Report By:

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

Report: TAB REPORT

Function: Test, Adjust, & Balance

Date: 10/22/2024

Completed By: National TAB

PROJECT

10-14-24 CAVA CHATTANOOGA, TN (GUNBARREL RD)

2260 GUNBARREL RD

CHATTANOOGA, TN 37421

Client

CAVA

702 H ST NW

2nd floor

Washington, DC 20001

National TAB

Project: 10-14-24 CAVA CHATTANOOGA, TN (GUNBARREL RD)

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.

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	FRONT KITCHEN	2000	1922	1660	1565	340	357	17.0%	18.6%						
RTU-2	BACK KITCHEN	1850	1687	1387	1183	463	504	25.0%	29.9%						
RTU-3	DINING/RESTROOMS	3775	3658	3095	2961	680	697	18.0%	19.1%						
MUA-1	HOOD-1									1976	1909				
KEF-1	HOOD-1											2381	2431		
CEF-1	WOMENS RESTROOM													100	159
CEF-2	MENS RESTROOM													100	165
TOTALS		7625	7267	6142	5709	1483	1558			1976	1909	2381	2431	200	324

NET BUILDING AIRFLOW CALCULATION

TOTALS	DESIGN	ACTUAL
TOTAL OA	3459	3467
TOTAL EXHAUST	2581	2755
NET AIRFLOW	878	712

DOOR TESTED	BUILDING PRESSURE MEASUREMENTS (IN. H20)
FRONT	0.004
SIDE	-
REAR	0.002
AVERAGE	**0.003**

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

10-14-24 CAVA CHATTANOOGA, TN (GUNBARREL RD)

CheckList Information

Name :	FIV - EF'S	**Status :**	Completed
Assigned Organization :	National TAB	**Asset :**	
Requesting Organization :	National TAB		
Created Date :	10/10/2024 - Brianna Biggs - National TAB		
Completed Date :	10/24/2024 - Wesley John - 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:	

10-14-24 CAVA CHATTANOOGA, TN (GUNBARREL RD)

CheckList Information

Name :	FIV - HVAC DUCTWORK	**Status :**	Completed
Assigned Organization :	National TAB	**Asset :**	
Requesting Organization :	National TAB		
Created Date :	10/10/2024 - Brianna Biggs - National TAB		
Completed Date :	10/24/2024 - Wesley John - 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:	

KVS - MUA DUCT (HOOD SYSTEM)

MUA duct is routed and sized as per plan	Pass
Comment:	

MUA duct is properly supported	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:	

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CheckList Information

Name :	FIV - RTU'S	**Status :**	Completed
Assigned Organization :	National TAB	**Asset :**	
Requesting Organization :	National TAB		
Created Date :	10/10/2024 - Brianna Biggs - National TAB		
Completed Date :	10/24/2024 - Wesley John - 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	Fail
Comment: RTUS NOT TAGGED.	
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	Fail
Comment: BOTH RTUS MISSING HAIL GUARDS.	

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: RTU-3 NEEDS OA FILTER REPLACED.	
Economizer wired to control board	N/A
Comment: OUTSIDE AIR DAMPER IS MANUALLY OPERATED.	
Evaporator coil filters are properly installed with specified MERV rating	Pass
Comment:	
Economizer damper is installed properly	Pass

Comment:

Economizer OA temperature / enthalpy sensors installed and wired	N/A

Comment:

NOT EQUIPPED

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?	Pass

Comment:

Pulleys aligned?	Pass

Comment:

MERV rated filters are installed and are clean?	Pass

Comment:

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CheckList Information

Name :	FIV – HOODS	**Status :**	Completed
Assigned Organization :	National TAB	**Asset :**	
Requesting Organization :	National TAB		
Created Date :	10/10/2024 - Brianna Biggs - National TAB		
Completed Date :	10/17/2024 - Oscar Ventura - 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:	
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:

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CheckList Information

Name :	FIV – MUA	**Status :**	Completed
Assigned Organization :	National TAB	**Asset :**	
Requesting Organization :	National TAB		
Created Date :	10/10/2024 - Brianna Biggs - National TAB		
Completed Date :	10/24/2024 - Wesley John - 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	Fail
Comment: MUA IS NOT TAGGED.	
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:	

10-14-24 CAVA CHATTANOOGA, TN (GUNBARREL RD)

CheckList Information

Name :	FPT - BUILDING PRESSURE AND HOOD CONTAINMENT	**Status :**	Completed
Assigned Organization :	National TAB	**Asset :**	
Requesting Organization :	National TAB		
Created Date :	10/10/2024 - Brianna Biggs - National TAB		
Completed Date :	10/24/2024 - Wesley John - National TAB		

CheckList Item Details

FINAL TESTS

HOOD CAPTURE TEST

List equipment turned on for testing

Comment:

EQUIPMENT NOT STARTED AT TIME OF TESTING.

List smoke candle type used

Comment:

45-SEC SMOKE CANDLE.

Smoke test capture - Perimeter of hood (%)

Comment:

100%

Smoke test capture - Top of cooking surface (%)

Comment:

100%

WITNESS

Date test was completed	10/17/2024

Comment:

TAB tech name / Firm

Comment:

OSCAR VENTURA / NTAB

Site super name / Firm

Comment:

JOHN / ELS CONTRUCTION

Owner representative name / Firm (if Applicable)

Comment:

NA

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

10-14-24 CAVA CHATTANOOGA, TN (GUNBARREL RD)

CheckList Information

Name :	FPT - KEF'S	**Status :**	Completed
Assigned Organization :	National TAB	**Asset :**	
Requesting Organization :	National TAB		
Created Date :	10/10/2024 - Brianna Biggs - National TAB		
Completed Date :	10/24/2024 - Wesley John - 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.	N/A
Comment: UNABLE TO OBSERVE THIS	
Hoods have been started up by the manufacturers rep?	Pass

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

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CheckList Information

Name :	FPT - RTU's	**Status :**	Completed
Assigned Organization :	National TAB	**Asset :**	
Requesting Organization :	National TAB		
Created Date :	10/10/2024 - Brianna Biggs - National TAB		
Completed Date :	10/24/2024 - Wesley John - National TAB		

CheckList Item Details

THERMOSTAT PROGRAMMING AND CALIBRATION

Time is correct on the thermostats	Pass
Comment:	
Occupied Time = 7:30 AM	Pass
Comment:	
Occupied Heat setpoint = 68	Pass
Comment:	
Occupied Cooling setpoint = 72	Pass
Comment:	
Dehumidification Setpoint = 55%	N/A
Comment:	
NOT EQUIPPED.	

Occupied Fan = On	Pass
Comment:	
Unoccupied Time = 12:00AM	Pass
Comment:	
Unoccupied Heat setpoint = 60	Pass
Comment:	
Occupied Cooling setpoint = 80	Pass
Comment:	
Unoccupied Fan = Auto	Pass
Comment:	
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	N/A
Comment: NOT EQUIPPED.	
CONTROL WIRING VALIDATION	
Economizer Dry Bulb sensor wired	N/A
Comment: NOT EQUIPPED.	
Economizer Dry Bulb sensor operational	N/A
Comment: NOT EQUIPPED.	
OCP/OCC terminal wired correctly	Pass
Comment:	

Thermostat Wired correctly (R,C,Y1,Y2,W1,W2)	Pass
Comment:	
Humidity Sensor Wired correctly	N/A
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: N/A	
RTU Low T Lockout	
Comment: N/A	
Economizer set to 28 BTU/lb enthalpy setpoint.	N/A
Comment: N/A	
OUTDOOR AIR / RELIEF DAMPER	
If power exhaust installed, set point is higher than the OA damper setpoint	N/A
Comment: NOT EQUIPPED.	
If power exhaust installed, open the OA damper above the power exhaust setpoint and ensure that the power exhaust turns on	N/A
Comment: NOT EQUIPPED.	

If relief damper is installed, ensure that it is installed properly and can open freely.	N/A
Comment: NOT EQUIPPED.	
OCCUPANCY VALIDATION	
Place the thermostat in "unoccupied" - Does the OA damper close fully	N/A
Comment:	
Stage cooling and Heating in "unoccupied" - Does the unit properly stage and does the OA damper remain closed	N/A
Comment:	
Place the thermostat in "Occupied" - Does the OA damper open to the TAB preset minimum position in High speed	N/A
Comment:	
Place the thermostat in "Occupied" - Does the OA damper open to the TAB preset minimum position in Low speed (if applicable)	N/A
Comment:	

10-14-24 CAVA CHATTANOOGA, TN (GUNBARREL RD)

CheckList Information

Name :	FPT – MUA	**Status :**	Completed
Assigned Organization :	National TAB	**Asset :**	
Requesting Organization :	National TAB		
Created Date :	10/10/2024 - Brianna Biggs - National TAB		
Completed Date :	10/17/2024 - Oscar Ventura - 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?	Pass
Comment:	
Heater tested and is functional?	Pass

Comment:	
Cooling is tested and is functional?	Yes
Comment:	

National TAB

Project: 10-14-24 CAVA CHATTANOOGA, TN (GUNBARREL RD)

System/Unit: AHU/RTU

Asset: RTU1 AREA:FRONT KITCHEN

Unit Data		
	Design	**Actual**
MFG	LENNOX	LENNOX
Serial Num	-	5619F0587
Model Num	ZGB060S4BS1Y	ZGB060S4BS1Y
Type	RTU	RTU
Configuration	VERTICAL	VERTICAL
Num OA Filters 1	-	1
OA Filter Size 1	-	12X16
Num Final Filter 1	-	2
Final Filter Size 1	-	16X20X2
Num Final Filter 2	-	2
Final Filter Size 2	-	20X20X2

Motor Data		
	Design	**Actual**
Motor MFG	-	INTERLINK
Frame	-	NL
Horsepower	1.5	1.5
Motor Rpm	-	1750
Phase	-	3
Rated Voltage	208	208
Rated Amperage	-	4.1

Drive Data	
	Actual
Motor Sheave Size	3.25"
Motor Bore Size	0.75"
Motor Sheave SetPt	3 TURNS OPEN
Fan Sheave Size	4"
Fan Sheave Bore	0.5"
Belt CL Distance	15.5"
Num of Belts	1
Belt Size	AX39
Belt Alignment	CORRECT

Test Data		
	Design	**Actual**
SF CFM	2000	1922
SF RPM	-	1256
RA CFM	1660	1565
OA CFM	340	357
RL Voltage	-	206/206/207
RL Amperage	-	3.5/3.4/3.4
SF Rotation	-	CCW
Min OA Damper Position	-	1/2"
Min OA Damper Type	-	SINGLE BLADE

Performance Data		
	Design	**Actual**
MA Plenum SP	-	-0.47"
Fan Suction SP	-	-0.75"
Fan Discharge SP	-	0.46"
Total ESP	1.0"	0.93"
Fan Total SP	-	1.21"

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

Completed By: Oscar Ventura on 10/16/2024

National TAB

Project:10-14-24 CAVA CHATTANOOGA, TN (GUNBARREL RD)

AHU/RTU

Diffuser Supply (GRD)

RTU1/FRONT KITCHEN

Asset									
Asset Name	**Location**	**Type**	**Size**	**DESIGN CFM**	**AK**	**CFM(1)**	**CFM(2)**	**FINAL CFM**	**% to design**
SGRD1	FRONT KITCHEN	D	10"	240		351	337	221	92.1
SGRD2	FRONT KITCHEN	D	10"	245		305	369	254	103.7
SGRD3	FRONT KITCHEN	D	10"	245		274	366	223	91.0
SGRD4	FRONT KITCHEN	D	10"	245		284	232	225	91.8
SGRD5	KITCHEN HOOD	ACPSP	140X6	780	0.76	625	749	758	97.2
SGRD6	FRONT KITCHEN	D	10"	245		283	339	241	98.4
Total				2000		2122	2392	1922	96.1%

Completed By: Oscar Ventura on 10/16/2024

National TAB

Project: 10-14-24 CAVA CHATTANOOGA, TN (GUNBARREL RD)

System/Unit: AHU/RTU

Asset: RTU2 AREA:BACK KITCHEN

Unit Data		
	Design	**Actual**
MFG	LENNOX	LENNOX
Serial Num	-	5620C08909
Model Num	ZGB060S4BM1Y	ZGB060S4BM1Y
Type	RTU	RTU
Configuration	VERTICAL	VERTICAL
Num OA Filters 1	-	1
OA Filter Size 1	-	12X16
Num Final Filter 1	-	2
Final Filter Size 1	-	16X20X2
Num Final Filter 2	-	2
Final Filter Size 2	-	20X20X2

Motor Data		
	Design	**Actual**
Motor MFG	-	INTERLINK
Frame	-	NL
Horsepower	1.5	1.5
Motor Rpm	-	1750
Phase	-	3
Rated Voltage	208	208
Rated Amperage	-	4.1

Drive Data	
	Actual
Motor Sheave Size	3.25"
Motor Bore Size	0.75"
Motor Sheave SetPt	CLOSED
Fan Sheave Size	4"
Fan Sheave Bore	0.5"
Belt CL Distance	15"
Num of Belts	1
Belt Size	AX38
Belt Alignment	CORRECT

Test Data		
	Design	**Actual**
SF CFM	1850	1687
SF RPM	-	1353
RA CFM	1387	1183
OA CFM	463	504
RL Voltage	-	205/206/207
RL Amperage	-	3.5/3.5/3.7
SF Rotation	-	CCW
Min OA Damper Position	-	1/2"
Min OA Damper Type	-	SINGLE BLADE

Performance Data		
	Design	**Actual**
MA Plenum SP	-	-0.36"
Fan Suction SP	-	-0.54"
Fan Discharge SP	-	0.45"
Total ESP	1.0"	0.81"
Fan Total SP	-	0.99"

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

Completed By: Oscar Ventura on 10/16/2024

Diffuser Supply (GRD)

RTU2/BACK KITCHEN

Asset									
Asset Name	**Location**	**Type**	**Size**	**DESIGN CFM**	**AK**	**CFM(1)**	**CFM(2)**	**FINAL CFM**	**% to design**
SGRD1	BACK KITCHEN	A	12"	425		236		388	91.3
SGRD2	BACK KITCHEN	A	12"	425		298		388	91.3
SGRD3	BACK KITCHEN	A	12"	425		275		389	91.5
SGRD4	OFFICE	A	8"	150		104		137	91.3
SGRD5	BACK KITCHEN	A	12"	425		381		385	90.6
Total				1850		1294	0	1687	91.19%

Completed By: Oscar Ventura on 10/16/2024

National TAB

Project: 10-14-24 CAVA CHATTANOOGA, TN (GUNBARREL RD)

System/Unit: AHU/RTU

Asset: RTU3 AREA:DINING/RESTROOMS

Unit Data		
	Design	**Actual**
MFG	LENNOX	LENNOX
Serial Num	-	5620C10116
Model Num	ZGB0150S4BS1Y	ZGB0150S4BS1Y
Type	RTU	RTU
Configuration	VERTICAL	VERTICAL
Num OA Filters 1	-	1
OA Filter Size 1	-	16X24
Num Final Filter 1	-	4
Final Filter Size 1	-	20X24X2

Motor Data		
	Design	**Actual**
Motor MFG	-	US MOTORS
Frame	-	184TZ
Horsepower	5	5
Motor Rpm	-	1765
Phase	-	3
Rated Voltage	208	208
Rated Amperage	-	13.8

Drive Data	
	Actual
Motor Sheave Size	5"
Motor Bore Size	1"
Motor Sheave SetPt	2 TURNS
Fan Sheave Size	9"
Fan Sheave Bore	1"
Belt CL Distance	15.5"
Num of Belts	1
Belt Size	BX50
Belt Alignment	CORRECT

Test Data		
	Design	**Actual**
SF CFM	3775	3658
SF RPM	-	1014
RA CFM	3095	2961
OA CFM	680	697
RL Voltage	-	205/207/206
RL Amperage	-	8.1/8.0/8.2
SF Rotation	-	CCW
SF System SetPt	-	1TURN
Min OA Damper Position	-	1/2"
Min OA Damper Type	-	SINGLE BLADE

Performance Data		
	Design	**Actual**
MA Plenum SP	-	-0.22"
Fan Suction SP	-	-0.59"
Fan Discharge SP	-	1.65"
Total ESP	1.0"	1.87"
Fan Total SP	-	2.24"

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

Completed By: Oscar Ventura on 10/16/2024

Diffuser Supply (GRD)

RTU3/DINING/RESTROOMS

Asset									
Asset Name	**Location**	**Type**	**Size**	**DESIGN CFM**	**AK**	**CFM(1)**	**CFM(2)**	**FINAL CFM**	**% to design**
SGRD1	DINING	E		290		345		278	95.9
SGRD2	DINING	E		300		348		304	101.3
SGRD3	DINING	E		300		487		278	92.7
SGRD4	DINING	E		290		424		275	94.8
SGRD5	DINING	E		290		398		269	92.8
SGRD6	DINING	E		295		356		271	91.9
SGRD7	DINING	E		290		348		286	98.6
SGRD8	DINING	E		290		329		266	91.7
SGRD9	DINING	E		290		311		283	97.6
SGRD10	DINING	E		295		348		297	100.7
SGRD11	DINING	E		295		359		305	103.4
SGRD12	CORRIDOR	B		275		364		271	98.5
SGRD13	CORRIDOR	B		125		358		119	95.2
SGRD14	WOMENS RR	B		75		108		80	106.7
SGRD15	MENS RR	B		75		109		76	101.3
Total				3775		4992	0	3658	96.9%

Completed By: Oscar Ventura on 10/16/2024

National TAB

Project: 10-14-24 CAVA CHATTANOOGA, TN (GUNBARREL RD)

System/Unit: FAN - Exhaust

Asset: CEF1 AREA:WOMENS RESTROOM

Unit Data		
	Design	**Actual**
MFG	GREENHECK	GREENHECK
Model Num	SP-A290	SP-A250
Serial Num	-	25217470
Type	CEILING	CEILING
Configuration	VERTICAL	VERTICAL

Motor Data		
	Design	**Actual**
Motor MFG	-	GREENHECK
Frame	-	NL
Horsepower	-	1/30
Motor Rpm	-	1000
Phase	1	1
Voltage (rated)	120	115
Amperage (rated)	-	0.56
Service Factor	-	NL

Test Data		
	Design	**Actual**
CFM	100	159
Fan RPM	-	DIRECT DRIVE
Fan Rotation	-	CCW
Motor RPM	-	DIRECT DRIVE
System SetPt	-	SINGLE SPEED
RL Voltage	-	(1)
RL Amperage	-	(1)
Total ESP	0.3"	NA
Fan Inlet SP	-	NA
Fan Discharge SP	-	NA

Completed By: Oscar Ventura on 10/16/2024

Notes:
SINGLE SPEED FAN, NOT ADJUSTABLE. NOT ANTICIPATED TO BE AN ISSUE.
(1). TEST POINTS NOT ACCESSIBLE.

Written By: Wesley John on 10/24/2024

National TAB

Project: 10-14-24 CAVA CHATTANOOGA, TN (GUNBARREL RD)

System/Unit: FAN - Exhaust

Asset: CEF2 AREA:MENS RESTROOM

Unit Data		
	Design	**Actual**
MFG	GREENHECK	GREENHECK
Model Num	SP-A290	SP-A250
Serial Num	-	25217471
Type	CEILING	CEILING
Configuration	VERTICAL	VERTICAL

Motor Data		
	Design	**Actual**
Motor MFG	-	GREENHECK
Frame	-	NL
Horsepower	-	1/30
Motor Rpm	-	1000
Phase	1	1
Voltage (rated)	120	115
Amperage (rated)	-	0.56
Service Factor	-	NL

Test Data		
	Design	**Actual**
CFM	100	165
Fan RPM	-	DIRECT DRIVE
Fan Rotation	-	CCW
Motor RPM	-	DIRECT DRIVE
System SetPt	-	SINGLE SPEED
RL Voltage	-	(1)
RL Amperage	-	(1)
Total ESP	0.3"	NA
Fan Inlet SP	-	NA
Fan Discharge SP	-	NA

Completed By: Oscar Ventura on 10/16/2024

Notes:
SINGLE SPEED, NOT ADJUSTABLE. NOT ANTICIPATED TO BE AN ISSUE.
(1). TEST POINTS NOT ACCESSIBLE.

Written By: Wesley John on 10/24/2024

National TAB

Project: 10-14-24 CAVA CHATTANOOGA, TN (GUNBARREL RD)

System/Unit: FAN - Exhaust

Asset: KEF1 AREA:HOOD-1

Unit Data		
	Design	**Actual**
MFG	CAPTIVEAIRE	CAPTIVEAIRE
Model Num	DU85HFA	DU85HFA
Serial Num	-	6715885
Type	UPBLAST	UPBLAST
Configuration	VERTICAL	VERTICAL

Motor Data		
	Design	**Actual**
Motor MFG	-	TELCO
Frame	-	NL
Horsepower	1.000	1
Motor Rpm	-	1800
Phase	1	1
Voltage (rated)	115	115
Amperage (rated)	-	NL
Service Factor	-	NL

Test Data		
	Design	**Actual**
CFM	2381	2431
Fan RPM	1567	1422
Fan Rotation	-	CCW
Motor RPM	-	1422
System SetPt	-	79%
RL Voltage	-	120
RL Amperage	-	9.8
Total ESP	1.000"	1.15"
Fan Inlet SP	-	-1.15"
Fan Discharge SP	-	ATM

Completed By: Oscar Ventura on 10/17/2024

National TAB

Project: 10-14-24 CAVA CHATTANOOGA, TN (GUNBARREL RD)

System/Unit: FAN - Supply

Asset: MUA1 AREA:HOOD-1

Unit Data		
	Design	**Actual**
MFG	CAPTIVEAIRE	CAPTIVEAIRE
Model Num	A1-D.250-15D-MPU	A1-D.250-15D-MPU
Serial Num	-	6715885
Type	MUA	MUA
Configuration	VERTICAL	VERTICAL

Motor Data		
	Design	**Actual**
Motor MFG	-	TECO
Frame	-	145T
Horsepower	2	2
Motor Rpm	-	1745
Phase	3	3
Voltage (rated)	208	208
Amperage (rated)	-	5.6
Service Factor	-	1.15

Gas Heat		
	Design	**Actual**
Heater Operates (y/n)	-	YES
Flame Status (pass/fail)	-	YES
Inlet Air Temp SetPt	55	55
Discharge Air Temp SetPt	60	60
Air Flow Switch SP Actual	-	0.54"

Test Data		
	Design	**Actual**
CFM	1976	1909
SF RPM	2171	1606
Motor RPM	-	1308
SF System SetPt	-	55 Hz
RL Voltage	-	208/209/209
RL Amperage	-	4.9
Total ESP	-	0.57"
Fan Discharge SP	-	0.57"

General	
	Actual
Fan Rotation Correct	YES

Completed By: Oscar Ventura on 10/20/2024

National TAB

Project: 10-14-24 CAVA CHATTANOOGA, TN (GUNBARREL RD)

System/Unit: Kitchen Hood Type I

Asset: HD1 AREA:COOKLINE

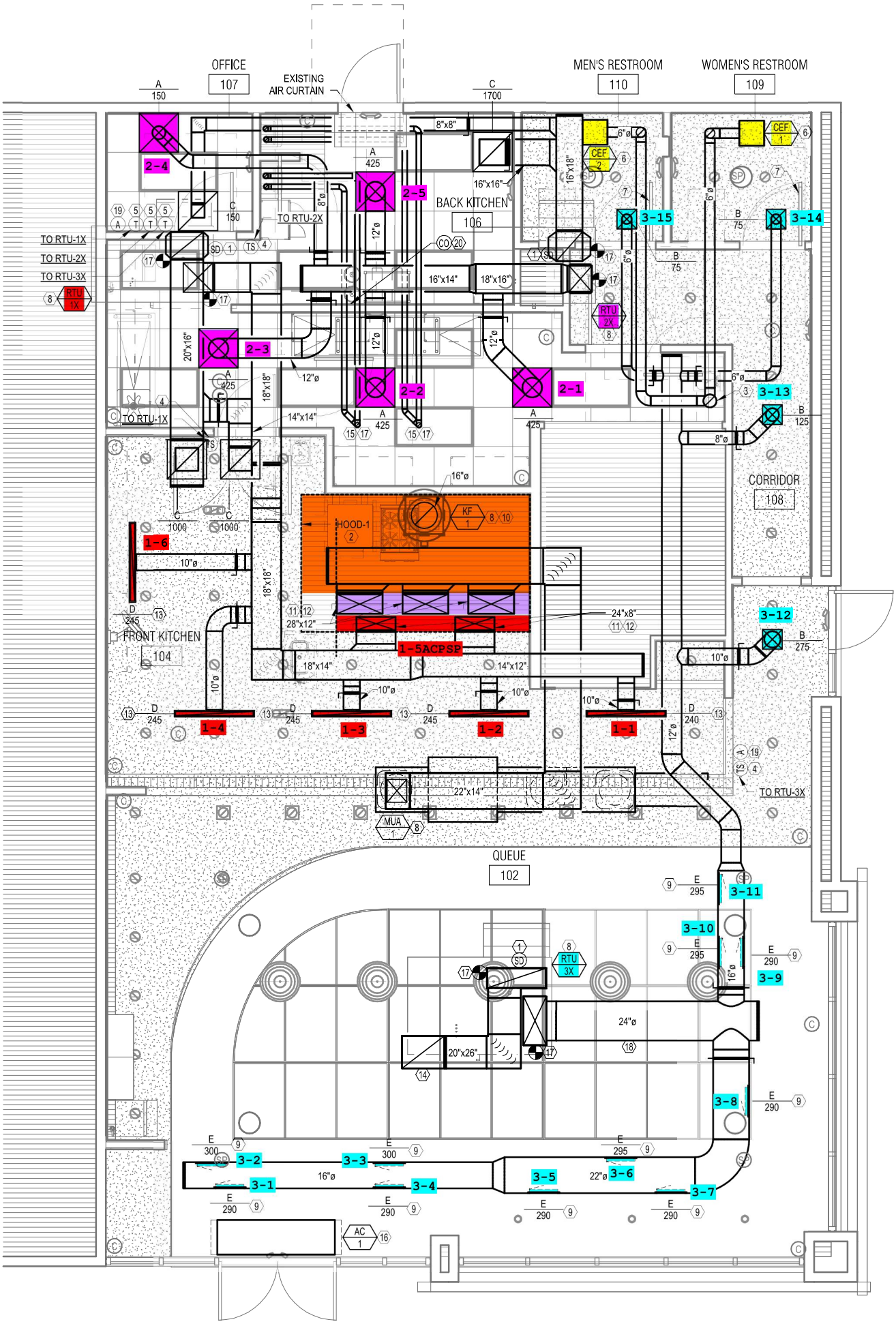
Unit Data		
	Design	**Actual**
MFG	CAPTIVEAIRE	CAPTIVEAIRE
Model Num	6030 ND-2-ACPSP-F	6030 ND-2
Job / Serial Num	-	6715885
Type	TYPE I CANOPY	TYPE I CANOPY
Hood length	127"	127"
Hood Width	60"	60"
Supply Plenum Type	-	PSP
Supply Plenum Width	14"	14"
Supply Plenum Length	140"	139"

Test Data Exhaust		
	Design	**Actual**
Filter Type	CAPTRATE SOLO	CAPTRATE SOLO
Filter Size 1	16X20	16X20
Filter Qty 1	7	7
Filter AK factor size 1	2.08	2.08
Filter Total AK Area	14.56	14.56
Filter1 FPM	-	148
Filter2 FPM	-	152
Filter3 FPM	-	185
Filter4 FPM	-	185
Filter5 FPM	-	174
Filter6 FPM	-	169
Filter7 FPM	-	161
Filter Ave FPM(corr)	-	167
CFM	2381	2431

Cooking Equipment	
	Actual
Item 1	OVEN
Item 2	RANGE
Item 3	BURNER
Item 4	FRYER

Test Data Supply		
	Design	**Actual**
Total AK Area	13.61	13.51
Kv factor (Vel)	0.89	0.90
Num of Readings	-	9
Reading1 FPM	-	160
Reading2 FPM	-	157
Reading3 FPM	-	163
Reading4 FPM	-	159
Reading5 FPM	-	161
Reading6 FPM	-	155
Reading7 FPM	-	158
Reading8 FPM	-	148
Reading9 FPM	-	152
Ave FPM(corr)	-	157
CFM	1976	1909

Completed By: Oscar Ventura on 10/20/2024


OFFICE
107
EXISTING AIR CURTAIN
MEN'S RESTROOM
110
WOMEN'S RESTROOM
109
BACK KITCHEN
106
CORRIDOR
108
FRONT KITCHEN
104
QUEUE
102
HOOD-1
TO RTU-1X
TO RTU-2X
TO RTU-3X
2-1
2-2
2-3
2-4
2-5
1-1
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1-5ACPSP
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3-14
3-15
RTU 1X
RTU 2X
RTU 3X
MUA 1
AC 1
CEF 1
CEF 2
KF 1