Report By:

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

Report: TAB Report

Function: Test, Adjust, & Balance

Date: 05/02/2025

Completed By: National TAB

PROJECT

04-21-25 SAFEWAY #1535 TEMPE, AZ

1515 E. ELLIOT RD

TEMPE , AZ

Client

TRS-SESCO LLC

721-A Park Centre Dr

Kernersville, NC 27284

National TAB

Project: 04-21-25 SAFEWAY #1535 TEMPE, AZ

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.

Issue List

- AC-1 & AC-2 NO OUTSIDE AIR VENTS INSTALLED
- EF-9 NOT FUNCTIONAL
- MUA DOES NOT EXIST

04-21-25 SAFEWAY #1535 TEMPE, AZ

Project Issue Information

Issue Name : AC-1 & AC-2 NO OUTSIDE AIR VENTS INSTALLED

Description : Unable to set outside air for units AC-1 & AC-2. Both units do not have OA vents installed preventing from outside air from being set. Recommend installing outside air vents and dampers so outside air can be balanced.

Created By : National TAB

Assigned To : National TAB - Dan Hertenstein

Status : Open

Priority : Medium

Asset Tag :

Originated Date : 05/02/2025 - David Nicolas Sanchez - National TAB

Project Issue File Details

05/02/2025

05/02/2025

04-21-25 SAFEWAY #1535 TEMPE, AZ

Project Issue Information

Issue Name :	EF-9 NOT FUNCTIONAL		
Description :	EF-9 not functional. Unit has 119 Volts connected to motor. Unit unable to start and be adjusted.		
Created By :	National TAB	**Assigned To :**	National TAB - Dan Hertenstein
Status :	Open		
Priority :	Urgent	**Asset Tag :**	
Originated Date :	05/01/2025 - David Nicolas Sanchez - National TAB		

04-21-25 SAFEWAY #1535 TEMPE, AZ

Project Issue Information

Issue Name : MUA DOES NOT EXIST

Description : MUA does not exist on rooftop as mentioned on plans. Unable to balance unit.

Created By : National TAB

Assigned To : National TAB - Dan Hertenstein

Status : Open

Priority : InfoOnly

Asset Tag :

Originated Date : 05/02/2025 - David Nicolas Sanchez - National TAB

Project Issue File Details

05/02/2025

CheckList List

- STEP 1: INITIAL WALKTHRU
- STEP 2: UNIT DATA AND EVAL
- STEP 3: TEST, ADJUST AND BALANCE
- STEP 4: FINAL TESTS

04-21-25 SAFEWAY #1535 TEMPE, AZ

CheckList Information

Name :	STEP 1: INITIAL WALKTHRU	**Status :**	Completed
Assigned Organization :	National TAB	**Asset :**	
Requesting Organization :	National TAB		
Created Date :	04/15/2025 - Nicole Seever - National TAB		
Completed Date :	05/06/2025 - David Nicolas Sanchez - National TAB		

CheckList Item Details

INITIAL SITE WALKTHROUGH

All diffusers and grilles are installed and match design?	N/A
Comment: Unable to properly check. Updated plans were not provided.	
All hood filters installed and accounted for?	N/A
Comment:	
Hoods are wired and have power?	N/A
Comment:	
Hood is free of alarms?	N/A
Comment:	
Thermostats have power?	Yes
Comment:	

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

Comment:

Yes

04-21-25 SAFEWAY #1535 TEMPE, AZ

CheckList Information

Name :	STEP 2: UNIT DATA AND EVAL	**Status :**	Completed
Assigned Organization :	National TAB	**Asset :**	
Requesting Organization :	National TAB		
Created Date :	04/15/2025 - Nicole Seever - National TAB		
Completed Date :	05/06/2025 - David Nicolas Sanchez - 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?	N/A
Comment:	
DCV Max damper opening position is set to minimum?	N/A
Comment:	
Free cooling enthalpy set point set for lowest setting (Typically "D")	N/A
Comment:	
Motors are all operating below the FLA rating?	Yes
Comment:	

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?	Yes

Comment:

Unit free of noticeable noise and vibration	Yes

Comment:

EF's

Rotation is correct?	Yes

Comment:

Belts are tight?

Comment:

N/A

Grease cup installed on hood fan?	Yes

Comment:

Hinge kit installed installed on hood fan?	N/A

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?	N/A

Comment:

Unable to access wires.

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

Comment:

Unit free of noticeable noise and vibration?	Yes

Comment:

MUA

Rotation is correct?	N/A

Comment:

Gas piping is installed and valves are in on position?	N/A

Comment:

Heater tested and is functional?	N/A

Comment:

Internal motorized damper is fully opening?	N/A

Comment:

Motor is operating below the FLA rating?	N/A

Comment:

Unit free of noticeable noise and vibration?	N/A

Comment:

HOODS

Kitchen equipment installed in proper places?	N/A

Comment:

Can kitchen equipment be turned on for final smoke test?	N/A

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

04-21-25 SAFEWAY #1535 TEMPE, AZ

CheckList Information

Name :	STEP 3: TEST, ADJUST AND BALANCE	**Status :**	Completed
Assigned Organization :	National TAB	**Asset :**	
Requesting Organization :	National TAB		
Created Date :	04/15/2025 - Nicole Seever - National TAB		
Completed Date :	05/06/2025 - David Nicolas Sanchez - National TAB		

CheckList Item Details

TEST, ADJUST, AND BALANCE ALL EQUIPMENT:

DURING TESTING MAKE NOTE OF THE FOLLOWING:

Is space free of drafting?	Yes
Comment:	
Is space comfortable in all areas?	Yes
Comment:	
Is the space free of ventilation noise?	Yes
Comment:	

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

Comment:

NA

04-21-25 SAFEWAY #1535 TEMPE, AZ

CheckList Information

Name :	STEP 4: FINAL TESTS	**Status :**	Completed
Assigned Organization :	National TAB	**Asset :**	
Requesting Organization :	National TAB		
Created Date :	04/15/2025 - Nicole Seever - National TAB		
Completed Date :	05/06/2025 - David Nicolas Sanchez - National TAB		

CheckList Item Details

FINAL TESTS

HOOD CAPTURE TEST

List equipment turned on for testing

Comment:

N/A

List smoke candle type used

Comment:

N/A

Smoke test capture - Perimeter of hood

Comment:

N/A

Smoke test capture - Top of cooking surface

Comment:

N/A

WITNESS

Date test was completed	N/A

Comment:

TAB tech name / Firm

Comment:

David Nicolas Sanchez / National TAB Intelligence

Site super name / Firm

Comment:

N/A

Owner representative name / Firm (if Applicable)

Comment:

N/A

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

Comment:

N/A

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

Thermostats are programmed?	Yes

Comment:

National TAB

Project: 04-21-25 SAFEWAY #1535 TEMPE, AZ

System/Unit: AHU/RTU

Asset: AC-1 AREA:MAIN SALES

Unit Data		
	Design	**Actual**
MFG	NA	NL
Serial Num	-	A E442 -0124 -01
Model Num	NA	LA045
Type	AC	AC
Configuration	VERTICAL	VERTICAL
Num OA Filters 1	-	N/A
OA Filter Size 1	-	N/A
Num Final Filter 1	-	24
Final Filter Size 1	-	16X20X2

Motor Data		
	Design	**Actual**
Motor MFG	-	BALDOR
Frame	-	286T
Horsepower	-	20
Motor Rpm	-	1180
Phase	-	3
Rated Voltage	-	230/460
Rated Amperage	-	54/27

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	20980	20539
SF RPM	-	786
RA CFM	16830	16561
OA CFM	4150	3978
RL Voltage	-	419/419/420
RL Amperage	-	16.57@VFD
SF Rotation	-	CCW
SF System SetPt	-	40HZ
RA Damper Position	-	45%
Min OA Damper Position	-	55%
Min OA Damper Type	-	POTENTIOMETER
OA Enthalpy Setpt	-	N/A

Performance Data		
	Design	**Actual**
MA Plenum SP	-	-0.52”
Fan Suction SP	-	NA
Fan Discharge SP	-	0.35”
Total ESP	-	NA
Fan Total SP	-	NA

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

Completed By: David Nicolas Sanchez on 05/01/2025

Unit Data - PHOTO LOG

05/08/2025

National TAB

Project: 04-21-25 SAFEWAY #1535 TEMPE, AZ

System/Unit: AHU/RTU

Asset: AC-2 AREA:BAKERY

Unit Data		
	Design	**Actual**
MFG	NA	CARRIER
Serial Num	-	1524C09547
Model Num	NA	50GCJ04A2M5A6U1F0
Type	-	RTU
Configuration	-	VERTICAL
Num OA Filters 1	-	N/A
OA Filter Size 1	-	N/A
Num Final Filter 1	-	2
Final Filter Size 1	-	16X25X2
Num Final Filter 2	-	
Final Filter Size 2	-	

Motor Data		
	Design	**Actual**
Motor MFG	-	NL
Frame	-	NL
Horsepower	-	NL
Motor Rpm	-	NL
Phase	-	1
Rated Voltage	-	208
Rated Amperage	-	5.1

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	1000	1082
SF RPM	-	1469
RA CFM	-	1082
OA CFM	-	0
RL Voltage	-	207
RL Amperage	-	2.46
SF Rotation	-	CCW
SF System SetPt	-	C
RA Damper Position	-	N/A
Min OA Damper Position	-	N/A
Min OA Damper Type	-	N/A
OA Enthalpy Setpt	-	N/A

Performance Data		
	Design	**Actual**
MA Plenum SP	-	-0.27”
Fan Suction SP	-	-0.37”
Fan Discharge SP	-	0.33”
Total ESP	-	0.60”
Fan Total SP	-	0.70”

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

Completed By: David Nicolas Sanchez on 05/01/2025

Unit Data - PHOTO LOG

05/02/2025

National TAB

Project: 04-21-25 SAFEWAY #1535 TEMPE, AZ

System/Unit: AHU/RTU

Asset: AC-3 AREA:PHARMACY

Unit Data		
	Design	**Actual**
MFG	CARRIER	CARRIER
Serial Num	-	4222C04700
Model Num	48HJEDD4	48FCDA04A2A6A
Type	AC	AC
Configuration	VERTICAL	VERTICAL
Num OA Filters 1	-	N/A
OA Filter Size 1	-	N/A
Num Final Filter 1	-	2
Final Filter Size 1	-	16X25X2

Motor Data		
	Design	**Actual**
Motor MFG	-	NL
Frame	-	NL
Horsepower	-	NL
Motor Rpm	-	NL
Phase	3	3
Rated Voltage	460	460
Rated Amperage	-	1.2

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	1000	1029
SF RPM	-	1921
RA CFM	750	1029
OA CFM	250	0
RL Voltage	-	478/477/480
RL Amperage	-	0.93/0.95/0.98
SF Rotation	-	CCW
SF System SetPt	-	C
RA Damper Position	-	N/A
Min OA Damper Position	-	N/A
Min OA Damper Type	-	N/A
OA Enthalpy Setpt	-	N/A

Performance Data		
	Design	**Actual**
MA Plenum SP	-	0.38”
Fan Suction SP	-	-0.57”
Fan Discharge SP	-	0.14”
Total ESP	0.60"	0.52"
Fan Total SP	-	0.71"

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

Completed By: David Nicolas Sanchez on 04/25/2025

Unit Data - PHOTO LOG

05/08/2025

National TAB

Project: 04-21-25 SAFEWAY #1535 TEMPE, AZ

System/Unit: FAN - Exhaust

Asset: EF7 AREA:BAKERY OVEN

Unit Data		
	Design	**Actual**
MFG	COOK	COOK
Model Num	135R4B	150VH17D VF 150 VCRH
Serial Num	-	296SK85095
Type	UPBLAST	UPBLAST
Configuration	VERTICAL	VERTICAL

Motor Data		
	Design	**Actual**
Motor MFG	-	VARI-FLOW
Frame	-	NL
Horsepower	0.33	1/4
Motor Rpm	-	1341
Phase	1	1
Voltage (rated)	115	120
Amperage (rated)	-	3.2
Service Factor	-	NL

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

Test Data		
	Design	**Actual**
CFM	1000	986
Fan RPM	-	1346
Fan Rotation	-	CCW
Motor RPM	-	1346
RL Voltage	-	119
RL Amperage	-	NA
Suction ESP	-	0.56”
Discharge ESP	-	ATMS
Total ESP	0.625"	-0.56”

Completed By: David Nicolas Sanchez on 05/06/2025

Unit Data - PHOTO LOG

05/02/2025

National TAB

Project: 04-21-25 SAFEWAY #1535 TEMPE, AZ

System/Unit: FAN - Exhaust

Asset: EF8 AREA:BAKERY OVEN

Unit Data		
	Design	**Actual**
MFG	COOK	COOK
Model Num	135R4B	150VH17D VF 150 VCRH
Serial Num	-	296SK85095
Type	UPBLAST	UPBLAST
Configuration	VERTICAL	VERTICAL

Motor Data		
	Design	**Actual**
Motor MFG	-	VARI-FLOW
Frame	-	NL
Horsepower	0.33"	1/4
Motor Rpm	-	1341
Phase	1	1
Voltage (rated)	115	120
Amperage (rated)	-	3.2
Service Factor	-	NL

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

Test Data		
	Design	**Actual**
CFM	1000	1037
Fan RPM	-	1211
Fan Rotation	-	CCW
Motor RPM	-	1211
RL Voltage	-	119
RL Amperage	-	NA
Suction ESP	-	0.52”
Discharge ESP	-	ATMS
Total ESP	0.625"	0.52”

Completed By: David Nicolas Sanchez on 05/01/2025

Unit Data - PHOTO LOG

05/02/2025

National TAB

Project: 04-21-25 SAFEWAY #1535 TEMPE, AZ

System/Unit: FAN - Exhaust

Asset: EF9 AREA:JANATOR CLOSET

Unit Data		
	Design	**Actual**
MFG	COOK	COOK
Model Num	GC-140	101C17D0R60VF 101 ACE
Serial Num	-	296PK85095
Type	CEILING	UPBLAST
Configuration	VERTICAL	VERTICAL

Motor Data		
	Design	**Actual**
Motor MFG	-	VARI-FLOW
Frame	-	NL
Horsepower	70 WATTS	1/6
Motor Rpm	-	1725
Phase	1	1
Voltage (rated)	120	120
Amperage (rated)	-	2.4
Service Factor	-	NL

Test Data		
	Design	**Actual**
CFM	100	0
Fan RPM	-	0
Fan Rotation	-	CCW
Motor RPM	-	0
System SetPt	-	0
RL Voltage	-	119
RL Amperage	-	0
Total ESP	0.125"	0
Fan Inlet SP	-	0
Fan Discharge SP	-	0

Completed By: David Nicolas Sanchez on 05/01/2025

Unit Data - PHOTO LOG

05/02/2025

National TAB

Project: 04-21-25 SAFEWAY #1535 TEMPE, AZ

System/Unit: FAN - Supply

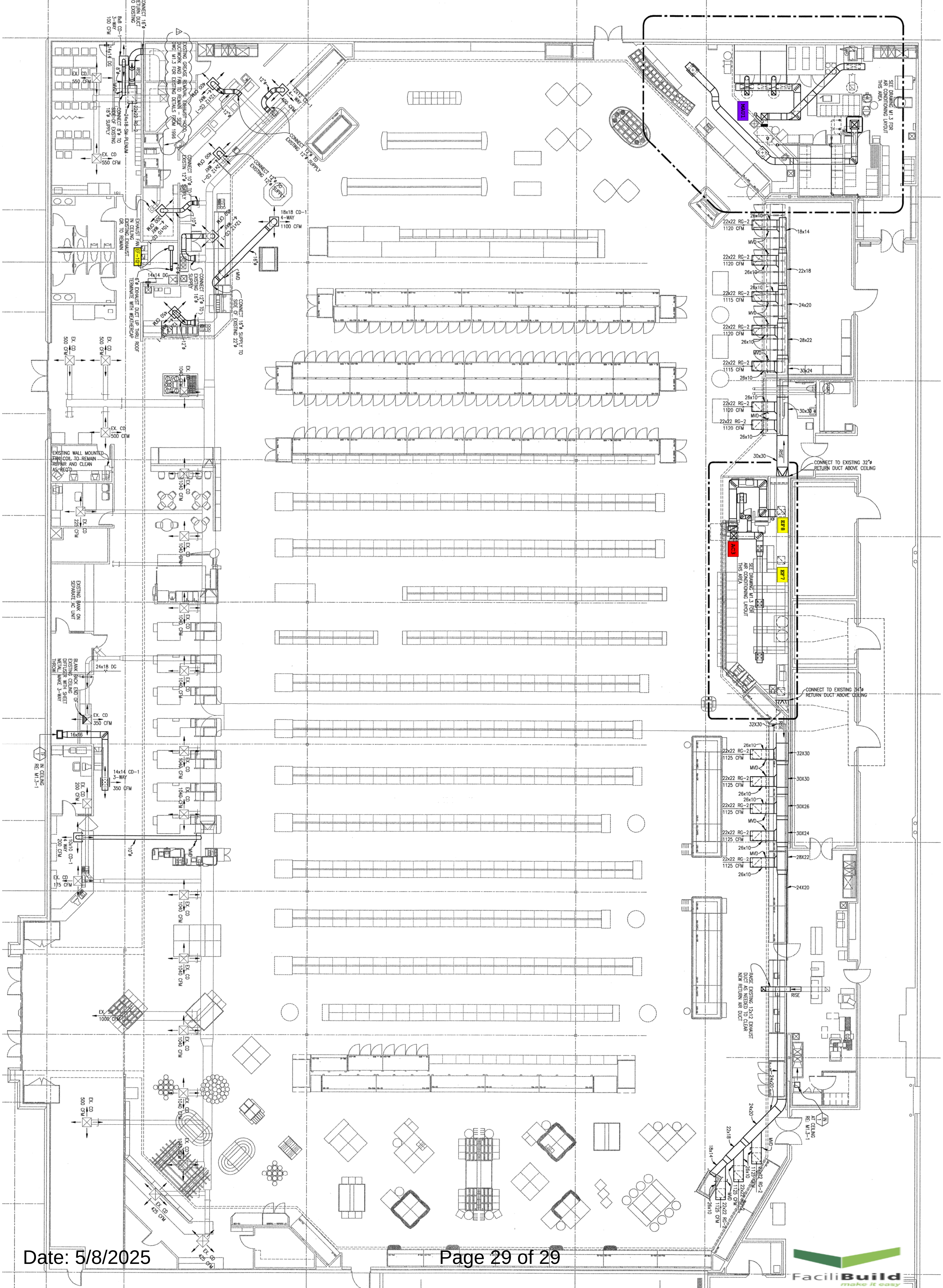
Asset: MAU1 AREA:BAKERY

Unit Data		
	Design	**Actual**
MFG	AERO COOL	N/A
Model Num	NA	N/A
Serial Num	-	N/A
Type	MAU	MUA
Configuration	HORIZONTAL	N/A

Completed By: David Nicolas Sanchez on 05/01/2025

Notes:
Unit does not exist.

Written By: David Nicolas Sanchez on 05/02/2025


18x18 CD-1
4-WAY
1100 CFM
EXISTING WALL MOUNTED FAN COIL TO REMAIN REPAIR AND CLEAN AS REQ'D
EX. CD
500 CFM
EX. CD
225 CFM
EXISTING BANK ON SEPARATE A/C UNIT
24x18 DG
BLANK BACK END OF EXISTING CEILING DIFFUSER WITH SHEET METAL. MAKE 3-WAY THROW
EX. CD
350 CFM
16x16
14x14 CD-1
3-WAY
350 CFM
EX. CD
200 CFM
EX. CD
175 CFM
EX. SR
1000 CFM
EX. CD
1040 CFM
EX. CD
425 CFM
22x22 RG-2
1120 CFM
22x22 RG-2
1115 CFM
22x22 RG-2
1125 CFM
26x10
MVD
18x14
22x18
24x20
28x22
30x24
30x30
32x30
30X26
28X22
24X20
RISE
CONNECT TO EXISTING 32"ø RETURN DUCT ABOVE CEILING
CONNECT TO EXISTING 34"ø RETURN DUCT ABOVE CEILING
SEE DRAWING M1.3 FOR AIR CONDITIONING LAYOUT THIS AREA
EF-8
EF-7
RAISE EXISTING 12x12 EXHAUST DUCT AS NEEDED TO CLEAR NEW RETURN AIR DUCT