CORE FIRE SYSTEM TRADE RESPONSBILITIES

JOB NO	MODEL NUMBER	DRAWN BY	SCHEMATIC TYPE	DESCRIPTION OF OPERATION:
3112818	SC-311110FP		INSTALL	Fire System #2 CORE Protection. 1" CORE Appliance Manifold Package with Self Cleaning. Installed in Hood Utility Cabinet with integral hood prewire panel.
	JOB NAME: FIREBIRDS – PEACHTREE CORNERS...	DATE: 12/6/2017	DWG NO: ECP #2-7	

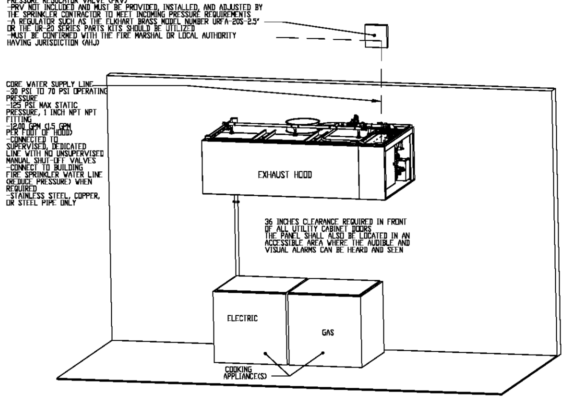
CORE TOTAL FLOOD PROTECTION SPRINKLER DETAIL

03/06/2017 Rev. 13

FS-2: MASTER

BUILDING SPRINKLER CONTRACTOR:
1. CONNECT CORE WATER LINE TO BUILDING WET SPRINKLER SYSTEM. STAINLESS STEEL, COPPER, OR STEEL PIPE ONLY

SPRINKLER CONTRACTOR REQUIREMENT					
ITEM	CONNECTION	OPERATING PRESSURE	K-FACTOR	FLOW RATE	COMMENTS
CORE WATER SUPPLY LINE	1 INCH NPT	30 PSI TO 70 PSI	2.7	12.00 GPM	WATER LINE MUST BE SUPERVISED AND HAVE NO UNSUPERVISED MANUAL SHUT-OFF VALVES MINIMUM PRESSURE AND FLOWRATE DEPENDENT ON LENGTH OF HOOD SYSTEM



MINIMUM OPERATING PRESSURE REQUIREMENTS			
LENGTH OF HOOD (FT)	MINIMUM INLET WATER PRESSURE FOR HOT WATER (PSI)	MINIMUM INLET WATER PRESSURE FOR CORE PROTECTION (PSI)	DISCHARGE COEFFICIENTS (K-FACTOR)
4	30	30	1.3
8	30	30	2.6
12	30	30	4.0
16	30	30	5.3
20	31	33	6.4
24	32	36	7.4
28	34	39	8.3
32	37	44	9.0
36	39	49	9.7
40	42	56	10.2
44	46	63	10.6
48	50	70	11.1

TOTAL FLOWRATE = K FACTOR x PRESSURE$^{0.44}$

NOZZLE HEIGHTS ABOVE HAZARD		
NOZZLE PART NUMBER	NOZZLE ABOVE HAZARD MIN	NOZZLE ABOVE HAZARD MAX
3070-3/8H-SS10	30"	55"

NOZZLES FOR CORE PROTECTION			
DESCRIPTION	PART NUMBER	MACOLA	FLOW RATE
RISER NOZZLE	1/4TT+TP1530+CP1325	A0002784	2.6 GPM @ 30 PSI
SPRAY BAR NOZZLE	1/4TT+TG-4.3W	A0025166	0.7 GPM @ 30 PSI

NOTE: SEE INSTALLATION, OPERATION, AND MAINTENANCE MANUAL FOR FURTHER INSTRUCTIONS

JOB NO	MODEL NUMBER	DRAWN BY	SCHEMATIC TYPE	DESCRIPTION OF OPERATION:
3112818	SC-311110FP		INSTALL	Fire System #2 CORE Protection. 1" CORE Appliance Manifold Package with Self Cleaning. Installed in Hood Utility Cabinet with integral hood prewire panel.
	JOB NAME: FIREBIRDS – PEACHTREE CORNERS...	DATE: 12/6/2017	DWG NO: ECP #2-6	

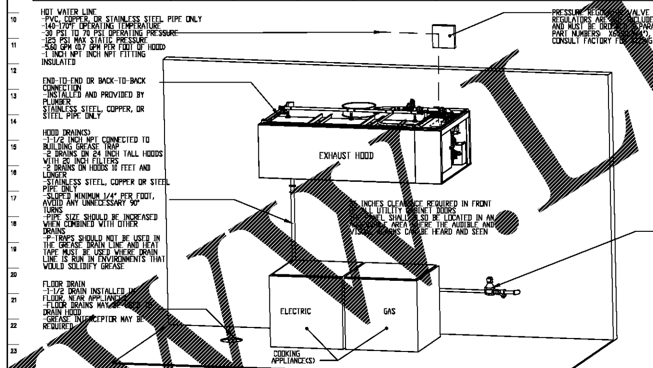
CORE TOTAL FLOOD PROTECTION PLUMBING DETAIL

03/06/2017 Rev. 15

FS-2: MASTER

PLUMBER:
1. CONNECT HOT WATER LINE; PVC, COPPER OR STAINLESS STEEL PIPE ONLY
2. CONNECT HOOD DRAIN(S) STAINLESS STEEL, COPPER, OR STEEL PIPE ONLY
3. CONNECT ALL END-TO-END AND BACK-TO-BACK HOOD WATER LINE CONNECTIONS (PLUMBING IS FIELD SUPPLIED FOR THIS) FIELD PLUMBING MUST NOT EXCEED HEIGHT OF VACUUM BREAKER IN MAIN UTILITY CABINET. REMOVE PLUG FROM MAIN HOOD SPRAY BAR AND CONNECT TO NEXT HOOD. STAINLESS STEEL, COPPER, OR STEEL PIPE ONLY
4. PLUMB GAS VALVE, STRAINER MUST BE INSTALLED UPSTREAM OF VALVE
5. INSTALL FLOOR DRAIN
6. INSTALL BACKFLOW PREVENTER IF CODE REQUIRES

PLUMBING CONTRACTOR REQUIREMENT					
ITEM	CONNECTION	TEMPERATURE	PRESSURE	FLOW RATE	COMMENTS
HOT WATER LINE	1 INCH NPT	140 to 170°F	30 PSI TO 70 PSI	5.60 GPM	INSULATE HOT WATER PIPE, MINIMUM PRESSURE DEPENDENT ON LENGTH AND CONFIGURATION OF HOOD SYSTEM
HOOD DRAIN(S)	1-1/2 INCH NPT	N/A	GRAVITY DRAIN	SEE ABOVE	2 DRAINS ON 24 INCH TALL HOODS WITH 20 INCH TALL FILTERS AND HOODS 10 FEET AND LONGER
END-TO-END CORE CONNECTION	VARIES	N/A	N/A	N/A	CONNECT WITH NPT PIPE, SEAL ALL THREADS, HOOD CONNECTION PROVIDED
BACK-TO-BACK CORE CONNECTION	VARIES	N/A	N/A	N/A	CONNECT WITH NPT PIPE, SEAL ALL THREADS, HOOD CONNECTION PROVIDED
GAS VALVE	VARIES	N/A	SEE TABLE	N/A	UP TO 2 INCHES NPT WITH 24V CONTROLS, 2-1/2 AND 3 INCH USE 120V CONTROLS
FLOOR DRAIN(S)	1-1/2 INCH	N/A	GRAVITY DRAIN	N/A	USED TO HELP CLEAN UP FIRE SYSTEM DISCHARGE. GREASE INTERCEPTOR MAY BE REQUIRED
BACKFLOW PREVENTER DRAIN LINE (OPTIONAL)	INLET/OUTLET DRAIN	N/A	VARIES	N/A	INSTALLED WHEN PACKAGE HAS A BACKFLOW PREVENTER VALVE, SEE BACKFLOW PREVENTER VALVE MANUAL FOR DETAILS



HOT WATER MINIMUM OPERATING PRESSURE REQUIREMENTS	
LENGTH OF HOOD (FT)	MINIMUM INLET WATER PRESSURE FOR HOT WATER (PSI)
4	30
8	30
[illegible]	30
16	30
20	31
24	32
28	34
32	37
36	39
40	42
44	46
48	50

SIZE	MAX INLET PRESSURE (PSI)	VOLTAGE	BTU/HR
3/4"	5	24VDC	593,200
1"		24VDC	1,132,300
1-1/4"		24VDC	1,925,000
1-1/2"		24VDC	2,406,000
2"		24VDC	2,940,500
2-1/2"		120VAC	5,607,800
3"		120VAC	5,661,700

NOTE: SEE INSTALLATION, OPERATION, AND MAINTENANCE MANUAL FOR FURTHER INSTRUCTIONS

JOB NO	MODEL NUMBER	DRAWN BY	SCHEMATIC TYPE	DESCRIPTION OF OPERATION:
3112818	SC-311110FP		INSTALL	Fire System #2 CORE Protection. 1" CORE Appliance Manifold Package with Self Cleaning. Installed in Hood Utility Cabinet with integral hood prewire panel.
	JOB NAME: FIREBIRDS – PEACHTREE CORNERS...	DATE: 12/6/2017	DWG NO: ECP #2-4	

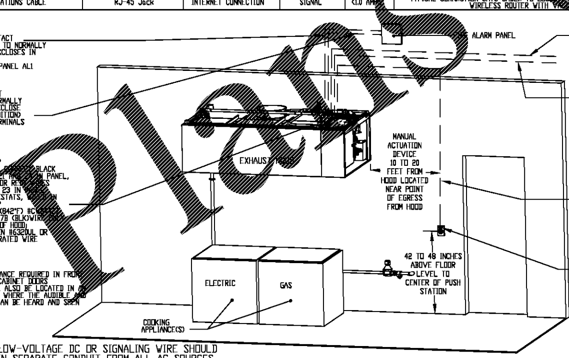
CORE TOTAL FLOOD PROTECTION LOW-VOLTAGE DETAIL

03/06/2017 Rev. 12

FS-2: MASTER

ALARM CONTRACTOR:
1. WIRE MANUAL ACTUATION DEVICE(S), REMOTE FIRESTAT(S), CORE INTERLOCK(S), FIRE SENSOR(S) AND FIRE ALARM CONTACTS
2. COMPLETE FINAL HOOKUP OF SYSTEM
3. PERFORM FINAL FIRE SYSTEM TEST
4. FILL SURFACTANT TANK

ALARM CONTRACTOR REQUIREMENT					
ITEM	CONNECTION IN PANEL	CONNECTION ON DEVICE	VOLTAGE	AMPERAGE	COMMENTS
MANUAL ACTUATION DEVICE(S)	101 AND 104 102 AND 103	1 & 2	24 VDC	< 1.0 AMPS	WIRE MANUAL ACTUATION DEVICE TERMINAL 1 BETWEEN CORE PANEL TERMINALS 102 AND 103 WIRE MANUAL ACTUATION DEVICE TERMINAL 2 BETWEEN CORE PANEL TERMINALS 101 AND 104 JUMPER 101 TO 104 AND 102 TO 103 IF NO MANUAL ACTUATION DEVICE IS INSTALLED
MANUAL ACTUATION DEVICE COVER	N/A	N/A	N/A	N/A	MANUAL ACTUATION DEVICE COVER MUST BE INSTALLED IF SURFACE MOUNTED, USE COVER EXTENSION STI-6531B
REMOTE FIRESTAT SENSOR(S)	21 AND 24 22 AND 23	BLACK AND WHITE	24 VDC	< 1.0 AMPS	WIRE FIRE SENSOR WHITE WIRES BETWEEN HOOD CORE PANEL TERMINALS 22 AND 23 WIRE FIRE SENSOR BLACK WIRE BETWEEN HOOD CORE PANEL TERMINALS 21 AND 24 HIGH TEMP (842°F) #CW04427 (WHT) & #CW04427B (BLK)WIRE OR SIMILAR ONLY IF RAN OVER TOP OF HOOD; OTHERWISE BELDEN #6320UL OR SIMILAR PLENUM RATED WIRE. SEE FIGURE 1
FIRE ALARM CONTACT	AL1, AL2	VARIES	50V MAX (AC/DC)	UP TO 1 AMP	FIRE ALARM RELAY CONTACTS FOR BUILDING FIRE ALARM LOCATED IN THE CORE ELECTRICAL CONTROL PANEL
CORE INTERLOCK(S)	ILA, ILB, ILC	ILA, ILB, ILC	RS-485 COMMUNICATIONS SIGNAL		CORE SYSTEM (1) ILA, TO CORE SYSTEM (2) ILA. CORE SYSTEM (1) ILB, TO CORE SYSTEM (2) ILB. CORE SYSTEM (1) ILC, TO CORE SYSTEM (2) ILC. USE BELDEN# 88760 OR SIMILAR WIRE
TROUBLE CONTACT	TBC, TBL, TDK	VARIES	MAX 120 VAC	UP TO 6 AMPS	WIRE TO TBL & TBC NORMALLY OPEN CONTACT, CLOSES IN TROUBLE CONDITION
CORE COMMUNICATIONS CABLE	RJ-45 Jack	INTERNET CONNECTION	SIGNAL	<1.0 AMPS	TYPICAL CONNECTION CAT5 CABLE TO LOCAL AREA NETWORK VIA ETHERNET SWITCH OR WIRELESS ROUTER WITH VALID INTERNET CONNECTION



ATTENTION: LOW-VOLTAGE DC OR SIGNALING WIRE SHOULD BE ROUTED IN SEPARATE CONDUIT FROM ALL AC SOURCES

NOTE: SEE INSTALLATION, OPERATION, AND MAINTENANCE MANUAL FOR FURTHER INSTRUCTIONS

JOB NO	MODEL NUMBER	DRAWN BY	SCHEMATIC TYPE	DESCRIPTION OF OPERATION:
3112818	SC-311110FP		INSTALL	Fire System #2 CORE Protection. 1" CORE Appliance Manifold Package with Self Cleaning. Installed in Hood Utility Cabinet with integral hood prewire panel.
	JOB NAME: FIREBIRDS – PEACHTREE CORNERS...	DATE: 12/6/2017	DWG NO: ECP #2-3	

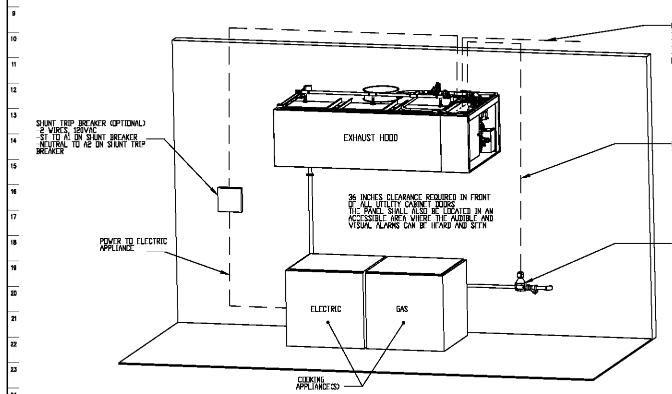
CORE TOTAL FLOOD PROTECTION ELECTRICAL DETAIL

03/06/2017 Rev. 12

FS-2: MASTER

ELECTRICIAN:
1. WIRE MAIN CONTROL PANEL PER INCLUDED SCHEMATIC
2. WIRE ALL FANS PER INCLUDED SCHEMATIC
3. WIRE SHUNT TRIP BREAKER (OPTIONAL)
4. WIRE UDS APPLIANCE KILL SWITCH, IF EQUIPPED (OPTIONAL)
5. WIRE GAS VALVE

ELECTRICAL CONTRACTOR REQUIREMENT					
ITEM	CONNECTION IN PANEL	CONNECTION IN DEVICE	VOLTAGE	AMPERAGE	COMMENTS
SHUNT TRIP BREAKER (OPTIONAL)	ST & N1	BREAKER COIL (A1 & A2)	120 VAC	< 4 AMPS	ST TO A1 ON SHUNT BREAKER COIL, AND NEUTRAL TO A2 ON SHUNT TRIP BREAKER COIL
CONTROL PANEL POWER	H1 & N1 + GROUND	CIRCUIT BREAKER	120 VAC	15 AMPS	CONTROL PANEL POWER MUST NOT BE RUN THROUGH SHUNT TRIP BREAKER
UDS APPLIANCE KILL SWITCH (OPTIONAL)	KTS & N1	KTS & N1	120 VAC	< 4 AMPS	KILL SWITCH TERMINALS MUST BE IN SERIES WITH OTHER KILL SWITCHES
REMOTE 120VAC ANSUL AUTOMAN (OPTIONAL)	AU1, AU2	SOLENOID	120 VAC	< 6 AMPS	120V TO AU1, AU2 TO ANSUL ELECTRIC AUTOMAN, ANSUL SOLENOID TO NEUTRAL
GAS VALVE	35 & N1D (IF 24 VDC) GAS & N1 (IF 120 VAC)	RED/RED/GREEN	24 VDC OR 120 VAC	< 1.0 AMPS	IF 24 VDC - 2 WIRES & GROUND, N1D TO RED, 35 TO RED, AND GREEN TO GROUND IF 120 VAC - 2 WIRES & GROUND GAS TO RED, N1 TO RED, AND GREEN TO GROUND



NOTE: SEE INSTALLATION, OPERATION, AND MAINTENANCE MANUAL FOR FURTHER INSTRUCTIONS

REVISIONS

	DESCRIPTION	DATE:
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FIREBIRDS – PEACHTREE CORNERS, GA
NORCROSS, GA, 30071

DATE: 12/6/2017
DWG.#: 3112818
DRAWN BY: evan.zipperer
SCALE: 3/4" = 1'-0"
MASTER DRAWING
SHEET NO. 4

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