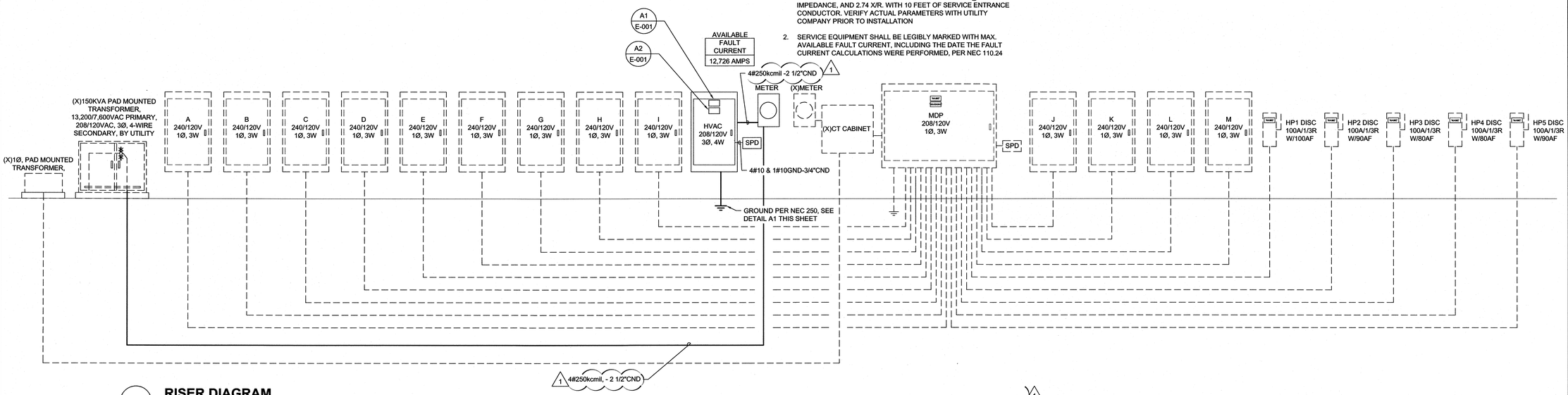
NOTE:
1. SHORT CIRCUIT CALCULATION COMPLETED ON 10/02/2019. BASED ON A 150 KVA PAD MOUNTED TRANSFORMER @ 2.9% IMPEDANCE, AND 2.74 X/R. WITH 10 FEET OF SERVICE ENTRANCE CONDUCTOR. VERIFY ACTUAL PARAMETERS WITH UTILITY COMPANY PRIOR TO INSTALLATION
2. SERVICE EQUIPMENT SHALL BE LEGIBLY MARKED WITH MAX. AVAILABLE FAULT CURRENT, INCLUDING THE DATE THE FAULT CURRENT CALCULATIONS WERE PERFORMED, PER NEC 110.24



C1 RISER DIAGRAM
NOT TO SCALE

LOAD SUMMARY

VOLTAGE	PHASE
208	3
LARGEST MOTOR APPROX. AMPS	34 AMPS
LARGEST MOTOR APPROX. AMPS x .25	9 AMPS
HVAC	
DOAS1 HEATER	51,015 VA
SUB-TOTAL HVAC DEMAND	51,015 VA
SUB-TOTAL HVAC DEMAND	142 AMPS
ADD FOR LARGEST MOTOR	9 AMPS
TOTAL EQUIPMENT DEMAND	9 AMPS
TOTAL DEMAND SERVICE AMPS	150 AMPS
TOTAL DEMAND SERVICE	54,077 VA
TOTAL SERVICE CONNECTED LOAD	51,015 VA

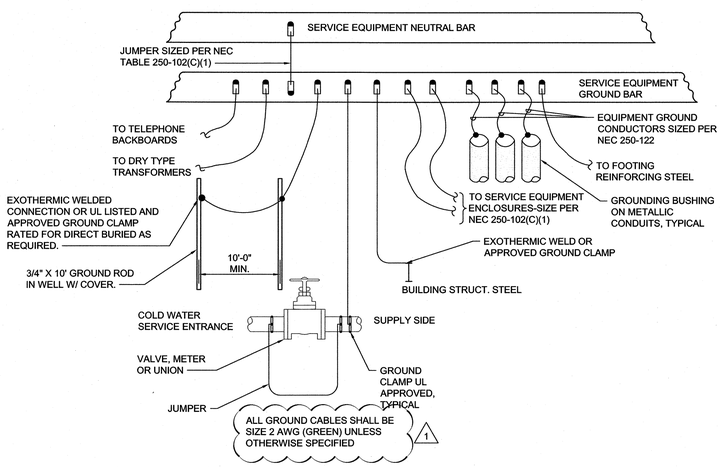
PANEL: HVAC — SERVICE EQUIPMENT LISTED

TYPE: NEMA 3R | 208 | 120 V, | 3 PH, | 4 WIRE
BOLT-ON | MOUNT: SURFACE | FEED: BOTTOM
PROVIDE IF: XX | CHECKED: XX
EQUIP. GROUND BUS | NEUTRAL BUS | GUTTER TAPS | SUB-FEED LUGS

LOAD SERVED	LOAD VA	CKT BKR	CKT #	LOAD VA A	LOAD VA B	LOAD VA C	CKT #	CKT BKR	LOAD VA	LOAD SERVED
DOAS1	17,005	200/3	1	17,005			2	20/1		SPARE
	17,005		3		17,005		4	20/1		SPARE
	17,005		5			17,005	6	20/1		SPARE
SPACE			7	0			8	30/3		SPD
SPACE			9		0		10			
SPACE			11			0	12			
				17,005	17,005	17,005	TOTAL VOLT AMPS			
				142	142	142	CONN. AMPS			

NOTES:
1. HVAC & REFRIGERATION EQUIPMENT SHALL USE TYPE HACR BREAKERS.

400 A. BUS (COPPER)
250 A. MAIN CIRCUIT BREAKER
22 KAIC MIN.



A1 SERVICE GROUNDING DETAIL
NOT TO SCALE

EXISTING PANEL H DEMOLITION

TYPE: NEMA 1 | 240 | 120 V, | 1 PH, | 3 WIRE
LOAD CENTER | MOUNT: FLUSH

LOAD SERVED	LOAD VA	CKT BKR	CKT #	A	B	CKT #	CKT BKR	LOAD VA	LOAD SERVED
MAIN		100/2		0					SPACE NOT USABLE
					0				
MINI SPLIT #1 CU (X)HP7		50/2	1	0		2	15/1		LIGHTS
			3		0	4	20/1		RECEPTACLES
MINI SPLIT #1 AH (X)AH7		15/2	5	0		6	20/1		RECEPTACLES
			7		0	10	20/1		RECEPTACLES
SPACE			9	0		14			SPACE
SPACE			11		0	16			SPACE
NOTE:				0	0	TOTAL VOLT AMPS			100 A. BUS (COPPER)
1. HVAC & REFRIGERATION EQUIPMENT SHALL USE TYPE HACR BREAKERS.				0	0	CONN. AMPS			100 A. MAIN CIRCUIT BREAKER

EXISTING PANEL M (DEMOLITION)

TYPE: NEMA 1 | 240 | 120 V, | 1 PH, | 3 WIRE
LOAD CENTER | MOUNT: FLUSH

LOAD SERVED	LOAD VA	CKT BKR	CKT #	A	B	CKT #	CKT BKR	LOAD VA	LOAD SERVED
MAIN		100/2		0					SPACE NOT USABLE
					0				
MINI SPLIT #2 CU (X)HP8		50/2	1	0		2	15/1		LIGHTS
			3		0	4	20/1		RECEPTACLES
MINI SPLIT #2 AH (X)AH8		15/2	5	0		6	20/1		RECEPTACLES
			7		0	8	20/1		RECEPTACLES
SPACE			9	0		10	20/1		EXT. RECEPTACLE
SPACE			11		0	12			SPACE
NOTE:				0	0	TOTAL VOLT AMPS			100 A. BUS (COPPER)
1. HVAC & REFRIGERATION EQUIPMENT SHALL USE TYPE HACR BREAKERS.				0	0	CONN. AMPS			100 A. MAIN CIRCUIT BREAKER

EXISTING PANEL H

TYPE: NEMA 1 | 240 | 120 V, | 1 PH, | 3 WIRE
LOAD CENTER | MOUNT: FLUSH

LOAD SERVED	LOAD VA	CKT BKR	CKT #	A	B	CKT #	CKT BKR	LOAD VA	LOAD SERVED
MAIN		100/2		0					SPACE NOT USABLE
					0				
SPARE		50/2	1	0		2	15/1		LIGHTS
			3		0	4	20/1		RECEPTACLES
SPARE		15/2	5	0		6	20/1		RECEPTACLES
			7		0	10	20/1		RECEPTACLES
SPACE			9	0		14			SPACE
SPACE			11		0	16			SPACE
NOTE:				0	0	TOTAL VOLT AMPS			100 A. BUS (COPPER)
1. HVAC & REFRIGERATION EQUIPMENT SHALL USE TYPE HACR BREAKERS.				0	0	CONN. AMPS			100 A. MAIN CIRCUIT BREAKER

EXISTING PANEL M

TYPE: NEMA 1 | 240 | 120 V, | 1 PH, | 3 WIRE
LOAD CENTER | MOUNT: FLUSH

LOAD SERVED	LOAD VA	CKT BKR	CKT #	A	B	CKT #	CKT BKR	LOAD VA	LOAD SERVED
MAIN		100/2		0					SPACE NOT USABLE
					0				
SPARE		50/2	1	0		2	15/1		LIGHTS
			3		0	4	20/1		RECEPTACLES
SPARE		15/2	5	0		6	20/1		RECEPTACLES
			7		0	8	20/1		RECEPTACLES
SPACE			9	0		10	20/1		EXT. RECEPTACLE
SPACE			11		0	12			SPACE
NOTE:				0	0	TOTAL VOLT AMPS			100 A. BUS (COPPER)
1. HVAC & REFRIGERATION EQUIPMENT SHALL USE TYPE HACR BREAKERS.				0	0	CONN. AMPS			100 A. MAIN CIRCUIT BREAKER

Revision No:	DESCRIPTION:	Date:
1	ADDENDUM 1	11.04.19
0	ADDENDUM 0 - CONSTRUCTION	10.04.19

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NORTH CAROLINA PROFESSIONAL ENGINEER SEAL 023311 W. ALLEN CRUMP
11.04.19

UNC Wilmington
626 MacMillan Dr. - Dedicated Outdoor Air System
626 McMillan Avenue
Wilmington, North Carolina

ELECTRICAL
RISER DIAGRAM AND PANEL SCHEDULES

JOB NO.:	19137
DRAWN:	MDM
DESIGNED:	MDM
CHECKED:	WAC

DRAWING NO:
E-601

REVISION:
1