

Report By:

National TAB



Report: Sierra Trading Post
Function: Test, Adjust, & Balance
Date: 07/24/2025
Completed By: National TAB

PROJECT

Sierra Trading Post 0168 (Evansville, IN)

6601 E. Lloyd Expy

Evansville, IN 47715

Client

Greater Comfort Heating & Air Conditioning
2001 Monmouth St
Newport, KY 41071

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Project: Sierra Trading Post 0168 (Evansville, IN)

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Project: Sierra Trading Post 0168 (Evansville, IN)

System/Unit: AHU/RTU

Asset: RTU-1

AREA:SALES FLOOR

Unit Data		
	Design	Actual
MFG	NA	YORK
Serial Num	-	N2M3985602
Model Num	NA	ZJ120N24R4D5HCA1R3
Configuration	VERTICAL	VERTICAL
Num OA Filters 1	-	1
OA Filter Size 1	-	28.75"x20.5"
Num PreFilter 1	-	4
PreFilter Size 1	-	24"X20"

Motor Data		
	Design	Actual
Motor MFG	-	CENTURY
Frame	-	56HZ
Horsepower	3.00	3.00
Motor Rpm	-	1750
Phase	3	3
Rated Voltage	460	460
Rated Amperage	4.7	4.5
Service Factor	-	1.0

Drive Data	
	Actual
Motor Sheave Size	303
Motor Bore Size	1"
Motor Sheave SetPt	
Fan Sheave Size	126
Fan Sheave Bore	1"
Belt CL Distance	19.25"
Num of Belts	1
Belt Size	2123MX

Test Data		
	Design	Actual
SF CFM	4000	3765
RA CFM	2800	2465
OA CFM	1200	1300
RL Voltage	460	465/471/466
RL Amperage	4.7	3.8/3.9/4.0
OA Damper Position	-	20%
Brake Horse Power	2.94	2.6

Performance Data		
	Design	Actual
MA Plenum SP	-	-0.68
Fan Suction SP	-	-1.0
Fan Discharge SP	-	0.93
Total ESP	0.60	1.68
Fan Total SP	1.18	1.93

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Project: Sierra Trading Post 0168 (Evansville, IN)

AHU/RTU

Diffuser Supply (GRD)

RTU-1/SALES FLOOR

Asset							
Asset Name	Location	Type	Size	DESIGN CFM	CFM(1)	FINAL CFM	% to design
SGRD1	SALES FLOOR	SR-1	20X10	780	750	743	95.3
SGRD2	SALES FLOOR	SR-1	20X10	780	759	751	96.3
SGRD3	SALES FLOOR	SR-1	20X10	780	714	710	91.0
SGRD4	SALES FLOOR	SR-1	20X10	410	511	420	102.4
SGRD5	SALES FLOOR	SD-1	12	450	240	410	91.1
SGRD6	VESTIBULE	SR-1	20X10	800	640	731	91.4
Total				4000	3614	3765	94.12%



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Project: Sierra Trading Post 0168 (Evansville, IN)

System/Unit: AHU/RTU

Asset: RTU-2

AREA:SALES FLOOR

Unit Data		
	Design	Actual
MFG	NA	YORK
Serial Num	-	N2A4072130
Model Num	NA	ZJ078N18R4D5HCA1R3
Configuration	VERTICAL	Vertical
Num OA Filters 1	-	1
OA Filter Size 1	-	28.75"x20.5"
Num PreFilter 1	-	4
PreFilter Size 1	-	24"X20"

Motor Data		
	Design	Actual
Motor MFG	-	BALDOR
Frame	-	56HZ
Horsepower	2.00	2
Motor Rpm	-	1750
Phase	3	3
Rated Voltage	460	460
Rated Amperage	3.4	2.9
Service Factor	-	1.15

Drive Data	
	Actual
Motor Sheave Size	303
Motor Bore Size	1"
Motor Sheave SetPt	
Fan Sheave Size	462
Fan Sheave Bore	1"
Belt CL Distance	19.25"
Num of Belts	1
Belt Size	2123MX

Test Data		
	Design	Actual
SF CFM	2600	2550
RA CFM	2080	1983
OA CFM	520	567
RL Voltage	460	491/489/490
RL Amperage	3.4	2.8/2.7/1.3
OA Damper Position	-	1%
Brake Horse Power	1.54	1.33

Performance Data		
	Design	Actual
MA Plenum SP	-	-0.46
Fan Suction SP	-	-0.72
Fan Discharge SP	-	0.75
Total ESP	0.80	1.18
Fan Total SP	0.98	1.47

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Project: Sierra Trading Post 0168 (Evansville, IN)

System/Unit: AHU/RTU

Asset: RTU-3

AREA:SALES FLOOR

Unit Data		
	Design	Actual
MFG	NA	YORK
Serial Num	-	N2A4072134
Model Num	NA	ZJ078N18R4D5HCA1R3
Configuration	VERTICAL	VERTICAL
Num OA Filters 1	-	1
OA Filter Size 1	-	28.75"x20.5"
Num PreFilter 1	-	4
PreFilter Size 1	-	24X20

Motor Data		
	Design	Actual
Motor MFG	-	BALDOR
Frame	-	56HZ
Horsepower	2.00	2
Motor Rpm	-	1750
Phase	3	3
Rated Voltage	460	460
Rated Amperage	3.4	2.9
Service Factor	-	1.15

Drive Data	
	Actual
Motor Sheave Size	302
Motor Bore Size	1"
Motor Sheave SetPt	
Fan Sheave Size	162
Fan Sheave Bore	1"
Belt CL Distance	19.25
Num of Belts	1
Belt Size	2123MX

Test Data		
	Design	Actual
SF CFM	2600	2657
RA CFM	2080	2085
OA CFM	520	572
RL Voltage	460	481/478/482
RL Amperage	3.4	2.7/2.6/2.8
OA Damper Position	-	5%
Brake Horse Power	1.54	1.58

Performance Data		
	Design	Actual
MA Plenum SP	-	-0.60
Fan Suction SP	-	-0.85
Fan Discharge SP	-	0.58
Total ESP	0.80	1.45
Fan Total SP	1.11	1.43

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Project: Sierra Trading Post 0168 (Evansville, IN)

System/Unit: AHU/RTU

Asset: RTU-4

AREA:SALES FLOOR

Unit Data		
	Design	Actual
MFG	NA	YORK
Serial Num	-	N2D3620644
Model Num	NA	ZJ090N18R4D5HCA1R3
Configuration	VERTICAL	VERTICAL
Num OA Filters 1	-	1
OA Filter Size 1	-	28.75"x20.5"
Num PreFilter 1	-	4
PreFilter Size 1	-	24"X20"

Motor Data		
	Design	Actual
Motor MFG	-	BALDOR
Frame	-	56HZ
Horsepower	3.00	3
Motor Rpm	-	1750
Phase	3	3
Rated Voltage	460	460
Rated Amperage	4.7	4.1
Service Factor	-	1.15

Drive Data	
	Actual
Motor Sheave Size	302
Motor Bore Size	1"
Motor Sheave SetPt	
Fan Sheave Size	162
Fan Sheave Bore	1"
Belt CL Distance	19.25
Num of Belts	1
Belt Size	0523MX

Test Data		
	Design	Actual
SF CFM	3000	3112
RA CFM	2400	2540
OA CFM	600	572
RL Voltage	460	488/489/485
RL Amperage	4.7	4.5/4.5/4.6
OA Damper Position	-	0%
Brake Horse Power	1.91	2.9

Performance Data		
	Design	Actual
MA Plenum SP	-	-0.94
Fan Suction SP	-	-1.2
Fan Discharge SP	-	0.94
Total ESP	0.80	2.14
Fan Total SP	0.98	2.14

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Project: Sierra Trading Post 0168 (Evansville, IN)

System/Unit: AHU/RTU

Asset: RTU-5

AREA:SALES FLOOR

Unit Data		
	Design	Actual
MFG	NA	YORK
Serial Num	-	N2A4072131
Model Num	NA	ZJ078N18R4D5HCA1R3
Configuration	VERTICAL	VERTICAL
Num OA Filters 1	-	1
OA Filter Size 1	-	28.75"x20.5"
Num PreFilter 1	-	4
PreFilter Size 1	-	24"X20"

Motor Data		
	Design	Actual
Motor MFG	-	BALDOR
Frame	-	56HZ
Horsepower	2.00	2
Motor Rpm	-	1750
Phase	3	3
Rated Voltage	460	460
Rated Amperage	3.4	2.9
Service Factor	-	1.15

Drive Data	
	Actual
Motor Sheave Size	302
Motor Bore Size	1"
Motor Sheave SetPt	
Fan Sheave Size	162
Fan Sheave Bore	1"
Belt CL Distance	19.25"
Num of Belts	1
Belt Size	2123MX

Test Data		
	Design	Actual
SF CFM	2600	2440
RA CFM	2080	1909
OA CFM	520	531
RL Voltage	460	340/341/344
RL Amperage	3.4	2.3/2.4/2.3
OA Damper Position	-	20%
Brake Horse Power	1.54	1.35

Performance Data		
	Design	Actual
MA Plenum SP	-	-0.40
Fan Suction SP	-	-0.55
Fan Discharge SP	-	0.54
Total ESP	0.80	0.95
Fan Total SP	0.98	1.09

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System/Unit: AHU/RTU

Asset: RTU-6

AREA:ASST MGR

Unit Data		
	Design	Actual
MFG	NA	YORK
Serial Num	-	N2A4058953
Model Num	NA	ZT037N08P4B5HCA1R3
Configuration	VERTICAL	VERTICAL
Num OA Filters 1	-	1
OA Filter Size 1	-	28.75"x20.5"
Num PreFilter 1	-	4
PreFilter Size 1	-	24"X16"

Motor Data		
	Design	Actual
Motor MFG	-	BALDOR
Frame	-	56HZ
Horsepower	1.50	1.5
Motor Rpm	-	1740
Phase	3	3
Rated Voltage	460	460
Rated Amperage	2.1	2.1
Service Factor	-	1.15

Drive Data	
	Actual
Motor Sheave Size	4"
Motor Bore Size	1"
Motor Sheave SetPt	
Fan Sheave Size	8"
Fan Sheave Bore	1"
Belt CL Distance	16"
Num of Belts	1
Belt Size	0123MX

Test Data		
	Design	Actual
SF CFM	950	908
RA CFM	874	813
OA CFM	76	95
RL Voltage	460	381/385/391
RL Amperage	2.1	0.9/0.9/1.0
OA Damper Position	-	5%
Brake Horse Power	0.50	0.67

Performance Data		
	Design	Actual
MA Plenum SP	-	-0.13
Fan Suction SP	-	-0.2
Fan Discharge SP	-	0.13
Total ESP	0.60	0.33
Fan Total SP	-	0.33

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Project:Sierra Trading Post 0168 (Evansville, IN)

AHU/RTU

Diffuser Supply (GRD)

RTU-6/ASST MGR

Asset							
Asset Name	Location	Type	Size	DESIGN CFM	CFM(1)	FINAL CFM	% to design
SGRD1	ASST MGR	SD-1	10	275	264	261	94.9
SGRD2	MGR OFFICE	SD-1	10	275	242	248	90.2
SGRD3	CASH OFFICE	SD-1	8	150	166	163	108.7
SGRD4	CASH HALL	SD-1	6	100	91	93	93.0
SGRD5	LP OFFICE	SD-1	8	150	147	143	95.3
Total				950	910	908	95.58%



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System/Unit: AHU/RTU

Asset: RTU-7

AREA:MENS RR

Unit Data		
	Design	Actual
MFG	NA	YORK
Serial Num	-	N2M3011381
Model Num	NA	ZT037N08P4B5HCA1R3
Configuration	VERTICAL	VERTICAL
Num OA Filters 1	-	1
OA Filter Size 1	-	28.75"x20.5"
Num PreFilter 1	-	4
PreFilter Size 1	-	24"X16"

Test Data		
	Design	Actual
SF CFM	950	947
SF RPM	736	
RA CFM	826	748
OA CFM	124	199
RL Voltage	460	390/395/394
RL Amperage	2.1	1.1/1.2/1.1
OA Damper Position	-	3%
Brake Horse Power	0.50	0.82

Motor Data		
	Design	Actual
Motor MFG	-	BALDOR
Frame	-	56HZ
Horsepower	1.50	1.5
Motor Rpm	-	1740
Phase	3	3
Rated Voltage	460	460
Rated Amperage	2.1	2.1
Service Factor	-	1.15

Performance Data		
	Design	Actual
MA Plenum SP	-	-0.24
Fan Suction SP	-	-0.31
Fan Discharge SP	-	0.28
Total ESP	0.60	0.55
Fan Total SP	-	0.59

Drive Data	
	Actual
Motor Sheave Size	4"
Motor Bore Size	1"
Motor Sheave SetPt	
Fan Sheave Size	8"
Fan Sheave Bore	1"
Belt CL Distance	16.5"
Num of Belts	1
Belt Size	A49

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Project:Sierra Trading Post 0168 (Evansville, IN)

AHU/RTU

Diffuser Supply (GRD)

RTU-7/MENS RR

Asset							
Asset Name	Location	Type	Size	DESIGN CFM	CFM(1)	FINAL CFM	% to design
SGRD1	MEN DRESSING	SD-1	10	300	279	279	93.0
SGRD2	MEN DRESSING	SD-1	6	75	82	82	109.3
SGRD3	WOMEN DRESS	SD-1	6	75	82	82	109.3
SGRD4	DRESS ENTRANCE	SD-1	8	200	206	206	103.0
SGRD5	WOMEN DRESS	SD-1	10	300	298	298	99.3
Total				950	947	947	99.68%



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Project: Sierra Trading Post 0168 (Evansville, IN)

System/Unit: AHU/RTU

Asset: RTU-8

AREA:PROCESSING

Unit Data		
	Design	Actual
MFG	NA	YORK
Serial Num	-	N2N3023479
Model Num	NA	ZJ150N24R4D5HCA1R2
Configuration	VERTICAL	VERTICAL
Num OA Filters 1	-	1
OA Filter Size 1	-	28.75"x20.5"
Num PreFilter 1	-	4
PreFilter Size 1	-	24"X20"

Motor Data		
	Design	Actual
Motor MFG	-	BALDOR
Frame	-	184T
Horsepower	5.00	5.0
Motor Rpm	-	1750
Phase	3	3
Rated Voltage	460	460
Rated Amperage	6.6	6.6
Service Factor	-	1.15

Drive Data	
	Actual
Motor Sheave Size	WE24
Motor Bore Size	1"
Motor Sheave SetPt	
Fan Sheave Size	8"
Fan Sheave Bore	1"
Belt CL Distance	20"
Num of Belts	1
Belt Size	BX56

Test Data		
	Design	Actual
SF CFM	5000	4605
RA CFM	4300	3838
OA CFM	700	767
RL Voltage	460	487/489/487
RL Amperage	6.6	4.7/4.9/4.7
OA Damper Position	-	20%
Brake Horse Power	4.75	3.6

Performance Data		
	Design	Actual
MA Plenum SP	-	-0.73
Fan Suction SP	-	-1.18
Fan Discharge SP	-	0.77
Total ESP	0.60	1.91
Fan Total SP	1.42	1.95

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Project: Sierra Trading Post 0168 (Evansville, IN)

AHU/RTU

Diffuser Supply (GRD)

RTU-8/PROCESSING

Asset										
Asset Name	Location	Type	Size	DESIGN CFM	AK	VEL(1)	CFM(1)	VEL(2)	FINAL CFM	% to design
SGRD1	PROCESSING	SR-2	14 x 8	400	0.982	663	663		371	92.8
SGRD2	PROCESSING	SR-2	14 x 8	500		591	310		469	93.8
SGRD3	PROCESSING	SR-2	14 x 8	500		626	330		459	91.8
SGRD4	PROCESSING	SR-2	14 x 8	300		445	220		280	93.3
SGRD5	PROCESSING	SR-2	14 x 8	500		519	275		453	90.6
SGRD6	PROCESSING	SR-2	14 x 8	400		622	333		367	91.8
SGRD7	PROCESSING	SR-2	14 x 8	250		567	211		230	92.0
SGRD8	PROCESSING	SR-2	14 x 8	250		432	199		225	90.0
SGRD9	PROCESSING	SR-2	14 x 8	400		735	584		376	94.0
SGRD10	PROCESSING	SR-2	14 x 8	400		453	310		364	91.0
SGRD11	PROCESSING	SR-2	14 x 8	250		564	175		231	92.4
SGRD12	PROCESSING	SR-2	14 x 8	400		760	566		374	93.5
SGRD13	PROCESSING	SR-2	14 x 8	450	0.982	654	310		409	90.9
Total				5000			4486		4608	92.16%



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Project: Sierra Trading Post 0168 (Evansville, IN)

System/Unit: AHU/RTU

Asset: RTU-9

AREA:DRESSING RMS

Unit Data		
	Design	Actual
MFG	NA	YORK
Serial Num	-	N2M3011380
Model Num	NA	ZT037N08P4B5HCA1R3
Configuration	VERTICAL	VERTICAL
Num OA Filters 1	-	1
OA Filter Size 1	-	28.75"x20.5"
Num PreFilter 1	-	4
PreFilter Size 1	-	24"X16"

Motor Data		
	Design	Actual
Motor MFG	-	BALDOR
Frame	-	56HZ
Horsepower	1.50	1.5
Motor Rpm	-	1740
Phase	3	3
Rated Voltage	460	460
Rated Amperage	2.1	2.1
Service Factor	-	1.15

Drive Data	
	Actual
Motor Sheave Size	1VL40-778
Motor Bore Size	1"
Motor Sheave SetPt	
Fan Sheave Size	8"
Fan Sheave Bore	1"
Belt CL Distance	15.5"
Num of Belts	1
Belt Size	A47

Test Data		
	Design	Actual
SF CFM	1200	1138
RA CFM	984	
OA CFM	216	195
RL Voltage	460	392/389/392
RL Amperage	2.1	1.2/1.4/1.3
OA Damper Position	-	5%
Brake Horse Power	0.50	0.92

Performance Data		
	Design	Actual
MA Plenum SP	-	-0.46
Fan Suction SP	-	-0.53
Fan Discharge SP	-	0.36
Total ESP	0.60	0.99
Fan Total SP	-	0.89

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Project:Sierra Trading Post 0168 (Evansville, IN)

AHU/RTU

Diffuser Supply (GRD)

RTU-9/DRESSING RMS

Asset							
Asset Name	Location	Type	Size	DESIGN CFM	CFM(1)	FINAL CFM	% to design
SGRD1	JAN	SD-1	8	110	33	114	103.6
SGRD2	WOMENS	SD-2	8	150	161	135	90.0
SGRD3	MENS	SD-2	8	150	187	147	98.0
SGRD4	HALL	SD-2	8	150	62	144	96.0
SGRD5	LOUNGE	SD-1	10	320	329	298	93.1
SGRD6	LOUNGE	SD-1	10	320	333	300	93.8
Total				1200	1105	1138	94.83%



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Project: Sierra Trading Post 0168 (Evansville, IN)

System/Unit: FAN - Exhaust

Asset: EF-1

AREA:WOMENS

Unit Data		
	Design	Actual
MFG	NA	PENNBERRY
Model Num	NA	DX13R-SC
Serial Num	-	B24A022067
Type	CRE DNBLAST	CEILING DOWNBLAST

Motor Data		
	Design	Actual
Motor MFG	-	FASCO
Horsepower	0.167	0.125
Motor Rpm	1547	1550
Phase	1	1
Voltage (rated)	115	115
Amperage (rated)	-	2.1

Test Data		
	Design	Actual
CFM	650	633
RL Voltage	115	120
RL Amperage	4.4	1.9
Suction ESP	-	-0.63
Discharge ESP	-	ATM
Total ESP	0.62	0.63
Brake Horse Power	-	0.15

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Project:Sierra Trading Post 0168 (Evansville, IN)

FAN - Exhaust

Diffuser Ret/Exh (GRD)

EF-1/WOMENS

Asset								
Asset Name	Location	Type	Size	DESIGN CFM	AK	CFM(1)	FINAL CFM	% to design
EGRD1	MENS	EG-1	10X10	250	1	266	266	106.4
EGRD2	WOMENS	EG-1	10X10	250	1	236	236	94.4
EGRD3	JAN	EG-2	6	150	1	135	135	90.0
Total				650		637	637	98%



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Project: Sierra Trading Post 0168 (Evansville, IN)

System/Unit: FAN - Exhaust

Asset: EF-2

AREA:PROCESSING

Unit Data		
	Design	Actual
MFG	NA	PENNBERRY
Model Num	NA	DX10R-SC
Serial Num	-	B24A022068
Type	CRE DNBLAST	CEILING DOWNBLAST

Motor Data		
	Design	Actual
Motor MFG	-	FASCO
Horsepower	0.083	0.083
Motor Rpm	1357	1300
Phase	1	1
Voltage (rated)	115	115
Amperage (rated)	-	0.7

Test Data		
	Design	Actual
CFM	220	241
RL Voltage	115	120
RL Amperage	-	1.2
Suction ESP	-	-0.56
Discharge ESP	-	ATM
Total ESP	0.50	0.56
Brake Horse Power	-	0.06

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Project:Sierra Trading Post 0168 (Evansville, IN)

FAN - Exhaust

Diffuser Ret/Exh (GRD)

EF-2/PROCESSING

Asset								
Asset Name	Location	Type	Size	DESIGN CFM	AK	CFM(1)	FINAL CFM	% to design
EGRD1	PROCESSING	EG-2	8	220	1	351	241	109.5
Total				220		351	241	109.55%



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Project: Sierra Trading Post 0168 (Evansville, IN)

System/Unit: FAN - Exhaust

Asset: EF-3

AREA:DRESSING RMS

Unit Data		
	Design	Actual
MFG	NA	PENNBERRY
Model Num	NA	EVD10R
Serial Num	-	B24A022069
Type	CRE DNBLAST	CEILING DOWNBLAST

Motor Data		
	Design	Actual
Motor MFG	-	FASCO
Horsepower	0.083	0.083
Motor Rpm	1329	1300
Phase	1	1
Voltage (rated)	115	115
Amperage (rated)	-	0.7

Test Data		
	Design	Actual
CFM	200	181
RL Voltage	115	120
RL Amperage	-	1.1
Suction ESP	-	-0.50
Discharge ESP	-	ATM
Total ESP	0.50	0.50
Brake Horse Power	-	0.05

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FAN - Exhaust

Diffuser Ret/Exh (GRD)

EF-3/DRESSING RMS

Asset								
Asset Name	Location	Type	Size	DESIGN CFM	AK	CFM(1)	FINAL CFM	% to design
EGRD1	WOMEN DRESS	EG-2	6	100	1	91	91	91.0
EGRD2	MENS DRESS	EG-2	6	100	1	90	90	90.0
Total				200		181	181	90.5%