Report By:

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

Report: TAB Report

Function: Test, Adjust, & Balance

Date: 03/27/2024

PROJECT

04-01-24 CULVERS-ARCADIA, FL

2455 SE Highway 70

Arcadia , FL 34265

Client

Captive-Aire Region #60

National TAB

Project: 04-01-24 CULVERS-ARCADIA, FL

Table Of Contents

Section	Page #
Balance Schedule	3
Summary	4
Remarks	5
Site Photos	14
Checklists	20
AHU/RTU	29
FAN - Exhaust	33
Kitchen Hood Type I	38
GRD Layout	40

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	DINING	6750	6304	4795	4104	1955	2200	29.0%	34.9%						
RTU-2	KITCHEN	6150	5327	4655	3527	1495	1800	24.3%	33.8%						
PRV-2	HOOD 1											1500	1542		
PRV-3	HOOD 2											1500	1547		
PRV-1	RESTROOMS													375	0
EF-1A	MOP ROOM													75	0
TOTALS		12900	11631	9450	7631	3450	4000			0	0	3000	3089	450	0

NET BUILDING AIRFLOW CALCULATION

TOTALS	DESIGN	ACTUAL
TOTAL OA	3450	4000
TOTAL EXHAUST	3450	3089
NET AIRFLOW	0	911

DOOR TESTED	BUILDING PRESSURE MEASUREMENTS (IN. H20)
FRONT	0.016
SIDE	0.016
REAR	0.012
AVERAGE	**0.0147**

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:

Outside air designs increased per Captive Aire in an effort to increase supply totals.

Project Summary

The summary below provides a quick understanding of our scope of work and general testing procedures. Enclosed in the report are further details 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.

DOAS w/ Diffusers

Each DOAS was measured at their terminal devices or via traverse to establish a total flow for that unit. DOAS-1(RTU-1) was adjusted within the engineer's design. DOAS-2(RTU-2) was only able to reach 86.6% of the engineer's design. Captive Aire and NTi suspect a restriction within the return system is preventing this unit from reaching design airflow. Each outlet was then adjusted to within tolerance of the design flow if possible. Outside air was determined by setting the building pressure due to high winds in the area at the time of balancing. 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.

General Exhaust Fans w/ Grilles

The general exhaust fans were not balanced as they were not functional at time of balancing.

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

- Diffuser 1-22 Low Flow
- Diffuser 2-13 Damper Issue
- Diffuser 2-14 Damper Not Located.
- Diffusers 1-25 thru 1-27 Low Flow
- EFA1 Not Wired
- PRV-1 Not Functional
- RTU-2 Low FLow
- RTUs Alarming

04-01-24 CULVERS-ARCADIA, FL

Project Issue Information

Issue Name :	Diffuser 1-22 Low Flow		
Description :	RTU 1 Diffuser 22 is low on supply airflow. Currently 371CFM out of 500CFM design (74%). Damper is confirmed to be 100% open. Flex duct is somewhat kinked and restrictive. Recommend straightening flex duct. A scoop may also need to be installed to increase airflow if comfort issues arise.		
Created By :	National TAB	**Assigned To :**	National TAB - Stephen Tassinaro
Status :	Open		
Priority :	Urgent	**Asset Tag :**	
Originated Date :	03/26/2024 - Stephen Tassinaro - National TAB		

04-01-24 CULVERS-ARCADIA, FL

Project Issue Information

Issue Name : Diffuser 2-13 Damper Issue

Description : RTU 2 Diffuser 13 damper has very limited accessibility. NTi tech was able to turn the damper 90 degrees but there was minimal change in airflow. Currently 111CFM out of 350CFM design (32%). MC was able to to free damper handle but there was no improvement in airflow. Takeoff may need to be relocated, or a scoop may need to be added to improve flow

Created By : National TAB

Assigned To : National TAB - Stephen Tassinaro

Status : Open

Priority : Urgent

Asset Tag :

Originated Date : 03/25/2024 - Stephen Tassinaro - National TAB

Project Issue File Details

Diffuser2_13
03/27/2024

04-01-24 CULVERS-ARCADIA, FL

Project Issue Information

Issue Name :	Diffuser 2-14 Damper Not Located.		
Description :	RTU 2 diffuser 14 damper cannot be located. There are no visible flags between the branch takeoff and the diffuser. Diffuser is proportionally balanced.		
Created By :	National TAB	**Assigned To :**	National TAB - Stephen Tassinaro
Status :	Open		
Priority :	Medium	**Asset Tag :**	
Originated Date :	03/25/2024 - Stephen Tassinaro - National TAB		

Project Issue Information

Issue Name : Diffusers 1-25 thru 1-27 Low Flow

Description : RTU 1 Diffusers 25, 26, and 27 are low on supply airflow. They are between 70% and 78% of design. These diffusers share a common branch with diffuser 24. In total this branch is only supplying 1184 CFM out of 1500CFM design (79%). Branch damper is fully open and no restrictions were found.

Created By : National TAB

Assigned To : National TAB - Stephen Tassinaro

Status : Open

Priority : Urgent

Asset Tag :

Originated Date : 03/26/2024 - Stephen Tassinaro - National TAB

Project Issue Response Details

- **03/26/2024 National TAB - Stephen Tassinaro**
  - RTU 1 is currently outputting 93% of design airflow. If unit total were able to be increased, further balancing may be able to resolve low flow issues at various diffusers. Currently the motor is operating at 60Hz. Otherwise a scoop being installed at the branch takeoff from the trunk line will assist to better distribute airflow.

Project Issue Information

Issue Name : EFA1 Not Wired

Description : The mop sink exhaust fan, EFA-1, is not wired. There is no electrician on site to complete. Fan not balanced.

Created By : National TAB

Assigned To : National TAB - Stephen Tassinaro

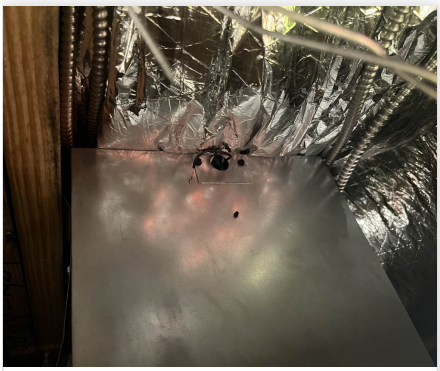
Status : Open

Priority : Urgent

Asset Tag :

Originated Date : 03/26/2024 - Stephen Tassinaro - National TAB

Project Issue File Details



EFA1_NotWired
03/27/2024

04-01-24 CULVERS-ARCADIA, FL

Project Issue Information

Issue Name : PRV-1 Not Functional

Description : PRV-1 is not wired at the rooftop. Unable to balance until resolved.

Created By : National TAB

Assigned To : National TAB - Stephen Tassinaro

Status : Open

Priority : Urgent

Asset Tag :

Originated Date : 03/25/2024 - Stephen Tassinaro - National TAB

Project Issue File Details

IMG_2494
03/25/2024

Project Issue Information

Issue Name : RTU-2 Low FLow

Description : RTU 2 airflow is 5327CFM out of 6150CFM design (86.6%) after proportional diffuser balancing. Currently the motor is set to 61Hz. Captive Aire noted the unit can safely be run at 62Hz, however this is not a sufficient increase for the unit to operate within 10% of design.

Created By : National TAB

Assigned To : National TAB - Stephen Tassinaro

Status : Open

Priority : Urgent

Asset Tag :

Originated Date : 03/25/2024 - Stephen Tassinaro - National TAB

Project Issue Response Details

- **03/26/2024 National TAB - Stephen Tassinaro**
  - Unit is proportionally balanced at 86.6% of design, excluding diffuser 13 (see specific issue for this diffuser). NTi located a closed return duct, no damper could be located. Recommend MC inspect all returns and ensure dampers are 100% open and there are no restrictions.

04-01-24 CULVERS-ARCADIA, FL

Project Issue Information

Issue Name : RTUs Alarming

Description : When units are powered on they initially alarm "DF Mains Failure". This alarm does not appear to have an effect on unit functionality.

Created By : National TAB

Assigned To : National TAB - Stephen Tassinaro

Status : Open

Priority : Medium

Asset Tag :

Originated Date : 03/27/2024 - Stephen Tassinaro - National TAB

Project Issue File Details

RTU1_Alarm
03/27/2024

RTU2_Alarm
03/27/2024

CheckList List

- SITE PICTURES

04-01-24 CULVERS-ARCADIA, FL

CheckList Information

Name :	SITE PICTURES	**Status :**	Not Completed
Assigned Organization :	National TAB	**Asset :**	
Requesting Organization :	National TAB		
Created Date :	03/21/2024 - Wale Odofin - National TAB		

CheckList Item Details

STORE FRONT

Comment:

Storefront
03/27/2024

RTU-1

Comment:

RTU1
03/27/2024

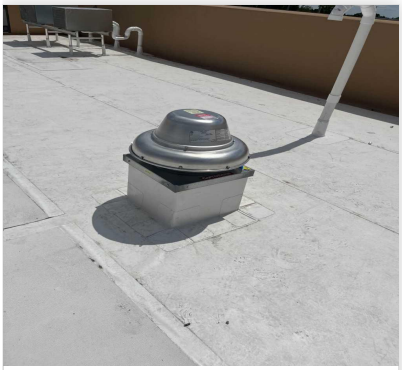
RTU-2

Comment:

RTU2
03/27/2024

PRV-1

Comment:



PRV1
03/27/2024

PRV-2

Comment:

PRV2
03/27/2024

PRV-3

Comment:

PRV3
03/27/2024

EF-1A

Comment:

EFA1
03/27/2024

HOOD 1

Comment:

Hood1
03/27/2024

HOOD 2

Comment:

Hood2
03/27/2024

CheckList List

- TECH - STEP 1: INITIAL WALKTHROUGH
- TECH - STEP 2: UNIT DATA AND EVAL
- TECH - STEP 3: TEST, ADJUST AND BALANCE
- TECH - STEP 4: FINAL TESTS

04-01-24 CULVERS-ARCADIA, FL

CheckList Information

Name :	TECH - STEP 1: INITIAL WALKTHROUGH	**Status :**	Not Completed
Assigned Organization :	National TAB	**Asset :**	
Requesting Organization :	National TAB		
Created Date :	03/21/2024 - Wale Odofin - National TAB		

CheckList Item Details

INITIAL SITE WALKTHROUGH

All diffusers and grilles are installed and match design?	Yes
Comment:	
Perforated diffusers are installed on the cook line? (4-ways will disrupt hood capture)	Yes
Comment:	
All hood filters installed and accounted for?	Yes
Comment:	
Hoods are wired and have power?	Yes
Comment:	
Thermostats have power?	Yes
Comment:	
Have trades/general contractor been notified about any issues and are they created on FaciliBuild?	
Comment: YES	

04-01-24 CULVERS-ARCADIA, FL

CheckList Information

Name :	TECH - STEP 2: UNIT DATA AND EVAL	**Status :**	Not Completed
Assigned Organization :	National TAB	**Asset :**	
Requesting Organization :	National TAB		
Created Date :	03/21/2024 - Wale Odofin - 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?	Yes
Comment:	
Thermostat wire run from OCP on the RTU to the Ec terminal at the thermostat? If no, jumper can be installed from R to OCP temporarily. (The economizers will not open without OCP being energized.)	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?	N/A

Comment:

Unit free of noticeable noise and vibration	Yes

Comment:

EF's

Rotation is correct?	Yes

Comment:

Belts are tight?

Comment:

N/A - DD

Grease cup installed on hood fan?	Yes

Comment:

Hinge kit installed installed on hood fan?	Yes

Comment:

Lean grease rated fans 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?	No

Comment:

NO LEAKAGE FOUND

Is the motor operating below the motor FLA rating?	Yes

Comment:

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

Comment:

BACKDRAFT DAMPER INSTALLED BY MC DURING TAB. FAN NOT RUNNING TO DETERMINE FUNCTIONALITY.

Unit free of noticeable noise and vibration?	Yes

Comment:

The hood exhaust fans are installed in correct positions and are not switched?	Yes

Comment:

HOODS

Kitchen equipment installed in proper places?	Yes

Comment:

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

Comment:

Second stage Grease Grabber filters are installed on the griddle hood?	N/A

Comment:

DOCUMENTATION

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

Comment:

04-01-24 CULVERS-ARCADIA, FL

CheckList Information

Name :	TECH - STEP 3: TEST, ADJUST AND BALANCE	**Status :**	Not Completed
Assigned Organization :	National TAB	**Asset :**	
Requesting Organization :	National TAB		
Created Date :	03/21/2024 - Wale Odofin - 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:

Outside air was increased on each DOAS per Captive Aire to assist total airflow. Building pressure remains appropriate.

04-01-24 CULVERS-ARCADIA, FL

CheckList Information

Name :	TECH - STEP 4: FINAL TESTS	**Status :**	Not Completed
Assigned Organization :	National TAB	**Asset :**	
Requesting Organization :	National TAB		
Created Date :	03/21/2024 - Wale Odofin - National TAB		

CheckList Item Details

FINAL TESTS

HOOD CAPTURE TEST

List equipment turned on for testing

Comment:

Fryers

List smoke candle type used

Comment:

45s Smoke Emitter

Smoke test capture - Perimeter of hood

Comment:

100%

Smoke test capture - Top of cooking surface

Comment:

100%

WITNESS

Date test was completed	03/26/2024

Comment:

TAB tech name / Firm

Comment:

Stephen Tassinaro / NTi

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:

+0.0147"

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:

PRODIGY SETTINGS FOR RTU'S

Parameter 65 set to 0	N/A

Comment:

N/A - These settings apply to Lennox Prodigy Boards

Parameter 78 set to 0	N/A

Comment:

Parameter 105 set to 6	N/A

Comment:

Parameter 156 set to 70 (Dining unit only)	N/A
Comment:	
Parameter 156 set to 65 (Kitchen Unit Only)	N/A
Comment:	
Parameter 170 set to 75 (Dining Unit Only)	N/A
Comment:	
Parameter 170 set to 70 (Kitchen Unit Only)	N/A
Comment:	
Parameter 131 set to the same % as OA minimum position?	N/A
Comment:	
Parameter 117 set to the same % as OA minimum position?	N/A
Comment:	

National TAB

Project: 04-01-24 CULVERS-ARCADIA, FL

System/Unit: AHU/RTU

Asset: RTU1 AREA:DINING

Unit Data		
	Design	**Actual**
MFG	LENNOX	CAPTIVE AIRE
Serial Num	-	6092571
Model Num	ENLIGHT	CASRTU3-E.452-24-20T
Type	RTU	RTU
Configuration	VERTICAL	VERTICAL
Num OA Filters 1	-	4
OA Filter Size 1	-	16x25x2
Num Final Filter 1	-	8
Final Filter Size 1	-	20x25x2

Motor Data		
	Design	**Actual**
Motor MFG	-	TECO WESTINGHOUSE
Frame	-	215T
Horsepower	-	10
Motor Rpm	-	1755
Phase	3	3
Rated Voltage	208	230/460
Rated Amperage	-	24.3/12.2

Drive Data		
	Design	**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	6750	6304
SF RPM	1755	1604
RA CFM	4795	4104
OA CFM	1955	2200
RL Voltage	-	210/208/210
RL Amperage	-	24.3 VFD
SF Rotation	-	CCW
RA Damper Position	-	3.9 V
Min OA Damper Position	-	6.1 V
Min OA Damper Type	-	ECONOMIZER

Performance Data		
	Design	**Actual**
MA Plenum SP	-	-0.08"
Fan Suction SP	-	-2.30"
Fan Discharge SP	-	0.88"
Total ESP	0.75"	0.96"
Fan Total SP	-	3.18"

General		
	Design	**Actual**
Fan Rotation Correct	-	YES
Unit Filters Clean	-	NO
Condensate Drain Installed	-	YES

Completed By: Stephen Tassinaro on 03/26/2024

Notes:
Due to 16-20MPH winds, outside air could not accurately be read on the rooftop. OA CFM reading was determined via building pressure. // OA increased per Captive Aire rep to assist in increasing SF CFM.

Written By: Stephen Tassinaro on 03/27/2024

National TAB

Project:04-01-24 CULVERS-ARCADIA, FL

AHU/RTU

Diffuser Supply (GRD)

RTU1/DINING

Asset									
Asset Name	**Location**	**Type**	**Size**	**DESIGN CFM**	**AK**	**CFM(1)**	**CFM(2)**	**FINAL CFM**	**% to design**
SGRD1	ENTRY	SD3	8"	150	1	164	156	156	104.0
SGRD2	DINING	SD1	8"	150	1	169	152	152	101.3
SGRD3	DINING	SD1	8"	150	1	139	136	136	90.7
SGRD4	DINING	SD1	8"	150	1	101	154	154	102.7
SGRD5	DINING	SD1	8"	150	1	150	161	161	107.3
SGRD6	DINING	SD1	8"	150	1	152	162	162	108.0
SGRD7	DINING	SD1	8"	150	1	162	157	157	104.7
SGRD8	DINING	SD1	8"	150	1	137	153	153	102.0
SGRD9	DINING	SD1	8"	150	1	137	153	153	102.0
SGRD10	DINING	SD1	8"	150	1	147	162	162	108.0
SGRD11	DINING	SD1	8"	150	1	147	159	159	106.0
SGRD12	DINING	SD1	8"	150	1	142	152	152	101.3
SGRD13	DINING	SD1	8"	150	1	153	154	154	102.7
SGRD14	DINING	SD1	8"	150	1	129	138	138	92.0
SGRD15	DINING	SD1	8"	150	1	146	157	157	104.7
SGRD16	DINING	SD1	8"	150	1	136	148	148	98.7
SGRD17	DINING	SD1	8"	150	1	136	148	148	98.7
SGRD18	DINING	SD1	8"	150	1	95	152	152	101.3
SGRD19	DINING	SD1	8"	150	1	135	153	153	102.0
SGRD20	DRINKS	SD1	10"	300	1	303	272	272	90.7
SGRD21	ENTRY	SD1	8"	150	1	230	141	141	94.0
SGRD22	SUNDAE	SD1	12"	500	1	306	371	371	74.2
SGRD23	OFFICE	SD1	8"	200	1	99	202	202	101.0
SGRD24	CUS.ORDER	SD1	12"	450	1	350	411	411	91.3
SGRD25	CUS. SREV.	SD1	10"	350	1	226	257	257	73.4
SGRD26	CUS. SREV.	SD1	10"	350	1	232	271	271	77.4
SGRD27	CUS. SREV.	SD1	10"	350	1	215	245	245	70.0
SGRD28	CUS. SREV.	SD1	10"	350	1	274	332	332	94.9
SGRD29	HALL	SD1	8"	150	1	201	142	142	94.7
SGRD30	HALL	SD1	12"	450	1	361	445	445	98.9
SGRD31	M. RR	SD4	8"	150	1	115	156	156	104.0
SGRD32	W. RR	SD4	8"	150	1	164	152	152	101.3
Total				6750		5753	6304	6304	93.39%

Completed By: Stephen Tassinaro on 03/26/2024

Asset	Notes	Date	Written By
SGRD22	Damper is confirmed to be 100% open. Flex duct is somewhat kinked and restrictive. Recomme nd straightening flex duct.	03/27/2024	Stephen Tassinaro
SGRD25	Diffusers 25, 26, and 27 are low on supply airflow. They are between 70% and 78% of design. T hese diffusers share a common branch with diffuser 24. In total this branch is only supplying 118 4 CFM out of 1500CFM design (79%). Branch damper is fully open and no restrictions were fou nd.	03/27/2024	Stephen Tassinaro

National TAB

Project: 04-01-24 CULVERS-ARCADIA, FL

System/Unit: AHU/RTU

Asset: RTU2 AREA:KITCHEN

Unit Data		
	Design	**Actual**
MFG	LENNOX	CAPTIVEAIRE
Serial Num	-	6092571
Model Num	ENLIGHT	CASTU3-E.302-24-20T
Type	RTU	DOAS
Configuration	VERTICAL	VERTICAL
Num OA Filters 1	-	4
OA Filter Size 1	-	16x25x2
Num Final Filter 1	-	8
Final Filter Size 1	-	20x25x2

Motor Data		
	Design	**Actual**
Motor MFG	-	TECO WESTINGHOUSE
Frame	-	215T
Horsepower	-	10
Motor Rpm	-	1755
Phase	3	3
Rated Voltage	208	230/460
Rated Amperage	-	24.3/12.2

Drive Data		
	Design	**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	6150	5327
SF RPM	-	1784
RA CFM	4655	3527
OA CFM	1495	1800
RL Voltage	-	209/208/209
RL Amperage	-	24.3 VFD
SF Rotation	-	CCW
RA Damper Position	-	4.0 V
Min OA Damper Position	-	6.0 V
Min OA Damper Type	-	ECONOMIZER

Performance Data		
	Design	**Actual**
MA Plenum SP	-	-0.48"
Fan Suction SP	-	-2.31"
Fan Discharge SP	-	0.86"
Total ESP	0.75	1.34"
Fan Total SP	-	3.17"

General		
	Design	**Actual**
Fan Rotation Correct	-	YES
Unit Filters Clean	-	NO
Condensate Drain Installed	-	YES

Completed By: Stephen Tassinaro on 03/26/2024

Notes:
Due to 16-20MPH winds, outside air could not accurately be read on the rooftop. OA CFM reading was determined via building pressure. // OA increased per Captive Aire rep to assist in increasing SF CFM.

Written By: Stephen Tassinaro on 03/27/2024

National TAB

Project:04-01-24 CULVERS-ARCADIA, FL

AHU/RTU

Diffuser Supply (GRD)

RTU2/KITCHEN

Asset									
Asset Name	**Location**	**Type**	**Size**	**DESIGN CFM**	**AK**	**CFM(1)**	**CFM(2)**	**FINAL CFM**	**% to design**
SGRD1	SUNDAE	SD1	12"	600	1	179	394	480	80.0
SGRD2	SUNDAE	SD1	12"	600	1	414	398	510	85.0
SGRD3	KITCHEN	SD5	8"	200	1	238	160	186	93.0
SGRD4	KITCHEN	SD5	10"	375	1	263	241	321	85.6
SGRD5	KITCHEN	SD5	10"	400	1	263	331	381	95.3
SGRD6	KITCHEN	SD5	10"	400	1	316	388	381	95.3
SGRD7	KITCHEN	SD5	10"	250	1	373	213	225	90.0
SGRD8	KITCHEN	SD5	10"	275	1	382	227	235	85.5
SGRD9	TOILET	SD1	6"	125	1	174	66	109	87.2
SGRD10	KITCHEN	SD5	8"	75	1	294	132	67	89.3
SGRD11	KITCHEN	SD5	10"	350	1	284	318	370	105.7
SGRD12	KITCHEN	SD5	10"	350	1	327	309	296	84.6
SGRD13	KITCHEN	SD5	10"	350	1	115	118	111	31.7
SGRD14	UTILITY RM.	SD1	12"	600	1	464	519	601	100.2
SGRD15	DRY GOODS	SD1	12"	600	1	234	333	556	92.7
SGRD16	DRY GOODS	SD1	12"	600	1	543	510	498	83.0
Total				6150		4863	4657	5327	86.62%

Completed By: Stephen Tassinaro on 03/26/2024

Asset	Notes	Date	Written By
SGRD1	Diffusers proportionally balanced to 87% of design.	03/27/2024	Stephen Tassinaro
SGRD13	MC was able to to free damper handle but there was no improvement in airflow. Takeoff may ne ed to be relocated, or a scoop may need to be added to improve flow.	03/27/2024	Stephen Tassinaro

National TAB

Project: 04-01-24 CULVERS-ARCADIA, FL

System/Unit: FAN - Exhaust

Asset: EFA1 AREA:MOP ROOM

Unit Data		
	Design	**Actual**
MFG	ACCUREX	BROAN
Model Num	XCR-B80	L100E-A
Serial Num	-	NL
Type	CEILING	CEILING
Configuration	VERTICAL	VERTICAL

Motor Data		
	Design	**Actual**
Motor MFG	-	BROAD OCEAN
Frame	-	NL
Horsepower	-	1/155
Motor Rpm	-	705
Phase	1	1
Voltage (rated)	115	120
Amperage (rated)	-	0.3
Service Factor	-	NL

Test Data		
	Design	**Actual**
CFM	75	0
Fan RPM	885	0
Fan Rotation	-	N/A
Motor RPM	-	0
System SetPt	-	WIRED DIRECT
RL Voltage	-	0
RL Amperage	-	0
Total ESP	0.125"	0
Fan Inlet SP	-	0
Fan Discharge SP	-	0

Completed By: Stephen Tassinaro on 03/26/2024

Notes:
FAN NOT WIRED.

Written By: Stephen Tassinaro on 03/26/2024

National TAB

Project: 04-01-24 CULVERS-ARCADIA, FL

System/Unit: FAN - Exhaust

Asset: PRV1 AREA:RESTROOM

Unit Data		
	Design	**Actual**
MFG	ACCUREX	CAPTIVE AIRE
Model Num	XRED-090-VG	DR12HFA
Serial Num	-	6092571
Type	DOWNBLAST	CENTRIFUGAL
Configuration	VERTICAL	DOWNBLAST

Motor Data		
	Design	**Actual**
Motor MFG	-	TELCO GREEN
Frame	-	42
Horsepower	-	0.25
Motor Rpm	-	1800
Phase	1	1
Voltage (rated)	115	115
Amperage (rated)	-	2.9
Service Factor	-	N/L

Test Data		
	Design	**Actual**
CFM	375	0
Fan RPM	1465	0
Fan Rotation	-	N/A
Motor RPM	-	0
System SetPt	-	SPEED CONTROLLER
RL Voltage	-	0
RL Amperage	-	0
Total ESP	0.5"	0
Fan Inlet SP	-	0
Fan Discharge SP	-	ATM

Completed By: Stephen Tassinaro on 03/26/2024

Notes:
FAN NOT WIRED.

Written By: Stephen Tassinaro on 03/26/2024

National TAB

Project:04-01-24 CULVERS-ARCADIA, FL

FAN - Exhaust

Diffuser Ret/Exh (GRD)

PRV1/RESTROOM

Asset									
Asset Name	**Location**	**Type**	**Size**	**DESIGN CFM**	**AK**	**CFM(1)**	**CFM(2)**	**FINAL CFM**	**% to design**
EGRD1	M. RR	EG1	8XX	150	1	0	0	0	0.0
EGRD2	W.RR	EG1	8X8	150	1	0	0	0	0.0
EGRD3	TOILET	EG1	8X8	75	1	0	0	0	0.0
Total				375		0	0	0	0%

Completed By: Stephen Tassinaro on 03/26/2024

National TAB

Project: 04-01-24 CULVERS-ARCADIA, FL

System/Unit: FAN - Exhaust

Asset: PRV2 AREA:HOOD 1

Unit Data		
	Design	**Actual**
MFG	ACCUREX	CAPTIVE AIRE
Model Num	XCUE-140-VG	DU85HFA
Serial Num	-	6092571
Type	UPBLAST	CENTRIFUGAL
Configuration	VERTICAL	UPBLAST

Motor Data		
	Design	**Actual**
Motor MFG	-	TELCO INTERCON
Frame	-	48
Horsepower	-	1
Motor Rpm	-	1800
Phase	1	1
Voltage (rated)	115	115
Amperage (rated)	-	11.6
Service Factor	-	Not Listed

Test Data		
	Design	**Actual**
CFM	1500	1542
Fan RPM	1702	1173
Fan Rotation	-	CCW
Motor RPM	-	1173
System SetPt	-	58P
RL Voltage	-	120 V
RL Amperage	-	5.3
Total ESP	1.80"	0.61"
Fan Inlet SP	-	-0.61"
Fan Discharge SP	-	ATM

Completed By: Stephen Tassinaro on 03/26/2024

National TAB

Project: 04-01-24 CULVERS-ARCADIA, FL

System/Unit: FAN - Exhaust

Asset: PRV3 AREA:HOOD 2

Unit Data		
	Design	**Actual**
MFG	ACCUREX	CAPTIVE AIRE
Model Num	XCUE-140-VG	DU85HFA
Serial Num	-	6092571
Type	UPBLAST	CENTRIFUGAL
Configuration	VERTICAL	UPBLAST

Motor Data		
	Design	**Actual**
Motor MFG	-	TELCO GREEN
Frame	-	48
Horsepower	1	1
Motor Rpm	1800	1800
Phase	1	1
Voltage (rated)	115	115
Amperage (rated)	-	11.6
Service Factor	-	NL

Test Data		
	Design	**Actual**
CFM	1500	1547
Fan RPM	1349	1112
Fan Rotation	-	CCW
Motor RPM	-	1112
System SetPt	-	55
RL Voltage	-	120
RL Amperage	-	4.4
Total ESP	1.00"	0.56"
Fan Inlet SP	-	-0.56"
Fan Discharge SP	-	ATM

Completed By: Stephen Tassinaro on 03/26/2024

National TAB

Project: 04-01-24 CULVERS-ARCADIA, FL

System/Unit: Kitchen Hood Type I

Asset: HD1 AREA:

Unit Data		
	Design	**Actual**
MFG	ACCUREX	CAPTIVE AIRE
Model Num	XGEP-64-S	3347 BD-2
Job / Serial Num	-	6092571
Type	TYPE I CANOPY	TYPE I CANOPY
Hood length	64"	66"
Hood Width	23"	33"

Test Data Exhaust		
	Design	**Actual**
Filter Type	GREASE GRABBER	BAFFLE
Filter Size 1	16X16	16X16
Filter Qty 1	4	4
Filter AK factor size 1	1.62	1.62
Filter Total AK Area	6.48	6.48
Filter1 FPM	-	244
Filter2 FPM	-	239
Filter3 FPM	-	224
Filter4 FPM	-	244
Filter Ave FPM(corr)	-	238
CFM	1500	1542

Cooking Equipment		
	Design	**Actual**
Item 1	-	GRILL
Item 2	-	GRILL

Completed By: Stephen Tassinaro on 03/26/2024

National TAB

Project: 04-01-24 CULVERS-ARCADIA, FL

System/Unit: Kitchen Hood Type I

Asset: HD2 AREA:

Unit Data		
	Design	**Actual**
MFG	ACCUREX	CAPTIVE AIRE
Model Num	XXEP-83-S	3347 BD-2
Job / Serial Num	-	6092571
Type	TYPE I	TYPE I CANOPY
Hood length	83"	84"
Hood Width	23"	33"

Test Data Exhaust		
	Design	**Actual**
Filter Type	XTRACTOR	BAFFLE
Filter Size 1	16X16	16X16
Filter Qty 1	5	5
Filter AK factor size 1	1.62	1.62
Filter Total AK Area	7.65	8.1
Filter1 FPM	-	182
Filter2 FPM	-	192
Filter3 FPM	-	204
Filter4 FPM	-	197
Filter5 FPM	-	180
Filter Ave FPM(corr)	-	191
CFM	1500	1547

Cooking Equipment		
	Design	**Actual**
Item 1	-	FRYER
Item 2	-	FRYER

Completed By: Stephen Tassinaro on 03/26/2024