FOR CONSTRUCTION

CITY OF PORTLAND, MAINE
RESURGAM

Reviewed for Code Compliance
Inspections Division
Approved with Conditions

Date: 04/14/17

HMS

HALEY'S METAL SHOP, INC.
539 ELM STREET
BIDDEFORD, MAINE 04005
PH: 207-284-8571, FAX: 207-284-9597

DATE: 03/01/17

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

LITTLE GIANT RESTAURANT
PORTLAND, MAINE
KITCHEN VENTILATION PLAN

HVAC

M-1

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HALEY'S METAL SHOP, INC.
539 ELM STREET
BIDDEFORD, MAINE 04005
PH: 207-284-8571, FAX: 207-284-9597

DATE: 03/01/17

SCALE: 3/8"=1'-0"

LITTLE GIANT RESTAURANT
PORTLAND, MAINE
ROOF PLAN

HVAC

M-2

FOR CONSTRUCTION

HOOD INFORMATION – Job#2966659

HOOD NO.	TAG	MODEL	LENGTH	MAX. COOK. TEMP.	EXHAUST PLENUM SIZE(IN) TOTAL CFM	WIDTH	LENG.	HEIGHT	SIA	CFM	S.P.	TOTAL SUPPL. CFM	HOOD CONSTRUCTION	HOOD CONFIG. END TO END	ROW
1	5424 Wall-2-PSP-F	14' 0.00"	600 Deg.	3010	3010	10"	12"	4"		1505	-0.674"	2408	430 SS Where Exposed	ALONE	ALONE

PATENT NUMBERS
AC-PSP (United States) - US Patent 7963830 B2
AC-PSP Wall (Canada) - CA Patent 2820509
AC-PSP Island (Canada) - CA Patent 2520330

HOOD INFORMATION

HOOD NO.	TAG	FILTER(S) TYPE	QTY.	HEIGHT	LENGTH	EFFICIENCY # 9 MICRONS	LIGHT(S) QTY.	TYPE	WIRE GUARD	UTILITY CABINET(S) LOCATION	SIZE	FIRE SYSTEM TYPE	SIZE	ELECTRICAL MODEL #	SWITCHES QUANTITY	FIRE SYSTEM PIPING	HOOD HANGING WGHT
1		Captrate Solo Filter	10	20"	16"	85% See Filter Spec.	4	Screw In Compact	NO							NO	1004 LBS

HOOD OPTIONS

HOOD NO.	TAG	OPTION
1		FIELD WRAPPER 18.00" High Front, Left, Right
		BACKSPLASH 80.00" High X 168.00" Long 430 SS Vertical
		INSULATION FOR TOP OF HOOD
		INSULATION FOR BACK OF HOOD
		RIGHT VERTICAL END PANEL 27" Top Width, 21" Bottom Width, 80" High Insulated 430 SS
		LEFT VERTICAL END PANEL 27" Top Width, 21" Bottom Width, 80" High Insulated 430 SS

PERFORATED SUPPLY PLENUM(S)

HOOD NO.	TAG	POS.	LENGTH	WIDTH	HEIGHT	TYPE	RISER(S) WIDTH	LENG.	SIA	CFM	S.P.
1		Front	168"	16"	6"	MUA	12"	28"		602	0.207"
						MUA	12"	28"		602	0.207"
						MUA	12"	28"		602	0.207"

SPECIFICATION CAPTRATE GREASE-STOP SOLID FILTER

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

FILTER IS STAINLESS STEEL CONSTRUCTION, AND SIZED TO FIT INTO STANDARD 2-INCH DEEP HOOD CHANNELS.

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

GREASE EXTRACTION EFFICIENCY PERFORMANCE SHALL REMOVE AT LEAST 75% OF GREASE PARTICLES FIVE MICRONS IN SIZE, AND 85% GREASE PARTICLES NINE MICRONS IN SIZE AND LARGER, WITH A CORRESPONDING PRESSURE DROP NOT TO EXCEED 10 INCHES OF WATER GAUGE.

THE CAPTRATE GREASE-STOP SOLID WAS TESTED TO ASTM STANDARD ASTM F2519-05.

CAPTRATE FILTERS ARE BUILT IN COMPLIANCE WITH:
NFPA #96
NSF STANDARD 82
UL STANDARD 1978
INT. MECH. CODE (IMC)
ULC-S649

CUSTOMER APPROVAL TO MANUFACTURE:
Approved as Noted ☐
Approved with NO Exception Taken ☐
Revise and Resubmit ☐
SIGNATURE _____
Your Title _____ Date _____

CAPTIVEAIRE

JOB Little Giant r5	
LOCATION PORTLAND, ME, 04102	
DATE 3/27/2017	JOB # 2966659
DWG # 1	DRAWN BY BFC-21
REV.	SCALE 3/8" = 1'-0"

HOOD SYSTEM INFORMATION

PLAN VIEW – Hood #1
14' 0.00" LONG 5424ND-2-PSP-F
NOTE: Additional hanging angles provided for hoods 12' and longer.

ASSEMBLY INSTRUCTIONS

HANGING ANGLE MUST BE SUPPORTED WITH 1/2" - 13 TPI GRADE 5 (MINIMUM) ALL-THREAD. SANDWICH HANGING ANGLES AND CEILING ANCHOR POINTS WITH 1/2" GRADE 5 (MINIMUM) STEEL FLAT WASHERS AND 1/2" - 13 TPI GRADE 5 (MINIMUM) HEX NUTS AS SHOWN. MUST USE DOUBLED HEX NUT CONFIGURATION BENEATH HOOD HANGING ANGLES AND ABOVE CEILING ANCHORS. MAINTAIN 1/4" OF EXPOSED THREADS BENEATH BOTTOM HEX NUT. TORQUE ALL HEX NUTS TO 57 FT-LBS.

ASSEMBLY INSTRUCTIONS

HANGING ANGLE MUST BE SUPPORTED WITH 1/2" - 13 TPI GRADE 5 (MINIMUM) ALL-THREAD. SANDWICH HANGING ANGLES AND CEILING ANCHOR POINTS WITH 1/2" GRADE 5 (MINIMUM) STEEL FLAT WASHERS AND 1/2" - 13 TPI GRADE 5 (MINIMUM) HEX NUTS AS SHOWN. MUST USE DOUBLED HEX NUT CONFIGURATION ABOVE CEILING ANCHORS. SINGLE HEX NUT BENEATH HANGING ANGLE IS ACCEPTABLE FOR PSP HANGING ANGLES. MAINTAIN 1/4" OF EXPOSED THREADS BENEATH BOTTOM HEX NUT. TORQUE ALL HEX NUTS TO 57 FT-LBS.

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CAPTIVEAIRE

JOB Little Giant r5	
LOCATION PORTLAND, ME, 04102	
DATE 3/27/2017	JOB # 2966659
DWG # 2	DRAWN BY BFC-21
REV.	SCALE 3/8" = 1'-0"

HOOD PLAN VIEW

PROTECTION OF COMBUSTIBLES SHOWN IS PER NFPA 96-14 FIGURE A4.2(h)

EXHAUST DUCTWORK ELEVATION COMBUSTIBLES PROTECTION

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EXHAUST FAN INFORMATION – Job#2966659

FAN UNIT NO.	TAG	FAN UNIT MODEL #	CFM	ESP.	RPM	H.P.	B.H.P.	#	VOLT	FLA	WEIGHT (LBS)	SONES
1		DUB84FA	3010	1.500	1314	3.000	1.2149	3	208	9.5	221	19.2

MUA FAN INFORMATION – Job#2966659

FAN UNIT NO.	TAG	FAN UNIT MODEL #	BLOWER	HOUSING	MIN CFM	DESIGN CFM	ESP.	RPM	H.P.	B.H.P.	#	VOLT	FLA	WEIGHT (LBS)	SONES	BURNER EFFICIENCY(%)
2		AI-D.250-G10	G10	AI-D.250	1000	2408	0.500	1203	2.000	1.2620	3	208	5.9	700	22	92

GAS FIRED MAKE-UP AIR UNIT(S)

FAN UNIT NO.	TAG	INPUT BTUH	OUTPUT BTUH	TEMP. RISE	REQUIRED INPUT GAS PRESSURE	GAS TYPE
2		240276	221054	85 deg F	7 in. w.c. - 14 in. w.c.	Natural

FAN OPTIONS

FAN UNIT NO.	TAG	OPTION (Qty. - Descr.)
1		1 - Grease Box
		1 - Full Crating For Exhaust Fans
		1 - 3 Year Extended Motor Warranty
		1 - Fan Base Ceramic Seal - Ship Loose - For Grease Ducts
2		1 - AC Interlock Relay - 24VAC Coil
		1 - Motorized Backdraft Damper for AI-B Housing
		1 - Full Crating For Commercial Heater
		1 - Low Fire Start
		1 - Inlet Pressure Gauge, 0-25"
		1 - Manifold Pressure Gauge, -5 to 15" wc
		1 - Separate 120V Wiring Package (Required and used only for DCV or Previre with VFD) - Three Phase Only
		1 - 3 Year Extended Motor Warranty
		1 - Extra Set of Belts

FAN ACCESSORIES

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

CURB ASSEMBLIES

NO.	ON FAN	WEIGHT	ITEM	SIZE
1	# 1	34 LBS	Curb	26.500"W x 26.500"L x 20.000"H 3.000:12.000 Pitch Vented Hinged
2	# 2	74 LBS	Curb	21.000"W x 71.000"L x 24.000"H 3.000:12.000 Pitch Along Width, Right Insulated

FAN SOUND INFORMATION

FAN UNIT NO.	MOTOR	RPM	LWA	SONES	DBA	DISTANCE FT	OCTAVE 1	OCTAVE 2	OCTAVE 3	OCTAVE 4	OCTAVE 5	OCTAVE 6	OCTAVE 7	OCTAVE 8
1	Exhaust	1314	83	19.2	71.5	5	77	82.1	88.6	79.7	72.3	69.9	63.8	57.7
2	Supply	1203	84.1	22	72.6	5	85.6	85.6	84	85.6	76.8	77.2	73	69.5

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CAPTIVEAIRE

JOB Little Giant r5	
LOCATION PORTLAND, ME, 04102	
DATE 3/27/2017	JOB # 2966659
DWG # 4	DRAWN BY BFC-21
REV.	SCALE 3/8" = 1'-0"

FAN SCHEDULES

SECTION VIEW – MODEL 5424ND-2-PSP-F
HOOD – #1

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.

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CAPTIVEAIRE

JOB Little Giant r5	
LOCATION PORTLAND, ME, 04102	
DATE 3/27/2017	JOB # 2966659
DWG # 3	DRAWN BY BFC-21
REV.	SCALE 3/8" = 1'-0"

HOOD ELEVATION

GREASE DUCTWORK ACCESS PANEL DETAIL

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DATE: 03/01/17

SCALE: NTS

LITTLE GIANT RESTAURANT
PORTLAND, MAINE
HOOD SYSTEM

HVAC

M-3

AIR HANDLING UNITS SCHEDULE

AHU TAG	TYPE	ASSOCIATED CONDENSER	NOMINAL COOLING MBH	REFRIGERANT	MANUFACTURER	MODEL	ELECTRICAL	WEIGHT, LBS.	PIPING SIZES* S/L	CONTROLLER (T)
AHU-1A	WALL	HP-1	15.0	410A	MITSUBISHI	MSZ-FH15NA	208/230-1-60/1.0 M.C.A.	29	$\frac{1}{2}$"/$\frac{1}{4}$"	WIRELESS REMOTE
AHU-1B	WALL	HP-1	15.0	410A	MITSUBISHI	MSZ-FH15NA	208/230-1-60/1.0 M.C.A.	29	$\frac{1}{2}$"/$\frac{1}{4}$"	MHK1

CONDENSING UNIT SCHEDULE

CONDENSER TAG	LOCATION	SERVICE	NOMINAL COOLING MBH	NOMINAL HEATING MBH	REFRIGERANT	MANUFACTURER	MODEL	CONDENSING UNIT ELECTRICAL	WEIGHT, LBS.	BRANCH BOX	BRANCH BOX ELECTRICAL
HP-1	ROOF	HEAT PUMP	36	48	R-410A	MITSUBISHI	MXC-4C36NAHZ	208/230-1/60/42.0 M.C.A	276	PAC-MKA30BC	208/230-1/60

1

INSTALLATION NOTES

1. INSULATE ALL HOOD MAKEUP AIR DUCTWORK WITH 2" FSK DUCT WRAP.
2. DESIGN ALL HOOD MAKEUP DUCTWORK AT 2" W.G. AND SEAL PER SMACNA CLASS B SEALING STANDARDS.
3. KITCHEN HOOD EXHAUST DUCTWORK SHALL BE WELDED 16 GAUGE STEEL PER NFPA 96 REQUIREMENTS. MAINTAIN A MINIMUM OF 3" TO LIMITED COMBUSTIBLE CONSTRUCTION. ABOVE THE DUCTWORK AND EXTENDING 18" BEYOND IT, INSTALL COMBUSTIBLES PROTECTION PANEL(S) PER THE DETAIL SHOWN ON M-3.
4. MOUNT HP-1 ON A STAND.

2

HEAT PUMP CONDENSER & STAND

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LITTLE GIANT RESTAURANT
PORTLAND, MAINE
SCHEDULES & NOTES

HVAC

M-4