



POWER SYSTEMS ENGINEERING
LEXINGTON, KY

ARC FLASH HAZARD
ANALYSIS TABLE

MALCOM RANDALL VA MEDICAL CENTER
GAINESVILLE, FL
REFER TO SYSTEM ONE-LINE DIAGRAMS

BUS NAME	PROTECTIVE DEVICE NAME	LV	BUS BOLTED FAULT (kA)	PROT. DEV. BOLTED FAULT (kA)	ARCING FAULT (kA)	TRIP/ DELAY TIME (sec)	BREAKER OPENING TIME (sec)	GROUND	EQUIP. TYPE	GAP (mm)	ARC FLASH BOUNDARY (in)	WORKING DISTANCE (in)	INCIDENT ENERGY	HAZARD / RISK CATEGORY NUMBER (refer to NFPA 70E, 2004 Edition, Table 13A.1(C)(11))
001 GRU FDR #1	003-01 DR RLY	12.5	13.66	8.40	6.26	2	0	Yes	SWG	153	532	36	16.4	Category 3
002 GRU FDR #2	004-01 DR RLY	12.5	13.61	6.40	6.26	2	0	Yes	SWG	153	532	36	16.4	Category 3
003 SOUTH SWGR	007-01 US-0 MN	12.5	13.66	6.69	6.46	0.016	0.083	Yes	SWG	153	52	36	1.70	Category 1
004 NORTH SWGR (004-04 US-0)	004-01 DR RLY	12.5	13.61	8.40	6.16	0.016	0.083	Yes	SWG	153	51	36	1.69	Category 1
005 US-09-A	003-03 DR GF	12.5	13.41	13.02	12.57	0.016	0.083	Yes	SWG	153	51	36	1.67	Category 1
006 US-4/5-A	003-04 DR GF	12.5	13.26	13.09	12.64	0.016	0.083	Yes	SWG	153	50	36	1.65	Category 1
007 US-0	004-04 DR GF	12.5	13.65	6.26	6.05	0.016	0.083	Yes	SWG	153	52	36	1.70	Category 1
008 TS-PRI	007-03 T-5 FDR	12.5	13.64	13.56	13.09	0.016	0.083	Yes	SWG	153	52	36	1.70	Category 1
009 T-1 PRI	007-04 T-1 FDR	12.5	13.56	13.46	13.01	0.016	0.083	Yes	SWG	153	51	36	1.69	Category 1
010 T-2 PRI	007-05 T-2 FDR	12.5	13.53	13.44	12.98	0.016	0.083	Yes	SWG	153	51	36	1.68	Category 1
011 T-3 PRI	007-06 T-3 FDR	12.5	13.53	13.44	12.97	0.016	0.083	Yes	SWG	153	51	36	1.68	Category 1
012 T-4 PRI	007-07 T-4 FDR	12.5	13.56	13.46	13	0.016	0.083	Yes	SWG	153	51	36	1.68	Category 1
013 T-6/T-7 PR	007-08 T-6/7	12.5	13.64	13.51	13.04	0.016	0.083	Yes	SWG	153	52	36	1.70	Category 1
014 US-09-B	004-07 DR GF	12.5	13.35	13.35	12.9	0.016	0.083	Yes	SWG	153	50	36	1.66	Category 1
015 US-4/5-B	004-03 DR GF	12.5	13.2	13.20	12.75	0.016	0.083	Yes	SWG	153	50	36	1.64	Category 1
016 US-8 PRI	003-03 DR GF	12.5	13.41	13.02	12.57	0.016	0.083	Yes	SWG	153	51	36	1.67	Category 1
017 US-9 SW-1	003-03 DR GF	12.5	13.36	12.99	12.55	0.016	0.083	Yes	SWG	153	51	36	1.66	Category 1
018 US-9 PRI	003-03 DR GF	12.5	13.36	12.99	12.55	0.016	0.083	Yes	SWG	153	51	36	1.66	Category 1
019 US-4 PRI	003-04 DR GF	12.5	13.26	13.09	12.64	0.016	0.083	Yes	SWG	153	50	36	1.65	Category 1
020 US-5 PRI	003-04 DR GF	12.5	13.24	13.07	12.62	0.016	0.083	Yes	SWG	153	50	36	1.64	Category 1
021 750KVA PRI (EJC-1)	007-08 T-6/7	12.5	13.62	13.50	13.03	0.016	0.083	Yes	SWG	153	52	36	1.69	Category 1
100 CPT1 SEC	003-05 US-0	0.48	1.44	0.70	0.61	1.917	0.083	Yes	PNL	25	53	16	7.02	Category 2
101 ATS-SG-ACA	FC 60A_A	0.48	1.36	1.36	1.01	1.728	0	Yes	PNL	25	42	16	4.82	Category 2
102 CPT1 SEC	004-04 US-0	0.48	1.44	0.76	0.66	1.917	0.083	Yes	PNL	25	53	16	7.02	Category 2
103 LP-1 (LP-1 MN)	FC 60A_A	0.48	1.27	1.27	0.96	1.937	0	Yes	PNL	25	44	16	5.09	Category 2
104 15KVA PRI	LP-1 MN	0.48	1.24	1.24	0.94	2	0	Yes	PNL	25	44	16	5.14	Category 2
105 15KVA SEC	LP-1 MN	0.208	0.87	0.87	0.87	2	0	Yes	PNL	25	14	16	0.68	Category 0
106 PP-1 (PP-1 MN)	LP-1 MN	0.208	0.87	0.87	0.87	2	0	Yes	PNL	25	14	16	0.68	Category 0
107 US-8 SWBD (107-01 MN BKR)	003-03 DR GF	0.48	36.43	26.60	13.2	0.446	0.083	Yes	PNL	25	117	18	25.8	Category 4
108 CHILLER-1	107-02 CH FDR	0.48	32.26	30.12	16.85	0.07	0	Yes	PNL	25	40	18	4.34	Category 2
109 MCC-M1	107-03 MCC-M1	0.48	27.22	24.41	13.83	0.07	0	Yes	PNL	25	36	18	3.71	Category 1
110 CWP #1	109-01 LI FDR	0.48	15.97	16.44	9.46	0.016	0	Yes	PNL	25	11	18	0.53	Category 0

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BUS NAME	PROTECTIVE DEVICE NAME	kV	BUS BOLTED FAULT (kA)	PROT. DEV. BOLTED FAULT (kA)	ARCING FAULT (kA)	TRIP/ DELAY TIME (sec)	BREAKER OPENING TIME (sec)	GROUND	EQUIP. TYPE	GAP (mm)	ARC FLASH BOUNDARY (ft)	WORKING DISTANCE (ft)	INCIDENT ENERGY	HAZARD / RISK CATEGORY NUMBER (refer to NFPA 70E, 2004 Edition, Table 138.7(C)(1))
111 CT K0M4	109-02 KI FDR	0.48	23.77	22.92	13.25	0.01	0	Yes	PNL	25	10	18	0.47	Category 0
112 IP8/P8	109-03 KH FDR	0.48	12.02	11.50	7.34	0.017	0	Yes	PNL	25	9	18	0.42	Category 0
113 TYP OF 3	FC 100A_A	0.48	13.96	13.52	8.44	0.017	0	Yes	PNL	25	10	18	0.48	Category 0
114 MLGA (114-01 MN BKR)	107-04 MLGA FD	0.48	31.02	31.02	17.25	0.07	0	Yes	PNL	25	39	18	4.19	Category 2
115 ATS-MP-EQ2	114-01 MN BKR	0.48	22.13	22.13	12.92	0.014	0	Yes	PNL	25	12	18	0.82	Category 0
118 EEEL (118-01 MN BKR)	114-01 MN BKR	0.48	21.52	21.52	12.82	0.014	0	Yes	PNL	25	12	18	0.61	Category 0
117 ATS-MP-C1	114-01 MN BKR	0.48	14.65	14.65	9.09	0.014	0	Yes	PNL	25	10	18	0.43	Category 0
118 ECLA	114-01 MN BKR	0.48	12.83	12.83	8.11	0.015	0	Yes	PNL	25	9	18	0.39	Category 0
119 TM2 PRI	114-01 MN BKR	0.48	11.2	11.20	7.22	0.015	0	Yes	PNL	25	8	18	0.34	Category 0
120 TM2 SEC	FC 100A_B	0.208	0.84	0.84	0.77	2	0	Yes	PNL	25	38	18	4.13	Category 2
121 ECPA (ECPA MN)	FC 100A_B	0.208	0.84	0.84	0.78	2	0	Yes	PNL	25	38	18	4.11	Category 2
123 ELLA	114-01 MN BKR	0.48	10.93	10.93	7.07	0.015	0	Yes	PNL	25	8	18	0.33	Category 0
124 TM3 PRI	114-01 MN BKR	0.48	9.65	9.65	6.38	0.015	0	Yes	PNL	25	8	18	0.30	Category 0
125 TM3 SEC	FC 100A_C	0.208	0.84	0.84	0.77	2	0	Yes	PNL	25	38	18	4.12	Category 2
128 ELPA (ELPA MN)	FC 100A_C	0.208	0.84	0.84	0.78	2	0	Yes	PNL	25	38	18	4.11	Category 2
127 TM1 PRI	114-01 MN BKR	0.48	28.34	28.34	16.45	0.014	0	Yes	PNL	25	14	18	0.80	Category 0
128 TM1 SEC	FC 70A_A	0.208	1.96	1.96	1.38	2	0	Yes	PNL	25	56	18	7.79	Category 2
129 MPGA	FC 70A_A	0.208	1.95	1.95	1.38	2	0	Yes	PNL	25	56	18	7.76	Category 2
130 CHLLER-2	107-05 CH FDR	0.48	31.2	29.07	16.15	0.07	0	Yes	PNL	25	39	18	4.21	Category 2
131 ATS-MP-EQ3	107-06 EEELB FD	0.48	29.71	29.33	16.41	0.07	0	Yes	PNL	25	36	18	4.03	Category 2
132 EEELB (132-01 MN BKR)	107-06 EEELB FD	0.48	28.42	28.03	15.78	0.07	0	Yes	PNL	25	37	18	3.86	Category 1
133 MA-1	132-02 KH FDR	0.48	26.8	26.42	15	0.017	0	Yes	PNL	25	15	18	0.87	Category 0
134 US-9 SWBD (134-01 MN BKR)	003-03 DR GF	0.48	33.44	27.89	13.04	0.458	0.083	Yes	PNL	25	116	18	25.5	Category 4
135 MCC-M2	134-03 MCC-M2	0.48	27.89	25.10	14.18	0.07	0	Yes	PNL	25	36	18	3.80	Category 1
136 CWP #2	135-01 LI FDR	0.48	17.82	17.28	10.41	0.018	0	Yes	PNL	25	11	18	0.58	Category 0
137 CWP #3	135-02 KI FDR	0.48	19.1	18.40	10.98	0.01	0	Yes	PNL	25	9	18	0.36	Category 0
138 CT-5	135-03 KI FDR	0.48	24.5	24.08	13.86	0.01	0	Yes	PNL	25	10	18	0.48	Category 0
139 IP7	135-04 KH FDR	0.48	12.14	11.89	7.58	0.017	0	Yes	PNL	25	10	18	0.42	Category 0
140 1-P5/CT-2	FC 100A_D	0.48	16.28	15.77	9.84	0.017	0	Yes	PNL	25	11	18	0.55	Category 0
141 CHLLER-5	134-04 CH FDR	0.48	27.12	24.98	14.16	0.07	0	Yes	PNL	25	36	18	3.70	Category 1
142 ATS-MP-EQ1	134-05 FIRE P	0.48	15.51	15.36	9.45	0.07	0	Yes	PNL	25	26	18	2.21	Category 1
143 FIRE PUMP	134-05 FIRE P	0.48	14.05	13.90	8.67	0.07	0	Yes	PNL	25	25	18	2.02	Category 1
200 US-4 SWBD (200-01 MN BKR)	003-04 DR GF	0.48	26.75	26.36	13.56	0.423	0.083	Yes	PNL	25	111	18	23.5	Category 3
201 X-RAY EQ	200-02 X-RAY	0.48	9.74	9.74	6.41	0.07	0	Yes	PNL	25	20	18	1.44	Category 1



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202 BATS-C2	200-03 ATS-C2	0.48	23.35	23.35	13.53	0.07	0	Yes	PNL	25	33	18	3.22	Category 1
203 ESCDP2 BKR	200-03 ATS-C2	0.48	22.47	22.47	13.1	0.07	0	Yes	PNL	25	32	18	3.11	Category 1
204 AECL1B (204-01 MN BKR)	203-01 KH DISC	0.48	12.77	12.77	8.08	0.017	0	Yes	PNL	25	10	18	0.44	Category 0
205 AECLGB	FC 80A_A	0.48	9.36	9.36	6.2	0.017	0	Yes	PNL	25	8	18	0.33	Category 0
208 45kVA PRI	FC 80A_A	0.48	11.8	11.80	7.55	0.017	0	Yes	PNL	25	9	18	0.41	Category 0
207 45kVA SEC	FC 80A_A	0.208	1.88	1.88	1.35	2	0	Yes	PNL	25	56	18	7.59	Category 2
208 AECF1B (AECF1B MN)	FC 80A_A	0.208	1.84	1.84	1.33	2	0	Yes	PNL	25	55	18	7.47	Category 2
209 AECFGB (AECFGB MN)	AECFGB FDR	0.208	1.73	1.73	1.08	1.828	0	Yes	PNL	25	42	18	4.87	Category 2
210 BATS1-L52	200-04 ATS-L52	0.48	16.86	16.86	10.25	0.07	0	Yes	PNL	25	27	18	2.39	Category 1
211 ESLSDP2 BK	200-04 ATS-L52	0.48	16.16	16.16	9.88	0.07	0	Yes	PNL	25	27	18	2.29	Category 1
212 AELLGB (212-01 MN BKR)	ESLSDP2 C/B	0.48	9.37	9.37	6.2	0.017	0	Yes	PNL	25	8	18	0.33	Category 0
213 15kVA PRI	ESLSDP2 C/B	0.48	7.15	7.15	4.92	0.017	0	Yes	PNL	25	7	18	0.26	Category 0
214 15kVA SEC	ESLSDP2 C/B	0.208	1.31	1.31	1.04	2	0	Yes	PNL	25	47	18	5.77	Category 2
215 AELPGB (AELPGB MN)	ESLSDP2 C/B	0.208	1.3	1.30	1.04	2	0	Yes	PNL	25	47	18	5.73	Category 2
218 ATS EQ2	200-05 ATS EQ2	0.48	23.35	23.35	13.53	0.07	0	Yes	PNL	25	33	18	3.22	Category 1
217 ESEODP2 BK	200-05 ATS EQ2	0.48	22.9	22.90	13.31	0.07	0	Yes	PNL	25	33	18	3.17	Category 1
218 AEELGB (218-01 MN BKR)	217-01 KH DISC	0.48	17.02	17.02	10.33	0.017	0	Yes	PNL	25	12	18	0.57	Category 0
219 ALGB (219-01 MN BKR)	200-06 ALGB FD	0.48	25.52	25.52	14.6	0.07	0	Yes	PNL	25	35	18	3.50	Category 1
220 45kVA PRI	EJB 70A_A	0.48	22.07	22.07	12.9	0.017	0	Yes	PNL	25	13	18	0.74	Category 0
221 45kVA SEC	EJB 70A_A	0.208	1.94	1.94	1.37	1.809	0	Yes	PNL	25	53	18	7.03	Category 2
222 APGD (APGD MN)	EJB 70A_A	0.208	1.93	1.93	1.37	1.82	0	Yes	PNL	25	53	18	7.05	Category 2
223 45kVA	219-01 MN BKR	0.48	24.17	24.17	13.94	0.017	0	Yes	PNL	25	14	18	0.81	Category 0
224 45kVA	200-06 ALGB FD	0.208	1.94	1.94	1.36	2	0	Yes	PNL	25	56	18	7.79	Category 2
225 APGC (APGC MN)	200-06 ALGB FD	0.208	1.9	1.90	1.36	2	0	Yes	PNL	25	56	18	7.68	Category 2
226 AL1B (226-01 MN BKR)	200-07 AL1B FD	0.48	20.84	20.84	12.28	0.07	0	Yes	PNL	25	31	18	2.90	Category 1
227 45kVA PRI	FC 70A_B	0.48	18.65	18.65	11.17	0.017	0	Yes	PNL	25	12	18	0.62	Category 0
228 45kVA SEC	FC 70A_B	0.208	1.93	1.93	1.37	2	0	Yes	PNL	25	56	18	7.73	Category 2
229 AP1C (AP1C MN)	FC 70A_B	0.208	1.86	1.88	1.34	2	0	Yes	PNL	25	55	18	7.58	Category 2
230 45kVA PRI	FC 70A_C	0.48	17.6	17.60	10.63	0.017	0	Yes	PNL	25	12	18	0.59	Category 0
231 45kVA SEC	FC 70A_C	0.208	1.92	1.92	1.37	2	0	Yes	PNL	25	56	18	7.72	Category 2
232 AP1D (AP1D MN)	FC 70A_C	0.208	1.87	1.87	1.34	2	0	Yes	PNL	25	55	18	7.55	Category 2
233 US-5 SWBD (233-01 MN BKR)	003-04 DR GF	0.48	34.16	28.90	13.47	0.429	0.083	Yes	PNL	25	114	18	24.6	Category 3
234 ATS EQ3A	233-03 EQ3A FD	0.48	28.78	23.23	13.2	0.07	0	Yes	PNL	25	36	18	3.85	Category 1
235 MCC-2A	233-03 EQ3A FD	0.48	26.54	23.01	13.09	0.07	0	Yes	PNL	25	35	18	3.63	Category 1



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BUS NAME	PROTECTIVE DEVICE NAME	LV	BUS FAULT (kA)	PROT. DEV. FAULT (kA)	ARCING FAULT (kA)	TRIP/ DELAY TIME (sec)	BREAKER OPENING TIME (sec)	GROUND	EQUIP. TYPE	GAP (mm)	ARC FLASH BOUNDARY (ft)	WORKING DISTANCE (ft)	INCIDENT ENERGY	HAZARD / RISK CATEGORY NUMBER (refer to NFPA 70E, 2004 Edition, Table 130.7(C)(1))
236 AGRU	235-01 AGRU	0.48	28.11	23.05	13.14	0.025	0	Yes	PNL	25	19	18	1.28	Category 1
237 TYP OF 2	FH 70A_A	0.48	20.17	18.95	11.81	0.017	0	Yes	PNL	25	13	18	0.67	Category 0
238 8KVA PRI	FH 25A_A	0.48	20.12	20.12	11.92	0.017	0	Yes	PNL	25	13	18	0.67	Category 0
239 8KVA SEC	FH 25A_A	0.208	0.82	0.82	0.75	1.763	0	Yes	PNL	25	35	18	3.55	Category 1
240 AEEP2A (AEEQ2A MN)	FH 25A_A	0.208	0.82	0.82	0.75	1.769	0	Yes	PNL	25	35	18	3.55	Category 1
241 BATS-C1	233-04 BATS C1	0.48	28.25	28.25	15.82	0.07	0	Yes	PNL	25	37	18	3.84	Category 1
242 ESCOP1 BKR	233-05 BATS C1	0.48	27.53	27.53	15.58	0.07	0	Yes	PNL	25	36	18	3.75	Category 1
243 AECL1A (243-01 MN BKR)	242-01 DISC	0.48	12.98	12.98	8.2	0.017	0	Yes	PNL	25	10	18	0.45	Category 0
244 AECL1A (AECL1A MN)	242-01 DISC	0.48	11.23	11.23	7.24	0.017	0	Yes	PNL	25	9	18	0.39	Category 0
245 48KVA PRI	243-01 MN BKR	0.48	10.1	10.10	6.62	0.017	0	Yes	PNL	25	9	18	0.35	Category 0
246 48KVA SEC	EG8 45A_A	0.208	2.2	2.20	1.28	0.661	0	Yes	PNL	25	27	18	2.36	Category 1
247 AECPIA (AECPIA MN)	EG8 45A_A	0.208	2.18	2.18	1.27	0.669	0	Yes	PNL	25	27	18	2.36	Category 1
248 AECPGA (AECPGA MN)	AECPGA FDR	0.208	2.07	2.07	1.22	1.546	0	Yes	PNL	25	45	18	5.26	Category 2
249 AECPCG	AECPCG FDR	0.208	1.88	1.88	1.25	0.017	0	Yes	PNL	25	3	18	0.06	Category 0
250 BATS LSI	233-05 BATSLS1	0.48	25.03	25.03	14.36	0.07	0	Yes	PNL	25	34	18	3.44	Category 1
251 ELSDP1	233-05 BATSLS1	0.48	23.67	23.67	13.66	0.07	0	Yes	PNL	25	33	18	3.26	Category 1
252 AELLGA (AELLGA MN)	ESLSDP1 C/B	0.48	5.81	5.81	4.13	0.017	0	Yes	PNL	25	6	18	0.21	Category 0
253 15KVA PRI	15KVA FDR_A1	0.48	4.4	4.40	3.25	0.017	0	Yes	PNL	25	5	18	0.17	Category 0
254 15KVA SEC	15KVA FDR_A1	0.208	0.82	0.82	0.64	0.764	0	Yes	PNL	25	19	18	1.30	Category 1
255 AELPGA (AELPGA MN)	15KVA FDR_A1	0.208	0.82	0.82	0.64	0.772	0	Yes	PNL	25	19	18	1.30	Category 1
256 AELPIA	AELPIA FDR	0.208	0.81	0.81	0.63	0.874	0	Yes	PNL	25	20	18	1.47	Category 1
257 ATS EQ1	233-06 ATS EQ1	0.48	28.86	28.86	16.13	0.07	0	Yes	PNL	25	37	18	3.90	Category 1
258 ESEOP1	233-06 ATS EQ1	0.48	28.02	28.02	15.81	0.07	0	Yes	PNL	25	37	18	3.81	Category 1
259 AELLGA (AELLGA MN)	258-01 KH DISC	0.48	11.85	11.85	7.58	0.017	0	Yes	PNL	25	9	18	0.41	Category 0
260 15KVA PRI	258-01 KH DISC	0.48	5.71	5.71	4.07	0.017	0	Yes	PNL	25	6	18	0.21	Category 0
261 15KVA SEC	15KVA FDR_A2	0.208	0.83	0.83	0.64	0.766	0	Yes	PNL	25	19	18	1.29	Category 1
262 AEEP1A (AEEP1A MN)	15KVA FDR_A2	0.208	0.82	0.82	0.64	0.765	0	Yes	PNL	25	19	18	1.30	Category 1
263 ALGA (263-01 MN BKR)	233-07 ALGA FD	0.48	18.73	18.73	11.21	0.07	0	Yes	PNL	25	29	18	2.63	Category 1
264 75KVA PRI	263-01 MN BKR	0.48	17.01	17.01	10.32	0.017	0	Yes	PNL	25	12	18	0.57	Category 0
265 75KVA SEC	75KVA FDR_A	0.208	3.46	3.46	2.07	2	0	Yes	PNL	25	73	18	12.0	Category 3
266 APGA (APGA MN)	75KVA FDR_A	0.208	3.36	3.36	2.03	2	0	Yes	PNL	25	73	18	11.8	Category 3
267 75KVA PRI	263-01 MN BKR	0.48	17.56	17.56	10.81	0.017	0	Yes	PNL	25	12	18	0.59	Category 0
268 75KVA SEC	75KVA FDR_A1	0.208	3.47	3.47	2.07	2	0	Yes	PNL	25	73	18	12.0	Category 3

ARC FLASH HAZARD
ANALYSIS TABLE

MALCOM RANDALL VA MEDICAL CENTER
GAINESVILLE, FL
REFER TO SYSTEM ONE-LINE DIAGRAMS

BUS NAME	PROTECTIVE DEVICE NAME	kV	BUS BOLTED FAULT (kA)	PROT DEV. BOLTED FAULT (kA)	ARCING FAULT (kA)	TRIP/ DELAY TIME (sec)	BREAKER OPENING TIME (sec)	GROUND	EQUIP TYPE	GAP (mm)	ARC FLASH BOUNDARY (ft)	WORKING DISTANCE (m)	INCIDENT ENERGY	HAZARD / RISK CATEGORY NUMBER (refer to NFPA 70E, 2004 Edition, Table 130.7(C)(1))
268 APGB (APGB MN)	75KVA FDR_A1	0.208	3.43	3.43	2.05	2	0	Yes	PNL	25	73	18	11.9	Category 3
270 MCC-GA	233-08 MCC-GA	0.48	26.02	25.13	14.34	0.07	0	Yes	PNL	25	35	16	3.56	Category 1
271 ATS-EQ3B	270-01 KC FDR	0.48	18.43	18.00	10.8	0.017	0	Yes	PNL	25	12	18	0.62	Category 0
272 ESEODP3	270-01 KC FDR	0.48	18.08	17.65	10.62	0.017	0	Yes	PNL	25	12	18	0.61	Category 0
273 EL-1	272-01 KH DISC	0.48	17.6	17.17	10.37	0.017	0	Yes	PNL	25	12	18	0.59	Category 0
274 1SF5	FC 80A_B	0.48	11.35	11.22	7.22	0.017	0	Yes	PNL	25	9	16	0.39	Category 0
275 MCC-GB	233-09 MCC-GB	0.48	26.04	25.10	14.32	0.07	0	Yes	PNL	25	35	18	3.56	Category 1
278 ATS-EQ3C	275-01 KC FDR	0.48	18.83	18.34	10.97	0.017	0	Yes	PNL	25	12	18	0.63	Category 0
277 ESEODP4	275-01 KC FDR	0.48	18.47	17.98	10.78	0.017	0	Yes	PNL	25	12	18	0.62	Category 0
278 EL-2	277-01 KC DISC	0.48	17.5	17.02	10.28	0.017	0	Yes	PNL	25	12	18	0.59	Category 0
279 1SF4	FC 80A_C	0.48	5.33	5.24	3.77	0.017	0	Yes	PNL	25	6	18	0.20	Category 0
280 AL1A (280-01 MN BKR)	233-10 AL1A FD	0.48	17.64	17.64	10.85	0.07	0	Yes	PNL	25	28	18	2.49	Category 1
281 75KVA PRI	75KVA FDR_A2	0.48	14.59	14.59	9.05	0.017	0	Yes	PNL	25	11	18	0.50	Category 0
282 75KVA SEC	75KVA FDR_A2	0.208	3.43	3.43	2.05	2	0	Yes	PNL	25	73	18	11.9	Category 3
283 AP1A (AP1A MN)	75KVA FDR_A2	0.208	3.4	3.40	2.04	2	0	Yes	PNL	25	73	18	11.8	Category 3
284 75KVA PRI	75KVA FDR_A3	0.48	14.59	14.59	9.05	0.017	0	Yes	PNL	25	11	18	0.50	Category 0
285 75KVA SEC	75KVA FDR_A3	0.208	3.37	3.37	2.03	2	0	Yes	PNL	25	72	18	11.8	Category 3
286 AP1B (AP1B MN)	75KVA FDR_A3	0.208	3.32	3.32	2	2	0	Yes	PNL	25	72	18	11.6	Category 3
287 AL2A (AL2A MN)	AL2A FDR	0.48	9.15	9.15	6.08	0.017	0	Yes	PNL	25	8	18	0.32	Category 0
288 15KVA PRI	AL2A FDR	0.48	8.23	8.23	5.58	0.017	0	Yes	PNL	25	8	18	0.29	Category 0
289 15KVA SEC	15KVA FDR_A3	0.208	0.84	0.84	0.65	0.745	0	Yes	PNL	25	19	16	1.28	Category 1
290 AP2A (AP2A MN)	15KVA FDR_A3	0.208	0.83	0.83	0.65	0.75	0	Yes	PNL	25	18	18	1.29	Category 1
300 SWBD K3 (300-01 MN BKR)	007-03 T-5 FDR	0.48	22.47	20.33	10.07	0.768	0.083	Yes	PNL	25	128	16	29.1	Category 4
301 TS-E2	300-03 TS-E2	0.48	19.32	19.32	11.51	0.025	0	Yes	PNL	25	16	18	0.97	Category 0
302 FPE-5 (302-01 MN BKR)	300-03 TS-E2	0.48	18.63	18.63	11.16	0.025	0	Yes	PNL	25	15	18	0.93	Category 0
303 LS41A (303-01 MN BKR)	302-02 TFI FDR	0.48	8.98	8.98	5.98	0.023	0	Yes	PNL	25	10	18	0.43	Category 0
304 INCEN.	302-03 TFI FDR	0.48	15.18	15.18	9.37	0.023	0	Yes	PNL	25	13	18	0.70	Category 0
305 DUCT EF-1	302-04 DUCT FD	0.48	13.32	13.32	8.36	0.023	0	Yes	PNL	25	12	18	0.62	Category 0
306 3L5A (3L5A MN)	3L5A FDR	0.48	11.9	11.90	7.61	0.019	0	Yes	PNL	25	10	16	0.46	Category 0
307 3L5A (3L5A FDR1)	3L5A FDR1	0.48	10.86	10.86	7.09	0.018	0	Yes	PNL	25	9	18	0.41	Category 0
308 T-UPS PRI	T-UPS FDR	0.48	10.46	10.46	6.81	0.019	0	Yes	PNL	25	9	18	0.41	Category 0
309 T-UPS SEC	T-UPS FDR	0.208	2.99	2.99	1.86	2	0	Yes	PNL	25	69	18	10.7	Category 3
310 UPS PNL (UPS PNL MN)	308-01 KA DISC	0.208	2.81	2.81	1.78	2	0	Yes	PNL	25	87	18	10.3	Category 3
311 4CPB (4CPB MN)	4CPB FDR	0.208	2.8	2.80	1.44	1.743	0	Yes	PNL	25	53	18	7.07	Category 2



POWER SYSTEMS ENGINEERING
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ARC FLASH HAZARD
ANALYSIS TABLE

MALCOM RANDALL VA MEDICAL CENTER
GAINESVILLE, FL
REFER TO SYSTEM ONE-LINE DIAGRAMS

BUS NAME	PROTECTIVE DEVICE NAME	KV	BUS FAULT (kA)	PROT DEV FAULT (kA)	ARCING FAULT (kA)	TRIP/ DELAY TIME (sec)	BREAKER OPENING TIME (sec)	GROUND	EQUIP TYPE	GAP (mm)	ARC FLASH BOUNDARY (ft)	WORKING DISTANCE (ft)	INCIDENT ENERGY	HAZARD / RISK CATEGORY NUMBER (refer to NFPA 70E, 2004 Edition, Table 130.7(C)(1))
312 UPS PRI	302-04 DUCT FD	0.48	12.62	12.62	8	0.023	0	Yes	PNL	25	12	18	0.58	Category 0
314 UPS SEC	314-02 MBP	0.48	12.55	12.55	7.96	0.015	0	Yes	PNL	25	9	18	0.38	Category 0
316 T-UPS PRI	314-02 MBP	0.48	11.48	11.48	7.38	0.015	0	Yes	PNL	25	9	18	0.37	Category 0
318 T-UPS SEC	314-02 MBP	0.208	3.61	3.61	2.13	2	0	Yes	PNL	25	75	18	12.4	Category 3
317 OR PNL (OR PNL MN)	314-02 MBP	0.208	3.56	3.56	2.11	2	0	Yes	PNL	25	74	18	12.3	Category 3
318 Q2 DISC	OR PNL MN	0.208	3.52	3.52	2.09	2	0	Yes	PNL	25	74	18	12.2	Category 3
319 OR PNL	OR PNL MN	0.208	3.46	3.46	2.06	2	0	Yes	PNL	25	73	18	12.0	Category 3
320 TS-Q2	300-04 TS-Q2	0.48	21.7	20.74	12.15	0.025	0	Yes	PNL	25	17	18	1.08	Category 0
321 MCC-E2	300-04 TS-Q2	0.48	21.07	20.11	11.83	0.025	0	Yes	PNL	25	17	18	1.05	Category 0
322 50HP	50HP FDR_A	0.48	11.87	11.38	7.26	0.016	0	Yes	PNL	25	9	18	0.39	Category 0
323 T-LCE PRI	T-LCE FDR	0.48	19.7	19.70	11.7	0.018	0	Yes	PNL	25	13	18	0.71	Category 0
324 T-LCE SEC	T-LCE FDR	0.208	2.62	2.62	1.7	2	0	Yes	PNL	25	65	18	9.71	Category 3
325 LCE	T-LCE FDR	0.208	2.53	2.53	1.66	2	0	Yes	PNL	25	64	18	9.46	Category 3
326 TS-C2	300-05 TS-C2	0.48	21.07	21.07	12.39	0.025	0	Yes	PNL	25	17	18	1.05	Category 0
327 CA1C (327-01 MN BKR)	300-05 TS-C2	0.48	12.74	12.74	8.06	0.025	0	Yes	PNL	25	13	18	0.66	Category 0
328 15KVA PRI	327-01 MN BKR	0.48	10.69	10.69	6.94	0.017	0	Yes	PNL	25	9	18	0.37	Category 0
329 15KVA SEC	15KVA_FDR	0.208	0.84	0.84	0.65	1.082	0	Yes	PNL	25	24	18	1.86	Category 1
330 C21C (C21C MN)	15KVA_FDR	0.208	0.83	0.83	0.65	1.09	0	Yes	PNL	25	24	18	1.87	Category 1
331 DUCT NF-3	300-06 BUSWAY	0.48	17.22	17.22	10.43	0.025	0	Yes	PNL	25	15	18	0.87	Category 0
332 T-2 PRI	331-01 TFJ FDR	0.48	16.6	16.60	10.11	0.023	0	Yes	PNL	25	14	18	0.76	Category 0
333 T-2 SEC	331-01 TFJ FDR	0.208	3.5	3.50	2.08	2	0	Yes	PNL	25	74	18	12.1	Category 3
334 2NPOB (2NPOB MN)	331-01 TFJ FDR	0.208	3.47	3.47	2.07	2	0	Yes	PNL	25	73	18	12.0	Category 3
335 2NPF (2NPF MN)	2NPF FDR	0.208	3.34	3.34	1.71	2	0	Yes	PNL	25	65	16	9.80	Category 3
336 2NPE (2NPE MN)	2NPF FDR	0.208	3.24	3.24	1.68	1.344	0	Yes	PNL	25	50	18	6.44	Category 2
337 T-4 PRI	331-02 TFJ FDR	0.48	16.79	16.79	10.21	0.023	0	Yes	PNL	25	14	18	0.76	Category 0
338 T-4 SEC	331-02 TFJ FDR	0.208	5.38	5.38	2.81	2	0	Yes	PNL	25	90	18	16.7	Category 3
339 3NPOB (3NPOB MN)	331-02 TFJ FDR	0.208	5.22	5.22	2.75	2	0	Yes	PNL	25	89	18	16.3	Category 3
340 3NPF (3NPF MN)	3NPF FDR	0.208	4.83	4.83	2.61	0.021	0	Yes	PNL	25	5	18	0.16	Category 0
341 3NPJ (3NPJ MN)	3NPF FDR	0.208	4.77	4.77	2.2	0.025	0	Yes	PNL	25	5	18	0.16	Category 0
342 3NPG (3NPG MN)	3NPG FDR	0.208	3.36	3.36	1.72	1.268	0	Yes	PNL	25	50	18	6.35	Category 2
343 3NPE (3NPE MN)	3NPE FDR	0.208	3.61	3.61	1.88	1.11	0	Yes	PNL	25	46	18	6.02	Category 2
344 T-8 PRI	331-03 TFJ FDR	0.48	16.79	16.79	10.21	0.023	0	Yes	PNL	25	14	18	0.76	Category 0
345 T-8 SEC	331-03 TFJ FDR	0.208	5.38	5.38	2.81	2	0	Yes	PNL	25	90	18	16.7	Category 3



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ARC FLASH HAZARD
ANALYSIS TABLE

MALCOM RANDALL VA MEDICAL CENTER
GAINESVILLE, FL
REFER TO SYSTEM ONE-LINE DIAGRAMS

BUS NAME	PROTECTIVE DEVICE NAME	kV	BUS BOLTED FAULT (kA)	PROT. DEV. BOLTED FAULT (kA)	ARCING FAULT (kA)	TRIP/ DELAY TIME (sec)	BREAKER OPENING TIME (sec)	GROUND	EQUIP. TYPE	GAP (mm)	ARC FLASH BOUNDARY (ft)	WORKING DISTANCE (in)	INCIDENT ENERGY	HAZARD / RISK CATEGORY NUMBER (refer to NFPA 70E, 2004 Edition, Table 130.7(C)(1))
346 ANPDB (ANPDB MN)	331-03 T-FJ FDR	0.208	5.27	5.27	2.77	2	0	Yes	PNL	25	89	18	16.5	Category 3
347 ANPF (ANPF MN)	ANPF FDR	0.208	4.62	4.62	2.15	0.026	0	Yes	PNL	25	5	18	0.17	Category 0
348 ANPG (ANPG MN)	ANPG FDR	0.208	4.86	4.86	2.23	0.025	0	Yes	PNL	25	5	18	0.16	Category 0
349 ANPH (ANPH MN)	ANPH FDR	0.208	4.97	4.97	2.26	0.024	0	Yes	PNL	25	5	18	0.16	Category 0
350 ANPE (ANPE MN)	ANPE FDR	0.208	3.31	3.31	1.7	2	0	Yes	PNL	25	65	18	9.75	Category 3
351 T-8 PRI	T-8 FDR	0.48	16.8	16.80	10.11	0.019	0	Yes	PNL	25	12	18	0.63	Category 0
352 T-8 SEC	T-8 FDR	0.208	3.5	3.50	2.06	2	0	Yes	PNL	25	74	18	12.1	Category 3
353 SNPDB (SNPDB MN)	T-8 FDR	0.208	3.4	3.40	2.04	2	0	Yes	PNL	25	73	18	11.6	Category 3
354 SNPG (SNPG MN)	SNPG FDR	0.208	3.14	3.14	1.93	0.019	0	Yes	PNL	25	4	18	0.11	Category 0
355 SNPH (SNPH MN)	SNPH FDR	0.208	3.24	3.24	1.97	2	0	Yes	PNL	25	71	18	11.4	Category 3
356 SNPF (SNPF MN)	SNPF FDR	0.208	3.29	3.29	1.88	1.32	0	Yes	PNL	25	50	18	6.40	Category 2
357 MCC-N1	300-07 MCC-N1	0.48	15.33	14.11	6.68	0.025	0	Yes	PNL	25	14	18	0.76	Category 0
358 T-8 PRI	T-9 FDR	0.48	5.56	5.56	3.96	0.019	0	Yes	PNL	25	7	18	0.23	Category 0
359 T-9 SEC	T-9 FDR	0.208	1.72	1.72	1.07	0.983	0	Yes	PNL	25	31	18	2.91	Category 1
360 PNPA (PNPA MN)	T-8 FDR	0.208	1.86	1.68	1.06	1.01	0	Yes	PNL	25	31	18	2.95	Category 1
361 50HP	50HP FDR_B	0.48	14.31	14.01	8.72	0.016	0	Yes	PNL	25	10	18	0.47	Category 0
362 50HP	50HP FDR_C	0.48	14.75	14.44	8.95	0.016	0	Yes	PNL	25	10	18	0.48	Category 0
363 50HP	50HP FDR_D	0.48	13.12	12.83	8.09	0.019	0	Yes	PNL	25	11	18	0.51	Category 0
364 50HP	50HP FDR_C1	0.48	14.75	14.44	8.95	0.016	0	Yes	PNL	25	10	18	0.48	Category 0
400 T-8 SEC	007-08 T-87	0.48	20.59	17.93	9	0.916	0.063	Yes	PNL	25	130	18	30.6	Category 4
401 SWBD#4 (401-01 MN BKR)	007-08 T-87	0.48	20.51	17.85	8.96	0.922	0.063	Yes	PNL	25	130	18	30.6	Category 4
402 DUCT NF-2	401-03 NF-2 FD	0.48	18.95	18.95	11.32	0.025	0	Yes	PNL	25	16	18	0.95	Category 0
403 2HLA (2HLA MN)	2HLA FDR	0.48	15.92	15.92	9.75	0.019	0	Yes	PNL	25	12	18	0.61	Category 0
404 T-1 PRI	402-01 T-FJ FDR	0.48	18.5	18.50	11.09	0.023	0	Yes	PNL	25	14	18	0.84	Category 0
405 T-1 SEC	402-01 T-FJ FDR	0.208	5.45	5.45	2.94	2	0	Yes	PNL	25	90	18	16.8	Category 3
406 2NPDA (2NPDA MN)	402-01 T-FJ FDR	0.208	5.12	5.12	2.72	2	0	Yes	PNL	25	88	18	16.1	Category 3
407 2NPA (2NPA MN)	2NPA FDR	0.208	4.93	4.93	2.65	0.021	0	Yes	PNL	25	5	18	0.18	Category 0
408 2NPB (2NPB MN)	2NPB FDR	0.208	4.87	4.67	2.23	2	0	Yes	PNL	25	77	18	13.0	Category 3
409 2NPBA	2NPB FDR	0.208	4.78	4.78	2.2	2	0	Yes	PNL	25	76	18	12.8	Category 3
410 2NPD (2NPD MN)	2NPD FDR	0.208	4.79	4.79	2.21	2	0	Yes	PNL	25	76	18	12.8	Category 3
411 3HLA (3HLA MN)	402-02 T-FJ FDR	0.48	17.4	17.40	10.53	0.023	0	Yes	PNL	25	14	18	0.79	Category 0
412 T-3 PRI	402-03 T-FJ FDR	0.48	18.56	18.56	11.12	0.023	0	Yes	PNL	25	14	18	0.84	Category 0
413 T-3 SEC	402-03 T-FJ FDR	0.208	7.9	7.90	3.69	2	0	Yes	PNL	25	107	18	22.2	Category 3
414 3NPDA (414-01 MN BKR)	402-03 T-FJ FDR	0.208	7.65	7.65	3.6	2	0	Yes	PNL	25	105	18	21.6	Category 3

ARC FLASH HAZARD
ANALYSIS TABLE

MALCOM RANDALL VA MEDICAL CENTER
GAINESVILLE, FL
REFER TO SYSTEM ONE-LINE DIAGRAMS

BUS NAME	PROTECTIVE DEVICE NAME	KV	BUS BOLTED FAULT (kA)	PROT. DEV. BOLTED FAULT (kA)	ARcing FAULT (kA)	TRIP/ DELAY TIME (sec)	BREAKER OPENING TIME (sec)	GROUND	EQUIP. TYPE	GAP (mm)	ARC FLASH BOUNDARY (ft)	WORKING DISTANCE (in)	INCIDENT ENERGY	HAZARD / RISK CATEGORY NUMBER (refer to NFPA 70E, 2004 Edition, Table 138.7(C)(11))
415 3NFC (3NFC MN)	3NFC FDR	0.208	7.17	7.17	2.93	0.028	0	Yes	PNL	25	7	18	0.25	Category 0
416 3NPI (3NPI MN)	3NPI FDR	0.208	6.85	6.85	3.34	0.019	0	Yes	PNL	25	8	18	0.19	Category 0
417 3NPA (3NPA MN)	3NPA FDR	0.208	4.17	4.17	2	2	0	Yes	PNL	25	72	18	11.6	Category 3
418 3NPD (3NPD MN)	3NPD FDR	0.208	4.17	4.17	2	2	0	Yes	PNL	25	72	18	11.6	Category 3
419 3NPB (3NPB MN)	3NPB FDR	0.208	3.77	3.77	1.86	2	0	Yes	PNL	25	69	18	10.7	Category 3
420 4HLA (4HLA MN)	4HLA FDR	0.48	15.84	15.84	9.71	0.019	0	Yes	PNL	25	12	18	0.60	Category 0
421 5HLA (5HLA MN)	5HLA FDR	0.48	15.84	15.84	9.71	0.019	0	Yes	PNL	25	12	18	0.60	Category 0
422 T-5 PRI	402-04 TFJ FDR	0.48	18.5	18.50	11.09	0.023	0	Yes	PNL	25	14	18	0.84	Category 0
423 T-5 SEC	402-04 TFJ FDR	0.208	5.45	5.45	2.84	2	0	Yes	PNL	25	90	18	16.8	Category 3
424 4NPOA (424-01 MN BKR)	402-04 TFJ FDR	0.208	5.23	5.23	2.76	2	0	Yes	PNL	25	69	18	16.3	Category 3
425 4NPA (4NPA MN)	4NPA FDR	0.208	4.79	4.79	2.21	0.025	0	Yes	PNL	25	5	18	0.16	Category 0
426 4NPB (4NPB MN)	4NPB FDR	0.208	4.47	4.47	2.1	0.027	0	Yes	PNL	25	5	18	0.17	Category 0
427 4NPC (4NPC MN)	4NPC FDR	0.208	4.94	4.94	2.85	0.021	0	Yes	PNL	25	5	18	0.16	Category 0
428 4NPD (4NPD MN)	4NPD FDR	0.208	4.75	4.75	2.19	0.025	0	Yes	PNL	25	5	18	0.16	Category 0
429 T-7 PRI	402-05 TFJ FDR	0.48	18.43	18.43	11.06	0.023	0	Yes	PNL	25	14	18	0.83	Category 0
430 T-7 SEC	402-05 TFJ FDR	0.208	7.89	7.89	3.68	2	0	Yes	PNL	25	107	18	22.2	Category 3
431 5NPDA (431-01 MN BKR)	402-05 TFJ FDR	0.208	7.58	7.58	3.58	2	0	Yes	PNL	25	105	18	21.5	Category 3
432 5NPA (5NPA MN)	5NPA FDR	0.208	7.15	7.15	2.92	2	0	Yes	PNL	25	92	18	17.3	Category 3
433 5NPD (5NPD MN)	5NPD FDR	0.208	6.88	6.88	3.28	0.018	0	Yes	PNL	25	6	18	0.17	Category 0
434 5NPE (5NPE MN)	5NPE FDR	0.208	5.19	5.19	2.74	0.019	0	Yes	PNL	25	5	18	0.16	Category 0
435 5NPB (5NPB MN)	5NPB FDR	0.208	4.89	4.89	2.24	0.024	0	Yes	PNL	25	5	18	0.16	Category 0
436 5NPC (5NPC MN)	5NPC FDR	0.208	3.41	3.41	1.74	1.265	0	Yes	PNL	25	50	18	8.30	Category 2
437 TS-C	401-04 TS-C	0.48	17.76	17.76	10.71	0.04	0	Yes	PNL	25	20	18	1.43	Category 1
438 FPC-4	401-04 TS-C	0.48	16.42	16.42	10.01	0.04	0	Yes	PNL	25	19	18	1.33	Category 1
439 C41AL	439-01 T-C1AL	0.48	7.27	7.27	4.99	0.019	0	Yes	PNL	25	8	18	0.29	Category 0
440 T-C1AL PRI	439-01 T-C1AL	0.48	6.89	6.89	4.77	0.018	0	Yes	PNL	25	7	18	0.27	Category 0
441 T-C1AL SEC	439-01 T-C1AL	0.208	4.05	4.05	2.31	2	0	Yes	PNL	25	79	18	13.5	Category 3
442 CP21AL (442-01 MN BKR)	439-01 T-C1AL	0.208	4	4.00	2.29	2	0	Yes	PNL	25	78	18	13.3	Category 3
443 E128F	442-01 E128F	0.208	2.55	2.55	1.42	0.055	0	Yes	PNL	25	6	18	0.22	Category 0
444 C2L2	442-03 C2L2	0.208	3.09	3.09	1.9	0.026	0	Yes	PNL	25	5	18	0.14	Category 0
445 C2L2-B (C2L2 MN)	442-03 C2L2	0.208	2.86	2.86	1.81	0.027	0	Yes	PNL	25	5	18	0.14	Category 0
446 C2L1	442-04 C2L1	0.208	3.44	3.44	2.06	0.024	0	Yes	PNL	25	5	18	0.15	Category 0
447 CABAR	439-02 CABAR	0.48	8.42	8.42	5.66	0.018	0	Yes	PNL	25	8	18	0.32	Category 0
448 T-CBAR PRI	T-CBAR FDR	0.48	8.16	8.16	5.51	0.018	0	Yes	PNL	25	6	18	0.31	Category 0

ARC FLASH HAZARD
ANALYSIS TABLE

MALCOM RANDALL VA MEDICAL CENTER
GAINESVILLE, FL
REFER TO SYSTEM ONE-LINE DIAGRAMS

BUS NAME	PROTECTIVE DEVICE NAME	kV	BUS BOLTED FAULT (kA)	PROT. DEV. BOLTED FAULT (kA)	ARCING FAULT (kA)	TRIP/ DELAY TIME (sec)	BREAKER OPENING TIME (sec)	GROUND	EQUIP. TYPE	GAP (mm)	ARC FLASH BOUNDARY (ft)	WORKING DISTANCE (in)	INCIDENT ENERGY	HAZARD / RISK CATEGORY NUMBER (refer to NFPA 70E, 2004 Edition, Table 130.7(C)(11))
448 T-CBAR SEC	T-CBAR FDR	0.208	2.35	2.35	1.57	2	0	Yes	PNL	25	61	18	8.93	Category 3
450 CP2BAR (450-01 MN BKR)	T-CBAR FDR	0.208	2.32	2.32	1.56	2	0	Yes	PNL	25	61	18	8.85	Category 3
451 C2R2	450-02 C2R2	0.208	1.89	1.89	1.15	0.053	0	Yes	PNL	25	5	18	0.17	Category 0
452 C2R1	450-03 C2R1	0.208	1.97	1.97	1.18	0.049	0	Yes	PNL	25	5	18	0.18	Category 0
453 CA1A	438-03 OR RM	0.48	8.17	8.17	5.52	0.023	0	Yes	PNL	25	9	18	0.39	Category 0
454 T-C1A PRI	T-C1A FDR	0.48	7.21	7.21	4.96	0.014	0	Yes	PNL	25	8	18	0.22	Category 0
455 T-C1A SEC	T-C1A FDR	0.208	0.59	0.59	0.59	1.325	0	Yes	PNL	25	10	18	0.40	Category 0 (*)
456 C21A	T-C1A FDR	0.208	0.59	0.59	0.59	1.341	0	Yes	PNL	25	10	18	0.40	Category 0 (*)
457 CA1B (457-01 MN BKR)	438-03 OR RM	0.48	5.37	5.37	3.86	0.023	0	Yes	PNL	25	7	18	0.27	Category 0
458 LL1P (LL1P MN)	LL1B FDR	0.48	5.01	5.01	3.63	0.017	0	Yes	PNL	25	8	18	0.19	Category 0
459 TX-1B PRI	TX-1B FDR	0.48	5.15	5.15	3.72	0.017	0	Yes	PNL	25	8	18	0.19	Category 0
460 TX-1B SEC	TX-1B FDR	0.208	2.22	2.22	1.28	2	0	Yes	PNL	25	54	18	7.18	Category 2
461 L21B	TX-1B FDR	0.208	2.2	2.20	1.28	2	0	Yes	PNL	25	53	18	7.13	Category 2
462 T-C1B PRI	T-C1B FDR	0.48	4.76	4.76	3.48	0.017	0	Yes	PNL	25	8	18	0.18	Category 0
463 T-C1B SEC	T-C1B FDR	0.208	0.59	0.59	0.59	1.337	0	Yes	PNL	25	10	18	0.40	Category 0 (*)
464 C21B (C21B MN)	T-C1B FDR	0.208	0.58	0.58	0.58	1.352	0	Yes	PNL	25	10	18	0.40	Category 0 (*)
465 DUCT EF-2	438-04 EF-2	0.48	12.75	12.75	8.07	0.023	0	Yes	PNL	25	12	18	0.59	Category 0
466 3CHA (3CHA MN)	3CHA FDR	0.48	10.86	10.86	7.09	0.019	0	Yes	PNL	25	10	18	0.43	Category 0
467 TC-1 PRI	TC-1 FDR	0.48	10.85	10.85	7.03	0.018	0	Yes	PNL	25	9	18	0.41	Category 0
468 TC-1 SEC	TC-1 FDR	0.208	1.54	1.54	1.17	2	0	Yes	PNL	25	50	18	6.49	Category 2
469 2CPA (2CPA MN)	TC-1 FDR	0.208	1.52	1.52	1.16	2	0	Yes	PNL	25	50	18	6.45	Category 2
470 5CHA (5CHA MN)	5CHA FDR	0.48	11.23	11.23	7.24	0.019	0	Yes	PNL	25	10	18	0.44	Category 0
471 TC-2 PRI	TC-2 FDR	0.48	11.2	11.20	7.22	0.019	0	Yes	PNL	25	10	18	0.44	Category 0
472 TC-2 SEC	TC-2 FDR	0.208	2.62	2.62	1.7	2	0	Yes	PNL	25	65	18	9.71	Category 3
473 3CPA (3CPA MN)	TC-2 FDR	0.208	2.58	2.58	1.68	2	0	Yes	PNL	25	64	18	9.61	Category 3
474 3CPB (3CPB MN)	3CPB FDR	0.208	1.85	1.85	1.33	1.981	0	Yes	PNL	25	55	18	7.40	Category 2
475 TC-3 PRI	TC-3 FDR	0.48	10.59	10.59	6.89	0.018	0	Yes	PNL	25	9	18	0.40	Category 0
476 TC-3 SEC	TC-3 FDR	0.208	1.54	1.54	1.17	2	0	Yes	PNL	25	50	18	6.49	Category 2
477 4CPA (4CPA MN)	TC-3 FDR	0.208	1.52	1.52	1.16	2	0	Yes	PNL	25	50	18	6.44	Category 2
478 TC-4 PRI	TC-4 FDR	0.48	10.58	10.58	6.89	0.018	0	Yes	PNL	25	9	18	0.40	Category 0
479 TC-4 SEC	TC-4 FDR	0.208	1.54	1.54	1.17	2	0	Yes	PNL	25	50	18	6.49	Category 2
480 5CPA (5CPA MN)	TC-4 FDR	0.208	1.51	1.51	1.15	2	0	Yes	PNL	25	50	18	6.41	Category 2
481 5CPA-B	3CPB FDR1	0.208	1.51	1.51	1.15	2	0	Yes	PNL	25	50	18	6.40	Category 2



POWER SYSTEMS ENGINEERING
LEXINGTON, KY

ARC FLASH HAZARD
ANALYSIS TABLE

MALCOM RANDALL VA MEDICAL CENTER
GAINESVILLE, FL
REFER TO SYSTEM ONE-LINE DIAGRAMS

BUS NAME	PROTECTIVE DEVICE NAME	kV	BUS BOLTED FAULT (kA)	PROT DEV. BOLTED FAULT (kA)	ARCING FAULT (kA)	TRIP/ DELAY TIME (sec)	BREAKER OPENING TIME (sec)	GROUND	EQUIP. TYPE	GAP (mm)	ARC FLASH BOUNDARY (ft)	WORKING DISTANCE (in)	INCIDENT ENERGY	HAZARD / RISK CATEGORY NUMBER (refer to NFPA 70E, 2004 Edition, Table 130.7(C)(11))
482 EM, ROOM	438-05 EM RM	0.48	15.59	15.59	8.58	0.023	0	Yes	PNL	25	13	18	0.73	Category 0
483 CMAR	438-08 CMAR	0.48	8.66	8.66	4.84	0.017	0	Yes	PNL	25	7	18	0.24	Category 0
484 T-CMAR PRI	T-CMAR FDR	0.48	5.23	5.23	3.77	0.014	0	Yes	PNL	25	5	18	0.18	Category 0
485 T-CMAR SEC	T-CMAR FDR	0.208	0.64	0.64	0.64	1.11	0	Yes	PNL	25	10	18	0.38	Category 0 (*)
486 CMAR (CMAR MN)	T-CMAR FDR	0.208	0.64	0.64	0.64	1.125	0	Yes	PNL	25	10	18	0.38	Category 0 (*)
487 TS-E	401-05 TS-E FD	0.48	14.4	14.40	7.61	0.065	0	Yes	PNL	25	22	18	1.61	Category 1
488 FPE-4	401-05 TS-E FD	0.48	13.75	13.75	7.32	0.065	0	Yes	PNL	25	21	18	1.54	Category 1
489 E41A	E41A FDR	0.48	2.66	2.66	2.25	0.014	0	Yes	PNL	25	4	18	0.09	Category 0
490 T-E1A PRI	T-E1A FDR	0.48	2.37	2.37	1.92	0.014	0	Yes	PNL	25	3	18	0.08	Category 0
491 T-E1A SEC	T-E1A FDR	0.208	0.58	0.58	0.58	1.42	0	Yes	PNL	25	11	18	0.42	Category 0 (*)
492 E21A (E21A MN)	T-E1A FDR	0.208	0.57	0.57	0.57	1.468	0	Yes	PNL	25	11	18	0.42	Category 0 (*)
493 E48A	E48A FDR	0.48	2.59	2.59	2.07	0.014	0	Yes	PNL	25	4	18	0.08	Category 0
494 T-EBA PRI	T-EBA FDR	0.48	2.47	2.47	1.98	0.014	0	Yes	PNL	25	3	18	0.08	Category 0
495 T-EBA SEC	T-EBA FDR	0.208	0.58	0.58	1.416	0.016	0	Yes	PNL	25	11	18	0.41	Category 0 (*)
496 E28A (E28A MN)	T-EBA FDR	0.208	0.57	0.57	0.57	1.442	0	Yes	PNL	25	11	18	0.42	Category 0 (*)
497 E48B	E48B FDR	0.48	4.05	4.05	3.03	0.014	0	Yes	PNL	25	5	18	0.13	Category 0
498 T-E8B PRI	T-E8B FDR	0.48	3.78	3.78	2.86	0.014	0	Yes	PNL	25	4	18	0.12	Category 0
499 T-E8B SEC	T-E8B FDR	0.208	0.64	0.64	0.64	1.115	0	Yes	PNL	25	10	18	0.38	Category 0 (*)
500 E28B (E28B MN)	T-E8B FDR	0.208	0.64	0.64	0.64	1.129	0	Yes	PNL	25	10	18	0.38	Category 0 (*)
501 E41B	E41B FDR	0.48	12.69	12.69	6.83	0.014	0	Yes	PNL	25	8	18	0.31	Category 0
502 T-E1B PRI	T-E1B FDR	0.48	9.95	9.95	5.55	0.014	0	Yes	PNL	25	7	18	0.25	Category 0
503 T-E1B SEC	T-E1B FDR	0.208	0.8	0.60	0.6	1.287	0	Yes	PNL	25	10	18	0.39	Category 0 (*)
504 E21B (E21B MN)	T-E1B FDR	0.208	0.8	0.60	0.6	1.313	0	Yes	PNL	25	10	18	0.40	Category 0 (*)
505 3HL5 (3HL5 MN)	3HL5 FDR	0.48	5.74	5.74	4.08	0.014	0	Yes	PNL	25	6	18	0.18	Category 0
506 T-3 PRI_A	3HL5 FDR	0.48	4.95	4.95	3.8	0.014	0	Yes	PNL	25	5	18	0.15	Category 0
507 T-3 SEC_A	T-3 FDR_A	0.208	0.59	0.59	0.58	1.31	0	Yes	PNL	25	10	18	0.38	Category 0 (*)
508 3LLS (3LLS MN)	T-3 FDR_A	0.208	0.58	0.58	0.58	1.325	0	Yes	PNL	25	10	18	0.40	Category 0 (*)
509 TS-Q	401-06 TS-Q FD	0.48	19.38	17.14	10.21	0.1	0	Yes	PNL	25	36	18	3.79	Category 1
510 FPO-4	401-06 TS-Q FD	0.48	18.14	15.90	9.56	0.1	0	Yes	PNL	25	35	18	3.56	Category 1
511 E01CU	510-01 CT1CU	0.48	17.37	17.37	10.51	0.023	0	Yes	PNL	25	14	18	0.79	Category 0
512 ELEV #8	ELEV #8 FDR	0.48	2.22	2.13	1.74	0.016	0	Yes	PNL	25	4	18	0.08	Category 0
513 ELEV #7	ELEV #7 FDR	0.48	2.22	2.13	1.74	0.016	0	Yes	PNL	25	4	18	0.08	Category 0
514 MCC-Q	510-02 MCC-1	0.48	14.48	13.78	8.57	0.025	0	Yes	PNL	25	13	18	0.74	Category 0
515 PO-4	PO-4 FDR	0.48	9.65	9.65	6.36	0.017	0	Yes	PNL	25	8	18	0.34	Category 0

ARC FLASH HAZARD
ANALYSIS TABLE

MALCOLM RANDALL, VA MEDICAL CENTER
GAINESVILLE, FL
REFER TO SYSTEM ONE- LINE DIAGRAMS

BUS NAME	PROTECTIVE DEVICE NAME	kV	BUS BOLTED FAULT (kA)	PROT DEV BOLTED FAULT (kA)	ARCING FAULT (kA)	TRIP/ DELAY TIME (sec)	BREAKER OPENING TIME (sec)	GROUND	EQUIP. TYPE	GAP (mm)	ARC FLASH BOUNDARY (ft)	WORKING DISTANCE (in)	INCIDENT ENERGY	HAZARD / RISK CATEGORY NUMBER (refer to NFPA 70E, 2004 Edition, Table 130.7(C)(11))
518 ELEV #9/10	510-03 ELEVS	0.48	8.95	8.11	5.41	0.023	0	Yes	PNL	25	10	18	0.43	Category 0
517 4ECHA (517-01 MN BKR)	510-04 4ECHA	0.48	16.69	16.69	10.16	0.023	0	Yes	PNL	25	14	18	0.76	Category 0
518 TE-1 PRI	TE-1 FDR	0.48	15.31	15.31	9.44	0.016	0	Yes	PNL	25	11	18	0.56	Category 0
519 TE-1 SEC	TE-1 FDR	0.208	2.69	2.69	1.73	2	0	Yes	PNL	25	65	18	9.87	Category 3
520 4ECPA (4ECPA MN)	TE-1 FDR	0.208	2.65	2.65	1.71	2	0	Yes	PNL	25	65	18	9.76	Category 3
521 MCC-E1	510-05 MCC-E1	0.48	14.16	13.86	8.65	0.025	0	Yes	PNL	25	13	18	0.73	Category 0
522 TE-2 PRI	TE-2 FDR	0.48	5.47	5.47	3.82	0.019	0	Yes	PNL	25	6	18	0.22	Category 0
523 TE-2 SEC	TE-2 FDR	0.208	1.71	1.71	1.07	0.988	0	Yes	PNL	25	31	18	2.91	Category 1
524 PCPA (PCPA MN)	TE-2 FDR	0.208	1.68	1.68	1.06	1.014	0	Yes	PNL	25	31	18	2.95	Category 1
525 FP-4	401-07 FP-4 FD	0.48	19.4	19.40	11.55	0.04	0	Yes	PNL	25	21	18	1.55	Category 1
526 L41AL	525-01 L41AL	0.48	9.77	9.77	6.43	0.025	0	Yes	PNL	25	11	18	0.52	Category 0
527 T-1AL PRI	526-01 T-1AL F	0.48	9.5	9.50	6.28	0.016	0	Yes	PNL	25	8	18	0.33	Category 0
528 T-1AL SEC	526-01 T-1AL F	0.208	4.26	4.26	2.4	2	0	Yes	PNL	25	81	18	14.0	Category 3
529 P21AL (529-01 MN BKR)	528-01 T-1AL F	0.208	4.21	4.21	2.37	2	0	Yes	PNL	25	80	18	13.9	Category 3
530 L2L1	529-02 L2L1	0.208	3.77	3.77	1.88	0.042	0	Yes	PNL	25	7	18	0.22	Category 0
531 L2L2	529-03 L2L2	0.208	3.77	3.77	1.86	0.042	0	Yes	PNL	25	7	18	0.22	Category 0
532 LABAR	525-02 LABAR	0.48	10.59	10.59	6.68	0.025	0	Yes	PNL	25	11	18	0.55	Category 0
533 T-BAR PRI	532-01 T-BAR F	0.48	10.18	10.18	6.66	0.016	0	Yes	PNL	25	8	18	0.35	Category 0
534 T-BAR SEC	532-01 T-BAR F	0.208	4.33	4.33	2.42	2	0	Yes	PNL	25	81	18	14.2	Category 3
535 P2BAR (535-01 MN BKR)	532-01 T-BAR F	0.208	4.26	4.26	2.39	2	0	Yes	PNL	25	81	18	14.0	Category 3
536 L2R1	535-02 L2R1	0.208	3.17	3.17	1.85	2	0	Yes	PNL	25	63	18	9.42	Category 3
537 EB32 (EB32 MN)	535-03 EB32	0.208	3.41	3.41	2.04	0.024	0	Yes	PNL	25	5	18	0.14	Category 0
538 L41A	525-03 L41A	0.48	9.4	9.40	6.22	0.026	0	Yes	PNL	25	11	18	0.51	Category 0
539 T-1AA PRI	T-1AA FDR	0.48	8.22	8.22	5.55	0.018	0	Yes	PNL	25	8	18	0.32	Category 0
540 T-1AA SEC	T-1AA FDR	0.208	0.63	0.63	0.76	1.935	0	Yes	PNL	25	37	18	3.95	Category 1
541 L21AA (L21AA MN)	T-1AA FDR	0.208	0.62	0.62	0.75	1.968	0	Yes	PNL	25	36	18	4.01	Category 2
542 T-1A PRI	T-1A FDR	0.48	8.93	8.93	5.95	0.018	0	Yes	PNL	25	8	18	0.34	Category 0
543 T-1A SEC	T-1A FDR	0.208	2.36	2.36	1.56	2	0	Yes	PNL	25	82	18	8.96	Category 3
544 L21A (L21A MN)	T-1A FDR	0.208	2.29	2.29	1.55	2	0	Yes	PNL	25	61	18	8.78	Category 3
545 LABA	525-04 LABA	0.48	7.9	7.90	5.36	0.027	0	Yes	PNL	25	10	18	0.45	Category 0
546 T-BAR PRI	T-BAR FDR	0.48	7.68	7.68	5.23	0.016	0	Yes	PNL	25	8	18	0.30	Category 0
547 T-BAR SEC	T-BAR FDR	0.208	2.32	2.32	1.56	2	0	Yes	PNL	25	61	18	8.87	Category 3
548 L2BA (L2BA MN)	T-BAR FDR	0.208	2.29	2.29	1.55	2	0	Yes	PNL	25	61	18	8.78	Category 3

ARC FLASH HAZARD
ANALYSIS TABLE

MALCOM RANDALL VA MEDICAL CENTER
GAINESVILLE, FL
REFER TO SYSTEM ONE-LINE DIAGRAMS

BUS NAME	PROTECTIVE DEVICE NAME	LV	BUS BOLTED FAULT (KA)	PROT DEV. BOLTED FAULT (KA)	ARCING FAULT (KA)	TRIP/ DELAY TIME (sec)	BREAKER OPENING TIME (sec)	GROUND	EQUIP. TYPE	GAP (mm)	ARC FLASH BOUNDARY (ft)	WORKING DISTANCE (in)	INCIDENT ENERGY	HAZARD / RISK CATEGORY NUMBER (refer to NFPA 70E, 2004 Edition, Table 13A.7(C)(11))
548 L2BA-2	L2BA MN	0.208	2.23	2.23	1.52	2	0	Yes	PNL	25	60	18	8.60	Category 3
550 L2BA-3	L2BA-3 FDR	0.208	2.25	2.25	1.3	1.218	0	Yes	PNL	25	40	18	4.42	Category 2
551 L4B8	525-05 L4B8	0.48	12.45	12.45	7.91	0.024	0	Yes	PNL	25	12	18	0.62	Category 0
552 T-8B PRI	T-8B FDR	0.48	11.99	11.99	7.88	0.018	0	Yes	PNL	25	10	18	0.45	Category 0
553 T-8B SEC	T-8B FDR	0.208	2.42	2.42	1.61	2	0	Yes	PNL	25	62	18	9.15	Category 3
554 L2B8 (L2B8 MN)	T-8B FDR	0.208	2.39	2.39	1.59	2	0	Yes	PNL	25	62	18	9.07	Category 3
555 L2B8A (L2B8A MN)	L2B8A FDR	0.208	2.04	2.04	1.21	1.69	0	Yes	PNL	25	47	18	5.89	Category 2
556 45KVA PRI	45KVA FDR	0.48	11.11	11.11	7.17	0.016	0	Yes	PNL	25	9	18	0.42	Category 0
557 45KVA SEC	45KVA FDR	0.208	2.47	2.47	1.63	2	0	Yes	PNL	25	63	18	9.28	Category 3
558 L2B81 (L2B81 MN)	45KVA FDR	0.208	2.44	2.44	1.62	2	0	Yes	PNL	25	62	18	9.20	Category 3
559 L41B	525-06 L41B	0.48	17.31	17.31	10.48	0.022	0	Yes	PNL	25	14	18	0.77	Category 0
560 T-1B PRI	T-1B FDR	0.48	15.96	15.96	9.77	0.017	0	Yes	PNL	25	11	18	0.55	Category 0
561 T-1B SEC	T-1B FDR	0.208	2.47	2.47	1.63	2	0	Yes	PNL	25	63	18	9.29	Category 3
562 L21B (L21B MN)	T-1B FDR	0.208	2.45	2.45	1.62	2	0	Yes	PNL	25	63	18	9.22	Category 3
563 WET SCRUB	401-08 WET SC	0.48	13.61	13.61	8.53	0.014	0	Yes	PNL	25	9	18	0.39	Category 0
564 MCCN	401-08 MCCN F	0.48	17.7	17.29	10.43	0.04	0	Yes	PNL	25	20	18	1.43	Category 1
600 T-7 SEC	007-08 T-6/7	0.48	7.84	7.77	5.28	1.917	0.083	Yes	PNL	25	137	18	33.8	Category 4
601 PX (601-01 MN BKR)	007-08 T-6/7	0.48	7.02	6.95	4.8	1.917	0.083	Yes	PNL	25	129	18	30.3	Category 4
602 KA DISC	DISC FDR	0.48	6.95	6.95	4.81	0.017	0	Yes	PNL	25	7	18	0.28	Category 0
603 LOAD	602-01 KA DISC	0.48	5.65	5.65	4.03	0.017	0	Yes	PNL	25	6	18	0.21	Category 0
604 T-PX2 PRI	T-PX2 FDR	0.48	2.88	2.88	2.13	0.017	0	Yes	PNL	25	4	18	0.11	Category 0
605 T-PX2 SEC	T-PX2 FDR	0.208	1.05	1.05	0.76	0.786	0	Yes	PNL	25	22	18	1.60	Category 1
606 PX-2	T-PX2 FDR	0.208	1.01	1.01	0.74	0.831	0	Yes	PNL	25	22	18	1.85	Category 1
608 USD T-1 SC	007-08 T-3 FDR	0.48	37.84	15.87	7.19	1.552	0.083	Yes	PNL	25	198	18	61.1	Category 1
607 SWBD #1 (607-01 MN BKR)	007-08 T-3 FDR	0.48	37.34	15.41	7.09	1.888	0.083	Yes	PNL	25	200	18	62.1	Category 1
608 JB	607-02 CH-6 FD	0.48	34.63	32.50	17.76	0.05	0	Yes	PNL	25	34	18	3.31	Category 1
609 CH-6	607-02 CH-6 FD	0.48	28.6	28.47	14.88	0.05	0	Yes	PNL	25	30	18	2.78	Category 1
610 DBH-1	607-03 DBH FDR	0.48	14.51	13.66	8.48	0.05	0	Yes	PNL	25	21	18	1.48	Category 1
611 MCC-PH-1 (611-01 MN BKR)	610-01 MCC-PH1	0.48	13.59	12.73	7.98	0.011	0	Yes	PNL	25	8	18	0.31	Category 0
612 EAST PNL	611-02 PH-1A	0.48	13.26	13.26	8.35	0.011	0	Yes	PNL	25	8	18	0.30	Category 0
613 P-1	610-01 MCC-PH1	0.48	12.32	11.53	7.33	0.011	0	Yes	PNL	25	7	18	0.28	Category 0
614 P-2	610-01 MCC-PH1	0.48	11.76	11.01	7.05	0.011	0	Yes	PNL	25	7	18	0.27	Category 0
615 NP-1	610-01 MCC-PH1	0.48	11.63	10.80	8.99	0.011	0	Yes	PNL	25	7	18	0.27	Category 0
616 NP-1A (NP-1A MN)	NP-1 FDR	0.48	9.58	9.58	6.32	0.012	0	Yes	PNL	25	7	18	0.23	Category 0

ARC FLASH HAZARD
ANALYSIS TABLE

MALCOM RANDALL VA MEDICAL CENTER
GAINESVILLE, FL
REFER TO SYSTEM ONE-LINE DIAGRAMS

BUS NAME	PROTECTIVE DEVICE NAME	kV	BUS BOLTED FAULT (kA)	PROT DEV. BOLTED FAULT (kA)	ARCING FAULT (kA)	TIME/ DELAY TIME (sec)	BREAKER OPENING TIME (sec)	GROUND	EQUIP. TYPE	GAP (mm)	ARC FLASH BOUNDARY (ft)	WORKING DISTANCE (in)	INCIDENT ENERGY	HAZARD / RISK CATEGORY NUMBER (refer to NFPA 70E, 2004 Edition, Table 138.7(C)(11))
617 30kVA PRI	NP-1 FDR	0.48	10.25	10.25	8.7	0.012	0	Yes	PNL	25	7	18	0.25	Category 0
618 30kVA SEC	MCC-M1 FDR	0.208	1.48	1.48	0.97	0.913	0	Yes	PNL	25	28	18	2.41	Category 1
618 MCC-M1 (MCC-M1 MN)	MCC-M1 FDR	0.208	1.48	1.48	0.96	0.928	0	Yes	PNL	25	28	18	2.43	Category 1
620 DH-4-BCS-1 (620-01 MN BKR)	610-02 DH-4-BC	0.48	13.29	13.29	8.36	0.011	0	Yes	PNL	25	8	18	0.30	Category 0
621 DLH-4-BC	610-02 DH-4-BC	0.48	9.63	9.63	6.35	0.011	0	Yes	PNL	25	6	18	0.22	Category 0
622 T-1 PRI	610-02 DH-4-BC	0.48	11.82	11.82	7.58	0.011	0	Yes	PNL	25	7	18	0.27	Category 0
623 T-1 SEC	620-02 T-1 FDR	0.208	5.87	5.87	2.89	2	0	Yes	PNL	25	93	18	17.7	Category 3
624 UL-4-BC (UL-4-BC MN)	620-02 T-1 FDR	0.208	5.73	5.73	2.94	2	0	Yes	PNL	25	92	18	17.4	Category 3
625 T-5 PRI	610-02 DH-4-BC	0.48	13.01	13.01	8.21	0.011	0	Yes	PNL	25	8	18	0.30	Category 0
628 T-5 SEC	620-03 T-5 FDR	0.208	7.74	7.74	3.63	2	0	Yes	PNL	25	105	18	21.7	Category 3
627 UL-5-IC	620-03 T-5 FDR	0.208	7.1	7.10	3.42	2	0	Yes	PNL	25	101	18	20.4	Category 3
628 T-10 DISC (T-10 DISC_A)	610-02 DH-4-BC	0.48	12.76	12.76	8.08	0.011	0	Yes	PNL	25	8	18	0.29	Category 0
629 T-10 PRI	T-10 DISC_A	0.48	11.18	11.19	7.22	0.011	0	Yes	PNL	25	7	18	0.26	Category 0
630 T-10 SEC	T-10 DISC_A	0.208	5.8	5.80	2.52	1.307	0	Yes	PNL	25	64	18	9.63	Category 3
631 UL-1-3B (UL-1-3B MN)	T-10 DISC_A	0.208	5.22	5.22	2.34	1.465	0	Yes	PNL	25	86	18	9.98	Category 3
632 UL-1-3B (UL-1-3B MN)	T-10 DISC_A	0.208	4.88	4.88	2.17	1.683	0	Yes	PNL	25	68	18	10.6	Category 3
633 LH-1-3B (LH-1-3B MN)	T-10 DISC_A	0.48	12.33	12.33	7.84	0.011	0	Yes	PNL	25	7	18	0.28	Category 0
634 CWP	610-02 DH-4-BC	0.48	11.94	11.94	7.63	0.011	0	Yes	PNL	25	7	18	0.27	Category 0
635 T-11 DISC (200A DISC A)	610-02 DH-4-BC	0.48	9.2	9.20	6.11	0.011	0	Yes	PNL	25	6	18	0.21	Category 0
636 T-11 PRI	610-02 DH-4-BC	0.48	9.1	9.10	6.05	0.011	0	Yes	PNL	25	8	18	0.21	Category 0
637 T-11 SEC	620-08 T-11 FD	0.208	8.77	8.77	3.97	2	0	Yes	PNL	25	112	18	23.9	Category 3
638 UL-1-4B (UL-1-4B MN)	620-08 T-11 FD	0.208	7.5	7.50	3.56	2	0	Yes	PNL	25	104	18	21.3	Category 3
639 UL-1-4B (UL-1-4B MN)	620-08 T-11 FD	0.208	7.36	7.38	3.51	2	0	Yes	PNL	25	103	18	21.0	Category 3
640 LH-1-4B (LH-1-4B MN)	610-02 DH-4-BC	0.48	9.14	9.14	6.08	0.011	0	Yes	PNL	25	8	18	0.21	Category 0
641 X-RAY	610-02 DH-4-BC	0.48	8.5	8.50	5.71	0.011	0	Yes	PNL	25	6	18	0.20	Category 0
642 T-12 DISC (175A DISC A)	610-02 DH-4-BC	0.48	9.2	9.20	6.11	0.011	0	Yes	PNL	25	6	18	0.21	Category 0
643 T-12 PRI	610-02 DH-4-BC	0.48	9.06	9.06	6.04	0.011	0	Yes	PNL	25	6	18	0.21	Category 0
644 T-12 SEC	620-08 T-12 FD	0.208	8.09	8.09	3.75	2	0	Yes	PNL	25	108	18	22.5	Category 3
645 UL-1-5B (UL-1-5B MN)	620-08 T-12 FD	0.208	7	7.00	3.38	2	0	Yes	PNL	25	101	18	20.2	Category 3
646 LH-1-5B (LH-1-5B MN)	620-08 T-12 FD	0.208	6.72	6.72	3.29	2	0	Yes	PNL	25	99	18	19.8	Category 3
647 LH-1-5B (LH-1-5B MN)	610-02 DH-4-BC	0.48	9.14	9.14	6.08	0.011	0	Yes	PNL	25	8	18	0.21	Category 0
648 BNDP (648-01 MN BKR)	610-03 BNDP	0.48	12.24	12.24	7.8	0.016	0	Yes	PNL	25	9	18	0.41	Category 0
649 T-11 PRI	648-02 T-11 FD	0.48	6.67	6.67	3.95	0.024	0	Yes	PNL	25	8	18	0.28	Category 0
650 T-11 SEC	648-02 T-11 FD	0.208	7.64	7.64	3.6	2	0	Yes	PNL	25	105	18	21.6	Category 3

ARC FLASH HAZARD
ANALYSIS TABLE

MALCOM RANDALL VA MEDICAL CENTER
GAINESVILLE, FL
REFER TO SYSTEM ONE-LINE DIAGRAMS

BUS NAME	PROTECTIVE DEVICE NAME	LV	BUS BOLTED FAULT (kA)	PROT. DEV. BOLTED FAULT (kA)	ARCING FAULT (kA)	TRIP/ DELAY TIME (sec)	BREAKER OPENING TIME (sec)	GROUND	EQUIP. TYPE	GAP (mm)	ARC FLASH BOUNDARY (ft)	WORKING DISTANCE (ft)	INCIDENT ENERGY	HAZARD / RISK CATEGORY NUMBER (refer to NFPA 70E, 2004 Edition, Table 138.7(C)(11))
651 INDP (651-01 MN BKR)	648-02 T-11 FDR	0.208	7.41	7.41	3.52	2	0	Yes	PNL	25	103	18	21.1	Category 3
652 INPA (INPA MN)	INPA FDR	0.208	5.64	5.64	2.81	0.02	0	Yes	PNL	25	8	18	0.18	Category 0
653 INPB (INPB MN)	INPB FDR	0.208	3.17	3.17	1.84	2	0	Yes	PNL	25	70	10	11.2	Category 3
654 INPC (INPC MN)	INPC FDR	0.208	3.52	3.52	1.78	2	0	Yes	PNL	25	68	18	10.2	Category 3
655 INPD (INPD MN)	INPD FDR	0.208	3.15	3.15	1.93	2	0	Yes	PNL	25	70	18	11.2	Category 3
656 UL-3-ID (UL-3-ID MN)	INPD FDR1	0.208	7.04	7.04	3.4	0.019	0	Yes	PNL	25	6	18	0.20	Category 0
657 UL-HALL-ID (UL-HALL-ID MN)	UL-HALL-ID FDR	0.208	4.86	4.86	2.82	0.012	0	Yes	PNL	25	4	18	0.09	Category 0
658 UL-3-ID-2 (UL-3-ID-2 MN)	UL-3-ID MN	0.208	6.89	6.89	3.35	0.012	0	Yes	PNL	25	4	18	0.12	Category 0
659 XRAY5	610-03 BNCP	0.48	11.83	11.83	7.57	0.016	0	Yes	PNL	25	9	18	0.39	Category 0
660 DH3-BD-DO (660-01 MN BKR)	610-04 DH3-BD	0.48	12.15	12.15	7.75	0.011	0	Yes	PNL	25	7	18	0.28	Category 0
661 T-23 PRI	610-04 DH3-BD	0.48	11.85	11.85	7.58	0.011	0	Yes	PNL	25	7	18	0.27	Category 0
662 T-23 SEC	660-02 UL-3-20	0.208	5.85	5.85	2.99	2	0	Yes	PNL	25	93	18	17.7	Category 3
663 UL-3-2D-S1 (UL-3-2D-S1 MN)	660-02 UL-3-2D	0.208	5.75	5.75	2.95	2	0	Yes	PNL	25	92	18	17.5	Category 3
664 UL-3-2D-S2 (UL-3-2D-S2 MN)	UL-3-2D-S1 MN	0.208	5.7	5.70	2.93	0.012	0	Yes	PNL	25	4	18	0.10	Category 0
665 UL-3-2D-S3	UL-3-2D-S2 MN	0.208	5.38	5.38	2.81	0.012	0	Yes	PNL	25	4	18	0.10	Category 0
666 T-17 PRI	610-04 DH3-BD	0.48	11.5	11.50	7.39	0.011	0	Yes	PNL	25	7	18	0.26	Category 0
667 T-17 SEC	660-03 UL-3-BD	0.208	5.82	5.82	2.98	2	0	Yes	PNL	25	93	18	17.8	Category 3
668 UL-3-BD (UL-3-BD MN)	660-03 UL-3-BD	0.208	5.64	5.64	2.91	2	0	Yes	PNL	25	91	18	17.2	Category 3
669 1H1A (669-01 MN BKR)	610-04 DH3-BD	0.48	11.5	11.50	7.39	0.011	0	Yes	PNL	25	7	18	0.26	Category 0
670 DH-3-BD (670-01 MN BKR)	610-05 DH3-BD	0.48	12.18	12.18	7.77	0.016	0	Yes	PNL	25	9	18	0.40	Category 0
671 BHDA (671-01 MN BKR)	670-01 MN BKR	0.48	6.89	6.89	4.77	0.011	0	Yes	PNL	25	5	18	0.18	Category 0
672 T-10 PRI (T-10 DISC)	670-01 MN BKR	0.48	10.8	10.80	7	0.011	0	Yes	PNL	25	7	18	0.25	Category 0
673 T-10 SEC	T-10 FDR	0.208	5.75	5.75	2.95	2	0	Yes	PNL	25	92	18	17.5	Category 3
674 BNPA (674-01 MN BKR)	T-10 FDR	0.208	5.2	5.20	2.75	2	0	Yes	PNL	25	88	18	16.2	Category 3
675 T-19 PRI	670-01 MN BKR	0.48	11.27	11.27	7.28	0.011	0	Yes	PNL	25	7	18	0.26	Category 0
676 T-19 SEC	T-19 FDR	0.208	2.18	2.18	1.48	2	0	Yes	PNL	25	59	18	8.45	Category 3
677 UL-3A-ID (677-01 MN BKR)	T-19 FDR	0.208	2.13	2.13	1.47	2	0	Yes	PNL	25	59	18	8.30	Category 3
678 T-25 PRI	670-01 MN BKR	0.48	9.01	9.01	6	0.011	0	Yes	PNL	25	6	18	0.21	Category 0
679 T-25 SEC	T-25 FDR	0.208	5.53	5.53	2.87	2	0	Yes	PNL	25	91	18	17.0	Category 3
680 UL-3A-ID (UL-3A-ID MN)	T-25 FDR	0.208	5.44	5.44	2.84	2	0	Yes	PNL	25	90	18	16.7	Category 3
681 T-27 PRI	670-01 MN BKR	0.48	8.23	8.23	5.55	0.011	0	Yes	PNL	25	6	18	0.19	Category 0
682 T-27 SEC	T-27 FDR	0.208	5.42	5.42	2.83	2	0	Yes	PNL	25	90	18	16.7	Category 3
683 UL-3A-ID (683-01 MN BKR)	T-27 FDR	0.208	5.23	5.23	2.76	2	0	Yes	PNL	25	88	18	16.3	Category 3

ARC FLASH HAZARD
ANALYSIS TABLE

MALCOM RANDALL VA MEDICAL CENTER
GAINESVILLE, FL
REFER TO SYSTEM ONE-LINE DIAGRAMS

BUS NAME	PROTECTIVE DEVICE NAME	KV	BUS BOLTED FAULT (kA)	PROT. DEV. BOLTED FAULT (kA)	ARCING FAULT (kA)	TRIP/ DELAY TIME (sec)	BREAKER OPENING TIME (sec)	GROUND	EQUIP. TYPE	GAP (mm)	ARC FLASH BOUNDARY (ft)	WORKING DISTANCE (ft)	INCIDENT ENERGY	HAZARD / RISK CATEGORY NUMBER (refer to NFPA 70E, 2004 Edition, Table 130.7(C)(1))
684 LL-3-4A (UL-3-4A MN)	T-27 FDR	0.208	5.3	5.30	2.79	2	0	Yes	PNL	25	89	16	16.4	Category 3
685 T-28 PRI	670-01 MN BKR	0.48	7.88	7.88	5.35	0.011	0	Yes	PNL	25	8	18	0.19	Category 0
686 T-28 SEC	T-28 FDR	0.208	5.38	5.38	2.81	2	0	Yes	PNL	25	89	18	18.6	Category 3
687 UL-3-5A (UL-3-5A MN)	T-28 FDR	0.208	5.1	5.10	2.71	2	0	Yes	PNL	25	87	18	16.0	Category 3
688 LL-3-5A (UL-3-5A MN1)	T-28 FDR	0.208	5.08	5.08	2.7	2	0	Yes	PNL	25	87	18	15.9	Category 3
689 DH-2-BA (689-01 MN BKR)	610-08 DH2-BA	0.48	11.41	11.41	7.34	0.016	0	Yes	PNL	25	9	18	0.38	Category 0
690 T-29 PRI	610-08 DH2-BA	0.48	11.11	11.11	7.18	0.016	0	Yes	PNL	25	9	18	0.37	Category 0
691 T-29 SEC	689-02 T-29 FD	0.208	5.77	5.77	2.96	2	0	Yes	PNL	25	92	18	17.5	Category 3
692 UL-2-BA (692-01 MN BKR)	689-02 T-29 FD	0.208	5.63	5.63	2.9	2	0	Yes	PNL	25	91	18	17.2	Category 3
693 T-31 PRI	610-08 DH2-BA	0.48	10.45	10.45	6.61	0.016	0	Yes	PNL	25	9	18	0.35	Category 0
694 T-31 SEC	689-03 T-31 FD	0.208	5.68	5.68	2.93	2	0	Yes	PNL	25	92	18	17.3	Category 3
695 UL-2-1A (UL-2-1A MN)	689-03 T-31 FD	0.208	5.55	5.55	2.88	2	0	Yes	PNL	25	91	18	17.0	Category 3
696 T-32 PRI	610-08 DH2-BA	0.48	10.45	10.45	6.81	0.016	0	Yes	PNL	25	9	18	0.35	Category 0
697 T-32 SEC	689-04 T-32 FD	0.208	5.68	5.68	2.93	2	0	Yes	PNL	25	92	18	17.3	Category 3
698 UL-2-2A (UL-2-2A MN)	689-04 T-32 FD	0.208	5.58	5.58	2.88	2	0	Yes	PNL	25	91	18	17.1	Category 3
699 UL-2-2A-3 (UL-2-2A-3 MN)	UL-2-2A MN	0.208	5.33	5.33	2.79	0.012	0	Yes	PNL	25	4	16	0.10	Category 0
700 T-34 PRI	610-08 DH2-BA	0.48	9.38	9.38	6.21	0.016	0	Yes	PNL	25	8	16	0.32	Category 0
701 T-34 SEC	689-05 T-34 FD	0.208	5.56	5.56	2.88	2	0	Yes	PNL	25	91	16	17.0	Category 0
702 UL-2-3A (UL-2-3A MN)	689-05 T-34 FD	0.208	5.47	5.47	2.85	2	0	Yes	PNL	25	90	16	16.8	Category 3
703 T-36 PRI	610-08 DH2-BA	0.48	11.01	11.01	7.12	0.016	0	Yes	PNL	25	9	16	0.37	Category 0
704 T-36 SEC	T-36 DISC	0.208	8.61	8.61	3.92	2	0	Yes	PNL	25	111	16	23.5	Category 3
705 UL-2-4A (UL-2-4A MN)	T-36 DISC	0.208	8.38	8.38	3.85	2	0	Yes	PNL	25	109	16	23.1	Category 3
706 LL-2-4A (LL-2-4A MN)	T-36 DISC	0.208	7.95	7.95	3.7	2	0	Yes	PNL	25	107	16	22.2	Category 3
707 T-38 PRI	610-08 DH2-BA	0.48	11.01	11.01	7.12	0.016	0	Yes	PNL	25	9	16	0.37	Category 0
708 T-38 SEC	T-38 DISC	0.208	8.61	8.61	3.92	2	0	Yes	PNL	25	111	16	23.5	Category 3
709 UL-2-5A (UL-2-5A MN)	T-38 DISC	0.208	8.32	8.32	3.82	2	0	Yes	PNL	25	109	16	22.9	Category 3
710 LL-2-5A (LL-2-5A MN)	T-38 DISC	0.208	7.95	7.95	3.7	2	0	Yes	PNL	25	107	16	22.2	Category 3
711 SWBD EA (711-01 MN BKR)	607-01 MN BKR	0.48	16.76	12.20	7.42	2	0	Yes	PNL	25	183	16	53.6	Dangerous!!!
712 ATS CDBH-1	711-02 CDBH-1	0.48	15.42	11.98	6.26	0.1	0	Yes	PNL	25	28	16	2.52	Category 1
713 CDBH-1 (713-01 MN BKR)	711-02 CDBH-1	0.48	14.35	10.81	5.72	2	0	Yes	PNL	25	147	16	37.4	Category 4
714 CDBH-1 DST	713-03 MCC-CP1	0.48	14.34	13.44	6.36	0.05	0	Yes	PNL	25	20	16	1.47	Category 1
715 MCC-CPH-1	715-01 S1 FDR	0.48	14.14	1.24	0.77	0.083	0	Yes	PNL	25	22	16	1.56	Category 1
716 S-1A/C-1	715-01 S1 FDR	0.48	13.84	12.85	7.91	0.016	0	Yes	PNL	25	10	16	0.45	Category 0
717 30KVA PRI	CUL-M1A	0.48	6.28	6.28	4.41	0.012	0	Yes	PNL	25	5	16	0.16	Category 0



SQUARE D



OWER SYSTEMS ENGINEERING
EXINGTON, KY

ARC FLASH HAZARD
ANALYSIS TABLE

MALCOM RANDALL VA MEDICAL CENTER
GAINESVILLE, FL
REFER TO SYSTEM ONE-LINE DIAGRAMS

BUS NAME	PROTECTIVE DEVICE NAME	kV	BUS FAULT (kA)	PROT. DEV. BOLTED FAULT (kA)	ARCING FAULT (kA)	TRIP/ DELAY TIME (sec)	BREAKER OPENING TIME (sec)	GROUND	EQUIP. TYPE	GAP (mm)	ARC FLASH BOUNDARY (ft)	WORKING DISTANCE (in)	INCIDENT ENERGY	HAZARD / RISK CATEGORY NUMBER (refer to NFPA 70E, 2004 Edition, Table 130.7(C)(11))
718 30kVA SEC	CUL-M1A	0.208	1.51	1.51	1.16	2	0	Yes	PML	25	50	18	6.33	Category 2
719 CUL-M1A (CUL-M1A MN)	CUL-M1A	0.208	1.47	1.47	1.13	2	0	Yes	PML	25	49	18	6.23	Category 2
720 CWP-1	715-02 CWP FDR	0.48	13.81	13.06	8.17	0.016	0	Yes	PML	25	10	18	0.47	Category 0
721 P6	P6 FDR	0.48	12.05	11.92	7.61	0.012	0	Yes	PML	25	8	18	0.29	Category 0
722 P7	P7 FDR	0.48	12.05	11.92	7.61	0.012	0	Yes	PML	25	8	18	0.29	Category 0
723 P8	P8 FDR	0.48	12.05	11.92	7.61	0.012	0	Yes	PML	25	8	18	0.29	Category 0
724 P9	P9 FDR	0.48	12.05	11.92	7.61	0.012	0	Yes	PML	25	8	18	0.29	Category 0
725 P11	P11 FDR	0.48	12.05	11.92	7.61	0.011	0	Yes	PML	25	7	18	0.27	Category 0
726 T-18 PRI	714-01 T-18 FD	0.48	14.28	14.28	8.89	0.016	0	Yes	PML	25	10	18	0.48	Category 0
727 T-18 SEC	714-01 T-18 FD	0.208	15.93	15.93	6.03	2	0	Yes	PML	25	139	18	34.2	Category 4
728 CUL-D120 (CUL-D12 MN)	714-01 T-18 FD	0.208	13.6	13.60	5.4	2	0	Yes	PML	25	130	18	30.7	Category 4
729 CUL-D120	714-01 T-18 FD	0.208	15.1	15.10	5.81	2	0	Yes	PML	25	136	18	33.0	Category 4
730 P3	P3 FDR	0.208	9.85	9.85	4.3	0.012	0	Yes	PML	25	5	18	0.15	Category 0
731 P4 (P4 MN)	P4 FDR	0.208	4.1	4.10	1.98	0.202	0	Yes	PML	25	18	18	1.15	Category 0
732 P5 (P5 MN)	P5 FDR	0.208	2.82	2.82	1.52	0.345	0	Yes	PML	25	20	18	1.47	Category 1
733 CDL (CDL MN)	CDL FDR	0.208	1.28	1.28	0.87	0.636	0	Yes	PML	25	21	18	1.50	Category 1
734 CUL-D110 (CUL-D110 MN)	714-01 T-18 FD	0.208	14.94	14.94	5.77	2	0	Yes	PML	25	135	18	32.7	Category 4
735 SKDH-5-BB (735-01 MN BKR)	714-02 SKDH-5	0.48	12.87	12.87	8.14	0.011	0	Yes	PML	25	8	18	0.29	Category 0
736 SKH1-CO88	714-02 SKDH-5	0.48	11.06	11.06	7.15	0.011	0	Yes	PML	25	7	18	0.25	Category 0
737 T-13 PRI	714-02 SKDH-5	0.48	10.87	10.87	7.04	0.011	0	Yes	PML	25	7	18	0.25	Category 0
738 T-13 SEC	735-02 T-13 FD	0.208	2.5	2.50	1.85	2	0	Yes	PML	25	63	18	9.25	Category 3
739 SKL2-CO88	735-02 T-13 FD	0.208	2.33	2.33	1.56	2	0	Yes	PML	25	61	18	8.78	Category 3
740 SKH2-CO88	714-02 SKDH-5	0.48	9.98	9.98	6.55	0.011	0	Yes	PML	25	7	18	0.23	Category 0
741 SKH-BO	714-02 SKDH-5	0.48	10.87	10.87	7.04	0.011	0	Yes	PML	25	7	18	0.25	Category 0
742 T-14 PRI	T-14 FDR	0.48	9.82	9.82	6.45	0.011	0	Yes	PML	25	7	18	0.23	Category 0
743 T-14 SEC	T-14 FDR	0.208	2.48	2.48	1.39	1.124	0	Yes	PML	25	39	18	4.34	Category 2
744 CUL-BO	T-14 FDR	0.208	2.39	2.39	1.35	1.174	0	Yes	PML	25	40	18	4.40	Category 2
745 SKL-BO (SKL MN)	T-14 FDR	0.208	2.4	2.40	1.38	1.164	0	Yes	PML	25	40	18	4.38	Category 2
746 SKH-CO73	714-02 SKDH-5	0.48	10.73	10.73	6.97	0.011	0	Yes	PML	25	7	18	0.25	Category 0
747 9kVA PRI	9kVA PRI A	0.48	9.06	9.06	6.03	0.011	0	Yes	PML	25	6	18	0.21	Category 0
748 9kVA SEC	9kVA PRI A	0.208	0.96	0.96	0.71	0.753	0	Yes	PML	25	20	18	1.42	Category 1
749 SKL-4 (SKL-4 MN)	9kVA PRI A	0.208	0.94	0.94	0.71	0.762	0	Yes	PML	25	20	18	1.43	Category 1
750 DISC	714-02 SKDH-5	0.48	10.16	10.16	6.65	0.011	0	Yes	PML	25	7	18	0.23	Category 0

ARC FLASH HAZARD
ANALYSIS TABLE

MALCOM RANDALL VA MEDICAL CENTER
GAINESVILLE, FL
REFER TO SYSTEM ONE-LINE DIAGRAMS

BUS NAME	PROTECTIVE DEVICE NAME	kV	BUS BOLTED FAULT (kA)	PROT. DEV. BOLTED FAULT (kA)	ARCING FAULT (kA)	TRIP/ DELAY TIME (sec)	BREAKER OPENING TIME (sec)	GROUND	EQUIP. TYPE	GAP (mm)	ARC FLASH BOUNDARY (ft)	WORKING DISTANCE (in)	INCIDENT ENERGY	HAZARD / RISK CATEGORY NUMBER (refer to NFPA 70E, 2004 Edition, Table 130.7(C)(1))
751 T-18 PRI	T-18 FDR	0.48	8.5	8.50	5.71	0.011	0	Yes	PNL	25	8	18	0.20	Category 0
752 T-18 SEC	T-18 FDR	0.208	3.46	3.46	1.78	1.318	0	Yes	PNL	25	51	18	8.50	Category 2
753 SKL-3A-2B	T-18 FDR	0.208	3.38	3.38	1.73	1.355	0	Yes	PNL	25	51	18	8.55	Category 2
754 CUL-1-3B	714-02 SKDH-5	0.48	9.7	9.70	6.39	0.011	0	Yes	PNL	25	7	18	0.23	Category 0
755 CDH-3-BD (755-01 MN BKR)	714-03 CDH-3BD	0.48	11.15	11.15	7.2	0.017	0	Yes	PNL	25	9	18	0.40	Category 0
756 CLH-3A-1D	CLH-3A-1D FDR	0.48	7.33	7.33	5.03	0.012	0	Yes	PNL	25	6	18	0.16	Category 0
757 CLH-3-BD (CLH-3-BD MN)	CLH-3-BD FDR	0.48	10.14	10.14	6.64	0.012	0	Yes	PNL	25	7	18	0.25	Category 0
758 ELH-1-ID	CLH-3-BD FDR	0.48	8.72	8.72	5.83	0.012	0	Yes	PNL	25	6	18	0.21	Category 0
759 ELEVS	714-04 ELEV FD	0.48	13.98	13.09	8.17	0.016	0	Yes	PNL	25	10	18	0.46	Category 0
760 DISC	714-05 COBH PN	0.48	12.26	12.26	7.61	0.018	0	Yes	PNL	25	9	18	0.41	Category 0
761 T-81 PRI	714-05 COBH PN	0.48	3.99	3.99	2.99	0.016	0	Yes	PNL	25	5	18	0.14	Category 0
762 T-81 SEC	714-05 COBH PN	0.208	2.27	2.27	1.53	2	0	Yes	PNL	25	60	18	8.59	Category 3
763 CDE-GEN	714-05 COBH PN	0.208	2.23	2.23	1.51	2	0	Yes	PNL	25	59	18	8.46	Category 3
764 CDH-2-BA (764-01 MN BKR)	714-06 COH2BA	0.48	13.53	13.53	8.48	0.017	0	Yes	PNL	25	10	18	0.47	Category 0
765 45KVA PRI	D.I. WATER FDR	0.48	12.85	12.85	8.13	0.011	0	Yes	PNL	25	8	18	0.29	Category 0
766 45KVA SEC	D.I. WATER FDR	0.208	2.44	2.44	1.37	2	0	Yes	PNL	25	58	18	7.82	Category 2
767 POOL EQ	D.I. WATER FDR	0.208	1.79	1.79	1.3	2	0	Yes	PNL	25	54	18	7.21	Category 2
768 T-40 PRI	T-40 FDR	0.48	12.16	12.16	7.75	0.011	0	Yes	PNL	25	7	18	0.28	Category 0
769 T-40 SEC	T-40 FDR	0.208	0.93	0.93	0.7	1.434	0	Yes	PNL	25	29	18	2.66	Category 1
770 CUL-M2	T-40 FDR	0.208	0.92	0.92	0.89	1.454	0	Yes	PNL	25	29	18	2.87	Category 1
771 T-30 PRI	T-30 FDR	0.48	12.71	12.71	8.05	0.011	0	Yes	PNL	25	8	18	0.29	Category 0
772 T-30 SEC	T-30 FDR	0.208	2.2	2.20	1.28	1.28	0	Yes	PNL	25	40	18	4.52	Category 2
773 CUL-2-BA	T-30 FDR	0.208	2.18	2.18	1.27	1.286	0	Yes	PNL	25	41	18	4.54	Category 2
774 CLH-2-BA (CLH-2-BA MN)	T-30 FDR	0.48	11.59	11.59	7.44	0.011	0	Yes	PNL	25	7	18	0.27	Category 0
775 CLH-2-1A (CLH-2-1A MN)	CLH-2-1A FDR	0.48	8.23	8.23	5.55	0.011	0	Yes	PNL	25	6	18	0.19	Category 0
776 T-33 PRI	T-33 FDR	0.48	5.42	5.42	3.88	0.011	0	Yes	PNL	25	5	18	0.13	Category 0
777 T-33 SEC	T-33 FDR	0.208	2.09	2.09	1.23	0.961	0	Yes	PNL	25	33	18	3.28	Category 1
778 CUL-2-2A (CUL-2-2A MN)	T-33 FDR	0.208	2.02	2.02	1.2	0.994	0	Yes	PNL	25	33	18	3.29	Category 1
779 T-35 PRI	T-35 FDR	0.48	5.95	5.95	4.21	0.011	0	Yes	PNL	25	5	18	0.14	Category 0
780 T-35 SEC	T-35 FDR	0.208	2.1	2.10	1.23	0.956	0	Yes	PNL	25	33	18	3.25	Category 1
781 CUL-2-3A (CUL-2-2A MN)	T-35 FDR	0.208	1.96	1.96	1.18	1.029	0	Yes	PNL	25	34	18	3.33	Category 1
782 T-37 PRI	T-37 FDR	0.48	8.23	8.23	5.55	0.011	0	Yes	PNL	25	6	18	0.19	Category 0
783 CLH-2-4A (CLH-2-4A)	T-37 FDR	0.48	7.73	7.73	5.26	0.011	0	Yes	PNL	25	8	18	0.16	Category 0
784 T-37 SEC	T-37 FDR	0.208	2.14	2.14	1.25	1.322	0	Yes	PNL	25	41	18	4.57	Category 2

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BUS NAME	PROTECTIVE DEVICE NAME	LV	BUS FAULT (kA)	PROT. DEV. BOLETTED FAULT (kA)	ARCING FAULT (kA)	TRIP/ DELAY TIME (sec)	BREAKER OPENING TIME (sec)	GROUND	EQUIP. TYPE	GAP (mm)	ARC FLASH BOUNDARY (ft)	WORKING DISTANCE (ft)	INCIDENT ENERGY	HAZARD / RISK CATEGORY NUMBER (refer to NFPA 70E, 2004 Edition, Table 130.7(C)(11))
785 CUL-SCUB8 (CUL-2-4A MN)	T-37 FDR	0.208	2.11	2.11	1.24	1.343	0	Yes	PNL	25	41	18	4.59	Category 2
786 CUL-2-4A (CUL-2-4A MN)	T-37 FDR	0.208	2.11	2.11	1.24	1.344	0	Yes	PNL	25	41	18	4.59	Category 2
787 CH-BB (CH-BB MN)	RS-P FDR	0.48	11.31	11.31	7.28	0.011	0	Yes	PNL	25	7	18	0.26	Category 0
788 T-RSP PRI	RS-P FDR	0.48	9.02	9.02	6.01	0.011	0	Yes	PNL	25	6	18	0.21	Category 0
789 T-RSP SEC	RS-P FDR	0.208	4.17	4.17	2	1.076	0	Yes	PNL	25	49	18	8.08	Category 2
790 225A DISC (790-01 DISC)	RS-P FDR	0.208	4.09	4.09	1.87	1.1	0	Yes	PNL	25	49	18	6.12	Category 2
791 CLBB	RS-P FDR	0.208	3.72	3.72	1.85	1.218	0	Yes	PNL	25	50	18	6.33	Category 2
792 CLBB SUB	CLBB FDR	0.208	3.65	3.65	2.14	0.01	0	Yes	PNL	25	3	18	0.06	Category 0
793 RSX (RSX MN)	RS-P FDR	0.208	3.72	3.72	1.85	1.218	0	Yes	PNL	25	50	18	6.33	Category 2
794 RSP (RSP MN)	RS-P FDR	0.208	3.94	3.94	1.92	1.144	0	Yes	PNL	25	49	18	6.20	Category 2
795 ATS EDH-1	711-03 EDH-1	0.48	12.98	12.98	8.18	0.017	0	Yes	PNL	25	10	18	0.45	Category 0
796 EDH-1 (796-01 MN BKR)	711-03 EDH-1	0.48	10.54	10.54	6.86	0.017	0	Yes	PNL	25	9	18	0.36	Category 0
797 BLDG 11	796-02 JL FDR	0.48	10.31	10.31	6.73	0.017	0	Yes	PNL	25	9	18	0.37	Category 0
798 EDH-4BC (798-01 MN BKR)	796-03 JL FDR	0.48	10.42	10.42	6.79	0.016	0	Yes	PNL	25	9	18	0.36	Category 0
799 ELH-4CO (ELH-4CO MN)	796-02 JL FDR	0.48	10.09	10.09	6.61	0.016	0	Yes	PNL	25	9	18	0.35	Category 0
800 EH1 (800-01 MN BKR)	796-03 JL FDR	0.48	10.21	10.21	6.67	0.016	0	Yes	PNL	25	9	18	0.35	Category 0
801 ELH-4BC (ELH-4BC MN)	796-04 JL FDR	0.48	10.06	10.06	6.59	0.016	0	Yes	PNL	25	9	18	0.35	Category 0
802 ELH-4-1C (ELH-4-1C MN)	ELH-4-BC MN	0.48	9.19	9.19	6.1	0.011	0	Yes	PNL	25	6	18	0.21	Category 0
803 ELX-4BC	796-05 JL FDR	0.48	10.3	10.30	6.73	0.016	0	Yes	PNL	25	9	18	0.36	Category 0
804 EDH-3-BD (804-01 MN BKR)	796-04 JL FDR	0.48	9.16	9.16	6.08	0.016	0	Yes	PNL	25	8	18	0.32	Category 0
805 ELH-3-4A (ELH-3-4A MN)	ELH-3-4A FDR	0.48	7.5	7.50	5.13	0.016	0	Yes	PNL	25	7	18	0.26	Category 0
806 EDH-2-BA (806-01 MN BKR)	796-05 JL FDR	0.48	10.31	10.31	6.73	0.016	0	Yes	PNL	25	9	18	0.38	Category 0
807 ELH-2-BA (ELH-2-BA MN)	ELH-2-BA FDR	0.48	6.58	6.58	5.78	0.011	0	Yes	PNL	25	8	18	0.20	Category 0
808 ELH-2-4A (ELH-2-4A MN)	ELH-2-4A FDR	0.48	6.58	6.58	5.78	0.011	0	Yes	PNL	25	8	18	0.20	Category 0
809 T-2 SEC	809-01 MN BKR	0.48	37.38	15.88	7.29	0.716	0	Yes	PNL	25	146	18	37.2	Category 4
810 US-OSWED-B (810-01 MN BKR)	007-05 T-2 FDR	0.48	38.76	15.54	7.16	1.568	0.083	Yes	PNL	25	239	18	83.3	Dangerous!!!
811 CH #2	810-02 CH #2	0.48	34.29	32.13	17.6	0.05	0	Yes	PNL	25	33	18	3.28	Category 1
812 ATS CDBH-2	810-01 MN BKR	0.48	29.02	24.16	13.56	0.175	0	Yes	PNL	25	62	18	9.14	Category 3
813 TS-2 LOAD	810-01 MN BKR	0.48	29.02	24.16	13.56	0.175	0	Yes	PNL	25	62	18	9.14	Category 3
814 ATS OR	810-01 MN BKR	0.48	28.23	23.50	13.25	0.175	0	Yes	PNL	25	61	18	8.93	Category 3
815 ATS OR L	810-01 MN BKR	0.48	28.23	23.50	13.25	0.175	0	Yes	PNL	25	61	18	8.93	Category 3
816 ISNVA PRI	810-01 MN BKR	0.48	23.52	19.58	9.64	2	0	Yes	PNL	25	214	18	69.3	Dangerous!!!
817 ISNVA SEC	810-01 MN BKR	0.208	1.05	0.67	0.74	2	0	Yes	PNL	25	42	18	4.86	Category 2
818 CUL-12BA	810-01 MN BKR	0.208	1.04	0.67	0.74	2	0	Yes	PNL	25	42	18	4.84	Category 2

ARC FLASH HAZARD
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BUS NAME	PROTECTIVE DEVICE NAME	kV	BUS BOLTED FAULT (kA)	PROT. DEV. BOLTED FAULT (kA)	ARCING FAULT (kA)	TRIP/ DELAY TIME (sec)	BREAKER OPENING TIME (sec)	GROUND	EQUIP. TYPE	GAP (mm)	ARC FLASH BOUNDARY (ft)	WORKING DISTANCE (in)	INCIDENT ENERGY	HAZARD / RISK CATEGORY NUMBER (refer to NFPA 70E, 2004 Edition, Table 130.7(C)(11))
819 DDPB (819-01 MN BKR)	810-01 MN BKR	0.48	25.35	21.11	12.09	0.175	0	Yes	PNL	25	58	18	8.14	Category 3
820 DP-2 (820-01 MN BKR)	819-02 DP-2 FD	0.48	24	24.00	13.85	0.017	0	Yes	PNL	25	14	18	0.79	Category 0
821 DP-1 (821-01 MN BKR)	819-03 DP-1 FD	0.48	24.21	24.21	13.96	0.017	0	Yes	PNL	25	14	18	0.79	Category 0
822 SA1B DISC	810-01 MN BKR	0.48	24.66	20.53	11.81	0.175	0	Yes	PNL	25	57	18	7.95	Category 2
823 SA1B	822-01 DISC	0.48	21.78	21.78	12.75	0.022	0	Yes	PNL	25	16	18	0.97	Category 0
824 DBH-2	810-02 DBH-2	0.48	35.01	33.38	18.23	0.05	0	Yes	PNL	25	34	18	3.35	Category 1
825 DH-4-8C (825-01 MN BKR)	824-01 DH-4-8C	0.48	26.19	26.19	14.92	0.011	0	Yes	PNL	25	11	18	0.56	Category 0
826 75KVA PRI	824-01 DH-4-8C	0.48	25.32	25.32	14.5	0.011	0	Yes	PNL	25	11	18	0.55	Category 0
827 75KVA SEC	825-02 T-8 FDR	0.208	6.8	6.80	3.25	2	0	Yes	PNL	25	99	18	18.5	Category 3
828 UL-4-1C-1 (UL-4-1C-1 MN)	825-02 T-8 FDR	0.208	6.44	6.44	3.19	2	0	Yes	PNL	25	97	18	19.1	Category 3
829 UL-4-1C-3 (UL-4-1C-3 MN)	UL-4-1C-1 MN	0.208	6.24	6.24	3.12	0.016	0	Yes	PNL	25	5	18	0.16	Category 0
830 UL-4-1C-3 (UL-4-1C-2 MN)	825-02 T-8 FDR	0.208	6.4	6.40	3.18	2	0	Yes	PNL	25	97	18	19.0	Category 3
831 112KVA PRI	824-01 DH-4-8C	0.48	14.75	14.75	8.14	0.011	0	Yes	PNL	25	8	18	0.33	Category 0
832 112KVA SEC	825-03 T-8 FDR	0.208	5.31	5.31	2.79	2	0	Yes	PNL	25	89	18	16.5	Category 3
833 UL-1-1B-1 (UL-1-1B-1 MN)	825-03 T-8 FDR	0.208	2.16	2.16	1.48	2	0	Yes	PNL	25	59	18	8.41	Category 3
834 UL-1-1B-2 (UL-1-1B-2 MN)	825-03 T-8 FDR	0.208	2.16	2.16	1.48	2	0	Yes	PNL	25	59	18	8.41	Category 3
835 150KVA PRI	824-01 DH-4-8C	0.48	14.52	14.52	9.02	0.011	0	Yes	PNL	25	8	18	0.33	Category 0
836 150KVA SEC	825-04 T-3 FDR	0.208	7.17	7.17	3.44	2	0	Yes	PNL	25	102	18	20.7	Category 3
837 UL-1-1B-1 (UL-1-1B-1 MN)	825-04 T-3 FDR	0.208	4.62	4.62	2.53	2	0	Yes	PNL	25	84	18	14.9	Category 3
838 UL-1-1B-2 (UL-1-1B-2 MN)	UL-1-1B-1 MN	0.208	4.3	4.30	2.41	0.012	0	Yes	PNL	25	4	18	0.08	Category 0
839 SPJCE	824-01 DH-4-8C	0.48	22.23	22.23	12.98	0.011	0	Yes	PNL	25	10	18	0.48	Category 0
840 LH-1-2B (LH-1-2B MN)	824-01 DH-4-8C	0.48	22.09	22.09	12.9	0.011	0	Yes	PNL	25	10	18	0.48	Category 0
841 75KVA PRI	824-01 DH-4-8C	0.48	20.66	20.66	12.19	0.011	0	Yes	PNL	25	10	18	0.45	Category 0
842 75KVA SEC	825-05 T-9 FDR	0.208	6.45	6.45	3.2	2	0	Yes	PNL	25	98	18	19.1	Category 3
843 UL-1-2B (UL-1-2B MN)	825-05 T-9 FDR	0.208	5.75	5.75	2.95	2	0	Yes	PNL	25	93	18	17.6	Category 3
844 RS-L (RS-L MN)	824-01 DH-4-8C	0.48	13.08	13.08	8.25	0.011	0	Yes	PNL	25	8	18	0.30	Category 0
845 TX-RSL PRI	825-06 RSL FDR	0.48	9.74	9.74	6.41	0.016	0	Yes	PNL	25	8	18	0.34	Category 0
846 TX-RSL SEC	TX-RSL FDR	0.208	2.48	2.48	1.39	1.312	0	Yes	PNL	25	44	18	5.14	Category 2
847 RS-PA (RS-PA MN)	TX-RSL FDR	0.208	2.39	2.38	1.35	1.364	0	Yes	PNL	25	44	18	5.26	Category 2
848 MCC-PH-3 (848-01 MN BKR)	824-02 MCC-PH3	0.48	23.03	22.45	13.04	0.017	0	Yes	PNL	25	14	18	0.77	Category 0
849 MTRS	MTR FDRS	0.48	10.25	9.86	6.44	0.012	0	Yes	PNL	25	7	18	0.25	Category 0
850 MCCPH3 (850-01 MN BKR)	848-01 MN BKR	0.48	22.22	21.66	12.65	0.016	0	Yes	PNL	25	13	18	0.73	Category 0
851 MCC-PH-2	824-03 MCC-PH2	0.48	26.23	25.17	14.34	0.011	0	Yes	PNL	25	11	18	0.56	Category 0

ARC FLASH HAZARD
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BUS NAME	PROTECTIVE DEVICE NAME	kV	BUS BOLTED FAULT (kA)	PROT. DEV. BOLTED FAULT (kA)	ARCING FAULT (kA)	TRIP/ DELAY TIME (sec)	BREAKER OPENING TIME (sec)	GROUND	EQUIP. TYPE	GAP (mm)	ARC FLASH BOUNDARY (ft)	WORKING DISTANCE (in)	INCIDENT ENERGY	HAZARD / RISK CATEGORY NUMBER (refer to NFPA 70E, 2004 Edition, Table 130.7(C)(11))
852 220kVA PRI	851-01 S-2 FDR	0.48	16.56	17.52	10.5	0.011	0	Yes	PNL	25	9	18	0.41	Category 0
852 COBH-2	813-01 COBH-2	0.48	23.89	21.96	12.89	0.05	0	Yes	PNL	25	27	18	2.35	Category 1
853 220kVA SEC	851-01 S-2 FDR	0.48	7.08	5.87	4.05	2	0	Yes	PNL	25	116	18	25.4	Category 4
853 3EONH (853-01 MN BKR)	852-01 3EONH F	0.48	13.8	13.80	8.63	0.016	0	Yes	PNL	25	10	18	0.47	Category 0
854 45kVA PRI	852-02 T-1 FDR	0.48	5.38	5.38	3.66	0.016	0	Yes	PNL	25	8	18	0.20	Category 0
854 S-2	851-01 S-2 FDR	0.48	6.98	5.76	3.96	2	0	Yes	PNL	25	115	18	24.9	Category 3
855 45kVA SEC	852-02 T-1 FDR	0.208	2.97	2.97	1.85	2	0	Yes	PNL	25	68	18	10.7	Category 3
856 3L CB (3L CB MN)	852-02 T-1 FDR	0.208	2.9	2.90	1.83	2	0	Yes	PNL	25	68	18	10.5	Category 3
857 3HC (857-01 MN BKR)	852-03 3HC FDR	0.48	10.65	10.65	6.92	0.016	0	Yes	PNL	25	9	18	0.37	Category 0
858 30kVA PRI	852-03 3HC FDR	0.48	8.48	8.48	5.7	0.016	0	Yes	PNL	25	8	18	0.30	Category 0
859 30kVA SEC	T-2_30kVA FDR	0.208	2.17	2.17	1.27	0.873	0	Yes	PNL	25	27	18	2.38	Category 1
860 3L CA (3L CA MN)	T-2_30kVA FDR	0.208	2.16	2.16	1.26	0.881	0	Yes	PNL	25	27	18	2.39	Category 1
861 CDH-4-B (861-01 MN BKR)	852-04 CDH-4BC	0.48	20.07	20.07	11.89	0.016	0	Yes	PNL	25	12	18	0.84	Category 0
862 15kVA PRI	852-04 CDH-4BC	0.48	12.86	12.86	8.14	0.016	0	Yes	PNL	25	10	18	0.43	Category 0
863 15kVA SEC	861-02 T-2 FDR	0.208	1.33	1.33	1.06	2	0	Yes	PNL	25	47	18	5.82	Category 2
864 CLH-1-BB (CLH-1-BB MN)	861-02 T-2 FDR	0.208	1.29	1.29	1.03	2	0	Yes	PNL	25	47	18	5.89	Category 2
865 2C-1-BB (2C-1-BB MN)	2C-1-BB FDR	0.208	1.25	1.25	0.86	0.816	0	Yes	PNL	25	20	18	1.43	Category 1
866 CLH-1-BB (866-01 MN BKR)	852-04 CDH-4BC	0.48	12.13	12.13	7.74	0.016	0	Yes	PNL	25	9	18	0.40	Category 0
867 CLH-4-B (CLH-4-B MN)	852-04 CDH-4BC	0.48	10.58	10.58	11.13	0.016	0	Yes	PNL	25	12	18	0.60	Category 0
868 T-39 PRI	852-04 CDH-4BC	0.48	10.96	10.96	7.1	0.016	0	Yes	PNL	25	9	18	0.37	Category 0
869 T-39 SEC	861-04 T-39 FD	0.208	8.84	8.84	3.99	2	0	Yes	PNL	25	112	18	24.1	Category 3
870 CULX1-C-29 (870-01 MN BKR)	861-04 T-39 FD	0.208	8.6	8.6	3.91	2	0	Yes	PNL	25	111	18	23.6	Category 3
871 CLH-1-1B (CLH-1-1B MN)	852-04 CDH-4BC	0.48	13.73	13.73	8.6	0.016	0	Yes	PNL	25	10	18	0.45	Category 0
872 FA DISC	852-04 CDH-4BC	0.48	17.36	17.36	10.51	0.016	0	Yes	PNL	25	11	18	0.56	Category 0
873 T-4 PRI	861-06 FAL CB	0.48	14.02	14.02	8.75	0.016	0	Yes	PNL	25	10	18	0.47	Category 0
874 T-4 SEC	FA DISC	0.208	3.6	3.60	2.12	2	0	Yes	PNL	25	75	18	12.3	Category 3
875 CUL-5-1C-1 (CUL-5-1C MN)	FA DISC	0.208	3.5	3.50	2.06	2	0	Yes	PNL	25	74	18	12.1	Category 3
876 CUL-5-1C-2 (CUL-5-1C MN)	FA DISC	0.208	3.5	3.50	2.06	2	0	Yes	PNL	25	74	18	12.1	Category 3
877 CUL-5-1C (CUL-5-1C MN)	852-04 CDH-4BC	0.48	16.42	16.42	10.02	0.016	0	Yes	PNL	25	11	18	0.53	Category 0
878 CUL-4-1C (CUL-4-1C MN)	852-04 CDH-4BC	0.48	11.89	11.89	7.6	0.016	0	Yes	PNL	25	9	18	0.40	Category 0
879 S-2/P-4	852-05 S-2/P-4	0.48	16.8	16.22	9.86	0.016	0	Yes	PNL	25	11	18	0.56	Category 0
880 P-5/P-6	852-06 P-5/P-6	0.48	16.8	16.22	9.86	0.016	0	Yes	PNL	25	11	18	0.56	Category 0
881 CDH-3-BDS1 (881-01 MN BKR)	852-07 CDH3BDS	0.48	18.23	18.23	10.95	0.016	0	Yes	PNL	25	12	18	0.60	Category 0
882 CLH-3-1D (CLH-3-1D MN)	T-20 FDR	0.48	12.21	12.21	7.78	0.012	0	Yes	PNL	25	8	18	0.29	Category 0

ARC FLASH HAZARD
ANALYSIS TABLE

MALCOLM RANDALL VA MEDICAL CENTER
GAINESVILLE, FL
REFER TO SYSTEM ONE-LINE DIAGRAMS

BUS NAME	PROTECTIVE DEVICE NAME	KV	BUS BOLTED FAULT (KA)	PROT. DEV. BOLTED FAULT (KA)	ARCING FAULT (KA)	TRIP/ DELAY TIME (sec)	BREAKER OPENING TIME (sec)	GROUND	EQUIP TYPE	GAP (mm)	ARC FLASH BOUNDARY (ft)	WORKING DISTANCE (in)	INCIDENT ENERGY	HAZARD / RISK CATEGORY NUMBER (refer to NFPA 70E, 2004 Edition, Table 130.7(C)(11))
883 T-20 RI	T-20 FDR	0.48	11.68	11.68	7.48	0.012	0	Yes	PNL	25	7	18	0.28	Category 0
884 T-20 SEC	T-20 FDR	0.208	5.92	5.92	3.01	2	0	Yes	PNL	25	94	18	17.9	Category 3
885 CLL-3-1D (CLL-3-1D MN)	T-20 DISC	0.208	5.75	5.75	2.51	0.188	0	Yes	PNL	25	20	18	1.39	Category 1
886 T-22 PRI	T-22 FDR	0.48	16.11	16.11	9.85	0.011	0	Yes	PNL	25	9	18	0.36	Category 0
887 T-22 SEC	T-22 FDR	0.208	2.38	2.38	1.35	1.575	0	Yes	PNL	25	48	18	5.97	Category 2
888 CLL-3-2D (CLL-3-2D MN)	T-22 FDR	0.208	2.06	2.06	1.22	1.926	0	Yes	PNL	25	51	18	6.53	Category 2
889 T-24 PRI	T-24 FDR	0.48	14.37	14.37	8.94	0.011	0	Yes	PNL	25	8	18	0.32	Category 0
890 T-24 SEC	T-24 FDR	0.208	2.23	2.23	1.28	0.347	0	Yes	PNL	25	19	18	1.25	Category 1
891 CLL-3-3D (CLL-3-3D MN)	T-24 FDR	0.208	2.18	2.18	1.28	0.357	0	Yes	PNL	25	19	18	1.26	Category 1
892 ITE DISC (ITE DISC)	T-26 FDR	0.48	12.04	12.04	7.88	0.012	0	Yes	PNL	25	8	18	0.29	Category 0
893 CLL-3-4A (CLL-3-4A MN1)	ITE DISC	0.48	6.91	6.91	4.78	0.011	0	Yes	PNL	25	5	18	0.16	Category 0
894 T-28 SEC	CLL-3-4A MN1	0.208	2.15	2.15	1.26	0.931	0	Yes	PNL	25	33	18	3.26	Category 1
895 CLL-3-5A (CLL-3-5A MN)	CLL-3-4A MN1	0.208	2.01	2.01	1.2	1.002	0	Yes	PNL	25	34	18	3.34	Category 1
896 CLL-3-4A (CLL-3-4A MN)	CLL-3-4A MN1	0.208	2.12	2.12	1.26	0.943	0	Yes	PNL	25	33	18	3.28	Category 1
897 T-68 SEC	ITE DISC	0.208	2.21	2.21	1.28	1.274	0	Yes	PNL	25	41	18	4.57	Category 2
898 CLL-3-3D (CLL-3-3D MN)	ITE DISC	0.208	2.17	2.17	1.26	1.303	0	Yes	PNL	25	41	18	4.60	Category 2
899 CLL-3-2D (CLL-3-2D MN)	ITE DISC	0.208	2.1	2.10	1.24	1.348	0	Yes	PNL	25	41	18	4.65	Category 2
900 CLL-3A-1D (CLL-3A-1D MN)	X-RAY FDR	0.48	7.43	7.43	5.09	0.012	0	Yes	PNL	25	6	18	0.18	Category 0
901 T-70 PRI	852-08 T-70 FD	0.48	15.8	15.80	9.7	0.016	0	Yes	PNL	25	11	18	0.53	Category 0
902 T-70 SEC	852-08 T-70 FD	0.208	5.35	5.35	2.8	2	0	Yes	PNL	25	89	18	16.6	Category 3
903 CDL-3A-BD	T-70 DISC	0.208	5.25	5.25	2.77	0.012	0	Yes	PNL	25	4	18	0.10	Category 0
904 MCC-CPPH-3	852-09 MCCCPH3	0.48	18.46	17.73	10.63	0.016	0	Yes	PNL	25	12	18	0.61	Category 0
905 30HP MTRS	852-09 MCCCPH3	0.48	17.95	17.23	10.38	0.016	0	Yes	PNL	25	12	18	0.60	Category 0
906 50HP_A	852-09 MCCCPH3	0.48	17.94	17.23	10.38	0.016	0	Yes	PNL	25	12	18	0.60	Category 0
907 NH SWBD (907-01 MN BKR)	EIC-1	0.48	15.18	14.11	7.4	0.294	0	Yes	PNL	25	54	18	7.25	Category 2
908 L-1N DISC	907-02 L FDRS	0.48	13.34	13.34	8.39	0.025	0	Yes	PNL	25	13	18	0.69	Category 0
909 T-1-N PRI	FRSR-70A	0.48	13.26	13.26	7.09	0.008	0	Yes	PNL	25	8	18	0.19	Category 0
910 T-1-N SEC	FRSR-70A	0.208	2.31	2.31	1.55	1.814	0	Yes	PNL	25	57	18	6.02	Category 3
911 L-1N (911-01 MN BKR)	FRSR-70A	0.208	2.28	2.28	1.54	1.868	0	Yes	PNL	25	58	18	6.18	Category 3
912 L-1 (912-01 MN BKR)	907-02 L FDRS	0.48	12.5	12.50	7.94	0.025	0	Yes	PNL	25	12	18	0.65	Category 0
913 L-2N DISC	907-02 L FDRS	0.48	12.85	12.85	8.12	0.025	0	Yes	PNL	25	13	18	0.66	Category 0
914 T-1-2N PRI	ECS 125A	0.48	12.39	12.39	6.7	0.008	0	Yes	PNL	25	6	18	0.18	Category 0
915 T-1-2N SEC	ECS 125A	0.208	3.92	3.92	2.25	2	0	Yes	PNL	25	78	18	13.2	Category 3



OVER SYSTEMS ENGINEERING
EXINGTON, KY



ARC FLASH HAZARD
ANALYSIS TABLE

MALCOM RANDALL VA MEDICAL CENTER
GAINESVILLE, FL
REFER TO SYSTEM ONE-LINE DIAGRAMS

BUS NAME	PROTECTIVE DEVICE NAME	LV	BUS BOLTED FAULT (KA)	PROT DEV. BOLTED FAULT (KA)	ARCING FAULT (KA)	TRIP/ DELAY TIME (sec)	BREAKER OPENING TIME (sec)	GROUND	EQUIP TYPE	GAP (mm)	ARC FLASH BOUNDARY (ft)	WORKING DISTANCE (in)	INCIDENT ENERGY	HAZARD / RISK CATEGORY NUMBER (refer to NFPA 70E, 2004 Edition, Table 130.7(C)(11))
918 L-2N (918-01 MN BKR)	ECS 125A	0.208	3.87	3.87	2.23	2	0	Yes	PNL	25	77	18	13.1	Category 3
917 L2NA	L2NA FDR	0.208	3.78	3.78	2.2	0.014	0	Yes	PNL	25	4	18	0.09	Category 0
918 2L-1 (2L-1 MN)	907-02 L FDRS	0.48	11.77	11.77	7.54	0.025	0	Yes	PNL	25	12	18	0.61	Category 0
919L-3N DISC	907-02 L FDRS	0.48	11.44	11.44	7.36	0.025	0	Yes	PNL	25	12	18	0.60	Category 0
920 T-L-3N PRI	ECS 125A1	0.48	11.07	11.07	7.15	0.008	0	Yes	PNL	25	6	18	0.19	Category 0
921 T-L-3N SEC	ECS 125A1	0.208	3.92	3.92	2.25	2	0	Yes	PNL	25	78	18	13.2	Category 3
922 L-3N (922-01 MN BKR)	ECS 125A1	0.208	3.86	3.86	2.23	2	0	Yes	PNL	25	77	18	13.0	Category 3
923 L2NA	L2NA FDR	0.208	3.74	3.74	2.18	0.014	0	Yes	PNL	25	4	18	0.09	Category 0
924 3L-1 (3L-1 MN)	907-02 L FDRS	0.48	10.45	10.45	6.81	0.025	0	Yes	PNL	25	11	18	0.55	Category 0
925 E-ATS	907-03 EATS	0.48	14.85	14.85	9.19	0.025	0	Yes	PNL	25	14	18	0.76	Category 0
926 ATS LOAD	907-03 EATS	0.48	14.85	14.85	9.19	0.025	0	Yes	PNL	25	14	18	0.76	Category 0
927 DISC	907-03 EATS	0.48	13.95	13.95	8.71	0.025	0	Yes	PNL	25	13	18	0.72	Category 0
928 HE-1 (HE-1 MN)	ECS 100A	0.48	6.05	6.05	4.27	0.008	0	Yes	PNL	25	4	18	0.11	Category 0
929 LE-1 (928-01 MN BKR)	907-03 EATS	0.48	12.14	12.14	7.74	0.025	0	Yes	PNL	25	12	18	0.63	Category 0
930 PE-2 DISC	PE FDR	0.48	9	9.00	5.99	0.018	0	Yes	PNL	25	8	18	0.34	Category 0
931 T-PE-2 PRI (FRSR 30A)	PE FDR	0.48	7.15	7.15	4.92	0.018	0	Yes	PNL	25	7	18	0.28	Category 0
932 T-PE-2 SEC	FRSR 30A	0.208	2.08	2.08	1.22	0.061	0	Yes	PNL	25	6	18	0.21	Category 0
933 PE-2 (PE-2 MN)	FRSR 30A	0.208	2.03	2.03	1.21	0.063	0	Yes	PNL	25	6	18	0.21	Category 0
934 T-PE-3 PRI	PE FDR	0.48	7.61	7.61	5.19	0.018	0	Yes	PNL	25	8	18	0.29	Category 0
935 T-PE-3 SEC	PE FDR	0.208	2.07	2.07	1.22	2	0	Yes	PNL	25	52	18	6.82	Category 2
936 PE-3 (PE-3 MN)	PE FDR	0.208	2.04	2.04	1.21	2	0	Yes	PNL	25	52	18	6.75	Category 2
937 LE-2	LE-2 FDR	0.48	6.54	6.54	4.56	0.018	0	Yes	PNL	25	7	18	0.26	Category 0
938 LE-3	LE-3 FDR	0.48	7.78	7.78	5.29	0.018	0	Yes	PNL	25	8	18	0.30	Category 0
939 MCC-1	907-04 MCC-1	0.48	14.23	13.64	8.5	0.025	0	Yes	PNL	25	13	18	0.73	Category 0
940 C-ATS	907-05 MCC-2	0.48	15	14.52	8.97	0.025	0	Yes	PNL	25	14	18	0.78	Category 0
941 C-ATS LD	907-05 MCC-2	0.48	15	14.52	8.97	0.025	0	Yes	PNL	25	14	18	0.78	Category 0
942 MCC-2	907-05 MCC-2	0.48	14.2	13.71	8.55	0.025	0	Yes	PNL	25	13	18	0.73	Category 0
943 C.W. PUMPS	C.W. PUMP FDR	0.48	13.16	12.68	7.99	0.017	0	Yes	PNL	25	10	18	0.46	Category 0
944 EV-1 (944-01 MN BKR)	907-05 MCC-2	0.48	14.67	14.18	8.8	0.025	0	Yes	PNL	25	14	18	0.75	Category 0
945 T-2L DISC	907-06 2L2L	0.48	12.95	12.95	8.18	0.025	0	Yes	PNL	25	13	18	0.67	Category 0
946 T-2L PRI	907-06 2L2L	0.48	12.54	12.54	7.96	0.025	0	Yes	PNL	25	12	18	0.65	Category 0
947 T-2L SEC	ECS 125A2	0.208	3.96	3.96	2.27	2	0	Yes	PNL	25	78	18	13.3	Category 3
948 2-L (948-01 MN BKR)	ECS 125A2	0.208	3.91	3.91	2.25	2	0	Yes	PNL	25	78	18	13.1	Category 3
949 2-H	2-H FDR	0.208	3.73	3.73	2.18	0.014	0	Yes	PNL	25	4	18	0.09	Category 0

ARC FLASH HAZARD
ANALYSIS TABLE

MALCOM RANDALL VA MEDICAL CENTER
GAINESVILLE, FL
REFER TO SYSTEM ONE-LINE DIAGRAMS

BUS NAME	PROTECTIVE DEVICE NAME	kV	BUS BOLTED FAULT (kA)	PROT DEV. BOLTED FAULT (kA)	ARCING FAULT (kA)	TRIP/ DELAY TIME (sec)	BREAKER OPENING TIME (sec)	GROUND	EQUIP. TYPE	GAP (mm)	ARC FLASH BOUNDARY (in)	WORKING DISTANCE (in)	INCIDENT ENERGY	HAZARD / RISK CATEGORY NUMBER (refer to NFPA 70E, 2004 Edition, Table 130.7(C)(1))
950 T-3L PRI	907-06 2L/3L	0.48	12.54	12.54	7.96	0.025	0	Yes	PNL	25	12	18	0.65	Category 0
951 T-3L SEC	ECS 125A3	0.208	3.93	3.93	2.26	2	0	Yes	PNL	25	78	18	13.2	Category 3
952 L-1 (952-01 MN BKR)	ECS 125A3	0.208	3.88	3.88	2.24	2	0	Yes	PNL	25	77	18	13.1	Category 3
953 2-41	3-4 FDR	0.208	3.7	3.70	2.17	0.014	0	Yes	PNL	25	4	18	0.09	Category 0
954 T-1-1K PRI	907-07 KIT EQ	0.48	9.64	9.64	6.35	0.025	0	Yes	PNL	25	11	18	0.51	Category 0
955 T-1-1K SEC	907-07 KIT EQ	0.208	4	4.00	2.29	2	0	Yes	PNL	25	78	18	13.4	Category 3
956 L-1K (956-01 MN BKR)	907-07 KIT EQ	0.208	3.93	3.93	2.26	2	0	Yes	PNL	25	78	18	13.2	Category 3
957 EGS 1275KW	957-01 MN BKR	0.48	19.13	19.13	11.41	2	0	Yes	PNL	25	227	18	78.6	Dangerous!!!
958 GE SWBD	957-01 MN BKR	0.48	18.87	18.87	11.28	2	0	Yes	PNL	25	225	18	75.6	Dangerous!!!
959 ATS_CDBH-1	958-01 CDBH-1	0.48	18.48	18.48	9.42	0.034	0	Yes	PNL	25	17	18	1.06	Category 0
960 ATS_EDBH-1	958-02 EDBH-1	0.48	18.1	18.10	10.89	0.025	0	Yes	PNL	25	15	18	0.91	Category 0
961 ATS_CDBH-2	958-03 CDBH-2	0.48	18.35	18.35	9.36	0.034	0	Yes	PNL	25	17	18	1.07	Category 0
962 EGS 150KW	962-01 MN BKR	0.48	2.25	2.25	1.83	2	0	Yes	PNL	25	68	18	10.6	Category 3
963 ATS-OR	962-01 MN BKR	0.48	2.23	2.23	1.82	2	0	Yes	PNL	25	68	18	10.5	Category 3
964 EGS 600KW	964-01 MN BKR	0.48	9	9.00	5.99	0.128	0	Yes	PNL	25	28	18	2.44	Category 1
965 EGS SWBD	964-01 MN BKR	0.48	8.92	8.92	5.95	0.128	0	Yes	PNL	25	28	18	2.42	Category 1
966 ATS_C	965-01 ATS_C	0.48	8.49	8.49	5.7	0.025	0	Yes	PNL	25	10	18	0.45	Category 0
967 ATS_E	965-02 ATS_E	0.48	8.02	8.02	5.43	0.025	0	Yes	PNL	25	10	18	0.43	Category 0
968 ATS_Q	965-03 ATS_Q	0.48	8.7	8.70	5.82	0.025	0	Yes	PNL	25	10	18	0.46	Category 0
969 FPE-6 (969-01 MN BKR)	965-04 FPE-6	0.48	8.56	8.56	5.74	0.025	0	Yes	PNL	25	10	18	0.46	Category 0
970 ATS_E2	969-02 ATS_E2	0.48	7.68	7.68	5.22	0.023	0	Yes	PNL	25	9	18	0.37	Category 0
971 ATS_Q2	969-03 ATS_Q2	0.48	8.21	8.21	5.54	0.025	0	Yes	PNL	25	10	18	0.44	Category 0
972 ATS_C2	965-05 ATS_C2	0.48	8.81	8.81	5.89	0.025	0	Yes	PNL	25	10	18	0.47	Category 0
973 MEP G-1	976-01 MN BKR	0.48	25.5	25.5	5.99	2	0	Yes	PNL	25	154	18	40.3	Dangerous!!!
974 MEP G-2	976-02 MN BKR	0.48	25.5	25.5	5.99	2	0	Yes	PNL	25	154	18	40.3	Dangerous!!!
975 MEP G-3	976-03 MN BKR	0.48	25.5	25.5	5.99	2	0	Yes	PNL	25	154	18	40.3	Dangerous!!!
976 MEP 6000A	976-03 MN BKR	0.48	26.22	26.22	4.98	0.335	0	Yes	PNL	25	91	18	17.2	Category 3
977 TIE BKR	976-04 ATS_EQ1	0.48	25.18	25.18	14.42	0.07	0	Yes	PNL	25	34	18	3.45	Category 1
978 EMDP-1 (978-01 MN BKR)	976-05 EMDP-1	0.48	17.19	17.19	10.41	0.07	0	Yes	PNL	25	28	18	2.43	Category 1
979 ATS_LSI	976-02 ATS_LSI	0.48	16.29	16.29	9.95	0.07	0	Yes	PNL	25	27	18	2.31	Category 1
980 ATS_C1	978-03 ATS_C1	0.48	16.71	16.71	10.17	0.07	0	Yes	PNL	25	27	18	2.37	Category 1
981 ATS_EQ1	978-04 ATS_EQ1	0.48	16.71	16.71	10.17	0.07	0	Yes	PNL	25	27	18	2.37	Category 1
982 ATS_LSI2	978-05 ATS_LSI2	0.48	16.29	16.29	9.95	0.07	0	Yes	PNL	25	27	18	2.31	Category 1
983 ATS_C2	978-06 ATS_C2	0.48	16.71	16.71	10.17	0.07	0	Yes	PNL	25	27	18	2.37	Category 1



OWER SYSTEMS ENGINEERING
EXINGTON, KY



ARC FLASH HAZARD
ANALYSIS TABLE

MALCOM RANDALL VA MEDICAL CENTER
GAINESVILLE, FL
REFER TO SYSTEM ONE-LINE DIAGRAMS

BUS NAME	PROTECTIVE DEVICE NAME	kV	BUS BOLTED FAULT (kA)	PROT. DEV. BOLTED FAULT (kA)	ARCING FAULT (kA)	TRIP/ DELAY TIME (sec)	BREAKER OPENING TIME (sec)	GROUND	EQUIP. TYPE	GAP (mm)	ARC FLASH BOUNDARY (in)	WORKING DISTANCE (in)	INCIDENT ENERGY	HAZARD / RISK CATEGORY NUMBER (refer to NFPA 70E, 2004 Edition, Table 130.7(C)(1))
984 ATS_EQ02	978-07 ATS_EQ02	0.48	16.71	16.71	10.17	0.07	0	Yes	PNL	25	27	18	2.37	Category 1
985 ATS_EQ03B	978-08 ATSEQ03B	0.48	16.71	16.71	10.17	0.07	0	Yes	PNL	25	27	18	2.37	Category 1
986 EMDP-2 (986-01 MN BKR)	978-08 EMDP-2	0.48	17.19	17.19	10.41	0.07	0	Yes	PNL	25	26	18	2.43	Category 1
987 ATS_EQ03A	986-02 ATSEQ03A	0.48	17.04	17.04	10.34	0.07	0	Yes	PNL	25	28	18	2.41	Category 1
988 ATS_EQ03C	986-03 ATSEQ03C	0.48	16.65	16.65	10.14	0.07	0	Yes	PNL	25	27	18	2.36	Category 1
989 ATS_EQ01	978-08 FIRE_P	0.48	13.91	13.91	8.7	0.07	0	Yes	PNL	25	25	18	2.00	Category 1
990 EMDP-4 (990-01 MN BKR)	978-09 EMDP-4	0.48	24.82	24.82	14.26	0.07	0	Yes	PNL	25	34	18	3.41	Category 1
991 ATS_MEP_C1	ATS_C1 FDR	0.48	17.75	17.75	10.71	0.017	0	Yes	PNL	25	12	18	0.60	Category 0
992 ATS_MERL1	ATS_L11 FDR	0.48	14.52	14.52	9.02	0.017	0	Yes	PNL	25	11	18	0.50	Category 0
993 ATS_MERL2	990-02 ATS_EQ02	0.48	16.49	16.49	11.6	0.017	0	Yes	PNL	25	12	18	0.65	Category 0
994 ATS_MERL3	990-03 ATS_EQ03	0.48	21.51	21.51	12.61	0.017	0	Yes	PNL	25	13	18	0.73	Category 0
995 260kW GEN	995-01 MN BKR	0.48	3.75	0.00	0	2	0	Yes	PNL	25	91	18	17.0	Category 3
996 GEN SWBD A (996-01 MN BKR)	995-01 MN BKR	0.48	3.37	3.37	2.59	2	0	Yes	PNL	25	85	18	15.4	Category 3

BUSS NAME	PROT. DEVICE NAME	KV	BUSS BOLTED FAULT (KA)	PROT DEVICE BOLTED FAULT (KA)	ARC FAULT (KA)	TRIP/ DELAY TIME (SEC)	BKR OPNG TIME (SEC)	GRND	EQUIP. TYPE	GAP (MM)	ARC FLASH BNDRY (IN/S)	WORK DIST. (IN.)	INCIDENT ENERGY	HAZ/ RISK CAT. #
001 GRU FDR #1	003-01 DR RLY	12.5	13.66	6.4	6.26	2	0	YES	SWG	153	532	36	16.4	3
002 GRU FDR #2	004-01 DR RLY	12.5	13.61	6.4	6.26	2	0	YES	SWG	153	532	36	16.4	3
003 SOUTH SWGR	007-01 US-0 MN	12.5	13.66	6.69	6.46	0.016	0.083	YES	SWG	153	52	36	1.7	1
004 N. SWGR (004-04 US 0	004-01 DR RLY	12.5	13.61	6.4	6.18	0.016	0.083	YES	SWG	153	51	36	1.69	1
005 US-8/9-A	003-03' DR GF	12.5	13.41	13.02	12.57	0.016	0.083	YES	SWG	153	51	36	1.67	1
006 US-4/5-A	003-04' DR GF	12.5	13.26	13.09	12.64	0.016	0.083	YES	SWG	153	50	36	1.65	1
007 US-0	004-04 DR GF	12.5	13.65	6.26	6.05	0.016	0.083	YES	SWG	153	52	36	1.7	1
008 T5-PRI	007-03' T-5 FDR	12.5	13.64	13.56	13.09	0.016	0.083	YES	SWG	153	52	36	1.7	1
009 T-1 PRI	007-04 T-1 FDR	12.5	13.58	13.48	13.01	0.016	0.083	YES	SWG	153	51	36	1.69	1
010 T-2 PRI	007-05 T-2 FDR	12.5	13.53	13.44	12.98	0.016	0.083	YES	SWG	153	51	36	1.68	1
011 T-3 PRI	007-06 T-3 FDR	12.5	13.53	13.44	12.97	0.016	0.083	YES	SWG	153	51	36	1.68	1
012 T-4 PRI	007-07 T-4 FDR	12.5	13.56	13.46	13	0.016	0.083	YES	SWG	153	51	36	1.68	1
013 T-6/T-7 PR	007-08 T-6/7	12.5	13.64	13.51	13.04	0.016	0.083	YES	SWG	153	52	36	1.7	1
014 US-8/9-B	004-02' DR-GF	12.5	13.35	13.35	12.9	0.016	0.083	YES	SWG	153	50	36	1.66	1
015-US-4/5-B	004-03' DR-GF	12.5	13.2	13.2	12.75	0.016	0.083	YES	SWG	153	50	36	1.64	1

016 US-8 PRI	003-03' DR-GF	12.5	13.41	13.02	12.57	0.016	0.083	YES	SWG	153	51	36	1.67	1
017 US-9 SW-1	003-03' DR-GF	12.5	13.38	12.99	12.55	0.016	0.083	YES	SWG	153	51	36	1.66	1
018 US-9 PRI	003-03' DR-GF	12.5	13.38	12.99	12.55	0.016	0.083	YES	SWG	153	51	36	1.66	1
019 US-4 PRI	003-04' DR-GF	12.5	13.26	13.09	12.64	0.016	0.083	YES	SWG	153	50	36	1.65	1
020 US-5 PRI	003-04' DR-GF	12.5	13.24	13.07	12.62	0.016	0.083	YES	SWG	153	50	36	1.64	1
021 750 KVA PRI (EJO-1)	007-08 T-6/7	12.5	13.62	13.5	13.03	0.016	0.083	YES	SWG	153	52	36	1.69	1
100 CPT1 SEC	003-05 US-0	0.48	1.44	0.7	0.61	1.917	0.083	YES	PNL	25	53	18	7.02	2
101 ATS-SG-ACA	FC 60A_A	0.48	1.36	1.36	1.01	1.728	0	YES	PNL	25	42	18	4.82	2
102 CPT1 SEC	004-04 US-0	0.48	1.44	0.76	0.66	1.917	0.083	YES	PNL	25	53	18	7.02	2
103 LP-1 (LP-1 MN)	FC 60A_A	0.48	1.27	1.27	0.96	1.937	0	YES	PNL	25	44	18	5.09	2
104 15KVA PRI	LP-1 MN	0.48	1.24	1.24	0.94	2	0	YES	PNL	25	44	18	5.14	2
105 15KVA SEC	LP-1 MN	0.208	0.67	0.67	0.67	2	0	YES	PNL	25	14	18	0.68	0
106 PP-1 (PP-1 MN)	LP-1 MN	0.208	0.67	0.67	0.67	2	0	YES	PNL	25	14	18	0.68	0
107 US-8 SWBD (107-01 MN BKR)	003-03' DR-GF	0.48	36.43	28.6	13.2	0.446	0.083	YES	PNL	25	117	18	25.8	4
108 CHILLER-1	107-02 CH FDR	0.48	32.26	30.12	16.65	0.07	0	YES	PNL	25	40	18	4.34	2
109 MCC-M1	107-03 MCC-M1	0.48	27.22	24.41	13.83	0.07	0	YES	PNL	25	36	18	3.71	1
110 CWP #1	109-01 LI FDR	0.48	15.97	15.44	9.46	0.016	0	YES	PNL	25	11	18	0.53	0

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111 CT #3/#4	109.02 KI FDR	0.48	23.77	22.92	13.25	0.01	0	YES	PNL	25	10	18	0.47	0
112 IP6/IP8	109.03 KH FDR	0.48	12.02	11.05	7.34	0.017	0	YES	PNL	25	9	18	0.42	0
113 TYP OF 3	FC 100A-A	0.48	13.96	13.52	8.44	0.017	0	YES	PNL	25	10	18	0.48	0
114 MLGA (114-01 MN BKR)	107-04 MLGA FD	0.48	31.02	31.02	17.25	0.07	0	YES	PNL	25	39	18	4.19	2
115 ATS MP-EQ2	114-01 MN BKR	0.48	22.13	22.13	12.92	0.014	0	YES	PNL	25	12	18	0.62	0
116 EELA 116-01 MN BKR		0.48	21.52	21.52	12.62	0.014	0	YES	PNL	25	12	18	0.61	0
117 ATS MEP-C1	114-01 MN BKR	0.48	14.65	14.65	9.09	0.014	0	YES	PNL	25	10	18	0.43	0
118 ECLA	114-01 MN BKR	0.48	12.83	12.83	8.11	0.015	0	YES	PNL	25	9	18	0.39	0
119 TM2 PRI	114-01 MN BKR	0.48	11.2	11.2	7.22	0.015	0	YES	PNL	25	8	18	0.34	0
120 TM2 SEC	FC 100A-B	0.208	0.84	0.84	0.77	2	0	YES	PNL	25	38	18	4.13	2
121 ECPA ECPA MN	FC 100A-B	0.208	0.84	0.84	0.76	2	0	YES	PNL	25	38	18	4.11	2
123 ELLA	114-01 MN BKR	0.48	10.93	10.93	7.07	0.015	0	YES	PNL	25	8	18	0.33	0
124 TM3 PRI	114-01 MN BKR	0.48	9.65	9.65	6.36	0.015	0	YES	PNL	25	8	18	0.3	0
125 TM3 SEC	FC 100A-C	0.208	0.84	0.84	0.77	2	0	YES	PNL	25	38	18	4.12	2
126 ELPA ELPA MN	FC 100A-C	0.208	0.84	0.84	0.76	2	0	YES	PNL	25	38	18	4.11	2
127 TM1 PRI	114-01 MN BKR	0.48	29.34	29.34	16.45	0.014	0	YES	PNL	25	14	18	0.8	0
128 TM1 SEC	FC 70A-A	0.208	1.96	1.96	1.38	2	0	YES	PNL	25	56	18	7.79	2
129 MPGA	FC 70A-A	0.208	1.95	1.95	1.38	2	0	YES	PNL	25	56	18	7.76	2
130 CHILLER 2	107-05 CH FDR	0.48	31.2	29.07	16.15	0.07	0	YES	PNL	25	39	18	4.21	2
131 ATS MP-EQ3	107-06 EELB FD	0.48	29.71	29.33	16.14	0.07	0	YES	PNL	25	38	18	4.03	2

132 EELB	107-06	0.48	28.42	28.03	15.79	0.07	0	YES	PNL	25	37	18	3.86	1
132-01 MN BKR	EELB FD													
133 MA-1	132-02 KH FDR	0.48	26.8	26.42	15	0.017	0	YES	PNL	25	15	18	0.87	0
134 US-9 SWBD	003-03' DR GF	0.48	33.44	27.89	13.04	0.458	0.083	YES	PNL	25	116	18	25.5	4
134-01 MN BKR														
135 MCC-M2	134-03 MCC M2	0.48	27.89	25.1	14.18	0.07	0	YES	PNL	25	36	18	3.8	1
136 CWP #2	135-01 L1 FDR	0.48	17.82	17.26	10.41	0.016	0	YES	PNL	25	11	18	0.56	0
137 CWP #3	135-02 K1 FDR	0.48	19.1	18.4	10.98	0.01	0	YES	PNL	25	9	18	0.38	0
138 CT-5	135-03 K1 FDR	0.48	24.5	24.06	13.85	0.01	0	YES	PNL	25	10	18	0.48	0
139 1P7	135-04 KH FDR	0.48	12.14	11.89	7.58	0.017	0	YES	PNL	25	10	18	0.42	0
140 1-P5/CT-2	FC 100A-D	0.48	16.26	15.77	9.64	0.017	0	YES	PNL	25	11	18	0.55	0
141 CHILLER-5	134-04 CH FDR	0.48	27.12	24.98	14.16	0.07	0	YES	PNL	25	36	18	3.7	1
142 ATS MP-EQ1	134-05 FIRE PUMP	0.48	15.51	15.36	9.45	0.07	0	YES	PNL	25	26	18	2.21	1
143 FIRE PUMP	134-05 FIRE PUMP	0.48	14.05	13.9	8.67	0.07	0	YES	PNL	25	25	18	2.02	1
200 US-4 SWBD	003-04' DR GF	0.48	28.75	28.38	13.56	0.423	0.083	YES	PNL	25	111	18	23.5	3
200-01 MN BKR														

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201 X-RAY EQ	200-02 X-RAY	0.48	9.74	9.74	6.41	0.07	0	YES	PNL	25	20	18	1.44	1
202 BATS-C2	200-03 ATS-C2	0.48	23.25	23.25	13.53	0.07	0	YES	PNL	25	33	18	3.22	1
203 ESCDP2 BKR	200-03 ATS-C2	0.48	22.47	22.47	13.1	0.07	0	YES	PNL	25	32	18	3.11	1
204 AECL1B (204-01 MN BKR)	203-01 KH DISC	0.48	12.77	12.77	8.08	0.017	0	YES	PNL	25	10	18	0.44	0

205 AECLGB	FC90A_A	0.48	9.36	9.36	6.2	0.017	0	YES	PNL	25	8	18	0.33	0
206 45KVA PRI	FC 80A_A	0.48	11.8	11.8	7.55	0.017	0	YES	PNL	25	9	18	0.41	0
207 45KVA SEC	FC 80A_A	0.208	1.88	1.88	1.35	2	0	YES	PNL	25	56	18	7.59	2
208 AECGP1B MN	FC80A_A	0.208	1.84	1.84	1.33	2	0	YES	PNL	25	55	18	7.47	2
209 (AECGPB MN)	AECGPB FDR	0.208	1.73	1.73	1.08	1.626	0	YES	PNL	25	42	18	4.87	2
210 BAT5-LS2	200-04 ATS-LS2	0.48	16.86	16.86	10.25	0.07	0	YES	PNL	25	27	18	2.39	1
211 ESLSDP2 BK	200-04 ATS-LS2	0.48	16.16	16.16	9.88	0.07	0	YES	PNL	25	27	18	2.29	1
212 AELLGB (212-01) MN BKR	ESLSDP2 C/B	0.48	9.37	9.37	6.2	0.017	0	YES	PNL	25	8	18	0.33	0
213 15KVA PRI	ESLSDP2 C/B	0.48	7.15	7.15	4.92	0.017	0	YES	PNL	25	7	18	0.26	0
214 15KVA SEC	ESLSDP2 C/B	0.208	1.31	1.31	1.04	2	0	YES	PNL	25	47	18	5.77	2
215 AELPGB (AELPGB MN)	ESLSDP2 C/B	0.208	1.3	1.3	1.04	2	0	YES	PNL	25	47	18	5.73	2
216 ATS EQ2	200-05 ATS EQ2	0.48	23.35	23.35	13.53	0.07	0	YES	PNL	25	33	18	3.22	1
217 ESEQDP2 BK	200-05 ATS EQ2	0.48	22.9	22.9	13.31	0.07	0	YES	PNL	25	33	18	3.17	1
218 AEELGB (218-01 MN BKR)	217-01 KH DISC	0.48	17.02	17.02	10.33	0.017	0	YES	PNL	25	12	18	0.57	0
219 ALGB (219-01 MN BKR)	200-06 ALGB FD	0.48	25.52	25.52	14.6	0.07	0	YES	PNL	25	35	18	3.5	1
220 45KVA PRI	EJB 70A_A	0.48	22.07	22.07	12.9	0.017	0	YES	PNL	25	13	18	0.74	0
221 45KVA SEC	EJB 70A_A	0.208	1.94	1.94	1.37	1.809	0	YES	PNL	25	53	18	7.03	2
222 APGD (APGD MN)	EJB 70A_A	0.208	1.93	1.93	1.37	1.82	0	YES	PNL	25	53	18	7.05	2
223 45KVA	219-01 MN BKR	0.48	24.17	24.17	13.94	0.017	0	YES	PNL	25	14	18	0.81	0
224 45KVA	200-06 ALGB FD	0.208	1.94	1.94	1.38	2	0	YES	PNL	25	56	18	7.79	2
225 APGC (APGC MN)	200-06 ALGB FD	0.208	1.9	1.9	1.36	2	0	YES	PNL	25	56	18	7.66	2

226 AL1B (226-01 MN BKR)	200-07 AL1B FD	0.48	20.84	20.84	12.28	0.07	0	YES	PNL	25	31	18	2.9	1
227 45KVA PRI	FC 70A_B	0.48	18.65	18.65	11.17	0.017	0	YES	PNL	25	12	18	0.62	0
228 45 KVA SEC	FC 70A_B	0.208	1.93	1.93	1.37	2	0	YES	PNL	25	56	18	7.73	2
229 AP1C (AP1C MN)	FC 70A_B	0.208	1.88	1.88	1.34	2	0	YES	PNL	25	55	18	7.58	2
230 45KVA PRI	FC 70A_C	0.48	17.6	17.6	10.63	0.017	0	YES	PNL	25	12	18	0.59	0
231 45KVA SEC	FC 70A_C	0.208	1.92	1.92	1.37	2	0	YES	PNL	25	56	18	7.72	2
232 AP1D (AP1D MN)	FC 70A_C	0.208	1.87	1.87	1.34	2	0	YES	PNL	25	55	18	7.55	2
233 US-5 SWBD (233-01 MN BKR)	003-04' DR GF	0.48	34.16	28.9	13.47	0.429	0.083	YES	PNL	25	114	18	24.6	3
234 ATS EQ3A	233-03 EQ3A FD	0.48	26.76	23.23	13.2	0.07	0	YES	PNL	25	36	18	3.65	1
235 MCC-2A	233-03 EQ3A FD	0.48	26.54	23.01	13.09	0.07	0	YES	PNL	25	35	18	3.63	1

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236 ACRCU	235-01 ACRCU	0.48	26.11	23.05	13.14	0.025	0	YES	PNL	25	19	18	1.28	1
237 TYP OF 2	FH 70A-A	0.48	20.17	19.95	11.81	0.017	0	YES	PNL	25	13	18	0.67	0
238 9 KVA PRI	FH 25A-A	0.48	20.12	20.12	11.92	0.017	0	YES	PNL	25	13	18	0.67	0
239 9 KVA SEC	FH 25A-A	0.208	0.82	0.82	0.75	1.763	0	YES	PNL	25	35	18	3.55	1
240 AEEP 2A (AEEP 2A MN)	FH25A-A	0.208	0.82	0.82	0.75	1.769	0	YES	PNL	25	35	18	3.55	1
241 BATS-C1	233-04 BATS C1	0.48	28.25	28.25	15.92	0.07	0	YES	PNL	25	37	18	3.84	1
242 ESCDP1 BKR	233-04 BATS C1	0.48	27.53	27.53	15.58	0.07	0	YES	PNL	25	36	18	3.75	1
243 AECL1A	242-01 DISC	0.48	12.98	12.98	8.2	0.017	0	YES	PNL	25	10	18	0.045	0
244 AECLGA AECLGA MN	242-01 DISC	0.48	11.23	11.23	7.24	0.017	0	YES	PNL	25	9	18	0.39	0
245 45 KVA PRI	243-01 MN BKR	0.48	10.1	10.1	6.62	0.017	0	YES	PNL	25	9	18	0.35	0

246 45 KVA PRI	EGB 45A-A	0.208	2.2	2.2	1.28	0.661	0	YES	PNL	25	27	18	2.36	1
247 AECP1A AECP1A MN	EGB 45A-A	0.208	2.18	2.18	1.27	0.669	0	YES	PNL	25	27	18	2.38	1
248 AECPGA AECPGA MN	AECPGA FDR	0.208	2.07	2.07	1.22	1.548	0	YES	PNL	25	45	18	5.28	2
249 AECPGC	AECPGC FDR	0.208	1.68	1.68	1.25	0.017	0	YES	PNL	25	3	18	0.06	0
250 BATSL1	233-05 BATSL1	0.48	25.03	25.03	14.36	0.07	0	YES	PNL	25	34	18	3.44	1
251 ESLS DP1	233-05 BATSL1	0.48	23.67	23.67	13.69	0.07	0	YES	PNL	25	33	18	3.26	1
252 AELGA AELGA MN	ESLS DP1 C/B	0.48	5.81	5.81	4.13	0.017	0	YES	PNL	25	6	18	0.21	0
253 15KVA PRI	15KVA FDR A1	0.48	4.4	4.4	3.25	0.017	0	YES	PNL	25	5	18	0.17	0
254 15KVA SEC	15KVA FDR A1	0.208	0.82	0.82	0.64	0.764	0	YES	PNL	25	19	18	1.3	1
255 AELPGA AELPGA MN	15 KVA FDR A1	0.208	0.82	0.82	0.064	0.0772	0	YES	PNL	25	19	18	1.3	1
256 AELP1A	AELP1A FDR	0.208	0.81	0.81	0.63	0.874	0	YES	PNL	25	20	18	1.47	1
257 ATS EQ1	233-06 ATS EQ1	0.48	28.68	28.68	16.13	0.07	0	YES	PNL	25	37	18	3.9	1
258 ESEODP1	233-06 ATS EQ1	0.48	28.02	28.02	15.81	0.07	0	YES	PNL	25	37	18	3.81	1
259 AEELGA AEELGA MN	258-01 KH DISC	0.48	11.85	11.85	7.58	0.017	0	YES	PNL	25	9	18	0.41	0
260 15KVA PRI	258-01 KH DISC	0.48	5.71	5.71	4.07	0.017	0	YES	PNL	25	6	18	0.21	0
261 15KVA SEC	15 KVA FDR A2	0.208	0.83	0.83	0.64	0.756	0	YES	PNL	25	19	18	1.29	1
262 AEEP1A AEEP1A MN	15 KVA FDR A2	0.206	0.82	0.82	0.64	0.765	0	YES	PNL	25	19	18	1.3	1
263 ALGA 263-01 MN BKR	233-07 ALGA FD	0.48	18.73	18.73	11.21	0.07	0	YES	PNL	25	29	18	2.63	1

264 75 KVA PRI	263-01 MN BKR	0.48	17.01	17.01	10.32	0.017	0	YES	PNL	25	12	18	0.57	0
265 75KVA SEC	75 KVA FDR_A	0.208	3.46	3.46	2.07	2	0	YES	PNL	25	73	18	12	3
266 APGA APGA MN	75 KVA FDR_A	0.208	3.38	3.38	2.03	2	0	YES	PNL	25	73	18	11.8	3
267 75 KVA PRI	263-01 MN BKR	0.48	17.56	17.56	10.61	0.017	0	YES	PNL	25	12	18	0.59	0
268 75 KVA SEC	75 KVA FDR_A1	0.208	3.47	3.47	2.07	2	0	YES	PNL	25	73	18	12	3

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269 APGB (APGB MN)	75KVA FDR_A1	0.208	3.43	3.43	2.05	2	0	YES	PNL	25	73	18	11.9	3
270 MCC-GA	233-08 MCC-GA	0.48	26.02	25.13	14.34	0.07	0	YES	PNL	25	35	18	3.56	1
271 ATS-EQ3B	270-01 KC FDR	0.48	18.43	18	10.8	0.017	0	YES	PNL	25	12	18	0.62	0
272 ESEQDP3	270-01 KC FDR	0.48	18.09	17.65	10.62	0.017	0	YES	PNL	25	12	18	0.61	0
273 EL-1	272-01 KH DISC	0.48	17.6	17.17	10.37	0.017	0	YES	PNL	25	12	18	0.59	0
274 1SF5	FC80A_B	0.48	11.35	11.22	7.22	0.017	0	YES	PNL	25	9	18	0.39	0
275 MCC-GB	233-09 MCC-GB	0.48	26.04	25.1	14.32	0.07	0	YES	PNL	25	35	18	3.56	1
276 ATS-EQ3C	275-01 KC FDR	0.48	18.83	18.34	10.97	0.017	0	YES	PNL	25	12	18	0.63	0
277 ESEQDP4	275-01 KC FDR	0.48	18.47	17.98	10.78	0.017	0	YES	PNL	25	12	18	0.62	0
278 EL-2	277-01 KC DISC	0.48	17.5	17.02	10.28	0.017	0	YES	PNL	25	12	18	0.59	0
279 1SF4	FC80A_C	0.48	5.33	5.24	3.77	0.017	0	YES	PNL	25	6	18	0.2	0
280 AL1A (280-01 MN BKR)	233-01 MN BKR	0.48	17.64	17.64	10.65	0.07	0	YES	PNL	25	28	18	2.49	1

281 75KVA PRI	75KVA FDR A2	0.48	14.59	14.59	9.05	0.017	0	YES	PNL	25	11	18	0.5	0
282 75KVA SEC	75KVA FDR A2	0.208	3.43	3.43	2.05	2	0	YES	PNL	25	73	18	11.9	3
283 AP1A (AP1A MN)	75KVA FDR A2	0.208	3.4	3.4	2.04	2	0	YES	PNL	25	73	18	11.8	3
284 75KVA PRI	75KVA FDR A3	0.48	14.59	14.59	9.05	0.017	0	YES	PNL	25	11	18	0.5	0
285 75KVA SEC	75KVA FDR A3	0.208	3.37	3.37	2.03	2	0	YES	PNL	25	72	18	11.8	3
286 AP1B (AP1B MN)	75KVA FDR A3	0.208	3.32	3.32	2	2	0	YES	PNL	25	72	18	11.6	3
287 AL2A (AL2A MN)	AL2A FDR	0.48	9.15	9.15	6.08	0.017	0	YES	PNL	25	8	18	0.32	0
288 15KVA PRI	AL2A FDR	0.48	8.23	8.23	5.56	0.017	0	YES	PNL	25	8	18	0.29	0
289 15KVA SEC	15KVA FDR A3	0.208	0.84	0.84	0.65	0.745	0	YES	PNL	25	19	18	1.28	1
290 AP2A (AP2A MN)	15KVA FDR A3	0.208	0.83	0.83	0.65	0.75	0	YES	PNL	25	19	18	1.29	1
300 SWBD #3 (300-01 MN BKR)	007-03 T-5 FDR	0.48	22.47	20.33	10.07	0.768	0.083	YES	PNL	25	126	18	29.1	4
301 TS-E2	300-03 TS-E2	0.48	19.32	19.32	11.51	0.025	0	YES	PNL	25	16	18	0.97	0
302 FPE-5 (302-01 MN BKR)	300-01 TS-E2	0.48	18.63	18.63	11.16	0.025	0	YES	PNL	25	15	18	0.93	0
303 LS41A (303-01 MN BKR)	302-02 TFJ FDR	0.48	8.98	8.98	5.98	0.023	0	YES	PNL	25	10	18	0.43	0
304 INCEN.	302-03 TFJ FDR	0.48	15.18	15.18	9.37	0.023	0	YES	PNL	25	13	18	0.7	0
305 DUCT EF-1	302-04 DUCT FD	0.48	13.32	13.32	8.38	0.023	0	YES	PNL	25	12	18	0.62	0
306 3LSA (3LSA MN)	3LSA FDR	0.48	11.9	11.9	7.61	0.019	0	YES	PNL	25	10	18	0.46	0
307 5LSA (3LSA FDR1)	5LSA FDR	0.48	10.96	10.96	7.09	0.018	0	YES	PNL	25	9	18	0.41	0

328 15 KVA PRI	327-01 MN BKR	0.48	10.69	10.69	6.94	0.017	0	YES	PNL	25	9	18	0.37	0
329 15 KVA SEC	15 KVA FDR	0.208	0.84	0.84	0.65	1.082	0	YES	PNL	25	24	18	1.86	1
330 C21C	15 KVA FDR	0.208	0.83	0.83	0.65	1.09	0	YES	PNL	25	24	18	1.87	1
331 DUCT NF-3	300-06 BUSWAY	0.48	17.22	17.22	10.43	0.025	0	YES	PNL	25	15	18	0.87	0
332 T-2 PRI	331-01 TFJ FDR	0.48	16.6	16.6	10.11	0.023	0	YES	PNL	25	14	18	0.76	0
333 T-2 SEC	331-01 TFJ FDR	0.208	3.5	3.5	2.08	2	0	YES	PNL	25	74	18	12.1	3
334 2NPDB	331-01 TFJ FDR	0.208	3.47	3.47	2.07	2	0	YES	PNL	25	73	18	12	3
335 2NPF	331-01 FDR	0.208	3.34	3.34	1.71	2	0	YES	PNL	25	65	18	9.8	3
336 2NPE	2NPE FDR	0.208	3.24	3.24	1.68	1.344	0	YES	PNL	25	50	18	6.44	2
337 T-4 PRI	331-02 TFJ FDR	0.48	16.79	16.79	10.21	0.023	0	YES	PNL	25	14	18	0.76	0
338 T-4 SEC	331-02 TFJ FDR	0.208	5.38	5.38	2.81	2	0	YES	PNL	25	90	18	16.7	3
339 3NPDB	331-02 TFJ FDR	0.208	5.22	5.22	2.75	2	0	YES	PNL	25	89	18	16.3	3
340 3NPF	3NPF FDR	0.208	4.83	4.83	2.61	0.021	0	YES	PNL	25	5	18	0.16	0
341 3NPJ	3NPJ FDR	0.208	4.77	4.77	2.2	0.025	0	YES	PNL	25	5	18	0.16	0
342 3NPG	3NPG FDR	0.208	3.36	3.36	1.72	1.288	0	YES	PNL	25	50	18	6.35	2
343 3NPE	3NPE FDR	0.208	3.81	3.81	1.88	1.11	0	YES	PNL	25	48	18	6.02	2
344 T-6 PRI	331-03 TFJ FDR	0.48	16.79	16.79	10.21	0.023	0	YES	PNL	25	14	18	0.76	0
345 T-6 SEC	331-03 TFJ FDR	0.208	5.38	5.38	2.81	2	0	YES	PNL	25	90	18	16.7	3

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346 4NPDB (4NPDB MN)	331-03 TFJ FDR	0.208	5.27	5.27	2.77	2	0	YES	PNL	25	89	18	16.5	3
347 4NPF (4NPF MN)	4NPF FDR	0.208	4.62	4.62	2.15	0.026	0	YES	PNL	25	5	18	0.17	0
348 4NPG (4NPG MN)	4NPG FDR	0.208	4.88	4.88	2.23	0.025	0	YES	PNL	25	5	18	0.16	0
349 4NPH (4NPH MN)	4NPH FDR	0.208	4.97	4.97	2.26	0.024	0	YES	PNL	25	5	18	0.16	0
350 4NPE (4NPE MN)	4NPE FDR	0.208	3.31	3.31	1.70*	2	0	YES	PNL	25	65	18	9.75	3
351 T-8 PRI	T-8 FDR	0.48	16.6	16.6	10.11	0.019	0	YES	PNL	25	12	18	0.63	0
352 T-8 SEC	T-8 FDR	0.208	3.5	3.5	2.08	2	0	YES	PNL	25	74	18	12.1	3
353 5NPDB (5NPDB MN)	T-8 FDR	0.208	3.4	3.4	2.04	2	0	YES	PNL	25	73	18	11.8	3
354 5NPG (5NPG MN)	5NPG FDR	0.208	3.14	3.14	1.93	0.019	0	YES	PNL	25	4	18	0.11	0
355 5NPH (5NPH MN)	5NPH FDR	0.208	3.24	3.24	1.97	2	0	YES	PNL	25	71	18	11.4	3
356 5NPF (5NPF MN)	5NPF FDR	0.208	3.29	3.29	1.69	1.32	0	YES	PNL	25	50	18	6.4	2
357 MCC-N1	300-07 MCC-N1	0.48	15.33	14.11	8.69	0.025	0	YES	PNL	25	14	18	0.78	0
358 T-9 PRI	T-9 FDR	0.48	5.58	5.58	3.98	0.019	0	YES	PNL	25	7	18	0.23	0
359 T-9 SEC	T-9 FDR	0.208	1.72	1.72	1.07	0.983	0	YES	PNL	25	31	18	2.91	1
360 PNPA (PNPA MN)	T-9 FDR	0.208	1.68	1.68	1.06	1.01	0	YES	PNL	25	31	18	2.95	1
361 50HP	50HP FDR_B	0.48	14.31	14.01	8.72	0.016	0	YES	PNL	25	10	18	0.47	0

362 50HP	50HP FDR_C	0.48	14.75	14.44	8.95	0.016	0	YES	PNL	25	10	18	0.48	0
363 50HP	50HP FDR_D	0.48	13.12	12.83	8.09	0.019	0	YES	PNL	25	11	18	0.51	0
364 50HP	50HP FDR_C1	0.48	14.75	14.44	8.95	0.016	0	YES	PNL	25	10	18	0.48	0
400 T-6 SEC	007-08 T-6/7	0.48	20.59	17.93	9	0.916	0.083	YES	PNL	25	130	18	30.6	4
401 SWBD #4 (4-01-01 MN BKR)	007-08 T-6/7	0.48	20.51	17.85	8.96	0.922	0.083	YES	PNL	25	130	18	30.6	4
402 DUCT NF-2	401-03 NF-2-FD	0.48	18.95	18.95	11.32	0.025	0	YES	PNL	25	16	18	0.95	0
403 2HLA (2HLA MN)	2HLA FDR	0.48	15.92	15.92	9.75	0.019	0	YES	PNL	25	12	18	0.61	0
404 T-1 PRI	402-01 TFJ FDR	0.48	18.5	18.5	11.09	0.023	0	YES	PNL	25	14	18	0.84	0
405 T-1 SEC	402-01 TFJ FDR	0.208	5.45	5.45	2.84	2	0	YES	PNL	25	90	18	16.8	3
406 2NPDA (2NPDA MN)	402-01 TFJ FDR	0.208	5.12	5.12	2.72	2	0	YES	PNL	25	88	18	16.1	3
407 2NPA (2NPA MN)	2NPA FDR	0.208	4.93	4.93	2.65	0.021	0	YES	PNL	25	5	18	0.16	0
408 2NPB (2NPB MN)	2NPB FDR	0.208	4.87	4.87	2.23	2	0	YES	PNL	25	77	18	13	3
409 2NPB-A	2NPB FDR	0.208	4.78	4.78	2.2	2	0	YES	PNL	25	76	18	12.8	3
410 2NPD (2NPD MN)	2NPD FDR	0.208	4.79	4.79	2.21	2	0	YES	PNL	25	76	18	12.8	3
411 3HLA (3HLA MN)	402-02 TFJ FDR	0.48	17.4	17.4	10.53	0.023	0	YES	PNL	25	14	18	0.79	0
412 T-3 PRI	402-03 TFJ FDR	0.48	18.56	18.56	11.12	0.023	0	YES	PNL	25	14	18	0.84	0
413 T-3 SEC	402-03 TFJ FDR	0.208	7.9	7.9	3.69	2	0	YES	PNL	25	107	18	22.2	3
414 3NPDA (414-01 MN BKR)	402-03 TFJ FDR	0.208	7.65	7.65	3.6	2	0	YES	PNL	25	105	18	21.6	3

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415 3NPC 3NPC MN	3NPC FDR	0.208	7.17	7.17	2.93	0.028	0	YES	PNL	25	7	18	0.25	0
416 3NPI 3NPI MN	3NPI FDR	0.208	6.85	6.85	3.34	0.019	0	YES	PNL	25	6	18	0.19	0
417 3NPA 3NPA MN	3NPA FDR	0.208	4.17	4.17	2	2	0	YES	PNL	25	72	18	11.6	3
418 3NPD 3NPD MN	3NPD FDR	0.208	4.17	4.17	2	2	0	YES	PNL	25	72	18	11.6	3
419 3NPB 3NPB MN	3NPB FDR	0.208	3.77	3.77	1.86	2	0	YES	PNL	25	69	18	10.7	3
420 4HLA 4HLA FDR	4HLA FDR	0.48	15.84	15.84	9.71	0.019	0	YES	PNL	25	12	18	0.6	0
421 5HLA 5HLA MN	5HLA FDR	0.48	15.84	15.84	9.71	0.019	0	YES	PNL	25	12	18	0.6	0
422 T-5 PRI	402.04 TFJ FDR	0.48	18.5	18.5	11.09	0.023	0	YES	PNL	25	14	18	0.84	0
423 T-5 SEC	402.04 TFJ FDR	0.208	5.45	5.45	2.84	2	0	YES	PNL	25	90	18	16.8	3
424 4NPDA 424-01 MN BKR	404-04 TFJ FDR	0.208	5.23	5.23	2.76	2	0	YES	PNL	25	89	18	16.3	3
425 4NPA 4NPA MN	4NPA FDR	0.208	4.79	4.79	2.21	0.025	0	YES	PNL	25	5	18	18	0
426 4NPB 4NPB MN	4NPB FDR	0.208	4.47	4.47	2.1	0.027	0	YES	PNL	25	5	18	0.17	0
427 4NPC 4NPC MN	4NPC FDR	0.208	4.94	4.94	2.65	0.021	0	YES	PNL	25	5	18	0.16	0
428 4NPD 4NPD MN	4NPD FDR	0.208	4.75	4.75	2.19	0.025	0	YES	PNL	25	5	18	0.16	0
429 T-7 PRI	402-05 TFJ FDR	0.48	18.43	18.43	11.06	0.023	0	YES	PNL	25	14	18	0.83	0
430 T-7 SEC	402-05 TFJ FDR	0.208	7.89	7.89	3.68	2	0	YES	PNL	25	107	18	22.2	3

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449 T6-CBAR SEC	T-CBAR FDR	0.208	2.35	2.35	1.57	2	0	YES	PNL	25	61	18	8.93	3
450 CP2BAR (450-01 MN BKR)	T-CBAR FDR	0.208	2.32	2.32	1.56	2	0	YES	PNL	25	61	18	8.85	3
451 C2R2	450-02 C2R2	0.208	1.89	1.89	1.15	0.053	0	YES	PNL	25	5	18	0.17	0
452 C2R1	450-03 C2R1	0.208	1.97	1.97	1.18	0.049	0	YES	PNL	25	5	18	0.16	0
453 C41A	438-03 OR RM	0.48	8.17	8.17	5.52	0.023	0	YES	PNL	25	9	18	0.39	0
454 T-C41A PRI	T-C41A FDR	0.48	7.21	7.21	4.96	0.014	0	YES	PNL	25	6	18	0.22	0
455 T-C41A SEC	T-C41A FDR	0.208	0.59	0.59	0.59	1.325	0	YES	PNL	25	10	18	0.4	0(*1)
456 C21A	T-C21A FDR	0.208	0.59	0.59	0.59	1.341	0	YES	PNL	25	10	18	0.4	0(*1)
457 C41B (457-01 MN BKR)	438-03 OR RM	0.48	5.37	5.37	3.86	0.023	0	YES	PNL	25	7	18	0.27	0
458 LL1P (LL1P MN)	LL1B FDR	0.48	5.01	5.01	3.63	0.017	0	YES	PNL	25	6	18	0.19	0
459 TX-1B PRI	TX-1B FDR	0.48	5.15	5.15	3.72	0.017	0	YES	PNL	25	6	18	0.19	0
460 TX-1B SEC	TX-1B FDR	0.208	2.22	2.22	1.28	2	0	YES	PNL	25	54	18	7.18	2
461 L21B	TX-1B FDR	0.208	2.2	2.2	1.28	2	0	YES	PNL	25	53	18	7.13	2
462 T-C21B PRI	T-C21B FDR	0.48	4.76	4.76	3.48	0.017	0	YES	PNL	25	6	18	0.18	0
463 T-C21B SEC	T-C21B FDR	0.208	0.59	0.59	0.59	1.337	0	YES	PNL	25	10	18	0.4	0(*1)
464 C21B (C21B MN)	T-C21B FDR	0.208	0.58	0.58	0.58	1.352	0	YES	PNL	25	10	18	0.4	0(*1)

482 EM ROOM	438-05 EM ROOM	0.48	15.59	15.59	9.58	0.023	0	YES	PNL	25	13	18	0.73	0
483 C4MAR	438-06 C4MAR	0.48	6.66	6.66	4.64	0.017	0	YES	PNL	25	7	18	0.24	0
484 T-CMAR PRI	T-CMAR FDR	0.48	5.23	5.23	3.77	0.014	0	YES	PNL	25	5	18	0.16	0
485 T-CMAR SEC	T-CMAR FDR	0.208	0.64	0.64	0.64	1.11	0	YES	PNL	25	10	18	0.36	0(*1)
486 C2MR C2MR MN	T-CMAR FDR	0.208	0.64	0.64	0.64	1.125	0	YES	PNL	25	10	18	0.36	0(*1)
487 TS-E	401-05 TS-E FD	0.48	14.4	14.4	7.61	0.065	0	YES	PNL	25	22	18	1.61	1
488 FPE-4	401-05 TS-E FD	0.48	13.75	13.75	7.32	0.065	0	YES	PNL	25	21	18	1.54	1
489 E41A	E41A FDR	0.48	2.86	2.86	2.25	0.014	0	YES	PNL	25	4	18	0.09	0
490 T-E1A PRI	T-E1A PRI	0.48	2.37	2.37	1.92	0.014	0	YES	PNL	25	3	18	0.08	0
491 T-E1A SEC	T-E1A FDR	0.208	0.58	0.58	0.58	1.42	0	YES	PNL	25	11	18	0.42	0(*1)
492 E21A E21A MN	T-E1A FDR	0.208	0.57	0.57	0.57	1.466	0	YES	PNL	25	11	18	0.42	0(*1)
493 E4BA	E4BA FDR	0.48	2.59	2.59	2.07	0.014	0	YES	PNL	25	4	18	0.06	0
494 T-EBA PRI	T-EBA FDR	0.48	2.47	2.47	1.99	0.014	0	YES	PNL	25	3	18	0.08	0
495 T-EBA SEC	T-EBA FDR	0.208	0.58	0.58	0.58	1.416	0	YES	PNL	25	11	18	0.41	0(*1)
496 E2BA E2BA MN	T-EBA FDR	0.208	0.57	0.57	0.57	1.442	0	YES	PNL	25	11	18	0.42	0(*1)
497 E4BB	E4BB FDR	0.48	4.05	4.05	3.03	0.014	0	YES	PNL	25	5	18	0.13	0
498 T-EBB PRI	T-EBB FDR	0.48	3.78	3.78	2.86	0.014	0	YES	PNL	25	4	18	0.12	0

499 T-EBB SEC	T-EBB FDR	0.208	0.64	0.64	0.64	1.115	0	YES	PNL	25	10	18	0.36	0(*1)
500 E2BB E2BB MN	T-EBB FDR	0.208	0.64	0.64	0.64	1.129	0	YES	PNL	25	10	18	0.36	0(*1)
501 E41B	E41B FDR	0.48	12.69	12.69	6.83	0.014	0	YES	PNL	25	8	18	0.31	0
502 T-E1B PRI	T-E1B FDR	0.48	9.95	9.95	5.55	0.014	0	YES	PNL	25	7	18	0.25	0
503 T-E1B SEC	T-E1B FDR	0.208	0.6	0.6	0.6	1.297	0	YES	PNL	25	10	18	0.39	0(*1)
504 E21B E21B MN	T-E1B FDR	0.208	0.6	0.6	0.6	1.313	0	YES	PNL	25	10	18	0.4	0(*1)
505 3HLS 3HLS MN	3HLS FDR	0.48	5.74	5.74	4.08	0.014	0	YES	PNL	25	6	18	0.18	0
506 T-3 PRI_A	3HLS FDR	0.48	4.95	4.95	3.6	0.014	0	YES	PNL	25	5	18	0.15	0
507 T-3 SEC_A	T-3 FDR_A	0.208	0.59	0.59	0.59	1.31	0	YES	PNL	25	10	18	0.39	0(*1)
508 3LLS 3LLS MN	T-3 FDR_A	0.208	0.59	0.59	0.59	1.325	0	YES	PNL	25	10	18	0.4	0(*1)
509 TS-Q	401-06 TS-Q FD	0.48	19.36	17.14	10.21	0.1	0	YES	PNL	25	36	18	3.79	1
510 FPQ-4	401-06 TS-Q FD	0.48	18.14	15.9	9.56	0.1	0	YES	PNL	25	35	18	3.56	1
511 EQICU	510-01 CT/ICU	0.48	17.37	17.37	10.51	0.023	0	YES	PNL	25	14	18	0.79	0
512 ELEV #8	ELEV #8 FDR	0.48	2.22	2.13	1.74	0.016	0	YES	PNL	25	4	18	0.08	0
513 ELEV #7	ELEV #7 FDR	0.48	2.22	2.13	1.74	0.016	0	YES	PNL	25	4	18	0.08	0
514 MCC-Q	510-02 MCC-1	0.48	14.49	13.79	8.57	0.025	0	YES	PNL	25	13	18	0.74	0
515 PQ-4	PQ-4 FDR	0.48	9.65	9.65	6.36	0.017	0	YES	PNL	25	8	18	0.34	0

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516 ELEV #9/10	510.03 ELEVS	0.48	8.95	8.11	5.41	0.023	0	YES	PNL	25	10	18	0.43	0
517 4EQHA (517-01 MN BKR)	510-04 4EQHA	0.48	16.69	16.69	10.16	0.023	0	YES	PNL	25	14	18	0.76	0
518 TE-1 PRI	TE-1 FDR	0.48	15.31	15.31	9.44	0.018	0	YES	PNL	25	11	18	0.56	0
519 TE-1 SEC	TE-1 FDR	0.208	2.69	2.69	1.73	2	0	YES	PNL	25	65	18	9.87	3
520 4EQPA (4EQPA MN)	TE-1 FDR	0.208	2.65	2.65	1.71	2	0	YES	PNL	25	65	18	9.76	3
521 MCC-E1	510-05 MCC-E1	0.48	14.16	13.88	8.65	0.025	0	YES	PNL	25	13	18	0.73	0
522 TE-1 PRI	TE-2 FDR	0.48	5.47	5.47	3.92	0.019	0	YES	PNL	25	6	18	0.22	0
523 TE-2 SEC	TE-2 FDR	0.208	1.71	1.71	1.07	0.988	0	YES	PNL	25	31	18	2.91	1
524 PCPA (PCPA MN)	TE-2 FDR	0.208	1.68	1.68	1.06	1.014	0	YES	PNL	25	31	18	2.95	1
525 FP-4	401-07 FP-4 FD	0.48	19.4	19.4	11.55	0.04	0	YES	PNL	25	21	18	1.55	1
526 L41AL	525-01 L41AL	0.48	9.77	9.77	6.43	0.025	0	YES	PNL	25	11	18	0.52	0
527 T-1AL PRI	526-01 T-1AL F	0.48	9.5	9.5	6.28	0.016	0	YES	PNL	25	8	18	0.33	0
528 T-1AL SEC	526-01 T-1AL F	0.208	4.28	4.28	2.4	2	0	YES	PNL	25	81	18	14	3
529 P21AL (529-01 MN BKR)	526-01 T-1AL F	0.208	4.21	4.21	2.37	2	0	YES	PNL	25	80	18	13.9	3
530 L2L1	529-02 L2L1	0.208	3.77	3.77	1.86	0.042	0	YES	PNL	25	7	18	0.22	0
531 L2L2	529-03 L2L2	0.208	3.77	3.77	1.86	0.042	0	YES	PNL	25	7	18	0.22	0
532 L4BAR	525-02 L4BAR	0.48	10.59	10.59	6.88	0.025	0	YES	PNL	25	11	18	0.55	0

533 T-BAR PRI	532-01 T-BAR F	0.48	10.18	10.18	6.66	0.016	0	YES	PNL	25	8	18	0.35	0
534 T-BAR SEC	532-01 T-BAR F	0.208	4.33	4.33	2.42	2	0	YES	PNL	25	81	18	14.2	3
535 P2BAR (535-01 MN BKR)	532-01 T-BAR F	0.208	4.26	4.26	2.39	2	0	YES	PNL	25	81	18	14	3
536 L2R1	535-02 L2R1	0.208	3.17	3.17	1.65	2	0	YES	PNL	25	63	18	9.42	3
537 EB32 (EB32 MN)	535-03 EB32	0.208	3.41	3.41	2.04	0.024	0	YES	PNL	25	5	18	0.14	0
538 L41A	525-03 L41A	0.48	9.4	9.4	6.22	0.026	0	YES	PNL	25	11	18	0.51	0
539 T-1AA PRI	T-1AA FDR	0.48	8.22	8.22	5.55	0.018	0	YES	PNL	25	8	18	0.32	0
540 T-1AA SEC	T-1AA FDR	0.208	0.83	0.83	0.76	1.935	0	YES	PNL	25	37	18	3.95	1
541 L21AA (L21AA MN)	T-1AA FDR	0.208	0.82	0.82	0.75	1.988	0	YES	PNL	25	38	18	4.01	2
542 T-1A PRI	T-1A FDR	0.48	8.93	8.93	5.95	0.018	0	YES	PNL	25	8	18	0.34	0
543 T-1A SEC	T-1A FDR	0.208	2.36	2.36	1.58	2	0	YES	PNL	25	62	18	8.98	3
544 L21A (L21A MN)	T-1A FDR	0.208	2.29	2.29	1.55	2	0	YES	PNL	25	61	18	8.78	3
545 L4BA	525-04 L4BA	0.48	7.9	7.9	5.36	0.027	0	YES	PNL	25	10	18	0.45	0
546 T-BA PRI	T-BA FDR	0.48	7.68	7.68	5.23	0.018	0	YES	PNL	25	8	18	0.3	0
547 T-BA SEC	T-BA FDR	0.208	2.32	2.32	1.56	2	0	YES	PNL	25	61	18	8.87	3
548 L2BA (L2BA MN)	T-BA FDR	0.208	2.29	2.29	1.55	2	0	YES	PNL	25	61	18	8.78	3

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549 L2BA-2	L2BA MN	0.208	2.23	2.23	1.52	2	0	YES	PNL	25	60	18	8.6	3
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550 L2BA-3	L2BA-3 FDR	0.48	2.25	2.25	1.3	1.218	0	YES	PNL	25	40	18	4.42	2
551 L4BB	525-05 L4BB	0.48	12.45	12.45	7.91	0.024	0	YES	PNL	25	12	18	0.62	0
552 T-BB PRI	T-BB FDR	0.48	11.99	11.99	7.66	0.018	0	YES	PNL	25	10	18	0.45	0
553 T-BB SEC	T-BB FDR	0.208	2.42	2.42	1.61	2	0	YES	PNL	25	62	18	9.15	3
554 L2BB (L2BB MN)	T-BB FDR	0.208	2.39	2.39	1.59	2	0	YES	PNL	25	62	18	9.07	3
555 L2BBA (L2BBA MN)	L2BBA FDR	0.208	2.04	2.04	1.21	1.69	0	YES	PNL	25	47	18	5.69	2
556 45KVA PRI	45KVA FDR	0.48	11.11	11.11	7.17	0.018	0	YES	PNL	25	9	18	0.42	0
557 45KVA SEC	45KVA FDR	0.208	2.47	2.47	1.63	2	0	YES	PNL	25	63	18	9.28	3
558 L2BB1 (L2BB1 MN)	45KVA FDR	0.208	2.44	2.44	1.62	2	0	YES	PNL	25	62	18	9.2	3
559 L41B	525-06 L41B	0.48	17.31	17.31	10.48	0.022	0	YES	PNL	25	14	18	0.77	0
560 T-1B PRI	T-1B FDR	0.48	15.96	15.96	9.77	0.017	0	YES	PNL	25	11	18	0.55	0
561 T-1B SEC	T-1B FDR	0.208	2.47	2.47	1.63	2	0	YES	PNL	25	63	18	9.29	3
562 L21B (L21B MN)	T-1B FDR	0.208	2.45	2.45	1.62	2	0	YES	PNL	25	63	18	9.22	3
563 WET SCRUB	401-08 WET SC	0.48	13.61	13.61	8.53	0.014	0	YES	PNL	25	9	18	0.39	0
564 MCC-N	401-09 MCC-N F	0.48	17.7	17.29	10.43	0.04	0	YES	PNL	25	20	18	1.43	1
600 T-7 SEC	007-08 T-6/7	0.48	7.84	7.77	5.28	1.917	0.083	YES	PNL	25	137	18	33.6	4
601 PX (601-01 MN BKR)	007-08 T-6/7	0.48	7.02	6.95	4.8	1.917	0.083	YES	PNL	25	129	18	30.3	4
602 KA DISC	DISC FDR	0.48	6.95	6.95	4.81	0.017	0	YES	PNL	25	7	18	0.26	0

603 LOAD	602-01 KA DISC	0.48	5.65	5.65	4.03	0.017	0	YES	PNL	25	6	18	0.21	0
604 T-PX2 PRI	T-PX2 FDR	0.48	2.68	2.68	2.13	0.017	0	YES	PNL	25	4	18	0.11	0
605 T-PX2 SEC	T-PX2 FDR	0.208	1.05	1.05	0.76	0.786	0	YES	PNL	25	22	18	1.6	1
606 PX-2	T-PX2 FDR	0.208	1.01	1.01	0.74	0.831	0	YES	PNL	25	22	18	1.65	1
606 USO T-1 SC	007-06 T-3 FDR	0.48	37.84	15.67	7.19	1.552	0.083	YES	PNL	25	198	18	61.5	DNGR OUS III
607 SWBD #1 (607-01 MN BKR)	007-06 T-3 FDR	0.48	37.34	15.41	7.09	1.608	0.083	YES	PNL	25	200	18	62.1	DNGR OUS III
608 JB	607-02 CH-6 FD	0.48	34.63	32.5	17.78	0.05	0	YES	PNL	25	34	18	3.31	1
609 CH-6	607-02 CH-6 FD	0.48	28.6	26.47	14.89	0.05	0	YES	PNL	25	30	18	2.78	1
610 DBH-1	607-03 DBH FDR	0.48	14.51	13.66	8.48	0.05	0	YES	PNL	25	21	18	1.48	1
611 MCC-PH1 (611-01 MN BKR)	610-01 MCC-PH1	0.48	13.59	12.73	7.98	0.011	0	YES	PNL	25	8	18	0.31	0
612 EAST PANEL	611-02 PH-1A	0.48	13.26	13.26	8.35	0.011	0	YES	PNL	25	8	18	0.3	0
613 P-1	610-01 MCC-PH1	0.48	12.32	11.53	7.33	0.011	0	YES	PNL	25	7	18	0.28	0
614 P-2	610-01 MCC-PH1	0.48	11.78	11.01	7.05	0.011	0	YES	PNL	25	7	18	0.27	0
615 NP-1	610-01 MCC-PH1	0.48	11.63	10.9	6.99	0.011	0	YES	PNL	25	7	18	0.27	0
616 NP-1A (NP-1A MN)	NP-1 FDR	0.48	9.58	9.58	6.32	0.012	0	YES	PNL	25	7	18	0.23	0

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617 30KVA PRI	NP-1 FDR	0.48	10.25	10.25	6.7	0.012	0	YES	PNL	25	7	18	0.25	0
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618 30KVA SEC	MCC-M1 FDR	0.208	1.48	1.48	0.97	0.913	0	YES	PNL	25	28	18	2.41	1
619 MCC-M1 (MCC-M1 MN)	MCC-M1 FDR	0.208	1.46	1.46	0.96	0.928	0	YES	PNL	25	28	18	2.43	1
620 DH4-BCS-1 (620-01 MN BKR)	610-02 DH4-BC	0.48	13.29	13.29	8.36	0.011	0	YES	PNL	25	8	18	0.3	0
621 DLH4-BC	610-02 DH4-BC	0.48	9.63	9.63	6.35	0.011	0	YES	PNL	25	6	18	0.22	0
622 T-1 PRI	610-02 DH4-BC	0.48	11.82	11.82	7.56	0.011	0	YES	PNL	25	7	18	0.27	0
623 T-1 SEC	620-02 T-1 FDR	0.208	5.87	5.87	2.99	2	0	YES	PNL	25	93	18	17.7	3
624 UL-4-BC (UL-4-BC MN)	620-02 T-1 FDR	0.208	5.73	5.73	2.94	2	0	YES	PNL	25	92	18	17.4	3
625 T-5 PRI	610-02 DH4-BC	0.48	13.01	13.01	8.21	0.011	0	YES	PNL	25	8	18	0.3	0
626 T-5 SEC	620-03 T-5 FDR	0.208	7.74	7.74	3.63	2	0	YES	PNL	25	105	18	21.7	3
627 UL-5-1C	620-03 T-5 FDR	0.208	7.1	7.1	3.42	2	0	YES	PNL	25	101	18	20.4	3
628 T-10 DISC (T-10 DISC_A)	610-02 DH4-BC	0.48	12.78	12.78	8.08	0.011	0	YES	PNL	25	8	18	0.29	0
629 T-10 PRI	T-10 DISC_A	0.48	11.19	11.19	7.22	0.011	0	YES	PNL	25	7	18	0.26	0
630 T-10 SEC	T-10 DISC_A	0.208	5.8	5.8	2.52	1.307	0	YES	PNL	25	64	18	9.63	3
631 UL-1-3B (UL-1-3B MN)	T-10 DISC_A	0.208	5.22	5.22	2.34	1.465	0	YES	PNL	25	66	18	9.99	3
632 LL-1-3B (LL-1-3B MN)	T-10 DISC_A	0.208	4.68	4.68	2.17	1.693	0	YES	PNL	25	68	18	10.6	3
633 LH-1-3B (LH-1-3B MN)	T-10 DISC_A	0.48	12.33	12.33	7.84	0.011	0	YES	PNL	25	7	18	0.25	0
634 CWP	610-02 DH4-BC	0.48	11.94	11.94	7.63	0.011	0	YES	PNL	25	7	18	0.27	0
635 T-11 DISC	610-02 DH4-BC	0.48	9.2	9.2	6.11	0.011	0	YES	PNL	25	6	18	0.21	0

636 T-11 PRI	610-02 DH4-BC	0.48	9.1	9.1	6.05	0.011	0	YES	PNL	25	6	18	0.21	0
637 T-11 SEC	620-06 T-11 FD	0.208	8.77	8.77	3.97	2	0	YES	PNL	25	112	18	23.9	3
638 UL-1-4B (UL-1-4B MN)	620-06 T-11 FD	0.208	7.5	7.5	3.56	2	0	YES	PNL	25	104	18	21.3	3
639 LL-1-4B (LL-1-4B MN)	620-06 T-11 FD	0.208	7.38	7.38	3.51	2	0	YES	PNL	25	103	18	21	3
640 LH-1-4B (LH-1-4B MN)	610-02 DH4-BC	0.48	9.14	9.14	6.08	0.011	0	YES	PNL	25	6	18	0.21	0
641 X-RAY	610-02 DH4-BC	0.48	8.5	8.5	5.71	0.011	0	YES	PNL	25	6	18	0.2	0
642 T-12 DISC (175A DISC A)	610-02 DH4-BC	0.48	9.2	9.2	6.11	0.011	0	YES	PNL	25	6	18	0.21	0
643 T-12 PRI	610-02 DH4-BC	0.48	9.08	9.08	6.04	0.011	0	YES	PNL	25	6	18	0.21	0
644 T-12 SEC	620-08 T-12 FD	0.208	8.09	8.09	3.75	2	0	YES	PNL	25	108	18	22.5	3
645 UL-1-5B (UL-1-5B MN)	620-02 T-12 FD	0.208	7	7	3.39	2	0	YES	PNL	25	101	18	20.2	3
646 LL-1-5B (LL-1-5B MN)	620-08 T-12 FD	0.208	6.72	6.72	3.29	2	0	YES	PNL	25	99	18	19.6	3
647 LH-1-5B (LH-1-5B MN)	610-02 DH4-BC	0.48	9.14	9.14	6.08	0.011	0	YES	PNL	25	6	18	0.21	0
648 BNDP	610-03 BNDP	0.48	12.24	12.24	7.8	0.016	0	YES	PNL	25	9	18	0.41	0
649 T-11 PRI	648-02 T-11 FD	0.48	6.67	6.67	3.95	0.024	0	YES	PNL	25	8	18	0.29	0
650 T-11 SEC	648-02 T-11 FD	0.208	7.64	7.64	3.6	2	0	YES	PNL	25	105	18	21.6	3

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651 1NDP (651-01 MN BKR)	648-02 T-11 FD	0.208	7.41	7.41	3.52	2	0	YES	PNL	25	103	18	21.1	3
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652 1NPA (1NPA MN)	1NPA FDR	0.208	5.64	5.64	2.91	0.02	0	YES	PNL	25	6	18	0.18	0
653 1NPB (1NPB MN)	1NPB FDR	0.208	3.17	3.17	1.94	2	0	YES	PNL	25	70	18	11.2	3
654 1NPC (1NPC MN)	1NPC FDR	0.208	3.52	3.52	1.78	2	0	YES	PNL	25	66	18	10.2	3
655 1NPD (1NPD MN)	1NPD FDR	0.208	3.15	3.15	1.93	2	0	YES	PNL	25	70	18	11.2	3
656 UL-3-1D (UL-3-1D MN)	1NPD FDR1	0.208	7.04	7.04	3.4	0.019	0	YES	PNL	25	6	18	0.2	0
657 UL-HALL-1D (UL-HALL-1D MN)	UL-HALL-1D FDR	0.208	4.86	4.86	2.62	0.012	0	YES	PNL	25	4	18	0.09	0
658 UL-3-1D-2 (UL-3-1D-2 MN)	UL-3-1D MN	0.208	6.89	6.89	3.35	0.012	0	YES	PNL	25	4	18	0.12	0
659 X-RAY	610-03 BNDP	0.48	11.83	11.83	7.57	0.016	0	YES	PNL	25	9	18	0.39	0
660 DH3-BD-DO (660-01 MN BKR)	610-04 DH3-BD	0.48	12.15	12.15	7.75	0.011	0	YES	PNL	25	7	18	0.28	0
661 T-23 PRI	610-04 DH3-BD	0.48	11.85	11.85	7.58	0.011	0	YES	PNL	25	7	18	0.27	0
662 T-23 SEC	660-02 UL3-2D	0.208	5.85	5.85	2.99	2	0	YES	PNL	25	93	18	17.7	3
663 UL3-2D-S1 (UL3-2D-S1 MN)	660-02 UL3-2D	0.208	5.75	5.75	2.95	2	0	YES	PNL	25	92	18	17.5	3
664 UL3-2D-S2 (UL3-2D-S2 MN)	UL3-2D-S1 MN	0.208	5.7	5.7	2.93	0.012	0	YES	PNL	25	4	18	0.1	0
665 UL3-2D-S3	UL3-2D-S2 MN	0.208	5.38	5.38	2.81	0.012	0	YES	PNL	25	4	18	0.1	0
666 T-17 PRI	610-04 DH3-BD	0.48	11.5	11.5	7.39	0.011	0	YES	PNL	25	7	18	0.26	0
667 T-17 SEC	660-03 UL3-BD	0.208	5.82	5.82	2.98	2	0	YES	PNL	25	93	18	17.6	3
668 UL3-BD (UL3-BD MN)	660-03 UL3-BD	0.208	5.64	5.64	2.91	2	0	YES	PNL	25	91	18	17.2	3
669 1HLA (669-01 MN BKR)	610-04 DH3-BD	0.48	11.5	11.5	7.39	0.011	0	YES	PNL	25	7	18	0.26	0

670 DH-3-BD (670-01 MN BKR)	610-05 DH3-BD	0.48	12.19	12.19	7.77	0.016	0	YES	PNL	25	9	18	0.4	0
671 BHDA (671-01 MN BKR)	670-01 MN BKR	0.48	6.89	6.89	4.77	0.011	0	YES	PNL	25	5	18	0.16	0
672 T-10 PRI (T-10 DISC)	670-01 MN BKR	0.48	10.8	10.8	7	0.011	0	YES	PNL	25	7	18	0.25	0
673 T-10 SEC	T-10 FDR	0.208	5.75	5.75	2.95	2	0	YES	PNL	25	92	18	17.5	3
674 BNPA (674-01 MN BKR)	T-10 FDR	0.208	5.2	5.2	2.75	2	0	YES	PNL	25	88	18	16.2	3
675 T-19 PRI	670-01 MN BKR	0.48	11.27	11.27	7.26	0.011	0	YES	PNL	25	7	18	0.26	0
676 T-19 SEC	T-19 FDR	0.208	2.18	2.18	1.49	2	0	YES	PNL	25	59	18	8.45	3
677 UL-3A-1D (677-01 MN BKR)	T-19 FDR	0.208	2.13	2.13	1.47	2	0	YES	PNL	25	59	18	8.3	3
678 T-5 PRI	670-01 MN BKR	0.48	9.01	9.01	6	0.011	0	YES	PNL	25	6	18	0.21	0
679 T-5 SEC	T-5 FDR	0.208	5.53	5.53	2.87	2	0	YES	PNL	25	91	18	17	3
680 UL-3-3D (UL-3-3D MN)	T-25 FDR	0.208	5.44	5.44	2.84	2	0	YES	PNL	25	90	18	16.7	3
681 T-27 PRI	670-01 MN BKR	0.48	8.23	8.23	5.55	0.011	0	YES	PNL	25	6	18	0.19	0
682 T-27 SEC	T-27 FDR	0.208	5.42	5.42	2.83	2	0	YES	PNL	25	90	18	16.7	3
683 UL-3-4A (683-01 MN BKR)	T-27 FDR	0.208	5.23	5.23	2.76	2	0	YES	PNL	25	88	18	16.3	3

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684 LL-3-4A (LL-3-4A MN)	T-27 FDR	0.208	5.3	5.3	2.79	2	0	YES	PNL	25	89	18	16.4	3
685 T-28 PRI	670-01 MN BKR	0.48	7.88	7.88	5.35	0.011	0	YES	PNL	25	6	18	0.19	0

686 T-28 SEC	T-28 FDR	0.208	5.36	5.36	2.81	2	0	YES	PNL	25	89	18	16.6	3
687 UL-3-5A (UL-3-5A MN)	T-28 FDR	0.208	5.1	5.1	2.71	2	0	YES	PNL	25	87	18	16	3
688 LL-3-5A (UL-3-5A MN1)	T-28 FDR	0.208	5.08	5.08	2.7	2	0	YES	PNL	25	87	18	15.9	3
689 DH-2-BA (689-01 MN BKR)	610-06 DH2-BA	0.48	11.41	11.41	7.34	0.016	0	YES	PNL	25	9	18	0.38	0
690 T-29 PRI	610-06 DH2-BA	0.48	11.11	11.11	7.18	0.016	0	YES	PNL	25	9	18	0.37	0
691 T-29 SEC	689-02 T-29 FD	0.208	5.77	5.77	2.96	2	0	YES	PNL	25	92	18	17.5	3
692 UL-2-BA (692-01 MN BKR)	689-02 T-29 FD	0.208	5.63	5.63	2.9	2	0	YES	PNL	25	91	18	17.2	3
693 T-31 PRI	610-06 DH2-BA	0.48	10.45	10.45	6.81	0.016	0	YES	PNL	25	9	18	0.35	0
694 T-31 SEC	689-03 T-31 FD	0.208	5.69	5.69	2.93	2	0	YES	PNL	25	92	18	17.3	3
695 UL-2-1A (UL-2-1A MN)	689-03 T-31 FD	0.208	5.55	5.55	2.88	2	0	YES	PNL	25	91	18	17	3
696 T-32 PRI	610-06 DH2-BA	0.48	10.45	10.45	6.81	0.016	0	YES	PNL	25	9	18	0.35	0
697 T-32 SEC	689-04 T-32 FD	0.208	5.69	5.69	2.93	2	0	YES	PNL	25	92	18	17.3	3
698 UL-2-2A (UL-2-2A MN)	689-04 T-32 FD	0.208	5.58	5.58	2.89	2	0	YES	PNL	25	91	18	17.1	3
699 UL-2-2A-3 (UL-2-2A-3 MN)	UL-2-2A MN	0.208	5.33	5.33	2.79	0.012	0	YES	PNL	25	4	18	0.1	0
700 T-34 PRI	610-06 DH2-BA	0.48	9.38	9.38	6.21	0.016	0	YES	PNL	25	8	18	0.32	0
701 T-34 SEC	689-05 T-34 FD	0.208	5.56	5.56	2.88	2	0	YES	PNL	25	91	18	17	3
702 UL-2-3A (UL-2-3A MN)	689-05 T-34 FD	0.208	5.47	5.47	2.85	2	0	YES	PNL	25	90	18	16.8	3
703 T-36 PRI	610-06 DH2-BA	0.48	11.01	11.01	7.12	0.016	0	YES	PNL	25	9	18	0.37	0

704 T-36 SEC	T-36 DISC	0.208	8.61	8.61	3.92	2	0	YES	PNL	25	111	18	23.5	3
705 UL-2-4A (UL-2-4A MN)	T-36 DISC	0.208	8.39	8.39	3.85	2	0	YES	PNL	25	109	18	23.1	3
706 LL-2-4A (LL-2-4A MN)	T-36 DISC	0.208	7.95	7.95	3.7	2	0	YES	PNL	25	107	18	22.2	3
707 T-38 PRI	610-06 DH2-BA	0.48	11.01	11.01	7.12	0.016	0	YES	PNL	25	9	18	0.37	0
708 T-38 SEC	T-38 DISC	0.208	8.61	8.61	3.92	2	0	YES	PNL	25	111	18	23.5	3
709 UL-2-5A (UL-2-5A MN)	T-38 DISC	0.208	8.32	8.32	3.82	2	0	YES	PNL	25	109	18	22.9	3
710 LL-2-5A (LL-2-5A MN)	T-38 DISC	0.208	7.95	7.95	3.7	2	0	YES	PNL	25	107	18	22.2	3
711 SWBD EA (711-01 MN BKR)	607-01 MN BKR	0.48	16.76	12.2	7.42	2	0	YES	PNL	25	183	18	53.6	DNGR OUS!!!
712 ATS_CDBH-1	711-02 CDBH-1	0.48	15.42	11.96	6.26	0.1	0	YES	PNL	25	28	18	2.52	1
713 CDBH-1 (713-01 MN BKR)	711-02 CDBH-1	0.48	14.35	10.81	5.72	2	0	YES	PNL	25	147	18	37.4	4
714 CDBH-1 DST	713-03 MCC-CP1	0.48	14.34	13.44	8.36	0.05	0	YES	PNL	25	20	18	1.47	1
715 MCC-CPH-1	715-01 S1 FDR	0.48	14.14	1.24	0.77	0.083	0	YES	PNL	25	22	18	1.66	1
716 S-1/AC-1	715-01 S1 FDR	0.48	13.84	12.65	7.91	0.016	0	YES	PNL	25	10	18	0.45	0
717 30KVA PRI	CUL-M1A	0.48	6.28	6.28	4.41	0.012	0	YES	PNL	25	5	18	0.16	0

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718 30KVA SEC	CUL-M1A	0.208	1.51	1.51	1.15	2	0	YES	PNL	25	50	18	6.33	2
719 CUL-M1A (CUL-M1A MN)	CUL-M1A	0.208	1.47	1.47	1.13	2	0	YES	PNL	25	49	18	6.23	2

720 CWP-1	715-02 CWP FDR	0.48	13.81	13.06	8.17	0.016	0	YES	PNL	25	10	18	0.47	0
721 P6	P6 FDR	0.48	12.05	11.92	7.61	0.012	0	YES	PNL	25	8	18	0.29	0
722 P7	P7 FDR	0.48	12.05	11.92	7.61	0.012	0	YES	PNL	25	8	18	0.29	0
723 P8	P8 FDR	0.48	12.05	11.92	7.61	0.012	0	YES	PNL	25	8	18	0.29	0
724 P9	P9 FDR	0.48	12.05	11.92	7.61	0.012	0	YES	PNL	25	8	18	0.29	0
725 P11	P11 FDR	0.48	12.05	11.92	7.61	0.011	0	YES	PNL	25	7	18	0.27	0
726 T-18 PRI	714-01 T-18 FD	0.48	14.28	14.28	8.89	0.016	0	YES	PNL	25	10	18	0.48	0
727 T-18 SEC	714-01 T-18 FD	0.208	15.93	15.93	6.03	2	0	YES	PNL	25	139	18	34.2	4
728 CUL-D120 (CUL-D12 MN)	714-01 T-18 FD	0.208	13.6	13.6	5.4	2	0	YES	PNL	25	130	18	30.7	4
729 CDL-D120	714-01 T-18 FD	0.208	15.1	15.1	5.81	2	0	YES	PNL	25	136	18	33	4
730 P3	P3 FDR	0.208	9.85	9.85	4.3	0.012	0	YES	PNL	25	5	18	0.15	0
731 P4 (P4 MN)	P4 FDR	0.208	4.1	4.1	1.98	0.202	0	YES	PNL	25	18	18	1.15	0
732 P5 (P5 MN)	P5 FDR	0.208	2.82	2.82	1.52	0.345	0	YES	PNL	25	20	18	1.47	1
733 CDL (CDL MN)	CDL FDR	0.208	1.28	1.28	0.87	0.636	0	YES	PNL	25	21	18	1.5	1
734 CUL-D110 (CUL-D110 MN)	714-01 T-18 FD	0.208	14.94	14.94	5.77	2	0	YES	PNL	25	135	18	32.7	4
735 SKDH-5-BB (735-01 MN BKR)	714-02 SKDH-5	0.48	12.87	12.87	8.14	0.011	0	YES	PNL	25	8	18	0.29	0
736 SKH1-C068	714-02 SKDH-5	0.48	11.06	11.06	7.15	0.011	0	YES	PNL	25	7	18	0.25	0
737 T-13 PRI	714-02 SKDH-5	0.48	10.87	10.87	7.04	0.011	0	YES	PNL	25	7	18	0.25	0

738 T-13 SEC	735-02 T-13 FD	0.208	2.5	2.5	1.65	2	0	YES	PNL	25	63	18	9.25	3
739 SKL2-C068	735-02 T-13 FD	0.208	2.33	2.33	1.56	2	0	YES	PNL	25	61	18	8.76	3
740 SKH2-C068	714-02 SKDH-5	0.48	9.98	9.98	6.55	0.011	0	YES	PNL	25	7	18	0.23	0
741 SKH-BO..	714-02 SKDH-5	0.48	10.87	10.87	7.04	0.011	0	YES	PNL	25	7	18	0.25	0
742 T-14 PRI	T-14 FDR	0.48	9.82	9.82	6.45	0.011	0	YES	PNL	25	7	18	0.23	0
743 T-4 SEC	T-14 FDR	0.208	2.48	2.48	1.39	1.124	0	YES	PNL	25	39	18	4.34	2
744 CUL-BO..	T-14 FDR	0.208	2.39	2.39	1.35	1.174	0	YES	PNL	25	40	18	4.4	2
745 SKL-BO.. (SKL MN)	T-14 FDR	0.208	2.4	2.4	1.36	1.164	0	YES	PNL	25	40	18	4.38	2
746 SKH-C073	714-02 SKDH-5	0.48	10.73	10.73	6.97	0.011	0	YES	PNL	25	7	18	0.25	0
747 9KVA PRI	9KVA PRI A	0.48	9.06	9.06	6.03	0.011	0	YES	PNL	25	6	18	0.21	0
748 9KVA SEC	9KVA PRI A	0.208	0.96	0.96	0.71	0.753	0	YES	PNL	25	20	18	1.42	1
749 SKL-4 (SKL-4 MN)	9KVA PRI A	0.208	0.94	0.94	0.71	0.762	0	YES	PNL	25	20	18	1.43	1
750 DISC	714-02 SKDH-5	0.48	10.16	10.16	6.65	0.011	0	YES	PNL	25	7	18	0.23	0

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751 T-16 PRI	T-16 FDR	0.48	8.5	8.5	5.71	0.011	0	YES	PNL	25	6	18	0.2	0
752 T-16 SEC	T-16 FDR	0.208	3.46	3.46	1.76	1.318	0	YES	PNL	25	61	18	6.5	2
753 SKL-3A-2B	T-16 FDR	0.208	3.38	3.38	1.73	1.355	0	YES	PNL	25	51	18	6.55	2

754 CUL-1-3B	714-02 SKDH-5	0.48	9.7	9.7	6.39	0.011	0	YES	PNL	25	7	18	0.23	0
755 CDH-3-BD (755-01 MN BKR)	714-03 CDH-3BD	0.48	11.15	11.15	7.2	0.017	0	YES	PNL	25	9	18	0.4	0
756 CLH-3A-1D	CLH-3A-1D FDR	0.48	7.33	7.33	5.03	0.012	0	YES	PNL	25	6	18	0.18	0
757 CLH-3-BD (CLH-3-BD MN)	CLH-3-BD FDR	0.48	10.14	10.14	6.64	0.012	0	YES	PNL	25	7	18	0.25	0
758 ELH-3-1D	CLH-3-BD FDR	0.48	8.72	8.72	5.83	0.012	0	YES	PNL	25	6	18	0.21	0
759 ELEVS	714-04 ELEV FD	0.48	13.98	13.09	8.17	0.016	0	YES	PNL	25	10	18	0.46	0
760 DISC	714-05 CDBH PN	0.48	12.26	12.26	7.81	0.016	0	YES	PNL	25	9	18	0.41	0
761 T-81 PRI	714-05 CDBH PN	0.48	3.99	3.99	2.99	0.016	0	YES	PNL	25	5	18	0.14	0
762 T-81 SEC	714-05 CDBH PN	0.208	2.27	2.27	1.53	2	0	YES	PNL	25	60	18	8.59	3
763 CDL-E-GEN	714-05 CDBH PN	0.208	2.23	2.23	1.51	2	0	YES	PNL	25	59	18	8.48	3
764 CDH-2-BA (764-01 MN BKR)	714-06 CDH2BA	0.48	13.53	13.53	8.49	0.017	0	YES	PNL	25	10	18	0.47	0
765 45KVA PRI	D.I. WATER FDR	0.48	12.85	12.85	8.13	0.011	0	YES	PNL	25	8	18	0.29	0
766 45KVA SEC	D.I. WATER FDR	0.208	2.44	2.44	1.37	2	0	YES	PNL	25	56	18	7.62	2
767 POOL EQ	D.I. WATER FDR	0.208	1.79	1.79	1.3	2	0	YES	PNL	25	54	18	7.21	2
768 T-40 PRI	T-40 FDR	0.48	12.16	12.16	7.75	0.011	0	YES	PNL	25	7	18	0.28	0
769 T-40 SEC	T-40 FDR	0.208	0.93	0.93	0.7	1.434	0	YES	PNL	25	29	18	2.66	1
770 CUL-M2	T-40 FDR	0.208	0.92	0.92	0.69	1.454	0	YES	PNL	25	29	18	2.67	1
771 T-30 PRI	T-30 FDR	0.48	12.71	12.71	8.05	0.011	0	YES	PNL	25	8	18	0.29	0

772 T-30 SEC	T-30 FDR	0.208	2.2	2.2	1.28	1.28	0	YES	PNL	25	40	18	4.52	2
773 CLL-2-BA	T-30 FDR	0.208	2.18	2.18	1.27	1.296	0	YES	PNL	25	41	18	4.54	2
774 CLH-2-BA (CLH-2-BA MN)	T-30 FDR	0.48	11.59	11.59	7.44	0.011	0	YES	PNL	25	7	18	0.27	0
775 CLH-2-1A (CLH-2-1A MN)	CLH-2-1A FDR	0.48	8.23	8.23	5.55	0.011	0	YES	PNL	25	6	18	0.19	0
776 T-33 PRI	T-33 PRI	0.48	5.42	5.42	3.88	0.011	0	YES	PNL	25	5	18	0.13	0
777 T-33 SEC	T-33 FDR	0.208	2.09	2.09	1.23	0.961	0	YES	PNL	25	33	18	3.26	1
778 CLL-2-2A (CLL-2-2A MN)	T-33 FDR	0.208	2.02	2.02	1.2	0.994	0	YES	PNL	25	33	18	3.29	1
779 T-35 PRI	T-35 FDR	0.48	5.95	5.95	4.21	0.011	0	YES	PNL	25	5	18	0.14	0
780 T-35 SEC	T-35 FDR	0.208	2.1	2.1	1.23	0.956	0	YES	PNL	25	33	18	3.25	1
781 CLL-2-3A (CLL-2-2A MN1)	T-35 FDR	0.208	1.96	1.96	1.18	1.029	0	YES	PNL	25	34	18	3.33	1
782 T-37 PRI	T-37 FDR	0.48	8.23	8.23	5.55	0.011	0	YES	PNL	25	6	18	0.19	0
783 CLH-2-4A (CLH-2-4A)	T-37 FDR	0.48	7.73	7.73	5.26	0.011	0	YES	PNL	25	6	18	0.18	0
784 T-37 SEC	T-37 FDR	0.208	2.14	2.14	1.25	1.322	0	YES	PNL	25	41	18	4.57	2

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785 CUL-SICU5B (CUL-2-4A MN1)	T-37 FDR	0.208	2.11	2.11	1.24	1.343	0	YES	PNL	25	41	18	4.59	2
786 CUL-2-4A (CUL-2-4A MN)	T-37 FDR	0.208	2.11	2.11	1.24	1.344	0	YES	PNL	25	41	18	4.59	2
787 CH-BB (CH-BB MN)	RS-P FDR	0.48	11.31	11.31	7.28	0.011	0	YES	PNL	25	7	18	0.26	0

788 T-RSP PRI	RS-P FDR	0.48	9.02	9.02	6.01	0.011	0	YES	PNL	25	6	18	0.21	0
789 T-RSP SEC	RS-P FDR	0.208	4.17	4.17	2	1.076	0	YES	PNL	25	49	18	6.08	2
790 225A DISC (790-01 DISC)	RS-P FDR	0.208	4.09	4.09	1.97	1.1	0	YES	PNL	25	49	18	6.12	2
791 CLBB	RS-P FDR	0.208	3.72	3.72	1.85	1.218	0	YES	PNL	25	50	18	6.33	2
792 CLBB SUB	CLBB FDR	0.208	3.65	3.65	2.14	0.01	0	YES	PNL	25	3	18	0.06	0
793 RSX (RSX MN)	RS-P FDR	0.208	3.72	3.72	1.85	1.218	0	YES	PNL	25	50	18	6.33	2
794 RSP (RSP MN)	RS-P FDR	0.208	3.94	3.94	1.92	1.144	0	YES	PNL	25	49	18	6.2	2
795 ATS EDBH-1	711-03 EDBH-1	0.48	12.98	12.98	8.19	0.017	0	YES	PNL	25	10	18	0.45	0
796 EDBH-1 (796-01 MN BKR)	711-03 EDBH-1	0.48	10.54	10.54	6.86	0.017	0	YES	PNL	25	9	18	0.38	0
797 BLDG 11	796-02 LL FDR	0.48	10.31	10.31	6.73	0.017	0	YES	PNL	25	9	18	0.37	0
798 EDH-4-BC (798-01 MN BKR)	796-03 JL FDR	0.48	10.42	10.42	6.79	0.016	0	YES	PNL	25	9	18	0.36	0
799 ELH-4-CO. (ELH-4-CO MN)	798-02 JL FDR	0.48	10.09	10.09	6.61	0.016	0	YES	PNL	25	9	18	0.35	0
800 EH-1 (800-01 MN BKR)	798-03 JL FDR	0.48	10.21	10.21	6.67	0.016	0	YES	PNL	25	9	18	0.35	0
801 ELH-4-BC (ELH-4-BC MN)	798-04 JL FDR	0.48	10.06	10.06	6.59	0.016	0	YES	PNL	25	9	18	0.35	0
802 ELH-4-1C (ELH-4-1C MN)	ELH-4-BC MN	0.48	9.19	9.19	6.1	0.011	0	YES	PNL	25	6	18	0.21	0
803 ELX-4-BC	798-05 JL FDR	0.48	10.3	10.3	6.73	0.016	0	YES	PNL	25	9	18	0.36	0
804 EDH-3-BD (804-01 MN BKR)	796-04 JL FDR	0.48	9.16	9.16	6.08	0.016	0	YES	PNL	25	8	18	0.32	0
805 ELH-3-4-A (ELH3-4-A MN)	ELH-3-4-A MN	0.48	7.5	7.5	5.13	0.016	0	YES	PNL	25	7	18	0.26	0

806 EDH-2-BA (806-01 MN BKR)	796-05 JL FDR	0.48	10.31	10.31	6.73	0.016	0	YES	PNL	25	9	18	0.36	0
807 ELH-2-BA (ELH-2-BA MN)	ELH-2-BA FDR	0.48	8.58	8.58	5.76	0.011	0	YES	PNL	25	6	18	0.2	0
808 ELH-2-4A (ELH-2-4A MN)	ELH-2-4A FDR	0.48	8.58	8.58	5.76	0.011	0	YES	PNL	25	6	18	0.2	0
809 T-2 SEC	809-01 MN BKR	0.48	37.39	15.86	7.29	0.716	0	YES	PNL	25	146	18	37.2	4
810 US-0SWBD-B (810-01 MN BKR)	007-05 FDR	0.48	36.76	15.54	7.16	1.568	0.083	YES	PNL	25	239	18	83.3	DNGR OUS !!!
811 CH #2	810-02 CH #2	0.48	34.29	32.13	17.6	0.05	0	YES	PNL	25	33	18	3.28	1
812 ATS CDBH-2	810-01 MN BKR	0.48	29.02	24.16	13.56	0.175	0	YES	PNL	25	62	18	9.14	3
813 TS-2 LOAD	810-01 MN BKR	0.48	29.02	24.16	13.56	0.175	0	YES	PNL	25	62	18	9.14	3
814 ATS OR	810-01 MN BKR	0.48	28.23	23.5	13.25	0.175	0	YES	PNL	25	61	18	8.93	3
815 ATS OR L	810-01 MN BKR	0.48	28.23	23.5	13.25	0.175	0	YES	PNL	25	61	18	8.93	3
816 15KVA PRI	810-01 MN BKR	0.48	23.52	19.58	9.64	2	0	YES	PNL	25	214	18	69.3	DNGR OUS !!!
817 15KVA SEC	810-01 MN BKR	0.208	1.05	0.87	0.74	2	0	YES	PNL	25	42	18	4.86	2
818 CUL-126A	810-01 MN BKR	0.208	1.04	0.87	0.74	2	0	YES	PNL	25	42	18	4.84	2

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819 DPDB (819-01 MN BKR)	810-01 MN BKR	0.48	25.35	21.11	12.09	0.175	0	YES	PNL	25	58	18	8.14	3
820 DP-2 (820-01 MN BKR)	819-02 DP-2 FD	0.48	24	24	13.85	0.017	0	YES	PNL	25	14	18	0.79	0
821 DP-1 (821-01 MN BKR)	819-03 DP-1 FD	0.48	24.21	24.21	13.96	0.017	0	YES	PNL	25	14	18	0.79	0

822 S41B DISC	810-01 MN BKR	0.48	24.66	20.53	11.81	0.175	0	YES	PNL	25	57	18	7.95	2
823 S41B	822-01 DISC	0.48	21.78	21.78	12.75	0.022	0	YES	PNL	25	16	18	0.97	0
824 DBH-2	810-02 DBH-2	0.48	35.01	33.38	18.23	0.05	0	YES	PNL	25	34	18	3.35	1
825 DH-4-BC (825-01 MN BKR)	824-01 DH-4-BC	0.48	26.19	26.19	14.92	0.011	0	YES	PNL	25	11	18	0.56	0
826 75KVA PRI	824-01 DH-4-BC	0.48	25.32	25.32	14.5	0.011	0	YES	PNL	25	11	18	0.55	0
827 75KVA SEC	825-02 T-6 FDR	0.208	6.6	6.6	3.25	2	0	YES	PNL	25	99	18	19.5	3
828 UL-4-1C-1 (UL-4-1C-1 MN)	825-02 T-6 FDR	0.208	6.44	6.44	3.19	2	0	YES	PNL	25	97	18	19.1	3
829 UL-4-1C-3 (UL-4-1C-3 MN)	UL-4-1C-3 MN	0.208	6.24	6.24	3.12	0.016	0	YES	PNL	25	5	18	0.16	0
830 UL-4-1C-3 (UL-4-1C-2 MN)	825-02 T-6 FDR	0.208	6.4	6.4	3.18	2	0	YES	PNL	25	97	18	19	3
831 112KVA PRI	824-01 DH-4-BC	0.48	14.75	14.75	9.14	0.011	0	YES	PNL	25	8	18	0.33	0
832 112KVA SEC	825-03 T-8 FDR	0.208	5.31	5.31	2.79	2	0	YES	PNL	25	89	18	16.5	3
833 UL-1-1B-1 (UL-1-1B-1 MN)	825-03 T-8 FDR	0.208	2.16	2.16	1.48	2	0	YES	PNL	25	59	18	8.41	3
834 UL-1-1B-2 (UL-1-1B-2 MN)	825-03 T-8 FDR	0.208	2.16	2.16	1.48	2	0	YES	PNL	25	59	18	8.41	3
835 150KVA PRI	824-01 DH-4-BC	0.48	14.52	14.52	9.02	0.011	0	YES	PNL	25	8	18	0.33	0
836 150KVA SEC	825-04 T-3 FDR	0.208	7.17	7.17	3.44	2	0	YES	PNL	25	102	18	20.7	3
837 UL-1-BB-1 (UL-1-BB-1 MN)	825-04 T-3 FDR	0.208	4.62	4.62	2.53	2	0	YES	PNL	25	84	18	14.9	3
838 UL-1-BB-2 (UL-1-BB-2 MN)	UL-1-BB-1 MN	0.208	4.3	4.3	2.41	0.012	0	YES	PNL	25	4	18	0.08	0
839 SPLICE	824-01 DH-4-BC	0.48	22.23	22.23	12.98	0.011	0	YES	PNL	25	10	18	0.48	0

840 LH-1-2B (LH-1-2B MN)	824-01 DH-4-BC	0.48	22.09	22.09	12.9	0.011	0	YES	PNL	25	10	18	0.48	0
841 75 KVA PRI	824-01 DH-4-BC	0.48	20.66	20.66	12.19	0.011	0	YES	PNL	25	10	18	0.45	0
842 75KVA SEC	825-05 T-9 FDR	0.208	6.45	6.45	3.2	2	0	YES	PNL	25	98	18	19.1	3
843 UL-1-2B (UL-1-2B MN)	825-05 T-9 FDR	0.208	5.75	5.75	2.95	2	0	YES	PNL	25	93	18	17.6	3
844 RS-L (RS-L MN)	824-01 DH-4-BC	0.48	13.08	13.08	8.25	0.011	0	YES	PNL	25	8	18	0.3	0
845 TX-RSL PRI	825-06 RSL FDR	0.48	9.74	9.74	6.41	0.016	0	YES	PNL	25	8	18	0.34	0
846 TX-RSL SEC	TX-RSL FDR	0.208	2.48	2.48	1.39	1.312	0	YES	PNL	25	44	18	5.14	2
847 RS-PA (RS-PA MN)	TX-RSL FDR	0.208	2.39	2.39	1.35	1.384	0	YES	PNL	25	44	18	5.26	2
848 MCC-PH3 (848-01 MN BKR)	824-02 MCC-PH3	0.48	23.03	22.45	13.04	0.017	0	YES	PNL	25	14	18	0.77	0
849 MTRS	MTR FDR	0.48	10.25	9.86	6.44	0.012	0	YES	PNL	25	7	18	0.25	0
850 MCC-CPH3 (850-01 MN BKR)	848-01 MN BKR	0.48	22.22	21.66	12.65	0.016	0	YES	PNL	25	13	18	0.73	0
851 MCC-PH-2	824-03 MCC-PH2	0.48	26.23	25.17	14.34	0.011	0	YES	PNL	25	11	18	0.56	0

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852 220KVA PRI	851-01 S-2 FDR	0.48	18.56	17.52	10.5	0.011	0	YES	PNL	25	9	18	0.41	0
852 CDBH-2	813-01 CDBH-2	0.48	23.89	21.98	12.69	0.05	0	YES	PNL	25	27	18	2.35	1
853 220KVA SEC	851-01 S-2 FDR	0.48	7.08	5.87	4.05	2	0	YES	PNL	25	116	18	25.4	4
853 3EQHA (853-01 MN BKR)	852-01 3EQHA F	0.48	13.8	13.8	8.63	0.016	0	YES	PNL	25	10	18	0.47	0

854 45KVA PRI	852-02 T-1 FDR	0.48	5.38	5.38	3.86	0.016	0	YES	PNL	25	6	18	0.2	0
854 S-2	851-01 S-2 FDR	0.48	6.96	5.76	3.98	2	0	YES	PNL	25	115	18	24.9	3
855 45KVA SEC	852-02 T-1 FDR	0.208	2.97	2.97	1.85	2	0	YES	PNL	25	68	18	10.7	3
856 3LCB (3LCB MN)	852-02 T-1 FDR	0.208	2.9	2.9	1.83	2	0	YES	PNL	25	68	18	10.5	3
857 3HC (857-01 MN BKR)	852-03 3HC FDR	0.48	10.65	10.65	6.92	0.016	0	YES	PNL	25	9	18	0.37	0
858 30KVA PRI	852-03 3HC FDR	0.48	8.48	8.48	5.7	0.016	0	YES	PNL	25	8	18	0.3	0
859 30KVA SEC	T-2_30KVA FDR	0.208	2.17	2.17	1.27	0.673	0	YES	PNL	25	27	18	2.38	1
860 3LCA (3LCA MN)	T-2_30KVA FDR	0.208	2.16	2.16	1.26	0.681	0	YES	PNL	25	27	18	2.39	1
861 CDH-4-BC (861-01 MN BKR)	852-04 CDH-4BC	0.48	20.07	20.07	11.89	0.016	0	YES	PNL	25	12	18	0.64	0
862 15KVA PRI	852-04 CDH-4BC	0.48	12.88	12.88	8.14	0.016	0	YES	PNL	25	10	18	0.43	0
863 15KVA SEC	861-02 T-2 FDR	0.208	1.33	1.33	1.06	2	0	YES	PNL	25	47	18	5.82	2
864 CLL-1-BB (CLL-1-BB MN)	861-02 T-2 FDR	0.208	1.29	1.29	1.03	2	0	YES	PNL	25	47	18	5.69	2
865 2C-1-BB (2C-1-BB MN)	2C-1-BB FDR	0.208	1.25	1.25	0.86	0.616	0	YES	PNL	25	20	18	1.43	1
866 CLH-1-BB (866-01 MN BKR)	852-04 CDH-4BC	0.48	12.13	12.13	7.74	0.016	0	YES	PNL	25	9	18	0.4	0
867 CLH-4-BC (CLH-4-BC MN)	852-04 CDH-4BC	0.48	18.58	18.58	11.13	0.016	0	YES	PNL	25	12	18	0.6	0
868 T-39 PRI	852-04 CDH-4BC	0.48	10.98	10.98	7.1	0.016	0	YES	PNL	25	9	18	0.37	0
869 T-39 SEC	861-04 T-39 FD	0.208	8.84	8.84	3.99	2	0	YES	PNL	25	112	18	24.1	3
870 CUL-X1-C29 (870-01 MN BKR)	861-04 T-39 FD	0.208	8.6	8.6	3.91	2	0	YES	PNL	25	111	18	23.6	3

871 CLH-1-1B (CLH-1-1B MN)	852-04 CDH-4BC	0.48	13.73	13.73	8.6	0.016	0	YES	PNL	25	10	18	0.45	0
872 FA DISC	852-04 CDH-4BC	0.48	17.36	17.36	10.51	0.016	0	YES	PNL	25	11	18	0.56	0
873 T-4 PRI	861-06 FAL CB	0.48	14.02	14.02	8.75	0.016	0	YES	PNL	25	10	18	0.47	0
874 T-4 SEC	FA DISC	0.208	3.6	3.6	2.12	2	0	YES	PNL	25	75	18	12.3	3
875 CUL-5-1C-1 (CUL-5-1C MN)	FA DISC	0.208	3.5	3.5	2.08	2	0	YES	PNL	25	74	18	12.1	3
876 CUL-5-1C-2 (CUL-5-1C MN1)	FA DISC	0.208	3.5	3.5	2.08	2	0	YES	PNL	25	74	18	12.1	3
877 CLH-5-1C (CLH-5-1C MN)	852-04 CDH-4BC	0.48	16.42	16.42	10.02	0.016	0	YES	PNL	25	11	18	0.53	0
878 CLH-4-1C (CLH-4-1C MN)	852-04 CDH-4BC	0.48	11.89	11.89	7.6	0.016	0	YES	PNL	25	9	18	0.4	0
879 S-2/P-4	852-05 S-2/P-4	0.48	16.8	16.22	9.86	0.016	0	YES	PNL	25	11	18	0.56	0
880 P-5/P-6	852-06 P-5/P-6	0.48	16.8	16.22	9.86	0.016	0	YES	PNL	25	11	18	0.56	0
881 CDH-3-BDS1 (881-01 MN BKR)	852-07 CDH3BDS	0.48	18.23	18.23	10.95	0.016	0	YES	PNL	25	12	18	0.6	0
882 CLH-3-1D (CLH-3-1D MN)	T-20 FDR	0.48	12.21	12.21	7.78	0.012	0	YES	PNL	25	8	18	0.29	0

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883 T-20 RI	T-20 FDR	0.48	11.68	11.68	7.49	0.012	0	YES	PNL	25	7	18	0.28	0
884 T-20 SEC	T-20 FDR	0.208	5.92	5.92	3.01	2	0	YES	PNL	25	94	18	17.9	3
885 CLL-3-1D (CLL-3-1D MN)	T-20 DISC	0.208	5.75	5.75	2.51	0.188	0	YES	PNL	25	20	18	1.39	1
886 T-22 PRI	T-22 FDR	0.48	16.11	16.11	9.85	0.011	0	YES	PNL	25	9	18	0.36	0

887 T-22 SEC	T-22 FDR	0.208	2.38	2.38	1.35	1.575	0	YES	PNL	25	48	18	5.97	2
888 CLL-3-2D (CLL-3-2D MN)	T-22 FDR	0.208	2.06	2.06	1.22	1.926	0	YES	PNL	25	51	18	6.53	2
889 T-24 PRI	T-24 FDR	0.48	14.37	14.37	8.94	0.011	0	YES	PNL	25	8	18	0.32	0
890 T-24 SEC	T-24 FDR	0.208	2.23	2.23	1.29	0.347	0	YES	PNL	25	19	18	1.25	1
891 CLL-3-3D (CLL-3-3D MN)	T-24 FDR	0.208	2.16	2.16	1.28	0.357	0	YES	PNL	25	19	18	1.25	1
892 ITE DISC	T-26 FDR	0.48	12.04	12.04	7.68	0.012	0	YES	PNL	25	8	18	0.29	0
893 CLH-3-4A (CUL-3-4A MN1)	ITE DISC	0.48	6.91	6.91	4.78	0.011	0	YES	PNL	25	5	18	0.16	0
894 T-26 SEC	CUL-3-4A MN1	0.208	2.15	2.15	1.26	0.931	0	YES	PNL	25	33	18	3.26	1
895 CUL-3-5A (CUL-3-5A MN)	CUL-3-4A MN1	0.208	2.01	2.01	1.2	1.002	0	YES	PNL	25	34	18	3.34	1
896 CUL-3-4A (CUL-3-4A MN)	CUL-3-4A MN1	0.208	2.12	2.12	1.25	0.943	0	YES	PNL	25	33	18	3.28	1
897 T-69 SEC	ITE DICS	0.208	2.21	2.21	1.28	1.274	0	YES	PNL	25	41	18	4.57	2
898 CUL-3-3D (CUL-3-3D MN)	ITE DISC	0.208	2.17	2.17	1.26	1.303	0	YES	PNL	25	41	18	4.6	2
899 CUL-3-2D (CUL-3-2D MN)	ITE DISC	0.208	2.1	2.1	1.24	1.348	0	YES	PNL	25	41	18	4.65	2
900 CLH-3A-1D (CLH-3A-1D MN)	X-RAY FDR	0.48	7.43	7.43	5.09	0.012	0	YES	PNL	25	6	18	0.18	0
901 T-70 PRI	852-08 T-70 FD	0.48	15.8	15.8	9.7	0.016	0	YES	PNL	25	11	18	0.53	0
902 T-70 SEC	852-08 T-70 FD	0.208	5.35	5.35	2.8	2	0	YES	PNL	25	89	18	16.6	3
903 CDL-3A-BD	T-70 DISC	0.208	5.25	5.25	2.77	0.012	0	YES	PNL	25	4	18	0.1	0
904 MCC-CPH-3	852-09 MCCCPH3	0.48	18.46	17.73	10.63	0.016	0	YES	PNL	25	12	18	0.61	0

905 30HP MTRS	852-09 MCCCPH3	0.48	17.95	17.23	10.38	0.016	0	YES	PNL	25	12	18	0.6	0
906 50HP_A	852-09 MCCCPH3	0.48	17.94	17.23	10.38	0.016	0	YES	PNL	25	12	18	0.6	0
907 NH SWBD (907-01 MN BKR)	EJO-1	0.48	15.18	14.11	7.4	0.294	0	YES	PNL	25	54	18	7.25	2
908 L-1N DISC	907-02 L FDRS	0.48	13.34	13.34	8.39	0.025	0	YES	PNL	25	13	18	0.69	0
909 T-L-1N PRI	FRS-R 70A	0.48	13.26	13.26	7.09	0.008	0	YES	PNL	25	6	18	0.19	0
910 T-L-1N SEC	FRS-R 70A	0.208	2.31	2.31	1.55	1.814	0	YES	PNL	25	57	18	8.02	3
911 L-1N (911-01 MN BKR)	FRS-R 70A	0.208	2.28	2.28	1.54	1.868	0	YES	PNL	25	58	18	8.18	3
912 T-L (912-01 MN BKR)	907-02 L FDRS	0.48	12.5	12.5	7.94	0.025	0	YES	PNL	25	12	18	0.65	0
913 L-2N DISC	907-02 L FDRS	0.48	12.85	12.85	8.12	0.025	0	YES	PNL	25	13	18	0.66	0
914 T-L-2N PRI	ECS 125A	0.48	12.39	12.39	6.7	0.008	0	YES	PNL	25	6	18	0.18	0
915 T-L-2N SEC	ECS 125A	0.208	3.92	3.92	2.25	2	0	YES	PNL	25	78	18	13.2	3

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916 L-2N (916-01 MN BKR)	ECS 125A	0.208	3.87	3.87	2.23	2	0	YES	PNL	25	77	18	13.1	3
917 L2NA	L2NA FDR	0.208	3.78	3.78	2.2	0.014	0	YES	PNL	25	4	18	0.09	0
918 2L-1 (2L-1 MN)	907-02 L FDRS	0.48	11.77	11.77	7.54	0.025	0	YES	PNL	25	12	18	0.61	0
919 L-3N DISC	907-02 L FDRS	0.48	11.44	11.44	7.36	0.025	0	YES	PNL	25	12	18	0.6	0
920 T-L-3N PRI	ECS 125A1	0.48	11.07	11.07	7.15	0.008	0	YES	PNL	25	6	18	0.19	0

921 T-L-3N SEC	ECS 125A1	0.208	3.92	3.92	2.25	2	0	YES	PNL	25	78	18	13.2	3
922 L-3N (922-01 MN BKR)	ECS 125A1	0.208	3.86	3.86	2.23	2	0	YES	PNL	25	77	18	13	3
923 L3NA	L3NA FDR	0.208	3.74	3.74	2.18	0.014	0	YES	PNL	25	4	18	0.09	0
924 3L-1 (3L-1 MN)	907-02 L FDRS	0.48	10.45	10.45	6.81	0.025	0	YES	PNL	25	11	18	0.55	0
925 E_ATS	907-03 EATS	0.48	14.85	14.85	9.19	0.025	0	YES	PNL	25	14	18	0.76	0
926 ATS LOAD	907-03 EATS	0.48	14.85	14.85	9.19	0.025	0	YES	PNL	25	14	18	0.76	0
927 DISC	907-03 EATS	0.48	13.95	13.95	8.71	0.025	0	YES	PNL	25	13	18	0.72	0
928 HE-1 (HE-1 MN)	ECS 100A	0.48	6.05	6.05	4.27	0.008	0	YES	PNL	25	4	18	0.11	0
929 LE-1 (929-01 MN BKR)	907-03 EATS	0.48	12.14	12.14	7.74	0.025	0	YES	PNL	25	12	18	0.63	0
930 PE-2 DISC	PE FDR	0.48	9	9	5.99	0.018	0	YES	PNL	25	8	18	0.34	0
931 T-PE-2 PRI (FRS-R 30A)	PE FDR	0.48	7.15	7.15	4.92	0.018	0	YES	PNL	25	7	18	0.28	0
932 T-PE-2 SEC	FRS-R 30A	0.208	2.06	2.06	1.22	0.061	0	YES	PNL	25	6	18	0.21	0
933 PE-2 (PE-2 MN)	FRS-R 30A	0.208	2.03	2.03	1.21	0.063	0	YES	PNL	25	6	18	0.21	0
934 T-PE-3 PRI	PE FDR	0.48	7.61	7.61	5.19	0.018	0	YES	PNL	25	8	18	0.29	0
935 T-PE-3 SEC	PE FDR	0.208	2.07	2.07	1.22	2	0	YES	PNL	25	52	18	6.82	2
936 PE-3 (PE-3 MN)	PE FDR	0.208	2.04	2.04	1.21	2	0	YES	PNL	25	52	18	6.75	2
937 LE-2	LE FDR	0.48	6.54	6.54	4.65	0.018	0	YES	PNL	25	7	18	0.26	0
938 LE-3	LE FDR	0.48	7.78	7.78	5.29	0.018	0	YES	PNL	25	8	18	0.3	0

939 MCC-1	907-04 MCC-1	0.48	14.23	13.64	8.5	0.025	0	YES	PNL	25	13	18	0.73	0
940 C_ATS	907-05 MCC-2	0.48	15	14.52	8.97	0.025	0	YES	PNL	25	14	18	0.76	0
941 C_ATS LD	907-05 MCC-2	0.48	15	14.52	8.97	0.025	0	YES	PNL	25	14	18	0.76	0
942 MCC-2	907-05 MCC-2	0.48	14.2	13.71	8.55	0.025	0	YES	PNL	25	13	18	0.73	0
943 C.W. PUMPS	C.W. PUMP FDR	0.48	13.16	12.68	7.99	0.017	0	YES	PNL	25	10	18	0.46	0
944 EV-1 (944-01 MN BKR)	907-05 MCC-2	0.48	14.67	14.19	8.8	0.025	0	YES	PNL	25	14	18	0.75	0
945 T-2L DISC	907-06 2L/3L	0.48	12.95	12.95	8.18	0.025	0	YES	PNL	25	13	18	0.67	0
946 T-2L PRI	907-06 2L/3L	0.48	12.54	12.54	7.96	0.025	0	YES	PNL	25	12	18	0.65	0
947 T-2L SEC	ECS 125A2	0.208	3.96	3.96	2.27	2	0	YES	PNL	25	78	18	13.3	3
948 2-L (948-01 MN BKR)	ECS 125A2	0.208	3.91	3.91	2.25	2	0	YES	PNL	25	78	18	13.1	3
949 2-H	2-H FDR	0.208	3.73	3.73	2.18	0.014	0	YES	PNL	25	4	18	0.09	0

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950 T-3L PRI	907-06 2L/3L	0.48	12.54	12.54	7.96	0.025	0	YES	PNL	25	12	18	0.65	0
951 T-3L SEC	ECS 125A3	0.208	3.93	3.93	2.26	2	0	YES	PNL	25	78	18	13.2	3
952 3-L	ECS 125A3	0.208	3.88	3.88	2.24	2	0	YES	PNL	25	77	18	13.1	3
953 2-H1	3-H FDR	0.208	3.7	3.7	2.17	0.014	0	YES	PNL	25	4	18	0.09	0
954 T-L 1K PRI	907-07 KIT EQ	0.48	9.64	9.64	6.35	0.025	0	YES	PNL	25	11	18	0.51	0

955 T-L 1K SEC	907-07 KIT EQ	0.208	4	4	2.29	2	0	YES	PNL	25	78	18	13.4	3
956 L 1K (956-01 MN BKR)	907-07 KIT EQ	0.208	3.93	3.93	2.26	2	0	YES	PNL	25	78	18	13.2	3
957 EGS 1275KW	957-01 MN BKR	0.48	19.13	19.13	11.41	2	0	YES	PNL	25	227	18	76.6	DNGR OUS !!!
958 GE SWBD	957-01 MN BKR	0.48	18.87	18.87	11.28	2	0	YES	PNL	25	225	18	75.6	DNGR OUS !!!
959 ATS_CDBH-1	958-01 CDBH-1	0.48	18.48	18.48	9.42	0.034	0	YES	PNL	25	17	18	1.06	0
960 ATS_EDBH-1	958-02 EDBH-1	0.48	18.1	18.1	10.89	0.025	0	YES	PNL	25	15	18	0.91	0
961 ATS_CDBH-2	958-03 CHBH-2	0.48	18.35	18.35	9.36	0.034	0	YES	PNL	25	17	18	1.07	0
962 EGS 150KW	962-01 MN BKR	0.48	2.25	2.25	1.83	2	0	YES	PNL	25	68	18	10.6	3
963 ATS-OR	962-01 MN BKR	0.48	2.23	2.23	1.82	2	0	YES	PNL	25	68	18	10.5	3
964 EGS 600KW	964-01 MN BKR	0.48	9	9	5.99	0.128	0	YES	PNL	25	28	18	2.44	1
965 EGS SWBD	964-01 MN BKR	0.48	8.92	8.92	5.95	0.128	0	YES	PNL	25	28	18	2.42	1
966 ATS_C	965-01 ATS_C	0.48	8.49	8.49	5.7	0.025	0	YES	PNL	25	10	18	0.45	0
967 ATS_E	965-02 ATS_E	0.48	8.02	8.02	5.43	0.025	0	YES	PNL	25	10	18	0.43	0
968 ATS_Q	965-03 ATS_Q	0.48	8.7	8.7	5.82	0.025	0	YES	PNL	25	10	18	0.46	0
969 FPE-6 (969-01 MN BKR)	965-04 FPE-6	0.48	8.56	8.56	5.74	0.025	0	YES	PNL	25	10	18	0.46	0
970 ATS_E2	969-02 ATS_E2	0.48	7.66	7.66	5.22	0.023	0	YES	PNL	25	9	18	0.37	0
971 ATS_Q2	698-03 ATS_Q2	0.48	8.21	8.21	5.54	0.025	0	YES	PNL	25	10	18	0.44	0
972 ATS_C2	965-05 ATS_C2	0.48	8.81	8.81	5.89	0.025	0	YES	PNL	25	10	18	0.47	0

973 MEP G-1	976-01 MN BKR	0.48	25.5	9	5.99	2	0	YES	PNL	25	154	18	40.3	DNGR OUS !!!
974 MEP G-2	976-02 MN BKR	0.48	25.5	9	5.99	2	0	YES	PNL	25	154	18	40.3	DNGR OUS !!!
975 MEP G-3	976-03 MN BKR	0.48	25.5	9	5.99	2	0	YES	PNL	25	154	18	40.3	DNGR OUS !!!
976 MEP 6000A	976-03 MN BKR	0.48	26.22	8.74	4.98	0.335	0	YES	PNL	25	91	18	17.2	3
977 TIE BKR	976-04 ATS_EQ1	0.48	25.16	25.16	14.42	0.07	0	YES	PNL	25	34	18	3.45	1
978 EMDP-1 (978-01 MN BKR)	976-05 EMDP-1	0.48	17.79	17.19	10.41	0.07	0	YES	PNL	25	28	18	2.43	1
979 ATS_LS1	978-02 ATS_LS1	0.48	16.29	16.29	9.95	0.07	0	YES	PNL	25	27	18	2.31	1
980 ATS_C1	978-03 ATS_C1	0.48	16.71	16.71	10.17	0.07	0	YES	PNL	25	27	18	2.37	1
981 ATS_EQ1	978-04 ATS_EQ1	0.48	16.71	16.71	10.17	0.07	0	YES	PNL	25	27	18	2.37	1
982 ATS_LS2	978-05 ATS_LS2	0.48	16.29	16.29	9.95	0.07	0	YES	PNL	25	27	18	2.31	1
983 ATS_C2	978-06 ATS_C2	0.48	16.71	16.71	10.17	0.07	0	YES	PNL	25	27	18	2.37	1

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984 ATS_EQ2	978-07 ATS_EQ2	0.48	16.71	16.71	10.17	0.07	0	YES	PNL	25	27	18	2.37	1
985 ATS_EQ3B	978-08 ATS3Q3B	0.48	16.71	16.71	10.17	0.07	0	YES	PNL	25	27	18	2.37	1
986 EMDP-2 (986-01 MN BKR)	976-06 EMDP-2	0.48	17.19	17.19	10.41	0.07	0	YES	PNL	25	28	18	2.43	1
987 ATS_EQ3A	986-02 ATSEQ3A	0.48	17.04	17.04	10.34	0.07	0	YES	PNL	25	28	18	2.41	1
988 ATS_EQ3C	986-03 ATSEQ3C	0.48	16.65	16.65	10.14	0.07	0	YES	PNL	25	27	18	2.36	1

989 ATS_EQ1	976-08 FIRE PUMP	0.48	13.91	13.91	8.7	0.07	0	YES	PNL	25	25	18	2	1
990 EMDP-4 (990-01 MN BKR)	976-09 EMDP-4	0.48	24.82	24.82	14.26	0.07	0	YES	PNL	25	34	18	3.41	1
991 ATS_MEP_C1	ATS_C1 FDR	0.48	17.75	17.75	10.71	0.017	0	YES	PNL	25	12	18	0.6	0
992 ATS_MEPLS1	ATS_LS1 FDR	0.48	14.52	14.52	9.02	0.017	0	YES	PNL	25	11	18	0.5	0
993 ATS_MEPEQ2	990-02 ATS_EQ2	0.48	19.49	19.49	11.6	0.017	0	YES	PNL	25	12	18	0.65	0
994 ATS_MEPEQ3	990-03 ATS_EQ3	0.48	21.51	21.51	12.61	0.017	0	YES	PNL	25	13	18	0.73	0
995 260KW GEN	995-01 MN BKR	0.48	3.75	0	0	2	0	YES	PNL	25	91	18	17	3
996 GEN SWBD A (996-01 MN BKR)	995-01 MN BKR	0.48	3.37	3.37	2.59	2	0	YES	PNL	25	85	18	15.4	3

THE END