAR
 FAD CHIEF

APPROVED BY:
EDWARD C. ALBARACIN
 CAMPUS DIRECTOR

SHEET CONTENTS:
 BASEMENT LIGHTING LAYOUT
 GROUND FLOOR LIGHTING LAYOUT

SHEET NO:
E
4 17

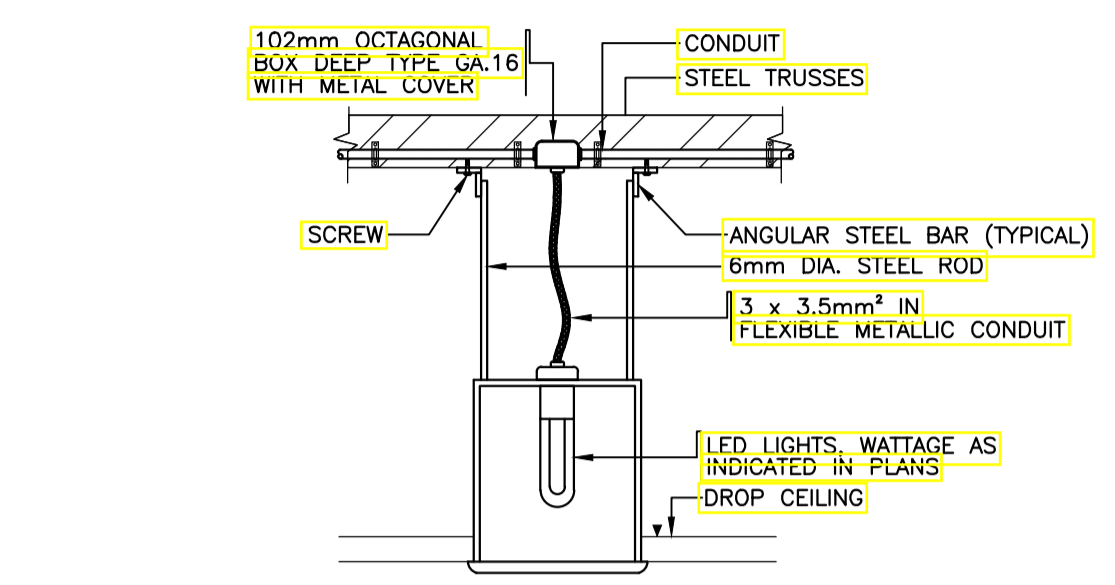
GENERAL NOTES: FOR REFERENCE ONLY, EXCLUDED IN PHASE 1



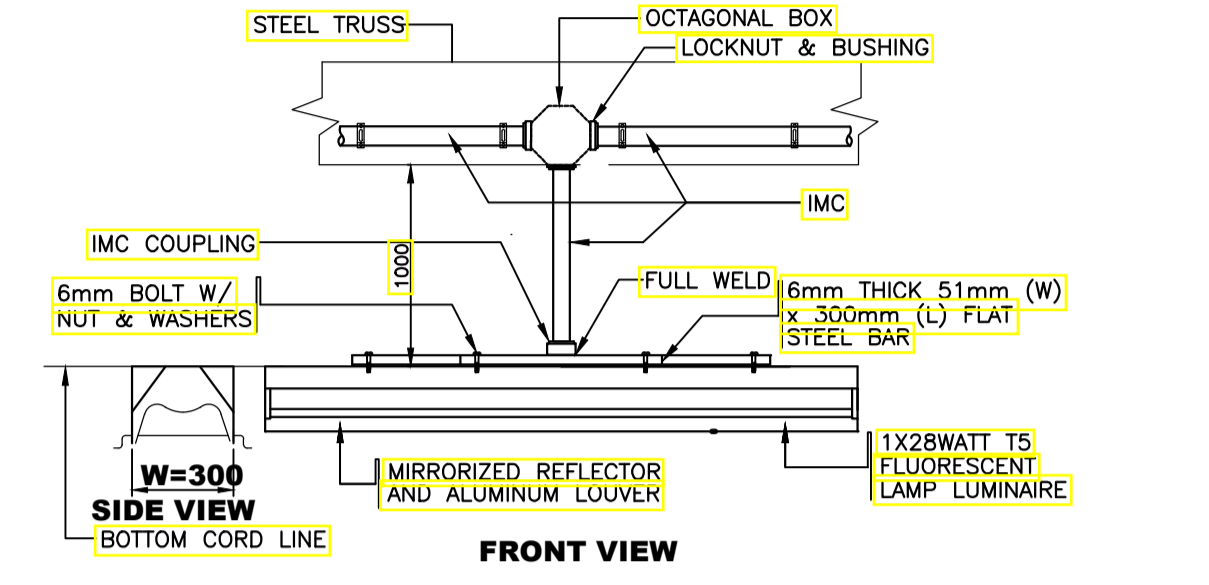
1
ACADEMIC BUILDING II
ROOF DECK LIGHTING LAYOUT
SCALE: 1:100MTRS
E-06

LIGHTING LEGEND			
	9 WATTS, 2 PCS., FLUORESCENT LUMINAIRE LED LIGHT		EXIT LIGHT COMPLETE WITH 2 HRS. BATTERY PACK
	12 WATTS, LED ROUND DOWNLIGHT		1 GANG SINGLE POLE SINGLE THROW SWITCH, 15A, 230V, 60Hz
	12 WATTS, LED SQUARE DOWNLIGHT		2 GANG SINGLE POLE SINGLE THROW SWITCH, 15A, 230V, 60Hz
	9 WATTS, 2 PCS., FLUORESCENT LUMINAIRE LED LIGHT		SINGLE RECEPTACLE, 15A, 240V, FOR EMERGENCY LIGHTS.
	32 WATTS, 2 PCS., FLUORESCENT DUSTPROOF LUMINAIRE LED LIGHT		RISER-UP / RISER DOWN

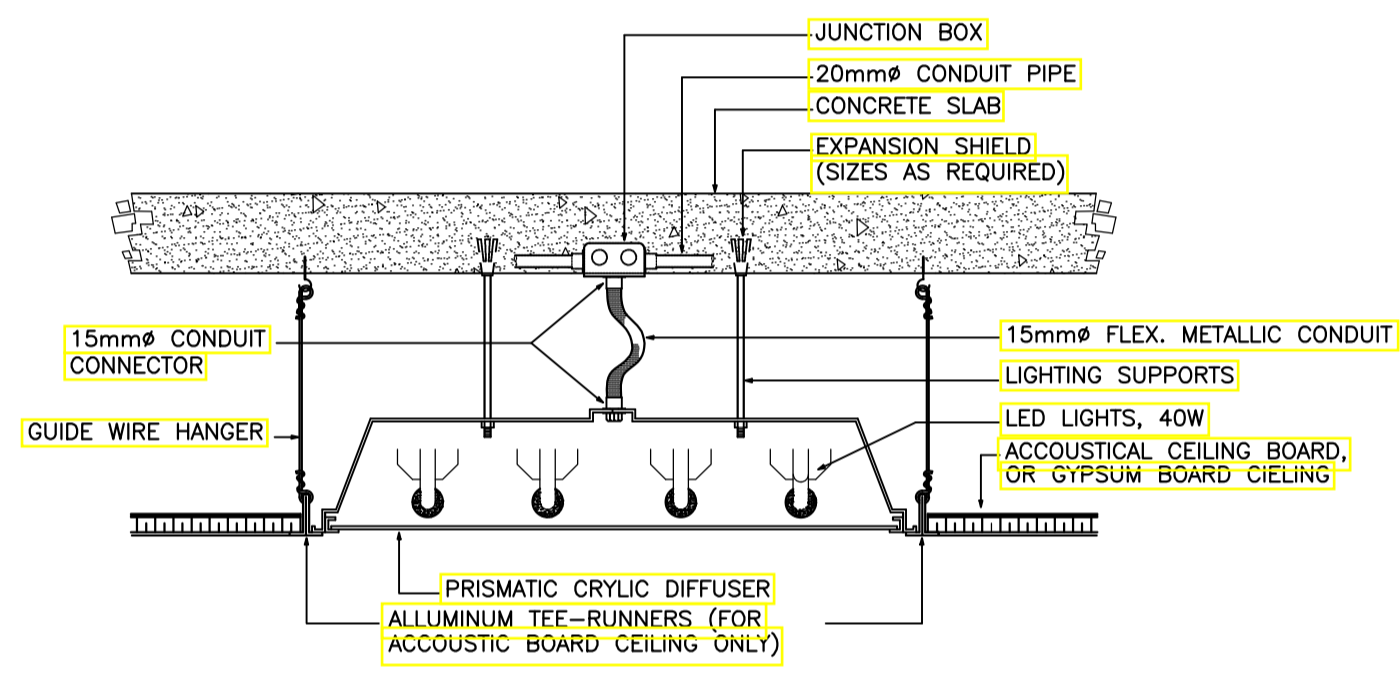
- NOTES:**
- LIGHTED EXIT SIGNAGES TO BE TAP TO THE NEAREST LIGHTING CIRCUIT AHEAD OF SWITCH.
 - CONVENIENCE OUTLET FOR PORTABLE EMERGENCY LIGHTS TO BE TAP TO THE NEAREST LIGHTING CIRCUIT AHEAD OF SWITCH.
 - SEE SHEET E-? FOR PORTABLE EMERGENCY LIGHTS MOUNTING DETAILS.
 - SEE SHEET E-? FOR EXIT SIGNAGES MOUNTING DETAILS.
 - MOUNTING OF SWITCHES SHALL BE SUBJECT FOR ARCHITECT'S APPROVAL.
 - ELECTRICAL CONTRACTOR TO COORDINATE WITH OTHER ENGINEERING TRADE PRIOR TO INSTALLATION.



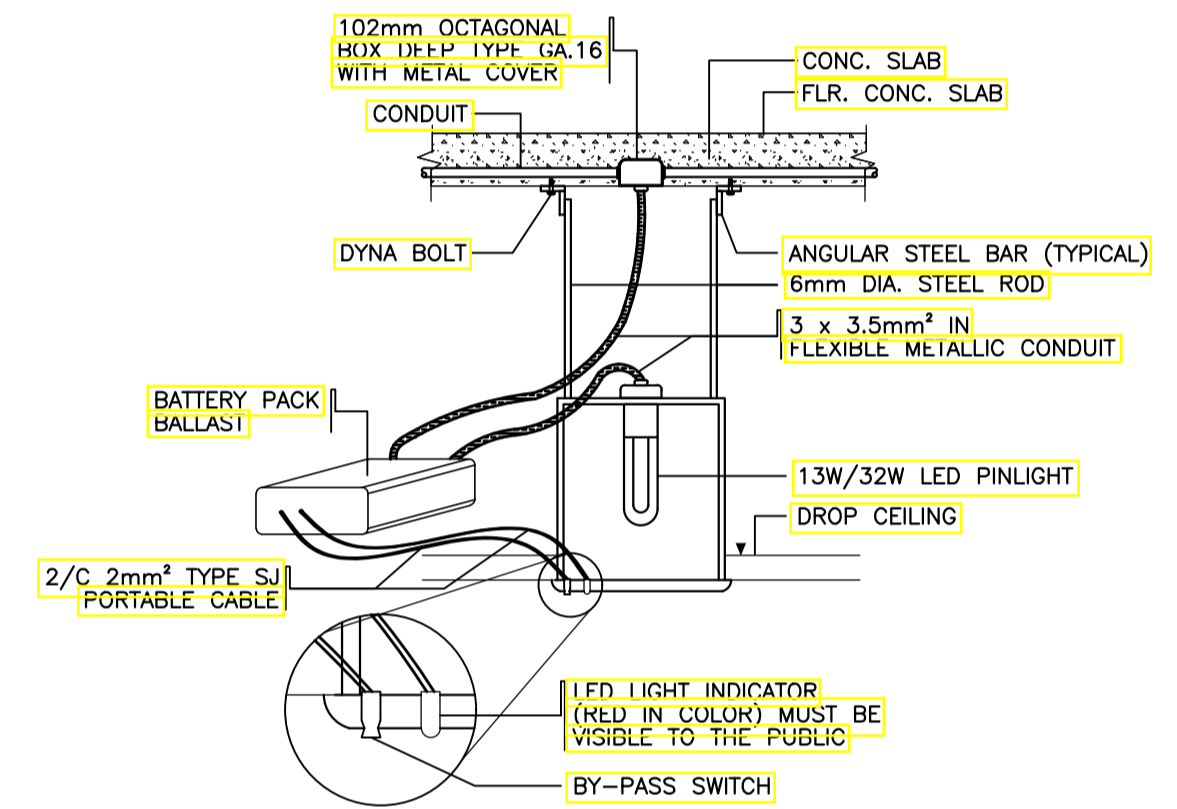
2A
RECESSED LED DOWNLIGHT LIGHTING LUMINAIRE MOUNTING DETAIL (TYPICAL)
SCALE: NTS
E-06



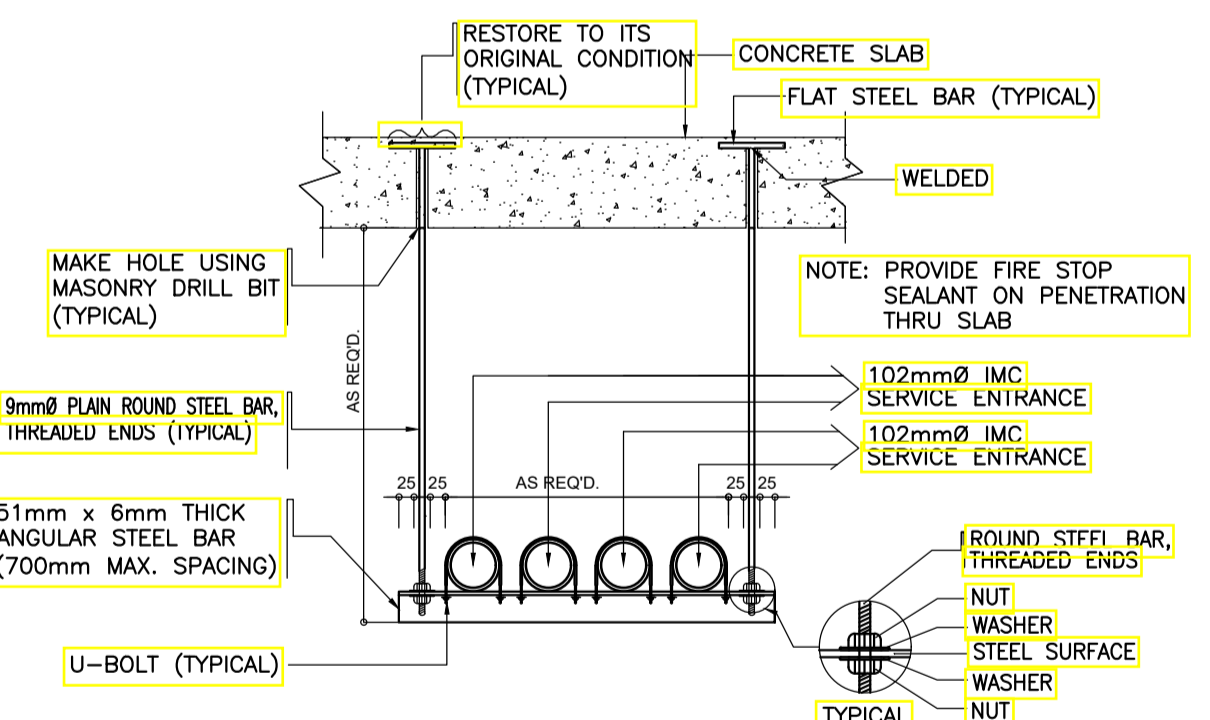
2B
SURFACE MTD. ON SLAB LED T8 LIGHTING LUMINAIRE MOUNTING DETAIL (TYPICAL)
SCALE: NTS
E-06



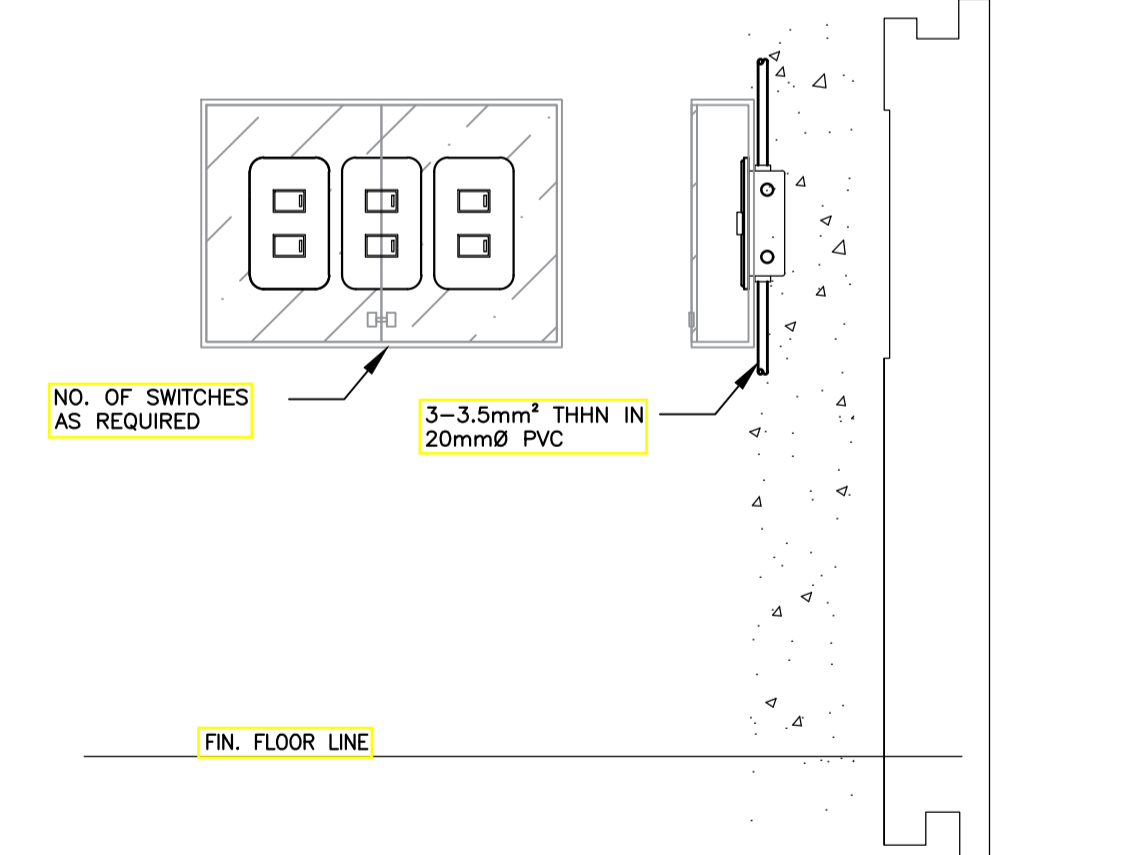
2C
RECESSED MTD. TROFFER TYPE LED PANEL LIGHTING WITH PRISMATIC DIFFUSER LUMINAIRE DETAIL (TYPICAL)
SCALE: NTS
E-06



2D
PINLIGHT LED LUMINAIRE WITH BATTERY PACKED BALLAST MTG. DETAIL (TYPICAL)
SCALE: NTS
E-06



2E
CONDUIT ROUTE DETAIL
SCALE: NTS
E-06



2F
LIGHTING SWITCH BANK INSTALLATION DETAIL
SCALE: NTS
E-06

2
ACADEMIC BUILDING II
TYPICAL LIGHTING INSTALLATION DETAIL
SCALE: NTS
E-06

ENRIQUE O. OLONAN & ASSOCIATES
ARCHITECTS ENGINEERS CONSULTANTS
IN JOINT VENTURE WITH
ENRIQUE O. OLONAN & ASSOCIATES, CO.
ARCHITECTS ENGINEERS CONSULTANTS

SUITE 305
XAVIERVILLE SQUARE
CONDOMINIUM
NO. 38 XAVIERVILLE
AVENUE, LAYUNAN HEIGHTS,
QUEZON CITY, 1108
TEL NOS: 426 7009;
426 3004-44
FAX NOS: 927 0608;
426 7214

DESIGNER:
MANUEL V. PANIS
PROFESSIONAL ELECTRICAL ENGINEER

PRC No. 1210 Validity: 10/13/2023
PTR No. 7731829 Date: 01/04/2021
Place: ANTIPOLLO CITY TIN: 132-466-222

REPUBLIC ACT 9266
DRAWINGS AND SPECIFICATIONS AND OTHER CONTRACT DOCUMENTS DULY SIGNED, STAMPED OR SEALED, AS INSTRUMENTS OF SERVICE, ARE THE INTELLECTUAL PROPERTY AND DOCUMENT OF THE ARCHITECT. WHETHER THE OBJECT FOR WHICH THEY ARE MADE IS EXECUTED OR NOT, IT SHALL BE UNLAWFUL FOR ANY PERSON TO DUPLICATE OR TO MAKE COPIES OF SAID DOCUMENTS FOR USE IN THE REPRODUCTION OF AND FOR OTHER PROJECTS OR BUILDINGS, WHETHER EXECUTED PARTY OR IN WHOLE, WITHOUT THE WRITTEN CONSENT OF ARCHITECT OR AUTHOR OF SAID DOCUMENT.

PROJECT:
**PROPOSED
ACADEMIC BUILDING II /
MULTI-PURPOSE GYMNASIUM**

LOCATION: Brgy. Rizal, Odiongan, Romblon

DESIGNED FOR:

REPUBLIC OF THE PHILIPPINES
PHILIPPINE SCIENCE HIGH SCHOOL -
MIMAROPA REGIONAL CAMPUS

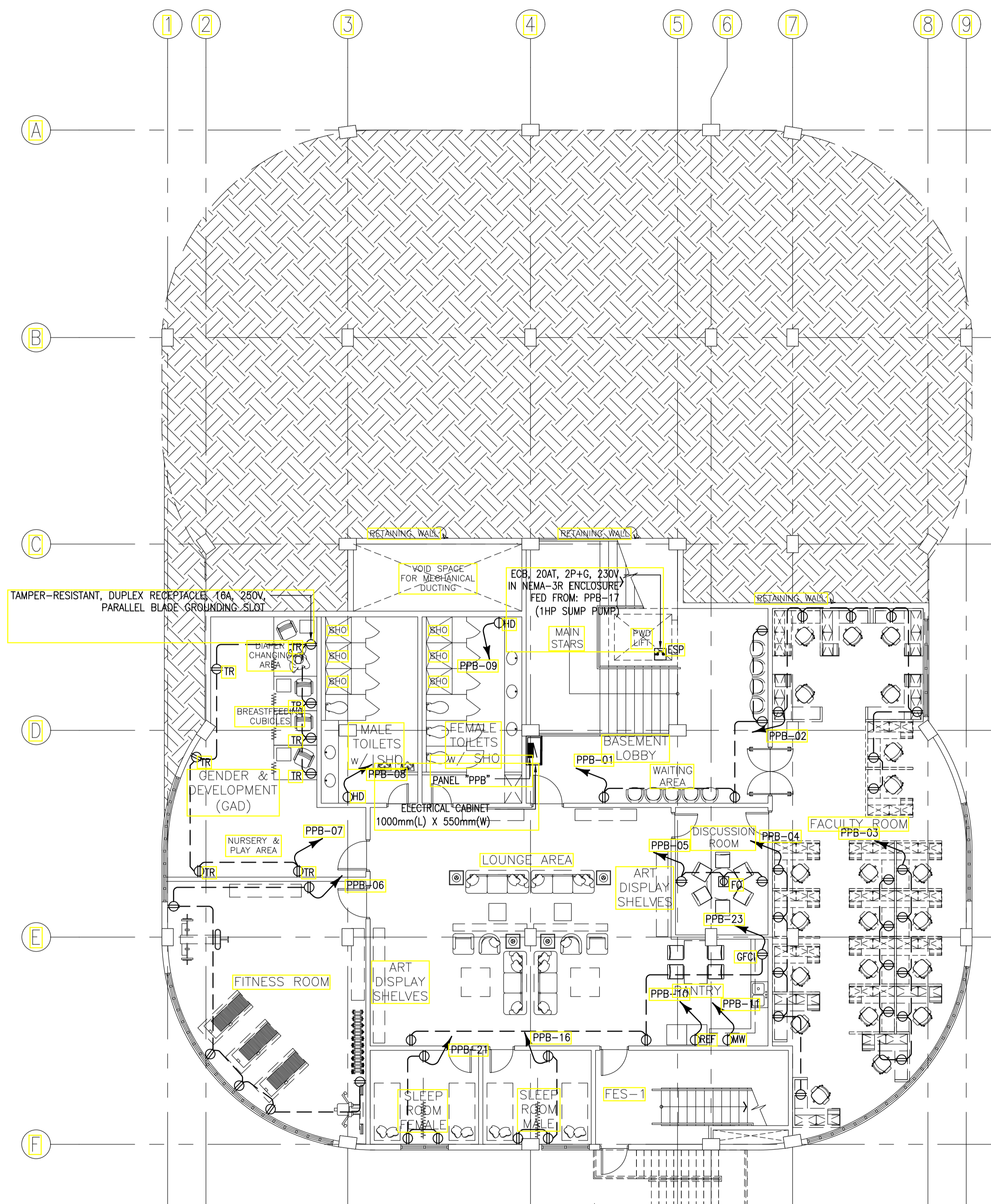
RECOMMENDING APPROVAL:
MERIAM F. FALLAR
FAD CHIEF

APPROVED BY:
EDWARD C. ALBARACIN
CAMPUS DIRECTOR

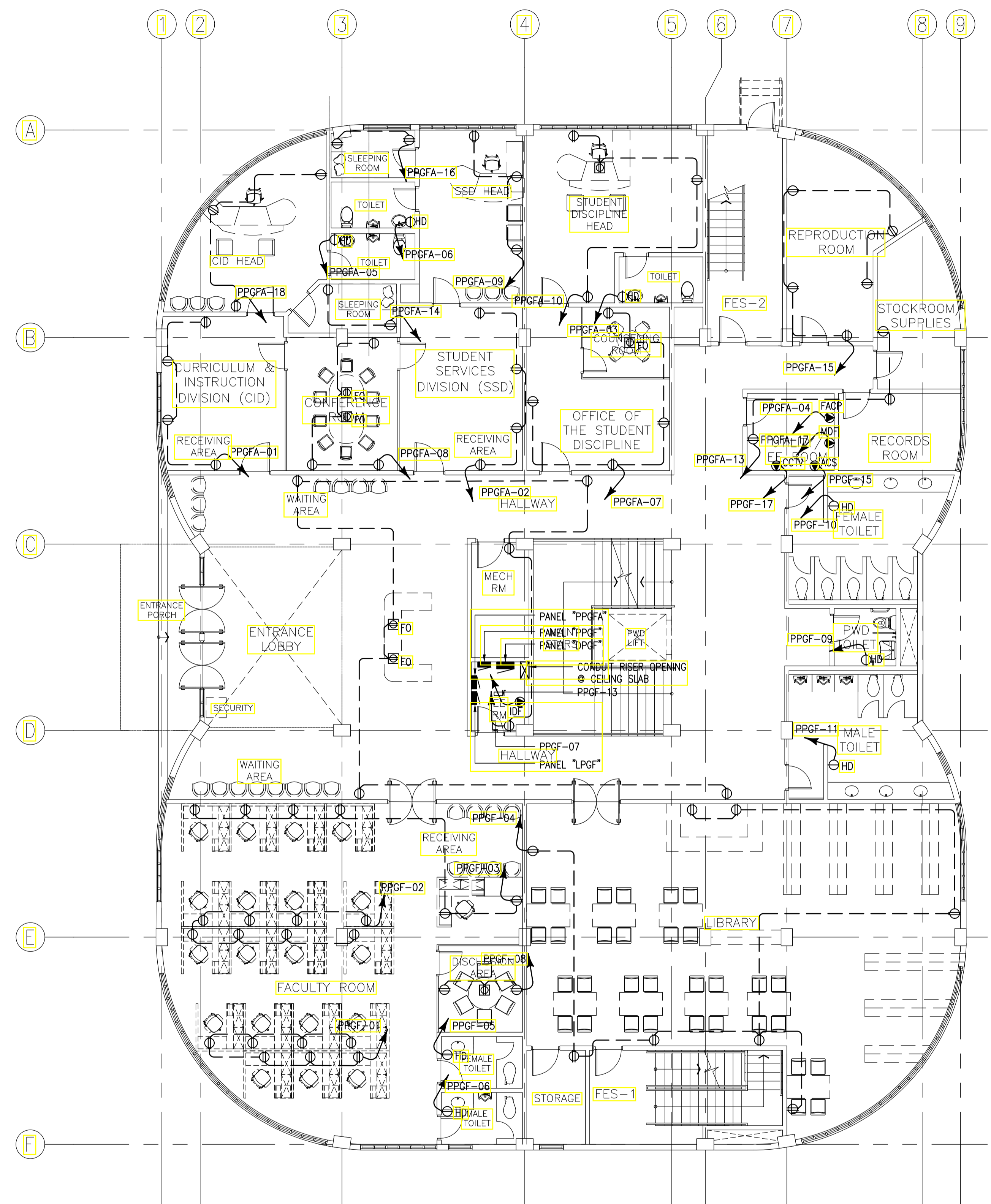
SHEET CONTENTS:
ROOF DECK LIGHTING LAYOUT
TYPICAL LIGHTING INSTALLATION DETAILS

SHEET NO:
**E
6 17**

GENERAL NOTES: FOR REFERENCE ONLY, EXCLUDED IN PHASE 1



1 ACADEMIC BUILDING II
BASEMENT POWER LAYOUT
SCALE: E-07 1:100MTRS



2 ACADEMIC BUILDING II
GROUND FLOOR POWER LAYOUT
SCALE: E-07 1:100MTRS

ENRIQUE O. OLONAN & ASSOCIATES
ARCHITECTS ENGINEERS CONSULTANTS
IN JOINT VENTURE WITH
ENRIQUE O. OLONAN & ASSOCIATES, CO.
ARCHITECTS ENGINEERS CONSULTANTS

SUITE 305
XAVIERVILLE SQUARE
CONDOMINIUM
NO. 38 XAVIERVILLE
AVENUE, LAYOGA HEIGHTS,
QUEZON CITY, 1108
TEL NOS: 426 7009;
426 3004-04
FAX NOS: 927 0608;
426 7214

DESIGNER:
MANUEL V. PANIS
PROFESSIONAL ELECTRICAL ENGINEER
PRC No. 1210 Validity: 10/13/2023
PTR No. 7731829 Date: 01/04/2021
Place: ANTIPOLLO CITY TIN: 132-466-222

REPUBLIC ACT 9266
DRAWINGS AND SPECIFICATIONS AND OTHER CONTRACT DOCUMENTS DULY SIGNED, STAMPED OR SEALED, AS INSTRUMENTS OF SERVICE, ARE THE INTELLECTUAL PROPERTY AND DOCUMENT OF THE ARCHITECT. WHETHER THE OBJECT FOR WHICH THEY ARE MADE IS EXECUTED OR NOT, IT SHALL BE UNLAWFUL FOR ANY PERSON TO DUPLICATE OR TO MAKE COPIES OF SAID DOCUMENTS FOR USE IN THE REPRODUCTION OF AND FOR OTHER PROJECTS OR BUILDINGS, WHETHER EXECUTED PARTY OR IN WHOLE, WITHOUT THE WRITTEN CONSENT OF ARCHITECT OR AUTHOR OF SAID DOCUMENT.

PROJECT:
**PROPOSED
ACADEMIC BUILDING II /
MULTI-PURPOSE GYMNASIUM**
LOCATION: Brgy. Rizal, Odiongan, Romblon

DESIGNED FOR:

REPUBLIC OF THE PHILIPPINES
PHILIPPINE SCIENCE HIGH SCHOOL -
MIMAROPA REGIONAL CAMPUS

RECOMMENDING APPROVAL:
MERIAM F. FALLAR
FAD CHIEF

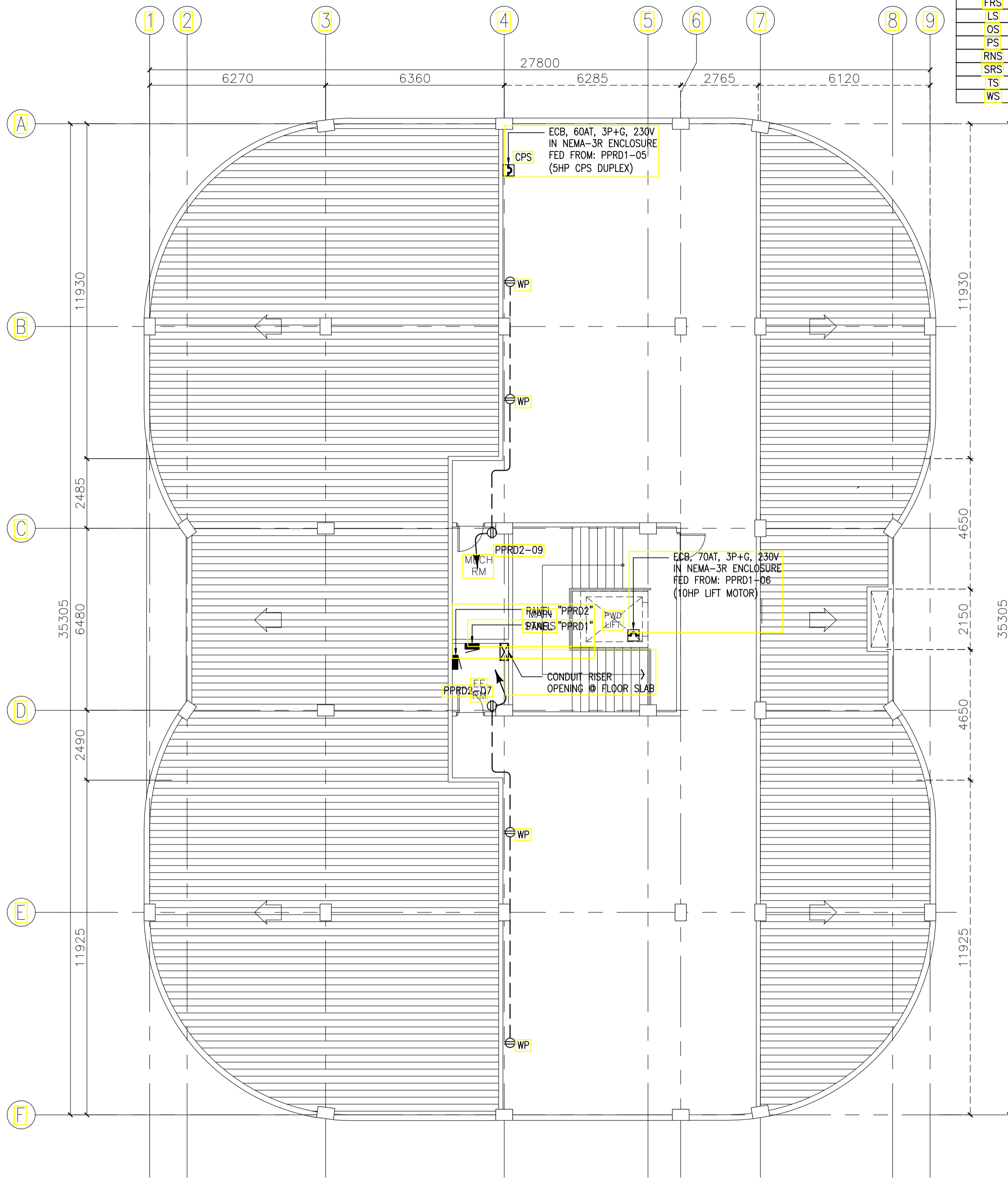
APPROVED BY:
EDWARD C. ALBARACIN
CAMPUS DIRECTOR

SHEET CONTENTS:
BASEMENT POWER LAYOUT
GROUND FLOOR POWER LAYOUT

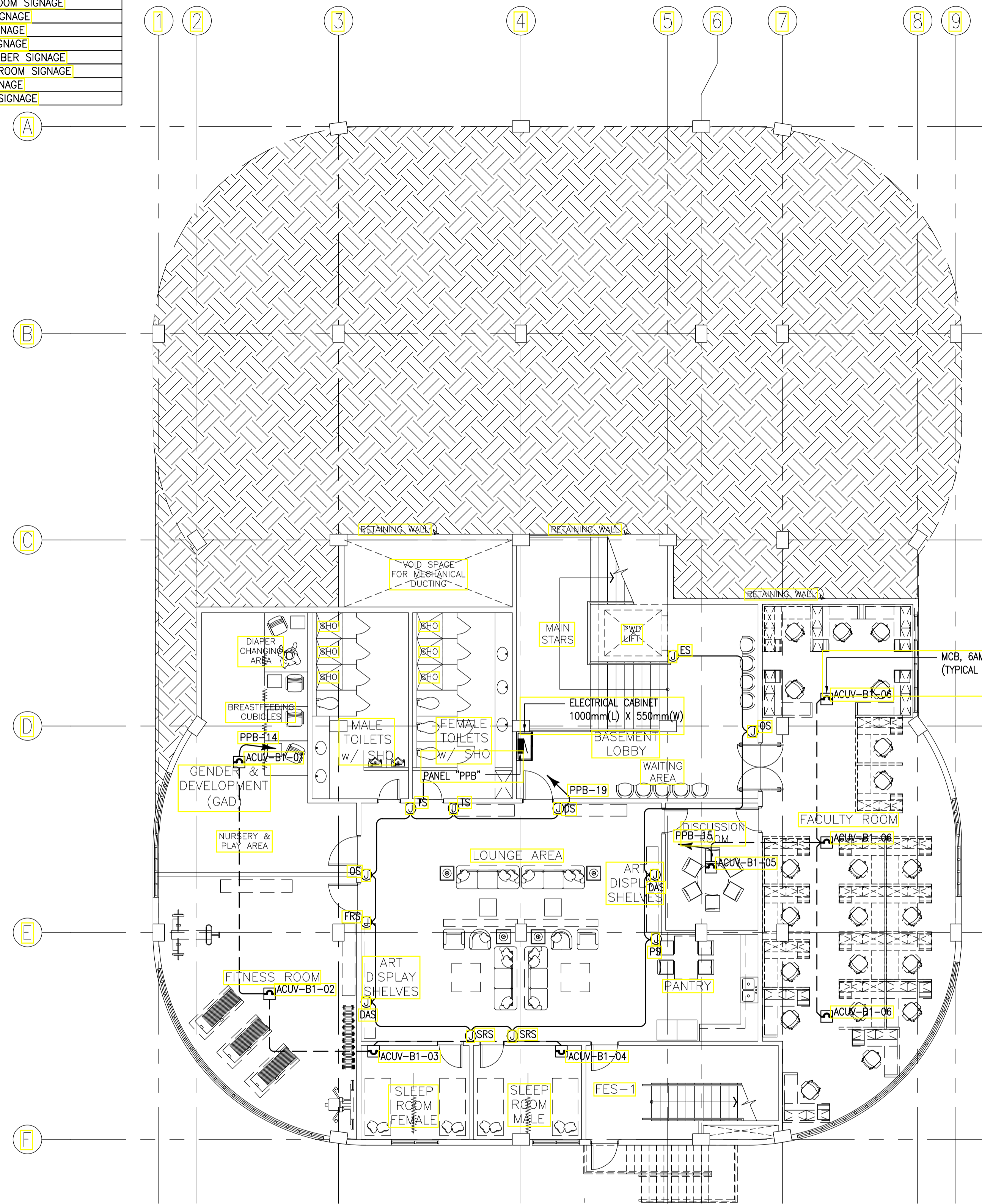
SHEET NO:
**E
7 17**

GENERAL NOTES: FOR REFERENCE ONLY, EXCLUDED IN PHASE 1

LOCATIONAL/DIRECTIONAL SIGNAGES ABBREVIATION	
CRS	CONFERENCE ROOM SIGNAGE
DAS	DISPLAY AREA SIGNAGE
DS	DIRECTIONAL SIGNAGE
ES	ELEVATOR/LIFT SIGNAGE
FRS	FITNESS ROOM SIGNAGE
LS	LIBRARY SIGNAGE
OS	OFFICE SIGNAGE
PS	PANTRY SIGNAGE
RNS	ROOM NUMBER SIGNAGE
SRS	SLEEPING ROOM SIGNAGE
TS	TOILET SIGNAGE
WS	WELCOME SIGNAGE



1 ACADEMIC BUILDING II
ROOF DECK POWER LAYOUT
SCALE: 1:100MTRS



2 ACADEMIC BUILDING II
BASEMENT MECHANICAL EQUIPMENT & SIGNAGES POWER LAYOUT
SCALE: 1:100MTRS

ENRIQUE O. OLONAN & ASSOCIATES
ARCHITECTS ENGINEERS CONSULTANTS

IN JOINT VENTURE WITH

ENRIQUE O. OLONAN & ASSOCIATES, CO.
ARCHITECTS ENGINEERS CONSULTANTS

SUITE 305
XAVIERVILLE SQUARE
CONDOMINIUM
NO. 38 XAVIERVILLE
AVENUE, LONGBECK HEIGHTS,
QUEZON CITY, 1108
TEL NOS: 426 7009;
426 9004;
FAX NOS: 927 0608;
426 7214

DESIGNER:

MANUEL V. PANIS
PROFESSIONAL ELECTRICAL ENGINEER

PRC No. 1210 Validity: 10/13/2023
PTR No. 7731829 Date: 01/04/2021
Place: ANTIPOLLO CITY TIN: 132-466-222

REPUBLIC ACT 9266

DRAWINGS AND SPECIFICATIONS AND OTHER CONTRACT DOCUMENTS DULY SIGNED, STAMPED OR SEALED, AS INSTRUMENTS OF SERVICE, ARE THE INTELLECTUAL PROPERTY AND DOCUMENT OF THE ARCHITECT. WHETHER THE OBJECT FOR WHICH THEY ARE MADE IS EXECUTED OR NOT, IT SHALL BE UNLAWFUL FOR ANY PERSON TO DUPLICATE OR TO MAKE COPIES OF SAID DOCUMENTS FOR USE IN THE REPRODUCTION OF AND FOR OTHER PROJECTS OR BUILDINGS, WHETHER EXECUTED PARTY OR IN WHOLE, WITHOUT THE WRITTEN CONSENT OF ARCHITECT OR AUTHOR OF SAID DOCUMENT.

PROJECT:

**PROPOSED
ACADEMIC BUILDING II /
MULTI-PURPOSE GYMNASIUM**

LOCATION: Brgy. Rizal, Odiongan, Romblon

DESIGNED FOR:

REPUBLIC OF THE PHILIPPINES
PHILIPPINE SCIENCE HIGH SCHOOL -
MIMAROPA REGIONAL CAMPUS

RECOMMENDING APPROVAL:

MERIAM F. FALLAR
FAD CHIEF

APPROVED BY:

EDWARD C. ALBARACIN
CAMPUS DIRECTOR

SHEET CONTENTS:

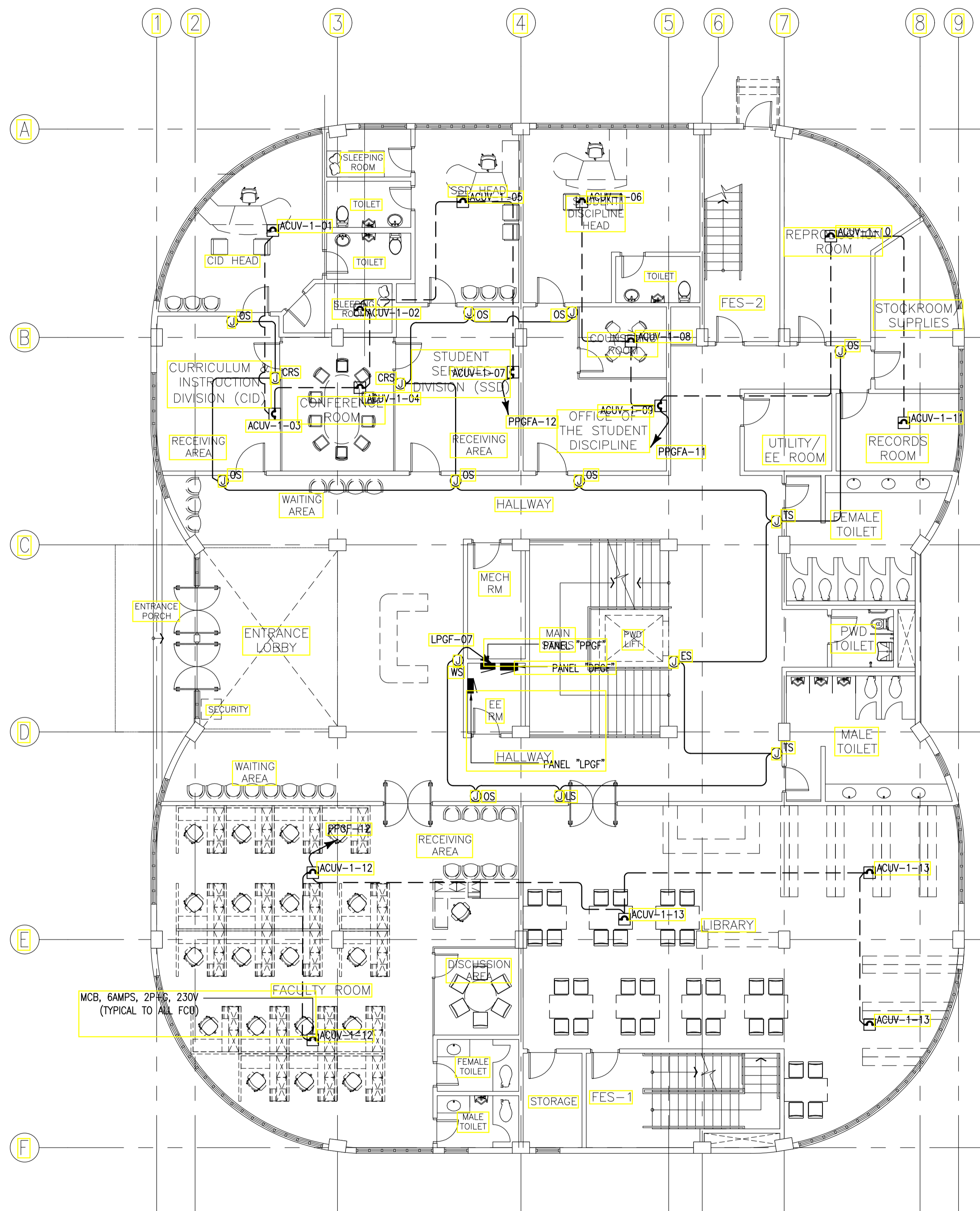
ROOF DECK POWER LAYOUT
BASEMENT MECHANICAL EQUIPMENT
POWER LAYOUT

SHEET NO:

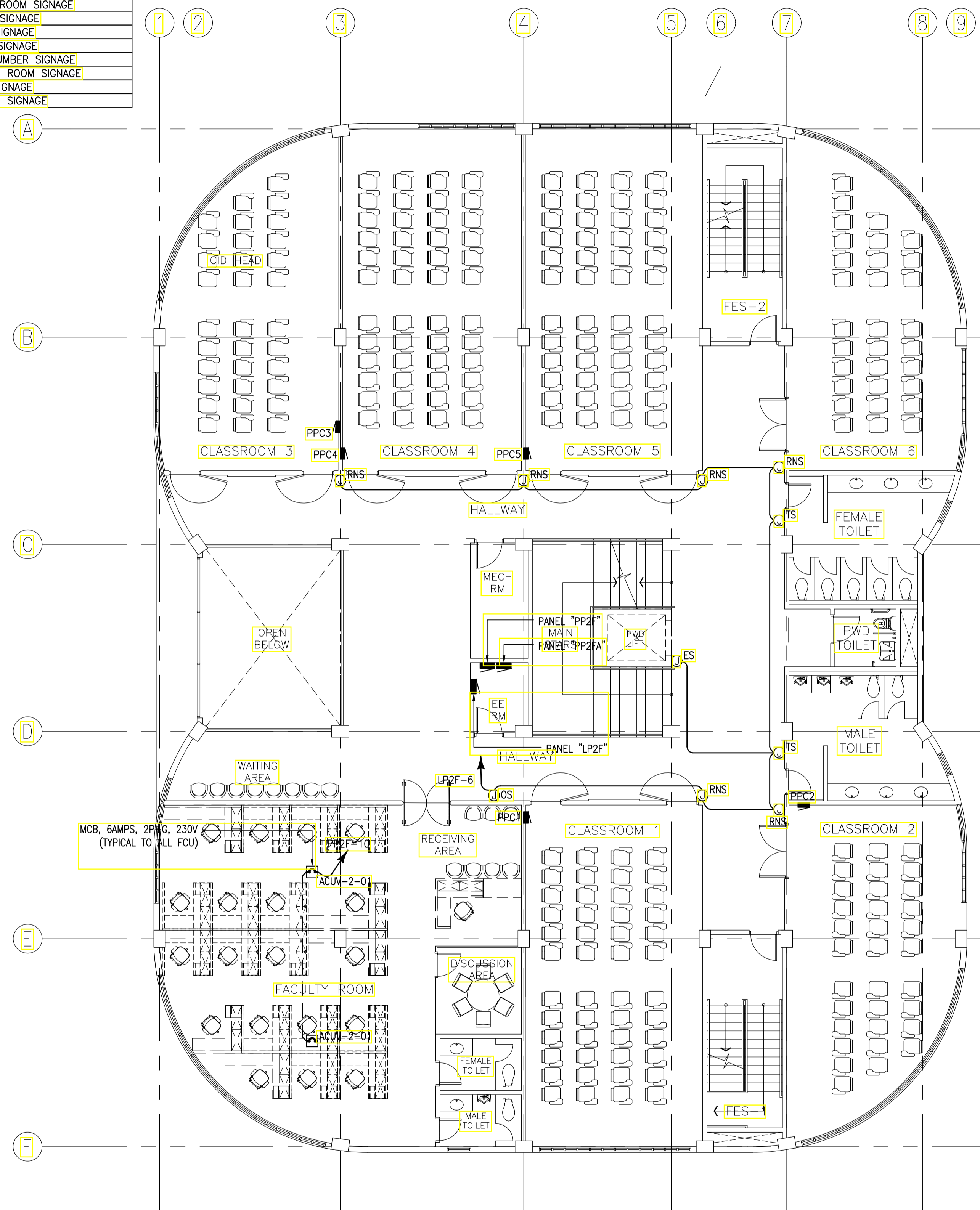
E
9 17

GENERAL NOTES: FOR REFERENCE ONLY, EXCLUDED IN PHASE 1

LOCATIONAL/DIRECTIONAL SIGNAGES ABBREVIATION	
CRS	CONFERENCE ROOM SIGNAGE
DAS	DISPLAY AREA SIGNAGE
DS	DIRECTIONAL SIGNAGE
ES	ELEVATOR/LIFT SIGNAGE
FRS	FITNESS ROOM SIGNAGE
LS	LIBRARY SIGNAGE
OS	OFFICE SIGNAGE
PS	PANTRY SIGNAGE
RNS	ROOM NUMBER SIGNAGE
SRS	SLEEPING ROOM SIGNAGE
TS	TOILET SIGNAGE
WS	WELCOME SIGNAGE



1 ACADEMIC BUILDING II
GROUND FLOOR MECHANICAL EQUIPMENT AND SIGNAGES POWER LAYOUT
SCALE: E-10 1:100MTRS



2 ACADEMIC BUILDING II
SECOND FLOOR MECHANICAL EQUIPMENT AND SIGNAGES POWER LAYOUT
SCALE: E-10 1:100MTRS

ENRIQUE O. OLONAN & ASSOCIATES
ARCHITECTS ENGINEERS CONSULTANTS
IN JOINT VENTURE WITH
ENRIQUE O. OLONAN & ASSOCIATES, CO.
ARCHITECTS ENGINEERS CONSULTANTS

DESIGNER:
MANUEL V. PANIS
PROFESSIONAL ELECTRICAL ENGINEER
PRC No. 1210 Validity: 10/13/2023
PTR No. 7731829 Date: 01/04/2021
Place: ANTIPOLO CITY TIN: 132-466-222

REPUBLIC ACT 9266
DRAWINGS AND SPECIFICATIONS AND OTHER CONTRACT DOCUMENTS DULY SIGNED, STAMPED OR SEALED, AS INSTRUMENTS OF SERVICE, ARE THE INTELLECTUAL PROPERTY AND DOCUMENT OF THE ARCHITECT. WHETHER THE OBJECT FOR WHICH THEY ARE MADE IS EXECUTED OR NOT, IT SHALL BE UNLAWFUL FOR ANY PERSON TO DUPLICATE OR TO MAKE COPIES OF SAID DOCUMENTS FOR USE IN THE REPRODUCTION OF AND FOR OTHER PROJECTS OR BUILDINGS, WHETHER EXECUTED PARTY OR IN WHOLE, WITHOUT THE WRITTEN CONSENT OF ARCHITECT OR AUTHOR OF SAID DOCUMENT.

PROJECT:
PROPOSED ACADEMIC BUILDING II / MULTI-PURPOSE GYMNASIUM
LOCATION: Brgy. Rizal, Odiangan, Romblon

DESIGNED FOR:

REPUBLIC OF THE PHILIPPINES
PHILIPPINE SCIENCE HIGH SCHOOL - MIMAROPA REGIONAL CAMPUS

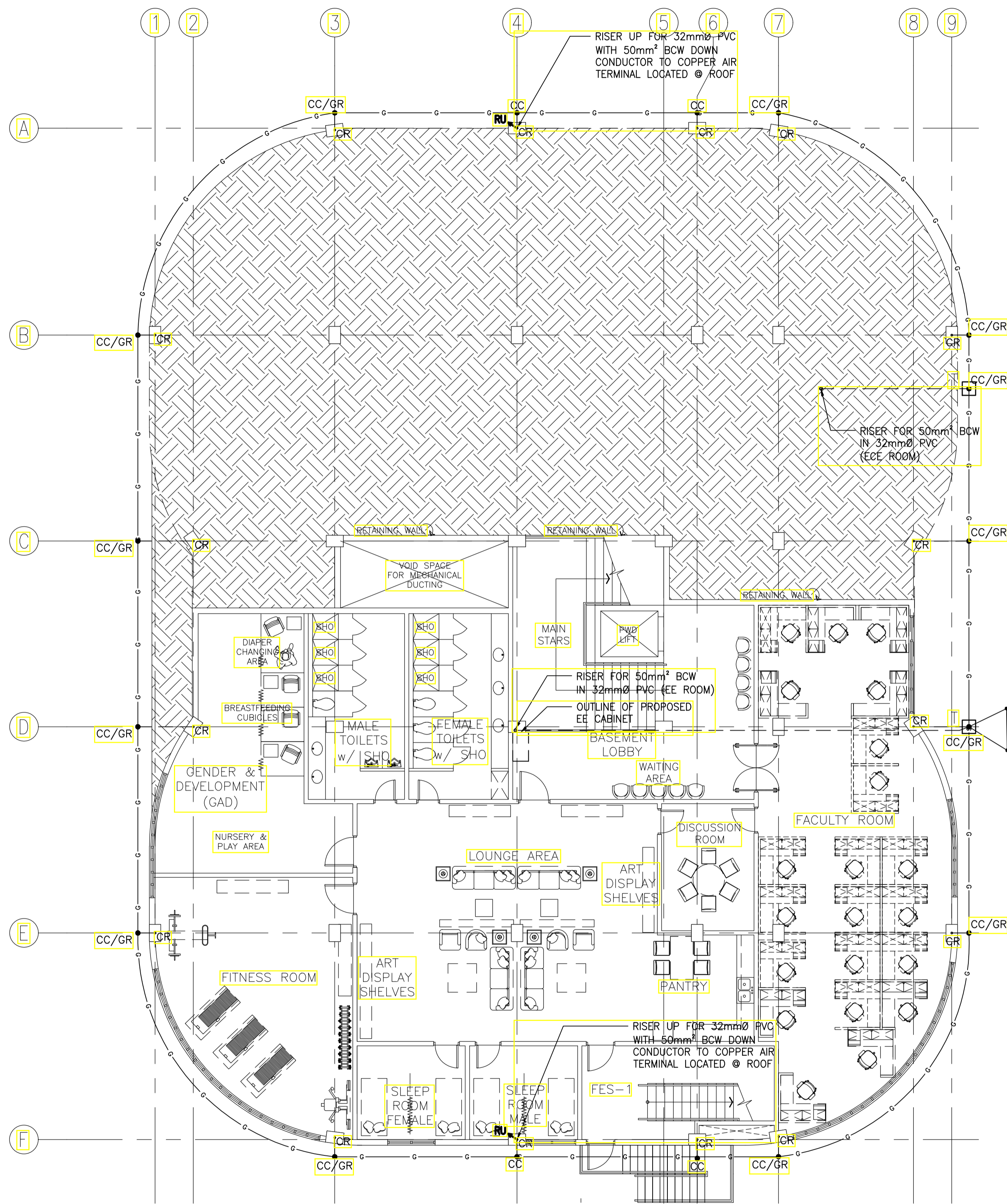
RECOMMENDING APPROVAL:
MERIAM F. FALLAR
FAD CHIEF

APPROVED BY:
EDWARD C. ALBARACIN
CAMPUS DIRECTOR

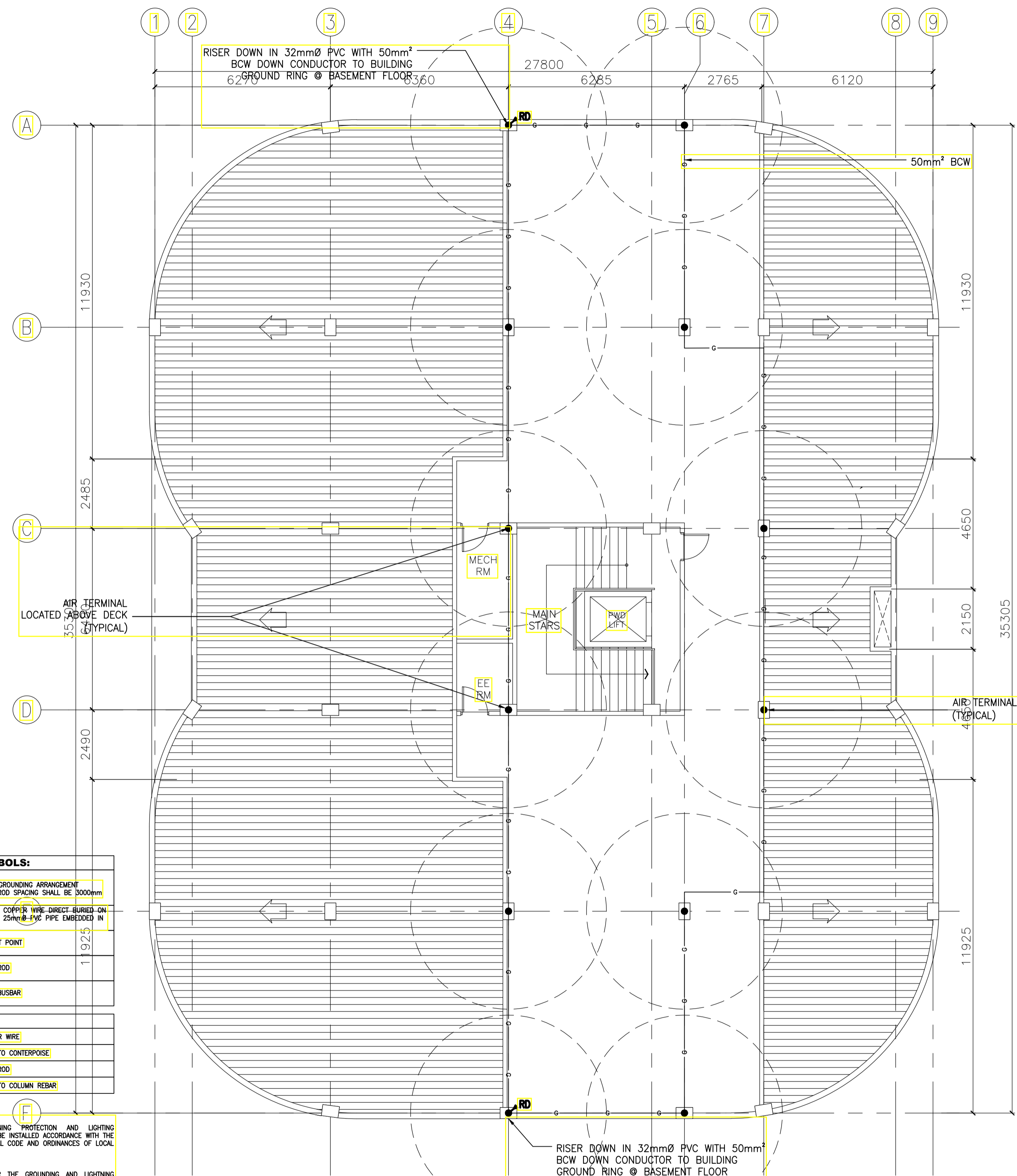
SHEET CONTENTS:
GROUND FLOOR MECHANICAL EQUIPMENT POWER LAYOUT
SECOND FLOOR MECHANICAL EQUIPMENT POWER LAYOUT

SHEET NO:
E 10 17

GENERAL NOTES: FOR REFERENCE ONLY, EXCLUDED IN PHASE 1



1 ACADEMIC BUILDING II
BASEMENT GROUNDING SYSTEM LAYOUT
SCALE: 1:100MTRS



2 ACADEMIC BUILDING II
ROOF DECK LIGHTNING PROTECTION LAYOUT
SCALE: 1:100MTRS

LEGEND AND SYMBOLS:

- ▲ TRIANGULAR GROUNDING ARRANGEMENT GROUNDING ROD SPACING SHALL BE 3000mm
- 50mm² BARE COPPER WIRE DIRECT BURIED ON EARTH OR IN 25mmØ PVC PIPE EMBEDDED IN CONCRETE
- ⊥ GROUND TEST POINT
- ⬇ GROUNDING ROD
- GROUNDING BUSBAR

ABBREVIATION:

- BCW BARE COPPER WIRE
- CC CONNECTED TO CENTERPOISE
- GR GROUNDING ROD
- CR CONNECTED TO COLUMN REBAR

NOTES:

- GROUNDING AND LIGHTNING PROTECTION AND LIGHTING PROTECTION SYSTEM SHALL BE INSTALLED ACCORDANCE WITH THE LATEST PHILIPPINE ELECTRICAL CODE AND ORDINANCES OF LOCAL AUTHORITIES.
- OVER-ALL IMPEDANCE FOR THE GROUNDING AND LIGHTNING PROTECTION NETWORK SHALL BE LESS THAN 1 OHM.
- MINIMUM COPPER GROUND BAR SIZE SHALL BE 300mm(L) x 100mm(H) x 7mm(T) AND SHALL BE COMPLETE WITH WALL MOUNTED INSULATOR SPACER.
- ALL ELECTRICAL EQUIPMENT/ DEVICES SUCH AS TRANSFORMERS, GENSETS, SWITCHGERS, ETC. WITH PROTRUDING METAL SHALL BE EFFECTIVELY BONDED TO THE GROUND.
- DOWN CONDUCTOR FOR LIGHTNING ARRESTER SHALL BE CONTINUOUS. USE EXOTHERMIC WELD FOR ALL WIRE CONNECTIONS.

ENRIQUE O. OLONAN & ASSOCIATES
ARCHITECTS ENGINEERS CONSULTANTS
IN JOINT VENTURE WITH
ENRIQUE O. OLONAN & ASSOCIATES, CO.
ARCHITECTS ENGINEERS CONSULTANTS

DESIGNER:
MANUEL V. PANIS
PROFESSIONAL ELECTRICAL ENGINEER
PRC No. 1210 Validity: 10/13/2023
PTR No. 7731829 Date: 01/04/2021
Place: ANTIPOLLO CITY TIN: 132-466-222

REPUBLIC ACT 9266
DRAWINGS AND SPECIFICATIONS AND OTHER CONTRACT DOCUMENTS DULY SIGNED, STAMPED OR SEALED, AS INSTRUMENTS OF SERVICE, ARE THE INTELLECTUAL PROPERTY AND DOCUMENT OF THE ARCHITECT. WHETHER THE OBJECT FOR WHICH THEY ARE MADE IS EXECUTED OR NOT, IT SHALL BE UNLAWFUL FOR ANY PERSON TO DUPLICATE OR TO MAKE COPIES OF SAID DOCUMENTS FOR USE IN THE REPRODUCTION OF AND FOR OTHER PROJECTS OR BUILDINGS, WHETHER EXECUTED PARTY OR IN WHOLE, WITHOUT THE WRITTEN CONSENT OF ARCHITECT OR AUTHOR OF SAID DOCUMENT.

PROJECT:
PROPOSED ACADEMIC BUILDING II / MULTI-PURPOSE GYMNASIUM
LOCATION: Brgy. Rizal, Odiongan, Romblon

DESIGNED FOR:

REPUBLIC OF THE PHILIPPINES
PHILIPPINE SCIENCE HIGH SCHOOL - MIMAROPA REGIONAL CAMPUS

RECOMMENDING APPROVAL:
MERIAM F. FALLAR
FAD CHIEF

APPROVED BY:
EDWARD C. ALBARACIN
CAMPUS DIRECTOR

SHEET CONTENTS:
BASEMENT GROUNDING SYSTEM LAYOUT
ROOF DECK LIGHTNING PROTECTION LAYOUT

SHEET NO:
E
12 17

GENERAL NOTES: FOR REFERENCE ONLY, EXCLUDED IN PHASE 1

PANEL NAME: DPGF FED FROM: MDP SYSTEM: 230Vac, 3Ø, 3w, 60Hz				LOCATION: EE ROOM -GF MOUNTING: WALL MOUNTED ENCLOSURE: NEMA-1				REMARKS															
CKT NO.	DESCRIPTION	CONN. LOAD	VOLT	AMPERE LOAD				CIRCUIT BREAKER				CABLE SIZE				CONDUIT				REMARKS			
				3Ø	ØAB	ØCA	ØBC	AT	AF	POLE	KAIC	TYPE	PHASE & NEUTRAL		GROUND	SIZE	TYPE						
1	PPRD1	86,488	230	217.11	0.00	0.00	0.00	225	250	3	22	MCCB	3-125mm2 THWN	1-22mm2 TW	65	IMC							
2	SPARE		230					225	250	3	22	MCCB											
3	PPRD2	22,302	230	50.21	3.84	3.83	2.35	70	100	3	22	MCCB	3-22mm2 THWN	1-8.0mm2 TW	32	IMC							
4	PP3FA	7,392	230	0.00	10.71	10.71	10.71	50	100	3	22	MCCB	3-14mm2 THWN	1-5.5mm2 TW	32	IMC							
5	PP3F	8,446	230	0.00	11.22	14.29	11.22	50	100	3	22	MCCB	3-14mm2 THWN	1-5.5mm2 TW	32	IMC							
6	PP2FA	7,392	230	0.00	10.71	10.71	10.71	50	100	3	22	MCCB	3-14mm2 THWN	1-5.5mm2 TW	32	IMC							
7	PP2F	13,253	230	0.00	18.78	19.27	19.57	50	100	3	22	MCCB	3-14mm2 THWN	1-8.0mm2 TW	32	IMC							
8	PPGFA	12,312	230	0.00	18.00	17.48	18.05	50	100	3	22	MCCB	3-14mm2 THWN	1-8.0mm2 TW	32	IMC							
9	PPGF	14,582	230	0.00	20.35	24.00	19.05	50	100	3	22	MCCB	3-14mm2 THWN	1-8.0mm2 TW	32	IMC							
10	PPB	17,960	230	0.00	27.68	25.83	24.57	70	100	3	22	MCCB	3-14mm2 THWN	1-5.5mm2 TW	32	IMC							
11	LPGF	3,385	230	0.00	6.01	7.52	5.57	40	100	3	22	MCCB	3-8.0mm2 THWN	1-5.5mm2 TW	25	IMC							
12	LP2F	2,754	230	0.00	5.78	4.49	1.71	40	100	3	22	MCCB	3-8.0mm2 THWN	1-5.5mm2 TW	25	IMC							
13	SPARE		230					60	100	3	18	MCCB											
14	SPARE		230					40	100	3	18	MCCB											
TOTAL				196,266	230	267	133.08	138.13	123.51	300	400	3	22	MCCB	2 SETS OF 3-60mm2 THWN	1-14mm2 TW	2x50	IMC					
DEMAND FACTOR				0.60	MAIN CB: 300 AT 400 AF 3 POLE				230 V														
DEMAND LOAD				117,760	MAIN FEEDER: PHASE & NEUTRAL: 2 SETS OF 3-60mm2 THWN																		
TOTAL CURRENT				296	GROUND: 1-14mm2 TW																		
					CONDUIT: 2x50 mmØ IMC																		

PANEL NAME: PPB FED FROM: DPGF SYSTEM: 230Vac, 3Ø, 3w, 60Hz				LOCATION: EE ROOM MOUNTING: WALL MOUNTED ENCLOSURE: NEMA-1				REMARKS															
CKT NO.	DESCRIPTION	CONN. LOAD	VOLT	AMPERE LOAD				CIRCUIT BREAKER				CABLE SIZE				CONDUIT				REMARKS			
				3Ø	ØAB	ØCA	ØBC	AT	AF	POLE	KAIC	TYPE	PHASE & NEUTRAL		GROUND	SIZE	TYPE						
1	CONVENIENCE OUTLET	720	0.80	576	230	3.13		20	100	2	18	MCCB	2-3.5mm2 THWN	1-3.5mm2 TW	20	PVC							
2	CONVENIENCE OUTLET	1,260	0.80	1,008	230	5.48		20	100	2	18	MCCB	2-3.5mm2 THWN	1-3.5mm2 TW	20	PVC							
3	CONVENIENCE OUTLET	1,620	0.80	1,296	230	7.04		20	100	2	18	MCCB	2-3.5mm2 THWN	1-3.5mm2 TW	20	PVC							
4	CONVENIENCE OUTLET	900	0.80	720	230	3.91		20	100	2	18	MCCB	2-3.5mm2 THWN	1-3.5mm2 TW	20	PVC							
5	CONVENIENCE OUTLET	540	0.80	432	230	2.35		20	100	2	18	MCCB	2-3.5mm2 THWN	1-3.5mm2 TW	20	PVC							
6	CONVENIENCE OUTLET	1,080	0.80	864	230	4.70		20	100	2	18	MCCB	2-3.5mm2 THWN	1-3.5mm2 TW	20	PVC							
7	CONVENIENCE OUTLET	1,440	0.80	1,152	230	6.26		20	100	2	18	MCCB	2-3.5mm2 THWN	1-3.5mm2 TW	20	PVC							
8	HAND DRYER	1,500	0.60	900	230	6.52		20	100	2	18	MCCB	2-3.5mm2 THWN	1-3.5mm2 TW	20	PVC							
9	HAND DRYER	1,500	0.60	900	230	6.52		20	100	2	18	MCCB	2-3.5mm2 THWN	1-3.5mm2 TW	20	PVC							
10	REF	500	0.80	400	230	2.17		20	100	2	18	MCCB	2-3.5mm2 THWN	1-3.5mm2 TW	20	PVC							
11	MICROWAVE	1,500	0.80	1,200	230	6.52		20	100	2	18	MCCB	2-3.5mm2 THWN	1-3.5mm2 TW	20	PVC							
12	LIGHTING	346	0.90	311	230	1.50		20	100	2	18	MCCB	2-3.5mm2 THWN	1-3.5mm2 TW	15	EMT/IMC							
13	LIGHTING+TEF-B1-01	724	0.90	651	230	3.15		20	100	2	18	MCCB	2-3.5mm2 THWN	1-3.5mm2 TW	15	EMT/IMC							
14	ACUV-B1-01 TO 04	424	1.00	424	230	1.84		20	100	2	18	MCCB	2-3.5mm2 THWN	1-3.5mm2 TW	15	EMT/IMC							
15	ACUV-B1-01 TO 04	341	1.00	341	230	1.48		20	100	2	18	MCCB	2-3.5mm2 THWN	1-3.5mm2 TW	15	EMT/IMC							
16	CONVENIENCE OUTLET	540	0.80	432	230	2.35		20	100	2	18	MCCB	2-3.5mm2 THWN	1-3.5mm2 TW	20	PVC							
17	ESP	1,840	0.80	1,472	230	8.00		20	100	2	18	MCCB	2-3.5mm2 THWN	1-3.5mm2 TW	15	EMT/IMC							
18	LIGHTING	346	0.90	311	230	1.50		20	100	2	18	MCCB	2-3.5mm2 THWN	1-3.5mm2 TW	15	EMT/IMC							
19	ELECTRONIC SIGNAGES	300	0.90	270	230	1.30		20	100	2	18	MCCB	2-3.5mm2 THWN	1-3.5mm2 TW	15	EMT/IMC							
20	SPARE		230			0.00		20	100	2	18	MCCB											
21	CONVENIENCE OUTLET	540	0.80	432	230	2.35		20	100	2	18	MCCB	2-3.5mm2 THWN	1-3.5mm2 TW	20	PVC							
22	SPARE		230			0.00		20	100	2	18	MCCB											
23	SPARE		230			0.00		20	100	2	18	MCCB											
24	SPARE		230			0.00		20	100	2	18	MCCB											
TOTAL				17,960	0.78	14,093	230	27.68	25.83	24.57	70	100	3	22	MCCB	3-14mm2 THWN	1-5.5mm2 TW	32	IMC				
DEMAND FACTOR				0.78	MAIN CB: 70 AT 100 AF 3 POLE				230 V														
DEMAND LOAD				14,093	MAIN FEEDER: PHASE & NEUTRAL: 3-14mm2 THWN																		
TOTAL CURRENT				48	GROUND: 1-5.5mm2 TW																		
					CONDUIT: 32 mmØ IMC																		

PANEL NAME: PPRD1 FED FROM: DPGF SYSTEM: 230Vac, 3Ø, 3w, 60Hz				LOCATION: EE ROOM MOUNTING: WALL MOUNTED ENCLOSURE: NEMA-1				REMARKS															
CKT NO.	DESCRIPTION	CONN. LOAD	VOLT	AMPERE LOAD				CIRCUIT BREAKER				CABLE SIZE				CONDUIT				REMARKS			
				3Ø	ØAB	ØCA	ØBC	AT	AF	POLE	KAIC	TYPE	PHASE & NEUTRAL		GROUND	SIZE	TYPE						
1	ACUV-R-01	19,718	0.80	15,774	230	49.50		125	150	3	18	MCCB	3-14mm2 THWN	1-8.0mm2 TW	25	IMC							
2	ACUV-R-02	19,718	0.80	15,774	230	49.50		125	150	3	18	MCCB	3-14mm2 THWN	1-8.0mm2 TW	25	IMC							
3	ACUV-R-03	14,482	0.80	11,586	230	36.35		100	100	3	18	MCCB	3-8.0mm2 THWN	1-5.5mm2 TW	25	IMC							
4	ACUV-R-04	9,306	0.80	7,445	230	23.36		60	100	3	18	MCCB	3-5.5mm2 THWN	1-5.5mm2 TW	20	IMC							
5	SHIP CPS DUPLEX TYPE	12,110	0.80	9,688	230	30.40		60	100	3	18	MCCB	3-8.0mm2 THWN	1-5.5mm2 TW	25	IMC							
6	IQHP LIFT MOTOR	11,154	0.80	8,923	230	28.00		70	100	3	18	MCCB	3-8.0mm2 THWN	1-8.0mm2 TW	32	IMC							
7	SPARE		230					100	100	3	18	MCCB											
8	SPARE		230					60	100	3	18	MCCB											
TOTAL				86,488	0.80	69,190	230	217.11		225	250	3	22	MCCB	3-125mm2 THWN	1-22mm2 TW	65	IMC					
DEMAND FACTOR				0.80	MAIN CB: 225 AT 250 AF 3 POLE				230 V														
DEMAND LOAD				69,190	MAIN FEEDER: PHASE & NEUTRAL: 3-125mm2 THWN																		
TOTAL CURRENT				217	GROUND: 1-22mm2 TW																		
					CONDUIT: 65 mmØ IMC																		

PANEL NAME: PPGF FED FROM: DPGF SYSTEM: 230Vac, 3Ø, 3w, 60Hz				LOCATION: EE ROOM MOUNTING: WALL MOUNTED ENCLOSURE: NEMA-1				REMARKS															
CKT NO.	DESCRIPTION	CONN. LOAD	VOLT	AMPERE LOAD				CIRCUIT BREAKER				CABLE SIZE				CONDUIT				REMARKS			
				3Ø	ØAB	ØCA	ØBC	AT	AF	POLE	KAIC	TYPE	PHASE & NEUTRAL		GROUND	SIZE	TYPE						
1	CONVENIENCE OUTLET	1,260	0.80	1,008	230	5.48		20	100	2	18	MCCB	2-3.5mm2 THWN	1-3.5mm2 TW	20	PVC							
2	CONVENIENCE OUTLET	1,440	0.80	1,152	230	6.26		20	100	2	18	MCCB	2-3.5mm2 THWN	1-3.5mm2 TW	20	PVC							
3	CONVENIENCE OUTLET	1,080	0.80	864	230	4.70		20	100	2	18	MCCB	2-3.5mm2 THWN	1-3.5mm2 TW	20	PVC							
4	CONVENIENCE OUTLET	1,440	0.80	1,152	230	6.26		20	100	2	18	MCCB	2-3.5mm2 THWN	1-3.5mm2 TW	20	PVC							
5	HAND DRYER	1,000	0.60	600	230	4.35		20	100	2	18	MCCB	2-3.5mm2 THWN	1-3.5mm2 TW	20	PVC							
6	HAND DRYER	1,000	0.60	600	230	4.35		20	100	2	18	MCCB	2-3.5mm2 THWN	1-3.5mm2 TW	20	PVC							
7	CONVENIENCE OUTLET	1,440	0.80	1,152	230	6.26		20	100	2	18	MCCB	2-3.5mm2 THWN	1-3.5mm2 TW	20	PVC							
8	CONVENIENCE OUTLET	540	0.80	432	230	2.35		20	100	2	18	MCCB	2-3.5mm2 THWN	1-3.5mm2 TW	20	PVC							
9	HAND DRYER	1,500	0.60	900	230	6.52		20	100	2	18	MCCB	2-3.5mm2 THWN	1-3.5mm2 TW	20	PVC							
10	HAND DRYER	1,500	0.60	900	230	6.52		20	100	2	18	MCCB	2-3.5mm2 THWN	1-3.5mm2 TW	20	PVC							
11	HAND DRYER	1,500	0.60	900	230	6.52		20	100	2	18	MCCB	2-3.5mm2 THWN	1-3.5mm2 TW	20	PVC							
12	ACUV-1-12 & 13	882	0.80	706	230	3.84		20	100	2	18	MCCB	2-3.5mm2 THWN	1-3.5mm2 TW	15	EMT/IMC							
13	SPARE		230			0.00		20	100	2	18	MCCB											
14	SPARE		230			0.00		20	100	2	18	MCCB											
15	SPARE		230			0.00		20	100	2	18	MCCB											
16	SPARE		230			0.00		20	100	2	18	MCCB	</										

GENERAL NOTES: FOR REFERENCE ONLY, EXCLUDED IN PHASE 1

PANEL NAME: LPGA FED FROM: DPGF SYSTEM: 230Vac, 3Ø, 3w, 60Hz				LOCATION: EE ROOM - GF MOUNTING: WALL MOUNTED ENCLOSURE: NEMA-1																	
CKT NO.	DESCRIPTION	CONN. LOAD	DEMAND FACTOR	DEMAND LOAD	VOLT	AMPERE LOAD				CIRCUIT BREAKER				CABLE SIZE		CONDUIT		REMARKS			
						Ø3Ø	ØAB	ØCA	ØBC	AT	AF	POLE	KAIC	TYPE	PHASE & NEUTRAL	GROUND	SIZE		TYPE		
1	FIRE EXIT LIGHTING	544	0.90	490	230	2.37				20	100	2	18	MCCB	2 - 3.5mm2 THWN	1 - 3.5mm2 TW	20	PVC			
2	FIRE EXIT LIGHTING	464	0.90	418	230	2.02				20	100	2	18	MCCB	2 - 3.5mm2 THWN	1 - 3.5mm2 TW	20	PVC			
3	LIGHTING	793	0.90	714	230		3.45			20	100	2	18	MCCB	2 - 3.5mm2 THWN	1 - 3.5mm2 TW	15	EMT/IMC			
4	LIGHTING	937	0.90	843	230		4.07			20	100	2	18	MCCB	2 - 3.5mm2 THWN	1 - 3.5mm2 TW	15	EMT/IMC			
5	LIGHTING	568	0.90	511	230			2.47		20	100	2	18	MCCB	2 - 3.5mm2 THWN	1 - 3.5mm2 TW	15	EMT/IMC			
6	STAIRCASE LIGHTING	712	0.90	641	230			3.10		20	100	2	18	MCCB	2 - 3.5mm2 THWN	1 - 3.5mm2 TW	20	PVC			
7	ELECTRONIC SIGNAGES	375	0.90	338	230	1.63				20	100	2	18	MCCB	2 - 3.5mm2 THWN	1 - 3.5mm2 TW	15	EMT/IMC			
8	SPARE				230	0.00				20	100	2	18	MCCB							
9	SPARE				230		0.00			20	100	2	18	MCCB							
10	SPARE				230		0.00			20	100	2	18	MCCB							
11	SPARE				230			0.00		20	100	2	18	MCCB							
12	SPARE				230			0.00		20	100	2	18	MCCB							
TOTAL						3,385	0.90	3,047	230	6.01	7.52	5.57	40	100	3	22	MCCB	3 - 8.0 mm2 THWN	1 - 5.5 mm2 TW	25	IMC
DEMAND FACTOR		0.90		MAIN CB: 40 AT 100 AF 3 POLE		230 V															
DEMAND LOAD		3,047		MAIN FEEDER: PHASE & NEUTRAL: 3 - 8.0 mm2 THWN																	
TOTAL CURRENT		13		GROUND: 1 - 5.5 mm2 TW																	
				CONDUIT: 25 mmØ IMC																	

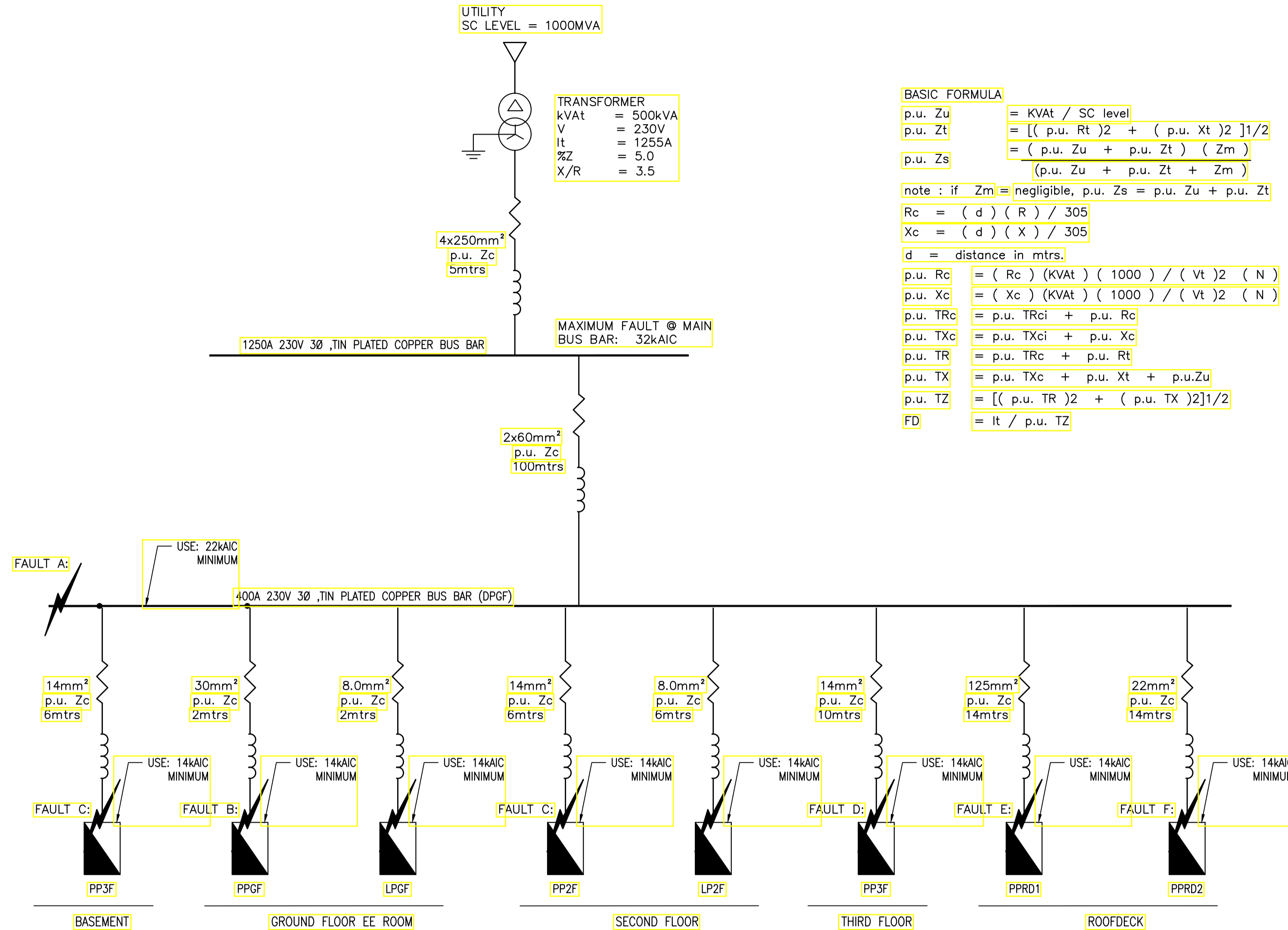
PANEL NAME: LP2F FED FROM: DPGF SYSTEM: 230Vac, 3Ø, 3w, 60Hz				LOCATION: EE ROOM - 2F MOUNTING: WALL MOUNTED ENCLOSURE: NEMA-1																	
CKT NO.	DESCRIPTION	CONN. LOAD	DEMAND FACTOR	DEMAND LOAD	VOLT	AMPERE LOAD				CIRCUIT BREAKER				CABLE SIZE		CONDUIT		REMARKS			
						Ø3Ø	ØAB	ØCA	ØBC	AT	AF	POLE	KAIC	TYPE	PHASE & NEUTRAL	GROUND	SIZE		TYPE		
1	LIGHTING-2F	793	0.90	714	230	3.45				20	100	2	18	MCCB	2 - 3.5mm2 THWN	1 - 3.5mm2 TW	15	EMT/IMC			
2	LIGHTING-2F	260	0.90	234	230	1.13				20	100	2	18	MCCB	2 - 3.5mm2 THWN	1 - 3.5mm2 TW	15	EMT/IMC			
3	LIGHTING-3F	625	0.90	562	230		2.72			20	100	2	18	MCCB	2 - 3.5mm2 THWN	1 - 3.5mm2 TW	15	EMT/IMC			
4	LIGHTING	407	0.90	367	230		1.77			20	100	2	18	MCCB	2 - 3.5mm2 THWN	1 - 3.5mm2 TW	15	EMT/IMC			
5	LIGHTING	144	0.90	130	230			0.63		20	100	2	18	MCCB	2 - 3.5mm2 THWN	1 - 3.5mm2 TW	15	EMT/IMC			
6	ELECTRONIC SIGNAGES	250	0.90	225	230			1.09		20	100	2	18	MCCB	2 - 3.5mm2 THWN	1 - 3.5mm2 TW	15	EMT/IMC			
7	ELECTRONIC SIGNAGES	275	0.90	248	230	1.20				20	100	2	18	MCCB	2 - 3.5mm2 THWN	1 - 3.5mm2 TW	15	EMT/IMC			
8	SPARE				230	0.00				20	100	2	18	MCCB							
9	SPARE				230		0.00			20	100	2	18	MCCB							
10	SPARE				230		0.00			20	100	2	18	MCCB							
11	SPARE				230			0.00		20	100	2	18	MCCB							
12	SPARE				230			0.00		20	100	2	18	MCCB							
TOTAL						2,754	0.90	2,479	230	5.78	4.49	1.71	40	100	3	22	MCCB	3 - 8.0 mm2 THWN	1 - 5.5 mm2 TW	25	IMC
DEMAND FACTOR		0.90		MAIN CB: 40 AT 100 AF 3 POLE		230 V															
DEMAND LOAD		2,479		MAIN FEEDER: PHASE & NEUTRAL: 3 - 8.0 mm2 THWN																	
TOTAL CURRENT		10		GROUND: 1 - 5.5 mm2 TW																	
				CONDUIT: 25 mmØ IMC																	

PANEL NAME: PP2F FED FROM: DPGF SYSTEM: 230Vac, 3Ø, 3w, 60Hz				LOCATION: EE ROOM MOUNTING: WALL MOUNTED ENCLOSURE: NEMA-1																	
CKT NO.	DESCRIPTION	CONN. LOAD	DEMAND FACTOR	DEMAND LOAD	VOLT	AMPERE LOAD				CIRCUIT BREAKER				CABLE SIZE		CONDUIT		REMARKS			
						Ø3Ø	ØAB	ØCA	ØBC	AT	AF	POLE	KAIC	TYPE	PHASE & NEUTRAL	GROUND	SIZE		TYPE		
1	CONVENIENCE OUTLET	1,260	0.80	1,008	230	5.48				20	100	2	18	MCCB	2 - 3.5 mm2 THWN	1 - 3.5 mm2 TW	20	PVC			
2	CONVENIENCE OUTLET	1,440	0.80	1,152	230	6.26				20	100	2	18	MCCB	2 - 3.5 mm2 THWN	1 - 3.5 mm2 TW	20	PVC			
3	HAND DRYER	1,500	0.60	900	230		6.52			20	100	2	18	MCCB	2 - 3.5 mm2 THWN	1 - 3.5 mm2 TW	20	PVC			
4	HAND DRYER	1,500	0.60	900	230		6.52			20	100	2	18	MCCB	2 - 3.5 mm2 THWN	1 - 3.5 mm2 TW	20	PVC			
5	HAND DRYER	1,500	0.60	900	230			6.52		20	100	2	18	MCCB	2 - 3.5 mm2 THWN	1 - 3.5 mm2 TW	20	PVC			
6	HAND DRYER	1,500	0.60	900	230			6.52		20	100	2	18	MCCB	2 - 3.5 mm2 THWN	1 - 3.5 mm2 TW	20	PVC			
7	CONVENIENCE OUTLET	1,080	0.80	864	230	4.70				20	100	2	18	MCCB	2 - 3.5 mm2 THWN	1 - 3.5 mm2 TW	20	PVC			
8	SPARE				230	0.00				20	100	2	18	MCCB							
9	CONVENIENCE OUTLET	1,080	0.80	864	230		4.70			20	100	2	18	MCCB	2 - 3.5 mm2 THWN	1 - 3.5 mm2 TW	20	PVC			
10	ACUV-2-01	353	0.80	282	230		1.53			20	100	2	18	MCCB	2 - 3.5 mm2 THWN	1 - 3.5 mm2 TW	15	EMT/IMC			
11	HAND DRYER	1,500	0.60	900	230			6.52		20	100	2	18	MCCB	2 - 3.5 mm2 THWN	1 - 3.5 mm2 TW	20	PVC			
12	SPARE				230	0.00				20	100	2	18	MCCB							
13	CONVENIENCE OUTLET	540	0.80	432	230	2.35				20	100	2	18	MCCB	2 - 3.5 mm2 THWN	1 - 3.5 mm2 TW	20	PVC			
14	SPARE				230	0.00				20	100	2	18	MCCB							
15	SPARE				230		0.00			20	100	2	18	MCCB							
16	SPARE				230		0.00			20	100	2	18	MCCB							
TOTAL						13,253	0.69	9,102	230	18.78	19.27	19.57	50	100	3	22	MCCB	3 - 14 mm2 THWN	1 - 8.0 mm2 TW	32	IMC
DEMAND FACTOR		0.69		MAIN CB: 50 AT 100 AF 3 POLE		230 V															
DEMAND LOAD		9,102		MAIN FEEDER: PHASE & NEUTRAL: 3 - 14 mm2 THWN																	
TOTAL CURRENT		34		GROUND: 1 - 8.0 mm2 TW																	
				CONDUIT: 32 mmØ IMC																	

PANEL NAME: PP3F FED FROM: DPGF SYSTEM: 230Vac, 3Ø, 3w, 60Hz				LOCATION: EE ROOM MOUNTING: WALL MOUNTED ENCLOSURE: NEMA-1																	
CKT NO.	DESCRIPTION	CONN. LOAD	DEMAND FACTOR	DEMAND LOAD	VOLT	AMPERE LOAD				CIRCUIT BREAKER				CABLE SIZE		CONDUIT		REMARKS			
						Ø3Ø	ØAB	ØCA	ØBC	AT	AF	POLE	KAIC	TYPE	PHASE & NEUTRAL	GROUND	SIZE		TYPE		
1	CONVENIENCE OUTLET	1,080	0.80	864	230		4.70			20	100	2	18	MCCB	2 - 3.5 mm2 THWN	1 - 3.5 mm2 TW	20	PVC			
2	HAND DRYER	1,500	0.60	900	230		6.52			20	100	2	18	MCCB	2 - 3.5 mm2 THWN	1 - 3.5 mm2 TW	20	PVC			
3	HAND DRYER	1,500	0.60	900	230			6.52		20	100	2	18	MCCB	2 - 3.5 mm2 THWN	1 - 3.5 mm2 TW	20	PVC			
4	CONVENIENCE OUTLET	1,080	0.80	864	230			4.70		20	100	2	18	MCCB	2 - 3.5 mm2 THWN	1 - 3.5 mm2 TW	20	PVC			
5	CONVENIENCE OUTLET	1,080	0.80	864	230			4.70		20	100	2	18	MCCB	2 - 3.5 mm2 THWN	1 - 3.5 mm2 TW	20	PVC			
6	HAND DRYER	1,500	0.60	900	230			6.52		20	100	2	18	MCCB	2 - 3.5 mm2 THWN	1 - 3.5 mm2 TW	20	PVC			
7	SPARE				230	0.00				20	100	2	18	MCCB							
8	SPARE				230	0.00				20	100	2	18	MCCB							
9	ACUV-3-01 & 02	706	0.80	565	230		3.07			20	100	2	18	MCCB	2 - 3.5 mm2 THWN	1 - 3.5 mm2 TW	15	EMT/IMC			
10	SPARE				230		0.00			20	100	2	18	MCCB							
11	SPARE				230			0.00		20	100	2	18	MCCB							
12	SPARE				230			0.00		20	100	2	18	MCCB							
TOTAL						8,446	0.69	5,857	230	11.22	14.29	11.22	50	100	3	22	MCCB	3 - 14 mm2 THWN	1 - 5.5 mm2 TW	32	IMC
DEMAND FACTOR		0.69		MAIN CB: 50 AT 100 AF 3 POLE		230 V															
DEMAND LOAD		5,857		MAIN FEEDER: PHASE & NEUTRAL: 3 - 14 mm2 THWN																	
TOTAL CURRENT		25		GROUND: 1 - 8.0 mm2 TW																	
				CONDUIT: 32 mmØ IMC																	

PANEL NAME: PP2FA FED FROM: DPGF SYSTEM: 230Vac, 3Ø, 3w, 60Hz				LOCATION: EE ROOM MOUNTING: WALL MOUNTED ENCLOSURE: NEMA-1															
CKT NO.	DESCRIPTION	CONN. LOAD	DEMAND FACTOR	DEMAND LOAD	VOLT	AMPERE LOAD				CIRCUIT BREAKER				CABLE SIZE		CONDUIT		REMARKS	
						Ø3Ø	ØAB	ØCA	ØBC	AT	AF	POLE	KAIC	TYPE	PHASE & NEUTRAL	GROUND	SIZE		TYPE
1	PPC1	1,232	0.81	1,001	230	5.36				30	100	2	22	MCCB	2 - 5.5 mm2 THWN	1 - 5.5 mm2 TW	20	IMC	
2	PPC2	1,232	0.81	1,001	230	5.36				30	100	2	22	MCCB	2 - 5.5 mm2 THWN	1 - 5.5 mm2 TW	20	IMC	

GENERAL NOTES: FOR REFERENCE ONLY, EXCLUDED IN PHASE 1



1 SHORT CIRCUIT CALCULATION
E-15 SCALE: NTS

BASIC FORMULA
 p.u. Zu = KVAt / SC level
 p.u. Zt = $\sqrt{[(p.u. Rt)^2 + (p.u. Xt)^2]}^{1/2}$
 p.u. Zs = $\sqrt{(p.u. Zu + p.u. Zt + Zm)^2}$
 note: if Zm = negligible, p.u. Zs = p.u. Zu + p.u. Zt
 $Rc = (d)(R) / 305$
 $Xc = (d)(X) / 305$
 d = distance in mtrs.
 $p.u. Rc = (Rc)(KVat)(1000) / (Vt)^2(N)$
 $p.u. Xc = (Xc)(KVat)(1000) / (Vt)^2(N)$
 p.u. TRc = p.u. TRci + p.u. Rc
 p.u. TXc = p.u. TXci + p.u. Xc
 p.u. TR = p.u. TRc + p.u. Rt
 p.u. TX = p.u. TXc + p.u. Xt + p.u. Zu
 p.u. TZ = $\sqrt{[(p.u. TR)^2 + (p.u. TX)^2]}^{1/2}$
 FD = It / p.u. TZ

MAXIMUM FAULT @ MAIN BUS:
 p.u. XFORMER SC IMPEDANCE: p.u. Zs = 0.05
 FD = $\frac{1255}{0.05} = 25,100$
 USE: = 32kAIC MINIMUM

DPGF FEEDER:
 p.u. Rc 2x60mm² 80m = 0.123958
 p.u. Xc 2x60mm² 80m = 0.066937
 p.u. Zc = 0.140876

PPB FEEDER:
 p.u. Rc 14mm² 6m = 0.091109
 p.u. Xc 14mm² 6m = 0.011900
 p.u. Zc = 0.091883

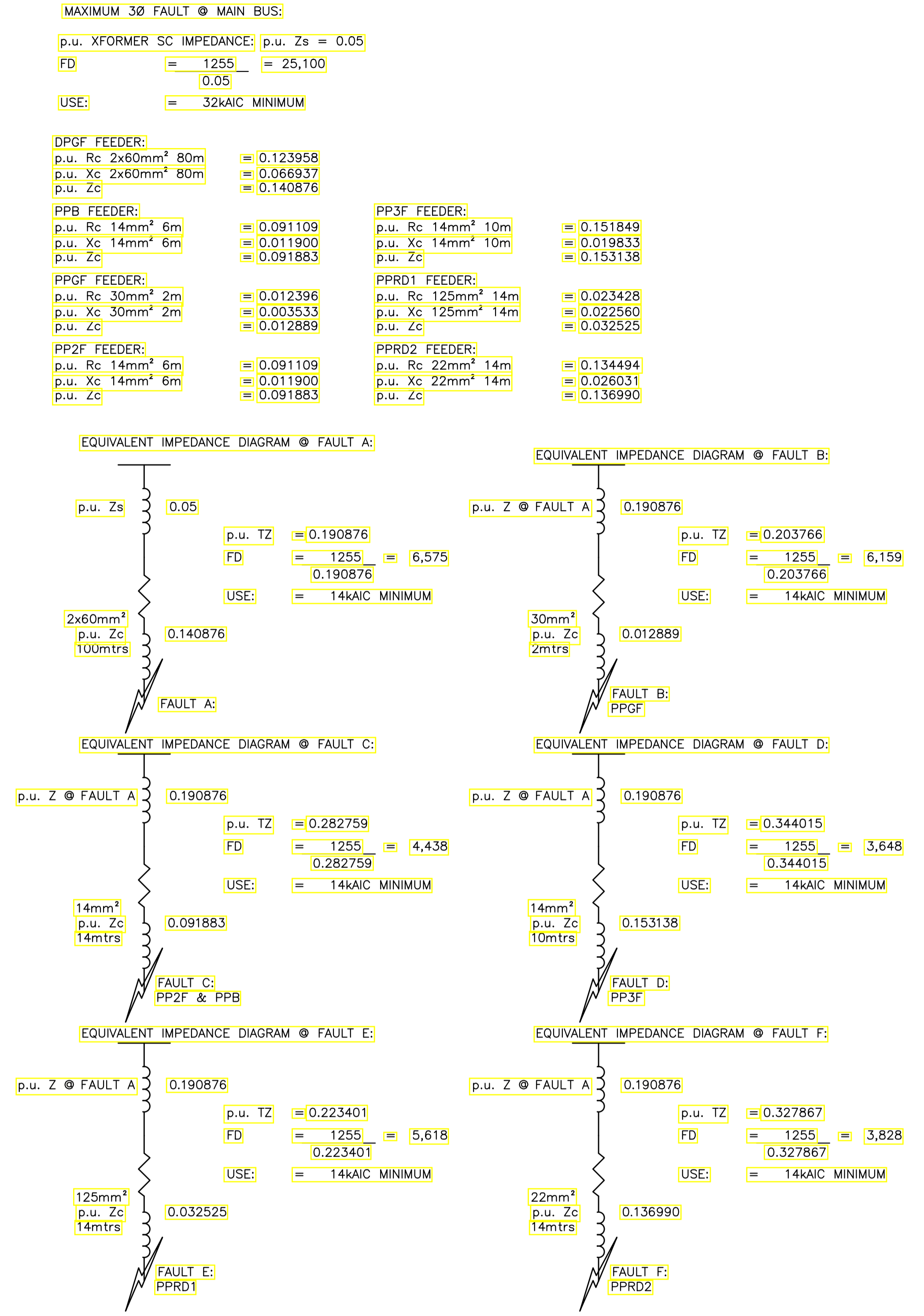
PPGF FEEDER:
 p.u. Rc 30mm² 2m = 0.012396
 p.u. Xc 30mm² 2m = 0.003533
 p.u. Zc = 0.012889

PP2F FEEDER:
 p.u. Rc 14mm² 6m = 0.091109
 p.u. Xc 14mm² 6m = 0.011900
 p.u. Zc = 0.091883

PP3F FEEDER:
 p.u. Rc 14mm² 10m = 0.151849
 p.u. Xc 14mm² 10m = 0.019833
 p.u. Zc = 0.153138

PPRD1 FEEDER:
 p.u. Rc 125mm² 14m = 0.023428
 p.u. Xc 125mm² 14m = 0.022560
 p.u. Zc = 0.032525

PPRD2 FEEDER:
 p.u. Rc 22mm² 14m = 0.134494
 p.u. Xc 22mm² 14m = 0.026031
 p.u. Zc = 0.136990



BASIC FORMULA:
 $V_{Dc} = \frac{I \sqrt{R^2 + X^2}}{305} \times L \times N$
 Y = $\frac{X}{R} \times \text{Hz} / 60$
 V_{end} = V_{origin} - V_{Dc}
 %V_{Dt} = $\frac{V_{source} - V_{end}}{V_{source}} \times 100$

SOLUTION:
VOLTAGE DROP AT POINT A: DPGF
 $V_{Dc} = \frac{197 \times \sqrt{0.100^2 + 0.054^2} \times 1/2 \times 80 \times 1.732}{2 \times 305} = 5.867 \text{ V}$
 $V_{end} = 230 - 5.868 = 224.133 \text{ V}$
 $\%V_{Dt} = \frac{230 - 224.133}{230} \times 100 = 2.551 \%$

VOLTAGE DROP AT POINT B: PPGF
 $V_{Dc} = \frac{57 \times \sqrt{0.200^2 + 0.057^2} \times 1/2 \times 2 \times 1.732}{1 \times 305} = 0.134 \text{ V}$
 $V_{end} = 224.133 - 0.134 = 223.999 \text{ V}$
 $\%V_{Dt} = \frac{230 - 223.999}{230} \times 100 = 2.609 \%$

VOLTAGE DROP AT POINT C: PPB & PP2F
 $V_{Dc} = \frac{40 \times \sqrt{0.0490^2 + 0.064^2} \times 1/2 \times 6 \times 1.732}{1 \times 305} = 0.673 \text{ V}$
 $V_{end} = 224.133 - 0.673 = 223.460 \text{ V}$
 $\%V_{Dt} = \frac{230 - 223.460}{230} \times 100 = 2.843 \%$

VOLTAGE DROP AT POINT D: PP3F
 $V_{Dc} = \frac{24 \times \sqrt{0.490^2 + 0.064^2} \times 1/2 \times 10 \times 1.732}{1 \times 305} = 0.673 \text{ V}$
 $V_{end} = 224.133 - 0.673 = 223.460 \text{ V}$
 $\%V_{Dt} = \frac{230 - 223.460}{230} \times 100 = 2.843 \%$

VOLTAGE DROP AT POINT E: PPRD1
 $V_{Dc} = \frac{174 \times \sqrt{0.540^2 + 0.052^2} \times 1/2 \times 14 \times 1.732}{1 \times 305} = 1.035 \text{ V}$
 $V_{end} = 224.133 - 1.035 = 223.099 \text{ V}$
 $\%V_{Dt} = \frac{230 - 223.099}{230} \times 100 = 3.001 \%$

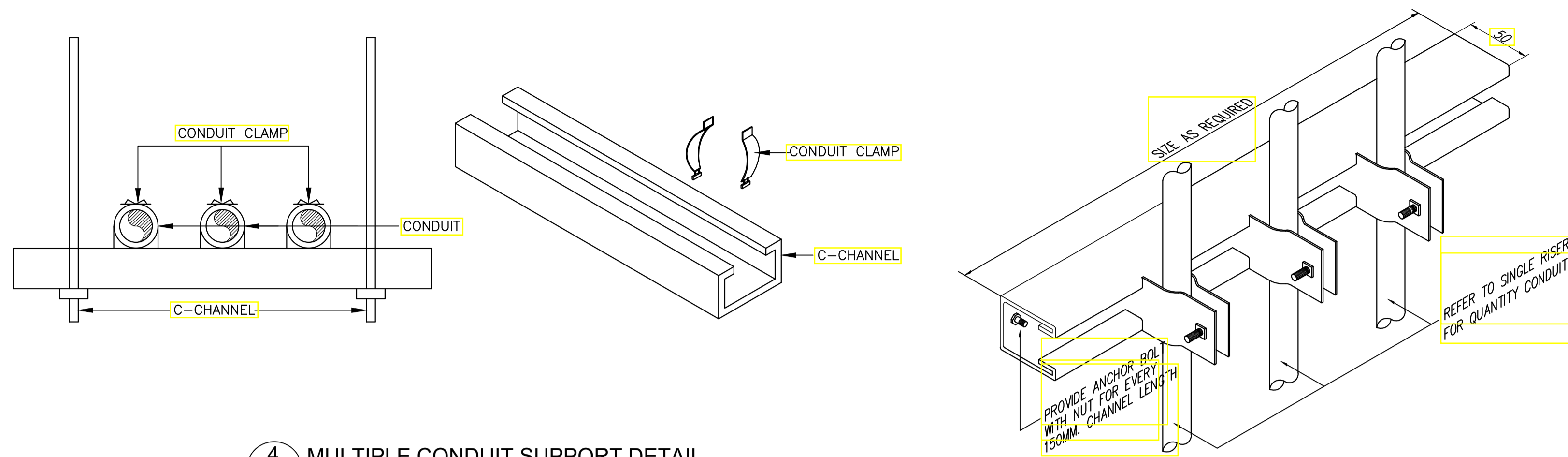
VOLTAGE DROP AT POINT F: PPRD2
 $V_{Dc} = \frac{750 \times \sqrt{0.310^2 + 0.060^2} \times 1/2 \times 14 \times 1.732}{1 \times 305} = 1.255 \text{ V}$
 $V_{end} = 224.133 - 1.255 = 222.878 \text{ V}$
 $\%V_{Dt} = \frac{230 - 222.878}{230} \times 100 = 3.096 \%$

2 VOLTAGE DROP CALCULATION
E-15 SCALE: NTS

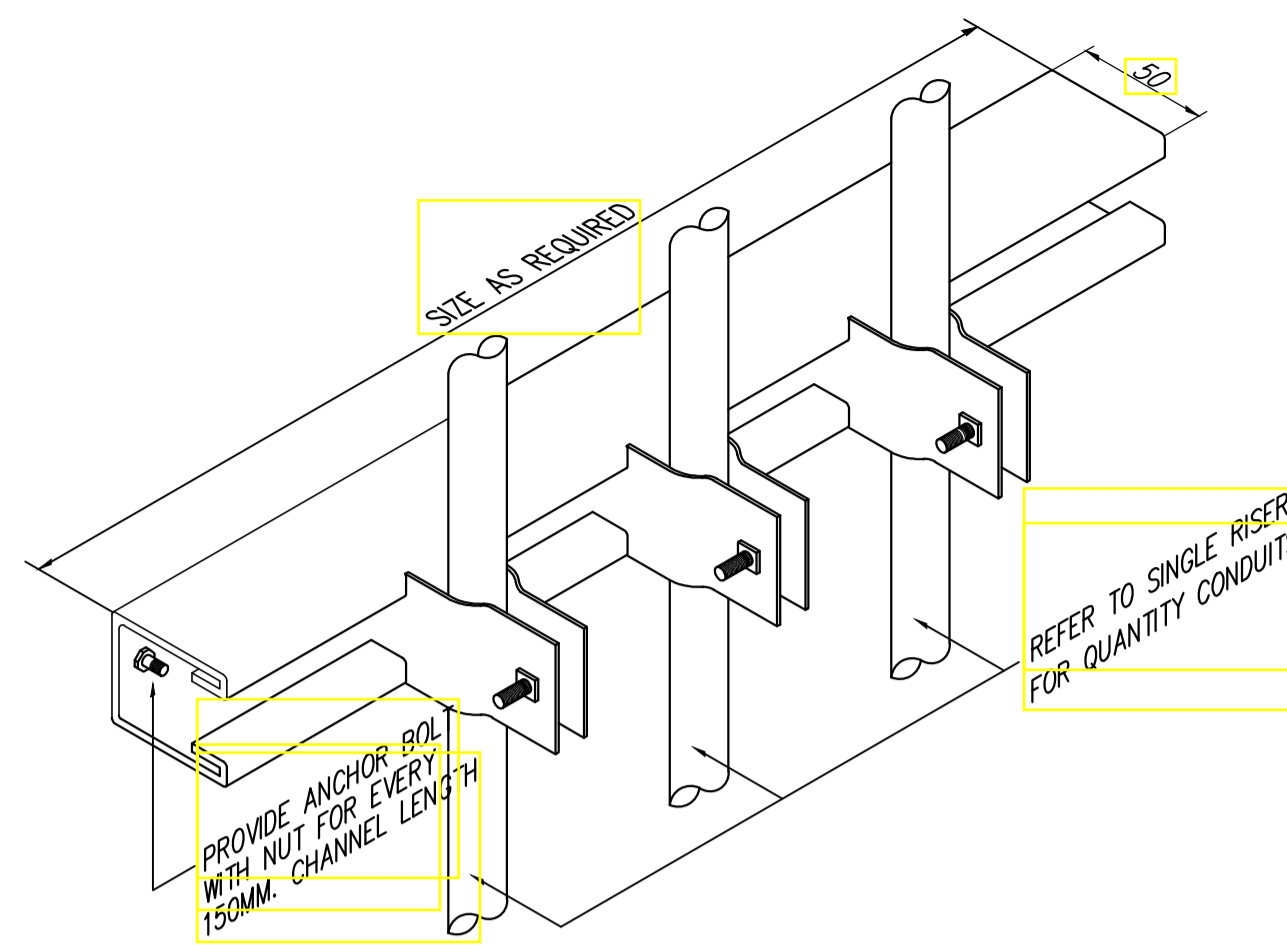
AS PER PEC, CONDUCTORS FOR FEEDER SHALL NOT EXCEED 3 PERCENT AT THE FARTHEST OUTLET OF POWER, HEATING AND LIGHTING LOADS OR COMBINATION OF SUCH LOADS. AND THE MAXIMUM TOTAL VOLTAGE DROP ON BOTH FEEDERS AND BRANCH CIRCUITS TO THE FARTHEST OUTLET SHALL BE 5 PERCENT FOR REASONABLE EFFICIENCY OF OPERATION.

<p>ENRIQUE O. OLANON & ASSOCIATES ARCHITECTS ENGINEERS CONSULTANTS</p> <p>IN JOINT VENTURE WITH</p> <p>ENRIQUE O. OLANON & ASSOCIATES, CO. ARCHITECTS ENGINEERS CONSULTANTS</p>	DESIGNER: MANUEL V. PANIS PROFESSIONAL ELECTRICAL ENGINEER PRC No. 1210 Validity: 10/13/2023 PTR No. 7731829 Date: 01/04/2021 Place: ANTIPOLLO CITY TIN: 132-466-222	REPUBLIC ACT 9266 DRAWINGS AND SPECIFICATIONS AND OTHER CONTRACT DOCUMENTS DULY SIGNED, STAMPED OR SEALED, AS INSTRUMENTS OF SERVICE, ARE THE INTELLECTUAL PROPERTY AND DOCUMENT OF THE ARCHITECT. WHETHER THE OBJECT FOR WHICH THEY ARE MADE IS EXECUTED OR NOT, IT SHALL BE UNLAWFUL FOR ANY PERSON TO DUPLICATE OR TO MAKE COPIES OF SAID DOCUMENTS FOR USE IN THE REPRODUCTION OF AND FOR OTHER PROJECTS OR BUILDINGS, WHETHER EXECUTED PARTLY OR IN WHOLE, WITHOUT THE WRITTEN CONSENT OF ARCHITECT OR AUTHOR OF SAID DOCUMENT.	PROJECT: PROPOSED ACADEMIC BUILDING II / MULTI-PURPOSE GYMNASIUM LOCATION: Brgy. Rizal, Odiangan, Romblon	DESIGNED FOR: REPUBLIC OF THE PHILIPPINES PHILIPPINE SCIENCE HIGH SCHOOL - MIMAROPA REGIONAL CAMPUS	RECOMMENDING APPROVAL: MERIAM F. FALLAR FAD CHIEF	APPROVED BY: EDWARD C. ALBARACIN CAMPUS DIRECTOR	SHEET CONTENTS: SHORT CIRCUIT CALCULATIONS; VOLTAGE DROP CALCULATIONS	SHEET NO.: E 15 17
---	--	---	--	---	--	---	---	---------------------------------

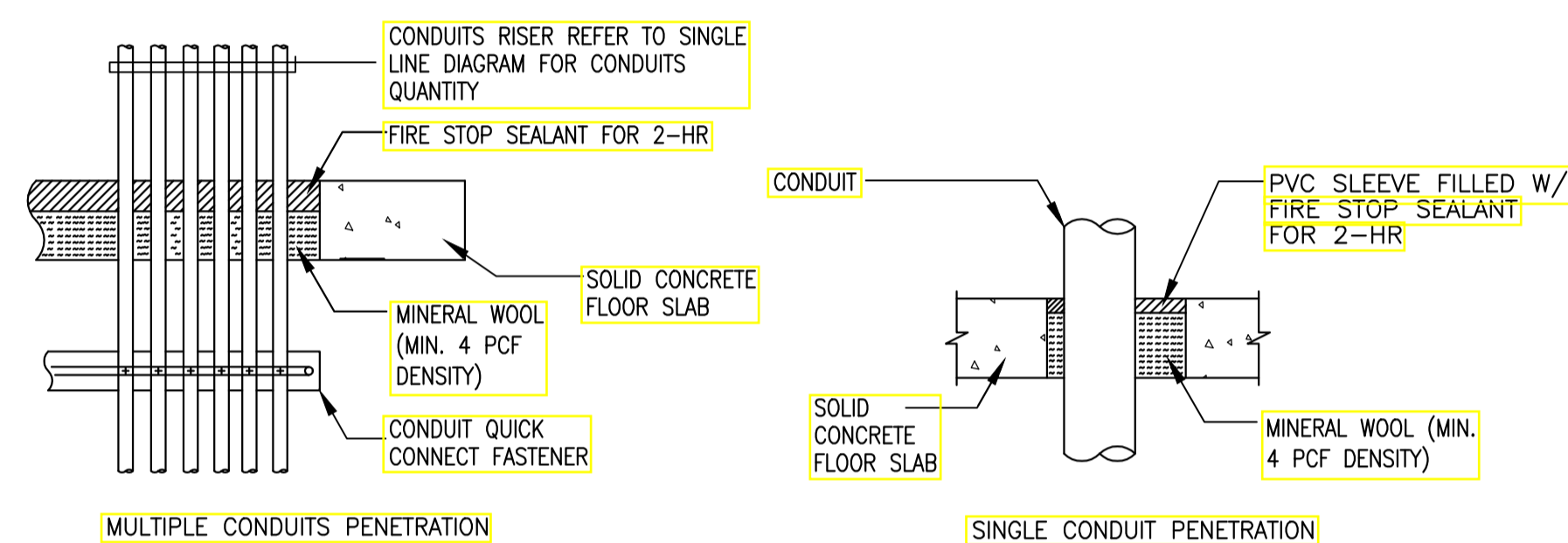
GENERAL NOTES: FOR REFERENCE ONLY, EXCLUDED IN PHASE 1



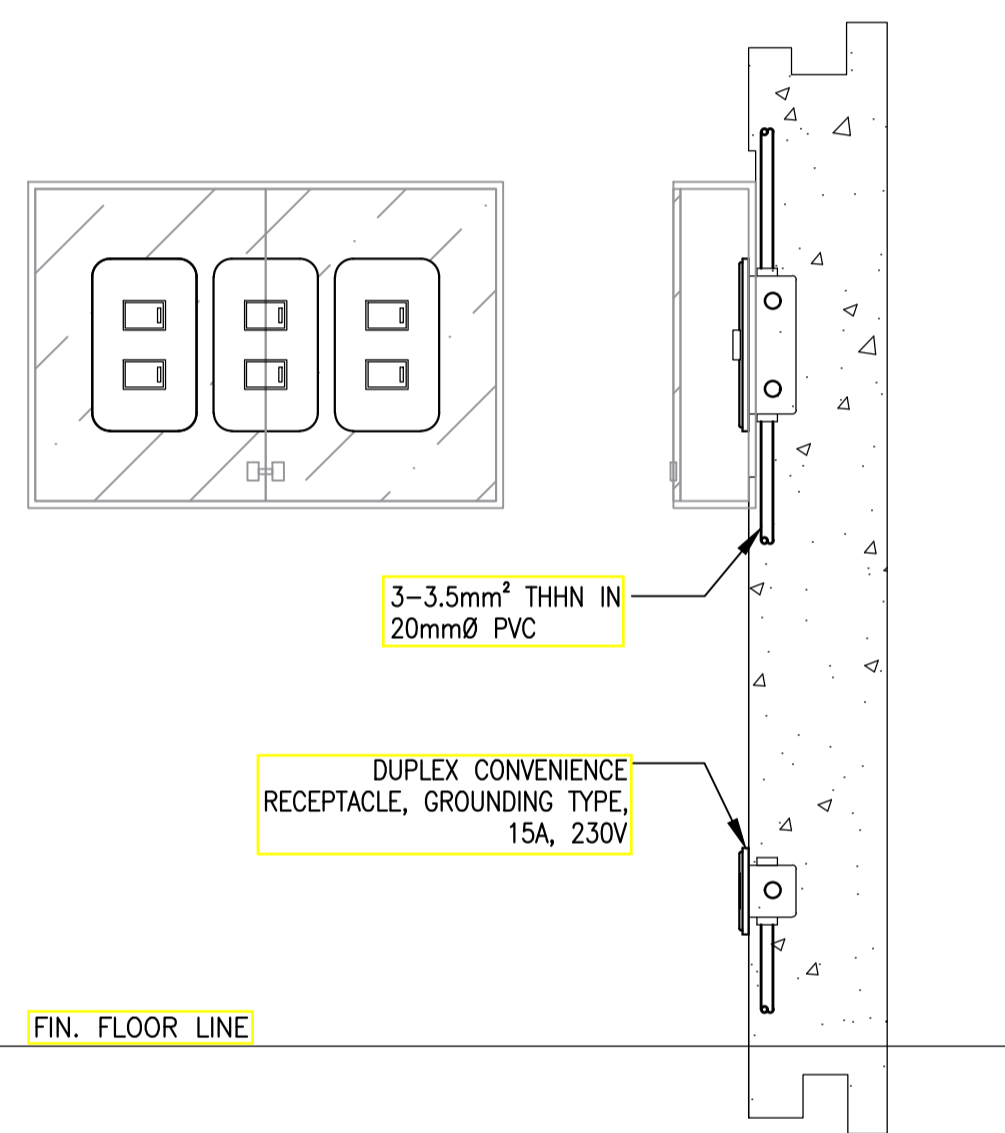
4 MULTIPLE CONDUIT SUPPORT DETAIL
E-16 SCALE: NTS



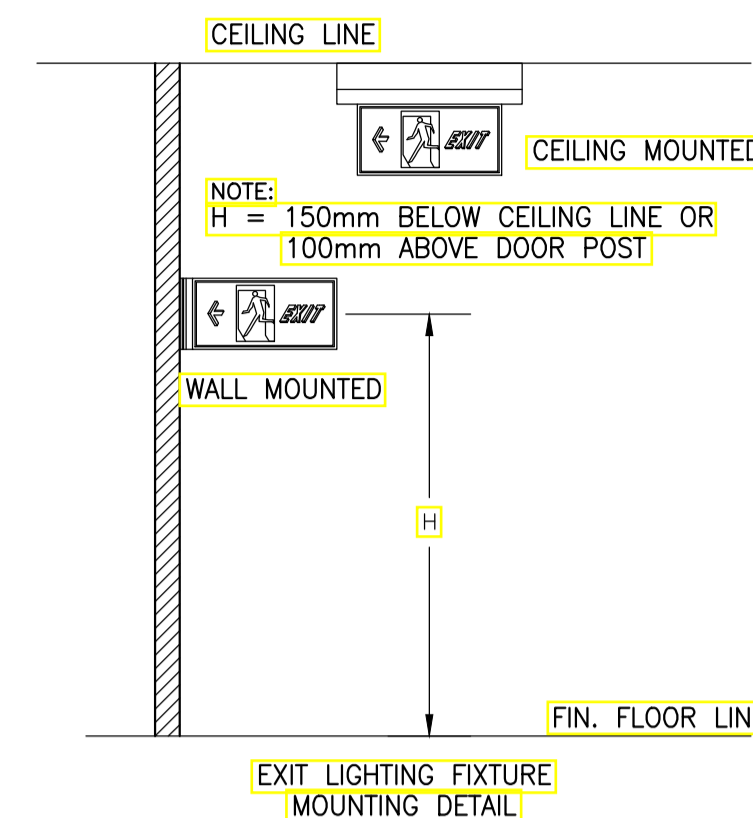
7 CONDUIT RISER DETAIL
E-16 SCALE: NTS



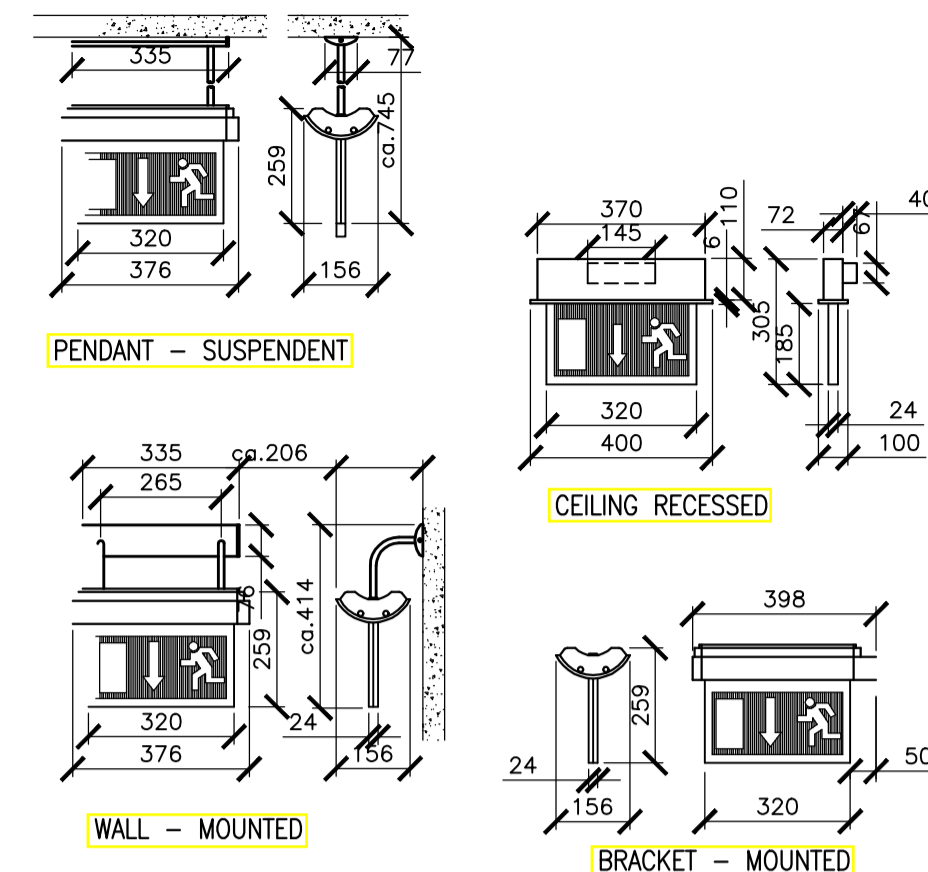
5 RACEWAY PENETRATIONS WITH FIRESTOP
E-16 SCALE: NTS



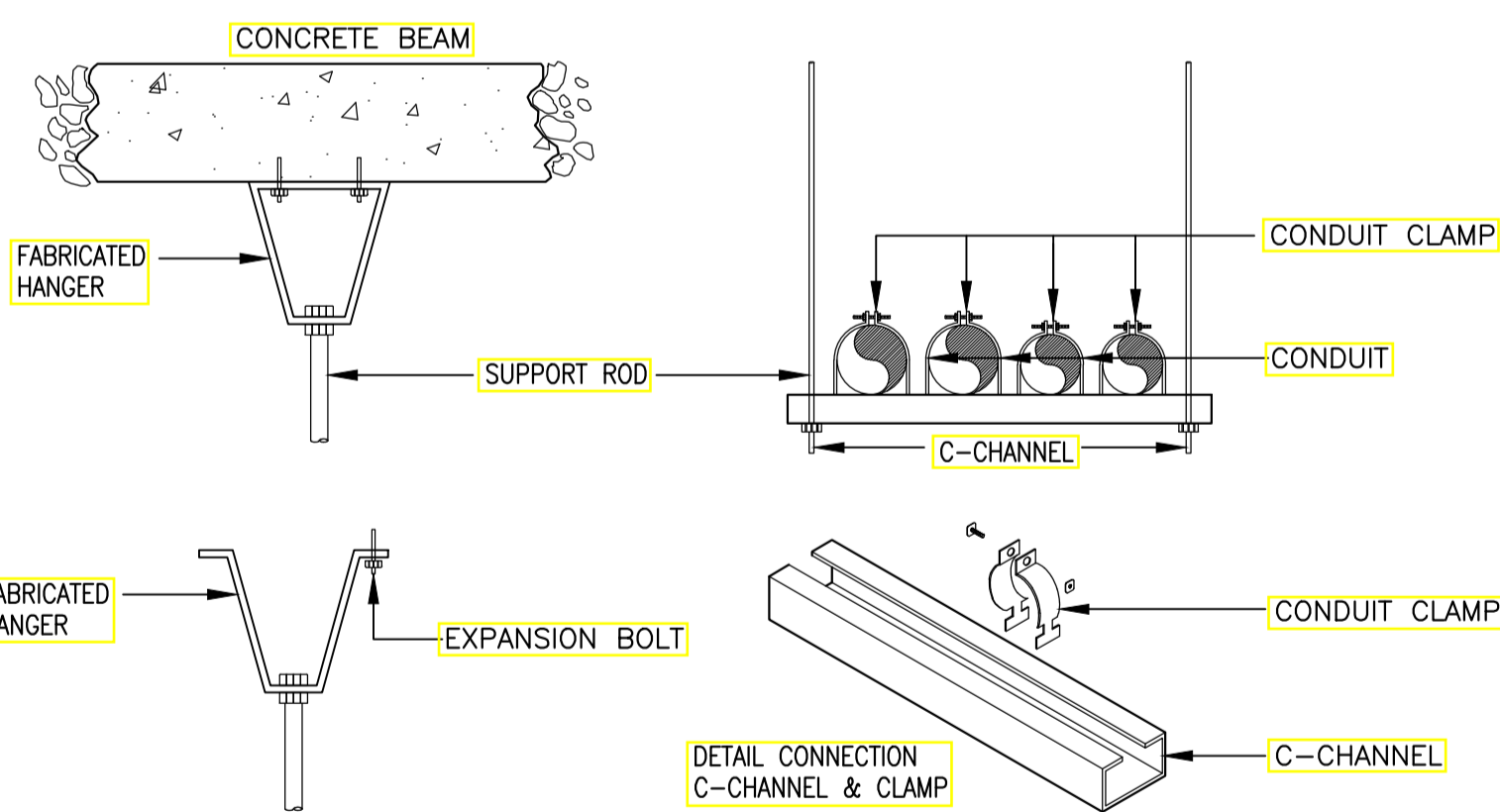
8 LIGHTING SWITCH AND CONV. OUTLET INSTALLATION DETAIL
E-16 SCALE: NTS



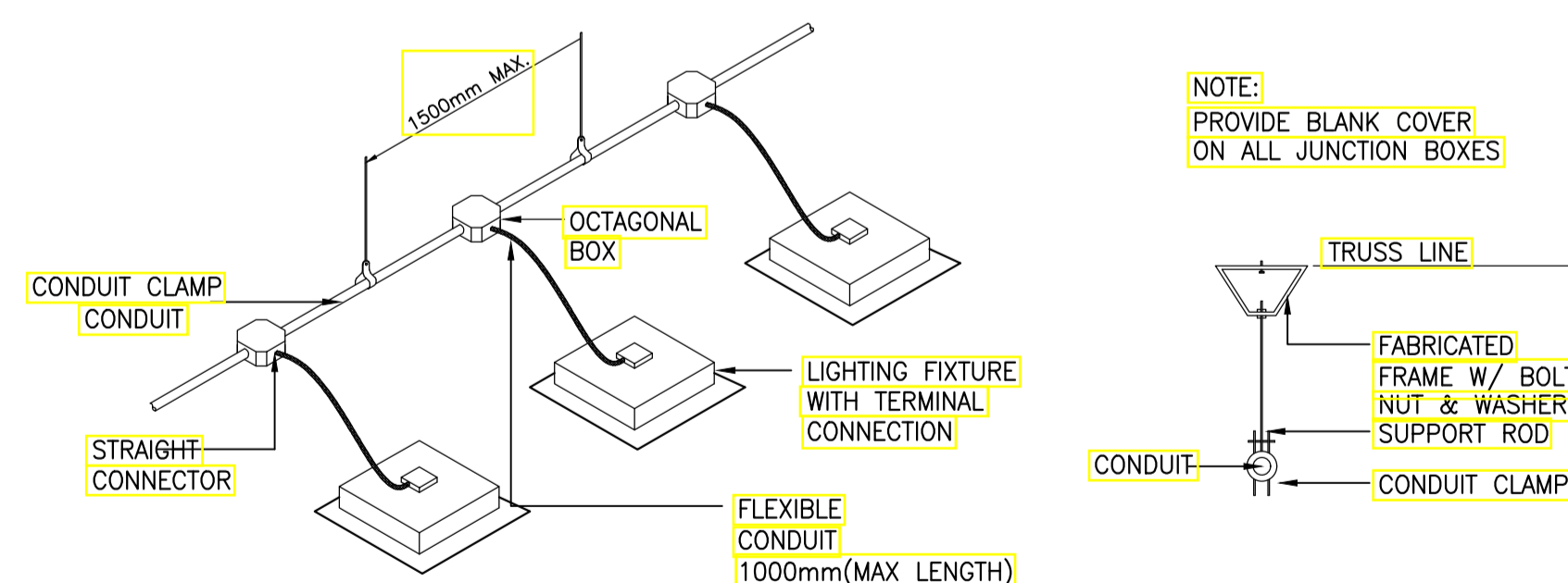
1 EXIT LIGHTING FIXTURE DETAIL
E-16 SCALE: NTS



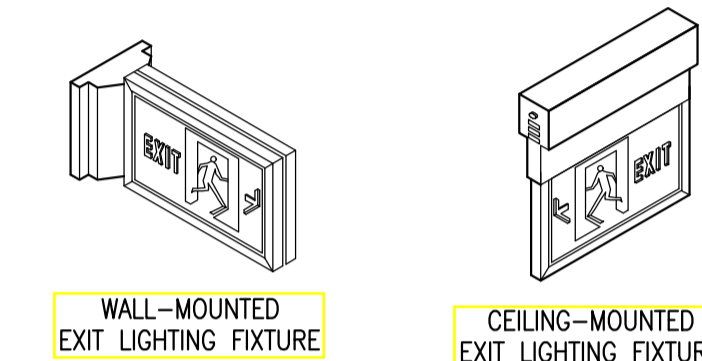
2 EXIT LIGHT MOUNTING DETAIL
E-16 SCALE: NTS



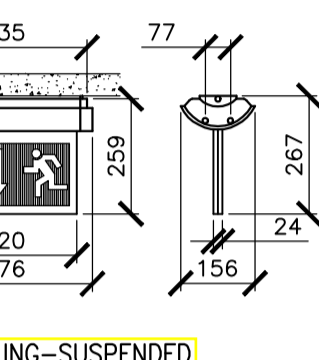
6 MULTIPLE CONDUIT SUPPORT DETAIL
E-16 SCALE: NTS



9 CONDUIT RUN FOR LIGHTING DISTRIBUTION IN ONE CIRCUIT (FOE EXPOSED OF INSIDE DROP-CEILING INSTALLATION)
E-16 SCALE: NTS

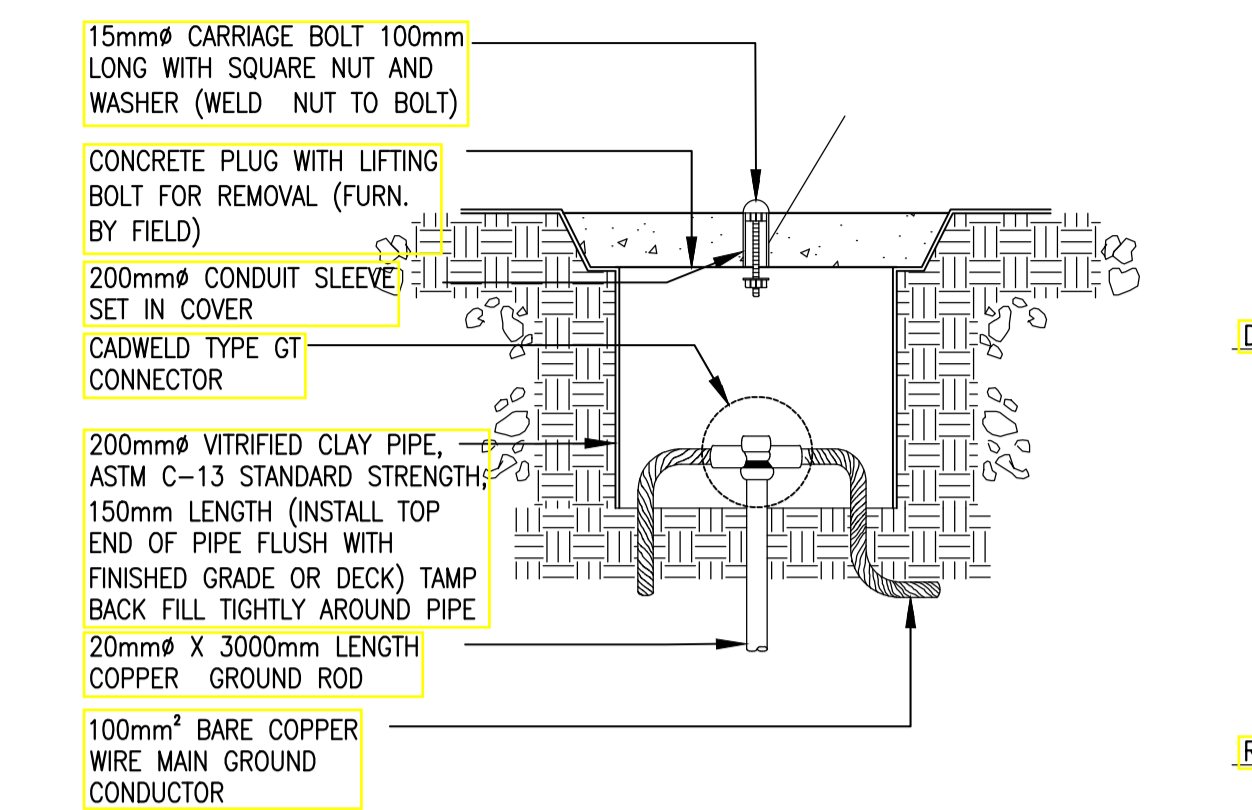


10 PINLIGHT MOUNTING DETAIL
E-16 SCALE: NTS

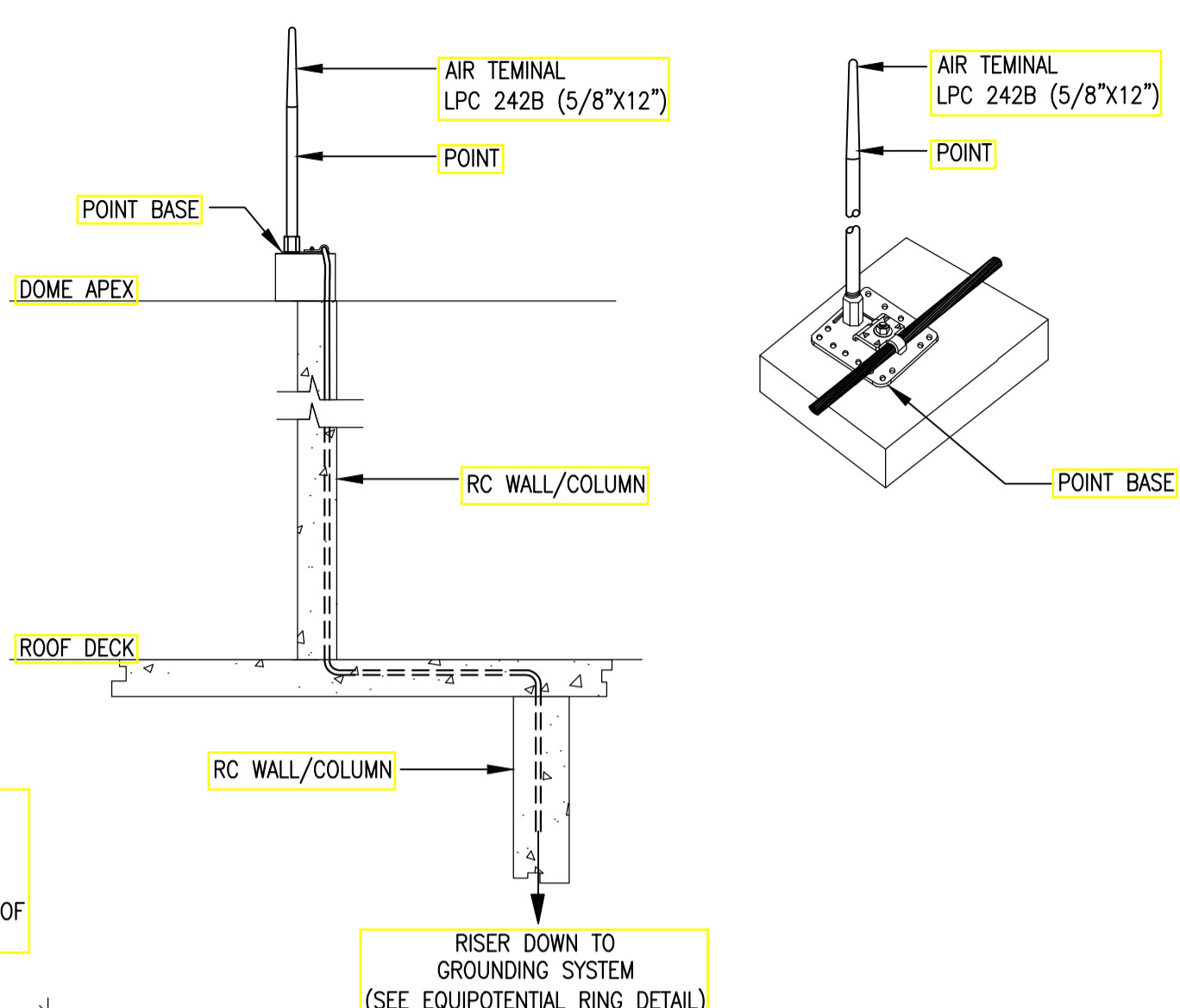


3 LED HIGBAY LIGHTING FIXTURE MOUNTING DETAIL
E-16 SCALE: NTS

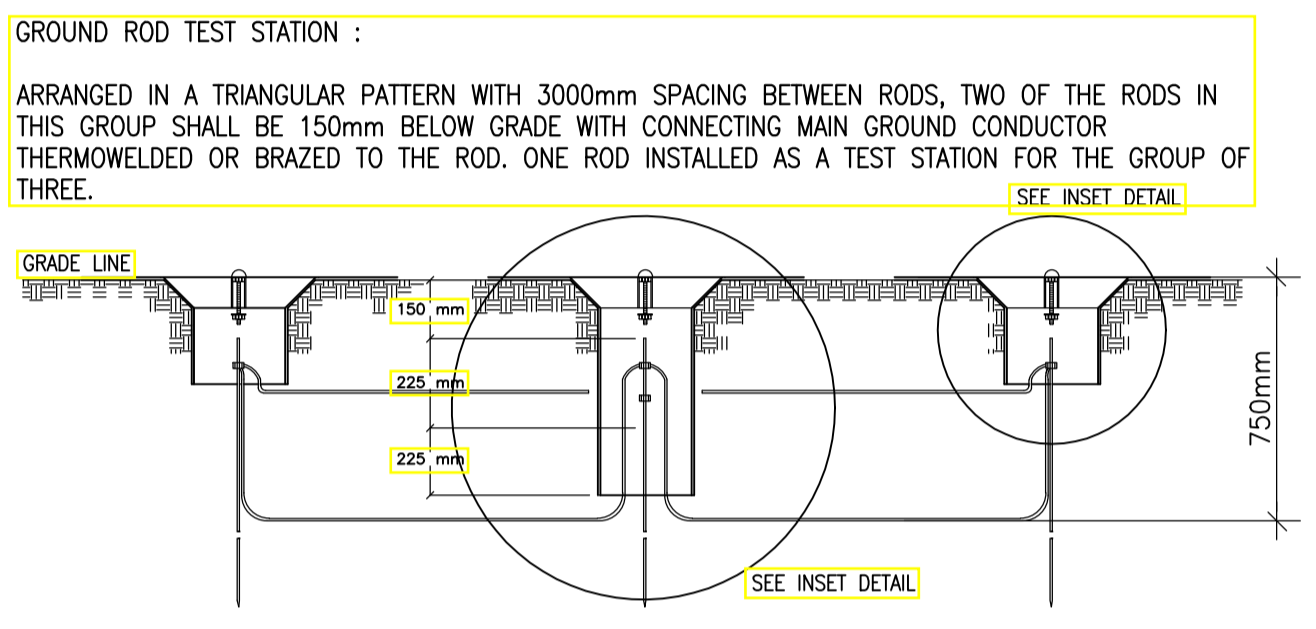
GENERAL NOTES: FOR REFERENCE ONLY, EXCLUDED IN PHASE 1



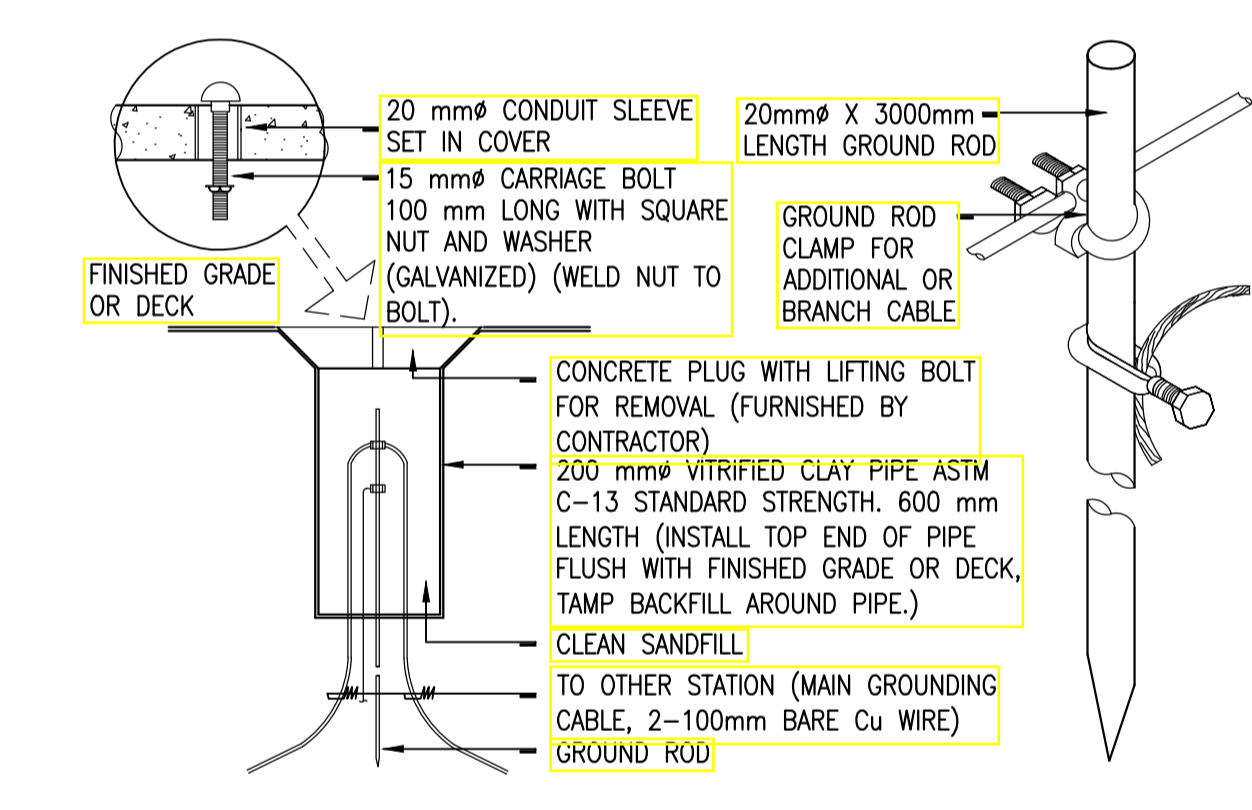
BLOW-UP DETAIL



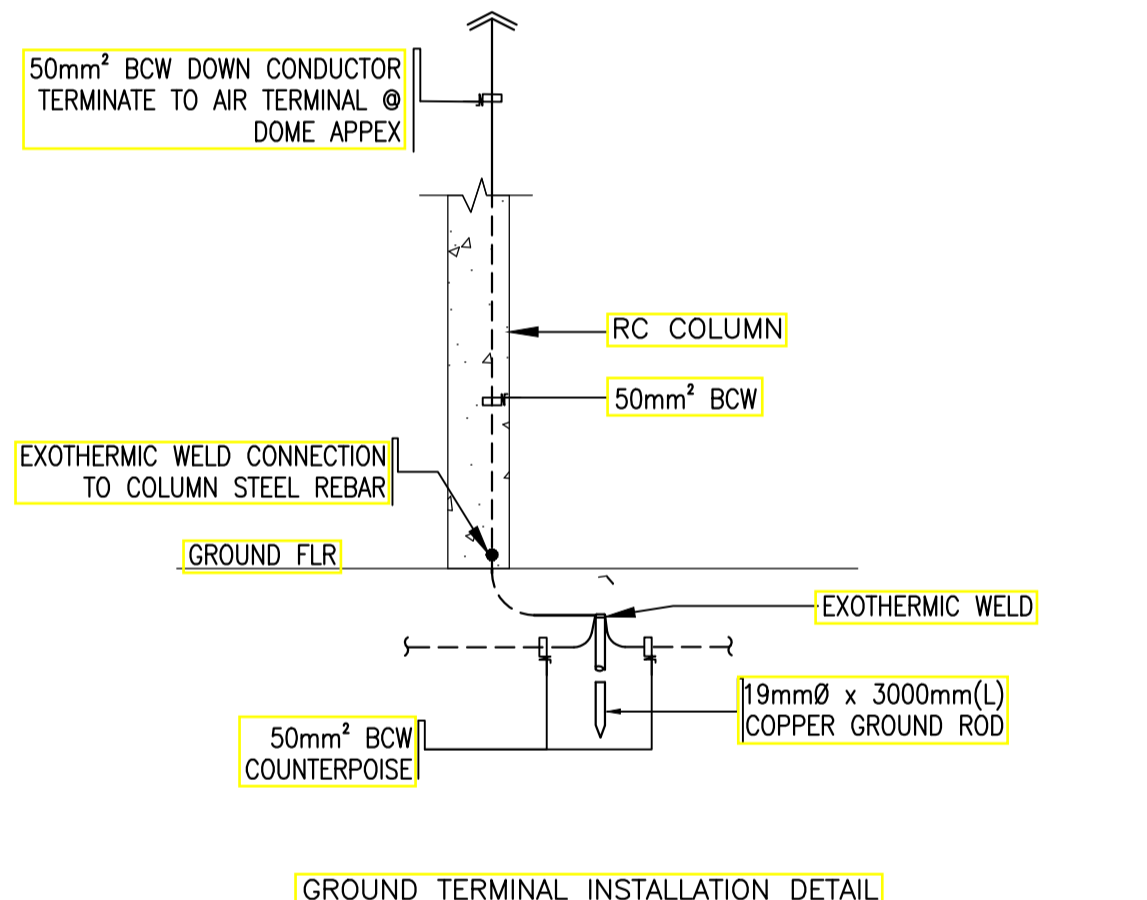
AIR TERMINAL INSTALLATION DETAIL



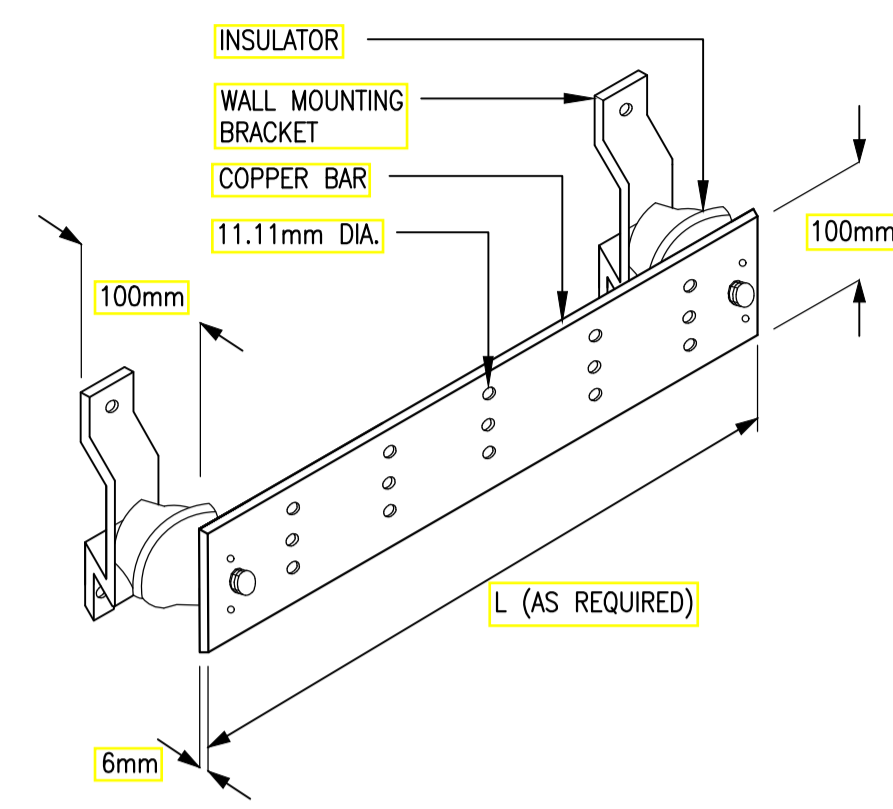
SECTIONAL ELEVATION



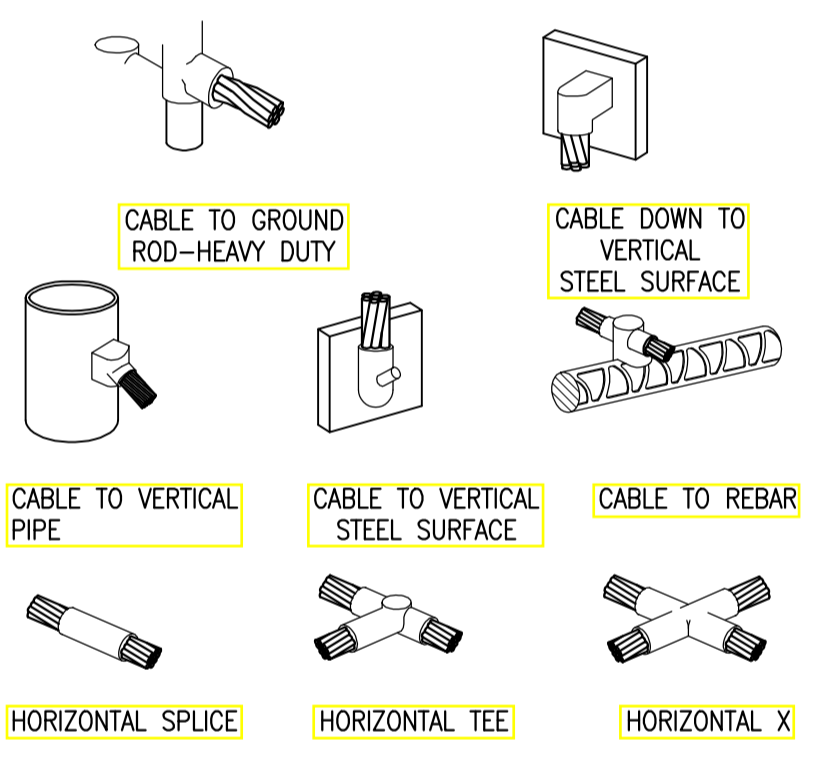
GROUND ROD TEST STATION DETAIL



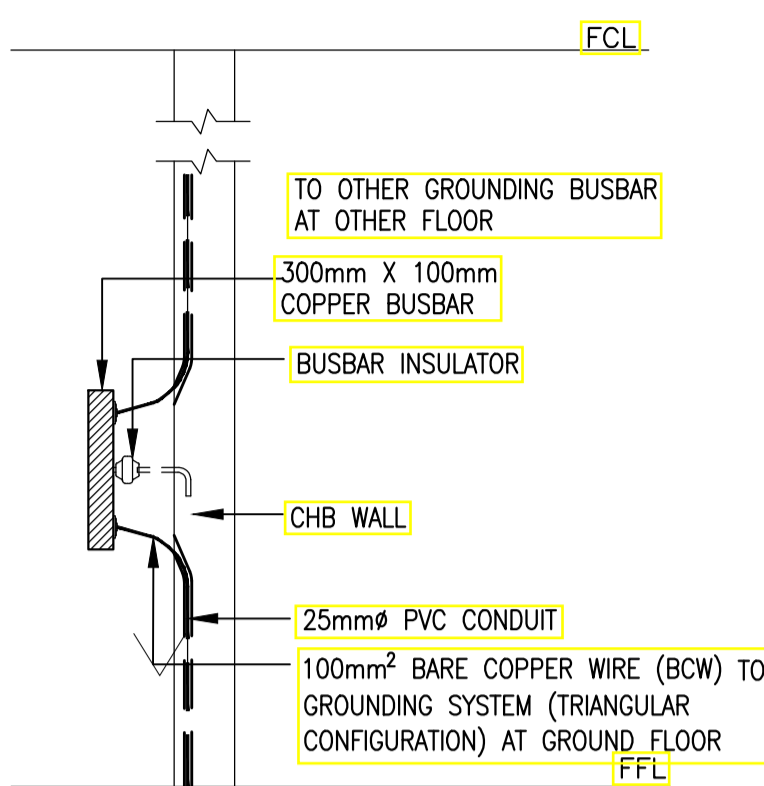
GROUND TERMINAL INSTALLATION DETAIL



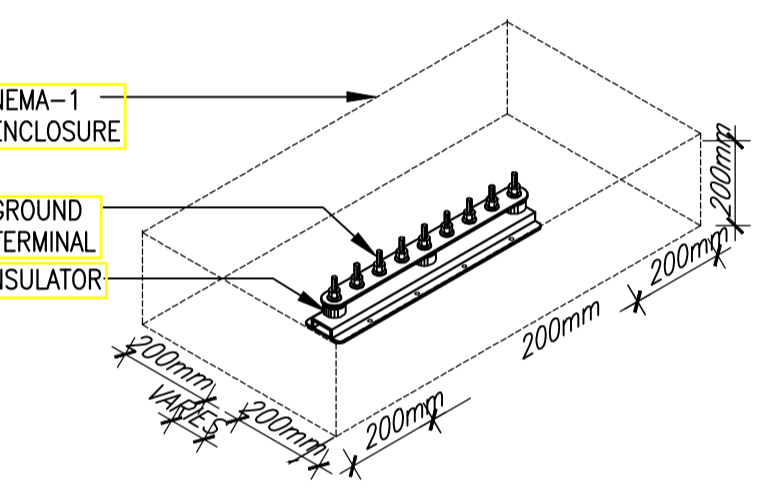
6 PRE-DRILLED COPPER BUSBAR NTS SCALE: E-17



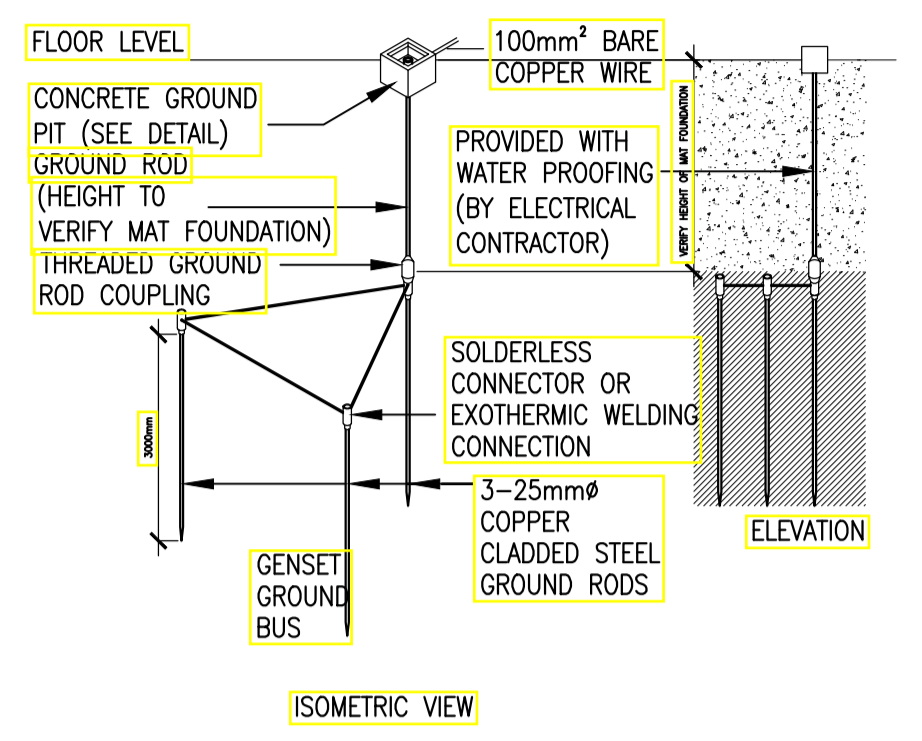
7 TYPICAL EXOTHERMIC CONNECTION (WELD) DETAIL NTS SCALE: E-17



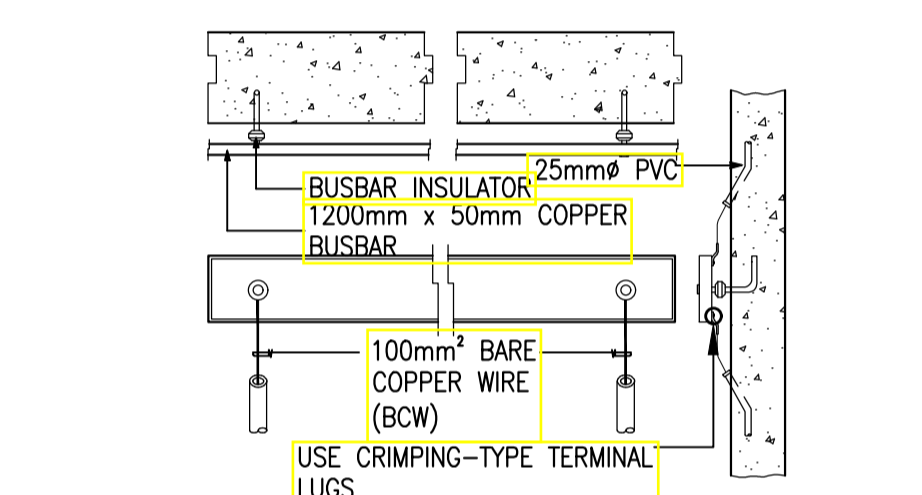
2 MOUNTING DETAIL OF GROUNDING BUSBAR NTS SCALE: E-17



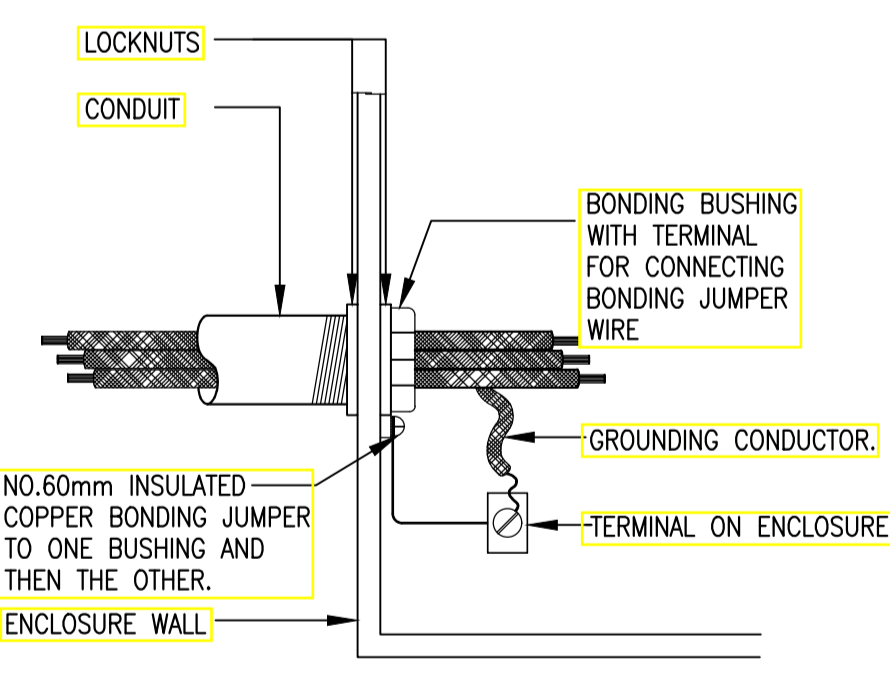
8 TYPICAL GROUND BUSBAR DETAIL NTS SCALE: E-17



3 DETAILS OF EQUIPOTENTIAL RING NTS SCALE: E-17



5 SERVICE BONDING JUMPER & GROUNDING ENCLOSURE DETAIL NTS SCALE: E-17



NOTE:
BUSHING WITH JUMPER IS ACCEPTABLE BONDING FOR A CLEAN KNOCKOUT OR ONE WITH PUNCH RINGS STILL IN PLACE

4 SERVICE BONDING JUMPER & GROUNDING ENCLOSURE DETAIL NTS SCALE: E-17

1 GROUNDING AND LIGHTING PROTECTION DETAIL NTS SCALE: E-17

ENRIQUE O. OLONAN & ASSOCIATES
ARCHITECTS ENGINEERS CONSULTANTS

SUITE 305 XAVIERVILLE SQUARE CONDOMINIUM NO. 38 XAVIERVILLE AVENUE, LORON HEIGHTS, QUEZON CITY, 1108
TEL NOS: 426 7009; 426 3000-04
FAX NOS: 927 0608; 426 7214

ENRIQUE O. OLONAN & ASSOCIATES, CO.
ARCHITECTS ENGINEERS CONSULTANTS

DESIGNER:

MANUEL V. PANIS
PROFESSIONAL ELECTRICAL ENGINEER

PRC No. 1210 Validity: 10/13/2023
PTR No. 7731829 Date: 01/04/2021
Place: ANTIPOLLO CITY TIN: 132-466-222

REPUBLIC ACT 9266

DRAWINGS AND SPECIFICATIONS AND OTHER CONTRACT DOCUMENTS DULY SIGNED, STAMPED OR SEALED, AS INSTRUMENTS OF SERVICE, ARE THE INTELLECTUAL PROPERTY AND DOCUMENT OF THE ARCHITECT. WHETHER THE OBJECT FOR WHICH THEY ARE MADE IS EXECUTED OR NOT, IT SHALL BE UNLAWFUL FOR ANY PERSON TO DUPLICATE OR TO MAKE COPIES OF SAID DOCUMENTS FOR USE IN THE REPRODUCTION OF AND FOR OTHER PROJECTS OR BUILDINGS, WHETHER EXECUTED PARTY OR IN WHOLE, WITHOUT THE WRITTEN CONSENT OF ARCHITECT OR AUTHOR OF SAID DOCUMENT.

PROJECT:

PROPOSED ACADEMIC BUILDING II / MULTI-PURPOSE GYMNASIUM

LOCATION: Brgy. Rizal, Odiangan, Romblon

DESIGNED FOR:

**REPUBLIC OF THE PHILIPPINES
PHILIPPINE SCIENCE HIGH SCHOOL -
MIMAROPA REGIONAL CAMPUS**

RECOMMENDING APPROVAL:

MERIAM F. FALLAR
FAD CHIEF

APPROVED BY:

EDWARD C. ALBARACIN
CAMPUS DIRECTOR

SHEET CONTENTS:

ACADEMIC BUILDING II
MISCELLANEOUS DETAILS

SHEET NO:

E
17 17