

**Report By:**

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



**Report: TAB REPORT  
Function: Test, Adjust, & Balance  
Date: 07/06/2023**

# **PROJECT**

## **05-22-23 NIKE - LA COSTA (CARLSBAD, CA)**

1905 Calle Barcelona

Carlsbad, CA 92009

### **Client**

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

## 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.

### RTU's

Each of the RTU'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 RTU was then adjusted 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.

### 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.

### 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
RTU-2	SALES	5400	5398	4475	4456	925	942	17.1%	17.5%						
RTU-3	BOH/STOCK	2200	2174	1800	1752	400	422	18.2%	19.4%						
EF-1														275	277
<b>TOTALS</b>		7600	7572	6275	6208	1325	1364			0	0	0	0	275	277

#### NET BUILDING AIRFLOW CALCULATION

TOTALS	DESIGN	ACTUAL
TOTAL OA	1325	1364
TOTAL EXHAUST	275	277
<b>NET AIRFLOW</b>	<b>1050</b>	<b>1087</b>

NOTES: