

2 GROUND ROD DETAIL
SCALE: NONE

LIGHTING CONTACTOR SCHEDULE						
CONTACTOR	CIRCUITS CONTROLLED	CONTROLLED BY	POLES	AMPS PER POLE	COIL	MODEL NUMBER
LC-1	L-32,34,36,38,40,42	"TD-L-1"	6	30A	120V	-
LC-2	L-27,29,31,33,35,37,39,41	"TD-L-1"	8	30A	120V	-
LC-4P-1	4P-28,31,33,35,37,39,41	"TC-4P-1"	8	30A	120V	-

SCHEDULE NOTES:

- ALL CONTACTORS SHALL BE ELECTRICALLY HELD/ELECTRICALLY OPERATED.
- ALL CONTACTORS TO BE LOCATED AT PANEL.
- ALL CONTACTORS TO BE EQUIPPED WITH HOA SWITCH ON COVER.
- PROVIDE LABEL ON COVER OF ALL CONTACTORS.

TIMECLOCK SCHEDULE						
TIMECLOCK	CONTACTOR CONTROLLED	CONTROLLED BY	AMPS PER POLE	CLOCK MOTOR VOLTAGE	MFG.	MODEL NUMBER
TC-L-1	"LC-L-1" & "LC-L-2"	PHOTOCELL	40A	120V	NS/TORK	DT-140
TC-4P-1	"LC-4P-1"	PHOTOCELL	40A	120V	NS/TORK	DT-140

SCHEDULE NOTES:

- ALL TIMELOCKS TO BE LOCATED ADJACENT TO ASSOCIATED PANEL.
- ALL TIMELOCK SETTINGS TO BE DETERMINED BY OWNER.
- PROVIDE 120V CONNECTION TO TIMELOCK MOTORS AND CONTACTOR COILS FROM ASSOCIATED PANEL.
- PROVIDE LABEL ON COVER OF ALL TIMELOCKS.

SWBD SCHEDULE & NOTES

DEVICE	PHASE LOAD TOTALS (VA)				BREAKER
	A	B	C	TOTAL	
PANEL "L"	4,631	4,891	4,194	13,716	125A/3P
PANEL "P"	5,036	5,350	8,510	18,896	225A/3P
PANEL "P2"	12,749	10,151	9,781	32,682	225A/3P
PANEL "P3"	10,660	12,209	10,730	33,600	225A/3P
PANEL "P4"	13,410	13,240	8,644	35,293	225A/3P
PANEL "H"	27,365	27,160	31,866	86,390	400A/3P
PANEL "PL"	11,856	13,241	13,088	38,284	225A/3P
PANEL "P1"	13,517	13,207	11,087	37,811	225A/3P
PANEL "P22"	19,900	19,332	20,232	59,464	200A/3P
PANEL "P33"	19,900	19,332	20,232	59,464	200A/3P
PANEL "P44"	14,700	15,036	15,736	45,472	150A/3P
PANEL "P11"	7,750	3,100	4,000	14,850	125A/1P
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PANEL "P44"	14,700	15,036	15,736	45,472	150A/3P
MAIN-1	8,166	8,166	8,166	24,498	125A/3P
MAIN-2	8,166	8,166	8,166	24,498	125A/3P

TOTAL SERVICE CONNECTED LOAD 846,828 (VA)
TOTAL SERVICE CONNECTED LOAD 846.8 (KVA)
TOTAL SERVICE CONNECTED LOAD 2,350.8 (AMPS)

NOTES:

- SWBD IS TO BE BOTTOM FEED, 3Ø, 4W, 208/120V, FULL SIZE AL BUS NON-TAPERED, 2000A MCB (100% RATED), 6ØK AIC, NEMA 1 ENCLOSURE, FRONT AND REAR ALIGNED.
- PROVIDE BREAKERS IN SWBD AS LISTED BELOW:
ALL RATED AT 65,000 AIC MIN, 208/120V, 3Ø, 4W.
- SWBD TO BE EQUIPPED WITH 180KA (SURGE CURRENT, PER PHASE) TVSS PROTECTION DEVICE TO BE HARDWIRED TO BUSWAY AND INTERNALLY MOUNTED AT FACTORY. NO CABLE CONNECTIONS. TVSS MODULE TO BE PROVIDED WITH OPTIONS FOR AUDIBLE ALARM, SURGE COUNTER, DRY CONTACTS, AND INTERNAL DISCONNECTS TO BE INCLUDED WITHIN SWBD UNIT IS SPECIFIED.
- PROVIDE ADHESIVE BACKED ENGRAVED NAMEPLATES FOR ALL BREAKERS. PROVIDE BLUE ENTRANCE LABEL ON MAIN.
- PANEL AIC RATINGS ARE SHOWN (60K MIN). THESE VALUES SHALL BE CHANGED BY THE ELECTRICAL CONTRACTOR TO MATCH LOCAL POWER UTILITY AVAILABLE FAULT CURRENT REQUIREMENTS MORE OR LESS AS RATED. VERIFY WITH ENGINEER IF A CHANGE IS TO BE MADE.
- PROVIDE DIGITAL ENERGY METER TO MONITOR CURRENT DEMAND, NEUTRAL CURRENT, VOLTAGE PER PHASE, MIN AMMETERINGS FOR PROTECTION IQ 138 OR EQUAL.
- FLASH RELEASE SWITCH FOR THE SWITCHBOARD.

RISER NOTES

- ALL SWITCHGEAR DESIGNED AROUND EATON GEAR. CONTACT JUSTIN SALMON WITH EATON AT 425.542.2193 FOR ASSISTANCE WITH EATON PRODUCTS.
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AVAILABLE FAULT CURRENT LABELING

- IN LIEU OF THE MAXIMUM AVAILABLE FAULT CURRENT MARKING AS REQUIRED BY 110.2(A), A PERMANENTLY AFFIXED LABEL SHALL BE APPLIED WITH THE FAULT CURRENT AT THE TIME OF INSTALLATION AND CALCULATION. THE LABEL SHALL BE 2"X3" IN SIZE AND SHALL BE BLUE LETTERING ON A CONTRASTING BACKGROUND. THIS LABEL SHALL ALSO INCLUDE THE DATE OF THE CALCULATION.

CONCRETE-ENCASED ELECTRODE

- ALL GROUNDING ELECTRODES AS DESCRIBED IN 250.52(A)(1) THRU (A)(6) THAT ARE PRESENT SHALL BE BONDED TOGETHER TO FORM THE GROUNDING ELECTRODE SYSTEM. THIS REQUIREMENT INCLUDES THE CONCRETE-ENCASED ELECTRODE. THIS ELECTRODE IS REQUIRED TO BE SHOWN ON THE ONE LINE DIAGRAM WHERE NONE OF THESE GROUNDING ELECTRODES EXIST, ONE OR MORE OF THE GROUNDING ELECTRODES SPECIFIED IN 250.52(A)(4) THROUGH (A)(7) SHALL BE INSTALLED AND USED.

SELECTIVE COORDINATION OF ELEVATOR FEEDER

- PER NEC SECTION 620.62, THE ELECTRICAL CONTRACTOR TO PROVIDE ALL REQUIRED PROOF OF SELECTIVE COORDINATION OF ELEVATOR BREAKERS WITH ANY SUPPLY SIDE OVERCURRENT PROTECTION DEVICE SERVED BY A SINGLE FEEDER.

RISER WIRING TABLE				
MARK	FED FROM	WIRE SIZE	CONDUIT	GROUND PER RACEWAY
1	UTILITY	6 SETS 75' AL	6 SETS 4"	-
2	SWBD	1 SET 75' CU	1 SET 2"	#6
3	SWBD	1 SET 75' AL	1 SET 2-1/2"	#4
4	SWBD	1 SET 75' AL	1 SET 2-1/2"	#4
5	SWBD	1 SET 75' AL	1 SET 2-1/2"	#4
6	SWBD	1 SET 75' AL	1 SET 2-1/2"	#4
7	SWBD	2 SETS 75' AL	2 SETS 2-1/2"	#1
8	SWBD	1 SET 75' AL	1 SET 2-1/2"	#4
9	SWBD	1 SET 75' AL	1 SET 2-1/2"	#4
10	PANEL "P4"	1 SET 75' AL	1 SET 2"	#6
11	SWBD	1 SET 75' AL	1 SET 2-1/2"	#4
12	SWBD	1 SET 75' AL	1 SET 2-1/2"	#4
13	SWBD	1 SET 75' AL	1 SET 2-1/2"	#4
14	SWBD	1 SET 75' AL	1 SET 2"	#6
15	SWBD	1 SET 75' AL	1 SET 2-1/2"	#4
16	SWBD	1 SET 75' AL	1 SET 2-1/2"	#4
17	SWBD	1 SET 75' AL	1 SET 2"	#6
18	SWBD	1 SET 75' AL	1 SET 2-1/2"	#4
19	SWBD	1 SET 75' AL	1 SET 2-1/2"	#4
20	SWBD	1 SET 75' AL	1 SET 2-1/2"	#4
21	SWBD	1 SET 75' AL	1 SET 2"	#6

TABLE NOTES:

- ALL WIRE #50 AND ABOVE TO BE 75°C ALUMINUM. ALL WIRE SMALLER THAN #50 TO BE 75°C COPPER.
- ALL CONDUITS ABOVE GRADE TO BE EMT OR RIGID. CONDUITS IN CMU/BLOCK TO BE EMT. BELOW GRADE TO BE PVC SCHED.
- ALL BELOW GRADE ELBOWS TO BE RIGID EXCEPT WHERE CONVERTING FROM PVC TO EMT INSIDE WALLS, EMT ALLOWED THEN.
- ALL ABOVE SLAB CONDUIT RUNS ARE TO BE RUN PARALLEL & PERPENDICULAR TO BUILDING STRUCTURE.
- THE CONTRACTOR IS FREE TO USE ALUMINUM FEEDERS TO ALL PANELS. CONTRACTOR TO SIZE ALUMINUM FEEDERS PER NEC TO MATCH CAPACITY OF COPPER WIRE LISTED ABOVE.

PANELBOARD NOTES

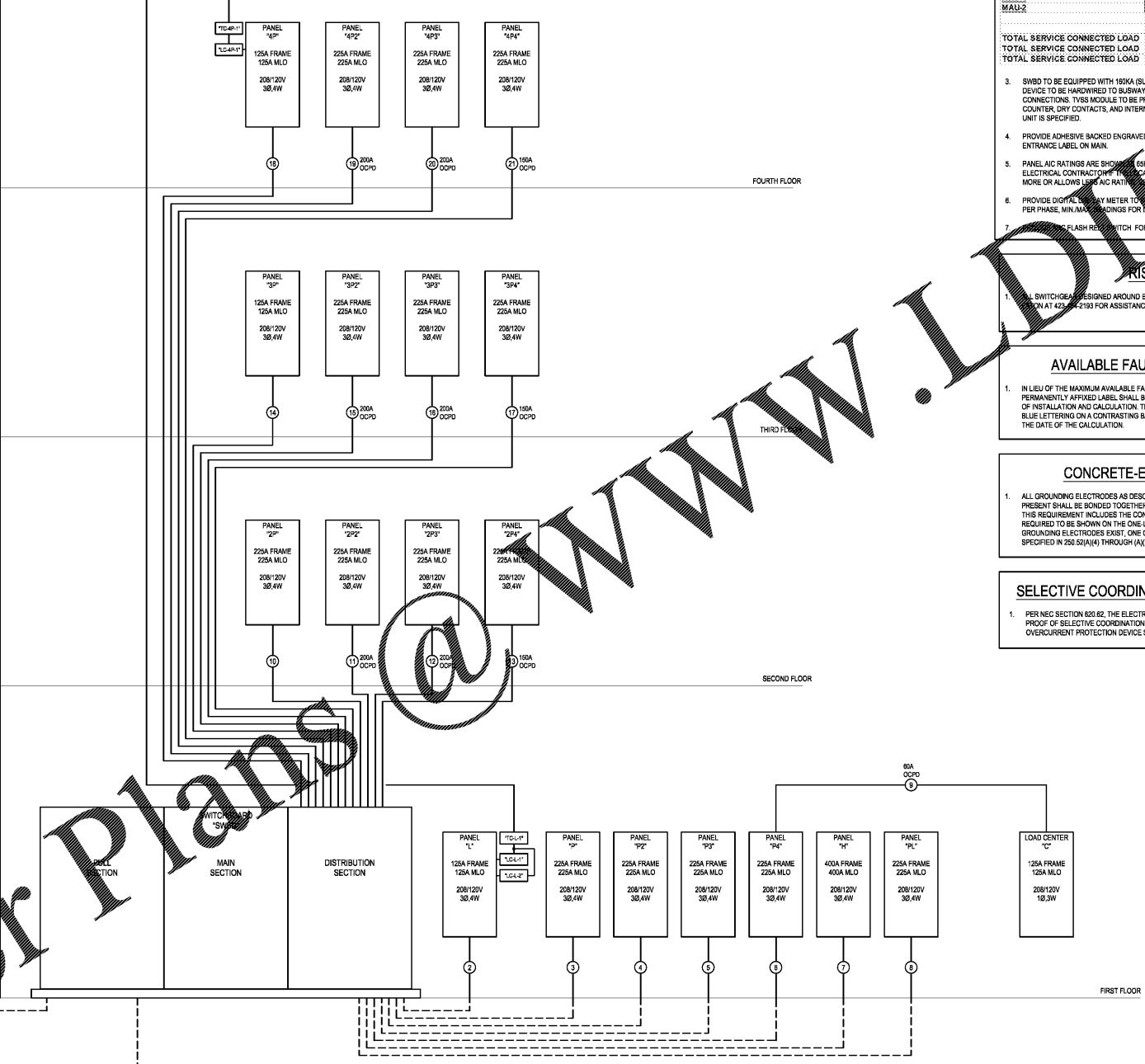
- ALL PANELBOARDS TO HAVE HINGED GUTTER COVERS. NO DOOR-IN-DOOR COVERS.
- ALL PANELBOARDS TO FULLY RATED AS NOTED ON PANEL SCHEDULE.
- PROVIDE METAL "CORBIN" TYPE LATCHES.
- PROVIDE ADHESIVE BACKED ENGRAVED NAMEPLATES FOR PANELS.

DISCONNECT NOTES

- ALL DISCONNECT WITH FUSES SHALL HAVE TYPE RK-1 FUSES.
- ALL DISCONNECTS FOR USE WITH AN ELEVATOR SHALL BE PROVIDED WITH FULL SIZE NEUTRALS AND GROUNDS. PROVIDE NO CONTACT FOR USE WITH LOWERING DEVICE. PROVIDE DRY CONTACTS FOR FIRE ALARM CONNECTION. FUSES TO BE DUAL ELEMENT TIME DELAY, RK-1 TYPE. PROVIDE SUBMITTALS FOR FUSES BY APPROVAL BY ENGINEER. PROVIDE RELAY AS REQUIRED FOR LOWERING DISCONNECT TO BE 4 POLE TO ALLOW FOR NEUTRAL.
- PROVIDE ADHESIVE BACKED ENGRAVED NAMEPLATES FOR PANELS.

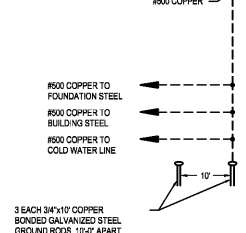
SERVICE EQUIPMENT BONDING CONDUCTORS

- CONTRACTOR TO PROVIDE BONDING JUMPERS/CONDUCTORS FOR ALL SERVICE EQUIPMENT. THIS IS TO INCLUDE ALL TROUBLESHOOTING, CONDUITS, AND METER EQUIPMENT.
- SIZE OF ALL SERVICE BONDING CONDUCTORS TO BE #10. SERVICE BONDING CONDUCTORS TO BE RUN IN EACH RACEWAY AT THIS SIZE FOR PARALLEL SETS OF WIRE AND CONDUIT.



GROUNDING NOTES

- CONNECT GROUND RODS TO GROUND BUS WITH ONE CONTINUOUS LENGTH. SIZE GROUND AS PER NEC.
- CONNECT GROUND BUS TO COLD WATER LINE WITH #600 COPPER.
- BOND ALL OTHER METAL PIPING TO GROUNDING SYSTEM.
- GROUNDING CONNECTIONS TO BE COMPRESSION TYPE OR EXOTHERMIC.
- GROUND ROD TO BE COP-R-COAT (NOT GALVANIZED).



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