

# National TAB

Project: CMS E.E. Waddell High Reno (Charlotte, NC)



Comfort. Under control.

## Diffuser Supply (GRD)

### RTU-3 DIFFUSER/

Asset								
Asset Name	Location	Type	Size	DESIGN CFM	AK	CFM(1)	FINAL CFM	% to design
3-1	301	A	12	460		239	239	52.0

Asset	Notes
3-1	AHU 3 at full speed

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## Diffuser Supply (GRD)

### VAV-1/301A

Asset								
Asset Name	Location	Type	Size	DESIGN CFM	AK	CFM(1)	FINAL CFM	% to design
3.1-1	301A	A	12"12"	400		257	257	64.3
3.1-2	301A	A	12"12"	400		166	166	41.5
3.1-3	301A	A	12"12"	400		251	251	62.8

Asset	Notes
3-1	AHU 3 at full speed

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## Diffuser Supply (GRD)

### UVs OA/

Asset										
Asset Name	Location	Type	Size	DESIGN CFM	AK	CFM(1)	FINAL CFM	% to design	VEL(1)	VEL(2)
SGRD1	216	duct	14	900	1.07	56	60	56	60	6.7
SGRD2	217	duct	14	900	1.07	112	120	112	120	13.3
SGRD3	223	duct	14	900	1.07	239	256	239	256	28.4

Asset	Notes
3-1	AHU 3 at full speed

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Project: CMS E.E. Waddell High Reno (Charlotte, NC)

## System/Unit: FAN - Exhaust



Comfort. Under control.

Asset: EF1

AREA:

Unit Data		
	Design	Actual
<b>MFG</b>	GREENHECK	GREENHECK
<b>Model Num</b>	USF-12	USF-12
<b>Serial Num</b>	-	20512849
<b>Type</b>	-	UTILITY SET

Motor Data		
	Design	Actual
<b>Motor MFG</b>	-	WEG
<b>Frame</b>	-	56
<b>Horsepower</b>	-	0.25
<b>Motor Rpm</b>	-	1740
<b>Phase</b>	-	1
<b>Voltage (rated)</b>	-	115
<b>Amperage (rated)</b>	-	2.9
<b>Service Factor</b>	-	1.35

Drive Data		
	Design	Actual
<b>Motor Sheave Size</b>	-	VL34
<b>Motor Bore Size</b>	-	0.625
<b>Fan Sheave Size</b>	-	AK58
<b>Fan Sheave Bore</b>	-	1.0
<b>Belt CL Distance</b>	-	7.75
<b>Num of Belts</b>	-	1
<b>Belt Size</b>	-	3L280

Test Data		
	Design	Actual
<b>CFM</b>	870	456
<b>Fan RPM</b>	1187	1070
<b>RL Voltage</b>	-	118
<b>RL Amperage</b>	-	2.8
<b>Suction ESP</b>	-	0.39
<b>Discharge ESP</b>	-	0.21
<b>Total ESP</b>	0.50	0.60
<b>Brake Horse Power</b>	-	0.24

Completed By: Scott Springer

Notes: NO HORSEPOWER REMAINING TO INCREASE FAN SPEED/CFM

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Project: CMS E.E. Waddell High Reno (Charlotte, NC)

## System/Unit: FAN - Exhaust



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Asset: EF2

AREA:

Unit Data		
	Design	Actual
MFG	GREENHECK	GREENHECK
Model Num	USF-12	USF-12
Serial Num	-	20512850
Type	-	UTILITY SET

Motor Data		
	Design	Actual
Motor MFG	-	WEG
Frame	-	56
Horsepower	-	0.25
Motor Rpm	-	1740
Phase	-	1
Voltage (rated)	-	115
Amperage (rated)	-	2.9
Service Factor	-	1.35

Drive Data		
	Design	Actual
Motor Sheave Size	-	VL34
Motor Bore Size	-	0.625
Fan Sheave Size	-	AK58
Fan Sheave Bore	-	1.0
Belt CL Distance	-	7.75
Num of Belts	-	1
Belt Size	-	3L280

Test Data		
	Design	Actual
CFM	870	507
Fan RPM	1187	1061
RL Voltage	-	118
RL Amperage	-	2.8
Suction ESP	-	0.38
Discharge ESP	-	0.22
Total ESP	0.50	0.60
Brake Horse Power	-	.24

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Notes: NO HORSEPOWER REMAINING TO INCREASE FAN SPEED/CFM

# National TAB

Project: CMS E.E. Waddell High Reno (Charlotte, NC)

## System/Unit: FAN - Exhaust



Comfort. Under control.

Asset: EF3

AREA:

Unit Data		
	Design	Actual
MFG	GREENHECK	GREENHECK
Model Num	USF-12	USF-12
Serial Num	-	20512851
Type	-	UTILITY SET

Motor Data		
	Design	Actual
Motor MFG	-	WEG
Frame	-	CRE
Horsepower	-	0.25
Motor Rpm	-	1740
Phase	-	1
Voltage (rated)	-	115
Amperage (rated)	-	2.9
Service Factor	-	1.35

Drive Data		
	Design	Actual
Motor Sheave Size	-	VL34
Motor Bore Size	-	0.625
Fan Sheave Size	-	AK58
Fan Sheave Bore	-	1.0
Belt CL Distance	-	7.75
Num of Belts	-	1
Belt Size	-	3L280

Test Data		
	Design	Actual
CFM	870	482
Fan RPM	1187	1098
RL Voltage	-	118
RL Amperage	-	2.8
Suction ESP	-	0.39
Discharge ESP	-	0.20
Total ESP	0.50	0.59
Brake Horse Power	-	0.24

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Project: CMS E.E. Waddell High Reno (Charlotte, NC)

## System/Unit: FAN - Exhaust



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Asset: EF-4

AREA:GENERAL EXHAUST

Unit Data		
	Design	Actual
MFG	NA	GREENHECK
Model Num	NA	G-140-VG
Serial Num	-	20518303
Type	-	CRE

Test Data		
	Design	Actual
CFM	1300	1348
RL Voltage	-	284
RL Amperage	-	2.0
Total ESP	0.50	0.42

Motor Data		
	Design	Actual
Motor MFG	-	VARIGREEN
Horsepower	-	0.50
Motor Rpm	-	300-1750
Phase	-	1
Voltage (rated)	-	277
Amperage (rated)	-	3.2

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## System/Unit: FAN - Exhaust



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Asset: EF-5

AREA:

Unit Data		
	Design	Actual
MFG	NA	GREENHECK
Model Num	NA	SP-A510

Test Data		
	Design	Actual
CFM	350	400

Motor Data		
	Design	Actual
Horsepower	-	224 W
Motor Rpm	-	1015
Phase	-	1
Voltage (rated)	-	115
Amperage (rated)	-	3.3

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Project: CMS E.E. Waddell High Reno (Charlotte, NC)

## System/Unit: FAN - Exhaust



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Asset: EF-6

AREA:

Unit Data		
	Design	Actual
MFG	NA	GREENHECK
Model Num	NA	SP-A390-VG

Test Data		
	Design	Actual
CFM	175	188

Motor Data		
	Design	Actual
Horsepower	-	26 W
Motor Rpm	1099	1099
Phase	1	1
Voltage (rated)	115	115
Amperage (rated)	-	1.5

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Notes:

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Project: CMS E.E. Waddell High Reno (Charlotte, NC)

## System/Unit: FAN - Exhaust



Comfort. Under control.

Asset: EF-7

AREA:

Unit Data		
	Design	Actual
MFG	NA	GREENHECK
Model Num	NA	SP-A390-VG

Test Data		
	Design	Actual
CFM	175	190

Motor Data		
	Design	Actual
Horsepower	-	26 W
Motor Rpm	1099	1099
Phase	1	1
Voltage (rated)	115	115
Amperage (rated)	-	1.5

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Project: CMS E.E. Waddell High Reno (Charlotte, NC)

## System/Unit: FAN - Exhaust



Comfort. Under control.

Asset: EF-8

AREA:

Unit Data		
	Design	Actual
MFG	NA	GREENHECK
Model Num	NA	SP-A90-130-VG

Test Data		
	Design	Actual
CFM	129	131

Motor Data		
	Design	Actual
Motor MFG	-	Baldor
Horsepower	-	12 W
Motor Rpm	-	1041
Phase	-	1
Voltage (rated)	-	115
Amperage (rated)	-	0.29

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Project: CMS E.E. Waddell High Reno (Charlotte, NC)

## System/Unit: FAN - Exhaust



Comfort. Under control.

Asset: EF-9

AREA:

Unit Data		
	Design	Actual
MFG	NA	GREENHECK
Model Num	NA	SP-A90-130-VG

Test Data		
	Design	Actual
CFM	129	132

Motor Data		
	Design	Actual
Horsepower	-	12 W
Motor Rpm	-	1041
Phase	-	1
Voltage (rated)	-	115
Amperage (rated)	-	0.29

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Project: CMS E.E. Waddell High Reno (Charlotte, NC)

## System/Unit: FAN - Exhaust



Comfort. Under control.

Asset: EF-10

AREA:

Unit Data		
	Design	Actual
MFG	NA	GREENHECK
Model Num	NA	SP-A90-130-VG

Test Data		
	Design	Actual
CFM	129	115

Motor Data		
	Design	Actual
Horsepower	-	12 W
Motor Rpm	-	1041
Phase	-	1
Voltage (rated)	-	115
Amperage (rated)	-	0.29

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Project: CMS E.E. Waddell High Reno (Charlotte, NC)

## System/Unit: FAN - Exhaust



Comfort. Under control.

Asset: EF-11

AREA:

Unit Data		
	Design	Actual
<b>MFG</b>	NA	GREENHECK
<b>Model Num</b>	NA	SP-A90-130-VG

Test Data		
	Design	Actual
<b>CFM</b>	129	122

Motor Data		
	Design	Actual
<b>Horsepower</b>	-	12 W
<b>Motor Rpm</b>	1041	1041
<b>Phase</b>	1	1
<b>Voltage (rated)</b>	115	115
<b>Amperage (rated)</b>	-	0.29

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## VAV - Single Duct

### VAV/

Asset								
Asset Name	Type	Inlet Size	Design Max CFM	Max CFM	Design Min CFM	Min CFM	Design Heat CFM	Heat CFM
VAV-1	VAV	10"	1250	674	320	322	630	674