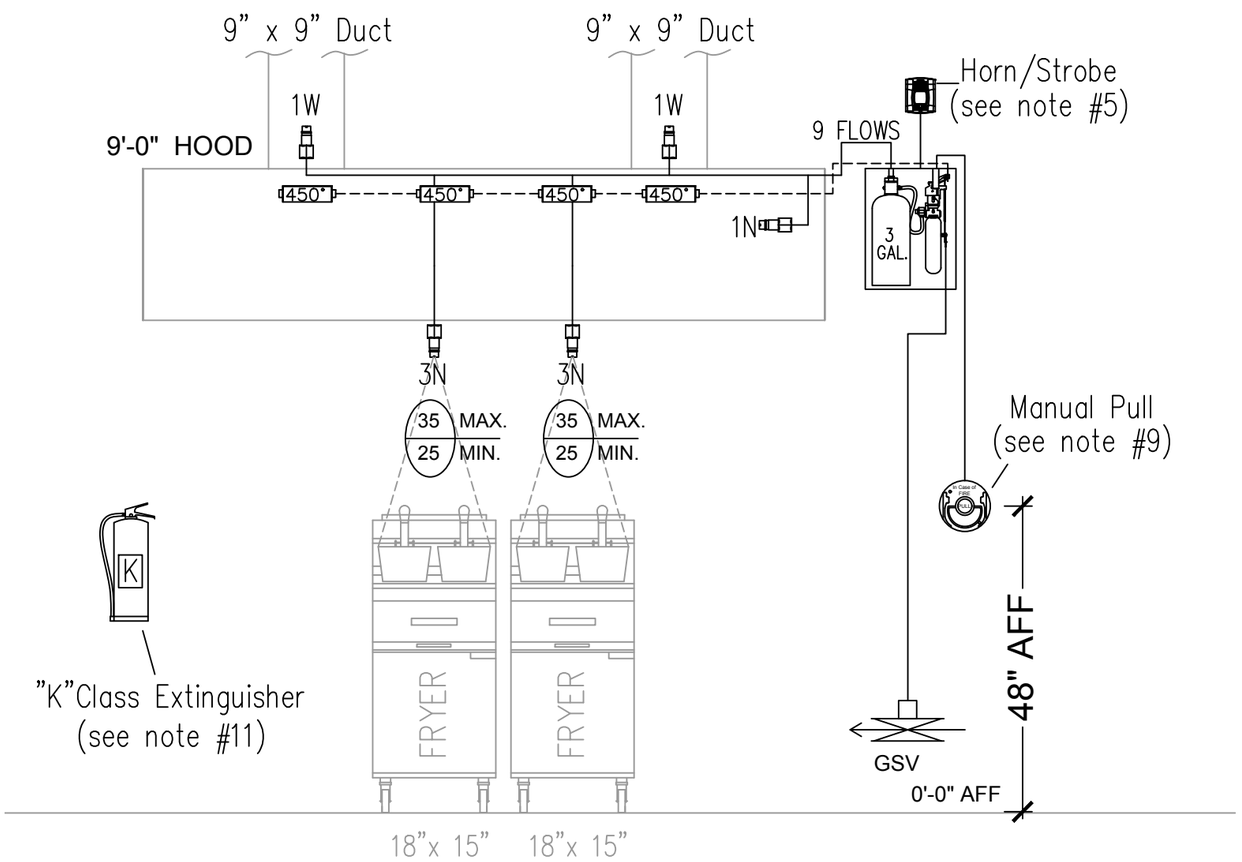
NOZZLE FLOW POINT SUMMARY CHART			
	# OF NOZZLES	FLOW POINT/NOZZLE	TOTAL FLOW POINTS
1N	1	1	1
1W	2	1	2
3N	2	3	6
TOTAL FLOW POINTS			9.0

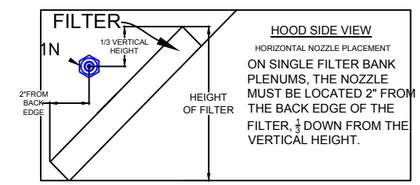
BILL OF MATERIALS

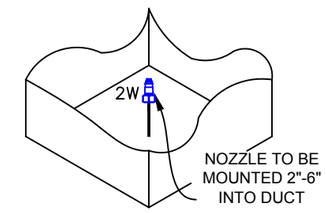
QTY	NOZZLE	MAX COVERAGE	MIN/MAX HGHTS	PART NUMBER
2	1W	0–50" PER. 16" DIA DUCT	2"–8" INTO DUCT	439839
1	1N	48" x 120" HORIZ. SINGLE BANK	0–6" FROM PLENUM END	439838
2	3N	18" x 27 3/4" FRYER (HIGH PROX) W/ DRIP	25"–35"	439841
9	TOTAL FLOWS USED			

QTY	COMPONENT DESCRIPTION	PART NUMBER
1	REGULATED RELEASE (MECHANICAL)	429853
1	101–30 CO2 CARTRIDGE	423443
1	MICROSWITCH KIT (INCL. 3)	423880
1	GAS SHUT OFF VALVE	GSV
1	3 GALLON TANK (11 FLOW)	429862
1	TERMINAL DETECTOR (INCLUDES TEST LINK)	24916
3	SERIES DETECTOR	435547
4	SL STYLE FUSIBLE LINK 450°F (232°C)	439089
1	HORN STROBE	434528
1	REMOTE PULL STATION	434618
11	TOTAL FLOWS AVAILABLE	

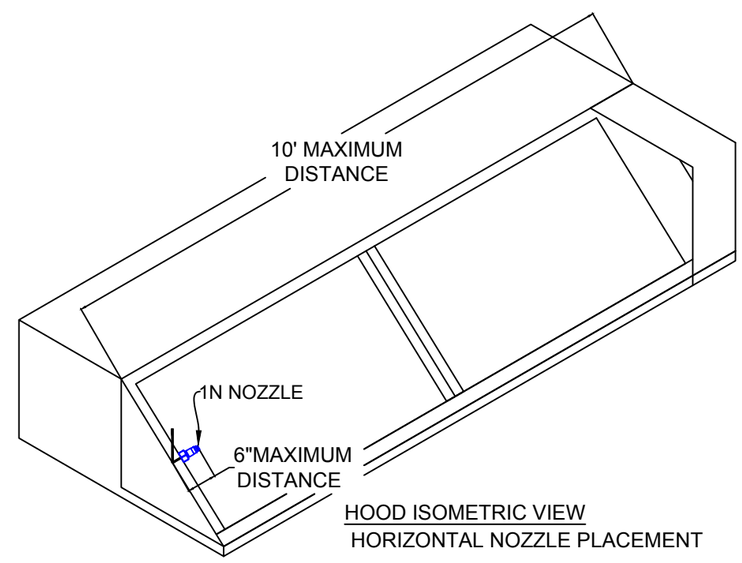


FRONT ELEVATION
SCALE: 1/2" = 1'-0"





DUCT NOZZLE LOCATION



HOOD ISOMETRIC VIEW
HORIZONTAL NOZZLE PLACEMENT

DESIGNED AND INSTALLED BY:

tyco SimplexGrinnell
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SYMBOLS LEGEND

SYSTEM & TANK (PLAN VIEW)	GAS VALVE	SYSTEM & TANK (ELEV VIEW)	360° 300 DEGREE FUSIBLE LINK
PULL STATION (PLAN VIEW)	NOZZLE	PULL STATION (ELEV. VIEW)	EXHAUST DUCT
HORN STROBE	48 MAX. / 22 MIN. NOZZLE HEIGHT MARKER	500° 500 DEGREE FUSIBLE LINK	

SYSTEM MANUFACTURER/DISCRIPTION:
ANSUL UL 300 WET CHEMICAL HOOD SUPPRESSION SYSTEM
ANSUL

PROJECT NAME:
OHIO TURNPIKE 1501153 "BLUE HERON"
6164 COUNTY RD 165 NORTHSIDE
GENOA, OHIO

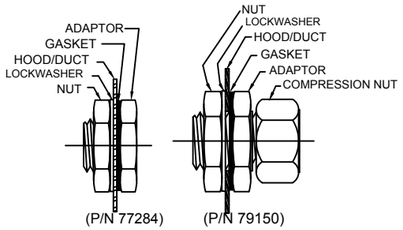
REVISION HISTORY:

NO.	DATE	BY	DISC.

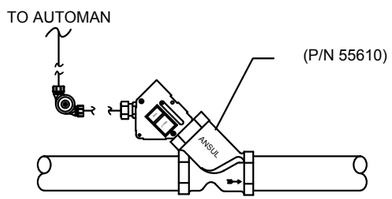
Fyer Design
CONSULTING & ENGINEERING
1-234-650-9368 / www.fyerdesign.com / info@fyerdesign.com

DRAWN BY:	M. STONE
CHECKED BY:	M. STONE
DATE:	OCT 31, 2016
SHEET:	KS-1

DETAILS



"QUIK-SEAL" ADAPTOR DETAIL
"COMPRESSION SEAL" ADAPTOR DETAIL
N.T.S.



GAS VALVE DETAIL
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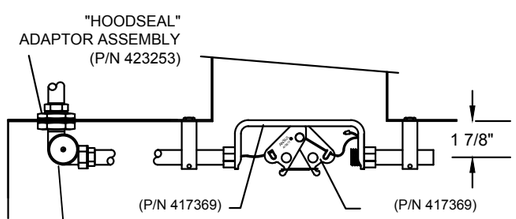
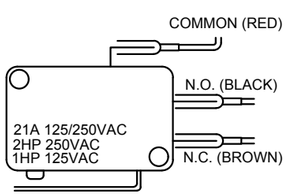
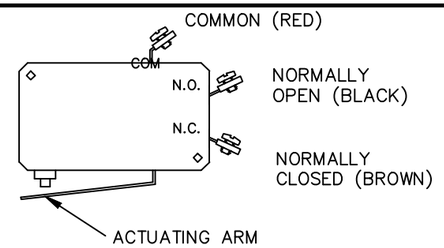


HOOD SEAL AND
SERIES DETECTOR IN DUCT
DETAIL
N.T.S.



MICROSWITCH DIAGRAM



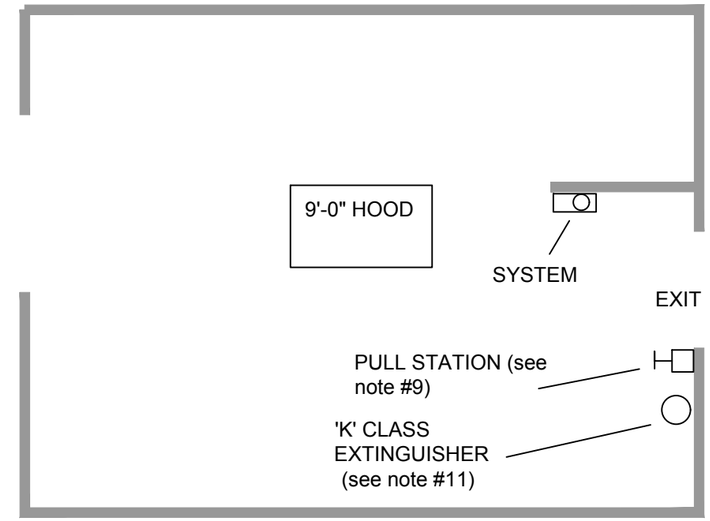
FIRE SUPPRESSION SYSTEM TO BE FIELD WIRED INTO BUILDING FIRE ALARM SYSTEM (BY OTHERS)

SWITCH IS RATED AT 21 AMPS, ½ HP, 125 OR 250 VAC ½ AMP, 125 VDC AND ¼ AMP, 250 VDC.

ALARM SWITCH

GENERAL NOTES

1. THIS SYSTEM IS A UL300 COMPLIANT PRE-ENGINEERED WET CHEMICAL HOOD SUPPRESSION SYSTEM AND SHALL BE INSTALLED BY THE INSTALLING COMPANY SHOWN BELOW IN COMPLIANCE WITH ALL APPLICABLE BUILDING AND FIRE CODES AND IN ACCORDANCE WITH THE MANUFACTURER'S INSTALLATION GUIDELINES AND PROCEDURES.
2. ALL SOURCES OF ELECTRICITY UNDER PROTECTED HOOD SHALL AUTOMATICALLY SHUT OFF WITH SYSTEM ACTIVATION.
3. ELECTRICAL WORK IS THE RESPONSIBILITY OF THE OWNER/GENERAL CONTRACTOR.
4. ALL SOURCES OF FUEL UNDER PROTECTED HOOD SHALL AUTOMATICALLY SHUT OFF WITH SYSTEM ACTIVATION BY WAY OF EMERGENCY GAS SHUT OFF VALVE.
5. THIS SYSTEM SHALL AUTOMATICALLY ACTIVATE THE LOCATION'S FIRE ALARM SYSTEM. IF NO FIRE ALARM SYSTEM EXISTS AT THE LOCATION, A 120 VAC HORN STROBE SHALL BE DIRECTLY TIED INTO THE SYSTEM AND SOUND UPON SYSTEM ACTIVATION. IT SHALL BE LOCATED ADJACENT TO THE FIRE SYSTEM AND WIRED BY OTHERS.
6. ALL MAKE UP AIR FANS PROVIDING FRESH AIR DIRECTLY INTO PROTECTED HOOD SHALL AUTOMATICALLY SHUT OFF UPON SYSTEM ACTIVATION. EXHAUST FAN(S) SHALL REMAIN ON UPON SYSTEM ACTIVATION.
7. A WARNING SIGN SHALL BE POSTED ON OR NEAR THE SUPPRESSION SYSTEM CONTROL UNIT.
8. ALL PIPING SHALL BE SCHEDULE 40 BLACK IRON, 3/8", UNLESS OTHERWISE NOTED.
9. THE REMOTE MANUAL PULL STATION SHALL BE LOCATED A MINIMUM OF 10' AND MAXIMUM OF 20' FROM PROTECTED HOOD AND SHALL BE IN THE PATH OF EGRESS, 48" AFF. THE MAXIMUM FORCE TO OPERATE THE PULL STATION IS 40lbs. MAXIMUM DISPLACEMENT TO OPERATE THE PULL STATION IS 14".
10. PER NFPA 96 (12.1.2.4 - 12.1.2.5) FRYER PANELS MUST BE INSTALLED WHEN FRYER IS CLOSER THAN 16" TO SURFACE FLAMES ON AN ADJACENT APPLIANCE.
11. A K-CLASS FIRE EXTINGUISHER (WITH A RATING OF 2A) 30 FT. MAX TRAVEL DISTANCE AWAY FROM SYSTEM IN MEANS OF EGRESS WITH ACCOMPANIED SIGNAGE POSTED, SHALL BE INSTALLED AT THE TIME OF FINAL INSPECTION.
12. SYSTEM AND TANKS SHALL BE SECURELY ATTACHED TO STRUCTURE USING ANCHORS/ TOGGLES, AND SCREWS.
13. EFFECTIVENESS OF THIS SYSTEM AS DESIGNED IS CONTINGENT UPON THE AUTHORIZED INSPECTION AND SERVICING OF ALL COMPONENTS AND PROPER CLEANING OF HOOD(S), DUCT(S) AND FAN(S). CHANGES TO SYSTEM SHALL VOID ALL WARRANTIES. CONTACT INSTALLATION COMPANY TO CONSULT ANY PROPOSED CHANGES PRIOR TO IMPLEMENTING THEM. SERVICE REQUIRED EVERY 6 MONTHS.
14. APPLIANCES SHOWN IN ELEVATIONS WITHOUT DIMENSIONS DO NOT REQUIRE SUPPRESSION, ONLY SHOWN FOR REFERENCE.
15. SEE DESIGN MANUAL FOR INFORMATION ON OPERATING DEVICES SHOWN ON PARTS DETAIL(S).
16. ONLY LISTED COMPONENTS SHALL BE USED.
17. NOZZLE HEIGHTS AND POSITIONS SHALL BE WITHIN MANUFACTURER'S SPECIFICATIONS.
18. DETECTORS SHALL BE PLACED IN ACCORDANCE WITH MANUFACTURER'S GUIDELINES: 1 PER DUCT & 1 PER 48" OF APPLIANCE(S).
19. PER NFPA 17A (5.6.4) AND NFPA 96 (12.1.2.3) ALL COOKING EQUIPMENT MUST BE POSITIONED IN ITS DESIGNED LOCATION IN RELATION TO THE FIRE SUPPRESSION SYSTEM.



FLOOR PLAN
Scale: NTS

SEQUENCE OF OPERATIONS

THE EXHAUST HOOD WILL BE EQUIPPED WITH AN ANSUL R-102 SYSTEM THAT HAS FUSIBLE LINKS FOR AUTOMATIC DETECTION OF A FIRE. THESE LINKS ARE SET TO MELT AT A PREDETERMINED TEMPERATURE AND WILL ACTIVATE THE ANSUL SYSTEM ONCE THAT TEMPERATURE IS EXCEEDED. THE ANSUL SYSTEM CAN ALSO BE ACTIVATED BY PULLING THE REMOTE PULL STATION HANDLE. ONCE ONE OF THESE TWO EVENTS HAS OCCURRED, THE FOLLOWING SEQUENCE WILL TAKE PLACE.

1. TENSION IN THE WIRE CABLE THAT CONNECTS THE FUSIBLE LINKS, REMOTE PULL STATION, AND THE MECHANICAL GAS VALVE TO THE ANSUL REGULATED RELEASE ASSEMBLY WILL BE RELEASED. AT THIS TIME, THE FOLLOWING WILL TAKE PLACE.
   - A. THE GAS VALVE WILL SHUT OFF THE FLOW OF GAS TO THE COOKING APPLIANCES
   - B. THE REGULATED RELEASE ASSEMBLY WILL ALLOW THE SYSTEM TO START SPRAYING THE ANSULEX LOW PH LIQUID FIRE SUPPRESSANT INTO THE PLENUM AREA. THE FILTERS, COOKING SURFACE, AND THE EXHAUST DUCT SYSTEM AT A PREDETERMINED FLOW RATE TO SUPPRESS THE FIRE.
   - C. THE REGULATED RELEASE ASSEMBLY WILL CHANGE THE STATE OF A SET OF MICRO SWITCHES THAT ARE WIRED TO THE HOODS ELECTRICAL CONTROL PACKAGE.

2. ONCE THE MICRO SWITCHES CHANGE STATE, THE FOLLOWING EVENTS WILL TAKE PLACE
   - A. THE EXHAUST FAN WILL TURN ON IF IT WAS OFF OR REMAIN RUNNING IF IT WAS ON AT THE TIME THE FIRE OCCURRED.
   - B. THE MAKE UP AIR FAN WILL SHUT DOWN
   - C. THE SHUNT TRIP DEVICE WIRED TO THE ELECTRICAL CONTROL PACKAGE WILL RECEIVE A SIGNAL TO SHUT DOWN THE APPLIANCES WIRED TO IT SO THAT THERE IS NO ELECTRICAL APPLIANCE UNDER THE HOOD RECEIVING POWER FROM THE BUILDING.
   - D. ADDITIONAL EVENTS MAY ALSO OCCUR AT THIS TIME DEPENDING ON LOCAL CODES SUCH AS A SIGNAL BEING SENT TO ACTIVATE THE BUILDING FIRE ALARM OR THE LIGHTS IN THE HOOD TURNING OFF.

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SYMBOLS LEGEND

SYSTEM & TANK (PLAN VIEW)	GAS VALVE	SYSTEM & TANK (ELEV VIEW)	300 DEGREE FUSIBLE LINK
PULL STATION (PLAN VIEW)	NOZZLE	PULL STATION (ELEV. VIEW)	EXHAUST DUCT
HORN STROBE	48 MAX. 22 MIN. NOZZLE HEIGHT MARKER	500 DEGREE FUSIBLE LINK	

SYSTEM MANUFACTURER/DISCRIPTION:
ANSUL UL 300 WET CHEMICAL HOOD SUPPRESSION SYSTEM

PROJECT NAME:
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