

Report By:  
United Test & Balance, Inc.  
7013 Flagler Rd,  
Nordland, WA 98358



INTELLIGENCE

For:  
National TAB  
1126 Swift Street  
North Kansas City, MO 64116

Report: PRELIM. TAB REPORT  
Function: Test, Adjust, & Balance  
Date: 11/14/2024  
Completed By:

## PROJECT

**09-23-24 SMITH'S #708-280 - ST GEORGE,  
UT**

4590 South Pioneer Road

St George , UT 84790

### Client

Kroger / Smith's Division 706  
RASC 092 - xx001 / Property Dept.  
2620 Elm Hill Pike  
Nashville, TN 37214

# Report Summary/Remarks

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## SYSTEM/UNIT: Report Summary and Remarks

### Scope of Work

#### **Includes**

The Test and Balance (TAB) scope of work consist of 2 Dedicated Outdoor Air Systems (DOAS), 19 Rooftop Units (RTU), 10 Exhaust Fans (EF), and the associated inlets/outlets.

### System Posturing & Remarks

#### **Air Apparatus**

The DOAS and RTUs were set for design airflow and the associated supply outlets were balanced in full cooling demand. After the distribution systems were complete, the outside air value was measured and set. The Outside Air CFM was directly measured as noted. The Return Air CFM was derived from subtracting Outside Air CFM from Total Supply Air CFM. There was no access to the unit discharge in order to obtain a duct traverse. Total CFM was derived by the sum of the Outlet measurements. All final TAB settings and performance measurements were completed and data was recorded on to the appropriate test report forms.

#### **Exhaust Fans**

The exhaust fans were energized, measured and set for total airflow. The associated inlets were balanced as noted in this report. Total CFM was derived as noted on the individual test pages. Final settings and performance measurements were completed and data recorded on to the appropriate test report forms.

### General Remarks

#### **Preliminary Report**

At the request of our customer, United is providing this preliminary / progress TAB report. A Final TAB Report will be issued upon completion of the project. We reserve the right correct any clerical errors

#### **Comment Log**

The following page lists all project comments and issues. All items described and listed on the following Equipment Comment Log have been previously forwarded for resolution and have been accepted as reported.

<b>Issue ID:</b>	<b>0034</b>	<b>Status:</b>	<b>Open</b>	<b>Issue Priority:</b>	
Equipment:	RTU-17				Created Date: 31-Oct-24
<b>Issue Description:</b>					
Cannot override unit to full cool, controller not responding.					
Issue Type:	Installation				
Role Assignment:	Mechanical Contractor				
Comments / Signature:					

<b>Issue ID:</b>	<b>0033</b>	<b>Status:</b>	<b>Open</b>	<b>Issue Priority:</b>	
Equipment:	RTU-15				Created Date: 31-Oct-24
<b>Issue Description:</b>					
Cannot override unit to full cool, controller not responding.					
Issue Type:	Installation				
Role Assignment:	Mechanical Contractor				
Comments / Signature:					

<b>Issue ID:</b>	<b>0032</b>	<b>Status:</b>	<b>Open</b>	<b>Issue Priority:</b>	
Equipment:	RTU-13				Created Date: 31-Oct-24
<b>Issue Description:</b>					
Cannot override unit to full cool, controller not responding.					
Issue Type:	Installation				
Role Assignment:	Mechanical Contractor				
Comments / Signature:					

<b>Issue ID:</b>	<b>0031</b>	<b>Status:</b>	<b>Open</b>	<b>Issue Priority:</b>	
Equipment:	RTU-05				Created Date: 31-Oct-24
<b>Issue Description:</b>					
Cannot override unit to full cool, controller not responding.					
Issue Type:	Installation				
Role Assignment:	Mechanical Contractor				
Comments / Signature:					

<b>Issue ID:</b>	<b>0030</b>	<b>Status:</b>	<b>Open</b>	<b>Issue Priority:</b>	
Equipment:	RTU-04				Created Date: 31-Oct-24
<b>Issue Description:</b>					
Cannot override unit to full cool, controller not responding.					
Issue Type:	Installation				
Role Assignment:	Mechanical Contractor				
Comments / Signature:					

<b>Issue ID:</b>	<b>0029</b>	<b>Status:</b>	<b>Open</b>	<b>Issue Priority:</b>	
Equipment:	RTU-18				Created Date: 29-Oct-24
<b>Issue Description:</b>					
Outside air damper actuator is not operating.					
Issue Type:	Installation				
Role Assignment:	Mechanical Contractor				
Comments / Signature:					

<b>Issue ID:</b>	<b>0028</b>	<b>Status:</b>	<b>Open</b>	<b>Issue Priority:</b>	
Equipment:	RTU-19				Created Date: 29-Oct-24
<b>Issue Description:</b>					
Outside air damper actuator is not operating.					
Issue Type:	Installation				
Role Assignment:	Mechanical Contractor				
Comments / Signature:					

<b>Issue ID:</b>	<b>0027</b>	<b>Status:</b>	<b>Open</b>	<b>Issue Priority:</b>	
Equipment:	RTU-16				Created Date: 28-Oct-24
<b>Issue Description:</b>					
Outside air damper actuator is not operating.					
Issue Type:	Installation				
Role Assignment:	Mechanical Contractor				
Comments / Signature:					
10/28/2024	OC	Rechecked 10/28/24			

<b>Issue ID:</b>	<b>0022</b>	<b>Status:</b>	<b>Open</b>	<b>Issue Priority:</b>	
Equipment:	EF-05				Created Date: 25-Sep-24
<b>Issue Description:</b>					
Fan is not operating.					
Issue Type:	Installation				
Role Assignment:	Mechanical Contractor				
Comments / Signature:					

<b>Issue ID:</b>	<b>0018</b>	<b>Status:</b>	<b>Open</b>	<b>Issue Priority:</b>	
Equipment:	RTU-17				Created Date: 25-Sep-24
<b>Issue Description:</b>					
Thermostat is not installed.					
Issue Type:	Installation				
Role Assignment:	Mechanical Contractor				
Comments / Signature:					

<b>Issue ID:</b>	<b>0014</b>	<b>Status:</b>	<b>Open</b>	<b>Issue Priority:</b>	
Equipment:	RTU-13				Created Date: 24-Sep-24
<b>Issue Description:</b>					
Outside air damper actuator is not operating.					
Issue Type:	Installation				
Role Assignment:	Mechanical Contractor				
Comments / Signature:					
10/29/2024	OC	Rechecked 10/28			

<b>Issue ID:</b>	<b>0013</b>	<b>Status:</b>	<b>Open</b>	<b>Issue Priority:</b>	
Equipment:	RTU-13				Created Date: 24-Sep-24
<b>Issue Description:</b>					
Controls are not operating correctly.					
Issue Type:	Installation				
Role Assignment:	Mechanical Contractor				
Comments / Signature:					
10/29/2024	OC	10/28			

<b>Issue ID:</b>	<b>0012</b>	<b>Status:</b>	<b>Open</b>	<b>Issue Priority:</b>	
Equipment:	RTU-12				Created Date: 24-Sep-24
<b>Issue Description:</b>					
Controls are not operating correctly.					
Issue Type:	Installation				
Role Assignment:	Mechanical Contractor				
Comments / Signature:					
10/29/2024	OC	Rechecked 10/28			

<b>Issue ID:</b>	<b>0011</b>	<b>Status:</b>	<b>Open</b>	<b>Issue Priority:</b>	
Equipment:	RTU-12				Created Date: 24-Sep-24
<b>Issue Description:</b>					
Outside air damper actuator is not operating.					
Issue Type:	Installation				
Role Assignment:	Mechanical Contractor				
Comments / Signature:					
10/29/2024	OC	Rechecked 10/28			

<b>Issue ID:</b>	<b>0010</b>	<b>Status:</b>	<b>Open</b>	<b>Issue Priority:</b>	
Equipment:	RTU-11				Created Date: 24-Sep-24
<b>Issue Description:</b>					
Outside air damper actuator is not operating.					
Issue Type:	Installation				
Role Assignment:	Mechanical Contractor				
Comments / Signature:					
10/29/2024	OC	Rechecked 10/28			

<b>Issue ID:</b>	<b>0009</b>	<b>Status:</b>	<b>Open</b>	<b>Issue Priority:</b>	
Equipment:	RTU-11				Created Date: 24-Sep-24
<b>Issue Description:</b>					
Controls are not operating correctly.					
Issue Type:	Installation				
Role Assignment:	Mechanical Contractor				
Comments / Signature:					
10/29/2024	OC	Rechecked 10/28			

<b>Issue ID:</b>	<b>0008</b>	<b>Status:</b>	<b>Open</b>	<b>Issue Priority:</b>	
Equipment:	RTU-10				Created Date: 24-Sep-24
<b>Issue Description:</b>					
Outside air damper actuator is not operating.					
Issue Type:	Installation				
Role Assignment:	Mechanical Contractor				
Comments / Signature:					

<b>Issue ID:</b>	<b>0007</b>	<b>Status:</b>	<b>Open</b>	<b>Issue Priority:</b>	
Equipment:	RTU-17				Created Date: 24-Sep-24
<b>Issue Description:</b>					
Outside air damper actuator is not operating.					
Issue Type:	Installation				
Role Assignment:	Mechanical Contractor				
Comments / Signature:					

<b>Issue ID:</b>	<b>0006</b>	<b>Status:</b>	<b>Open</b>	<b>Issue Priority:</b>	
Equipment:	RTU-17				Created Date: 24-Sep-24
<b>Issue Description:</b>					
Core app: Multiple compressor issues due to no connection with sensors.					
Issue Type:	Installation				
Role Assignment:	Mechanical Contractor				
Comments / Signature:					

<b>Issue ID:</b>	<b>0004</b>	<b>Status:</b>	<b>Open</b>	<b>Issue Priority:</b>	
Equipment:	RTU-15				Created Date: 24-Sep-24
<b>Issue Description:</b>					
Unit running in backup mode due to connection. Was jumped for testing					
Issue Type:	Installation				
Role Assignment:	Mechanical Contractor				
Comments / Signature:					

<b>Issue ID:</b>	<b>0003</b>	<b>Status:</b>	<b>Open</b>	<b>Issue Priority:</b>	
Equipment:	RTU-15				Created Date: 24-Sep-24
<b>Issue Description:</b>					
Outside air damper actuator is not operating.					
Issue Type:	Installation				
Role Assignment:	Mechanical Contractor				
Comments / Signature:					

SYSTEM/UNIT: DOAS-01

Tested By: Omar Carreno  
Date: 10/30/2024



Design Airflow (CFM)	
Design Total	4650
Design Grille Total	4650
Design Return	0
Design Min O/A	4650

Unit Design Data	
Submittal Make	Not Provided
Submittal Model #	Not Provided
Submittal Airflow	Not Provided
Sched./Sub. Volts	480
Sched./Sub. Phase	3
Sched./Sub. HP	Not Listed
Submittal BHP	Not Provided
Filter MERV Rating (Sched/Sub)	Not Listed

Design Static Pressures (in wg)	
Design Ext SP	.5
Submittal Total SP	Not Provided
Submittal Clg Coil Δ SP	Not Provided

Filter Data	
Condition	Clean
Filter Type	Pleated
MERV Rating	-
Filter Size Set 1 (in)	20x25x2
# Filters Set 1	8
Filter Size Set 2 (in)	-
# Filters Set 2	-

Motor Nameplate Data	
Motor Make	No Access - Embedded Motor
Motor Frame	-
Motor HP	-
Motor RPM	-
Motor Volts	-
Motor Phase	-

Final Airflow (CFM)	
Actual Total CFM	4626
Actual Grille Total CFM	4626
Actual Return Air CFM	0
Actual Min O/A CFM	4626
Fan CFM Test Method	Outside Air Intake
OA Method/Instrument	
OA Ak (sq ft)	
OA Damper % (High Spd)	100% Open
OA Damper % (Low Spd)	Not Applicable/Single Speed
RA Damper % (High Spd)	Not Applicable

Unit Data	
Make (tag)	Captive Aire
Model # (tag)	CASRTU3-1.400-22-20T
Serial # (tag)	5793872
Location	Roof
Unit Discharge	Downblast
Cooling Coil Location	Unit / Drawthru
Coil Area (sq ft)	
Clg Coil Vel (FPM)	
Fan Service	Outside Air
Fan Type	Centrifugal (AF)
Fan Discharge	Downblast
Fan Arrangement	SWSI

Fan Design Data	
Submittal Motor RPM	Not Provided
Submittal Fan RPM	Not Provided

Fan Data	
Actual Fan RPM/Speed	1500
Actual Motor RPM	Not Accessible

Electrical Data	
Measurement Method	VFD Display
Motor Volts 1	102

**SYSTEM/UNIT: DOAS-01**

Tested By: Omar Carreno  
Date: 10/30/2024

Motor Nameplate Data	
Motor Amps	-
Motor S.F.	-
Motor % PF	-
Motor % Eff.	-
Other Motor Data	-

Electrical Data	
Motor Volts 2	-
Motor Volts 3	-
Motor Amps 1	17.3
Motor Amps 2	-
Motor Amps 3	-
Operating HZ	50.00
Approx. BHP	
Corr. Nameplate Amps	
Starter Data	-
VFD Reference	-

Drive Data	
Drive Type	Direct Drive
Sheave Type	-
Fan Sheave Make	-
Fan Shv Mod# or Size (in)	-
Fan Sheave Bore (in)	-
Motor Sheave Make	-
Mtr Shv Mod# or Size (in)	-
Motor Sheave Bore (in)	-
VP Range	-
Center Distance (in)	-
No of Belts	-
Belt Make	-
Belt Size	-
Other Data	-

Make (tag) Photo:



Name: Make (tag).jpg  
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Caption:

**SYSTEM/UNIT: DOAS-02**

Tested By: Omar Carreno  
Date: 10/30/2024



Design Airflow (CFM)	
Design Total	4650
Design Grille Total	4650
Design Return	0
Design Min O/A	4650

Unit Design Data	
Submittal Make	Not Provided
Submittal Model #	Not Provided
Submittal Airflow	Not Provided
Sched./Sub. Volts	480
Sched./Sub. Phase	3
Sched./Sub. HP	Not Listed
Submittal BHP	Not Provided
Filter MERV Rating (Sched/Sub)	Not Listed

Design Static Pressures (in wg)	
Design Ext SP	.5
Submittal Total SP	Not Provided
Submittal Clg Coil Δ SP	Not Provided

Filter Data	
Condition	Clean
Filter Type	Pleated
MERV Rating	-
Filter Size Set 1 (in)	20x25x2
# Filters Set 1	8
Filter Size Set 2 (in)	-
# Filters Set 2	-

Motor Nameplate Data	
Motor Make	No Access - Embedded Motor
Motor Frame	-
Motor HP	-
Motor RPM	-
Motor Volts	-
Motor Phase	-

Final Airflow (CFM)	
Actual Total CFM	4770
Actual Grille Total CFM	4770
Actual Return Air CFM	0
Actual Min O/A CFM	4770
Fan CFM Test Method	Outside Air Intake
OA Method/Instrument	
OA Ak (sq ft)	
OA Damper % (High Spd)	100% Open
OA Damper % (Low Spd)	Not Applicable/Single Speed
RA Damper % (High Spd)	Not Applicable

Unit Data	
Make (tag)	Captive Aire
Model # (tag)	CASRTU3-1.400-22-20T
Serial # (tag)	5793872
Location	Roof
Unit Discharge	Downblast
Cooling Coil Location	Unit / Drawthru
Coil Area (sq ft)	
Clg Coil Vel (FPM)	
Fan Service	Outside Air
Fan Type	Centrifugal (AF)
Fan Discharge	Downblast
Fan Arrangement	SWSI

Fan Design Data	
Submittal Motor RPM	Not Provided
Submittal Fan RPM	Not Provided

Fan Data	
Actual Fan RPM/Speed	1500
Actual Motor RPM	Not Accessible

Electrical Data	
Measurement Method	VFD Display
Motor Volts 1	102



SYSTEM/UNIT: RTU-01

Tested By: Omar Carreno  
Date: 10/31/2024



Design Airflow (CFM)	
Design Total	4000
Design Grille Total	4000
Design Return	4000
Design Min O/A	0

Unit Design Data	
Submittal Make	Not Provided
Submittal Model #	Not Provided
Submittal Airflow	Not Provided
Sched./Sub. Volts	480
Sched./Sub. Phase	3
Sched./Sub. HP	Not Listed
Submittal BHP	Not Provided
Filter MERV Rating (Sched/Sub)	Not Listed

Design Static Pressures (in wg)	
Design Ext SP	.5
Submittal Total SP	Not Provided
Submittal Clg Coil Δ SP	Not Provided

Filter Data	
Condition	Clean
Filter Type	Pleated
MERV Rating	8
Filter Size Set 1 (in)	20x25x2
# Filters Set 1	4
Filter Size Set 2 (in)	-
# Filters Set 2	-

Motor Nameplate Data	
Motor Make	Ebmpapst
Motor Frame	Not Listed
Motor HP	Not Listed
Motor RPM	Not Listed
Motor Volts	460
Motor Phase	3

Final Airflow (CFM)	
Actual Total CFM	4140
Actual Grille Total CFM	Not Applicable
Actual Return Air CFM	4140
Actual Min O/A CFM	0
Fan CFM Test Method	Coil Face - Velgrid/ADM
OA Method/Instrument	Not Applicable
OA Ak (sq ft)	-
OA Damper % (High Spd)	-
OA Damper % (Low Spd)	-
RA Damper % (High Spd)	100%

Unit Data	
Make (tag)	Lennox
Model # (tag)	LGM120U4ES2G
Serial # (tag)	5623J06195
Location	Roof
Unit Discharge	Downblast
Cooling Coil Location	Unit / Drawthru
Coil Area (sq ft)	13.9
Clg Coil Vel (FPM)	298
Fan Service	Supply
Fan Type	Centrifugal (AF)
Fan Discharge	Downblast
Fan Arrangement	SWSI

Fan Design Data	
Submittal Motor RPM	Not Provided
Submittal Fan RPM	Not Provided

Fan Data	
Actual Fan RPM/Speed	70%
Actual Motor RPM	1585

Electrical Data	
Measurement Method	No Safe Access to Meas
Motor Volts 1	-

**SYSTEM/UNIT: RTU-01**

Tested By: Omar Carreno  
Date: 10/31/2024

Motor Nameplate Data	
Motor Amps	4.7
Motor S.F.	-
Motor % PF	-
Motor % Eff.	-
Other Motor Data	-

Electrical Data	
Motor Volts 2	-
Motor Volts 3	-
Motor Amps 1	-
Motor Amps 2	-
Motor Amps 3	-
Operating HZ	-
Approx. BHP	-
Corr. Nameplate Amps	-
Starter Data	-
VFD Reference	-

Drive Data	
Drive Type	Direct Drive
Sheave Type	-
Fan Sheave Make	-
Fan Shv Mod# or Size (in)	-
Fan Sheave Bore (in)	-
Motor Sheave Make	-
Mtr Shv Mod# or Size (in)	-
Motor Sheave Bore (in)	-
VP Range	-
Center Distance (in)	-
No of Belts	-
Belt Make	-
Belt Size	-
Other Data	-

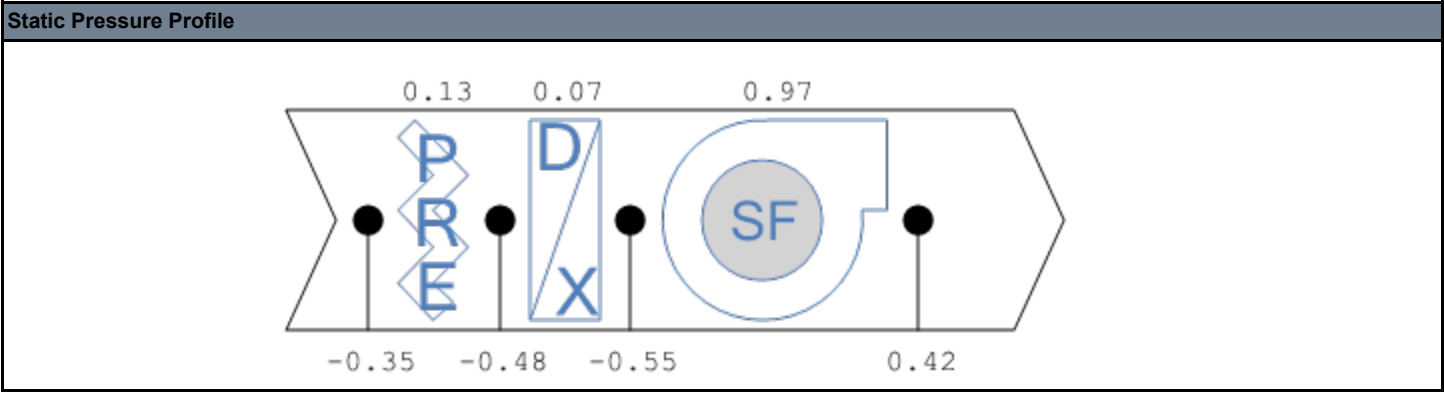
Make (tag) Photo:



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Caption:

SYSTEM/UNIT: RTU-01/Static Profile

Tested By: Omar Carreno  
Date: 10/31/2024



SYSTEM/UNIT: RTU-01/Face Velocity

Tested By: Omar Carreno  
Date: 10/31/2024

Design Airflow (CFM)	
Design Airflow	4500

Unit Design Data	
Sub. Coil Area (sq ft)	Not Provided
Sub. Face Vel. (FPM)	-

Traverse Data	
Location	Roof
Coil Height (in)	40
Coil Width (in)	50
Area (sq ft)	11.6
Corr. Factor	0.84
AK (sq ft)	9.74
Probe	Velgrid
Instrument	ADM

Final Airflow (CFM)	
Actual Airflow	4140
Final Face Vel. (FPM)	357

Test Data	
Average Velocity (FPM)	506
Centerline SP (in wg)	0
Altitude (ft)	2861
Duct Air Temp (°F)	70

SYSTEM/UNIT: RTU-02

Tested By: Omar Carreno  
Date: 10/31/2024



Design Airflow (CFM)	
Design Total	4500
Design Grille Total	4500
Design Return	4500
Design Min O/A	0

Unit Design Data	
Submittal Make	Not Provided
Submittal Model #	Not Provided
Submittal Airflow	Not Provided
Sched./Sub. Volts	480
Sched./Sub. Phase	3
Sched./Sub. HP	Not Listed
Submittal BHP	Not Provided
Filter MERV Rating (Sched/Sub)	Not Listed

Design Static Pressures (in wg)	
Design Ext SP	.5
Submittal Total SP	Not Provided
Submittal Clg Coil Δ SP	Not Provided

Filter Data	
Condition	Clean
Filter Type	Pleated
MERV Rating	8
Filter Size Set 1 (in)	20x25x2
# Filters Set 1	4
Filter Size Set 2 (in)	-
# Filters Set 2	-

Motor Nameplate Data	
Motor Make	Motor Tag Not Accessible
Motor Frame	-
Motor HP	-
Motor RPM	-
Motor Volts	-
Motor Phase	-

Final Airflow (CFM)	
Actual Total CFM	4120
Actual Grille Total CFM	Not Applicable
Actual Return Air CFM	4120
Actual Min O/A CFM	0
Fan CFM Test Method	Coil Face - Velgrid/ADM
OA Method/Instrument	Not Applicable
OA Ak (sq ft)	-
OA Damper % (High Spd)	-
OA Damper % (Low Spd)	-
RA Damper % (High Spd)	100%

Unit Data	
Make (tag)	Lennox
Model # (tag)	LGM150U4ES2G
Serial # (tag)	5623J06203
Location	Roof
Unit Discharge	Downblast
Cooling Coil Location	Unit / Drawthru
Coil Area (sq ft)	13.9
Clg Coil Vel (FPM)	296
Fan Service	Supply
Fan Type	Centrifugal (AF)
Fan Discharge	Downblast
Fan Arrangement	SWSI

Fan Design Data	
Submittal Motor RPM	Not Provided
Submittal Fan RPM	Not Provided

Fan Data	
Actual Fan RPM/Speed	80%
Actual Motor RPM	-

Electrical Data	
Measurement Method	No Safe Access to Meas
Motor Volts 1	-

**SYSTEM/UNIT: RTU-02**

Tested By: Omar Carreno  
Date: 10/31/2024

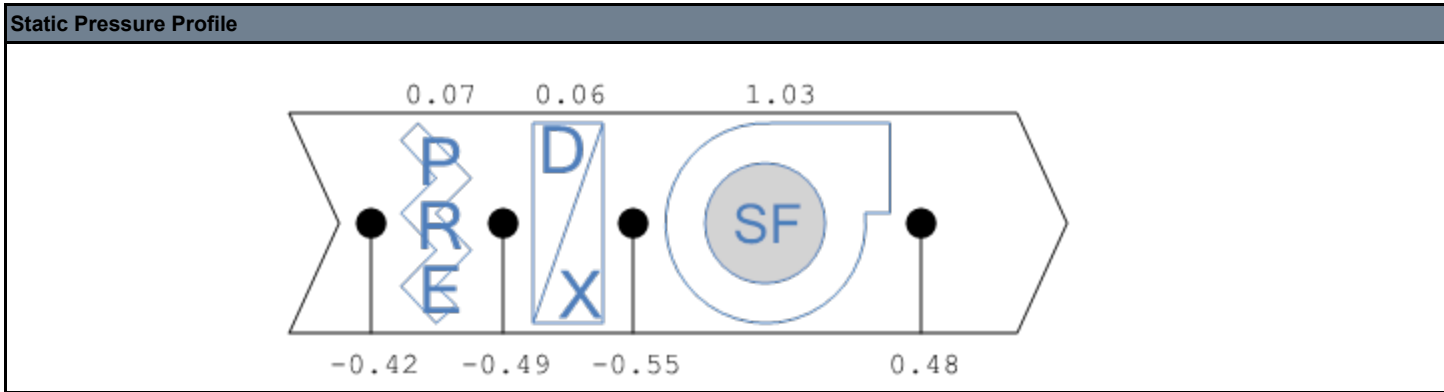
Motor Nameplate Data	
Motor Amps	-
Motor S.F.	-
Motor % PF	-
Motor % Eff.	-
Other Motor Data	-

Electrical Data	
Motor Volts 2	-
Motor Volts 3	-
Motor Amps 1	-
Motor Amps 2	-
Motor Amps 3	-
Operating HZ	-
Approx. BHP	-
Corr. Nameplate Amps	-
Starter Data	-
VFD Reference	-

Drive Data	
Drive Type	Direct Drive
Sheave Type	-
Fan Sheave Make	-
Fan Shv Mod# or Size (in)	-
Fan Sheave Bore (in)	-
Motor Sheave Make	-
Mtr Shv Mod# or Size (in)	-
Motor Sheave Bore (in)	-
VP Range	-
Center Distance (in)	-
No of Belts	-
Belt Make	-
Belt Size	-
Other Data	-

**SYSTEM/UNIT: RTU-02/Static Profile**

Tested By: Omar Carreno  
Date: 10/31/2024



**SYSTEM/UNIT: RTU-02/Face Velocity**

Tested By: Omar Carreno  
Date: 10/31/2024

Design Airflow (CFM)	
Design Airflow	4500

Unit Design Data	
Sub. Coil Area (sq ft)	Not Provided
Sub. Face Vel. (FPM)	-

Traverse Data	
Location	Roof
Coil Height (in)	40
Coil Width (in)	50
Area (sq ft)	11.6
Corr. Factor	0.84
AK (sq ft)	9.74
Probe	Velgrid
Instrument	ADM

Final Airflow (CFM)	
Actual Airflow	4120
Final Face Vel. (FPM)	355

Test Data	
Average Velocity (FPM)	503
Centerline SP (in wg)	0
Altitude (ft)	2861
Duct Air Temp (°F)	70

**SYSTEM/UNIT: RTU-03**

Tested By: Omar Carreno  
Date: 10/31/2024



Design Airflow (CFM)	
Design Total	5000
Design Grille Total	5000
Design Return	5000
Design Min O/A	0

Unit Design Data	
Submittal Make	Not Provided
Submittal Model #	Not Provided
Submittal Airflow	Not Provided
Sched./Sub. Volts	480
Sched./Sub. Phase	3
Sched./Sub. HP	Not Listed
Submittal BHP	Not Provided
Filter MERV Rating (Sched/Sub)	Not Listed

Design Static Pressures (in wg)	
Design Ext SP	.5
Submittal Total SP	Not Provided
Submittal Clg Coil Δ SP	Not Provided

Filter Data	
Condition	Clean
Filter Type	Pleated
MERV Rating	8
Filter Size Set 1 (in)	20x25x2
# Filters Set 1	4
Filter Size Set 2 (in)	-
# Filters Set 2	-

Motor Nameplate Data	
Motor Make	Motor Tag Not Accessible
Motor Frame	-
Motor HP	-
Motor RPM	-
Motor Volts	-
Motor Phase	-

Final Airflow (CFM)	
Actual Total CFM	4851
Actual Grille Total CFM	Not Applicable
Actual Return Air CFM	4851
Actual Min O/A CFM	0
Fan CFM Test Method	Coil Face - Velgrid/ADM
OA Method/Instrument	Not Applicable
OA Ak (sq ft)	-
OA Damper % (High Spd)	-
OA Damper % (Low Spd)	-
RA Damper % (High Spd)	100%

Unit Data	
Make (tag)	97.02
Model # (tag)	LGM150U4ES2G
Serial # (tag)	5623J06203
Location	Roof
Unit Discharge	Downblast
Cooling Coil Location	Unit / Drawthru
Coil Area (sq ft)	13.9
Clg Coil Vel (FPM)	349
Fan Service	Supply
Fan Type	Centrifugal (AF)
Fan Discharge	Downblast
Fan Arrangement	SWSI

Fan Design Data	
Submittal Motor RPM	Not Provided
Submittal Fan RPM	Not Provided

Fan Data	
Actual Fan RPM/Speed	80%
Actual Motor RPM	-

Electrical Data	
Measurement Method	No Safe Access to Meas
Motor Volts 1	-

**SYSTEM/UNIT: RTU-03**

Tested By: Omar Carreno  
Date: 10/31/2024

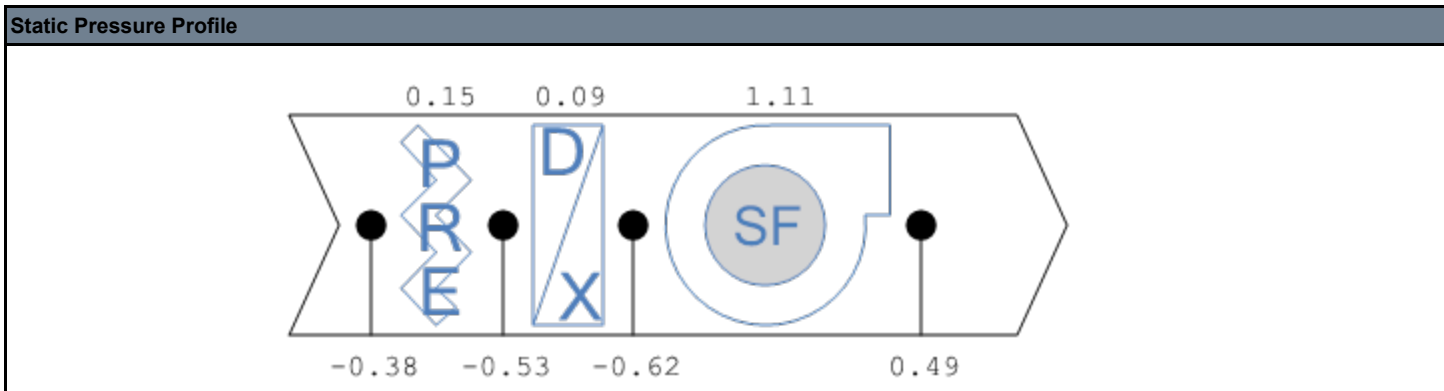
Motor Nameplate Data	
Motor Amps	-
Motor S.F.	-
Motor % PF	-
Motor % Eff.	-
Other Motor Data	-

Electrical Data	
Motor Volts 2	-
Motor Volts 3	-
Motor Amps 1	-
Motor Amps 2	-
Motor Amps 3	-
Operating HZ	-
Approx. BHP	-
Corr. Nameplate Amps	-
Starter Data	-
VFD Reference	-

Drive Data	
Drive Type	Direct Drive
Sheave Type	-
Fan Sheave Make	-
Fan Shv Mod# or Size (in)	-
Fan Sheave Bore (in)	-
Motor Sheave Make	-
Mtr Shv Mod# or Size (in)	-
Motor Sheave Bore (in)	-
VP Range	-
Center Distance (in)	-
No of Belts	-
Belt Make	-
Belt Size	-
Other Data	-

**SYSTEM/UNIT: RTU-03/Static Profile**

Tested By: Omar Carreno  
Date: 10/31/2024



**SYSTEM/UNIT: RTU-03/Face Velocity**

Tested By: Omar Carreno  
Date: 10/31/2024

Design Airflow (CFM)	
Design Airflow	5000

Unit Design Data	
Sub. Coil Area (sq ft)	Not Provided
Sub. Face Vel. (FPM)	-

Traverse Data	
Location	Roof
Coil Height (in)	40
Coil Width (in)	50
Area (sq ft)	11.6
Corr. Factor	0.84
AK (sq ft)	9.74
Probe	Velgrid
Instrument	ADM

Final Airflow (CFM)	
Actual Airflow	4851
Final Face Vel. (FPM)	418

Test Data	
Average Velocity (FPM)	589
Centerline SP (in wg)	0
Altitude (ft)	2861
Duct Air Temp (°F)	70

**SYSTEM/UNIT: RTU-04**

Tested By: Omar Carreno  
Date: 10/29/2024



Design Airflow (CFM)		Final Airflow (CFM)	
Design Total	5050	Actual Total CFM	
Design Grille Total	5050	Actual Grille Total CFM	
Design Return	5050	Actual Return Air CFM	
Design Min O/A	0	Actual Min O/A CFM	0
<b>Unit Design Data</b>		Fan CFM Test Method	
Submittal Make	Not Provided	OA Method/Instrument	
Submittal Model #	Not Provided	OA Ak (sq ft)	-
Submittal Airflow	Not Provided	OA Damper % (High Spd)	-
Sched./Sub. Volts	480	OA Damper % (Low Spd)	-
Sched./Sub. Phase	3	RA Damper % (High Spd)	100%
Sched./Sub. HP	Not Listed	<b>RTU-04/Heating</b>	
Submittal BHP	Not Provided	Actual Heating CFM	Not Listed
Filter MERV Rating (Sched/Sub)	Not Listed	<b>Unit Data</b>	
<b>Design Static Pressures (in wg)</b>		Make (tag)	Lennox
Design Ext SP	.5	Model # (tag)	LGM150U4EH2G
Submittal Total SP	Not Provided	Serial # (tag)	5623K00635
Submittal Clg Coil Δ SP	Not Provided	Location	Roof
<b>Design Temperatures (°F)</b>		Unit Discharge	Downblast
<b>RTU-04/Cooling</b>		Cooling Coil Location	Unit / Drawthru
Des. Ent. DB (°F)	Not Listed	Coil Area (sq ft)	11.1
Des. Ent. WB (°F)	Not Listed	Clg Coil Vel (FPM)	
Design LAT DB (°F)	Not Listed	Fan Service	Supply
Design LAT WB (°F)	Not Listed	Fan Type	Centrifugal (AF)
<b>RTU-04/Heating</b>		Fan Discharge	Downblast
Design EAT DB (°F)	Not Listed	Fan Arrangement	SWSI
Design LAT DB (°F)	Not Listed	<b>RTU-04/Heating</b>	
<b>Filter Data</b>		Coil Location	
Condition	Clean	<b>Fan Design Data</b>	
Filter Type	Pleated	Submittal Motor RPM	Not Provided
MERV Rating	8	Submittal Fan RPM	Not Provided
Filter Size Set 1 (in)	20x20x2	<b>Fan Data</b>	
# Filters Set 1	4	Actual Fan RPM/Speed	80%
Filter Size Set 2 (in)	-	Actual Motor RPM	Not Accessible

**SYSTEM/UNIT: RTU-04**

Tested By: Omar Carreno  
Date: 10/29/2024

Filter Data	
# Filters Set 2	-

Motor Nameplate Data	
Motor Make	No Access - Embedded Motor
Motor Frame	-
Motor HP	-
Motor RPM	-
Motor Volts	-
Motor Phase	-
Motor Amps	-
Motor S.F.	-
Motor % PF	-
Motor % Eff.	-
Other Motor Data	-

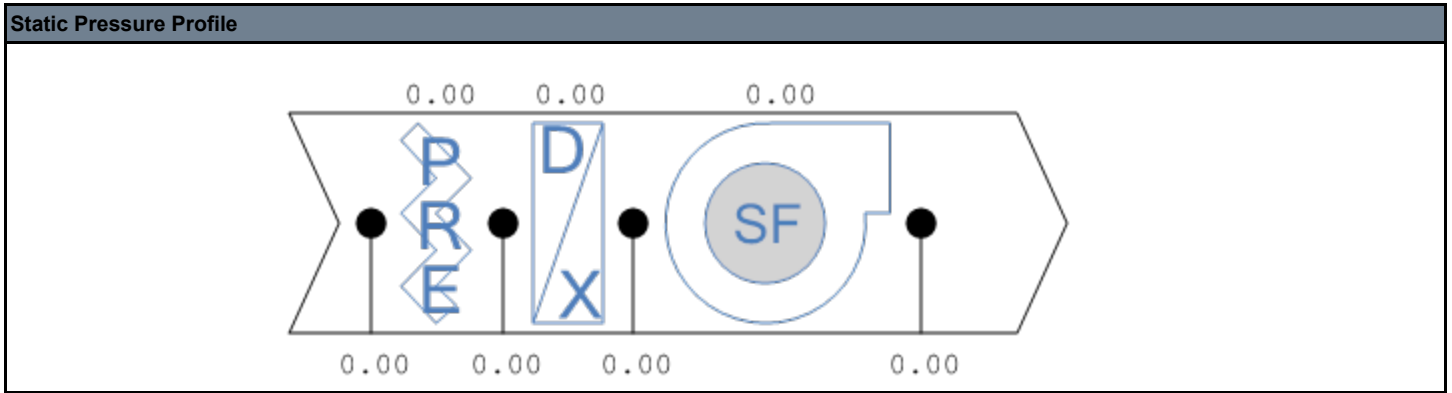
Drive Data	
Drive Type	Direct Drive
Sheave Type	-
Fan Sheave Make	-
Fan Shv Mod# or Size (in)	-
Fan Sheave Bore (in)	-
Motor Sheave Make	-
Mtr Shv Mod# or Size (in)	-
Motor Sheave Bore (in)	-
VP Range	-
Center Distance (in)	-
No of Belts	-
Belt Make	-
Belt Size	-
Other Data	-

Electrical Data	
Measurement Method	No Safe Access to Meas
Motor Volts 1	-
Motor Volts 2	-
Motor Volts 3	-
Motor Amps 1	-
Motor Amps 2	-
Motor Amps 3	-
Operating HZ	-
Approx. BHP	-
Corr. Nameplate Amps	-
Starter Data	-
VFD Reference	-

Actual Temperatures (°F)	
<b>RTU-04/Cooling</b>	
Outside Air DB	
Outside Air WB	
Entering Air DB	
Entering Air WB	
Leaving Air DB	
Leaving Air WB	
<b>RTU-04/Heating</b>	
Entering Air DB	
Leaving Air DB	

<b>Log:</b>	RTU-04	10/31/2024	Omar Carreno	Cannot override unit to full cool, controller not responding.
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SYSTEM/UNIT: RTU-04/Static Profile



**SYSTEM/UNIT: RTU-05**

Tested By: Refugio Montellano  
Date: 9/24/2024



Design Airflow (CFM)	
Design Total	5000
Design Grille Total	5000
Design Return	5000
Design Min O/A	0

Unit Design Data	
Submittal Make	Not Provided
Submittal Model #	Not Provided
Submittal Airflow	Not Provided
Sched./Sub. Volts	480
Sched./Sub. Phase	3
Sched./Sub. HP	Not Listed
Submittal BHP	Not Provided
Filter MERV Rating (Sched/Sub)	Not Listed

Design Static Pressures (in wg)	
Design Ext SP	.5
Submittal Total SP	Not Provided
Submittal Clg Coil Δ SP	Not Provided

Design Temperatures (°F)	
<b>RTU-05/Cooling</b>	
Des. Ent. DB (°F)	Not Listed
Des. Ent. WB (°F)	Not Listed
Design LAT DB (°F)	Not Listed
Design LAT WB (°F)	Not Listed
<b>RTU-05/Heating</b>	
Design EAT DB (°F)	Not Listed
Design LAT DB (°F)	Not Listed

Filter Data	
Condition	
Filter Type	
MERV Rating	
Filter Size Set 1 (in)	
# Filters Set 1	
Filter Size Set 2 (in)	-

Final Airflow (CFM)	
Actual Total CFM	
Actual Grille Total CFM	
Actual Return Air CFM	
Actual Min O/A CFM	0
Fan CFM Test Method	
OA Method/Instrument	
OA Ak (sq ft)	
OA Damper % (High Spd)	
OA Damper % (Low Spd)	
RA Damper % (High Spd)	
<b>RTU-05/Heating</b>	
Actual Heating CFM	Not Listed

Unit Data	
Make (tag)	
Model # (tag)	
Serial # (tag)	
Location	
Unit Discharge	
Cooling Coil Location	
Coil Area (sq ft)	
Clg Coil Vel (FPM)	
Fan Service	
Fan Type	
Fan Discharge	
Fan Arrangement	
<b>RTU-05/Heating</b>	
Coil Location	

Fan Design Data	
Submittal Motor RPM	Not Provided
Submittal Fan RPM	Not Provided

Fan Data	
Actual Fan RPM/Speed	
Actual Motor RPM	

**SYSTEM/UNIT: RTU-05**

Tested By: Refugio Montellano  
Date: 9/24/2024

Filter Data	
# Filters Set 2	-

Motor Nameplate Data	
Motor Make	
Motor Frame	
Motor HP	
Motor RPM	
Motor Volts	
Motor Phase	
Motor Amps	
Motor S.F.	
Motor % PF	
Motor % Eff.	
Other Motor Data	-

Drive Data	
Drive Type	
Sheave Type	
Fan Sheave Make	
Fan Shv Mod# or Size (in)	
Fan Sheave Bore (in)	
Motor Sheave Make	
Mtr Shv Mod# or Size (in)	
Motor Sheave Bore (in)	
VP Range	
Center Distance (in)	
No of Belts	
Belt Make	
Belt Size	
Other Data	

Electrical Data	
Measurement Method	
Motor Volts 1	
Motor Volts 2	
Motor Volts 3	
Motor Amps 1	
Motor Amps 2	
Motor Amps 3	
Operating HZ	
Approx. BHP	
Corr. Nameplate Amps	
Starter Data	
VFD Reference	

Actual Temperatures (°F)	
<b>RTU-05/Cooling</b>	
Outside Air DB	
Outside Air WB	
Entering Air DB	
Entering Air WB	
Leaving Air DB	
Leaving Air WB	
<b>RTU-05/Heating</b>	
Entering Air DB	
Leaving Air DB	

**Log:** RTU-05      10/31/2024      Omar Carreno      Cannot override unit to full cool, controller not responding.

**SYSTEM/UNIT: RTU-06**

Tested By: Omar Carreno  
Date: 10/31/2024

Design Airflow (CFM)	
Design Total	4500
Design Grille Total	4500
Design Return	4500
Design Min O/A	0

Unit Design Data	
Submittal Make	Not Provided
Submittal Model #	Not Provided
Submittal Airflow	Not Provided
Sched./Sub. Volts	480
Sched./Sub. Phase	3
Sched./Sub. HP	Not Listed
Submittal BHP	Not Provided
Filter MERV Rating (Sched/Sub)	Not Listed

Design Static Pressures (in wg)	
Design Ext SP	.5
Submittal Total SP	Not Provided
Submittal Clg Coil Δ SP	Not Provided

Filter Data	
Condition	Clean
Filter Type	Pleated
MERV Rating	8
Filter Size Set 1 (in)	20x25x2
# Filters Set 1	4
Filter Size Set 2 (in)	-
# Filters Set 2	-

Motor Nameplate Data	
Motor Make	Ebmpapst
Motor Frame	Not Listed
Motor HP	Not Listed
Motor RPM	Not Listed
Motor Volts	460
Motor Phase	3
Motor Amps	4.7
Motor S.F.	-
Motor % PF	-
Motor % Eff.	-
Other Motor Data	-

Drive Data	
Drive Type	Direct Drive
Sheave Type	-
Fan Sheave Make	-
Fan Shv Mod# or Size (in)	-
Fan Sheave Bore (in)	-
Motor Sheave Make	-
Mtr Shv Mod# or Size (in)	-

Final Airflow (CFM)	
Actual Total CFM	4159
Actual Grille Total CFM	Not Applicable
Actual Return Air CFM	4159
Actual Min O/A CFM	0
Fan CFM Test Method	Coil Face - Velgrid/ADM
OA Method/Instrument	Not Applicable
OA Ak (sq ft)	-
OA Damper % (High Spd)	-
OA Damper % (Low Spd)	-
RA Damper % (High Spd)	100%

Unit Data	
Make (tag)	Lennox
Model # (tag)	LGM150U4EH2G
Serial # (tag)	5623K00638
Location	Roof
Unit Discharge	Downblast
Cooling Coil Location	Unit / Drawthru
Coil Area (sq ft)	13.9
Clg Coil Vel (FPM)	299
Fan Service	Supply
Fan Type	Centrifugal (AF)
Fan Discharge	Downblast
Fan Arrangement	SWSI

Fan Design Data	
Submittal Motor RPM	Not Provided
Submittal Fan RPM	Not Provided

Fan Data	
Actual Fan RPM/Speed	70%
Actual Motor RPM	1585

Electrical Data	
Measurement Method	No Safe Access to Meas
Motor Volts 1	-
Motor Volts 2	-
Motor Volts 3	-
Motor Amps 1	-
Motor Amps 2	-
Motor Amps 3	-
Operating HZ	-
Approx. BHP	-
Corr. Nameplate Amps	-
Starter Data	-
VFD Reference	-

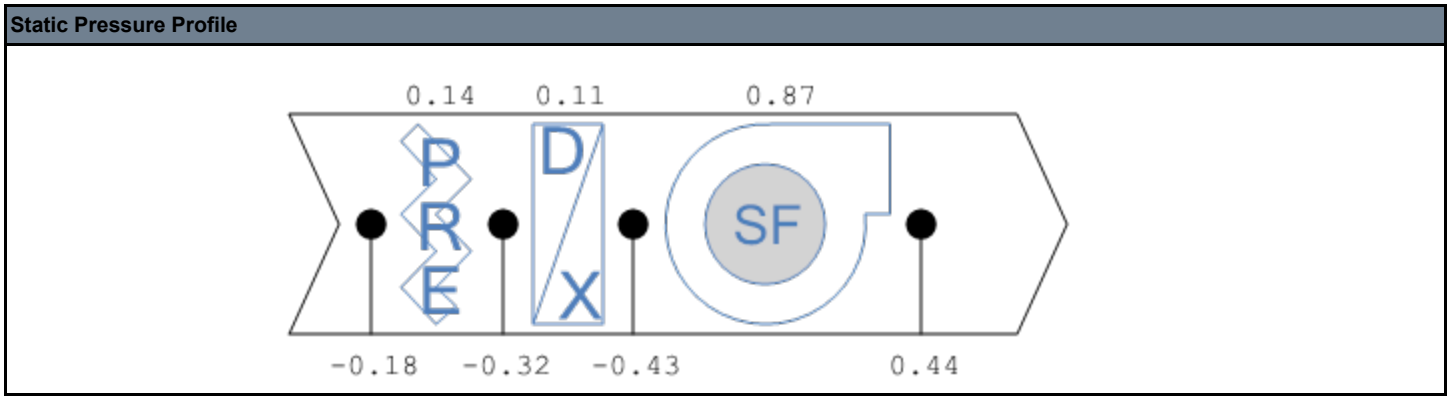
**SYSTEM/UNIT: RTU-06**

Tested By: Omar Carreno  
Date: 10/31/2024

Drive Data	
Motor Sheave Bore (in)	-
VP Range	-
Center Distance (in)	-
No of Belts	-
Belt Make	-
Belt Size	-
Other Data	-

**SYSTEM/UNIT: RTU-06/Static Profile**

Tested By: Omar Carreno  
Date: 10/31/2024



**SYSTEM/UNIT: RTU-06/Face Velocity**

Tested By: Omar Carreno  
Date: 10/31/2024

Design Airflow (CFM)	
Design Airflow	4500

Final Airflow (CFM)	
Actual Airflow	4159
Final Face Vel. (FPM)	359

Unit Design Data	
Sub. Coil Area (sq ft)	Not Provided
Sub. Face Vel. (FPM)	-

Test Data	
Average Velocity (FPM)	491
Centerline SP (in wg)	0
Altitude (ft)	2861
Duct Air Temp (°F)	70

Traverse Data	
Location	Roof
Coil Height (in)	40
Coil Width (in)	50
Area (sq ft)	11.6
Corr. Factor	0.84
AK (sq ft)	9.74
Probe	Velgrid
Instrument	ADM

**SYSTEM/UNIT: RTU-07**

Tested By: Omar Carreno  
Date: 10/31/2024



Design Airflow (CFM)	
Design Total	4805
Design Grille Total	4805
Design Return	4805
Design Min O/A	0

Unit Design Data	
Submittal Make	Not Provided
Submittal Model #	Not Provided
Submittal Airflow	Not Provided
Sched./Sub. Volts	480
Sched./Sub. Phase	3
Sched./Sub. HP	Not Listed
Submittal BHP	Not Provided
Filter MERV Rating (Sched/Sub)	Not Listed

Design Static Pressures (in wg)	
Design Ext SP	.5
Submittal Total SP	Not Provided
Submittal Clg Coil Δ SP	Not Provided

Filter Data	
Condition	Clean
Filter Type	Pleated
MERV Rating	8
Filter Size Set 1 (in)	20x25x2
# Filters Set 1	4
Filter Size Set 2 (in)	-
# Filters Set 2	-

Motor Nameplate Data	
Motor Make	Motor Tag Not Accessible
Motor Frame	-
Motor HP	-
Motor RPM	-
Motor Volts	-
Motor Phase	-

Final Airflow (CFM)	
Actual Total CFM	4451
Actual Grille Total CFM	Not Applicable
Actual Return Air CFM	4451
Actual Min O/A CFM	0
Fan CFM Test Method	Coil Face - Velgrid/ADM
OA Method/Instrument	Not Applicable
OA Ak (sq ft)	Not Applicable
OA Damper % (High Spd)	Not Accessible
OA Damper % (Low Spd)	-
RA Damper % (High Spd)	100% Open

Unit Data	
Make (tag)	Lennox
Model # (tag)	LGM150U4ES2G
Serial # (tag)	5623H02936
Location	Roof
Unit Discharge	Downblast
Cooling Coil Location	Unit / Drawthru
Coil Area (sq ft)	13.9
Clg Coil Vel (FPM)	320
Fan Service	Supply
Fan Type	Centrifugal (AF)
Fan Discharge	Downblast
Fan Arrangement	SWSI

Fan Design Data	
Submittal Motor RPM	Not Provided
Submittal Fan RPM	Not Provided

Fan Data	
Actual Fan RPM/Speed	80%
Actual Motor RPM	-

Electrical Data	
Measurement Method	No Safe Access to Meas
Motor Volts 1	-

**SYSTEM/UNIT: RTU-07**

Tested By: Omar Carreno  
Date: 10/31/2024

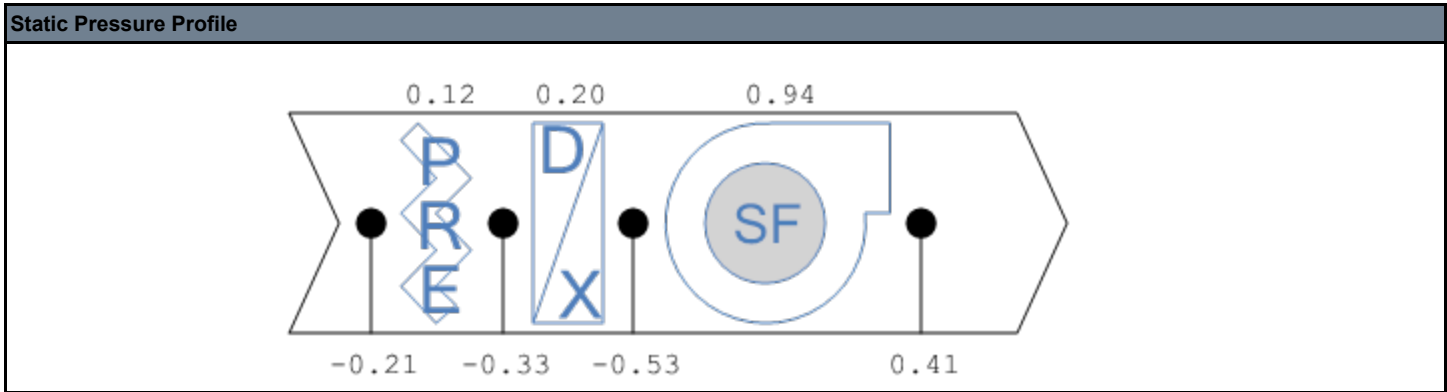
Motor Nameplate Data	
Motor Amps	-
Motor S.F.	-
Motor % PF	-
Motor % Eff.	-
Other Motor Data	-

Electrical Data	
Motor Volts 2	-
Motor Volts 3	-
Motor Amps 1	-
Motor Amps 2	-
Motor Amps 3	-
Operating HZ	-
Approx. BHP	-
Corr. Nameplate Amps	-
Starter Data	-
VFD Reference	-

Drive Data	
Drive Type	Direct Drive
Sheave Type	-
Fan Sheave Make	-
Fan Shv Mod# or Size (in)	-
Fan Sheave Bore (in)	-
Motor Sheave Make	-
Mtr Shv Mod# or Size (in)	-
Motor Sheave Bore (in)	-
VP Range	-
Center Distance (in)	-
No of Belts	-
Belt Make	-
Belt Size	-
Other Data	-

**SYSTEM/UNIT: RTU-07/Static Profile**

Tested By: Omar Carreno  
Date: 10/31/2024



**SYSTEM/UNIT: RTU-07/Face Velocity**

Tested By: Omar Carreno  
Date: 10/31/2024

Design Airflow (CFM)	
Design Airflow	4805

Unit Design Data	
Sub. Coil Area (sq ft)	Not Provided
Sub. Face Vel. (FPM)	-

Traverse Data	
Location	Roof
Coil Height (in)	40
Coil Width (in)	50
Area (sq ft)	11.6
Corr. Factor	0.84
AK (sq ft)	9.74
Probe	Velgrid
Instrument	ADM

Final Airflow (CFM)	
Actual Airflow	4451
Final Face Vel. (FPM)	384

Test Data	
Average Velocity (FPM)	544
Centerline SP (in wg)	0
Altitude (ft)	2861
Duct Air Temp (°F)	70

**SYSTEM/UNIT: RTU-08**

Tested By: Omar Carreno  
Date: 10/31/2024



Design Airflow (CFM)	
Design Total	4750
Design Grille Total	4750
Design Return	4750
Design Min O/A	0

Unit Design Data	
Submittal Make	Not Provided
Submittal Model #	Not Provided
Submittal Airflow	Not Provided
Sched./Sub. Volts	480
Sched./Sub. Phase	3
Sched./Sub. HP	Not Listed
Submittal BHP	Not Provided
Filter MERV Rating (Sched/Sub)	Not Listed

Design Static Pressures (in wg)	
Design Ext SP	.75
Submittal Total SP	Not Provided
Submittal Clg Coil Δ SP	Not Provided

Filter Data	
Condition	Clean
Filter Type	Pleated
MERV Rating	8
Filter Size Set 1 (in)	20x25x2
# Filters Set 1	4
Filter Size Set 2 (in)	-
# Filters Set 2	-

Motor Nameplate Data	
Motor Make	Motor Tag Not Accessible
Motor Frame	-
Motor HP	-
Motor RPM	-
Motor Volts	-
Motor Phase	-

Final Airflow (CFM)	
Actual Total CFM	4412
Actual Grille Total CFM	4412
Actual Return Air CFM	4412
Actual Min O/A CFM	0
Fan CFM Test Method	Supply Outlet Total
OA Method/Instrument	Not Applicable
OA Ak (sq ft)	Not Applicable
OA Damper % (High Spd)	Not Accessible
OA Damper % (Low Spd)	-
RA Damper % (High Spd)	100% Open

Unit Data	
Make (tag)	Lennox
Model # (tag)	LGM150U4ES2G
Serial # (tag)	5623H02936
Location	Roof
Unit Discharge	Downblast
Cooling Coil Location	Unit / Drawthru
Coil Area (sq ft)	13.9
Clg Coil Vel (FPM)	317
Fan Service	Supply
Fan Type	Centrifugal (AF)
Fan Discharge	Downblast
Fan Arrangement	SWSI

Fan Design Data	
Submittal Motor RPM	Not Provided
Submittal Fan RPM	Not Provided

Fan Data	
Actual Fan RPM/Speed	80%
Actual Motor RPM	-

Electrical Data	
Measurement Method	No Safe Access to Meas
Motor Volts 1	-

**SYSTEM/UNIT: RTU-08**

Tested By: Omar Carreno  
Date: 10/31/2024

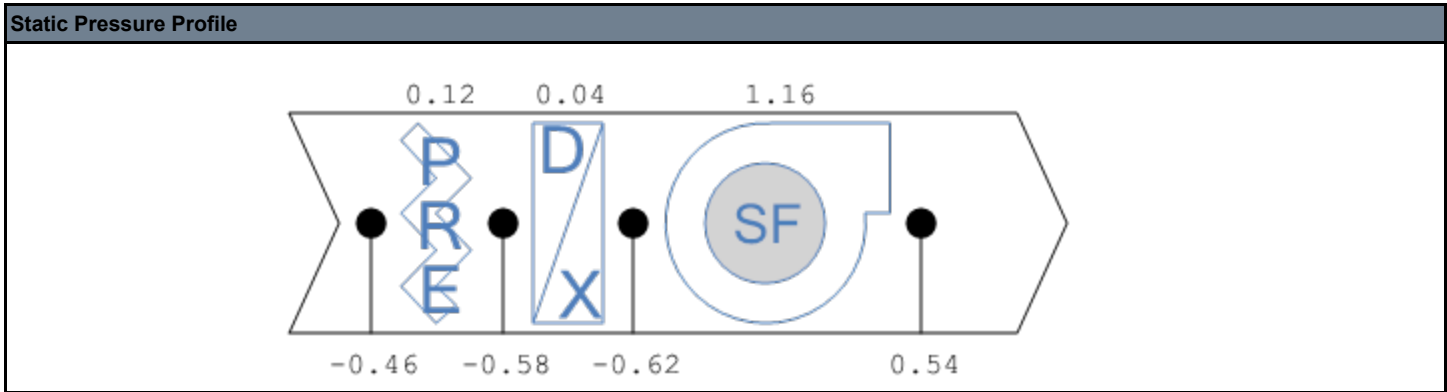
Motor Nameplate Data	
Motor Amps	-
Motor S.F.	-
Motor % PF	-
Motor % Eff.	-
Other Motor Data	-

Electrical Data	
Motor Volts 2	-
Motor Volts 3	-
Motor Amps 1	-
Motor Amps 2	-
Motor Amps 3	-
Operating HZ	-
Approx. BHP	-
Corr. Nameplate Amps	-
Starter Data	-
VFD Reference	-

Drive Data	
Drive Type	Direct Drive
Sheave Type	-
Fan Sheave Make	-
Fan Shv Mod# or Size (in)	-
Fan Sheave Bore (in)	-
Motor Sheave Make	-
Mtr Shv Mod# or Size (in)	-
Motor Sheave Bore (in)	-
VP Range	-
Center Distance (in)	-
No of Belts	-
Belt Make	-
Belt Size	-
Other Data	-

**SYSTEM/UNIT: RTU-08/Static Profile**

Tested By: Omar Carreno  
Date: 10/31/2024



**RTU-08 Supply Outlet Summary**

System/Unit	Area Served	Type	Size / Area (in)	Design CFM	Prelim CFM	Final CFM	% Final	Instrument	Ak	Open (sq ft)	Final FPM
S-01	159 Front Cleaning	CD	6	50	45	48	96	Capture Hood	1.000	1.000	48
S-02	158 Acct	CD	8	150	136	144	96	Capture Hood	1.000	1.000	144
S-03	170 Fitting RM	SW		4550	4095	4220	93	Capture Hood	1.000	1.000	4220
<b>Totals:</b>				-	<b>4750</b>	<b>4276</b>	<b>93</b>	-	-	-	-

**SYSTEM/UNIT: RTU-08/Face Velocity**

Tested By: Omar Carreno  
Date: 10/31/2024

Design Airflow (CFM)	
Design Airflow	4750

Unit Design Data	
Sub. Coil Area (sq ft)	Not Provided
Sub. Face Vel. (FPM)	-

Traverse Data	
Location	Roof
Coil Height (in)	40
Coil Width (in)	50
Area (sq ft)	11.6
Corr. Factor	0.84
AK (sq ft)	9.74
Probe	Velgrid
Instrument	ADM

Final Airflow (CFM)	
Actual Airflow	4412
Final Face Vel. (FPM)	380

Test Data	
Average Velocity (FPM)	525
Centerline SP (in wg)	0
Altitude (ft)	2861
Duct Air Temp (°F)	70

SYSTEM/UNIT: RTU-09

Tested By: Omar Carreno  
Date: 10/31/2024

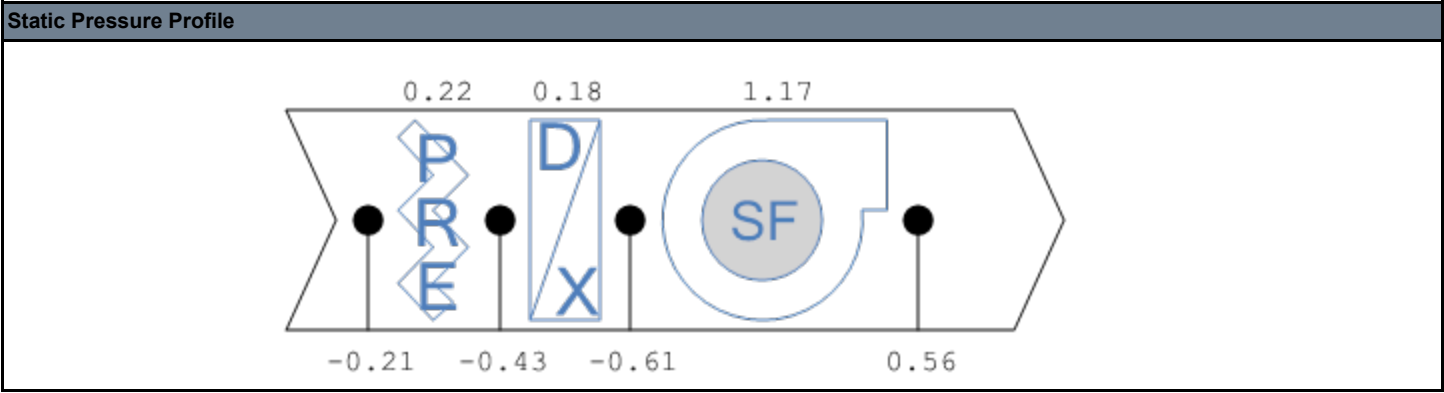


Design Airflow (CFM)		Final Airflow (CFM)	
Design Total	4995	Actual Total CFM	4724
Design Grille Total	4995	Actual Grille Total CFM	Not Applicable
Design Return	4995	Actual Return Air CFM	4724
Design Min O/A	0	Actual Min O/A CFM	0
<b>Unit Design Data</b>		<b>Unit Data</b>	
Submittal Make	Not Provided	Make (tag)	
Submittal Model #	Not Provided	Model # (tag)	
Submittal Airflow	Not Provided	Serial # (tag)	
Sched./Sub. Volts	480	Location	
Sched./Sub. Phase	3	Unit Discharge	
Sched./Sub. HP	Not Listed	Cooling Coil Location	
Submittal BHP	Not Provided	Coil Area (sq ft)	
Filter MERV Rating (Sched/Sub)	Not Listed	Clg Coil Vel (FPM)	
<b>Design Static Pressures (in wg)</b>		<b>Fan Design Data</b>	
Design Ext SP	.5	Submittal Motor RPM	Not Provided
Submittal Total SP	Not Provided	Submittal Fan RPM	Not Provided
Submittal Clg Coil Δ SP	Not Provided	<b>Fan Data</b>	
<b>Filter Data</b>		<b>Electrical Data</b>	
Condition		Measurement Method	
Filter Type		Motor Volts 1	
MERV Rating			
Filter Size Set 1 (in)			
# Filters Set 1			
Filter Size Set 2 (in)	-		
# Filters Set 2	-		
<b>Motor Nameplate Data</b>			
Motor Make			
Motor Frame			
Motor HP			
Motor RPM			
Motor Volts			
Motor Phase			



SYSTEM/UNIT: RTU-09/Static Profile

Tested By: Omar Carreno  
Date: 9/24/2024



SYSTEM/UNIT: RTU-09/Face Velocity

Tested By: Omar Carreno  
Date: 10/31/2024

Design Airflow (CFM)	
Design Airflow	4995

Unit Design Data	
Sub. Coil Area (sq ft)	Not Provided
Sub. Face Vel. (FPM)	-

Traverse Data	
Location	Roof
Coil Height (in)	40
Coil Width (in)	50
Area (sq ft)	11.6
Corr. Factor	0.84
AK (sq ft)	9.74
Probe	Velgrid
Instrument	ADM

Final Airflow (CFM)	
Actual Airflow	4724
Final Face Vel. (FPM)	407

Test Data	
Average Velocity (FPM)	554
Centerline SP (in wg)	0
Altitude (ft)	2861
Duct Air Temp (°F)	70

**SYSTEM/UNIT: RTU-10**

Tested By: Refugio Montellano  
Date: 9/24/2024



Design Airflow (CFM)	
Design Total	2450
Design Grille Total	2150
Design Return	1960
Design Min O/A	490

Unit Design Data	
Submittal Make	Not Provided
Submittal Model #	Not Provided
Submittal Airflow	Not Provided
Sched./Sub. Volts	480
Sched./Sub. Phase	3
Sched./Sub. HP	Not Listed
Submittal BHP	Not Provided
Filter MERV Rating (Sched/Sub)	Not Listed

Design Static Pressures (in wg)	
Design Ext SP	.75
Submittal Total SP	Not Provided
Submittal Clg Coil Δ SP	Not Provided

Design Temperatures (°F)	
<b>RTU-10/Cooling</b>	
Des. Ent. DB (°F)	Not Listed
Des. Ent. WB (°F)	Not Listed
Design LAT DB (°F)	Not Listed
Design LAT WB (°F)	Not Listed
<b>RTU-10/Heating</b>	
Design EAT DB (°F)	Not Listed
Design LAT DB (°F)	Not Listed

Filter Data	
Condition	
Filter Type	
MERV Rating	
Filter Size Set 1 (in)	
# Filters Set 1	
Filter Size Set 2 (in)	-

Final Airflow (CFM)	
Actual Total CFM	
Actual Grille Total CFM	
Actual Return Air CFM	
Actual Min O/A CFM	
Fan CFM Test Method	
OA Method/Instrument	
OA Ak (sq ft)	
OA Damper % (High Spd)	
OA Damper % (Low Spd)	
RA Damper % (High Spd)	
<b>RTU-10/Heating</b>	
Actual Heating CFM	Not Listed

Unit Data	
Make (tag)	
Model # (tag)	
Serial # (tag)	
Location	
Unit Discharge	
Cooling Coil Location	
Coil Area (sq ft)	
Clg Coil Vel (FPM)	
Fan Service	
Fan Type	
Fan Discharge	
Fan Arrangement	
<b>RTU-10/Heating</b>	
Coil Location	

Fan Design Data	
Submittal Motor RPM	Not Provided
Submittal Fan RPM	Not Provided

Fan Data	
Actual Fan RPM/Speed	
Actual Motor RPM	

**SYSTEM/UNIT: RTU-10**

Tested By: Refugio Montellano  
Date: 9/24/2024

Filter Data	
# Filters Set 2	-

Motor Nameplate Data	
Motor Make	
Motor Frame	
Motor HP	
Motor RPM	
Motor Volts	
Motor Phase	
Motor Amps	
Motor S.F.	
Motor % PF	
Motor % Eff.	
Other Motor Data	-

Drive Data	
Drive Type	
Sheave Type	
Fan Sheave Make	
Fan Shv Mod# or Size (in)	
Fan Sheave Bore (in)	
Motor Sheave Make	
Mtr Shv Mod# or Size (in)	
Motor Sheave Bore (in)	
VP Range	
Center Distance (in)	
No of Belts	
Belt Make	
Belt Size	
Other Data	

Electrical Data	
Measurement Method	
Motor Volts 1	
Motor Volts 2	
Motor Volts 3	
Motor Amps 1	
Motor Amps 2	
Motor Amps 3	
Operating HZ	
Approx. BHP	
Corr. Nameplate Amps	
Starter Data	
VFD Reference	

Actual Temperatures (°F)	
<b>RTU-10/Cooling</b>	
Outside Air DB	
Outside Air WB	
Entering Air DB	
Entering Air WB	
Leaving Air DB	
Leaving Air WB	
<b>RTU-10/Heating</b>	
Entering Air DB	
Leaving Air DB	

Make (tag) Photo:



Name: Make (tag).jpg  
Captured: 9/23/2024 11:56 PM  
Caption:

**SYSTEM/UNIT: RTU-10**

Tested By: Refugio Montellano

Date: 9/24/2024

<b>Log:</b>	RTU-10	9/24/2024	Refugio Montellano	Outside air damper actuator is not operating.
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**RTU-10 Supply Outlet Summary**

System/Unit	Area Served	Type	Size / Area (in)	Design CFM	Prelim CFM	Final CFM	% Final	Instrument	Ak	Open (sq ft)	Final FPM
S-01	153 Pharmacy	CD	10	200				Capture Hood	1.000	1.000	
S-02	153 Pharmacy	CD	10	200				Capture Hood	1.000	1.000	
S-03	153 Pharmacy	CD	10	400				Capture Hood	1.000	1.000	
S-04		CD	10	250				Capture Hood	1.000	1.000	
S-05	153 Pharmacy	CD	10	200				Capture Hood	1.000	1.000	
S-06	153 Pharmacy	CD	10	200				Capture Hood	1.000	1.000	
S-07	153 Pharmacy	CD	10	200				Capture Hood	1.000	1.000	
S-08	153 Pharmacy	CD	10	200				Capture Hood	1.000	1.000	
S-09	154 Storage	CD	8	100				Capture Hood	1.000	1.000	
S-10	155 Family 2	CD	6	50				Capture Hood	1.000	1.000	
S-11	174 Family 2	CD	6	50				Capture Hood	1.000	1.000	
S-12	156 Asset Prot	CD	10	300				Capture Hood	1.000	1.000	
<b>Totals:</b>		-	-	<b>2350</b>	<b>0</b>	<b>0</b>	<b>0</b>	-	-	-	-

**RTU-10 Return Inlet Summary**

System/Unit	Area Served	Type	Size / Area (in)	Design CFM	Prelim CFM	Final CFM	% Final	Instrument	Ak	Open (sq ft)	Final FPM
R-01		CD	8	250				Capture Hood	1.000	1.000	
R-02	153 Pharmacy	CD	16	1150				Capture Hood	1.000	1.000	
R-03	153 Pharmacy	CD	14	900				Capture Hood	1.000	1.000	
<b>Totals:</b>		-	-	<b>2300</b>	<b>0</b>	<b>0</b>	<b>0</b>	-	-	-	-

SYSTEM/UNIT: RTU-11

Tested By: Omar Carreno  
Date: 10/29/2024



Design Airflow (CFM)	
Design Total	2400
Design Grille Total	2450
Design Return	2280
Design Min O/A	120

Unit Design Data	
Submittal Make	Not Provided
Submittal Model #	Not Provided
Submittal Airflow	Not Provided
Sched./Sub. Volts	480
Sched./Sub. Phase	3
Sched./Sub. HP	Not Listed
Submittal BHP	Not Provided
Filter MERV Rating (Sched/Sub)	Not Listed

Design Static Pressures (in wg)	
Design Ext SP	.4
Submittal Total SP	Not Provided
Submittal Clg Coil Δ SP	Not Provided

Design Temperatures (°F)	
<b>RTU-11/Cooling</b>	
Des. Ent. DB (°F)	Not Listed
Des. Ent. WB (°F)	Not Listed
Design LAT DB (°F)	Not Listed
Design LAT WB (°F)	Not Listed
<b>RTU-11/Heating</b>	
Design EAT DB (°F)	Not Listed
Design LAT DB (°F)	Not Listed

Filter Data	
Condition	Clean
Filter Type	Pleated
MERV Rating	8
Filter Size Set 1 (in)	20x25x2
# Filters Set 1	4
Filter Size Set 2 (in)	-

Final Airflow (CFM)	
Actual Total CFM	
Actual Grille Total CFM	
Actual Return Air CFM	
Actual Min O/A CFM	
Fan CFM Test Method	
OA Method/Instrument	
OA Ak (sq ft)	-
OA Damper % (High Spd)	-
OA Damper % (Low Spd)	-
RA Damper % (High Spd)	100%
<b>RTU-11/Heating</b>	
Actual Heating CFM	Not Listed

Unit Data	
Make (tag)	Lennox
Model # (tag)	LGM074U4EB1G
Serial # (tag)	5623J04781
Location	Roof
Unit Discharge	Downblast
Cooling Coil Location	Unit / Drawthru
Coil Area (sq ft)	13.9
Clg Coil Vel (FPM)	
Fan Service	Supply
Fan Type	Centrifugal (AF)
Fan Discharge	Downblast
Fan Arrangement	SWSI
<b>RTU-11/Heating</b>	
Coil Location	

Fan Design Data	
Submittal Motor RPM	Not Provided
Submittal Fan RPM	Not Provided

Fan Data	
Actual Fan RPM/Speed	-
Actual Motor RPM	-

**SYSTEM/UNIT: RTU-11**

Tested By: Omar Carreno  
Date: 10/29/2024

Filter Data	
# Filters Set 2	-

Motor Nameplate Data	
Motor Make	Motor Tag Not Accessible
Motor Frame	-
Motor HP	-
Motor RPM	-
Motor Volts	-
Motor Phase	-
Motor Amps	-
Motor S.F.	-
Motor % PF	-
Motor % Eff.	-
Other Motor Data	-

Drive Data	
Drive Type	Direct Drive
Sheave Type	-
Fan Sheave Make	-
Fan Shv Mod# or Size (in)	-
Fan Sheave Bore (in)	-
Motor Sheave Make	-
Mtr Shv Mod# or Size (in)	-
Motor Sheave Bore (in)	-
VP Range	-
Center Distance (in)	-
No of Belts	-
Belt Make	-
Belt Size	-
Other Data	-

Electrical Data	
Measurement Method	No Safe Access to Meas
Motor Volts 1	-
Motor Volts 2	-
Motor Volts 3	-
Motor Amps 1	-
Motor Amps 2	-
Motor Amps 3	-
Operating HZ	-
Approx. BHP	-
Corr. Nameplate Amps	-
Starter Data	-
VFD Reference	-

Actual Temperatures (°F)	
<b>RTU-11/Cooling</b>	
Outside Air DB	
Outside Air WB	
Entering Air DB	
Entering Air WB	
Leaving Air DB	
Leaving Air WB	
<b>RTU-11/Heating</b>	
Entering Air DB	
Leaving Air DB	

<b>Log:</b>	RTU-11	9/24/2024	Refugio Montellano	Controls are not operating correctly.
	RTU-11	9/24/2024	Refugio Montellano	Outside air damper actuator is not operating.

### RTU-11 Supply Outlet Summary

System/Unit	Area Served	Type	Size / Area (in)	Design CFM	Prelim CFM	Final CFM	% Final	Instrument	Ak	Open (sq ft)	Final FPM
S-01	117 Hall A	CD	8	200				Capture Hood	1.000	1.000	
S-02	117 Hall A	CD	8	200				Capture Hood	1.000	1.000	
S-03	116 Deli Service	CD	8	200				Capture Hood	1.000	1.000	
S-04	116 Deli Service	C	8	200				Capture Hood	1.000	1.000	
S-05	116 Deli Service	CD	10	250				Capture Hood	1.000	1.000	
S-06	113 MTO Line up	CD	10	250				Capture Hood	1.000	1.000	
S-07	113 MTO Line up	CD	10	250				Capture Hood	1.000	1.000	
S-08	113 MTO Line up	CD	10	250				Capture Hood	1.000	1.000	
S-09	113 MTO Line up	CD	10	250				Capture Hood	1.000	1.000	
S-10	109 Cust Men	CD	8	100				Capture Hood	1.000	1.000	
S-11	106 Storage	CD	6	50				Capture Hood	1.000	1.000	
S-12	105 RR Alcove	CD	6	100				Capture Hood	1.000	1.000	
S-13	108 Family 1	CD	6	50				Capture Hood	1.000	1.000	
S-14	107 Cust Woman	CD	8	100				Capture Hood	1.000	1.000	
<b>Totals:</b>		-	-	<b>2450</b>	<b>0</b>	<b>0</b>	<b>0</b>	-	-	-	-



# Air Apparatus

PROJECT: Smith's 706-208  
 LOCATION: St. George, UT  
 PROJECT #: 24424

DATE: 11/13/2024  
 CONTACT: William Clayton

SYSTEM/UNIT: RTU-12

Tested By: Omar Carreno  
 Date: 10/29/2024



Design Airflow (CFM)		Final Airflow (CFM)	
Design Total	2000	Actual Total CFM	
Design Grille Total	2000	Actual Grille Total CFM	
Design Return	1900	Actual Return Air CFM	
Design Min O/A	100	Actual Min O/A CFM	
		Fan CFM Test Method	
		OA Method/Instrument	
		OA Ak (sq ft)	3.718
		OA Damper % (High Spd)	-
		OA Damper % (Low Spd)	-
		RA Damper % (High Spd)	100%
		<b>RTU-12/Heating</b>	
		Actual Heating CFM	Not Listed
Unit Design Data		Unit Data	
Submittal Make	Not Provided	Make (tag)	Lennox
Submittal Model #	Not Provided	Model # (tag)	LGM060U4EB1G
Submittal Airflow	Not Provided	Serial # (tag)	5623K01244
Sched./Sub. Volts	480	Location	Roof
Sched./Sub. Phase	3	Unit Discharge	Downblast
Sched./Sub. HP	Not Listed	Cooling Coil Location	Unit / Drawthru
Submittal BHP	Not Provided	Coil Area (sq ft)	13.9
Filter MERV Rating (Sched/Sub)	Not Listed	Clg Coil Vel (FPM)	
		Fan Service	Supply
		Fan Type	Centrifugal (AF)
		Fan Discharge	Downblast
		Fan Arrangement	SWSI
		<b>RTU-12/Heating</b>	
		Coil Location	
Design Static Pressures (in wg)		Fan Design Data	
Design Ext SP	.75	Submittal Motor RPM	Not Provided
Submittal Total SP	Not Provided	Submittal Fan RPM	Not Provided
Submittal Clg Coil Δ SP	Not Provided		
Design Temperatures (°F)		Fan Data	
<b>RTU-12/Cooling</b>		Actual Fan RPM/Speed	-
Des. Ent. DB (°F)	Not Listed	Actual Motor RPM	-
Des. Ent. WB (°F)	Not Listed		
Design LAT DB (°F)	Not Listed		
Design LAT WB (°F)	Not Listed		
<b>RTU-12/Heating</b>			
Design EAT DB (°F)	Not Listed		
Design LAT DB (°F)	Not Listed		
Filter Data			
Condition	Clean		
Filter Type	Pleated		
MERV Rating	8		
Filter Size Set 1 (in)	20x25x2		
# Filters Set 1	4		
Filter Size Set 2 (in)	-		

**SYSTEM/UNIT: RTU-12**

Tested By: Omar Carreno  
Date: 10/29/2024

Filter Data	
# Filters Set 2	-

Motor Nameplate Data	
Motor Make	Motor Tag Not Accessible
Motor Frame	-
Motor HP	-
Motor RPM	-
Motor Volts	-
Motor Phase	-
Motor Amps	-
Motor S.F.	-
Motor % PF	-
Motor % Eff.	-
Other Motor Data	-

Drive Data	
Drive Type	Direct Drive
Sheave Type	-
Fan Sheave Make	-
Fan Shv Mod# or Size (in)	-
Fan Sheave Bore (in)	-
Motor Sheave Make	-
Mtr Shv Mod# or Size (in)	-
Motor Sheave Bore (in)	-
VP Range	-
Center Distance (in)	-
No of Belts	-
Belt Make	-
Belt Size	-
Other Data	-

Electrical Data	
Measurement Method	No Safe Access to Meas
Motor Volts 1	-
Motor Volts 2	-
Motor Volts 3	-
Motor Amps 1	-
Motor Amps 2	-
Motor Amps 3	-
Operating HZ	-
Approx. BHP	-
Corr. Nameplate Amps	-
Starter Data	-
VFD Reference	-

Actual Temperatures (°F)	
<b>RTU-12/Cooling</b>	
Outside Air DB	
Outside Air WB	
Entering Air DB	
Entering Air WB	
Leaving Air DB	
Leaving Air WB	
<b>RTU-12/Heating</b>	
Entering Air DB	
Leaving Air DB	

Log:	RTU-12	9/24/2024	Refugio Montellano	Outside air damper actuator is not operating.
	RTU-12	9/24/2024	Refugio Montellano	Controls are not operating correctly.

**RTU-12 Supply Outlet Summary**

System/Unit	Area Served	Type	Size / Area (in)	Design CFM	Prelim CFM	Final CFM	% Final	Instrument	Ak	Open (sq ft)	Final FPM
S-01	167 Bakery Cleanup	CD	10	300				Capture Hood	1.000	1.000	
S-02	166 Bakery Prep	CD	10	340				Capture Hood	1.000	1.000	
S-03	166 Bakery Prep	CD	10	340				Capture Hood	1.000	1.000	
S-04	166 Bakery Prep	CD	10	340				Capture Hood	1.000	1.000	
S-05	166 Bakery Prep	CD	10	340				Capture Hood	1.000	1.000	
S-06	166 Bakery Prep	CD	10	340				Capture Hood	1.000	1.000	
<b>Totals:</b>		-	-	<b>2000</b>	<b>0</b>	<b>0</b>	<b>0</b>	-	-	-	-

**RTU-12 Return Inlet Summary**

System/Unit	Area Served	Type	Size / Area (in)	Design CFM	Prelim CFM	Final CFM	% Final	Instrument	Ak	Open (sq ft)	Final FPM
R-01	166 Bakery Prep	CD	24/24	850				Capture Hood	1.000	1.000	
R-02	166 Bakery Prep	CD	24/24	850				Capture Hood	1.000	1.000	
<b>Totals:</b>		-	-	<b>1700</b>	<b>0</b>	<b>0</b>	<b>0</b>	-	-	-	-

**SYSTEM/UNIT: RTU-13**

Tested By: Omar Carreno  
Date: 10/29/2024

Design Airflow (CFM)	
Design Total	2750
Design Grille Total	2750
Design Return	2255
Design Min O/A	495

Unit Design Data	
Submittal Make	Not Provided
Submittal Model #	Not Provided
Submittal Airflow	Not Provided
Sched./Sub. Volts	480
Sched./Sub. Phase	3
Sched./Sub. HP	Not Listed
Submittal BHP	Not Provided
Filter MERV Rating (Sched/Sub)	Not Listed

Design Static Pressures (in wg)	
Design Ext SP	.75
Submittal Total SP	Not Provided
Submittal Clg Coil Δ SP	Not Provided

Design Temperatures (°F)	
<b>RTU-13/Cooling</b>	
Des. Ent. DB (°F)	Not Listed
Des. Ent. WB (°F)	Not Listed
Design LAT DB (°F)	Not Listed
Design LAT WB (°F)	Not Listed
<b>RTU-13/Heating</b>	
Design EAT DB (°F)	Not Listed
Design LAT DB (°F)	Not Listed

Filter Data	
Condition	Clean
Filter Type	Pleated
MERV Rating	8
Filter Size Set 1 (in)	20x20x2
# Filters Set 1	4
Filter Size Set 2 (in)	-
# Filters Set 2	-

Motor Nameplate Data	
Motor Make	No Access - Embedded Motor
Motor Frame	-
Motor HP	-
Motor RPM	-
Motor Volts	-
Motor Phase	-
Motor Amps	-
Motor S.F.	-
Motor % PF	-
Motor % Eff.	-

Final Airflow (CFM)	
Actual Total CFM	
Actual Grille Total CFM	
Actual Return Air CFM	
Actual Min O/A CFM	
Fan CFM Test Method	
OA Method/Instrument	
OA Ak (sq ft)	2.396
OA Damper % (High Spd)	-
OA Damper % (Low Spd)	-
RA Damper % (High Spd)	100%
<b>RTU-13/Heating</b>	
Actual Heating CFM	Not Listed

Unit Data	
Make (tag)	Lennox
Model # (tag)	LGM092U4ES2G
Serial # (tag)	5623K00606
Location	Roof
Unit Discharge	Downblast
Cooling Coil Location	Unit / Drawthru
Coil Area (sq ft)	11.1
Clg Coil Vel (FPM)	
Fan Service	Supply
Fan Type	Centrifugal (AF)
Fan Discharge	Downblast
Fan Arrangement	SWSI
<b>RTU-13/Heating</b>	
Coil Location	

Fan Design Data	
Submittal Motor RPM	Not Provided
Submittal Fan RPM	Not Provided

Fan Data	
Actual Fan RPM/Speed	80%
Actual Motor RPM	Not Accessible

Electrical Data	
Measurement Method	No Safe Access to Meas
Motor Volts 1	-
Motor Volts 2	-
Motor Volts 3	-
Motor Amps 1	-
Motor Amps 2	-
Motor Amps 3	-
Operating HZ	-
Approx. BHP	-
Corr. Nameplate Amps	-
Starter Data	-
VFD Reference	-

**SYSTEM/UNIT: RTU-13**

Tested By: Omar Carreno  
Date: 10/29/2024

Motor Nameplate Data	
Other Motor Data	-

Drive Data	
Drive Type	Direct Drive
Sheave Type	-
Fan Sheave Make	-
Fan Shv Mod# or Size (in)	-
Fan Sheave Bore (in)	-
Motor Sheave Make	-
Mtr Shv Mod# or Size (in)	-
Motor Sheave Bore (in)	-
VP Range	-
Center Distance (in)	-
No of Belts	-
Belt Make	-
Belt Size	-
Other Data	-

Actual Temperatures (°F)
<b>RTU-13/Cooling</b>
Outside Air DB
Outside Air WB
Entering Air DB
Entering Air WB
Leaving Air DB
Leaving Air WB
<b>RTU-13/Heating</b>
Entering Air DB
Leaving Air DB

Log:	Unit	Date	Technician	Notes
	RTU-13	9/24/2024	Refugio Montellano	Controls are not operating correctly.
	RTU-13	9/24/2024	Refugio Montellano	Outside air damper actuator is not operating.
	RTU-13	10/31/2024	Omar Carreno	Cannot override unit to full cool, controller not responding.

**SYSTEM/UNIT: RTU-14**

Tested By: Refugio Montellano  
Date: 9/24/2024



Design Airflow (CFM)	
Design Total	1600
Design Grille Total	1600
Design Return	1216
Design Min O/A	384

Unit Design Data	
Submittal Make	Not Provided
Submittal Model #	Not Provided
Submittal Airflow	Not Provided
Sched./Sub. Volts	480
Sched./Sub. Phase	3
Sched./Sub. HP	Not Listed
Submittal BHP	Not Provided
Filter MERV Rating (Sched/Sub)	Not Listed

Design Static Pressures (in wg)	
Design Ext SP	.75
Submittal Total SP	Not Provided
Submittal Clg Coil Δ SP	Not Provided

Design Temperatures (°F)	
<b>RTU-14/Cooling</b>	
Des. Ent. DB (°F)	Not Listed
Des. Ent. WB (°F)	Not Listed
Design LAT DB (°F)	Not Listed
Design LAT WB (°F)	Not Listed
<b>RTU-14/Heating</b>	
Design EAT DB (°F)	Not Listed
Design LAT DB (°F)	Not Listed

Filter Data	
Condition	
Filter Type	Pleated
MERV Rating	8
Filter Size Set 1 (in)	20x20x2
# Filters Set 1	4
Filter Size Set 2 (in)	-

Final Airflow (CFM)	
Actual Total CFM	
Actual Grille Total CFM	
Actual Return Air CFM	
Actual Min O/A CFM	
Fan CFM Test Method	
OA Method/Instrument	
OA Ak (sq ft)	29•14
OA Damper % (High Spd)	22%
OA Damper % (Low Spd)	26%
RA Damper % (High Spd)	
<b>RTU-14/Heating</b>	
Actual Heating CFM	Not Listed

Unit Data	
Make (tag)	
Model # (tag)	
Serial # (tag)	
Location	
Unit Discharge	
Cooling Coil Location	
Coil Area (sq ft)	
Clg Coil Vel (FPM)	
Fan Service	
Fan Type	
Fan Discharge	
Fan Arrangement	
<b>RTU-14/Heating</b>	
Coil Location	

Fan Design Data	
Submittal Motor RPM	Not Provided
Submittal Fan RPM	Not Provided

Fan Data	
Actual Fan RPM/Speed	
Actual Motor RPM	



SYSTEM/UNIT: RTU-14

Tested By: Refugio Montellano  
Date: 9/24/2024

Make (tag) Photo:



Name: Make (tag).jpg  
Captured: 9/23/2024 6:35 PM  
Caption:

**SYSTEM/UNIT: RTU-15**

Tested By: Refugio Montellano  
Date: 9/24/2024



Design Airflow (CFM)	
Design Total	2800
Design Grille Total	2800
Design Return	2100
Design Min O/A	700

Unit Design Data	
Submittal Make	Not Provided
Submittal Model #	Not Provided
Submittal Airflow	Not Provided
Sched./Sub. Volts	480
Sched./Sub. Phase	3
Sched./Sub. HP	Not Listed
Submittal BHP	Not Provided
Filter MERV Rating (Sched/Sub)	Not Listed

Design Static Pressures (in wg)	
Design Ext SP	.4
Submittal Total SP	Not Provided
Submittal Clg Coil Δ SP	Not Provided

Design Temperatures (°F)	
<b>RTU-15/Cooling</b>	
Des. Ent. DB (°F)	Not Listed
Des. Ent. WB (°F)	Not Listed
Design LAT DB (°F)	Not Listed
Design LAT WB (°F)	Not Listed
<b>RTU-15/Heating</b>	
Design EAT DB (°F)	Not Listed
Design LAT DB (°F)	Not Listed

Filter Data	
Condition	
Filter Type	
MERV Rating	8
Filter Size Set 1 (in)	20x25x2
# Filters Set 1	4
Filter Size Set 2 (in)	-

Final Airflow (CFM)	
Actual Total CFM	
Actual Grille Total CFM	
Actual Return Air CFM	
Actual Min O/A CFM	
Fan CFM Test Method	
OA Method/Instrument	
OA Ak (sq ft)	28•22.5
OA Damper % (High Spd)	
OA Damper % (Low Spd)	
RA Damper % (High Spd)	
<b>RTU-15/Heating</b>	
Actual Heating CFM	Not Listed

Unit Data	
Make (tag)	
Model # (tag)	
Serial # (tag)	
Location	
Unit Discharge	
Cooling Coil Location	
Coil Area (sq ft)	
Clg Coil Vel (FPM)	
Fan Service	
Fan Type	
Fan Discharge	
Fan Arrangement	
<b>RTU-15/Heating</b>	
Coil Location	

Fan Design Data	
Submittal Motor RPM	Not Provided
Submittal Fan RPM	Not Provided

Fan Data	
Actual Fan RPM/Speed	
Actual Motor RPM	

**SYSTEM/UNIT: RTU-15**

Tested By: Refugio Montellano  
Date: 9/24/2024

Filter Data	
# Filters Set 2	-

Motor Nameplate Data	
Motor Make	
Motor Frame	
Motor HP	
Motor RPM	
Motor Volts	
Motor Phase	
Motor Amps	
Motor S.F.	
Motor % PF	
Motor % Eff.	
Other Motor Data	-

Drive Data	
Drive Type	
Sheave Type	
Fan Sheave Make	
Fan Shv Mod# or Size (in)	
Fan Sheave Bore (in)	
Motor Sheave Make	
Mtr Shv Mod# or Size (in)	
Motor Sheave Bore (in)	
VP Range	
Center Distance (in)	
No of Belts	
Belt Make	
Belt Size	
Other Data	

Electrical Data	
Measurement Method	
Motor Volts 1	
Motor Volts 2	
Motor Volts 3	
Motor Amps 1	
Motor Amps 2	
Motor Amps 3	
Operating HZ	
Approx. BHP	
Corr. Nameplate Amps	
Starter Data	
VFD Reference	

Actual Temperatures (°F)	
<b>RTU-15/Cooling</b>	
Outside Air DB	
Outside Air WB	
Entering Air DB	
Entering Air WB	
Leaving Air DB	
Leaving Air WB	
<b>RTU-15/Heating</b>	
Entering Air DB	
Leaving Air DB	

Motor Make Photo:



Name: Motor Make.jpg  
Captured: 9/23/2024 6:32 PM  
Caption:

**SYSTEM/UNIT: RTU-15**

Tested By: Refugio Montellano  
Date: 9/24/2024

Make (tag) Photo:



Name: Make (tag).jpg  
Captured: 9/23/2024 6:31 PM  
Caption:

<b>Log:</b>	RTU-15	9/24/2024	Refugio Montellano	Outside air damper actuator is not operating.
	RTU-15	9/24/2024	Refugio Montellano	Unit running in backup mode due to connection. Was jumped for testing
	RTU-15	10/31/2024	Omar Carreno	Cannot override unit to full cool, controller not responding.

**SYSTEM/UNIT: RTU-16**

Tested By: Omar Carreno  
Date: 10/31/2024



Design Airflow (CFM)	
Design Total	2000
Design Grille Total	2000
Design Return	1520
Design Min O/A	480

Unit Design Data	
Submittal Make	Not Provided
Submittal Model #	Not Provided
Submittal Airflow	Not Provided
Sched./Sub. Volts	480
Sched./Sub. Phase	3
Sched./Sub. HP	Not Listed
Submittal BHP	Not Provided
Filter MERV Rating (Sched/Sub)	Not Listed

Design Static Pressures (in wg)	
Design Ext SP	.4
Submittal Total SP	Not Provided
Submittal Clg Coil Δ SP	Not Provided

Filter Data	
Condition	Clean
Filter Type	Pleated
MERV Rating	8
Filter Size Set 1 (in)	20x20x2
# Filters Set 1	4
Filter Size Set 2 (in)	-
# Filters Set 2	-

Motor Nameplate Data	
Motor Make	No Access - Embedded Motor
Motor Frame	-
Motor HP	-
Motor RPM	-
Motor Volts	-
Motor Phase	-

Final Airflow (CFM)	
Actual Total CFM	1977
Actual Grille Total CFM	1977
Actual Return Air CFM	
Actual Min O/A CFM	
Fan CFM Test Method	Supply Outlet Total
OA Method/Instrument	Face Velocity/RVA
OA Ak (sq ft)	2.396
OA Damper % (High Spd)	-
OA Damper % (Low Spd)	-
RA Damper % (High Spd)	100% Open

Unit Data	
Make (tag)	Lennox
Model # (tag)	LGM060U4EB1G
Serial # (tag)	5623K01245
Location	Roof
Unit Discharge	Downblast
Cooling Coil Location	Unit / Drawthru
Coil Area (sq ft)	5.6
Clg Coil Vel (FPM)	353
Fan Service	Supply
Fan Type	Centrifugal (AF)
Fan Discharge	Downblast
Fan Arrangement	SWSI

Fan Design Data	
Submittal Motor RPM	Not Provided
Submittal Fan RPM	Not Provided

Fan Data	
Actual Fan RPM/Speed	80%
Actual Motor RPM	Not Accessible

Electrical Data	
Measurement Method	No Safe Access to Meas
Motor Volts 1	-

**SYSTEM/UNIT: RTU-16**

Tested By: Omar Carreno  
Date: 10/31/2024

Motor Nameplate Data	
Motor Amps	-
Motor S.F.	-
Motor % PF	-
Motor % Eff.	-
Other Motor Data	-

Electrical Data	
Motor Volts 2	-
Motor Volts 3	-
Motor Amps 1	-
Motor Amps 2	-
Motor Amps 3	-
Operating HZ	-
Approx. BHP	-
Corr. Nameplate Amps	-
Starter Data	-
VFD Reference	-

Drive Data	
Drive Type	Direct Drive
Sheave Type	-
Fan Sheave Make	-
Fan Shv Mod# or Size (in)	-
Fan Sheave Bore (in)	-
Motor Sheave Make	-
Mtr Shv Mod# or Size (in)	-
Motor Sheave Bore (in)	-
VP Range	-
Center Distance (in)	-
No of Belts	-
Belt Make	-
Belt Size	-
Other Data	-

Motor Make Photo:



Name: Motor Make.jpg  
Captured: 9/23/2024 6:42 PM  
Caption:

SYSTEM/UNIT: RTU-16

Tested By: Omar Carreno  
Date: 10/31/2024

Make (tag) Photo:



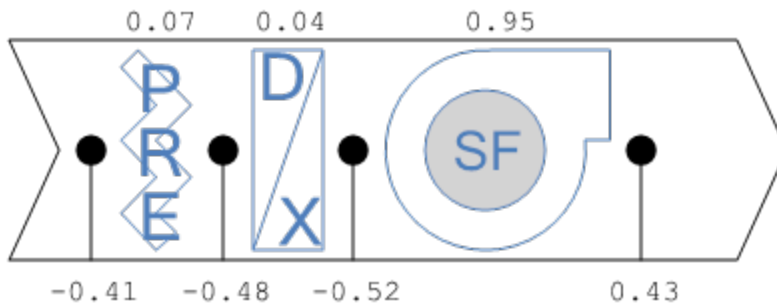
Name: Make (tag).jpg  
Captured: 9/23/2024 6:40 PM  
Caption:

Log: RTU-16 10/28/2024 Omar Carreno Outside air damper actuator is not operating.

SYSTEM/UNIT: RTU-16/Static Profile

Tested By: Omar Carreno  
Date: 10/31/2024

Static Pressure Profile



### RTU-16 Supply Outlet Summary

System/Unit	Area Served	Type	Size / Area (in)	Design CFM	Prelim CFM	Final CFM	% Final	Instrument	Ak	Open (sq ft)	Final FPM
S-01	141 Asso BreakRM	CD	8	200	147	191	96	Capture Hood	1.000	1.000	191
S-02	141 Asso BreakRM	CD	8	200	188	186	93	Capture Hood	1.000	1.000	186
S-03	142 Unisex	CD	6	50	56	52	104	Capture Hood	1.000	1.000	52
S-04	143 Wellness	CD	8	100	121	103	103	Capture Hood	1.000	1.000	103
S-05	144 Manager	CD	8	100	109	98	98	Capture Hood	1.000	1.000	98
S-06	145 HR Office	CD	6	100	95	102	102	Capture Hood	1.000	1.000	102
S-07	136 Office	CD	8	200	179	194	97	Capture Hood	1.000	1.000	194
S-08	146 KTV Conf RM	CD	10	250	246	233	93	Capture Hood	1.000	1.000	233
S-09	146 KTV Conf RM	CD	10	250	233	246	98	Capture Hood	1.000	1.000	246
S-10	146 KTV Conf RM	CD	10	225	237	218	97	Capture Hood	1.000	1.000	218
S-11	137 Employee Storage	CD	8	100	107	98	98	Capture Hood	1.000	1.000	98
S-12	Corr	CD	8	100	93	99	99	Capture Hood	1.000	1.000	99
S-13	139 Emp Women	CD	6	75	81	77	103	Capture Hood	1.000	1.000	77
S-14	140 Emp Men	CD	6	75	78	80	107	Capture Hood	1.000	1.000	80
<b>Totals:</b>		-	-	<b>2025</b>	<b>1970</b>	<b>1977</b>	<b>98</b>	-	-	-	-

### RTU-16 Return Inlet Summary

System/Unit	Area Served	Type	Size / Area (in)	Design CFM	Prelim CFM	Final CFM	% Final	Instrument	Ak	Open (sq ft)	Final FPM
R-01	141 Asso BreakRM	CD	12	400	387	387	97	Capture Hood	1.000	1.000	387
R-02	143 Wellness	CD	8	100	96	99	99	Capture Hood	1.000	1.000	99
R-03	144 Manager	CD	8	100	85	93	93	Capture Hood	1.000	1.000	93
R-04	145 HR Office	CD	8	100	112	102	102	Capture Hood	1.000	1.000	102
R-05	146 KTV Conf RM	CD	14	750	699	703	94	Capture Hood	1.000	1.000	703
R-06	Corr	CD	12	400	387	394	99	Capture Hood	1.000	1.000	394
<b>Totals:</b>		-	-	<b>1850</b>	<b>1766</b>	<b>1778</b>	<b>96</b>	-	-	-	-



# Air Apparatus

PROJECT: Smith's 706-208  
 LOCATION: St. George, UT  
 PROJECT #: 24424

DATE: 11/13/2024  
 CONTACT: William Clayton

SYSTEM/UNIT: RTU-17

Tested By: Omar Carreno  
 Date: 10/28/2024



Design Airflow (CFM)		Final Airflow (CFM)	
Design Total	3000	Actual Total CFM	
Design Grille Total	3000	Actual Grille Total CFM	
Design Return	2520	Actual Return Air CFM	
Design Min O/A	480	Actual Min O/A CFM	
		Fan CFM Test Method	
		OA Method/Instrument	
		OA Ak (sq ft)	28•22.5
		OA Damper % (High Spd)	-
		OA Damper % (Low Spd)	-
		RA Damper % (High Spd)	100%
		<b>RTU-17/Heating</b>	
		Actual Heating CFM	Not Listed
Unit Design Data		Unit Data	
Submittal Make	Not Provided	Make (tag)	Lennox
Submittal Model #	Not Provided	Model # (tag)	LGM092U4ES2G
Submittal Airflow	Not Provided	Serial # (tag)	5623K00608
Sched./Sub. Volts	480	Location	Roof
Sched./Sub. Phase	3	Unit Discharge	Downblast
Sched./Sub. HP	Not Listed	Cooling Coil Location	Unit / Drawthru
Submittal BHP	Not Provided	Coil Area (sq ft)	13.9
Filter MERV Rating (Sched/Sub)	Not Listed	Clg Coil Vel (FPM)	
		Fan Service	Supply
		Fan Type	Centrifugal (AF)
		Fan Discharge	Downblast
		Fan Arrangement	SWSI
		<b>RTU-17/Heating</b>	
		Coil Location	
Design Static Pressures (in wg)		Fan Design Data	
Design Ext SP	.75	Submittal Motor RPM	Not Provided
Submittal Total SP	Not Provided	Submittal Fan RPM	Not Provided
Submittal Clg Coil Δ SP	Not Provided		
Design Temperatures (°F)		Fan Data	
<b>RTU-17/Cooling</b>		Actual Fan RPM/Speed	80%
Des. Ent. DB (°F)	Not Listed	Actual Motor RPM	Not Accessible
Des. Ent. WB (°F)	Not Listed		
Design LAT DB (°F)	Not Listed		
Design LAT WB (°F)	Not Listed		
<b>RTU-17/Heating</b>			
Design EAT DB (°F)	Not Listed		
Design LAT DB (°F)	Not Listed		
Filter Data			
Condition	Clean		
Filter Type	Pleated		
MERV Rating	8		
Filter Size Set 1 (in)	20x25x2		
# Filters Set 1	4		
Filter Size Set 2 (in)	-		

**SYSTEM/UNIT: RTU-17**

Tested By: Omar Carreno  
Date: 10/28/2024

Filter Data	
# Filters Set 2	-

Motor Nameplate Data	
Motor Make	Motor Tag Not Accessible
Motor Frame	-
Motor HP	-
Motor RPM	-
Motor Volts	-
Motor Phase	-
Motor Amps	-
Motor S.F.	-
Motor % PF	-
Motor % Eff.	-
Other Motor Data	-

Drive Data	
Drive Type	Direct Drive
Sheave Type	-
Fan Sheave Make	-
Fan Shv Mod# or Size (in)	-
Fan Sheave Bore (in)	-
Motor Sheave Make	-
Mtr Shv Mod# or Size (in)	-
Motor Sheave Bore (in)	-
VP Range	-
Center Distance (in)	-
No of Belts	-
Belt Make	-
Belt Size	-
Other Data	-

Electrical Data	
Measurement Method	No Safe Access to Meas
Motor Volts 1	-
Motor Volts 2	-
Motor Volts 3	-
Motor Amps 1	-
Motor Amps 2	-
Motor Amps 3	-
Operating HZ	-
Approx. BHP	-
Corr. Nameplate Amps	-
Starter Data	-
VFD Reference	-

Actual Temperatures (°F)	
<b>RTU-17/Cooling</b>	
Outside Air DB	
Outside Air WB	
Entering Air DB	
Entering Air WB	
Leaving Air DB	
Leaving Air WB	
<b>RTU-17/Heating</b>	
Entering Air DB	
Leaving Air DB	

Motor Make Photo:



Name: Motor Make.jpg  
Captured: 9/23/2024 6:44 PM  
Caption:

SYSTEM/UNIT: RTU-17

Tested By: Omar Carreno  
Date: 10/28/2024

Make (tag) Photo:



Name: Make (tag).jpg  
Captured: 9/23/2024 6:43 PM  
Caption:

<b>Log:</b>	RTU-17	9/24/2024	Refugio Montellano	Core app: Multiple compressor issues due to no connection with sensors.
	RTU-17	9/24/2024	Refugio Montellano	Outside air damper actuator is not operating.
	RTU-17	9/25/2024	Omar Carreno	Thermostat is not installed.
	RTU-17	10/31/2024	Omar Carreno	Cannot override unit to full cool, controller not responding.

**RTU-17 Supply Outlet Summary**

System/Unit	Area Served	Type	Size / Area (in)	Design CFM	Prelim CFM	Final CFM	% Final	Instrument	Ak	Open (sq ft)	Final FPM
S-01	147 Pickup	SW	12/12	500				Capture Hood	1.000	1.000	
S-02	147 Pickup	SW	12/12	500				Capture Hood	1.000	1.000	
S-03	147 Pickup	SW	12/12	500				Capture Hood	1.000	1.000	
S-04	147 Pickup	SW	12/12	500				Capture Hood	1.000	1.000	
S-05	147 Pickup	SW	12/12	500				Capture Hood	1.000	1.000	
S-06	147 Pickup	SW	12/12	500				Capture Hood	1.000	1.000	
<b>Totals:</b>		-	-	<b>3000</b>	<b>0</b>	<b>0</b>	<b>0</b>	-	-	-	-

**SYSTEM/UNIT: RTU-18**

Tested By: Omar Carreno  
Date: 10/31/2024



Design Airflow (CFM)	
Design Total	3450
Design Grille Total	3450
Design Return	3277
Design Min O/A	173

Unit Design Data	
Submittal Make	Not Provided
Submittal Model #	Not Provided
Submittal Airflow	Not Provided
Sched./Sub. Volts	246.47
Sched./Sub. Phase	3
Sched./Sub. HP	Not Listed
Submittal BHP	Not Provided
Filter MERV Rating (Sched/Sub)	Not Listed

Design Static Pressures (in wg)	
Design Ext SP	.75
Submittal Total SP	Not Provided
Submittal Clg Coil Δ SP	Not Provided

Filter Data	
Condition	Clean
Filter Type	Pleated
MERV Rating	8
Filter Size Set 1 (in)	20x25x2
# Filters Set 1	4
Filter Size Set 2 (in)	-
# Filters Set 2	-

Motor Nameplate Data	
Motor Make	Motor Tag Not Accessible
Motor Frame	-
Motor HP	-
Motor RPM	-
Motor Volts	-
Motor Phase	-

Final Airflow (CFM)	
Actual Total CFM	3425
Actual Grille Total CFM	Not Applicable
Actual Return Air CFM	
Actual Min O/A CFM	
Fan CFM Test Method	Airfoil Traverse
OA Method/Instrument	
OA Ak (sq ft)	4.375
OA Damper % (High Spd)	
OA Damper % (Low Spd)	
RA Damper % (High Spd)	100%

Unit Data	
Make (tag)	Lennox
Model # (tag)	LGM092U4ES2G
Serial # (tag)	5623K00644
Location	Roof
Unit Discharge	Downblast
Cooling Coil Location	Unit / Drawthru
Coil Area (sq ft)	13.9
Clg Coil Vel (FPM)	246
Fan Service	Supply
Fan Type	Centrifugal (AF)
Fan Discharge	Downblast
Fan Arrangement	SWSI

Fan Design Data	
Submittal Motor RPM	Not Provided
Submittal Fan RPM	Not Provided

Fan Data	
Actual Fan RPM/Speed	80%
Actual Motor RPM	Not Accessible

Electrical Data	
Measurement Method	No Safe Access to Meas
Motor Volts 1	-

**SYSTEM/UNIT: RTU-18**

Tested By: Omar Carreno  
Date: 10/31/2024

Motor Nameplate Data	
Motor Amps	-
Motor S.F.	-
Motor % PF	-
Motor % Eff.	-
Other Motor Data	-

Electrical Data	
Motor Volts 2	-
Motor Volts 3	-
Motor Amps 1	-
Motor Amps 2	-
Motor Amps 3	-
Operating HZ	-
Approx. BHP	-
Corr. Nameplate Amps	-
Starter Data	-
VFD Reference	-

Drive Data	
Drive Type	Direct Drive
Sheave Type	-
Fan Sheave Make	-
Fan Shv Mod# or Size (in)	-
Fan Sheave Bore (in)	-
Motor Sheave Make	-
Mtr Shv Mod# or Size (in)	-
Motor Sheave Bore (in)	-
VP Range	-
Center Distance (in)	-
No of Belts	-
Belt Make	-
Belt Size	-
Other Data	-

Make (tag) Photo:



Name: Make (tag).jpg  
Captured: 9/23/2024 11:57 PM  
Caption:

<b>Log:</b>	RTU-18	10/29/2024	Omar Carreno	Outside air damper actuator is not operating.
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**RTU-18 Supply Outlet Summary**

System/Unit	Area Served	Type	Size / Area (in)	Design CFM	Prelim CFM	Final CFM	% Final	Instrument	Ak	Open (sq ft)	Final FPM
S-01	101 Cart Corral	CD	24	3450				Capture Hood	1.000	1.000	
<b>Totals:</b>		-	-	<b>3450</b>	<b>0</b>	<b>0</b>	<b>0</b>	-	-	-	-

**SYSTEM/UNIT: RTU-18/Total Traverse**

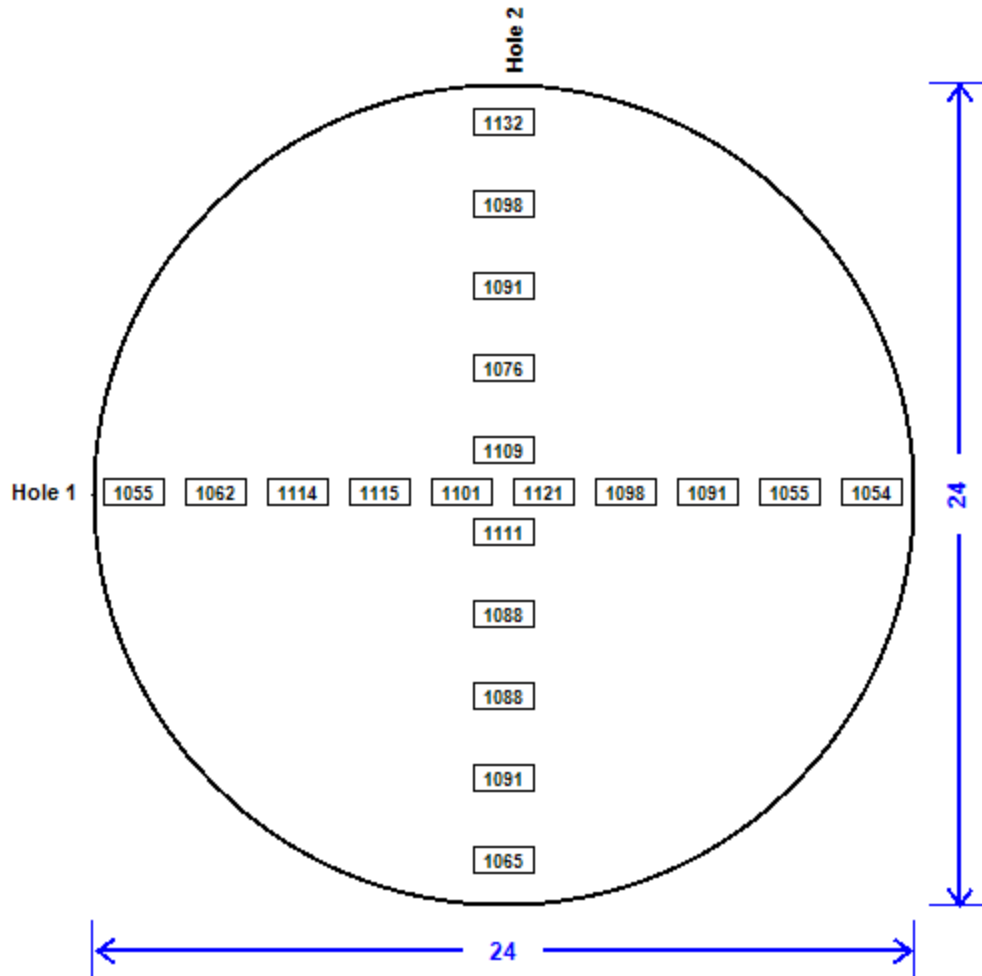
Tested By: Omar Carreno  
Date: 10/31/2024

Unit Design Data	
Design Airflow (CFM)	3450
Location	Supply Main

Traverse Data	
Duct Shape	Round
Interior Insulation (in)	Not Applicable
Duct Width (in)	-
Duct Height (in)	-
Round Duct Diam (in)	24
Inner Dimensions (in)	-
AK (sq ft)	3.140

Test Data	
Actual Airflow (CFM)	3425
Average Velocity (FPM)	1091
Centerline SP (in wg)	-
Altitude (ft)	-
Duct Air Temp (°F)	-
Probe	Airfoil
Instrument	ADM
Number Of Rows	2
Readings Per Row	10
Total Readings	20

**Traverse Data Points**



**SYSTEM/UNIT: RTU-19**

Tested By: Omar Carreno  
Date: 10/28/2024



Design Airflow (CFM)	
Design Total	3450
Design Grille Total	3450
Design Return	3277
Design Min O/A	173

Unit Design Data	
Submittal Make	Not Provided
Submittal Model #	Not Provided
Submittal Airflow	Not Provided
Sched./Sub. Volts	480
Sched./Sub. Phase	3
Sched./Sub. HP	Not Listed
Submittal BHP	Not Provided
Filter MERV Rating (Sched/Sub)	Not Listed

Design Static Pressures (in wg)	
Design Ext SP	.75
Submittal Total SP	Not Provided
Submittal Clg Coil Δ SP	Not Provided

Filter Data	
Condition	Clean
Filter Type	Pleated
MERV Rating	8
Filter Size Set 1 (in)	20x25x2
# Filters Set 1	4
Filter Size Set 2 (in)	-
# Filters Set 2	-

Motor Nameplate Data	
Motor Make	Motor Tag Not Accessible
Motor Frame	-
Motor HP	-
Motor RPM	-
Motor Volts	-
Motor Phase	-

Final Airflow (CFM)	
Actual Total CFM	3429
Actual Grille Total CFM	3429
Actual Return Air CFM	
Actual Min O/A CFM	
Fan CFM Test Method	Coil Face - Velgrid/ADM
OA Method/Instrument	
OA Ak (sq ft)	4.375
OA Damper % (High Spd)	-
OA Damper % (Low Spd)	-
RA Damper % (High Spd)	100%

Unit Data	
Make (tag)	Lennox
Model # (tag)	LGM092U4ES2G
Serial # (tag)	5623K00608
Location	Roof
Unit Discharge	Downblast
Cooling Coil Location	Unit / Drawthru
Coil Area (sq ft)	13.9
Clg Coil Vel (FPM)	247
Fan Service	Supply
Fan Type	Centrifugal (AF)
Fan Discharge	Downblast
Fan Arrangement	SWSI

Fan Design Data	
Submittal Motor RPM	Not Provided
Submittal Fan RPM	Not Provided

Fan Data	
Actual Fan RPM/Speed	80%
Actual Motor RPM	Not Accessible

Electrical Data	
Measurement Method	No Safe Access to Meas
Motor Volts 1	-

**SYSTEM/UNIT: RTU-19**

Tested By: Omar Carreno  
Date: 10/28/2024

Motor Nameplate Data	
Motor Amps	-
Motor S.F.	-
Motor % PF	-
Motor % Eff.	-
Other Motor Data	-

Electrical Data	
Motor Volts 2	-
Motor Volts 3	-
Motor Amps 1	-
Motor Amps 2	-
Motor Amps 3	-
Operating HZ	-
Approx. BHP	-
Corr. Nameplate Amps	-
Starter Data	-
VFD Reference	-

Drive Data	
Drive Type	Direct Drive
Sheave Type	-
Fan Sheave Make	-
Fan Shv Mod# or Size (in)	-
Fan Sheave Bore (in)	-
Motor Sheave Make	-
Mtr Shv Mod# or Size (in)	-
Motor Sheave Bore (in)	-
VP Range	-
Center Distance (in)	-
No of Belts	-
Belt Make	-
Belt Size	-
Other Data	-

Make (tag) Photo:



Name: Make (tag).jpg  
Captured: 9/23/2024 11:57 PM  
Caption:

<b>Log:</b>	RTU-19	10/29/2024	Omar Carreno	Outside air damper actuator is not operating.
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**RTU-19 Supply Outlet Summary**

System/Unit	Area Served	Type	Size / Area (in)	Design CFM	Prelim CFM	Final CFM	% Final	Instrument	Ak	Open (sq ft)	Final FPM
S-01	101 Cart Corral	CD	24	3450				Capture Hood	1.000	1.000	
<b>Totals:</b>			-	3450	0	0	0	-	-	-	-

**SYSTEM/UNIT: RTU-19/Total Traverse**

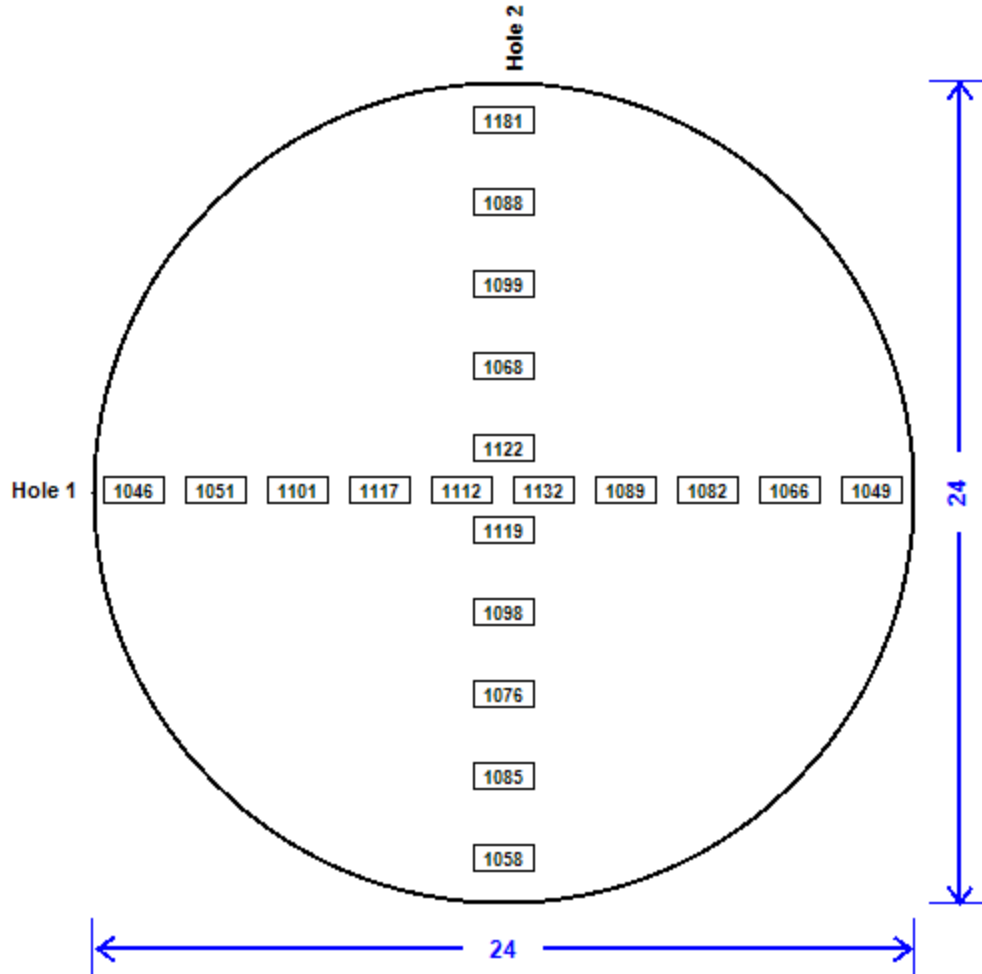
Tested By: Omar Carreno  
Date: 10/28/2024

Unit Design Data	
Design Airflow (CFM)	3450
Location	Supply Main

Test Data	
Actual Airflow (CFM)	3429
Average Velocity (FPM)	1092
Centerline SP (in wg)	-
Altitude (ft)	-
Duct Air Temp (°F)	-
Probe	Airfoil
Instrument	ADM
Number Of Rows	2
Readings Per Row	10
Total Readings	20

Traverse Data	
Duct Shape	Round
Interior Insulation (in)	Not Applicable
Duct Width (in)	-
Duct Height (in)	-
Round Duct Diam (in)	24
Inner Dimensions (in)	-
AK (sq ft)	3.140

**Traverse Data Points**



SYSTEM/UNIT: EF-01

Tested By: Omar Carreno  
Date: 10/29/2024



Design Airflow (CFM)		Final Airflow (CFM)	
Design Airflow	825	Actual Airflow	823
Design Grille Airflow	825	Actual Grille Airflow	823
<b>Unit Design Data</b>		<b>Unit Data</b>	
Submittal Make	Not Provided	Make (tag)	Captive Aire
Submittal Model #	Not Provided	Model # (tag)	DR30HFA
Submittal Airflow	Not Provided	Serial # (tag)	5793372
Sched./Sub. Volts	120	Unit Location	Roof
Sched./Sub. Phase	1	Unit Discharge	Upblast
Sched./Sub. HP	Not Listed	Fan Service	Exhaust
Submittal BHP	Not Provided	Fan Type	Centrifugal (AF)
<b>Design Static Pressures (in wg)</b>		<b>Fan Design Data</b>	
Design External SP	.5	Submittal Motor RPM	Not Provided
Submittal Total SP	Not Provided	Submittal Fan RPM	Not Provided
<b>Motor Nameplate Data</b>		<b>Fan Data</b>	
Motor Make (tag)	HSSA	Actual Fan RPM/Speed	Medium
Motor Frame (tag)	48Y	Actual Motor RPM	Not Accessible
Motor HP (tag)	1/4	Speed Cont. Position	Medium
Motor RPM (tag)	1400	<b>Electrical Data</b>	
Motor Volts (tag)	115	Measurement Method	Not Accessible
Motor Phase (tag)	1	Motor Volts 1	-
Motor Amps (tag)	3	Motor Volts 2	-
Motor S.F. (tag)	1	Motor Volts 3	-
Mtr % PF (tag)	Not Listed	Motor Amps 1	No Safe Access
Mtr % Eff. (tag)	Not Listed	Motor Amps 2	-
Other Motor Data	-	Motor Amps 3	-
<b>Drive Data</b>		Operating HZ	-
Drive Type	Direct Drive	Starter Data	-
Sheave Type	-	Approx. BHP	-
Fan Sheave Make	-		
Fan Shv Mod# or Size (in)	-		
Fan Sheave Bore (in.)	-		
Motor Sheave Make	99.76		



**EF-01 Exhaust Inlet Summary**

<b>System/Unit</b>	<b>Area Served</b>	<b>Type</b>	<b>Size / Area (in)</b>	<b>Design CFM</b>	<b>Prelim CFM</b>	<b>Final CFM</b>	<b>% Final</b>	<b>Instrument</b>	<b>Ak</b>	<b>Open (sq ft)</b>	<b>Final FPM</b>
E-01	106 Storage	CD	8	50	68	52	104	Capture Hood	1.000	1.000	52
E-02	107 Cust Woman	CD	10	325	332	328	101	Capture Hood	1.000	1.000	328
E-03	108 Family 1	CD	12	125	136	122	98	Capture Hood	1.000	1.000	122
E-04	109 Cust Men	CD	10	325	277	321	99	Capture Hood	1.000	1.000	321
<b>Totals:</b>		-	-	-	<b>813</b>	<b>823</b>	<b>100</b>	-	-	-	-

SYSTEM/UNIT: EF-02

Tested By: Omar Carreno  
Date: 10/29/2024



Design Airflow (CFM)		Final Airflow (CFM)	
Design Airflow	250	Actual Airflow	256
Design Grille Airflow	250	Actual Grille Airflow	256
<b>Unit Design Data</b>		<b>Unit Data</b>	
Submittal Make	Not Provided	Make (tag)	Captive Aire
Submittal Model #	Not Provided	Model # (tag)	DR10HFA
Submittal Airflow	Not Provided	Serial # (tag)	5793372
Sched./Sub. Volts	120	Unit Location	Roof
Sched./Sub. Phase	1	Unit Discharge	Upblast
Sched./Sub. HP	Not Listed	Fan Service	Exhaust
Submittal BHP	102.40	Fan Type	Centrifugal (AF)
<b>Design Static Pressures (in wg)</b>		<b>Fan Design Data</b>	
Design External SP	.4	Submittal Motor RPM	Not Provided
Submittal Total SP	Not Provided	Submittal Fan RPM	Not Provided
<b>Motor Nameplate Data</b>		<b>Fan Data</b>	
Motor Make (tag)	HSSA	Actual Fan RPM/Speed	Medium
Motor Frame (tag)	48Y	Actual Motor RPM	Not Accessible
Motor HP (tag)	1/4	Speed Cont. Position	Medium
Motor RPM (tag)	1400	<b>Electrical Data</b>	
Motor Volts (tag)	115	Measurement Method	Not Accessible
Motor Phase (tag)	1	Motor Volts 1	-
Motor Amps (tag)	3	Motor Volts 2	-
Motor S.F. (tag)	1	Motor Volts 3	-
Mtr % PF (tag)	Not Listed	Motor Amps 1	No Safe Access
Mtr % Eff. (tag)	Not Listed	Motor Amps 2	-
Other Motor Data	-	Motor Amps 3	-
<b>Drive Data</b>		Operating HZ	-
Drive Type	Direct Drive	Starter Data	-
Sheave Type	-	Approx. BHP	-
Fan Sheave Make	-		
Fan Shv Mod# or Size (in)	-		
Fan Sheave Bore (in.)	-		
Motor Sheave Make	-		

**SYSTEM/UNIT: EF-02**

Tested By: Omar Carreno  
Date: 10/29/2024

Drive Data	
Mtr Shv Mod# or Size (in)	-
Motor Sheave Bore (in.)	-
VP Range	-
Center Distance (in.)	-
No of Belts	-
Belt Make	-
Belt Size	-
Other Data	-

Electrical Data
Corr. Nameplate Amps

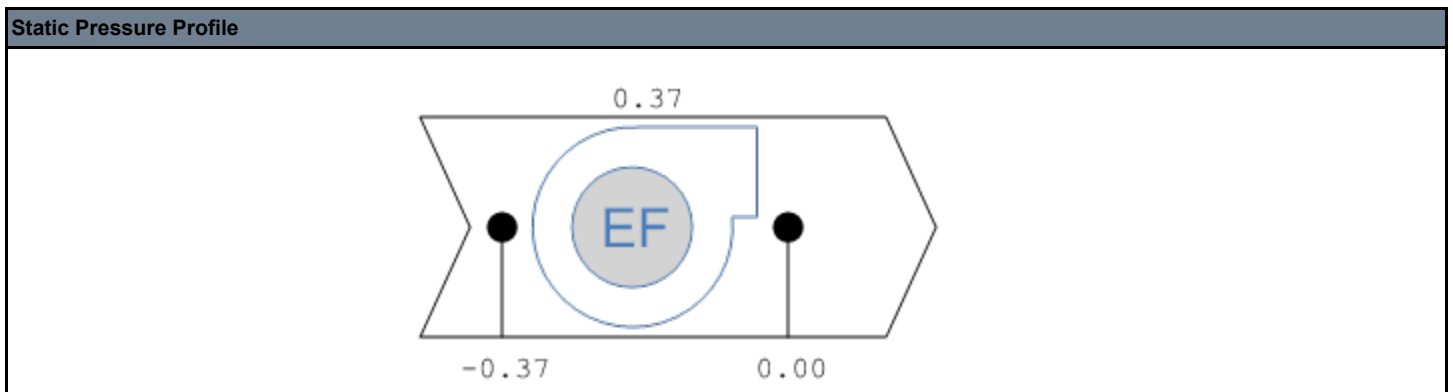
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**SYSTEM/UNIT: EF-02/Static Profile**

Tested By: Omar Carreno  
Date: 10/29/2024



### EF-02 Exhaust Inlet Summary

System/Unit	Area Served	Type	Size / Area (in)	Design CFM	Prelim CFM	Final CFM	% Final	Instrument	Ak	Open (sq ft)	Final FPM
E-01	174 Family 2	CD	8	125	134	134	107	Capture Hood	1.000	1.000	134
E-02	155 Family 2	CD	8	125	122	122	98	Capture Hood	1.000	1.000	122
	<b>Totals:</b>	-	-	-	<b>256</b>	<b>256</b>	<b>102</b>	-	-	-	-

**SYSTEM/UNIT: EF-03**

Tested By: Omar Carreno  
Date: 10/29/2024



Design Airflow (CFM)	
Design Airflow	450
Design Grille Airflow	450

Unit Design Data	
Submittal Make	Not Provided
Submittal Model #	Not Provided
Submittal Airflow	Not Provided
Sched./Sub. Volts	120
Sched./Sub. Phase	1
Sched./Sub. HP	Not Listed
Submittal BHP	Not Provided

Design Static Pressures (in wg)	
Design External SP	.5
Submittal Total SP	Not Provided

Motor Nameplate Data	
Motor Make (tag)	HSSA
Motor Frame (tag)	48Y
Motor HP (tag)	1/4
Motor RPM (tag)	1400
Motor Volts (tag)	115
Motor Phase (tag)	1
Motor Amps (tag)	3
Motor S.F. (tag)	1
Mtr % PF (tag)	Not Listed
Mtr % Eff. (tag)	Not Listed
Other Motor Data	-

Drive Data	
Drive Type	Direct Drive
Sheave Type	-
Fan Sheave Make	-
Fan Shv Mod# or Size (in)	-
Fan Sheave Bore (in.)	-
Motor Sheave Make	-

Final Airflow (CFM)	
Actual Airflow	489
Actual Grille Airflow	489
Fan CFM Test Method	Inlet Total
Test Method Ak (sq ft)	Not Applicable

Unit Data	
Make (tag)	Captive Aire
Model # (tag)	DR30HFA
Serial # (tag)	5793372
Unit Location	85.04
Unit Discharge	Upblast
Fan Service	Exhaust
Fan Type	Centrifugal (AF)
Fan Discharge	Upblast
Fan Arrangement	SWSI

Fan Design Data	
Submittal Motor RPM	Not Provided
Submittal Fan RPM	Not Provided

Fan Data	
Actual Fan RPM/Speed	Medium
Actual Motor RPM	Not Accessible
Speed Cont. Position	Medium

Electrical Data	
Measurement Method	Not Accessible
Motor Volts 1	-
Motor Volts 2	-
Motor Volts 3	-
Motor Amps 1	No Safe Access
Motor Amps 2	-
Motor Amps 3	-
Operating HZ	-
Starter Data	-
Approx. BHP	-

**SYSTEM/UNIT: EF-03**

Tested By: Omar Carreno  
Date: 10/29/2024

Drive Data	
Mtr Shv Mod# or Size (in)	-
Motor Sheave Bore (in.)	-
VP Range	-
Center Distance (in.)	-
No of Belts	-
Belt Make	-
Belt Size	-
Other Data	-

Electrical Data
Corr. Nameplate Amps

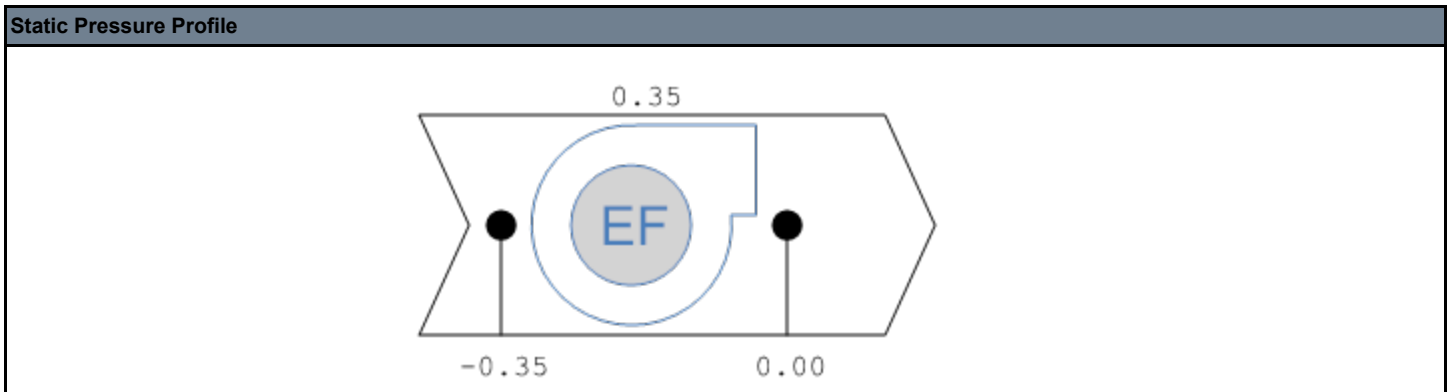
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**SYSTEM/UNIT: EF-03/Static Profile**

Tested By: Omar Carreno  
Date: 10/29/2024



### EF-03 Exhaust Inlet Summary

System/Unit	Area Served	Type	Size / Area (in)	Design CFM	Prelim CFM	Final CFM	% Final	Instrument	Ak	Open (sq ft)	Final FPM
E-01	140 Emp Men	CD	10	225	265	248	110	Capture Hood	1.000	1.000	248
E-02	139 Emp Women	CD	10	225	233	241	107	Capture Hood	1.000	1.000	241
	<b>Totals:</b>	-	-	-	<b>498</b>	<b>489</b>	<b>109</b>	-	-	-	-

**SYSTEM/UNIT: EF-04**

Tested By: Omar Carreno  
Date: 10/30/2024



Design Airflow (CFM)	
Design Airflow	2400
Design Grille Airflow	2400

Unit Design Data	
Submittal Make	Not Provided
Submittal Model #	Not Provided
Submittal Airflow	Not Provided
Sched./Sub. Volts	208
Sched./Sub. Phase	3
Sched./Sub. HP	Not Listed
Submittal BHP	Not Provided

Design Static Pressures (in wg)	
Design External SP	1.25
Submittal Total SP	Not Provided

Motor Nameplate Data	
Motor Make (tag)	TECO
Motor Frame (tag)	145T
Motor HP (tag)	2
Motor RPM (tag)	1740
Motor Volts (tag)	230
Motor Phase (tag)	3
Motor Amps (tag)	5.48
Motor S.F. (tag)	1.15
Mtr % PF (tag)	86.5
Mtr % Eff. (tag)	84
Other Motor Data	-

Drive Data	
Drive Type	Direct Drive
Sheave Type	-
Fan Sheave Make	-
Fan Shv Mod# or Size (in)	-
Fan Sheave Bore (in.)	-
Motor Sheave Make	-

Final Airflow (CFM)	
Actual Airflow	2381
Actual Grille Airflow	2381
Fan CFM Test Method	See Kitchen Hood Sheet
Test Method Ak (sq ft)	Not Applicable

Unit Data	
Make (tag)	Captive Aire
Model # (tag)	DU3DHFA
Serial # (tag)	5793372
Unit Location	Roof
Unit Discharge	Upblast
Fan Service	Exhaust
Fan Type	Centrifugal (AF)
Fan Discharge	Upblast
Fan Arrangement	SWSI

Fan Design Data	
Submittal Motor RPM	Not Provided
Submittal Fan RPM	Not Provided

Fan Data	
Actual Fan RPM/Speed	45.6
Actual Motor RPM	Not Accessible
Speed Cont. Position	45.6

Electrical Data	
Measurement Method	VFD Display
Motor Volts 1	213
Motor Volts 2	-
Motor Volts 3	-
Motor Amps 1	5.8
Motor Amps 2	-
Motor Amps 3	-
Operating HZ	-
Starter Data	Internal to VFD
Approx. BHP	1.96

SYSTEM/UNIT: EF-04

Tested By: Omar Carreno  
Date: 10/30/2024

Drive Data	
Mtr Shv Mod# or Size (in)	-
Motor Sheave Bore (in.)	-
VP Range	-
Center Distance (in.)	-
No of Belts	-
Belt Make	-
Belt Size	-
Other Data	-

Electrical Data	
Corr. Nameplate Amps	5.9

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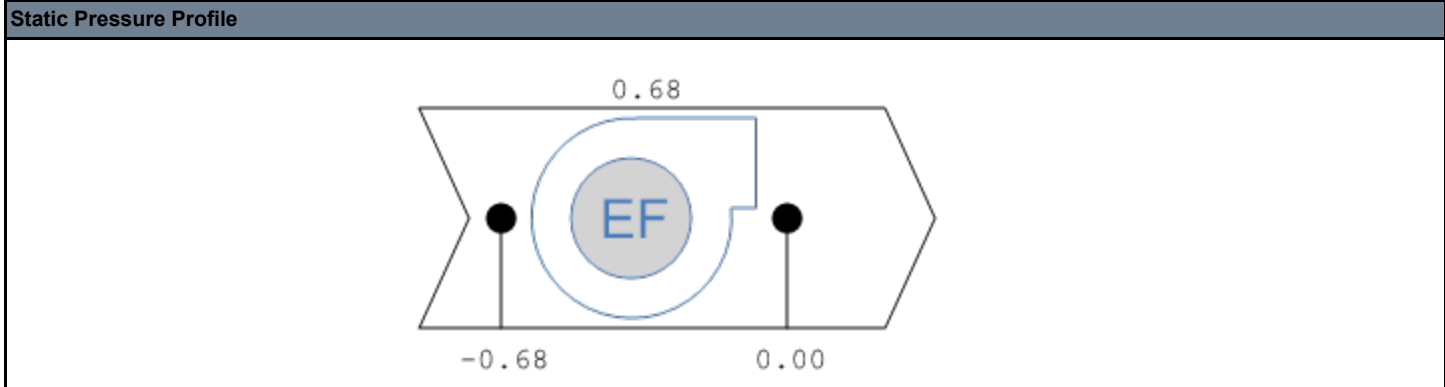
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Caption:

SYSTEM/UNIT: EF-04/Static Profile

Tested By: Omar Carreno  
Date: 10/30/2024





**SYSTEM/UNIT: EF-05**



Design Airflow (CFM)	
Design Airflow	800
Design Grille Airflow	800

Unit Design Data	
Submittal Make	Not Provided
Submittal Model #	Not Provided
Submittal Airflow	Not Provided
Sched./Sub. Volts	120
Sched./Sub. Phase	1
Sched./Sub. HP	Not Listed
Submittal BHP	Not Provided

Design Static Pressures (in wg)	
Design External SP	.1
Submittal Total SP	Not Provided

Motor Nameplate Data	
Motor Make (tag)	
Motor Frame (tag)	
Motor HP (tag)	
Motor RPM (tag)	
Motor Volts (tag)	
Motor Phase (tag)	
Motor Amps (tag)	
Motor S.F. (tag)	
Mtr % PF (tag)	
Mtr % Eff. (tag)	
Other Motor Data	-

Drive Data	
Drive Type	
Sheave Type	
Fan Sheave Make	
Fan Shv Mod# or Size (in)	
Fan Sheave Bore (in.)	
Motor Sheave Make	
Mtr Shv Mod# or Size (in)	

Final Airflow (CFM)	
Actual Airflow	
Actual Grille Airflow	
Fan CFM Test Method	
Test Method Ak (sq ft)	

Unit Data	
Make (tag)	
Model # (tag)	
Serial # (tag)	
Unit Location	
Unit Discharge	
Fan Service	
Fan Type	
Fan Discharge	
Fan Arrangement	

Fan Design Data	
Submittal Motor RPM	Not Provided
Submittal Fan RPM	Not Provided

Fan Data	
Actual Fan RPM/Speed	
Actual Motor RPM	
Speed Cont. Position	

Electrical Data	
Measurement Method	
Motor Volts 1	
Motor Volts 2	
Motor Volts 3	
Motor Amps 1	
Motor Amps 2	
Motor Amps 3	
Operating HZ	
Starter Data	
Approx. BHP	
Corr. Nameplate Amps	

**SYSTEM/UNIT: EF-05**

Drive Data	
Motor Sheave Bore (in.)	
VP Range	
Center Distance (in.)	
No of Belts	
Belt Make	
Belt Size	
Other Data	-

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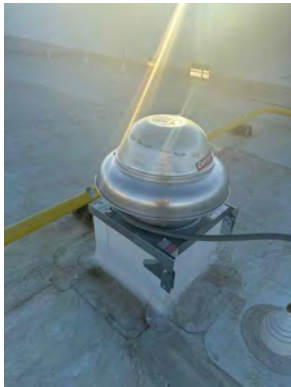
**EF-05 Exhaust Inlet Summary**

System/Unit	Type	Size / Area (in)	Design CFM	Prelim CFM	Final CFM	% Final	Instrument	Ak	Open (sq ft)	Final FPM
E							Capture Hood	1.000	1.000	
<b>Totals:</b>	-	-	-	0	0	0	-	-	-	-



**SYSTEM/UNIT: EF-06**

Tested By: Omar Carreno  
Date: 10/29/2024



Design Airflow (CFM)	
Design Airflow	800
Design Grille Airflow	800

Unit Design Data	
Submittal Make	Not Provided
Submittal Model #	Not Provided
Submittal Airflow	Not Provided
Sched./Sub. Volts	120
Sched./Sub. Phase	1
Sched./Sub. HP	Not Listed
Submittal BHP	Not Provided

Design Static Pressures (in wg)	
Design External SP	.1
Submittal Total SP	Not Provided

Motor Nameplate Data	
Motor Make (tag)	HSSA
Motor Frame (tag)	48Y
Motor HP (tag)	1/4
Motor RPM (tag)	1400
Motor Volts (tag)	115
Motor Phase (tag)	1
Motor Amps (tag)	3
Motor S.F. (tag)	1
Mtr % PF (tag)	Not Listed
Mtr % Eff. (tag)	Not Listed
Other Motor Data	-

Drive Data	
Drive Type	Direct Drive
Sheave Type	-
Fan Sheave Make	-
Fan Shv Mod# or Size (in)	-
Fan Sheave Bore (in.)	-
Motor Sheave Make	-

Final Airflow (CFM)	
Actual Airflow	827
Actual Grille Airflow	827
Fan CFM Test Method	Inlet Total
Test Method Ak (sq ft)	Not Applicable

Unit Data	
Make (tag)	Captive Aire
Model # (tag)	DR30HFA
Serial # (tag)	5793372
Unit Location	Roof
Unit Discharge	Upblast
Fan Service	Exhaust
Fan Type	Centrifugal (AF)
Fan Discharge	Upblast
Fan Arrangement	SWSI

Fan Design Data	
Submittal Motor RPM	Not Provided
Submittal Fan RPM	Not Provided

Fan Data	
Actual Fan RPM/Speed	Medium
Actual Motor RPM	Not Accessible
Speed Cont. Position	Medium

Electrical Data	
Measurement Method	Not Accessible
Motor Volts 1	-
Motor Volts 2	-
Motor Volts 3	-
Motor Amps 1	No Safe Access
Motor Amps 2	-
Motor Amps 3	-
Operating HZ	-
Starter Data	-
Approx. BHP	-

**SYSTEM/UNIT: EF-06**

Tested By: Omar Carreno  
Date: 10/29/2024

Drive Data	
Mtr Shv Mod# or Size (in)	-
Motor Sheave Bore (in.)	-
VP Range	-
Center Distance (in.)	-
No of Belts	-
Belt Make	-
Belt Size	-
Other Data	-

Electrical Data
Corr. Nameplate Amps

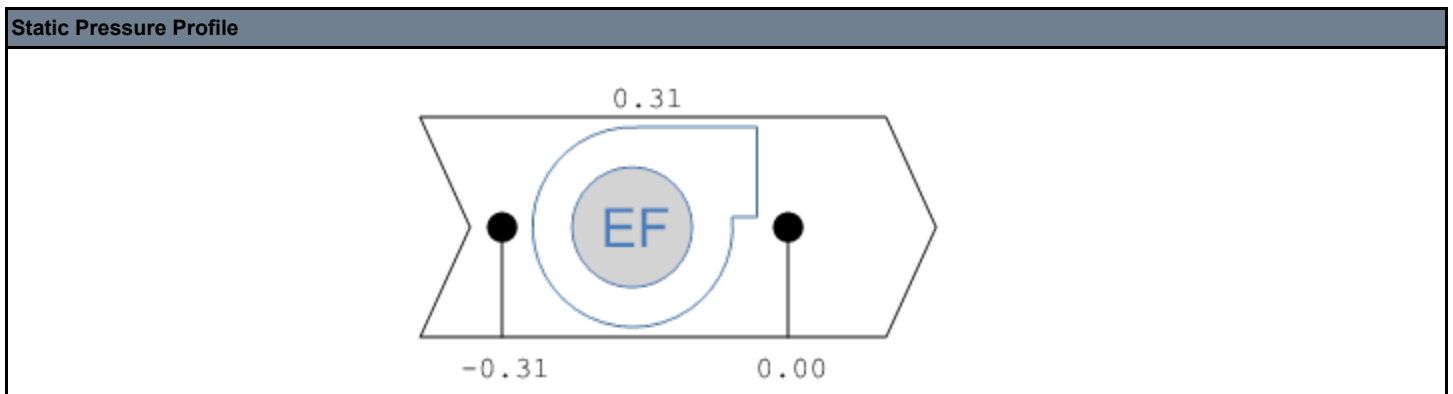
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**SYSTEM/UNIT: EF-06/Static Profile**

Tested By: Omar Carreno  
Date: 10/29/2024



**EF-06 Exhaust Inlet Summary**

System/Unit	Area Served	Type	Size / Area (in)	Design CFM	Prelim CFM	Final CFM	% Final	Instrument	Ak	Open (sq ft)	Final FPM
E-01	130 Apparel Stor	CD	12	200	265	212	106	Capture Hood	1.000	1.000	212
E-02	130 Apparel Stor	CD	12	200	223	209	105	Capture Hood	1.000	1.000	209
E-03	131 Adult Bev	CD	8	200	193	204	102	Capture Hood	1.000	1.000	204
E-04	131 Adult Bev	CD	8	200	144	202	101	Capture Hood	1.000	1.000	202
<b>Totals:</b>		-	-	-	<b>825</b>	<b>827</b>	<b>103</b>	-	-	-	-

SYSTEM/UNIT: EF-07

Tested By: Omar Carreno  
Date: 10/29/2024



Design Airflow (CFM)		Final Airflow (CFM)	
Design Airflow	800	Actual Airflow	867
Design Grille Airflow	800	Actual Grille Airflow	867
<b>Unit Design Data</b>		<b>Unit Data</b>	
Submittal Make	Not Provided	Make (tag)	Captive Aire
Submittal Model #	Not Provided	Model # (tag)	DR30HFA
Submittal Airflow	Not Provided	Serial # (tag)	5793372
Sched./Sub. Volts	120	Unit Location	Roof
Sched./Sub. Phase	1	Unit Discharge	Upblast
Sched./Sub. HP	Not Listed	Fan Service	Exhaust
Submittal BHP	Not Provided	Fan Type	Centrifugal (AF)
<b>Design Static Pressures (in wg)</b>		<b>Fan Design Data</b>	
Design External SP	.4	Submittal Motor RPM	Not Provided
Submittal Total SP	Not Provided	Submittal Fan RPM	Not Provided
<b>Motor Nameplate Data</b>		<b>Fan Data</b>	
Motor Make (tag)	HSSA	Actual Fan RPM/Speed	Medium
Motor Frame (tag)	48Y	Actual Motor RPM	Not Accessible
Motor HP (tag)	1/4	Speed Cont. Position	Medium
Motor RPM (tag)	1400	<b>Electrical Data</b>	
Motor Volts (tag)	115	Measurement Method	Not Accessible
Motor Phase (tag)	1	Motor Volts 1	-
Motor Amps (tag)	3	Motor Volts 2	-
Motor S.F. (tag)	1	Motor Volts 3	-
Mtr % PF (tag)	Not Listed	Motor Amps 1	No Safe Access
Mtr % Eff. (tag)	Not Listed	Motor Amps 2	-
Other Motor Data	-	Motor Amps 3	-
<b>Drive Data</b>		Operating HZ	-
Drive Type	Direct Drive	Starter Data	-
Sheave Type	-	Approx. BHP	-
Fan Sheave Make	-		
Fan Shv Mod# or Size (in)	-		
Fan Sheave Bore (in.)	-		
Motor Sheave Make	-		

**SYSTEM/UNIT: EF-07**

Tested By: Omar Carreno  
Date: 10/29/2024

Drive Data	
Mtr Shv Mod# or Size (in)	-
Motor Sheave Bore (in.)	-
VP Range	-
Center Distance (in.)	-
No of Belts	-
Belt Make	-
Belt Size	-
Other Data	-

Electrical Data
Corr. Nameplate Amps

Make (tag) Photo:

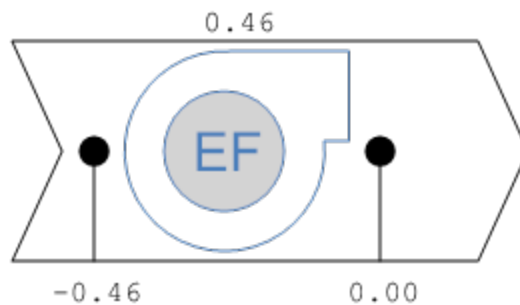


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Caption:

**SYSTEM/UNIT: EF-07/Static Profile**

Tested By: Omar Carreno  
Date: 10/29/2024

**Static Pressure Profile**



**EF-07 Exhaust Inlet Summary**

System/Unit	Area Served	Type	Size / Area (in)	Design CFM	Prelim CFM	Final CFM	% Final	Instrument	Ak	Open (sq ft)	Final FPM
E-01	122 Seafood Prep	CD	8	300	331	322	107	Capture Hood	1.000	1.000	322
E-02	122 Seafood Prep	CD	8	300	318	327	109	Capture Hood	1.000	1.000	327
E-03	122 Seafood Prep	CD	8	200	215	218	109	Capture Hood	1.000	1.000	218
<b>Totals:</b>		-	-	-	<b>864</b>	<b>867</b>	<b>108</b>	-	-	-	-

**SYSTEM/UNIT: EF-08**

Tested By: Omar Carreno  
Date: 10/29/2024



Design Airflow (CFM)	
Design Airflow	200
Design Grille Airflow	200

Unit Design Data	
Submittal Make	Not Provided
Submittal Model #	Not Provided
Submittal Airflow	Not Provided
Sched./Sub. Volts	120
Sched./Sub. Phase	1
Sched./Sub. HP	Not Listed
Submittal BHP	Not Provided

Design Static Pressures (in wg)	
Design External SP	.3
Submittal Total SP	Not Provided

Motor Nameplate Data	
Motor Make (tag)	HSSA
Motor Frame (tag)	48Y
Motor HP (tag)	1/4
Motor RPM (tag)	1400
Motor Volts (tag)	115
Motor Phase (tag)	1
Motor Amps (tag)	3
Motor S.F. (tag)	1
Mtr % PF (tag)	Not Listed
Mtr % Eff. (tag)	Not Listed
Other Motor Data	-

Drive Data	
Drive Type	Direct Drive
Sheave Type	-
Fan Sheave Make	-
Fan Shv Mod# or Size (in)	-
Fan Sheave Bore (in.)	-
Motor Sheave Make	-

Final Airflow (CFM)	
Actual Airflow	213
Actual Grille Airflow	213
Fan CFM Test Method	Inlet Total
Test Method Ak (sq ft)	Not Applicable

Unit Data	
Make (tag)	Captive Aire
Model # (tag)	DR12HFA
Serial # (tag)	5793372
Unit Location	Roof
Unit Discharge	Upblast
Fan Service	Exhaust
Fan Type	Centrifugal (AF)
Fan Discharge	Upblast
Fan Arrangement	SWSI

Fan Design Data	
Submittal Motor RPM	Not Provided
Submittal Fan RPM	Not Provided

Fan Data	
Actual Fan RPM/Speed	Medium
Actual Motor RPM	Not Accessible
Speed Cont. Position	Medium

Electrical Data	
Measurement Method	Not Accessible
Motor Volts 1	-
Motor Volts 2	-
Motor Volts 3	-
Motor Amps 1	No Safe Access
Motor Amps 2	-
Motor Amps 3	-
Operating HZ	-
Starter Data	-
Approx. BHP	-

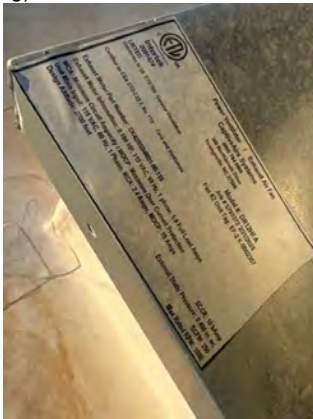
**SYSTEM/UNIT: EF-08**

Tested By: Omar Carreno  
Date: 10/29/2024

Drive Data	
Mtr Shv Mod# or Size (in)	-
Motor Sheave Bore (in.)	-
VP Range	-
Center Distance (in.)	-
No of Belts	-
Belt Make	-
Belt Size	-
Other Data	-

Electrical Data
Corr. Nameplate Amps

Make (tag) Photo:



Name: Make (tag).jpg  
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Caption:

**SYSTEM/UNIT: EF-08/Static Profile**

Tested By: Omar Carreno  
Date: 10/29/2024

Static Pressure Profile



### EF-08 Exhaust Inlet Summary

System/Unit	Area Served	Type	Size / Area (in)	Design CFM	Prelim CFM	Final CFM	% Final	Instrument	Ak	Open (sq ft)	Final FPM
E-01	134 Spray Down	CD	10	100	131	109	109	Capture Hood	1.000	1.000	109
E-02	134 Spray Down	CD	10	100	80	104	104	Capture Hood	1.000	1.000	104
	<b>Totals:</b>	-	-	-	<b>211</b>	<b>213</b>	<b>107</b>	-	-	-	-

**SYSTEM/UNIT: EF-09**

Tested By: Omar Carreno  
Date: 10/30/2024



Design Airflow (CFM)	
Design Airflow	600
Design Grille Airflow	600

Unit Design Data	
Submittal Make	Not Provided
Submittal Model #	Not Provided
Submittal Airflow	Not Provided
Sched./Sub. Volts	120
Sched./Sub. Phase	1
Sched./Sub. HP	Not Listed
Submittal BHP	Not Provided

Design Static Pressures (in wg)	
Design External SP	.5
Submittal Total SP	Not Provided

Motor Nameplate Data	
Motor Make (tag)	HSSA
Motor Frame (tag)	48Y
Motor HP (tag)	1/2
Motor RPM (tag)	1625
Motor Volts (tag)	230
Motor Phase (tag)	1
Motor Amps (tag)	5.6
Motor S.F. (tag)	1
Mtr % PF (tag)	Not Listed
Mtr % Eff. (tag)	Not Listed
Other Motor Data	-

Drive Data	
Drive Type	Direct Drive
Sheave Type	-
Fan Sheave Make	-
Fan Shv Mod# or Size (in)	-
Fan Sheave Bore (in.)	-
Motor Sheave Make	-

Final Airflow (CFM)	
Actual Airflow	608
Actual Grille Airflow	Not Applicable
Fan CFM Test Method	Face Velocity - RVA
Test Method Ak (sq ft)	2.110

Unit Data	
Make (tag)	Captive Aire
Model # (tag)	DU33HFA
Serial # (tag)	5793372
Unit Location	Roof
Unit Discharge	Upblast
Fan Service	Exhaust
Fan Type	Centrifugal (AF)
Fan Discharge	Upblast
Fan Arrangement	SWSI

Fan Design Data	
Submittal Motor RPM	Not Provided
Submittal Fan RPM	Not Provided

Fan Data	
Actual Fan RPM/Speed	Medium
Actual Motor RPM	Not Accessible
Speed Cont. Position	80%

Electrical Data	
Measurement Method	No Safe Access to Measure
Motor Volts 1	-
Motor Volts 2	-
Motor Volts 3	-
Motor Amps 1	-
Motor Amps 2	-
Motor Amps 3	-
Operating HZ	-
Starter Data	-
Approx. BHP	-

**SYSTEM/UNIT: EF-09**

Tested By: Omar Carreno  
Date: 10/30/2024

Drive Data	
Mtr Shv Mod# or Size (in)	-
Motor Sheave Bore (in.)	-
VP Range	-
Center Distance (in.)	-
No of Belts	-
Belt Make	-
Belt Size	-
Other Data	-

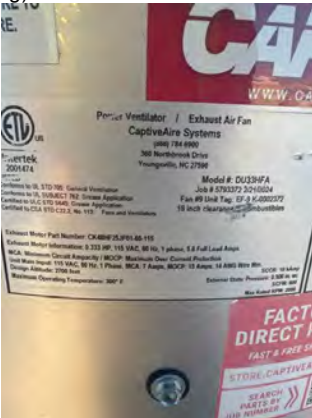
Electrical Data
Corr. Nameplate Amps

Motor Make (tag) Photo:



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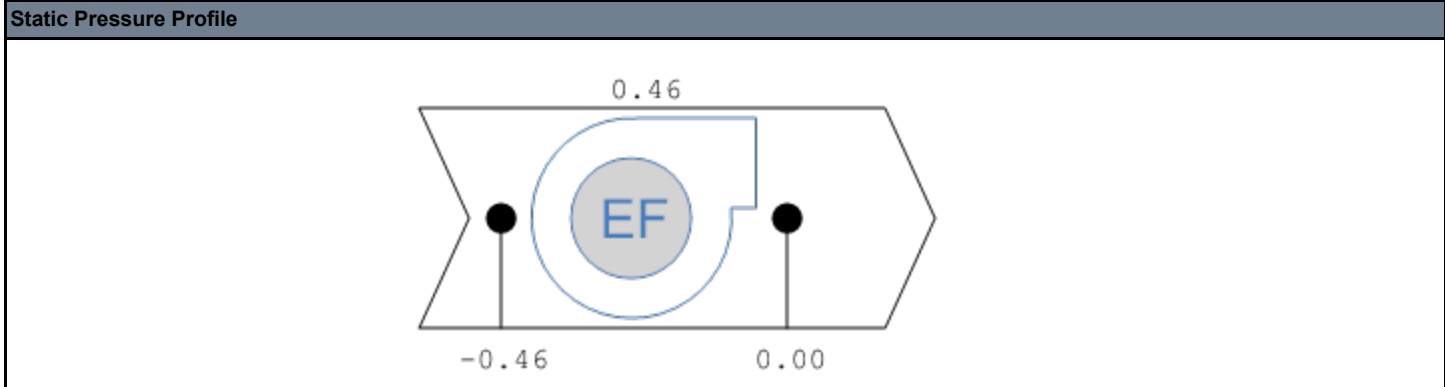
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Caption:

SYSTEM/UNIT: EF-09/Static Profile

Tested By: Omar Carreno  
Date: 10/30/2024





**SYSTEM/UNIT: EF-10**

Tested By: Omar Carreno  
Date: 10/30/2024



Design Airflow (CFM)	
Design Airflow	600
Design Grille Airflow	600

Unit Design Data	
Submittal Make	Not Provided
Submittal Model #	Not Provided
Submittal Airflow	Not Provided
Sched./Sub. Volts	120
Sched./Sub. Phase	1
Sched./Sub. HP	Not Listed
Submittal BHP	Not Provided

Design Static Pressures (in wg)	
Design External SP	.5
Submittal Total SP	Not Provided

Motor Nameplate Data	
Motor Make (tag)	HSSA
Motor Frame (tag)	48Y
Motor HP (tag)	1/2
Motor RPM (tag)	1625
Motor Volts (tag)	230
Motor Phase (tag)	1
Motor Amps (tag)	5.6
Motor S.F. (tag)	1
Mtr % PF (tag)	Not Listed
Mtr % Eff. (tag)	Not Listed
Other Motor Data	-

Drive Data	
Drive Type	Direct Drive
Sheave Type	-
Fan Sheave Make	-
Fan Shv Mod# or Size (in)	-
Fan Sheave Bore (in.)	-
Motor Sheave Make	-

Final Airflow (CFM)	
Actual Airflow	593
Actual Grille Airflow	593
Fan CFM Test Method	Face Velocity - RVA
Test Method Ak (sq ft)	2.110

Unit Data	
Make (tag)	Captive Aire
Model # (tag)	DU33HFA
Serial # (tag)	5793372
Unit Location	Roof
Unit Discharge	Upblast
Fan Service	Exhaust
Fan Type	Centrifugal (AF)
Fan Discharge	Upblast
Fan Arrangement	SWSI

Fan Design Data	
Submittal Motor RPM	Not Provided
Submittal Fan RPM	Not Provided

Fan Data	
Actual Fan RPM/Speed	Medium
Actual Motor RPM	Not Accessible
Speed Cont. Position	80%

Electrical Data	
Measurement Method	No Safe Access to Measure
Motor Volts 1	-
Motor Volts 2	-
Motor Volts 3	-
Motor Amps 1	-
Motor Amps 2	-
Motor Amps 3	-
Operating HZ	-
Starter Data	-
Approx. BHP	-

SYSTEM/UNIT: EF-10

Tested By: Omar Carreno  
Date: 10/30/2024

Drive Data	
Mtr Shv Mod# or Size (in)	-
Motor Sheave Bore (in.)	-
VP Range	-
Center Distance (in.)	-
No of Belts	-
Belt Make	-
Belt Size	-
Other Data	-

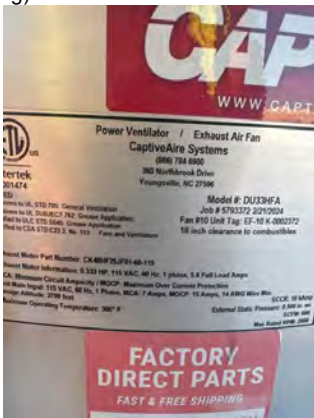
Electrical Data
Corr. Nameplate Amps

Motor Make (tag) Photo:



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Captured: 9/23/2024 6:59 PM  
Caption:

Make (tag) Photo:



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**SYSTEM/UNIT: EF-10/Static Profile**

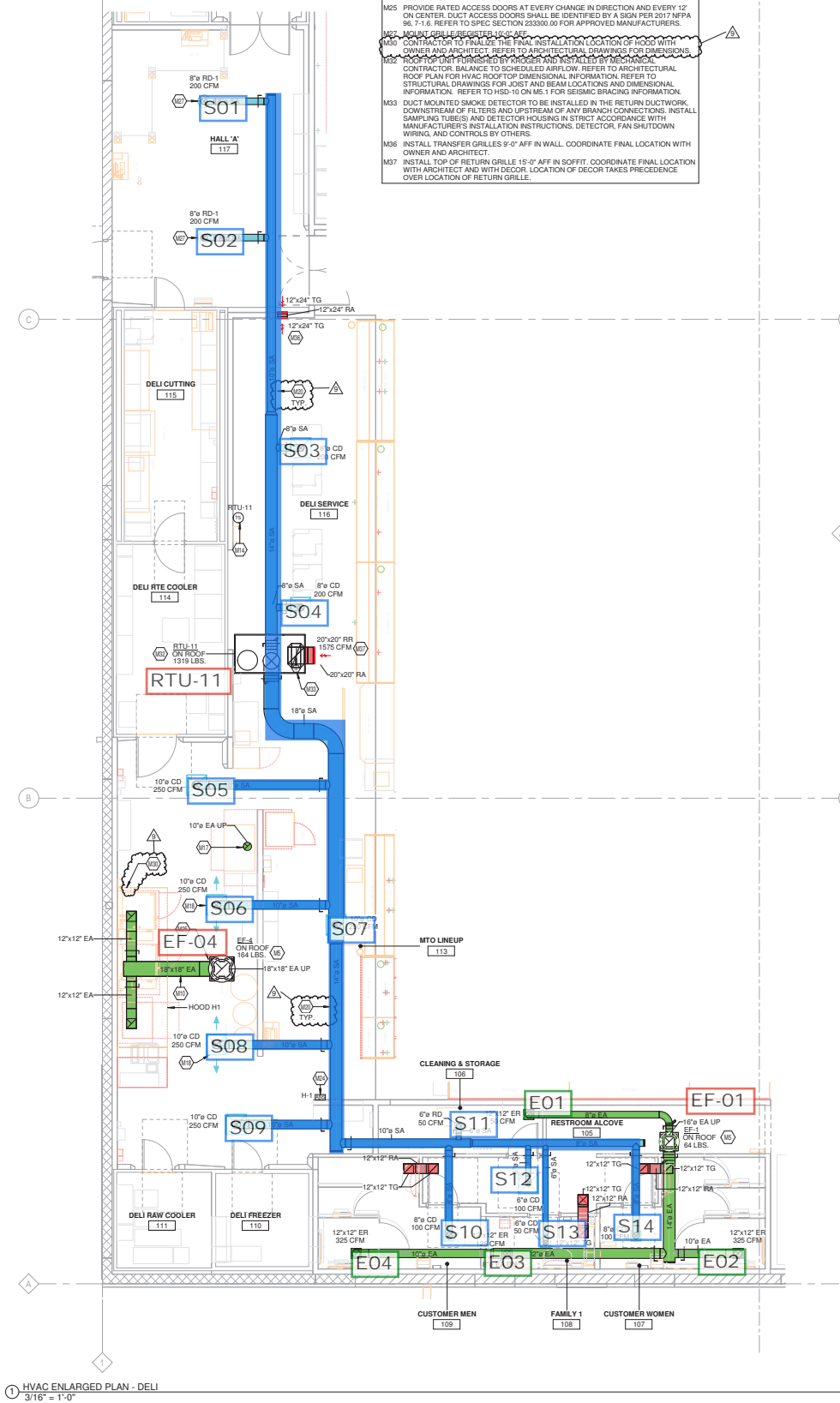
Tested By: Omar Carreno  
Date: 10/30/2024



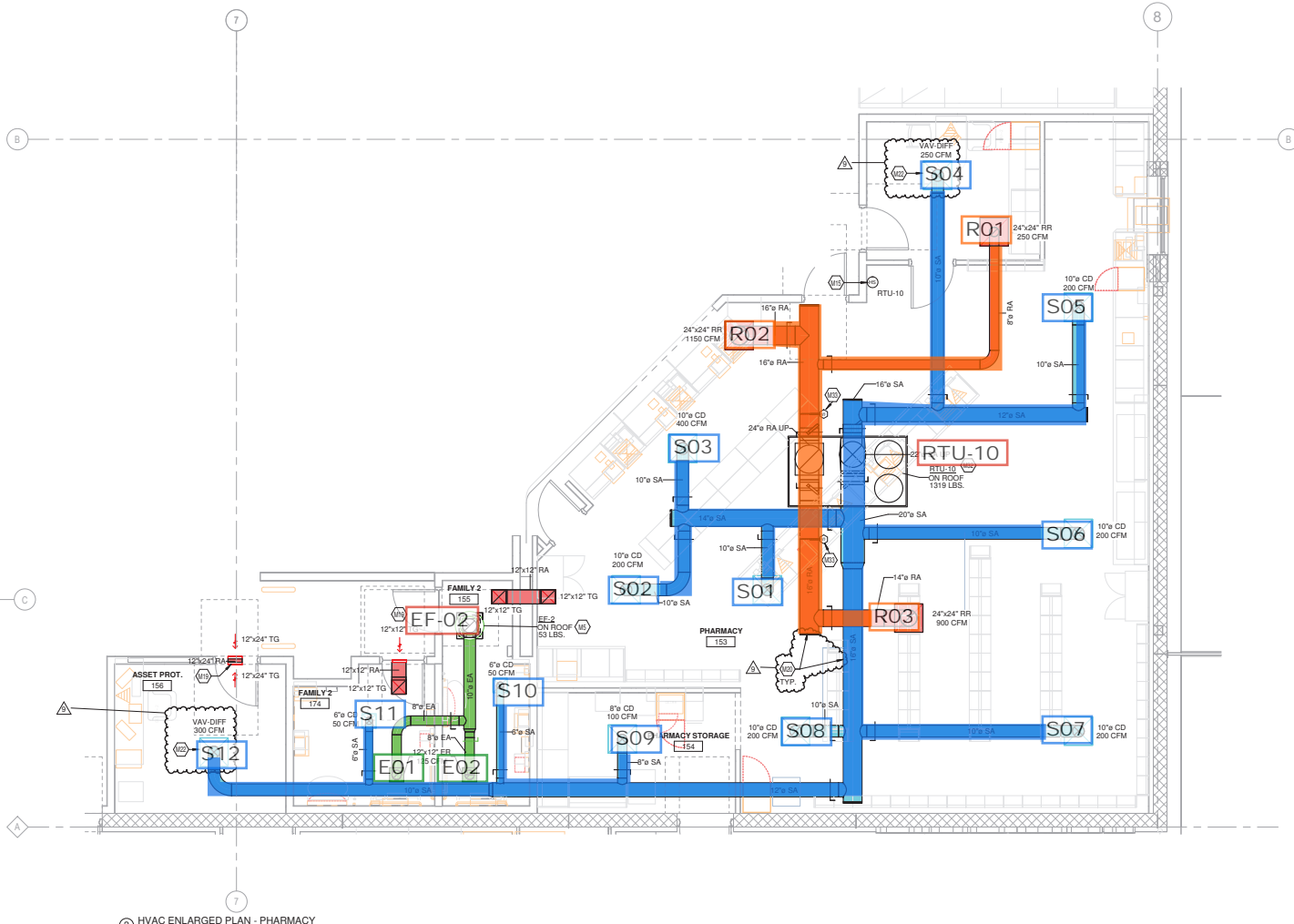


**KEYED NOTES**

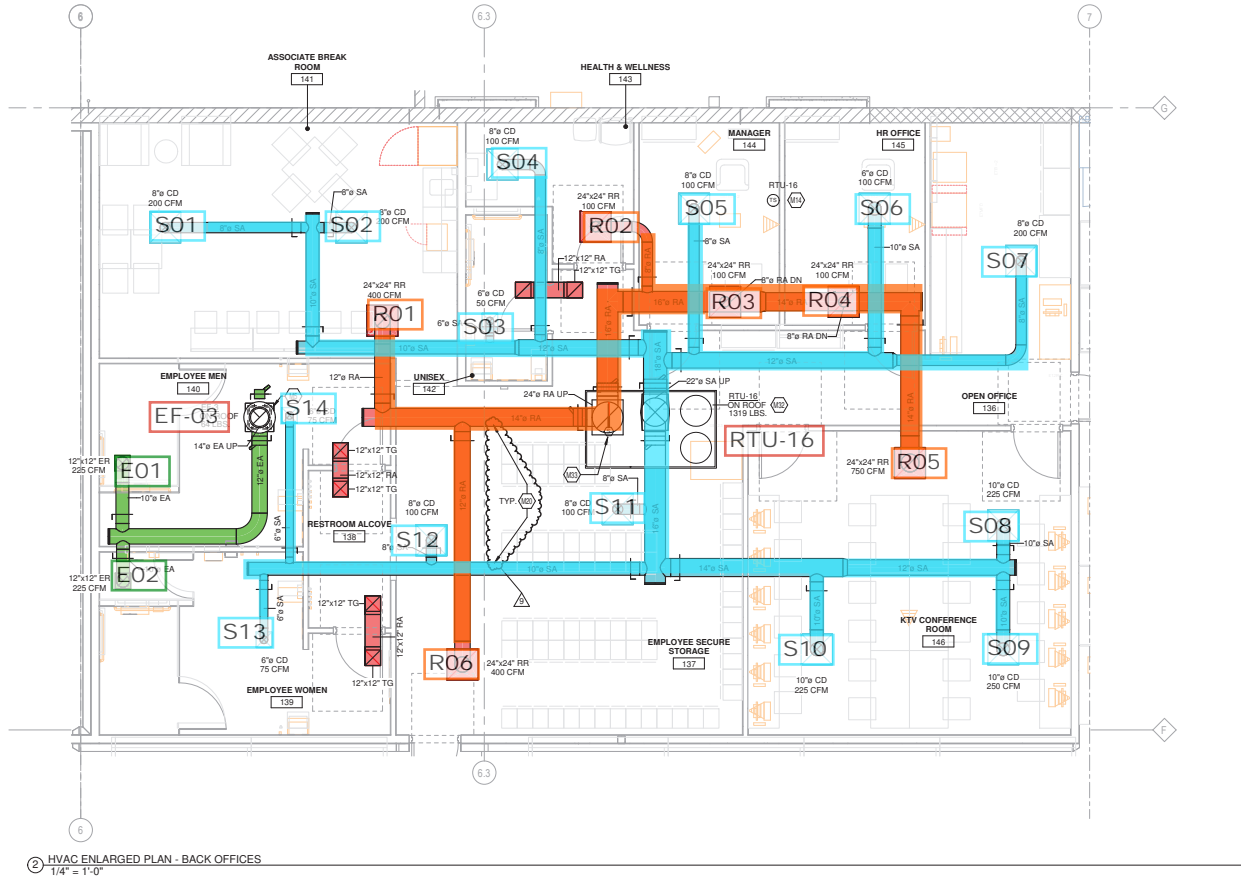
- M5 DUCT UP TO OPENING THROUGH ROOF CAPPED WITH CURB AND KROGER FURNISHED EXHAUST FAN.
- M10 GREASE DUCT FROM EXHAUST HOOD TO OPENING THROUGH ROOF PER NFPA 96. MECHANICAL CONTRACTOR TO INSTALL PROVIDED HINGE KIT. DUCTWRAP IS TO RUN THE ENTIRE LENGTH OF GREASE DUCT FROM CEILING PENETRATION TO FAN. REFER TO HSD-4 AND HSD-4B ON MS. 1, AND BOTH 233813.00-04 AND 233813.00-02 ON MS.2 FOR ADDITIONAL INFORMATION. REFER TO SHEET M3.1.8 FOR AN ACCEPTABLE SPECIFICATION FOR INSTALLATION OF GREASE DUCT AND FIRE WRAP. FINAL APPROVED AND INSTALLED SPECIFICATIONS TO BE CONFIRMED BY MECHANICAL CONTRACTOR.
- M14 TEMPERATURE SENSOR FOR RTU FURNISHED BY ORIGINAL EQUIPMENT MANUFACTURER. ROUTE CONTROL WIRING THROUGH RTU AND BACK TO BUILDING CONTROL PANEL.
- M15 COMBINATION TEMPERATURE/HUMIDITY SENSOR FOR RTU FURNISHED BY ORIGINAL EQUIPMENT MANUFACTURER. ROUTE CONTROL WIRING THROUGH RTU AND BACK TO BUILDING CONTROL PANEL.
- M17 LINES VENT KIT INCLUDED WITH UNIT AND SUPPLIED BY HOBART. VENT KIT AUTOMATICALLY REMOVES STEAM CONDENSATION AT THE COMPLETION OF THE WAREWASH CYCLE. WAREWASH DOOR WILL NOT OPEN UNTIL THIS PROCESS IS COMPLETED. MECHANICAL CONTRACTOR TO CONNECT STAINLESS STEEL DUCT TO THE VENT KIT OPENING THROUGH ROOF. REFER TO HSD-8 FOR ADDITIONAL INFORMATION.
- M18 DIFFUSER AROUND HOOD TO BE A 2-WAY DIFFUSER FACING AWAY FROM THE HOOD TO PREVENT INTERFERENCE WITH THE HOODS CONTAIN AND CAPTURE.
- M19 INSTALL TRANSFER GRILLES ABOVE AND CENTERED OVER DOOR.
- M20 ROUTE DUCTWORK AT A REASONABLE HEIGHT ABOVE THE CEILING TO ENSURE EASE OF ACCESS FOR CLEANING AND MAINTENANCE.
- M22 MECHANICAL CONTRACTOR TO PROVIDE VAV DIFFUSER, ACCUTHERM THERMA-FUSE HOOD, FIC-10 COLLECTOR PANEL.
- M25 PROVIDE RATED ACCESS DOORS AT EVERY CHANGE IN DIRECTION AND EVERY 12' ON CENTER. DUCT ACCESS DOORS SHALL BE IDENTIFIED BY A SIGN PER 2017 NFPA 96, 7-1.6. REFER TO SPEC SECTION 233300.00 FOR APPROVED MANUFACTURERS.
- M26 MECHANICAL CONTRACTOR TO PROVIDE THE FINAL VAV DIFFUSERS FOR DIMENSIONS OWNER AND ARCHITECT. REFER TO ARCHITECTURAL DRAWINGS FOR DIMENSIONS.
- M27 ROOFTOP UNIT FURNISHED BY KROGER AND INSTALLED BY MECHANICAL CONTRACTOR. BALANCE TO SCHEDULE ABOVE. REFER TO ARCHITECTURAL ROOF PLAN FOR HVAC ROOFTOP DIMENSIONAL INFORMATION AND DIMENSIONAL INFORMATION. REFER TO HSD-10 ON MS. 1 FOR SEISMIC BRACING INFORMATION.
- M33 DUCT MOUNTED SMOKE DETECTOR TO BE INSTALLED IN THE RETURN DUCTWORK, DOWNSTREAM OF FILTERS AND UPSTREAM OF ANY BRANCH CONNECTIONS. INSTALL SAMPLING TUBES AND DETECTOR HOUSING IN STRICT ACCORDANCE WITH MANUFACTURER'S INSTALLATION INSTRUCTIONS. DETECTOR, FAN SHUTDOWN WIRING, AND CONTROLS BY OTHERS.
- M36 INSTALL TRANSFER GRILLES 9'-0" AFF IN WALL. COORDINATE FINAL LOCATION WITH OWNER AND ARCHITECT.
- M37 INSTALL TOP OF RETURN GRILLE 15'-0" AFF IN SOFFIT. COORDINATE FINAL LOCATION WITH ARCHITECT AND WITH DECOR. LOCATION OF DECOR TAKES PRECEDENCE OVER LOCATION OF RETURN GRILLE.



① HVAC ENLARGED PLAN - DELI  
3/16" = 1'-0"



③ HVAC ENLARGED PLAN - PHARMACY  
1/4" = 1'-0"



② HVAC ENLARGED PLAN - BACK OFFICES  
1/4" = 1'-0"



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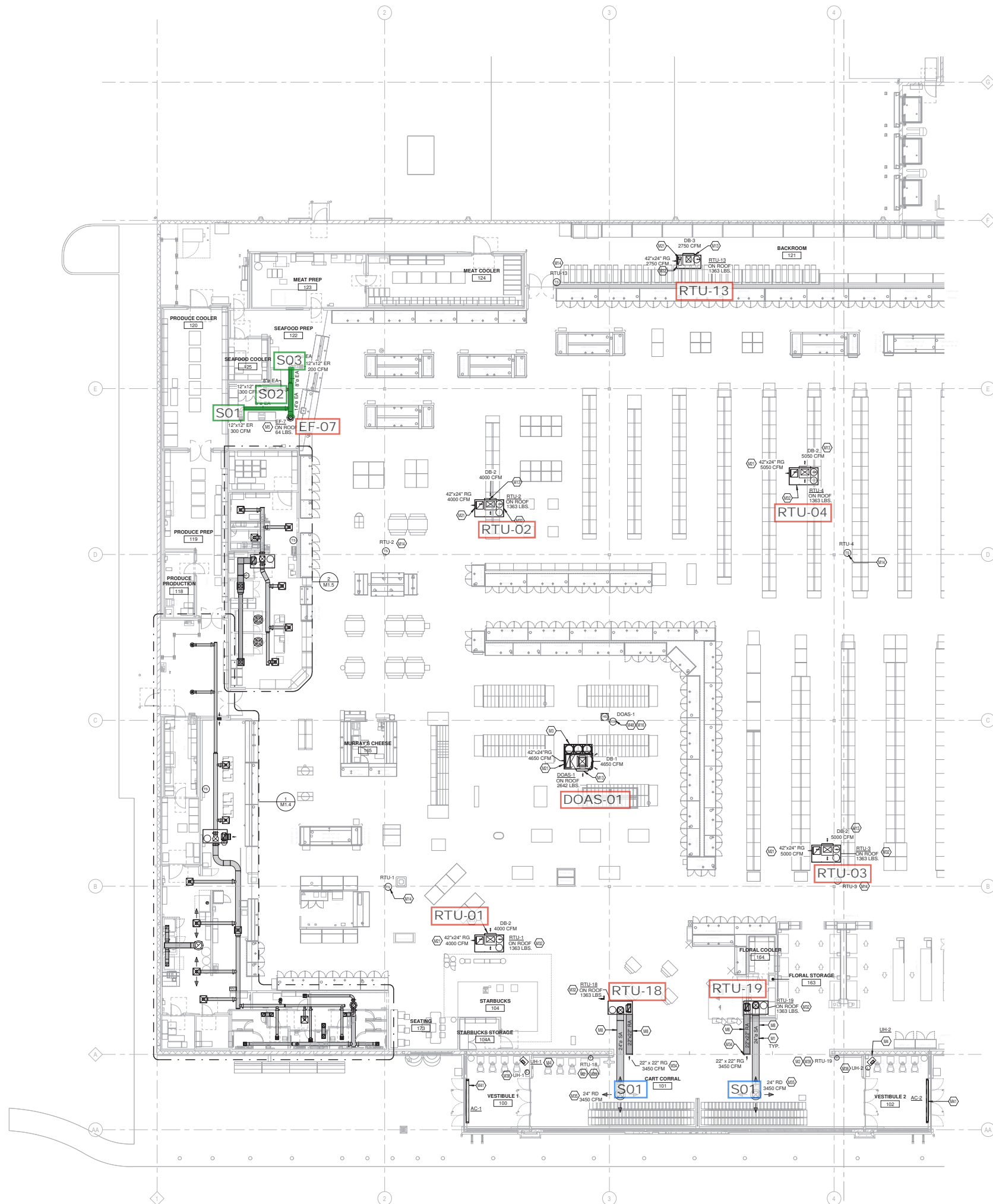
DATE	DESCRIPTION
01/11/2023	90% OWNER REVIEW
02/27/2023	ISSUED FOR PERMIT
06/05/2023	ISSUED FOR BID
08/18/2023	BULLETIN NO. 1
06/25/2024	BULLETIN NO. 10

PROJECT TITLE  
SMITH'S STORE  
SM280

ST. GEORGE, UT  
COMMISSION NO. 522320  
ISSUE DATE 02/27/23  
SHEET TITLE  
HVAC ENLARGED PLANS

SHEET NO.  
**M1.4**  
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**KEYED NOTES**

- M1 CONTRACTOR TO REFER TO HSD-3 FOR DUCTWORK INSTALLATION INFORMATION.
- M2 THERMOSTAT TO BE MOUNTED AT 4'-0" AFF. PROVIDE LOCKABLE PROTECTIVE COVER OVER DEVICE.
- M3 REFER TO SHEETS M3.1.6 AND M3.1.7 FOR DETAILED INFORMATION REGARDING COAS UNITS.
- M4 SUSPENDER ELECTRIC HEATER USING THREADED ROD TO UNISTRUT CHANNEL OR APPROVED EQUAL. MOUNT 18" AFF TO BOTTOM OF UNIT. VERIFY LOCATION AND REQUIREMENTS TO OWNER PRIOR TO INSTALLATION. REFER TO HSD-16 ON M5.1 AND TO SHEET M6.1 FOR MORE INFORMATION.
- M5 DUCT UP TO OPENING THROUGH ROOF CAPPED WITH CURB AND KROGER FURNISHED EXHAUST FAN.
- M6 DUCTWORK TO BE HELD TIGHT TO STRUCTURE.
- M7 DROP BOX DIFFUSER SYSTEM. REFER TO DIFFUSER SCHEDULE FOR AES MODEL NUMBERS AND QUANTITIES. REFER TO FLOOR PLANS FOR THROW DIRECTIONS AND AIRFLOW. REFER TO DETAIL HSD-1 FOR INSTALLATION.
- M14 TEMPERATURE SENSOR FOR RTU FURNISHED BY ORIGINAL EQUIPMENT MANUFACTURER. ROUTE CONTROL WIRING THROUGH RTU AND BACK TO BUILDING CONTROL PANEL.
- M16 HUMIDITY/TEMPERATURE SENSOR FURNISHED BY ORIGINAL EQUIPMENT MANUFACTURER. INSTALL PIPING AT 7'-0" AFF ON COLUMN. REFER TO EM SERIES OF DRAWINGS FOR FURTHER INFORMATION.
- M21 RETURN AIR GRILLE IN SIDE OF DUCT DROP. TITUS 50F WITH 1 INCH OPENINGS OR APPROVED EQUAL.
- M32 ROOFTOP UNIT FURNISHED BY KROGER AND INSTALLED BY MECHANICAL CONTRACTOR. BALANCE TO SCHEDULED AIRFLOW. REFER TO ARCHITECTURAL ROOF PLAN FOR HVAC ROOFTOP DIMENSIONAL INFORMATION. REFER TO STRUCTURAL DRAWINGS FOR JOIST AND BEAM LOCATIONS AND DIMENSIONAL INFORMATION. REFER TO HSD-10 ON M6.1 FOR SEISMIC BRACING INFORMATION.
- M34 INSTALL RETURN GRILLES IN WALL AS HIGH AS POSSIBLE. COORDINATE FINAL LOCATION WITH OWNER PRIOR TO INSTALLATION.
- M35 MOUNT BOTTOM OF DIFFUSERS AT THE SAME HEIGHT AS BOTTOM OF SURROUNDING LIGHTS IN VESTIBULE.
- M38 THERMOSTAT TO BE CONFIGURED WITH AUTOMATIC HEATING SHUTOFF ACTIVATING WHEN OUTDOOR AIR TEMPERATURE REACHES 45 DEG F.
- M39 THERMOSTAT TO BE CONFIGURED WITH AUTOMATIC CONTROLS TO LIMIT HEATING TO A 60 DEG F MAXIMUM AND COOLING TO AN 85 DEG F MINIMUM.
- M41 AIR CURTAIN TO BE FURNISHED AND INSTALLED BY MECHANICAL CONTRACTOR. PROVIDE SOON ACTIVATED MICRO SWITCH TO MAINTAIN OPERATION OF AIR CURTAIN ONLY WHEN DOOR IS OPEN. LIGHT SWITCHES AND BREAKER BOXES MAY NOT BE USED IN PLACE OF OR TO SUPPLEMENT DOOR POSITION ACTIVATED MICRO SWITCHES.
- M48 PROVIDE CO2 SENSOR WHERE SHOWN. ROUTE CONTROL WIRING TO BUILDING CONTROL PANEL.



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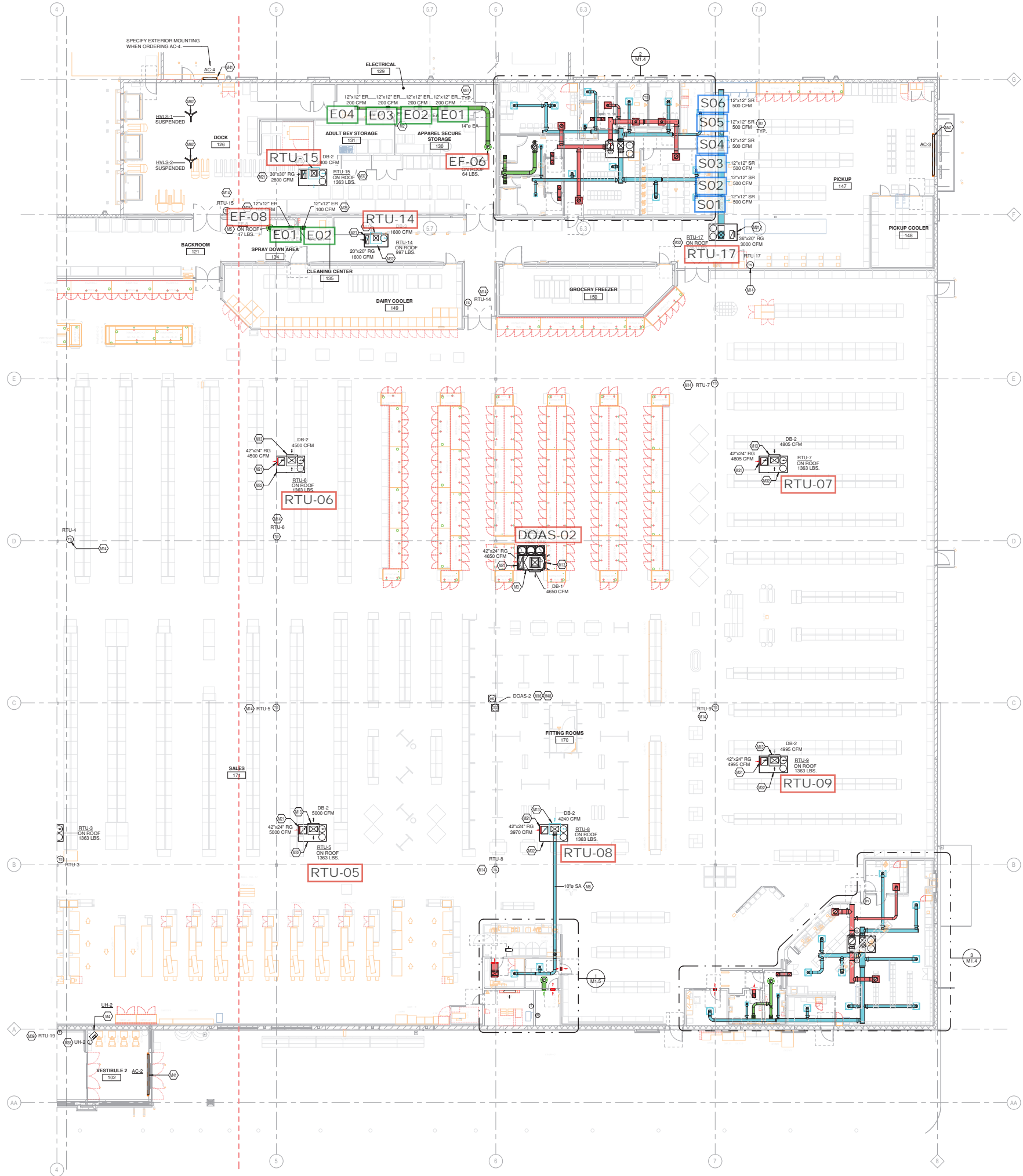
PROJECT TITLE  
**SMITH'S STORE  
SM280**

ST. GEORGE, UT  
COMMISSION NO. 522320  
ISSUE DATE 02/27/23  
SHEET TITLE  
**HVAC FLOOR PLAN -  
LEFT**

SHEET NO.  
**M1.1a**

1 HVAC FLOOR PLAN - LEFT  
3/32" = 1'-0"





- KEYED NOTES**
- M2 THERMOSTAT TO BE MOUNTED AT 4'-0" AFF. PROVIDE LOCKABLE PROTECTIVE COVER OVER DEVICE.
  - M3 REFER TO SHEETS M3.1 & M3.1.7 FOR DETAILED INFORMATION REGARDING COAS UNITS.
  - M4 SUSPENDED ELECTRIC WATER USING TRIMMED ADS TO ORIGINAL CHANNEL OR APPROVED EQUAL. MOUNT 18" AFF TO BOTTOM OF UNIT. VERIFY LOCATION AND REQUIREMENTS TO OWNER PRIOR TO INSTALLATION. REFER TO HSD-16 ON M3.1 AND TO SHEET M3.1 FOR MORE INFORMATION.
  - M5 DUCT UP TO OPENING THROUGH ROOF CAPPED WITH CURBS AND PICKUP FURNISHED EXHAUST FAN.
  - M6 DUCT UP TO OPENING THRU ROOF. CONTRACTOR TO PROVIDE REVERSE ACTING THERMOSTAT FOR FAN. FAN TO ENERGIZE WHEN ROOM REACHES 60 DEG F.
  - M7 SIDEWALL DIFFUSERS TO BE INSTALLED AT 45 DEGREES DOWNWARD. REFER TO 2327 13-00-02 ON M3.2 FOR INSTALLATION INFORMATION.
  - M8 DUCTWORK TO BE HELD TIGHT TO STRUCTURE.
  - M13 DROP BOX DIFFUSER SYSTEM. REFER TO DIFFUSER SCHEDULE FOR AES MODEL NUMBERS AND QUANTITIES. REFER TO FLOOR PLANS FOR THROW DIRECTIONS AND AIRFLOW. REFER TO DETAIL HSD-1 FOR INSTALLATION.
  - M14 TEMPERATURE SENSOR FOR RTU FURNISHED BY ORIGINAL EQUIPMENT MANUFACTURER. ROUTE CONTROL WIRING THROUGH RTU AND BACK TO BUILDING CONTROL PANEL.
  - M16 HUMIDITY/TEMPERATURE SENSOR FURNISHED BY ORIGINAL EQUIPMENT MANUFACTURER. INSTALL PROBE AT 7'-8" AFF ON COLUMN. REFER TO EM SERIES OF DRAWINGS FOR FURTHER INFORMATION.
  - M21 RETURN AIR GRILLE N SIDE OF DUCT DROP. TITUS 55F WITH 1 INCH OPENINGS OR APPROVED EQUAL.
  - M26 MOUNT GRILLE REGISTER 8'-0" AFF.
  - M27 MOUNT GRILLE REGISTER 10'-0" AFF.
  - M32 ROOFTOP UNIT FURNISHED BY KROGER AND INSTALLED BY MECHANICAL CONTRACTOR. BALANCE TO SCHEDULED AIRFLOW. REFER TO ARCHITECTURAL ROOF PLAN FOR HVAC ROOFTOP DIMENSIONAL INFORMATION. REFER TO STRUCTURAL DRAWINGS FOR JOIST AND BEAM LOCATIONS AND DIMENSIONAL INFORMATION. REFER TO HSD-10 ON M3.1 FOR SEISMIC BRACING INFORMATION.
  - M38 THERMOSTAT TO BE CONFIGURED WITH AUTOMATIC HEATING SHUTOFF ACTIVATING WHEN OUTDOOR AIR TEMPERATURE REACHES 45 DEG F.
  - M39 THERMOSTAT TO BE CONFIGURED WITH AUTOMATIC CONTROLS TO LIMIT HEATING TO A 65 DEG F MAXIMUM AND COOLING TO AN 65 DEG F MINIMUM.
  - M41 AIR CURTAIN TO BE FURNISHED AND INSTALLED BY MECHANICAL CONTRACTOR. PROVIDE DOOR ACTIVATED MICRO-SWITCH TO MAINTAIN OPERATION OF AIR CURTAIN ONLY WHEN DOOR IS OPEN. LIGHT SWITCHES AND BREAKER BOXES MAY NOT BE USED IN PLACE OF OR TO CIRCUMVENT DOOR/WINDOW ACTIVATED MICRO-SWITCHES.
  - M48 PROVIDE CO2 SENSOR WHERE SHOWN. ROUTE CONTROL WIRING TO BUILDING CONTROL PANEL.
  - M52 FAN PROVIDED BY CONTRACTOR AND CONTROLLED BY LOCAL SWITCH. MOUNT FAN PER MANUFACTURER'S RECOMMENDATIONS.



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OWNER



DATE	DESCRIPTION
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SM280

ST. GEORGE, UT  
COMMISSION NO. 522320  
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SHEET TITLE  
HVAC FLOOR PLAN - RIGHT

SHEET NO.  
M1.1b

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HVAC FLOOR PLAN - RIGHT  
3/32" = 1'-0"



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