Report By:
United Test & Balance, Inc.
7013 Flagler Rd,
Nordland, WA 98358

For:
National TAB
1126 Swift Street
North Kansas City, MO 64116

Report: TAB REPORT

Function: Test, Adjust, & Balance

Date: 04/22/2024

PROJECT

04-01-24 CHIPOTLE #27-4685 ELKO, NV (ELKO)

2405 Mountain City Highway

ELKO, NV 89801

Client

Chipotle Mexican Grill

610 Newport Center Drive, Suite 1100

Newport Beach, CA 92660

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.

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	3400	3565	2400	2487	1000	1078	29.4%	30.2%						
RTU-2	KITCHEN	3400	3371	2900	2860	500	511	14.7%	15.2%						
MUA-1	KITCHEN HOOD									1300	1324				
EF-1	KITCHEN HOOD											2550	2509		
EF-2	RESTROOM													150	151
TOTALS		6800	6936	5300	5347	1500	1589			1300	1324	2550	2509	150	151

NET BUILDING AIRFLOW CALCULATION

TOTALS	DESIGN	ACTUAL
TOTAL OA	2800	2913
TOTAL EXHAUST	2700	2660
NET AIRFLOW	100	253

DOOR TESTED	BUILDING PRESSURE MEASUREMENTS (IN. H20)
FRONT	0.0041
SIDE	0.098
REAR	0.0047
AVERAGE	**0.0356**

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:

SYSTEM/UNIT: Project Checklist

Inspection Data - Project Checklist

	Verification	Response	Notes	By	Date/Time
1	All diffusers and grilles are installed and match design?	Yes		WC	4/17/24 13:21
2	Deflector plates are removed from 1x1 diffusers on the serve line (double check that this is specified on the diffuser schedule first)	Yes		WC	4/17/24 13:21
3	All hood filters installed and accounted for?	Yes		WC	4/17/24 13:21
4	Hoods are wired and have power?	Yes		WC	4/17/24 13:21
5	Hood is free of alarms?	Yes		WC	4/17/24 13:21
6	Thermostats have power?	Yes		WC	4/17/24 13:21
7	Have trades/general contractor been notified about any issues and are they created on FaciliBuild?	Yes		WC	4/17/24 13:21

General - Project Checklist

	Verification	Response	Notes	By	Date/Time
1	Is space free of drafting?	Yes		WC	4/17/24 13:21
2	Is space comfortable in all areas?	Yes		WC	4/17/24 13:21
3	Is the space free of ventilation noise?	Yes		WC	4/17/24 13:21
4	If deviations from design were necessary to resolve 103 what were they? Otherwise put "NA"	NA		WC	4/17/24 13:21

SYSTEM/UNIT: RTU-01
AREA: Dining

Tested By: Omar Carreno
Date: 4/2/2024

Design Airflow (CFM)	
Design Total	3400
Design Grille Total	3400
Design Return	2400
Design Min O/A	1000

Unit Design Data	
Submittal Make	Trane
Submittal Model #	YHC102F3RHA
Submittal Airflow	3400
Sched./Sub. Volts	208
Sched./Sub. Phase	3
Sched./Sub. HP	2.75
Submittal BHP	Not Provided
Filter MERV Rating (Sched/Sub)	MERV 8

Design Static Pressures (in wg)	
Design Ext SP	0.80
Submittal Total SP	Not Provided
Submittal Clg Coil Δ SP	-

Filter Data	
Condition	Partially Loaded
Filter Type	Pleated
MERV Rating	-
Filter Size Set 1 (in)	20x25x2
# Filters Set 1	4
Filter Size Set 2 (in)	-
# Filters Set 2	-

Motor Nameplate Data	
Motor Make	No Access - Embedded Motor
Motor Frame	-
Motor HP	-
Motor RPM	-
Motor Volts	-
Motor Phase	-

Final Airflow (CFM)	
Actual Total CFM	3565
Actual Grille Total CFM	3565
Actual Return Air CFM	2487
Actual Min O/A CFM	1078
Fan CFM Test Method	Supply Outlet Total
OA Method/Instrument	Face Velocity/RVA
OA Ak (sq ft)	5.023
OA Damper % (High Spd)	30% Open
OA Damper % (Low Spd)	50% Open
RA Damper % (High Spd)	70% Open

Unit Data	
Make (tag)	Trane
Model # (tag)	YHC102F3RHA2AP7C1A2A000A00000D1000000000
Serial # (tag)	225211823L
Location	Roof
Unit Discharge	Downblast
Cooling Coil Location	Unit / Drawthru
Coil Area (sq ft)	13.9
Clg Coil Vel (FPM)	256
Fan Service	Supply
Fan Type	Centrifugal (AF)
Fan Discharge	Downblast
Fan Arrangement	SWSI

Fan Design Data	
Submittal Motor RPM	Not Provided
Submittal Fan RPM	-

Fan Data	
Actual Fan RPM/Speed	Not Accessible
Actual Motor RPM	Not Accessible

Electrical Data	
Measurement Method	Not Accessible
Motor Volts 1	-

SYSTEM/UNIT: RTU-01
AREA: Dining

Tested By: Omar Carreno
Date: 4/2/2024

Motor Nameplate Data	
Motor Amps	-
Motor S.F.	-
Motor % PF	-
Motor % Eff.	-
Other Motor Data	-

Drive Data	
Drive Type	Direct Drive
Sheave Type	-
Fan Sheave Make	-
Fan Shv Mod# or Size (in)	-
Fan Sheave Bore (in)	-
Motor Sheave Make	-
Mtr Shv Mod# or Size (in)	-
Motor Sheave Bore (in)	-
VP Range	-
Center Distance (in)	-
No of Belts	-
Belt Make	-
Belt Size	-
Other Data	-

Electrical Data	
Motor Volts 2	-
Motor Volts 3	-
Motor Amps 1	-
Motor Amps 2	-
Motor Amps 3	-
Operating HZ	60.00
Approx. BHP	
Corr. Nameplate Amps	
Starter Data	Not Applicable
VFD Reference	Not Applicable

Make (tag) Photo:

Name: Make (tag).jpg
Captured: 4/3/2024 9:10 AM
Caption:

SYSTEM/UNIT: RTU-01
AREA: Dining

Tested By: Omar Carreno
Date: 4/2/2024

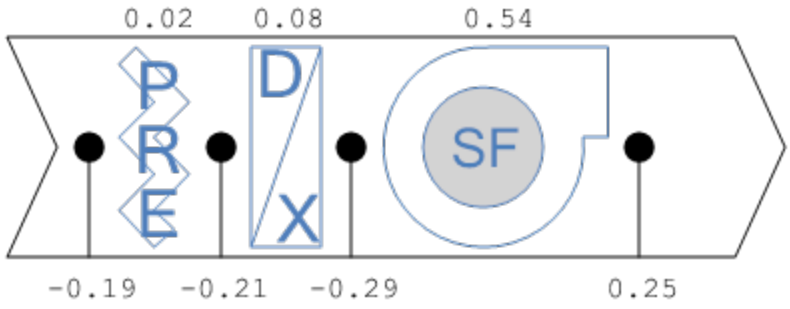
Inspection Data - RTU-01

	Verification	Response	Notes	By	Date/Time
1	IS ECONOMIZER BLANK PLATE INSTALLED BELOW THE OUTDOOR AIR FILTERS? (IF NO, REMOVE THE PIECE FROM UNDERNEATH THE COIL FILTER BANK AND INSTALL) Trane only (N/A = not applicable)	Yes		OC	4/2/24 15:11
2	Economizers are assembled and functional?	Yes		OC	4/2/24 15:11
3	DCV Max damper opening position is set to minimum?	Yes		OC	4/2/24 15:11
4	Free cooling enthalpy set point set for lowest setting (Typically "D")	Yes		OC	4/2/24 15:11
5	Is the motor operating below the motor FLA rating?	Yes		OC	4/2/24 16:12
6	Belts are Tight?	NA		OC	4/2/24 16:12
7	If direct drive unit is the speed controller working.	Yes		OC	4/2/24 16:12
8	Gas piping is installed and valves are in on position?	Yes		OC	4/2/24 16:12
9	Unit free of noticeable noise and vibration?	Yes		OC	4/2/24 16:12

SYSTEM/UNIT: RTU-01/Static Profile

Tested By: Omar Carreno
Date: 4/2/2024

Static Pressure Profile



RTU-01 Supply Outlet Summary

System/Unit	Area Served	Type	Size / Area (in)	Design CFM	Prelim CFM	Final CFM	% Final	Instrument	Ak	Open (sq ft)	Final FPM
S-01	Dining	SW	14	500	477	531	106	Capture Hood	1.000	1.000	531
S-02	Dining	SW	14	500	565	522	104	Capture Hood	1.000	1.000	522
S-03	Dining	SW	14	600	586	614	102	Capture Hood	1.000	1.000	614
S-04	Dining	SW	14	600	682	619	103	Capture Hood	1.000	1.000	619
S-05	Dining	SW	14	700	780	741	106	Capture Hood	1.000	1.000	741
S-06	Utensil	SW	18/6	250	312	266	106	Capture Hood	1.000	1.000	266
S-07	Utensil	SW	18/6	250	267	272	109	Capture Hood	1.000	1.000	272
	Totals:	**-**	**-**	**3400**	**3669**	**3565**	**105**	**-**	**-**	**-**	**-**

SYSTEM/UNIT: RTU-02
AREA: Kitchen

Tested By: Omar Carreno
Date: 4/2/2024

Design Airflow (CFM)	
Design Total	3400
Design Grille Total	3400
Design Return	2900
Design Min O/A	500

Unit Design Data	
Submittal Make	Trane
Submittal Model #	YHC102F3RHA
Submittal Airflow	3400
Sched./Sub. Volts	208
Sched./Sub. Phase	3
Sched./Sub. HP	2.75
Submittal BHP	Not Provided
Filter MERV Rating (Sched/Sub)	MERV 8

Design Static Pressures (in wg)	
Design Ext SP	0.80
Submittal Total SP	Not Provided
Submittal Clg Coil Δ SP	-

Filter Data	
Condition	Partially Loaded
Filter Type	Pleated
MERV Rating	-
Filter Size Set 1 (in)	20x25x2
# Filters Set 1	4
Filter Size Set 2 (in)	-
# Filters Set 2	-

Motor Nameplate Data	
Motor Make	No Access - Embedded Motor
Motor Frame	-
Motor HP	-
Motor RPM	-
Motor Volts	-
Motor Phase	-

Final Airflow (CFM)	
Actual Total CFM	3371
Actual Grille Total CFM	3371
Actual Return Air CFM	2860
Actual Min O/A CFM	511
Fan CFM Test Method	Supply Outlet Total
OA Method/Instrument	Face Velocity/RVA
OA Ak (sq ft)	5.023
OA Damper % (High Spd)	10% Open
OA Damper % (Low Spd)	35% Open
RA Damper % (High Spd)	90% Open

Unit Data	
Make (tag)	Trane
Model # (tag)	YHC102F3RHA2AP7C1A2A000A00000D1000000000
Serial # (tag)	225211827L
Location	Roof
Unit Discharge	Downblast
Cooling Coil Location	Unit / Drawthru
Coil Area (sq ft)	13.9
Clg Coil Vel (FPM)	243
Fan Service	Supply
Fan Type	Centrifugal (AF)
Fan Discharge	Downblast
Fan Arrangement	SWSI

Fan Design Data	
Submittal Motor RPM	Not Provided
Submittal Fan RPM	-

Fan Data	
Actual Fan RPM/Speed	Not Accessible
Actual Motor RPM	Not Accessible

Electrical Data	
Measurement Method	Not Accessible
Motor Volts 1	-

SYSTEM/UNIT: RTU-02
AREA: Kitchen

Tested By: Omar Carreno
Date: 4/2/2024

Motor Nameplate Data	
Motor Amps	-
Motor S.F.	-
Motor % PF	-
Motor % Eff.	-
Other Motor Data	-

Drive Data	
Drive Type	Direct Drive
Sheave Type	-
Fan Sheave Make	-
Fan Shv Mod# or Size (in)	-
Fan Sheave Bore (in)	-
Motor Sheave Make	-
Mtr Shv Mod# or Size (in)	-
Motor Sheave Bore (in)	-
VP Range	-
Center Distance (in)	-
No of Belts	-
Belt Make	-
Belt Size	-
Other Data	-

Electrical Data	
Motor Volts 2	-
Motor Volts 3	-
Motor Amps 1	-
Motor Amps 2	-
Motor Amps 3	-
Operating HZ	60.00
Approx. BHP	
Corr. Nameplate Amps	
Starter Data	Not Applicable
VFD Reference	Not Applicable

Submittal Make Photo:

Name: Submittal Make.jpg
Captured: 4/3/2024 9:10 AM
Caption:

SYSTEM/UNIT: RTU-02
AREA: Kitchen

Tested By: Omar Carreno
Date: 4/2/2024

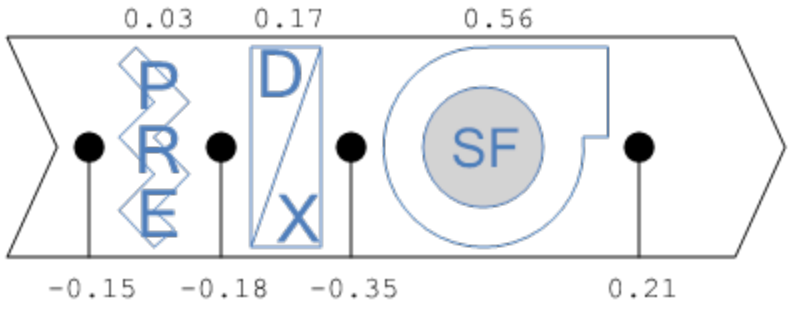
Inspection Data - RTU-02

	Verification	Response	Notes	By	Date/Time
1	IS ECONOMIZER BLANK PLATE INSTALLED BELOW THE OUTDOOR AIR FILTERS? (IF NO, REMOVE THE PIECE FROM UNDERNEATH THE COIL FILTER BANK AND INSTALL) Trane only (N/A = not applicable)	Yes		OC	4/2/24 16:20
2	Economizers are assembled and functional?	Yes		OC	4/2/24 16:20
3	DCV Max damper opening position is set to minimum?	Yes		OC	4/2/24 16:20
4	Free cooling enthalpy set point set for lowest setting (Typically "D")	Yes		OC	4/2/24 16:20
5	Is the motor operating below the motor FLA rating?	Yes		OC	4/2/24 16:20
6	Belts are Tight?	NA		OC	4/2/24 16:20
7	If direct drive unit is the speed controller working.	Yes		OC	4/2/24 16:20
8	Gas piping is installed and valves are in on position?	Yes		OC	4/2/24 16:20
9	Unit free of noticeable noise and vibration?	Yes		OC	4/2/24 16:20

SYSTEM/UNIT: RTU-02/Static Profile

Tested By: Omar Carreno
Date: 4/2/2024

Static Pressure Profile



RTU-02 Supply Outlet Summary

System/Unit	Area Served	Type	Size / Area (in)	Design CFM	Prelim CFM	Final CFM	% Final	Instrument	Ak	Open (sq ft)	Final FPM
S-01	Vestibule	CD	8	150	148	151	101	Capture Hood	1.000	1.000	151
S-02	Restroom 2 112	CD	6	40	44	42	105	Capture Hood	1.000	1.000	42
S-03	Restroom 1 111	CD	6	40	41	44	110	Capture Hood	1.000	1.000	44
S-04	Kitchen 108	CD	8	150	130	142	95	Capture Hood	1.000	1.000	142
S-05	Kitchen 108	CD	8	140	138	139	99	Capture Hood	1.000	1.000	139
S-06	Kitchen 108	CD	8	140	135	141	101	Capture Hood	1.000	1.000	141
S-07	Kitchen 108	CD	8	140	127	137	98	Capture Hood	1.000	1.000	137
S-08	Kitchen 108	CD	8	140	133	136	97	Capture Hood	1.000	1.000	136
S-09	Pick Up 113	CD	10	390	358	367	94	Capture Hood	1.000	1.000	367
S-10	Pick Up 113	CD	10	370	347	358	97	Capture Hood	1.000	1.000	358
S-11	POS 104	CD	8	250	270	248	99	Capture Hood	1.000	1.000	248
S-12	POS 104	CD	8	250	198	236	94	Capture Hood	1.000	1.000	236
S-13	POS 104	CD	8	250	182	241	96	Capture Hood	1.000	1.000	241
S-14	Cooking 107	CD	8	250	269	257	103	Capture Hood	1.000	1.000	257
S-15	Hood	CD	8	700	732	732	105	Capture Hood	1.000	1.000	732
	Totals:	**-**	**-**	**3400**	**3252**	**3371**	**99**	**-**	**-**	**-**	**-**

SYSTEM/UNIT: EF-01

Tested By: Omar Carreno
Date: 4/2/2024

Design Airflow (CFM)	
Design Airflow	2550
Design Grille Airflow	Not Applicable

Unit Design Data	
Submittal Make	Captiveaire
Submittal Model #	DU180HFA
Submittal Airflow	2550
Sched./Sub. Volts	208
Sched./Sub. Phase	3
Sched./Sub. HP	2
Submittal BHP	Not Provided

Design Static Pressures (in wg)	
Design External SP	1.20
Submittal Total SP	Not Provided

Motor Nameplate Data	
Motor Make (tag)	TECO
Motor Frame (tag)	184T
Motor HP (tag)	2
Motor RPM (tag)	1165
Motor Volts (tag)	230
Motor Phase (tag)	3
Motor Amps (tag)	7.51
Motor S.F. (tag)	1.15
Mtr % PF (tag)	Not Listed
Mtr % Eff. (tag)	87.6
Other Motor Data	-

Drive Data	
Drive Type	Direct Drive
Sheave Type	-
Fan Sheave Make	-
Fan Shv Mod# or Size (in)	-
Fan Sheave Bore (in.)	-
Motor Sheave Make	-

Final Airflow (CFM)	
Actual Airflow	2509
Actual Grille Airflow	Not Applicable
Fan CFM Test Method	See Kitchen Hood Sheet
Test Method Ak (sq ft)	Not Applicable

Unit Data	
Make (tag)	Captive Aire
Model # (tag)	DU180HFA
Serial # (tag)	5952631
Unit Location	Roof
Unit Discharge	Upblast
Fan Service	Exhaust
Fan Type	Centrifugal (AF)
Fan Discharge	Upblast
Fan Arrangement	SWSI

Fan Design Data	
Submittal Motor RPM	Not Provided
Submittal Fan RPM	-

Fan Data	
Actual Fan RPM/Speed	52.1hz
Actual Motor RPM	Not Accessible
Speed Cont. Position	52.1hz

Electrical Data	
Measurement Method	VFD Display
Motor Volts 1	213
Motor Volts 2	213
Motor Volts 3	212
Motor Amps 1	5.0
Motor Amps 2	-
Motor Amps 3	-
Operating HZ	-
Starter Data	Not Applicable
Approx. BHP	1.23

SYSTEM/UNIT: EF-01

Tested By: Omar Carreno
Date: 4/2/2024

Drive Data	
Mtr Shv Mod# or Size (in)	-
Motor Sheave Bore (in.)	-
VP Range	-
Center Distance (in.)	-
No of Belts	-
Belt Make	-
Belt Size	-
Other Data	-

Electrical Data	
Corr. Nameplate Amps	8.1

Inspection Data - EF-01

	Verification	Response	Notes	By	Date/Time
1	Fan Rotation is Correct?	Yes		OC	4/2/24 16:38
2	Belts are Tight?	NA		OC	4/2/24 16:38
3	Internal motorized damper is fully opening?	Yes		OC	4/2/24 16:38
4	Motor is operating below the FLA rating?	Yes		OC	4/2/24 16:38
5	Unit free of noticeable noise and vibration?	Yes		OC	4/2/24 16:38
6	There is no major leakage around base of fan?	Yes		OC	4/2/24 16:38
7	Is the motor operating below the motor FLA rating?	Yes		OC	4/2/24 16:38

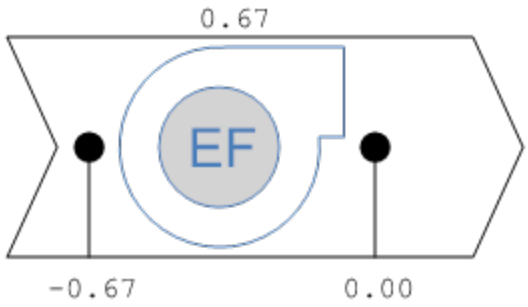
HVAC Units / Fans - EF-01

	Verification	Response	Notes	By	Date/Time
1	Grease cup is installed on hood fan?	Yes		OC	4/2/24 16:38
2	Hinge kit installed on hood fan.	Yes		OC	4/2/24 16:38
3	Lean fan back. Is grease duct installation adequate and is duct ran all the way to the base of the fan?	Yes		OC	4/2/24 16:38
4	Flex conduit is long enough so that fan can be completely tilted back?	Yes		OC	4/2/24 16:38

SYSTEM/UNIT: EF-01/Static Profile

Tested By: Omar Carreno
Date: 4/2/2024

Static Pressure Profile



SYSTEM/UNIT: EF-01/HD-01

Tested By: Omar Carreno
Date: 4/2/2024

Design Airflow (CFM)	
Design Exhaust CFM	2550

Final Airflow (CFM)	
Actual Exhaust CFM	2509

Test Section	
End Panels Installed (Y/N)	Yes

Supplemental Data	
Space Offset Temp Riser 1	15
Space Offset Temp Riser 2	15
100% override functional	yes

Kitchen Hood Information	
Service	Cooking Surface
Manufacturer	Captive-Aire
Model Number	5424 ND-2-ACPSP-F
Serial Number	5952631
Test Method	Filters

Prefunctional - EF-01/HD-01

	Verification	Response	Notes	By	Date/Time
1	Kitchen equipment installed in proper places?	Yes		OC	4/2/24 16:29
2	Can kitchen equipment be turned on for final smoke test?	Yes		OC	4/2/24 16:29

Remarks

Equipment Under Hood (List All)

Cooking Surface, Fryer, Rice Cooker.

EF-01/HD-01 Exhaust Filter Summary

System/Unit	Size	Type	Ak	Reading 2	Reading 1	FPM	Instrument	CFM
Filter-01	16x16	Baffle	1.62		163	163	Velgrid	264
Filter-02	16x16	Baffle	1.62		167	167	Velgrid	271
Filter-03	16x16	Baffle	1.62		171	171	Velgrid	277
Filter-04	16x16	Baffle	1.62		176	176	Velgrid	285
Filter-05	16x16	Baffle	1.62		191	191	Velgrid	309
Filter-06	16x16	Baffle	1.62		183	183	Velgrid	296
Filter-07	16x16	Baffle	1.62		163	163	Velgrid	256
Filter-08	16x16	Baffle	1.62		169	169	Velgrid	274
Filter-09	16x16	Baffle	1.62		171	171	Velgrid	277
Totals:	-	-	-	-	-	-	-	**2509**

SYSTEM/UNIT: EF-02

Tested By: Omar Carreno
Date: 4/2/2024

Design Airflow (CFM)	
Design Airflow	150
Design Grille Airflow	150

Unit Design Data	
Submittal Make	Captiveaire
Submittal Model #	DR12HFA
Submittal Airflow	150
Sched./Sub. Volts	120
Sched./Sub. Phase	1
Sched./Sub. HP	.18
Submittal BHP	Not Provided

Design Static Pressures (in wg)	
Design External SP	0.60
Submittal Total SP	Not Provided

Motor Nameplate Data	
Motor Make (tag)	TELCO GREEN
Motor Frame (tag)	Not Listed
Motor HP (tag)	1/4
Motor RPM (tag)	1800
Motor Volts (tag)	115
Motor Phase (tag)	1
Motor Amps (tag)	Not Listed
Motor S.F. (tag)	Not Listed
Mtr % PF (tag)	Not Listed
Mtr % Eff. (tag)	Not Listed
Other Motor Data	-

Drive Data	
Drive Type	Direct Drive
Sheave Type	-
Fan Sheave Make	-
Fan Shv Mod# or Size (in)	-
Fan Sheave Bore (in.)	-
Motor Sheave Make	-

Final Airflow (CFM)	
Actual Airflow	151
Actual Grille Airflow	151
Fan CFM Test Method	Inlet Total
Test Method Ak (sq ft)	Not Applicable

Unit Data	
Make (tag)	Captive Aire
Model # (tag)	DR12HFA
Serial # (tag)	5952631
Unit Location	Roof
Unit Discharge	Upblast
Fan Service	Exhaust
Fan Type	Centrifugal (AF)
Fan Discharge	Upblast
Fan Arrangement	SWSI

Fan Design Data	
Submittal Motor RPM	Not Provided
Submittal Fan RPM	-

Fan Data	
Actual Fan RPM/Speed	1358
Actual Motor RPM	Not Accessible
Speed Cont. Position	70%

Electrical Data	
Measurement Method	Not Accessible
Motor Volts 1	Internal to ECM
Motor Volts 2	-
Motor Volts 3	-
Motor Amps 1	Not Accessible
Motor Amps 2	-
Motor Amps 3	-
Operating HZ	-
Starter Data	Not Applicable
Approx. BHP	

SYSTEM/UNIT: EF-02

Tested By: Omar Carreno
Date: 4/2/2024

Drive Data	
Mtr Shv Mod# or Size (in)	-
Motor Sheave Bore (in.)	-
VP Range	-
Center Distance (in.)	-
No of Belts	-
Belt Make	-
Belt Size	-
Other Data	-

Electrical Data
Corr. Nameplate Amps

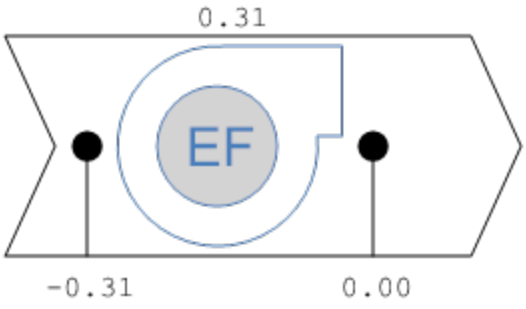
Inspection Data - EF-02

	Verification	Response	Notes	By	Date/Time
1	Fan Rotation is Correct?	Yes		OC	4/2/24 16:43
2	Belts are Tight?	NA		OC	4/2/24 16:43
3	Internal motorized damper is fully opening?	Yes		OC	4/2/24 16:43
4	Motor is operating below the FLA rating?	Yes		OC	4/2/24 16:43
5	Unit free of noticeable noise and vibration?	Yes		OC	4/2/24 16:43
6	There is no major leakage around base of fan?	Yes		OC	4/2/24 16:43
7	Is the motor operating below the motor FLA rating?	Yes		OC	4/2/24 16:43
8	Back draft damper installed and can it fully open?	Yes		OC	4/2/24 16:43

SYSTEM/UNIT: EF-02/Static Profile

Tested By: Omar Carreno
Date: 4/2/2024

Static Pressure Profile



EF-02 Exhaust Inlet Summary

System/Unit	Area Served	Type	Size / Area (in)	Design CFM	Prelim CFM	Final CFM	% Final	Instrument	Ak	Open (sq ft)	Final FPM
E-01	Restroom 2 112	CD	6/6	75	87	74	99	Capture Hood	1.000	1.000	74
E-02	Restroom 1 111	CD	6/6	75	91	77	103	Capture Hood	1.000	1.000	77
	Totals:	**-**	**-**	**150**	**178**	**151**	**101**	**-**	**-**	**-**	**-**

SYSTEM/UNIT: MAU-01

Tested By: Omar Carreno
Date: 4/3/2024

Design Airflow (CFM)	
Design Airflow	1300
Design Grille Airflow	Not Provided

Unit Design Data	
Submittal Make	Captiveaire
Submittal Model #	A1-D.250-15D
Submittal Airflow	1300
Sched./Sub. Volts	208
Sched./Sub. Phase	3
Sched./Sub. HP	1
Submittal BHP	Not Provided

Design Static Pressures (in wg)	
Design External SP	0.50
Submittal Total SP	Not Provided

Motor Nameplate Data	
Motor Make (tag)	TECO
Motor Frame (tag)	143T
Motor HP (tag)	1
Motor RPM (tag)	1750
Motor Volts (tag)	230
Motor Phase (tag)	3
Motor Amps (tag)	2.9
Motor S.F. (tag)	1.15
Mtr % PF (tag)	Not Listed
Mtr % Eff. (tag)	85.5
Other Motor Data	-

Drive Data	
Drive Type	Direct Drive
Sheave Type	-
Fan Sheave Make	-
Fan Shv Mod# or Size (in)	-
Fan Sheave Bore (in.)	-
Motor Sheave Make	-

Final Airflow (CFM)	
Actual Airflow	1324
Actual Grille Airflow	Not Applicable
Fan CFM Test Method	See Kitchen Hood Sheet
Test Method Ak (sq ft)	-

Unit Data	
Make (tag)	Captive Aire
Model # (tag)	A1-D.250-15D
Serial # (tag)	5952631
Unit Location	Roof
Unit Discharge	Upblast
Fan Service	Exhaust
Fan Type	Centrifugal (AF)
Fan Discharge	Upblast
Fan Arrangement	SWSI

Fan Design Data	
Submittal Motor RPM	Not Provided
Submittal Fan RPM	-

Fan Data	
Actual Fan RPM/Speed	51.9 HZ
Actual Motor RPM	Not Accessible
Speed Cont. Position	Not Applicable

Electrical Data	
Measurement Method	VFD Display
Motor Volts 1	213
Motor Volts 2	-
Motor Volts 3	-
Motor Amps 1	2.4
Motor Amps 2	-
Motor Amps 3	-
Operating HZ	74.0
Starter Data	Not Applicable
Approx. BHP	0.77

SYSTEM/UNIT: MAU-01

Tested By: Omar Carreno
Date: 4/3/2024

Drive Data	
Mtr Shv Mod# or Size (in)	-
Motor Sheave Bore (in.)	-
VP Range	-
Center Distance (in.)	-
No of Belts	-
Belt Make	-
Belt Size	-
Other Data	-

Electrical Data	
Corr. Nameplate Amps	3.1

Inspection Data - MAU-01

	Verification	Response	Notes	By	Date/Time
1	Fan Rotation is Correct?	Yes		OC	4/2/24 17:07
2	Belts are Tight?	NA		OC	4/2/24 17:07
3	Internal motorized damper is fully opening?	Yes		OC	4/2/24 17:07
4	Motor is operating below the FLA rating?	Yes		OC	4/2/24 17:07
5	Unit free of noticeable noise and vibration?	Yes		OC	4/2/24 17:07
6	There is no major leakage around base of fan?	Yes		OC	4/2/24 17:07

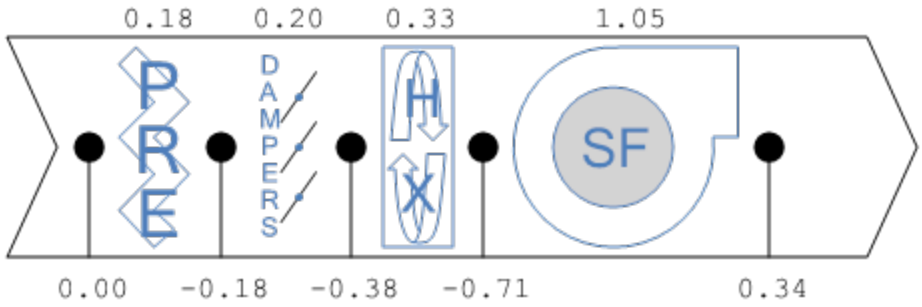
Heat Exchangers - MAU-01

	Verification	Response	Notes	By	Date/Time
1	Gas piping is installed and valves are in on position?	Yes		OC	4/2/24 17:18
2	Heater tested and is functional?	Yes		OC	4/2/24 17:08
3	Heater Operates?	Yes		OC	4/2/24 17:08
4	Flame Status?	Yes		OC	4/2/24 17:08
5	Inlet Air Temp SetPt (Design 55)	55		OC	4/2/24 17:18
6	Discharge Air Temp SetPt (Design 60)	-		OC	4/2/24 17:08
7	Air Flow Switch Sp Actual	0.33		OC	4/2/24 17:08

SYSTEM/UNIT: MAU-01/Static Profile

Tested By: Omar Carreno
Date: 4/3/2024

Static Pressure Profile



SYSTEM/UNIT: MAU-01/Kitchen Hood - Supply-01

Tested By: Omar Carreno
Date: 4/3/2024

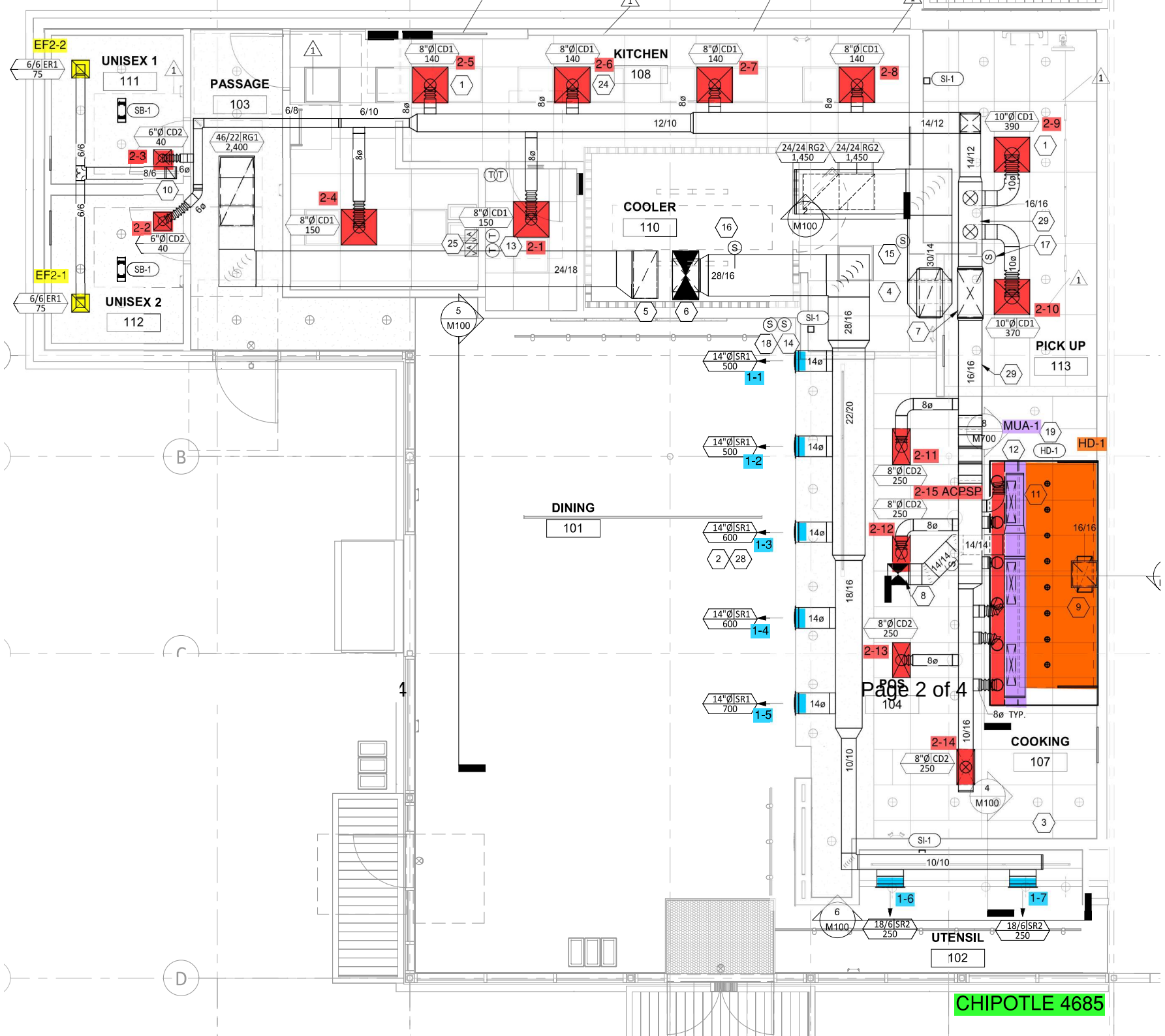
Design Airflow (CFM)	
Des. Make-up Air	1300
Halton Design SP	-

Final Airflow (CFM)	
Act. Make-up Air	1324
Halton Actual SP	-

Filter Data	
MUA Filter (Type 1)	1.63
Qty MUA Filter (Type 1)	3
MUA Filter (Type 2)	-
Qty MUA Filter (Type 2)	-

Test Data	
PSP Length (in)	165
PSP Width (in)	6
Correction Factor	0.85
Total MA Ak (sq ft)	5.84
Avg. MA Velocity (FPM)	227

Kitchen Hood Information	
Manufacturer	Captive-Aire
Test Method	Perforated Supply



CHIPOTLE 4685