



SUBMITTAL COVER SHEET

PROJECT

Cincinnati Classical Academy

ENGINEER

Cunning and Associates

ARCHITECT

Silverpeak Engineering

SUBMITTAL REVIEW

SPECIFICATIONS NO.

Submission of information by the Contractor is taken as evidence that the Contractor has prepared the information for the specific application, and has verified that adequate and complete conditions for installation and subsequent operation and maintenance will exist.

Engineers review is for general conformance with the design concepts of the project, and for general compliance with the information given in the contract documents. The Contractor is responsible for access and clearance code compliance, work methods and conditions, coordination of trades, safety, all in satisfactory performance of work.

ITEM

Kitchen Hood 1 and 2
Exhaust Fan UREF-1

- NO EXCEPTIONS TAKEN
- REJECTED-RESUBMIT
- EXCEPTIONS AS NOTED
- REVISE AND RESUBMIT

CUNNING & ASSOCIATES MCSubmittal #: 005.1

Date: Dec 31 2024 By: Norm Cunning

- Approved
- Disapproved

Date: 11/13/2024

Submitted by: Cole Kendig

Proudly Serving Dayton, Cincinnati & Columbus Ohio

Headquarters
4401 Springfield Street
Dayton, OH. 45341

800.254.9455
www.msdlnc.net
OH 24297 KY HM00345

Cincinnati Office
2866 E. Kemper Road
Cincinnati, OH 45241

FOR QUESTIONS, CALL THE
Western Ohio Mechanical
REGION 133
PHONE: (513) 275 - 4986
EMAIL: reg133@captivaire.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#7142471

HOOD NO	TAG	MODEL	MANUFACTURER	LENGTH	MAX COOKING TEMP	TYPE	APPLIANCE DUTY	DESIGN CFM/FT	TOTAL EXH CFM	EXHAUST PLENUM RISER(S)						TOTAL SUPPLY CFM	HOOD CONSTRUCTION	HOOD CONFIG	
										WIDTH	LENG	HEIGHT	DIA	CFM	VEL			SP	END TO END
1	H-1	5424 ND-2-PSP-F	CAPTIVEAIRE	12' 3'	600 DEG	I	HEAVY	275	3369	4"	12'	1684	2144	-0.993'	2695	430 SS WHERE EXPOSED	ALONE	ALONE	
2	H-2	5424 ND-2-PSP-F	CAPTIVEAIRE	8' 6"	600 DEG	I	HEAVY	225	1912	4"	10'	956	1753	-0.621'	1530	430 SS WHERE EXPOSED	ALONE	ALONE	

HOOD INFORMATION

HOOD NO	TAG	TYPE	FILTER(S)			EFFICIENCY @ 7 MICRONS	QTY	LIGHT(S)			UTILITY CABINET(S)				FIRE SYSTEM PIPING	HOOD HANGING WEIGHT	
			QTY	HEIGHT	LENGTH			TYPE	WIRE GUARD	LOCATION	SIZE	FIRE SYSTEM	SIZE	ELECTRICAL MODEL #			SWITCHES QUANTITY
1	H-1	CAPTRATE SOLD FILTER	9	20"	16"	85% SEE FILTER SPEC	4	L55 SERIES E26	NO	RIGHT	12"x54"x24"	TANK FS	4.0/4.0		YES	1279 LBS	
2	H-2	CAPTRATE SOLD FILTER	6	20"	16"	85% SEE FILTER SPEC	3	L55 SERIES E26	NO	LEFT	12"x54"x24"	TANK FS	4.0/4.0	DCV-1111	1 LIGHT 1 FAN	YES	1047 LBS

HOOD OPTIONS

HOOD NO	TAG	OPTION
1	H-1	FIELD WRAPPER 18.00" HIGH FRONT, LEFT, RIGHT.
		INSULATION FOR TOP OF HOOD.
		STRUCTURAL FRONT PANEL.
		INSULATION FOR BACK OF HOOD.
2	H-2	RISER SENSOR INSTALL 6IN PLEN.
		RIGHT VERTICAL END PANEL 27" TOP WIDTH, 21" BOTTOM WIDTH, 80" HIGH INSULATED 430 SS.
		LEFT VERTICAL END PANEL 27" TOP WIDTH, 21" BOTTOM WIDTH, 80" HIGH INSULATED 430 SS.
		FIELD WRAPPER 18.00" HIGH FRONT, LEFT, RIGHT.

PERFORATED SUPPLY PLENUM(S)

HOOD NO	TAG	POS	LENGTH	WIDTH	HEIGHT	TYPE	RISER(S)				
							WIDTH	LENG	DIA	CFM	SP
1	H-1	Front	159'	18'	6'	MUA	12"	28"		673	0.172'
						MUA	12"	28"		673	0.172'
						MUA	12"	28"		673	0.172'
						MUA	12"	28"		673	0.172'
2	H-2	Front	114'	14'	6'	MUA	12"	28"		765	0.189'
						MUA	12"	28"		765	0.189'

SPECIFICATION: CAPTRATE® GREASE-STOP® SOLD FILTER

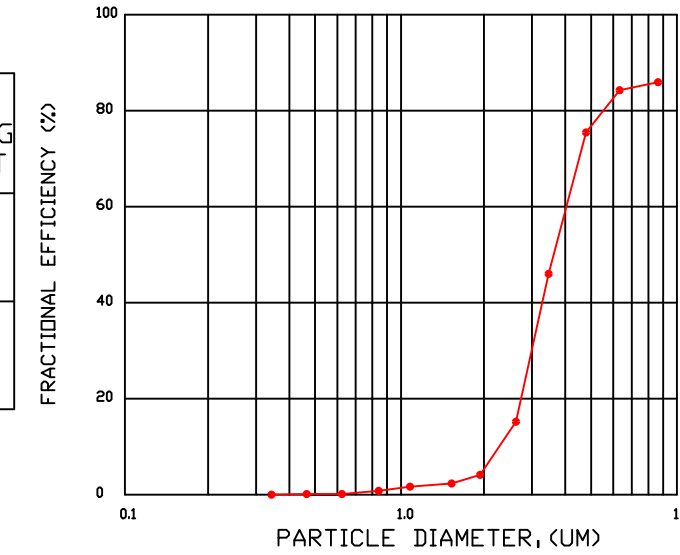
THE CAPTRATE GREASE-STOP SOLD FILTER IS A SINGLE-STAGE FILTER FEATURING A UNIQUE S-BAFFLE DESIGN IN CONJUNCTION WITH A SLOTTED REAR BAFFLE DESIGN, TO DELIVER EXCEPTIONAL FILTRATION EFFICIENCY.

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

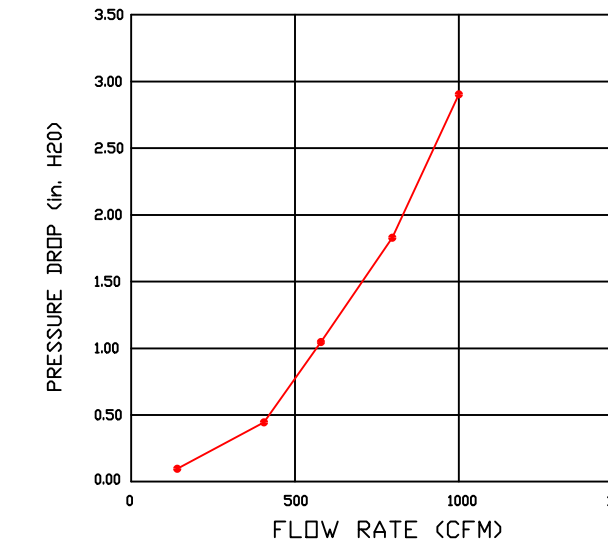
UNITS SHALL INCLUDE STAINLESS STEEL HANDLES AND A FASTENING DEVICE TO SECURE THE TWO COMPONENTS WHEN ASSEMBLED.

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 10 INCHES OF WATER GAUGE. THE CAPTRATE GREASE-STOP SOLD WAS TESTED TO ASTM STANDARD ASTM F2519-05. MANUFACTURER APPROVED FOR USE IN SOLID FUEL APPLICATIONS AS A SPARK ARRESTER.

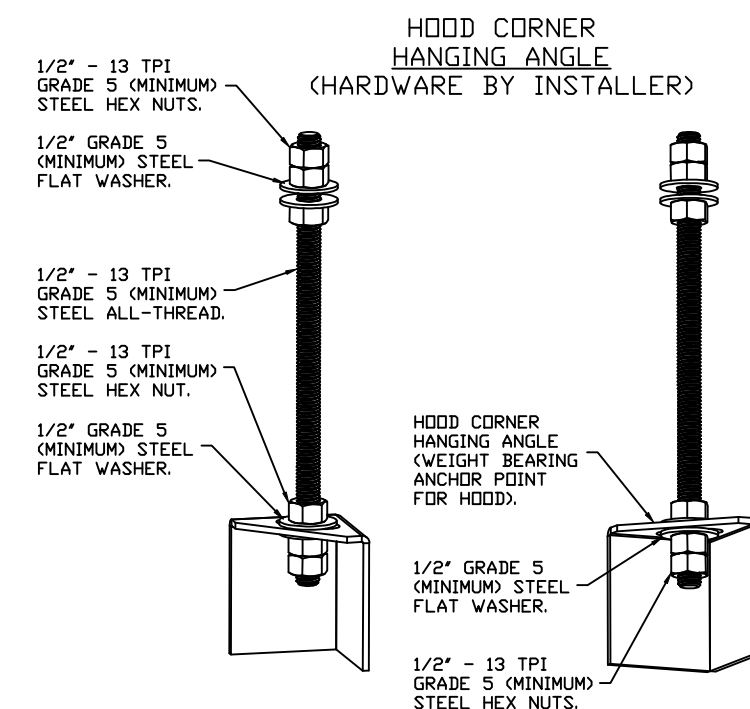
EFFICIENCY VS. PARTICLE DIAMETER



PRESSURE DROP VS. FLOW RATE

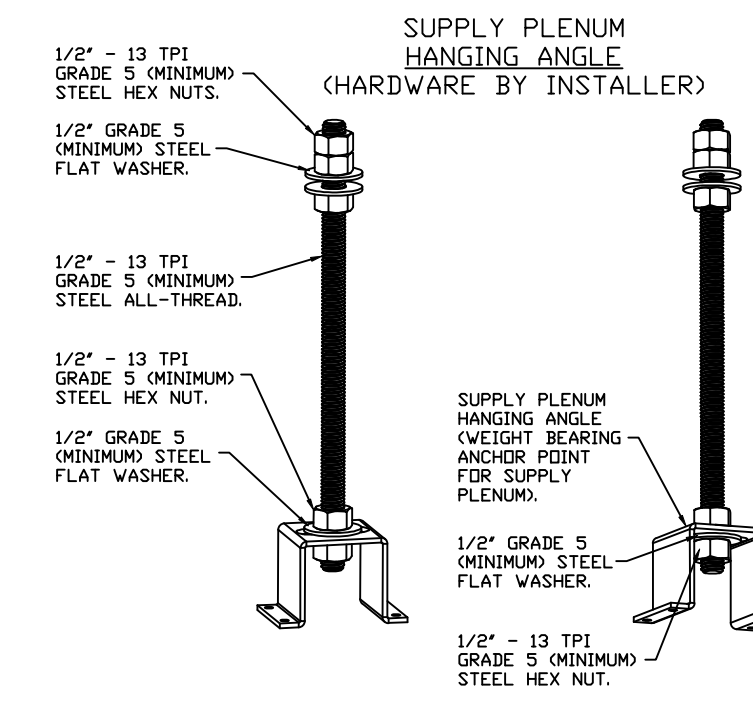


CAPTRATE FILTERS ARE BUILT IN COMPLIANCE WITH:
NFPA #96.
NSF STANDARD #2.
UL STANDARD #1046.
INT. MECH. CODE (IMC).
ULC-S649.



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.



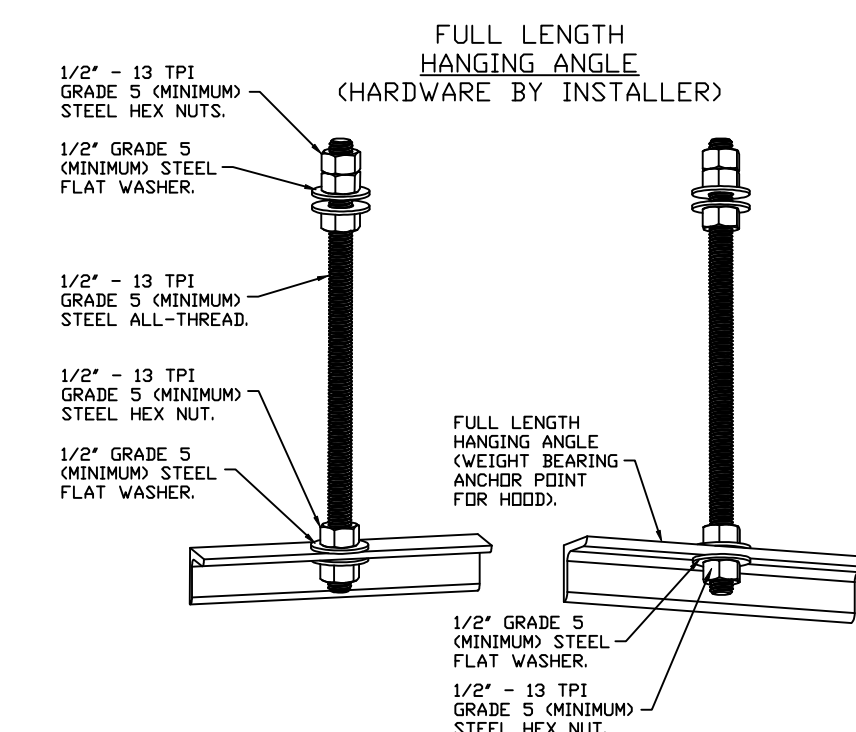
ASSEMBLY INSTRUCTIONS

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 PSP HANGING ANGLES. MAINTAIN 1/4" OF EXPOSED THREADS BENEATH BOTTOM HEX NUT. TORQUE ALL HEX NUTS TO 57 FT-LBS.

CLEARANCE TO COMBUSTIBLES

HOODS #	SURFACE	*CLEARANCE
1	TOP	0"
	FRONT	0"
	BACK	0"
	LEFT	18"
2	RIGHT	0"
	TOP	0"
	FRONT	0"
	BACK	0"
	LEFT	0"
	RIGHT	18"

- *0" CLEARANCE TO COMBUSTIBLES CONFORMS TO UL710 STANDARD.
- HOOD MOUNTED UTILITY CABINETS REQUIRE 36" SERVICE CLEARANCE.



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.

CAPTIVEAIRE SYSTEMS RECOMMENDS THE USE OF LISTED, PRE-FABRICATED ROUND GREASE EXHAUST DUCT TO REDUCE STATIC PRESSURE IN THE SYSTEM, MINIMIZE INSTALLATION AND INSPECTION TIMES, AND ENSURE DUCT IS LIQUID TIGHT

HVAC DISTRIBUTION NOTE
HIGH VELOCITY DIFFUSERS OR HVAC RETURNS SHOULD NOT BE PLACED WITHIN TEN (10) FEET OF THE EXHAUST HOOD. PERFORATED DIFFUSERS ARE RECOMMENDED.

VERIFY CEILING HEIGHT

_____ ' - _____ "

HEIGHT REQUIRED TO VERIFY THAT HOOD FITS SPACE AND TO SIZE THE ENCLOSURE PANELS

CUSTOMER APPROVAL TO MANUFACTURE:

APPROVED AS NOTED

APPROVED WITH NO EXCEPTION TAKEN

REVISE AND RESUBMIT

SIGNATURE _____

YOUR TITLE _____ DATE _____

REVISIONS

DESCRIPTION	DATE

Western Ohio Mechanical
www.captivaire.com
11503 Springfield Pike, Cincinnati, OH, 45246
PHONE: (513) 275 - 4986 FAX: (513) 275 - 4986 EMAIL: reg133@captivaire.com

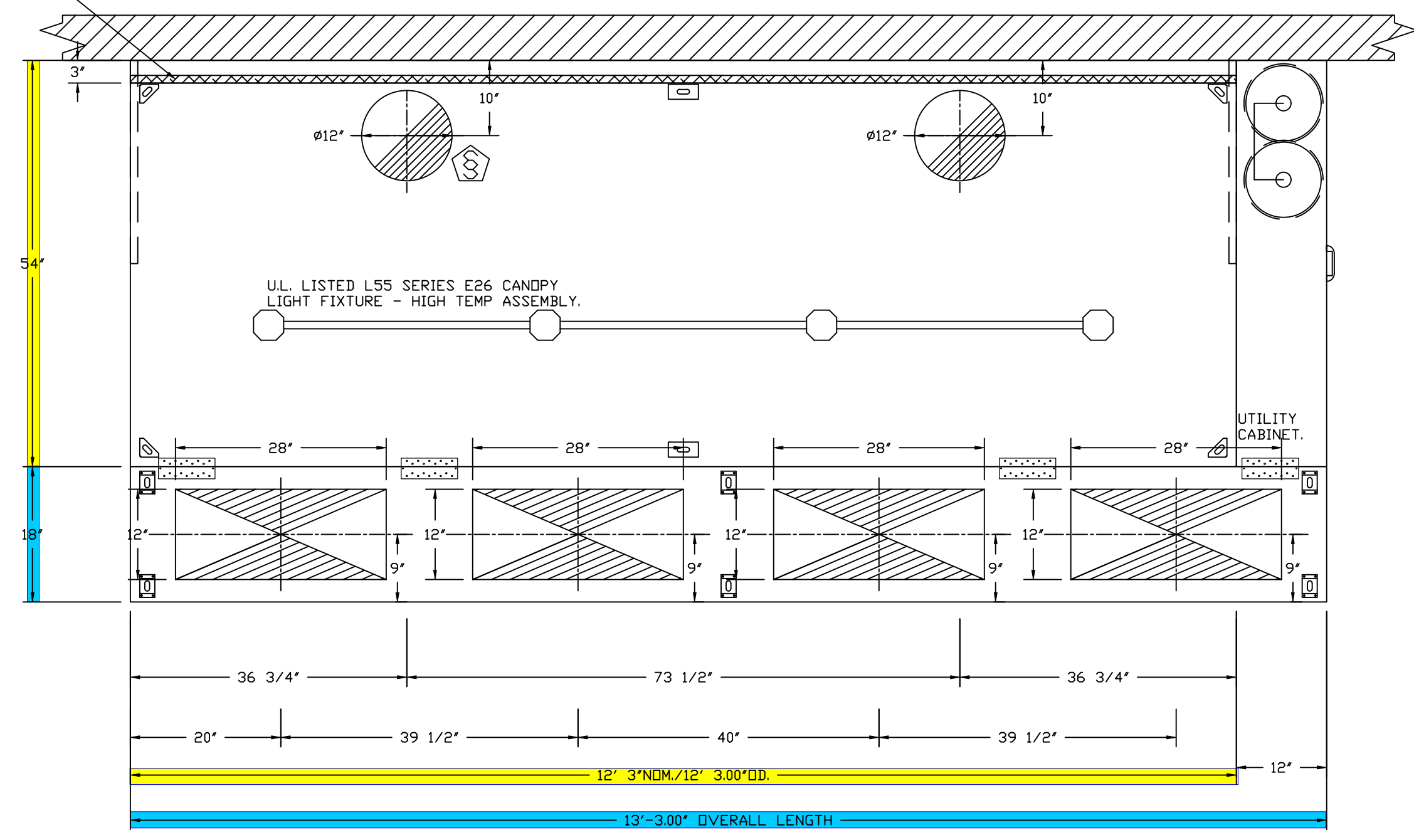
CAPTIVEAIRE

Cincinnati Classical Academy R2 - R454B
CINCINNATI, OH, 45242

DATE: 11/13/2024
DWG.#: 7142471
DRAWN BY: grant.homan
SCALE: 3/4" = 1'-0"
MASTER DRAWING

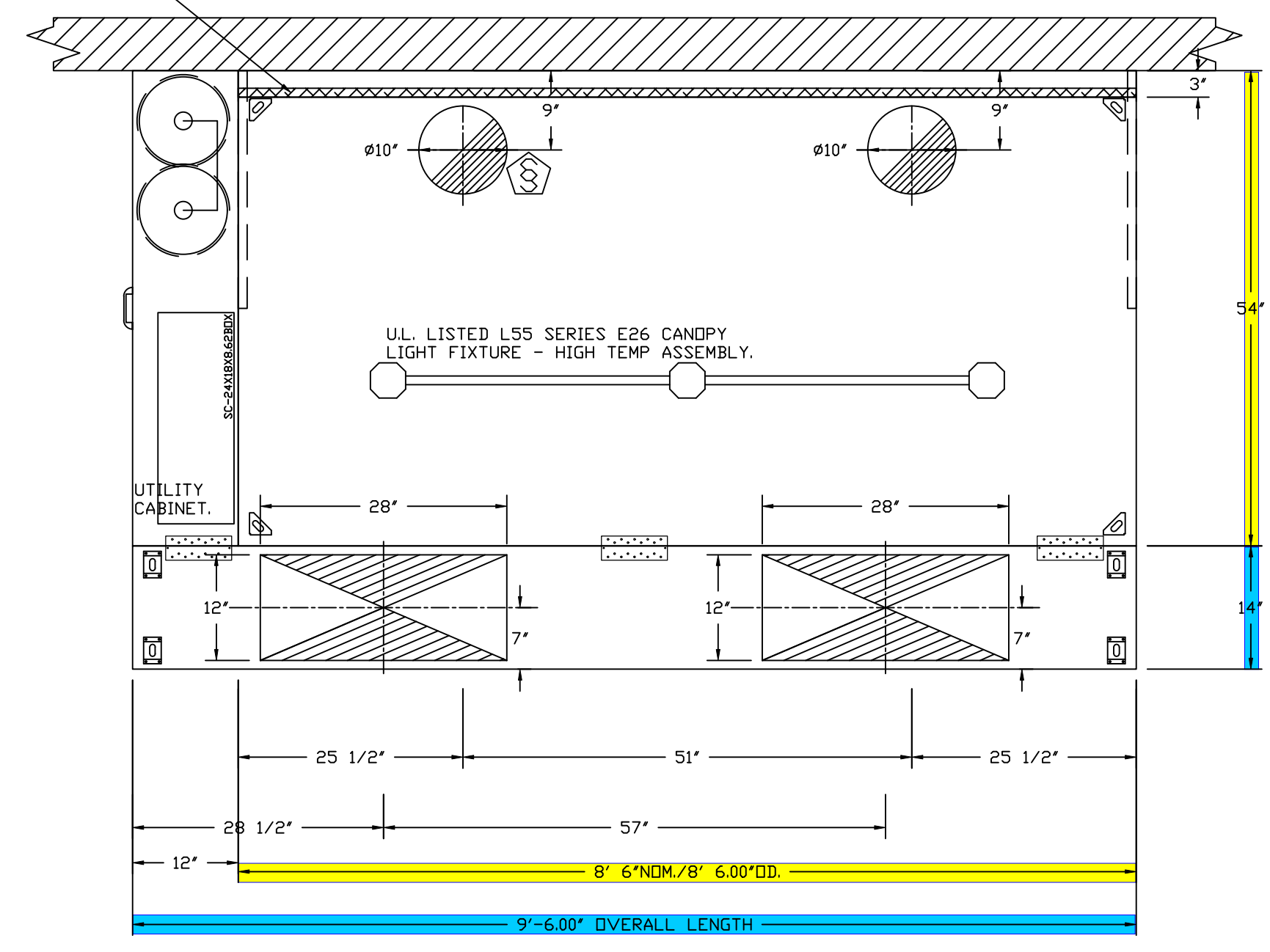
SHEET NO.
1

1" LAYER OF INSULATION FACTORY
 INSTALLED IN INTERNAL BACK STANDOFF.
 MEETS 0 INCH REQUIREMENTS FOR
 CLEARANCE TO COMBUSTIBLE SURFACES.

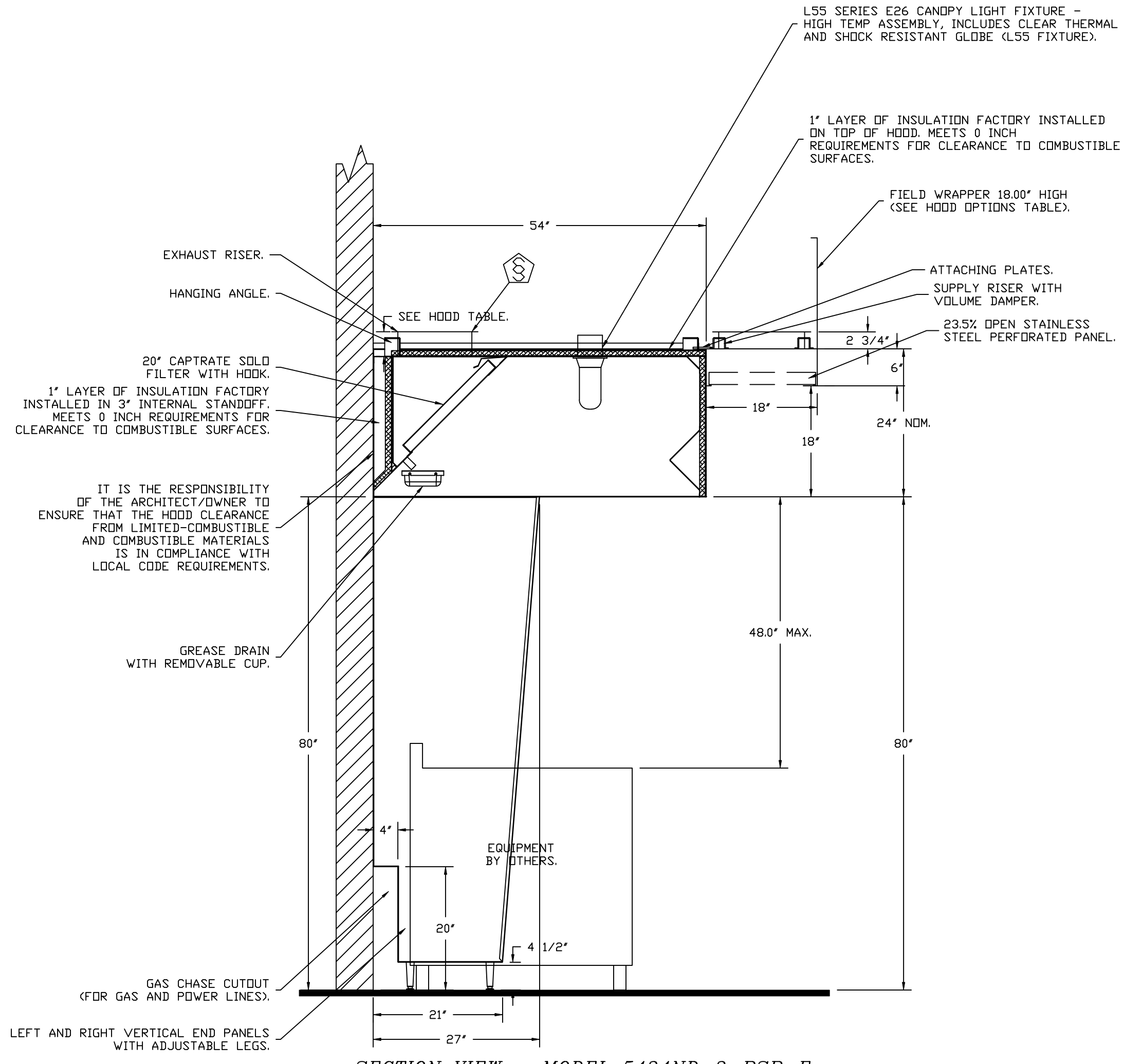


PLAN VIEW - HOOD #1 (H-1)
 12' 3.00" LONG 5424ND-2-PSP-F
 NOTE: ADDITIONAL HANGING ANGLES PROVIDED FOR HOODS 12" AND LONGER.

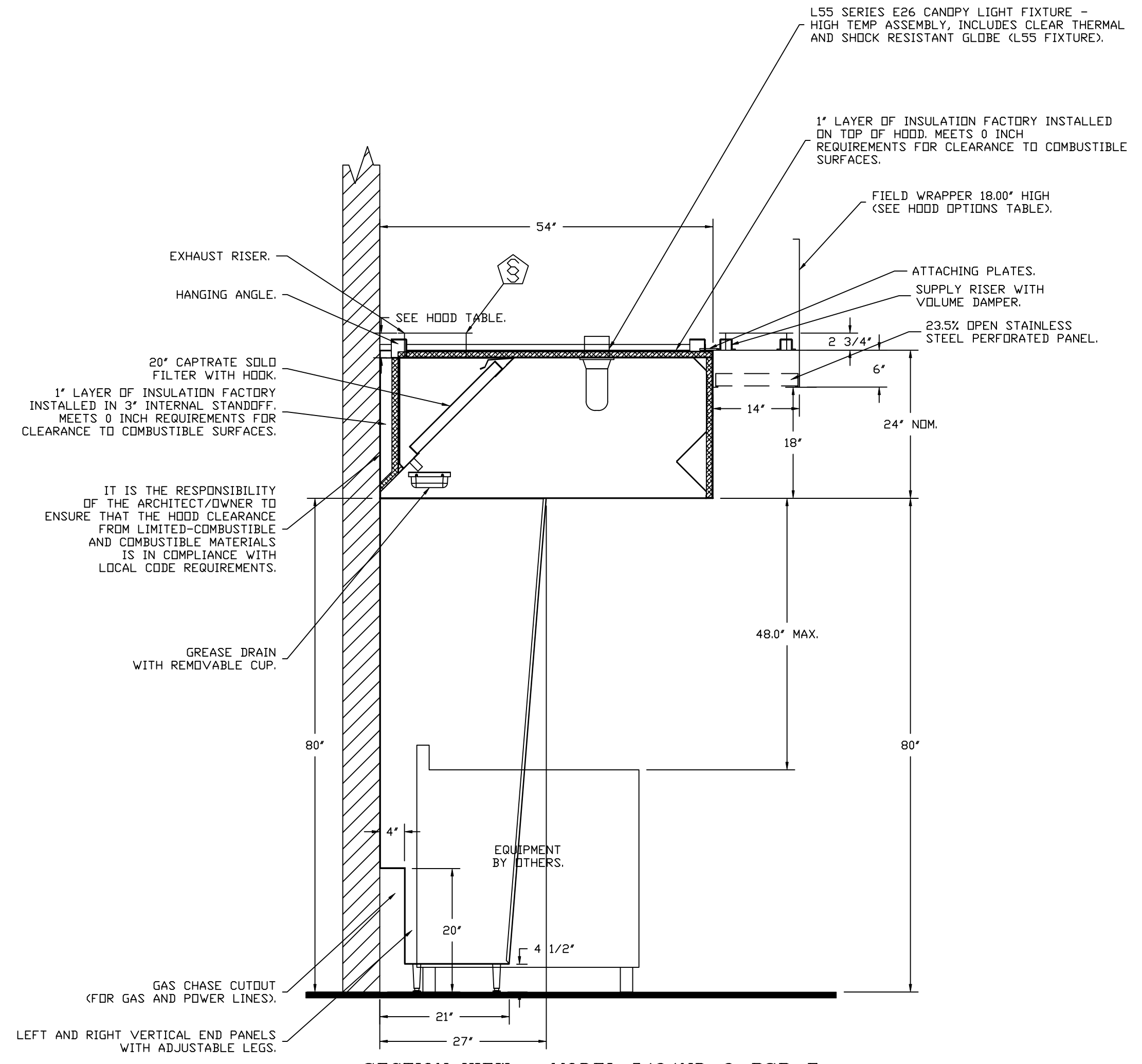
1" LAYER OF INSULATION FACTORY
 INSTALLED IN INTERNAL BACK STANDOFF.
 MEETS 0 INCH REQUIREMENTS FOR
 CLEARANCE TO COMBUSTIBLE SURFACES.



PLAN VIEW - HOOD #2 (H-2)
 8' 6.00" LONG 5424ND-2-PSP-F



SECTION VIEW - MODEL 5424ND-2-PSP-F
 HOOD - #1 (H-1)



SECTION VIEW - MODEL 5424ND-2-PSP-F
 HOOD - #2 (H-2)

REVISIONS	
DESCRIPTION	DATE

CAPTIVE

Western Ohio Mechanical

www.captiveaire.com

11503 Springfield Pike, Cincinnati, OH, 45246 PHONE: (513) 275-4986 FAX: 9195168748 EMAIL: reg133@captiveaire.com

Cincinnati Classical Academy R2 - R454B
 CINCINNATI, OH, 45242

DATE: 11/13/2024
 DWG.#: 7142471
 DRAWN BY: grant.homan
 SCALE: 3/4" = 1'-0"
 MASTER DRAWING

SHEET NO.
 2

FIRE SYSTEM INFORMATION - JOB#7142471

FIRE SYSTEM NO	TAG	TYPE	SIZE	MAX FP	DESIGN FP	INSTALLATION	
						SYSTEM	LOCATION ON HOOD
1		TANK FS	4.0/4.0	40	65	FIRE CABINET LEFT	LEFT, HOOD 2
			4.0/4.0	40		FIRE CABINET RIGHT	RIGHT, HOOD 1

GAS VALVE(S)

FIRE SYSTEM NO	TAG	TYPE	SIZE	SUPPLIED BY
1		SC ELECTRICAL	2.000	CAPTIVEAIRE SYSTEMS

FIRE SYSTEM PARTS LIST KEY

FIRE SYSTEM NO	TAG	KEY NUMBER - PART DESCRIPTION	QTY BY FACTORY	QTY BY DIST
1		0 - 0 - TANK FIRE SUPPRESSION POST-DISCHARGE PROCEDURE UTILITY CABINET LABEL SHEET.	1	0
		0 - 0 - TANK FIRE SUPPRESSION MAINTENANCE GUIDE UTILITY CABINET LABEL SHEET.	1	0
		0 - 0 - 12-F28021-32144-DT-360 DUCT FIRE THERMOSTAT WITH 12 FOOT WIRE LEADS. NO, CLOSE ON TEMP RISE AT 360°F. (A0034310).	4	0
		0 - 0 - 4429K153 1/2" MALE NPT TO 1/2" FEMALE NPT ELBDW, BRASS.	4	0
		0 - 0 - 4429K422 1/2" X 1/4" BRASS REDUCING BUSHING.	2	0
		0 - 0 - 79525 1/2" 90 PRO-PRESS ELBDW WITH 1/2" NPT FEMALE CONNECTION, VIEGA.	2	0
		0 - 0 - 79580 1/2" X 1/2" PRO-PRESS TEE X 1/2" NPT FEMALE CONNECTION, VIEGA.	4	0
		0 - 0 - 87-120042-001 SECONDARY ACTUATOR VALVE (SVA) - SINGLE ACTUATOR, REQUIRES PRIMARY RELEASE ACTUATOR, TANK FIRE SUPPRESSION.	2	0
		0 - 0 - 87-120045-001 HOSE, SECONDARY ACTUATOR HOSE, 7.5' BRAIDED STAINLESS STEEL, TANK FIRE SUPPRESSION.	2	0
		0 - 0 - 87-300001-001 TANK - PRESSURIZED TANK USED FOR TANK FIRE SUPPRESSION.	4	0
		0 - 0 - 87-300030-001 PRIMARY ACTUATOR KIT (PAK) - ACTUATOR AND RELEASE SOLENOID ASSEMBLY, ONE NEEDED PER FIRE SYSTEM, SUPERVISED, TANK FIRE SUPPRESSION.	2	0
		0 - 0 - 87-300152-001 HARDWARE, SVA BOLTS, TANK FIRE SUPPRESSION.	16	0
		0 - 0 - 98694A115 HARDWARE, DATANKLOCK LOCKING BRACKET SQUARE NUTS 5/16" ZINC, TANK FIRE SUPPRESSION.	8	0
		0 - 0 - A0034332 JUNCTION BOX FOR MANUAL PULL STATION. 1.5" DEEP BACK BOX, RED COLOR.	2	0
		0 - 0 - A31484 1/4" NPT SCHRADER VALVE AND CAP, JB INDUSTRIES. 1/4" FLARE X 1/4" MPT HALF UNION. USED ON TANK SERVICE PORT.	2	0
		0 - 0 - DATANKLOCK DISCHARGE ADAPTER TANK LOCKING PLATE FOR FIRE SYSTEM TANK INSTALLATION IN UTILITY CABINETS, TANK FIRE SUPPRESSION.	4	0
		0 - 0 - SLPCDN-03FT SUPERVISED LOOP CONNECTION KIT. CONTAINS THE PARTS NEEDED TO CONNECT THE SUPERVISED LOOP BETWEEN END TO END HOODS WITH LESS THAN A 2' GAP. KIT CONTAINS 5 FEET OF BLACK MG WIRE, 5 FEET OF TAN MG WIRE, 3 FEET OF FLEXIBLE CONDUIT, AND TWO 7/8" CONNECTORS.	1	0
		0 - 0 - SLPCDN-15FT SUPERVISED LOOP CONNECTION KIT. CONTAINS THE PARTS NEEDED TO CONNECT THE SUPERVISED LOOP BETWEEN END TO END HOODS WITH LESS THAN A 14' GAP OR BACK TO BACK HOODS. KIT CONTAINS 17 FEET OF BLACK MG WIRE, 17 FEET OF TAN MG WIRE, 15 FEET OF FLEXIBLE CONDUIT, AND TWO 7/8" CONNECTORS.	1	0
		0 - 0 - SLPCDN-30FT SUPERVISED LOOP CONNECTION KIT. CONTAINS THE PARTS NEEDED TO CONNECT THE SUPERVISED LOOP BETWEEN HOODS WITH UP TO 29' GAP. KIT CONTAINS 32 FEET OF BLACK MG WIRE, 32 FEET OF TAN MG WIRE, 30 FEET OF FLEXIBLE CONDUIT, AND TWO 7/8" CONNECTORS.	1	0
		0 - 0 - TANK STRAP TANK STRAP - USED FOR TANK FIRE SUPPRESSION.	12	0
	0 - 0 - TFS-UCTANKBRACKET TANK BRACKET FOR FIRE SYSTEM TANK INSTALLATION IN UTILITY CABINETS, TANK FIRE SUPPRESSION.	4	0	
	0 - 0 - WK-283952-000 DISCHARGE ADAPTER, TANK FIRE SUPPRESSION.	4	0	
	34 - 34 - A0034331 24VDC SINGLE ACTION MANUAL ACTUATION DEVICE (PUSH/PULL STATION) WITH PROTECTIVE COVER, ONE (1) NORMALLY OPEN CONTACT. RED COLOR.	2	0	
	ADDITIONAL PARTS TO BE DETERMINED...			

REVISIONS	
DESCRIPTION	DATE

Western Ohio Mechanical
www.captiveaire.com

11503 Springfield Pike, Cincinnati, OH, 45246 PHONE: (513) 275 - 4986 FAX: 9195168748 EMAIL: reg1333@captiveaire.com

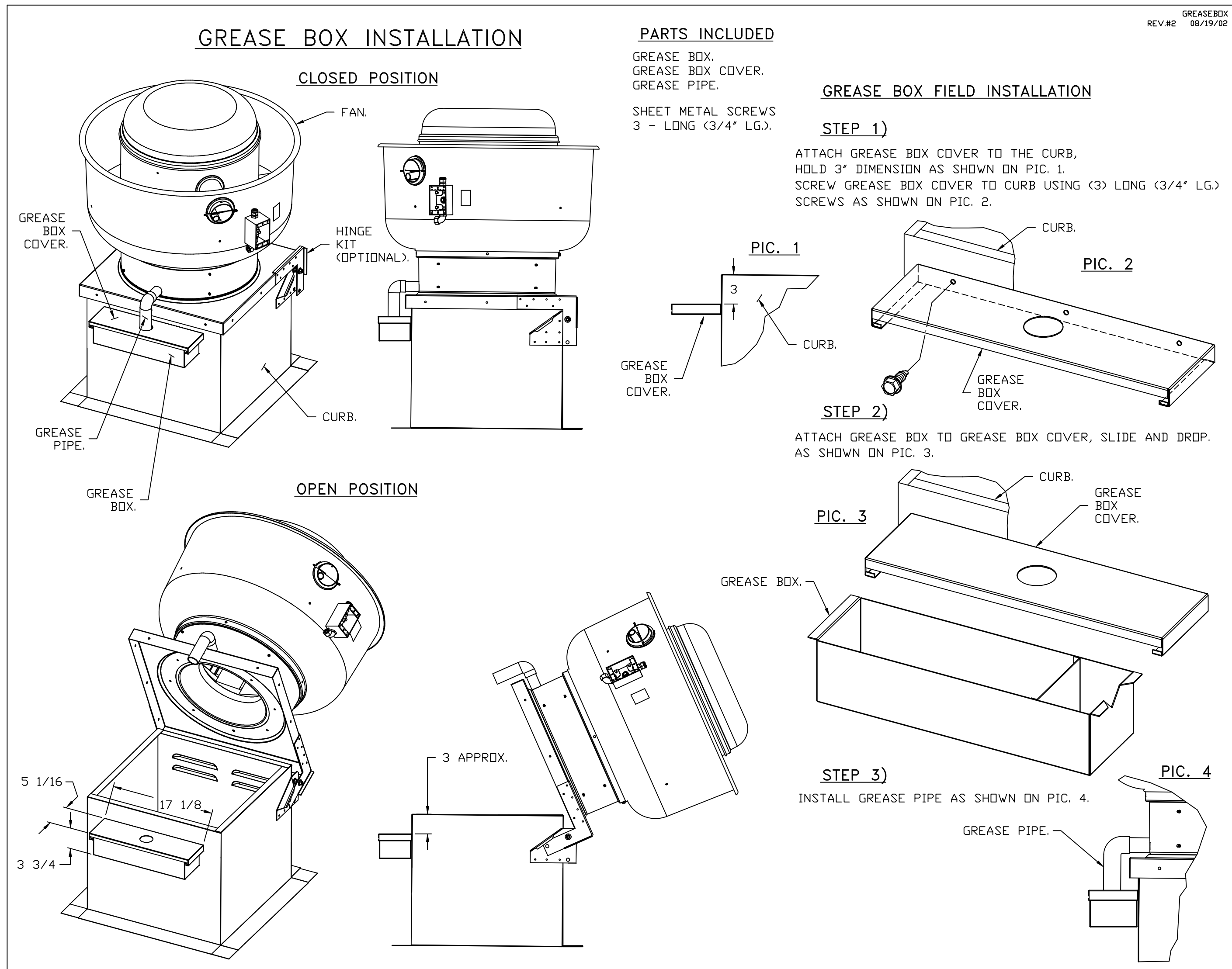
Cincinnati Classical Academy R2 - R454B
CINCINNATI, OH, 45242

DATE: 11/13/2024
DWG.#: 7142471
DRAWN BY: grant.homan
SCALE: 3/4" = 1'-0"
MASTER DRAWING

SHEET NO.
3

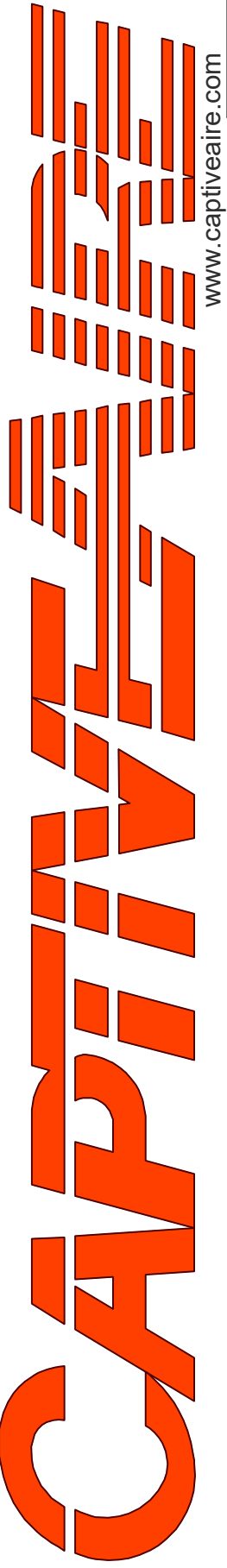
EXHAUST FAN INFORMATION -- JOB#7142471

FAN UNIT NO.	TAG	QTY	FAN UNIT MODEL #	MANUFACTURER	CFM	ESP	RPM	MOTOR ENCL	HP	BHP	PHASE	VOLT	FLA	DISCHARGE VELOCITY	WEIGHT (LBS)	SDNES
1	UREF-1	1	DU240HFA	CAPTIVEAIRE	5281	2.000	1071	TEFC,PREMIUM	5.000	3.4810	3	460	7.0	1200 FPM	385	24.3



*NOTE: UL 705 INSTALL.

REVISIONS	
DESCRIPTION	DATE



Western Ohio Mechanical
www.captiveaire.com
11503 Springfield Pike, Cincinnati, OH, 45246 PHONE: (513) 275-4986 FAX: 9195168748 EMAIL: reg133@captiveaire.com

Cincinnati Classical Academy R2 - R454B
CINCINNATI, OH, 45242

DATE: 11/13/2024
DWG.#: 7142471
DRAWN BY: grant.homan
SCALE: 3/4" = 1'-0"
MASTER DRAWING

SHEET NO.
4