

H.V.A.C. LEGEND:

WD-20 600 CFM	← DIFFUSER DESIGNATION ← DIFFUSER C.F.M.
CD	CEILING DIFFUSER W/ C.F.M. - 4 WAY
CD	PERFORATED CEILING DIFFUSER
CD	CEILING DIFFUSER W/ C.F.M. - 3 WAY
CD	CEILING DIFFUSER W/ C.F.M. - 2 WAY
RG	RETURN DIFFUSER - SUSP. CEILING
EG	EXHAUST GRILLE
PRV	POWER ROOF VENT
ECH	ELECTRIC CEILING HEATER
WD	WALL OR BULKHEAD SUPPLY GRILLE - LINEAR
TG	TRANSFER GRILL
SH	SENSOR HUMIDITY
ST	SENSOR TEMPERATURE

- GENERAL NOTES:**
- VERIFY ALLOWABLE FLEX DUCT LENGTHS WITH LOCAL CODES AND MODIFY ACCORDINGLY. ATTACH FLEXIBLE AIR CONNECTOR TO RIGID DUCT W/ STEEL DRAW BANDS ONLY. CLASS I FLEXIBLE AIR CONNECTOR PER UL 181 - MAX LENGTH 8'-0". PROVIDE SUPPORT AT 4'-0" O.C.
 - VENTING OF ANY COMBUSTIBLE BY-PRODUCTS IS PROHIBITED WITHIN 10 FEET OF ROOF TOP UNITS. VERIFY WITH LOCAL BUILDING INSPECTOR.
 - ALL SUPPLY AND RETURN DUCTWORK TO BE LOCATED IN TRUSS SPACE. COORDINATE WITH TRUSS SUPPLIER
 - DIFFUSERS AND RETURN GRILLES IN BLACK ACT TO BE BLACK, ALL OTHERS TO BE WHITE.

- RECOMMENDED HVAC SET POINTS:**
- DINING HEATING 70°, COOLING 72°
 - KITCHEN HEATING 68°, COOLING 74°

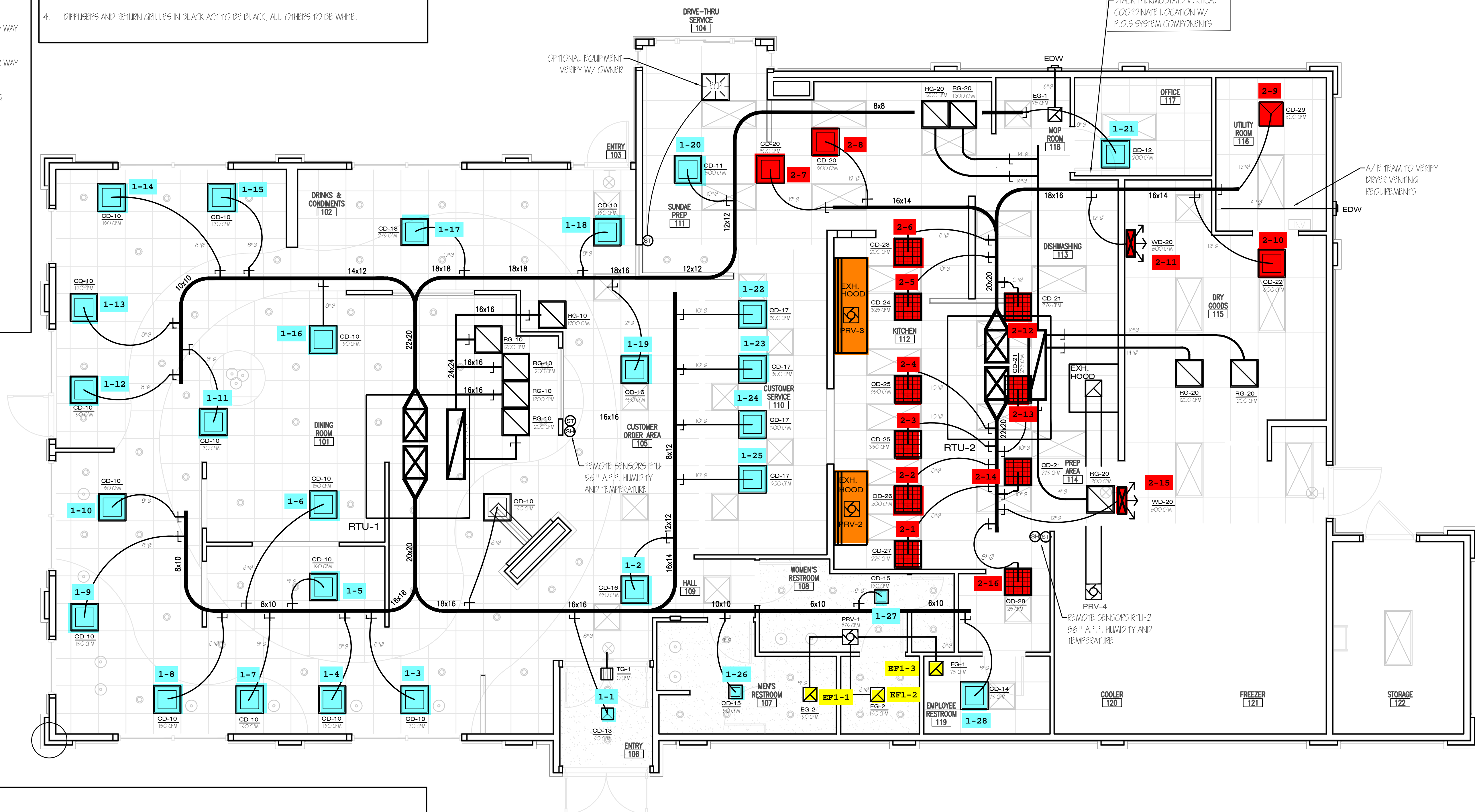


TABLE 403.3 OA REQUIREMENTS

ROOM	AREA (SF)	AREA RATE	AREA CFM	PEOPLE CALCULATION BASIS	NO. OF PEOPLE	PEOPLE RATE	PEOPLE CFM	TOTAL CFM
DINING	1804	0.18 CFM/SF	325	70 P / 1000 SF	127	7.5 CFM / P	953	1278
KITCHEN	1230	-	-	-	-	-	-	-
CORR / UTILITY	88	0.06 CFM/SF	6	-	-	-	-	6
OFFICE	70	0.06 CFM/SF	5	5 P / 1000 SF	1	5 CFM / P	5	10
ENTRY	47	0.06 CFM/SF	3	30 P / 1000 SF	2	5 CFM / P	10	13
STORAGE	236	0.12 CFM/SF	29	-	-	-	-	29

TOTAL OUTSIDE AIR REQUIRED = 1336 CFM

MECHANICAL CONTRACTOR TO ADJUST OUTSIDE AIR QUANTITIES PER THE FOLLOWING SCHEDULE:

RTU-1 = 1950 CFM
RTU-2 = 1950 CFM

TOTAL OUTSIDE AIR PROVIDED = 3900 CFM.

*KITCHEN REQUIRES 0.7 CFM/SF EXHAUST: 1230 SF x 0.7 CFM/SF = 861 CFM EXHAUST MINIMUM, EF-1 AND PRV 1-4 PROVIDES 3,900 CFM OF EXHAUST.

AIR BALANCE SCHEDULE

TAG	SUPPLY AIR	OUTSIDE AIR	RETURN AIR	EXHAUST AIR	BLDG. PRESSURE	% OUTSIDE AIR
RTU-1	6000 CFM	1950 CFM	4050 CFM	---	+ 1950 CFM	33
RTU-2	6000 CFM	1950 CFM	4050 CFM	---	+ 1950 CFM	33
EF-1	---	---	---	75 CFM	- 75 CFM	---
PRV-1	---	---	---	375 CFM	- 375 CFM	---
PRV-2	---	---	---	1500 CFM	- 1500 CFM	---
PRV-3	---	---	---	1500 CFM	- 1500 CFM	---
PRV-4	---	---	---	350 CFM	- 350 CFM	---
TOTAL	12000 CFM	3800 CFM	8100 CFM	3800 CFM	+ 100 CFM	33

NOTE: RETURN GRILLES ARE SIZED SO THAT THEY SUM TO EQUAL THE TOTAL SUPPLY. THE ACTUAL RETURN CFM WILL BE THE TOTAL SUPPLY CFM MINUS THE OUTSIDE AIR CFM, DIVIDED BY THE NUMBER OF RETURN AIR GRILLES.

1 HVAC PLAN

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

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ENGINEER'S SEAL

ISSUE FOR:

HVAC PLAN

SCALE: AS NOTED
PROJECT NO.: 24-738

M-1

GAS PIPING KEYED NOTES	
KEY	NOTE
①	NEW NATURAL GAS SERVICE LINE PROVIDED BY LOCAL GAS UTILITY - 5.0 PSIG PRESSURE
②	NEW NATURAL GAS METER BY LOCAL NATURAL GAS COMPANY
③	RUN PIPING UP BACK WALL OF BUILDING AND INTO THE BUILDING BELOW CEILING LEVEL. ROUTE PIPE THROUGH SLEEVE. PACK ANNULAR SPACE BETWEEN THE SLEEVE AND THE GAS LINE AND THE SLEEVE AND THE EXTERIOR WALL WITH INSULATION AND SEAL WEATHER TIGHT. COORDINATE LOCATION WITH OTHER CONSTRUCTION TRADES TO AVOID CONFLICTS.
④	GAS PIPING RUN BENEATH THE ROOF. MOUNT AS HIGH AS FEASIBLE AND COORDINATE LOCATION WITH OTHER TRADES.
⑤	PROVIDE A REGULATOR AT EACH APPLIANCE TO PROVIDE THE PRESSURE IT REQUIRES, TYPICALLY 7-11 INCHES W.C.
⑥	SERVICE FOR THE COOKING EQUIPMENT.
⑦	ROUTE PIPE UP THROUGH ROOF TO SERVE THE ROOFTOP MOUNTED HVAC UNITS.

GAS PIPING NOTES	
1.	WORK TO INCLUDE PIPING FROM GAS METERS TO ALL GAS FIRED EQUIPMENT INSIDE BUILDING, AND THE CONNECTION TO THE FURNACES.
2.	ALL WORK SHALL BE IN ACCORDANCE WITH ALL APPLICABLE LOCAL CODE REQUIREMENTS, AND THE PROVISIONS OF NFPA-54 AND NFPA-58.
3.	THE CONTRACTOR SHALL SUPPLY ALL PERMITS AND LICENSES REQUIRED FOR THE WORK, AND FOR ALL INSPECTIONS REQUIRED.
4.	PIPE 2" AND SMALLER SHALL BE SCHEDULE 40 STEEL WITH THREADED MALLEABLE FITTINGS.
5.	VALVES SHALL BE GAS COCKS MANUFACTURED BY NIBCO.
6.	ALL GAS PIPING LOCATED UNDER THE FLOOR SLABS SHALL BE INSTALLED IN CONDUIT OR AS REQUIRED BY CODE.
7.	PROVIDE DIRT TRAPS AND SHUT-OFF VALVES WITH UNIONS AT EACH CONNECTION TO GAS FIRED EQUIPMENT.
8.	ALL PIPING EXPOSED TO THE OUTDOORS OR RUN IN UNCONDITIONED SPACES SHALL BE PAINTED WITH TWO COATS OF ENAMEL.

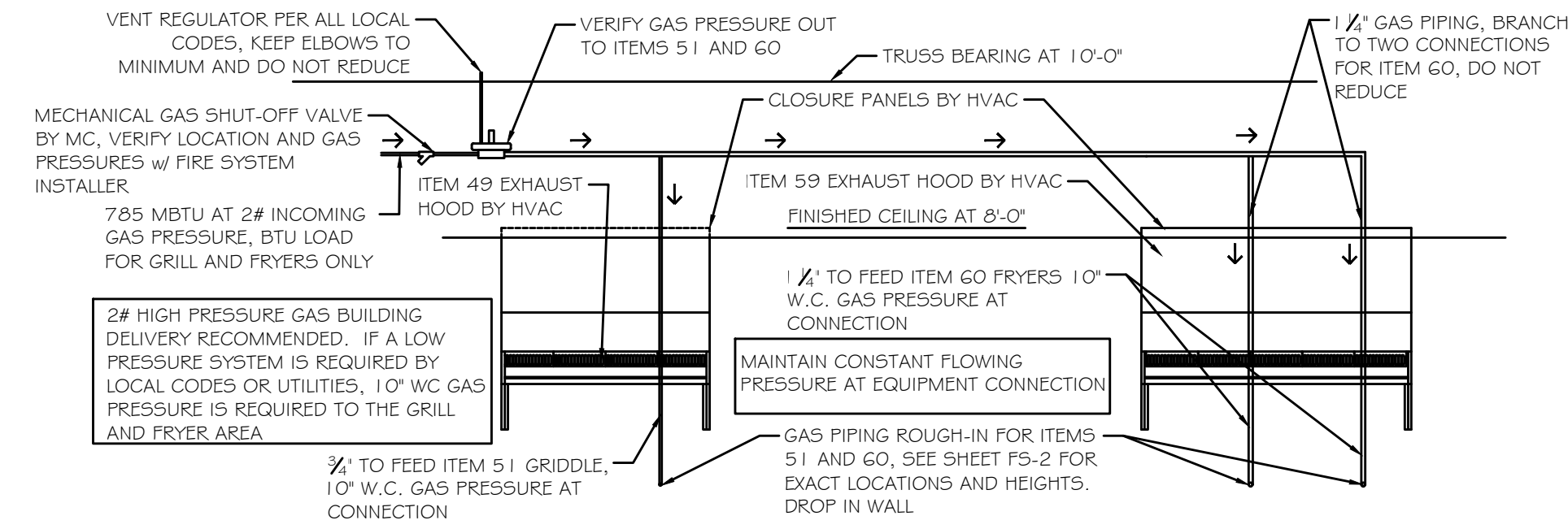
GAS LOAD TABLE	
PER TABLE 402.4(7) IFGC 2018	
HIGH PRESSURE	
INLET PRESSURE: 5.0 PSI	
PRESSURE DROP: 3.5 IN W.C.	
STEEL (SCHD. 40)	
LENGTH: 95 FT	
FITTINGS FACTOR: 1.5	
EQUIVALENT TOTAL LENGTH: 150 FT.	
CAPACITY OF PIPES IN MBH	
1/2"	786
3/4"	1590
1"	2910
1 1/4"	5960
1 1/2"	8940

NOTE: GAS PIPING IS SIZED FOR 5 PSI. CONTRACTOR SHALL VERIFY THE AVAILABILITY OF HIGH PRESSURE SERVICE BEFORE ANY WORK HAS BEGUN AND NOTIFY ARCHITECT IN WRITING OF AVAILABLE SERVICE.

NOTE: PROVIDE GAS PRESSURE REGULATOR AT EACH PIECE OF GAS-FIRED EQUIPMENT TO PROVIDE PRESSURE TO UNIT AS REQUIRED BY MANUFACTURER

GENERAL NOTES:

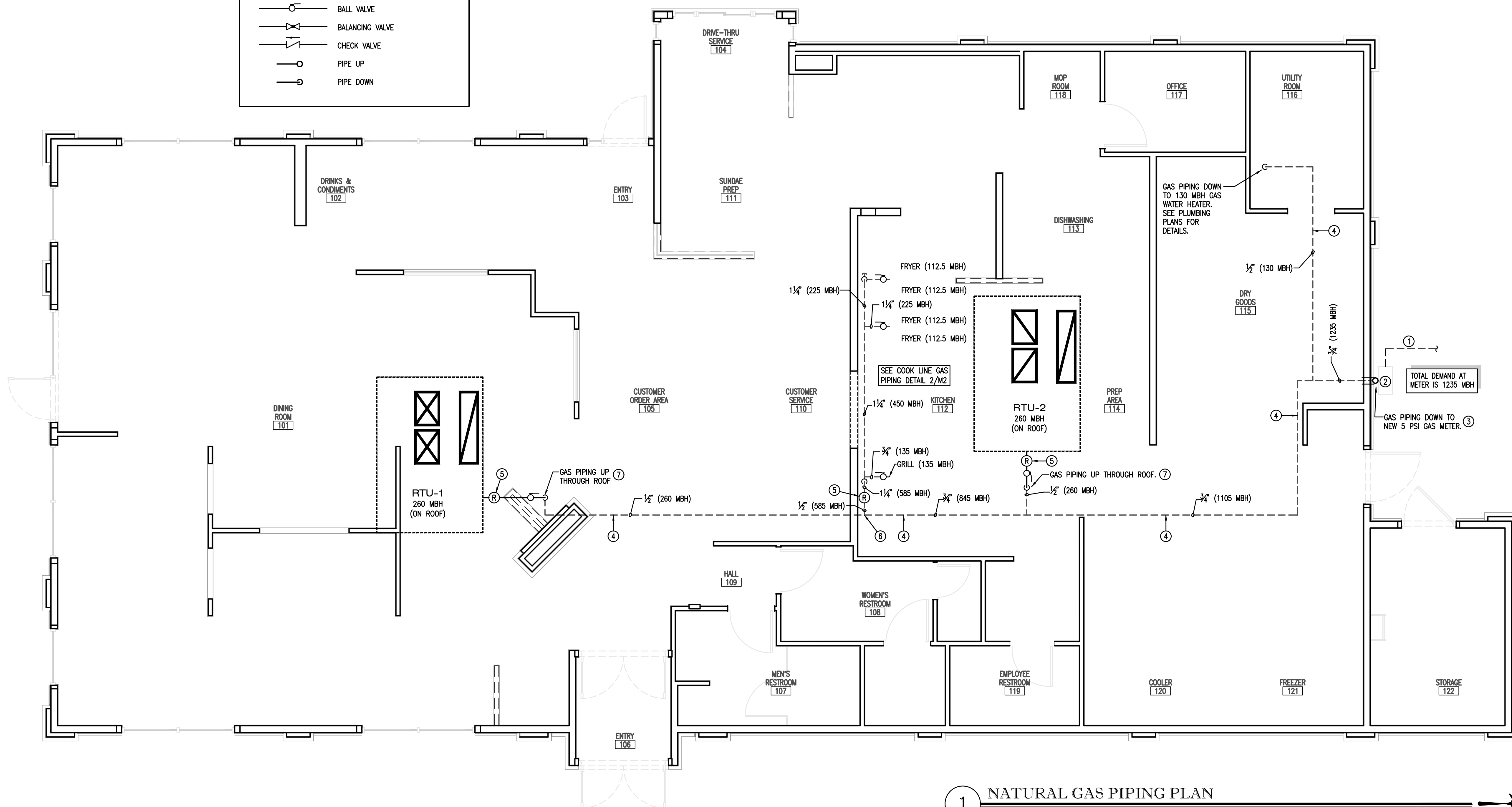
- GAS PRESSURE REGULATOR TO BE A MINIMUM OF 120" AWAY FROM EQUIPMENT. MAINTAIN 1/2" PIPE SIZE TO EQUIPMENT DROPS. KEEP ELBOWS TO A MINIMUM.
- GAS PRESSURE REGULATOR BY M.C. REGULATOR MUST BE ADJUSTABLE AND MUST HAVE MINIMUM OF 1/2" OUTLET.



2 DETAIL - NATURAL GAS PIPING AT COOKLINE

SCALE: NTS

PLUMBING LEGEND	
— G —	GAS PIPING - EXTERIOR
- - - G - - -	GAS PIPING - INTERIOR
⊗	GATE VALVE
⊙	BALL VALVE
⊕	BALANCING VALVE
⊖	CHECK VALVE
⊕	PIPE UP
⊖	PIPE DOWN



1 NATURAL GAS PIPING PLAN

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

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ISSUE FOR:	

GAS PIPING PLAN
SCALE: AS NOTED
PROJECT NO.: 24-738

M-2

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 AND LOCAL CODES & 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
- EXHAUST FANS AND FURNACE FANS TO RUN CONTINUOUSLY DURING OCCUPIED MODE.
- VERIFY w/ OWNER EXACT HEATER LOCATION TO AVOID BUILDING FUNCTION INTERFERENCE.
- NIGHT SET BACK THERMOSTATS TO BE INSTALLED ON ALL HVAC EQUIPMENT.
- INSULATE DUCT WORK TO SMACNA GUIDELINES AND STATE CODES.
- INSTALL VOLUME CONTROL DAMPERS AS INDICATED ON PLANS.
- MAINTAIN AT LEAST 10 FEET CLEARANCE FROM INTAKES OR WINDOWS ON ALL EXHAUST VENTS
- RETURN AIR DUCT WORK TO BE LINED FOR SOUND ATTENUATION
- FLEXIBLE ROUND DUCT WORK NOT TO EXCEED 8 FEET IN LENGTH. AVOID UNNECESSARY. TURNS & SLACK.
- DUCT WORK TO BE STANDARD GAUGE SHEET METAL (FIBROUS DUCT NOT ALLOWED).
- COORDINATE WORK & GENERAL CONTRACTOR & OWNER TO MAXIMIZE CEILING HEIGHT & AVOID CONFLICTS
- TEST, ADJUST & CALIBRATE CONTROL SYSTEMS AS REQUIRED. PROVIDE SCHEMATICS & DESCRIPTION TO THE OWNER PRIOR TO INSTALLATION.
- INSULATE EXHAUST DUCT FOR EXHAUST FAN TO EXTERIOR TERMINATION.
- CONTRACTOR TO VERIFY GAS METER CAPACITY WITH LOCAL GAS SUPPLIER.
- VERIFY ALL EXISTING CONDITIONS PRIOR TO INSTALLATION (DRAWINGS ARE DIAGRAMMATIC IN NATURE AND 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 WITH COLOR CHOICES FOR SWITCHES AND OTHER APPARATUSES WHERE APPLICABLE
- VENT OWNERS WATER HEATERS AS REQUIRED
- VENT DRYER TO EXTERIOR AS REQUIRED. MAINTAIN CLEARANCES FROM INTAKES AS NOTED ABOVE.
- HANG AND SUPPORT MATERIALS SHALL BE INSTALLED THE LATEST EDITION OF THE ASHREA HANDBOOK OF FUNDAMENTALS
- HVAC CONTRACTOR RESPONSIBLE FOR A COMPLETE AND FULLY WORKING SYSTEM
- REPLACE ALL AIR FILTERS PRIOR TO TURNING SYSTEM OPERATIONS OVER TO OWNER.
- INSTALLER IS RESPONSIBLE FOR FINAL TEST & BALANCING DURING TRAINING WEEK & PROVIDE A WRITTEN REPORT TO OWNER.
- HVAC CONTRACTOR TO INSTALL #2 GAS w/ 1/4" WATER COLUMN MAX. PER STATE CODE & AGA GUIDELINES (LABEL AS REQUIRED).
- DUCT DIMENSIONS LISTED ARE NET FREE - CLEAR INSIDE DIMENSIONS.
- VERIFY DUCT LOCATIONS PRIOR TO FABRICATION. VERIFY LIMITED AREA FOR DUCTWORK & OTHER APPARATUSES.
- 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 A6 DRAWING.

MECHANICAL EQUIPMENT SPECIFICATIONS

RTU - 1	LENNOX LGH180H PACKAGED ROOFTOP UNIT WITH CORE CONTROLLER COMBINATION GAS WITH TWO STAGE HEATING AND COOLING ROOFTOP UNIT WITH HUMIDITROL AND S/S HEAT EXCHANGERS. HEATING CAPACITY: 260/169 MBH INPUT AND 208/135.2 MBH OUTPUT. 80XV AFUE THERMAL EFF. COOLING CAPACITY: TOTAL 176MBH. 11 EER MINIMUM. CONSTANT AIR VOLUME SUPPLY FAN. ELECTRICAL REQUIREMENTS: 208/3/60, 64 MCA AND 70 MOC.P. IN ADDITION TO OPTIONS LISTED ABOVE INCLUDE THE FOLLOWING FACTORY INSTALLED OPTIONS: WEATHERPROOF DISCONNECT SWITCH, FACTORY INSTALLED/FIELD POWERED GFCL SMOKE DETECTOR IN SUPPLY AND RETURN, DRAIN PAN OVERFLOW SWITCH, SINGLE ENTHALPY ECONOMIZER WITH BAROMETRIC RELIEF AND HOODS, BLOWER BELT AUTO TENSIONER. INCLUDE THE FOLLOWING FIELD INSTALLED OPTIONS: 2" MERV8 FILTERS, SPARE BELT, DOWN FLOW HYBRID CURB, PVC DRAIN TRAP KIT, REMOTE HUMIDITY SENSOR, MESH HAIL GUARD, LENNOX MODEL 13H15 PROGRAMMABLE THERMOSTAT. NO SUBSTITUTIONS.
RTU - 2	LENNOX LGH180H PACKAGED ROOFTOP UNIT WITH CORE CONTROLLER COMBINATION GAS WITH TWO STAGE HEATING AND COOLING ROOFTOP UNIT WITH HUMIDITROL AND S/S HEAT EXCHANGERS. HEATING CAPACITY: 260/169 MBH INPUT AND 208/135.2 MBH OUTPUT. 80XV AFUE THERMAL EFF. COOLING CAPACITY: TOTAL 176MBH. 11 EER MINIMUM. CONSTANT AIR VOLUME SUPPLY FAN. ELECTRICAL REQUIREMENTS: 208/3/60, 64 MCA AND 70 MOC.P. IN ADDITION TO OPTIONS LISTED ABOVE INCLUDE THE FOLLOWING FACTORY INSTALLED OPTIONS: WEATHERPROOF DISCONNECT SWITCH, FACTORY INSTALLED/FIELD POWERED GFCL SMOKE DETECTOR IN SUPPLY AND RETURN, DRAIN PAN OVERFLOW SWITCH, SINGLE ENTHALPY ECONOMIZER WITH BAROMETRIC RELIEF AND HOODS, BLOWER BELT AUTO TENSIONER. INCLUDE THE FOLLOWING FIELD INSTALLED OPTIONS: 2" MERV8 FILTERS, SPARE BELT, DOWN FLOW HYBRID CURB, PVC DRAIN TRAP KIT, REMOTE HUMIDITY SENSOR, MESH HAIL GUARD, LENNOX MODEL 13H15 PROGRAMMABLE THERMOSTAT. NO SUBSTITUTIONS.
PRV - 1	ACCUREX MODEL XRED-090-VG CONDENSATE DOWNBLAST EXHAUST FAN WITH ROOF CURB AND BACKDRAFT DAMPER. 375 CFM AT .5" SP, 1 HP MOTOR, 115 VOLTS, SINGLE PHASE. FAN TO RUN CONTINUOUSLY DURING OCCUPIED MODE. NO SUBSTITUTIONS.
PRV - 2 (ITEM #49)	ACCUREX MODEL XCUE-140-VG KITCHEN FAN UPBLAST EXHAUST FAN W/CLEAN-OUT PORT, MOUNTED HINGE BASE AND ROOF CURB WITH CURB EXTENSION. 1500 CFM AT 1.8" SP, 1 HP MOTOR, 115 VOLTS SINGLE PHASE FAN TO RUN CONTINUOUSLY DURING OCCUPIED MODE. NO SUBSTITUTIONS.
PRV - 3 (ITEM #99)	ACCUREX MODEL XCUE-140-VG KITCHEN FAN UPBLAST EXHAUST FAN W/CLEAN-OUT PORT, MOUNTED HINGE BASE AND ROOF CURB WITH CURB EXTENSION. 1500 CFM AT 1.0" SP, 1 HP MOTOR, 115 VOLTS SINGLE PHASE FAN TO RUN CONTINUOUSLY DURING OCCUPIED MODE. NO SUBSTITUTIONS.
PRV - 4 (ITEM #29)	ACCUREX MODEL XRED-095-VG CONDENSATE DOWNBLAST EXHAUST FAN WITH ROOF CURB AND BACKDRAFT DAMPER. 350 CFM AT .6" SP, .167 HP MOTOR, 115 VOLTS, SINGLE PHASE. FAN TO RUN w/STARTING OF DISHWASHER & FOR ONE MINUTE AFTER THE CYCLE IS COMPLETE. NO SUBSTITUTIONS.
EF - 1	ACCUREX MODEL XCR-B80. CEILING EXHAUST FAN, SPEED CONTROL & MODEL WC-4 HOODED WALL CAP. PAINT WALL CAP TO MATCH EXTERIOR FINISH. 75 CFM AT .125" SP, 115 VOLT, SINGLE PHASE. FAN TO RUN CONTINUOUSLY DURING OCCUPIED MODE. NO SUBSTITUTIONS.
ITEM #49	GRIDDLE EXHAUST HOOD - ACCUREX MODEL XGEP-64-S 64" X 26" X 36" HIGH, LOW PROXIMITY w/FLUE BYPASS. 1500 CFM AT 1.918" SP, 12" X 12" DUCT COLLAR. INCLUDES THE 3" INTEGRAL AIR SPACE ON BACK OF HOOD & AN ADDITIONAL 3" REAR FILLER PANEL. STAINLESS STEEL WHERE EXPOSED, w/ GREASE GRABBER TWO-STAGE FILTRATION SYSTEM. 26" HIGH ENCLOSURE PANELS, FRONT, LEFT AND RIGHT SIDES. GREASE TROUGH SHALL BE PITCHED TO THE LEFT END OF THE HOOD. APPROVALS SHALL INCLUDE UL LISTING AND THE NSF SEAL. THE VENTILATOR SHALL CONFORM TO THE REQUIREMENTS OF NFPA-96 NO SUBSTITUTIONS.
ITEM #59	FRYER EXHAUST HOOD - ACCUREX MODEL XREP-83-S 83" X 26" X 36" HIGH, LOW PROXIMITY w/FLUE BYPASS. 1500 CFM AT .518" SP, 12" X 12" DUCT COLLAR. INCLUDES THE 3" INTEGRAL AIR SPACE ON BACK OF HOOD & AN ADDITIONAL 3" REAR FILLER PANEL. STAINLESS STEEL WHERE EXPOSED, w/ X-TRACTOR STAINLESS STEEL FILTERS 26" HIGH ENCLOSURE PANELS, FRONT, LEFT AND RIGHT SIDES. GREASE TROUGH SHALL BE PITCHED TO THE LEFT END OF THE HOOD. APPROVALS SHALL INCLUDE UL LISTING AND THE NSF SEAL. THE VENTILATOR SHALL CONFORM TO THE REQUIREMENTS OF NFPA-96 NO SUBSTITUTIONS.
ITEM #25A	DISHWASHER CONDENSATE HOOD - ACCUREX MODEL XD3-3.5-S CONDENSATE HOOD w/BAFFLE, 42" X 42" X 24" HIGH, STAINLESS STEEL WHERE EXPOSED. 350 CFM AT .127 SP, 7 X 7 DUCT COLLAR. COLLAR. APPROVALS SHALL INCLUDE THE NSF SEAL. (UL LABEL NOT REQUIRED FOR NON-GREASE APPLICATION). THE VENTILATOR SHALL CONFORM TO THE REQUIREMENTS OF NFPA-96 & TO ALL PREVAILING LOCAL CODE REQUIREMENTS. NO SUBSTITUTIONS.
ECH	ELECTRIC CEILING HEATER - Q-MARK OR EQUAL CDF-548 ELECTRIC CEILING HEATER & CDF RECESSED MOUNTING FRAME, CDF-TR4 TRANSFORMER & THERMOSTAT. 208/240 VOLT SINGLE PHASE. 19.2 AMPS. (SUPPLIED & INSTALLED BY ELECTRICAL CONTRACTOR)

DIFFUSER/GRILLE SCHEDULE

QNTY	Mark	Manuf.	Model	Type	Mounting	Diffuser	Neck	CFM	Zone	Notes
16	CD-10	CARNES	SFTB24	SUPPLY	GRID	4-WAY	8"	150	RTU-1	2
1	CD-11	CARNES	SFTB24	SUPPLY	GRID	4-WAY	10"	500	RTU-1	1
1	CD-12	CARNES	SFTB24	SUPPLY	GRID	4-WAY	8"	200	RTU-1	1
1	CD-13	CARNES	SKSA	SUPPLY	CEILING	3-WAY	8"	150	RTU-1	3
1	CD-14	CARNES	SFTB24	SUPPLY	GRID	4-WAY	8"	75	RTU-1	
2	CD-15	CARNES	SKSA	SUPPLY	CEILING	4-WAY	8"	150	RTU-1	3
2	CD-16	CARNES	SFTB24	SUPPLY	GRID	4-WAY	12"	450	RTU-1	
4	CD-17	CARNES	SFTB24	SUPPLY	GRID	4-WAY	10"	300	RTU-1	
1	CD-18	CARNES	SFTB24	SUPPLY	GRID	4-WAY	10"	275	RTU-1	6
2	CD-20	CARNES	SFTB24	SUPPLY	GRID	4-WAY	12"	500	RTU-2	
3	CD-21	CARNES	SPRB22412	SUPPLY	GRID	PERFORATED	10"	275	RTU-2	7
1	CD-22	CARNES	SFTB24	SUPPLY	GRID	4-WAY	12"	600	RTU-2	
1	CD-23	CARNES	SPRB22410	SUPPLY	GRID	PERFORATED	8"	200	RTU-2	7
1	CD-24	CARNES	SPRB22412	SUPPLY	GRID	PERFORATED	10"	325	RTU-2	7
2	CD-25	CARNES	SPRB22412	SUPPLY	GRID	PERFORATED	10"	350	RTU-2	7
1	CD-26	CARNES	SPRB22410	SUPPLY	GRID	PERFORATED	8"	200	RTU-2	7
1	CD-27	CARNES	SPRB22410	SUPPLY	GRID	PERFORATED	8"	225	RTU-2	7
1	CD-28	CARNES	SPRB22408	SUPPLY	GRID	PERFORATED	8"	125	RTU-2	
1	CD-29	CARNES	SKEA	SUPPLY	GRID	3-WAY	12"	600	RTU-2	
2	EG-1	CARNES	RAPAH	EXHAUST	GRID	24 x 24	8"	75	RTU-1	
2	EG-2	CARNES	RTLAH	EXHAUST	CEILING	12 x 12	8"	150	RTU-1	4
5	RG-10	CARNES	RAPMF	RETURN	GRID	RETURN	12 x 12"	1200	RTU-1	8
5	RG-20	CARNES	RAPMF	RETURN	GRID	RETURN	14"	1215	RTU-2	8
1	TG-1	CARNES	RSABH	TRANSFER	WALL	12 x 4"	12" x 4"	0	RTU-1	5
2	WD-20	CARNES	RTDBH	SUPPLY	WALL	24 x 6"	12"	600	RTU-2	

- DIFFUSER NOTES:**
- PROVIDE KXDA EXTENSION ROD WITH KNOB
 - 4 OF THE CD-10 DIFFUSERS ARE TO BE FLAT BLACK. ALL OTHERS TO BE WHITE. SEE REFLECTED CEILING PLAN FOR LOCATIONS.
 - 12X12 NOMINAL PANEL SIZE.
 - PROVIDE WITH ADJUSTABLE OPPOSED BLADE DAMPER
 - MOUNT SO THE OCCUPANT CAN NOT SEE INTO THE DUCT
 - FLAT BLACK FINISH
 - DESIGN CFM MUST BE MAINTAINED FOR PROPER HOOD OPERATION
 - REMOVABLE CORE DIFFUSERS

CONTROL NOTES

- 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, 2 & 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.

LENNOX SETTINGS FOR CULVERS

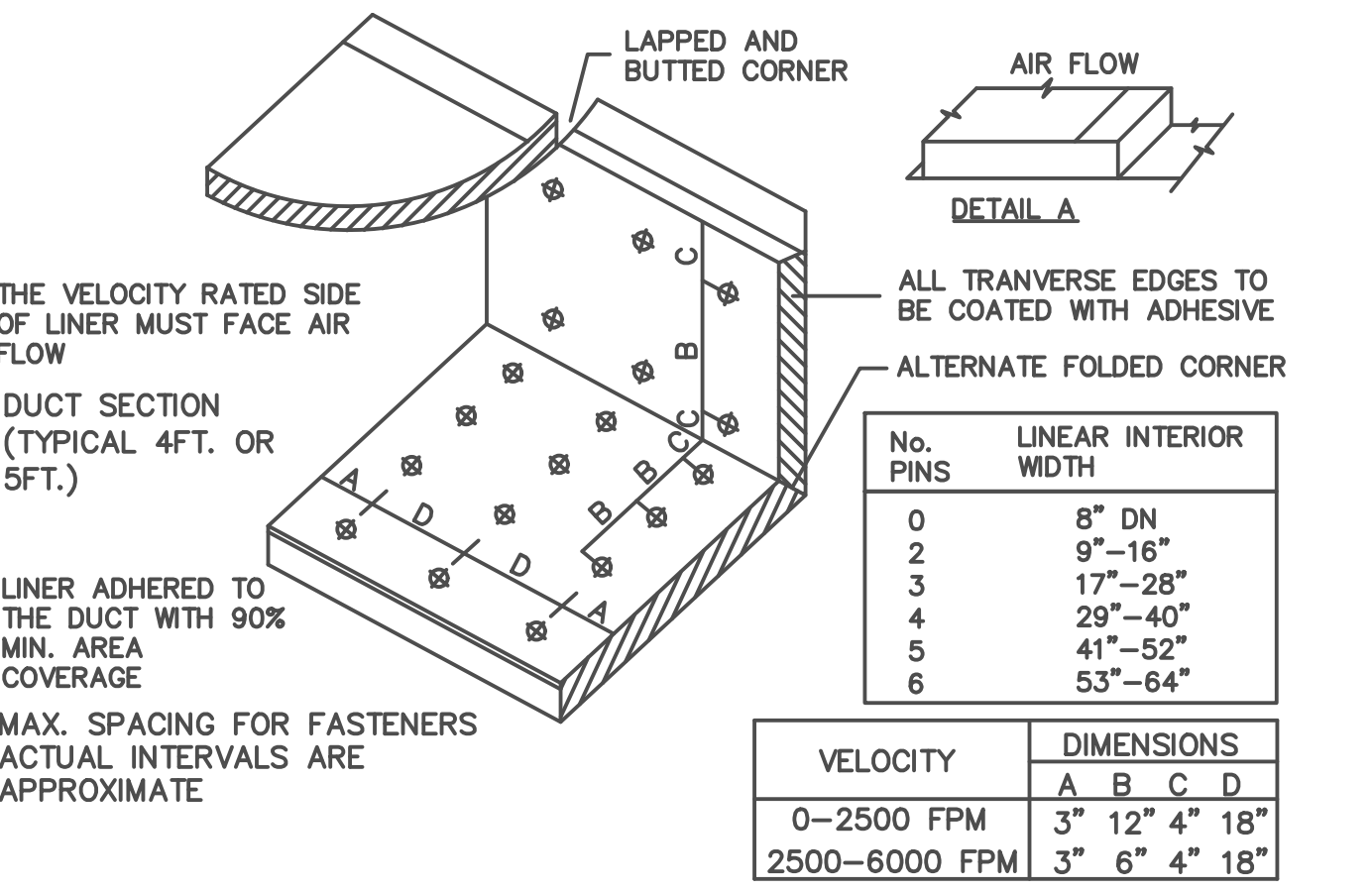
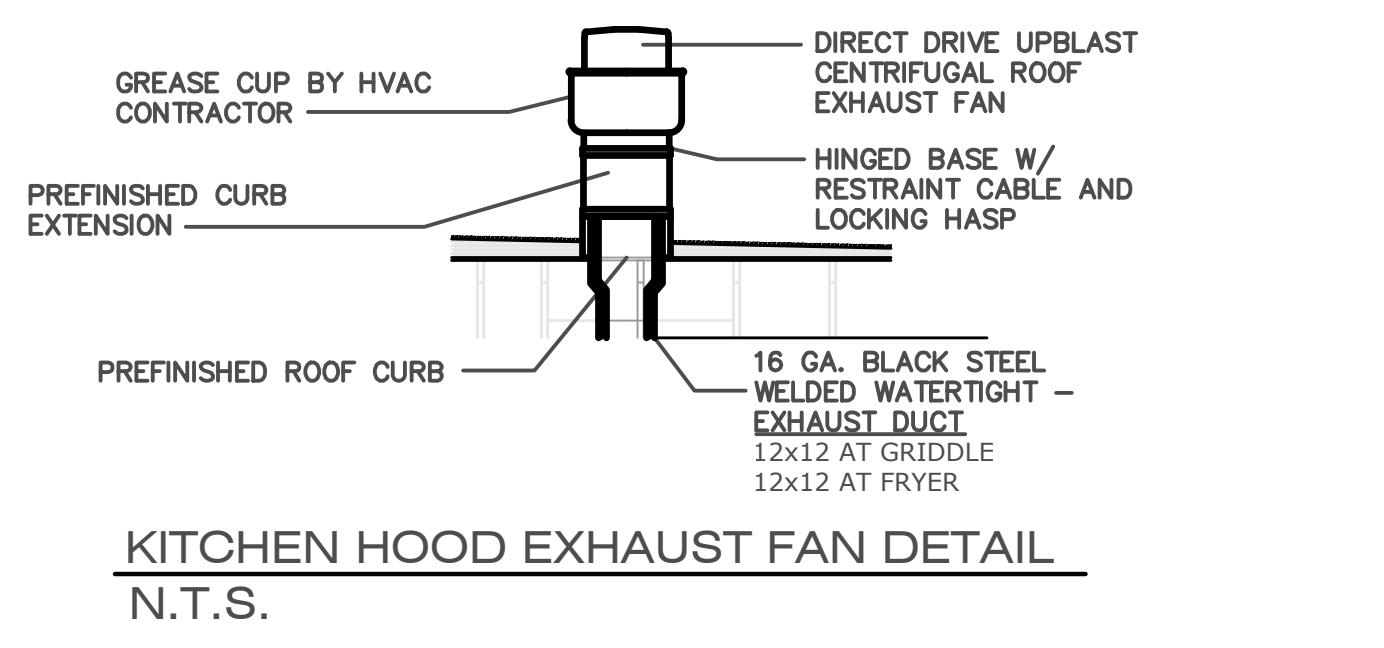
IN ORDER TO SET UP THE RTU'S YOU WILL NEED TO DOWNLOAD LENNOX CORE SERVICE APP, AND PAIR YOUR DEVICE WITH THE CORE CONTROLLER. ONCE PAIRED YOU WILL SEE THE OPERATION OVERVIEW SCREEN. SEE INSTALLATION MANUAL FOR INSTRUCTIONS ON DOWNLOADING THE APP. OR SCAN THE QR CODE ON THE FRONT COVER OF THE CONTROLLER

- ### HEAT DELAY ADJUSTMENT
- HEAT DELAY WILL BE PR65 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. SCROLL DOWN AND TAP ON RTU OPTIONS
 - TAP EDIT PARAMETER. CHOOSE FROM THE CATEGORY OF PARAMETERS LISTED. (FOR HEAT DELAY CHOOSE HEATING)
 - CHOOSE THE PARAMETER TO ADJUST (65). SELECT "0" FOR NO HEAT DELAY (0 SECONDS)
- ### 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 M4 BOARD
 - FOR (KITCHEN UNIT ONLY) BOTH THE THERMOSTAT AND HOOD FANS MUST BE TIED INTO P297-8 ON THE M4 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 SETUP
 - 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 SETUP
 - 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 FAH/FAH 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



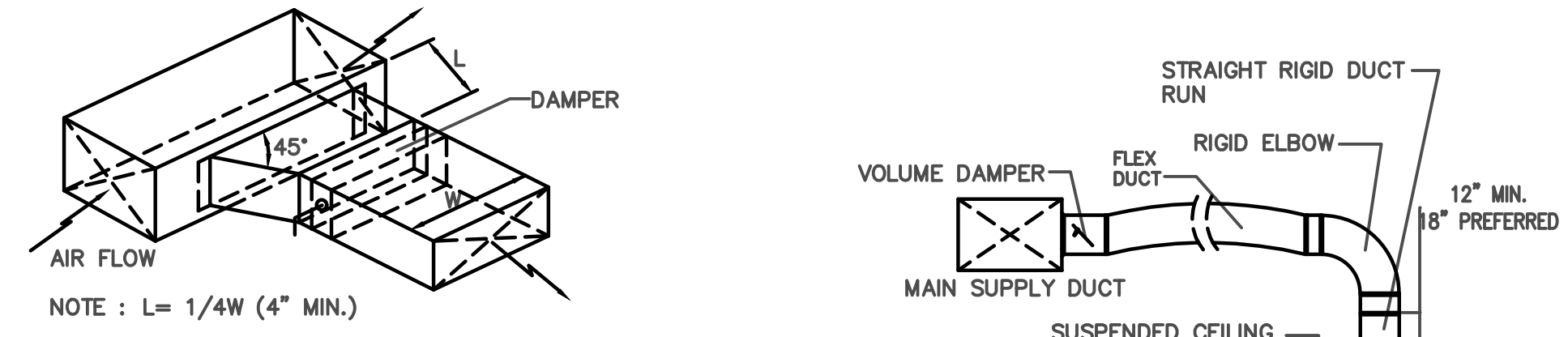
NATIONAL ACCOUNT PROGRAM

- LENNOX INDUSTRIES, INC. - ROOFTOP HVAC EQUIPMENT**
National Accounts Sales: (800) 367-6285 Option #1 lennoxind.com
National Account Technical Support: (800) 367-6285 Option #2 lennoxind.com
- ACCUREX/ GREENHECK FAN CORPORATION - KITCHEN HOODS, EXHAUST FANS, ROOF CURBS, ANSUL SYSTEMS, ACCESSORIES AND TEST AND BALANCE**
CONTACT Phillip Kraft @ 1-262-227-7865 or phillip.kraft@accurex.com
Secondary contact Brad Borchardt 1-715-551-0809 brad.borchardt@accurex.com or Andy Jacobs andy.jacobs@accurex.com
ACCUREX WILL PROVIDE BALANCED AIRFLOW AND FUNCTIONAL CHARACTERISTICS OF THE HVAC AS THEY RELATE TO AIRFLOW AND RESISTANCE ONLY. SERVICES TO BE PERFORMED BY A CERTIFIED NEBB FIRM AND ITS MANAGING GROUP - NATIONAL TAB
- CARNES COMPANY - DIFFUSERS AND GRILLES**
National Accounts Sales: Chris Stratton @ (608) 845-6411 cstratton@carnes.com
National Accounts Rep: Brian Baker @ (608) 845-6411 bbaker@carnes.com

NOTE : KITCHEN HOODS AND FANS SUPPLIED AND INSTALLED BY HVAC CONTRACTOR - MINIMUM EIGHT WEEK LEAD TIME.

TEST AND BALANCE NOTE:

ACCUREX WILL PROVIDE BALANCED AIRFLOW AND FUNCTIONAL CHARACTERISTICS OF THE HVAC AS THEY RELATE TO AIRFLOW AND RESISTANCE ONLY. SERVICES TO BE PERFORMED BY A CERTIFIED NEBB FIRM AND ITS MANAGING GROUP - NATIONAL TAB



626 W. CHAMPAIGN AVENUE
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ENGINEER'S SEAL
PROFESSIONAL SEAL
GEORGE W. ROHN
AUSTIN, JR.
062.070208
OF ILLINOIS
07/30/24

ISSUE FOR:

HVAC NOTES

SCALE: AS NOTED
PROJECT NO.: 24-738

M-3

HOOD INFORMATION

HOOD NO.	MARK	MODEL	HOOD DIMENSIONS (IN.)			HOOD CONSTR.	COOKING LOAD / DUTY RATING	EXHAUST COLLAR(S)					SUPPLY		TOTAL WEIGHT LBS.	SECTION LOCATION	
			LENGTH	WIDTH	HEIGHT			TOTAL CFM	WIDTH	LENGTH	DIA.	CFM	S.P.	MUA CFM			AC CFM
1	GRIDDLE HOOD ITEM 49	XGEP-64-S	64	TOP 23 BOT 8	FRT 12 BACK 36	430 SS WHERE EXPOSED	MEDIUM	1500	12	12		1500	1.918			136.8	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.) L H	LOCATION	FIRE SYSTEM TYPE	SIZE	MODEL	CONTROLS INTERFACE
1	GRIDDLE HOOD ITEM 49				GREASE GRABBER STAINLESS STEEL	4	16 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 #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	1.8	1,702	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 762 Listed - "Power Ventilators for Rest. Exh. Appliances"
 Switch, NEMA-3R, Toggle, Shipped with Unit
 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

FIRE SYSTEM INFORMATION

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

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

CONTROL PANEL

- STAINLESS STEEL ENCLOSURE
- 8.5 GALLON STORAGE TANK
- EXPIRENT GAS CARTRIDGE
- ANULS AUTOMAN RELEASE
- INNOVOLUTION FOR WIRING MICROSWITCH

NOT TO SCALE

WIRING DIAGRAMS
 WIDPOT MICRO SWITCH
 PROT SWITCHES PROVIDED BY MANUFACTURER MAY BE WIRED PER TYPICAL DIAGRAMS SHOWN. VERIFY WITH LOCAL CODES AND EQUIPMENT SUPPLIED AS THE CONNECTION NEEDED FOR YOUR INSTALLATION.

CONNECTION TO BUILDINGS ALARM

CONNECTION TO COOKING EQUIPMENT SHUT DOWN

CONNECTION TO FAN SHUT DOWN

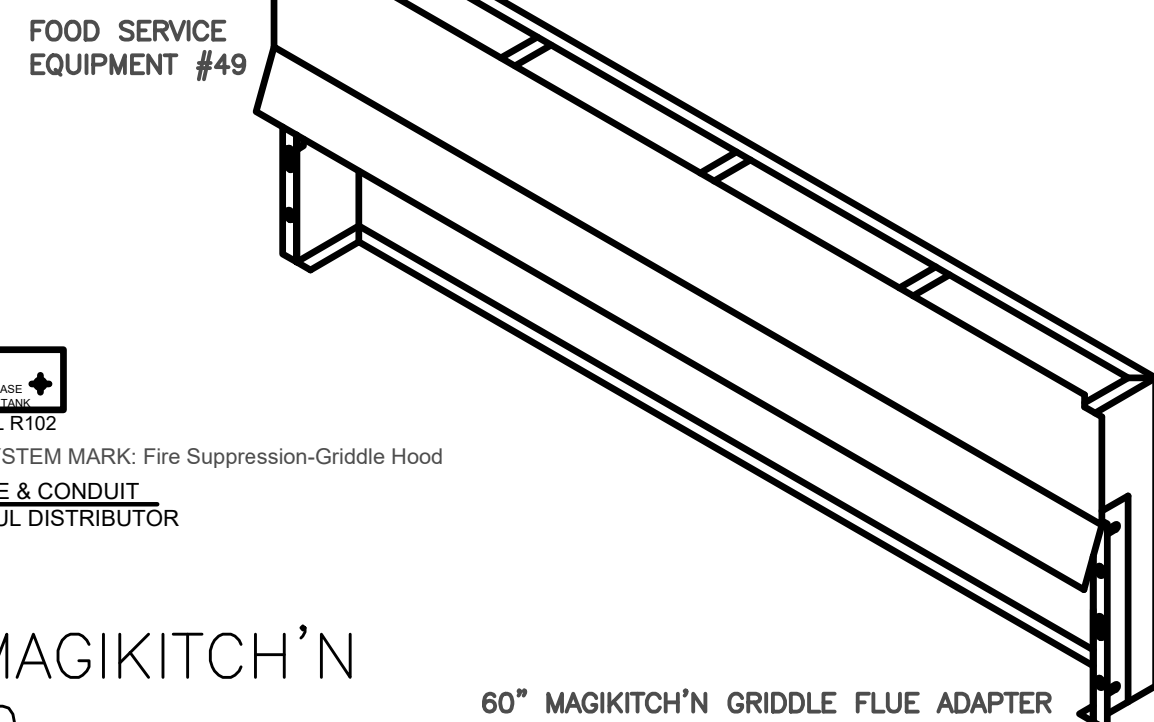
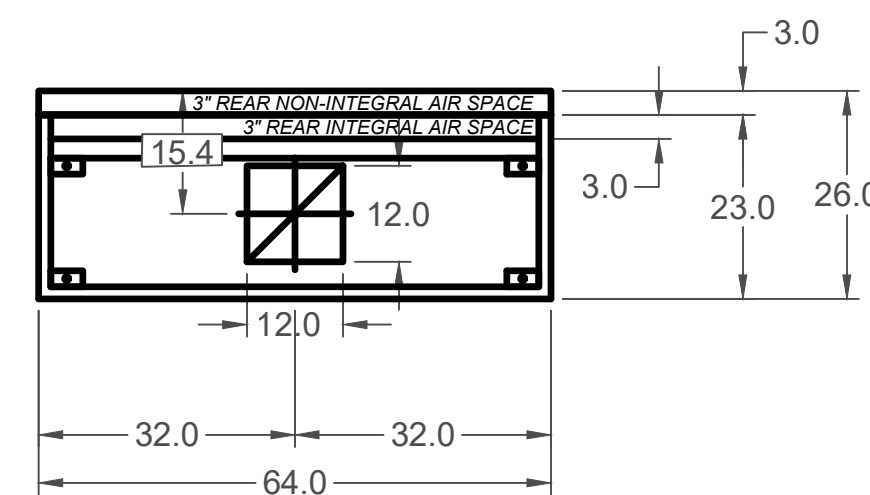
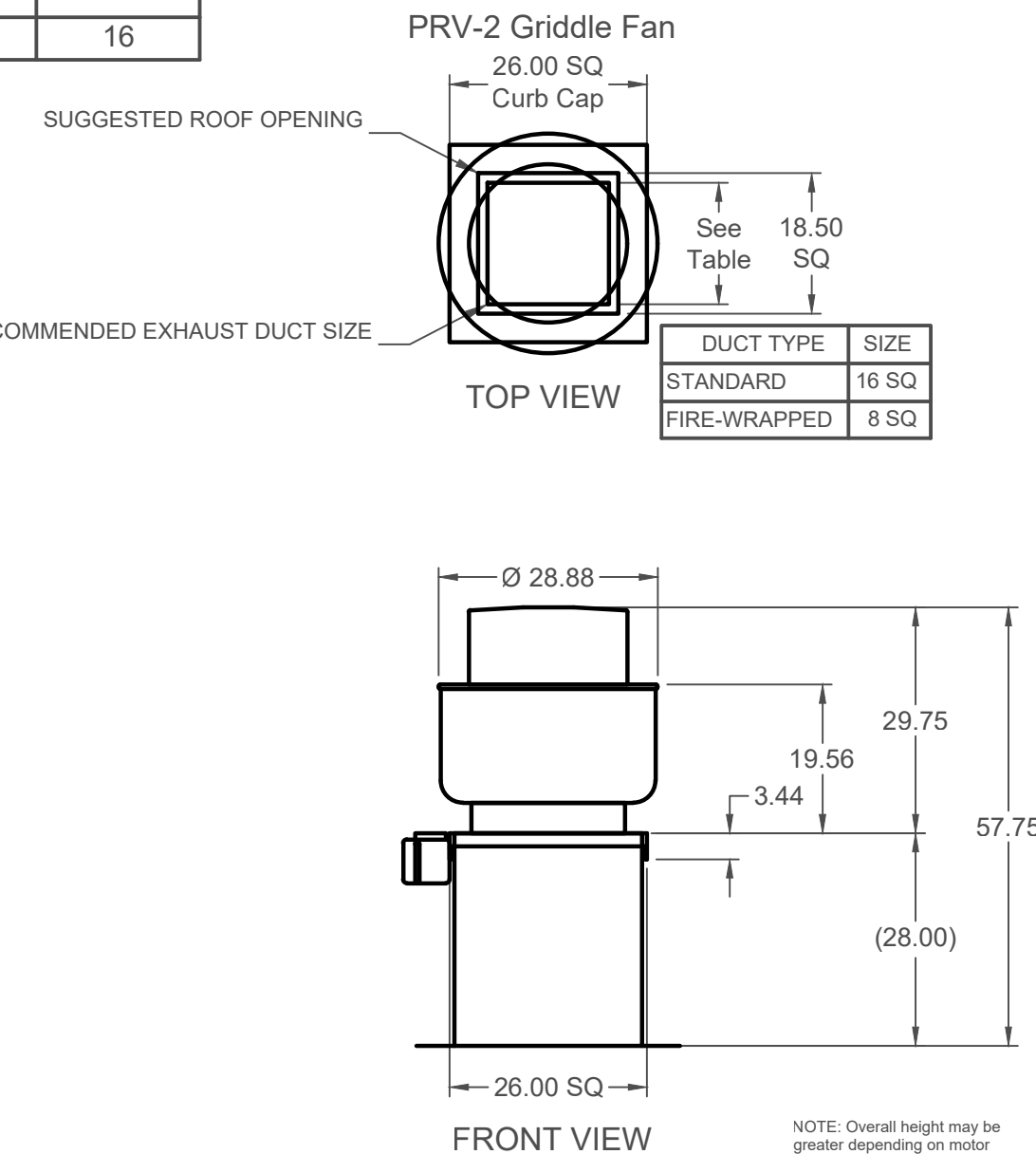
NOTES:

WET CHEMICAL FIRE PROTECTION SYSTEM TO BE ANSUL R-102. DESIGNED IN COMPLIANCE WITH UL 300 REQUIREMENTS. VERIFICATION OF ALL COOKING EQUIPMENT MAKE, MODEL AND LOCATION REQUIRED FOR ALL FIRE PROTECTION SYSTEMS. ALL FIRE SYSTEM PIPING IS STANDARDLY TO THE RIGHT END OF THE HOOD UNLESS A WALL IS LOCATED ON THE RIGHT END. ANSUL AUTOMAN RELEASE TO BE LOCATED WITHIN 60" OF HOOD.

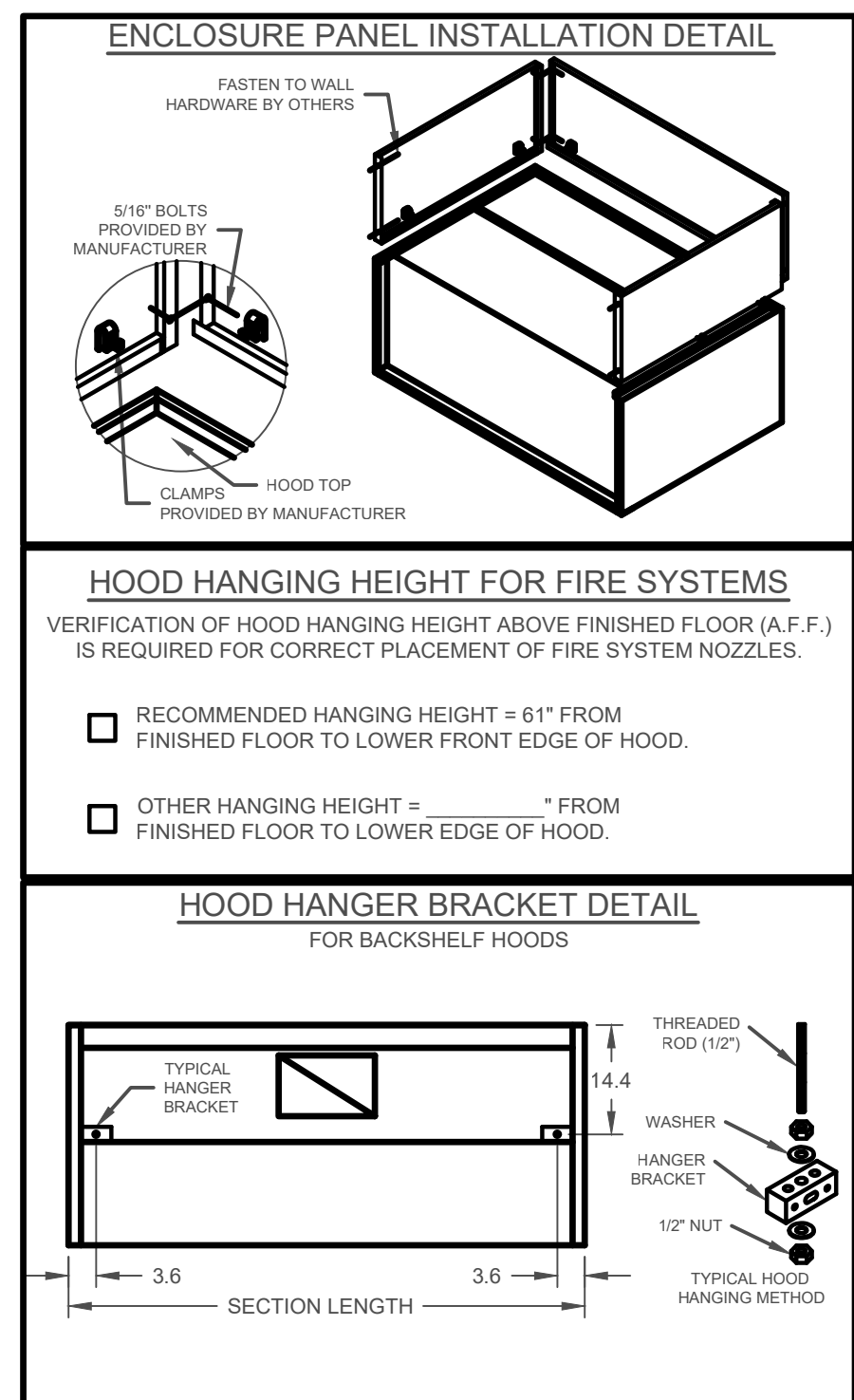
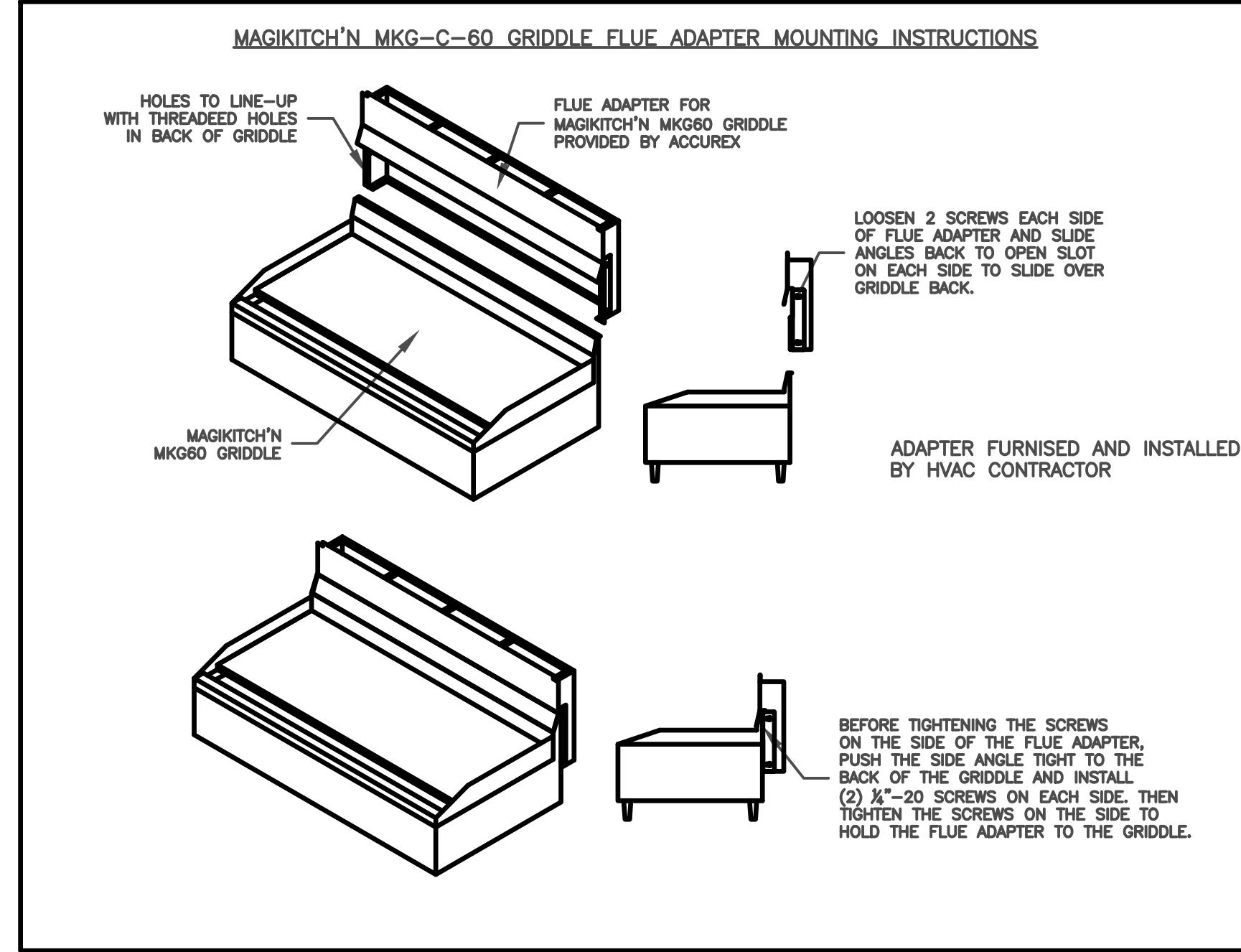
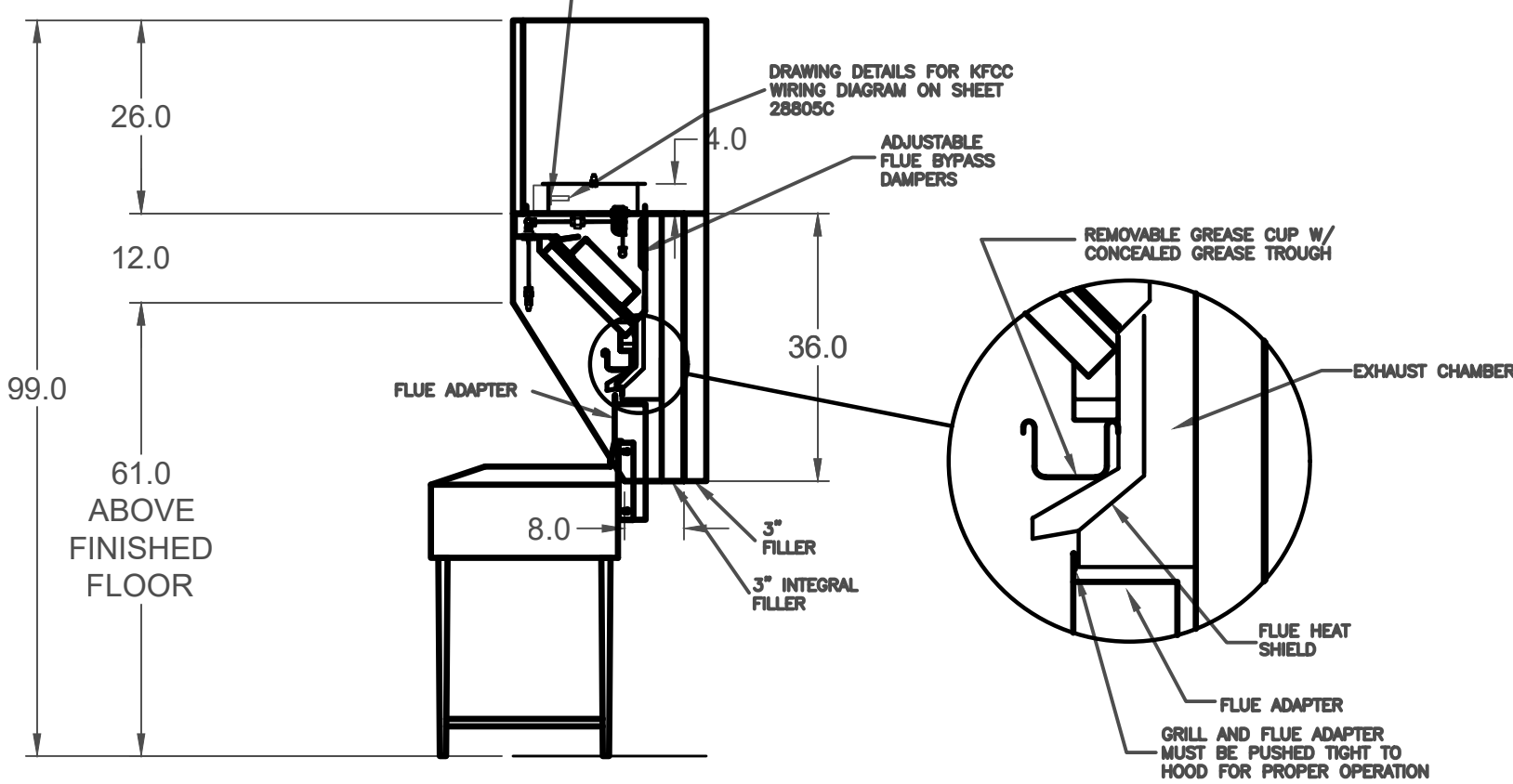
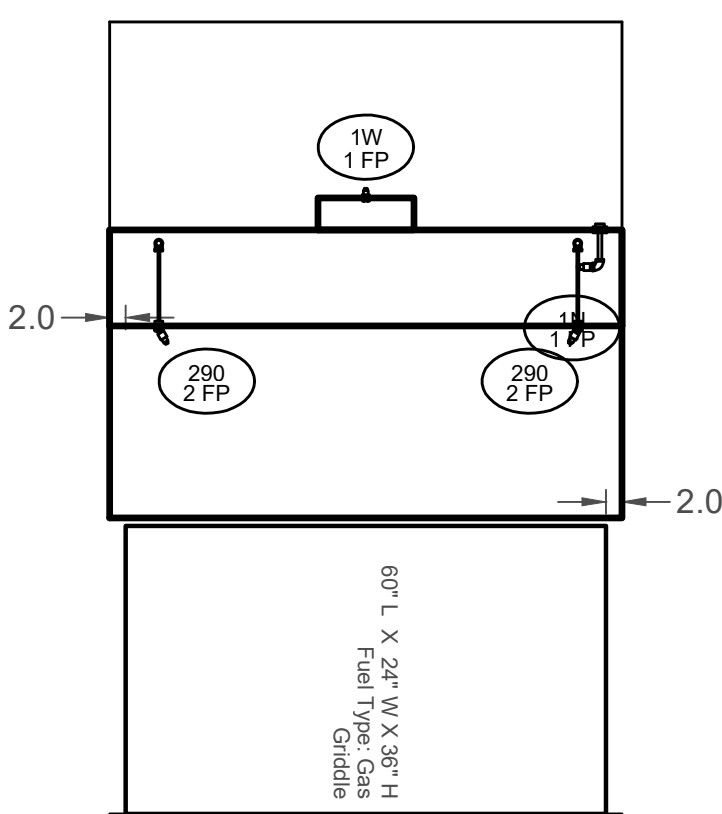
THE BASIC FIRE SYSTEM WILL INCLUDE THE FOLLOWING:
 GAS SHUT-OFF VALVE, IF REQUIRED, TO BE SUPPLIED BY MANUFACTURER (UP TO 2" DIAMETER AS STANDARD) AND INSTALLED BY A LICENSED PLUMBER.
 MICRO SWITCH TO BE SUPPLIED BY MANUFACTURER FOR CONNECTION TO, BUT NOT LIMITED TO, BUILDING ALARM SYSTEMS, EXHAUST AND SUPPLY FANS AND ELECTRICAL POWER SHUT DOWN. FIELD WIRING AND CONNECTIONS TO BE PERFORMED BY A LICENSED ELECTRICIAN.

THE BASIC FIRE SYSTEM DOES NOT INCLUDE THE FOLLOWING:
 FULL DUMP TEST OTHER THAN WHAT IS SPECIFIED PER THE INSTALLATION MANUAL, OR TO SATISFY A STATE OR LOCAL CODE. PERMIT AND TESTING FEES ARE NOT INCLUDED UNLESS NOTED UNDER THE EQUIPMENT SCHEDULE FOR THE FIRE SYSTEM.
 MORE THAN TWO TRIPS TO THE JOB SITE OR SPECIAL TRANSPORTATION, OR OVERNIGHT LOGGING REQUIREMENTS IN REMOTE AREAS. NORMAL TRAVEL DISTANCE IS FIRST 50 MI. (80.5 KM) FROM OFFICE.
 SPECIAL CLASSES OR ADDITIONAL LABOR FOR ACCESS TO SECURITY SENSITIVE AREAS.
 INSTALLATION OF GAS SHUT-OFF VALVE.
 SPECIAL DRAWINGS REQUIRED TO SATISFY STATE OR LOCAL CODE. PLAN EXAMINATION FEES, PE OR FS APPROVAL STAMP.
 UNION LABOR, GOVERNMENT LABOR, OR PREVAILING WAGES REQUIRED FOR FINAL FIELD HOOK-UP.
 ANY AND ALL ELECTRICAL COMPONENTS/CONNECTIONS REQUIRED TO SHUT DOWN FANS, SHUT OFF DEVICE FOR ELECTRIC COOKING EQUIPMENT (SHUNT TRIP BREAKER), OR ACTIVATE ALARM SYSTEM, ETC.
 ANY DISMANTLING OR REASSEMBLY REQUIRED TO GAIN ACCESS TO THE FIRE SUPPRESSION PIPING LOCATED ON THE TOP OF THE HOOD.
 ROUGH-IN HIDDEN CONDUIT FOR REMOTE PULL STATION OR GAS VALVE (FLUSH MOUNTED PULL STATION).
 INSTALLATION OF MORE THAN (1) REMOTE PULL STATIONS OR DISTANCES GREATER THAN 20 FT (6.1M).
 PARTS OR LABOR REQUIRED TO CORRECT PIPING DUE TO COOKING EQUIPMENT CHANGES OR DEVIATION FROM PLANS OR ANY CHARGES FOR MISSING OR ADDITIONAL PARTS OTHER THAN THOSE INDICATED ON THE FIRE SUPPRESSION DETAIL.

NOTES:
 1. _____ DENOTES FIELD INSTALLATION.
 2. _____ DENOTES FACTORY INSTALLATION.
 3. DO NOT USE BLACK WIRE ON SHUNT-Trip SWITCH IN NORMAL INSTALLATION. BLACK WIRE TO BE USED ONLY FOR EXTENDED ALARM LIGHT CIRCUITS ETC.



MUST USE WITH MAGIKITCH'N MODEL MKG-C-60
 VERIFY MAGIKITCHEN OR ANETS GRILL



NOTE:
 HOOD DRAWINGS ARE NOT DESIGNED BY THE ENGINEER OF RECORD. THEY ARE INCLUDED FOR REFERENCE ONLY.

ACCUREX

PROJECT 12/4/2019
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 262-227-7865

CULVERS-METROL
 PROTOTYPE_VG_NODH
 GRIDDLE HOOD
 PRV-2 GRIDDLE FAN
 FIRE SUPPRESSION-GRIDDLE HOOD

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ENGINEER'S SEAL

ISSUE FOR:

HVAC HOOD FAN & FIRE SUPPRESS.
 SCALE: AS NOTED
 PROJECT NO.: 24-738

M-4

HOOD INFORMATION

HOOD NO.	MARK	MODEL	HOOD DIMENSIONS (IN.)			HOOD CONSTR.	COOKING LOAD / DUTY RATING	EXHAUST COLLAR(S)					SUPPLY		TOTAL WEIGHT LBS.	SECTION LOCATION	
			LENGTH	WIDTH	HEIGHT			TOTAL CFM	WIDTH	LENGTH	DIA.	CFM	S.P.	MUA CFM			AC CFM
1	FRYER HOOD ITEM 59	XXEP-83-S	83	TOP 23 BOT 3	FRT 12 BACK 36	430 SS W/ERE EXPOSED	MEDIUM	1500	12	12		1500	0.518			169.1	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 TYPE	SIZE	MODEL	CONTROLS INTERFACE
1	FRYER HOOD ITEM 59					X-TRACTOR	STAINLESS STEEL	5	16	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 #K1100559 - NEW PITCO 4L FRYER FLUE BYPASS SYSTEM
 SDR #K1700974 - CULVERS 4VAT 2FIRE PROCESS - FRYER HOOD

Direct Drive Upblast Centrifugal Roof Exhaust Fan

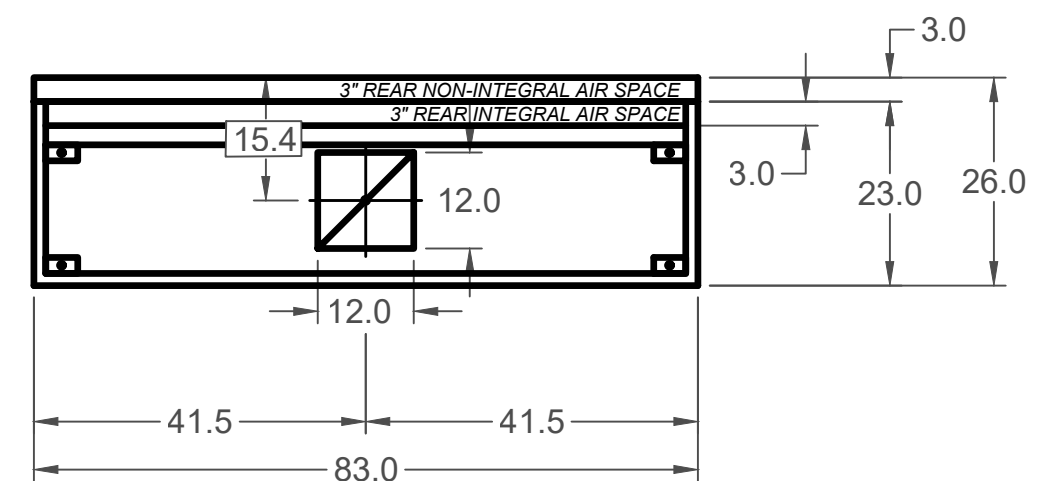
MARK INFORMATION			FAN INFORMATION					MOTOR INFORMATION					
QTY	MARK	MODEL	VOLUME (CFM)	TOTAL EXTERNAL SP (IN WG)	FAN RPM	OPERATING POWER (HP)	WEIGHT (LB.)	SIZE (HP)	V/C/P	ENCLOSURE	MOTOR RPM	WINDINGS	NEC FLA*
1	PRV-3 Fryer Fan	XCUE-140-VG	1,500	1	1,349	0.46	92	1	115/60/1	OP	1725	1	16

*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"

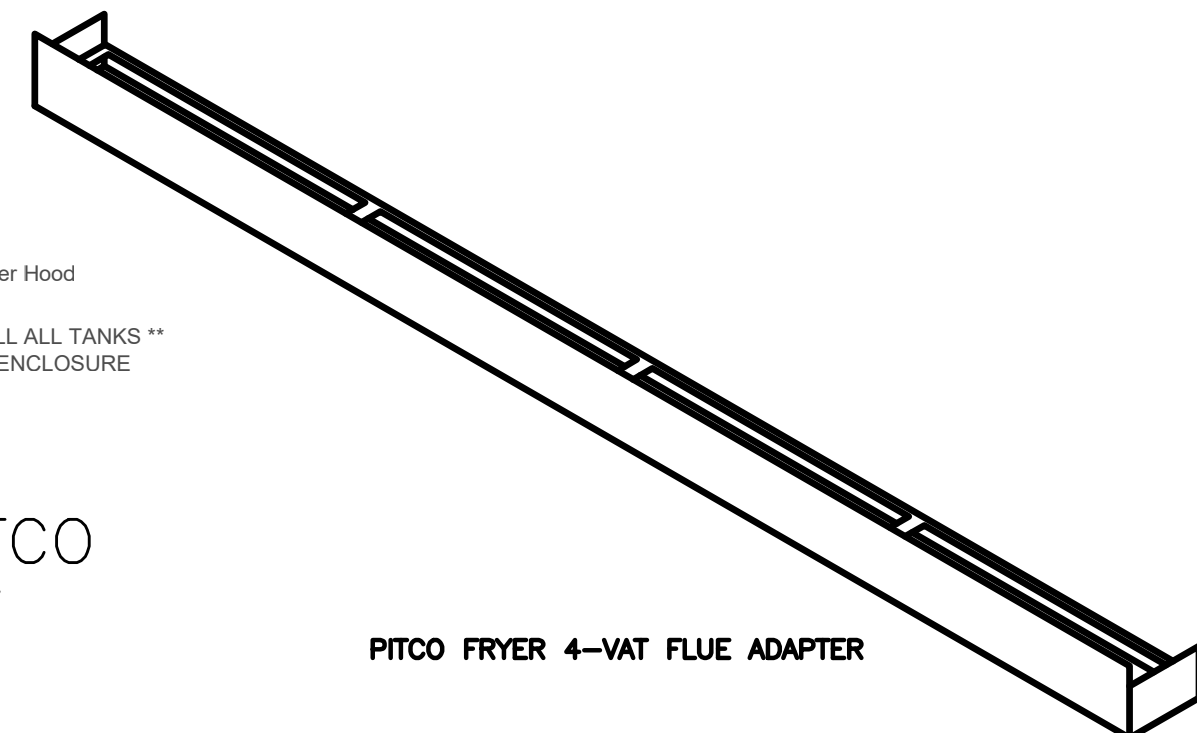
PRV-3 Fryer Fan : SELECTED OPTIONS AND ACCESSORIES

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 762 Listed - "Power Ventilators for Rest. Exh. Appliances"
 Switch, NEMA-3R, Toggle, Shipped with Unit
 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

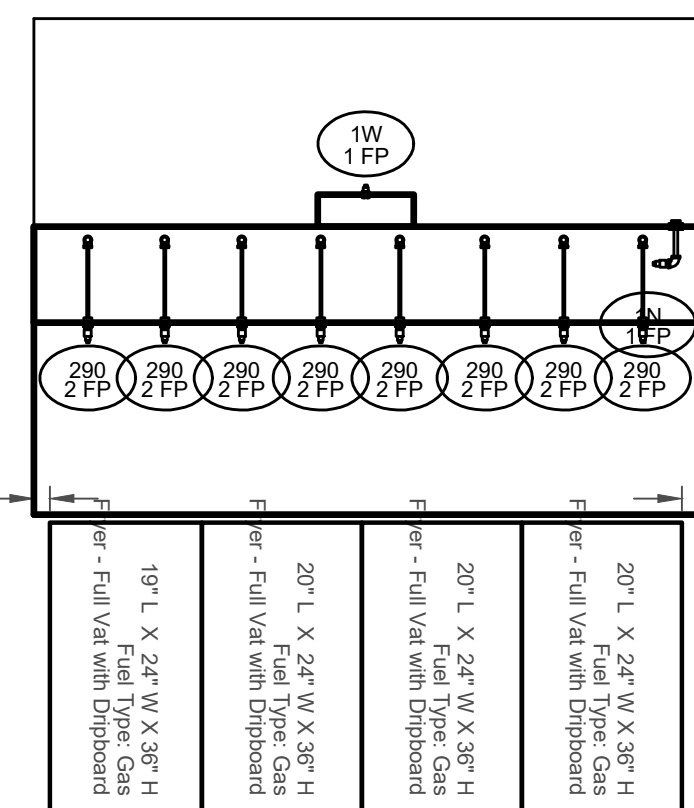
FOOD SERVICE EQUIPMENT #59



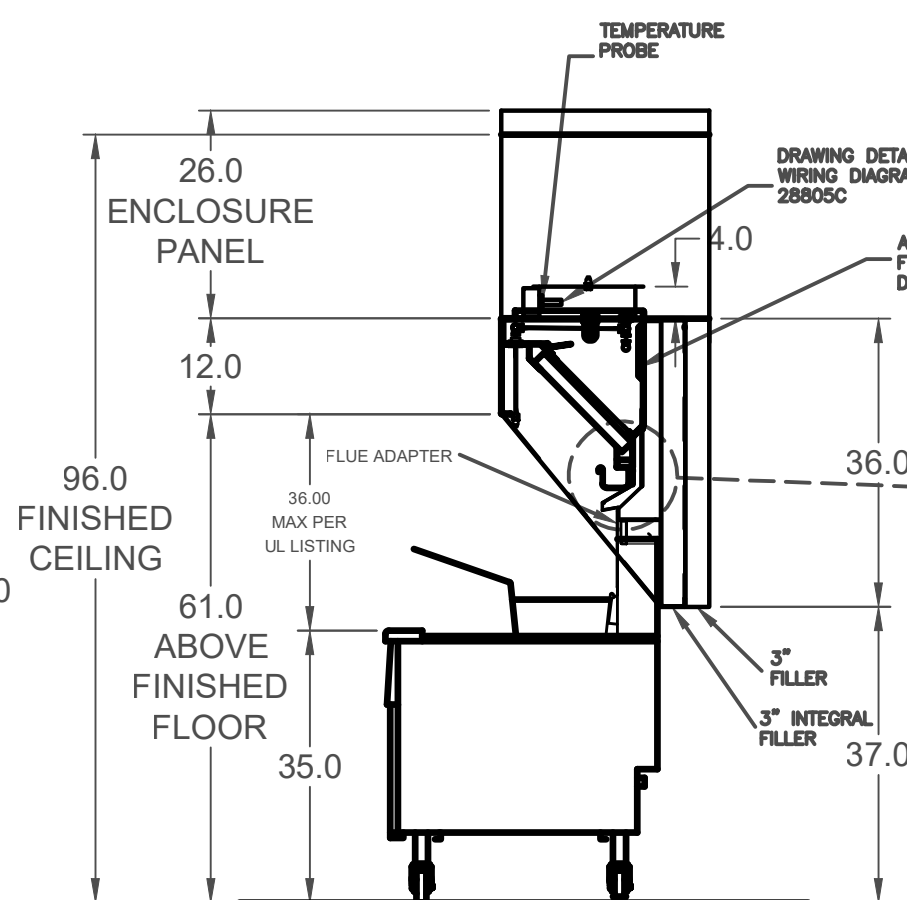
MUST USE WITH PITCO MODEL CU-SSH60W



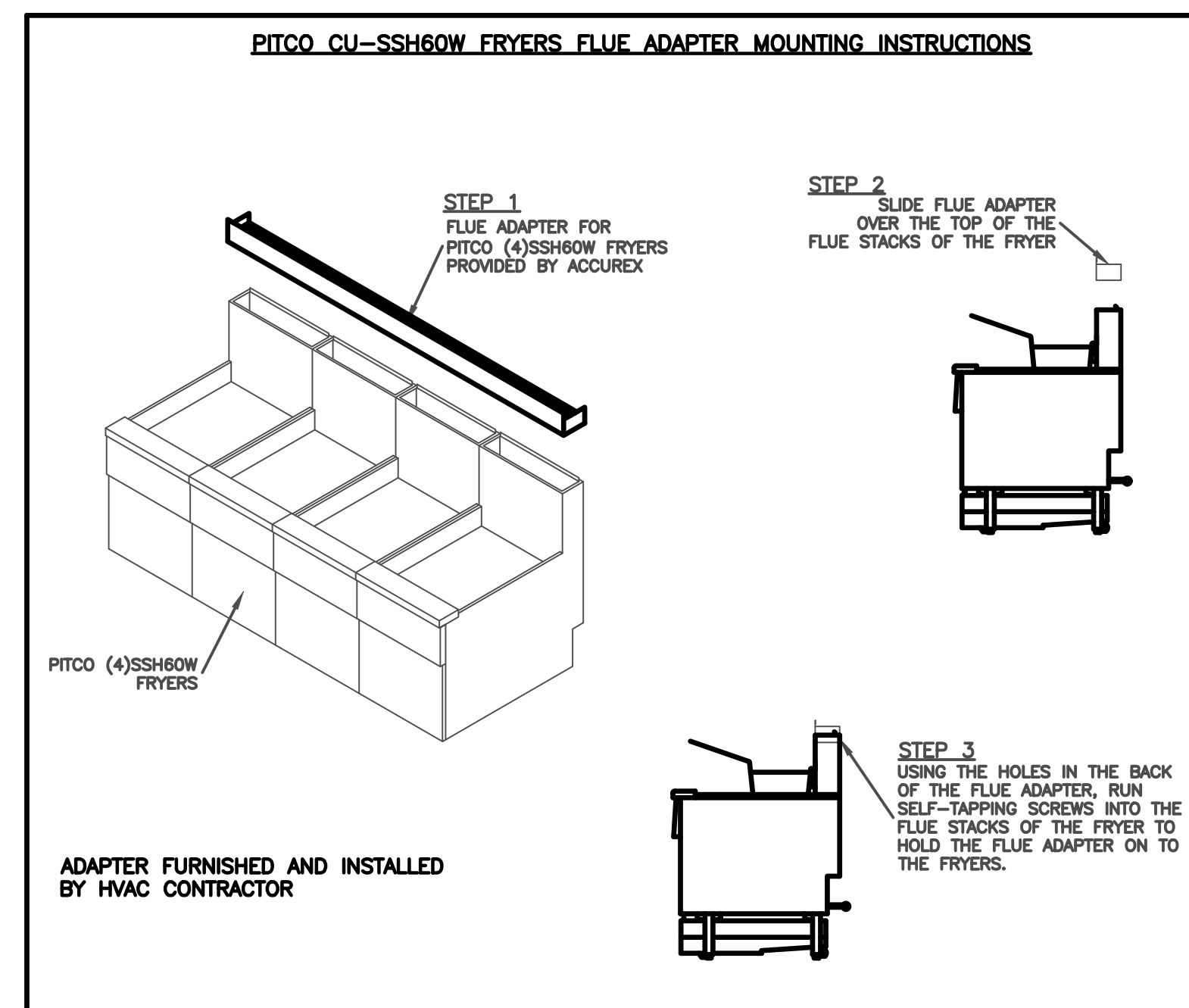
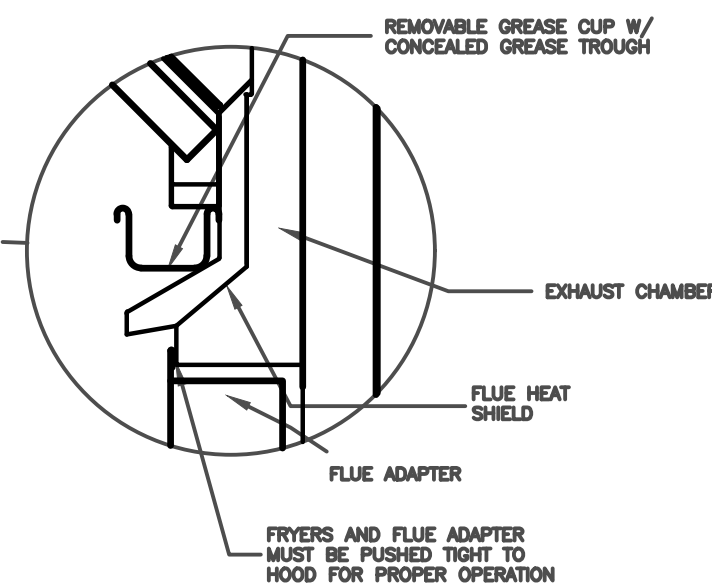
PITCO FRYER 4-VAT FLUE ADAPTER



SECTION 1 ELEVATION VIEW



MARK: ITEM #59 SECTION VIEW



FIRE SYSTEM INFORMATION

MARK	MODEL	LOCATION	FLOW POINTS		SUPPLY LINE	DETECTION
			HOODS	PCU		
FIRE SUPPRESSION-FRYER HOOD	ANSUL R-102 WET CHEMICAL	REMOTE MOUNTED	18 UTILIZED 22 AVAILABLE		CONTINUOUS	FUSIBLE LINK

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

CONTROL PANEL

- SYSTEMS TEST SWITCH
- AGENT STORAGE TANK
- EXPELLING GAS CHARGE
- ANSUL AUTOMAN RELEASE REGULATOR
- KEYCUTOUT FOR WIRING MICROSWITCH

NOT TO SCALE

WIRING DIAGRAMS
 WIREDOT MICRO SWITCH
 SPOT SWITCHES PROVIDED BY MANUFACTURER MAY BE WIRED PER TYPICAL EXAMPLES SHOWN, VERIFY WITH LOCAL CODES AND EQUIPMENT SUPPLIER THE CONNECTION NEEDED FOR YOUR INSTALLATION.

CONNECTION TO BUILDINGS ALARM

CONNECTION TO COOKING EQUIPMENT SHUT DOWN

CONNECTION TO FAN SHUT DOWN

NOTES:

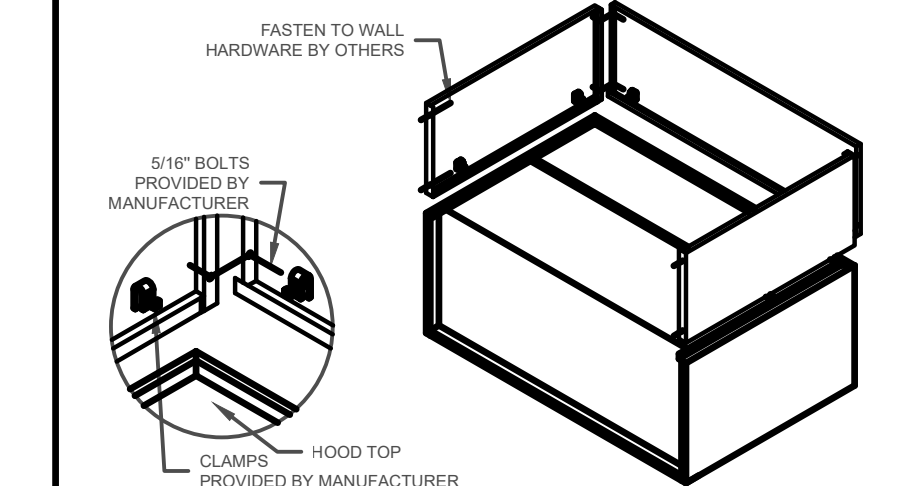
WET CHEMICAL FIRE PROTECTION SYSTEM TO BE ANSUL R-102, DESIGNED IN COMPLIANCE WITH UL 300 REQUIREMENTS.
 VERIFICATION OF ALL COOKING EQUIPMENT MAKE, MODEL AND LOCATION REQUIRED FOR ALL FIRE PROTECTION SYSTEMS.
 ALL FIRE SYSTEM PIPING IS STANDARDLY TO THE RIGHT END OF THE HOOD UNLESS A WALL IS LOCATED ON THE RIGHT END.
 ANSUL AUTOMAN RELEASE TO BE LOCATED WITHIN 60" OF HOOD.

THE BASIC FIRE SYSTEM WILL INCLUDE THE FOLLOWING:
 GAS SHUT-OFF VALVE, IF REQUIRED, TO BE SUPPLIED BY MANUFACTURER (UP TO 2" DIAMETER AS STANDARD), AND INSTALLED BY A LICENSED PLUMBER.
 ANSUL SWITCH TO BE SUPPLIED BY MANUFACTURER FOR CONNECTION TO, BUT NOT LIMITED TO, BUILDING ALARM SYSTEMS, EXHAUST AND SUPPLY FANS AND ELECTRICAL POWER SHUT DOWN. FIELD WIRING AND CONNECTIONS TO BE PERFORMED BY A LICENSED ELECTRICIAN.

THE BASIC FIRE SYSTEM DOES NOT INCLUDE THE FOLLOWING:
 FULL DUMP TEST OTHER THAN WHAT IS SPECIFIED PER THE INSTALLATION MANUAL, OR TO SATISFY A STATE OR LOCAL CODE. PERMIT AND TESTING FEES ARE NOT INCLUDED UNLESS NOTED UNDER THE EQUIPMENT SCHEDULE FOR THE FIRE SYSTEM.
 MORE THAN TWO TRIPS TO THE JOBSITE OR SPECIAL TRANSPORTATION, OR OVERNIGHT LOGGING REQUIREMENTS IN REMOTE AREAS. NORMAL TRAVEL DISTANCE IS FIRST 50 MI. (80.5 KM) FROM OFFICE.
 SPECIAL CLASSES OR ADDITIONAL LABOR FOR ACCESS TO SECURITY SENSITIVE AREAS.
 INSTALLATION OF GAS SHUT-OFF VALVE.
 SPECIAL DRAWINGS REQUIRED TO SATISFY STATE OR LOCAL CODE. PLAN EXAMINATION FEES, PE OR FS APPROVAL STAMP.
 UNION LABOR, GOVERNMENT LABOR, OR PREVAILING WAGES REQUIRED FOR FINAL FIELD HOOKUP.
 ANY AND ALL ELECTRICAL COMPONENTS/CONNECTIONS REQUIRED TO SHUT DOWN FANS, SHUT OFF DEVICES FOR ELECTRIC COOKING EQUIPMENT (SHIRT TRIP BREAKER), OR ACTIVATE AN ALARM SYSTEM, ETC.
 ANY DIMINUTING OR REDUCING REQUIRED TO GAIN ACCESS TO THE FIRE SUPPRESSION PIPING LOCATED ON THE TOP OF THE HOOD.
 ROUGH-IN HIDDEN CONDUIT FOR REMOTE PULL STATION OR GAS VALVE (FLUSH MOUNTED PULL STATION).
 INSTALLATION OF MORE THAN (1) REMOTE PULL STATIONS OR DISTANCES GREATER THAN 20 FT (6.1 M).
 PARTS OR LABOR REQUIRED TO CORRECT PIPING DUE TO COOKING EQUIPMENT CHANGES OR DEVIATION FROM PLANS, OR ANY CHARGES FOR MISSING OR ADDITIONAL PARTS OTHER THAN THOSE INDICATED ON THE FIRE SUPPRESSION DETAIL.

NOTE: OVERALL HEIGHT MAY BE GREATER DEPENDING ON MOTOR.

ENCLOSURE PANEL INSTALLATION DETAIL

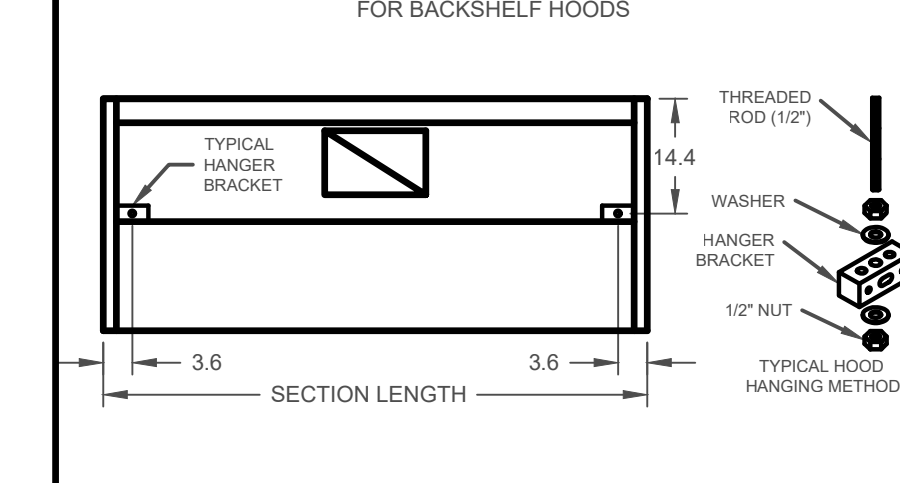


HOOD HANGING HEIGHT FOR FIRE SYSTEMS

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



NOTE:
 HOOD DRAWINGS ARE NOT DESIGNED BY THE ENGINEER OF RECORD. THEY ARE INCLUDED FOR REFERENCE ONLY.

PROJECT 12/4/2019
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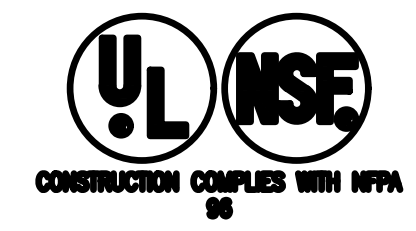
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ENGINEER'S SEAL
 PHILLIP KRAFT
 PROFESSIONAL ENGINEER
 AUSTIN, JR.
 062.070208
 OF ILLINOIS
 07/2024

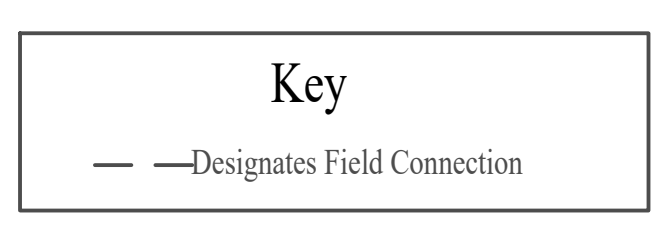
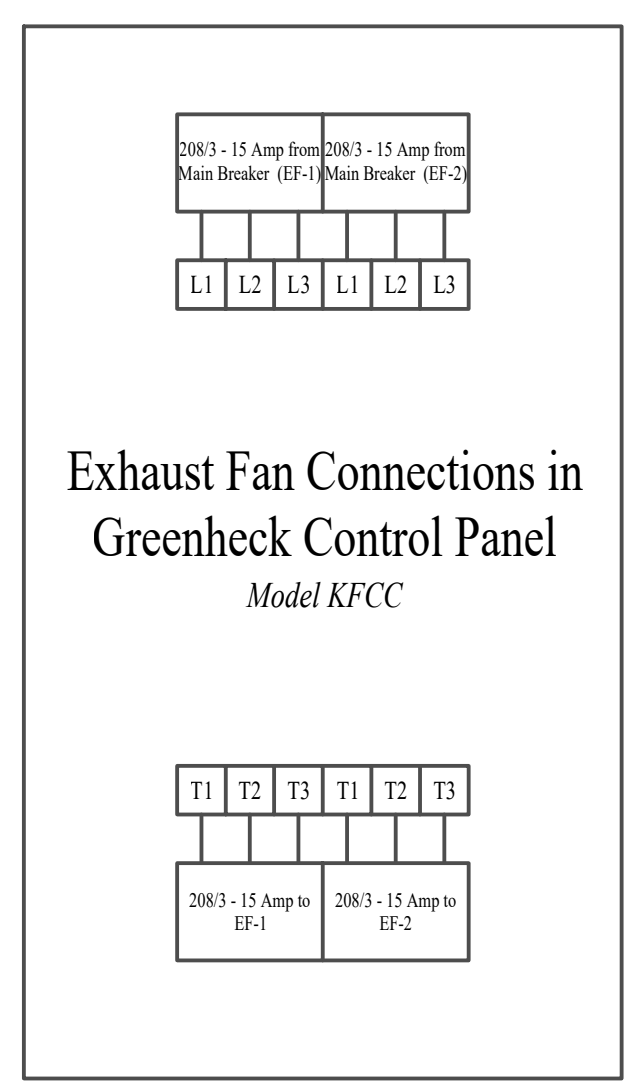
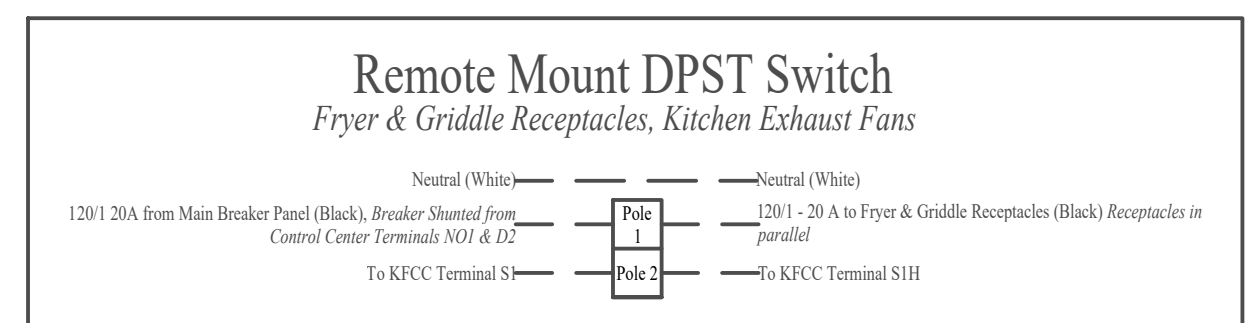
ISSUE FOR:

HVAC HOOD, FAN & FIRE SUPPRESS.
 SCALE: AS NOTED
 PROJECT NO.: 24-738

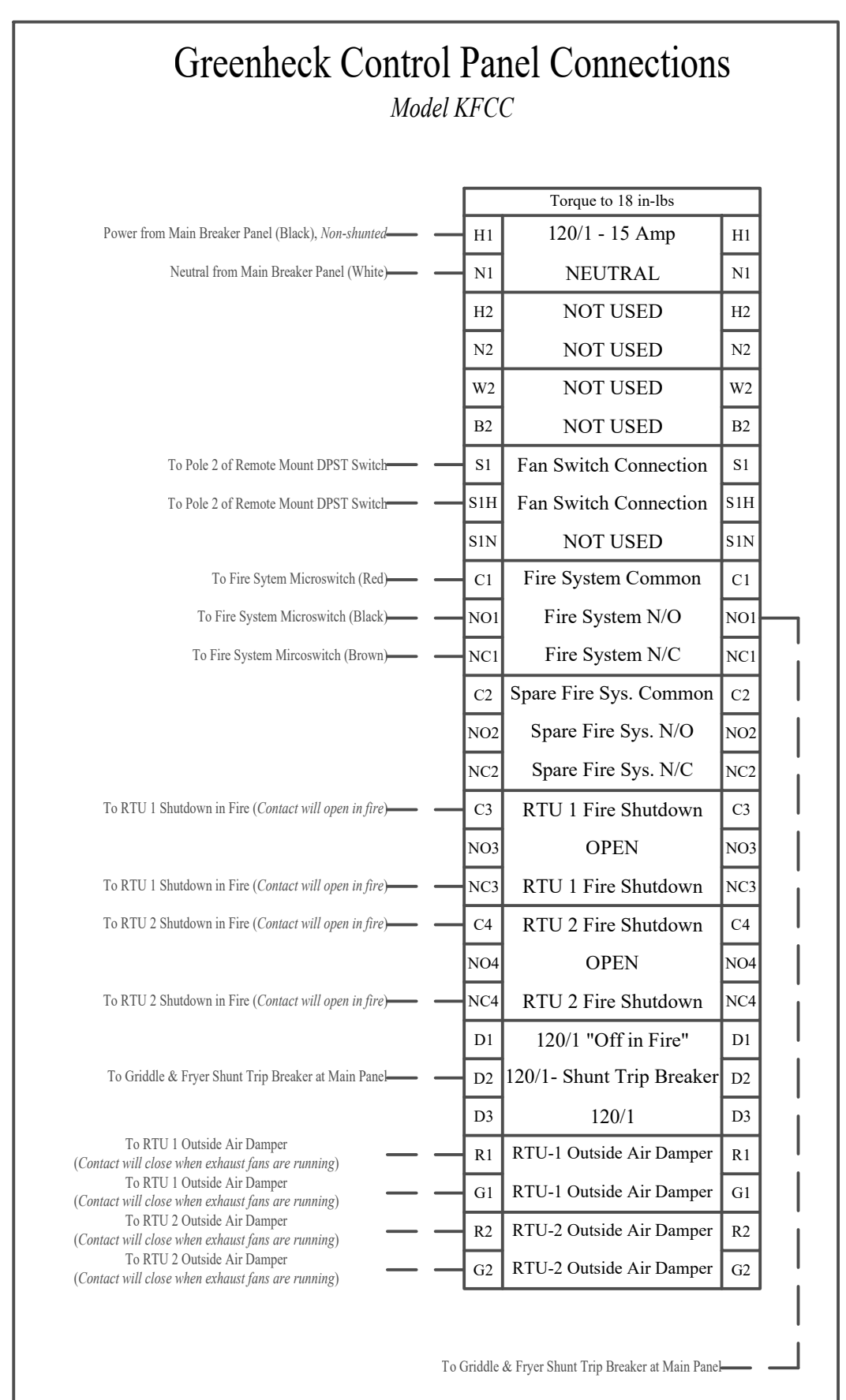
M-5



CULVER'S ELECTRICAL FIELD CONNECTION INSTALLATION INSTRUCTIONS



NOTE:
HOOD DRAWINGS ARE NOT DESIGNED
BY THE ENGINEER OF RECORD. THEY
ARE INCLUDED FOR REFERENCE ONLY.



Culver's Installation and Operation Guide

Greenheck Control Panel and Exhaust Fan & Receptacle Switch

Mechanical Scope of work

- 1) Mechanical contractor to mount Greenheck Control Panel (*Model KFCC, 12"W x 18"H x 6"W*) in specified location above drop ceiling.
- 2) Mechanical Contractor to start up fans and electrical outlet by turning fan switch to the "ON" position. Verify power to fryer & griddle receptacles and exhaust fans.

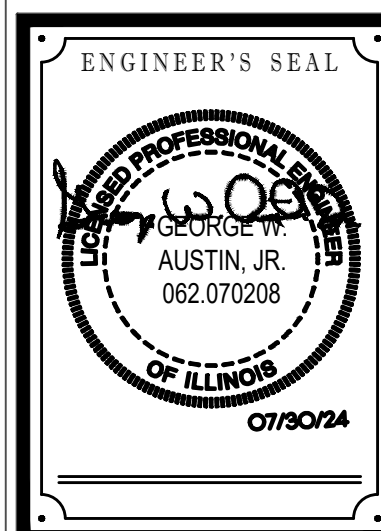
Electrical Scope of Work

- 1) Electrical contractor shall provide one 120 Volt - 20 Amp circuit with shunt trip breaker (120V trip) for fryer and griddle receptacles. This circuit will have two receptacles, one for the fryer and one for the griddle. Circuit will be controlled using a DPST (Double Pole Single Throw) switch for exhaust fan and electrical outlet control. Switch to be mounted on wall where specified on drawings.
- 2) Electrical Contractor to provide and install DPST switch on wall. Wire one pole of switch to the receptacle outlet circuit. Wire other pole of DPST switch to terminals S1H and S1 in Greenheck Control Panel (*Model KFCC*) to complete fan control circuit.
- 3) Electrical Contractor to run a separate 120 Volt - 15A circuit to KFCC terminals H1 and N1 to power KFCC controls.
- 4) Two 208/60/3 - 15A circuits must be run from the main breaker panel to each motor starter in the KFCC (L1, L2, & L3). Run power from Terminals T1, T2, & T3 on the bottom of motor starter in KFCC to kitchen exhaust fans.
- 5) Electrical Contractor to make connections from terminals NO1 and D2 (120 Volt normally open contact) to shunt-trip breaker for fryer and griddle receptacles.
- 6) Electrical Contractor to wire fire system microswitch in fire system cabinet to KFCC terminals C1, NC1, and NO1 as indicated on Greenheck drawing.
- 7) Electrical Contractor to wire RTU 1 & 2 damper control to KFCC terminals R1 and G1 and R2 and G2 as indicated on Greenheck drawing.
- 8) Electrical Contractor to wire RTU 1 & 2 control (10 amp max) circuits to KFCC dry contacts C3 and NC3 for RTU 1 and C4 and NC4 for RTU 2 to shutdown units in a fire.

Sequence of Operation

- 1) Turn fan switch on. Fans and fryer and griddle receptacles will be energized.
- 2) Turn on RTU 1 & RTU 2.
- 3) Before fire system agent tanks are installed, manually trigger fire system while fan switch is on. This should accomplish the following:
 - Shunt trip breaker will trip causing a loss of power to fryer and griddle receptacles.
 - Gas valve will close shutting gas off to the fryer and griddle.
 - Exhaust fans will remain on.
 - RTU 1 & 2 will shut down.
- 1) Put fire system in the "cocked" position and reset shunt trip breaker. Power will be restored to equipment and RTU's.
- 2) Turn fan switch to "OFF" position. This will shut down power to receptacles and exhaust fans. RTU outside air dampers will close. RTU's will remain operational providing 100% return air only.

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