

GENERAL NOTES :

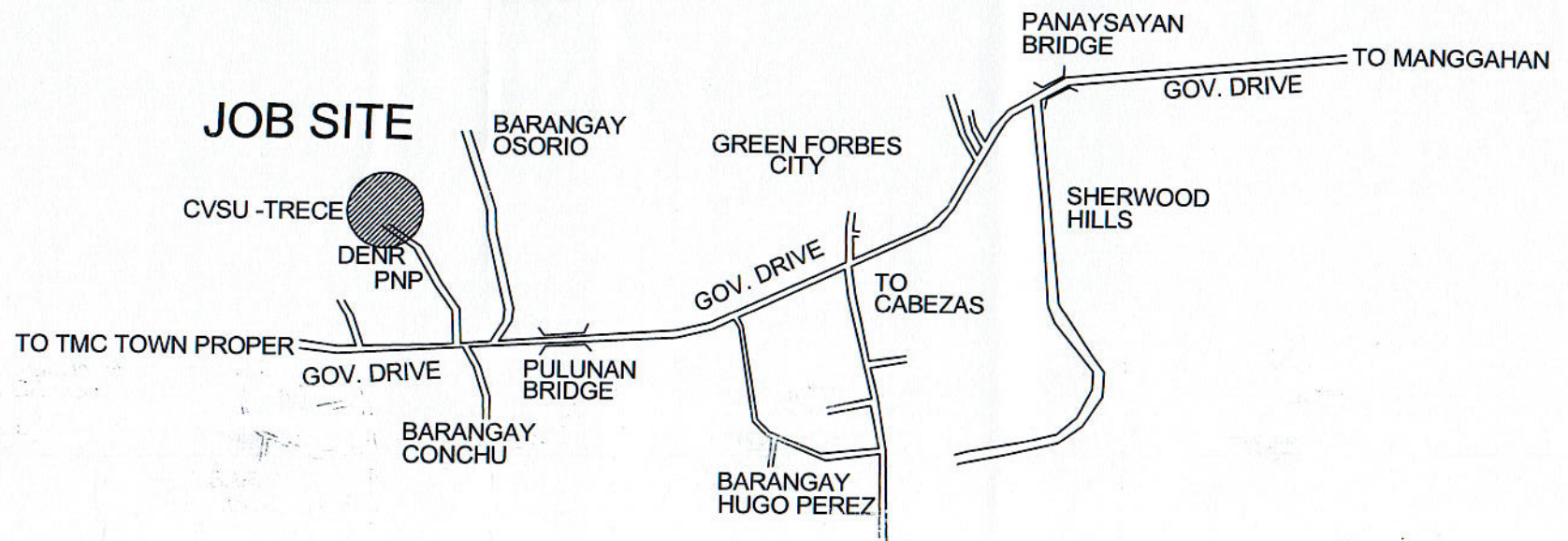
1. ALL ELECTRICAL WORKS TO BE UNDERTAKEN SHALL BE IN ACCORDANCE WITH THE LATEST EDITION OF THE PHILIPPINE ELECTRICAL CODE PART 1 AND 2 AND THE RULES AND REGULATIONS OF LOCAL ENFORCING UTILITY POWER AND TELEPHONE COMPANY.
2. ALL MATERIALS AND EQUIPMENT TO BE USED SHALL BE NEW AND APPROVED TYPE FOR BOTH LOCATION AND PURPOSES.
3. THE ELECTRICAL WORKS SHALL BE UNDER THE IMMEDIATE SUPERVISION OF A DULY LICENSED ELECTRICAL ENGINEER OR MASTER ELECTRICIAN AUTHORIZED FOR EACH GRADE.
4. THE MINIMUM SIZE OF WIRE SHALL BE NUMBER 2.0mm ϕ COPPER, THHN TYPE UNLESS OTHERWISE NOTED.
5. WIRING METHOD SHALL BE RSC/PVC FOR ALL BRANCH CIRCUITS AND FOR SERVICE ENTRANCE.
6. PROPER GROUNDING OR ELECTRICAL EQUIPMENT SHALL BE IN ACCORDANCE WITH THE PHILIPPINE ELECTRICAL CODE.
7. FIELD VERIFICATION SHALL BE DONE BY THE CONTRACTOR ANY DISCREPANCIES OR CHANGES SHALL BE PROMPTLY NOTIFIED TO THE OWNER'S REPRESENTATIVE OR DESIGNER.
8. TYPE OF LIGHTING FIXTURE SHALL BE SUBMITTED TO THE ENGINEER OR ARCHITECT FOR APPROVAL..
MOUNTING HEIGHT
9. REQUEST FOR TEMPORARY POWER INTERRUPTION SHOULD BE COORDINATED TO OWNER'S REPRESENTATIVE OR DESIGNER..
10. PROVIDE CABLE/ WIRE GUTTER BELOW AND ABOVE THE PANEL BOARDS INSIDE ALL THE ELECTRICAL ROOM.
11. ALL ELECTRICAL CONDUITS AND TELEPHONE SERVICE ENTRANCE THAT INSTALLED BELOW THE GROUND SHALL BE IN CONCRETE ENCASEMENT.
12. PROVIDE SIGNAGE "ELECTRICAL ROOM" POSTED TO ALL ELECTRICAL ROOM DOORS.

13. REFER TO LOAD SCHEDULE AND SINGLE LINE DIAGRAM FOR THE RATING OF INDIVIDUAL ENCL, ACB'S IN NEMA-3R.
14. REFER TO SHEET E-2 FOR EXACT NUMBER AND LOCATION OF DEVICES/EQUIPMENT FOR ELECTRICAL SYSTEM. ANY CONFLICT ON QUANTITY AND/OR LAYOUT MUST BE VERIFIED AND CONFIRMED TO DESIGNER/CONSULTANT.
15. ANY DEVICES OR EQUIPMENT NOT REFLECTED OR SHOWN ON PLANS BUT REQUIRED TO COMPLETE THE SYSTEM MUST BE INCLUDED ON SCOPE OF WORK.

LEGEND AND SYMBOLS :



LOCATION MAP:

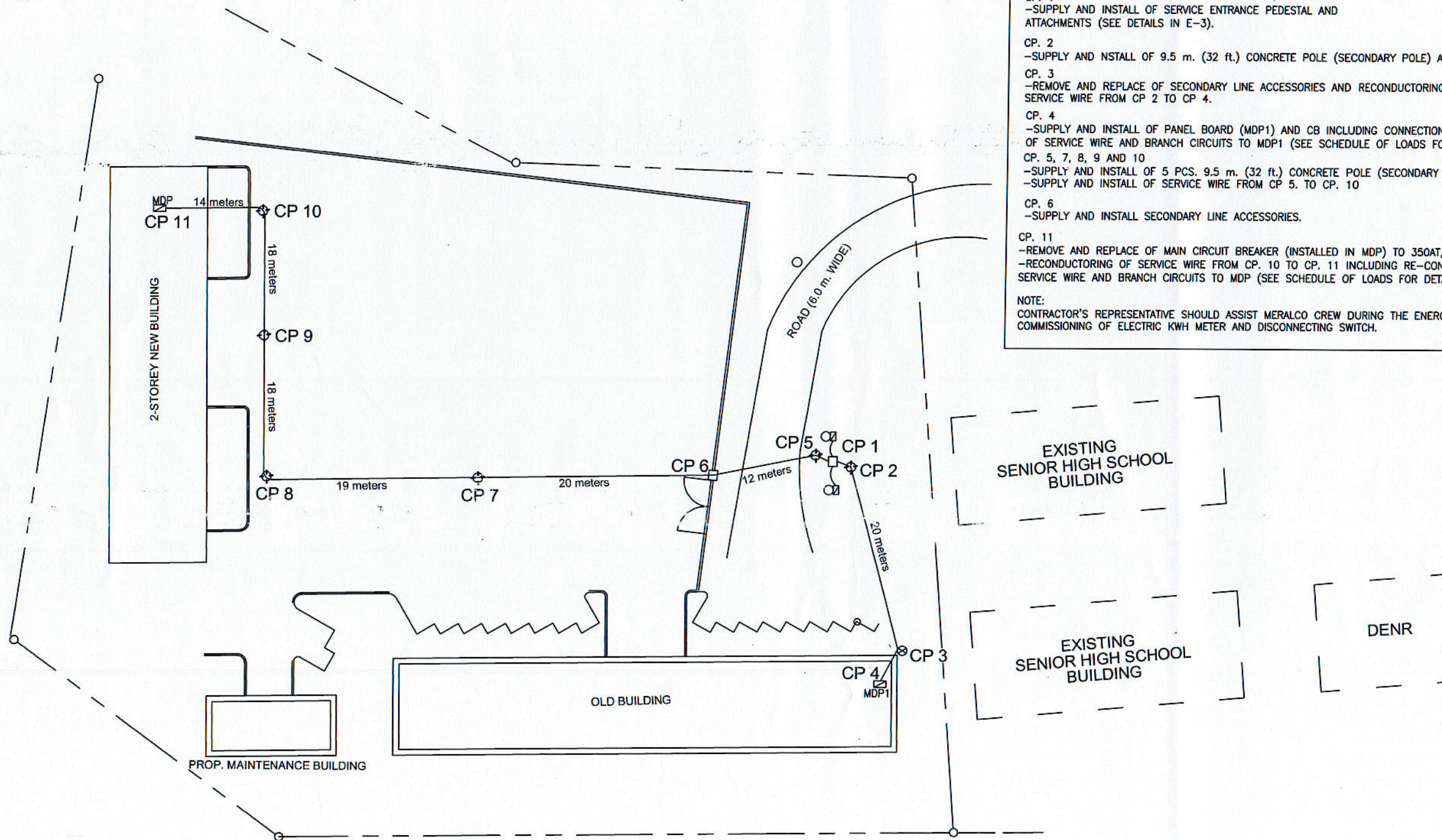


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CONSTRUCTION POINTS

- CP. 1
-SUPPLY AND INSTALL OF SERVICE ENTRANCE PEDESTAL AND ATTACHMENTS (SEE DETAILS IN E-3).
- CP. 2
-SUPPLY AND INSTALL OF 9.5 m. (32 ft.) CONCRETE POLE (SECONDARY POLE) AND ACCESSORIES.
- CP. 3
-REMOVE AND REPLACE OF SECONDARY LINE ACCESSORIES AND RECONDUCTING OF SERVICE WIRE FROM CP 2 TO CP 4.
- CP. 4
-SUPPLY AND INSTALL OF PANEL BOARD (MDP1) AND CB INCLUDING CONNECTION/TERMINATION OF SERVICE WIRE AND BRANCH CIRCUITS TO MDP1 (SEE SCHEDULE OF LOADS FOR DETAILS).
- CP. 5, 7, 8, 9 AND 10
-SUPPLY AND INSTALL OF 5 PCS. 9.5 m. (32 ft.) CONCRETE POLE (SECONDARY POLE) AND ACCESSORIES.
-SUPPLY AND INSTALL OF SERVICE WIRE FROM CP 5. TO CP. 10
- CP. 6
-SUPPLY AND INSTALL SECONDARY LINE ACCESSORIES.
- CP. 11
-REMOVE AND REPLACE OF MAIN CIRCUIT BREAKER (INSTALLED IN MDP) TO 350AT,400AF,230V MCCB.
-RECONDUCTING OF SERVICE WIRE FROM CP. 10 TO CP. 11 INCLUDING RE-CONNECTION/TERMINATION OF SERVICE WIRE AND BRANCH CIRCUITS TO MDP (SEE SCHEDULE OF LOADS FOR DETAILS).

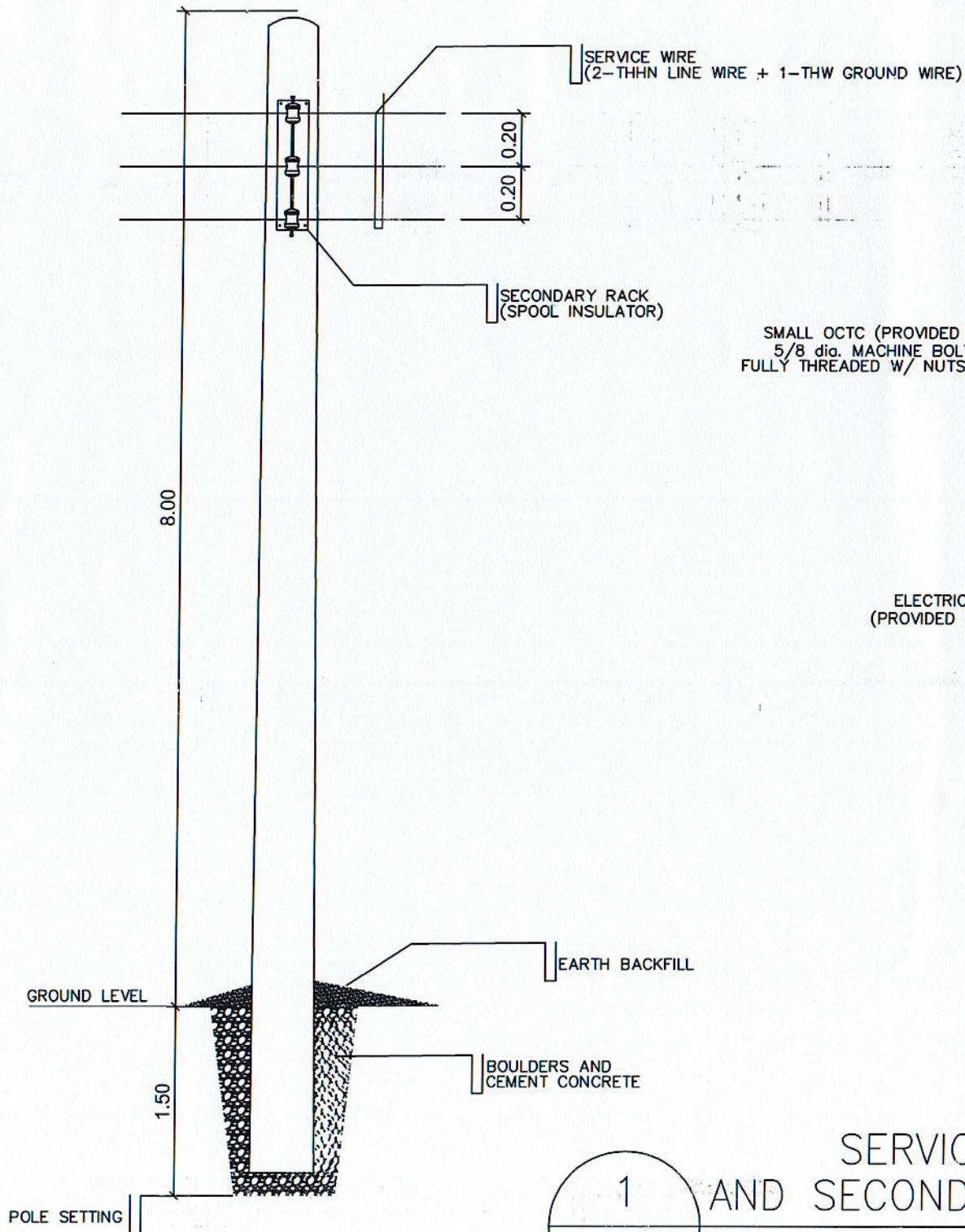
NOTE:
CONTRACTOR'S REPRESENTATIVE SHOULD ASSIST MERALCO CREW DURING THE ENERGIZATION, TESTING AND COMMISSIONING OF ELECTRIC KWH METER AND DISCONNECTING SWITCH.



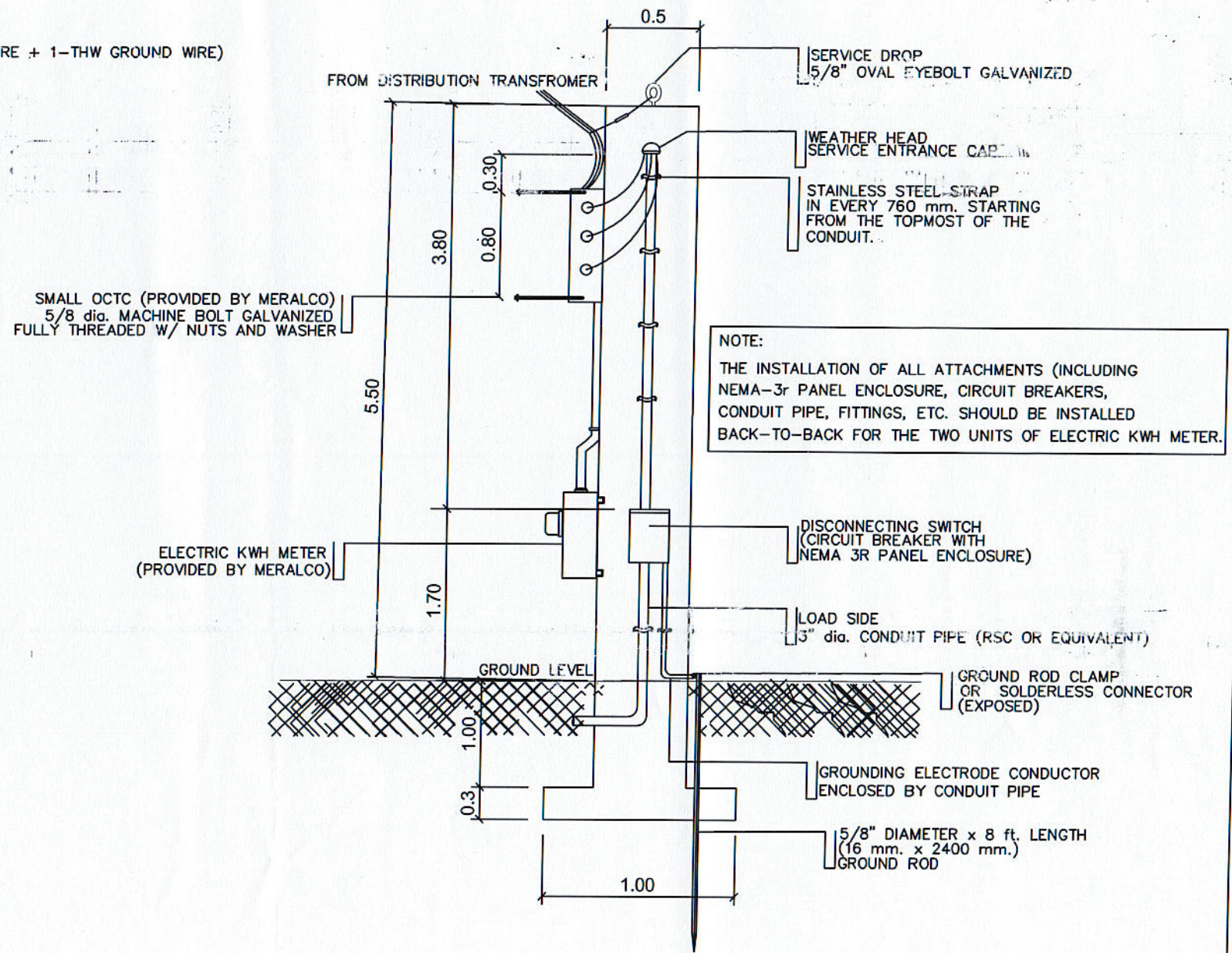
FR1
E-2
ELECTRICAL SERVICE LINE LAYOUT
SCALE NTS

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SECONDARY CONCRETE POLE



SERVICE ENTRANCE
PEDESTAL



NOTE:
THE INSTALLATION OF ALL ATTACHMENTS (INCLUDING
NEMA-3r PANEL ENCLOSURE, CIRCUIT BREAKERS,
CONDUIT PIPE, FITTINGS, ETC. SHOULD BE INSTALLED
BACK-TO-BACK FOR THE TWO UNITS OF ELECTRIC KWH METER.

SERVICE ENTRANCE PEDESTAL
AND SECONDARY CONCRETE POLE DETAILS

1
E-3

SCALE

NTS

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PROJECT TITLE/ LOCATION: IMPROVEMENT OF ELECTRICAL POWER SYSTEM - CAVITE STATE UNIVERSITY - TRECE CAMPUS TRECE MARTIRES CITY

IMPLEMENTING AGENCY: CAVITE STATE UNIVERSITY

SHT NO: E - 3

SCHEDULE OF LOADS

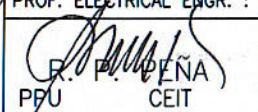
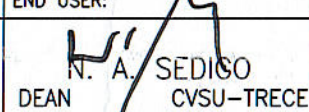
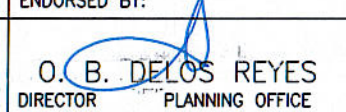

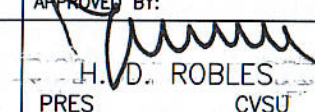
OLD BUILDING

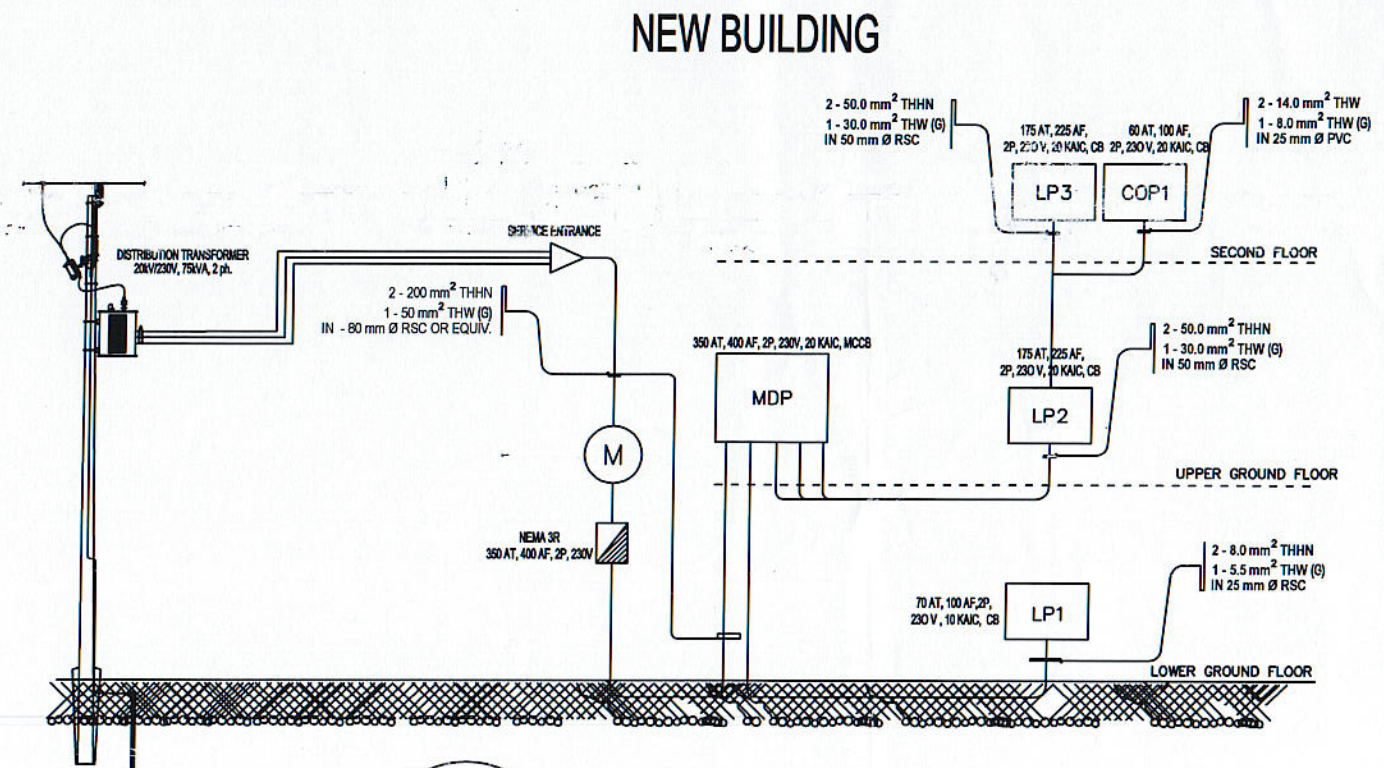
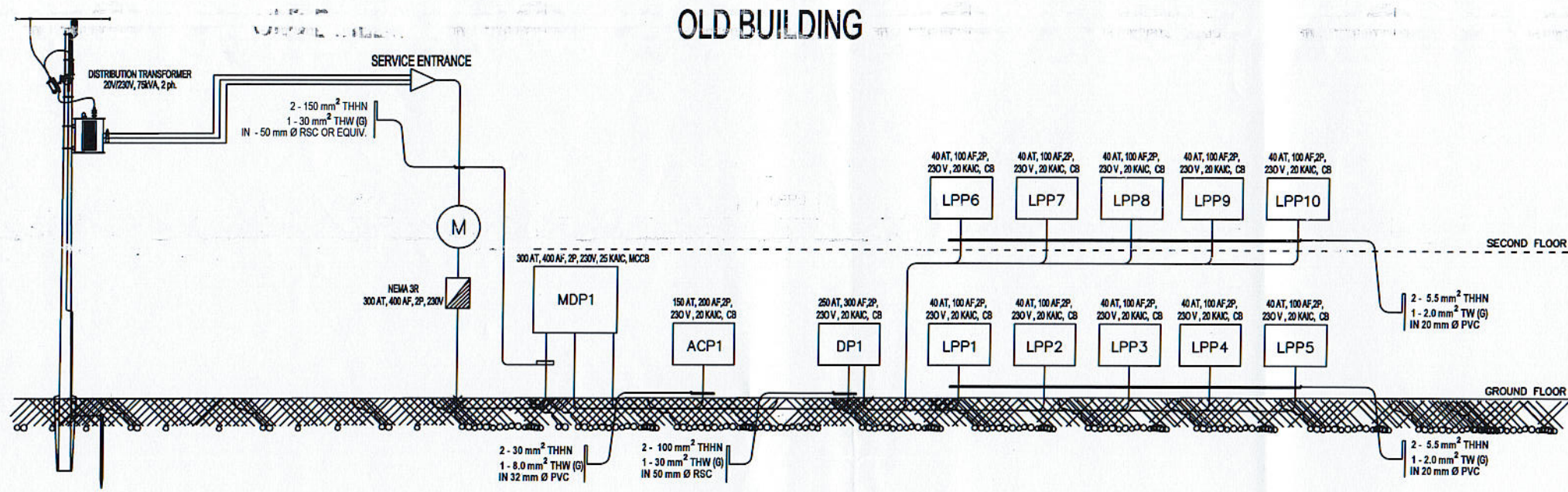
PANEL : MDP1		CABLE: 2 - 150.0 SQMM THHN + 1 - 30.0 SQMM THW			MAIN: 300 AT, 400 AF, 2P, 230V, 25 KAIC, MCCB					
PHASE: 1		CONDUIT: RSC, 50 MM DIA.			ENCLOSURE : NEMA 1					
VOLTS: 230		LOCATION: OLD BUILDING GROUND FLOOR			MOUNTING: SURFACE					
CKT NO.	PANEL CODE	CIRCUIT DESCRIPTION	LOAD IN RATING			CIRCUIT PROTECTION	Size of Conductor		Size Of Conduit In MM ø	Color Code
			Volt- Amp	VOLT	AMPERES		THHN	THW		
1	DP1	DISTRIBUTION PANEL 1	45800	230	268.70	250 AT, 300 AF, 2P, 230V, 20 KAIC	2 - 100.0	+ G 30.0	RSC, 50	1R,1B,G
2	ACP1	ACU PANEL 1	11190	230	85.00	150 AT, 200 AF, 2P, 230V, 20 KAIC	2 - 30.0	+ G 8.0	PVC, 32	1R,1B,G
3		SPARE								
4		SPARE								
TOTAL			56990	230	353.70	300 AT, 400 AF, 2P, 230V, 25 KAIC	2 - 150.0	+ G 30.0	RSC, 50	1R,1B,G
MAIN FEEDER and CURRENT PROTECTION COMPUTATION:										
NOTE:										
			$I_{FL} = (353.70 \times DF) =$			282.96		Amperes		
			$I_{CB} = (353.70 \times DF) =$			282.96		Amperes		
			G - Means Ground Wire							
			1R- Color RED							
			1B- Color BLACK							
			1G- Color GREEN							
use: 2 - 150.0 SQMM THHN + 1 - 30.0 SQMM THW IN 50 MM DIA. RSC										
use: 300 AT, 400 AF, 2P, 230V, 25 KAIC, MCCB										
This Electrical Design is good only for the above connected loads.										
Any additional electrical load connection in the future is not allowed,										
Except redesign of electrical load system will be done.										

NEW BUILDING

PANEL : MDP		CABLE: 2 - 200.0 SQMM THHN + 1 - 50.0 SQMM THW			MAIN: 350 AT, 400 AF, 2P, 230V, 20 KAIC, MCCB					
PHASE: 1		CONDUIT: RSC, 80 MM DIA.			ENCLOSURE : NEMA 1					
VOLTS: 230		LOCATION: BUILDING 2 (NEW BUILDING)			MOUNTING: SURFACE					
CKT NO.	PANEL CODE	CIRCUIT DESCRIPTION	LOAD IN RATING			CIRCUIT PROTECTION	Size of Conductor		Size Of Conduit In MM ø	Color Code
			Volt- Amp	VOLT	AMPERES					
1	LP1	LIGHTING PANEL 1	7980	230	34.70	70 AT, 2P, 230V, 10 KAIC	2 - 8.0	+ G 5.5	RSC, 20	1R,1B,G
2	LP2	LIGHTING PANEL 2	37560	230	163.30	175 AT, 2P, 230V, 20 KAIC	2 - 50.0	+ G 30.0	RSC, 50	1R,1B,G
3	LP3	LIGHTING PANEL 3	37560	230	163.30	175 AT, 2P, 230V, 20 KAIC	2 - 50.0	+ G 30.0	RSC, 50	1R,1B,G
4	COPI	CONVENIENCE OUTLET PANEL 1	12600	230	54.78	60 AT, 2P, 230V, 20 KAIC	2 - 14.0	+ G 8.0	PVC, 25	1R,1B,G
5		SPARE								
6		SPARE								
TOTAL			95700	230	416.09	350 AT, 400 AF, 2P, 230V, 20 KAIC	2 - 200.0	+ G 50.0	RSC, 80	1R,1B,G
MAIN FEEDER and CURRENT PROTECTION COMPUTATION:										
NOTE:										
			$I_{FL} = (416.09 \times DF) =$			332.872		Amperes		
			$I_{CB} = (416.09 \times DF) =$			332.872		Amperes		
			G - Means Ground Wire							
			1R- Color RED							
			1B- Color BLACK							
			1G- Color GREEN							
use: 2 - 200.0 SQMM THHN + 1 - 50.0 SQMM THW IN 80 MM DIA. RSC										
use: 350 AT, 400 AF, 2P, 230V, 20 KAIC, MCCB										
This Electrical Design is good only for the above connected loads.										
Any additional electrical load connection in the future is not allowed,										
Except redesign of electrical load system will be done.										

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1 SINGLE LINE DIAGRAM
 E-5 SCALE NTS

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PROF. ELECTRICAL ENGR. : <i>R. J. R. SANCHEZ</i> PPU OVPDP	DEAN <i>N. A. SEDICO</i> CVSU-TRECE	DIRECTOR <i>O. B. DELOS REYES</i> PLANNING OFFICE	VPPD <i>M. J. D. TEPORA</i> CVSU	VPASS <i>C. A. POLINGA</i> CVSU	PRES <i>H. D. ROBLES</i> CVSU		