

Report By:

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



Report: TAB Report
Function: Test, Adjust, & Balance
Date: 02/17/2026
Completed By: National TAB

PROJECT
02-23-26 QT #1043 GASTONIA, GA

1843 W FRANKLIN BLVD

GASTONIA, GA

Client

QUIKTRIP
4705 SOUTH 129TH EAST AVENUE
TULSA, OK 74134

National TAB

Project: 02-23-26 QT #1043 GASTONIA, GA

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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.

Issue List

- SGRD 3-5 damper inaccessible
- SGRD 3-6 damper inaccessible
- Specified diffusers not installed

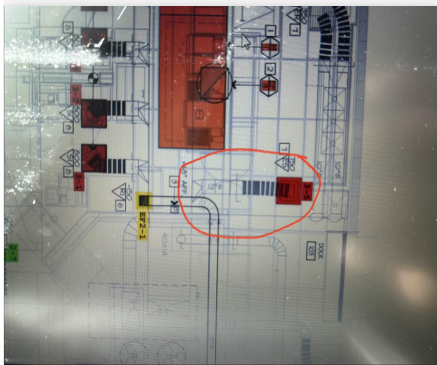


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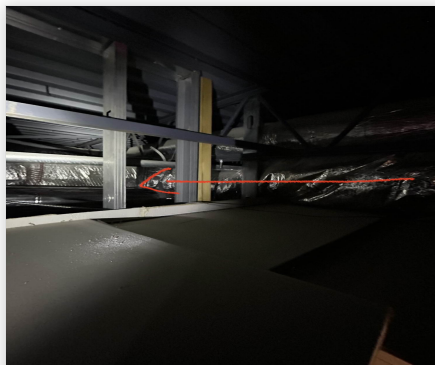
Project Issue Information

Issue Name : SGRD 3-5 damper inaccessible
Description : SGRD 3-5 damper out of reach, plumbing pipes restrict accessibility.
Created By : National TAB **Assigned To :** National TAB - Dan Hertenstein
Status : Open
Priority : Medium **Asset Tag :** SGRD5
Originated Date : 02/24/2026 - Jearod Ferrette - National TAB

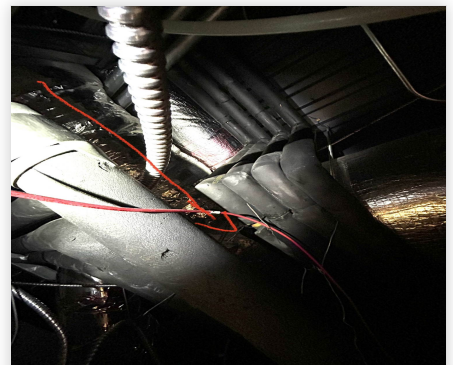
Project Issue File Details



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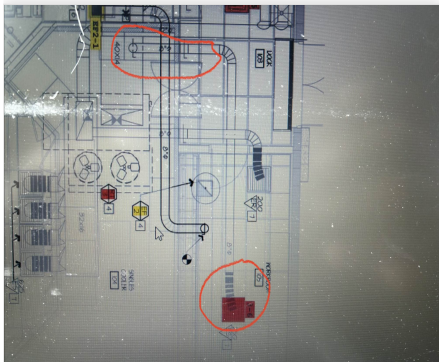


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Project Issue Information

Issue Name : SGRD 3-6 damper inaccessible
Description : SGRD 3-6 damper out reach unable access.
Created By : National TAB **Assigned To :** National TAB - Dan Hertenstein
Status : Open
Priority : Medium **Asset Tag :** SGRD6
Originated Date : 02/24/2026 - Jearod Ferrette - National TAB

Project Issue File Details



02/24/2026



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02-23-26 QT #1043 GASTONIA, GA

Project Issue Information

Issue Name : Specified diffusers not installed
Description : SGRD 3-1 to 3-4 diffusers are not per design.
Created By : National TAB **Assigned To :** National TAB - Dan Hertenstein
Status : Open
Priority : Low **Asset Tag :** RT-3
Originated Date : 02/24/2026 - Jearod Ferrette - National TAB

Project Issue File Details



02/24/2026

AIR BALANCE SCHEDULE

UNIT	AREA SERVED	HOOD ON OA		HOOD OFF OA		HOOD ON EXHAUST		HOOD OFF EXHAUST	
		DESIGN	ACTUAL	DESIGN	ACTUAL	DESIGN	ACTUAL	DESIGN	ACTUAL
RTU 1	SALES	800	820	350	347				
RTU-2	SALES	800	813	350	368				
RTU-3	BOH/KITCHEN	800	799	350	354				
EF-1	WOMEN'S RR					225	226	225	226
EF-2	MEN'S RR					525	457	525	457
EF-3	HOOD					1350	1385	0	0
TOTALS		2400	2432	1050	1069	2100	2068	750	683

HOODS ON

NET AIRFLOW CALCULATION

TOTALS	DESIGN	ACTUAL
TOTAL OA	2400	2432
TOTAL EXHAUST	2100	2068
NET AIRFLOW	300	364

DOOR TESTED	BUILDING PRESSURE MEASUREMENTS
FRONT	0.001
SIDE	0.0008
REAR	0.0007
AVERAGE	0.0008

HOODS OFF

NET AIRFLOW CALCULATION

TOTALS	DESIGN	ACTUAL
TOTAL OA	1050	1069
TOTAL EXHAUST	750	683
NET AIRFLOW	300	386

DOOR TESTED	BUILDING PRESSURE MEASUREMENTS
FRONT	0.0009
SIDE	0.001
REAR	0.0007
AVERAGE	0.0009

NOTES:

CheckList List

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



02-23-26 QT #1043 GASTONIA, GA

CheckList Information

Name : 01: RTU's/AHU's **Status :** Completed

Assigned Organization : National TAB **Asset :**

Requesting Organization : National TAB

Created Date : 02/12/2026 - Trinity Dodds - National TAB

Completed Date : 02/24/2026 - 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?	N/A
Comment:	
Unit free of noticeable noise and vibration	Pass
Comment:	



02-23-26 QT #1043 GASTONIA, GA

CheckList Information

Name : 02: Exhaust Fans **Status :** Completed
Assigned Organization : National TAB **Asset :**
Requesting Organization : National TAB
Created Date : 02/12/2026 - Trinity Dodds - National TAB
Completed Date : 02/24/2026 - 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:



02-23-26 QT #1043 GASTONIA, GA

CheckList Information

Name : 03: Hoods **Status :** Completed
Assigned Organization : National TAB **Asset :**
Requesting Organization : National TAB
Created Date : 02/12/2026 - Trinity Dodds - National TAB
Completed Date : 02/24/2026 - 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:



02-23-26 QT #1043 GASTONIA, GA

CheckList Information

Name : 04: Final Tests **Status :** Completed

Assigned Organization : National TAB **Asset :**

Requesting Organization : National TAB

Created Date : 02/12/2026 - Trinity Dodds - National TAB

Completed Date : 02/24/2026 - Jearod Ferrette - National TAB

CheckList Item Details

FINAL CHECKS

HOOD CAPTURE TEST

List kitchen equipment turned on for testing

Comment:

PIZZA OVEN

List smoke candle type used

Comment:

SMOKE CANDLE

Smoke test capture % - Perimeter of hood

Comment:

100%

Smoke test capture % - Top of cooking surface

Comment:

100%

WITNESS

Date test was completed

02/24/2026

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 0.001, Side 0.0008, Rear 0.0007



National TAB

Project: 02-23-26 QT #1043 GASTONIA, GA

System/Unit: AHU/RTU

Asset: RT-1

AREA:SALES FLOOR

Unit Data	
	Actual
MFG	AAON
Serial Num	201212-ANEK07713
Model Num	RN-013-8-0-EA0A-152
Num OA Filters 1	1
OA Filter Size 1	22.5X44.5
Num Final Filter 1	2
Final Filter Size 1	56X45

Motor Data	
	Actual
Horsepower	3
Motor Rpm	1760
Phase	3
Rated Voltage	208
Rated Amperage	10.6

Test Data		
	Design	Actual
SF CFM	4200	4155
SF RPM	-	DD/ 41 HZ
OA CFM (Hoods On)	800	820
OA CFM (Hoods Off)	350	347
RL Voltage	-	130 VFD
RL Amperage	-	8.8 VFD
VFD Max SetPt	-	41 HZ
OA Damper Position (Hoods On)	-	46%
OA Damper Position (Hoods Off)	-	26%

Performance Data	
	Actual
MA Plenum SP	-0.62"
Fan Suction SP	-0.80"
Fan Discharge SP	0.50"
Total ESP	1.12"
Fan Total SP	1.30"

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

Completed By: Jearod Ferrette on 02/24/2026

Unit Data - PHOTO LOG



02/24/2026



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National TAB

Project: 02-23-26 QT #1043 GASTONIA, GA

System/Unit: AHU/RTU

Asset: RT-2

AREA:SALES FLOOR

Unit Data	
	Actual
MFG	AAON
Serial Num	201212-ANEK07711
Model Num	RN-013-8-0-EA0A-152
Num OA Filters 1	1
OA Filter Size 1	22.5X44.5
Num Final Filter 1	2
Final Filter Size 1	56X45

Motor Data	
	Actual
Horsepower	3
Motor Rpm	1760
Phase	3
Rated Voltage	208
Rated Amperage	10.6

Test Data		
	Design	Actual
SF CFM	4200	4310
SF RPM	-	DD/ 43HZ
OA CFM (Hoods On)	800	813
OA CFM (Hoods Off)	350	368
RL Voltage	-	130 VFD
RL Amperage	-	9.9 VFD
VFD Max SetPt	-	43 HZ
OA Damper Position (Hoods On)	-	46%
OA Damper Position (Hoods Off)	-	26%

Performance Data	
	Actual
MA Plenum SP	-0.67"
Fan Suction SP	-0.83"
Fan Discharge SP	0.58"
Total ESP	1.25"
Fan Total SP	1.41"

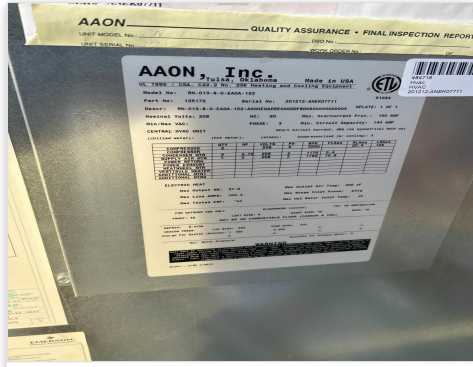
General	
	Actual
Fan Rotation Correct	YES
Unit Filters Clean	YES
Condensate Drain Installed	YES

Completed By: Jearod Ferrette on 02/24/2026

Unit Data - PHOTO LOG



02/24/2026



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National TAB

Project: 02-23-26 QT #1043 GASTONIA, GA

System/Unit: AHU/RTU

Asset: RT-3

AREA:BOH/KITCHEN

Unit Data	
	Actual
MFG	AAON
Serial Num	201212-ANEK07711
Model Num	RN-013-8-0-EA0A-152
Num OA Filters 1	1
OA Filter Size 1	22.5X44.5
Num Final Filter 1	2
Final Filter Size 1	56X45

Motor Data	
	Actual
Horsepower	3
Motor Rpm	1760
Phase	3
Rated Voltage	208
Rated Amperage	10.6

Test Data		
	Design	Actual
SF CFM	4200	4333
SF RPM	-	DD/ 41 HZ
OA CFM (Hoods On)	800	799
OA CFM (Hoods Off)	350	354
RL Voltage	-	130 VFD
RL Amperage	-	8.9 VFD
VFD Max SetPt	-	41 HZ
OA Damper Position (Hoods On)	-	46%
OA Damper Position (Hoods Off)	-	26%

Performance Data	
	Actual
MA Plenum SP	-0.59"
Fan Suction SP	-0.76"
Fan Discharge SP	0.57"
Total ESP	1.16"
Fan Total SP	1.33"

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

Completed By: Jearod Ferrette on 02/24/2026

Unit Data - PHOTO LOG



02/24/2026



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National TAB

Project:02-23-26 QT #1043 GASTONIA, GA

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	898		898	112.3
SGRD2	SUPPORT SERVICE	SI	12"	800	1	688		688	86.0
SGRD3	SUPPORT SERVICE	SI	12"	800	1	708		708	88.5
SGRD4	SUPPORT SERVICE	SI	12"	800	1	802		802	100.3
SGRD5	DOCK	ES	12"	750	1	925		925	123.3
SGRD6	WORKROOM	ES	8"	250	1	312		312	124.8
Total				4200		4333	0	4333	103.17%

Asset	Notes	Date	Written By
SGRD5	Damper inaccessible, see issues.	02/24/2026	Jearod Ferrette
SGRD6	Damper inaccessible, see issues.	02/24/2026	Jearod Ferrette



National TAB

Project: 02-23-26 QT #1043 GASTONIA, GA

System/Unit: FAN - Exhaust

Asset: EF1

AREA:WOMEN'S RR

Unit Data	
	Actual
MFG	COOK
Model Num	90 ACEH
Serial Num	410SE42062
Type	DOWNBLAST
Configuration	VERTICAL

Motor Data	
	Actual
Motor MFG	FASCO
Horsepower	1/8
Motor Rpm	1600
Phase	1
Voltage (rated)	115
Amperage (rated)	1.7
Service Factor	1

Test Data		
	Design	Actual
CFM	225	226
Fan RPM	-	DD
Fan Rotation	-	CCW
Motor RPM	-	DD
System SetPt	-	50%
Total ESP	-	0.15"
Fan Inlet SP	-	-0.15"
Fan Discharge SP	-	ATMO

Completed By: Jearod Ferrette on 02/24/2026

Unit Data - PHOTO LOG



02/24/2026



National TAB

Project: 02-23-26 QT #1043 GASTONIA, GA

System/Unit: FAN - Exhaust

Asset: EF2

AREA: MEN'S RR/COMBI

Unit Data	
	Actual
MFG	COOK
Model Num	120 ACE
Serial Num	410SE42062
Type	DOWNBLAST
Configuration	VERTICAL

Motor Data	
	Actual
Motor MFG	QUEACE
Frame	48Y
Horsepower	1/4
Motor Rpm	1550
Phase	1
Voltage (rated)	115
Amperage (rated)	3.3
Service Factor	1

Test Data		
	Design	Actual
CFM	525	457
Fan RPM	-	DD
Fan Rotation	-	CCW
Motor RPM	-	DD
System SetPt	-	MAX
Total ESP	-	0.17"
Fan Inlet SP	-	-0.17"
Fan Discharge SP	-	ATMO

Completed By: Jearod Ferrette on 02/24/2026

Unit Data - PHOTO LOG



02/24/2026



National TAB

Project:02-23-26 QT #1043 GASTONIA, GA

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	COMBI	RI	8"	150	1	114		114	76.0
Total				150		114	0	114	76%



National TAB

Project: 02-23-26 QT #1043 GASTONIA, GA

System/Unit: FAN - Exhaust

Asset: EF3

AREA: KITCHEN HD

Unit Data	
	Actual
MFG	CAPTIVEAIRE
Model Num	DU50HFA
Serial Num	8428207
Type	UPBLAST
Configuration	VERTICAL

Motor Data		
	Design	Actual
Motor MFG	-	TELCO GREEN
Horsepower	1/2	1/2
Motor Rpm	-	1800
Phase	-	1
Voltage (rated)	-	208
Service Factor	-	1

Test Data		
	Design	Actual
CFM	1350	1385
Fan RPM	-	1195
Fan Rotation	-	CCW
Motor RPM	-	1195
System SetPt	-	52.8 HZ
Total ESP	-	0.24"
Fan Inlet SP	-	-0.24"
Fan Discharge SP	-	ATMO

Completed By: Jearod Ferrette on 02/24/2026

Unit Data - PHOTO LOG



02/24/2026



National TAB

Project: 02-23-26 QT #1043 GASTONIA, GA

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	-	8428207
Type	TYPE I CANOPY	TYPE I CANOPY
Hood length	108"	108"
Hood Width	60"	60"

Test Data Exhaust		
	Design	Actual
Filter Type	CAPTRATE SOLO FILTER	CAPTRATE SOLO FILTER
Filter Size 1	20X16	20X16
Filter Qty 1	6	6
Filter AK factor size 1	2.08	2.08
Filter Total AK Area	12.48	12.48
Filter1 FPM	-	119
Filter2 FPM	-	118
Filter3 FPM	-	116
Filter4 FPM	-	105
Filter5 FPM	-	105
Filter6 FPM	-	103
Filter Ave FPM(corr)	-	111
CFM	1350	

Cooking Equipment	
	Actual
Item 1	FRYER
Item 2	PIZZA OVEN

Completed By: Jearod Ferrette on 02/24/2026

Unit Data - PHOTO LOG



02/24/2026

