

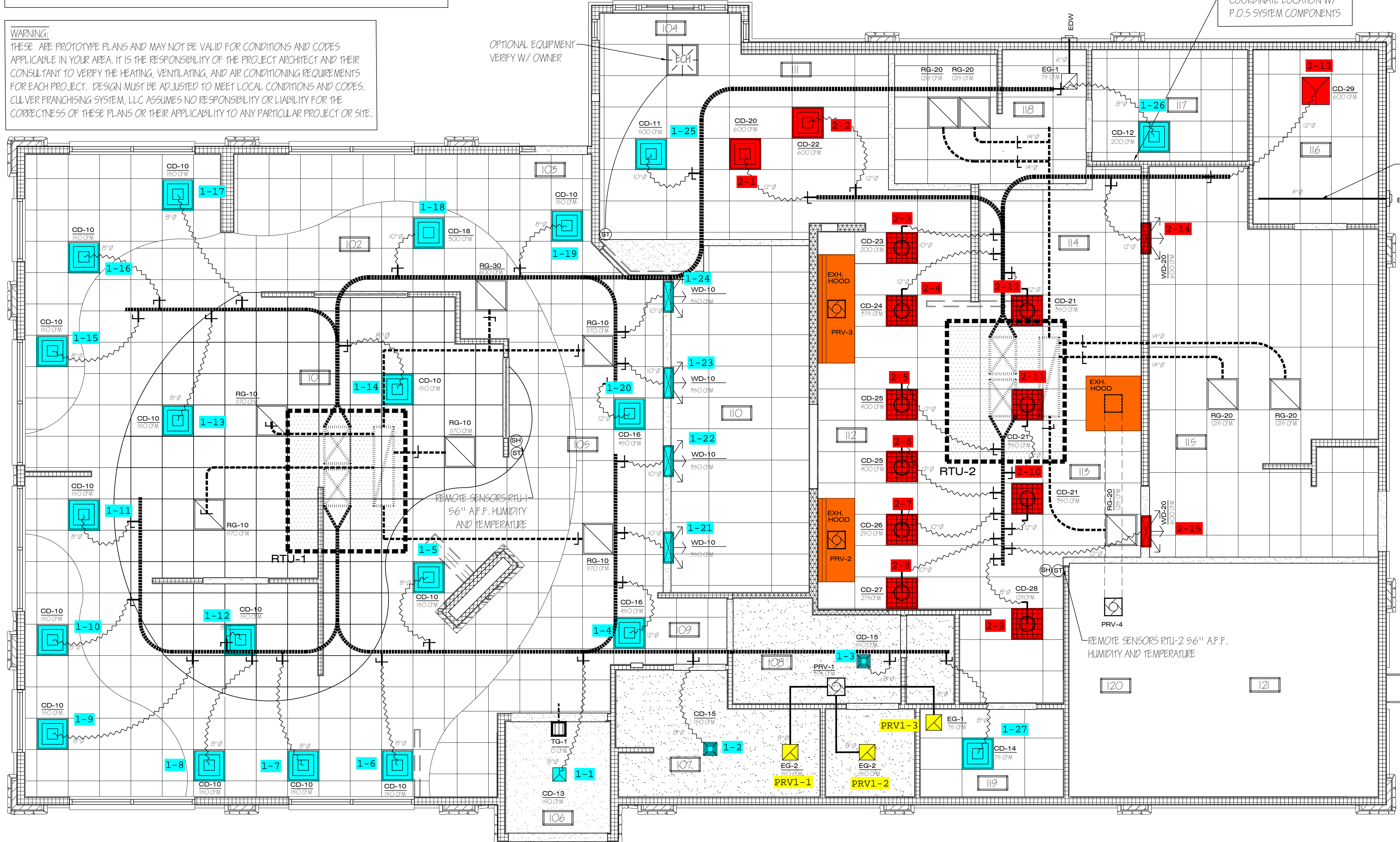
**H.V.A.C. LEGEND:**

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 - SUPP. 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 N-ONLY. CLASS 1 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°

**WARNING:**  
THESE ARE PROTOTYPE PLANS AND MAY NOT BE VALID FOR CONDITIONS AND CODES APPLICABLE IN YOUR AREA. IT IS THE RESPONSIBILITY OF THE PROJECT ARCHITECT AND THEIR CONSULTANT TO VERIFY THE HEATING, VENTILATING, AND AIR CONDITIONING REQUIREMENTS FOR EACH PROJECT. DESIGN MUST BE ADJUSTED TO MEET LOCAL CONDITIONS AND CODES. CULVER FRANCHISING SYSTEM, LLC ASSUMES NO RESPONSIBILITY OR LIABILITY FOR THE CORRECTNESS OF THESE PLANS OR THEIR APPLICABILITY TO ANY PARTICULAR PROJECT OR SITE.

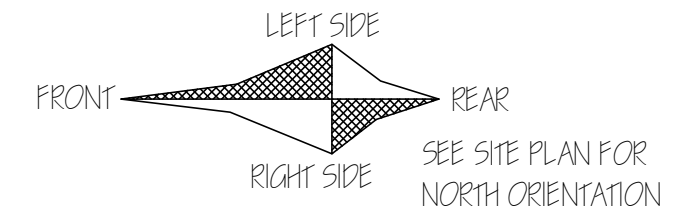


RTU-1  
RTU-2  
DRIVE-THRU

STACK THERMOSTATS VERTICAL COORDINATE LOCATION W/ P.O.S SYSTEM COMPONENTS

A/E TEAM TO VERIFY DRYER VENTING REQUIREMENTS

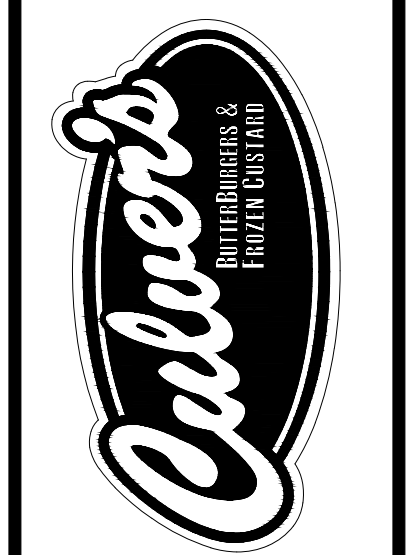
**HVAC PLAN - METRO M - 2021 PROTOTYPE**  
SCALE: 1/4" = 1'-0"



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By	
Date	
Revision	

Culver Franchising System, LLC  
1240 Water Street  
Prairie du Sac, WI 53578  
608-643-7980



**CULVER FRANCHISING SYSTEM, LLC**  
**METRO M - 2021**  
**PROTOTYPE PLANS**

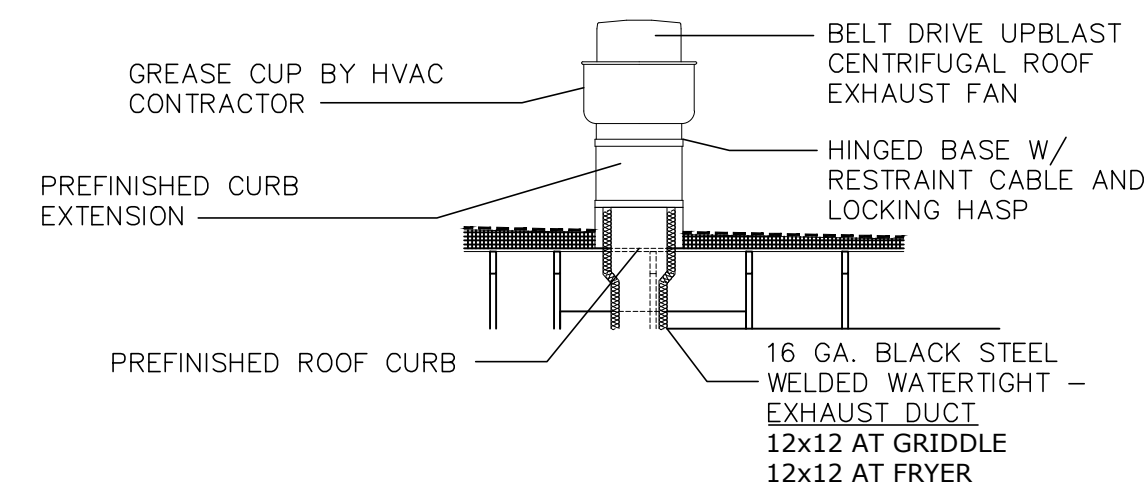
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Project No.	Metro M - 2021
Drawn By:	S. Datka
Date:	Jan. 1, 2021

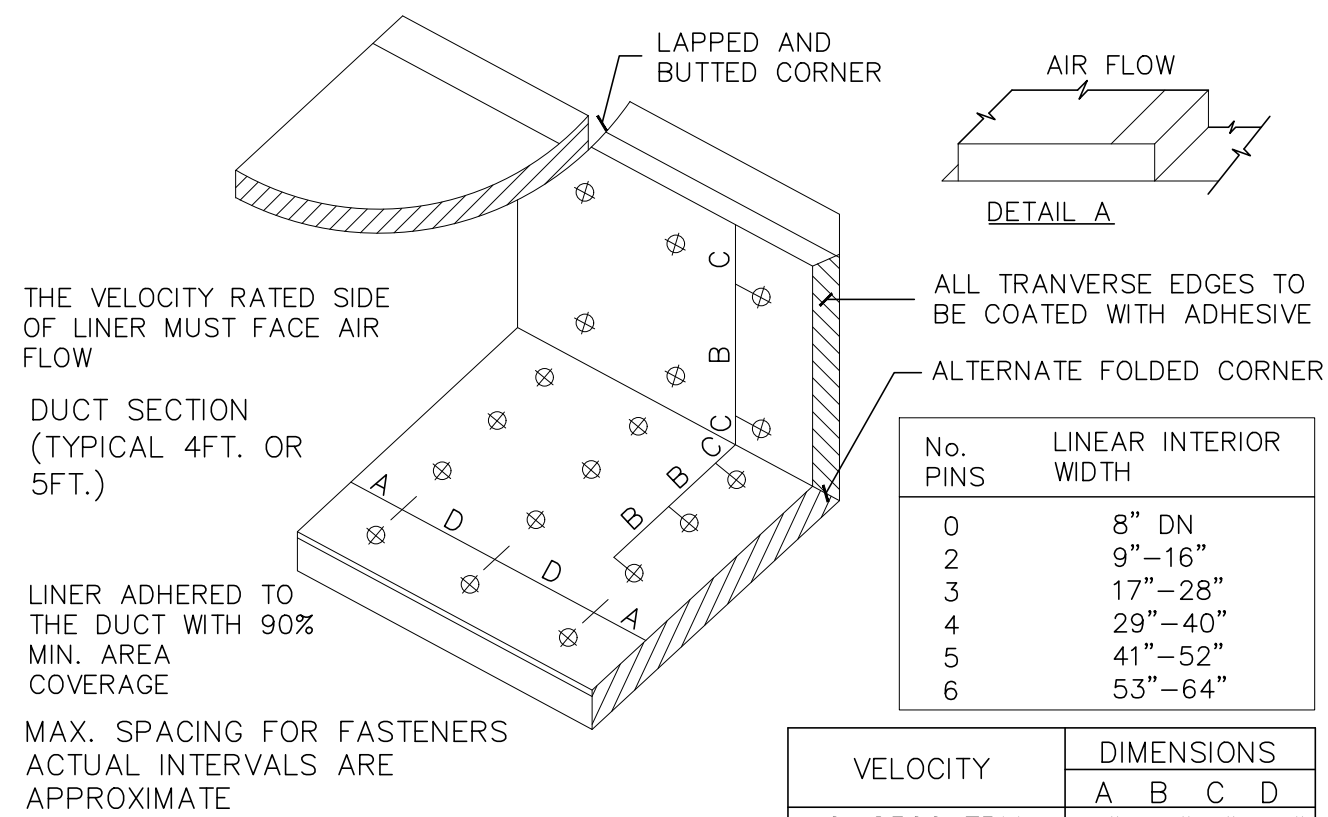
Sheet  
**M-1**

## 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 APPARATUS.)
- PROVIDE SHOP DRAWINGS TO THE ARCHITECT/DESIGNER FOR EQUIPMENT, FANS, REGISTERS ETC. PRIOR TO PROCUREMENT
- PROVIDE OWNER WITH COLOR CHOICES FOR SWITCHES AND OTHER APPARATUS 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 APPARATUS.
- 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.



KITCHEN HOOD EXHAUST FAN DETAIL  
N.T.S.



### DUCT LINER INSTALLATION DETAIL

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.

## MECHANICAL EQUIPMENT SPECIFICATIONS

RTU - 1	LENNOX EMERGENCE SERIES PACKAGED ROOFTOP UNITS WITH PRODIGY CONTROLLER
	COMBINATION GAS WITH TWO STAGE HEATING AND COOLING ROOFTOP UNIT WITH HUMIDITROL AND S/S HEAT EXCHANGERS. HEATING CAPACITY DESIGNED PER LOCATION. 80%V AFUE THERMAL EFF. COOLING CAPACITY DESIGNED PER LOCATION. 11 EER MINIMUM. CONSTANT AIR VOLUME SUPPLY FAN. SUPPLY AND OUTSIDE AIR REQUIREMENTS DESIGNED PER LOCATION. UNIT TO BE 208/3/60 POWER. VERIFY AMPERAGE AND COORDINATE WITH ELECTRICAL CONTRACTOR. IN ADDITION TO OPTIONS LISTED ABOVE INCLUDE THE FOLLOWING FACTORY INSTALLED OPTIONS: WEATHERPROOF DISCONNECT SWITCH, FACTORY INSTALLED/FIELD POWERED GFCI, RETURN AND/OR SUPPLY SMOKE DETECTORS AS REQUIRED BY LOCAL CODES, DRAIN PAN OVERFLOW SWITCH, SINGLE ENTHALPY ECONOMIZER WITH BAROMETRIC RELIEF AND HOODS. INCLUDE THE FOLLOWING FIELD INSTALLED OPTIONS: 2" MERV13 FILTERS, SPARE BELT, DOWN FLOW HYBRID CURB, PVC DRAIN TRAP KIT, REMOTE HUMIDITY SENSOR, MESH HAIL GUARD, LENNOX MODEL 13H15 PROGRAMMABLE THERMOSTAT
	<b>NO SUBSTITUTIONS. PROJECT ENGINEER TO SIZE ACCORDING TO LOCAL CONDITIONS AND CODES</b>
RTU - 2	LENNOX EMERGENCE SERIES PACKAGED ROOFTOP UNITS WITH PRODIGY CONTROLLER
	COMBINATION GAS WITH TWO STAGE HEATING AND COOLING ROOFTOP UNIT WITH HUMIDITROL AND S/S HEAT EXCHANGERS. HEATING CAPACITY DESIGNED PER LOCATION. 80%V AFUE THERMAL EFF. COOLING CAPACITY DESIGNED PER LOCATION. 11 EER MINIMUM. CONSTANT AIR VOLUME SUPPLY FAN. SUPPLY AND OUTSIDE AIR REQUIREMENTS DESIGNED PER LOCATION. UNIT TO BE 208/3/60 POWER. VERIFY AMPERAGE AND COORDINATE WITH ELECTRICAL CONTRACTOR. IN ADDITION TO OPTIONS LISTED ABOVE INCLUDE THE FOLLOWING FACTORY INSTALLED OPTIONS: WEATHERPROOF DISCONNECT SWITCH, FACTORY INSTALLED/FIELD POWERED GFCI, RETURN AND/OR SUPPLY SMOKE DETECTORS AS REQUIRED BY LOCAL CODES, DRAIN PAN OVERFLOW SWITCH, SINGLE ENTHALPY ECONOMIZER WITH BAROMETRIC RELIEF AND HOODS. INCLUDE THE FOLLOWING FIELD INSTALLED OPTIONS: 2" MERV13 FILTERS, SPARE BELT, DOWN FLOW HYBRID CURB, PVC DRAIN TRAP KIT, REMOTE HUMIDITY SENSOR, MESH HAIL GUARD, LENNOX MODEL 13H15 PROGRAMMABLE THERMOSTAT
	<b>NO SUBSTITUTIONS. PROJECT ENGINEER TO SIZE ACCORDING TO LOCAL CONDITIONS AND CODES</b>
PRV - 1	ACCUREX MODEL XRED-095-D CONDENSATE DOWNBLAST EXHAUST FAN WITH ROOF CURB AND BACKDRAFT DAMPER. 375 CFM AT .5" SP, .0667 HP MOTOR, 115 VOLTS, SINGLE PHASE. FAN TO RUN CONTINUOUSLY DURING OCCUPIED MODE.
	<b>NO SUBSTITUTIONS.</b>
PRV - 2 (ITEM #49)	ACCUREX MODEL XRUB-160XP-15 KITCHEN FAN UPBLAST EXHAUST FAN W/CLEAN-OUT PORT, MOUNTED HINGE BASE, & AUTO BELT TENSIONER, SPARE BELT, & ROOF CURB WITH CURB EXTENSION. 1500 CFM AT 2.33" SP, 1.5 HP MOTOR, 208 VOLTS, THREE PHASE FAN TO RUN CONTINUOUSLY DURING OCCUPIED MODE.
	<b>NO SUBSTITUTIONS.</b>
PRV - 3 (ITEM #59)	ACCUREX MODEL XRUB-140-7 KITCHEN FAN UPBLAST EXHAUST FAN W/CLEAN-OUT PORT, MOUNTED HINGE BASE, & AUTO BELT TENSIONER, SPARE BELT, & ROOF CURB WITH CURB EXTENSION. 1500 CFM AT 1.00" SP, .75 HP MOTOR, 208 VOLTS, THREE PHASE FAN TO RUN CONTINUOUSLY DURING OCCUPIED MODE.
	<b>NO SUBSTITUTIONS.</b>
PRV - 4 (ITEM #25)	ACCUREX MODEL XRED-095-D CONDENSATE DOWNBLAST EXHAUST FAN WITH ROOF CURB AND BACKDRAFT DAMPER. 350 CFM AT .6" SP, .0667 HP MOTOR, 115 VOLTS, SINGLE PHASE. FAN TO RUN w/STARTING OF DISHWASHER & FOR ONE MINUTE AFTER THE CYCLE IS COMPLETE. <b>NO SUBSTITUTIONS.</b>
	<b>NO SUBSTITUTIONS.</b>
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.
	<b>NO SUBSTITUTIONS.</b>
ITEM #49	GRIDDLE EXHAUST HOOD - ACCUREX MODEL XGEP-5.33S 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
	<b>NO SUBSTITUTIONS.</b>
ITEM #59	FRYER EXHAUST HOOD - ACCUREX MODEL XXEP-FB-6.92-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 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
	<b>NO SUBSTITUTIONS.</b>
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. <b>NO SUBSTITUTIONS.</b>
	<b>NO SUBSTITUTIONS.</b>
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)

### WARNING: HVAC EQUIPMENT HAS NOT BEEN SIZED FOR YOUR LOCATION!

NOTE: These plans may or may not be valid for conditions and codes applicable in your area. It is the responsibility of the project architect and consultants to verify the Heating, Ventilation and Air Conditioning requirements for each project and to adjust this design to meet those conditions and codes. Culver Franchising System, LLC assumes no responsibility or liability for the correctness of these plans or their applicability to any particular project or site.

## 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 Andy Jacobs @ 1-715-301-6022 or andrew.jacobs@accurex.com  
Secondary contact Phillip Kraft 1-262-227-7865 phillip.kraft@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 FOUR WEEK LEAD TIME.**



### BRANCH DUCT TAKEOFF DETAILS N.T.S.

## DIFFUSER/GRILLE SCHEDULE

QNTY	Mark	Manuf.	Model	Type	Mounting	Diffuser	Neck	CFM	Zone	Notes
14	CD-10	CARNES	SFTB24	SUPPLY	GRID	4-WAY	8"	150	RTU-1	2
1	CD-11	CARNES	SJT24	SUPPLY	GRID	4-WAY	10"	500	RTU-1	1
1	CD-12	CARNES	SJT24	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	
1	CD-18	CARNES	SFTB24	SUPPLY	GRID	4-WAY	10"	300	RTU-1	6
1	CD-20	CARNES	SFTB24	SUPPLY	GRID	4-WAY	12"	600	RTU-2	
3	CD-21	CARNES	SPRB22412	SUPPLY	GRID	PERFORATED	12"	350	RTU-2	7
1	CD-22	CARNES	SFTB24	SUPPLY	GRID	4-WAY	12"	600	RTU-2	
1	CD-23	CARNES	SPRB22410	SUPPLY	GRID	PERFORATED	10"	200	RTU-2	7
1	CD-24	CARNES	SPRB22412	SUPPLY	GRID	PERFORATED	12"	375	RTU-2	7
2	CD-25	CARNES	SPRB22412	SUPPLY	GRID	PERFORATED	12"	400	RTU-2	7
1	CD-26	CARNES	SPRB22410	SUPPLY	GRID	PERFORATED	10"	250	RTU-2	7
1	CD-27	CARNES	SPRB22410	SUPPLY	GRID	PERFORATED	10"	275	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	12" x 12"	6"	75	RTU-1	
2	EG-2	CARNES	RTLAH	EXHAUST	CEILING	12" x 12"	6"	150	RTU-1	4
5	RG-10	CARNES	RAPMF	RETURN	GRID	RETURN	12 x 12"	1170	RTU-1	8
5	RG-20	CARNES	RAPMF	RETURN	GRID	RETURN	14"	1215	RTU-2	8
1	RG-30	CARNES	RAPMF	RETURN	GRID	RETURN	10"	600	RTU-2	6,8
1	TG-1	CARNES	RSABH	TRANSFER	WALL	12 x 4"	12" x 4"	0	RTU-1	5
4	WD-10	CARNES	RTDBH	SUPPLY	WALL	12 x 6"	10"	350	RTU-1	
2	WD-20	CARNES	RTDBH	SUPPLY	WALL	24 x 6"	12"	600	RTU-2	

DIFFUSER NOTES:

- PROVIDE KXDA EXTENSION ROD WITH KNOB
- 5 OF THE CD-10 DIFFUSERS ARE TO BE FLAT BLACK. SEE REFLECTED CEILING PLAN FOR LOCATIONS. ALL OTHERS TO BE WHITE
- 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

### Kitchen Unit

Parameter 3.01 HEAT DELAY NEEDS TO BE SET TO "DISABLED". CONTROL PARAMETER 3.01=0 Pg. 92  
ECONOMIZER DIP SWITCHES A56 (EM1) NEED TO BE SET TO "GLOBAL" MODE. 1=ON 2=OFF (Pg. 5 FIG 8)  
ECONOMIZER MIN POSITION POTENTIOMETER NEEDS TO BE DETERMINED AND SET BY AIR BALANCER. (Pg. 52 FIG 33)  
BOTH THE THERMOSTAT AND THE HOOD FANS MUST BE TIED INTO TB1 TERMINAL 8&9 FOR OCC/UNOCC CONTROL.  
FRESH AIR TEMPERING (HEATING) CONTROL PARAMETER 6.20=160 "55F" (KITCHEN IS USUALLY IN COOLING MODE)  
(PARAMETER 6.20 Pg 99; x CHARTS Pg 109)

### Dining Room Unit

PARAMETER 3.01 HEAT DELAY NEEDS TO BE SET TO "DISABLED". CONTROL PARAMETER 3.01=0 Pg 92  
ECONOMIZER DIP SWITCHES A56 (EM1) NEED TO BE SET TO ECONOMIZER TYPE PURCHASED/INSTALLED. 1=? 2=?  
(Pg 5 FIGURE 8)  
ECONOMIZER MIN POSITION POTENTIOMETER NEEDS TO BE DETERMINED AND SET BY AIR BALANCER. (Pg 52 FIGURE 33)  
THE THERMOSTAT MUST BE TIED INTO TB1 TERMINAL 8&9 FOR OCC/UNOCC CONTROL  
FRESH AIR TEMPERING (HEATING) CONTROL PARAMETER 6.20=142 "68F" (ROOM NEUTRAL)  
(PARAMETER 6.20 PAGE 99; x CHARTS PAGE 109)

OTHER PARAMETERS THAT WE DIDN'T SET, BUT ARE PART OF START-UP:

- ROOM SET POINT
- REMOTE SENSOR OPERATION
- TEMP DEADBANDS

CHECK FOR CORRECT OPERATION AND WIRING OF ALL SENSORS.

Date	Revision	By

Culver Franchising System, LLC  
1240 Water Street  
Prairie du Sac, WI 53578  
608-643-7980



CULVER FRANCHISING SYSTEM, LLC  
METRO M - 2021  
PROTOTYPE PLANS

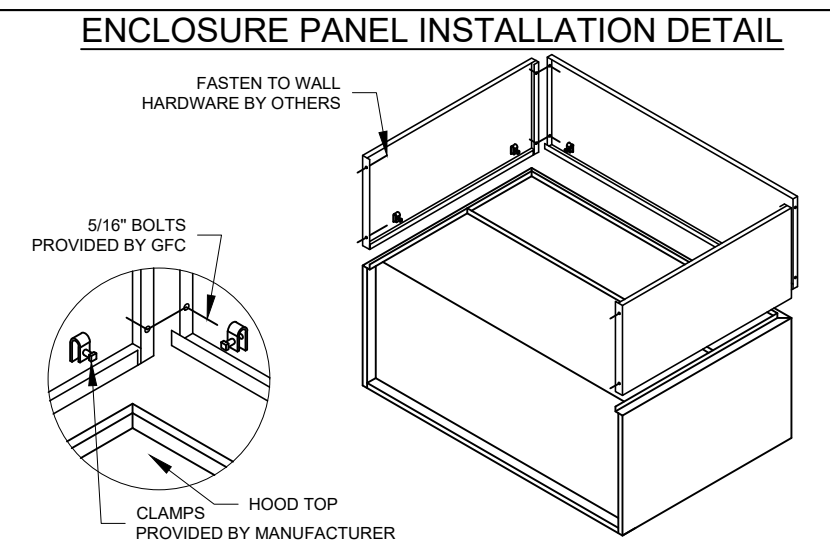
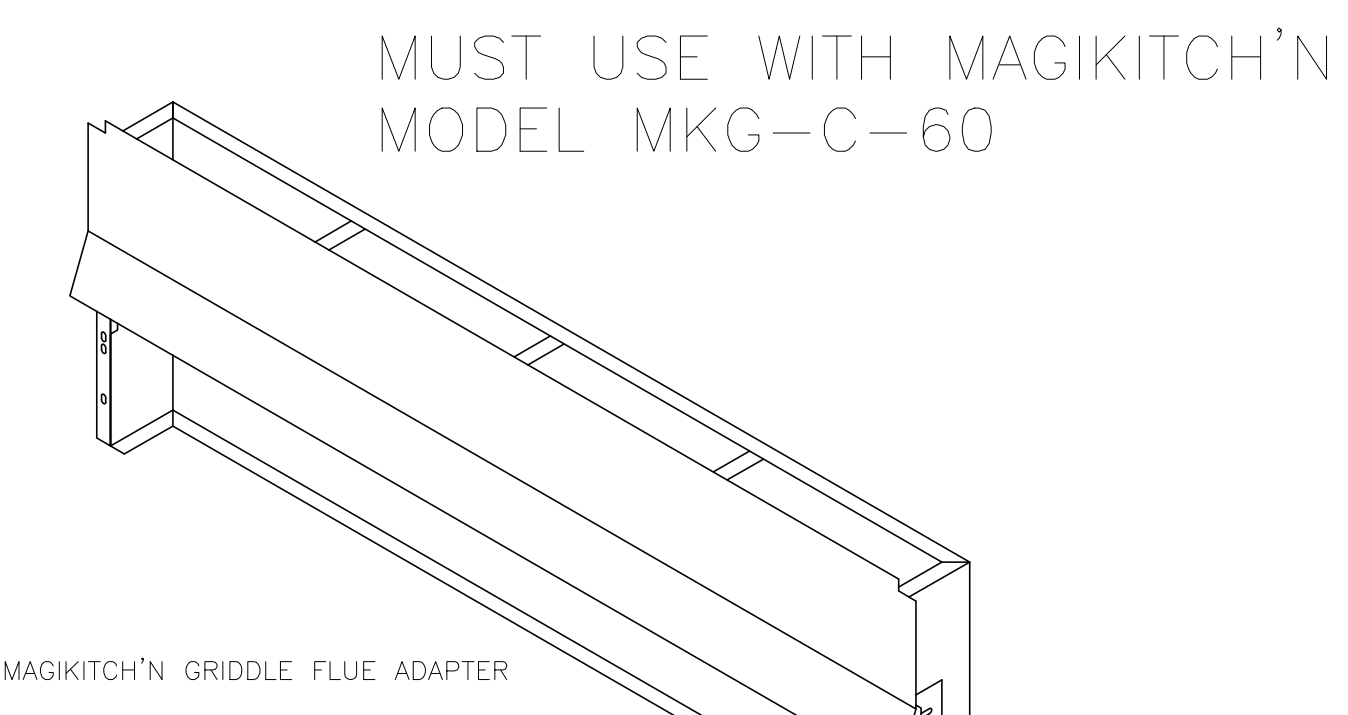
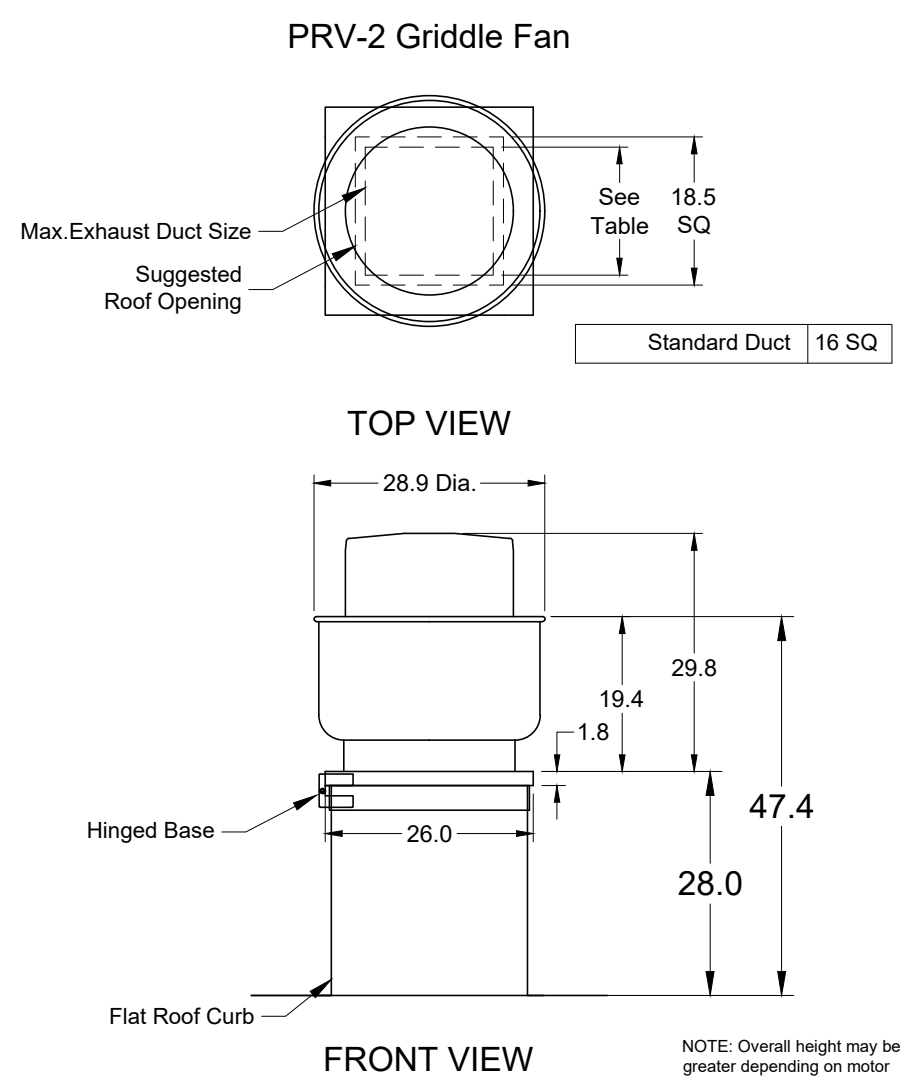
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HVAC NOTES

Project No: Metro M - 2021  
Drawn By: S. Datka  
Date: Jan. 1, 2021

Sheet  
M-2

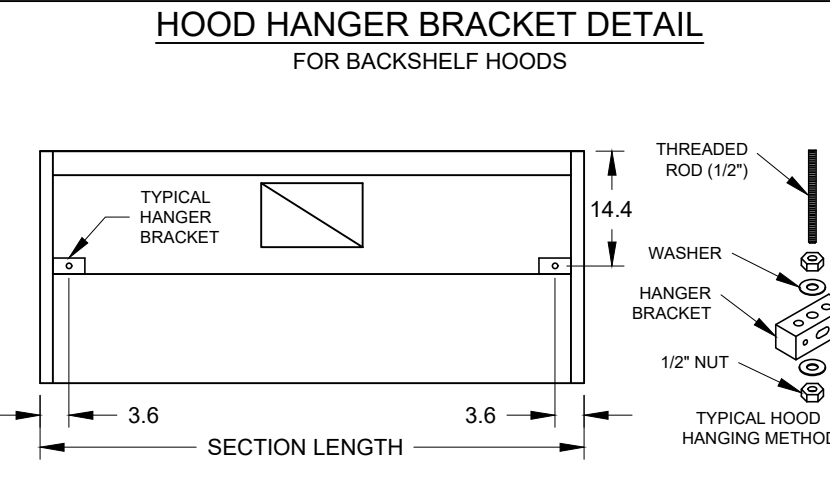
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**HOOD HANGING HEIGHT FOR FIRE SYSTEMS**  
 VERIFICATION OF HOOD HANGING HEIGHT ABOVE FINISHED FLOOR (A.F.F.) IS REQUIRED FOR CORRECT PLACEMENT OF FIRE SYSTEM NOZZLES.

RECOMMENDED HANGING HEIGHT = 60" FROM FINISHED FLOOR TO LOWER FRONT EDGE OF HOOD.

OTHER HANGING HEIGHT = \* FROM FINISHED FLOOR TO LOWER EDGE OF HOOD.



**GENERAL DRAWING NOTES**

Verify building entry conditions or limitations for equipment access to space.

Verify type and height of finished ceiling and if hood(s) may extend above finished ceiling (if required).

Seismic installation and bracing of equipment is by others.

Greenheck will not accept liability for problems that result from sub-standard installation, including field electrical wiring that deviate from supplied diagrams, jobsite conditions (ductwork, fuel types and structural conditions) that GFC has not been notified of at the time of ordering. Or use of this equipment other than that for which it is designed.

It is the responsibility of the purchaser to hire qualified personnel for installation and start-up of all equipment. Installation and start-up information is shipped with all equipment via the Installation, Operation and Maintenance Manual (OM), also included is a troubleshooting guide. Have all start-up info available prior to any warranty claims and/or factory technical support.

**VENTILATION SYSTEM NOTES**

Greenheck ventilators are designed in compliance with all national codes: NFPA # 96, national electric code, BOCA, uniform mechanical code, international mechanical code, and southern building conference. See national evaluation report #436 for allowable values, and/or conditions of use concerning material presented in this document. Local codes may vary. It is the responsibility of the purchaser to submit drawings to local authorities.

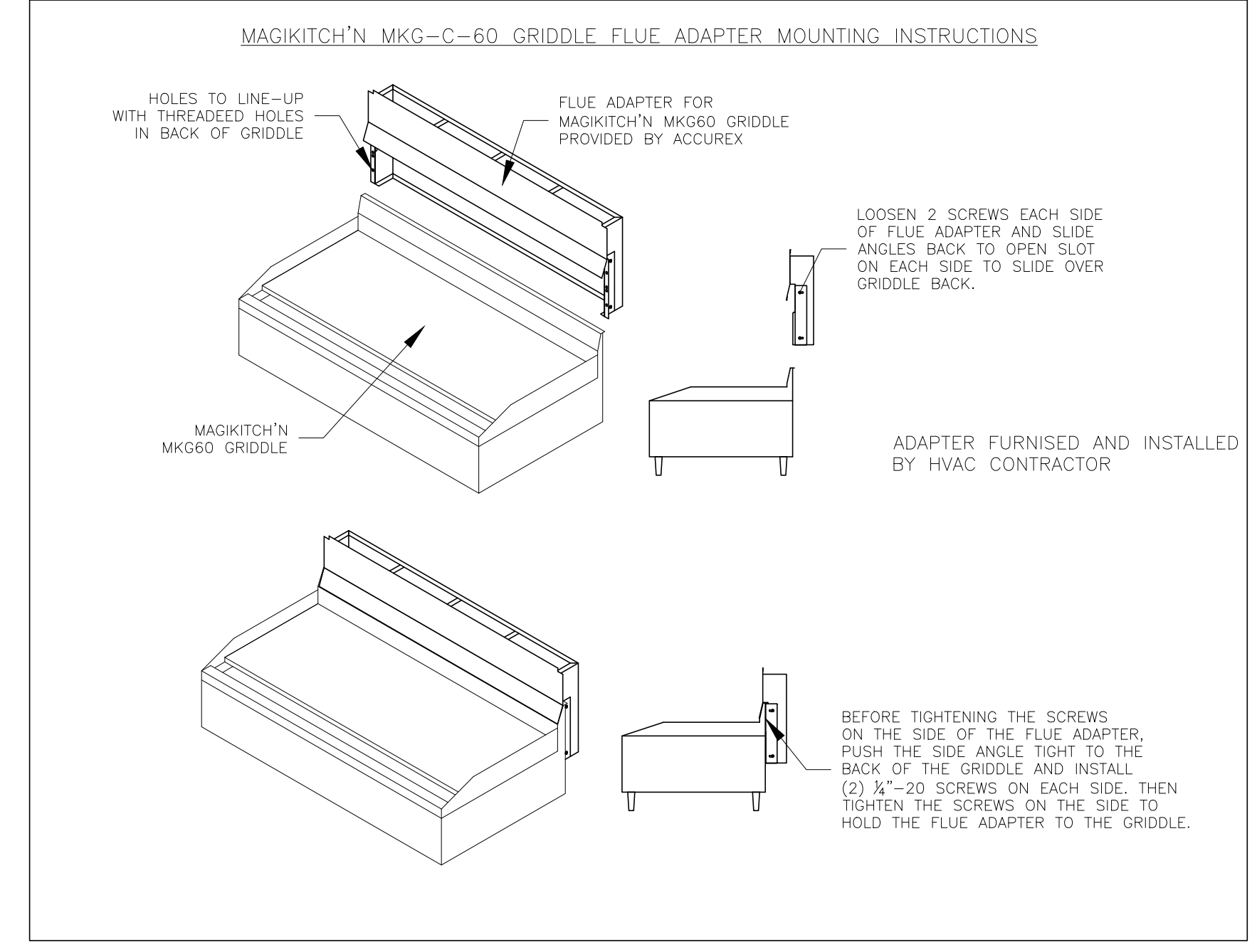
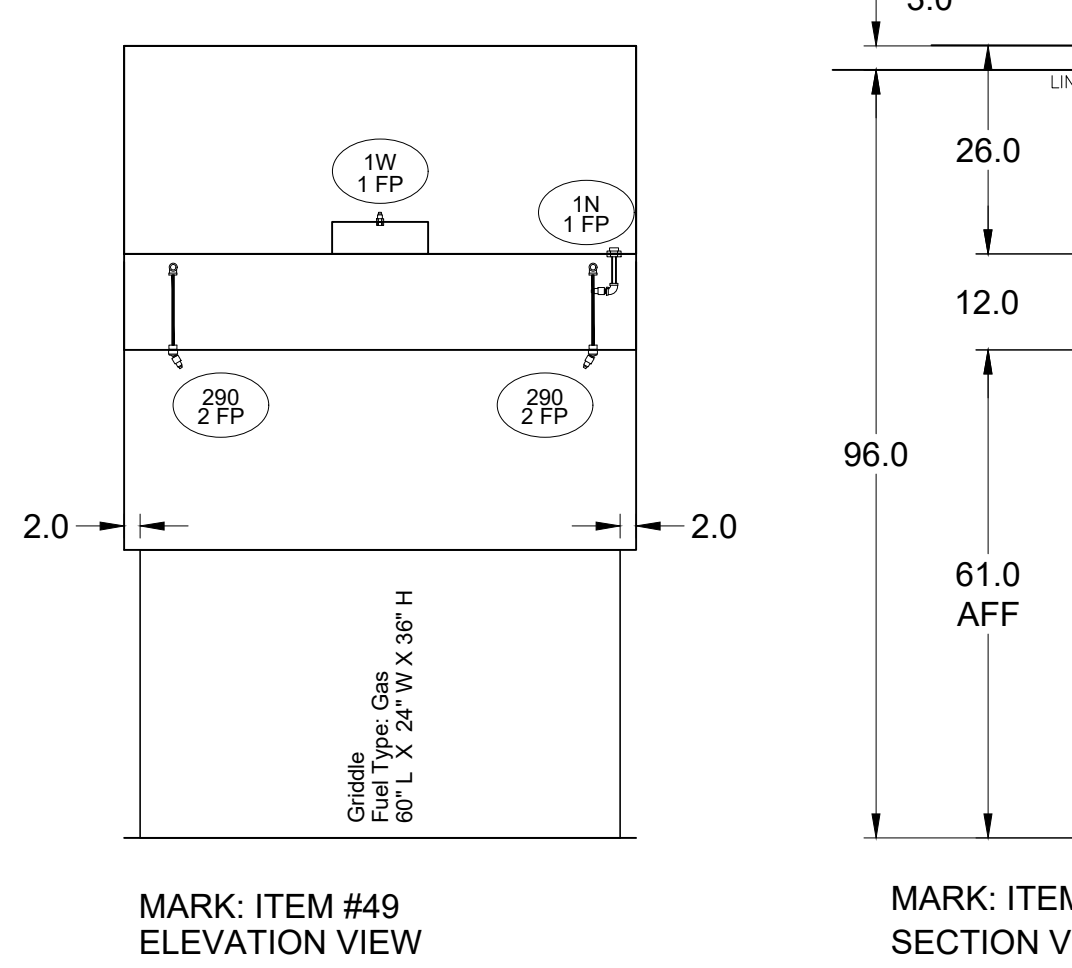
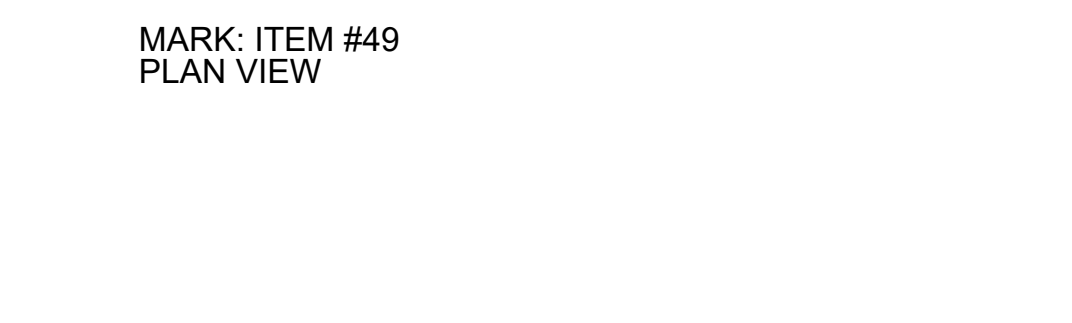
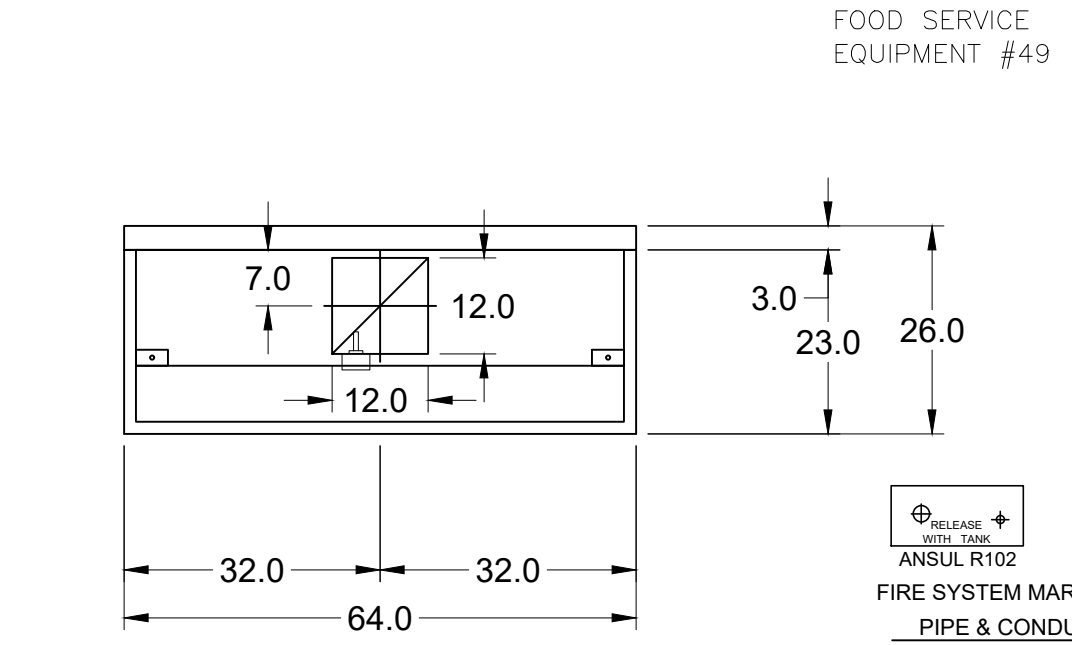
Exhaust and supply air volumes are to be maintained within -5% to +10% tolerance of values indicated. Static pressure(s) indicated are for the ventilator at the duct connection(s) only.

The grease filter face velocities are based on the filter manufacturers recommendations for maximum grease extraction. Inlet opening air velocities for waterwash, dry cartridge and high velocity cartridge filters manufactured by Greenheck are designed to deliver maximum grease extraction.

Hoods installation (by others unless otherwise noted) shall be in accordance with NFPA # 96 and applicable building codes.

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

**CONTROL PANEL**

1. STAINLESS STEEL ENCLOSURE
2. AGENT STORAGE TANK
3. EXPELLENT GAS CARTRIDGE
4. ANSUL AUTOMATED RELEASE
5. REGULATOR
6. KNOCKOUT FOR WIRING MICROSWITCH

**NOTES:**

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 system(s), 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 lodging 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 component connections required to shut down fans, shut off device for electric cooking equipment (shut trip breaker), or activate an 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 station or distances greater than 20 R (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.

**WIRING DIAGRAMS**  
 W/DPDT MICRO SWITCH

DPDT SWITCHES PROVIDED BY MANUFACTURER MAY BE WIRED PER TYPICAL EXAMPLES 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:**

1. — DENOTES FIELD INSTALLATION.  
 2. — DENOTES FACTORY INSTALLATION.  
 3. DO NOT USE BLACK WIRE ON BUMP ACTION SWITCH IN NORMAL INSTALLATION. BLACK WIRE TO BE USED ONLY FOR EXTRANEOUS ALARM LIGHT CIRCUITS, ETC.

**UL NSF**  
 CONSTRUCTION COMPLIES WITH NFPA 96

Thank you for your interest in Accurex

**SUBMITTAL**

Please return one approved print to your Greenheck Representative including signature, date, and answers to all submittal "verify" notes and questions. Fabrication will not begin until after approved drawings are received.

APPROVED AS SUBMITTED  
 APPROVED AS NOTED  
 REJECTED - REVISE AND RESUBMIT

SIGNATURE \_\_\_\_\_ DATE \_\_\_\_\_

**EQUIPMENT SCHEDULE**

**TYPE 1 KITCHEN HOOD** MARK: ITEM#49

HOOD NO.	ACCUREX MODEL STYLE / CONFIGURATION	HOOD DIMENSIONS			GREASE CUP OR DRAIN	HOOD TEMP. RATING	TOTAL WEIGHT	SECTION LOCATION
		SECTION LENGTH	WIDTH	HEIGHT				
1	XGEP-64-S SINGLE WALL EXHAUST ONLY LOW PROXIMITY	64 IN	TOP 23 IN FRONT 12 IN BOT 8 IN	12 IN	RIGHT	600 DES F	136.0 LBS.	SINGLE

HOOD NO.	FITTURE TYPE BULB / LAMP INFO	QTY	INTENSITY FT CANDLES	GREASE FILTRATION DETAILS			
				TYPE / MODEL MATERIAL	QTY	LENGTH HEIGHT	
1	NONE	NA	0 / 0 IN. OC	GREASE GRABBER STAINLESS STEEL	4	16 IN 20 IN	16 IN

HOOD SECTION #	COLLAR #	DISTANCE TO END (IN.)	WIDTH (IN.)	LENGTH (IN.)	DIAMETER (IN.)	VOLUME (CFM)	S.P. (IN. WC)	VELOCITY (FT/MIN)
1/1		32	12	12	NA	1500	1.918	1500
TOTAL EXHAUST CFM - SECTION 1								

**OPTIONS AND ACCESSORIES**

430 STAINLESS STEEL WHERE EXPOSED  
 UL 710 LISTED W/O 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)  
 THIS HOOD IS PART OF A TEMPERATURE INTERLOCK CONTROL SYSTEM  
 INCLUDES PERFORMANCE ENHANCING UP (PEL) TECHNOLOGY  
 STANDING SEAM CONSTRUCTION FOR SUPERIOR STRENGTH  
 EMBOSSED STAINLESS STEEL FINISH FOR HIGH CORROSION RESISTANCE  
 EQUIPMENT SPECIFIC S/S FLUE ADAPTER

**SPECIAL DESIGN REQUESTS**

SDR #K1100145 - FLUE BYPASS HOOD

**FIRE SUPPRESSION SYSTEM** MARK: FS FOR GRILL HOOD

MANUFACTURER / MODEL	FLOW POINTS	SUPPLY LINE	DETECTION	MOUNTING
ANSUL R-102 WET CHEMICAL	11 AVAILABLE	CONTINUOUS	FUSIBLE LINK	RIGHT END REMOTE MOUNTED

FULL INSTALLATION (INCLUDES PRE-PIPED HOOD(S) WITH DETECTION AND FACTORY COORDINATED INSTALL)  
 CHROME SLEEVES FOR FACTORY PROVIDED APPLIANCES DROPS - INCLUDED  
 SUPPRESSION AGENT - INCLUDED - 3 GAL. - (1) 3 TANK(S)  
 GAS VALVE - INCLUDED - MECHANICAL SHUTOFF VALVE, SUPPLIED UP TO 2"  
 REMOTE PULL STATION - STANDARD - INSTALLATION AT SINGLE POINT OF EGRESS  
 METAL BLOW-OFF CAPS - INCLUDED  
 FIRE SYSTEM PERMIT - REQUIRED - FEE INCLUDED  
 380°F. FUSIBLE LINK OR AS TESTED AND INSTALLED BY LOCAL INSTALLER PER UL MANUAL

**FIRE SYSTEM PROTECTED HOOD(S)** (UL-300) (MARK NAME / SECTION)

GRILL HOOD SECTION 1 - (LENGTH 64.0 IN.) - LOW PROXIMITY HOOD - GREASE GRABBER FILTRATION SYSTEM

**Belt Drive Upblast Centrifugal Roof Exhaust Fan** MARK: PRV-2

Qty	Accurex Model	Volume (CFM)	SP (in wg)	FRPM	Operating Power (hp)	Weight (lb.)	Size (hp)	V/C/P	End.	Motor RPM	Windings	FLA
1	XRUB-160XP-15	1500	2.337	2,411	1.29	171	1.5	208/60/3	OP	1725	1	6.6

**OPTIONS AND ACCESSORIES**

ULCUL 782 Listed - "Power Ventilators for Rest. Exh. Appliances"  
 Switch, NEMA-1, (PN INTSD-3-30) Toggle, Shipped with unit  
 Larger curb cap size - 26" Square  
 Roof curb-Galv., GPP-26-G28, Under sized 1.5" Total  
 Hinged Base (Attached)  
 High Temp Curb Seal Rated for Continuous duty at 2000F (Attached)  
 Clean-out Port  
 Grease Trap with Drain Connection (PN 475538)  
 Heat Baffle (Attached)  
 Bearings with Grease Fittings, L10 life of 100,000 hrs (L50 avg. life 500,000 hrs)

By \_\_\_\_\_

Revision \_\_\_\_\_

Date \_\_\_\_\_

Culver's Master Template & Fire Supp. Plans

**Culver Franchising System, LLC**  
 1240 Water Street  
 Prairie du Sac, WI 53578  
 608-643-7980

**CULVER FRANCHISING SYSTEM, LLC**  
**METRO M - 2021**  
**PROTOTYPE PLANS**

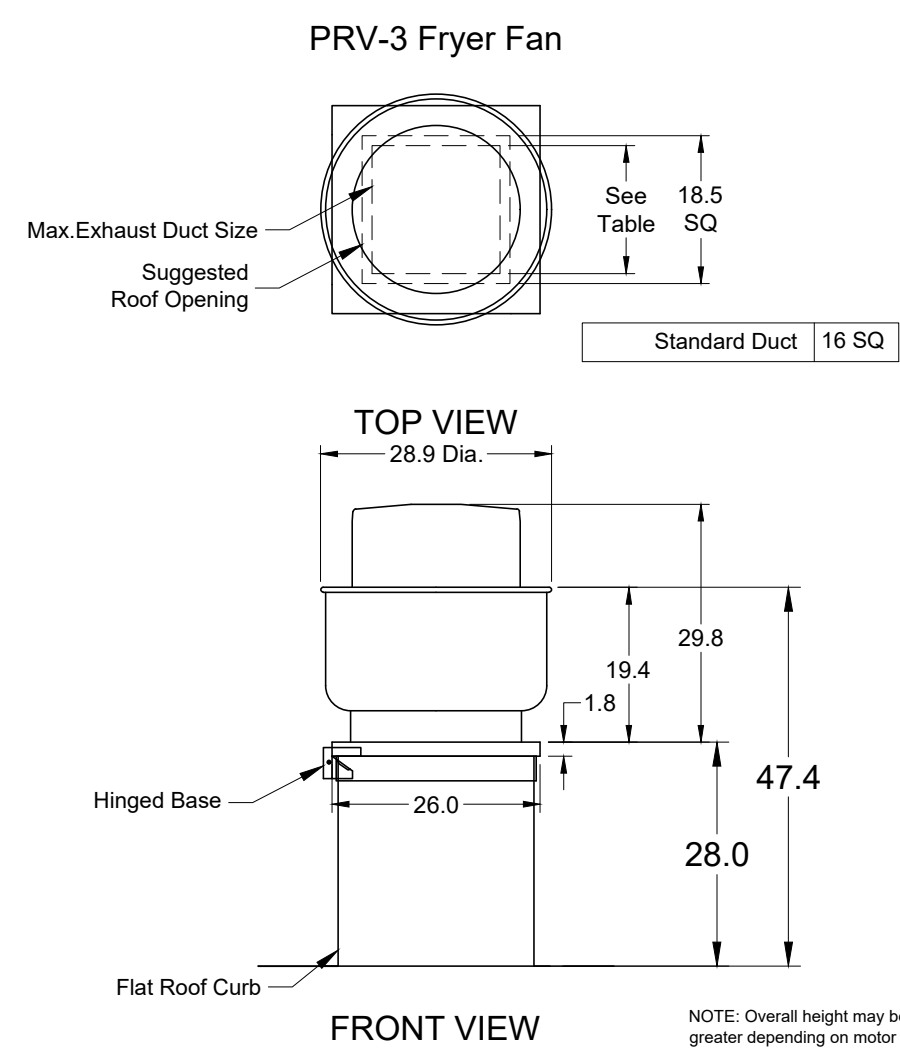
Sheet Contents:

**HVAC HOOD, FAN & FIRE SUP.**

Project No. Metro M - 2021  
 Drawn By: S. Datka  
 Date: Jan. 1, 2021

Sheet **M-3**

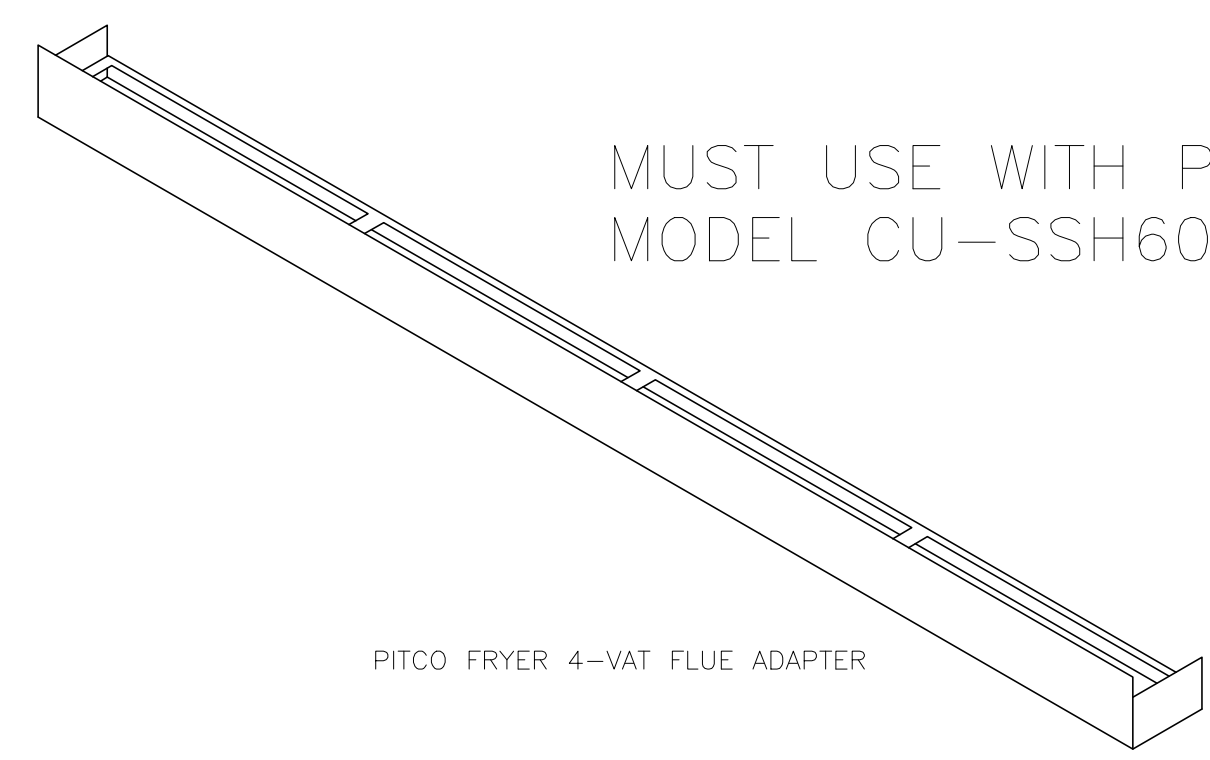
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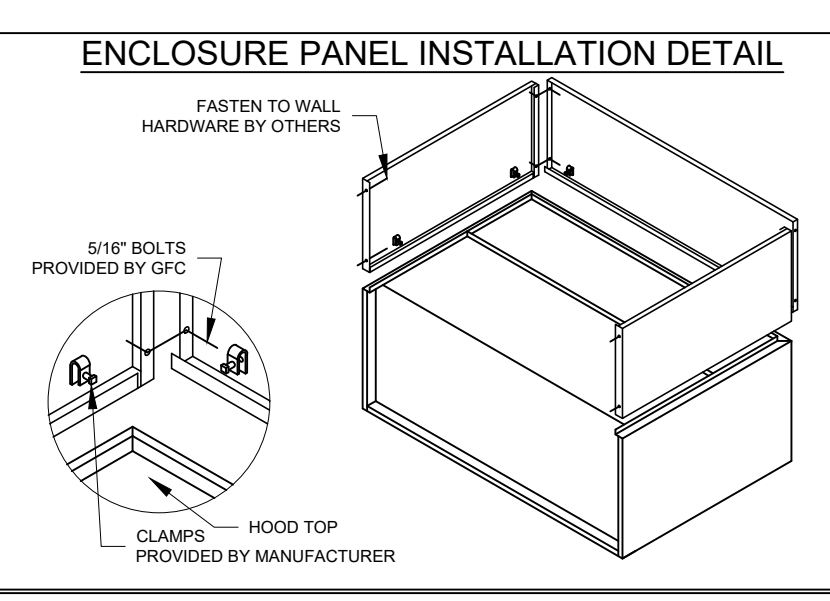
FOOD SERVICE EQUIPMENT #59

### 4-VAT FRYER BATTERY

MUST USE WITH PITCO MODEL CU-SSH60W



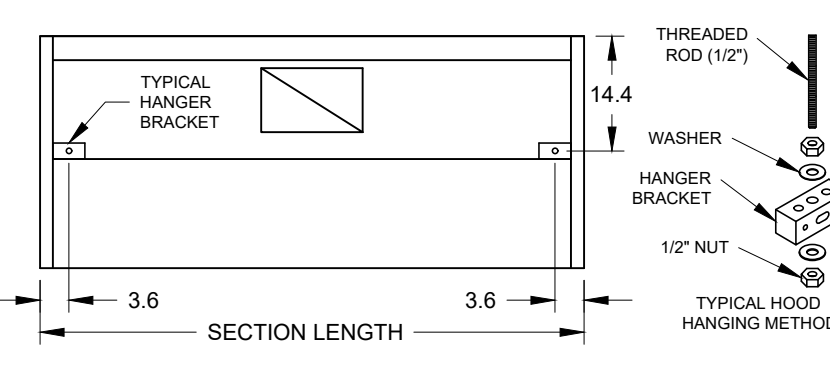
PITCO FRYER 4-VAT FLUE ADAPTER



**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 = 60" 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**



### GENERAL DRAWING NOTES

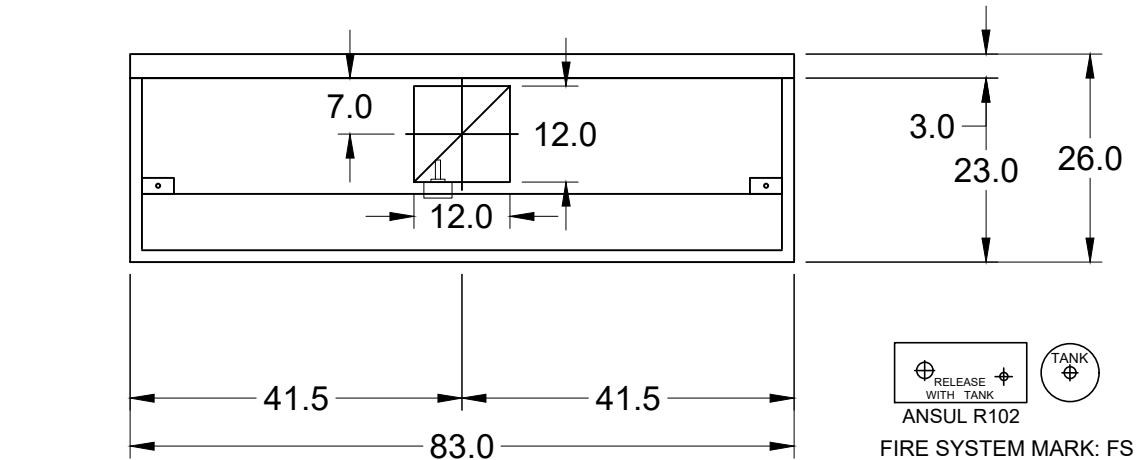
Verify building entry conditions or limitations for equipment access to space.  
Verify type and height of finished ceiling and if hood(s) may extend above finished ceiling (if required).  
Seismic installation and bracing of equipment is by others.  
Greenheck will not accept liability for problems that result from sub-standard installation, including field electrical wiring that deviate from supplied diagrams, jobsite conditions (ductwork, fuel types and structural conditions) that GFC has not been notified of at the time of ordering. Or use of this equipment other than that for which it is designed.  
It is the responsibility of the purchaser to hire qualified personnel for installation and start-up of all equipment. Installation and start-up information is shipped with all equipment via the Installation, Operation and Maintenance Manual (IOM), also included is a troubleshooting guide. Have all start-up info available prior to any warranty claims and/or factory technical support.

### VENTILATION SYSTEM NOTES

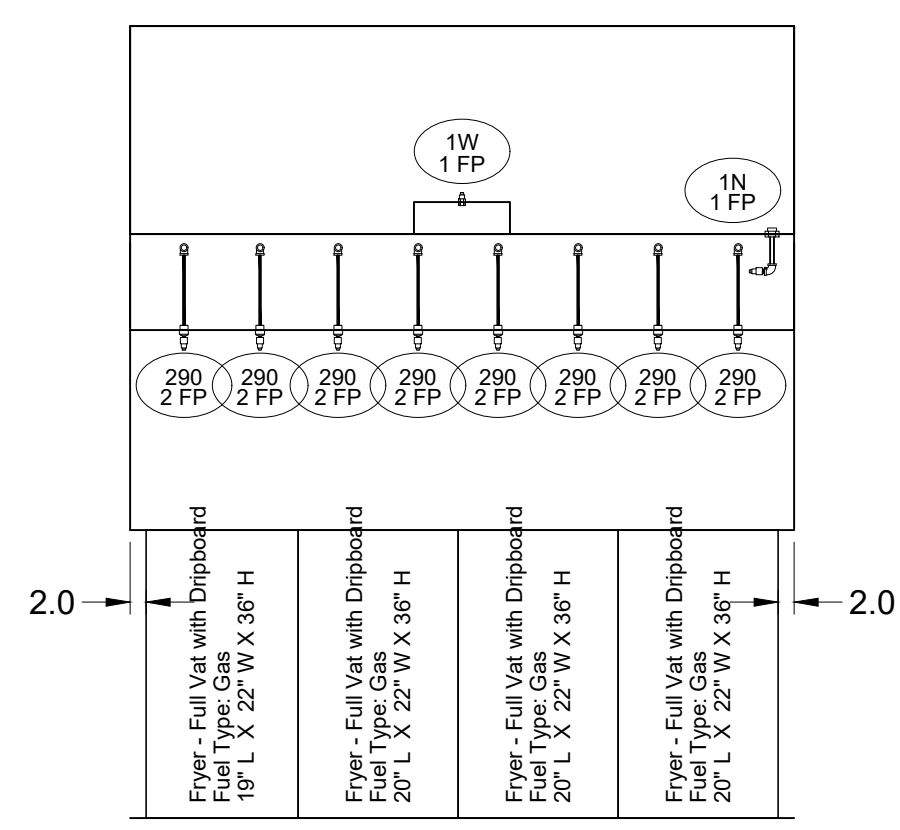
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Exhaust and supply air volumes are to be maintained within -5% to +10% tolerance of values indicated. Static pressure(s) indicated are for the ventilator at the duct connection(s) only.  
The grease filter face velocities are based on the filter manufacturers recommendations for maximum grease extraction. Inlet opening air velocities for waterwash, dry cartridge and high velocity cartridge filters manufactured by Greenheck are designed to deliver maximum grease extraction.  
Hoods installation (by others unless otherwise noted) shall be in accordance with NFPA # 96 and applicable building codes.

### PROPRIETARY INFORMATION NOTICE

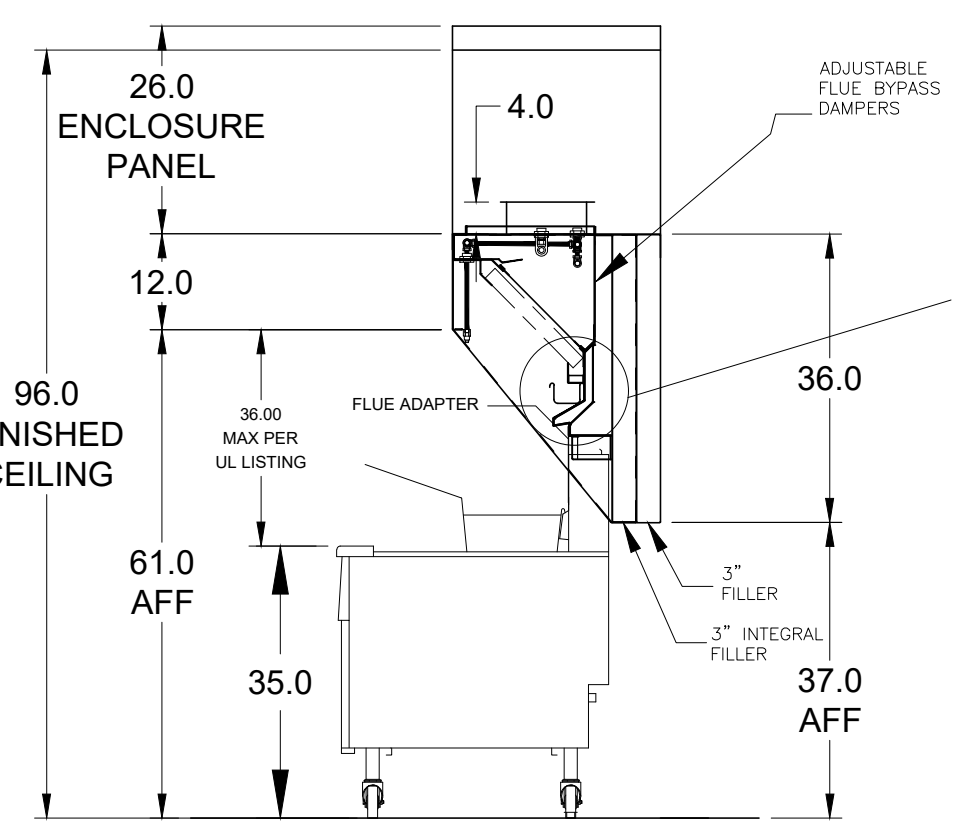
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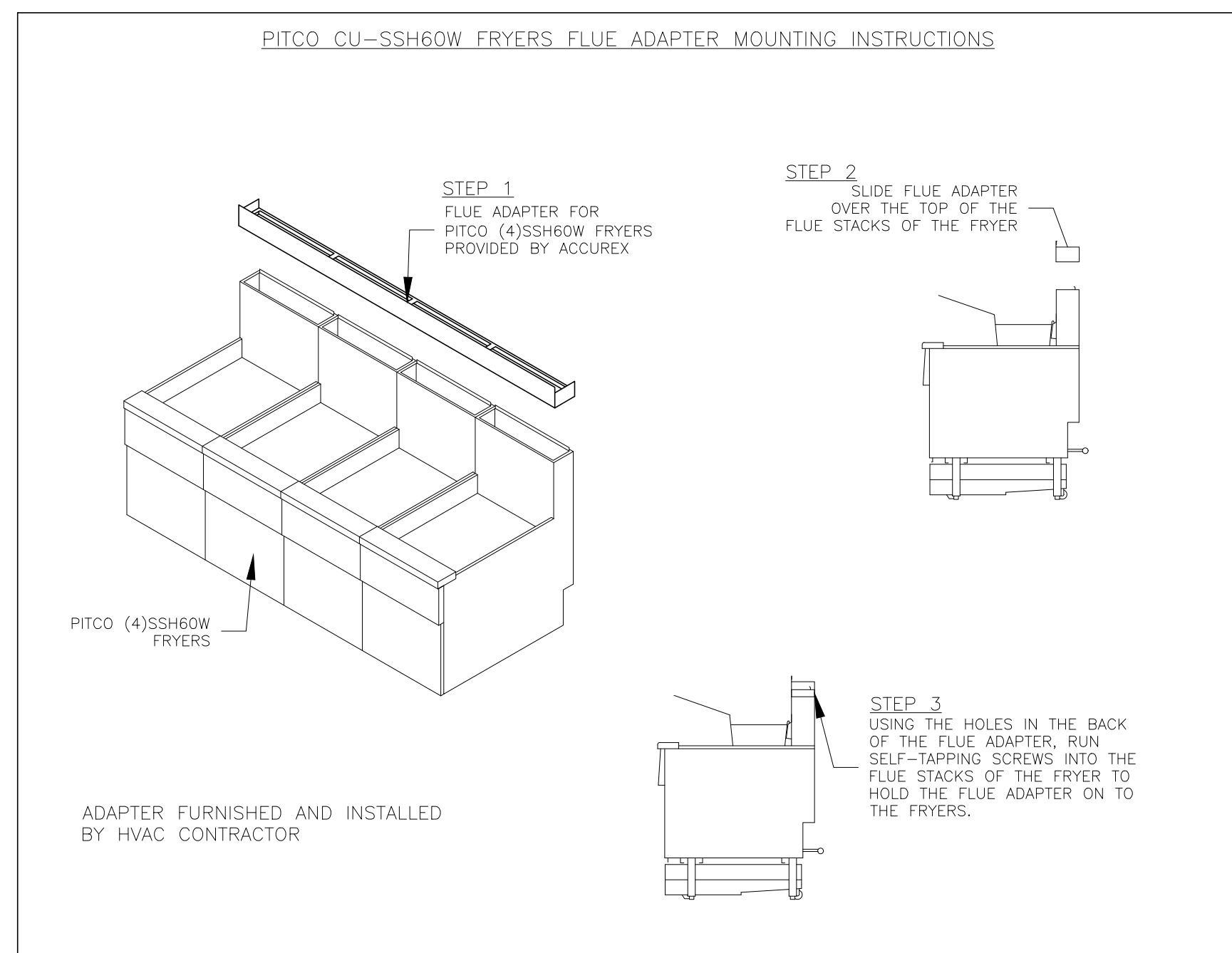
MARK: ITEM #59 PLAN VIEW



MARK: ITEM #59 ELEVATION VIEW



MARK: ITEM #59 SECTION VIEW



### PITCO CU-SSH60W FRYERS FLUE ADAPTER MOUNTING INSTRUCTIONS

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

**NOT TO SCALE**

**WIRING DIAGRAMS**  
WIDPDT MICRO SWITCH

DROT SWITCHES PROVIDED BY MANUFACTURER MAY BE WIRED PER TYPICAL EXAMPLES SHOWN. VERIFY WITH LOCAL CODES AND EQUIPMENT SUPPLIER 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 standard 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 system(s), 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 lodging 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 an 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 changes for missing or additional parts other than those indicated on the Fire Suppression Detail.

Thank you for your interest in Accurex

**SUBMITTAL**

Please return one approved print to your Greenheck Representative including signature, date, and answers to all submittal "verify" notes and questions. Fabrication will not begin until after approved drawings are received.

APPROVED AS SUBMITTED  
 APPROVED AS NOTED  
 REJECTED - REVISE AND RESUBMIT

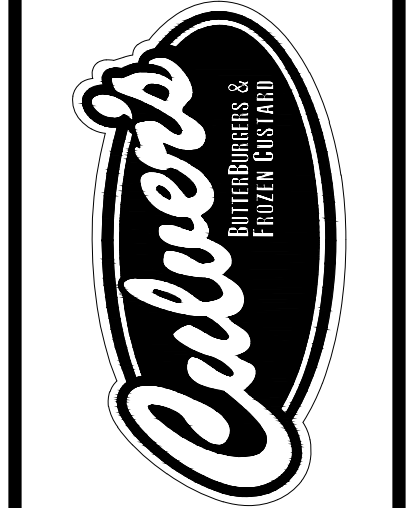
SIGNATURE \_\_\_\_\_ DATE \_\_\_\_\_

EQUIPMENT SCHEDULE												
TYPE 1 KITCHEN HOOD					MARK: ITEM #59							
HOOD NO.	ACCUREX MODEL STYLE / CONFIGURATION	HOOD DIMENSIONS			GREASE CUP OR DRAIN	HOOD TEMP. RATING	TOTAL WEIGHT	SECTION LOCATION	MARK: ITEM #59			
		SECTION LENGTH	WIDTH	HEIGHT					MARK: ITEM #59	MARK: ITEM #59		
1	XXEP-33-S SINGLE WALL EXHAUST ONLY LOW PROXIMITY	83 IN.	TOP 23 IN. FRONT 12 IN. BOT 3 IN. BACK 36 IN.	RIGHT	600 DEG F	169.0 LBS	SINGLE					
ILLUMINATION DETAILS												
HOOD NO.	FIXTURE TYPE	BULB / LAMP INFO	QTY	INTENSITY FT CANDLES	TYPE / MODEL MATERIAL	QTY	LENGTH	HEIGHT				
1	NONE	NA	0 / 0 IN. OC		X-TRACTOR STAINLESS STEEL	5	16 IN.	16 IN.				
EXHAUST PLENUM COLLARS												
HOOD SECTION #	DISTANCE TO END (IN.)	WIDTH (IN.)	LENGTH (IN.)	DIAMETER (IN.)	S.P. (IN. WC)	VELOCITY (FT/MIN)						
1/1	41.5	12	12	NA	1500	0.518	1500					
TOTAL EXHAUST CFM - SECTION 1						1500	= 217 CFM / FT					
OPTIONS AND ACCESSORIES												
430 STAINLESS STEEL WHERE EXPOSED UL 710 LISTED W/ OUT EXHAUST FIRE DAMPER - UL #R25625 BACK NON-INTEGRAL AIR SPACE - 3 IN WIDE 8 IN HIGH CEILING ENCLOSURES - FRONT LEFT RIGHT - FIELD INSTALLED FACTORY MOUNTED EXHAUST COLLAR(S) THIS HOOD IS PART OF A TEMPERATURE INTERLOCK CONTROL SYSTEM INCLUDES PERFORMANCE ENHANCING LIP (PEL) TECHNOLOGY STANDING SEAM CONSTRUCTION FOR SUPERIOR STRENGTH EMBOSSED STAINLESS STEEL FINISH FOR HIGH CORROSION RESISTANCE EQUIPMENT SPECIFIC S/S FLUE ADAPTER												
SPECIAL DESIGN REQUESTS												
SDR #K1100559 - NEW 4L FRYER SYSTEM												
FIRE SUPPRESSION SYSTEM												
MARK: FS FOR FRYER HOOD												
MANUFACTURER / MODEL	FLOW POINTS	SUPPLY LINE	DETECTION	MOUNTING								
ANSUL R-102 WET CHEMICAL	18 UTILIZED 22 AVAILABLE	CONTINUOUS	FUSIBLE LINK	RIGHT END REMOTE MOUNTED								
FULL INSTALLATION (INCLUDES PRE-PIPED HOOD(S) WITH DETECTION AND FACTORY COORDINATED INSTALL) CHROME SLEEVES FOR FACTORY PROVIDED APPLIANCES DROPS - INCLUDED SUPPRESSION AGENT - INCLUDED - 6 GAL. (2) 3.0 TANK(S) GAS VALVE - INCLUDED - MECHANICAL SHUTOFF VALVE, SUPPLIED UP TO 2" REMOTE PULL STATION - STANDARD - INSTALLATION AT SINGLE POINT OF EGRESS METAL BLOW-OFF CAPS - INCLUDED FIRE SYSTEM PERMIT - REQUIRED - FEE INCLUDED 500' F. FUSIBLE LINK OR AS TESTED AND INSTALLED BY LOCAL INSTALLER PER UL MANUAL												
FIRE SYSTEM PROTECTED HOOD(S) (UL-300) (MARK NAME / SECTION#)												
FRYER HOOD SECTION 1 - (LENGTH 83.0 IN.) - LOW PROXIMITY HOOD												
EQUIPMENT SCHEDULE												
Belt Drive Upblast Centrifugal Roof Exhaust Fan					MARK: PRV-3							
Qty	Accurex Model	Volume (CFM)	SP (in wg)	FRPM	Operating Power (hp)	Weight (Lb.)	Size (hp)	V/CP	End: Motor RPM	Windings	FLA	
1	XRUB-140-7	1500	1	1377	0.5	160	0.75	208/60/3	OP	1725	1	3.5
OPTIONS AND ACCESSORIES												
UL/ULC 762 Listed - "Power Ventilators for Rest. Exh. Appliances" Switch, NEMA-1, Toggle, Shipped with unit Larger curb cap size - 26" square Roof curb-Cat., GFC-26-226, Underized 1.5" total Hinged Base (Attached) Curb Seal (Attached) Clean-out Port Grease Trap with Drain Connection (PN 475538) Heat Baffle (Attached)												

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By	
Revision	
Date	

Culver Franchising System, LLC  
1240 Water Street  
Prairie du Sac, WI 53578  
608-643-7980



# CULVER FRANCHISING SYSTEM, LLC METRO M - 2021 PROTOTYPE PLANS

Sheet Contents:  
HVAC HOOD, FAN & FIRE SUP.

Project No: Metro M - 2021  
Drawn By: S. Datka  
Date: Jan. 1, 2021

Sheet  
**M-4**

Signature: \_\_\_\_\_ Date: \_\_\_\_\_

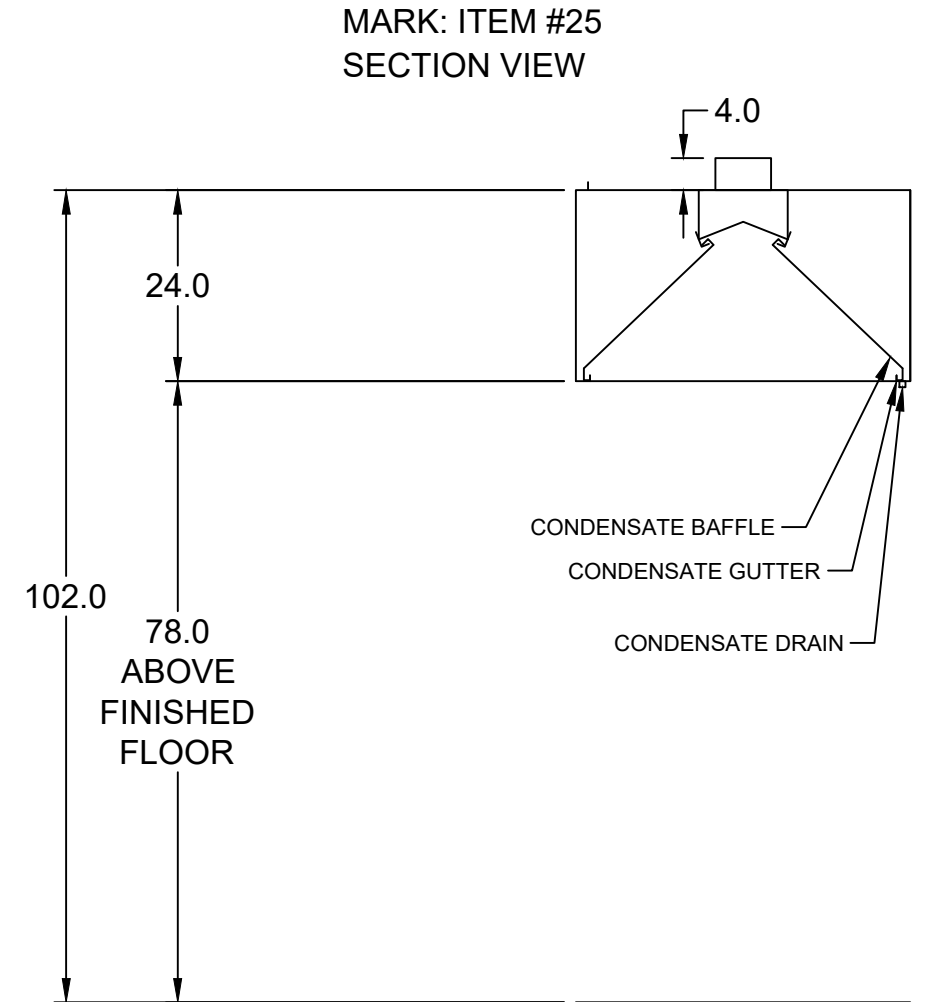
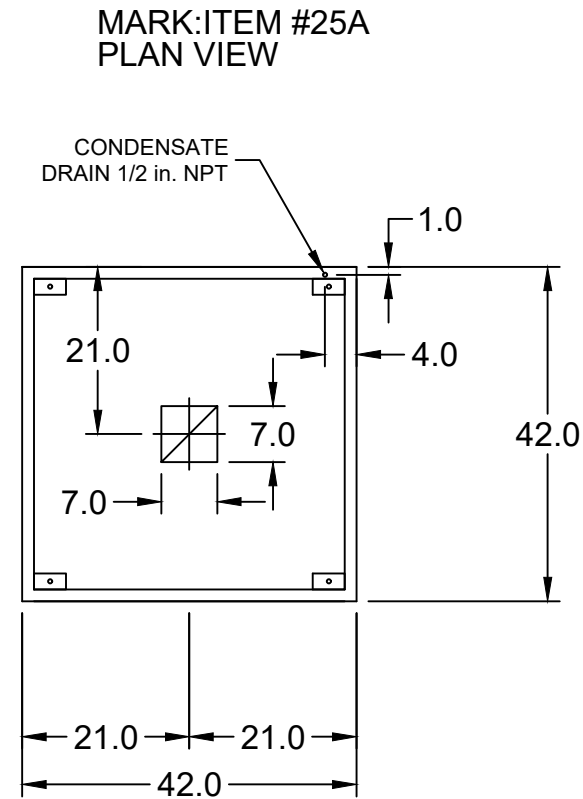
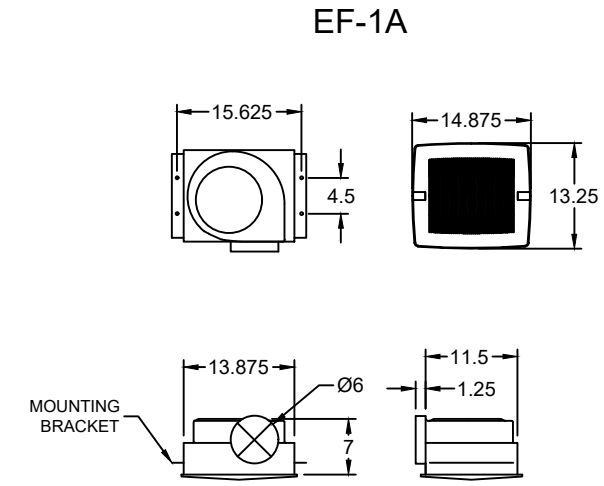
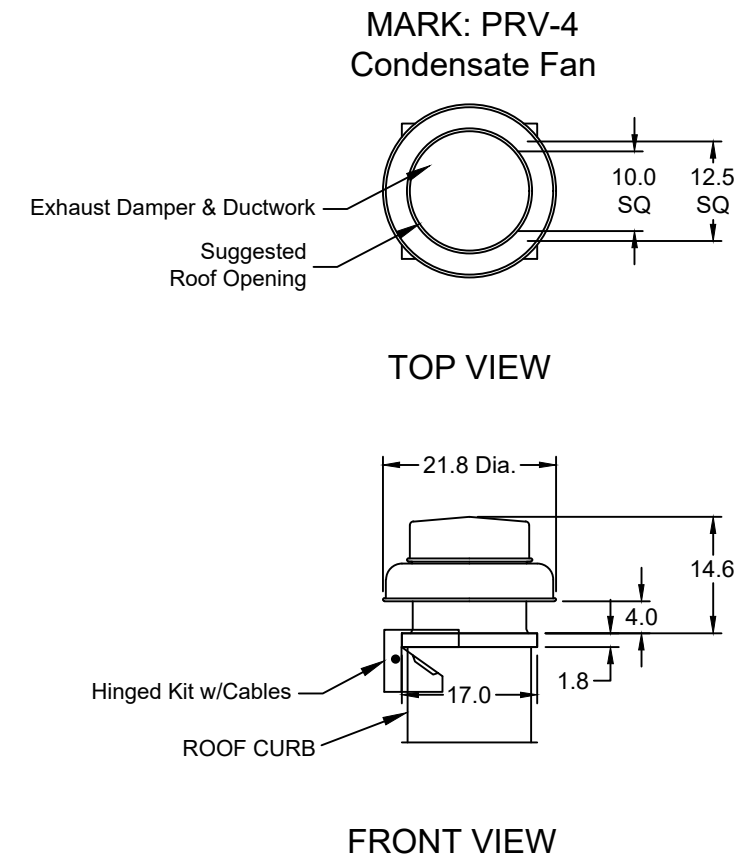
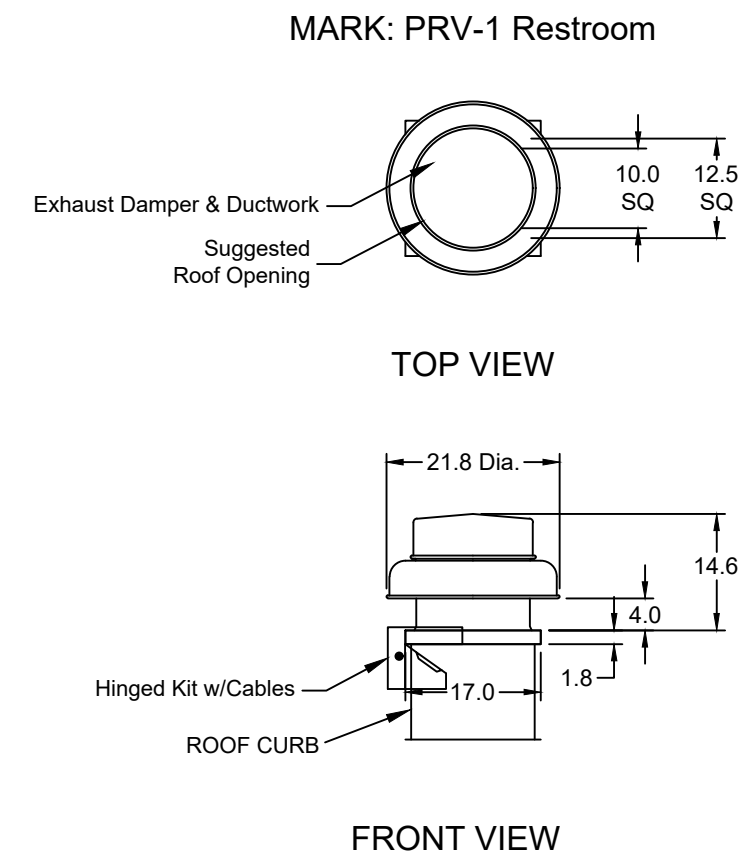
REV DESCRIPTION DATE

**ACCUREX**

CULVER'S MASTER TEMPLATE

SCALE: 1/24

C28805B



EQUIPMENT SCHEDULE								
DESCRIPTION / ACCUREX MODEL	EXHAUST FAN QTY	SUPPLY FAN QTY	MARK: KFCC	POWER FREQUENCY				
KITCHEN FAN CONTROL CENTER / KFCC SHIP LOOSE / SHIP LOOSE FOR REMOTE MOUNTING	2	0		60 CYCLE				
CONTROL PANEL ENCLOSURE - 16 GA 304 STAINLESS STEEL ENCLOSURE (NEMA-1) - DIMENSIONS 12 X 18 X 6								
WIRING DIAGRAM # 1100-2 - 20								
STARTERS PROVIDED IN CONTROL PANEL - QTY 2								
2 POSITION FAN SWITCH - QTY 1								
INTEGRATED EXHAUST TEMPERATURE INTERLOCK SYSTEM								
FACTORY MOUNTED EXHAUST TEMPERATURE SENSORS - QTY 2								
COMPLIES WITH INTERNATIONAL MECHANICAL CODE 2006 SECTION 507.2.1.1								
TURN ON EXHAUST IN FIRE THERMAL OVERLOADS IN CABINET								
1 SPEED FAN(S)								
SPECIAL DESIGN REQUESTS								
SDR #0802040 - LUSE KIT #652983, WIRING DIAG. #2295336								
TYPE 2 KITCHEN HOOD MARK: ITEM #25								
HOOD NO.	ACCUREX MODEL STYLE / CONFIGURATION	SECTION LENGTH	WIDTH	HEIGHT	GREASE CUP OR DRAIN	HOOD TEMP. RATING	TOTAL WEIGHT	SECTION LOCATION
1	CONDENSATE HOOD - DOUBLE BAFFLE	42.0 IN.	42 IN.	24 IN.	RIGHT	NA	224.0 LBS.	NA

EXHAUST PLENUM COLLARS								
HOOD SECTION #	COLLAR #	DISTANCE TO END (IN.)	WIDTH (IN.)	LENGTH (IN.)	DIAMETER (IN.)	VOLUME (CFM)	S.P. (IN. WC)	VELOCITY (FT/MIN)
1	T1	21	7	7	NA	350	0.127	1029
TOTAL EXHAUST CFM - SECTION 1						350.0	100.0 CFM/FT	

EQUIPMENT SCHEDULE												
Qty	Accurex Model	Volume (CFM)	SP (in wg)	FRPM	Operating Power (hp)	Weight (Lb.)	Size (hp)	V/CP	Endc.	Motor RPM	Windings	FLA
1	XRED-095-D	375	0.5	1479	0.060	43	0.0667	115/60/1	OP	1550	1	NA

EQUIPMENT SCHEDULE												
Qty	Accurex Model	Volume (CFM)	SP (in wg)	FRPM	Operating Power (hp)	Weight (Lb.)	Size (hp)	V/CP	Endc.	Motor RPM	Windings	FLA
1	XRED-095-D	350	0.5	1455	0.07	43	0.0667	115/60/1	OP	1550	1	NA

EQUIPMENT SCHEDULE												
Qty	Accurex Model	Volume (CFM)	SP (in wg)	FRPM	Operating Power (hp)	Weight (Lb.)	Size (hp)	V/CP	Endc.	Motor RPM	Windings	FLA
2	XCR-B80	75	0.125	885	0.01	10	0.0	115/60/1	OP	900	1	NA

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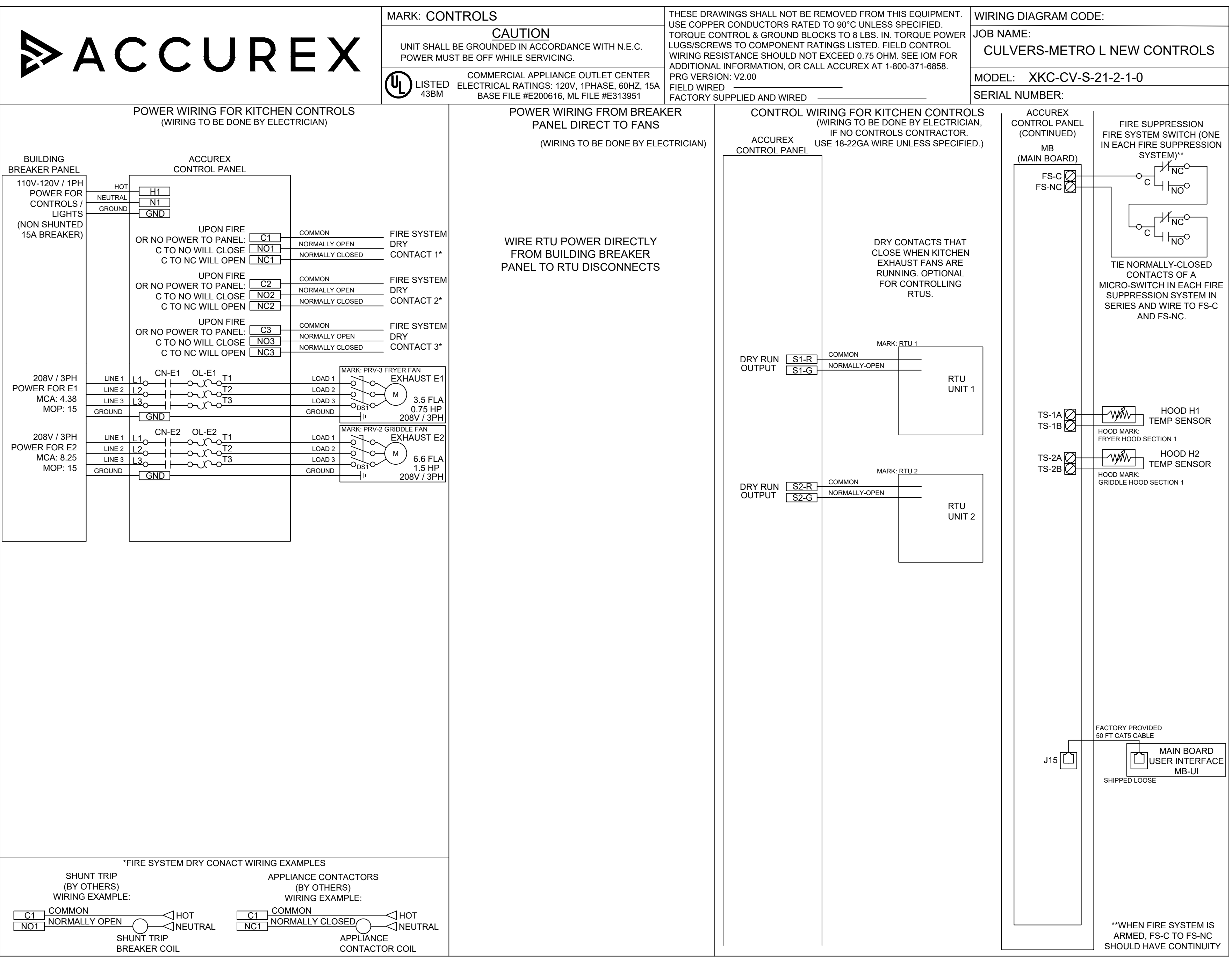
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FOR TECHNICAL SUPPORT ON ACCUREX CONTROLS PLEASE CALL ACCUREX TECHNICAL SUPPORT: 1-800-371-6858  
 SECONDARY CONTACTS ARE: AARON VAN KREY 715.841.8521 TYLER SCHILLING 715.841.8749



Thank you for your interest in Accurex

**SUBMITTAL**

Please return one approved print to your Accurex Representative including signature, date, and answers to all submittal "verify" notes and questions. Fabrication will not begin until after approved drawings are received.

APPROVED AS SUBMITTED  
 APPROVED AS NOTED  
 REJECTED - REVISE AND RESUBMIT

SIGNATURE \_\_\_\_\_ DATE \_\_\_\_\_

Project No: Metro M - 2021

Drawn By: S. Datka

Date: Jan. 1, 2021

REV DESCRIPTION DATE

DATE: 1/24

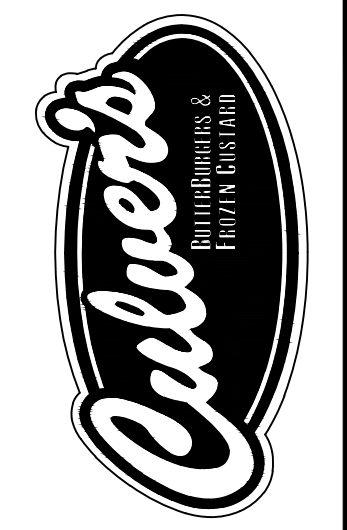
SCALE: 1/24

FILE: CULVER'S MASTER TEMPLATE

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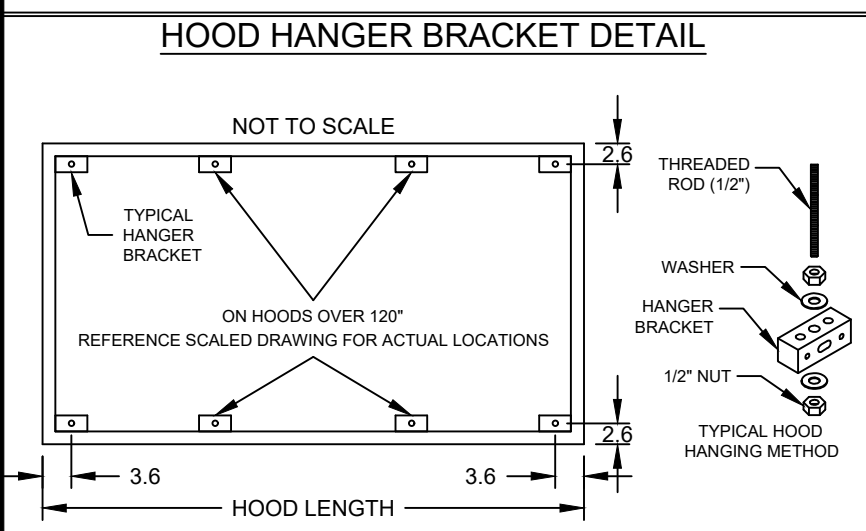
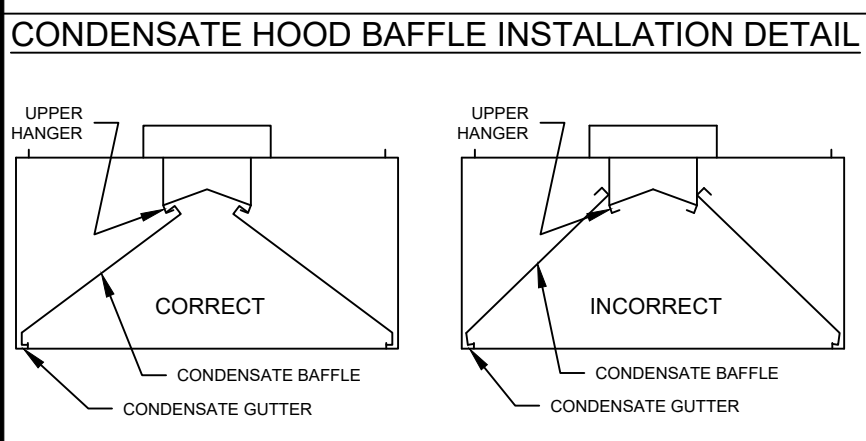
Culver Franchising System, LLC  
 1240 Water Street  
 Prairie du Sac, WI 53578  
 608-643-7980



CULVER FRANCHISING SYSTEM, LLC  
**METRO M - 2021**  
**PROTOTYPE PLANS**

Sheet Contents:  
**HVAC HOOD, FAN & FIRE SUP.**

Sheet  
**M-5**



**GENERAL DRAWING NOTES**

Verify building entry conditions or limitations for equipment access to space.

Verify type and height of finished ceiling and if hood(s) may extend above finished ceiling (if required).

Seismic installation and bracing of equipment is by others. Accurex will not accept liability for problems that result from sub-standard installation. Including field electrical wiring that deviate from supplied diagrams, jobsite conditions (ductwork, fuel types and structural conditions) that Accurex has not been notified of at the time of ordering. Or use of this equipment other than that for which it is designed.

It is the responsibility of the purchaser to hire qualified personnel for installation and start-up of all equipment. Installation and start-up information is shipped with all equipment via the Installation, Operation and Maintenance Manual (IOM), also included is a troubleshooting guide. Have all start-up info available prior to any warranty claims and/or factory technical support.

**VENTILATION SYSTEM NOTES**

Greenheck ventilators are designed in compliance with all national codes: NFPA # 96, national electric code, BOCA uniform mechanical code, international mechanical code, and southern building conference. See national evaluation report #436 for allowable values, and/or conditions of use concerning material presented in this document. Local codes may vary. It is the responsibility of the purchaser to submit drawings to local authorities.

Exhaust and supply air volumes are to be maintained within -5% to +10% tolerance of values indicated. Static pressure(s) indicated are for the ventilator at the duct connection(s) only.

The grease filter face velocities are based on the filter manufacturers recommendations for maximum grease extraction. Inlet opening air velocities for waterwash, dry cartridge and high velocity cartridge filters manufactured by Greenheck are designed to deliver maximum grease extraction.

Hoods installation (by others unless otherwise noted) shall be in accordance with NFPA # 96 and applicable building codes.

**PROPRIETARY INFORMATION NOTICE**

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CONSTRUCTION COMPLIES WITH NFPA 96

**SUBMITTAL**

Please return one approved print to Greenheck including signature, date, and answers to all submittal "verify" notes and questions. Fabrication will not begin until after approved drawings are received.

- APPROVED AS SUBMITTED
- APPROVED AS NOTED
- REJECTED - REVISE AND RESUBMIT

SIGNATURE \_\_\_\_\_

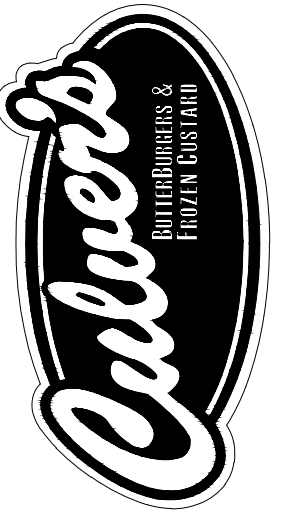
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P.O. BOX 410, SCHFIELD WI 54476-0410

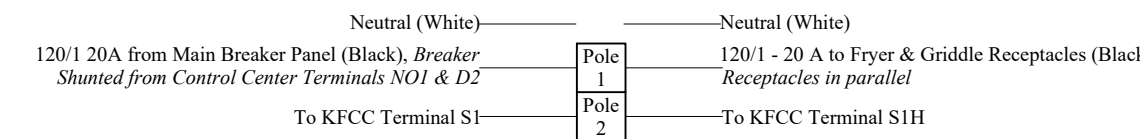
By	
Revision	
Date	

Culver Franchising System, LLC  
1240 Water Street  
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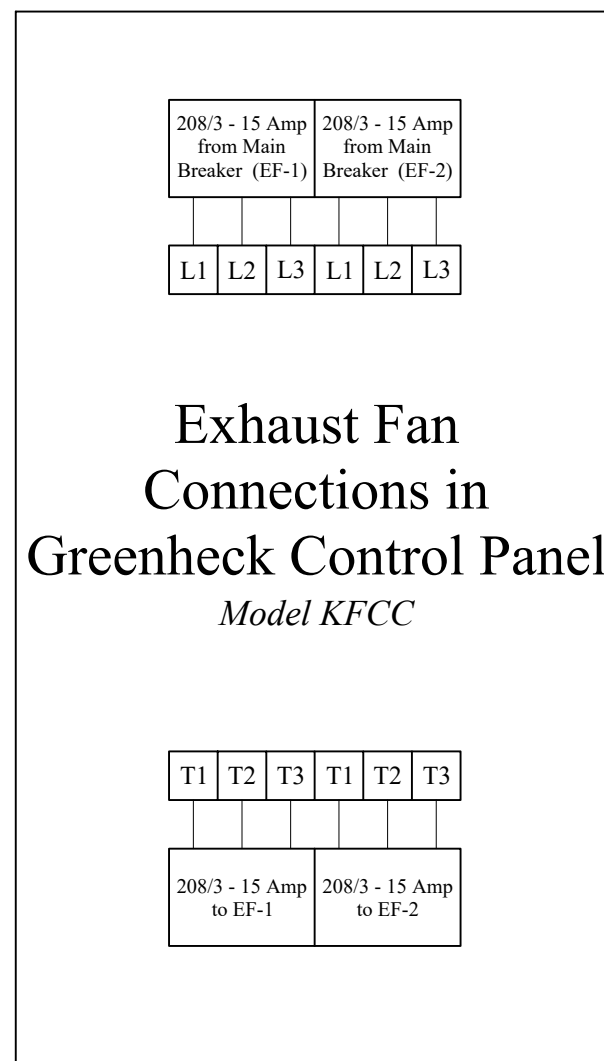
**CULVER'S ELECTRICAL FIELD CONNECTION INSTALLATION INSTRUCTIONS**

**Remote Mount DPST Switch**  
*Fryer & Griddle Receptacles, Kitchen Exhaust Fans*



**Greenheck Control Panel Connections**  
*Model KFCC*

	Torque to 18 in-lbs	
Power from Main Breaker Panel (Black, Non-shunted)	H1	120/1 - 15 Amp
Neutral from Main Breaker Panel (White)	N1	NEUTRAL
	H2	NOT USED
	N2	NOT USED
	W2	NOT USED
	B2	NOT USED
To Pole 2 of Remote Mount DPST Switch	S1	Fan Switch Connection
To Pole 2 of Remote Mount DPST Switch	S1H	Fan Switch Connection
	S1N	NOT USED
To Fire System Microswitch (Red)	C1	Fire System Common
To Fire System Microswitch (Black)	NO1	Fire System N/O
To Fire System Microswitch (Brown)	NC1	Fire System N/C
	C2	Spare Fire Sys. Common
	NO2	Spare Fire Sys. N/O
	NC2	Spare Fire Sys. N/C
To RTU 1 Shutdown in Fire (Contact will open in fire)	C3	RTU 1 Fire Shutdown
	NO3	OPEN
To RTU 1 Shutdown in Fire (Contact will open in fire)	NC3	RTU 1 Fire Shutdown
To RTU 2 Shutdown in Fire (Contact will open in fire)	C4	RTU 2 Fire Shutdown
	NO4	OPEN
To RTU 2 Shutdown in Fire (Contact will open in fire)	NC4	RTU 2 Fire Shutdown
To Griddle & Fryer Shunt Trip Breaker at Main Panel	D1	120/1 "Off in Fire"
	D2	120/1 - Shunt Trip Breaker
	D3	120/1
To RTU 1 Outside Air Damper (Contact will close when exhaust fans are running)	R1	RTU-1 Outside Air Damper
To RTU 1 Outside Air Damper (Contact will close when exhaust fans are running)	G1	RTU-1 Outside Air Damper
To RTU 2 Outside Air Damper (Contact will close when exhaust fans are running)	R2	RTU-2 Outside Air Damper
To RTU 2 Outside Air Damper (Contact will close when exhaust fans are running)	G2	RTU-2 Outside Air Damper



**Key**  
— Designates Field Connection

**Culver's Installation and Operation Guide**  
*Greenheck Control Panel and Exhaust Fan & Receptacle Switch*

**Mechanical Scope of work**

- Mechanical contractor to mount Greenheck Control Panel (Model KFCC, 12"W x 18"H x 6"W) in specified location above drop ceiling.
- 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**

- 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.
- 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.
- Electrical Contractor to run a separate 120 Volt - 15A circuit to KFCC terminals H1 and N1 to power KFCC controls.
- 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.
- Electrical Contractor to make connections from terminals NO1 and D2 (120 Volt normally open contact) to shunt-trip breaker for fryer and griddle receptacles.
- Electrical Contractor to wire fire system microswitch in fire system cabinet to KFCC terminals C1, NC1, and NO1 as indicated on Greenheck drawing.
- Electrical Contractor to wire RTU 1 & 2 damper control to KFCC terminals R1 and G1 and R2 and G2 as indicated on Greenheck drawing.
- 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**

- Turn fan switch on. Fans and fryer and griddle receptacles will be energized.
- Turn on RTU 1 & RTU 2.
- 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.
- Put fire system in the "cocked" position and reset shunt trip breaker. Power will be restored to equipment and RTU's.
- 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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**CULVER FRANCHISING SYSTEM, LLC**  
**METRO M - 2021**  
**PROTOTYPE PLANS**

Sheet Contents:  
**HVAC HOOD, FAN & FIRE SUP.**

Project No. Metro M - 2021  
Drawn By: S. Datka  
Date: Jan. 1, 2021

Sheet  
**M-6**