

AIR BALANCING SPECIALTY INC.

CHERRY PARK ELEMENTARY SCHOOL 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: **CHERRY PARK ELEMENTARY SCHOOL - PORTLAND, OREGON**

OWNER: DAVID DOUGLAS SCHOOL DISTRICT DATE STARTED: 04/05/21 DATE FINISHED: 04/05/21

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 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: CHERRY PARK ELEMENTARY SCHOOL - 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

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PROJECT: CHERRY PARK ELEMENTARY SCHOOL - PORTLAND, OREGON

PROJECT NO.: 21-4253-DW

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	
	DH/R	Classroom	1			SWS		1.00		8586		575	4.02					
	DH/R	Classroom	2			SW		1.00		8566		475	3.33					
	DH/R	Classroom	3			SW		1.00		9256		1520	9.85					
	DH/R	Classroom	4			SW		1.00		8452		1040	7.38					
	DH/R	Classroom	5			SW		1.00		8475		430	3.04					
	DH/R	Classroom	6			SW		1.00		9381		1605	10.27					
	DH/R	Classroom	7			SW		1.00		8572		175	1.22					
	DH/R	Classroom	8			SW		1.00		9322		1280	8.24					
	DH/R	Classroom	9			SW		1.00		8511		1178	8.30					
	DH/R	Classroom	10			SW		1.00		9275		825	5.34					
	DH/R	Classroom	11			SW		1.00		8579		1135	7.94					
	DH/R	Classroom	12			SW		1.00		8513		340	2.40					
	DH/R	Classroom	13			SW		1.00		17028		950	3.35					
	DH/R	Classroom	14			SW		1.00		8031		1080	8.07					
	DH/R	Classroom	15			SW		1.00		7594		(1)	-0.01					
	DH/R	Computer	16			SW		1.00		8585		1075	7.51					
	DH/R	Library	17			SW		1.00		17682		1045	3.55					
	DH/R	Library	17A			SW		1.00		1248		80	3.85					

Ref. Note: (1) Fan not running.

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: CHERRY PARK ELEMENTARY SCHOOL - PORTLAND, OREGON

DATE START: 04/05/21

FINISH: 04/05/21

SYSTEM: Classrooms 1 - 18

SECTION:

BY: DN / WN

PAGE: 1 OF 4

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	
	DH/R	Music	19			SW	1.00		11711		893	4.58						
	DH/R	Classroom	20			SW	1.00		8432		870	6.19						
	DH/R	Classroom	21			SW	1.00		8410		900	6.42						
	DH/R	Classroom	22			SW	1.00		8467		995	7.05						
	DH/R	Classroom	23			SW	1.00		8478		800	5.66						
	DH/R	Classroom	24			SW	1.00		9269		670	4.34						
	DH/R	Classroom	25			CEIL	1.00		8306		955	6.90						
	DH/R	Classroom	26			CEIL	1.00		8232		875	6.38						
	DH/R	Classroom	27			CEIL	1.00		8288		850	6.15						
	DH/R	Classroom	28			CEIL	1.00		8393		770	5.50						
	DH/R	Classroom	29			CEIL	1.00		8328		860	6.20						

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CONSTANT VOLUME - FPM

AIR BALANCE DATA SHEET

PROJECT NO.: 21-4253-DW

PROJECT: CHERRY PARK ELEMENTARY SCHOOL - PORTLAND, OREGON

DATE START: 04/05/21

FINISH: 04/05/21

SYSTEM: Music & Classrooms

SECTION:

BY: DN / WN

PAGE: 2 OF 4

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		
	DH	Office	85					1.00			492		0	0.00					
	DH	Gym	80B					1.00			99068		(1)	0.00					
	DH	Cafeteria	70A					1.00			54790		(1)	0.00					
	DH	Facility Room	50			12x9		1.00			3395		65	1.15					
	DG	Counselor	48			12x9		1.00			2790		0	0.00					
	DH	Workroom	41					1.00			1995		265	7.97					
	DH	Meeting Room	44					1.00			1836		235	7.68					
	DH	Meeting Room	45					1.00			1668		225	8.09					
	DH	Commons	46					1.00			13670		900	3.95					
	DH	Office	31					1.00			11097		165	0.89					
	DH	Workroom	36					1.00			3034		75	1.48					
	DH	Office	35					1.00			1681		95	3.39					
	DH	Office	34					1.00			2446		95	2.33					
	DH	Office	33					1.00			1968		95	2.90					
	DH	Health Supply	32A					1.00			1178		190	9.68					
	DH	Health Exhaust	32A					1.00			1178		55	2.80					

Ref. Note: (1) Fan not running.

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CONSTANT VOLUME - FPM

AIR BALANCE DATA SHEET

PROJECT NO.: 21-4253-DW

PROJECT: CHERRY PARK ELEMENTARY SCHOOL - PORTLAND, OREGON

DATE START: 04/05/21

FINISH: 04/05/21

SYSTEM: Offices, Gym, Cafeteria, Meeting Room, Commons, Facility Room, Health

SECTION:

BY: DN / WN

PAGE: 3 OF 4

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	
Wing 3 / 4																		
	DH	Boys Supply	78				1.00		1980			65	1.97					
	DH	Boys Exhaust	78				1.00		1980			115	3.48					
	DH	Girls Supply	77				1.00		2000			65	1.95					
	DH	Girls Exhaust	77				1.00		2000			205	6.15					
Wing 3																		
	R	Staff RR Exhaust	75			10x10	0.60		214		270	162	45.42					
	R	Staff RR Exhaust	76			10x10	0.60		214		100	60	16.82					
	DH	Restroom Exhaust	57				1.00		462			70	9.09					
	DH	Boys Supply	55				1.00		1925			85	2.65					
	DH	Boys Exhaust	55				1.00		1925			30	0.94					
	DH	Girls Supply	54				1.00		2036			30	0.88					
	DH	Girls Exhaust	54				1.00		2036			75	2.21					
	R	Restroom Exhaust	52			10x10	0.60		195		270	162	49.85					
	R	Restroom Exhaust	53			10x10	0.60		226		170	102	27.08					
	DH	Boys Supply	42				1.00		1888			140	4.45					
	DH	Boys Exhaust	42				1.00		1888			225	7.15					
	DH	Girls Supply	43				1.00		1849			195	6.33					
	DH	Girls Exhaust	43				1.00		1849			265	8.60					
	DH	Health RR Supply	32B				1.00		808			30	2.23					
	DH	Health RR Exhaust	32B				1.00		808			(1)	0.00					

Ref. Note: (1) Fan not running.

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CONSTANT VOLUME - FPM

AIR BALANCE DATA SHEET

PROJECT NO.: 21-4253-DW

PROJECT: CHERRY PARK ELEMENTARY SCHOOL - PORTLAND, OREGON

DATE START: 04/05/21

FINISH: 04/05/21

SYSTEM: Exhaust

SECTION:

BY: DN / WN

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