Report By:

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

NATIONAL TAB

Comfort. Under control.

Report: PRELIM FIELD TAB REPORT
Function: Test, Adjust, & Balance
Date: 12/06/2022

PROJECT

12-01 MOD PIZZA - LENEXA, KS

8742 Loiret Blvd

Lenexa, KS 66219

Client

Oliphant Heating
208 WOLLARD BLVD

RICHMOND, MO

National TAB

Project: 12-01 MOD PIZZA - LENEXA, KS

Table Of Contents

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12-01 MOD PIZZA - LENEXA, KS

CheckList Information

Name :	TECH - STEP 1: INITIAL WALKTHROUGH	**Status :**	NotSubmitted
Assigned Organization :	National TAB	**Asset :**	
Requesting Organization :	National TAB		

CheckList Item Details

INITIAL SITE WALKTHROUGH

All diffusers and grilles are installed and match design?	YES
All hood filters installed and accounted for?	YES
Hoods are wired and have power?	YES
Hood is free of alarms?	YES
Thermostats have power?	YES
Have trades/general contractor been notified about any issues and are they created on FaciliBuild?	NA

Notes/Comments :

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12-01 MOD PIZZA - LENEXA, KS

CheckList Information

Name :	TECH - STEP 2: UNIT DATA AND EVAL	**Status :**	NotSubmitted
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
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?	YES
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, NO MAJOR LEAKAGE
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?	NA
Unit free of noticeable noise and vibration?	YES
HOODS	
Kitchen equipment installed in proper places?	YES
Can kitchen equipment be turned on for final smoke test?	YES
DOCUMENTATION	
Have trades/general contractor been notified about any issues and are they created on FaciliBuild?	YES

Notes/Comments :

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12-01 MOD PIZZA - LENEXA, KS

CheckList Information

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

Notes/Comments :

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12-01 MOD PIZZA - LENEXA, KS

CheckList Information

Name :	TECH - STEP 4: FINAL TESTS	**Status :**	NotSubmitted
Assigned Organization :	National TAB	**Asset :**	
Requesting Organization :	National TAB		

CheckList Item Details

FINAL TESTS	
HOOD CAPTURE TEST	
List equipment turned on for testing	PIZZA OVEN
List smoke candle type used	45 SECOND SMOKE EMITTER
Smoke test capture - Perimeter of hood	100%
Smoke test capture - Top of cooking surface	100%
WITNESS	
Date test was completed	12/06/2022
TAB tech name / Firm	JACOB DAVIDSON
Site super name / Firm	CHRIS SMITH / MOD PIZZA
Owner representative name / Firm (if Applicable)	CHRIS SMITH / MOD PIZZA
Building pressure at front & back doors (All Systems On)	0.0006" FRONT 0.0004" BACK
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
Thermostats are programmed?	YES

Notes/Comments :

National TAB

Project: 12-01 MOD PIZZA - LENEXA, KS

System/Unit: AHU/RTU

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Asset: RTU1 AREA:DINING

Unit Data		
	Design	**Actual**
MFG	CARRIER	CARRIER
Serial Num	-	0722P96423
Model Num	48HCD09	48HCED11A2M5A6B0G0
Type	RTU	RTU
Configuration	VERTICAL	VERTICAL
Num OA Filters 1	-	1 METAL MESH
OA Filter Size 1	-	19.25X35
Num Final Filter 1	-	4
Final Filter Size 1	-	20X20X2

Motor Data		
	Design	**Actual**
Motor MFG	-	MARATHON
Frame	-	56HZ
Horsepower	-	NL
Motor Rpm	-	1750
Phase	-	3
Rated Voltage	-	230/460
Rated Amperage	-	9.2/4.6

Drive Data		
	Design	**Actual**
Motor Sheave Size	-	4.75"
Motor Bore Size	-	7/8"
Motor Sheave SetPt	-	2 TURNS OUT
Fan Sheave Size	-	7.25"
Fan Sheave Bore	-	1”
Belt CL Distance	-	16.75”
Num of Belts	-	1
Belt Size	-	AX49
Belt Alignment	-	VERIFIED GOOD

Test Data		
	Design	**Actual**
SF CFM	4000	3984
SF RPM	-	998
RA CFM	3200	3156
OA CFM	800	828
RL Voltage	-	211/212/212
RL Amperage	-	7.9/8.1/8.5
SF Rotation	-	CCW
RA Damper Position	-	4.4V HIGH/5.25V LOW
Min OA Damper Position	-	30% HIGH/ 40% LOW
Min OA Damper Type	-	ECONOMIZER
OA Enthalpy Setpt	-	48 Degree Drybulb

Performance Data		
	Design	**Actual**
MA Plenum SP	-	-0.98”
Fan Suction SP	-	-1.46”
Fan Discharge SP	-	0.38”
Total ESP	-	1.36"
Fan Total SP	-	1.84"

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

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Notes:

National TAB

Project:12-01 MOD PIZZA - LENEXA, KS

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	SD1	18X6	400	0.59	402	363	405	101.3
SGRD2	DINING	SD1	18X12	650	0.54	321	550	613	94.3
SGRD3	DINING	SD1	18X12	550	0.54	301	490	548	99.6
SGRD4	DINING	SD1	18X6	350	0.59	468	325	362	103.4
SGRD5	DINING	SD1	18X6	350	0.59	407	347	379	108.3
SGRD6	DINING	SD1	18X12	550	0.54	262	407	454	82.5
SGRD7	DINING	SD1	18X6	350	0.59	401	321	358	102.3
SGRD8	DINING	SD1	18X6	350	0.59	510	345	383	109.4
SGRD9	DINING	SD1	18X6	350	0.59	558	340	379	108.3
SGRD10	RESTROOM	SD3	6"	50	1	53	54	53	106.0
SGRD11	RESTROOM	SD3	6"	50	1	47	59	50	100.0

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Asset	Notes
SGRD6	Damper is fully open. Turbulence from the duct is preventing more airflow to diffuser due to it being after a 90 degree angle.

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Project: 12-01 MOD PIZZA - LENEXA, KS

System/Unit: AHU/RTU

Comfort. Under control.

Asset: RTU2 AREA:KITCHEN

Unit Data		
	Design	**Actual**
MFG	CARRIER	CARRIER
Serial Num	-	0522P95514
Model Num	48HCD09	48HCED09A2M5A6B0G0
Type	RTU	RTU
Configuration	VERTICAL	VERTICAL
Num OA Filters 1	-	1 METAL MESH
OA Filter Size 1	-	19.25X35
Num Final Filter 1	-	4
Final Filter Size 1	-	20X20X2

Motor Data		
	Design	**Actual**
Motor MFG	-	MARATHON
Frame	-	56HZ
Horsepower	-	NL
Motor Rpm	-	1670
Phase	-	3
Rated Voltage	-	208-230/460
Rated Amperage	-	6.7-6.6/3.3

Drive Data		
	Design	**Actual**
Motor Sheave Size	-	4.25"
Motor Bore Size	-	5/8"
Motor Sheave SetPt	-	1.5 TURNS OUT
Fan Sheave Size	-	7.25"
Fan Sheave Bore	-	1"
Belt CL Distance	-	16.75"
Num of Belts	-	1
Belt Size	-	A48
Belt Alignment	-	VERIFIED GOOD

Test Data		
	Design	**Actual**
SF CFM	3400	3104
SF RPM	-	850
RA CFM	2800	2490
OA CFM	600	614
RL Voltage	-	211/211/212
RL Amperage	-	5.0/5.5/6.4
SF Rotation	-	CCW
RA Damper Position	-	3.55V HIGH/ 5.00V LOW
Min OA Damper Position	-	19% HIGH / 37% LOW
Min OA Damper Type	-	ECONOMIZER
OA Enthalpy Setpt	-	48 DEGREES DRYBULB

Performance Data		
	Design	**Actual**
MA Plenum SP	-	-0.58”
Fan Suction SP	-	-0.95”
Fan Discharge SP	-	0.43”
Total ESP	-	1.01"
Fan Total SP	-	1.38"

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

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Notes:

National TAB

Project:12-01 MOD PIZZA - LENEXA, KS

AHU/RTU

Comfort. Under control.

Diffuser Supply (GRD)

RTU2/KITCHEN

Asset									
Asset Name	**Location**	**Type**	**Size**	**DESIGN CFM**	**AK**	**CFM(1)**	**CFM(2)**	**FINAL CFM**	**% to design**
SGRD1	DINING	SD1	12X10	375	0.517	313	315	370	98.7
SGRD2	DINING	SD1	12X10	375	0.517	520	294	367	97.9
SGRD3	DINING	SD1	12X10	375	0.517	287	313	338	90.1
SGRD4	DINING	SD1	12X10	375	0.517	300	301	341	90.9
SGRD5	DINING	SD1	12X10	350	0.517	303	278	318	90.9
SGRD6	DINING	SD1	12X10	350	0.517	389	277	316	90.3
SGRD7	KITCHEN	SD2	10"	400	1	227	265	304	76.0
SGRD8	KITCHEN	SD2	10"	400	1	267	312	367	91.8
SGRD9	KITCHEN	SD2	10"	400	1	288	325	383	95.8

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Asset	Notes
SGRD7	Damper is fully open. Takeoff for the diffuser comes after a 90 degree turn and is causing turbulence in the duct, preventing more airflow to diffuser.

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Project: 12-01 MOD PIZZA - LENEXA, KS

System/Unit: FAN - Exhaust

Comfort. Under control.

Asset: EF1 AREA:HD1 PIZZA OVEN

Unit Data		
	Design	**Actual**
MFG	CAPTIVEAIRE	CAPTIVEAIRE
Model Num	CARES13BD	CASRE11DD
Serial Num	-	5404217
Type	UTILITY	UTILITY
Configuration	VERTICAL	VERTICAL

Motor Data		
	Design	**Actual**
Motor MFG	-	TELCO GREEN
Frame	-	NL
Horsepower	0.5	1/2
Motor Rpm	-	1800
Phase	1	1
Voltage (rated)	120	115
Amperage (rated)	-	6.3
Service Factor	-	NL

Drive Data		
	Design	**Actual**

Test Data		
	Design	**Actual**
CFM	900	901
Fan RPM	1362	1581
Fan Rotation	-	CCW
Motor RPM	-	1581
RL Voltage	-	119
RL Amperage	-	3.3
Suction ESP	-	UTO
Discharge ESP	-	UTO
Total ESP	0.55"	UTO

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Notes: FAN SPEED SET AT 81P

National TAB

Project: 12-01 MOD PIZZA - LENEXA, KS

System/Unit: FAN - Exhaust

Comfort. Under control.

Asset: EF2 AREA:RESTROOM

Unit Data		
	Design	**Actual**
MFG	COOK	BROAN
Model Num	GC-146	AE80B-B
Serial Num	-	NL
Type	CEILING	CEILING
Configuration	VERTICAL	VERTICAL

Motor Data		
	Design	**Actual**
Motor MFG	-	NL
Frame	-	NL
Horsepower	33.1W	NL
Motor Rpm	-	60HZ
Phase	1	1
Voltage (rated)	120	120
Amperage (rated)	-	0.3
Service Factor	-	NL

Test Data		
	Design	**Actual**
CFM	75	38
Fan RPM	900	DD
Fan Rotation	-	CCW
Motor RPM	-	DD
System SetPt	-	NO SPEED CONTROL
RL Voltage	-	121
RL Amperage	-	NOT SAFE
Total ESP	0.375"	UTO
Fan Inlet SP	-	UTO
Fan Discharge SP	-	UTO

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Notes:

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Project: 12-01 MOD PIZZA - LENEXA, KS

System/Unit: FAN - Exhaust

Comfort. Under control.

Asset: EF3 AREA:RESTROOM

Unit Data		
	Design	**Actual**
MFG	COOK	BROAN
Model Num	GC-146	AE80B-B
Serial Num	-	NL
Type	CEILING	CEILING
Configuration	VERTICAL	VERTICAL

Motor Data		
	Design	**Actual**
Motor MFG	-	NL
Frame	-	NL
Horsepower	33.1W	NL
Motor Rpm	-	60HZ
Phase	1	1
Voltage (rated)	120	120
Amperage (rated)	-	0.3
Service Factor	-	NL

Test Data		
	Design	**Actual**
CFM	75	51
Fan RPM	900	DD
Fan Rotation	-	CCW
Motor RPM	-	DD
System SetPt	-	NO SPEED CONTROL
RL Voltage	-	121
RL Amperage	-	NOT SAFE
Total ESP	0.375"	UTO
Fan Inlet SP	-	UTO
Fan Discharge SP	-	UTO

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Notes:

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Project: 12-01 MOD PIZZA - LENEXA, KS

System/Unit: FAN - Exhaust

Comfort. Under control.

Asset: EF4 AREA:ICE MACHINE

Unit Data		
	Design	**Actual**
MFG	COOK	BROAN
Model Num	GC-146	AE80B-B
Serial Num	-	NL
Type	CEILING	CEILING
Configuration	VERTICAL	VERTICAL

Motor Data		
	Design	**Actual**
Motor MFG	-	NL
Frame	-	NL
Horsepower	33.1W	NL
Motor Rpm	-	60HZ
Phase	1	1
Voltage (rated)	120	120
Amperage (rated)	-	0.3
Service Factor	-	NL

Test Data		
	Design	**Actual**
CFM	75	80
Fan RPM	900	DD
Fan Rotation	-	CCW
Motor RPM	-	DD
System SetPt	-	NO SPEED CONTROL
RL Voltage	-	122
RL Amperage	-	NOT SAFE
Total ESP	0.375"	UTO
Fan Inlet SP	-	UTO
Fan Discharge SP	-	UTO

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Notes:

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Project: 12-01 MOD PIZZA - LENEXA, KS

System/Unit: Kitchen Hood Type I

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Asset: HD1 AREA:

Unit Data		
	Design	**Actual**
MFG	NA	CAPTIVE AIRE
Model Num	NA	4824 ND-2
Job / Serial Num	-	540217
Type	-	TYPE I CANOPY
Hood length	-	72"
Hood Width	-	48"

Test Data Exhaust		
	Design	**Actual**
Filter Type	-	CAPTRATE SOLO
Filter Size 1	-	16X16
Filter Qty 1	-	4
Filter AK factor size 1	-	1.62
Filter Total AK Area	-	6.48
Filter1 FPM	-	142
Filter2 FPM	-	149
Filter3 FPM	-	135
Filter4 FPM	-	132
Filter Ave FPM(corr)	-	139
CFM	900	901

Cooking Equipment		
	Design	**Actual**
Item 1	-	PIZZA OVEN

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Notes: