

Report By:

National TAB
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SUITE 4210
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Report: TAB REPORT
Function: Test, Adjust, & Balance
Date: 10/25/2024
Completed By: National TAB

PROJECT

10-14-24 WAWA #6303 BRUNSWICK, GA

4330 NEW JESUP HWY

BRUNSWICK, GA 31520

Client

Wawa
260 West Baltimore Pike
Wawa, PA 19063

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Project: 10-14-24 WAWA #6303 BRUNSWICK, GA

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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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Project: 10-14-24 WAWA #6303 BRUNSWICK, GA

System/Unit: AHU/RTU



Asset: RTU1

AREA:

Unit Data		
	Design	Actual
MFG	LENNOX ENLIGHT	LENNOX ENLIGHT
Serial Num	-	5624B06866
Model Num	LCT102H4E	LCT102H4EG1Y
Type	RTU	RTU
Configuration	VERTICAL	VERTICAL
Num OA Filters 1	-	1
OA Filter Size 1	-	23.25X14.25
Num Final Filter 1	-	4
Final Filter Size 1	-	20X25X2

Motor Data		
	Design	Actual
Motor MFG	-	EDMPAPST
Frame	-	NL
Horsepower	3.75	3.75
Motor Rpm	-	NL
Phase	3	3
Rated Voltage	208	208
Rated Amperage	-	8.7
Service Factor	-	1

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	3522
SF RPM	-	DD
MOTOR RPM	-	DD
RA CFM	2900	2922
OA CFM	500	525
RL Voltage	-	210/212/208
RL Amperage	-	4.5/4.6/4.3
SF System SetPt	-	67%
RA Damper Position	-	NA
RA Damper Type	-	NA
OA Damper Position	-	35%
OA Damper Type	-	ODB

Performance Data		
	Design	Actual
MA Plenum SP	-	-0.39"
Fan Suction SP	-	-0.61"
Fan Discharge SP	-	0.41"
Total ESP	0.5"	0.80"
Fan Total SP	-	1.02"

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AHU/RTU



Diffuser Supply (GRD)

RTU1/

Asset									
Asset Name	Location	Type	Size	DESIGN CFM	AK	CFM(1)	CFM(2)	FINAL CFM	% to design
SGRD1	RETAIL	LD1	10"	300	1	411	314	318	106.0
SGRD2	RETAIL	LD1	10"	300	1	425	332	307	102.3
SGRD3	RETAIL	LD1	8"	250	1	315	268	258	103.2
SGRD4	RETAIL	LD1	10"	275	1	305	281	275	100.0
SGRD5	RETAIL	LD1	10"	275	1	300	270	277	100.7
SGRD6	OFFICE	CD1	8"	150	1	105	185	156	104.0
SGRD7	RETAIL	LD1	8"	250	1	289	218	260	104.0
SGRD8	RETAIL	LD1	8"	250	1	268	265	252	100.8
SGRD9	RETAIL	LD1	8"	250	1	290	314	250	100.0
SGRD10	RESTROOM HALLWAY	CD1	6"	75	1	67	75	77	102.7
SGRD11	MENS RR	CD4	6"	75	1	84	71	75	100.0
SGRD12	WOMENS RR	CD4	6"	50	1	61	54	50	100.0
SGRD13	RETAIL	LD1	10"	300	1	189	310	320	106.7
SGRD14	RETAIL	LD1	10"	300	1	425	338	325	108.3
SGRD15	RETAIL	LD1	8"	200	1	410	290	218	109.0
SGRD16	DELIVERY VESTIBULE	CD1	6"	100	1	40	115	104	104.0
Total				3400		3984	3700	3522	103.59%

Diffuser Ret/Exh (GRD)

RTU1/

Asset									
Asset Name	Location	Type	Size	DESIGN CFM	AK	CFM(1)	CFM(2)	FINAL CFM	% to design
EGRD1	RETAIL	G1	14"	725	1	921	918	713	98.3
EGRD2	RETAIL	G1	14"	725	1	986	937	734	101.2
EGRD3	RETAIL	G1	14"	725	1	813	931	735	101.4
EGRD4	RETAIL	G1	14"	725	1	1167	952	740	102.1
Total				2900		3887	3738	2922	100.76%

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Project: 10-14-24 WAWA #6303 BRUNSWICK, GA

System/Unit: AHU/RTU



Asset: RTU2

AREA:

Unit Data		
	Design	Actual
MFG	LENNOX ENLIGHT	LENNOX ENLIGHT
Serial Num	-	5624C09098
Model Num	LCT120H4E	LCT120H4EN1Y
Type	RTU	RTU
Configuration	VERTICAL	VERTICAL
Num OA Filters 1	-	1
OA Filter Size 1	-	23.25X14.25
Num Final Filter 1	-	4
Final Filter Size 1	-	20X25X2

Motor Data		
	Design	Actual
Motor MFG	-	EDMPAPST
Frame	-	NL
Horsepower	3.75	3.75
Motor Rpm	-	2200
Phase	3	3
Rated Voltage	208	208
Rated Amperage	-	8.7
Service Factor	-	1

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	4000	3967
SF RPM	-	DD
MOTOR RPM	-	DD
RA CFM	3525	3535
OA CFM	475	470
RL Voltage	-	208/210/211
RL Amperage	-	5.3/5.1/5.2
SF System SetPt	-	77%
RA Damper Position	-	NA
RA Damper Type	-	NA
OA Damper Position	-	43%
OA Damper Type	-	ODB

Performance Data		
	Design	Actual
MA Plenum SP	-	-0.31"
Fan Suction SP	-	-0.73"
Fan Discharge SP	-	0.44"
Total ESP	0.5"	0.75"
Fan Total SP	-	1.17"

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Project:10-14-24 WAWA #6303 BRUNSWICK, GA

AHU/RTU



Diffuser Supply (GRD)

RTU2/

Asset									
Asset Name	Location	Type	Size	DESIGN CFM	AK	CFM(1)	CFM(2)	FINAL CFM	% to design
SGRD1	RETAIL	LD1	10"	410	1	435	406	406	99.0
SGRD2	RETAIL	LD1	10"	410	1	439	415	415	101.2
SGRD3	FOOD SERVICE	LD1	10"	400	1	420	400	400	100.0
SGRD4	FOOD SERVICE	LD1	10"	410	1	400	415	415	101.2
SGRD5	WASHROOM	LD1	10"	410	1	407	410	410	100.0
SGRD6	WASHROOM	LD1	14"	410	1	448	415	415	101.2
SGRD7	FOOD SERVICE	LD1	10"	400	1	511	391	391	97.8
SGRD8	BACKROOM	CD1	12"	600	1	432	581	581	96.8
SGRD9	ELECTRICAL	CD1	12"	550	1	582	534	534	97.1
Total				4000		4074	3967	3967	99.18%

Diffuser Ret/Exh (GRD)

RTU2/

Asset									
Asset Name	Location	Type	Size	DESIGN CFM	AK	CFM(1)	CFM(2)	FINAL CFM	% to design
EGRD1	FOOD SERVICE	G1	14"	705	1	756	705	705	100.0
EGRD2	FOOD SERVICE	G1	14"	705	1	781	711	718	101.8
EGRD3	FOOD SERVICE	G1	14"	705	1	735	702	702	99.6
EGRD4	WASHROOM	G1	14"	705	1	680	710	710	100.7
EGRD5	WASHROOM	G1	14"	705	1	715	700	700	99.3
Total				3525		3667	3528	3535	100.28%

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Project: 10-14-24 WAWA #6303 BRUNSWICK, GA

System/Unit: AHU/RTU



Asset: RTU3

AREA:

Unit Data		
	Design	Actual
MFG	LENNOX ENLIGHT	LENNOX ENLIGHT
Serial Num	-	5624a04858
Model Num	LCT092H4E	LCT092H4E
Type	RTU	RTU
Configuration	VERTICAL	VERTICAL
Num OA Filters 1	-	1
OA Filter Size 1	-	20x25
Num Final Filter 1	-	4
Final Filter Size 1	-	20x25x2

Motor Data		
	Design	Actual
Motor MFG	-	EDMPAPST
Frame	-	NL
Horsepower	3.75	3.8
Motor Rpm	-	2200
Phase	3	3
Rated Voltage	208	208
Rated Amperage	-	8.7
Service Factor	-	NL

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

Test Data		
	Design	Actual
SF CFM	3000	2952
SF RPM	-	DD
MOTOR RPM	-	DD
RA CFM	2750	2755
OA CFM	250	245
RL Voltage	-	208/209/210
RL Amperage	-	3.2/3.1/3.4
SF System SetPt	-	55%
RA Damper Position	-	90%
RA Damper Type	-	10%
OA Damper Position	-	28%
OA Damper Type	-	ODB

Performance Data		
	Design	Actual
MA Plenum SP	-	-0.30"
Fan Suction SP	-	-0.56"
Fan Discharge SP	-	0.35"
Total ESP	0.5"	0.65"
Fan Total SP	-	0.91"

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AHU/RTU



Diffuser Supply (GRD)

RTU3/

Asset									
Asset Name	Location	Type	Size	DESIGN CFM	AK	CFM(1)	CFM(2)	FINAL CFM	% to design
SGRD1	VESTIBULE	CD2	12"	500	1	654	505	490	98.0
SGRD2	RETAIL	LD1	10"	425	1	375	403	430	101.2
SGRD3	RETAIL	LD1	10"	430	1	345	395	429	99.8
SGRD4	RETAIL	LD1	10"	430	1	333	436	425	98.8
SGRD5	COFFEE / SPEC. BEV	LD1	10"	430	1	448	415	417	97.0
SGRD6	COFFEE / SPEC. BEV	LD1	10"	450	1	445	437	437	97.1
SGRD7	ASSOCIATE	CD1	8"	150	1	145	150	149	99.3
SGRD8	STAGING	CD3	12"	185	1	300	177	175	94.6
Total				3000		3045	2918	2952	98.4%

Diffuser Ret/Exh (GRD)

RTU3/

Asset									
Asset Name	Location	Type	Size	DESIGN CFM	AK	CFM(1)	CFM(2)	FINAL CFM	% to design
EGRD1	RETAIL	G1	14"	920	1	129	945	920	100.0
EGRD2	RETAIL	G1	14"	915	1	1167	909	919	100.4
EGRD3	RETAIL	G1	14"	915	1	1742	901	911	99.6
Total				2750		3038	2755	2750	100%

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Project: 10-14-24 WAWA #6303 BRUNSWICK, GA

System/Unit: FAN - Exhaust



Asset: EF1

AREA:

Unit Data		
	Design	Actual
MFG	GREENHECK	GREENHECK
Model Num	G-080	G-080-D-1-17-X
Serial Num	-	25051342
Type	DOWNBLAST	DOWNBLAST
Configuration	VERTICAL	VERTICAL

Motor Data		
	Design	Actual
Motor MFG	-	MCMILLIAN
Frame	-	NL
Horsepower	1/10	1/10
Motor Rpm	-	1550
Phase	1	1
Voltage (rated)	120	120
Amperage (rated)	-	1.8
Service Factor	-	1

Test Data		
	Design	Actual
CFM	325	335
Fan RPM	1576	DD
Fan Rotation	-	CCW
Motor RPM	-	DD
System SetPt	-	HIGH
RL Voltage	-	120
RL Amperage	-	1.7
Total ESP	0.250"	0.22"
Fan Inlet SP	-	-0.22"
Fan Discharge SP	-	ATM

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FAN - Exhaust



Diffuser Ret/Exh (GRD)

EF1/

Asset									
Asset Name	Location	Type	Size	DESIGN CFM	AK	CFM(1)	CFM(2)	FINAL CFM	% to design
EGRD1	WOMENS RR	G3	6"	100	1	125	111	105	105.0
EGRD2	MENS RR	G3	6"	100	1	122	116	101	101.0
EGRD3	MENS RR	G3	6"	50	1	65	55	51	102.0
EGRD4	JANITOR	G4	6"	75	1	80	77	78	104.0
Total				325		392	359	335	103.08%

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Project: 10-14-24 WAWA #6303 BRUNSWICK, GA

System/Unit: FAN - Exhaust



Asset: EF2

AREA:

Unit Data		
	Design	Actual
MFG	GREENHECK	GREENHECK
Model Num	G-090	G-090-D-1-17-X
Serial Num	-	25051343
Type	DOWNBLAST	DOWNBLAST
Configuration	VERTICAL	VERTICAL

Motor Data		
	Design	Actual
Motor MFG	-	MCMILLAN
Frame	-	NL
Horsepower	1/10	1/10
Motor Rpm	-	1550
Phase	1	1
Voltage (rated)	120	120
Amperage (rated)	-	1.8
Service Factor	-	1

Test Data		
	Design	Actual
CFM	400	402
Fan RPM	1185	DD
Fan Rotation	-	CCW
Motor RPM	-	DD
System SetPt	-	HIGH
RL Voltage	-	120
RL Amperage	-	1.7
Total ESP	0.250"	0.18"
Fan Inlet SP	-	-0.18"
Fan Discharge SP	-	ATM

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Project: 10-14-24 WAWA #6303 BRUNSWICK, GA

FAN - Exhaust



Diffuser Ret/Exh (GRD)

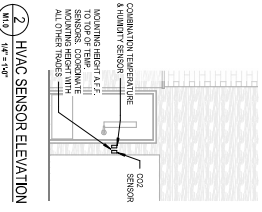
EF2/

Asset									
Asset Name	Location	Type	Size	DESIGN CFM	AK	CFM(1)	CFM(2)	FINAL CFM	% to design
EGRD1	FOOD SERVICE	G1	8"	200	1	255	230	200	100.0
EGRD2	BACKROOM	G1	8"	200	1	225	235	202	101.0
Total				400		480	465	402	100.5%

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1 HVAC FLOOR PLAN
 (REV) NOT TO SCALE



2 HVAC SENSOR ELEVATION
 (REV) 1/15/2025