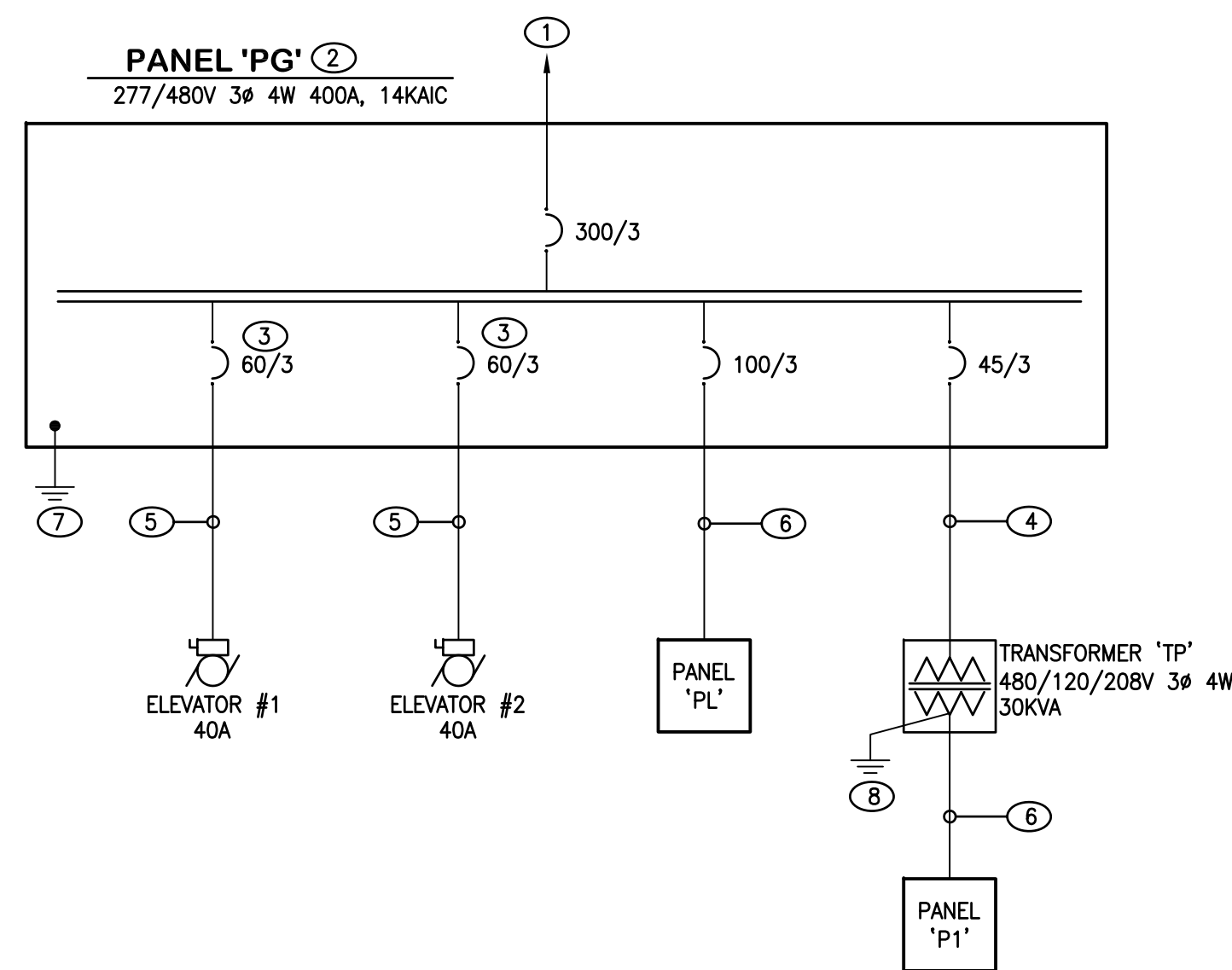
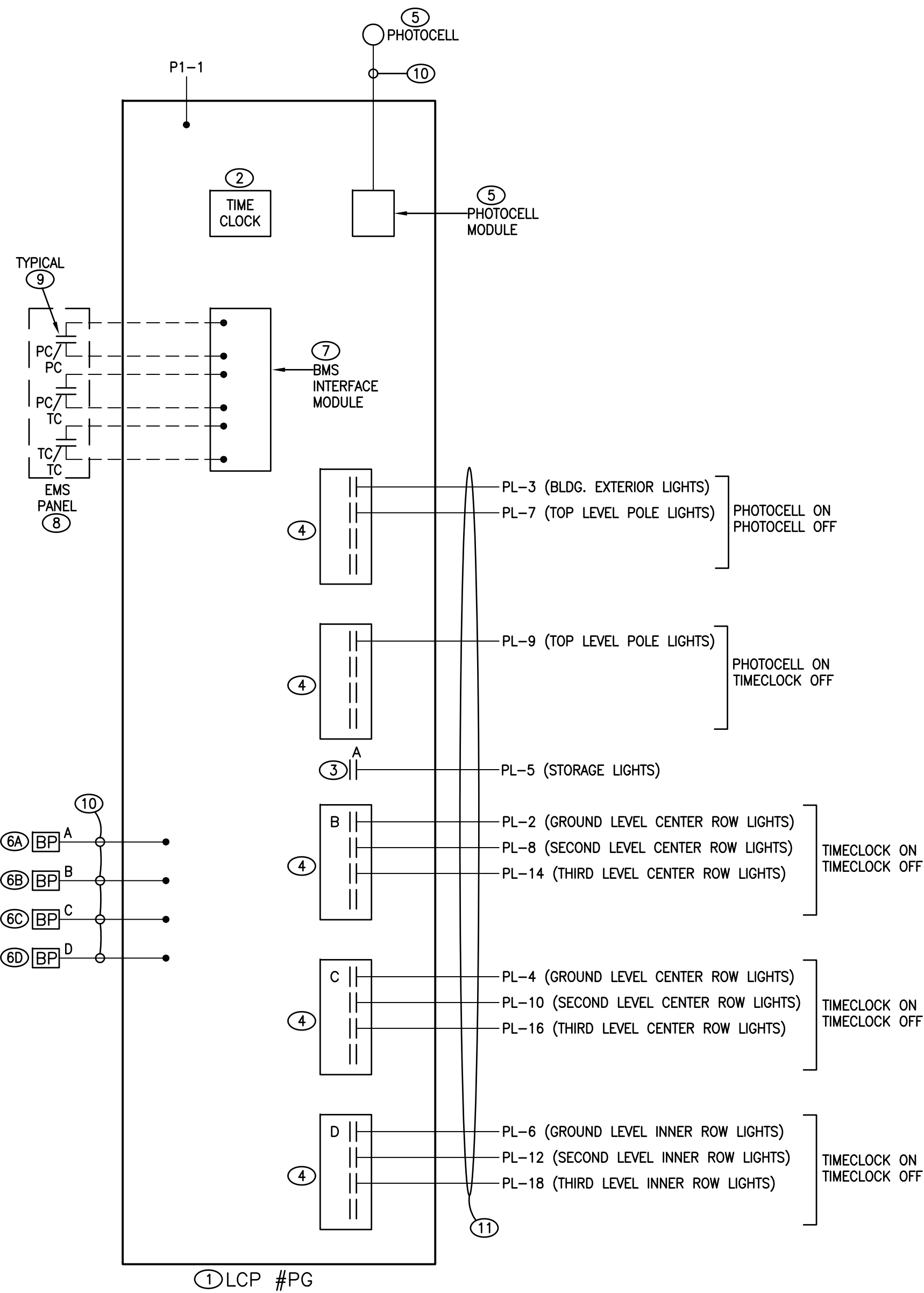


[illegible]

LINE DIAGRAM

LINE DIAGRAM NOTES:

- ① ONE 3" - 4#350MCM + 1#4 GROUND TO EXISTING DISTRIBUTION PANEL VIA PULL BOX.
- ② PROVIDE PANEL PER PANEL SCHEDULE.
- ③ ELEVATOR BREAKER SHALL BE SHUNT TRIP TYPE WITH 120V SHUNT TRIP COIL AND AUX CONTACTS. CONNECT TO PANEL "P1" FOR SHUNT TRIP CONTROL POWER.
- ④ 1" - 3#6 + 1#10 GROUND.
- ⑤ 1-1/4" - 3#4 + 1#6 GROUND.
- ⑥ 1-1/2" - 4#1 + 1#8 GROUND.
- ⑦ 1" WITH 1#1/0 GROUND TO UFER GROUND, AND NEARBY METALLIC COLD WATER PIPING AND BLDG STEEL.
- ⑧ 3/4" WITH 1#6 GROUND TO GROUNDING ELECTRODE AT PANEL "PG".



LIGHTING CONTROL DIAGRAM

LIGHTING CONTROL DIAGRAM NOTES:

- ① LIGHTING CONTROL PANEL SHALL BE WATT-STOPPER #1UA-24 WITH ACCESSORIES, MODULES, RELAYS, LIGHTING CONTACTORS, ETC. AS INDICATED ON CONTROL DIAGRAM TO FORM A COMPLETE OPERABLE SYSTEM. SYSTEM SUPPLIER SHALL PROVIDE ON-SITE STARTUP AND PROGRAMMING AS DIRECTED BY OWNER. INCLUDE 2-HOURS ON-SITE INSTRUCTION TO OWNER'S PERSONNEL.
- ② PROGRAMMABLE TIMECLOCK PER TITLE 24 REQUIREMENT.
- ③ TYPICAL: #H0R 20 AMP RATED LATCHING RELAY.
- ④ TYPICAL: 30A 4-POLE MECHANICALLY HELD LIGHTING CONTACTORS.
- ⑤ CONTROL PANEL SHALL HAVE PHOTOCONTROL MODULE. MOUNT LOW VOLTAGE PHOTOCELL ON ROOF. FACE NORTH.
- ⑥A PROVIDE DATALINE 1-BUTTON SWITCHES TO BE PROGRAMMED FOR MAXIMUM 2-HOUR BYPASS OF TIMECLOCK CONTROL OF STORAGE LIGHTING CIRCUIT #5.
- ⑥B PROVIDE DATALINE 1-BUTTON SWITCHES TO BE PROGRAMMED FOR MAXIMUM 2-HOUR BYPASS OF TIMECLOCK CONTROL OF CENTER ROWS OF PARKING CIRCUITS #2, 8, 14.
- ⑥C PROVIDE DATALINE 1-BUTTON SWITCHES TO BE PROGRAMMED FOR MAXIMUM 2-HOUR BYPASS OF TIMECLOCK CONTROL OF OUTER ROWS OF PARKING CIRCUITS #4, 10, 16.
- ⑥D PROVIDE DATALINE 1-BUTTON SWITCHES TO BE PROGRAMMED FOR MAXIMUM 2-HOUR BYPASS OF TIMECLOCK CONTROL OF INNER ROWS OF PARKING CIRCUITS #6, 12, 18.
- ⑦ CONTROL PANEL SHALL HAVE EMS INTERFACE MODULE, 8-CHANNEL INPUT WITH STATUS OUTPUT, FOR FUTURE AUTOMATIC CONTROL BY THE EMS SYSTEM.
- ⑧ EMS PANEL SHALL BE PROVIDED IN FUTURE BY THE OWNER.
- ⑨ TYPICAL: MAINTAINED CONTACTS PROVIDED BY EMS PANEL FOR SIGNAL INPUT TO LIGHTING CONTROL PANEL, SHOWN FOR REFERENCE ONLY.
- ⑩ TYPICAL: #H0LW4-DB WET LOCATION LISTED CABLE.
- ⑪ RUN TWO 1-1/4" FROM LCP TO PANEL #PL FOR WIRING.

277/480VOLTS3PHASE4WIRE14KBREAKER

100A-BUSSINGNO6" x 20"MAX. ENCL. DEPTH & WIDTH

30CIRCUITSURFACEMOUNTING

PANELPL

CIR. NO.	BKR	LOAD (VA)			DESCRIPTION	DESCRIPTION	LOAD (VA)			CIR. NO.
		AMP	PHASE A	PHASE B			PHASE C	AMP	PHASE A	
1	20	1560			LIGHTS- STARS ELEVATOR LOBBY	LIGHTS- GROUND LEVEL PARKING				2
3				3200	EXTERIOR LIGHTS			2760		4
5				1800	LIGHTS- ELEC. STORAGE				4080	6
7		1200			LIGHTS- TOP LEVEL POLE LIGHTS	LIGHTS- 2ND LEVEL PARKING		3600		8
9			1200					2640		10
11					SPARE				3000	12
13						LIGHTS- 3ED LEVEL PARKING		3000		14
15								2040		16
17									2520	18
19										20
21										22
23										24
25										26
27										28
29										30

PHASE A = 12840VA, PHASE B = 10640VA, PHASE C = 10380VA

TOTAL CONNECTED (33860VA) + 25% LCL (8465VA) = 42325VA (51AMP)

277/480

VOLTS

3

PHASE

4

WIRE

400

A. BUSSING

300

A. MAIN BREAKER

42

CIRCUIT

22K

BREAKER A.I.C.

6" x 20"

MAX. ENCL. DEPTH & WIDTH

SURFACE

MOUNTING

CIR NO.

BKR AMP / FUSE

LOAD (VA)

PHASE A

PHASE B

PHASE C

DESCRIPTION

DESCRIPTION

LOAD (VA)

PHASE A

PHASE B

PHASE C

BKR AMP / FUSE

CIR NO.

1

60

3

11080

ELEVATOR #1,
40A

ELEVATOR #2,
40A

11080

60

3

3

11080

11080

4

5

11080

11080

6

7

15

3

1884

SP-1, (2) 2HP

EF-1, 2/3HP

400

15

3

9

1884

400

10

11

1884

400

12

13

100

3

12840

PANEL 'PL'

TRANSFORMER 'TP'

3850

45

3

15

10640

4760

16

17

10380

3240

18

19

20

21

22

23

24

25

26

27

28

29

30

31

32

33

34

35

36

37

38

39

40

41

42

PHASE A = 41134

VA, PHASE B = 39844

VA, PHASE C = 38064

VA

TOTAL CONNECTED (119042 VA) + 25% LCL (8465 VA) = 127507

VA (153 AMP)

PANEL "PG" NOTES:

- (1) ELEVATOR BREAKER SHALL BE SHUNT TRIP TYPE WITH 120V SHUNT TRIP COIL AND AUX CONTACTS.

120/208VOLTS3PHASE4WIRE10KBREAKER A.I.C.

100A. BUSSING100A. MAIN BREAKER6" x 20" MAX. ENCL. DEPTH & WIDTH

30CIRCUITSURFACEMOUNTING

PANELP1

CIR NO.	BKR NO.	LOAD (VA)	DESCRIPTION			DESCRIPTION			CIR NO.				
			PHASE A	PHASE B	PHASE C	PHASE A	PHASE B	PHASE C					
	201	500				LCP #PG			FACP			201	2
(2)	3			720		RECEPTACLES—ELEC. STORAGE			EF2		120		4
	5				720	STAIR #2 CODE BLUE			SEC PANEL			500	6
(2)	7		1000			STAIR #2 RECEPTACLE			ELEV. PIT LIGHTS RECEPTACLES		500		8
	9			720		ELEV. BREAKER SHUNT TRIP			ELEVATOR LOBBY—CODE BLUE		1000		10
(1)	11				100	ELEV. BREAKER SHUNT TRIP			ELEVATOR LOBBY RECEPTACLE		720		12
	13		1000			ELEV. CONTROLLER #1			FSR ALARM BELL		50		14
	15		1000			ELEV. CONTROLLER #2			FSR AIR COMPRESSOR		1200		16
	17			720		ELEV. MACHINE ROOM RECEPTACLES			SPARE				18
	19	202	1200			ELEV. MACH. RM—ODU/IDU							20
	21			1200									21
	23	201				SPARE							24
	25												26
	27												28
	29												30

PHASE A = 3850VA

PHASE B = 4760VA

PHASE C = 3240VA

TOTAL CONNECTED (11850 VA) + 25% LCL (-) VA = 11850 VA (33 AMP)

- (1) PROVIDE LOCK-ON DEVICE AT BREAKER HANDLE
- (2) BREAKER TIE.

CONSTRUCTION DOCUMENTS - FINAL SUBMISSION

[illegible]