

**Report By:**

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



**Report: PRELIM**

**Function: Test, Adjust, & Balance**

**Date: 03/19/2026**

**Completed By: National TAB**

# **PROJECT**

## **Tower Park Athletic Complex (Fort Thomas, KY)**

Army Reserve Road

Fort Thomas, KY 41075

### **Client**

KLH Engineers

# National TAB

Project: Tower Park Athletic Complex (Fort Thomas, KY)

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# National TAB

Project: Tower Park Athletic Complex (Fort Thomas, KY)

## System/Unit: FAN - Exhaust



Asset: EF-1

AREA:101

Unit Data		
	Design	Actual
MFG	NA	GREENHECK
Model Num	NA	CSP-A1550-QD
Serial Num	-	26725688
Type	INLINE	INLINE

Test Data		
	Design	Actual
CFM	1340	1339
Total ESP	0.3	0.42"

Motor Data		
	Design	Actual
Motor MFG	-	
Frame	-	
Horsepower	-	
Motor Rpm	-	
Phase	1	1
Voltage (rated)	120	115
Amperage (rated)	-	7.4
Service Factor	-	

Completed By: Corey Dick on 01/08/2026

# National TAB

Project: Tower Park Athletic Complex (Fort Thomas, KY)

## FAN - Exhaust



### Diffuser Ret/Exh (GRD)

EF-1/101

Asset								
Asset Name	Type	Size	DESIGN CFM	AK	CFM(1)	CFM(2)	FINAL CFM	% to design
E1-1	ER-1	14X10	560	1	534	536	570	101.8
E1-2	ER-2	6	140	1	67	88	126	90.0
E1-3	ER-1	14X10	560	1	650	526	555	99.1
E1-4	ER-6		80	1	95	88	88	110.0
Total			1340		1346	1238	1339	99.93%

# National TAB

Project: Tower Park Athletic Complex (Fort Thomas, KY)

## System/Unit: FAN - Exhaust



Asset: EF-2

AREA:113

Unit Data		
	Design	Actual
MFG	NA	GREENHECK
Model Num	NA	CSP-A700-VG-QD
Serial Num	-	199127934-0009
Type	INLINE	INLINE

Test Data		
	Design	Actual
CFM	540	557
Total ESP	0.3	0.19"

Motor Data		
	Design	Actual
Motor MFG	-	
Frame	-	
Horsepower	-	
Motor Rpm	-	
Phase	1	1
Voltage (rated)	120	115
Amperage (rated)	-	4.1
Service Factor	-	

Completed By: Aaron Cosby on 02/26/2026

# National TAB

Project: Tower Park Athletic Complex (Fort Thomas, KY)

## FAN - Exhaust



### Diffuser Ret/Exh (GRD)

EF-2/113

Asset								
Asset Name	Type	Size	DESIGN CFM	AK	CFM(1)	CFM(2)	FINAL CFM	% to design
E2-1	ER-2		140	1	78	78	151	107.9
E2-2	ER-1	12X12	400	1	258	258	406	101.5
Total			540		336	336	557	103.15%

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Project: Tower Park Athletic Complex (Fort Thomas, KY)

## System/Unit: FAN - Exhaust



Asset: EF-3

AREA:105

Unit Data		
	Design	Actual
MFG	NA	GREENHECK
Model Num	NA	CSP-A1550-QD
Serial Num	-	26725689
Type	INLINE	INLINE

Test Data		
	Design	Actual
CFM	1000	1044
Total ESP	0.25	0.10"

Motor Data		
	Design	Actual
Phase	1	1
Voltage (rated)	120	115
Amperage (rated)	-	4.75

Completed By: Aaron Cosby on 03/19/2026

Notes:

No speed control located. Pressures -0.011 suction and 0.02 discharge.

Written By: Corey Dick on 01/08/2026

# National TAB

Project: Tower Park Athletic Complex (Fort Thomas, KY)

## FAN - Exhaust



### Diffuser Ret/Exh (GRD)

#### EF-3/105

Asset								
Asset Name	Type	Size	DESIGN CFM	AK	CFM(1)	CFM(2)	FINAL CFM	% to design
E3-1	ER-4	18X16	1000	1.83	323	323	1044	104.4
Total			1000		323	323	1044	104.4%

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Project: Tower Park Athletic Complex (Fort Thomas, KY)

System/Unit: FAN - Exhaust



Asset: EF-4

AREA:RS1A

Unit Data		
	Design	Actual
MFG	NA	GREENHECK
Model Num	NA	CSP. 4390-VG
Serial Num	-	26363601
Type	INLINE	INLINE

Test Data		
	Design	Actual
CFM	160	168

Motor Data		
	Design	Actual
Motor MFG	-	
Frame	-	
Horsepower	-	
Motor Rpm	-	
Phase	1	1
Voltage (rated)	120	115
Amperage (rated)	-	1.5
Service Factor	-	

Completed By: Corey Dick on 01/07/2026

Notes:

Fan speed dial set to 5.5

Written By: Corey Dick on 01/07/2026

# National TAB

Project: Tower Park Athletic Complex (Fort Thomas, KY)

## FAN - Exhaust



### Diffuser Ret/Exh (GRD)

#### EF-4/RS1A

Asset								
Asset Name	Type	Size	DESIGN CFM	AK	CFM(1)	CFM(2)	FINAL CFM	% to design
E4-1	ER-5		160					-
Total			160		0	0	0	0%

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Project: Tower Park Athletic Complex (Fort Thomas, KY)

System/Unit: FAN - Exhaust



Asset: EF-5

AREA:RS2A

Unit Data		
	Design	Actual
MFG	NA	GREENHECK
Model Num	NA	28363601
Serial Num	-	26363502
Type	INLINE	INLINE

Test Data		
	Design	Actual
CFM	160	158

Motor Data		
	Design	Actual
Motor MFG	-	
Frame	-	
Horsepower	-	
Motor Rpm	-	
Phase	1	1
Voltage (rated)	120	115
Amperage (rated)	-	1.5
Service Factor	-	

Completed By: Corey Dick on 01/07/2026

Notes:

Fan speed dial set to 5.5

Written By: Corey Dick on 01/07/2026

# National TAB

Project: Tower Park Athletic Complex (Fort Thomas, KY)

## FAN - Exhaust



### Diffuser Ret/Exh (GRD)

#### EF-5/RS2A

Asset								
Asset Name	Type	Size	DESIGN CFM	AK	CFM(1)	CFM(2)	FINAL CFM	% to design
E5-1	ER-5		160	1	265	188	158	98.8
Total			160		265	188	158	98.75%

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Project: Tower Park Athletic Complex (Fort Thomas, KY)

System/Unit: FAN - Exhaust



Asset: EF-6

AREA:105B

Unit Data		
	Design	Actual
MFG	NA	GREENHECK
Model Num	NA	6-070-V6-1-17-X
Serial Num	-	26989238
Type	CRE DNBLAST	CRE DNBLST

Test Data		
	Design	Actual
CFM	160	172
Total ESP	0.25	0.21"

Motor Data		
	Design	Actual
Motor MFG	-	VARIGREEN
Frame	-	
Horsepower	-	0.067
Motor Rpm	-	300-1750
Phase	1	1
Voltage (rated)	120	115
Amperage (rated)	-	1.3
Service Factor	-	

Completed By: Corey Dick on 01/08/2026

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Project: Tower Park Athletic Complex (Fort Thomas, KY)

## FAN - Exhaust



### Diffuser Ret/Exh (GRD)

#### EF-6/105B

Asset								
Asset Name	Type	Size	DESIGN CFM	AK	CFM(1)	CFM(2)	FINAL CFM	% to design
E6-1	ER-2	6	80	1	129	110	88	110.0
E6-2	ER-2	6	80	1	117	84	84	105.0
Total			160		246	194	172	107.5%

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Project: Tower Park Athletic Complex (Fort Thomas, KY)

System/Unit: Fan Coil



Asset: FC-1

AREA:109

Unit Data		
	Design	Actual
MFG	NA	DAIKIN
Model Num	NA	DFVE60DP1400BA
Serial Num	-	2408208141
Configuration	-	HORIZONTAL

Test Data		
	Design	Actual
SFAN CFM	1580	1496
Motor Speed SetPt	-	HIGH
RL Voltage	-	208
RL Amperage	-	4.5
RA CFM	1580	1496
OA CFM	0	0

Motor Data		
	Design	Actual
Horsepower	0.75	0.75
Phase	1	1
Voltage (rated)	208	208
Amperage (rated)	-	5.2

Completed By: Aaron Cosby on 03/19/2026

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Project: Tower Park Athletic Complex (Fort Thomas, KY)

## Fan Coil



### Diffuser Supply (GRD)

#### FC-1/109

Asset							
Asset Name	Location	Type	Size	DESIGN CFM	CFM(1)	FINAL CFM	% to design
1-1	109	SR-3		265	254	254	95.8
1-2	109	SR-3		265	261	261	98.5
1-3	109	SR-3		260	244	244	93.8
1-4	109	SR-3		265	257	257	97.0
1-5	109	SR-3		260	238	238	91.5
1-6	109	SR-3		265	242	242	91.3
Total				1580	1496	1496	94.68%

# National TAB

Project: Tower Park Athletic Complex (Fort Thomas, KY)

## System/Unit: Fan Coil



Asset: FC-2

AREA:108A

Unit Data		
	Design	Actual
MFG	NA	DAIKIN
Model Num	NA	DFVE36CP1400BA
Serial Num	-	2412463492
Configuration	-	HORIZONTAL

Test Data		
	Design	Actual
SFAN CFM	1120	1119
RL Voltage	-	208
RL Amperage	-	5.2
RA CFM	1120	1119

Motor Data		
	Design	Actual
Horsepower	0.5	0.75
Phase	1	1
Voltage (rated)	208	208
Amperage (rated)	-	5.2

Completed By: Aaron Cosby on 02/26/2026

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Project: Tower Park Athletic Complex (Fort Thomas, KY)

## Fan Coil



### Diffuser Supply (GRD)

#### FC-2/108A

Asset							
Asset Name	Location	Type	Size	DESIGN CFM	CFM(1)	FINAL CFM	% to design
2-1	115	CD-1	10	330	306	306	92.7
2-2	116	SR-5	6	100	97	97	97.0
2-3	108	CD-1	10	225	235	235	104.4
2-4	108	SR-6	10	220	240	240	109.1
2-5	108	CD-1	10	225	219	219	97.3
2-6	108A	SR-6	4	20	22	22	110.0
Total				1120	1119	1119	99.91%

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Project: Tower Park Athletic Complex (Fort Thomas, KY)

System/Unit: Fan Coil



Asset: FC-3

AREA:121

Unit Data		
	Design	Actual
MFG	NA	DAIKIN
Model Num	NA	DFVE36 CP1400BA
Serial Num	-	2412463489
Configuration	-	HORIZONTAL

Motor Data		
	Design	Actual
Horsepower	0.5	0.75
Phase	1	1
Voltage (rated)	208	208
Amperage (rated)	-	5.2

Test Data		
	Design	Actual
SFAN CFM	1060	1108
RL Voltage	-	208
RL Amperage	-	5.2
RA CFM	-	1108

Performance Data		
	Design	Actual
Suction ESP	-	-0.04"
Discharge ESP	-	0.05"
Total ESP	0.5	0.09"

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Project: Tower Park Athletic Complex (Fort Thomas, KY)

## Fan Coil



### Diffuser Supply (GRD)

#### FC-3/121

Asset							
Asset Name	Location	Type	Size	DESIGN CFM	CFM(1)	FINAL CFM	% to design
3-1	116	CD-1	8	140	129	129	92.1
3-2	110A	CD-1	8	200	208	208	104.0
3-3	110	CD-1	8	125	111	111	88.8
3-4	110	CD-1	8	125	132	132	105.6
3-5	112A	CD-1	8	140	146	146	104.3
3-6	112	CD-1	10	350	339	339	96.9
3-7	121	CD-3	6	40	43	43	107.5
Total				1120	1108	1108	98.93%

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Project: Tower Park Athletic Complex (Fort Thomas, KY)

## System/Unit: Fan Coil



Asset: FC-4

AREA:106

Unit Data		
	Design	Actual
MFG	NA	DAIKIN
Model Num	NA	DFVE42CP1400BA
Serial Num	-	2412465554
Configuration	-	HORIZONTAL

Motor Data		
	Design	Actual
Horsepower	0.5	0.75
Phase	1	1
Voltage (rated)	208	208
Amperage (rated)	-	5.2

Test Data		
	Design	Actual
SFAN CFM	610	604
Motor Speed SetPt	-	LOW
RL Voltage	-	
RL Amperage	-	
RA CFM	510	495
OA CFM	-	0

Performance Data		
	Design	Actual
Suction ESP	-	-0.35"
Discharge ESP	-	0.07"
Total ESP	0.5	0.42"

Completed By: Corey Dick on 01/08/2026

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Project: Tower Park Athletic Complex (Fort Thomas, KY)

## Fan Coil



### Diffuser Supply (GRD)

#### FC-4/106

Asset							
Asset Name	Location	Type	Size	DESIGN CFM	CFM(1)	FINAL CFM	% to design
4-1	105A	CD-2	6	50	129	55	110.0
4-2	105B	CD-2	6	50	116	47	94.0
4-3	106	CD-1	10	255	327	233	91.4
4-4	106	CD-1	10	255	365	269	105.5
Total				610	937	604	99.02%

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Project: Tower Park Athletic Complex (Fort Thomas, KY)

## System/Unit: AHU-DUAL FAN



Asset: DOAS-1

AREA:109

UNIT DATA - SUPPLY	
	Actual
Manufacturer	OXYGEN8
Model Number	C24_H_I_ERV
Serial Number	NA

MOTOR DATA - SUPPLY	
	Actual
Rated Volts / Phase	460 / 3
Rated Amperage / SF	5.8 / 1.15

TEST DATA - SUPPLY		
	Design	Actual
Total CFM	2250	2435
OA CFM	2250	2435
VFD Speed	-	75%
RL Voltage	460	474/471/470
RL Amperage	5.8	4.5/4.5/4.7

MOTOR DATA - EXHAUST/RETURN	
	Actual
Rated Volts / Phase	460 / 3
Rated Amperage / SF	5.8 / 1.15

TEST DATA - EXHAUST/RETURN		
	Design	Actual
Total CFM	2175	2218
VFD Speed	-	65%
RL Voltage	460	471/470/475
RL Amperage	-	4.2/4.1/4.3

Completed By: Aaron Cosby on 03/19/2026

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Project: Tower Park Athletic Complex (Fort Thomas, KY)

## AHU-DUAL FAN



### Diffuser Supply (GRD)

#### DOAS-1/109

Asset							
Asset Name	Location	Type	Size	DESIGN CFM	CFM(1)	FINAL CFM	% to design
D1-1	108	CD-1	10	250	407	241	96.4
D1-2	115	CD-1	8	150	190	155	103.3
D1-3	116B	CD-1	12	505	205	526	104.2
D1-4	116B	CD-1	12	505	1088	552	109.3
D1-5	116B	CD-1	12	505	516	528	104.6
D1-6	116C	FCU	12	460	222	433	94.1
Total				2375	2628	2435	102.53%

### Diffuser Ret/Exh (GRD)

#### DOAS-1/109

Asset								
Asset Name	Type	Size	DESIGN CFM	AK	CFM(1)	CFM(2)	FINAL CFM	% to design
DR1-1	ER-2	8	100	1	117		105	105.0
DR1-2	ER-2	6	80	1	97		87	108.8
DR1-3	ER-1	10	280	1	305		286	102.1
DR1-4	ER-1	14	640	1	502		692	108.1
DR1-5	ER-3	6X6	90	1	72		95	105.6
DR1-6	ER-1	10	185	1	105		178	96.2
DR1-7	ER-1	14	640	1	426		605	94.5
DR1-8	ER-2	8	160	1	180		170	106.3
Total			2175		1804	0	2218	101.98%