

Report By:

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



**Report: Cover**

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

**Date: 10/17/2023**

# PROJECT

## Sheakley Bldg Exp and Reno (Cincinnati, OH)

505 MADISON RD

CINCINNATI, OH

### Client

Triton Services, Inc.  
8162 Duke Boulevard  
Mason, OH 45040

# National TAB

Project: Sheakley Bldg Exp and Reno (Cincinnati, OH)

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# CERTIFICATION



**PROJECT:** Sheakley Bldg Exp and Reno (Cincinnati, OH)

The data presented in this report is a record of system measurements and final adjustments that have been obtained in accordance with the current edition of the NEBB *Procedural Standards for Testing, Adjusting, and Balancing of Environmental Systems*. Any variances from design quantities, which exceed NEBB tolerances, are noted in the Test-Adjust-Balance Report Project Summary.

The air distribution system has been tested and balanced and final adjustments have been made in accordance with NEBB standards and the project specifications.

**NEBB TAB FIRM:** National TAB

**REGISTRATION NO:** 3629

**CERTIFIED BY:** Joe Hertenstein

**DATE:** 10/17/2023

The hydronic distribution system has been tested and balanced and final adjustments have been made in accordance with NEBB standards and the project specifications.

**NEBB TAB FIRM:** National TAB

**REGISTRATION NO:** 3629


**CERTIFIED BY:** Joe Hertenstein

**DATE:** \_\_\_\_\_

## Submitted and Certified by:

**NEBB TAB FIRM:** National TAB

**TAB PROFESSIONAL:** Joe Hertenstein

**SIGNATURE:** 

**REGISTRATION NO:** 3629

**CERTIFICATION EXP:** 12/31/2023





# National TAB

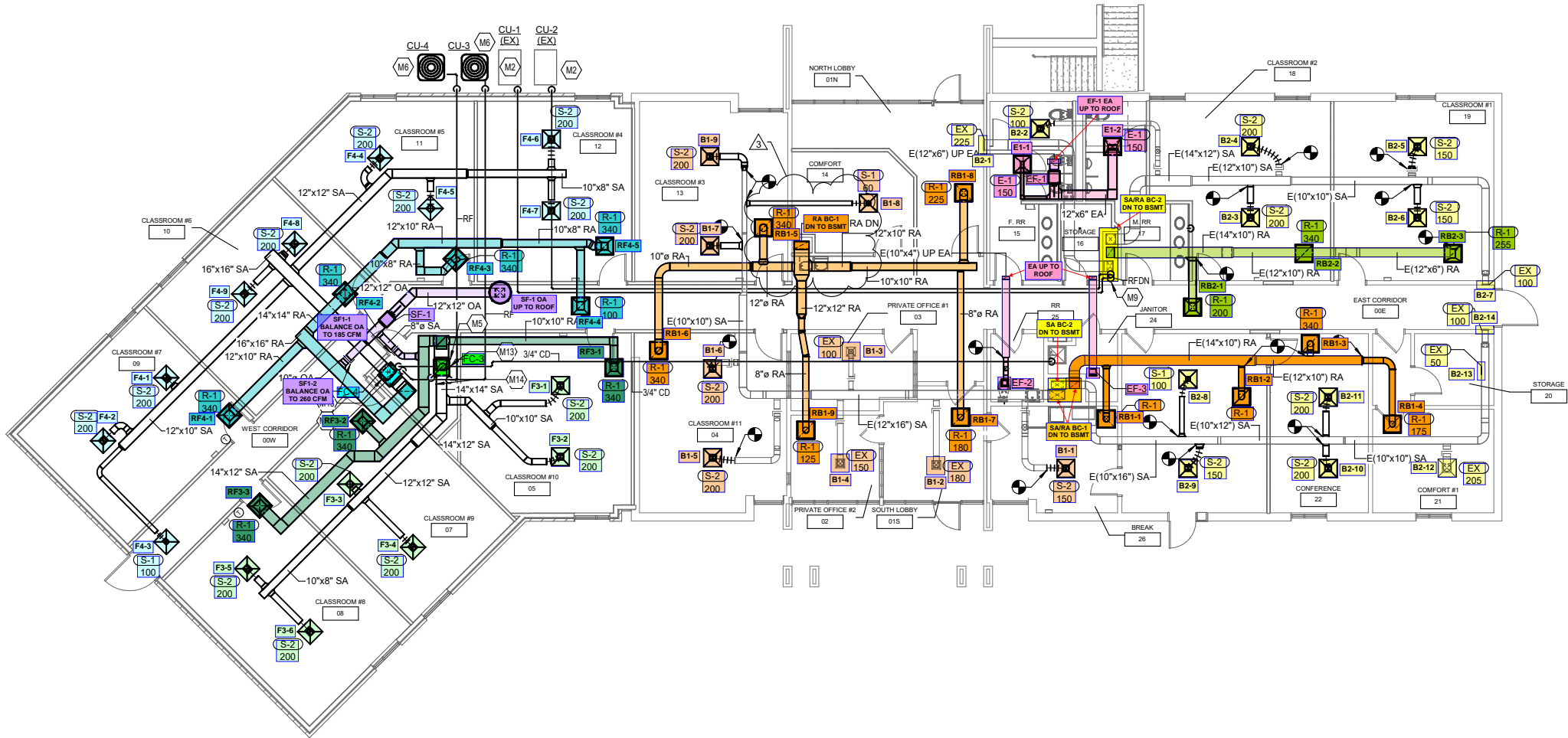
Testing, Adjusting, and Balancing Equipment



Function		Range	Minimum Accuracy	Instrument Information	Calibration Date	Date Due
AIR	AIR PRESSURE	0 in wg to 10 in wg	2% +/- 0.001 in wg	TSI Alnor EBT 731 S/N EBT732044025	11/17/2022	11/17/2023
	AIR VELOCITY INSTRUMENT	50 fpm to 3900 fpm	+/- 5 % +/- 7 fpm	TSI Alnor EBT 731 S/N EBT732044025	11/17/2022	11/17/2023
	DIRECT HOOD READING	100 cfm to 2000 cfm	+/- 5 % +/- 7 cfm	TSI Alnor EBT 731 S/N EBT732044025	11/17/2022	11/17/2023
TEMPERATURE	AIR METER	-20 F to 240 F	+/- .5 % 2 F	Cooper ATKINS - SRH77A S/N 071118034	6/6/2023	6/6/2024
	AIR PROBE	-20 F to 240 F	+/- .5 % 2 F	Cooper ATKINS - PD1388 7-6 S/N 5028	6/6/2023	6/6/2024
	IMMERSION METER	-20 F to 240 F	+/- .5 % 2 F	Cooper ATKINS - SRH77A S/N 071118034	6/6/2023	6/6/2024
	IMMERSION PROBE	-20 F to 240 F	+/- .5 % 2 F	Cooper ATKINS - PD1388 7-6 S/N 1075	6/6/2023	6/6/2024
	CONTACT METER	-20 F to 240 F	+/- .5 % 2 F	Cooper ATKINS - SRH77A S/N 071118034	6/6/2023	6/6/2024
	CONTACT PROBE	-20 F to 240 F	+/- .5 % 2 F	Cooper ATKINS - PD1388 7-6 S/N 4011	6/6/2023	6/6/2024
HUMIDITY	HUMIDITY PROBE	10 % RH to 90 % RH	3% of reading	Cooper ATKINS - SRH77A S/N 071118034	6/6/2023	6/6/2024
ELECTRICAL	VOLTAGE MEASUREMENT	0 VAC to 600 VAC	2 % reading +/- 5 digits	Fluke 373 True RMS, S/N: 33290686	6/1/2023	6/1/2024
	AMPERAGE MEASUREMENT	0 Amperes to 100 Amperes	2 % reading +/- 5 digits	Fluke 373 True RMS, S/N: 33290686	6/1/2023	6/1/2024
ROTATION	ROTATION MEASUREMENT	60 rpm to 5000 rpm	2 % reading 2 rpm	SHIMPO DT-207LR S/N: D1530081R	6/1/2023	6/1/2024
HYDRONIC	PRESSURE MEASUREMENT	-30 in Hg to 200 psi	±2% of reading +/- 1 psi	Alnor HM675 S/N: 72214041	5/2023	5/2024
	DIFFERENTIAL PRESSURE MEASUREMENT	0 psi - 80 psi	±2% of reading +/- 1 psi	Alnor HM675 S/N: 72214041	5/2023	5/2024

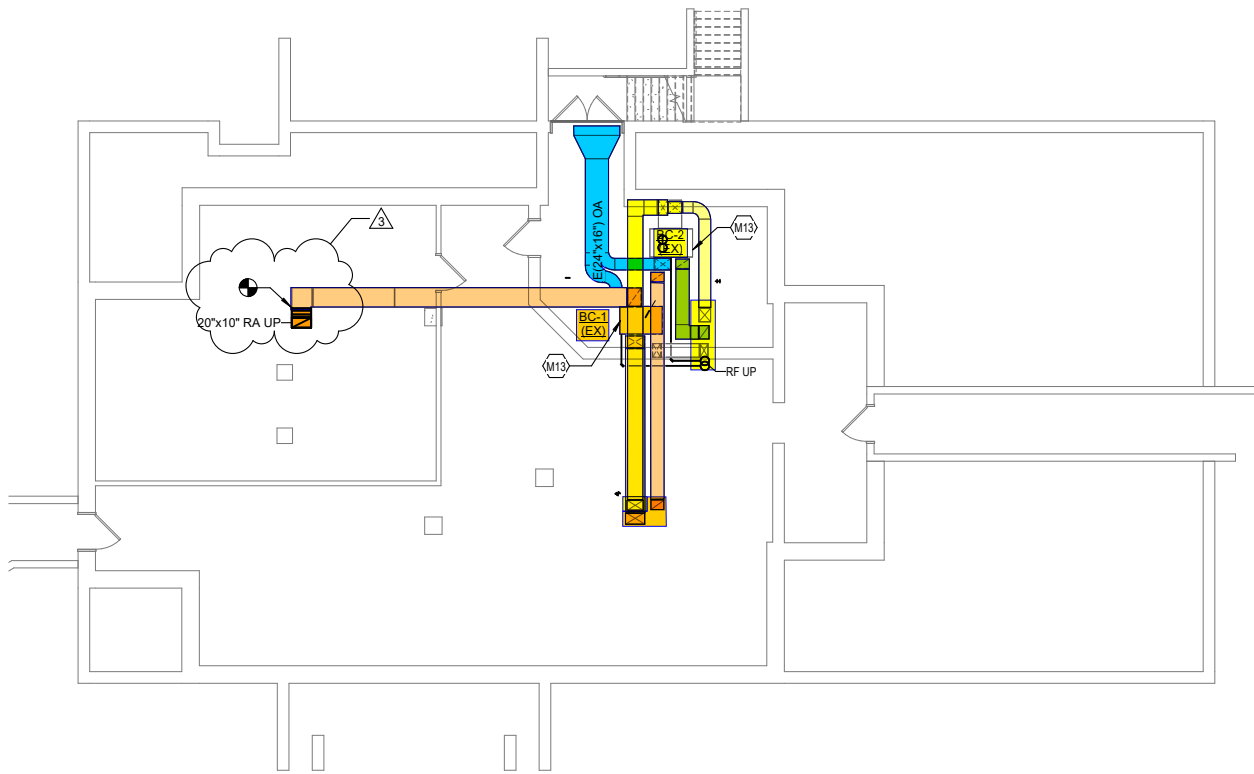
## Abbreviation List

A = Area (ft <sup>2</sup> )	S.F. = Service Factor
AHU = Air Handling Unit	SF = Supply Fan
A <sub>k</sub> = Effective Area	SP = Static Pressure
BHP = Brake Horsepower (IP) HP	SR = Supply Register
Btu = British Thermal Unit	T = Temperature
Btu/h = Btuh = BTUH = BTU/Hour	T <sub>ma</sub> = Mixed Air Temperature
CL = Center Distance (used in belt formula)	T <sub>oa</sub> = Outside Air Temperature
CD = Ceiling Diffuser	T <sub>ra</sub> = Return Air Temperature
CF = Correction Factor	H = Head (in wc, ft wc, psi)
CFM = Volumetric Flow: Cubic Feet Per Minute	h = Enthalpy
CO <sub>2</sub> = Carbon Dioxide	HP = Horsepower
CO = Carbon Monoxide	hr = Hour
C <sub>v</sub> = Flow Constant	K <sub>v</sub> = Flow constant (SI)
d = Diameter (in.) IP	kW = Kilowatt = 1000 Watts
Δ = Difference or Change (Final - Initial)	LAT = Leaving Air Temperature
DB = Dry Bulb	lb = Pounds
EA = Exhaust Air	LWT = Leaving Water Temperature
EAT = Entering Air Temperature	ma = Mixed Air
EF = Exhaust Fan	MIN = Minimum
Eff = Efficiency	MAX = Maximum
EG = Exhaust Grille	N/A = Not Applicable
ESP = External Static Pressure	NA = No Access
EWT = Entering Water Temperature	NL = Not Listed
°F = Degrees Fahrenheit, °F	NPSHA = Net Positive Suction Head Available
FPB = Fan Powered Box	NS = Not Specified
FLA = Full Load Amps	OA = Outside Air
fpm = Feet per Minute (fpm)	OAT = Outside Air Temperature
ft = Foot	PD = Sheave Pitch Diameter
gal = Gallons	P.D. = Pressure Drop
GPM = Gallons Per Minute (GPM)	PF = Power Factor
h = Enthalpy (BTU/lb dry air)	SG = Supply Grille
P = Pressure	SR = Supply Register
ppm = parts per million	TP = Total Pressure
psi = Pounds Per Square Inch	T <sub>ra</sub> = Return Air Temperature
psid = PSI Differential	TS = Tip Speed (fpm) IP, (m/s) SI
r = Radius (in)	TSP = Total Static Pressure
% <sub>ra</sub> = % of Return Air	V = Velocity
RA = Return Air	VAV = Variable Air Volume
RAT = Return Air Temperature	VD = Volume Damper
RF = Return Fan	VFD = Variable Frequency Drive
RG = Return Grille	W = Watt
RH = Relative Humidity	WB = Wet Bulb
RPM = Revolutions Per Minute	wg = wc = water gauge = water column
RTU = Roof Top Unit	WHP = Water Horsepower (IP)
SA = Supply Air	ω = Humidity Ratio



2 MECHANICAL NEW WORK PLAN  
M-200

Sheakley Bldg Exp and Reno (Cincinnati, OH)



2 MECHANICAL BASEMENT NEW WORK PLAN  
M-100