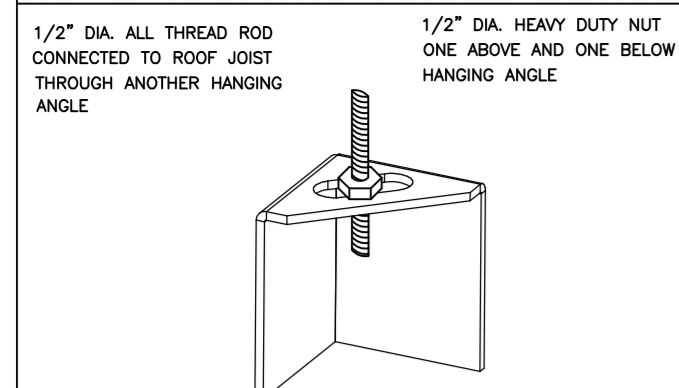


**ND-2 HANGING ANGLE DETAIL**



\*ROD AND NUTS TO BE SUPPLIED BY INSTALLING CONTRACTOR  
HANGING ANGLE IS PRE-FINISHED AT FACTORY

**HANGING ANGLE LOCATIONS**

HOOD STYLE	DIM FROM REAR	DIM FROM FRONT (24" H)	DIM FROM FRONT (30" H)
CANOPY ND2	4.166"	2.246"	2.246"
ND2-PSP-F	4.166"	2.246"	2.246"
BACKSHELF BD-2	4.166"	2.246"	-
VHB/VHB-G	36"x36"	42"x42"	48"x48"
FRONT/BACK DIMS BY SIZE	2.246"	2.246"	2.246"

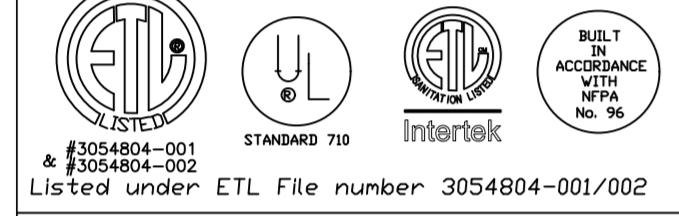
**CALCULATIONS UTILIZED**

EXHAUST CFM=LENGTH OF HOOD X CFM/LIN.FT. (LOAD)  
SUPPLY CFM=EXHAUST CFM X PERCENTAGE REQUIRED  
TOTAL DUCT AREA=144 X \_\_\_\_\_ CFM (FPM\*)  
DUCT LENGTH= \_\_\_\_\_ DUCT DEPTH

\*CAPTIVE-AIRE DUCT CONNECTION SIZES ARE CALCULATED USING AN EXHAUST VELOCITY OF 1500-1800 FPM AND A SUPPLY VELOCITY OF 300-400 FPM

**BUILDING CODES**

CAPTIVE-AIRE HOODS ARE BUILT IN COMPLIANCE WITH:



**CLEARANCE TO COMBUSTIBLES**

CAPTIVE-AIRE HOODS HAVE OPTIONAL CLEARANCE REDUCTION SYSTEMS AVAILABLE AS FOLLOWS:

MATERIAL	CLEARANCE REDUCTION SYSTEM
NON-COMBUSTIBLE	NONE REQUIRED
LIMITED-COMBUSTIBLE	3" UNINSULATED STANDOFF
COMBUSTIBLE	1" INSULATED STANDOFF

**GENERAL NOTES**

**INSTALLATION**

- ALL ELECTRICAL "FIELD" CONNECTIONS AND RELATED INTERCONNECTIONS BY ELECTRICAL CONTRACTORS.
- ALL PLUMBING "FIELD" CONNECTIONS AND RELATED INTERCONNECTIONS BY PLUMBING CONTRACTORS.
- HANGING BRACKETS LOCATED AND WELDED AS SHOWN ON PLANS. ALL OTHER HANGER MATERIALS PROVIDED BY INSTALLING CONTRACTORS.
- ALL CONNECTIONS FROM CAPTIVE-AIRE DUCT PER MECHANICAL CONTRACTOR'S PLANS.
- COOKING EQUIPMENT TO SHUTOFF IN EVENT OF FIRE.
- EXHAUST FANS TO TURN ON IN EVENT OF FIRE.
- ALL LIGHTS FIXTURE SHOWN INSTALLED BY CAPTIVE-AIRE ARE FACTORY PREWIRED. INTERCONNECTIONS BETWEEN HOODS AND TO SWITCHES BY ELECTRICAL CONTRACTORS.
- LAMPS FOR LIGHT FIXTURES BY INSTALLING CONTRACTORS.
- SEISMIC RESTRAINTS ARE RESPONSIBILITY OF INSTALLING CONTRACTOR.
- INSTALLING CONTRACTORS ASSUME ALL RELATED RESPONSIBILITY FOR VERIFICATION OF DIMENSIONAL DATA CONTAINED ON THESE DOCUMENTS FOR ACCURACY, INTEGRATION, AND ADMINISTRATION OF CODE REQUIREMENTS IN EFFECT PRIOR TO ANY RELEASE FOR PRODUCTION OF EQUIPMENT SHOWN.

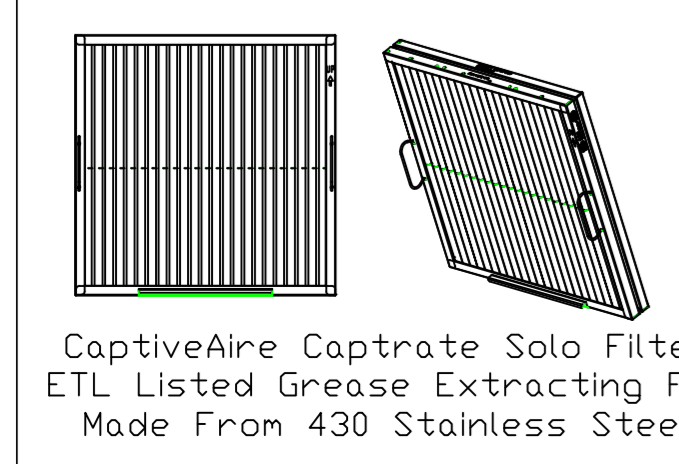
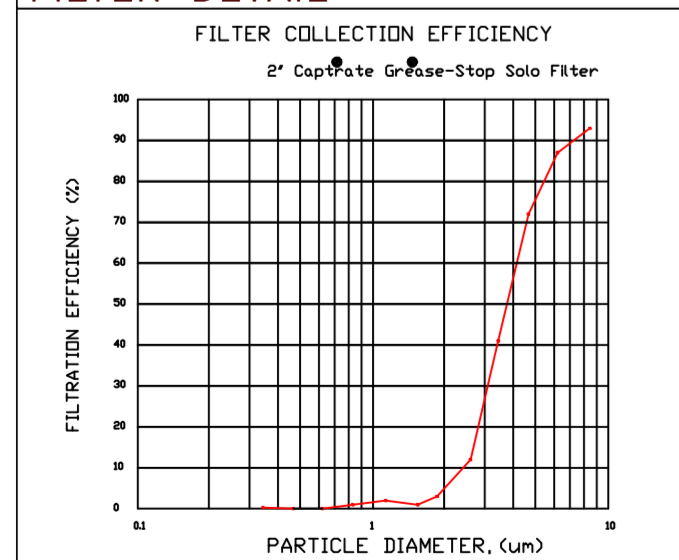
**BALANCE**

- KITCHEN HOODS MUST BE BALANCED WITH KITCHEN.
- KITCHEN SHALL BE NEGATIVE WITH RESPECT TO DRAIN AREA.
- RESTAURANT SHALL BE POSITIVE WITH RESPECT TO AMBIENT PRESSURE.

**ADDITIONAL**

- WRITTEN HOOD DIMENSIONS HAVE PRECEDENCE OVER SCALE.
- SIGNED AND "APPROVED" COPIES OF THIS DOCUMENT MUST BE RECEIVED BY THE FACTORY PRIOR TO COMMENCEMENT OF FABRICATION.

**FILTER DETAIL**



**HOOD INFORMATION - JOB#5226431**

HOOD NO	TAG	MODEL	MANUFACTURER	LENGTH	MAX TEMPERATURE	TYPE	APPLIANCE DUTY	DESIGN CFM/FT	TOTAL EXH CFM	EXHAUST PLENUM (RISERS)	HOOD CONSTRUCTION	HOOD CONFIG									
										WIDTH	LENG	HEIGHT	DIA	CFM	VEL	SP	WHERE EXPOSED	ALDNE	ALDNE		
1	ITEM 33A	5424 ND-2	CAPTIVEAIRE	8' 0"	450 DEG	I	MEDIUM	200	1600	4' 14"	1600	1497	-0.734"	430 SS	WHERE EXPOSED	ALDNE	FRONT				
2	ITEM 33B	5424 ND-2	CAPTIVEAIRE	5' 0"	450 DEG	I	MEDIUM	155	775	4' 10"	775	1421	-0.436"	430 SS	WHERE EXPOSED	ALDNE	ALDNE				
3	DISH HD	4224 VHB-G	CAPTIVEAIRE	3' 6"	700 DEG	II	N/A	150	525	4' 10"	525	963	-0.069"	304 SS	100%	ALDNE	ALDNE				

PATENT NUMBERS  
EXHAUST HOODS ND-2/BD-2/SND-2 (CANADA) - CA PATENT 2520435 C.

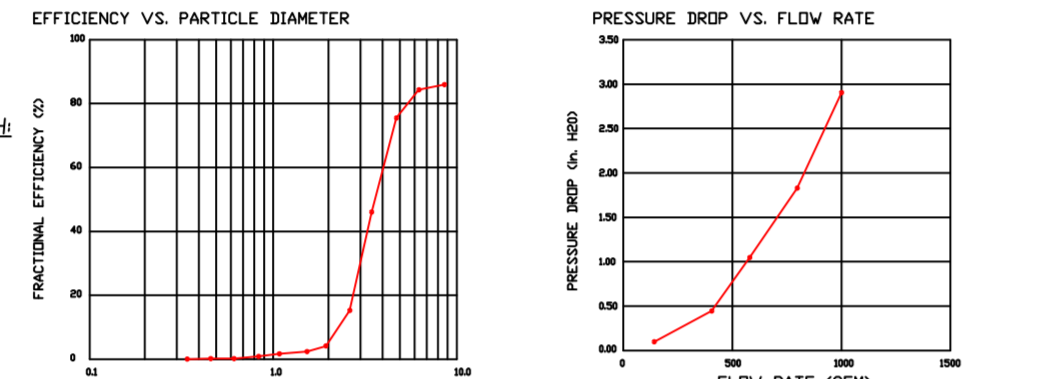
HOOD INFORMATION										UTILTY CABINET(S)				FIRE HOOD				
HOOD NO	TAG	TYPE	QTY	HEIGHT	LENGTH	EFFICIENCY @ 7 MICRONS	QTY	TYPE	WIRE GUARD	LOCATION	SIZE	TYPE	SIZE	MODEL #	QUANTITY	FIRE SYSTEM	HOOD SYSTEM	WEIGHT
1	ITEM 33A	CAPTRATE SOLID FILTER	5	16"	16"	95% SEE FILTER SPEC	2	RECESSED ROUND	NO	LEFT	12"x54"x24"			DCV-2011	1 LIGHT 1 FAN		NO	505 LBS
2	ITEM 33B	CAPTRATE SOLID FILTER	3	16"	16"	95% SEE FILTER SPEC	2	RECESSED ROUND	NO								NO	348 LBS
3	DISH HD						0										NO	161 LBS

**HOOD OPTIONS**

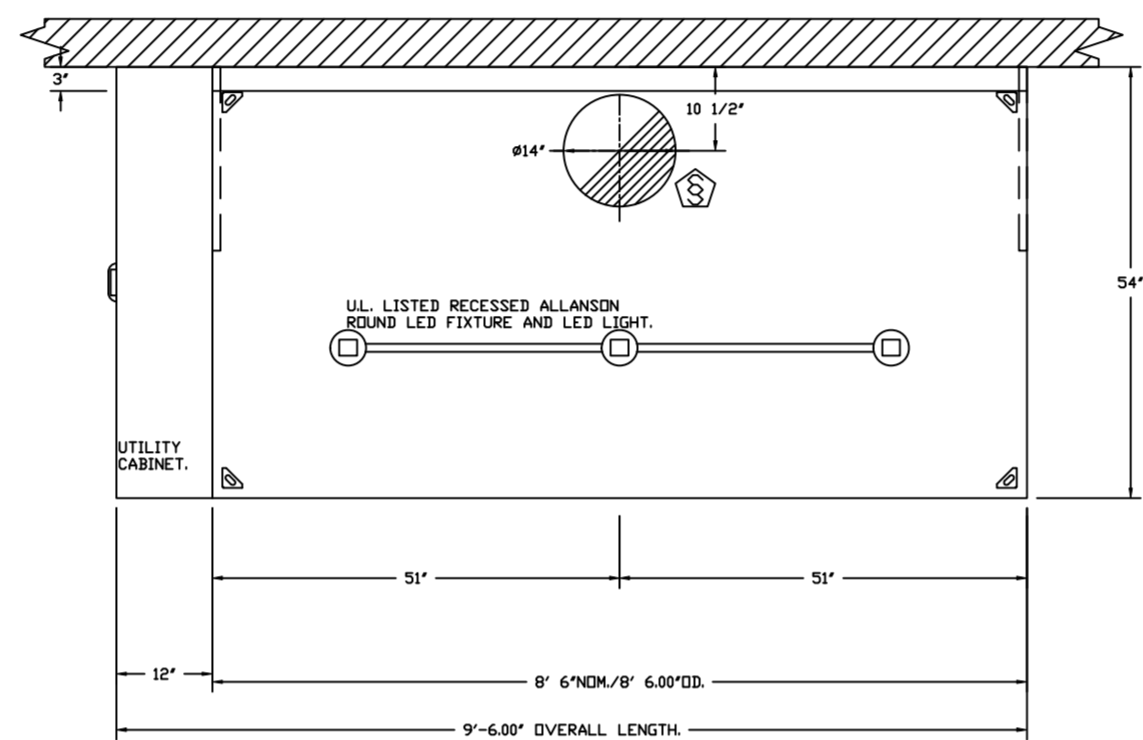
HOOD NO	TAG	OPTION
1	ITEM 33A	FIELD WRAPPER 1800" HIGH FRONT, LEFT, RIGHT LEFT QUARTER END PANEL 23" TOP WIDTH, 0" BOTTOM WIDTH, 23" HIGH 430 SS. RIGHT QUARTER END PANEL 23" TOP WIDTH, 0" BOTTOM WIDTH, 23" HIGH 430 SS. FIELD WRAPPER 1800" HIGH FRONT, LEFT, RIGHT. LEFT QUARTER END PANEL 23" TOP WIDTH, 0" BOTTOM WIDTH, 23" HIGH 430 SS. RISER SENSOR INSTALL 6IN PLEN. RIGHT VERTICAL END PANEL 27" TOP WIDTH, 21" BOTTOM WIDTH, 80" HIGH INSULATED 430 SS.
2	ITEM 33B	FIELD WRAPPER 1800" HIGH FRONT, LEFT, RIGHT. LEFT QUARTER END PANEL 23" TOP WIDTH, 0" BOTTOM WIDTH, 23" HIGH 430 SS. RISER SENSOR INSTALL 6IN PLEN. RIGHT VERTICAL END PANEL 27" TOP WIDTH, 21" BOTTOM WIDTH, 80" HIGH INSULATED 430 SS.
3	DISH HD	FIELD WRAPPER 1800" HIGH FRONT, LEFT, RIGHT.

**SPECIFICATION: CAPTRATE GREASE-STOP SOLID FILTER**

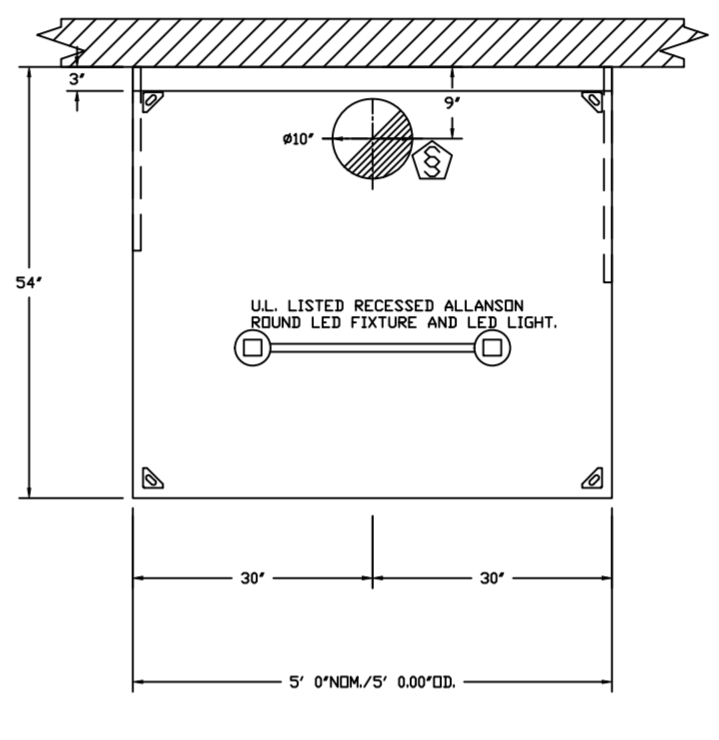
THE CAPTRATE GREASE-STOP SOLID FILTER IS A SINGLE-STAGE FILTER FEATURING A UNIQUE S-BAFFLE DESIGN IN CONJUNCTION WITH A SLOTTED REAR BAFFLE DESIGN, TO DELIVER EXCEPTIONAL FILTRATION EFFICIENCY.  
FILTER IS STAINLESS STEEL CONSTRUCTION, AND SIZED TO FIT INTO STANDARD 2-INCH DEEP HOOD CHANNELS.  
UNITS 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 SOLID WAS TESTED TO ASTM STANDARD ASTM F2539-05 MANUFACTURER APPROVED FOR USE IN SOLID FUEL APPLICATIONS AS A SPARK ARRESTER.  
EFFICIENCY VS. PARTICLE DIAMETER



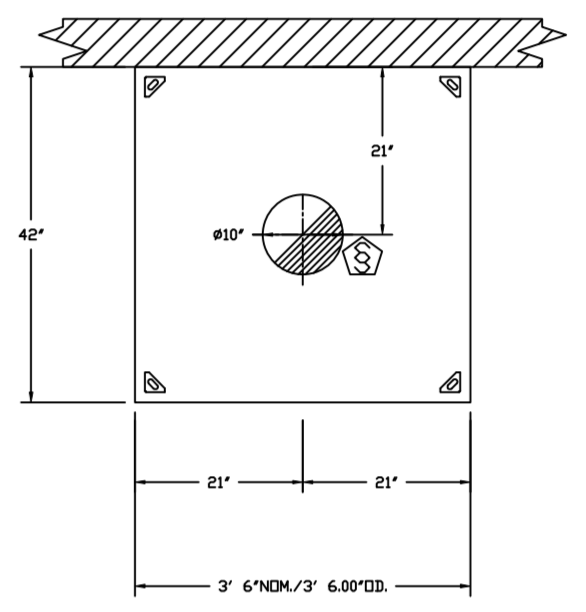
CAPTRATE FILTERS ARE BUILT IN COMPLIANCE WITH:  
NFPA #96  
NSF STANDARD #2  
UL STANDARD #1046  
INT. MECH. CODE (IMC)  
ULC-5645



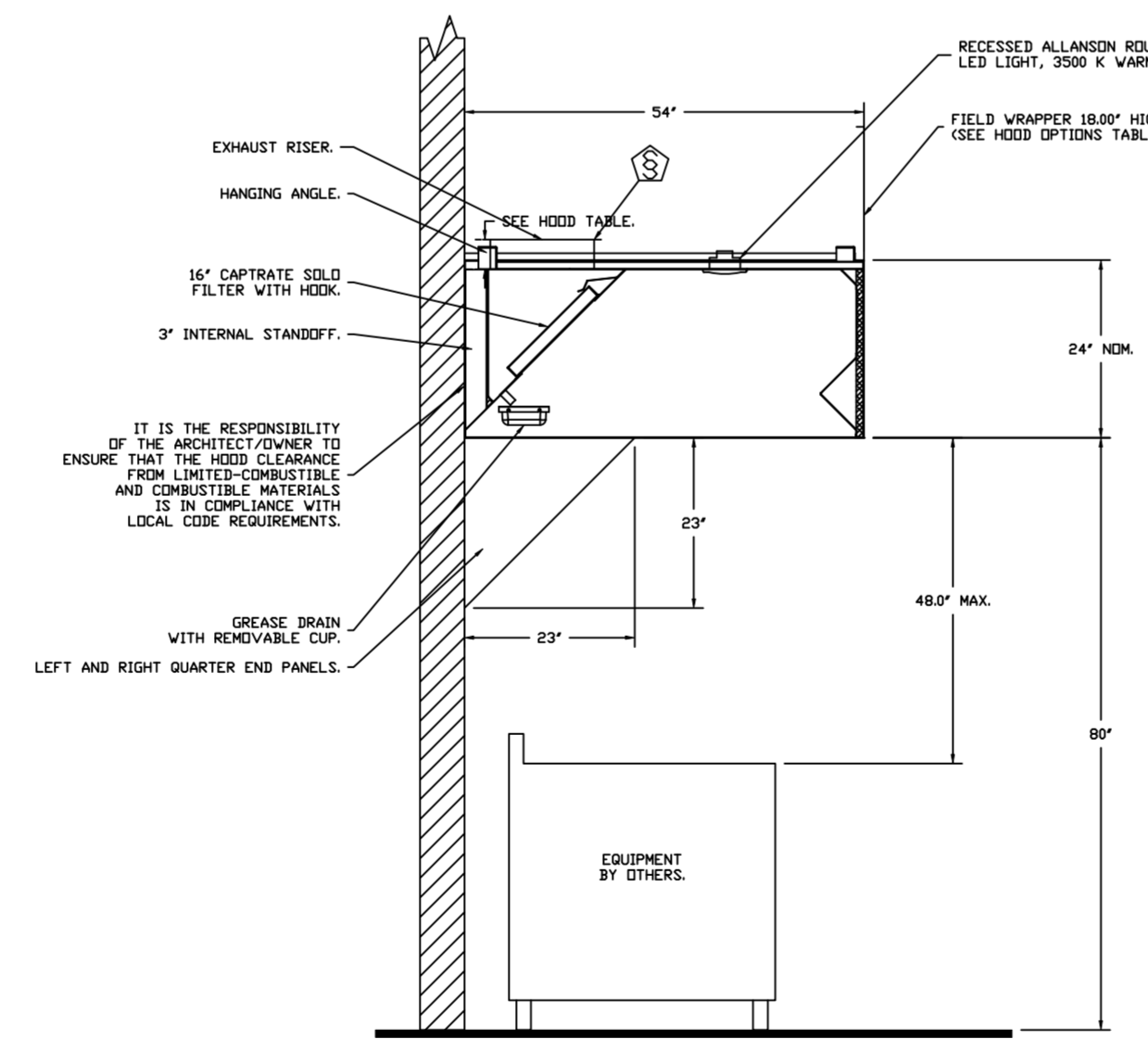
PLAN VIEW - HOOD #1 (GRIDDLE HD)  
8' 6.00" LONG 5424ND-2



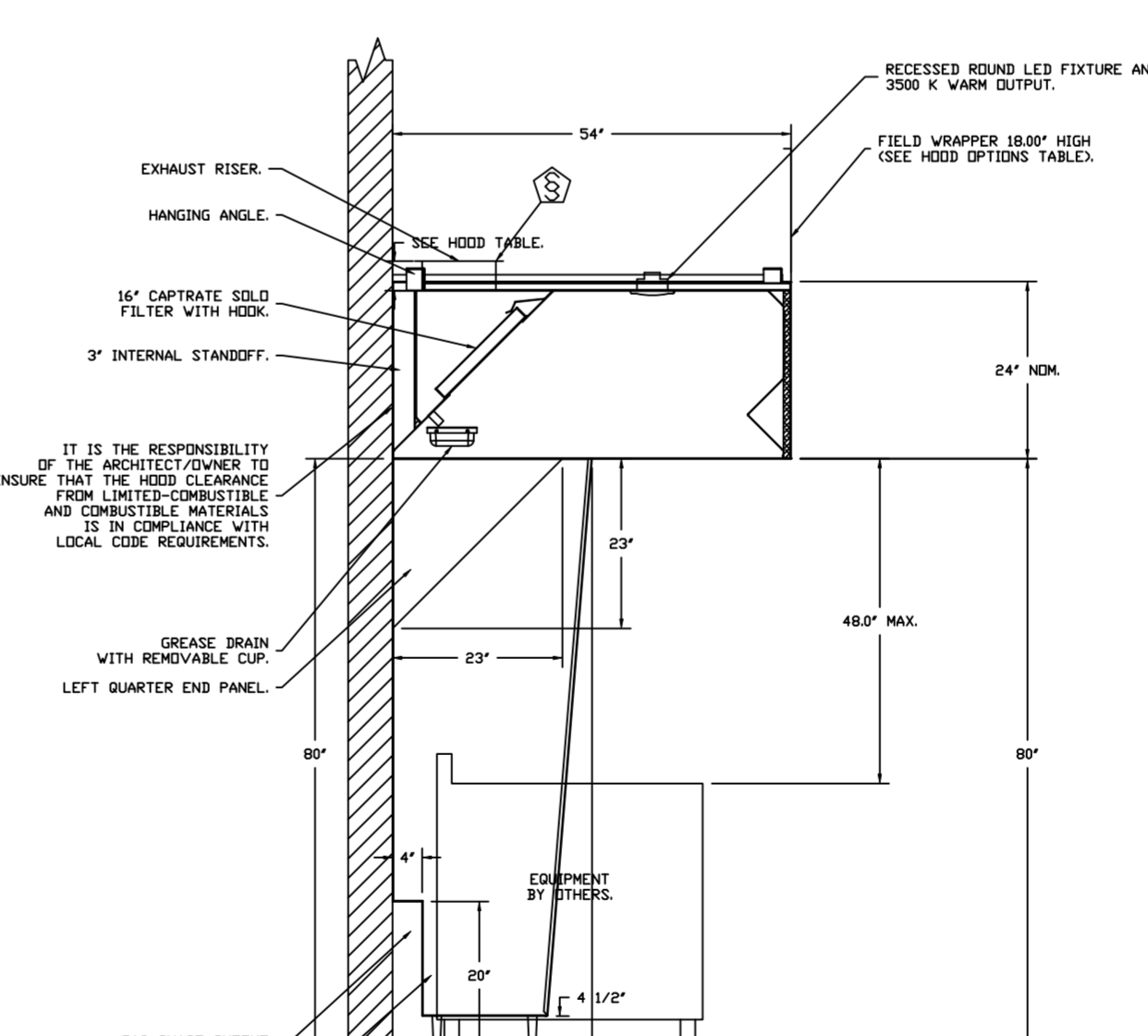
PLAN VIEW - HOOD #2 (FRY HD)  
5' 0.00" LONG 5424ND-2



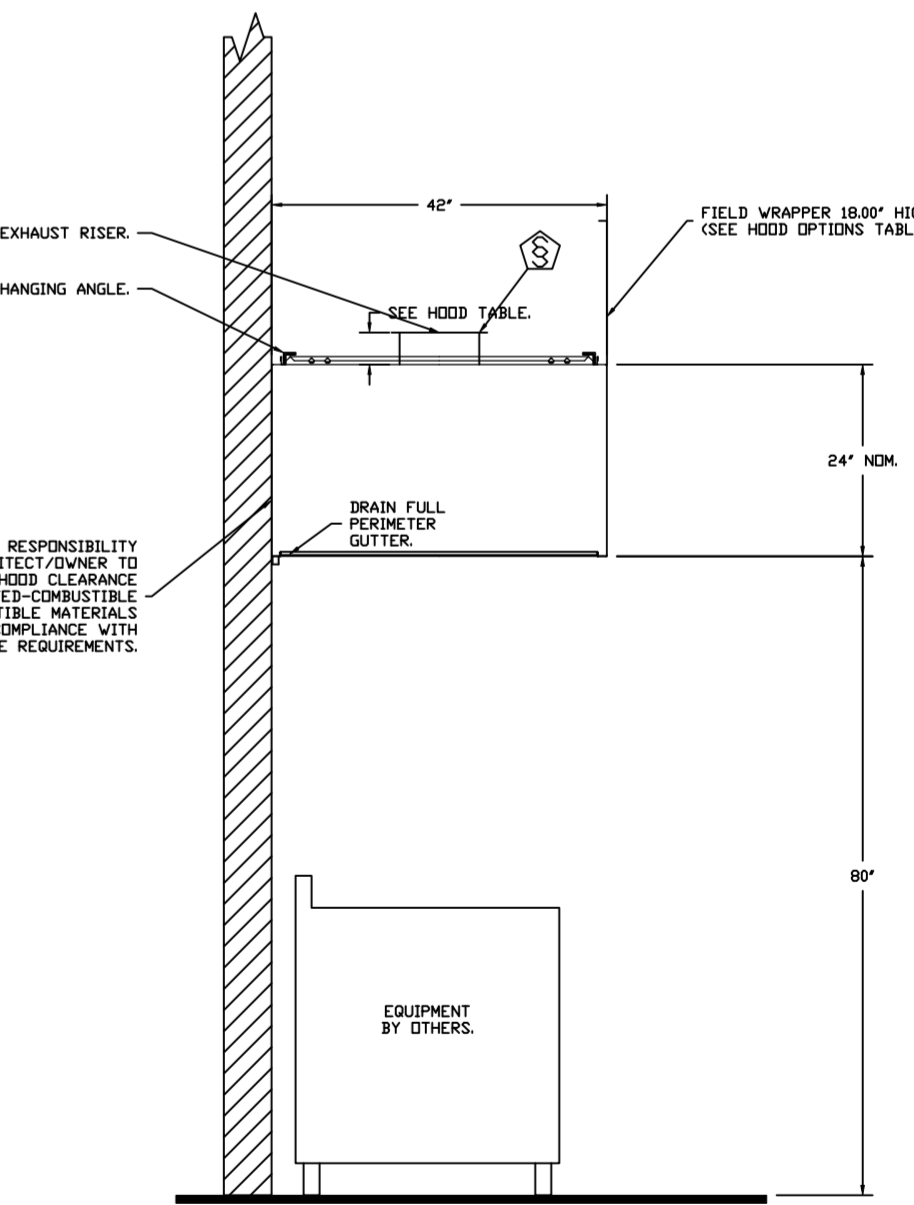
PLAN VIEW - HOOD #3 (ITEM 10.1)  
3' 6.00" LONG 4224VHB-G



SECTION VIEW - MODEL 5424ND-2  
HOOD - #1 (GRIDDLE HD)



SECTION VIEW - MODEL 5424ND-2  
HOOD - #2 (ITEM 33B)



SECTION VIEW - MODEL 4224VHB-G  
HOOD - #3 (ITEM 10.1)

FOR QUESTIONS, CALL THE:  
KANSAS CITY REGIONAL OFFICE  
1126 SWIFT STREET, KANSAS CITY, MO 64116  
PHONE: (816) 221-8575  
FAX: (816) 221-8311

CUSTOMER APPROVAL TO MANUFACTURE:

Approved as Noted   
Approved with NO Exception Taken   
Revise and Resubmit   
SIGNATURE \_\_\_\_\_ Date \_\_\_\_\_  
Your Title \_\_\_\_\_

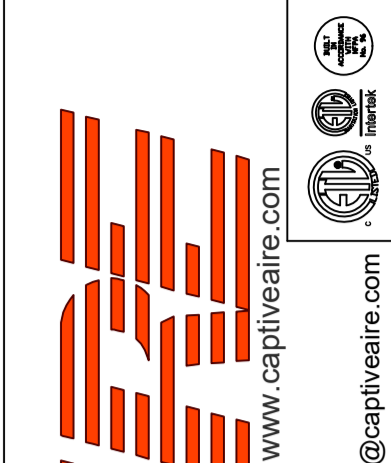
**\*\*\* NOTE \*\*\***  
ALL WALLS AND STRUCTURES THAT COME WITHIN 18" OF HOOD MUST BE METAL STUDS AND SHEETROCK. WOOD STUDS OR ANY OTHER COMBUSTIBLE MATERIAL WITHIN 18" OF HOOD NO ALLOWED.

**\*\*\* NOTE \*\*\***  
HOOD MANUFACTURER RECOMMENDS NO RETURNS OR 4-WAY DIFFUSERS WITHIN 10 FEET OF HOOD IN ALL DIRECTION.

**\*\*\* NOTE \*\*\***  
MAKEUP AIR SHALL BE DELIVERED INTO SPACE IN MANNER THAT WILL NOT DISRUPT HOODS ABILITY TO CAPTURE AND CONTAIN.

**REVISIONS**

DESCRIPTION	DATE



**CAPTIVEAIRE**  
www.captiveaire.com  
HBT Foodservice  
104 W 8th St Suite 204, Kansas City, MO, 64105 PHONE: (816) 221-8575 FAX: (816) 221-8311 EMAIL: reg9@capitveaire.com

Freddy's - Loveland, OH  
LOVELAND, OH, 45140

DATE: 4/8/2022

DWG.#:  
5226431

DRAWN BY: michael.co

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

MASTER DRAWING

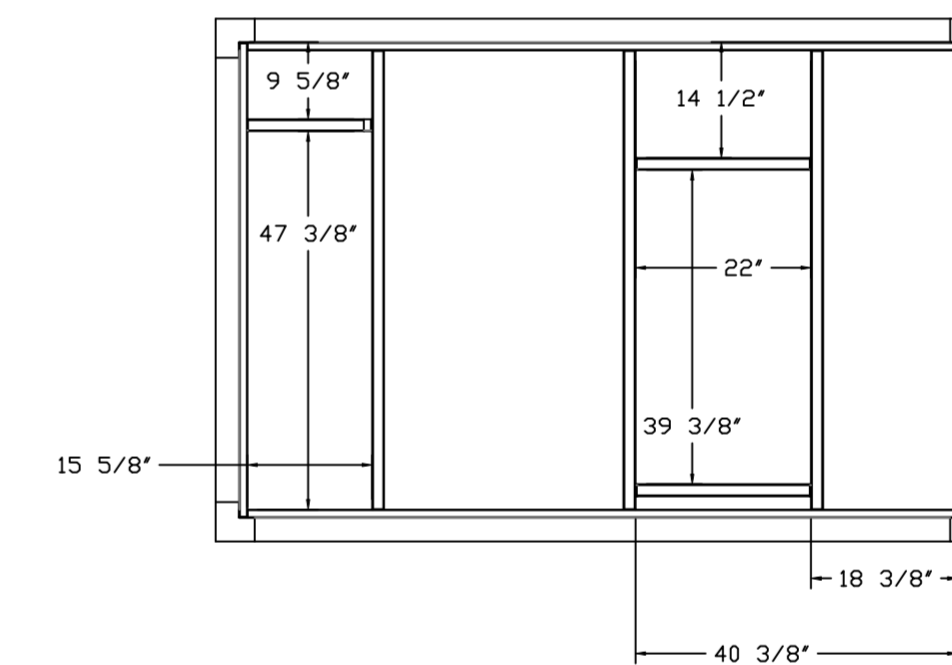
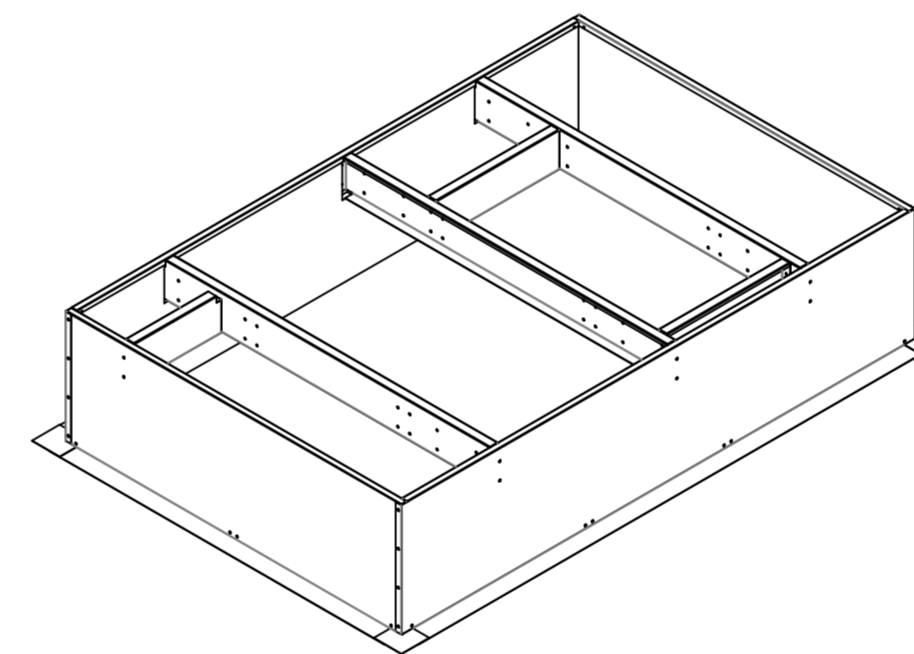
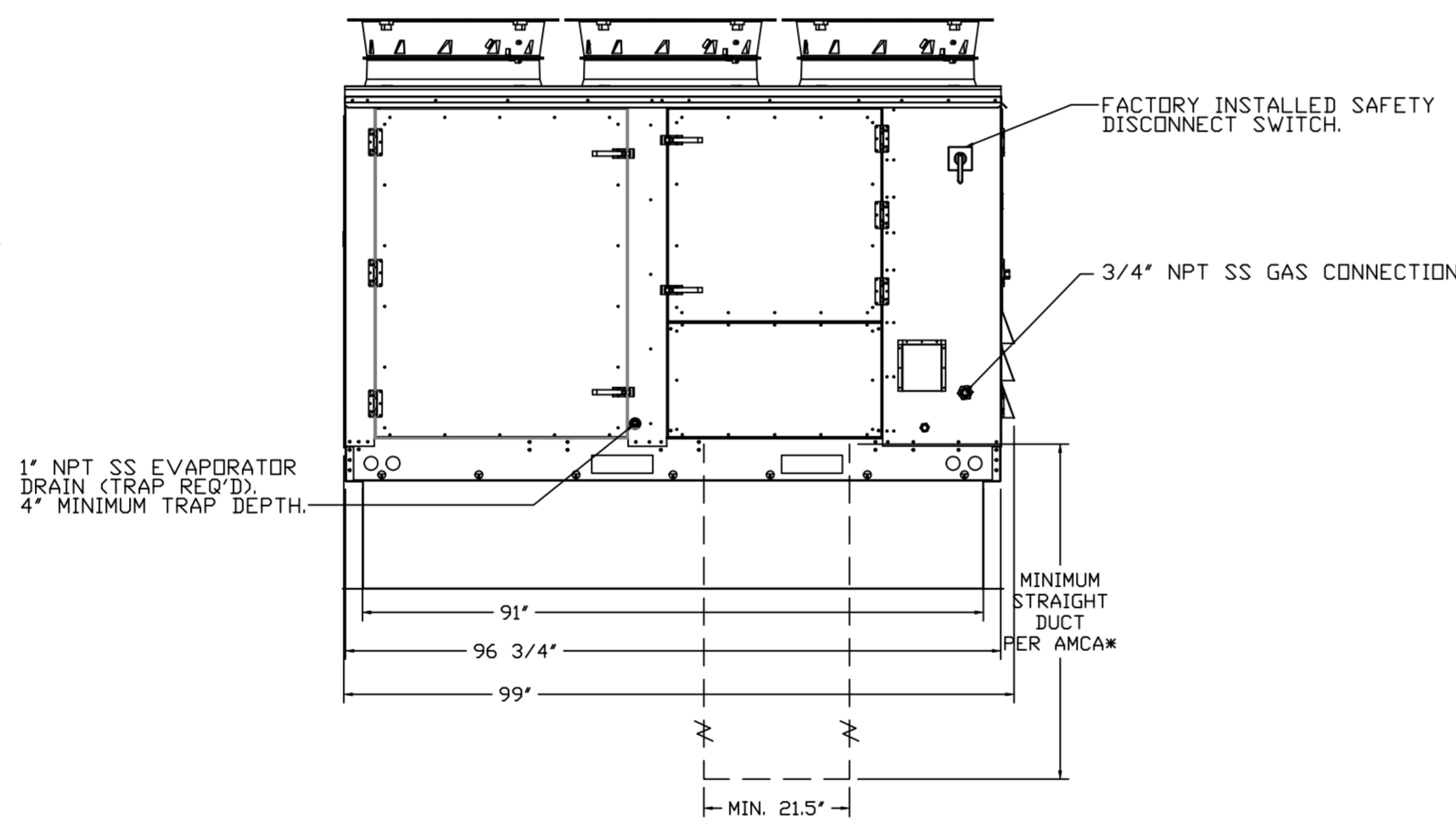
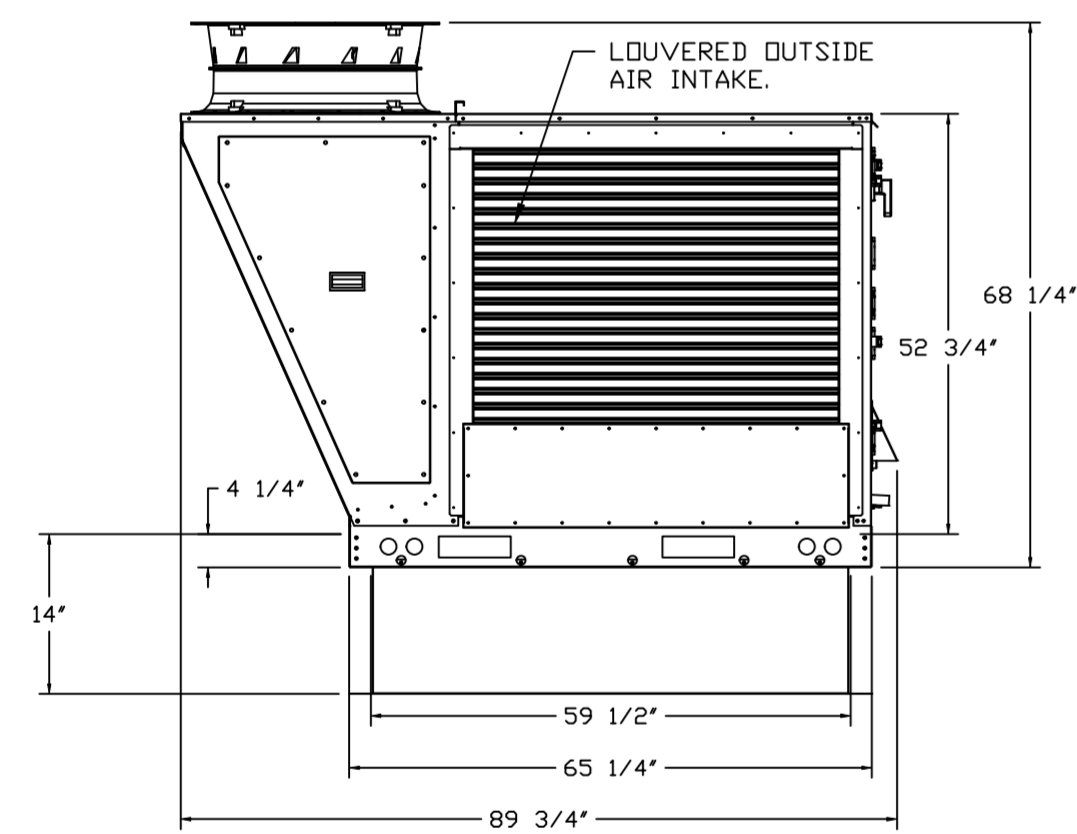
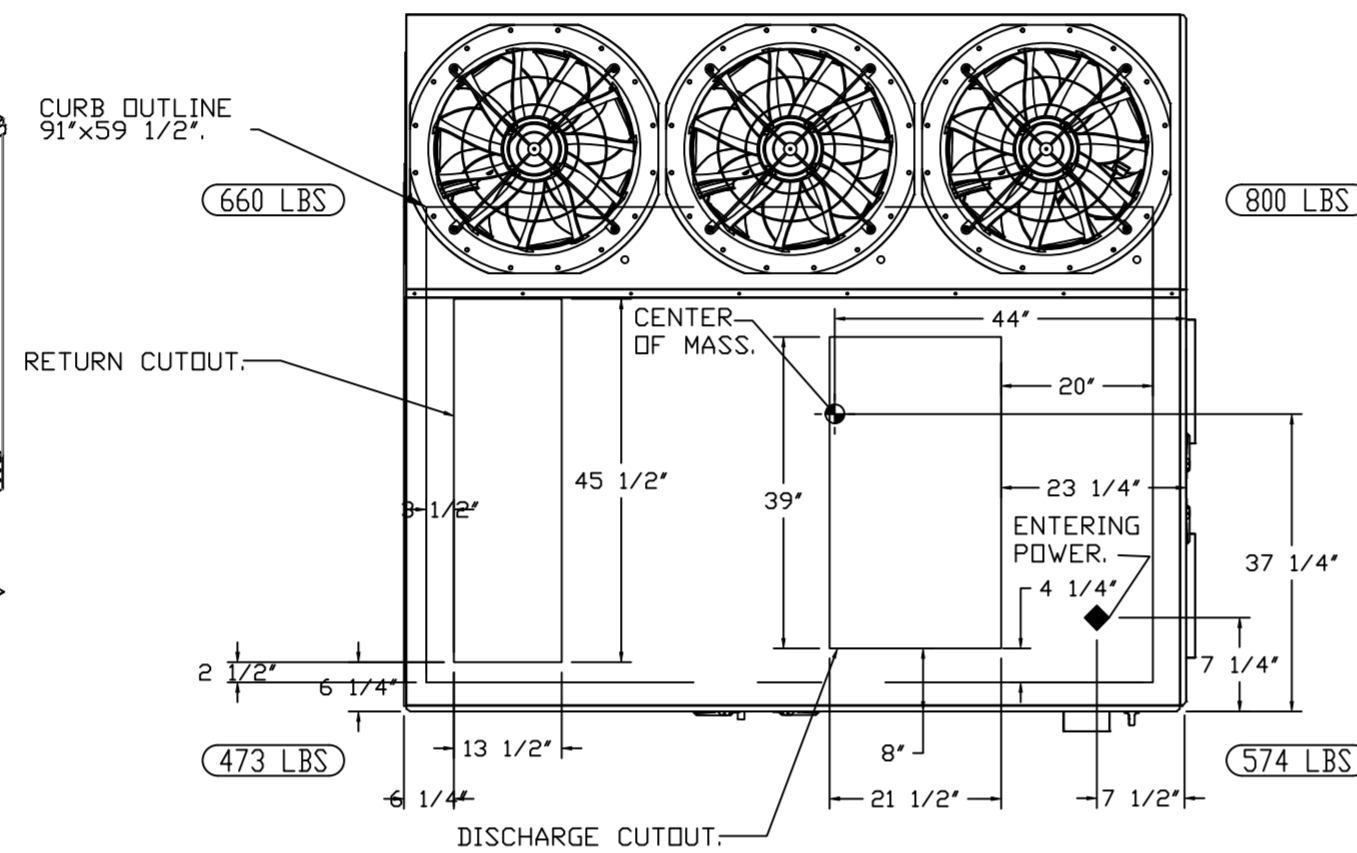
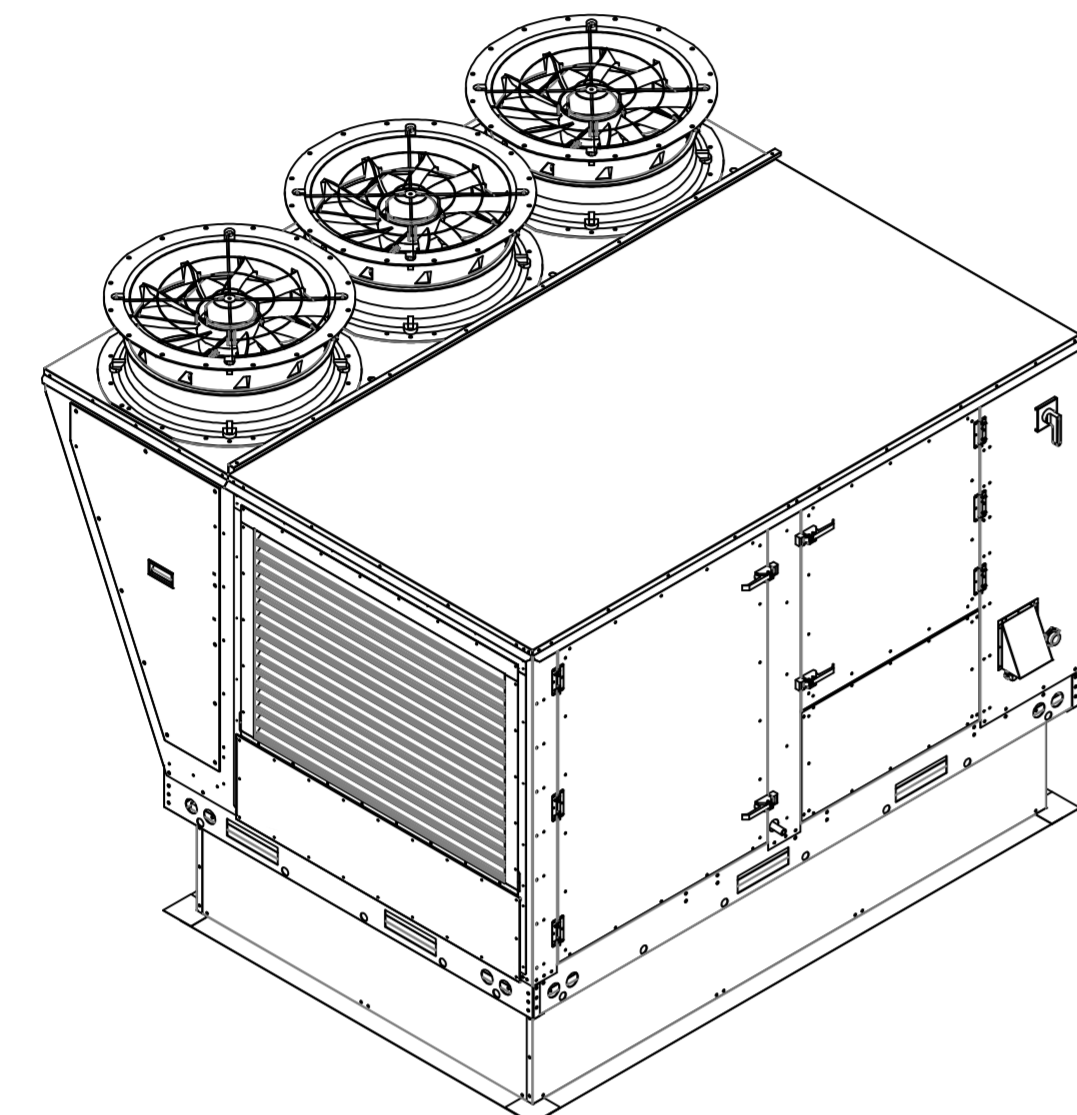
SHEET NO.  
1



NOTES:

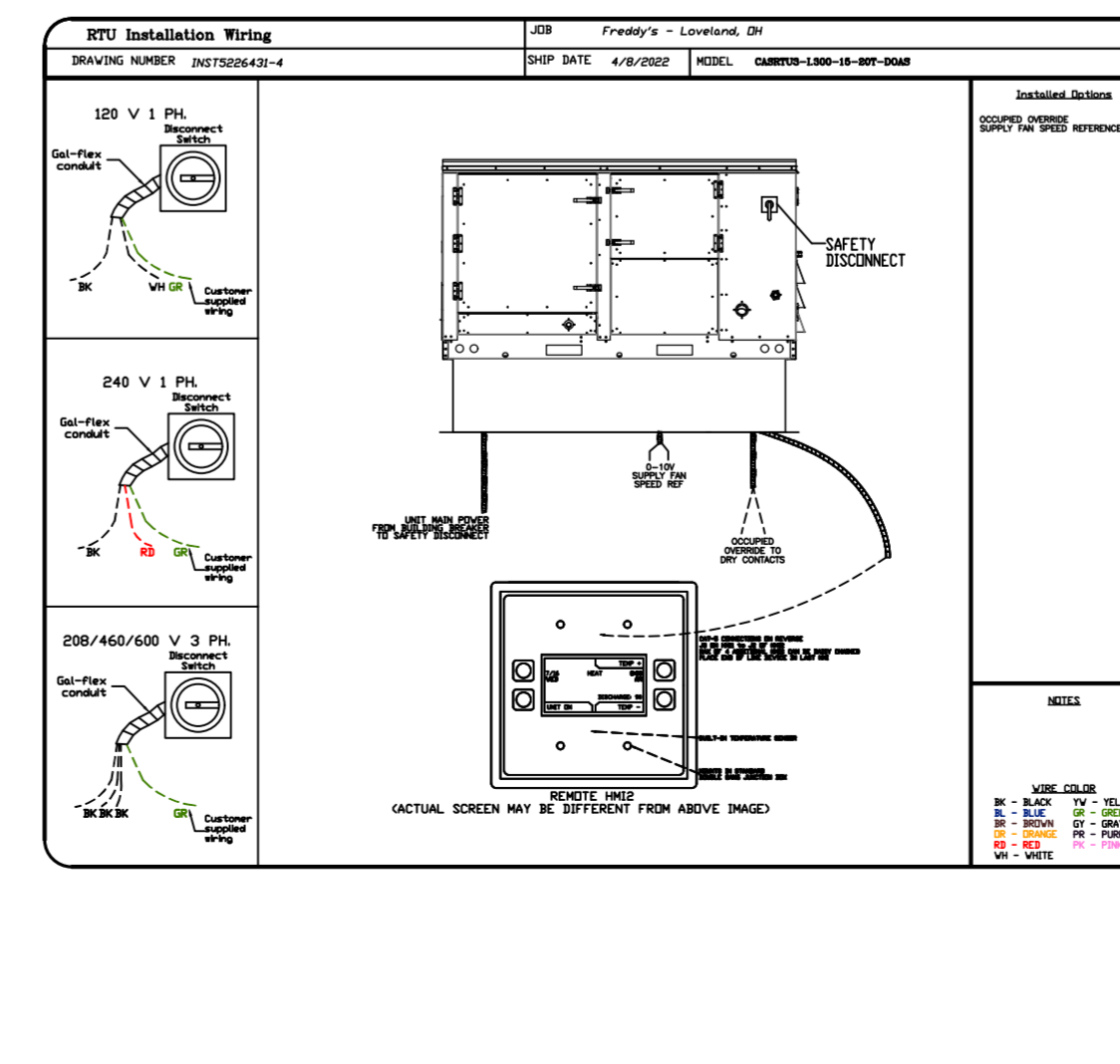
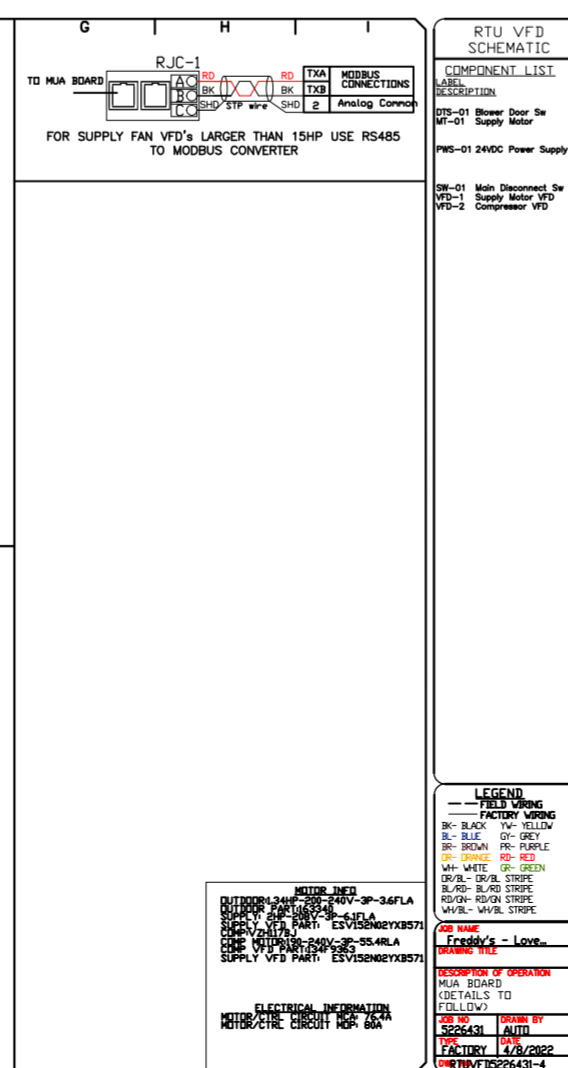
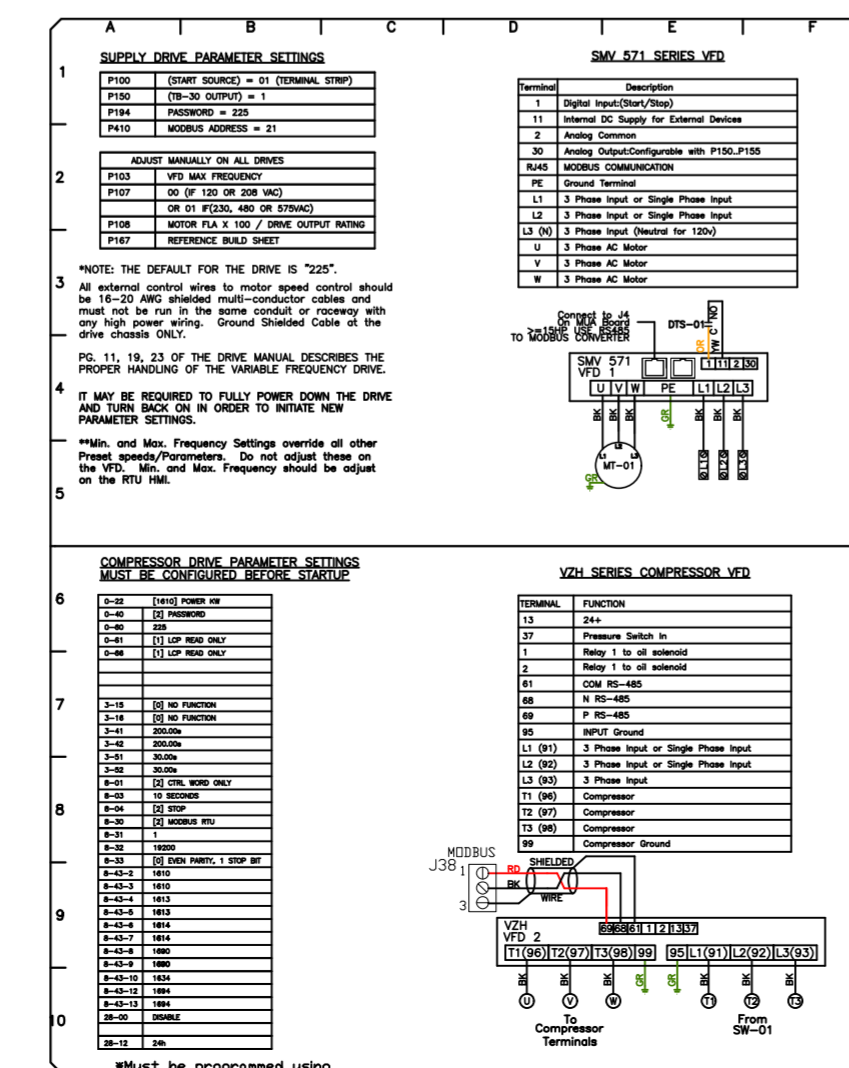
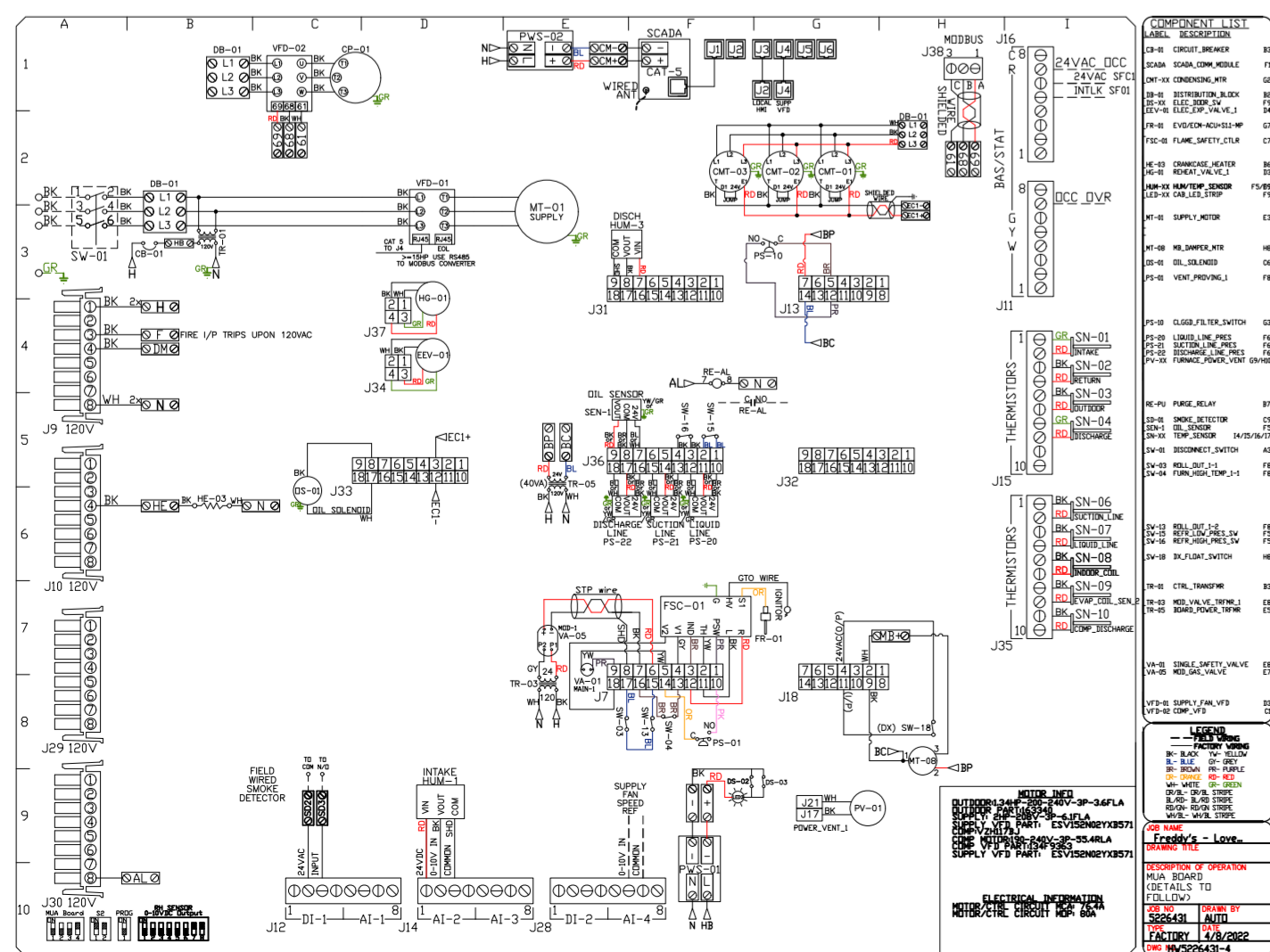
- DO NOT OBSTRUCT OUTSIDE AIR INLET, OUTSIDE AIR COIL OR OUTSIDE AIR FAN.
- ( ) DENOTES CORNER WEIGHT.
- ROOF OPENING MUST BE 2" SMALLER THAN CURB DIMENSIONS IN BOTH DIRECTIONS.

\*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 21.5" x 39".



OPTIONS

- RTU3 DOWN DISCHARGE.
- 2" MERV 13 FILTERS FOR RTU3 (QTY. 4).
- 2" MERV 8 FILTERS FOR RTU3 (QTY. 4).
- OVERHEAT STAT.
- INLET PRESSURE GAUGE, 0-35".
- MANIFOLD PRESSURE GAUGE, 0 TO 10" WC, 1 FURNACE.
- RTU3 HAIL GUARD.
- OCCUPIED SCHEDULING.
- CLOGGED FILTER SWITCH - NOTIFICATION ON HMI.
- RTU3 DOWN RETURN.
- COMMERCIAL SMOKE DETECTOR/ALARM INTERLOCK - ALARM SUPPLIED BY OTHERS.
- RTU TOTAL CFM MONITORING.
- RTU INTAKE/RETURN DAMPER - SCHEDULED OA PERCENTAGE CONTROL.
- CASLINK BUILDING MONITORING SYSTEM - INTERNET OR CELLULAR CONNECTION REQUIRED.
- VFD FACTORY MOUNTED AND WIRED IN RTU COMMERCIAL CONTROL VESTIBULE.
- VAV PACKAGE W/ 0-10VDC INPUT CONTROL (571 VFD INCLUDED).
- RTU3 CURB DUCT HANGER.
- 20 TON MODULATING COOLING OPTION, 208/230V. R410A REFRIGERANT, VARIABLE SPEED COMPRESSOR, ECM CONDENSING FANS.
- 20 TON MODULATING REHEAT OPTION - SPACE DEWPOINT CONTROL.
- 5 YEAR ENTIRE UNIT PARTS WARRANTY, 10 YEAR ENTIRE UNIT PARTS WARRANTY WITH REMOTE MONITORING AND CAPTIVEAIRE SERVICE CONTRACT, 25 YEAR STAINLESS STEEL FURNACE PARTS WARRANTY (SEE ADDITIONAL DETAILS).



**REVISIONS**

DESCRIPTION	DATE

**CAPTIVEAIRE**

www.captiveaire.com

HBT Foodservice

104 W 8th St Suite 204, Kansas City, MO, 64105 PHONE: (816) 221-8575 FAX: (816) 221-8311 EMAIL: reg9@captvair.com

Freddy's - Loveland, OH  
LOVELAND, OH, 45140

DATE: 4/8/2022  
DWG.#: 5226431  
DRAWN BY: michael.co  
SCALE: 1/2" = 1'-0"  
MASTER DRAWING

SHEET NO. 3

