

Report By:

National TAB
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SUITE 4210
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Report: TAB REPORT
Function: Test, Adjust, & Balance
Date: 03/03/2025
Completed By:

PROJECT

IBP 6275 WPP - Chicago School (Plano, TX)

6275 West Plano Parkway

Plano, TX 75093

Client

Billingsley

National TAB

Project: IBP 6275 WPP - Chicago School (Plano, TX)

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CERTIFICATION

PROJECT:

IBP 6275 WPP - Chicago School (Plano, TX)

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-Southeast

REGISTRATION NO: 3755

CERTIFIED BY: J. Scott Springer 23312

DATE: 3/3/2025

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-Southeast

REGISTRATION NO: 3755

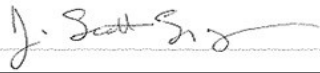
CERTIFIED BY: J. Scott Springer 23312

DATE: _____

Submitted and Certified by:

NEBB TAB FIRM: National TAB-Southeast

TAB PROFESSIONAL: J. Scott Springer

SIGNATURE: 

REGISTRATION NO: 3755 (NTAB) / 23312

CERTIFICATION EXP: 12/31/2025





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	Shortridge ADM-880C S/N M05066	10/15/2024	10/15/2025
	AIR VELOCITY INSTRUMENT	50 fpm to 3900 fpm	+/- 5 % +/- 7 fpm	Shortridge ADM-880C S/N M05066	10/15/2024	10/15/2025
	DIRECT HOOD READING	100 cfm to 2000 cfm	+/- 3 % +/- 7 cfm	Shortridge Flow Hood	10/15/2024	10/15/2025
TEMPERATURE	AIR METER	-20 F to 240 F	+/- .5 % 2 F	Cooper ATKINS - SRH77A S/N 081820093	10/15/2024	10/15/2025
	AIR PROBE	-20 F to 240 F	+/- .5 % 2 F	Cooper ATKINS - PD1388 7-6 S/N 5028	10/15/2024	10/15/2025
	IMMERSION METER	-20 F to 240 F	+/- .5 % 2 F	Cooper ATKINS - SRH77A S/N 081820093	10/15/2024	10/15/2025
	IMMERSION PROBE	-20 F to 240 F	+/- .5 % 2 F	Cooper ATKINS - PD1388 7-6 S/N 1075	10/15/2024	10/15/2025
	CONTACT METER	-20 F to 240 F	+/- .5 % 2 F	Cooper ATKINS - SRH77A S/N 081820093	10/15/2024	10/15/2025
	CONTACT PROBE	-20 F to 240 F	+/- .5 % 2 F	Cooper ATKINS - PD1388 7-6 S/N 4011	10/15/2024	10/15/2025
HUMIDITY	HUMIDITY PROBE	10 % RH to 90 % RH	3% of reading	Cooper ATKINS - SRH77A S/N 090315046	10/15/2024	10/15/2025
ELECTRICAL	VOLTAGE MEASUREMENT	0 VAC to 600 VAC	2 % reading +/- 5 digits	Dwyer CM-1 - S/N 190800099	10/15/2024	10/15/2025
	AMPERAGE MEASUREMENT	0 Amperers to 100 Amperes	2 % reading +/- 5 digits	Dwyer CM-1 - S/N 190800099	10/15/2024	10/15/2025
ROTATION	ROTATION MEASUREMENT	60 rpm to 5000 rpm	2 % reading 2 rpm	Dwyer TAC-L - S/N S1100123	10/15/2024	10/15/2025
HYDRONIC	PRESSURE MEASUREMENT	-30 in Hg to 200 psi	±2% of reading +/- 1 psi	Dwyer 490W-6 - S/N 01L6NK	6/3/2024	6/3/2025
	DIFFERENTIAL PRESSURE MEASUREMENT	0 psi - 80 psi	±2% of reading +/- 1 psi	Dwyer 490W-6 - S/N 01L6NK	6/3/2024	6/3/2025
DALT	DUCT LEAKAGE	-10" - +10" wc	±1% of reading +/- 0.004" wc	Kanomax DALT 6900 S/N: 080439	3/2024	3/1/2025

Abbreviation List

A = Area (ft ²)	S.F. = Service Factor
AHU = Air Handling Unit	SF = Supply Fan
A _k = 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 _{ma} = Mixed Air Temperature
CL = Center Distance (used in belt formula)	T _{oa} = Outside Air Temperature
CD = Ceiling Diffuser	T _{ra} = Return Air Temperature
CF = Correction Factor	H = Head (in wc, ft wc, psi)
CFM = Volumetric Flow: Cubic Feet Per Minute	h = Enthalpy
CO ₂ = Carbon Dioxide	HP = Horsepower
CO = Carbon Monoxide	hr = Hour
C _v = Flow Constant	K _v = 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 _{ra} = Return Air Temperature
psid = PSI Differential	TS = Tip Speed (fpm) IP, (m/s) SI
r = Radius (in)	TSP = Total Static Pressure
% _{ra} = % 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

National TAB

Project: IBP 6275 - Chicago School (Plano, TX)
Address: 6275 West Plano Parkway Plano, TX 75093

Asset: SUPPLY, EXHAUST, or RETURN

Asset	Area Served	Type	Size	DESIGN CFM	Prelim CFM	FINAL CFM	% to design
F1-1	120	G3	16X6	235	[1]	[1]	#VALUE!
F1-2	120	G3	16X6	235	[1]	[1]	#VALUE!
F1-3	120	G3	16X6	235	[1]	[1]	#VALUE!
F1-4	120	G3	16X6	235	[1]	[1]	#VALUE!
F1-5	120	G3	16X6	235	[1]	[1]	#VALUE!
F1-6	120	G3	16X6	235	[1]	[1]	#VALUE!
FPB-1N-1				1410	1800	1377	0.98
F2-1	183	C3	10	240	150	240	1.00
F2-2	183	C3	10	240	120	233	0.97
F2-3	183	S4	10	100	188	95	0.95
F2-4	183	C3	10	240	240	216	0.90
F2-5	183	C3	10	240	187	223	0.93
F2-6	125	C3	10	310	168	318	1.03
FPB-1N-2				1370	1053	1325	0.97
F3-1	182	C3	10	240	284	241	1.00
F3-2	182	S4	10	100	282	105	1.05
F3-3	182	C3	10	240	309	262	1.09
F3-4	182	C3	10	240	341	259	1.08
F3-5	182	C3	10	240	355	250	1.04
FPB-1N-3				1060	1571	1117	1.05
F4-1	181	C3	10	240	169	231	0.96
F4-2	181	S4	10	100	124	96	0.96
F4-3	181	C3	10	240	534	234	0.98
F4-4	181	C3	10	240	329	233	0.97
FPB-1N-4				820	1156	794	0.97

NOTES:

[1] UNABLE TO READ INDIVIDUAL DIFFUSERS DUE TO FURNITURE BELOW DUCT. ALL DIFFUSERS SERVE MAIN RECEPTION AREA.

UNIT WAS CALIBRATED AND TOTAL WAS BALANCED FOR TOTAL CFM BY TRAVERSE.

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Asset	Area Served	Type	Size	DESIGN CFM	Prelim CFM	FINAL CFM	% to design
F5-1	180	C3	10	240	287	241	1.00
F5-2	180	C3	10	240	173	223	0.93
F5-3	180	S4	10	100	64	110	1.10
F5-4	180	C3	10	240	179	224	0.93
FPB-1N-5				820	703	798	0.97
F6-1	179	C3	10	240	282	259	1.08
F6-2	179	C3	10	240	320	258	1.08
F6-3	179	C3	10	240	183	243	1.01
F6-4	179	C3	10	190	146	204	1.07
F6-5	179	C3	10	190	117	207	1.09
F6-6	179	C3	10	190	172	196	1.03
FPB-1N-6				1290	1220	1367	1.06
F7-1	176	G3	16X6	185	80	182	0.98
F7-2	177	G3	16X6	185	76	172	0.93
F7-3	178	G3	16X6	185	82	186	1.01
FPB-1N-7				555	238	540	0.97
						540	
F8-1	HALL	G3	16X6	160	168	168	1.05
F8-2	HALL	G3	16X6	160	153	153	0.96
F8-3	HALL	G3	16X6	160	167	167	1.04
F8-4	HALL	G3	16X6	160	168	168	1.05
FPB-1N-8				640	656	656	1.03
F9-1	168	C3	10	100	93	101	1.01
F9-2	168	C3	10	100	80	96	0.96
F9-3	168	C3	10	100	82	104	1.04
FPB-1N-9				300	255	301	1.00

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Project: IBP 6275 - Chicago School (Plano, TX)
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Asset: SUPPLY, EXHAUST, or RETURN

Asset	Area Served	Type	Size	DESIGN CFM	Prelim CFM	FINAL CFM	% to design
V2-1	175	S1	8	70	46	74	1.06
V2-2	175	S1	8	70	44	65	0.93
V2-3	175	S1	8	70	49	72	1.03
VAV-1N-2				210	139	211	1.00
V3-1	175	S4	10	135	53	130	0.96
V3-2	175	S4	10	135	97	148	1.10
V3-3	175	S4	10	135	168	134	0.99
V3-4	175	S4	10	135	64	134	0.99
VAV-1N-3				540	382	546	1.01
V4-1	173	G3	10X10	100	76	106	1.06
V4-2	173	A1	8	80	118	79	0.99
V4-3	174	A1	8	80	70	79	0.99
VAV-1N-4				260	264	264	1.02
V5-1	156	A1	8	60	112	59	0.98
V5-2	155	S1	8	150	91	147	0.98
V5-3	154	G3	10X10	75	62	76	1.01
VAV-1N-5				285	265	282	0.99
V6-1	140	G3	10X10	200	0	206	1.03
V6-2	132	A1	8	200	143	219	1.10
V6-3	130	A1	8	75	153	76	1.01
V6-4	129	A1	8	85	131	88	1.04
V6-5	131	A1	8	70	173	69	0.99
V6-6	127	A1	8	70	170	74	1.06
V6-7	127	A1	8	70	66	67	0.96
VAV-1N-6				770	836	799	1.04

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Asset: SUPPLY, EXHAUST, or RETURN

Asset	Area Served	Type	Size	DESIGN CFM	Prelim CFM	FINAL CFM	% to design
V7-1	133	A1	10	250	277	245	0.98
VAV-1N-7				250	277	245	0.98
V8-1	128	A1	8	100	103	97	0.97
V8-2	124	G3	10X10	150	147	139	0.93
V8-3	128	A1	8	100	114	108	1.08
VAV-1N-8				350	364	344	0.98
V9-1	122	S1	8	80	158	82	1.03
V9-2	123	S1	8	80	156	81	1.01
V9-3	121	G3	10X10	200	409	212	1.06
V9-4	121	G3	10X10	200	370	192	0.96
V9-5	121A	G3	10X10	75	156	81	1.08
VAV-1N-9				635	1249	648	1.02
V10-1	135	A1	8	65	62	60	0.92
V10-2	134	A1	8	65	81	71	1.09
VAV-1N-10				130	143	131	1.01
V11-1	145	A1	8	250	274	251	1.00
VAV-1N-11				250	274	251	1.00
V12-1	138	G3	10X10	200	133	204	1.02
V12-1	138	G3	10X10	200	261	206	1.03
VAV-1N-12				400	394	410	1.03
V13-1	136	S4	10	135	113	131	0.97
V13-2	136	S4	10	135	77	123	0.91
V13-3	136	S4	10	135	131	133	0.99
V13-4	136	S4	10	135	113	135	1.00
VAV-1N-13				540	434	522	0.97

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Asset: SUPPLY, EXHAUST, or RETURN

Asset	Area Served	Type	Size	DESIGN CFM	Prelim CFM	FINAL CFM	% to design
V14-1	143	A1	8	80	0	86	1.08
V14-2	144	A1	8	150	147	158	1.05
V14-3	149	A1	8	80	131	87	1.09
V14-4	143	A1	8	90	62	90	1.00
V14-5	142	A1	8	80	117	87	1.09
VAV-1N-14				480	457	508	1.06
V15-1	150	A1	8	100	11	108	1.08
V15-2	150	A1	8	100	87	102	1.02
V15-3	150	A1	8	100	101	91	0.91
V15-4	150	A1	8	100	118	91	0.91
V15-5	150	A1	8	100	172	108	1.08
VAV-1N-15				500	489	500	1.00
V16-1	152	A1	8	150	86	145	0.97
V16-2	148	G3	10X10	60	163	60	1.00
VAV-1N-16				210	249	205	0.98
V17-1	160	A1	8	200	198	207	1.04
VAV-1N-17				200	198	207	1.04
V18-1	162	A1	8	80	87	87	1.09
V18-2	161	A1	8	80	77	77	0.96
VAV-1N-18				160	164	164	1.03
V19-1	163	A1	8	80	72	87	1.09
V19-2	164	A1	8	80	97	86	1.08
VAV-1N-19				160	169	173	1.08

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Project: IBP 6275 - Chicago School (Plano, TX)
Address: 6275 West Plano Parkway Plano, TX 75093

Asset: EF 1-1

Area: 128

Unit Data	
MFG	BROAN
Model Num	L150EL-A
Serial Num	42H28H
Type	IN-LINE

Motor Data	
Motor MFG	NA
Frame	NA
Horsepower	NA
Motor Rpm	NA
Phase	1
Voltage (rated)	120
Amperage (rated)	0.4
Service Factor	NA

Test Data		
	Design	Actual
CFM	100	95
Fan RPM	803	DIRECT DRIVE
RL Voltage	120	121
RL Amperage	0.4	0.4
Suction ESP		-0.18
Total ESP	0.5	0.18

Asset	Area Served	Type	Size	DESIGN	CFM(1)	FINAL CFM	% to design
E1-1	122	S1E	8	100	73	95	0.95