ROOFTOP UNIT SCHEDULE

ID	LOCATION	SERVES	SUPPLY FAN CFM	MOTOR DRIVE	MIN. OUTDOOR AIR CFM	ESP (IN WG)	MOTOR (HP)	VOLTAGE/ PHASE	HEATING MEDIUM	HEATING INPUT CAPACITY (MBH)	HEATING OUTPUT CAPACITY (MBH)	COOLING MEDIUM	GROSS COOL CAPACITY (MBH)	SENS.COOL CAPACITY (MBH)	FILTER SIZE/ NUMBER	FILTER EFFICIENCY	EFICIENCY	MANUFACTURER	REMARKS
RTU-1	ROOF	SALES FLOOR	8,400	DIRECT	2,350	1.5	10	208/3	GAS	404.0	324.0	R-410A	287.1	160.1	16X20X2 - 9	MERV 8	11.3 EER	CES-MPU-025-RH-0003	(1)(2)(3)(4)(5)(6)(10)
RTU-2	ROOF	OFFICE AREA	600	DIRECT	120	0.5	1/4	208/1	GAS	65.0	52.0	R-410A	24.4	23.6	16X20X2 - 4	30%	14.0 SEER	LENNOX KGB024S4D	(7)(8)(9)(10)

(1) PROVIDE 14" HIGH INSULATED ROOF CURB & BURGLAR BARS ON SUPPLY AND RETURN OPENINGS. RTU-1 ROOF CURB IS BY AES INDUSTRIES CONTACT GEORGE LASHER T(800)786-0402 X 216. MECHANICAL CONTRACTOR IS RESPONSIBLE FOR PURCHASING THE ROOF CURB DIRECTLY FROM AES INDUSTRIES. THIS SITE LIES IN A 140MPH WIND ZONE. ENSURE THAT HURRICANE CLIPS ARE PROVIDED WITH ROOF CURB.
(2) PROVIDE WITH THROUGH THE BASE SINGLE POINT ELECTRICAL CONNECTION, DISCONNECT, VFD 2-SPEED OPERATION, OA HOOD, PROOF AIRFLOW SWITCH, CLOGGED FILTER SWITCH, STAINLESS STEEL DRAIN PAN, 120V CONVENIENCE OUTLET, RE-HEAT COIL, & DEHUMIDIFICATION CONTROL.
(3) UNIT SUPPLIED BY OWNER, RECEIVED, RIGGED AND INSTALLED BY MECHANICAL CONTRACTOR.
(4) ROOFTOP UNIT CONTROLLER IS FACTORY INSTALLED IN THE CES MULTI-PATH MPU. SPACE TEMPERATURE, SUPPLY AIR TEMPERATURE & SPACE HUMIDITY SENSORS ARE SUPPLIED BY CD CONTROLS AND SHIPPED TO REFRIGERATION CONTRACTOR FOR FIELD INSTALLATION.
(5) CES MULTI-PATH MPU IS MANUFACTURED BY AAON INC. (PRODUCTION 10 - 12 WEEKS) TO COORDINATE MPU SHIPPING OR FOR TECHNICAL SUPPORT CONTACT CES INC T(866)706-2647 x222, ALDIORDERS@CESINC.CA
(6) MECHANICAL CONTRACTOR TO REVIEW AND CONFIRM RTU SETPOINTS/STORE HOURS WITH ALDI DIRECTOR OF REAL ESTATE AND SIEMENS ENERGY MANAGEMENT USER GUIDE.
(7) PROVIDE WITH GLOBAL ECONOMIZER SECTION AND BAROMETRIC RELIEF DAMPERS.
(8) ALDI HAS A NATIONAL ACCOUNT WITH LENNOX INDUSTRIES. ALL LENNOX HVAC EQUIPMENT SHOULD BE QUOTED AND ORDERED THROUGH LENNOX NATIONAL ACCOUNTS. PLEASE CALL 800-367-6285 AND HIT "2" FOR SALES AND ASK FOR THE ALDI'S NATIONAL ACCOUNT SALES ADMINISTRATOR WHO WILL ASSIST YOU WITH QUOTES, AVAILABILITY AND ORDERS.
(9) PROVIDE 14" HIGH INSULATED ROOF CURB & BURGLAR BARS ON SUPPLY AND RETURN OPENINGS. THIS SITE LIES IN A 140MPH WIND ZONE. ENSURE THAT HURRICANE CLIPS ARE PROVIDED WITH ROOF CURB.
(10) PROVIDE WITH CLOGGED CONDENSATE DRAIN SWITCH CONFORMING TO UL508 TO SHUT OFF HVAC UNIT.

DUCTLESS SPLIT FAN COIL UNIT SCHEDULE

ID	LOCATION	SERVES	SUPPLY FAN						COOLING COIL			HEATING COIL CAPACITY (BTUH)	FILTER SIZE/ NUMBER	FILTER EFFICIENCY	MANUFACTURER	REMARKS
			SUPPLY CFM	MIN. OUTDOOR AIR CFM	ESP (IN WG)	RPM	MCA	VOLTAGE/ PHASE	GROSS CAPACITY (BTUH)	SENS. CAPACITY (BTUH)	MEDIUM					
FCU-1	OFFICE	OFFICE	300	30	-	-	-	208/1	9,900	-	R-410A	12,100	-	MERV 8	LG-LCN097HV4	(1)(2)(3)(4)(5)

(1) DUCTLESS SPLIT FAN COIL UNIT SHALL BE ORDERED, RECEIVED AND INSTALLED BY THE CONTRACTOR. THE EQUIPMENT COST SHALL BE BILLED DIRECTLY TO ALDI. FOR ORDERING INFO CONTACT MIKE THORNE AT MTHORNE@MEIERSUPPLY.COM OR BY PHONE 607-797-7700.
(2) PROVIDE WITH DRY CONTACT PDRYCB300 (INSTALLED BY REFRIGERATION CONTRACTOR) FOR INTEGRATION WITH SIEMENS BMS. CONTROLLED BY WALL MOUNTED TEMPERATURE SENSOR PROVIDED SIEMENS AND INSTALLED BY THE REFRIGERATION CONTRACTOR. REFER TO DRAWING EMS-1 FOR DETAILS.
(3) COORDINATE REFRIGERANT LINE SIZING PER MANUFACTURERS RECOMMENDATIONS.
(4) PROVIDE WITH MATCHING AIR COOLED HEAT PUMP SCHEDULED.
(5) PROVIDE VENTILATION KIT PTVK430, INLINE BOOSTER FAN (S&P USA TD100), CASSETTE GRILLE & CONDENSATE PUMP. INLINE BOOSTER FAN TO BE INSTALLED BY THE MECHANICAL CONTRACTOR; POWER WIRING BY THE ELECTRICIAN, CONTROL RELAY AND WIRING BY REFRIGERATION CONTRACTOR. INLINE BOOSTER FAN SHALL RUN WHEN THE FAN COIL UNIT OPERATES.

AIR COOLED HEAT PUMP SCHEDULE

ID	LOCATION	SERVES	TOTAL COOLING CAPACITY (MBH)	OUTDOOR TEMP. (DB)	TOTAL HEATING CAPACITY (MBH)	REFRIGERANT	NUMBER OF COMPRESSORS	SEER	REFRIGERANT CIRCUITS	NUMBER OF CONDENSER FANS	VOLTAGE/ PHASE	MCA	MOCP	MANUFACTURER	REMARKS
HP-1	BACKROOM	FCU-1/OFFICE	9.9	95	12.1	R-410A	1	20.2	1	1	208/1	11.9	15.0	LG-LUU097HV	(1)(2)

(1) DUCTLESS SPLIT FAN COIL UNIT SHALL BE ORDERED, RECEIVED AND INSTALLED BY THE CONTRACTOR. THE EQUIPMENT COST SHALL BE BILLED DIRECTLY TO ALDI. FOR ORDERING INFO CONTACT MIKE THORNE AT MTHORNE@MEIERSUPPLY.COM OR BY PHONE 607-797-7700.
(2) PROVIDE WITH MATCHING DUCTLESS SPLIT FAN COIL.

VENTILATION RATE SCHEDULE

2018 NORTH CAROLINA MECHANICAL CODE - TABLE 403.3.1.1 - RETAIL STORES, SALES ROOM

ROOM NUMBER	ROOM NAME	IMC CATEGORY	GROSS AREA (SQ.FT)	OCCUPANTS PER 1000 SQ.FT.	TOTAL OCCUPANTS	CFM PER PERSON	CFM PER SQ.FT.	VENTILATION EFFECTIVENESS	REQ'D OA (CFM)
101,102	SALES/VESTIBULE	SUPERMARKET	12,541	8	100	7.5	0.06	0.80	1881
103	WOMENS	TOILET RM.	107	-	-	-	50[1]	0.80	50
104	HALL	CORRIDOR	151	-	-	-	0.06	0.80	11
105	MENS	TOILET RM.	107	-	-	-	50[1]	0.80	100
106	BREAK ROOM	CONFERENCE	351	50	18	5.0	0.06	0.80	136
107	OFFICE	OFFICE SPACE	265	5	1	5.0	0.06	0.80	28
108,109	BACK ROOM	WAREHOUSE	3,288	-	-	-	0.06	0.80	247
								TOTAL OA REQUIRED	2,480
								TOTAL OA PROVIDED	2,500

(1) RATE PER WATER CLOSET/URINAL WITH EXHAUST OPERATING CONTINUOUSLY DURING OCCUPIED HOURS.

DESTRATIFICATION FAN SCHEDULE

ID	SERVES	LOCATION	TYPE	DRIVE	CFM	EXT. SP. IN. WG.	FAN RMP	HP	VOLTAGE	MANUFACTURER	REMARKS
DF-1	SALES FLOOR	SUSPENDED	CENT.	DIRECT	1,061	-	1,550	3/4W	120/1	AIR-ROW F-18	(1)(2)(3)
DF-2	SALES FLOOR	SUSPENDED	CENT.	DIRECT	1,061	-	1,550	3/4W	120/1	AIR-ROW F-18	(1)(2)(3)
DF-3	SALES FLOOR	SUSPENDED	CENT.	DIRECT	1,061	-	1,550	3/4W	120/1	AIR-ROW F-18	(1)(2)(3)

(1) FAN PROVIDED AND INSTALLED BY THE MECHANICAL CONTRACTOR. CONTACT RAY LEVINS @ FRESHERSOURCE ENERGY SOLUTIONS (416) 544-8008. SUPPORT FAN FROM BUILDING STRUCTURE WITH CHAIN, CLAMPS AND SAFETY CABLE. INSTALL AT 1'-0" BELOW ROOF DECK AND PER MANUFACTURER'S RECOMMENDATIONS.
(2) FAN SHALL RUN CONTINUOUSLY. WIRING PROVIDED BY DIVISION 26. FACTORY SHALL PRESET FAN SPEED TO MAXIMUM.
(3) FAN TO BE FACTORY PAINTED TO MATCH BUILDING STRUCTURE. NO MANUFACTURER SUBSTITUTIONS.
(4) FAN SHALL RUN CONTINUOUSLY DURING THE HEATING SEASON AND REMAIN OFF DURING THE COOLING SEASON. WIRING PROVIDED BY DIVISION 26. FACTORY SHALL PRESET FAN SPEED TO MAXIMUM.

EXHAUST FAN SCHEDULE

ID	SERVES	LOCATION	TYPE	DRIVE	CFM	EXT. SP. IN. WG.	FAN RMP	HP	VOLTAGE	MANUFACTURER	REMARKS
EF-1	BREAK ROOM	ROOF	CENT.	DIRECT	180	0.250	1,319	1/30	120/1	GREENHECK G-070-D	(1)(2)(3)
EF-2	BACK ROOM	ROOF	CENT.	DIRECT	1,905	0.375	1,140	1/3	115/1	GREENHECK G-143-BX	(2)(3)(4)
EF-3	TOILETS	ROOF	CENT.	DIRECT	300	0.375	1,519	1/20	120/1	GREENHECK G-080-D	(2)(3)(4)

(1) CONTROLLED FROM WALL SWITCH PROVIDED AND WIRED BY DIVISION 26.
(2) PROVIDE SPEED CONTROLLER MOUNTED ON EXHAUST DUCT ABOVE CEILING.
(3) PROVIDE WITH 14" HIGH INSULATED ROOF CURB, DAMPER TRAY AND BACKDRAFT DAMPER.
(4) CONTROLLED BY SIEMENS ENERGY MANAGEMENT SYSTEM.

AIR DEVICE SCHEDULE

ID	SERVES	TYPE	FACE SIZE	NECK SIZE	CONST. MATERIAL	CEILING MOUNTING	MAX NC	MANUFACTURER	REMARKS
D-1	SUPPLY	DIFFUSER	24x24	SEE PLANS	STEEL	T-BAR	20	PRICE SCDA	(1)
D-2	SUPPLY	JET SLOT	48x24	10"Ø	STEEL	T-BAR	20	PRICE JS210	(2)(4)
R-1	RETURN	PERF.	24x24	12x12	STEEL	T-BAR	20	PRICE PDDR	(1)
R-2	SUPPLY	REGISTER	12x6	12x6	ALUMINUM	DUCT	20	PRICE SDGE	(2)(3)
R-3	RETURN	GRILLE	48x24	48x24	STEEL	GWB	20	PRICE 5102	(2)
R-4	TRANSFER	GRILLE	48x12	48x12	STEEL	GWB	20	PRICE 530	(2)
E-1	EXHAUST	PERF.	12x12	10x10	STEEL	T-BAR	20	PRICE PDDR	(1)

(1) COORDINATE CEILING TYPE WITH ARCHITECTURAL CEILING PLAN.
(2) PROVIDE PRIMED FINISH. AIR DEVICE TO BE PAINTED IN THE FIELD.
(3) PROVIDE WITH BLADES PARALLEL TO THE SHORT DIMENSION, AIR SCOOP AND CABLE OPERATOR.
(4) PROVIDE WITH ONE (1) 1"SLOT, 24" TALL INTERNALLY INSULATED PLENUM, VOLUME DAMPER & CABLE OPERATOR.

GAS FIRE UNIT HEATER SCHEDULE

ID	LOCATION	TYPE	INPUT CAPACITY (MBH)	OUTPUT CAPACITY (MBH)	CFM	HP	VOLTAGE	MANUFACTURER	REMARKS
UH-1	BACKROOM	POWER VENT	75.0	60.0	950	1/8	120/1	LENNOX LF24-75A	(1)
UH-2	BACKROOM	POWER VENT	75.0	60.0	950	1/8	120/1	LENNOX LF24-75A	(1)

(1) CONTROLLED BY THE SIEMENS ENERGY MANAGEMENT SYSTEM. THE TEMPERATURE SETPOINT SHALL BE 60°F.

SYMBOLS & ABBREVIATIONS

SUPPLY DUCT UP
SUPPLY DUCT DOWN
T TEMPERATURE SENSOR
H HUMIDISTAT
SD SMOKE DUCT DETECTOR
S DISCHARGE AIR TEMPERATURE SENSOR
SINGLE BLADE VOLUME DAMPER
OPPOSED BLADE VOLUME DAMPER
DUCTWORK WITH 1" INTERNAL LINING

12X12 SHEETMETAL ACCESS DOOR
FIRE DAMPER WITH ACCESS DOOR
ROUND CONCENTRIC TAKEOFF
BELL MOUTH TAKEOFF

BOD	BOTTOM OF DUCT
EF	EXHAUST FAN
RTU	ROOFTOP UNIT
UH	UNIT HEATER
FCU	FAN COIL UNIT
HP	AIR COOLED HEAT PUMP

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A	Client Review Set	05/07/19
B	Permit Set	06/12/19
C	Client Review Set	02/07/20
D	Bid Set	02/10/20
Revisions:		Date:

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PLOTTED: 2/10/2020 9:41 AM