Report By:

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

Report: TAB Report

Function: Test, Adjust, & Balance

Date: 06/11/2025

Completed By: National TAB

PROJECT

06-09-25 CAVA INDIANAPOLIS, IN (IUPUI)

801 W 10TH STREET

INDIANAPOLIS, IN 46202

Client

CAVA

702 H ST NW

2nd floor

Washington, DC 20001

National TAB

Project: 06-09-25 CAVA INDIANAPOLIS, IN (IUPUI)

Table Of Contents

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

- HOOD-1 Alarms
- HOOD-1 HMI
- MUA-1 alarms
- Restroom EFs

06-09-25 CAVA INDIANAPOLIS, IN (IUPUI)

Project Issue Information

Issue Name : HOOD-1 Alarms

Description : HOOD-1 alarms are showing “pressure switch fault” and “core #1 fault” this is usually due to the ansul system and fire suppression system not being completed. This should clear once fire suppression test is done.

Created By : National TAB

Assigned To : National TAB - Dylan Crisman

Status : Open

Priority : Low

Asset Tag :

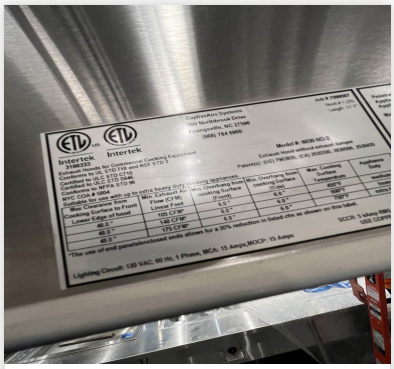
Originated Date : 06/11/2025 - Dylan Crisman - National TAB

Project Issue Response Details

- **06/11/2025 National TAB - Dylan Crisman**
  - Updated with Photos

06/11/2025

06/11/2025



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Project Issue Information

Issue Name : HOOD-1 HMI

Description : HD-1 HMI does not allow me to change speed setpoints. When changed, it reverts back to 76%. No change in airflow. CAS service confirmed they will look into this when they arrive to do their startups. Unit is set at 95% of design at 2496/2606 CFM.

Created By : National TAB

Assigned To : National TAB - Dylan Crisman

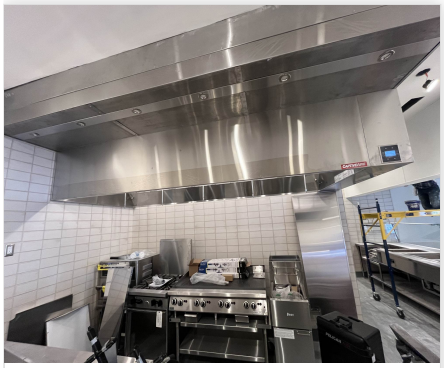
Status : Open

Priority : High

Asset Tag :

Originated Date : 06/11/2025 - Dylan Crisman - National TAB

Project Issue File Details



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Project Issue Information

Issue Name : MUA-1 alarms

Description : MUA has multiple alarms that keep going in and out, unable to get access to any of the menus to test heating and cooling stages, change setpoints per checklist specifications. CAS service is aware and is having the same issue remotely. Confirmed they will look into it when they arrive for start ups.

Created By : National TAB

Assigned To : National TAB - Dylan Crisman

Status : Open

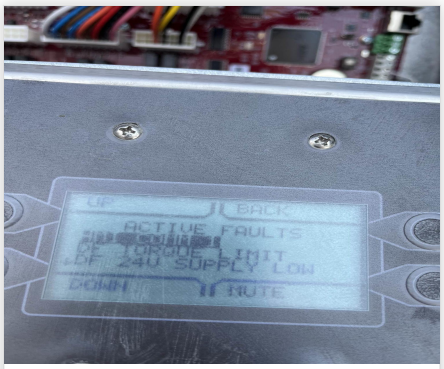
Priority : High

Asset Tag :

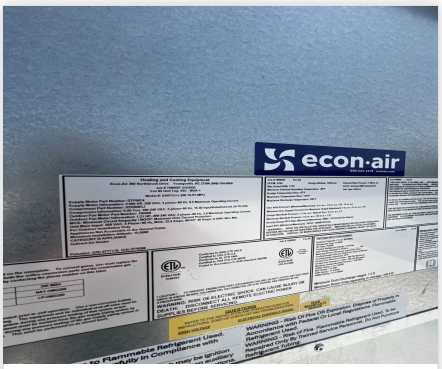
Originated Date : 06/11/2025 - Dylan Crisman - National TAB

Project Issue File Details

06/11/2025



06/11/2025



06/11/2025

06-09-25 CAVA INDIANAPOLIS, IN (IUPUI)

Project Issue Information

Issue Name :	Restroom EFs		
Description :	The restroom ceiling mounted exhaust fans are both exhausting approximately 85 CFM, which is less than the 125CFM design. However, the net airflow in each restroom is still negative (as designed) so no issues are expected if fans are left as-is.		
Created By :	National TAB	**Assigned To :**	National TAB - Dylan Crisman
Status :	Open		
Priority :	Low	**Asset Tag :**	
Originated Date :	06/23/2025 - Stephen Tassinaro - National TAB		

NATIONAL TAB

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	KITCHEN	3500	3468	3075	3018	425	450	12.1%	13.0%						
RTU-2	DINING	3000	2993	2400	2349	600	644	20.0%	21.5%						
MUA-1	HOOD MUA									2163	2156				
KF-1	HOOD FAN											2606	2496		
CEF-1	WOMENS RR													125	83
CEF-2	MENS RR													125	87
TOTALS		6500	6461	5475	5367	1025	1094			2163	2156	2606	2496	250	170

NET BUILDING AIRFLOW CALCULATION

TOTALS	DESIGN	ACTUAL
TOTAL OA	3188	3250
TOTAL EXHAUST	2856	2666
NET AIRFLOW	332	584

DOOR TESTED	BUILDING PRESSURE MEASUREMENTS (IN. H20)
FRONT	0.0045
SIDE	0.0087
REAR	0.0024
AVERAGE	**0.0052**

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

- FIV - EF'S
- FIV - HOODS
- FIV - HVAC DUCTWORK
- FIV - MUA
- FIV - RTU'S
- FPT - BUILDING PRESSURE AND HOOD CONTAINMENT
- FPT - KEF'S
- FPT - MUA
- FPT - RTU's

06-09-25 CAVA INDIANAPOLIS, IN (IUPUI)

CheckList Information

Name :	FIV - EF'S	**Status :**	Completed
Assigned Organization :	National TAB	**Asset :**	
Requesting Organization :	National TAB		
Created Date :	05/23/2025 - Tara Metcalf - National TAB		
Completed Date :	06/10/2025 - Dylan Crisman - National TAB		

CheckList Item Details

Unit Tag matches the design and submittal MFG and Model	Pass
Comment:	
Each exhaust fan is proper tagged for proper identification with tags sized and placed on the fan for visual ease	Pass
Comment:	
Fans are installed in the correct location and orientation	Pass
Comment:	
All packing, material and debris has been removed from the blower/wheel housing and the motor compartment	Pass
Comment:	
Fan wheels turn easily by hand (turn power off prior to testing)	Pass
Comment:	
Fans grease duct curb top plate is properly transitioned to the fan inlet and flush on top of the curb, sealed to the fan base to prevent leakage	Pass
Comment:	

Exhaust fans have external disconnects and are connected to allow full hinging of each exhaust fan	Pass
Comment:	
Fan is properly hinged and supported when hinged fully back for grease duct access (for Halton fans, ensure the base mounted disconnect is not hitting the fan base/curb when fully hinged back)	Pass
Comment:	
Grease cups are properly installed and connected to the fan base grease drain to prevent spilling outside of the grease cup	Pass
Comment:	
Exhaust fans are located 5ft from parapet wall and 10ft from any fresh air intake.	Pass
Comment:	

06-09-25 CAVA INDIANAPOLIS, IN (IUPUI)

CheckList Information

Name :	FIV - HOODS	**Status :**	Completed
Assigned Organization :	National TAB	**Asset :**	
Requesting Organization :	National TAB		
Created Date :	05/23/2025 - Tara Metcalf - National TAB		
Completed Date :	06/11/2025 - Dylan Crisman - National TAB		

CheckList Item Details

HOOD INSTALLATION DETAILS

Kitchen hoods tags match design and submitted information	Pass
Comment:	
Kitchen hoods are hung Level using 1/2" threaded rod	Pass
Comment:	
Kitchen hoods are supported using beam clamps and/or Unistrut per required structural and local AHJ requirements	Pass
Comment:	
Kitchen hoods are hung level front to back and side to side	Pass
Comment:	
Kitchen hoods are hung at 80" AFF	Pass
Comment:	
Kitchen Hoods are flush against the wall along the bottom and each of it's side walls.	Pass
Comment:	

Caulk is applied (less than 1/8" thick) from the hood against all wall surfaces or between connecting side to side hoods to prevent grease accumulation inside any crevice.	Pass

Comment:

Hood connections to wall are grouted, not caulked.

There are no penetrations into the hood canopy other than fire system nozzles	Pass

Comment:

The hood is in "As New" condition with no visible damage, rust, pitting, or other blemishes	Pass

Comment:

All protective film has been peeled away from the wall or other areas of impingement to assure it can be easily and fully removed prior to cleaning.	Pass

Comment:

HOOD ACCESSORIES

End panels are installed	Pass

Comment:

Hood filters are installed	Pass

Comment:

Grease cups are installed	Pass

Comment:

Ceiling Wrappers are installed and the ceiling grid is fixed to the top of the ceiling wrappers	Pass

Comment:

Hood control panel has been identified and is located as per plan, is accessible, and contains all components and temperature sensors to meet local interlock (normal and abnormal conditions) and heat auto on/off functionality.	Pass

Comment:

06-09-25 CAVA INDIANAPOLIS, IN (IUPUI)

CheckList Information

Name :	FIV - HVAC DUCTWORK	**Status :**	Not Completed
Assigned Organization :	National TAB	**Asset :**	
Requesting Organization :	National TAB		
Created Date :	05/23/2025 - Tara Metcalf - National TAB		

CheckList Item Details

KVS - GREASE DUCT (HOOD SYSTEM)

Grease duct is sized and routed per plan	Pass
Comment:	
Grease duct is properly supported	Pass
Comment:	
Grease duct has code required negative pitch from fan inlet back to the hood riser connection	Pass
Comment:	
Grease duct has required clean-out doors installed, labeled, and accessible for removal/cleaning. Doors are located as required by code	Pass
Comment:	
Grease duct clean-out doors are secured using tool less fasteners and seal fully when hand tightened	Pass
Comment:	
Grease duct is centered in the curb and transitions as required to ensure the fan inlet is fully covered by the grease duct opening. Duct top plate flanges to the edges of the curb and is secured and flat so that the fan sits flush and square.	Pass
Comment:	

Grease duct is wrapped if welded duct, or is double wall round duct?	Pass

Comment:

Welded, Fyrewrapped.

KVS - MUA DUCT (HOOD SYSTEM)

MUA duct is routed and sized as per plan	Pass

Comment:

MUA duct seams are sealed air tight using proper sealant and application for SMACNA pressure rating of duct systems	Yes

Comment:

MUA duct is externally insulated and taped to prevent vapor barrier from being breached	Pass

Comment:

MUA duct drop box and transitions are done to encourage laminar flow and avoid restrictions	Pass

Comment:

Branch take-off's have accessible dampers exposed for the TAB team to adjust each line as necessary	Pass

Comment:

Flex duct (if used) is supported and straight with no more than one (1) hard 90 degree elbow and less than 5ft in total length	Pass

Comment:

Connection to the hood MUA plenum is secured and foil taped to prevent air leakage	Pass

Comment:

RESTROOM DUCT

Restroom duct is routed and sized per plan	Pass

Comment:

Restroom duct is properly supported	Pass

Comment:	
Duct seams are sealed	Yes
Comment:	
Dampers are accessible to TAB team for balancing	Pass
Comment:	
Flex duct (if used) is supported and straight with no more than one (1) hard 90 degree elbow and less than 5ft in total length	Pass
Comment:	
Duct is secured to exhaust register	Pass
Comment:	
Gravity damper is installed, opens and closes freely, and is sealed to prevent air leakage	Pass
Comment:	
Duct to curb transition is centered and sized to ensure it covers the entire fan inlet. Curb top plate is flush and secured to the ends of the curb.	Pass
Comment:	
HVAC DUCT	
Kitchen and Dining room duct is routed and sized as per plan	Pass
Comment:	
Ducts are properly supported	Pass
Comment:	
Ductwork is externally insulated	Yes
Comment:	
Duct seams are sealed air tight using proper sealant and application for SMACNA pressure rating of duct systems	Pass

Comment:	
Ducts are securely insulated as per specificatins and foil taped to prevent air barrier from being breached	Pass
Comment:	
Takeoffs are installed to serve required terminal diffusers and are equipped with accessible dampers for TAB team access and can be opened or closed fully with no impingements	Pass
Comment:	
Flex duct (if used) is supported and straight with no more than one (1) hard 90 degree elbow and less than 5ft in total length	Pass
Comment:	
Takeoff to diffuser is installed securely to prevent slippage and air leakage	Pass
Comment:	
All diffuser neck or opening sizes are installed as planned	Pass
Comment:	
Supply and Return duct transitions to top of RTU curb, sized to full width and length of opening and is flashed fully to the sides of the curb.	Pass
Comment:	

06-09-25 CAVA INDIANAPOLIS, IN (IUPUI)

CheckList Information

Name :	FIV - MUA	**Status :**	Completed
Assigned Organization :	National TAB	**Asset :**	
Requesting Organization :	National TAB		
Created Date :	05/23/2025 - Tara Metcalf - National TAB		
Completed Date :	06/10/2025 - Dylan Crisman - National TAB		

CheckList Item Details

MUA Tag information matches design and submittal criteria	Pass
Comment:	
MUA Fan has a permanent tag for identification located on the unit located and sized for visual ease	Pass
Comment:	
MUA is installed in the proper location and orientation	Pass
Comment:	
MUA intake is a minimum 10ft from any exhaust, roof vent or dirty air source	Pass
Comment:	
Blower compartment and internal heater area is free of packing material, debris, and dirt	Pass
Comment:	
Blower wheel turns freely by hand (turn power off prior to testing)	Pass
Comment:	
All MUA compartment and control doors are fully accessible, minimum 36" clearance for service allowing the doors to fully open without restriction	Pass

Comment:	
MUA Electrical disconnect is external to the unit and properly wired	Pass
Comment:	
Outdoor air awning is installed and fitted with proper OA mesh filters	Pass
Comment:	
Condensate drain is installed (for cooling MUA's) with proper traps, clean-outs, and drain away from the unit to an acceptable roof drain	Pass
Comment:	
Refrigeration line sets are installed and connected properly with adequate supports per specifications	Pass
Comment:	
Condenser is installed away from any grease producing exhaust fans and located as per roof plan	Pass
Comment:	
Condenser's electrical disconnect is external to the unit and properly wired (if applicable)	Pass
Comment:	
Condenser hail guards are installed (if applicable)	Pass
Comment:	
All Condenser compartment and control doors are fully accessible, minimum 36" clearance for service allowing the doors to fully open without restriction (if applicable)	Pass
Comment:	
Gas line is installed per specification and properly supported	Pass
Comment:	
Gas line is installed per specification and properly supported and contains maintenance shut-off valve, trap, and regulator (if line pressure requires it). MUA is equipped with inlet gas pressure gauge to validate incoming gas pressure is suitable	Pass

Comment:

06-09-25 CAVA INDIANAPOLIS, IN (IUPUI)

CheckList Information

Name :	FIV - RTU'S	**Status :**	Completed
Assigned Organization :	National TAB	**Asset :**	
Requesting Organization :	National TAB		
Created Date :	05/23/2025 - Tara Metcalf - National TAB		
Completed Date :	06/11/2025 - Dylan Crisman - National TAB		

CheckList Item Details

RTU IDENTIFICATION, ORIENTATION & LOCATION	
Each RTU is tagged for proper identification with tags sized and placed on the fan for visual ease	Pass
Comment:	
Identify and ensure the RTU label information and size is correct	Pass
Comment:	
Ensure proper location of unit	Pass
Comment:	
Ensure orientation of curb & RTU is per plan	Pass
Comment:	
Ensure Packing in the blower compartment has been removed	Pass
Comment:	
RTU - INSTALLATION DETAILS	
With disconnect switch "off" spin the indoor and outdoor fan wheel's by hand and ensure they spin freely	Pass

Comment:

Ensure Roof Curb is fully flashed by roofing material and secured and curb is level	Pass

Comment:

Inspect the interior of the supply heat exchange compartment and return air compartment - validate that the duct is flashed and sealed to the top of the curb to prevent leakage or short cycling	Pass

Comment:

Hail guards installed on outdoor condenser coils	Pass

Comment:

RTU - ACCESSORIES

Power connected & disconnect installed	Pass

Comment:

Gas line connected per specification (size, painting, supports, shut-off valves, traps)	Pass

Comment:

OA hood & filters installed	Pass

Comment:

Economizer wired to control board	Pass

Comment:

Evaporator coil filters are properly installed with specified MERV rating	Fail

Comment:

Issue created, construction filters still presently installed.

Economizer damper is installed properly	Pass

Comment:

Economizer OA temperature / enthalpy sensors installed and wired	Pass

Comment:	
Thermostat and humidity (if applicable) control wires wired to RTU terminals	Pass
Comment:	
Condensate drain installed per specification	Pass
Comment:	
Condensate line drains away from unit to a approved roof drain	Pass
Comment:	
Belts are tight?	N/A
Comment: Direct drive.	
Pulleys aligned?	N/A
Comment:	
MERV rated filters are installed and are clean?	Fail
Comment:	

06-09-25 CAVA INDIANAPOLIS, IN (IUPUI)

CheckList Information

Name :	FPT - BUILDING PRESSURE AND HOOD CONTAINMENT	**Status :**	Not Completed
Assigned Organization :	National TAB	**Asset :**	
Requesting Organization :	National TAB		
Created Date :	05/23/2025 - Tara Metcalf - National TAB		

CheckList Item Details

FINAL TESTS

HOOD CAPTURE TEST

List equipment turned on for testing

Comment:

None

List smoke candle type used

Comment:

CE0163 45 sec 150CF

Smoke test capture - Perimeter of hood (%)

Comment:

100%

Smoke test capture - Top of cooking surface (%)

Comment:

100%

WITNESS

Date test was completed	06/11/2025

Comment:

TAB tech name / Firm

Comment:

Dylan Crisman / NTi

Site super name / Firm

Comment:

Doug Simkins / Dejager Construction

Owner representative name / Firm (if Applicable)

Comment:

N/A

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)

Comment:

Yes

06-09-25 CAVA INDIANAPOLIS, IN (IUPUI)

CheckList Information

Name :	FPT - KEF'S	**Status :**	Completed
Assigned Organization :	National TAB	**Asset :**	
Requesting Organization :	National TAB		
Created Date :	05/23/2025 - Tara Metcalf - National TAB		
Completed Date :	06/11/2025 - Dylan Crisman - National TAB		

CheckList Item Details

Exhaust fans wheel rotation is correct	Pass
Comment:	
TAB firm has balanced the exhaust fans to proper design levels	Pass
Comment:	
All motor and electrical readings are below the full load rating of each fan	Pass
Comment:	
Exhaust Fans do not have any unusual noise or vibration while operating	Pass
Comment:	
Smoke and Grease from exhaust fans appear to properly elevate above the parapet wall and off the roof.	Pass
Comment:	
Hoods have been started up by the manufacturers rep?	Pass
Comment:	
Hoods free of alarms?	Fail

Comment:

Exhaust fans modulate to high speed when kitchen equipment is on and at cooking temperatures? If not, adjust modulation/offset down.	Pass

Comment:

06-09-25 CAVA INDIANAPOLIS, IN (IUPUI)

CheckList Information

Name :	FPT - MUA	**Status :**	Completed
Assigned Organization :	National TAB	**Asset :**	
Requesting Organization :	National TAB		
Created Date :	05/23/2025 - Tara Metcalf - National TAB		
Completed Date :	06/11/2025 - Dylan Crisman - National TAB		

CheckList Item Details

TAB firm has balanced the MUA to within proper design limits	Pass
Comment:	
Blower wheel rotation is correct	Pass
Comment:	
MUA does not have any unusual noise or vibration while operating	Pass
Comment:	
Motor and electrical measurements are below the full load rating	Pass
Comment:	
Startup has been completed by the manufacturers rep?	Fail
Comment:	
Heater tested and is functional?	N/A
Comment: Unable to verify due to alarms.	
Cooling is tested and is functional?	N/A

Comment:

Unable to verify due to alarms.

06-09-25 CAVA INDIANAPOLIS, IN (IUPUI)

CheckList Information

Name :	FPT - RTU's	**Status :**	Completed
Assigned Organization :	National TAB	**Asset :**	
Requesting Organization :	National TAB		
Created Date :	05/23/2025 - Tara Metcalf - National TAB		
Completed Date :	06/11/2025 - Dylan Crisman - National TAB		

CheckList Item Details

THERMOSTAT PROGRAMMING AND CALIBRATION

Time is correct on the thermostats	Pass
Comment:	
Occupied Time = 7:30 AM	N/A
Comment: Thermostat is not programmable.	
Occupied Heat setpoint = 68	Pass
Comment:	
Occupied Cooling setpoint = 72	Pass
Comment:	
Dehumidification Setpoint = 55%	N/A
Comment: Thermostat is not programmable	
Occupied Fan = On	N/A

Comment:

Thermostat is not programmable

Unoccupied Time = 12:00AM	N/A

Comment:

Thermostat is not programmable

Unoccupied Heat setpoint = 60	N/A

Comment:

Thermostat is not programmable

Occupied Cooling setpoint = 80	N/A

Comment:

Thermostat is not programmable

Unoccupied Fan = Auto	N/A

Comment:

Thermostat is not programmable

Actual measured temperature is within +/-1 degree of temperature displayed on thermostat. If not calibrate the sensor	Pass

Comment:

Actual measured RH is within +/-3 % of displayed RH at RTU or thermostat. If not calibrate the sensor	Pass

Comment:

CONTROL WIRING VALIDATION

Economizer Dry Bulb sensor wired	Pass

Comment:

Economizer Dry Bulb sensor operational	Pass

Comment:

OCP/OCC terminal wired correctly	Pass

Comment:

Thermostat Wired correctly (R,C,Y1,Y2,W1,W2)	Pass
Comment:	
Humidity Sensor Wired correctly	Pass
Comment:	
CALIBRATION & PROGRAMMING	
RTU OA DB StPt, Reading Accuracy (+/- 2 degrees / 10 minute time to calibrate to actual reading)	Pass
Comment:	
RTU MAT StPt, Reading Accuracy (+/- 2 degrees / 10 minute time to calibrate to actual reading)	Pass
Comment:	
RTU MAT Low StPt	
Comment: RTU-1 53F RTU-2 53F	
RTU Low T Lockout	
Comment: RTU-1 32F RTU-2 32F	
Economizer set to 28 BTU/lb enthalpy setpoint.	Pass
Comment:	
Temperature tests	
Outside air temperature / humidity	
Comment: 84F/65.6RH	
Full cooling LAT/H	
Comment: RTU-1:56.2F/68.5RH RTU-2: 56.9F/68.0RH	
Full heating LAT/H	

Comment:

RTU-1: 90.1F/70.8RH RTU-2: 88.9F/70.3RH

OUTDOOR AIR / RELIEF DAMPER

If power exhaust installed, set point is higher than the OA damper setpoint	Pass
Comment:	
If power exhaust installed, open the OA damper above the power exhaust setpoint and ensure that the power exhaust turns on	Pass
Comment:	
If relief damper is installed, ensure that it is installed properly and can open freely.	N/A
Comment:	

OCCUPANCY VALIDATION

Place the thermostat in "unoccupied" - Does the OA damper close fully	Pass
Comment:	
Stage cooling and Heating in "unoccupied" - Does the unit properly stage and does the OA damper remain closed	Pass
Comment:	
Place the thermostat in "Occupied" - Does the OA damper open to the TAB preset minimum position in High speed	Pass
Comment:	
Place the thermostat in "Occupied" - Does the OA damper open to the TAB preset minimum position in Low speed (if applicable)	Pass
Comment:	

National TAB

Project: 06-09-25 CAVA INDIANAPOLIS, IN (IUPUI)

System/Unit: AHU/RTU

Asset: RTU1 AREA:KITCHEN

Unit Data		
	Design	**Actual**
MFG	CARRIER	CARRIER
Serial Num	-	4224P64909
Model Num	48FCDN12	48FCDN12A3A5A8B4F0
Type	RTU	RTU
Configuration	VERTICAL	VERTICAL
Num OA Filters 1	-	1
OA Filter Size 1	-	35X19.5
Num Final Filter 1	-	4
Final Filter Size 1	-	20X20X2

Motor Data		
	Design	**Actual**
Motor MFG	-	CARRIER
Phase	3	3
Rated Voltage	208	208
Rated Amperage	-	12.6

Test Data		
	Design	**Actual**
SF CFM	3500	3468
SF RPM	-	1841
RA CFM	3075	3018
OA CFM	425	450
RL Voltage	-	208/208/208
RL Amperage	-	5.7/5.6/5.4
SF Rotation	-	CW
SF System SetPt	-	8.0VDC
RA Damper Position	-	MECHANICAL LINKAGE
Min OA Damper Position	-	4.0V
Min OA Damper Type	-	ECONOMIZER

Performance Data		
	Design	**Actual**
MA Plenum SP	-	-0.84"
Fan Suction SP	-	-1.18"
Fan Discharge SP	-	0.17"
Total ESP	1.00"	1.01"
Fan Total SP	-	1.35"

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

Completed By: Dylan Crisman on 06/11/2025

Unit Data - PHOTO LOG

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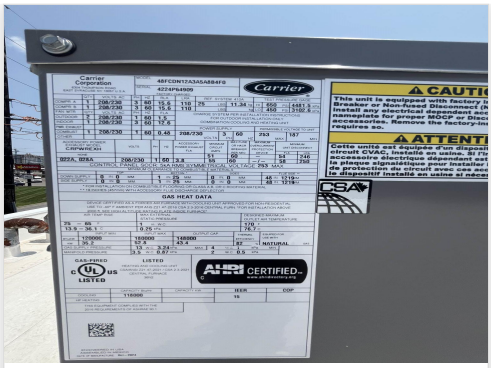

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National TAB

Project:06-09-25 CAVA INDIANAPOLIS, IN (IUPUI)

AHU/RTU

Diffuser Supply (GRD)

RTU1/KITCHEN

Asset									
Asset Name	**Location**	**Type**	**Size**	**DESIGN CFM**	**AK**	**CFM(1)**	**CFM(2)**	**FINAL CFM**	**% to design**
SGRD1	KITCHEN	D	10"	305	1.0	468	430	299	98.0
SGRD2	KITCHEN	D	10"	305	1.0	348	320	294	96.4
SGRD3	KITCHEN	D	10"	305	1.0	357	328	315	103.3
SGRD4	KITCHEN	D	10"	305	1.0	418	384	323	105.9
SGRD5	KITCHEN	A	10"	305	1.0	350	321	308	101.0
SGRD6	KITCHEN	A	10"	300	1.0	373	342	314	104.7
SGRD7	KITCHEN	A	10"	300	1.0	323	297	293	97.7
SGRD8	KITCHEN	A	10"	300	1.0	371	341	297	99.0
SGRD9	KITCHEN	A	10"	300	1.0	413	379	293	97.7
SGRD10	KITCHEN	ACPSP	152X6	776	4.94	459	422	719	92.7
Total				3501		3880	3564	3455	98.69%

Completed By: Dylan Crisman on 06/11/2025

National TAB

Project: 06-09-25 CAVA INDIANAPOLIS, IN (IUPUI)

System/Unit: AHU/RTU

Asset: RTU2 AREA:DINING

Unit Data		
	Design	**Actual**
MFG	CARRIER	CARRIER
Serial Num	-	4224P6881
Model Num	48FCDN09	48FCDN09A2A5A8B4F0
Type	RTU	RTU
Configuration	VERTICAL	VERTICAL
Num OA Filters 1	-	1
OA Filter Size 1	-	35X19.5
Num Final Filter 1	-	4
Final Filter Size 1	-	20X20X2

Motor Data		
	Design	**Actual**
Motor MFG	-	CARRIER
Phase	3	3
Rated Voltage	208	208
Rated Amperage	-	6.4

Test Data		
	Design	**Actual**
SF CFM	3000	2993
SF RPM	-	1657
RA CFM	2400	2349
OA CFM	600	644
RL Voltage	-	208/208/209
RL Amperage	-	4.3/4.5/4.4
SF Rotation	-	CW
SF System SetPt	-	7.8VDC
RA Damper Position	-	MECHANICAL LINKAGE
Min OA Damper Position	-	3.0V
Min OA Damper Type	-	ECONOMIZER

Performance Data		
	Design	**Actual**
MA Plenum SP	-	-0.70”
Fan Suction SP	-	-1.06”
Fan Discharge SP	-	0.21”
Total ESP	1.00"	0.91"
Fan Total SP	-	1.27"

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

Completed By: Dylan Crisman on 06/11/2025

Unit Data - PHOTO LOG

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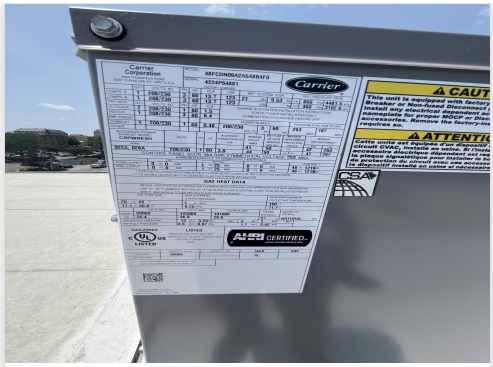

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National TAB

Project:06-09-25 CAVA INDIANAPOLIS, IN (IUPUI)

AHU/RTU

Diffuser Supply (GRD)

RTU2/DINING

Asset									
Asset Name	**Location**	**Type**	**Size**	**DESIGN CFM**	**AK**	**CFM(1)**	**CFM(2)**	**FINAL CFM**	**% to design**
SGRD1	DINING	E	24"	350	0.63	423	400	354	101.1
SGRD2	DINING	E	24"	300	0.63	372	359	320	106.7
SGRD3	DINING	E	22"	350	0.63	433	409	357	102.0
SGRD4	DINING	E	22"	300	0.63	368	347	308	102.7
SGRD5	DINING	E	20"	350	0.63	442	412	359	102.6
SGRD6	DINING	E	20"	300	0.63	379	358	296	98.7
SGRD7	DINING	E	16"	350	0.63	421	398	341	97.4
SGRD8	HALL	E	10"	400	1.0	213	201	372	93.0
SGRD9	WOMENS RESTROOM	E	6"	50	1.0	68	64	55	110.0
SGRD10	HALL	E	8"	200	1.0	107	101	184	92.0
SGRD11	MENS RESTROOM	E	6"	50	1.0	97	91	47	94.0
Total				3000		3323	3140	2993	99.77%

Completed By: Dylan Crisman on 06/11/2025

National TAB

Project: 06-09-25 CAVA INDIANAPOLIS, IN (IUPUI)

System/Unit: FAN - Exhaust

Asset: CEF1 AREA:WOMEN'S RESTROOM

Unit Data		
	Design	**Actual**
MFG	GREENHECK	BROAN
Model Num	SP-A250	L100E-A
Serial Num	-	42MH12H
Type	CEILING	CEILING
Configuration	VERTICAL	VERTICAL

Test Data		
	Design	**Actual**
CFM	125	83
Fan Rotation	-	CCW
System SetPt	-	HIGH SPEED
Fan Discharge SP	-	ATM

Motor Data		
	Design	**Actual**
Motor MFG	-	BROAN
Frame	-	L18
Phase	1	1
Voltage (rated)	120	120
Amperage (rated)	-	0.3

Completed By: Dylan Crisman on 06/11/2025

Notes:
Unit is set at max speed possible on speed dial and low on flow at 83/125CFM

Written By: Dylan Crisman on 06/11/2025

Unit Data - PHOTO LOG

06/11/2025

National TAB

Project: 06-09-25 CAVA INDIANAPOLIS, IN (IUPUI)

System/Unit: FAN - Exhaust

Asset: CEF2 AREA:MENS RESTROOM

Unit Data		
	Design	**Actual**
MFG	GREENHECK	BROAN
Model Num	SP-A250	L100E-A
Serial Num	-	42M12H
Type	CEILING	CEILING
Configuration	VERTICAL	VERTICAL

Test Data		
	Design	**Actual**
CFM	125	86
Fan Rotation	-	CCW
System SetPt	-	HIGH SPEED
Fan Discharge SP	-	ATM

Motor Data		
	Design	**Actual**
Motor MFG	-	BROAN
Frame	-	L18
Phase	1	1
Voltage (rated)	120	120
Amperage (rated)	-	0.3

Completed By: Dylan Crisman on 06/11/2025

Notes:
Unit is set at max speed possible on speed dial and low on flow at 86/125CFM

Written By: Dylan Crisman on 06/11/2025

Unit Data - PHOTO LOG

06/11/2025

National TAB

Project: 06-09-25 CAVA INDIANAPOLIS, IN (IUPUI)

System/Unit: FAN - Exhaust

Asset: KF1 AREA:HOOD FAN

Unit Data		
	Design	**Actual**
MFG	ECON-AIR	CAPTIVE-AIRE
Model Num	EADU85H	DU85HFA
Serial Num	-	7099507
Type	UPBLAST/CEILING	UPBLAST
Configuration	VERTICAL	VERTICAL

Motor Data		
	Design	**Actual**
Motor MFG	-	TELCO-GREEN
Horsepower	1	1.0
Motor Rpm	1657	1800
Phase	1	1
Voltage (rated)	115	115
Amperage (rated)	-	11.6
Service Factor	-	1.15

Test Data		
	Design	**Actual**
CFM	2606	2496
Fan RPM	-	1368
Fan Rotation	-	CCW
Motor RPM	-	1368
System SetPt	-	76%
RL Voltage	-	119
RL Amperage	-	7.6/7.4
Total ESP	1.00"	0.72"
Fan Inlet SP	-	-0.72"
Fan Discharge SP	-	ATM

Completed By: Dylan Crisman on 06/11/2025

Unit Data - PHOTO LOG

06/10/2025

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National TAB

Project: 06-09-25 CAVA INDIANAPOLIS, IN (IUPUI)

System/Unit: FAN - Supply

Asset: MUA1 AREA:HOOD MUA

Unit Data		
	Design	**Actual**
MFG	ECON-AIR	ECON-AIR
Model Num	EARTU1-I.200-15-5T-MPU	EARTU1-I.200-15-5T-MPU
Serial Num	-	7099507
Type	MUA	MUA
Configuration	VERTICAL	VERTICAL

Motor Data		
	Design	**Actual**
Motor MFG	-	TECO-WESTINGHOUSE
Frame	-	182T
Horsepower	3	3.0
Motor Rpm	-	1755
Phase	3	3
Voltage (rated)	208	230
Amperage (rated)	-	8.60
Service Factor	-	1.15

Gas Heat		
	Design	**Actual**
Heater Operates (y/n)	-	N/A
Flame Status (pass/fail)	-	N/A
Inlet Air Temp SetPt	55	N/A
Discharge Air Temp SetPt	60	N/A

Test Data		
	Design	**Actual**
CFM	2163	2156
SF RPM	-	1661
Motor RPM	-	1661
SF System SetPt	-	56.8
RL Voltage	-	148@VFD
RL Amperage	-	6.2@VFD
Fan Discharge SP	-	ATM

General	
	Actual
Fan Rotation Correct	YES

Completed By: Dylan Crisman on 06/11/2025

Unit Data - PHOTO LOG

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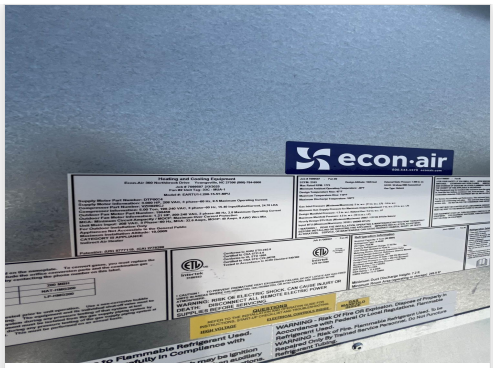

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National TAB

Project: 06-09-25 CAVA INDIANAPOLIS, IN (IUPUI)

System/Unit: Kitchen Hood Type I

Asset: HD1 AREA:KITCHEN HOOD

Unit Data		
	Design	**Actual**
MFG	ECON-AIR	CAPTIVE-AIRE
Model Num	6030 EX-2-ACPSP-F	6030 ND-2
Job / Serial Num	-	7099507
Type	TYPE I - CANOPY	TYPE I - CANOPY
Hood length	153"	139"
Hood Width	60"	60"
Supply Plenum Type	-	ACPSP
Supply Plenum Width	14"	14"
Supply Plenum Length	152"	152"

Test Data Exhaust		
	Design	**Actual**
Filter Type	CAPTRATE SOLO FILTER	CAPTRATE SOLO
Filter Size 1	20X16	20X16
Filter Qty 1	8	8
Filter AK factor size 1	2.08	2.08
Filter Total AK Area	16.64	16.64
Filter1 FPM	-	142
Filter2 FPM	-	144
Filter3 FPM	-	155
Filter4 FPM	-	164
Filter5 FPM	-	167
Filter6 FPM	-	145
Filter7 FPM	-	143
Filter8 FPM	-	138
Filter Ave FPM(corr)	-	150
CFM	2606	2496

Cooking Equipment	
	Actual
Item 1	STEAMER
Item 2	STOVE
Item 3	GRIDDLE
Item 4	FRYER

Test Data Supply		
	Design	**Actual**
Total Area	14.77	14.77
Kv factor (Vel)	.89	0.89
Num of Readings	-	14
Reading1 FPM	-	235
Reading2 FPM	-	221
Reading3 FPM	-	164
Reading4 FPM	-	131
Reading5 FPM	-	126
Reading6 FPM	-	162
Reading7 FPM	-	199
Reading8 FPM	-	183
Reading9 FPM	-	138
Reading10 FPM	-	100
Reading11 FPM	-	98
Reading12 FPM	-	184
Reading13 FPM	-	199
Reading14 FPM	-	168
Ave FPM(corr)	-	164
CFM	2163	2156

Completed By: Dylan Crisman on 06/11/2025

Unit Data - PHOTO LOG

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