



NORTHFIELD GREEN HOUSING PARTNERS LP.

NORTHFIELD GREEN

MECHANICAL SCHEDULES AND LEGEND

NO.	DATE	DESCRIPTION

DRAWING NUMBER
M3.01
SCALE: NO SCALE
DATE: 11/21/2017

ENERGY RECOVERY VENTILATOR PERFORMANCE SCHEDULE

TAG	AIR STREAM	DUCT CONNECTIONS		UNIT AIRFLOW				WINTER RECOVERY	SUMMER RECOVERY	HEATING COIL	COOLING COIL	ELECTRICAL DATA			BASIS OF DESIGN - RENEWAIRE		
		ENTERING	LEAVING	CFM	E.S.P. (INCH)	T.S.P. (INCH)	H.P.					B.H.P.	M.C.A.	BREAKER	VOLTAGE	WEIGHT (LBS)	ECM
ERV-141A	SUPPLY	TOP	END	1260	1.0	-	-	71%	64%	HC-141A	CC-141A	214	30	230/1160	1300	-	RD2XIN
	EXHAUST	END	TOP	1050	1.0	-	-										
ERV-141B	SUPPLY	TOP	END	1280	1.0	-	-	71%	64%	HC-141B	CC-141B	214	30	230/1160	1300	-	RD2XIN
	EXHAUST	END	TOP	1050	1.0	-	-										
ERV-141C	SUPPLY	TOP	END	1300	1.0	-	-	78%	64%	HC-141C	CC-141C	214	30	230/1160	1300	-	RD2XIN
	EXHAUST	END	TOP	1050	1.0	-	-										
ERV-141D	SUPPLY	TOP	END	600	0.5	-	-	71%	64%	HC-141D	-	140	150	230/1160	325	-	HE15XINH
	EXHAUST	END	TOP	500	0.5	-	-										
ERV-149A	SUPPLY	TOP	END	1920	1.0	-	-	69%	53%	HC-149A	CC-149A	214	30	230/1160	1300	-	RD2XIN
	EXHAUST	END	TOP	1600	1.0	-	-										
ERV-149B	SUPPLY	TOP	END	2000	1.0	-	-	63%	47%	HC-149B	CC-149B	214	30	230/1160	1300	-	RD2XIN
	EXHAUST	END	TOP	1900	1.0	-	-										
ERV-151A	SUPPLY	TOP	END	1920	1.0	-	-	69%	53%	HC-151A	CC-151A	214	30	230/1160	1300	-	RD2XIN
	EXHAUST	END	TOP	1600	1.0	-	-										
ERV-151B	SUPPLY	TOP	END	2000	1.0	-	-	61%	45%	HC-151B	CC-151B	214	30	230/1160	1300	-	RD2XIN
	EXHAUST	END	TOP	2000	1.0	-	-										

CONDENSING UNIT PERFORMANCE SCHEDULE

TAG	NOMINAL COOLING (TONS)	REFRIGERANT	CONDENSER AIRFLOW (CFM)	MINIMUM AMBIENT TEMP (°F)	FOOTPRINT DIMENSION (INCHES)	SOUND LEVEL (dB)	ELECTRICAL REQUIREMENTS			BASIS OF DESIGN - TRANE			
							MCA	FUSE	V/PH/Hz	COMP. STAGING**	SEER	SERVICE	MODEL
CU-141A	3.5	R-410a	-	30.0	35"x39"	12	21	35	230/1160	0-100	16	ERV-141A	4TTR6042JI
CU-141B	3.5	R-410a	-	30.0	35"x39"	12	21	35	230/1160	0-100	16	ERV-141B	4TTR6042JI
CU-141C	3.5	R-410a	-	30.0	35"x39"	12	21	35	230/1160	0-100	16	ERV-141C	4TTR6042JI
CU-149A	5.0	R-410a	-	30.0	35"x39"	14	32	50	230/1160	0-100	16	ERV-149A	4TTR6061CI
CU-149B	5.0	R-410a	-	30.0	35"x39"	14	32	50	230/1160	0-100	16	ERV-149B	4TTR6061CI
CU-151A	5.0	R-410a	-	30.0	35"x39"	14	32	50	230/1160	0-100	16	ERV-151A	4TTR6061CI
CU-151B	5.0	R-410a	-	30.0	35"x39"	14	32	50	230/1160	0-100	16	ERV-151B	4TTR6061CI

PROVIDE WITH ANTI-SHORT CYCLE TIMER AND CRANKCASE HEATERS

COOLING COIL PERFORMANCE SCHEDULE

TAG	TOT CLG (MBH)	SEN CLG (MBH)	FACE VEL (FFM)	AIR FLOW (CFM)	APD (inwg)	ROUS	E.D.B. (°F)	E.W.B. (°F)	L.D.B. (°F)	L.W.B. (°F)	SAT SUCTION TEMPERATURE (DEGF)	BASIS OF DESIGN - COILMASTER	
												REFRIGERANT	SERVICE
CC-141A	396	215	218	1260	0.08	3	79.0	67.3	59.2	51.5	45	R-410A	ERV-141A
CC-141B	399	219	282	1280	0.08	3	79.1	67.3	59.3	51.5	45	R-410A	ERV-141B
CC-141C	406	283	281	1300	0.08	3	79.2	67.4	59.4	51.7	45	R-410A	ERV-141C
CC-149A	706	458	424	1920	0.18	3	79.1	68.1	58.0	56.6	45	R-410A	ERV-149A
CC-149B	721	46.7	441	2000	0.19	3	79.4	68.1	58.2	56.9	45	R-410A	ERV-149B
CC-151A	721	46.7	424	1920	0.18	3	79.4	68.1	58.2	56.9	45	R-410A	ERV-151A
CC-151B	720	46.5	441	2000	0.19	3	79.2	68.0	58.1	56.7	45	R-410A	ERV-151B

AIR DEVICE PERFORMANCE SCHEDULE

TAG	PANEL SIZE (IN)	NECK SIZE (IN)	AIRFLOW (CFM)	SP LOSS (INWG)	THROW (L)	THROW (S)	Nc	BASIS OF DESIGN - METALAIR		
								DUCT CONN (IN)	PATTERN	MODEL
A	-	6x6	100	0.05	-	-	20	SEE DWGS	SEE DWGS	5000D
B	-	9x9	200	0.05	-	-	20	SEE DWGS	SEE DWGS	5000D
C	-	12x12	400	0.05	-	-	20	SEE DWGS	SEE DWGS	5000D
D	-	15x15	500	0.05	-	-	20	SEE DWGS	SEE DWGS	5000D
E	-	10x8	240	0.05	-	-	20	SEE DWGS	SEE DWGS	H4002D
AA	8x8	8x8	50	0.05	-	-	15	SEE DWGS	3/4", 45°	9R4D
BB	-	-	160	0.05	-	-	15	SEE DWGS	3/4", 45°	9R4D
CC	8x8	8x8	160	0.05	-	-	15	SEE DWGS	3/4", 45°	9R4D
DD	16x16	16x16	500	0.05	-	-	15	SEE DWGS	3/4", 45°	9R4D

PROVIDE ALL AIR DEVICES WITH OPPOSED BLADE DAMPERS.
PROVIDE WITH CEILING RADIATION DAMPER (CRD) AS REQUIRED WHERE INSTALLED IN RATED ASSEMBLY.
* - SIZE TO MATCH EXISTING OPENING, FIELD VERIFY.

INTAKE/ RELIEF VENTILATOR PERFORMANCE SCHEDULE

TAG	AIR FLOW (CFM)	SP LOSS (INWG)	AIR VEL. (FFM)	THROAT (INCHES)	HOOD O.D. (INCHES)	CURB HEIGHT (INCHES)	BIRD SCREEN (INCHES)	BASIS OF DESIGN - GREENHECK	
								SERVICE	MODEL
GIV	2000	0.03	426	26"x26"	48"x42"	16	1/2"	ERV INTAKE (MULTIPLE)	FGI
GEV	2000	0.03	426	26"x26"	48"x42"	16	1/2"	ERV EXHAUST (MULTIPLE)	FGR

ALUMINUM CONSTRUCTION, INSULATED GALVANIZED STEEL, ROOF CURB AND INSECT SCREEN

HEATING COIL PERFORMANCE SCHEDULE

TAG	OUTPUT (MBH)	COIL AREA (LxH)	FLOW RATE (GPM)	W/F/D (FT/IN)	WATER VELOCITY (FPS)	E.W.T. (°F)	L.W.T. (°F)	ROUS	TURB (Y/N)	HTG AIR FLOW (CFM)	APD (INWG)	E.A.T. (°F)	L.A.T. (°F)	VEL (FFM)	FFF	BASIS OF DESIGN - COILMASTER		
																MODEL	VALVE	SERVICE
HC-141A	43.8	-	225	0.28	0.98	160.0	120.2	1	-	1260	0.04	43.2	75.3	278	-	HUG01C3	V-1	ERV-141A
HC-141B	44.6	-	225	0.29	1.0	160.0	120.2	1	-	1280	0.04	42.7	74.9	282	-	HUG01C3	V-1	ERV-141B
HC-141C	41.2	-	236	0.32	1.05	160.0	120.3	1	-	1300	0.04	42.1	75.6	281	-	HUG01C3	V-1	ERV-141C
HC-141D	23.1	18x12	15	0.75	0.83	160.0	133.1	1	-	600	0.06	40.0	70.9	400	100	TT*	V-1	ERV-141D
HC-149A	69.3	-	3.5	0.68	1.54	160.0	120.3	1	-	1920	0.09	38.7	72.0	424	-	HUG01C16	V-2	ERV-149A
HC-149B	69.1	-	3.5	0.68	1.54	160.0	120.2	1	-	2000	0.10	40.9	72.0	441	-	HUG01C16	V-2	ERV-149B
HC-151A	69.3	-	3.5	0.68	1.54	160.0	120.3	1	-	1920	0.09	38.7	72.0	424	-	HUG01C16	V-2	ERV-151A
HC-151B	69.1	-	3.5	0.68	1.54	160.0	120.2	1	-	2000	0.10	40.9	72.0	441	-	HUG01C16	V-2	ERV-151B

CONTROL VALVE SCHEDULE

TAG	FLOW RATE (GPM)	Cv	VALVE SIZE (IN)	TYPE	SERVICE
V-1	2.5	13	1/2" SCREW	2-WAY, MODULATING	HC-141A, 141B, 141C, 141D
V-2	3.5	13	1/2" SCREW	2-WAY, MODULATING	HC-149A, 149B, 151A, 151B
V-3	2.0	13	1/2" SCREW	2-WAY, 2-POSITION	FINTUBE

MECHANICAL AND PLUMBING SYMBOLS AND ABBREVIATIONS LEGEND

NOTE - USE SYMBOLS AND ABBREVIATIONS AS APPLICABLE FOR THIS MECHANICAL DRAWING SET. SOME SYMBOLS AND ABBREVIATIONS IN THIS LEGEND MAY NOT APPLY.

SYMBOL	DESCRIPTION	SYMBOL	DESCRIPTION	SYMBOL	DESCRIPTION	ABBREVIATION	DESCRIPTION	ABBREVIATION	DESCRIPTION	ABBREVIATION	DESCRIPTION	ABBREVIATION	DESCRIPTION	ABBREVIATION	DESCRIPTION
—CA—	COMPRESSED AIR PIPING (CA)	⊘	BALL VALVE	⊕	TEST OR SENSOR W/ TAMPERPROOF GUARD	B-*	BOILER TAG	EUB	ENTERING WET BULB	LB	POUNDS	RPZ	REDUCED PRESSURE ZONE		
—C—	CONDENSATE DRAIN PIPING (C)	⊘	BALL VALVE	⊕	MANUAL AIR VENT	BD-*	BYPASS DAMPER TAG	EWH-*	ELECTRIC WATER HEATER TAG	LD-*	LINEAR DIFFUSER TAG	RR-*	RETURN REGISTER TAG		
—CTR—	COOLING TOWER RETURN PIPING (CTR)	⊘	3/4" BALL VALVE WITH 3/4" HOSE END	⊕	NOTE TAG (NUMBER)	BFP-*	BACKFLOW PREVENTER TAG	EWT	ENTERING WATER TEMPERATURE	LTHUS/R	LOW TEMPERATURE HOT WATER	RTU	ROOM TEMPERATURE SENSOR		
—CTS—	COOLING TOWER SUPPLY PIPING (CTS)	⊘	GATE VALVE	⊕	AIR DEVICE TAG (LETTER) WITH CFM	BHP	BRAKE HORSEPOWER	EXG	EXISTING	LRA	LOCKED ROTOR AMPS	RV	RELIEF VALVE		
—CUR—	CHILLED WATER RETURN PIPING (CUR)	⊘	PRESSURE REDUCING VALVE	⊕	AIR FLOW TAG (LETTER) WITH CFM	BTUH	BRITISH THERMAL UNITS PER HOUR	EXH	EXHAUST	LUCO	LOW WATER CUTOFF	RUL	RAINWATER LEADER		
—CWS—	CHILLED WATER SUPPLY PIPING (CWS)	⊘	FUSIBLE VALVE	⊕	ROOM NUMBER	CB	COUNTER BALANCED DAMPER	FC	FLEXIBLE CONNECTION	LUT	LEAVING WATER TEMPERATURE	SA	SUPPLY AIR		
—FOR—	FUEL OIL RETURN PIPING (FOR)	⊘	STRAINER W/BLOWDOWN BALL VALVE	⊕	TURNING VANES	CC-*	COOLING COIL TAG	FCO	FLOOR CLEANOUT	MAX	MAXIMUM	SAN	SANITARY (DRAIN & WASTE)		
—FOS—	FUEL OIL SUPPLY PIPING (FOS)	⊘	2-WAY CONTROL VALVE	⊕	DUCT W/MANUAL DAMPER	CFM	CUBIC FEET PER MINUTE	FD	FIRE DAMPER	MBH	THOUSANDS OF BTU PER HOUR	SD	SMOKE DAMPER		
—G—	GAS PIPING (G)	⊘	SOLENOID VALVE	⊕	LAGGED DUCT	CHLR-*	CHILLER TAG	FD-*	FLOOR DRAIN TAG	MCA	MINIMUM CIRCUIT AMPACITY	SEER	SEASONAL ENERGY EFFICIENCY RATIO		
—HUR—	HOT WATER RETURN PIPING (HUR)	⊘	3-WAY CONTROL VALVE	⊕	DUCT W/ACOUSTIC LINING	CO	CLEANOUT	FLA	FULL LOAD AMPS	MIN	MINIMUM	SF	SUPPLY FAN		
—HUS—	HOT WATER SUPPLY PIPING (HUS)	⊘	3-WAY CONTROL VALVE	⊕	DUCT W/SQUARE-TO-ROUND TRANSITION	CONV-*	CONVECTOR TAG	FOR	FUEL OIL RETURN	NC	NOISE CRITERION	SG-*	SUPPLY GRILLE TAG		
—RL—	REFRIGERANT LIQUID PIPING (RL)	⊘	4-WAY CONTROL VALVE (TOP VIEW)	⊕	FLEXIBLE DUCT	CUH-*	CABINET UNIT HEATER TAG	FOS							