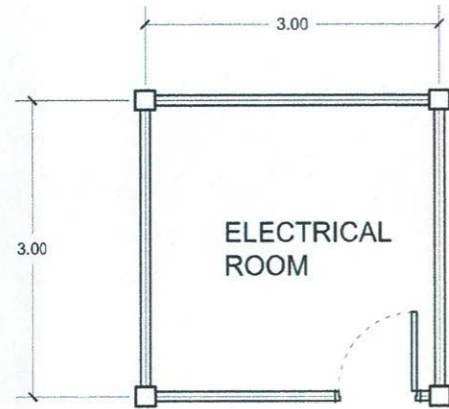


- LEGEND:**
- 1 Administration Building
 - 2 Stage
 - 3 Covered Court
 - 4 Hostel
 - 5 Clinic
 - 6 Building Extension (DELETED)
 - 7 OSA Buliding
 - 8 Existing Building
 - 9 Science, Technology & Applied Research Building
 - 10 Student Lounge
 - 11 Entrepreneur Center
 - 12 Electrical House

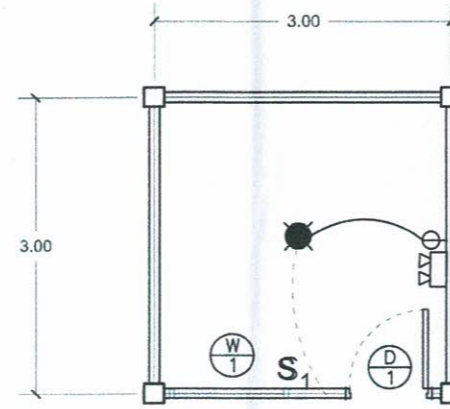
1
SITE DEVELOPMENT PLAN
SCALE
1 : 800 MTS

	PREPARED BY:	ARCHITECT	END USER:	REVIEWED BY:	REC. APPROVAL:	APPROVED BY:	PROJECT TITLE/ LOCATION:	IMPLEMENTING AGENCY:	SHT NO:
	 R. J. PASCUAL <small>PPU OVPPD</small>	 E. N. RODEROS <small>PPU OVPPD</small>	 C. M. SIGNO <small>CAMPUS ADMINISTRATOR CARMONA CAMPUS</small>	 E. N. RODEROS <small>PPU OVPPD</small>	 O. B. DELOS REYES <small>DIRECTOR PLANNING OFFICE</small>	 M. J. D. TEPORA <small>VPPD CVSU</small>	 H. D. ROBLES <small>PRES CVSU</small>	IMPROVEMENT OF ELECTRICAL FEEDER LINE OF CARMONA CAMPUS <small>CAVITE STATE UNIVERSITY CARMONA CAMPUS</small>	CAVITE STATE UNIVERSITY



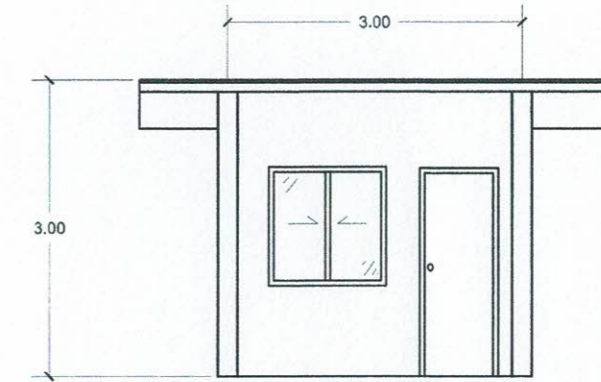
FLOOR PLAN

SCALE 1 : 75 MTS



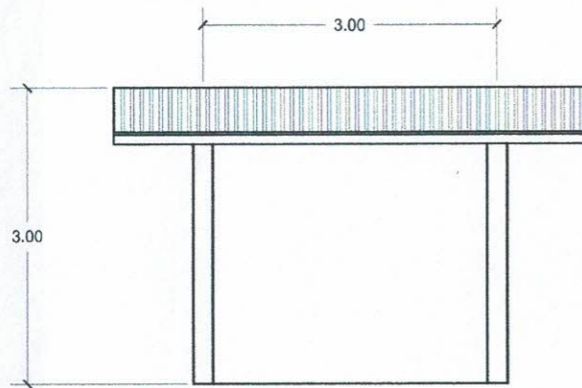
LIGHTING LAYOUT

SCALE 1 : 75 MTS



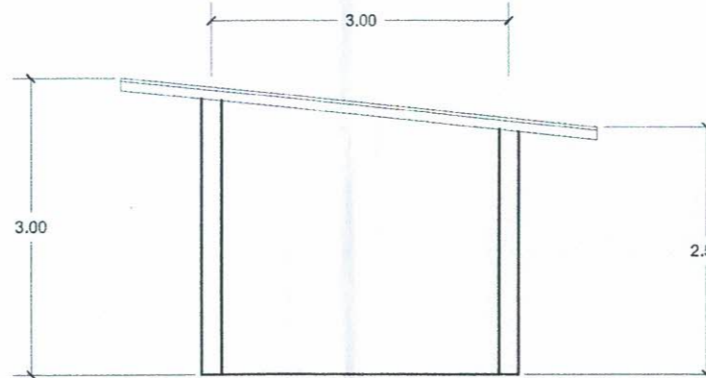
FRONT ELEVATION

SCALE 1 : 75 MTS



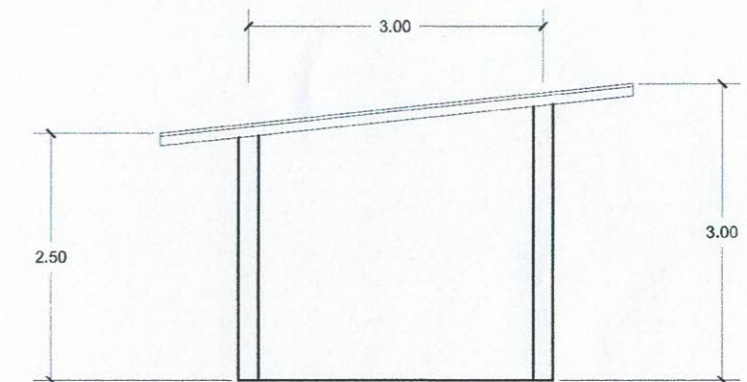
REAR ELEVATION

SCALE 1 : 75 MTS



LEFT SIDE ELEVATION

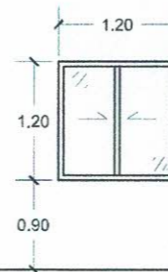
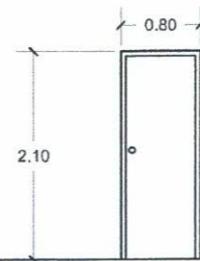
SCALE 1 : 75 MTS



RIGHT SIDE ELEVATION

SCALE 1 : 75 MTS

0.80 X 2.10 FLUSH DOOR W/
W/ COMPLETE ACCESSORIES
24 SETS

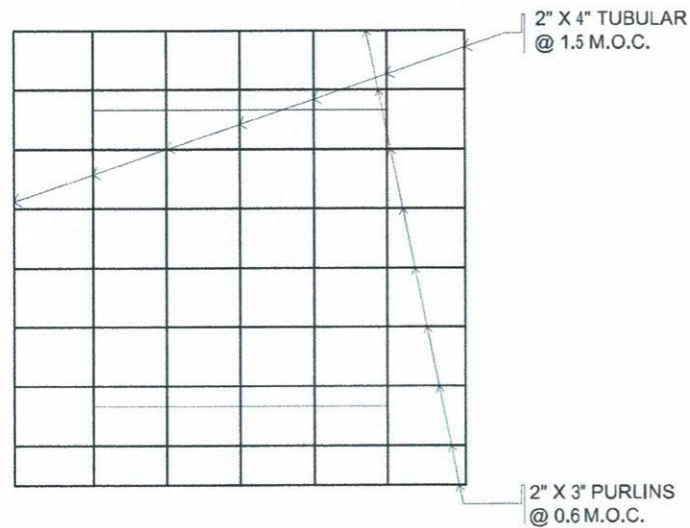


ALUMINUM SLIDING WINDOW COMPLETE W /
ALL ACCESSORIES W / 3/8" THK COLORED GLASS
ON COLORED POWDER COATED FINISH
ALUMINUM FRAMING
28 SETS

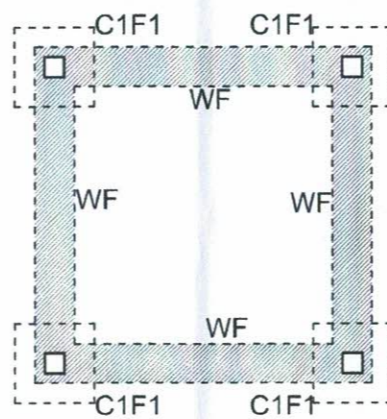
SCHEDULE OF DOOR & WINDOWS

SCALE 1 : 75 MTS

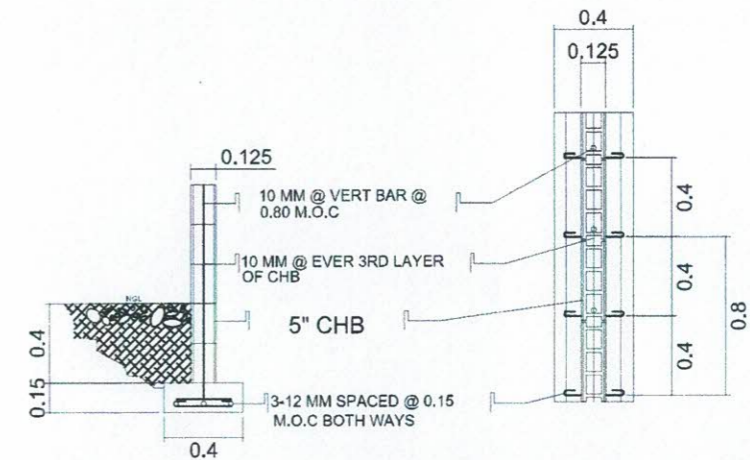
	PREPARED BY:	ARCHITECT	END USER:	REVIEWED BY:	REC. APPROVAL:	APPROVED BY:	PROJECT TITLE/ LOCATION:	IMPLEMENTING AGENCY:	SHT NO.:
	 R. PASCUAL PPU OVPPD	 E.N. RODEROS PPU OVPPD	 C. M. SIGNO CAMPUS ADMINISTRATOR CARMONA CAMPUS	 E. N. RODEROS PPU OVPPD	 O. B. DE LOS REYES DIRECTOR PLANNING OFFICE	 M.J.D. TEPORA VPPD CVSU	 H.D. ROBLES PRES CVSU	IMPROVEMENT OF ELECTRICAL FEEDER LINE OF CARMONA CAMPUS CAVITE STATE UNIVERSITY CARMONA CAMPUS	CAVITE STATE UNIVERSITY



ROOF TRUSS PLAN
SCALE 1 :75 MTS



FOUNDATION PLAN
SCALE 1 :75 MTS



WALL FOOTING DETAIL
SCALE 1 :50 MTS

SCHEDULE OF COLUMNS

COLUMN	DIMENSION	REINFORCEMENT	NO. OF TIES & SPACING
C1	200 MM X 200 MM	4 - 16mm Ø R.S.B.	1 SET OF 10mm Ø TIES @ 2-50mm, 4-75mm, 6-100mm, REST @ 200mm O.C.

SCHEDULE OF FOOTINGS

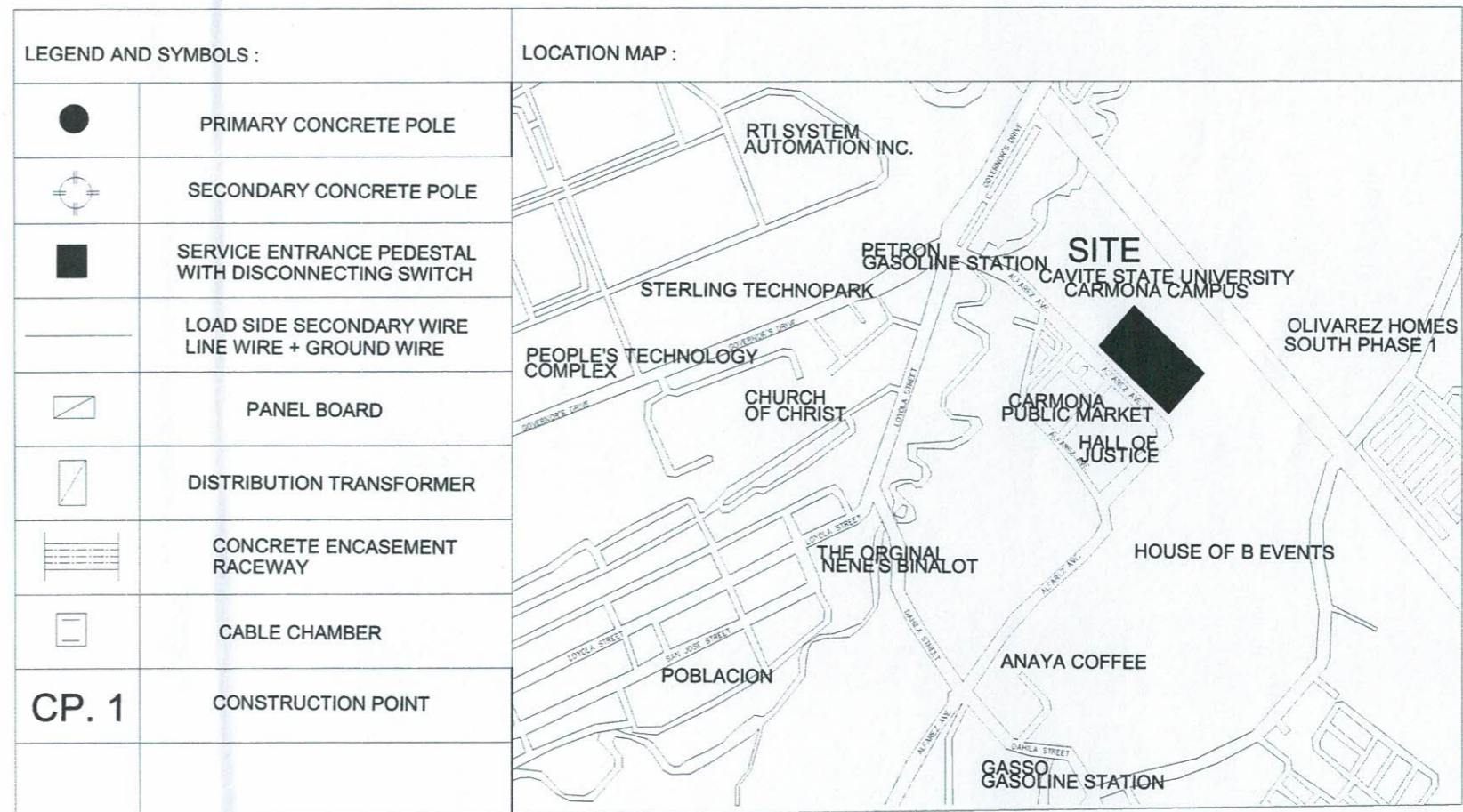
NAME	TYPE	THICKNESS	SIZE (LxW)	DEPTH	REINFORCEMENT	
F1	ISOLATED	300 MM	800 x 800 MM	1000 MM	BOTTOM	
					ALONG L	ALONG W
					6-16 MM Ø @ 150 MM	6-16 MM Ø @ 150 MM

	PREPARED BY:	CIVIL ENGINEER	END USER:	REVIEWED BY:	REC. APPROVAL:	APPROVED BY:	PROJECT TITLE/ LOCATION:	IMPLEMENTING AGENCY:	SHT NO:
	R. PASCUAL PPU	L. E. ROCELA OVPPD	C. M. SIGNO CAMPUS ADMINISTRATOR CARMONA CAMPUS	E. N. RODRIGOS OVPPD	O. B. DELOS REYES DIRECTOR PLANNING OFFICE	M. J. D. TEPORA VPPD	H. D. ROBLES PRES CVSU	IMPROVEMENT OF ELECTRICAL FEEDER LINE OF CARMONA CAMPUS CAVITE STATE UNIVERSITY CARMONA CAMPUS	CAVITE STATE UNIVERSITY

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 2.0mmØ 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.
9. MOUNTING HEIGHT 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.

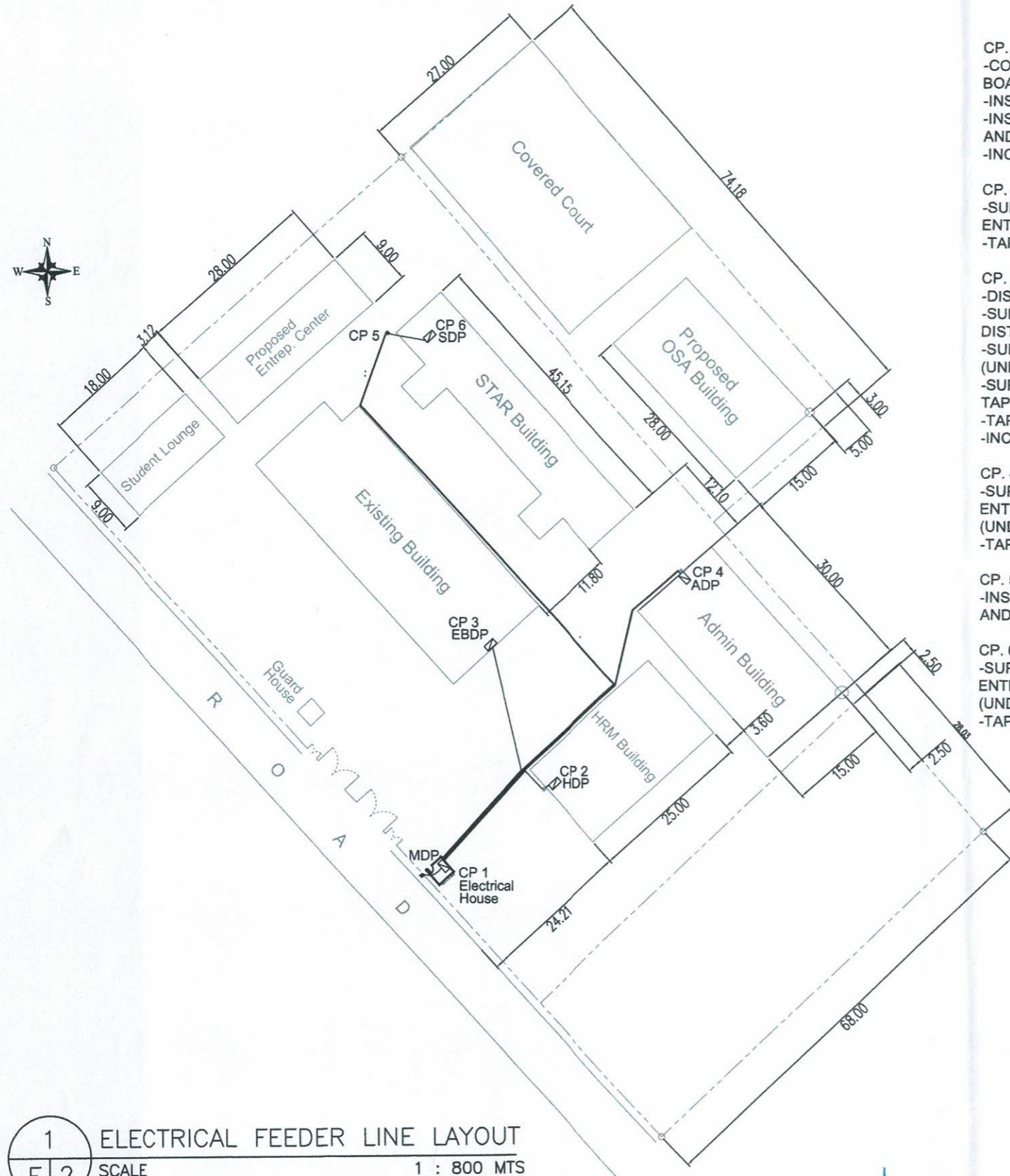
13. REFER TO LOAD SCHEDULE AND SINGLE LINE DIAGRAM FOR THE RATING OF INDIVIDUAL ENCL, ACB'S IN NEMA-3R.
14. REFER TO SHEET E-2 FOR EXACT NUMBER AND LOCATION OF DEVICES/EQUIPMENT FOR ELECTRICAL SYSTEM. ANY CONFLICT ON QUANTITY AND/OR LAYOUT MUST BE VERIFIED AND CONFIRMED TO DESIGNER/CONSULTANT.
15. ANY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



	PREPARED BY:	PROF. ELECTRICAL ENGR. :	END USER:	REVIEWED BY:	REC. APPROVAL:	APPROVED BY:	PROJECT TITLE/ LOCATION:	IMPLEMENTING AGENCY:	SHT NO:
	R. J. R. SANCHEZ PPU	R. P. PEÑA OVPPD	C. M. SIGNO CAMPUS ADMINISTRATOR	E. N. RODRIGOS OVPPD	O. B. DELOS REYES DIRECTOR PLANNING OFFICE	M. J. D. TEPORA VPPD	H. D. ROBLES PRES	IMPROVEMENT OF ELECTRICAL POWER SYSTEM OF CARMONA CAMPUS CAVITE STATE UNIVERSITY CARMONA CAMPUS	CAVITE STATE UNIVERSITY

CONSTRUCTION POINTS

- CP. 1**
 -CONSTRUCTION OF ELECTRICAL HOUSE IN ACCORDANCE WITH THE PLAN (A-1 & S-1).-SUPPLY AND INSTALLATION OF NEW PANEL BOARD AND CIRCUIT BREAKERS FOR MAIN DISTRIBUTION PANEL MDP (SEE SCHEDULE OF LOAD FOR SPECIFICATIONS).
 -INSTALLATION OF CONDUCTOR WIRES, CONDUIT PIPES AND SUPPORT BRACKETS.
 -INSTALLATION OF SERVICE ENTRANCE CONCRETE PEDESTAL WITH CONDUIT PIPES, CONDUCTOR WIRES, SUPPORT BRACKETS AND ACCESSORIES.
 -INCLUDE TAPPING/TERMINATION OF WIRES TO SOURCE.
- CP. 2**
 -SUPPLY AND INSTALLATION OF CONDUCTOR WIRE, CONDUIT PIPES AND SUPPORT BRACKET FROM MDP TO EXISTING SERVICE ENTRANCE PEDESTAL OF HRM BUILDING (UNDERGROUND WITH CONCRETE ENCASEMENT RACEWAY).
 -TAPPING/TERMINATION OF CONDUCTOR WIRES TO THE SOURCE.
- CP. 3 (CONVERSION FROM SINGLE PHASE TO THREE PHASE)**
 -DISMANTLING OF EXISTING PANEL BOARD AND CIRCUIT BREAKER NEEDED TO BE REPLACED.
 -SUPPLY AND INSTALLATION OF NEW THREE PHASE PANEL BOARD AND CIRCUIT BREAKERS FOR EXISTING BUILDING DISTRIBUTION PANEL EBDP (SEE SCHEDULE OF LOAD FOR SPECIFICATIONS).
 -SUPPLY AND INSTALLATION OF CONDUCTOR WIRE, CONDUIT PIPES AND SUPPORT BRACKET FROM MDP TO EBDP (UNDERGROUND WITH CONCRETE ENCASEMENT RACEWAY).
 -SUPPLY AND INSTALLATION OF CONDUCTOR WIRES, CONDUIT PIPES AND SUPPORT BRACKETS INCLUDING TAPPING/TERMINATION OF CONDUCTOR WIRES OF EXISTING PANELS (CIRCUIT BREAKERS) TO NEWLY INSTALLED EBDP.
 -TAPPING/TERMINATION OF CONDUCTOR WIRES TO THE SOURCE.
 -INCLUDE LOAD BALANCING IF NECESSARY.
- CP. 4**
 -SUPPLY AND INSTALLATION OF CONDUCTOR WIRE, CONDUIT PIPES AND SUPPORT BRACKET FROM MDP TO EXISTING SERVICE ENTRANCE PEDESTAL OF ADMINISTRATION BUILDING AND PROPOSED OSA BUILDING (UNDERGROUND WITH CONCRETE ENCASEMENT RACEWAY).
 -TAPPING/TERMINATION OF CONDUCTOR WIRES TO THE SOURCE.
- CP. 5**
 -INSTALLATION OF SERVICE ENTRANCE CONCRETE PEDESTAL WITH CONDUIT PIPES, CONDUCTOR WIRES, SUPPORT BRACKETS AND ACCESSORIES.
- CP. 6**
 -SUPPLY AND INSTALLATION OF CONDUCTOR WIRE, CONDUIT PIPES AND SUPPORT BRACKET FROM MDP TO NEW SERVICE ENTRANCE PEDESTAL OF STAR BUILDING AND PROPOSED ENTREPRENEURIAL BUILDING (UNDERGROUND WITH CONCRETE ENCASEMENT RACEWAY).
 -TAPPING/TERMINATION OF CONDUCTOR WIRES TO THE SOURCE.

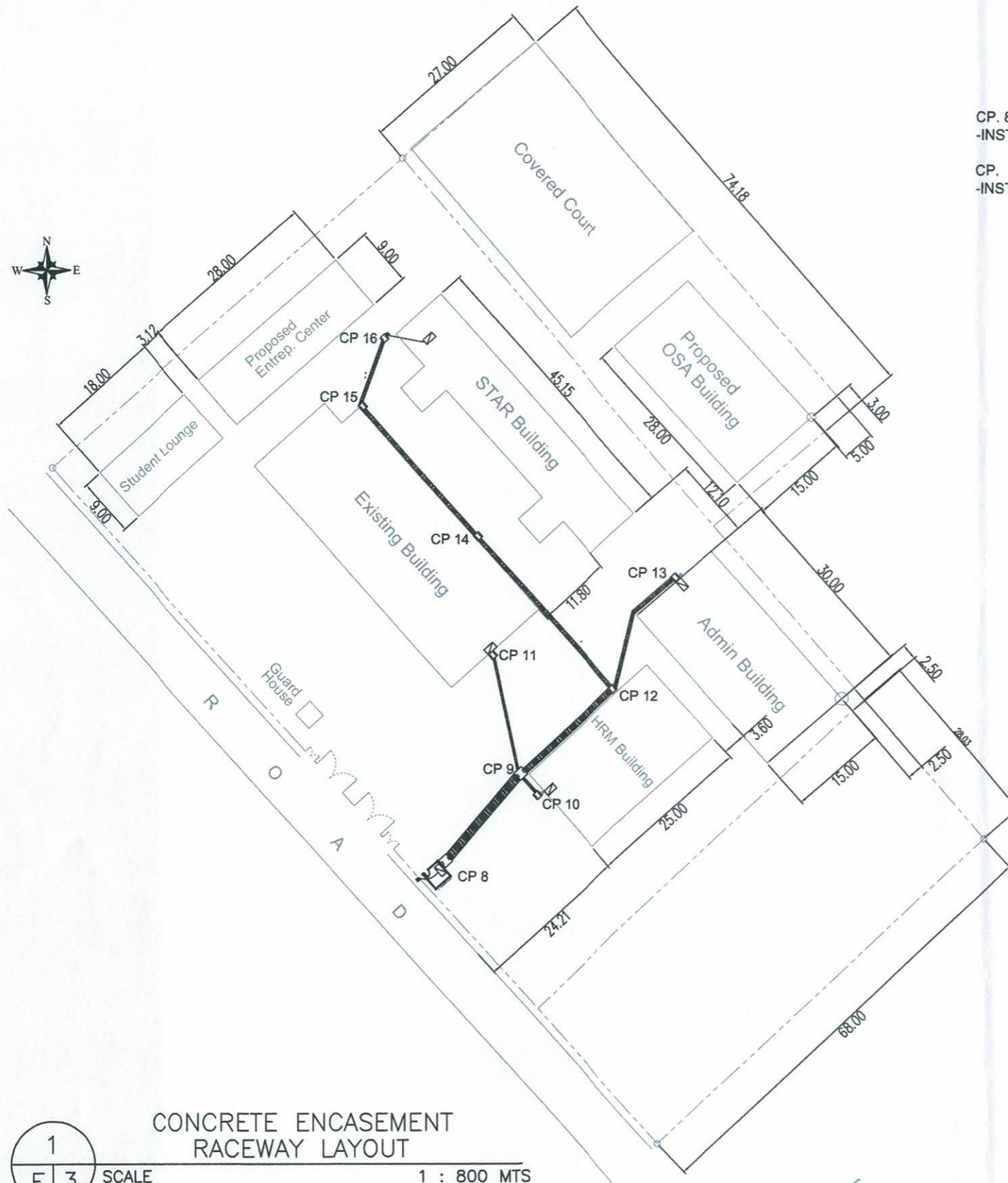


1 ELECTRICAL FEEDER LINE LAYOUT
 E 2 SCALE 1 : 800 MTS

	PREPARED BY:	PROF. ELECTRICAL ENGR. :	END USER:	REVIEWED BY:	REC. APPROVAL:	APPROVED BY:	PROJECT TITLE/ LOCATION:	IMPLEMENTING AGENCY:	SHT NO:
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CONSTRUCTION POINTS

- CP. 8 & 9
-INSTALLATION OF ELECTRICAL CABLE CHAMBER/ MANHOLE (SEE E-7, B1 FOR DETAILS).
- CP. 10, 11, 12, 13, 14, 15 & 16
-INSTALLATION OF ELECTRICAL CABLE CHAMBER/ MANHOLE (SEE E-7, B3 FOR DETAILS).



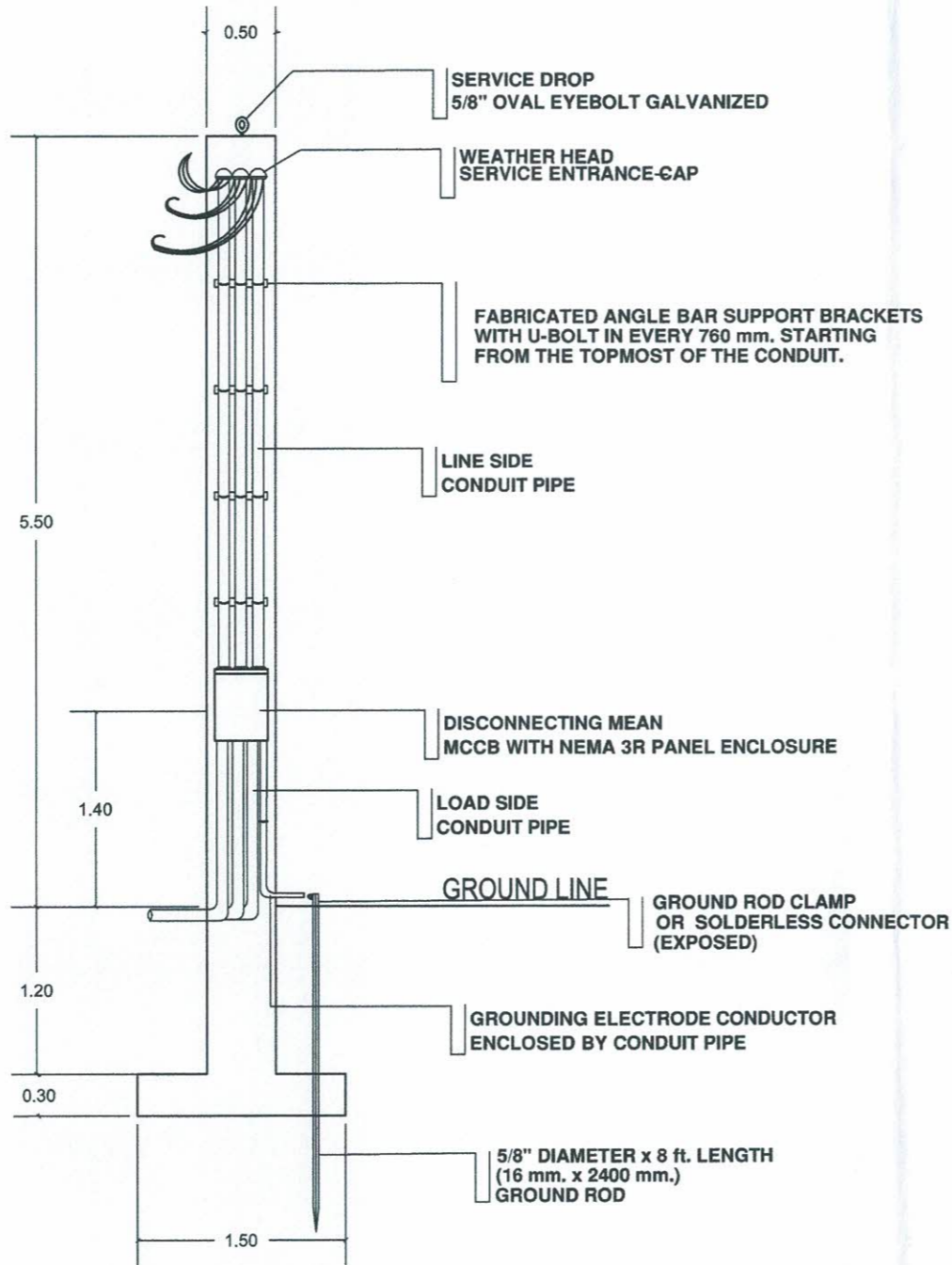
1
E 3
CONCRETE ENCASEMENT
RACEWAY LAYOUT

SCALE 1 : 800 MTS

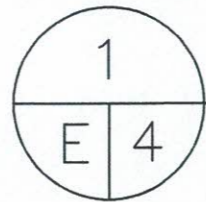
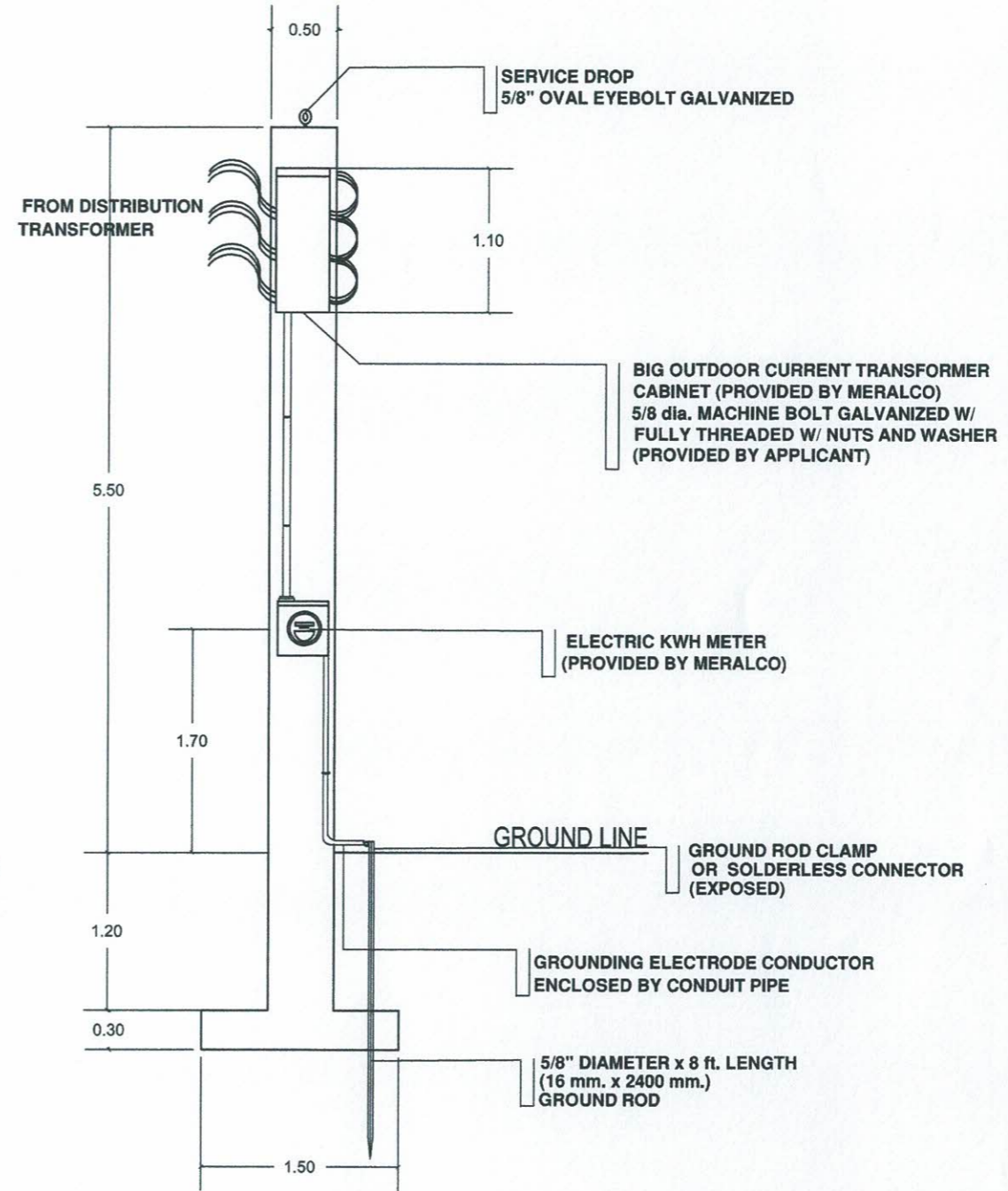


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FRONT VIEW



REAR VIEW



SERVICE ENTRANCE CONCRETE PEDESTAL DETAILS

SCALE

1:50

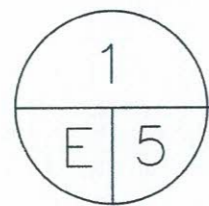
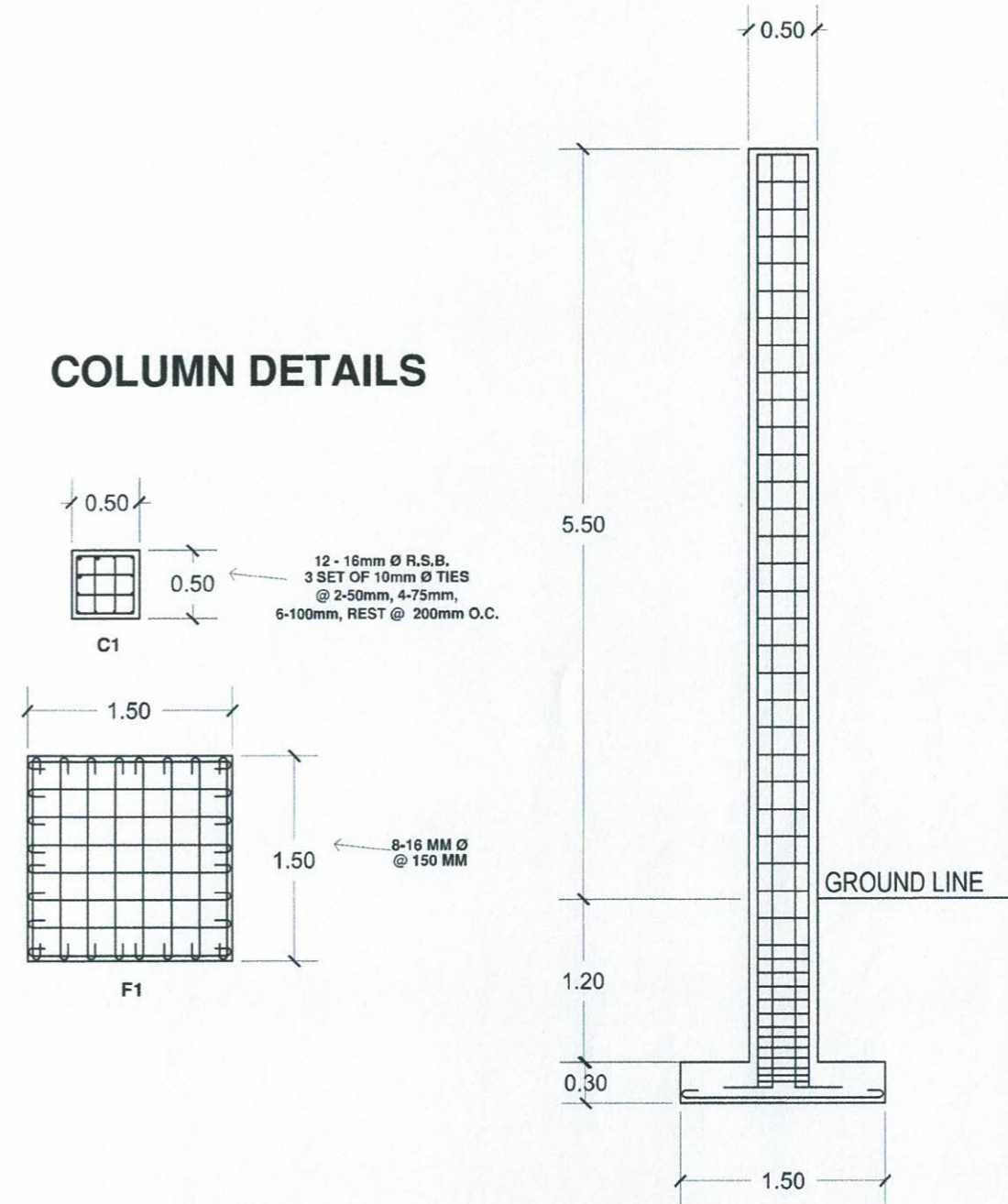
	PREPARED BY:	PROF. ELECTRICAL ENGR.:	END USER:	REVIEWED BY:	REC. APPROVAL:	APPROVED BY:	PROJECT TITLE/ LOCATION:	IMPLEMENTING AGENCY:	SHT NO:
	R.J. R. SANCHEZ PPU	R. PEÑA OVPPD	C. M. SIGNO CAMPUS ADMINISTRATOR CARMONA CAMPUS	E. N. RODEROS PPU	O. B. DELOS REYES DIRECTOR PLANNING OFFICE	M.J. D. TEPORA VPPD	H. D. ROBLES PRES CVSU	IMPROVEMENT OF ELECTRICAL POWER SYSTEM OF CARMONA CAMPUS CAVITE STATE UNIVERSITY CARMONA CAMPUS	CAVITE STATE UNIVERSITY

SCHEDULE OF FOOTINGS

NAME	TYPE	THICKNESS	SIZE (LxW)	DEPTH	REINFORCEMENT	
					ALONG L	ALONG W
F1	ISOLATED	300 MM	1500 x 1500 MM	1500 MM	8-16 MM Ø @ 150 MM	8-16 MM Ø @ 150 MM

COLUMN	DIMENSION	REINFORCEMENT	NO. OF TIES & SPACING
C1	500 MM X 500 MM	12 - 16mm Ø R.S.B.	3 SET OF 10mm Ø TIES @ 2-50mm, 4-75mm, 6-100mm, REST @ 200mm O.C.

COLUMN DETAILS



SERVICE ENTRANCE CONCRETE PEDESTAL DETAILS

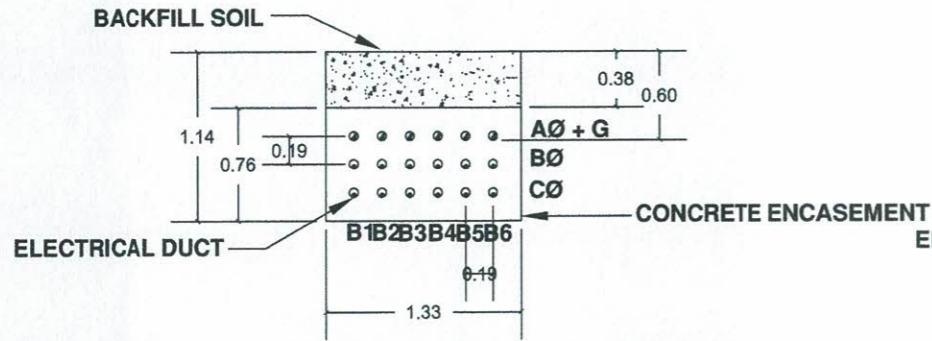
SCALE

1:50

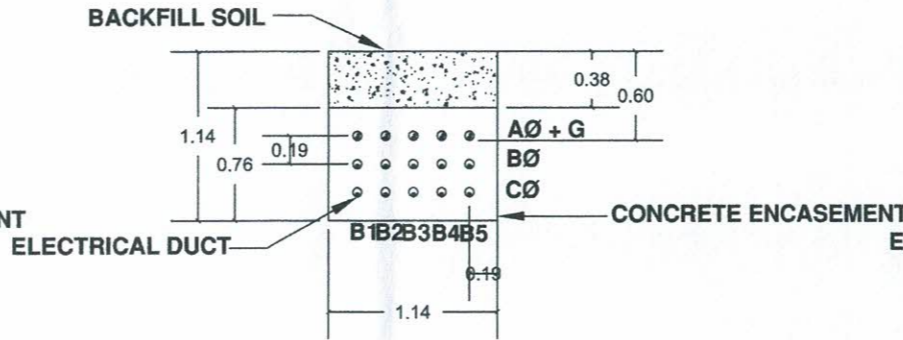
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LEGEND:

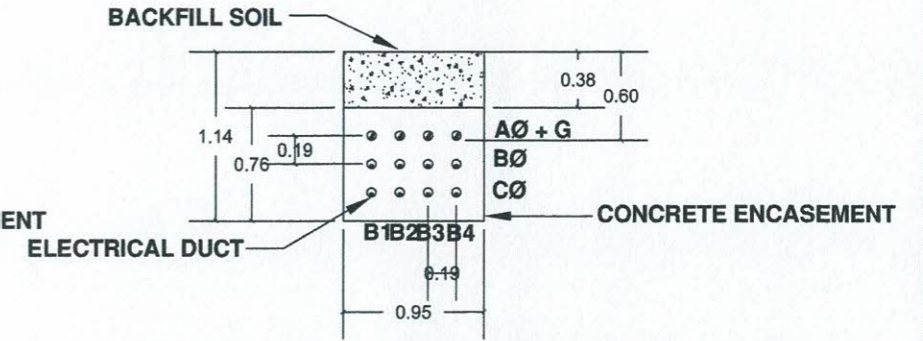
B1 - BUILDING NUMBER
 CØ - PHASE
 G - GROUND WIRE



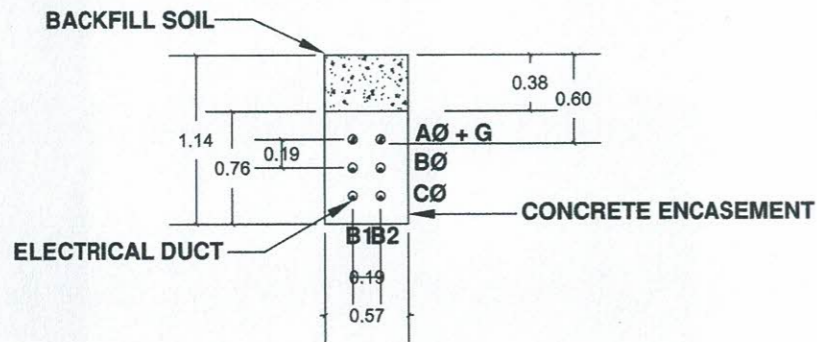
A1. 18 ELECTRICAL DUCTS (SINGLE CONDUCTOR WIRE PER DUCT)



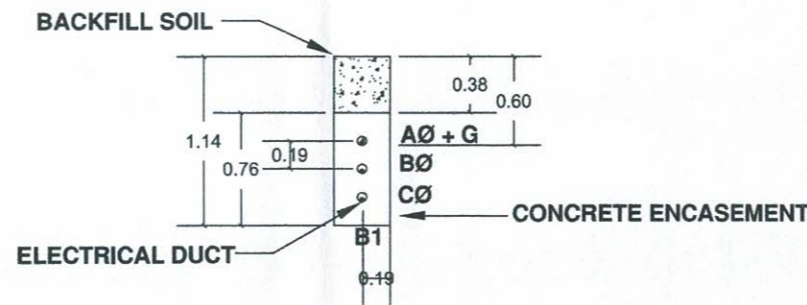
A2. 15 ELECTRICAL DUCTS (SINGLE CONDUCTOR WIRE PER DUCT)



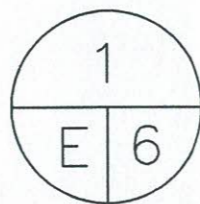
A3. 12 ELECTRICAL DUCTS (SINGLE CONDUCTOR WIRE PER DUCT)



A4. 6 ELECTRICAL DUCTS (SINGLE CONDUCTOR WIRE PER DUCT)



A5. 3 ELECTRICAL DUCTS (SINGLE CONDUCTOR WIRE PER DUCT)

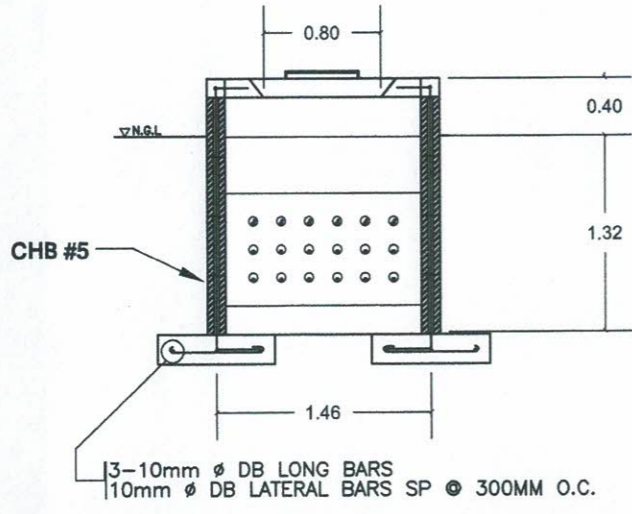
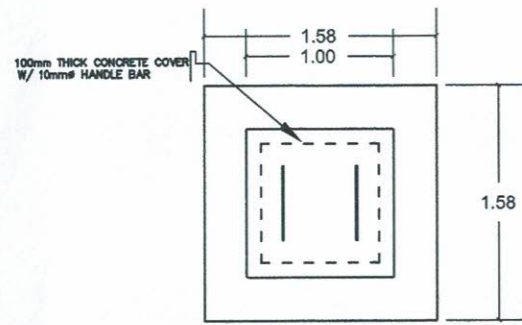


CONCRETE ENCASEMENT RACEWAY DETAILS

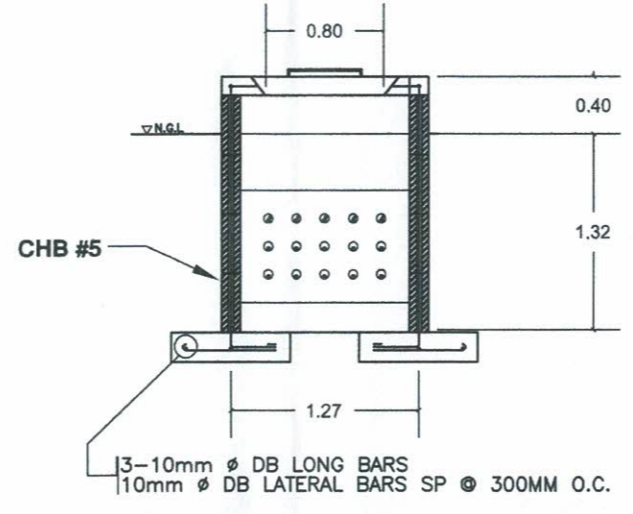
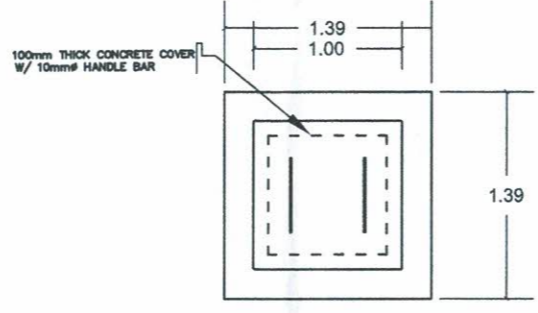
SCALE

1:50

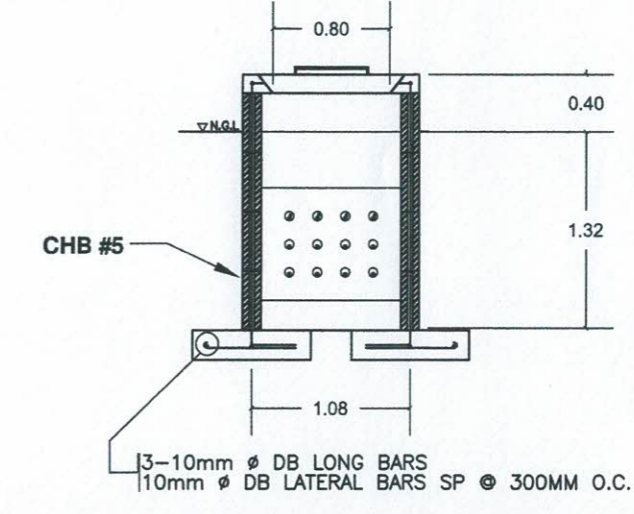
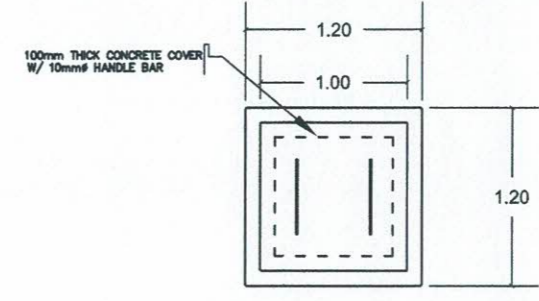
PREPARED BY:	PROF. ELECTRICAL ENGR.:	END USER:	REVIEWED BY:	REC. APPROVAL:	APPROVED BY:	PROJECT TITLE/ LOCATION:	IMPLEMENTING AGENCY:	SHT NO.:	
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B1. 18 ELECTRICAL DUCTS (SINGLE CONDUCTOR WIRE PER DUCT)



B2. 15 ELECTRICAL DUCTS (SINGLE CONDUCTOR WIRE PER DUCT)



B3. 12, 6 and 3 ELECTRICAL DUCTS (SINGLE CONDUCTOR WIRE PER DUCT)



ELECTRICAL CABLE CHAMBER/MAN HOLE DETAILS

SCALE

1:50

	PREPARED BY:	PROF. ELECTRICAL ENGR. :	END USER:	REVIEWED BY:	REC. APPROVAL:	APPROVED BY:	PROJECT TITLE/ LOCATION:	IMPLEMENTING AGENCY:	SHT NO.:
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SCHEDULE OF LOADS AND COMPUTATION

EBDP (EXISTING BUILDING PANEL : DISTRIBUTION PANEL)		CABLE: 3 - 250.0 SQMM THHN+ G - 50.0 SQMM THW		MAIN: 500AT, 500AF, 3P, 230V, MCCB							
PHASE: 3 VOLTS: 230		CONDUIT: 3 sets of PVC, 63 MM DIA.		ENCLOSURE : NEMA 1 MOUNTING: SURFACE							
LOCATION: EXISTING BUILDING (GROUND FLOOR, ELECTRICAL ROOM)											
CKT NO.	CIRCUIT DESCRIPTION	PANEL	LOAD IN RATING			CIRCUIT PROTECTION	Size of Conductor		Size Of Conduit In MM ø	Color Code	
			Volt- Amp	VOLT	AMPERES			SQ. MM THHN COPPER WIRE			SQ. MM THW(G) COPPER WIRE
1	FIRST FLOOR DISTRIBUTION PANEL	P1LA	32200	230	140			175AT, 3P, 230V, MCCB	2 - 80.0 + G 22.0	PVC, 50	1R,1B,G
2	FOURTH FLOOR DISTRIBUTION PANEL	4DP	23000	230	100			175AT, 3P, 230V, MCCB	2 - 80.0 + G 22.0	PVC, 50	1R,1B,G
3	SECOND FLOOR DISTRIBUTION PANEL	P2LA	55200	230		240		300AT, 3P, 230V, MCCB	2 - 175.0 + G 30.0	PVC, 63	1B,1Y,G
4	THIRD FLOOR DISTRIBUTION PANEL	3DP	55200	230			240	300AT, 3P, 230V, MCCB	2 - 175.0 + G 30.0	PVC, 63	1R,1Y,G
TOTAL			165800	230	240	240	240	500AT, 3P, 230V, MCCB	3 - 250.0 + G 50.0	PVC, 3 sets - 63	1R,1B,1Y, G

MAIN FEEDER and CURRENT PROTECTION COMPUTATION:

NOTE: $I_{FL} = \frac{(240 \times 1.732) DF}{G} = 332.54$ Amperes
 $I_{CB} = \frac{(240 \times 1.732) DF}{G} = 332.54$ Amperes

G - Means Ground Wire
 1R- Color RED
 1B- Color BLACK
 1Y- Color YELLOW
 1G- Color GREEN

use: 3 - 250.0 SQMM THHN+ G - 50.0 SQMM THW IN 3-63 MM DIA. PVC
use: 500AT, 500AF, 3P, 230V, MCCB

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 Except redesign of electrical load system will be done.*

PANEL : ADMIN DP (ADMIN DISTRIBUTION PANEL)		CABLE: 3 - 80.0 SQMM THHN+ 1 - 38.0SQMM THW		MAIN: 200AT, 300AF, 3P, 230V, MCCB							
PHASE: 3 VOLTS: 230		CONDUIT: 3 sets of PVC, 63 MM DIA.		ENCLOSURE : NEMA 1 MOUNTING: SURFACE							
LOCATION: GROUND FLOOR - ROOM											
CKT NO.	CIRCUIT DESCRIPTION	PANEL	LOAD IN RATING			CIRCUIT PROTECTION	Size of Conductor		Size Of Conduit In MM ø	Color Code	
			Volt- Amp	VOLT	AMPERES			SQ. MM THHN COPPER WIRE			SQ. MM THW(G) COPPER WIRE
1	LIGHTING AND POWER PANEL 1	LPP1	19291	230	41	50	39	150AT, 3P, 230V, MCCB	3 - 38.0 + G 8.0	IMC, 50	1R,1B,1Y,G
2	LIGHTING AND POWER PANEL 2	LPP2	20152	230	45	40	43	150AT, 3P, 230V, MCCB	3 - 38.0 + G 8.0	IMC, 50	1R,1B,1Y,G
3	WATER PUMP PANEL	WPP	1119	230			10	20AT, 2P, 230V, MCCB	2 - 3.5 + G 2.0	PVC, 20	1R,1B,G
4	FIRE ALARM SYSTEM	FACP	500	230	2			15AT, 2P, 230V, MCCB	2 - 2.0	PVC, 20	1R, 1B
TOTAL			41062	230	88	90	93	200AT, 3P, 230V, MCCB	3 - 80.0 + G 38.0	PVC, 3 sets - 63	1R,1B,1Y, G


MAIN FEEDER and CURRENT PROTECTION COMPUTATION:

NOTE: $I_{FL} = \frac{[(93 \times 1.732) + (25\% \times 1m)] DF}{G} = 130.86$ Amperes
 $I_{CB} = \frac{[(93 \times 1.732) + (250\% \times 1m)] DF}{G} = 148.86$ Amperes

G - Means Ground Wire
 1R- Color RED
 1B- Color BLACK
 1Y- Color YELLOW
 1G- Color GREEN


use: 3 - 80.0 SQMM THHN+ 1 - 38.0 SQMM THW IN 63 MM DIA. PVC
use: 200AT, 300AF, 3P, 230V, MCCB

*This Electrical Design is good only for the above connected loads.
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 Except redesign of electrical load system will be done.*

	PREPARED BY: R. J. R. SANCHEZ PPU	PROF. ELECTRICAL ENGR. : R. P. DEÑA OVPPD	END USER: C. M. SIGNO CAMPUS ADMINISTRATOR CARMONA CAMPUS	REVIEWED BY: E. N. RODRIGOS OVPPD	REC. APPROVAL: M. J. D. TEPORA VPPD	APPROVED BY: H. D. ROBLES PRES CVSU	PROJECT TITLE/ LOCATION: IMPROVEMENT OF ELECTRICAL POWER SYSTEM OF CARMONA CAMPUS CAVITE STATE UNIVERSITY CARMONA CAMPUS	IMPLEMENTING AGENCY: CAVITE STATE UNIVERSITY	SHT NO.: E - 8
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PANEL : ODP (OSA DISTRIBUTION PANEL)			CABLE: 3 - 80.0 SQMM THHN+ 1 - 38.0SQMM THW				MAIN: 200AT, 300AF, 3P, 230V,MCCB				
PHASE: 3			CONDUIT: 3 sets of PVC, 63 MM DIA.				ENCLOSURE : NEMA 1				
VOLTS: 230			LOCATION: GROUND FLOOR, ELECTRICAL ROOM				MOUNTING: SURFACE				
CKT NO.	CIRCUIT DESCRIPTION	Panel	LOAD IN RATING			CIRCUIT PROTECTION	Size of Conductor		Size Of Conduit In MM ø	Color Code	
			Volt- Amp	VOLT	AMPERES			SQ. MM THHN COPPER WIRE			SQ. MM THW(G) COPPER WIRE
1	LIGHTING AND POWER PANEL 1	LPP1	5260	230	8	8	6	40AT, 3P, 230V, MCCB	3 - 8.0 + G 5.5	PVC, 20	1R,1B,1Y,G
2	LIGHTING AND POWER PANEL 2	LPP2	7420	230	12	12	8	40AT, 3P, 230V, MCCB	3 - 8.0 + G 5.5	PVC, 20	1R,1B,1Y,G
3	LIGHTING AND POWER PANEL 3	LPP3	7320	230	12	8	12	40AT, 3P, 230V, MCCB	3 - 8.0 + G 5.5	PVC, 20	1R,1B,1Y,G
4	A/C PANEL 1	ACP1	8952	230	17	34	17	125 AT, 3P, 230V, MCCB	3 - 50.0 + G 14.0	PVC, 40	1R,1B,1Y,G
5	A/C PANEL 2	ACP2	8952	230	24	24	24	100 AT, 3P, 230V, MCCB	3 - 30.0 + G 14.0	PVC, 32	1R,1B,1Y,G
6	A/C PANEL 3	ACP3	8952	230	17	17	34	125 AT, 3P, 230V, MCCB	3 - 50.0 + G 14.0	PVC, 40	1R,1B,1Y,G
7	WATER PUMP PANEL	WPP	1119	230	10			20AT, 2P, 230V, MCCB	2 - 3.5 + G 2.0	PVC, 20	1R,1B,G
8	FIRE ALARM SYSTEM	FACP	500	230	2			15AT, 2P, 230V, MCCB	2 - 2.0	PVC, 20	1R, 1B
TOTAL			48475	230	103	103	101	200AT, 3P, 230V, MCCB	3 - 80.0 + G 38.0	PVC, 3 sets - 63	1R,1B,1Y, G
<p>MAIN FEEDER and CURRENT PROTECTION COMPUTATION:</p> <p>NOTE: $I_{FL} = \frac{[(103 \times 1.732) + (25\% \times I_m)]}{DF} = 144.72$ Amperes</p> <p>$I_{CB} = \frac{[(103 \times 1.732) + (250\% \times I_m)]}{DF} = 162.72$ Amperes</p> <p>G - Means Ground Wire 1R- Color RED 1B- Color BLACK 1Y- Color YELLOW 1G- Color GREEN</p> <p>use: 3 - 80.0 SQMM THHN+ 1 - 38.0 SQMM THW IN 63 MM DIA. PVC use: 200AT, 300AF, 3P, 230V,MCCB</p> <p>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.</p>											

PANEL : SDP (STAR DISTRIBUTION PANEL)			CABLE: 3 - 250.0 SQMM THHN+ G- 50.0 SQMM THW				MAIN: 400AT, 400AF, 3P, 230V,MCCB				
PHASE: 3			CONDUIT: 3 sets of PVC, 63 MM DIA.				ENCLOSURE : NEMA 1				
VOLTS: 230			LOCATION: STAR BUILDING (GROUND FLOOR, ELECTRICAL ROOM)				MOUNTING: SURFACE				
CKT NO.	CIRCUIT DESCRIPTION	Panel	LOAD IN RATING			CIRCUIT PROTECTION	Size of Conductor		Size Of Conduit In MM ø	Color Code	
			Volt- Amp	VOLT	AMPERES			SQ. MM THHN COPPER WIRE			SQ. MM THW(G) COPPER WIRE
1	GROUND FLOOR LIGHTING PANEL	LP1	8500	230	37			50AT, 2P, 230V, MCCB	2 - 8.0 + G 5.5	PVC, 25	1R,1B,G
2	SECOND FLOOR LIGHTING PANEL	LP2	6600	230		29		50AT, 2P, 230V, MCCB	2 - 8.0 + G 5.5	PVC, 25	1B,1Y,G
3	THIRD FLOOR LIGHTING PANEL	LP3	6600	230			29	50AT, 2P, 230V, MCCB	2 - 8.0 + G 5.5	PVC, 25	1Y,1R,G
4	GROUND FLOOR POWER PANEL	PP1	25000	230	109			125 AT, 2P, 230V, MCCB	2 - 30.0 + G 8.0	PVC, 40	1R,1B,G
5	SECOND FLOOR POWER PANEL	PP2	23200	230		101		125 AT, 2P, 230V, MCCB	2 - 30.0 + G 8.0	PVC, 40	1B,1Y,G
6	THIRD FLOOR POWER PANEL	PP3	23200	230			101	125 AT, 2P, 230V, MCCB	2 - 30.0 + G 8.0	PVC, 40	1Y,1R,G
7	WATER PUMP PANEL		2984	230		13		30AT, 2P, 230V, MCCB	2 - 3.5 + G 3.5	PVC, 25	1B,1Y,G
8	JOCKEY PUMP		3910	230			17	40AT, 2P, 230V, MCCB	2 - 5.5 + G 5.5	PVC, 25	1Y,1R,G
9	ELEVATOR		25000	230	108	108	108	125AT, 3P, 230V, MCCB	3 - 30.0 + G 8.0	PVC, 40	1R,1B,1Y,G
10	FIRE PUMP		15640	230				125AT, 3P, 230V, MCCB	3 - 22.0 + G 8.0	PVC, 40	
11	SPARE										
12	SPARE							g			
TOTAL			140634	230	254	251	255	400AT, 3P, 230V, MCCB	3 - 250.0 + G 50.0	PVC, 3 sets - 63	1R,1B,1Y, G
<p>MAIN FEEDER and CURRENT PROTECTION COMPUTATION:</p> <p>NOTE: $I_{FL} = \frac{[(255 \times 1.732) + (25\% \times I_m)]}{DF} = 356.93$ Amperes</p> <p>$I_{CB} = \frac{[(255 \times 1.732) + (250\% \times I_m)]}{DF} = 389.33$ Amperes</p> <p>G - Means Ground Wire 1R- Color RED 1B- Color BLACK 1Y- Color YELLOW 1G- Color GREEN</p> <p>use: 3-250.0 SQMM THHN + G-50.0 SQMM THHN IN 3-63 MM DIA. PVC use: 400AT, 400AF, 3P, 230V,MCCB</p> <p>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.</p>											

	PREPARED BY:	PROF. ELECTRICAL ENGR. :	END USER:	REVIEWED BY:	REC. APPROVAL:	APPROVED BY:	PROJECT TITLE/ LOCATION:	IMPLEMENTING AGENCY:	SHT NO:
	R. J. R. SANCHEZ PPU	R. P. PEÑA OVPPD	C. M. SIGMO CAMPUS ADMINISTRATOR	E. N. RODEROS OVPPD	O. B. DELOS REYES DIRECTOR PLANNING OFFICE	M. J. D. TEPORA VPPD	H. D. ROBLES PRES	IMPROVEMENT OF ELECTRICAL POWER SYSTEM OF CARMONA CAMPUS CAVITE STATE UNIVERSITY CARMONA CAMPUS	CAVITE STATE UNIVERSITY

PANEL : HDP (HRM DISTRIBUTION PANEL)
 CABLE: 3 - 80.0 SQMM THHN+ 1 - 38.0SQMM THW
 MAIN: 200AT, 300AF, 3P, 230V,MCCB
 CONDUIT: 3 sets of PVC, 63 MM DIA.
 ENCLOSURE : NEMA 1
 MOUNTING: SURFACE
 PHASE: 3
 LOCATION: HRM BUILDING (GROUND FLOOR)
 VOLTS: 230


CKT NO.	CIRCUIT DESCRIPTION	Panel	LOAD IN RATING					CIRCUIT PROTECTION	Size of Conductor			Size Of Conduit In MM ø	Color Code
			Volt- Amp	VOLT	AMPERES				CIRCUIT BREAKER RATING	SQ. MM THHN COPPER WIRE	SQ. MM THW(G) COPPER WIRE		
					AB	BC	CA						
1	LIGHTING AND POWER GROUND FLOOR	LPG	8764	230	22	22	20	40AT, 3P, 230V, MCCB	3 - 8.0	+	G 5.5	PVC, 20	1R,1B,1Y,G
2	LIGHTING AND POWER SECOND FLOOR	LP2	9561	230	21	24	23	40AT, 3P, 230V, MCCB	3 - 8.0	+	G 5.5	PVC, 20	1R,1B,1Y,G
3	SPARE												
4	SPARE												
TOTAL			18325	230	43	46	43	200AT, 3P, 230V, MCCB	3 - 80.0	+	G 38.0	PVC, 3 sets - 63	1R,1B,1Y, G

MAIN FEEDER and CURRENT PROTECTION COMPUTATION:
 NOTE: $I_{FL} = [(46 \times 1.732)] DF = 63.74$ Amperes
 $I_{CB} = [(46 \times 1.732)] DF = 63.74$ Amperes
 G - Means Ground Wire
 1R- Color RED
 1B- Color BLACK
 1Y- Color YELLOW
 1G- Color GREEN
 use: 3 - 80.0 SQMM THHN+ 1 - 38.0 SQMM THW IN 63 MM DIA. PVC
 use: 200AT, 300AF, 3P, 230V,MCCB
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PANEL : EDP (ENTREPRENEURIAL DISTRIBUTION PANEL)
 CABLE: 3 - 80.0 SQMM THHN+ 1 - 38.0SQMM THW
 MAIN: 200AT, 300AF, 3P, 230V,MCCB
 CONDUIT: 3 sets of PVC, 63 MM DIA.
 ENCLOSURE : NEMA 1
 MOUNTING: SURFACE
 PHASE: 3
 LOCATION: ENTREP. BUILDING (GROUND FLOOR, ELECTRICAL ROOM)
 VOLTS: 230

CKT NO.	CIRCUIT DESCRIPTION	Panel	LOAD IN RATING					CIRCUIT PROTECTION	Size of Conductor			Size Of Conduit In MM ø	Color Code
			Volt- Amp	VOLT	AMPERES				CIRCUIT BREAKER RATING	SQ. MM THHN COPPER WIRE	SQ. MM THW(G) COPPER WIRE		
					AB	BC	CA						
1	LIGHTING AND POWER PANEL 1	LPP1	5260	230	8	8	6	40AT, 3P, 230V, MCCB	3 - 8.0	+	G 5.5	PVC, 20	1R,1B,1Y,G
2	LIGHTING AND POWER PANEL 2	LPP2	7420	230	12	12	8	40AT, 3P, 230V, MCCB	3 - 8.0	+	G 5.5	PVC, 20	1R,1B,1Y,G
3	LIGHTING AND POWER PANEL 3	LPP3	7320	230	12	8	12	40AT, 3P, 230V, MCCB	3 - 8.0	+	G 5.5	PVC, 20	1R,1B,1Y,G
4	A/C PANEL 1	ACP1	8952	230	17	34	17	125 AT, 3P, 230V, MCCB	3 - 50.0	+	G 14.0	PVC, 40	1R,1B,1Y,G
5	A/C PANEL 2	ACP2	8952	230	24	24	24	100 AT, 3P, 230V, MCCB	3 - 30.0	+	G 14.0	PVC, 32	1R,1B,1Y,G
6	A/C PANEL 3	ACP3	8952	230	17	17	34	125 AT, 3P, 230V, MCCB	3 - 50.0	+	G 14.0	PVC, 40	1R,1B,1Y,G
7	STALL DISTRIBUTION PANEL	SDP	5600	230	10	7	7	40AT, 3P, 230V, MCCB	3 - 8.0	+	G 5.5	PVC, 20	1R,1B,1Y,G
8	WATER PUMP PANEL	WPP	1119	230	10			20AT, 2P, 230V, MCCB	2 - 3.5	+	G 2.0	PVC, 20	1R,1B,G
9	FIRE ALARM SYSTEM	FACP	500	230	2			15AT, 2P, 230V, MCCB	2 - 2.0			PVC, 20	1R, 1B
TOTAL			54075	230	112	110	109	200AT, 3P, 230V, MCCB	3 - 80.0	+	G 38.0	PVC, 3 sets - 63	1R,1B,1Y, G

MAIN FEEDER and CURRENT PROTECTION COMPUTATION:
 NOTE: $I_{FL} = [(112 \times 1.732) + (25\% \times 1m)] DF = 157.19$ Amperes
 $I_{CB} = [(112 \times 1.732) + (250\% \times 1m)] DF = 175.19$ Amperes
 G - Means Ground Wire
 1R- Color RED
 1B- Color BLACK
 1Y- Color YELLOW
 1G- Color GREEN
 use: 3 - 80.0 SQMM THHN+ 1 - 38.0 SQMM THW IN 63 MM DIA. PVC
 use: 200AT, 300AF, 3P, 230V,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.

	PREPARED BY:	PROF. ELECTRICAL ENGR. :	END USER:	REVIEWED BY:	REC. APPROVAL:	APPROVED BY:	PROJECT TITLE/ LOCATION:	IMPLEMENTING AGENCY:	SHT NO:
	R.J. R. SANCHEZ PPU	R. P. PEÑA OVPPD	C. M. SIGONO CAMPUS ADMINISTRATOR	E. N. RODEROS OVPPD	O. B. DELOS REYES DIRECTOR PLANNING OFFICE	M. O. D. TEPORA VPPD	H. D. ROBLES PRES	IMPROVEMENT OF ELECTRICAL POWER SYSTEM OF CARMONA CAMPUS CAVITE STATE UNIVERSITY	CAVITE STATE UNIVERSITY

PANEL : MDP (MAIN DISTRIBUTION PANEL)		CABLE: 3 sets of 3 - 250.0 SQMM THHN+ 3 sets of G- 50.0 SQMM THW		MAIN: 1200AT, 1200AF, 3P, 230V, MCCB									
PHASE: 3		CONDUIT: 3 sets of RSC, 80 MM DIA.		ENCLOSURE : NEMA 1									
VOLTS: 230		LOCATION: ELECTRICAL POWER ROOM		MOUNTING: SURFACE									
CKT NO.	CIRCUIT DESCRIPTION	CIRCUIT	LOAD IN RATING			CIRCUIT PROTECTION	Size of Conductor		Size Of Conduit In MM ø	Color Code			
			Volt- Amp	VOLT	AMPERES			SQ. MM THHN COPPER WIRE			SQ. MM THW(G) COPPER WIRE		
1	EXISTING BUILDING DISTRIBUTION PANEL	EBDP	165600	230	240	240	240	500AT, 3P, 230V, MCCB	3 - 250.0	+	G 50.0	PVC, 3 sets - 63	1R,1B,1Y, G
2	ADMIN BUILDING DISTRIBUTION PANEL	ADP	41062	230	88	90	93	200AT, 3P, 230V, MCCB	3 - 80.0	+	G 38.0	PVC, 3 sets - 63	1R,1B,1Y, G
3	OSA BUILDING DISTRIBUTION PANEL	ODP	48475	230	103	103	101	200AT, 3P, 230V, MCCB	3 - 80.0	+	G 38.0	PVC, 3 sets - 63	1R,1B,1Y, G
4	STAR BUILDING DISTRIBUTION PANEL	SDP	140634	230	254	251	255	400AT, 3P, 230V, MCCB	3 - 250.0	+	G 50.0	PVC, 3 sets - 63	1R,1B,1Y, G
5	HRM BUILDING DISTRIBUTION PANEL	HDP	18325	230	43	46	43	200AT, 3P, 230V, MCCB	3 - 80.0	+	G 38.0	PVC, 3 sets - 63	1R,1B,1Y, G
6	ENTREPRENEURIAL DISTRIBUTION PANEL	EDP	54075	230	112	110	109	200AT, 3P, 230V, MCCB	3 - 80.0	+	G 38.0	PVC, 3 sets - 63	1R,1B,1Y, G
7	LIGHTING CIRCUIT FOR ELECTRICAL HOUSE	LEH	200	230	1			15AT, 2P, 230V, MCCB	2-2.0			PVC, 20	1R,1B
	SPARE												
TOTAL			468371	230	841	841	841	1200AT, 3P, 230V, MCCB	3 sets - 3 - 250.0	+	3 sets - G 50.0	RSC, 3 sets - 80	1R,1B,1Y, G

MAIN FEEDER and CURRENT PROTECTION COMPUTATION:

NOTE:

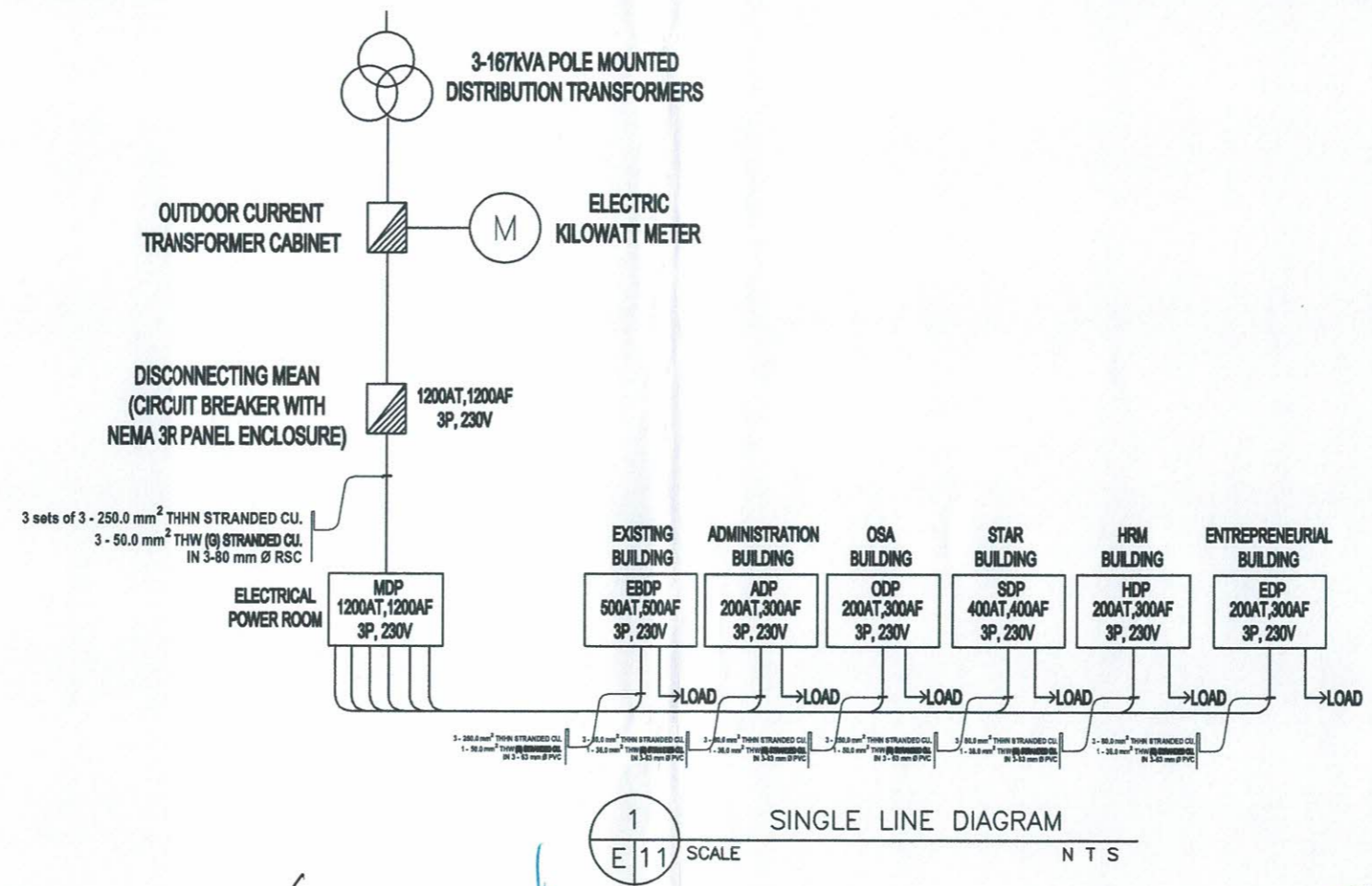
$$I_{FL} = (841 \times 1.732) \text{ DF} = 1165.29 \text{ Amperes}$$

$$I_{CB} = (841 \times 1.732) \text{ DF} = 1165.29 \text{ Amperes}$$

G - Means Ground Wire
 1R- Color RED
 1B- Color BLACK
 1Y- Color YELLOW
 1G- Color GREEN

use: 3 sets of 3 - 250.0 SQMM THHN+ 3 sets of G- 50.0 SQMM THW IN 3-80 MM DIA. RSC
 use: 1200AT, 1200AF, 3P, 230V, MCCB
 use: 3 units -167 KVA Pole Mounted Distribution Transformer, 20kv/ 230/ 120v.

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.



1 SINGLE LINE DIAGRAM
 E 11 SCALE N T S

	PREPARED BY:	PROF. ELECTRICAL ENGR. :	END USER:	REVIEWED BY:	REC. APPROVAL:	APPROVED BY:	PROJECT TITLE/ LOCATION:	IMPLEMENTING AGENCY:	SHT NO.:
	R.J. R. SANCHEZ PPU	R. P. DENA OVPPD	C. M. SIGNO CAMPUS ADMINISTRATOR	E. N. RODEROS PPU	O. B. DELOS REYES DIRECTOR	M.J. D. TEPORA VPPD	H. D. ROBLES PRES	IMPROVEMENT OF ELECTRICAL POWER SYSTEM OF CARMONA CAMPUS CAVITE STATE UNIVERSITY CARMONA CAMPUS	CAVITE STATE UNIVERSITY