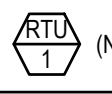
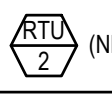
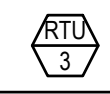












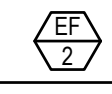
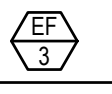


PACKAGED ROOF TOP UNIT SCHEDULE				(LENNOX MODELS TO BE SPECIFIED) (LO NoX in California)	
UNIT SYMBOL	 (NEW)	 (NEW)	 (NEW)		
LOCATION	ROOF	ROOF	ROOF		
BLOWER	SA CFM (TONS)/ OA CFM	2,400 (6-TON)/ 500	4,000 (10-TON)/ 750	4,000 (10-TON)/ 750	
	TSP (IN W.G.)	0.97"	1.39"	1.39"	
COOLING	TOTAL (BTUHR)	76,200	122,700	123,200	
	SENSIBLE (BTUHR)	50,600	87,100	87,000	
	AMBIENT (F)	93.5	93.5	93.5	
	COIL ENTERING	69.9 WB/79.5 DB	66.7 WB/79.1 DB	67.2 WB/79.5 DB	
HEATING (NATURAL GAS BTUHR)		STAGE (1) 81,000 STAGE (2) 108,000	STAGE (1) 117,000 STAGE (2) 180,000	STAGE (1) 117,000 STAGE (2) 180,000	
ELECTRICAL	POWER SUPPLY	208V/3Ph/60HZ	208V/3Ph/60HZ	208V/3Ph/60HZ	
	COMPRESSOR (RLA)	17.6	(2) 33.2	(2) 33.2	
	CONDENSER MOTOR (FLA)	(1) 2.8	(1) 5.0	(1) 5.0	
	EVAPORATOR MOTOR (FLA)	4.4	8.6	8.6	
	MIN. CIRCUIT AMPACITY	30, HACR = 45	52, HACR = 60	52, HACR = 60	
PANDA NATIONAL ACCOUNT. NO SUBSTITUTES ALLOWED. FOR PRICING AND ORDERS EMAIL LennoxNationalAccounts@lennox.com OR CALL 800-367-6285 EXT #1 FOR CUSTOMER SERVICE. EXT #2 FOR TECHNICAL SUPPORT. TECH SUPPORT EMAIL FOR INSTALLATION QUESTIONS NATS@lennox.com ALL INQUIRIES SHOULD INCLUDE "PANDA EXPRESS, STORE # AND CITY/STATE"		BY LENNOX MODEL LGT072H4E DOWN DISCHARGE COMPLETE WITH 14" ROOF MOUNT CURB, ELECTRONIC PROGRAMMABLE THERMOSTAT, SINGLE ENTHALPY ECONOMIZER WITH BAROMETRIC RELIEF. OPER. WT. : 830 LBS APPROX. IEER=17.0, EER=12.1		BY LENNOX MODEL LGT120H4E DOWN DISCHARGE COMPLETE WITH 14" ROOF MOUNT CURB, ELECTRONIC PROGRAMMABLE THERMOSTAT, SINGLE ENTHALPY ECONOMIZER WITH BAROMETRIC RELIEF. OPER. WT. : 1,427 LBS APPROX. IEER=15.5, EER=12.0	
ALL ITEMS RELATED TO HVAC SYSTEM SHALL BE PROVIDED AND INSTALLED BY CONTRACTOR, CONTACT LENNOX REPRESENTATIVE ABOVE. - THERMOSTATS: REMOTE SENSOR TYPE, 24/7 PROGRAMMABLE AND CAPABLE OF OPERATING ROOFTOP UNITS AND ACCESSORIES - DUCT MOUNTED SMOKE DETECTORS: IONIZATION TYPE/UL LISTED NOTE: 1. UNIT WEIGHTS ABOVE INCLUDE ACCESSORIES AND CURB. 2. FACTORY COATED EVAPORATOR COIL ON ALL UNITS 3. FACTORY COATED CONDENSER COIL ONLY WITHIN 5 MILES OF SALTWATER COASTLINE 4. SINGLE ENTHALPY ECONOMIZER, HIGH PERFORMANCE, LOW-LEAK DAMPERS, W/ GRAVITY EXHAUST 5. TITLE 24 COMPLIANT 6. RETURN AIR SMOKE DETECTOR (FIELD INSTALLED) 7. FACTORY HINGED ACCESS DOORS 8. MERV 8 PLEATED FILTERS		9. MULTI SPEED (MSAV) BLOWER MOTORS 10. STANDARD 14" ROOF CURB 11. COIL GUARDS (FIELD INSTALL) 12. FACTORY DISCONNECT 13. FACTORY GFCI (FIELD WIRED) 14. LENNOX COMMERCIAL CS7500 THERMOSTAT WITH REMOTE SENSOR (FIELD WIRED)			



MAKE-UP AIR UNIT SCHEDULE										
MARK	MFR/ MODEL	LOCATION	SERVICE AREA	GAS HEAT	TYPE	COOLING	CFM	ESP	MOTOR	REMARKS
MA-1	CAPTIVEAIRE A3-D.500-24D-MPU	ROOF-TOP	KITCHEN HOOD #1 & #2	INPUT: 539,830 BTHU OUTPUT: 496,644	DIRECT FIRE GAS HEATED, DX COOLED SUPPLY, DOWN DISCHARGE	DUAL CIRCUIT 5/5 MODULAR PACKAGED COOLING OPTION	5,040	0.90"	7.5 HP 208V/3PH/60HZ	GAS FIRED MAKEUP AIR UNIT WITH (2) 24ABB360 5 TON, DUAL CIRCUIT AIR COOLED CONDENSING UNITS. REFER TO SHEET M-402 FOR INFORMATION. 4-5 WEEK LEAD TIME. SHIPPING INCLUDED IN PRICE. SHIPS FROM TYLER, TX. SHIPS SEPARATE, FREIGHT INCLUDED. NOTE: FACTORY OPTIONS SHALL INCLUDE NONCORROSIVE COATING AND HAIL GUARD PROTECTION.

DIFFUSER & GRILLE SCHEDULE									
DESIGNATION	MANUFACTURER	MODEL NO	TYPE	COLOR	NOM NECK SIZE	NOM FACE SIZE	FRAME TYPE	NC MAX	REMARKS
A	TITUS	PCS-3	PERFORATED ADJUSTABLE CORE		PER PLAN	24" x 24"	LAY-IN T-BAR	< 30	INSULATION BLANKET FOR BACKPAN, CONTRACTOR FURNISHED ROUND NECK ADAPTER
B	TITUS	PCS-3	PERFORATED ADJUSTABLE CORE		PER PLAN	20" x 20"	SURFACE	< 30	WITH 20X20 SURFACE FRAME, REQUIRES A 20.5"X20.5" CEILING OPENING, INSULATION BLANKET, D-100 RADIAL DAMPER
C	TITUS	PCS-3	PERFORATED ADJUSTABLE CORE		PER PLAN	12" x 12"	SURFACE	< 30	WITH12X12 SURFACE FRAME, REQUIRES A 12.5"X12.5" CEILING OPENING, INSULATION BLANKET, D100 RADIAL DAMPER
D	TITUS	PAR-3	PERFORATED RETURN		22" x 22"	24" x 24"	LAY-IN T-BAR	< 35	CONTRACTOR FURNISHED INSULATE RETURN BOX FOR CONNECTING FLEX DUCT
E	TITUS	PAR-3	PERFORATED EXHAUST		PER PLAN	12" x 12"	SURFACE		WITH12X12 SURFACE FRAME, REQUIRES A 12.5"X12.5" CEILING OPENING, D100 RADIAL DAMPER
F	TITUS	PAR-3	PERFORATED RETURN		22" x 22"	24" x 24"	LAY-IN T-BAR	< 35	CONTRACTOR FURNISHED INSULATE RETURN BOX FOR CONNECTING FLEX DUCT
H	TITUS	PCS-3	PERFORATED ADJUSTABLE CORE		PER PLAN	24" x 24"	LAY-IN T-BAR	< 30	WITH INSULATION BLANKET, BALANCE USING MANUAL VOLUME DAMPER AT BRANCH DUCT
J	TITUS	PCS-3	PERFORATED ADJUSTABLE CORE		PER PLAN	24" x 24"	LAY-IN T-BAR	< 30	AG95 OBD, INSULATION BLANKET FOR BACKPAN, CONTRACTOR FURNISHED ROUND NECK ADAPTER
K	TITUS	PCS-3	PERFORATED ADJUSTABLE CORE		PER PLAN	12" x 12"	SURFACE	< 30	WITH12X12 SURFACE FRAME, REQUIRES A 12.5"X12.5" CEILING OPENING, INSULATION BLANKET, D100 RADIAL DAMPER
L	TITUS	PCS-3	PERFORATED ADJUSTABLE CORE		PER PLAN	12" x 12"	SURFACE	< 30	WITH12X12 SURFACE FRAME, REQUIRES A 12.5"X12.5" CEILING OPENING
NOTE: PROVIDE FACTORY INSTALLED BACK PAN INSULATION ON AIR DEVICES. HVAC CONTRACTOR IS TO PURCHASE ALL AIR DEVICES FROM PANDA APPROVED NATIONAL ACCOUNT VENDOR THERMAIR SYSTEMS INC. PLEASE CONTACT RON CAMPTON AT 602-705-5010 OR EMAIL: ronc@thermairsystems.com									

AIR BALANCE SCHEDULE				
ITEM		SUPPLY AIR	RETURN AIR	EXHAUST
MAU1		0	0	+5,040
EF-1		0	0	-3,400
EF-2		0	0	-2,900
RTU-1		+2,400	-1,900	500
RTU-2, RTU-3		+4,000, +4000	-3,250, -3,250	2@750 EA
EF-3		-	-	-450
TOTAL		+10,400	-8,400	+7,040
BUILDING PRESSURE = +290 CFM				
BALANCE TOLERANCES AS FOLLOWS: KITCHEN EXHAUST HOODS: 0% TO +10% OUTDOOR AIR: 0% TO +10% SUPPLY & RETURN DIFFUSERS: ±10% TOILET EXHAUST: ±10% BALANCE RTU SUPPLY AND RETURN PRIOR TO TURNING ON EXHAUST FANS. KITCHEN EXHAUST FANS SHALL BE BALANCED WITH VELOCITY MATRIX OR A 4" ANEMOMETER				

EXHAUST FAN SCHEDULE				
FAN NO.				
LOCATION	ROOF	ROOF	ROOF	
AREA SERVED	KITCHEN GREASE EXHAUST HOOD #1	KITCHEN GREASE EXHAUST HOOD #2	RESTROOMS	
FAN DUTY	AIR EXHAUST	AIR EXHAUST	AIR EXHAUST	
FAN TYPE	CENTRIFUGAL DIRECT DRIVE	CENTRIFUGAL DIRECT DRIVE	CENTRIFUGAL DIRECT DRIVE	
FAN ARRANGEMENT	UPBLAST	UPBLAST	DOWNBLAST	
MIN. WHEEL DIAMETER	-	-	-	
PERFORMANCE	C.F.M.	3,400	2,900	450
	E.S.P.	1.59"	1.178"	0.25"
	B.H.P.	1.97	1.24	0.081
	FAN R.P.M.	1,399	1,199	1,220
MOTOR	MOTOR H.P.	3.0	2.0	0.25
	ELEC. CHARACTERISTICS	208V/3PH/60HZ	208V/3PH/60HZ	115V/1PH/60HZ
	MOTOR R.P.M.	1725	1725	-
	MOTOR SPECIAL FEATURES	OPEN DRIP-PROOF	OPEN DRIP-PROOF	OPEN DRIP-PROOF
ACCESSORIES	1. VENTED ROOF CURB 2. HINGED AND CHAINED FAN INSTALLATION FOR DUCT ACCESS	1. VENTED ROOF CURB 2. HINGED AND CHAINED FAN INSTALLATION FOR DUCT ACCESS	1. ROOF CURB 2. BACKDRAFT DAMPER	
MANUFACTURER	CAPTIVEAIRE MODEL DU180HFA WT. 189 LBS	CAPTIVEAIRE MODEL DU180HFA WT. 188 LBS	CAPTIVEAIRE MODEL DR12HFA WT. 49 LBS	
NOTES: 1. KITCHEN EXHAUST FANS SHALL BE ELECTRICALLY INTERLOCKED WITH MAKE-UP AIR UNIT AND ROOFTOP UNITS. 2. FOR WIRING DIAGRAM SEE 5/M-501				

HVAC CONTROL SETTINGS	
EACH HVAC UNIT SHALL BE PROVIDED WITH CONTROLS AS FOLLOWS: THERMOSTAT: LENNOX COMMERCIAL PROGRAMMABLE THERMOSTAT WITH REMOTE TEMPERATURE SENSOR. SEE SHEET M-100 FOR THERMOSTAT AND SENSOR LOCATIONS. ALL THERMOSTATS SHALL HAVE MANUAL OVERRIDE. EACH UNIT CONTROL SHALL BE SET UP INITIALLY AS FOLLOWS: CONTRACTOR SHALL DETERMINE OCCUPIED PERIOD FROM OWNER. FAN OPERATION SHALL BE CONTINUOUS DURING OCCUPIED PERIOD AND CYCLE WITH COOLING/HEATING DURING UNOCCUPIED PERIOD. PROGRAMMED SETPOINTS (FOR EACH THERMOSTAT): COOLING OCCUPIED: 75°F. COOLING UNOCCUPIED: 85°F. HEATING OCCUPIED: 68°F. HEATING UNOCCUPIED: 50°F. NOTE: DEVIATIONS FROM THE ABOVE MAY RESULT IN UNACCEPTABLE AIR QUALITY, COMFORT AND/OR ENERGY CONSUMPTION.	

AIR CURTAIN SCHEDULE		
EQUIP.	MFR/MODEL	DESCRIPTION
	MARS STD242-1U-0B	(2)UNHEATED AIR CURTAIN (SERVICE DOOR), 115/1/60 WEIGHT 65 LBS. PROVIDED BY PANDA EXPRESS
	QUICK-SERV CF-25	AIR CURTAIN (WINDOW NON-HEATED), 120/1/60, 20 AMP WEIGHT 30 LBS REFERENCE ARCHITECTURAL WINDOW SCHEDULE FOR HEATED OR NON-HEATED UNIT. PROVIDED BY GC.
NOTES: INSTALL ACCORDING TO MANUFACTURER'S INSTRUCTIONS.		

MA-1 CONTROL SETTINGS	
EACH UNIT CONTROL SHALL BE SET UP INITIALLY AS FOLLOWS: FAN OPERATION SHALL BE CONTINUOUS DURING COOKING OPERATION INTERLOCK WITH KITCHEN EXHAUST FANS. REFER TO HOOD DRAWINGS. PROGRAMMED SETPOINTS : COOLING : 85°F. HEATING : 55°F.	

MECHANICAL SPECIFICATIONS	
1. WORK INCLUDES INSTALLATION OF HVAC SYSTEMS, INCLUDING GREASE EXHAUST FANS AND MAKE-UP AIR UNIT FOR KITCHEN HOODS, SPACE HEATING/AIR CONDITIONING SYSTEMS, SUPPLY, RETURN, EXHAUST, AND GREASE EXHAUST DUCTWORK, GRILLES, REGISTERS, DIFFUSERS, COMPLETE CONTROLS SYSTEM, INTERLOCK WIRING FOR OPERATION OF KITCHEN HOODS, EXHAUST FANS, AND MAKE-UP AIR UNIT, DUCT INSULATION, AND RELATED ITEMS NECESSARY FOR A COMPLETE FUNCTIONING SYSTEM AS INDICATED ON THE PLANS. FURNISH ALL NEW MATERIALS AND EQUIPMENT UNLESS NOTED OTHERWISE (U.N.O.).	
2. DRAWINGS FOR HVAC WORK ARE DIAGRAMMATIC, SHOWING THE GENERAL LOCATION, TYPE, LAYOUT AND REQUIRED EQUIPMENT. DRAWINGS SHALL NOT BE SCALED FOR EXACT MEASUREMENTS. AS REQUIRED, REFER TO ARCHITECTURAL AND MANUFACTURER'S STANDARD INSTALLATION DRAWINGS FOR EQUIPMENT CONNECTIONS AND INSTALLATION REQUIREMENTS. FURNISH AND INSTALL DUCTWORK, CONNECTIONS, ACCESSORIES, OFFSETS, AND MATERIALS NECESSARY TO FACILITATE SYSTEM'S FUNCTIONING AS INDICATED BY THE DESIGN AND EQUIPMENT SHOWN ON PLANS.	
3. CODE COMPLIANCE: ALL WORK COVERED BY THIS SECTION SHALL BE IN ACCORDANCE WITH ALL LOCAL CODES AND ACCEPTABLE TO THE AUTHORITY HAVING JURISDICTION.	
4. COORDINATE WORK WITH OTHER TRADES. EQUIPMENT FURNISHED BY OTHERS AND OWNER REQUIREMENTS. PROVIDE DUCT RISES AND DROPS AS REQUIRED FOR INSTALLATION AND/OR TRADE COORDINATION. NOTIFY ARCHITECT OF ANY DISCREPANCIES BEFORE STARTING WORK. WORK SHALL BE PERFORMED BY EXPERIENCED TRADESMEN AND THEIR WORK SHALL BE OF HIGH STANDARD ACCEPTABLE TO THE OWNER.	
5. DUCTWORK: DUCT SYSTEMS SHALL BE CONSTRUCTED, INSTALLED, SEALED AND INSULATED AS PROVIDED IN THE INT'L ENERGY AND MECHANICAL CODES. SHEET METAL SHALL BE IN ACCORDANCE WITH ASHRAE AND SMACNA STANDARDS. SHEET METAL SHALL BE GALVANIZED OF LOCK-FORMING QUALITY, ASTM A-525, UNLESS OTHERWISE NOTED. DUCT DIMENSIONS ON DRAWINGS ARE NET INSIDE CLEAR DIMENSIONS ON LINED DUCTS OR SHEET METAL DIMENSIONS ON UNLINED DUCTS. ALL ANGLE IRON USED FOR SUPPORT SHALL BE GALVANIZED. ROUND RIGID DUCTWORK SHALL CONFORM TO SMACNA TABLE 3-2.	
6. INSTALL DUCT HIGH AS POSSIBLE WITHIN JOIST SPACE. CONSULT ARCHITECT AND ENGINEER FOR ALTERNATE ROUTING IF CONFLICT OCCURS.	
7. SEAL ALL TRANSVERSE AND LONGITUDINAL DUCT SEAMS AIR-TIGHT. PROVIDE TURNING VANES AT ALL ELBOWS OR OFFSETS EXCEEDING 30 DEGREES.	
8. GREASE EXHAUST SYSTEM: ALL GREASE EXHAUST DUCTS SHALL BE PREFABRICATED CAPTIVEAIRE DOUBLE WALL GREASE DUCT. PROVIDE RATED ACCESS DOORS AT ALL ELBOWS AND OFFSETS NECESSARY FOR COMPLETE CLEANING OF GREASE DUCT. PROVIDE MINIMUM 30"x30" UNOBSTRUCTED ACCESS OR ROUTE FROM THE CEILING TO EACH ACCESS DOOR. DO NOT BLOCK ACCESS WITH PLUMBING, ELECTRICAL OR HVAC OBSTRUCTIONS. REFER TO SHEETS M-400 TO M-410.	
9. DUCT INSULATION: PROVIDE DUCT WRAP FOR ALL DUCTS ABOVE CEILING, INCLUDING VERTICAL, HORIZONTAL, RIGID AND FLEXIBLE DUCTS, EXCLUDING PREFABRICATED PREINSULATED DUCTS AND GREASE DUCTS. DUCT WRAP SHALL BE JOHNS MANVILLE MICROLITE OR EQUAL WITH FOIL/SCRIMP/KRAFT, 1 IN THICKNESS, 1.5 POUNDS/FT3 DENSITY. DUCT WRAP SHALL BE BONDED GLASS FIBERS IN THERMOSETTING RESIN MEETING NFPA 90A, WITH K VALUE NOT TO EXCEED 0.23 AT 75 DEGREES F. FLAME SPREAD AND SMOKE DEVELOPED RATINGS SHALL NOT EXCEED 25/50. APPLY 100% ADHESIVE COVERAGE TO SHEET METAL DUCTWORK. PROVIDE ADDITIONAL MECHANICAL FASTENERS ON DUCTS OVER 12" WIDE OR 16" HIGH. MECHANICAL FASTENERS SHALL BE "GRIPNAIL" OR WELDED PIN AND SPEED CLIPS SPACED PER SMACNA STANDARDS.	
10. FLEX DUCT: PROVIDE FACTORY ASSEMBLED CLASS 1 AIR DUCT (UL 181) WITH FIBERGLASS INSULATION AND REINFORCED OUTER PROTECTIVE COVER/VAPOR BARRIER. FLEX DUCT SHALL MEET NFPA 90A WITH FLAME SPREAD UNDER 25, SMOKE DEVELOPED UNDER 50 AND SHALL BE RATED FOR 2" W.C. PRESSURE AND 0 TO 250 DEGREE TEMPERATURE. FLEX DUCT MAXIMUM ALLOWED LENGTH TO BE PER LOCAL CODE.	
11. PROVIDE INSULATION APPLIED TO COMPLETE BACKPAN OF AIR DEVICES.	
12. ACCESS DOOR: PROVIDE HINGED ACCESS PANELS IN DUCTWORK WHERE SHOWN AND AS REQUIRED FOR ACCESS TO DAMPERS OR EQUIPMENT. PROVIDE INSULATED ACCESS DOORS IN INSULATED DUCTWORK.	
13. AUTOMATIC TEMPERATURE CONTROL: CONTRACTOR TO PROVIDE AND INSTALL 24/7 PROGRAMMABLE THERMOSTATS AND REMOTE SENSORS.	
14. KITCHEN HOOD EQUIPMENT INTERLOCK: PROVIDE ALL INTERLOCK AND CONTROL WIRING FOR KITCHEN HOOD SYSTEMS, WHICH INCLUDES EF1, EF2, MAU1 AND ANSUL SYSTEM SHUT DOWN INTERLOCK TO MAKE-UP AIR FAN. UPON ACTIVATION OF ANSUL SYSTEM, MAKE-UP AIR FAN SHALL BE DEACTIVATED. PROVIDE ALL NECESSARY CONTROLS AND WIRING FOR A COMPLETE AND OPERABLE SYSTEM. INTERLOCK GREASE EXHAUST FANS AND MAKE-UP AIR UNIT TO START SIMULTANEOUSLY FROM SWITCH PROVIDED AT HOOD.	
15. TEST AND ADJUST EACH PIECE OF EQUIPMENT AND EACH SYSTEM AS REQUIRED TO ASSURE PROPER AIR BALANCE AND OPERATION. PROVIDE A CERTIFIED AIR BALANCE REPORT TO OWNER SHOWING DESIGN AND MEASURED AIR VOLUMES, STATIC PRESSURES, FAN RPM'S, ETC. AIR BALANCE CONTRACTOR SHALL ADJUST SYSTEMS TO MINIMIZE NOISE AND VIBRATION, AND TO ASSURE PROPER FUNCTION OF CONTROLS, MAINTENANCE OF TEMPERATURE AND OPERATION. GENERAL CONTRACTOR TO OBTAIN ALL INSPECTIONS REQUIRED BY LOCAL CODE AND GUARANTEE WORK AND INSTALLATION FOR ONE YEAR AFTER ACCEPTANCE BY OWNER. GENERAL CONTRACTOR TO FURNISH OWNER WITH TWO COMPLETE SETS OF AS-BUILT DRAWINGS INDICATING ALL INSTALLED WORK, INCLUDING ALL CONTROL WIRING DIAGRAMS AND INTERLOCK FOR SYSTEM OPERATION.	
16. CONTRACTOR SHALL BE RESPONSIBLE FOR INSTALLATION OF ECONOMIZERS INCLUDING INSTALLATION OF ALL NECESSARY SENSORS AND CONNECTIONS TO THERMOSTAT. PROVIDE SUPPORT OF ECONOMIZERS PER MANUFACTURER'S REQUIREMENTS AND TEST FOR PROPER OPERATION PRIOR TO FINAL TEST AND BALANCE.	



PANDA EXPRESS, INC.
1683 Walnut Grove Ave.
Rosemead, California
91770
Telephone: 626.799.9898
Facsimile: 626.372.8288

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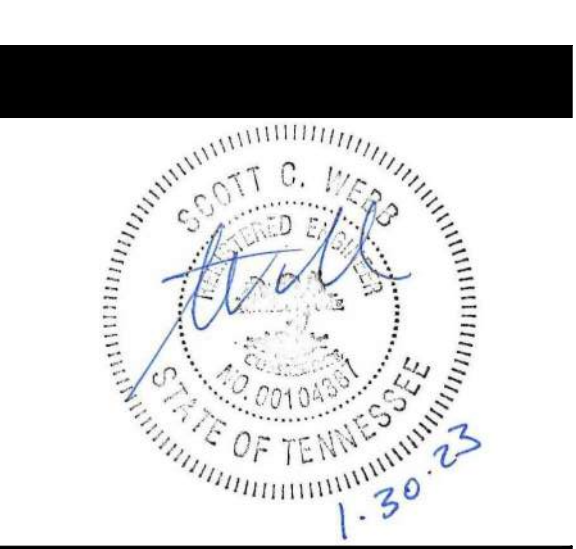
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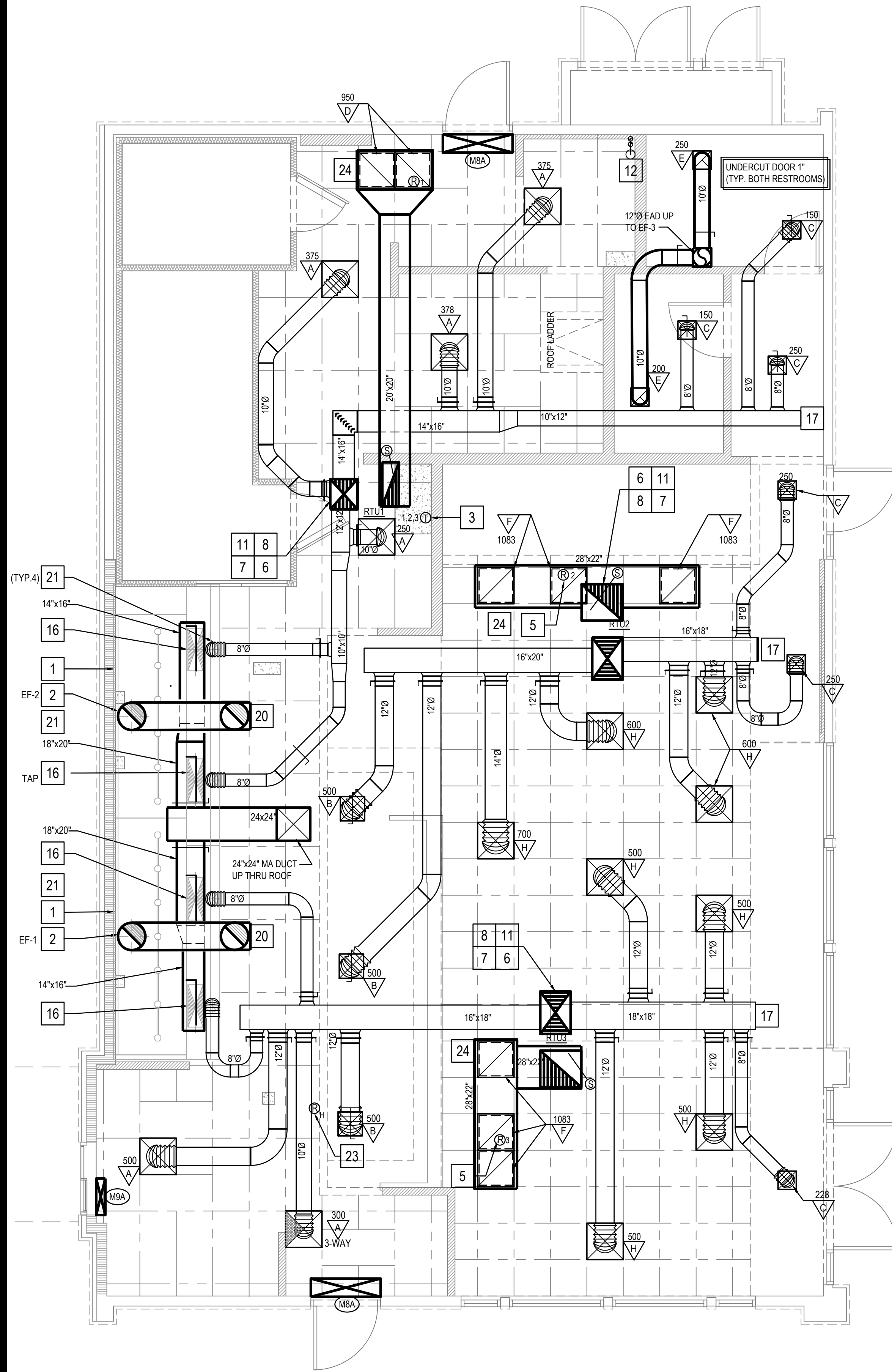


PANDA EXPRESS

PANDA HOME 2600
NORTH RIVERSIDE DR & 2ND ST.
CLARKSVILLE, TN 37040

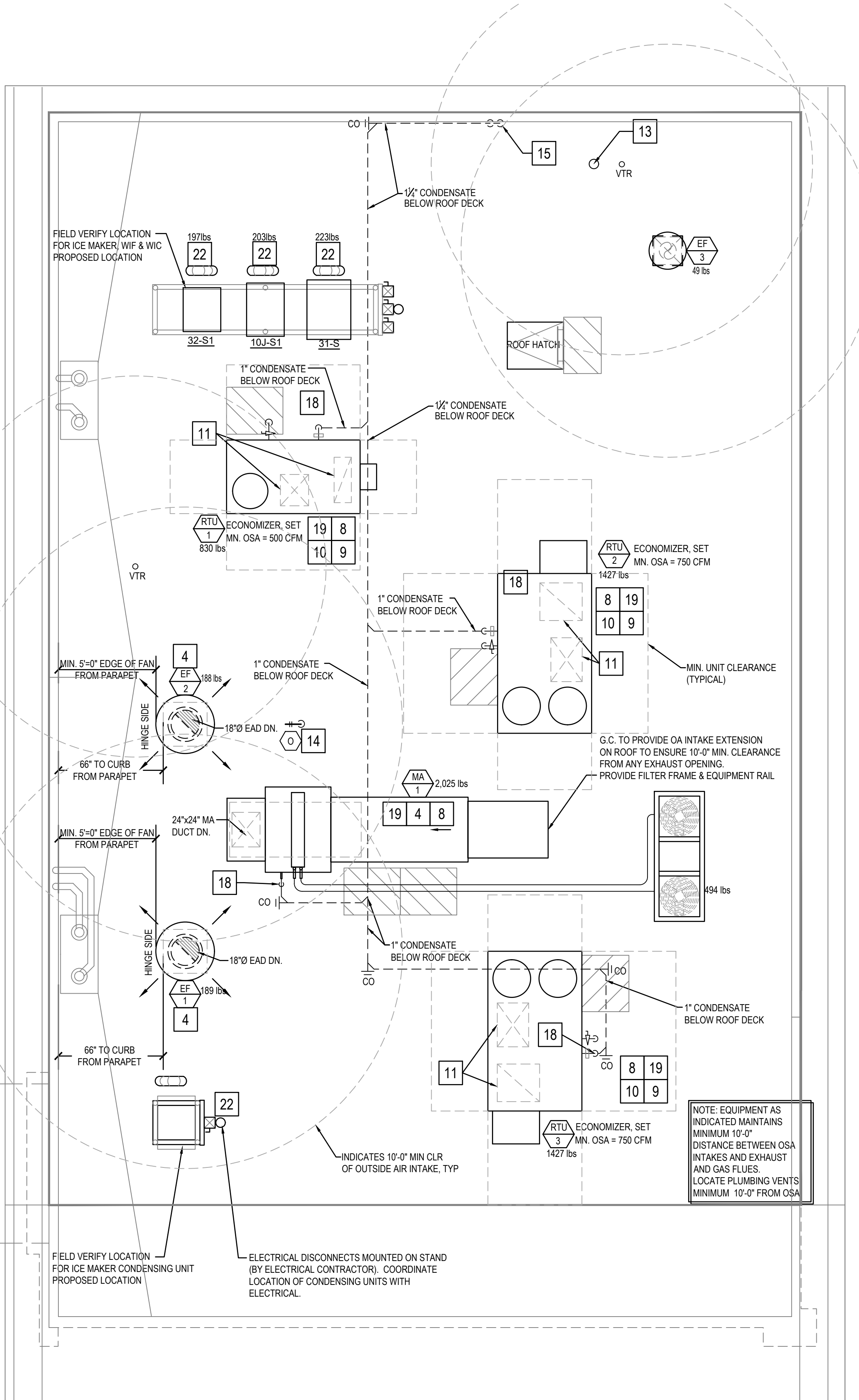
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MECHANICAL NOTES
SPECIFICATIONS & SCHEDULES



HVAC FLOOR PLAN 2

Scale: 1/4"=1'-0" M-100



HVAC ROOF PLAN 1

Scale: 1/4"=1'-0" M-100

MECHANICAL KEY NOTES:

1. INSTALL GREASE EXHAUST HOODS FURNISHED BY PANDA. HOOD SHALL BE ONE CAPTIVEAIRE 4824-ND HOOD EXHAUSTING 3,450 CFM. SUPPORT FROM STRUCTURE ABOVE WITH UNISTRUT AND ALL THREAD ROD. MOUNT HOOD PER LOCAL CODE REQUIREMENTS. REFER TO PLAN FOR HOOD CONNECTIONS. SEE CODE COMPLIANCE DRAWINGS ON SHEET M-500 AND CAPTIVEAIRE HOOD DRAWINGS FOR ADDITIONAL REQUIREMENTS. (TWO SECTIONS TOTAL).
2. INSTALL MANUFACTURED CAPTIVEAIRE 18" GREASE EXHAUST DUCT. ROUTE ON TOP OF MAKE UP AIR DUCT. FROM INLET OF ROOF MOUNTED GREASE EXHAUST FAN, CONNECT TO EXHAUST HOOD COLLAR. FIELD VERIFY. SEAL DUCT TO THE ROOF CURB WITH FIRE CAULKING. SEE HOOD DETAIL DRAWINGS ON SHEET M-500 AND CAPTIVEAIRE DRAWINGS ON SHEETS M-400 TO M-411.
3. MOUNT THERMOSTAT AT MANAGER STATION. REFER TO DETAIL #1 ON SHEET E-200. SEE DWG FOR EXACT LOCATION OF REMOTE SENSOR. SEE ROOFTOP UNIT SCHEDULE AND TEMPERATURE CONTROL DIAGRAM DETAIL 5 ON SHEET M-501 FOR ADDITIONAL INFORMATION.
4. INSTALL GREASE EXHAUST FAN WITH CURB (EF-1 AND EF-2) AND MAKE UP AIR (MA-1) FURNISHED BY PANDA. COORDINATE LOCATION OF UNIT WITH ARCHITECTURAL AND STRUCTURAL DRAWINGS.
5. PROVIDE AND INSTALL A REMOTE SENSOR FOR ROOFTOP UNIT AT THIS LOCATION. MOUNT REMOTE SENSOR IN RETURN AIR DUCTWORK. SEE TEMPERATURE CONTROL DIAGRAM ON SHEET M-501 FOR ADDITIONAL INFORMATION.
6. PROVIDE AND INSTALL DUCT MOUNTED SMOKE DETECTOR AT MAIN SUPPLY AIR DUCT PER IMC, SEC. 608, OR AT RETURN AIR DUCT PER IMC, SECTION 606.2.1. DETECTORS SHALL BE INTERLOCKED TO SHUT DOWN ROOFTOP UNITS UPON DETECTION OF SMOKE. PROVIDE ALL CONTROL WIRING NECESSARY TO PERFORM THIS OPERATION.
7. PROVIDE FLEXIBLE CONNECTION BETWEEN UNIT. ROUTE DUCT THRU ROOF CURB AND TRUSS.
8. FOR GAS OR WATER CONNECTION, SEE PLUMBING DRAWINGS.
9. PROVIDE FABRICATED CURB PER MANUFACTURERS REQUIREMENTS AND COORDINATE EXACT LOCATION OF UNIT IN FIELD. SHIM ROOF CURB LEVEL FOR PROPER CONDENSATE DRAINAGE.
10. FURNISH AND INSTALL ALL TEMPERATURE CONTROL WIRING FROM THE UNIT TO THE THERMOSTAT OR OTHER CONTROL DEVICES.
11. FULL SIZE SA AND RA UP TO RTU. TRANSITION AS REQUIRED TO RTU INLET/OUTLET SIZE.
12. PVC COMBINATION VENT AND COMBUSTION AIR PIPING PROVIDED AND INSTALLED BY PLUMBING FOR SEALED COMBUSTION WATER HEATER. REFER TO PLUMBING PLANS.
13. WATER HEATER CONCENTRIC VENT TERMINATION. REFER TO PLUMBING PLANS. OFFSET AS REQUIRED FOR CLEARANCE FROM AIR INTAKES.
14. ROOF HYDRANT. REFER TO PLUMBING DRAWINGS.
15. ROUTE CONDENSATE DRAIN IN CEILING SPACE OVER AND DOWN IN WALL. SLOPE 1/4" PER FOOT. STUB-OUT AND ELBOW DOWN OVER MOP SINK. TERMINATE WITH MINIMUM 2" AIR GAP.
16. MA DUCT (BELOW MAKE UP AIR) CONNECT TO 28"x10" RISER FROM SUPPLY PLENUM.
17. PROVIDE DUCT EXTERNAL INSULATION WRAP AT TRUNK, TYPICAL.
18. CONDENSATE DRAIN LINE DOWN THRU ROOF. REFER TO DETAIL 16/P-500.
19. PROVIDE AND INSTALL ALL EQUIPMENT WITH MANUFACTURER'S RECOMMENDED CLEARANCES FOR MAINTENANCE. MAINTAIN MINIMUM CLEARANCES TO ELECTRICAL AND SERVICE ACCESS PANELS AND DISCONNECTS.
20. GREASE DUCT CLEANOUT LOCATION. PROVIDE ACCESS TO CLEANOUT ABOVE CEILING. REFER TO MECHANICAL SPECIFICATIONS SHEET M-000.
21. 8" CONNECTION TO HOOD RTU SUPPLY PLENUM COLLAR. BALANCE TO 236 CFM.
22. PROVIDE AND INSTALL ACR TUBING, SIZED AND ROUTED PER MANUFACTURER'S INSTRUCTIONS, FROM REMOTE REFRIGERANT CONDENSERS TO WALK-IN COOLER AND FREEZER FAN COILS, AND ICE MAKER. TEST, PURGE, EVACUATE AND CHARGE LINES AS REQUIRED BY MANUFACTURER. (START-UP FOR ICE MAKER IS BY OWNER'S REPRESENTATIVE). ROUTE REFRIGERANT LINES THROUGH "ATR HUB" PROVIDED AND INSTALLED BY GC (REFER TO ARCH. ISO 3 AND 4, SHEET A-108). UNITS SECURED TO RACK BY G.C.
23. ROOM AIR SENSOR FROM CAPTIVEAIRE HOOD ON BACK OF MENU BOARD WALL, AS CLOSE TO CEILING AS POSSIBLE.
24. TRANSITION FULL SIZE RETURN PLENUM DOWN TO GRILLES AS REQUIRED. INSIDE RETURN AIR PLENUM WITH 1" LINER PAINTED FLAT BLACK. RE: 1/M-501

NOTE: MAXIMUM FLEXIBLE DUCT LENGTH ALLOWED SHALL BE PER LOCAL CODE AND AMENDMENTS. IMC HAS NO LIMITATIONS FOR FLEXIBLE DUCT LENGTHS.



PANDA EXPRESS, INC.
1683 Walnut Grove Ave.
Rosemead, California
91770
Telephone: 626.799.9898
Facsimile: 626.372.8288

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110 W. 7TH STREET • SUITE 600 • TULSA, OK 74103
(918) 582-4088 • (918) 582-4087 FAX



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CLARKSVILLE, TN 37040

M-100

H.V.A.C. FLOOR PLAN &
H.V.A.C. ROOF PLAN

PANDA HOME 2600 R4

FOR QUESTIONS, CALL THE
Southern California Office
REGION 86
PHONE: (714) 957-1500
EMAIL: reg86@captiveaire.com

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

HOOD INFORMATION – JOB#5667365

HOOD NO	TAG	MODEL	MANUFACTURER	LENGTH	MAX COOKING TEMP	TYPE	APPLIANCE DUTY	DESIGN CFM/FT	TOTAL EXH CFM	EXHAUST PLENUM RISER(S)						TOTAL SUPPLY CFM	HOOD CONSTRUCTION	HOOD CONFIG		
										WIDTH	LENG	HEIGHT	DIA	CFM	VEL			SP	END TO END	ROW
1		4824 ND-2	CAPTIVEAIRE	13' 0"	600 DEG	I	HEAVY	262	3400			4"	18"	3400	1924	-1.202'	0	430 SS WHERE EXPOSED	LEFT	ALONE
2		4824 ND-2	CAPTIVEAIRE	11' 2"	600 DEG	I	HEAVY	260	2900			4"	18"	2900	1641	-0.897'	0	430 SS WHERE EXPOSED	RIGHT	ALONE
3		226 ACPSP-ONLY	CAPTIVEAIRE	11' 9"	300 DEG	I	N/A	0	0								2520	430 SS WHERE EXPOSED	ALONE	ALONE
4		226 ACPSP-ONLY	CAPTIVEAIRE	14' 4"	300 DEG	I	N/A	0	0								2520	430 SS WHERE EXPOSED	ALONE	ALONE

HOOD INFORMATION

HOOD NO	TAG	FILTER(S)				QTY	LIGHT(S)		WIRE GUARD	LOCATION	SIZE	UTILITY CABINET(S)		ELECTRICAL	SWITCHES	FIRE SYSTEM PIPING	HOOD HANGING WEIGHT
		TYPE	QTY	HEIGHT	LENGTH		TYPE	QTY				TYPE	SIZE				
1		CAPTRATE SOLO FILTER	9	20"	16"	85% SEE FILTER SPEC	L55 SERIES E26	7	NO	WALL MNT	12"x54"x24"	ANSUL R-102	3.0/3.0/3.0	DCV-2111	1 LIGHT 1 FAN	YES	537 LBS
2		CAPTRATE SOLO FILTER	8	20"	16"	85% SEE FILTER SPEC	L55 SERIES E26	6	NO	RIGHT	20"x48"x24"					YES	548 LBS
3								0								NO	162 LBS
4								0								NO	185 LBS

HOOD OPTIONS

HOOD NO	TAG	OPTION
1		LEFT END STANDOFF (FINISHED) 3' WIDE 48' LONG. RISER SENSOR INSTALL 6IN PLEN.
2		RISER SENSOR INSTALL 6IN PLEN.

PERFORATED SUPPLY PLENUM(S)

HOOD NO	TAG	POS	LENGTH	WIDTH	HEIGHT	TYPE	RISER(S)				
							WIDTH	LENG	DIA	CFM	SP
3	Front	141'	10'	6'		AC			8"	236	0.135'
						AC			8"	236	0.135'
	Back	141'	12'	6'		MUA	10"	28"	1260	0.530'	
						MUA	10"	28"	1260	0.530'	
4	Front	172'	10'	6'		AC			8"	236	0.122'
						AC			8"	236	0.122'
	Back	172'	12'	6'		MUA	10"	28"	1254	0.497'	
						MUA	10"	28"	1254	0.497'	

WALL-MOUNT UTILITY CABINET

HOOD NO	LOCATION	SIZE	UTILITY CABINET(S)		WEIGHT
			FIRE SYSTEM	ELECTRICAL	
1	WALL MNT	12"x54"x24"	ANSUL R-102	DCV-2111	305.00 LBS

FIRE SYSTEM INFORMATION – JOB#5667365

FIRE SYSTEM NO	TAG	TYPE	SIZE	FLOW POINTS	INSTALLATION	
					SYSTEM	LOCATION ON HOOD
1		ANSUL R102	3.0/3.0/3.0	29	WALL UTILITY CABINET LEFT	N/A

GAS VALVE(S)

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

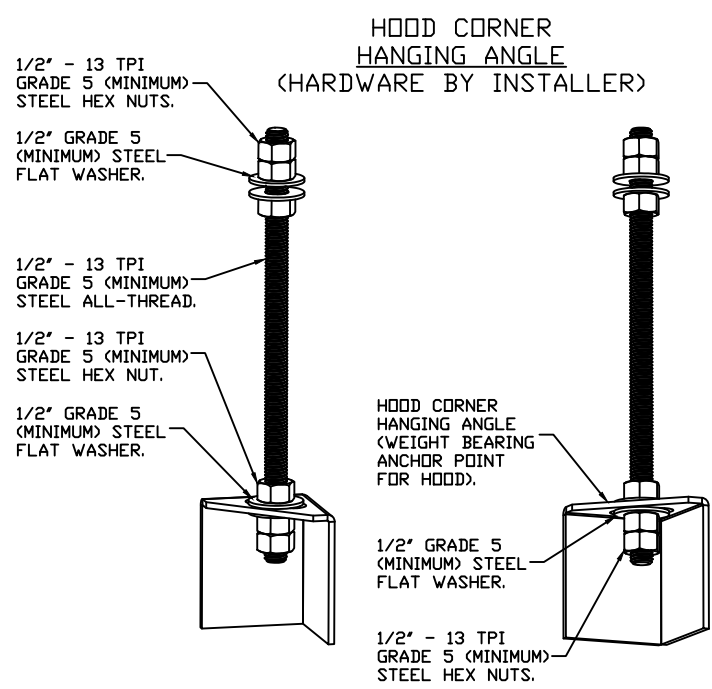
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DOUBLE WALL DUCT BY MECHANICAL
PLEASE USE CONTACT BELOW FOR PRICING

ANSUL GAS VALVE:

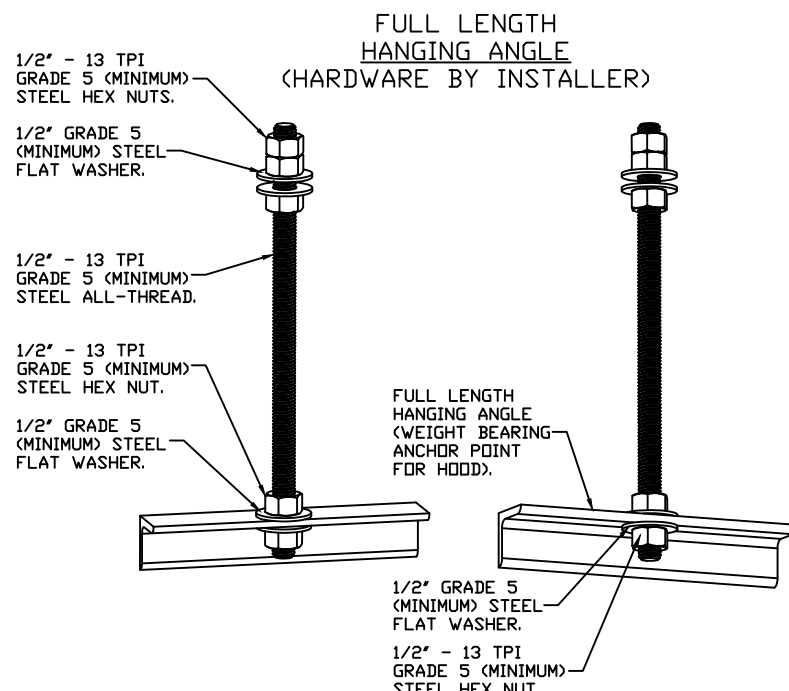
THE ANSUL GAS VALVE IS PROVIDED BY CAPTIVEAIRE SYSTEMS. CONTACT OUR OFFICE WITH THE VALVE SIZE 3 DAYS IN ADVANCE OF WHEN IT IS NEEDED ON SITE.

FOR QUESTIONS CALL THE
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SOUTHERN CALIFORNIA OFFICE
3002 DOW AVENUE, SUITE 410
TUSTIN, CA 92780
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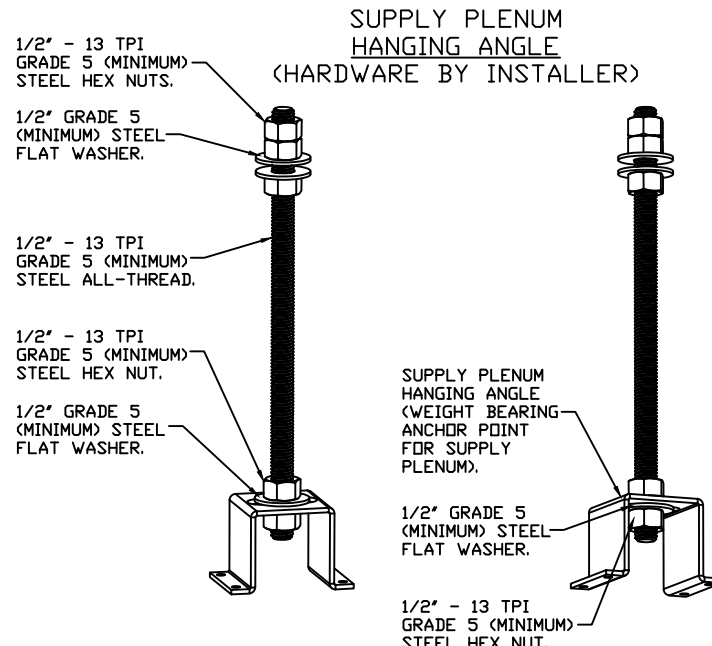
ASSEMBLY INSTRUCTIONS

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.



ASSEMBLY INSTRUCTIONS

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REVISIONS

DESCRIPTION	DATE:

www.captiveaire.com

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Southern California Office

Panda Express – Clarksville TN (D23503)

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NORTH RIVERSIDE DR & 2ND CLARKSVILLE, TN, 37040

DATE: 9/30/2022

DWG.#: 5667365

DRAWN BY: AH-86

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

MASTER DRAWING

SHEET NO. 1



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1683 Walnut Grove Ave.
Rosemead, California
91770
Telephone: 626.799.9898
Facsimile: 626.372.8288

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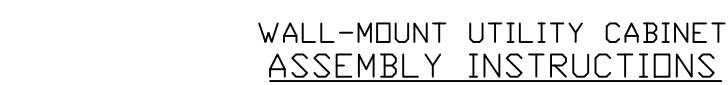
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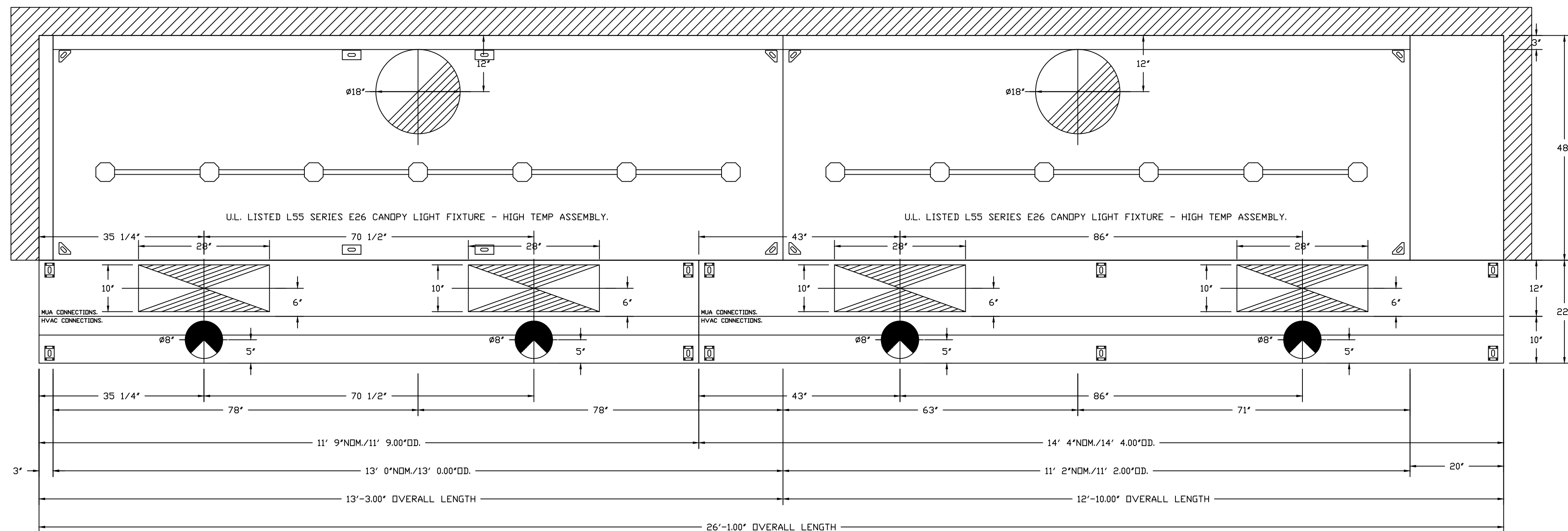
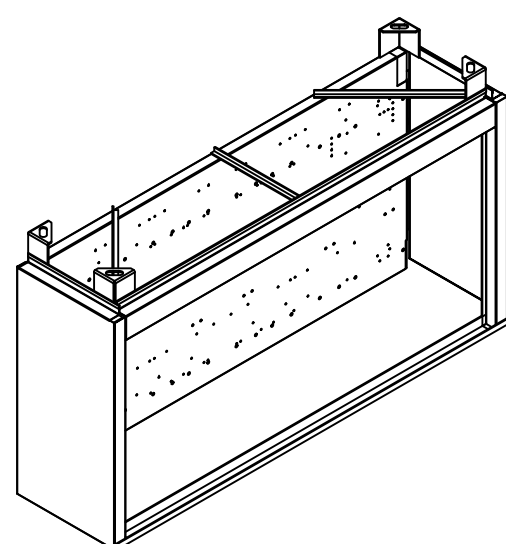
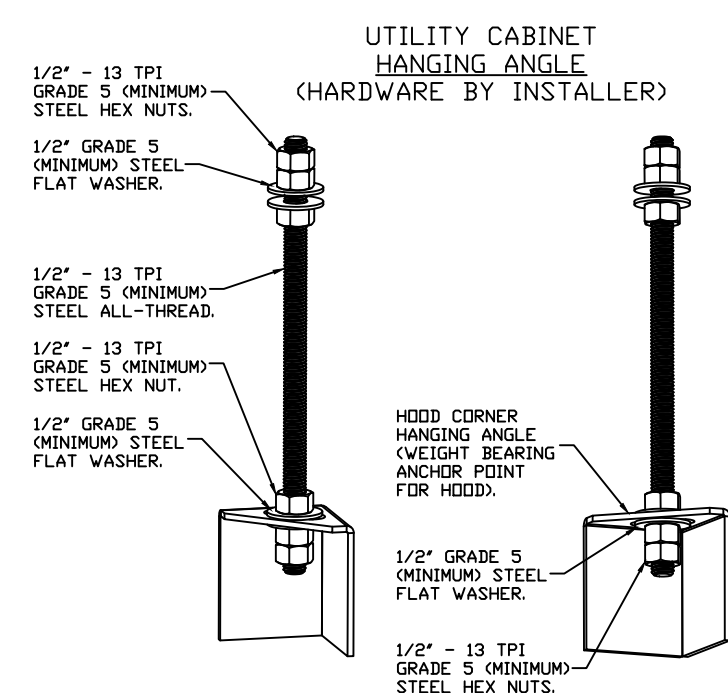
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HOOD DETAIL PLAN

PANDA HOME 2600 R4



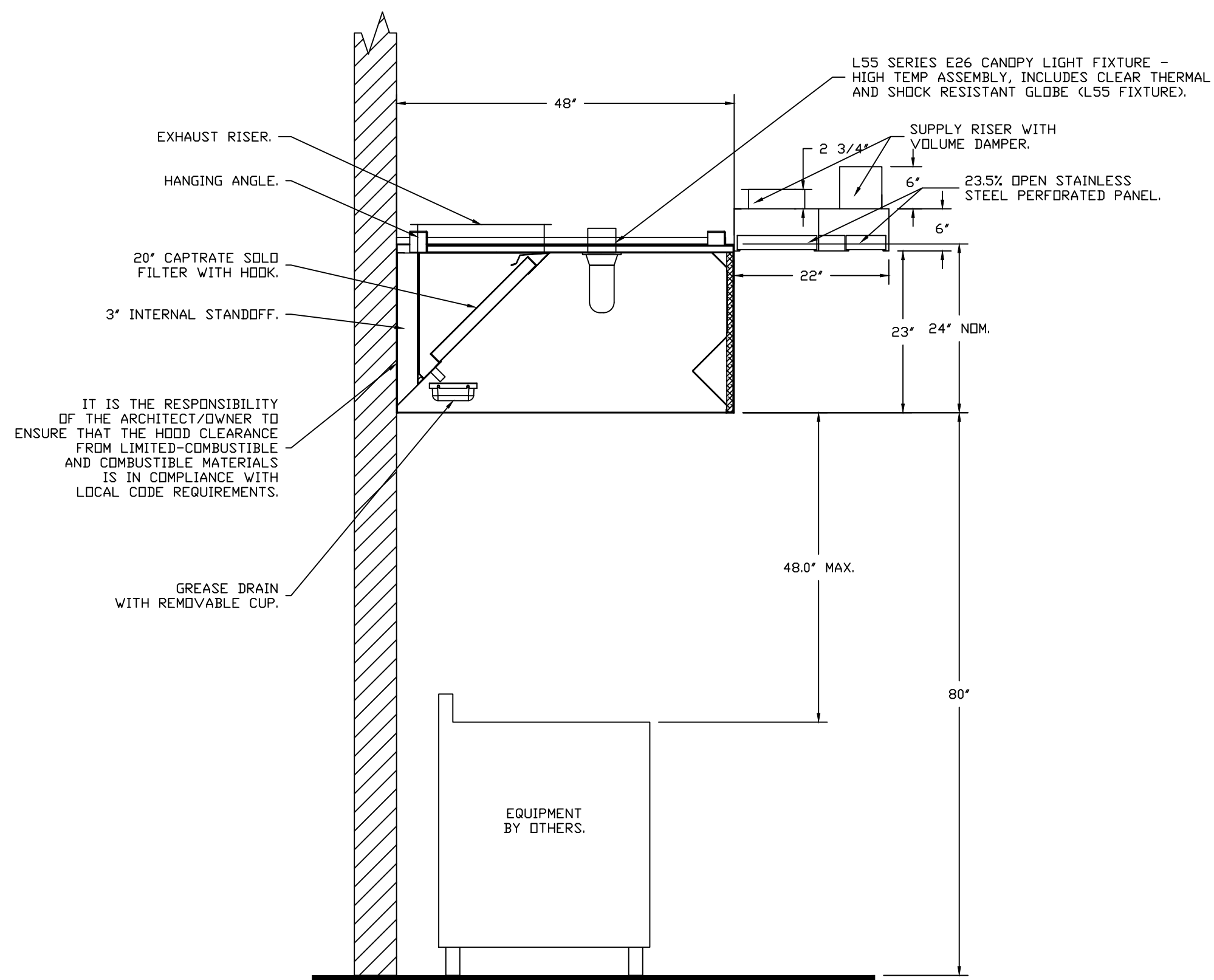
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CABINET HANGING ANGLES AND ABOVE CEILING ANCHORS.
MAINTAIN 1/4" OF EXPOSED THREADS BENEATH BOTTOM
HEX NUT. TORQUE ALL HEX NUTS TO 57 FT-LBS.



PLAN VIEW - HOOD #1
13' 0.00" LONG 4824ND-2
NOTE: ADDITIONAL HANGING ANGLES PROVIDED FOR HOODS 12' AND LONGER.
PLAN VIEW - HOOD #3
11' 9.00" LONG 226MISC ACSP-ONLY

PLAN VIEW - HOOD #2
11' 2.00" LONG 4824ND-2

PLAN VIEW - HOOD #4
14' 4.00" LONG 226MISC ACPSP-ONLY



SECTION VIEW - MODEL 4824ND-2-ACPSP-F
HOOD - #1

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NORTH RIVERSIDE DR & CLARKSVILLE, TN, 37040

DATE: 9/30/2022

DWG.#:
5667365

DRAWN BY: AH-86

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

MASTER DRAWING

SHEET NO.
2



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1683 Walnut Grove Ave.
Rosemead, California
91770
Telephone: 626.799.9898
Facsimile: 626.372.8288

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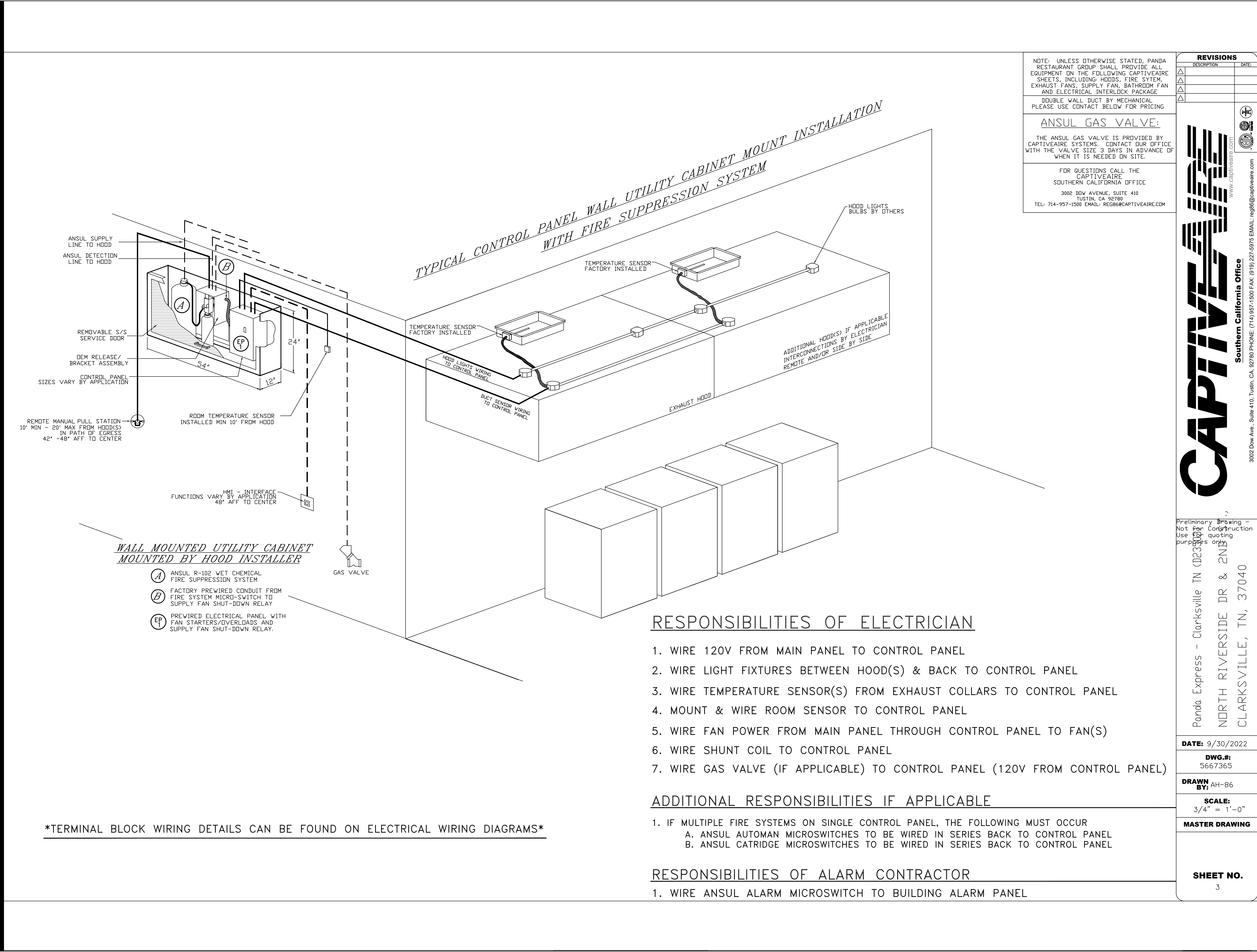
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M-401

HOOD DETAIL PLAN

PANDA HOME 2600 R4



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DOUBLE WALL DUCT BY MECHANICAL PLEASE USE CONTACT BELOW FOR PRICING

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3002 DOW AVENUE, SUITE 410
TUSTIN, CA 92780
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SCALE:	3/4" = 1'-0"
MASTER DRAWING	
SHEET NO.	3

RESPONSIBILITIES OF ELECTRICIAN

- 1. WIRE 120V FROM MAIN PANEL TO CONTROL PANEL
- 2. WIRE LIGHT FIXTURES BETWEEN HOOD(S) & BACK TO CONTROL PANEL
- 3. WIRE TEMPERATURE SENSOR(S) FROM EXHAUST COLLARS TO CONTROL PANEL
- 4. MOUNT & WIRE ROOM SENSOR TO CONTROL PANEL
- 5. WIRE FAN POWER FROM MAIN PANEL THROUGH CONTROL PANEL TO FAN(S)
- 6. WIRE SHUNT COIL TO CONTROL PANEL
- 7. WIRE GAS VALVE (IF APPLICABLE) TO CONTROL PANEL (120V FROM CONTROL PANEL)

ADDITIONAL RESPONSIBILITIES IF APPLICABLE

- 1. IF MULTIPLE FIRE SYSTEMS ON SINGLE CONTROL PANEL, THE FOLLOWING MUST OCCUR
 - A. ANSUL AUTOMAN MICROSWITCHES TO BE WIRED IN SERIES BACK TO CONTROL PANEL
 - B. ANSUL CATRIDGE MICROSWITCHES TO BE WIRED IN SERIES BACK TO CONTROL PANEL

RESPONSIBILITIES OF ALARM CONTRACTOR

- 1. WIRE ANSUL ALARM MICROSWITCH TO BUILDING ALARM PANEL

TERMINAL BLOCK WIRING DETAILS CAN BE FOUND ON ELECTRICAL WIRING DIAGRAMS

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1683 Walnut Grove Ave.
Rosemead, California 91770
Telephone: 626.799.9898
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110 W. 7TH STREET • SUITE 600 • TULSA, OK 74109
(918) 582-4008 • (918) 582-4007 FAX

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CLARKSVILLE, TN 37040

M-402

HOOD DETAIL PLAN

PANDA HOME 2600 R4

EXHAUST FAN INFORMATION - JOB#5667365

FAN UNIT NO	TAG	QTY	FAN UNIT MODEL #	MANUFACTURER	CFM	ESP	RPM	MOTOR ENCL	HP	BHP	PHASE	VOLT	FLA	DISCHARGE VELOCITY	WEIGHT (LBS)	SONES
1		1	DUI80HFA	CAPTIVEAIRE	3400	1.588	1399	QDP,PREMIUM	3.000	1.9700	3	208	9.5	785 FPM	189	22.7
2		1	DUI80HFA	CAPTIVEAIRE	2900	1.178	1199	QDP,PREMIUM	2.000	1.2400	3	208	8.3	670 FPM	188	17.3
3		1	DR12HFA	CAPTIVEAIRE	450	0.250	1220	TEAO-ECM	0.250	0.0810	1	115	2.9		49	5.4

CONDENSER DETAILS

FAN UNIT NO	TAG	FAN UNIT MODEL #	CONDENSER NO	TONNAGE	VOLTAGE	PHASE	FREQUENCY	MCA	RLA	MAX FUSE SIZE	MIN WIRE SIZE	SEER
4		A3-D.500-24D-MPU	1	5	208-230	3 PHASE	60 HZ	21.4 AMPS	17.4 AMPS	30 AMPS	10 AWG	14
			2	5	208-230	3 PHASE	60 HZ	21.4 AMPS	17.4 AMPS	30 AMPS	10 AWG	14

MUA FAN INFORMATION - JOB#5667365

FAN UNIT NO	TAG	QTY	FAN UNIT MODEL #	BLOWER	HOUSING	MIN CFM	DESIGN CFM	ESP	RPM	MOTOR ENCL	HP	BHP	PHASE	VOLT	FLA	MCA	MDCP	WEIGHT (LBS)	SONES
4		1	A3-D500-24D-MPU	24MF-3-MOD	A3-D500	3600	5040	0.900	1450	ODP, PREMIUM	7.500	5.1920	3	208	21.1	26.4A	40A	1876	13.8

COILS - JOB#5667365

[illegible]

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(%)
4		539830	496644	100°F	7 IN. W.C. - 14 IN. W.C.	NATURAL	92

FAN OPTIONS		
-------------	--	--

FAN UNIT NO	TAG	QTY	DESCRIPTION
1		1	GREASE BOX
		1	UPBLAST FAN WHEEL ACCESS PORT
		1	FAN BASE CERAMIC SEAL - INSTALLED AT PLANT - FOR GREASE DUCTS
		1	2 YEAR PARTS WARRANTY
2		1	GREASE BOX
		1	UPBLAST FAN WHEEL ACCESS PORT
		1	FAN BASE CERAMIC SEAL - INSTALLED AT PLANT - FOR GREASE DUCTS
		1	2 YEAR PARTS WARRANTY
3		1	ECM WIRING PACKAGE - MANUAL DR 0-10VDC REFERENCE SPEED CONTROL -RTC- (TELCO MOTOR), CCW ROTATION
		1	1 12-BDD DAMPER
		1	2 YEAR PARTS WARRANTY
		1	INLET PRESSURE GAUGE, 0-35'
4		1	MANIFOLD PRESSURE GAUGE, -5 TO 15' WC
		1	MOTORIZED BACKDRAFT DAMPER FOR A3-D HOUSING - MEETS AMCA CLASS 1A RATING
		1	10 TON 2 CIRCUIT (5/5) MODULAR PACKAGED COOLING OPTION FOR SIZE 3 DF/EH MUA (3,600 TO 6,000 CFM); 208V/230V, 3 PHASE. COOLING THERMOSTAT OR PROGRAMMABLE STAT REQUIRED FOR PROPER OPERATION
		1	DOWNTURN PLENUM FOR SIZE 3 DX COIL MODULE
		1	SHIP CONDENSERS LOOSE - TWO CONDENSERS, THREE PHASE - CONDENSER DISCONNECTS SHIPPED LOOSE
		1	UNIT MOUNTED VFD FOR USE WITH ECPM03
		1	LOW FIRE START
		1	SEPARATE 120V WIRING PACKAGE (REQUIRED AND USED ONLY FOR DCV OR PREWIRE WITH VFD) - THREE PHASE ONLY
		1	COOLING THERMOSTAT AND RELAY (NOT REQUIRED FOR EVAP)
		1	2 YEAR PARTS WARRANTY

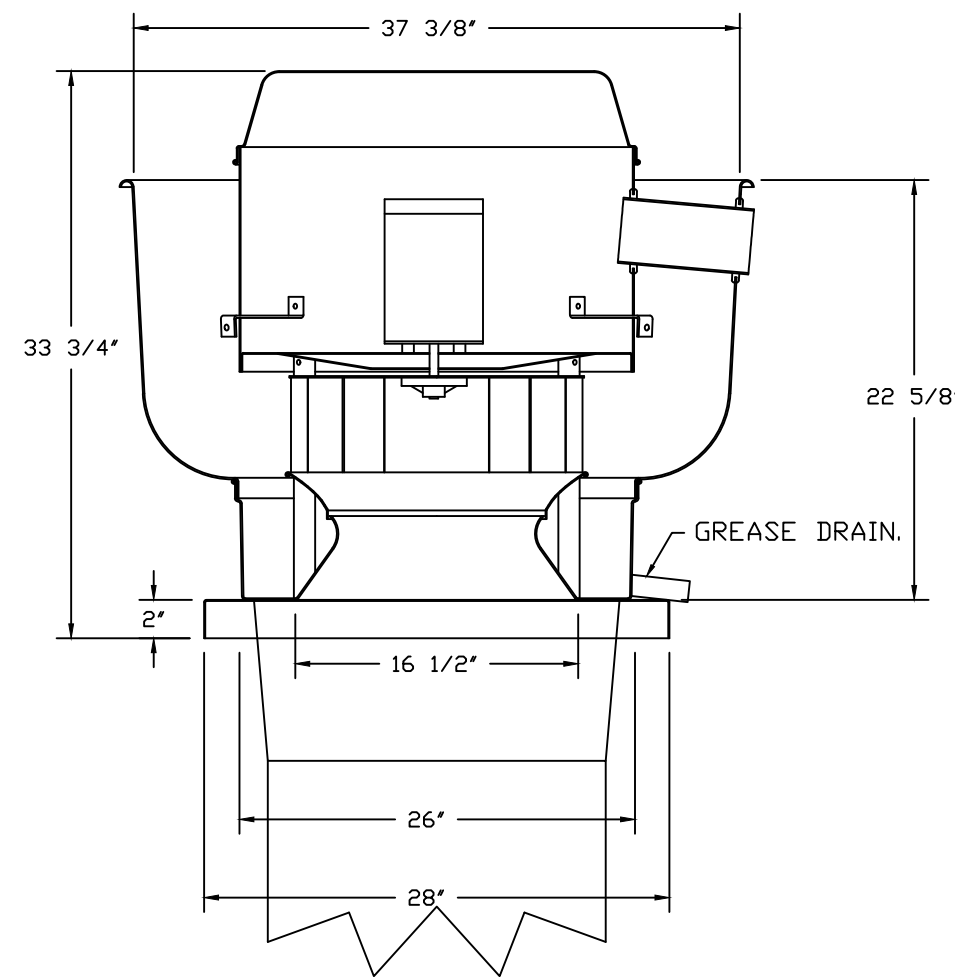
FAN ACCESSORIES

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

CURB ASSEMBLIES

NO	DN FAN	WEIGHT	ITEM	SIZE
1	# 1	34 LBS	CURB	26.500"W X 26.500"L X 30.000"H ALONG LENGTH, RIGHT VENTED HINGED.
2	# 2	34 LBS	CURB	26.500"W X 26.500"L X 30.000"H ALONG LENGTH, RIGHT VENTED HINGED.
3	# 3	16 LBS	CURB	17.500"W X 17.500"L X 12.000"H ALONG LENGTH, RIGHT.
4	# 4	114 LBS	CURB	35.000"W X 84.000"L X 20.000"H ALONG WIDTH, RIGHT INSULATED.
	# 4		RAIL	6.000"W X 35.000"L X 20.000"H RIGHT.

FANS #1, #2 - DU180HFA EXHAUST FAN



TOP VIEW

FEATURES:

- DIRECT DRIVE CONSTRUCTION (NO BELTS/PULLEYS).
- ROOF MOUNTED FANS.
- RESTAURANT MODEL.
- UL705 AND UL762 AND ULC-S645
- VARIABLE SPEED CONTROL.
- INTERNAL WIRING.
- THERMAL OVERLOAD PROTECTION (SINGLE PHASE).
- HIGH HEAT OPERATION 300°F (149°C).
- GREASE CLASSIFICATION TESTING.
- NEMA 3R SAFETY DISCONNECT SWITCH.

NORMAL TEMPERATURE TEST

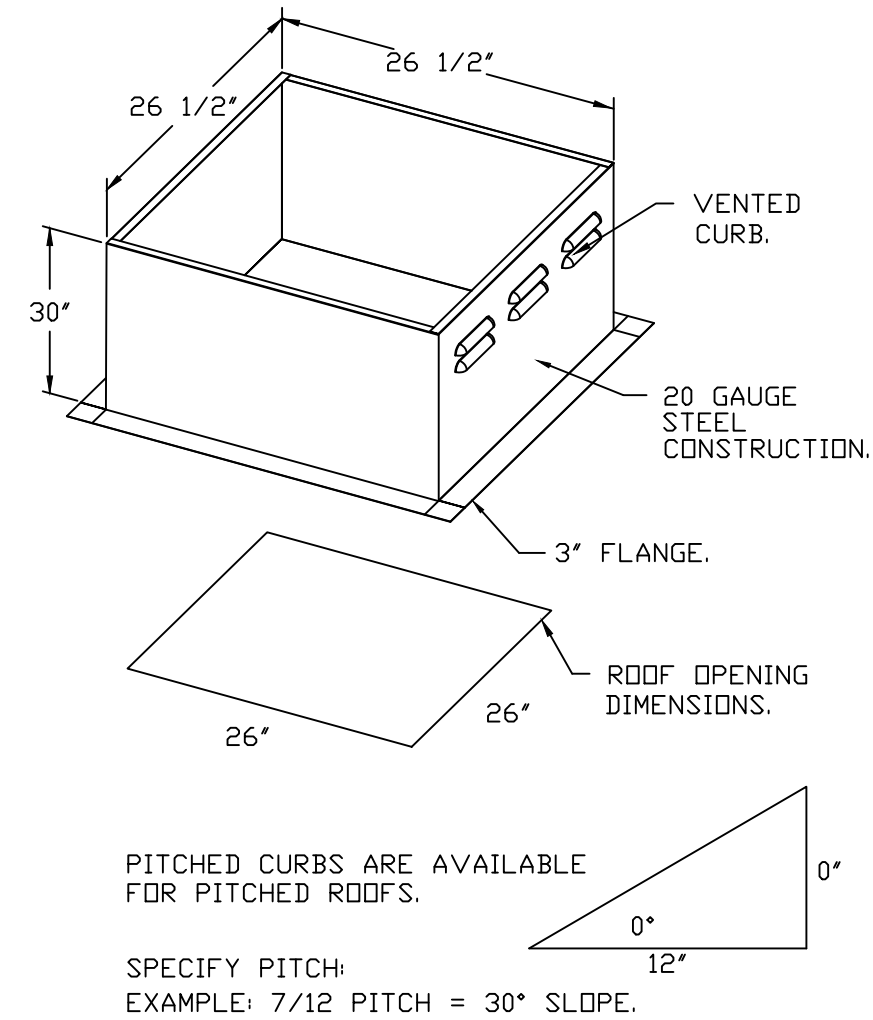
EXHAUST FAN MUST OPERATE CONTINUOUSLY WHILE EXHAUSTING AIR AT 300°F (149°C) UNTIL ALL FAN PARTS HAVE REACHED THERMAL EQUILIBRIUM, AND WITHOUT ANY DETERIORATING EFFECTS TO THE FAN WHICH WOULD CAUSE UNSAFE OPERATION.

ABNORMAL FLARE-UP TEST

EXHAUST FAN MUST OPERATE CONTINUOUSLY WHILE EXHAUSTING BURNING GREASE VAPORS AT 600°F (316°C) FOR A PERIOD OF 15 MINUTES WITHOUT THE FAN BECOMING DAMAGED TO ANY EXTENT THAT COULD CAUSE AN UNSAFE CONDITION.

OPTIONS

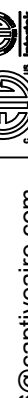
- GREASE BOX.
UPBLAST FAN WHEEL ACCESS PORT.
FAN BASE CERAMIC SEAL - INSTALLED AT
PLANT - FOR GREASE DUCTS.
2 YEAR PARTS WARRANTY.



REVISIONS	
DESCRIPTION	DATE
△	
△	
△	
△	
△	
△	

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 3002 Dow Ave., Suite 410, Tustin, CA 92780
 PHONE: (714) 957-1500 FAX: (919) 227-5975
 EMAIL: rgs@captivate.com

DATE: 9/30/2022

DWG.#: 5667365

DRAWN BY: AH-86

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

MASTER DRAWING

SHEET NO.

4



PANDA EXPRESS, INC.
1683 Walnut Grove Ave.
Rosemead, California
91770
Telephone: 626.799.9898
Facsimile: 626.372.8288

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DRAWN BY: AE/SS

PANDA PROJECT #: D23503

PANDA STORE #: -

ARCH PROJECT #: 261-443



MPW ENGINEERING, LLC
110 W. 7TH STREET • SUITE 600 • TULSA, OK 74119
(918) 582-4080 • (918) 582-4087 FAX

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M-403

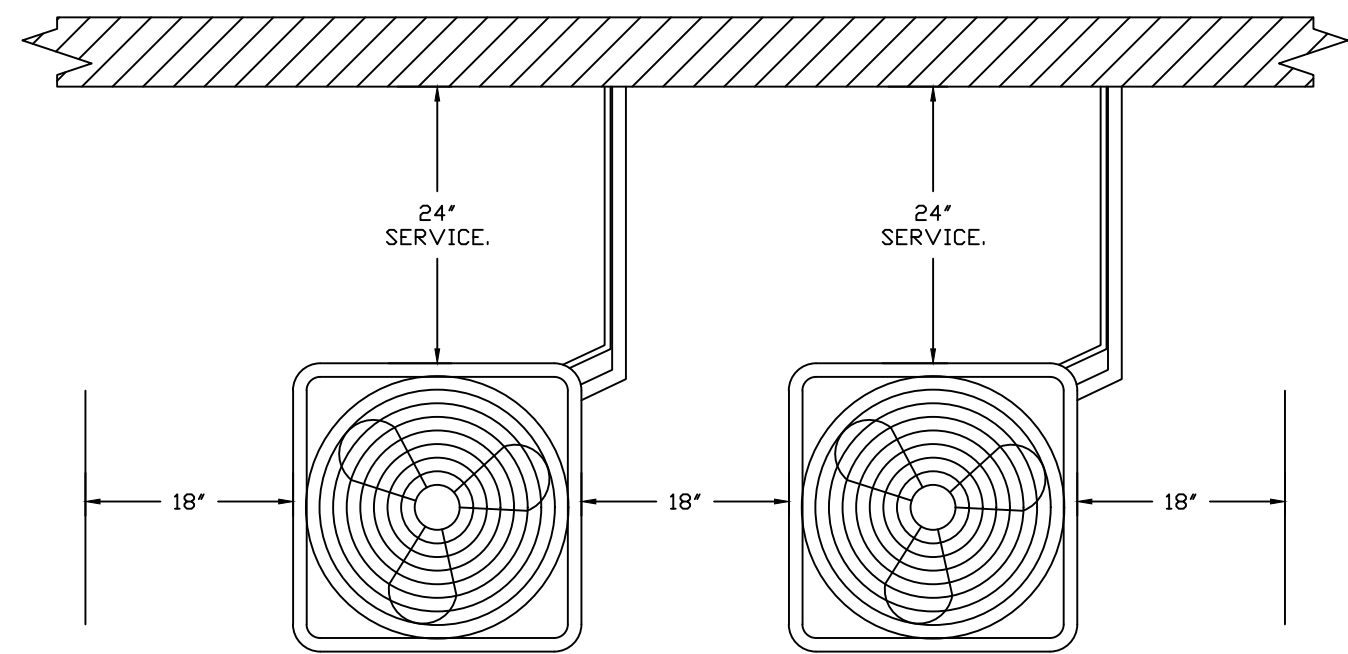
HOOD DETAIL PLAN

PANDA HOME 2600 R4

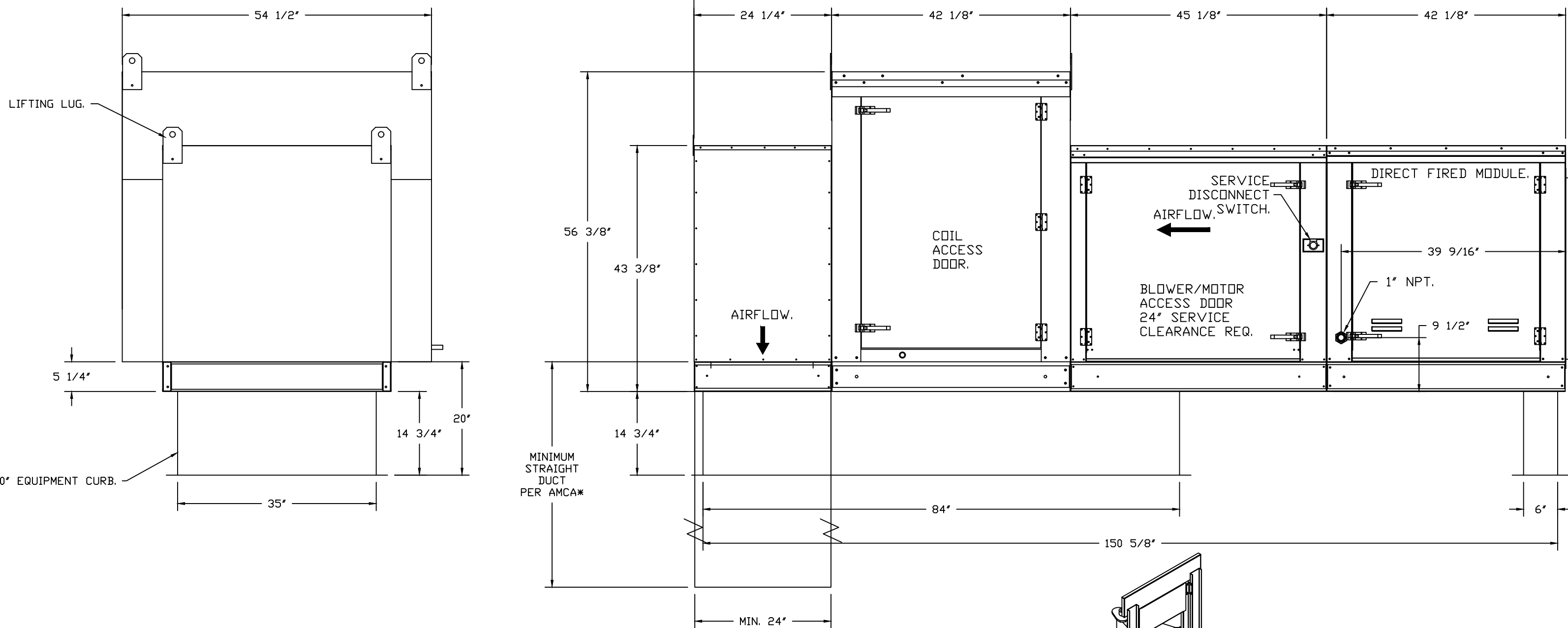
*NOTE: SUPPLY DUCT MUST BE INSTALLED TO MEET SMACNA STANDARDS, A MINIMUM STRAIGHT DUCT LENGTH MUST BE MAINTAINED DOWNSTREAM OF UNIT DISCHARGE AS OUTLINED IN AMCA PUBLICATION 201. WHEN USING RECTANGULAR DUCTWORK, ELBOWS MUST BE RADIUS THROAT, RADII BACK WITH TURNING VANE. FLEXIBLE DUCTWORK AND SQUARE THROAT/SQUARE BACK ELBOWS SHOULD NOT BE USED. ANY TRANSITION AND/DIVERSIONS IN THE DUCTWORK WILL CAUSE SYSTEM EFFECT. SYSTEM EFFECT WILL CAUSE PRESSURE LOSS, INCREASED STATIC PRESSURE, REDUCE AIRFLOW, AND DO NOT RELY ON UNIT 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 24" X 24".

WINTER TEMPERATURE = 20°F. TEMP. RISE = 100°F
BTUs CALCULATED OFF ACTUAL AIR DENSITY.
OUTPUT BTUs AT ALTITUDE OF 0.0 FT. = 496644.
INPUT BTUs AT ALTITUDE OF 0.0 FT. = 539830.

3002 DOW AVENUE, SUITE 410
TUSTIN, CA 92780
TEL: 714-957-1500 EMAIL: REG86@CAPTIVEAIRE.COM



48" CLEARANCE REQUIRED ABOVE CONDENSERS.
(NOTE: **CONDENSERS SHOWN HERE ARE NOT DRAWN AT SCALE).



- 1) 1" DIAMETER PVC PIPE ONLY.
- 2) USE ONLY LOW PROFILE COUPLINGS.
- 3) ADD CLEAN OUT AS SHOWN.

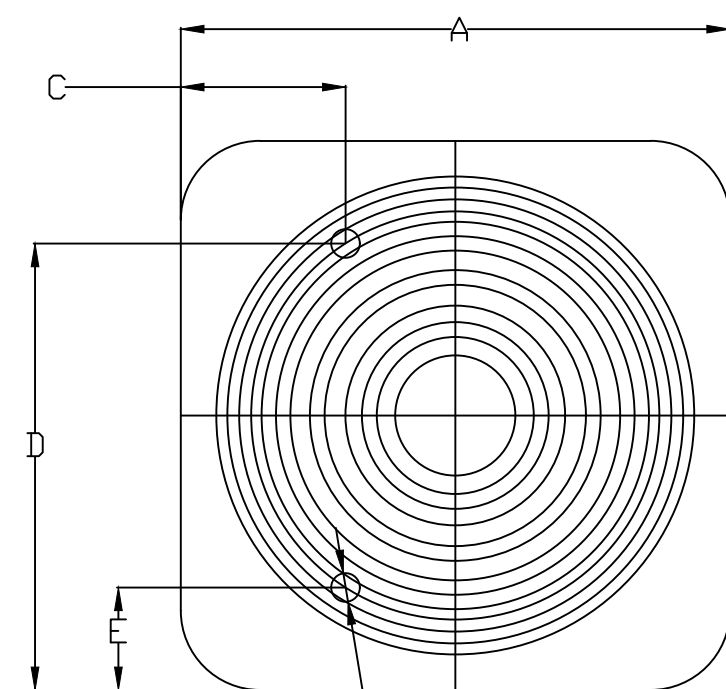
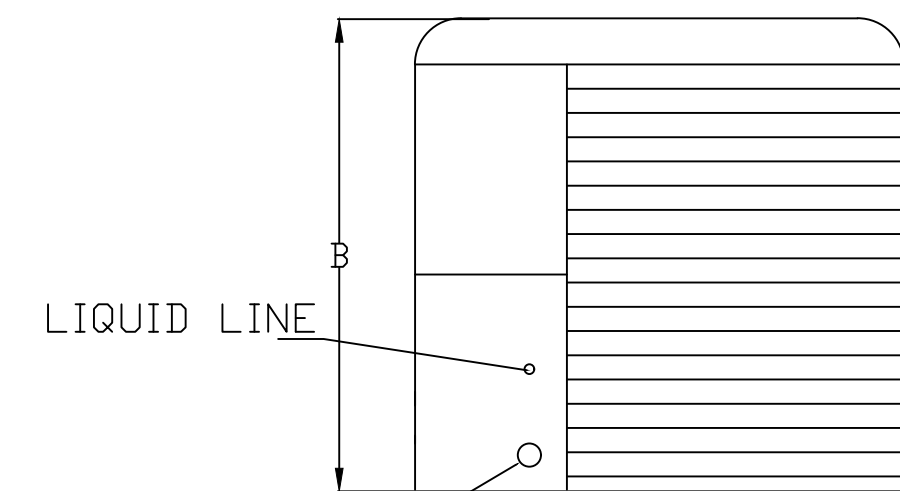
DESCRIPTION:
DIRECT-FIRED BURNERS SHALL HAVE PATENTED (US PATENT NO: US6629523B2), SELF-ADJUSTING PROFILE PLATES DESIGNED TO ENSURE PROPER AIR VELOCITY AND PRESSURE DROP ACROSS THE BURNER. PROFILE PLATES SHALL ALLOW BURNERS TO ACHIEVE CLEAN COMBUSTION AT VARIOUS FUEL FLOW LEVELS, FROM A MINIMUM OF 50PPM CARBON MONOXIDE (CO), TO A MAXIMUM OF 1500PPM CARBON MONOXIDE (CO). BURNERS WILL BE LITING DOWNSTREAM (DOWNDRAFT) 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 DF UNITS ARE DESIGNED FOR DEMAND CONTROL VENTILATION (DCV) REQUIREMENTS.

CERTIFICATIONS:
ALL PROFILE PLATE ASSEMBLIES SHALL BE INCLUDED IN THE DF UNIT'S ETL LISTING AND COMPLY WITH COMBINE SAFETY STANDARDS ANSI Z83.4 AND CSA 3.7 (NON-RECIRCULATING DF HEATERS) AND ANSI Z83.18

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.



Ø3/8" TIEDOWN
KNOCKOUTS (2) PLACES

		UNIT DIMENSIONS						CONNECTION SIZES		NOMINAL TONNAGE
MODEL	WEIGHT	A	B	C	D	E	SUCTION	LIQUID		
24ABB360	190 LBS	31-3/16	25-1/2	9-1/8	24-11/16	6-9/16	7/8	3/8	5	

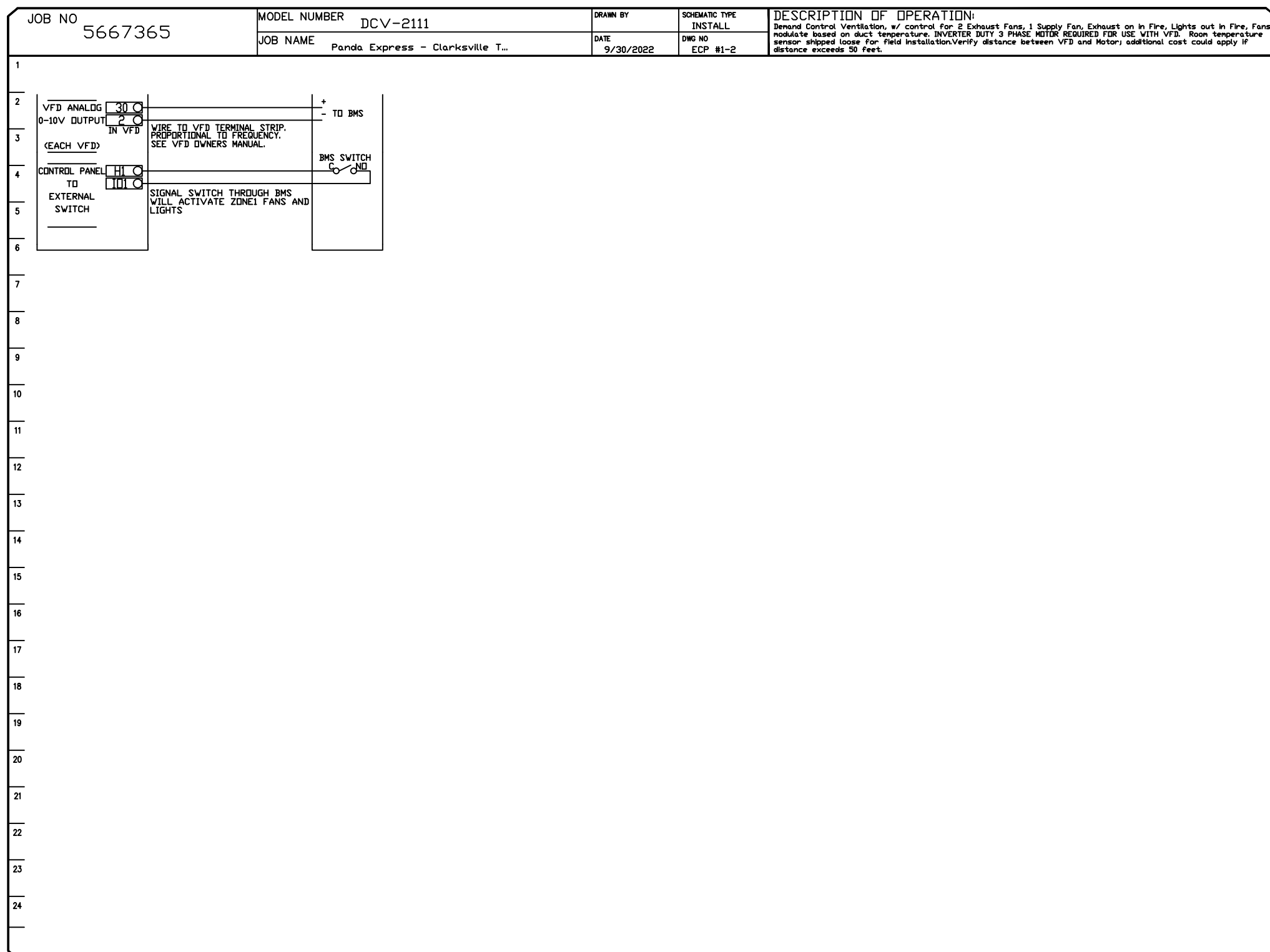
MODEL	V-PH	RLA	MCA	FUSE SIZE
24ABB360	208/230-3	16.0	21.4	30

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6



NO	TAG	PACKAGE #	LOCATION	SWITCHES		OPTION	FANS CONTROLLED				
				LOCATION	QUANTITY		TYPE	Ø	HP	VOLTS	FLA
1		DCV-2111	WALL UTILITY CABINET LEFT	08 - SHIP LOOSE W/ PREWIRE	1 LIGHT 1 FAN	SMART CONTROLS DCV	EXHAUST	3	3,000	208	9.5
							EXHAUST	3	2,000	208	8.3
							SUPPLY	3	7,500	208	21.1



CAPTIVE

Southern California Office

3002 Dow Ave., Suite 410, Tustin, CA, 92780 PHONE: (714) 957-1500 FAX: (919) 227-5975 EMAIL: reg86@captiveallie.com

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ARCH PROJECT #: 261-443



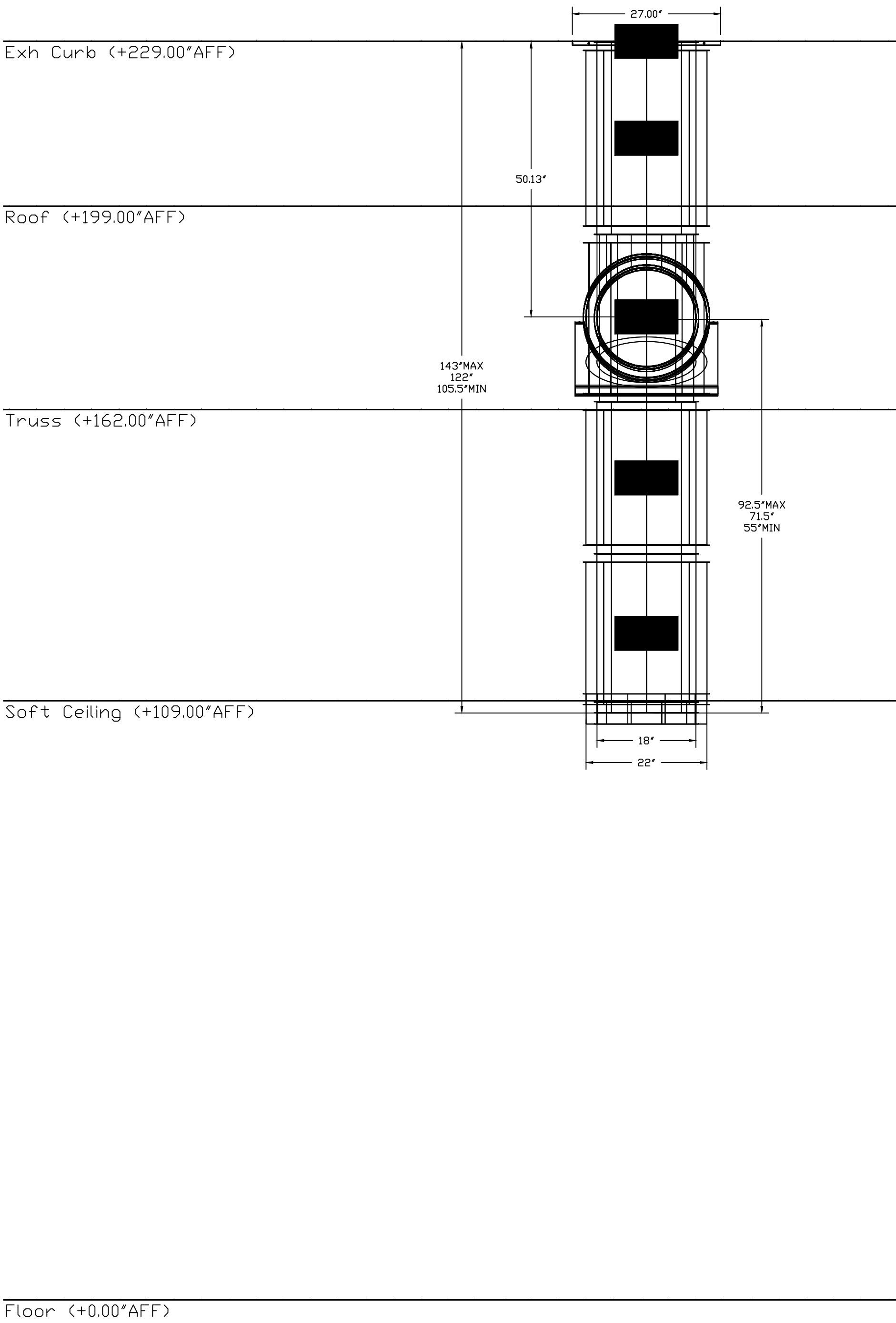
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CLARKSVILLE, TN 37040

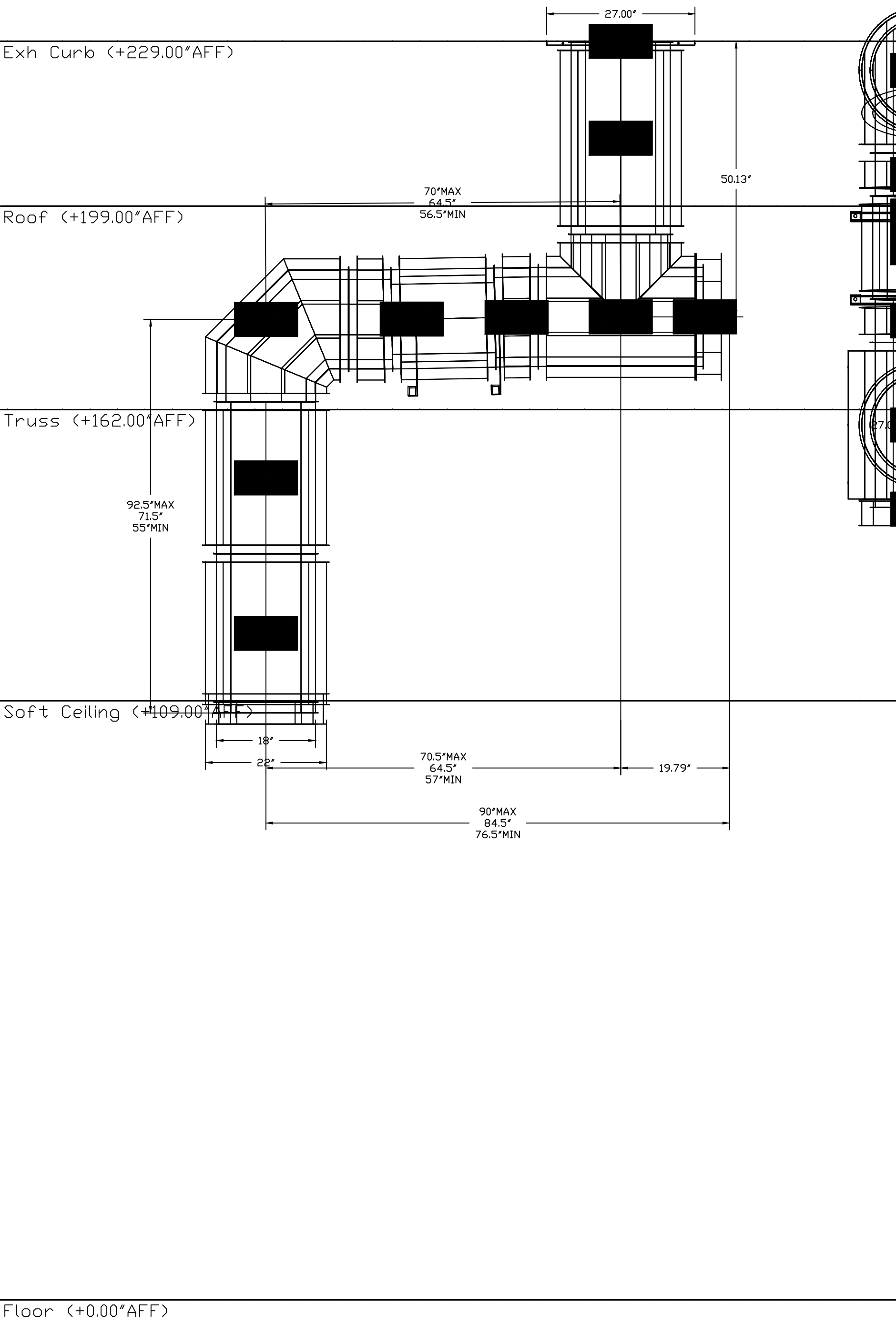
HOOD DETAIL PLAN

PANDA HOME 2600 R4

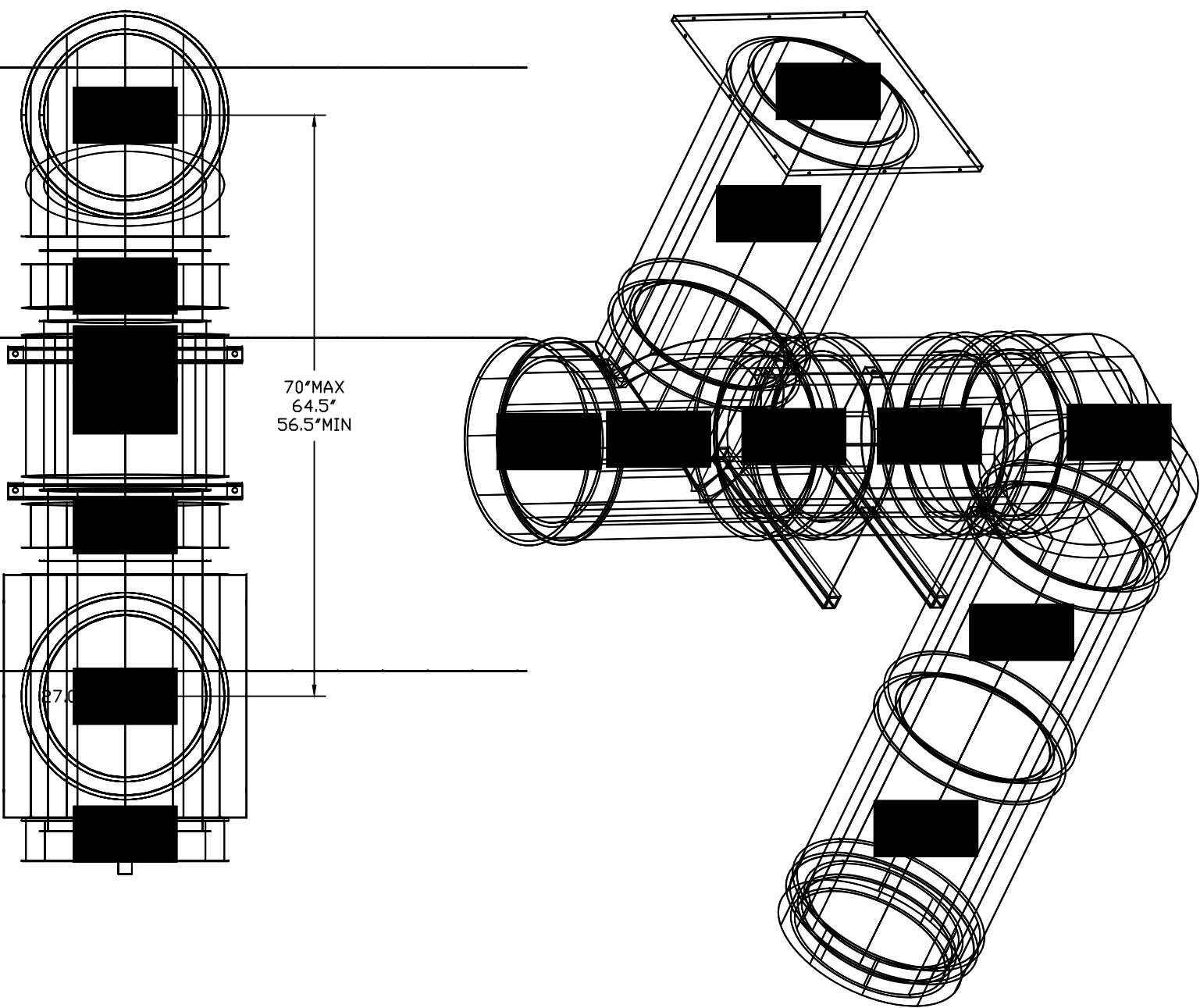
DUCTWORK #2 FRONT VIEW



DUCTWORK #2 SIDE VIEW



DUCTWORK #2 TOP VIEW DUCTWORK #2 SE VIEW



NOTE: UNLESS OTHERWISE STATED, PANDA RESTAURANT GROUP SHALL PROVIDE ALL EQUIPMENT ON THE FOLLOWING CAPTIVEAIRE SHEETS, INCLUDING: HOODS, FIRE SYTEM, EXHAUST FANS, SUPPLY FAN, BATHROOM FAN AND ELECTRICAL INTERLOCK PACKAGE.

DOUBLE WALL DUCT BY MECHANICAL PLEASE USE CONTACT BELOW FOR PRICING

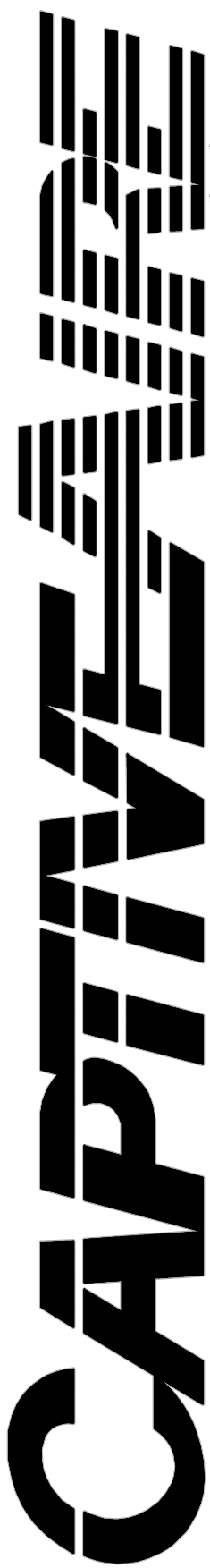
ANSUL GAS VALVE:

THE ANSUL GAS VALVE IS PROVIDED BY CAPTIVEAIRE SYSTEMS. CONTACT OUR OFFICE WITH THE VALVE SIZE 3 DAYS IN ADVANCE OF WHEN IT IS NEEDED ON SITE.

FOR QUESTIONS CALL THE CAPTIVEAIRE SOUTHERN CALIFORNIA OFFICE

3002 DOW AVENUE, SUITE 410
TUSTIN, CA 92780
TEL: 714-957-1500 EMAIL: REG86@CAPTIVEAIRE.COM

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DESCRIPTION	DATE:



Southern California Office

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Panda Express - Clarksville TN (D23503),
NORTH RIVERSIDE DR & 2ND ST,
CLARKSVILLE, TN, 37040

DATE: 9/30/2022

DWG.#: 5667365

DRAWN BY: AH-86

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

MASTER DRAWING

SHEET NO. 12



PANDA EXPRESS, INC.
1683 Walnut Grove Ave.
Rosemead, California
91770
Telephone: 626.799.9898
Facsimile: 626.372.8288

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ISSUE DATE:		
	ISSUE FOR PERMIT	10-20-22
	ISSUE FOR BID	01-30-23

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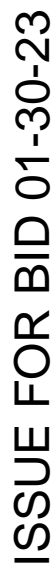
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HOOD DETAIL PLAN

PANDA HOME 2600 R4



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Facsimile: 626.372.8288

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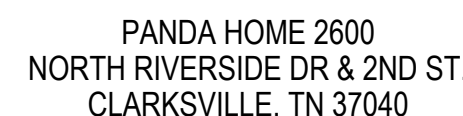
	ISSUE FOR PERMIT	10-20-21
	ISSUE FOR BID	01-30-22

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PANDA STORE #:

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KITCHEN HOOD DETAILS

PANDA HOME 2600 R4



Scale: NO SCALE

M-500



Scale: NO SCALE

M-500

PERFORMANCE TEST FOR LISTED MECHANICAL HOOD IS REQUIRED PER UMC 509.11

GREASE HOOD SYSTEM CALCULATION

1. TYPE : CANOPY TYPE I, STAINLESS STEEL 18 GAUGE.
2. COOKING EQUIPMENT : (2) CHINESE RANGE, (2) DEEP FRYER, RICE COOKER
3. SIZE : 23' 35" x 4'-0" + 2'-0" MAKEUP AIR PLENUM
4. MIN. REQ'D CAPACITY CFM: (2) U.L. LISTED HOOD @ 3,450 CFM EACH
5. PROPOSED (2) EXHAUST FAN & (1) MAKE-UP AIR UNIT (E#1 & EF2 (3,450 CFM EACH); MAU1 (5,520 CFM, 80% OF EXHAUST)
6. EXHAUST DUCT SIZE 18"Ø
7. EXHAUST VELOCITY @ EXHAUST DUCT 1952
8. EXHAUST FAN (EF1 & EF2) AND MAKE-UP AIR UNIT (MAU1) SHALL BE ELECTRICALLY INTERLOCKED
9. FOR CODE COMPLIANCE SEE DETAIL
10. FOR FILTER INFORMATION SEE CAPTIVEAIRE DWG #M-400.
11. INTERLOCK RTU FANS TO OPERATE WITH KEF'S FOR MAKEUP AIR.

INFORMATIONAL GUIDE FOR COMMERCIAL COOKING HOODS

1. STAINLESS STEEL TO BE NO. 18 U.S. GAGE.
2. WHEN GUTTERS ARE PROVIDED THEY SHALL DRAIN TO A COLLECTING PAN WHICH IS READILY ACCESSIBLE FOR CLEANING.
3. SEE TABLE 507.11 FOR MAXIMUM DISTANCE BETWEEN LOWER EDGE OF GREASE FILTER AND THE COOKING OR HEATING SURFACE.
4. GREASE FILTERS SHALL BE OF STEEL CONSTRUCTION AND READILY ACCESSIBLE FOR CLEANING.
5. ALL JOINTS AND SEAMS SHALL BE GREASE TIGHT.
6. HOODS SHALL BE SECURELY FASTENED IN PLACE BY INCOMBUSTIBLE SUPPORTS.

NOTES

1. PROVIDE ADEQUATE CLEANOUT OPENINGS FOR THOROUGH CLEANING OF DUCT SYSTEM.
2. PROVIDE ADEQUATE MAKE-UP AIR FOR PROPER OPERATION.
3. PROVIDE A SEPARATE DUCT SYSTEM FOR EACH HOOD.
4. THICKNESS OF DUCTS SHALL BE:

DUCT AREA	<u>U.S. GAGE STEEL</u>
UP TO 4 SQ. FT.	16 GA
OVER 4 SQ. FT.	14 GA
5. SUPPORT THE DUCTS AS REQUIRED, DO NOT PENETRATE DUCT WALLS WITH SCREWS, NAILS, ETC
6. SECTIONS OF DUCT SHALL NOT CONTAIN GROOVE, POCKETS.



N.T.S.



HOOD CLIP AT WALL

Scale: NO SCALE

M-50C

HOOD VENTILATION AND SECTION 5

Scale: NO SCALE

M-500

NOT USED	1
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М-500

