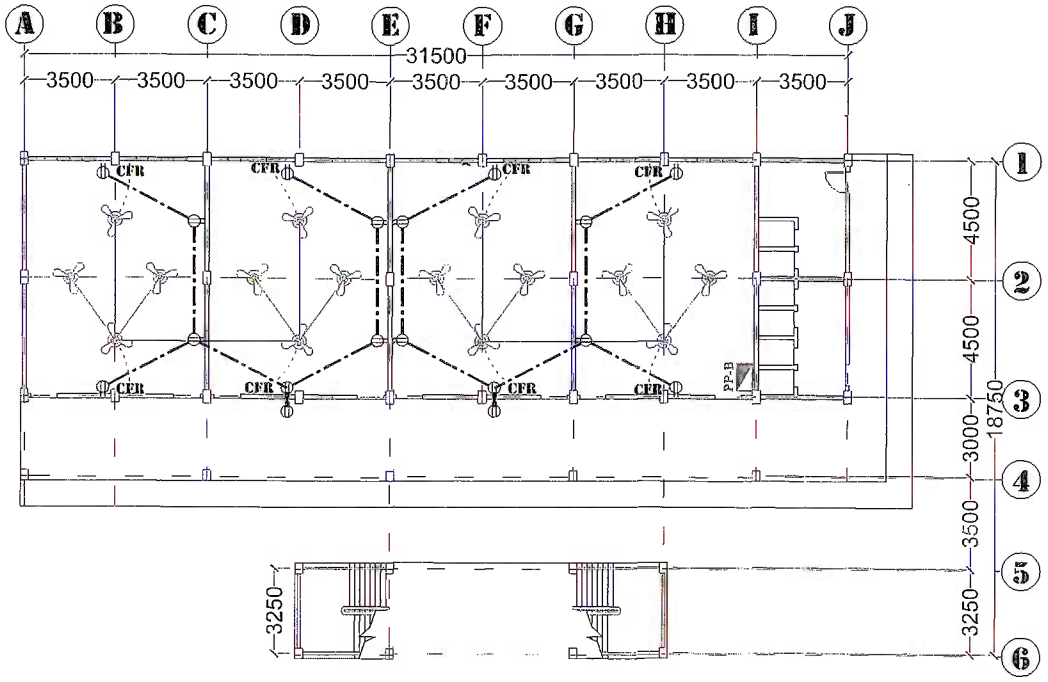


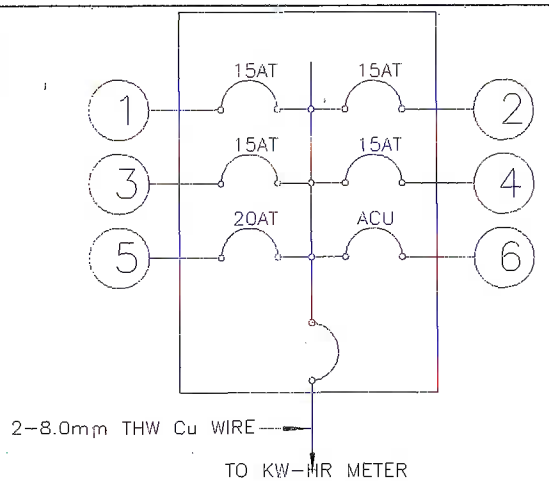
I E-4 | E-4 **SECOND FLOOR C.O & CFR LAYOUT PLAN**

SCALE 1: 200

PREPARED BY : ROMBLON STATE UNIVERSITY OFFICE OF AUXILIARY, PLANT SERVICES AND POLLUTION CONTROL UNIT	ELECTRICAL ENGINEER: ROLANDO R. LUIZ PROF. ELECTRICAL ENGINEER ADDRESS: 210 AURELIO BLDG. PRC REG. No.: Validity: PTR No.: Date: Place: TIN:	CHECKED BY : JEROME ADOLFO P. FAJARITO ASPCO Director APPROVED BY: ARNOLD M. DE LUNA SUC President	PROJECT TITLE : CONSTRUCTION OF 2 - STOREY ACADEMIC BUILDING FOR THE COLLEGE OF ENGINEERING AND TECHNOLOGY (CET) LOCATION : ROMBLON STATE UNIVERSITY - Main Campus, Liwanag, Odiongan, Romblon	SHEET CONTENT: AS SHOWN	PREPARED BY: CAD OPERATOR: Nenwel M. Rutoni JOB NO. : DATE :JUNE 2017	E-4

PP-A SCHEDULE OF LOADS

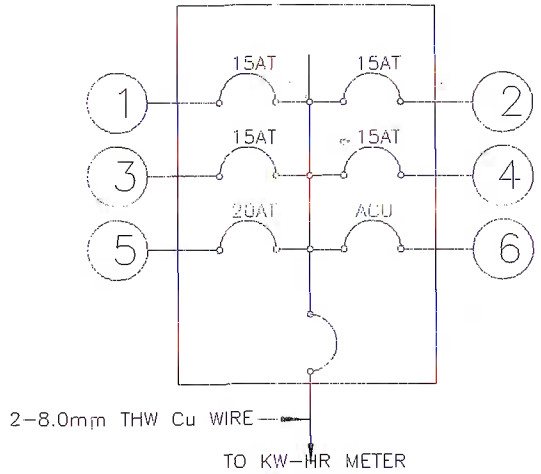
CIRCUIT NUMBER	LIGHT OUTLET	CONV. OUTLET	LOAD DESCRIPTION	POWER (VA)	VOLTAGE (VOLTS)	WIRE SIZE	CONDUIT SIZE	PROTECTION AT	PROTECTION AF	AMPERES
1	17		17 L.O. @ 32VA EACH	544	230V	2.0mm THW	15mmø	15	100	2.36AMPS
2	15		15 L.O. @ 32VA EACH	480	230V	2.0mm THW	15mmø	15	100	2.08AMPS
3		9	9 C.O. @ 180VA EACH	1620	230V	3.5mm THW	15mmø	20	100	7.04AMPS
4		9	9 C.O. @ 180VA EACH	1620	230V	3.5mm THW	15mmø	20	100	7.04AMPS
5			8 CIELING FAN @ 180VA EACH	1440	230V	3.5mm THW	15mmø	20	100	6.36AMPS
6			8 CIELING FAN @ 180VA EACH	1440		3.5mm THW	15mmø	20	100	6.36AMPS
TOTAL				7112	230V					31.1AMPS



PP-A CIRCUIT BREAKER DIA.

PP-B SCHEDULE OF LOADS

CIRCUIT NUMBER	LIGHT OUTLET	CONV. OUTLET	LOAD DESCRIPTION	POWER (VA)	VOLTAGE (VOLTS)	WIRE SIZE	CONDUIT SIZE	PROTECTION AT	PROTECTION AF	AMPERES
1	16		16 L.O. @ 32VA EACH	512	230V	2.0mm THW	15mmø	15	100	2.22AMPS
2	14		14 L.O. @ 32VA EACH	448	230V	2.0mm THW	15mmø	15	100	1.94AMPS
3		9	9 C.O. @ 180VA EACH	1620	230V	3.5mm THW	15mmø	20	100	7.04AMPS
4		9	9 C.O. @ 180VA EACH	1620	230V	3.5mm THW	15mmø	20	100	7.04AMPS
5			8 CIELING FAN @ 180VA EACH	1440	230V	3.5mm THW	15mmø	20	100	6.36AMPS
6			8 CIELING FAN @ 180VA EACH	1440		3.5mm THW	15mmø	20	100	6.36AMPS
TOTAL				7080	230V					30.96AMPS



PP-B CIRCUIT BREAKER DIA.

TOTAL COMPUTATION OF LOADS

MAXIMUM POWER DEMAND = TOTAL COMPUTED LOAD X DEMAND FACTOR

@ 80% B.F.

= (7112 + 7080) 0.80

$$I_T = \frac{11353.6}{230} = 49.36\text{Amps}$$

PREPARED BY:	ELECTRICAL ENGINEER:	CHECKED BY:	PROJECT TITLE:	SHEET CONTENT:	PREPARED BY:	
ROMBLON STATE UNIVERSITY OFFICE OF AUXILIARY, PLANT SERVICES AND POLLUTION CONTROL UNIT	ROLANDO T. CRUZ PRC REG. No. 2662 Validity: PTR No.: Date: Place: TIN:	JEROME ADOLFO F. FAJARITO APPROVED BY: ARNEL POLE DE LUNA RSU President	CONSTRUCTION OF 2 - STOREY ACADEMIC BUILDING FOR THE COLLEGE OF ENGINEERING AND TECHNOLOGY (CET) LOCATION : ROMBLON STATE UNIVERSITY - Main Campus, Livanag, Odiongan, Romblon	AS SHOWN	CAD OPERATOR: Nenwel M. Rotoni JOB NO. : DATE :JUNE 2017	E-5

GENERAL NOTES :

1. ALL ELECTRICAL WORKS HEREIN SHALL BE DONE IN ACCORDANCE WITH THE PROVISION OF THE LATEST EDITION OF THE PHILIPPINE ELECTRICAL CODE, WITH THE RULES AND REGULATION OF THE LOCAL POWER COMPANY (MERALCO) AND EXISTING LOCAL AND NATIONAL AUTHORITIES CONCERNED IN THE ENFORCEMENT OF ELECTRICAL LAWS AND ORDINANCES.
2. SERVICE VOLTAGE TO THE BUILDING SHALL BE 240 VOLTS, SINGLE PHASE (1ø), TWO WIRES (2W) + GROUND 60HZ
3. WIRING METHOD SHALL BE AS FOLLOWS:
   A. POLYVINYL CHLORIDE PIPE (PVC) FOR POWER, LIGHTING AND AUXILIARY LAYOUT.
   B. INTERMEDIATE METALLIC CONDUIT (IMC) FOR FEEDER LAYOUT.
4. ALL WIRES SHALL BE COPPER AND THERMOPLASTIC INSULATED TYPE THHN, UNLESS OTHERWISE INDICATED. THE MINIMUM SIZE OF WIRES & CONDUIT FOR POWER AND LIGHTING LAYOUT SHALL BE 3.5MM SQ. THHN 15MMøC(NOMINAL DIAMETER) RESPECTIVELY WIRE INSULATION ARE GOOD FOR 600 VOLTS.
   COLOR CODING :
   LINE A – BLACK GROUND – GREEN
   LINE B – RED CONTROL WIRE – YELLOW
5. ALL SPLICES FOR CONDUCTORS 3.5MM MM SQ. AND ABOVE SHALL BE DONE WITH PRESSURE TYPE OR TWIST-ON SPLICING MATERIALS.
6. ALL MATERIALS TO BE USED AND EQUIPMENT TO BE INSTALLED SHALL BE BRAND NEW AND MUST BE OF THE APPROVED TYPE FOR BOTH PURPOSE AND LOCATION INTENDED.
7. ALL METALLIC CONDUITS, CABINETS AND EQUIPMENTS SHALL BE PROPERLY GROUNDED AND BONDED BY MEANS OF COPPER STRAPS, CONNECTION TO GROUND ROD SHALL BE EXPOSED READILY ACCESSIBLE FOR INSPECTION.
8. ALL ELECTRICAL WORKS HEREIN SHALL BE UNDER THE DIRECT SUPERVISION OF A DULY LICENCED ELECTRICAL ENGINEER OR A MASTER ELECTRICIAN.
9. EXACT LOCATION OF ALL ELECTRICAL DEVICES TO BE VERIFIED @ SITE AND ARE SUBJECT TO ARCHITECT'S/ENGINEER'S APPROVAL.
10. THE CONTRACTOR SHALL COORDINATE HIS WORK WITH ALL TRADES INVOLVED SO THAT THE EXACT LOCATIONS & QUANTITIES MAY BE OBTAINED FOR ALL OUTLETS, APPARATUS, APPLIANCES AND EQUIPMENT.
11. CONTRACTOR TO CHECK SPACE REQUIREMENTS TO ENSURE THAT MATERIALS/EQUIPMENTS CAN BE INSTALLED IN THE SPACE ALLOTTED.
12. WHEN IN DOUBT ABOUT THE DESIGN CONCEPT OR INTENT, SUBMIT A LETTER OF INQUIRY (RFI) TO THE PARTY CONCERNED.
13. THE CONTRACT DRAWINGS, INSTRUCTION AND TECHNICAL SPECIFICATION SHALL BE CONSIDERED AS ONE, WHATEVER IS CALLED FOR BY ANY OF THE DOCUMENTS SHALL BE IMPLEMENTED TO THE FULLEST EXTENT.
14. THE ELECTRICAL CONTRACTOR SHALL EXAMINE AND STUDY THE ARCHITECTURAL SCALE DRAWINGS, LARGE SCALE AND FULL-SIZE DETAILS, APPROVED SHOP DRAWINGS FROM OTHER TRADES AND SHALL FREQUENTLY CONSULT AND COORDINATE WITH OTHER TRADES TO AVERT CONFLICT IN ACTUAL SITE INSTALLATION WORKS.
15. THE PLANS AS DRAWN ARE BASED UPON THE ARCHITECTURAL PLANS AND THE DETAILS AND SHOWN CONDITION AS ACCURATELY AS IT IS POSSIBLE TO INDICATE THEM IN SCALE. THE PLANS ARE DIAGRAMMATICAL AND DO NOT NECESSARILY SHOW ALL FITTINGS NECESSARY TO FIT TO THE BUILDING CONDITIONS. THE LOCATIONS OF OUTLETS, APPARATUS AND APPLIANCE SHOWN ON THE PLANS ARE APPROXIMATE. THE CONTRACTOR SHALL BE HELD RESPONSIBLE FOR THEIR PROPER LOCATION IN ORDER TO MAKE THEM FIT WITH THE ARCHITECTURAL DETAILS AND INSTRUCTIONS FROM THE ENGINEER'S REPRESENTATIVE AT THE SITE.
16. UPON COMPLETION OF ELECTRICAL CONSTRUCTION WORK, THE FOLLOWING TESTS SHALL BE PERFORMED BY THE CONTRACTOR INCLUSIVE OF THE INSTALLATION TO BE REPORTED IN DETAILS AND IN FORMS APPROVED BY THE OWNER'S REPRESENTATIVE:
   A. INSULATION RESISTANCE TEST
   B. GROUND RESISTANCE TEST
   C. OPERATIONAL TEST
   D. PHASE BALANCING TEST
   E. PHASE SEQUENCE TEST
   F. SYSTEM TEST
17. PROVIDE COMPUTERIZED AND LAMINATED DIRECTORY FOR ALL PANELS AND DP'S

ELECTRICAL SYSTEM LEGEND :

PPA	ELECTRICAL PANELBOARD MCCB TYPE;
20AT	MOLDED CASE CIRCUIT BREAKER, RATING AS INDICATED W/ COMMON INTERNAL TRIP BOLT-ON TYPE
	PINLIGHT OUTLET,23W
	32W CIRCULAR FLUORESCENT LAMP
	WALL LAMP
	SPOTLIGHT OUTLET
UL	UPLIGHT OUTLET
	FENCE LIGHT OUTLET
Sa	ONE GANG, SINGLE POLE SWITCH,16A,250V
Sab	TWO GANG, SINGLE POLE SWITCH,16A,250V
Sabc	THREE GANG, SINGLE POLE SWITCH,16A,250V
	DUPLEX CONVENIENCE OUTLET GROUNDING TYPE (230V)
REF	REFRIGERATOR OUTLET
TH/WP	TABLE HEIGHT/WEATHERPROOF
	CONDUIT RUN UNDER FLOOR OR EMBEDDED IN FLOOR SLAB
	BRANCH CIRCUIT HOMERUN TO
	TELEPHONE OUTLET
	INTERCOM OUTLET
	CATV ANTENNA OUTLET
PB/WP	DOOR BELL/PUSH BUTTON
	AIRCON OUTLET
WH	WATER HEATER OUTLET
RH	STOVE OUTLET
	CONDUIT RUN OVERHEAD INSIDE CEILING OR IN WALLS

PREPARED BY :	ELECTRICAL ENGINEER: [illegible] PROF. ELECTRICAL ENGINEER ADDRESS: [illegible] PRC REG.No.: [illegible] Validity: [illegible] PTR # [illegible] PTR No.: Date: Place: TIN:	CHECKED BY : JEROME ADOLFO F. FAJARITO Asst. Director	PROJECT TITLE : CONSTRUCTION OF 2 - STOREY ACADEMIC BUILDING FOR THE COLLEGE OF ENGINEERING AND TECHNOLOGY (CET)	SHEET CONTENT: AS SHOWN	PREPARED BY: CAD OPERATOR: Nenwel M. Rotoni JOB NO. : DATE :JUNE 2017
ROMBLON STATE UNIVERSITY OFFICE OF AUXILIARY, PLANT SERVICES AND POLLUTION CONTROL UNIT		APPROVED BY: ARNULFO M. DE LUNA ISU President	LOCATION : ROMBLON STATE UNIVERSITY - Main Campus, Livanag, Odiongan, Romblon		E-6