

HVAC SPECIFICATIONS

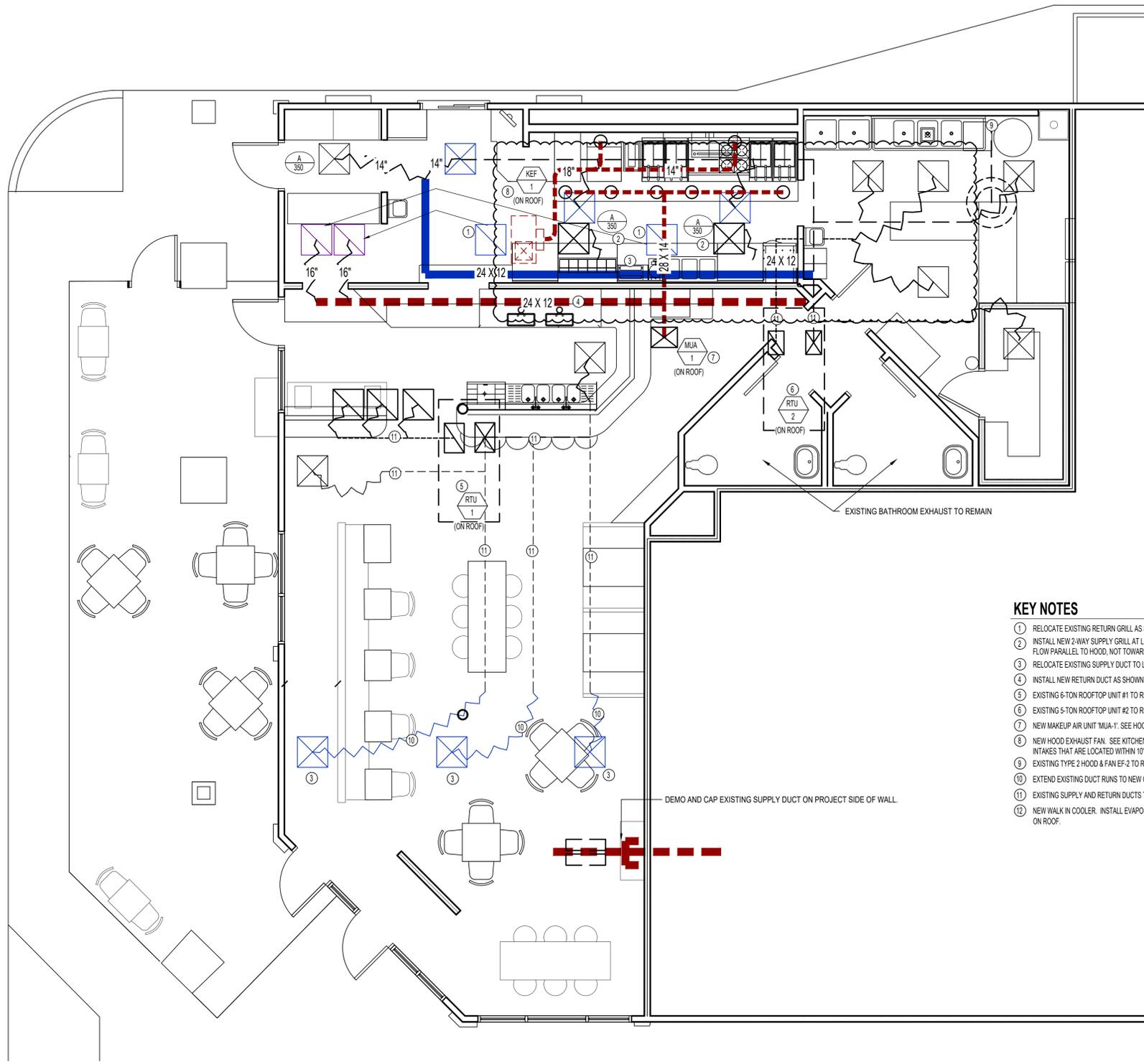
1. INSULATION:
 - 1.1. ALL INTERNAL DUCT LINER TO BE 1" AND EQUAL TO "CERTAINTED TOUGHGUARD T" UNLESS NOTED OTHERWISE.
 - 1.2. ALL DUCT WRAP SHALL BE 2" WITH VAPOR BARRIER EQUAL TO "CERTAINTED SOFTTOUCH DUCT WRAP" WITH FSK JACKET UNLESS NOTED OTHERWISE.
 - 1.3. EXHAUST AIR DUCTS IN UNCONDITIONED SPACES SHALL HAVE DUCT WRAP.
 - 1.4. OUTDOOR AIR DUCTS IN CONDITIONED SPACES SHALL HAVE DUCT WRAP.
 - 1.5. ALL EXTERIOR DUCTS SHALL HAVE 2" THICK CLOSED CELL FLEXIBLE ELASTOMERIC DUCT WRAP AND 26 GA ALUMINUM JACKET WITH OVERLAPPED SEAMS SEALED WATERTIGHT AND SLOPED TO AID DRAINAGE.
 - 1.6. REFRIGERANT PIPING:
 - 1.6.1. SPLIT SYSTEMS - SUCTION LINE ONLY TO BE 1/2" ARMAFLEX.
 - 1.6.2. VRV / VRF SPLIT SYSTEMS - BOTH SUCTION AND LIQUID LINES TO BE AS FOLLOWS:
 - 3/4" ARMAFLEX FOR 3/8" THRU 7/8" PIPES
 - 1" ARMAFLEX FOR 1 1/8" THRU 1 5/8" PIPES
 - 1.7. CONDENSATE PIPING: 1/2" ARMAFLEX IN UNCONDITIONED SPACES ONLY.
2. ALL DUCTWORK SHALL BE MIN. 26 GA. UP TO 16", 24 GA. UP TO 20", 22 GA. UP TO 24", 20 GA. UP TO 26", AND 18 GA. UP TO 36" OF GALVANIZED STEEL, SEALING CLASS "B", FABRICATED AND INSTALLED IN STRICT CONFORMANCE TO SMACNA SPECIFICATIONS. ALL TEES, ELBOWS, OR CHANGES IN DIRECTIONS SHALL HAVE TURNING VANES.
3. AIR CONDITIONING EQUIPMENT SHALL BE AS SPECIFIED ON DRAWINGS, UNLESS APPROVED OTHERWISE BY THE ENGINEER. EQUIPMENT SHALL BE "COMMERCIAL" RATED IN ALL CASES EXCEPT RESIDENTIAL APPLICATIONS.
4. GRILLES AND REGISTERS SHALL BE PRICE, OR APPROVED EQUAL.
5. ALL TEMPERATURE CONTROLS SHALL BE MIN. 18 GA. COPPER, PLENUM RATED CABLE.
6. DUCTWORK DIMENSIONS ARE INSIDE DIMENSIONS.
7. ALL HORIZONTAL FURNACES MUST BE EQUIPPED WITH GALVANIZED STEEL DRAIN PAN, WITH DRAIN PIPED TO FLOOR DRAIN OR INDIRECT WASTE, IN AN OBVIOUS, VISIBLE LOCATION, PER IPC.
8. ALL SUPPLY BRANCHES TO INDIVIDUAL DIFFUSERS MUST BE SUPPLIED WITH BALANCING DAMPERS; WHERE BRANCH TAKEOFFS ARE INACCESSIBLE (ATTICS, SOFFITS, ETC) BALANCE DAMPER SHALL BE PROVIDED AT FACE OF DIFFUSER. WHERE BRANCH TAKEOFFS ARE ACCESSIBLE (ABOVE DROP CEILING, EXPOSED DUCTS, ETC) BALANCE DAMPER SHALL BE LOCATED AT BRANCH TAKEOFF.
9. ALL SYSTEMS MUST BE FIELD BALANCED TO WITHIN 10% OF THE DESIGN FLOWS INDICATED ON THE DRAWINGS. CERTIFIED AIR BALANCING IS NOT REQUIRED. CONTRACTOR MUST SUBMIT BALANCING REPORT PRIOR TO RECEIVING FINAL PAYMENT.
10. FLEX DUCT (THERMAFLEX M-KE OR EQUAL) IS ALLOWED FOR FINAL CONNECTION FROM STEEL DUCTWORK TO AIR TERMINAL DEVICES ONLY, LENGTHS NOT TO EXCEED 8'-0", AND SUPPORTED AS SHOWN ON HVAC DETAILS SHEET.
11. MINIMUM SPLIT SYSTEM EFFICIENCIES FOR HEATING AND COOLING SHALL BE:
 - 11.6. HEATING AFUE = 90%
 - 11.7. COOLING SEER = PER LATEST EDITION OF ASHRAE 90.1
12. MINIMUM ROOFTOP UNIT EFFICIENCIES SHALL MEET STANDARDS PER LATEST EDITION OF ASHRAE 90.1.
13. FINAL CONNECTIONS TO AIR HANDLING EQUIPMENT ARE NOT SHOWN. CONTRACTOR TO INCLUDE TRANSITIONS AND FITTINGS AS REQUIRED TO TRANSITION FROM EQUIPMENT DUCT CONNECTION SIZES TO TRUNK LINE SIZES SHOWN ON PLANS.
14. DUCTWORK SHALL NOT BE INSTALLED SUCH THAT IT RESTRICTS ACCESS TO ELECTRICAL JUNCTION BOXES OR DIRECTLY OVER ELECTRICAL PANELS.
15. REFRIGERANT PIPING MUST BE COPPER TYPE ACR OR TYPE L.
16. AIR CONDITIONING EQUIPMENT TO BE INSTALLED LEVEL AND PLUMB. ROOFTOP UNITS AND FANS SHALL BE ON FACTORY ROOF CURBS. ROOFTOP MOUNTED CONDENSING UNITS SHALL BE MOUNTED ON TREATED 4X4S WHICH ARE PLACED ON A WALK MAT COMPATIBLE WITH THE ROOFING SYSTEM, TO BE PURCHASED FROM THE ROOFING CONTRACTOR. ROOFTOP MOUNTED PIPING AND VRF/VRF EQUIPMENT SHALL BE ON A SUPPORT FRAME MOUNTED TO "ROOFTOP BLOCK". GROUND MOUNTED EQUIPMENT TO BE ON 4-INCH THICK, REINFORCED CONCRETE BASE THAT IS 4 INCHES LARGER, ON EACH SIDE, THAN UNIT.
17. ALL EQUIPMENT LOCATED OUTDOORS SHALL BE EQUIPPED WITH FACTORY HAIL GUARDS TO PROTECT EXPOSED COILS.
18. EQUIPMENT LOCATIONS SHOWN ON PLANS ARE APPROXIMATE. CONTRACTOR TO CONFIRM THAT EQUIPMENT MOUNTED GREATER THAN 30" ABOVE ADJACENT GRADE, SHALL BE LOCATED MINIMUM 10'-0" FROM EDGE, UNLESS A GUARD OR PARAPET (MIN. 42" TALL) PROTECTS THE EDGE.
19. PROTECT DUCT INTERIORS FROM MOISTURE, DEBRIS, DUST & FOREIGN MATERIALS IN ACCORDANCE WITH SMACNA "DUCT CLEANLINESS FOR NEW CONSTRUCTION" GUIDELINES.

HVAC SYMBOL LEGEND

-  TYPE OF EQUIPMENT (SEE EQUIPMENT SCHEDULE)
-  REFERENCE NUMBER
-  TYPE OF DIFFUSER (SEE DIFFUSER SCHEDULE)
-  CFM / FACE SIZE
-  SUPPLY DIFFUSER
IF OTHER THAN 4-WAY, SHADING INDICATES NO FLOW ZONE
-  RETURN GRILLE
-  BALANCE DAMPER
-  MOTORIZED DAMPER
-  CEILING RADIATION DAMPER
-  SUPPLY DUCT
-  EXISTING SUPPLY DUCT
-  RETURN DUCT
-  EXISTING RETURN DUCT
-  EXHAUST DUCT (D.V. DESIGNATES DRYER VENT)
-  EXISTING EXHAUST DUCT (D.V. DESIGNATES DRYER VENT)
-  OUTSIDE AIR DUCT
-  FLEX DUCT
-  VENT / COMBUSTION AIR
-  CONDENSATION LINE
-  REFRIGERANT LINE
-  TIE INTO EXISTING
-  THERMOSTAT
-  CO2 DETECTOR

GENERAL NOTES

1. REFER TO MD100 FOR REMAINING HVAC NOTES, LEGENDS, DETAILS & SCHEDULES.
2. DUCTWORK & EQUIPMENT LABELED "EX." OR "EXISTING" IS EXISTING TO REMAIN UNLESS NOTED OTHERWISE.



KEY NOTES

1. RELOCATE EXISTING RETURN GRILLE AS SHOWN.
2. INSTALL NEW 2-WAY SUPPLY GRILLE AT LOCATION SHOWN. CONNECT TO RELOCATED SUPPLY DUCT AS SHOWN. DIRECT FLOW PARALLEL TO HOOD, NOT TOWARD HOOD.
3. RELOCATE EXISTING SUPPLY DUCT TO LOCATION SHOWN.
4. INSTALL NEW RETURN DUCT AS SHOWN.
5. EXISTING 6-TON ROOFTOP UNIT #1 TO REMAIN. ADJUST OA TO AMOUNTS SHOWN IN TABLE BELOW.
6. EXISTING 5-TON ROOFTOP UNIT #2 TO REMAIN. ADJUST OA TO AMOUNTS SHOWN IN TABLE BELOW.
7. NEW MAKEUP AIR UNIT MUA-1. SEE HOOD SHEETS.
8. NEW HOOD EXHAUST FAN. SEE KITCHEN HOOD DETAIL AND HOOD SHEETS. LOCATE DISCHARGE 36" ABOVE FRESH AIR INTAKES THAT ARE LOCATED WITHIN 10'-0" HORIZONTALLY.
9. EXISTING TYPE 2 HOOD & FAN EF-2 TO REMAIN.
10. EXTEND EXISTING DUCT RUNS TO NEW GRILLE LOCATIONS AS SHOWN.
11. EXISTING SUPPLY AND RETURN DUCTS TO REMAIN.
12. NEW WALK IN COOLER. INSTALL EVAPORATOR AND CONDENSING UNIT, PIPING, AND START UP. CONDENSING UNIT TO GO ON ROOF.



HVAC PLAN

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

AIR DEVICES SCHEDULE									
MARK	MFR.*	MODEL*	MOUNTING	SERVICE	THROW	FACE SIZE	MATERIAL	FINISH	REMARKS
A	PRICE	*	CEILING	SUPPLY	8"	24X24	STEEL	WHITE	WITH BUTTERFLY DAMPER

* SELECT MODEL TO MATCH STYLE OF EXISTING GRILLES.

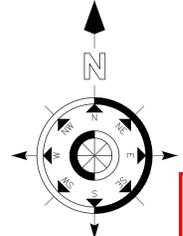
AIR BALANCE CALCULATION (CFM)				
SOURCE	INTAKE	EXHAUST	NET	NET %
KEF-1		3466	-3466	
BR EF	200	-200		
EF-2		400	-400	
MUA	2772		2772	
RTU-1	800		800	
RTU-2	500		500	
TOTAL	4,072	-4,066	6	0%

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REVISIONS:	DATE:
ADDED PREP SINK, RELOCATED HAND SINK	3/25/2020
REVISED HOOD, EF, GREASE DUCT AND NOTES	12/01/2020

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12/01/2020



Mark Timberlake, P.E. DEC. 01, 2020
PE-0049319

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FRISCO, CO 80443
(573) 881-5684

HVAC PLAN

HYPNO-CHIC RESTAURANT

255 ANGLER'S DRIVE, SUITE A, STEAMBOAT SPRINGS, CO 80487

DATE: 01-12-2020 SHEET NO.

DRAWN BY: MBT

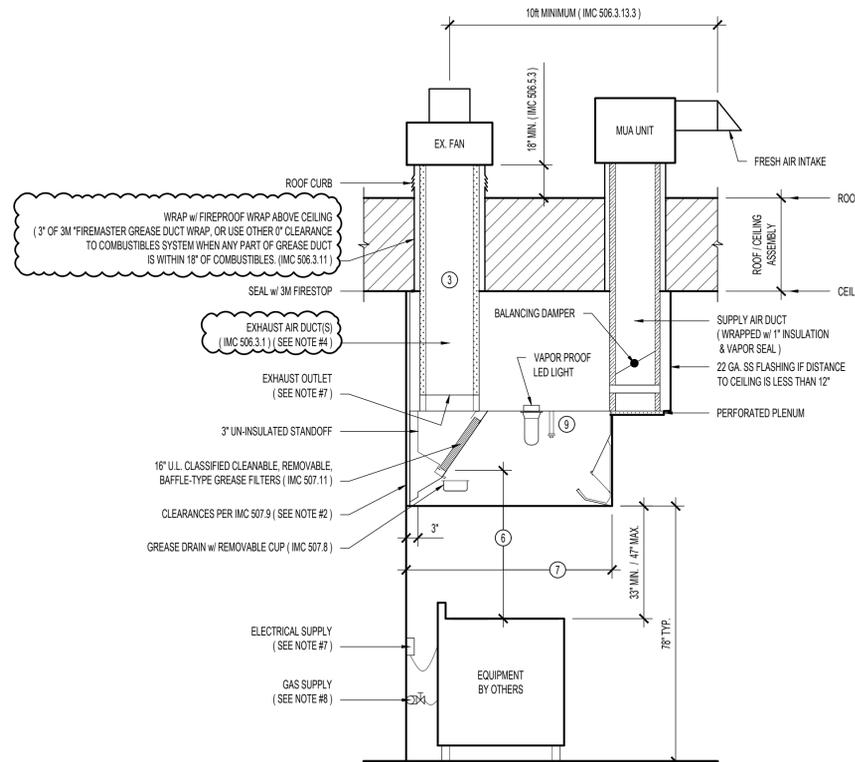
PROJECT NO: 19001

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

M100

Building: HYPNO-CHICK RESTAURANT			
System Tag/Name:			
Operating Condition Description:			
Units (select from pull-down list) JP			
Inputs for System			
Floor area served by system	Name	Units	System
Population of area served by system (including diversity)	As	sf	660
Design primary supply fan airflow rate	Ps	ctm	46
OA req'd per unit area for system (Weighted average)	Vpsd	ctm	2,400
OA req'd per person for system area (Weighted average)	Ras	ctm/sf	0.18
	Rps	ctm/p	7.5
Inputs for Potentially Critical Zones		Potentially Critical Zones	
Zone Name	Zone Tag	enter name	enter name
Space type		Restaurant dining rooms	Office space
Floor Area of zone	Az	sf	660
Design population of zone	Pz	P	46.2
Design total supply to zone (primary plus local recirculated)	Vdzd	ctm	2,400
Induction Terminal Unit, Dual Fan Dual Duct or Transfer Fan?			
Local recirc. air % representative of ave system return air	Er		
Inputs for Operating Condition Analyzed			
Percent of total design airflow rate at conditioned analyzed	Ds	%	100%
Air distribution type at conditioned analyzed			CS
Zone air distribution effectiveness at conditioned analyzed	Ez		1.00
Primary air fraction of supply air at conditioned analyzed	Ep		
Results			
Ventilation System Efficiency	Ev		1.00
Outdoor air intake required for system	Vot	ctm	465
Outdoor air per unit floor area	Vot/As	ctm/sf	0.71
Outdoor air per person served by system (including diversity)	Vot/Ps	ctm/p	10.1
Outdoor air as a % of design primary supply air	Ypd	ctm	19%

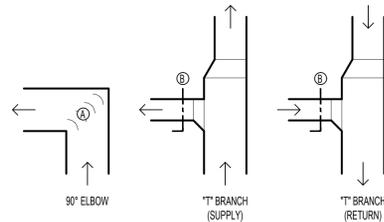
MAX CFM	NECK SIZE
90	6" DIA
200	8" DIA
350	10" DIA
500	12" DIA



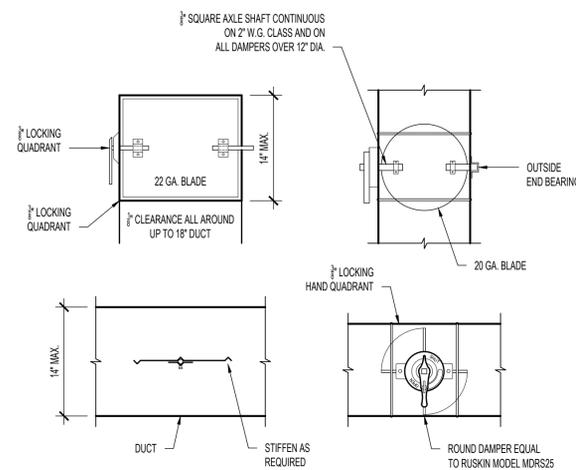
TYPICAL CLASS 1 KITCHEN HOOD DETAIL

NOTES

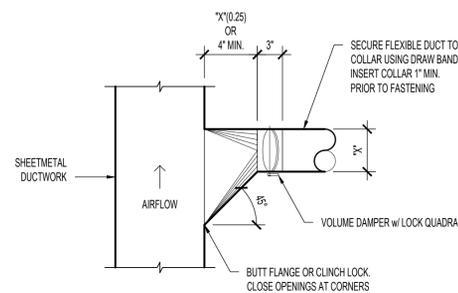
- 24" MIN. IF NON-EXPOSED OR EXPOSED FLAME BURNERS. 40" MIN IF CHARCOAL OR CHARBROIL TYPE FLAME.
- THE SPECIFIED HOODS ARE RATED & UL LISTED FOR 0' CLEARANCE TO COMBUSTIBLES WHEN SUPPLIED WITH THE FACTORY INSTALLED 3' STANDOFFS.
- MIN. AIR VELOCITY - 500 < FPM < 2500. (MC 506.3.4). HORIZONTAL PORTIONS OF GREASE DUCT TO SLOPE 2%, AND BE PROVIDED WITH ONE (12 X 12 MIN. SIZE) CLEAN OUT SPACE NOT MORE THAN 20' APART. (MC 506.3.8&9).
- WELDED 18 GA SS OR 14 GA CARBON STEEL, 18" CLEARANCE TO COMBUSTIBLES, OR 6" CLEARANCE IF COMBUSTIBLES PROTECTED WITH 1-HR RATED MATERIAL (MC 506.3.11), OR UL LISTED 0" CLEARANCE TO COMBUSTIBLES SYSTEM (MC 506.7).
- EXHAUST OUTLET PER 12' SECTION OF HOOD. (MC 507.15).
- HOOD TO EXTEND 6" MIN. PAST COOKING SURFACE ON ALL SIDES. (MC 507.15).
- ALL ELECTRICAL EQUIPMENT UNDER HOOD SHALL BE FED FROM SHUNT-TRIP CIRCUIT BREAKERS WHICH SHALL BE CONNECTED TO THE HOOD FIRE SUPPRESSION SYSTEM TO SHUT DOWN CIRCUITS ON FIRE INDICATION.
- ALL GAS FIRED EQUIPMENT UNDER HOOD SHALL BE FED FROM A MAIN THAT IS CONTROLLED BY A MASTER GAS SOLENOID VALVE, WHICH IS CONTROLLED BY THE HOOD FIRE SUPPRESSION SYSTEM TO SHUT DOWN THE GAS LINE ON FIRE INDICATION.
- FIRE SUPPRESSION SYSTEM, WITH CONTROLS TO SHUT DOWN GAS AND ELECTRICAL TO EQUIPMENT UNDER HOOD. FIRE SUPPRESSION CONTROL DRAWINGS MUST BE SUBMITTED BY THE FIRE SUPPRESSION CONTRACTOR AND APPROVED BY LOCAL CODE ENFORCEMENT PRIOR TO HOOD INSTALLATION.
- THIS DRAWING SHOWS GENERAL DESIGN REQUIREMENTS ONLY SEALED HOOD SHOP DRAWINGS TO BE APPROVED BY LOCAL CODE ENFORCEMENT PRIOR TO HOOD INSTALLATION.



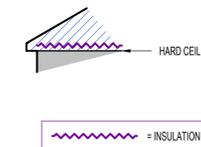
DUCTWORK FITTINGS DETAIL



RECTANGULAR & ROUND VOLUME DAMPERS



45° TAKEOFF DETAIL



TYP. DUCT INSULATION DETAIL

TYPE OF DUCTWORK	DUCTWORK INSIDE THERMAL ENVELOPE INSULATION SCHEDULE			DUCTWORK OUTSIDE THERMAL ENVELOPE INSULATION SCHEDULE		
	1/2" LINER	1" LINER	2" WRAP	1/2" LINER	1" LINER	2" WRAP
RECTANGULAR SUPPLY		X			X	
RECTANGULAR RETURN		X			X	
RECTANGULAR EXHAUST						X
RECTANGULAR OUTSIDE AIR			X			
ROUND SUPPLY			X			X
ROUND RETURN						X
ROUND EXHAUST					X	
ROUND OUTSIDE AIR			X			
SPIRAL SUPPLY						X
SPIRAL RETURN						X
SPIRAL EXHAUST					X	
SPIRAL OUTSIDE AIR			X			

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REVISIONS:	DATE:
ADDED PREP SINK, RELOCATED HAND SINK	3/25/2020
REVISED HOOD, EF, GREASE DUCT AND NOTES	12/01/2020

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TC
12/01/2020



Mark Timberlake, P.E. DEC. 01, 2020
PE-0049319



HVAC DETAILS

HYPNO-CHICK RESTAURANT

255 ANGLER'S DRIVE, SUITE A, STEAMBOAT SPRINGS, CO 80487

DATE:	01-12-2020	SHEET NO.
DRAWN BY:	MBT	
PROJECT NO.:	19001	
SCALE:	1/4"=1'-0"	

MD100

HOOD INFORMATION - JOB#4410517

HOOD NO	TAG	MODEL	MANUFACTURER	LENGTH	MAX COOKING TEMP	TYPE	APPLIANCE DUTY	DESIGN CFM/FT	TOTAL EXH CFM	EXHAUST PLENUM RISE(S)						HOOD CONSTRUCTION	HOOD CONFIG		
										WIDTH	LENG	HEIGHT	DIA	CFM	VEL		SP	END TO END	ROW
1	KH-L	5424 EX-2	ECON-AIR	8' 8"	600 DEG	I	HEAVY	200	1733			4"	14"	1733	1621	-0.431"	430 SS WHERE EXPOSED	LEFT	ALONE
2	KH-R	5424 EX-2	ECON-AIR	8' 8"	600 DEG	I	HEAVY	200	1733			4"	14"	1733	1621	-0.431"	430 SS WHERE EXPOSED	RIGHT	ALONE

HOOD INFORMATION

HOOD NO	TAG	FILTER(S)				LIGHT(S)				UTILITY CABINET(S)				FIRE SYSTEM PIPING	HOOD HANGING WEIGHT		
		TYPE	QTY	HEIGHT	LENGTH	EFFICIENCY @ 7 MICRONS	QTY	TYPE	WIRE GUARD	LOCATION	SIZE	FIRE SYSTEM	ELECTRICAL			SWITCHES	
1	KH-L	SS BAFFLE WITH HANDLES	6	16"	16"	30%	4	L55 SERIES E26	NO	WALL MNT	12"x54"x24"	ANSUL R102	3.0/3.0/3.0	SC-311110FP	1 LIGHT 1 FAN	YES	364 LBS
2	KH-R	SS BAFFLE WITH HANDLES	6	16"	16"	30%	4	L55 SERIES E26	NO							YES	363 LBS

HOOD OPTIONS

HOOD NO	TAG	OPTION
1	KH-L	BACKSPLASH 100.00" HIGH X 216.00" LONG 430 SS VERTICAL.
		LEFT SIDESPLASH 100.00" HIGH X 72.00" LONG 430 SS VERTICAL.
		LEFT END STANDOFF (FINISHED) 1" WIDE 54" LONG INSULATED.
		RISER SENSOR INSTALL 3IN DBL.
2	KH-R	RIGHT SIDESPLASH 100.00" HIGH X 72.00" LONG 430 SS VERTICAL.
		RIGHT END STANDOFF (FINISHED) 1" WIDE 54" LONG INSULATED.
		RISER SENSOR INSTALL 3IN DBL.
		RIGHT WALL AS END PANEL.

GREASE DUCT & CHIMNEY SPECIFICATIONS:
 PROVIDE GREASE DUCT EQUAL TO CAPTIVEAIRE SYSTEMS MODEL "DW" ROUND 20 GAUGE 430 STAINLESS STEEL DUCTWORK. MODEL "DW" IS LISTED TO UL-1978 AND IS INSTALLED USING "V" CLAMP LOCKING CONNECTIONS SEALED WITH 3M FIRE BARRIER 2000 PLUS. MODEL "DW" DOES NOT REQUIRE WELDING PROVIDING IT HAS BEEN INSTALLED PER THE MANUFACTURES INSTALLATION GUIDE.
 PROVIDE RATED ACCESS DOORS AT EVERY CHANGE IN DIRECTION AND EVERY 12' ON CENTER. PER MANUFACTURES LISTING MODEL "DW" HORIZONTAL RUNS LESS THAN 75 FT. CAN BE SLOPED 1/16" PER 12", HORIZONTAL RUNS MORE THAN 75 FT. CAN BE SLOPED 3/16" PER 12".
 DUCT SHOULD BE SLOPED AS MUCH AS POSSIBLE TO REDUCE THE CHANCE OF GREASE ACCUMULATION IN HORIZONTAL RUNS.

 IF THE DUCT OR CHIMNEY IS WITHIN 18 INCHES OF COMBUSTIBLE MATERIAL, PROVIDE UL-2221 OR UL-103 HT LISTED DOUBLE WALL GREASE DUCT OR DOUBLE WALL CHIMNEY EQUAL TO CAPTIVEAIRE SYSTEMS MODEL "DW- 2R, 2R TYPE HT, 3R, OR 3Z" ROUND 20 GAUGE 430 STAINLESS INNER DUCT INSULATED WITH A 24 GAUGE 430 STAINLESS OUTER SHELL.

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 _____

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

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HOOD PLAN

HYPNO-CHIC RESTAURANT

255 ANGLER'S DRIVE, SUITE A, STEAMBOAT SPRINGS, CO 80487

DATE:	01-12-2020	SHEET NO.
DRAWN BY:	MBT	
PROJECT NO.:	19001	
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H100

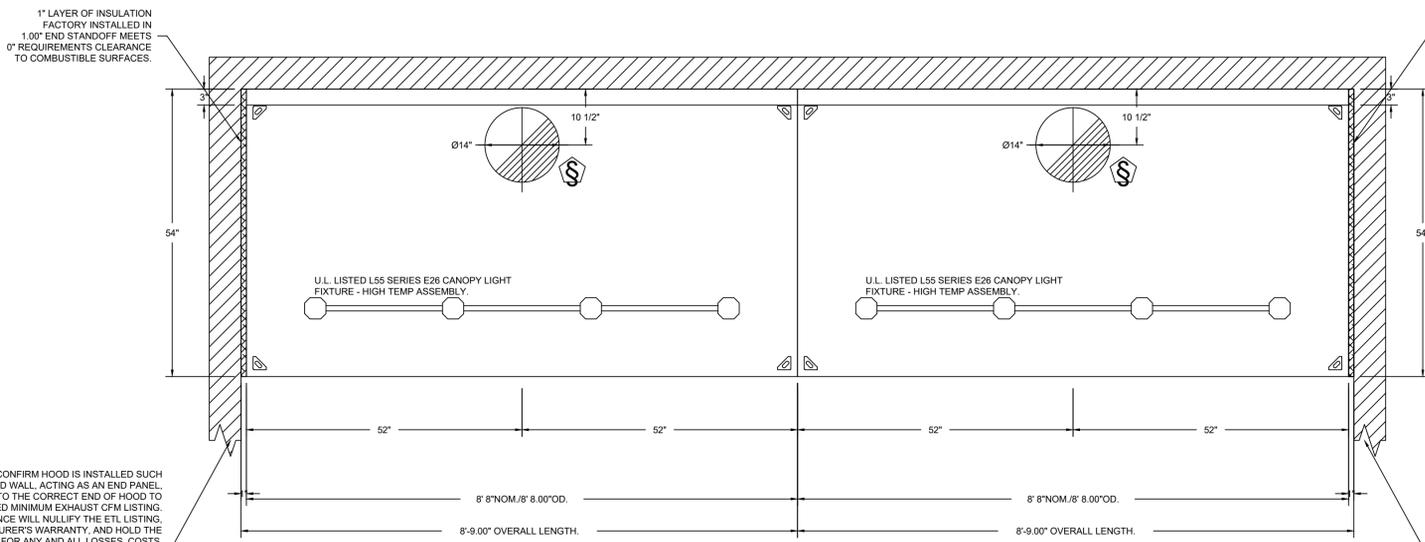
NOTE: DESIGN AND MODEL NUMBERS ARE BASED ON CAPTIVEAIRE AS MANUFACTURER.

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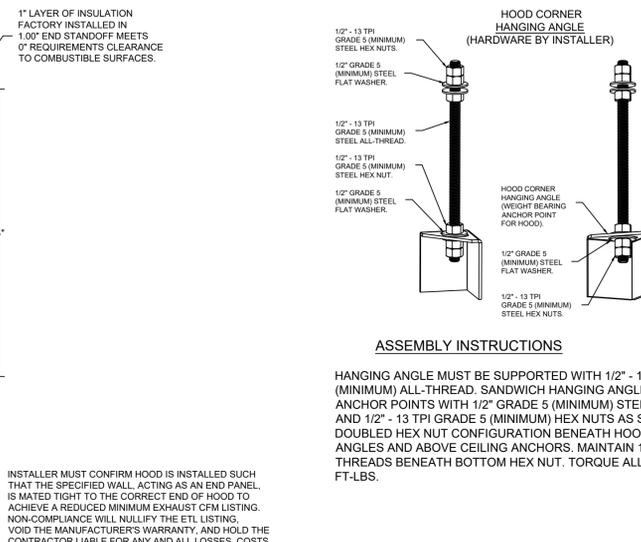
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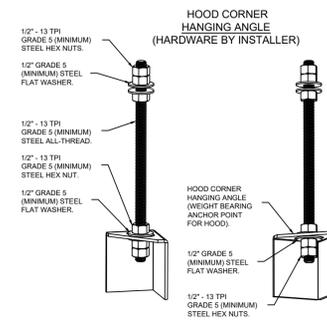
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PLAN VIEW - HOOD #1 (KH-L)
8' 8.00" LONG 5424EX-2



PLAN VIEW - HOOD #2 (KH-R)
8' 8.00" LONG 5424EX-2

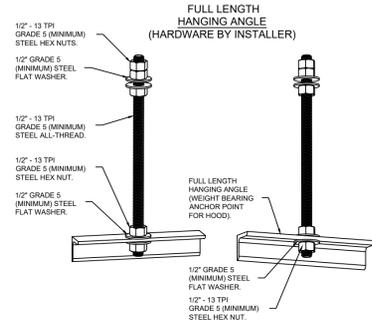


ASSEMBLY INSTRUCTIONS

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.

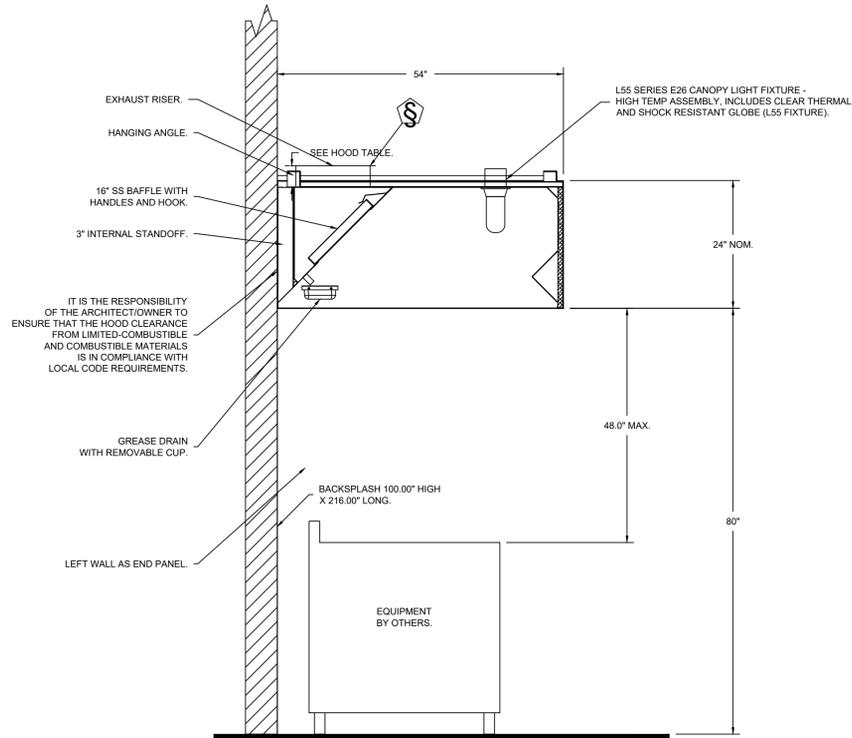
INSTALLER MUST CONFIRM HOOD IS INSTALLED SUCH THAT THE SPECIFIED WALL, ACTING AS AN END PANEL, IS MATED TIGHT TO THE CORRECT END OF HOOD TO ACHIEVE A REDUCED MINIMUM EXHAUST CFM LISTING. NON-COMPLIANCE WILL NULLIFY THE ETL LISTING, VOID THE MANUFACTURER'S WARRANTY, AND HOLD THE CONTRACTOR LIABLE FOR ANY AND ALL LOSSES, COSTS, AND EXPENSES RELATED TO THE NON-COMFORMANCE OF THE MANUFACTURER'S SPECIFIED INSTRUCTION. THE WALL ACTING AS AN END PANEL MUST EXTEND NO LESS THAN 20" FROM THE INTERSECTING WALL ON WHICH HOOD IS MOUNTED AND MUST EXTEND NO LESS THAN 20" UNDER BOTTOM OF HOOD TO BE ELIGIBLE FOR REDUCED MINIMUM EXHAUST CFM LISTING.

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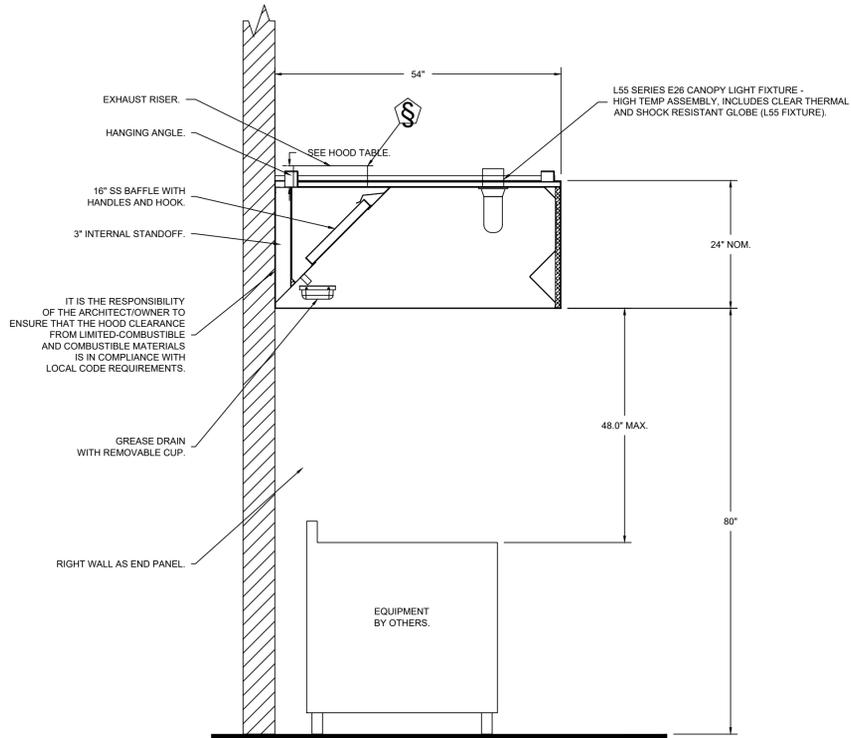


ASSEMBLY INSTRUCTIONS

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.



SECTION VIEW - MODEL 5424EX-2
HOOD - #1 (KH-L)



SECTION VIEW - MODEL 5424EX-2
HOOD - #2 (KH-R)

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Record Set
TC
12/01/2020



Mark Timberlake, P.E. PE-0049319 DEC. 01, 2020

TIMBERLAKE ENGINEERING, L.L.C.
Mark B. Timberlake P.E.
43 GIBERSON ROAD
FRISCO, CO 80443
(573) 881-5684

HOOD PLAN

HYPNO-CHIC RESTAURANT

255 ANGLER'S DRIVE, SUITE A, STEAMBOAT SPRINGS, CO 80487

DATE: 01-12-2020 SHEET NO.

DRAWN BY: MBT

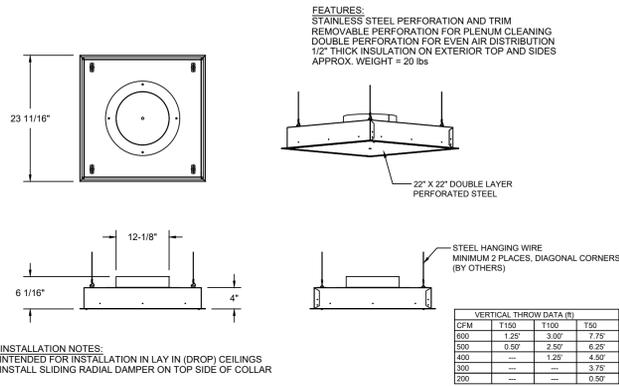
PROJECT NO: 19001

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

H101

NOTE: DESIGN AND MODEL NUMBERS ARE BASED ON CAPTIVEAIRE AS MANUFACTURER.

QTY 5-DROP-IN PERFORATED SUPPLY PLENUM DIFFUSER (DI-PSP)



FEATURES:
 STAINLESS STEEL PERFORATION AND TRIM
 REMOVABLE PERFORATION FOR PLENUM CLEANING
 DOUBLE PERFORATION FOR EVEN AIR DISTRIBUTION
 1/2" THICK INSULATION ON EXTERIOR TOP AND SIDES
 APPROX. WEIGHT = 20 lbs

VERTICAL THROW DATA (ft)			
CFM	T150'	T100'	T50'
600	1.25'	3.00'	7.25'
500	0.50'	2.50'	6.25'
400	---	1.25'	4.50'
300	---	---	3.75'
200	---	---	0.50'

INSTALLATION NOTES:
 INTENDED FOR INSTALLATION IN LAY IN (DROP) CEILINGS
 INSTALL SLIDING RADIAL DAMPER ON TOP SIDE OF COLLAR

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 SOME DEVIATION FROM SCALE MAY OCCUR.

REVISIONS:	DATE:
ADDED PREP SINK, RELOCATED HAND SINK	3/25/2020
REVISED HOOD, EF, GREASE DUCT AND NOTES	12/01/2020

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 DEC. 01, 2020

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HOOD PLAN

HYPNO-CHIC RESTAURANT

255 ANGLER'S DRIVE, SUITE A, STEAMBOAT SPRINGS, CO 80487

DATE:	01-12-2020	SHEET NO.
DRAWN BY:	MBT	
PROJECT NO.:	19001	
SCALE:	1/4"=1'-0"	

H102

NOTE: DESIGN AND MODEL NUMBERS ARE BASED ON CAPTIVEAIRE AS MANUFACTURER.

FIRE SYSTEM INFORMATION - JOB#4410517

FIRE SYSTEM NO	TAG	TYPE	SIZE	FLOW POINTS	INSTALLATION	
					SYSTEM	LOCATION ON HOOD
1		ANSUL R102	3.0/3.0/3.0	30	WALL UTILITY CABINET LEFT	N/A

GAS VALVE(S)

FIRE SYSTEM NO	TAG	TYPE	SIZE	SUPPLIED BY
1		MECHANICAL	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 - 43-15733 AIR CYLINDER ASSEMBLY - AIR CYLINDER AND TUBING FOR MECHANICAL GAS VALVES (ANSUL PART #15733).	1	0
		0 - 0 - 439861 LARGE BLOWOFF CAP, METAL, TO FIT NEW LASER-ETCHED ANSUL NOZZLES, A0024201.	16	0
		0 - 0 - TANK STRAP TANK STRAP - USED FOR ANSUL TANKS.	3	0
		0 - 0 - UCTANKBRACKET TANK BRACKET FOR FIRE SYSTEM TANK INSTALLATION IN UTILITY CABINETS.	3	0
		1 - 1 - AT - 3.0 TANK(#1B) - 3.0 GALLON SS TANK FOR USE WITH AUTOMAN RELEASE, ACTUATOR, OR SS ENCLOSURE (UL/ULC) MACOLA # 01-429862.	3	0
		3 - 3 - ANS-OEM REGULATED RELEASE - ANSUL REGULATED MECHANICAL RELEASE/BACKET ASSEMBLY, OEM, R-102, CARTRIDGE DETECTION INCLUDED, ANSUL PART # 79493.	1	0
		3 - 3 - AP - AE ENCLOSURE - STAINLESS STEEL ENCLOSURE ASSEMBLY (UL), ANSUL PART # 429870; MACOLA # 01-429870.	1	0
		5 - 5 - LIQ-3.0 AGENT - ANSULEX LOW PH WET CHEMICAL AGENT, 3 GALLON (UL) 79372.	0	3
		9 - 9 - DT-CART DOUBLE TANK NITROGEN CARTRIDGE.	0	1
		10 - 10 - TLINK LINK - TEST LINK (1 TEST LINK) ANSUL PART # 24916, MACOLA # 20-24916.	0	1
		11 - 11 - MICRO-SDA MICROSWITCH KIT- INCLUDES 2 SWITCHES AND MOUNTING HARDWARE, SINGLE DUAL ELECTRIC SWITCH, ONE STANDARD SWITCH, ONE ALARM DUTY SWITCH ANSUL PART # 437155, MACOLA # 08-437155.	1	0
		12 - 12 - HOSE HOSE - RUBBER HOSE.	2	0
		14 - 14 - 419336 NOZZLE - 1W NOZZLE, DUCT/APPLIANCE (REPLACES ANSUL PART# 419347, CAS PART# 419336) A0001266.	2	0
		16 - 16 - 419335 NOZZLE - 1N NOZZLE, PLENUM/APPLIANCE (REPLACES ANSUL PART# 419346, CAS PART# 419335) A0001265.	3	0
		19 - 19 - 419338 NOZZLE - 3N NOZZLE, APPLIANCE (REPLACES ANSUL PART# 419349, CAS PART# 419338) A0001268.	3	0
		21 - 21 - 419339 NOZZLE - 230 NOZZLE, APPLIANCE (REPLACES ANSUL PART# 419350, CAS PART# 419339) A0001269.	6	0
		24 - 24 - 419341 NOZZLE - 260 NOZZLE, APPLIANCE (REPLACES ANSUL PART# 419352, CAS PART# 419341) A0001271.	2	0
		25 - 25 - 418569 NOZZLE ADAPTOR - SWIVEL NOZZLE ADAPTOR (REPLACES CAS PART # 418569) A0001274.	6	0
		26 - 26 - QSA-3/8 QUIK SEAL - 3/8" (UL).	16	0
		27 - 27 - QPSA-1/2 PULLEY SEAL - 1/2" HOOD SEAL (UL) ANSUL PART # 423253, MACOLA # 32-79768.	5	0
		28 - 28 - S-DET DETECTOR - SERIES (SCISSOR LINKAGE) ANSUL PART # 435547/435548 (OLD # 417369/434480); MACOLA # 05-417369.	7	0
		29 - 29 - ANS-360FL FUSIBLE LINK - 360DEG F, R-102 AND PIRANHA, ANSUL PART # 439088.	2	0
		30 - 30 - ANS-500FL FUSIBLE LINK - 500DEG F, R-102 AND PIRANHA, ANSUL PART # 439232.	5	0
		34 - 34 - RPS-A REMOTE PULL STATION - RED COMPOSITE (WITHOUT WIRE ROPE) 434618 (OLD MACOLA #06-4835).	1	0
		35 - 35 - PE-LT PULLEY ELBOW - LOW TEMP, PULLEY ELBOW, SET SCREW TYPE ANSUL PART # 415670, MACOLA # 11-415671.	3	10
	36 - 36 - PE-HT PULLEY ELBOW - HIGH TEMP PULLEY ELBOW, COMPRESSION TYPE, ANSUL PART # 423251, MACOLA # 10-45771.	4	0	

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REVISIONS:	DATE:
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REVISED HOOD, EF, GREASE DUCT AND NOTES	12/01/2020

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TC
12/01/2020**



Mark Timberlake, P.E. PE-0049319 DEC. 01, 2020

TIMBERLAKE ENGINEERING, L.L.C.
Mark B. Timberlake P.E.
43 GIBERSON ROAD
FRISCO, CO 80443
(573) 881-5684

HOOD PLAN

HYPNO-CHIC RESTAURANT

255 ANGLER'S DRIVE, SUITE A, STEAMBOAT SPRINGS, CO 80487

DATE:	01-12-2020	SHEET NO.
DRAWN BY:	MBT	
PROJECT NO:	19001	
SCALE:	1/4"=1'-0"	

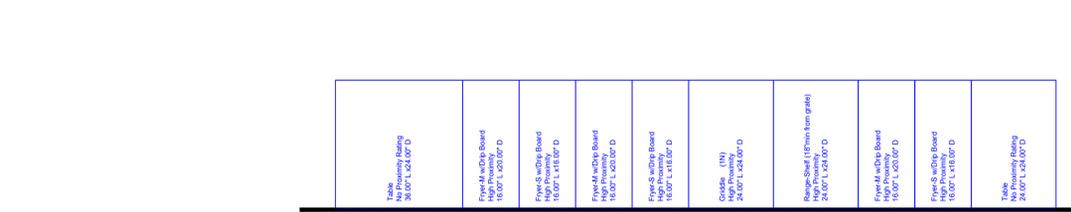
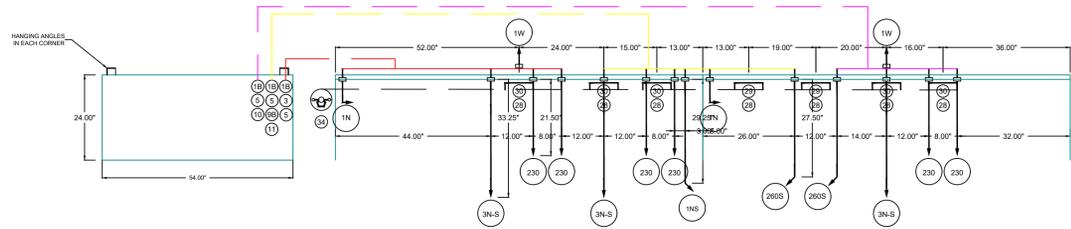
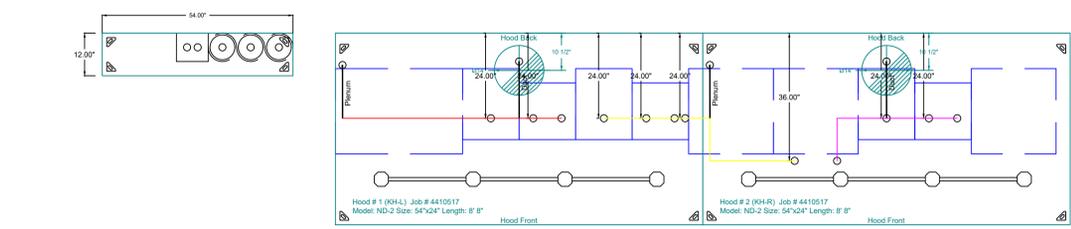
H103

NOTE: DESIGN AND MODEL NUMBERS ARE BASED ON CAPTIVEAIRE AS MANUFACTURER.

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REVISIONS:	DATE:
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REVISED HOOD, EF, GREASE DUCT AND NOTES	12/01/2020

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- NOTES**
- FIELD PIPE DROPS AS SHOWN
 - SLEEVING, ELBOWS, TEES, AND NOZZLES SUPPLIED BY CAS
 - RELOCATE NOZZLES IF FLOW PATTERN IS BLOCKED BY SHELVING, SALAMANDERS, ETC.
 - MAXIMUM 9 ELBOWS IN SUPPLY LINE.
 - MINIMUM 72 INCHES OF AGENT LINE FROM TANK TO FIRST NOZZLE COVERING A RANGE, FRYER, OR WOK TO REFLECT GENERAL PIPING REQUIREMENTS.
 - IF APPLICABLE, PRE-PIPED CHARBROILER 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

Job #: 4410517
 Job Name: Hypno Chic - Frisco, CO R5
 System Size: ANSUL-3.0/3.0/3.0-WC Total FP required: 30
 Hood # 1 8' 8.00" Long x 54" Wide x 24" High
 Riser # 1 Size: 14" Dia.
 Hood # 2 8' 8.00" Long x 54" Wide x 24" High
 Riser # 2 Size: 14" Dia.
 Hood # 2 Metal Blow-Off Caps included.

LEGEND - FIRE CABINET ANSUL SYSTEM

- 1A 1.5 GALLON TANK
- 1B 3 GALLON TANK
- 2 OEM AUTOMAN RELEASE
- 3 OEM REGULATED RELEASE
- 4 OEM REGULATED ACTUATOR
- 5 ANSULEX LIQUID AGENT (3 GAL.)
- 6 ANSULEX LIQUID AGENT (1.5 GAL.)
- 7 CARTRIDGE (101-20)
- 8 CARTRIDGE (101-10)
- 9 CARTRIDGE (101-30)
- 9A CARTRIDGE (LT-A-101-30)
- 9B DOUBLE TANK CARTRIDGE
- 10 TEST LINK
- 11 DOUBLE MICROSWITCH
- 12 HOSE ASSEMBLY
- 1100 DUCT NOZZLE (430913)
- 2W DUCT NOZZLE (419337)
- 1W NOZZLE ASSEMBLY (419336)
- 1F NOZZLE ASSEMBLY (419333)
- 1N NOZZLE ASSEMBLY (419335)
- 12N NOZZLE ASSEMBLY (419334)
- 3N NOZZLE ASSEMBLY (419338)
- 245 NOZZLE ASSEMBLY (419340)
- 230 NOZZLE ASSEMBLY (419339)
- 2120 NOZZLE ASSEMBLY (419343)
- 290 NOZZLE ASSEMBLY (419342)
- 260 NOZZLE ASSEMBLY (419341)
- 28 DETECTOR BRACKET
- 29 LOW TEMP FUSIBLE LINK
- 30 HIGH TEMP FUSIBLE LINK
- MGV MECHANICAL GAS VALVE
- EGV ELECTRICAL GAS VALVE
- 34 REMOTE MANUAL PULL STATION
- S SWIVEL ADAPTOR

- NOTES**
- THE RESTAURANT FIRE SUPPRESSION SYSTEM SHALL BE THE PRE-ENGINEERED TYPE WITH A FIXED NOZZLE AGENT DISTRIBUTION NETWORK. IT SHALL BE LISTED WITH UNDERWRITERS LABORATORIES, INC. (UL)
 - THE SYSTEM SHALL BE CAPABLE OF AUTOMATIC DETECTION AND ACTUATION WITH LOCAL OR REMOTE MANUAL ACTUATION. ACCESSORIES SHALL BE AVAILABLE FOR MECHANICAL OR ELECTRICAL GAS LINE SHUT-OFF APPLICATIONS.
 - THE EXTINGUISHING AGENT SHALL BE A POTASSIUM CARBONATE, POTASSIUM ACETATE-BASED FORMULATION DESIGNED FOR FLAME KNOCKDOWN AND SECUREMENT OF GREASE RELATED FIRES. IT SHALL BE AVAILABLE IN PLASTIC CONTAINERS WITH INSTRUCTIONS FOR LIQUID AGENT HANDLING AND USAGE.
 - THE REGULATED RELEASE MECHANISM SHALL BE COMPATIBLE WITH A FUSIBLE LINK DETECTION SYSTEM. THE FUSIBLE LINK SHALL BE SELECTED AND INSTALLED ACCORDING TO THE OPERATING TEMPERATURE IN THE VENTILATING SYSTEM. THE FUSIBLE LINK SHALL BE SUPPORTED BY A DETECTOR BRACKET LINKAGE ASSEMBLY.

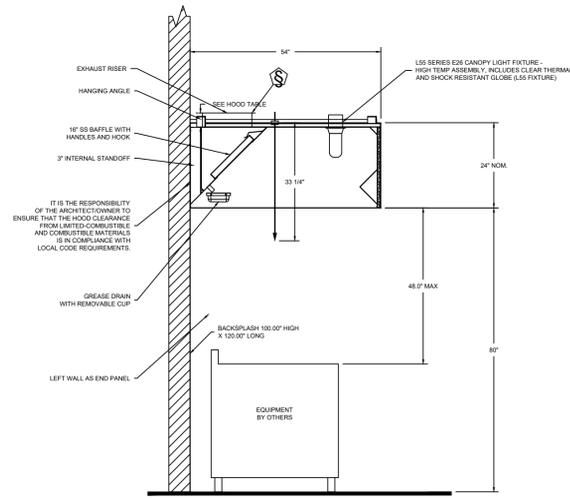
SPECIFICATIONS

THE RESTAURANT FIRE SUPPRESSION SYSTEM SHALL BE THE PRE-ENGINEERED TYPE WITH A FIXED NOZZLE AGENT DISTRIBUTION NETWORK. IT SHALL BE LISTED WITH UNDERWRITERS LABORATORIES, INC. (UL)

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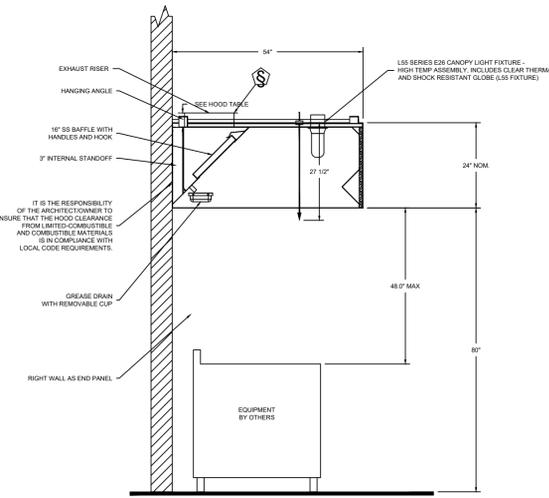
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SECTION VIEW - MODEL 5424EX-2 HOOD - #1

DUCT NOZZLE AND PLENUM SPRAY BAR LOCATION

JOB #: 4410517
 JOB NAME: HYPNO CHIC - FRISCO, CO R5
 SYSTEM SIZE: ANSUL-3.0/3.0/3.0-WC TOTAL FP REQUIRED: 30
 HOOD # 1 8' 8.00" LONG x 54" WIDE x 24" HIGH.
 RISER # 1 SIZE: 0" x 0".
 HOOD # 2 8' 8.00" LONG x 54" WIDE x 24" HIGH.
 RISER # 1 SIZE: 0" x 0".



SECTION VIEW - MODEL 5424EX-2 HOOD - #2

DUCT NOZZLE AND PLENUM SPRAY BAR LOCATION

NOTE: DESIGN AND MODEL NUMBERS ARE BASED ON CAPTIVEAIRE AS MANUFACTURER.

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Mark Timberlake, P.E. DEC. 01, 2020
 PE-0049319

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HOOD PLAN

HYPNO-CHIC RESTAURANT

255 ANGLER'S DRIVE, SUITE A, STEAMBOAT SPRINGS, CO 80487

DATE:	01-12-2020	SHEET NO.
DRAWN BY:	MBT	
PROJECT NO.:	19001	
SCALE:	1/4"=1'-0"	

H104

EXHAUST FAN INFORMATION - JOB#4410517

FAN UNIT NO	TAG	QTY	FAN UNIT MODEL #	MANUFACTURER	CFM	ESP	RPM	MOTOR ENCL	HP	BHP	Ø	VOLT	FLA	DISCHARGE VELOCITY	WEIGHT (LBS)	SONES
1	KEF	1	EA-USB18DD-RM	ECON-AIR	3466	1.750	1545	ODP, PREMIUM	3.000	1.6760	3	208	9.5	1777 FPM	421	25

MUA FAN INFORMATION - JOB#4410517

FAN UNIT NO	TAG	QTY	FAN UNIT MODEL #	BLOWER	HOUSING	MIN CFM	DESIGN CFM	ESP	RPM	MOTOR ENCL	HP	BHP	Ø	VOLT	FLA	MCA	MOCP	EVAP FLOW RATE (Gal/Hr)	EVAP COOLER ENTERING DB TEMP	EVAP COOLER ENTERING WB TEMP	EVAP COOLER LEAVING DB TEMP	EVAP COOLER LEAVING WB TEMP	WEIGHT (LBS)	SONES
2	KMAU	1	EA1-D.250-G10	G10	A1-D.250	1000	2772	0.500	1542	ODP	2.000	1.8710	3	208	5.7	7.2A	15A	4.3	90.0°F	60.0°F	71.0°F	60.0°F	699	33

*Evap Flow Rate is variable based on water pressure.

GAS FIRED MAKE-UP AIR UNIT(S)

FAN UNIT NO	TAG	INPUT BTUs	OUTPUT BTUs	TEMP RISE	REQUIRED INPUT GAS PRESSURE	GAS TYPE	BURNER EFFICIENCY(%)
2	KMAU	185191	170376	74°F	7 IN. W.C. - 14 IN. W.C.	NATURAL	92

FAN OPTIONS

FAN UNIT NO	TAG	QTY	DESCRIPTION
1	KEF	1	BI18 - INLET SERVICE DUCT CONNECTION. USED TO CONNECT TO STANDARD 20" GREASE DUCT OR FIELD WELDED DUCT. INCLUDES (2) 7" RISERS BOLTED TO STANDARD INLET RISER.
		1	UTILITY SET GREASE CUP.
		1	BI18 - 24" DISCHARGE EXTENSION.
		1	BI - DISCHARGE ORIENTATION VERTICAL UPPER LEFT - CW INLET SIDE.
		1	BI18 - INLET CONNECTION STANDARD 20" FLANGED GREASE DUCT.
2	KMAU	1	UTILITY SET - SPRING VIBRATION ISOLATORS - BI18 / EQUIVALENT SIZED UTILITY SET - INDOOR/OUTDOOR USE.
		1	MOTORIZED BACKDRAFT DAMPER FOR A1-D HOUSING.
		1	LOW FIRE START.
		1	INLET PRESSURE GAUGE, 0-35".
		1	MANIFOLD PRESSURE GAUGE, -5 TO 15" WC.
		1	IBT/MUA EVAP INTERLOCK.
		1	FREEZE PROTECTION DRAIN KIT FOR EVAPORATIVE COOLERS.
1	SEPARATE 120V WIRING PACKAGE (REQUIRED AND USED ONLY FOR DCV OR PREWIRE WITH VFD) - THREE PHASE ONLY.		

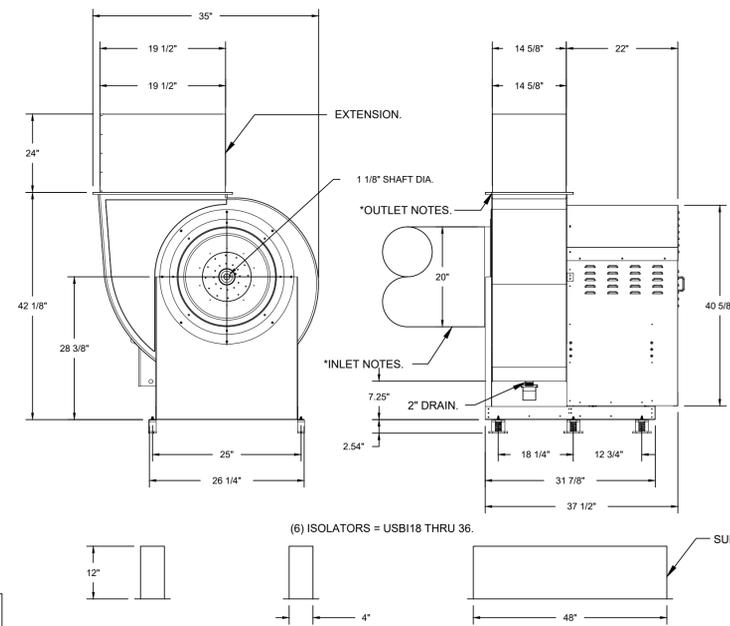
FAN ACCESSORIES

FAN UNIT NO	TAG	EXHAUST				SUPPLY			
		GREASE CUP	GRAVITY DAMPER	WALL MOUNT	SIDE DISCHARGE	GRAVITY DAMPER	MOTORIZED DAMPER	WALL MOUNT	
1	KEF	YES							
2	KMAU						YES		

CURB ASSEMBLIES

NO	ON FAN	TAG	WEIGHT	ITEM	SIZE
1	#1	KEF	48 LBS	RAIL	4.000"W X 48.000"L X 12.000"H RIGHT COMES AS A SET OF 2.
2	#2	KMAU	75 LBS	CURB	21.000"W X 71.000"L X 20.000"H RIGHT INSULATED.
	#2			RAIL	4.000"W X 4.000"L X 36.000"H RIGHT.

FAN #1 EA-USB18DD-RM - EXHAUST FAN (KEF)



FEATURES:

- ROOF MOUNTED FANS.
- UL705.
- UL762 AND ULC-S645 (RESTAURANT MODEL).
- HIGH HEAT OPERATION DIRECT DRIVE 350°F (176°C).
- HEAT SLINGER.
- NEMA 3R SAFETY DISCONNECT SWITCH.
- GREASE CLASSIFICATION TESTING.
- 2" DRAIN.
- MOTOR WEATHER COVER.
- FULLY SEALED SCROLL HOUSING.
- SCROLL ACCESS DOOR.
- FLANGE 1 1/4".

OPTIONS

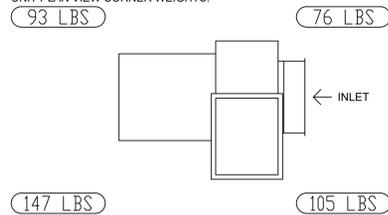
- BI18 - INLET SERVICE DUCT CONNECTION. USED TO CONNECT TO STANDARD 20" GREASE DUCT OR FIELD WELDED DUCT. INCLUDES (2) 7" RISERS BOLTED TO STANDARD INLET RISER.
- UTILITY SET GREASE CUP.
- BI18 - 24" DISCHARGE EXTENSION.
- BI - DISCHARGE ORIENTATION VERTICAL UPPER LEFT - CW INLET SIDE.
- BI18 - INLET CONNECTION STANDARD 20" FLANGED GREASE DUCT.
- UTILITY SET - SPRING VIBRATION ISOLATORS - BI18 / EQUIVALENT SIZED UTILITY SET - INDOOR/OUTDOOR USE.

(6) ISOLATORS = USB18 THRU 36.

* INLET/OUTLET NOTES:
LENGTH OF THE STRAIGHT DUCT ON THE INLET AND OUTLET TO BE 3 TIMES THE EQUIVALENT DUCT DIAMETER BEFORE CONNECTING TO ANY FITTINGS SUCH AS ELBOWS TO AVOID SYSTEM EFFECT.

NORMAL TEMPERATURE TEST DIRECT DRIVE EXHAUST FAN MUST OPERATE CONTINUOUSLY WHILE EXHAUSTING AIR AT 350°F (176°C) UNTIL ALL FAN PARTS HAVE REACHED THERMAL EQUILIBRIUM, AND WITHOUT ANY DETERIORATING EFFECTS TO THE FAN WHICH WOULD CAUSE UNSAFE OPERATION.

UNIT PLAN VIEW CORNER WEIGHTS:



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REVISIONS:	DATE:
ADDED PREP SINK, RELOCATED HAND SINK	3/25/2020
REVISED HOOD, EF, GREASE DUCT AND NOTES	12/01/2020

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12/01/2020



Mark Timberlake, P.E. DEC. 01, 2020
PE-0049319

TIMBERLAKE ENGINEERING, L.L.C.
Mark B. Timberlake P.E.
43 GIBERSON ROAD
FRISCO, CO 80443
(573) 881-5684

HOOD PLAN

HYPNO-CHIC RESTAURANT

255 ANGLER'S DRIVE, SUITE A, STEAMBOAT SPRINGS, CO 80487

DATE:	01-12-2020	SHEET NO.
DRAWN BY:	MBT	
PROJECT NO:	19001	
SCALE:	1/4"=1'-0"	

H105

NOTE: DESIGN AND MODEL NUMBERS ARE BASED ON CAPTIVEAIRE AS MANUFACTURER.

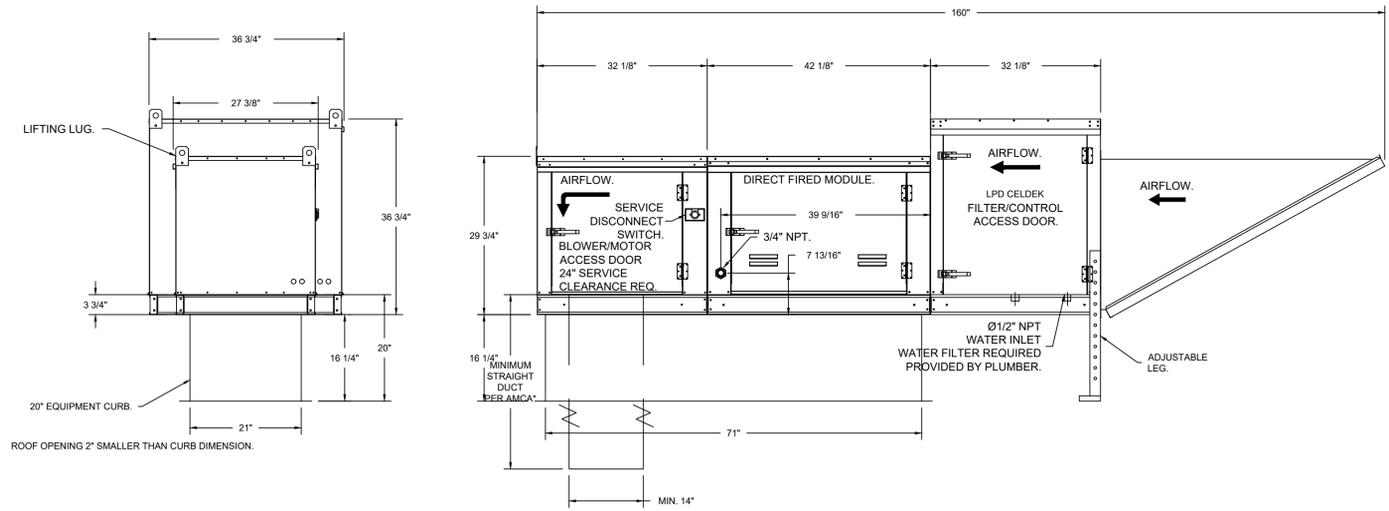
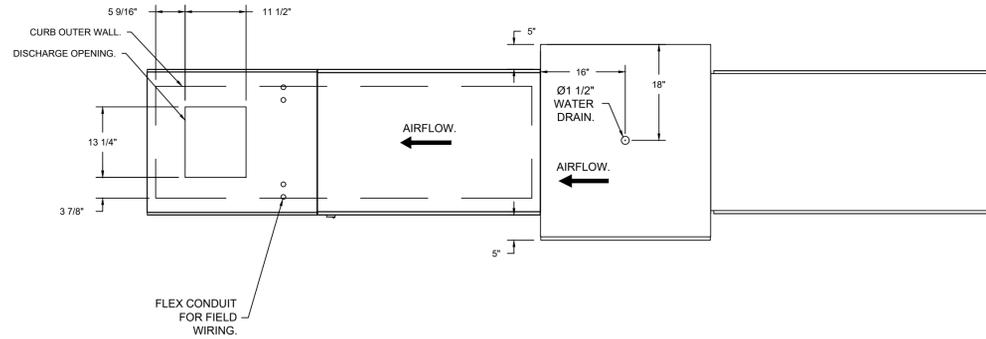
FAN #2 EA1-D-250-G10 - HEATER (KMAU)

1. DIRECT GAS FIRED HEATED MAKE UP AIR UNIT WITH 10" BLOWER.
2. EVAP COOLER (LPD CELDEK) - WINTAKE HOOD W/IEZ FILTERS.
3. DOWN DISCHARGE - AIR FLOW RIGHT - LEFT.
4. MOTORIZED BACK DRAFT DAMPER 16" X 16" FOR SIZE 1 STANDARD & MODULAR HEATER UNITS W/EXTENDED SHAFT, STANDARD GALVANIZED CONSTRUCTION, 3/4" REAR FLANGE, LOW LEAKAGE, TFB120S ACTUATOR INCLUDED.
5. LOW FIRE START - ALLOWS THE BURNER CIRCUIT TO ENERGIZE WHEN THE MODULATION CONTROL IS IN A LOW FIRE POSITION.
6. GAS PRESSURE GAUGE, 0-35", 2.5" DIAMETER, 1/4" THREAD SIZE.
7. GAS PRESSURE GAUGE, -5 TO +15 INCHES WC, 2.5" DIAMETER, 1/4" THREAD SIZE.
8. LAYER CONTROL FOR IBT EVAP.
9. FREEZE PROTECTION DRAIN CONTROL KIT FOR EVAPORATIVE COOLERS. INCLUDES 3-WAY WATER SOLENOID VALVE 8316G064 (SHIPPED LOOSE), PRESSURE SWITCH INSTALLED UPSTREAM OF 2-WAY SOLENOID IN UNIT, BRASS TEE, 2 NPT HALF INCH NIPPLES, AND TWO STAGE THERMOSTAT T678A1361. FIELD WIRING REQUIRED BY OTHERS FOR 3-WAY VALVE. FOR BOTH CELDEK AND STANDARD V-BANK TYPE CONFIGURATIONS.
10. SEPARATE 120VAC WIRING PACKAGE FOR MAKE-UP AIR UNITS. OPTION MUST BE SELECTED WHEN MOUNTING UP IN PREWIRED 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.

*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 14" X 14".

SUPPLY SIDE HEATER INFORMATION:

WINTER TEMPERATURE = 1°F. TEMP. RISE = 74°F.
 BTUs CALCULATED OFF ACTUAL AIR DENSITY.
 OUTPUT BTUs AT ALTITUDE OF 0.0 FT. = 219146.
 INPUT BTUs AT ALTITUDE OF 0.0 FT. = 238203.
 OUTPUT BTUs AT ALTITUDE OF 6802 FT. = 170376.
 INPUT BTUs AT ALTITUDE OF 6802 FT. = 185191.



DIRECT FIRED (DF) PROFILE PLATE ASSEMBLY

DESCRIPTION:
 DIRECT FIRED BURNERS SHALL HAVE PATENTED (US PATENT NO. US662923B2), SELF-ADJUSTING PROFILE PLATES DESIGNED TO ENSURE PROPER AIR VELOCITY AND PRESSURE DROP ACROSS THE BURNER. PROFILE PLATES SHALL ALLOW BURNERS TO ACHIEVE CLEAN COMBUSTION BY LIMITING BY-PRODUCT LEVELS TO A MAXIMUM OF 5PPM OF CARBON MONOXIDE (CO), AND 0.5PPM OF NITROGEN DIOXIDE (NO2). DIRECT FIRED UNITS SHALL BE CONFIGURED WITH THE BLOWER MOUNTED DOWNSTREAM OF THE BURNER. THIS ARRANGEMENT WILL ENSURE A CONSISTENT AIRFLOW, REGARDLESS OF INLET AIR TEMPERATURE.

APPLICATION:
 SPRING LOADED BURNER PROFILE PLATES ARE ENGINEERED TO AUTOMATICALLY REACT TO THE MOMENTUM OF A FRESH AIR STREAM, WITHOUT THE NEED FOR ANY MOTORS OR ACTUATORS TO MECHANICALLY ADJUST THEM. WITH THIS FEATURE, ALL OF UNITS ARE DESIGNED FOR DEMAND CONTROL VENTILATION (DCV) REQUIREMENTS.

CERTIFICATIONS:
 ALL PROFILE PLATE ASSEMBLIES SHALL BE INCLUDED IN THE DF UNITS ETL LISTING AND COMPLY WITH COMBINED SAFETY STANDARDS ANSI Z89.4 AND CSA 3.7 (NON-RECIRCULATING DF HEATERS) AND ANSI Z89.10 (RECIRCULATING DF HEATERS).

GENERAL CONSTRUCTION:
 -PROFILE PLATES SHALL BE FORMED FROM C80 GALVANIZED STEEL.
 -PROFILE PLATES SHALL VARY IN SIZE PER UNIT.
 -PROFILE PLATES SHALL BE MOUNTED ALONG THE SAME PLANE AS THE DISCHARGE OF THE BURNER.
 -DESIGN SHALL INCORPORATE PROPERLY TORQUED, PERMANENTLY MOUNTED SPRING HINGES.
 -SPRING HINGES SHALL BE MADE FROM PLATED STEEL.

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REVISED HOOD, EF, GREASE DUCT AND NOTES	12/01/2020

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HOOD PLAN

HYPNO-CHIC RESTAURANT

255 ANGLER'S DRIVE, SUITE A, STEAMBOAT SPRINGS, CO 80487

DATE:	01-12-2020	SHEET NO.
DRAWN BY:	MBT	
PROJECT NO.:	19001	
SCALE:	1/4"=1'-0"	

H106

NOTE: DESIGN AND MODEL NUMBERS ARE BASED ON CAPTIVEAIRE AS MANUFACTURER.



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Centennial, CO 80111
Phone 720.570.0981, Fax 919.227.5999
Email: Reg42@captiveaire.com

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SUBMITTAL

Customer Approval to Manufacture:

- Approved with No Exception Taken
- Approved as Noted
- Revise and Resubmit

Signature: _____

Title: _____

Date: _____

HOOD INFORMATION - Job#4410517

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12/01/2020

HOOD NO	TAG	MODEL	LENGTH	MAX COOKING TEMP	TYPE	APPLIANCE DUTY	DESIGN CFM/ft	TOTAL EXH CFM	EXHAUST PLENUM RISER(S)						HOOD CONSTRUCTION	HOOD CONFIG		
									WIDTH	LENG	HEIGHT	DIA	CFM	VEL		SP	END TO END	RDW
1	KH-L	5424 EX-2	8' 8"	600 Deg	I	Heavy	200	1733			4'	14'	1733	1621	-0.431'	430 SS Where Exposed	LEFT	ALONE
2	KH-R	5424 EX-2	8' 8"	600 Deg	I	Heavy	200	1733			4'	14'	1733	1621	-0.431'	430 SS Where Exposed	RIGHT	ALONE

HOOD INFORMATION

HOOD NO	TAG	FILTER(S)					LIGHT(S)				UTILITY CABINET(S)				FIRE SYSTEM PIPING	HOOD HANGING WEIGHT		
		TYPE	QTY	HEIGHT	LENGTH	EFFICIENCY @ 7 MICRONS	QTY	TYPE	WIRE GUARD	LOCATION	SIZE	FIRE SYSTEM		ELECTRICAL			SWITCHES	
1	KH-L	SS Baffle with Handles	6	16'	16'	30%	4	L55 Series E26	NO	Wall Mnt	12'x54'x24'	Ansul R102	3.0/3.0/3.0	SC-311110FP	1 Light 1 Fan	YES	374 LBS	
2	KH-R	SS Baffle with Handles	6	16'	16'	30%	4	L55 Series E26	NO							YES	363 LBS	

HOOD OPTIONS

HOOD NO	TAG	OPTION
1	KH-L	BACKSPASH 100.00' High X 120.00' Long 430 SS Vertical
		LEFT SIDESPLASH 100.00' High X 72.00' Long 430 SS Vertical
		LEFT END STANDOFF (FINISHED) 1' Wide 54' Long Insulated
		STRUCTURAL FRONT PANEL
2	KH-R	RISER SENSOR INSTALL 3IN DBL
		LEFT WALL AS END PANEL
		RIGHT SIDESPLASH 100.00' High X 72.00' Long 430 SS Vertical
		RIGHT END STANDOFF (FINISHED) 1' Wide 54' Long Insulated
		RISER SENSOR INSTALL 3IN DBL
		RIGHT WALL AS END PANEL



JOB Hypno Chic - Frisco, CO R5	
LOCATION STEAMBOAT SPRINGS, CO, 80487	
DATE 6/24/2020	JOB # 4410517
DWG # 1	DRAWN BY sean.duric
REV.	SCALE 3/8" = 1'-0"

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12/01/2020



GREASE DUCT & CHIMNEY SPECIFICATIONS:

PROVIDE GREASE DUCT EQUAL TO CAPTIVEAIRE SYSTEMS MODEL "DW" ROUND 20 GAUGE 430 STAINLESS STEEL DUCTWORK. MODEL "DW" IS LISTED TO UL-1978 AND IS INSTALLED USING "V" CLAMP LOCKING CONNECTIONS SEALED WITH 3M FIRE BARRIER 2000 PLUS. MODEL "DW" DOES NOT REQUIRE WELDING PROVIDING IT HAS BEEN INSTALLED PER THE MANUFACTURES INSTALLATION GUIDE.
 PROVIDE RATED ACCESS DOORS AT EVERY CHANGE IN DIRECTION AND EVERY 12' ON CENTER. PER MANUFACTURES LISTING MODEL "DW" HORIZONTAL RUNS LESS THAN 75 FT. CAN BE SLOPED 1/16" PER 12", HORIZONTAL RUNS MORE THAN 75 FT. CAN BE SLOPED 3/16" PER 12". DUCT SHOULD BE SLOPED AS MUCH AS POSSIBLE TO REDUCE THE CHANCE OF GREASE ACCUMULATION IN HORIZONTAL RUNS.

IF THE DUCT OR CHIMNEY IS WITHIN 18 INCHES OF COMBUSTIBLE MATERIAL, PROVIDE UL-2221 OR UL-103 HT LISTED DOUBLE WALL GREASE DUCT OR DOUBLE WALL CHIMNEY EQUAL TO CAPTIVEAIRE SYSTEMS MODEL "DW- 2R, 2R TYPE HT, 3R, OR 3Z" ROUND 20 GAUGE 430 STAINLESS INNER DUCT INSULATED WITH A 24 GAUGE 430 STAINLESS OUTER SHELL.

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 _____

PATENT NUMBERS

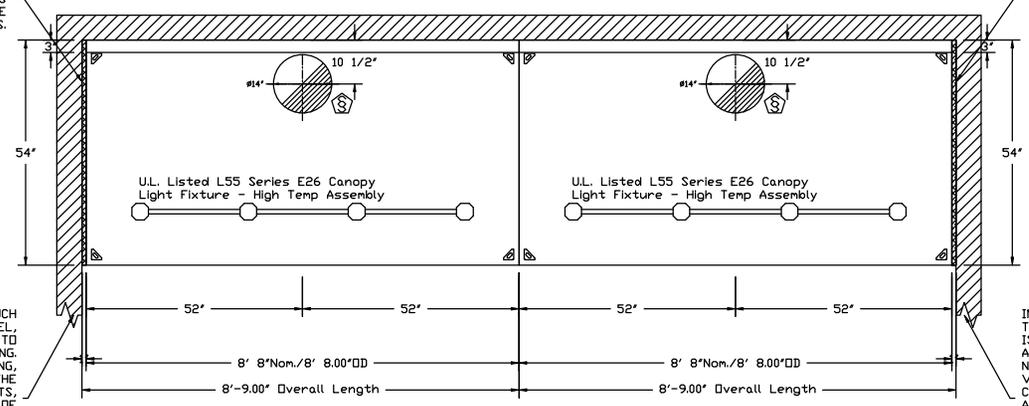
Exhaust Hoods ND-2/BD-2/SND-2 (Canada) - CA Patent 2520435 C



JOB Hypno Chic - Frisco, CO R5	
LOCATION STEAMBOAT SPRINGS, CO, 80487	
DATE 6/24/2020	JOB # 4410517
DWG # 2	DRAWN BY sean.duric
REV.	SCALE 3/8" = 1'-0"

1" LAYER OF INSULATION
 FACTORY INSTALLED IN
 1.00" END STANDOFF MEETS
 0" REQUIREMENTS CLEARANCE
 TO COMBUSTIBLE SURFACES.

1" LAYER OF INSULATION
 FACTORY INSTALLED IN
 1.00" END STANDOFF MEETS
 0" REQUIREMENTS CLEARANCE
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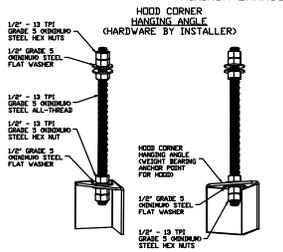


PLAN VIEW - Hood #1 (KH-L)
 8' 8.00" LONG 5424EX-2

PLAN VIEW - Hood #2 (KH-R)
 8' 8.00" LONG 5424EX-2

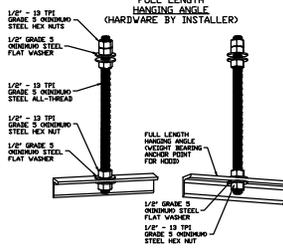
INSTALLER MUST CONFIRM HOOD IS INSTALLED SUCH THAT THE SPECIFIED WALL, ACTING AS AN END PANEL, IS MATED TIGHT TO THE CORRECT END OF HOOD TO ACHIEVE A REDUCED MINIMUM EXHAUST CFM LISTING. NON-COMPLIANCE WILL NULLIFY THE ETL LISTING, VOID THE MANUFACTURER'S WARRANTY, AND HOLD THE CONTRACTOR LIABLE FOR ANY AND ALL LOSSES, COSTS, AND EXPENSES RELATED TO THE NON-COMFORMANCE OF THE MANUFACTURER'S SPECIFIED INSTRUCTION. THE WALL ACTING AS AN END PANEL MUST EXTEND NO LESS THAN 20" FROM THE INTERSECTING WALL ON WHICH HOOD IS MOUNTED AND MUST EXTEND NO LESS THAN 20" UNDER BOTTOM OF HOOD TO BE ELIGIBLE FOR REDUCED MINIMUM EXHAUST CFM LISTING.

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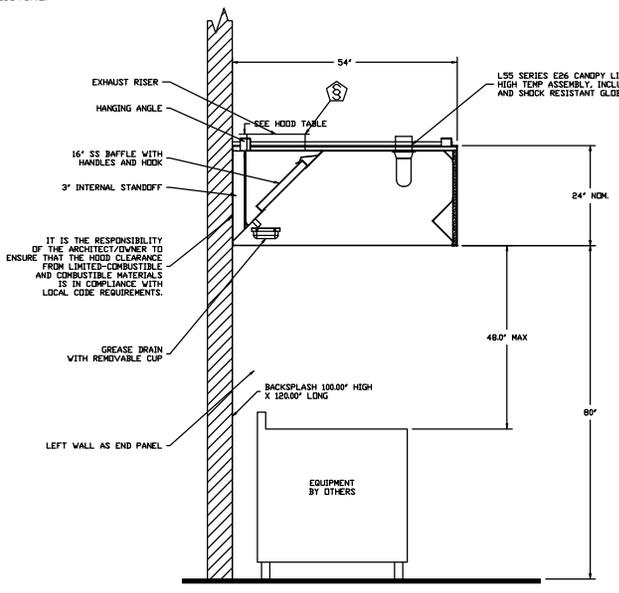
ASSEMBLY INSTRUCTIONS

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.

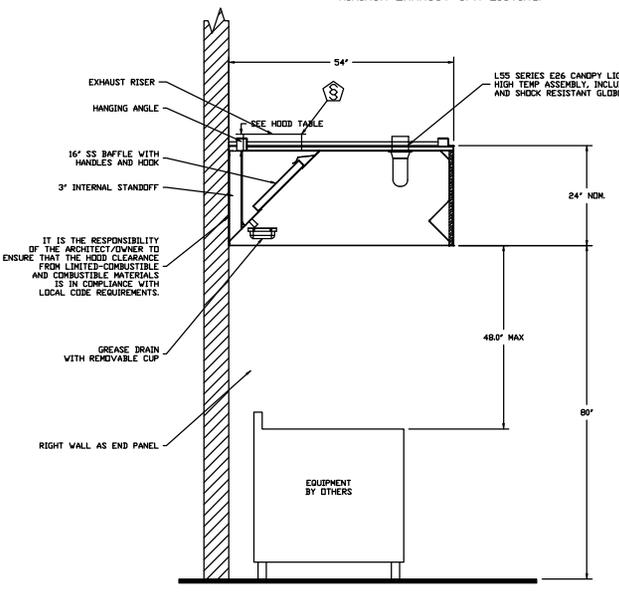


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SECTION VIEW - MODEL 5424EX-2
HOOD - #1 (KH-L)



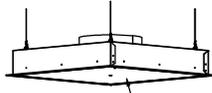
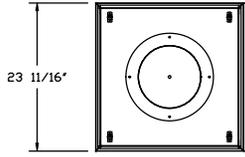
SECTION VIEW - MODEL 5424EX-2
HOOD - #2 (KH-R)



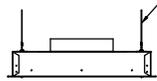
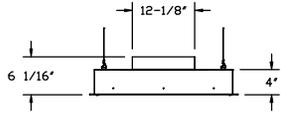
JOB Hypno Chic - Frisco, CO R5	
LOCATION STEAMBOAT SPRINGS, CO, 80487	
DATE 6/24/2020	JOB # 4410517
DWG # 3	DRAWN BY sean.duric
REV.	SCALE 1/4" = 1'-0"

QTY 5-DROP-IN PERFORATED SUPPLY PLENUM DIFFUSER
(DI-PSP)

FEATURES:
STAINLESS STEEL PERFORATION AND TRIM
REMOVABLE PERFORATION FOR PLENUM CLEANING
DOUBLE PERFORATION FOR EVEN AIR DISTRIBUTION
1/2" THICK INSULATION ON EXTERIOR TOP AND SIDES
APPROX. WEIGHT = 20 lbs



22" X 22" DOUBLE LAYER PERFORATED STEEL



STEEL HANGING WIRE
MINIMUM 2 PLACES, DIAGONAL CORNERS
(BY OTHERS)

VERTICAL THRDW DATA (Ft)			
CFM	T150	T100	T50
600	1.25'	3.00'	7.75'
500	0.50'	2.50'	6.25'
400	---	1.25'	4.50'
300	---	---	3.75'
200	---	---	0.50'

INSTALLATION NOTES:
INTENDED FOR INSTALLATION IN LAY IN (DROP) CEILINGS
INSTALL SLIDING RADIAL DAMPER ON TOP SIDE OF COLLAR

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CAPTIVEAIR

JOB Hypno Chic - Frisco, CO R5

LOCATION STEAMBOAT SPRINGS, CO, 80487

DATE 6/24/2020

JOB # 4410517

DWG # 4

DRAWN BY sean.duric

REV.

SCALE 3/8" = 1'-0"

Fire System Information - Job#4410517

FIRE SYSTEM NO	Tag	TYPE	SIZE	FLOW POINTS	INSTALLATION	
					SYSTEM	LOCATION ON HOOD
1		Ansul R102	3.0/3.0/3.0	30	Wall Utility Cabinet Left	N/A

GAS VALVE(S)

FIRE SYSTEM NO	TAG	TYPE	SIZE	SUPPLIED BY
1		Mechanical	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 - 43-15733 AIR CYLINDER ASSEMBLY - Air Cylinder and Tubing for Mechanical Gas Valves (Ansul Part #15733)	1	0
		0 - 0 - 439861 Large BLOWOFF CAP, Metal, to fit New Laser-etched ANSUL Nozzles, A0024201	16	0
		0 - 0 - Tank Strap Tank Strap - used for ANSUL Tanks	3	0
		0 - 0 - UCTANKBRACKET Tank Bracket for fire system tank installation in utility cabinets	3	0
		1 - 1 - AT - 3.0 TANK(#1B) - 3.0 Gallon SS Tank (For use with Automan Release, Actuator, or SS Enclosure (UL/ULC)) Macola # 01-429862	3	0
		3 - 3 - ANS-DEM REGULATED RELEASE - Ansul Regulated Mechanical Release/Bracket Assembly, DEM, R-102, Cartridge Detection Included, Ansul Part # 79493	1	0
		3 - 3 - AP - AE ENCLOSURE - Stainless Steel Enclosure Assembly (UL), Ansul Part # 429870; Macola # 01-429870	1	0
		5 - 5 - LIQ-3.0 AGENT - Ansulex Low PH Wet Chemical Agent, 3 Gallon (UL) 79372	0	3
		9 - 9 - DT-CART Double Tank Nitrogen Cartridge	0	1
		10 - 10 - TLINK LINK - Test Link (1 test link) Ansul Part # 24916, Macola # 20-24916	0	1
		11 - 11 - MICRO-SDA MICROSWITCH KIT- Includes 2 switches and Mounting Hardware. Single Dual Electric Switch, One Standard Switch, One Alarm Duty Switch Ansul Part # 437155, Macola # 08-437155	1	0
		12 - 12 - HOSE HOSE - Rubber Hose	2	0
		14 - 14 - 419336 NOZZLE - 1W Nozzle, Duct/Appliance (Replaces ANSUL Part# 419347, CAS Part# 419336) A0001266	2	0
		16 - 16 - 419335 NOZZLE - 1N Nozzle, Plenum/Appliance (Replaces ANSUL Part# 419346, CAS Part# 419335) A0001265	3	0
		19 - 19 - 419338 NOZZLE - 3N Nozzle, Appliance (Replaces ANSUL Part# 419349, CAS Part# 419338) A0001268	3	0
		21 - 21 - 419339 NOZZLE - 230 Nozzle, Appliance (Replaces ANSUL Part# 419350, CAS Part# 419339) A0001269	6	0
		24 - 24 - 419341 NOZZLE - 260 Nozzle, Appliance (Replaces ANSUL Part# 419352, CAS Part# 419341) A0001271	2	0
		25 - 25 - 418569 NOZZLE ADAPTOR - Swivel Nozzle Adaptor (Replaces CAS Part # 418569) A0001274	6	0
		26 - 26 - QSA-3/8 QUIK SEAL - 3/8" (UL)	16	0
		27 - 27 - QPSA-1/2 PULLEY SEAL - 1/2" Hood Seal (UL) Ansul Part # 423253, Macola # 32-79768	5	0
		28 - 28 - S-DET DETECTOR - Series (Scissor Linkage) Ansul Part # 435547/435548 (Old # 417369/434480); Macola # 05-417369	7	0
		29 - 29 - ANS-360FL FUSIBLE LINK - 360deg F, R-102 and PIRANHA, Ansul Part # 439088	2	0
		30 - 30 - ANS-500FL FUSIBLE LINK - 500deg F, R-102 and PIRANHA, Ansul Part # 439232	5	0
		34 - 34 - RPS-A REMOTE PULL STATION - Red composite (without wire rope) 434618 (Old Macola #06-4835)	1	0
		35 - 35 - PE-LT PULLEY ELBOW - Low Temp. Pulley Elbow, Set Screw Type Ansul Part # 415670, Macola # 11-415671	3	10
		36 - 36 - PE-HT PULLEY ELBOW - High Temp Pulley Elbow, Compression Type, Ansul Part # 423251, Macola # 10-45771	4	0

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12/01/2020**



JOB Hypno Chic - Frisco, CO R5	
LOCATION STEAMBOAT SPRINGS, CO, 80487	
DATE 6/24/2020	JOB # 4410517
DWG # 5	DRAWN BY sean.duric
REV.	SCALE 3/8" = 1'-0"

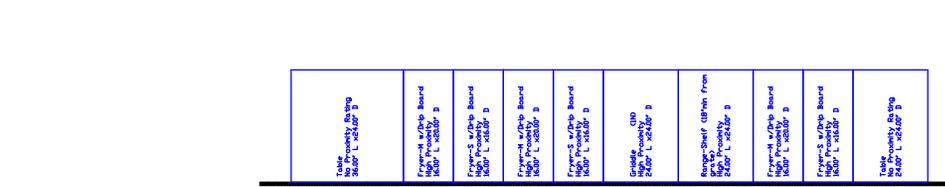
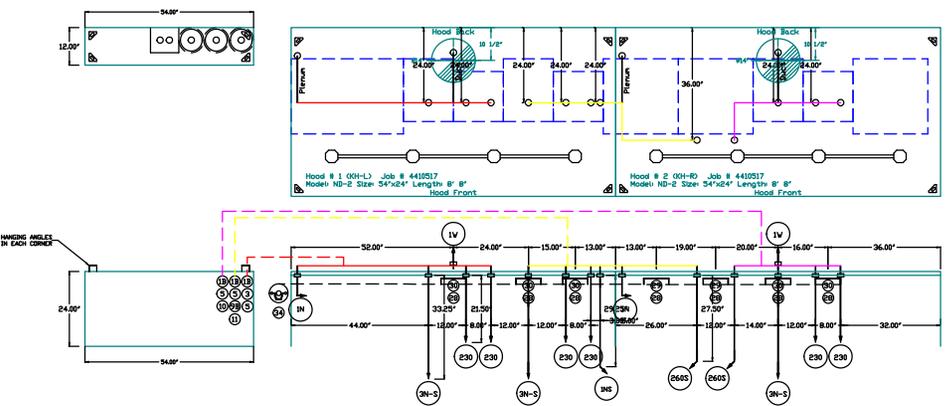
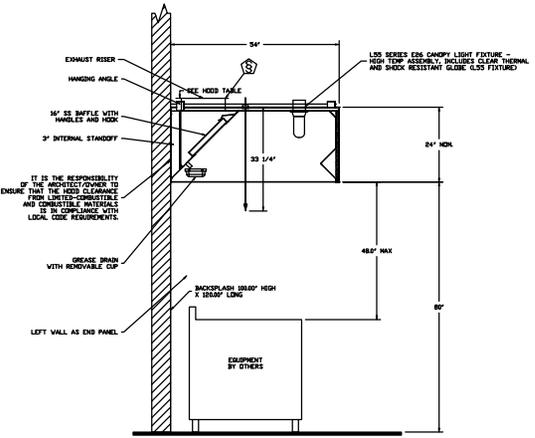
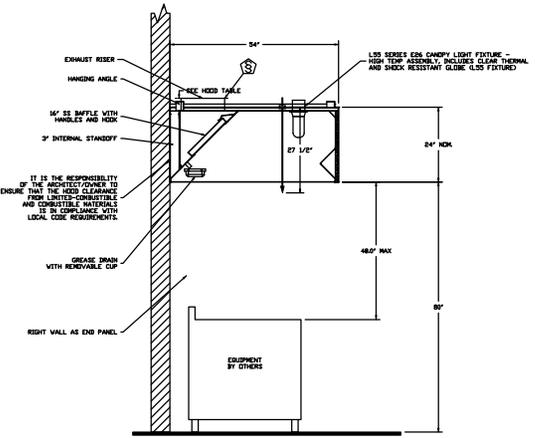


Table 1 1/2" NPT x 1/2" NPT x 3/4" NPT	French 1/2" x 3/4" Inland High Probability 1/2" NPT x 3/4" NPT	French 1/2" x 3/4" Inland High Probability 1/2" NPT x 3/4" NPT	French 1/2" x 3/4" Inland High Probability 1/2" NPT x 3/4" NPT	French 1/2" x 3/4" Inland High Probability 1/2" NPT x 3/4" NPT	French 1/2" x 3/4" Inland High Probability 1/2" NPT x 3/4" NPT	French 1/2" x 3/4" Inland High Probability 1/2" NPT x 3/4" NPT	Table 2 1/2" NPT x 1/2" NPT x 3/4" NPT
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SECTION VIEW - MODEL 5424EX-2 HOOD #1



SECTION VIEW - MODEL 5424EX-2 HOOD #2



DUCT NOZZLE AND PLENUM SPRAY BAR LOCATION



DUCT NOZZLE AND PLENUM SPRAY BAR LOCATION

Job #: 4410517
Job Name: Hypno Chic - Frisco, CO R5
System Size: ANSUL-3.0/3.0/3.0-VC Total FP required 30
Hood # 1 8' 8.00' Long x 54' Wide x 24' High
Riser # 1 Size: 0" x 0"
Hood # 2 8' 8.00' Long x 54' Wide x 24' High
Riser # 1 Size: 0" x 0"

Job #: 4410517
Job Name: Hypno Chic - Frisco, CO R5
System Size: ANSUL-3.0/3.0/3.0-VC Total FP required 30
Hood # 1 8' 8.00' Long x 54' Wide x 24' High
Riser # 1 Size: 0" x 0"
Hood # 2 8' 8.00' Long x 54' Wide x 24' High
Riser # 1 Size: 0" x 0"

- NOTES**
- FIELD PIPE DROPS AS SHOWN
 - SLEEVING, ELBOWS, TEES, AND NOZZLES SUPPLIED BY CAS
 - RELOCATE NOZZLES IF FLOW PATTERN IS BLOCKED BY SHELVEING, SALAMANDERS, ETC.
 - MAXIMUM 9 ELBOWS IN SUPPLY LINE
 - MINIMUM 72 INCHES OF AGENT LINE FROM TANK TO FIRST NOZZLE COVERING A RANGE, FRYER, OR WOK TO REFLECT GENERAL PIPING REQUIREMENTS.
 - IF APPLICABLE, PRE-PIPED CHARBROILER 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 UL 300 REQUIREMENTS

Job #: 4410517
Job Name: Hypno Chic - Frisco, CO R5
System Size: ANSUL-3.0/3.0/3.0-VC Total FP required 30
Hood # 1 8' 8.00' Long x 54' Wide x 24' High
Riser # 1 Size: 14" Dia.
Hood # 1 Metal Blow-Off Caps included.
Hood # 2 8' 8.00' Long x 54' Wide x 24' High
Riser # 1 Size: 14" Dia.
Hood # 2 Metal Blow-Off Caps included.

- LEGEND - FIRE CABINET ANSUL SYSTEM**
- 1A 1.5 GALLON TANK
 - 1B 3 GALLON TANK
 - 2 DEM AUTOMAN RELEASE
 - 3 DEM REGULATED RELEASE
 - 4 DEM REGULATED ACTUATOR
 - 5 ANSULEX LIQUID AGENT (3 GAL.)
 - 6 ANSULEX LIQUID AGENT (1.5 GAL.)
 - 7 CARTRIDGE (101-20)
 - 8 CARTRIDGE (101-10)
 - 9 CARTRIDGE (101-30)
 - 9A CARTRIDGE (LT-A-101-30)
 - 9B DOUBLE TANK CARTRIDGE
 - 10 TEST LINK
 - 11 DOUBLE MICROSWITCH
 - 12 HOSE ASSEMBLY
 - 1100 DUCT NOZZLE (430913)
 - 2V DUCT NOZZLE (419337)
 - 245 NOZZLE ASSEMBLY (419336)
 - 1V NOZZLE ASSEMBLY (419333)
 - 1N NOZZLE ASSEMBLY (419335)
 - 1/2N NOZZLE ASSEMBLY (419334)
 - 3N NOZZLE ASSEMBLY (419338)
 - 245 NOZZLE ASSEMBLY (419340)
 - 230 NOZZLE ASSEMBLY (419339)
 - 2120 NOZZLE ASSEMBLY (419343)
 - 290 NOZZLE ASSEMBLY (419342)
 - 260 NOZZLE ASSEMBLY (419341)
 - 28 DETECTOR BRACKET
 - 29 LOW TEMP FUSIBLE LINK
 - 30 HIGH TEMP FUSIBLE LINK
 - MGV MECHANICAL GAS VALVE
 - EOV ELECTRICAL GAS VALVE
 - 34 REMOTE MANUAL PULL STATION
 - S SWIVEL ADAPTOR

- NOTES**
- FIELD PIPE DROPS AS SHOWN
 - SLEEVING, ELBOWS, TEES, AND NOZZLES SUPPLIED BY CAS
 - RELOCATE NOZZLES IF FLOW PATTERN IS BLOCKED BY SHELVEING, SALAMANDERS, ETC.
 - MAXIMUM 9 ELBOWS IN SUPPLY LINE
 - MINIMUM 72 INCHES OF AGENT LINE FROM TANK TO FIRST NOZZLE COVERING A RANGE, FRYER, OR WOK TO REFLECT GENERAL PIPING REQUIREMENTS.
 - IF APPLICABLE, PRE-PIPED CHARBROILER 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.

SPECIFICATIONS

THE RESTAURANT FIRE SUPPRESSION SYSTEM SHALL BE THE PRE-ENGINEERED TYPE WITH A FIXED NOZZLE AGENT DISTRIBUTION NETWORK. IT SHALL BE LISTED WITH UNDERWRITERS LABORATORIES, INC. GLO.

THE SYSTEM SHALL BE CAPABLE OF AUTOMATIC DETECTION AND ACTUATION WITH LOCAL OR REMOTE MANUAL ACTUATION. ACCESSORIES SHALL BE AVAILABLE FOR MECHANICAL OR ELECTRICAL GAS LINE SHUT-OFF APPLICATIONS.

THE EXTINGUISHING AGENT SHALL BE A POTASSIUM CARBONATE, POTASSIUM ACETATE-BASED FERMILATION DESIGNED FOR FLAME INHIBITION AND SEQUESTRATION OF GREASE RELATED FIRES. IT SHALL BE AVAILABLE IN PLASTIC CONTAINERS WITH INSTRUCTIONS FOR LIQUID AGENT HANDLING AND USAGE.

THE REGULATED RELEASE MECHANISM SHALL BE COMPATIBLE WITH A FUSIBLE LINK DETECTION SYSTEM. THE FUSIBLE LINK SHALL BE SELECTED AND INSTALLED ACCORDING TO THE OPERATING TEMPERATURE IN THE VENTILATING SYSTEM. THE FUSIBLE LINK SHALL BE SUPPORTED BY A DETECTOR BRACKET/LINKAGE ASSEMBLY.



JOB Hypno Chic - Frisco, CO R5	
LOCATION STEAMBOAT SPRINGS, CO, 80487	
DATE 6/24/2020	JOB # 4410517
DWG # 6	DRAWN BY sean.duric
REV.	SCALE 3/16" = 1'-0"

GAS VALVES AND STRAINERS

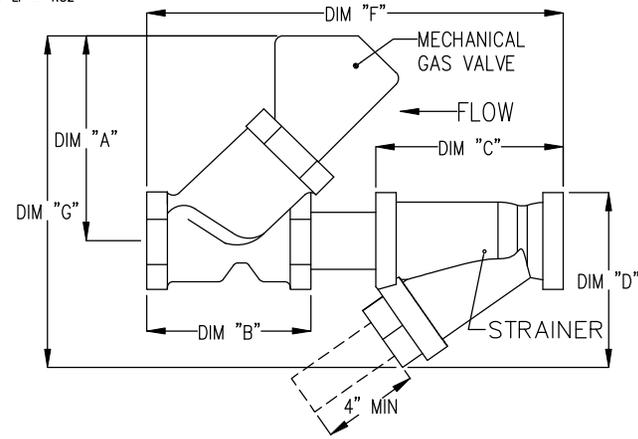
		GAS VALVE SIZING						GAS VALVE DIMENSIONS						INSTALLATION	PART NUMBERS		
TYPE	SIZE	VOLTAGE	MIN. INLET PRESSURE	MAX. INLET PRESSURE	FLOW AT 1 IN.W.C. DROP NATURAL GAS	FLOW AT 1 IN.W.C. DROP PROPANE	DIM "A"	DIM "B"	DIM "C"	DIM "D"	DIM "E"	DIM "G"	MOUNTING ORIENTATION	GAS VALVE PART NUMBER	STRAINER PART NUMBER	GAS VALVE/STRAINER KIT	
GAS VALVE FOR FS#1 → MECHANICAL	2"	N/A	0 PSI (0 IN.W.C.)	10 PSI (277 IN.W.C.)	4,616,000 BTU/HR	2,995,256 BTU/HR	6-11/16"	5-7/8"	7-1/4"	7-13-16"	15-1/8"	13-3/16"	HORIZONTAL	28-55610	4417K68	MGVA2	

ALL GAS VALVES/STRAINERS

PROPER CLEARANCE MUST BE PROVIDED IN ORDER TO SERVICE THE STRAINERS A MINIMUM OF 4" CLEARANCE DISTANCE MUST BE PROVIDED AT THE BASE OF THE STRAINER CUSTOMER MUST VERIFY BTU CONSUMPTION AS WELL AS PRESSURE RATING SPECIFIC GRAVITY OF NATURAL GAS = 0.64, SPECIFIC GRAVITY OF LP = 1.52

CALCULATIONS

TO CALCULATE GAS FLOW FOR OTHER THAN 1 IN.W.C. PRESSURE DROP
 NEW BTU/HR = (BTU/HR AT 1 IN.W.C. PRESSURE DROP) X NEW PRESSURE DROP^{0.85}
 TO CALCULATE GAS FLOW FOR OTHER THAN 0.64 SPECIFIC GRAVITY
 NEW BTU/HR = (BTU/HR AT 0.64) X (0.64 / NEW SPECIFIC GRAVITY)^{0.85}



JOB Hypno Chic - Frisco, CO R5	
LOCATION Steamboat Springs, CO, 80487	
DATE 6/24/2020	JOB # 4410517
DWG # 7	DRAWN BY sean.duric
REV.	SCALE 3/8" = 1'-0"

EXHAUST FAN INFORMATION - Job#4410517

FAN UNIT NO	TAG	FAN UNIT MODEL #	CFM	ESP	RPM	MOTOR ENCL	HP	BHP	φ	VOLT	FLA	DISCHARGE VELOCITY	WEIGHT (LBS)	SONES
1	KEF	EA-USBI18DD-RM	3466	1.750	1545	ODP,PREMIUM	3.000	1.6760	3	208	9.5	1777 FPM	421	25

MUA FAN INFORMATION - Job#4410517

FAN UNIT NO	TAG	FAN UNIT MODEL #	BLOWER	HOUSING	MIN CFM	DESIGN CFM	ESP	RPM	MOTOR ENCL	HP	BHP	φ	VOLT	FLA	MCA	MCCP	EVAP FLOW RATE (Gal/Hr)	EVAP COOLER ENTERING DB TEMP	EVAP COOLER ENTERING WB TEMP	EVAP COOLER LEAVING DB TEMP	EVAP COOLER LEAVING WB TEMP	WEIGHT (LBS)	SONES
2	KMAU	EAI-D.250-G10	G10	A1-D.250	1000	2772	0.500	1542	ODP	2.000	1.8710	3	208	5.9	7.4A	15A	4.3	90.0°F	60.0°F	71.0°F	60.0°F	707	33

*Evap Flow Rate is variable based on water pressure.

GAS FIRED MAKE-UP AIR UNIT(S)

FAN UNIT NO	TAG	INPUT BTUs	OUTPUT BTUs	TEMP RISE	REQUIRED INPUT GAS PRESSURE	GAS TYPE	BURNER EFFICIENCY(%)
2	KMAU	185191	170376	74 deg F	7 in. w.c. - 14 in. w.c.	Natural	92

FAN OPTIONS

FAN UNIT NO	TAG	OPTION (Qty - Descr)
1	KEF	1 - BI18 - Inlet Service Duct Connection. Used to connect to standard 20' Grease Duct or Field Welded Duct. Includes (2) 7' risers bolted to standard Inlet riser.
		1 - Utility Set Grease Cup
		1 - BI18 - 24' Discharge Extension.
		1 - BI - Discharge Orientation Vertical Upper Left - CW Inlet Side.
		1 - BI18 - Inlet Connection Standard 20' Flanged Grease Duct.
2	KMAU	1 - Utility Set - Spring Vibration Isolators - BI18 / Equivalent Sized Utility Set - Indoor/Outdoor use.
		1 - Motorized Backdraft Damper for A1-D Housing
		1 - Low Fire Start
		1 - Inlet Pressure Gauge, 0-35'
		1 - Manifold Pressure Gauge, -5 to 15' wc
		1 - IBT/MUA Evap Interlock
		1 - Freeze Protection Drain Kit for Evaporative Coolers
1 - Separate 120V Wiring Package (Required and used only for DCV or Prewire with VFD) - Three Phase Only		

FAN ACCESSORIES

FAN UNIT NO	TAG	EXHAUST			SUPPLY			
		GREASE CUP	GRAVITY DAMPER	WALL MOUNT	SIDE DISCHARGE	GRAVITY DAMPER	MOTORIZED DAMPER	WALL MOUNT
1	KEF	YES						
2	KMAU					YES		

CURB ASSEMBLIES

NO	DN FAN	TAG	WEIGHT	ITEM	SIZE
1	# 1	KEF	48 LBS	Rail	4.000*W x 48.000*L x 12.000*H Right Comes as a set of 2.
2	# 2	KMAU	75 LBS	Curb	21.000*W x 71.000*L x 20.000*H Right Insulated
	# 2			Rail	4.000*W x 4.000*L x 36.000*H Right

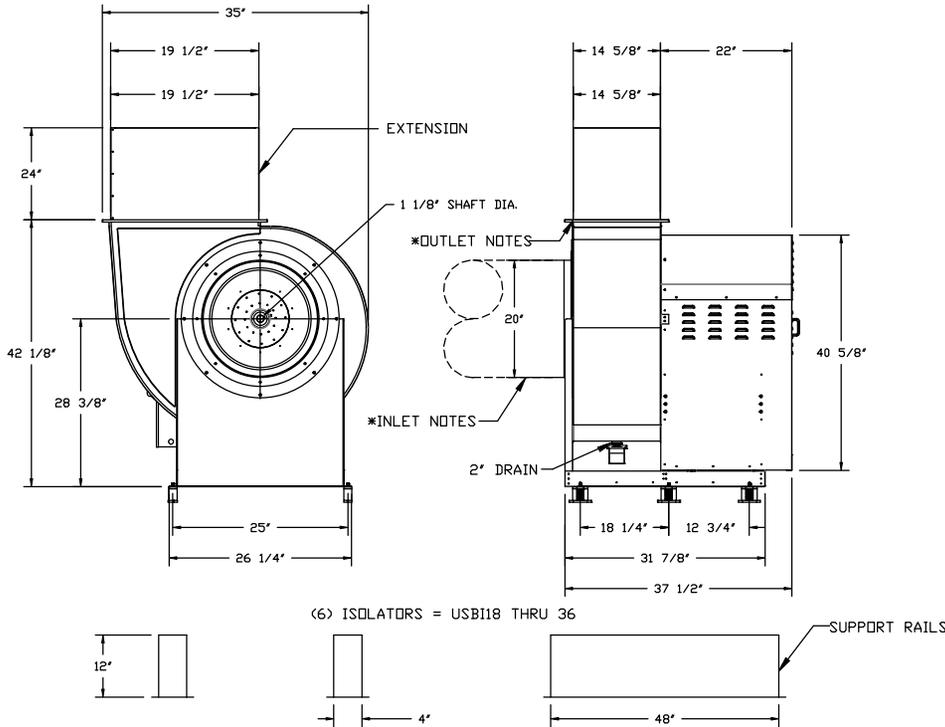
**RCRBD
Record Set
TC**

12/01/2020



JOB Hypno Chic - Frisco, CO R5	
LOCATION STEAMBOAT SPRINGS, CO, 80487	
DATE 6/24/2020	JOB # 4410517
DWG # 8	DRAWN BY sean.duric
REV.	SCALE 3/8" = 1'-0"

FAN #1 EA-USBI18DD-RM - EXHAUST FAN (KEF)



FEATURES:

- ROOF MOUNTED FANS
- UL705
- UL762 AND ULC-S645 (RESTAURANT MODEL)
- HIGH HEAT OPERATION DIRECT DRIVE 350°F (176°C)
- HIGH HEAT OPERATION BELT DRIVE 350°F (176°C)
- HEAT SLINGER
- WEATHERPROOF DISCONNECT
- GREASE CLASSIFICATION TESTING
- 2" DRAIN
- MOTOR WEATHER COVER
- FULLY SEALED SCROLL HOUSING
- SCROLL ACCESS DOOR
- FLANGE 1 1/4" - 11 THRU 20.
- FLANGE 2" - 24 THRU 36.

OPTIONS:

- BI18 - INLET SERVICE DUCT CONNECTION. USED TO CONNECT TO STANDARD 20" GREASE DUCT OR FIELD WELDED DUCT. INCLUDES (2) 7" RISERS BOLTED TO STANDARD INLET RISER. UTILITY SET GREASE CUP.
- BI18 - 24" DISCHARGE EXTENSION.
- BI - DISCHARGE ORIENTATION VERTICAL UPPER LEFT - CW INLET SIDE.
- BI18 - INLET CONNECTION STANDARD 20" FLANGED GREASE DUCT.
- UTILITY SET - SPRING VIBRATION ISOLATORS - BI18 / EQUIVALENT SIZED UTILITY SET - INDOOR/OUTDOOR USE.

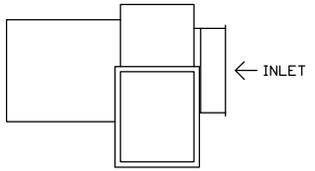
NORMAL TEMPERATURE TEST DIRECT DRIVE
 EXHAUST FAN MUST OPERATE CONTINUOUSLY WHILE EXHAUSTING AIR AT 350°F (176°C) UNTIL ALL FAN PARTS HAVE REACHED THERMAL EQUILIBRIUM, AND WITHOUT ANY DETERIORATING EFFECTS TO THE FAN WHICH WOULD CAUSE UNSAFE OPERATION.

*** INLET/OUTLET NOTES:**
 LENGTH OF THE STRAIGHT DUCT ON THE INLET AND OUTLET TO BE 3 TIMES THE EQUIVALENT DUCT DIAMETER BEFORE CONNECTING TO ANY FITTINGS SUCH AS ELBOWS TO AVOID SYSTEM EFFECT.

UNIT PLAN VIEW CORNER WEIGHTS:

93 LBS 76 LBS

CORNER WEIGHTS ARE CALCULATED BASED ON VERTICAL DISCHARGE. SUPPORT DUCT PROPERLY BEFORE FAN TO ENSURE CORNER WEIGHTS ARE NOT AFFECTED.



147 LBS 105 LBS

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Record Set
TC
 12/01/2020



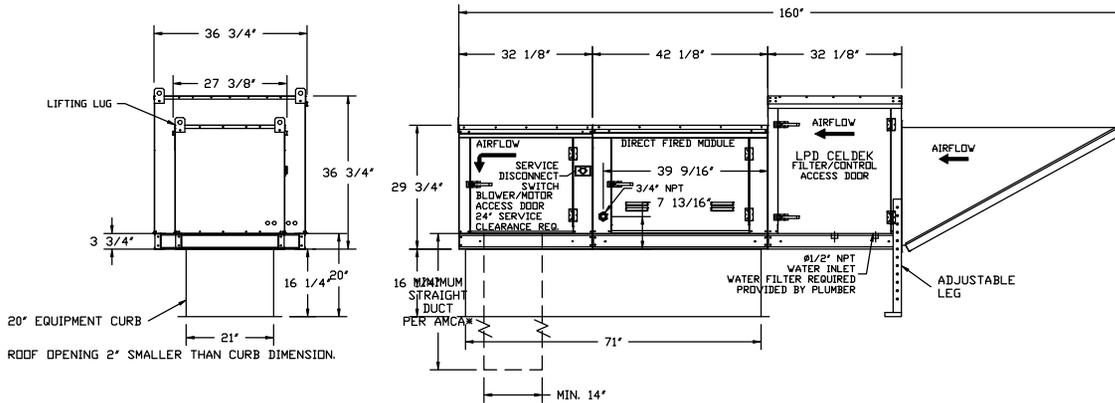
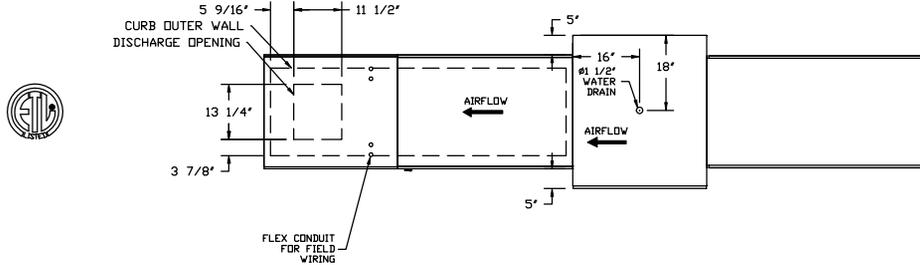
JOB Hypno Chic - Frisco, CO R5	
LOCATION STEAMBOAT SPRINGS, CO, 80487	
DATE 6/24/2020	JOB # 4410517
DWG # 9	DRAWN BY sean.duric
REV.	SCALE 3/8" = 1'-0"

- FAN #2 EA1-D250-G10 - HEATER (KMAU)
 1. DIRECT GAS FIRED HEATED MAKE UP AIR UNIT WITH 10' BLOWER
 2. EVAP COOLER (LPD CELDEK) - W/INTAKE HOOD W/EZ FILTERS
 3. DOWN DISCHARGE - AIR FLOW RIGHT -> LEFT
 4. 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, TFBI20S ACTUATOR INCLUDED
 5. LOW FIRE START - ALLOWS THE BURNER CIRCUIT TO ENERGIZE WHEN THE MODULATION CONTROL IS IN A LOW FIRE POSITION.
 6. GAS PRESSURE GAUGE, 0-35", 2.5" DIAMETER, 1/4" THREAD SIZE
 7. GAS PRESSURE GAUGE, -5 TO +15 INCHES WC., 2.5" DIAMETER, 1/4" THREAD SIZE
 8. LAYER CONTROL FOR 1BT EVAP
 9. FREEZE PROTECTION DRAIN CONTROL KIT FOR EVAPORATIVE COOLERS. INCLUDES 3-WAY WATER SOLENOID VALVE 8316G064 (SHIPPED LOOSE), PRESSURE SWITCH INSTALLED UPSTREAM OF 2WAY SOLENOID IN UNIT, BRASS TEE, 2 NPT HALF INCH NIPPLES, AND TWO STAGE THERMOSTAT T678A1361. FIELD WIRING REQUIRED BY OTHERS FOR 3-WAY VALVE, FOR BOTH CELDEK AND STANDARD V-BANK TYPE CONFIGURATIONS.
 10. 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.

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 14" x 14"

SUPPLY SIDE HEATER INFORMATION:

WINTER TEMPERATURE = 1°F. TEMP. RISE = 74°F.
 BTUS CALCULATED OFF ACTUAL AIR DENSITY
 OUTPUT BTUS AT ALTITUDE OF 0.0 FT. = 219146
 INPUT BTUS AT ALTITUDE OF 0.0 FT. = 238203
 OUTPUT BTUS AT ALTITUDE OF 6802 FT. = 170376
 INPUT BTUS AT ALTITUDE OF 6802 FT. = 185191



Direct Fired GF Profile Plate Assembly

Direct Fired Profile Plate Specifications

REMARKS: Burners shall have patented GE Patent No. 5549723B2, self-adjusting profile plates designed to ensure design air velocity and pressure drop across the burner. Profile plates shall conform to burner design specifications by design. The burner shall have a maximum of 10ppm of carbon monoxide (CO) and 10ppm of nitrogen oxide (NOx). Direct Fired units shall be configured with the burner mounted downstream of the burner. The arrangement shall ensure a consistent airflow, regardless of inlet air temperature.

NOTES: Spring-loaded burner profile plates are engineered to automatically react to the momentum of a fresh air stream, without the need for any motor or actuators to mechanically adjust them. With this feature, all BF units are designed for demand control ventilation (DCV) requirements.

INSTALLATION: All profile plate assemblies shall be included in the BF unit's ETL listing and comply with combined safety standards ANSI Z59.4 and CAN 37 (non-recirculating BF heaters) and ANSI Z59.8 (recirculating BF heaters).

General Construction:
 -Profile plates shall be formed from G90 galvanized steel.
 -Profile plates shall vary in size per unit.
 -Profile plates shall be mounted along the same plane as the discharge of the burner.
 -Design shall incorporate properly torqued, permanently mounted spring hinges.
 -Spring hinges shall be made from plated steel.



CAPTIVEAIRE

JOB Hypno Chic - Frisco, CO R5	
LOCATION STEAMBOAT SPRINGS, CO, 80487	
DATE 6/24/2020	JOB # 4410517
DWG # 10	DRAWN BY sean.duric
REV.	SCALE 1/4" = 1'-0"

Exhaust Fan Wiring

JOB 4410517 - Hypno..

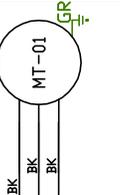
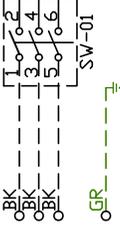
DRAWING NUMBER EXH4410517-1

SHIP DATE 6/24/2020

MODEL EA-USBI18DD-RM

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Installed Options

Component Identification
Label Description Location

MT-01 Fan Motor [3]

SW-01 Main disconnect switch [3]

EXHAUST MOTOR INFO
3HP-208V-3P-9.5FLA

ELECTRICAL INFORMATION
MOTOR/CTRL MCA: 11.9A
MOTOR/CTRL MOP: 20A

NOTES
--- DENOTES FIELD WIRING
--- DENOTES INTERNAL WIRING

WIRE COLOR

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

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Record Set
12/01/2020

Direct Fired Heater Wiring

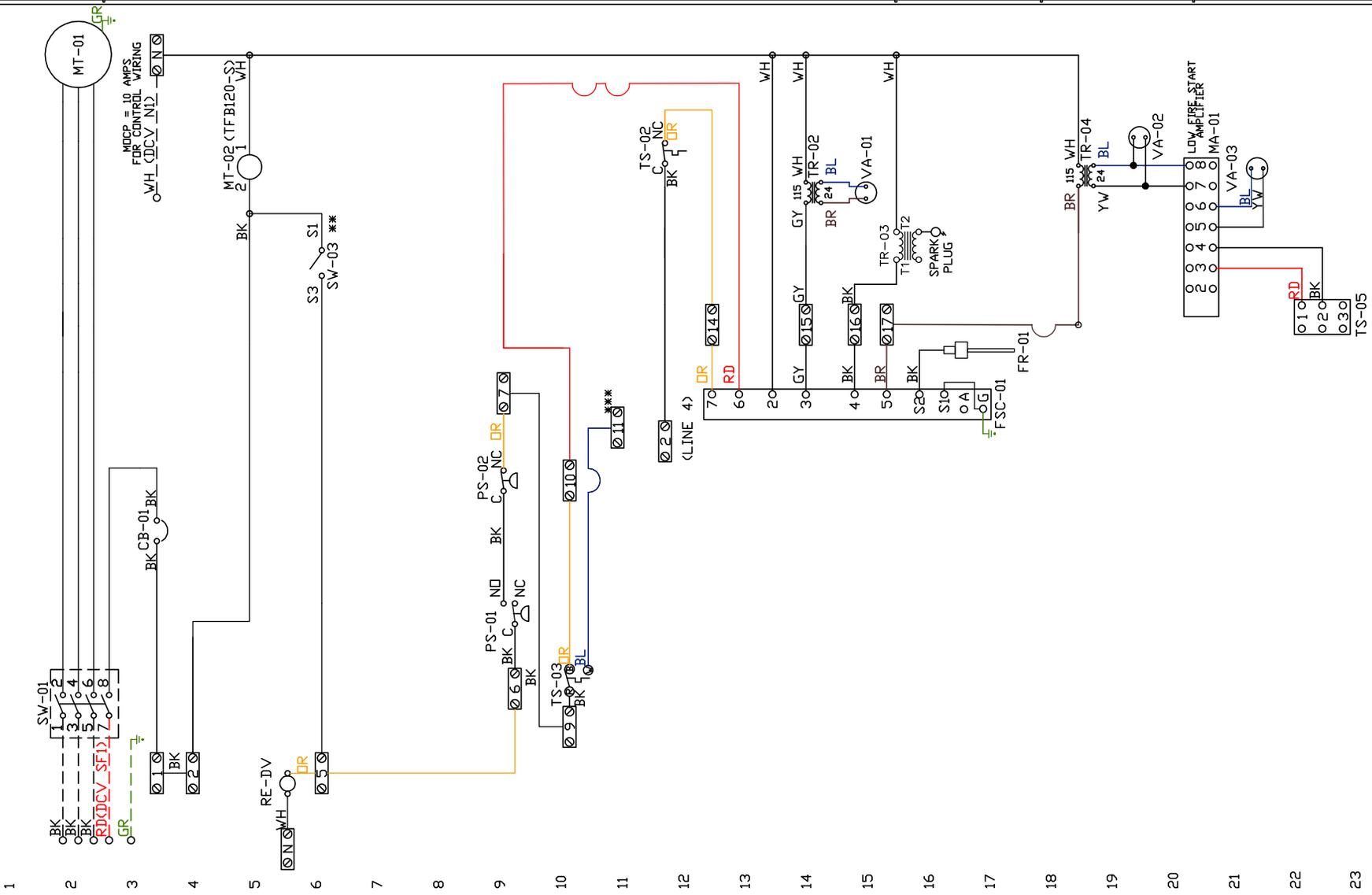
JOB 4410517 - Hypno...

DRAWING NUMBER DF 4410517-2

SHIP DATE 6/24/2020

MODEL EBA1-D.250-G10

ATTENTION ELECTRICIAN!
 DROP FOR DISCONNECT CONNECTION WIRE TO 0-YW 0130 YW C. 11ND
 IS FACTORY SUPPLIED IN DCV LIB RE-DV-1
 CONNECT POWER TO THE DROP 038D7 IN 0-RD 075 RD
 EMSPLUS)



Installed Options

Motorized Back Draft Damper

Discharge Temp. Control

DCV Wiring

Component Identification
 Label Description Location
 CB-01 Circuit breaker (Camp) [3]

FR-01 Flame rod
 FSC-01 Fireye FSC [14]-[14]

MA-01 Modulating amplifier [19]
 MT-01 Supply motor [2]
 MT-02 Damper motor [5]

PS-01 Low Airflow Switch [9]
 PS-02 High Airflow Switch [9]

RE-DV DCV Relay [115]

SV-01 Main disconnect switch [2]
 SV-03 Damper end limit switch [4]

TR-02 Power transformer(20v) [2]
 TR-03 Intake Air Sensor [10]
 TR-04 Power transformer(20v) [17]

TS-02 High temp limit switch [10]
 TS-03 Intake Air Sensor [10]
 TS-05 Discharge Air Sensor [21]

VA-01 Pilot gas valve [13]
 VA-02 Main gas valve [18]
 VA-03 Modulating gas valve [20]

SUPPLY MOTOR INFO
 2HP-208V-3P-5.9FLA

ELECTRICAL INFORMATION
 MOTOR CIRCUIT MCA: 7.4A
 CONTROL CIRCUIT MCA: 2.0A
 MOTOR CIRCUIT MOP: 15A
 CONTROL CIRCUIT MOP: 15A

12/28/2020

RCR
 Record Set

FIELD WIRING
 DENOTES INTERNAL WIRING

TERMINALS 5, 6 AND 8 USED FOR NF & AF SERIES ACTUATORS

TERMINAL 11 PROVIDES CONTROL CONNECTION

WIRE COLOR	NO.	RELAY	SOCKET STYLE
YV - YELLOW	10	RD	RED
GR - GREEN	11	WH	WHITE
BR - BROWN	12	GY	GRAY
OR - ORANGE	13	PR	PURPLE

Evaporative Cooler Wiring

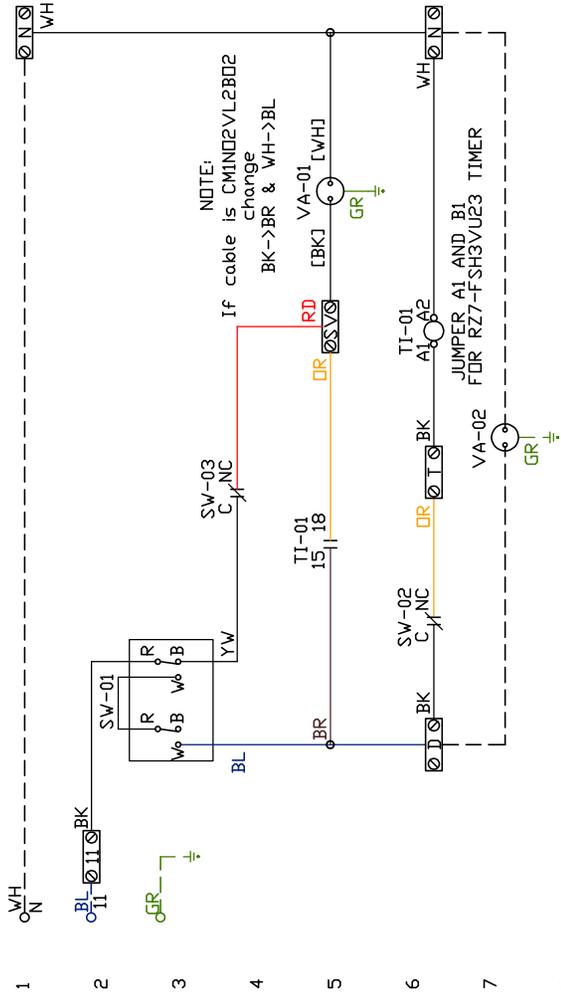
JOB 4410517 - Hypno..

DRAWING NUMBER EC4410517-2

SHIP DATE 6/24/2020

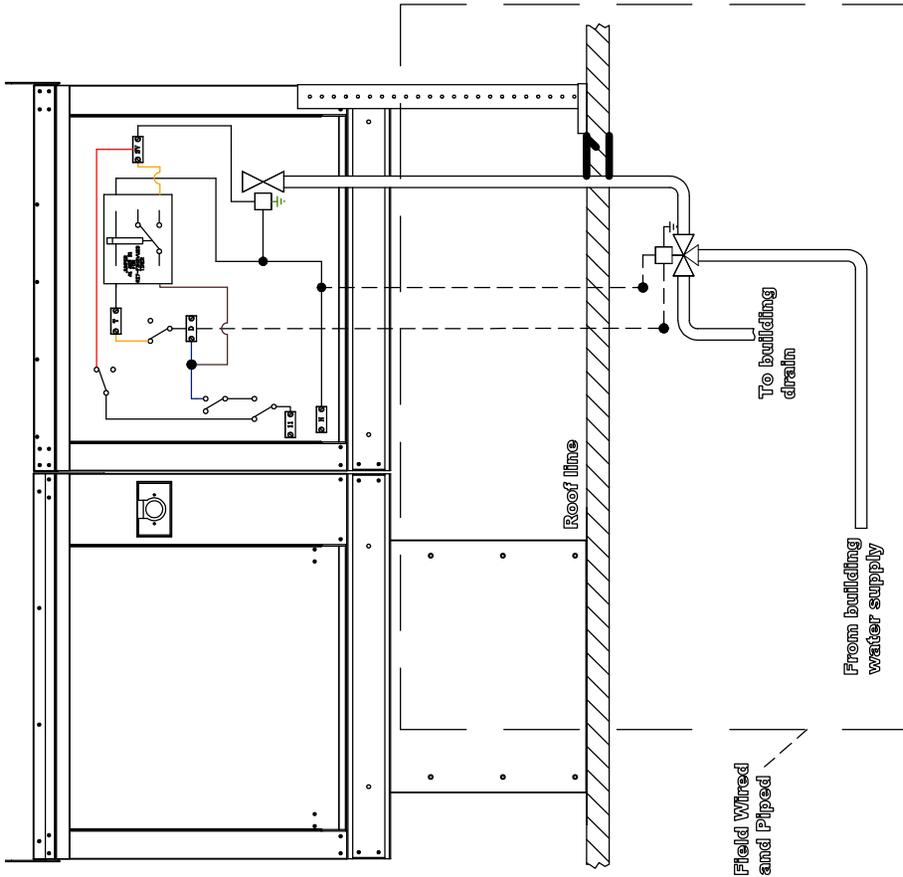
MODEL EA1-D.250-G10

Installed Options



Label	Description	Location
SW-01	Thermostat	[2]
SW-02	Overflow Switch	[6]
SW-03	Pressure Switch	[3]
TI-01	Spray Timer	[5-7]
VA-01	Internal Solenoid Valve	[5]
VA-02	3-Way Solenoid Valve	[7]

POINT-TO-POINT SUMMARY OF DRAIN CONNECTION



- NOTES
- DENOTES FIELD WIRING
 - - - DENOTES INTERNAL WIRING
 - WIRE COLOR
 - BK - BLACK
 - BL - BLUE
 - BR - BROWN
 - DR - DRANGE
 - RD - RED
 - WH - WHITE
 - YW - YELLOW
 - GR - GREEN
 - GY - GRAY
 - PR - PURPLE
 - PK - PINK

RCRBD
Record Set
TO
6/01/2020

Installation Wiring

JOB 4410517 - Hypno...

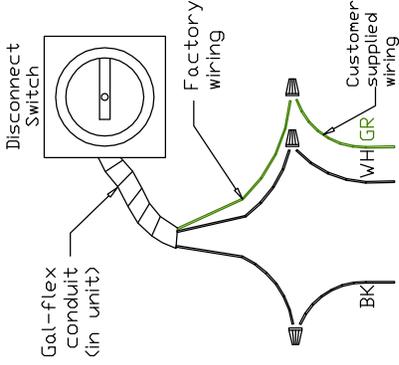
DRAWING NUMBER RP4410517-2

SHIP DATE 6/24/2020

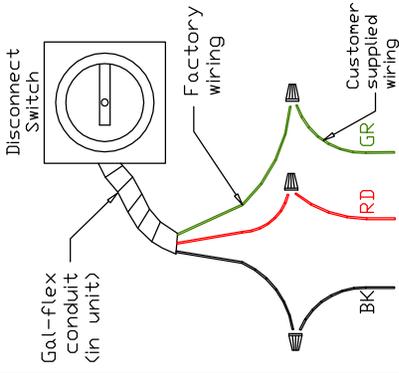
MODEL EAI-D.250-G10

Installed Options
DCV Connections

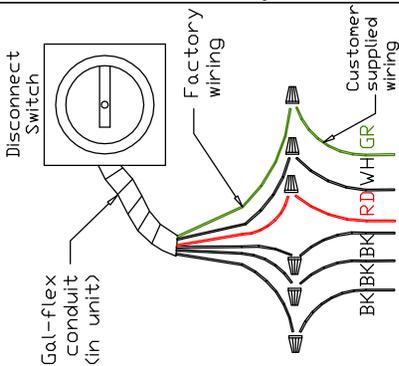
120 V 1 PH.



240 V 1 PH.



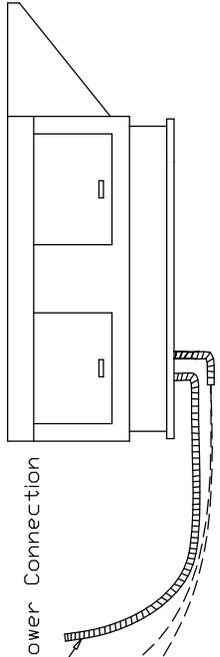
208/460/600 V 3 PH.



POWER FROM DEDICATED BREAKER

See above details: Power Connection

D3 IN HEATER TO IL1A IN DCV
D7 IN HEATER TO IL1B IN DCV
WIRE TO DCV



NOTES

RCRBD
Record Set
12/01/2020

- WIRE COLOR
- BL - BLACK
 - BR - BROWN
 - OR - ORANGE
 - WH - WHITE
 - YV - YELLOW
 - GRN - GREEN
 - GRY - GRAY
 - PR - PURPLE
 - PBK - PINK
 - WH - WHITE

ELECTRICAL PACKAGE - Job#4410517

NO	TAG	PACKAGE #	LOCATION	SWITCHES		OPTION	FANS CONTROLLED					
				LOCATION	QUANTITY		FAN TAG	TYPE	φ	HP	VOLT	FLA
1		SC-311110FP	Wall Utility Cabinet Left	12 - Wall Utility Cab. on Left End	1 Light	Smart Controls Thermostatic Control	KEF	Exhaust	3	3.000	208	9.5
				Hood # 1	1 Fan		KMAU	Supply	3	2.000	208	5.9

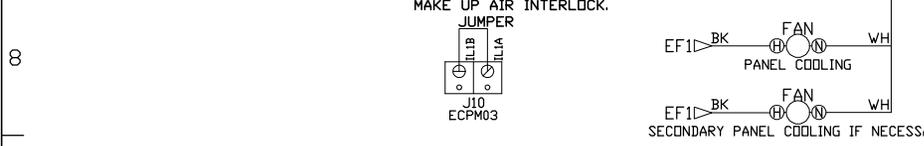
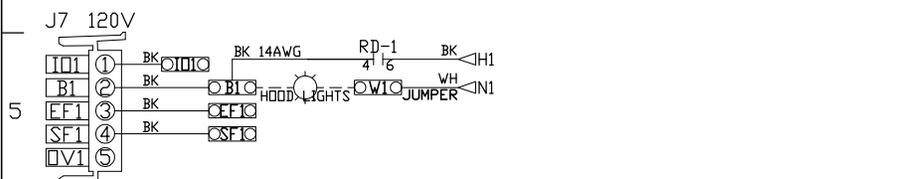
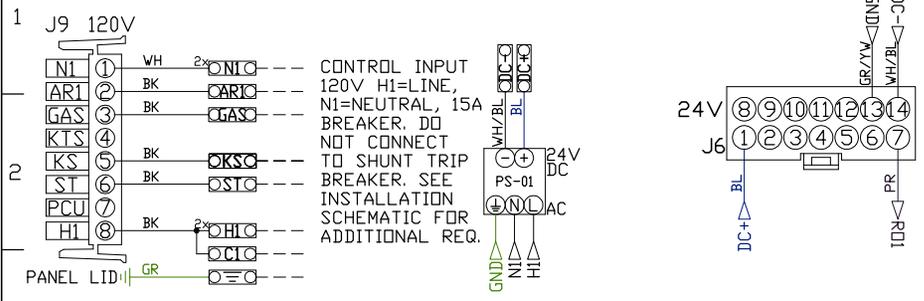
RCRBD
Record Set
TC
 12/01/2020



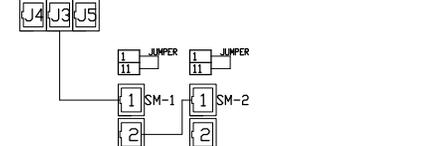
CAPTIVEAIR

<i>JOB</i> Hypno Chic - Frisco, CO R5	
<i>LOCATION</i> STEAMBOAT SPRINGS, CO, 80487	
<i>DATE</i> 6/24/2020	<i>JOB #</i> 4410517
<i>DWG #</i> 15	<i>DRAWN BY</i> sean.duric
<i>REV.</i>	<i>SCALE</i> 3/8" = 1'-0"

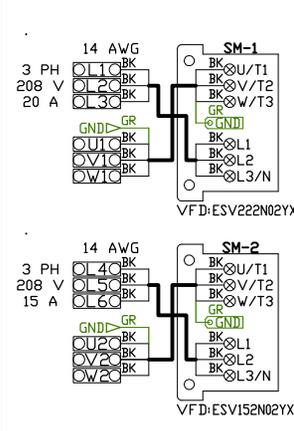
UNLESS SPECIFIED OTHERWISE, ALL FACTORY AC WIRING 16 AWG. ALL FACTORY DC WIRING 18 AWG.



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



MOTOR POWER CIRCUIT



MTR:KEF	HP:3.00
FLA:9.1	HP:2.000
P100:01	P101:N/A
P102:0.0	P103:65.0
P107:00	P108:84
P131:N/A	P150:01
P167:64.1	P194:225
P410:11	P410:21



RECORD

Record Set

TC

12/01/2020

COMPONENT LIST	
LABEL	DESCRIPTION
ST-X	Starter varies
DL-X	Overload varies
C-X	Contactors varies
PS-1	Power Sup. 24VDC MDPI8-24A-1C
RA-x	120V Relay DPDT 34.110.0184.0
RD-x	24VDC Light Relay 34.110.0188.0

LEGEND	
FIELD WIRING	
FACTORY WIRING	
BK- BLACK	YW- YELLOW
BL- BLUE	GY- GREY
BR- BROWN	PR- PURPLE
OR- ORANGE	RD- RED
WH- WHITE	GR- GREEN
DR/BL- DR/BL STRIPE	
BL/RD- BL/RD STRIPE	
RD/GN- RD/GN STRIPE	
WH/BL- WH/BL STRIPE	

JOB NAME	
Hypno Chic - Frl..	
DRAWING TITLE	
SC-311110FP	
DESCRIPTION OF OPERATION	
3 Phase w/ control for 1 Exhaust Fan, 1 Supply Fan, Exhaust on in Fire, Lights out in Fire, Fan(s) On/Off Thermostatically Controlled. Room temperature sensor shipped loose for field installation. INVERTER DUTY 3 PHASE MOTOR REQUIRED FOR USE WITH VFD.	
JOB NO	DRAWN BY
4410517	
TYPE	DATE
FACTORY	6/24/2020
DWG NO	#1-2

DuctWork #1 Parts - Job#4410517

**RCRBD
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TC
12/01/2020**

Tag	Part #	CFM	SP	Weight	Velocity	QTY	Description
P1	EDW1445DWASY-3Z-S	1733	-0.0438	23.75	1621.12	1	Double Wall Duct - 14" Inner 45 Duct - 3 Layers Zero Clearance - 20" Stainless Steel Outer Shell.
P2	EDW1445DWASY-3Z-S	1733	-0.0625	23.75	1621.12	1	Double Wall Duct - 14" Inner 45 Duct - 3 Layers Zero Clearance - 20" Stainless Steel Outer Shell.
P3 Assembled w/P4	EDW1447DWAJDTP-3Z-S	1733	-0.014	108.83	1621.12	1	Double Wall Adjustable Duct Transition Plate - 14" Inner Duct - 3 Layers Zero Clearance - 20" Stainless Steel Outer Shell. Min Length = 11' / Max Length = 48.5' / Adjustment = 30.5' / Adjustable Section May Need To Be Cut. Includes single and double wall "V" Clamps.
P4 Assembled w/P3,P5	EDW23514TPDB	1733	0	14.65	1621.12	1	Duct to Curb Transition Down Turn, 23.50" Curb to 14" Duct, 16 GA Aluminized. Not For Use With Exhaust Fans.
P5 Assembled w/P4	EDW14RISER	1733	-0.002	2.25	1621.12	1	Single Wall Duct Riser for Welded Hoods, 14" Dia Duct. Stainless Steel.
P6	EDW1407LT	1733	-0.0025	3.63	1621.12	1	Single Wall Duct 14" diameter, 7' long, flange at both ends. Stainless Steel.
P7	EDW1415AJDKIT	1733	-0.0025	14.25	1621.12	1	Single Wall Duct Adjustable, 14" diameter, 14.50" long, flange at one end With a 14" Adjustable Collar - Stainless Steel.
P8	EDW14VESU18			22.58		1	Duct Vertical Support Kit, 14" Duct, 18" Clearance To Combustibles. Parts are Zinc Coated. Hardware Kit #3 Used On DWXXVESU & DWXXVESU18.
P9 Assembled w/P33	EDW14TEASY	1733	-0.095	15.95	1621.12	1	Single Wall Duct Tee, 14" Duct, Assembly.
P10	EDW1404CID	1733	-0.002	2.45	1621.12	1	Single Wall Duct Off Set Collar - 14" diameter duct - 1/4" Pitch.
P11	EDW1435LT	1733	-0.0137	16.34	1621.12	1	Single Wall Duct 14" diameter, 35" long, flange at both ends. Stainless Steel.
P12	EDW1448AJDKIT	1733	-0.0093	26.62	1621.12	1	Single Wall Duct Adjustable, 14" diameter, 47.5" long, flange at one end With a 14" Adjustable Collar - Stainless Steel.
P13	EDW14SUBBRASY			2.96		1	Duct Support Bracket Kit, 14" Duct, Used for Hanging Duct. 12 GA Steel, Clear Zinc Coating, - 2 Rings, 4 Brackets, & Hardware Bag 2.
P14	EDW1418ADPEC	1733	-0.036	7.50	1621.12	1	Single Wall Duct Adapter, 14" Duct Dia to 18" Duct Dia, Eccentric Assembly.
P15	EDW18TEASY	3466	-0.375	22.75	1961.35	1	Single Wall Duct Tee, 18" Duct, Assembly.
P16	EDW1418ADP	1733	-0.036	7.50	1621.12	1	Single Wall Duct Adapter, 14" Duct Dia to 18" Duct Dia, Assembly.
P17	EDW1404CID	1733	-0.002	2.45	1621.12	1	Single Wall Duct Off Set Collar - 14" diameter duct - 1/4" Pitch.
P18 Assembled w/P19	EDW14RISER	1733	-0.002	2.25	1621.12	1	Single Wall Duct Riser for Welded Hoods, 14" Dia Duct. Stainless Steel.
P19 Assembled w/P18,P20	EDW23514TPDB	1733	0	14.65	1621.12	1	Duct to Curb Transition Down Turn, 23.50" Curb to 14" Duct, 16 GA Aluminized. Not For Use With Exhaust Fans.
P20 Assembled w/P19	EDW1447DWAJDTP-3Z-S	1733	-0.014	108.83	1621.12	1	Double Wall Adjustable Duct Transition Plate - 14" Inner Duct - 3 Layers Zero Clearance - 20" Stainless Steel Outer Shell. Min Length = 11' / Max Length = 48.5' / Adjustment = 30.5' / Adjustable Section May Need To Be Cut. Includes single and double wall "V" Clamps.
P21	EDW1445DWASY-3Z-S	1733	-0.0625	23.75	1621.12	1	Double Wall Duct - 14" Inner 45 Duct - 3 Layers Zero Clearance - 20" Stainless Steel Outer Shell.
P22	EDW1445DWASY-3Z-S	1733	-0.0438	23.75	1621.12	1	Double Wall Duct - 14" Inner 45 Duct - 3 Layers Zero Clearance - 20" Stainless Steel Outer Shell.
P23 Assembled w/P32	EDW18TEASY	3466	-0.435	22.75	1961.35	1	Single Wall Duct Tee, 18" Duct, Assembly.
P24	EDW1835LT	3466	-0.0115	21.00	1961.35	1	Single Wall Duct 18" diameter, 35" long, flange at both ends. Stainless Steel.
P25	EDW1848AJDKIT	3466	-0.0115	34.16	1961.35	1	Single Wall Duct Adjustable, 18" diameter, 47.5" long, flange at one end With a 18" Adjustable Collar - Stainless Steel.
P26 Assembled w/P29	EDW18TEASY	3466	-0.01	22.75	1961.35	1	Single Wall Duct Tee, 18" Duct, Assembly.
P27	EDW1804CID	3466	-0.001	3.12	1961.35	1	Single Wall Duct Off Set Collar - 18" diameter duct - 1/4" Pitch.
P28	EDW1820ADPEC	3466	-0.007	13.20	1961.35	1	Single Wall Duct Adapter, 18" Duct Dia to 20" Duct Dia, Eccentric Assembly.
System at P28		3466	-1.5653				
P29 Assembled w/P26 □=T	EDW1819ADKIT			5.55		1	Duct Access Door with handle & Grease Dam, for 18" duct use 19" door. Stainless Steel.
P30	EDW18SUBBRASY			3.38		1	Duct Support Bracket Kit, 18" Duct, Used for Hanging Duct. 12 GA Steel, Clear Zinc Coating, - 2 Rings, 4 Brackets, & Hardware Bag 2.
P31	EDW18SUBBRASY			3.38		1	Duct Support Bracket Kit, 18" Duct, Used for Hanging Duct. 12 GA Steel, Clear Zinc Coating, - 2 Rings, 4 Brackets, & Hardware Bag 2.
P32 Assembled w/P23 □=T	EDW1819ADKIT			5.55		1	Duct Access Door with handle & Grease Dam, for 18" duct use 19" door. Stainless Steel.
P33 Assembled w/P9 □=T	EDW1415ADKIT			3.72		1	Duct Access Door with Handle & Grease Dam, for 14" duct use 15" door. Stainless Steel.
	EDW20DWRISER-3Z-S			9.60		1	Double Wall Riser Cover - Used On 14" Inner Riser, 4' long - 3 Layers Zero Clearance - 20" Stainless Steel Outer Riser Shell Assembly. Includes Insulation & Single V Clamps For Inner & Outer Connections.
	EDW20DWRISER-3Z-S			9.60		1	Double Wall Riser Cover - Used On 14" Inner Riser, 4' long - 3 Layers Zero Clearance - 20" Stainless Steel Outer Riser Shell Assembly. Includes Insulation & Single V Clamps For Inner & Outer Connections.






JOB Hypno Chic - Frisco, CO R5	
LOCATION STEAMBOAT SPRINGS, CO, 80487	
DATE 6/24/2020	JOB # 4410517
DWG # 18	DRAWN BY sean.duric
REV.	SCALE 3/8" = 1'-0"

DuctWork #1 Parts - Job#4410517

Tag	Part #	CFM	SP	Weight	Velocity	QTY	Description
	3M-2000PLUS			0.80		8	Duct - 3M Fire Barrier 2000 Plus Silicone - Used as sealant to Seal Duct Joints.
	EDW14CLASY			1.06		10	Duct "V" Clamp With new design 14 Ga Brackets, 14" Duct, Assembly.
	EDW14DWCLASY-3Z-S			6.54		2	Duct - 14" Duct - 20" Double "V" Clamp - 3Z Insulation & Single "V" Clamp Included - Zero Clearance.
	EDW18CLASY			1.30		10	Duct "V" Clamp With new design 14 Ga Brackets, 18" Duct, Assembly.
	EDW20CLASY			1.41		1	Duct "V" Clamp With new design 14 Ga Brackets, 20" Duct, Assembly.
Total Weight				693.69			

SINGLE WALL FACTORY BUILT DUCTWORK

- ALL DUCTWORK IS REQUIRED TO BE INSTALLED WITH THE MAXIMUM SUPPORT SPACING LISTED BELOW.
- FOR A COMPLETE LIST OF APPROVED SUPPORT METHODS, SEE THE INSTALLATION AND OPERATION MANUAL.
- DUCTWORK SHALL SLOPE NOT LESS THAN 1/16" PER LINEAR FOOT TOWARDS THE HOOD OR AN APPROVED GREASE COLLECTION RESERVOIR.
- WHERE HORIZONTAL DUCTS EXCEED 75 FEET IN LENGTH, THE SLOPE SHALL NOT BE LESS THAN 3/16" PER LINEAR FOOT.

DUCT DIAMETER	HORIZONTAL SUPPORT (ft)	VERTICAL WALL SUPPORT (ft)	VERTICAL CURB SUPPORT (ft)
5'	10'	10'	24'
6'	10'	10'	24'
7'	10'	10'	24'
8'	10'	10'	24'
10'	10'	10'	24'
12'	10'	10'	24'
14'	10'	10'	24'
16'	10'	10'	24'
18'	10'	10'	24'
20'	10'	10'	24'
22'	10'	10'	24'
24'	10'	10'	24'

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12/01/2020



<i>JOB</i> Hypno Chic - Frisco, CO R5	
<i>LOCATION</i> STEAMBOAT SPRINGS, CO, 80487	
<i>DATE</i> 6/24/2020	<i>JOB #</i> 4410517
<i>DWG #</i> 19	<i>DRAWN BY</i> sean.duric
<i>REV.</i>	<i>SCALE</i> 3/8" = 1'-0"

DOUBLE WALL FACTORY BUILT DUCTWORK

- ALL DUCTWORK IS REQUIRED TO BE INSTALLED WITH THE MAXIMUM SUPPORT SPACING LISTED BELOW.
- FOR A COMPLETE LIST OF APPROVED SUPPORT METHODS, SEE THE ENTIRE INSTALLATION AND OPERATION MANUAL
- DUCTWORK SHALL SLOPE NOT LESS THAN 1/16" PER LINEAR FOOT TOWARDS THE HOOD OR AN APPROVED GREASE COLLECTION RESERVOIR.
- WHERE HORIZONTAL DUCTS EXCEED 75 FEET IN LENGTH, THE SLOPE SHALL NOT BE LESS THAN 3/16" PER LINEAR FOOT.

HORIZONTAL	
DUCT DIAMETER	SUPPORT SPACING (ft)
5"	7'
6"	7'
7"	7'
8"	7'
10"	7'
12"	7'
14"	7'
16"	7'
18"	5'
20"	5'
22"	5'
24"	5'
26"	5'
28"	5'
30"	5'
32"	5'
34"	5'
36"	5'

VERTICAL			
TYPE	WALL SUPPORT (ft)	CURB SUPPORT (ft)	FLOOR SUPPORT (ft)
2R & 2R HT (5'-16')	20'	24'	24'
2R (18')	18'	24'	24'
3R & 3Z (5'-24')	10'	24'	24'
3Z (26' -36')	10'	20'	20'

**RCRBD
Record Set
TC
12/01/2020**

DO NOT LEAK TEST USING SMOKE BOMBS CONTAINING CHLORINES/CHLORIDES. CONSULT WITH CAPTIVEAIRE FOR PROPER LEAK TESTING METHODS.



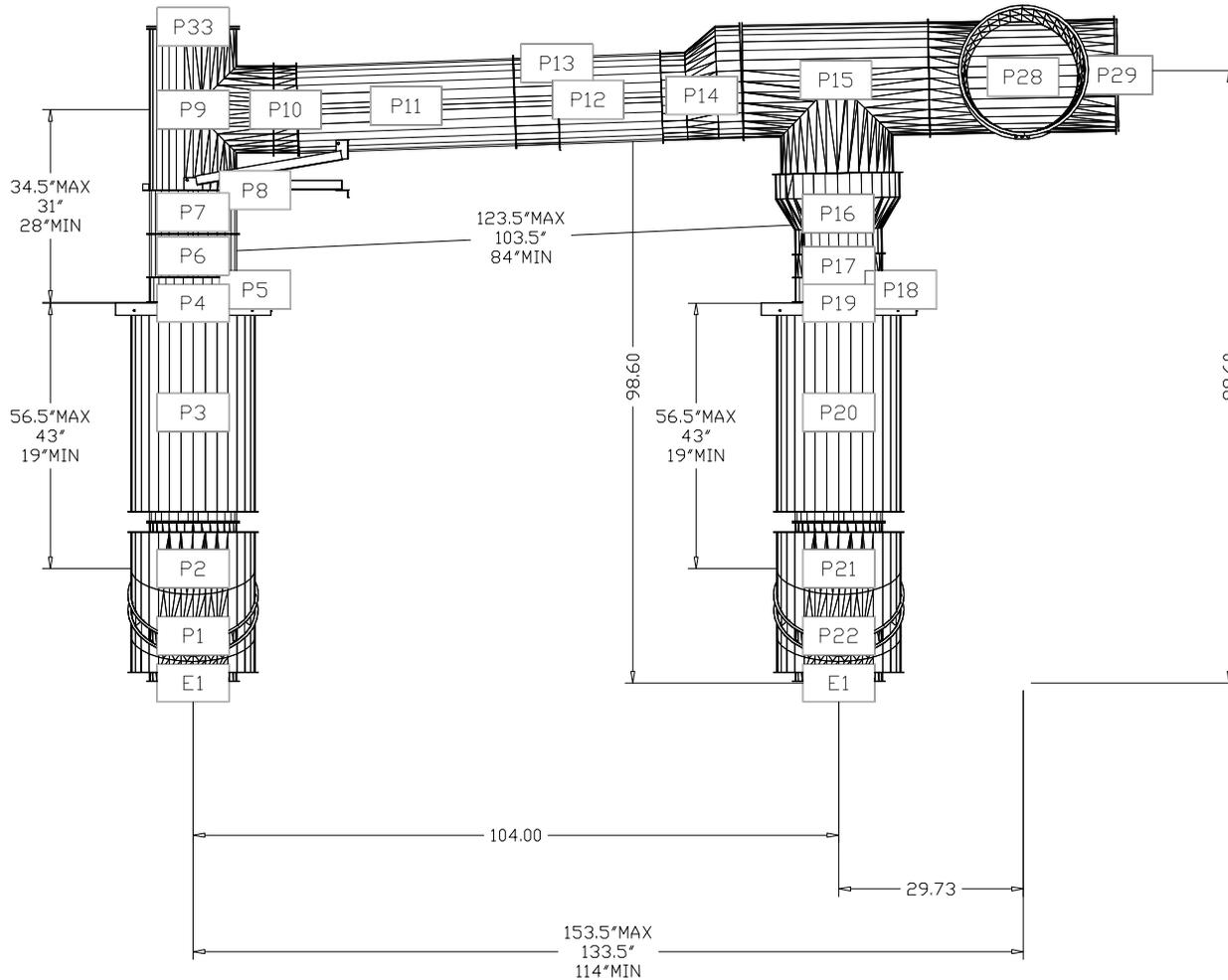




<i>JOB</i> Hypno Chic - Frisco, CO R5	
<i>LOCATION</i> STEAMBOAT SPRINGS, CO, 80487	
<i>DATE</i> 6/24/2020	<i>JOB #</i> 4410517
<i>DWG #</i> 20	<i>DRAWN BY</i> sean.duric
<i>REV.</i>	<i>SCALE</i> 3/8" = 1'-0"

DuctWork #1 Front View

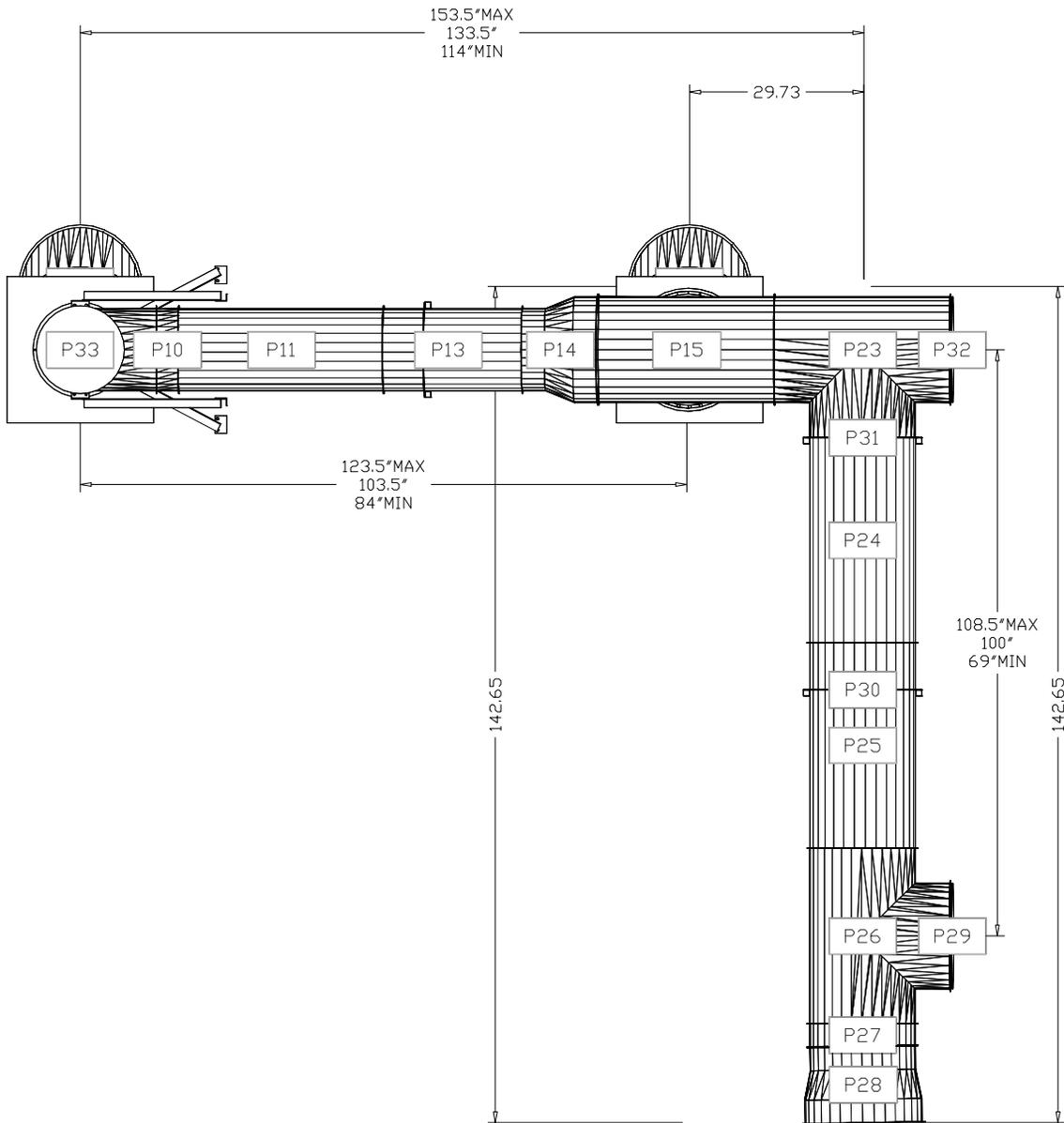
RCRBD
Record Set
TC
 12/01/2020



  	
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JOB Hypno Chic - Frisco, CO R5	
LOCATION STEAMBOAT SPRINGS, CO, 80487	
DATE 6/24/2020	JOB # 4410517
DWG # 21	DRAWN BY sean.duric
REV.	SCALE 3/8" = 1'-0"

DuctWork #1 Top View



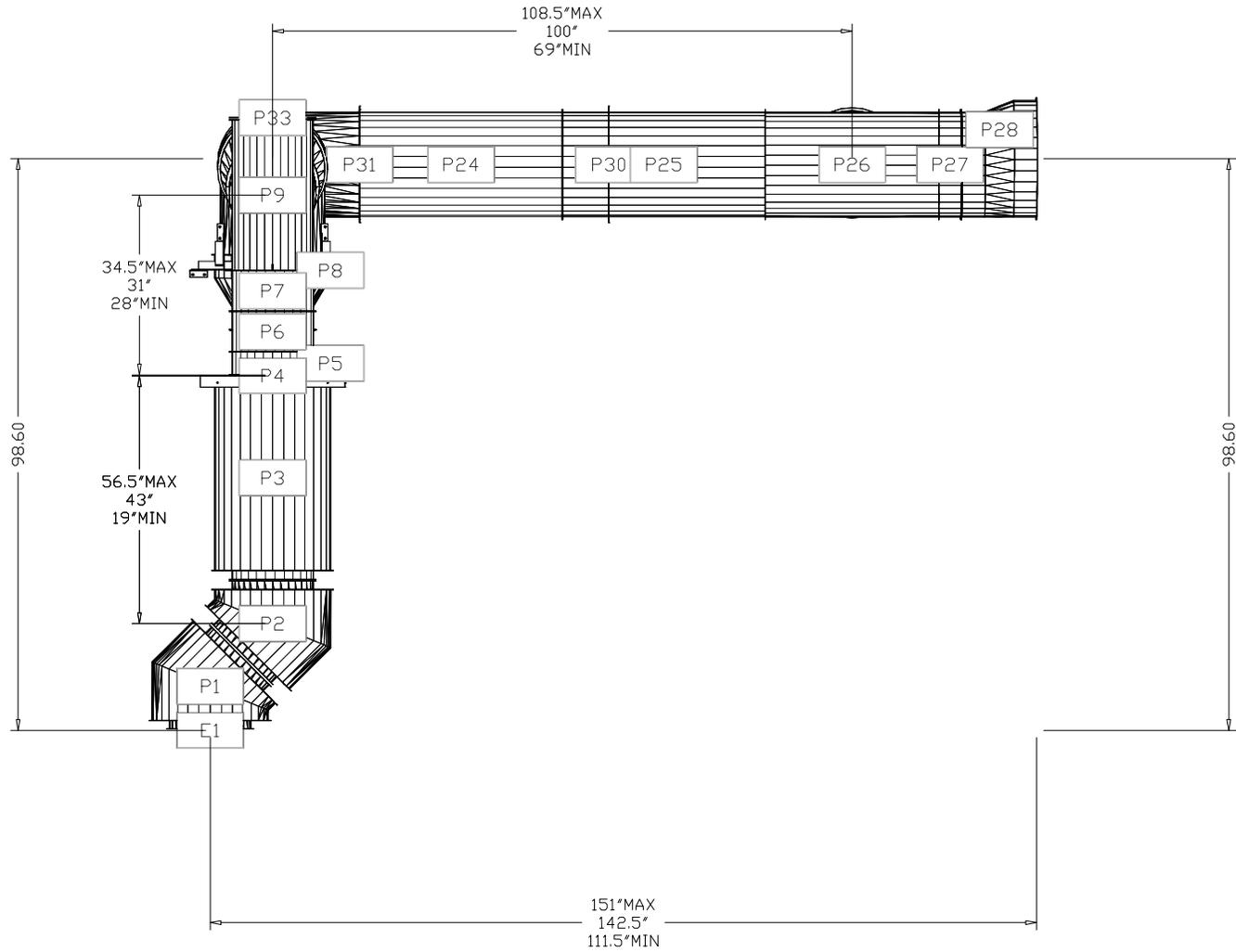
RCRBD
Record Set
TC
 12/01/2020

  	
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<i>JOB</i> Hypno Chic - Frisco, CO R5	
<i>LOCATION</i> STEAMBOAT SPRINGS, CO, 80487	
<i>DATE</i> 6/24/2020	<i>JOB #</i> 4410517
<i>DWG #</i> 22	<i>DRAWN BY</i> sean.duric
<i>REV.</i>	<i>SCALE</i> 3/8" = 1'-0"

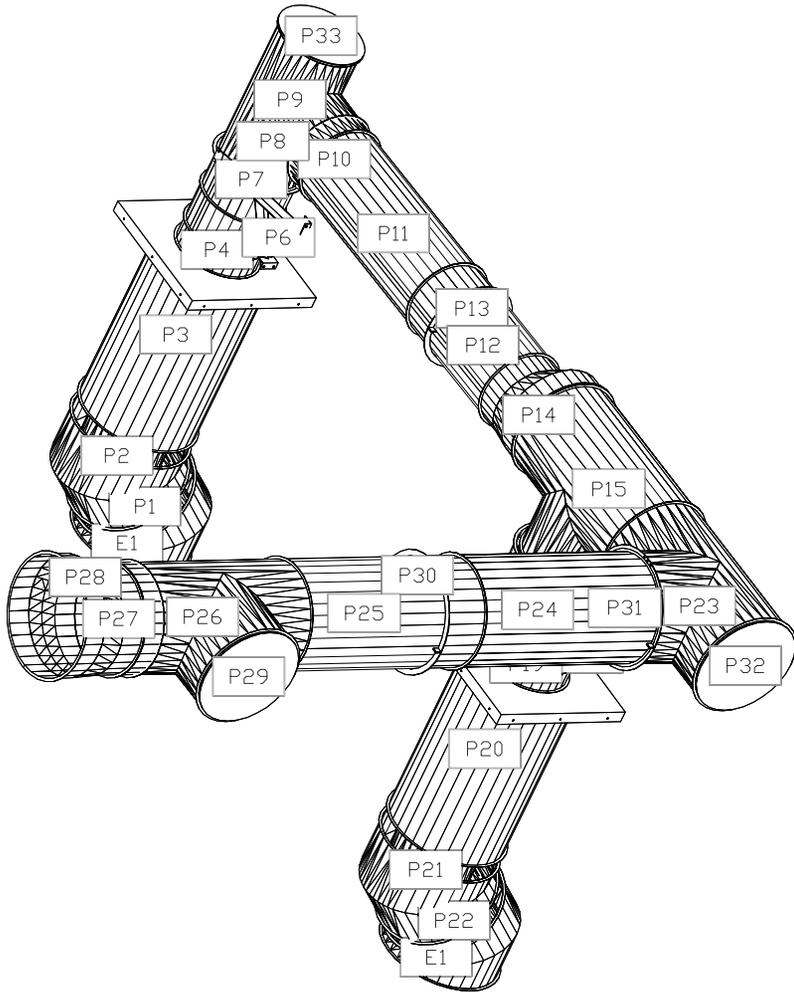
DuctWork #1 Side View

RCRBD
Record Set
TC
 12/01/2020



CAPTIVE AIR

JOB Hypno Chic - Frisco, CO R5	
LOCATION STEAMBOAT SPRINGS, CO, 80487	
DATE 6/24/2020	JOB # 4410517
DWG # 23	DRAWN BY sean.duric
REV.	SCALE 3/8" = 1'-0"



CAPTIVEAIR

<i>JOB</i> Hypno Chic - Frisco, CO R5	
<i>LOCATION</i> STEAMBOAT SPRINGS, CO, 80487	
<i>DATE</i> 6/24/2020	<i>JOB #</i> 4410517
<i>DWG #</i> 24	<i>DRAWN BY</i> sean.duric
<i>REV.</i>	<i>SCALE</i> 3/8" = 1'-0"