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 PENN STATION - SEYMOUR, IN

449 COTTONWOOD DR

SEYMOUR, IN 47274

Client

C&T DESIGN

4025 PORT UNION RD.

FAIRFIELD, OH 45014

National TAB

Project: 03-04-24 PENN STATION - SEYMOUR, IN

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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.

Issue List

- Hood 3 Gap in Filter Bank
- RTU-2 Damper Handle
- RTU-2 Diffuser Above Design

03-04-24 PENN STATION - SEYMOUR, IN

Project Issue Information

Issue Name : Hood 3 Gap in Filter Bank

Description : Hood 3 hood bank has a slight gap when all filters are installed. Taped over during testing. Recommend installing attachment to close gap.

Created By :	National TAB	**Assigned To :**	National TAB - Jordan Best
Status :	Open		
Priority :	Medium	**Asset Tag :**	
Originated Date :	03/06/2024 - Jordan Best - National TAB		

Project Issue File Details

IMG_3146
03/06/2024

03-04-24 PENN STATION - SEYMOUR, IN

Project Issue Information

Issue Name :	RTU-2 Damper Handle		
Description :	RTU-2, diffuser 6 damper handle broke when adjusting during TAB. Recommend repair.		
Created By :	National TAB	**Assigned To :**	National TAB - Jordan Best
Status :	Open		
Priority :	Medium	**Asset Tag :**	
Originated Date :	03/06/2024 - Jordan Best - National TAB		

03-04-24 PENN STATION - SEYMOUR, IN

Project Issue Information

Issue Name :	RTU-2 Diffuser Above Design		
Description :	RTU-2 diffuser 5 is above design CFM. Damper is fully closed limiting flow as much as possible. This is causing diffusers 7-10 to be slightly outside of design.		
Created By :	National TAB	**Assigned To :**	National TAB - Jordan Best
Status :	Open		
Priority :	Medium	**Asset Tag :**	
Originated Date :	03/06/2024 - Jordan Best - National TAB		

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	2400	2474	1750	1823	650	651	27.1%	26.3%						
RTU-2	KITCHEN	3115	2928	2515	2283	600	645	19.3%	22.0%						
MUA-1	HD 1 & HD 2									1630	1635				
KEF-1	HD1 GRILL											1120	1108		
KEF-2	HD2 OVN											600	542		
KEF-3	HD 3 FRY											850	860		
EF-4	RESTROOM													75	82
EF-5	RESTROOM													75	78
TOTALS		5515	5402	4265	4106	1250	1296			1630	1635	2570	2510	150	160

NET BUILDING AIRFLOW CALCULATION

TOTALS	DESIGN	ACTUAL
TOTAL OA	2880	2931
TOTAL EXHAUST	2720	2670
NET AIRFLOW	160	261

DOOR TESTED	BUILDING PRESSURE MEASUREMENTS (IN. H20)
FRONT	0.
SIDE	0.0008
REAR	0.0001
AVERAGE	**0.0003**

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

- TAB READINESS
- TECH - 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 PENN STATION - SEYMOUR, IN

CheckList Information

Name :	TAB READINESS	**Status :**	Not Completed
Assigned Organization :	National TAB	**Asset :**	
Requesting Organization :	National TAB		
Created Date :	02/19/2024 - Brianna Biggs - National TAB		

CheckList Item Details

MANDATORY SCHEDULING INFORMATION (THE INFORMATION BELOW IS REQUIRED TO BE FILLED OUT PRIOR TO JOB BEING PLACED ON THE SCHEDULE)

Certificate of Occupancy (C.O.) date:

Comment:

TO AS SOON AS WE ARE DONE WITH TAB

Is the TAB report required for the city to issue the C.O.?

Comment:

NO DOES NOT THINK SO / NOT PLANNING FOR FINAL TRYING TO FINAL 3/4

Permanent power is provided to the building? If not when is it scheduled

Comment:

YES

Fire final date:

Comment:

Scheduled date for startups:

Comment:

2/26

Opening date

Comment:

Tentative TAB Date:

Comment:

3/4

BUILDING INFORMATION

Does building have a roof hatch or a ladder for roof access?

Comment:

Will there be ladders available on site to access ductwork above the ceiling?

Comment:

IN ORDER FOR US TO ARRIVE ON SITE, THE FOLLOWING ITEMS MUST BE COMPLETED PRIOR TO OUR ARRIVAL ON SITE. (THERE WILL BE A CANCELLATION CHARGE IF CANCELLED AFTER ARRIVAL)

Gas service is provided to the building

Comment:

YES

Doors and windows installed

Comment:

YES

Thermostats and sensors are 100% wired and functional

Comment:

YES

All ceiling tiles are installed

Comment:

YES

Kitchen equipment in place under the hood and able to be turned on

Comment:

YES

Ductwork and diffusers are all installed?

Comment:

YES

Mechanical contractor will be on site for duration of TAB or on-call and available to be on site within 30 minutes?

Comment:

YES

03-04-24 PENN STATION - SEYMOUR, IN

CheckList Information

Name :	TECH - SITE PICTURES	**Status :**	Not Completed
Assigned Organization :	National TAB	**Asset :**	
Requesting Organization :	National TAB		
Created Date :	02/28/2024 - Brianna Biggs - National TAB		

CheckList Item Details

STORE FRONT

Comment:

IMG_3130
03/06/2024

RTU-1

Comment:

IMG_3135
03/06/2024

RTU-2

Comment:

IMG_3134
03/06/2024

KEF-1

Comment:

IMG_3131
03/06/2024

KEF-2

Comment:

IMG_3132
03/06/2024

KEF-3

Comment:

IMG_3133
03/06/2024

EF-4

Comment:

IMG_3154
03/06/2024

EF-5

Comment:

IMG_3155
03/06/2024

MUA-1

Comment:

IMG_3136
03/06/2024

HD-1

Comment:

IMG_3140
03/06/2024

HD-2

Comment:

IMG_3141
03/06/2024

HD-3

Comment:

IMG_3142
03/06/2024

03-04-24 PENN STATION - SEYMOUR, IN

CheckList Information

Name :	TECH - STEP 1: INITIAL WALKTHROUGH	**Status :**	Not Completed
Assigned Organization :	National TAB	**Asset :**	
Requesting Organization :	National TAB		
Created Date :	02/28/2024 - Brianna Biggs - National TAB		

CheckList Item Details

INITIAL SITE WALKTHROUGH

Review Plan Review Checklist, has it been signed off and meets our standards to start balancing? If not contact processor to ensure job is ready.

Comment:

All diffusers and grilles are installed and match design?

Comment:

YES

All hood filters installed and accounted for?

Comment:

YES

Hoods are wired and have power?

Comment:

YES

Hood is free of alarms?

Comment:

YES

Thermostats have power?

Comment:

YES

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

Comment:

GC was not on site, issues created on FaciliBuild.

03-04-24 PENN STATION - SEYMOUR, IN

CheckList Information

Name :	TECH - STEP 2: UNIT DATA AND EVAL	**Status :**	Not Completed
Assigned Organization :	National TAB	**Asset :**	
Requesting Organization :	National TAB		
Created Date :	02/28/2024 - Brianna Biggs - 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?

Comment:

N/A

DCV Max damper opening position is set to minimum?

Comment:

N/A

Free cooling enthalpy set point set for lowest setting (Typically "D")

Comment:

N/A

Motors are all operating below the FLA rating?

Comment:

YES

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?

Comment:

YES

Unit free of noticeable noise and vibration

Comment:

YES

EF's

Rotation is correct?

Comment:

YES

Belts are tight?

Comment:

N/A

Grease cup installed on hood fan?

Comment:

YES

Hinge kit installed installed on hood fan?

Comment:

YES

Lean fan back. Is grease duct installation adequate and is duct ran all the way to the base of the fan?

Comment:

YES

Flex conduit is long enough so that fan can be completely tilted back?

Comment:

YES

There is no major leakage around base of fan?

Comment:

NO

Is the motor operating below the motor FLA rating?

Comment:

YES

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

Comment:

N/A

Unit free of noticeable noise and vibration?

Comment:

YES

MUA

Rotation is correct?

Comment:

YES

Gas piping is installed and valves are in on position?

Comment:

YES

Heater tested and is functional?

Comment:

YES

Internal motorized damper is fully opening?

Comment:

YES

Motor is operating below the FLA rating?

Comment:

YES

Unit free of noticeable noise and vibration?

Comment:

YES

HOODS

Kitchen equipment installed in proper places?

Comment:

YES

Can kitchen equipment be turned on for final smoke test?

Comment:

NO

DOCUMENTATION

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

Comment:

GC was not on site, issues created on FaciliBuild.

03-04-24 PENN STATION - SEYMOUR, IN

CheckList Information

Name :	TECH - STEP 3: TEST, ADJUST AND BALANCE	**Status :**	Not Completed
Assigned Organization :	National TAB	**Asset :**	
Requesting Organization :	National TAB		
Created Date :	02/28/2024 - Brianna Biggs - National TAB		

CheckList Item Details

TEST, ADJUST, AND BALANCE ALL EQUIPMENT:

DURING TESTING MAKE NOTE OF THE FOLLOWING:

Is space free of drafting?

Comment:

YES

Is space comfortable in all areas?

Comment:

YES

Is the space free of ventilation noise?

Comment:

YES

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

Comment:

NA

03-04-24 PENN STATION - SEYMOUR, IN

CheckList Information

Name :	TECH - STEP 4: FINAL TESTS	**Status :**	Not Completed
Assigned Organization :	National TAB	**Asset :**	
Requesting Organization :	National TAB		
Created Date :	02/28/2024 - Brianna Biggs - National TAB		

CheckList Item Details

FINAL TESTS

HOOD CAPTURE TEST

List equipment turned on for testing

Comment:

NONE

List smoke candle type used

Comment:

45 SECOND

Smoke test capture - Perimeter of hood

Comment:

100%

Smoke test capture - Top of cooking surface

Comment:

100%

WITNESS

Date test was completed

Comment:

03/05/2024

TAB tech name / Firm

Comment:

Jordan Best / NTi

Site super name / Firm

Comment:

Sean Curran / Curran Construction

Owner representative name / Firm (if Applicable)

Comment:

N/A

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

Comment:

0 / 0.0008 / 0.0001

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

PROGRAM THERMOSTATS

Occupied 7:15AM-10:15PM: 68 Heat/72 Cool (NOTE: 3 degree MAX setback)

Comment:

YES

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

Comment:

YES

National TAB

Project: 03-04-24 PENN STATION - SEYMOUR, IN

System/Unit: AHU/RTU

Asset: RTU1 AREA:

Unit Data		
	Design	**Actual**
MFG	CARRIER	BRYANT
Serial Num	-	2523P64041
Model Num	48FCEMO7A3M5-6W0A0	582KP08N180A2
Type	RTU	RTU
Configuration	VERTICAL	VERTICAL
Num OA Filters 1	-	1
OA Filter Size 1	-	11”X12”
Num Final Filter 1	-	4
Final Filter Size 1	-	16”X20”X2”

Motor Data		
	Design	**Actual**
Motor MFG	-	NA
Frame	-	NA
Horsepower	-	NA
Motor Rpm	-	NA
Phase	3	3
Rated Voltage	208	208
Rated Amperage	-	6.4

Test Data		
	Design	**Actual**
SF CFM	2400	2474
SF RPM	-	5.3 VDC
RA CFM	1750	1823
OA CFM	650	651
RL Voltage	-	211.7/210.3/210.7
RL Amperage	-	1.83/1.68/1.97
SF Rotation	-	CCW
Min OA Damper Position	-	1/3
Min OA Damper Type	-	MANUAL

Performance Data		
	Design	**Actual**
MA Plenum SP	-	-0.35”
Fan Suction SP	-	-0.66”
Fan Discharge SP	-	0.25”
Total ESP	-	0.6"
Fan Total SP	-	0.91"

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

Completed By: Jordan Best on 03/05/2024

National TAB

Project:03-04-24 PENN STATION - SEYMOUR, IN

AHU/RTU

Diffuser Supply (GRD)

RTU1/

Asset									
Asset Name	**Location**	**Type**	**Size**	**DESIGN CFM**	**AK**	**CFM(1)**	**CFM(2)**	**FINAL CFM**	**% to design**
SGRD1	DINING	10"	10"	300	1	395	304	304	101.3
SGRD2	DINING	10"	10"	300	1	402	315	315	105.0
SGRD3	DINING	10"	10"	300	1	412	313	313	104.3
SGRD4	DINING	10"	10"	300	1	442	326	326	108.7
SGRD5	DINING	10"	10"	300	1	338	278	278	92.7
SGRD6	DINING	10"	10"	300	1	448	325	325	108.3
SGRD7	DINING	10"	10"	300	1	397	285	285	95.0
SGRD8	DINING	10"	10"	300	1	442	328	328	109.3
Total				2400		3276	2474	2474	103.08%

Completed By: Jordan Best on 03/05/2024

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Project: 03-04-24 PENN STATION - SEYMOUR, IN

System/Unit: AHU/RTU

Asset: RTU2 AREA:

Unit Data		
	Design	**Actual**
MFG	CARRIER	BRYANT
Serial Num	-	2523P64042
Model Num	48FCDM07A3M5-6W0A0	582KP08N180A2
Type	RTU	RTU
Configuration	VERTICAL	VERTICAL
Num OA Filters 1	-	1
OA Filter Size 1	-	12”X11”
Num Final Filter 1	-	4
Final Filter Size 1	-	16”X20”X2”

Motor Data		
	Design	**Actual**
Motor MFG	-	NA
Frame	-	NA
Horsepower	-	NA
Motor Rpm	-	NA
Phase	3	3
Rated Voltage	208	208
Rated Amperage	-	6.4

Test Data		
	Design	**Actual**
SF CFM	3115	2928
SF RPM	-	7.84 VDC
RA CFM	1800	2283
OA CFM	600	645
RL Voltage	-	211.5/209.9/210.9
RL Amperage	-	4.65/4.26/4.17
SF Rotation	-	CCW
Min OA Damper Position	-	1/3
Min OA Damper Type	-	MANUAL

Performance Data		
	Design	**Actual**
MA Plenum SP	-	-0.71”
Fan Suction SP	-	-1.37”
Fan Discharge SP	-	0.54”
Total ESP	-	1.25"
Fan Total SP	-	1.91"

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

Completed By: Jordan Best on 03/05/2024

National TAB

Project:03-04-24 PENN STATION - SEYMOUR, IN

AHU/RTU

Diffuser Supply (GRD)

RTU2/

Asset									
Asset Name	**Location**	**Type**	**Size**	**DESIGN CFM**	**AK**	**CFM(1)**	**CFM(2)**	**FINAL CFM**	**% to design**
SGRD1	RR HALLWAY		6"	100	1	151	148	96	96.0
SGRD2	RESTROOM		6"	50	1	134	139	55	110.0
SGRD3	RESTROOM		6"	50	1	125	150	45	90.0
SGRD4	PREP AREA		10"	300	1	286	311	273	91.0
SGRD5	PREP AREA		10"	300	1	492	520	420	140.0
SGRD6	PREP AREA		10"	300	1	80	79	285	95.0
SGRD7	SERVELINE			325	1	209	264	272	83.7
SGRD8	SERVELINE			325	1	231	257	264	81.2
SGRD9	SERVELINE			325	1	171	169	273	84.0
SGRD10	SERVELINE			325	1	243	267	230	70.8
SGRD11	HOOD 1	ACPSP	8"	250	1.5	286	276	234	93.6
SGRD12	HOOD 2	ACPSP	8"	465	2.83	563	540	481	103.4
Total				3115		2971	3120	2928	94%

Completed By: Jordan Best on 03/05/2024

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Project: 03-04-24 PENN STATION - SEYMOUR, IN

System/Unit: FAN - Exhaust

Asset: EF4 AREA:RESTROOM

Unit Data		
	Design	**Actual**
MFG	NA	BROAN
Model Num	NA	QTXE080-F
Serial Num	-	NA
Type	-	CEILING
Configuration	-	VERTICAL

Test Data		
	Design	**Actual**
CFM	75	82

Completed By: Jordan Best on 03/05/2024

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Project: 03-04-24 PENN STATION - SEYMOUR, IN

System/Unit: FAN - Exhaust

Asset: EF5 AREA:RESTROOM

Unit Data		
	Design	**Actual**
MFG	NA	BROAN
Model Num	NA	QTXE080-F
Serial Num	-	NA
Type	-	CEILING
Configuration	-	VERTICAL

Test Data		
	Design	**Actual**
CFM	75	78

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Project: 03-04-24 PENN STATION - SEYMOUR, IN

System/Unit: FAN - Exhaust

Asset: KEF1 AREA:HOOD 1 GRILL

Unit Data		
	Design	**Actual**
MFG	CAPTIVEAIRE	ECON AIR
Model Num	DU85HFA	EADU85H
Serial Num	-	6291537
Type	UPBLAST	UPBLAST
Configuration	VERTICAL	VERTICAL

Motor Data		
	Design	**Actual**
Motor MFG	-	TELCO GREEN
Frame	-	NA
Horsepower	0.750	0.750
Motor Rpm	-	1800
Phase	1	1
Voltage (rated)	115	115
Amperage (rated)	-	8.9

Test Data		
	Design	**Actual**
CFM	1120	1108
Fan RPM	1215	NA
Fan Rotation	-	CCW
Motor RPM	-	NA
System SetPt	-	52%
RL Voltage	-	120.2
RL Amperage	-	3.29
Total ESP	1.150"	0.46”
Fan Inlet SP	-	-0.46”
Fan Discharge SP	-	ATM

Completed By: Jordan Best on 03/05/2024

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Project: 03-04-24 PENN STATION - SEYMOUR, IN

System/Unit: FAN - Exhaust

Asset: KEF2 AREA:HOOD 2 OVEN

Unit Data		
	Design	**Actual**
MFG	CAPTIVEAIRE	ECON AIR
Model Num	DU33HFA	EADU33H
Serial Num	-	6291537
Type	UPBLAST	UPBLAST
Configuration	VERTICAL	VERTICAL

Motor Data		
	Design	**Actual**
Motor MFG	-	TELCO GREEN
Frame	-	NA
Horsepower	0.333	0.333
Motor Rpm	-	1800
Phase	1	1
Voltage (rated)	115	114
Amperage (rated)	-	4.3

Test Data		
	Design	**Actual**
CFM	600	542
Fan RPM	1360	NA
Fan Rotation	-	CCW
Motor RPM	-	NA
System SetPt	-	56%
RL Voltage	-	121.3
RL Amperage	-	1.22
Total ESP	0.600"	0.20”
Fan Inlet SP	-	-0.20”
Fan Discharge SP	-	ATM

Completed By: Jordan Best on 03/05/2024

National TAB

Project: 03-04-24 PENN STATION - SEYMOUR, IN

System/Unit: FAN - Exhaust

Asset: KEF3 AREA:HOOD 3 FRY

Unit Data		
	Design	**Actual**
MFG	CAPTIVEAIRE	ECON AIR
Model Num	DU85HFA	EADU85H
Serial Num	-	6291537
Type	UPBLAST	UPBLAST
Configuration	VERTICAL	VERTICAL

Motor Data		
	Design	**Actual**
Motor MFG	-	TELCO GREEN
Frame	-	NA
Horsepower	0.750	0.750
Motor Rpm	-	1800
Phase	1	1
Voltage (rated)	115	115
Amperage (rated)	-	8.9

Test Data		
	Design	**Actual**
CFM	850	860
Fan RPM	1144	NA
Fan Rotation	-	CCW
Motor RPM	-	NA
System SetPt	-	54%
RL Voltage	-	122.7
RL Amperage	-	3.29
Total ESP	1.150"	0.69”
Fan Inlet SP	-	-0.69”
Fan Discharge SP	-	ATM

Completed By: Jordan Best on 03/05/2024

National TAB

Project: 03-04-24 PENN STATION - SEYMOUR, IN

System/Unit: FAN - Supply

Asset: MUA1 AREA:HOOD 1 & HOOD 3

Unit Data		
	Design	**Actual**
MFG	CAPTIVEAIRE	ECON AIR
Model Num	A1-D.250-15D	EA1-D.250-15D
Serial Num	-	6291537
Type	MUA	MUA
Configuration	VERTICAL	VERTICAL

Motor Data		
	Design	**Actual**
Motor MFG	-	TECO 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

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	-	0.28”

Test Data		
	Design	**Actual**
CFM	1630	1635
SF RPM	1855	NA
Motor RPM	-	NA
SF System SetPt	-	44.7 HZ
RL Voltage	-	81
RL Amperage	-	2.5
Total ESP	-	0.28”
Fan Discharge SP	-	0.28”

Completed By: Jordan Best on 03/05/2024

Notes:
Volts and Amps read from VFD

Written By: Jordan Best on 03/05/2024

National TAB

Project:03-04-24 PENN STATION - SEYMOUR, IN

FAN - Supply

Diffuser Supply (GRD)

MUA1/HOOD 1 & HOOD 3

Asset									
Asset Name	**Location**	**Type**	**Size**	**DESIGN CFM**	**AK**	**CFM(1)**	**CFM(2)**	**FINAL CFM**	**% to design**
HOOD1	HOOD 1	PSP	14"X72"	1000	7	-	-	971	97.1
HOOD3	HOOD 3	PSP	14"X50"	630	4.86	-	-	664	105.4
Total				1630		0	0	1635	100.31%

National TAB

Project: 03-04-24 PENN STATION - SEYMOUR, IN

System/Unit: Kitchen Hood Type I

Asset: HD1 AREA:GRILL

Unit Data		
	Design	**Actual**
MFG	CAPTIVEAIRE	ECON AIR
Model Num	3650 ELPX-2 246 ACPSP ONLY	3650 ELPX-2
Job / Serial Num	-	6291537
Type	TYPE I CANOPY	TYPE I SOLO
Hood length	72"	72”
Hood Width	36"	36”
Supply Plenum Type	-	ACPSP
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	16”X16”
Filter Qty 1	4	4
Filter AK factor size 1	1.62	1.62
Filter Total AK Area	6.48	6.48
Filter1 FPM	-	160
Filter2 FPM	-	192
Filter3 FPM	-	159
Filter4 FPM	-	175
Filter Ave FPM(corr)	-	171
CFM	1120	1108

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

Test Data Supply		
	Design	**Actual**
Total AK Area	7	7
Kv factor (Vel)	0.89	0.89
Num of Readings	-	6
Reading1 FPM	-	164
Reading2 FPM	-	153
Reading3 FPM	-	148
Reading4 FPM	-	166
Reading5 FPM	-	144
Reading6 FPM	-	162
Ave FPM(corr)	-	156
CFM	1000	971

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System/Unit: Kitchen Hood Type I

Asset: HD2 AREA:OVEN

Unit Data		
	Design	**Actual**
MFG	CAPTIVEAIRE	NA
Model Num	4412 PS-OVN	NA
Job / Serial Num	-	NA
Type	TYPE I CANOPY	TYPE II
Hood length	21.25"	44”
Hood Width	44"	21.25”

Test Data Exhaust		
	Design	**Actual**
Filter Type	SS BAFFLE	SS BAFFLE
Filter Size 1	10X20	20”X10”
Filter Qty 1	2	2
Filter AK factor size 1	1.2	1.2
Filter Total AK Area	2.4	2.4
Filter1 FPM	-	214
Filter2 FPM	-	238
Filter Ave FPM(corr)	-	226
CFM	600	542

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

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Project: 03-04-24 PENN STATION - SEYMOUR, IN

System/Unit: Kitchen Hood Type I

Asset: HD3 AREA:FRY

Unit Data		
	Design	**Actual**
MFG	CAPTIVEAIRE	ECON AIR
Model Num	3650 ELPX-2 246 ACPSP ONLY	3650 ELPX-2
Job / Serial Num	-	6291537
Type	TYPE I CANOPY	TYPE I CANOPY
Hood length	50"	50”
Hood Width	36"	36”
Supply Plenum Type	-	ACPSP
Supply Plenum Width	14"	14”
Supply Plenum Length	50"	50”

Test Data Exhaust		
	Design	**Actual**
Filter Type	CAPTRATE SOLO	CAPTRATE SOLO
Filter Size 1	16X16	16”X16”
Filter Qty 1	3	3
Filter AK factor size 1	1.62	1.62
Filter Total AK Area	4.86	4.86
Filter1 FPM	-	173
Filter2 FPM	-	184
Filter3 FPM	-	174
Filter Ave FPM(corr)	-	177
CFM	850	860

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

Test Data Supply		
	Design	**Actual**
Total AK Area	4.86	4.86
Kv factor (Vel)	0.89	0.89
Num of Readings	-	4
Reading1 FPM	-	157
Reading2 FPM	-	154
Reading3 FPM	-	153
Reading4 FPM	-	149
Ave FPM(corr)	-	153
CFM	630	664

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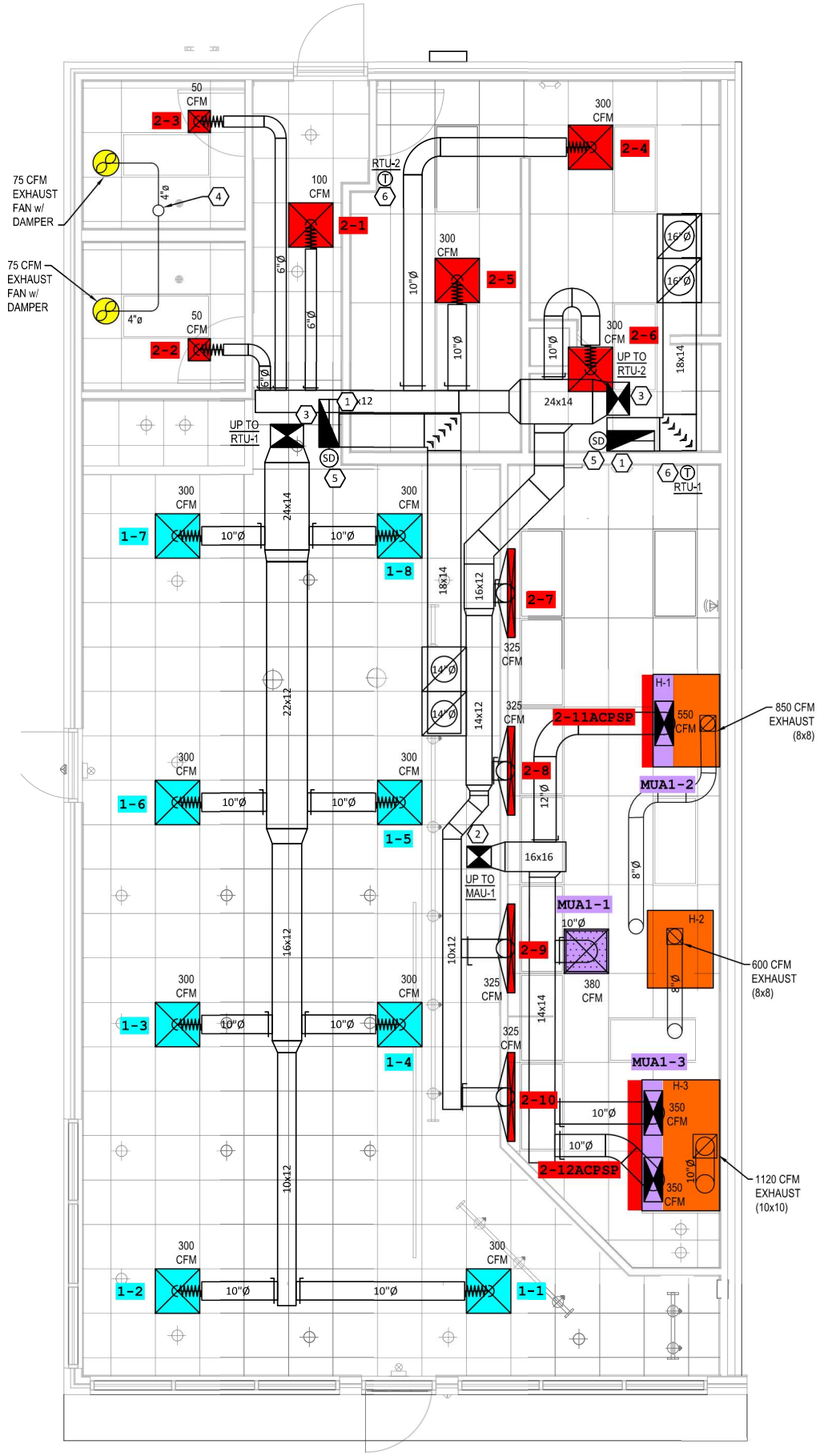

MECHANICAL - FLOOR PLAN

SCALE: 1/4" = 1'-0"

1
M1.0

Penn Station - Seymour,

ROOM #