

Report By:

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



Report: TAB REPORT
Function: Test, Adjust, & Balance
Date: 09/26/2025
Completed By: National TAB

PROJECT

Ohio Kids Dental (Fairfield Township, OH)

2889 Jefferson Drive

Fairfield Township, OH 45011

Client

Champion Commercial HVAC
2638 Tem Mile Rd.
Melbourne, KY 41059

National TAB

Project: Ohio Kids Dental (Fairfield Township, OH)

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CERTIFICATION



PROJECT: Ohio Kids Dental (Fairfield Township, 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: 9/26/2025

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



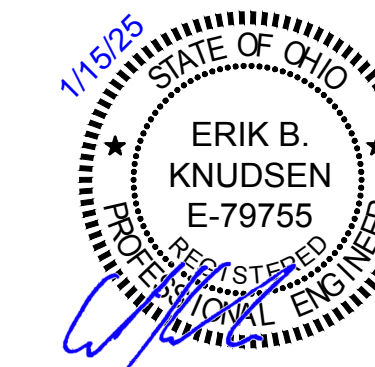
Testing, Adjusting, and Balancing Equipment

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

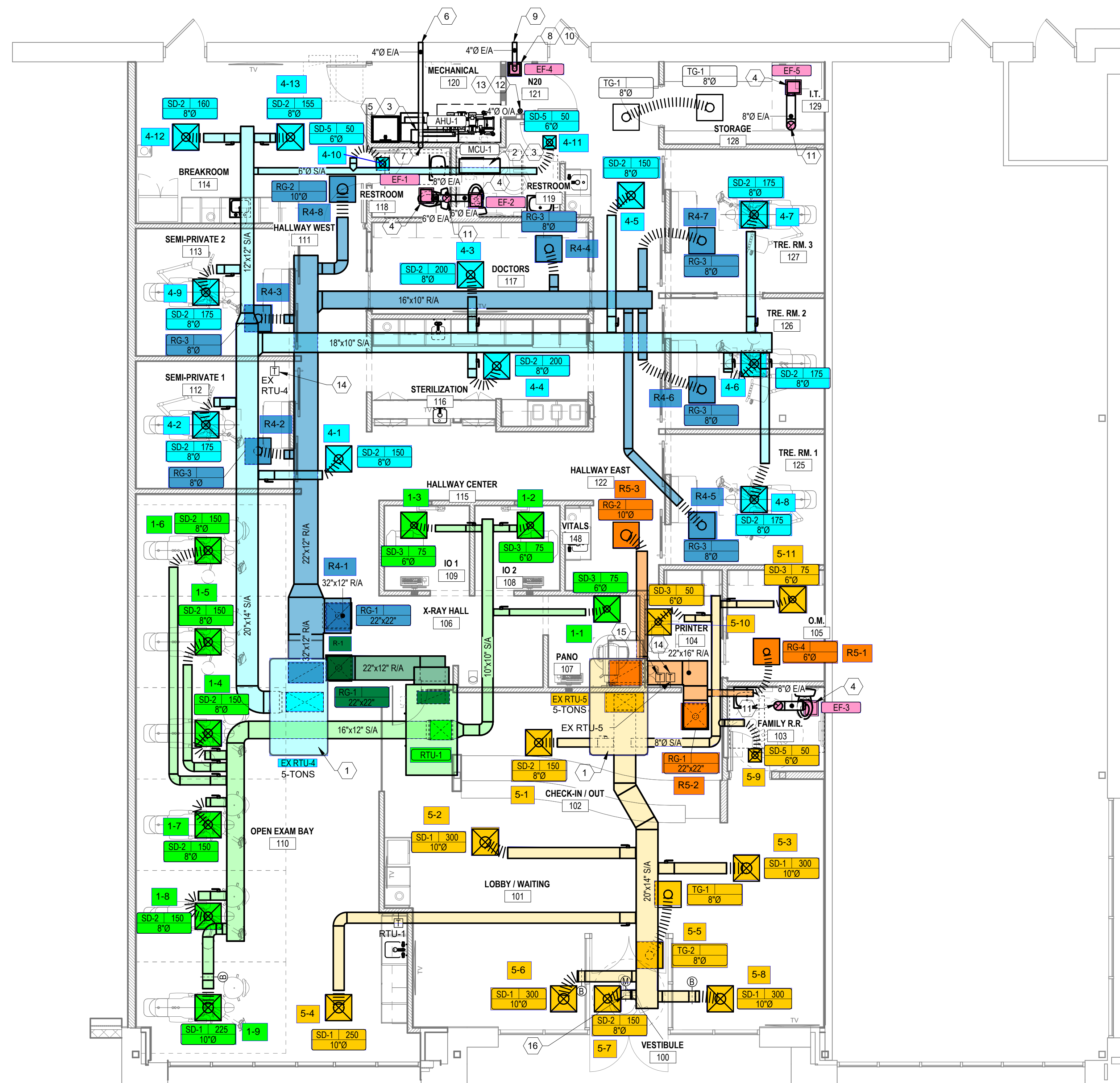
Abbreviation List

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



PLAN NOTES

Key Value	Keynote Text
1	EXISTING RTU TO REMAIN. BALANCE OUTDOOR AIR TO 215 CFM.
2	REFRIGERANT PIPING THROUGH ROOF. SEAL PENETRATION WEATHERTIGHT. ROUTE INSIDE WALL TO AS HIGH AS POSSIBLE AND ROUTE TO UNITS.
3	CONNECT REFRIGERANT PIPING TO CONDENSING UNIT & COIL AS REQUIRED BY THE MANUFACTURER. PROVIDE AND INSTALL REFRIGERANT PIPING FOR CONDENSING UNIT AS REQUIRED BY THE MANUFACTURER.
4	SUPPORT EXHAUST FAN FROM STRUCTURE AS REQUIRED BY MANUFACTURER.
5	SUPPORT WALL MOUNTED MINI SPLIT 8'-0" AFF. PER THE MANUFACTURERS REQUIREMENTS.
6	DRYER VENT PROVIDE 4" DRYER EXHAUST DUCTS THROUGH WALL. PROVIDE WEATHERPROOF WALL VENT CAP WITH BACKDRAFT DAMPER. MOUNT AS HIGH AS POSSIBLE. MAINTAIN 10' CLEARANCE FROM ALL OUTDOOR AIR INTAKES.
7	CONNECT 4" Ø FLEX DUCT TO DRYER AS REQUIRED BY THE MANUFACTURER.
8	SUPPORT INLINE FAN FROM WALLS PER MANUFACTURER'S SPECIFICATION.
9	ROUTE 4" Ø EXHAUST DUCT OUT EXTERIOR WALL WITH WALL VENT CAP.
10	ROUTE 4" Ø DUCT DOWN FROM FAN TO WITHIN 12" OF F.F.E.
11	PROVIDE WEATHERHEAD WITH BACKDRAFT DAMPER FOR EXHAUST FAN. SEAL PENETRATION WEATHERTIGHT. MAINTAIN MIN. 10'-0" CLEARANCE FROM ALL OUTDOOR AIR INTAKES.
12	PROVIDE WEATHERHEAD FOR INTAKE WITH BIRD SCREEN. SEAL ROOF PENETRATIONS WEATHERTIGHT. ROUTE 4" DIAMETER SUPPLY DUCT DOWN FROM ROOF IN FIRE RATED CHASE INTO MED GAS CLOSET. WRAP DUCT WITH 2" OF INSULATION. TERMINATE OPEN DUCT 6" BELOW MED GAS ROOM CEILING.
13	CUT EXISTING ROOF AND FLASH INTO ROOF AS REQUIRED. ALL ROOFING WORK SHALL BE PERFORMED BY BUILDING OWNER'S ROOFING CONTRACTOR (AT THIS CONTRACTOR'S EXPENSE) TO MAINTAIN EXISTING ROOF WARRANTY. VERIFY APPROVED ROOFING CONTRACTOR WITH BUILDING OWNER PRIOR TO PERFORMING WORK. SEAL GYP LID PENETRATION AIR TIGHT.
14	REPLACE EXISTING THERMOSTAT WITH PELICAN THERMOSTAT PROVIDED BY OWNER AND INSTALLED BY MECHANICAL CONTRACTOR. THERMOSTAT SHALL BE 7-DAY PROGRAMMABLE HEAT/COOL/AUTO CHANGEOVER. OPTIMUM START CONTROLS, ECONOMIZER OUTPUT FAULT DETECTION INPUT, AND BUILT IN HUMIDITY SENSOR. INSTALL THERMOSTAT IN LOCATION SHOWN.
15	LOCATION OF STAND ALONE CONTROLLER FOR VVT DAMPER. THE VESTIBULE SHALL NOT BE HEATED WHEN THE OUTDOOR AIR TEMPERATURE IS GREATER THAN 45 DEG F. THE CONTROLLER SHALL LIMIT HEATING IN THE VESTIBULE TO A TEMPERATURE NOT GREATER THAN 60 DEG F AND COOLING TO A TEMPERATURE NOT LESS THAN 85 DEG F. THE INTENT IS TO PROVIDE OUTDOOR AIR TEMPERATURE SENSOR LOCATED ON ROOF. DUCT TEMPERATURE SENSOR IN EX RTU-5 SUPPLY DUCT, AND ROOM MOUNTED TEMPERATURE SENSOR IN VESTIBULE. THE VVT DAMPER SHALL FULLY CLOSE WHEN OUTDOOR AIR TEMPERATURE IS GREATER THAN 45 DEG F AND DUCT AIR TEMPERATURE IS GREATER THAN 85 DEG F. THE DAMPER SHALL OPEN WHEN EITHER THE OUTDOOR AIR TEMPERATURE IS LESS THAN 45 DEG F OR THE DUCT AIR TEMPERATURE IS LESS THAN 70 DEG F. THE DAMPER SHALL CLOSE WHEN THE ROOM MOUNTED TEMPERATURE SENSOR IS GREATER THAN 60 DEG F AND LESS THAN 85 DEG F. THE DAMPER SHALL OPEN WHEN THE ROOM MOUNTED TEMPERATURE SENSOR IS LESS THAN 60 DEG F OR GREATER THAN 85 DEG F.
16	PROVIDE VVT CONTROL DAMPER ON VESTIBULE SUPPLY BRANCH. PROVIDE WITH CONTROLLER AND TEMPERATURE SENSORS AS REQUIRED.



MECHANICAL FLOOR PLAN
1/16" = 1'-0"

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BC ENGINEERS
INCORPORATED

5720 Reeder Shawnee, KS 66203 (913)262-1772

OHIO KIDS DENTAL, HAMILTON, OH
PEDIATRIC DENTAL OFFICE - TENANT FINISH

2889 JOSEPH DRIVE, SUITE C
FAIRFIELD TOWNSHIP, OH 45011-3855

Revisions		
No.	Description	Date

Project Number: 24843
Scale: 3/16" = 1'-0"
Date: 1.15.25

MECHANICAL FLOOR PLAN

M1

NOT FOR CONSTRUCTION

National TAB

Project: Ohio Kids Dental (Fairfield Township, OH)

System/Unit: AHU/RTU



Asset: EXRTU-4

AREA:OPEN EXAM BAY

Unit Data		
	Design	Actual
MFG	NA	CARRIER
Serial Num	-	0723C06195
Model Num	NA	48FCEA06A2A
Configuration	-	VERTICAL
Num OA Filters 1	-	2
OA Filter Size 1	-	23"x12.5"
Num PreFilter 1	-	2
PreFilter Size 1	-	24"x16"

Motor Data		
	Design	Actual
Phase	-	1
Rated Voltage	-	208
Rated Amperage	-	9.2

Test Data		
	Design	Actual
SF CFM	1990	2010
RA CFM	1775	1783
OA CFM	215	227
RL Voltage	-	210
RL Amperage	-	7.8
SF System SetPt	-	9.14 VDC
OA Damper Position	-	3%

Performance Data		
	Design	Actual
Fan Suction SP	-	-0.93
Fan Discharge SP	-	0.68
Total ESP	-	1.13
Fan Total SP	-	1.61

Completed By: Corey Dick on 09/16/2025

National TAB

Project: Ohio Kids Dental (Fairfield Township, OH)

AHU/RTU



Diffuser Supply (GRD)

EXRTU-4/OPEN EXAM BAY

Asset							
Asset Name	Location	Type	Size	DESIGN CFM	CFM(1)	FINAL CFM	% to design
4-1	HALLWAY WEST 111	SD-2	8	150	225	156	104.0
4-2	SEMI-PRIVATE 1 112	SD-2	8	175	201	178	101.7
4-3	DOCTORS 117	SD-2	8	200	140	182	91.0
4-4	STERILIZATION	SD-2	8	200	93	189	94.5
4-5	HALLWAY EAST 122	SD-2	8	150	143	145	96.7
4-6	TRE. RM. 2 126	SD-2	8	175	147	189	108.0
4-7	TRE. RM. 3 127	SD-2	8	175	163	178	101.7
4-8	TRE. RM. 1 125	SD-2	8	175	135	172	98.3
4-9	SEMI-PRIVATE 2 113	SD-2	8	175	220	192	109.7
4-10	RESTROOM 118	SD-5	6	50	53	55	110.0
4-11	RESTROOM 119	SD-5	6	50	75	55	110.0
4-12	BREAKROOM 114	SD-2	8	160	198	170	106.3
4-13	BREAKROOM 114	SD-2	8	155	183	149	96.1
Total				1990	1976	2010	101.01%

National TAB

Project: Ohio Kids Dental (Fairfield Township, OH)

System/Unit: AHU/RTU



Asset: EXRTU-5

AREA:CHECK-IN/OUT

Unit Data		
	Design	Actual
MFG	NA	CARRIER
Serial Num	-	0723C06200
Model Num	NA	48FCEA06A2A
Configuration	-	VERTICAL
Num OA Filters 1	-	2
OA Filter Size 1	-	23"x12.5"
Num PreFilter 1	-	2
PreFilter Size 1	-	28"x16"

Motor Data		
	Design	Actual
Phase	-	1
Rated Voltage	-	208
Rated Amperage	-	9.2

Test Data		
	Design	Actual
SF CFM	1925	1937
RA CFM	1710	1737
OA CFM	215	200
RL Voltage	-	210
RL Amperage	-	7.8
SF System SetPt	-	9.25 VCD
OA Damper Position	-	8%

Performance Data		
	Design	Actual
Fan Suction SP	-	-1.01"
Fan Discharge SP	-	0.46"
Total ESP	-	1.16"
Fan Total SP	-	1.47"

Completed By: Corey Dick on 09/23/2025

National TAB

Project: Ohio Kids Dental (Fairfield Township, OH)

AHU/RTU



Diffuser Supply (GRD)

EXRTU-5/CHECK-IN/OUT

Asset							
Asset Name	Location	Type	Size	DESIGN CFM	CFM(1)	FINAL CFM	% to design
5-1	CHECK-IN/OUT 102	SD-2	8	150	182	135	90.0
5-2	LOBBY/WAITING 101	SD-1	10	300	316	271	90.3
5-3	LOBBY/WAITING 101	SD-1	10	300	353	290	96.7
5-4	OPEN EXAM BAY 110	SD-1	10	250	284	268	107.2
5-6	LOBBY/WAITING 101	SD-1	10	300	407	299	99.7
5-7	VESTIBULE 100	SD-2	8	150	25	164	109.3
5-8	LOBBY/WAITING 101	SD-1	10	300	341	330	110.0
5-9	FAMILY R.R. 103	SD-5	6	50	71	55	110.0
5-10	PRINTER 104	SD-3	6	50	54	51	102.0
5-11	O.M. 105	SD-3	6	75	69	74	98.7
Total				1925	2102	1937	100.62%

Completed By: Corey Dick on 09/23/2025

National TAB

Project: Ohio Kids Dental (Fairfield Township, OH)

System/Unit: AHU/RTU



Asset: RTU-1

AREA: LOBBY/WAITING

Unit Data		
	Design	Actual
MFG	NA	LENNOX
Serial Num	-	5625G02360
Model Num	NA	LGT036H5E
Configuration	-	VERTICAL
Num OA Filters 1	-	2
OA Filter Size 1	-	14"x14"
Num PreFilter 1	-	4
PreFilter Size 1	-	20"x20"x2"

Motor Data		
	Design	Actual
Horsepower	-	0.5
Phase	-	1
Rated Amperage	-	4.3

Test Data		
	Design	Actual
SF CFM	1200	1202
SF RPM	-	899
RA CFM	1115	1108
OA CFM	85	94
RL Voltage	-	208
RL Amperage	-	1.89
SF System SetPt	-	55%
OA Damper Position	-	22%
Brake Horse Power	-	0.22

Performance Data		
	Design	Actual
Fan Suction SP	-	-0.36"
Fan Discharge SP	-	0.31"
Total ESP	1.00	0.61"
Fan Total SP	-	0.67"

Completed By: Corey Dick on 09/16/2025

National TAB

Project: Ohio Kids Dental (Fairfield Township, OH)

AHU/RTU



Diffuser Supply (GRD)

RTU-1/LOBBY/WAITING

Asset							
Asset Name	Location	Type	Size	DESIGN CFM	CFM(1)	FINAL CFM	% to design
1-1	PANO 107	SD-3	6	75	108	72	96.0
1-2	IO 2 108	SD-3	6	75	110	77	102.7
1-3	IO 1 109	SD-3	6	75	97	71	94.7
1-4	OPEN EXAM BAY 110	SD-2	8	150	66	145	96.7
1-5	OPEN EXAM BAY 110	SD-2	8	150	158	157	104.7
1-6	OPEN EXAM BAY 110	SD-2	8	150	147	157	104.7
1-7	OPEN EXAM BAY 110	SD-2	8	150	185	157	104.7
1-8	OPEN EXAM BAY 110	SD-2	8	150	211	146	97.3
1-9	OPEN EXAM BAY 110	SD-1	10	225	198	220	97.8
Total				1200	1280	1202	100.17%

National TAB

Project: Ohio Kids Dental (Fairfield Township, OH)

System/Unit: FAN - Exhaust



Asset: EF-1

AREA:RESTROOM 118

Unit Data		
	Design	Actual
MFG	NA	PENNBARRY
Model Num	NA	ZT
Serial Num	-	L23AG48185
Type	CEILING EXHAUST	CEILING EXHAUST

Test Data		
	Design	Actual
CFM	75	89
System SetPt	-	SINGLE SPEED

Motor Data		
	Design	Actual
Motor MFG	-	FASCO
Motor Rpm	-	1400
Phase	-	1
Voltage (rated)	-	115
Amperage (rated)	-	0.74

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National TAB

Project: Ohio Kids Dental (Fairfield Township, OH)

System/Unit: FAN - Exhaust



Asset: EF-2

AREA:RESTROOM 119

Unit Data		
	Design	Actual
MFG	NA	PENNBARRY
Model Num	NA	ZT
Serial Num	-	M22A016831
Type	CEILING EXHAUST	CEILING EXHAUST

Test Data		
	Design	Actual
CFM	75	73
System SetPt	-	SINGLE SPEED

Motor Data		
	Design	Actual
Motor MFG	-	FASCO
Motor Rpm	-	1400
Phase	-	1
Voltage (rated)	-	115
Amperage (rated)	-	0.74

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Project: Ohio Kids Dental (Fairfield Township, OH)

System/Unit: FAN - Exhaust



Asset: EF-3

AREA:FAMILY R.R. 103

Unit Data		
	Design	Actual
MFG	NA	PENNBARRY
Model Num	NA	ZT
Serial Num	-	M22A016833
Type	CEILING EXHAUST	CEILING EXHAUST

Test Data		
	Design	Actual
CFM	75	80
System SetPt	-	SINGLE SPEED

Motor Data		
	Design	Actual
Motor MFG	-	FASCO
Motor Rpm	-	1400
Phase	-	1
Voltage (rated)	-	115
Amperage (rated)	-	0.74

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Project: Ohio Kids Dental (Fairfield Township, OH)

System/Unit: FAN - Exhaust



Asset: EF-4

AREA:N20 121

Unit Data		
	Design	Actual
MFG	NA	NA
Model Num	NA	CSP-A390-VG-Q0
Serial Num	-	27206534
Type	INLINE EXHAUST	INLINE

Test Data		
	Design	Actual
CFM	25	47
System SetPt	-	SINGLE SPEED

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Notes:

There is no speed control on the fan to change airflow

Written By: Corey Dick on 09/23/2025

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Project: Ohio Kids Dental (Fairfield Township, OH)

System/Unit: FAN - Exhaust



Asset: EF-5

AREA:I.T. 129

Unit Data		
	Design	Actual
MFG	NA	PENNBARRY
Model Num	NA	ZJ1
Serial Num	-	M22A016840
Type	CEILING EXHAUST	CEILING EXHAUST

Test Data		
	Design	Actual
CFM	150	156
System SetPt	-	SINGLE SPEED

Motor Data		
	Design	Actual
Motor MFG	-	FASCO
Motor Rpm	-	1550
Phase	-	1
Voltage (rated)	-	115
Amperage (rated)	-	1.4

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