

Ferris Street Services

308 Ferris Street - Peekskill, NY 10566 - 914.458.1580 - info@ferrisstreet.com

Submittal

To:

National Engineering
788 Morrison Road
Columbus, OH 43230
614.552.5240

Project:

Sweetgreen Westport
374 Post Road E.
Westport, CT 06880

Ferris Street Project Number:

5644

Attn:

Will Turnbough

Date:

7/9/2024

Description:

TAB report

Testing, Adjusting and Balancing Report

Sweetgreen Westport
374 Post Road E.
Westport, CT 06880

Ferris Street Project Number:
5644

Architect:

MEP Engineer:
EVERJ Engineering
1509 Buck Trail Lane
Worthington, OH 43085
614.349.8054

Mechanical Contractor:
National Engineering
788 Morrison Road
Columbus, OH 43230
614.552.5240

TAB Firm:
Ferris Street Services
308 Ferris Street
Peekskill, NY 10566
914.458.1580

The data represented 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 report summary.

Ferris Street Services

308 Ferris Street - Peekskill, NY 10566 - 914.458.1580 - info@ferrisstreet.com

Fan Test Sheet

Project:	Sweetgreen Westport	System:	RTU-1
Location:	Roof	Serves:	Kitchen
Instrument:	Shortridge ADM-860c	Date:	07/08/24

Fan Data	
Make:	Trane
Model:	YHC092F3RM
Serial No.:	144811065

Motor Data			
HP:		RPM:	
Phase:	1	SF:	1.15
	Rated	Actual	
Volts:	208-230/460	207	
Amps:		2.2	
Hz:	60	60	

Air Flow Data		
	Design	Actual
Total	2,700	2,746
Outside Air	380	410

Drive Data		
	Size	Bore
Motor		
Fan		
Belts	Direct Drive	
Centerline Dist.		
	Design	Actual
Fan RPM		Speed 50%

Static Pressure	
Total Design:	in.w.c.
Suction:	in.w.c.
Discharge:	in.w.c.
Total Actual:	in.w.c.

Duct					Design		Actual				Notes
No.	Height	Width	Insul.	Area	FPM	CFM	AFPM	CFM	SP	%	
1	16	38		4.22	90	380	97	410		108%	OA intake

Notes:

Outside air min position 25%.

Ferris Street Services

308 Ferris Street - Peekskill, NY 10566 - 914.458.1580 - info@ferrisstreet.com

Fan Test Sheet

Project:	Sweetgreen Westport	System:	RTU-2
Location:	Roof	Serves:	Dining
Instrument:	Shortridge ADM-860c	Date:	07/08/24

Fan Data	
Make:	Trane
Model:	YHC060F3RMAO
Serial No.:	144911513L

Motor Data			
HP:	1.00	RPM:	1725
Phase:	3	SF:	1.15
	Rated	Actual	
Volts:	200-230/460	203-204-203	
Amps:	4-5/2.5	2.6-2.5-2.4	
Hz:	60	60	

Air Flow Data		
	Design	Actual
Total	1,700	1,795
Outside Air	460	469

Drive Data		
	Size	Bore
Motor	2.50	56.00
Fan	5.00	0.75
Belts	AX29	
Centerline Dist.	9.00	
	Design	Actual
Fan RPM		838

Static Pressure		
Total Design:		in.w.c.
Suction:	0.33	in.w.c.
Discharge:	0.68	in.w.c.
Total Actual:	0.35	in.w.c.

Duct					Design		Actual				Notes
No.	Height	Width	Insul.	Area	FPM	CFM	AFPM	CFM	SP	%	
1	38	16		4.22	109	460	111	469		102%	OA intake
2											

Notes:

Outside air min position 25%.

Ferris Street Services

308 Ferris Street - Peekskill, NY 10566 - 914.458.1580 - info@ferrisstreet.com

Fan Test Sheet

Project:	Sweetgreen Westport	System:	RTU-3
Location:	Roof	Serves:	Dining
Instrument:	Shortridge ADM-860c	Date:	07/08/24

Fan Data	
Make:	Trane
Model:	YHCOGOE3RH
Serial No.:	231810215L

Air Flow Data		
	Design	Actual
Total	2,100	2,115

Static Pressure		
Total Design:		in.w.c.
Suction:	-0.32	in.w.c.
Discharge:	0.68	in.w.c.
Total Actual:	0.99	in.w.c.

Motor Data			
HP:	1.0	RPM:	1725
Phase:	3	SF:	1.15
	Rated	Actual	
Volts:	200-230/460	204-203-203	
Amps:	3.4-3.3/1.6	2.8-2.8-2.7	
Hz:	60	60	

Drive Data		
	Size	Bore
Motor	2.5 VP	56.00
Fan	5.00	0.75
Belts	AX29	
Centerline Dist.	9.00	
	Design	Actual
Fan RPM		845

Notes:

Economizer not installed; outside air remains.

Ferris Street Services

308 Ferris Street - Peekskill, NY 10566 - 914.458.1580 - info@ferrisstreet.com

Fan Test Sheet

Project:	Sweetgreen Westport	System:	EF-1
Location:	Roof	Serves:	Kitchen Hood
Instrument:	Shortridge ADM-860c	Date:	07/08/24

Fan Data	
Make:	Econ-Air
Model:	EADU85H
Serial No.:	6586898

Air Flow Data		
	Design	Actual
Total	1,140	1,160

Static Pressure		
Total Design:		in.w.c.
Suction:	-0.42	in.w.c.
Discharge:	Free	in.w.c.
Total Actual:		in.w.c.

Motor Data			
HP:	0.8	RPM:	
Phase:	1	SF:	1.15
	Rated	Actual	
Volts:	115	118	
Amps:	8.90	4.30	
Hz:	60	60	

Drive Data		
	Size	Bore
Motor		
Fan		
Belts	Direct Drive	
Centerline Dist.		
	Design	Actual
Fan RPM		Speed 26%

Notes:

Ferris Street Services

308 Ferris Street - Peekskill, NY 10566 - 914.458.1580 - info@ferrisstreet.com

Fan Test Sheet

Project:	Sweetgreen Westport	System:	EF-2
Location:	Roof	Serves:	Restrooms
Instrument:	Shortridge ADM-860c	Date:	07/08/24

Fan Data	
Make:	Econ-Air
Model:	EADR12H
Serial No.:	6586898

Air Flow Data		
	Design	Actual
Total	150	156

Static Pressure		
Total Design:		in.w.c.
Suction:	-0.25	in.w.c.
Discharge:	Free	in.w.c.
Total Actual:		in.w.c.

Motor Data			
HP:	0.3	RPM:	
Phase:	1	SF:	1.15
	Rated	Actual	
Volts:	115	118	
Amps:	2.90	1.30	
Hz:	60	60	

Drive Data		
	Size	Bore
Motor		
Fan		
Belts	Direct Drive	
Centerline Dist.		
	Design	Actual
Fan RPM		Speed 52%

Notes:

Abbreviation	Meaning	Abbreviation	Meaning
p	Air Changes per Hour	LD	Linear Diffuser
AFPM	Actual Feet per Minute	LR	Linear Return
AHU	Air Handling Unit	LWT	Leaving Water Temperature
Ak	Area Factors	MA	Mixed Air
AMPS	Amperages	MAU, MUA	Make-Up Air Unit
BHP	Brake Horsepower	Max	Maximum
BMS	Building Management System	MBH	Thousand BTUs per Hour
BR	Bottom Return	Mfr	Manufacturer
BTU	British Thermal Unit	Min	Minimum
CD	Ceiling Diffuser	N/A	Not Available, Not Accessible
CEF	Ceiling Exhaust Fan	No.	Number
CF	Cabinet Fan	OA	Outside Air
CF for DDC	BMS Correction Factor	OBD	Opposed Blade Damper
CFM	Cubic Feet per Minute	OD	Outside Diameter
CH	Chiller	OED	Open End Duct
CHWC, CC	Chilled Water Coil, Cooling Coil	PSI	Pounds per Square Inch
CR	Ceiling Return	RA	Return Air
CS	Circuit Setter	RCP	Radiant Ceiling Panel
CT	Cooling Tower	Rdgs	Readings
CV	Constant Volume	Req'd	Required
dB	Decibel	RG	Return Grille
Dia	Diameter	RGD(s)	Register(s), Grille(s), Diffuser(s)
Dist	Distribution	RHC	Reheat Coil
dP, DP	Differential Pressure	Rm Press	Room Pressure
DR	Direct Read	RP	Radiant Panel
Drwg	Drawing	RPM	Revolutions per Minute
EADB	Entering Air Dry Bulb	RR	Return Register
EAWB	Entering Air Wet Bulb	RTU	Roof Top Unit
EF	Exhaust Fan	SA	Supply Air
EG	Exhaust Grille	SD	Supply Diffuser
ER	Exhaust Register	SG	Supply Grille
ESP	External Static Pressure	SL	Slot
EWT	Entering Water Temperature	SNRKL	Snorkel
EX / EXH	Exhaust	SP	Static Pressure
F	Fahrenheit	SqFt	Square Feet
FCU	Fan Coil Unit	SR	Supply Register
FLA	Full Load Amperage	Stpt	Setpoint
FPB	Fan Powered Box	TADBF	Total Air Delivered by Fan
FPM	Feet per Minute	Tech	Technician
FtHd	Feet of Head	Temp	Temperature
GPM	Gallons per Minute	TF	Thermafuser
HP	Horsepower	TR	Top Register
HWC, HC	Hot Water Coil, Heating Coil	Trav	Traverse
HX	Heat Exchanger	TSP	Total Static Pressure
Hz	Hertz	V	Volt / Voltage
incw	Inches Water Column	VAV	Variable Air Volume
Insul	Insulation	VFD	Variable Frequency Drive
kW	Kilowatt	WMS	Wire Mesh Screen
LADB	Leaving Air Dry Bulb		
LAWB	Leaving Air Wet Bulb		

Functions/ Instrument Type	NEBB Required Specifications			Qualifying Instrument			
	Minimum Range	Accuracy	Resolution	Manufacturer	Model No.	Serial No.	Calibration Date
Rotation Measurement	0-5000 RPM	± 2% of reading ± 2 RPM	1 RPM	Monarch	PLT-200	1957130	9/26/2023
Temperature Measurement	-40 to 240o F	± 0.5% of reading + 1.4o F	0.2o F	Fluke	52II	1218659	9/23/2023
Temperature Measurement Air	-40 to 240o F	± 0.5% of reading + 1.4o F	0.2o F	Fluke	80PK-24	I193656	9/25/2023
Temperature Measurement Immersion	-40 to 240o F	± 0.5% of reading + 1.4o F	0.2o F	Fluke	80PK-22	I193657	9/25/2023
Temperature Measurement Contact	-40 to 240o F	± 0.5% of reading + 1.4o F	0.2o F	Fluke	80PK-3A	I193658	10/17/2023
Electrical Measurement CAT III True RMS							
Volts AC	0 to 600 VAC	± 2% of reading ± 5 digits	1.0 Volt	Fluke	323	33090237WS	9/27/2023
Amperes	0 to 100 Amps	± 2% of reading ± 5 digits	0.1 Ampere	Fluke	323	33090237WS	9/27/2023
Air Pressure Measurement	0 to 10.00 in w.g.	± 2% of reading ± 0.001 in w.g.	0.001 in w.g. ≤ 1 in w.g. 0.01 in w.g. > 1 in w.g.	Shortridge	ADM-860c	M15383	9/27/2023
Air Velocity Measurement Hot Wire Anemometer OR Airfoil with Digital Meter	50 to 3900 fpm	±5% of reading, not less than ±7 fpm	1.0 fpm	Shortridge	ADM-860c	M15383	9/27/2023
Air Velocity Measurement Rotating Vane	50 to 2500 fpm	± 2% of reading ± 4 fpm	1.0 fpm	Extech	AN300	A04783	11/13/2023
Humidity Measurement	10 to 90% RH	± 3% RH	1.00%	Extech	RH390	A22070840	9/29/2023
Direct Reading Hood	100 to 2000 cfm	± 5% of reading ± 7 cfm	1 cfm	Shortridge	8403	M15383	9/27/2023
Hydronic Pressure Measurement	-30 in h.g. to 60 PSI	± 2% of reading ± 1 PSI	0.5 PSI	Shortridge	HDM-250	W18094	9/23/2023
	0 to 100 PSI	± 2% of reading ± 1 PSI	1.0 PSI	Shortridge	HDM-250	W18094	9/23/2023
	0 to 200 PSI	± 2% of reading ± 1 PSI	2.5 PSI	Shortridge	HDM-250	W18094	9/23/2023
Hydronic Differential Pressure Measurement	0 to 100 in w.g.	± 2% of reading ± 2 in. w.g.	1.0 ft. w.g.	Shortridge	HDM-250	W18094	9/23/2023
	0 to 200 ft. w.g.	± 2% of reading ± 0.2 ft. w.g.	1.0 ft. w.g.	Shortridge	HDM-250	W18094	9/23/2023