

Report By:

National TAB
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Report: TAB Report
Function: Test, Adjust, & Balance
Date: 10/23/2025
Completed By: National TAB

PROJECT
Certified Dispensary (Dayton, OH)

951 Patterson Road

Dayton, OH 45419

Client

Mechanical Optimizers
2145 Patterson Street
Cincinnati, OH 45214

National TAB

Project: Certified Dispensary (Dayton, OH)

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CERTIFICATION



PROJECT: Certified Dispensary (Dayton, 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: 10/23/2025

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

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: 12/31/2025





National TAB



Testing, Adjusting, and Balancing Equipment

INTELLIGENCE

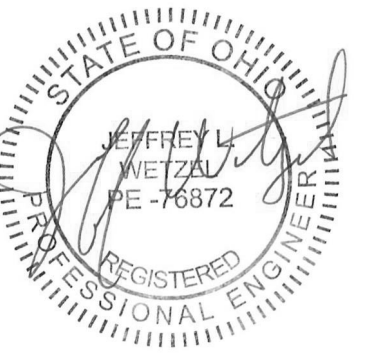
Function		Range	Minimum Accuracy	Instrument Information	Calibration Date	Date Due
AIR	AIR PRESSURE	0 in wg to 10 in wg	2% +/- 0.001 in wg	Evergreen S-PVF-1 S/N 2200484C	3/24/2025	3/24/2027
	AIR VELOCITY INSTRUMENT	50 fpm to 3900 fpm	+/- 5 % +/- 7 fpm	Evergreen S-PVF-1 S/N 2200484C	3/24/2025	3/24/2027
	DIRECT HOOD READING	100 cfm to 2000 cfm	+/- 5 % +/- 7 cfm	Evergreen S-PVF-1 S/N 2200484C	3/24/2025	3/24/2027
TEMPERATURE	AIR METER	-20 F to 240 F	+/- .5 % 2 F	Cooper ATKINS - SRH77A S/N 071118034	9/9/2025	9/9/2026
	AIR PROBE	-20 F to 240 F	+/- .5 % 2 F	Cooper ATKINS - PD1388 7-6 S/N 5028	9/9/2025	9/9/2026
	IMMERSION METER	-20 F to 240 F	+/- .5 % 2 F	Cooper ATKINS - SRH77A S/N 071118034	9/9/2025	9/9/2026
	IMMERSION PROBE	-20 F to 240 F	+/- .5 % 2 F	Cooper ATKINS - PD1388 7-6 S/N 1075	9/9/2025	9/9/2026
	CONTACT METER	-20 F to 240 F	+/- .5 % 2 F	Cooper ATKINS - SRH77A S/N 071118034	9/9/2025	9/9/2026
	CONTACT PROBE	-20 F to 240 F	+/- .5 % 2 F	Cooper ATKINS - PD1388 7-6 S/N 4011	9/9/2025	9/9/2026
HUMIDITY	HUMIDITY PROBE	10 % RH to 90 % RH	3% of reading	Cooper ATKINS - SRH77A S/N 071118034	9/9/2025	9/9/2026
ELECTRICAL	VOLTAGE MEASUREMENT	0 VAC to 600 VAC	2 % reading +/- 5 digits	Fluke 373 True RMS, S/N: 33290686	9/8/2025	9/8/2026
	AMPERAGE MEASUREMENT	0 Amperes to 100 Amperes	2 % reading +/- 5 digits	Fluke 373 True RMS, S/N: 33290686	9/8/2025	9/8/2026
ROTATION	ROTATION MEASUREMENT	60 rpm to 5000 rpm	2 % reading 2 rpm	SHIMPO DT-207LR S/N: D1530081R	9/9/2025	9/9/2026
HYDRONIC	PRESSURE MEASUREMENT	-30 in Hg to 200 psi	±2% of reading +/- 1 psi	Evergreen Water Module S/N: 2500210B	8/11/2025	8/11/2026
	DIFFERENTIAL PRESSURE MEASUREMENT	0 psi - 80 psi	±2% of reading +/- 1 psi	Evergreen Water Module S/N: 2500210B	8/11/2025	8/11/2026





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Dayton, OH 45459
www.L2Eng.com

CONSULTANTS:



#	DATE	DESCRIPTION
7/11/2024	For Permit	
9/6/2024	Revision 1	
9/20/24	Revision 2	

CLIENT:

Certified Dispensary
951 Patterson Road
Dayton, OH 45419

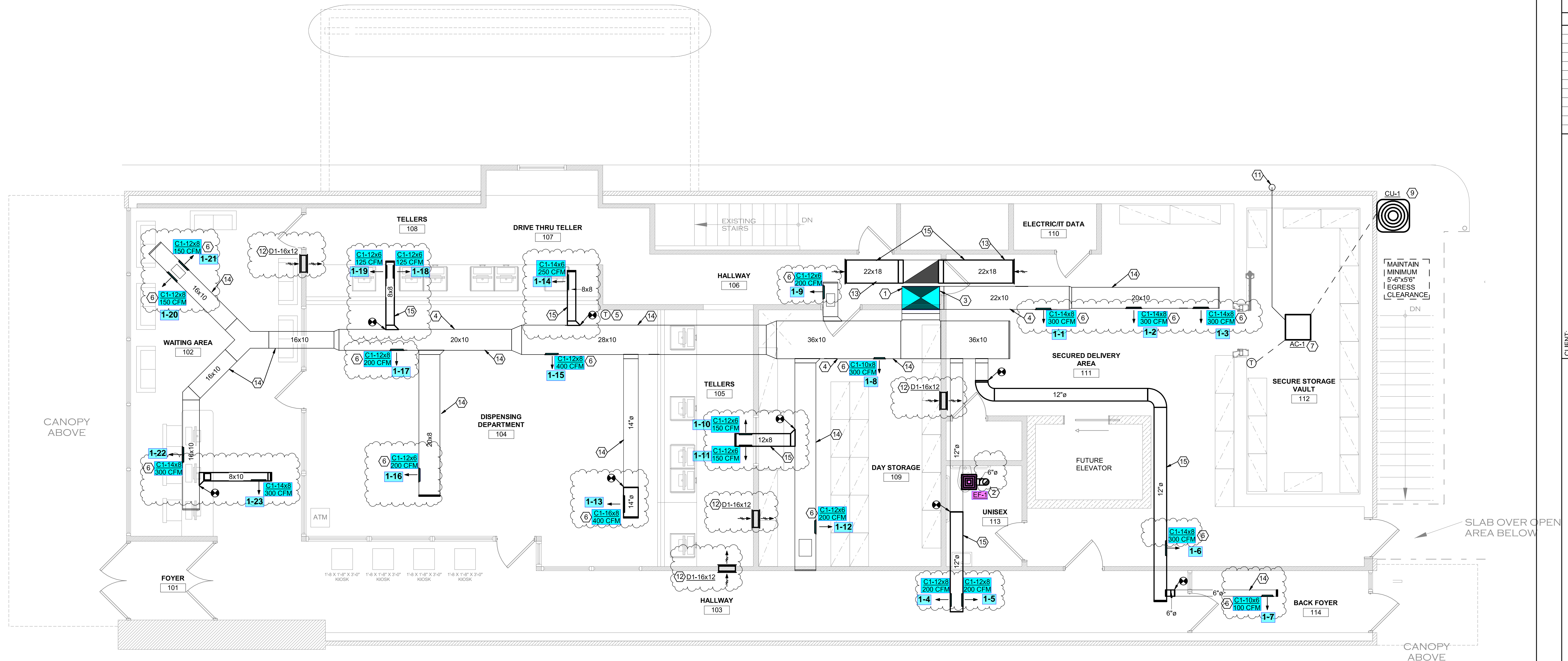
HVAC FLOOR PLAN - NEW WORK

DESIGNED BY JLV
DRAWN BY GLV
CHECKED BY DST
DATE 6/18/2024
DRAWING NO.

H1.2

DRAWING NOTES

- EXISTING ROOFTOP UNIT TO REMAIN. BALANCE UNIT TO NEW SUPPLY CFM.
- NEW EXHAUST FAN. SEE SCHEDULE. FAN TO DISCHARGE OUT ROOF AND TERMINATE WITH ROOF VENTILATOR. FIELD VERIFY EXACT LOCATION.
- BALANCE EXISTING ROOFTOP OUTSIDE AIR INTAKE TO 500 CFM.
- EXISTING DUCTWORK TO REMAIN.
- EXISTING THERMOSTAT TO BE RELOCATED TO THIS LOCATION.
- PROVIDE NEW SUPPLY DIFFUSER ON EXISTING DUCT. (TYPICAL)
- NEW DUCTLESS MINI-SPLIT. SEE SCHEDULE. INSTALL UNIT PER MANUFACTURER'S GUIDELINES. COORDINATE INSTALLATION WITH VAULT MANUFACTURER. ALL PENETRATIONS AND MOUNTING MUST BE APPROVED BY THE VAULT MANUFACTURER.
- EXISTING AIR DEVICE TO BE RELOCATED. BALANCE TO CFM SHOWN.
- PROVIDE HOUSEKEEPING PAD FOR CONDENSING UNIT. COORDINATE EXACT LOCATION WITH ARCHITECT.
- AIR DEVICE OPEN TO PLENUM RETURN (TYPICAL).
- EXTEND CONDENSATE (FULL SIZE) THRU EXTERIOR WALL. ELBOW DOWN AND DISCHARGE ONTO GRADE 12" AFF.
- TRANSFER AIR OPENING. SEE PLAN FOR SIZE. INSTALL GRILLE ON EACH SIDE OF WALL. COLOR SELECTION BY ARCHITECT.
- EXTEND RETURN AIR DUCT. SEE PLAN FOR SIZE. INSTALL RETURN AIR GRILLE AT END OF DUCT.
- EXISTING EXPOSED DUCTWORK TO BE CLEANED AND PAINTED. COLOR SELECTION BY ARCHITECT. PATCH ALL OPENINGS NOT USED FOR NEW LAYOUT.
- NEW EXPOSED DUCTWORK TO BE PAINTED. COLOR SELECTION BY ARCHITECT.



1 FIRST FLOOR HVAC PLAN - NEW WORK
1/4" = 1'-0"

9/20/2024 2:36:19 PM

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

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Project: Certified Dispensary (Dayton, OH)
System/Unit: AHU/RTU



Asset: RTU-1

AREA:ROOF

Unit Data		
	Design	Actual
MFG	YORK	YORK
Serial Num	-	NOM4223167
Model Num	NC090C00B6	DM180
Configuration	-	VERTICAL
Num OA Filters 1	-	2
OA Filter Size 1	-	32x22
Num PreFilter 1	-	5
PreFilter Size 1	-	18x24x2

Test Data		
	Design	Actual
SF CFM	5300	5669
RA CFM	4800	5156
OA CFM	500	512
RL Voltage	-	210/211/211
RL Amperage	-	10.2/10.5/10.5
OA Damper Position	-	0.5"
Brake Horse Power	-	3.72

Motor Data		
	Design	Actual
Motor MFG	-	BALDOR
Frame	-	184
Horsepower	-	5
Motor Rpm	-	1770
Phase	-	3
Rated Voltage	-	208
Rated Amperage	-	14
Service Factor	-	1.15

Performance Data		
	Design	Actual
MA Plenum SP	-	-0.57"
Fan Suction SP	-	-1.18"
Fan Discharge SP	-	0.46"
Total ESP	0.75	1.03"
Fan Total SP	-	1.64"

Drive Data	
	Actual
Motor Sheave Size	5"
Motor Bore Size	1"
Motor Sheave SetPt	4 OUT
Fan Sheave Size	8.5"
Fan Sheave Bore	1"
Belt CL Distance	25.5
Num of Belts	1
Belt Size	B70

Completed By: Nick Payne on 10/15/2025

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Project: Certified Dispensary (Dayton, OH)

AHU/RTU



Diffuser Supply (GRD)

RTU-1/ROOF

Asset							
Asset Name	Location	Type	Size	DESIGN CFM	CFM(1)	FINAL CFM	% to design
RTU-1-SGRD1	111	SG	22X10	300	175	320	106.7
RTU-1-SGRD2	111	SG	20X10	300	182	318	106.0
RTU-1-SGRD3	111	SG	20X10	300	222	305	101.7
RTU-1-SGRD4	103	SG	12	200	213	205	102.5
RTU-1-SGRD5	103	SG	12	200	226	210	105.0
RTU-1-SGRD6	111	SG	12	300	295	311	103.7
RTU-1-SGRD7	114	SG	6	100	55	95	95.0
RTU-1-SGRD8	109	SG	36X10	300	444	321	107.0
RTU-1-SGRD9	106	SG	12X6	200	284	208	104.0
RTU-1-SGRD10	105	SG	12X8	150	216	155	103.3
RTU-1-SGRD11	105	SG	12X8	150	206	160	106.7
RTU-1-SGRD12	109	SG	12X6	200	246	213	106.5
RTU-1-SGRD13	104	SG	14	400	466	411	102.8
RTU-1-SGRD14	107	SG	8X8	250	312	268	107.2
RTU-1-SGRD15	104	SG	28X10	400	311	426	106.5
RTU-1-SGRD16	104	SG	20X8	200	322	212	106.0
RTU-1-SGRD17	104	SG	20X10	200	348	215	107.5
RTU-1-SGRD18	108	SG	8X8	125	222	130	104.0
RTU-1-SGRD19	108	SG	8X8	125	205	134	107.2
RTU-1-SGRD20	102	SG	16X10	150	226	152	101.3
RTU-1-SGRD21	102	SG	16X10	150	205	162	108.0
RTU-1-SGRD22	102	SG	16X10	300	277	312	104.0
RTU-1-SGRD23	102	SG	8X10	300	193	326	108.7
Total				5300	5851	5569	105.08%

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Project: Certified Dispensary (Dayton, OH)
System/Unit: FAN - Exhaust



Asset: EF-1

AREA:113

Unit Data		
	Design	Actual
MFG	NA	ROAN
Model Num	NA	NA
Type	CEILING	CEILING

Test Data		
	Design	Actual
CFM	90	95

Completed By: Nick Payne on 10/15/2025