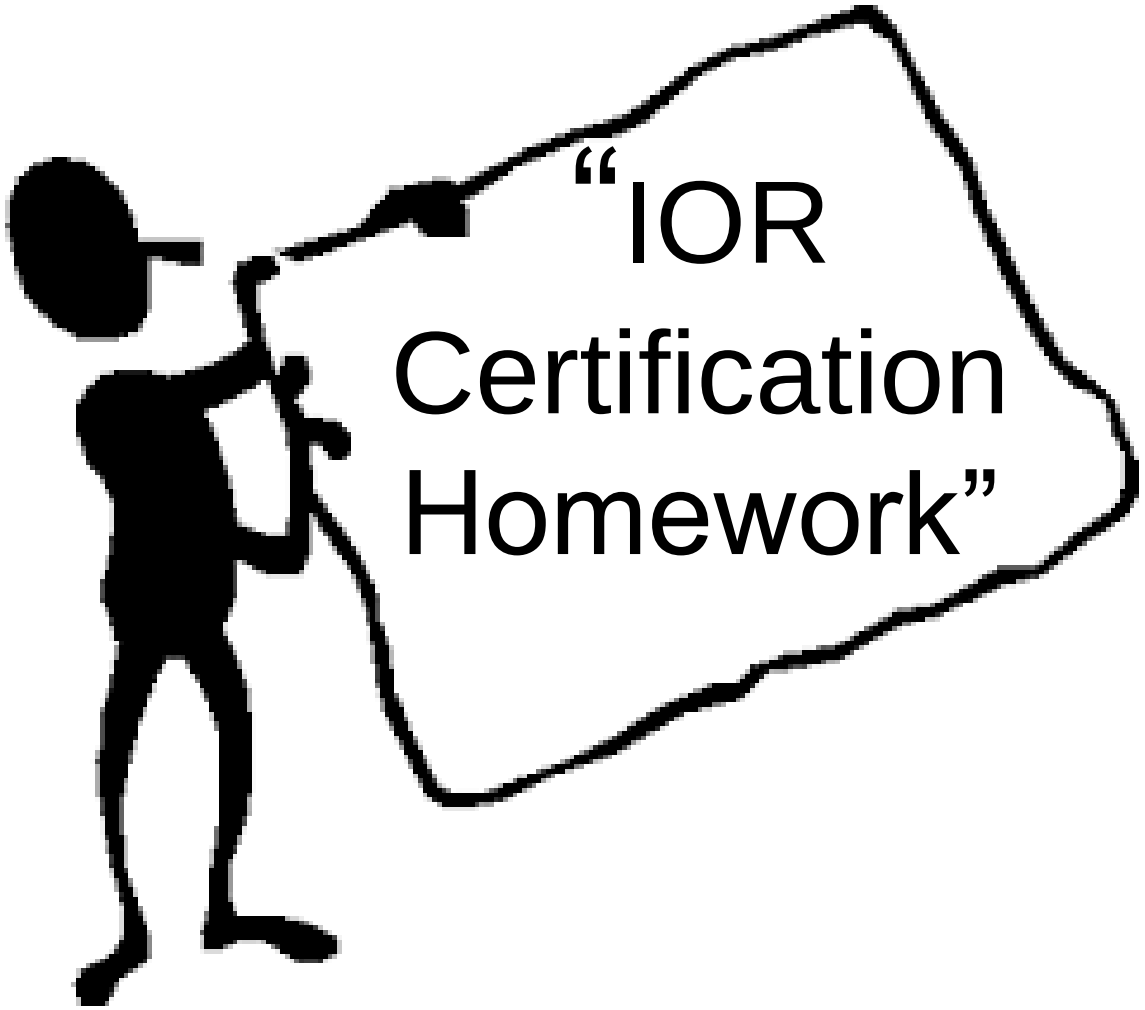

Part 2

Homework

Homework #1

The natural gas range/convection blower is served by which electrical panel and CKT?

A. LN2B2-10
B. LN2B2-7
C. LEQ2A1-11
D. LN2B2-14

Homework #2

The factory wired controller for RTU-5 is connected to what circuit?

A. DHEQB1-7,8
B. LEOQB1-21,8
C. DHEQB1-7
D. DHEQB1-8

Resolution

Homework #1

The natural gas range/convection blower is served by which electrical panel and CKT?

A. LN2B2-10
B. LN2B2-7
C. LEQ2A1-11
D. LN2B2-14

Homework #2

The factory wired controller for RTU-5 is connected to what circuit?

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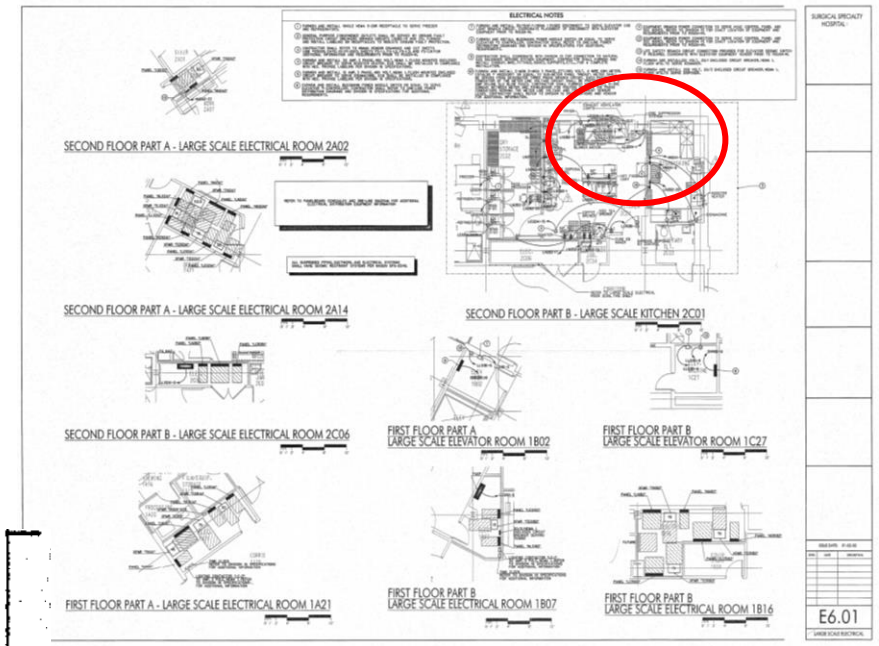
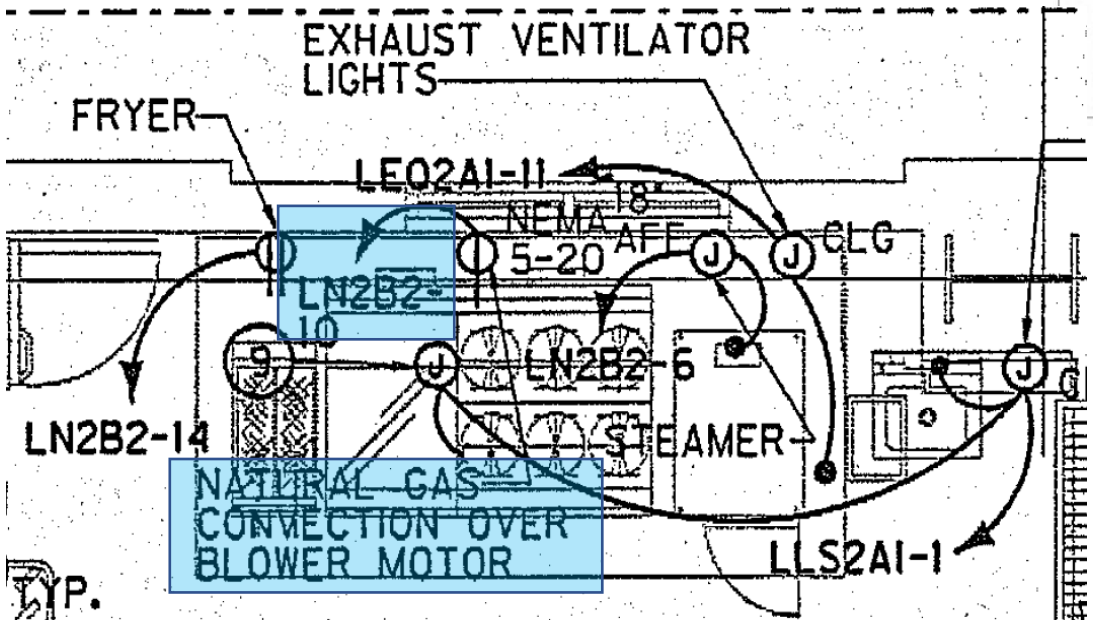
B. LEOQB1-21,8
C. DHEQB1-7
D. DHEQB1-8

The natural gas range/convection blower is served by which electrical panel and CKT?

A. LN2B2-10
B. LN2B2-7
C. LEQ2A1-11
D. LN2B2-14

Look in the Electrical drawings for an enlarged plan or the kitchen area





The factory wired controller for RTU-5 is connected to what circuit?

A. DHEQB1-7,8
B. LEOQB1-21,8
C. DHEQB1-7
D. DHEQB1-8

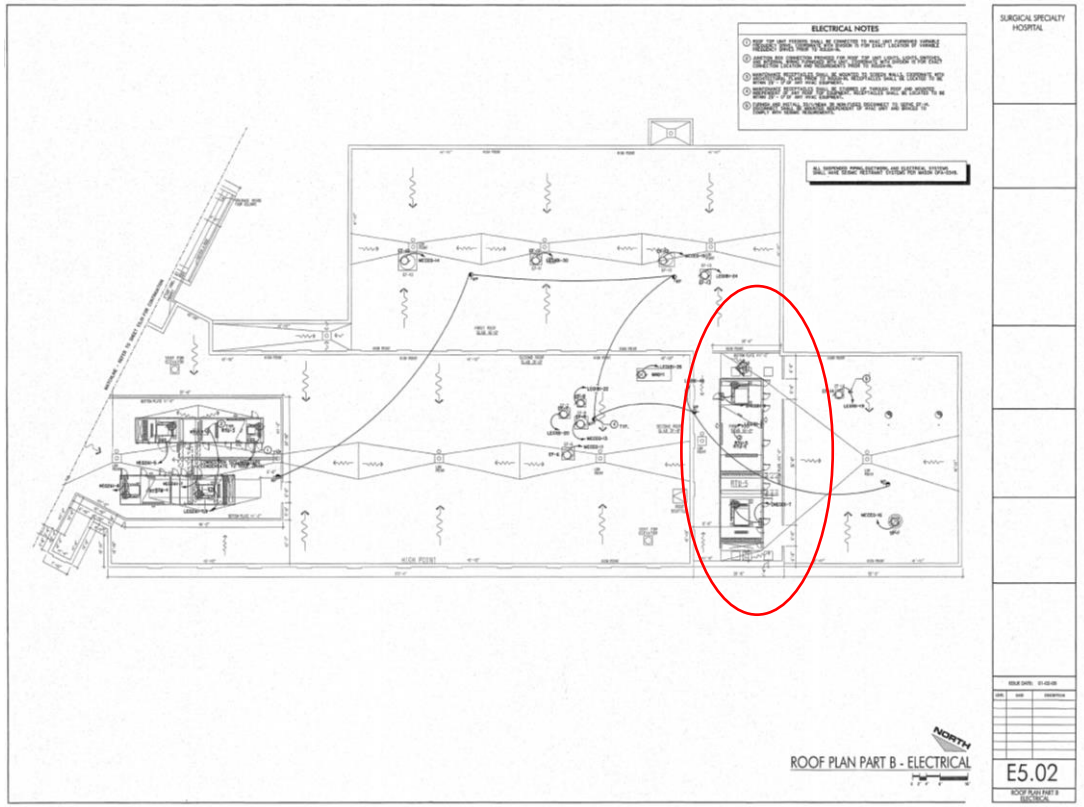
On E0.04, look at the Roof Equipment schedule

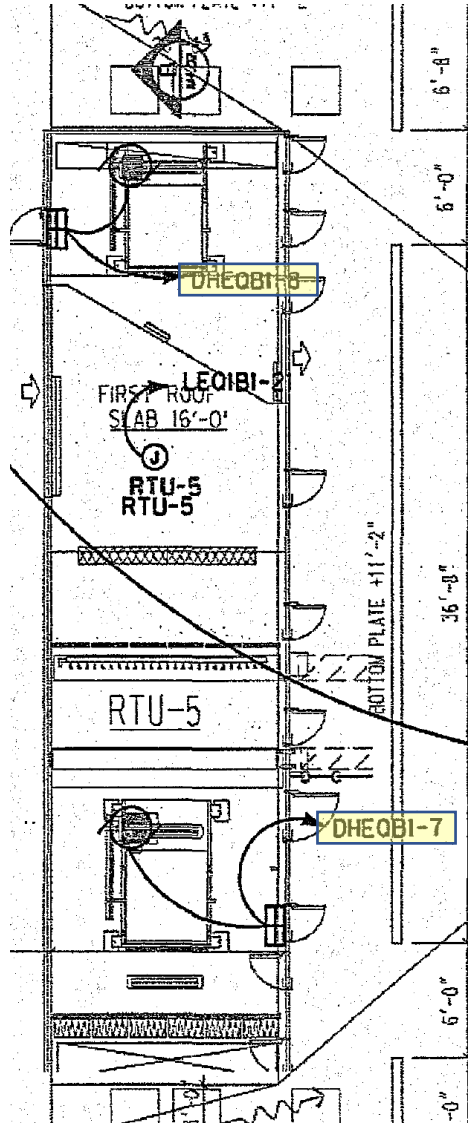
DIVISION 15 EQUIPMENT LEGEND - ROOF

EQUIPMENT ID	EQUIPMENT TYPE	LOCATION	VOLTAGE/PHASE	AMPERAGE	WATTS	HP	BRANCH	CONNECTION TYPE	WIRE SIZE	CATEGORY	REMARKS
EF-1	EXHAUST FAN	ROOF PART A	120/1			1/6	EQUIPMENT	DIRECT CONNECTION	2#12,1#12G	MOTOR	DISCONNECT PROVIDED IN UNIT
EF-2	EXHAUST FAN	ROOF PART A	120/1			1/3	EQUIPMENT	DIRECT CONNECTION	2#12,1#12G	MOTOR	DISCONNECT PROVIDED IN UNIT
EF-3	EXHAUST FAN	ROOF PART A	120/1			½	EQUIPMENT	DIRECT CONNECTION	2#12,1#12G	MOTOR	DISCONNECT PROVIDED IN UNIT
RTU-1	SUPPLY FAN	ROOF PART A	480/3			30	EQUIPMENT	SINGLE POINT - CONTROL PANEL	3#8,1#10G	HVAC	CONTROL PANEL, VFD, AND LIGHTS FURNISHED WITH UNIT
RTU-1	RETURN FAN	ROOF PART A	480/3			7.5	EQUIPMENT	SINGLE POINT - CONTROL PANEL	3#12,1#12G	HVAC	CONTROL PANEL, VFD, AND LIGHTS FURNISHED WITH UNIT
RTU-2	SUPPLY FAN	ROOF PART A	480/3			20	EQUIPMENT	SINGLE POINT - CONTROL PANEL	3#10,1#12G	HVAC	CONTROL PANEL, VFD, AND LIGHTS FURNISHED WITH UNIT
RTU-2	RETURN FAN	ROOF PART A	480/3			5	EQUIPMENT	SINGLE POINT - CONTROL PANEL	3#12,1#12G	HVAC	CONTROL PANEL, VFD, AND LIGHTS FURNISHED WITH UNIT
EF-4	EXHAUST FAN	ROOF PART A	120/1			½	EQUIPMENT	DIRECT CONNECTION	2#12,1#12G	MOTOR	DISCONNECT PROVIDED IN UNIT
EF-5	EXHAUST FAN	ROOF PART A	120/1			½	EQUIPMENT	DIRECT CONNECTION	2#12,1#12G	MOTOR	DISCONNECT PROVIDED IN UNIT
RTU-3	SUPPLY FAN	ROOF PART B	480/3			30	EQUIPMENT	SINGLE POINT - CONTROL PANEL	3#8,1#10G	HVAC	CONTROL PANEL, VFD, AND LIGHTS FURNISHED WITH UNIT
RTU-3	RETURN FAN	ROOF PART B	480/3			7.5	EQUIPMENT	SINGLE POINT - CONTROL PANEL	3#12,1#12G	HVAC	CONTROL PANEL, VFD, AND LIGHTS FURNISHED WITH UNIT
RTU-4	SUPPLY FAN	ROOF PART B	480/3			30	EQUIPMENT	SINGLE POINT - CONTROL PANEL	3#8,1#10G	HVAC	CONTROL PANEL, VFD, AND LIGHTS FURNISHED WITH UNIT
RTU-4	RETURN FAN	ROOF PART B	480/3			7.5	EQUIPMENT	SINGLE POINT - CONTROL PANEL	3#12,1#12G	HVAC	CONTROL PANEL, VFD, AND LIGHTS FURNISHED WITH UNIT
EF-6	EXHAUST FAN	ROOF PART B	480/3			1	EQUIPMENT	DIRECT CONNECTION	3#12,1#12G	MOTOR	DISCONNECT PROVIDED WITH UNIT FVNR COMB. STARTER IN MCC
EF-7	EXHAUST FAN	ROOF PART B	120/1			1/3	EQUIPMENT	DIRECT CONNECTION	2#12,1#12G	MOTOR	DISCONNECT PROVIDED IN UNIT
EF-8	EXHAUST FAN	ROOF PART B	480/3			1	EQUIPMENT	DIRECT CONNECTION	3#12,1#12G	MOTOR	DISCONNECT PROVIDED WITH UNIT FVNR COMB. STARTER IN MCC
EF-9	EXHAUST FAN	ROOF PART B	120/1			¼	EQUIPMENT	DIRECT CONNECTION	2#12,1#12G	MOTOR	DISCONNECT PROVIDED IN UNIT
EF-10	EXHAUST FAN	ROOF PART B	480/3			2	EQUIPMENT	DIRECT CONNECTION	3#12,1#12G	MOTOR	DISCONNECT PROVIDED WITH UNIT FVNR COMB. STARTER IN MCC
EF-11	EXHAUST FAN	ROOF PART B	120/1			¾	EQUIPMENT	DIRECT CONNECTION	2#12,1#12G	MOTOR	DISCONNECT PROVIDED WITH UNIT
EF-12	EXHAUST FAN	ROOF PART B	480/3			1	EQUIPMENT	DIRECT CONNECTION	3#12,1#12G	MOTOR	DISCONNECT PROVIDED WITH UNIT FVNR COMB. STARTER IN MCC
EF-13	EXHAUST FAN	ROOF PART B	120/1			¼	EQUIPMENT	30/3/NEMA 3R DISCONNECT AT UNIT	2#12,1#12G	MOTOR	
MAU-1	MAKE-UP AIR UNIT	ROOF PART B	480/3			¼	EQUIPMENT	30/3/NEMA 3R DISCONNECT AT UNIT	3#12,1#12G	HVAC	FVNR COMBINATION STARTER IN MCC
RTU-5	SUPPLY FAN	ROOF PART B	480/3			75	EQUIPMENT	SINGLE POINT - CONTROL PANEL	3#1,1#6G	HVAC	CONTROL PANEL, VFD, AND LIGHTS FURNISHED WITH UNIT
RTU-5	RETURN FAN	ROOF PART B	480/3			25	EQUIPMENT	SINGLE POINT - CONTROL PANEL	3#8,1#10G	HVAC	CONTROL PANEL, VFD, AND LIGHTS FURNISHED WITH UNIT
EF-14	EXHAUST FAN	ROOF PART B	120/1			1/6	EQUIPMENT	DIRECT CONNECTION	2#12,1#12G	MOTOR	DISCONNECT PROVIDED IN UNIT
SF-1	EXHAUST FAN	ROOF PART B	480/3			3	EQUIPMENT	30/3/NEMA 3R DISCONNECT AT UNIT	2#12,1#12G	MOTOR	FVNR COMBINATION STARTER IN MCC

The factory wired controller for RTU-5 is connected to what circuit?

A. DHEQB1-7,8
B. LEOQB1-21,8
C. DHEQB1-7
D. DHEQB1-8





In the Electrical Roof Plan, look for the RTU-5. There are 2 circuit connected. Let's verify into the schedule

The factory wired controller for RTU-5 is connected to what circuit?

A. DHEQB1-7,8
B. LEOQB1-21,8
C. DHEQB1-7
D. DHEQB1-8

PANEL: DHEQB1 | OC DEVICE TYPE: Breaker | ENCLOSURE: NEMA 1 | MAINS(A): MLO | BUS RATING(A): 800
LOCATION: ELECTRIC ROOM 1C30 | DEVICE FAMILY: Plug In | MOUNTING: Surface | WIRING: 3-Phase 4-Wire | WITHSTAND(A): 65000
FED FROM: ATS EQ LOAD | VOLTAGE: 480/277 | FAULT CURRENT(A) 41203

CUBICLE NO	DESCRIPTION	CONNECTED kVA	DEMAND kVA	DESIGN kVA	DESIGN AMPS	OC DEVICE TYPE	OC DEVICE SIZE	P	NOTES
1	MCCEQ BUS	135.69	133.82	139.43	167.70	CB	300	3	REFER TO ONE-LINE
2	TEQ1B2 PRI	1.24	1.24	1.24	1.49	CB	30	3	REFER TO ONE-LINE
3	HEQ2A1 BUS	171.14	171.14	171.14	205.85	CB	400	3	REFER TO ONE-LINE
4	STERIS STERILIZER	30.76	30.76	30.76	37.00	CB	50	3	3#8,1#10G
5	SPACE	0.00	0.00	0.00	0.00		250	3	
6	STERIS WASHER	10.81	10.81	10.81	13.00	CB	20	3	3#12,1#12G
7	RTU-5 SUPPY	79.81	79.81	79.81	96.00	CB	125	3	3#1,1#6G
8	RTU-5 RETURN	28.27	28.27	28.27	34.00	CB	70	3	3#8,1#10G
9	SPACE	0.00	0.00	0.00	0.00		250	3	
10	ELEV 1 BUS	46.63	46.63	58.28	70.10	CB	100	3	REFER TO ONE-LINE
11	SPACE	0.00	0.00	0.00	0.00		250	3	
12	SPACE	0.00	0.00	0.00	0.00		250	3	
13	SPACE	0.00	0.00	0.00	0.00		250	3	
14	SPACE	0.00	0.00	0.00	0.00		250	3	

ALL CONNECTED	KVA	AMPS	* PHASE TOTALS	VA	AMPS	BUS TOTALS	KVA
TOTAL CONNECTED	492.23	595.9	* A-N	162632.8	586.9	CONNECTED	492.23
TOTAL DEMAND	490.26	592.3	* B-N	165132.3	595.9	DEMAND	490.26
TOTAL DESIGN	500.58	604.7	* C-N	164479.7	593.5	DESIGN	500.58

And it is confirmed.


Q&A