Report By:

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

Report: TAB Report

Function: Test, Adjust, & Balance

Date: 12/08/2025

Completed By: National TAB

PROJECT

12-01-25 WAWA #6619 WINCHESTER, VA

1230 MILLWOOD PIKE

WINCHESTER, VA 22602

Client

Wawa

260 West Baltimore Pike

Wawa, PA 19063

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Project: 12-01-25 WAWA #6619 WINCHESTER, VA

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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 is further detail 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) w/ Diffusers
Each of the RTU's were measured at their terminal devices or via traverse to establish a total flow for that unit. Each RTU was adjusted to within tolerance of the engineer's design flow. Each outlet was then adjusted to within tolerance of the design flow. Outside air was measured by reading the intake air opening with a velocity grid and multiplying by the free area. The outside air damper was adjusted until the airflow was within the design requirements. Any equipment that fell outside of that tolerance is noted throughout the report.

General Exhaust Fans w/ Grilles
The general exhaust fans were measured by reading each air device with a flow hood. The total airflow for each fan is equivalent to the sum of these readings. Fan speed was then adjusted so that the airflow was within tolerance of design. Each terminal device was balanced to within tolerance of the design volume using the installed volume dampers. Any equipment that fell outside of this tolerance is noted throughout the report.

Ceiling Exhaust Fans
The ceiling exhaust fans were measured using a flow hood. If speed adjustment was provided, the fan speed was adjusted to within design tolerance. Any equipment that fell outside of this tolerance is noted throughout the report.

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

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CORE

AIR BALANCE SCHEDULE

UNIT	AREA SERVED	HVAC SUPPLY		HVAC RETURN		HVAC OUTDOOR		OA %		HOOD MAKE-UP		HOOD EXHAUST		GENERAL EXH.	
		DESIGN	ACTUAL	DESIGN	ACTUAL	DESIGN	ACTUAL	DESIGN	ACTUAL	DESIGN	ACTUAL	DESIGN	ACTUAL	DESIGN	ACTUAL
RTU-1	FOOD SERVIC	4500	4825	3800	4055	700	770	15.6%	16.0%						
RTU-2	RETAIL	3400	3358	3020	2961	380	397	11.2%	11.8%						
RTU-3	FOH	2400	2327	2200	2123	200	204	8.3%	8.8%						
EF-1	RESTROOMS													375	350
EF-2	BOH													400	429
EF-3	TRASH ROOM													200	174
TOTALS		10300	10510	9020	9139	1280	1371			0	0	0	0	975	953

NET BUILDING AIRFLOW CALCULATION

TOTALS	DESIGN	ACTUAL
TOTAL OA	1280	1371
TOTAL EXHAUST	975	953
NET AIRFLOW	305	418

DOOR TESTED	BUILDING PRESSURE MEASUREMENTS (IN. H20)
FRONT	-0.008
SIDE	-0.009
REAR	-0.009
AVERAGE	**-0.0087**

FINAL CHECKS

ACTUAL NET AIRFLOW COINCIDES WITH DESIGN: ✓

MEASURED PRESSURES COINCIDES WITH ACTUAL NET AIRFLOW: ✗

PRESSURE FALLS WITHIN IMC TOLERANCE OF +/-0.02" W.C. ✓

NOTES:

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Project: 12-01-25 WAWA #6619 WINCHESTER, VA

System/Unit: AHU/RTU

Asset: RTU1 AREA:FOOD SERVICE

Unit Data		
	Design	**Actual**
MFG	LENNOX	LENNOX
Serial Num	-	5624L03669
Model Num	LCT150H4E	LCT150H4E
Type	RTU	RTU
Configuration	VERTICAL	VERTICAL
Num OA Filters 1	-	2
OA Filter Size 1	-	14.125"X23"
Num Final Filter 1	-	4
Final Filter Size 1	-	20"X25"X2"

Motor Data		
	Design	**Actual**
Motor MFG	-	EBMPAPST
Frame	-	N/L
Horsepower	3.75	3.75
Motor Rpm	-	1780
Phase	3	3
Rated Voltage	208	208
Rated Amperage	-	8.0
Service Factor	-	N/L

Drive Data	
	Actual
Motor Sheave Size	DD
Motor Bore Size	DD
Motor Sheave SetPt	DD
Fan Sheave Size	DD
Fan Sheave Bore	DD
Belt CL Distance	DD
Num of Belts	DD
Belt Size	DD

Test Data		
	Design	**Actual**
SF CFM	4500	4825
SF RPM	-	1673
MOTOR RPM	-	1673
RA CFM	3800	4055
OA CFM	700	770
RL Voltage	-	214.0/213.4/212.8
RL Amperage	-	6.6/6.8/6.6
SF System SetPt	-	94%
RA Damper Position	-	83%
RA Damper Type	-	ECONOMIZER
OA Damper Position	-	17%
OA Damper Type	-	ECONOMIZER

Performance Data		
	Design	**Actual**
MA Plenum SP	-	-0.73"
Fan Suction SP	-	-1.18"
Fan Discharge SP	-	0.93"
Total ESP	0.70"	1.66"
Fan Total SP	-	2.11"

Completed By: John Barresi on 12/04/2025

Unit Data - PHOTO LOG

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Project: 12-01-25 WAWA #6619 WINCHESTER, VA

System/Unit: AHU/RTU

Asset: RTU2 AREA:RETAIL

Unit Data		
	Design	**Actual**
MFG	LENNOX	LENNOX
Serial Num	-	5624K03719
Model Num	LGT10245E	LGT10245E
Type	RTU	RTU
Configuration	VERTICAL	VERTICAL
Num OA Filters 1	-	2
OA Filter Size 1	-	14.125"X23"
Num Final Filter 1	-	4
Final Filter Size 1	-	20"X25"X2"

Motor Data		
	Design	**Actual**
Motor MFG	-	EBMPAPST
Frame	-	N/L
Horsepower	3.75	3.75
Motor Rpm	-	2200
Phase	3	3
Rated Voltage	208	208
Rated Amperage	-	8.7
Service Factor	-	N/L

Drive Data	
	Actual
Motor Sheave Size	DD
Motor Bore Size	DD
Motor Sheave SetPt	DD
Fan Sheave Size	DD
Fan Sheave Bore	DD
Belt CL Distance	DD
Num of Belts	DD
Belt Size	DD

Test Data		
	Design	**Actual**
SF CFM	3400	3358
SF RPM	-	990
MOTOR RPM	-	990
RA CFM	3020	2961
OA CFM	380	397
RL Voltage	-	214.0/213.8/212.7
RL Amperage	-	1.3/1.3/1.3
SF System SetPt	-	45%
RA Damper Position	-	74%
RA Damper Type	-	ECONOMIZER
OA Damper Position	-	26%
OA Damper Type	-	ECONOMIZER

Performance Data		
	Design	**Actual**
MA Plenum SP	-	-0.21"
Fan Suction SP	-	-0.33"
Fan Discharge SP	-	0.19"
Total ESP	1.00"	0.40"
Fan Total SP	-	0.52"

Completed By: John Barresi on 12/04/2025

Unit Data - PHOTO LOG

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Project: 12-01-25 WAWA #6619 WINCHESTER, VA

System/Unit: AHU/RTU

Asset: RTU3 AREA:FOH

Unit Data		
	Design	**Actual**
MFG	LENNOX	LENNOX
Serial Num	-	5624K03088
Model Num	LGT072H4E	LGT072H4E
Type	RTU	RTU
Configuration	VERTICAL	VERTICAL
Num OA Filters 1	-	1
OA Filter Size 1	-	28.75"X14"
Num Final Filter 1	-	4
Final Filter Size 1	-	20"X20"X2"

Motor Data		
	Design	**Actual**
Motor MFG	-	EBMPAPST
Frame	-	N/L
Horsepower	1.5	1.5
Motor Rpm	-	3300
Phase	3	3
Rated Voltage	208	208
Rated Amperage	-	4.4
Service Factor	-	N/L

Drive Data	
	Actual
Motor Sheave Size	DD
Motor Bore Size	DD
Motor Sheave SetPt	DD
Fan Sheave Size	DD
Fan Sheave Bore	DD
Belt CL Distance	DD
Num of Belts	DD
Belt Size	DD

Test Data		
	Design	**Actual**
SF CFM	2400	2327
SF RPM	-	1782
MOTOR RPM	-	1782
RA CFM	2200	2123
OA CFM	200	204
RL Voltage	-	212.7/212.3/212.2
RL Amperage	-	1.1/1.1/1.1
SF System SetPt	-	54%
RA Damper Position	-	79%
RA Damper Type	-	ECONOMIZER
OA Damper Position	-	21%
OA Damper Type	-	ECONOMIZER

Performance Data		
	Design	**Actual**
MA Plenum SP	-	-0.21"
Fan Suction SP	-	-0.31"
Fan Discharge SP	-	0.28"
Total ESP	0.50"	0.49"
Fan Total SP	-	0.59"

Completed By: John Barresi on 12/04/2025

Unit Data - PHOTO LOG

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Project: 12-01-25 WAWA #6619 WINCHESTER, VA

System/Unit: FAN - Exhaust

Asset: EF1 AREA:RESTROOM

Unit Data		
	Design	**Actual**
MFG	GREENHECK	GREENHECK
Model Num	GB-098-6	GB-098-6
Serial Num	-	27000322 25E
Type	DOWNBLAST	DOWNBLAST
Configuration	VERTICAL	VERTICAL

Motor Data		
	Design	**Actual**
Motor MFG	-	VARI-GREEN
Frame	-	N/L
Horsepower	0.167	0.167
Motor Rpm	-	1750
Phase	1	1
Voltage (rated)	120	120
Amperage (rated)	-	2.2
Service Factor	-	N/L

Test Data		
	Design	**Actual**
CFM	375	350
Fan RPM	-	1085
Fan Rotation	-	CW
Motor RPM	-	1085
System SetPt	-	62%
RL Voltage	-	N/A
RL Amperage	-	N/A
Total ESP	0.38"	0.28"
Fan Inlet SP	-	-0.28"
Fan Discharge SP	-	ATM

Completed By: John Barresi on 12/04/2025

Unit Data - PHOTO LOG

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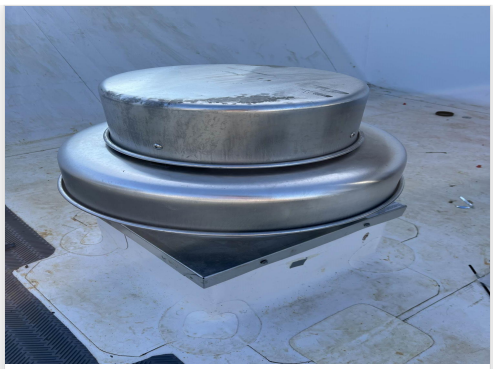

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Project:12-01-25 WAWA #6619 WINCHESTER, VA

FAN - Exhaust

Diffuser Ret/Exh (GRD)

EF1/RESTROOM

Asset									
Asset Name	**Location**	**Type**	**Size**	**DESIGN CFM**	**AK**	**CFM(1)**	**CFM(2)**	**FINAL CFM**	**% to design**
EGRD1	WOMENS RR	EG-1	8X8	150	1	281	232	146	97.3
EGRD2	MENS RR	EG-1	8X8	225	1	211	164	204	90.7
Total				375		492	396	350	93.33%

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Project: 12-01-25 WAWA #6619 WINCHESTER, VA

System/Unit: FAN - Exhaust

Asset: EF2 AREA:BOH

Unit Data		
	Design	**Actual**
MFG	GREENHECK	GREENHECK
Model Num	GB-098-6	GB-098-6
Serial Num	-	27000323 25E
Type	DOWNBLAST	DOWNBLAST
Configuration	VERTICAL	VERTICAL

Motor Data		
	Design	**Actual**
Motor MFG	-	VARI-GREEN
Frame	-	N/L
Horsepower	0.167	0.167
Motor Rpm	-	1750
Phase	1	1
Voltage (rated)	120	120
Amperage (rated)	-	2.2
Service Factor	-	N/L

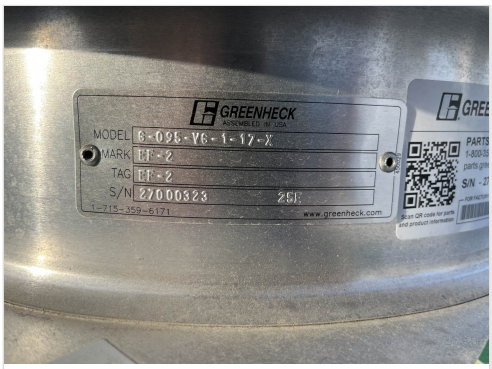
Test Data		
	Design	**Actual**
CFM	400	429
Fan RPM	-	1085
Fan Rotation	-	CW
Motor RPM	-	1085
System SetPt	-	62%
RL Voltage	-	N/A
RL Amperage	-	N/A
Total ESP	0.38"	0.47"
Fan Inlet SP	-	-0.47"
Fan Discharge SP	-	ATM

Completed By: John Barresi on 12/04/2025

Notes:
Unable to reach/locate damper for 2-1.
Unable to reach/locate damper for 2-2.

Written By: John Barresi on 12/03/2025

Unit Data - PHOTO LOG



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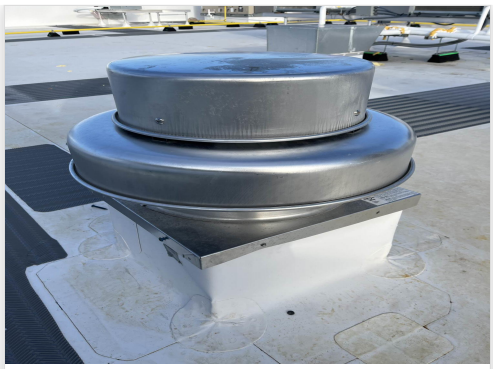

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Project:12-01-25 WAWA #6619 WINCHESTER, VA

FAN - Exhaust

Diffuser Ret/Exh (GRD)

EF2/BOH

Asset									
Asset Name	**Location**	**Type**	**Size**	**DESIGN CFM**	**AK**	**CFM(1)**	**CFM(2)**	**FINAL CFM**	**% to design**
EGRD1	BOH	RG-2	8X8	200	1	322	254	254	127.0
EGRD2	BOH	RG-2	8X8	200	1	256	175	175	87.5
Total				400		578	429	429	107.25%

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Project: 12-01-25 WAWA #6619 WINCHESTER, VA

System/Unit: FAN - Exhaust

Asset: EF3 AREA:TRASH ROOM

Unit Data		
	Design	**Actual**
MFG	GREENHECK	GREENHECK
Model Num	SP-B200	SP-B200
Serial Num	-	S33G382XB-01
Type	CEILING	CEILING
Configuration	VERTICAL	VERTICAL

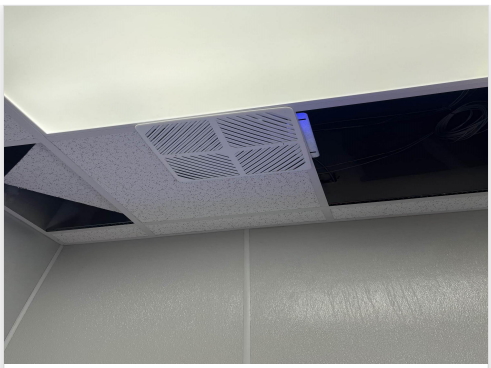
Motor Data		
	Design	**Actual**
Motor MFG	-	GREENHECK
Frame	-	N/L
Horsepower	0.167	0.033
Motor Rpm	-	1000
Phase	1	1
Voltage (rated)	120	115
Amperage (rated)	-	2.7
Service Factor	-	N/L

Test Data		
	Design	**Actual**
CFM	200	174
Fan RPM	-	1000
Fan Rotation	-	CW
Motor RPM	-	1000
System SetPt	-	100%
RL Voltage	-	N/A
RL Amperage	-	N/A
Total ESP	0.50"	0.05"
Fan Inlet SP	-	-0.05"
Fan Discharge SP	-	ATM

Completed By: John Barresi on 12/04/2025

Unit Data - PHOTO LOG

12/04/2025



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