Report By:

National TAB
1329 E. KEMPER ROAD
SUITE 4210
CINCINNATI, OH 45246

Report: TAB REPORT

Function: Test, Adjust, & Balance

Date: 05/14/2025

Completed By: National TAB

PROJECT

Carmello's (Covington, KY)

434 Madison Ave

Covington, KY 41011

Client

FG Schaefer

National TAB

Project: Carmello's (Covington, KY)

Table Of Contents

CERTIFICATION

PROJECT: Carmello's (Covington, KY)

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 Standards for Testing, Adjusting, and Balancing of Environmental Systems.* Any variances from design quantities, which exceed NEBB tolerances, are noted in the Test-Adjust-Balance Report Project Summary.

The air distribution system has been tested and balanced and final adjustments have been made in accordance with NEBB standards and the project specifications.

NEBB TAB FIRM:	National TAB
REGISTRATION NO:	3629
CERTIFIED BY:	Joe Hertenstein
DATE:	5/14/2025

The hydronic distribution system has been tested and balanced and final adjustments have been made in accordance with NEBB standards and the project specifications.

NEBB TAB FIRM:	National TAB
REGISTRATION NO:	3629
CERTIFIED BY:	Joe Hertenstein
DATE:	

Submitted and Certified by:

NEBB TAB FIRM:	National TAB
TAB PROFESSIONAL:	Joe Hertenstein
SIGNATURE:	Joe Hertenstein
REGISTRATION NO:	3629
CERTIFICATION EXP:	12/31/2025

Function		Range	Minimum Accuracy	Instrument Information	Calibration Date	Date Due
AIR	AIR PRESSURE	0 in wg to 10 in wg	2% +/- 0.001 in wg	Evergreen S-PVF-1 S/N 2200484C	3/24/2025	3/24/2027
	AIR VELOCITY INSTRUMENT	50 fpm to 3900 fpm	+/- 5 % +/- 7 fpm	Evergreen S-PVF-1 S/N 2200484C	3/24/2025	3/24/2027
	DIRECT HOOD READING	100 cfm to 2000 cfm	+/- 5 % +/- 7 cfm	Evergreen S-PVF-1 S/N 2200484C	3/24/2025	3/24/2027
TEMPERATURE	AIR METER	-20 F to 240 F	+/- .5 % 2 F	Cooper ATKINS - SRH77A S/N 071118034	7/12/2024	7/12/2025
	AIR PROBE	-20 F to 240 F	+/- .5 % 2 F	Cooper ATKINS - PD1388 7-6 S/N 5028	7/12/2024	7/12/2025
	IMMERSION METER	-20 F to 240 F	+/- .5 % 2 F	Cooper ATKINS - SRH77A S/N 071118034	7/12/2024	7/12/2025
	IMMERSION PROBE	-20 F to 240 F	+/- .5 % 2 F	Cooper ATKINS - PD1388 7-6 S/N 1075	7/12/2024	7/12/2025
	CONTACT METER	-20 F to 240 F	+/- .5 % 2 F	Cooper ATKINS - SRH77A S/N 071118034	7/12/2024	7/12/2025
	CONTACT PROBE	-20 F to 240 F	+/- .5 % 2 F	Cooper ATKINS - PD1388 7-6 S/N 4011	7/12/2024	7/12/2025
HUMIDITY	HUMIDITY PROBE	10 % RH to 90 % RH	3% of reading	Cooper ATKINS - SRH77A S/N 071118034	7/12/2024	7/12/2025
ELECTRICAL	VOLTAGE MEASUREMENT	0 VAC to 600 VAC	2 % reading +/- 5 digits	Fluke 373 True RMS, S/N: 33290686	7/12/2024	7/12/2025
	AMPERAGE MEASUREMENT	0 Amperers to 100 Amperes	2 % reading +/- 5 digits	Fluke 373 True RMS, S/N: 33290686	7/12/2024	7/12/2025
ROTATION	ROTATION MEASUREMENT	60 rpm to 5000 rpm	2 % reading 2 rpm	SHIMPO DT-207LR S/N: D1530081R	7/12/2024	7/12/2025
HYDRONIC	PRESSURE MEASUREMENT	-30 in Hg to 200 psi	±2% of reading +/- 1 psi	Alnor HM680 S/N: 70807241	5/11/2024	5/31/2025
	DIFFERENTIAL PRESSURE MEASUREMENT	0 psi - 80 psi	±2% of reading +/- 1 psi	Alnor HM680 S/N: 70807241	5/11/2024	5/31/2025

Abbreviation List

A = Area (ft^2)	S.F. = Service Factor
AHU = Air Handling Unit	SF = Supply Fan
A_k = Effective Area	SP = Static Pressure
BHP = Brake Horsepower (IP) HP	SR = Supply Register
Btu = British Thermal Unit	T = Temperature
Btu/h = Btuh = BTUH = BTU/Hour	T_{ma} = Mixed Air Temperature
CL = Center Distance (used in belt formula)	T_{oa} = Outside Air Temperature
CD = Ceiling Diffuser	T_{ra} = Return Air Temperature
CF = Correction Factor	H = Head (in wc, ft wc, psi)
CFM = Volumetric Flow: Cubic Feet Per Minute	h = Enthalpy
CO2 = Carbon Dioxide	HP = Horsepower
CO = Carbon Monoxide	hr = Hour
C_v = Flow Constant	K_v = Flow constant (SI)
d = Diameter (in.) IP	kW = Kilowatt = 1000 Watts
Δ = Difference or Change (Final - Initial)	LAT = Leaving Air Temperature
DB = Dry Bulb	lb = Pounds
EA = Exhaust Air	LWT = Leaving Water Temperature
EAT = Entering Air Temperature	ma = Mixed Air
EF = Exhaust Fan	MIN = Minimum
Eff = Efficiency	MAX = Maximum
EG = Exhaust Grille	N/A = Not Applicable
ESP = External Static Pressure	NA = No Access
EWT = Entering Water Temperature	NL = Not Listed
°F = Degrees Fahrenheit, °F	NPSHA = Net Positive Suction Head Available
FPB = Fan Powered Box	NS = Not Specified
FLA = Full Load Amps	OA = Outside Air
fpm = Feet per Minute (fpm)	OAT = Outside Air Temperature
ft = Foot	PD = Sheave Pitch Diameter
gal = Gallons	P.D. = Pressure Drop
GPM = Gallons Per Minute (GPM)	PF = Power Factor
h = Enthalpy (BTU/lb dry air)	SG = Supply Grille
P = Pressure	SR = Supply Register
ppm = parts per million	TP = Total Pressure
psi = Pounds Per Square Inch	T_{ra} = Return Air Temperature
psid = PSI Differential	TS = Tip Speed (fpm) IP, (m/s) SI
r = Radius (in)	TSP = Total Static Pressure
$\%_{ra}$ = % of Return Air	V = Velocity
RA = Return Air	VAV = Variable Air Volume
RAT = Return Air Temperature	VD = Volume Damper
RF = Return Fan	VFD = Variable Frequency Drive
RG = Return Grille	W = Watt
RH = Relative Humidity	WB = Wet Bulb
RPM = Revolutions Per Minute	wg = wc = water gauge = water column
RTU = Roof Top Unit	WHP = Water Horsepower (IP)
SA = Supply Air	ω = Humidity Ratio

System Sizing and Ventilation Air Calculations

Room		Floor	CFM per	CFM per	People per	Exhaust	ZADE	Outdoor	2017 OMC Table 403.3	HVAC	System 1		System 2		System 3		System 4		System 5	
No.	Name	Area (ft²)	Person	ft²	1000 ft²	CFM*	0.8	Air (CFM)	Occupancy Classification	System	Supply CFM	Outdoor CFM	Supply CFM	Outdoor CFM	Supply CFM	Outdoor CFM	Supply CFM	Outdoor CFM	Supply CFM	Outdoor CFM
100A	Corridor	157	0	0.06	0	0	0.8	12	Public Spaces, Corridors	1	45	12	--	--	--	--	--	--	--	--
100B	Hostess Area	38	5	0.06	10	0	0.8	5	Offices, Main entry lobbies	1	20	5	--	--	--	--	--	--	--	--
100C	Bar Area C	129	7.5	0.18	100	0	0.8	150	Food & Bev, Bars, cocktail lounges	1	515	150	--	--	--	--	--	--	--	--
100D	Bar Seating Area D	82	7.5	0.18	100	0	0.8	95	Food & Bev, Bars, cocktail lounges	1	325	95	--	--	--	--	--	--	--	--
100E	Seating Area E	36	7.5	0.18	100	0	0.8	42	Food & Bev, Bars, cocktail lounges	1	145	42	--	--	--	--	--	--	--	--
100F	Seating Area F	218	7.5	0.18	100	0	0.8	253	Food & Bev, Bars, cocktail lounges	1	865	253	--	--	--	--	--	--	--	--
105	Banquet Sales Office	233	5	0.06	5	0	0.8	25	Offices, Office spaces	1	85	25	--	--	--	--	--	--	--	--
109A	Corridor	357	0	0.06	0	0	0.8	27	Public Spaces, Corridors	2	--	--	145	27	--	--	--	--	--	--
109B	Seating Area B	103	7.5	0.18	70	0	0.8	91	Food & Bev, Dining rooms	2	--	--	490	91	--	--	--	--	--	--
109C	Seating Area C	94	7.5	0.18	70	0	0.8	83	Food & Bev, Dining rooms	2	--	--	450	83	--	--	--	--	--	--
109D	Seating Area D	109	7.5	0.18	70	0	0.8	96	Food & Bev, Dining rooms	2	--	--	515	96	--	--	--	--	--	--
108A	Corridor	111	0	0.06	0	0	0.8	8	Public Spaces, Corridors	3	--	--	--	--	30	8	--	--	--	--
108B	Private Dining Rm	385	7.5	0.18	70	0	0.8	339	Food & Bev, Dining rooms	3	--	--	--	--	1,170	339	--	--	--	--
110A	Corridor	220	0	0.06	0	0	0.8	16	Public Spaces, Corridors	4	--	--	--	--	--	--	75	16	--	--
110B	Seating Area B	132	7.5	0.18	70	0	0.8	116	Food & Bev, Dining rooms	4	--	--	--	--	--	--	525	116	--	--
110C	Seating Area C	151	7.5	0.18	70	0	0.8	133	Food & Bev, Dining rooms	4	--	--	--	--	--	--	600	133	--	--
110D	Warewashing Area	267	0	0	0	187	0.8	176	Food & Bev, Kitchens (no cooking)	4	--	--	--	--	--	--	400	176	--	--
111A	Kitchen Area	553	0	0	0	387	0.8	372	Food & Bev, Kitchens (cooking)	5	--	--	--	--	--	--	--	--	2,000	372
111B	Walk-in Cooler	124	0	0	0	0	0.8	0	Unoccupied		--	--	--	--	--	--	--	--	--	--
	Totals	3,499				574		2,040			2,000	583	1,600	297	1,200	347	1,600	442	2,000	372
											Tons	5.0	Tons	4.0	Tons	3.0	Tons	4.0	Tons	5.0
											% OA	29%	% OA	19%	% OA	29%	% OA	28%	% OA	19%
									OA from Bldg System (CFM)			140		140		260		140		160
									OA from MUA System (CFM)			443		157		87		302		212

Note: Return air is approximately equal to supply air.
* Minimum required exhaust shown. Actual is larger. See air balance schedule.

21.0

1,200

Air Balance Schedule

Equipment	Intake (CFM)	Exhaust (CFM)
Kitchen Hood 1	-	2,200
Kitchen Hood 2	-	1,942
Kitchen Hood 3	-	1,850
HVAC System 1	140	-
HVAC System 2	140	-
HVAC System 3	260	-
HVAC System 4	140	-
HVAC System 5	160	-
Hood MUA System	6,000	-
TOTALS	6,840	5,992

14% Positive

General Project Notes

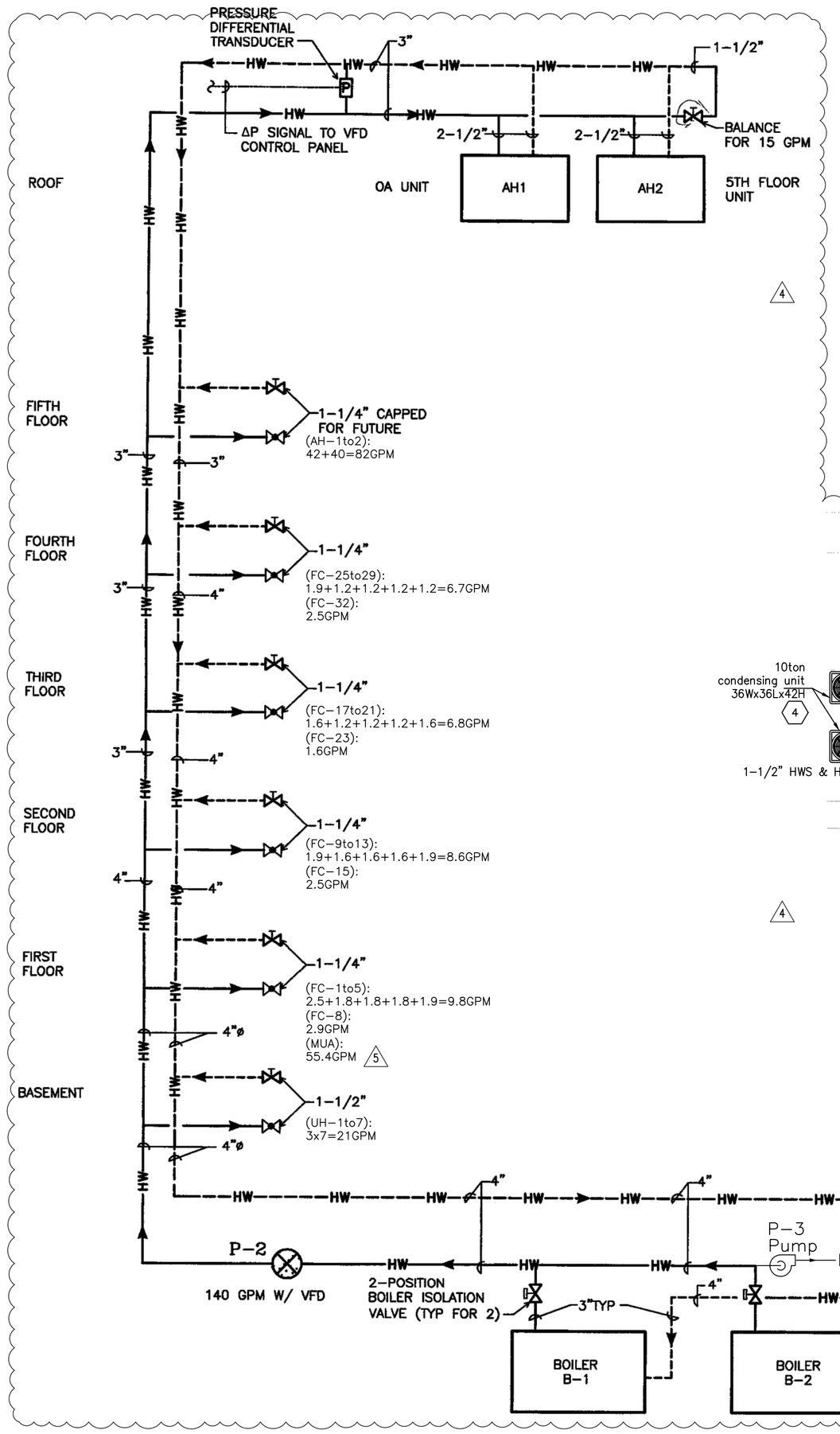
1. New work under this contract is shown in bold line weight. Existing duct work (if any) is shown in dark gray fashion. Other elements are shown in light gray.
2. This drawing shall not be used for construction unless it bears both the seal and signature of the engineer. Blue line reproductions are not approved for construction. Use only the most current revision.
3. All work shall be coordinated with other trades. Gravity drainage takes precedence, followed by HVAC ductwork, and then electrical.
4. Plans are essentially diagrammatic in nature, and do not necessarily reflect all pre-existing conditions, obstacles or ancillary work. This contractor shall conduct his own survey of the job site, and report any material deviations to the engineer prior to commencing work.

(#) Mechanical Plan Notes

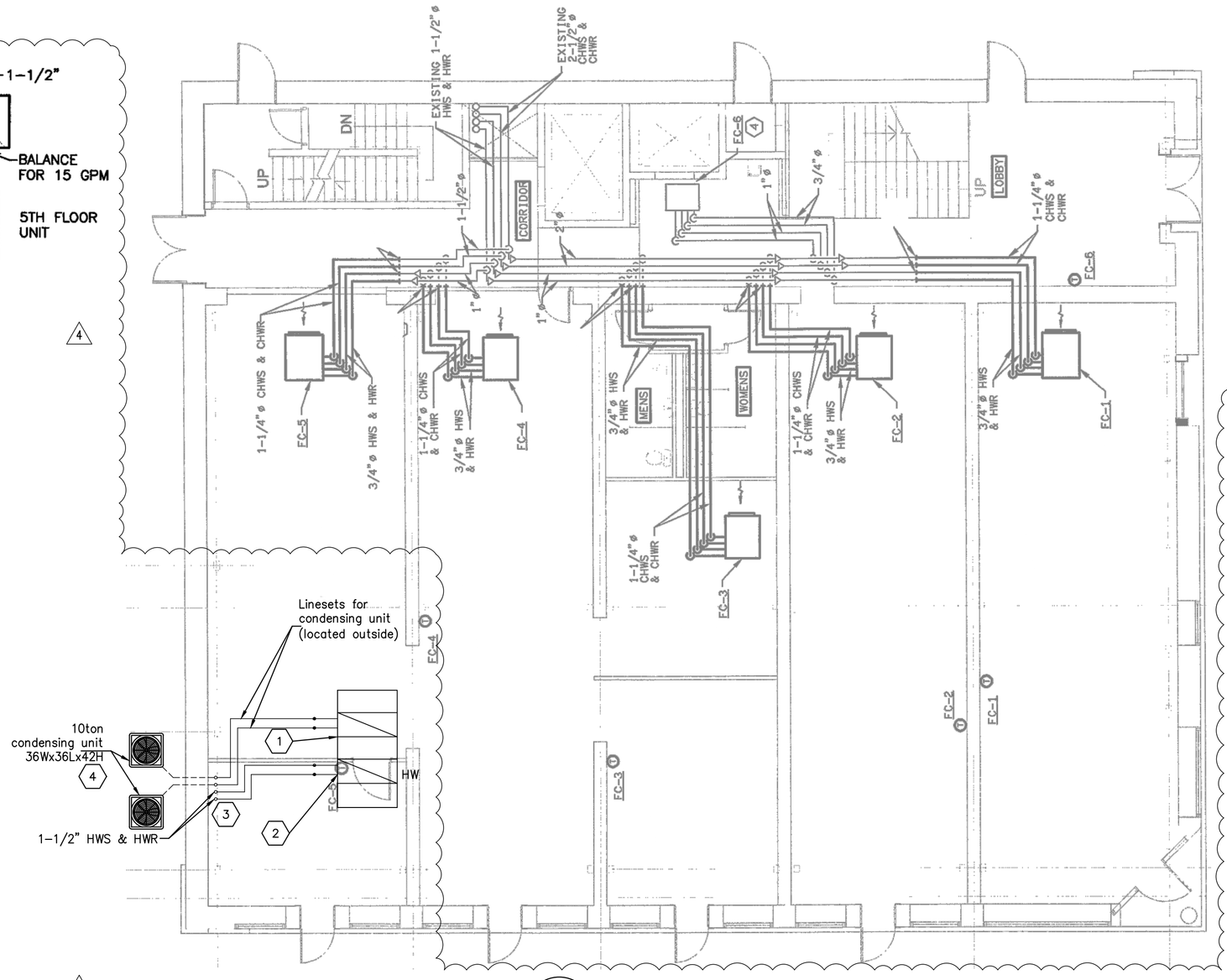
1. Field run 1" condensate drain by gravity to nearest floor sink and discharge via air gap.
2. Connect coils per Fan Coil Unit Piping Diagram this sheet.
3. Connect to existing HW piping by tee or hot tap approximately where shown and extend piping as shown to makeup air handler. All piping to match material, insulation, fittings, and supports of existing building. Typical (2) places.
4. See Mechanical Plan Sheet M2 for property line location. (7)

HVAC Plan Symbol Legend

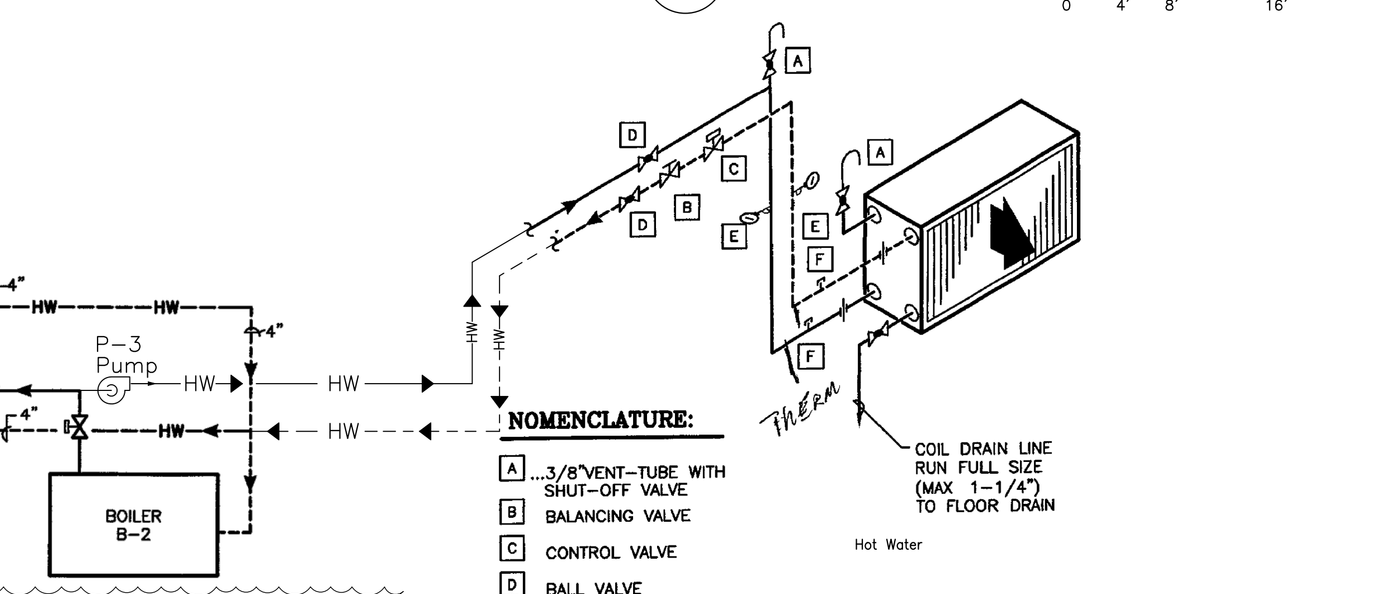
- Point of connection to existing system elements.
- 24 x 12 — Rectangular metal ductwork (Width" x Depth" of air passage size). Bottom of duct at 9' A.F.F. unless otherwise noted.
- 12ø — Round ductwork and size (inches diameter of air passage size).
- 8ø — Flexible ductwork and size (inches diameter of air passage size).
- Ceiling mounted supply air diffuser, register, or exhaust grille. Refer to identifier.
- Ceiling mounted return air grille. Refer to identifier.
- Exhaust Fan
- TW — 7 day programmable thermostat, mounted on wall at 60" A.F.F. Provide clear plastic key lock cover with ventilation slots.
- ??? / -- — Device identifier. See mechanical specifications. RL = Relocate, EX=Existing Balance or rebalance to CFM or GPM shown.
- 000 — Room Identifier. See Outdoor Air Calculation Table.
- SD — Duct smoke detector. Interlock to shutoff supply fan upon detection of smoke. Interlock similarly with all other detectors.
- TW — 7 day programmable thermostat, mounted on wall at 60" A.F.F. Provide clear plastic key lock cover with ventilation slots.
- FD — Fire damper. See installation detail for mounting requirements.
- BD — Manual set balance damper with locking quadrant operator handle.



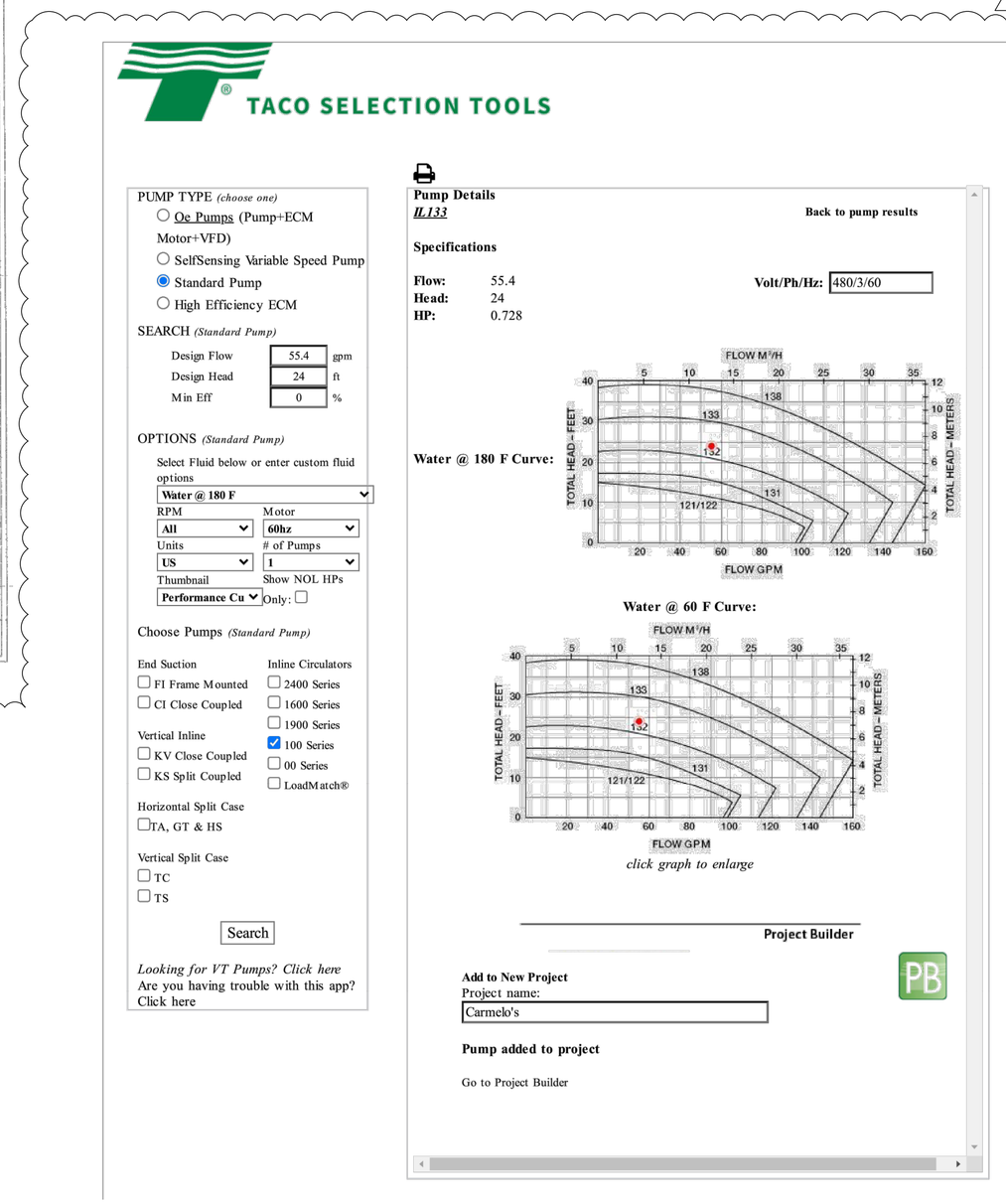
3 / M1 Water Flow Schematic
SCALE: None



1 / M1 Mechanical Plan-Piping
SCALE: 1/8"= 1'-0"



2 / M1 Heating & Cooling Coils
SCALE: None



7

Pump Schedule

System	Type	Type
1.. Hot water heating	3.. Base mounted centrifugal	7.. See electrical drawings
2.. Chilled water cooling	4.. In-line centrifugal	8.. Variable frequency drive
	5.. Horizontal split case	9.. High efficiency motor
	6.. Rotary gear	10..460/3/60

Mark	System	MFR. (See Specs)	Model/ Series No.	Capacity		
				GPM	TDH	Fluid Sp. Gr.
P-2	HW	Taco	IL133/100 Series	55.4	24 ft	1.00

Date: 6/14/2025

Plumechtrics
"Plumbing, Mechanical, Electrical Engineering"
1550 Magnolia Drive
Cincinnati, Ohio 45215
(513) 842-1144 Office
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Seal:

Interior MEP Renovation for:
Carmelo's
434 Madison Avenue
Covington, Kentucky 41011

#	Issued For:	Date:	By:
2	Plumbing Permit Revision	09 Jul 2024	M. Miller
3	Electric Permit & Constr.	12 Jul 2024	M. Miller
4a	Plumb+HVAC Permit Rev	09 Aug 2024	M. Miller
D	HVAC & Hood Coordin.	12 Aug 2024	M. Miller
5	Permit Revision	16 Aug 2024	M. Miller
6	Plumbing Permit Revision	20 Aug 2024	M. Miller
E	Client Review	27 Aug 2024	M. Miller

Piping Plan Details

Sheet: M1

Mechanical Plan Notes

1. See M3&M4 for kitchen hood information.
2. Deleted.
3. Exhaust outlets shall be located not less than 10' horizontally from property lines or not less than 3' above air intake openings into any building. Exhaust also shall not create a nuisance. (OMC 506.3.13.3)
4. HVAC system is existing to remain. No work.
5. Toilet exhaust fans are existing to remain. No work.
6. See M5 for exhaust fan (KEF1) information.
7. See M5 & M6 for MUA (SF1) information.
8. Rebalance existing equipment to meet required cfm per System Sizing and Ventilation Air Calculations Table. See Sheet M1 for information.
9. See Architect's drawing for kitchen equipment layout in the kitchen and under hoods.
10. Firewrap all round ducts with fiberglass insulation.
11. All discharge supply duct to be internally 1" thick insulation.
12. See Sheets M10 & M11 for more information of hood, grease ducts, exhaust fan, and MUA installation.
13. Deleted.
14. The range hood permit is for the installation of the range hoods only. All other HVAC work shall be permitted under a separate permit per application statement.
15. Prior to installation of kitchen hoods, a separate permit for range hood suppression system shall be obtained.
16. See Sheet P1 for equipment schedule under kitchen hood.
17. Cover open plenum box with galvanized sheet metal. Provide collars for new and existing air inlets. Seal air tight.
18. Layin return shall have 20x20x1 disposable filter. Typical all ceiling returns
19. Provide sidewall return register as shown with adjustable flow damper.
20. Deleted.

Equipment Under Kitchen Hoods

Heavy-duty 33 · Heavy-duty 33 · Heavy-duty 31 · Medium-duty 30 · Medium-duty 30.1 · Medium-duty 29 · Medium-duty 28 · Heavy-duty 25 · Medium-duty 26 · Medium-duty 24 · Medium-duty 23 · Heavy-duty 22 · Heavy-duty 21 · Medium-duty 20

Gated Fence · Property Line · Alleyway · Adjacent Building · Roof of Adjacent Building · PROPERTY LINE · Gated Fence

50x30 Service Clearance · CU 10T · 2'-6" · 2' · 8'-2" · 5'-2" · 8'-8" · 4'-10" · 2'-2" · 1"

HOOD-1 · HOOD-2 · HOOD-3 · KEF1 6000

HOOD INSTALLER TO MOUNT FAN SO BACK OF EXHAUST BLOWER IS 1" OFF OF BRICK WALL

SERVICE CORRIDOR · STAIRWELL · BACK ALLEY · 5'-1 1/2"

111B · 13'-11 7/8" · 1'-8" · 6'-0" · 15'-10" · Outside Air intakes · Opening 34"x53"

SF1 7200 · MUA-1 · MUA-1-1 1000cfm · MUA-1-3 1000cfm · MUA-1-4 1000cfm · MUA-1-8 1000cfm · MUA-1-9 1000cfm · MUA-1-10 1000cfm

S-12"ø · S-14"ø · S-18"ø · 30x34 7000cfm · 30x20 5000cfm · 26x20 4000cfm · 20x20 2000cfm · 14"ø

AHU-1 · Syst#5 · RET · OA-8"ø · 14"ø

111A · 10"ø · 12"ø · MUA-1-2 O.A. 400cfm · SD 400 · 24x24 Eggcrate 50F · P.O.S

new arch opening · new opening · sound panel · built-in banquette - 18 seats · 110C · 8"ø · O.A. 150cfm Use ex. ø diffuser · Above supply

AHU-2 · Syst#4 · 18x12 · 1600 O.A. · 20x20 RA · WRG 19 · 16"ø · 10"ø · 12" RA 24x24 Eggcrate 50F · 110D

DINING 34 seats · 110A · 110B · OA-14"ø · OA-12"ø · OA-8"ø

new opening · roll down shade · AHU-3-2R · AHU-3-4S · AHU-3-2S · AHU-3-1S · AHU-3-3S · SD 300 · 24x24 lay-in diffusers w/ plastic frame Titus "Omni" (Removable) for access · 108A · 108B · wine/liquor lockers · undercounter wine coolers · MUA-1-5 87cfm · SD 87 · O.A. 24x12 Eggcrate 50F

AHU-3 · 90° dn under unit w/ square duct · Relocate smoke detector · 12"ø · 8"ø · Extend · EXIST TO REMAIN · 5 · NEW door / opening · TYP · to restrooms

AHU-3-1R · 12" RA 24x24 Eggcrate 50F · AHU-4-1R 1600cfm · 24x24 Eggcrate 50F · 18x12 · 1600 O.A. · Syst#2 · AHU-4

109C · 109A · Relocate · Re-use existing (from kitchen area) · 109B · built-in banquette - 12 seats · 109D · 24x24 lay-in diffuser Titus "Omni" · Relocate &extend · MUA-1-6 150cfm · SD 150 · O.A. 12x12 · 10"ø

100E · 100B · hostess · 100A · screen wall · BAR - 12 seats · 100D · 100C · 100F · AHU-5-3R · AHU-5-2R · MUA-1-7 400cfm · Eggcrate 50F · SWR 400 · O.A. 12x12 SWR · 24x12 Eggcrate 915cfm · 24x12 Eggcrate 1000cfm · AHU-5 · Syst#1 · 18"ø · 18x14 · 8"ø · 8"ø Eggcrate 200cfm · 105 · AHU-5-1R

1 M2 Mechanical Plan

SCALE: 1/4"= 1'-0"

0 2' 4'

Date: 5/14/2025

#	Issued For:	Date:	By:
2	Plumbing Permit Revision	09 Jul 2024	M. Miller
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5	Permit Revision	16 Aug 2024	M. Miller
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E	Client Review	27 Aug 2024	M. Miller

Sheet: M2

Mechanical Plan

Interior MEP Renovation for:

Carmelo's

434 Madison Avenue

Covington, Kentucky 41011

Plumechtrics

"Plumbing, Mechanical, Electrical Engineering"

(513) 842-1144 Office

(513) 617-2263 Mobile

1550 Magnolia Drive

Cincinnati, Ohio 45215

Seal:

National TAB

Project: Carmello's (Covington, KY)

System/Unit: AHU/RTU

Asset: AHU1 AREA:SERVICE CORRIDOR

Unit Data		
	Design	**Actual**
MFG	CARRIER	CARRIER
Serial Num	-	141201-10-2
Model Num	42BHC20	42BHC20
Type	-	AHU
Configuration	-	HORIZONTAL

Motor Data		
	Design	**Actual**
Motor MFG	-	GE
Horsepower	0.50	0.50
Motor Rpm	-	1725
Phase	3	3
Rated Voltage	480	480
Rated Amperage	-	1.1
Service Factor	-	1.15

Drive Data	
	Actual
Motor Sheave Size	NA
Motor Bore Size	NA
Fan Sheave Size	6"
Fan Sheave Bore	0.75"
Belt CL Distance	NA
Num of Belts	1
Belt Size	A28

Test Data		
	Design	**Actual**
SF CFM	2000	1665
RA CFM	1860	1545
OA CFM	140	120
RL Voltage	-	480
RL Amperage	-	1.0
OA Damper Position	-	0.50"

Completed By: Austin McFall on 05/13/2025

National TAB

Project: Carmello's (Covington, KY)

System/Unit: AHU/RTU

Asset: AHU2 AREA:110D

Unit Data		
	Design	**Actual**
MFG	CARRIER	Carrier
Serial Num	-	141201-10-5
Model Num	42BHC20	42BHC20
Type	-	AHU
Configuration	-	Horizontal

Motor Data		
	Design	**Actual**
Motor MFG	-	GE
Horsepower	-	0.5
Motor Rpm	-	1725
Phase	-	3
Rated Voltage	-	480
Rated Amperage	-	1.1
Service Factor	-	1.15

Drive Data	
	Actual
Motor Sheave Size	NOT ACCESSIBLE
Motor Bore Size	NOT ACCESSIBLE
Fan Sheave Size	6"
Fan Sheave Bore	0.75"
Belt CL Distance	NOT ACCESSBILE
Num of Belts	1
Belt Size	A28

Test Data		
	Design	**Actual**
SF CFM	1600	1660
RA CFM	1860	1528
OA CFM	140	132
RL Voltage	-	480
RL Amperage	-	1.0
OA Damper Position	-	0.50"

Completed By: Austin McFall on 05/13/2025

Notes:
[1] BELT IS WORN, REPLACEMENT BELT WAS INSTALLED

Written By: Austin McFall on 04/14/2025

National TAB

Project: Carmello's (Covington, KY)

System/Unit: AHU/RTU

Asset: AHU3 AREA:WINE LOCKERS

Unit Data		
	Design	**Actual**
MFG	CARRIER	CARRIER
Model Num	42BHC20	42BHC20
Type	-	AHU
Configuration	-	HORIZONTAL

Motor Data		
	Design	**Actual**
Motor MFG	-	GE
Horsepower	0.50	0.50
Motor Rpm	-	1725
Phase	3	3
Rated Voltage	480	480
Rated Amperage	1.1	1.1
Service Factor	-	1.15

Drive Data	
	Actual
Fan Sheave Size	6"
Fan Sheave Bore	0.75"
Belt CL Distance	NA
Num of Belts	1
Belt Size	A28

Test Data		
	Design	**Actual**
SF CFM	1200	1125
RA CFM	940	875
OA CFM	260	250
RL Voltage	-	
RL Amperage	-	
OA Damper Position	-	
Brake Horse Power	-	

Completed By: Austin McFall on 05/13/2025

Diffuser Supply (GRD)

AHU3/WINE LOCKERS

Asset							
Asset Name	**Location**	**Type**	**Size**	**DESIGN CFM**	**CFM(1)**	**FINAL CFM**	**% to design**
AHU3-SGRD1	108B	SD	14	300			-
AHU3-SGRD2	108B	SD	14	300			-
AHU3-SGRD3	108B	SD	14	300			-
AHU3-SGRD4	108B	SD	14	300			-
Total				1200	0	0	0%

Diffuser Ret/Exh (GRD)

AHU3/WINE LOCKERS

Asset								
Asset Name	**Type**	**Size**	**DESIGN CFM**	**AK**	**CFM(1)**	**CFM(2)**	**FINAL CFM**	**% to design**
AHU3-EGRD1	RG	12	50					-
AHU3-EGRD2	RG	12	50					-
Total			100		0	0	0	0%

National TAB

Project: Carmello's (Covington, KY)

System/Unit: AHU/RTU

Asset: AHU4 AREA:109A

Unit Data		
	Design	**Actual**
MFG	CARRIER	CARRIER
Model Num	42BHC20	42BHC20
Type	-	AHU
Configuration	HORIZONTAL	HORIZONTAL
Final Filter Size 1	-	

Motor Data		
	Design	**Actual**
Motor MFG	-	GE
Horsepower	0.50	0.50
Motor Rpm	-	1725
Phase	3	3
Rated Voltage	480	480
Rated Amperage	-	1.1
Service Factor	-	1.15

Drive Data	
	Actual
Fan Sheave Size	6"
Fan Sheave Bore	0.75"
Belt CL Distance	NA
Num of Belts	1
Belt Size	A28

Test Data		
	Design	**Actual**
SF CFM	1600	1832
RA CFM	1460	1700
OA CFM	140	132
RL Voltage	-	480
RL Amperage	-	1.1
OA Damper Position	-	0.625"

Completed By: Austin McFall on 05/13/2025

National TAB

Project:Carmello's (Covington, KY)

AHU/RTU

Diffuser Ret/Exh (GRD)

AHU4/109A

Asset								
Asset Name	**Type**	**Size**	**DESIGN CFM**	**AK**	**CFM(1)**	**CFM(2)**	**FINAL CFM**	**% to design**
AHU4-EGRD1	RG	18X12	1600					-
Total			1600		0	0	0	0%

National TAB

Project: Carmello's (Covington, KY)

System/Unit: AHU/RTU

Asset: AHU5 AREA:100F

Unit Data		
	Design	**Actual**
MFG	CARRIER	CARRIER
Model Num	42BHC20	42BHC20
Type	-	AHU
Configuration	HORIZONTAL	HORIZONTAL

Motor Data		
	Design	**Actual**
Motor MFG	-	GE
Horsepower	0.50	0.50
Motor Rpm	-	1725
Phase	3	3
Rated Voltage	480	480
Rated Amperage	-	1.1
Service Factor	-	1.15

Drive Data	
	Actual
Fan Sheave Size	6"
Fan Sheave Bore	0.75"
Belt CL Distance	NA
Num of Belts	1
Belt Size	A28

Test Data		
	Design	**Actual**
SF CFM	2000	2117
RA CFM	1840	1969
OA CFM	160	148
RL Voltage	-	480
RL Amperage	-	1.1
OA Damper Position	-	0.625"

Completed By: Austin McFall on 05/13/2025

National TAB

Project:Carmello's (Covington, KY)

AHU/RTU

Diffuser Ret/Exh (GRD)

AHU5/100F

Asset								
Asset Name	**Type**	**Size**	**DESIGN CFM**	**AK**	**CFM(1)**	**CFM(2)**	**FINAL CFM**	**% to design**
AHU5-EGRD1	RG	8	200					-
AHU5-EGRD2	RG	14	1000					-
AHU5-EGRD3	RG	14	915					-
Total			2115		0	0	0	0%

National TAB

Project: Carmello's (Covington, KY)

System/Unit: FAN - Supply

Asset: SF1 AREA:111B

Unit Data		
	Design	**Actual**
MFG	CAPTIVE AIRE	CAPTIVE AIRE
Model Num	A3-24D	A3-24D
Serial Num	-	6785838
Type	MUA	MUA
Configuration	HORIZONTAL	HORIZONTAL

Test Data		
	Design	**Actual**
CFM	7000	6433
SF RPM	1553	1599
RL Voltage	-	485 AVG
RL Amperage	-	9.2 AVG

Motor Data		
	Design	**Actual**
Motor MFG	-	ODP,PREMIUM
Horsepower	10.00	10
Motor Rpm	1755	1755
Phase	3	3
Voltage (rated)	460	460
Amperage (rated)	-	12.2
Service Factor	-	1.15

Completed By: Austin McFall on 05/13/2025

National TAB

Project:Carmello's (Covington, KY)

FAN - Supply

Diffuser Supply (GRD)

SF1/111B

Asset							
Asset Name	**Location**	**Type**	**Size**	**DESIGN CFM**	**CFM(1)**	**FINAL CFM**	**% to design**
SF1-SGRD1	HOOD-1	PSP	14	924			-
SF1-SGRD2	111B	SD	10	400			-
SF1-SGRD3	HOOD-1	PSP	14	924			-
SF1-SGRD4	HOOD-2	PSP	14	864			-
SF1-SGRD5	108A	SD	6	87			-
SF1-SGRD6	109A	SD	8	150			-
SF1-SGRD7	100F	SWR	10	400			-
SF1-SGRD8	HOOD-2	PSP	14	864			-
SF1-SGRD9	HOOD-3	PSP	14	823			-
SF1-SGRD10	HOOD-3	PSP	14	823			-
Total				6259	0	0	0%

National TAB

Project: Carmello's (Covington, KY)

System/Unit: FAN - Exhaust

Asset: KEF1 AREA:ROOF/KITCHEN

Unit Data		
	Design	**Actual**
MFG	CAPTIVE AIRE	CAPTIVE AIRE
Model Num	USBI30DD-RM	USBI30DD-RM
Serial Num	-	6785838
Type	UTILITY	UTILITY SET

Test Data		
	Design	**Actual**
CFM	6000	6519
RL Voltage	-	388 AVG
RL Amperage	-	8.1 AVG

Motor Data		
	Design	**Actual**
Horsepower	5.00	5.0
Phase	3	3
Voltage (rated)	208	208
Amperage (rated)	-	9.6
Service Factor	-	

Completed By: Austin McFall on 04/14/2025

National TAB

Project: Carmello's (Covington, KY)

System/Unit: Kitchen Hood Type I

Asset: HD1 AREA:KITCHEN

Unit Data		
	Design	**Actual**
MFG	CAPTIVE AIRE	CAPTIVE AIRE
Model Num	6024	6024
Job / Serial Num	-	6785838
Type	CANNOPY	TYPE I CANOPY
Hood length	10'	120"
Hood Width	54"	54"
Supply Plenum Type	-	PSP
Supply Plenum Width	16"	16"
Supply Plenum Length	120"	120"

Test Data Exhaust		
	Design	**Actual**
Filter Type	CAPTRATE SOLO	CAPTRATE SOLO
Filter Size 1	16"X16"	16X16
Filter Qty 1	7	7
Filter AK factor size 1	1.62	1.62
Filter Total AK Area	11.34	11.34
Filter1 FPM	-	192
Filter2 FPM	-	191
Filter3 FPM	-	201
Filter4 FPM	-	195
Filter5 FPM	-	201
Filter6 FPM	-	194
Filter7 FPM	-	187
Filter Ave FPM(corr)	-	193
CFM	2200	2189

Cooking Equipment	
	Actual
Item 1	CHAR
Item 2	GRIDDLE
Item 3	SALAMANDER
Item 4	OVEN

Test Data Supply		
	Design	**Actual**
Total Area	1920"	13.33
Kv factor (Vel)	0.88	0.88
Num of Readings	-	10
Reading1 FPM	-	127
Reading2 FPM	-	131
Reading3 FPM	-	130
Reading4 FPM	-	128
Reading5 FPM	-	139
Reading6 FPM	-	158
Reading7 FPM	-	132
Reading8 FPM	-	144
Reading9 FPM	-	147
Reading10 FPM	-	166
Ave FPM(corr)	-	140
CFM	1848	1644

Completed By: Austin McFall on 04/14/2025

National TAB

Project: Carmello's (Covington, KY)

System/Unit: Kitchen Hood Type I

Asset: HD2 AREA:KITCHEN

Unit Data		
	Design	**Actual**
MFG	CAPTIVE AIRE	CAPTIVE AIRE
Model Num	6024	6024
Job / Serial Num	-	6785838
Type	CANNOPY	TYPE I CANOP
Hood length	10' 6"	126"
Hood Width	54"	54"
Supply Plenum Type	-	PSP
Supply Plenum Width	16"	16"
Supply Plenum Length	126"	126"

Test Data Exhaust		
	Design	**Actual**
Filter Type	CAPTRATE SOLO	CAPTRATE SOLO
Filter Size 1	16"X16"	16"X16"
Filter Qty 1	7	7
Filter AK factor size 1	1.62	1.62
Filter Total AK Area	11.34	11.34
Filter1 FPM	-	207
Filter2 FPM	-	185
Filter3 FPM	-	209
Filter4 FPM	-	221
Filter5 FPM	-	204
Filter6 FPM	-	188
Filter7 FPM	-	185
Filter Ave FPM(corr)	-	201
CFM	1942	2279

Cooking Equipment	
	Actual
Item 1	FRYER
Item 2	RANGE
Item 3	PASTA COOKER
Item 4	
Item 5	

Test Data Supply		
	Design	**Actual**
Total Area	2016"	14
Kv factor (Vel)	0.88	0.88
Num of Readings	-	10
Reading1 FPM	-	166
Reading2 FPM	-	149
Reading3 FPM	-	152
Reading4 FPM	-	159
Reading5 FPM	-	172
Reading6 FPM	-	152
Reading7 FPM	-	133
Reading8 FPM	-	155
Reading9 FPM	-	160
Reading10 FPM	-	169
Ave FPM(corr)	-	157
CFM	1728	1934

Completed By: Austin McFall on 04/14/2025

National TAB

Project: Carmello's (Covington, KY)

System/Unit: Kitchen Hood Type I

Asset: HD3 AREA:KITCHEN

Unit Data		
	Design	**Actual**
MFG	CAPTIVE AIRE	CAPTIVE AIRE
Model Num	6024	6024
Job / Serial Num	-	6785838
Type	CANNOPY	TYPE I CANOPY
Hood length	10'	120"
Hood Width	54"	54"
Supply Plenum Type	-	PSP
Supply Plenum Width	16"	16:
Supply Plenum Length	132"	132"

Test Data Exhaust		
	Design	**Actual**
Filter Type	CAPTRATE SOLO	CAPTRATE SOLO
Filter Size 1	16"X16"	16"X16"
Filter Qty 1	7	7
Filter AK factor size 1	1.62	1.62
Filter Total AK Area	11.34	11.34
Filter1 FPM	-	166
Filter2 FPM	-	186
Filter3 FPM	-	196
Filter4 FPM	-	202
Filter5 FPM	-	180
Filter6 FPM	-	176
Filter7 FPM	-	161
Filter Ave FPM(corr)	-	181
CFM	1850	2051

Cooking Equipment	
	Actual
Item 1	RANGE
Item 2	RANGE
Item 3	KETTLE
Item 4	
Item 5	

Test Data Supply		
	Design	**Actual**
Total Area	2112"	14.67
Kv factor (Vel)	0.88	0.88
Num of Readings	-	10
Reading1 FPM	-	156
Reading2 FPM	-	133
Reading3 FPM	-	141
Reading4 FPM	-	159
Reading5 FPM	-	144
Reading6 FPM	-	147
Reading7 FPM	-	132
Reading8 FPM	-	137
Reading9 FPM	-	141
Reading10 FPM	-	159
Ave FPM(corr)	-	145
CFM	1646	1871

Completed By: Austin McFall on 04/14/2025

SDV Job #: 6962508 - Carmelos V2 (Odd Fellows) KY

Service Region:	361 - Cincinnati OH Service		
Service Person:	Travis Huff		
Customer Number:	866644	**Customer Name:**	NATIONAL TAB
Address:	CARMELO'S 434 MADISON AVENUE Covington, KY 41011		
Region Job #:	6785838		
Region Job Name:	Carmelos V2 (Odd Fellows) KY		
Sales Region:	120 - Air Solutions		
Sales Person:	Joe Hertenstein		
Created By:	Travis Huff	**Creation Date:**	10/16/2024 3:10 PM
Last Modified By:	Travis Huff	**Last Modified Date:**	10/21/2024 4:09 PM
Dining Room Pressure:	0	**Kitchen Pressure:**	0
Hours On Job:	0	**Extra Hours:**	0
Completed:	Yes	**Completed By:**	Travis Huff
Completion Date:	10/21/2024 4:09 PM		

Job Site Meeting

NONE

Hood Group 1

Exhaust CFM:	Design = 5992	Initial = 6001	Final = 5967	(99.6% of design)
Supply CFM:	Design = 5222	Initial = 4806	Final = 5163	(98.9% of design)

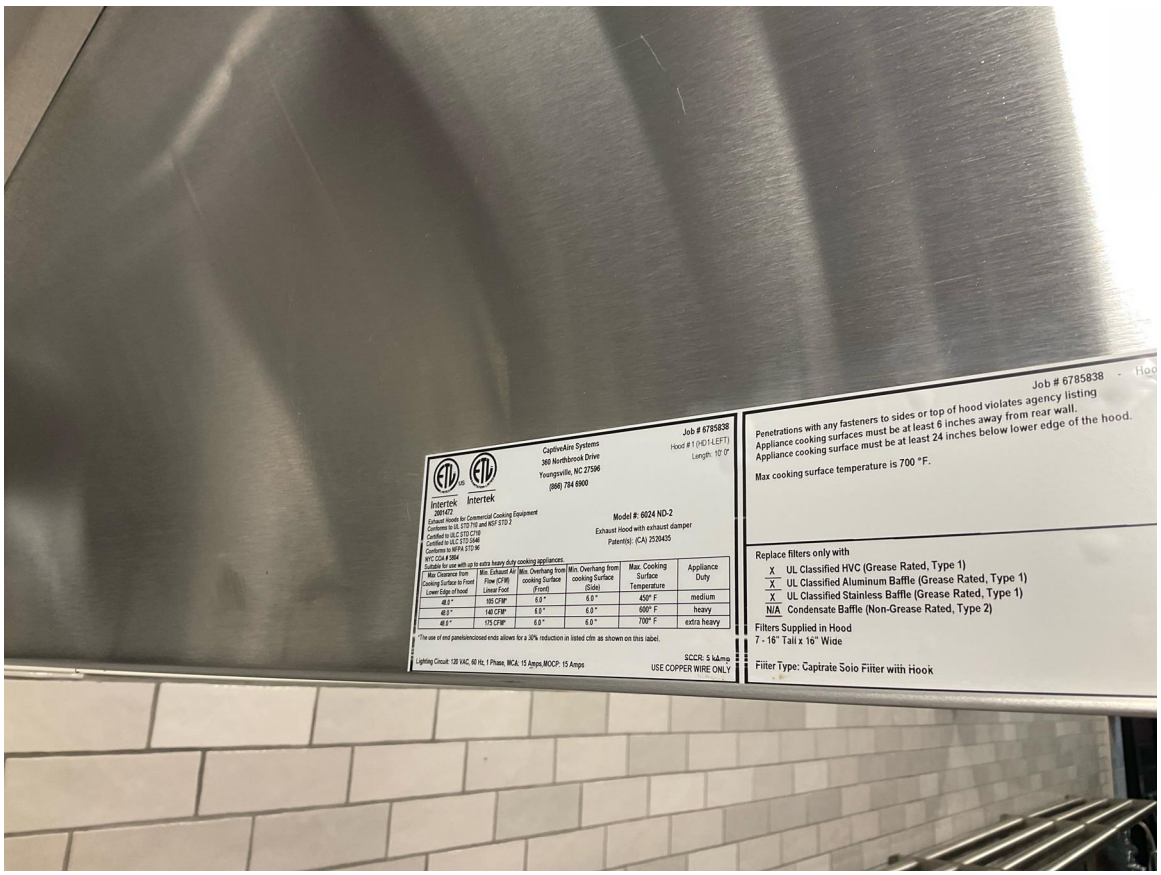
Hood 1 (HD1-LEFT) (HD1-LEFT)

Model:	6024ND-2-PSP-F	**Length:**	10' 0"	
Exhaust CFM:	Design = 2200	Initial = 1993	Final = 2079	(94.5% of design)

Other Notes:

N/A

See attachment(s): [20241018125397225 2.mp4]



Installation

Hung Using appropriate material to safely secure hood.	Design:	**Yes**	Actual:	**Yes**
COOKING EQUIPMENT ON AND OPERATING	Design:	**Yes**	Actual:	**Yes**
COOKING EQUIPMENT INSTALLED AS CLOSE TO BACK WALL AS POSSIBLE	Design:	**Yes**	Actual:	**Yes**
END PANELS INSTALLED CORRECTLY	Design:	**Yes**	Actual:	**No**

Installation Notes:

Left quarter end panel not installed.

INITIAL POSITION OF BALANCE DAMPER			Actual:	**0**
POSITION OF BALANCE DAMPER AFTER AIRFLOW			Actual:	**0**
Smoke Test Performed on all Hoods? Upload Video	Design:	**Yes**	Actual:	**Yes**
Measure the Front lower edge of the Hood to the Floor. (AFF)	Design:	**80**	Actual:	**80**
Is there insulation on Top of the Hood?	Design:	**Yes**	Actual:	**No**
Are there combustibles within 18" of the Hood?			Actual:	**No**

Filters

Type: Captrate Solo

Filter 1	Size: 16x16	Initial Velocity: 175 fpm	Final Velocity: 184 fpm
Initial CFM: 267	Final CFM: 281	Fan: Other	
Filter 2	Size: 16x16	Initial Velocity: 192 fpm	Final Velocity: 194 fpm
Initial CFM: 293	Final CFM: 296	Fan: Other	
Filter 3	Size: 16x16	Initial Velocity: 212 fpm	Final Velocity: 204 fpm
Initial CFM: 323	Final CFM: 311	Fan: Other	
Filter 4	Size: 16x16	Initial Velocity: 209 fpm	Final Velocity: 213 fpm
Initial CFM: 319	Final CFM: 325	Fan: Other	
Filter 5	Size: 16x16	Initial Velocity: 194 fpm	Final Velocity: 212 fpm
Initial CFM: 296	Final CFM: 323	Fan: Other	
Filter 6	Size: 16x16	Initial Velocity: 159 fpm	Final Velocity: 175 fpm
Initial CFM: 243	Final CFM: 267	Fan: Other	
Filter 7	Size: 16x16	Initial Velocity: 165 fpm	Final Velocity: 181 fpm
Initial CFM: 252	Final CFM: 276	Fan: Other	

Supply

Supply CFM: Design = 1848 Initial = 1321 Actual = 1514
(81.9% of design) Fan: Other

PSP 1

Orientation: Front **Length:** 10' 0" **Width:** 16"

Banks: 1 **Blanks:** 1

CFM: Design = 1848 Initial = 1321 Final = 1514
(0% of design)

Velocity: Design = 159 Initial = 0 Final = 0
(0% of design)

Readings:

1: Initial: 111 fpm, Final: 138 fpm
2: Initial: 94 fpm, Final: 99 fpm
3: Initial: 88 fpm, Final: 96 fpm
4: Initial: 81 fpm, Final: 98 fpm
5: Initial: 122 fpm, Final: 136 fpm
6: Initial: 121 fpm, Final: 133 fpm
7: Initial: 101 fpm, Final: 106 fpm
8: Initial: 108 fpm, Final: 110 fpm
9: Initial: 81 fpm, Final: 113 fpm
10: Initial: 118 fpm, Final: 146 fpm

Hood 2 (HD2-CTR) (HD2-CTR)

Model: 6024ND-2-PSP-F **Length:** 10' 6"

Exhaust CFM: Design = 1942 Initial = 1988 Final = 2047
(105.4% of design)

Other Notes:

N/A

See attachment(s): [20241018151382039 7.mp4]

Installation

Hung Using appropriate material to safely secure hood.	Design:	**Yes**	Actual:	**Yes**
COOKING EQUIPMENT ON AND OPERATING	Design:	**Yes**	Actual:	**Yes**
COOKING EQUIPMENT INSTALLED AS CLOSE TO BACK WALL AS POSSIBLE	Design:	**Yes**	Actual:	**Yes**
Smoke Test Performed on all Hoods? Upload Video	Design:	**Yes**	Actual:	**Yes**
Measure the Front lower edge of the Hood to the Floor. (AFF)	Design:	**80**	Actual:	**80**
Is there insulation on Top of the Hood?	Design:	**Yes**	Actual:	**No**
Are there combustibles within 18" of the Hood?			Actual:	**No**

Filters

Type: Captrate Solo

Filter 1	Size: 16x16	Initial Velocity: 184 fpm	Final Velocity: 179 fpm
Initial CFM: 281	Final CFM: 273	Fan: Other	
Filter 2	Size: 16x16	Initial Velocity: 182 fpm	Final Velocity: 185 fpm
Initial CFM: 278	Final CFM: 282	Fan: Other	
Filter 3	Size: 16x16	Initial Velocity: 197 fpm	Final Velocity: 193 fpm
Initial CFM: 301	Final CFM: 294	Fan: Other	
Filter 4	Size: 16x16	Initial Velocity: 200 fpm	Final Velocity: 210 fpm
Initial CFM: 305	Final CFM: 320	Fan: Other	
Filter 5	Size: 16x16	Initial Velocity: 192 fpm	Final Velocity: 201 fpm
Initial CFM: 293	Final CFM: 307	Fan: Other	
Filter 6	Size: 16x16	Initial Velocity: 176 fpm	Final Velocity: 190 fpm
Initial CFM: 268	Final CFM: 290	Fan: Other	
Filter 7	Size: 16x16	Initial Velocity: 172 fpm	Final Velocity: 184 fpm
Initial CFM: 262	Final CFM: 281	Fan: Other	

Supply

Supply CFM: Design = 1728 Initial = 1622 Actual = 1786
(103.4% of design) Fan: Other

PSP 1

Orientation: Front **Length:** 10' 6" **Width:** 16"
Banks: 1 **Blanks:** 1
CFM: Design = 1728 Initial = 1622 Final = 1786
(0% of design)
Velocity: Design = 142 Initial = 0 Final = 0
(0% of design)

Readings:

1: Initial: 132 fpm, Final: 147 fpm
2: Initial: 103 fpm, Final: 126 fpm
3: Initial: 107 fpm, Final: 123 fpm
4: Initial: 103 fpm, Final: 106 fpm
5: Initial: 134 fpm, Final: 137 fpm
6: Initial: 136 fpm, Final: 167 fpm
7: Initial: 142 fpm, Final: 135 fpm
8: Initial: 92 fpm, Final: 92 fpm
9: Initial: 102 fpm, Final: 109 fpm
10: Initial: 98 fpm, Final: 115 fpm
11: Initial: 138 fpm, Final: 153 fpm
12: Initial: 149 fpm, Final: 171 fpm

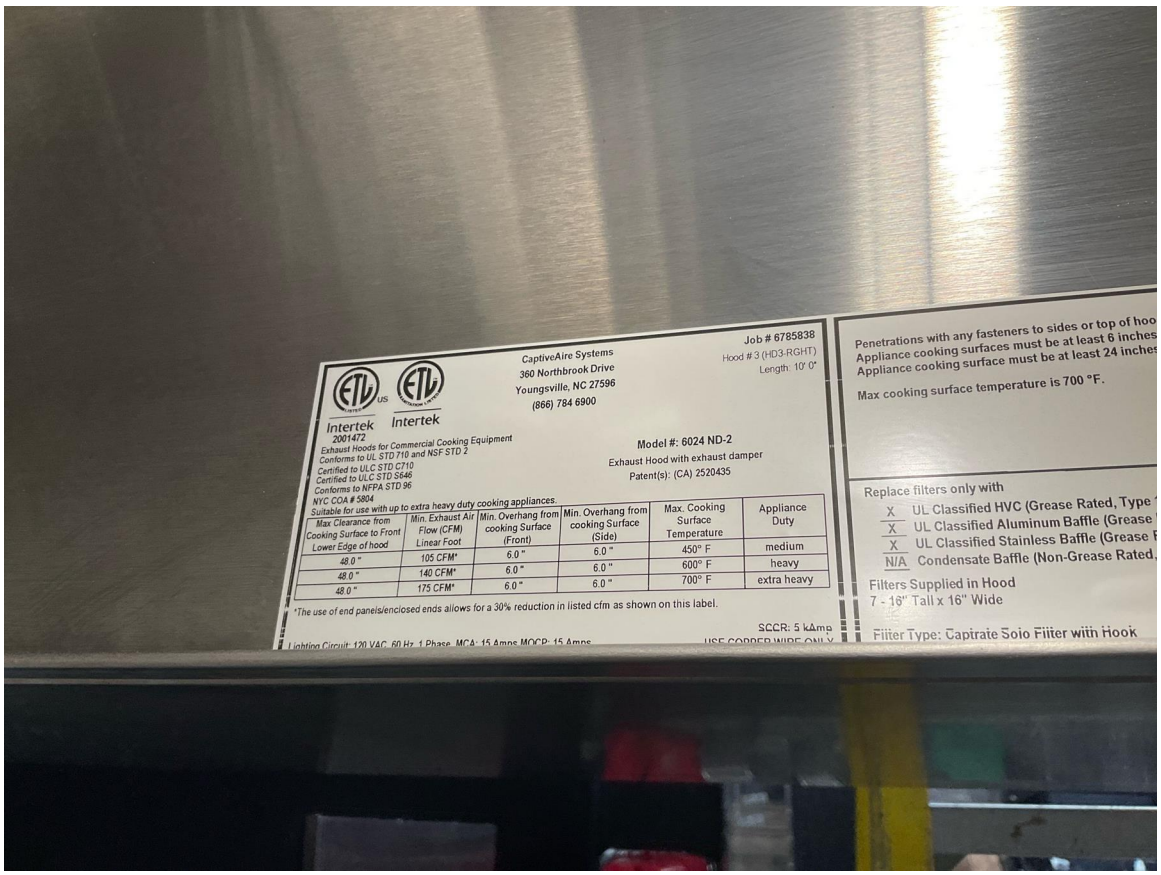
Hood 3 (HD3-RGHT) (HD3-RGHT)

Model:	6024ND-2-PSP-F	**Length:**	10' 0"	
Exhaust CFM:	Design = 1850	Initial = 2020	Final = 1841	(99.5% of design)

Other Notes:

N/A

See attachment(s): [20241018125425543 9.mp4] [20241018125425543 9.mp4]



Installation

Hung Using appropriate material to safely secure hood.	Design:	**Yes**	Actual:	**Yes**
COOKING EQUIPMENT ON AND OPERATING	Design:	**Yes**	Actual:	**Yes**
COOKING EQUIPMENT INSTALLED AS CLOSE TO BACK WALL AS POSSIBLE	Design:	**Yes**	Actual:	**Yes**
END PANELS INSTALLED CORRECTLY	Design:	**Yes**	Actual:	**No**

Other Notes:

Vertical end panel not installed.

INITIAL POSITION OF BALANCE DAMPER			Actual:	**0**
POSITION OF BALANCE DAMPER AFTER AIRFLOW			Actual:	**25**
Smoke Test Performed on all Hoods? Upload Video	Design:	**Yes**	Actual:	**Yes**
Measure the Front lower edge of the Hood to the Floor. (AFF)	Design:	**80**	Actual:	**80**
Is there insulation on Top of the Hood?	Design:	**Yes**	Actual:	**No**
Are there combustibles within 18" of the Hood?			Actual:	**No**

Filters

Type: Captrate Solo

Filter 1	Size: 16x16	Initial Velocity: 205 fpm	Final Velocity: 167 fpm
Initial CFM: 313	Final CFM: 255	Fan: Other	
Filter 2	Size: 16x16	Initial Velocity: 190 fpm	Final Velocity: 176 fpm
Initial CFM: 290	Final CFM: 268	Fan: Other	
Filter 3	Size: 16x16	Initial Velocity: 193 fpm	Final Velocity: 174 fpm
Initial CFM: 294	Final CFM: 265	Fan: Other	
Filter 4	Size: 16x16	Initial Velocity: 202 fpm	Final Velocity: 192 fpm
Initial CFM: 308	Final CFM: 293	Fan: Other	
Filter 5	Size: 16x16	Initial Velocity: 183 fpm	Final Velocity: 173 fpm
Initial CFM: 279	Final CFM: 264	Fan: Other	
Filter 6	Size: 16x16	Initial Velocity: 178 fpm	Final Velocity: 162 fpm
Initial CFM: 272	Final CFM: 247	Fan: Other	
Filter 7	Size: 16x16	Initial Velocity: 173 fpm	Final Velocity: 163 fpm
Initial CFM: 264	Final CFM: 249	Fan: Other	

Supply

Supply CFM: Design = 1646 Initial = 1863 Actual = 1863
(113.2% of design) Fan: Other

PSP 1

Orientation: Front **Length:** 11' 0" **Width:** 16"
Banks: 1 **Blanks:** 1

CFM:	Design = 1646	Initial = 1863	Final = 1863
(0% of design)			
Velocity:	Design = 129	Initial = 0	Final = 0
(0% of design)			

Readings:

1: Initial: 172 fpm, Final: 172 fpm	2: Initial: 119 fpm, Final: 119 fpm
3: Initial: 108 fpm, Final: 108 fpm	4: Initial: 99 fpm, Final: 99 fpm
5: Initial: 139 fpm, Final: 139 fpm	6: Initial: 165 fpm, Final: 165 fpm
7: Initial: 148 fpm, Final: 148 fpm	8: Initial: 88 fpm, Final: 88 fpm
9: Initial: 102 fpm, Final: 102 fpm	10: Initial: 124 fpm, Final: 124 fpm
11: Initial: 143 fpm, Final: 143 fpm	12: Initial: 165 fpm, Final: 165 fpm

Fans

Fan 2 - A3-24D (SF1) (SF1)

Model: A3-24D

Other Notes:

Difficult to access fan and take overall picture of unit in ceiling. Was advised by sales office to document general area of fan from ground.

Supply

Supply CFM: Design = 7000 Actual = 5163 (74% of design)

Other Notes:

Unit is serving kitchen area through diffusers as well as PSP, was advised to balance PSP to design from sales office.

VOLTS	Design:	**460**	Actual:	**485**
Is the main transformer (TR-01) tapped for the correct voltage?			Actual:	**Yes**
HP	Design:	**10**	Actual:	**10**
HUB SET SCREW TIGHT	Design:	**Yes**	Actual:	**Yes**
FAN LEVEL	Design:	**Yes**	Actual:	**Yes**
ROTATION	Design:	**Correct**	Actual:	**Correct**
UNIT VIBRATION	Design:	**Good**	Actual:	**Good**
FLA	Design:	**12.2**	Actual:	**9.2**
OVERLOAD SET POINT		**N/A**		
PHASE	Design:	**3**	Actual:	**3**
DAMPER INSTALLED	Design:	**Yes**	Actual:	**Yes**

Unit within five miles from the coast?			Actual:	**No**
INSPECT ALL EXTERIOR SIDES OF UNIT. ANY VISIBLE DAMAGE			Actual:	**No**
Record the VFD HZ	Design:	**53.1 Hz**	Actual:	**50.1**
RPM - DESIGN	Design:	**1553**	Actual:	**1465**
RPM - MAX	Design:	**1800**	Actual:	**N/A**
RPM - MAX RECOMMENDED	Design:	**1500**	Actual:	**N/A**
Is Supply Fan bolted/secured to curb?	Design:	**Yes**	Actual:	**Yes**

Other Notes:

Fan located above ceiling.

ECPs

ECP 1 - DCV-1111_MA4 (EMS1) (EMS1)

Package #: DCV-1111_MA4

Other Notes:

N/A

Smart Control

GAS VALVE RESET WORKS	Design:	**Yes**	Actual:	**Yes**
ROOM TEMPERATURE OFFSET	Design:	**21**	Actual:	**21**
HOW MANY FAN ZONES ARE THERE	Design:	**1**	Actual:	**1**
HYSTERESIS TEMPERATURE			Actual:	**2**
Room Sensor Type	Design:	**RoomSensor**	Actual:	**Preset**
What is Preset temperature set to?			Actual:	**75**

ALL TEMP SENSORS ARE WIRED IN Design: **Yes** Actual: **Yes**

Other Notes:

Room temp setting changed to preset due to location of room sensor.

Do any of the light circuits exceed 1400W?	Design:	**No**	Actual:	**No**
ALL LIGHTS WORK	Design:	**Yes**	Actual:	**Yes**
ALL FAULTS CLEARED	Design:	**Yes**	Actual:	**Yes**
ECPM03 HARDWARE REVISION	Design:	**04**	Actual:	**04**
ECPM03 PROGRAM VERSION	Design:	**2.16.01**	Actual:	**2.16.01**
CASHMI HARDWARE REVISION	Design:	**05**	Actual:	**05**
CASHMI PROGRAM VERSION	Design:	**2.16.01**	Actual:	**2.16.01**
ECPM03 DATE AND TIME ACCURATE	Design:	**Yes**	Actual:	**Yes**

DCV

Other Notes:

No controls in untempered supply fan.

120V Line Ran from SF1 for MUA(s)	Design:	**Yes**	Actual:	**No**
Damper interlock wiring ran to MAU?	Design:	**Yes**	Actual:	**No**

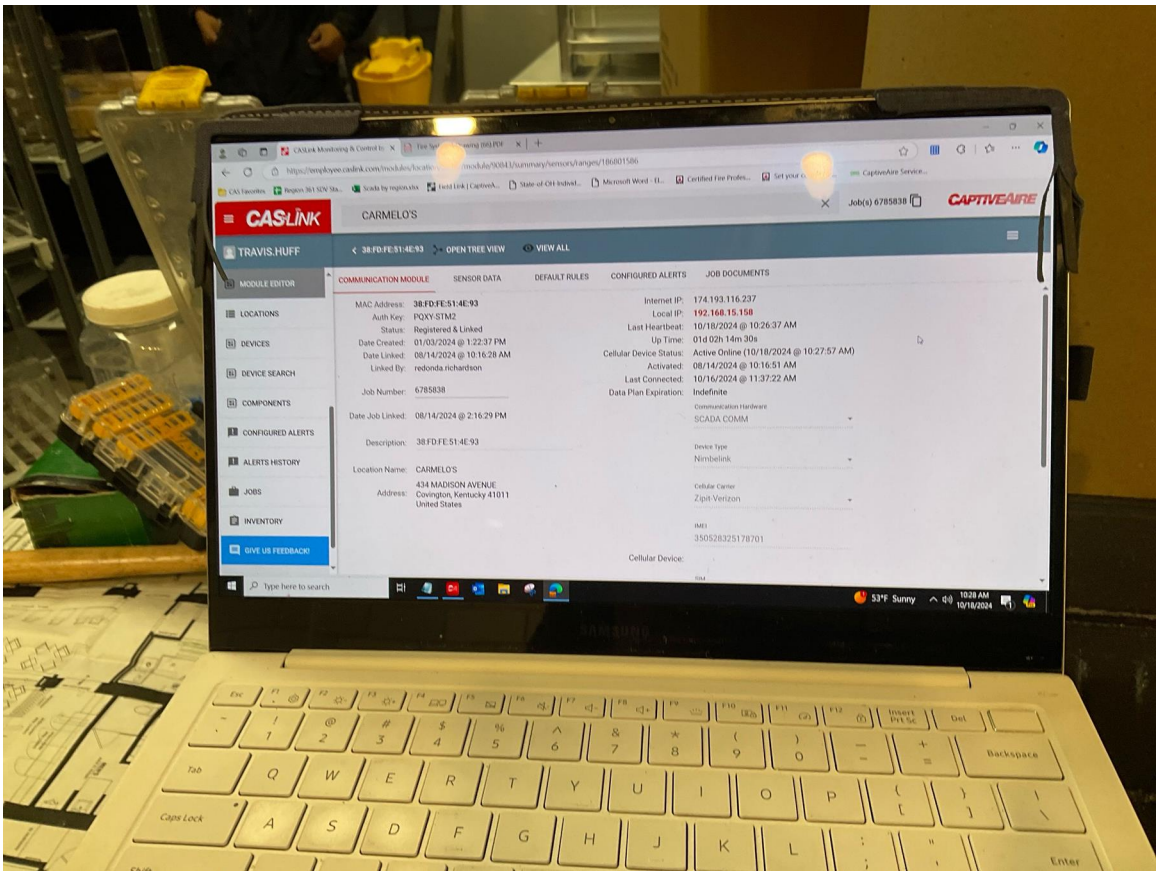
BMS & Monitoring

BMS TYPE	Design:	**CASLink**	Actual:	**CASLink**
CASLINK COMMUNICATION TYPE	Design:	**Cellular**	Actual:	**Cellular**
Cellular status is Active Online?	Design:	**Yes**	Actual:	**Yes**
CASLink Registration Wizard was completed?	Design:	**Yes**	Actual:	**Yes**

CASLink Module has a current heartbeat?	Design:	**Yes**	Actual:	**Yes**

Other Notes:

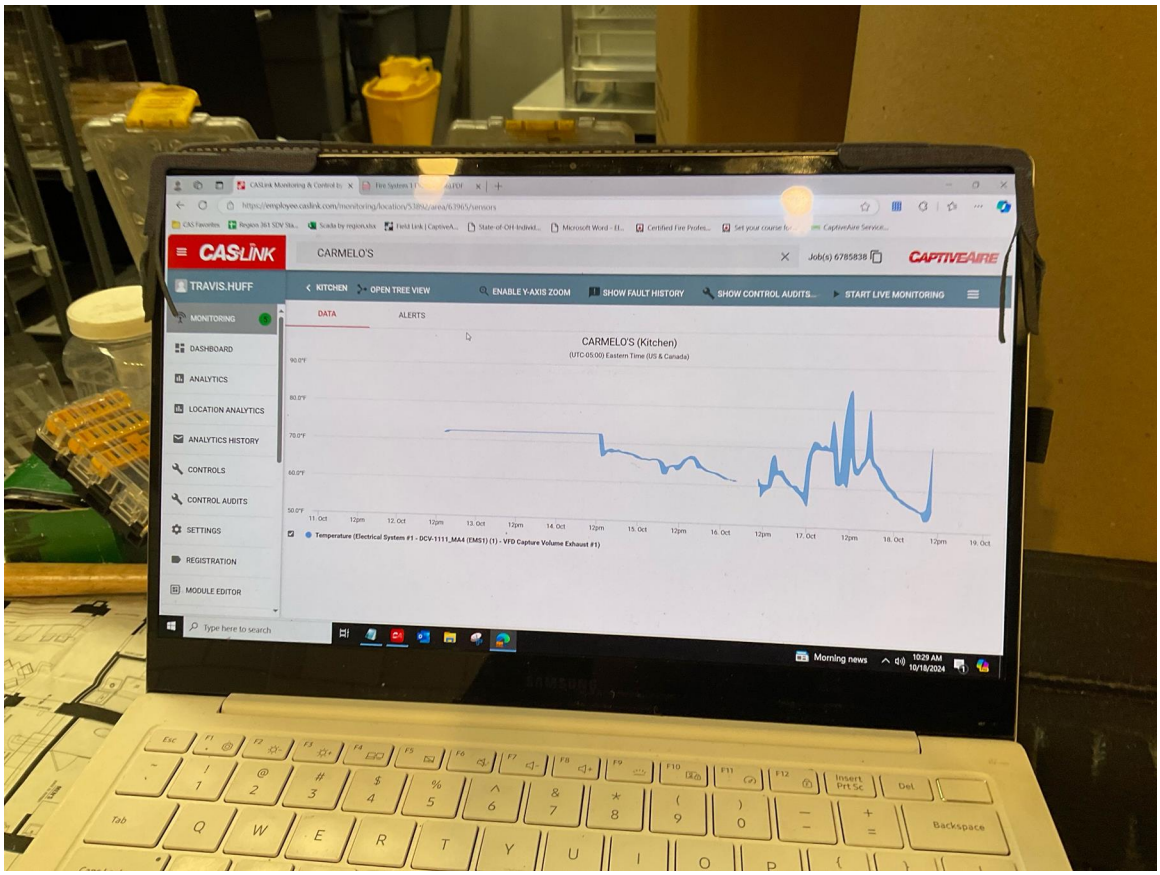
N/A



All devices connected to the SCADA are reporting live data?	Design:	**Yes**	Actual:	**Yes**

Other Notes:

N/A



Devices were assigned to an area and named appropriately?	Design:	**Yes**	Actual:	**Yes**

Sensors

T2

SENSOR TYPE	Design:	**Duct Stat**	Actual:	**Duct Stat**
SENSOR LOCATION	Design:	**H1CV1**	Actual:	**H1CV1**
FAN NUMBER	Design:	**1**	Actual:	**1**

T3

SENSOR TYPE	Design:	**Duct Stat**	Actual:	**Duct Stat**
SENSOR LOCATION	Design:	**H2CV1**	Actual:	**H2CV1**

FAN NUMBER	Design:	**1**	Actual:	**1**

T4

SENSOR TYPE	Design:	**Duct Stat**	Actual:	**Duct Stat**
SENSOR LOCATION	Design:	**H3CV1**	Actual:	**H3CV1**
FAN NUMBER	Design:	**1**	Actual:	**1**

T5

SENSOR TYPE	Design:	**PSP**	Actual:	**PSP**
SENSOR LOCATION	Design:	**Hood 3**	Actual:	**Hood 3**
FAN NUMBER	Design:	**0**	Actual:	**0**

VFDs

VFD 1

DESIGN CFM	Design:	**1000**	Actual:	**5967**
FAN DIRECTION	Design:	**Forward**	Actual:	**Forward**
TEMP SENSOR #s ASSIGNED	Design:	**T2, T3, T4**	Actual:	**T2, T3, T4**

DCV VFD

MODULATION RANGE	Design:	**45**	Actual:	**20**
OVERLOAD = P108	Design:	**91**	Actual:	**91**
MIN HZ	Design:	**48**	Actual:	**40**
MAX HZ	Design:	**60**	Actual:	**50**
ALL FAULTS CLEARED = P197	Design:	**Yes**	Actual:	**Yes**
P508			Actual:	**8.4**
LOAD IN SEPARATE CONDUIT.	Design:	**Yes**	Actual:	**Yes**

VFD 2

DESIGN CFM	Design:	**7000**	Actual:	**5163**

FAN DIRECTION	Design:	**Forward**	Actual:	**Forward**

DCV VFD

SUPPLY FAN # ASSIGNED	Design:	**2**	Actual:	**2**
OVERLOAD = P108	Design:	**87**	Actual:	**87**
MAX HZ	Design:	**53.1**	Actual:	**50.1**
ALL FAULTS CLEARED = P197	Design:	**Yes**	Actual:	**Yes**
P508			Actual:	**9.2**
LOAD IN SEPARATE CONDUIT.	Design:	**Yes**	Actual:	**Yes**

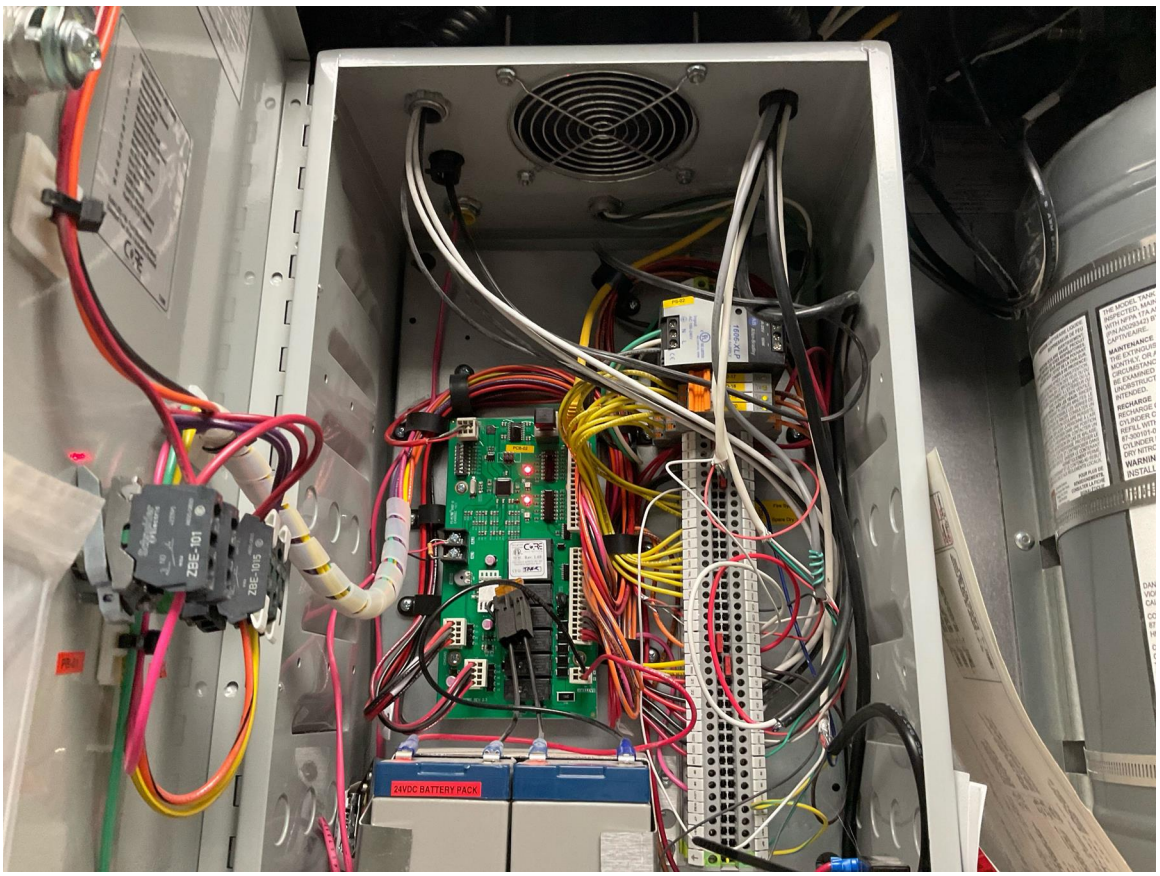
TANK

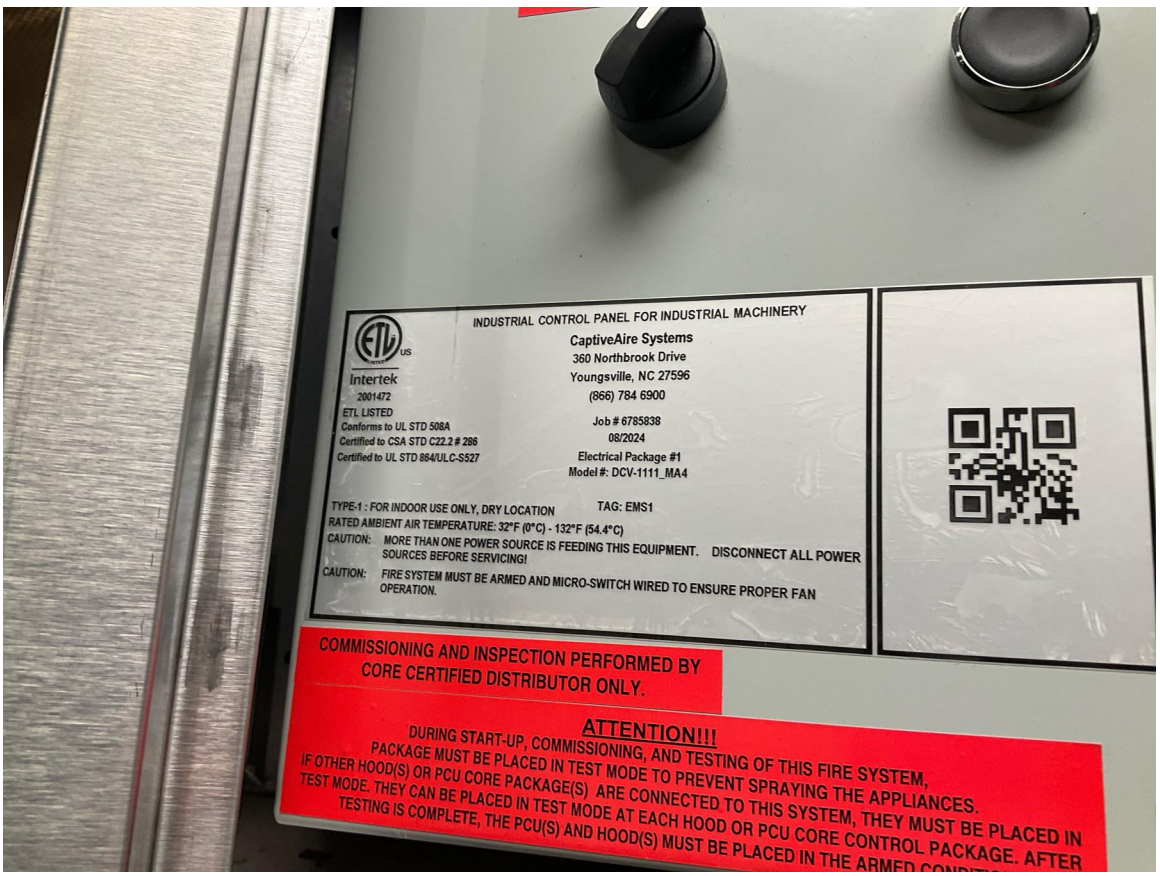
TANK ECP 1 (EMS1)

Location : Hood #1 6024ND-2-PSP-F: Utility Cabinet Wall Mounted

Other Notes:

N/A






FILTER OIL
OFF
OVEN


OFF
OVEN


HENNY PENNY
HENNY PENNY


CHANNEL

Building Alarm Tied In	Design:	**Yes**	Actual:	**Yes**
Trouble Relay Tied In	Design:	**Yes**	Actual:	**Yes**
TANK Board Version	Design:	**2.3**	Actual:	**2.3**

TANK Board Updated to latest Software Version			Actual:	**Yes**
TANK Board Software Version	Design:	**1.69**	Actual:	**1.69**
Internet Connection Type			Actual:	**Cellular**

TANK Fire Suppression 1 (FS1)

Location : Hood #3 - Utility Cabinet Right

Electrician

TANK Control Panel Wired	Design:	**Yes**	Actual:	**Yes**
UDS Appliance Kill Switch (if equipped) Wired		**N/A**		
Verify Power Supply is 27.5VDC			Actual:	**Yes**

Fire System Contractor w/CAS Supervision

Verify kitchen line up with drawings in NOLA?			Actual:	**Correct**
Are all overlapping nozzles within 35-50" of cooking surface?	Design:	**Yes**	Actual:	**Yes**
Nozzles Within 15" From Front/Back of Hazard Zone	Design:	**Yes**	Actual:	**Yes**
Verify overlapping nozzles are located at centerline of the 30" hazard zone (front to back) same height, aimed straight down?	Design:	**Yes**	Actual:	**Yes**
Is there a Salamander or Upright Broiler Present?			Actual:	**Yes**
Does Salamander or Upright Broiler (cooking surface exceed > 1050 sq/in)?	Design:	**No**	Actual:	**No**
Interior Nozzle Facing Back Opposite End of Appliance (For Upright Broiler/Salamander)	Design:	**Yes**	Actual:	**Yes**
Does the depth of any appliance cooking surface exceed the listed size in the Appliance Coverage Detail chart?	Design:	**No**	Actual:	**No**
All dedicated appliances, duct and plenum are utilizing TANK appliance nozzles (3070-3/8H-10-SS)?	Design:	**Yes**	Actual:	**Yes**
Is end plenum nozzle installed 0-6" into plenum (From end of hood/hazard to center of nozzle)?	Design:	**Yes**	Actual:	**Yes**

Are TANK appliance nozzles spaced no more than 12"(From end of Hazard zone to center of first nozzle and end of hazard zone to center of last nozzle)?	Design:	**Yes**	Actual:	**Yes**
Did the appliance lineup change from the original design?	Design:	**No**	Actual:	**No**
Did the fire system appliance drops change from the original design?	Design:	**No**	Actual:	**No**
Does Fire System cover a Wok?			Actual:	**No**
Does dedicated TANK appliance nozzle piping exceed maximum pipe length of 10 ft?	Design:	**No**	Actual:	**No**
Does plenum branch piping exceed maximum pipe length of 3ft?	Design:	**No**	Actual:	**No**
Does the Supply line piping to first overlapping nozzle exceed 42 ft?	Design:	**No**	Actual:	**No**
Is Back-shelf a minimum of 18" Vertically off Appliance	Design:	**Yes**	Actual:	**Yes**
Back-shelf Overhang less than 12"		**N/A**		

Other Notes:

Overhanging shelf not installed on equipment

No appliance drop has more than 2 nozzles?	Design:	**True**	Actual:	**True**

Is all piping except appliance drops 3/8" Blackiron, Chrome plated, Stainless Steel or 1/2" Copper?	Design:	**Yes**	Actual:	**Yes**
Is all appliance drop piping 3/8" polished stainless steel or polished chrome-plated black iron?			Actual:	**Yes**
Are there any fryers?			Actual:	**Yes**
How many fryers are there?			Actual:	**2**
Enter Width of Fryer 1 Hazard Zone:			Actual:	**12.5**
Enter Width of Fryer 2 Hazard Zone:			Actual:	**12.5**
Are there any Tilt Skillets?			Actual:	**No**

Is Manual Activation Device Wired into a Fire Loop (Must be 4 wire, in conduit)? Upload a picture of wiring connection of manual activation device.	Design:	**Yes**	Actual:	**Yes**

Other Notes:

N/A

MAD Installed 10'-20' from Hood at a Point of Egress and 42"-48" AFF	Design:	**Yes**	Actual:	**Yes**
Extra Fire Stat Added		**N/A**		
Fire stats are wired in a fire loop with 842 degree high temp wire when ran on top of hoods	Design:	**Yes**	Actual:	**Yes**
CAS Service Supervised, Assisted or Wired All Supervised Loop Connections			Actual:	**Only verified connections at MAD and terminals**
Total amount of FP's used	Design:	**89**	Actual:	**89**

CAS Service

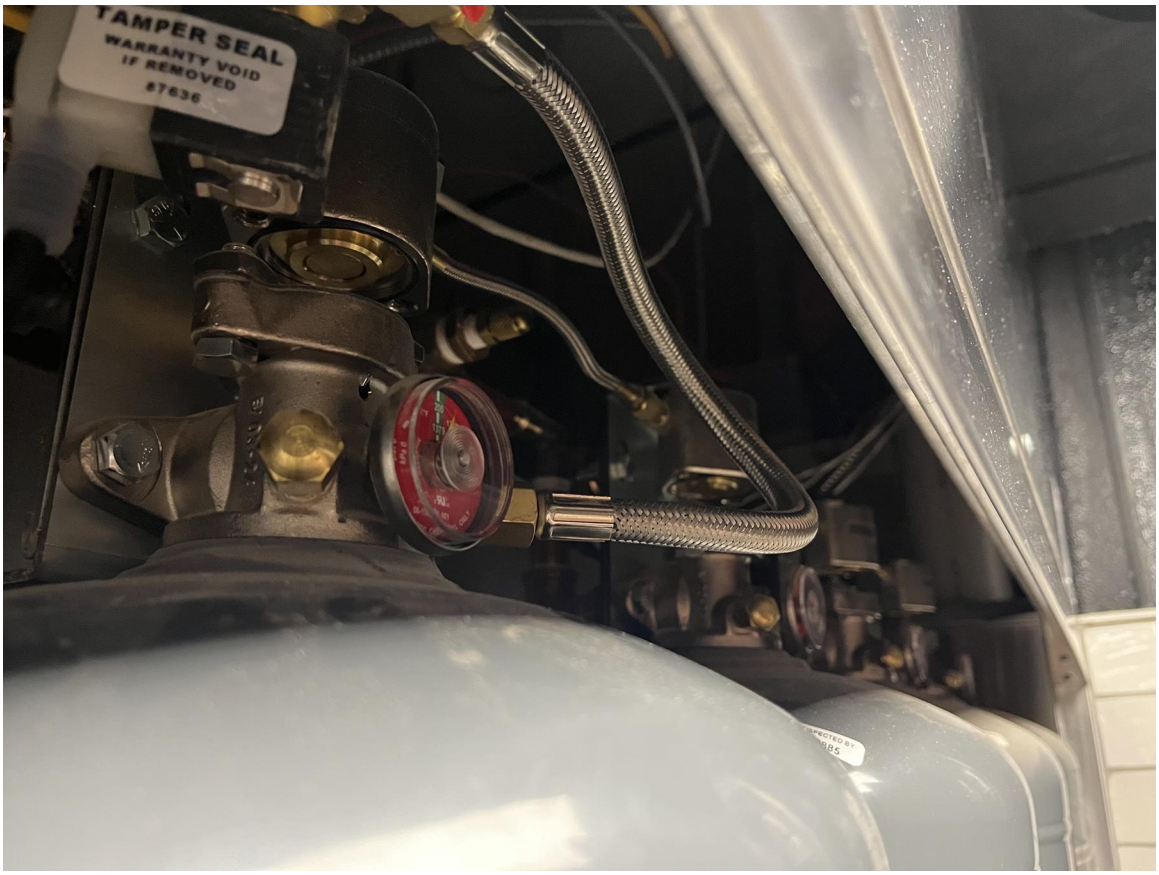
Verify the correct Fire Stat is installed?			Actual:	**360**
Have all shipping covers been removed from fire stats	Design:	**Yes**	Actual:	**Yes**

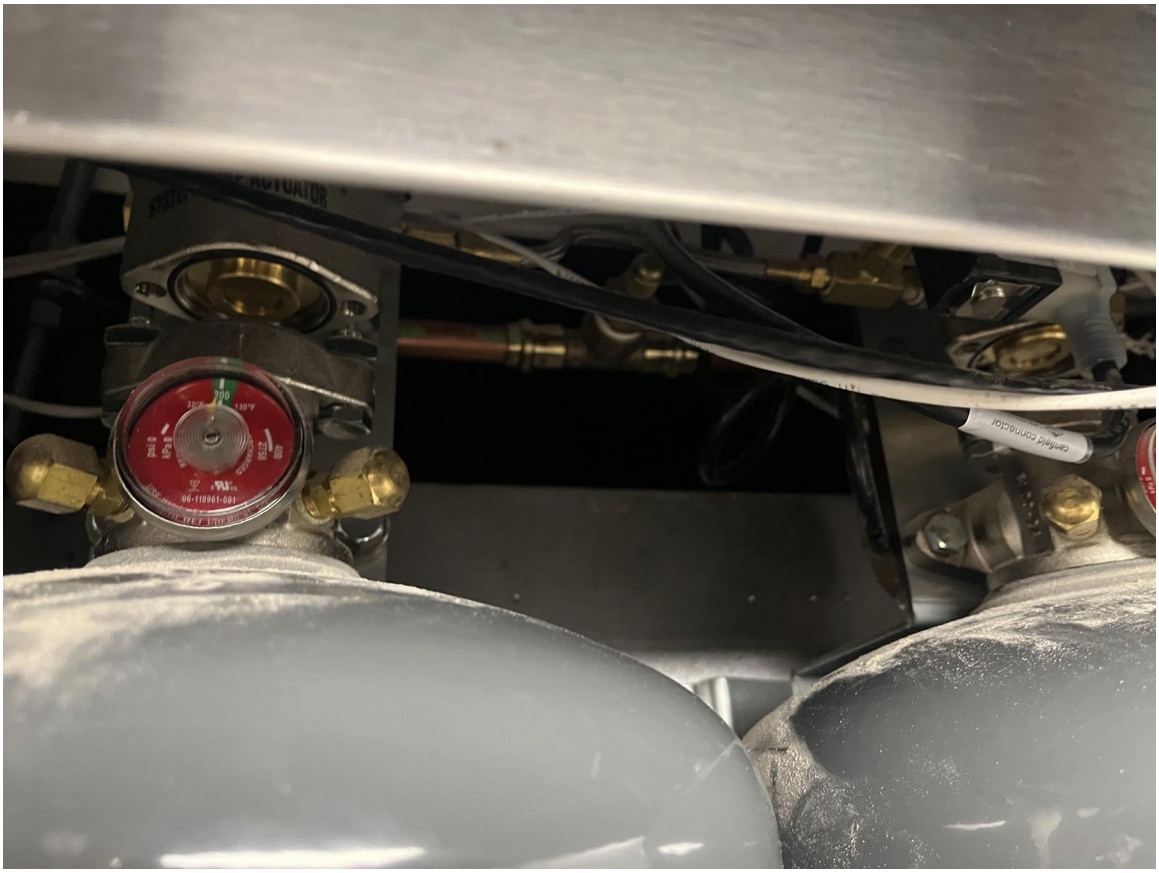
Testing of TANK system completed or being completed by:			Actual:	**CAS Service**
Test System. Ensure balloons are installed on all nozzles before activating system.			Actual:	**Ok**
Activate system by Manual Activation device. Did system activate and all balloons fill and/or hold pressure properly?	Design:	**Yes**	Actual:	**Yes**
Activate system by all Fire Stats. Did system activate and all balloons fill and/or hold pressure properly?	Design:	**Yes**	Actual:	**Yes**
System Activates on 120V power only	Design:	**Yes**	Actual:	**Yes**
Activate system on Battery Backup (Remove CORE board power and place system in Test Mode). Did system activate properly?	Design:	**Yes**	Actual:	**Yes**
Did the Audible Alarm Sound during each Test of the system?	Design:	**Yes**	Actual:	**Yes**
Battery Date Code (The actual date FST wrote on batteries with paint pen during SDV)			Actual:	**10/18/2024 3:47:00 PM**
Verify the correct amount of TANK appliance nozzles cover the cross-sectional Perimeter or Diameter of the Duct Riser? (If 0 - 75" perimeter equals 1 nozzles, 75 - 150" 2 nozzles, above 150" 3 nozzles)	Design:	**Yes**	Actual:	**Yes**

Is the system commissioned with the actuator bolted onto the TANK Fire Suppression system? Upload Picture.	Design:	**Yes**	Actual:	**No**

Other Notes:

N/A





Is pressure switch installed and functioning properly?	Design:	**Yes**	Actual:	**Yes**
CAUTION!: If pressure reads above 0.5 psi, immediately remove the primary actuator hose from the primary tank			Actual:	**Ok**
Is appliance specific protection piped with adequate protection? Upload picture.	Design:	**Yes**	Actual:	**Yes**

Other Notes:

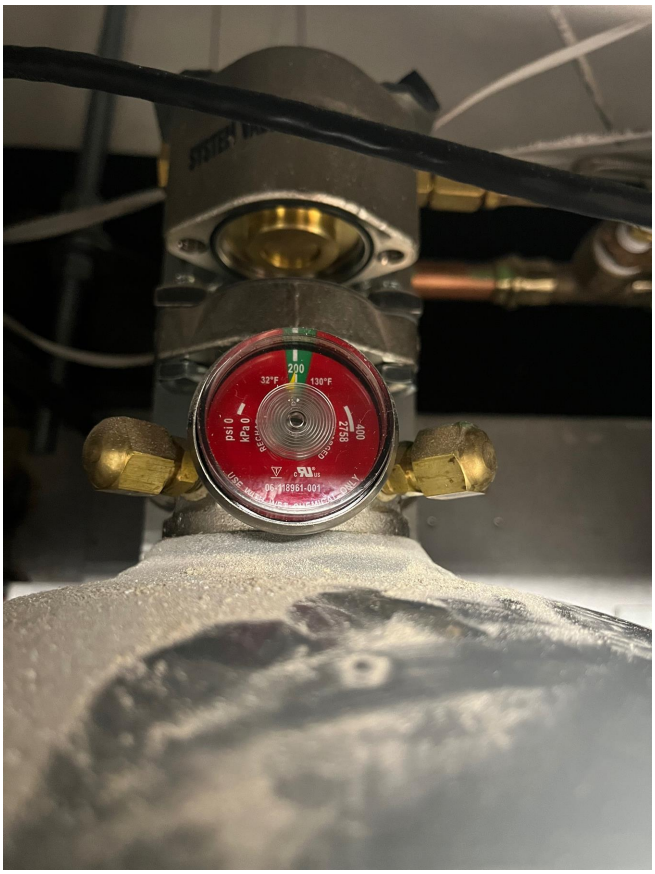
N/A

Use coil liquid leak detector around PAK and braided hose to check for leaks. Are there any leaks present?	Design:	**No**	Actual:	**No**

Do TANK bottles have 200 PSI with gauges functioning properly? Upload picture	Design:	**Yes**	Actual:	**Yes**

Other Notes:

N/A


200
32°F
130°F
psi 0
kPa 0
400
2758
06-118961-001
USE WITH WET CHEMICAL ONLY


200
32°F
130°F
psi 0
kPa 0
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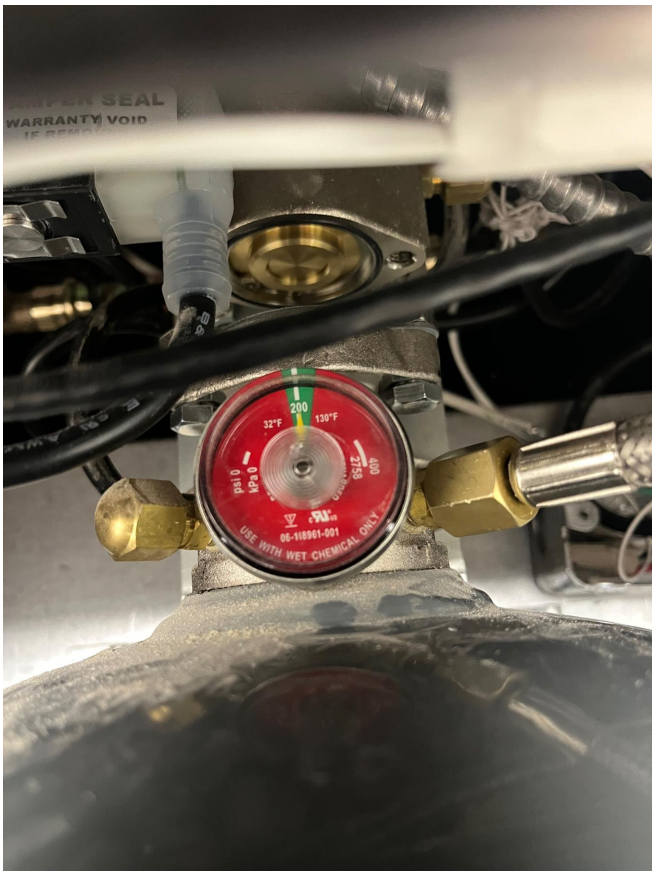

Do all nozzles have metal caps?	Design:	**Yes**	Actual:	**Yes**
Verify Nozzle Flow Points/Tank Capabilities. Does Nozzles FP exceed Tank Capacity?	Design:	**No**	Actual:	**No**

Take a photo of Fire System Tag			Actual:	**Ok**
Tanks installed securely with straps and mounting hardware?	Design:	**Yes**	Actual:	**Yes**
After inspection of system, lubricate and change O-ring of primary actuator hose (p/n 19020).	Design:	**Replaced**	Actual:	**Replaced**
All Faults Are Cleared	Design:	**Yes**	Actual:	**Yes**
Are DIP switches set correctly according to number of Fire Groups?	Design:	**Yes**	Actual:	**Yes**
Is TANK system located/mounted in a climate-controlled area?	Design:	**Yes**	Actual:	**Yes**

PCU Installations

NONE

PCU Installations

NONE

AQEs

NONE

UDS

NONE