Report By:

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

Report: TAB REPORT

Function: Test, Adjust, & Balance

Date: 03/03/2026

Completed By: National TAB

PROJECT

02-16-26 PENN STATION - UNION, KY

US HWY 42

UNION, KY 41091

Client

C&T DESIGN

4025 PORT UNION RD.

FAIRFIELD, OH 45014

National TAB

Project: 02-16-26 PENN STATION - UNION, KY

Table Of Contents

Project Summary

Project Summary
The summary below provides a quick understanding of our scope of work and general testing procedures. Enclosed in the report is further detail about your building performance including recommendations, asset data, and pictures. Our focus is to work with the trades to remedy any issues or deficiencies during the actual field balancing and not after the balancing has occurred to achieve a positive environment and outcome. The level of success is determined by the availability of the trades, possible parts needed, or time constraints.

RTU's (Roof Top Units) w/ Diffusers
Each of the RTU's were measured at their terminal devices or via traverse to establish a total flow for that unit. Each RTU was adjusted to within tolerance of the engineer's design flow. Each outlet was then adjusted to within tolerance of the design flow. Outside air was measured by reading the intake air opening with a velocity grid and multiplying by the free area. The outside air damper was adjusted until the airflow was within the design requirements. Any equipment that fell outside of that tolerance is noted throughout the report.

Kitchen Exhaust Hood & Associated Fans
Each kitchen exhaust fan was measured at the hood filter bay utilizing a velocity matrix and a manufacturer's correction factor. Each filter velocity is multiplied by the manufacturer's corrected area. The sum of these readings equals the total flow of the exhaust fans. The total flow of the exhaust was then adjusted to within tolerance of the design flow. . Any EF's that fell outside of this tolerance is noted throughout the report.

MUA (Make Up Air Unit) w/ PSP
Total flow for the MAU (Make-up Air Unit) unit was measured by readings taken at the discharge of the hood's perforated supply plenum. Readings taken with a velocity matrix were averaged and multiplied by a manufacturer's corrected area. Adjustments to the fan speed were made in order to bring the unit to within design tolerance. Any MUA's that fell outside of this tolerance is noted throughout the report.

General Exhaust Fans w/ Grilles
The general exhaust fans were measured by reading each air device with a flow hood. The total airflow for each fan is equivalent to the sum of these readings. Fan speed was then adjusted so that the airflow was within tolerance of design. Each terminal device was balanced to within tolerance of the design volume using the installed volume dampers. Any equipment that fell outside of this tolerance is noted throughout the report.

Final Building Tests
After completing the test and balance the final building pressure was measured. It was confirmed that the building pressure fell within acceptable tolerances of -0.02" wc to +0.02" wc and that the pressure measurement coincides with the actual and design net airflow. Any deviations from these standards are noted throughout the report. The hood capture was tested at the perimeter of the hood and the cook top level with the equipment heat on to ensure satisfactory hood capture and containment.

NATIONAL TAB

AIR BALANCE SCHEDULE

UNIT	AREA SERVED	HVAC SUPPLY		HVAC RETURN		HVAC OUTDOOR		OA %		HOOD MAKE-UP		HOOD EXHAUST		GENERAL EXH.	
		DESIGN	ACTUAL	DESIGN	ACTUAL	DESIGN	ACTUAL	DESIGN	ACTUAL	DESIGN	ACTUAL	DESIGN	ACTUAL	DESIGN	ACTUAL
RTU-1	KITCHEN/DININ	7875	7611	6930	6704	945	907	12.0%	11.9%						
MUA-1	HOODS									1320	1383				
KEF-1	GRILL											1150	1082		
KEF-2	FRYER											850	786		
EF-1	RESTROOMS													150	137
TOTALS		7875	7611	6930	6704	945	907			1320	1383	2000	1868	150	137

NET BUILDING AIRFLOW CALCULATION

TOTALS	DESIGN	ACTUAL
TOTAL OA	2265	2290
TOTAL EXHAUST	2150	2005
NET AIRFLOW	115	285

DOOR TESTED	BUILDING PRESSURE MEASUREMENTS (IN. H20)
FRONT	0.009
SIDE	N/A
REAR	N/A
AVERAGE	**0.009**

FINAL CHECKS

ACTUAL NET AIRFLOW COINCIDES WITH DESIGN: ✓

MEASURED PRESSURES COINCIDES WITH ACTUAL NET AIRFLOW: ✓

PRESSURE FALLS WITHIN IMC TOLERANCE OF +/-0.02" W.C. ✓

NOTES:

National TAB

Project: 02-16-26 PENN STATION - UNION, KY

System/Unit: AHU/RTU

Asset: RTU-1 AREA:KITCHEN/DINING

Unit Data		
	Design	**Actual**
MFG	CARRIER	CARRIER
Serial Num	-	1325P03771
Model Num	48FEEM16A2A5	48FEEM16A2A5
Type	RTU	RTU
Configuration	VERTICAL	VERTICAL
Num OA Filters 1	-	8
OA Filter Size 1	-	2-24"x26"X1", 6-18"X24"X2"

Motor Data		
	Design	**Actual**
Motor MFG	-	BROAD-OCEAN
Horsepower	-	1/16
Motor Rpm	-	3450
Phase	3	1
Rated Voltage	208	208
Rated Amperage	-	0.45

Test Data		
	Design	**Actual**
SF CFM	7875	7611
SF RPM	-	INACCESSIBLE
RA CFM	6930	6704
OA CFM	945	907
RL Voltage	-	211/213/214
RL Amperage	-	8.9/8.8/8.9
SF Rotation	-	CLOCKWISE
SF System SetPt	-	9.7 VDC
Min OA Damper Position	-	10%

Performance Data		
	Design	**Actual**
MA Plenum SP	-	-0.85"
Fan Suction SP	-	-1.48"
Fan Discharge SP	-	0.35"
Total ESP	-	1.2"
Fan Total SP	-	1.83"

General	
	Actual
Fan Rotation Correct	Yes
Unit Filters Clean	YES
Condensate Drain Installed	YES

Completed By: MATT WADE on 02/23/2026

National TAB

Project:02-16-26 PENN STATION - UNION, KY

AHU/RTU

Diffuser Supply (GRD)

RTU-1/KITCHEN/DINING

Asset									
Asset Name	**Location**	**Type**	**Size**	**DESIGN CFM**	**AK**	**CFM(1)**	**CFM(2)**	**FINAL CFM**	**% to design**
SGRD1	ELECTRICAL PANEL		8"	200	1	170	184	184	92.0
SGRD2	HALL		8"	200	1	196	207	207	103.5
SGRD3	HALL		8"	250	1	174	226	226	90.4
SGRD4	HOOD 2	ACPSP	36X14	325	0.78	477	342	342	105.2
SGRD5	KITCHEN		8"	150	1	144	148	148	98.7
SGRD6	HOOD 1	ACPSP	72X14	550	0.78	604	585	585	106.4
SGRD7	KITCHEN		10"	200	0.55	115	206	206	103.0
SGRD8	KITCHEN		10"	200	0.55	131	211	211	105.5
SGRD9	KITCHEN		10"	200	0.55	125	201	201	100.5
SGRD10	RR HALL		12"	500	1	450	499	499	99.8
SGRD11	RR HALL		12"	500	1	567	506	506	101.2
SGRD12	MEN'S RR		6"	50	1	128	55	55	110.0
SGRD13	WOMEN'S RR		6"	50	1	134	54	54	108.0
SGRD14	DINING		12"	600	1	457	561	561	93.5
SGRD15	DINING		12"	600	1	530	590	590	98.3
SGRD16	DINING		12"	600	1	368	542	542	90.3
SGRD17	DINING		12"	650	1	422	602	602	92.6
SGRD18	DINING		12"	650	1	457	610	610	93.8
SGRD19	DINING		12"	700	1	526	638	638	91.1
SGRD20	DINING		12"	700	1	471	644	644	92.0
Total				7875		6646	7611	7611	96.65%

National TAB

Project: 02-16-26 PENN STATION - UNION, KY

System/Unit: FAN - Exhaust

Asset: EF-1 AREA:RESTROOM

Unit Data		
	Design	**Actual**
MFG	NA	CAPTIVE AIRE
Model Num	NA	DU200HFA
Serial Num	-	JOB # 8225907
Type	DOWNBLAT	DOWNBLAT
Configuration	VERTICAL	VERTICAL

Motor Data		
	Design	**Actual**
Motor MFG	-	TECO WESTINGHOUSE
Frame	-	184T
Horsepower	-	5
Motor Rpm	-	1750
Phase	-	3
Voltage (rated)	-	230
Amperage (rated)	-	13.6
Service Factor	-	1.15

Test Data		
	Design	**Actual**
CFM	150	137
Fan RPM	-	INACCESSIBLE
Fan Rotation	-	COUNTERCLOCKWISE
Motor RPM	-	INACCESSIBLE
RL Voltage	-	INACCESSIBLE
RL Amperage	-	INACCESSIBLE
Total ESP	-	-0.4”
Fan Inlet SP	-	-0 .4”
Fan Discharge SP	-	ATMOSPHERE

Completed By: MATT WADE on 02/23/2026

National TAB

Project:02-16-26 PENN STATION - UNION, KY

FAN - Exhaust

Diffuser Ret/Exh (GRD)

EF-1/RESTROOM

Asset									
Asset Name	**Location**	**Type**	**Size**	**DESIGN CFM**	**AK**	**CFM(1)**	**CFM(2)**	**FINAL CFM**	**% to design**
EGRD1	MEN'S RR		4"	75	1	57	68	68	90.7
EGRD2	WOMEN'S RR		4"	75	1	56	69	69	92.0
Total				150		113	137	137	91.33%

National TAB

Project: 02-16-26 PENN STATION - UNION, KY

System/Unit: FAN - Exhaust

Asset: KEF-1 AREA:GRILL

Unit Data		
	Design	**Actual**
MFG	ECON-AIR	ECON-AIR
Model Num	EADU85H	EADU85H
Serial Num	-	JOB # 8225907
Type	UPBLAST	UPBLAST
Configuration	VERTICAL	VERTICAL

Motor Data		
	Design	**Actual**
Motor MFG	-	TELCO GREEN
Horsepower	0.75	3/4
Motor Rpm	-	1800
Phase	1	N/A
Voltage (rated)	115	115
Amperage (rated)	-	7.6

Test Data		
	Design	**Actual**
CFM	1150	1082
Fan RPM	-	INACCESSIBLE
Fan Rotation	-	COUNTERCLOCKWISE
Motor RPM	-	INACCESSIBLE
System SetPt	-	50% ECM
RL Voltage	-	INACCESSIBLE
RL Amperage	-	INACCESSIBLE
Total ESP	1.25"	-0.39”
Fan Inlet SP	-	-0.39”
Fan Discharge SP	-	ATMOSPHERE

Completed By: MATT WADE on 02/23/2026

National TAB

Project: 02-16-26 PENN STATION - UNION, KY

System/Unit: FAN - Exhaust

Asset: KEF-2 AREA:FRYER

Unit Data		
	Design	**Actual**
MFG	ECON-AIR	ECON-AIR
Model Num	EADU85H	EADU85H
Serial Num	-	JOB # 8225907
Type	UPBLAST	UPBLAST
Configuration	VERTICAL	VERTICAL

Motor Data		
	Design	**Actual**
Motor MFG	-	TELCO GREEN
Horsepower	0.75	3/4
Motor Rpm	-	1800
Phase	1	1
Voltage (rated)	115	115
Amperage (rated)	-	7.6

Test Data		
	Design	**Actual**
CFM	850	786
Fan RPM	-	INACCESSIBLE
Fan Rotation	-	COUNTERCLOCKWISE
Motor RPM	-	INACCESSIBLE
System SetPt	-	50% ECM
RL Voltage	-	INACCESSIBLE
RL Amperage	-	INACCESSIBLE
Total ESP	1.25"	-0.51”
Fan Inlet SP	-	-0.51”
Fan Discharge SP	-	ATMOSPHERE

Completed By: MATT WADE on 02/23/2026

National TAB

Project: 02-16-26 PENN STATION - UNION, KY

System/Unit: FAN - Supply

Asset: MAU-1 AREA:KITCHEN HD 1 & 2

Unit Data		
	Design	**Actual**
MFG	CAPTIVEAIRE	CAPTIVEAIRE
Model Num	EA1-D.250-15D	EA1-D.250-15D
Serial Num	-	JOB # 8225907
Type	MAU	MAU
Configuration	VERTICAL	VERTICAL

Motor Data		
	Design	**Actual**
Motor MFG	-	TECO WESTINGHOUSE
Frame	-	143T
Horsepower	1.00	1.00
Motor Rpm	-	1740
Phase	3	3
Voltage (rated)	230	230
Amperage (rated)	-	2.90
Service Factor	-	1.15

Gas Heat		
	Design	**Actual**
Heater Operates (y/n)	-	Y
Flame Status (pass/fail)	-	PASS
Inlet Air Temp SetPt	55	55
Discharge Air Temp SetPt	60	60

Test Data		
	Design	**Actual**
CFM	1320	1383
SF RPM	-	INACCESSIBLE
Motor RPM	-	INACCESSIBLE
SF System SetPt	-	47.8 HZ
RL Voltage	-	213/214/214
RL Amperage	-	2.1/2.2/2.1
Total ESP	-	0.43"
Fan Discharge SP	-	0.43"

General	
	Actual
Fan Rotation Correct	YES

Completed By: MATT WADE on 02/23/2026

National TAB

Project: 02-16-26 PENN STATION - UNION, KY

System/Unit: Kitchen Hood Type I

Asset: HD-1 AREA:GRILL

Unit Data		
	Design	**Actual**
MFG	CAPTIVEAIRE	CAPTIVEAIRE
Model Num	3650 ELPX-2	3650 ELPX-2
Job / Serial Num	-	JOB # 8225907
Type	TYPE I CANOPY	TYPE I CANOPY
Hood length	72"	72”
Hood Width	36"	36”
Supply Plenum Type	-	ACPSP
Supply Plenum Width	14"	14”
Supply Plenum Length	72"	72”

Test Data Exhaust		
	Design	**Actual**
Filter Type	CAPTRATE SOLO FILTER	CAPTRATE SOLO FILTER
Filter Size 1	16X16	16"X16"
Filter Qty 1	4	4
Filter AK factor size 1	1.62	1.62
Filter Total AK Area	6.48	6.48
Filter1 FPM	-	154
Filter2 FPM	-	175
Filter3 FPM	-	181
Filter4 FPM	-	160
Filter Ave FPM(corr)	-	167
CFM	1150	1082

Cooking Equipment	
	Actual
Item 1	GRILL

Test Data Supply		
	Design	**Actual**
Total Area	7	6
Kv factor (Vel)	0.89	0.89
Num of Readings	-	6
Reading1 FPM	-	195
Reading2 FPM	-	146
Reading3 FPM	-	163
Reading4 FPM	-	136
Reading5 FPM	-	146
Reading6 FPM	-	146
Ave FPM(corr)	-	155
CFM	775	828

Completed By: MATT WADE on 02/23/2026

National TAB

Project: 02-16-26 PENN STATION - UNION, KY

System/Unit: Kitchen Hood Type I

Asset: HD-2 AREA:FRYER

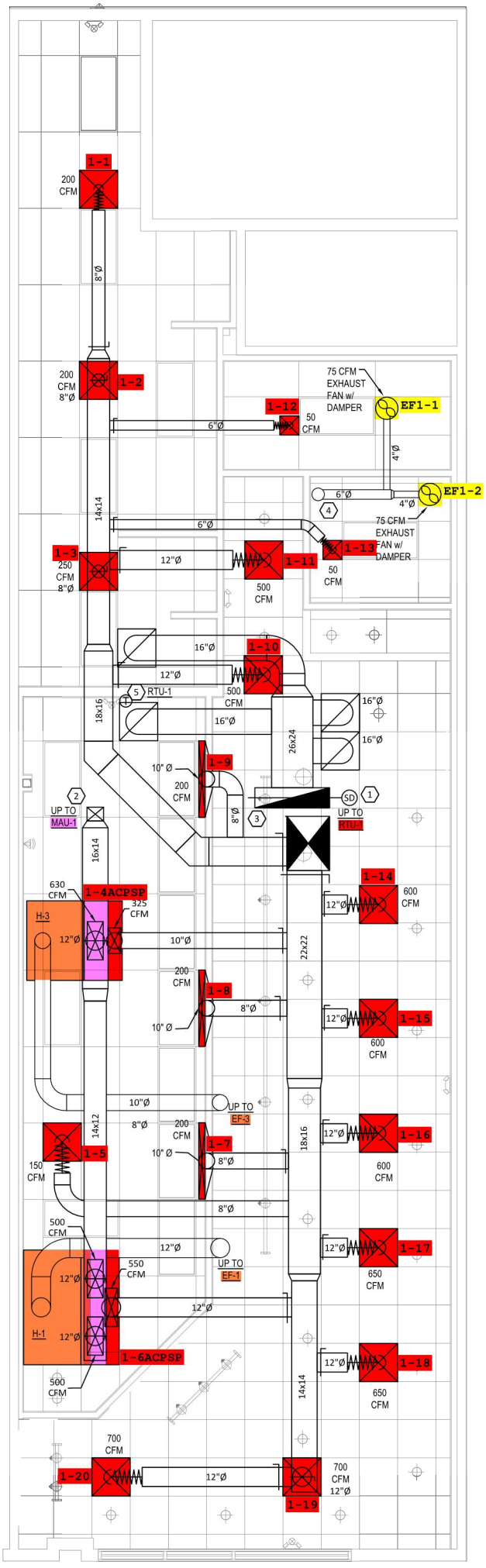
Unit Data		
	Design	**Actual**
MFG	CAPTIVEAIRE	CAPTIVEAIRE
Model Num	3650 ELPX-2	3650 ELPX-2
Job / Serial Num	-	JOB # 8225907
Type	TYPE 1 CANOPY	TYPE 1 CANOPY
Hood length	50"	50”
Hood Width	36"	36”
Supply Plenum Type	-	ACPSP
Supply Plenum Width	14"	14”
Supply Plenum Length	36"	50”

Test Data Exhaust		
	Design	**Actual**
Filter Type	CAPTRATE SOLO FILTER	CAPTRATE SOLO FILTER
Filter Size 1	16X16	16”x16”
Filter Qty 1	3	3
Filter AK factor size 1	1.62	1.62
Filter Total AK Area	4.86	4.68
Filter1 FPM	-	160
Filter2 FPM	-	173
Filter3 FPM	-	171
Filter Ave FPM(corr)	-	168
CFM	850	786

Cooking Equipment	
	Actual
Item 1	FRYER

Test Data Supply		
	Design	**Actual**
Total Area	3.5	4
Kv factor (Vel)	0.89	0.89
Num of Readings	-	4
Reading1 FPM	-	172
Reading2 FPM	-	163
Reading3 FPM	-	143
Reading4 FPM	-	148
Ave FPM(corr)	-	156
CFM	545	555

Completed By: MATT WADE on 02/23/2026



Date: 3/3/2026

MECHANICAL - FLOOR PLAN

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

1
M1.0

SDV Job #: 8409244 - Penn Station V3B-6L (Union, KY)

Service Region:	334 - Louisville, KY Service		
Service Person:	Tom Stone		
Customer Number:	1136898	**Customer Name:**	Region 120 - AIR SOLUTIONS
Address:	PENN STATION U.S. Highway 42 UNION, KY 41091		
Region Job #:	8225907		
Region Job Name:	Penn Station V3B-6L (Union, KY)		
Sales Region:	120 - Air Solutions		
Sales Person:	Joe Hertenstein		
Created By:	Tom Stone	**Creation Date:**	2/26/2026 10:56 AM
Last Modified By:	Justin Fairchild	**Last Modified Date:**	2/27/2026 11:43 AM
Dining Room Pressure:	0	**Kitchen Pressure:**	0
Hours On Job:	0	**Extra Hours:**	0
Completed:	Yes	**Completed By:**	Justin Fairchild
Completion Date:	2/27/2026 11:43 AM		

Job Site Meeting

NONE

Hood Group 1

Exhaust CFM: Design = 1150 Initial = 1094 Final = 1244 (108.2% of design)

Hood 1 (HD1-Grill) (HD1-Grill)

Model: 3650ELPX-2 **Length:** 6' 0"

Exhaust CFM: Design = 1150 Initial = 1094 Final = 1244 (108.2% of design)

Installation

Other Notes:

N/A

Hung Using appropriate material to safely secure hood.	Design:	**Yes**	Actual:	**Yes**

Other Notes:

Contractors did a good job.

COOKING EQUIPMENT ON AND OPERATING	Design:	**Yes**	Actual:	**No**
COOKING EQUIPMENT INSTALLED AS CLOSE TO BACK WALL AS POSSIBLE	Design:	**Yes**	Actual:	**Yes**
END PANELS INSTALLED CORRECTLY	Design:	**Yes**	Actual:	**Yes**
Smoke Test Performed on all Hoods? Upload Video	Design:	**Yes**	Actual:	**Yes**

Other Notes:

N/A

See attachment(s): [20260226115344638.mp4]

Measure the Front lower edge of the Hood to the Floor. (AFF)	Design:	**72**	Actual:	**72**
Are there combustibles within 18" of the Hood?	Design:	**No**	Actual:	**No**

Filters

Type: Captrate Solo

Filter 1	Size: 16x16	Initial Velocity: 150 fpm	Final Velocity: 179 fpm
Initial CFM: 271	Final CFM: 324	Fan: #1 - EADU85H (KEF1-GDL)	
Filter 2	Size: 16x16	Initial Velocity: 150 fpm	Final Velocity: 169 fpm
Initial CFM: 271	Final CFM: 306	Fan: #1 - EADU85H (KEF1-GDL)	
Filter 3	Size: 16x16	Initial Velocity: 151 fpm	Final Velocity: 169 fpm
Initial CFM: 273	Final CFM: 306	Fan: #1 - EADU85H (KEF1-GDL)	
Filter 4	Size: 16x16	Initial Velocity: 154 fpm	Final Velocity: 170 fpm
Initial CFM: 279	Final CFM: 308	Fan: #1 - EADU85H (KEF1-GDL)	

Hood Group 2

Exhaust CFM:	Design = 0	Initial = 0	Final = 0	(0% of design)
Supply CFM:	Design = 775	Initial = 920	Final = 918	(118.5% of design)

Hood 2 (HD1-PSP) (HD1-PSP)

Model: 246Misc ACPSP-ONLY **Length:** 6' 0"

Exhaust CFM: Design = 0 Initial = 0 Final = 0 (0% of design)

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**
Are there combustibles within 18" of the Hood?	Design:	**No**	Actual:	**No**

Supply

Supply CFM: Design = 775 Initial = 920 Actual = 918
(118.5% of design) Fan: #3 - EA1-D.250-15D (HMUA1)

AC CFM: Design = 0 Initial = 0 Actual = 0
(0% of design)

PSP 1

Orientation: Front **Length:** 6' 0" **Width:** 14"

Banks: 1 **Blanks:** 1

CFM: (0% of design)	Design = 775	Initial = 920	Final = 918
Velocity: (0% of design)	Design = 130	Initial = 0	Final = 0
AC CFM: (0% of design)	Design = 465	Initial = 0	Final = 0
AC Velocity: (0% of design)	Design = 0	Initial = 0	Final = 0

Readings:

1: Initial: 169 fpm, Final: 172 fpm 2: Initial: 156 fpm, Final: 152 fpm

3: Initial: 145 fpm, Final: 152 fpm 4: Initial: 102 fpm, Final: 108 fpm

5: Initial: 149 fpm, Final: 148 fpm 6: Initial: 158 fpm, Final: 145 fpm

AC Readings:

1: Initial: 149 fpm, Final: 149 fpm 2: Initial: 107 fpm, Final: 107 fpm
3: Initial: 52 fpm, Final: 52 fpm 4: Initial: 101 fpm, Final: 101 fpm
5: Initial: 52 fpm, Final: 52 fpm 6: Initial: 129 fpm, Final: 129 fpm

Hood Group 4

Exhaust CFM: Design = 850 Initial = 744 Final = 890 (104.7% of design)

Hood 3 (HD2-Fry) (HD2-Fry)

Model: 3650ELPX-2 **Length:** 4' 2"

Exhaust CFM: Design = 850 Initial = 744 Final = 890
(104.7% of design)

Other Notes:

N/A

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:	**Yes**
Smoke Test Performed on all Hoods? Upload Video	Design:	**Yes**	Actual:	**Yes**

Other Notes:

N/A

See attachment(s): [202602261153811356.mp4]

Measure the Front lower edge of the Hood to the Floor. (AFF)	Design:	**72**	Actual:	**72**
Are there combustibles within 18" of the Hood?	Design:	**No**	Actual:	**No**

Filters

Type: Captrate Solo

Filter 1 Size: 16x16 Initial Velocity: 138 fpm Final Velocity: 171 fpm
Initial CFM: 250 Final CFM: 309 Fan: #2 - EADU85H (KEF2-FRY)

Filter 2 Size: 16x16 Initial Velocity: 148 fpm Final Velocity: 164 fpm
Initial CFM: 268 Final CFM: 297 Fan: #2 - EADU85H (KEF2-FRY)

Filter 3 Size: 16x16 Initial Velocity: 125 fpm Final Velocity: 157 fpm
Initial CFM: 226 Final CFM: 284 Fan: #2 - EADU85H (KEF2-FRY)

Hood Group 5

Exhaust CFM:	Design = 0	Initial = 0	Final = 0	(0% of design)
Supply CFM:	Design = 545	Initial = 549	Final = 537	(98.5% of design)
Supply AC CFM:	Design = 0	Initial = 192	Final = 192	(0% of design)

Hood 4 (HD2-PSP) (HD2-PSP)

Model: 246Misc ACPSP-ONLY **Length:** 4' 2"
Exhaust CFM: Design = 0 Initial = 0 Final = 0 (0% of design)

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**
Are there combustibles within 18" of the Hood?	Design:	**No**	Actual:	**No**

Supply

Supply CFM: (98.5% of design)	Design = 545	Initial = 549	Actual = 537
	Fan: #3 - EA1-D.250-15D (HMUA1)		
AC CFM: (0% of design)	Design = 0	Initial = 192	Actual = 192

PSP 1

Orientation: Front **Length:** 4' 2" **Width:** 14"

Banks: 1 **Blanks:** 1

CFM: (0% of design)	Design = 545	Initial = 549	Final = 537
Velocity: (0% of design)	Design = 135	Initial = 0	Final = 0
AC CFM: (0% of design)	Design = 250	Initial = 192	Final = 192
AC Velocity: (0% of design)	Design = 0	Initial = 0	Final = 0

Readings:

1: Initial: 138 fpm, Final: 139 fpm
2: Initial: 159 fpm, Final: 148 fpm
3: Initial: 116 fpm, Final: 114 fpm
4: Initial: 110 fpm, Final: 113 fpm
5: Initial: 131 fpm, Final: 123 fpm
6: Initial: 121 fpm, Final: 122 fpm

AC Readings:

1: Initial: 114 fpm, Final: 114 fpm
2: Initial: 142 fpm, Final: 142 fpm
3: Initial: 126 fpm, Final: 126 fpm
4: Initial: 54 fpm, Final: 54 fpm
5: Initial: 137 fpm, Final: 137 fpm
6: Initial: 109 fpm, Final: 109 fpm

Fans

Fan 1 - EADU85H (KEF1-GDL) (KEF1-GDL)

Model: EADU85H

Exhaust

Exhaust CFM: Design = 1150 Actual = 1244 (108% of design)

Record the ECM Speed			Actual:	**60**
VOLTS	Design:	**115**	Actual:	**120**
Do all legs measure the same phase to phase and phase to ground voltage? If not, include notes with all phase to phase and phase to ground voltages.	Design:	**Yes**	Actual:	**Yes**
HP	Design:	**0.75**	Actual:	**0.75**
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:	**8.9**	Actual:	**3.34**
OVERLOAD SET POINT	Design:	**8.9**	Actual:	**8.9**
PHASE	Design:	**1**	Actual:	**1**
Unit within five miles from the coast?			Actual:	**No**
INSPECT ALL EXTERIOR SIDES OF UNIT. ANY VISIBLE DAMAGE	Design:	**No**	Actual:	**No**

Installation Notes:

Punch Item: Electrician
Electrician did not land wires correctly on disconnect switch. This may cause issues with voltage drops in the future.

Other Notes:

N/A

SPEED CONTROL VOLTAGE	Design:	**65**	Actual:	**N/A**

RPM - DESIGN	Design:	**1254**	Actual:	**1080**
RPM - MAX	Design:	**1900**	Actual:	**N/A**
RPM - MAX RECOMMENDED	Design:	**1600**	Actual:	**N/A**

Fan 2 - EADU85H (KEF2-FRY) (KEF2-FRY)

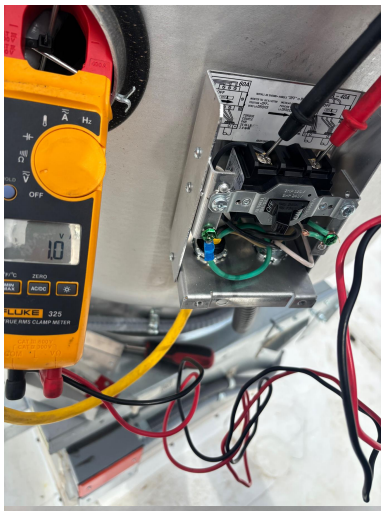
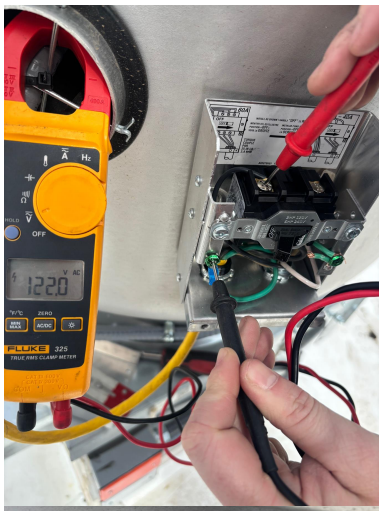
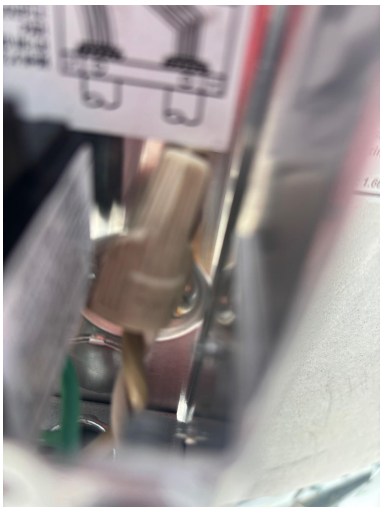
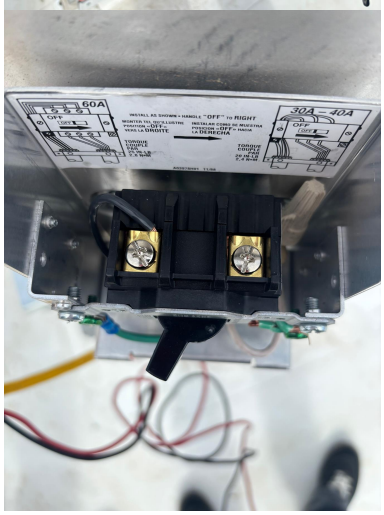
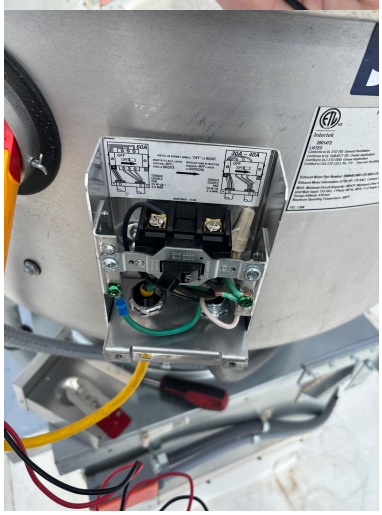
Model: EADU85H

Exhaust

Exhaust CFM: Design = 850 Actual = 890 (105% of design)

Other Notes:

Electrician did not land wires properly on disconnect switch. This may cause issues later on.

Record the ECM Speed			Actual:	**57**
VOLTS	Design:	**115**	Actual:	**123**
Do all legs measure the same phase to phase and phase to ground voltage? If not, include notes with all phase to phase and phase to ground voltages.	Design:	**Yes**	Actual:	**Yes**

HP	Design:	**0.75**	Actual:	**0.75**
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:	**8.9**	Actual:	**3.36**
OVERLOAD SET POINT	Design:	**8.9**	Actual:	**8.9**
PHASE	Design:	**1**	Actual:	**1**
Unit within five miles from the coast?			Actual:	**No**
INSPECT ALL EXTERIOR SIDES OF UNIT. ANY VISIBLE DAMAGE	Design:	**No**	Actual:	**No**

Other Notes:

N/A

SPEED CONTROL VOLTAGE	Design:	**65**	Actual:	**N/A**
RPM - DESIGN	Design:	**1189**	Actual:	**1026**
RPM - MAX	Design:	**1900**	Actual:	**N/A**
RPM - MAX RECOMMENDED	Design:	**1600**	Actual:	**N/A**

Fan 3 - EA1-D.250-15D (HMUA1) (HMUA1)

Model: EA1-D.250-15D

Supply

Supply CFM: Design = 1320 Actual = 1455 (110% of design)

VOLTS	Design:	**230**	Actual:	**213**

Is the main transformer (TR-01) tapped for the correct voltage?			Actual:	**Yes**
HP	Design:	**1**	Actual:	**1**
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:	**2.8**	Actual:	**2**
OVERLOAD SET POINT	Design:	**2.8**	Actual:	**2.8**
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**

Other Notes:

N/A

Record the VFD HZ	Design:	**53.8 Hz**	Actual:	**45.8**
RPM - DESIGN	Design:	**1570**	Actual:	**1335**
RPM - MAX	Design:	**2400**	Actual:	**N/A**
RPM - MAX RECOMMENDED	Design:	**2100**	Actual:	**N/A**
Is Supply Fan bolted/secured to curb?	Design:	**Yes**	Actual:	**Yes**

Heater

Gas Heater

GAS TYPE	Design:	**Natural**	Actual:	**Natural**
INLET GAS PRESSURE	Design:	**7**	Actual:	**8**
FREEZE STAT TEMPERATURE	Design:	**35**	Actual:	**35**
FREEZE STAT TIMER	Design:	**10**	Actual:	**10**
SPACE SET POINT	Design:	**N/A**	Actual:	**N/A**
INTAKE SET POINT	Design:	**45**	Actual:	**55**
DISCHARGE SET POINT	Design:	**55**	Actual:	**65**
HIGH LIMIT SET POINT			Actual:	**N/A**

Direct Fired Heater

Housing Size: 1 **Burner Profile Pressure:** 0"

PILOT FLAME SIGNAL	Design:	**12**	Actual:	**14**
TEMP RISE	Design:	**63**	Actual:	**66**
HIGH FIRE MANIFOLD GAS PRESSURE	Design:	**0.1**	Actual:	**0.5**
HIGH FIRE INLET PRESSURE			Actual:	**8**
HIGH FIRE FLAME SIGNAL	Design:	**12**	Actual:	**14**
BURNER DIFFERENTIAL PRESSURE	Design:	**0.3**	Actual:	**0.26**
LOW MANIFOLD GAS PRESSURE			Actual:	**-0.25**
MODULATION TIME	Design:	**4**	Actual:	**1**
LOW FIRE FLAME SIGNAL	Design:	**12**	Actual:	**14**

ECPs

ECP 1 - SC-E012022MA (ECP1) (ECP1)

Package #: SC-E012022MA

SCADA 2.0 CAS COM VZ Questions

Are all devices assigned and named appropriately to an area?	Actual:	**True**
Confirm all devices are transmitting data. Upload a screenshot of transmitting data; such as temperature, amp draw, etc	Actual:	**True**

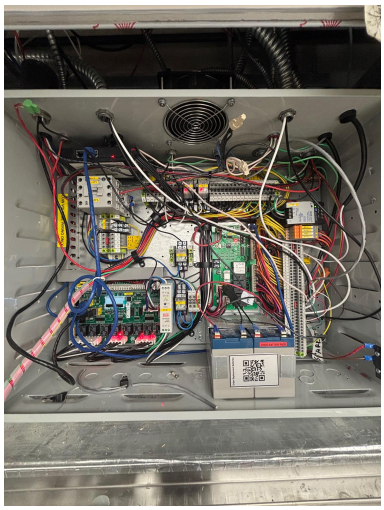
Box_C-24x18x8.625 Questions

If conduit holes are drilled out, the debris can fall into VFD and cause failure. Take a picture of where the conduit enters the cabinet, and verify VFD is free of debris.	Actual:	**Good**

Smart Control

Other Notes:

N/A



ROOM TEMPERATURE OFFSET	Design:	**20**	Actual:	**21**

Other Notes:

N/A

HOW MANY FAN ZONES ARE THERE	Design:	**2**	Actual:	**2**
HYSTERESIS TEMPERATURE			Actual:	**2**
Room Sensor Type	Design:	**RoomSensor**	Actual:	**Room Sensor**
Is room sensor wireless or wired?			Actual:	**Wired**
Is room sensor operating correctly? Upload Picture of installation			Actual:	**Yes**

Other Notes:

N/A

Are there Tempering HMI's?	Design:	**Yes**	Actual:	**No**
ALL TEMP SENSORS ARE WIRED IN	Design:	**Yes**	Actual:	**Yes**
Do any of the light circuits exceed 1400W?	Design:	**No**	Actual:	**No**
ALL LIGHTS WORK	Design:	**Yes**	Actual:	**Yes**

Installation Notes:

Electrician has wired lighting circuit wrong. Hoods 2 has a B2 de-energized fault. CAS Service supplied GC with tech support number for electrician due to him not being on site at time of SDV.

ALL FAULTS CLEARED	Design:	**Yes**	Actual:	**Yes**
ECPM03 HARDWARE REVISION			Actual:	**04**
ECPM03 PROGRAM VERSION			Actual:	**2.17**
CASHMI HARDWARE REVISION			Actual:	**3**

CASHMI PROGRAM VERSION			Actual:	**2.17**
ECPM03 DATE AND TIME ACCURATE	Design:	**Yes**	Actual:	**Yes**

BMS & Monitoring

BMS TYPE	Design:	**CASLink**	Actual:	**CASLink**

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:	**H3CV1**	Actual:	**H2CV1**
FAN NUMBER	Design:	**2**	Actual:	**2**

VFDs

VFD 1

DESIGN CFM	Design:	**1320**	Actual:	**1455**
FAN DIRECTION	Design:	**Forward**	Actual:	**Forward**

DCV VFD

SUPPLY FAN # ASSIGNED	Design:	**3**	Actual:	**3**
OVERLOAD = P108	Design:	**66**	Actual:	**66**
MAX HZ	Design:	**53.8**	Actual:	**45.8**
ALL FAULTS CLEARED = P197	Design:	**Yes**	Actual:	**Yes**

P508			Actual:	**N/A**
LOAD IN SEPARATE CONDUIT.	Design:	**Yes**	Actual:	**Yes**

TANK

TANK ECP 1 (ECP1)

Location : Hood #1 3650ELPX-2: Fire Cabinet Wall Mounted [4.0/4.0]

SCADA 2.0 CAS COM VZ Questions

Are all devices assigned and named appropriately to an area?	Actual:	**True**
Confirm all devices are transmitting data. Upload a screenshot of transmitting data; such as temperature, amp draw, etc	Actual:	**True**

Box_C-24x18x8.625 Questions

If conduit holes are drilled out, the debris can fall into VFD and cause failure. Take a picture of where the conduit enters the cabinet, and verify VFD is free of debris.	Actual:	**GOOD**

TANK Fire Suppression 1 (fs1)

Location : Hood #1 - Utility Cabinet Wall Mount

87-300030-001-CHG2 Questions

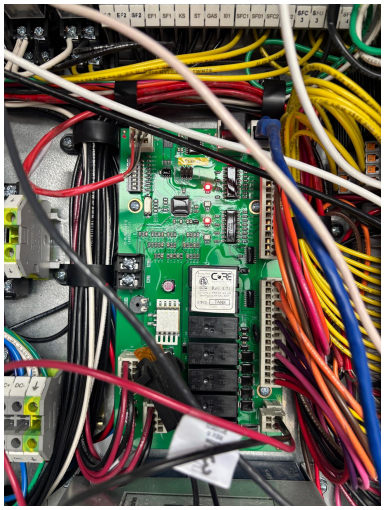
All Schrader cores installed and caps secured tightly	Design:	**Yes**	Actual:	**Yes**

12-F28021-005360 Questions

Apply a heat gun approximately 6" from each Fire Stat. Record how many seconds it takes to activate a fire condition. Any Fire Stat activated less than 10 seconds, or greater than 120 seconds should be replaced under warranty (create plant note)			Actual:	**75**
Is Building Alarm wired In?	Design:	**Yes**	Actual:	**No**
Is Trouble Relay wired in?	Design:	**Yes**	Actual:	**No**
TANK Board Software Version			Actual:	**1.71**

Other Notes:

N/A



TANK Hardware Version			Actual:	**2.3**

Electrician

Verify Voltage at H1 and N1 is 120VAC.			Actual:	**120**
Verify the Voltage at H1D and N1D is 27.5 VDC			Actual:	**27.5**
Is there a UDS on this job?			Actual:	**No**

Fire System Contractor w/CAS Supervision

Take photos of entire appliance lineup.			Actual:	**Complete**

Other Notes:

N/A

Other Notes:

N/A

Does the appliance lineup match with the NOLA drawings?			Actual:	**Yes**
Is all distribution piping 3/8" black iron, Stainless-Steel, or 1/2" Copper?	Design:	**Yes**	Actual:	**Yes**
Does the supply line piping from the TANKs to the first overlapping nozzle exceed 42ft?	Design:	**No**	Actual:	**No**
Are all appliance drops 3/8" polished Stainless-Steel or chrome-plated black iron?			Actual:	**Yes**
Are the first and last appliance nozzles within 12" of the ends of the hazard zone?	Design:	**Yes**	Actual:	**Yes**
Are all overlapping nozzles a maximum of 15" from Front/Back of Hazard Zone?	Design:	**Yes**	Actual:	**Yes**
Are all overlapping nozzles 35-50" above the cooking surface?	Design:	**Yes**	Actual:	**Yes**
No appliance drop has more than 2 nozzles.	Design:	**True**	Actual:	**True**
Does any appliance branch piping exceed max length of 10ft?	Design:	**No**	Actual:	**No**
Does the correct number of nozzles cover each Duct Riser?	Design:	**Yes**	Actual:	**Yes**
Do any backshelfs overhang a cooking surface 6" - 12"?			Actual:	**No**
Do any backshelfs/obstructions overhang a cooking surface more than 12"?			Actual:	**No**
Are there any Salamanders or Upright Broilers?			Actual:	**No**
Are there any Woks?			Actual:	**No**
Are there any fryers?			Actual:	**Yes**

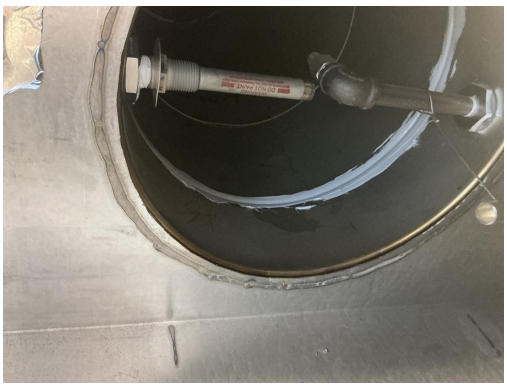
Are all fryers, less than 14" wide, covered by appliance drops that are no more than 36" apart?	Design:	**Yes**	Actual:	**Yes**
Are all fryers, greater than 14" wide, covered by appliance drops that are no more than 30" apart?		**N/A**		
Are there any Tilt Skillets or Braising Pans?			Actual:	**No**
Are there any other Appliance Specific coverages?			Actual:	**No**
What Is the Hood/Appliance Rated Temperature?			Actual:	**Light/Medium 450F**
Have shipping covers been removed from all Fire Stats?	Design:	**Yes**	Actual:	**Yes**
Upload photos verifying correct Fire stats (360 or 600) have been installed.	Design:	**Complete**	Actual:	**Complete**

Other Notes:

N/A

Other Notes:

N/A



Are any gas appliance discharge flues within 18" of Fire-Stat?	Design:	**No**	Actual:	**No**
Is supervised loop wiring above hood ran with high temp (842 degree) wire?	Design:	**Yes**	Actual:	**Yes**
Is MAD wired in a supervised loop, utilizing 4 wires and metal conduit? (upload photo of MAD terminals)	Design:	**Yes**	Actual:	**Yes**

Other Notes:

N/A

Other Notes:

N/A

Is MAD installed 10-20' from hood, 42-48" above the floor, at a point of egress? (upload photo of location in room)	Design:	**Yes**	Actual:	**Yes**

Other Notes:

N/A

Has CORE Interlock been wired (If multiple fire systems present)?		**N/A**		
Are DIP switches set correctly according to number of Fire Groups?		**N/A**		
Did CAS Service Supervise, Assist, or Wire supervised loop connections?			Actual:	**Only verified connections at MAD and terminals**
Calculate the total number of Flow Points.	Design:	**38**	Actual:	**38**
Is Gas Valve Orientation Correct?			Actual:	**Yes**
Is the TANK system located in a climate-controlled area?			Actual:	**Yes**
Is the Pressure Switch functioning properly?			Actual:	**Yes**

CAS Service

Other Notes:

Pre tested by Silco. CAS Service was asked to not do the pre test by site.

Who holds the TANK Fire System PO?			Actual:	**3rd Party Distributor**

Other Notes:

Silco

Has the TANK pre-testing been completed?			Actual:	**Yes**
Activate each Manual Activation Device: do all balloons fill and hold pressure properly?			Actual:	**Yes**
Activate each Fire Stats w/ heat gun: do all balloons fill and hold pressure properly?			Actual:	**Yes**

Does Fire System activate while on Battery backup only?	Actual:	**Yes**
Does Gas Valve close in fire condition?	Actual:	**Yes**
Perform leak test for 15 minutes as outlined in manual. Did system pass leak test?	Actual:	**Yes**
Has the Fire System been finalled and tagged?	Actual:	**No**

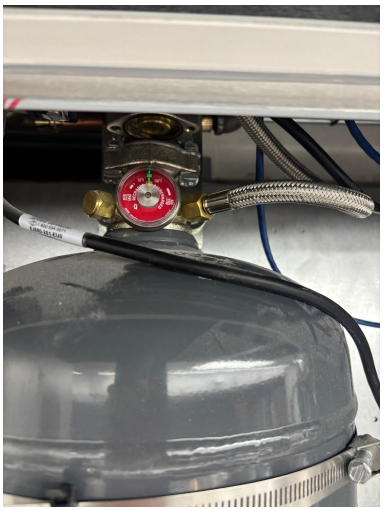
Other Notes:

Silco has not performed the fire final yet.

Are all Nozzle caps w/ lanyards intact and in place?	Actual:	**Yes**
Does every TANK bottle show 200 PSI on the pressure guage?	Actual:	**Yes**

Other Notes:

N/A



Are TANKS installed secured with straps and mounting hardware?	Design:	**Yes**	Actual:	**Yes**
Date written on batteries w/ paint pen:			Actual:	**2/26/2026 5:10:00 PM**

PCU Installations

NONE

PCU Installations

NONE

AQEs

NONE

UDS

NONE