Report By:

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

NATIONAL TAB

Comfort. Under control.

Report: TAB REPORT
Function: Test, Adjust, & Balance
Date: 02/20/2023

PROJECT

02-13-23 PENN STATION - DALLAS, NC

701 WEST TRADE ST

DALLAS, NC 28034

Client

C&T DESIGN

4025 PORT UNION RD.

FAIRFIELD, OH 45014

National TAB

Project: 02-13-23 PENN STATION - DALLAS, NC

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- TECH - STEP 4: FINAL TESTS

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.

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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	3000	2932	2400	2310	600	622	20.0%	21.2%						
RTU-2	SERVING	3000	2813	2400	2186	600	627	20.0%	22.3%						
MUA-1	KITCHEN									1650	1257				
KEF-1	HOOD1											1120	1179		
KEF-2	HOOD2											700	676		
KEF-3	HOOD3											833	826		
EF-1	RESTROOM													75	78
EF-2	RESTROOM													75	79
TOTALS		6000	5745	4800	4496	1200	1249			1650	1257	2653	2681	150	157

NET BUILDING AIRFLOW CALCULATION

TOTALS	DESIGN	ACTUAL
TOTAL OA	2850	2506
TOTAL EXHAUST	2803	2838
NET AIRFLOW	47	-332

DOOR TESTED	BUILDING PRESSURE MEASUREMENTS (IN. H20)
FRONT	-0.003
SIDE	-0.002
REAR	0.001
AVERAGE	**-0.0013**

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:

SMOKE TEST WAS DONE WITH FOOD EQUIMPENT OFF BECAUSE STARTUPS ON FOOD SERVICE EQUIPMENT HAVE NOT BEEN CONDUCTED AT THAT TIME. GAS PIPING PREVENTED GRIDDLE FROM SITTING AGAINST THE BACK OF THE HOOD. INITIAL SMOKE TEST SHOWED THAT CAPTURE WAS AT 50%. TECHNICIAN ON SITE REDUCED MAU DESIGN FOR HOOD 1 SO THAT SMOKE CATURE WOULD BE 100%.

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02-13-23 PENN STATION - DALLAS, NC

CheckList Information

Name :	SITE PICTURES	**Status :**	Not Completed
Assigned Organization :	National TAB	**Asset :**	
Requesting Organization :	National TAB		

CheckList Item Details

STORE FRONT

StoreFront
02/13/2023

RTU-1

RTU1
02/13/2023

RTU-2

RTU2
02/13/2023

MUA-1

MUA1
02/13/2023

KEF-1

KEF1-1
02/13/2023

KEF1-2
02/13/2023

KEF-2

KEF2-1
02/13/2023

KEF2-2
02/13/2023

KEF-3

KEF3-1
02/13/2023

KEF3-2
02/13/2023

EF-1

EF1
02/13/2023

EF-2

EF2
02/13/2023

HOOD-1

HOOD1
02/13/2023

HOOD-2

HOOD2
02/13/2023

HOOD-3

HOOD3
02/13/2023

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CheckList Information

Name :	TECH - STEP 1: INITIAL WALKTHROUGH	**Status :**	Not Completed
Assigned Organization :	National TAB	**Asset :**	
Requesting Organization :	National TAB		

CheckList Item Details

INITIAL SITE WALKTHROUGH

All diffusers and grilles are installed and match design?	NO. ALL LINER DIFFUSERS FOR RTU-2 WHERE REPLACED WITH 24X24 DIFFUSERS LIKE THE REST OF THE RTU-2 DIFFUSERS.
All hood filters installed and accounted for?	YES
Hoods are wired and have power?	YES
Hood is free of alarms?	NO. HOODS ORIGINAL HAD SEVERAL FAULTS- MODBUS FAULT- HMI ISSUES- B2 LIGHTING FAULT. ALL WERE RESOLVED AT END OF BALANCE.
Thermostats have power?	YES
Have trades/general contractor been notified about any issues and are they created on FaciliBuild?	YES

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CheckList Information

Name : TECH - STEP 2: UNIT DATA AND EVAL **Status :** Not Completed

Assigned Organization : National TAB **Asset :**

Requesting Organization : 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
DCV Max damper opening position is set to minimum?	YES
Free cooling enthalpy set point set for lowest setting (Typically "D")	YES/ SET TO "E"
Motors are all operating below the FLA rating?	YES
Are belts tight?	YES
If direct drive unit is the speed controller working.	NA
Is gas piping installed and valves turned on?	YES
Unit free of noticeable noise and vibration	YES
EF's	
Rotation is correct?	YES
Belts are tight?	NA
Grease cup installed on hood fan?	NO
Hinge kit installed installed on hood fan?	YES
Lean fan back. Is grease duct installation adequate and is duct ran all the way to the base of the fan?	YES

Flex conduit is long enough so that fan can be completely tilted back?	YES
There is no major leakage around base of fan?	YES
Is the motor operating below the motor FLA rating?	YES
For restroom fan(s) is the back draft damper installed and can it fully open?	YES
Unit free of noticeable noise and vibration?	YES
MUA	
Rotation is correct?	YES
Gas piping is installed and valves are in on position?	YES
Heater tested and is functional?	YES
Internal motorized damper is fully opening?	YES
Motor is operating below the FLA rating?	YES
Unit free of noticeable noise and vibration?	YES
HOODS	
Kitchen equipment installed in proper places?	GRIDDLE UNABLE TO BE PLACED AGAINST THE WALL DUE TO GAS REGULATOR PLACEMENT. GRIDDLE STICKS OUT APROX 6" FROM THE WALL ON THE RIGHT SIDE PREVENT HOOD FROM 100% SMOKE CAPTURE UNDER DESIGN SPECIFICATIONS. TECHNICIAN ON SITE REDUCED OA FROM HOOD 1 IN ORDER TO GET 100% SMOKE CAPTURE
Can kitchen equipment be turned on for final smoke test?	NO
DOCUMENTATION	
Have trades/general contractor been notified about any issues and are they created on FaciliBuild?	YES

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02-13-23 PENN STATION - DALLAS, NC

CheckList Information

Name :	TECH - STEP 3: TEST, ADJUST AND BALANCE	**Status :**	Not Completed
Assigned Organization :	National TAB	**Asset :**	
Requesting Organization :	National TAB		

CheckList Item Details

TEST, ADJUST, AND BALANCE ALL EQUIPMENT:

DURING TESTING MAKE NOTE OF THE FOLLOWING:

Is space free of drafting?	YES
Is space comfortable in all areas?	YES
Is the space free of ventilation noise?	YES
If deviations from design were necessary to resolve 1-3 what were they? Otherwise put "NA".	NA

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02-13-23 PENN STATION - DALLAS, NC

CheckList Information

Name :	TECH - STEP 4: FINAL TESTS	**Status :**	Not Completed
Assigned Organization :	National TAB	**Asset :**	
Requesting Organization :	National TAB		

CheckList Item Details

FINAL TESTS	
HOOD CAPTURE TEST	
List equipment turned on for testing	HOOD 1/ HOOD 2/HOOD 3
List smoke candle type used	S-102
Smoke test capture - Perimeter of hood	100%
Smoke test capture - Top of cooking surface	100%
WITNESS	
Date test was completed	2-14-2023
TAB tech name / Firm	JOASH N ALBIN
Site super name / Firm	VIDEO CAPTURE
Owner representative name / Firm (if Applicable)	VIDEO CAPTURE
Building pressure at front & back doors (All Systems On)	-0.001/-0.003/0.004
ADDITIONAL	
Do actual net building airflow, design net building airflow, and pressure coincide? If not why? (All three should either be positive or negative)	YES
PROGRAM THERMOSTATS	
Occupied 7:15AM-10:15PM: 68 Heat/72 Cool (NOTE: 3 degree MAX setback)	

Unoccupied 10:16PM-7:14AM: 65 Heat/75 Cool

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Project: 02-13-23 PENN STATION - DALLAS, NC

System/Unit: AHU/RTU

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Asset: RTU1 AREA:DINING

Unit Data		
	Design	**Actual**
MFG	LENNOX	TRANE
Serial Num	-	223610399L
Model Num	LGH090H	YSC090H3ELA28
Type	RTU	RTU
Configuration	VERTICAL	VERTICAL
Num OA Filters 1	-	NONE
OA Filter Size 1	-	NONE
Num Final Filter 1	-	4
Final Filter Size 1	-	16X25X2

Motor Data		
	Design	**Actual**
Motor MFG	-	MARATHON
Frame	-	56
Horsepower	-	1.0
Motor Rpm	-	1725
Phase	3	3
Rated Voltage	208	230
Rated Amperage	-	3.3

Drive Data		
	Design	**Actual**
Motor Sheave Size	-	3.75"
Motor Bore Size	-	1"
Motor Sheave SetPt	-	1.5 OPEN
Fan Sheave Size	-	5.75"
Fan Sheave Bore	-	1"
Belt CL Distance	-	10"
Num of Belts	-	1
Belt Size	-	AX32
Belt Alignment	-	GOOD

Test Data		
	Design	**Actual**
SF CFM	3000	2932
SF RPM	-	1045
RA CFM	2400	2310
OA CFM	600	622
RL Voltage	-	215.4/215.7/216.1
RL Amperage	-	2.9/3.1/2.7
SF Rotation	-	CW
RA Damper Position	-	79%
Min OA Damper Position	-	21%
Min OA Damper Type	-	ODB
OA Enthalpy Setpt	-	E

Performance Data		
	Design	**Actual**
MA Plenum SP	-	-0.35"
Fan Suction SP	-	-0.67"
Fan Discharge SP	-	0.34
Total ESP	1.0"	0.69"
Fan Total SP	-	1.01"

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

Completed By: JOASH ALBIN on 02/14/2023

Notes: CONSTRUCTION FILTER//CLEAN

Date: 02/14/2023

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Project:02-13-23 PENN STATION - DALLAS, NC

AHU/RTU

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Diffuser Supply (GRD)

RTU1/DINING

Asset									
Asset Name	**Location**	**Type**	**Size**	**DESIGN CFM**	**AK**	**CFM(1)**	**CFM(2)**	**FINAL CFM**	**% to design**
SGRD1	DINING	L1	10"	600	0.89	687	606	606	101.0
SGRD2	DINING	L1	10"	350	0.89	335	351	351	100.3
SGRD3	DINING	L1	10"	350	1	299	330	330	94.3
SGRD4	DINING	L1	10"	350	1	293	338	338	96.6
SGRD5	DINING	L1	10'	350	1	289	329	329	94.0
SGRD6	DINING	CD2	10"	300	1	397	297	297	99.0
SGRD7	DINING	CD1	10"	350	1	329	340	340	97.1
SGRD8	DINING	CD1	10"	350	1	352	341	341	97.4

Completed By: Wale Odofin on

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Project: 02-13-23 PENN STATION - DALLAS, NC

System/Unit: AHU/RTU

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Asset: RTU2 AREA:SERVING

Unit Data		
	Design	**Actual**
MFG	LENNOX	TRANE
Serial Num	-	223512255L
Model Num	LGH090H	YSC090H3ELA28
Type	RTU	RTU
Configuration	VERTICAL	VERTICAL
Num Final Filter 1	-	4
Final Filter Size 1	-	16X25X2

Motor Data		
	Design	**Actual**
Motor MFG	-	MARATHON
Frame	-	56
Horsepower	-	1.0
Motor Rpm	-	1725
Phase	3	3
Rated Voltage	208	230
Rated Amperage	-	3.3

Drive Data		
	Design	**Actual**
Motor Sheave Size	-	3.75"
Motor Bore Size	-	1"
Motor Sheave SetPt	-	1.5 OPEN
Fan Sheave Size	-	5.75"
Fan Sheave Bore	-	1"
Belt CL Distance	-	10"
Num of Belts	-	1
Belt Size	-	AX32
Belt Alignment	-	GOOD

Test Data		
	Design	**Actual**
SF CFM	3000	2813
SF RPM	-	1057
RA CFM	2400	2186
OA CFM	600	627
RL Voltage	-	216.4/216.5/216.7
RL Amperage	-	3.24/3.12/3.28
SF Rotation	-	CW
RA Damper Position	-	80%
Min OA Damper Position	-	20%
Min OA Damper Type	-	SODB
OA Enthalpy Setpt	-	E

Performance Data		
	Design	**Actual**
MA Plenum SP	-	-0.35"
Fan Suction SP	-	-0.59"
Fan Discharge SP	-	0.33"
Total ESP	1.0"	0.69"
Fan Total SP	-	0.92"

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

Completed By: JOASH ALBIN on 02/14/2023

Notes: -NO OA FILTER - CONSTRUCTION FILTERS IN FILTER BANKS BUT THEY ARE CLEAN -ALL LINER DIFFUSER WHERE REPLACED WITH 24X24 DIFFUSERS LIKE THE OTHER ONES ON THE PLANS

Date: 02/14/2023

Diffuser Supply (GRD)

RTU2/SERVING

Asset									
Asset Name	**Location**	**Type**	**Size**	**DESIGN CFM**	**AK**	**CFM(1)**	**CFM(2)**	**FINAL CFM**	**% to design**
SGRD1	SERVICE	L1	10"	375	1	354	341	341	90.9
SGRD2	SERVICE	L1	10"	375	1	398	355	355	94.7
SGRD3	SERVICE	CD1	10"	350	1	347	330	330	94.3
SGRD4	SERVICE	CD1	10"	350	1	335	328	328	93.7
SGRD5	SERVICE	L1	10"	375	1	336	350	350	93.3
SGRD6	SERVICE	CD1	10"	350	1	325	339	339	96.9
SGRD7	SERVICE	L1	10"	375	1	315	345	345	92.0
SGRD8	SERVICE	CD	10"	350	1	294	330	330	94.3
SGRD9	RESTROOM	CD3	10"	50	1	122	50	50	100.0
SGRD10	RESTROOM	CD3	10"	50	1	102	45	45	90.0

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Project: 02-13-23 PENN STATION - DALLAS, NC

System/Unit: FAN - Exhaust

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Asset: EF1 AREA:RESTROOM

Unit Data		
	Design	**Actual**
MFG	NUTONE	NUTONE
Model Num	EZ80N	AEN110-A
Serial Num	-	91DO3H
Type	CEILING	CEILING
Configuration	VERTICAL	VERTICAL

Test Data		
	Design	**Actual**
CFM	75	78
Fan RPM	-	HIGH
Fan Rotation	-	CCW
RL Voltage	-	115
Total ESP	0.1"	NA

Motor Data		
	Design	**Actual**
Motor MFG	-	NA
Frame	-	NL
Phase	1	1
Voltage (rated)	120	120
Amperage (rated)	-	0.3
Service Factor	-	1.0

Drive Data		
	Design	**Actual**

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Project: 02-13-23 PENN STATION - DALLAS, NC

System/Unit: FAN - Exhaust

Comfort. Under control.

Asset: EF2 AREA:RESTROOM

Unit Data		
	Design	**Actual**
MFG	NUTONE	NUTONE
Model Num	EZ80N	AEN110-A
Serial Num	-	91D03H2
Type	CEILING	CEILING
Configuration	VERTICAL	VERTICAL

Test Data		
	Design	**Actual**
CFM	75	79
Fan RPM	-	DD
Fan Rotation	-	CCW
RL Voltage	-	115
Total ESP	0.1"	NA

Motor Data		
	Design	**Actual**
Frame	-	NL
Phase	1	1
Voltage (rated)	120	120
Amperage (rated)	-	0.3
Service Factor	-	1

Drive Data		
	Design	**Actual**

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Project: 02-13-23 PENN STATION - DALLAS, NC

System/Unit: FAN - Exhaust

Comfort. Under control.

Asset: KEF1 AREA:HOOD1

Unit Data		
	Design	**Actual**
MFG	CAPTIVEAIRE	CAPTIVEAIRE
Model Num	DU85HFA	DU85HFA
Serial Num	-	5348922
Type	UPBLAST	UPBLAST
Configuration	VERTICAL	VERTICAL

Motor Data		
	Design	**Actual**
Motor MFG	-	TELCO GREEN
Frame	-	NL
Horsepower	0.75	0.75
Motor Rpm	-	1800
Phase	1	1
Voltage (rated)	115	115
Amperage (rated)	-	7.65
Service Factor	-	1

Test Data		
	Design	**Actual**
CFM	1120	1179
Fan RPM	1215	DD
Fan Rotation	-	DD CCW
Motor RPM	-	DD
System SetPt	-	50%
RL Voltage	-	125.1
RL Amperage	-	3.36
Total ESP	1.15"	0.63"
Fan Inlet SP	-	-0.63"
Fan Discharge SP	-	ATM

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Project: 02-13-23 PENN STATION - DALLAS, NC

System/Unit: FAN - Exhaust

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Asset: KEF2 AREA:HOOD 2

Unit Data		
	Design	**Actual**
MFG	CAPTIVEAIRE	CAPTIVEAIRE
Model Num	DU33HFA	DU33HFA
Serial Num	-	5348922
Type	UPBLAST	UPBLAST
Configuration	VERTICAL	VERTICAL

Motor Data		
	Design	**Actual**
Motor MFG	-	TELCO GREEN
Frame	-	NL
Horsepower	0.33	0.33
Motor Rpm	-	1800
Phase	1	1
Voltage (rated)	115	115
Amperage (rated)	-	3.91
Service Factor	-	1

Test Data		
	Design	**Actual**
CFM	700	678
Fan RPM	1360	DD
Fan Rotation	-	DD CCW
Motor RPM	-	DD
System SetPt	-	85%
RL Voltage	-	125.6
RL Amperage	-	2.2
Total ESP	0.6"	0.97"
Fan Inlet SP	-	-0.97"
Fan Discharge SP	-	ATM

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System/Unit: FAN - Exhaust

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Asset: KEF3 AREA:HOOD 3

Unit Data		
	Design	**Actual**
MFG	CAPTIVEAIRE	CAPTIVEAIRE
Model Num	DU85HFA	DU85HFA
Serial Num	-	5348922
Type	UPBLAST	UPBLAST
Configuration	VERTICAL	VERTICAL

Motor Data		
	Design	**Actual**
Motor MFG	-	TELCO GREEN
Frame	-	NL
Horsepower	0.75	0.75
Motor Rpm	-	1800
Phase	1	1
Voltage (rated)	115	115
Amperage (rated)	-	7.65
Service Factor	-	1

Test Data		
	Design	**Actual**
CFM	833	822
Fan RPM	1144	DD
Fan Rotation	-	DD CCW
Motor RPM	-	DD
System SetPt	-	50%
RL Voltage	-	125.2
RL Amperage	-	2.42
Total ESP	1.15"	0.65"
Fan Inlet SP	-	-0.65"
Fan Discharge SP	-	ATM

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Project: 02-13-23 PENN STATION - DALLAS, NC

System/Unit: FAN - Supply

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Asset: MUA1 AREA:KITCHEN

Unit Data		
	Design	**Actual**
MFG	CAPTIVEAIRE	CAPTIVEAIRE
Model Num	A1--D250-15D	A1--D250-15D
Serial Num	-	5348922
Type	MUA	MUA
Configuration	VERTICAL	VERTICAL

Motor Data		
	Design	**Actual**
Motor MFG	-	WESTINGHOUSE
Frame	-	145T
Horsepower	1.5	1.5
Motor Rpm	-	1740
Phase	3	3
Voltage (rated)	208	230
Amperage (rated)	-	4.03
Service Factor	-	1.15

Gas Heat		
	Design	**Actual**
Heater Operates (y/n)	-	YES
Flame Status (pass/fail)	-	PASS
Inlet Air Temp SetPt	55	55
Discharge Air Temp SetPt	60	60
Air Flow Switch SP Actual	-	0.25"

Test Data		
	Design	**Actual**
CFM	1650	1257
SF RPM	1855	DD
Motor RPM	-	DD
SF System SetPt	-	40.4HZ
RL Voltage	-	139.4/135.6/138.4
RL Amperage	-	3.13/3.14/3.11

General		
	Design	**Actual**
Fan Rotation Correct	-	YES

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Project: 02-13-23 PENN STATION - DALLAS, NC

System/Unit: Kitchen Hood Type I

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Asset: HD1 AREA:

Unit Data		
	Design	**Actual**
MFG	CAPTIVEAIRE	CAPTIVEAIRE
Model Num	3650BD-2	3650BD-2
Job / Serial Num	-	5248922
Type	TYPE I LOW PROXIMITY	TYPE I
Hood length	72"	72"
Hood Width	36	36"
Supply Plenum Type	-	
Supply Plenum Width	14"	14"
Supply Plenum Length	72"	72"

Test Data Exhaust		
	Design	**Actual**
Filter Type	CAPTRATE SOLO	CAPTRATE SOLO
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	-	181
Filter2 FPM	-	177
Filter3 FPM	-	189
Filter4 FPM	-	181
Filter Ave FPM(corr)	-	182
CFM	1120	1179

Cooking Equipment		
	Design	**Actual**
Item 1	-	GRIDDLE

Test Data Supply		
	Design	**Actual**
Total AK Area	7	6.61
Kv factor (Vel)	0.89	0.89
Num of Readings	-	4
Reading1 FPM	-	115
Reading2 FPM	-	106
Reading3 FPM	-	115
Reading4 FPM	-	129
Ave FPM(corr)	-	103
CFM	1000	680

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Project: 02-13-23 PENN STATION - DALLAS, NC

System/Unit: Kitchen Hood Type I

Comfort. Under control.

Asset: HD2 AREA:

Unit Data		
	Design	**Actual**
MFG	CAPTIVEAIRE	CAPTIVEAIRE
Model Num	4412PS-OVN	4412PS-OVN
Job / Serial Num	-	5348922
Type	TYPE I LOW PROXIMITY	TYPE I
Hood length	21.25"	21.25"
Hood Width	44"	44"

Test Data Exhaust		
	Design	**Actual**
Filter Type	SS BAFFLE	BAFFLE
Filter Size 1	20X10	20X10
Filter Qty 1	2	2
Filter AK factor size 1	-	2.7
Filter1 FPM	-	245
Filter2 FPM	-	256
Filter Ave FPM(corr)	-	250
CFM	700	676

Cooking Equipment		
	Design	**Actual**
Item 1	-	SANDWICH COOKER

Completed By: JOASH ALBIN on 02/14/2023

National TAB

Project: 02-13-23 PENN STATION - DALLAS, NC

System/Unit: Kitchen Hood Type I

Comfort. Under control.

Asset: HD3 AREA:

Unit Data		
	Design	**Actual**
MFG	CAPTIVEAIRE	CAPTIVEAIRE
Model Num	3650BD-2	3650BD-2
Job / Serial Num	-	5348922
Type	LOW PROXIMITY	TYPE I
Hood length	50"	50"
Hood Width	36"	36"
Supply Plenum Width	50"	50"
Supply Plenum Length	14"	14"

Test Data Supply		
	Design	**Actual**
Total AK Area	4.8	3.9
Kv factor (Vel)	0.89	0.89
Num of Readings	-	4
Reading1 FPM	-	176
Reading2 FPM	-	167
Reading3 FPM	-	159
Reading4 FPM	-	164
Ave FPM(corr)	-	148
CFM	650	577

Test Data Exhaust		
	Design	**Actual**
Filter Type	CAPTRATE SOLE	CAPTRATE SOLO
Filter Size 1	16X16	16X16
Filter Qty 1	3	3
Filter AK factor size 1	1.62	1.62
Filter Total AK Area	4.86	4.86
Filter1 FPM	-	165
Filter2 FPM	-	169
Filter3 FPM	-	175
Filter Ave FPM(corr)	-	170
CFM	833	826

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

Completed By: Antonio Flores-De La Cruz on 02/13/2023

Notes: INITAIL SMOKE CAPTURE WAS 80%. REDUCED MAU IN ORDER TO GET A 100% CAPTURE

Date: 02/14/2023