Report By:

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

Report: TAB Report

Function: Test, Adjust, & Balance

Date: 03/12/2025

Completed By: National TAB

PROJECT

03-10-25 CHIPOTLE #5020 HARRISONBURG, VA

1657 STONE SPRING RD

HARRISONBURG, VA 22801

Client

Chipotle Mexican Grill

610 Newport Center Drive, Suite 1100

Newport Beach, CA 92660

National TAB

Project: 03-10-25 CHIPOTLE #5020 HARRISONBURG, VA

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.

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

- Construction Filters still installed
- RTU-1: Missing damper

03-10-25 CHIPOTLE #5020 HARRISONBURG, VA

Project Issue Information

Issue Name : Construction Filters still installed

Description : Construction Filters are still installed in RTU-1 and RTU-2. Recommend that pleated filters with a MERV rating of 8 or higher be installed prior to stores opening.

Created By : National TAB

Assigned To : National TAB - David Annan

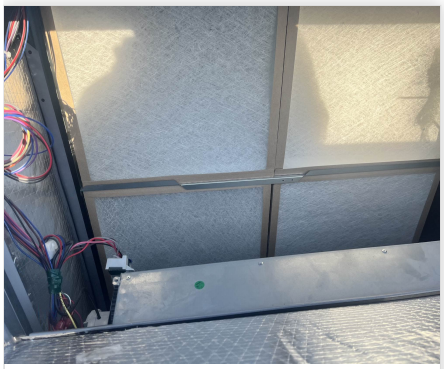
Status : Open

Priority : Low

Asset Tag :

Originated Date : 03/17/2025 - David Annan - National TAB

Project Issue File Details



03/17/2025

03-10-25 CHIPOTLE #5020 HARRISONBURG, VA

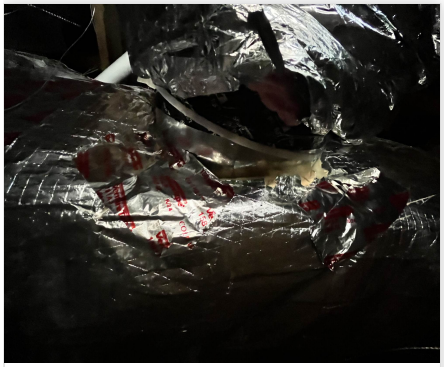
Project Issue Information

Issue Name : RTU-1: Missing damper

Description : There is a missing damper for SGRD 1-7. Unable to complete diffuser balance. Recommend that damper be installed.

Created By :	National TAB	**Assigned To :**	National TAB - David Annan
Status :	Open		
Priority :	High	**Asset Tag :**	
Originated Date :	03/17/2025 - David Annan - National TAB		

Project Issue File Details



03/17/2025

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	3920	3000	2922	1000	998	25.0%	25.5%						
RTU-2	DINING	4000	4022	2900	2909	1100	1113	27.5%	27.7%						
EF-1	HOOD											1900	1928		
EF-2	RESTROOMS													150	158
TOTALS		8000	7942	5900	5831	2100	2111			0	0	1900	1928	150	158

NET BUILDING AIRFLOW CALCULATION

TOTALS	DESIGN	ACTUAL
TOTAL OA	2100	2111
TOTAL EXHAUST	2050	2086
NET AIRFLOW	50	25

DOOR TESTED	BUILDING PRESSURE MEASUREMENTS (IN. H20)
FRONT	0.0023
SIDE	-
REAR	0.0031
AVERAGE	**0.0027**

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: HOODS
- 04: FINAL TESTS

03-10-25 CHIPOTLE #5020 HARRISONBURG, VA

CheckList Information

Name :	01: RTU'S/AHU'S	**Status :**	Completed
Assigned Organization :	National TAB	**Asset :**	
Requesting Organization :	National TAB		
Created Date :	03/03/2025 - Tara Metcalf - National TAB		
Completed Date :	03/12/2025 - David Annan - 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:	
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?	Yes
Comment:	
Is gas piping installed and valves turned on?	N/A
Comment:	
Unit free of noticeable noise and vibration	Yes
Comment:	
Final outside air damper position is marked with permanent marker?	Yes
Comment:	

03-10-25 CHIPOTLE #5020 HARRISONBURG, VA

CheckList Information

Name :	02: EF'S	**Status :**	Completed
Assigned Organization :	National TAB	**Asset :**	
Requesting Organization :	National TAB		
Created Date :	03/03/2025 - Tara Metcalf - National TAB		
Completed Date :	03/12/2025 - David Annan - 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:	

03-10-25 CHIPOTLE #5020 HARRISONBURG, VA

CheckList Information

Name :	03: HOODS	**Status :**	Completed
Assigned Organization :	National TAB	**Asset :**	
Requesting Organization :	National TAB		
Created Date :	03/03/2025 - Tara Metcalf - National TAB		
Completed Date :	03/17/2025 - David Annan - 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:	

03-10-25 CHIPOTLE #5020 HARRISONBURG, VA

CheckList Information

Name :	04: FINAL TESTS	**Status :**	Completed
Assigned Organization :	National TAB	**Asset :**	
Requesting Organization :	National TAB		
Created Date :	03/03/2025 - Tara Metcalf - National TAB		
Completed Date :	03/17/2025 - David Annan - 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:	
Electric Griddle, Electric Stove	
List smoke candle type used	
Comment:	
S102 45 sec emitter	
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	03/12/2025

Comment:

TAB tech name / Firm

Comment:

David Annan/ NTI

Site super name / Firm

Comment:

B and L Construction

Owner representative name / Firm (if Applicable)

Comment:

NA

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: 03-10-25 CHIPOTLE #5020 HARRISONBURG, VA

System/Unit: AHU/RTU

Asset: RTU1 AREA:KITCHEN

Unit Data		
	Design	**Actual**
MFG	CARRIER	CARRIER
Serial Num	-	3124P79976
Model Num	50HCQ-D12	50HCQ-D12C3M5A8W4A0
Type	RTU	RTU
Configuration	VERTICAL	Vertical
Num OA Filters 1	-	1
OA Filter Size 1	-	35X19
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

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	4000	3920
SF RPM	-	1776
RA CFM	3000	2922
OA CFM	1000	998
RL Voltage	-	208/208/209
RL Amperage	-	4.5/4.3/4.0
SF Rotation	-	CCW
RA Damper Position	-	5.4 V
Min OA Damper Position	-	4.6 V
Min OA Damper Type	-	OBD
OA Enthalpy Setpt	-	55 Deg F

Performance Data		
	Design	**Actual**
MA Plenum SP	-	-0.91"
Fan Suction SP	-	-1.22"
Fan Discharge SP	-	0.20"
Total ESP	0.80"	1.01"
Fan Total SP	-	1.42"

General	
	Actual
Fan Rotation Correct	Yes
Unit Filters Clean	Construction Filters
Condensate Drain Installed	Yes

Completed By: David Annan on 03/12/2025

Unit Data - PHOTO LOG

03/17/2025

National TAB

Project:03-10-25 CHIPOTLE #5020 HARRISONBURG, VA

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	434	-	434	108.5
SGRD2	KITCHEN	CD1	12"	400	1	395	-	395	98.8
SGRD3	KITCHEN	CD1	12"	400	1	371	-	371	92.8
SGRD4	KITCHEN	CD1	12"	400	1	427	-	427	106.8
SGRD5	KITCHEN	CD1	8"	150	1	154	-	154	102.7
SGRD6	KITCHEN	CD1	8"	250	1	521	-	521	208.4
SGRD7	KITCHEN	CD2	12"	400	1	250	-	250	62.5
SGRD8	KITCHEN	CD2	8"	250	1	185	-	185	74.0
SGRD9	KITCHEN	CD2	8"	250	1	184	-	184	73.6
SGRD10	KITCHEN	CD2	8"	250	1	206	-	206	82.4
SGRD11	KITCHEN	CD1	12"	425	1	412	-	412	96.9
SGRD12	KITCHEN	CD1	12"	425	1	381	--	381	89.6
Total				4000		3920	0	3920	98%

Completed By: David Annan on 03/12/2025

National TAB

Project: 03-10-25 CHIPOTLE #5020 HARRISONBURG, VA

System/Unit: AHU/RTU

Asset: RTU2 AREA:DINING

Unit Data		
	Design	**Actual**
MFG	CARRIER	CARRIER
Serial Num	-	3124P79975
Model Num	50HCQ-D12	50HCQ-D12C3M5A8W4A0
Type	RTU	RTU
Configuration	VERTICAL	Vertical
Num OA Filters 1	-	1
OA Filter Size 1	-	35X19
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

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	4000	4022
SF RPM	-	1805
RA CFM	2900	2909
OA CFM	1100	1113
RL Voltage	-	208/208/208
RL Amperage	-	4.6/4.8/4.0
SF Rotation	-	CCW
RA Damper Position	-	4.8 V
Min OA Damper Position	-	5.2 V
Min OA Damper Type	-	OBD
OA Enthalpy Setpt	-	55 Deg F

Performance Data		
	Design	**Actual**
MA Plenum SP	-	-0.84"
Fan Suction SP	-	-1.13"
Fan Discharge SP	-	0.31"
Total ESP	.80"	1.15"
Fan Total SP	-	1.44"

General	
	Actual
Fan Rotation Correct	Yes
Unit Filters Clean	Construction Filters
Condensate Drain Installed	Yes

Completed By: David Annan on 03/12/2025

Unit Data - PHOTO LOG

03/17/2025

National TAB

Project:03-10-25 CHIPOTLE #5020 HARRISONBURG, VA

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	CD3	6"	50	1	71	51	51	102.0
SGRD2	DINING	SR1	14"	450	0.93	478	447	447	99.3
SGRD3	DINING	SR1	14"	500	0.93	673	510	510	102.0
SGRD4	DINING	SR1	14"	600	0.93	688	595	595	99.2
SGRD5	DINING	SR1	14"	700	0.93	723	733	733	104.7
SGRD6	DINING	SR1	14"	800	0.93	744	837	837	104.6
SGRD7	DINING	SR2	18"x6"	500	0.64	393	454	454	90.8
SGRD8	DINING	SR2	18"x6"	400	0.64	456	395	395	98.8
Total				4000		4226	4022	4022	100.55%

Completed By: David Annan on 03/12/2025

National TAB

Project: 03-10-25 CHIPOTLE #5020 HARRISONBURG, VA

System/Unit: FAN - Exhaust

Asset: EF1 AREA:HOOD

Unit Data		
	Design	**Actual**
MFG	CATIVAIRE	CATIVAIRE
Model Num	DU8FHFA	DU8FHFA
Serial Num	-	6715094
Type	UPBLAST	Upblast
Configuration	VERTICAL	Vertical

Motor Data		
	Design	**Actual**
Motor MFG	-	Telco
Frame	-	N/L
Horsepower	1	1
Motor Rpm	-	1800
Phase	1	1
Voltage (rated)	115	115
Amperage (rated)	-	11.6

Test Data		
	Design	**Actual**
CFM	1900	1928
Fan RPM	1496	1170
Fan Rotation	-	CCW
Motor RPM	-	1170
System SetPt	-	65%
RL Voltage	-	121
RL Amperage	-	2.5
Total ESP	1.200"	0.50"
Fan Inlet SP	-	-0.50"
Fan Discharge SP	-	ATM

Completed By: David Annan on 03/12/2025

Unit Data - PHOTO LOG

03/17/2025

National TAB

Project: 03-10-25 CHIPOTLE #5020 HARRISONBURG, VA

System/Unit: FAN - Exhaust

Asset: EF2 AREA:RESTROOM

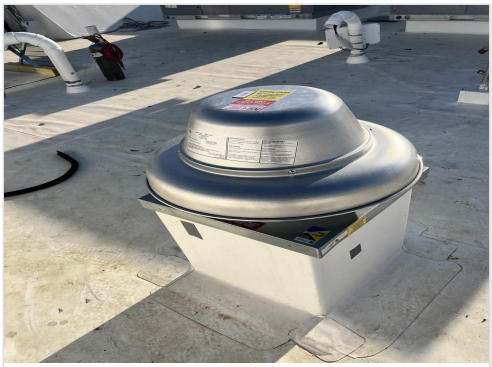
Unit Data		
	Design	**Actual**
MFG	CAPTIVEAIR	CAPTIVEAIR
Model Num	DR12HFA	DR12HFA
Serial Num	-	6715984
Type	DOWNBLAST	Downblast
Configuration	VERTICAL	Vertical

Motor Data		
	Design	**Actual**
Motor MFG	-	Telco
Frame	-	N/L
Horsepower	.250	0.250
Motor Rpm	-	1800
Phase	1	1
Voltage (rated)	115	115
Amperage (rated)	-	2.9

Test Data		
	Design	**Actual**
CFM	150	158
Fan RPM	1200	704
Fan Rotation	-	CCW
Motor RPM	-	704
System SetPt	-	41%
RL Voltage	-	121
RL Amperage	-	0.7
Total ESP	0.500"	0.19"
Fan Inlet SP	-	-0.19"
Fan Discharge SP	-	ATM

Completed By: David Annan on 03/12/2025

Unit Data - PHOTO LOG



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National TAB

Project:03-10-25 CHIPOTLE #5020 HARRISONBURG, VA

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	6/6	75	1	150	87	81	108.0
EGRD2	RESTROOM	ER1	6/6	75	1	186	83	77	102.7
Total				150		336	170	158	105.33%

Completed By: David Annan on 03/12/2025

National TAB

Project: 03-10-25 CHIPOTLE #5020 HARRISONBURG, VA

System/Unit: Kitchen Hood Type I

Asset: HD1 AREA:HOOD

Unit Data		
	Design	**Actual**
MFG	CAPTIVEAIR	CAPTIVEAIR
Model Num	5424 ND-2	5424 ND-2
Job / Serial Num	-	6715094
Type	TYPE I-CANOPY	Type I
Hood length	112"	112"
Hood Width	54"	54"

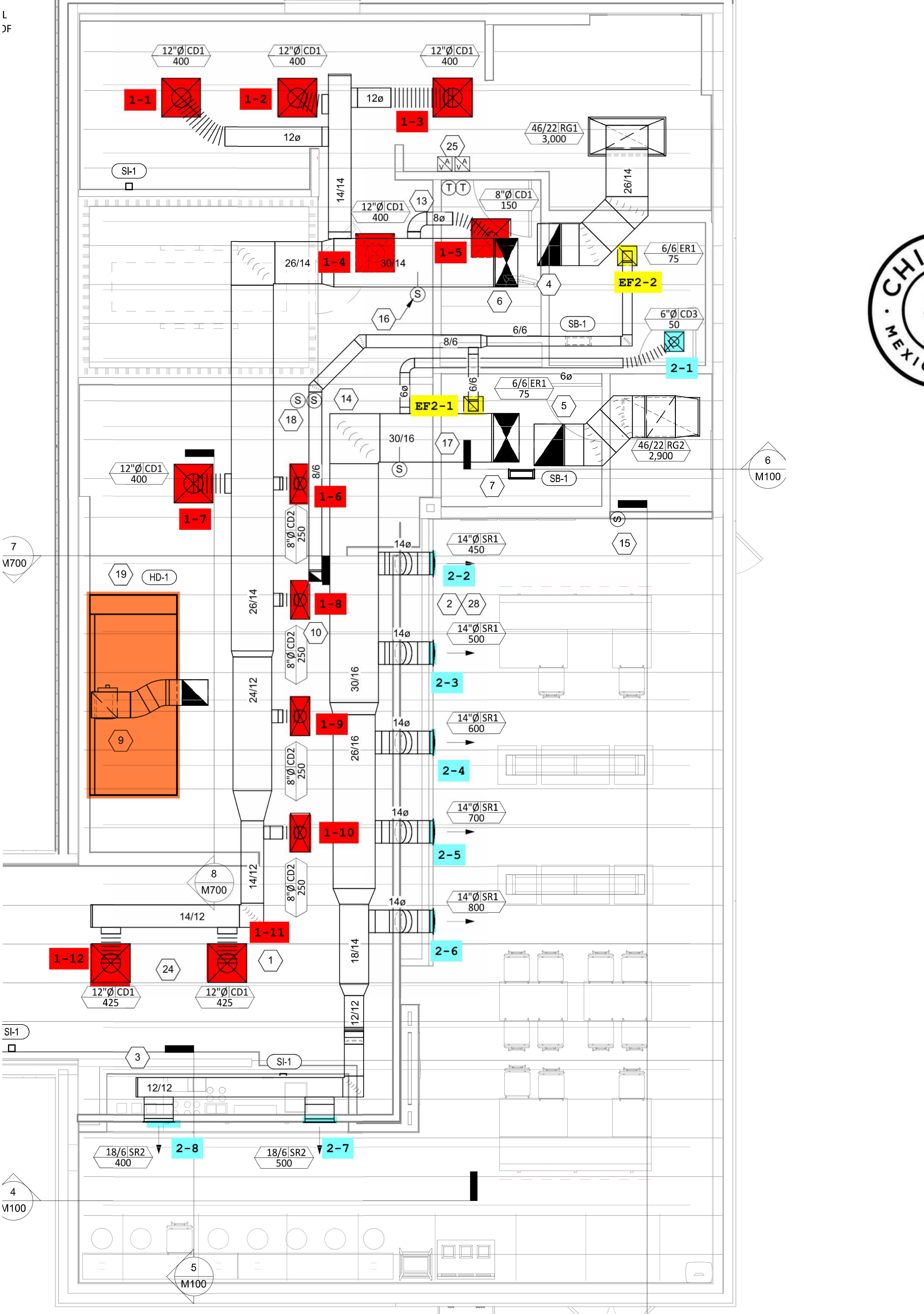
Test Data Exhaust		
	Design	**Actual**
Filter Type	CAPTRATE SOLO FILTER	Captrate Solo
Filter Size 1	16X16	16X16
Filter Qty 1	7	7
Filter AK factor size 1	1.62	1.62
Filter Total AK Area	11.34	11.34
Filter1 FPM	-	159
Filter2 FPM	-	163
Filter3 FPM	-	195
Filter4 FPM	-	176
Filter5 FPM	-	174
Filter6 FPM	-	169
Filter7 FPM	-	154
Filter Ave FPM(corr)	-	170
CFM	1900	1928

Cooking Equipment	
	Actual
Item 1	Electric Griddle
Item 2	Electric Stove

Completed By: David Annan on 03/12/2025

Unit Data - PHOTO LOG

03/17/2025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1-11
1-12
2-1
2-2
2-3
2-4
2-5
2-6
2-7
2-8
EF2-1
EF2-2
12"Ø CD1 400
12"Ø CD1 425
8"Ø CD1 150
6"Ø CD3 50
8"Ø CD2 250
14"Ø SR1 450
14"Ø SR1 500
14"Ø SR1 600
14"Ø SR1 700
14"Ø SR1 800
18/6 SR2 400
18/6 SR2 500
46/22 RG1 3,000
46/22 RG2 2,900
6/6 ER1 75
SI-1
SB-1
HD-1
6 M100
7 M700
8 M700
4 M100
5 M100
3 M100