Report By:

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

NATIONAL TAB

Comfort. Under control.

Report: TAB Report
Function: Test, Adjust, & Balance
Date: 11/14/2022

PROJECT

11-07 WALGREENS #3507 - PORT NECHES, TX

2126 NALL ST

PORT NECHES, TX 77651

Client

Walgreens

200 WILMOT RD

DEERFIELD, IL 60015

National TAB

Project: 11-07 WALGREENS #3507 - PORT NECHES, TX

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.

Commissioning Activities
Equipment was inspected to ensure that the installation meets Walgreens requirements. Control and equipment setpoints were checked and after balancing was completed performance of each unit was verified. The full list of items that were verified along with any that failed are contained in the checklists in this report.

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 per Walgreens standards. Each outlet was then adjusted to within tolerance. 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.

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. 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.

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11-07 WALGREENS #3507 - PORT NECHES, TX

Project Issue Information

Issue Name : COSTGARD

Description : RTU-1 COSTGARD IS LEAKING AT CONNECTION TO UNIT. DRAIN IS NOT VENTED, NOT SUPPORTED AT SUCTION SECTION. DRAIN RUNS ONTO ROOF. FAN DISCHARGE PIPE HAS COME LOOSE FROM GROMMET.

Created By : National TAB **Assigned To :** National TAB - Wesley John

Status : Open

Originated Date : 11/14/2022 - Wesley John - National TAB

Project Issue File Details

Image_2022_11_13T2102...

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11-07 WALGREENS #3507 - PORT NECHES, TX

Project Issue Information

Issue Name : RTU-1

Description : RTU-1 EVAP FILTERS DO NOT ADEQUATELY COVER COIL.

Created By : National TAB **Assigned To :** National TAB - Brianna Biggs

Status : Open

Originated Date : 11/14/2022 - Wesley John - National TAB

Project Issue File Details

Image_2022_11_13T2102...

NATIONAL TAB

AIR BALANCE SCHEDULE

UNIT	AREA SERVED	SUPPLY AIR		RETURN AIR		OUTDOOR AIR		OA% RATIO		EXHAUST	
		DESIGN	ACTUAL	DESIGN	ACTUAL	DESIGN	ACTUAL	DESIGN	ACTUAL	DESIGN	ACTUAL
RTU-1	SA;ES	5250	5158	4525	4452	725	706	13.8%	13.7%		
RTU-2	SALES	4875	3154	4225	2556	650	598	13.3%	19.0%		
RTU-3	PHARMACY	1750	1829	1650	1724	100	105	5.7%	5.7%		
EF-2	LOUNGE									300	160
EF-3	MENS RR									200	195
EF-4	WOMENS RR									200	185
EF-5	OFFICE									300	0
TOTALS		11875	10141	10400	8732	1475	1409			1000	840

NET BUILDING AIRFLOW CALCULATION

TOTALS	DESIGN	ACTUAL
TOTAL OA	1475	1409
TOTAL EXHAUST	1000	840
NET AIRFLOW	475	569

PRESSURIZATION CALCULATION

% PRESSURIZATION	>10%?
68%	✓

Balance store to +10% pressurization based on air flow.

i. $\left(\frac{Outdoor\ Air - Exhaust\ Air}{Exhaust\ Air} > 10\%\right)$

ii. In case of nonfunctioning EF's T&B contractor to balance store accounting for the nonfunctioning EF air flow as shown on original drawings.

NOTES:

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11-07 WALGREENS #3507 - PORT NECHES, TX

CheckList Information

Name :	TECH - SITE PICTURES	**Status :**	Submitted
Assigned Organization :	National TAB	**Asset :**	
Requesting Organization :	National TAB		

CheckList Item Details

STORE FRONT

Image_2022_11_13T2044...

RTU-1

Image_2022_11_13T2045...

RTU-2

Image_2022_11_13T2046...

RTU-3

Image_2022_11_13T2046...

Notes/Comments :

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11-07 WALGREENS #3507 - PORT NECHES, TX

CheckList Information

Name :	TECH - 01 RTU INSTALLATION CHECKLIST	**Status :**	Submitted
Assigned Organization :	National TAB	**Asset :**	
Requesting Organization :	National TAB		

CheckList Item Details

General / Exterior Inspections	
Verify all required equipment has been replaced per TA and BOM.	Pass
All units are installed in the proper locations	Pass
Units are labeled correctly	Pass
Asset tag installed	Pass
Roof is clear of debris.	Pass
Maintenance access for all unit access panels is acceptable and panels open freely.	Pass
Cabinet and general installation is complete.	Pass
Unit is secure to curb and level horizontally and vertically.	Pass
Access doors close tightly with no leaks	Pass
Condensate and gas piping is properly supported.	Fail
Costgaurd is installed per scope of work and piping unions are cemented.	Fail
Additional Comments	
Interior Inspections	
Fan rotation is correct	Pass
Pulleys are correctly aligned and both motor and fan sheave pins are tightened in place.	Pass

Return air and outside air dampers close tightly with no gaps	Pass
Cabinet and coils are not damaged and in like new condition.	Pass
Inside of unit is clean and clear of debris.	Pass
Validate condesate is piped to splash block, draing, or roof drain per code requirements	Fail
Verify filters are installed, clean and of proper size. Verify there is no air by-pass around filters.	Fail
Curb is sealed with no air leakage.	Pass
Additional Comments:	SHEET M2.1 DETAIL 5 SHOWS CONDENSATE TO GO THROUGH ROOF CURB TO APPROVED RECEPTOR. CURRENTLY CONDENSATE DRIPS ON TO ROOF. RTU-1 EVAPORATOR FILTERS ARE TOO SMALL. SEE ISSUES FOR COSTGARD PICTURES.
Fire/Smoke Alarm Systems	
In duct smoke detectors are installed	Pass
Fire alarm panel status (visual inspection where possible)	NOT ABLE TO BE VISUALLY INSPECTED.
Additional Comments:	
Electrical	
Electrical wiring is complete with no visible damage	Pass
Electrical connections are tight with sealtight around any unit penetrations.	Pass
Disconnect switch is installed in accessible location near or on unit.	Pass
Verify overcurrent protection is HACR type, installed and sized correctly and labeled in panel.	Pass
Maintenance electrical outlet is installed and functional.	Pass
Main distribution panel is labeled correctly.	Pass
Unit ground wire is secured.	Pass
Additional Comments:	

Notes/Comments :

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11-07 WALGREENS #3507 - PORT NECHES, TX

CheckList Information

Name : TECH - 02 EXHAUST FANS INSPECTIONS **Status :** Submitted

Assigned Organization : National TAB **Asset :**

Requesting Organization : National TAB

CheckList Item Details

Fan rotation is correct	Pass
Pulleys are aligned and belts are tensioned properly	ALL EXHAUST FANS AT THIS LOCATION ARE DIRECT DRIVE.
Speed controller installed and functional (direct drive)	ALL EXHAUST FANS AT THIS LOCATION ARE SINGLE SPEED.
Fan is secured to the curb	Pass
Back draft damper is installed and functional	Pass
No exterior damage to the fan	Pass
No unusual noise or vibration	Pass
Controls are functional	Pass
Additional Comments:	

Notes/Comments :

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11-07 WALGREENS #3507 - PORT NECHES, TX

CheckList Information

Name :	TECH - 03 START-UP CONTROLS PROGRAMMING	**Status :**	Submitted
Assigned Organization :	National TAB	**Asset :**	
Requesting Organization :	National TAB		

CheckList Item Details

Programming: SE 3.3, 3.4, 4.0

Controller-Network-Address: RTU number + 3	Pass
Controller-Network-FCBusMode = Wired Field Bus	Pass
Controller-Network-BaudRate = Auto	Pass
Controller-Network-Device ID = RTU number + 3	Pass
Details-Occ-OffDurUnocc = No	Pass
Details-Clg-Setup-Clg-En = Yes	Pass
Details-Clg-Setup-ClgAdapTunEn = Yes	Pass
Details-Htg-Setup-Htg-En = Yes	Pass
Details-Htg-Setup-#HtgStgs = 2 Stages	Pass
Details-Htg-Setup-HtgAdapTunEn = Yes	Pass
Details-Htg-Setup-#GasVlvs = 1 (Set to 0 for Hp and Elect Heat)	Pass
Details-Fan-Setup-Fan Ctl-Type = No VFD select "Single Speed", W/VFD select "Fixed Variable"	Pass
Details-Fan-Setup-FanOnOcc = Yes	Pass
Details-Fan-Setup-FanOnDlyHeat = 30s (Set to 0 for HP or Electric Heat)	Pass
Details-Fan-Setup-FanOnly-%Cmd = 50%	Pass

Details-Fan-Setup-1ClgStg-%Cmd = 70%	Pass
Details-Fan-Setup-2Clgstg-%Cmd = 100% (2stage Unit) or 80% (3 and 4 stage)	Pass
Details-Fan-Setup-3ClStg-%Cmd = 100% (3 stage unit) or 90% (4 stage)	Pass
Details-Fan-Setup-4ClStg-%Cmd = 100% (4 Stage unit)	Pass
Details-Fan-Setup-1HtgStg-%Cmd = 100%	Pass
Details-Fan-Setup-2HtgStg-%Cmd = 100%	Pass
Details-Econ-Setup-Econ-En = Yes	Pass
Details-Econ-Setup-Econ-MinPos = Set to minimum outside air requirements.	Pass
Details-Econ-Setup-LowSpdFan-MinPos = Set minimum 1% above EconMinPos	Pass
Details-Econ-Setup-FreeClg-Sel = Single Enthalpy	Pass
Details-Econ-Setup-EconOAEnth-Sp 4= 24 Btu/lb	Pass
Details-Econ-Setup-Dvent-Mode = Enable	Pass
Details-Econ-Setup-DventMaxEconPos = 50%	Pass
Details-Econ-Setup-DventIAP-Sp = 1000	Pass
Details-Econ-Setup-EconFltDetectEn = Enable	Pass
Additional Comments:	
Non ZR Units only:	
Details-HGR-Setup-HGR-En = No	Pass
Details-HGR-Setup-HGRAlt-En = No	Pass
Details - HGR-Setup-HGRUnocc-En = No	Pass
Details-HGR-Setup-Mode = No	Pass
Additional Comments:	

Notes/Comments :

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11-07 WALGREENS #3507 - PORT NECHES, TX

CheckList Information

Name : TECH - 04 EMS/SENSOR VALIDATION **Status :** Submitted

Assigned Organization : National TAB **Asset :**

Requesting Organization : National TAB

CheckList Item Details

RTU supply air temp sensor location located per start-up binder.	Pass
RTU return air temp sensor location located per start-up binder.	Pass
RTU return air smoke detector (when applicable) is located per start-up binder.	Pass
Space temperature sensor has been replaced and location meets requirements.	Pass
Space humidity sensor has been replaced and location meets requirements.	Pass
Unit is being controlled by a space temperature sensor or thermostat	Pass
EMS has been connected and validated with TOC or Gridpoint. Screen shot is available.	Pass
No splicing of EMS/Sensor/Thermostat wiring is visible	Pass
(If Applicable) 2 Stage Thermostat to SE Board Control Wiring meets detail in start-up binder.	N/A
(If Applicable) 2 Stage Thermostat to 4 Stage Unit meets detail in start-up binder.	N/A
(If Applicable) 4 Stage Thermostat to 4 Stage Unit meets detail in start-up binder.	N/A
(If Applicable) 3 Stage Thermostat wiring meets detail in start-up binder.	N/A
(If Applicable) 3 Stage Thermostat with Humidity sensor wiring meets detail in start-up binder.	N/A

(If Applicable) EH Thermostat with SCR control wiring meets detail in start-up binder.	N/A
Temperature setpoints are set for correction region and space (see ASHRAE / temperature setpoint chart in procedure)	Pass
Additional Comments:	

Notes/Comments :

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11-07 WALGREENS #3507 - PORT NECHES, TX

CheckList Information

Name :	TECH - 05 TAB CHECKLIST	**Status :**	Submitted
Assigned Organization :	National TAB	**Asset :**	
Requesting Organization :	National TAB		

CheckList Item Details

Outside air damper set to minimum air flow requirement and damper position marked.	Pass
Total Supply, return, and outside air volumes meet design tolerances (+/-10%)	Pass
Enclosed area diffusers (Pharmacies, manager office, employee room, restrooms, electrical rooms) balanced within +/-10%?	Pass
Open area diffusers (Sales floor and stock room) balanced within +/-25% of design?	Pass
Store pressure meets tolerances (see formula in balance schedule). Make sure to account for existing exhaust fans airflows as shown on original drawings that are non-functioning.	Pass
Outside air and return air dampers modulate freely.	Pass
Start-up report from the installing contractor is reviewed and all information if filled out. All required measurements are within typical ranges.	Pass
(If Applicable) VFD is set-up and operational. (N/A = not applicable)	YES
Verify amp draw of motor is within unit specification, not operating in overamped condition.	Pass
Sales floor temperature and humidity measurement	74.6/66.3 (DB/WB)
Pharmacy temperature and humidity measurement	70.9/63.5 (DB/WB)
Stock Room temperature and humidity measurement	77.2 /68.5 (DB/WB) NO HVAC IN STOCK ROOM AT THIS LOCATION.

Outdoor air temperature and humidity measurement	84.5/69.5 (DB/WB)
Additional Comments:	

Notes/Comments :

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11-07 WALGREENS #3507 - PORT NECHES, TX

CheckList Information

Name :	TECH - 06 FUNCTIONAL TESTS	**Status :**	Submitted
Assigned Organization :	National TAB	**Asset :**	
Requesting Organization :	National TAB		

CheckList Item Details

Cooling Functional Test	
Overwrite the thermostat or sensor to put the unit into cooling mode.	Pass
Compressors enable.	Pass
If fan has VFD, the fan increases speed.	Pass
Document the discharge air temperature.	RTU-1 54.6 F RTU-2 54.2 F RTU-3 54.7 F
After 10 minutes, Discharge air temperature is below 55 degrees.	Pass
Cooling mode is operational	Pass
Additional Comments:	
Heating Functional Test	
Overwrite the thermostat or sensor to put the unit into heating mode.	Pass
Heat exchanger enables.	Pass
If fan has VFD, the fan increases speed.	Pass
Document the discharge air temperature.	RTU-1 92.1 F RTU-2 89.8 F RTU-3 93.5 F
After 10 minutes, Discharge air temperature is above 85 degrees.	Pass
Heating mode is operational	Pass
Additional Comments	

Dehumidification Functional Test	
Overwrite the humidistat to put the unit into dehumidification mode.	Pass
Compressors enable.	Pass
Hot Gas Reheat Valve opens	Pass
If fan has VFD, the fan increases speed.	Pass
Document the discharge air temperature.	RTU-1 73.5 F RTU-2 71.2 F RTU-3 72.4 F
Dehumidification Mode is operational. (Pass/Fail/NA)	PASS
Additional Comments:	
Economizer Functional Test	
Overwrite the humidistat to put the unit into economizer mode.	Pass
Economizer modulates from minimum position to 100% open. (Pass/Fail/NA)	PASS
Additional Comments:	

Notes/Comments :

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11-07 WALGREENS #3507 - PORT NECHES, TX

CheckList Information

Name : TECH - 07 TEMPERATURE SETPOINTS **Status :** Submitted

Assigned Organization : National TAB **Asset :**

Requesting Organization : National TAB

CheckList Item Details

Temperature setpoints must be set using provided charts are based on state and space that each RTU serves. Confirm with controls company that these are set correctly	Pass

Notes/Comments :

National TAB

Project: 11-07 WALGREENS #3507 - PORT NECHES, TX

System/Unit: AHU/RTU

Asset: RTU1 AREA:SALES

Unit Data		
	Design	**Actual**
MFG	YORK	YORK
Serial Num	-	N2G2749180
Model Num	ZT180N30R4B5GCB2C1	ZT180N30R4B5GCB2C1
Type	RTU	RTU
Configuration	VERTICAL	VERTICAL DISCHARGE
Num OA Filters 1	-	6
OA Filter Size 1	-	16x28x1
Num Final Filter 1	-	MESH
Final Filter Size 1	-	MESH

Test Data		
	Design	**Actual**
SF CFM	5250	5158
SF RPM	912	834
RA CFM	4525	4452
OA CFM	725	706
RL Voltage	-	488/488/488
RL Amperage	-	7.9/8.1/8.4
SF Rotation	-	CCW
RA Damper Position	-	74%
Min OA Damper Position	-	26%
Min OA Damper Type	-	PARALLEL BLADE
OA Enthalpy Setpt	-	24 BTU/LB

Motor Data		
	Design	**Actual**
Motor MFG	-	BALDOR
Frame	-	213T
Horsepower	7.50	7.5
Motor Rpm	3	1770
Phase	3	3
Rated Voltage	460	460
Rated Amperage	-	9.7

Performance Data		
	Design	**Actual**
MA Plenum SP	-	-0.55"
Fan Suction SP	-	-0.83"
Fan Discharge SP	-	0.53"
Total ESP	-	1.08"
Fan Total SP	-	1.36"

Drive Data		
	Design	**Actual**
Motor Sheave Size	-	1VP60
Motor Bore Size	-	1 3/8"
Motor Sheave SetPt	-	5.0 TURNS OPEN
Fan Sheave Size	-	BK100
Fan Sheave Bore	-	1 3/16"
Belt CL Distance	-	29"
Num of Belts	-	1
Belt Size	-	BX78
Belt Alignment	-	CORRECT

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

Completed By: Wesley John

Notes: FOUND WITH MOTOR RUNNING ONLY ON TWO PHASES (RESOLVED BY AES)

Diffuser Supply (GRD)

RTU1/SALES

Asset									
Asset Name	Location	DESIGN CFM	AK	CFM(1)	CFM(2)	FINAL CFM	% to design	Type	Size
SGRD1	SALES	128	1.0	195	-	153	119.5		
SGRD2	SALES	128	1.0	121	-	137	107.0		
SGRD3	SALES	128	1.0	91	-	149	116.4		
SGRD4	SALES	128	1.0	145	-	152	118.8		
SGRD5	SALES	128	1.0	114	-	154	120.3		
SGRD6	SALES	128	1.0	164	-	148	115.6		
SGRD7	SALES	843	1.0	756	-	806	95.6		
SGRD8	SALES	843	1.0	820	-	779	92.4		
SGRD9	SALES	843	1.0	673	-	742	88.0		
SGRD10	SALES	843	1.0	674	-	749	88.8		
SGRD11	PHOTO	151	1.0	201	-	166	109.9		
SGRD12	CORRIDOR	151	1.0	174	-	163	107.9		
SGRD13	OFFICE	290	1.0	291	-	306	105.5		
SGRD14	PHOTO								

Completed By: Brianna Biggs on

National TAB

Project: 11-07 WALGREENS #3507 - PORT NECHES, TX

System/Unit: AHU/RTU

Asset: RTU2 AREA:SALES

Unit Data		
	Design	**Actual**
MFG	YORK	YORK
Serial Num	-	N2H2891801
Model Num	ZT120N18R4B5GCL2R1	ZT120N18R4B5GCL2R1
Type	RTU	RTU
Configuration	VERTICAL	VERTICAL DISCHARGE
Num OA Filters 1	-	1
OA Filter Size 1	-	22x30x1
Num Final Filter 1	-	MESH
Final Filter Size 1	-	MESH

Test Data		
	Design	**Actual**
SF CFM	3500	3154
SF RPM	1018	990
RA CFM	2850	2556
OA CFM	650	598
RL Voltage	-	489/491/488
RL Amperage	-	4.1/4.1/4.0
SF Rotation	-	CCW
RA Damper Position	-	78%
Min OA Damper Position	-	22%
Min OA Damper Type	-	PARALLEL BLADE
OA Enthalpy Setpt	-	24 BTU/LB

Motor Data		
	Design	**Actual**
Motor MFG	-	BALDOR
Frame	-	56HZ
Horsepower	3	3
Motor Rpm	-	1750
Phase	3	3
Rated Voltage	460	460
Rated Amperage	-	4.1

Performance Data		
	Design	**Actual**
MA Plenum SP	-	-0.49"
Fan Suction SP	-	-0.72"
Fan Discharge SP	-	0.47"
Total ESP	0.6"	0.96"
Fan Total SP	-	1.19"

Drive Data		
	Design	**Actual**
Motor Sheave Size	-	1VP50
Motor Bore Size	-	7/8"
Motor Sheave SetPt	-	2.5 TURNS OPEN
Fan Sheave Size	-	AK69
Fan Sheave Bore	-	1"
Belt CL Distance	-	19"
Num of Belts	-	1
Belt Size	-	A54
Belt Alignment	-	CORRECT

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

Completed By: Wesley John

Notes:

Comfort. Under control.

Diffuser Supply (GRD)

RTU2/SALES

Asset							
Asset Name	**Location**	**DESIGN CFM**	**AK**	**CFM(1)**	**CFM(2)**	**FINAL CFM**	**% to design**
SGRD1	SALES	792	1.0	745	-	764	96.5
SGRD2	SALES	792	1.0	586	-	620	78.3
SGRD3	SALES	792	1.0	819	-	779	98.4
SGRD4	SALES	792	1.0	623	-	641	80.9
SGRD5	RR HALLWAY	174	1.0	202	-	182	104.6
SGRD6	LOUNGE	158	1.0	195	-	168	106.3

Completed By: Brianna Biggs on

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Project: 11-07 WALGREENS #3507 - PORT NECHES, TX

System/Unit: AHU/RTU

Asset: RTU3 AREA:PHARMACY

Unit Data		
	Design	**Actual**
MFG	YORK	YORK
Serial Num	-	N2K2935593
Model Num	ZJ061N08D4B5GCB2R3	ZJ061N08D4B5GCB2R3
Type	RTU	RTU
Configuration	VERTICAL	VERTICAL DISCHARGE
Num OA Filters 1	-	1
OA Filter Size 1	-	22x30x1
Num Final Filter 1	-	MESH
Final Filter Size 1	-	MESH

Test Data		
	Design	**Actual**
SF CFM	1750	1829
SF RPM	1051	768
RA CFM	1650	1724
OA CFM	100	105
RL Voltage	-	489/489/489
RL Amperage	-	3.6/3.5/3.3
SF Rotation	-	CCW
RA Damper Position	-	86%
Min OA Damper Position	-	14%
Min OA Damper Type	-	PARALLEL BLADE
OA Enthalpy Setpt	-	24 BTU/LB

Motor Data		
	Design	**Actual**
Motor MFG	-	MARATHON
Frame	-	56HZ
Horsepower	2	2
Motor Rpm	-	1725
Phase	3	3
Rated Voltage	460	460
Rated Amperage	-	3.4

Performance Data		
	Design	**Actual**
MA Plenum SP	-	-0.43"
Fan Suction SP	-	-0.67"
Fan Discharge SP	-	0.47"
Total ESP	1.3"	0.90"
Fan Total SP	-	1.14"

Drive Data		
	Design	**Actual**
Motor Sheave Size	-	1VP40
Motor Bore Size	-	7/8"
Motor Sheave SetPt	-	2.5 TURNS OPEN*
Fan Sheave Size	-	AK74
Fan Sheave Bore	-	1"
Belt CL Distance	-	17"
Num of Belts	-	1
Belt Size	-	A51
Belt Alignment	-	CORRECT

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

Completed By: Wesley John

Notes: PULLEY CHANGE PERFORMED TO REDUCE AIRFLOW TO WITHIN DESIGN TOLERANCES.

Diffuser Supply (GRD)

RTU3/PHARMACY

Asset									
Asset Name	Location	DESIGN CFM	AK	CFM(1)	CFM(2)	FINAL CFM	% to design	Type	Size
SGRD1	SEATING	226	1.0	447	308	247	109.3		
SGRD2	PHARMACY	331	1.0	568	396	358	108.2		
SGRD3	PHARMACY	331	1.0	673	461	352	106.3		
SGRD4	PHARMACY	331	1.0	556	374	349	105.4		
SGRD5	WAITING	331	1.0	82	60	309	93.4		
SGRD6	ELECTRICAL	100	1.0	292	204	108	108.0		
SGRD7	CONSULTATION								

Completed By: Brianna Biggs on

National TAB

Project: 11-07 WALGREENS #3507 - PORT NECHES, TX

System/Unit: FAN - Exhaust

Asset: EF2 AREA:LOUNGE

Unit Data		
	Design	**Actual**
MFG	ACME	GREENHECK
Model Num	V-300	SP-A250-QD
Serial Num	-	19116054
Type	CEILING	CENTRIFUGAL
Configuration	VERTICAL	CEILING

Motor Data		
	Design	**Actual**
Motor MFG	-	GREENHECK
Frame	-	NL
Horsepower	165W	1/30
Motor Rpm	-	1000
Phase	1	1
Voltage (rated)	120	115
Amperage (rated)	-	0.56
Service Factor	-	NL

Drive Data		
	Design	**Actual**
Motor Sheave Size	-	DIRECT DRIVE
Motor Bore Size	-	DIRECT DRIVE
Motor Sheave SetPt	-	DIRECT DRIVE
Fan Sheave Size	-	DIRECT DRIVE
Fan Sheave Bore	-	DIRECT DRIVE
Belt CL Distance	-	DIRECT DRIVE
Num of Belts	-	DIRECT DRIVE
Belt Size	-	DIRECT DRIVE

Test Data		
	Design	**Actual**
CFM	300	160
Fan RPM	1625	1000
Fan Rotation	-	CW
Motor RPM	-	1000
RL Voltage	-	121
RL Amperage	-	0.47
Suction ESP	-	NA
Discharge ESP	-	NA
Total ESP	0.125"	NA

Completed By: Wesley John

Notes:

National TAB

Project: 11-07 WALGREENS #3507 - PORT NECHES, TX

System/Unit: FAN - Exhaust

Asset: EF3 AREA:MENS RR

Unit Data		
	Design	**Actual**
MFG	ACME	GREENHECK
Model Num	V-300	SP-A250-QD
Serial Num	-	19116053
Type	CEILING	CENTRIFUGAL
Configuration	VERTICAL	CEILING

Motor Data		
	Design	**Actual**
Motor MFG	-	GREENHECK
Frame	-	NL
Horsepower	165W	1/30
Motor Rpm	-	1000
Phase	1	1
Voltage (rated)	120	115
Amperage (rated)	-	0.56
Service Factor	-	NL

Drive Data		
	Design	**Actual**
Motor Sheave Size	-	DIRECT DRIVE
Motor Bore Size	-	DIRECT DRIVE
Motor Sheave SetPt	-	DIRECT DRIVE
Fan Sheave Size	-	DIRECT DRIVE
Fan Sheave Bore	-	DIRECT DRIVE
Belt CL Distance	-	DIRECT DRIVE
Num of Belts	-	DIRECT DRIVE
Belt Size	-	DIRECT DRIVE

Test Data		
	Design	**Actual**
CFM	200	195
Fan RPM	1625	1000
Fan Rotation	-	CW
Motor RPM	-	1000
RL Voltage	-	121
RL Amperage	-	0.43
Suction ESP	-	NA
Discharge ESP	-	NA
Total ESP	0.375"	NA

Completed By: Wesley John

Notes:

National TAB

Project: 11-07 WALGREENS #3507 - PORT NECHES, TX

System/Unit: FAN - Exhaust

Asset: EF4 AREA:WOMENS RR

Unit Data		
	Design	**Actual**
MFG	ACME	GREENHECK
Model Num	V-300	SP-A250-QD
Serial Num	-	19116051
Type	CEILING	CENTRIFUGAL
Configuration	VERTICAL	CEILING

Motor Data		
	Design	**Actual**
Motor MFG	-	GREENHECK
Frame	-	NL
Horsepower	165W	1/30
Motor Rpm	-	1000
Phase	1	1
Voltage (rated)	120	115
Amperage (rated)	-	0.56
Service Factor	-	NL

Drive Data		
	Design	**Actual**
Motor Sheave Size	-	DIRECT DRIVE
Motor Bore Size	-	DIRECT DRIVE
Motor Sheave SetPt	-	DIRECT DRIVE
Fan Sheave Size	-	DIRECT DRIVE
Fan Sheave Bore	-	DIRECT DRIVE
Belt CL Distance	-	DIRECT DRIVE
Num of Belts	-	DIRECT DRIVE
Belt Size	-	DIRECT DRIVE

Test Data		
	Design	**Actual**
CFM	200	185
Fan RPM	1625	1000
Fan Rotation	-	CW
Motor RPM	-	1000
RL Voltage	-	121
RL Amperage	-	0.42
Suction ESP	-	NA
Discharge ESP	-	NA
Total ESP	0.375"	NA

Completed By: Wesley John

Notes:

National TAB

Project: 11-07 WALGREENS #3507 - PORT NECHES, TX

System/Unit: FAN - Exhaust

Asset: EF5 AREA:OFFICE

Unit Data		
	Design	**Actual**
MFG	ACME	NA
Model Num	PRN80-3	NA
Serial Num	-	NA
Type	CEILING	NA
Configuration	VERTICAL	NA

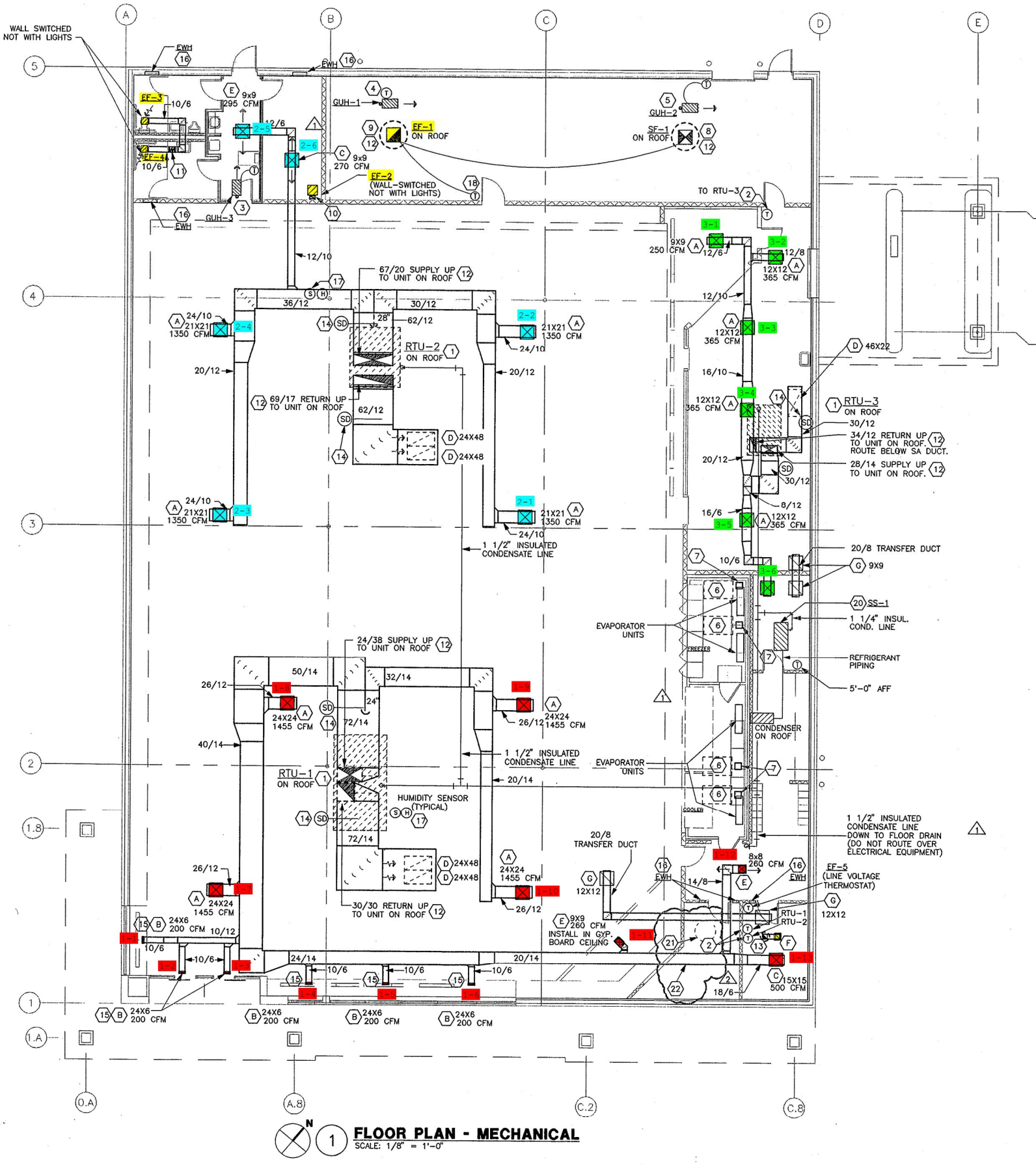
Motor Data		
	Design	**Actual**
Motor MFG	-	NA
Frame	-	NA
Horsepower	1/12	NA
Motor Rpm	-	NA
Phase	1	NA
Voltage (rated)	120	NA
Amperage (rated)	-	NA
Service Factor	-	NA

Drive Data		
	Design	**Actual**
Motor Sheave Size	-	NA
Motor Bore Size	-	NA
Motor Sheave SetPt	-	NA
Fan Sheave Size	-	NA
Fan Sheave Bore	-	NA
Belt CL Distance	-	NA
Num of Belts	-	NA
Belt Size	-	NA

Test Data		
	Design	**Actual**
CFM	300	0
Fan RPM	1300	NA
Fan Rotation	-	NA
Motor RPM	-	NA
RL Voltage	-	NA
RL Amperage	-	NA
Suction ESP	-	NA
Discharge ESP	-	NA
Total ESP	0.125"	NA

Completed By: Wesley John

Notes:NO EF-5 PRESENT IN OFFICE.



1 FLOOR PLAN - MECHANICAL

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