

FAN #4 EA3-D500-G18-MPU - HEATER
1. DIRECT GAS FIRED HEATED MAKE UP AIR UNIT WITH 18" BLOWER AND 12" BURNER.
2. INTAKE HOOD WITH EZ FILTERS.
3. DOWN DISCHARGE - AIR FLOW RIGHT -> LEFT.
4. COOLING INTERLOCK RELAY: 24VAC COIL, 120V CONTACTS. LOOKS OUT BURNER CIRCUIT WHEN AC IS ENERGIZED.
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. MOTORIZED BACK DRAFT DAMPER 30" X 30" FOR SIZE 3 STANDARD & MODULAR HEATER UNITS W/EXTENDED SHAFT, STANDARD GALVANIZED CONSTRUCTION, 3/4" REAR FLANGE, LOW LEAKAGE, NFBUP-S ACTUATOR INCLUDED.
9. DX COOLING INTAKE AIR THERMOSTAT AND RELAYS MOUNTED IN UNIT - SET POINT FOR THERMOSTAT SHOULD BE 85°F.
10. DOWNTURN PLENUM FOR SIZE 3 COOLING COIL MODULE - REQUIRED FOR DOWN DISCHARGE COOLING COIL APPLICATIONS.
11. SHIP CONDENSERS LOOSE. THE REFRIGERATION LINES WILL NEED TO BE STUBBED OUT 12 INCHES. THE SUCTION LINES NEEDS TO BE INSULATED INSIDE THE COIL MODULE. ROTARY DISCONNECT SHOULD NOT BE INSTALLED ON THE POST, BLANK POST SHOULD BE USED IN PLACE.
12. FREEZE STAT WITH 10" SENSOR. FACTORY SET AT 35°F AND 10 MINUTES.
13. 10 TON, DUAL CIRCUIT (S/S) MODULAR PACKAGED COOLING OPTION FOR SIZE 3 DF/EH MODULAR PACKAGED UNIT, INCLUDES CONDENSER, DX COIL, FILTER/DRYER KIT, THERMAL EXPANSION VALVE, R410A REFRIGERANT, AND REFRIGERANT PIPING (3,600 TO 6,000 CFM) WHEN ORDERED WITH OPPOSITE AIRFLOW CONDENSERS ACCESS AND COIL PIPING WILL REMAIN IN STANDARD POSITION. BRAIN AND SLEDS WILL MOVE TO THE OPPOSITE SIDE. ANY OTHER CHANGE WILL REQUIRE CLI CONDENSERS REQUIRE SEPARATE 208V, 3 PHASE POWER SUPPLY UNLESS ORDERED WITH SINGLE POINT CONNECTION. COIL = 3E20602M.
14. 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 24" X 24".

SUPPLY SIDE HEATER INFORMATION:

WINTER TEMPERATURE = 21°F. TEMP. RISE = 54°F.
BTUS CALCULATED OFF ACTUAL AIR DENSITY.
OUTPUT BTUS AT ALTITUDE OF 0.0 FT. = 285913.
INPUT BTUS AT ALTITUDE OF 0.0 FT. = 310775.
OUTPUT BTUS AT ALTITUDE OF 164 FT. = 284823.
INPUT BTUS AT ALTITUDE OF 164 FT. = 306938.

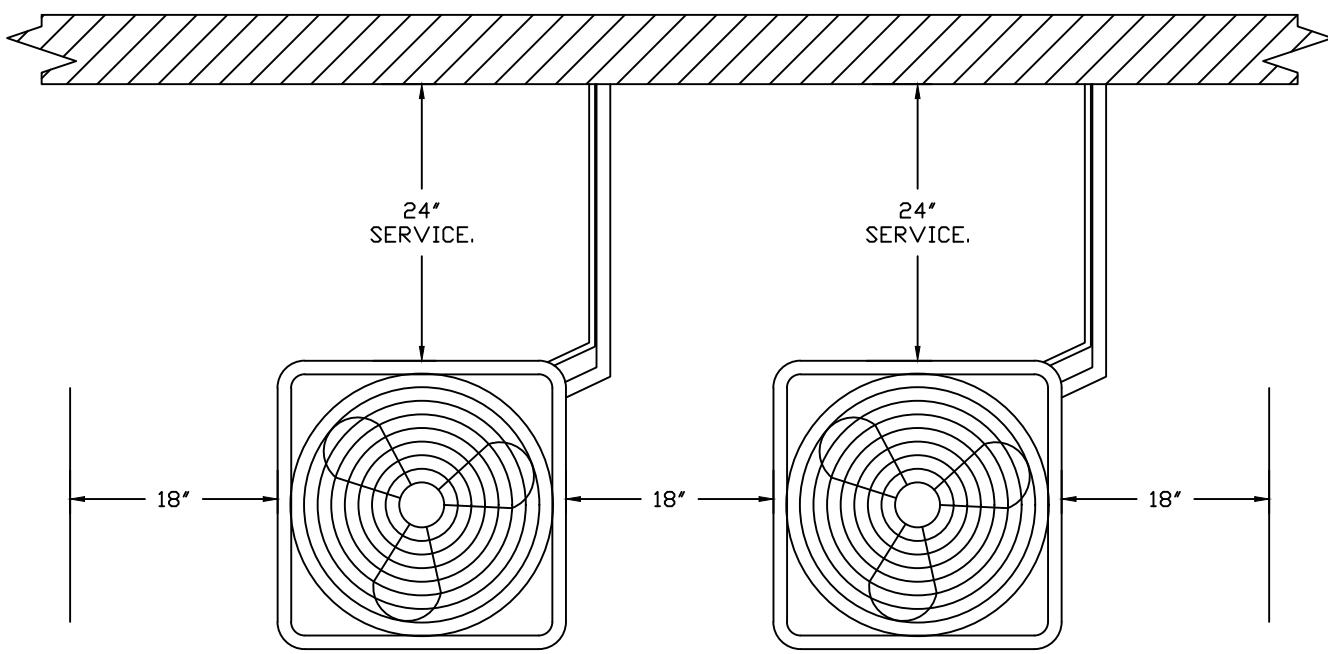
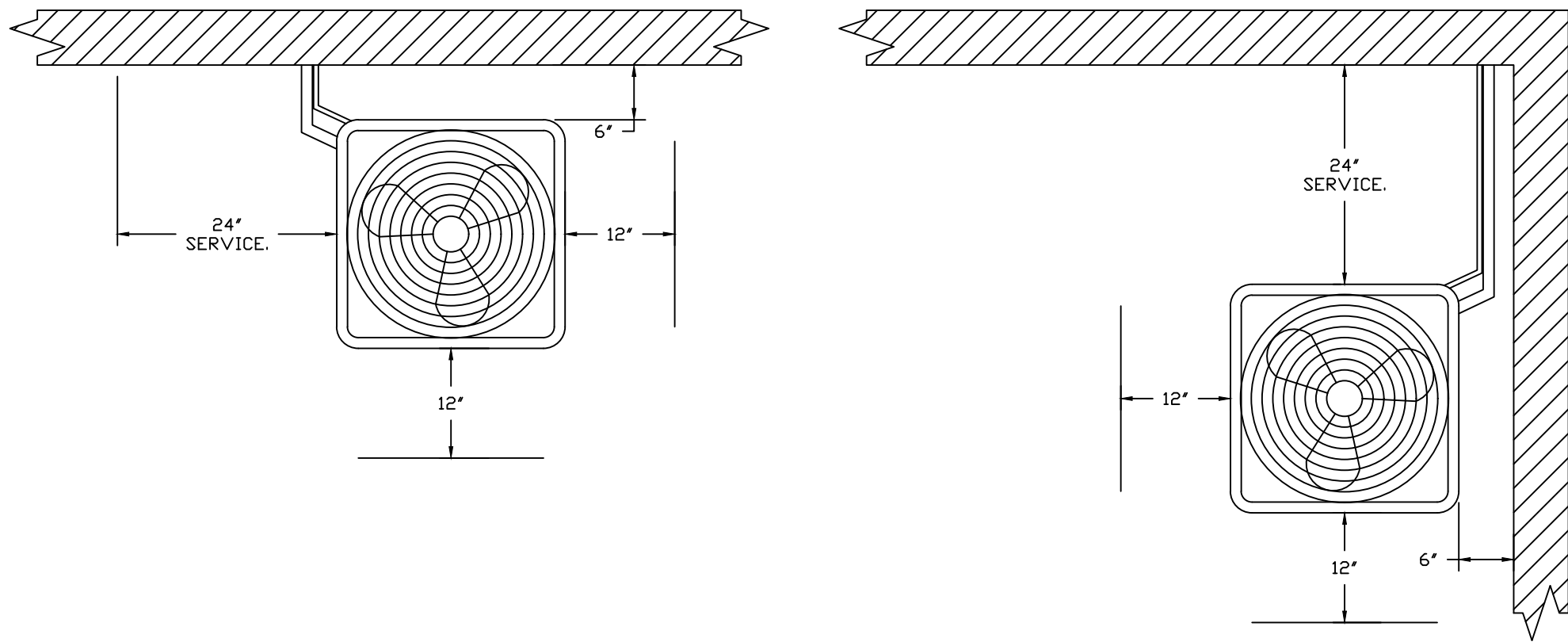
NOTE: UNLESS OTHERWISE STATED, PANDA RESTAURANT GROUP SHALL PROVIDE ALL EQUIPMENT ON THE FOLLOWING CAPTIVEAIRE SHEETS, INCLUDING: HOODS, FIRE SYTEM, EXHAUST FANS, SUPPLY FAN, BATHROOM FAN AND ELECTRICAL INTERLOCK PACKAGE

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.

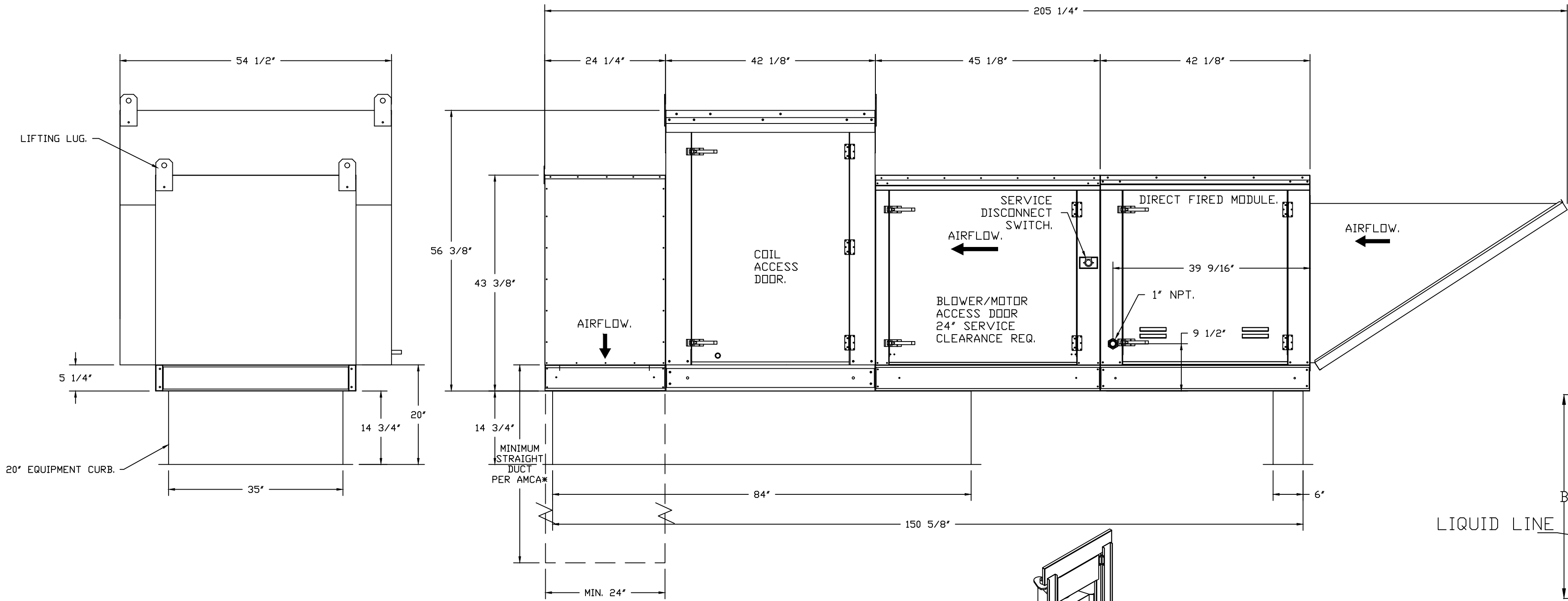
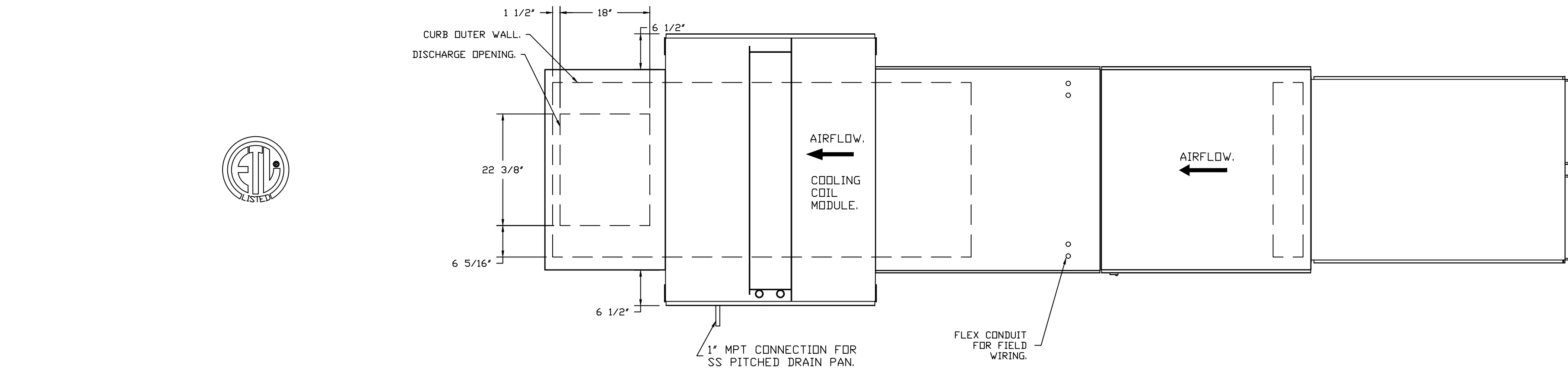
FOR QUESTIONS CALL THE CAPTIVEAIRE SOUTHERN CALIFORNIA OFFICE

3002 DOW AVENUE, SUITE 410
TUSTIN, CA 92780
TEL: 714-957-1500 EMAIL: REG6@CAPTIVEAIRE.COM



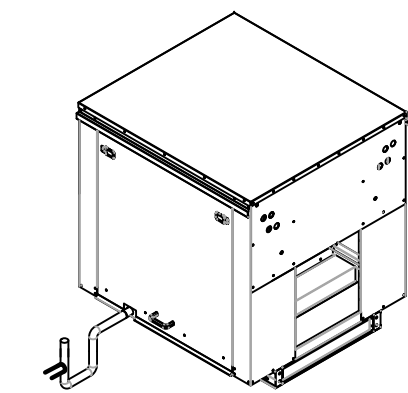
CONDENSER CLEARANCES

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



TYPICAL DRAIN TRAP INSTALL

RECOMMENDED COOLING COIL DRAIN TRAP CONFIGURATION.



Refer to Plumbing Detail P-500 for AC Unit Condensate Drain

NOTES: Important! Copper above roof deck where it is exposed. PVC below roof deck
1) 1" DIAMETER PVC PIPE ONLY.
2) USE ONLY LOW PROFILE COUPLINGS.
3) ADD CLEAN OUT AS SHOWN.

DIRECT FIRED (DF) PROFILE PLATE ASSEMBLY

DESCRIPTION:

DIRECT FIRED BURNERS SHALL HAVE PATENTED (US PATENT NO. US6629208D), 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 50PPM OF CARBON MONOXIDE (CO) AND 50PPM 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 DF UNITS ARE DESIGNED FOR DEMAND CONTROL VENTILATION (DCV) REQUIREMENTS.

IDENTIFICATION:

ALL PROFILE PLATE ASSEMBLIES SHALL BE INCLUDED IN THE DF UNITS ETL LISTING AND COMPLY WITH COMBINED SAFETY STANDARDS ANSI Z83.4 AND CSA 3.7 (NON-RECIRCULATING DF HEATERS) AND ANSI Z83.18 (RECIRCULATING DF HEATERS).

GENERAL CONSTRUCTION:

-PROFILE PLATES SHALL BE FORMED FROM C90 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.

ALL DIMENSIONS ARE NOMINAL AND GIVEN IN INCHES.

MODEL	WEIGHT	UNIT DIMENSIONS						CONNECTION SIZES		NOMINAL TONNAGE
		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

ELECTICAL INFORMATION

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

REVISIONS

DESCRIPTION	DATE



www.captiveaire.com
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Southern California Office

3002 Dow Ave., Suite 410, Tustin, CA 92780 PHONE: (714) 957-1500 FAX: (919) 227-5975 EMAIL: reg6@captiveaire.com

Panda Express - Richmond VA (D7864)

RICHMOND, VA, 23223

DATE: 9/4/2020

DWG.#:
4510360

DRAWN BY: AH-86

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

MASTER DRAWING

SHEET NO.
4



PANDA RESTAURANT GROUP INC.

1683 Walnut Grove Ave.
Rosemead, California
91770

Telephone: 626.799.9898
Facsimile: 626.372.8288

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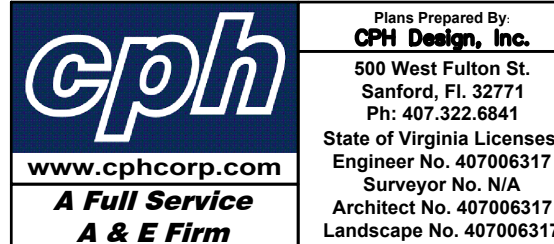
ISSUE DATE:

1	CHECK SET	10-23-20
2	PERMIT SET	03-15-21
3	BID SET	04-02-21

DRAWN BY:

PANDA PROJECT #: S4-21-D7864

ARCH PROJECT #: P7350



PANDA EXPRESS

END CAP - TENANT BUILD OUT
4501 S LABURNUM AVE
RICHMOND VA, 23231

M-403

HOOD DETAIL PLAN