

AIR BALANCING SPECIALTY INC.

**PAC
PORTLAND, OREGON**

PROJECT NO: 21-4253-DW

AIR BALANCING SPECIALTY INC. 3532 S.E. MILWAUKIE AVENUE PORTLAND, OREGON 97202-2751
IN BUSINESS SINCE 1964 CERTIFIED NEBB FIRM - CERTIFICATION NO. 2984
PHONE (503) 230-2332 FAX (503) 230-2820

PROJECT NAME: **PAC - PORTLAND, OREGON**

OWNER: DAVID DOUGLAS SCHOOL DISTRICT

DATE STARTED: 04/21/21

DATE FINISHED: 04/21/21

MECHANICAL ENGINEER:

WORK PERFORMED BY: DALE NEFFENDORF
WILLIAM NEFFENDORF

GENERAL CONTRACTOR:

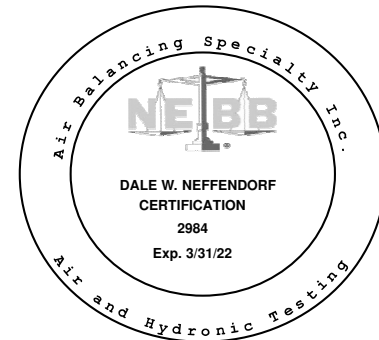
CERTIFIED BY: _____

MECHANICAL CONTRACTOR:

DATE: _____

SHEET METAL CONTRACTOR:

CONTROL CONTRACTOR:



IN BUSINESS SINCE 1964

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CERTIFIED NEBB No. 2984

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CERTIFIED TEST AND BALANCE REPORT

PROJECT NO.: 21-42253-DW

INSTRUMENT AIR	MODEL NO.	SERIAL NO.	RANGE	CALIBRATION DATE
(D) Shortridge Airdata Multimeter ADM Accessories	ADM860	M98375	0.0001 to 60.00" WC.	1/12/2021
(DH) Datameter Flow Hood	8400		25 - 2500 CFM	
(DP) Datameter Pitot Tube	12", 18", 24", 36", 48" & 60"		50 - 30000 FPM	
(DA) Datameter Airfoil	AFP18		50 - 5000 FPM	
(DG) Datameter Velgrid	VLG84		50 - 2500 FPM	
(R) Rotating Vane Anemometer	A4/-4"	83072B	200 - 10000 FPM	1/14/2021
Amprobe Ammeter	Fluke 335	99330394	0 - 750 Volts / 0 - 300 Amps	1/8/2021
Shimpo Tachometer	DT-207L	D26B0033	6 - 30,000 RPM	1/12/2021
WATER				
Hydrodata Meter	HDM-250	W01025	DP -10 to +300 PSI	1/12/2021

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EQUIPMENT USED IN BALANCING

PROJECT: PAC - PORTLAND, OREGON

PROJECT NO.: 21-4253-DW

PAGE ABBREVIATION KEY

AK - GRILLE AREA OR RESTRICTION VALUE

VEL - VELOCITY

CFM - CUBIC FEET PER MINUTE

FPM - FEET PER MINUTE

ACH - AIR CHANGES PER HOUR

IN BUSINESS SINCE 1964

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PROJECT: PAC - PORTLAND, OREGON

PROJECT NO.: 21-4253-DW

Ref	Ins	AREA SERVED			OUTLET			DESIGN Vel	CFM	CUBIC FEET	TEST #1				TEST #2				
		Rm.#	No.	Size	Blow	AK	FPM				CFM	ACH	PRESSURE	FPM	CFM	ACH	PRESSURE		
		ACU-1 - Auditorium																	
	DG	OSA Intake		(3)	36x22			15.67		135454	1104	17300	7.66						
		ACU-2 - Stage																	
	DG	OSA Intake			60x17			6.73		78488	861	5795	4.43						
		ACU-3																	
	DG	OSA Intake			48x15			4.75			759	3605	#DIV/0!						
	DG	Community Room		(2)	20x6	SW		0.58		7195	1090	632	5.27						
	DH	Mens Supply						1.00		984		100	6.10						
	DH	Men's Exhaust						1.00		984		90	5.49						
	DH	Womens Supply						1.00		1011		70	4.15						
	DH	Womens Exhaust						1.00		1011		75	4.45						
		AHU-1																	
	DG	Classroom (Black Box)	001	(2)	18x10	SW		0.88		10667	574	505	2.84						
	DH	Womens Supply	009			SW		1.00		1070		125	7.01						
	DH	Womens Exhaust	009			SW		1.00		1070		110	6.17						
	DH	Dressing Supply	010			SW		1.00		1261		115	5.47						
	DH	Dressing Exhaust	010			SW		1.00		1261		70	3.33						
	DH	Make-Up	011			SW		1.00		3050		400	7.87						
	DH	Dressing Supply	012			SW		1.00		1295		90	4.17						
	DH	Dressing Exhaust	012			SW		1.00		1295		85	3.94						
	DH	Mens Supply	013			SW		1.00		1070		115	6.45						
	DH	Mens Exhaust	013			SW		1.00		1070		135	7.57						
		Addition																	
1		AHU-1																	
	DG	Band		(8)	22x12	SW		1.28		83518	4023	5149	3.70						
	DH	Office	130					1.00		803		145	10.83						
		AHU-2																	
	DG	Choir		(8)	20x8	SW		0.78		56319	5440	4243	4.52						
	DH	Office	122					1.00		1223		140	6.87						

Ref. Note: (1) Belts are loose.

AIR BALANCING SPECIALTY, INC. 3532 SE Milwaukie Avenue, Portland, Oregon 97202-2751 Phone: (503) 230-2332 Fax: (503) 230-2820

CONSTANT VOLUME - FPM

AIR BALANCE DATA SHEET

PROJECT NO.: 21-4253-DW

PROJECT: PAC - PORTLAND, OREGON

DATE START: 04/21/21

FINISH: 04/21/21

SYSTEM: ACU-1, ACU-2, ACU-3, AHU-1, Addition AHU-1 & AHU-2

SECTION:

BY: DN / WN

PAGE: 1 OF 2

Ref	Ins	AREA SERVED			OUTLET			DESIGN			CUBIC FEET	TEST #1				TEST #2			
		Rm.#	No.	Size	Blow	AK	Vel	CFM	FPM	CFM		ACH	PRESSURE	FPM	CFM	ACH	PRESSURE		
Addition																			
AHU-3																			
	DH	Music Library	127	(1)			1.00			3365		270	4.81						
	DH	Orchestra	108	(4)	14x8	SW	0.54			24491	2800	1512	3.70						
	DH	Rehearsal	111	(2)			1.00			4211		530	7.55						
	DH	Office	109				1.00			1987		150	4.53						
	DH	Practice 1					1.00			521		55	6.33						
	DH	Practice 2					1.00			504		70	8.33						
	DH	Practice 3					1.00			511		65	7.63						
	DH	Practice 4					1.00			505		60	7.13						
AHU-4																			
	DH	Mens Supply					1.00			1777		190	6.42						
	DH	Men's Exhaust					1.00			1777		310	10.47						
	DH	Womens Supply					1.00			1885		200	6.37						
	DH	Womens Exhaust					1.00			1885		330	10.50						
	DH	Concession					1.00			2246		115	3.07						
	DH	Staff Exhaust					1.00			313		180	34.50						

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CONSTANT VOLUME - FPM

AIR BALANCE DATA SHEET

PROJECT NO.: 21-4253-DW

PROJECT: PAC - PORTLAND, OREGON

DATE START: 04/21/21

FINISH: 04/21/21

SYSTEM: Music Library, Orchestra, Rehearsal, Office, Practice, Restrooms, Concession

SECTION:

BY: DN / WN

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