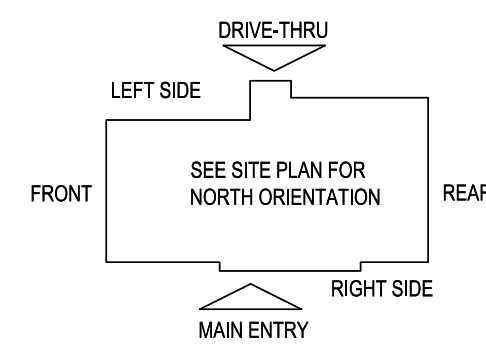


E5 HVAC PLAN
SCALE: 1/4" = 1'-0"



NOTE: ALL DUCTWORK TO BE LOCATED IN TRUSS SPACE WHERE POSSIBLE. SEE FRAMING PLAN.

HVAC SETPOINTS RECOMMENDED BY CORPORATE OPERATIONAL GUIDELINES:
1. DINING: HEATING 70°, COOLING 72°
2. KITCHEN: HEATING 68°, COOLING 74°

SUPPLY DUCTWORK SIZING TABLE*			
ROUND		RECTANGULAR	
SIZE	CFM RANGE	SIZE	CFM RANGE
8"	115 - 235	8"x8"	205 - 300
10"	240 - 435	10"x8"	305 - 400
12"	440 - 710	10"x10"	405 - 550
14"	715 - 1,070	12"x10"	555 - 700
16"	1,075 - 1,530	12"x12"	705 - 900
18"	1,535 - 2,090	14"x12"	905 - 1,105
20"	2,095 - 2,760	16"x12"	1,110 - 1,315
22"	2,765 - 3,550	18"x12"	1,320 - 1,520
24"	3,555 - 4,470	20"x12"	1,525 - 1,740
		22"x12"	1,745 - 1,950
		24"x12"	1,955 - 2,170
		26"x12"	2,175 - 2,400
		28"x12"	2,405 - 2,610
		30"x12"	2,615 - 2,840
		32"x12"	2,845 - 3,070
		34"x12"	3,075 - 3,290
		36"x12"	3,295 - 3,520
		36"x14"	3,525 - 4,420

*CONTRACTOR MAY SUBSTITUTE RECTANGULAR FOR ROUND DUCTWORK ON MAIN RUNS AT THEIR DISCRETION. BRANCHES TO DIFFUSERS TO REMAIN ROUND.

DIFFUSER, REGISTER, AND GRILLE SCHEDULE									
TAG	SERVICE	TYPE	MATERIAL	THROW	FACE	NECK	MOUNTING	MANUFACTURER/MODEL	Notes
SD-1	SUPPLY	LOUVERED	STEEL	4-WAY	24X24	SEE PLAN	LAY-IN	RAYMON PRO2	2, 4
SD-2 - NOT USED									
SD-3	SUPPLY	LOUVERED	STEEL	3-WAY	12X12	SEE PLAN	SURFACE	RAYMON PRO2/QMF/DAG	2, 4
SD-4	SUPPLY	LOUVERED	STEEL	4-WAY	12X12	SEE PLAN	SURFACE	RAYMON PRO2/QMF	2, 4
SD-5	SUPPLY	PERFORATED	STEEL	PERFORATED	24X24	SEE PLAN	LAY-IN	RAYMON RPR	2, 4
RG-1	RETURN	SQUARE EGGRATE	ALUMINUM	N/A	24X24	22x22	LAY-IN	RAYMON FGEC-TB1	2, 3, 4
EG-1	EXHAUST	LOUVERED GRILLE	ALUMINUM	N/A	12X12	SEE PLAN	SURFACE	RAYMON RA-HVD	1, 2, 4
TG-1	TRANSFER	LOUVERED GRILLE	ALUMINUM	N/A	SEE PLAN	SEE PLAN	SURFACE	RAYMON RA-RH	2, 4

DIFFUSER NOTES:

- PROVIDE w/ ADJUSTABLE OPPOSED BLADE DAMPER
- VERIFY ALL DIFFUSERS AND RETURN GRILLE COLORS WITH OWNER AND ARCHITECT
- PROVIDE w/ 22X22 PLENUM BOX.
- ALL DIFFUSERS AND RETURNS LOCATED IN BLACK CEILING SHALL BE FLAT BLACK FINISH.

© 2024

NEW CULVER'S RESTAURANT
Allen Road
Woodhaven, MI 48183
County of WAYNE

OWNER:
S & L PROPERTIES WOODHAVEN LLC
2651 KIRKING COURT
PORTAGE, WI 53901
Jeff Liegel, Realty Manager / Member
608-742-2893

OWNER:
OLLMANN ERNEST MARTIN ARCHITECTS
200 South State Street
Belvidere Illinois 61008
815-544-7190 Phone
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DATE: 03-08-2024
REVISION: 6-21-2024

HVAC PLAN, DIFFUSER SCHEDULE

2023-060
M101

GENERAL NOTES

- DEVIATIONS FROM THE HVAC PLANS ARE THE RESPONSIBILITY OF THE HVAC CONTRACTOR & WILL NOT RESULT IN ADDITIONAL COSTS TO THE OWNER UNLESS WRITTEN CHANGE ORDERS ARE APPROVED BY THE OWNER.
- ALL WORK TO BE PERFORMED TO STATE CODE & SMACNA GUIDELINES.
- INSTALL UNITS ACCORDING TO MANUFACTURERS GUIDELINES.
- PROVIDE OWNER W/ OPERATION & MAINTENANCE MANUALS & SYSTEM SCHEMATICS.
- CONTRACTOR TO CONFIRM VOLTAGES & PHASES OF EQUIPMENT PRIOR TO INSTALLATION.
- VERIFY ALL EXISTING CONDITIONS PRIOR TO INSTALLATION (DRAWINGS ARE DIAGRAMMATIC IN NATURE & DO NOT REFLECT EXACT LOCATIONS OF EQUIPMENT OR OTHER APPARATUSES.)
- PROVIDE SHOP DRAWINGS TO THE ARCHITECT/DESIGNER FOR EQUIPMENT, FANS, REGISTERS, ETC. PRIOR TO PROCUREMENT.
- PROVIDE OWNER W/ COLOR CHOICES FOR SWITCHES & OTHER APPARATUSES WHERE APPLICABLE.
- VENT OWNER WATER HEATER AS REQUIRED.
- VENT DRYER THRU SIDEWALL TO EXTERIOR AS REQUIRED. MAINTAIN CLEARANCE FROM INTAKES AS NOTED.
- HANG & SUPPORT MATERIALS SHALL BE INSTALLED THE LATEST EDITION OF THE ASHRAE HANDBOOK OF FUNDAMENTALS.
- MAINTAIN AT LEAST 10 FEET CLEARANCE FROM INTAKES OR WINDOWS ON ALL EXHAUST VENTS.
- TEST, ADJUST, & CALIBRATE CONTROL SYSTEMS AS REQUIRED. PROVIDE SCHEMATICS / DESCRIPTION TO THE OWNER PRIOR TO INSTALLATION.
- INSTALLER RESPONSIBLE FOR FINAL TEST & BALANCING DURING TRAINING WEEK. PROVIDE WRITTEN REPORT BY THIRD PARTY INDEPENDENT TAB CONTRACTOR.
- VERIFY W/ OWNER EXACT HEATER LOCATION TO AVOID BUILDING FUNCTION INTERFERENCE.
- REPLACE ALL AIR FILTERS PRIOR TO TURNING SYSTEM OPERATIONS OVER TO OWNER.
- HVAC CONTRACTOR IS RESPONSIBLE FOR A COMPLETE & FULLY WORKING SYSTEM.
- DUCT DIMENSIONS LISTED ARE NET FREE - CLEAR INSIDE DIMENSIONS.
- VERIFY DUCT LOCATIONS PRIOR TO FABRICATION. (VERIFY LIMITED AREA FOR DUCTWORK & OTHER APPARATUSES.)
- INSULATE DUCT WORK TO SMACNA GUIDELINES & STATE CODES.
- INSTALL VOLUME CONTROL DAMPERS AS INDICATED ON PLANS.
- FLEXIBLE ROUND DUCT WORK NOT TO EXCEED 8 FEET IN LENGTH, AVOID UNNECESSARY TURNS & SLACK.
- RETURN AIR DUCT WORK TO BE LINED FOR SOUND ATTENUATION.
- DUCT WORK TO BE STANDARD GAUGE SHEET METAL (PIBROS DUCT NOT ALLOWED.)
- INSULATE EXHAUST DUCT FOR EXHAUST FAN TO EXTERIOR TERMINATION.
- COORDINATE WORK W/ GENERAL CONTRACTOR & OWNER TO MAXIMIZE CEILING HEIGHT & AVOID CONFLICTS.
- S/S WALL PANELS FOR THE KITCHEN AREA ARE TO BE FURNISHED AND INSTALLED BY THE HVAC CONTRACTOR. PANELS ARE TO BE 18 GA. TYPE 304 S/S. SEE DETAILS AND LOCATIONS ON THE A103 DRAWING.
- EXHAUST FANS AND FURNACE FANS TO RUN CONTINUOUSLY DURING OCCUPIED MODE.
- NIGHT SET BACK THERMOSTATS TO BE INSTALLED ON ALL HVAC EQUIPMENT.

2023-060 CULVER'S OF WOODHAVEN, MI WOODHAVEN, MI

RTU SCHEDULES

UNIT No	AREA SERVED	SUPPLY FAN					COOLING						HEATING				ELECTRICAL (1)		MANUFACTURER, MODEL		
		SUPLY FAN TYPE	SA FAN VFD	SUPPLY CFM	MIN OA CFM	ESP	OA TEMP °FDB	°FWB	°FDB	°FWB	SUPPLY TEMP COIL LAT °FDB	COIL CAPACITY SENSIBLE MBH	LATENT MBH	GAS OR ELEC	OUTPUT MBH	OAT °FDB	HEATING STAGES	VOLTAGE		PHASE	
RTU-1	DINING ROOM	MSAV	YES	6,150	1,750	0.75"	89	75	78.98	66.75	55.00	54.68	158	67	GAS	221	-10	2	208	3	LENNOX ENLIGHT LGT
RTU-2	KITCHEN	MSAV	YES	6,150	1,725	0.75"	88	75	78.65	66.70	55.00	54.79	156	66	GAS	165	-10	2	208	3	LENNOX ENLIGHT LGT

- ADDITIONAL FACTORY INSTALLED OPTIONS FOR BOTH UNITS:**
- WEATHERPROOF DISCONNECT
 - FACTORY INSTALLED/FIELD POWERED GFCI
 - RETURN SMOKE DETECTOR
 - DRAIN PAN OVERFLOW SWITCH
 - SINGLE ENTHALPY ECONOMIZER W/ FAULT DETECTION DIAGNOSTICS
 - BAROMETRIC RELIEF
 - HAIL GUARDS
 - 2" MERV 13 FILTERS
 - SS HEAT EXCHANGER
 - HOT GAS REHEAT

- ADDITIONAL FIELD INSTALLED OPTIONS FOR BOTH UNITS:**
- 14" DOWNFLOW HYBRID CURB
 - PVC DRAIN TRAP KIT
 - REMOTE TEMPERATURE AND HUMIDITY SENSORS
 - LENNOX MODEL CS7500 PROGRAMMABLE THERMOSTAT
 - OUTDOOR AIR CFM CONTROL

- NOTES:**
- NOTIFY ELECTRICAL CONTRACTOR OF BREAKER REQUIREMENTS AFTER SELECTION

- PRV-1 RESTROOM EXHAUST FAN - REFER TO SHEET M204
- PRV-2 GRIDDLE EXHAUST FAN - REFER TO SHEET M202
- PRV-3 FRYER EXHAUST FAN - REFER TO SHEET M203
- EF-1A MOP ROOM EXHAUST FAN - REFER TO SHEET M204

- ITEM #49A GRIDDLE HOOD - REFER TO SHEET M202
- ITEM #59A FRYER HOOD - REFER TO SHEET M203
- ECH-1 ELECTRIC CEILING HEATER Q-MARK OR EQUAL CDF-548 ELECTRIC CEILING HEATER & CDF RECESSED MOUNTING FRAME, CDF-TR4 TRANSFORMER & WALL MOUNTED THERMOSTAT. 208/240 VOLT SINGLE PHASE = 19.2 AMPS (SUPPLIED AND INSTALLED BY ELECTRICAL CONTRACTOR.)

CONTROL NOTES

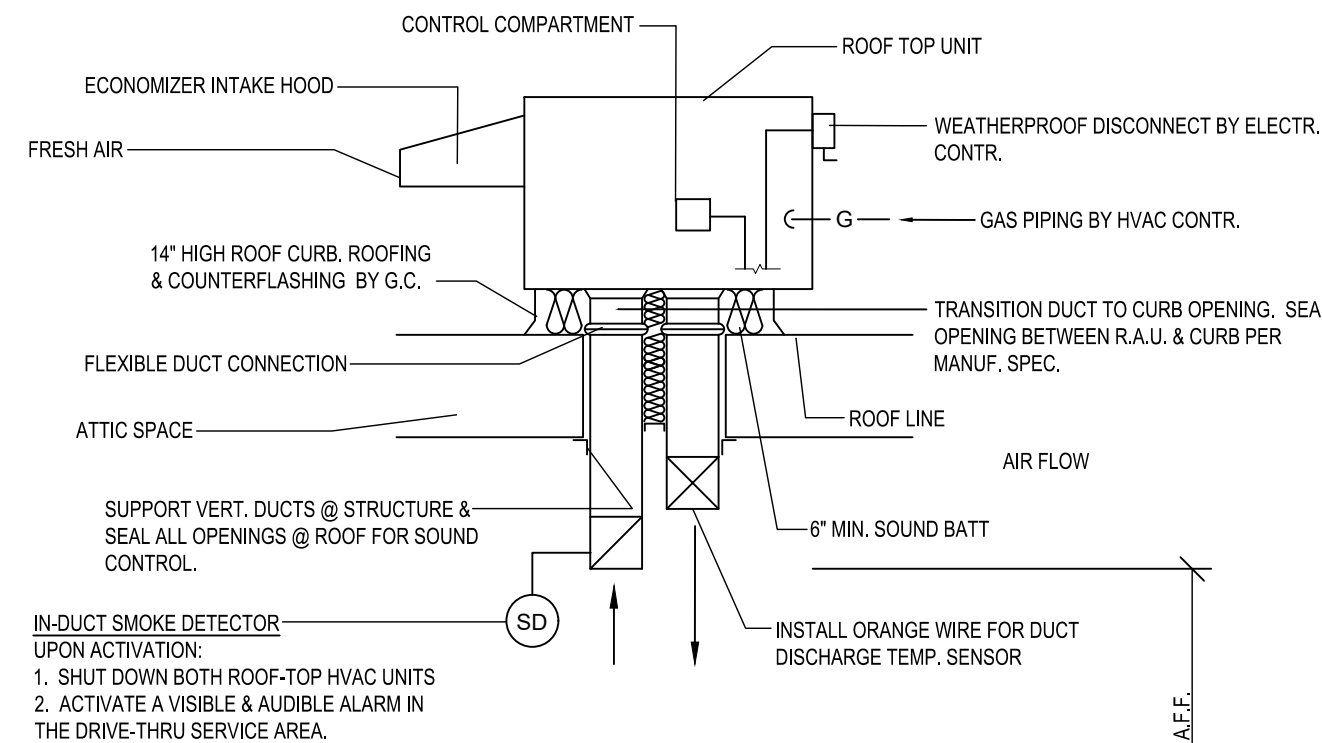
NOTE: KITCHEN HOODS SUPPLIED AND INSTALLED BY HVAC CONTRACTOR

- WIRE RTU-1, RTU-2 TO SHUT-DOWN & EXHAUST HOOD FANS TO CONTINUE TO RUN UPON ACTIVATION OF THE ANSUL SYSTEM.
- WIRE RTU-1 & RTU-2 TO SHUT-DOWN UPON ACTIVATION OF ANY IN-DUCT SMOKE DETECTOR.
- OCCUPIED MODE: FANS IN RTU-1 & RTU-2, EXHAUST FANS PRV-1, PRV-2, PRV-3 AND EF-1 TO RUN CONTINUOUSLY.
- UNOCCUPIED MODE: FANS IN RTU-1 & RTU-2 TO RUN ONLY WHEN COOLING OR HEATING IS CALLED FOR.

TEST & BALANCE NOTES

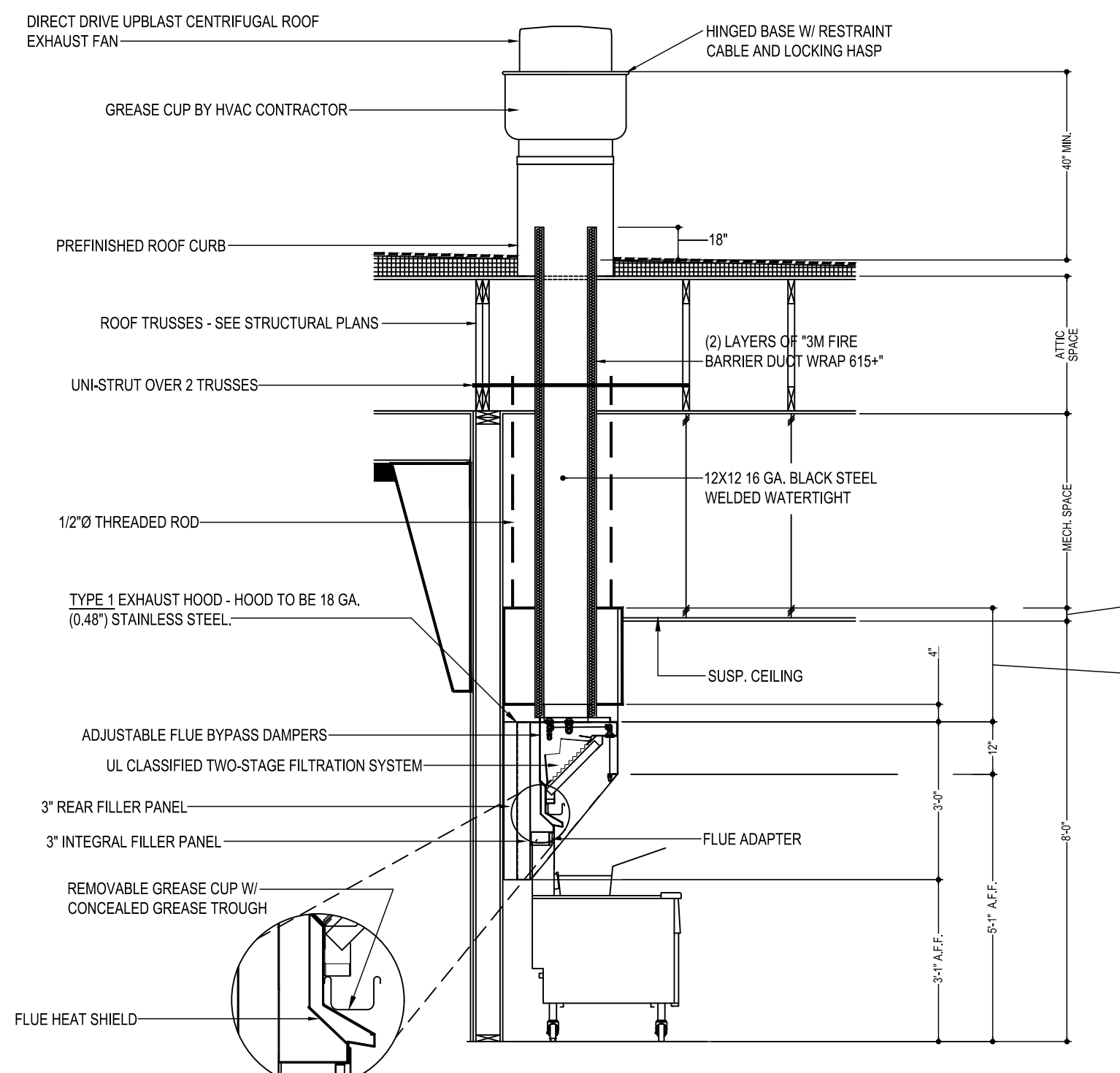
- ACCUREX WILL PROVIDE BALANCED AIRFLOW & FUNCTIONAL CHARACTERISTICS OF THE HVAC SYSTEM AS THEY RELATE TO AIRFLOW & AIR PRESSURE ONLY. SERVICES TO BE PERFORMED BY A CERTIFIED NEBB FIRM & ITS MANAGING GROUP NATIONAL TAB.
- SERVICES NOT INCLUDED: PULLEY / SHEAVE CHANGES, MOTOR CHANGE OUTS, OR RETURN TRIPS DUE TO DELAYS CAUSED BY JOB INCOMPLETENESS.
- ESTABLISH MINIMUM OUTSIDE AIR FLOW INDICATED ON SCHEDULES AT ALL SUPPLY FAN SPEEDS.

AIR BALANCE TABLE				
EXHAUST AIR FLOW				
EQUIPMENT TAG	SERVICE	CFM		
PRV-1	RESTROOMS	400		
PRV-2	ITEM #49	1,500		
PRV-3	ITEM #59	1,500		
EF-1A	MOP ROOM	75		
TOTAL =		3,475		
VENTILATION REQUIRED PER 2015 MICHIGAN MECHANICAL CODE				
EQUIPMENT TAG	SERVICE	CFM		
RTU-1	DINING ROOM	1,825		
RTU-2	KITCHEN	100		
TOTAL =		1,925		
3,475 > 1,925 -> USE 3,475 CFM FOR OUTSIDE AIR CFM				
OVERALL AIRFLOW SUMMARY				
EQUIPMENT TAG	SERVICE	SUPPLY CFM	RETURN CFM	OUTSIDE AIR CFM
RTU-1	DINING ROOM	6,150	4,400	1,750
RTU-2	KITCHEN	6,150	4,425	1,725
TOTAL OUTSIDE AIR CFM =				3,475



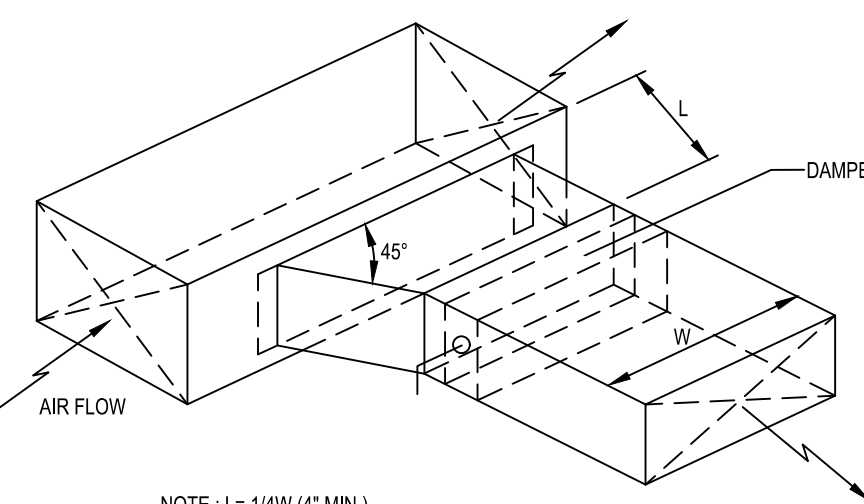
A6 ROOFTOP HVAC UNIT

SCALE: N.T.S.



C3 KITCHEN HOOD EXHAUST DETAIL

SCALE: N.T.S. VERIFY MOUNTING HEIGHTS W/ OWNER AND GENERAL CONTRACTOR



C6 BRANCH DUCT TAKEOFF DETAILS

SCALE: N.T.S.

LENNOX SETTINGS FOR CULVERS

IN ORDER TO SET UP THE RTUS YOU WILL NEED TO DOWNLOAD LENNOX CORE SERVICE APP, AND PAIR YOUR DEVICE WITH THE CORE CONTROLLER. ONCE PAIRED YOU WILL SEE THE OPERATION OVERVIEW SCREEN. SEE INSTALLATION MANUAL FOR INSTRUCTIONS ON DOWNLOADING THE APP, OR SCAN THE QR CODE ON THE FRONT COVER OF THE CONTROLLER

HEAT DELAY ADJUSTMENT

- HEAT DELAY WILL BE PRESET IN THE CORE CONTROLLER AND CHANGED IN THE APP AS SHOWN IN THE MENU PATH BELOW. DEFAULT IS SET AT 3600 SECONDS.
- TAP THE MENU BUTTON, (THREE LINES IN THE UPPER LEFT OF THE SCREEN) TO OPEN THE MENU.
 - TAP SET UP
 - TAP TEST AND BALANCE
 - TAP DAMPER

GLOBAL ECONOMIZER MODE (KITCHEN UNIT ONLY)

- THIS IS SET BY CHANGING CONFIGURATION ID#1 CHARACTER 2 TO G
- FROM THE MAIN SCREEN (OPERATION OVERVIEW) TAP THE MENU BUTTON (THREE LINES IN THE UPPER LEFT OF THE SCREEN) TO OPEN THE MENU
 - TAP INSTALL
 - TAP NEXT ON DATE AND TIME
 - TAP NEXT ON RTU NAME, MODEL NUMBER, SERIAL NUMBER AND CATEGORY IF ALREADY ENTERED, IF NOT PLEASE ENTER
 - TAP CONFIGURATION ID 1 AND CHANGE 2ND CHARACTER TO G

ECONOMIZER MINIMUM POSITION SET-UP

- THIS IS ADJUSTED THROUGH THE MENU FROM THE MAIN SCREEN
- TAP THE MENU BUTTON (THREE LINES IN THE UPPER LEFT OF THE SCREEN)
 - SCROLL DOWN AND TAP RTU OPTIONS
 - TAP EDIT PARAMETERS
 - CHOOSE FROM THE CATEGORY OF PARAMETERS LISTED (AIRFLOW)
 - CHOOSE THE PARAMETER TO ADJUST (132) MINIMUM FRESH AIR DAMPER POSITION DURING OCCUPIED OPERATION

OCCUPIED AND UNOCCUPIED

- USING 24V THERMOSTAT CONTROL, OCCUPIED/ UNOCCUPIED WILL BE DETERMINED BY INPUT ON P297-8 ON THE IM BOARD
- FOR KITCHEN UNIT ONLY) BOTH THE THERMOSTAT AND HOOD FANS MUST BE TIED INTO P297-8 ON THE IM CONTROL BOARD

FRESH AIR TEMPERING (HEATING)

- THIS IS ADJUSTED THROUGH THE MENU FROM THE MAIN SCREEN
- TAP THE MENU BUTTON (THREE LINES IN THE UPPER LEFT OF THE SCREEN) TO OPEN THE MENU
 - TAP SET UP
 - TAP TEST AND BALANCE
 - TAP DAMPER
- THERE ARE SEVERAL SETTINGS TO SELECT IN THIS MENU PATH BEFORE REACHING THE DESIRED SETTING. FRESH AIR HEATING ENABLED =YES OR NO. AFTER ENABLING FAH THE NEXT SCREEN WILL ALLOW THE FAH SET POINT TO BE CONFIGURED. SUGGESTED FAH TEMPERATURE RANGES 65-67 DEGREES F. VERIFY WITH ENGINEER

FRESH AIR TEMPERING (COOLING)

- THIS IS ADJUSTED THROUGH THE MENU FROM THE MAIN SCREEN
- TAP THE MENU BUTTON (THREE LINES IN THE UPPER LEFT OF THE SCREEN) TO OPEN THE MENU
 - TAP SET UP
 - TAP TEST AND BALANCE
 - TAP DAMPER
- THERE ARE SEVERAL SETTINGS TO SELECT IN THIS MENU PATH BEFORE REACHING THE DESIRED SETTING. FRESH AIR HEATING ENABLED =YES OR NO. AFTER ENABLING FAH THE NEXT SCREEN WILL ALLOW THE FAH SET POINT TO BE CONFIGURED. SUGGESTED FAH TEMPERATURE RANGES 73-75 DEGREES F. VERIFY WITH ENGINEER

ENSURE THAT THE PROBE STYLE SENSOR GETS INSTALLED IN THE SUPPLY DUCTWORK FOR FAHFH TO OPERATE PROPERLY.

FOR HELP PLEASE CALL LENNOX NATIONAL ACCOUNT TECH SUPPORT AT 1-800-367-6285

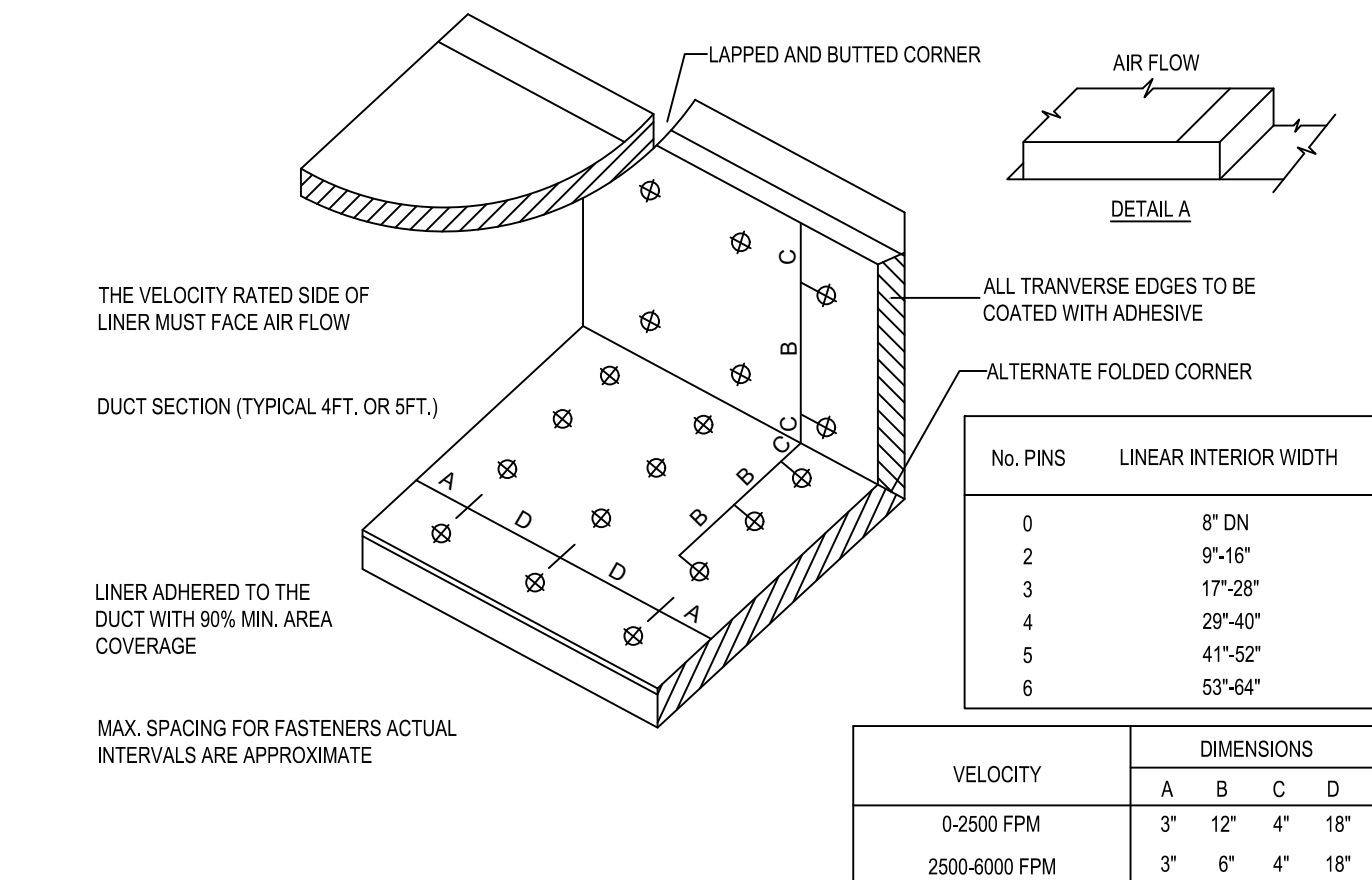
CHECK FOR CORRECT OPERATION AND WIRING OF ALL SENSORS

COOKING APPLIANCE / TYPE 1 HOOD INTERLOCK

- REMOTE SWITCH ON - POWER TO KITCHEN FAN CONTROL CENTER (KFCC)
- KFCC CONTROLS
 - EXHAUST FANS PRV-2 (GRILLE) & PRV-3 (FRYERS) ARE STARTED.
 - OPENS OUTSIDE AIR INTAKE ON RTU-1 & RTU-2 TO MINIMUM FRESH AIR OPENING.
 - POWER TO OUTLETS #51 (GRILLE) & #60 (FRYERS).
- GRILLE & FRYER CAN BE STARTED.
- IN CASE OF FIRE:
 - SHUNT TRIP BREAK FOR GRILLE & FRYERS OUTLET TRIPS.
 - ANSUL SYSTEM IS ACTIVATED.
 - THE MECHANICAL GAS VALVES CLOSES.
 - SHUT DOWN RTU-1 & RTU-2 & CLOSE OUTSIDE AIR.
 - EXHAUST FANS PRV-2 & PRV-3 CONTINUE TO RUN.

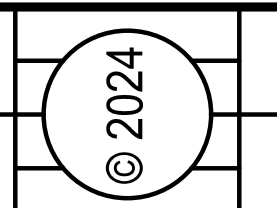
GREASE HOOD FIRE SUPPRESSION SYSTEM

WET-CHEMICAL EXTINGUISHING SYSTEMS SHALL BE INSTALLED, MAINTAINED, PERIODICALLY INSPECTED AND TESTED IN ACCORDANCE WITH NFPA 17A AND THEIR LISTING.



E5 DUCT LINER INSTALLATION DETAIL

SCALE: N.T.S. NOTE: USE ONLY ON VERTICAL DROP FROM RTU TO WITHIN 9'-10" A.F.F. DUCT LINER WILL NOT BE PERMITTED ON ANY HORIZ. RUNS.



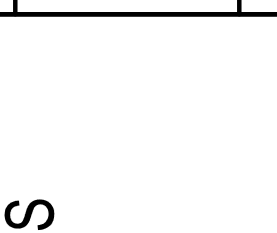
NEW CULVER'S RESTAURANT
Allen Road
Woodhaven, MI 48183
County of WAYNE



Culver Franchising System, Inc.
1240 Wale Street
Prairie du Sac, WI 53578
608-843-7880

OWNER:
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2651 Kinking Court
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Jeff Liegel, Realty Manager / Member
608-742-2893

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Belvidere Illinois 61008
815-544-7190 Phone
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HVAC SCHEDULE & DETAILS
Date: 03-08-2024
Revision:

2023-060
M201

HOOD INFORMATION

HOOD NO.	MARK	MODEL	HOOD DIMENSIONS (IN.)			HOOD CONSTR.	COOKING LOAD / DUTY RATING	TOTAL CFM	EXHAUST COLLAR(S)					MUA CFM	AC CFM	TOTAL WEIGHT LBS.	SECTION LOCATION
			LENGTH	WIDTH	HEIGHT				WIDTH	LENGTH	DIA.	CFM	S.P.				
1	GRIDDLE HOOD	XGEP-64-S	64	TOP 23 BOT 8	FRT 12 BACK 36	430 SS WHERE EXPOSED	MEDIUM	1500	12	12		1500	1.918			137	SINGLE

HOOD INFORMATION

HOOD NO.	MARK	LIGHTING DETAILS			GREASE FILTRATION DETAILS			UTILITY CABINET(S)				
		FIXTURE TYPE	BULB / LAMP INFO	QTY	FOOT CANDLES	TYPE / MODEL	MATERIAL	QTY	SIZE (IN.)	LOCATION	FIRE SYSTEM	CONTROLS
1	GRIDDLE HOOD					GREASE GRABBER	4	16	16			
						STAINLESS STEEL	0	20	16			

HOOD OPTIONS

UL 710 LISTED W/ OUT EXHAUST FIRE DAMPER - UL #R25625
 BACK NON-INTEGRAL AIR SPACE - 3 IN WIDE
 26 IN HIGH CEILING ENCLOSURES - FRONT LEFT RIGHT - FIELD INSTALLED
 FACTORY MOUNTED EXHAUST COLLAR(S)
 PERFORMANCE ENHANCING LIP (PEL) TECHNOLOGY
 STANDING SEAM CONSTRUCTION FOR SUPERIOR STRENGTH

SPECIAL DESIGN REQUESTS

SDR #K1100145 - FLUE BYPASS HOOD
 SDR #K1800144 - CULVERS 4VAT 2FIRE PROCESS - GRIDDLE HOOD

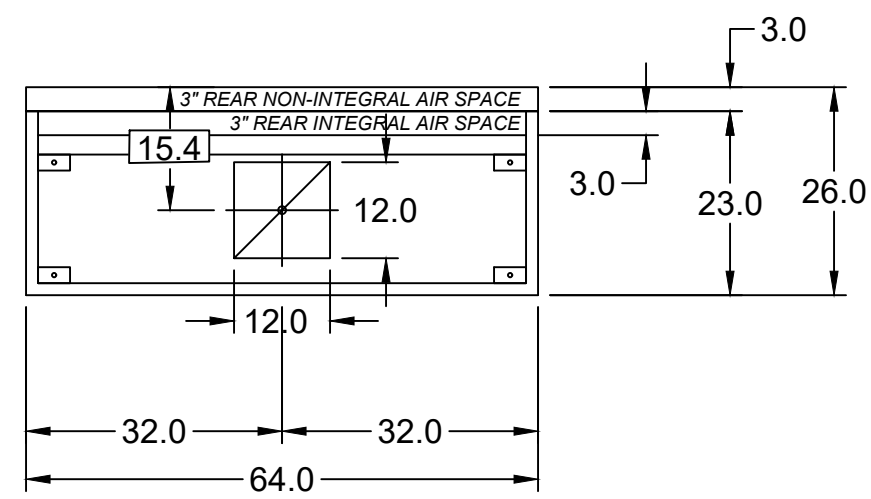
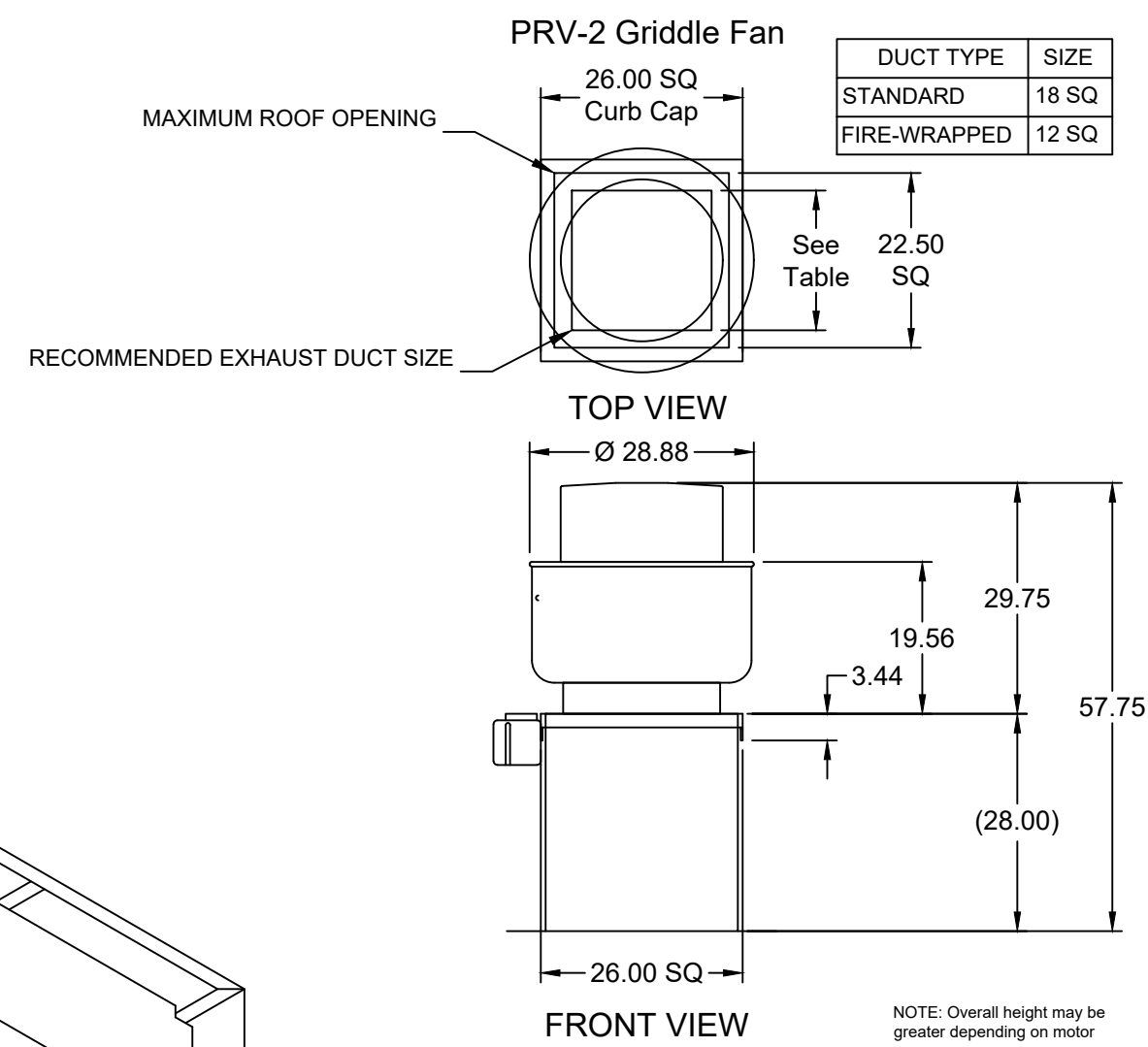
Direct Drive Upblast Centrifugal Roof Exhaust Fan

MARK INFORMATION			FAN INFORMATION					MOTOR INFORMATION					
QTY	MARK	MODEL	VOLUME (CFM)	TOTAL EXTERNAL SP (IN WG)	FAN RPM	OPERATING POWER (HP)	WEIGHT (LB.)	SIZE (HP)	V/C/P	ENCLOSURE	MOTOR RPM	WINDINGS	NEC FLA*
1	PRV-2 Griddle Fan	XCUE-140-VG	1,500	1.801	1,725	0.83	92	1	115/60/1	OP	1725	1	16

*NEC FLA - Based on table 430.250 or 430.248 of National Electrical Code 2020. Actual motor FLA may vary for sizing thermal overload, consult factory"

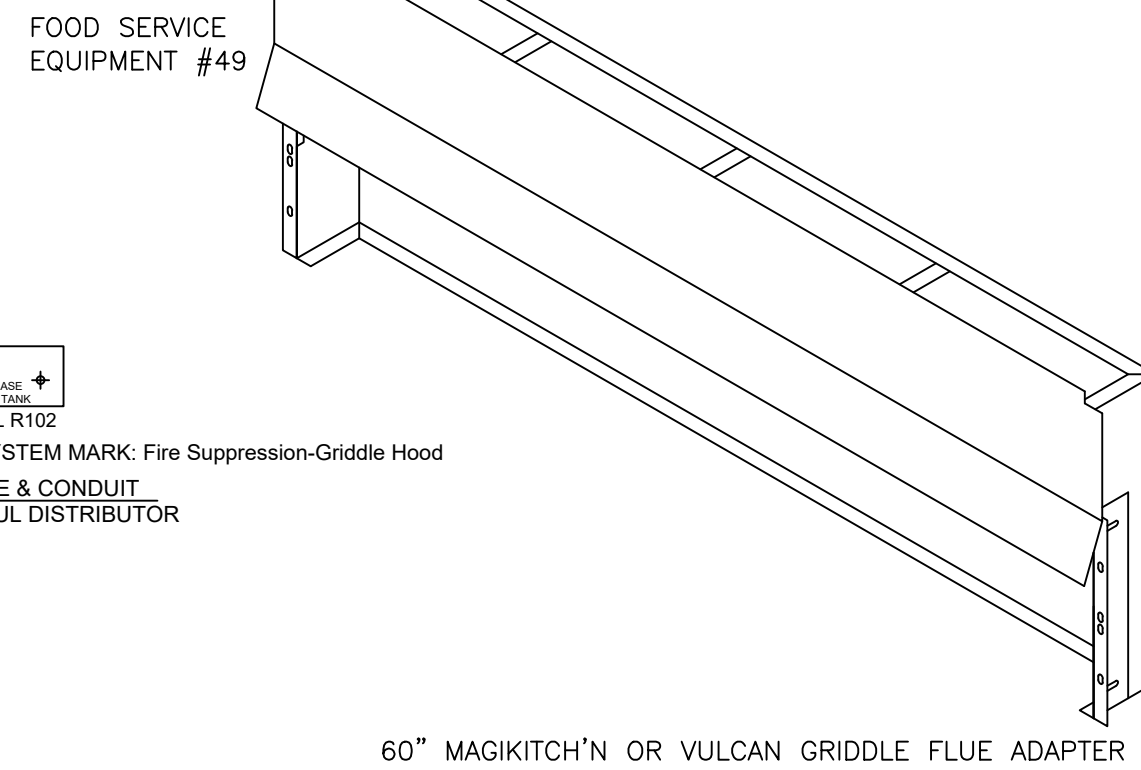
PRV-2 Griddle Fan : SELECTED OPTIONS AND ACCESSORIES

One piece fully welded windband
 Tapered bushing wheel hub
 Breather tube outlet area min. 4.4 sq. in. (sizes 99-480), 2.0 sq. in. (sizes 60-95)
 Min. windband material thickness: 0.051" aluminum (060-240), 0.064" aluminum (240HP, 240XP), 0.080" aluminum (sizes 300-480)
 Larger Curb Cap Size - 26 Square
 UL/cUL 705 Listed - Supplement SC - "Power Ventilators for Restaurant Exh. Appliances" (Formerly UL 762)
 Switch, NEMA-3R, Toggle,
 Hinge, Factory Installed
 High Temp Curb Seal Rated for Continuous Duty at 1500 F (Factory Attached)
 Grease Trap (PN 475538)
 Clean-out Port - Factory Installed
 Conduit Chase Qty 1

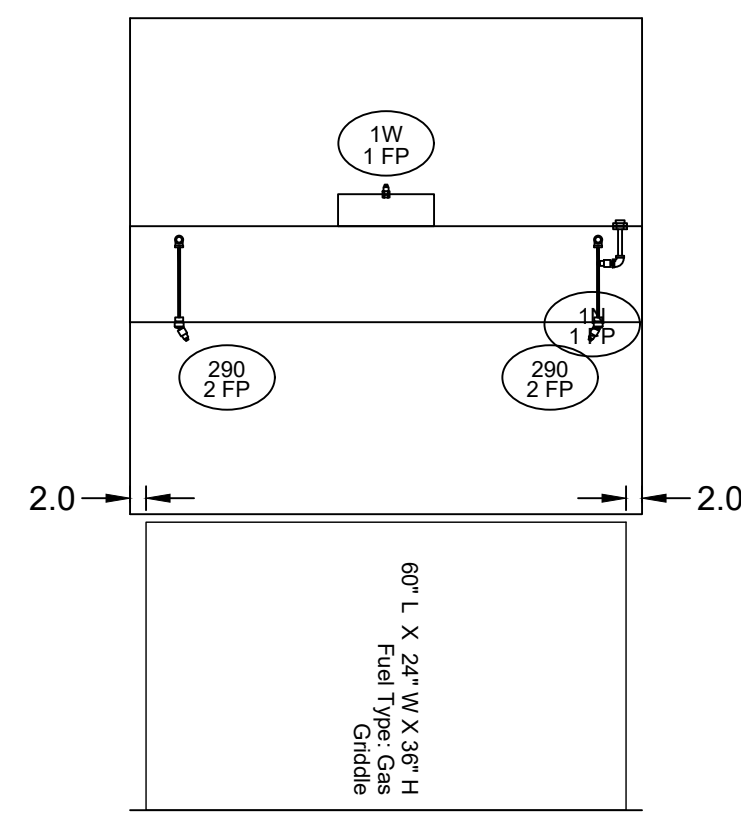


MARK: Griddle Hood - SECTION 1 PLAN VIEW

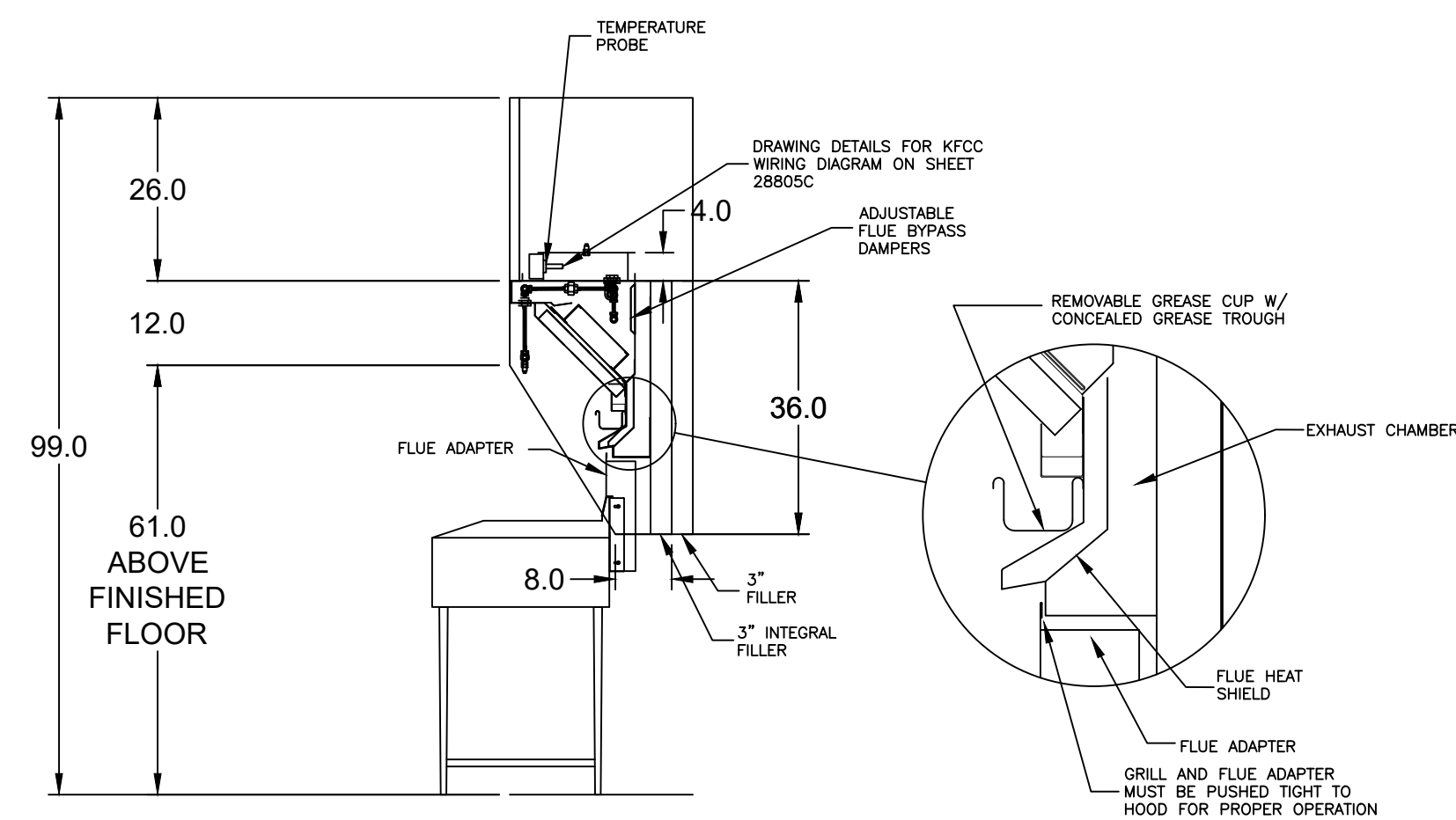
MUST USE WITH MAGIKITCH'N MODEL MKG-C-60 OR VULCAN MODEL VIG60-R3



60" MAGIKITCH'N OR VULCAN GRIDDLE FLUE ADAPTER



SECTION 1 ELEVATION VIEW



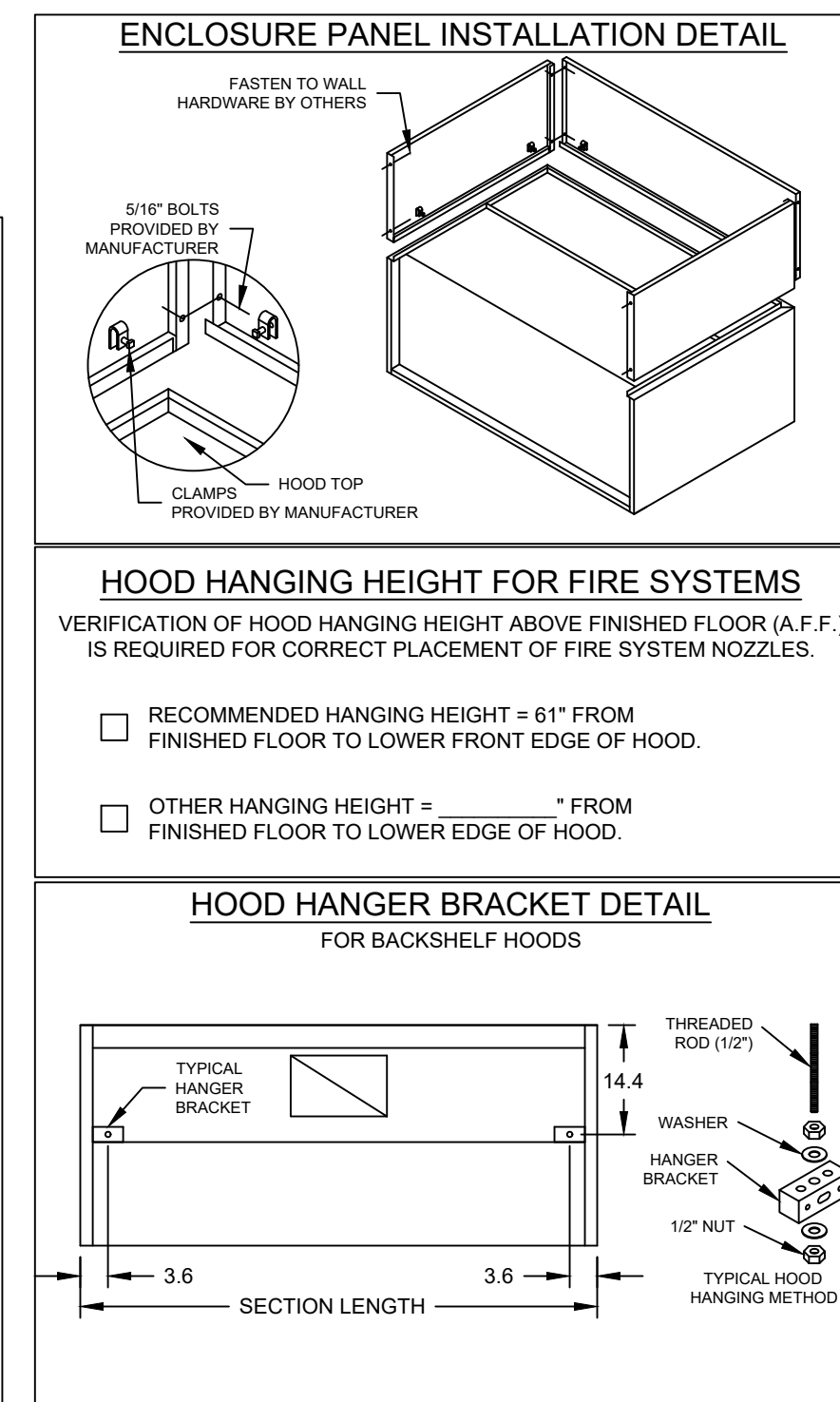
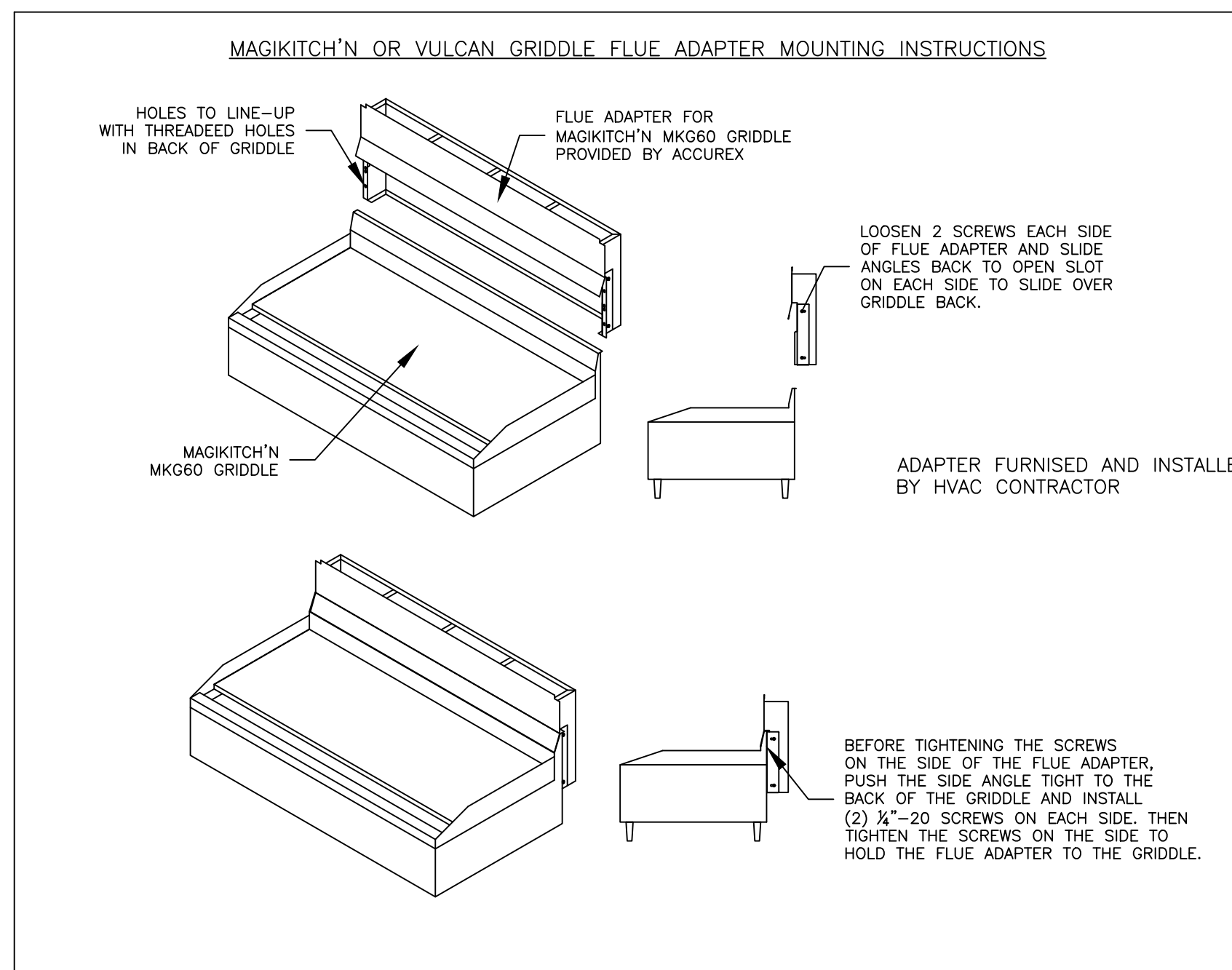
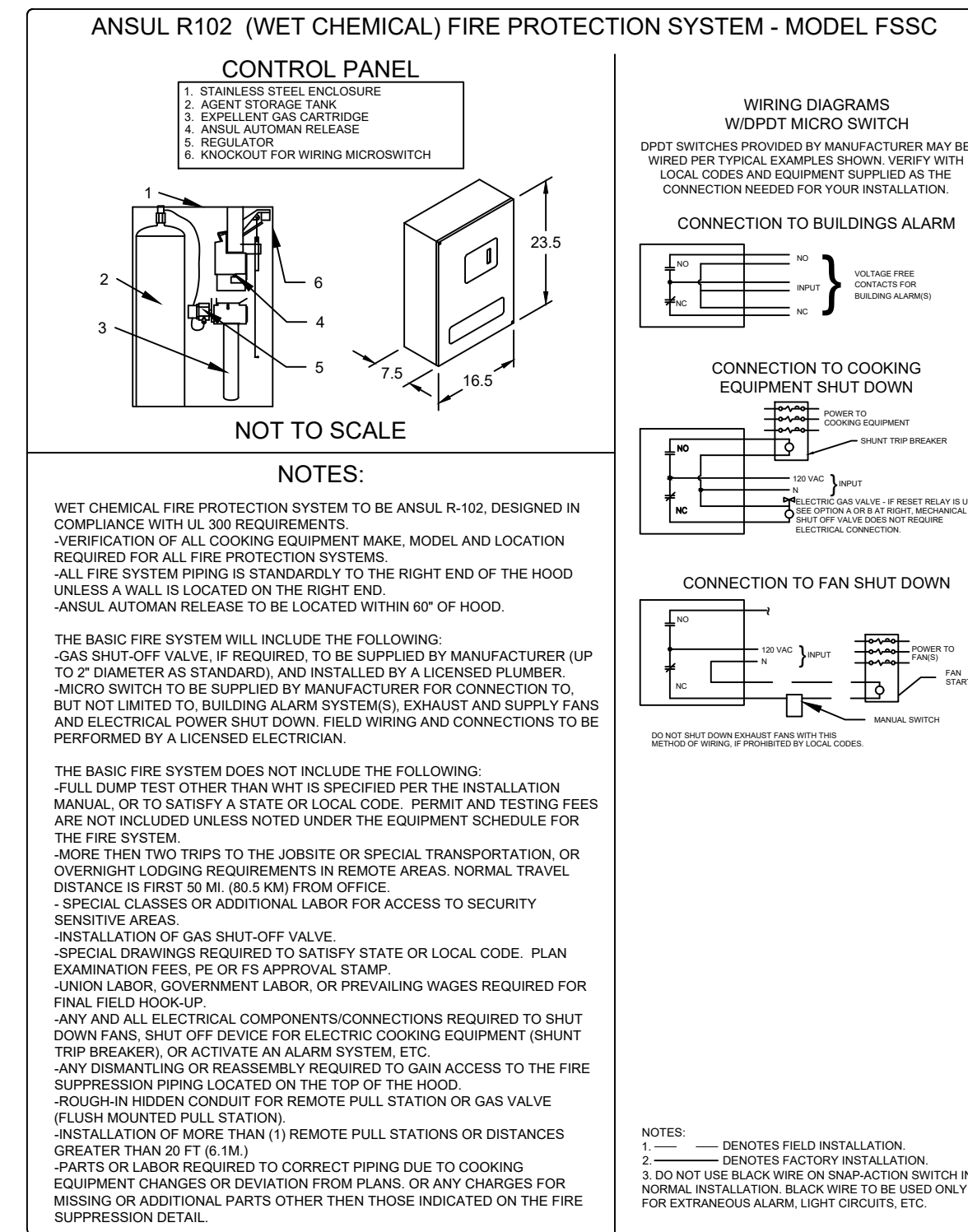
MARK: Griddle Hood SECTION VIEW

FIRE SYSTEM INFORMATION

MARK	MODEL	LOCATION	FLOW POINTS		SUPPLY LINE	DETECTION	MARK(S) PROTECTED BY FIRE SYSTEM
			HOODS	PCU			
FIRE SUPPRESSION-GRIDDLE HOOD	ANSUL R-102 WET CHEMICAL	REMOTE MOUNTED	6 UTILIZED	11 AVAILABLE	CONTINUOUS	FUSIBLE LINK	GRIDDLE HOOD SECTION 1

FIRE SYSTEM OPTIONS AND ACCESSORIES

FULL INSTALLATION (INCLUDES PRE-PIPED HOOD(S) WITH DETECTION AND FACTORY COORDINATED INSTALL)
 CHROME SLEEVES FOR FACTORY PROVIDED APPLIANCES DROPS - INCLUDED
 METAL BLOW-OFF CAPS - INCLUDED
 HOOD SUPPRESSION AGENT - INCLUDED - 3 GAL. - ((1) 3.0 TANK(S))
 REMOTE PULL STATION - STANDARD - INSTALLATION AT SINGLE POINT OF EGRESS



ACCUREX

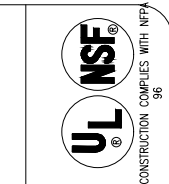
CULVERS - METRO L 2021 (S)

PROJECT 3/15/2024

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GRIDDLE HOOD
 PRV-2 GRIDDLE FAN
 FIRE SUPPRESSION-GRIDDLE HOOD

MARK



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 Woodhaven, MI 48183
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GRIDDLE HOOD/EXHAUST
 SCHEDULE & DETAILS

Date: 03-08-2024
 Revision:

2023-060
 M202

HOOD INFORMATION

HOOD NO.	MARK	MODEL	HOOD DIMENSIONS (IN.)			HOOD CONSTR.	COOKING LOAD / DUTY RATING	EXHAUST					SUPPLY		TOTAL WEIGHT LBS.	SECTION LOCATION	
			LENGTH	WIDTH	HEIGHT			TOTAL CFM	COLLAR(S)			MUA CFM	AC CFM				
1	FRYER HOOD	XXEP-83-S	83	TOP 23 BOT 3	FRT 12 BACK 36	430 SS WHERE EXPOSED	MEDIUM	1500	12	12		1500	0.518			169	SINGLE

HOOD INFORMATION

HOOD NO.	MARK	LIGHTING DETAILS			GREASE FILTRATION DETAILS			UTILITY CABINET(S)					
		FIXTURE TYPE	QTY	FOOT CANDLES	TYPE / MODEL	QTY	SIZE (IN.)	LOCATION	FIRE SYSTEM	CONTROLS	SIZE	MODEL	INTERFACE
1	FRYER HOOD				X-TRACTOR (SPARK ARRESTOR INCL.)	5	16						
					STAINLESS STEEL	0	20						

HOOD OPTIONS

UL 710 LISTED W/ OUT EXHAUST FIRE DAMPER - UL #R25625
 BACK NON-INTEGRAL AIR SPACE - 3 IN WIDE
 26 IN HIGH CEILING ENCLOSURES - FRONT LEFT RIGHT - FIELD INSTALLED
 FACTORY MOUNTED EXHAUST COLLAR(S)
 PERFORMANCE ENHANCING LIP (PEL) TECHNOLOGY
 STANDING SEAM CONSTRUCTION FOR SUPERIOR STRENGTH

SPECIAL DESIGN REQUESTS

SDR #K1100559 - NEW PITCO 4L FRYER FLUE BYPASS SYSTEM
 SDR #K1700974 - CULVERS 4VAT 2FIRE PROCESS - FRYER HOOD
 SDR #K2000140 - IF FRYMASTER FRYER FLUE BYPASS

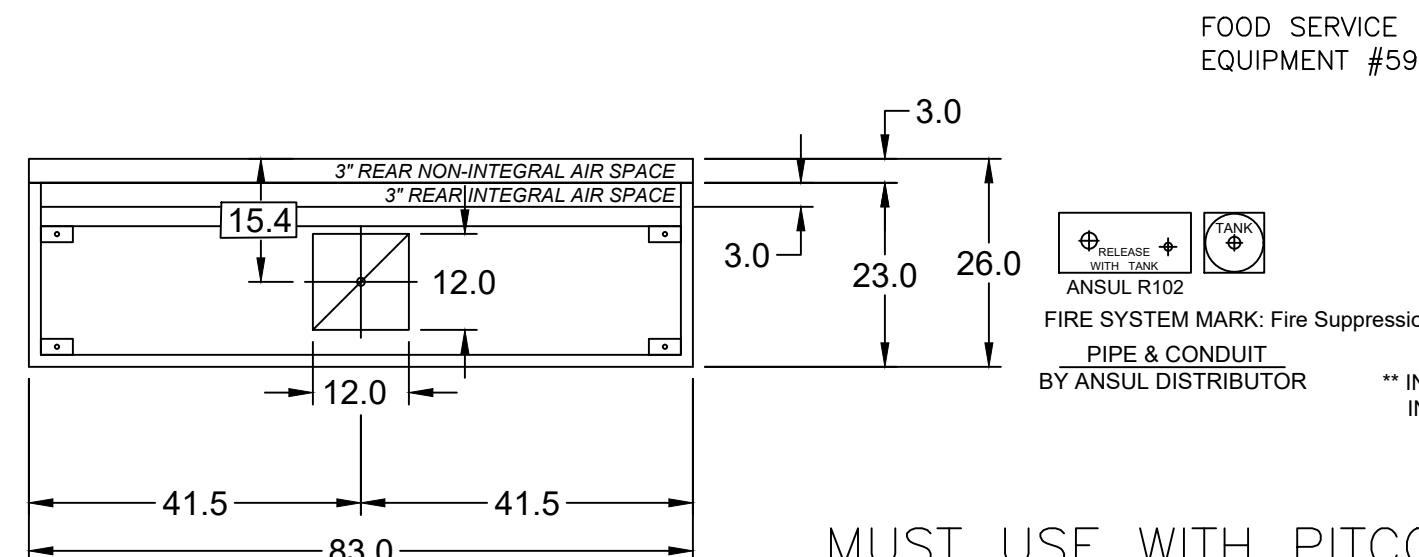
Direct Drive Upblast Centrifugal Roof Exhaust Fan

MARK INFORMATION		FAN INFORMATION				MOTOR INFORMATION							
QTY	MARK	MODEL	VOLUME (CFM)	TOTAL EXTERNAL SP (IN WG)	FAN RPM	OPERATING POWER (HP)	WEIGHT (LB.)	SIZE (HP)	V/C/P	ENCLOSURE	MOTOR RPM	WINDINGS	NEC FLA*
1	PRV-3 Fryer Fan	XCUE-140-VG	1,500	1	1,365	0.46	92	1	115/60/1	OP	1725	1	16

*NEC FLA - Based on table 430.250 or 430.248 of National Electrical Code 2020. Actual motor FLA may vary for sizing thermal overload, consult factory"

PRV-3 Fryer Fan : SELECTED OPTIONS AND ACCESSORIES

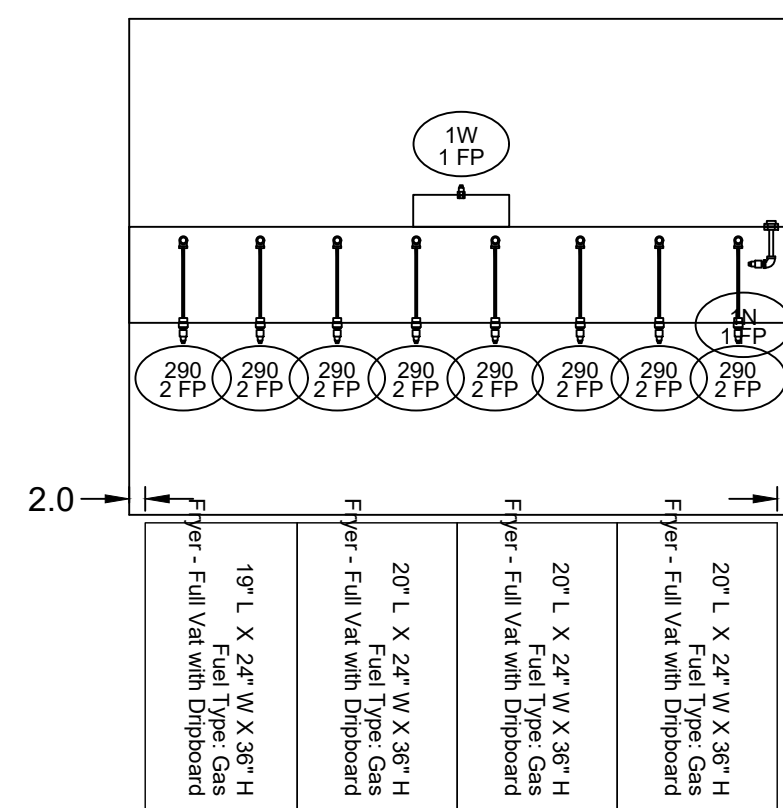
One piece fully welded windband
 Tapered bushing wheel hub
 Breather tube outlet area min. 4.4 sq. in. (sizes 99-480), 2.0 sq. in. (sizes 60-95)
 Min. windband material thickness: 0.051" aluminum (060-240), 0.064" aluminum (240HP, 240XP), 0.080" aluminum (sizes 300-480)
 Larger Curb Cap Size - 26 Square
 UL/cUL 705 Listed - Supplement SC - "Power Ventilators for Restaurant Exh. Appliances" (Formerly UL 762)
 Switch, NEMA-3R, Toggle,
 Hinge, Factory Installed
 High Temp Curb Seal Rated for Continuous Duty at 1500 F (Factory Attached)
 Grease Trap (PN 475538)
 Clean-out Port - Factory Installed
 Conduit Chase Qty 1



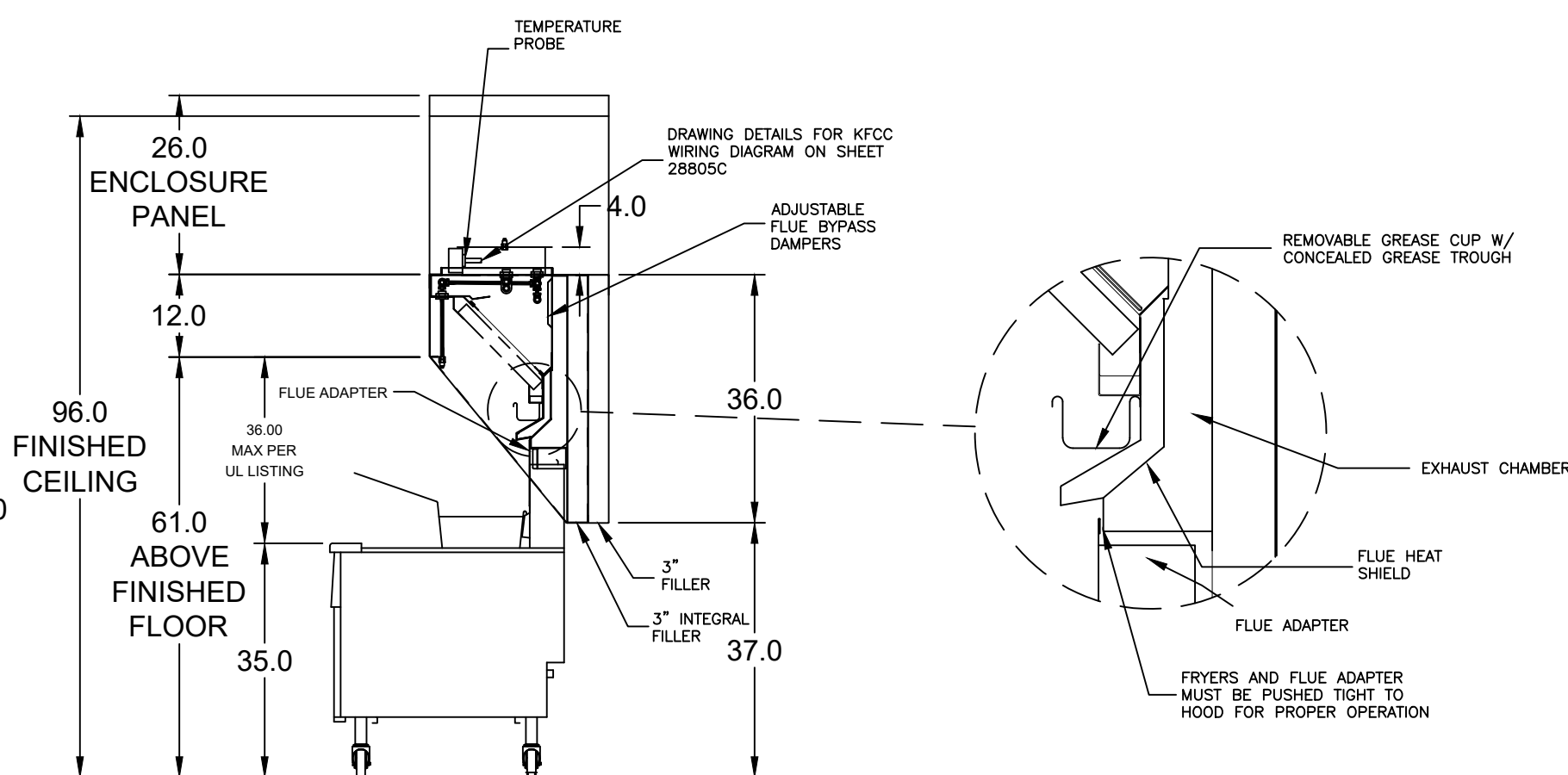
MARK: Fryer Hood
PLAN VIEW

MUST USE WITH PITCO
 MODEL CU-SSH60W/WR 4VAT FRYER
 IF FRYMASTER MODEL 41814GF-CFS
 IS BEING USED, NOTIFY ACCUREX REP

PITCO MODEL CU-SSH60W/WR 4-VAT FRYER FLUE ADAPTER
 OR FRYMASTER MODEL 41814GF-CFS



SECTION 1
ELEVATION VIEW



MARK: ITEM #59
SECTION VIEW

FIRE SYSTEM INFORMATION

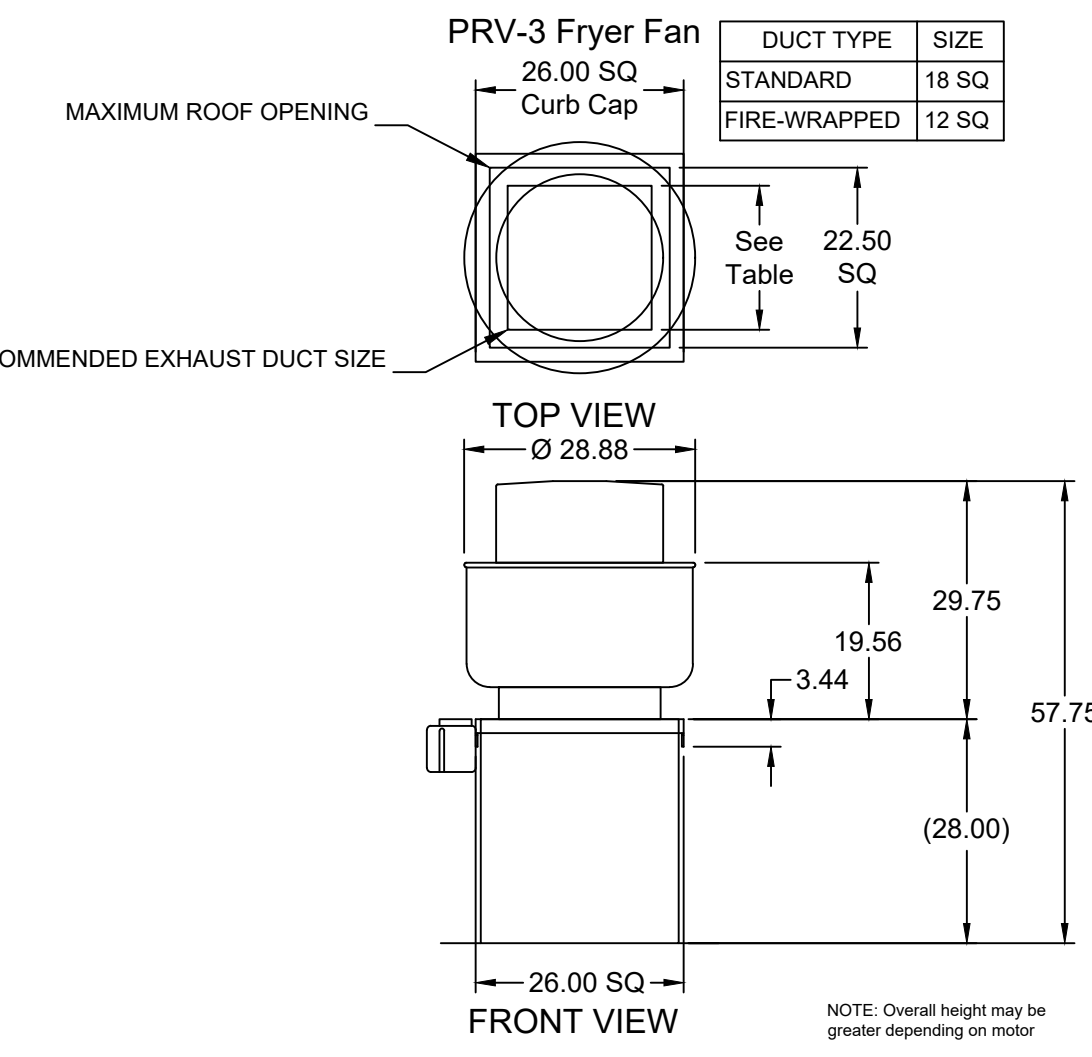
MARK	MODEL	LOCATION	FLOW POINTS		SUPPLY LINE	DETECTION	MARK(S) PROTECTED BY FIRE SYSTEM
			HOODS	PCU			
FIRE SUPPRESSION-FRYER HOOD	ANSUL R-102 WET CHEMICAL	REMOTE MOUNTED	18 UTILIZED	22 AVAILABLE	CONTINUOUS	FUSIBLE LINK	FRYER HOOD SECTION 1

FIRE SYSTEM OPTIONS AND ACCESSORIES

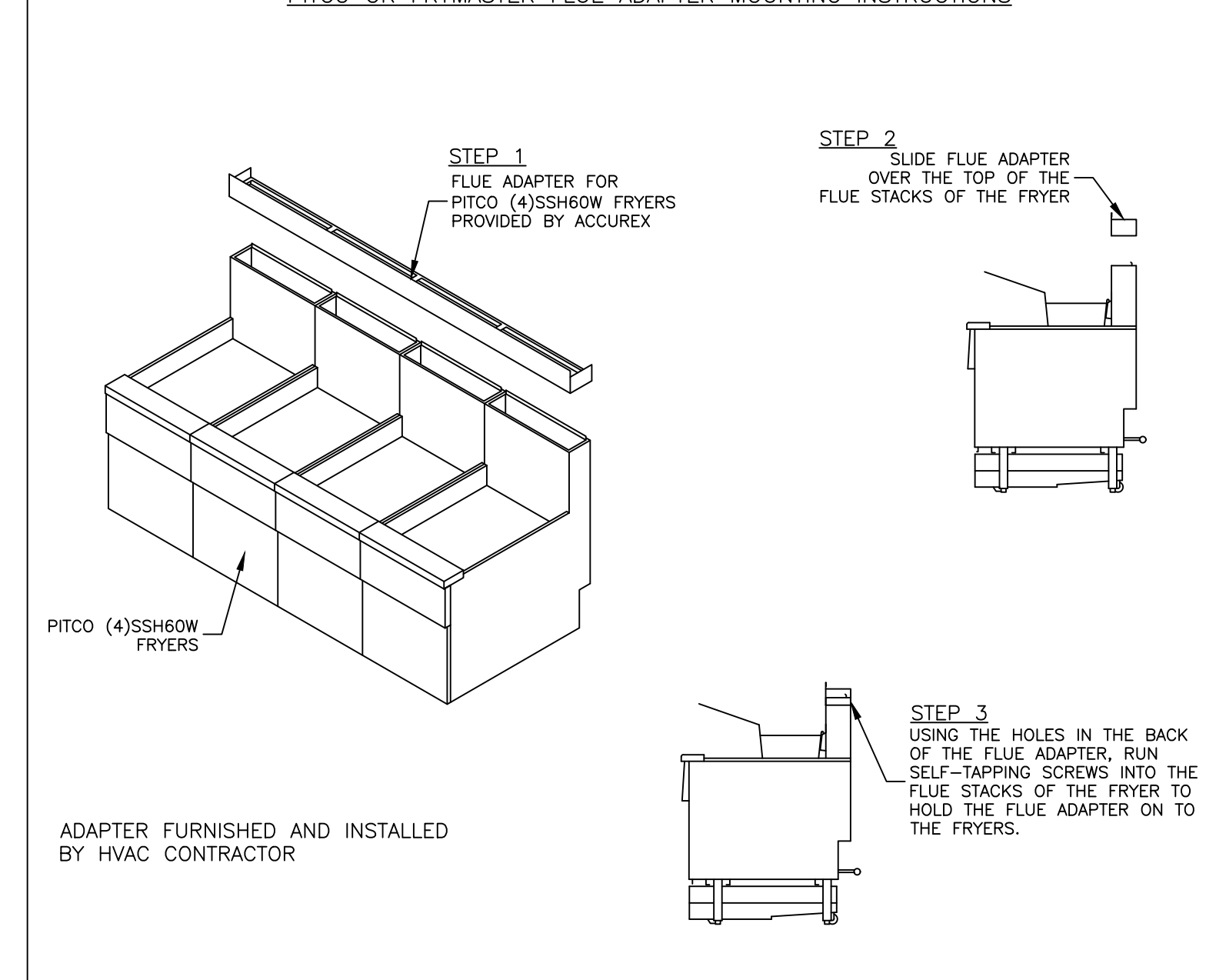
FULL INSTALLATION (INCLUDES PRE-PIPED HOOD(S) WITH DETECTION AND FACTORY COORDINATED INSTALL)
 CHROME SLEEVES FOR FACTORY PROVIDED APPLIANCES DROPS - INCLUDED
 METAL BLOW-OFF CAPS - INCLUDED
 PRE-TEST - INCLUDED

HOOD SUPPRESSION AGENT - INCLUDED - 6 GAL. - [(2) 3.0 TANK(S)]
 REMOTE PULL STATION - STANDARD - INSTALLATION AT SINGLE POINT OF EGRESS

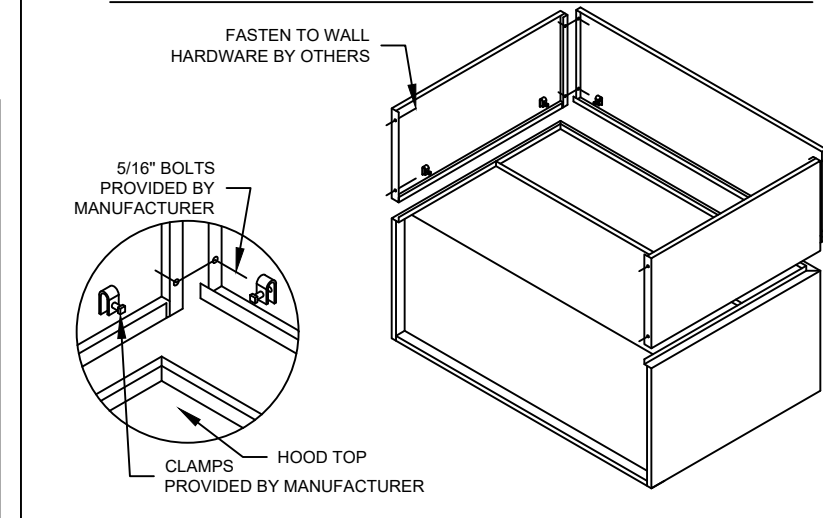
ANSUL R102 (WET CHEMICAL) FIRE PROTECTION SYSTEM - MODEL FSSC



PITCO OR FRYMASTER FLUE ADAPTER MOUNTING INSTRUCTIONS



ENCLOSURE PANEL INSTALLATION DETAIL

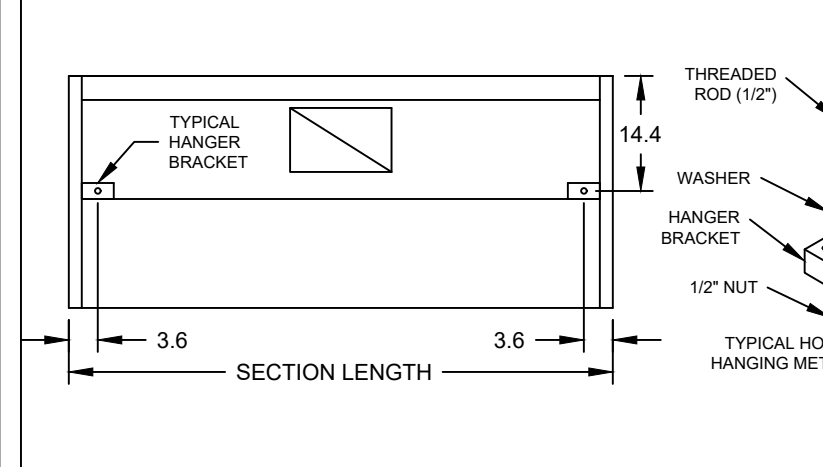


HOOD HANGING HEIGHT FOR FIRE SYSTEMS

VERIFICATION OF HOOD HANGING HEIGHT ABOVE FINISHED FLOOR (A.F.F.) IS REQUIRED FOR CORRECT PLACEMENT OF FIRE SYSTEM NOZZLES.

- RECOMMENDED HANGING HEIGHT = 61" FROM FINISHED FLOOR TO LOWER FRONT EDGE OF HOOD.
- OTHER HANGING HEIGHT = * FROM FINISHED FLOOR TO LOWER EDGE OF HOOD.

HOOD HANGER BRACKET DETAIL FOR BACKSHELF HOODS



ACCUREX

CULVERS - METRO L 2021 (S)

PROJECT 3/5/2024

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FRYER HOOD
 PRV-3 FRYER FAN
 FIRE SUPPRESSION-FRYER HOOD

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2023-060

M203

Date: 03-08-2024
 Revision:

Ceiling Exhaust Fan

MARK INFORMATION		FAN INFORMATION						MOTOR INFORMATION				
QTY	MARK	MODEL	VOLUME (CFM)	TOTAL EXTERNAL SP (IN WG)	FAN RPM	OPERATING POWER (HP)	WEIGHT (LB.)	SIZE (HP)	V/C/P	ENCLOSURE	MOTOR RPM	WINDINGS
1	EF-1A	XCR-B80	75	0.125	881	0.01	10	0	115/60/1	OP	900	1

EF-1A : SELECTED OPTIONS AND ACCESSORIES

UL/cUL 507 Listed - Electric Fan
 Solid State Speed Control, 6 Amp, Mounted and Wired Internally
 Round Hooded Wall Cap, (PN: WC-6) Shipped Loose
 Round Duct Connection
 Adjustable easy installation mounting bracket
 Standard Grille
 Polypropylene Wheel Material
 Can Be Used to Comply with: ASHRAE 62.2 and Washington State Energy Code

SPECIAL DESIGN REQUESTS

(1)-WC-4 Wall Cap (F1600858)

Direct Drive Centrifugal Roof Exhaust Fan

MARK INFORMATION		FAN INFORMATION						MOTOR INFORMATION					
QTY	MARK	MODEL	VOLUME (CFM)	TOTAL EXTERNAL SP (IN WG)	FAN RPM	OPERATING POWER (HP)	WEIGHT (LB.)	SIZE (HP)	V/C/P	ENCLOSURE	MOTOR RPM	WINDINGS	NEC FLA*
1	PRV-1 Restroom	XRED-090-VG	375	0.5	1,466	0.06	40	0.1	115/60/1	TN	1725	1	NA

*NEC FLA - Based on table 430.250 or 430.248 of National Electrical Code 2020. Actual motor FLA may vary for sizing thermal overload, consult factory

PRV-1 Restroom : SELECTED OPTIONS AND ACCESSORIES

Standard Curb Cap Size - 17 Square
 UL/cUL 705 Listed - "Power Ventilators"
 Switch, NEMA-1, Toggle, Shipped with Unit
 Hinge, Factory Installed
 Damper Shipped Loose, BD-100-PB-10X10, Gravity Operated, Not Coated
 Birdscreen: Galvanized, nom. 84% Free Area
 Composite Wheel Material

CONTROL INFORMATION

MARK	ELECTRICAL CONTROL PACKAGE		USER INTERFACE	
	MODEL	LOCATION	TYPE	LOCATION
CONTROLS	XKC-CV-S-22-2-1-0	SHIP LOOSE ENCLOSURE	FULL COLOR TOUCHSCREEN	SHIP LOOSE

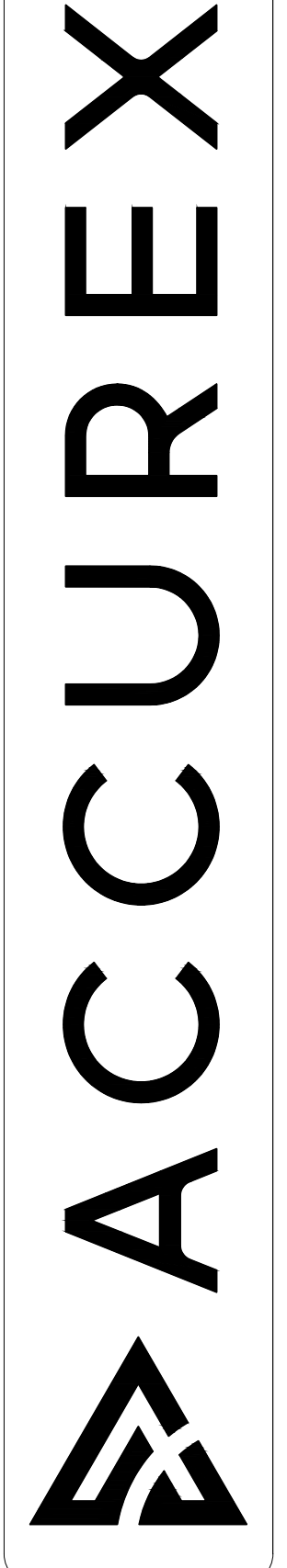
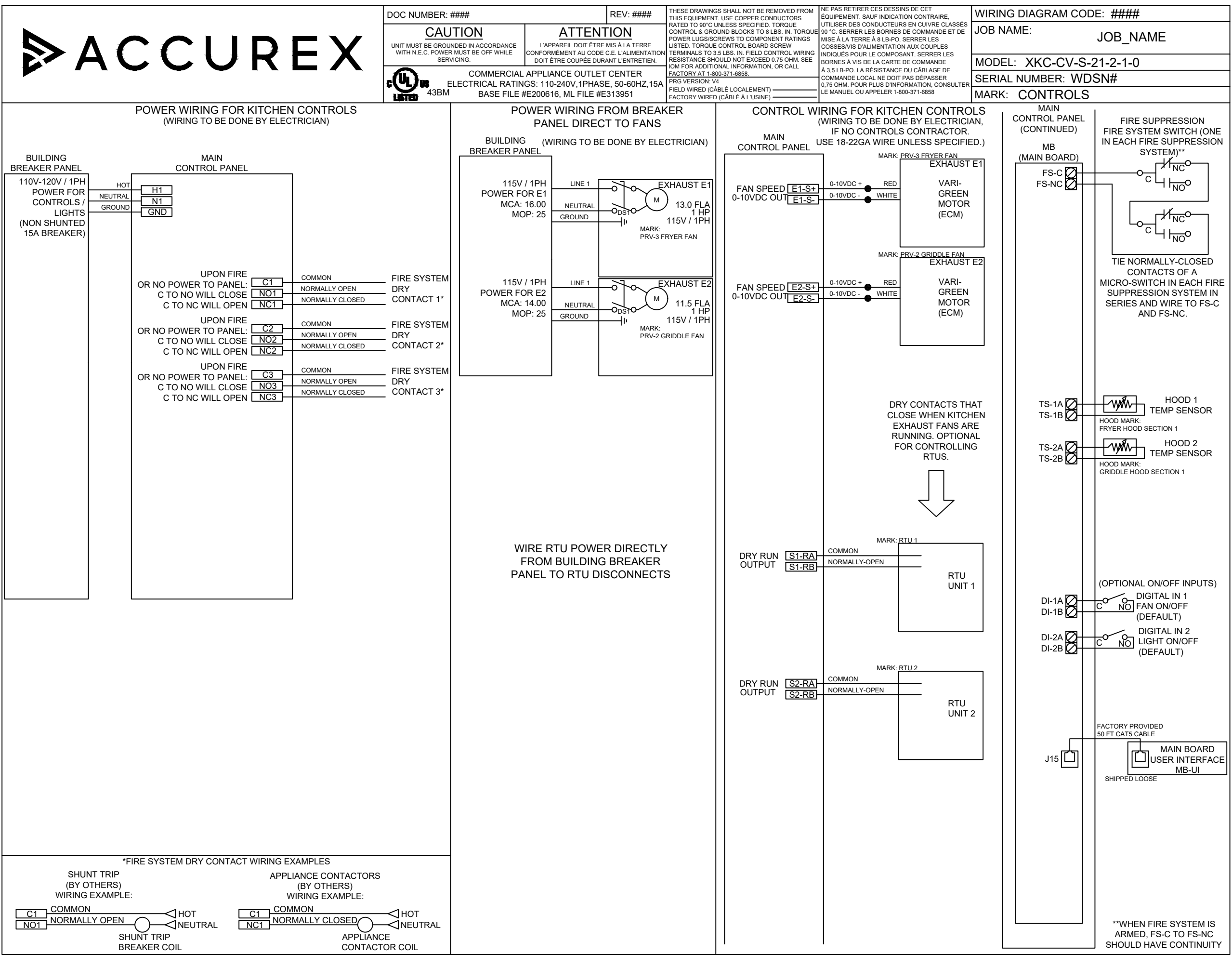
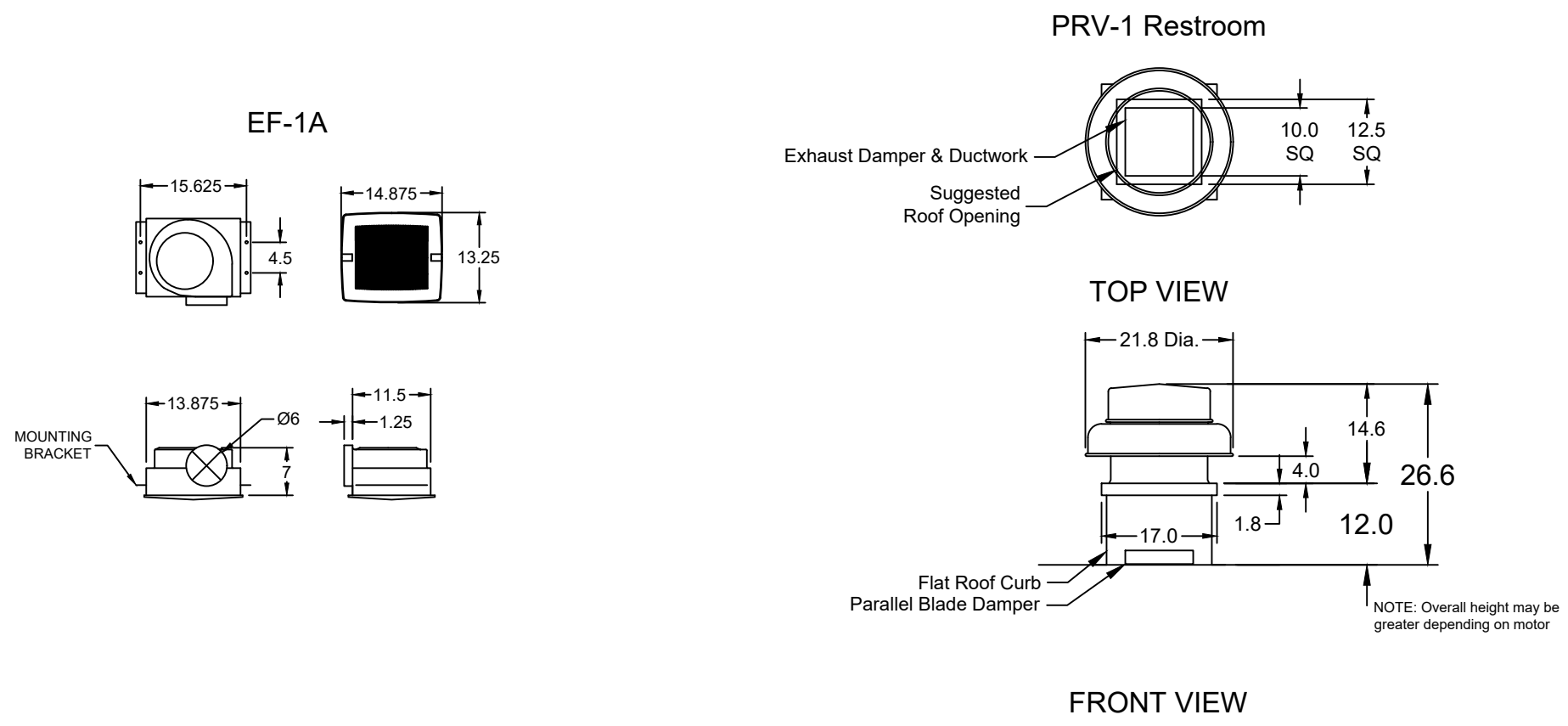
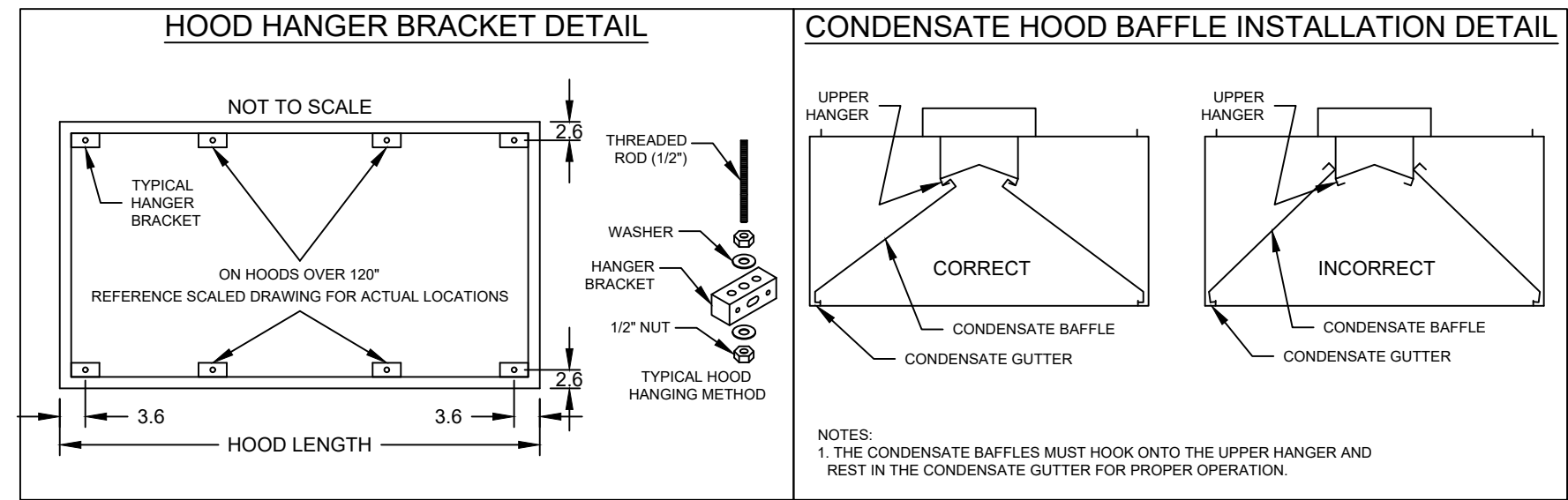
FANS CONTROLLED											
FAN #	TYPE	FAN	FAN MARK	ZONE	CFM	MOTOR HP	MOTOR VOLT	CYCLE	MOTOR PHASE	MOTOR STARTER IN PANEL	VFD IN PANEL
1	SUPPLY	S1	RTU-1	1	1500	1	208	60	3	NO	NO
2	SUPPLY	S2	RTU-2	2	1500	1	208	60	3	NO	NO
3	EXHAUST	E1	PRV-2 GRIDDLE FAN	2	1497	1	115	60	1	NO	NO
4	EXHAUST	E2	PRV-3 FRYER FAN	1	1500	1	115	60	1	NO	NO

CONTROL FEATURES

TEMP SENSORS (FACTORY INSTALLED) - QTY. 2
 DRY FIRE CONTACTS - QTY. 2
 EXHAUST MAX DURING FIRE
 SUPPLY OFF DURING FIRE

SPECIAL DESIGN REQUESTS

SDR #K2000462 - CULVERS CONTROL PANEL - EXTRA SET OF FIRE CONTACTS - REVISE WIRING DIAGRAMS



PROJECT: 3/5/2024
 MARK: ITEM 25 CONDENSATE HOOD PRV-1 RESTROOM CONTROLS

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CULVERS - METROL 2021 (NC)
 1.27.2023

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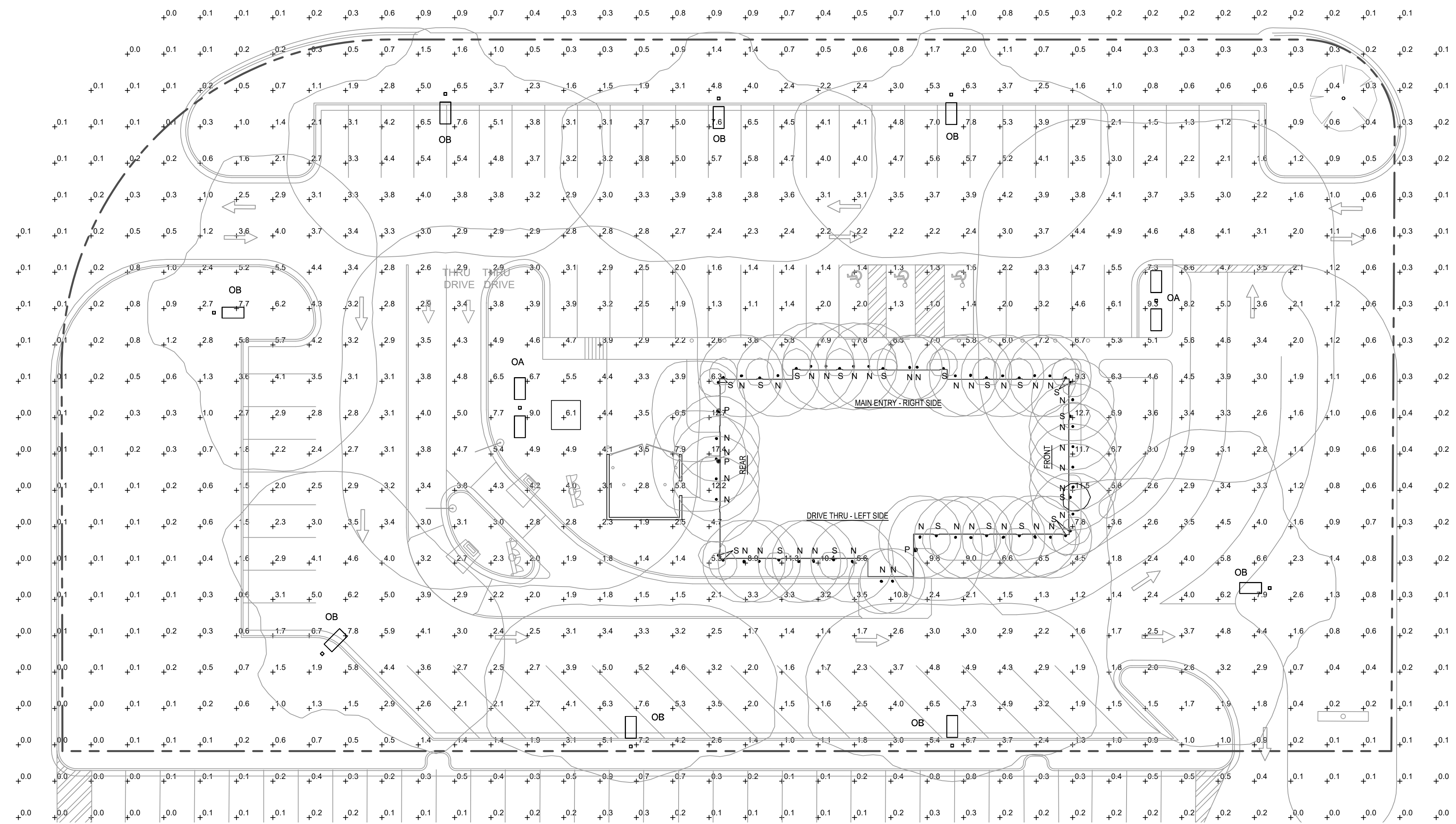
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FAN SCHEDULE & DETAILS

Revision: _____
 Date: 03-08-2024

2023-060
 M204



LUMINAIRE SCHEDULE - SITE LIGHTING

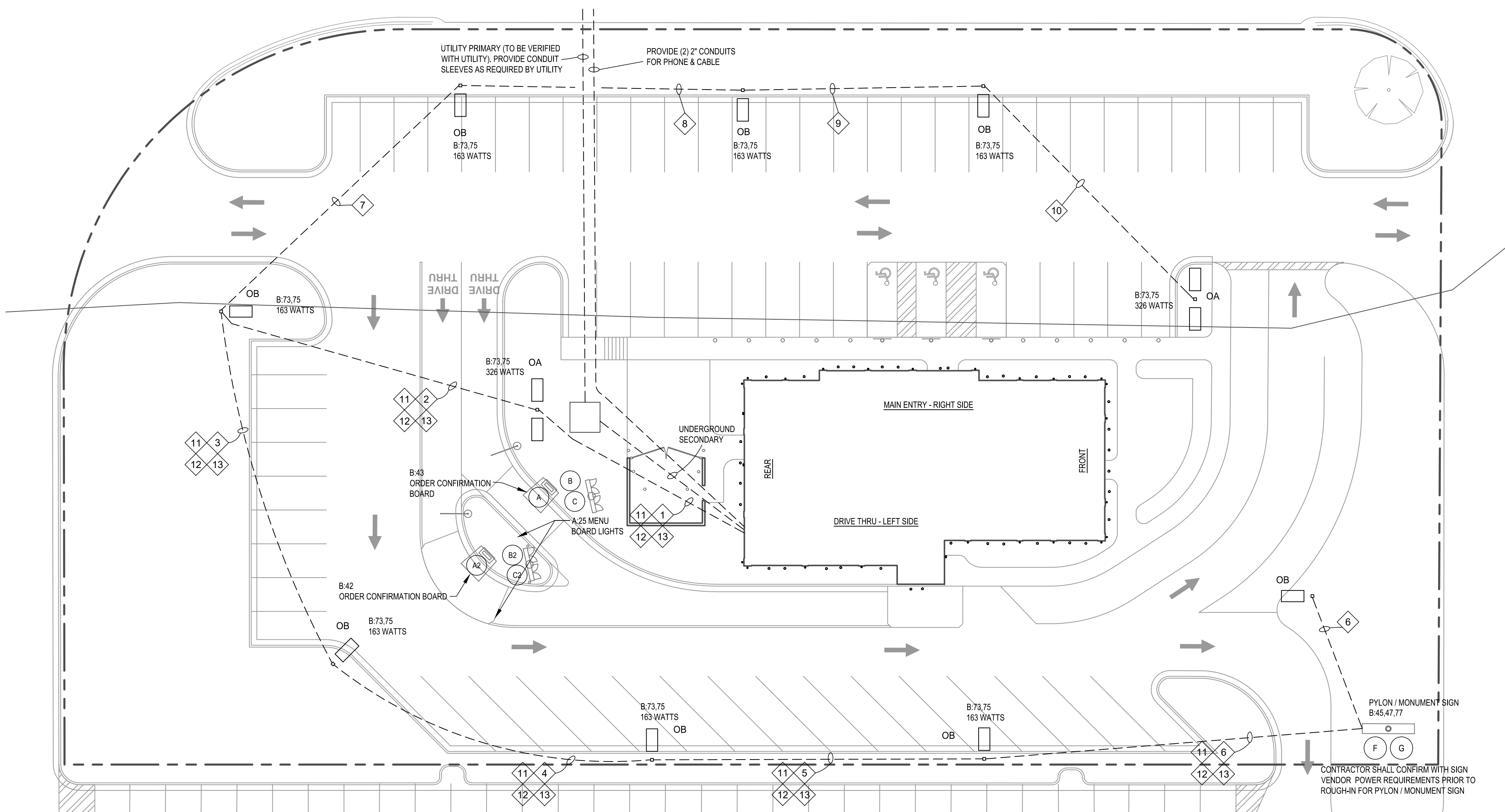
SYMBOL	LABEL	CATALOGUE NUMBER	LAMP	WATTS
□ ○	OA	(2) DSX1 LED P6 40K TSW MVOLT 16' POLE, POLE BASE @ 6' ABOVE GRADE	LED	328
□ ○	OB	DSX1 LED P6 40K T4M MVOLT 16' POLE, POLE BASE @ 6' ABOVE GRADE	LED	163
□ ○	OC	DSX1 LED P6 40K T4M MVOLT HS (houseside shield) 16' POLE, POLE BASE @ 6' ABOVE GRADE	LED	163

LUMINAIRE SCHEDULE - BUILDING MOUNT

SYMBOL	LABEL	CATALOGUE NUMBER	LAMP	WATTS
●	N	LDN6 40/15 LOGAR LS MVOLT G210 LITHONIA	LED	19
□	P	SLIM17FA15ADJ RAB LIGHTING	LED	15
△	S	OLLVID LED P1 40K 120 DDB LITHONIA	LED	11

REVISED CATALOGUE TO REMOVE "WL"

H3 SITE PHOTOMETRIC PLAN
SCALE: 1" = 20'-0"



KEY NOTES AND SYMBOLS

#	SEE WIRING SCHEDULE
A	SEE DRIVE THROUGH REQUIREMENTS AND SITE SIGNAGE SCHEDULE

DRIVE THROUGH REQUIREMENTS - SEE ALSO E102

ITEM	SOURCE	DESTINATION	CONDUITS
A	ORDER CONFIRMATION BOARD (OCB)	MENU BOARD	(1) 1-1/2" COMMUNICATION (1) 1-1/2" POWER (1) 1-1/2" SENSOR LOOP
B	MENU BOARD	DRIVE THROUGH SERVICE AREA	(1) 1-1/2" SENSOR LOOP
C	MENU BOARD	OFFICE	(1) 1-1/2" COMMUNICATION (1) 1-1/2" POWER

SECOND DRIVE THROUGH REQUIREMENTS

ITEM	REQUIREMENTS
A2, B2, C2	SAME REQUIREMENTS AS ITEMS A, B AND C ABOVE

COORDINATE LOCATION OF MENU BOARD / OCB w/ OWNER AND SIGNAGE AND OCB CONTRACTOR(S); REFER TO DETAIL ON SHEET SE 202 FOR ADDITIONAL INFORMATION.

H6 SITE ELECTRICAL PLAN
SCALE: 1" = 20'-0"

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DATE: 03-08-2024
REVISION: 6-21-2024

2023-060

SE 101