

Report By:

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



Report: TAB REPORT
Function: Test, Adjust, & Balance
Date: 03/07/2024

PROJECT
03-04-24 CULVERS HUNTSVILLE, AL

2007 Winchester Rd NE

Huntsville , AL 35811

Client

Captive-Aire Region #60

National TAB

Project: 03-04-24 CULVERS HUNTSVILLE, AL

Table Of Contents

Section	Page #
Summary	3
Issue Data	4
Balance Schedule	8
Checklist Data	9
AHU/RTU	25
FAN - Exhaust	29
Kitchen Hood Type I	34
GRD	36

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)

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.

General Exhaust Fans

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

- Mop Fan Airflow Above design
- PRV1 (Restrooms) Missing Backdraft Damper
- RTU-2 (Kitchen) airflow



03-04-24 CULVERS HUNTSVILLE, AL

Project Issue Information

Issue Name : Mop Fan Airflow Above design
Description : Airflow is measured as 105 CFM out of design of 75 CFM. The fan is single speed and airflow cannot be reduced. The airflow is slightly high (30 CFM) and did not affect the overall building pressurization so no resolution is necessary.
Created By : National TAB **Assigned To :** National TAB - Will Turnbough
Status : Open
Priority : InfoOnly **Asset Tag :**
Originated Date : 03/11/2024 - William Patton - National TAB

Project Issue File Details



MissingSpeedControlle..
03/11/2024



03-04-24 CULVERS HUNTSVILLE, AL

Project Issue Information

Issue Name : PRV1 (Restrooms) Missing Backdraft Damper
Description : Plans call for restroom exhaust fan to have gravity operated backdraft damper. No damper is installed.
Created By : National TAB **Assigned To :** National TAB - Will Turnbough
Status : Open
Priority : Medium **Asset Tag :** PRV1
Originated Date : 03/11/2024 - William Patton - National TAB

Project Issue File Details



CulversMissingBackdra..
03/11/2024



03-04-24 CULVERS HUNTSVILLE, AL

Project Issue Information

Issue Name : RTU-2 (Kitchen) airflow
Description : RTU-2 total airflow is within design but it is on the low end of tolerance (90% of design). The motor is operating at the FLA rating and fan speed cannot be increased further. Not all diffusers could be balanced to design without being a detriment to overall unit performance. Diffusers balanced for hood performance and comfort. No action required.
Created By : National TAB **Assigned To :** National TAB - Will Turnbough
Status : Open
Priority : InfoOnly **Asset Tag :** RTU2
Originated Date : 03/11/2024 - Will Turnbough - 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	6246	4795	4176	1955	2070	29.0%	33.1%						
RTU-2	KITCHEN	6150	5556	4655	4001	1495	1555	24.3%	28.0%						
PRV-2	HOOD1											1500	1536		
PRV-3	HOOD2											1500	1499		
PRV-1	RESTROOMS													375	377
EFA 1	MOP ROOM													75	101
TOTALS		12900	11802	9450	8177	3450	3625			0	0	3000	3035	450	478

NET BUILDING AIRFLOW CALCULATION

TOTALS	DESIGN	ACTUAL
TOTAL OA	3450	3625
TOTAL EXHAUST	3450	3513
NET AIRFLOW	0	112

DOOR TESTED	BUILDING PRESSURE MEASUREMENTS (IN. H2O)
FRONT	0.006
SIDE	0.004
REAR	0.005
AVERAGE	0.005

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:

No speed controller for mop room fan

CheckList List

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



03-04-24 CULVERS HUNTSVILLE, AL

CheckList Information

Name : SITE PICTURES **Status :** Completed
Assigned Organization : National TAB **Asset :**
Requesting Organization : National TAB
Created Date : 02/22/2024 - Wale Odofin - National TAB
Completed Date : 03/11/2024 - William Patton - National TAB

CheckList Item Details

STORE FRONT

Comment:



CulversStoreFront.jpe..
03/11/2024

RTU-1

Comment:



DiningRTU
03/11/2024

RTU-2

Comment:



KitchenRTU
03/11/2024

PRV-1

Comment:



RestroomExhaustFan.jp..
03/11/2024

PRV-2

Comment:



GriddleExhaustFan.jpe..
03/11/2024

PRV-3

Comment:



FryerExhaustFan
03/11/2024

EF-1A

Comment:



MopFan
03/11/2024

HOOD 1

Comment:



GriddleHood
03/11/2024

HOOD 2

Comment:



FryerHood
03/11/2024

PRODIGY BOARD WIRING

Comment:

N/A DOAS

Notes/Comments :

N/A

Date :03/11/2024



03-04-24 CULVERS HUNTSVILLE, AL

CheckList Information

Name : TECH - STEP 1: INITIAL WALKTHROUGH **Status :** Completed

Assigned Organization : National TAB **Asset :**

Requesting Organization : National TAB

Created Date : 02/22/2024 - Wale Odofin - National TAB

Completed Date : 03/07/2024 - William Patton - 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

Notes/Comments :

N/A

Date :03/07/2024



03-04-24 CULVERS HUNTSVILLE, AL

CheckList Information

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

Assigned Organization : National TAB **Asset :**

Requesting Organization : National TAB

Created Date : 02/22/2024 - Wale Odofin - National TAB

Completed Date : 03/07/2024 - William Patton - 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 DD

If direct drive unit is the speed controller working.

Comment:

YES

Is gas piping installed and valves turned on?

Yes

Comment:

Unit free of noticeable noise and vibration

Yes

Comment:

Dining unit is vibrating excessively when running.

EF's

Rotation is correct?

Yes

Comment:

Belts are tight?

Comment:

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?

Yes

Comment:

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?

No

Comment:

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?

Yes

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:

Notes/Comments :

N/A

Date :03/07/2024



03-04-24 CULVERS HUNTSVILLE, AL

CheckList Information

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

Assigned Organization : National TAB **Asset :**

Requesting Organization : National TAB

Created Date : 02/22/2024 - Wale Odofin - National TAB

Completed Date : 03/07/2024 - William Patton - National TAB

CheckList Item Details

TEST, ADJUST, AND BALANCE ALL EQUIPMENT:

DURING TESTING MAKE NOTE OF THE FOLLOWING:

Is space free of drafting? Yes

Comment:

Is space comfortable in all areas? Yes

Comment:

Is the space free of ventilation noise? Yes

Comment:

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

Comment:

NA

Notes/Comments :

N/A

Date :03/07/2024



03-04-24 CULVERS HUNTSVILLE, AL

CheckList Information

Name : TECH - STEP 4: FINAL TESTS **Status :** Completed
Assigned Organization : National TAB **Asset :**
Requesting Organization : National TAB
Created Date : 02/22/2024 - Wale Odofin - National TAB
Completed Date : 03/07/2024 - William Patton - National TAB

CheckList Item Details

FINAL TESTS

HOOD CAPTURE TEST

List equipment turned on for testing

Comment:

Griddle and Fryer

List smoke candle type used

Comment:

45 second smoke emitter and observed capture during cooking.

Smoke test capture - Perimeter of hood

Comment:

100%

Smoke test capture - Top of cooking surface

Comment:

100%

WITNESS

Date test was completed

03/07/2024

Comment:

TAB tech name / Firm

Comment:

William Patton/ NTi

Site super name / Firm

Comment:

Super not present for smoke test. Video recorded.

Owner representative name / Firm (if Applicable)

Comment:

N/A

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

Comment:

Front: 0.006" Rear: 0.005"

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:

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:

Notes/Comments :

N/A

Date :03/07/2024

National TAB

Project: 03-04-24 CULVERS HUNTSVILLE, AL

System/Unit: AHU/RTU



Asset: RTU1

AREA: DINING ROOM

Unit Data		
	Design	Actual
MFG	LENNOX	CAPTIVAIRE
Serial Num	-	6158559
Model Num	ENLIGHT LGT	CASRTU3-1.25-24-20T
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	-	19.5"X24.5"X7/8"

Test Data		
	Design	Actual
SF CFM	6750	6246
SF RPM	-	1580
RA CFM	4795	4176
OA CFM	1955	2070
RL Voltage	-	214.8/214.9/215.1
RL Amperage	-	24.1
SF Rotation	-	CCW
RA Damper Position	-	4.3V
Min OA Damper Position	-	5.7V
Min OA Damper Type	-	ECONOMIZER

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

Performance Data		
	Design	Actual
MA Plenum SP	-	-0.87"
Fan Suction SP	-	-2.01"
Fan Discharge SP	-	0.77"
Total ESP	0.75"	1.64"
Fan Total SP	-	2.78"

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

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

Completed By: William Patton on 03/07/2024

Notes:
BLOWER SETPOINT 54HZ

Written By: William Patton on 03/11/2024

National TAB

Project:03-04-24 CULVERS HUNTSVILLE, AL

AHU/RTU



Diffuser Supply (GRD)

RTU1/DINING ROOM

Asset									
Asset Name	Location	Type	Size	DESIGN CFM	AK	CFM(1)	CFM(2)	FINAL CFM	% to design
SGRD1	ENTRY	SD3	8"	150	1	140	140	140	93.3
SGRD2	DINING	SD1	8"	150	1	151	151	151	100.7
SGRD3	DINING	SD1	8"	150	1	147	147	147	98.0
SGRD4	DINING	SD1	8"	150	1	143	143	143	95.3
SGRD5	DINING	SD1	8"	150	1	150	150	150	100.0
SGRD6	DINING	SD1	8"	150	1	142	142	142	94.7
SGRD7	DINING	SD1	8"	150	1	139	139	139	92.7
SGRD8	DINING	SD1	8"	150	1	147	147	147	98.0
SGRD9	DINING	SD1	8"	150	1	145	145	145	96.7
SGRD10	DINING	SD1	8"	150	1	136	136	136	90.7
SGRD11	DINING	SD1	8"	150	1	147	147	147	98.0
SGRD12	DINING	SD1	8"	150	1	135	135	135	90.0
SGRD13	DINING	SD1	8"	150	1	136	136	136	90.7
SGRD14	DINING	SD1	8"	150	1	138	138	138	92.0
SGRD15	DINING	SD1	8"8"	150	1	138	138	138	92.0
SGRD16	DINING	SD1	8"	150	1	146	146	146	97.3
SGRD17	DINING	SD1	8"	150	1	144	144	144	96.0
SGRD18	DINING	SD1	8"	150	1	135	135	135	90.0
SGRD19	DINING	SD1	8"	150	1	149	149	149	99.3
SGRD20	DRINKS	SD1	10"	300	1	281	281	281	93.7
SGRD21	ENTRY	SD1	8"	150	1	146	146	146	97.3
SGRD22	SUNDAE	SD1	8"	500	1	452	452	452	90.4
SGRD23	OFFICE	SD1	8"	200	1	181	181	181	90.5
SGRD24	CUST.SERV.	SD1	12"	450	1	381	381	381	84.7
SGRD25	CUST.SERV.	SD1	10"	350	1	304	304	304	86.9
SGRD26	CUST.SERV.	SD1	10"	350	1	317	317	317	90.6
SGRD27	CUST.SERV.	SD1	10"	350	1	322	322	322	92.0
SGRD28	CUST.SERV.	SD1	10"	350	1	319	319	319	91.1
SGRD29	HALL	SD1	8"	150	1	146	146	146	97.3
SGRD30	HALL	SD1	12"	450	1	410	410	410	91.1
SGRD31	M.RESTROOM	SD4	8"	150	1	141	141	141	94.0
SGRD32	W.RESTROOM	SD4	8"	150	1	138	138	138	92.0
Total				6750		6246	6246	6246	92.53%

Completed By: William Patton on 03/07/2024

Asset	Notes	Date	Written By
SGRD24	Total Airflow for RTU is 92% of design at FLA. Technician blanced diffusers proportionally low.	03/11/2024	William Patton

National TAB

Project: 03-04-24 CULVERS HUNTSVILLE, AL

System/Unit: AHU/RTU



Asset: RTU2

AREA:KITCHEN

Unit Data		
	Design	Actual
MFG	LENNOX	CAPTIVAIRE
Serial Num	-	6158559
Model Num	ENLIGHT LGT	CASRTU3-I.200-24-20T
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	-	19.5"X24.5"X7/8"

Test Data		
	Design	Actual
SF CFM	6150	5556
SF RPM	-	1580
RA CFM	4655	4001
OA CFM	1495	1555
RL Voltage	-	214.2/214.0/214.6
RL Amperage	-	24.2 VFD
SF Rotation	-	CCW
RA Damper Position	-	5.7V
Min OA Damper Position	-	4.3V
Min OA Damper Type	-	ECONOMIZER

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

Performance Data		
	Design	Actual
MA Plenum SP	-	-1.08"
Fan Suction SP	-	-1.96"
Fan Discharge SP	-	1.03"
Total ESP	0.75"	2.11"
Fan Total SP	-	2.99"

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

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

Completed By: William Patton on 03/07/2024

Notes:
BLOWER SETPOINT 54HZ

Written By: William Patton on 03/07/2024

National TAB

Project:03-04-24 CULVERS HUNTSVILLE, AL

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 SERV.	SD1	12"	600	1	334	477	477	79.5
SGRD2	SUNDAE SERV.	SD1	12"	600	1	373	540	540	90.0
SGRD3	KITCHEN	SD5	8"	200	1	173	210	210	105.0
SGRD4	KITCHEN	SD5	10"	375	1	250	366	366	97.6
SGRD5	KITCHEN	SD5	10"	400	1	262	362	362	90.5
SGRD6	KITCHEN	SD5	10"	400	1	271	395	395	98.8
SGRD7	KITCHEN	SD5	10"	250	1	178	253	253	101.2
SGRD8	KITCHEN	SD5	10"	275	1	191	277	277	100.7
SGRD9	KITCHEN	SD5	8'	125	1	119	130	130	104.0
SGRD10	TOILET	SD1	6"	75	1	49	77	77	102.7
SGRD11	KITCHEN	SD5	10"	350	1	261	367	367	104.9
SGRD12	DISH WASHING	SD5	10"	350	1	249	343	343	98.0
SGRD13	DISH WASHING	SD5	10"	350	1	218	302	302	86.3
SGRD14	UTILITY RM.	SD1	12"	600	1	328	471	471	78.5
SGRD15	DRY GOODS	SD1	12"	600	1	268	409	409	68.2
SGRD16	DRY GOODS	SD1	12"	600	1	401	577	577	96.2
Total				6150		3925	5556	5556	90.34%

Completed By: William Patton on 03/07/2024

Asset	Notes	Date	Written By
SGRD1	Technician didn't push air to low diffusers to prevent performance of unit from falling below 90% of design. Motor at FLA	03/11/2024	William Patton

National TAB

Project: 03-04-24 CULVERS HUNTSVILLE, AL

System/Unit: FAN - Exhaust



Asset: EF1

AREA:MOP ROOM

Unit Data		
	Design	Actual
MFG	ACCUREX	CAPTIV AIRE
Model Num	XCRB80	CFA 100CA
Serial Num	-	6158559
Type	CEILING	CEILING
Configuration	VERTICAL	VERTICAL

Test Data		
	Design	Actual
CFM	75	101
Fan RPM	885	NA
Fan Rotation	-	CCW
Motor RPM	-	NA
System SetPt	-	NA
RL Voltage	-	NA
RL Amperage	-	NA
Total ESP	0.125"	NA
Fan Inlet SP	-	NA
Fan Discharge SP	-	NA

Motor Data		
	Design	Actual
Motor MFG	-	NL
Frame	-	NL
Horsepower	-	0.116
Motor Rpm	-	640
Phase	1	1
Voltage (rated)	115	115
Amperage (rated)	-	1.1
Service Factor	-	NL

Completed By: William Patton on 03/07/2024

Notes:
SPEED CONTROLLER NOT INSTALLED

Written By: William Patton on 03/07/2024

National TAB

Project: 03-04-24 CULVERS HUNTSVILLE, AL

System/Unit: FAN - Exhaust



Asset: PRV1

AREA:RESTROOMS

Unit Data		
	Design	Actual
MFG	ACCUREX	CAPTIVAIRE
Model Num	XRED-090-VG	DR12HFA
Serial Num	-	6158559
Type	CENTRIFUGAL	DOWNBLAST
Configuration	VERTICAL	VERTICAL

Motor Data		
	Design	Actual
Motor MFG	-	TELCO GREEN
Frame	-	42 EC
Horsepower	-	1/4
Motor Rpm	-	1800
Phase	1	1
Voltage (rated)	115	115
Amperage (rated)	-	2.9
Service Factor	-	NL

Test Data		
	Design	Actual
CFM	375	377
Fan RPM	1465	728
Fan Rotation	-	CCW
Motor RPM	-	728
System SetPt	-	42%
RL Voltage	-	NOT SAFELY ACCESSIBLE
RL Amperage	-	NOT SAFELY ACCESSIBLE
Total ESP	0.50"	0.07"
Fan Inlet SP	-	-0.07"
Fan Discharge SP	-	ATM

Completed By: William Patton on 03/07/2024

National TAB
 Project:03-04-24 CULVERS HUNTSVILLE, AL
FAN - Exhaust



Diffuser Ret/Exh (GRD)

PRV1/RESTROOMS

Asset									
Asset Name	Location	Type	Size	DESIGN CFM	AK	CFM(1)	CFM(2)	FINAL CFM	% to design
EGRD1	M RESTROOM	EG1	8X8	150	1	240	153	153	102.0
EGRD2	W. RESTROOM	EG1	8X8	150	1	222	144	144	96.0
EGRD3	TOILET	EG1	8X8	75	1	115	78	80	106.7
Total				375		577	375	377	100.53%

Completed By: William Patton on 03/07/2024

National TAB

Project: 03-04-24 CULVERS HUNTSVILLE, AL

System/Unit: FAN - Exhaust



Asset: PRV2

AREA:HOOD 1

Unit Data		
	Design	Actual
MFG	ACCUREX	CAPTIVAIRE
Model Num	XCUE-140-VG	DU85HFA
Serial Num	-	6158559
Type	UPBLAST	UPBLAST
Configuration	VERTICAL	VERTICAL

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

Test Data		
	Design	Actual
CFM	1500	1536
Fan RPM	1702	938
Fan Rotation	-	CCW
Motor RPM	-	938
System SetPt	-	48P
RL Voltage	-	123.4
RL Amperage	-	2.6
Total ESP	1.80"	0.53"
Fan Inlet SP	-	-0.53"
Fan Discharge SP	-	ATM

Completed By: William Patton on 03/07/2024

National TAB

Project: 03-04-24 CULVERS HUNTSVILLE, AL

System/Unit: FAN - Exhaust



Asset: PRV3

AREA:HOOD 2

Unit Data		
	Design	Actual
MFG	ACCUREX	CAPTIVEAIRE
Model Num	XCUE-140-VG	DU85HFA
Serial Num	-	6158559
Type	UPBLAST	UPBLAST
Configuration	VERTICAL	VERTICAL

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

Test Data		
	Design	Actual
CFM	1500	1499
Fan RPM	1349	1038
Fan Rotation	-	CCW
Motor RPM	-	1038
System SetPt	-	53P
RL Voltage	-	123.7
RL Amperage	-	3.7
Total ESP	1.00"	0.68"
Fan Inlet SP	-	-0.68"
Fan Discharge SP	-	ATM

Completed By: William Patton on 03/07/2024

National TAB

Project: 03-04-24 CULVERS HUNTSVILLE, AL

System/Unit: Kitchen Hood Type I



Asset: HD1

AREA:

Unit Data		
	Design	Actual
MFG	ACCUREX	CAPTIVEAIRE
Model Num	XGEP-64-S	CAPTIVEAIRE
Job / Serial Num	-	6158559
Type	TYPE I	TYPE I
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	1.53	1.62
Filter Total AK Area	6.12	6.48
Filter1 FPM	-	230
Filter2 FPM	-	218
Filter3 FPM	-	264
Filter4 FPM	-	236
Filter Ave FPM(corr)	-	294
CFM	1500	1536

Cooking Equipment		
	Design	Actual
Item 1	-	GRIDDLE

Completed By: William Patton on 03/11/2024

National TAB

Project: 03-04-24 CULVERS HUNTSVILLE, AL

System/Unit: Kitchen Hood Type I



Asset: HD2

AREA:

Unit Data		
	Design	Actual
MFG	ACCUREX	CAPTIVEAIRE
Model Num	XXEP-83-S	3347 BD-2
Job / Serial Num	-	6158559
Type	TYPE I	TYPE I
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	1.53	1.62
Filter Total AK Area	7.65	8.1
Filter1 FPM	-	207
Filter2 FPM	-	189
Filter3 FPM	-	186
Filter4 FPM	-	182
Filter5 FPM	-	161
Filter Ave FPM(corr)	-	185
CFM	1500	1499

Cooking Equipment		
	Design	Actual
Item 1	-	FRYER

Completed By: William Patton on 03/11/2024

