Report By:

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

Report: TAB REPORT

Function: Test, Adjust, & Balance

Date: 03/08/2025

Completed By: National TAB

PROJECT

03-03-25 CHIPOTLE #5147 HOPE MILLS, NC

2814 TOWN CENTER DR

HOPE MILLS, NC 28306

Client

Chipotle Mexican Grill

610 Newport Center Drive, Suite 1100

Newport Beach, CA 92660

National TAB

Project: 03-03-25 CHIPOTLE #5147 HOPE MILLS, NC

Table Of Contents

Section	Page #
Summary	3
Balance Schedule	4
Checklist Data	5
AHU/RTU	14
FAN - Exhaust	18
FAN - Supply	21
Kitchen Hood Type I	22
GRD Layout	23

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	4000	4090	3500	3558	500	532	12.5%	13.0%						
RTU-2	DINING	4000	4270	3000	3214	1000	1056	25.0%	24.7%						
MUA-1	KITCHEN HD									1300	1369				
EF-1	KITCHEN HD											2550	2595		
EF-2	RESTROOMS													150	149
TOTALS		8000	8360	6500	6772	1500	1588			1300	1369	2550	2595	150	149

NET BUILDING AIRFLOW CALCULATION

TOTALS	DESIGN	ACTUAL
TOTAL OA	2800	2957
TOTAL EXHAUST	2700	2744
NET AIRFLOW	100	213

DOOR TESTED	BUILDING PRESSURE MEASUREMENTS (IN. H20)
FRONT	0.009
SIDE	0.011
REAR	0.006
AVERAGE	**0.0087**

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

03-03-25 CHIPOTLE #5147 HOPE MILLS, NC

CheckList Information

Name :	01: RTU'S/AHU'S	**Status :**	Completed
Assigned Organization :	National TAB	**Asset :**	
Requesting Organization :	National TAB		
Created Date :	03/03/2025 - Brianna Biggs - National TAB		
Completed Date :	03/03/2025 - Ben Searles - 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)	Yes
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:	
ES5	
Motors are all operating below the FLA rating?	Yes
Comment:	
Are belts tight?	N/A
Comment:	
If direct drive unit is the speed controller working?	
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?	
Comment:	

03-03-25 CHIPOTLE #5147 HOPE MILLS, NC

CheckList Information

Name :	02: EF’S	**Status :**	Completed
Assigned Organization :	National TAB	**Asset :**	
Requesting Organization :	National TAB		
Created Date :	03/03/2025 - Brianna Biggs - National TAB		
Completed Date :	03/08/2025 - Ben Searles - 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:	

03-03-25 CHIPOTLE #5147 HOPE MILLS, NC

CheckList Information

Name :	03: MUA	**Status :**	Completed
Assigned Organization :	National TAB	**Asset :**	
Requesting Organization :	National TAB		
Created Date :	03/03/2025 - Brianna Biggs - National TAB		
Completed Date :	03/08/2025 - Ben Searles - 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:	

03-03-25 CHIPOTLE #5147 HOPE MILLS, NC

CheckList Information

Name :	04: HOODS	**Status :**	Completed
Assigned Organization :	National TAB	**Asset :**	
Requesting Organization :	National TAB		
Created Date :	03/03/2025 - Brianna Biggs - National TAB		
Completed Date :	03/08/2025 - Ben Searles - 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:	

03-03-25 CHIPOTLE #5147 HOPE MILLS, NC

CheckList Information

Name :	05: FINAL TESTS	**Status :**	Completed
Assigned Organization :	National TAB	**Asset :**	
Requesting Organization :	National TAB		
Created Date :	03/03/2025 - Brianna Biggs - National TAB		
Completed Date :	03/08/2025 - Ben Searles - 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	Yes
Comment:	
List smoke candle type used	
Comment:	
45 SECOND	

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	03/03/2025

Comment:

TAB tech name / Firm

Comment:

BEN S / NTAB

Site super name / Firm

Comment:

KENNY / CADE INC

Owner representative name / Firm (if Applicable)

Comment:

CHIPOTLE

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:

National TAB

Project: 03-03-25 CHIPOTLE #5147 HOPE MILLS, NC

System/Unit: AHU/RTU

Asset: RTU1 AREA:KITCHEN

Unit Data		
	Design	**Actual**
MFG	CARRIER	CARRIER
Serial Num	-	0424P63015
Model Num	48FCFN12	48FCFN12
Type	RTU	RTU
Configuration	VERTICAL	VERTICAL
Num OA Filters 1	-	1
OA Filter Size 1	-	34.5X19
Num Final Filter 1	-	4
Final Filter Size 1	-	20X20X2

Motor Data		
	Design	**Actual**
Motor MFG	-	N/L
Frame	-	N/L
Horsepower	-	N/L
Motor Rpm	-	N/L
Phase	3	3
Rated Voltage	208	208
Rated Amperage	-	12.6

Test Data		
	Design	**Actual**
SF CFM	4000	4090
SF RPM	-	2004
RA CFM	3500	3558
OA CFM	500	532
RL Voltage	-	210 / 208 / 208
RL Amperage	-	6.6 / 6.7 / 7.0
SF Rotation	-	CCW
SF System SetPt	-	C 50
RA Damper Position	-	7.10 V
Min OA Damper Position	-	2.90 V
Min OA Damper Type	-	ECON
OA Enthalpy Setpt	-	ES5

Performance Data		
	Design	**Actual**
MA Plenum SP	-	-0.92”
Fan Suction SP	-	-1.43”
Fan Discharge SP	-	0.86”
Total ESP	0.80"	1.78”
Fan Total SP	-	2.29”

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

Completed By: Ben Searles on 03/04/2025

Unit Data - PHOTO LOG

03/08/2025

National TAB

Project:03-03-25 CHIPOTLE #5147 HOPE MILLS, NC

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	14"	500	1	535	548	511	102.2
SGRD2	KITCHEN	CD1	14"	500	1	365	403	501	100.2
SGRD3	SERVELINE	CD2	8"	250	1	157	166	228	91.2
SGRD4	SERVELINE	CD2	8"	250	1	145	203	230	92.0
SGRD5	SERVELINE	CD2	8"	250	1	175	228	241	96.4
SGRD6	SERVELINE	CD2	8"	250	1	185	225	235	94.0
SGRD7	KITCHEN HOOD	ACPSP	165X6	700	6.88	962	842	761	108.7
SGRD8	KITCHEN	CD1	8"	350	1	441	351	366	104.6
SGRD9	OFFICE	CD1	12"	150	1	119	144	163	108.7
SGRD10	BOH	CD1	14"	450	1	531	406	421	93.6
SGRD11	BOH	CD1	14"	450	1	470	413	433	96.2
Total				4100		4085	3929	4090	99.76%

National TAB

Project: 03-03-25 CHIPOTLE #5147 HOPE MILLS, NC

System/Unit: AHU/RTU

Asset: RTU2 AREA:DINING

Unit Data		
	Design	**Actual**
MFG	CARRIER	CARRIER
Serial Num	-	0424P63086
Model Num	48FCFN12	48FCFN12
Type	RTU	RTU
Configuration	VERTICAL	VERTICAL
Num OA Filters 1	-	1
OA Filter Size 1	-	34.5X19
Num Final Filter 1	-	4
Final Filter Size 1	-	20X20X2

Motor Data		
	Design	**Actual**
Motor MFG	-	N/L
Frame	-	N/L
Horsepower	-	N/L
Motor Rpm	-	N/L
Phase	3	3
Rated Voltage	208	208
Rated Amperage	-	12.6

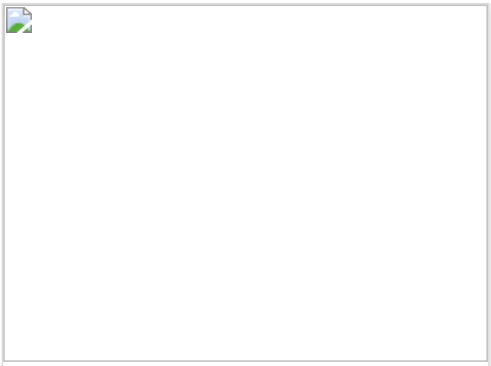
Test Data		
	Design	**Actual**
SF CFM	4000	4270
SF RPM	-	1980
RA CFM	3000	3214
OA CFM	1000	1056
RL Voltage	-	209 / 210 / 209
RL Amperage	-	6.9 / 7.1 / 7.0
SF Rotation	-	CCW
SF System SetPt	-	C 50
RA Damper Position	-	5.25 V
Min OA Damper Position	-	4.75 V
Min OA Damper Type	-	ECON
OA Enthalpy Setpt	-	ES5

Performance Data		
	Design	**Actual**
MA Plenum SP	-	-0.84”
Fan Suction SP	-	-1.32”
Fan Discharge SP	-	0.94”
Total ESP	0.80"	1.78”
Fan Total SP	-	2.26”

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

Completed By: Ben Searles on 03/03/2025

Unit Data - PHOTO LOG



03/08/2025

National TAB

Project:03-03-25 CHIPOTLE #5147 HOPE MILLS, NC

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	ORDERING	SR1	14"	450	1.07	515	424	463	102.9
SGRD2	ORDERING	SR1	14"	500	1.07	530	520	546	109.2
SGRD3	ORDERING	SR1	14"	600	1.07	722	637	658	109.7
SGRD4	ORDERING	SR1	14"	700	1.07	840	768	738	105.4
SGRD5	ORDERING	SR1	14"	800	1.07	834	965	872	109.0
SGRD6	DINING	SR2	18/6	500	0.75	374	370	532	106.4
SGRD7	DINING	SR2	18/6	450	0.75	484	377	461	102.4
Total				4000		4299	4061	4270	106.75%

National TAB

Project: 03-03-25 CHIPOTLE #5147 HOPE MILLS, NC

System/Unit: FAN - Exhaust

Asset: EF1 AREA:KITCHEN HOOD

Unit Data		
	Design	**Actual**
MFG	CAPTIVEAIRE	CAPTIVEAIRE
Model Num	DU180HFA	DU180HFA
Serial Num	-	6941851
Type	UPBLAST	UPBLAST
Configuration	VERTICAL	VERTICAL

Motor Data		
	Design	**Actual**
Motor MFG	-	WEG
Frame	-	182T
Horsepower	2	2
Motor Rpm	-	1170
Phase	3	3
Voltage (rated)	208	208
Amperage (rated)	-	6.44
Service Factor	-	1.25

Test Data		
	Design	**Actual**
CFM	2550	2595
Fan RPM	1222	1186
Fan Rotation	-	CCW
Motor RPM	-	1186
System SetPt	-	60.8 HZ
RL Voltage	-	209 / 209 / 208
RL Amperage	-	5.4 VFD
Total ESP	1.450"	0.87”
Fan Inlet SP	-	-0.87”
Fan Discharge SP	-	ATM

Completed By: Ben Searles on 03/03/2025

Unit Data - PHOTO LOG

03/08/2025

National TAB

Project: 03-03-25 CHIPOTLE #5147 HOPE MILLS, NC

System/Unit: FAN - Exhaust

Asset: EF2 AREA:RESTROOMS

Unit Data		
	Design	**Actual**
MFG	CAPTIVEAIRE	CAPTIVEAIRE
Model Num	DR12HFA	DR12HFA
Serial Num	-	6941851
Type	DOWBLAST	DOWNBLAST
Configuration	VERTICAL	VERTICAL

Motor Data		
	Design	**Actual**
Motor MFG	-	N/L
Frame	-	N/L
Horsepower	0.250	0.25
Motor Rpm	-	N/L
Phase	1	1
Voltage (rated)	115	115
Amperage (rated)	-	N/L
Service Factor	-	N/L

Test Data		
	Design	**Actual**
CFM	150	149
Fan RPM	1282	930
Fan Rotation	-	CCW
Motor RPM	-	930
System SetPt	-	50P
RL Voltage	-	[1]
RL Amperage	-	[1]
Total ESP	0.600"	0.12”
Fan Inlet SP	-	-0.12”
Fan Discharge SP	-	ATM

Completed By: Ben Searles on 03/03/2025

Notes:
[1] LIGHTSWITCH STYLE CONTROLLER - UNABLE TO READ VOLTS AND AMPS

Written By: Ben Searles on 03/03/2025

Unit Data - PHOTO LOG

03/08/2025

National TAB

Project:03-03-25 CHIPOTLE #5147 HOPE MILLS, NC

FAN - Exhaust

Diffuser Ret/Exh (GRD)

EF2/RESTROOMS

Asset									
Asset Name	**Location**	**Type**	**Size**	**DESIGN CFM**	**AK**	**CFM(1)**	**CFM(2)**	**FINAL CFM**	**% to design**
EGRD1	RESTROOM	ER1	6/6	75	1	147	72	80	106.7
EGRD2	RESTROOM	ER1	6/6	75	1	73	43	69	92.0
Total				150		220	115	149	99.33%

National TAB

Project: 03-03-25 CHIPOTLE #5147 HOPE MILLS, NC

System/Unit: FAN - Supply

Asset: MUA1 AREA:KITCHEN HOOD

Unit Data		
	Design	**Actual**
MFG	CAPTIVEAIRE	CAPTIVEAIRE
Model Num	A1-D.250-15D	A1-D.250-15D
Serial Num	-	6941851
Type	MUA	MUA
Configuration	VERTICAL	VERTICAL

Motor Data		
	Design	**Actual**
Motor MFG	-	TECO
Frame	-	143T
Horsepower	1	1
Motor Rpm	-	1740
Phase	3	3
Voltage (rated)	208	208
Amperage (rated)	-	2.9
Service Factor	-	1.15

Gas Heat		
	Design	**Actual**
Heater Operates (y/n)	-	Y
Flame Status (pass/fail)	-	PASS
Inlet Air Temp SetPt	-	55
Discharge Air Temp SetPt	-	60
Air Flow Switch SP Actual	-	0.31”

Test Data		
	Design	**Actual**
CFM	1300	1369
SF RPM	1548	1395
Motor RPM	-	1395
SF System SetPt	-	40.1 HZ
RL Voltage	-	209 / 208 / 209
RL Amperage	-	2.3 VFD
Total ESP	-	0.33”
Fan Discharge SP	-	0.33”

General	
	Actual
Fan Rotation Correct	YES

Completed By: Ben Searles on 03/03/2025

Unit Data - PHOTO LOG

03/08/2025

National TAB

Project: 03-03-25 CHIPOTLE #5147 HOPE MILLS, NC

System/Unit: Kitchen Hood Type I

Asset: HD1 AREA:

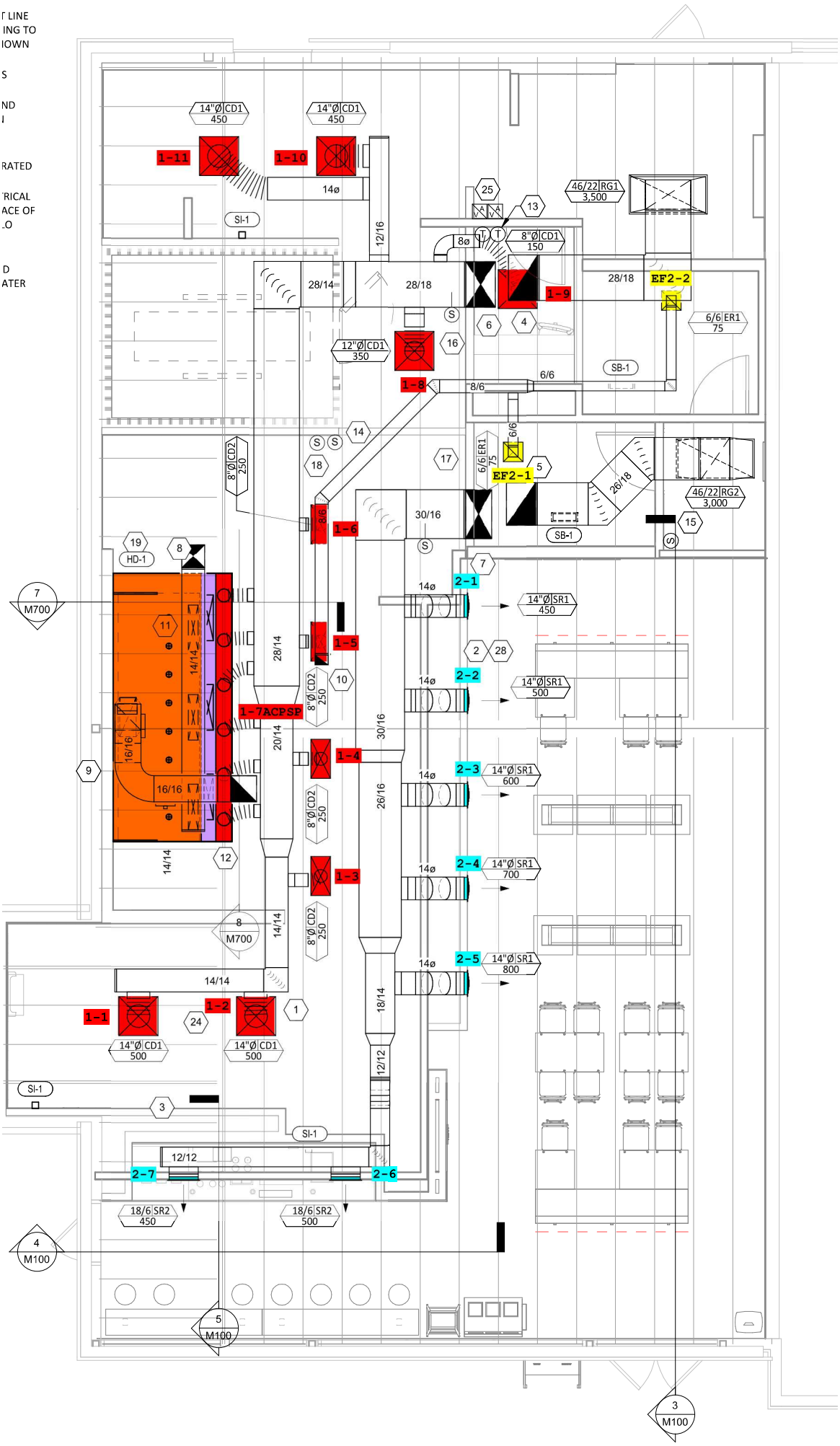
Unit Data		
	Design	**Actual**
MFG	CAPTIVEAIRE	CAPTIVEAIRE
Model Num	5424 ND-2ACPSP-F	5424 ND-2ACPSP-F
Job / Serial Num	-	6941851
Type	TYPE I CANOPY	TYPE I CANOPY
Hood length	153"	153”
Hood Width	54"	54”
Supply Plenum Type	-	ACPSP
Supply Plenum Width	9"	9”
Supply Plenum Length	165"	165”

Test Data Exhaust		
	Design	**Actual**
Filter Type	CAPTRATE SOLO	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	-	163
Filter2 FPM	-	174
Filter3 FPM	-	168
Filter4 FPM	-	184
Filter5 FPM	-	201
Filter6 FPM	-	194
Filter7 FPM	-	177
Filter8 FPM	-	170
Filter9 FPM	-	175
Filter Ave FPM(corr)	-	178
CFM	2550	2595

Cooking Equipment	
	Actual
Item 1	GRILL
Item 2	STOVE
Item 3	FRYER
Item 4	WARMER
Item 5	

Test Data Supply		
	Design	**Actual**
Total Area	10.31	10.31
Kv factor (Vel)	0.81"	0.81”
Num of Readings	-	9
Reading1 FPM	-	131
Reading2 FPM	-	159
Reading3 FPM	-	183
Reading4 FPM	-	139
Reading5 FPM	-	149
Reading6 FPM	-	173
Reading7 FPM	-	191
Reading8 FPM	-	183
Reading9 FPM	-	169
Ave FPM(corr)	-	164
CFM	1300	1369

Completed By: Ben Searles on 03/03/2025



1 HVAC FLOOR PLAN