Report By:

National TAB
1329 E. KEMPER ROAD
SUITE 4210
CINCINNATI, OH 45246

Report: TAB Report

Function: Test, Adjust, & Balance

Date: 01/07/2026

Completed By: National TAB

PROJECT

02-02-26 QT #1031 HARRISBURG, NC

5755 NORTH CAROLINA HWY 49 SOUTH

HARRISBURG, NC

Client

QUIKTRIP

4705 SOUTH 129TH EAST AVENUE

TULSA, OK 74134

National TAB

Project: 02-02-26 QT #1031 HARRISBURG, NC

Table Of Contents

Project Summary

Project Summary
The summary below provides a quick understanding of our scope of work and general testing procedures. Enclosed in the report are further details about your building performance including recommendations, asset data, and pictures. Our focus is to work with the trades to remedy any issues or deficiencies during the actual field balancing and not after the balancing has occurred to achieve a positive environment and outcome. The level of success is determined by the availability of the trades, possible parts needed, or time constraints.

RTU's (Roof Top Units)
Each of the RTU's was measured with a flow hood to establish total flow. The total flow was then adjusted via the VFD so that airflow fell within design tolerances. All diffusers on the kitchen RTU were balanced to the engineer's design flow. The diffusers on the sales floor were only adjusted when there were noticeable issues present like drafting or dampers that were found completely closed. The Hoods On outside air rate was set by first establishing the typical QT set point at the Emerson controller and then making manually adjustments on the roof. The hoods off airflow setpoint was found by adjusting the damper position at the Emerson controller until the design airflow was achieved. Outside air was measured by reading the intake air opening with a velocity grid and multiplying by the free area. After completion of TAB all overrides were released.

Kitchen Exhaust Hood & Associated Fans
The kitchen exhaust fan was measured at the hood filter bay utilizing a velocity matrix and a manufacturer's correction factor. Each filter velocity is multiplied by the manufacturer's corrected area. The sum of these readings equals the total flow of the exhaust fans. The total flow of the exhaust was then adjusted to within tolerance of the design flow.

Restroom Exhaust Fans
The restroom exhaust fans were measured with a flow hood. The total flow was balanced for the fan with the exception of the new grille over the combi-oven, which was balanced to the listed design.

Final Building Tests
After completing the test and balance the final building pressure was measured. It was confirmed that the building pressure fell within acceptable tolerances and that the pressure measurement coincides with the actual and design net airflow. Any deviations from these standards are noted throughout the report. The hood capture was tested at the perimeter of the hood and the cook top level with the equipment heat on to ensure satisfactory hood capture and containment.

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Project: 02-02-26 QT #1031 HARRISBURG, NC

- Open QT_Balance_Schedule.xlsx

CheckList List

- 01: RTU’s/AHU’s
- 02: Exhaust Fans
- 03: Hoods
- 04: Final Tests

02-02-26 QT #1031 HARRISBURG, NC

CheckList Information

Name :	01: RTU’s/AHU’s	**Status :**	Completed
Assigned Organization :	National TAB	**Asset :**	
Requesting Organization :	National TAB		
Created Date :	01/07/2026 - Trinity Dodds - National TAB		
Completed Date :	02/03/2026 - Jearod Ferrette - National TAB		

CheckList Item Details

RTU's/AHU's

Evaporator coils are clean?	Pass
Comment:	
Condenser coils are clean?	Pass
Comment:	
Gas piping is installed and valves are turned on?	Pass
Comment:	
Unit free of noticeable noise and vibration	Pass
Comment:	

02-02-26 QT #1031 HARRISBURG, NC

CheckList Information

Name :	02: Exhaust Fans	**Status :**	Completed
Assigned Organization :	National TAB	**Asset :**	
Requesting Organization :	National TAB		
Created Date :	01/07/2026 - Trinity Dodds - National TAB		
Completed Date :	02/03/2026 - Jearod Ferrette - National TAB		

CheckList Item Details

EF's

Hinge kit installed installed on hood fan?	Pass
Comment:	
Flex conduit is long enough so that fan can be completely tilted back?	Pass
Comment:	
No major leakage around the fan base	Pass
Comment:	
Unit is free of noise and vibration	Pass
Comment:	

02-02-26 QT #1031 HARRISBURG, NC

CheckList Information

Name :	03: Hoods	**Status :**	Completed
Assigned Organization :	National TAB	**Asset :**	
Requesting Organization :	National TAB		
Created Date :	01/07/2026 - Trinity Dodds - National TAB		
Completed Date :	02/03/2026 - Jearod Ferrette - National TAB		

CheckList Item Details

HOODS

Hood is free of alarms?	Pass
Comment:	
Hood is free of damage?	Pass
Comment:	
End panels are installed per prototype?	Pass
Comment:	

02-02-26 QT #1031 HARRISBURG, NC

CheckList Information

Name :	04: Final Tests	**Status :**	Completed
Assigned Organization :	National TAB	**Asset :**	
Requesting Organization :	National TAB		
Created Date :	01/07/2026 - Trinity Dodds - National TAB		
Completed Date :	02/03/2026 - Jearod Ferrette - National TAB		

CheckList Item Details

FINAL CHECKS

HOOD CAPTURE TEST

List kitchen equipment turned on for testing

Comment:

FYER, PIZZA OVEN

List smoke candle type used

Comment:

STAFF IS CURRENTLY COOKING. SMOKE CAPTURE 100%

Smoke test capture % - Perimeter of hood

Comment:

100%

Smoke test capture % - Top of cooking surface

Comment:

100%

WITNESS

Date test was completed	02/03/2026

Comment:

TAB tech name / Firm

Comment:

JEAROD FERRETTE/ NTAB

Site super name / Firm

Comment:

NA

Owner representative name / Firm (if Applicable)

Comment:

NA

BUILDING PRESSURE

Do actual net building airflow, design net building airflow, and pressure coincide? If not why? (All three should either be positive or negative)	Pass

Comment:

FRONT -0.0068", SIDE -0.0053, REAR -0.0023"

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Project: 02-02-26 QT #1031 HARRISBURG, NC

System/Unit: AHU/RTU

Asset: RT-1 AREA:SALES FLOOR

Unit Data	
	Actual
MFG	AAON
Serial Num	201204-ANEK06523
Model Num	RN-O13-8-0-EA0A-152
Num OA Filters 1	1
OA Filter Size 1	45X22

Motor Data	
	Actual
Motor MFG	NA
Frame	NA
Horsepower	NA
Motor Rpm	NA
Phase	3
Rated Voltage	208
Rated Amperage	NA

Test Data		
	Design	**Actual**
SF CFM	4200	4190
SF RPM	-	DD/ 37.2HZ
OA CFM (Hoods On)	800	839
OA CFM (Hoods Off)	350	364
RL Voltage	-	105 VFD
RL Amperage	-	7.8 VFD
VFD Max SetPt	-	37.2 HZ
OA Damper Position (Hoods On)	-	46%
OA Damper Position (Hoods Off)	-	26%

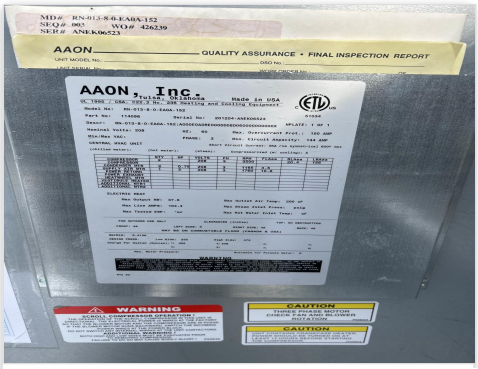
Performance Data		
	Design	**Actual**
MA Plenum SP	-	-0.51"
Fan Suction SP	-	-0.65"
Fan Discharge SP	-	0.47"
Total ESP	-	0.98"
Fan Total SP	-	1.12'

General	
	Actual
Fan Rotation Correct	YES
Unit Filters Clean	YES
Condensate Drain Installed	YES

Completed By: Jearod Ferrette on 02/03/2026

Unit Data - PHOTO LOG

02/03/2026



02/03/2026

National TAB

Project: 02-02-26 QT #1031 HARRISBURG, NC

System/Unit: AHU/RTU

Asset: RT-2 AREA:SALES FLOOR

Unit Data	
	Actual
MFG	AAON
Serial Num	201204-ANEK06522
Model Num	RN-013-8-0-EA0A-152
Num OA Filters 1	1
OA Filter Size 1	45X22

Motor Data	
	Actual
Motor MFG	NA
Frame	NA
Horsepower	NA
Motor Rpm	NA
Phase	3
Rated Voltage	208
Rated Amperage	NA

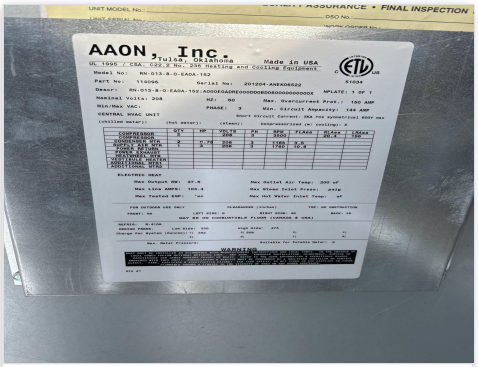
Test Data		
	Design	**Actual**
SF CFM	4200	4283
SF RPM	-	DD/39.6HZ
OA CFM (Hoods On)	800	857
OA CFM (Hoods Off)	350	357
RL Voltage	-	121 VFD
RL Amperage	-	8.6 VFD
VFD Max SetPt	-	39.6HZ
OA Damper Position (Hoods On)	-	46%
OA Damper Position (Hoods Off)	-	26%

Performance Data		
	Design	**Actual**
MA Plenum SP	-	-0.46"
Fan Suction SP	-	-0.62
Fan Discharge SP	-	0.54"
Total ESP	-	1"
Fan Total SP	-	1.16"

General	
	Actual
Fan Rotation Correct	YES
Unit Filters Clean	YES
Condensate Drain Installed	YES

Completed By: Jearod Ferrette on 02/03/2026

Unit Data - PHOTO LOG



02/03/2026

02/03/2026

National TAB

Project: 02-02-26 QT #1031 HARRISBURG, NC

System/Unit: AHU/RTU

Asset: RT-3 AREA:BOH/KITCHEN

Unit Data	
	Actual
MFG	AAON
Serial Num	201204-ANEK06524
Model Num	RN-013-8-0EA0A-152
Num OA Filters 1	1
OA Filter Size 1	45X22

Motor Data	
	Actual
Motor MFG	NA
Frame	NA
Horsepower	NA
Motor Rpm	NA
Phase	3
Rated Voltage	208
Rated Amperage	NA

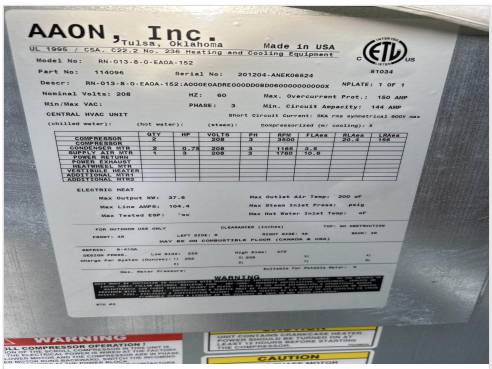
Test Data		
	Design	**Actual**
SF CFM	4200	4140
SF RPM	-	DD/39HZ
OA CFM (Hoods On)	800	867
OA CFM (Hoods Off)	350	371
RL Voltage	-	117 VFD
RL Amperage	-	8.5 VFD
VFD Max SetPt	-	39 HZ
OA Damper Position (Hoods On)	-	46%
OA Damper Position (Hoods Off)	-	26%

Performance Data		
	Design	**Actual**
MA Plenum SP	-	-0.51"
Fan Suction SP	-	-0.67"
Fan Discharge SP	-	0.44"
Total ESP	-	0.95"
Fan Total SP	-	1.11"

General	
	Actual
Fan Rotation Correct	YES
Unit Filters Clean	YES
Condensate Drain Installed	YES

Completed By: Jearod Ferrette on 02/03/2026

Unit Data - PHOTO LOG



02/03/2026

02/03/2026

National TAB

Project:02-02-26 QT #1031 HARRISBURG, NC

AHU/RTU

Diffuser Supply (GRD)

RT-3/BOH/KITCHEN

Asset									
Asset Name	**Location**	**Type**	**Size**	**DESIGN CFM**	**AK**	**CFM(1)**	**CFM(2)**	**FINAL CFM**	**% to design**
SGRD1	SUPPORT SERVICE	SI	12"	800	1	1111	1009	739	92.4
SGRD2	SUPPORT SERVICE	SI	12"	800	1	944	845	782	97.8
SGRD3	SUPPORT SERVICE	SI	12"	800	1	884	803	792	99.0
SGRD4	SUPPORT SERVICE	SI	12"	800	1	544	385	741	92.6
SGRD5	DOCK	ES	12"	750	1	902	790	815	108.7
SGRD6	WORKROOM	ES	8"	250	1	324	292	271	108.4
Total				4200		4709	4124	4140	98.57%

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Project: 02-02-26 QT #1031 HARRISBURG, NC

System/Unit: FAN - Exhaust

Asset: EF1 AREA:WOMEN'S RR

Unit Data		
	Design	**Actual**
MFG	NA	NA
Model Num	NA	NA
Serial Num	-	4100SE15342
Type	-	UPBLAST
Configuration	-	VERTICAL

Motor Data		
	Design	**Actual**
Motor MFG	-	QUEACE
Frame	-	48Y
Horsepower	-	1/8
Motor Rpm	-	1600
Phase	-	1
Voltage (rated)	-	115
Amperage (rated)	-	1.7
Service Factor	-	1

Test Data		
	Design	**Actual**
CFM	225	222
Fan RPM	-	DD
Fan Rotation	-	CCW
Motor RPM	-	DD
System SetPt	-	MAX
RL Voltage	-	NA
RL Amperage	-	NA
Total ESP	-	0.26"
Fan Inlet SP	-	-0.26"
Fan Discharge SP	-	ATMO

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Unit Data - PHOTO LOG

02/03/2026

National TAB

Project: 02-02-26 QT #1031 HARRISBURG, NC

System/Unit: FAN - Exhaust

Asset: EF2 AREA:MEN'S RR/COMBI

Unit Data		
	Design	**Actual**
MFG	NA	NA
Model Num	NA	NA
Serial Num	-	410SE15342
Type	-	UPBLAST
Configuration	-	VERTICAL

Motor Data		
	Design	**Actual**
Motor MFG	-	FASCO
Frame	-	NA
Horsepower	-	1/4
Motor Rpm	-	1550
Phase	-	1
Voltage (rated)	-	115
Amperage (rated)	-	3.2
Service Factor	-	1

Test Data		
	Design	**Actual**
CFM	525	502
Fan RPM	-	DD
Fan Rotation	-	CCW
Motor RPM	-	DD
System SetPt	-	MAX
RL Voltage	-	NA
RL Amperage	-	NA
Total ESP	-	0.19"
Fan Inlet SP	-	-0.19"
Fan Discharge SP	-	ATMO

Completed By: Jearod Ferrette on 02/03/2026

Unit Data - PHOTO LOG

02/03/2026

Diffuser Ret/Exh (GRD)

EF2/MEN'S RR/COMBI

Asset									
Asset Name	Location	Type	Size	DESIGN CFM	AK	CFM(1)	CFM(2)	FINAL CFM	% to design
EGRD1	SUPPORT SERVICE	RI	8"	150	1	139	139	139	92.7
Total				150		139	139	139	92.67%

National TAB

Project: 02-02-26 QT #1031 HARRISBURG, NC

System/Unit: FAN - Exhaust

Asset: EF3 AREA:KITCHEN HD

Unit Data		
	Design	**Actual**
MFG	NA	CAPTIVEAIRE
Model Num	NA	DU50HFA
Serial Num	-	8262100
Type	UPBLAST	UPBLAST
Configuration	VERTICAL	VERTICAL

Motor Data		
	Design	**Actual**
Motor MFG	-	TELCO GREEN
Frame	-	NA
Horsepower	1/2	1/2
Motor Rpm	-	1800
Phase	-	1
Voltage (rated)	-	115
Amperage (rated)	-	NA
Service Factor	-	1

Test Data		
	Design	**Actual**
CFM	1350	1360
Fan RPM	-	1227/ 54.8 HZ
Fan Rotation	-	CCW
Motor RPM	-	1227/ 54.8
System SetPt	-	54.8HZ
RL Voltage	-	NA
RL Amperage	-	NA
Total ESP	-	0.29"
Fan Inlet SP	-	-0.29"
Fan Discharge SP	-	ATMO

Completed By: Jearod Ferrette on 02/03/2026

Unit Data - PHOTO LOG

02/03/2026

National TAB

Project: 02-02-26 QT #1031 HARRISBURG, NC

System/Unit: Kitchen Hood Type I

Asset: HD1 AREA:GRIDDLE

Unit Data		
	Design	**Actual**
MFG	CAPTIVEAIRE	CAPTIVEAIRE
Model Num	6030ND-2-F	6030ND-2-F
Job / Serial Num	-	8262100
Type	TYPE I CANOPY	TYPE I CANOPY
Hood length	108"	108"
Hood Width	60"	60"

Test Data Exhaust		
	Design	**Actual**
Filter Type	-	BAFFLED FILTERS
Filter Size 1	-	16X20
Filter Qty 1	-	6
Filter AK factor size 1	-	2.08
Filter Total AK Area	-	12.48
Filter1 FPM	-	101
Filter2 FPM	-	106
Filter3 FPM	-	113
Filter4 FPM	-	120
Filter5 FPM	-	117
Filter6 FPM	-	99
Filter Ave FPM(corr)	-	109
CFM	1350	1360

Cooking Equipment	
	Actual
Item 1	FRYER
Item 2	PIZZA OVEN

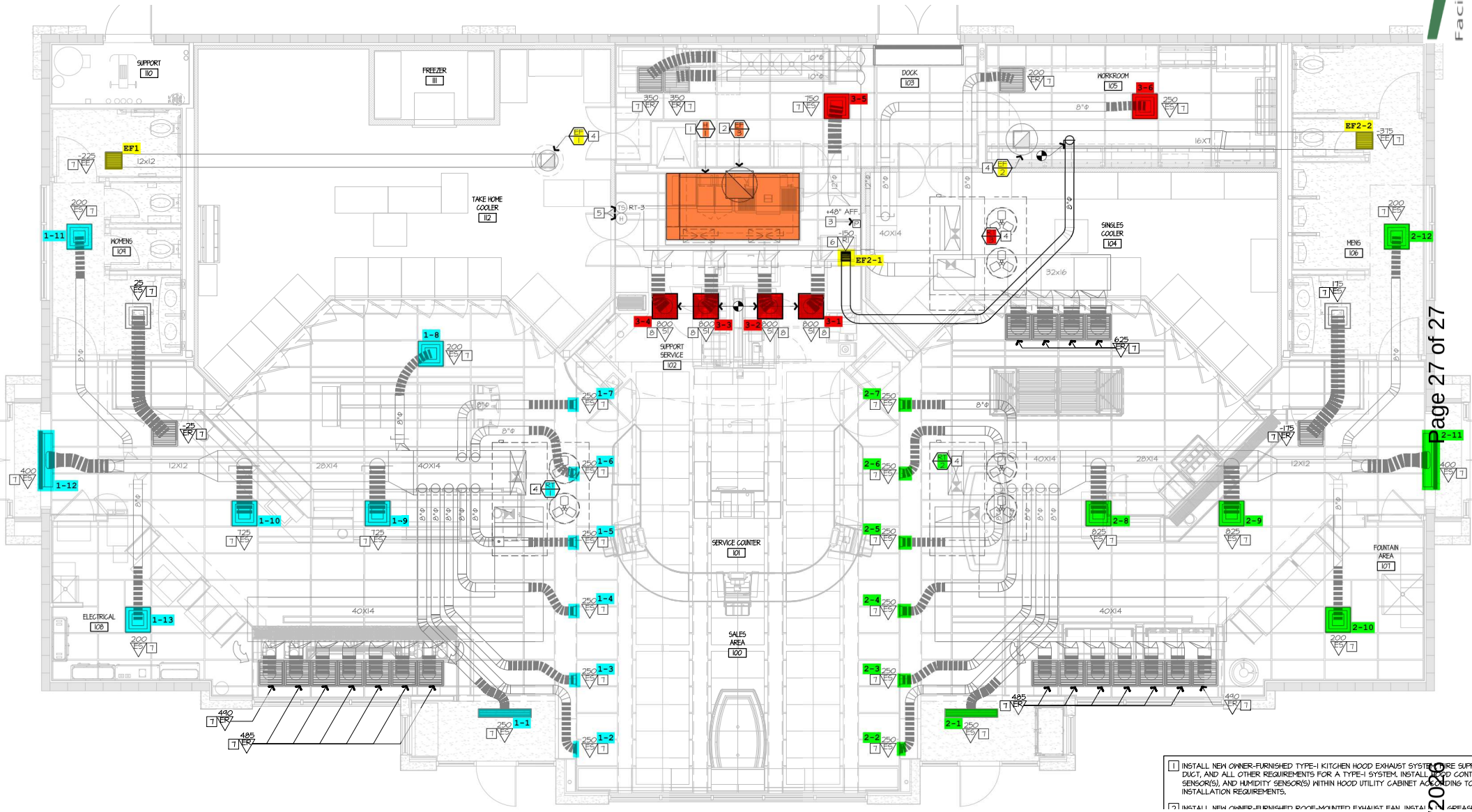
Completed By: Jearod Ferrette on 02/03/2026

Unit Data - PHOTO LOG

02/03/2026

02/03/2026

02/03/2026



[1] INSTALL NEW OWNER-FURNISHED TYPE-I KITCHEN HOOD EXHAUST SYSTEM, FIRE SUPP
DUCT, AND ALL OTHER REQUIREMENTS FOR A TYPE-I SYSTEM, INSTALL HOOD CONT
SENSOR(S), AND HUMIDITY SENSOR(S) WITHIN HOOD UTILITY CABINET ACCORDING TO
INSTALLATION REQUIREMENTS.

[2] INSTALL NEW OWNER-FURNISHED ROOF-MOUNTED EXHAUST FAN, INSTALL GREASE

Date: 2/11/2026