

Report By:

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



Report: TAB Report
Function: Test, Adjust, & Balance
Date: 04/02/2026
Completed By: National TAB

PROJECT
03-16-26 QT #1728 ATHENS, GA

3270 LEXINGTON RD

ATHENS, GA

Client

QUIKTRIP
4705 SOUTH 129TH EAST AVENUE
TULSA, OK 74134

National TAB

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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.

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	814	350	355				
RTU-2	SALES	800	799	350	348				
RTU-3	BOH/KITCHEN	800	863	350	339				
EF-1	RR/JANITOR					750	698	750	698
EF-3	HOOD					1350	1422	0	0
TOTALS		2400	2476	1050	1042	2100	2120	750	698

HOODS ON

NET AIRFLOW CALCULATION

TOTALS	DESIGN	ACTUAL
TOTAL OA	2400	2476
TOTAL EXHAUST	2100	2120
NET AIRFLOW	300	356

DOOR TESTED	BUILDING PRESSURE MEASUREMENTS
FRONT	0.0078
SIDE	0.0066
REAR	0.0028
AVERAGE	0.0057

HOODS OFF

NET AIRFLOW CALCULATION

TOTALS	DESIGN	ACTUAL
TOTAL OA	1050	1042
TOTAL EXHAUST	750	698
NET AIRFLOW	300	344

DOOR TESTED	BUILDING PRESSURE MEASUREMENTS
FRONT	0.0018
SIDE	0.0036
REAR	0.001
AVERAGE	0.0021

NOTES:

CheckList List

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



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CheckList Information

Name : 01: RTU's/AHU's **Status :** Completed
Assigned Organization : National TAB **Asset :**
Requesting Organization : National TAB
Created Date : 02/18/2026 - Trinity Dodds - National TAB
Completed Date : 03/19/2026 - Anthony Taylor - 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:



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CheckList Information

Name : 02: Exhaust Fans **Status :** Completed
Assigned Organization : National TAB **Asset :**
Requesting Organization : National TAB
Created Date : 02/18/2026 - Trinity Dodds - National TAB
Completed Date : 03/19/2026 - Anthony Taylor - 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:



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CheckList Information

Name : 03: Hoods **Status :** Completed
Assigned Organization : National TAB **Asset :**
Requesting Organization : National TAB
Created Date : 02/18/2026 - Trinity Dodds - National TAB
Completed Date : 03/19/2026 - Anthony Taylor - 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:



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CheckList Information

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

Assigned Organization : National TAB **Asset :**

Requesting Organization : National TAB

Created Date : 02/18/2026 - Trinity Dodds - National TAB

Completed Date : 03/19/2026 - Anthony Taylor - National TAB

CheckList Item Details

FINAL CHECKS

HOOD CAPTURE TEST

List kitchen equipment turned on for testing

Comment:

Fryer/Pizza Oven

List smoke candle type used

Comment:

NTI

Smoke test capture % - Perimeter of hood

Comment:

100%

Smoke test capture % - Top of cooking surface

Comment:

100%

WITNESS

Date test was completed

03/19/2026

Comment:

TAB tech name / Firm

Comment:

Anthony Taylor

Site super name / Firm

Comment:

QT

Owner representative name / Firm (if Applicable)

Comment:

QT

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:



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Project: 03-16-26 QT #1728 ATHENS, GA

System/Unit: AHU/RTU

Asset: RT-1

AREA:SALES

Unit Data	
	Actual
MFG	AAON
Serial Num	202210-ANEK25533
Model Num	RN-013-8-0-EA0A-152
Num OA Filters 1	1
OA Filter Size 1	23X45
Num Final Filter 1	4
Final Filter Size 1	20X25X2

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

Test Data		
	Design	Actual
SF CFM	4200	4190
SF RPM	-	1760
OA CFM (Hoods On)	800	814
OA CFM (Hoods Off)	350	355
RL Voltage	-	151V
RL Amperage	-	7.4A
VFD Max SetPt	-	45 hz
VFD Min SetPt	-	24 hz
OA Damper Position (Hoods On)	-	46% - MANUAL ADJUSTMENT
OA Damper Position (Hoods Off)	-	26%

Performance Data		
	Design	Actual
MA Plenum SP	-	-0.68"
Fan Suction SP	-	-0.18"
Fan Discharge SP	-	0.35"
Total ESP	-	1.03"
Fan Total SP	-	0.53"

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

Completed By: Anthony Taylor on 03/19/2026

Unit Data - PHOTO LOG



03/19/2026



National TAB

Project: 03-16-26 QT #1728 ATHENS, GA

System/Unit: AHU/RTU

Asset: RT-2

AREA:SALES

Unit Data	
	Actual
MFG	AAON
Serial Num	202210-ANEK25534
Model Num	RN-013-8-0-EA0A-152
Num OA Filters 1	1
OA Filter Size 1	23X45
Num Final Filter 1	4
Final Filter Size 1	20X25X2

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

Test Data		
	Design	Actual
SF CFM	4200	4214
SF RPM	-	1760
OA CFM (Hoods On)	800	799
OA CFM (Hoods Off)	350	348
RL Voltage	-	151V
RL Amperage	-	7.6A
VFD Max SetPt	-	45 hz
VFD Min SetPt	-	24 hz
OA Damper Position (Hoods On)	-	46% - MANUAL ADJUSTMEN
OA Damper Position (Hoods Off)	-	25%

Performance Data		
	Design	Actual
MA Plenum SP	-	-0.64"
Fan Suction SP	-	-0.25"
Fan Discharge SP	-	0.37"
Total ESP	-	1.01"
Fan Total SP	-	0.62"

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

Completed By: Anthony Taylor on 03/19/2026

Unit Data - PHOTO LOG



03/19/2026



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Project: 03-16-26 QT #1728 ATHENS, GA

System/Unit: AHU/RTU

Asset: RT-3

AREA:BOH//KITCHEN

Unit Data	
	Actual
MFG	AAON
Serial Num	202210-ANEK25532
Model Num	RN-013-8-0-EA0A-152
Num OA Filters 1	1
OA Filter Size 1	23X45
Num Final Filter 1	4
Final Filter Size 1	20X25X2

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

Test Data		
	Design	Actual
SF CFM	4200	4207
SF RPM	-	1760
OA CFM (Hoods On)	800	863
OA CFM (Hoods Off)	350	339
RL Voltage	-	171V
RL Amperage	-	8.4A
VFD Max SetPt	-	48 hz
VFD Min SetPt	-	24 hz
OA Damper Position (Hoods On)	-	46 - MANUAL ADJUSTMENT
OA Damper Position (Hoods Off)	-	25%

Performance Data		
	Design	Actual
MA Plenum SP	-	-0.73"
Fan Suction SP	-	0.31"
Fan Discharge SP	-	0.47"
Total ESP	-	1.20"
Fan Total SP	-	0.78"

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

Completed By: Sagar Patel on 04/02/2026

Notes:
UNABLE TO BALANCE INDIVIDUAL DIFFUSERS DUE TO INACCESSIBLE DAMPERS-SEE ISSUE

Written By: Michael McDonnell on 03/25/2026

Unit Data - PHOTO LOG



03/19/2026



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Project:03-16-26 QT #1728 ATHENS, 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	995	995	828	103.5
SGRD2	SUPPORT SERVICE	SI	12"	800	1	931	931	762	95.3
SGRD3	SUPPORT SERVICE	SI	12"	800	1	1029	1029	826	103.3
SGRD4	SUPPORT SERVICE	SI	12"	800	1	515	515	821	102.6
SGRD5	DOCK	ES	10"	500	1	250	250	467	93.4
SGRD6	WORKROOM	ES	8"	250	1	202	202	229	91.6
SGRD7	WORKROOM	ES	8"	250	1	287	287	274	109.6
Total				4200		4209	4209	4207	100.17%

Completed By: Sagar Patel on 04/02/2026



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Project: 03-16-26 QT #1728 ATHENS, GA

System/Unit: FAN - Exhaust

Asset: EF-1

AREA:RESTROOMS/JANITOR

Unit Data		
	Design	Actual
MFG	NA	CAPTIVEAIRE
Model Num	NA	DR50HFA
Serial Num	-	5608965
Type	-	DOWNBLAST
Configuration	-	ATM

Motor Data		
	Design	Actual
Motor MFG	-	CAPTIVEAIRE
Horsepower	-	0.5
Motor Rpm	-	2000
Phase	-	1
Voltage (rated)	-	115
Amperage (rated)	-	8.4

Test Data		
	Design	Actual
CFM	750	698
Fan RPM	-	2000
Fan Rotation	-	CCW
Motor RPM	-	2000
System SetPt	-	HIGH - DIAL
RL Voltage	-	115v
RL Amperage	-	4.6A
Total ESP	-	0.33"
Fan Inlet SP	-	-0.33"
Fan Discharge SP	-	ATM

Completed By: Anthony Taylor on 03/19/2026

Unit Data - PHOTO LOG



03/19/2026



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Project:03-16-26 QT #1728 ATHENS, GA

Diffuser Ret/Exh (GRD)

EF-1/RESTROOMS/JANITOR

Asset									
Asset Name	Location	Type	Size	DESIGN CFM	AK	CFM(1)	CFM(2)	FINAL CFM	% to design
EGRD4	SUPPORT SERVICE	EE	8"	150	0.44	144	144	144	96.0
Total				150		144	144	144	96%



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Project: 03-16-26 QT #1728 ATHENS, GA

System/Unit: FAN - Exhaust

Asset: EF-3

AREA:KITCHEN HOOD

Unit Data		
	Design	Actual
MFG	NA	CAPTIVEAIRE
Model Num	NA	DU50HFA
Serial Num	-	8366431
Type	UPBLAST	UPBLAST
Configuration	VERTICAL	VERTICAL

Motor Data		
	Design	Actual
Motor MFG	-	TELCO GREEN
Horsepower	0.5	0.5
Motor Rpm	-	1800
Phase	1	1
Voltage (rated)	208	208
Amperage (rated)	-	3.8

Test Data		
	Design	Actual
CFM	1350	1422
Fan RPM	-	1195
Fan Rotation	-	CCW
Motor RPM	-	1195
System SetPt	-	52.8 hz
RL Voltage	-	212V
RL Amperage	-	1.9A
Total ESP	0.75"	0.38"
Fan Inlet SP	-	-0.38"
Fan Discharge SP	-	ATM

Completed By: Anthony Taylor on 03/19/2026

Unit Data - PHOTO LOG



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Project: 03-16-26 QT #1728 ATHENS, GA

System/Unit: Kitchen Hood Type I

Asset: HD-1

AREA:GRIDDLE

Unit Data		
	Design	Actual
MFG	CAPTIVEAIRE	CAPTIVEAIRE
Model Num	6030ND-2-F	6030ND-2-F
Job / Serial Num	-	8366431
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	-	111
Filter2 FPM	-	118
Filter3 FPM	-	117
Filter4 FPM	-	124
Filter5 FPM	-	107
Filter6 FPM	-	108
Filter Ave FPM(corr)	-	114
CFM	1350	1422

Cooking Equipment	
	Actual
Item 1	FRYER
Item 2	PIZZA OVEN

Completed By: Anthony Taylor on 03/19/2026

Unit Data - PHOTO LOG



03/19/2026

