

**Report By:**

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

**NATIONAL**

**TAB**

Comfort. Under control.

**Report: FINAL TAB REPORT  
Function: Test, Adjust, & Balance  
Date: 11/10/2022**

**PROJECT  
10-24 NIKE - SOUTHLAKE, TX**

167 GRAND AVE

SOUTHLAKE, TX 76092

**Client**

National Contractors Inc. (NCI)  
2500 ORCHARD LN  
EXCELSIOR, MN 55331

# National TAB

Project: 10-24 NIKE - SOUTHLAKE, TX

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## 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.

### FCU's w/ Diffusers

Each of the FCU's were measured at their terminal devices utilizing a flow hood. The sum of these readings is equal to the total flow for that particular unit. The total flow of each FCU was then adjusted to within tolerance of the specified design. Each terminal diffuser was balanced to within tolerance of the engineer's design volume utilizing the provided hand damper located at the takeoff of the main & branch trunk line(s). Any equipment that fell outside of this tolerance is noted throughout the report.

### Variable Air Volume (VAV) Terminals

The VAV's were calibrated in a call for max cooling and the correction factors are reported on the individual asset. While in a call for full cooling, the individual air devices were then balanced within design tolerance. The VAVs were then stroked to minimum cool and the airflow values reported. The VAV was then stroked to heating and the airflow values reported. It was verified that there was a sufficient temp rise on each VAV.

### Outside Air Fan

The OAF provides ventilation air to HVAC units throughout the space. All equipment on the duct system was first turned on in a full fan speed condition. The total airflow was measured via traverse and then adjustment was made to bring the total flow within design tolerance. The individual branches to each unit were then traversed and balanced until they were within design tolerances. Once balancing was completed, the overrides were released

### General Exhaust Fans

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 of design. 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.

### Final Building Tests

After completing the test and balance the final building pressure was measured. It was confirmed that the building pressure fell within acceptable tolerances of  $-0.02''$  wc to  $+0.02''$  wc and that the pressure measurement coincides with the actual and design net airflow. Any deviations from these standards are noted throughout the report.



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## 10-24 NIKE - SOUTHLAKE, TX

### Project Issue Information

**Issue Name :** DIRTY FINAL FILTERS FOR ALL UNITS

**Description :** ALL FCU'S WERE NOTED TO HAVE DIRTY FILTERS THAT WILL NEED TO BE REPLACED FOR THE UNITS TO HAVE A PROPER AIRFLOW.

**Created By :** National TAB

**Assigned To :** National TAB - Titus Mowry

**Status :** Open

**Originated Date :** 11/10/2022 - Titus Mowry - National TAB



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## 10-24 NIKE - SOUTHLAKE, TX

### Project Issue Information

**Issue Name :** FCU RETURN DUCTS UNDERSIZED.

**Description :** RETURNS ARE INSTALLED AS FLEX WITH A SMALLER FREE AREA THAN THE HARD RECTANGULAR DUCT SHOWN ON THE PLANS. MAY BE RESTRICTING AIRFLOW. RECOMMEND CHANGING TO SIZE SHOWN.

**Created By :** National TAB

**Assigned To :** National TAB - Will Turnbough

**Status :** Open

**Originated Date :** 10/10/2022 - Will Turnbough - National TAB



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## 10-24 NIKE - SOUTHLAKE, TX

### Project Issue Information

**Issue Name :** FCU-1 DIFFUSER 1-5

**Description :** DIFFUSER 1-5 (SERVER ROOM) IS AT 76% OF DESIGN AIRFLOW. THIS DIFFUSER HAS THE LONGEST DUCT RUN OUT OF ALL THE DIFFUSERS ON THE UNIT WHICH IS WHY IT IS LACKING PROPER FLOW. TOTAL FLOW OF UNIT IS ABOUT 91% OF TOTAL FLOW.

**Created By :** National TAB

**Assigned To :** National TAB - Will Turnbough

**Status :** Open

**Originated Date :** 10/03/2022 - Titus Mowry - National TAB



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## 10-24 NIKE - SOUTHLAKE, TX

### Project Issue Information

**Issue Name :** SF-1 WRONG MODEL NUMBER

**Description :** Per the commissioning agent SF-1 is not the correct model number and the back draft damper was stuck closed. They are installing the correct fan and fixing the backdraft damper. See email from Cx agent attached to this issue.

**Created By :** National TAB

**Assigned To :** National TAB - Titus Mowry

**Status :** Open

**Originated Date :** 10/10/2022 - Will Turnbough - National TAB

#### Project Issue File Details

1. [Open](#) Email\_from\_Cx\_Agent.pdf

#### Project Issue Response Details

- **10/27/2022 National TAB - Titus Mowry**
  - IT WAS NOTED THAT CORRECT FAN WITH CORRECT MODEL NUMBER HAS NOW BEEN INSTALLED AND BALANCED.

### AIR BALANCE SCHEDULE

UNIT	AREA SERVED	HVAC SUPPLY		HVAC RETURN		HVAC OUTDOOR		OA %		HOOD MAKE-UP		HOOD EXHAUST		GENERAL EXH.	
		DESIGN	ACTUAL	DESIGN	ACTUAL	DESIGN	ACTUAL	DESIGN	ACTUAL	DESIGN	ACTUAL	DESIGN	ACTUAL	DESIGN	ACTUAL
FCU-1	BOH	1475	1335	1355	1221	120	114	8.1%	8.5%						
FCU-2	STOCKROOM	1050	1083	815	865	235	218	22.4%	20.1%						
FCU-3	SALES	1840	1954	1520	1631	320	323	17.4%	16.5%						
FCU-4	SALES	1840	1753	1520	1412	320	341	17.4%	19.5%						
FCU-5	SOLAR ZONE	1400	1435	1080	1106	320	329	22.9%	22.9%						
EF-1	RESTROOMS													200	207
<b>TOTALS</b>		7605	7560	6290	6235	1315	1325			0	0	0	0	200	207

#### NET BUILDING AIRFLOW CALCULATION

TOTALS	DESIGN	ACTUAL
TOTAL OA	1315	1325
TOTAL EXHAUST	200	207
<b>NET AIRFLOW</b>	<b>1115</b>	<b>1118</b>

DOOR TESTED	BUILDING PRESSURE MEASUREMENTS (IN. H2O)
FRONT	0.005
SIDE	-
REAR	0.002
<b>AVERAGE</b>	<b>0.0035</b>

#### FINAL CHECKS

- ACTUAL NET AIRFLOW COINCIDES WITH DESIGN: ✓

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- MEASURED PRESSURES COINCIDES WITH ACTUAL NET AIRFLOW: ✓

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- PRESSURE FALLS WITHIN IMC TOLERANCE OF +/-0.02" W.C. ✓

NOTES:



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## 10-24 NIKE - SOUTHLAKE, TX

### CheckList Information

**Name :** TECH - SITE PICTURES **Status :** NotSubmitted

**Assigned Organization :** National TAB **Asset :**

**Requesting Organization :** National TAB

### CheckList Item Details

#### STORE FRONT



FuseIT507c466f5b4249....

#### RTU-1



FuseIT9c3f8c7680b340....

RTU-2



**FuseIT8402580e441e45....**

RTU-3



**FuseIT72a96207360f44....**

RTU-4



**FuseITfda7b2532ff04a....**

RTU-5



FuseIT6e99498a535246....

SF-1



FuseIT0726d58bb02b49....

EF-1

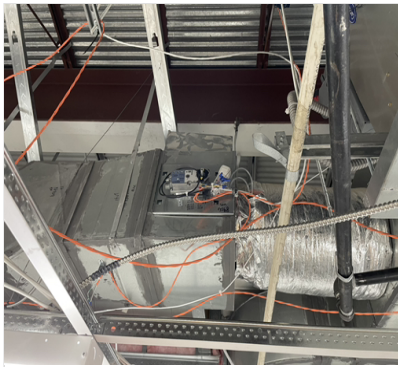
NO UNIT.

EF-2



FuseIT72084453c03549....

VAV-1



FuseIT54cebada772f44....

VAV-2



FuseIT8c1ee0da24b543....

Notes/Comments :



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### 10-24 NIKE - SOUTHLAKE, TX

#### CheckList Information

**Name :** TECH - STEP 1: INITIAL WALKTHROUGH **Status :** NotSubmitted  
**Assigned Organization :** National TAB **Asset :**  
**Requesting Organization :** National TAB

#### CheckList Item Details

##### INITIAL SITE WALKTHROUGH

Review Plan Review Checklist, has it been signed off and meets our standards to start balancing? If not contact processor to ensure job is ready.	YES
All diffusers and grilles are installed and match design?	MISSING EF-1 UNIT, NOT TO BE INSTALLED.
Thermostats have power?	YES
All HVAC units and fans and powered and operational?	(RESOLVED) FCUS ARE RUNNING, BUT CONTROLS ARE NOT COMPLETE. CONTRACTOR CURRENTLY WORKING ON CONTROLS. WILL HAVE UNITS READY BY TODAY.
VAV diffusers (if applicable) are powered and responding to adjustment at thermostat?	(RESOLVED) CONTROLS CONTRACTOR TO HAVE VAV DIFFUSERS READY LATER TODAY (10/3).
Have trades/general contractor been notified about any issues and are they created on FaciliBuild?	YES

#### Notes/Comments :



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## 10-24 NIKE - SOUTHLAKE, TX

### CheckList Information

<b>Name :</b>	TECH - STEP 2: UNIT DATA AND EVAL	<b>Status :</b>	NotSubmitted
<b>Assigned Organization :</b>	National TAB	<b>Asset :</b>	
<b>Requesting Organization :</b>	National TAB		

### CheckList Item Details

#### UNIT DATA AND EVALUATION WHILE GATHERING UNIT DATA CHECK THE FOLLOWING:

##### RTU's/AHU's

Economizers are assembled and functional?	NA
Motors are all operating below the FLA rating?	YES
Are belts tight?	NA
If direct drive unit is the speed controller working.	YES
Is gas piping installed and valves turned on?	YES
Unit free of noticeable noise and vibration	FREE OF NOISE AND VIBRATION

##### EF's

Rotation is correct?	YES
Belts are tight?	NA
Grease cup installed on hood fan	NA
Hinge kit installed installed on hood fan?	NA
Lean fan back. Is grease duct installation adequate and is duct ran all the way to the base of the fan?	NA
Flex conduit is long enough so that fan can be completely tilted back?	NA
There is no major leakage around base of fan?	NA
Is the motor operating below the motor FLA rating?	YES

For restroom fan(s) is the back draft damper installed and can it fully open?

NA

Unit free of noticeable noise and vibration?

FREE OF NOISE AND VIBRATION

**DOCUMENTATION**

Have trades/general contractor been notified about any issues and are they created on FaciliBuild?

YES

**Notes/Comments :**



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### 10-24 NIKE - SOUTHLAKE, TX

#### CheckList Information

<b>Name :</b>	TECH - STEP 3: TEST, ADJUST AND BALANCE	<b>Status :</b>	NotSubmitted
<b>Assigned Organization :</b>	National TAB	<b>Asset :</b>	
<b>Requesting Organization :</b>	National TAB		

#### CheckList Item Details

##### TEST, ADJUST, AND BALANCE ALL EQUIPMENT:

##### DURING TESTING MAKE NOTE OF THE FOLLOWING:

Is space free of drafting?	SPACE IS FREE OF DRAFTING
Is space comfortable in all areas?	SPACE IS COMFORTABLE
Is the space free of ventilation noise?	SPACE IS FREE OF VENTILATION NOISE
If deviations from design were necessary to resolve 1-3 what were they? Otherwise put "NA".	NA

##### FABRIC DUCT STATIC PRESSURES (IF APPLICABLE)

Take static pressures near takeoff for each fabric duct once balancing is completed. Input this into the "VEL (1)" field on the diffuser asset. If not a fabric duct then, put "N/A" into the "VEL (1)" field instead.	NA
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##### Notes/Comments :



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### 10-24 NIKE - SOUTHLAKE, TX

#### CheckList Information

<b>Name :</b>	TECH - STEP 4: FINAL TESTS	<b>Status :</b>	NotSubmitted
<b>Assigned Organization :</b>	National TAB	<b>Asset :</b>	
<b>Requesting Organization :</b>	National TAB		

#### CheckList Item Details

##### FINAL TESTS

##### BUILDING PRESSURE

Building pressure at front & back doors (All Systems On)	0.005"/0.002"
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Do actual net building airflow, design net building airflow, and pressure coincide? If not why? (All three should either be positive or negative)	YES ALL POSITIVE
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##### CARRIER VFD PARAMETERS (IF APPLICABLE)

Use Carrier provided VFD cable to verify VFD speed parameters for each unit (Defaults - high speed = 60Hz, low speed = 40Hz). Can adjust high speed parameter for balancing but requires that the low speed is proportionally adjusted. Record VFD speeds on the individual assets	NA, UNIT ONLY HAD MOTOR SPEED TAPS
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##### TEMPERATURES/HUMIDITIES

Measure temperatures/humidities for outside air (taken in shade), return air, and supply air for each HVAC unit during full cooling and input into appropriate fields on the individual asset	RECORDED
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##### VAV DIFFUSERS (IF APPLICABLE)

Each VAV-diffuser is calibrated for max airflow?	RECORDED
--	----------

Each VAV diffuser is set for minimum airflow? Record value in notes on the individual diffuser asset	RECORDED
--	----------

**Notes/Comments :**



# National TAB

Project: 10-24 NIKE - SOUTHLAKE, TX

## System/Unit: AHU/RTU



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Asset: FCU1

AREA:BOH

Unit Data		
	Design	Actual
MFG	CARRIER	CARRIER
Serial Num	-	2222F08211
Model Num	FV4CNB005	FV4CNB005
Type	FCU	FCU
Configuration	VERTICAL	HORIZONTAL
Num OA Filters 1	-	NA
OA Filter Size 1	-	8" DUCT
Num Final Filter 1	-	1
Final Filter Size 1	-	20X25X2

Motor Data		
	Design	Actual
Motor MFG	-	GENTEQ
Frame	-	NL
Horsepower	0.5	0.5
Motor Rpm	-	NL
Phase	3	3
Rated Voltage	480	208/230
Rated Amperage	-	4.3

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

Electrical		
	Design	Actual
VFD Min Setpt	-	NA
VFD Max Setpt	-	NA

Completed By: Titus Mowry

Notes:

Test Data		
	Design	Actual
SF CFM	1475	1335
SF RPM	-	NR
RA CFM	1335	1221
OA CFM	120	114
RL Voltage	-	481/481/481
RL Amperage	-	3.9/3.8/3.7
SF Rotation	-	CW
RA Damper Position	-	NA
Min OA Damper Position	-	35%
Min OA Damper Type	-	DUCT DAMPER

Performance Data		
	Design	Actual
MA Plenum SP	-	-0.06"
Fan Suction SP	-	-1.36"
Fan Discharge SP	-	0.05"
Total ESP	0.7"	0.11"
OA Temp (db/wb)	-	72/65
RA Temp (db/wb)	-	70/60
SA Temp (db/wb)	-	61/53

General		
	Design	Actual
Fan Rotation Correct	-	YES
Unit Filters Clean	-	DIRTY

# National TAB

Project:10-24 NIKE - SOUTHLAKE, TX

## AHU/RTU



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### Diffuser Supply (GRD)

#### FCU1/BOH

Asset									
Asset Name	Location	Type	Size	DESIGN CFM	AK	CFM(1)	CFM(2)	FINAL CFM	% to design
SGRD1	QUIET ROOM	CSD1	8"	200	1	125	-	205	102.5
SGRD2	COACH'S OFFICE	CSD1	10"	375	1	205	-	347	92.5
SGRD3	BREAK ROOM	CSD2	10"	275	1	306	-	253	92.0
SGRD4	BREAK ROOM	CSD2	10"	275	1	253	-	262	95.3
SGRD5	IT ROOM	CSD3	8"	350	1	185	-	268	76.6

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# National TAB

Project: 10-24 NIKE - SOUTHLAKE, TX  
System/Unit: AHU/RTU



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Asset: FCU2

AREA:STOCKROOM

Unit Data		
	Design	Actual
MFG	CARRIER	CARRIER
Serial Num	-	2222F08210
Model Num	FV4CNB005	FV4CNB005
Type	FCU	FCU
Configuration	VERTICAL	HORIZONTAL
Num OA Filters 1	-	NA
OA Filter Size 1	-	10" DUCT
Num Final Filter 1	-	1
Final Filter Size 1	-	20X25X2

Motor Data		
	Design	Actual
Motor MFG	-	GENTEQ
Frame	-	NL
Horsepower	0.5	0.5
Motor Rpm	-	NL
Phase	3	3
Rated Voltage	480	208/230
Rated Amperage	-	4.3

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

Electrical		
	Design	Actual
VFD Min Setpt	-	NA
VFD Max Setpt	-	NA

Completed By: Titus Mowry

Notes:

Test Data		
	Design	Actual
SF CFM	1050	1083
SF RPM	-	NR
RA CFM	815	865
OA CFM	235	218
RL Voltage	-	482/482/481
RL Amperage	-	3.7/3.6/3.9
SF Rotation	-	CW
RA Damper Position	-	NA
Min OA Damper Position	-	45%
Min OA Damper Type	-	DUCT DAMPER

Performance Data		
	Design	Actual
MA Plenum SP	-	-0.07"
Fan Suction SP	-	-1.21"
Fan Discharge SP	-	0.07"
Total ESP	0.7"	0.14"
OA Temp (db/wb)	-	72/65
RA Temp (db/wb)	-	68/59
SA Temp (db/wb)	-	63/50

General		
	Design	Actual
Fan Rotation Correct	-	YES
Unit Filters Clean	-	DIRTY

# National TAB

Project:10-24 NIKE - SOUTHLAKE, TX

## AHU/RTU



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**Diffuser Supply (GRD)**

**FCU2/STOCKROOM**

Asset									
Asset Name	Location	Type	Size	DESIGN CFM	AK	CFM(1)	CFM(2)	FINAL CFM	% to design
SGRD1	BOH	CSD2	8"	195	1	220	196	200	102.6
SGRD2	BOH	CSD2	8"	195	1	210	183	189	96.9
SGRD3	BOH	CSD2	8"	195	1	295	201	206	105.6
SGRD4	S&R	CSD2	8"	195	1	215	200	203	104.1
SGRD5	FOH	CSD2	8"	195	1	187	204	210	107.7
SGRD6	ADA RESTROOM	CSD3	6"	75	1	86	128	75	100.0

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# National TAB

Project: 10-24 NIKE - SOUTHLAKE, TX  
System/Unit: AHU/RTU



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Asset: FCU3

AREA:SALES

Unit Data		
	Design	Actual
MFG	CARRIER	CARRIER
Serial Num	-	1922F05596
Model Num	FV4CNB006	FV4CNB006
Type	FCU	FCU
Configuration	VERTICAL	HORIZONTAL
Num OA Filters 1	-	NA
OA Filter Size 1	-	10" DUCT
Num Final Filter 1	-	1
Final Filter Size 1	-	20X25X2

Motor Data		
	Design	Actual
Motor MFG	-	GENTEQ
Frame	-	NL
Horsepower	0.75	0.75
Motor Rpm	-	NL
Phase	3	3
Rated Voltage	480	208/230
Rated Amperage	-	6.8

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

Electrical		
	Design	Actual
VFD Min Setpt	-	NA
VFD Max Setpt	-	NA

Completed By: Titus Mowry

Notes:

Test Data		
	Design	Actual
SF CFM	1840	1954
SF RPM	-	UNABLE TO VERIFY
RA CFM	1520	1631
OA CFM	320	323
RL Voltage	-	480/481/481
RL Amperage	-	6.4/6.2/6.6
SF Rotation	-	CW
RA Damper Position	-	NA
Min OA Damper Position	-	50%
Min OA Damper Type	-	DUCT DAMPER

Performance Data		
	Design	Actual
MA Plenum SP	-	-0.12"
Fan Suction SP	-	-1.78"
Fan Discharge SP	-	0.05"
Total ESP	1.0"	0.17"
OA Temp (db/wb)	-	72/65
RA Temp (db/wb)	-	69/59
SA Temp (db/wb)	-	64/50

General		
	Design	Actual
Fan Rotation Correct	-	YES
Unit Filters Clean	-	DIRTY

# National TAB

Project:10-24 NIKE - SOUTHLAKE, TX

## AHU/RTU



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**Diffuser Supply (GRD)**

**FCU3/SALES**

Asset									
Asset Name	Location	Type	Size	DESIGN CFM	AK	CFM(1)	CFM(2)	FINAL CFM	% to design
SGRD1	FOOTWEA R	DSG1	10X6	210	0.35	179	262	229	109.0
SGRD2	FOOTWEA R	DSG1	10X6	210	0.35	156	243	222	105.7
SGRD3	SALES	DSG1	10X6	210	0.35	157	209	219	104.3
SGRD4	SALES	DSG1	10X6	210	0.35	176	258	220	104.8
VAV1	FITTING ROOMS	DESV	14"	1000	4685	863	1181	1064	106.4

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Project: 10-24 NIKE - SOUTHLAKE, TX  
System/Unit: AHU/RTU



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Asset: FCU4

AREA:SALES

Unit Data		
	Design	Actual
MFG	CARRIER	CARRIER
Serial Num	-	1922F05597
Model Num	FV4CNB006	FV4CNB006
Type	FCU	FCU
Configuration	VERTICAL	HORIZONTAL
Num OA Filters 1	-	NA
OA Filter Size 1	-	10" DUCT
Num Final Filter 1	-	1
Final Filter Size 1	-	20X25X2

Test Data		
	Design	Actual
SF CFM	1840	1753
SF RPM	-	NR
RA CFM	1520	1412
OA CFM	320	341
RL Voltage	-	482/482/482
RL Amperage	-	5.8/5.9/5.6
SF Rotation	-	CW
Min OA Damper Position	-	50%
Min OA Damper Type	-	DUCT DAMPER

Motor Data		
	Design	Actual
Motor MFG	-	GENTEQ
Frame	-	NL
Horsepower	0.75	0.75
Motor Rpm	-	NL
Phase	3	3
Rated Voltage	480	208/230
Rated Amperage	-	6.8

Performance Data		
	Design	Actual
MA Plenum SP	-	-0.09"
Fan Suction SP	-	-1.98"
Fan Discharge SP	-	0.05"
Total ESP	1.0"	0.14"
OA Temp (db/wb)	-	72/65
RA Temp (db/wb)	-	69/57
SA Temp (db/wb)	-	53/47

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

General		
	Design	Actual
Fan Rotation Correct	-	YES
Unit Filters Clean	-	DIRTY

Electrical		
	Design	Actual
VFD Min Setpt	-	NA
VFD Max Setpt	-	NA

Completed By: Titus Mowry

Notes:

# National TAB

Project:10-24 NIKE - SOUTHLAKE, TX

## AHU/RTU



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### Diffuser Supply (GRD)

#### FCU4/SALES

Asset									
Asset Name	Location	Type	Size	DESIGN CFM	AK	CFM(1)	CFM(2)	FINAL CFM	% to design
SGRD1	FOH PIPP	CSD2	8"	200	1	124	187	193	96.5
SGRD2	FOH PIPP	CSD2	8"	200	1	129	193	196	98.0
SGRD3	FOH PIPP	CSD2	8"	200	1	135	194	201	100.5
SGRD4	FOOTWEA R AREA	DSG1	10X6	250	0.34	189	243	231	92.4
SGRD5	FOOTWEA R AREA	DSG1	10X6	250	0.34	151	274	238	95.2
SGRD6	SALES	DSG1	10X6	250	0.34	134	208	229	91.6
SGRD7	SALES	DSG1	10X6	250	0.34	142	224	235	94.0
SGRD8	SALES	DSG1	10X6	250	0.34	106	226	230	92.0

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# National TAB

Project: 10-24 NIKE - SOUTHLAKE, TX  
System/Unit: AHU/RTU



Comfort. Under control.

Asset: FCU 5

AREA: SOLAR ZONE

Unit Data		
	Design	Actual
MFG	CARRIER	CARRIER
Serial Num	-	1922F05594
Model Num	FV4CNB006	FV4CNB006
Type	FCU	FCU
Configuration	VERTICAL	HORIZONTAL
Num OA Filters 1	-	NA
OA Filter Size 1	-	10" DUCT
Num Final Filter 1	-	1
Final Filter Size 1	-	20X25X2

Motor Data		
	Design	Actual
Motor MFG	-	GENTEQ
Frame	-	NL
Horsepower	0.75	0.75
Motor Rpm	-	NL
Phase	3	3
Rated Voltage	480	208/230
Rated Amperage	-	6.8

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

Electrical		
	Design	Actual
VFD Min Setpt	-	NA
VFD Max Setpt	-	NA

Test Data		
	Design	Actual
SF CFM	1400	1435
SF RPM	-	NR
RA CFM	1080	1106
OA CFM	320	329
RL Voltage	-	482/481/482
RL Amperage	-	5.9/6.1/6.3
SF Rotation	-	CW
RA Damper Position	-	NA
Min OA Damper Position	-	48%
Min OA Damper Type	-	DUCT DAMPER

Performance Data		
	Design	Actual
MA Plenum SP	-	-0.60"
Fan Suction SP	-	-0.81"
Fan Discharge SP	-	0.61"
Total ESP	1.0"	1.21"
OA Temp (db/wb)	-	72/65
RA Temp (db/wb)	-	68/57
SA Temp (db/wb)	-	62/54

General		
	Design	Actual
Fan Rotation Correct	-	YES
Unit Filters Clean	-	YES

Completed By: Titus Mowry

Notes:

# National TAB

Project:10-24 NIKE - SOUTHLAKE, TX

## AHU/RTU



Comfort. Under control.

### Diffuser Supply (GRD)

#### FCU 5/SOLAR ZONE

Asset									
Asset Name	Location	Type	Size	DESIGN CFM	AK	CFM(1)	CFM(2)	FINAL CFM	% to design
SGRD1	SOLAR	DSG1	10X6	200	0.42	180	-	203	101.5
SGRD2	SOLAR	DSG1	10X6	200	0.42	263	-	215	107.5
SGRD3	SOLAR	DSG1	10X6	200	0.42	238	-	210	105.0
SGRD4	SOLAR	DSG1	10X6	200	0.42	264	-	218	109.0
VAV2	WELCOME AREA	DESV	12"	600	1056	502	-	589	98.2

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# National TAB

Project: 10-24 NIKE - SOUTHLAKE, TX  
System/Unit: FAN - Exhaust



Comfort. Under control.

Asset: EF1

AREA:RESTROOM

Unit Data		
	Design	Actual
<b>MFG</b>	GREENHECK	NOT EXISTING
<b>Model Num</b>	SQ-080-VG	NOT EXISTING

Test Data		
	Design	Actual
<b>CFM</b>	200	207

Motor Data		
	Design	Actual

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Notes:

# National TAB

Project:10-24 NIKE - SOUTHLAKE, TX

## FAN - Exhaust



Comfort. Under control.

**Diffuser Ret/Exh (GRD)**

**EF1/RESTROOM**

<b>Asset</b>									
<b>Asset Name</b>	<b>Location</b>	<b>Type</b>	<b>Size</b>	<b>DESIGN CFM</b>	<b>AK</b>	<b>CFM(1)</b>	<b>CFM(2)</b>	<b>FINAL CFM</b>	<b>% to design</b>
EGRD1	ADA RESTROOM	CEG1	6"	125	1	-	-	129	103.2
EGRD2	JANITORS CLOSET	CEG1	6"	75	1	-	-	78	104.0

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# National TAB

Project: 10-24 NIKE - SOUTHLAKE, TX  
System/Unit: FAN - Exhaust



Comfort. Under control.

Asset: EF2

AREA:IT CLOSET

Unit Data		
	Design	Actual
<b>MFG</b>	GREENHECK	GREENHECK
<b>Model Num</b>	SQ-100-VG	SQ-100-VG4X-QD
<b>Serial Num</b>	-	18118534
<b>Type</b>	INLINE	INLINE
<b>Configuration</b>	HORIZONTAL	HORIZONTAL

Motor Data		
	Design	Actual
<b>Motor MFG</b>	-	VARI-GREEN
<b>Frame</b>	-	NR
<b>Horsepower</b>	1/4	0.25
<b>Motor Rpm</b>	-	1725
<b>Phase</b>	1	1
<b>Voltage (rated)</b>	120	115
<b>Amperage (rated)</b>	-	2.85
<b>Service Factor</b>	-	1

Test Data		
	Design	Actual
<b>CFM</b>	1000	736
<b>Fan RPM</b>	1385	1725
<b>Fan Rotation</b>	-	CW
<b>Motor RPM</b>	-	1725
<b>System SetPt</b>	-	10VDC
<b>RL Voltage</b>	-	121
<b>RL Amperage</b>	-	2.65
<b>Total ESP</b>	0.3"	0.17"
<b>Fan Inlet SP</b>	-	-0.09"
<b>Fan Discharge SP</b>	-	0.08"

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Notes:

# National TAB

Project: 10-24 NIKE - SOUTHLAKE, TX  
System/Unit: FAN - Supply



Comfort. Under control.

Asset: SF1

AREA:FCU OA

Unit Data		
	Design	Actual
<b>MFG</b>	GREENHECK	GREENHECK
<b>Model Num</b>	SQ-140-VG	SQ-140-VG
<b>Serial Num</b>	-	19970747
<b>Type</b>	INLINE	INLINE
<b>Configuration</b>	HORIZONTAL	HORIZONTAL

Motor Data		
	Design	Actual
<b>Motor MFG</b>	-	VARI-GREEN
<b>Frame</b>	-	NR
<b>Horsepower</b>	1/2	0.75
<b>Motor Rpm</b>	-	1725
<b>Phase</b>	1	1
<b>Voltage (rated)</b>	120	115
<b>Amperage (rated)</b>	-	11
<b>Service Factor</b>	-	1

Gas Heat		
	Design	Actual
<b>Heater Operates (y/n)</b>	-	NA
<b>Flame Status (pass/fail)</b>	-	NA

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Notes:

Test Data		
	Design	Actual
<b>CFM</b>	1315	1325
<b>SF RPM</b>	1499	1725
<b>Motor RPM</b>	-	1725
<b>SF System SetPt</b>	-	10VDC
<b>RL Voltage</b>	-	122
<b>RL Amperage</b>	-	10.3
<b>Total ESP</b>	-	1.02"
<b>Fan Discharge SP</b>	-	1.02"

General		
	Design	Actual
<b>Fan Rotation Correct</b>	-	YES

# National TAB

Project:10-24 NIKE - SOUTHLAKE, TX



Comfort. Under control.

## VAV - Single Duct

### 3HVAC EQUIPMENT/

Asset							
Asset Name	Type	Inlet Size	Design Max CFM	Max CFM	Design Min CFM	Min CFM	Ak (max)
VAV1	VAV	14"	1000	1064	300	301	4685
VAV2	VAV	12"	600	589	180	175	1056

