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WILMINGTON ACADEMY
 CHRISTIAN COLLEGE ROAD
 WILMINGTON, NC

INITIAL DATE: 2/10/09
 COMPLETED: 1/19/09
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 REVISIONS:

DRAWING: RISERS AND PANEL SCHEDULES
 SHEET: E-4
 OF: 5

EQUIPMENT CONNECTION SCHEDULE											
SYMBOL	DESCRIPTION	HP	KW	AMP	VOLT	PHASE	BKR	FEEDER		CONNECTION	REMARKS
								COND	WIRE		
RTU-5	3 TON ROOF TOP UNIT	-	-	15	480	3	20	1/2"	3#12, 1#12G	FUSED DISC NEMA 3R	-
RTU-3 & 4	10 TON ROOF TOP UNIT	-	-	46	480	3	60	-	-	FUSED DISC NEMA 3R	-
RTU-1	12 1/2 TON ROOF TOP UNIT	-	-	47	480	3	60	-	-	FUSED DISC NEMA 3R	-
RTU-2	15 TON HEAT PUMP	-	-	73	480	3	100	-	-	FUSED DISC NEMA 3R	-
HP-1	3 TON HEAT PUMP	-	-	20	240	1	40	3/4"	2#8, 1#10G	FUSED DISC NEMA 3R	-
AHU-1	AIR HANDLING UNIT	-	7.68	-	240	1	45	3/4"	2#8, 1#10G	FUSED DISC NEMA 1	-
HWT-1	HOT WATER TANK	-	4.5	-	208	1	30	1/2"	2#10, 1#10G	FUSED DISC NEMA 1	-
HWT-2	GAS HOT WATER TANK	-	-	5	120	1	30	1/2"	2#10, 1#10G	DIRECT	-
HWT-3	HOT WATER TANK	-	1.65	-	120	1	20	1/2"	2#12, 1#12G	DIRECT	-
(1A)	COOLER COMPRESSOR	3/4	-	9	208	1	20	1/2"	2#12, 1#12G	FUSED DISC NEMA 3R	VERIFY BREAKER SIZE WITH SUPPLIER.
(1B)	COOLER COIL	-	-	2	120	1	20	1/2"	2#12, 1#12G	DIRECT	-
(1C)	COOLER LIGHTS	-	-	5	120	1	20	1/2"	2#12, 1#12G	DIRECT	-
(2A)	FREEZER COMPRESSOR	1-1/2	-	20	208	1	30	1/2"	2#10, 1#10G	FUSED DISC NEMA 3R	VERIFY BREAKER SIZE WITH SUPPLIER.
(2B)	FREEZER COIL AND DOOR HEATERS	-	-	9	120	1	20	1/2"	2#12, 1#12G	DIRECT	-
(2C)	FREEZER LIGHTS	-	-	5	120	1	20	1/2"	2#12, 1#12G	DIRECT	-
(8)	FLY FAN	-	-	10	120	1	20	1/2"	2#12, 1#12G	DIRECT	VERIFY CONNECTION WITH SUPPLIER.
(13)	DISH MACHINE	-	-	24	208	1	35	3/4"	2#8, 1#10G	FUSED DISC NEMA 1	VERIFY BREAKER SIZE WITH SUPPLIER.
(14)	BOOSTER HEATER	-	18	63	208	1	90	1 1/2"	2#2, 1#8G	FUSED DISC NEMA 1	-
(15)	SALAD/SANDWICH TOP REFRIGERATOR	1/5	-	7	120	1	20	1/2"	2#12, 1#12G	RECPT	-
(6A)	HOOD DISCHARGE FAN	2	-	12	208	1	20	1/2"	2#12, 1#12G	FUSED DISC NEMA 1	-
(6B)	HOOD MAKE-UP FAN	1	-	8	208	1	20	1/2"	2#12, 1#12G	FUSED DISC NEMA 1	-
(6C)	HOOD ANSUL SYSTEM	-	-	2	120	1	20	1/2"	2#12, 1#12G	DIRECT	-
(6D)	HOOD CONTROLS	-	-	5	120	1	20	1/2"	2#12, 1#12G	DIRECT	-
(6E)	HOOD LTS	-	-	5	120	1	20	1/2"	2#12, 1#12G	DIRECT	-
(17)	GAS RANGE/OVEN	-	-	13	120	1	20	1/2"	2#12, 1#12G	RECPT	-
(20)	CONVECTION OVEN	-	-	8	120	1	20	1/2"	2#12, 1#12G	RECPT	-
(21)	REFRIGERATOR	-	-	7	120	1	20	1/2"	2#12, 1#12G	RECPT	-
(22)	WARMER	-	1.5	7	120	1	20	1/2"	2#12, 1#12G	RECPT	-
(25)	MILK COOLER	1/2	-	9	120	1	20	1/2"	2#12, 1#12G	RECPT	VERIFY CONNECTION WITH SUPPLIER.
(26)	HOT/COLD COUNTER	1/4	-	29	208	1	50	3/4"	2#8, 1#10G	50A RECPT	VERIFY BREAKER SIZE AND RECEPTACLE TYPE WITH SUPPLIER.
(24)	REFRIGERATOR	-	-	7	120	1	20	1/2"	2#12, 1#12G	RECPT	-
(23)	FREEZER	1/4	-	6	120	1	20	1/2"	2#12, 1#12G	RECPT	-
(38)	SLICER	-	-	10	120	1	20	1/2"	2#12, 1#12G	RECPT	VERIFY CONNECTION WITH SUPPLIER.
(39)	ICE MACHINE	-	-	12	120	1	20	1/2"	2#12, 1#12G	RECPT	-

NOTES:
 1. CONTRACTOR SHALL VERIFY ALL CONNECTIONS BEFORE RUNNING SERVICE OR ORDERING EQUIPMENT.

WIRE SIZE LEGEND

- 4#2, 1#8G IN 1 1/2" C
- 4-3/0, 1#6G IN 2" C
- 4-4/0, 1#4 IN 2 1/2" C
- 4-500, 1#2G IN 3 1/2" C
- TWO SETS 4-350 IN 3" C
- TWO SETS 4-500 IN 3 1/2" C
- EXISTING SERVICE TO REMAIN

RISER NOTES:
 1. CONTRACTOR SHALL PROVIDE CONCRETE PAD, PLUS ALL LABOR, MATERIALS AND PAY ALL POWER COMPANY CONNECTION FEES TO PROVIDE A COMPLETE AND OPERATING SYSTEM FOR THE OWNER.
 2. CONTRACTOR SHALL VERIFY THAT 65,000 AIC BRACING IS SUFFICIENT. PROVIDE LARGER BRACING AS REQUIRED AT NO ADDITIONAL COST TO THE OWNER.
 3. MDP BREAKER SHALL BE CURRENT LIMITING TO ALLOW SECONDARY BREAKER TO BE AS FOLLOWS:
 300A - 400A 22,000AIC
 225A & SMALLER 10,000AIC

PANEL-A
 TYPE BOLT-ON MOUNTING SURFACE ENCLOSURE NEMA-1 PHASE 3 WIRE 4
 VOLTS 120/208 MAIN 200A MLO FRAME 225A SHORT CIR.RATING 10,000 RMS SYM MIN

CKT. NO.	CCT. TRIP	DESCRIPTION	PHASE			LOADING	PHASE	DESCRIPTION	CCT. TRIP	CCT. NO.
			A	B	C					
1	20/1	LTS	9	12	7	15	15	RECPT	20/1	2
3	20/1	LTS	12	7	10	10	10	RECPT	20/1	4
5	20/1	LTS	7	10	10	10	10	MICROWAVE	20/1	6
7	20/1	LTS	7	10	10	10	10	MICROWAVE	20/1	8
9	20/1	LTS	9	10	10	10	10	MICROWAVE	20/1	10
11	20/1	LTS	12	10	10	10	10	MICROWAVE	20/1	12
13	20/1	LTS	7	10	10	10	10	VENDING	20/1	14
15	20/1	LTS	7	10	10	10	10	VENDING	20/1	16
17	20/1	LTS	9	10	10	10	10	RECPT	20/1	18
19	20/1	LTS	9	10	10	12	10	RECPT	20/1	20
21	20/1	LTS	7	10	4	4	2	RECPT	20/1	22
23	20/1	LTS	7	10	2	2	2	PHONE	20/1	24
25	20/1	LTS	7	10	5	5	5	RECPT	20/1	26
27	20/1	LTS	12	10	10	10	10	BLANK	20/1	28
29	20/1	LTS	8	10	10	10	10	ICE CREAM COOLER	20/1	30
31	20/1	LTS	8	10	10	10	10	BLANK	20/1	32
33	20/1	LTS	7	10	10	10	10	FUTURE STEREO EQUIP.	20/1	34
35	20/1	LTS	8	10	10	10	10	FUTURE STEREO EQUIP.	20/1	36
37	20/1	LTS	6	10	10	10	10	BLANK	20/1	38
39	20/1	LTS	6	10	10	10	10	BLANK	20/1	40
41	20/1	LTS EXT	6	10	14	14	14	HWT-3	20/1	42
SUBTOTAL			53	54	57	52	49	66		

NOTES:
 TOTAL PANEL LOAD: A# 105A B# 103A C# 123A
 NEUTRAL TERMINAL BAR [X]
 GROUND TERMINAL BAR [X]

PANEL-EM
 TYPE BOLT-ON MOUNTING SURFACE ENCLOSURE NEMA-1 PHASE 3 WIRE 4
 VOLTS 120/208 MAIN 100A MLO FRAME 100A SHORT CIR.RATING 10,000 RMS SYM MIN

CKT. NO.	CCT. TRIP	DESCRIPTION	PHASE			LOADING	PHASE	DESCRIPTION	CCT. TRIP	CCT. NO.
			A	B	C					
1	20/1	LTS	9	7	7	7	7	REFRIGERATOR (1)	20/1	2
3	20/1	LTS	7	7	7	7	7	REFRIGERATOR (2)	20/1	4
5	20/1	SPARE	-	-	-	9	9	MILK COOLER (3)	20/1	6
7	20/1	SPARE	-	-	-	7	7	REFRIGERATOR (4)	20/1	8
9	30/2	FREEZER COMP. (5)	20	6	6	6	6	FREEZER (6)	20/1	10
11	20/1	LTS	20	12	12	12	12	ICE MACHINE (7)	20/1	12
13	20/2	COOLER COMP. (8)	9	18	18	18	18	BLANK	100/3	14
15	20/1	LTS	9	2	2	2	2	BLANK	20/1	16
17	20/1	COOLER COIL (9)	9	2	2	2	2	BLANK	20/1	18
19	20/1	FREEZER COIL/HTR (10)	9	2	2	2	2	BLANK	20/1	20
21	20/1	COOLER LTS (11)	5	5	5	5	5	BLANK	20/1	22
23	20/1	COOLER LTS (12)	5	5	5	5	5	BLANK	20/1	24
25	20/1	BLANK	-	-	-	-	-	BLANK	20/1	26
27	20/1	BLANK	-	-	-	-	-	BLANK	20/1	28
29	20/1	BLANK	-	-	-	-	-	BLANK	20/1	30
31	20/1	BLANK	-	-	-	-	-	BLANK	20/1	32
33	20/1	BLANK	-	-	-	-	-	BLANK	20/1	34
35	20/1	BLANK	-	-	-	-	-	BLANK	20/1	36
37	20/1	BLANK	-	-	-	-	-	BLANK	20/1	38
39	20/1	BLANK	-	-	-	-	-	BLANK	20/1	40
41	20/1	BLANK	-	-	-	-	-	BLANK	20/1	42
SUBTOTAL			24	40	31	14	13	21		

NOTES:
 TOTAL PANEL LOAD: A# 38A B# 53A C# 52A
 NEUTRAL TERMINAL BAR [X]
 GROUND TERMINAL BAR [X]

PANEL-MDP
 TYPE BOLT-ON MOUNTING SURFACE ENCLOSURE NEMA-3R PHASE 3 WIRE 4
 VOLTS 120/208 MAIN 600A MLO FRAME 600A SHORT CIR.RATING 42,000 RMS SYM MIN

CKT. NO.	CCT. TRIP	DESCRIPTION	PHASE			LOADING	PHASE	DESCRIPTION	CCT. TRIP	CCT. NO.
			A	B	C					
1	200/3	PANEL A	105	103	123	38	53	PANEL EM	100/3	2
3	200/3	PANEL K	159	172	100	-	-	BLANK	-	4
5	200/3	BLANK	-	-	-	-	-	BLANK	-	6
SUBTOTAL			264	275	223	38	53	52		

NOTES:
 TOTAL PANEL LOAD: A# 302A B# 328A C# 275A
 NEUTRAL TERMINAL BAR [X]
 GROUND TERMINAL BAR [X]

PANEL-K
 TYPE BOLT-ON MOUNTING SURFACE ENCLOSURE NEMA-1 PHASE 3 WIRE 4
 VOLTS 120/208 MAIN 200A MLO FRAME 225A SHORT CIR.RATING 10,000 RMS SYM MIN

CKT. NO.	CCT. TRIP	DESCRIPTION	PHASE			LOADING	PHASE	DESCRIPTION	CCT. TRIP	CCT. NO.
			A	B	C					
1	20/1	LTS	14	14	12	12	12	HOOD DISCH. FAN (6A)	20/2	2
3	20/1	LTS	14	14	12	12	12	HOOD M.U. FAN (6B)	20/2	4
5	20/1	LTS	10	10	8	8	8	HOOD M.U. FAN (6C)	20/2	6
7	20/1	CASH REGISTER	10	10	8	8	8	HOOD ANSUL (6D)	20/1	8
9	35/2	DISH MACHINE (6E)	24	24	2	2	2	HOOD CONTROLS (6F)	20/1	10
11	20/1	LTS	10	10	8	8	8	HOOD LTS (6G)	20/1	12
13	90/2	BOOSTER HEATER (6H)	63	63	5	5	5	BLANK	20/1	14
15	20/1	LTS	63	63	5	5	5	BLANK	20/1	16
17	20/1	SPARE	-	-	29	29	29	HOT/COLD COUNTER (6I)	50/2	18
19	20/1	BLANK	-	-	29	29	29	BLANK	20/1	20
21	20/1	GAS RANGE/OVEN (6J)	13	13	22	22	22	HWT-1	30/2	22
23	20/1	CONVECTION OVEN (6K)	8	8	22	22	22	BLANK	20/1	24
25	20/1	CONVECTION OVEN (6L)	8	8	5	5	5	HWT-2	20/1	26
27	20/1	BLANK	-	-	5	5	5	BLANK	20/1	28
29	20/1	BLANK	-	-	5	5	5	BLANK		