Report By:

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

Report: TAB Report

Function: Test, Adjust, & Balance

Date: 08/12/2025

Completed By: National TAB

PROJECT

08-11-25 DUTCH BROTHERS MUNCIE, IN

1111 EAST MCGALLIARD RD

MUNCIE, IN

Client

NCA Consultants

6510 125TH AVE NORTH

ST 1001

LARGO, FL 33773

National TAB

Project: 08-11-25 DUTCH BROTHERS MUNCIE, IN

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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.

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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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	BUILDING	1200	1227	1080	1116	120	111	10.0%	9.0%						
RTU-2	BUILDING	1200	1179	1080	1049	120	130	10.0%	11.0%						
EF-1	RESTROOM													75	69
TOTALS		2400	2406	2160	2165	240	241			0	0	0	0	75	69

NET BUILDING AIRFLOW CALCULATION

TOTALS	DESIGN	ACTUAL
TOTAL OA	240	241
TOTAL EXHAUST	75	69
NET AIRFLOW	165	172

NOTES:

CheckList List

- RTU Inspection

08-11-25 DUTCH BROTHERS MUNCIE, IN

CheckList Information

Name :	RTU Inspection	**Status :**	Not Completed
Assigned Organization :	National TAB	**Asset :**	
Requesting Organization :	National TAB		
Created Date :	08/12/2025 - Brianna Biggs - National TAB		

CheckList Item Details

RTU's/AHU's

Thermostats installed and have power?	Pass
Comment:	
All diffusers and grilles are installed and match design?	Pass
Comment:	
Economizer blank plate is installed below the ouside air intake (Trane only) (N/A = not applicable)	N/A
Comment:	
Economizers are assembled and functional?	Pass
Comment:	
Free cooling enthalpy set point set for lowest setting (Typically "D")	Pass
Comment:	
Motors are all operating below the FLA rating?	Pass
Comment:	
Are belts tight?	N/A

Comment:	
If direct drive unit is the speed controller working?	Pass
Comment:	
Is gas piping installed and valves turned on?	Pass
Comment:	
Unit free of noticeable noise and vibration	Pass
Comment:	
Final outside air damper position is marked with permanent marker?	Pass
Comment:	

National TAB

Project: 08-11-25 DUTCH BROTHERS MUNCIE, IN

System/Unit: AHU/RTU

Asset: RTU1 AREA:WHOLE BUILDING

Unit Data		
	Design	**Actual**
MFG	CARRIER	CARRIER
Serial Num	-	2824C05709
Model Num	50GCQJ04	50GCQJ04
Type	RTU	RTU
Configuration	VERTICAL	VERTICAL
Num OA Filters 1	-	1
OA Filter Size 1	-	28”x14”
Num Final Filter 1	-	2
Final Filter Size 1	-	16”x24”

Motor Data		
	Design	**Actual**
Motor MFG	-	INACCESSIBLE
Phase	3	3
Rated Voltage	208	208
Rated Amperage	-	5.1

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
Belt Alignment	DD

Test Data		
	Design	**Actual**
SF CFM	1200	1227
RA CFM	1080	1116
OA CFM	120	111
RL Voltage	-	211/210/213
RL Amperage	-	1.3/1.4/1.4
SF Rotation	-	CCW
SF System SetPt	-	8.8 VDC
RA Damper Position	-	MECHANICALLY LINKED
Min OA Damper Position	-	19%
Min OA Damper Type	-	OPPOSABLE BLADE

Performance Data		
	Design	**Actual**
MA Plenum SP	-	-0.25”
Fan Suction SP	-	-0.40”
Fan Discharge SP	-	0.15”
Total ESP	-	0.65”
Fan Total SP	-	0.55”

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

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AHU/RTU

Diffuser Supply (GRD)

RTU1/WHOLE BUILDING

Asset									
Asset Name	**Location**	**Type**	**Size**	**DESIGN CFM**	**AK**	**CFM(1)**	**CFM(2)**	**FINAL CFM**	**% to design**
SGRD1	PRODUCTION	S1	10"	300	1	190	313	313	104.3
SGRD2	PRODUCTION	S1	10"	300	1	319	284	284	94.7
SGRD3	PRODUCTION	S1	10"	300	1	379	328	328	109.3
SGRD4	PRODUCTION	S1	10"	300	1	345	302	302	100.7
Total				1200		1233	1227	1227	102.25%

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Project: 08-11-25 DUTCH BROTHERS MUNCIE, IN

System/Unit: AHU/RTU

Asset: RTU2 AREA:WHOLE BUILDING

Unit Data		
	Design	**Actual**
MFG	CARRIER	CARRIER
Serial Num	-	1423C05445
Model Num	50GCQJ04	50GCQJ04
Type	RTU	RTU
Configuration	VERTICAL	VERTICAL
Num OA Filters 1	-	1
OA Filter Size 1	-	28”x14”
Num Final Filter 1	-	2
Final Filter Size 1	-	16”x24”

Motor Data		
	Design	**Actual**
Motor MFG	-	INACCESSIBLE
Phase	3	3
Rated Voltage	208	208
Rated Amperage	-	5.1

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
Belt Alignment	DD

Test Data		
	Design	**Actual**
SF CFM	1200	1179
RA CFM	1080	1049
OA CFM	120	130
RL Voltage	-	211/213/209
RL Amperage	-	1.25/1.3/1.2
SF Rotation	-	CCW
SF System SetPt	-	8.78 VDC
RA Damper Position	-	MECHANICALLY LINKED
Min OA Damper Position	-	18%
Min OA Damper Type	-	OPPOSABLE BLADE

Performance Data		
	Design	**Actual**
MA Plenum SP	-	-0.19”
Fan Suction SP	-	-0.34”
Fan Discharge SP	-	0.24”
Total ESP	-	0.53”
Fan Total SP	-	0.58”

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

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AHU/RTU

Diffuser Supply (GRD)

RTU2/WHOLE BUILDING

Asset									
Asset Name	**Location**	**Type**	**Size**	**DESIGN CFM**	**AK**	**CFM(1)**	**CFM(2)**	**FINAL CFM**	**% to design**
SGRD1	RESTROOM	S2	6"	50	1	76	55	55	110.0
SGRD2	PRODUCTION	S1	10"	400	1	320	297	405	101.3
SGRD3	PRODUCTION	S1	10"	350	1	509	428	348	99.4
SGRD4	PRODUCTION	S1	10"	400	1	390	355	371	92.8
Total				1200		1295	1135	1179	98.25%

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System/Unit: FAN - Exhaust

Asset: EF1 AREA:RESTROOM

Unit Data		
	Design	**Actual**
MFG	COOKE	COOKE
Model Num	GC-148	GC-148
Serial Num	-	GEMINI 140 SERIES
Type	CCW CEILING	CCW CIELING
Configuration	VERTICAL	VERTICAL

Motor Data		
	Design	**Actual**
Motor MFG	-	QUEACE
Horsepower	29W	15W
Motor Rpm	-	1550
Phase	-	1
Voltage (rated)	-	115
Amperage (rated)	-	0.4

Test Data		
	Design	**Actual**
CFM	75	69
Fan Rotation	-	CCW
System SetPt	-	ONE SPEED
RL Voltage	-	INACCESSIBLE
RL Amperage	-	0.25
Total ESP	0.4"	CEILING MOUNTED
Fan Inlet SP	-	CEILING MOUNTED
Fan Discharge SP	-	ATM

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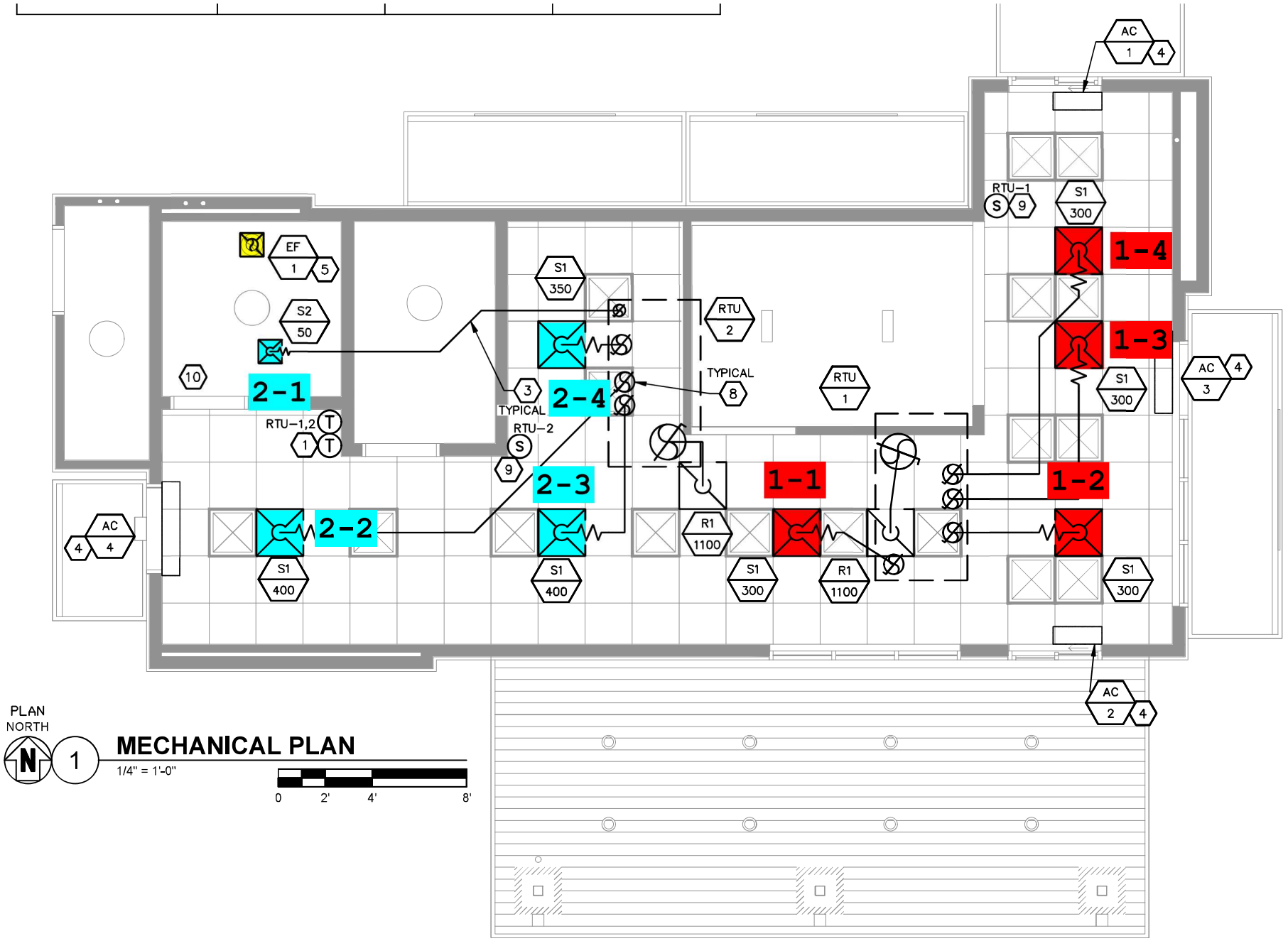

PLAN NORTH

N 1 **MECHANICAL PLAN**

1/4" = 1'-0"

0 2' 4' 8'

Date: 8/12/2025