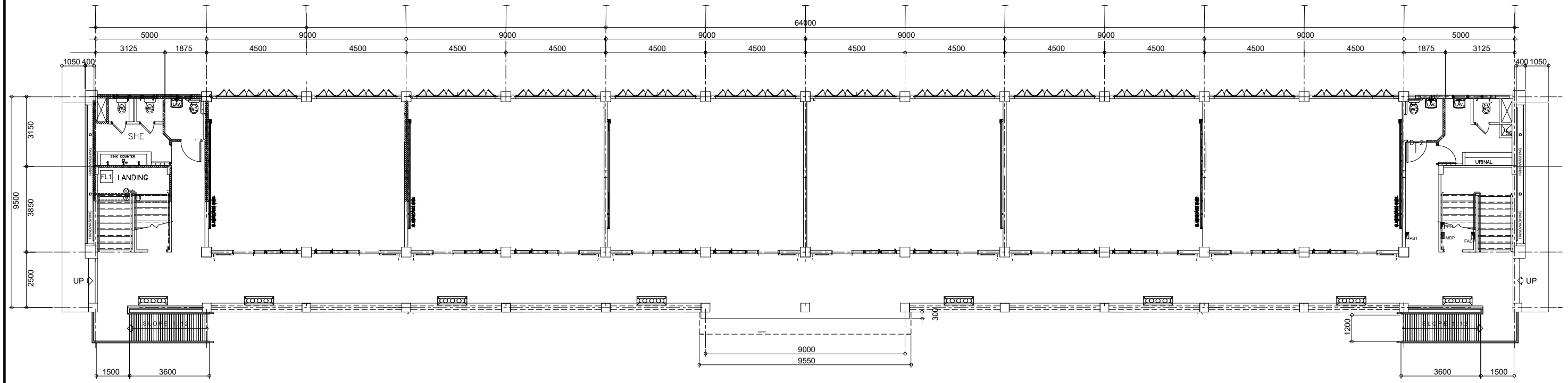
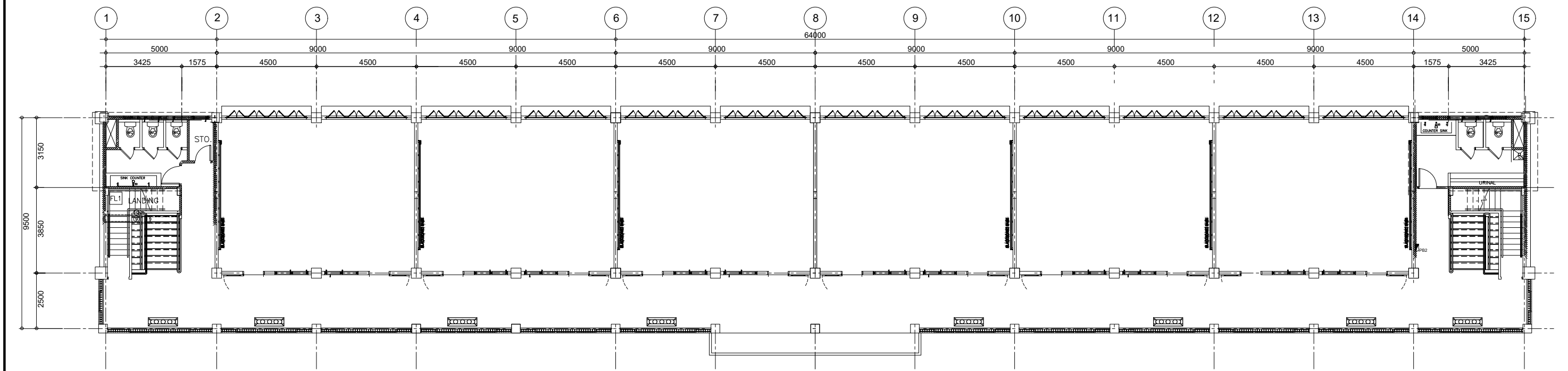




GROUND FLOOR
SCALE



2ND FLOOR
SCALE

1 SOLAR FLOOD LIGHT LAYOUT
E-3 SCALE 1 : 100 M

 REPUBLIC OF THE PHILIPPINES DEPARTMENT OF PUBLIC WORKS AND HIGHWAYS REGIONAL OFFICE NO. XIII SURIGAO DEL SUR 2ND DISTRICT ENGINEERING OFFICE BISLIG CITY, SURIGAO DEL SUR	PROJECT & LOCATION: CONSTRUCTION OF TWO STOREY TWELVE CLASSROOM SCHOOL BUILDING	SHEET CONTENTS: SOLAR FLOOD LIGHT LAYOUT	DRAWN BY : TROY CHRISTOPHER R. BUSA ENGINEER I DESIGN BY : RAYMON O. CORNITES ENGINEER II	CHECKED BY : FRANCIS V. VARRON ENGINEER II DATE:	SUBMITTED BY: RODRIGO J. DAYTOTOS JR. ACTING CHIEF, PLANNING AND DESIGN SECTION DATE:	RECOMMENDING APPROVAL: ANASTACIA C. SALAS OIC-ASSISTANT DISTRICT ENGINEER DATE:	APPROVED BY: JEROME S. MEZO DISTRICT ENGINEER DATE:	SET NO. E-3	SHEET NO. 03 05
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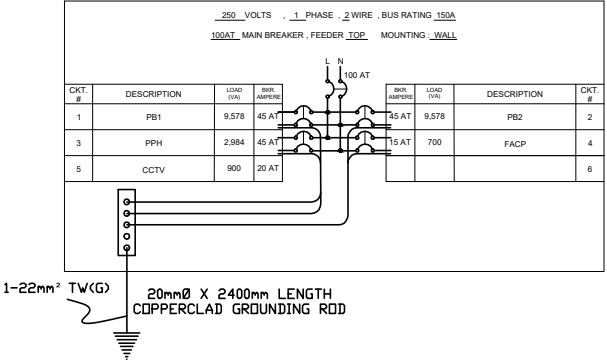
DPA

CKT. #	DESCRIPTION	W PER CIRCUIT	VOLTS	BRANCH CKT. BREAKER			SIZE OF	
				AF	AT	POLE	CONDUCTOR	CONDUIT
1	LIGHTING OUTLET	1008	230	50	15	2	2-2.0m ² THHN 1-2.0mm ² TW	15 mmØ
2	LIGHTING OUTLET	1008	230	50	15	2	2-2.0m ² THHN 1-2.0mm ² TW	15 mmØ
3	LIGHTING OUTLET	885	230	50	15	2	2-2.0m ² THHN 1-2.0mm ² TW	15 mmØ
4	CEILING FAN OUTLET	1800	230	50	15	2	2-2.0m ² THHN 1-2.0mm ² TW	15 mmØ
5	CONVENIENCE OUTLET	2520	230	50	20	2	2-3.5mm ² THHN 1-3.5mm ² TW	15 mmØ
6	CONVENIENCE OUTLET	2520	230	50	20	2	2-3.5mm ² THHN 1-3.5mm ² TW	15 mmØ
TOTAL		9,578	230	60	45	2	2-8.0mm ² THHN 1-8.0mm ² TW	25 mmØ
DESIGN ANALYSIS: IL @80% D.F. = (9,578 X 0.80)/230 = 24.55 A USE : 2-8.0mm ² THHN + 1-3.5mm ² TW(G) IN 20mmØ RSC								

PPH

CKT. #	DESCRIPTION	W PER CIRCUIT	VOLTS	BRANCH CKT. BREAKER			SIZE OF	
				AF	AT	POLE	CONDUCTOR	CONDUIT
1	2.0HP, 1Ø, 230V, WATER PUMP	1,492	230	50	20	2	2-3.5m ² THHN 1-3.5mm ² TW	15 mmØ
2	2.0HP, 1Ø, 230V, WATER PUMP	1,495	230	50	20	2	2-3.5mm ² THHN 1-3.5mm ² TW	15 mmØ
TOTAL		2,984	230	60	45	2	2-8.0mm ² THHN 1-8.0mm ² TW	20 mmØ
DESIGN ANALYSIS: IL @80% P.F. = (2984/0.85) = 3,730 A USE : 2-8.0mm ² THHN + 1-3.5mm ² TW(G) IN 20mmØ RSC IL @80% D.F. = 3,730/230 = 15.26 A								

MAIN DISTRIBUTION PANEL



3 PANEL BOARD SCHEDULE
E-4 SCALE N T S

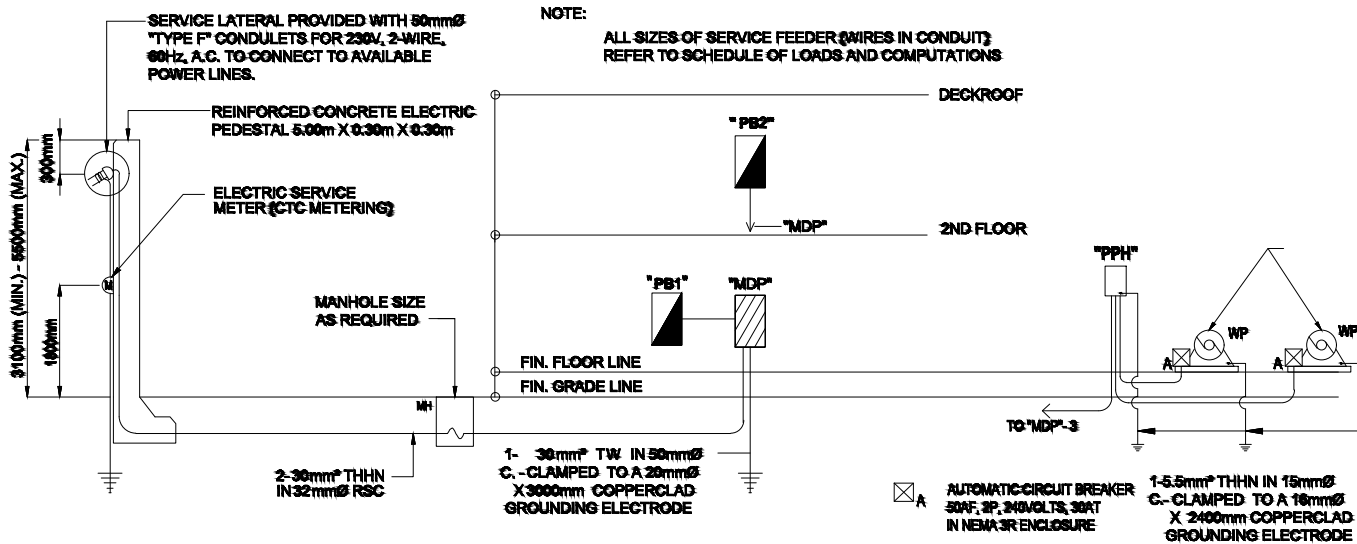
DPB

CKT. #	DESCRIPTION	W PER CIRCUIT	VOLTS	BRANCH CKT. BREAKER			SIZE OF	
				AF	AT	POLE	CONDUCTOR	CONDUIT
1	LIGHTING OUTLET	1008	230	50	15	2	2-2.0m ² THHN 1-2.0mm ² TW	15 mmØ
2	LIGHTING OUTLET	1008	230	50	15	2	2-2.0m ² THHN 1-2.0mm ² TW	15 mmØ
3	LIGHTING OUTLET	885	230	50	15	2	2-2.0m ² THHN 1-2.0mm ² TW	15 mmØ
4	CEILING FAN OUTLET	1800	230	50	15	2	2-2.0m ² THHN 1-2.0mm ² TW	15 mmØ
5	CONVENIENCE OUTLET	2520	230	50	20	2	2-3.5mm ² THHN 1-3.5mm ² TW	15 mmØ
6	CONVENIENCE OUTLET	2520	230	50	20	2	2-3.5mm ² THHN 1-3.5mm ² TW	15 mmØ
TOTAL		9,578	230	60	45	2	2-8.0mm ² THHN 1-8.0mm ² TW	25 mmØ
DESIGN ANALYSIS: IL @80% D.F. = (9,578 X 0.80)/230 = 24.55 A USE : 2-8.0mm ² THHN + 1-3.5mm ² TW(G) IN 20mmØ RSC								

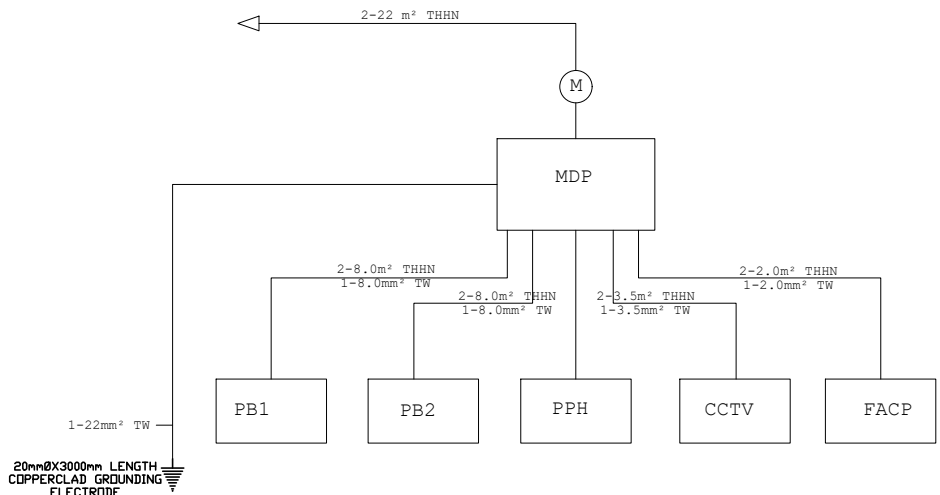
MDP

CKT. #	DESCRIPTION	W PER CIRCUIT	VOLTS	BRANCH CKT. BREAKER			SIZE OF	
				AF	AT	POLE	CONDUCTOR	CONDUIT
1	PB1	9,578	230	60	45	2	2-8.0mm ² THHN 1-8.0mm ² TW	25 mmØ
2	PB2	9,578	230	60	45	2	2-8.0mm ² THHN 1-8.0mm ² TW	25 mmØ
3	PPH	2,984	230	60	45	2	2-8.0mm ² THHN 1-8.0mm ² TW	25 mmØ
4	FACP	700	230	50	15	2	2-2.0mm ² THHN 1-2.0mm ² TW	15 mmØ
5	CCTV	1500	230	50	20		2-3.5mm ² THHN 1-3.5mm ² TW	15 mmØ
TOTAL		24,340	230	150	100	2	2-30mm ² THWN 1-30mm ² TW	32 mmØ
DESIGN ANALYSIS: IL @80% D.F. = (24,340 X 0.80) + (25% X 8.1) USE : 2-30mm ² THHN + 1-30mm ² TW(G) IN 32mmØ RSC 230 IL @80% D.F. = 88.52 A								

1 SCHEDULE OF LOADS
E-4 SCALE N T S



2 RISER DIAGRAM
E-4 SCALE N T S



5 SINGLE LINE DIAGRAM
E-4 SCALE N T S



REPUBLIC OF THE PHILIPPINES
DEPARTMENT OF PUBLIC WORKS AND HIGHWAYS
REGIONAL OFFICE NO. XIII
SURIGAO DEL SUR 2ND
DISTRICT ENGINEERING OFFICE
BISLIG CITY, SURIGAO DEL SUR

PROJECT & LOCATION:

CONSTRUCTION OF TWO STOREY
TWELVE CLASSROOM SCHOOL BUILDING

SHEET CONTENTS:

SCHEDULE OF LOAD
RISER DIAGRAM
PANEL BOARD SCHEDULE
SINGLE LINE DIAGRAM

DRAWN BY :

TROY CHRISTOPHER R. BUSA
ENGINEER I

DESIGN BY :

RAYMON O. CORNITES
ENGINEER II

CHECKED BY :

FRANCIS V. VARRON
ENGINEER II

DATE:

SUBMITTED BY:

RODRIGO J. DAYTOTOS JR.
ACTING CHIEF, PLANNING AND DESIGN SECTION

DATE:

RECOMMENDING APPROVAL:

ANASTACIA C. SALAS
OIC-ASSISTANT DISTRICT ENGINEER

DATE:

APPROVED BY:

JEROME S. MEZO
DISTRICT ENGINEER

DATE:

SET NO.

E-4

SHEET NO.

04
05