PROJECT:

CHIPOTLE

JARUPA VALLEY #4334

ADDRESS:

NEC PYRITE STREET & MISSION BLVD.
JURUPA VALLEY, CA 92509

NEBB CERTIFIED TAB REPORT

By:

Zaretsky Engineering Solutions Inc.
1650 Harbor Boulevard, Suite #F
Fountain Valley, CA 92708

6/26/2024

ZARETSKY
ENGINEERING SOLUTIONS

CERTIFIED

TEST, ADJUST & BALANCE REPORT

DATE
06/28/2024

PROJECT
2414699 - CHIPOTLE - JARUPA VALLEY

, CA

ARCHITECT

DESIGN ENGINEER

HVAC CONTRACTOR

TAB FIRM
Zaretsky Engineering Solutions
16520 Harbor Boulevard #F
Fountain Valley, CA 92708
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ZARETSKY
ENGINEERING SOLUTIONS

CERTIFICATION PAGE

PROJECT NAME: 2414699 - CHIPOTLE - JARUPA VALLEY
ADDRESS:
, CA

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 Standard for Testing, Adjusting and Balancing of Environmental Systems. The measurements shown, and the information given, in this report are
certified to be accurate and complete, at the time and date information was gathered. Any variances from design quantities, which exceed NEBB tolerances, are noted in the TAB report project summary.

NEBB TAB FIRM Zaretsky Engineering Solutions
REG NO. 3001 CERTIFIED BY Roman Zaretsky DATE 6/28/2024

SUBMITTED & CERTIFIED BY:

NEBB TAB FIRM Zaretsky Engineering Solutions
TAB PROFESSIONAL Roman Zaretsky
REG NO. 3001
CERTIFICATION EXPIRATION DATE 12/31/2024

NEBB

Zaretsky Engineering Solutions, Inc.
ROMAN ZARETSKY
CERTIFICATION
3001
Exp. 12/31/24
Air and Hydronic Testing

Roman Zaretsky

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Date: 2024.06.28 16:05:30-07'00'

ZARETSKY
ENGINEERING SOLUTIONS

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ZARETSKY
ENGINEERING SOLUTIONS

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ABBREVIATIONS LIST

ABBREVIATIONS	
AHU	AIR HANDLING UNIT
AMP	AMPERAGE
AFMS	AIR FLOW MONITORING STATION
BD	BALANCING DAMPER
BHP	BRAKE HORSE POWER
BTU	BRITISH THERMAL UNIT
BTUh	BTU PER HOUR
BV	BALANCING VALVE
CF	CORRECTION FACTOR (Ak)
CFLA	CORRECTED FULL LOAD AMPS
CFM	CUBIC FEET PER MINUTE
CV	CONSTANT VOLUME
DB	DRY BULB
DFC	DAMPER FULLY CLOSED
DWO	DAMPER WIDE OPEN
EF	EXHAUST FAN
EG	EXHAUST GRILLE
ER	EXHAUST REGISTER
ESP	EXTERNAL STATIC PRESSURE
EA	EXHAUST AIR
F	FAN
FD	FIRE DAMPER
FLA	FULL LOAD AMPS
FPM	FEET PER MINUTE
GPM	GALLONS PER MINUTE
LS	LINEAR SLOT
MBH	1000 BTU PER HOUR
MVD	MANUAL VOLUME DAMPER
N/A	NOT APPLICABLE
N/ACC	NO REASONABLE ACCESS
NDI	NO DAMPER INSTALLED
N.G.	NOT GIVEN
NF	NO FLOW
NS	NOT SPECIFIED
NM	NOT MEASURED
NPSH	NET POSITIVE SUCTION HEAD
NPSHA	NPSH AVAILABLE
NPSHR	NPSH REQUIRED
OA	OUTSIDE AIR
OSA	OUTSIDE AIR
OBD	OPPOSED BLADE DAMPER
OED	OPEN ENDED DUCT
P	PUMP
PD	PRESSURE DROP
PH	PHASE
PSI	POUNDS PER SQUARE INCH
PSIA	PSI ABSOLUTE
PSIG	PSI GAUGE
RA	RETURN AIR
RAF	RETURN AIR FAN
RG	RETURN GRILLE
RPM	ROTATIONS PER MINUTE
RR	RETURN REGISTER
SA	SUPPLY AIR
SD	SPLITTER DAMPER
SG	SUPPLY GRILLE
SP	STATIC PRESSURE
SR	SUPPLY REGISTER
TB	TERMINAL BOX
TD	TEMPERATURE DIFFERENTIAL
TDH	TOTAL DYNAMIC HEAD
TP	THERMALLY PROTECTED
TSP	TOTAL STATIC PRESSURE
WB	WET BULB
VAV	VARIABLE AIR VOLUME
VD	VOLUME DAMPER
VEL	VELOCITY
-	CELL NOT USED

TAB SUMMARY

PROJECT NAME:	CHIPOTLE - JARUPA VALLEY #4334
PROJECT LOCATION:	NEC PYRITE STREET & MISSION BLVD.,JURUPA VALLEY, CA 92509
SYSTEM:	General Notes

Item #	System	Note
1.	-	UNLESS OTHERWISE NOTED, INDICATED CFM IS AT STANDARD CONDITIONS.
2.	-	DESIGN CFM OBTAINED FROM LATEST DESIGN DOCUMENTS PROVIDED TO ZES.
3.	-	AREA CORRECTION FACTOR (AK) APPLIED TO ALL MEASURED VELOCITIES TO CALCULATE CFM. WHEN A DIGITAL FLOW HOOD IS USED THE AK IS 1.0 UNLESS OTHERWISE NOTED.
4.		
5.		
6.		
7.		
8.		
9.		
10.		
11.		
12.		
13.		
14.		
15.		

OBSERVATION WITH PICTURES

PROJECT NAME:	CHIPOTLE - JARUPA VALLEY #4334
PROJECT LOCATION:	NEC PYRITE STREET & MISSION BLVD.,JURUPA VALLEY, CA 92509
SYSTEM:	SITE PICTURES

System:	STORE FRONT
ID:	1

Comments:
NONE

System:	RTU-1
ID:	2

Comments:
NONE

System:	RTU-2
ID:	3

Comments:
NONE

System:	MUA
ID:	4

Comments:
NONE

System:	EF-1
ID:	5

System:	EF-2
ID:	6

OBSERVATION WITH PICTURES

PROJECT NAME:	CHIPOTLE - JARUPA VALLEY #4334
PROJECT LOCATION:	NEC PYRITE STREET & MISSION BLVD.,JURUPA VALLEY, CA 92509
SYSTEM:	SITE PICTURES

Comments:
NONE

Comments:
NONE

System:	HOOD-1
ID:	7

Comments:
NONE

System:	HOOD-1
ID:	8

Comments:
NONE

OBSERVATION WITH PICTURES

PROJECT NAME:	CHIPOTLE - JARUPA VALLEY #4334
PROJECT LOCATION:	NEC PYRITE STREET & MISSION BLVD.,JURUPA VALLEY, CA 92509
SYSTEM:	SITE PICTURES

System:	THERMOSTATS
ID:	9

Comments: TEMPORARY INSTALLATION DURING BALANCE

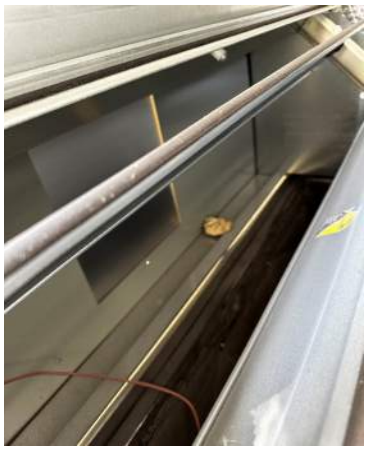
System:	RTU-1 OUTLETS
ID:	10

Comments: NO DIFFUSERS ON OUTLETS 1-7, 1-8, 1-9

System:	RTU BAROMETRIC RELIEF
ID:	11

Comments: EXTERNAL VIEW

System:	RTU BAROMETRIC RELIEF
ID:	12



Comments: INTERNAL VIEW

Technician: Ryan Hughes

Date: 6/25/2024

TAB Checklist - RTU

PROJECT NAME:	CHIPOTLE - JARUPA VALLEY #4334
PROJECT LOCATION:	NEC PYRITE STREET & MISSION BLVD.,JURUPA VALLEY, CA 92509
SYSTEM:	RTU Checklist

Technician: Ryan Hughes Date: 6/25/2024

ITEM #	ITEM DESCRIPTION	RTU-1	RTU-2
1	Thermostats installed and have power?	NO, temporary installation in place.	NO, temporary installation in place.
2	All diffusers and grilles are installed and match design?	See markup on drawings at end of report.	YES
3	Deflector plates are removed from 1x1 diffusers on the serve line (double check that this is specified on the diffuser schedule first)	3 outlets have no diffuser plates as shown in pictures.	N/A
4	Economizer blank plate is installed below the outside air intake (Trane only) (N/A = not applicable)	Barometric damper with outlet installed.	Barometric damper with outlet installed.
5	Economizers are assembled and functional?	YES	YES
6	DCV Max damper opening position is set to minimum?	YES	YES
7	Free cooling enthalpy set point set for lowest setting (Typically "D")	YES	YES
8	Motors are all operating below the FLA range?	YES	YES
9	Are belts tight?	Direct Drive	Direct Drive
10	If direct drive unit is the speed controller working?	YES	YES
11	Is gas piping installed and valves turned on?	YES	YES
12	Unit free of noticeable noise and vibration?	YES	YES
13	Final outside air damper position is marked with permanent marker?	YES	YES

TAB Checklist - EF

PROJECT NAME:	CHIPOTLE - JARUPA VALLEY #4334
PROJECT LOCATION:	NEC PYRITE STREET & MISSION BLVD.,JURUPA VALLEY, CA 92509
SYSTEM:	EF Checklist

Technician: Ryan Hughes Date: 6/25/2024

ITEM #	ITEM DESCRIPTION	RTU-1	RTU-2
1	Rotation is correct?	YES	YES
2	Belts are tight?	Direct Drive	Direct Drive
3	Viroguard installed on hood fan(s)?	YES	N/A
4	Hinge kit installed on hood fan?	YES	N/A
5	Lean fan back. Is grease duct installation adequate and is duct ran all the way to the base of the fan?	YES	YES
6	Flex conduit is long enough so that fan can be completely tilted back?	YES	N/A
7	There is no major leakage around base of fan?	CONFIRMED	CONFIRMED
8	Is the motor operating below the motor FLA rating?	YES	YES
9	For restroom fan(s) is the back draft damper installed and can it fully open?	N/A	YES
10	Unit free of noticeable noise and vibration?	YES	YES

TAB Checklist - MUA

PROJECT NAME:	CHIPOTLE - JARUPA VALLEY #4334
PROJECT LOCATION:	NEC PYRITE STREET & MISSION BLVD.,JURUPA VALLEY, CA 92509
SYSTEM:	MUA Checklist

Technician: Ryan Hughes Date: 6/25/2024

ITEM #	ITEM DESCRIPTION	MUA-1	N/A
1	Rotation is correct?	YES	-
2	Gas piping is installed and valves are in on position?	YES	-
3	Internal motorized damper is fully opening?	YES	-
4	Is the motor operating below the motor FLA rating?	YES	-
5	Unit free of noticeable noise and vibration?	YES	-

TAB Checklist - Hoods

PROJECT NAME:	CHIPOTLE - JARUPA VALLEY #4334
PROJECT LOCATION:	NEC PYRITE STREET & MISSION BLVD.,JURUPA VALLEY, CA 92509
SYSTEM:	Hoods Checklist

Technician: Ryan Hughes Date: 6/25/2024

ITEM #	ITEM DESCRIPTION	Hood 1	N/A
1	All hood filters installed and accounted for?	YES	-
2	Hoods are wired and have power?	YES	-
3	Hood is free of alarms?	YES	-
4	Hood is free of damage?	YES	-
5	Quarter or full verctical end panels are installed if specified?	N/A	-

TAB Checklist - Final

PROJECT NAME:	CHIPOTLE - JARUPA VALLEY #4334
PROJECT LOCATION:	NEC PYRITE STREET & MISSION BLVD.,JURUPA VALLEY, CA 92509
SYSTEM:	Final Checklist

Technician: Ryan Hughes Date: 6/25/2024

ITEM #	ITEM DESCRIPTION	Comment
Final Checks		
1	Is space free of drafting?	North facing window curtains are made to move from RTU-2 supply discharge.
2	Is space comfortable in all areas?	YES
3	Is the space free of ventilation noise?	Audible noise from balance dampers in neck of outlets 2-3 through 2/7 and Kitchen Hood.
4	List kitchen equipment turned on for testing.	None
5	List smoke candle type used.	DiversiTech Smokeys 120 Second
Hood Capture Test		
6	Smoke test capture % - Perimeter of hood	100%
7	Smoke test capture % - Top of cooking surface	100%
Witness		
8	Date test was completed	6/25/2024
9	TAB tech name / Firm	Ryan Hughes / ZES
10	Site super name / Firm	Armando Garduno / WECNF
11	Owner representative name / Firm (if Applicable)	N/A
Building Pressure		
12	Do actual net building airflow, design net building airflow, and pressure coincide? If not why? (All three should either be postive or negave)	YES

BUILDING OFFSET AND UNIT SUMMARY

PROJECT NAME:	CHIPOTLE - JARUPA VALLEY #4334
PROJECT LOCATION:	NEC PYRITE STREET & MISSION BLVD.,JURUPA VALLEY, CA 92509
AREA / BUILDING	TOTAL

UNIT ID	DESIGN					ACTUAL				
	SUPPLY	RETURN	OSA	EXHAUST	OFFSET	SUPPLY	RETURN	OSA	EXHAUST	OFFSET
RTU-1	2990	2200	750		750	2995	2202	793		793
RTU-2	3000	2200	750		750	2985	2169	816		816
MAU-1	1950	0	1950		1950	2113	0	2113		2113
EF-1				3200	-3200				3353	-3353
EF-2				150	-150				152	-152
TOTAL	7940	4400	3450	3350	**100**	8093	4371	3722	3505	**216**

Comments:

DOOR PRESSURE READINGS AT EACH DOOR AS FOLLOWS.
FRONT DOOR = +0.004"
SIDE DOOR = +0.009"
BACK DOOR = +0.003"

Technician: Ryan Hughes

Date: 6/25/2024

AIR HANDLER / PACKAGE UNIT TEST

PROJECT NAME:	CHIPOTLE - JARUPA VALLEY #4334
PROJECT LOCATION:	NEC PYRITE STREET & MISSION BLVD.,JURUPA VALLEY, CA 92509
SYSTEM:	RTU-1

UNIT DATA

	DESIGN	ACTUAL
MANUFACTURER	TRANE	TRANE
MODEL #	YHC092	YHC092F3RHA29P7C1A2A000A00000D1000000000
SERIAL #	N.G.	224913164L
LOCATION / SERVICE	ROOF / KITCHEN	ROOF / KITCHEN

FAN DATA

	DESIGN	ACTUAL
SUPPLY - TOTAL	3000	NM
SUPPLY - TERMINALS	2990	2995
RETURN	2200	2202
OUTSIDE AIR	750	793
E.S.P.	0.8	1.25
FAN STATIC (IN / OUT)	N.G. / N.G.	-0.62 / 0.63
FAN RPM	N.G.	ECM

MOTOR DATA

	DESIGN	TAG	ACTUAL
MANUFACTURER	N.G.	EBMPAPST	
FRAME / S.F.	N.G. / N.G.	N.G. / N.G.	
HP	N.G.	2.75	
BHP	N.G.	N.G.	1.1
VOLTS / PHASE	208 / 3	208 / 3	209 / 209 / 209
AMPS	N.G.	7	3 / 3.1 / 3
CORRECTED NAMEPLATE AMPS	N.G.		7.0
MOTOR RPM / Hz	N.G. / 60	N.G. / 60	ECM / 60
PF / EFF	N.G. / N.G.	N.G. / N.G.	N.G. / N.G.
OVERLOAD SIZE / SETTING	N.G. / N.G.	N.G. / N.G.	- / -

DRIVE DATA

	DESIGN	ACTUAL
MOTOR SHEAVE OD / SHAFT	N.G. / N.G.	DD / DD
MOTOR SHEAVE PITCH	N.G.	DD
FAN SHEAVE OD / SHAFT	N.G. / N.G.	DD / DD
BELT SIZE / QTY.	N.G. / N.G.	DD / DD
CENTER LINE DISTANCE	N.G.	DD

FILTER DATA

	DESIGN			ACTUAL		
	SIZE	**TYPE**	**QTY**	**SIZE**	**TYPE**	**QTY**
BANK 1	**N.G.**	**MERV 8**	**N.G.**	**20X25X2**	**MERV 8**	**6**
BANK 2	**-**	**-**	**-**	**-**	**-**	**-**

Comments:

Technician: Ryan Hughes

Date: 6/25/2024

AIR INLET/ OUTLET REPORT

PROJECT NAME:	CHIPOTLE - JARUPA VALLEY #4334
PROJECT LOCATION:	NEC PYRITE STREET & MISSION BLVD.,JURUPA VALLEY, CA 92509
SYSTEM:	RTU-1

SUB-SYSTEM: SUPPLY

AREA SERVED	#	METHOD	TYPE	SIZE	AK	DESIGN CFM	PRELIMINARY		FINAL		
							VEL	CFM	VEL	CFM	%
OFFICE	1-1	DH	CD1	6" DIA	1.0	100	81	81	110	110	110.0%
BOH	1-2	DH	CD1	10" DIA	1.0	230	320	320	226	226	98.3%
BOH	1-3	DH	CD1	10" DIA	1.0	230	287	287	241	241	104.8%
BOH	1-4	DH	CD1	10" DIA	1.0	230	347	347	224	224	97.4%
FOOD PREP	1-5	DH	CD3	10" DIA	1.0	300	409	409	286	286	95.3%
FOOD PREP	1-6	DH	CD3	10" DIA	1.0	300	195	195	288	288	96.0%
SERVICE LINE	1-7	DH	CD2	8" DIA	1.0	200	292	292	198	198	99.0%
SERVICE LINE	1-8	DH	CD2	8"DIA	1.0	200	275	275	194	194	97.0%
SERVICE LINE	1-9	DH	CD2	8"DIA	1.0	200	206	206	200	200	100.0%
SERVICE LINE	1-10	DH	CD2	8"DIA	1.0	200	143	143	183	183	91.5%
HOOD 1	1-11	VG	ACPSP	183"X6"	5.9	800	186	1105	142	845	105.6%
				TOTAL:		2990		3660		2995	100.2%

SUB-SYSTEM: RETURN

AREA SERVED	#	METHOD	TYPE	SIZE	AK	DESIGN CFM	PRELIMINARY		FINAL		
							VEL	CFM	VEL	CFM	%
BOH	1-1	DH	RG1	46"X22	1.1	2200	2442	2686	2002	2202	100.1%
				TOTAL:		2200		2686		2202	100.1%

DH = Digital Flow Hood | AF = Airfoil | PT = Pitot | VG = Velocity Grid | RVA = Rotating Vane Anemometer

Comments:

Technician: Cory Compte Date: 6/25/2024

Kitchen Hood Test Report (Makup air)

PROJECT NAME:	CHIPOTLE - JARUPA VALLEY #4334
PROJECT LOCATION:	NEC PYRITE STREET & MISSION BLVD.,JURUPA VALLEY, CA 92509
SYSTEM:	RTU-1

HOOD ID:	**HD-1**
AREA SERVED:	KITCHEN
CORRECTION FACTOR:	0.78
INSTRUMENT USED:	Micromanometer & Velgrid

BAFFLE DIMENSIONS

SIZE - W 183 X H 6 "

AREA - 5.94 FT^2

DESIGN

FPM - 134.7

CFM - 800

ACTUAL

FPM - 142.3

CFM - 845

	A	B	C	D	E	F	G	H	I	J
1	167	171	166	84	157					
2	106	130	154	125	79					
3	167	87	180	183	178					

Comments: PSP makeup air outlet on face of kitchen hood.

Technician: Ryan Hughes Date: 6/25/2024

AIR HANDLER / PACKAGE UNIT TEST

PROJECT NAME:	CHIPOTLE - JARUPA VALLEY #4334
PROJECT LOCATION:	NEC PYRITE STREET & MISSION BLVD.,JURUPA VALLEY, CA 92509
SYSTEM:	RTU-2

UNIT DATA

	DESIGN	ACTUAL
MANUFACTURER	TRANE	TRANE
MODEL #	YHC092	YHC092F3RHA29P7C1A2A000A00000D1000000000
SERIAL #	N.G.	224913166L
LOCATION / SERVICE	ROOF / DINING	ROOF / DINING

FAN DATA

	DESIGN	ACTUAL
SUPPLY - TOTAL	3000	NM
SUPPLY - TERMINALS	3000	2985
RETURN	2200	2169
OUTSIDE AIR	750	816
E.S.P.	0.8	1.53
FAN STATIC (IN / OUT)	N.G. / N.G.	-0.53 / 1.00
FAN RPM	N.G.	ECM

MOTOR DATA

	DESIGN	TAG	ACTUAL
MANUFACTURER	N.G.	EBMPAPST	
FRAME / S.F.	N.G. / N.G.	N.G. / N.G.	
HP	N.G.	2.75	
BHP	N.G.	N.G.	1.1
VOLTS / PHASE	208 / 3	208 / 3	209 / 209 / 209
AMPS	N.G.	7	3.1 / 3.2 / 3.2
CORRECTED NAMEPLATE AMPS	N.G.		7.0
MOTOR RPM / Hz	N.G. / 60	N.G. / 60	ECM / 60
PF / EFF	N.G. / N.G.	N.G. / N.G.	N.G. / N.G.
OVERLOAD SIZE / SETTING	N.G. / N.G.	N.G. / N.G.	- / -

DRIVE DATA

	DESIGN	ACTUAL
MOTOR SHEAVE OD / SHAFT	N.G. / N.G.	DD / DD
MOTOR SHEAVE PITCH	N.G.	DD
FAN SHEAVE OD / SHAFT	N.G. / N.G.	DD / DD
BELT SIZE / QTY.	N.G. / N.G.	DD / DD
CENTER LINE DISTANCE	N.G.	DD

FILTER DATA

	DESIGN			ACTUAL		
	SIZE	**TYPE**	**QTY**	**SIZE**	**TYPE**	**QTY**
BANK 1	**-**	**MERV 8**	**-**	**20X25X2**	**MERV 8**	**6**
BANK 2	**-**	**-**	**-**	**-**	**-**	**-**

Comments:

Technician: Ryan Hughes

Date: 6/25/2024

AIR INLET/ OUTLET REPORT

PROJECT NAME:	CHIPOTLE - JARUPA VALLEY #4334
PROJECT LOCATION:	NEC PYRITE STREET & MISSION BLVD.,JURUPA VALLEY, CA 92509
SYSTEM:	RTU-2

SUB-SYSTEM: SUPPLY

AREA SERVED	#	METHOD	TYPE	SIZE	AK	DESIGN CFM	PRELIMINARY		FINAL		
							VEL	CFM	VEL	CFM	%
DINING	2-1	DH	SR2	18"X6"	1.0	300	449	449	312	312	104.0%
DINING	2-2	DH	SR2	18"X6"	1.0	400	436	436	437	437	109.3%
DINING	2-3	DH	SR1	12"DIA	1.0	600	708	708	567	567	94.5%
DINING	2-4	DH	SR1	12"DIA	1.0	500	659	659	500	500	100.0%
DINING	2-5	DH	SR1	12"DIA	1.0	400	437	437	396	396	99.0%
DINING	2-6	DH	SR1	12"DIA	1.0	400	214	214	374	374	93.5%
DINING	2-7	DH	SR1	12"DIA	1.0	400	483	483	399	399	99.8%
					TOTAL:	3000		3386		2985	99.5%

SUB-SYSTEM: RETURN

AREA SERVED	#	METHOD	TYPE	SIZE	AK	DESIGN CFM	PRELIMINARY		FINAL		
							VEL	CFM	VEL	CFM	%
DINING	2-1	DH	RG3	46"X22"	1.1	2200	1916	2108	1972	2169	98.6%
					TOTAL:	2200		2108		2169	98.6%

DH = Digital Flow Hood | AF = Airfoil | PT = Pitot | VG = Velocity Grid | RVA = Rotating Vane Anemometer

Comments:

Technician: Cory Compte

Date: 6/25/2024

FAN TEST

PROJECT NAME:	CHIPOTLE - JARUPA VALLEY #4334
PROJECT LOCATION:	NEC PYRITE STREET & MISSION BLVD.,JURUPA VALLEY, CA 92509
SYSTEM:	MAU-1

UNIT DATA

	DESIGN	ACTUAL
MANUFACTURER	CAPTIVE-AIRE	CAPTIVE-AIRE
MODEL #	A1-D.250-15D	A1-D.250-15D
SERIAL #	N.G.	N.G.
LOCATION / SERVICE	ROOF / GRILL	ROOF / GRILL

FAN DATA

	DESIGN	ACTUAL
CFM - TOTAL	1950	NM
CFM - TERMINALS	1950	2113
E.S.P.	0.8	1.70
FAN STATIC (IN / OUT)	N.G. / N.G.	-0.78 / 0.93
FAN RPM	N.G.	2046

MOTOR DATA

	DESIGN	TAG	ACTUAL
MANUFACTURER	N.G.	TECO	
FRAME / S.F.	N.G. / N.G.	145T / 1.15	
HP	2	2	
BHP	N.G.	N.G.	1.1
VOLTS / PHASE	208 / 3	230 / 3	211 / 211 / 211
AMPS	N.G.	5.48	3.2 / 3.2 / 3.2
CORRECTED NAMEPLATE AMPS	N.G.		6.0
MOTOR RPM / Hz	N.G. / 60	1740 / 60	2046 / 75
PF / EFF	N.G. / N.G.	N.G. / N.G.	N.G. / N.G.
OVERLOAD SIZE / SETTING	N.G. / N.G.	N.G. / N.G.	NM / NM

DRIVE DATA

	DESIGN	ACTUAL
MOTOR SHEAVE OD / SHAFT	N.G. / N.G.	ECM / ECM
MOTOR SHEAVE PITCH	N.G.	ECM
FAN SHEAVE OD / SHAFT	N.G. / N.G.	ECM / ECM
BELT SIZE / QTY.	N.G. / N.G.	ECM / ECM
CENTER LINE DISTANCE	N.G.	ECM

Comments:

Technician: Ryan Hughes Date: 6/25/2024

AIR INLET / OUTLET REPORT

PROJECT NAME:	CHIPOTLE - JARUPA VALLEY #4334
PROJECT LOCATION:	NEC PYRITE STREET & MISSION BLVD.,JURUPA VALLEY, CA 92509
SYSTEM:	MAU-1

SUB-SYSTEM: SUPPLY

AREA SERVED	#	METHOD	TYPE	SIZE	AK	DESIGN CFM	PRELIMINARY		FINAL		
							VEL	CFM	VEL	CFM	%
KITCHEN	1	VG	PSP	183X12	13.3	1950	159	2113	159	2113	108.4%
					TOTAL:	1950		2113		2113	108.4%

DH = Digital Flow Hood | AF = Airfoil | PT = Pitot | VG = Velocity Grid | RVA = Rotating Vane Anemometer

Comments:

Technician: Ryan Hughes Date: 5/25/2024

Kitchen Hood Test Report (Makup air)

PROJECT NAME:	CHIPOTLE - JARUPA VALLEY #4334
PROJECT LOCATION:	NEC PYRITE STREET & MISSION BLVD.,JURUPA VALLEY, CA 92509
SYSTEM:	MAU-1

HOOD ID:	**HD-1**
AREA SERVED:	KITCHEN
CORRECTION FACTOR:	0.87
INSTRUMENT USED:	Micromanometer & Velgrid

BAFFLE DIMENSIONS

SIZE - W 183 X H 12 "

AREA - 13.30 FT^2

DESIGN

FPM - 146.6

CFM - 1950

ACTUAL

FPM - 158.9

CFM - 2113

	A	B	C	D	E	F	G	H	I	J
1	159	144	156	178	143					
2	163	167	164	108	153					
3	142	175	173	168	190					

Comments:

Technician: Ryan Hughes

Date: 5/25/2024

FAN TEST

PROJECT NAME:	CHIPOTLE - JARUPA VALLEY #4334
PROJECT LOCATION:	NEC PYRITE STREET & MISSION BLVD.,JURUPA VALLEY, CA 92509
SYSTEM:	EF-1

UNIT DATA

	DESIGN	ACTUAL
MANUFACTURER	CAPTIVE-AIRE	CAPTIVE-AIRE
MODEL #	DU240HFA	DU240HFA
SERIAL #	N.G.	N.G.
LOCATION / SERVICE	ROOF / GRILL	ROOF / GRILL

FAN DATA

	DESIGN	ACTUAL
CFM - TOTAL	3200	NM
CFM - TERMINALS	N.G.	3353
E.S.P.	1.2	NM
FAN STATIC (IN / OUT)	N.G. / N.G.	NM / NM
FAN RPM	N.G.	805

MOTOR DATA

	DESIGN	TAG	ACTUAL		
MANUFACTURER	N.G.	TECO			
FRAME / S.F.	N.G. / N.G.	213T / 1.15			
HP	3	3			
BHP	N.G.	N.G.	1.6		
VOLTS / PHASE	208 / 3	230 / 3	211	211	211
AMPS	N.G.	9.2	4.6	4.6	4.6
CORRECTED NAMEPLATE AMPS	N.G.		10.0		
MOTOR RPM / Hz	N.G. / 60	1175 / 60	805 / 60		
PF / EFF	N.G. / N.G.	N.G. / N.G.	N.G. / N.G.		
OVERLOAD SIZE / SETTING	N.G. / N.G.	N.G. / N.G.	NM / NM		

DRIVE DATA

	DESIGN	ACTUAL
MOTOR SHEAVE OD / SHAFT	N.G. / N.G.	DD / DD
MOTOR SHEAVE PITCH	N.G.	DD
FAN SHEAVE OD / SHAFT	N.G. / N.G.	DD / DD
BELT SIZE / QTY.	N.G. / N.G.	DD / DD
CENTER LINE DISTANCE	N.G.	DD

Comments:

Technician: Ryan Hughes

Date: 6/25/2024

AIR INLET / OUTLET REPORT

PROJECT NAME:	CHIPOTLE - JARUPA VALLEY #4334
PROJECT LOCATION:	NEC PYRITE STREET & MISSION BLVD.,JURUPA VALLEY, CA 92509
SYSTEM:	EF-1

SUB-SYSTEM: EXHAUST

AREA SERVED	#	METHOD	TYPE	SIZE	AK	DESIGN CFM	PRELIMINARY		FINAL		
							VEL	CFM	VEL	CFM	%
KITCHEN	1	VG	HOOD	153 X 16	16.2	3200	198	3208	207	3353	104.8%
					TOTAL:	3200		3208		3353	104.8%

DH = Digital Flow Hood | AF = Airfoil | PT = Pitot | VG = Velocity Grid | RVA = Rotating Vane Anemometer

Comments:

Technician: Ryan Hughes

Date: 5/13/2023

Kitchen Hood Test Report (Exhaust)

PROJECT NAME:	CHIPOTLE - JARUPA VALLEY #4334
PROJECT LOCATION:	NEC PYRITE STREET & MISSION BLVD.,JURUPA VALLEY, CA 92509
SYSTEM:	EF-1

HOOD ID:	**HD-1**
AREA SERVED:	KITCHEN
CORRECTION FACTOR:	1.62
INSTRUMENT USED:	Micromanometer & Velgrid

BAFFLE DIMENSIONS

		W		H	
SIZE	-	16	X	16	"
QTY	-	10			
AREA	-	16.20			FT^2

DESIGN

FPM	-	197.5
CFM	-	3200

ACTUAL

FPM	-	207.0
CFM	-	3353

	A	B	C	D	E	F	G	H	I	J
1										
2	188	202	209	200	308	188	181	198	211	185
3										

Comments:

Technician: Ryan Hughes Date: 6/25/2024

FAN TEST

PROJECT NAME:	CHIPOTLE - JARUPA VALLEY #4334
PROJECT LOCATION:	NEC PYRITE STREET & MISSION BLVD.,JURUPA VALLEY, CA 92509
SYSTEM:	EF-1

UNIT DATA

	DESIGN	ACTUAL
MANUFACTURER	CAPTIVE-AIRE	CAPTIVE-AIRE
MODEL #	DR12HFA	DR12HFA
SERIAL #	N.G.	N.G.
LOCATION / SERVICE	ROOF / RESTROOMS	ROOF / RESTROOMS

FAN DATA

	DESIGN	ACTUAL
CFM - TOTAL	150	NM
CFM - TERMINALS	150	152
E.S.P.	0.6	NM
FAN STATIC (IN / OUT)	N.G. / N.G.	NM / NM
FAN RPM	N.G.	NM

MOTOR DATA

	DESIGN	TAG	ACTUAL
MANUFACTURER	N.G.	TELCO GREEN	
FRAME / S.F.	N.G. / N.G.	N.G. / N.G.	
HP	0.18	1/4	
BHP	N.G.	N.G.	0.2
VOLTS / PHASE	120 / 1	115 / N.G.	- / 121 / -
AMPS	N.G.	0.4	- / 1.1 / -
CORRECTED NAMEPLATE AMPS	N.G.		0.4
MOTOR RPM / Hz	N.G. / 60	1800 / 60	NM / 60
PF / EFF	N.G. / N.G.	N.G. / N.G.	N.G. / N.G.
OVERLOAD SIZE / SETTING	N.G. / N.G.	N.G. / N.G.	NM / NM

DRIVE DATA

	DESIGN	ACTUAL
MOTOR SHEAVE OD / SHAFT	N.G. / N.G.	DD / DD
MOTOR SHEAVE PITCH	N.G.	DD
FAN SHEAVE OD / SHAFT	N.G. / N.G.	DD / DD
BELT SIZE / QTY.	N.G. / N.G.	DD / DD
CENTER LINE DISTANCE	N.G.	DD

Comments:

Technician: Ryan Hughes Date: 6/25/2024

AIR INLET / OUTLET REPORT

PROJECT NAME:	CHIPOTLE - JARUPA VALLEY #4334
PROJECT LOCATION:	NEC PYRITE STREET & MISSION BLVD.,JURUPA VALLEY, CA 92509
SYSTEM:	EF-2

SUB-SYSTEM: EXHAUST

AREA SERVED	#	METHOD	TYPE	SIZE	AK	DESIGN CFM	PRELIMINARY		FINAL		
							VEL	CFM	VEL	CFM	%
Restroom	1	DH	ER1	6"X6"	1.0	75	233	233	78	78	104.0%
Restroom	1	DH	ER1	6"X6"	1.0	75	213	213	74	74	98.7%
				TOTAL:		150		446		152	101.3%

DH = Digital Flow Hood | AF = Airfoil | PT = Pitot | VG = Velocity Grid | RVA = Rotating Vane Anemometer

Comments:

Technician: Ryan Hughes

Date: 6/25/2024

SECTION 15732 - PACKAGED ROOFTOP AIR-CONDITIONING UNITS
PART 1 - GENERAL
1.1 SECTION REQUIREMENTS
A. Submittals: Product Data and Shop Drawings.
B. Comply with ASHRAE 15.
C. EER: Equal to or greater than prescribed by the energy code adopted by the Authority Having Jurisdiction.
D. Warranties: Submit a written warranty, signed by the manufacturer, agreeing to the repair or replacement of components that fail within 5 years of Substantial Completion.
PART 2 - PRODUCTS
2.1 PACKAGED UNITS, 5 TO 20 TONS
A. Factory assembled and tested, consisting of compressors, condensers, evaporator coils, condenser and evaporator fans, refrigeration and temperature controls, filters, and dampers.
1. Refer to Rooftop Heating/Cooling Unit Schedule on drawing M600 for capacities, and manufacturers.
2. Evaporator Fans: Belt or direct driven, forward curved centrifugal.
3. Exhaust/Relief Fans: Direct drive, forward curved centrifugal or propeller.
4. Condenser Fans: Direct drive propeller.
5. Refrigerant Coils: Aluminum fins and copper coil.
6. Compressors: Serviceable hermetic or fully hermetic, with safety controls, hot gas bypass, and timed off controls.
7. Heat Exchangers: Gas fired, with gas controls, electronic ignition, high limit cutout, and forced draft proving switch.
8. Economizer controls (Comparative Enthalpy, 100% capacity).
9. Smoke Detectors: Photoelectric in supply and/or return as called for in schedule on sheet M600.
10. Operating Controls: Two stage heating and two stage cooling on units 7-1/2 tons and over.
11. Roof curb.
12. Control Wiring from T-stat to rooftop unit: Shall be 18ga / 7 conductor, rated for plenum applications.
13. Control Wiring from T-stat to remote sensor: Shall be a separate 18ga / 2 conductor shielded, rated for plenum applications.
PART 3 - EXECUTION
3.1 INSTALLATION
A. Install units level and plumb and firmly anchored.
B. Connect gas piping to burner with pipe same size as gas train inlet, and provide union with sufficient clearance for burner removal and service.
C. Install ducts to termination in roof mounting frames. Terminate ducts through roof structure.
D. Connect units to wiring systems and to ground.
END OF SECTION 15732

SECTION 15810 - DUCTS AND ACCESSORIES
PART 1 - GENERAL
1.1 SECTION REQUIREMENTS
A. Submittals: Product Data for fire and smoke dampers.
B. Comply with NFPA 90A for systems serving spaces more than 25,000 cu. ft. in volume or building Types II, IV, and V construction more than 3 stories in height.
C. Comply with NFPA 90B for systems serving spaces in 1 or 2 family dwellings or serving spaces less than 25,000 cu. ft..
D. Comply with NFPA 96, "Ventilation Control and Fire Protection of Commercial Cooking Operations," for kitchen hood ducts.
E. Comply with UL 181 and UL 181A for ducts and closures.
F. Testing, Adjusting, and Balancing Agency Qualifications: AABC certified (to be furnished by Tenant).
PART 2 - PRODUCTS
2.1 DUCTS
A. Spiral Duct: Spiral Lock Seam, without insulation, G90 galvanized finish, ASTM A-653/924
1. Basis of Design Manufacturers: Lindab SPIROsafe, alternates to the basis of design must be submitted for review.
2. Fittings: Factory produced standing seam construction with internal sealing. Fittings with a major axis of 36" or smaller shall be 20 gauge. Fittings with a major axis of 37"-48" shall be 18 gauge.
B. Galvanized Steel Sheet: Forming steel, ASTM A 653/653M, G90 coating designation.
C. Duct Liner: ASTM C 1071, Type II, with an airstream surface coated with a temperature resistant coating. Thickness: 1-1/2 inch. R-value : 8.
1. Adhesive: ASTM C 916, Type I.
2. Mechanical Fasteners: Galvanized steel pin, length as required to penetrate liner plus a 1/8 inch projection maximum into the airstream.
D. Joint and Seam Tape: Comply with UL 181A.
E. Joint and Seam Sealant: Comply with UL 181A.
F. Rectangular Metal Duct Fabrication: Comply with SMACNA's "HVAC Duct Construction Standard" for metal thickness, reinforcing types and intervals, tie rod applications, and joint types and intervals.
2.2 ACCESSORIES
A. Volume-Control Dampers: Factory fabricated volume control dampers, complete with required hardware and accessories. Single blade and multiple opposed blade, standard leakage rating, and suitable for horizontal or vertical applications.
B. Fire Dampers: Factory-fabricated fire dampers, complete with required hardware and accessories. UL labeled according to UL 555, "Fire Dampers".
C. Flexible Connectors: Flame retardant or noncombustible fabrics, coatings, and adhesives complying with UL 181, Class 1.
D. Flexible Ducts: Factory fabricated, insulated, round duct, with an outer jacket enclosing 2 inch thick, glass fiber insulation, R-value: 6.0, around a continuous inner liner.
PART 3 - EXECUTION
3.1 INSTALLATION
A. Duct System Pressure Class: Construct and install each duct system with 2 inch positive and negative duct pressure classifications.
B. Conceal ducts from view in finished and occupied spaces. Except where noted as exposed.
C. Avoid passing through electrical equipment spaces and enclosures.
D. Support and connect metal ducts according to SMACNA's "HVAC Duct Construction Standard".
E. Install duct accessories according to applicable portions of details of construction as shown in SMACNA standards.
F. Install liner and/or insulation on ductwork per the material schedule on sheet M010.
G. Install volume control dampers in lined duct with methods to avoid damage to liner and to avoid erosion of duct liner.
H. Install fire and smoke dampers according to manufacturer's UL approved written instructions.
I. Install fusible links in fire dampers.
J. Provide saddle taps at tees for exposed ductwork.
3.2 TESTING, ADJUSTING, AND BALANCING
A. The Tenant will supply an independent balance agent to to balance and adjust the HVAC installation. The balance agent will be responsible for any pulley or belt changes required.
B. The GC is to have trained staffed available during the balancing to correct issues noted by the balance agent.
C. The balance agent is to balance airflow within distribution systems, including submains, branches, and terminals to indicated quantities +/- 10%. The hood exhaust system shall be balanced to a tolerance of -0+10% and the make-up air system to a tolerance of -10+0%.
D. The balance agent is to supply a copy of the balance report to the Tenant, engineer and general contractor for review.
END OF SECTION 15810

SECTION 15855 - DIFFUSERS, REGISTERS, AND GRILLES
PART 1 - GENERAL
1.1 SECTION REQUIREMENTS
A. Submittals: None.
PART 2 - PRODUCTS
2.1 OUTLETS AND INLETS
A. All air terminal devices:
1. Refer to Grills, Registers, and Diffusers Schedule for equipment schedule
2. Manufacturer: As scheduled (NO SUBSTITUTIONS)
3. Material: As scheduled.
4. Finish: As scheduled.
5. Mounting: As scheduled.
PART 3 - EXECUTION
3.1 INSTALLATION
A. Coordinate location and installation with duct installation and installation of other ceiling and wall mounted items.
B. Locate ceiling diffusers, registers, and grilles, as indicated on the architectural "reflected ceiling plans." Unless otherwise indicated, locate units in center of acoustical ceiling panels.
END OF SECTION 15855

CALIFORNIA GREEN BUILDING STANDARDS CODE
5.410 BUILDING MAINTENANCE AND OPERTION
5.410.4 TESTING AND ADJUSTING:
Testing and adjusting of systems installed shall be required for buildings less than 10,000 square feet or new systems to serve and addition or slteration subject to Section 303.1.
5.410.4.2 SYSTEMS:
Develop a written plan of procedures for testing and adjusting systems. Systems to be included for testing and adjusting shall include at a minimum, as applicable to the project:
1. HVAC systems and controls
2. Indoor and outdoor lighting and controls
3. Water heating systems
4. Renewable energy systems
5. Landscape irrigation systems
6. Water reuse systems
5.410.4.3 PROCEDURES:
Perform testing and adjusting procedures in accordance with manufacturer's specifications and applicable standards on each system.
5.410.4.3.1 HVAC BALANCING:
In addition to testing and adjusting, before a new space-conditioning system serving a building or space is operated for normal use, the system shall be balanced in accordance with the procedures defined by the Testing Adjusting and Balancing Bureau National Standards; the National Environmental Balancing Bureau Procedural Standards; Associated Air Balance Council National Standards or as approved by the enforcing agency.
5.410.4.4 REPORTING:
After completion of testing, adjusting and balancing, provide a final report of testing signed by the individual responsible for performing these services.
5.410.4.5 OPERATION AND MAINTENANCE MANUAL:
Provide the building owner or representative with detailed operating and maintenance instruction and copies of guarantees/warranties for each system. O&M instruction shall be consistene with OSHA requirements in CCR, Title 8, Section 5142, and other related regulations.
5.410.4.5.1 INSPECTIONS AND REPORTS:
Include a copy of all inspection verifications and reports require by the enforcing agency.

5.504 POLLUTANT CONTROL
5.504.1 TEMPORARY VENTILATION:
The permanent HVAC system shall only be used during construction if necessary to condition the building or areas of addition or alteration within the required temperature range for material and equipment installation. If the HVAC system is used during construction, use return air filters with a Minimum Efficiency Reporting Value (MERV) of 8, based on ASHRAE 52.2-1999, or an average efficiency of 30% based on ASHRAE 52.1-1992. Replace air filters immediately prior to occupancy, or, if the building is occupied alteration, at the conclusion of construction.
5.504.3 COVERING OF DUCT OPENINGS AOF MECHANICAL EQUIPMENT DURING CONSTRUCTION:
At the time of rough installation and during storage on the construction site until final startup of the heating, cooling, and ventilating equipment, all duct and other related air distribution component openings shall be covered with tape, plastic, sheet metal, or other methods acceptable to the enforcing agency to reduce the amount of dust, water, and debris which may collect in the system.

5.508 OUTDOOR AIR QUALITY
5.508.1 OZONE DEPLETION AND GREENHOUSE GAS REDUCTIONS:
Installations of HVAC, refirgeration, and fire suppression equipment shall copmly with Section 5.508.1.1 and 5.508.1.2.
5.508.1.1 CHOLOROFLUOROCARBONS (CFCS):
Install HVAC, refrigeration and fire suppression equipment that do no contain CFCS.
5.508.1.2 HALONS:
Install HVAC, refrigeration and fire suppression equipment that do not contain Halons.

HVAC GENERAL NOTES

A GENERAL NOTES APPLY TO HVAC SHEETS.
B WORK SHALL COMPLY WITH STATE AND LOCAL CODE REQUIREMENTS AS APPROVED AND AMENDED BY THE AUTHORITY HAVING JURISDICTION, INCLUDING APPLICABLE SECTIONS OF NFPA, THE MECHANICAL CODE, AND ANY INTERIM AMENDMENTS AT THE TIME OF THE PROPOSAL. PURCHASE PERMITS ASSOCIATED WITH THE WORK. OBTAIN INSPECTIONS REQUIRED BY CODE. SEE ARCHITECTURAL SHEETS FOR THE PREVAILING CODES.
C CONTRACTOR AND SUBCONTRACTORS SHALL REVIEW A COMPLETE SET OF THE CONSTRUCTION DOCUMENTS.
D COORDINATE WORK WITH THE WORK OF OTHER TRADES, EQUIPMENT FURNISHED BY OTHERS, REQUIREMENTS OF THE OWNER, AND OF THE EXISTING CONDITIONS AT THE PROJECT SITE.
E DRAWINGS FOR THE MECHANICAL WORK ARE DIAGRAMMATIC, SHOWING THE GENERAL LOCATION, TYPE, LAYOUT, AND EQUIPMENT REQUIRED. THE DRAWING SHALL NOT BE SCALED FOR EXACT MEASUREMENTS, REFER TO ARCHITECTURAL DRAWINGS FOR DIMENSIONS. REFER TO MANUFACTURER'S STANDARD INSTALLATION DRAWINGS FOR EQUIPMENT CONNECTIONS AND INSTALLATION REQUIREMENTS. PROVIDE DUCTWORK, CONNECTIONS, OFFSETS, ACCESSORIES, AND MATERIALS NECESSARY FOR A COMPLETE SYSTEM.
F DUCT DIMENSIONS ON PLANS INDICATE DIMENSIONS OF INTERNAL FREE AREA.
G PERFORATED CEILING DIFFUSERS SHALL BE 4-WAY UNLESS NOTED OTHERWISE.
H COORDINATE ROOF WORK WITH THE OWNER'S CONSTRUCTION MANAGER PRIOR TO CONSTRUCTION.
I UNLESS NOTED OTHERWISE RECTANGULAR DUCT ELBOWS GREATER THAN 45° SHALL BE MITERED ELBOWS WITH DOUBLE-THICKNESS TURNING VANES AND RECTANGULAR DUCT ELBOWS 45° OR LESS SHALL BE RADIUSED ELBOWS WITH AN INSIDE RADIUS OF AT LEAST 1/2 THE WIDTH OF THE DUCT.
J REPLACE AIR FILTERS WITH NEW, CLEAN MERV 8 AIR FILTERS AT TURNOVER.
K THE TERM "FURNISH" MEANS SUPPLY AND DELIVER TO THE PROJECT SITE, READY FOR UNLOADING, UNPACKING, ASSEMBLY, INSTALLATION, AND SIMILAR OPERATIONS. THE TERM "INSTALL" DESCRIBES THE OPERATIONS AT THE PROJECT SITE INCLUDING THE ACTUAL UNLOADING, UNPACKING, ASSEMBLY, ERECTING, PLACING, ANCHORING, APPLYING, WORKING TO DIMENSION, FINISHING, CURING, PROTECTING, CLEANING, AND SIMILAR OPERATIONS. THE TERM "PROVIDE" MEANS TO FURNISH AND INSTALL, COMPLETE AND READY FOR THE INTENDED USE.
L PROVIDE LABELING CALLED FOR IN THE HVAC DRAWINGS USING ENGRAVED PHENOLIC PLATES.
M PROVIDE P3000 12 GA. UNISTRUT WITH PG FINISH FOR DUCT SUPPORTS AND OTHER UNISTRUT IN AREAS EXPOSED TO VIEW. SLOTTED UNISTRUT AND OTHER UNISTRUT WITH HOLES IS NOT ACCEPTABLE.

HVAC MATERIAL SCHEDULE

	APPLICATION	ALLOWABLE MATERIAL
DUCT		
	CONCEALED, GENERAL EXHAUST	RECT. OR ROUND AS SHOWN
	CONCEALED, RETURN	RECT. OR ROUND AS SHOWN, LINED OR INSULATED
	CONCEALED, SUPPLY	RECT. OR ROUND AS SHOWN, LINED OR INSULATED
	CONCEALED, TYPE I HOOD EXHAUST	RECTANGULAR 16 GA. BLACK IRON W/ WRAP OR UL 1978 FACTORY-MANUFACTURED DUCT W/ WRAP (SUBMIT SHOP DRAWINGS FOR FACTORY-MANUFACTURED DUCT PRIOR TO ORDERING FOR APPROVAL)
	EXPOSED GENERAL EXHAUST	RECTANGULAR, NO EXPOSED DUCT-SEALING MASTIC
	EXPOSED RETURN	RECTANGULAR, NO EXPOSED DUCT-SEALING MASTIC
	EXPOSED SUPPLY	RECT. LINED OR ROUND AS SHOWN, NO EXPOSED DUCT-SEALING MASTIC

HVAC ABBREVIATIONS

(E)	EXISTING
ABV	ABOVE
ADA	AMERICANS WITH DISABILITIES ACT
AFF	ABOVE FINISHED FLOOR
AFG	ABOVE FINISHED GRADE
AHJ	AUTHORITY HAVING JURISDICTION
BFF	BELOW FINISHED FLOOR
BFG	BELOW FINISHED GRADE
BOH	BACK OF HOUSE
CLG	CEILING
CTE	CONNECT TO EXISTING
DN	DOWN
EXT'G	EXISTING
FLR	FLOOR
FOH	FRONT OF HOUSE
GYP	GYPSUM BOARD
NTS	NOT TO SCALE
O/H	OVERHEAD
OBD	OPPOSED BLADE DAMPER
TYP	TYPICAL
U/G	UNDERGROUND
UNO	UNLESS NOTED OTHERWISE
VFD	VARIABLE FREQUENCY DRIVE
VSC	VARIABLE SPEED CONTROLLER
W/	WITH
WIC	WALK-IN COOLER
C02AS	TENANT'S CO2 ALARM SUPPLIER
GC	GENERAL CONTRACTOR
HES	TENANT'S HVAC EQUIPMENT SUPPLIER
HS	TENANT'S HOOD SUPPLIER
KES	TENANT'S KITCHEN EQUIPMENT SUPPLIER
LL	LANDLORD
SPS	TENANT'S SODA POP SUPPLIER
TAB	TENANT'S TEST AND BALANCE VENDOR
TCC	TENANT'S CABLING CONTRACTOR
TDC	TENANT'S DUCT CLEANER
TEMS	TENANT'S ENERGY MANAGEMENT SYSTEM SUPPLIER
TLS	TENANT'S LIGHT/LAMP SUPPLIER
TMB	TENANT'S MENU BOARD SUPPLIER
TMS	TENANT'S MILLWORK SUPPLIER
TP	TENANT'S PHONE SUPPLIER
TRS	TENANT'S RAILING SUPPLIER
TSV	TENANT'S SIGN VENDOR
TUV	TENANT'S UV SNAITIZER SUPPLIER
WCS	TENANT'S WALK-IN COOLER SUPPLIER
WHS	TENANT'S WATER HEATER SUPPLIER

HVAC SYMBOLS

CEILING DIFFUSER
CEILING-MOUNTED RETURN OR EXHAUST REGISTER
SUPPLY REGISTER
RETURN GRILLE
FLEXIBLE DUCT
MITERED CORNER WITH TURNING VANES
DUCTWORK INTERNAL FREE DIMENSIONS (WIDTH/HEIGHT) RECTANGULAR TO ROUND DUCT TRANSITION
DUCT-MOUNTED SMOKE DETECTOR
MOTOR-OPERATED DAMPER
MANUAL VOLUME DAMPER
GREASE DUCT CLEANOUT
MITERED CORNER WITHOUT TURNING VANES
GRIDPOINT THERMOSTAT
GRIDPOINT ZONE SENSOR MODULE
GRIDPOINT SUPPLY PROBE
PLAN NOTE: SEE PLAN NOTES LISTED ON THE SAME SHEET FOR NOTE MEANING
CONNECT TO EXISTING
EQUIPMENT TAG: SEE EQUIPMENT SCHEDULE ON SHEET M600 FOR EQUIPMENT INFORMATION
AUDIO/VISUAL REMOTE SMOKE DETECTOR ANNUNCIATOR WITH REMOTE KEY OPERATED RESET
GRILL, REGISTER, OR DIFFUSER TAG: TAG, NECK SIZE, AIRFLOW [CFM]

Consultant:
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REGISTERED PROFESSIONAL ENGINEER
LAURA MICHELLE BLANCHARD
M 34017
EXP. 3.31.24
MECHANICAL
STATE OF CALIFORNIA
5/31/22

CHIPOTLE MEXICAN GRILL
CHIPOTLE MEXICAN GRILL, INC.
PO BOX 182566
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STORE NO.: 4334
Jurupa Valley
NEC Pyrite Street & Mission Blvd.
Jurupa Valley, CA 92509

Issue Record:
05/31/2022 PERMIT ISSUE

Revisions:

Drawn: IJD
Checked: AJD

Project No.
221050

Contents:
HVAC SPECIFICATIONS

M010

STATE OF CALIFORNIA
Mechanical Systems
NRCC-MCH-E — CALIFORNIA ENERGY COMMISSION

CERTIFICATE OF COMPLIANCE			NRCC-MCH-E
This document is used to demonstrate compliance for mechanical systems that are within the scope of the permit application and are demonstrating compliance using the prescriptive path outlined in §140.4, or §141.0(b)2 for alterations.			
Project Name:	Chipotle - Jurupa Valley	**Report Page:**	**(Page 1 of 9)**
Project Address:	NEC Pyrite Street & Mission Blvd., Jurupa Valley, CA 92509	**Date Prepared:**	2022-06-02T12:04:44-04:00

A. GENERAL INFORMATION

01	Project Location (city)	Jurupa Valley	04	Total Conditioned Floor Area	2325
02	Climate Zone	10	05	Total Unconditioned Floor Area	0
03	Occupancy Types Within Project:		06	# of Stories (Habitable Above Grade)	1
☐ Office (B)		☐ Retail (M)	☐ Non-refrigerated Warehouse (S)		
☐ Hotel/ Motel Guest Rooms (R-1)		☐ School (E)	☐ Healthcare Facility (I)		
☐ High-Rise Residential (R-2/R-3)		☐ Relocatable Class Bldg (E)	☒ Other (write in)		Retail

B. PROJECT SCOPE

This table Includes mechanical systems or components that are within the scope of the permit application and are demonstrating compliance using the prescriptive path outlined in §140.4, or §141.0(b)2 for alterations.

01	02	03
Air System(s)	Wet System Components	Dry System Components
☒ Heating Air System	☐ Water Economizer	☒ Air Economizer
☒ Cooling Air System	☐ Pumps	☐ Electric Resistance Heat
Mechanical Controls	☐ System Piping	☐ Fan Systems
☒ Mechanical Controls (existing to remain, altered or new)	☐ Cooling Towers	☒ Ductwork (existing to remain, altered or new)
	☐ Chillers	☒ Ventilation
	☐ Boilers	☐ Zonal Systems/ Terminal Boxes

Registration Number: — Registration Date/Time: — Registration Provider: Energy Code Ace

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STATE OF CALIFORNIA
Mechanical Systems
NRCC-MCH-E — CALIFORNIA ENERGY COMMISSION

CERTIFICATE OF COMPLIANCE			NRCC-MCH-E
Project Name:	Chipotle - Jurupa Valley	**Report Page:**	**(Page 2 of 9)**
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C. COMPLIANCE RESULTS

Table C will indicate if the project data input into the compliance document is compliant with mechanical requirements. This table is not editable by the user. If this table says "DOES NOT COMPLY" or "COMPLIES with Exceptional Conditions" refer to Table D., or the table indicated as not compliant for guidance.

01		02		03		04		05		06		07		08	09
System Summary §110.1, §110.2, §140.4	AND	Pumps §140.4(k)	AND	Fans/ Economizers §140.4(c), §140.4(e)	AND	System Controls §110.2, §120.2, §140.4(f)	AND	Ventilation §120.1	AND	Terminal Box Controls §140.4(d)	AND	Distribution §120.3, §140.4(l)	AND	Cooling Towers §110.2(e)2	Compliance Results
(See Table F)		(See Table G)		(See Table H)		(See Table I)		(See Table J)		(See Table K)		(See Table L)		(See Table M)	
Yes	AND		AND	Yes	AND	Yes	AND	Yes	AND		AND	Yes	AND		COMPLIES with Exceptional Conditions
Mandatory Measures Compliance (See Table Q for Details)												COMPLIES			

D. EXCEPTIONAL CONDITIONS

This table is auto-filled with uneditable comments because of selections made or data entered in tables throughout the form.

I. System Controls Permit Applicant Notes	[RTU-1] {Demand Response} N/A Space exhaust greater than ventilation required -- [RTU-2] {Demand Response} N/A Space exhaust greater than ventilation required
The permit applicant has indicated on Table J that ventilation calculations have been attached or included elsewhere on the plans.	

E. ADDITIONAL REMARKS

This table includes remarks made by the permit applicant to the Authority Having Jurisdiction.

Registration Number: — Registration Date/Time: — Registration Provider: Energy Code Ace

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STATE OF CALIFORNIA
Mechanical Systems
NRCC-MCH-E — CALIFORNIA ENERGY COMMISSION

CERTIFICATE OF COMPLIANCE			NRCC-MCH-E
Project Name:	Chipotle - Jurupa Valley	**Report Page:**	**(Page 3 of 9)**
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F. HVAC SYSTEM SUMMARY (DRY & WET SYSTEMS)

This table is used to demonstrate compliance for mechanical equipment with mandatory requirements found in §110.1 and §110.2(g) and prescriptive requirements found in §140.4(a), §140.4(b) and §140.4(k) or §141.0(b)2 for alterations.

Dry System Equipment Sizing (includes air conditioners, condensers, heat pumps, VRF, furnaces and unit heaters)

01	02	03	04	05	06	07	08	09	10	11
				Equipment Sizing per Mechanical Schedule (kBtu/h) §140.4 (a&b)						
				Heating Output[2,3]			Cooling Output[2,3]		Load Calculations[3,4]	
Name or Item Tag	Equipment Category per Tables 110.2	Equipment Type per Tables 110.2 / Title 20	Smallest Size Available[1] §140.4(a)	Per Design (kBtu/h)	Rated (kBtu/h)	Supp. Heating Output (kBtu/h)	Sensible Per Design (kBtu/h)	Rated (kBtu/h)	Total Heating Load (kBtu/h)	Total Sensible Cooling Load (kBtu/h)
RTU-1	Furnace + AC	AC, air cooled, single pkg + warm-air central furnace, gas-fired	Yes	96	120	0	65.3	86.5	82.6	76.7
RTU-2	Furnace + AC	AC, air cooled, single pkg + warm-air central furnace, gas-fired	Yes	96	120	0	65.3	86.5	60.9	74.09

[1] *FOOTNOTES: Equipment shall be the smallest size, within the available options of the desired equipment line, necessary to meet the design heating and cooling loads of the building per §140.4(a). Healthcare facilities are excepted.*

[2] *It is common practice to show rated output capacity on the equipment schedule. Sensible cooling output comes from specification sheet tables.*

[3] *If equipment is heating only, leave cooling output and load blank. If equipment is cooling only, leave heating output and load blank.*

[4] *Authority Having Jurisdiction may ask for load calculations used for compliance per §140.4(b).*

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STATE OF CALIFORNIA
Mechanical Systems
NRCC-MCH-E — CALIFORNIA ENERGY COMMISSION

CERTIFICATE OF COMPLIANCE			NRCC-MCH-E
Project Name:	Chipotle - Jurupa Valley	**Report Page:**	**(Page 4 of 9)**
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F. HVAC SYSTEM SUMMARY (DRY & WET SYSTEMS)

Dry System Equipment Efficiency (other than Package Terminal Air Conditioners (PTAC) and Package Terminal Heat Pumps (PTHP))

01	02	03	04	05	06	07	08	09
		Heating Mode				Cooling Mode		
Name or Item Tag	Size Category (Btu/h)	Rating Condition (°F)	Efficiency Unit	Minimum Efficiency Required per Tables 110.2 / Title 20	Design Efficiency	Efficiency Unit	Minimum Efficiency Required per Tables 110.2 / Title 20	Design Efficiency
RTU-1	>=65kBtuh cooling/ <225kBtuh heating		AFUE	0.8	0.8	EER IEER	11 12.7	11.2 13
RTU-2	>=65kBtuh cooling/ <225kBtuh heating		AFUE	0.8	0.8	EER IEER	11 12.7	11.2 13

G. PUMPS

This section does not apply to this project.

Registration Number: — Registration Date/Time: — Registration Provider: Energy Code Ace

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STATE OF CALIFORNIA
Mechanical Systems
NRCC-MCH-E — CALIFORNIA ENERGY COMMISSION

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H. FAN SYSTEMS & AIR ECONOMIZERS

This table is used to demonstrate compliance with prescriptive requirements found in §140.4(c), §140.4(e) and §140.4(m) for fan systems. Fan systems serving only process loads are exempt from these requirements and do not need to be included in Table H.

System Name:	RTU-1	**Economizer:**[1]	Differential Enthalpy	**Economizer Controls:**	Designed per §140.4(e) and (m)	**System Fan Type:**	Constant Volume

01	02	03	04	05	06	07	08
Fan Name or Item Tag	Fan Function	Qty	Maximum Design Supply Airflow (CFM)	HP Unit[2]	Design HP	Fan Power Pressure Drop Adjustment - Table 140.4-B	
						Device	Design Airflow through Device (CFM)
RTU-1	Supply	1	3000	BHP	1.68	None used	
						Calculated Adjustment (in H_2O)	
RTU-2	Supply	1	3000	BHP	1.68	None used	
						Calculated Adjustment (in H_2O)	
Total System Design Supply Airflow (CFM):			6000	Total System Design (B)HP:	3.36	**Maximum System Fan Power (B)HP:**	

[1] *FOOTNOTES: Computer room economizers must meet requirements of §140.9(a) and will be documented on the NRCC-PRC-E document.*

[2] *The unit used for HP must be consistent for all fans within a system.*

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STATE OF CALIFORNIA
Mechanical Systems
NRCC-MCH-E — CALIFORNIA ENERGY COMMISSION

CERTIFICATE OF COMPLIANCE			NRCC-MCH-E
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I. SYSTEM CONTROLS

This table is used to demonstrate compliance with mandatory controls in §110.2 and §120.2 and prescriptive controls in §140.4(f) and (n) or requirements in §141.0(b)2E for altered space conditioning systems.

01	02	03	04	05	06	07	08	09
System Name	System Zoning	Conditioned Floor Area Being Served (ft^2)	Thermostats §110.2(b) & (c)[1], §120.2(a)or §141.0(b)2E	Shut-Off Controls §120.2(e)	Isolation Zone Controls §120.2(e)	Demand Response §110.12 and §120.2(b)	Supply Air Temp. Reset §140.4(f)	Window Interlocks per §140.4(n)
RTU-1	Single zone	<= 25,000 ft^2	Setback	Auto Timer Switch	NA: Single Zone	Other*	NA: Single Zone	NA: No operable windows
RTU-2	Single zone	<= 25,000 ft^2	Setback	Auto Timer Switch	NA: Single Zone	Other*	NA: Single Zone	NA: No operable windows

[1] *FOOTNOTES: Gravity gas wall heaters, gravity floor heaters, gravity room heaters, non-central electric heaters, fireplaces or decorative gas appliances, wood stoves are not required to have setback thermostats.*

*Notes: Controls with a * require a note in the space below explaining how compliance is achieved. EX: system 1: SA Temp Reset: Exempt because zones compliant with §140.4(d) ; EXCEPTION 1 to §140.4(f)

RTU-1	{Demand Response} N/A Space exhaust greater than ventilation required
RTU-2	{Demand Response} N/A Space exhaust greater than ventilation required

J. VENTILATION AND INDOOR AIR QUALITY

This table is used to demonstrate compliance with mandatory ventilation requirements in §120.1 and §120.2(e)3B for all nonresidential, high-rise residential and hotel/motel occupancies. For alterations, only ventialtion systems being altered within the scope of the permit application need to be documented in this table. In lieu of this table, the required outdoor ventilation rates and airflows may be shown on the plans or the calculations can be presented in a spreadsheet.

01	☒	Check the box if the project is showing ventilation calculations on the plans, or attaching the calculations instead of completing this table.
02	☐	Check this box if the project included Nonresidential or Hotel/Motel spaces
	☐	Check this box if the project included new or altered high-rise residential dwelling units.
03	☐	Check the box if the project is using natural ventilation in any nonresidential or hotel/motel spaces to meet required ventilation rates per §120.1(c)2.

K. TERMINAL BOX CONTROLS

This section does not apply to this project.

Registration Number: — Registration Date/Time: — Registration Provider: Energy Code Ace

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Consultant:
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REGISTERED PROFESSIONAL ENGINEER — LAURA MICHELLE BLANCHARD — M 34017 — EXP 3/31/24 — MECHANICAL — STATE OF CALIFORNIA — 5/31/22

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STORE NO.: 4334
Jurupa Valley
NEC Pyrite Street & Mission Blvd.
Jurupa Valley, CA 92509

Issue Record:
05/31/2022 PERMIT ISSUE

Revisions:

Drawn: IJD — Checked: AJD

Project No.: 221050

Contents:
MECHANICAL TITLE 24 COMPLIANCE

M020

STATE OF CALIFORNIA
Mechanical Systems
NRCC-MCH-E — CALIFORNIA ENERGY COMMISSION

CERTIFICATE OF COMPLIANCE			NRCC-MCH-E
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L. DISTRIBUTION (DUCTWORK and PIPING)

This table is used to show compliance with mandatory pipe insulation requirements found in §120.3 and prescriptive requirements found in §140.4(l) for duct leakage testing.

Duct Leakage Sealing

The answers to the questions below apply to the following duct systems: RTU-1/2 | Duct leakage testing triggered for these systems? No

11	No	The scope of the project includes only duct systems serving healthcare facilities
12	Yes	Duct system provides conditioned air to an occupiable space for a constant volume, single zone, space-conditioning system.
13	Yes	The space conditioning system serves less than 5,000 ft² of conditioned floor area.
14	No	The combined surface area of the ducts in the following locations is more than 25% of the total surface area of the entire duct system:
	☐	Outdoors
	☐	In a space directly under a roof that has a U-factor greater than the u-factor of the ceiling, or if the roof does not meet the requirements of §140.3(a)1B or if the roof has fixed vents or openings to the outside/ unconditioned spaces
	☐	In an unconditioned crawl space
	☐	In other unconditioned spaces
15	No	The scope of the project includes extending an existing duct system, which is constructed, insulated or sealed with asbestos.
16	No	The scope of the project includes an existing duct system that is documented to have been previously sealed as confirmed through field verification and diagnostic testing in accordance with procedures in the Reference Nonresidential Appendix NA2.
17		Duct system shall be sealed in accordance with the California Mechanical Code

M. COOLING TOWERS

This section does not apply to this project.

N. DECLARATION OF REQUIRED CERTIFICATES OF INSTALLATION

Selections have been made based on information provided in previous tables of this document. If any selection needs to be changed, please explain why in Table E Additional Remarks. These documents must be provided to the building inspector during construction and can be found online at https://www.energy.ca.gov/title24/2019standards/2019_compliance_documents/Nonresidential_Documents/NRCI/

Form/Title	Field Inspector Pass	Fail
NRCI-MCH-01-E - Must be submitted for all buildings	☐	☐

Registration Number: | Registration Date/Time: | Registration Provider: Energy Code Ace

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STATE OF CALIFORNIA
Mechanical Systems
NRCC-MCH-E — CALIFORNIA ENERGY COMMISSION

CERTIFICATE OF COMPLIANCE			NRCC-MCH-E
Project Name:	Chipotle - Jurupa Valley	Report Page:	(Page 8 of 9)
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O. DECLARATION OF REQUIRED CERTIFICATES OF ACCEPTANCE

Selections have been made based on information provided in previous tables of this document. If any selection needs to be changed, please explain why in Table E Additional Remarks. These documents must be provided to the building inspector during construction and can be found online at https://www.energy.ca.gov/title24/2019standards/2019_compliance_documents/Nonresidential_Documents/NRCA/

Form/Title	Systems/Spaces To Be Field Verified	Field Inspector Pass	Fail
NRCA-MCH-02-A - Outdoor Air must be submitted for all newly installed HVAC units. Note: MCH-02-A can be performed in conjunction with MCH-07-A Supply Fan VFD Acceptance (if applicable) since testing activities overlap.	RTU-1	☐	☐
NRCA-MCH-05-A - Air Economizer Controls	RTU-1	☐	☐
NRCA-MCH-13-A Automatic FDD for Air Handling Units and Zone Terminal Units Acceptance	RTU-1; RTU-2	☐	☐

P. DECLARATION OF REQUIRED CERTIFICATES OF VERIFICATION

There are no NRCV forms required for this project.

Q. MANDATORY MEASURES DOCUMENTATION LOCATION

This table is used to indicate where mandatory measures are documented in the plan set or construction documentation.

01		02
Compliance with Mandatory Measures documented through MCH Mandatory Measures Note Block	No	

03 Mandatory Measure	04 Plan sheet or construction document location
Heating Equipment Efficiency per §110.1	M020
Cooling Equipment Efficiency per §110.1	M020
Furnace Standby Loss Control per §110.2(d)	N/A
Duct Insulation per §120.4	M020
Heat Pump with Supplemental electric Resistance Heater Controls per §110.2(b)	N/A
The air duct and plenum system is designed per §120.4(a) -(f)	M010
Kitchen range hoods shall be rated for sound in accordance with Section 7.2 of ASHRAE 62.2	Yes

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STATE OF CALIFORNIA
Mechanical Systems
NRCC-MCH-E — CALIFORNIA ENERGY COMMISSION

CERTIFICATE OF COMPLIANCE			NRCC-MCH-E
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DOCUMENTATION AUTHOR'S DECLARATION STATEMENT

I certify that this Certificate of Compliance documentation is accurate and complete.

Documentation Author Name: Isaac Dunn	Documentation Author Signature: Isaac Dunn
Company: BAE Group	Signature Date: 02JUN22
Address: 1425 Wakarusa Dr.	CEA/ HERS Certification Identification (if applicable):
City/State/Zip: Lawrence/KS/66049	Phone: 785-993-0300

RESPONSIBLE PERSON'S DECLARATION STATEMENT

I certify the following under penalty of perjury, under the laws of the State of California:

1. The information provided on this Certificate of Compliance is true and correct.
2. I am eligible under Division 3 of the Business and Professions Code to accept responsibility for the building design or system design identified on this Certificate of Compliance (responsible designer)
3. The energy features and performance specifications, materials, components, and manufactured devices for the building design or system design identified on this Certificate of Compliance conform to the requirements of Title 24, Part 1 and Part 6 of the California Code of Regulations.
4. The building design features or system design features identified on this Certificate of Compliance are consistent with the information provided on other applicable compliance documents, worksheets, calculations, plans and specifications submitted to the enforcement agency for approval with this building permit application.
5. I will ensure that a completed signed copy of this Certificate of Compliance shall be made available with the building permit(s) issued for the building, and made available to the enforcement agency for all applicable inspections. I understand that a completed signed copy of this Certificate of Compliance is required to be included with the documentation the builder provides to the building owner at occupancy.

Responsible Designer Name: Laura Blanchard, PE	Responsible Designer Signature: Laura Blanchard, PE
Company: BAE Group	Date Signed: 02JUN22
Address: 1425 Wakarusa Dr.	License: M34017
City/State/Zip: Lawrence/KS/66049	Phone: 785-993-0300

Registration Number: | Registration Date/Time: | Registration Provider: Energy Code Ace

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Consultant:
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REGISTERED PROFESSIONAL ENGINEER — LAURA MICHELLE BLANCHARD — M 34017 — EXP 3.31.24 — MECHANICAL — STATE OF CALIFORNIA — 5/31/22

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Jurupa Valley
NEC Pyrite Street & Mission Blvd.
Jurupa Valley, CA 92509

Issue Record:
05/31/2022 PERMIT ISSUE

Revisions:

Drawn: IJD | Checked: AJD

Project No.: 221050

Contents:
MECHANICAL TITLE 24 COMPLIANCE

M021

STATE OF CALIFORNIA
Domestic Water Heating System
NRCC-PLB-E — CALIFORNIA ENERGY COMMISSION

CERTIFICATE OF COMPLIANCE			NRCC-PLB-E
This document is used to demonstrate compliance for nonresidential occupancies with requirements in §110.1, §110.3, §120.3, and §140.5, and with requirements in §141.0 for additions and alterations, for domestic water heating scopes using the prescriptive path. For high-rise residential and hotel/motel occupancies compliance is demonstrated with requirements in §110.1, §110.3, §120.3, §150.0 and §150.1(c)8, and with requirements §150.2 for additions.			
Project Name:	Chipotle - Jurupa Valley	**Report Page:**	**(Page 1 of 6)**
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A. GENERAL INFORMATION

01	Project Location (city)	Jurupa Valley	02	Climate Zone	10
03	Occupancy Types Within Project (select all that apply):				
☒ Nonresidential		☐ High-Rise Residential		☐ Hotel/Motel	
☐ State Building		☐ Healthcare Facility		☐ Other (Write In)	

B. PROJECT SCOPE

This table includes domestic water heating systems that are within the scope of the permit application and are demonstrating compliance using the prescriptive paths outlined in §140.5, §150.1(c)8, and §141.0(a), or §141.0(b)2N for additions or alterations. Solar water heating systems are documented on the NRCC-SRA compliance document. Combined hydronic water heating systems are documented on the NRCC-MCH compliance document.

01	02	03		
My project consists of (check all that apply):	System Type[1,2]	System Components		
☒ New system (DHW system being installed for the first time in newly constructed building)	Central System (serving nonresidential spaces)	☒ Equipment	☒ Distribution	☒ Controls
☐ System Alteration (equipment, distribution or controls)		☐ Equipment	☐ Distribution	☐ Controls

[1] FOOTNOTES: Point of use water heaters, or other non-central systems used to serve nonresidential spaces, are considered individual systems.

[2] Dwelling units refers to hotel/motel guest rooms and units in a high-rise residential occupancy.

Registration Number: — Registration Date/Time: — Registration Provider: Energy Code Ace

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STATE OF CALIFORNIA
Domestic Water Heating System
NRCC-PLB-E — CALIFORNIA ENERGY COMMISSION
CERTIFICATE OF COMPLIANCE — NRCC-PLB-E
Project Name: Chipotle - Jurupa Valley — Report Page: (Page 2 of 6)
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C. COMPLIANCE RESULTS

Table C will indicate if the project data input into the compliance document is compliant with water heating requirements. If this table says "DOES NOT COMPLY" or "COMPLIES with Exceptional Conditions" refer to Table D. or the table indicated as not compliant for guidance.

01	02	03	04
Domestic Hot Water Equipment	Distribution Systems	Controls	**Compliance Results**
Table F	Table G	Table H	
No	Yes	Yes	DOES NOT COMPLY

D. EXCEPTIONAL CONDITIONS

This table is auto-filled with uneditable comments because of selections made or data entered in tables throughout the form.

E. ADDITIONAL REMARKS

This table is includes remarks made by the permit applicant to the Authority Having Jurisdiction.

STATE OF CALIFORNIA
Domestic Water Heating System
NRCC-PLB-E — CALIFORNIA ENERGY COMMISSION
CERTIFICATE OF COMPLIANCE — NRCC-PLB-E
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F. DOMESTIC HOT WATER EQUIPMENT

This table is used to demonstrate compliance with mandatory equipment requirements in §110.1 and §110.3. For high-rise residential and hotel/motel occupancies, compliance with prescriptive requirements in §150.1(c)8 must also be demonstrated and with §150.2 for addition and alteration scopes.

Equipment Schedule: Central Systems

07	08	09	10	11	12	13	14	15
Name or Item Tag	Equipment Type	Volume (gal)	Rated Input Capacity (Btu/h)	Rated Efficiency (%)	Minimum Efficiency Required (%)	Efficiency Unit	Designed Standby Loss[1]	Maximum Standby Loss[1]
DWH-1/2	Gas Instantaneous Water Heater	0		0.96	0.8	Et		

[1] FOOTNOTE: For gas water heaters/boilers, standby loss is in BTUH. for electric storage water heaters, standby loss is in %/hr.

Water Heating Equipment All Occupancies

	Yes	No	Not Applicable	Requirement
18	☐	☐	☒	Unfired storage tank insulation shall have Internal + External >=R-16 OR External >=R-12. Label required per §110.3(c)3
19	☐	☐	☒	New state buildings 60% of energy for service water heating from site solar energy or recovered energy per §110.3(c)5
20	☒	☐	☐	Isolation valves for instantaneous water heater with input rating >6.8 kBTUH or 2 kW has been specified per §110.3(c)6

Registration Number: — Registration Date/Time: — Registration Provider: Energy Code Ace
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STATE OF CALIFORNIA
Domestic Water Heating System
NRCC-PLB-E — CALIFORNIA ENERGY COMMISSION
CERTIFICATE OF COMPLIANCE — NRCC-PLB-E
Project Name: Chipotle - Jurupa Valley — Report Page: (Page 4 of 6)
Project Address: NEC Pyrite Street & Mission Blvd., Jurupa Valley, CA 92509 — Date Prepared: 2022-06-02T12:20:00-04:00

G. DOMESTIC HOT WATER DISTRIBUTION SYSTEM

This table is used to demonstrate compliance for nonresidential occupancies with distribution requirements in §120.3 and §140.5. For high-rise residential and hotel/motel occupancies, compliance is demonstrated with requirements §110.3(c), §120.3, §150.0, §150.1

Recirculation Loops in Central Systems Serving Dwelling Units or Nonresidential Spaces

	Yes	No	Not Applicable	Requirement
01	○	○	●	Air release valve or vertical pump installation per §110.3(c)4A
02	●	○	○	Check valve or similar located between recirculation pump and water heating equipment to prevent backflow per §110.3(c)4B
03	●	○	○	Hose bibb installed between pump and equipment and isolation valve between hose bibb and equipment per §110.3(c)4C
04	●	○	○	Isolation valves on both sides of the pump per §110.3(c)4D
05	○	○	●	Cold water and recirculation loop piping shall not be connected to the hot water storage tank drain port per §110.3(c)4E
06	●	○	○	Check valve installed on cold water supply between hot water system and next closest tee on cold water supply per §110.3(c)4F
07	○	○	●	For central systems serving multiple dwelling units, design includes two or more recirculation loops serving separate dwelling units per §150.1(c)8Bii unless building has <=8 dwelling units.

Mandatory Pipe Insulation All Occupancies

12	☒	For systems serving nonresidential spaces, pipe insulation for the following applications is specified to comply with Table 120.3-A (see below) per §120.3 : • Recirculating system piping, including supply and return piping of the water heater • The first 8 ft of hot and cold outlet piping, including between storage tank and heat trap, for a nonrecirculating storage system • Pipes that are externally heated
13	☒	Insulation shall be protected from damage, including that due to sunlight, moisture, equipment maintenance, and wind. Insulation exposed to weather shall be installed with a cover suitable for outdoor service per §120.3(b) and §150.0(j)3

TABLE 120.3-A PIPE INSULATION THICKNESS

Fluid Temperature Range (°F)	Conductivity Range (Btu-in per hour per ft² per °F)	Insulation Mean Rating Temp (°F)	Nominal Pipe Diameter (in)		
			< 1	1 to < 1.5	1.5 to < 4
			Minimum Insulation Required		
105-140	0.22 - 0.28	100	1.0 in or R-7.7	1.5 in or R-12.5	1.5 in or R-11

Registration Number: — Registration Date/Time: — Registration Provider: Energy Code Ace
CA Building Energy Efficiency Standards - 2019 Nonresidential Compliance — Report Version: 2019.1.003 Schema Version: rev 20200601 — Report Generated: 2022-06-02 09:20:07

STATE OF CALIFORNIA
Domestic Water Heating System
NRCC-PLB-E — CALIFORNIA ENERGY COMMISSION
CERTIFICATE OF COMPLIANCE — NRCC-PLB-E
Project Name: Chipotle - Jurupa Valley — Report Page: (Page 5 of 6)
Project Address: NEC Pyrite Street & Mission Blvd., Jurupa Valley, CA 92509 — Date Prepared: 2022-06-02T12:20:00-04:00

H. DOMESTIC HOT WATER CONTROLS

This table is used to demonstrate compliance with control requirements in §110.3 for all occupancies. For high-rise residential and hotel/motel occupancies, compliance is also demonstrated with requirements in §150.1(c)8.

	Yes	No	Not Applicable	Requirement
01	☒	☐	☐	Construction documents require manufacturer certification that service water-heating systems are equipped with automatic temperature controls capable of adjusting temperature settings per §110.3(a).
02	☒	☐	☐	Systems with capacity > 167,000 BTUH equipped with outlet temperature controls per §110.3(c)1 unless covered by California Plumbing Code 613.0.
03	☒	☐	☐	Controls for circulating pumps or electrical heat trace systems are capable of automatically turning off the system per §110.3(c)2 unless systems serves healthcare facility.
04	☐	☐	☒	For recirculation systems serving multiple dwelling units, design includes automatic pump controls per §150.1(c)8Bii, or §150.2 for additions or alterations.
05	☐	☐	☒	For recirculation systems serving individual dwelling units, design includes manual on/off controls as specified in Reference Appendix RA4.4.9 per §150.1(c)8.
06	☐	☐	☒	For replacement single heat pump water heaters serving individual dwelling units in climate zone 1-15, design includes communication interface that meets demand responsive control requirements of §110.12(a) per §150.2(b)1Hii.

I. DECLARATION OF REQUIRED CERTIFICATES OF INSTALLATION

Selections have been made based on information provided in this document. If any selection have been changed by permit applicant, an explanation should be included in Table E. Additional Remarks. These documents must be provided to the building inspector during construction and can be found online at https://www.energy.ca.gov/title24/2019standards/2019_compliance_documents/Nonresidential_Documents/NRCI/

Form/Title	Field Inspector	
	Pass	Fail
NRCI-PLB-01-E - Must be submitted for all buildings	☐	☐

J.DECLARATION OF REQUIRED CERTIFICATES OF ACCEPTANCE

There are no Certificates of Acceptance applicable to service water heating requirements.

K. DECLARATION OF REQUIRED CERTIFICATES OF VERIFICATION

There are no NRCV forms required for this project.

Registration Number: — Registration Date/Time: — Registration Provider: Energy Code Ace
CA Building Energy Efficiency Standards - 2019 Nonresidential Compliance — Report Version: 2019.1.003 Schema Version: rev 20200601 — Report Generated: 2022-06-02 09:20:07

STATE OF CALIFORNIA
Domestic Water Heating System
NRCC-PLB-E — CALIFORNIA ENERGY COMMISSION
CERTIFICATE OF COMPLIANCE — NRCC-PLB-E
Project Name: Chipotle - Jurupa Valley — Report Page: (Page 6 of 6)
Project Address: NEC Pyrite Street & Mission Blvd., Jurupa Valley, CA 92509 — Date Prepared: 2022-06-02T12:20:00-04:00

DOCUMENTATION AUTHOR'S DECLARATION STATEMENT

I certify that this Certificate of Compliance documentation is accurate and complete.

Documentation Author Name: Isaac Dunn	Documentation Author Signature: Isaac Dunn (Digitally signed by Isaac Dunn, Date: 2022.06.02 15:08:16 -05'00')
Company: BAE Group	Signature Date: 02JUN22
Address: 1425 Wakarusa Dr.	CEA/ HERS Certification Identification (if applicable):
City/State/Zip: Lawrence/KS/66049	Phone: 785-993-0300

RESPONSIBLE PERSON'S DECLARATION STATEMENT

I certify the following under penalty of perjury, under the laws of the State of California:

1. The information provided on this Certificate of Compliance is true and correct.
2. I am eligible under Division 3 of the Business and Professions Code to accept responsibility for the building design or system design identified on this Certificate of Compliance (responsible designer)
3. The energy features and performance specifications, materials, components, and manufactured devices for the building design or system design identified on this Certificate of Compliance conform to the requirements of Title 24, Part 1 and Part 6 of the California Code of Regulations.
4. The building design features or system design features identified on this Certificate of Compliance are consistent with the information provided on other applicable compliance documents, worksheets, calculations, plans and specifications submitted to the enforcement agency for approval with this building permit application.
5. I will ensure that a completed signed copy of this Certificate of Compliance shall be made available with the building permit(s) issued for the building, and made available to the enforcement agency for all applicable inspections. I understand that a completed signed copy of this Certificate of Compliance is required to be included with the documentation the builder provides to the building owner at occupancy.

Responsible Designer Name: Laura Blanchard, PE	Responsible Designer Signature: Laura Blanchard, PE (Digitally signed by Laura Blanchard, PE, Date: 2022.06.02 15:08:16 -05'00')
Company: BAE Group	Date Signed: M34017
Address: 1425 Wakarusa Dr.	License: 02JUN22
City/State/Zip: Lawrence/KS/66049	Phone: 785-993-0300

Registration Number: — Registration Date/Time: — Registration Provider: Energy Code Ace
CA Building Energy Efficiency Standards - 2019 Nonresidential Compliance — Report Version: 2019.1.003 Schema Version: rev 20200601 — Report Generated: 2022-06-02 09:20:07

Consultant:
Blanchard AE Group
1425 WAKARUSA DR. STE B
LAWRENCE, KS 66049
PH:785.993.0300
AEGROUP@BAE.GROUP

REGISTERED PROFESSIONAL ENGINEER — LAURA MICHELLE BLANCHARD — M 34017 — EXP 3.31.24 — MECHANICAL — STATE OF CALIFORNIA — 3/31/22

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CHIPOTLE MEXICAN GRILL, INC.
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COLUMBUS, OH 43218-2566
TELEPHONE: (614) 318-2400
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Jurupa Valley
NEC Pyrite Street & Mission Blvd.
Jurupa Valley, CA 92509

Issue Record:
05/31/2022 PERMIT ISSUE

Revisions:

Drawn: IJD — Checked: AJD

Project No. 221050

Contents:
MECHANICAL TITLE 24 COMPLIANCE

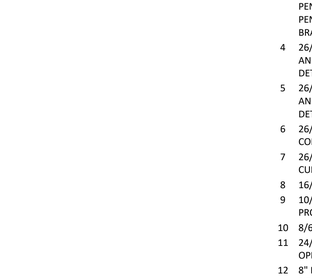
M022

HVAC PLAN NOTES

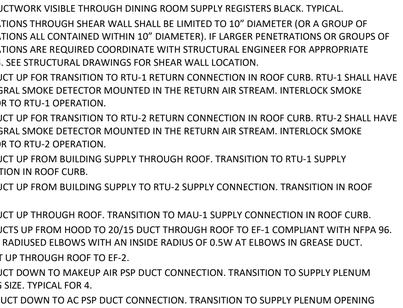
1. SEE ARCHITECTURAL REFLECTED CEILING PLAN FOR CEILING MOUNTED EQUIPMENT LOCATION. TYPICAL.
2. PAINT DUCTWORK VISIBLE THROUGH DINING ROOM SUPPLY REGISTERS BLACK. TYPICAL.
3. PENETRATIONS THROUGH SHEAR WALL SHALL BE LIMITED TO 10" DIAMETER (OR A GROUP OF PENETRATIONS ALL CONTAINED WITHIN 10" DIAMETER). IF LARGER PENETRATIONS OR GROUPS OF PENETRATIONS ARE REQUIRED COORDINATE WITH STRUCTURAL ENGINEER FOR APPROPRIATE BRACING. SEE STRUCTURAL DRAWINGS FOR SHEAR WALL LOCATION.
4. 26/14 DUCT UP FOR TRANSITION TO RTU-1 RETURN CONNECTION IN ROOF CURB. RTU-1 SHALL HAVE AN INTEGRAL SMOKE DETECTOR MOUNTED IN THE RETURN AIR STREAM. INTERLOCK SMOKE DETECTOR TO RTU-1 OPERATION.
5. 26/18 DUCT UP FOR TRANSITION TO RTU-2 RETURN CONNECTION IN ROOF CURB. RTU-2 SHALL HAVE AN INTEGRAL SMOKE DETECTOR MOUNTED IN THE RETURN AIR STREAM. INTERLOCK SMOKE DETECTOR TO RTU-2 OPERATION.
6. 26/14 DUCT UP FROM BUILDING SUPPLY THROUGH ROOF. TRANSITION TO RTU-1 SUPPLY CONNECTION IN ROOF CURB.
7. 26/18 DUCT UP FROM BUILDING SUPPLY TO RTU-2 SUPPLY CONNECTION. TRANSITION IN ROOF CURB.
8. 16/16 DUCT UP THROUGH ROOF. TRANSITION TO MAU-1 SUPPLY CONNECTION IN ROOF CURB.
9. 10/15 DUCTS UP FROM HOOD TO 20/15 DUCT THROUGH ROOF TO EF-1 COMPLIANT WITH NFPA 96. PROVIDE RADIUSED ELBOWS WITH AN INSIDE RADIUS OF 0.5W AT ELBOWS IN GREASE DUCT.
10. 8/6 DUCT UP THROUGH ROOF TO EF-2.
11. 24/10 DUCT DOWN TO MAKEUP AIR PSP DUCT CONNECTION. TRANSITION TO SUPPLY PLENUM OPENING SIZE. TYPICAL FOR 4.
12. 8" DIA. DUCT DOWN TO AC PSP DUCT CONNECTION. TRANSITION TO SUPPLY PLENUM OPENING SIZE. TYPICAL. CAP UNUSED DUCT CONNECTIONS.
13. INSTALL GRIDPOINT THERMOSTATS FURNISHED BY TEMS FOR RTU-1 AND RTU-2 AT THIS LOCATION AT 48" AFF. COORDINATE WITH ELECTRICAL SWITCHING IN THIS AREA. PROVIDE WIRING AS SHOWN IN DETAIL 8/E710.
14. INSTALL GRIDPOINT ZONE SENSOR MODULE FURNISHED BY TEMS FOR RTU-1 AT THIS LOCATION 60" AFF DIRECTLY TO WALL (NO JUNCTION BOX). COORDINATE LOCATION WITH EQUIPMENT. PROVIDE WIRING AS SHOWN IN DETAIL 8/E710.
15. INSTALL GRIDPOINT ZONE SENSOR MODULE FURNISHED BY TEMS FOR RTU-2 AT THIS LOCATION 66" AFF DIRECTLY TO WALL (NO JUNCTION BOX). COORDINATE LOCATION WITH EQUIPMENT. PROVIDE WIRING AS SHOWN IN DETAIL 8/E710.
16. INSTALL GRIDPOINT SUPPLY PROBE FURNISHED BY TEMS FOR RTU-1 IN THE SUPPLY DUCTWORK UPSTREAM FROM THE FIRST BRANCH CONNECTION. PROVIDE WIRING AS SHOWN IN DETAIL 8/E710.
17. INSTALL GRIDPOINT SUPPLY PROBE FURNISHED BY TEMS FOR RTU-2 IN THE SUPPLY DUCTWORK UPSTREAM FROM THE FIRST BRANCH CONNECTION. PROVIDE WIRING AS SHOWN IN DETAIL 8/E710.
18. INSTALL REMOTE TEMPERATURE SENSOR FOR HOOD HD-1 AT THIS LOCATION 66" AFF. COORDINATE LOCATION WITH EQUIPMENT. PROVIDE (2) #18 G. THERMISTOR CABLE FROM TEMPERATURE SENSOR TO HOOD CONTROL PANEL.
19. INSTALL KITCHEN HOOD, HD-1. SUPPORT HOOD PER MANUFACTURER'S INSTALLATION INSTRUCTIONS AND AS DETAILED IN THE ARCHITECTURAL AND STRUCTURAL DRAWINGS. INSTALL HOOD ACCORDING TO THE REQUIREMENTS OF ITS LISTING, IN COMPLIANCE WITH NFPA 96, THE BUILDING CODE, AND AUTHORITIES HAVING JURISDICTION. HOOD SHALL HAVE AN INTEGRAL DUCT COLLAR TEMPERATURE SENSOR TO AUTOMATICALLY ENERGIZE THE EXHAUST AND MAKEUP AIR FANS IF COOKING TEMPERATURES ARE DETECTED. EXHAUST DUCT SYSTEM TO BE WELDED OR FACTORY-MANUFACTURED WATER AND AIR TIGHT. INSTALL CLEANOUTS PER CODE AND AS SHOWN. INSTALL HOOD PER DETAILS 2 AND 4/M700. CHIPOTLE WILL PROVIDE AN INDEPENDENT TESTING AGENCY FOR TESTING THE INTEGRITY OF THE GREASE DUCT SYSTEM.

HVAC PLAN NOTES

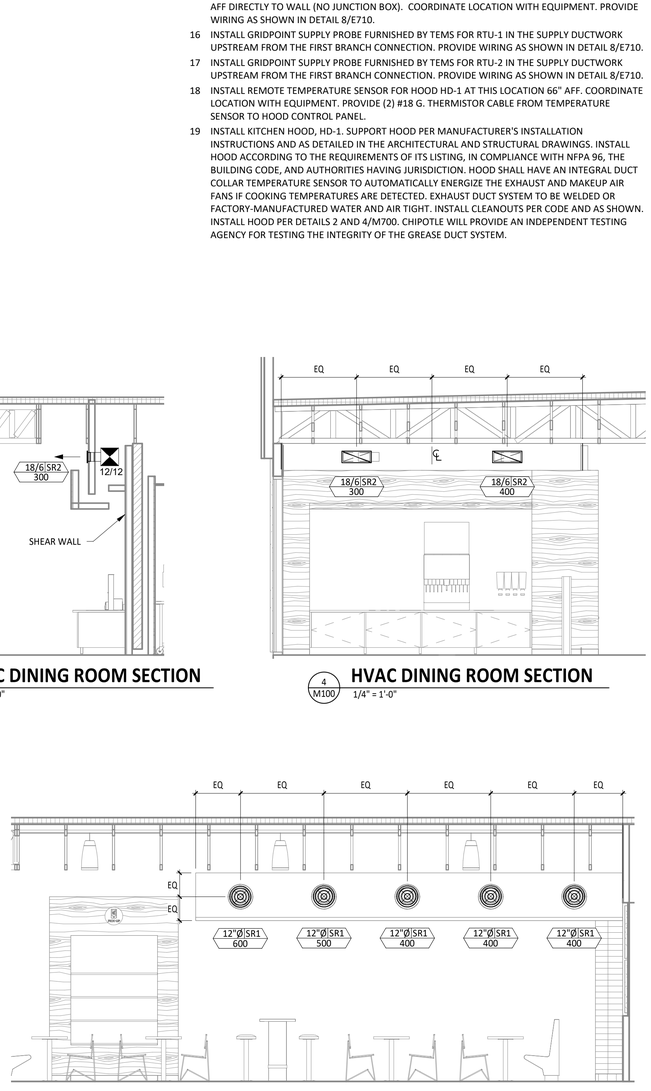
20. INSTALL REMOTE CONDENSING UNIT FOR WALK-IN COOLER ON ROOF AS DETAILED IN THE ARCHITECTURAL AND STRUCTURAL DRAWINGS. INSTALL REFRIGERANT LINE SET, THERMOSTATIC EXPANSION VALVE, SOLENOID VALVE, TEMPERATURE CONTROL, SIGHT GLASS, FILTER DRIER, PRESSURE CONTROL, LOW AMBIENT CONTROLS, AND WEATHERPROOF HOUSING. TRAP AND SLOPE REFRIGERANT LINES PER MANUFACTURER'S RECOMMENDATIONS. INSTALLATION SHALL COMPLY WITH ASHRAE/ANSI STANDARD 15. INSTALL THE REFRIGERANT LINE SET UNDER THE ROOF DECK TO WITHIN 3' OF THE CONDENSING UNIT. CUT 2-1/2" HOLE IN WALK-IN COOLER ROOF FOR REFRIGERANT LINE SET AND SEAL PER THE COOLER MANUFACTURER'S INSTALLATION INSTRUCTIONS AFTER LINE SET IS INSTALLED.
21. INSTALL REMOTE CONDENSER FOR ICE MACHINE ON ROOF AS DETAILED IN THE ARCHITECTURAL AND STRUCTURAL DRAWINGS. INSTALL REFRIGERANT LINE SET, THERMOSTATIC EXPANSION VALVE, SOLENOID VALVE, TEMPERATURE CONTROL, SIGHT GLASS, FILTER DRIER, PRESSURE CONTROL, LOW AMBIENT CONTROLS, AND WEATHERPROOF HOUSING. TRAP AND SLOPE REFRIGERANT LINES PER MANUFACTURER'S RECOMMENDATIONS. SEAL PIPING PENETRATIONS THROUGH ROOF. INSTALLATION SHALL COMPLY WITH ASHRAE/ANSI STANDARD 15. INSTALL THE REFRIGERANT LINE SET UNDER THE ROOF DECK TO WITHIN 3' OF THE REMOTE CONDENSER. IF REFRIGERANT PIPING TO ICE MAKER IS EXPOSED TO PUBLIC VIEW CONCEAL WITHIN A STAINLESS STEEL SHROUD AS SHOWN IN THE ARCHITECTURAL DRAWINGS.
22. INSTALL ROOFTOP EQUIPMENT PER MANUFACTURER'S INSTALLATION INSTRUCTIONS AND AS DETAILED IN THE ARCHITECTURAL AND STRUCTURAL DRAWINGS.
23. INSTALL EXHAUST FAN EF-1 PER DETAIL 5/M700 AND AS DETAILED IN THE ARCHITECTURAL AND STRUCTURAL DRAWINGS. INSTALL GREASE VIROGUARD SYSTEM FURNISHED BY CHIPOTLE ON EXHAUST FAN, EF-1.
24. PROVIDE SUPPLY DIFFUSER CONNECTION TO SUPPLY SYSTEM PER DETAIL 1/M700. TYPICAL.
25. PROVIDE AUDIO/VISUAL REMOTE SMOKE DETECTOR ANNUNCIATOR WITH REMOTE KEY OPERATED RESET. WIRE A UNIT BACK TO EACH SMOKE DETECTOR. MOUNT UNIT 60" AFF. TYPICAL.
26. INSTALL REME HALO AIR PURIFIER FURNISHED BY TUV IN RTU PER DETAIL 6/M700. SEE ELECTRICAL DRAWINGS FOR POWER CONNECTION INFORMATION. INSTALL UV WARNING STICKERS ON FACE OF ENCLOSURE PER DETAIL AND ON ANY RTU ACCESS DOOR(S) THROUGH WHICH THE REME HALO WOULD BE VISIBLE IF OPENED.
27. MAINTAIN 10' CLEARANCE BETWEEN WATER HEATER FLUE TERMINATION AND OUTSIDE AIR INTAKES. MAINTAIN 10' CLEARANCE BETWEEN WATER HEATER COMBUSTION AIR INTAKE AND EXHAUST FAN EF-1 DISCHARGE. SEE PLUMBING DRAWINGS FOR MORE INFORMATION ON WATER HEATER FLUE AND COMBUSTION AIR TERMINATIONS.



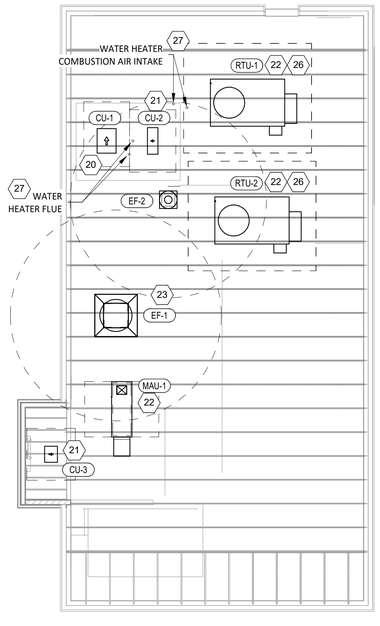
5 M100 **HVAC DINING ROOM SECTION**
1/4" = 1'-0"



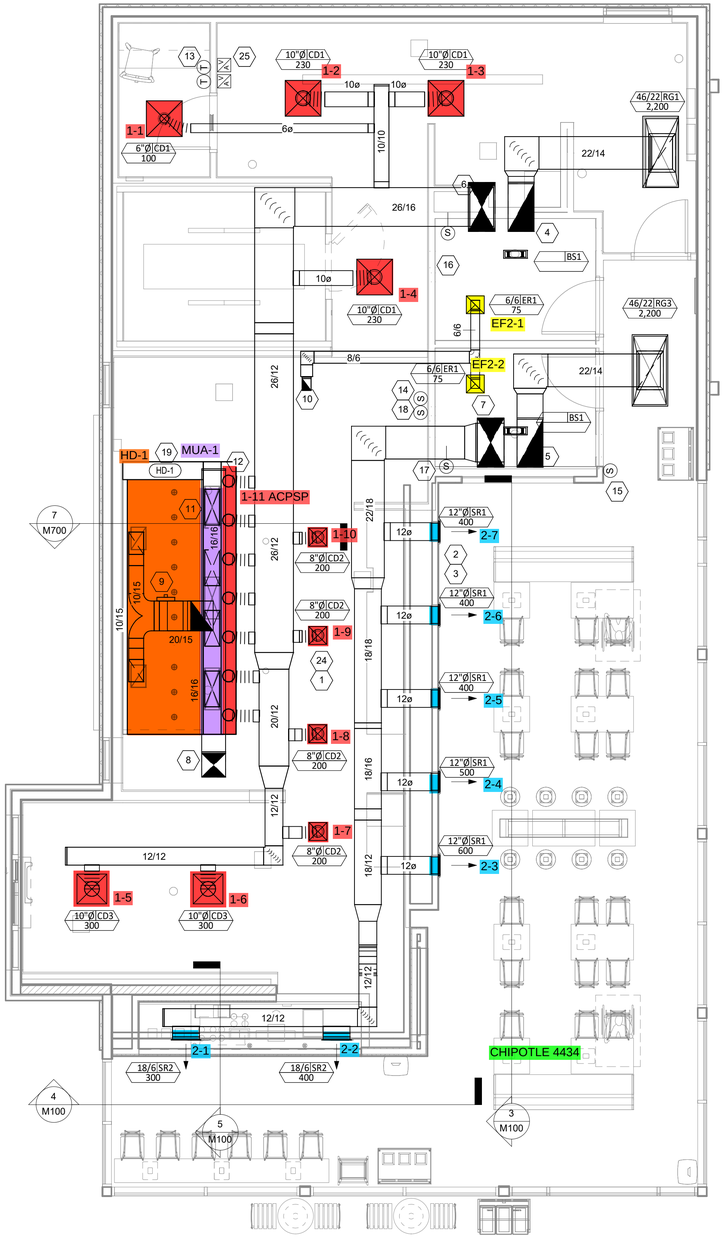
4 M100 **HVAC DINING ROOM SECTION**
1/4" = 1'-0"



3 M100 **HVAC DINING ROOM SECTION**
1/4" = 1'-0"



2 M100 **HVAC ROOF PLAN**
1/8" = 1'-0"



1 M100 **HVAC FLOOR PLAN**
1/4" = 1'-0"

Consultant:

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Issue Record:
05/31/2022 PERMIT ISSUE

Revisions:

Drawn: IJD
Checked: AJD

Project No.
221050

Contents:
HVAC PLAN

M100

VENTILATION SCHEDULE

Room Name	Area (SQ. FT.)	People / 1000 sq ft	sq ft / person	Code People	Actual People	Actual sqft/person	O/A CFM /Person	O/A CFM /SQ FT	O/A CFM	E/A CFM
KITCHEN	1001	20	50.00	20.00	10.0	100.1	7.5	0.12	195.1	3200.0
DINING	846	70	14.29	70.00	50.0	16.9	7.5	0.18	527.3	-
OFFICE	44	5	200.00	5.00	1.0	44.0	5	0.06	7.6	-
RR	-	-	-	-	-	-	-	-	-	200.0

CONTROL FUNCTIONS

A. THE MAIN COOKING EXHAUST FAN AND MAKE-UP AIR UNIT SHALL BE INTERLOCKED TO OPERATE TOGETHER. THIS CONTROL CIRCUIT IS ACTIVATED BY A SWITCH AND INCLUDES A FIRE PROTECTION OVERRIDE.
B. THE TEMPERATURE IN EACH ZONE IS CONTROLLED BY SPACE TEMPERATURE SENSORS CONNECTED TO THE THERMOSTATS LOCATED IN THE OFFICE. ALL ZONES SHALL OPERATE WITH CONTINUOUS FAN OPERATION DURING OCCUPIED TIMES AND INTERMITTENTLY AS NEEDED TO MAINTAIN SET POINTS DURING UNOCCUPIED TIMES. OUTSIDE AIR DAMPERS SHALL BE OPEN CONTINUOUSLY WHEN EITHER IN OCCUPIED MODE OR WHEN THE HOOD SYSTEM IS ON AND SHALL BE CLOSED DURING UNOCCUPIED PERIODS.
C. THE THERMOSTATS SHALL DETERMINE OCCUPIED/UNOCCUPIED STATUS BASED ON THE SCHEDULE IN THE ENERGY MANAGEMENT SYSTEM.

FAN SCHEDULE

TAG	DESCRIPTION	AIRFLOW	E.S.P.	WEIGHT	ELECTRICAL		FURNISHED BY	INSTALLED BY	BASIS FOR DESIGN		REMARKS
					MOTOR POWER	V/P/H			MANUFACTURER	MODEL	
EF-1	UPBLAST UL762 EXHAUST FAN	3,200 CFM	1.20 in-wg	400 lb	3 hp	208/3/60	HS	GC	CAPTIVE-AIRE	DU240HFA	DIRECT DRIVE UL762 UPBLAST EXHAUST FAN FURNISHED WITH WEATHERPROOF DISCONNECT AND VENTED ROOF CURB
EF-2	DOWNBLAST RESTROOM EXHAUST FAN	150 CFM	0.60 in-wg	100 lb	0.18 hp	120/1/60	HS	GC	CAPTIVE-AIRE	DR12HFA	DIRECT DRIVE DOWNBLAST RESTROOM EXHAUST FAN FURNISHED WITH INTEGRAL DISCONNECT, SPEED CONTROL, BACKDRAFT DAMPER, AND CURB

AIR TERMINAL SCHEDULE

TAG	DESCRIPTION	FACE SIZE	MATERIAL	FINISH	MOUNTING	FURNISHED BY	INSTALLED BY	BASIS FOR DESIGN		NOTES
								MANUFACTURER	MODEL	
BS1	BATHROOM AIR PURIFICATION UNIT		STAINLESS STEEL	STAINLESS STEEL	SURFACE MOUNT	TUV	GC	RGF ENVIRONMENTAL GROUP	BRU ASSEMBLY	SEE ELECTRICAL SHEETS FOR CONNECTION INFORMATION
CD1	PERFORATED CEILING DIFFUSER	24" X 24"	ALUMINUM	WHITE	LAY-IN CEILING	GC	GC	NAILOR	4320A TYPE L	PROVIDE WITH INTEGRAL OBD
CD2	PERFORATED CEILING DIFFUSER	12" X 12"	ALUMINUM	WHITE	SURFACE MOUNT	GC	GC	NAILOR	4320A TYPE S	PROVIDE WITH INTEGRAL OBD, REMOVE 4-WAY DEFLECTORS
CD3	PERFORATED CEILING DIFFUSER	20" X 20"	ALUMINUM	WHITE	SURFACE MOUNT	GC	GC	NAILOR	4320A TYPE S	PROVIDE WITH INTEGRAL OBD
ER1	PERFORATED CEILING EXHAUST	12" X 12"	ALUMINUM	WHITE	SURFACE MOUNT	GC	GC	NAILOR	4330R TYPE S	PROVIDE INTEGRAL OBD
RG1	PERFORATED CEILING RETURN	48" X 24"	ALUMINUM	WHITE	LAY-IN CEILING	GC	GC	NAILOR	4330R TYPE L	
RG3	PERFORATED CEILING RETURN	48" X 24"	ALUMINUM	WHITE	SURFACE MOUNT	GC	GC	NAILOR	4330R TYPE S	
SR1	ADJUSTABLE TURBO NOZZLE	SEE NECK SIZE	ALUMINUM	WHITE	WALL	GC	GC	SEIHO	NT12	PROVIDE WITH FACE-ACCESSIBLE OBD
SR2	DOUBLE DEFLECTION SUPPLY REGISTER	SEE NECK SIZE	ALUMINUM	WHITE	WALL	GC	GC	NAILOR	51DH	PROVIDE WITH INTEGRAL OBD

VIROGUARD SCHEDULE

TAG	COUNT	DESCRIPTION	DUCT CONNECTION SIZE	FAN	FURNISHED BY	INSTALLED BY	BASIS FOR DESIGN MANUFACTURER
VG-1	1	VIROGUARD HOOD EXHAUST FAN ROOFTOP CONTAINMENT SYSTEM	18" X 18"	CAPTIVE-AIRE DU240HFA	TDC	GC	ENVIROMATIC

CONDENSING UNIT SCHEDULE

TAG	DESCRIPTION	NOMINAL CAPACITY	NUMBER OF		REFRIGERANT		WEIGHT	ELECTRICAL			FURNISHED BY	INSTALLED BY	BASIS FOR DESIGN		REMARKS
			COMPRESSORS	CIRCUITS	TYPE	CHARGE		MOCP	FLA	V/P/H			MANUFACTURER	MODEL	
CU-1	CONDENSING UNIT - WALK-IN COOLER		1	1	R-404A	10.4 lb	250 lb	15 A	9 A	208/3/60	WCS	GC	HARFORD	KPCL99MZOP-3E	FURNISHED WITH WALK-IN COOLER
CU-2	REMOTE CONDENSER - LOW CAPACITY ICE MAKER		0	1	R-404A	11.46 lb	100 lb			120/1/60	KES	GC	HOSHIZAKI	URC-9F	FURNISHED WITH ICE MAKER
CU-3	REMOTE CONDENSER - SODA MACHINE ICE MAKER		0	1	R-404A	3.86 lb	100 lb			120/1/60	KES	GC	HOSHIZAKI	URC-5F	FURNISHED WITH ICE MAKER

AIR BALANCE SCHEDULE

TAG	SUPPLY FLOW	RETURN FLOW	EXHAUST FLOW	SUBTOTAL
EF-1	0 CFM	0 CFM	3,200 CFM	-3,200 CFM
EF-2	0 CFM	0 CFM	150 CFM	-150 CFM
MAU-1	1,950 CFM	0 CFM	0 CFM	1,950 CFM
RTU-1	3,000 CFM	2,200 CFM	0 CFM	800 CFM
RTU-2	3,000 CFM	2,200 CFM	0 CFM	800 CFM
NET PRESSURIZATION				200 CFM

MAKEUP AIR UNIT SCHEDULE

TAG	DESCRIPTION	AIRFLOW	E.S.P.	HEATING			WEIGHT	ELECTRICAL		FURNISHED BY	INSTALLED BY	BASIS FOR DESIGN		REMARKS
				INPUT	OUTPUT	EAT		MOTOR POWER	V/P/H			MANUFACTURER	MODEL	
MAU-1	DIRECT-FIRED MAKEUP AIR UNIT	1,950 CFM	0.80 in-wg	225,000 Btu/h	220,000 Btu/h	21 °F	650 lb	2 hp	208/3/60	HS	GC	CAPTIVE-AIRE	A1-D.250-G10	12.5:1 MAX TURNDOWN. FURNISHED WITH DISCONNECT, ROOF CURB, SCREEN INTAKE, AND WASHABLE ALUMINUM FILTERS

KITCHEN HOOD SCHEDULE

TAG	DESCRIPTION	MAX COOKING TEMP.	EXHAUST PLENUM						PERFORATED SUPPLY PLENUMS										NO. OF LIGHT FIXTURES	WEIGHT	FURNISHED BY	INSTALLED BY	BASIS FOR DESIGN		REMARKS
			AIRFLOW	E.S.P.	DUCT COLLARS				MAU PLENUM						AC PLENUM										
					NO.	WIDTH	LENGTH	LENGTH	WIDTH	LENGTH	WIDTH	AIRFLOW	DUCT COLLARS			AIRFLOW	DUCT COLLARS						MANUFACTURER	MODEL	
													NO.	WIDTH	LENGTH		NO.	DIAMETER							
HD-1	TYPE I CANOPY HOOD WITH PERFORATED MAU AND AC SUPPLY PLENUMS	600 °F	3,200 CFM	0.86 in-wg	2	10"	1' - 3"	14' - 3"	4' - 3"	15' - 3"	1' - 10"	1,950 CFM	4	10"	2' - 0"	800 CFM	7	8"	10	1,200 lb	HS	GC	CAPTIVE-AIRE	5424 ND-2-ACPSP-F	MAT'L: 18 GA. TYPE 430 SS. FURNISHED WITH VAPORPROOF INCANDESCENT LIGHT FIXTURES, 16" TALL HE SS FILTERS, INTEGRAL UTILITY CABINET, ANSUL SYSTEM, DUCT COLLAR TEMPERATURE SENSOR, PREWIRE PACKAGE, SPARE FIRE SYSTEM DRY CONTACT, AND 4-POLE 20A CONTACTOR

ROOFTOP UNIT SCHEDULE

TAG	DESCRIPTION	NOMINAL CAPACITY	AIRFLOW			NET COOLING CAPACITY					HEATING CAPACITY			WEIGHT	ELECTRICAL			BASIS FOR DESIGN		REMARKS
			TOTAL	OA	E.S.P. (IN. W.C.)	TOTAL (MBH)	SENSIBLE (MBH)	EAT		COND. EAT	INPUT (MBH)	OUTPUT (MBH)	EAT		MOCP	FLA	V/P/H	MANUFACTURER	MODEL	
								DB	WB											
RTU-1	KITCHEN ROOFTOP UNIT	7.5 ton	3,000 CFM	750 CFM	0.80	86.5	65.3	80 °F	67 °F	105 °F	150	120	61 °F	1,300 lb	50 A	39.3 A	208/3/60	TRANE	YHC092	FURNISHED WITH COMP. ENTHALPY ECON., BAROMETRIC RELIEF, RET. SMOKE DETECTORS W/ REMOTE KEYED ANNUNCIATOR/RESET, M.O.D., MERV-8 FILTERS, CURB, HAIL GUARD, TOLLESS HINGED ACCESS PANEL, FACTORY MOUNTED DISCONNECT, & FIELD WIRED UNIT-MOUNTED CONVENIENCE RECEPTACLE
RTU-2	DINING ROOM ROOFTOP UNIT	7.5 ton	3,000 CFM	750 CFM	0.80	86.5	65.3	80 °F	67 °F	105 °F	150	120	61 °F	1,300 lb	50 A	39.3 A	208/3/60	TRANE	YHC092	FURNISHED WITH COMP. ENTHALPY ECON., BAROMETRIC RELIEF, RET. SMOKE DETECTORS W/ REMOTE KEYED ANNUNCIATOR/RESET, M.O.D., MERV-8 FILTERS, CURB, HAIL GUARD, TOLLESS HINGED ACCESS PANEL, FACTORY MOUNTED DISCONNECT, & FIELD WIRED UNIT-MOUNTED CONVENIENCE RECEPTACLE

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Issue Record:
05/31/2022 PERMIT ISSUE

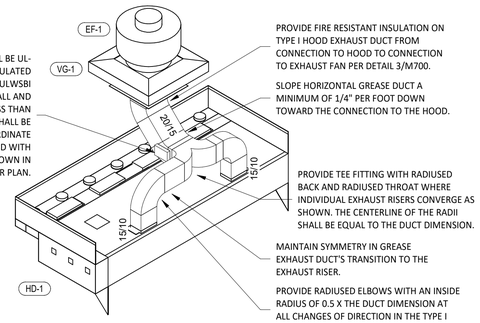
Revisions:

Drawn: IJD
Checked: AJD

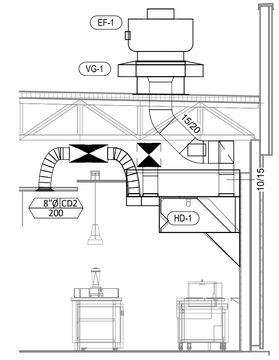
Project No.
221050

Contents:
HVAC SCHEDULES

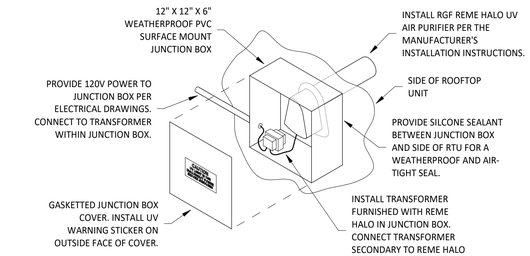
M600



8/M700 **HOOD EXHAUST ISOMETRIC**
NOT TO SCALE



7/M700 **DUCT SECTION AT HOOD**
1/4" = 1'-0"

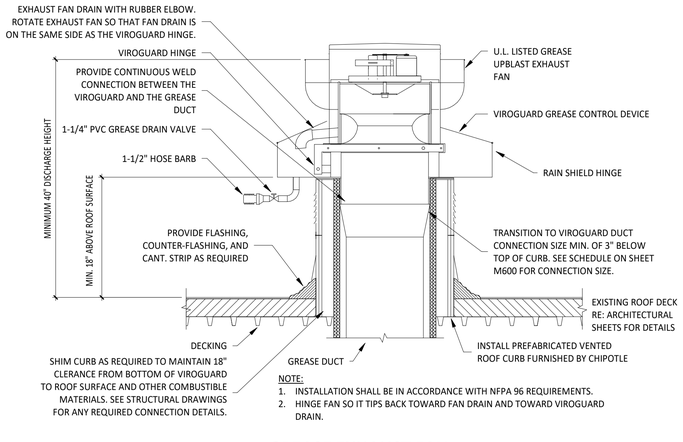


INSTALLATION LOCATION
INSTALL AIR PURIFIER WITH JUNCTION BOX ON OUTSIDE FACE OF ROOFTOP UNIT AND WITH UV LAMP TUBE EXTENDING INTO THE INTERIOR OF THE ROOFTOP UNIT. FIELD VERIFY EXACT LOCATION TO AVOID DAMAGING, TOUCHING, OR INTERFERING WITH ANY RTU INTERIOR COMPONENTS. INSTALLATION LOCATION SHALL BE AS FOLLOWS:

TRANE: INSTALL INTO THE SUPPLY AIR STREAM THROUGH THE REMOVABLE PANEL COVERING THE HORIZONTAL DISCHARGE SUPPLY AIR OPENING.

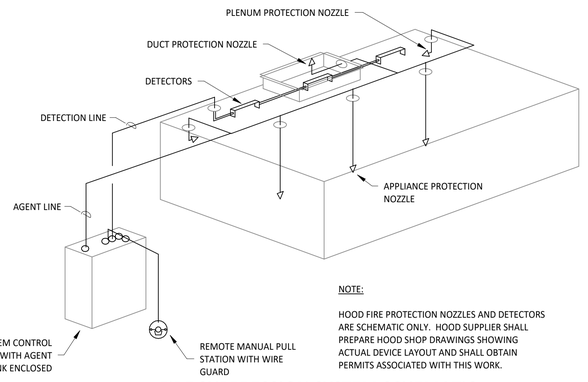
YORK: INSTALL INTO THE SUPPLY AIR PLENUM FROM THE BACK SIDE OF THE UNIT JUST ABOVE THE HEAT EXCHANGER.

6/M700 **UV AIR PURIFIER INSTALLATION**
NOT TO SCALE



NOTE:
1. INSTALLATION SHALL BE IN ACCORDANCE WITH NFPA 96 REQUIREMENTS.
2. HINGE FAN SO IT TIPS BACK TOWARD FAN DRAIN AND TOWARD VIROGUARD DRAIN.

5/M700 **GREASE EXHAUST FAN**
NOT TO SCALE



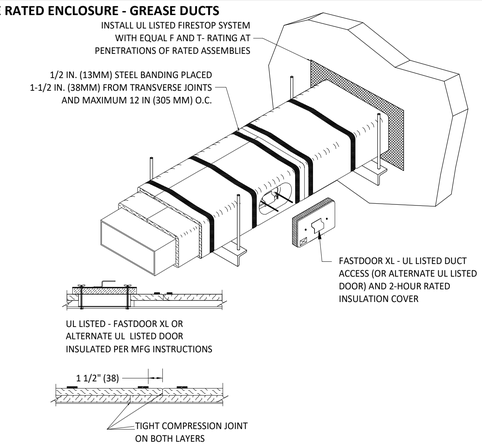
NOTE:

HOOD FIRE PROTECTION NOZZLES AND DETECTORS ARE SCHEMATIC ONLY. HOOD SUPPLIER SHALL PREPARE HOOD SHOP DRAWINGS SHOWING ACTUAL DEVICE LAYOUT AND SHALL OBTAIN PERMITS ASSOCIATED WITH THIS WORK.

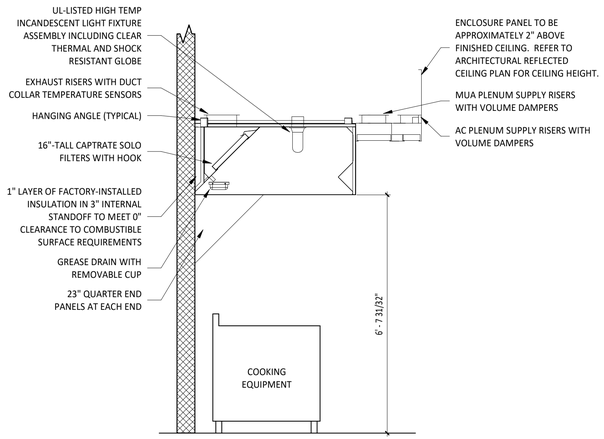
4/M700 **FIRE SUPPRESSION SYSTEM SCHEMATIC**
NOT TO SCALE

FIRE RATED ENCLOSURE - GREASE DUCTS

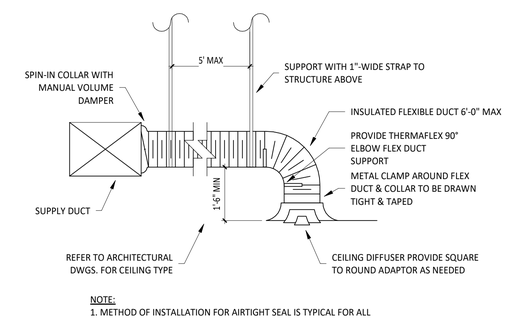
1. THERMAL CERAMICS FIREMASTER FASTWRAP XL IS TESTED TO ASTM E2336 AND UL LISTED PER HNKT.G18 TO PROVIDE ZERO CLEARANCE TO COMBUSTIBLES AND TO PROVIDE A 1- OR 2-HOUR ENCLOSURE. THROUGH PENETRATIONS FIRESTOP SYSTEMS ARE TESTED IN ACCORDANCE WITH ASTM E 814 (UL 1479). ICC CODE EVALUATION PER REPORT UL ER 14229-01.
2. COMPLIANT TO THE FOLLOWING CODES:
   - NFPA 96
   - INTERNATIONAL MECHANICAL CODES
   - UNIFORM MECHANICAL CODE.
   - CALIFORNIA MECHANICAL CODE
3. INSULATION APPLIED IN TWO LAYERS WITH TIGHT COMPRESSION JOINT ON BOTH LAYERS AT ALL JOINTS.
4. MINIMUM 16 GAUGE CARBON STEEL (OR 18 GAGE STAINLESS STEEL) RECTANGULAR OR ROUND GREASE EXHAUST DUCT
5. INSTALL UL LISTED AND LIQUID TIGHT THERMAL CERAMICS FASTDOOR XL ACCESS DOORS, OR ALTERNATE DOOR UL LISTED PER UL1978, AT ALL CHANGES IN DIRECTION AND AT MINIMUM EVERY 20 FT ON HORIZONTAL RUNS.
6. SUPPORT HANGER SYSTEMS DO NOT NEED TO BE WRAPPED PROVIDED THE HANGER RODS ARE MINIMUM OF 3/8 IN. DIAMETER AND SUPPORTS ARE MINIMUM 2 X 2 X 1/8 IN. STEEL ANGLE OR SMACNA EQUIVALENT SUPPORT SYSTEM.
7. THERMAL CERAMICS DUCT WRAP SHALL BE INSTALLED DIRECTLY ONTO THE DUCT AND APPLIED FROM THE HOOD CONNECTION TO THE CONNECTION TO THE FAN.
8. THERMAL CERAMICS DUCT ENCLOSURE SYSTEM SHALL BE INSTALLED IN STRICT ACCORDANCE WITH MANUFACTURERS INSTRUCTIONS AND UL LISTINGS.



3/M700 **FIREMASTER DUCT WRAP - UL HNKT-G18**
NOT TO SCALE



2/M700 **HOOD SECTION VIEW**
NOT TO SCALE



NOTE:
1. METHOD OF INSTALLATION FOR AIRTIGHT SEAL IS TYPICAL FOR ALL FLEX CONNECTIONS TO AIR DISTRIBUTION DEVICES.

1/M700 **DIFFUSER CONNECTION**
NOT TO SCALE

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Issue Record:
05/31/2022 PERMIT ISSUE

Revisions:

Drawn: IJD
Checked: AJD

Project No.
221050

Contents:
HVAC DETAILS

M700

ZARETSKY
ENGINEERING SOLUTIONS

INSTRUMENT CALIBRATION LIST

INSTRUMENT	MANUFACTURER	MODEL / SERIAL #	CALIBRATION DATE	CALIBRATION DUE DATE
Clamp probe	Fluke	335 / 12150260	8/15/2023	8/15/2024
ɾpe thermocouple	Fluke	52II / 14260091	8/15/2023	8/15/2024
ʂtrobe tachomete	Monarch	Nova-Pro 100 / 2800134	9/26/2023	9/26/2024
	ɔrtridge Instruments I	ADM-860C / M10775	10/24/2023	10/24/2024

DICK MUNNS COMPANY
LIQUID & GAS FLOW CALIBRATION
www.dickmunns.com

CERTIFICATE OF CALIBRATION

Customer Name:	ZARETSKY ENG.SOLUTIONS	Calibration Date:	08-15-2023
Address:	FOUNTAIN VALLEY, CA	Calibration Due:	08-15-2024
PO Number:	30276	Calibration Fluid:	70F
Instrument Manufacturer:	FLUKE	Standard(s) Used:	A305 DUE 3-2024
Instrument Description:	DIG. CLAMP MULTIMETER	NIST Traceability Per:	1582872706
Model Number:	FLUKE 335	Ambient Conditions:	763 mmHGA 48% RH, 76F
Serial Number:	12150260;ID# 10	Procedure Number:	NAVAIR-17-20AQ-104
Rated Uncertainty:	+/- SEE TABLE	Certificate/File Number:	489703.2023
Uncertainty Given:	AS REC./AS LEFT WITHIN SPECS*		

*ALL RANGES AND FUNCTIONS WITHIN SPECS.
REFERENCE CONDITIONS ARE: 760mmHGA 70F.

UUT	DM.STD.		UUT	DM.STD.
DC VOLTAGE +|- 1%	DC VOLTAGE		AC VOLTAGE +|- 1%	AC VOLTAGE
0 TO 600V	0 TO 600V		0 TO 600V	0 TO 600V
5.0	5.018		125.0	125.05
50.0	50.055		220.0	220.25
250.0	250.10		270.0	270.46
AC CURRENT +|- 2%	AC CURRENT		RESISTANCE +|- 1.5%	RESISTANCE
0 TO 400A	0 TO 400A		0 TO 600 OHM	0 TO 600 OHM
5.00	5.006		270.0	270.5
50.0	50.07		330.0	330.7
100.0	100.20		470.0	471.2

All instruments used in the performance of the shown calibration have traceability to the National Institute of Standards and Technology (NIST). The uncertainty ratio between the calibration standards (DM.STD.) used and the unit under test (UUT) is a minimum of 4:1, unless otherwise noted. Calibration has been performed per the shown procedure number, in accordance with ISO 10012:2003, ISO 17025:2005, ANSI/NCSL-Z-540.3, and/or MIL-STD-45662A. Test methods: API2530-92 & ASME MFC-3M-1989.

Dick Munns Company • 11130 Winners Circle • Los Alamitos, CA 90720
Phone (714) 827-1215

Date: 8-15-2023

Approved By:

Calibration Technician:

CERTIFICATE OF CALIBRATION

Customer Name:	ZARETSKY ENGINEERING	Calibration Date:	08-15-2023
Address:	FOUNTAIN VALLEY, CA	Calibration Due:	08-15-2024
PO Number:	30276	Calibration Fluid:	AIR
Instrument Manufacturer:	FLUKE	Standard(s) Used:	A312 DUE 3-2024
Instrument Description:	DIG. THERMOMETER	NIST Traceability Per:	1583142077
Model Number:	52 II	Ambient Conditions:	763 mmHGA 48% RH, 76F
Serial Number:	14260091	Procedure Number:	NAVAIR-17-20ST-03
Rated Accuracy:	+/- .05% RD +.5°F	Certificate/File Number:	484695.2023
Uncertainty Given:	+/- .011% RD.; K=2		

AS REC./AS LEFT WITHIN SPECS.
REFERENCE CONDITIONS ARE: 760mmHGA 70F.
** DEC.RULE: PFA NOT USED TO DETERMINE CONFORMITY **

INDICATED UUT	ACTUAL DM.STD.		INDICATED INDICATED	ACTUAL ACTUAL
TYPE J -346°F TO 2192°F	TYPE J -346°F TO 2192°F		TYPE E -238°F TO 1832°F	TYPE E -238°F TO 1832°F
TYPE K	TYPE K		TYPE N	TYPE N
-328°F TO 2501°F -20.3 32.0 75.8 125.1	-328°F TO 2501°F -20.5 32.3 76.3 125.5		-328°F TO 2372°F	-328°F TO 2372°F
TYPE T	TYPE T		TYPE R,S	TYPE R,S
-418°F TO 752°F	-418°F TO 752°F		32°F TO 3212°F	32°F TO 3212°F

All instruments used in the performance of the shown calibration have traceability to the National Institute of Standards and Technology (NIST). The uncertainty ratio between the calibration standards (DM.STD.) and the Unit Under Test (UUT) is a minimum of 4:1, unless otherwise noted. Calibration has been performed according to the shown procedure. The use of IAS/ILAC logo indicates calibrations are in accordance to ISO/IEC 17025:2017.

Dick Munns Company · 11133 Winners Circle, Los Alamitos, CA 90720
Phone: 714-827-1215 · www.dickmunns.com

Issuing Date: 8-15-2023

Approved By:

Cal. Technician:

Calibrated at: ✓ Lab
___ On-Site (Customer's)

DICK MUNNS COMPANY
LIQUID & GAS FLOW CALIBRATION
www.dickmunns.com

CERTIFICATE OF CALIBRATION

Customer Name:	ZARETSKY ENGINEERING	Calibration Date:	09-26-2023
Address:	FOUNTAIN VALLEY, CA	Calibration Due:	09-26-2024
PO Number:	303969	Calibration Fluid:	70F
Instrument Manufacturer:	MONARCH	Standard(s) Used:	A864 DUE 3-2024
Instrument Description:	DIGITAL STROBE	NIST Traceability Per:	1580262707
Model Number:	NOVA-PRO 100	Ambient Conditions:	763 mmHGA 45% RH, 75F
Serial Number:	2800134	Procedure Number:	NAVAIR-17-20AF-114
Rated Accuracy:	+/- 1 COUNT	Certificate/File Number:	489704.2023
Uncertainty Given:	AS REC./AS LEFT WITHIN SPECS.		

REFERENCE CONDITIONS ARE: 760mmHGA 70F.

INDICATED UUT RPM	ACTUAL DM.STD. RPM
60	60.0
900	900.0
10000	10000
60 TO 14000	60 TO 14000

All instruments used in the performance of the shown calibration have traceability to the National Institute of Standards and Technology (NIST). The uncertainty ratio between the calibration standards (DM.STD.) used and the unit under test (UUT) is a minimum of 4:1, unless otherwise noted. Calibration has been performed per the shown procedure number, in accordance with ISO 10012:2003, ISO 17025:2005, ANSI/NCSL-Z-540.3, and/or MIL-STD-45662A. Test methods: API2530-92 & ASME MFC-3M-1989.

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Phone (714) 827-1215

Date: 9-26-2023

Approved By: [signature]

Calibration Technician: [signature]

AIRDATA MULTIMETER CERTIFICATE OF RECALIBRATION

Customer ID: 020970 S/N: M10775

Customer: ZARETSKY ENGINEERING SOLUTIONS, INC City: FOUNTAIN VALLEY State: CA

As-Received Model #: ADM-860C Converted to Model #: Order #: R232377

PO #: Customer Eqpt ID#: Calibration Due Date: _____

This instrument has been calibrated using Calibration Standards which are traceable to NIST (National Institute of Standards and Technology). Test accuracy ratio is 4:1 for pressures and temperature. Quality Assurance Program and calibration procedures meet the requirements for ANSI/NCSL Z540-1, ISO 17025, MIL-STD 45662A and manufacturer's specifications. Calibration accuracy is certified when meters are used with properly functioning accessories only. All Uncertainties are expressed in expanded terms (twice the calculated uncertainty). This report shall not be reproduced, except in full, without the written approval of Shortridge Instruments, Inc. Results relate only to the item calibrated. For limitations on use, see Shortridge Instruments, Inc. Instruction Manual for the use of AirData Multimeters. Procedure used: Procedure for Differential Pressure, Absolute Pressure and Temperature Recalibration of AirData Multimeters SIP-CP02 Revision: 30 Dated: 04/04/16

Calibration Technician(s): M.Romero M.LaBarb Calibration Date: 10/24/2023

Calibration Approved by: D.Babb Title: Cal Supv. Date: 10/25/2023

As-Received By M.Romero	FINAL Test By M.LaBarb	Test By
Date 10/09/2023 Rh 33 %	Date 10/24/2023 Rh 39 %	Date Rh %
Ambient Temperature 76 °F	Ambient Temperature 74 °F	Ambient Temperature N/A °F
Barometric Pressure 28.11 in Hg	Barometric Pressure 28.27 in Hg	Barometric Pressure in Hg
All within spec (YES) NO NA	All within spec (YES) NO	All within spec YES NO

ABSOLUTE PRESSURE TEST (in Hg)

TEST METER TOLERANCE = ± 2.0 % ± .1 in Hg AS-RECEIVED TEST WITHIN SPEC (YES) NO N/A See Notes

Pressure Standard: Heise #02-R	S/N: 41741/42451	As-Rcvd	Test 2	Test 3	Pressure Standard: Heise #12A-R	S/N: 45605/48491	As-Rcvd	Test 2	Test 3
Pressure Standard: Heise #04-R	S/N: 41743/42453	As-Rcvd	Test 2	Test 3	Pressure Standard: Heise #14-R	S/N: 43412/45043-2	As-Rcvd	Test 2	Test 3
Pressure Standard: Heise #06-R	S/N: 41742/42452-1	As-Rcvd	Test 2	Test 3	Pressure Standard: Heise #16-R	S/N: 43413/45044	As-Rcvd	Test 2	Test 3
Pressure Standard: Heise #08-R	S/N: 42186/43328	As-Rcvd	Test 2	Test 3	Pressure Standard: Heise #18-R	S/N: 44581/46845-1	(As-Rcvd)	Test 2	Test 3
Pressure Standard: Heise #10-R	S/N: 42203/43352	As-Rcvd	(Test 2)	Test 3	Pressure Standard: Heise #20-R	S/N: 44582/46847	As-Rcvd	Test 2	Test 3

Approx Set Pt	Standard	Test Meter	% Diff	Standard	Test Meter	% Diff	Standard	Test Meter	% Diff
14.0	14.16	14.2	.28	14.06	14.0	-.43			
28.4	28.11	28.2	.32	28.27	28.3	.11			N/A
40.0	40.23	40.3	.17	40.06	40.0	-.15			

DIFFERENTIAL PRESSURE TEST (in wc)

TEST METER TOLERANCE = ± 2.0 % ± 0.001 in wc AS-RECEIVED TEST WITHIN SPEC (YES) NO N/A See Notes

Pressure Standard: Heise #01-L	S/N: 41739/42449	As-Rcvd	Test 2	Test 3	Pressure Standard: Heise #11-L	S/N: 43165/44551-1	As-Rcvd	Test 2	Test 3
Pressure Standard: Heise #01-R	S/N: 41739/42446	As-Rcvd	Test 2	Test 3	Pressure Standard: Heise #11-R	S/N: 43165/44730	As-Rcvd	Test 2	Test 3
Pressure Standard: Heise #02-L	S/N: 41741/42454	As-Rcvd	Test 2	Test 3	Pressure Standard: Heise #12A-L	S/N: 45605/48490-1	As-Rcvd	Test 2	Test 3
Pressure Standard: Heise #03A-L	S/N: 45570/48461	As-Rcvd	Test 2	Test 3	Pressure Standard: Heise #13-L	S/N: 43415/45041	As-Rcvd	Test 2	Test 3
Pressure Standard: Heise #03A-R	S/N: 45570/48460	As-Rcvd	Test 2	Test 3	Pressure Standard: Heise #13-R	S/N: 43415/45039	As-Rcvd	Test 2	Test 3
Pressure Standard: Heise #04-L	S/N: 41743/42456	As-Rcvd	Test 2	Test 3	Pressure Standard: Heise #14-L	S/N: 43412/45045	As-Rcvd	Test 2	Test 3
Pressure Standard: Heise #05-L	S/N: 41740/42450	As-Rcvd	Test 2	Test 3	Pressure Standard: Heise #15-L	S/N: 43416/45042	As-Rcvd	Test 2	Test 3
Pressure Standard: Heise #05-R	S/N: 41740/42447	As-Rcvd	Test 2	Test 3	Pressure Standard: Heise #15-R	S/N: 43416/45040-1	As-Rcvd	Test 2	Test 3
Pressure Standard: Heise #06-L	S/N: 41742/42455	As-Rcvd	Test 2	Test 3	Pressure Standard: Heise #16-L	S/N: 43413/45046	As-Rcvd	Test 2	Test 3
Pressure Standard: Heise #07-L	S/N: 42185/42186	As-Rcvd	Test 2	Test 3	Pressure Standard: Heise #17-L	S/N: 44579/46842	(As-Rcvd)	Test 2	Test 3
Pressure Standard: Heise #07-R	S/N: 42185/43326	As-Rcvd	Test 2	Test 3	Pressure Standard: Heise #17-R	S/N: 44579/46841	(As-Rcvd)	Test 2	Test 3
Pressure Standard: Heise #08-L	S/N: 42186/43329	As-Rcvd	Test 2	Test 3	Pressure Standard: Heise #18-L	S/N: 44581/46846	(As-Rcvd)	Test 2	Test 3
Pressure Standard: Heise #09-L	S/N: 42202/43351	As-Rcvd	(Test 2)	Test 3	Pressure Standard: Heise #19-L	S/N: 44580/46844	As-Rcvd	Test 2	Test 3
Pressure Standard: Heise #09-R	S/N: 42202/43350	As-Rcvd	(Test 2)	Test 3	Pressure Standard: Heise #19-R	S/N: 44580/46843	As-Rcvd	Test 2	Test 3
Pressure Standard: Heise #10-L	S/N: 42203/43353	As-Rcvd	(Test 2)	Test 3	Pressure Standard: Heise #20-L	S/N: 44582/46848	As-Rcvd	Test 2	Test 3

Approx Set Pt	Standard	Test Meter	% Diff	Standard	Test Meter	% Diff	Standard	Test Meter	% Diff
0.0500	.0500	.0501	.20	.0504	.0503	-.20			
0.1250	.1257	.1257	.00	.1251	.1250	-.08			
0.2250	.2252	.2257	.22	.2254	.2251	-.13			
1.000	1.016	1.010	-.59	1.017	1.015	-.20			
2.000	2.039	2.043	.20	2.010	2.004	-.30		N/A	
3.600	3.617	3.617	.00	3.627	3.620	-.19			
4.400	4.428	4.433	.11	4.415	4.411	-.09			
27.00	27.14	27.15	.04	27.18	27.14	-.15			
50.00	50.39	50.48	.18	50.21	50.01	-.40			
Overange	NA	✓	NA	NA	✓	NA	NA		NA

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TEMPROBE RECALIBRATION TEST REPORT

Customer ID: 020970 Multimeter Serial Number: M10775

Customer: Zaretsky Engineering Solutions, Inc City: Fountain Valley State: CA Order #: R232377

As-Received Test By: M. Ramirez Date: 10/09/2023 Final Test By: N/A Date: N/A

As-Received: Rh: 42 % Ambient Temperature: 75 ° F Barometric Pressure 28.11 in Hg

Final: Rh: N/A % Ambient Temperature: N/A ° F Barometric Pressure N/A in Hg

TEMPERATURE TEST (° F) TEMPROBE TOLERANCE = ± 0.3° F

TEMPROBE MODEL NUMBER: ADT446 TEMPROBE ID#: N/A

Test(s) with Customer's Meter ☑ Test(s) with In-house Temperature Calibration Standard ☐ All Within Specification Yes ☐ No ☑

TEMPERATURE TEST (° F)

TEMPROBE TOLERANCE = ± 0.3° F

Thermometer #1 S/N 8A089 / Thermistor S/N A410660	Set Point: (35° F)	95° F	155° F
Thermometer #2 S/N 8B104 / Thermistor S/N 871507	Set Point: 35° F	95° F	155° F
Thermometer #5 S/N B11780 / Thermistor S/N B10505	Set Point: 35° F	95° F	(155° F)
Thermometer #6 S/N B11782 / Thermistor S/N B10509	Set Point: 35° F	(95° F)	155° F
Thermometer #7 S/N B49938 / Thermistor S/N B482202	Set Point: 35° F	95° F	155° F
Temperature Standard AirData Multimeter S/N M00136	Set Point: 35° F	95° F	155° F
Temperature Standard AirData Multimeter S/N M96100	Set Point: 35° F	95° F	155° F

Approximate Set Point	Set Point Uncertainty	AS-RECEIVED TEST			FINAL TEST		
		Standard ° F	Test Meter ° F	Offset ° F	Standard ° F	Test Meter ° F	Offset ° F
35 ° F	0.00324	35.0	34.8	-.2			
95 ° F	0.00324	95.0	94.6	-.4			N/A
155 ° F	0.00324	155.0	154.4	-.6			

NOTES: _____

Procedure used: Procedure for Calibration/Recalibration of MultiTemps and/or TemProbes SIP-CP14 Rev: 03 Dated: 07/31/14. There were no additions to or deviations from the calibration procedure during this calibration process.

Calibration standards used by Shortridge Instruments, Inc. are traceable to NIST (National Institute of Standards and Technology). Calibration is performed in accordance with ANSI/NCSL Z540-1, ISO 17025, MIL-STD 45662A and manufacturer's specifications. Calibration accuracy is certified when meters are used with properly functioning accessories only. This report shall not be reproduced, except in full, without the written approval of Shortridge Instruments, Inc. Results relate only to the item calibrated. Limitations on use: See Shortridge Instruments, Inc. Instruction Manual for the use of AirData Multimeters.

The enclosed ADM or HDM Calibration Standards form(s) is/are an integral part of this calibration and must remain with this Certificate of Calibration. Any calibration due date shown is specified by the customer.

Calibration Approved by: A. Babb Title: Cal. Supv. Date: 10/25/2023

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Shortridge Instruments, Inc. AirData Multimeter Calibration Equipment

Order Number: RZ32377 Serial Number: M10775 Test Type: Initial (As-Received) (Final)

ABSOLUTE PRESSURE STANDARDS

ADM #02-R	S/N: 41741/42451	Heise Model: PPM-2	Mfgd by Dresser Industries	Calibrated by Ashcroft	Calibration Date: 08/16/23	Due Date: 08/2024
ADM #04-R	S/N: 41743/42453	Heise Model: PPM-2	Mfgd by Dresser Industries	Calibrated by Ashcroft	Calibration Date: 03/13/23	Due Date: 03/2024
ADM #06-R	S/N: 41742/42452-1	Heise Model: PPM-2	Mfgd by Dresser Industries	Calibrated by Ashcroft	Calibration Date: 09/01/22	Due Date: 11/2023
ADM #08-R	S/N: 42186/43328	Heise Model: PPM-2	Mfgd by Dresser Industries	Calibrated by Ashcroft	Calibration Date: 07/14/23	Due Date: 07/2024
ADM #10-R	S/N: 42203/43352	Heise Model: PPM-2	Mfgd by Dresser Industries	Calibrated by Ashcroft	Calibration Date: 05/25/23	Due Date: 05/2024
ADM #12A-R	S/N: 45605/48491	Heise Model: PPM-2	Mfgd by Dresser Industries	Calibrated by Ashcroft	Calibration Date: 08/01/22	Due Date: 10/2023
ADM #14-R	S/N: 43412/45043-2	Heise Model: PPM-2	Mfgd by Dresser Industries	Calibrated by Ashcroft	Calibration Date: 09/28/22	Due Date: 12/2023
ADM #16-R	S/N: 43413/45044	Heise Model: PPM-2	Mfgd by Dresser Industries	Calibrated by Ashcroft	Calibration Date: 04/25/23	Due Date: 04/2024
ADM #18-R	S/N: 44581/46845-1	Heise Model: PPM-2	Mfgd & Calibrated by Ashcroft, Inc.		Calibration Date: 02/10/23	Due Date: 02/2024
ADM #20-R	S/N: 44582/46847	Heise Model: PPM-2	Mfgd & Calibrated by Ashcroft, Inc.		Calibration Date: 07/07/22	Due Date: 08/2023

#02-R, 04-R, 06-R, 08-R, 10-R, 12A-R, 14-R, 16-R	Rated Accuracy: 0.05% fs (0.0305 in Hg)	Range: 0-30 psia	Resolution: 0.01	Uncertainty: < 0.0358
#18-R, 20-R	Rated Accuracy: 0.05% fs (0.0305 in Hg)	Range: 0-60 in Hg	Resolution: 0.001	Uncertainty: < 0.0358

DIFFERENTIAL PRESSURE STANDARDS

ADM #01-L	S/N: 41739/42449	Heise Model: PPM-1	Mfgd by Dresser Industries	Calibrated by Ashcroft	Calibration Date: 08/17/23	Due Date: 08/2024
ADM #01-R	S/N: 41739/42446	Heise Model: PPM-1	Mfgd by Dresser Industries	Calibrated by Ashcroft	Calibration Date: 08/17/23	Due Date: 08/2024
ADM #02-L	S/N: 41741/42454	Heise Model: PPM-1	Mfgd by Dresser Industries	Calibrated by Ashcroft	Calibration Date: 08/16/23	Due Date: 08/2024
ADM #03A-L	S/N: 45570/48461	Heise Model: PPM-1	Mfgd by Dresser Industries	Calibrated by Ashcroft	Calibration Date: 03/17/23	Due Date: 03/2024
ADM #03A-R	S/N: 45570/48460	Heise Model: PPM-1	Mfgd by Dresser Industries	Calibrated by Ashcroft	Calibration Date: 03/20/23	Due Date: 03/2024
ADM #04-L	S/N: 41743/42456	Heise Model: PPM-1	Mfgd by Dresser Industries	Calibrated by Ashcroft	Calibration Date: 03/17/23	Due Date: 03/2024
ADM #05-L	S/N: 41740/42450	Heise Model: PPM-1	Mfgd by Dresser Industries	Calibrated by Ashcroft	Calibration Date: 09/01/22	Due Date: 11/2023
ADM #05-R	S/N: 41740/42447	Heise Model: PPM-1	Mfgd by Dresser Industries	Calibrated by Ashcroft	Calibration Date: 09/01/22	Due Date: 11/2023
ADM #08-L	S/N: 41742/42455	Heise Model: PPM-1	Mfgd by Dresser Industries	Calibrated by Ashcroft	Calibration Date: 09/01/22	Due Date: 11/2023
ADM #07-L	S/N: 42185/42186	Heise Model: PPM-1	Mfgd by Dresser Industries	Calibrated by Ashcroft	Calibration Date: 07/14/23	Due Date: 07/2024
ADM #07-R	S/N: 42185/43326	Heise Model: PPM-1	Mfgd by Dresser Industries	Calibrated by Ashcroft	Calibration Date: 07/14/23	Due Date: 07/2024
ADM #08-L	S/N: 42186/43329	Heise Model: PPM-1	Mfgd by Dresser Industries	Calibrated by Ashcroft	Calibration Date: 07/14/23	Due Date: 07/2024
ADM #09-L	S/N: 42202/43351	Heise Model: PPM-1	Mfgd by Dresser Industries	Calibrated by Ashcroft	Calibration Date: 05/30/23	Due Date: 05/2024
ADM #09-R	S/N: 42202/43350	Heise Model: PPM-1	Mfgd by Dresser Industries	Calibrated by Ashcroft	Calibration Date: 05/30/23	Due Date: 05/2024
ADM #10-L	S/N: 42203/43353	Heise Model: PPM-1	Mfgd by Dresser Industries	Calibrated by Ashcroft	Calibration Date: 05/26/23	Due Date: 05/2024
ADM #11-L	S/N: 43165/44551-1	Heise Model: PPM-1	Mfgd by Dresser Industries	Calibrated by Ashcroft	Calibration Date: 08/04/22	Due Date: 10/2023
ADM #11-R	S/N: 43165/44730	Heise Model: PPM-1	Mfgd by Dresser Industries	Calibrated by Ashcroft	Calibration Date: 08/04/22	Due Date: 10/2023
ADM #12A-L	S/N: 45605/48490-1	Heise Model: PPM-1	Mfgd by Dresser Industries	Calibrated by Ashcroft	Calibration Date: 08/03/22	Due Date: 10/2023
ADM #13-L	S/N: 43415/45041	Heise Model: PPM-1	Mfgd by Dresser Industries	Calibrated by Ashcroft	Calibration Date: 10/11/22	Due Date: 12/2023
ADM #13-R	S/N: 43415/45039	Heise Model: PPM-1	Mfgd by Dresser Industries	Calibrated by Ashcroft	Calibration Date: 10/11/22	Due Date: 12/2023
ADM #14-L	S/N: 43412/45045	Heise Model: PPM-1	Mfgd by Dresser Industries	Calibrated by Ashcroft	Calibration Date: 10/11/22	Due Date: 12/2023
ADM #15-L	S/N: 43416/45042	Heise Model: PPM-1	Mfgd by Dresser Industries	Calibrated by Ashcroft	Calibration Date: 04/26/23	Due Date: 04/2024
ADM #15-R	S/N: 43416/45040-1	Heise Model: PPM-1	Mfgd by Dresser Industries	Calibrated by Ashcroft	Calibration Date: 04/26/23	Due Date: 04/2024
ADM #16-L	S/N: 43413/45046	Heise Model: PPM-1	Mfgd by Dresser Industries	Calibrated by Ashcroft	Calibration Date: 04/25/23	Due Date: 04/2024
ADM #17-L	S/N: 44579/46842	Heise Model: PPM-1	Mfgd & Calibrated by Ashcroft, Inc.		Calibration Date: 02/15/23	Due Date: 02/2024
ADM #17-R	S/N: 44579/46841	Heise Model: PPM-1	Mfgd & Calibrated by Ashcroft, Inc.		Calibration Date: 02/15/23	Due Date: 02/2024
ADM #18-L	S/N: 44581/46848	Heise Model: PPM-1	Mfgd & Calibrated by Ashcroft, Inc.		Calibration Date: 02/15/23	Due Date: 02/2024
ADM #19-L	S/N: 44580/46844	Heise Model: PPM-1	Mfgd & Calibrated by Ashcroft, Inc.		Calibration Date: 07/14/22	Due Date: 08/2023
ADM #19-R	S/N: 44580/46843	Heise Model: PPM-1	Mfgd & Calibrated by Ashcroft, Inc.		Calibration Date: 07/14/22	Due Date: 08/2023
ADM #20-L	S/N: 44582/46848	Heise Model: PPM-1	Mfgd & Calibrated by Ashcroft, Inc.		Calibration Date: 07/14/22	Due Date: 08/2023

#01-L, 03A-L, 05-L, 07-L, 09-L, 11-L, 13-L, 15-L, 17-L, 19-L	Rated Accuracy: > 0.07% fs (0.000175 in wc)	Range: 0.0-0.25 in wc	Res.: 0.00001	Uncertainty: < 0.00035
#01-R, 03A-R, 05-R, 07-R, 09-R, 11-R, 13-R, 15-R, 17-R, 19-R	Rated Accuracy: > 0.06% fs (0.003 in wc)	Range: 0.0-5.0 in wc	Res.: 0.0001	Uncertainty: < 0.00348
#02-L, 04-L, 08-L, 08-L, 10-L, 12A-L, 14-L, 16-L, 18-L, 20-L	Rated Accuracy: > 0.06% fs (0.03 in wc)	Range: 0.0-50.0 in wc	Res.: 0.001	Uncertainty: < 0.0346

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TEMPROBE CALIBRATION TEST REPORT

Customer ID: 020970 Multimeter Serial Number: M10775

Customer: Zaretsky Engineering Solutions, Inc. City: Fountain Valley State: CA Order #: R232377

Test By: M. LaBarb Date: 10/19/2023

Rh: 36 % Ambient Temperature: 75 ° F Barometric Pressure 28.43 in Hg

TEMPERATURE TEST (° F) TEMPROBE TOLERANCE = ± 0.3° F

TEMPROBE MODEL NUMBER: ADT446 TEMPROBE ID#: TP-M10775

Test with Customer's Meter ☑ Test with In-house Temperature Calibration Standard ☐ Within Specification Yes ☑ No ☐

Calibration Standards

Thermometer #1 S/N 8A089 / Thermistor S/N A410660	Set Point: 35° F 95° F 155° F
Thermometer #2 S/N 8B104 / Thermistor S/N 871507	Set Point: 35° F 95° F 155° F
Thermometer #5 S/N B11780 / Thermistor S/N B10505	Set Point: 35° F 95° F 155° F
Thermometer #6 S/N B11782 / Thermistor S/N B10509	Set Point: 35° F 95° F 155° F
Thermometer #7 S/N B49938 / Thermistor S/N B482202	Set Point: 35° F 95° F 155° F
Temperature Standard AirData Multimeter S/N M00136	Set Point: 35° F 95° F 155° F
Temperature Standard AirData Multimeter S/N M96100	Set Point: 35° F 95° F 155° F

Approx Set Point	Uncertainty ° F	Thermometer/Thermistor ° F	TemProbe ° F	Offset ° F
35 ° F	0.00324	35.0	35.1	.1
95 ° F	0.00324	95.0	94.9	-.1
155 ° F	0.00324	155.0	155.1	.1

NOTES: _____

Procedure used: Procedure for Calibration/Recalibration of MultiTemps and/or TemProbes SIP-CP14 Rev: 03 Dated: 07/31/14. There were no additions to or deviations from the calibration procedure during this calibration process.

Calibration standards used by Shortridge Instruments, Inc. are traceable to NIST (National Institute of Standards and Technology). Calibration is performed in accordance with ANSI/NCSL Z540-1, ISO 17025, MIL-STD 45662A and manufacturer's specifications. Calibration accuracy is certified when meters are used with properly functioning accessories only. This report shall not be reproduced, except in full, without the written approval of Shortridge Instruments, Inc. Results relate only to the item calibrated. Limitations on use: See Shortridge Instruments, Inc. Instruction Manual for the use of AirData Multimeters.

The enclosed ADM or HDM Calibration Standards form(s) is/are an integral part of this calibration and must remain with this Certificate of Calibration. Any calibration due date shown is specified by the customer.

Calibration Approved by: D. Babb Title: Cal Supv Date: 10/25/2023

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Shortridge Instruments, Inc. AirData Multimeter Calibration Equipment

Order Number: R232377 Serial Number: TP-M10775 Test Type: (Initial) As-Received Final

ABSOLUTE PRESSURE STANDARDS

ADM #02-R	S/N: 41741/42451	Heise Model: PPM-2	Mfgd by Dresser Industries	Calibrated by Ashcroft	Calibration Date: 08/16/23	Due Date: 08/2024
ADM #04-R	S/N: 41743/42453	Heise Model: PPM-2	Mfgd by Dresser Industries	Calibrated by Ashcroft	Calibration Date: 03/13/23	Due Date: 03/2024
ADM #06-R	S/N: 41742/42452-1	Heise Model: PPM-2	Mfgd by Dresser Industries	Calibrated by Ashcroft	Calibration Date: 09/01/22	Due Date: 11/2023
ADM #08-R	S/N: 42188/43328	Heise Model: PPM-2	Mfgd by Dresser Industries	Calibrated by Ashcroft	Calibration Date: 07/14/23	Due Date: 07/2024
ADM #10-R	S/N: 42203/43352	Heise Model: PPM-2	Mfgd by Dresser Industries	Calibrated by Ashcroft	Calibration Date: 05/25/23	Due Date: 05/2024
ADM #12A-R	S/N: 45605/48491	Heise Model: PPM-2	Mfgd by Dresser Industries	Calibrated by Ashcroft	Calibration Date: 08/01/22	Due Date: 10/2023
ADM #14-R	S/N: 43412/45043-2	Heise Model: PPM-2	Mfgd by Dresser Industries	Calibrated by Ashcroft	Calibration Date: 09/28/22	Due Date: 12/2023
ADM #16-R	S/N: 43413/45044	Heise Model: PPM-2	Mfgd by Dresser Industries	Calibrated by Ashcroft	Calibration Date: 04/25/23	Due Date: 04/2024
ADM #18-R	S/N: 44581/46845-1	Heise Model: PPM-2	Mfgd & Calibrated by Ashcroft, Inc.		Calibration Date: 02/10/23	Due Date: 02/2024
ADM #20-R	S/N: 44582/46847	Heise Model: PPM-2	Mfgd & Calibrated by Ashcroft, Inc.		Calibration Date: 07/07/22	Due Date: 08/2023

#02-R, 04-R, 08-R, 08-R, 10-R, 12A-R, 14-R, 16-R	Rated Accuracy: 0.05% fs (0.0305 in Hg)	Range: 0-30 psia	Resolution: 0.01	Uncertainty: < 0.0358
#18-R, 20-R	Rated Accuracy: 0.05% fs (0.0305 in Hg)	Range: 0-60 in Hg	Resolution: 0.001	Uncertainty: < 0.0358

DIFFERENTIAL PRESSURE STANDARDS

ADM #01-L	S/N: 41739/42449	Heise Model: PPM-1	Mfgd by Dresser Industries	Calibrated by Ashcroft	Calibration Date: 08/17/23	Due Date: 08/2024
ADM #01-R	S/N: 41739/42446	Heise Model: PPM-1	Mfgd by Dresser Industries	Calibrated by Ashcroft	Calibration Date: 08/17/23	Due Date: 08/2024
ADM #02-L	S/N: 41741/42454	Heise Model: PPM-1	Mfgd by Dresser Industries	Calibrated by Ashcroft	Calibration Date: 08/16/23	Due Date: 08/2024
ADM #03A-L	S/N: 45570/48461	Heise Model: PPM-1	Mfgd by Dresser Industries	Calibrated by Ashcroft	Calibration Date: 03/17/23	Due Date: 03/2024
ADM #03A-R	S/N: 45570/48460	Heise Model: PPM-1	Mfgd by Dresser Industries	Calibrated by Ashcroft	Calibration Date: 03/20/23	Due Date: 03/2024
ADM #04-L	S/N: 41743/42456	Heise Model: PPM-1	Mfgd by Dresser Industries	Calibrated by Ashcroft	Calibration Date: 03/17/23	Due Date: 03/2024
ADM #05-L	S/N: 41740/42450	Heise Model: PPM-1	Mfgd by Dresser Industries	Calibrated by Ashcroft	Calibration Date: 09/01/22	Due Date: 11/2023
ADM #05-R	S/N: 41740/42447	Heise Model: PPM-1	Mfgd by Dresser Industries	Calibrated by Ashcroft	Calibration Date: 09/01/22	Due Date: 11/2023
ADM #06-L	S/N: 41742/42455	Heise Model: PPM-1	Mfgd by Dresser Industries	Calibrated by Ashcroft	Calibration Date: 09/01/22	Due Date: 11/2023
ADM #07-L	S/N: 42185/42186	Heise Model: PPM-1	Mfgd by Dresser Industries	Calibrated by Ashcroft	Calibration Date: 07/14/23	Due Date: 07/2024
ADM #07-R	S/N: 42185/43326	Heise Model: PPM-1	Mfgd by Dresser Industries	Calibrated by Ashcroft	Calibration Date: 07/14/23	Due Date: 07/2024
ADM #08-L	S/N: 42186/43329	Heise Model: PPM-1	Mfgd by Dresser Industries	Calibrated by Ashcroft	Calibration Date: 07/14/23	Due Date: 07/2024
ADM #09-L	S/N: 42202/43351	Heise Model: PPM-1	Mfgd by Dresser Industries	Calibrated by Ashcroft	Calibration Date: 05/30/23	Due Date: 05/2024
ADM #09-R	S/N: 42202/43350	Heise Model: PPM-1	Mfgd by Dresser Industries	Calibrated by Ashcroft	Calibration Date: 05/30/23	Due Date: 05/2024
ADM #10-L	S/N: 42203/43353	Heise Model: PPM-1	Mfgd by Dresser Industries	Calibrated by Ashcroft	Calibration Date: 05/26/23	Due Date: 05/2024
ADM #11-L	S/N: 43165/44551-1	Heise Model: PPM-1	Mfgd by Dresser Industries	Calibrated by Ashcroft	Calibration Date: 08/04/22	Due Date: 10/2023
ADM #11-R	S/N: 43165/44730	Heise Model: PPM-1	Mfgd by Dresser Industries	Calibrated by Ashcroft	Calibration Date: 08/04/22	Due Date: 10/2023
ADM #12A-L	S/N: 45605/48490-1	Heise Model: PPM-1	Mfgd by Dresser Industries	Calibrated by Ashcroft	Calibration Date: 08/03/22	Due Date: 10/2023
ADM #13-L	S/N: 43415/45041	Heise Model: PPM-1	Mfgd by Dresser Industries	Calibrated by Ashcroft	Calibration Date: 10/11/22	Due Date: 12/2023
ADM #13-R	S/N: 43415/45039	Heise Model: PPM-1	Mfgd by Dresser Industries	Calibrated by Ashcroft	Calibration Date: 10/11/22	Due Date: 12/2023
ADM #14-L	S/N: 43412/45045	Heise Model: PPM-1	Mfgd by Dresser Industries	Calibrated by Ashcroft	Calibration Date: 10/11/22	Due Date: 12/2023
ADM #15-L	S/N: 43416/45042	Heise Model: PPM-1	Mfgd by Dresser Industries	Calibrated by Ashcroft	Calibration Date: 04/26/23	Due Date: 04/2024
ADM #15-R	S/N: 43416/45040-1	Heise Model: PPM-1	Mfgd by Dresser Industries	Calibrated by Ashcroft	Calibration Date: 04/26/23	Due Date: 04/2024
ADM #16-L	S/N: 43413/45046	Heise Model: PPM-1	Mfgd by Dresser Industries	Calibrated by Ashcroft	Calibration Date: 04/25/23	Due Date: 04/2024
ADM #17-L	S/N: 44579/46842	Heise Model: PPM-1	Mfgd & Calibrated by Ashcroft, Inc.		Calibration Date: 02/15/23	Due Date: 02/2024
ADM #17-R	S/N: 44579/46841	Heise Model: PPM-1	Mfgd & Calibrated by Ashcroft, Inc.		Calibration Date: 02/15/23	Due Date: 02/2024
ADM #18-L	S/N: 44581/46846	Heise Model: PPM-1	Mfgd & Calibrated by Ashcroft, Inc.		Calibration Date: 02/15/23	Due Date: 02/2024
ADM #19-L	S/N: 44580/46844	Heise Model: PPM-1	Mfgd & Calibrated by Ashcroft, Inc.		Calibration Date: 07/14/22	Due Date: 08/2023
ADM #19-R	S/N: 44580/46843	Heise Model: PPM-1	Mfgd & Calibrated by Ashcroft, Inc.		Calibration Date: 07/14/22	Due Date: 08/2023
ADM #20-L	S/N: 44582/46848	Heise Model: PPM-1	Mfgd & Calibrated by Ashcroft, Inc.		Calibration Date: 07/14/22	Due Date: 08/2023

#01-L, 03A-L, 05-L, 07-L, 09-L, 11-L, 13-L, 15-L, 17-L, 19-L	Rated Accuracy: > 0.07% fs (0.000175 in wc)	Range: 0.0-0.25 in wc	Res.: 0.00001	Uncertainty: < 0.00035
#01-R, 03A-R, 05-R, 07-R, 09-R, 11-R, 13-R, 15-R, 17-R, 19-R	Rated Accuracy: > 0.06% fs (0.003 in wc)	Range: 0.0-5.0 in wc	Res.: 0.0001	Uncertainty: < 0.00348
#02-L, 04-L, 06-L, 08-L, 10-L, 12A-L, 14-L, 18-L, 18-L, 20-L	Rated Accuracy: > 0.06% fs (0.03 in wc)	Range: 0.0-50.0 in wc	Res.: 0.001	Uncertainty: < 0.0346

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AIRDATA MULTIMETER CERTIFICATE OF RECALIBRATION - AIR FLOW

Customer ID: 020970 S/N: M10775

Customer: ZARETSKY ENGINEERING SOLUTIONS, INC City: FOUNTAIN VALLEY State: CA

As-Received Model #: ADM-860C Converted to Model #: _____ Order #: R232377

PO #: _____ Customer Eqpt ID#: _____ Calibration Due Date: _____

This instrument has been calibrated using Calibration Standards which are traceable to NIST (National Institute of Standards and Technology). Quality Assurance Program and calibration procedures meet the requirements for ANSI/NCSL Z540-1, ISO 17025, MIL-STD 45662A and manufacturers specifications. Test accuracy ratio is 2:1 for air flow calibration. Calibration accuracy is certified when meters are used by a properly trained technician using properly functioning accessories only. If this meter has been calibrated for air flow using Shortridge Instruments, Inc. In-house Calibration Standard FlowHood Assembly S/N: IH1284 with Shortridge Instruments, Inc. In-House FlowHood Grid Assembly S/N IH1284-A, these air flow readings may not be indicative of the readings obtained with a less well maintained Flowhood Assembly. All specified uncertainties are expressed in expanded terms (twice the calculated uncertainty). This report shall not be reproduced, except in full, without the written approval of Shortridge Instruments, Inc. Results relate only to the item calibrated. Limitations on use: See Shortridge Instruments, Inc. Instruction Manuals for the use of AirData Multimeters and FlowMeters.

Procedure used for air flow: Procedure for Recalibration of AirData Multimeters on a FlowHood SIP-CP06 Revision: 14 Dated: 12/10/15. There were no additions to or deviations from the procedure during the calibration process. Any calibration due date shown is specified by the customer.

AIR FLOW TEST (cfm)
TEST METER TOLERANCE: ± 3.0% of reading ± 7 cfm

Calibration Equipment: FlowHood Stand Calibration Transfer Standard AirData Multimeter Model ADM-870, Serial Number M99083 or M98543 and FlowHood Calibration Stand S/N 7401 calibrated as a system. Manufactured by Shortridge Instruments, Inc. System Calibration Date: 05/22-05/23/2023. System Calibration Due Date: 05/2025. FlowHood Stand Calibration Transfer Standard AirData Multimeter Model ADM-870, Serial Number M99420 and M96452 and FlowHood Calibration Stand S/N 7401 calibrated as a system. Manufactured by Shortridge Instruments, Inc. System Calibration Date: 04/25-04/28/2022. System Calibration Due Date: 04/2024.

Rated accuracy of system is ± 1.5% of reading ± 3.5 cfm. Resolution is 0.1 cfm. The uncertainty of the system is as stated at each Set Point. All readings are compensated for the density effects of barometric pressure and temperature.

AS-RECEIVED TEST CONDITIONS

Transfer Standard: M96452 M98543 M99083 (M99420)

Relative Humidity: 25 %

Ambient Temperature: 75 °F

Barometric Pressure: 28.32 in Hg

Calibrated By: M. Ramirez

Calibration Date : 10/06/2023

Within Spec: (Yes) No NA

As-Received using: Customer's FlowHood ☑ In House FlowHood ☐

FINAL TEST CONDITIONS

Transfer Standard: (M96452) M98543 M99083 M99420

Relative Humidity: 38 %

Ambient Temperature: 76 °F

Barometric Pressure: 28.35 in Hg

Calibrated By: M. Ramirez

Calibrated Date : 10/25/2023

Within Spec: (Yes) No NA

Final using : Customer's FlowHood ☑ In House FlowHood ☐

Calibration Approved by: D. Babb Title: Cal. Supv. Date: 10/25/2023

Approximate Set Point	Set Point Uncertainty	AS-RECEIVED TEST			FINAL TEST		
		Standard CFM	Test Meter CFM	Difference	Standard CFM	Test Meter CFM	Difference
100	< 5.0 %	106	108	2	105	109	4
500	< 1.5 %	518	517	-1	515	515	0
1000	< 1.5 %	1018	1026	8	1013	1015	2
1500	< 1.25 %	1521	1535	14	1511	1575	14
2000	< 1.25 %	2018	2052	34	2007	2053	46

Notes: _____

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