

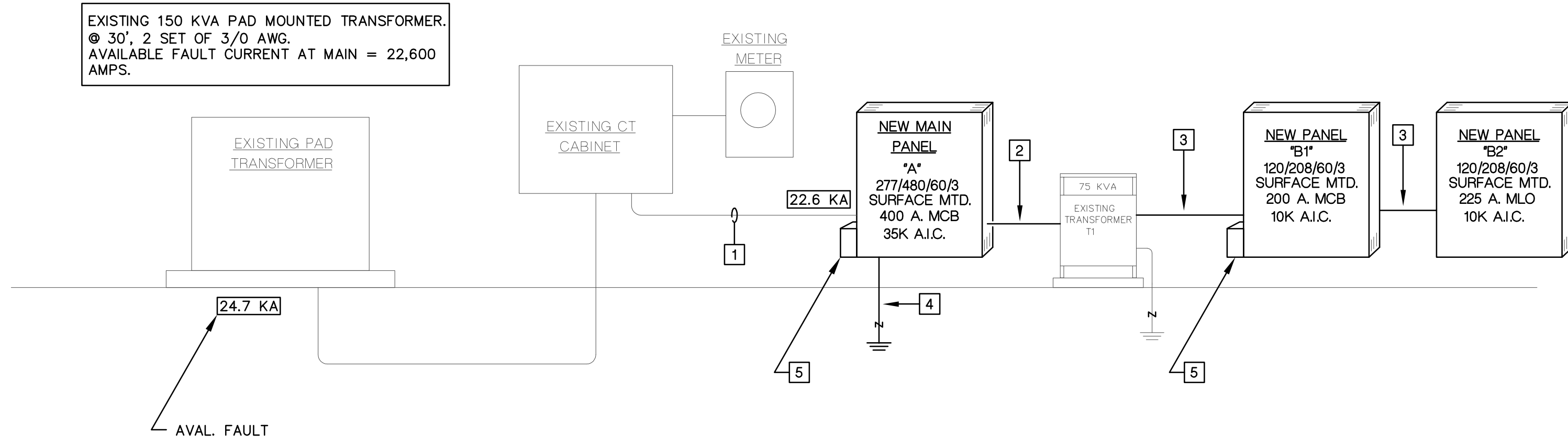
DRAWINGS PROPERTY OF CONSULTING ENGINEERING GROUP, INC. INTERNATIONAL, 2010

BUILDING LOAD STUDY			
LOAD CODES	CONNECTED LOAD	D. FACTOR	DEMAND LOAD
LIGHTING 12,400 SF @ 2 VA	24,800 VA	125	31,000 VA
AIR CONDITIONING (HEAT)	90,000 VA	1.00	90,000 VA
RECEPTACLES 74 @ 180 VA	13,320 VA	NEC 220-44	11,660 VA
SHOW WINDOW	1,440 VA	1.00	1,440 VA
SIGN (4)	4,800 VA	1.00	4,800 VA
EWC	1,000 VA	1.00	1,000 VA
WATER HEATER	3,000 VA	125	3,750 VA
MICROWAVE	1,600 VA	1.00	1,600 VA
REFRIGERATOR	1,400 VA	1.00	1,400 VA
COFFE MAKER	900 VA	1.00	900 VA
TOTAL DEMAND = 147,550 VA @ 3 PH, 480V = 177 A			

KEY NOTES.

- EXISTING, 2 SET OF 4#3/0 AWG, IN EXISTING, 2 1/2" CONDUITS.
- NEW, 3#3 AWG & 1#8 AWG EG, 1 1/4" CONDUIT.
- NEW 4#3/0 AWG, & 1#6 AWG EG, 2 1/2" C.
- #1/0 AWG GROUNDING ELECTRODE CONDUCTOR.
- SURGE PROTECTION DEVICE UNIT A.P.T. UNITS - SIZED BY MANUFACTURER (TYPICAL FOR EACH PANEL BOARD). SPD WITH INTERNAL OVER CURRENT PROTECTION, MEET NEC ARTICLE 285. CONTRACTOR RUN 24" OR LESS LEADS, GENTLY TWISTED. UL 1449 3rd EDITION LISTED. TYPE 2. SPRs: 800V OR LESS FOR 480V-277V, 400V OR LESS FOR 208V-120V. NOISE FILTERING 50db @ 100KHZ.

EXISTING 150 KVA PAD MOUNTED TRANSFORMER.
 @ 30', 2 SET OF 3/0 AWG.
 AVAILABLE FAULT CURRENT AT MAIN = 22,600 AMPS.



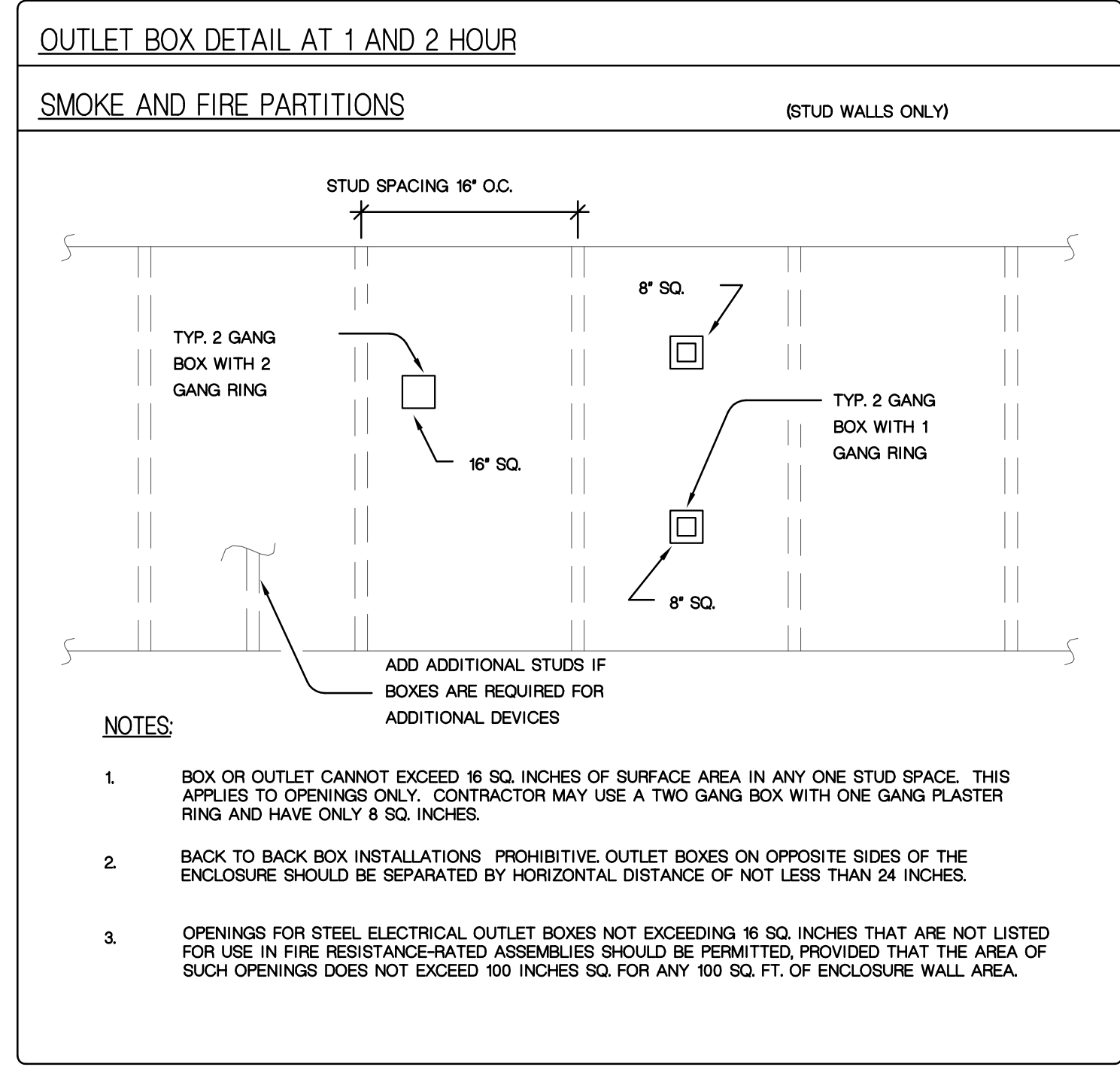
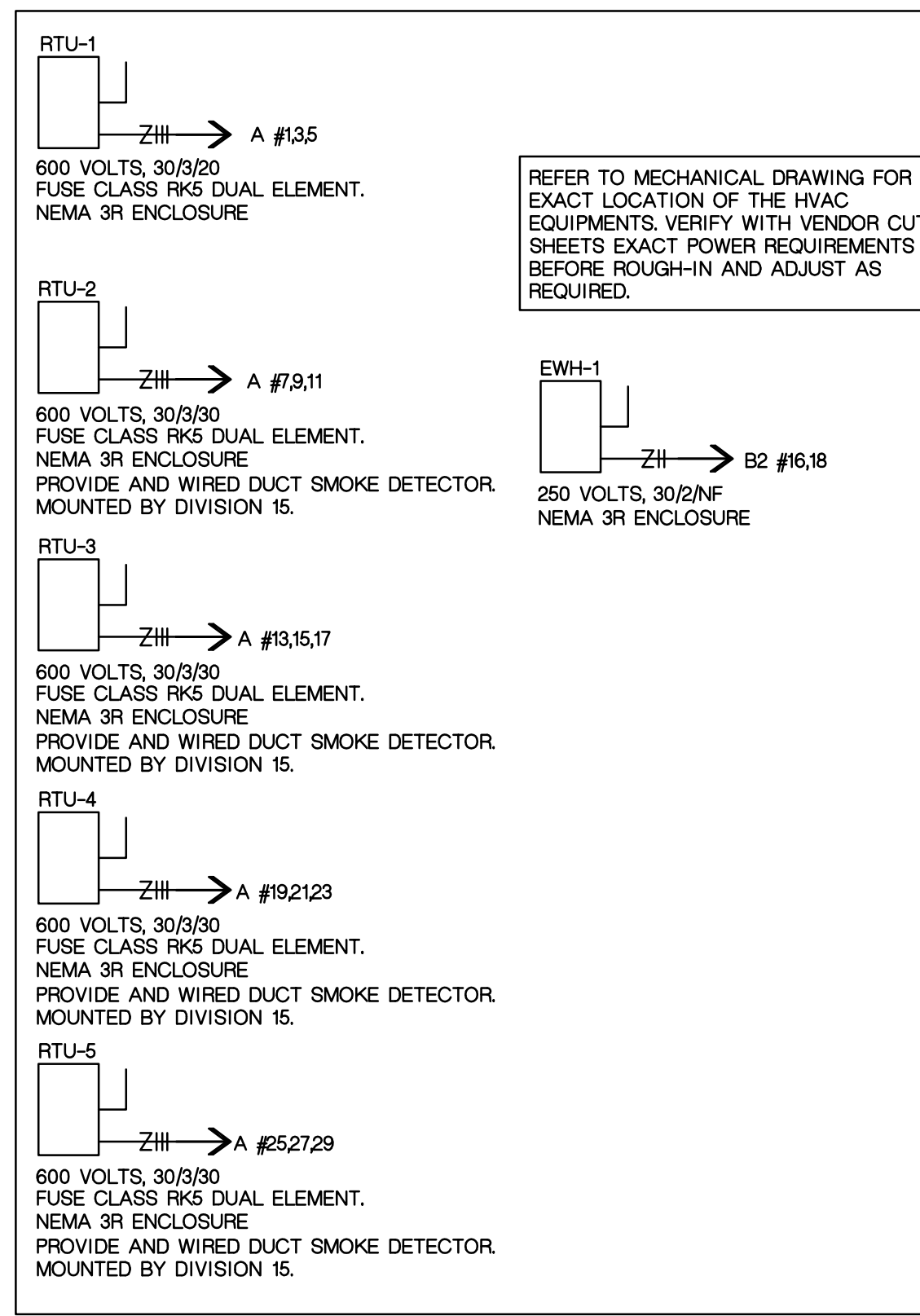
NEW ELECTRICAL RISER


SCALE : NOT TO SCALE

NEW PANEL BOARD "A" SCHEDULE												
WIRE & CONDUIT	BUS AMPS			LOAD	CKT BREAKERS AMP/POLES			LOAD	BUS AMPS			WIRE & CONDUIT
	A	B	C		A	B	C		A	B	C	
3#12 & 1#12EG, 1/2"	15			RTU-1	20	1	A 2	20/1	LTS-SALES AREA	12		2#10 & 1#10EG, 3/4"
					3	B 4	20/1		LTS-SALES AREA		12	2#10 & 1#10EG, 3/4"
					5	C 6	20/1		LTS-SALES AREA		12	2#10 & 1#10EG, 3/4"
3#10 & 1#10EG, 3/4"	22			RTU-2	30	9	B 10	20/1	LTS-SALES AREA	11		2#10 & 1#10EG, 3/4"
					3	11	C 12	20/1	LTS-SALES AREA		15	2#10 & 1#10EG, 3/4"
3#10 & 1#10EG, 3/4"	22			RTU-3	30	13	A 14	20/1	LTS-SALES AREA	8		2#10 & 1#10EG, 3/4"
					15	B 16	20/1		LTS-SALES AREA		8	2#10 & 1#10EG, 3/4"
					3	17	C 18	20/1	LTS-RECEIVING/OFFICE		6	2#10 & 1#10EG, 3/4"
3#10 & 1#10EG, 3/4"	22			RTU-4	30	19	A 20	20/1				
					21	B 22	20/1					
					3	23	C 24	20/1				
3#10 & 1#10EG, 3/4"	22			RTU-5	30	25	A 26	20/1				
					27	B 28	20/1					
					3	29	C 30	100	TRANSFORMER	40		SEE RISER
					20/1	31	A 32					
					20/1	33	B 34					
					20/1	35	C 36	20/1	EXIT LTS			2#10 & 1#10EG, 3/4"
					37	A 38	30		SPD			4#10 & 1#10EG, 3/4"
					39	B 40						
					20/1	41	C 42	3				
TOTAL CONNECTED AMPS: BUS A, 174 BUS B, 173 BUS C, 176 NEW CONNECTED KVA = 14487												
RATE VOLTAGE: 277/480 3 PHASE, 4 WIRE PANEL CAPACITY: 42 POLES												
RATED AMPS OF: 400 BUSING MLO 400 MCB FEED												
FULLY RATED BREAKER ISC 35 K AIC SYMM. SURFACE MOUNTED LOCATION: RECEIVING AREA												
400 AMPS THRU FEED LUGS NEW CONNECTED AMPS PER PHASE = 174												

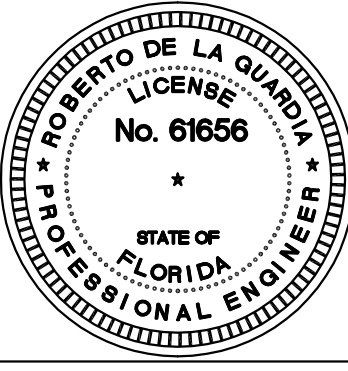
NEW PANEL BOARD "B1" SCHEDULE												
WIRE & CONDUIT	BUS AMPS			LOAD	CKT BREAKERS AMP/POLES			LOAD	BUS AMPS			WIRE & CONDUIT
	A	B	C		A	B	C		A	B	C	
2#10 & 1#10EG, 3/4"	6			REC. CASHIER	20/1	1	A 2	20/1	REC. SHOW WINDOW	6		2#12 & 1#12EG, 1/2"
2#10 & 1#10EG, 3/4"	4.5			REC. (IG) CASHIER	20/1	3	B 4	20/1	REC. SHOW WINDOW		6	2#12 & 1#12EG, 1/2"
2#10 & 2#10EG, 3/4"	9			REC. CASHIER	20/1	5	C 6	20/1	EWC		9	2#12 & 1#12EG, 1/2"
2#10 & 2#10EG, 3/4"	3			REC. (IG) CASHIER	20/1	7	A 8	20/1	POWER DOORS	4		2#12 & 1#12EG, 1/2"
2#10 & 1#10EG, 3/4"	3			REC. (IG) CASHIER	20/1	9	B 10	20/1	VIDEO MONITOR		3	2#12 & 1#12EG, 1/2"
2#10 & 1#10EG, 3/4"	6			REC. CASHIER	20/1	11	C 12	20/1	SIGN		10	2#10 & 1#10EG, 3/4"
2#10 & 2#10EG, 3/4"	6			RECEPTACLES	20/1	13	A 14	20/1	SIGN		10	2#10 & 1#10EG, 3/4"
				RECEPTACLES	20/1	15	B 16	20/1	SIGN		10	2#10 & 1#10EG, 3/4"
2#10 & 1#10EG, 3/4"	6			CEILING RECEPTACLES	20/1	17	C 18	20/1	SIGN		10	2#10 & 1#10EG, 3/4"
2#10 & 1#10EG, 3/4"	7.5			RECEPTACLES	20/1	19	A 20	20/1	HAND DRYER	12.5		2#12 & 2#12EG, 3/4"
2#10 & 1#10EG, 3/4"	6			CEILING RECEPTACLES	20/1	21	B 22	20/1	HAND DRYER		12.5	2#12 & 2#12EG, 3/4"
2#10 & 1#10EG, 3/4"				RECEPTACLES	20/1	23	C 24	20/1	BELL/BUZZER		1	2#12 & 2#12EG, 3/4"
				SPARE	20/1	25	A 26	20/1	EXTERIOR REC.		1.5	2#12 & 2#12EG, 3/4"
				SPARE	20/1	27	B 28		SPACE			
				SPARE	20/1	29	C 30		SPACE			
				SPARE	20/1	31	A 32		SPACE			
				SPARE	20/1	33	B 34		SPACE			
				SPARE	20/1	35	C 36		SPACE			
				SPARE	20/1	37	A 38	30				
				SPARE	20/1	39	B 40		SPD			4#10 & 1#10EG, 3/4"
				SPARE	20/1	41	C 42	3				
TOTAL CONNECTED AMPS: BUS A, 56.5 BUS B, 48 BUS C, 58.5 NEW CONNECTED KVA = 1956												
RATE VOLTAGE: 120/208 3 PHASE, 4 WIRE PANEL CAPACITY: 42 POLES												
RATED AMPS OF: 225 BUSING MLO 200 MCB FEED												
FULLY RATED BREAKER ISC 10 K AIC SYMM. SURFACE MOUNTED LOCATION: RECEIVING AREA												
DOUBLE LUG PANEL NEW CONNECTED AMPS PER PHASE = 54												

NEW PANEL BOARD "B2" SCHEDULE												
WIRE & CONDUIT	BUS AMPS			LOAD	CKT BREAKERS AMP/POLES			LOAD	BUS AMPS			WIRE & CONDUIT
	A	B	C		A	B	C		A	B	C	
2#12 & 1#12EG, 1/2"	10			RECEPTACLES	20/1	1	A 2	20/1	REC. SECURITY SYS.	3		2#12 & 1#12EG, 1/2"
2#12 & 1#12EG, 1/2"	15			RECEPTACLE (IG)	20/1	3	B 4	20/1	REC. OFFICE		7.5	2#12 & 1#12EG, 1/2"
2#12 & 1#12EG, 1/2"	7.5			COFFE MAKER	20/1	5	C 6	20/1	REC. OFFICE (IG)		3	2#12 & 1#12EG, 1/2"
2#12 & 1#12EG, 1/2"	13			MICROWAVE	20/1	7	A 8	20/1	REC. OFFICE (IG)		15	2#12 & 1#12EG, 1/2"
2#12 & 1#12EG, 1/2"	12			REFRIGERATOR	20/1	9	B 10	20/1	REC. AUDIO SYS.		10	2#12 & 1#12EG, 1/2"
2#12 & 1#12EG, 1/2"	15			RECEPTACLE (IG)	20/1	11	C 12	20/1	FACP		5	2#12 & 1#12EG, 1/2"
2#12 & 1#12EG, 1/2"	3			PHONE BOARD (IG)	20/1	13	A 14	20/1	ROOF RECEPTACLES		9	2#10 & 1#10EG, 3/4"
				SPARE	20/1	15	B 16	20			14	2#12 & 1#12EG, 1/2"
				SPARE	20/1	17	C 18	2	EWH-1		14	2#12 & 1#12EG, 1/2"
				SPARE	20/1	19	A 20	20/1				
				SPARE	20/1	21	B 22	20/1				
				SPACE	23	C 24			SPACE			
				SPACE	25	A 26			SPACE			
				SPACE	27	B 28			SPACE			
				SPACE	29	C 30			SPACE			
				SPACE	31	A 32			SPACE			
				SPACE	33	B 34			SPACE			
				SPACE	35	C 36			SPACE			
				SPACE	37	A 38			SPACE			
				SPACE	39	B 40			SPACE			
				SPACE	41	C 42			SPACE			
TOTAL CONNECTED AMPS: BUS A, 40.5 BUS B, 45 BUS C, 31 NEW CONNECTED KVA = 1398												
RATE VOLTAGE: 120/208 3 PHASE, 4 WIRE PANEL CAPACITY: 42 POLES												
RATED AMPS OF: 225 BUSING 225 MLO MCB FEED												
FULLY RATED BREAKER ISC 10 K AIC SYMM. SURFACE MOUNTED LOCATION: RECEIVING AREA												
NEW CONNECTED AMPS PER PHASE = 39												






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CEG PROJECT NO. 10-249



COLONIAL LANDING
 SHOPPING CENTER
 3220 EAST COLONIAL BLVD
 ORLANDO, FL

	3/2/10	PERMIT SET	
Mark	Date	Description	
			Issue/Revision PERMIT SET
			Project ID CEGI No. 09-249
			Designed By J.F. KILL
			Checked By R.D.L.G.
			Issue Date: 3/2/10
			Plot Date: 3/2/10
			Permit Issue Date: 3/2/10
			Sheet Title
			ELECTRICAL RISER DIAGRAM PLAN
			Scale: AS NOTED ON PLAN
			Drawing No. E-5