



ALTERATION MECHANICAL PERMIT City of Newberg

PERMIT NUMBER
NMEC22-0365

PERMIT TYPE: ALTERATION MECHANICAL	SUBDIVISION/COMM SITE:	TAX MAP NO: R3216AD 14600
PERMIT SUB TYPE : COMMERCIAL ALTERATIO		BLDG USE GROUP:
JOB ADDRESS: 4205 E CRESTVIEW DR 133		
DESCRIPTION: New Rooftop GasPack Thermostat and Smoke Detector		
ZONED AS:	TOTAL SQFT: 0	SPRINKLERS:
TOTAL WORK VALUE: \$0.00	TYPE OF CONSTRUCTION:	BUILDING USE:

APPLICANT: Latimer HVAC LLC	PHONE: (503)290-1085
MAILING ADDRESS: 11230 SW MORGEN CT TIGARD, OR 97223	FAX:
ARCHITECT DESIGNER ENGINEER OR WHO DREW THE PLANS: Latimer HVAC LLC	PHONE: (503)290-1085
MAILING ADDRESS: 11230 SW MORGEN CT TIGARD, OR 97223	FAX:
CONTRACTOR: Latimer HVAC LLC	PHONE: (503)290-1085
MAILING ADDRESS: 11230 SW MORGEN CT TIGARD, OR 97223	FAX:
OWNER: Crestview Crossing LLC	PHONE: (503)799-1613
MAILING ADDRESS: 19767 SW 72nd Ave Ste 100 Tualatin, OR 97062	FAX:

COMMENTS

FEES			
DESCRIPTION	ACCOUNT	QUANTITY	PAID AMOUNT
MECHANICAL PERMIT FEE - COMMERCIAL INDUSTRIAL	08-0000-322002	22250	\$439.19
MECHANICAL PLAN REVIEW FEE 50 PERCENT	08-0000-322002	22250	\$219.60
STATE SURCHARGE FEE 12 PERCENT - MECHANICAL	08-0000-202012	0	\$52.70
TECHNOLOGY FEE 5 PERCENT - MECHANICAL	08-0000-341006	0	\$21.96
			TOTAL: \$733.45

**ALL WORK TO CONFORM TO THE CURRENT EDITION OF THE ORSC AND OSCC.
INSPECTIONS REQUESTED PRIOR TO 7AM ILL BE COMPLETED THE SAME BUSINESS DAY.
INSPECTION RECIEVED AFTER 7AM WILL BE SCHEDULE FOR THE NEXT BUSINESS DAY.**

8.15.150 UNNECESSARY NOISE – PERMITTED EXCEPTIONS.

A. UNREASONABLE NOISE AND EXCEPTIONS.

3. The following acts are declared to be per se violations of this section. This enumeration does not constitute an exclusive list:

j. Construction or Repair of Buildings, or Excavation of Streets and Highways. The construction, demolition, alteration or repair of any building or the excavation of streets and highways other than between the hours of 7:00 a.m. and 7:00 p.m. on weekdays. In cases of emergency, construction or repair noises are exempt from this provision. In nonemergency situations, the city may issue a permit, upon application, if the city determines that the public health and safety, as affected by loud and raucous noise caused by construction or repair of buildings or excavation of streets and highways between the hours of 7:00 p.m. and 7:00 a.m. will not be impaired, and if the city further determines that loss or inconvenience would otherwise result. The permit shall grant permission in nonemergency cases for a period of not more than three days. The permit may be renewed once for a period of three days or less.



ALTERATION MECHANICAL PERMIT City of Newberg

PERMIT NUMBER
NMEC22-0365

Building Official: Brooks Bateman

Issued By: Michele Faber

Date: 2/22/2023

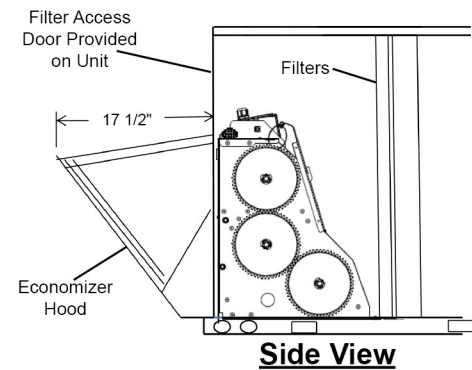
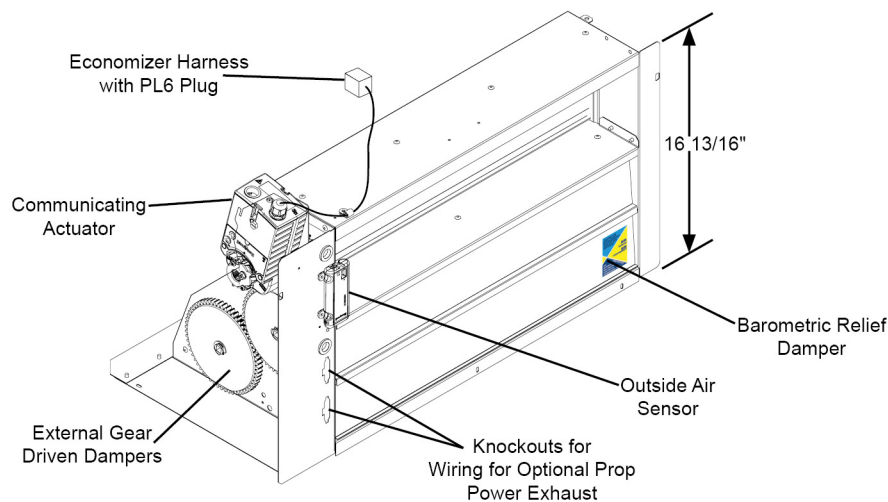
 MicroMetl	Date: 1/31/2018	Weights: 49lbs/22.23kg	Units: 48KC A06	Part Number: ECD-SRT12CA-D2DH
--	--------------------	---------------------------	--------------------	----------------------------------

Submitted To: mjjones@airefco.com	Job:	Notes:
-----------------------------------	------	--------

Economizer - Ultra Low Leak Economizer, Vertical Orientation, Honeywell Jade W7220 Single/Multiple Speed Electromechanical Controller, Adjustable Dry Bulb Sensor, Honeywell Actuator. Painted Rain Hood With Aluminum Filter, Barometric Relief, All Necessary Panels And Hardware Included.

NMEC22-0365 4205 E Crestview Dr Ste 133 Plan
Reviewed & Approved for Code Compliance
bradburyj

NEITHER THE APPROVAL OF PLANS AND SPECIFICATIONS OR THE ISSUANCE OF A BUILDING PERMIT SHALL BE CONSTRUED AS PERMISSION OR ENDORSEMENT TO VIOLATE THE CITIES ADOPTED BUILDING CODE OR ANY OTHER MUNICIPAL ORDINANCE PERMIT ISSUED IN ACCORD WITH THE BUILDING CODE SHALL BE VALID ONLY TO THE EXTENT THAT THE WORK OR USE WHICH IS AUTHORIZED IS LAWFUL
DATE: 02/14/2023 PLANS EXAM: bradburyj



 MicroMetl	Date: 1/31/2018	Weights: 49lbs/22.23kg	Units: 48KC A06	Part Number: ECD-SRT12CA-D2DH
--	--------------------	---------------------------	--------------------	----------------------------------

Submitted To: mjonas@airefco.com	Job:	Notes:
----------------------------------	------	--------

Economizer - Ultra Low Leak Economizer, Vertical Orientation, Honeywell Jade W7220 Single/Multiple Speed Electromechanical Controller, Adjustable Dry Bulb Sensor, Honeywell Actuator. Painted Rain Hood With Aluminum Filter, Barometric Relief, All Necessary Panels And Hardware Included.

Compliant Economizer:

- Title 24:** Economizers meet California Energy Commission Title 24-2013 / 2016 prescriptive section 140.4 (damper leakage etc.), and mandatory section 120.2.i for Fault Detection and Diagnostic controls (JADE HJW10).
- ASHRAE 90.1:** Economizers meet ASHRAE 90.1-2013 / 2016 damper leakage requirements as stated in Table 6.4.3.4.3., and meet 2016 Fault Detection and Diagnosis requirements in section 6.4.3.12.
- IECC:** Economizers meet IECC 2012 section C402.4.5.2 and, IECC 2015 sections C403.2.4.3 and C403.3.3.5 for outside air, return air, and relief damper (when provided) leakage requirements, and IECC 2015 section C403.2.4.7 for Fault Detection and Diagnostic requirements. Note: IECC 2015 section C403.2.4.7.1 requires differential return air sensor, which is included in some models (i.e. D2XH) and must be ordered separately on others (i.e. D2DH, D2ZH).
- AMCA:** Outside air and return air (volume) dampers are AMCA Class 1A rated at 1" w.g. Refer to MicroMetl NS1 catalog sheet on web site for details. Relief air dampers (when provided) are also AMCA rated. Refer to GR1 series catalog sheet on web site for details.

Features:

- For single, 2 or 3 speed indoor fan units with Central Terminal Board (CTB). Other control options available.
- Gear driven design for trouble-free operation, eliminating slippage and binding associated with standard linkage.
- Includes assembled rainhood with aluminum water entrainment filters in the outside air section.
- Rainhood is sloped for water run-off.
- Built-in barometric relief damper provided. Power exhaust options available.
- All harnesses and plugs needed are provided.
- Uses standard factory filter access door shipped with HVAC unit.
- If factory hinged access door option is installed on unit, an additional kit is required to seal hinged door properly.
 - OEM part no. CRPECONV003A00 or MicroMetl part number 0640-0100-HDANGL

Notes:

- Control systems include Honeywell W7220 JADE controller, mixed (supply) air temperature sensor, OA sensor in description, and spring-return communicating actuator (some include differential return sensor as noted).
- JADE W7220 controller is field mounted in unit's control box.
- Mixed (supply) air sensor is field installed in indoor blower fan section.
- Differential return sensor (included in "-D2XH" and "-D2ZH" models or can be ordered separately - MicroMetl Part No. 9901-2022-DIFF JC2) is field installed in return duct.
- ASHRAE, IECC, and Title 24 require the economizer controller be capable of reporting faults to a fault management application accessible by day-to-day operating or service personnel, or annunciated locally on zone thermostats or in some codes other devices are acceptable. Refer to applicable code requirements and to MicroMetl instructions for suggestions.
- For older single speed models without the Central Terminal Board the "-D2" part number is replaced by "-DJ". (See separate submittal).



MicroMetl Corporation certifies that the models GR1 and NS1 shown herein are licensed to bear the AMCA Seal. The ratings shown are based on tests and procedures performed in accordance with AMCA Publication 511 and comply with requirements of the AMCA Certified Ratings Programs. The AMCA Certified Ratings Seal applies to Air Leakage and Air Performance ratings.

The Information contained in this drawing is the sole property of Micrometl Corporation. Any reproduction in part or whole without the written permission of Micrometl Corporation is prohibited.

Indianapolis_3035 N. Shadeland Ave., Indianapolis, IN 46226_800.MMC.HVAC • Sparks_905 Southern Way, Sparks, NV 89431_800.884.4MMC • Longview_201 Kodak Blvd., Longview, TX 75602_903.248.4800

Scope of Work

Latimer HVAC will perform the following scope of work:

1. Provide and install (2) new rooftop gaspack unit on existing curb. Use curb clips.
2. Ducting drops thru roof line.
3. Gas piping final connection at new RTUs.
4. Thermostats and smoke detectors.

Equipment Schedule

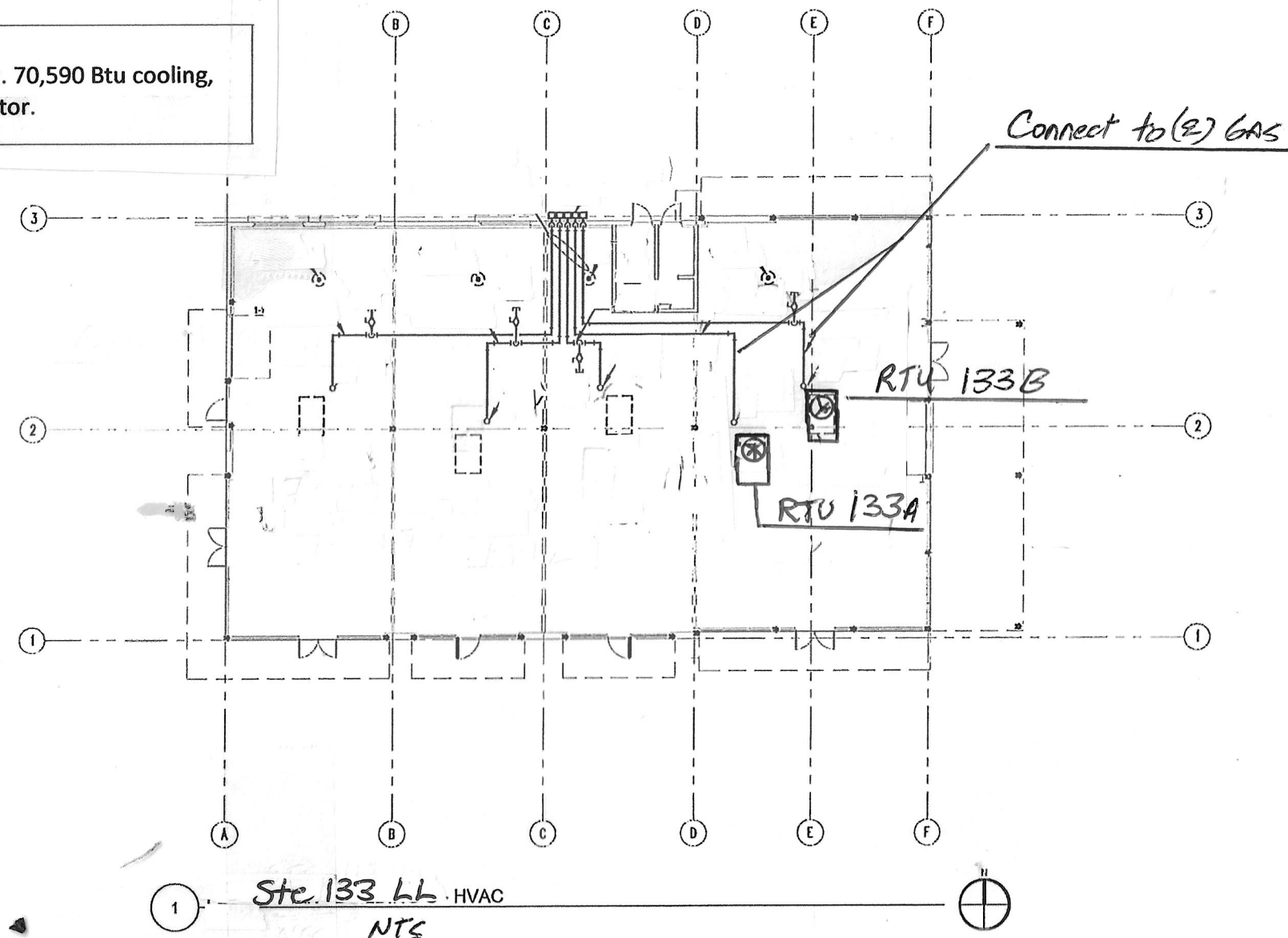
RTU133A, RTU133B- Carrier 48FCDM07A2A5- 6 ton. 208/3/60, 28MCA, 45 MOC. 70,590 Btu cooling, 11 eer, 15 leer. 67,000 Btu input gas, 81% TE. 607# net. Economizer. Smoke detector.

Ventilation Requirements- based on 2019 OMSC table 403.3
By tenant.

GAS-

Per OMSC Table C402.4(5)
2Psi inlet pressure @ 1.0 Psi pressure drop
Max 200' developed length
3/4" pipe adequate for 642,000 Btu

Load- separate lines to meter
RTU133A or B- 69,000 Btu input

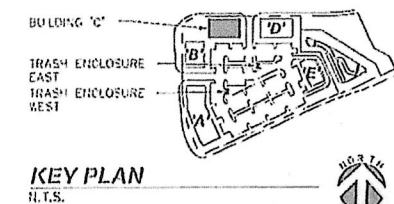


Mechanical General Notes:

1. Cooling equipment does not exceed the load of the calculated requirement.
2. Provide min 4 curb clips- 406HOLD- attachment from existing curb to RTU.
3. All steel ducting will be 26 ga minimum galvanized.
4. Heating and cooling ducting to be designed to not exceed 0.5 wc positive (supply) and 0.5 wc negative (return).
5. Provide programmable thermostat. 5 degree deadband minimum. 7 day. Microprocessor. Set program for night energy savings.
6. Seal ducting with UL listed mastic or mastic tape.
7. Fan motor does not exceed allowable, first available above BHP.
8. Max leakage rate of OSA or exhaust dampers to be 4 cfm/sft @ 1.0 sp.
9. Provide O and M to building owner.

Latimer HVAC
CCB#220839

Suite 133 Landlord Work
4205 E Crestview Dr
Newberg, OR



KEY PLAN
N.T.S.



CLC
12/23/22

M1.0

**Tag Cover Sheet
Unit Report
Certified Drawing
Performance Report
Unit Feature Sheet
Spec Sheet**

Unit Parameters

Unit Model:.....48FCDM07A2A5-0A0A0
Unit Size:.....07 (6 Tons)
Volts-Phase-Hertz:.....208-3-60
Heating Type:.....Gas
Duct Cfg:.....Vertical Supply / Vertical Return
Low Heat
Single Circuit, Two Stage Cooling (07 only)

Dimensions (ft. in.) & Weight (lb.) ***

Unit Length:.....6' 2.375"
Unit Width:.....3' 10.625"
Unit Height:.....3' 5.375"
*** Total Operating Weight:.....607 lb

*** Weights and Dimensions are approximate. Weight does not include unit packaging. Approximate dimensions are provided primarily for shipping purposes. For exact dimensions and weights, refer to appropriate product data catalog.

Lines and Filters

Return Air Filter Type:.....Throwaway
Return Air Filter Quantity:.....4
Return Air Filter Size:.....16 x 16 x 2

Unit Configuration

Direct Drive - EcoBlue - Medium Static
Al/Cu - Al/Cu
Base Electromechanical Controls
Standard Packaging

Warranty Information

1-Year parts(std.)
5-Year compressor parts(std.)
10-Year heat exchanger - Aluminized(std.)

No optional warranties were selected.

NOTE: Please see Warranty Catalog 500-089 for explanation of policies and ordering methods.

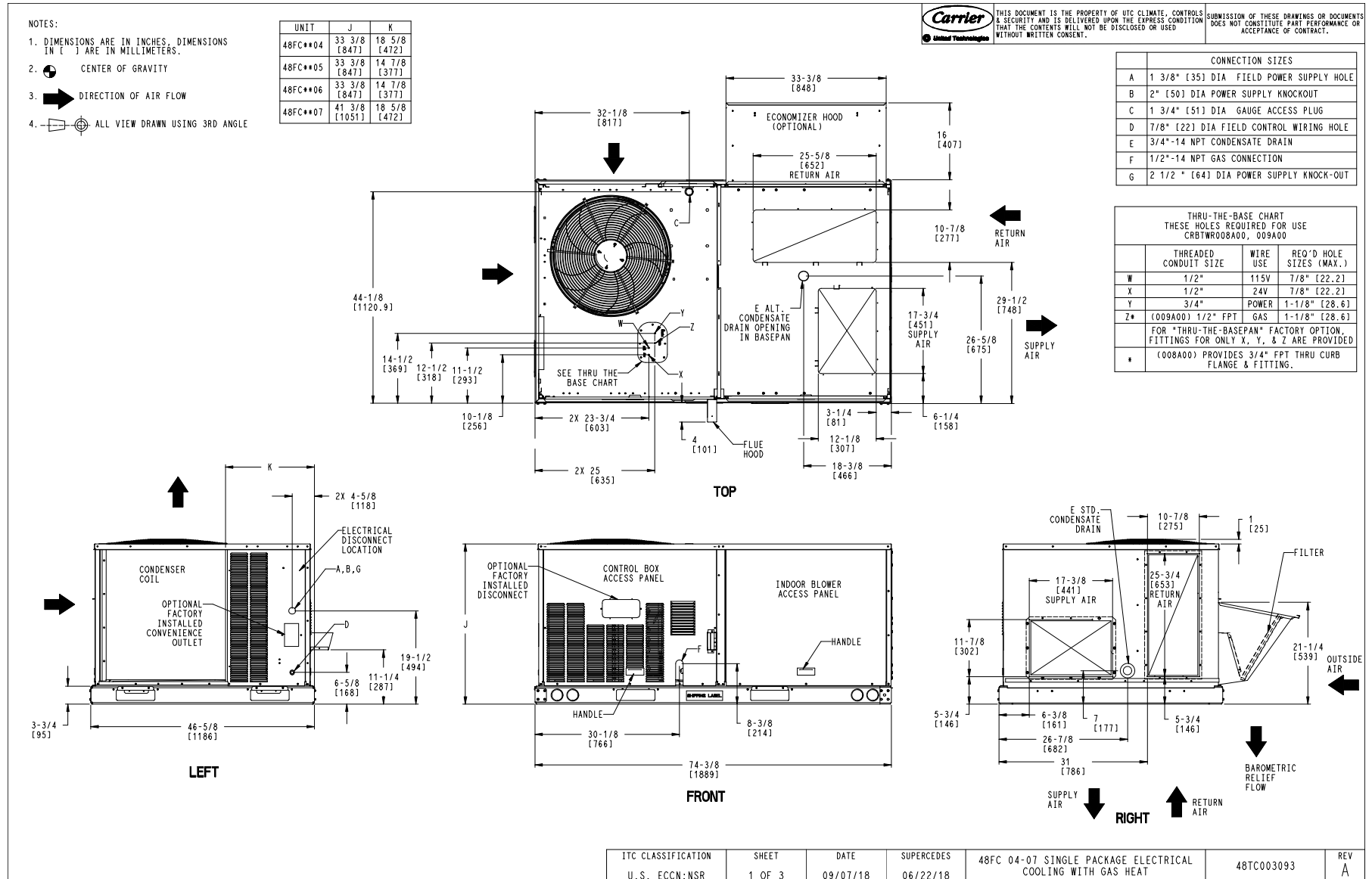
Ordering Information

Part Number	Description	Quantity
48FCDM07A2A5-0A0A0	Rooftop Unit	1
	Base Unit	
	Direct Drive - EcoBlue - Medium Static	
	None	

Certified Drawing

Project: Outback JC
Prepared By:

08/21/2019
11:57AM



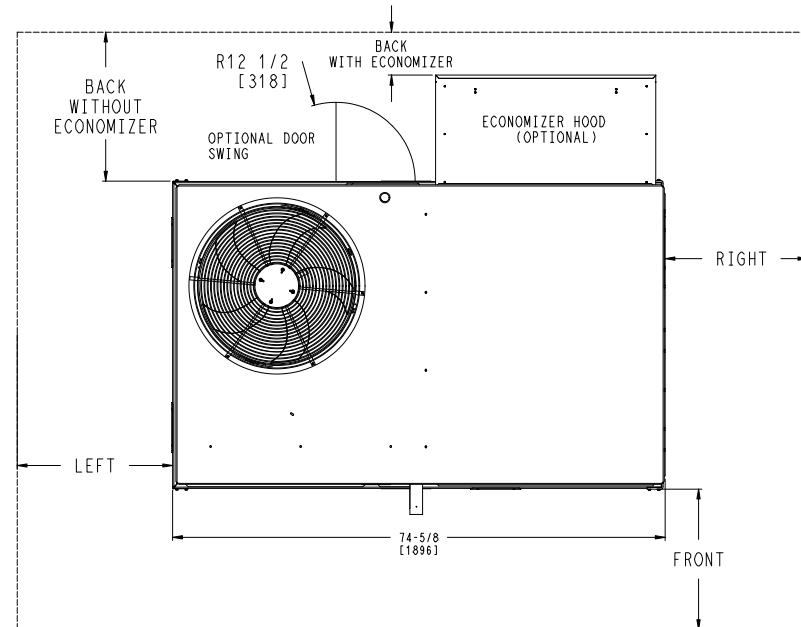
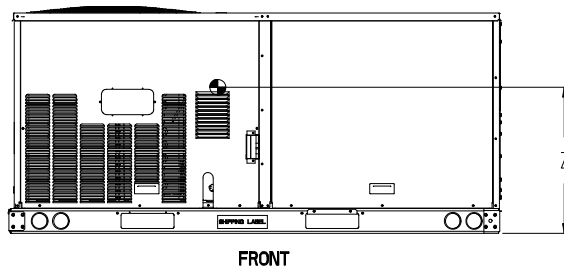
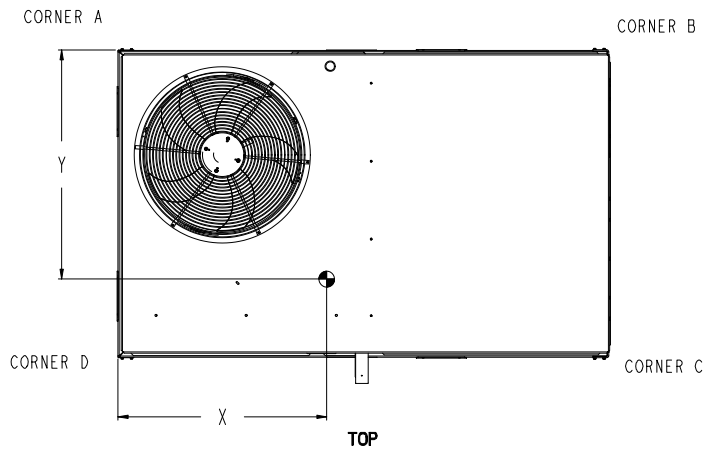
Certified Drawing

Project: Outback JC
Prepared By:

08/21/2019
11:57AM

UNIT	STD. UNIT WEIGHT *		CORNER WEIGHT (A)		CORNER WEIGHT (B)		CORNER WEIGHT (C)		CORNER WEIGHT (D)		C.G.		HEIGHT
	LBS.	KG.	LBS.	KG.	LBS.	KG.	LBS.	KG.	LBS.	KG.	X	Y	Z
48FC**04	482	219	113	51	116	53	128	58	125	57	37 5/8 [956]	24 9/16 [624]	18 1/4 [464]
48FC**05	543	246	138	63	133	60	133	60	138	63	36 1/2 [927]	23 3/8 [594]	18 [457]
48FC**06	556	252	142	64	136	62	136	62	142	64	36 1/2 [927]	23 3/8 [594]	18 [457]
48FC**07	607	275	162	73	152	69	141	64	151	68	36 [914]	22 1/2 [572]	19 3/8 [492]

* STANDARD UNIT WEIGHT IS WITH LOW GAS HEAT AND WITHOUT PACKAGING.
FOR OTHER OPTIONS AND ACCESSORIES, REFER TO THE PRODUCT DATA CATALOG.



NOTES:

- FOR ALL MINIMUM CLEARANCES LOCAL CODES OR JURISDICTIONS MAY PREVAIL.

SURFACE	SERVICE WITH:		OPERATING CLEARANCE
	CONDUCTIVE BARRIER	NONCONDUCTIVE BARRIER	
FRONT	48 [1219mm]	36 [914mm]	18 [457mm]
LEFT	48 [1219mm]	42 [1067mm]	18 [457mm]
BACK	48 [1219mm]	42 [1067mm]	18 [457mm]
BACK W/HOOD	36 [914mm]	36 [914mm]	18 [457mm]
RIGHT	36 [914mm]	36 [914mm]	18 [457mm]
TOP	72 [1829mm]	72 [1829mm]	72 [1829mm]

ITC CLASSIFICATION	SHEET	DATE	SUPERCEDES	48FC 04-07 SINGLE PACKAGE ELECTRICAL COOLING WITH GAS HEAT	48TC003093	REV
U.S. ECCN:NSR	2 OF 3	09/07/18	06/22/18			A

Certified Drawing

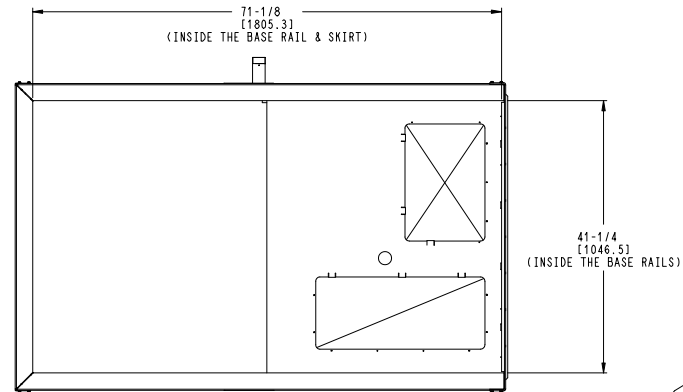
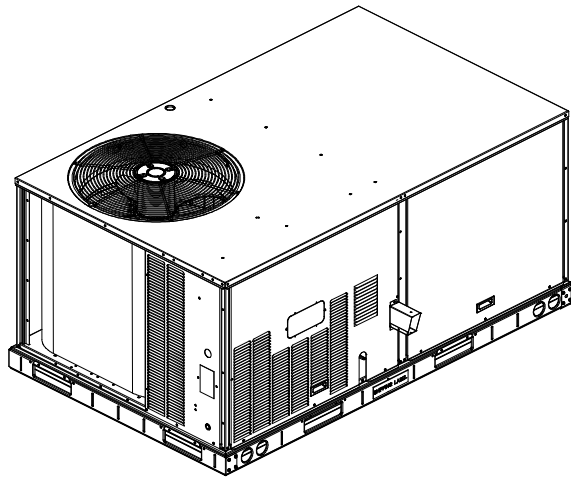
Project: Outback JC
Prepared By:

08/21/2019
11:57AM



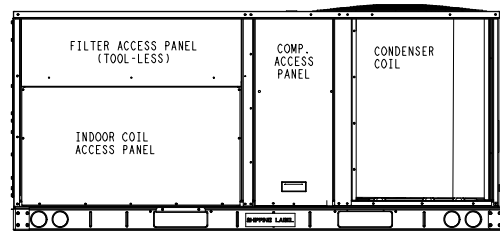
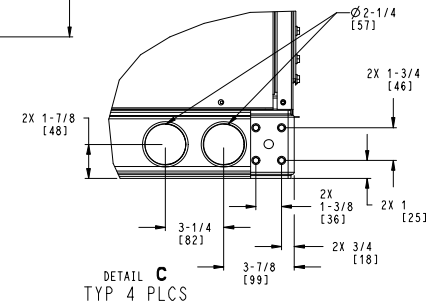
THIS DOCUMENT IS THE PROPERTY OF UTC CLIMATE, CONTROLS & SECURITY AND IS DELIVERED UPON THE EXPRESS CONDITION THAT THE CONTENTS WILL NOT BE DISCLOSED OR USED WITHOUT WRITTEN CONSENT.

SUBMISSION OF THESE DRAWINGS OR DOCUMENTS DOES NOT CONSTITUTE PART PERFORMANCE OR ACCEPTANCE OF CONTRACT.

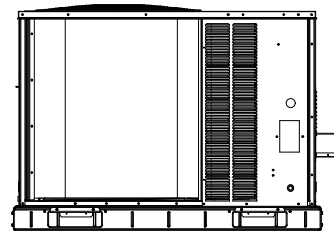


INSIDE BASERAIL DIMENSIONS

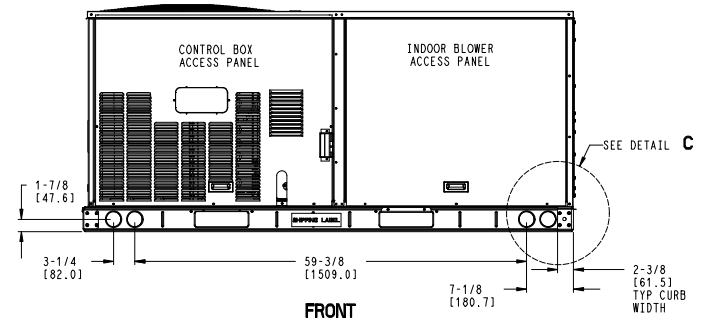
BOTTOM



BACK



LEFT



FRONT

ITC CLASSIFICATION	SHEET	DATE	SUPERCEDES	48FC 04-07 SINGLE PACKAGE ELECTRICAL COOLING WITH GAS HEAT	48TC003093	REV
U.S. ECCN: NSR	3 OF 3	09/07/18	06/22/18			A

Performance Summary

Project: Outback JC
Prepared By:

08/21/2019
11:57AM

Part Number: 48FCDM07A2A5-0A0A0

ARI EER: 11.00
IEER: 15.0

Base Unit Dimensions

Unit Length: 74.4 in
Unit Width: 46.6 in
Unit Height: 41.4 in

Operating Weight

Base Unit Weight: 607 lb

Total Operating Weight: 607 lb

Unit

Unit Voltage-Phase-Hertz: 208-3-60
Air Discharge: Vertical
Fan Drive Type: Direct
Actual Airflow: 2000 CFM
Site Altitude: 0 ft

Cooling Performance

Condenser Entering Air DB: 95.0 F
Evaporator Entering Air DB: 80.0 F
Evaporator Entering Air WB: 67.0 F
Entering Air Enthalpy: 31.44 BTU/lb
Evaporator Leaving Air DB: 56.5 F
Evaporator Leaving Air WB: 55.7 F
Evaporator Leaving Air Enthalpy: 23.59 BTU/lb
Gross Cooling Capacity: 70.59 MBH
Gross Sensible Capacity: 50.74 MBH
Compressor Power Input: 5.26 kW
Coil Bypass Factor: 0.078

Heating Performance

Heating Airflow: 2000 CFM
Entering Air Temp: 70.0 F
Leaving Air Temp: 95.0 F
Gas Heating Input Capacity: 67.0 MBH
Gas Heating Output Capacity: 54.0 MBH
Temperature Rise: 25.0 F
Thermal Efficiency (%): 81.0

Supply Fan

External Static Pressure: 0.50 in wg
Fan RPM: 1888
Fan Power: 0.71 BHP
NOTE: Selected IFM RPM Range: 253 - 2530

Electrical Data

Voltage Range: 187 - 253
Compressor #1 RLA: 17.5
Compressor #1 LRA: 136
Indoor Fan Motor Type: MED
Indoor Fan Motor FLA: 4.5
Combustion Fan Motor FLA (ea): 0.48
Power Supply MCA: 28
Power Supply MOCP (Fuse or HACR): 45
Disconnect Size FLA: 27
Disconnect Size LRA: 146

Performance Summary

Project: Outback JC
Prepared By:

08/21/2019
11:57AM

Electrical Convenience Outlet:.....None
Outdoor Fan [Qty / FLA (ea)]:.....1 / 1.5

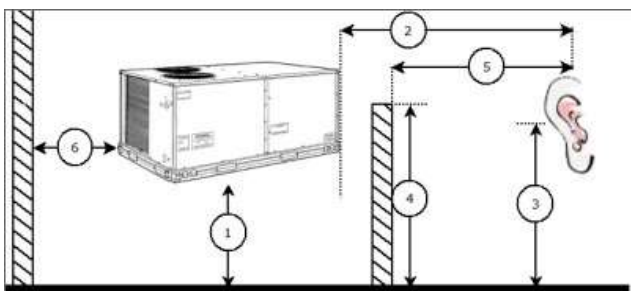
Control Panel SCCR: 5kA RMS at Rated Symmetrical Voltage

Acoustics

Sound Power Levels, db re 10E-12 Watts

	Discharge	Inlet	Outdoor
63 Hz	89.6	87.1	85.6
125 Hz	80.4	76.5	84.7
250 Hz	74.4	70.2	80.5
500 Hz	71.7	63.0	76.0
1000 Hz	67.9	65.8	72.4
2000 Hz	65.5	57.1	68.0
4000 Hz	62.1	50.2	62.8
8000 Hz	58.8	45.0	59.3
A-Weighted	74.7	69.7	79.0

Advanced Acoustics



Advanced Acoustics Parameters

1. Unit height above ground:.....30.0 ft
2. Horizontal distance from unit to receiver:.....50.0 ft
3. Receiver height above ground:.....5.7 ft
4. Height of obstruction:.....0.0 ft
5. Horizontal distance from obstruction to receiver:.....0.0 ft
6. Horizontal distance from unit to obstruction:.....0.0 ft

Detailed Acoustics Information

Octave Band Center Freq. Hz	63	125	250	500	1k	2k	4k	8k	Overall
A	85.6	84.7	80.5	76.0	72.4	68.0	62.8	59.3	89.2 Lw
B	59.4	68.6	71.9	72.8	72.4	69.2	63.8	58.2	78.5 LwA
C	53.2	52.3	48.1	43.6	40.0	35.6	30.4	26.9	56.8 Lp
D	27.0	36.2	39.5	40.4	40.0	36.8	31.4	25.8	46.1 LpA

Legend

A Sound Power Levels at Unit's Acoustic Center, Lw
B A-Weighted Sound Power Levels at Unit's Acoustic Center, LwA
C Sound Pressure Levels at Specific Distance from Unit, Lp
D A-Weighted Sound Pressure Levels at Specific Distance from Unit, LpA

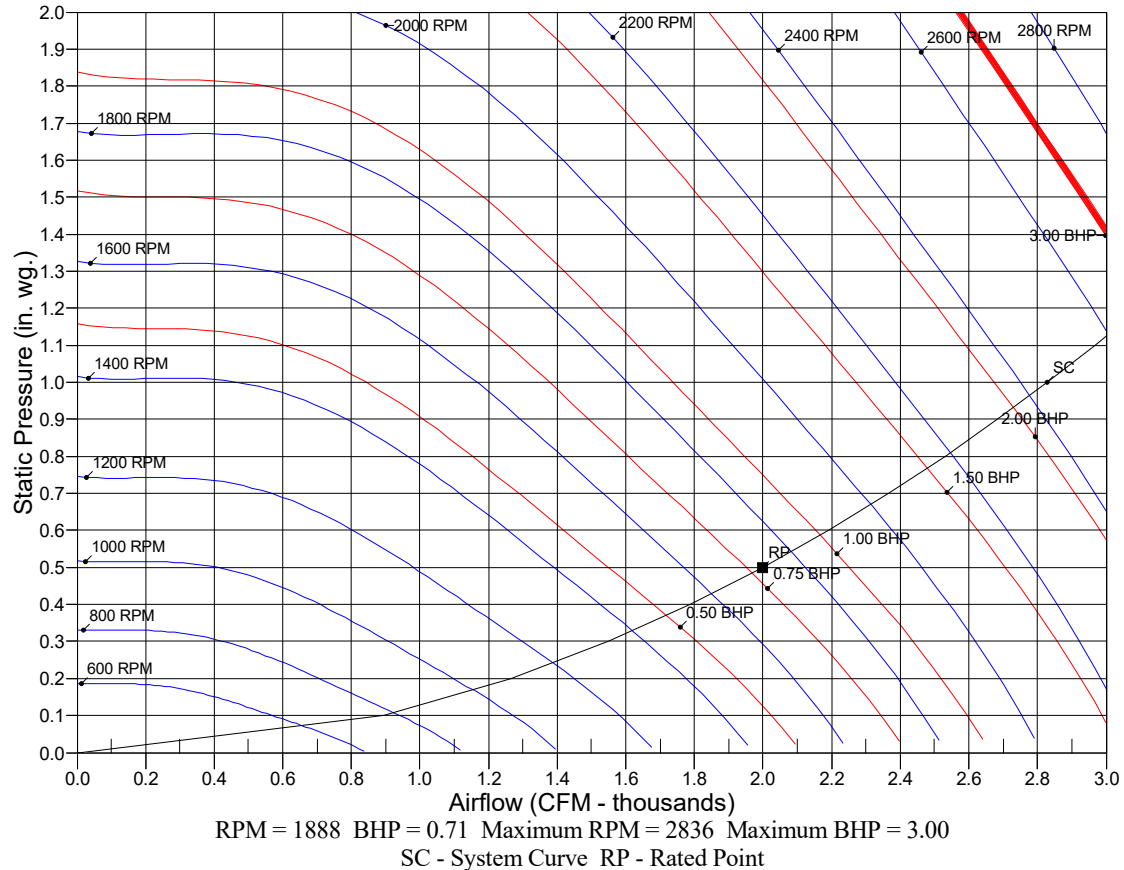
Performance Summary

Project: Outback JC
Prepared By:

08/21/2019
11:57AM

Calculation methods used in this program are patterned after the ASHRAE Guide; other ASHRAE Publications and the AHRI Acoustical Standards. While a very significant effort has been made to insure the technical accuracy of this program, it is assumed that the user is knowledgeable in the art of system sound estimation and is aware of the tolerances involved in real world acoustical estimation. This program makes certain assumptions as to the dominant sound sources and sound paths which may not always be appropriate to the real system being estimated. Because of this, no assurances can be offered that this software will always generate an accurate sound prediction from user supplied input data. If in doubt about the estimation of expected sound levels in a space, an Acoustical Engineer or a person with sound prediction expertise should be consulted.

Fan Curve



Unit Feature Sheet

Project: Outback JC
Prepared By:

08/21/2019
11:57AM



WeatherMaker® - 48FC

PACKAGED ROOFTOP GAS HEATING/ELECTRIC COOLING UNITS -
14 SEER 3, 4, 5 TONS, 15 IEER 6 Ton



WEATHERMAKER SERIES

48FC units are single packaged gas heating, electric cooling units that are pre-wired and charged with Puron (R-410) refrigerant. The units are factory tested in both heating and cooling modes. 3-5 ton models use single stage cooling capacity control. 6 ton model uses two stage cooling capacity control.

Approved and certified by:



Use of the AHRI Certified TM Mark indicates a manufacturer's participation in the program. For verification of certification for individual products, go to www.ahridirectory.org.

STANDARD FEATURES INCLUDE:

- ▢ Puron (R-410A) HFC refrigerant
- ▢ Meets or exceeds ASHRAE 90.1 energy efficiency levels
- ▢ Scroll compressors with internal line break and overload protection
- ▢ Single-stage cooling capacity 04-06 models, Two Stage on 07 models
- ▢ SEER's to 14.0, IEER's to 15.0
- ▢ Acutroll refrigerant metering system on 04-06 models, TXV on 07 size models
- ▢ Exclusive non-corrosive composite condensate pan in accordance with ASHRAE Standard 62, sloping design, side or center drain
- ▢ Standard cooling operation up to 115°F (46°C) and down to 40°F (4°C) - down to 25° F (-4° C) with winter start kit.
- ▢ Pre-painted exterior panels and primer-coated interior panels tested to 500 hours salt spray protection
- ▢ Fully insulated cabinet
- ▢ NEW Direct Drive - EcoBlue® Technology Indoor fan system uses Vane Axial fan design and electronically commutated motor
- ▢ New Unit Control Board with intuitive quick fan speed adjustment
- ▢ Exclusive IGC solid-state control for on-board diagnostics with LED error code designation burner control logic
- ▢ Induced draft gas heat combustion design
- ▢ Redundant gas valves with up to two stages of heating
- ▢ Low pressure and high pressure switch protected.

MAINTENANCE FEATURES:

- ▢ Access panels with easy grip handles
- ▢ Innovative easy starting, no-strip screws on unit access panels
- ▢ Two-inch disposable return air filters and Tool-less filter access door
- ▢ New unit control board to facilitate simple safety circuit troubleshooting and simplified control box arrangement

INSTALLATION FEATURES:

- ▢ Thru-the-bottom power entry capability
- ▢ Single point gas and electric connections
- ▢ Full perimeter base rail with built-in rigging adapters and fork slots
- ▢ Field convertible from vertical to horizontal airflow

STANDARD WARRANTY:

- ▢ 10-year heat exchanger - 15-year stainless steel option
- ▢ 5-year compressor
- ▢ 3-year SystemVu®
- ▢ 1-year parts
- ▢ Many optional upgrades also available

OPTIONS INCLUDE BUT ARE NOT LIMITED TO:

- Intelligent SystemVu communicating controls
- RTU Open Multi-Protocol DDC Controls
- Supply and Return Air Smoke Detectors, high static motors
- Louvered condenser coil guards
- Disconnect switch and convenience outlet options
- Stainless Steel heat exchanger option
- Corrosion resistant coil coating.
- MERV-8 Return Air Filters
- Patented Humidi-MiZer® adaptive dehumidification system.
- Hinged access panels
- Integrated economizer system. Low and Ultra Low Leak versions
- Phase Monitor Protection
- Condensate Overflow Protection

For a complete list of options and accessories refer to the Product Data Catalog for this unit.

SUBMITTAL

MicroMetl

FORM NO. 4250-9P

DATE: 2/12

SUBMITTED TO _____
COMPANY: _____
DRAWN BY: _____
JOB NAME: _____
EQUIPMENT: _____
NOTES: _____

MICRO-HOLD for Carrier

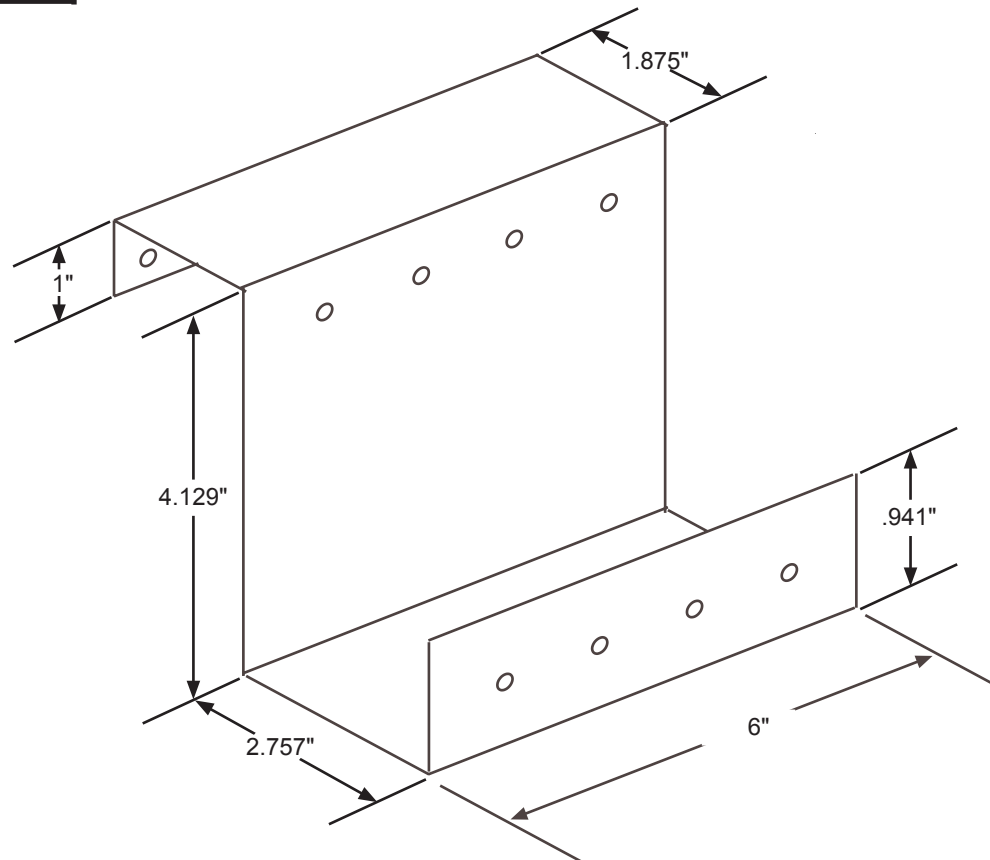
48/50TC A/B04-A/B07,A/D08, A09,A/D12,D14,D16;
50TCQ A04-A07,D08-D14; 48/50HC A04-A07,D08-D14;
50HCQ A04-A07,D08-D12; 48/50TF,TM,HJ 004-014; 48/50HE 003-006;
50TFQ 004-014; 50HJQ 008-009 Units

Part Number:

0406-0100

FEATURES:

- Manufactured from 16 ga galvanized steel
- Package includes:
 - (4) Hold-Down brackets
 - (48) #10 x 1/2" tek screws (12) per bracket
- Some units may require additional Hold-Downs.
- Use of this bracket provides a secure connection of the rooftop unit to the curb, but does not result in a calculated curb.
- When attaching the brackets, confirm there will be no interference with anything on the unit base rail.



THIS DOCUMENT IS THE PROPERTY OF MICRO METL CORPORATION AND IS DELIVERED UPON THE EXPRESS CONDITION THAT THE CONTENTS WILL NOT BE DISCLOSED OR USED WITHOUT MICRO METL'S WRITTEN CONSENT.

MICROMETL CORPORATION • 3035 N. SHADELAND AVENUE, SUITE 300 • INDIANAPOLIS, IN. 46226 • 1-800-662-4822 • MICROMETL WEST • 905 SOUTHERN WAY • SPARKS, NV 89431 • 1-800-884-4662



COMcheck Software Version COMcheckWeb

Mechanical Compliance Certificate

Project Information

Energy Code: 90.1 (2019) Standard
Project Title: CC Ste 133 LL Work
Location: Newberg, Oregon
Climate Zone: 4c
Project Type: Addition

Construction Site:
4205 E Crestview Dr Ste 133
Newberg, Oregon

Owner/Agent:

Designer/Contractor:
Clint Latimer
Latimer HVAC LLC
clint@latimerhvac.com

Mechanical Systems List

Quantity System Type & Description

- 2 HVAC System (Single Zone):
Heating: 1 each - Duct Furnace, Gas, Capacity = 67 kBtu/h
Proposed Efficiency = 80.00% Ec, Required Efficiency: 80.00 % Ec
Cooling: 1 each - Single Package DX Unit, Capacity = 70 kBtu/h, Air-Cooled Condenser, Air Economizer
Proposed Efficiency = 11.00 EER, Required Efficiency = 11.00 EER
Proposed Part Load Efficiency = 15.00 IEER, Required Part Load Efficiency = 12.70 IEER
Fan System: FAN SYSTEM 1 | RTU133A, RTU133B -- Compliance (Motor nameplate HP and fan efficiency method) :
Passes
- Fans:
FAN 1 Supply, Constant Volume, 2000 CFM, 0.7 motor nameplate hp, 0.00 fan energy index , fan exception: Fan
array <= 5 total HP or <= 4.1 kW

Mechanical Compliance Statement

Compliance Statement: The proposed mechanical design represented in this document is consistent with the building plans, specifications, and other calculations submitted with this permit application. The proposed mechanical systems have been designed to meet the 90.1 (2019) Standard requirements in COMcheck Version COMcheckWeb and to comply with any applicable mandatory requirements listed in the Inspection Checklist.

Clint Latimer
Name - Title


Signature

12/27/2022
Date



Inspection Checklist

Energy Code: 90.1 (2019) Standard

Requirements: 0.0% were addressed directly in the COMcheck software

Text in the "Comments/Assumptions" column is provided by the user in the COMcheck Requirements screen. For each requirement, the user certifies that a code requirement will be met and how that is documented, or that an exception is being claimed. Where compliance is itemized in a separate table, a reference to that table is provided.

Section # & Req.ID	Plan Review	Complies?	Comments/Assumptions
4.2.2, 6.4.4.2.1, 6.7.2 [PR2] ¹	Plans, specifications, and/or calculations provide all information with which compliance can be determined for the mechanical systems and equipment and document where exceptions to the standard are claimed. Load calculations per acceptable engineering standards and handbooks.	☒ Complies ☐ Does Not ☐ Not Observable ☐ Not Applicable	
4.2.2, 8.4.1.1, 8.4.1.2, 8.7 [PR6] ²	Plans, specifications, and/or calculations provide all information with which compliance can be determined for the electrical systems and equipment and document where exceptions are claimed. Feeder connectors sized in accordance with approved plans and branch circuits sized for maximum drop of 3%.	☒ Complies ☐ Does Not ☐ Not Observable ☐ Not Applicable	
4.2.5.2 [PR5] ¹	Commissioning shall be performed as stated in Sections 5.9.2, 6.9.2, 7.9.2, 8.9.2, 9.9.2, 10.9.2, 11.2(d), and G1.2.1(c). Commissioning must utilize ASHRAE/IES Standard 202 or other generally accepted engineering standards acceptable to the building official. FPT and verification requirements for commissioning are as stated in Section 4.2.5.1. Commissioning shall document compliance of the building systems, controls, and building envelope with required provisions of this standard. Commissioning requirements shall be incorporated into the construction documents.	☒ Complies ☐ Does Not ☐ Not Observable ☐ Not Applicable	

Additional Comments/Assumptions:

1	High Impact (Tier 1)	2	Medium Impact (Tier 2)	3	Low Impact (Tier 3)
---	----------------------	---	------------------------	---	---------------------

Section # & Req.ID	Footing / Foundation Inspection	Complies?	Comments/Assumptions
6.4.3.7 [FO9] ³	Freeze protection and snow/ice melting system sensors for future connection to controls.	☐ Complies ☐ Does Not ☐ Not Observable ☒ Not Applicable	

Additional Comments/Assumptions:

Section # & Req.ID	Mechanical Rough-In Inspection	Plans Verified Value	Field Verified Value	Complies?	Comments/Assumptions
6.4.1.4, 6.4.1.5 [ME1] ²	HVAC equipment efficiency verified. Non-NAECA HVAC equipment labeled as meeting 90.1.	Efficiency: ____	Efficiency: ____	☒ Complies ☐ Does Not ☐ Not Observable ☐ Not Applicable	See the Mechanical Systems list for values.
6.4.3.4.1 [ME3] ³	Stair and elevator shaft vents have motorized dampers that automatically close.			☐ Complies ☐ Does Not ☐ Not Observable ☒ Not Applicable	
6.4.3.4.2, 6.4.3.4.3 [ME4] ³	Outdoor air and exhaust systems have motorized dampers that automatically shut when not in use and meet maximum leakage rates. Check gravity dampers where allowed.			☒ Complies ☐ Does Not ☐ Not Observable ☐ Not Applicable	
6.4.3.4.5 [ME39] ³	Enclosed parking garage ventilation has automatic contaminant detection and capacity to stage or modulate fans to 50% or less of design capacity.			☐ Complies ☐ Does Not ☐ Not Observable ☒ Not Applicable	
6.4.3.4.4 [ME5] ³	Ventilation fans >0.75 hp have automatic controls to shut off fan when not required.			☐ Complies ☐ Does Not ☐ Not Observable ☒ Not Applicable	
6.4.3.8 [ME6] ¹	Demand control ventilation provided for spaces >500 ft ² and >25 people/1000 ft ² occupant density and served by systems with air side economizer, auto modulating outside air damper control, or design airflow >3,000 cfm.			☒ Complies ☐ Does Not ☐ Not Observable ☐ Not Applicable	
6.5.3.2.1 [ME40] ²	DX cooling systems ≥ 75 kBtu/h (≥ 65 kBtu/h effective 1/2016) and chilled-water and evaporative cooling fan motor hp ≥ ¼ designed to vary supply fan airflow as a function of load and comply with operational requirements.			☐ Complies ☐ Does Not ☐ Not Observable ☒ Not Applicable	See the Mechanical Systems list for values.
6.4.4.1.1 [ME7] ³	Insulation exposed to weather protected from damage. Insulation outside of the conditioned space and associated with cooling systems is vapor retardant.			☐ Complies ☐ Does Not ☐ Not Observable ☒ Not Applicable	
6.4.4.1.2 [ME8] ²	HVAC ducts and plenums insulated per Table 6.8.2. Where ducts or plenums are installed in or under a slab, verification may need to occur during Foundation Inspection.	R- ____	R- ____	☒ Complies ☐ Does Not ☐ Not Observable ☐ Not Applicable	
6.4.4.1.3 [ME9] ²	HVAC piping insulation thickness. Where piping is installed in or under a slab, verification may need to occur during Foundation Inspection.	____ in.	____ in.	☐ Complies ☐ Does Not ☐ Not Observable ☒ Not Applicable	
6.4.4.1.4 [ME41] ³	Thermally ineffective panel surfaces of sensible heating panels have insulation ≥ R-3.5.			☒ Complies ☐ Does Not ☐ Not Observable ☐ Not Applicable	

1 High Impact (Tier 1) 2 Medium Impact (Tier 2) 3 Low Impact (Tier 3)

Section # & Req.ID	Mechanical Rough-In Inspection	Plans Verified Value	Field Verified Value	Complies?	Comments/Assumptions
6.4.4.2.1 [ME10] ²	Ducts and plenums having pressure class ratings are Seal Class A construction.			☒ Complies ☐ Does Not ☐ Not Observable ☐ Not Applicable	
6.8.1-15, 6.8.1-16 [ME110] ²	Electrically operated DX-DOAS units meet requirements per Tables 6.8.1-15 or 6.8.1-16.			☐ Complies ☐ Does Not ☐ Not Observable ☒ Not Applicable	
6.4.4.2.2 [ME11] ³	Ductwork operating >3 in. water column requires air leakage testing.			☐ Complies ☐ Does Not ☐ Not Observable ☒ Not Applicable	
6.5.2.3 [ME19] ³	Dehumidification controls provided to prevent reheating, recooling, mixing of hot and cold airstreams or concurrent heating and cooling of the same airstream.			☐ Complies ☐ Does Not ☐ Not Observable ☒ Not Applicable	
6.5.2.4.1 [ME68] ³	Humidifiers with airstream mounted preheating jackets have preheat auto-shutoff value set to activate when humidification is not required.			☐ Complies ☐ Does Not ☐ Not Observable ☒ Not Applicable	
6.5.2.4.2 [ME69] ³	Humidification system dispersion tube hot surfaces in the airstreams of ducts or air-handling units insulated $\geq$ R-0.5.			☐ Complies ☐ Does Not ☐ Not Observable ☒ Not Applicable	
6.5.2.5 [ME70] ³	Preheat coils controlled to stop heat output whenever mechanical cooling, including economizer operation, is active.			☐ Complies ☐ Does Not ☐ Not Observable ☒ Not Applicable	
6.5.2.6 [ME106] ³	Units that provide ventilation air to multiple zones and operate in conjunction with zone heating and cooling systems are prevented from using heating or heat recovery to warm supply air above 60°F when representative building loads or outdoor air temperature indicate that most zones demand cooling.			☐ Complies ☐ Does Not ☐ Not Observable ☒ Not Applicable	
6.5.3.6 [ME72] ²	Motors for fans $\geq$ 1/12 hp and < 1 hp are electronically-commutated motors or have a minimum motor efficiency of 70%. These motors are also speed adjustable for either balancing or remote control.			☐ Complies ☐ Does Not ☐ Not Observable ☒ Not Applicable	

☐ 1 High Impact (Tier 1)
 ☒ 2 Medium Impact (Tier 2)
 ☐ 3 Low Impact (Tier 3)

Section # & Req.ID	Mechanical Rough-In Inspection	Plans Verified Value	Field Verified Value	Complies?	Comments/Assumptions
6.5.3.4 [ME108] ²	Parallel-flow fan-powered VAV air terminals have automatic controls to a) turn off the terminal fan except when space heating is required or if required for ventilation; b) turn on the terminal fan as the first stage of heating before the heating coil is activated; and c) during heating for warmup or setback temperature control, either operate the terminal fan and heating coil without primary air or reverse the terminal damper logic and provide heating from the central air handler through primary air.			☐ Complies ☐ Does Not ☐ Not Observable ☒ Not Applicable	
6.5.3.7 [ME109] ²	Required minimum outdoor air rate is the larger of minimum outdoor air rate or minimum exhaust air rate required by Standard 62.1, Standard 170, or applicable codes or accreditation standards. Outdoor air ventilation systems shall comply with one of the following: a) design minimum system outdoor air provided < 135% of the required minimum outdoor air rate, b) dampers, ductwork, and controls allow the system to supply <= the required minimum outdoor air rate with a single set-point adjustment., or c) system includes exhaust air energy recovery complying with Section 6.5.6.1.			☐ Complies ☐ Does Not ☐ Not Observable ☒ Not Applicable	
6.5.3.3 [ME42] ³	Multiple zone VAV systems with DDC of individual zone boxes have static pressure setpoint reset controls.			☐ Complies ☐ Does Not ☐ Not Observable ☒ Not Applicable	See the Mechanical Systems list for values.
6.5.4.2 [ME25] ³	HVAC pumping systems with >= 3 control valves designed for variable fluid flow (see section details).			☐ Complies ☐ Does Not ☐ Not Observable ☒ Not Applicable	
6.5.6.1.1 [ME56] ¹	Exhaust Air Energy Recovery for Nontransient Dwelling Units			☐ Complies ☐ Does Not ☐ Not Observable ☒ Not Applicable	
6.5.6.1.2 [ME111] ¹	Exhaust air energy recovery for spaces other than Nontransient dwelling units meeting Tables 6.5.6.1.2-1, and 6.5.6.1.2-2.			☐ Complies ☐ Does Not ☐ Not Observable ☒ Not Applicable	
6.5.7.2.1 [ME32] ²	Kitchen hoods >5,000 cfm have make up air >=50% of exhaust air volume.			☐ Complies ☐ Does Not ☐ Not Observable ☒ Not Applicable	

1 High Impact (Tier 1) 2 Medium Impact (Tier 2) 3 Low Impact (Tier 3)

Section # & Req.ID	Mechanical Rough-In Inspection	Plans Verified Value	Field Verified Value	Complies?	Comments/Assumptions
6.5.7.1 [ME100] ²	Conditioned supply air to space with mechanical exhaust ≤ the greater of criteria of supply flow, required ventilation rate, exhaust flow minus the available transfer air (see section details).			☐ Complies ☐ Does Not ☐ Not Observable ☒ Not Applicable	
6.5.3.8 [ME112] ¹	Occupied standby controls for zones serving rooms that are required to have automatic partial OFF or automatic full OFF lighting controls per Section 9.4.1.1 shall meet the following within five minutes of all rooms in that zone entering occupied-standby mode: a)Active heating set point shall be setback at least 1°F, b)Active cooling set point shall be setup at least 1°F and c)All airflow supplied to the zone shall be shut off whenever the space temperature is between the active heating and cooling set points.			☒ Complies ☐ Does Not ☐ Not Observable ☐ Not Applicable	
6.5.7.2.4 [ME49] ³	Approved field test used to evaluate design air flow rates and demonstrate proper capture and containment of kitchen exhaust systems.			☒ Complies ☐ Does Not ☐ Not Observable ☐ Not Applicable	
6.5.8.1 [ME34] ²	Unenclosed spaces that are heated use only radiant heat.			☐ Complies ☐ Does Not ☐ Not Observable ☒ Not Applicable	
6.5.9 [ME35] ¹	Hot gas bypass limited to: ≤240 kBtu/h - 15% >240 kBtu/h - 10%			☒ Complies ☐ Does Not ☐ Not Observable ☐ Not Applicable	
6.4.3.9 [ME63] ²	Heating for vestibules and air curtains with integral heating include automatic controls that shut off the heating system when outdoor air temperatures > 45°F. Vestibule heating and cooling systems controlled by a thermostat in the vestibule with heating setpoint ≤ 60°F and cooling setpoint ≥ 80°F.			☒ Complies ☐ Does Not ☐ Not Observable ☐ Not Applicable	
6.5.10 [ME73] ³	Doors separating conditioned space from the outdoors have controls that disable/reset heating and cooling system when open.			☒ Complies ☐ Does Not ☐ Not Observable ☐ Not Applicable	

Additional Comments/Assumptions:

1 High Impact (Tier 1) 2 Medium Impact (Tier 2) 3 Low Impact (Tier 3)

Section # & Req.ID	Rough-In Electrical Inspection	Complies?	Comments/Assumptions
8.4.2 [EL10] ²	At least 50% of all 125 volt 15- and 20-Amp receptacles are controlled by an automatic control device.	☒ Complies ☐ Does Not ☐ Not Observable ☐ Not Applicable	
8.4.3 [EL11] ²	New buildings have electrical energy use measurement devices installed. Where tenant spaces exist, each tenant is monitored separately. In buildings with a digital control system the energy use is transmitted to to control system and displayed graphically.	☐ Complies ☐ Does Not ☐ Not Observable ☒ Not Applicable	
10.4.1 [EL9] ²	Electric motors meet requirements where applicable.	☒ Complies ☐ Does Not ☐ Not Observable ☐ Not Applicable	

Additional Comments/Assumptions:

Section # & Req.ID	Final Inspection	Complies?	Comments/Assumptions
6.4.3.1.2 [FI3] ³	Thermostatic controls have a 5 °F deadband.	☒ Complies ☐ Does Not ☐ Not Observable ☐ Not Applicable	
6.4.3.2 [FI20] ³	Temperature controls have setpoint overlap restrictions.	☒ Complies ☐ Does Not ☐ Not Observable ☐ Not Applicable	
6.4.3.3.1 [FI21] ³	HVAC systems equipped with at least one automatic shutdown control.	☒ Complies ☐ Does Not ☐ Not Observable ☐ Not Applicable	
6.4.3.3.2 [FI22] ³	Setback controls allow automatic restart and temporary operation as required for maintenance.	☒ Complies ☐ Does Not ☐ Not Observable ☐ Not Applicable	
6.4.3.12 [FI200] ³	Air economizer has a fault detection and diagnostics (FDD) system (see details for configuration and operational requirements).	☒ Complies ☐ Does Not ☐ Not Observable ☐ Not Applicable	
6.4.3.6 [FI6] ³	When humidification and dehumidification are provided to a zone, simultaneous operation is prohibited. Humidity control prohibits the use of fossil fuel or electricity to produce RH > 30% in the warmest zone humidified and RH < 60% in the coldest zone dehumidified.	☐ Complies ☐ Does Not ☐ Not Observable ☒ Not Applicable	
6.7.2.1 [FI7] ³	Furnished HVAC as-built drawings submitted within 90 days of system acceptance.	☒ Complies ☐ Does Not ☐ Not Observable ☐ Not Applicable	
6.7.2.2 [FI8] ³	Furnished O&M manuals for HVAC systems within 90 days of system acceptance.	☒ Complies ☐ Does Not ☐ Not Observable ☐ Not Applicable	
6.7.2.3 [FI9] ¹	An air and/or hydronic system balancing report is provided for HVAC systems serving zones >5,000 ft ² of conditioned area.	☒ Complies ☐ Does Not ☐ Not Observable ☐ Not Applicable	
10.4.3 [FI24] ²	Elevators are designed with the proper lighting, ventilation power, and standby mode.	☐ Complies ☐ Does Not ☐ Not Observable ☒ Not Applicable	

Additional Comments/Assumptions:

1 High Impact (Tier 1) 2 Medium Impact (Tier 2) 3 Low Impact (Tier 3)