ROOFTOP AIR HANDLING UNIT SCHEDULE - RTU

SYMBOL	NUMBER	LOCATION	SERVES	SUPPLY AIRFLOW (CFM)	O.A. MAX/MIN (CFM)	SUPPLY FAN DATA: TSP (IN W.C.)	SUPPLY FAN DATA: ESP (IN W.C.)	SUPPLY FAN DATA: FAN TYPE	SUPPLY FAN DATA: FAN (QTY)	SUPPLY FAN DATA: FAN RPM	SUPPLY FAN DATA: MOTOR HP	SUPPLY FAN DATA: MAX FAN BHP	EXHAUST FAN DATA: AIRFLOW (CFM)	EXHAUST FAN DATA: TSP (IN. W.C.)	EXHAUST FAN DATA: ESP (IN W.C.)	EXHAUST FAN DATA: FAN TYPE	EXHAUST FAN DATA: FAN (QTY)	EXHAUST FAN DATA: FAN RPM	EXHAUST FAN DATA: MOTOR HP	EXHAUST FAN DATA: MAX FAN BHP
RTU	1	ROOF	OFFICES	4,000	4,000	3.7	2.0	DIRECT DRIVE	1	1,928	7.5	4.5	4,000		1.0	DIRECT DRIVE	1	1,663	4.0	1.8
RTU	2	ROOF	EVENT SPACE	5,000	1,500	4.4	2.0	DIRECT DRIVE	1	1,562	7.5	6.0	5,000		0.75	DIRECT DRIVE	1	1,797	4.0	2.0

SYMBOL	NUMBER	ENERGY RECOVERY DATA												
		WINTER PERFORMANCE					SUMMER PERFORMANCE					EXCHANGER TYPE	FILTERS	APD (IN W.C.)
		OUTSIDE AIR TEMP DB/WB (F)	RETURN AIR TEMP DB/WB (F)	EXHAUST AIR TEMP DB/WB (F)	SUPPLY AIR TEMP DB/WB (F)	TOTAL EFFICIENCY (%)	OUTSIDE AIR TEMP DB/WB (F)	RETURN AIR TEMP DB/WB (F)	EXHAUST AIR TEMP DB/WB (F)	SUPPLY AIR TEMP DB/WB (F)	TOTAL EFFICIENCY (%)			
RTU	1	-9.0/-10.0	70.0/50.0	47.9/37.0	47.9/37.0	72	84.0/69.0	75.0/62.0	77.3/64.1	77.3/64.1	73	WHEEL	MERV-8	
RTU	2	-9.0/-10.0	70.0/50.0	53.8/40.6	65.1/47.4	78	84.0/69.0	75.0/62.0	76.7/63.7	75.5/62.5	75	WHEEL	MERV-8	

SYMBOL	NUMBER	HEAT PUMP DATA																	REF. TYPE	FILTER EFF.	ELECTRICAL DATA					REMARKS
		DX HEATING/COOLING COIL DATA							HOT GAS REHEAT COIL DATA				CONDENSING SECTION DATA													
		HEATING			COOLING											EFFICIENCY										
		EAT (F)	LAT (F)	CAPC. (MBH)	EAT DB/WB (F)	LAT DB/WB (F)	TOTAL CAPC. (MBH)	SENS. CAPC. (MBH)	APD (IN W.C.)	LAT DB (F)	LAT WB (F)	TOTAL CAPC. (MBH)	COMP. QTY	QTY VAR. SPD.	COND. FAN QTY	EER	IEER	COP @ 47 DEG F			FLA	MCA	MFS	VOLT	PH	
RTU	1	47.9	85.8	165.7	78.1/65.3	50.9/50.9	168.5	118.9		70.0	58.4	82.8	1	1	2	11.5			R410A	MERV-8 & MERV-14	256.5	268.2	300	208	3	1, 2, 3, 4, 5, MODEL DPS016A
RTU	2	65.1	94.9	162.5	75.5/62.5	50.8/50.7	167.0	135.2		70.0	58.3	104.4	1	1	2	11.7	20.0		R410A	MERV-8 & MERV-14	214.9	257.9	300	208	3	1, 2, 3, 4, 5, MODEL DPS016A

1. SELECTION BASED ON DAIKIN.
2. WITH SPRING ISOLATED ROOF CURB.
3. WITH 120V MARINE LIGHTS AND SERVICE RECEPTACLE OLN SEPARATE 120V CIRCUIT. COORDINATE WITH ELECTRICAL CONTRACTOR AS REQUIRED.
4. COORDINATE SUPPLY AND RETURN ARRANGEMENT WITH FLOOR PLANS.
5. WITH BACNET INTERFACE. REFER TO SPECIFICATION SECTION 239750 FOR ADDITIONAL INFORMATION.

VARIABLE REFRIGERANT FLOW HEAT PUMP OUTDOOR UNIT SCHEDULE - ACCU

SYMBOL	NUMBER	LOCATION	SERVES	COOLING CAPACITY (MBH)	HEATING CAPACITY (MBH)	COMPRESSOR DATA		EFFICIENCY			ELECTRICAL DATA (MODULE #1 / MODULE #2)				REMARKS
						# VARIABLE SPEED	COMPRESSOR QUANTITY	COP	EER	IEER	MCA	MOP	VOLT	PHASE	
ACCU	1	ROOF		77.0	103.0	1	1	3.6	12.8	25.3	34.1	35	208	3	1, 2, 3, 4, 5, 6, REYQ96AATJA
ACCU	2	ROOF		184.0	206.0	1	1	3.5	11.5	21.0	59.8	60	208	3	1, 2, 3, 4, 5, 6, REYQ192AATJA

1. SELECTION BASED ON DAIKIN.
2. WITH BRANCH SELECTOR BOXES PERMITTING SIMUILTANEOUS HEATING AND COOLING. REFER TO ONE-LINE FOR ADDITIONAL INFORMATION.
3. WITH INVERTER DRIVEN COMPRESSORS.
4. WITH 24" TALL SUPPORT STAND. REFER TO DETAILS.
5. WITH SNOW/HAIL GUARDS.
6. UNIT SHALL BE RATED FOR CONTINUOUS OPERATIUON AT -13 DEG F.

VARIABLE REFRIGERANT FLOW HEAT PUMP FAN COIL UNIT SCHEDULE - FCU

SYMBOL	NUMBER	ASSOCIATED ACCU	LOCATION	SERVES	MAXIMUM CFM	MAXIMUM ESP (IN WG)	TOTAL COOLING CAPACITY (MBH)	SENSIBLE COOLING CAPACITY (MBH)	HEATING CAPACITY (MBH)	ELECTRICAL DATA				REMARKS
										MCA	MFS	VOLTAGE	PHASE	
FCU	103	ACCU-2	LOBBY & RECEPTION 103	LOBBY & RECEPTION 103	742	0.6	24.0	17.1	27.0	1.8	15	208	1	1, 2, 3, 4, MODEL FXSQ24TBVJU
FCU	104	ACCU-2	SIMULATION LAB 104	SIMULATION LAB 104	1307	0.6	48.0	34.3	54.0	2.8	15	208	1	1, 2, 3, 4, MODEL FXQS48TBVJU
FCU	105	ACCU-2	RESTROOM 105	RESTROOM 105	300	0.05	5.8	4.7	6.5	0.3	15	208	1	1, 2, 3, 4, 5, MODEL FXZQ05TBVJU
FCU	110	ACCU-2	MEDIA LAB 110	MEDIA LAB 110	812	0.6	30.0	22.6	34.0	1.8	15	208	1	1, 2, 3, 4, MODEL FXSQ30TBVJU
FCU	110A	ACCU-2	EDITING/CONTROL & SECURE STORAGE 110A	EDITING/CONTROL & SECURE STORAGE 110A	317	0.05	9.5	6.6	10.5	0.3	15	208	1	1, 2, 3, 4, 5, MODEL FXZQ09TBVJU
FCU	112	ACCU-2	INTELLIGENCE & FORENSICS LAB 112	INTELLIGENCE & FORENSICS LAB 112	1377	0.56	54.0	38.6	60.0	3.3	15	208	1	1, 2, 3, 4, MODEL FXSQ54TBVJU
FCU	112B	ACCU-1	OFFICE & DATA 112B	OFFICE & DATA 112B	300	0.05	5.8	4.7	6.5	0.3	15	208	1	1, 2, 3, 4, 5, MODEL FXZQ05TBVJU
FCU	113	ACCU-2	CATERING 113	CATERING 113	300	0.05	5.8	4.7	6.5	0.3	15	208	1	1, 2, 3, 4, 5, MODEL FXZQ05TBVJU
FCU	114	ACCU-1	CYBERSECURITY 114	CYBERSECURITY 114	1377	0.56	54.0	38.6	60.0	3.3	15	208	1	1, 2, 3, 4, MODEL FXSQ54TBVJU
FCU	114B	ACCU-1	OFFICE & DATA 114B	OFFICE & DATA 114B	300	0.05	5.8	4.7	6.5	0.3	15	208	1	1, 2, 3, 4, 5, MODEL FXZQ05TBVJU
FCU	119	ACCU-1	STAFF OFFICE 119	STAFF OFFICE 119	300	0.05	5.8	4.7	6.5	0.3	15	208	1	1, 2, 3, 4, 5, MODEL FXZQ05TBVJU
FCU	120	ACCU-1	SMALL LAB 120	SMALL LAB 120	353	0.05	12.0	7.8	13.5	0.4	15	208	1	1, 2, 3, 4, 5, MODEL FXZQ12TBVJU
FCU	121	ACCU-1	VP STRATEGIC PARTNERSHIP 121	VP STRATEGIC PARTNERSHIP 121	300	0.05	5.8	4.7	6.5	0.3	15	208	1	1, 2, 3, 4, 5, MODEL FXZQ05TBVJU
FCU	123	ACCU-1	CONFERENCE 123	CONFERENCE 123	405	0.05	15	10.8	17.0	0.4	15	208	1	1, 2, 3, 4, 5, MODEL FXZQ15TBVJU
FCU	125	ACCU-1	HUDDLE 125	HUDDLE 125	300	0.05	5.8	4.7	6.5	0.3	15	208	1	1, 2, 3, 4, 5, MODEL FXZQ05TBVJU
FCU	199A	ACCU-1	OPEN COLLAB 199	OPEN COLLAB 119	511	0.05	18.0	13.0	20.0	0.6	15	208	1	1, 2, 3, 4, 5, MODEL FXZQ18TBVJU
FCU	199B	ACCU-2	OPEN COLLAB 199	OPEN COLLAB 119	511	0.05	18.0	13.0	20.0	0.6	15	208	1	1, 2, 3, 4, 5, MODEL FXZQ18TBVJU

1. SELECTION BASED ON DAIKIN.
2. WITH INTEGRAL CONDENSATE PUMP.
3. SCHEDULED PERFORMANCE BASED ON STANDARD RATED CONDITIONS. REFER TO FLOOR PLANS FOR BALANCING SETPOINTS.
4. WITH BACNET INTERFACE. REFER TO SPECIFICATION SECTION 239750 FOR ADDITIONAL INFORMATION.
5. COORDINATE MOUNTING TYPES AND LOCATIONS WITH ARCHITECTURAL PLANS.

VRF HEAT RECOVERY BRANCH SELECTOR BOX SCHEDULE, BS

TAG	NUMBER	ASSOCIATED ACCU	TYPE	# BRANCHES	ELECTRICAL DATA			REMARKS
					VOLTS	PHASE	MCA	
BS	1-1	ACCU-1	MAIN	12	208	1	1.2	1, 2, MODEL BS12Q54TVJ
BS	2-1	ACCU-2	MAIN	12	208	1	1.2	1, 2, MODEL BS12Q54TVJ

1. SELECTION BASED ON DAIKIN.
2. FURNISH AND INSTALL DIAMONDBACK BALL VALVES (BV-SERIES, 700 PSIG WORKING PRESSURE, FULL PORT, 410A RATED) FOR ALL PORTS, OR EQUAL.

MINI-SPLIT AIR CONDITIONING AND HEAT PUMP UNIT SCHEDULE - INDOOR UNIT SCHEDULE - HP

SYMBOL	NUMBER	SERVES	INDOOR AIR CONDITIONS (COOLING)		RATED INDOOR AIR CONDITIONS (HEATING)		COOLING CAPACITY (MBH)	HEATING CAPACITY (MBH)	REFRIGERANT TYPE	UNIT ELECTRICAL DATA			REMARKS
			DB (F)	WB (F)	DB (F)	WB (F)				MFS	VOLT	PH	
HP	101	101 VESTIBULE	80	67	70	60	17.4	21.6	R-410A	N/A	208	1	1, 2, 3, 4, MODEL FFQ18
HP	109	109 MAIN DATA	80	67	70	60	18.1	18.0	R-32	N/A	208	1	1, 2, 3, 4, 5 MODEL FTXC18A
HP	116	116 VESTIBULE	80	67	70	60	17.4	21.6	R-410A	N/A	208	1	1, 2, 3, 4, MODEL FFQ18
HP	117	117 MAIN ELECTRIC	80	67	70	60	18.1	18.0	R-32	N/A	208	1	1, 2, 3, 4, MODEL FTXC18A
HP	127	127 WATER SERVICE	80	67	70	60	18.1	18.0	R-32	N/A	208	1	1, 2, 3, 4, MODEL FTXC18A

1. SELECTION BASED ON DAIKIN.
2. WITH WIRED REMOTE CONTROLLER.
3. PROVIDE 208 VAC CONDENSATE PUMP. POWER SHALL BE PROVIDED VIA CIRCUIT TO INDOOR UNIT. COORDINATE WITH ELECTRICAL CONTRACTOR AS REQUIRED.
4. POWER TO INDOOR UNIT SHALL BE PROVIDED VIA CIRCUIT FROM OUTDOOR UNIT. COORDINATE WITH ELECTRICAL CONTRACTOR AS REQUIRED.
5. WITH OPTIONAL CONDENSATE LIFT PUMP.

MINI-SPLIT AIR CONDITIONING AND HEAT PUMP UNIT SCHEDULE - OUTDOOR UNIT SCHEDULE - ACC

SYMBOL	NUMBER	ASSOCIATED INDOOR UNIT	RATED OUTDOOR AIR CONDITIONS (COOLING)		RATED OUTDOOR AIR CONDITIONS (HEATING)	COOLING CAPACITY (MBH)	HEATING CAPACITY (MBH)	EFFICIENCY		ELECTRICAL DATA			REMARKS
			DB (F)	WB (F)	DB (F) / WB (F)			EER	SEER	MFS	VOLT	PH	
ACC	1	HP-101	95	75	47 / 43	17.4	21.6	11.5	18.2	15	208	1	1, 2, 3, 4, 5, MODEL RX18WMVJU
ACC	2	HP-109	95	75	47 / 43	18.1	18.0	10.5	18.0	20	208	1	1, 2, 3, 4, 5, MODEL RXC18A
ACC	3	HP-116	95	75	47 / 43	17.4	21.6	11.5	18.2	15	208	1	1, 2, 3, 4, 5, MODEL RX18WMVJU
ACC	4	HP-117	95	75	47 / 43	18.1	18.0	10.5	18.0	20	208	1	1, 2, 3, 4, 5, MODEL RXC18A
ACC	5	HP-127	95	75	47 / 43	18.1	18.0	10.5	18.0	20	208	1	1, 2, 3, 4, 5, MODEL RXC18A

1. SELECTION BASED ON DAIKIN.
2. WITH DISCONNECT SWITCH.
3. WITH LOW AMBIENT COOLING.
4. PROVIDE BAS INTERFACE FOR ALARM STATUS.
5. PROVIDE MANUFACTURER'S SUPPORT STAND OR APPROVED EQUAL.

SOUND ATTENUATOR SCHEDULE - SA

SYMBOL	EQUIPMENT TAG	SERVES	CFM	SP IN WC	QTY	ATTENUATOR SIZE WxHxL INxINxIN	NOISE ATTENUATION IN DB (DIL) OCTAVE BAND								REMARKS
							1	2	3	4	5	6	7	8	
SA	1	RTU-1 SUPPLY	5,000	0.2	1	43x43x36	8	10	22	25	19	13	17	13	1
SA	2	RTU-1 RETURN	5,000	0.2	1	55x24x36	3	5	20	21	20	22	18	14	1
SA	3	RTU-2 SUPPLY	4,000	0.2	1	52x18x36	10	17	28	39	43	37	24	15	1
SA	4	RTU-2 RETURN	4,000	0.2	1	48x20x36	3	9	26	25	23	25	22	17	1

1. SELECTION BASED ON PRICE..

NORWICH UNIVERSITY™ 1819

PROJECT:

NU Cyber Fusion Center

158 HARMON DRIVE,
NORTHFIELD VT 05663

50% DESIGN DEVELOPMENT

No.	Date	Revision

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SCALE:

DRAWING TITLE:

MECHANICAL SCHEDULES

M401