LRC BUILDING #10 KITCHEN

KITCHEN EQUIPMENT SCHEDULE													
MARK	DESCRIPTION	HP/KW/FLA	VOLTAGE	PHASE	MCA	MOCP	LOAD VA	STARTER/CONTROLLER	CONTROL TYPE	DISCONNECT	COMMENTS	PANEL	CIRCUIT NUMBER	GEN
100A	COOLER CONDENSING UNIT	11.7A	208 V	3	11.7	15/3	4212 VA	INT	INT	30/3 NF	2	K	6,8,10	No
100B	COOLER EVAPORATOR	1.8A	120 V	1	1.8	20/1	216 VA	INT	INT	SW	2	K	7	No
100C	DIGITAL THERMOMETER	2.3A	120 V	1	2.3	20/1	276 VA	INT	INT	SW	2	K	7	No
101A	FREEZER CONDENSING UNIT	16.2A	208 V	3	16.2	20/3	5832 VA	INT	INT	30/3 NF	2	K	11,13,15	No
101B	FREEZER EVAPORATOR	8.7	208 V	1	8.7	20/2	1809 VA	INT	INT	30/3 NF	2	K	12,14	No
101C	DIGITAL THERMOMETER	2.3	120 V	1	2.3	20/1	276 VA	INT	INT	N/A	2	K	16	No
101D	HEAT TAPE @ FREEZER DOOR	1.1	120 V	1	1.1	20/1	132 VA	INT	INT	N/A	2	K	16	No
102	EXISTING REACH IN REFRIGERATOR	8.2	120 V	1	8.2	20/1	984 VA	INT	INT	NEMA 5-15R		K	18	No
103	EXISTING REACH IN FREEZER	12	120 V	1	12	20/1	1440 VA	INT	INT	NEMA 5-15R		K	19	No
201	TILTING BRAISING PAN	1	120 V	1	1	20/1	120 VA	INT	INT	NEMA 5-15R		K	20	No
202	STEAM JACKET KETTLE	2	120 V	1	2	20/1	240 VA	INT	INT	NEMA 5-15R		K	20	No
203	EXISTING DOUBLE CONVECTION OVEN	6	120 V	1	1	20/1	120 VA	INT	INT	SW		K	23	No
204	EXISTING DOUBLE CONVECTION OVEN	6	120 V	1	1	20/1	120 VA	INT	INT	SW		K	23	No
205	EXISTING SINGLE CONVECTION OVEN	3	120 V	1	1	20/1	120 VA	INT	INT	SW		K	23	No
206	EXISTING STEAMER	29	208 V	3	29	50/3	10440 VA	INT	INT	SW		K	26,28,30	No
207	EXISTING COMBI-OVEN	44.3	208 V	3	44.3	60/3	15948 VA	INT	INT	SW		K	27,29,31	No
208	HOT HOLDING CABINET	12	120 V	1	12	20/1	1440 VA	INT	INT	NEMA 5-15R		K	94	No
302A	EXISTING DISPOSER	10	120 V	1	10	20/1	1200 VA	INT	INT	SW		K	33	No
308	EXISTING MIXER	10.2	120 V	1	10.2	20/1	1224 VA	INT	INT	SW		K	34	No
309	EXISTING MIXER	5.6	208 V	3	5.6	20/3	2016 VA	INT	INT	30/3 NF		K	35,37,39	No
310	EXISTING MIXER	8.6	120 V	1	8.6	20/1	1032 VA	INT	INT	NEMA 5-15R		K	36	No
311	EXISTING MIXER	8.2	120 V	1	8.2	20/1	984 VA	INT	INT	NEMA 5-15R		K	38	No
312	EXISTING FOOD PROCESSOR	12	120 V	1	12	20/1	1440 VA	INT	INT	NEMA 5-15R		K	40	No
313	EXISTING FOOD PROCESSOR	12	120 V	1	12	20/1	1440 VA	INT	INT	NEMA 5-15R		K	41	No
315	EXISTING SLICER	5	120 V	1	5	20/1	600 VA	INT	INT	NEMA 5-15R		K	42	No
602	POT & PAN WASHER	5	120 V	1	5	20/1	600 VA	INT	INT	SW		K	43	No
602A	INTERNAL BOOSTER HEATER	122	208 V	3	122	175/3	43920 VA	INT	INT	200/3 NF		K	44,46,48	No
606	WALL MOUNT SPRAYER SYSTEM	15	208 V	3	15	20/3	5400 VA	INT	INT	NEMA 6-15R		K	45,47,49	No
807	DISPOSER	3.3	208 V	3	3.3	20/3	1188 VA	INT	INT	20/3 NF		K	50,52,54	No
DL-1	DOCK LEVELER	5HP	208 V	3	15.8	20/3	5076 VA	MAN	INT	30/3 NF		K	51,53,55	No

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KEY NOTES: (EQUIPMENT CONNECTION SCHEDULE)

1. CONTROLS BETWEEN INDOOR AND OUTDOOR UNITS - INCLUDE CONTROL WIRING IN CONDUIT BETWEEN INDOOR AND OUTDOOR UNIT PER MANUFACTUERE'S REQUIREMENTS.
2. WALK-IN COOLER CONNECTIONS - PROVIDE CONNECTION TO COOLER ACCESSORIES (EVAPORATOR, LIGHTS, LIGHT CONTROLS, AND DOOR FRAME HEATER) WITH BRANCH CIRCUITS INDICATED ON PLANS. ACCESSORIES FURNISHED WITH EQUIPMENT.
3. KITCHEN HOOD FIRE SUPPRESSION CONNECTIONS - INTERLOCK HOOD FIRE SUPPRESSION WITH FIRE ALARM MONITORING, SHUNT TRIP CIRCUIT BREAKERS SERVING EQUIPMENT BELOW HOOD, AND GAS SUPPLY SOLENOID VALVES/RESETS SERVING EQUIPMENT BELOW HOOD. ACTIVATION OF HOOD FIRE SUPPRESSION SHALL TRIP SHUNT CIRCUIT BREAKERS TO THEIR OFF POSITION. SHALL CLOSE GAS SUPPLY SOLENOID VALVES AND SHALL PROVIDE INDICATION TO THE FIRE ALARM SYSTEM. 120V BRANCH CIRCUIT SHALL SERVE HOOD LIGHTS, HOOD CONTROLS, AND FIRE SUPPRESSION INTERLOCKS. HOOD FIRE SUPPRESSION SYSTEM IS SHIPPED LOOSE, COORDINATE MOUNTING LOCATION IN FIELD. SEE FOOD SERVICE EXHAUST HOOD DRAWING FOR CLARIFICATION AND ADDITIONAL REQUIREMENTS.
4. KITCHEN HOOD CONTROL CONNECTIONS - INTERLOCK HOOD CONTROL PANEL WITH FAN SWITCH AT HOOD, LIGHT SWITCH AND LIGHTING AT HOOD, HOOD FIRE SUPPRESSION SYSTEM, ASSOCIATED EXHAUST FAN STARTERS, AND ASSOCIATED MAKE-UP AIR/ROOFTOP UNITS. HOOD CONTROL PANEL IS SHIPPED LOOSE, COORDINATE MOUNTING LOCATION IN FIELD. SEE FOOD SERVICE EXHAUST HOOD DRAWING FOR CLARIFICATION AND ADDITIONAL REQUIREMENTS.
5. CONNECT TO CEILING OCCUPANCY SENSOR.

GENERAL NOTES: (EQUIPMENT CONNECTION SCHEDULE)

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A. REFER TO FS SERIES DRAWINGS AND CAPTIVE AIRE APPENDIX DRAWINGS FOR MORE INFORMATION ON KITCHEN AND HOOD REQUIREMENTS.
B. EQUIPMENT LISTED MAY NOT BE UNIQUE, VERIFY QUANTITY ON PLANS. REFER TO DEFINITIONS BELOW FOR CLARIFICATION OF CONNECTION REQUIREMENTS.
C. ITEMS NOTED AS "NA" ARE NOT APPLICABLE TO THE CONNECTION.
D. "STARTER/CONTROLLER" - PROVIDE STARTER AND ASSOCIATED CONNECTIONS TO EQUIPMENT AND BRANCH CIRCUIT:
- "MAG" = COMBINATION MAGNETIC MOTOR STARTER WITH DISCONNECT (COORDINATE COIL VOLTAGE WITH CONTROL SOURCE).
- "MAN" = COMBINATION MANUAL MOTOR STARTER WITH DISCONNECT.
- "DIV 15" = STARTER OR CONTROLLER IS FURNISHED BY MECHANICAL CONTRACTOR, TEMPERATURE CONTROLS CONTRACTOR, OR PROVIDED WITH
- EQUIPMENT. ELECTRICAL CONTRACTOR SHALL PROVIDE MOUNTING AND ADDITIONAL CONNECTIONS REQUIRED FOR THESE LOOSE STARTERS AND CONTROLLERS.
- "VFD-___" = VARIABLE FREQUENCY DRIVE CONTROLLER FURNISHED BY MECHANICAL CONTRACTOR. ELECTRICAL CONTRACTOR SHALL PROVIDE MOUNTING AND ADDITIONAL CONNECTIONS REQUIRED FOR LOOSE VFD CONTROLLERS FURNISHED BY THE MECHANICAL CONTRACTOR. REFER TO MECHANICAL PLANS FOR VFD LOCATION.
- "INT" = STARTER/CONTROLLER IS MANUFACTURED INTEGRAL TO THE EQUIPMENT.
- LOCATE STARTER/CONTROLLER ADJACENT TO INDOOR EQUIPMENT - PROVIDE WITH STRUT MOUNTING AS REQUIRED.
- WHERE STARTER SERVES OUTDOOR EQUIPMENT, LOCATE STARTER IN THE SOURCE ELECTRICAL ROOM.

E. "CONTROL TYPE" - PROVIDE CONTROL AND CONNECTIONS:
- "INT" = CONTROLS ARE MANUFACTURED INTEGRAL TO THE EQUIPMENT (SELF-CONTAINED).
- "CONT" = EQUIPMENT OPERATES CONTINUOUSLY (NO CONTROLS).
- "NONE" = EQUIPMENT OPERATES CONTINUOUSLY OR CONTROLS ARE SELF-CONTAINED.
- "DDC" = CONTROL SIGNAL FROM TEMPERATURE CONTROL SYSTEM PROVIDED BY MECHANICAL CONTRACTOR OR TEMPERATURE CONTROLS CONTRACTOR.
- "TIME SW" = CONTROL SIGNAL FROM TIME SWITCH PROVIDED BY ELECTRICAL CONTRACTOR. TIME SWITCH SHALL BE 7-DAY DIGITAL TYPE WITH AUTOMATIC DAYLIGHT SAVINGS ADJUSTMENTS AND BATTERY BACKUP. LOCATE TIMESWITCH IN NEAREST MECHANICAL OR ELECTRICAL UTILITY ROOM. LABEL TIME SWITCH. COORDINATE TIME SCHEDULE WITH OWNER AND MECHANICAL ENGINEER.
- "WALL SW" = CONTROL SIGNAL FROM WALL SWITCH PROVIDED BY ELECTRICAL CONTRACTOR. COORDINATE LOCATION OF WALL SWITCH WITH OWNER. LABEL WALL SWITCH.
- "FA STOP" = FANS WITH CFM OF 2000 OR GREATER AND FANS SERVING DUCTS CONTAINING SMOKE DAMPERS. FIRE ALARM SYSTEM SHALL SHUTDOWN FAN UPON DETECTION OF SMOKE IN DUCT OR ROOMS SERVED FROM THIS EQUIPMENT. PROVIDE WITH INDIVIDUAL ADDRESSABLE CONTROL MODULE AT MOTOR CONTROLLER/STARTER AND CONNECT TO SHUTDOWN FAN.
- "FA START" = FANS USED FOR SMOKE EVACUATION OR PRESSURIZATION. FIRE ALARM SYSTEM SHALL START FAN UPON DETECTION OF SMOKE IN DUCT OR ROOMS SERVED FROM THIS EQUIPMENT. PROVIDE WITH INDIVIDUAL ADDRESSABLE CONTROL MODULE AT MOTOR CONTROLLER/STARTER AND CONNECT TO START FAN.
- "DATA" = PROVIDE WITH DATA CONNECTION FROM NEAREST DATA NETWORK COMMUNICATIONS ROOM.
- "CONDUIT" = PROVIDE EMPTY 3/4" CONTROLS CONDUIT BETWEEN INDOOR AND OUTDOOR UNIT TO ACCOMMODATE CONTROL CABLING BY MECHANICAL OR TEMPERATURE CONTROLS CONTRACTOR.

F. "DISCONNECT" - PROVIDE DISCONNECT/RECEPTACLE AT EQUIPMENT LOCATION AND ASSOCIATED CONNECTION TO EQUIPMENT AND BRANCH CIRCUIT:
- "NEMA-___" = DUPLEX (TYP) RECEPTACLE TO ACCOMMODATE CORD AND PLUG CONNECTION (CORD AND PLUG FURNISHED WITH EQUIPMENT UNLESS NOTED OTHERWISE)
- "REC/SW" = PROVIDE 20A 120V RECEPTACLE OR 20A TOGGLE SWITCH DISCONNECT. COORDINATE REQUIRED SELECTION WITH EQUIPMENT.
- "NF" = NON-FUSED DISCONNECT. SIZE AND POLE QUANTITY AS INDICATED. 20/1 AND SMALLER SHALL BE TOGGLE SWITCH DISCONNECT.
- "F" = FUSED DISCONNECT. SIZE AND POLE QUANTITY AS INDICATED. FUSE PER MANUFACTURER'S RECOMMENDATIONS.
- "FUSTAT" = SWITCH AND FUSTAT. FUSE SIZE PER EQUIPMENT MANUFACTURER. LOCATE SWITCH IN CONCEALED ACCESSIBLE LOCATION.
- "ENCL CB" = ENCLOSED CIRCUIT BREAKER DISCONNECT. SIZE, POLE QUANTITY, AND FLUSH/SURFACE MOUNTING AS INDICATED.
- "ENCL MCSW" = ENCLOSED MOLDED CASE SWITCH DISCONNECT. SIZE, POLE QUANTITY, AND FLUSH/SURFACE MOUNTING AS INDICATED.
- "SHUNT ENCL CB" = SHUNT TRIP ENCLOSED CIRCUIT BREAKER DISCONNECT. SIZE, POLE QUANTITY, AND FLUSH/SURFACE MOUNTING AS INDICATED. PROVIDE WITH INTEGRAL 120V CONTROL TRANSFORMER SERVED FROM LINE SOURCE WITH PRIMARY AND SECONDARY FUSING. COORDINATE ENCLOSURE AND COVER SIZE TO ACCOMMODATE TRANSFORMER. PROVIDE WITH EQUIPMENT GROUND BAR AND SEPARATE INSULATED ISOLATED GROUND BAR. WHERE NEUTRAL CONDUCTOR IS UTILIZED, PROVIDE SOLID NEUTRAL BAR. CONNECT SHUNT TRIP VOLTAGE SOURCE AND ACTUATOR TO ASSOCIATED EMERGENCY POWER OFF (EPO) SWITCHES. PROVIDE EPO AND COORDINATE LOCATION.
- "DIV 15" = DISCONNECT IS FURNISHED BY MECHANICAL CONTRACTOR OR PROVIDED WITH MECHANICAL EQUIPMENT. ELECTRICAL CONTRACTOR SHALL PROVIDE MOUNTING AND ADDITIONAL CONNECTIONS REQUIRED FOR LOOSE DISCONNECTS FURNISHED BY THE MECHANICAL CONTRACTOR.
- INT" = DISCONNECT IS MANUFACTURED INTEGRAL TO THE EQUIPMENT.
- "HW" = HARDWIRE. DISCONNECT NOT REQUIRED.
- LOCATE DISCONNECT ADJACENT TO EQUIPMENT PER NEC - PROVIDE WITH STRUT MOUNTING AS REQUIRED.
- LOCATE RECEPTACLE OR JUNCTION BOX TO DIRECTLY SERVE EQUIPMENT. COORDINATE EXACT LOCATION WITH ARCHITECT, ARCHITECTURAL DETAILS, AND EQUIPMENT MANUFACTURER'S REQUIREMENTS.
- WHERE DISCONNECT SERVES OUTDOOR EQUIPMENT, PROVIDE AS NEMA-3R.
- PROVIDE DISCONNECT WITH EQUIPMENT GROUND KIT.
- WHERE FEEDER INDICATED UTILIZES A NEUTRAL, PROVIDE DISCONNECT WITH SOLID NEUTRAL KIT.
- WHERE FEEDER INDICATED UTILIZES AN ISOLATED GROUND, PROVIDE DISCONNECT WITH ADDITIONAL INSULATED GROUND KIT.
- DISCONNECTS NOT SHOWN AS "F" OR "NF" SHALL BE NON-FUSED.
- DISCONNECTS OF MOTORS SERVED FROM A VFD SHALL CONTAIN AUXILIARY CONTACTS CONNECTED TO THE VFD TO DISABLE VFD UPON DISCONNECTION.
- WHERE STARTERS VFD'S CONTAIN INTEGRAL DISCONNECTS AND ARE LOCATED PER NEC TO SATISFY AS THE EQUIPMENT DISCONNECT, AN ADDITIONAL EQUIPMENT DISCONNECT IS NOT REQUIRED.

G. "GEN"
- EQUIPMENT IS SERVED FROM A SOURCE PANEL PROVIDED WITH GENERATOR BACK-UP.

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EQUIPMENT CONNECTION SCHEDULE																	
MARK	DESCRIPTION	HP/KW/FLA	VOLTS	PHASE	MCA	MOCP	LOAD	STARTER/ CONTROLLER	CONTROL TYPE	DISCONNECT	FEEDER	PANEL	CIRCUIT NUMBER	GEN	KEY NOTES	ROOM NAME	ROOM #
AB-1	AIR CURTAIN	0.5HP	208 V	1	1.8	20/1	216 VA	INT	DOOR SW	INT	(1M1) (1/6 - 1 HP 120V) 2-#12, #12 GND - 3/4"C.	K	78,80	No		RECEIVING	028
AB-2	AIR CURTAIN	0.5HP	208 V	1	1.8	20/1	216 VA	INT	DOOR SW	INT	(1M1) (1/6 - 1 HP 120V) 2-#12, #12 GND - 3/4"C.	K	78,80	No		RECEIVING	028
AHU-1	AIR HANDLING UNIT	5HP	208 V	3	20.9	30/3	6012 VA	DIV 15	INT	DIV 15	(2M) (5 HP 208V) 3-#10, #10 GND - 3/4"C.	K	57,59,61	No		MECH	019
CEF-1	CEILING EXHAUST FAN	96VA	120 V	1	0.8	20/1	96 VA	INT	WALL SW	INT	(1M1) (1/6 - 1 HP 120V) 2-#12, #12 GND - 3/4"C.	K	79	No	5	CUST	026
CEF-2	CEILING EXHAUST FAN	96VA	120 V	1	0.8	20/1	96 VA	INT	WALL SW	INT	(1M1) (1/6 - 1 HP 120V) 2-#12, #12 GND - 3/4"C.	K	79	No	5		
CU-1	MAU-1 CONDENSOR	17.4A	208 V	3	21.4	30/3	7704 VA	DIV 15	INT	DIV 15	(2M) (5 HP 208V) 3-#10, #10 GND - 3/4"C.	K	63,65,67	No	4		
CU-2	MAU-1 CONDENSOR	17.4A	208 V	3	21.4	30/3	7704 VA	DIV 15	INT	DIV 15	(2M) (5 HP 208V) 3-#10, #10 GND - 3/4"C.	K	64,66,68	No	4		
DHC-3	LIGHT-DUTY GAS WATER HEATER	1A	120 V	1	1	20/1	120 VA	DIV 15	INT	DIV 15	(1X) (20A) 2-#12, #12 GND - 3/4"C.	K	81	No			
EF-1	HOOD EXHAUST FAN	1HP	480 V	3	1.7	20/3	1656 VA	DIV 15	INT	DIV 15	(1M) (1/2 - 3 HP 208V) 3-#12, #12 GND - 3/4"C.	BQA	2,4,6	Yes	3,4		
EF-2	HOOD EXHAUST FAN	1HP	480 V	3	1.7	20/3	1656 VA	DIV 15	INT	DIV 15	(1M) (1/2 - 3 HP 208V) 3-#12, #12 GND - 3/4"C.	BQA	1,3,5	Yes	3,4		
EF-3	HOOD EXHAUST FAN	1HP	480 V	3	1.7	20/3	1656 VA	DIV 15	INT	DIV 15	(1M) (1/2 - 3 HP 208V) 3-#12, #12 GND - 3/4"C.	BQA	8,10,12	Yes	3,4		
EF-4	HOOD EXHAUST FAN	0.5HP	208 V	3	2.4	20/3	864 VA	DIV 15	CONT	DIV 15	(1M) (1/2 - 3 HP 208V) 3-#12, #12 GND - 3/4"C.	K	71,73,75	No			
FC-1	FAN COIL-SPLIT SYSTEM	1.6A	208 V	1	1.6	15/2	0 VA	DIV 15	INT	DIV 15	(1M1) (1/6 - 1 HP 120V) 2-#12, #12 GND - 3/4"C.	K	89,91	No	1		
HP-1	SPLIT SYSTEM HEAT PUMP	16.5HP	208 V	1	16.5	20/2	3432 VA	DIV 15	INT	DIV 15	(1M) (1/2 - 3 HP 208V) 3-#12, #12 GND - 3/4"C.	K	82,84	No	1		
MUA-1	HOOD MAKEUP AIR UNIT	5HP	208 V	3	14.1	30/3	5076 VA	DIV 15	INT	DIV 15	(1M) (1/2 - 3 HP 208V) 3-#12, #12 GND - 3/4"C.	K	56,58,60	No			
P-1	PUMP	1.5HP	208 V	3	6.6	20/3	2376 VA	DIV 15	INT	DIV 15	(1M) (1/2 - 3 HP 208V) 3-#12, #12 GND - 3/4"C.	K	83,85,87	No	4		
P-2	PUMP	1.5HP	208 V	3	6.6	20/3	2376 VA	DIV 15	INT	DIV 15	(1M) (1/2 - 3 HP 208V) 3-#12, #12 GND - 3/4"C.	K	86,88,90	No			

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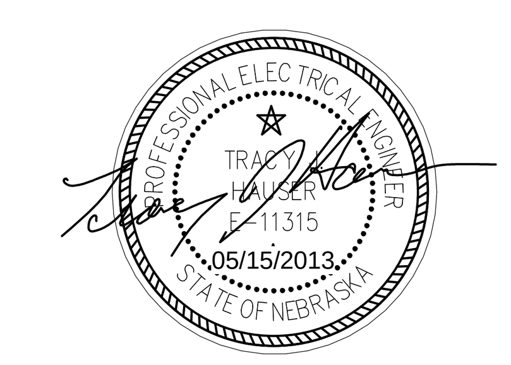

REVISION		DATE
1	Addendum #1	05-28-2013

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ELECTRICAL SCHEDULES AND DETAILS

E3.1