

ADDENDUM NO. 2

March 13, 2023

This Addendum contains changes to the requirements of the Contract Documents and Specifications. Such changes are to be incorporated into the Construction Documents and shall apply to the work with the same meaning and force as if they had been included in the original document. Wherever this Addendum modifies a portion of a paragraph of the specifications or a portion of any Drawing, the remainder of the Paragraph or Drawing shall remain in force.

NOTE: Provisions of all Contract Documents apply.

DRAWINGS

- Item 1. Drawing M-500 – Schedules - HVAC
DELETE in its entirety
REPLACE with revised Drawing M-500, attached.
- Item 2. Drawing E-401 – Electrical Schedules #1
DELETE in its entirety.
REPLACE with revised Drawing E-401, attached.
- Item 3. Drawing E-402 – Electrical Schedules #2
DELETE in its entirety.
REPLACE with revised Drawing E-402, attached.
- Attachments: Drawing M-500
Drawing E-401
Drawing E-402

*******END OF ADDENDUM*******

FAN COIL UNIT SCHEDULE - CHILLED WATER/HOT WATER

Table with columns: UNIT NO., LOCATION, TYPE, AIR SIDE, COOLING COIL, EAT (DEG. F), LAT (DEG. F), WATER FLOW (GPM), WATER P.D. (FT. HD), ENT. WATER TEMP. (DEG. F), LVG. WATER TEMP. (DEG. F), FLUID, ROWS, FPI, FAN MOTOR, MANUFACTURER & MODEL No., REMARKS.

REMARKS: 1. SPECIFIED COOLING AND AIR FLOW CHARACTERISTICS ARE BASED UPON MEDIUM FAN SPEED. 2. EC MOTOR

PACKAGED WATER COOLED SCROLL/ ROTARY SCREW CHILLER SCHEDULE

Table with columns: UNIT NO., LOCATION, CAPACITY (TONS), NO. OF COMPRESSORS, NO. OF INDEPENDENT CIRCUITS, REFRIGERATION TYPE, CHILLED WATER, CONDENSER WATER, MINIMUM EFFICIENCY, KW/TON, ELECTRICAL, MCA, MOP, STARTER, NOISE RATING (dBA), MANUFACTURER & MODEL No., REMARKS.

REMARKS: 1. GLYCOL - PROPYLENE, 40%

OWNER FURNISHED

PUMP SCHEDULE

Table with columns: PUMP NO., LOCATION, SERVICE, UNIT TYPE & DESCRIPTION, PUMP CAPACITY, MOTOR CHARACTERISTICS, IMPELLER SIZE, FLUID TEMP., MAX. BHP, SUCTION & DISCHARGE SIZES, MANUFACTURER & MODEL NO., REMARKS.

REMARKS: 1. FLUID: GLYCOL - PROPYLENE, 40% 2. FLUID: WATER 3. ASD PROVIDED BY DIVISION 26.

PUMP IS INTEGRAL TO CHILLER AND SCHEDULED FOR REFERENCE ONLY.

FAN SCHEDULE

Table with columns: UNIT NO., LOCATION, SERVICE, FAN CHARACTERISTICS, MAX. OUTLET VELOCITY (FPM), SONES, DRIVE, HP, VOLTS, HZ, PHASE, STARTER, MANUFACTURER & MODEL NO., REMARKS.

REGISTER GRILLE AND DIFFUSER SCHEDULE

Table with columns: TYPE, APPLICATION, MATERIAL, FINISH, MANUFACTURER & MODEL NO.

LOUVER SCHEDULE

Table with columns: UNIT NO., LOCATION, SERVICE, TYPE, MATERIAL, FINISH, FREE AREA (Sq. Ft.), DIMENSIONS (APPROX.), AIR PERFORMANCE, MANUFACTURER & MODEL NO., REMARKS.

REMARKS: 1. BIRD SCREEN.

RADIATION SCHEDULE - HOT WATER

Table with columns: UNIT TYPE, CAPACITY (BTU/HF), AVERAGE WATER TEMP. (DEG. F), ENT. AIR TEMP. (DEG. F), ENT. WATER TEMP. (DEG. F), LVG. WATER TEMP. (DEG. F), FLUID, PRESSURE DROP PER 100 LIN. FT (FT HD), HEATING ELEMENT, ENCLOSURE, MOUNTING HEIGHT TO TOP, MANUFACTURER & MODEL No., REMARKS.

AIR HANDLING UNIT SCHEDULE - CHILLED WATER /HOT WATER

Table with columns: UNIT NO., LOCATION, SERVICE, SUPPLY FAN, RETURN FAN, COOLING COIL (CHILLED WATER), HEATING COIL (HOT WATER), CAPACITY, WATER SIDE, MANUFACTURER, REMARKS.

AIR HANDLING UNIT SCHEDULE FOR REFERENCE ONLY. AIR HANDLING UNITS TO BE PROVIDED WITH CHAMBERS DIRECTLY FROM MANUFACTURER.

HEAT EXCHANGER SCHEDULE - WATER TO WATER

Table with columns: UNIT NO., LOCATION, SERVICE, TYPE, HIGH TEMP. SIDE (CONDENSER WATER), CAPACITY, PRESS. DROP, LOW TEMP. SIDE (CHILLED WATER), CAPACITY, PRESS. DROP, NO. OF PASSES, HEAT TRANSFER SURFACE AREA (Sq. Ft.), MANUFACTURER & MODEL NO., REMARKS.

REMARKS: 1. FLUID: WATER



Drawn By: MJW Checked By: GDD Project Manager: GDD

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Revisions 1 03/14/2023 ADDENDUM #1

Ruminant Nutrition Lab Chamber Renovation SWBR Project Number 22139.00

Cornell University Ithaca, NY 14853

M-500 SCHEDULES - HVAC



ELECTRIC EQUIPMENT AND CONTROL SCHEDULE

GENERAL NOTES:

- A. ALL DEVICES PROVIDED BY THE DIVISION 26 CONTRACTOR.
- B. ITEM NUMBER INDICATES EQUIPMENT NUMBER
- C. ALL DEVICES SHALL BE SURFACE MOUNTED UNLESS OTHERWISE NOTED.
- D. PROVIDE OVERLOADS, SIZE AS REQUIRED, BY THE DIVISION 22/23 CONTRACTOR.
- E. "AU" INDICATES CONTROL DEVICES IS LOCATED AT THE UNIT.
- F. "NF" INDICATES NON-FUSED.
- G. "IU" INDICATES INTEGRAL WITH UNIT.

EQUIPMENT										POWER SOURCE, PROTECTION & WIRING						CONTROL DEVICES AS SHOWN ON THE PLANS BY ITEM DESIGNATION																												
ITEM ID	NAME	ROOM LOCATION	HP	KW	PHASE	SYSTEM VOLTS	MCA or SYSTEM AMPS	PANEL or CONTROL CENTER	CIRCUIT BREAKER or "FU" FOR FUSE	POWER WIRING FROM PANEL TO CONTROL UNIT			POWER WIRING FROM CONTROL UNIT TO EQUIPMENT			NEMA SIZE STARTER	NEMA TYPE	MANUAL MOTOR STARTER	MANUAL MOTOR STARTER WITH RELAY	MAGNETIC STARTER	COMBINATION MAGNETIC STARTER	COMBINATION REDUCED VOLTAGE STARTER	COMBINATION STARTER MP/FUSE (F) SIZE	ADJUSTABLE SPEED DRIVE	ADJUSTABLE SPEED DRIVE WITH BYPASS	ADJUSTABLE SPEED DRIVE WITH REDUNDANT ASD	PACKAGED CONTROL UNIT FURNISHED BY OTHERS	DUPLEX PUMP CONTROLLER BY OTHERS	FIRE ALARM FAN SHUTDOWN REQUIRED	SUPPLY DUCT SMOKE DETECTOR W/ REMOTE TEST STATION	RETURN DUCT SMOKE DETECTOR W/ REMOTE TEST STATION	EXHAUST DUCT SMOKE DETECTOR W/ REMOTE TEST STATION	THERMOSTAT CONNECTION	AQUASTAT CONNECTION	MOTORIZED DAMPER CONNECTION	START/STOP PUSHBUTTONS	HAND/OFF/AUTO SELECTOR SWITCH	CONTROL DEVICE LOCATION	SAFETY SWITCH					ITEM ID
										PHASE	GROUND	CONDUIT	PHASE	GROUND	CONDUIT																								SWITCH AMPS	FUSE SIZE	LOC.	WEATHER PROOF	REF. NOTES	
GHWP-1	GLYCOL HOT WATER	UTILITY ROOM	1 1/2		3	208	6.6	PANEL E	20/3	3#12	1#12 EG	3/4"C	3#12	1#12 EG	3/4"C								X												AU	30	NF	AU	N	1	GHWP-1			
EF-10	EXHAUST FAN	W. FORAGE	1/4		1	120	5.8	PANEL E	20/1	2#12	1#12	3/4"C	2#12	1#12	3/4"C																				AU	30	NF	AU	N	1	EF-10			
FCU-1	FAN COIL UNIT	W. FORAGE	1/4		1	120	3.9	PANEL E	20/1	2#12	1#12	3/4"C	2#12	1#12	3/4"C																				AU	30	NF	AU	N	1	FCU-1			
CH-1	CHILLER	W. FORAGE	16		3	208	75.0	PANEL E	100/3	3#2	1#8	1-3/4"C	3#2	1#8	1-3/4"C								X												AU	100	NF	AU	N	1	CH-1			
CP	CONDENSATE PUMP	MECH ROOM	1/2		3	120	0.1	PANEL E	20/1	2#12	1#12	3/4"C	2#12	1#12	3/4"C								X												AU	30	NF	AU	N	1	CP			
CWP-3	COLD WATER PUMP	MECH ROOM	2		3	208	7.5	PANEL E	20/3	3#12	1#12 EG	3/4"C	3#12	1#12 EG	3/4"C								X												AU	30	NF	AU	N	1	CWP-3			

EQUIPMENT REFERENCE NOTES:

- 1. EQUIPMENT HUNG FROM STRUCTURE. REFER TO HVAC DRAWINGS.

PANELBOARD SCHEDULE

PANEL INFORMATION		TYPE		VOLTAGE RATING			BUS RATING		MAIN AMPERE RATING			MOUNT			BRANCH CIRCUIT DEVICES			TOTAL NO. OF CIRCUITS	NOTES		
NAME	ROOM LOCATION	DIST.	BRANCH CIR.	VOLT	PHASE	WIRE	MLO	MCB	KAIC (RMS SYM)	F	S	QUANTITY			TRIP / FUSE SIZE-FU	POLES					
												ACTIVE	SPARE	SPACE							
MDP(E)	UTILITY	X		208/120	3	4	600	500A	22k		X				2			225A	3		1
PANEL D	BARN WALKWAY		X	208/120	3	4	225	225A	22k		X			5			60A	3		60	2,3
PANEL E	BARN WALKWAY		X	208/120	3	4	225	225A	22k		X			1	1		100A	3		60	3
UPS -1	GAS ANALYZER ROOM		X	208/120	3	4	100	50A	22k		X			2	3		20A	3		24	3

PANELBOARD SUMMARY NOTES:

- 1. PROVIDE NEW BREAKER TO MATCH EXISTING PANELBOARD TYPE AND KAIC RATING.
- 2. PROVIDE SHUNT TRIP TO ONE 60A-3P CIRCUIT BREAKER.
- 3. SHALL BE NEMA 3R.

LUMINAIRE SCHEDULE

TYPE	DESCRIPTION	MFR. & CATALOG No.	LAMP	VOLTAGE/BALLAST	MOUNTING	UNIT WATTS	REFERENCE NOTES
L1	WEATHER PROOF LED STRIP LIGHT	DAY-BRITE: DW-AE-35L-835-4-UNV	LED	120/227V	SURFACE MOUNT	32	1

LUMINAIRE SCHEDULE NOTES:

- 1. FIXTURE SHALL BE MOUNTED TO THE CEILING OF GAS ANALYZER ROOM.

CABLE SCHEDULE #1

MLC	RLC	PORT	TR	RACK/CABINET	PATCH PANEL	PORT	CIT LABEL	NOTES
108	A	1	127	1	A	1	108-A1	1
108	A	2	127	1	A	2	108-A2	1
102	A	1	127	1	A	3	102-A1	1
102	A	2	127	1	A	4	102-A2	1
102	A	3	127	1	A	5	102-A3	1
102	A	4	127	1	A	6	102-A4	1
102	B	1	127	1	A	7	102-B1	1
102	B	2	127	1	A	8	102-B2	1
102	B	3	127	1	A	9	102-B3	1
102	B	4	127	1	A	10	102-B4	1
102A	A	1	127	1	A	11	102A-A1	1
102A	A	2	127	1	A	12	102A-A2	1
102A	A	3	127	1	A	13	102A-A3	1
102A	A	4	127	1	A	14	102A-A4	1
SPARE			127	1	A	15	SPARE	
SPARE			127	1	A	16	SPARE	
SPARE			127	1	A	17	SPARE	
SPARE			127	1	A	18	SPARE	
SPARE			127	1	A	19	SPARE	
SPARE			127	1	A	20	SPARE	
SPARE			127	1	A	21	SPARE	
SPARE			127	1	A	22	SPARE	
SPARE			127	1	A	23	SPARE	
SPARE			127	1	A	24	SPARE	

CABLE SCHEDULE REFERENCE NOTES:

- 1. CONTRACTORS SHALL USE PATCH PANEL OPENING MADE SPARE DURING DEMOLITION BEFORE POPULATING NEW PATCH PANEL.
- 2. DATA PORT SHALL BE LABELED SPARE AT PATCH PANEL AND BOTH ENDS OF CABLE.



Drawn By: BDH
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Revisions
1 3/14/2023 Addendum #1

Ruminant Nutrition Lab Chamber Renovation
SWBR Project Number 22139.00

Cornell University
Ithaca, NY 14853

E-401
ELECTRICAL SCHEDULES #1

12/6/2022
100% Construction Documents

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PANELBOARD DIRECTORY

Table for Panel D directory with columns for ME Project, CU Nutrition, Panel Name, Type, Branch, and a detailed grid of equipment descriptions and ratings (CT, TRIP, LTG, RECEPT, MOTOR, EQUIP, A/C, KIT).

PANELBOARD DIRECTORY

Table for Panel E directory with columns for ME Project, CU Nutrition, Panel Name, Type, Branch, and a detailed grid of equipment descriptions and ratings. Includes circled items CH-1 and CH-10.

PANELBOARD DIRECTORY

Table for UPS-1 directory with columns for ME Project, CU Nutrition, Panel Name, Type, Branch, and a detailed grid of equipment descriptions and ratings.



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Ruminant Nutrition Lab Chamber Renovation SWBR Project Number 22139.00

Cornell University Ithaca, NY 14853

E-402 ELECTRICAL SCHEDULES #2

12/6/2022 100% Construction Documents

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