Report By:

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

Report: TAB REPORT

Function: Test, Adjust, & Balance

Date: 12/18/2023

PROJECT

09-25-23 CARMAX #7281 - BAKERSFIELD, CA

6801 COLONY ST

BAKERSFIELD, CA 93307

Client

Comfort Systems USA

9450 W Wingfoot Rd

Houston, TX 77041

National TAB

Project: 09-25-23 CARMAX #7281 - BAKERSFIELD, CA

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.

Facility Identification and TAB Requirements
The mechanical equipment to be tested, adjusted, and balanced includes all RTU's and EF's on the Test and Balance Scope on the mechanical drawings.

Standard RTU’s
Each of the RTU’s were measured at their terminal devices utilizing a flow hood or via total traverse. The sum of these readings is equal to the total flow for that particular unit. The total flow of each RTU was then adjusted to within tolerance of the specified design. Outside airflow was measured by reading the inlet with a velocity grid times the area of the filter. Any equipment that fell outside of this tolerance is noted throughout the report.

Bypass RTU's
The Bypass RTU's were measured by first closing the bypass damper completed. By doing this, the outside airflow is equal to the total flow for the unit. The airflow was measured using a velgrid at the outdoor air intake and multiplying by the free area of the filters. Adjustments made to the motor sheave in order to get airflow within tolerance of design. The bypass damper is then adjusted to so that bypass and OA flows are within tolerance.

ERV RTU's
The supply air portion of the ERV is 100% OA that is supplied to the space via two fans in series. The airflow was measured by reading the intake air filter with a velgrid and multiplying by the free area of the filter. Adjustments were made to the airflow by adjusting the motor sheaves to balance airflow within design tolerances. The exhaust system has one fan and was measured via either traverse or by reading the inlets with a velgrid and multiplying by the free area of the filter.

Exhaust Fans
The exhaust fans were measured by reading each air device with a flow hood or via a velgrid reading times the free area of the inlets. 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 tolernace of design. Any equipment that fell outside of this tolerance is noted throughout the report.

CheckList List

- TECH - SITE PICTURES

09-25-23 CARMAX #7281 - BAKERSFIELD, CA

CheckList Information

Name :	TECH - SITE PICTURES	**Status :**	Not Completed
Assigned Organization :	National TAB	**Asset :**	
Requesting Organization :	National TAB		
Created Date :	10/13/2023 - Brian Turnbough - National TAB		

CheckList Item Details

STORE FRONT

Comment:

20231013_173442
10/14/2023

RTU-1

Comment:

20231013_164434
10/13/2023

RTU-2

Comment:

20231013_164449
10/13/2023

RTU-3

Comment:

20231013_164651
10/13/2023

RTU-4

Comment:

20231013_164718
10/14/2023

RTU-5

Comment:

20231013_164623
10/14/2023

RTU-6

Comment:

20231013_164651
10/14/2023

RTU-7

Comment:

20231013_164718
10/14/2023

RTU-8

Comment:

20231013_164821
10/14/2023

RTU-9

Comment:

20231013_164859
10/14/2023

RTU-10

Comment:

20231013_165009
10/14/2023

RTU-11

Comment:

20231013_165036
10/14/2023

RTU-12

Comment:

20231013_165111
10/14/2023

RTU-13

Comment:

20231013_165204
10/14/2023

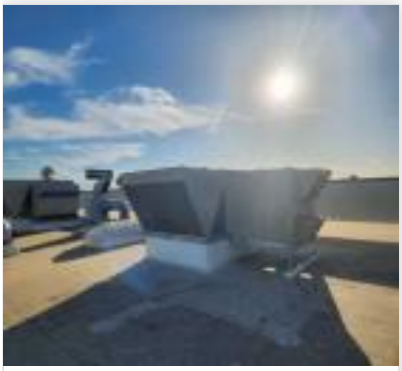
RTU-14

Comment:

20231013_165227
10/14/2023

RTU-15

Comment:



20231013_165235
10/14/2023

RTU-16

Comment:

20231013_165301
10/14/2023

RTU-17

Comment:

20231013_165327
10/14/2023

RTU-18

Comment:

20231013_165441
10/14/2023

RTU-19

Comment:

20231013_165520
10/14/2023

RTU-20

Comment:

20231013_165615
10/14/2023

RTU-21

Comment:

20231013_165637
10/14/2023

National TAB

Project: 09-25-23 CARMAX #7281 - BAKERSFIELD, CA

System/Unit: AHU/RTU

Asset: RTU1 AREA:Showroom

Unit Data		
	Design	**Actual**
MFG	Lennox	LENNOX
Serial Num	-	5622F07000
Model Num	LGH120H4M	LGH120H4MM4G
Type	RTU	RTU
Configuration	Vertical	VERTICAL
Num OA Filters 1	-	2
OA Filter Size 1	-	14X23
Num Final Filter 1	-	4
Final Filter Size 1	-	20X25X2

Motor Data		
	Design	**Actual**
Motor MFG	-	US MOTOR
Frame	-	184TZ
Horsepower	5.0	5.0
Motor Rpm	-	1765
Phase	3	3
Rated Voltage	480	460
Rated Amperage	-	6.5

Drive Data		
	Design	**Actual**
Motor Sheave Size	-	5"
Motor Bore Size	-	1-3/16"
Motor Sheave SetPt	-	1 TURN OPEN
Fan Sheave Size	-	7"
Fan Sheave Bore	-	7/8"
Belt CL Distance	-	21.5"
Num of Belts	-	1
Belt Size	-	BX57
Belt Alignment	-	VERIFIED

Test Data		
	Design	**Actual**
SF CFM	4500	4921
SF RPM	-	1080
RA CFM	3950	4342
OA CFM	550	579
RL Voltage	-	475/472/477
RL Amperage	-	6.2/6.0/5.9
SF Rotation	-	CCW
RA Damper Position	-	65%
Min OA Damper Position	-	35%
Min OA Damper Type	-	MOTORIZED
OA Enthalpy Setpt	-	N/A

Performance Data		
	Design	**Actual**
MA Plenum SP	-	-0.78"
Fan Suction SP	-	-1.41"
Fan Discharge SP	-	0.44"
Total ESP	1.43	1.22"
Fan Total SP	-	1.85"

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

Completed By: Zack Eismin on 10/12/2023

National TAB

Project: 09-25-23 CARMAX #7281 - BAKERSFIELD, CA

System/Unit: AHU/RTU

Asset: RTU2 AREA:Showroom

Unit Data		
	Design	**Actual**
MFG	Lennox	LENNOX
Serial Num	-	5622F07001
Model Num	LGH120H4M	LGH120H4MM4G
Type	RTU	RTU
Configuration	Vertical	VERTICAL
Num OA Filters 1	-	2
OA Filter Size 1	-	14X23
Num Final Filter 1	-	4
Final Filter Size 1	-	20X25X2

Motor Data		
	Design	**Actual**
Motor MFG	-	US MOTOR
Frame	-	184TZ
Horsepower	5.0	5
Motor Rpm	-	1765
Phase	3	3
Rated Voltage	480	460
Rated Amperage	-	6.5

Drive Data		
	Design	**Actual**
Motor Sheave Size	-	5"
Motor Bore Size	-	1-3/16"
Motor Sheave SetPt	-	5 TURNS OPEN
Fan Sheave Size	-	7"
Fan Sheave Bore	-	7/8"
Belt CL Distance	-	21.5"
Num of Belts	-	1
Belt Size	-	BX57
Belt Alignment	-	VERIFIED

Test Data		
	Design	**Actual**
SF CFM	4500	4911
SF RPM	-	1140
RA CFM	3950	4320
OA CFM	550	591
RL Voltage	-	472/474/475
RL Amperage	-	6.2/5.9/5.8
SF Rotation	-	CCW
RA Damper Position	-	70%
Min OA Damper Position	-	30%
Min OA Damper Type	-	MOTORIZED
OA Enthalpy Setpt	-	N/A

Performance Data		
	Design	**Actual**
MA Plenum SP	-	-0.98"
Fan Suction SP	-	-1.61"
Fan Discharge SP	-	0.79"
Total ESP	1.43"	1.77"
Fan Total SP	-	2.4"

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

Completed By: Zack Eismin on 10/12/2023

National TAB

Project: 09-25-23 CARMAX #7281 - BAKERSFIELD, CA

System/Unit: AHU/RTU

Asset: RTU3 AREA:Buyers

Unit Data		
	Design	**Actual**
MFG	Lennox	LENNOX
Serial Num	-	5622G06954
Model Num	LGH060H4EU5G	LGH048H4ES5G
Type	RTU	RTU
Configuration	Vertical	VERTICAL
Num OA Filters 1	-	1
OA Filter Size 1	-	14X29
Num Final Filter 1	-	4
Final Filter Size 1	-	16X20X2

Motor Data		
	Design	**Actual**
Motor MFG	-	NL
Frame	-	NL
Horsepower	3/4	0.75
Motor Rpm	-	NL
Phase	3	1
Rated Voltage	480	460
Rated Amperage	-	3.1

Drive Data		
	Design	**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	1400	1529
SF RPM	-	100%
RA CFM	1120	1228
OA CFM	280	301
RL Voltage	-	472
RL Amperage	-	2.45
SF Rotation	-	CCW
RA Damper Position	-	87%
Min OA Damper Position	-	13%
Min OA Damper Type	-	MOTORIZED
OA Enthalpy Setpt	-	N/A

Performance Data		
	Design	**Actual**
MA Plenum SP	-	-0.13"
Fan Suction SP	-	-0.31"
Fan Discharge SP	-	0.69"
Total ESP	0.80"	0.82"
Fan Total SP	-	1.00"

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

Completed By: Zack Eismin on 10/12/2023

National TAB

Project: 09-25-23 CARMAX #7281 - BAKERSFIELD, CA

System/Unit: AHU/RTU

Asset: RTU4 AREA:Customer

Unit Data		
	Design	**Actual**
MFG	Lennox	LENNOX
Serial Num	-	5622G07044
Model Num	LGH060H4EU5G	LGH060H4HEU5G
Type	RTU	RTU
Configuration	Vertical	VERTICAL
Num OA Filters 1	-	1
OA Filter Size 1	-	14X29
Num Final Filter 1	-	4
Final Filter Size 1	-	20X20X2
Final Filter Size 2	-	

Motor Data		
	Design	**Actual**
Motor MFG	-	NL
Frame	-	NL
Horsepower	1.0	1
Motor Rpm	-	NL
Phase	3	1
Rated Voltage	480	460
Rated Amperage	-	3.7

Drive Data		
	Design	**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	2000	1871
SF RPM	-	NA
RA CFM	1725	1582
OA CFM	275	289
RL Voltage	-	472
RL Amperage	-	2.9
SF Rotation	-	CCW
RA Damper Position	-	70%
Min OA Damper Position	-	30%
Min OA Damper Type	-	MOTORIZED
OA Enthalpy Setpt	-	NA

Performance Data		
	Design	**Actual**
MA Plenum SP	-	-0.19"
Fan Suction SP	-	-0.36"
Fan Discharge SP	-	0.17"
Total ESP	0.80"	0.36"
Fan Total SP	-	0.53"

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

Completed By: Zack Eismin on 10/12/2023

National TAB

Project: 09-25-23 CARMAX #7281 - BAKERSFIELD, CA

System/Unit: AHU/RTU

Asset: RTU5 AREA:Business

Unit Data		
	Design	**Actual**
MFG	Lennox	LENNOX
Serial Num	-	5622G07047
Model Num	LGH074H4T	LGH074H4TU1G
Type	RTU	RTU
Configuration	Vertical	VERTICAL
Num OA Filters 1	-	1
OA Filter Size 1	-	14X29
Num Final Filter 1	-	4
Final Filter Size 1	-	20X20X2
Num Final Filter 2	-	
Final Filter Size 2	-	

Test Data		
	Design	**Actual**
SF CFM	2400	2557
SF RPM	-	936
RA CFM	2100	2246
OA CFM	300	311
RL Voltage	-	471/471/472
RL Amperage	-	2.7/2.5/2.5
SF Rotation	-	CCW
RA Damper Position	-	75%
Min OA Damper Position	-	25%
Min OA Damper Type	-	MOTORIZED
OA Enthalpy Setpt	-	N/A

Motor Data		
	Design	**Actual**
Motor MFG	-	US MOTOR
Frame	-	56HZ
Horsepower	2.0	2.0
Motor Rpm	-	1740
Phase	3	3
Rated Voltage	480	460
Rated Amperage	-	2.9

Performance Data		
	Design	**Actual**
MA Plenum SP	-	-0.41"
Fan Suction SP	-	-0.66"
Fan Discharge SP	-	0.70"
Total ESP	0.80"	1.11"
Fan Total SP	-	1.36"

Drive Data		
	Design	**Actual**
Motor Sheave Size	-	4"
Motor Bore Size	-	7/8"
Motor Sheave SetPt	-	3 TURNS OPEN
Fan Sheave Size	-	7"
Fan Sheave Bore	-	1"
Belt CL Distance	-	19.5"
Num of Belts	-	1
Belt Size	-	A50
Belt Alignment	-	VERIFIED

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

Completed By: Zack Eismin on 10/12/2023

National TAB

Project: 09-25-23 CARMAX #7281 - BAKERSFIELD, CA

System/Unit: AHU/RTU

Asset: RTU6 AREA:Breakroom

Unit Data		
	Design	**Actual**
MFG	Lennox	LENNOX
Serial Num	-	5622G06826
Model Num	LCH048H4E	LGH048H4ES5G
Type	RTU	RTU
Configuration	Vertical	VERTICAL
Num OA Filters 1	-	1
OA Filter Size 1	-	14X29
Num Final Filter 1	-	4
Final Filter Size 1	-	16X20X2

Motor Data		
	Design	**Actual**
Motor MFG	-	NL
Frame	-	NL
Horsepower	3/4	0.75
Motor Rpm	-	NL
Phase	3	1
Rated Voltage	480	460
Rated Amperage	-	3.1

Drive Data		
	Design	**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	1600	1677
SF RPM	-	NA
RA CFM	1370	1436
OA CFM	230	241
RL Voltage	-	467
RL Amperage	-	2.6
SF Rotation	-	CCW
RA Damper Position	-	75%
Min OA Damper Position	-	25%
Min OA Damper Type	-	MOTORIZED
OA Enthalpy Setpt	-	N/A

Performance Data		
	Design	**Actual**
MA Plenum SP	-	-0.16"
Fan Suction SP	-	-0.38"
Fan Discharge SP	-	0.21"
Total ESP	0.80	0.37"
Fan Total SP	-	0.59"

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

Completed By: Zack Eismin on 10/12/2023

National TAB

Project: 09-25-23 CARMAX #7281 - BAKERSFIELD, CA

System/Unit: AHU/RTU

Asset: RTU7 AREA:Data/PBX

Unit Data		
	Design	**Actual**
MFG	Lennox	LENNOX
Serial Num	-	5622H036H4EN4G
Model Num	LGH036H4E	LGH048H4E
Type	RTU	RTU
Configuration	Vertical	VERTICAL
Num OA Filters 1	-	N/A
OA Filter Size 1	-	N/A
Num Final Filter 1	-	4
Final Filter Size 1	-	16X20X2

Motor Data		
	Design	**Actual**
Motor MFG	-	NL
Frame	-	NL
Horsepower	1/2	0.5
Motor Rpm	-	NL
Phase	3	1
Rated Voltage	480	460
Rated Amperage	-	2.2

Drive Data		
	Design	**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	975	899
SF RPM	-	NA
RA CFM	975	899
OA CFM	-	0
RL Voltage	-	469
RL Amperage	-	0.5
SF Rotation	-	CCW
RA Damper Position	-	100%
Min OA Damper Position	-	N/A
Min OA Damper Type	-	N/A
OA Enthalpy Setpt	-	N/A

Performance Data		
	Design	**Actual**
MA Plenum SP	-	-0.08"
Fan Suction SP	-	-0.15"
Fan Discharge SP	-	0.04"
Total ESP	0.75	0.12"
Fan Total SP	-	0.19"

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

Completed By: Zack Eismin on 10/12/2023

National TAB

Project: 09-25-23 CARMAX #7281 - BAKERSFIELD, CA

System/Unit: AHU/RTU

Asset: RTU8 AREA:Parts

Unit Data		
	Design	**Actual**
MFG	Lennox	LENNOX
Serial Num	-	5622G06950
Model Num	LGH048H4E	LGH048H4ES5G
Type	RTU	RTU
Configuration	Vertical	VERTICAL
Num OA Filters 1	-	1
OA Filter Size 1	-	14X29
Num Final Filter 1	-	4
Final Filter Size 1	-	16X20X2

Motor Data		
	Design	**Actual**
Motor MFG	-	NL
Frame	-	NL
Horsepower	3/4	0.75
Motor Rpm	-	NL
Phase	3	1
Rated Voltage	480	460
Rated Amperage	-	3.1

Drive Data		
	Design	**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	1300	1193
SF RPM	-	NA
RA CFM	1000	901
OA CFM	300	292
RL Voltage	-	470
RL Amperage	-	2.1
SF Rotation	-	CCW
RA Damper Position	-	65%
Min OA Damper Position	-	35%
Min OA Damper Type	-	MOTORIZED
OA Enthalpy Setpt	-	NA

Performance Data		
	Design	**Actual**
MA Plenum SP	-	-0.13"
Fan Suction SP	-	-0.30"
Fan Discharge SP	-	0.14"
Total ESP	0.80"	0.27"
Fan Total SP	-	0.44"

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

Completed By: Zack Eismin on 10/12/2023

Diffuser Supply (GRD)

RTU8/Parts

Asset									
Asset Name	**Location**	**Type**	**Size**	**DESIGN CFM**	**AK**	**CFM(1)**	**CFM(2)**	**FINAL CFM**	**% to design**
RTU8-SGRD1	PARTS	8/8 NK		135	1	209	147	147	108.9
RTU8-SGRD2	PARTS	8/8 NK		135	1	189	142	142	105.2
RTU8-SGRD3	PARTS	10/6 NK		140	1	147	152	152	108.6
RTU8-SGRD4	PARTS	10/6 NK		140	1	129	149	149	106.4
RTU8-SGRD5	PARTS	8/8 NK		140	1	147	153	153	109.3
RTU8-SGRD6	PARTS	8/8 NK		140	1	162	151	151	107.9
RTU8-SGRD7	PARTS	8/8 NK		140	1	159	145	145	103.6
RTU8-SGRD8	PARTS	8/8 NK		140	1	102	154	154	110.0
Total				1110		1244	1193	1193	107.48%

National TAB

Project: 09-25-23 CARMAX #7281 - BAKERSFIELD, CA

System/Unit: AHU/RTU

Asset: RTU9 AREA:Break/Train

Unit Data		
	Design	**Actual**
MFG	Lennox	LENNOX
Serial Num	-	5622G07046
Model Num	LGH300H4B	LGH074H4TS1G
Type	RTU	RTU
Configuration	Vertical	VERTICAL
Num OA Filters 1	-	1
OA Filter Size 1	-	14X29
Num Final Filter 1	-	4
Final Filter Size 1	-	20X20X2

Motor Data		
	Design	**Actual**
Motor MFG	-	US MOTOR
Frame	-	56HZ
Horsepower	2.0	5.0
Motor Rpm	-	1740
Phase	3	3
Rated Voltage	480	460
Rated Amperage	-	2.9

Drive Data		
	Design	**Actual**
Motor Sheave Size	-	4"
Motor Bore Size	-	7/8"
Motor Sheave SetPt	-	3 TURNS OPEN
Fan Sheave Size	-	6"
Fan Sheave Bore	-	1"
Belt CL Distance	-	19"
Num of Belts	-	1
Belt Size	-	A50
Belt Alignment	-	VERIFIED

Test Data		
	Design	**Actual**
SF CFM	2500	2387
SF RPM	-	948
RA CFM	2050	2153
OA CFM	450	472
RL Voltage	-	478/477/477
RL Amperage	-	2.4/2.4/2.2
SF Rotation	-	CCW
RA Damper Position	-	70%
Min OA Damper Position	-	30%
Min OA Damper Type	-	MOTORIZED
OA Enthalpy Setpt	-	NA

Performance Data		
	Design	**Actual**
MA Plenum SP	-	-0.73"
Fan Suction SP	-	-1.02"
Fan Discharge SP	-	0.37"
Total ESP	1.0	1.10"
Fan Total SP	-	1.39"

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

Completed By: Zack Eismin on 10/13/2023

AHU/RTU

Diffuser Supply (GRD)

RTU9/Break/Train

Asset									
Asset Name	Location	Type	Size	DESIGN CFM	AK	CFM(1)	CFM(2)	FINAL CFM	% to design
RTU9-SGRD1	TRAINING	CD		270	1	370	282	282	104.4
RTU9-SGRD2	TRAINING	CD		270	1	289	292	292	108.1
RTU9-SGRD3	TRAINING	CD		270	1	310	296	296	109.6
RTU9-SGRD4	TRAINING	CD		270	1	332	293	293	108.5
RTU9-SGRD5	BREAK ROOM	CD		270	1	172	279	279	103.3
RTU9-SGRD6	BREAK ROOM	CD		270	1	241	297	297	110.0
RTU9-SGRD7	BREAK ROOM	CD		270	1	276	295	295	109.3
RTU9-SGRD8	CORRIDOR	CD		100	1	172	107	107	107.0
RTU9-SGRD9	WOMENS RR	CD		100	1		157	107	107.0
RTU9-SGRD10	MENS RR	CD		140	1		327	139	99.3
Total				2230		2162	2625	2387	107.04%

National TAB

Project: 09-25-23 CARMAX #7281 - BAKERSFIELD, CA

System/Unit: AHU/RTU

Asset: RTU10 AREA:Service Area (BP)

Unit Data		
	Design	**Actual**
MFG	Lennox	LENNOX
Serial Num	-	5622F08663
Model Num	LGH300H4B	LGH300H4BH2G
Type	RTU	RTU
Configuration	Vertical	VERTICAL
Num OA Filters 1	-	2
OA Filter Size 1	-	38X11
Num Final Filter 1	-	12
Final Filter Size 1	-	20X20X2
Num Final Filter 2	-	
Final Filter Size 2	-	

Test Data		
	Design	**Actual**
SF CFM	7000	7076
SF RPM	-	758
RA CFM	2000	2123
OA CFM	5000	4982
RL Voltage	-	475/477/477
RL Amperage	-	7.5/7.4/7.2
SF Rotation	-	CCW
RA Damper Position	-	100% OPEN
Min OA Damper Position	-	100% OPEN
Min OA Damper Type	-	MOTORIZED
OA Enthalpy Setpt	-	N/A

Motor Data		
	Design	**Actual**
Motor MFG	-	US MOTOR
Frame	-	184TZ
Horsepower	5.0	5
Motor Rpm	-	1765
Phase	3	3
Rated Voltage	480	460
Rated Amperage	-	7.6

Performance Data		
	Design	**Actual**
MA Plenum SP	-	-0.33"
Fan Suction SP	-	-1.13"
Fan Discharge SP	-	0.66"
Total ESP	1.0"	0.99"
Fan Total SP	-	1.79"

Drive Data		
	Design	**Actual**
Motor Sheave Size	-	5.5"
Motor Bore Size	-	1-1/8"
Motor Sheave SetPt	-	1 TURN OPEN
Fan Sheave Size	-	12"
Fan Sheave Bore	-	1-3/16"
Belt CL Distance	-	24"
Num of Belts	-	1
Belt Size	-	BX71
Belt Alignment	-	VERIFIED

General		
	Design	**Actual**
Fan Rotation Correct	-	YES
Unit Filters Clean	-	100% LOADED
Condensate Drain Installed	-	YES

Completed By: Zack Eismin on 10/13/2023

Diffuser Supply (GRD)

RTU10/Service Area (BP)

Asset									
Asset Name	**Location**	**Type**	**Size**	**DESIGN CFM**	**AK**	**CFM(1)**	**CFM(2)**	**FINAL CFM**	**% to design**
RTU10-SGRD1				1750	3.86	1601	1801	1801	102.9
RTU10-SGRD2				1750	3.86	1571	1771	1771	101.2
RTU10-SGRD3				1750	3.86	1873	1773	1773	101.3
RTU10-SGRD4				1750	3.86	2111	1731	1731	98.9
Total				7000		7156	7076	7076	101.09%

National TAB

Project: 09-25-23 CARMAX #7281 - BAKERSFIELD, CA

System/Unit: AHU/RTU

Asset: RTU11 AREA:SERVICE (BP)

Unit Data		
	Design	**Actual**
MFG	LENNOX	LENNOX
Serial Num	-	5622F08660
Model Num	LGH300H4B	LGH300H4BH2G
Type	RTU	RTU
Configuration	VERTICAL	VERTICAL
Num OA Filters 1	-	2
OA Filter Size 1	-	38X11
Num Final Filter 1	-	12
Final Filter Size 1	-	20X20X2
Num Final Filter 2	-	
Final Filter Size 2	-	

Motor Data		
	Design	**Actual**
Motor MFG	-	US MOTOR
Frame	-	184TZ
Horsepower	5.0	5.0
Motor Rpm	-	17
Phase	3	3
Rated Voltage	480	460
Rated Amperage	-	7.6

Drive Data		
	Design	**Actual**
Motor Sheave Size	-	5.5"
Motor Bore Size	-	1-1/8"
Motor Sheave SetPt	-	1 TURN OPEN
Fan Sheave Size	-	12"
Fan Sheave Bore	-	1-3/16"
Belt CL Distance	-	23.5"
Num of Belts	-	1
Belt Size	-	BX71
Belt Alignment	-	VERIFIED

Test Data		
	Design	**Actual**
SF CFM	7000	7411
SF RPM	-	756
RA CFM	2000	2015
OA CFM	5000	5426
RL Voltage	-	475/476/477
RL Amperage	-	7.2/6.8/6.9
SF Rotation	-	CCW
RA Damper Position	-	100%
Min OA Damper Position	-	100%
Min OA Damper Type	-	MOTORIZED
OA Enthalpy Setpt	-	N/A

Performance Data		
	Design	**Actual**
MA Plenum SP	-	-0.39"
Fan Suction SP	-	-1.11"
Fan Discharge SP	-	0.62"
Total ESP	1.0"	1.01"
Fan Total SP	-	1.73"

General		
	Design	**Actual**
Fan Rotation Correct	-	YES
Unit Filters Clean	-	100% LOADED
Condensate Drain Installed	-	YES

Completed By: Zack Eismin on 10/13/2023

Diffuser Supply (GRD)

RTU11/SERVICE (BP)

Asset									
Asset Name	Location	Type	Size	DESIGN CFM	AK	CFM(1)	CFM(2)	FINAL CFM	% to design
RTU11-SGRD1				1750	3.89	1699	1899	1899	108.5
RTU11-SGRD2				1750	3.89	1987	1831	1831	104.6
RTU11-SGRD3				1750	3.89	1742	1842	1842	105.3
RTU11-SGRD4				1750	3.89	2170	1839	1839	105.1
Total				7000		7598	7411	7411	105.87%

National TAB

Project: 09-25-23 CARMAX #7281 - BAKERSFIELD, CA

System/Unit: AHU/RTU

Asset: RTU12 AREA:SERVICE (BP)

Unit Data		
	Design	**Actual**
MFG	LENNOX	LENNOX
Serial Num	-	5622H03177
Model Num	LGH300H4B	LGH300H4B
Type	RTU	RTU
Configuration	VERTICAL	VERTICAL
Num OA Filters 1	-	2
OA Filter Size 1	-	38X11
Num Final Filter 1	-	12
Final Filter Size 1	-	20X20X2
Num Final Filter 2	-	
Final Filter Size 2	-	

Test Data		
	Design	**Actual**
SF CFM	7000	6870
SF RPM	-	762
RA CFM	2000	2142
OA CFM	5000	4737
RL Voltage	-	473/475/473
RL Amperage	-	6.5/6.5/6.2
SF Rotation	-	CCW
RA Damper Position	-	50%
Min OA Damper Position	-	100%
Min OA Damper Type	-	MOTORIZED
OA Enthalpy Setpt	-	N/A

Motor Data		
	Design	**Actual**
Motor MFG	-	US MOTOR
Frame	-	184TZ
Horsepower	5.0	5.0
Motor Rpm	-	1765
Phase	3	3
Rated Voltage	480	460
Rated Amperage	-	7.6

Performance Data		
	Design	**Actual**
MA Plenum SP	-	-0.64"
Fan Suction SP	-	-1.06"
Fan Discharge SP	-	0.27"
Total ESP	1.0"	0.91"
Fan Total SP	-	1.33"

Drive Data		
	Design	**Actual**
Motor Sheave Size	-	5.5"
Motor Bore Size	-	1-1/8"
Motor Sheave SetPt	-	1 TURN OPEN
Fan Sheave Size	-	12"
Fan Sheave Bore	-	1-3/16"
Belt CL Distance	-	29"
Num of Belts	-	1
Belt Size	-	BX71
Belt Alignment	-	VERIFIED

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

Completed By: Zack Eismin on 10/13/2023

AHU/RTU

Diffuser Supply (GRD)

RTU12/SERVICE (BP)

Asset									
Asset Name	Location	Type	Size	DESIGN CFM	AK	CFM(1)	CFM(2)	FINAL CFM	% to design
RTU12-SGRD1				1750	3.89	1931	1681	1681	96.1
RTU12-SGRD2				1750	3.89	1406	1706	1706	97.5
RTU12-SGRD3				1750	3.89	1721	1761	1761	100.6
RTU12-SGRD4				1750	3.89	1931	1722	1722	98.4
Total				7000		6989	6870	6870	98.14%

National TAB

Project: 09-25-23 CARMAX #7281 - BAKERSFIELD, CA

System/Unit: AHU/RTU

Asset: RTU13 AREA:SERVICE (BP)

Unit Data		
	Design	**Actual**
MFG	LENNOX	LENNOX
Serial Num	-	5622F08652
Model Num	LGH300H4B	LGH300H4B
Type	RTU	RTU
Configuration	VERTICAL	VERTICAL
Num OA Filters 1	-	2
OA Filter Size 1	-	11X38
Num Final Filter 1	-	12
Final Filter Size 1	-	20X20X2
Num Final Filter 2	-	
Final Filter Size 2	-	

Test Data		
	Design	**Actual**
SF CFM	7000	7518
SF RPM	-	762
RA CFM	2000	2101
OA CFM	5000	5427
RL Voltage	-	477/475/475
RL Amperage	-	7.4/7.5/7.5
SF Rotation	-	CCW
RA Damper Position	-	100% OPEN
Min OA Damper Position	-	100% OPEN
Min OA Damper Type	-	MOTORIZED
OA Enthalpy Setpt	-	N/A

Motor Data		
	Design	**Actual**
Motor MFG	-	US MOTOR
Frame	-	184TZ
Horsepower	5.0	5.0
Motor Rpm	-	1765
Phase	3	3
Rated Voltage	480	460
Rated Amperage	-	7.6

Performance Data		
	Design	**Actual**
MA Plenum SP	-	-0.45"
Fan Suction SP	-	-0.85"
Fan Discharge SP	-	0.51"
Total ESP	1.0"	0.96"
Fan Total SP	-	1.36"

Drive Data		
	Design	**Actual**
Motor Sheave Size	-	5.5"
Motor Bore Size	-	1-1/8"
Motor Sheave SetPt	-	1 TURN OPEN
Fan Sheave Size	-	12"
Fan Sheave Bore	-	1-3/16"
Belt CL Distance	-	29"
Num of Belts	-	1
Belt Size	-	BX71
Belt Alignment	-	VERIFIED

General		
	Design	**Actual**
Fan Rotation Correct	-	YES
Unit Filters Clean	-	NO 70% LOADED
Condensate Drain Installed	-	YES

Completed By: Zack Eismin on 10/13/2023

AHU/RTU

Diffuser Supply (GRD)

RTU13/SERVICE (BP)

Asset									
Asset Name	Location	Type	Size	DESIGN CFM	AK	CFM(1)	CFM(2)	FINAL CFM	% to design
RTU13-SGRD1				1750	3.89	1920	1920	1920	109.7
RTU13-SGRD2				1750	3.89	1907	1860	1860	106.3
RTU13-SGRD3				1750	3.89	1702	1906	1906	108.9
RTU13-SGRD4				1750	3.89	2011	1832	1832	104.7
Total				7000		7540	7518	7518	107.4%

National TAB

Project: 09-25-23 CARMAX #7281 - BAKERSFIELD, CA

System/Unit: AHU/RTU

Asset: RTU14 AREA:SERVICE (ERV)

Unit Data		
	Design	**Actual**
MFG	LENNOX	LENNOX
Serial Num	-	5622E05536
Model Num	LGH210H4B	LGH210H4BM3G
Type	RTU	RTU
Configuration	VERTICAL	VERTICAL
Num OA Filters 1	-	1
OA Filter Size 1	-	39X24
Num Final Filter 1	-	6
Final Filter Size 1	-	20X24X2

Motor Data		
	Design	**Actual**
Motor MFG	-	INTERLINK
Frame	-	56HZ
Horsepower	3.0	3
Motor Rpm	-	1750
Phase	3	3
Rated Voltage	480	460
Rated Amperage	-	4.8

Drive Data		
	Design	**Actual**
Motor Sheave Size	-	4"
Motor Bore Size	-	7/8"
Motor Sheave SetPt	-	1 TURN OPEN
Fan Sheave Size	-	BK72
Fan Sheave Bore	-	1-3/16"
Belt CL Distance	-	20.5"
Num of Belts	-	1
Belt Size	-	BX55
Belt Alignment	-	VERIFIED

Test Data		
	Design	**Actual**
SF CFM	5250	5368
SF RPM	-	727
RA CFM	0	0
OA CFM	5250	5377
RL Voltage	-	477/475/478
RL Amperage	-	4.5/4.3/4.1
SF Rotation	-	CCW
RA Damper Position	-	N/A
Min OA Damper Position	-	N/A
Min OA Damper Type	-	MOTORIZED
OA Enthalpy Setpt	-	N/A

Performance Data		
	Design	**Actual**
MA Plenum SP	-	-0.51"
Fan Suction SP	-	-0.71"
Fan Discharge SP	-	0.41"
Total ESP	0.75"	0.92"
Fan Total SP	-	1.12"

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

Completed By: Zack Eismin on 10/13/2023

Diffuser Supply (GRD)

RTU14/SERVICE (ERV)

Asset									
Asset Name	**Location**	**Type**	**Size**	**DESIGN CFM**	**AK**	**CFM(1)**	**CFM(2)**	**FINAL CFM**	**% to design**
RTU14-SGRD1				1315	3.89	1197	1291	1291	98.2
RTU14-SGRD2				1315	3.89	1221	1321	1321	100.5
RTU14-SGRD3				1315	3.89	1377	1371	1371	104.3
RTU14-SGRD4				1315	3.89	1597	1385	1385	105.3
Total				5260		5392	5368	5368	102.05%

National TAB

Project: 09-25-23 CARMAX #7281 - BAKERSFIELD, CA

System/Unit: FAN - Supply

Asset: SUPPLY-ERV1 AREA:RTU-14 SUPPLY

Unit Data		
	Design	**Actual**
MFG	LENNOX	LENNOX
Model Num	50R6252XM	50R6252XM
Serial Num	-	20224600150
Type	-	ERV-SUPPLY

Motor Data		
	Design	**Actual**
Motor MFG	-	CENTURY
Frame	-	56Y
Horsepower	-	5
Motor Rpm	-	1725
Phase	-	3
Voltage (rated)	-	230/460
Amperage (rated)	-	14.4/7.2
Service Factor	-	1.15

Test Data		
	Design	**Actual**
CFM	5250	5347
SF RPM	-	1012
Motor RPM	-	1760
SF System SetPt	-	3 TURNS OPEN
RL Voltage	-	486/486/485
RL Amperage	-	5.4/5.3/5.3
Total ESP	-	0.60"
Fan Discharge SP	-	0.49"

General		
	Design	**Actual**
Fan Rotation Correct	-	YES

National TAB

Project: 09-25-23 CARMAX #7281 - BAKERSFIELD, CA

System/Unit: FAN - Exhaust

Asset: EXHAUST-ERV1 AREA:RTU-14

Unit Data		
	Design	**Actual**
MFG	LENNOX	LENNOX
Model Num	50R6252XM	50R6252XM
Type	-	ERV EXHAUST

Motor Data		
	Design	**Actual**
Motor MFG	-	CENTURY
Horsepower	-	5
Motor Rpm	-	1755
Phase	-	3
Voltage (rated)	-	230/460
Amperage (rated)	-	12.6/6.3

Test Data		
	Design	**Actual**
CFM	5000	5113
Fan RPM	-	1061
RL Voltage	-	486/486/485
RL Amperage	-	5.0/4.9/4.9
Suction ESP	-	-0.47"
Total ESP	-	0.47"

National TAB

Project: 09-25-23 CARMAX #7281 - BAKERSFIELD, CA

System/Unit: AHU/RTU

Asset: RTU15 AREA:SERVICE (ERV)

Unit Data		
	Design	**Actual**
MFG	LENNOX	LENNOX
Serial Num	-	5622E05530
Model Num	LGH210H4B	LGH210H4BM3G
Type	RTU	RTU
Configuration	VERTICAL	VERTICAL
Num OA Filters 1	-	1
OA Filter Size 1	-	38X24
Num Final Filter 1	-	6
Final Filter Size 1	-	20X24X2
Num Final Filter 2	-	
Final Filter Size 2	-	

Test Data		
	Design	**Actual**
SF CFM	5250	5391
SF RPM	-	750
RA CFM	0	0
OA CFM	5250	5391
RL Voltage	-	477/477/477
RL Amperage	-	4.8/4.7/4.8
SF Rotation	-	CCW
RA Damper Position	-	N/A
Min OA Damper Position	-	N/A
Min OA Damper Type	-	MOTORIZED
OA Enthalpy Setpt	-	N/A

Motor Data		
	Design	**Actual**
Motor MFG	-	INTERLINK
Frame	-	56HZ
Horsepower	3.0	3
Motor Rpm	-	1750
Phase	3	3
Rated Voltage	480	460
Rated Amperage	-	4.8

Performance Data		
	Design	**Actual**
MA Plenum SP	-	-0.47"
Fan Suction SP	-	-0.77"
Fan Discharge SP	-	0.45"
Total ESP	0.75	0.92"
Fan Total SP	-	1.22"

Drive Data		
	Design	**Actual**
Motor Sheave Size	-	4"
Motor Bore Size	-	7/8"
Motor Sheave SetPt	-	1 TURN OPEN
Fan Sheave Size	-	BK72
Fan Sheave Bore	-	1-3/16"
Belt CL Distance	-	20.5"
Num of Belts	-	1
Belt Size	-	BX55
Belt Alignment	-	VERIFIED

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

Completed By: Zack Eismin on 10/13/2023

National TAB

Project:09-25-23 CARMAX #7281 - BAKERSFIELD, CA

AHU/RTU

Diffuser Supply (GRD)

RTU15/SERVICE (ERV)

Asset									
Asset Name	**Location**	**Type**	**Size**	**DESIGN CFM**	**AK**	**CFM(1)**	**CFM(2)**	**FINAL CFM**	**% to design**
RTU15-SGRD1	COMP ROOM		12"	450	1	362	437	437	97.1
RTU15-SGRD2	SHOP OFFICE		8"	25	1	79	24	24	96.0
RTU15-SGRD3	MGR OFFICE		6"	25	1	49	27	27	108.0
RTU15-SGRD4				1185	3.89	1261	1261	1261	106.4
RTU15-SGRD5				1185	3.89	1211	1211	1211	102.2
RTU15-SGRD6				1185	3.89	1240	1240	1240	104.6
RTU15-SGRD7				1185	3.89	1191	1191	1191	100.5
Total				5240		5393	5391	5391	102.88%

Completed By: Zack Eismin on 12/12/2023

National TAB

Project: 09-25-23 CARMAX #7281 - BAKERSFIELD, CA

System/Unit: FAN - Supply

Asset: SUPPLY-ERV2 AREA:RTU-15 SUPPLY

Unit Data		
	Design	**Actual**
MFG	LENNOX	LENNOX
Model Num	50R6252XM	50R6252XM
Serial Num	-	20224600150
Type	-	ERV SUPPLY

Motor Data		
	Design	**Actual**
Motor MFG	-	CENTURY
Frame	-	56Y
Horsepower	-	5
Motor Rpm	-	1725
Phase	-	3
Voltage (rated)	-	230/460
Amperage (rated)	-	14.4/7.2
Service Factor	-	1.15

Test Data		
	Design	**Actual**
CFM	5000	5391
SF RPM	-	1012
Motor RPM	-	1761
SF System SetPt	-	3 TURNS OPEN
RL Voltage	-	486/486/485
RL Amperage	-	5.3/5.3/5.2
Total ESP	-	0.63"
Fan Discharge SP	-	0.52"

National TAB

Project: 09-25-23 CARMAX #7281 - BAKERSFIELD, CA

System/Unit: FAN - Exhaust

Asset: EXHAUST-ERV2 AREA:RTU-15

Unit Data		
	Design	**Actual**
MFG	LENNOX	LENNOX
Model Num	50R6252XM	50R6252XM
Type	-	ERV EXHAUST

Motor Data		
	Design	**Actual**
Motor MFG	-	CENTURY
Horsepower	-	5
Motor Rpm	-	1755
Phase	-	3
Voltage (rated)	-	230/460
Amperage (rated)	-	12.6/6.3

Test Data		
	Design	**Actual**
CFM	5000	5078
Fan RPM	-	1063
RL Voltage	-	485/485/484
RL Amperage	-	4.9/4.8/5.1
Suction ESP	-	-0.47"
Total ESP	-	0.47"

National TAB

Project: 09-25-23 CARMAX #7281 - BAKERSFIELD, CA

System/Unit: AHU/RTU

Asset: RTU16 AREA:SERVICE

Unit Data		
	Design	**Actual**
MFG	LENNOX	LENNOX
Serial Num	-	5622F08655
Model Num	LGH300H4B	LGH300H4BH2G
Type	RTU	RTU
Configuration	VERTICAL	VERTICAL
Num OA Filters 1	-	2
OA Filter Size 1	-	38X11
Num Final Filter 1	-	12
Final Filter Size 1	-	20X20X2
Num Final Filter 2	-	
Final Filter Size 2	-	

Test Data		
	Design	**Actual**
SF CFM	7000	7245
SF RPM	-	761
RA CFM	2000	2169
OA CFM	5000	5091
RL Voltage	-	477/478/477
RL Amperage	-	6.4/6.2/5.8
SF Rotation	-	CCW
RA Damper Position	-	75%
Min OA Damper Position	-	100%
Min OA Damper Type	-	MOTORIZED
OA Enthalpy Setpt	-	N/A

Motor Data		
	Design	**Actual**
Motor MFG	-	US MOTOR
Frame	-	184TZ
Horsepower	5.0	5.0
Motor Rpm	-	1765
Phase	3	3
Rated Voltage	480	460
Rated Amperage	-	7.6

Performance Data		
	Design	**Actual**
MA Plenum SP	-	-0.41"
Fan Suction SP	-	-0.89"
Fan Discharge SP	-	0.68"
Total ESP	1.0"	1.09"
Fan Total SP	-	1.57"

Drive Data		
	Design	**Actual**
Motor Sheave Size	-	1VP56BB
Motor Bore Size	-	1-1/8"
Motor Sheave SetPt	-	1 TURN OPEN
Fan Sheave Size	-	12"
Fan Sheave Bore	-	1-3/16"
Belt CL Distance	-	23.5"
Num of Belts	-	1
Belt Size	-	BX71
Belt Alignment	-	VERIFIED

General		
	Design	**Actual**
Fan Rotation Correct	-	YES
Unit Filters Clean	-	NO, 100% LOAD
Condensate Drain Installed	-	YES

Completed By: Zack Eismin on 10/13/2023

AHU/RTU

Diffuser Supply (GRD)

RTU16/SERVICE

Asset									
Asset Name	Location	Type	Size	DESIGN CFM	AK	CFM(1)	CFM(2)	FINAL CFM	% to design
RTU16-SGRD1				1750	3.89	1362	1789	1789	102.2
RTU16-SGRD2				1750	3.89	1922	1732	1732	99.0
RTU16-SGRD3				1750	3.89	1991	1871	1871	106.9
RTU16-SGRD4				1750	3.89	2021	1853	1853	105.9
Total				7000		7296	7245	7245	103.5%

National TAB

Project: 09-25-23 CARMAX #7281 - BAKERSFIELD, CA

System/Unit: AHU/RTU

Asset: RTU17 AREA:SERVICE

Unit Data		
	Design	**Actual**
MFG	LENNOX	LENNOX
Serial Num	-	5622F08654
Model Num	LGH300H4B	LGH300H4BH2G
Type	RTU	RTU
Configuration	VERTICAL	VERTICAL
Num OA Filters 1	-	2
OA Filter Size 1	-	38X11
Num Final Filter 1	-	12
Final Filter Size 1	-	20X20X2

Motor Data		
	Design	**Actual**
Motor MFG	-	US MOTOR
Frame	-	184TZ
Horsepower	5.0	5.0
Motor Rpm	-	1765
Phase	3	3
Rated Voltage	480	460
Rated Amperage	-	7.6

Drive Data		
	Design	**Actual**
Motor Sheave Size	-	5.5"
Motor Bore Size	-	1-1/8"
Motor Sheave SetPt	-	1 TURN OPEN
Fan Sheave Size	-	12"
Fan Sheave Bore	-	1-3/16"
Belt CL Distance	-	23.5"
Num of Belts	-	1
Belt Size	-	BX71
Belt Alignment	-	VERIFIED

Test Data		
	Design	**Actual**
SF CFM	7000	7117
SF RPM	-	758
RA CFM	2000	2200
OA CFM	5000	4929
RL Voltage	-	473/473/476
RL Amperage	-	6.8/6.5/6.7
SF Rotation	-	CCW
RA Damper Position	-	75%
Min OA Damper Position	-	100%
Min OA Damper Type	-	MOTORIZED
OA Enthalpy Setpt	-	N/A

Performance Data		
	Design	**Actual**
MA Plenum SP	-	-0.52"
Fan Suction SP	-	-0.96"
Fan Discharge SP	-	0.66"
Total ESP	1.0"	1.18"
Fan Total SP	-	1.62"

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

Completed By: Zack Eismin on 10/13/2023

Diffuser Supply (GRD)

RTU17/SERVICE

Asset									
Asset Name	**Location**	**Type**	**Size**	**DESIGN CFM**	**AK**	**CFM(1)**	**CFM(2)**	**FINAL CFM**	**% to design**
RTU17-SGRD1				1750	3.89	1847	1751	1751	100.1
RTU17-SGRD2				1750	3.89	2111	1821	1821	104.1
RTU17-SGRD3				1750	3.89	1633	1834	1834	104.8
RTU17-SGRD4				1750	3.89	1621	1711	1711	97.8
Total				7000		7212	7117	7117	101.67%

National TAB

Project: 09-25-23 CARMAX #7281 - BAKERSFIELD, CA

System/Unit: AHU/RTU

Asset: RTU18 AREA:FQC

Unit Data		
	Design	**Actual**
MFG	LENNOX	LENNOX
Serial Num	-	5622F07002
Model Num	LGH120H4M	LGH120H4MM4G
Type	RTU	RTU
Configuration	VERTICAL	VERTICAL
Num OA Filters 1	-	2
OA Filter Size 1	-	23X14
Num Final Filter 1	-	4
Final Filter Size 1	-	20X25X2

Motor Data		
	Design	**Actual**
Motor MFG	-	INTERLINK
Frame	-	56HZ
Horsepower	2.0	3
Motor Rpm	-	1750
Phase	3	3
Rated Voltage	480	460
Rated Amperage	-	4.8

Drive Data		
	Design	**Actual**
Motor Sheave Size	-	5"
Motor Bore Size	-	7/8"
Motor Sheave SetPt	-	3 TURN OPEN
Fan Sheave Size	-	7"
Fan Sheave Bore	-	1"
Belt CL Distance	-	22.5"
Num of Belts	-	1
Belt Size	-	AX58
Belt Alignment	-	VERIFIED

Test Data		
	Design	**Actual**
SF CFM	3000	3271
SF RPM	-	871
RA CFM	2700	2949
OA CFM	300	322
RL Voltage	-	472/472/475
RL Amperage	-	4.3/4.4/4.5
SF Rotation	-	CCW
RA Damper Position	-	75%
Min OA Damper Position	-	25%
Min OA Damper Type	-	MOTORIZED
OA Enthalpy Setpt	-	N/A

Performance Data		
	Design	**Actual**
MA Plenum SP	-	-0.73"
Fan Suction SP	-	-1.08"
Fan Discharge SP	-	0.31"
Total ESP	1.0	1.04"
Fan Total SP	-	1.39"

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

Completed By: Zack Eismin on 10/13/2023

National TAB

Project: 09-25-23 CARMAX #7281 - BAKERSFIELD, CA

System/Unit: AHU/RTU

Asset: RTU19 AREA:FQC

Unit Data		
	Design	**Actual**
MFG	LENNOX	LENNOX
Serial Num	-	5619M01329
Model Num	LGH092H4M	LGH120H4MH3G
Type	RTU	RTU
Configuration	VERTICAL	VERTICAL
Num OA Filters 1	-	2
OA Filter Size 1	-	14X23
Num Final Filter 1	-	4
Final Filter Size 1	-	20X25X2
Num Final Filter 2	-	
Final Filter Size 2	-	

Test Data		
	Design	**Actual**
SF CFM	2400	2377
SF RPM	-	751
RA CFM	2100	2097
OA CFM	300	292
RL Voltage	-	477/479/480
RL Amperage	-	1.78/1.89/1.92
SF Rotation	-	CCW
RA Damper Position	-	70%
Min OA Damper Position	-	30%
Min OA Damper Type	-	MOTORIZED
OA Enthalpy Setpt	-	NA

Motor Data		
	Design	**Actual**
Motor MFG	-	INTERLINK
Frame	-	56HZ
Horsepower	2.0	3
Motor Rpm	-	1750
Phase	3	3
Rated Voltage	480	460
Rated Amperage	-	4.8

Performance Data		
	Design	**Actual**
MA Plenum SP	-	-0.37"
Fan Suction SP	-	-0.64"
Fan Discharge SP	-	0.21"
Total ESP	0.75"	0.58"
Fan Total SP	-	0.85"

Drive Data		
	Design	**Actual**
Motor Sheave Size	-	4"
Motor Bore Size	-	7/8"
Motor Sheave SetPt	-	4 TURNS OPEN
Fan Sheave Size	-	7"
Fan Sheave Bore	-	1"
Belt CL Distance	-	21.5"
Num of Belts	-	1
Belt Size	-	AX58
Belt Alignment	-	VERIFIED

General		
	Design	**Actual**
Fan Rotation Correct	-	YES
Unit Filters Clean	-	NO, LOADED
Condensate Drain Installed	-	YES

Completed By: Zack Eismin on 10/13/2023

National TAB

Project:09-25-23 CARMAX #7281 - BAKERSFIELD, CA

AHU/RTU

Diffuser Supply (GRD)

RTU19/FQC

Asset									
Asset Name	**Location**	**Type**	**Size**	**DESIGN CFM**	**AK**	**CFM(1)**	**CFM(2)**	**FINAL CFM**	**% to design**
RTU19-SGRD1			14X14	600	1.36	879	579	579	96.5
RTU19-SGRD2			14X14	600	1.36	221	621	621	103.5
RTU19-SGRD3			24X16	1200	2.67	1361	1177	1177	98.1
RTU19-SGRD4									
Total				2400		2461	2377	2377	99.04%

National TAB

Project: 09-25-23 CARMAX #7281 - BAKERSFIELD, CA

System/Unit: AHU/RTU

Asset: RTU20 AREA:COSMETIC

Unit Data		
	Design	**Actual**
MFG	LENNOX	LENNOX
Serial Num	-	5622E05054
Model Num	LCH210H4M	LCH210H4MN3G
Type	RTU	RTU
Configuration	VERTICAL	VERTICAL
Num OA Filters 1	-	3
OA Filter Size 1	-	23X14
Num Final Filter 1	-	6
Final Filter Size 1	-	24X24X2
Num Final Filter 2	-	
Final Filter Size 2	-	

Test Data		
	Design	**Actual**
SF CFM	5250	5689
SF RPM	-	815
RA CFM	5250	5621
OA CFM	0	0
RL Voltage	-	477/478/477
RL Amperage	-	4.8/4.7/4.8
SF Rotation	-	CCW
RA Damper Position	-	100%
Min OA Damper Position	-	0%
Min OA Damper Type	-	MOTORIZED
OA Enthalpy Setpt	-	NA

Motor Data		
	Design	**Actual**
Motor MFG	-	INTERLINK
Frame	-	56HZ
Horsepower	3.0	3
Motor Rpm	-	1750
Phase	3	3
Rated Voltage	480	460
Rated Amperage	-	4.8

Performance Data		
	Design	**Actual**
MA Plenum SP	-	-0.49"
Fan Suction SP	-	-0.72
Fan Discharge SP	-	0.52"
Total ESP	1.0	1.01"
Fan Total SP	-	1.24"

Drive Data		
	Design	**Actual**
Motor Sheave Size	-	4"
Motor Bore Size	-	7/8"
Motor Sheave SetPt	-	1 TURN OPEN
Fan Sheave Size	-	7"
Fan Sheave Bore	-	1-3/16"
Belt CL Distance	-	20.5"
Num of Belts	-	1
Belt Size	-	BX55
Belt Alignment	-	VERIFIED

General		
	Design	**Actual**
Fan Rotation Correct	-	YES
Unit Filters Clean	-	NO, 100% LOAD
Condensate Drain Installed	-	YES

Completed By: Zack Eismin on 10/13/2023

Diffuser Supply (GRD)

RTU20/COSMETIC

Asset									
Asset Name	**Location**	**Type**	**Size**	**DESIGN CFM**	**AK**	**CFM(1)**	**CFM(2)**	**FINAL CFM**	**% to design**
RTU20-SGRD1			16X44	1310	4.9	1200	1412	1412	107.8
RTU20-SGRD2			16X44	1310	4.9	1232	1397	1397	106.6
RTU20-SGRD3			16X44	1310	4.9	1619	1408	1408	107.5
RTU20-SGRD4			16X44	1310	4.9	1704	1472	1472	112.4
Total				5240		5755	5689	5689	108.57%

National TAB

Project: 09-25-23 CARMAX #7281 - BAKERSFIELD, CA

System/Unit: AHU/RTU

Asset: RTU21 AREA:SERVICE

Unit Data		
	Design	**Actual**
MFG	LENNOX	LENNOX
Serial Num	-	5622E04974
Model Num	LCH210H4M	LCH210H4MN3G
Type	RTU	RTU
Configuration	VERTICAL	VERTICAL
Num OA Filters 1	-	2
OA Filter Size 1	-	23X14
Num Final Filter 1	-	6
Final Filter Size 1	-	24X24X2
Num Final Filter 2	-	
Final Filter Size 2	-	

Test Data		
	Design	**Actual**
SF CFM	5250	5692
SF RPM	-	833
RA CFM	5250	5692
OA CFM	-	0
RL Voltage	-	
RL Amperage	-	4.5/4.4/4.5
SF Rotation	-	CCW
RA Damper Position	-	100%
Min OA Damper Position	-	0%
Min OA Damper Type	-	N/A
OA Enthalpy Setpt	-	N/A

Motor Data		
	Design	**Actual**
Motor MFG	-	INTERLINK
Frame	-	56HZ
Horsepower	3.0	3
Motor Rpm	-	1750
Phase	3	3
Rated Voltage	480	460
Rated Amperage	-	4.8

Performance Data		
	Design	**Actual**
MA Plenum SP	-	-0.49"
Fan Suction SP	-	-0.79"
Fan Discharge SP	-	0.43"
Total ESP	0.75"	0.92"
Fan Total SP	-	1.28"

Drive Data		
	Design	**Actual**
Motor Sheave Size	-	4"
Motor Bore Size	-	7/8"
Motor Sheave SetPt	-	1 TURN OPEN
Fan Sheave Size	-	7"
Fan Sheave Bore	-	1-3/16"
Belt CL Distance	-	20.5"
Num of Belts	-	1
Belt Size	-	BX55
Belt Alignment	-	VERIFIED

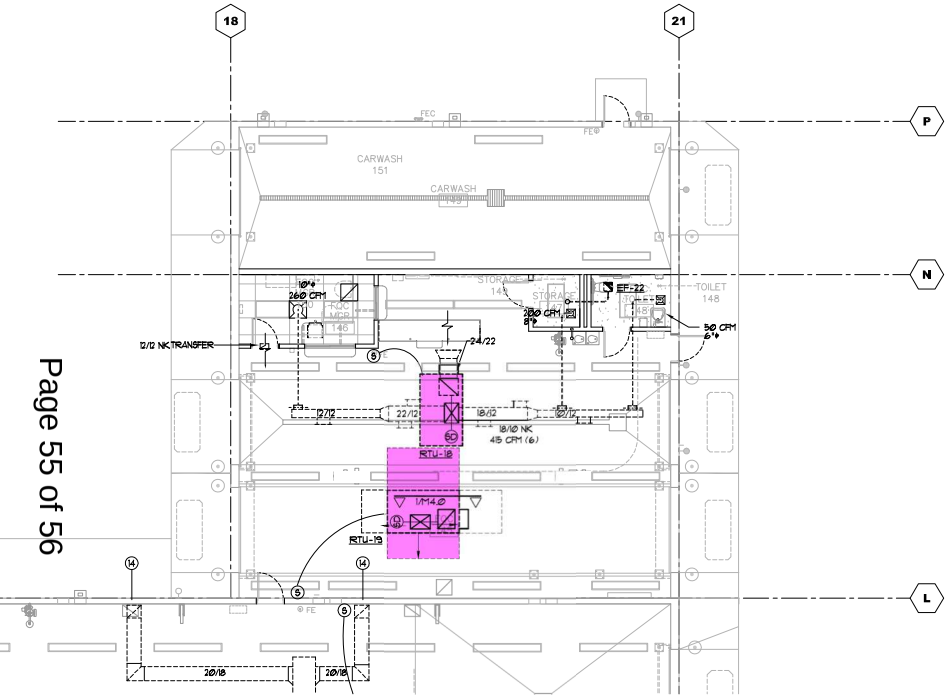
General		
	Design	**Actual**
Fan Rotation Correct	-	YES
Unit Filters Clean	-	YES
Condensate Drain Installed	-	YES

Completed By: Zack Eismin on 10/13/2023

Diffuser Supply (GRD)

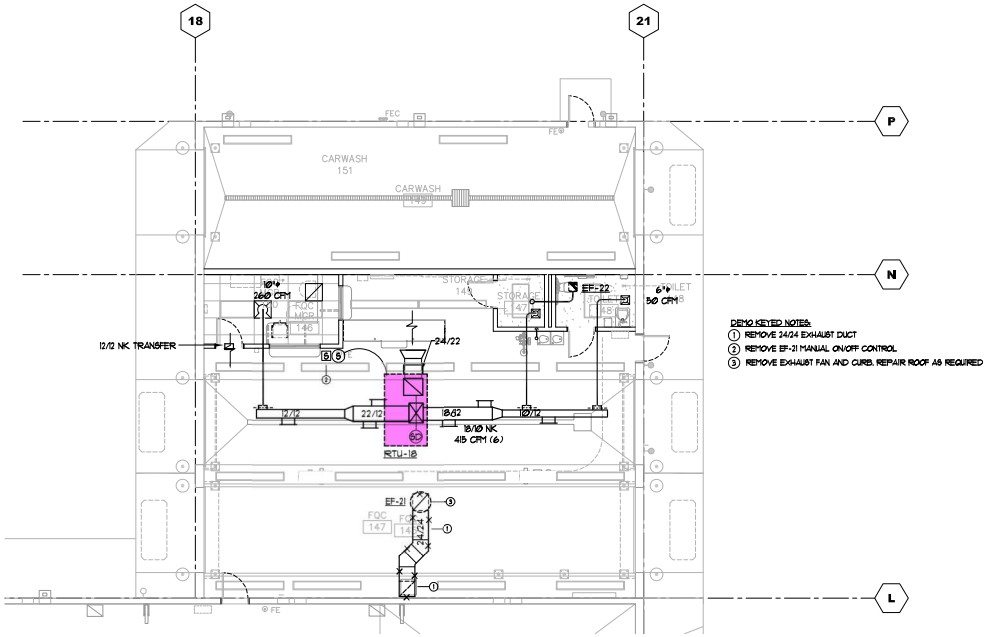
RTU21/SERVICE

Asset									
Asset Name	**Location**	**Type**	**Size**	**DESIGN CFM**	**AK**	**CFM(1)**	**CFM(2)**	**FINAL CFM**	**% to design**
RTU21-SGRD1			14X36	1625	3.5	1732	1742	1742	107.2
RTU21-SGRD2			14X36	1625	3.5	1777	1777	1777	109.4
RTU21-SGRD3			16X16	1000	1.56	1081	1081	1081	108.1
RTU21-SGRD4			16X16	1000	1.56	1092	1092	1092	109.2
Total				5250		5682	5692	5692	108.42%



1 M1.2 FQC FLOOR PLAN – HVAC

SCALE: 1/8"=1'-0"



2 M1.2 FQC DEMO PLAN – HVAC

SCALE: 1/8"=1'-0"