



ELECTRIC SINGLE LINE EQUIPMENT SCHEDULE

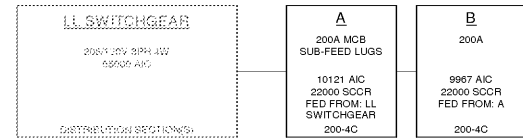
NOTES:  
ALL CONDUIT SIZES INDICATED ARE MINIMUM SIZES. INCREASE SIZES AS REQUIRED TO ACCOMMODATE CONDUIT PULLING EASE, FIELD CONDITIONS, ETC.  
"CU" = COPPER CONDUCTOR, "AL" = ALUMINUM CONDUCTOR

TYPICAL EQUIPMENT NAME NOMENCLATURE:  
1 - POWER DISTRIBUTION SYSTEM (BLANK - NORMAL, E - EMERGENCY, S - STANDBY, L - LIFE SAFETY)  
2 - DESCRIPTION (H - 480Y/277V, L - 208Y/120V)  
3 - FLOOR / LEVEL  
4 - SEQUENCE

FEEDER ID NOMENCLATURE:  
1 - INDICATES FEEDER SIZED TO COMPENSATE FOR VOLTAGE DROP  
U = EQUIPMENT GROUND CONDUCTOR REMOVED FOR SERVICE ENTRANCE FROM UTILITY  
P = PARTLY-SIZED EQUIPMENT GROUND CONDUCTOR  
X = EXISTING FEEDER TO REMAIN UNLESS OTHERWISE NOTED  
T = UPSIZED GROUND CONDUCTORS FOR TRANSFORMER SECONDARY

2 - CONDUCTOR AMPACITY  
3 - TOTAL NUMBER OF PHASE AND GROUND ("NEUTRAL") CONDUCTORS  
4 - CONDUCTOR MATERIAL: C = COPPER, A = ALUMINUM  
5 - SPECIAL (MAY BE BLANK)  
6 - ISOLATED GROUND (PROVIDE CONTINUOUS INSULATED EQUIPMENT GROUNDING CONDUCTOR(S) FROM INSULATED ISOLATED GROUND BAR(S) TO RESPECTIVE UPSTREAM SERVICE ENTRANCE OR DERIVED SYSTEM GROUNDING ELECTRODE CONDUCTOR AS APPLICABLE.)

EQUIPMENT	PHASE	EQUIPMENT TYPE	SUPPLY FROM	SPACE NUMBER	SPACE NAME	VOLTAGE	POLES	WIRES	DEMAND (KVA)	DEMAND (A)	MAINS RATING (A)	MAINS FRAME RATING (A)	MAINS TYPE	FEEDER ID	FEEDER	VD %	LGUS TYPE	SPD	ULSE	ENCLOSURE TYPE	NEUTRAL	K-RATING	FAULT CURRENT (A)	SHORT CIRCUIT RATING (A)	NOTES
LL SWITCHGEAR	Existing	Switchboard	LL SWITCHGEAR	100	Sales Area	208	3	4	42.7 KVA	119 A	200	200	THERMAL MAGNETIC	200-4C	(4) #3/0 AWG CU, (1) #6 AWG CU GND IN 2" CONDUIT	1.261	SUB-FEED / DOUBLE			NEVA 1	NEVA 1		85000	22000	LANDLORD TO SUPPLY 2" TO TENANT SPACE
B	New Construction	Branch Panelboard	A	100	Sales Area	208	3	4	18.6 KVA	52 A	200	200		200-4C	(4) #3/0 AWG CU, (1) #6 AWG CU GND IN 2" CONDUIT	1.261				NEVA 1			9967	22000	



**SINGLE LINE DIAGRAM**  
SCALE: NONE

**GENERAL NOTES**

A. PROVIDE NEW 200A/3P OCP AND A NEW ELECTRIC METER IN LANDLORD ELECTRICAL GEAR.  
B. GO TO INSTALL TENANT ID SIGN ON THE TENANT'S ELECTRICAL DISCONNECT IN THE METER ROOM.  
C. LANDLORD TO PROVIDE EMPTY 2" CONDUIT FROM LANDLORD'S ELECTRIC METER ROOM TO TENANT SPACE.  
D. LANDLORD TO PROVIDE EMPTY 1/2" CONDUIT TO TELECOMM ROOM.

**FIELD VERIFY ALL CONDITIONS**

DESIGN DRAWINGS ARE SCHEMATIC. THIS CONTRACTOR SHALL VISIT THE SITE PRIOR TO BIDDING OR AWARD OF CONTRACT TO INSPECT EXISTING FIELD CONDITIONS. THIS CONTRACT SHALL INCLUDE ALL LABOR AND MATERIALS NECESSARY FOR FIELD MODIFICATIONS DUE TO EXISTING CONDITIONS. THE CONTRACTOR SHALL CONTACT THE ARCHITECT, ENGINEER, OR OWNER PRIOR TO BIDDING FOR INTERPRETATIONS AND CLARIFICATIONS OF THE DESIGN AND INCLUDE IN HIS BID ALL COSTS TO MEET THE DESIGN INTENT. CLARIFICATIONS MADE BY THE ARCHITECT, ENGINEER OR OWNER AFTER BIDDING WILL BE FINAL AND SHALL BE IMPLEMENTED AT CONTRACTOR'S COST.

BIDDING CONTRACTORS SHALL HAVE A WORKING KNOWLEDGE OF LOCAL CODES AND ORDINANCES AND SHALL INCLUDE IN THEIR BIDS ALL COSTS FOR ALL WORK INSTALLED IN STRICT ACCORDANCE WITH GOVERNMENT CODES, THE PLANS AND SPECIFICATIONS NOTWITHSTANDING. THE CONTRACTOR SHALL ALERT ARCHITECT, ENGINEER OR OWNER OF ANY CONFLICT DISCREPANCIES BETWEEN GOVERNMENT CODES AND DESIGN INTENT.

**PANEL NAME: B**

SUPPLY FROM: A  
LOCATION: Sales Area 100  
DISTRIBUTION SYSTEM: 208/120V 3PH 4W  
FEEDER: (4) #3/0 AWG CU, (1) #6 AWG CU GND IN 2" CONDUIT

MAINS RATING (A): 200  
MAINS TYPE: THERMAL MAGNETIC  
FEEDER ID: 200-4C

FAULT CURRENT (A): 85067  
SHORT CIRCUIT RATING (A): 22000  
LGUS TYPE: SUB-FEED / DOUBLE  
ENCLOSURE TYPE: NEMA 1

SURGE SUPPRESSION: ULSE  
200% NEUTRAL: ISOLATED GROUND:

CKT	CIRCUIT DESCRIPTION	VD%	AWG	GND	TRIP	POLE	A	B	C	POLE	TRIP	GND	AWG	VD%	CIRCUIT DESCRIPTION	CKT								
1	WH1 NON-CONTINUOUS RESTROOM 102	0.579	#12	#12	20 A	1	1.25	0.62							AH-1 HEATING STOCKROOM 105	2								
3	RTU RECEPTACLE RECEPTACLE STOCKROOM 105	0.222	#12	#12	20 A	1		0.62						0.18	0.62	3	15 A	#12	#12	0.179				
5	SPARE															4								
7	SPARE							4.68								6								
9	SPARE							0.00	4.68							8								
11	SPARE							0.00	4.68							10								
13	SPARE							0.00	0.00							12								
15	SPARE							0.00	0.00							14								
17	SPARE							0.00	0.00							16								
19	SPARE							0.00	0.00							18								
21	SPARE							0.00	0.00							20								
23	SPARE							0.00	0.00							22								
25	SPARE							0.00	0.00							24								
27	SPARE							0.00	0.00							26								
29	SPARE							0.00	0.00							28								
								0.00	0.00							30								

TOTAL CONNECTED LOAD: 6.6 KVA  
DEMAND FACTOR: 6.6 KVA  
ESTIMATED DEMAND: 5.5 KVA

LOAD CLASSIFICATION	CONNECTED LOAD	DEMAND FACTOR	ESTIMATED DEMAND	NOTES
Heating	15923 VA	100.00%	15923 VA	
Lighting	2500 VA	100.00%	2500 VA	
Receptacle	180 VA	100.00%	180 VA	

PANEL TOTALS  
TOTAL CONNECTED LOAD: 18.6 KVA  
DEMAND CALCULATION NOTES:  
TOTAL DEMAND: 18.6 KVA  
TOTAL DEMAND AMPS: 52 A

**PANEL NAME: A**

SUPPLY FROM: LL SWITCHGEAR  
LOCATION: Sales Area 100  
DISTRIBUTION SYSTEM: 208/120V 3PH 4W  
FEEDER: (4) #3/0 AWG CU, (1) #6 AWG CU GND IN 2" CONDUIT

MAINS RATING (A): 200  
MAINS TYPE: THERMAL MAGNETIC  
FEEDER ID: 200-4C

FAULT CURRENT (A): 10121  
SHORT CIRCUIT RATING (A): 22000  
LGUS TYPE: SUB-FEED / DOUBLE  
ENCLOSURE TYPE: NEMA 1

SURGE SUPPRESSION: ULSE  
200% NEUTRAL: ISOLATED GROUND:

CKT	CIRCUIT DESCRIPTION	VD%	AWG	GND	TRIP	POLE	A	B	C	POLE	TRIP	GND	AWG	VD%	CIRCUIT DESCRIPTION	CKT
1	NON-CONTINUOUS	2.283	#10	#10	20 A	1	1.20	0.63							SALES GENERAL I LIGHTING SALES AREA 100	2
3	SPARE							0.00	0.65						SALES GENERAL I LIGHTING SALES AREA 100	4
5	SPARE								0.00	1.01					PERIMETER TRACK I LIGHTING SALES AREA 100	6
7	PERIMETER TRACK I LIGHTING SALES AREA 100	2.637	#12	#12	20 A	1	1.01	1.03							DISPLAY TRACK I LIGHTING SALES AREA 100	8
9	STOREFRONT TRACK I LIGHTING	0.889	#12	#12	20 A	1		0.25	1.51						LIGHTING STOCKROOM 105	10
11	EF-1 LIGHTING ROOM 102, 103, 104	0.259	#12	#12	15 A	1			0.23	0.05					LIGHTING SALES AREA 100	12
13	SPARE							0.00	1.08						WALLBOX I RECEPTACLE SALES AREA 100	14
15	WALLBOX I RECEPTACLE SALES AREA 100	2.619	#12	#12	20 A	1		1.08	0.25						C1 C2 C3 C4 I NON-CONTINUOUS STOCKROOM 105	16
17	DOOR BUZZER I ROOM 100, 106	0.136	#12	#12	20 A	1			0.13	0.80					(G) REF I RECEPTACLE	18
19	MW I RECEPTACLE	1.331	#12	#12	20 A	1	1.20	0.36							BREAK DESK I RECEPTACLE	20
21	MUSIC SYSTEM I RECEPTACLE STOCKROOM 105	0.457	#12	#12	20 A	1		0.36	0.72						OFFICE DESK I RECEPTACLE STOCKROOM 105	22
23	OFFICE CONTROLLED I RECEPTACLE STOCKROOM...	1.031	#12	#12	20 A	1			0.72	0.72					OFFICE DESK I RECEPTACLE STOCKROOM 105	24
25	RECEPTACLE STOCKROOM 105	0.208	#12	#12	20 A	1	0.18	0.36							RECEIVING DESK I RECEPTACLE	26
27	NEON SIGN I RECEPTACLE SALES AREA 100	0.211	#12	#12	20 A	1		0.18	0.18						SENSORMATIC I RECEPTACLE SALES AREA 100	28
29	STOREFRONT RECEPTACLE	1.213	#12	#12	20 A	1			0.36	0.72					RECEPTACLE SALES AREA 100	30
31	RECEPTACLE SALES AREA 100	1.666	#12	#12	20 A	1	0.72	1.00							CASHWRAP I RECEPTACLE SALES AREA 100	32
33	CASHWRAP I RECEPTACLE SALES AREA 100	1.494	#12	#12	20 A	1		1.00	0.36						NETWORK BOX I RECEPTACLE STOCKROOM 105	34
35	SHOPPER TRACK I RECEPTACLE STOCKROOM 105	0.112	#12	#12	20 A	1			0.36	0.36					TELEPHONE BOARD I RECEPTACLE STOCKROOM 105	36
37	WIRELESS BOOSTER I NON-CONTINUOUS SALES...	0.19	#12	#12	20 A	1	0.12	0.54							CONVENIENCE RESTROOM I RECEPTACLE ROOM...	38
39	(G) EWC I NON-CONTINUOUS STOCKROOM 105	0.145	#12	#12	20 A	1		0.40	0.00						SPARE	40
41	SPARE								0.00	0.00					SPARE	42

TOTAL CONNECTED LOAD: 16.5 KVA  
DEMAND FACTOR: 13.5 KVA  
ESTIMATED DEMAND: 10.9 KVA

LOAD CLASSIFICATION	CONNECTED LOAD	DEMAND FACTOR	ESTIMATED DEMAND	NOTES
Heating	15923 VA	100.00%	15923 VA	
Lighting	6234 VA	125.00%	7793 VA	
Motor	1475 VA	113.59%	1675 VA	
Non-Continuous	7800 VA	100.00%	7800 VA	
Receptacle	9540 VA	100.00%	9540 VA	

PANEL TOTALS  
TOTAL CONNECTED LOAD: 41.0 KVA  
DEMAND CALCULATION NOTES:  
TOTAL DEMAND: 42.7 KVA  
TOTAL DEMAND AMPS: 119 A

**PLUMBING ELECTRICAL COORDINATION SCHEDULE**

ABBREVIATIONS	CONTRACTOR TYPE	MOTOR CONTROL TYPE	CONTROL TYPE
DC LOCAL DISCONNECT	EC ELECTRICAL CONTRACTOR	CS COMBINATION STARTER	TC TIMECLOCK
MC MOTOR CONTROL (POWER)	EX EXISTING	MCC MOTOR CONTROL STARTER	CPT CONTROL POWER TRANSFORMER
SD DUCT SMOKE DETECTOR	FC FIRE PROTECTION CONTRACTOR	MG MAGNETIC STARTER OR CONTACT	BAS BUILDING AUTOMATION SYSTEM
CN CONTROLS	GC GENERAL CONTRACTOR	MS MANUAL STARTER	LOW LOW VOLTAGE CONTROLS
TS TOGGLE SWITCH	HC HVAC CONTRACTOR	VFD VARIABLE FREQUENCY DRIVE	LINE LINE VOLTAGE CONTROLS
C/B H.A.C.R. CIRCUIT BREAKER AT SOURCE PANELBOARD	MFR MANUFACTURER	MSR MANUAL STARTER W/ CONTROL RELAY	RLINE REVERSE ACTING LINE VOLTAGE THERMOSTAT
FUSE FUSE AT LOCAL DISCONNECT (VERIFY FIELD RATING)	PC PLUMBING CONTRACTOR	OV OVERCURRENT PROTECTION	MAN MANUAL
FLA OPERATING FULL LOAD AMPS	OR OWNER OR OTHERS		FA FIRE ALARM
MCA MINIMUM CIRCUIT AMPACITY			CO CARBON MONOXIDE SENSOR
CP CORD AND PLUG CONNECTION			INT INTEGRAL TO EQUIPMENT

EQUIPMENT MARK	DESCRIPTION	VOLTS (V)	PHASE	EMERGENCY	BHP (HP)	HP (HP)	HTG KW (KW)	WATTS (W)	FLA (A)	MCA (A)	OCP (A)	DC TYPE	DC FURN	DC INST	DC WIRE	MC TYPE	MC FURN	MC INST	MC WIRE	CN FURN	CN INST	CN WIRE	SD TYPE	
WH1	ELECTRIC DOMESTIC WATER HEATER	208	1				2.5																	

**HVAC ELECTRICAL COORDINATION SCHEDULE**

ABBREVIATIONS	CONTRACTOR TYPE	MOTOR CONTROL TYPE	CONTROL TYPE
DC LOCAL DISCONNECT	EC ELECTRICAL CONTRACTOR	CS COMBINATION STARTER	TC TIMECLOCK
MC MOTOR CONTROL (POWER)	EX EXISTING	MCC MOTOR CONTROL STARTER	CPT CONTROL POWER TRANSFORMER
SD DUCT SMOKE DETECTOR	FC FIRE PROTECTION CONTRACTOR	MG MAGNETIC STARTER OR CONTACT	BAS BUILDING AUTOMATION SYSTEM
CN CONTROLS	GC GENERAL CONTRACTOR	MS MANUAL STARTER	LOW LOW VOLTAGE CONTROLS
TS TOGGLE SWITCH	HC HVAC CONTRACTOR	VFD VARIABLE FREQUENCY DRIVE	LINE LINE VOLTAGE CONTROLS
C/B H.A.C.R. CIRCUIT BREAKER AT SOURCE PANELBOARD	MFR MANUFACTURER	MSR MANUAL STARTER W/ CONTROL RELAY	RLINE REVERSE ACTING LINE VOLTAGE THERMOSTAT
FUSE FUSE AT LOCAL DISCONNECT (VERIFY FIELD RATING)	PC PLUMBING CONTRACTOR	OV OVERCURRENT PROTECTION	MAN MANUAL
FLA OPERATING FULL LOAD AMPS	OR OWNER OR OTHERS		FA FIRE ALARM
MCA MINIMUM CIRCUIT AMPACITY			CO CARBON MONOXIDE SENSOR
CP CORD AND PLUG CONNECTION			INT INTEGRAL TO EQUIPMENT

EQUIPMENT MARK	DESCRIPTION	VOLTS (V)	PHASE	EMERGENCY	BHP (HP)	HP (HP)	HTG KW (KW)	WATTS (W)	FLA (A)	MCA (A)	OCP (A)	DC TYPE	DC FURN	DC INST	DC WIRE	MC TYPE	MC FURN	MC INST	MC WIRE	CN FURN	CN INST	CN WIRE	SD TYPE	
AH-1	AIR SOURCE UNITARY HEAT PUMP	208	3																					
CU-1	AIR COOLED CONDENSING UNIT	208	3																					
EF-1	CEILING MOUNTED VENTILATOR	120					128		39	42	60													
EF-2	INLINE CENTRIFUGAL FAN	120					547																	

**PANEL SCHEDULE LEGEND**

(EX) = EXISTING CIRCUIT TO REMAIN  
(#) = NEW CIRCUIT TO EXISTING CIRCUIT BREAKER  
(G) = PROVIDE GROUND-FAULT CIRCUIT INTERRUPTER (GFCI) CIRCUIT BREAKER  
(GE) = PROVIDE GROUND-Fault EQUIPMENT PROTECTION (GFEP) CIRCUIT BREAKER  
(ST) = PROVIDE SHUNT TRIP CIRCUIT BREAKER  
(A) = PROVIDE ARC FAULT CIRCUIT INTERRUPTER (AFCI) CIRCUIT BREAKER  
(L) = PROVIDE LOCK-ON DEVICE

(LT) = PROVIDE LOCK-OUT/TAG-OUT DEVICE  
(-) = CONNECT BRANCH CIRCUIT, WHICH WAS DISCONNECTED FROM ANOTHER SOURCE AS PART OF SELECTIVE DEMOLITION, TO POLE SPACE(S) AND BREAKER INDICATED, DETERMINE EXACT POLE ASSIGNMENT(S) BASED ON EXISTING COLOR-CODING OF THE BRANCH CIRCUIT CONDUCTOR INSULATION  
(A) = WIRE SIZED TO COMPENSATE FOR VOLTAGE DROP  
(L) = SEE THE SINGLE LINE DIAGRAM / SCHEDULE FOR WIRE SIZE AND VOLTAGE DROP

A. PROVIDE HACR RATED BREAKERS ON ALL MOTOR LOADS.  
B. PROVIDE LOCKING TYPE BREAKER FOR ALL LIFE SAFETY AND NIGHT LIGHTING BRANCH CIRCUITS.  
C. UNLESS INDICATED OTHERWISE ON PLANS OR SCHEDULES, PROVIDE NEW BRANCH OVERCURRENT PROTECTIVE DEVICE (OPD) BREAKER OR FUSED SWITCH, WITH FUSE, AS APPLICABLE) IN CASES WHERE NEW CIRCUITS OR FEEDERS ARE SHOWN CONNECTED TO EXISTING POWER DISTRIBUTION EQUIPMENT. PROVIDE OPD MANUFACTURED BY THE SAME MANUFACTURER AS THE EXISTING EQUIPMENT IN WHICH IT WILL BE INSTALLED. PROVIDE A.I.C. RATINGS THAT MEET OR EXCEED THE RATINGS OF THE EXISTING EQUIPMENT AND OPD'S.  
D. ALL VOLTAGE DROP CALCULATIONS AND COMPENSATED WIRE SIZES ARE BASED ON RIGHT ANGLE CIRCUIT LENGTHS TO THE LAST DEVICE. ACTUAL VOLTAGE DROP VARIES BASED ON INSTALLED WIRE LENGTH.

REVISIONS

ISSUE FOR	DATE
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