CaptiveAire

Notes:

SHOP DRAWING REVIEW		
ENGINEER'S REVIEW		RESPONSE REQUIRED OF CONTRACTOR
No Exceptions Taken ☐	Rejected ☐	Confirm ☒
Note Markings ☒	Comments Attached ☐	Resubmit ☐

Engineer's review is for general conformance with the design concept and contract documents. Markings or comments shall not be construed as relieving the Contractor from compliance with the contract plans or specifications, nor departures therefrom, or as authorizing extra work. The Contractor remains responsible for materials, details and accuracy, for confirming and correlating all quantities and dimensions, for selecting fabrication processes, for techniques of assembly, for performing his work in a safe manner and for coordinating his work with that of all other trades.

Checked by: Steve Connlain

Project # 22012-00-07

Submittal #301

Date: 09/01/2022

POLARIS
CONSULTING ENGINEERS, PC

FOR QUESTIONS, CALL THE
Highwoods Group
REGION 40
PHONE: (919) 875-0420
EMAIL: reg40@captiveaire.com

PATENT NUMBERS

AC-PSP (UNITED STATES) - US PATENT 7963830 B2.
AC-PSP WALL (CANADA) - CA PATENT 2820509.
AC-PSP ISLAND (CANADA) - CA PATENT 2520330.

HOOD INFORMATION - JOB#5424233

HOOD NO	TAG	MODEL	MANUFACTURER	LENGTH	MAX COOKING TEMP	TYPE	APPLIANCE DUTY	DESIGN CFM/FT	TOTAL EXH CFM	EXHAUST PLENUM RISER(S) WIDTH	LENG	HEIGHT	DIA	CFM	VEL	SP	MUA CFM	AC CFM	HOOD CONSTRUCTION	HOOD CONFIG END TO END	ROW
1		5424 ND-2-ACPSP-F	CAPTIVEAIRE	14' 3"	600 DEG	I	HEAVY	225	3200	10' 10'	15' 15'	4' 4'		1600 1600	1536 1536	-0.641" -0.641"	1950	798	430 SS WHERE EXPOSED	ALONE	ALONE

HOOD INFORMATION

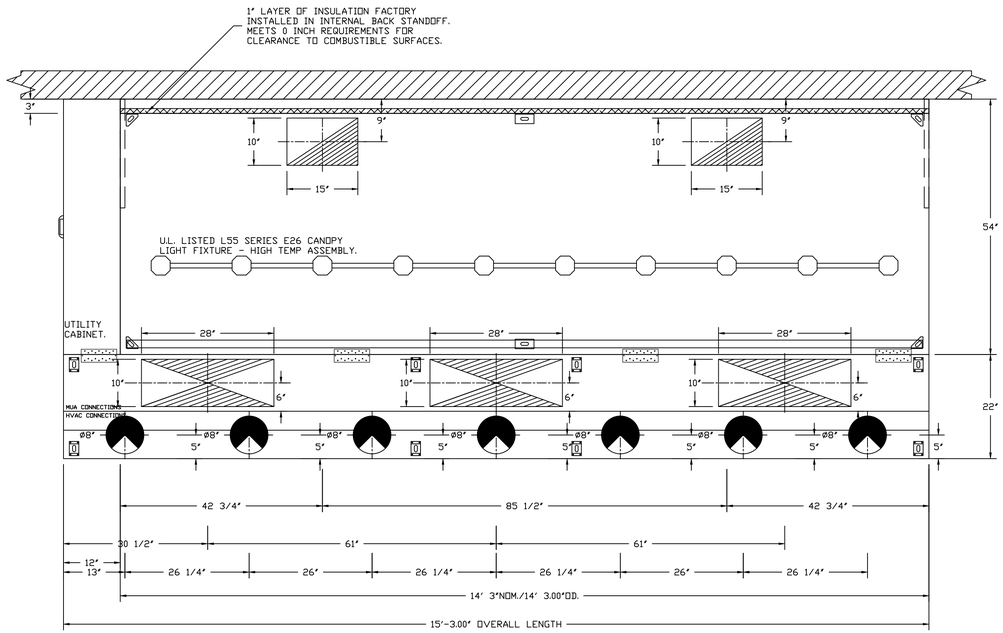
HOOD NO	TAG	FILTER(S) TYPE	QTY	HEIGHT	LENGTH	EFFICIENCY @ 7 MICRONS	LIGHT(S) QTY	TYPE	WIRE GUARD	UTILITY CABINET(S) LOCATION	SIZE	FIRE SYSTEM TYPE	FIRE SYSTEM SIZE	ELECTRICAL MODEL #	SWITCHES QUANTITY	FIRE SYSTEM PIPING	HOOD HANGING WEIGHT
1		CAPTRATE SOLO FILTER	10	20"	16"	85% SEE FILTER SPEC	10	L55 SERIES E26	NO	LEFT	12"x54"x24"	TANK FS	4.0/4.0	SC-311110MA	1 LIGHT 1 FAN	YES	1526 LBS

HOOD OPTIONS

HOOD NO	TAG	OPTION
1		FIELD WRAPPER 6.00" HIGH FRONT, LEFT, RIGHT.
		RIGHT QUARTER END PANEL 23" TOP WIDTH, 0" BOTTOM WIDTH, 23" HIGH 430 SS.
		LEFT QUARTER END PANEL 23" TOP WIDTH, 0" BOTTOM WIDTH, 23" HIGH 430 SS.
		INSULATION FOR TOP OF HOOD.
		INSULATION FOR BACK OF HOOD.
		NYC CONSTRUCTION.
		RISER SENSOR INSTALL 6IN PLEN.
		FULL DIMENSION HANGING BRACKET - FRONT.

PERFORATED SUPPLY PLENUM(S)

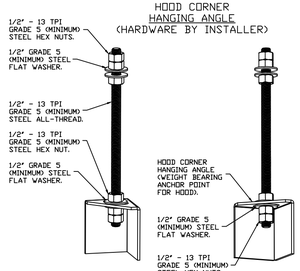
HOOD NO	TAG	POS	LENGTH	WIDTH	HEIGHT	TYPE	RISER(S) WIDTH	LENG	DIA	CFM	SP
1		Front	183"	22"	6"	MUA	10"	28"		650	0.166"
						MUA	10"	28"		650	0.166"
						MUA	10"	28"		650	0.166"
						AC			8"	114	0.041"
						AC			8"	114	0.041"
						AC			8"	114	0.041"
						AC			8"	114	0.041"
						AC			8"	114	0.041"
						AC			8"	114	0.041"
						AC			8"	114	0.041"



PLAN VIEW - HOOD #1
14' 3.00" LONG 5424ND-2-ACPSP-F
NOTE: ADDITIONAL HANGING ANGLES PROVIDED FOR HOODS 12' AND LONGER.

ACPSP SHIPS LOOSE FOR FIELD INSTALLATION

HOOD CORNER HANGING ANGLE (HARDWARE BY INSTALLER)



ASSEMBLY INSTRUCTIONS

HANGING ANGLE MUST BE SUPPORTED WITH 1/2" - 13 TPI GRADE 5 (MINIMUM) ALL-THREAD. SANDWICH HANGING ANGLES AND CEILING ANCHOR POINTS WITH 1/2" GRADE 5 (MINIMUM) STEEL FLAT WASHERS AND 1/2" - 13 TPI GRADE 5 (MINIMUM) HEX NUTS AS SHOWN. MUST USE DOUBLED HEX NUT CONFIGURATION BENEATH HOOD HANGING ANGLES AND ABOVE CEILING ANCHORS. MAINTAIN 1/4" OF EXPOSED THREADS BENEATH BOTTOM HEX NUT. TORQUE ALL HEX NUTS TO 57 FT-LBS.

SPECIFICATION: CAPTRATE® GREASE-STOP® SOLO FILTER

THE CAPTRATE GREASE-STOP SOLO FILTER IS A SINGLE-STAGE FILTER FEATURING A UNIQUE S-BAFFLE DESIGN IN CONJUNCTION WITH A SLOTTED REAR BAFFLE DESIGN, TO DELIVER EXCEPTIONAL FILTRATION EFFICIENCY.

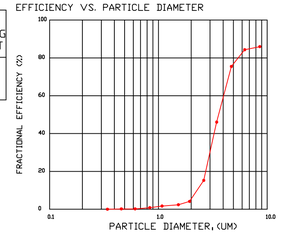
FILTER IS STAINLESS STEEL CONSTRUCTION, AND SIZED TO FIT INTO STANDARD 2-INCH DEEP HOOD CHANNEL(S).

UNITS SHALL INCLUDE STAINLESS STEEL HANDLES AND A FASTENING DEVICE TO SECURE THE TWO COMPONENTS WHEN ASSEMBLED.

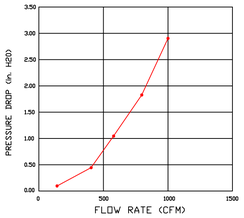
GREASE EXTRACTION EFFICIENCY PERFORMANCE SHALL REMOVE AT LEAST 75% OF GREASE PARTICLES FIVE MICRONS IN SIZE, AND 85% GREASE PARTICLES SEVEN MICRONS IN SIZE AND LARGER, WITH A CORRESPONDING PRESSURE DROP NOT TO EXCEED 1.0 INCHES OF WATER GAUGE.

THE CAPTRATE GREASE-STOP SOLO WAS TESTED TO ASTM STANDARD ASTM F2519-05. MANUFACTURER APPROVED FOR USE IN SOLID FUEL APPLICATIONS AS A SPARK ARRESTER.

EFFICIENCY VS. PARTICLE DIAMETER

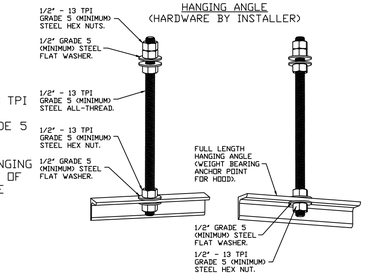


PRESSURE DROP VS. FLOW RATE



CAPTRATE FILTERS ARE BUILT IN COMPLIANCE WITH:
NFPA #96.
NSF STANDARD #2.
UL STANDARD #1046.
INT. MECH. CODE (IMC).
ULC-S649.

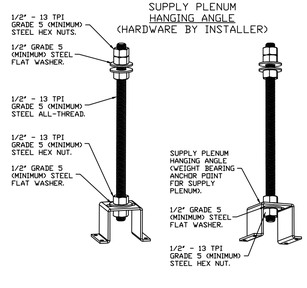
FULL LENGTH HANGING ANGLE (HARDWARE BY INSTALLER)



ASSEMBLY INSTRUCTIONS

HANGING ANGLE MUST BE SUPPORTED WITH 1/2" - 13 TPI GRADE 5 (MINIMUM) ALL-THREAD. SANDWICH HANGING ANGLES AND CEILING ANCHOR POINTS WITH 1/2" GRADE 5 (MINIMUM) STEEL FLAT WASHERS AND 1/2" - 13 TPI GRADE 5 (MINIMUM) HEX NUTS AS SHOWN. MUST USE DOUBLED HEX NUT CONFIGURATION ABOVE CEILING ANCHORS. SINGLE HEX NUT BENEATH HANGING ANGLE IS ACCEPTABLE FOR FULL LENGTH HANGING ANGLES. MAINTAIN 1/4" OF EXPOSED THREADS BENEATH BOTTOM HEX NUT. TORQUE ALL HEX NUTS TO 57 FT-LBS.

SUPPLY PLENUM HANGING ANGLE (HARDWARE BY INSTALLER)



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REVISIONS

	DESCRIPTION	DATE:
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CHIPOTLE UTICA AVENUE #4501
BROOKLYN, NY, 11213

DATE: 8/10/2022

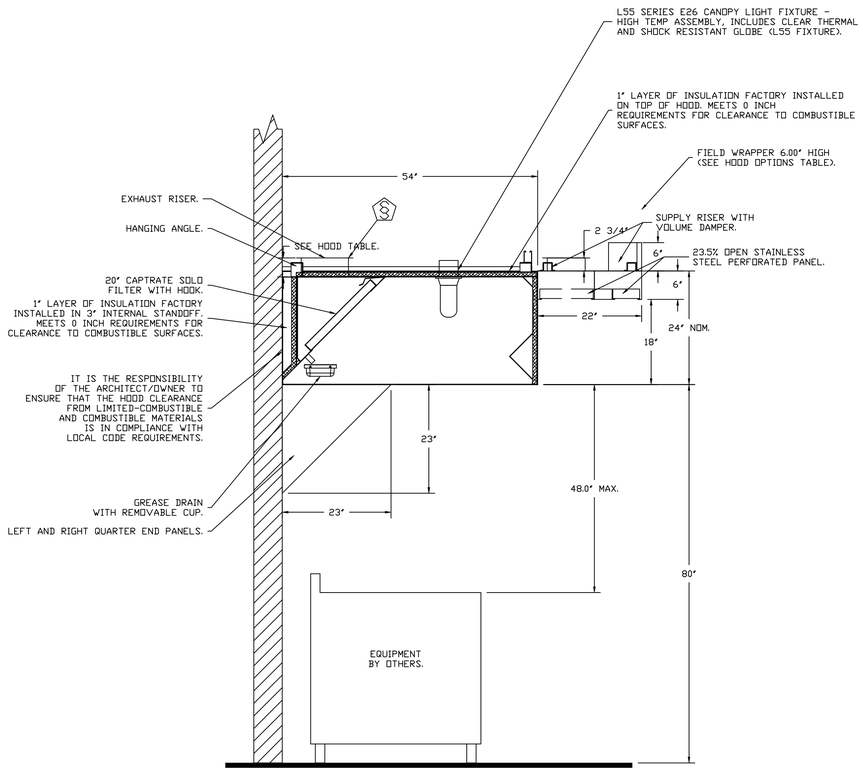
DWG.#: 5424233

DRAWN BY: JMB-40

SCALE: 3/4" = 1'-0"

MASTER DRAWING

SHEET NO. 1



SECTION VIEW - MODEL 5424ND-2-ACPSP-F
HOOD - #1

REVISIONS

	DESCRIPTION	DATE:
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DRAWN BY: JMB-40

SCALE: 3/4" = 1'-0"

MASTER DRAWING

SHEET NO. 2

SECTION 23 38 13 13

SPECIFICATIONS
TAG: Commercial Kitchen Ventilation Hoods, Listed Commercial Kitchen Hoods

PART 1 - GENERAL

1.1 SUMMARY

A. The ND2 series is a Type I, wall canopy hood for use over 600°F cooking surface temperatures. The aerodynamic design includes a mechanical baffle and performance enhancing lip for exceptional capture and containment.

B. The hood shall have the size, shape, and performance specified on drawings.

1.2 SUBMITTALS

A. The manufacturer assumes no liability for the use or results of use from this document. Specifications are to be reviewed by the engineer to confirm the project's requirements and meet Federal, State, and Local codes and regulations.

B. As the manufacturer continues product development, it reserves the right to change design and specifications without notice.

C. The manufacturer shall supply complete computer generated submittal drawings, including hood section view(s) and hood plan view(s). These drawings must be available to the engineer, architect, and owner for their use in construction, operation, and maintenance.

1.3 QUALITY ASSURANCE

A. This hood is ETL-listed to standard UL710, ULC710, and ULC-S646 when installed in accordance with these installation instructions and National Fire Protection Association Standard "NFPA 96, Standard for Ventilation Control and Fire Protection of Commercial Cooking Operations."

B. Built-in compliance with NSF/ANSI Standard 2.

C. Approved for use in New York City per the Fire Department of New York Certificate of Approval #5804.

D. The hood shall be ETL Listed as:

1. "Exhaust Hood Without Exhaust Damper."
2. ETL Sanitation Listed and built in accordance with NFPA 96.
3. The ETL label shall list temperature rating(s) and minimum CFM/ft rating(s).

1.4 WARRANTY

A. All units shall be provided with the following standard warranty:

1. This equipment is warranted to be free from defects in materials and workmanship, under normal use and service, for a period of 2-years from date of shipment.

B. The manufacturer shall not be liable for incidental and consequential losses and damages potentially attributable to malfunctioning equipment. Should any part of the equipment prove to be defective in material or workmanship within the 2-year warranty period, upon examination by the manufacturer, such part will be repaired or replaced by manufacturer at no charge. The buyer shall pay all labor costs incurred in connection with such repair or replacement. Equipment shall not be returned without manufacturer's prior authorization, and all returned equipment shall be shipped by the buyer, freight prepaid to a destination determined by the manufacturer.

C. Refer to Manufacturer's Operation, Installation, and Maintenance (OIM) Manual for detailed descriptions of what is/is not covered and contact information for warranty claims.

PART 2 - PRODUCTS

2.1 GENERAL

A. Construction shall be dependent on the structural application to minimize distortion and other defects. All seams, joints, and penetrations of the hood enclosure to the lower outermost perimeter, which directs and captures grease-laden vapor and exhaust gases, shall have a liquid-tight continuous external weld in accordance with NFPA 96.

B. Duct sizes, CFM, and static pressure requirements shall be as shown on drawings. Static pressure requirements shall be precise and accurate; air velocity and volume information shall be accurate within 1-ft increments along the length of the ventilator.

2.2 CONSTRUCTION

A. Construction shall be type 430 stainless steel.

B. Double wall insulated front to eliminate condensation and increase rigidity on wide sizes. The insulation shall have a flexural modulus of 475 EI, meet UL 181 requirements and be in accordance with NFPA 90A and 90B.

C. Hood shall be equipped with a minimum of four connections for hanger rods. Hood lengths greater than 12'will have added hangers.

D. Exhaust duct collar to be 4"high with flange.

E. The grease drain system shall be an enclosed integral part of the hood back and have slopes with an exposed, removable 1/2 grease cup to facilitate cleaning.

F. An integral baffle to direct grease laden vapors toward the exhaust filter bank.

G. Hood shall be furnished with UL classified filters, supplied in size and quantity as required by ventilator.

H. All seams shall be welded and have stainless steel on exposed surfaces.

2.3 LIGHTING

A. L55 Series canopy light fixture, includes clear thermal and shock resistant globe.

2.4 FILTERS

A. Stainless Steel Captrate Solo filter with hook, ETL Listed. Particulate capture efficiency: 85% efficient at 9 microns, 76% efficient at 5 microns.

2.5 OPTIONS

A. Fire Suppression System: UL 300 fire suppression system.

B. Optional perforated supply plenum shall provide make-up air discharged below the cooking equipment.

1. Perforated diffuser plates shall be included in the design to provide even air distribution.
2. Unexposed surfaces shall be constructed of aluminized steel. Plenum shall be insulated to prevent condensation.
3. Dual Plenum (AC-PSP)

C. Hood Mounted Utility Cabinet - Cabinet can store listed fire suppression system, listed components, pre-wired electrical controls.

2.6 ACCESSORIES

A. End Panel(s) maximize hood performance and eliminate the effects of cross drafts in the kitchen. Units constructed of stainless steel and sized according to hood width and cooking equipment. Exposed edges hemmed for safety and rigidity. Selected panels:

1. Quarter End Panel

B. Wrapper(s) may be installed from the factory or field installed. Wrapper(s) selected:

1. Wrapper

C. Miscellaneous option(s) selected:

1. Full Dimension Hanging Bracket -Unistrut added to allow for various hood mounting locations.
2. Insulation for Top of Hood -Fully insulated top of hood.
3. Insulation for Back of Hood -Backside of hood is fully insulated.
4. NYC Construction -Hood construction will follow NYC construction requirements. All filters stamped with NYC certificate of approval.
5. Riser Sensor Install -Sensor set-up for 6"plenum.

PART 3 - EXECUTION

3.1 EXAMINATION

A. Examine areas and conditions under which the system is installed. Do not proceed with work until unsatisfactory conditions have been corrected in a manner acceptable to Installer.

3.2 INSTALLATION

A. Install in accordance with manufacturer's instructions, drawings, written specifications, manufacturer's installation manual, and all applicable building codes.

REVISIONS

	DESCRIPTION	DATE:
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BROOKLYN, NY, 11213

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DRAWN BY: JMB-40

SCALE: 3/4" = 1'-0"

MASTER DRAWING

SHEET NO. 3

SECTION 904.12

COMMERCIAL COOKING SYSTEMS
TAG: CORE Fire Protection

PART 1 - GENERAL

1.1 SUMMARY

A. The CORE Fire Protection system is a pre-engineered wet chemical water based (surfactant) fire suppression system for use in commercial kitchens.

1.2 SUBMITTALS

A. The manufacturer assumes no liability for the use or results of use of this document. This specification is to be reviewed by the engineer to confirm requirements of the project and building codes are met.

B. As the manufacturer continues product development, it reserves the right to change design and specifications without notice.

1.3 QUALITY ASSURANCE

A. CORE Fire Protection System shall be UL & ULC listed in accordance with UL300, and ULC/ORD-C1254.6.

B. Microprocessor-based control board shall be ETL Listed to UL Standard 864 and CAN/ ULC-S527-11.

C. CORE Fire Protection System is intended for installation and for use in accordance with the National Fire Protection Association Standards:

1. Wet Chemical Extinguishing Systems, NFPA 17A
2. National Electrical Code, NFPA 70
3. National Fire Alarm & Signaling Code, NFPA 72
4. Installation of Equipment for the Removal of Smoke and Grease-Laden Vapors from Commercial Cooking Equipment, NFPA 96

D. The CORE Fire Protection System is approved for use in New York City per FDNY COA #5877.

1.4 WARRANTY

A. All units are provided with the following 5-year standard warranty from date of shipment. Warranty does not cover consumable products such as batteries, surfactant, and nozzle caps.

B. This warranty shall not apply if:

1. The equipment is not installed by a qualified installer per the manufacturer's installation instructions shipped with the product.
2. The equipment is not installed in accordance with Federal, State, and Local codes and regulations.
3. The equipment is misused, neglected, or not maintained per the manufacturer's maintenance instructions.
4. The equipment is not operated within its published capacity.
5. The invoice is not paid within the terms of the sales agreement.

C. The manufacturer shall not be liable for incidental and consequential losses and damages potentially attributable to malfunctioning equipment. Should any part of the equipment prove to be defective in material or workmanship within the 5-year warranty period, upon examination by the manufacturer, such part will be repaired or replaced by the manufacturer at no charge. The buyer shall pay all labor costs incurred in connection with such repair or replacement. Equipment shall not be returned without manufacturer's prior authorization. All returned equipment shall be shipped by the buyer, freight prepaid to a destination determined by the manufacturer.

PART 2 - PRODUCTS

2.1 GENERAL ASSEMBLY

A. A pre-engineered, fixed pipe, automatic wet chemical (surfactant) fire suppression system for protection of all hazard areas associated with cooking operations, including exhaust hoods, plenums, ductwork, and cooking appliances.

B. The fire system shall be factory assembled, tested, and shipped as a complete unit.

C. The following specifications, delivering all capacities scheduled and conforming to the design indicated herein. Alternate layouts or dimensional changes will not be accepted.

2.2 COMPONENTS

A. Exhaust hood fire system components to be factory installed.

B. Distribution Nozzles

1. Nozzles shall be located to protect the exhaust ducts, plenums, and all cooking appliances requiring protection.
2. All nozzles shall be equipped with a metal blow off cap. The cap prevents contamination from entering the pipe network and is designed to pop-off upon system discharge, allowing agent to flow to the protected hazard area.
3. All nozzles shall incorporate a stamped part number to quickly identify nozzle type.

C. Distribution System

1. The distribution system shall consist of Copper, Schedule 40 black iron, chrome-plated or stainless-steel pipe and fittings. All exposed piping and fittings must be chrome-plated or stainless-steel.
2. Fittings shall be minimum class 150. Galvanized fittings shall not be used.
3. Flow rate for the hood, when in a fire condition, would be 1.5 gallons per minute per foot of hood.
4. Operating pressure for water lines, both hot water and dedicated line, is 30 to 70 psi, depending on the system configuration.
5. The maximum static pressure cannot exceed 125 psi; pressure reducing valves can be utilized to meet the correct operating water pressure

D. Suppression System

1. The system control equipment shall be capable of all functions associated with automatically and manually discharging surfactant from surfactant tank, including automatic shutdown of the heat source or fuel and electrical power to all protected areas upon system discharge.
2. For automatic activation, the system will be activated by a Firestat (heat) detector.
3. For manual activation, an electrically operated manual release shall be used to actuate the system manually.

E. Firestat

1. Hood #1: Normally Open, Close on Rise 360°F.
2. Additional firestats may be required based on hood temperature rating and length of ductwork. Refer to Installation, Operation, and Maintenance Manual for information.

F. Electrical

1. Electrical Division to provide shunt trip breakers at main power panel, or disconnects, as designated by the Electrical Engineer; interconnection provided at hood control panel for the signal to shut down all electricity in and under the exhaust hood. Shunt trips/disconnects to accomplish shut off of electricity in the event of fire system activation by others.
2. Printed circuit board with microprocessor-based controller that provides all the necessary monitoring, timing, and supervision functions required for the reliable operation of the fire system.
3. Independent supervised loops incorporate redundancy and fault detection.
4. Real-time cloud-based monitoring connection provided with system by ownership.
5. All wiring must be in accordance to NFPA 70 and the Authority Having Jurisdiction (AHJ).
6. Electric gas valve provided for equipment below exhaust hood. Coordinate size and installation with Plumbing Division.
7. All wiring is to be in accordance with the applicable manufacturer's instructions for the fire alarm control panel, gas shut-off valve, manual reset relay, and contractor supplied shut-off devices.

PART 3 - EXECUTION

3.1 EXAMINATION

A. Examine all areas and conditions under which package(s) are to be installed. Do not proceed with work until unsatisfactory conditions have been corrected in a manner acceptable to Installer.

3.2 INSTALLATION

A. Install the package in accordance with manufacturer's instructions, drawings, written specifications, manufacturer's installation manual, and all applicable building codes.

3.3 CONNECTIONS

A. Electrical connections conform to applicable requirements in Division 26 Sections.

3.4 SYSTEM START-UP

A. System start-up is performed by a factory-trained Service Technician.

REVISIONS

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DATE: 8/10/2022

DWG.#: 5424233

DRAWN BY: JMB-40

SCALE: 3/4" = 1'-0"

MASTER DRAWING

SHEET NO. 4

FIRE SYSTEM INFORMATION – JOB#5424233

FIRE SYSTEM NO	TAG	TYPE	SIZE	FLOW POINTS	INSTALLATION	
					SYSTEM	LOCATION ON HOOD
1		TANK FS	4.0/4.0	40	FIRE CABINET LEFT	LEFT, HOOD 1

FIRE SYSTEM PARTS LIST KEY

FIRE SYSTEM NO	TAG	KEY NUMBER - PART DESCRIPTION	QTY BY FACTORY	QTY BY DIST
1		0 - 0 - 12-F28021-32144-DT-360 DUCT FIRE THERMOSTAT WITH 12 FOOT WIRE LEADS. NO, CLOSE ON TEMP RISE AT 360°F.	2	0
		0 - 0 - 87-120042-001 SECONDARY ACTUATOR VALVE (SVA) - SINGLE ACTUATOR, REQUIRES PRIMARY RELEASE ACTUATOR, TANK FIRE SUPPRESSION.	1	0
		0 - 0 - 87-120045-001 HOSE, SECONDARY ACTUATOR HOSE, 7.5' BRAIDED STAINLESS STEEL, TANK FIRE SUPPRESSION.	1	0
		0 - 0 - 87-300001-001 TANK - PRESSURIZED TANK USED FOR TANK FIRE SUPPRESSION.	2	0
		0 - 0 - 87-300030-001 PRIMARY ACTUATOR KIT (PAK) - ACTUATOR AND RELEASE SOLENOID ASSEMBLY, ONE NEEDED PER FIRE SYSTEM, SUPERVISED, TANK FIRE SUPPRESSION.	1	0
		0 - 0 - 87-300152-001 HARDWARE, SVA BOLTS, TANK FIRE SUPPRESSION.	8	0
		0 - 0 - 9055455PC PRD PRESS 1/2 PRESS X PRESS 90 ELBOW LD.	8	0
		0 - 0 - 9097200PC PRD PRESS PC611 1/2 PRESS TEE LD.	9	0
		0 - 0 - 98694A115 HARDWARE, DATANKLOCK LOCKING BRACKET SQUARE NUTS 5/16" ZINC, TANK FIRE SUPPRESSION.	4	0
		0 - 0 - A0034332 JUNCTION BOX FOR MANUAL PULL STATION. 1.5" DEEP BACK BOX, RED COLOR.	1	0
		0 - 0 - B1145 3/8" BLACK IRON 90 ELL.	4	0
		0 - 0 - DATANKLOCK DISCHARGE ADAPTER TANK LOCKING PLATE FOR FIRE SYSTEM TANK INSTALLATION IN UTILITY CABINETS, TANK FIRE SUPPRESSION.	2	0
		0 - 0 - TANK STRAP TANK STRAP - USED FOR TANK FIRE SUPPRESSION.	6	0
		0 - 0 - TFS-UCTANKBRACKET TANK BRACKET FOR FIRE SYSTEM TANK INSTALLATION IN UTILITY CABINETS, TANK FIRE SUPPRESSION.	2	0
		0 - 0 - WK-283952-000 DISCHARGE ADAPTER, TANK FIRE SUPPRESSION.	2	0
		16 - 16 - 79210 1/2" X 3/8" NPT MALE ADAPTER, VIEGA.	10	0
		16 - 16 - OL-F NOZZLE - TANK PROTECTION APPLIANCE COVERAGE NOZZLE (INCLUDES METAL BLOW OFF CAP, LANYARD, USED WITH CHROME-PLATED PIPE)- 4 FLOW POINTS.	10	0
		26 - 26 - QSA-3/8 QUIK SEAL - 3/8" (UL).	10	0
		34 - 34 - A0034331 24VDC SINGLE ACTION MANUAL ACTUATION DEVICE (PUSH/PULL STATION) WITH PROTECTIVE COVER, ONE (1) NORMALLY OPEN CONTACT. RED COLOR.	1	0

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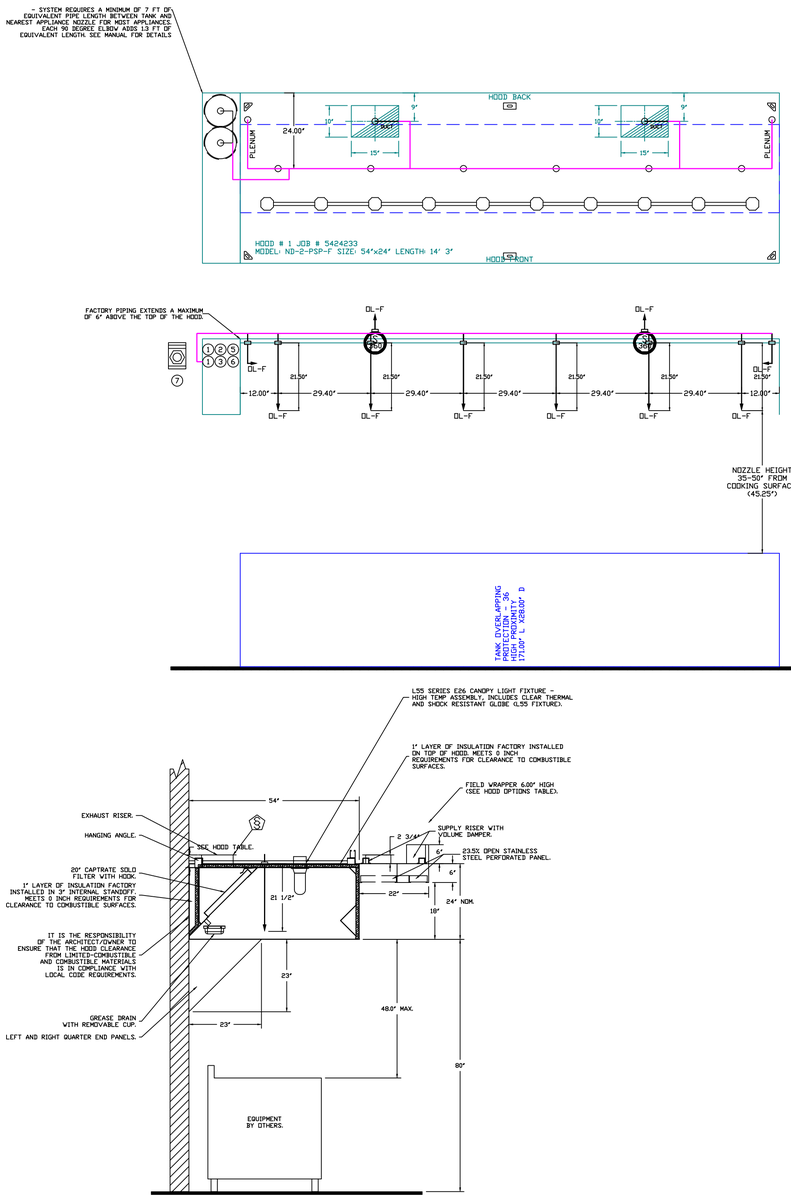
SCALE: 3/4" = 1'-0"

MASTER DRAWING

SHEET NO. 5



SECTION VIEW - MODEL 5424ND-2-ACPSP-F HOOD - #1

INCLUDES: FIELD INSTALLATION AND HOOKUP DURING NORMAL BUSINESS HOURS BY CERTIFIED INSTALLERS ONLY IN THE LOCATION NOTED ABOVE; TWO SITE VISITS ONLY (ONE VISIT TO SET PULL STATION & SYSTEM HOOKUP AND ONE VISIT FOR ONE TEST; ADDITIONAL VISITS WILL RESULT IN ADDITIONAL CHARGES), ONE MECHANICAL OR ELECTRICAL GAS VALVE PER SYSTEM AT A MAXIMUM SIZE OF 2", PERMIT, AND SYSTEM TEST.
EXCLUDES: UNION LABOR & PREVAILING WAGE (LABOR & WAGES WILL BE ADDED IF APPLICABLE), GAS VALVE INSTALLATION, ELECTRICAL HOOKUP AND CONNECTIONS, HANGING OF FIRE CABINET, SHUNT TRIP, HANDHELD EXTINGUISHER(S), ON-SITE RE-PIPING DUE TO EQUIPMENT LAYOUT CHANGES.

NOTES
- FIELD PIPE DROPS AS SHOWN
  PIPING, ELBOWS, TEES, AND NOZZLES SUPPLIED BY CAS.
- RELOCATE NOZZLES IF FLOW PATTERN IS BLOCKED BY SHELVING, SALAMANDERS, ETC.
- OVERLAPPING COVERAGE SHALL NOT BE USED ON ANY APPLIANCE WITH AN OBSTRUCTION.
- IF APPLICABLE, EXTENDED PRE-PIPED DROPS ARE SHIPPED LOOSE.
- FACTORY PIPING EXTENDS A MAXIMUM OF 6" ABOVE THE TOP OF THE HOOD.

- APPLIANCE DIMENSIONS LISTED REPRESENT THE COOKING SURFACE SIZE, NOT THE OVERALL APPLIANCE SIZE.

- THIS FIRE SYSTEM COMPLIES WITH U.L. 300 REQUIREMENTS.

- DL-F NOZZLE PART NUMBER REPLACES 3070-3/8H-10-SS

JOB #: 5424233.
JOB NAME: CHIPOTLE UTICA AVENUE #4501.

SYSTEM SIZE: TANK-SP-2 TOTAL FP REQUIRED: 40.
HOOD # 1 14' 3.00" LONG x 54" WIDE x 24" HIGH.
RISER # 1 SIZE: 10" x 15".
RISER # 2 SIZE: 10" x 15".
HOOD # 1 METAL BLOW-OFF CAPS INCLUDED.

- HEAVY-DUTY APPLIANCES (RATED 600°F) WILL REQUIRE AN ADDITIONAL DOWNSTREAM FIRESTAT IN THE EVENT THAT THE DUCTWORK CONTAINS ANY HORIZONTAL RUNS OVER 25 FT IN LENGTH.
- MEDIUM TO LIGHT-DUTY APPLIANCES (RATED 450°F) WILL NOT REQUIRE ANY ADDITIONAL DOWNSTREAM DETECTION.

LEGEND - FIRE CABINET TANK SYSTEM

1 4 GALLON TANK.
2 PRIMARY ACTUATOR RELEASE.
3 SECONDARY ACTUATOR RELEASE.
4 PRESSURE SUPERVISION SWITCH.
5 PRIMARY HOSE ASSEMBLY.
6 SECONDARY HOSE ASSEMBLY.
7 REMOTE MANUAL ACTUATION DEVICE.

REVISIONS

	DESCRIPTION	DATE:
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2		
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www.captivaire.com

CHIPOTLE UTICA AVENUE #4501
BROOKLYN, NY, 11213

DATE: 8/10/2022

DWG.#: 5424233

DRAWN BY: JMB-40

SCALE: 1/2" = 1'-0"

MASTER DRAWING

SHEET NO. 6

SECTION 21 23 00
WET- CHEMICAL FIRE-EXTINGUISHING SYSTEMS
TAG: TANK Fire Suppression

PART 1 - GENERAL

1.1 SUMMARY

A. TANK Fire Suppression is a pre-engineered, stored-pressure wet chemical solution extinguishing system.

1.2 SUBMITTALS

A. The manufacturer assumes no liability for the use or results of use from this document. Specifications are to be reviewed by the engineer to confirm the requirements of the project and meet Federal, State, and Local codes.

B. As the manufacturer continues product development, it reserves the right to change design and specifications without notice.

1.3 QUALITY ASSURANCE

A. TANK Fire Suppression System shall be UL & ULC listed in accordance with UL300, UL1254, ULCORD-C1254.6.

B. Microprocessor-based control board shall be ETL Listed to UL Standard 864 and CAN/ ULC-S527-11.

C. TANK Fire Suppression System intended for installation and for use in accordance with the National Fire Protection Association Standards:

1. Wet Chemical Extinguishing Systems, NFPA 17A
2. National Electrical Code, NFPA 70
3. National Fire Alarm & Signaling Code, NFPA 72

D. New York City and FDNY approved under COA# 5870.

E. California State Fire Marshal (CFSM), Listing No. 7085-2199:0502.

1.4 WARRANTY

A. All units shall be provided with the following standard warranties:

1. TANK Fire Suppression System is warranted to be free from defects in materials and workmanship, under normal use and service, for a period of 60-months from date of shipment.

B. Warranty does not cover consumable products such as batteries and nitrogen.

C. The manufacturer shall not be liable for incidental and consequential losses and damages potentially attributable to malfunctioning equipment. Should any part of the equipment prove to be defective in material or workmanship within the 60-month warranty period, upon examination by the manufacturer, such part will be repaired or replaced by manufacturer at no charge. The buyer shall pay all labor costs incurred in connection with such repair or replacement. Equipment shall not be returned without manufacturer's prior authorization, and all returned equipment shall be shipped by the buyer, freight prepaid to a destination determined by the manufacturer.

D. Refer to Manufacturer's Operation, Installation, and Maintenance (OIM) Manual for detailed descriptions of what is/is not covered and contact information for warranty claims.

PART 2 - PRODUCTS

2.1 GENERAL

A. A pre-engineered, fixed pipe, automatic wet chemical agent fire suppression system for protection of all hazard areas associated with cooking operations, including exhaust hoods, plenums, ductwork, and cooking appliances.

2.2 COMPONENTS

A. Exhaust hood fire system components to be factory installed.

B. Cylinder and Valve Assembly

1. The cylinders shall have a tin-nickel alloy plated brass valve with pressure gauge.
2. Wet chemical agent shall be contained in one or more stored pressure DOT/TC rated steel cylinder and valve assemblies.
3. Each cylinder is factory-filled with liquid fire suppressant and pressurized to 200 PSIG at 70°F.

C. Distribution Nozzles

1. Nozzles shall be located to protect the exhaust ducts, plenums, and all cooking appliances requiring protection.
2. All nozzles shall be equipped with a metal blow off cap. The cap prevents contamination from entering the pipe network and is designed to pop-off upon system discharge, allowing agent to flow to the protected hazard area.
3. All nozzles shall incorporate a stamped part number to easily identify nozzle type.

D. Distribution System

1. The distribution system shall consist of Copper, Schedule 40 black iron, chrome-plated or stainless-steel pipe and fittings. All exposed piping and fittings must be chrome-plated or stainless steel.
2. Fittings shall be minimum class 150. Galvanized fittings shall not be used.

E. Suppression System

1. The system control equipment shall be capable of all functions associated with automatically and manually discharging the wet chemical agent from all cylinder and valve assemblies, including automatic shutdown of the heat source or fuel and electrical power to all protected areas upon system discharge.
2. Liquid Fire Suppressant shall be Aqueous Potassium Carbonate (APC).
3. All mechanical components of the actuator kit shall be enclosed.
4. The actuator kit shall be capable of automatic or manual activation means.
5. Supervisory Pressure Switch added to monitor operating system pressure.
6. For manual activation, an electrically operated manual release shall be used to actuate the system manually.
7. For automatic activation, the system will be activated by a Firestat (heat) detector.

F. Electrical

1. Electrical Division to provide shunt trip breakers at main power panel, or disconnects, as designated by the Electrical Engineer; interconnection provided at hood control panel for the signal to shut down all electricity in and under the exhaust hood. Shunt trips/disconnects to accomplish shut off of electricity in the event of fire system activation by others.
2. Printed circuit board with microprocessor-based controller that provides all the necessary monitoring, timing, and supervision functions required for the reliable operation of the fire system.
3. Independent supervised loops incorporate redundancy and fault detection.
4. Real-time cloud-based monitoring connection provided with system by ownership.
5. Primary power supply, with battery backup for power loss.
6. All wiring must be in accordance to NFPA 70 and the Authority Having Jurisdiction (AHJ).
7. Electric gas valve provided for equipment below exhaust hood. Coordinate size and installation with Plumbing Division.
8. All wiring is to be in accordance with the applicable manufacturer's instructions for the fire alarm control panel, gas shut-off valve, manual reset relay, and contractor supplied shut-off devices.

PART 3 - EXECUTION

3.1 EXAMINATION

A. Examine areas and conditions under which the system is installed. Do not proceed with work until unsatisfactory conditions have been corrected in manner acceptable to Installer.

3.2 APPLICATION

A. Wet chemical-based fire suppression system for use in commercial kitchens. It can be mounted in the integral cabinet located at the end of the hood or offered as a wall mount package.

3.3 INSTALLATION

A. As part of this item, provide wall mounted type K handheld portable fire extinguisher, placard, and mounting bracket as required in the immediate vicinity of each cooking area, per NFPA-96 and NFPA-10. Additional fire extinguishers as required in the kitchen area are to be specified by the Architect and provided by the General Contractor.

B. Install in accordance with manufacturer's instructions, drawings, written specifications, manufacturer's installation manual, and all applicable building codes.

C. Six-month and twelve-month inspections, servicing, and replacement of components as per NFPA 96 to be provided by the General Contractor or Owner.

REVISIONS

	DESCRIPTION	DATE:
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BROOKLYN, NY, 11213

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DWG.#: 5424233

DRAWN BY: JMB-40

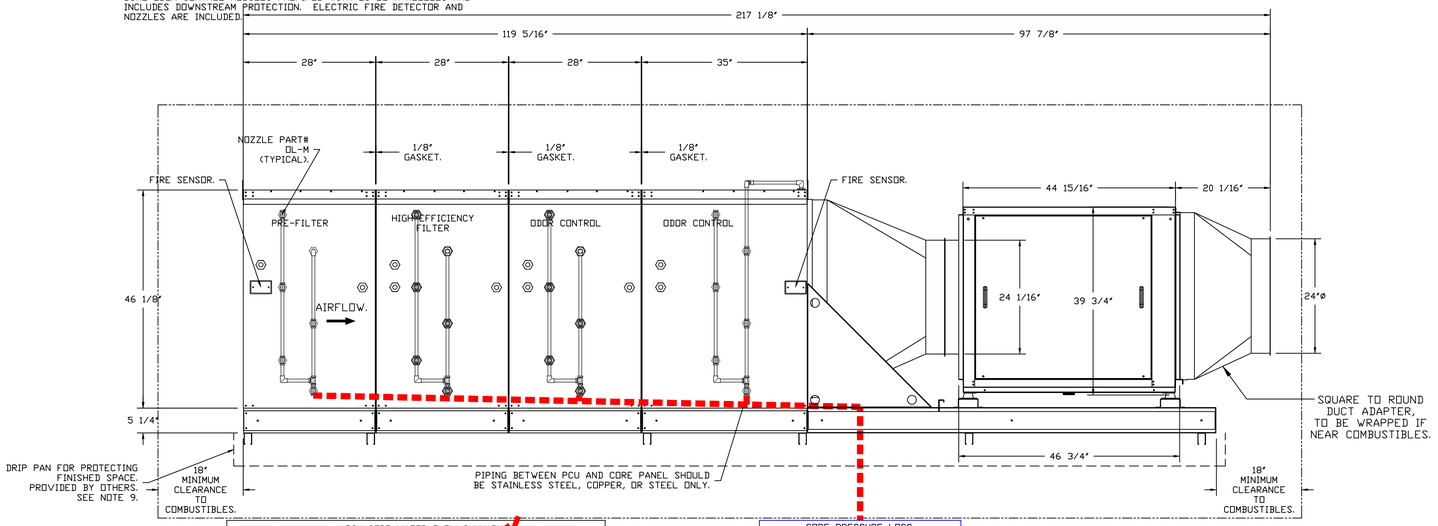
SCALE: 3/4" = 1'-0"

MASTER DRAWING

SHEET NO.
7

POLLUTION CONTROL UNIT FIRE SYSTEM

FAN #1 SIF24DD-HESS-UL762 - EXHAUST FAN (PCU EF-1) - POLLUTION CONTROL UNIT WITH CORE PROTECTION FIRE SYSTEM INSTALLED. INCLUDES STEEL PRE FILTER MODULE, HIGH EFFICIENCY MERV 15 FILTER MODULE, AND DUAL ODOR CONTROL MODULES PREPIPED WITH 28 OL-M NOZZLES AND INCLUDES DOWNSTREAM PROTECTION. ELECTRIC FIRE DETECTOR AND NOZZLES ARE INCLUDED.



— — — FIELD PIPING.

PCU CORE WATER FLOW SUMMARY			
	PIPE DIAMETER	MINIMUM FLOW RATE (GPM)	PRESSURE DROP (PSI)
Field Piping Wall Mount Panel to PCU 1	1.5	38	2.85
PCU Internal Piping	0.375	38	20

CORE PRESSURE LOSS:
WALL MOUNT PANEL TO PCU 1. 1.5" FIELD PIPING. 2.85 PSI LOSS. 38 GPM.

TOTAL SYSTEM INLET REQUIREMENTS		
	MINIMUM FLOW RATE (GPM)	MINIMUM PRESSURE (PSI)
TOTAL CORE INLET REQUIREMENTS	38	22.85

* OPERATING PRESSURE RANGE AT CORE PANEL GAUGE IS 22.85 TO 70 PSI. MAXIMUM STATIC PRESSURE IS 125 PSI.

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MASTER DRAWING

SHEET NO. 8

EXHAUST FAN INFORMATION – JOB#5424233

FAN UNIT NO	TAG	QTY	FAN UNIT MODEL #	MANUFACTURER	CFM	ESP	RPM	MOTOR ENCL	HP	BHP	PHASE	VOLT	FLA	WEIGHT (LBS)	SONES
1	PCU EF-1	1	SIF24DD	CAPTIVEAIRE	3200	1.500	1385	TEFC,PREMIUM	7.500	3.6590	3	208	20.5	2248	32.0644722601789
2	EF-2	1	CFA 250CA	CAPTIVEAIRE	150	0.600	704	GENERALPURPOSE	0.222	0.1350	1	115	2.1	29	N/A
3	EF-3	1	CFA 200CA	CAPTIVEAIRE	50	0.500	532	GENERALPURPOSE	0.170	0.0630	1	115	1.8	25	N/A

MUA FAN INFORMATION – JOB#5424233

FAN UNIT NO	TAG	QTY	FAN UNIT MODEL #	BLOWER	HOUSING	MIN CFM	DESIGN CFM	ESP	RPM	MOTOR ENCL	HP	BHP	PHASE	VOLT	FLA	MCA	MOCP	WEIGHT (LBS)	SONES
4	MAU-1	1	A1-E.362-15D	15MF-1-MOD	A1-E.362	800	1950	0.500	1919	ODP,PREMIUM	2.000	1.1790	3	208	6.1	7.7A	15A	538	18.0311778223182

ELECTRIC MAKE-UP AIR UNIT(S)

FAN UNIT NO	TAG	DSGN KW'S	MAX KW'S	PHASE	VOLTS	AMPERAGE	TEMP RISE	OUTPUT BTUs
4	MAU-1	29	36	3	208	86.6	47 °F	122868

FAN OPTIONS

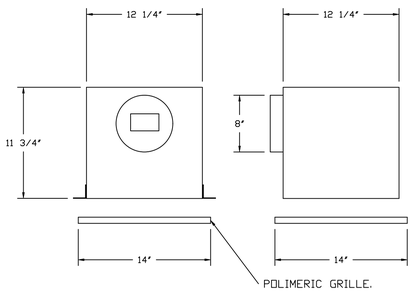
FAN UNIT NO	TAG	QTY	DESCRIPTION
1	PCU EF-1	1	SIF 24- SS LOW SP STRAIGHT DISCHARGE- SQUARE TO ROUND DISCHARGE ADAPTER
		1	SIF24 - INLET - STANDARD 24" DUCT CONNECTION
		1	PCU-SIZE 4 SIF-24 HESS
		1	OPPOSITE SIDE CONTROLS- SIF
		1	POLLUTION CONTROL UNIT WITH PREFILTER, HIGH EFFICIENCY, AND DUAL ODOR CONTROL WITH INSTALLED ELECTRICAL DETECTION SYSTEM. SIZE 4
		1	2 YEAR PARTS WARRANTY
2	EF-2	1	981L IN LINE KIT
		1	STRAIGHT THROUGH DISCHARGE - ASSEMBLY - CFA INLINE
		1	CEILING VIBRATION HANGERS
		1	FAN CONTROL - 3 AMP FAN MOUNTED SPEED CONTROL FOR CFA CEILING FANS
		1	2 YEAR PARTS WARRANTY
3	EF-3	1	CEILING VIBRATION HANGERS
		1	FAN CONTROL - 3 AMP FAN MOUNTED SPEED CONTROL FOR CFA CEILING FANS
		1	2 YEAR PARTS WARRANTY
4	MAU-1	1	AC INTERLOCK RELAY - 24VAC COIL
		1	MOTORIZED BACKDRAFT DAMPER FOR A1-D HOUSING - MEETS AMCA CLASS 1A RATING
		1	INSULATION OPTION FOR VBANK FILTER SECTION
		1	SEPARATE 120V WIRING PACKAGE (REQUIRED AND USED ONLY FOR DCV OR PREWIRE WITH VFD) - THREE PHASE ONLY
		1	UNIT MOUNTED VFD FOR USE WITH ECPM03
		1	2 YEAR PARTS WARRANTY

FAN ACCESSORIES

FAN UNIT NO	TAG	EXHAUST			SUPPLY			
		GREASE CUP	GRAVITY DAMPER	WALL MOUNT	SIDE DISCHARGE	GRAVITY DAMPER	MOTORIZED DAMPER	WALL MOUNT
1	PCU EF-1							
2	EF-2							
3	EF-3							
4	MAU-1				YES		YES	

CAN EF-2 AND EF-3 BE PROVIDED WITH BACKDRAFT DAMPERS?

FAN #3 CFA 200CA - EXHAUST FAN (EF-3)

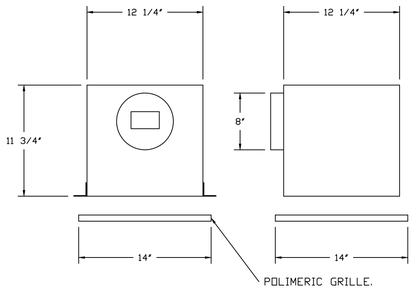


FEATURES:
- 1/2" ACOUSTIC HOUSING INSULATION.
- 20 GA. GALVANIZED STEEL HOUSING.
- PLUG TYPE DISCONNECT.
- BUILD IN AUTOMATIC BACKDRAFT DAMPER.
- AMCA SOUND & AIR CERTIFIED.
- UL LISTED.
- CAN BE INSTALLED IN CEILING OR WALL.
- 8 POSITION MOUNTING BRACKETS.

OPTIONS

CEILING VIBRATION HANGERS.
FAN CONTROL - 3 AMP FAN MOUNTED
SPEED CONTROL FOR CFA CEILING FANS.
2 YEAR PARTS WARRANTY.

FAN #2 CFA 250CA - EXHAUST FAN (EF-2)



FEATURES:
- 1/2" ACOUSTIC HOUSING INSULATION.
- 20 GA. GALVANIZED STEEL HOUSING.
- PLUG TYPE DISCONNECT.
- BUILD IN AUTOMATIC BACKDRAFT DAMPER.
- AMCA SOUND & AIR CERTIFIED.
- UL LISTED.
- CAN BE INSTALLED IN CEILING OR WALL.
- 8 POSITION MOUNTING BRACKETS.

OPTIONS

981L IN LINE KIT.
STRAIGHT THROUGH DISCHARGE - ASSEMBLY - CFA INLINE.
CEILING VIBRATION HANGERS.
FAN CONTROL - 3 AMP FAN MOUNTED
SPEED CONTROL FOR CFA CEILING FANS.
2 YEAR PARTS WARRANTY.

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MASTER DRAWING

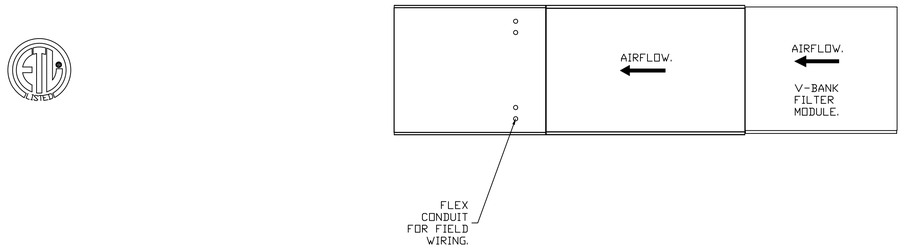
SHEET NO. 9

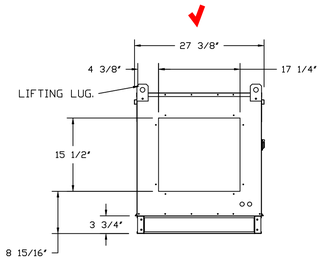
FAN #4 A1-E362-15D - HEATER (MAU-1)
1. ELECTRIC HEATED MAKE UP AIR UNIT WITH 15" MIXED FLOW DIRECT DRIVE FAN AND A 3 STAGES TOTAL, 1 MODULATING, 36KW 240 - 3 COIL.
2. V-BANK EZ FILTERS - INDOOR.
3. SIDE DISCHARGE - AIR FLOW RIGHT -> LEFT.
4. COOLING INTERLOCK RELAY. 24VAC COIL. 120V CONTACTS. LOCKS OUT BURNER CIRCUIT WHEN AC IS ENERGIZED.
5. MOTORIZED BACK DRAFT DAMPER 16" X 18" FOR SIZE 1 STANDARD & MODULAR HEATER UNITS W/EXTENDED SHAFT, STANDARD GALVANIZED CONSTRUCTION, 3/4" REAR FLANGE, LOW LEAKAGE, TFB120S ACTUATOR INCLUDED.
6. "INSULATION" FOR V-BANK INTAKE OPTION.
7. SEPARATE 120VAC WIRING PACKAGE FOR MAKE-UP AIR UNITS. OPTION MUST BE SELECTED WHEN MOUNTING VFD IN PREWIRE PANEL OR WITH DCV PACKAGE. PROVIDES SEPARATE 120VAC INPUT TO SUPPLY FAN. THIS 120V SIGNAL MUST BE RUN BY ELECTRICIAN FROM DCV TO MUA SWITCH.
8. UNIT MOUNTED VFD FOR USE WITH ECPM03.
9. 2 YEAR PARTS WARRANTY

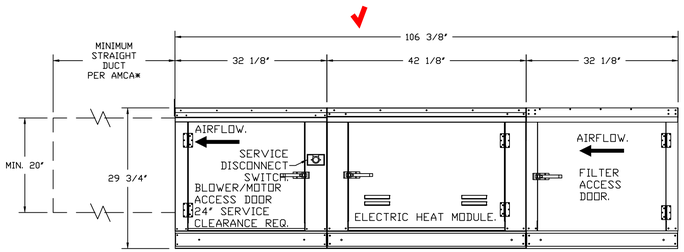
*NOTE: SUPPLY DUCT MUST BE INSTALLED TO MEET SMACNA STANDARDS. A MINIMUM STRAIGHT DUCT LENGTH MUST BE MAINTAINED DOWNSTREAM OF UNIT DISCHARGE AS OUTLINED IN AMCA PUBLICATION 201. WHEN USING RECTANGULAR DUCTWORK, ELBOWS MUST BE RADIUS THROAT, RADIUS BACK WITH TURNING VANES. FLEXIBLE DUCTWORK AND SQUARE THROAT/SQUARE BACK ELBOWS SHOULD NOT BE USED. ANY TRANSITION AND/OR TURNS IN THE DUCTWORK WILL CAUSE SYSTEM EFFECT. SYSTEM EFFECT WILL DRASTICALLY INCREASE STATIC PRESSURE AND REDUCE AIRFLOW. DO NOT RELY ON UNIT TO SUPPORT DUCT IN ANY WAY. FAILURE TO PROPERLY SIZE DUCTWORK MAY CAUSE SYSTEM EFFECTS AND REDUCE PERFORMANCE OF THE EQUIPMENT.
SUGGESTED STRAIGHT DUCT SIZE IS 20" x 20".

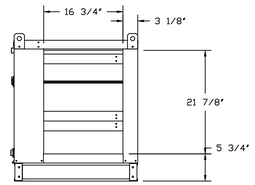
SUPPLY SIDE HEATER INFORMATION:

WINTER TEMPERATURE = 17°F. TEMP. RISE = 47°F.
KWs CALCULATED OFF ACTUAL AIR DENSITY.
KWs AT ALTITUDE OF 0.0 FT. = 29.
KWs AT ALTITUDE OF 98 FT. = 29.









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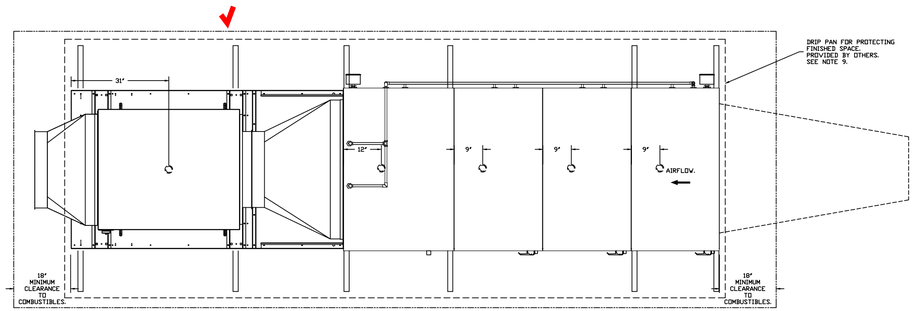
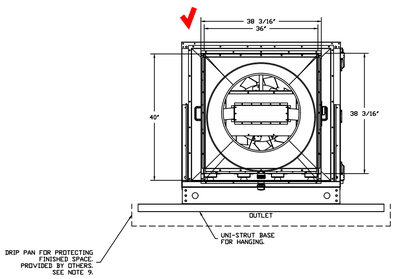
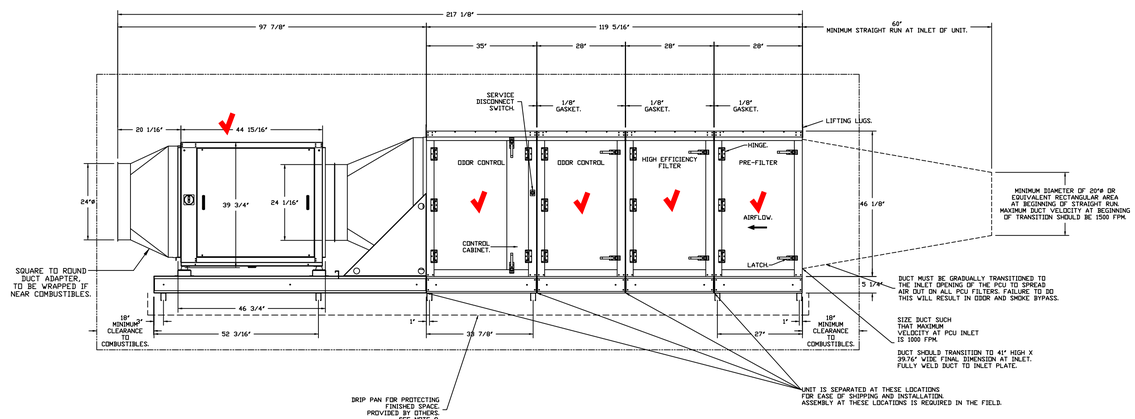
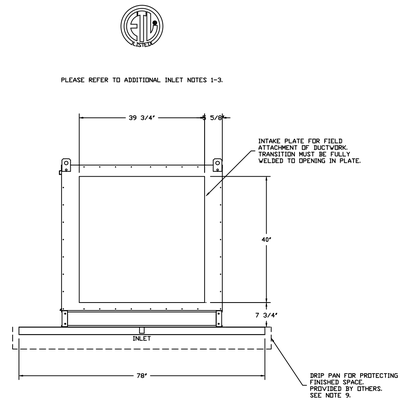
SHEET NO. 10

DESCRIPTION:
FAN #1 SIF240D-HESS-UL762 - EXHAUST FAN (PCU EF-1) - POLLUTION CONTROL UNIT WITH CORE PROTECTION FIRE SYSTEM INSTALLED. INCLUDES STEEL PRE FILTER MODULE, HIGH EFFICIENCY MERV 15 FILTER MODULE, AND CARBON CONTROL MODULES PREPIPED WITH 28 DL-M NOZZLES AND INCLUDES DOWNSTREAM PROTECTION. ELECTRIC FIRE DETECTOR AND NOZZLES ARE INCLUDED.









NOTES:
1. ALL DIMENSIONS ARE NOMINAL AND GIVEN IN INCHES.

2. C/US UL710 LISTED FOR GREASE DUCT INSTALLATION.

3. UL762 RATED DIRECT DRIVE SQUARE INLINE FAN WITH 24.75" HIGH EFFICIENCY MIXED FLOW WHEEL.

4. WHEN USED IN KITCHEN GREASE DUCT, UNIT MUST BE INSTALLED DOWNSTREAM OF A LISTED HOOD ASSEMBLY OF A UL710 LISTED HOOD ASSEMBLY OR A NFPA 96 COMPLIANT HOOD AS LONG AS IT IS INSTALLED WITH A FIRE SUPPRESSION SYSTEM THAT IS INTERLOCKED WITH THE NFPA 96 COMPLIANT HOOD FIRE SYSTEM.

5. CLEARANCE ON FILTER ACCESS SIDE OF THE PCU SHOULD BE A MINIMUM OF 36" FOR PROPER SERVICE OF THE UNIT. ALL OTHER SIDES SHOULD FOLLOW CLEARANCE TO COMBUSTIBLE GUIDELINES PER CODE.

6. UNIT CONTAINS PRESSURE MONITORING SWITCH. REFER TO ELECTRICAL SCHEMATIC OR OPERATION MANUAL FOR MORE INFORMATION.

7. 1.5" NPT DRAIN SUPPLIED IN EACH MODULE BASE. CONNECT INDIVIDUAL DRAINS TO A COMMON 2 1/2" DRAIN AND ROUTE TO GREASE INTERCEPTOR.

8. FIRE SYSTEM TO BE INSTALLED INDOORS OR IN A WEATHERTIGHT ENCLOSURE MAINTAINED BETWEEN 32° AND 130° F. THIS ENCLOSURE IS PROVIDED BY OTHERS.

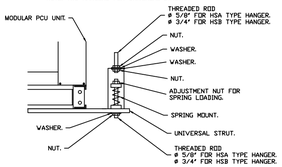
9. WHEN THE PCU IS INSTALLED ABOVE OR NEAR A FINISHED SPACE, THE INSTALLING CONTRACTOR MUST PROTECT THE FINISHED SPACE TO PREVENT WATER DAMAGE IN THE EVENT OF A FIRE SYSTEM DISCHARGE OR WHEN REGULAR CLEANING IS PERFORMED ON THE UNIT.

10. POLLUTION CONTROL UNIT IS RATED FOR INDOOR USE WHEN INSTALLED IN ACCORDANCE WITH IMC 506.5.2.4, INCLUDING THE USE OF A FIRE RATED ENCLOSURE AS APPLICABLE.

PCU OPTIONS:
- INDOOR MOUNTING CRADLE FOR SIZE 4 PCU WITH 3 OR 4 MODULES AND USBI BLOWER. 6 PIECES OF UNI-STRUT, 78 INCHES LONG EACH. 2 HSA310 HANGING ISOLATORS PER UNI-STRUT INCLUDED. FOR USE WITH USBI BLOWERS.
- PLENUM WITH MMI SCREEN, BACK PLATE WITH LABEL, AIRLINES/ QUICK CONNECTS/ AIR PROBES, CONDUIT/ FITTINGS /WIRING HARNESS.
- UNIVERSAL BALL VALVE SUPERVISION SWITCH KIT FOR 1-1/2" PIPE. INCLUDES BALL VALVE.
- INTAKE PLATE FOR SIZE 4 PCU WITH 39 3/4" X 40" HOLE FOR DUCT CONNECTIONS FOR USE WITH CUSTOM DUCT FITMENT OR FIELD FITMENT.
- POLLUTION CONTROL UNIT SHIPPED AS INDIVIDUAL MODULES. CONNECTION HARDWARE INCLUDED.

PCU FILTER SPECIFICATIONS					
DESIGN CFM - 3200					
MODULE	FILTER TYPE	FILTER EFFICIENCY	QTY	SIZE	SP(CLEAN) (in WC)
1	CAPTRATE SOLO	MERV 8	10	20X25X2	0.198
2	HIGH EFFICIENCY	MERV 15	10	20X25X4	0.131
3	OC CAUSTIC IMPREGNATED	N/A	10	20X25X4	0.404
4	OC 100% CARBON	N/A	10	20X25X4	0.404
					1.137

FAN #1 SIF240D-HESS-UL762 - EXHAUST FAN (PCU EF-1) - PCU #1 PCU-PF-HE-DC-DC-CPFS-4
FAN WEIGHT = 2248LBS
PCU LOCATION: INDOOR (CONDITIONED SPACE).
NOTE: TWO HANGERS PER UNIVERSAL STRUT.



TYPICAL "HS" UNIT SPRING MOUNTING

INLET NOTES:
1. LENGTH OF STRAIGHT DUCT ON INLET OF PCU TO BE 3 TIMES THE EQUIVALENT DUCT DIAMETER TO AVOID SYSTEM EFFECT.

2. MAX INLET DUCT VELOCITY TO BE 1000 FPM INTO THE PCU. DUCTWORK SHOULD BE SIZED APPROPRIATELY.

3. DUCT MUST BE GRADUALLY TRANSITIONED TO THE INLET OPENING OF THE PCU TO SPREAD AIR OUT ON ALL PCU FILTERS. FAILURE TO DO THIS WILL RESULT IN ODOR AND SMOKE BYPASS.

-A SERVICE PLATFORM MUST BE INSTALLED ON THE FILTER SIDE OF THE UNIT FOR PROPER FILTER MAINTENANCE.
-THE PLATFORM MUST BE THE SAME LENGTH AS THE PCU AND AT LEAST 3 FEET WIDE.
-THE PLATFORM MUST BE STRUCTURALLY SUPPORTED BY THE BUILDING, INDEPENDENT OF THE PCU.
-THE PLATFORM MUST BE DESIGNED TO PROPERLY SUPPORT THE WEIGHT OF ALL PCU FILTERS AND MAINTENANCE PERSONNEL.
-HANDRAILS MUST BE INSTALLED ON THE SERVICE PLATFORM TO PROTECT MAINTENANCE PERSONNEL.

FAN OPTIONS:
- SIF 24- SS LOW SP STRAIGHT DISCHARGE- SQUARE TO ROUND DISCHARGE ADAPTER
- SIF24 - INLET - STANDARD 24" DUCT CONNECTION
- PCU-SIZE 4 SIF-24 HESS
- OPPOSITE SIDE CONTROLS- SIF
- POLLUTION CONTROL UNIT WITH PREFILTER, HIGH EFFICIENCY, AND DUAL ODOR CONTROL WITH INSTALLED ELECTRICAL DETECTION SYSTEM. SIZE 4
- 2 YEAR PARTS WARRANTY

OK TO INCLUDE, BUT WE ARE SHOWING RECTANGULAR DUCT AT OUTLET

REVISIONS

	DESCRIPTION	DATE:
△		
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CHIPOTLE UTICA AVENUE #4501
BROOKLYN, NY, 11213

DATE: 8/10/2022

DWG.#: 5424233

DRAWN BY: JMB-40

SCALE: 1/2" = 1'-0"

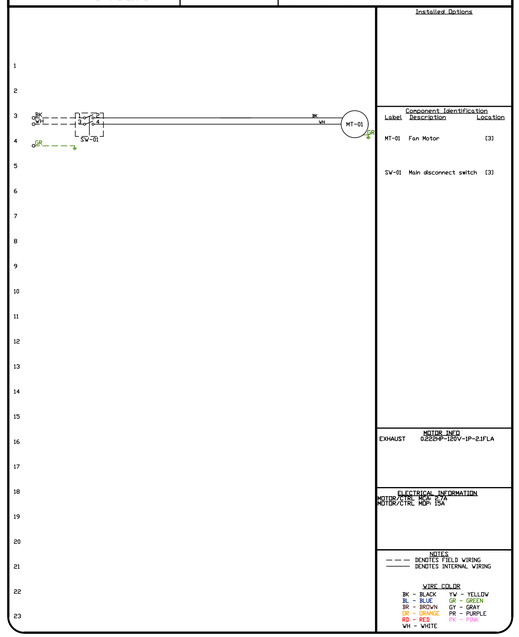
MASTER DRAWING

SHEET NO. 11

Exhaust Fan Wiring

JOB 5424233 - CHIPOTLE UTICA AVENUE #4501

DRAWING NUMBER EXH5424233-2 | SHIP DATE 8/10/2022 | MODEL **CFA 250CA**



Installed Options

Component Identification

Label	Description	Location
MT-01	Fan Motor	[3]
SV-01	Main disconnect switch	[3]

MOTOR INFO

EXHAUST 0.222HP-120V-1P-2.1FLA

ELECTRICAL INFORMATION

MOTOR/CTRL BRCH 15A
MOTOR/CTRL MCP: 15A

NOTES

— — — DENOTES FIELD WIRING
——— DENOTES INTERNAL WIRING

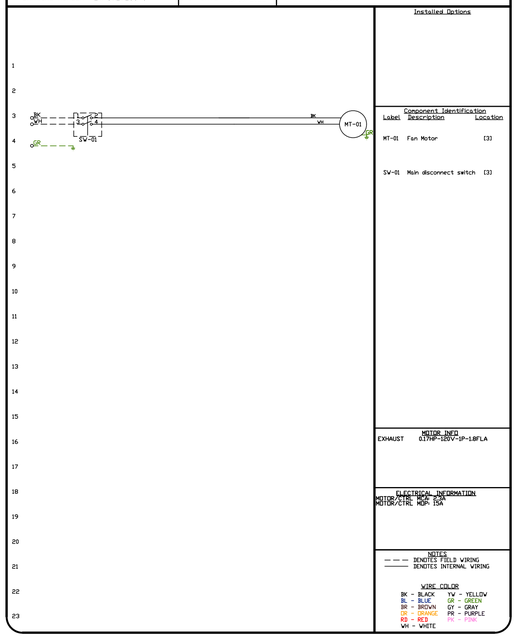
WIRE COLOR

BK	BLACK	YW	YELLOW
BL	BLUE	GR	GREEN
BR	BROWN	GY	GRAY
OR	ORANGE	PR	PURPLE
RD	RED	PK	PINK
WH	WHITE		

Exhaust Fan Wiring

JOB 5424233 - CHIPOTLE UTICA AVENUE #4501

DRAWING NUMBER EXH5424233-3 | SHIP DATE 8/10/2022 | MODEL **CFA 200CA**



Installed Options

Component Identification

Label	Description	Location
MT-01	Fan Motor	[3]
SV-01	Main disconnect switch	[3]

MOTOR INFO

EXHAUST 0.17HP-120V-1P-1.8FLA

ELECTRICAL INFORMATION

MOTOR/CTRL BRCH 15A
MOTOR/CTRL MCP: 15A

NOTES

— — — DENOTES FIELD WIRING
——— DENOTES INTERNAL WIRING

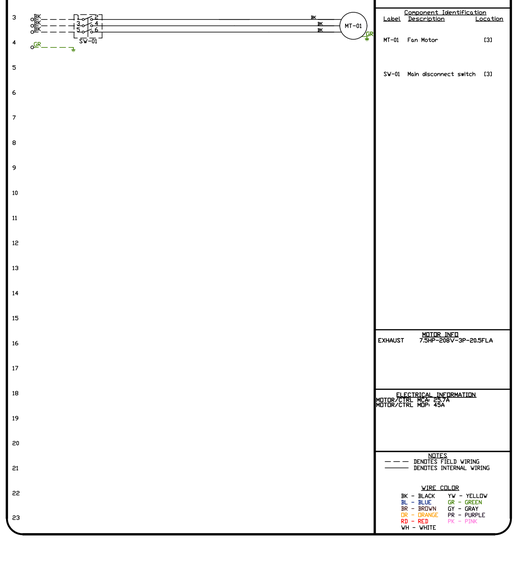
WIRE COLOR

BK	BLACK	YW	YELLOW
BL	BLUE	GR	GREEN
BR	BROWN	GY	GRAY
OR	ORANGE	PR	PURPLE
RD	RED	PK	PINK
WH	WHITE		

Exhaust Fan Wiring

JOB 5424233 - CHIPOTLE UTICA AVENUE #4501

DRAWING NUMBER EXH5424233-1 | SHIP DATE 8/10/2022 | MODEL **HFP24DD**



Installed Options

Component Identification

Label	Description	Location
MT-01	Fan Motor	[3]
SV-01	Main disconnect switch	[3]

MOTOR INFO

EXHAUST 7.5HP-208V-3P-28.5FLA

ELECTRICAL INFORMATION

MOTOR/CTRL BRCH 45A
MOTOR/CTRL MCP: 45A

NOTES

— — — DENOTES FIELD WIRING
——— DENOTES INTERNAL WIRING

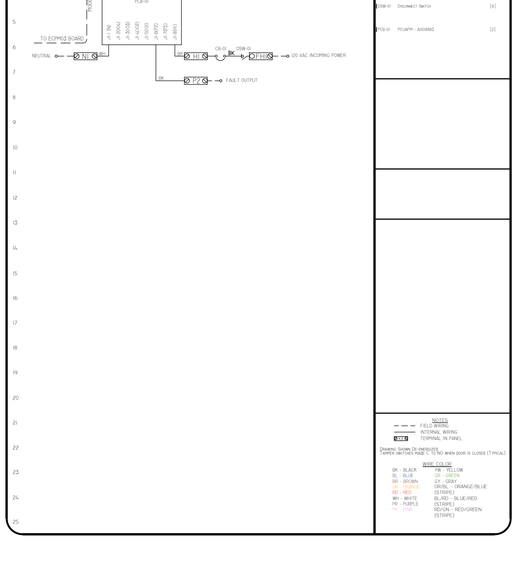
WIRE COLOR

BK	BLACK	YW	YELLOW
BL	BLUE	GR	GREEN
BR	BROWN	GY	GRAY
OR	ORANGE	PR	PURPLE
RD	RED	PK	PINK
WH	WHITE		

PCU Advanced Filter Monitoring

JOB NAME CHIPOTLE UTICA AVENUE #4501 | DATE 8/10/2022

DRAWING NUMBER PCU#1-5424233-1 | JOB NUMBER 5424233 | MODEL **PCU #1 (PCU EF-1) on Fan #1**



Rack 24 VAC RELAY

NO	4	5
NC	2	1
COIL	8	
COM	6	5

COMPONENT IDENTIFICATION

Label	Description	Location
20A-01	Circuit Breaker	[4]
CB-01	Disconnect Switch	[4]
PCB-01	PCUAFM - A500882	[2]

NOTES

— — — FIELD WIRING
——— INTERNAL WIRING
TERMINAL IN PANEL

Drawing Symbol Explanation:
Typical switches shage in its NO when door is closed (Typical)

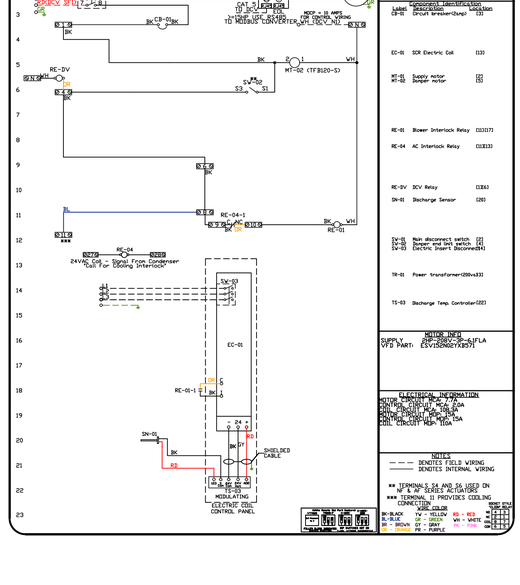
WIRE COLOR

BK	BLACK	YW	YELLOW
BL	BLUE	GR	GREEN
BR	BROWN	GY	GRAY
OR	ORANGE	BU/WH	BLUE/WHITE (STRIPE)
RD	RED	BU/YW	BLUE/YELLOW (STRIPE)
WH	WHITE	RD/GR	RED/GREEN (STRIPE)
PK	PINK		

Electric Heater Wiring

JOB 5424233 - CHIPOTLE UTICA AVENUE #4501

DRAWING NUMBER EI5424233-4 | SHIP DATE 8/10/2022 | MODEL **A1-E362-15D**



Installed Options

Motorized Back Draft Damper

DCV Wiring

24V AC Interlock Relay

Component Identification

Label	Description	Location
CB-01	Circuit Breaker(Dump)	[2]
EC-01	SCR Electric Coil	[13]
MT-01	Supply motor	[2]
MT-02	Damper motor	[13]
RE-01	Blower Interlock Relay	[11][17]
RE-04	AC Interlock Relay	[11][13]
RE-DV	DCV Relay	[13][6]
SN-01	Discharge Sensor	[20]
SV-01	Main disconnect switch	[2]
SV-02	Damper end limit switch	[7]
SV-03	Electric Heat Disconnect	[4]
TR-01	Power transformer	[20][4][3]
TS-03	Discharge Temp. Controller	[22][3]

MOTOR INFO

SUPPLY 7.5HP-208V-3P-16.6FLA
VFD PART: ESV152N02YA1B571

ELECTRICAL INFORMATION

MOTOR CIRCUIT BRCH 70A
CONTROL CIRCUIT BRCH 15A
HEATER CIRCUIT BRCH 125A
CONTROL CIRCUIT MCP: 15A
COIL CIRCUIT MCP: 15A

NOTES

— — — DENOTES FIELD WIRING
——— DENOTES INTERNAL WIRING

** TERMINAL 5 S4 AND S6 USED ON NF & AF SERIES RC/TARIFFS
*** TERMINAL 11 PROVIDES COOLING CONNECTION

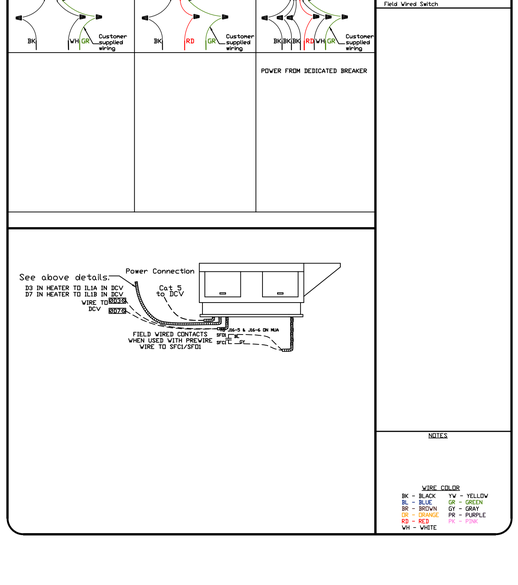
WIRE COLOR

BK	BLACK	YW	YELLOW
BL	BLUE	RD	RED
BR	BROWN	GY	GRAY
OR	ORANGE	PR	PURPLE
		WH	WHITE
		PK	PINK

Installation Wiring

JOB 5424233 - CHIPOTLE UTICA AVENUE #4501

DRAWING NUMBER RP5424233-4 | SHIP DATE 8/10/2022 | MODEL **A1-E362-15D**



Installed Options

DCV Connections

Field Wired Switch

POWER FROM DEDICATED BREAKER

NOTES

WIRE COLOR

BK	BLACK	YW	YELLOW
BL	BLUE	GR	GREEN
BR	BROWN	GY	GRAY
OR	ORANGE	PR	PURPLE
RD	RED	PK	PINK
WH	WHITE		

REVISIONS

	DESCRIPTION	DATE:
△		
△		
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CHIPOTLE UTICA AVENUE #4501
BROOKLYN, NY, 11213

DATE: 8/10/2022

DWG.#: 5424233

DRAWN BY: JMB-40

SCALE: 3/4" = 1'-0"

MASTER DRAWING

SHEET NO. 12

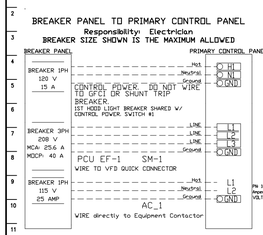
ELECTRICAL PACKAGE – JOB#5424233

NO	TAG	PACKAGE #	LOCATION	SWITCHES		OPTION	FANS CONTROLLED				
				LOCATION	QUANTITY		FAN TAG	TYPE	Φ	HP	VOLT	FLA
1		SC-311110MA	UTILITY CABINET LEFT	03 - UTILITY CABINET LEFT	1 LIGHT	SMART CONTROLS THERMOSTATIC CONTROL W/ RELAY ON/OFF WITH SUPPLY	PCU EF-1	EXHAUST	3	7.500	208	20.5
				HOOD # 1	1 FAN		MAU-1	SUPPLY	3	2.000	208	6.1

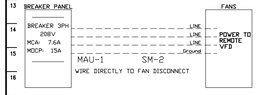
JOB NO 5424233 | MODEL NUMBER SC-311110MA | JOB NAME CHIPOTLE UTICA AVENUE #4501 | DRAWN BY | DATE 8/10/2022 | SCHEMATIC TYPE INSTALL | DWG NO ECP #1-1

DESCRIPTION OF OPERATION:
3 Phase w/ control for 1 Exhaust Fan, 1 Supply Fan, Exhaust on in Fire, Lights out in Fire, Relay On/Off with Supply Fan, Fan(s) On/Off Thermostatically Controlled. Room temperature sensor shipped loose for field installation. INVERTER DUTY 3 PHASE MOTOR REQUIRED FOR USE WITH VFD.

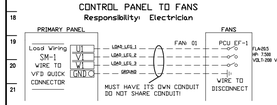
BREAKER PANEL TO PRIMARY CONTROL PANEL
Responsibility: Electrician
BREAKER SIZE SHOWN IS THE MAXIMUM ALLOWED

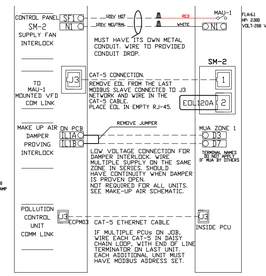


BREAKER PANEL TO FANS
Responsibility: Electrician

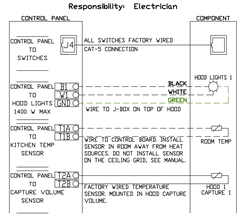


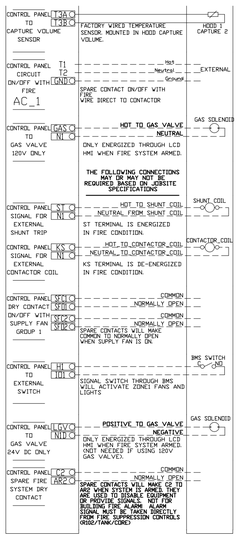
CONTROL PANEL TO FANS
Responsibility: Electrician





CONTROL PANEL TO ACCESSORY ITEMS
Responsibility: Electrician

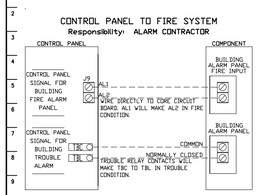


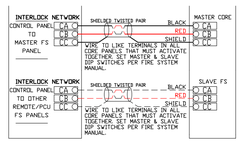


JOB NO 5424233 | MODEL NUMBER SC-311110MA | JOB NAME CHIPOTLE UTICA AVENUE #4501 | DRAWN BY | DATE 8/10/2022 | SCHEMATIC TYPE INSTALL | DWG NO ECP #1-2

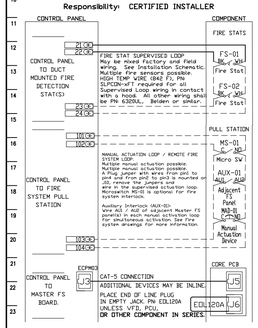
DESCRIPTION OF OPERATION:
3 Phase w/ control for 1 Exhaust Fan, 1 Supply Fan, Exhaust on in Fire, Lights out in Fire, Relay On/Off with Supply Fan, Fan(s) On/Off Thermostatically Controlled. Room temperature sensor shipped loose for field installation. INVERTER DUTY 3 PHASE MOTOR REQUIRED FOR USE WITH VFD.

CONTROL PANEL TO FIRE SYSTEM
Responsibility: ALARM CONTRACTOR





CONTROL PANEL TO FIRE SYSTEM
Responsibility: CERTIFIED INSTALLER



JOB NO 5424233 | MODEL NUMBER SC-311110MA | JOB NAME CHIPOTLE UTICA AVENUE #4501 | DRAWN BY | DATE 8/10/2022 | SCHEMATIC TYPE INSTALL | DWG NO ECP #1-3

DESCRIPTION OF OPERATION:
Fire System #1 TANK FS - 45/40. Tyco-based Fire Protection System equipped with Electronic Detection utilizing CORE board as a Listed Release Mechanism. Installed in Hood Utility Cabinet with integral hood prewire panel.

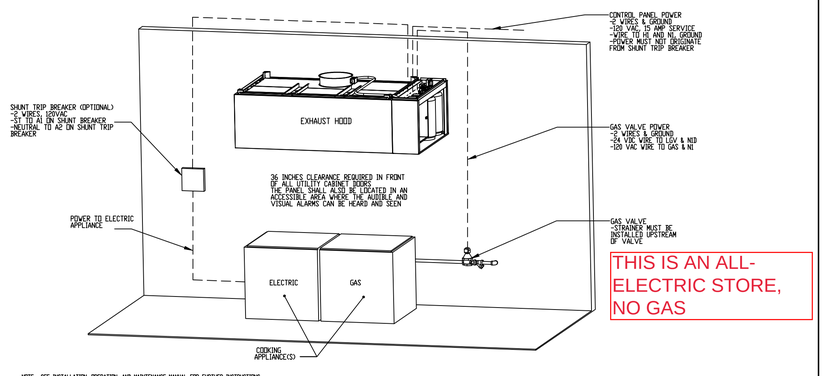
TANK PROTECTION ELECTRICAL DETAIL

02/10/2021 Rev. 2

ELECTRICIAN
1. WIRE MAIN CONTROL PANEL PER INCLUDED SCHEMATIC
2. WIRE ALL FANS PER INCLUDED SCHEMATIC
3. WIRE SHUNT TRIP BREAKER (OPTIONAL)
4. WIRE UDS APPLIANCE KILL SWITCH, IF EQUIPPED (OPTIONAL)
5. WIRE GAS VALVE

FS-1: MASTER

ELECTRICAL CONTRACTOR REQUIREMENT					
ITEM	CONNECTION IN PANEL	CONNECTION IN DEVICE	VOLTAGE	AMPERAGE	COMMENTS
SHUNT TRIP BREAKER (OPTIONAL)	ST & N1	BREAKER COIL (A1 & A2)	120 VAC	< 4 AMPS	ST TO A1 ON SHUNT BREAKER COIL, AND NEUTRAL TO A2 ON SHUNT TRIP BREAKER COIL
CONTROL PANEL POWER	H1 & N1 + GROUND	CIRCUIT BREAKER	120 VAC	15 AMPS	CONTROL PANEL POWER MUST NOT BE RUN THROUGH SHUNT TRIP BREAKER
UDS APPLIANCE KILL SWITCH (OPTIONAL)	KTS & N1	KTS & N1	120 VAC	< 4 AMPS	KILL SWITCH TERMINALS MUST BE IN SERIES WITH OTHER KILL SWITCHES
REMOTE 120VAC ANSUL AUTOMAN (OPTIONAL)	AUL, AUZ	SOLENOID	120 VAC	< 6 AMPS	120V TO AUL, AUZ TO ANSUL ELECTRIC AUTOMAN, ANSUL SOLENOID TO NEUTRAL
GAS VALVE	LGV & N1D (IF 24 VDC) GAS & N1 (IF 120 VAC)	RED/RED/GREEN	24 VDC OR 120 VAC	< 1.0 AMPS	IF 24 VDC - 2 WIRES & GROUND, N1D TO RED, LGV TO RED, AND GREEN TO GROUND IF 120 VAC - 2 WIRES & GROUND GAS TO RED, N1 TO RED, AND GREEN TO GROUND



NOTE: SEE INSTALLATION, OPERATION, AND MAINTENANCE MANUAL FOR FURTHER INSTRUCTIONS

JOB NO 5424233 | MODEL NUMBER SC-311110MA | JOB NAME CHIPOTLE UTICA AVENUE #4501 | DRAWN BY | DATE 8/10/2022 | SCHEMATIC TYPE INSTALL | DWG NO ECP #1-4

DESCRIPTION OF OPERATION:
Fire System #1 TANK FS - 45/40. Tyco-based Fire Protection System equipped with Electronic Detection utilizing CORE board as a Listed Release Mechanism. Installed in Hood Utility Cabinet with integral hood prewire panel.

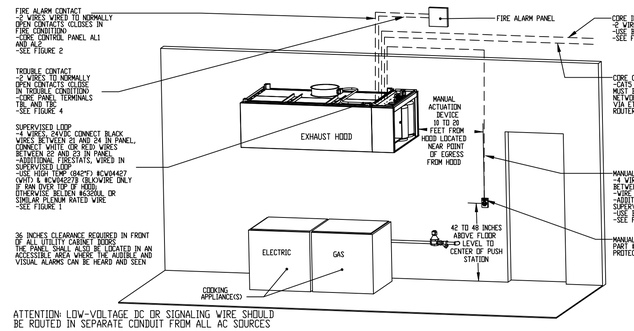
TANK PROTECTION LOW-VOLTAGE DETAIL

02/10/2021 Rev. 2

ALARM CONTRACTOR:
1. WIRE MANUAL ACTUATION DEVICE(S), REMOTE FIRESTAT(S), CORE INTERLOCK(S), FIRE SENSOR(S) AND FIRE ALARM CONTACTS
2. COMPLETE FINAL HOOKUP OF SYSTEM
3. VERIFY FINAL FIRE SYSTEM TEST

FS-1: MASTER

ALARM CONTRACTOR REQUIREMENT					
ITEM	CONNECTION IN PANEL	CONNECTION ON DEVICE	VOLTAGE	AMPERAGE	COMMENTS
MANUAL ACTUATION DEVICE(S)	101 AND 104 102 AND 103	1 & 2	24 VDC	< 10 AMPS	WIRE MANUAL ACTUATION DEVICE TERMINAL 1 BETWEEN CORE PANEL TERMINALS 102 AND 103 WIRE MANUAL ACTUATION DEVICE TERMINAL 2 BETWEEN CORE PANEL TERMINALS 101 AND 104 JUMPER 101 TO 104 AND 102 TO 103 IF NO MANUAL ACTUATION DEVICE IS INSTALLED
MANUAL ACTUATION DEVICE COVER	N/A	N/A	N/A	N/A	MANUAL ACTUATION DEVICE COVER MUST BE INSTALLED IF SURFACE MOUNTED USE COVER EXTENSION 317-25319
REMOTE FIRESTAT SENSOR(S)	21 AND 24 22 AND 23	BLACK AND WHITE	24 VDC	< 10 AMPS	WIRE FIRE SENSOR WHITE WIRES BETWEEN HOOD CORE PANEL TERMINALS 22 AND 23 WIRE FIRE SENSOR BLACK WIRE BETWEEN HOOD CORE PANEL TERMINALS 21 AND 24 HIGH TEMP (842°F) #CV044427 (WHT) & #CV044278 (BLK)WIRE OR SIMILAR ONLY IF RAN OVER TOP OF HEED; OTHERWISE BELDEN #6329UL OR SIMILAR PLENUM RATED WIRE. SEE FIGURE 1
FIRE ALARM CONTACT	AL1, AL2	VARIES	50V MAX (AC/DC)	UP TO 1 AMP	FIRE ALARM RELAY CONTACTS FOR BUILDING FIRE ALARM LOCATED IN THE CORE ELECTRICAL CONTROL PANEL
CORE INTERLOCK(S)	ILA, ILB, ILC	ILA, ILB, ILC	RS-485 COMMUNICATIONS SIGNAL		CORE SYSTEM (1) ILA, TO CORE SYSTEM (2) ILA CORE SYSTEM (1) ILB, TO CORE SYSTEM (2) ILB CORE SYSTEM (1) ILC, TO CORE SYSTEM (2) ILC USE BELDEN# 88760 OR SIMILAR WIRE
TROUBLE CONTACT	TBC, TBL, TDK	VARIES	MAX 120 VAC	UP TO 6 AMPS	WIRE TO TBL & TBC NORMALLY OPEN CONTACT, CLOSES IN TROUBLE CONDITION
CORE COMMUNICATIONS CABLE	RJ-45 Jack	INTERNET CONNECTION	SIGNAL	<1.0 AMPS	TYPICAL CONNECTION CAT5 CABLE TO LOCAL AREA NETWORK VIA ETHERNET SWITCH OR WIRELESS ROUTER WITH VALID INTERNET CONNECTION



ATTENTION: LOW-VOLTAGE DC OR SIGNALING WIRE SHOULD BE ROUTED IN SEPARATE CONDUIT FROM ALL AC SOURCES

NOTE: SEE INSTALLATION, OPERATION, AND MAINTENANCE MANUAL FOR FURTHER INSTRUCTIONS

REVISIONS

	DESCRIPTION	DATE:
△		
△		
△		
△		

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CHIPOTLE UTICA AVENUE #4501
BROOKLYN, NY, 11213

DATE: 8/10/2022

DWG.#: 5424233

DRAWN BY: JMB-40

SCALE: 3/4" = 1'-0"

MASTER DRAWING

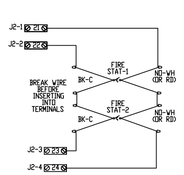
SHEET NO. 13

JOB NO	MODEL NUMBER	DRAWN BY	SCHEMATIC TYPE	DESCRIPTION OF OPERATION:
5424233	SC-311110MA		INSTALL	Fire System #: TANK FS - 45/45 Tank-based Fire Protection System equipped with Electronic Detection utilizing CORE board as a Listed Release Mechanism. Installed in Hood Utility Cabinet with integral hood prewire panel.
JOB NAME	CHIPOTLE UTICA AVENUE #4501	DATE	DWG NO	
		8/10/2022	ECP #1-5	

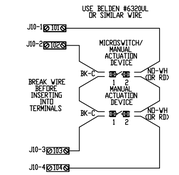
TANK PROTECTION LOW-VOLTAGE FIGURES

02/10/2021 Rev. 17

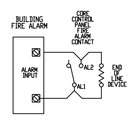
FS-1: MASTER



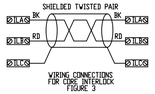
WIRING CONNECTIONS FOR FIRESTAT LOOP
FIGURE 1

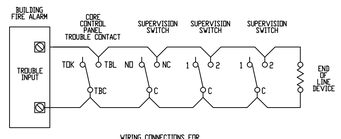


WIRING CONNECTIONS
FOR MANUAL ACTUATION LOOP
FIGURE 1A



WIRING CONNECTIONS FOR FIRE ALARM CONTACT
FIGURE 2





WIRING CONNECTIONS FOR
TROUBLE CONTACT
FIGURE 4

ATTENTION: LOW-VOLTAGE DC OR SIGNALING WIRE SHOULD
BE ROUTED IN SEPARATE CONDUIT FROM ALL AC SOURCES

NOTE: SEE INSTALLATION, OPERATION, AND MAINTENANCE MANUAL FOR FURTHER INSTRUCTIONS

JOB NO	MODEL NUMBER	DRAWN BY	SCHEMATIC TYPE	DESCRIPTION OF OPERATION:
5424233	SC-311110MA		INSTALL	3 Phase w/ control for 1 Exhaust Fan, 1 Supply Fan, Exhaust on in Fire, Lights out in Fire, Relay On/Off with Supply Fan, Funnel On/Off Thermostatically Controlled. Room temperature sensor shipped loose for Field Installation. INVERTER DUTY 3 PHASE MOTOR REQUIRED FOR USE WITH VFD
JOB NAME	CHIPOTLE UTICA AVENUE #4501	DATE	DWG NO	
		8/10/2022	ECP #1-6	

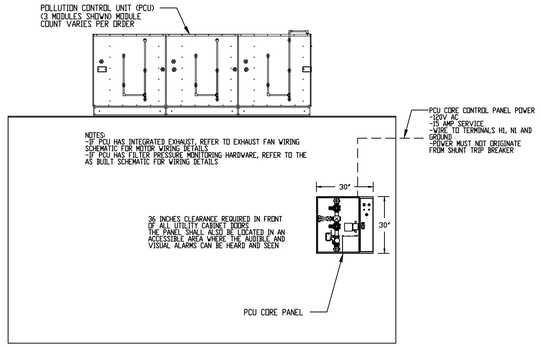
PCU CORE FIRE PROTECTION ELECTRICAL DETAIL

04/11/2017 Rev. 16

ELECTRICIAN:
1) WIRE MAIN CONTROL PANEL PER INCLUDED SCHEMATIC

PCU-1 FS: SLAVE

ELECTRICAL CONTRACTOR REQUIREMENT					
ITEM	CONNECTION IN PANEL	CONNECTION ON DEVICE	VOLTAGE	AMPERAGE	COMMENTS
PCU CORE CONTROL PANEL POWER	H1, N1, GROUND	CIRCUIT BREAKER	120 VAC	15 AMPS	CONTROL PANEL POWER MUST NOT BE RUN THROUGH SHUNT TRIP BREAKER



NOTE: SEE INSTALLATION, OPERATION, AND MAINTENANCE MANUAL FOR FURTHER INSTRUCTIONS

ATTENTION: LOW-VOLTAGE DC OR SIGNALING WIRE SHOULD
BE ROUTED IN SEPARATE CONDUIT FROM ALL AC SOURCES.

ELECTRICAL CONTRACTOR

JOB NO	MODEL NUMBER	DRAWN BY	SCHEMATIC TYPE	DESCRIPTION OF OPERATION:
5424233	SC-311110MA		INSTALL	3 Phase w/ control for 1 Exhaust Fan, 1 Supply Fan, Exhaust on in Fire, Lights out in Fire, Relay On/Off with Supply Fan, Funnel On/Off Thermostatically Controlled. Room temperature sensor shipped loose for Field Installation. INVERTER DUTY 3 PHASE MOTOR REQUIRED FOR USE WITH VFD
JOB NAME	CHIPOTLE UTICA AVENUE #4501	DATE	DWG NO	
		8/10/2022	ECP #1-7	

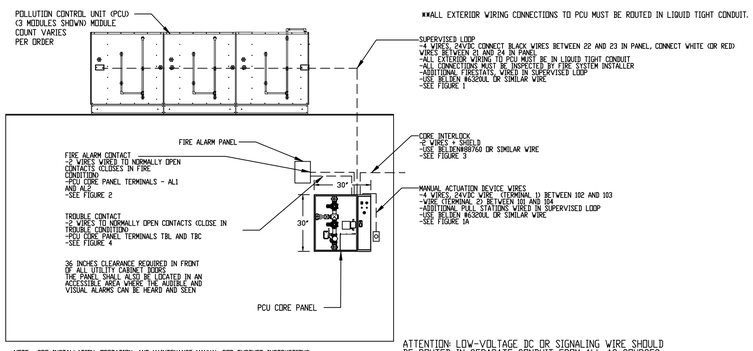
PCU CORE FIRE PROTECTION LOW-VOLTAGE WIRING DETAIL

04/11/2017 Rev.17

ALARM CONTRACTOR:
1) WIRE REMOTE FIRESTAT SENSOR(S), HOOD/PCU CORE INTERLOCK AND FIRE ALARM CONTACTS
2) COMPLETE FINAL HOOKUP OF SYSTEM
3) INSPECT ALL WIRING TO POLLUTION CONTROL UNIT
4) PERFORM FINAL FIRE SYSTEM TEST
5) FILL SURFACTANT TANK

PCU-1 FS: SLAVE

ALARM CONTRACTOR REQUIREMENT					
ITEM	CONNECTION IN PCU CORE PANEL	CONNECTION ON DEVICE	VOLTAGE	AMPERAGE	COMMENTS
FIRESTAT SENSOR(S)**	21 AND 24 22 AND 23	BLACK & WHITE	24 VDC	< 10 AMPS	WIRE FIRE SENSOR BLACK WIRES BETWEEN TERMINALS 22 AND 23. WIRE FIRE SENSOR WHITE (OR RED) WIRE BETWEEN TERMINALS 21 AND 24. USE BELDEN# 6320UL OR SIMILAR WIRE
MANUAL ACTUATION DEVICE(S)	101 AND 104 102 AND 103	1 & 2	24 VDC	< 10 AMPS	WIRE MANUAL ACTUATION DEVICE TERMINAL 1 BETWEEN CORE PANEL TERMINALS 102 AND 103 WIRE MANUAL ACTUATION DEVICE TERMINAL 2 BETWEEN CORE PANEL TERMINALS 101 AND 104 JUMPER 101 TO 104 AND 102 TO 103 IF NO MANUAL ACTUATION DEVICE IS INSTALLED
CORE INTERLOCK	ILA, ILB, ILC	ILA, ILB, ILC	RS-485 COMMUNICATIONS SIGNAL		CORE SYSTEM (1): ILA, TO CORE SYSTEM (2) ILA. CORE SYSTEM (1) ILB, TO CORE SYSTEM (2) ILB. CORE SYSTEM (1) ILC, TO CORE SYSTEM (2) ILC. USE BELDEN# 88760 OR SIMILAR WIRE
FIRE ALARM CONTACT	AL1, AL2	VARIES	50V MAX (AC/DC)	<1.0 AMPS	WIRE TO AL1 & AL2 NORMALLY OPEN CONTACT, CLOSES IN FIRE CONDITION
TROUBLE CONTACT	TBC, TBL, TDK	VARIES	MAX 120 VAC	UP TO 6 AMPS	WIRE TO TBL & TBC NORMALLY OPEN CONTACT, CLOSES IN TROUBLE CONDITION



NOTE: SEE INSTALLATION, OPERATION, AND MAINTENANCE MANUAL FOR FURTHER INSTRUCTIONS

ATTENTION: LOW-VOLTAGE DC OR SIGNALING WIRE SHOULD
BE ROUTED IN SEPARATE CONDUIT FROM ALL AC SOURCES

CORE CERTIFIED INSTALLER

JOB NO	MODEL NUMBER	DRAWN BY	SCHEMATIC TYPE	DESCRIPTION OF OPERATION:
5424233	SC-311110MA		INSTALL	3 Phase w/ control for 1 Exhaust Fan, 1 Supply Fan, Exhaust on in Fire, Lights out in Fire, Relay On/Off with Supply Fan, Funnel On/Off Thermostatically Controlled. Room temperature sensor shipped loose for Field Installation. INVERTER DUTY 3 PHASE MOTOR REQUIRED FOR USE WITH VFD
JOB NAME	CHIPOTLE UTICA AVENUE #4501	DATE	DWG NO	
		8/10/2022	ECP #1-8	

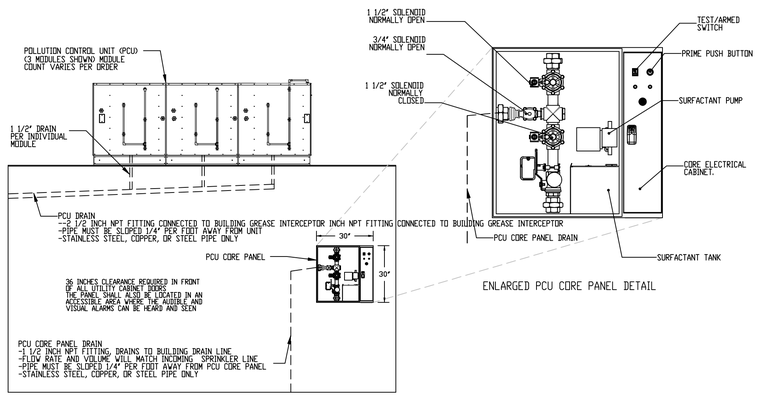
PCU CORE FIRE PROTECTION PLUMBING DETAIL

04/11/2017 Rev. 14

PLUMBER:
1) CONNECT PCU CORE PANEL DRAIN
2) CONNECT PCU DRAIN
3) WHEN THE PCU IS INSTALLED ABOVE OR NEAR A FINISHED SPACE, THE INSTALLING CONTRACTOR MUST PROTECT THE FINISHED SPACE TO PREVENT WATER DAMAGE IN THE EVENT OF A FIRE SYSTEM DISCHARGE OR WHEN REGULAR CLEANING IS PERFORMED ON THE UNIT.

PCU-1 FS: SLAVE

PLUMBING CONTRACTOR REQUIREMENT					
ITEM	CONNECTION	MATERIAL	PRESSURE	FLOW RATE	COMMENTS
PCU CORE PANEL DRAIN	1 1/2" NPT	STAINLESS STEEL, COPPER, STEEL PIPE ONLY	SPRINKLER SYSTEM PRESSURE	CAPACITY OF THE SPRINKLER SYSTEM	CONNECT TO BUILDING DRAIN CAPABLE OF HANDLING WATER VOLUME. LINE MUST BE SLOPED AWAY FROM PANEL 1/4" PER FOOT.
PCU DRAIN	2 1/2" NPT	STAINLESS STEEL, COPPER, STEEL PIPE ONLY	N/A	CAPACITY OF THE SPRINKLER SYSTEM	CONNECT TO BUILDING GREASE INTERCEPTOR. LINE MUST BE SLOPED AWAY FROM POLLUTION CONTROL UNIT 1/4" PER FOOT.



ENLARGED PCU CORE PANEL DETAIL

NOTE: SEE INSTALLATION, OPERATION, AND MAINTENANCE MANUAL FOR FURTHER INSTRUCTIONS

PLUMBING CONTRACTOR

REVISIONS

	DESCRIPTION	DATE:
△		
△		
△		
△		

CAPTIVE-AIRE
Highwoods Group
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4641 Paragon Park Rd., Raleigh, NC. 27616 PHONE: (919) 875-0420 FAX: (919) 875-0577 EMAIL: reg40@captiveaire.com

CHIPOTLE UTICA AVENUE #4501
BROOKLYN, NY, 11213

DATE: 8/10/2022

DWG.#: 5424233

DRAWN BY: JMB-40

SCALE: 3/4" = 1'-0"

MASTER DRAWING

SHEET NO. 14

JOB NO 5424233 | MODEL NUMBER SC-311110MA | JOB NAME CHIPOTLE UTICA AVENUE #4501 | DRAWN BY | SCHEMATIC TYPE INSTALL | DATE 8/10/2022 | DWG NO ECP #1-9

PCU CORE FIRE PROTECTION SPRINKLER DETAIL

04/11/2017 Rev. 15

BUILDING SPRINKLER CONTRACTOR:
1) CONNECT CORE WATER LINE TO BUILDING WET SPRINKLER SYSTEM. STAINLESS STEEL, COPPER, STEEL PIPE ONLY
2) CONNECT PCU CORE PANEL TO PCU SPRAY BARS. STAINLESS STEEL, COPPER, STEEL PIPE ONLY

PCU-1 FS: SLAVE

SPRINKLER CONTRACTOR REQUIREMENT

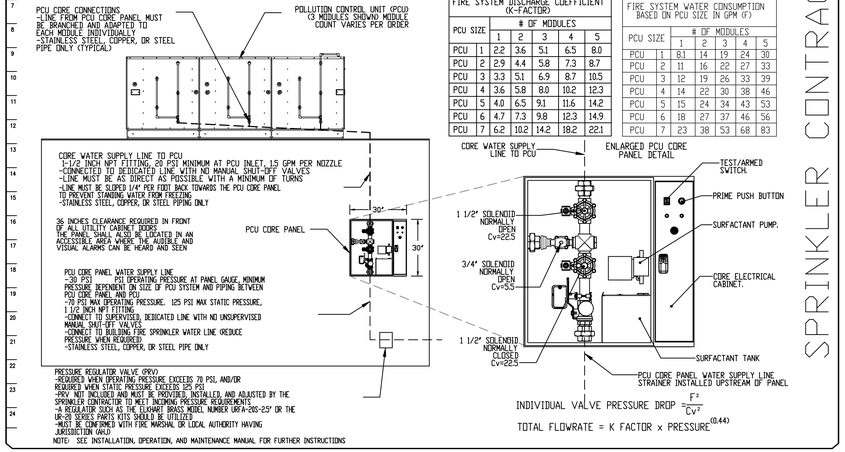
ITEM	CONNECTION	OPERATING PRESSURE	K-FACTOR	FLOW RATE BASED OFF MINIMUM PSI ALLOWED	COMMENTS
PCU CORE PANEL WATER SUPPLY LINE	1 1/2" NPT	38 PSI	10.2	38 GPM	WATER LINE MUST BE SUPERVISED AND HAVE NO MANUAL UNSUPERVISED SHUT-OFF VALVES, STRAINER REQUIRED UPSTREAM OF PANEL
CORE WATER SUPPLY LINE TO PCU	1 1/2" NPT	28 PSI MINIMUM AT PCU INLET	10.2	38 GPM	WATER LINE MUST BE SLOPED BACK 1/4" PER FOOT TO PCU CORE PANEL TO PREVENT STANDING WATER FROM FREEZING. LINE MUST BE ADAPTED TO 3/8" AT INLET OF EACH MODULE.

FIRE SYSTEM DISCHARGE COEFFICIENT (K-FACTOR)

PCU SIZE	# OF MODULES 1	2	3	4	5
PCU 1	2.2	3.6	5.1	6.5	8.0
PCU 2	2.9	4.4	5.8	7.3	8.7
PCU 3	3.3	5.1	6.9	8.7	10.5
PCU 4	3.6	5.8	8.0	10.2	12.3
PCU 5	4.0	6.5	9.1	11.6	14.2
PCU 6	4.7	7.3	9.8	12.3	14.9
PCU 7	6.2	10.2	14.2	18.2	22.1

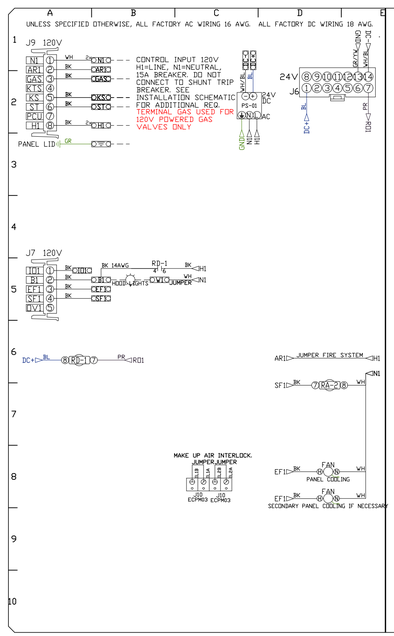
FIRE SYSTEM WATER CONSUMPTION BASED ON PCU SIZE IN GPM (F)

PCU SIZE	# OF MODULES 1	2	3	4	5
PCU 1	8.1	14	19	24	30
PCU 2	11	16	22	27	33
PCU 3	12	19	26	33	39
PCU 4	14	22	30	38	46
PCU 5	15	24	34	43	53
PCU 6	18	27	37	46	56
PCU 7	23	38	53	68	83

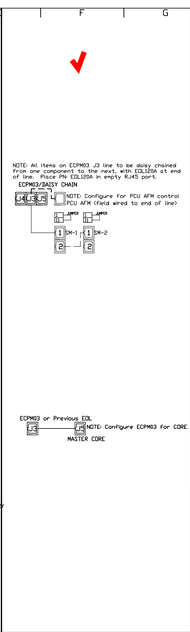


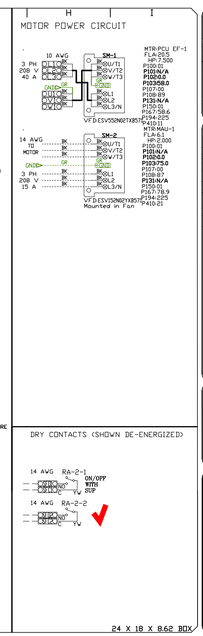
SPRINKLER CONTRACTOR

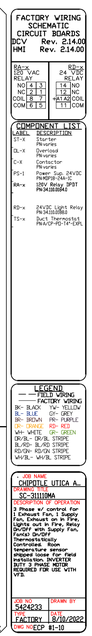
UNLESS SPECIFIED OTHERWISE, ALL FACTORY AC WIRING 16 AWG. ALL FACTORY DC WIRING 18 AWG.



NOTE: All items on ECPM03 J3 line to be daisy chained from one component to the next, with EOL120A at end of line. Place PN EOL120A in empty RJ45 port.







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REVISIONS

DESCRIPTION	DATE:

CHIPOTLE UTICA AVENUE #4501
BROOKLYN, NY, 11213

DATE: 8/10/2022

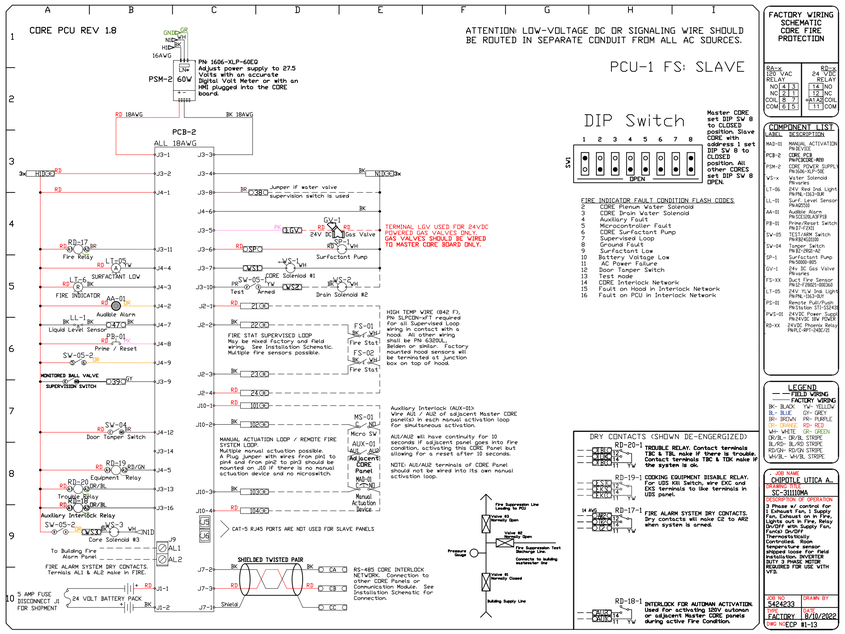
DWG.#: 5424233

DRAWN BY: JMB-40

SCALE: 3/4" = 1'-0"

MASTER DRAWING

SHEET NO. 15



SYSTEM DESIGN VERIFICATION (SDV)

IF ORDERED, CAS SERVICE WILL PERFORM A SYSTEM DESIGN VERIFICATION (SDV) ONCE ALL EQUIPMENT HAS HAD A COMPLETE START UP PER THE OPERATION AND INSTALLATION MANUAL. TYPICALLY, THE SDV WILL BE PERFORMED AFTER ALL INSPECTIONS ARE COMPLETE.

ANY FIELD RELATED DISCREPANCIES THAT ARE DISCOVERED DURING THE SDV WILL BE BROUGHT TO THE ATTENTION OF THE GENERAL CONTRACTOR AND CORRESPONDING TRADES ON SITE. THESE ISSUES WILL BE DOCUMENTED AND FORWARDED TO THE APPROPRIATE SALES OFFICE. IF CAS SERVICE HAS TO RESOLVE A DISCREPANCY THAT IS A FIELD ISSUE, THE GENERAL CONTRACTOR WILL BE NOTIFIED AND BILLED FOR THE WORK. SHOULD A RETURN TRIP BE REQUIRED DUE TO ANY FIELD RELATED DISCREPANCY THAT CANNOT BE RESOLVED DURING THE SDV, THERE WILL BE ADDITIONAL TRIP CHARGES.

DURING THE SDV, CAS SERVICE WILL ADDRESS ANY DISCREPANCY THAT IS THE FAULT OF THE MANUFACTURER. SHOULD A RETURN TRIP BE REQUIRED, THE GENERAL CONTRACTOR AND APPROPRIATE SALES OFFICE WILL BE NOTIFIED. THERE WILL BE NO ADDITIONAL CHARGES FOR MANUFACTURER DISCREPANCIES.

REVISIONS	
DESCRIPTION	DATE:

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