

Report By:

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



Report: TAB Report
Function: Test, Adjust, & Balance
Date: 05/02/2025
Completed By: National TAB

PROJECT
04-21-25 SAFEWAY #1535 TEMPE, AZ

1515 E. ELLIOT RD

TEMPE , AZ

Client

TRS-SESCO LLC
721-A Park Centre Dr
Kernersville, NC 27284

National TAB

Project: 04-21-25 SAFEWAY #1535 TEMPE, AZ

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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.

Kitchen Exhaust Hood & Associated Fans

Each 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. . Any EF's that fell outside of this tolerance is noted throughout the report.

MUA (Make Up Air Unit) w/ PSP

Total flow for the MAU (Make-up Air Unit) unit was measured by readings taken at the discharge of the hood's perforated supply plenum. Readings taken with a velocity matrix were averaged and multiplied by a manufacturer's corrected area. Adjustments to the fan speed were made in order to bring the unit to within design tolerance. Any MUA's that fell outside of this 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 of $-0.02''$ wc to $+0.02''$ wc 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

- AC-1 & AC-2 NO OUTSIDE AIR VENTS INSTALLED
- EF-9 NOT FUNCTIONAL
- MUA DOES NOT EXIST



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Project Issue Information

Issue Name : AC-1 & AC-2 NO OUTSIDE AIR VENTS INSTALLED
Description : Unable to set outside air for units AC-1 & AC-2. Both units do not have OA vents installed preventing from outside air from being set. Recommend installing outside air vents and dampers so outside air can be balanced.
Created By : National TAB **Assigned To :** National TAB - Dan Hertenstein
Status : Open
Priority : Medium **Asset Tag :**
Originated Date : 05/02/2025 - David Nicolas Sanchez - National TAB

Project Issue File Details



05/02/2025



05/02/2025



04-21-25 SAFEWAY #1535 TEMPE, AZ

Project Issue Information

Issue Name : EF-9 NOT FUNCTIONAL
Description : EF-9 not functional. Unit has 119 Volts connected to motor. Unit unable to start and be adjusted.
Created By : National TAB **Assigned To :** National TAB - Dan Hertenstein
Status : Open
Priority : Urgent **Asset Tag :**
Originated Date : 05/01/2025 - David Nicolas Sanchez - National TAB



04-21-25 SAFEWAY #1535 TEMPE, AZ

Project Issue Information

Issue Name : MUA DOES NOT EXIST
Description : MUA does not exist on rooftop as mentioned on plans. Unable to balance unit.
Created By : National TAB **Assigned To :** National TAB - Dan Hertenstein
Status : Open
Priority : InfoOnly **Asset Tag :**
Originated Date : 05/02/2025 - David Nicolas Sanchez - National TAB

Project Issue File Details



05/02/2025

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
AC-1	MAIN SALES	20980	20539	16830	16561	4150	3978	19.8%	19.4%						
AC-2	BAKERY	1000	1082	750	1082	250	0	25.0%	0.0%						
AC-3	PHARMACY	1000	1029	750	1029	250	0	25.0%	0.0%						
EF-7	OVEN/BAKERY											1000	986		
EF-8	OVEN/BAKERY											1000	1037		
EF-10	JAN CLOSET/DELI													100	0
TOTALS		22980	22650	18330	18672	4650	3978			0	0	2000	2023	100	0

NET BUILDING AIRFLOW CALCULATION

TOTALS	DESIGN	ACTUAL
TOTAL OA	4650	3978
TOTAL EXHAUST	2100	2023
NET AIRFLOW	2550	1955

DOOR TESTED	BUILDING PRESSURE MEASUREMENTS (IN. H2O)
FRONT	
SIDE	
REAR	
AVERAGE	#DIV/0!

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:

CheckList List

- STEP 1: INITIAL WALKTHRU
- STEP 2: UNIT DATA AND EVAL
- STEP 3: TEST, ADJUST AND BALANCE
- STEP 4: FINAL TESTS
- STEP 5: FINAL DOCUMENTATION



04-21-25 SAFEWAY #1535 TEMPE, AZ

CheckList Information

Name : STEP 1: INITIAL WALKTHRU **Status :** Completed
Assigned Organization : National TAB **Asset :**
Requesting Organization : National TAB
Created Date : 04/15/2025 - Nicole Seever - National TAB
Completed Date : 05/06/2025 - David Nicolas Sanchez - National TAB

CheckList Item Details

INITIAL SITE WALKTHROUGH

All diffusers and grilles are installed and match design? N/A

Comment:

Unable to properly check. Updated plans were not provided.

All hood filters installed and accounted for? N/A

Comment:

Hoods are wired and have power? N/A

Comment:

Hood is free of alarms? N/A

Comment:

Thermostats have power? Yes

Comment:

Have trades/general contractor been notified about any issues and are they created on FaciliBuild?

Comment:

Yes



04-21-25 SAFEWAY #1535 TEMPE, AZ

CheckList Information

Name : STEP 2: UNIT DATA AND EVAL **Status :** Completed

Assigned Organization : National TAB **Asset :**

Requesting Organization : National TAB

Created Date : 04/15/2025 - Nicole Seever - National TAB

Completed Date : 05/06/2025 - David Nicolas Sanchez - National TAB

CheckList Item Details

UNIT DATA AND EVALUATION WHILE GATHERING UNIT DATA CHECK THE FOLLOWING:

RTU's/AHU's

Economizers are assembled and functional? N/A

Comment:

DCV Max damper opening position is set to minimum? N/A

Comment:

Free cooling enthalpy set point set for lowest setting (Typically "D") N/A

Comment:

Motors are all operating below the FLA rating? Yes

Comment:

Are belts tight?

Comment:

N/A

If direct drive unit is the speed controller working.

Comment:

Yes

Is gas piping installed and valves turned on?

Yes

Comment:

Unit free of noticeable noise and vibration

Yes

Comment:

EF's

Rotation is correct?

Yes

Comment:

Belts are tight?

Comment:

N/A

Grease cup installed on hood fan?

Yes

Comment:

Hinge kit installed installed on hood fan?

N/A

Comment:

Lean fan back. Is grease duct installation adequate and is duct ran all the way to the base of the fan?

Yes

Comment:

Flex conduit is long enough so that fan can be completely tilted back?

Yes

Comment:

There is no major leakage around base of fan?

Yes

Comment:

Is the motor operating below the motor FLA rating?

N/A

Comment:

Unable to access wires.

For restroom fan(s) is the back draft damper installed and can it fully open? N/A

Comment:

Unit free of noticeable noise and vibration? Yes

Comment:

MUA

Rotation is correct? N/A

Comment:

Gas piping is installed and valves are in on position? N/A

Comment:

Heater tested and is functional? N/A

Comment:

Internal motorized damper is fully opening? N/A

Comment:

Motor is operating below the FLA rating? N/A

Comment:

Unit free of noticeable noise and vibration? N/A

Comment:

HOODS

Kitchen equipment installed in proper places? N/A

Comment:

Can kitchen equipment be turned on for final smoke test? N/A

Comment:

DOCUMENTATION

Have trades/general contractor been notified about any issues and are they created on FaciliBuild? Yes

Comment:



04-21-25 SAFEWAY #1535 TEMPE, AZ

CheckList Information

Name : STEP 3: TEST, ADJUST AND BALANCE **Status :** Completed

Assigned Organization : National TAB **Asset :**

Requesting Organization : National TAB

Created Date : 04/15/2025 - Nicole Seever - National TAB

Completed Date : 05/06/2025 - David Nicolas Sanchez - National TAB

CheckList Item Details

TEST, ADJUST, AND BALANCE ALL EQUIPMENT:

DURING TESTING MAKE NOTE OF THE FOLLOWING:

Is space free of drafting? Yes

Comment:

Is space comfortable in all areas? Yes

Comment:

Is the space free of ventilation noise? Yes

Comment:

If deviations from design were necessary to resolve 1-3 what were they? Otherwise put "NA".

Comment:

NA



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CheckList Information

Name : STEP 4: FINAL TESTS **Status :** Completed

Assigned Organization : National TAB **Asset :**

Requesting Organization : National TAB

Created Date : 04/15/2025 - Nicole Seever - National TAB

Completed Date : 05/06/2025 - David Nicolas Sanchez - National TAB

CheckList Item Details

FINAL TESTS

HOOD CAPTURE TEST

List equipment turned on for testing

Comment:

N/A

List smoke candle type used

Comment:

N/A

Smoke test capture - Perimeter of hood

Comment:

N/A

Smoke test capture - Top of cooking surface

Comment:

N/A

WITNESS

Date test was completed

N/A

Comment:

TAB tech name / Firm

Comment:

David Nicolas Sanchez / National TAB Intelligence

Site super name / Firm

Comment:

N/A

Owner representative name / Firm (if Applicable)

Comment:

N/A

Building pressure at front & back doors (All Systems On)

Comment:

N/A

ADDITIONAL

Do actual net building airflow, design net building airflow, and pressure coincide? If not why? (All three should either be positive or negative)

Comment:

Yes

Thermostats are programmed?

Yes

Comment:



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CheckList Information

Name : STEP 5: FINAL DOCUMENTATION **Status :** Not Completed

Assigned Organization : National TAB **Asset :**

Requesting Organization : National TAB

Created Date : 04/15/2025 - Nicole Seever - National TAB

CheckList Item Details

FINAL DOCUMENTATION

Marked Data capture complete for all assets?

Comment:

Picture file sent to processing team or uploaded?

Comment:

Balance schedule complete and uploaded?

Comment:

Prelim report generated and reviewed?

Comment:

National TAB

Project: 04-21-25 SAFEWAY #1535 TEMPE, AZ

System/Unit: AHU/RTU



Asset: AC-1

AREA:MAIN SALES

Unit Data		
	Design	Actual
MFG	NA	NL
Serial Num	-	A E442 -0124 -01
Model Num	NA	LA045
Type	AC	AC
Configuration	VERTICAL	VERTICAL
Num OA Filters 1	-	N/A
OA Filter Size 1	-	N/A
Num Final Filter 1	-	24
Final Filter Size 1	-	16X20X2

Motor Data		
	Design	Actual
Motor MFG	-	BALDOR
Frame	-	286T
Horsepower	-	20
Motor Rpm	-	1180
Phase	-	3
Rated Voltage	-	230/460
Rated Amperage	-	54/27

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	20980	20539
SF RPM	-	786
RA CFM	16830	16561
OA CFM	4150	3978
RL Voltage	-	419/419/420
RL Amperage	-	16.57@VFD
SF Rotation	-	CCW
SF System SetPt	-	40HZ
RA Damper Position	-	45%
Min OA Damper Position	-	55%
Min OA Damper Type	-	POTENTIOMETER
OA Enthalpy Setpt	-	N/A

Performance Data		
	Design	Actual
MA Plenum SP	-	-0.52"
Fan Suction SP	-	NA
Fan Discharge SP	-	0.35"
Total ESP	-	NA
Fan Total SP	-	NA

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

Completed By: David Nicolas Sanchez on 05/01/2025

Unit Data - PHOTO LOG



05/02/2025

National TAB

Project: 04-21-25 SAFEWAY #1535 TEMPE, AZ

System/Unit: AHU/RTU



Asset: AC-2

AREA:BAKERY

Unit Data		
	Design	Actual
MFG	NA	CARRIER
Serial Num	-	1524C09547
Model Num	NA	50GCJ04A2M5A6U1F0
Type	-	RTU
Configuration	-	VERTICAL
Num OA Filters 1	-	N/A
OA Filter Size 1	-	N/A
Num Final Filter 1	-	2
Final Filter Size 1	-	16X25X2
Num Final Filter 2	-	
Final Filter Size 2	-	

Motor Data		
	Design	Actual
Motor MFG	-	NL
Frame	-	NL
Horsepower	-	NL
Motor Rpm	-	NL
Phase	-	1
Rated Voltage	-	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	1000	1082
SF RPM	-	1469
RA CFM	-	1082
OA CFM	-	0
RL Voltage	-	207
RL Amperage	-	2.46
SF Rotation	-	CCW
SF System SetPt	-	C
RA Damper Position	-	N/A
Min OA Damper Position	-	N/A
Min OA Damper Type	-	N/A
OA Enthalpy Setpt	-	N/A

Performance Data		
	Design	Actual
MA Plenum SP	-	-0.27"
Fan Suction SP	-	-0.37"
Fan Discharge SP	-	0.33"
Total ESP	-	0.60"
Fan Total SP	-	0.70"

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

Completed By: David Nicolas Sanchez on 05/01/2025

Unit Data - PHOTO LOG



05/02/2025

National TAB

Project: 04-21-25 SAFEWAY #1535 TEMPE, AZ

System/Unit: AHU/RTU



Asset: AC-3

AREA:PHARMACY

Unit Data		
	Design	Actual
MFG	CARRIER	CARRIER
Serial Num	-	4222C04700
Model Num	48HJEDD4	48FCDA04A2A6A
Type	AC	AC
Configuration	VERTICAL	VERTICAL
Num OA Filters 1	-	N/A
OA Filter Size 1	-	N/A
Num Final Filter 1	-	2
Final Filter Size 1	-	16X25X2

Motor Data		
	Design	Actual
Motor MFG	-	NL
Frame	-	NL
Horsepower	-	NL
Motor Rpm	-	NL
Phase	3	3
Rated Voltage	460	460
Rated Amperage	-	1.2

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	1000	1029
SF RPM	-	1921
RA CFM	750	1029
OA CFM	250	0
RL Voltage	-	478/477/480
RL Amperage	-	0.93/0.95/0.98
SF Rotation	-	CCW
SF System SetPt	-	C
RA Damper Position	-	N/A
Min OA Damper Position	-	N/A
Min OA Damper Type	-	N/A
OA Enthalpy Setpt	-	N/A

Performance Data		
	Design	Actual
MA Plenum SP	-	0.38"
Fan Suction SP	-	-0.57"
Fan Discharge SP	-	0.14"
Total ESP	0.60"	0.52"
Fan Total SP	-	0.71"

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

Completed By: David Nicolas Sanchez on 04/25/2025

Unit Data - PHOTO LOG



05/02/2025

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Project: 04-21-25 SAFEWAY #1535 TEMPE, AZ

System/Unit: FAN - Exhaust



Asset: EF7

AREA:BAKERY OVEN

Unit Data		
	Design	Actual
MFG	COOK	COOK
Model Num	135R4B	150VH17D VF 150 VCRH
Serial Num	-	296SK85095
Type	UPBLAST	UPBLAST
Configuration	VERTICAL	VERTICAL

Motor Data		
	Design	Actual
Motor MFG	-	VARI-FLOW
Frame	-	NL
Horsepower	0.33	1/4
Motor Rpm	-	1341
Phase	1	1
Voltage (rated)	115	120
Amperage (rated)	-	3.2
Service Factor	-	NL

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
CFM	1000	986
Fan RPM	-	1346
Fan Rotation	-	CCW
Motor RPM	-	1346
RL Voltage	-	119
RL Amperage	-	NA
Suction ESP	-	0.56"
Discharge ESP	-	ATMS
Total ESP	0.625"	-0.56"

Completed By: David Nicolas Sanchez on 05/06/2025

Unit Data - PHOTO LOG



05/02/2025

National TAB

Project: 04-21-25 SAFEWAY #1535 TEMPE, AZ

System/Unit: FAN - Exhaust



Asset: EF8

AREA:BAKERY OVEN

Unit Data		
	Design	Actual
MFG	COOK	COOK
Model Num	135R4B	150VH17D VF 150 VCRH
Serial Num	-	296SK85095
Type	UPBLAST	UPBLAST
Configuration	VERTICAL	VERTICAL

Test Data		
	Design	Actual
CFM	1000	1037
Fan RPM	-	1211
Fan Rotation	-	CCW
Motor RPM	-	1211
RL Voltage	-	119
RL Amperage	-	NA
Suction ESP	-	0.52"
Discharge ESP	-	ATMS
Total ESP	0.625"	0.52"

Motor Data		
	Design	Actual
Motor MFG	-	VARI-FLOW
Frame	-	NL
Horsepower	0.33"	1/4
Motor Rpm	-	1341
Phase	1	1
Voltage (rated)	115	120
Amperage (rated)	-	3.2
Service Factor	-	NL

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

Completed By: David Nicolas Sanchez on 05/01/2025

Unit Data - PHOTO LOG



05/02/2025

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Project: 04-21-25 SAFEWAY #1535 TEMPE, AZ

System/Unit: FAN - Exhaust



Asset: EF9

AREA: JANATOR CLOSET

Unit Data		
	Design	Actual
MFG	COOK	COOK
Model Num	GC-140	101C17D0R60VF 101 ACE
Serial Num	-	296PK85095
Type	CEILING	UPBLAST
Configuration	VERTICAL	VERTICAL

Test Data		
	Design	Actual
CFM	100	0
Fan RPM	-	0
Fan Rotation	-	CCW
Motor RPM	-	0
System SetPt	-	0
RL Voltage	-	119
RL Amperage	-	0
Total ESP	0.125"	0
Fan Inlet SP	-	0
Fan Discharge SP	-	0

Motor Data		
	Design	Actual
Motor MFG	-	VARI-FLOW
Frame	-	NL
Horsepower	70 WATTS	1/6
Motor Rpm	-	1725
Phase	1	1
Voltage (rated)	120	120
Amperage (rated)	-	2.4
Service Factor	-	NL

Completed By: David Nicolas Sanchez on 05/01/2025

Unit Data - PHOTO LOG



05/02/2025

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Project: 04-21-25 SAFEWAY #1535 TEMPE, AZ

System/Unit: FAN - Supply



Asset: MAU1

AREA:BAKERY

Unit Data		
	Design	Actual
MFG	AERO COOL	N/A
Model Num	NA	N/A
Serial Num	-	N/A
Type	MAU	MUA
Configuration	HORIZONTAL	N/A

Motor Data		
	Design	Actual
Motor MFG	-	
Frame	-	
Horsepower	-	
Motor Rpm	-	
Phase	1	
Voltage (rated)	115	
Amperage (rated)	-	
Service Factor	-	

Gas Heat		
	Design	Actual
Heater Operates (y/n)	-	
Flame Status (pass/fail)	-	
Inlet Air Temp SetPt	55	
Discharge Air Temp SetPt	60	
Air Flow Switch SP Actual	-	

Test Data		
	Design	Actual
CFM	-	
SF RPM	-	
Motor RPM	-	
SF System SetPt	-	
RL Voltage	-	
RL Amperage	-	
Total ESP	-	
Fan Discharge SP	-	

General	
	Actual
Fan Rotation Correct	

Completed By: David Nicolas Sanchez on 05/01/2025

Notes:
Unit does not exist.

Written By: David Nicolas Sanchez on 05/02/2025

