Report By:

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

Report: TAB

Function: Test, Adjust, & Balance

Date: 06/17/2025

Completed By: National TAB

PROJECT

06-16-25 CHIPOTLE #5486 SACRAMENTO, CA (FULTON & MARCONI)

2795 FULTON AVE

SACRAMENTO, CA 95821

Client

Chipotle Mexican Grill

610 Newport Center Drive, Suite 1100

Newport Beach, CA 92660

National TAB

Project: 06-16-25 CHIPOTLE #5486 SACRAMENTO, CA (FULTON & MARCONI)

Table Of Contents

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	KITCHEN	3400	3519	2600	2708	800	811	23.5%	23.0%						
RTU-2	DINING	3000	2980	2300	2261	700	719	23.3%	24.1%						
MUA-1	HOOD MUA									1300	1353				
EF-1	HOOD FAN											2550	2566		
EF-2	RESTROOM													150	158
TOTALS		6400	6499	4900	4969	1500	1530			1300	1353	2550	2566	150	158

NET BUILDING AIRFLOW CALCULATION

TOTALS	DESIGN	ACTUAL
TOTAL OA	2800	2883
TOTAL EXHAUST	2700	2724
NET AIRFLOW	100	159

DOOR TESTED	BUILDING PRESSURE MEASUREMENTS (IN. H20)
FRONT	0.0055
SIDE	
REAR	0.0041
AVERAGE	**0.0048**

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

- 01: RTU'S/AHU'S
- 02: EF'S
- 03: MUA
- 04: HOODS
- 05: FINAL TESTS

06-16-25 CHIPOTLE #5486 SACRAMENTO, CA (FULTON & MARCONI)

CheckList Information

Name :	01: RTU'S/AHU'S	**Status :**	Completed
Assigned Organization :	National TAB	**Asset :**	
Requesting Organization :	National TAB		
Created Date :	05/22/2025 - Tara Metcalf - National TAB		
Completed Date :	06/17/2025 - Zack Eismin - National TAB		

CheckList Item Details

RTU's/AHU's

Thermostats installed and have power?	Yes
Comment:	
All diffusers and grilles are installed and match design?	Yes
Comment:	
Deflector plates are removed from 1x1 diffusers on the serve line (double check that this is specified on the diffuser schedule first)	N/A
Comment:	
Economizer blank plate is installed below the ouside air intake (Trane only) (N/A = not applicable)	N/A
Comment:	
Economizers are assembled and functional?	Yes
Comment:	
DCV Max damper opening position is set to minimum?	Yes
Comment:	

Free cooling enthalpy set point set for lowest setting (Typically "D")	Yes
Comment:	
Motors are all operating below the FLA rating?	Yes
Comment:	
Are belts tight?	Yes
Comment:	
If direct drive unit is the speed controller working?	Yes
Comment:	
Is gas piping installed and valves turned on?	Yes
Comment:	
Unit free of noticeable noise and vibration	Yes
Comment:	
Final outside air damper position is marked with permanent marker?	Yes
Comment:	

06-16-25 CHIPOTLE #5486 SACRAMENTO, CA (FULTON & MARCONI)

CheckList Information

Name :	02: EF'S	**Status :**	Completed
Assigned Organization :	National TAB	**Asset :**	
Requesting Organization :	National TAB		
Created Date :	05/22/2025 - Tara Metcalf - National TAB		
Completed Date :	06/17/2025 - Zack Eismin - National TAB		

CheckList Item Details

EF's

Rotation is correct?	Yes
Comment:	
Belts are tight?	N/A
Comment:	
Viroguard installed on hood fan(s)?	Yes
Comment:	
Hinge kit installed installed on hood fan?	Yes
Comment:	
Lean fan 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?	Yes
Comment:	
Unit free of noticeable noise and vibration?	Yes
Comment:	

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CheckList Information

Name :	03: MUA	**Status :**	Completed
Assigned Organization :	National TAB	**Asset :**	
Requesting Organization :	National TAB		
Created Date :	05/22/2025 - Tara Metcalf - National TAB		
Completed Date :	06/17/2025 - Zack Eismin - National TAB		

CheckList Item Details

MUA

Rotation is correct?	Yes
Comment:	
Gas piping is installed and valves are in on position?	Yes
Comment:	
Internal motorized damper is fully opening?	Yes
Comment:	
Motor is operating below the FLA rating?	Yes
Comment:	
Unit free of noticeable noise and vibration?	Yes
Comment:	

06-16-25 CHIPOTLE #5486 SACRAMENTO, CA (FULTON & MARCONI)

CheckList Information

Name :	04: HOODS	**Status :**	Completed
Assigned Organization :	National TAB	**Asset :**	
Requesting Organization :	National TAB		
Created Date :	05/22/2025 - Tara Metcalf - National TAB		
Completed Date :	06/17/2025 - Zack Eismin - National TAB		

CheckList Item Details

HOODS

All hood filters installed and accounted for?	Yes
Comment:	
Hoods are wired and have power?	Yes
Comment:	
Hood is free of alarms?	Yes
Comment:	
Hood is free of damage?	Yes
Comment:	
Quarter or full vertical end panels are installed if specified?	Yes
Comment:	

06-16-25 CHIPOTLE #5486 SACRAMENTO, CA (FULTON & MARCONI)

CheckList Information

Name :	05: FINAL TESTS	**Status :**	Completed
Assigned Organization :	National TAB	**Asset :**	
Requesting Organization :	National TAB		
Created Date :	05/22/2025 - Tara Metcalf - National TAB		
Completed Date :	06/17/2025 - Zack Eismin - National TAB		

CheckList Item Details

FINAL CHECKS

Is space free of drafting?	Yes
Comment:	
Is space comfortable in all areas?	Yes
Comment:	
Is the space free of ventilation noise?	Yes
Comment:	
List kitchen equipment turned on for testing	N/A
Comment:	
List smoke candle type used	
Comment:	
45 SECONDS	

HOOD CAPTURE TEST

Smoke test capture % - Perimeter of hood

Comment:	
100%	
Smoke test capture % - Top of cooking surface	
Comment:	
100%	
WITNESS	
Date test was completed	06/17/2025
Comment:	
TAB tech name / Firm	
Comment:	
ZACK / NATIONAL TAB	
Site super name / Firm	
Comment:	
JOSE / TRI-QUEST	
Owner representative name / Firm (if Applicable)	
Comment:	
N/A	
BUILDING PRESSURE	
Do actual net building airflow, design net building airflow, and pressure coincide? If not why? (All three should either be positive or negative)	Pass
Comment:	
0.0048"	

National TAB

Project: 06-16-25 CHIPOTLE #5486 SACRAMENTO, CA (FULTON & MARCONI)

System/Unit: AHU/RTU

Asset: RTU1 AREA:KITCHEN

Unit Data		
	Design	**Actual**
MFG	CARRIER	CARRIER
Serial Num	-	2623P64526
Model Num	48FEFN12D3M5	48FCDN12A3P5A6F4C0
Type	RTU	RTU
Configuration	VERTICAL	VERTICAL
Num OA Filters 1	-	1
OA Filter Size 1	-	29.5X20.5
Num Final Filter 1	-	4
Final Filter Size 1	-	20X20X2

Motor Data		
	Design	**Actual**
Motor MFG	-	NL
Frame	-	NL
Horsepower	-	NL
Motor Rpm	-	NL
Phase	3	3
Rated Voltage	208	230
Rated Amperage	-	12.6

Drive Data	
	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

Test Data		
	Design	**Actual**
SF CFM	3400	3519
SF RPM	-	1897
RA CFM	2600	2708
OA CFM	800	811
RL Voltage	-	211/211/212
RL Amperage	-	4.8/4.8/4.81
SF Rotation	-	CCW
SF System SetPt	-	6.4VDC
RA Damper Position	-	75%
Min OA Damper Position	-	25%
Min OA Damper Type	-	MOTORIZED
OA Enthalpy Setpt	-	ES5

Performance Data		
	Design	**Actual**
MA Plenum SP	-	-0.56"
Fan Suction SP	-	-0.99"
Fan Discharge SP	-	0.44"
Total ESP	.80"	1.00"
Fan Total SP	-	1.43"

General	
	Actual
Fan Rotation Correct	YES
Unit Filters Clean	YES, CONSTRUCTION FILTERS
Condensate Drain Installed	YES

Completed By: Zack Eismin on 06/17/2025

Unit Data - PHOTO LOG

06/17/2025

National TAB

Project:06-16-25 CHIPOTLE #5486 SACRAMENTO, CA (FULTON & MARCONI)

AHU/RTU

Diffuser Supply (GRD)

RTU1/KITCHEN

Asset									
Asset Name	**Location**	**Type**	**Size**	**DESIGN CFM**	**AK**	**CFM(1)**	**CFM(2)**	**FINAL CFM**	**% to design**
SGRD1	KITCHEN	CD1	12"	400	1	583	401	401	100.3
SGRD2	KITCHEN	CD1	12"	400	1	526	407	407	101.8
SGRD3	KITCHEN	CD1	12"	400	1	422	418	418	104.5
SGRD4	KITCHEN	CD1	12"	400	1	427	401	401	100.3
SGRD5	KITCHEN	CD2	12"	250	1	282	271	271	108.4
SGRD6	KITCHEN	CD2	12"	250	1	257	241	241	96.4
SGRD7	KITCHEN	CD2	12"	250	1	276	269	269	107.6
SGRD8	KITCHEN	CD2	12"	250	1	320	270	270	108.0
SGRD9	KITCHEN	CD2	12"	50	1	104	53	53	106.0
SGRD10	KITCHEN	CD3	6"	50	1	105	47	47	94.0
SGRD11	HOOD AC	ACPSP	165X10	700	5.95	811	741	741	105.9
Total				3400		4113	3519	3519	103.5%

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Project: 06-16-25 CHIPOTLE #5486 SACRAMENTO, CA (FULTON & MARCONI)

System/Unit: AHU/RTU

Asset: RTU2 AREA:DINING

Unit Data		
	Design	**Actual**
MFG	CARRIER	CARRIER
Serial Num	-	2223P61793
Model Num	48FEEN08A3M5	48FCEN08A3M5A6F4C0
Type	RTU	RTU
Configuration	VERTICAL	VERTICAL
Num OA Filters 1	-	1
OA Filter Size 1	-	29.5X20.5
Num Final Filter 1	-	4
Final Filter Size 1	-	20X20X2

Motor Data		
	Design	**Actual**
Motor MFG	-	NL
Frame	-	NL
Horsepower	-	NL
Motor Rpm	-	NL
Phase	3	3
Rated Voltage	208	230
Rated Amperage	-	7.5

Drive Data	
	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

Test Data		
	Design	**Actual**
SF CFM	3000	2980
SF RPM	-	1812
RA CFM	2300	2261
OA CFM	700	719
RL Voltage	-	211/211/211
RL Amperage	-	4.5/4.5/4.5
SF Rotation	-	CCW
SF System SetPt	-	6.1VDC
RA Damper Position	-	76%
Min OA Damper Position	-	24%
Min OA Damper Type	-	MOTORIZED
OA Enthalpy Setpt	-	ES5

Performance Data		
	Design	**Actual**
MA Plenum SP	-	-0.53"
Fan Suction SP	-	-1.01"
Fan Discharge SP	-	0.25"
Total ESP	.80"	0.78"
Fan Total SP	-	1.26"

General	
	Actual
Fan Rotation Correct	YES
Unit Filters Clean	YES, CONSTRUCTION FILTERS
Condensate Drain Installed	YES

Completed By: Zack Eismin on 06/17/2025

Unit Data - PHOTO LOG

06/17/2025

National TAB

Project:06-16-25 CHIPOTLE #5486 SACRAMENTO, CA (FULTON & MARCONI)

AHU/RTU

Diffuser Supply (GRD)

RTU2/DINING

Asset									
Asset Name	**Location**	**Type**	**Size**	**DESIGN CFM**	**AK**	**CFM(1)**	**CFM(2)**	**FINAL CFM**	**% to design**
SGRD1	DINING	SR2	6"	450	1	621	457	457	101.6
SGRD2	DINING	SR2	6"	450	1	511	442	442	98.2
SGRD3	DINING	SR1	12"	450	1	491	461	461	102.4
SGRD4	DINING	SR1	12"	450	1	444	421	421	93.6
SGRD5	DINING	SR1	12"	400	1	337	389	389	97.3
SGRD6	DINING	SR1	12"	400	1	389	399	399	99.8
SGRD7	DINING	SR1	12"	400	1	488	411	411	102.8
Total				3000		3281	2980	2980	99.33%

Completed By: Zack Eismin on 06/17/2025

National TAB

Project: 06-16-25 CHIPOTLE #5486 SACRAMENTO, CA (FULTON & MARCONI)

System/Unit: FAN - Exhaust

Asset: EF1 AREA:HOOD FAN

Unit Data		
	Design	**Actual**
MFG	CAPTIVEAIRE	CAPTIVEAIRE
Model Num	DU180HFA	DU180HFA
Serial Num	-	7051339
Type	UPBLAST/CEILING	UPBLAST
Configuration	VERTICAL	VERTICAL

Motor Data		
	Design	**Actual**
Motor MFG	-	TECO
Frame	-	184T
Horsepower	2	2
Motor Rpm	1221	1165
Phase	3	3
Voltage (rated)	208	230
Amperage (rated)	-	6.56
Service Factor	-	1.15

Test Data		
	Design	**Actual**
CFM	2550	2566
Fan RPM	-	946
Fan Rotation	-	CCW
Motor RPM	-	946
System SetPt	-	48.7HZ
RL Voltage	-	155/155/155
RL Amperage	-	4.58/4.58/4.58
Total ESP	1.450"	1.11"
Fan Inlet SP	-	-1.11"
Fan Discharge SP	-	ATM

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Unit Data - PHOTO LOG

06/17/2025

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Project: 06-16-25 CHIPOTLE #5486 SACRAMENTO, CA (FULTON & MARCONI)

System/Unit: FAN - Exhaust

Asset: EF2 AREA:RESTROOM

Unit Data		
	Design	**Actual**
MFG	CAPTIVEAIRE	CAPTIVEAIRE
Model Num	DR12HFA	DR12HFA
Serial Num	-	7051339
Type	DOWNBLAST	DOWNBLAST
Configuration	VERTICAL	VERTICAL

Motor Data		
	Design	**Actual**
Motor MFG	-	TELCO GREEN
Frame	-	NL
Horsepower	.250	0.25
Motor Rpm	-	1800
Phase	1	1
Voltage (rated)	115	115
Amperage (rated)	-	2.9
Service Factor	-	NL

Test Data		
	Design	**Actual**
CFM	150	158
Fan RPM	-	912
Fan Rotation	-	CCW
Motor RPM	-	912
System SetPt	-	50%
RL Voltage	-	NA
RL Amperage	-	NA
Total ESP	.60"	0.43"
Fan Inlet SP	-	-0.43"
Fan Discharge SP	-	ATM

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Unit Data - PHOTO LOG

06/17/2025

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Project:06-16-25 CHIPOTLE #5486 SACRAMENTO, CA (FULTON & MARCONI)

FAN - Exhaust

Diffuser Ret/Exh (GRD)

EF2/RESTROOM

Asset									
Asset Name	**Location**	**Type**	**Size**	**DESIGN CFM**	**AK**	**CFM(1)**	**CFM(2)**	**FINAL CFM**	**% to design**
EGRD1	RESTROOM	ER1	6"	75	1	158	77	77	102.7
EGRD2	RESTROOM	ER1	6"	75	1	163	81	81	108.0
Total				150		321	158	158	105.33%

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Project: 06-16-25 CHIPOTLE #5486 SACRAMENTO, CA (FULTON & MARCONI)

System/Unit: FAN - Supply

Asset: MUA1 AREA:HOOD MUA

Unit Data		
	Design	**Actual**
MFG	CAPTIVEAIRE	CAPTIVEAIRE
Model Num	A1.D.250-15D	A1.D.250-15D
Serial Num	-	7051339
Type	MUA	MUA
Configuration	VERTICAL	VERTICAL

Motor Data		
	Design	**Actual**
Motor MFG	-	TECO
Frame	-	143T
Horsepower	1	1
Motor Rpm	1221	1740
Phase	3	3
Voltage (rated)	208	230
Amperage (rated)	-	2.90
Service Factor	-	1.15

Gas Heat		
	Design	**Actual**
Heater Operates (y/n)	-	YES
Flame Status (pass/fail)	-	PASS
Inlet Air Temp SetPt	-	55
Discharge Air Temp SetPt	-	60
Air Flow Switch SP Actual	-	0.44"

Test Data		
	Design	**Actual**
CFM	1300	1353
SF RPM	-	1740
Motor RPM	-	1740
SF System SetPt	-	60HZ
RL Voltage	-	211/211/211
RL Amperage	-	2.87/2.87/2.87
Total ESP	-	NA
Fan Discharge SP	-	NA

General	
	Actual
Fan Rotation Correct	YES

Completed By: Zack Eismin on 06/17/2025

Unit Data - PHOTO LOG

06/17/2025

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Project: 06-16-25 CHIPOTLE #5486 SACRAMENTO, CA (FULTON & MARCONI)

System/Unit: Kitchen Hood Type I

Asset: HD1 AREA:KITCHEN HOOD

Unit Data		
	Design	**Actual**
MFG	CAPTIVEAIRE	CAPTIVEAIRE
Model Num	3650-BD-2-ACPSP	3650 BD-2
Job / Serial Num	-	7051339
Type	TYPE I - LOW PROXIMITITY -	TYPE I CANOPY
Hood length	165"	165"
Hood Width	36"	36"
Supply Plenum Type	-	PERFORATED
Supply Plenum Width	9"	9"
Supply Plenum Length	165"	165"

Test Data Exhaust		
	Design	**Actual**
Filter Type	CAPTRATE SOLO FILTER	CAPTRATE SOLO
Filter Size 1	16X16	16X16
Filter Qty 1	9	9
Filter AK factor size 1	1.62	1.62
Filter Total AK Area	14.58	14.58
Filter1 FPM	-	185
Filter2 FPM	-	161
Filter3 FPM	-	174
Filter4 FPM	-	189
Filter5 FPM	-	186
Filter6 FPM	-	186
Filter7 FPM	-	176
Filter8 FPM	-	172
Filter9 FPM	-	157
Filter Ave FPM(corr)	-	176
CFM	2550	2566

Cooking Equipment	
	Actual
Item 1	FLAT TOP GRILL
Item 2	STOVE TOP RANGE
Item 3	RICE COOKER
Item 4	FRYER
Item 5	

Test Data Supply		
	Design	**Actual**
Total Area	10.31	10.31
Kv factor (Vel)	.81	0.81
Num of Readings	-	12
Reading1 FPM	-	166
Reading2 FPM	-	167
Reading3 FPM	-	179
Reading4 FPM	-	185
Reading5 FPM	-	147
Reading6 FPM	-	172
Reading7 FPM	-	141
Reading8 FPM	-	176
Reading9 FPM	-	175
Reading10 FPM	-	158
Reading11 FPM	-	141
Reading12 FPM	-	143
Ave FPM(corr)	-	162
CFM	1300	1353

Completed By: Zack Eismin on 06/17/2025

Unit Data - PHOTO LOG

06/17/2025