

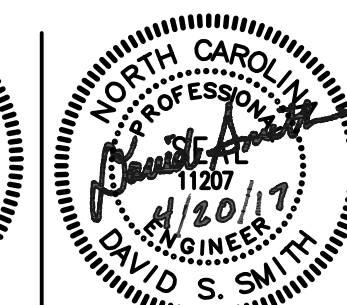
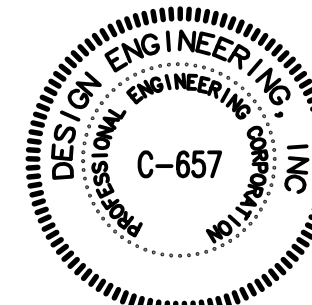
# ELECTRICAL RISER

PANEL SCHEDULES

2188 East Holly Grove Road  
P.O. Box 1256  
Lexington, N.C. 27293  
Design Engineering, Inc. 336/224-0100  
336/224-0099 (fax)

**ROWAN COUNTY AIRPORT TERMINAL EXPANSION**

REVISED DRAWING



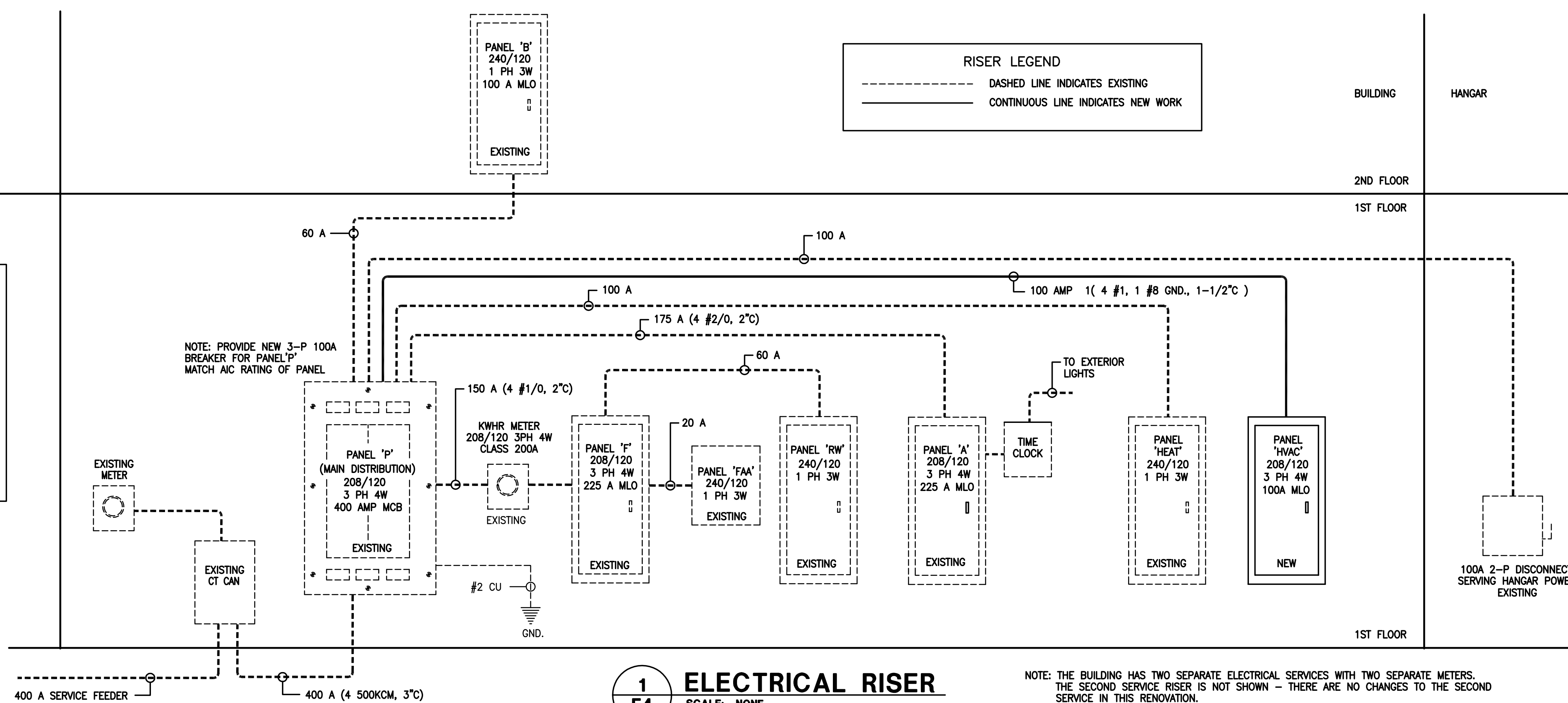
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CHECKED BY  
APRIL 2017  
DATE

SHEET NO.  
**E4**  
OF 4

GENERAL CONSTRUCTION NOTE:  
1). SERVICE EQUIPMENT IN OTHER THAN DWELLING UNITS MUST BE LEGIBLY MARKED IN THE FIELD WITH THE AVAILABLE FAULT CURRENT. THE FIELD MARKING(S) MUST INCLUDE THE CALCULATION DATE AND BE OF SUFFICIENT DURABILITY TO WITHSTAND THE ENVIRONMENT.

LOAD SUMMARY			
LOAD	VOLT-AMPS	DEMAND FACTOR	VOLT-AMPS
EXISTING LOADS			
PEAK OF YEAR - AUGUST 2016	38,000	1.25	47,500
NEW LOADS			
LIGHTS	430	1.25	538
RECEPTACLES	3,780		3,780
HVAC	15,500	1	15,500
TOTAL NEW LOADS			19,818
TOTAL			67,318
FUTURE CAPACITY			187 AMPS
SERVICE - 208/120 VOLTS 3 PHASE 4W			213 AMPS
			400 AMPS

**2 LOAD SUMMARY**  
SCALE: NONE



NOTE: THE BUILDING HAS TWO SEPARATE ELECTRICAL SERVICES WITH TWO SEPARATE METERS. THE SECOND SERVICE RISER IS NOT SHOWN - THERE ARE NO CHANGES TO THE SECOND SERVICE IN THIS RENOVATION.

PANEL "P" (EXISTING)														
Mfg & Type "Square D I-Line HCN" Service 208/120 Y 3PH 4W 60 Hz Cabinet Surface AIC Rating 22,000 AIC Mains 400 Amp MCB Breakers Bolt-on type Copper Bus & Neutral and Gnd Kit														
DESCRIPTION	WIRE SIZE	CONDUIT SIZE	MPS-A	MPS-B	MPS-C	VOLT-AMPS	TRIP	EXT /	A	B	C	EXT /	TRIP	DESCRIPTION
FUEL FARM SUBPANEL "F"		150				150	1							AC UNIT
SPACE		0				0	3							5 TON AC UNIT
SPACE		0				0	9							7.5 TON AC UNIT
SPACE		0				0	5							
2ND FLOOR PANEL "B"		60				60	7							
HANGAR PANEL		60				60	9							PANEL "HVAC"
HEAT PANEL		100				100	9							
HEAT PANEL		100				100	11							2-P SPACE
PANEL "A"		175				175	13							3-P SPACE
PANEL "A"		175				175	13							
TOTAL														
A Phase Amps Total						27.9								3350
B Phase Amps Total						58.1								6975
C Phase Amps Total						44.6								5355
Total Volt-Amps						15680								NEW LOADS ONLY - SERVICE PEAK OF YEAR 38KW, APPROXIMATELY 106 AMPS PER PHASE OF EXISTING LOADS

\* PROVIDE NEW 1-POLE 100 AMP BREAKER FOR PANEL, MATCH PANEL AIC RATING

PANEL "A" (EXISTING)														
Mfg & Type "Square D NQ" Service 208/120 Y 3PH 4W 60 Hz Cabinet Surface AIC Rating 22,000 AIC Mains 225 Amp MLO Breakers Bolt-on type Copper Bus & Neutral and Gnd Kit														
DESCRIPTION	WIRE SIZE	CONDUIT SIZE	MPS-A	MPS-B	MPS-C	VOLT-AMPS	TRIP	EXT /	A	B	C	EXT /	TRIP	DESCRIPTION
OUTSIDE LIGHT/TIME CLOCK		2				2	20							LIGHTS IN CONFERENCE ROOM
LIGHTS IN OFFICE		4				4	20							LIGHTS IN PILOT LOUNGE
LIGHTS IN OPERATIONS		6				6	20							LIGHTS IN FLIGHT PLANNING
LIGHTS IN WAITING AREA		8				8	20							RECEPT-PILOT TRAINING
LIGHTS IN WAITING AREA		10				10	20							RECEPT-INTERNET MODEM
RECEPT-VENDING MACHINES		12				12	20							RECEPT-PILOT TRAINING
RECEPT-VENDING MACHINES		14				14	20							RECEPT-CONFERENCE ROOM
RECEPT-VENDING MACHINES		16				16	20							RECEPT-OFFICE
RECEPT-VENDING MACHINES		18				18	20							RECEPT-OFFICE
MEN / WOMEN TOILETS, WC		20				20	20							RECEPT-PILOT LOUNGE
RECEPT-WAITING AREA		22				22	20							RECEPT-OPERATIONS
EXIT LIGHTS		24				24	20							RECEPT-OPERATIONS
RECEPT-SERVICE COUNTER		26				26	20							RECEPT-OPERATIONS
LTS-HAL 100,CONF 101,CLST 102		30				30	20							SPARE
AIR HANDLER 1		30				30	20							RECEPT-RADIO / WIND EQUIP.
AIR HANDLER 2		32				32	20							SPARE
AIR HANDLER 3		34				34	20							SPARE
TELEPHONE EQUIPMENT		36				36	20			1280				RECEPT-CONFERENCE 101
RECEPT-COUNTER-HALL 100		38				38	20			1440				RECEPT-CONFERENCE 101
RECEPT-CLOSET 102		40				40	30							RECEPT-CONFERENCE 101
RECEPT-CLOSET 102		42				42	30							WATER HEATER
TOTAL														
A Phase Amps Total						13.5								1620
B Phase Amps Total						6.6								790
C Phase Amps Total						13.5								1620
Total Volt-Amps						4030								

PROVIDE A SEPARATE NEUTRAL FOR ALL MULTI-WIRE LINE TO NEUTRAL LOADS. PROVIDE TRACER ON THE WHITE NEUTRAL WIRE THE SAME COLOR AS PHASE CONDUCTOR.

E INDICATES EXISTING WIRE AND CONDUIT FOR AN EXISTING LOAD

PANEL "HVAC" (NEW)														
Mfg & Type "Square D NQ" Service 208/120 Y 3PH 4W 60 Hz Cabinet Surface Nema 3R AIC Rating 22,000 AIC Mains 100 Amp MLO Breakers Bolt-on type Copper Bus & Neutral and Gnd Kit														
DESCRIPTION	WIRE SIZE	CONDUIT SIZE	MPS-A	MPS-B	MPS-C	VOLT-AMPS	TRIP	EXT /	A	B	C	EXT /	TRIP	DESCRIPTION
AHU-1		12				1140	15							HP-1
SPARE		0				0	3							
CU-2 & AHU-2		12				1800	20							HP-1
RECEPT-EXTERIOR		12				180	20							SPACE
SPACE		0				0	9							
SPACE		0				0	11							
SPACE		0				0	13							
SPACE		0				0	15							
		0				0	17							
		0				0	19							
		0				0	21							
		0				0	23							
TOTAL														
A Phase Amps Total						58.1								6975
B Phase Amps Total						44.6								5355
C Phase Amps Total						27.9								3350
Total Volt-Amps						15680								

PROVIDE A SEPARATE NEUTRAL FOR ALL MULTI-WIRE LINE TO NEUTRAL LOADS. PROVIDE TRACER ON THE WHITE NEUTRAL WIRE THE SAME COLOR AS PHASE CONDUCTOR.

**3 PANEL SCHEDULES**  
SCALE: NONE