

AIR BALANCING SPECIALTY INC.

FLOYD LIGHT MIDDLE 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: **FLOYD LIGHT MIDDLE SCHOOL - PORTLAND, OREGON**

OWNER: DAVID DOUGLAS SCHOOL DISTRICT DATE STARTED: 04/16/21 DATE FINISHED: 04/16/21

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

AIR BALANCING SPECIALTY INC.

CERTIFIED NEBB No. 2984

3532 SE Milwaukie Avenue Portland, Oregon 97202-2751 Phone (503) 230-2332 Fax (503) 230-2820

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	
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

IN BUSINESS SINCE 1964

AIR BALANCING SPECIALTY INC.

CERTIFIED NEBB No. 2984

3532 SE Milwaukie Avenue Portland, Oregon 97202-2751 Phone (503) 230-2332 Fax (503) 230-2820

EQUIPMENT USED IN BALANCING

PROJECT: FLOYD LIGHT MIDDLE 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

IN BUSINESS SINCE 1964

AIR BALANCING SPECIALTY INC.

CERTIFIED NEBB No. 2984

3532 SE Milwaukie Avenue Portland, Oregon 97202-2751 Phone (503) 230-2332 Fax (503) 230-2820

PROJECT: FLOYD LIGHT MIDDLE 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	Staff Work Rm	1		SW	1.00				5947		600	6.05						
	DH	Classroom	2		SW	1.00				6976		955	8.21						
	DH	Classroom	3		SW	1.00				6889		980	8.54						
	DH	Classroom	4		SW	1.00				6915		1010	8.76						
	DH	Classroom	5		SW	1.00				6932		935	8.09						
	DH	Classroom	6		SW	1.00				6912		875	7.60						
	DH	Classroom	7		SW	1.00				6957		800	6.90						
	DH	Classroom	8		SW	1.00				6956		975	8.41						
	DH	Classroom	9		SW	1.00				7027		940	8.03						
	DH	Classroom	10		SW	1.00				7260		905	7.48						
	DH	Classroom	11		SW	1.00				7052		1100	9.36						
	DH	Classroom	12		SW	1.00				7030		960	8.19						
	DH	Classroom	13		SW	1.00				7021		970	8.29						
	DH	Classroom	14		SW	1.00				7035		645	5.50						
	DH	Classroom	15		SW	1.00				7036		500	4.26						
	DH	Classroom	16		SW	1.00				7014		915	7.83						
	DH	Classroom	17		SW	1.00				6960		785	6.77						
	DH	Classroom	18		36x12x3 SW	6.75				20849	85	574	1.65						

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: FLOYD LIGHT MIDDLE SCHOOL - PORTLAND, OREGON

DATE START: 04/15/21

FINISH: 04/16/21

SYSTEM: Staff Work Rm 1, Classrooms 2 - 18

SECTION:

BY: DN / WN

PAGE: 1 OF 6

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	Classroom	19			SW	1.00				9846			960	5.85				
	DH	Classroom	20			SW	1.00				10227			765	4.49				
	DH	Classroom	21			SW	1.00				10242			840	4.92				
	DH	Classroom	22			SW	1.00				10967			860	4.71				
	DH	Classroom	23			SW	1.00				10972			1080	5.91				
	DH	Classroom	24			SW	1.00				10315			1140	6.63				
	DH	Classroom	25			SW	1.00				10699			1110	6.22				
	DH	Classroom	26			SW	1.00				10632			1030	5.81				
	DH	Classroom	27			SW	1.00				10406			900	5.19				
	DH	Classroom	28		36x12x3	SW	6.75				18981	264	1782	5.63					
	DH	Classroom	29		36x12x3	SW	6.75				20468	279	1883	5.52					
	DH	Classroom	30		36x8x3		4.50				19363	264	1188	3.68					
	DH	Classroom	31		36x8x3		4.50				21865	315	1418	3.89					
	DH	Classroom	34			CEIL	1.00				3679			405	6.61				
	DH	Classroom	35			CEIL	1.00				7488			380	3.04				
	DH	Classroom	36			CEIL	1.00				7457			940	7.56				
	DH	Classroom	37			CEIL	1.00				7430			415	3.35				
	DH	Classroom	38			CEIL	1.00				7409			380	3.08				

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: FLOYD LIGHT MIDDLE SCHOOL - PORTLAND, OREGON

DATE START: 04/15/21

FINISH: 04/16/21

SYSTEM: Classrooms 19-31, 34-38

SECTION:

BY: DN / WN

PAGE: 2 OF 6

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	Classroom	39			CEIL		1.00			7381		1165	9.47				
	DH	Classroom	40			CEIL		1.00			7275		355	2.93				
	DH	Testing	33A			CEIL		1.00			4581		215	2.82				
	DH	Opportunity Hall	33B			CEIL		1.00			4290		305	4.27				
	DH	Office	33D			CEIL		1.00			1027		25	1.46				
	DH	Main Office				CEIL		1.00			2138		110	3.09				
	DH	Principal						1.00			1423		130	5.48				
	DH	Office	0					1.00			810		90	6.67				
	DH	Office	2					1.00			854		100	7.03				
	DH	Office	3					1.00			762		60	4.72				
	DH	Office	4					1.00			697		85	7.32				
	DH	Office	08			CEIL		1.00			592		45	4.56				
	DH	Office	09					1.00			830		50	3.61				
	DH	Conference	01					1.00			2296		260	6.79				
	DH	Office	07					1.00			807		170	12.64				
	DH		06					1.00			976		115	7.07				
	DH	Nurse Office						1.00			792		70	5.30				
	DH	Attendance						1.00			1434		50	2.09				

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: FLOYD LIGHT MIDDLE SCHOOL - PORTLAND, OREGON

DATE START: 04/15/21

FINISH: 04/16/21

SYSTEM: Classrooms and misc

SECTION:

BY: DN / WN

PAGE: 3 OF 6

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	Boys RR Gym Supply						1.00			965		80	4.97					
	DH	Boys RR Gym Exhaust						1.00			965		100	6.22					
	DH	Boys Shower Exhaust						1.00			1988		1250	37.73					
	DH	Boys Locker						5.63			10409	28	158	0.91					
	DH	Boys Locker Office						1.00			617		470	45.71					
	DH	Girls RR Gym Supply						1.00			862		125	8.70					
	DH	Girls RR Gym Exhaust						1.00			862		80	5.57					
	DH	Girls Shower Exhaust						1.00			1988		DESKS IN THE WAY						
	DH	Girls Locker			36x10x3			5.63			10445	486	2736	15.72					
	DH	Girls Locker Office						1.00			633		270	25.59					
	DH	Mens Exhaust (by office)						1.00			153		95	37.25					
	DH	Faculty RR Supply (by office)						1.00			500		90	10.80					
	DH	Boys Supply (by office)						1.00			2427		305	7.54					
	DH	Boys Exhaust (by office)						1.00			2427		55	1.36					
	DH	Girls Supply (by rm 1)						1.00			2482		420	10.15					
	DH	Girls Exhaust (by rm 1)						1.00			2482		45	1.09					
	DH	RR Supply (by rm 23)						1.00			341		50	8.80					
	DH	RR Exhaust (by rm 23)						1.00			341		25	4.40					
	DH	Faculty Women Supply (by rm 23)						1.00			341		35	6.16					
	DH	Faculty Women Exhaust (by rm 23)						1.00			341		0	0.00					
	DH	Girls Supply (by rm 24)						1.00			2279		345	9.08					
	DH	Girls Exhaust (by rm 24)						1.00			2279		60	1.58					

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: FLOYD LIGHT MIDDLE SCHOOL - PORTLAND, OREGON

DATE START: 04/15/21

FINISH: 04/16/21

SYSTEM: Exhaust

SECTION:

BY: DN / WN

PAGE: 5 OF 6

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
	DH	Boys Supply (by rm 26)							1.00			1853		300	9.71				
	DH	Boys Exhaust(by rm 26)							1.00			1853		60	1.94				
	DH	Womens Staff Supply							1.00			344		0	0.00				
	DH	Womens Staff Exhaust							1.00			344		105	18.31				
	DH	Mens Staff Supply							1.00			344		30	5.23				
	DH	Mens Staff Exhaust							1.00			344		105	18.31				
	DH	Girls RR Supply							1.00			2220		140	3.78				
	DH	Girls RR Exhaust							1.00			2220		0	0.00				
	DH	Boys RR Supply							1.00			2220		160	4.32				
	DH	Boys RR Exhaust							1.00			2220		0	0.00				
	DH	Nurse RR Supply							1.00			557		35	3.77				
	DH	Nurse RR Exhaust							1.00			557		50	5.39				
	DH	Café Boys Supply							1.00			957		195	12.23				
	DH	Café Boys Exhaust							1.00			957		130	8.15				
	DH	Café Girls Supply							1.00			975		225	13.85				
	DH	Café Girls Exhaust							1.00			975		135	8.31				

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: FLOYD LIGHT MIDDLE SCHOOL - PORTLAND, OREGON

DATE START: 04/15/21

FINISH: 04/16/21

SYSTEM: Exhaust

SECTION:

BY: DN / WN

PAGE: 6 OF 6