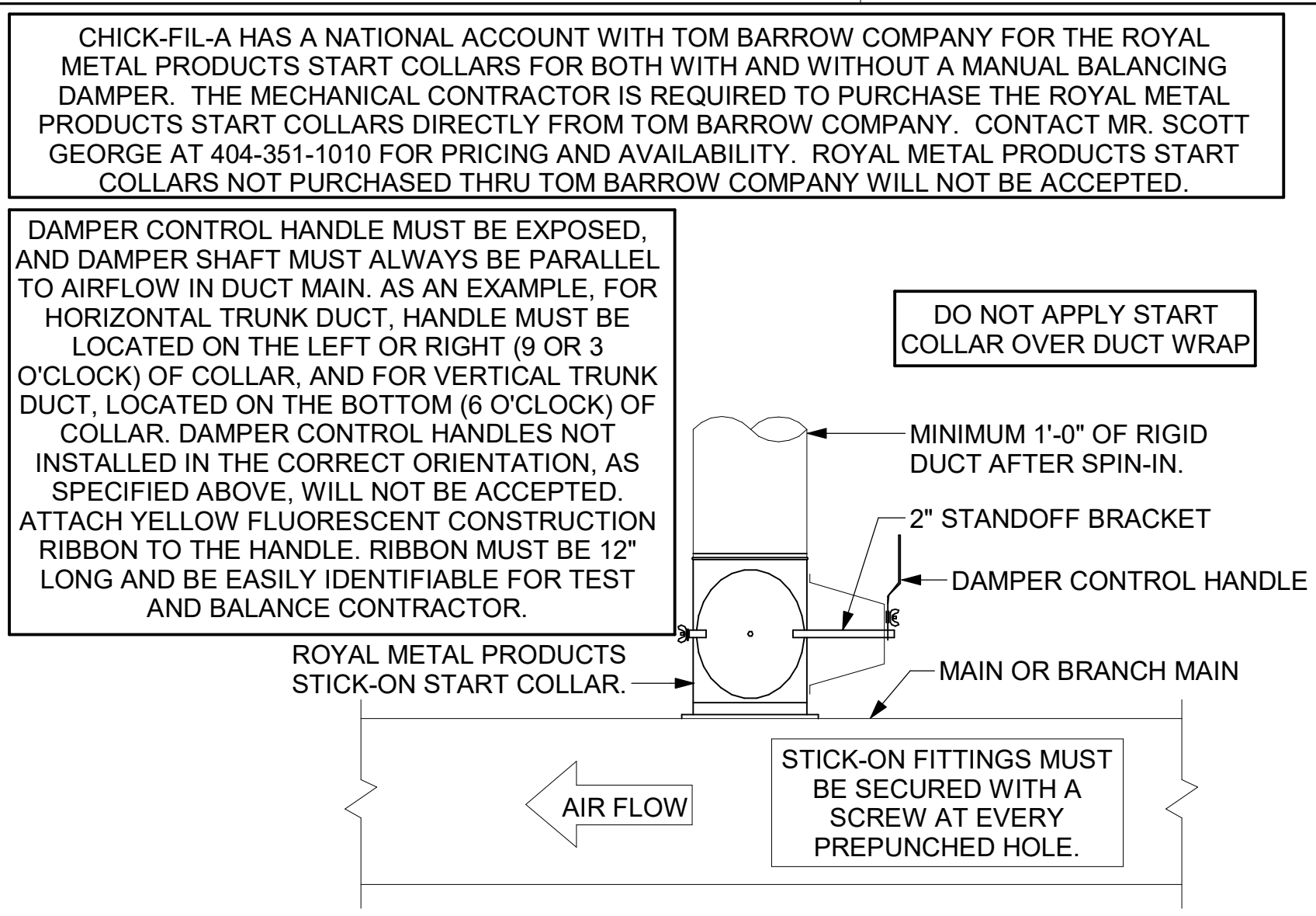


**1 SAG/RAG/GRILLE TAKE-OFF - LARGE**  
NOT TO SCALE



**2 START COLLAR - LARGE**  
NOT TO SCALE

EXHAUST FAN SCHEDULE - LARGE												
MARK	FAN CFM	ESP in-wg	RPM	TIP SPEED FPM	HP	AREA SERVED	VOLTAGE	PHASE	MOCOP	Model	MANUFACTURER	REMARKS
EF#1	1,913	0.75	1,331	5,226	0.75	HOOD#1	120 V	1	25 A	150 CPS	LOREN COOK	1,2,3,4,5,6,7,8,9,10,11,17
EF#2	1,402	0.95	1,199	4,708	0.75	HOOD#2 & HOOD#3	120 V	1	25 A	150 CPS	LOREN COOK	1,2,3,4,5,6,7,8,9,10,11,17
EF#3	375	0.375	1,550	3,658	0.125	RESTROOMS	120 V	1	20 A	ACED-90C15DH	LOREN COOK	3,11,12,13,14,15,16

**NOTES**

- GREASE EXHAUST FAN RPM BASED ON 80 DEGREE F AIR AT 1000 FEET ABOVE SEA LEVEL.
- GREASE EXHAUST FANS TO BE U.L. 762 LISTED.
- CHICK-FIL-A HAS A NATIONAL ACCOUNT WITH TOM BARROW COMPANY FOR THE FAN/CURB PACKAGE. THE MECHANICAL CONTRACTOR IS REQUIRED TO PURCHASE THE FAN/CURB PACKAGE DIRECTLY FROM TOM BARROW COMPANY. CONTACT MR. SCOTT GEORGE AT 404-351-1010 FOR PRICING AND AVAILABILITY. FANS AND CURBS NOT PURCHASED THRU TOM BARROW COMPANY WILL NOT BE ACCEPTED.

**REMARKS**

- UPBLAST, ARRANGEMENT 10, CCW ROTATION. SEE PLANS TO CONFIRM CONFIGURATION.
- PROVIDE FACTORY ALUMINUM FAN WHEEL.
- PROVIDE FACTORY INSTALLED PREWIRED NON-FUSED DISCONNECT.
- PROVIDE FACTORY STEEL INLET FLANGE AND INLET COMPANION FLANGE.
- PROVIDE AND INSTALL ROOFTOP SOLUTIONS G2 DRIP GUARD. MECHANICAL CONTRACTOR TO CONTACT ROOFTOP SOLUTIONS AT 800-913-7034.
- PROVIDE FACTORY WEATHER HOUSING W/ HINGED ACCESS DOOR.
- PROVIDE FACTORY DRAIN CONNECTION.
- PROVIDE FACTORY BOLTED ACCESS DOOR ON SCROLL.
- PROVIDE FACTORY INSTALLED BELT DRIVE WITH ADJUSTABLE MOTOR SHEAVE AND SPARE BELT..
- PROVIDE FACTORY STEEL OUTLET COMPANION FLANGE.
- INTEGRAL THERMAL OVERLOAD WITH AUTOMATIC RESET.
- PROVIDE BIRDSCREEN.
- BACKDRAFT DAMPER IN DUCT BY MECHANICAL CONTRACTOR AS SHOWN ON 4/M01.
- STARTER BY ELECTRICAL CONTRACTOR. INTERLOCK WITH LIGHTS BY ELECTRICAL CONTRACTOR.
- PROVIDE 12" HIGH CURB.
- PROVIDE FACTORY INSTALLED AND WIRED SPEED CONTROLLER.
- UTILITY SET FAN CURB AND ASSOCIATED EXHAUST DUCT CURB PROVIDED BY TOM BARROW COMPANY.

AIR DOOR SCHEDULE - LARGE									
MARK	CFM	VELOCITY	HEATING CAP	HP	AREA SERVED	MODEL	MANUFACTURER	REMARKS	
AD#1	1,765 CFM	2,670 FPM	10 kW	3/4 HP	DRIVE THRU	CHA-1-48E	Powered Aire	1,2,3,5	
AD#2	1,268 CFM	2,757 FPM	N/A	3/4 HP	DRIVE-THRU	CHA-1-36	Powered Aire	1,2,4	
AD#3	3,867 CFM	4,218 FPM	N/A	3/4 HP	REAR DOOR	RBT-1-48	Powered Aire	4	

**NOTES**

- CHICK-FIL-A HAS A NATIONAL ACCOUNT WITH TOM BARROW COMPANY FOR THE AIR DOORS. THE MECHANICAL CONTRACTOR SHALL PURCHASE THE AIR DOORS DIRECTLY FROM TOM BARROW COMPANY. CONTACT MR. SCOTT GEORGE AT 404-351-1010, FOR PRICING AND AVAILABILITY. AIR DOORS NOT PURCHASED THRU TOM BARROW COMPANY WILL NOT BE ACCEPTED.

**REMARKS**

- FACTORY PROVIDED, WIRED, AND UNIT MOUNTED SPEED CONTROLLER LOCATED ABOVE CEILING
- FACTORY WIRED DISCONNECT.
- FACTORY PROVIDED, FIELD INSTALLED BY MC, REMOTE WALL SWITCHES FOR HEATING ON/OFF AND FAN ON/AUTO SWITCH. SEE DETAIL, AIR CURTAIN WIRING DIAGRAM.
- FACTORY PROVIDED MAGNETIC DOOR CONTACT WITH FACTORY INSTALLED LOW VOLTAGE CONTROLS LOCATED IN AIR DOOR CABINET.
- PROVIDE WITH A DIVERTER BOX. PROVIDE WITH MOUNTING BRACKETS PER MANUFACTURER'S RECOMMENDATIONS.

AIR DEVICE SCHEDULE - LARGE							
MARK	DESCRIPTION	LOCATION	NECK SIZE	FACE SIZE	FRAME TYPE	REMARKS	
A	PRICE MODEL APDC ALUMINUM SUPPLY AIR DIFFUSER WITH INDIVIDUALLY ADJUSTABLE CURVED AIR PATTERN CONTROLLERS.	BUILDING	VARIES	24"x24"	LAY-IN	1,7	
B	VARITHERM PLAQUE DIFFUSER	OFFICE	12"	24"x24"	LAY-IN	1,7,8	
C	PRICE MODEL SMC STEEL SUPPLY AIR DIFFUSER FIELD ADJUSTABLE AIR PATTERN CONTROLLERS	ENTRY	14"x14"	19"x19"	BEVELLED	1,3,5,6	
D	PRICE MODEL APDC ALUMINUM SUPPLY AIR DIFFUSER WITH INDIVIDUALLY ADJUSTABLE CURVED AIR PATTERN CONTROLLERS.	DINING	10"	16"x16"	SURFACE	1,3,5,6	
E	PRICE MODEL 22 DOUBLE DEFLECTION ALUMINUM SIDEWALL SUPPLY GRILLE, FRONT BLADE PARALLEL TO LONG SIDE.	PLAY AREA	16"x10"	18"x12"	SURFACE	1	
F	PRICE MODEL 80 EGGCRATE RETURN AIR GRILLE WITH REMOVABLE WHITE CORE, FACTORY FLAT BLACK BACKPAN AND ROUND NECK.	BUILDING	VARIES	24"x24"	LAY-IN	1,7	
J	PRICE MODEL SMC STEEL SUPPLY AIR DIFFUSER FIELD ADJUSTABLE AIR PATTERN CONTROLLERS.	RESTROOMS	14"x14"	16"x16"	BEVELLED	1,3,5,6	
K	PRICE MODEL APDDR ALUMINUM PERFORATED FACE RETURN AIR GRILLE.	RESTROOMS/ ENTRY	14"x14"	16"x16"	SURFACE	1,4,5,6	
L	PRICE MODEL 21 ALUMINUM SIDEWALL RETURN GRILLE, FRONT BLADE PARALLEL TO LONG SIDE.	PLAY AREA	12"x12"	14"x14"	SURFACE	1	

**NOTES**

- CHICK-FIL-A HAS A NATIONAL ACCOUNT WITH TOM BARROW COMPANY FOR THE AIR DEVICES. THE MECHANICAL CONTRACTOR SHALL PURCHASE THE AIR DEVICES DIRECTLY FROM TOM BARROW COMPANY. CONTACT MR. SCOTT GEORGE AT 404-351-1010, FOR PRICING AND AVAILABILITY. AIR DEVICES NOT PURCHASED THRU TOM BARROW COMPANY WILL NOT BE ACCEPTED.

**REMARKS**

- STANDARD OFF WHITE FINISH.
- PROVIDE MODEL VCS3 NECK DAMPER.
- SEE DRAWING M-201 FOR THROW.
- PROVIDE MODEL VCR7 NECK DAMPER ON GRILLES IN RESTROOMS SERVING EXHAUST FAN.
- PROVIDE BACKPAN, MC TO SEAL JOINTS WITH MASTIC AND INSULATE EXTERNALLY.
- FIELD INSULATE BACKPAN AS SHOWN ON DETAIL 1/M-401.
- FACTORY INSULATED R-6 BACKPAN.
- PROVIDE RELIEF COLLAR ACCESSORY FOR VAV DIFFUSER.

ELECTRIC HEATER SCHEDULE							
MARK	KW	FRAME LENGTH	FRAME WIDTH	FRAME DEPTH	MOUNTING TYPE	MODEL	MANUFACTURER
EIH#1	6.0	56"	8.5"	3.5"	BRACKET	BH0420035	Bromic

**NOTES**

- CHICK-FIL-A HAS A NATIONAL ACCOUNT WITH BROMIC HEATING USA FOR THE ELECTRIC HEATER PACKAGE. THE MECHANICAL CONTRACTOR SHALL PURCHASE HEATERS DIRECTLY FROM BROMIC HEATING USA. CONTACT MR. BLAKE RUSSIE AT 858-381-4850 FOR PRICING AND AVAILABILITY. BROMIC HEATERS NOT PURCHASED THRU BROMIC HEATING USA WILL NOT BE ACCEPTED.

**REMARKS**

- STAINLESS STEEL LENS WITH BLACK EMISSIVE COATING.
- PROVIDE ENGRAVED PLASTIC LABEL AT EACH UNIT WITH UNIT DESIGNATION IN 1" HIGH WHITE LETTERS ON A BLACK BACKGROUND.
- PROVIDE BLACK HEATER WITH HIGH TEMPERATURE COATING, AND MANUFACTURER MOUNTING BRACKETS.

GAS FIRED INFRARED HEATER SCHEDULE							
MARK	INPUT (MBH)	FRAME LENGTH	FRAME WIDTH	FRAME DEPTH	MOUNTING TYPE	MODEL	MANUFACTURER
GIH	50	48-1/4"	13"	10"	Bracket	2352-NG	Schwank

**NOTES**

- CONFIRM HEATER QUANTITY WITH CANOPY SHOP DRAWINGS.
- CHICK-FIL-A HAS A NATIONAL ACCOUNT WITH TOM BARROW COMPANY FOR THE GAS FIRED INFRARED HEATERS. THE MECHANICAL CONTRACTOR SHALL PURCHASE THE HEATER PACKAGE DIRECTLY FROM TOM BARROW COMPANY. CONTACT MR. SCOTT GEORGE AT 404-351-1010, FOR PRICING AND AVAILABILITY. HEATERS NOT PURCHASED THRU TOM BARROW COMPANY WILL NOT BE ACCEPTED.

**REMARKS**

- STEEL BURNER WITH CERAMIC BURNER TILES.
- STAINLESS STEEL LENS WITH BLACK EMISSIVE COATING.
- PROVIDE ENGRAVED PLASTIC LABEL AT EACH UNIT WITH UNIT DESIGNATION IN 1" HIGH WHITE LETTERS ON A BLACK BACKGROUND. MOUNT TO CANOPY DECK, FACING FORWARD, 12" LATERALLY FROM THE LONG SIDE OF THE HEATER.
- STAINLESS STEEL HEAT SHIELDS PROVIDED BY TOM BARROW COMPANY.

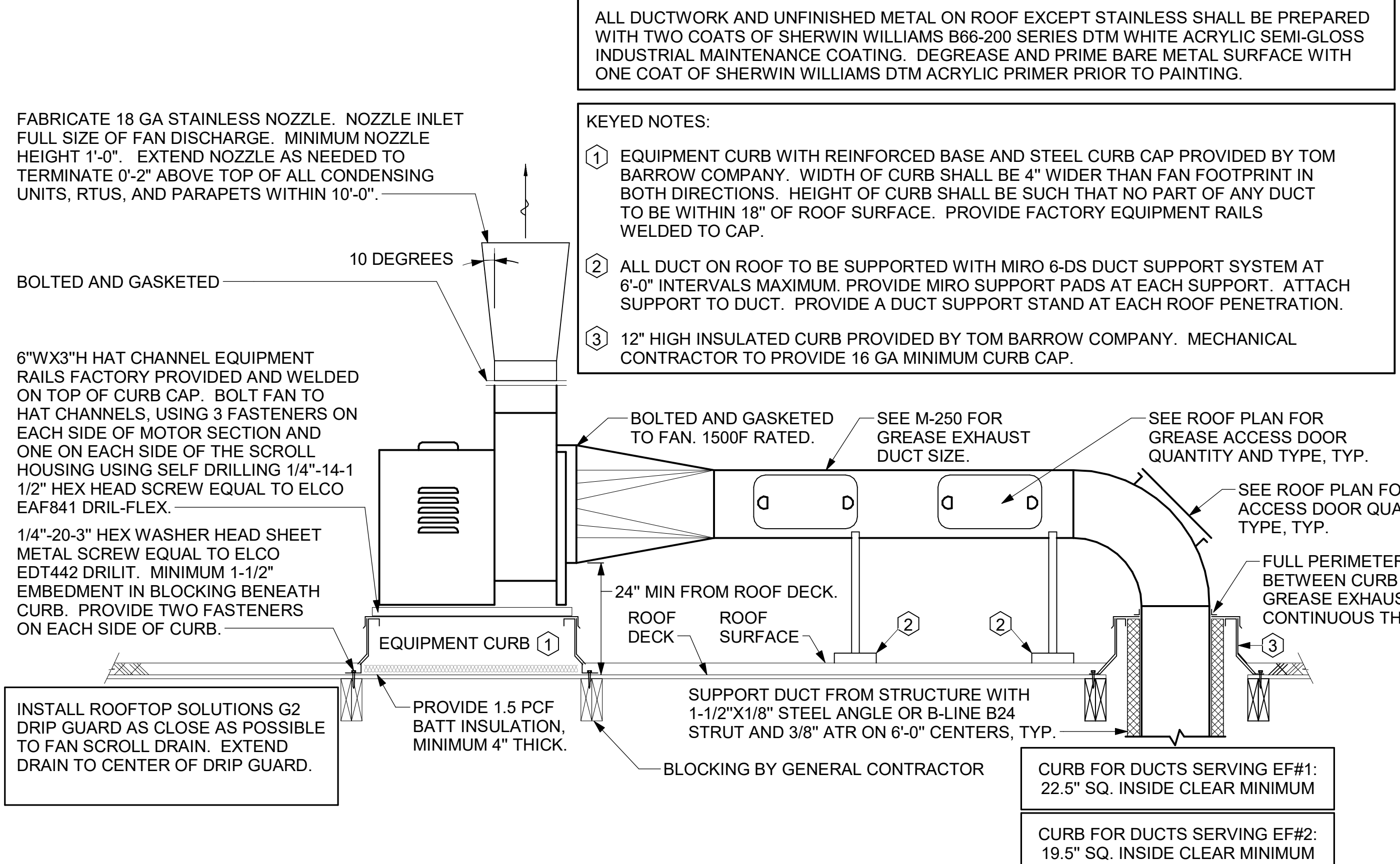
RECIRCULATING FAN SCHEDULE									
MARK	CFM	ESP	RPM	Tip Speed	HP	Area Served	MODEL	MANUFACTURER	REMARKS
RF-1	450 CFM	0.3	1144	---	58 W	TECH CLOSET	GCVF-700	LOREN COOK	1, 2, 3, 4

**NOTES**

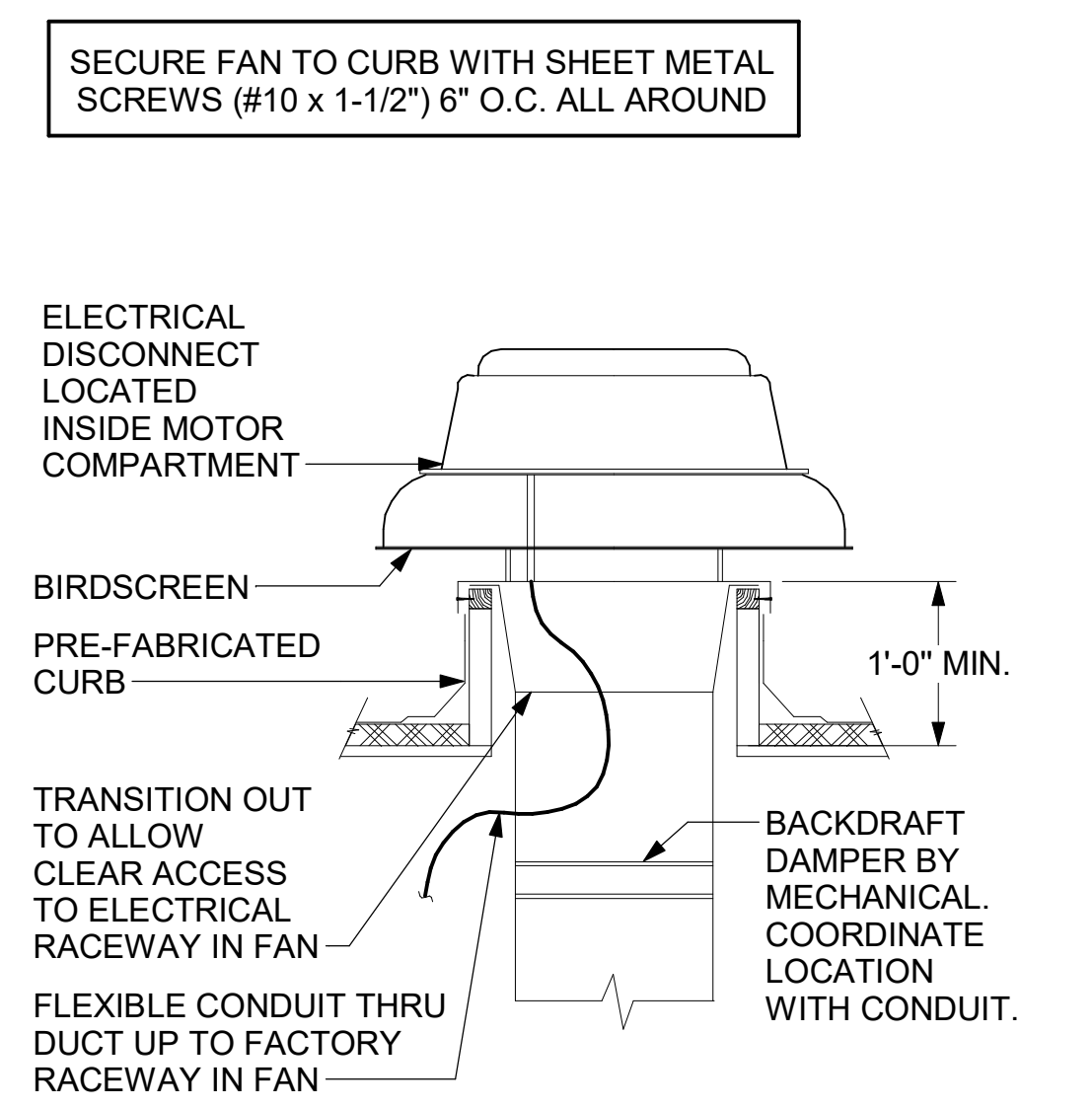
- CHICK-FIL-A HAS A NATIONAL ACCOUNT WITH TOM BARROW COMPANY FOR THE FANS PACKAGE. THE MECHANICAL CONTRACTOR SHALL PURCHASE THE FANS DIRECTLY FROM TOM BARROW COMPANY. CONTACT MR. SCOTT GEORGE AT 404-351-1010, FOR PRICING AND AVAILABILITY. FANS NOT PURCHASED THRU TOM BARROW COMPANY WILL NOT BE ACCEPTED.

**REMARKS**

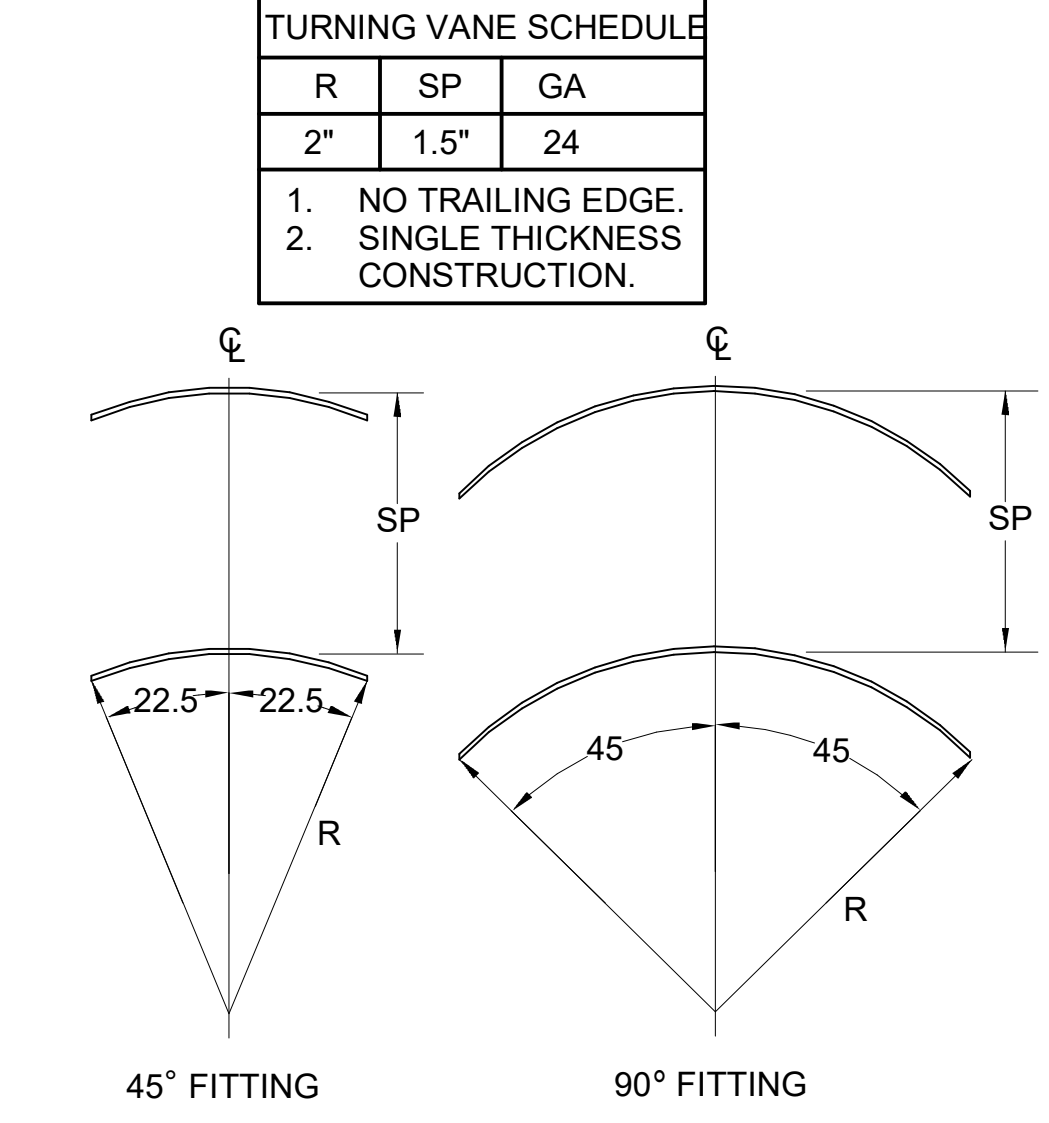
- PROVIDE NEMA 1 PREWIRED DISCONNECT.
- INTEGRAL POTENTIOMETER ON FAN MOTOR. SET TO FULL SPEED
- PROVIDE THERMOSTAT / TEMPERATURE CONTROLLER. SET TO 76°F.



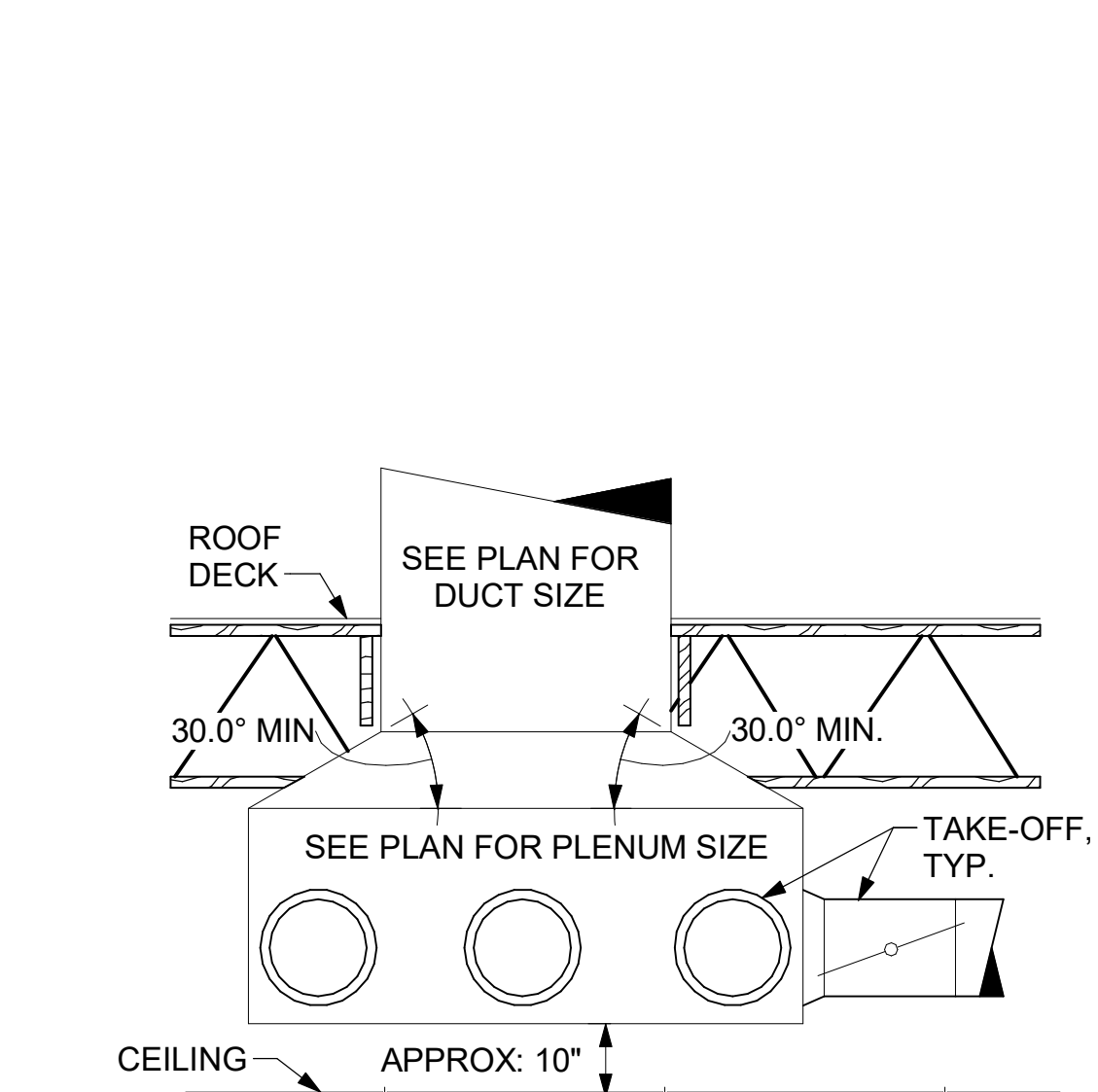
**3 KITCHEN HOOD EXHAUST FANS**  
NOT TO SCALE



**4 RESTROOM EXHAUST FAN**  
NOT TO SCALE



**5 TURNING VANES**  
NOT TO SCALE



**6 RETURN DROP GEOMETRY**  
NOT TO SCALE



**Chick-fil-A**  
5200 Buffington Road  
Atlanta, Georgia  
30349-2998

**Kurzynske & Associates**  
2705 Lebanon Pike - Suite One  
Nashville, Tennessee 37214  
Telephone: (615) 255-5203



5/5/23

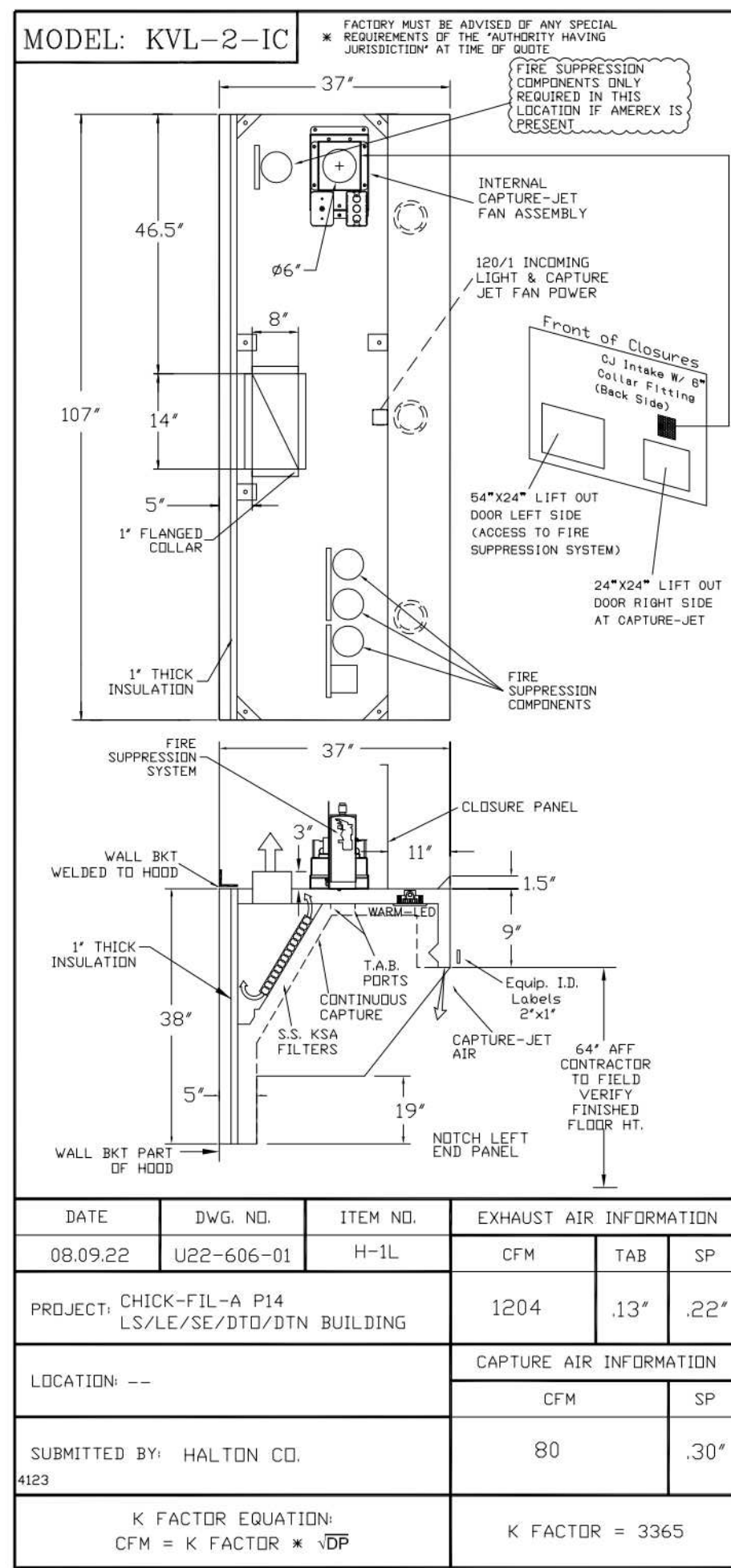
**CHICK-FIL-A**  
HWY 76 ON THE STRIP  
FSU  
2915 W. 76 Country Blvd  
Branson, MO 65616

**FSR#05380**  
BUILDING TYPE / SIZE: P14 LS LRG  
RELEASE: 22.08

PRINTED FOR ISSUED FOR CONSTRUCTION  
NO. DATE DESCRIPTION  
2 5/5/23 ISSUED FOR CONSTRUCTION

CONSULTANT PROJECT # 23043.CD.S  
DATE 03/27/2023  
DRAWN BY BLM  
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SHEET HVAC DETAILS AND SCHEDULES  
SHEET NUMBER **M-401**

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3D-LS-05380-M-401-HVAC DETAILS AND SCHEDULES



STANDARD FEATURES	
S.S. FILTERS (KSA)	5
1/2 S.S. FILTERS (KSA)	1
CAPTURE-JET	*
STAND-OFF	*
LED LIGHTS	3

OPTIONS	
REMOTE SWITCH PANEL	*
FIRE PROTECTION	*
ETL LISTED W/D EXHAUST DAMPER	*
CEILING CLOSURE	2
STD. BACKSPLASH	*
INSULATED BACKSPLASH	*
KBD DAMPER	*

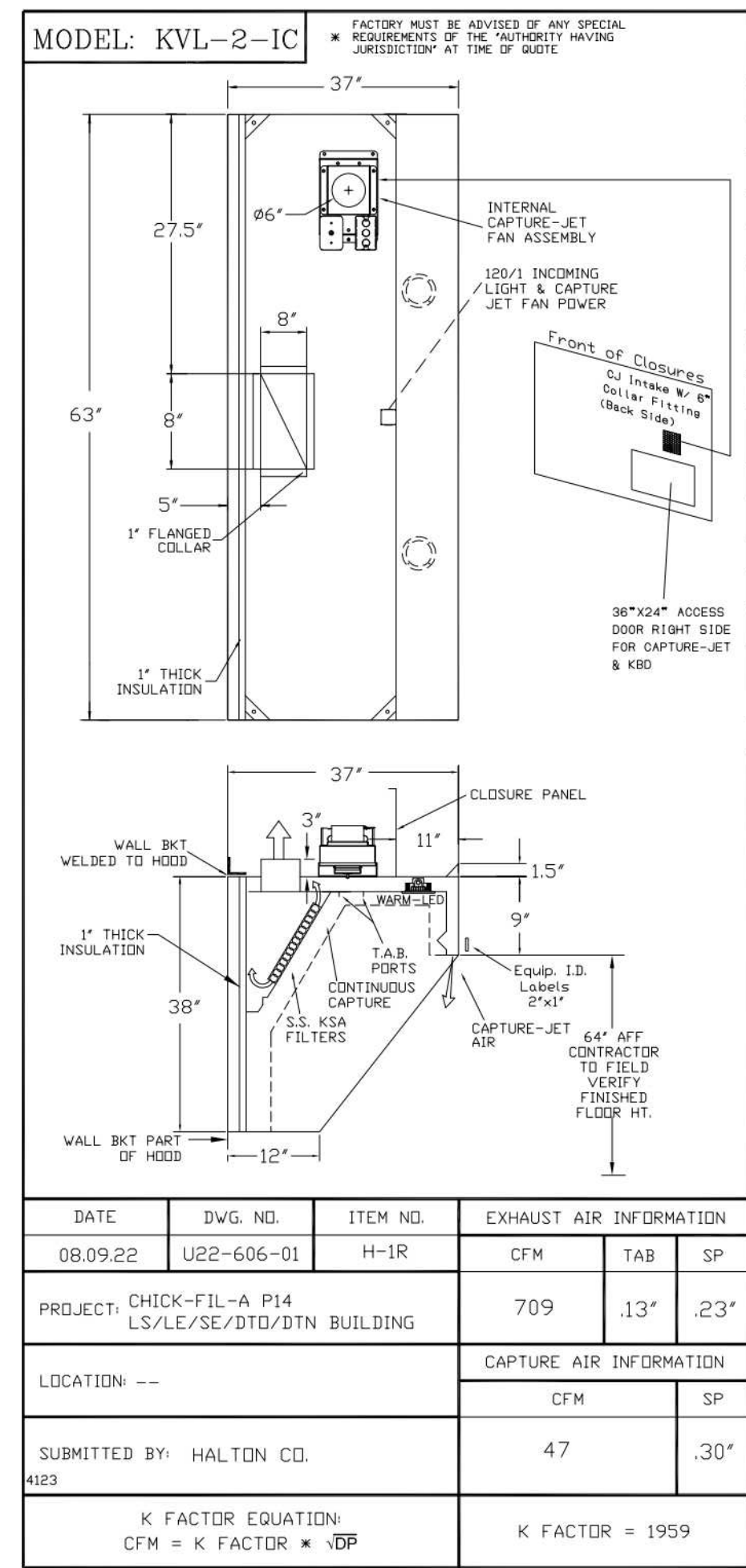
MATERIAL	
EXPOSED SURFACES	18 GA. S.S.
ALL 18 GA. S.S.	*

COMMENTS	
CLOSURE HEIGHT = 91" (TWO SIDES)	
CEILING HEIGHT = 122" (THREE SIDES)	
CEILING CLOSURE RECESSED 11" FROM FRONT TO CREATE SHELF	
FRONT CLOSURE PANEL WITH 64"x24" LIFT OUT DOOR LEFT SIDE (ACCESS TO FIRE SUPPRESSION SYSTEM)	
24"x24" LIFT OUT DOOR RIGHT SIDE AT CAPTURE-JET	
64" AFF. CONTRACTOR TO FIELD VERIFY FINISHED FLOOR HT.	
CONTINUOUS CAPTURE INTERNAL RIGHT END OUTLET	
3" REAR STAND-OFF TO HAVE 1" THICK INSULATION	
NOTCHED LEFT END PANEL	

EQUIPMENT COVERED (2) FRYERS			
DATE	DWG. NO.	ITEM NO.	EXHAUST AIR INFORMATION
08.09.22	U22-606-01	H-1L	CFM TAB SP
PROJECT: CHICK-FIL-A P14	LS/LE/SE/DTN BUILDING	1204	.13' .22'
LOCATION: --	CAPTURE AIR INFORMATION	CFM	SP
SUBMITTED BY: HALTON CO.	80	.30'	



STANDARD FEATURES	
S.S. FILTERS (KSA)	3
1/2 S.S. FILTERS (KSA)	1
CAPTURE-JET	*
STAND-OFF	*
LED LIGHTS	2

OPTIONS	
REMOTE SWITCH PANEL	*
FIRE PROTECTION	*
ETL LISTED W/D EXHAUST DAMPER	*
CEILING CLOSURE	2
STD. BACKSPLASH	*
INSULATED BACKSPLASH	*
KBD DAMPER	*

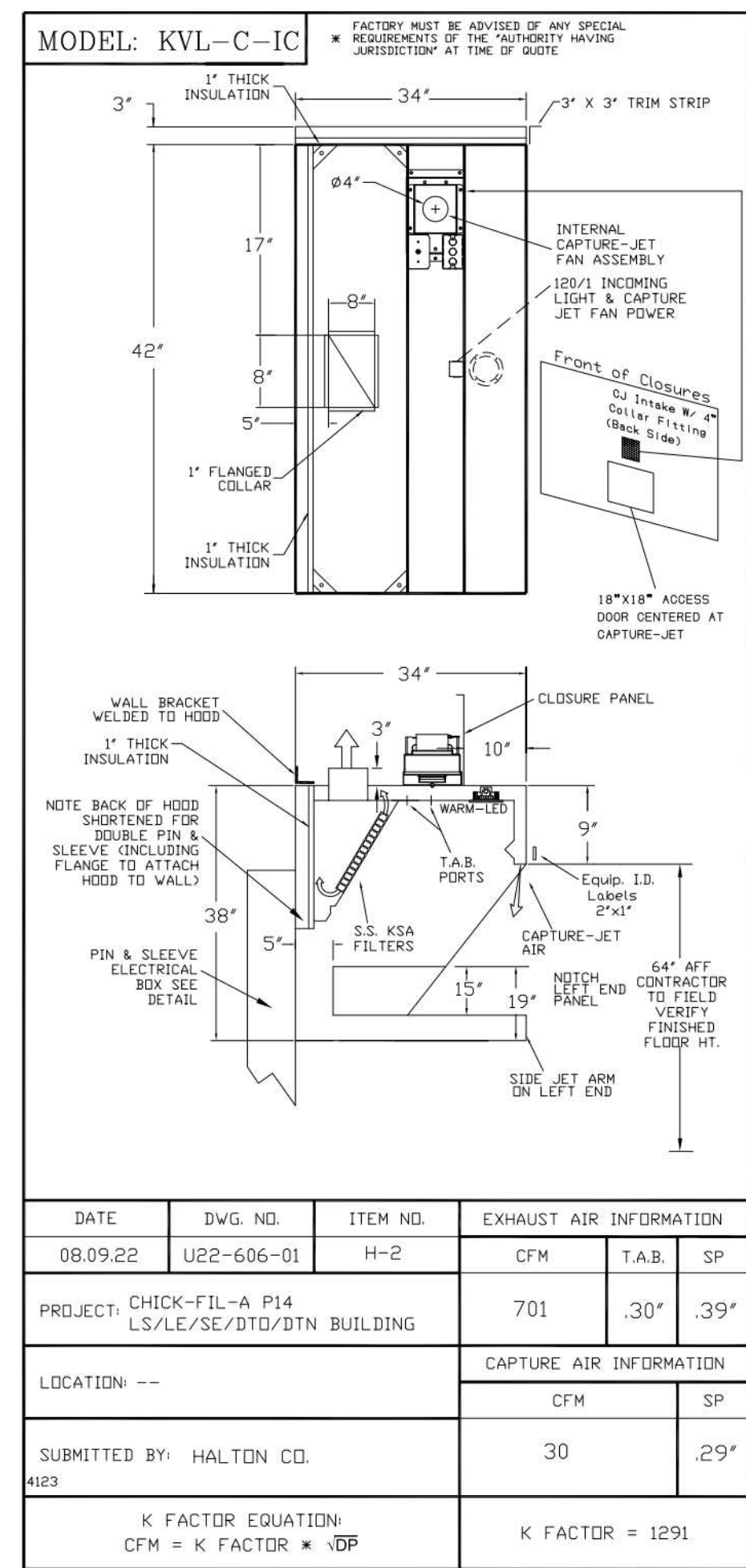
MATERIAL	
EXPOSED SURFACES	18 GA. S.S.
ALL 18 GA. S.S.	*

COMMENTS	
CLOSURE HEIGHT = 51" (TWO SIDES)	
CEILING HEIGHT = 122" (THREE SIDES)	
CEILING CLOSURE RECESSED 11" FROM FRONT TO CREATE SHELF	
FRONT CLOSURE PANEL WITH 64"x24" LIFT OUT DOOR LEFT SIDE (ACCESS TO FIRE SUPPRESSION SYSTEM)	
24"x24" LIFT OUT DOOR RIGHT SIDE AT CAPTURE-JET	
64" AFF. CONTRACTOR TO FIELD VERIFY FINISHED FLOOR HT.	
CONTINUOUS CAPTURE INTERNAL LEFT END OUTLET	
3" REAR STAND-OFF TO HAVE 1" THICK INSULATION	
EQUIPMENT COVERED (3) FRYERS	

EQUIPMENT COVERED (3) FRYERS			
DATE	DWG. NO.	ITEM NO.	EXHAUST AIR INFORMATION
08.09.22	U22-606-01	H-1R	CFM TAB SP
PROJECT: CHICK-FIL-A P14	LS/LE/SE/DTN BUILDING	709	.13' .23'
LOCATION: --	CAPTURE AIR INFORMATION	CFM	SP
SUBMITTED BY: HALTON CO.	47	.29'	



STANDARD FEATURES	
S.S. FILTERS (KSA)	2
CAPTURE-JET	*
STAND-OFF	*
LED LIGHTS	1

OPTIONS	
REMOTE SWITCH PANEL	*
FIRE PROTECTION	*
ETL LISTED W/D EXHAUST DAMPER	*
CEILING CLOSURE	2
STD. BACKSPLASH	*
INSULATED BACKSPLASH	*
KBD DAMPER	*

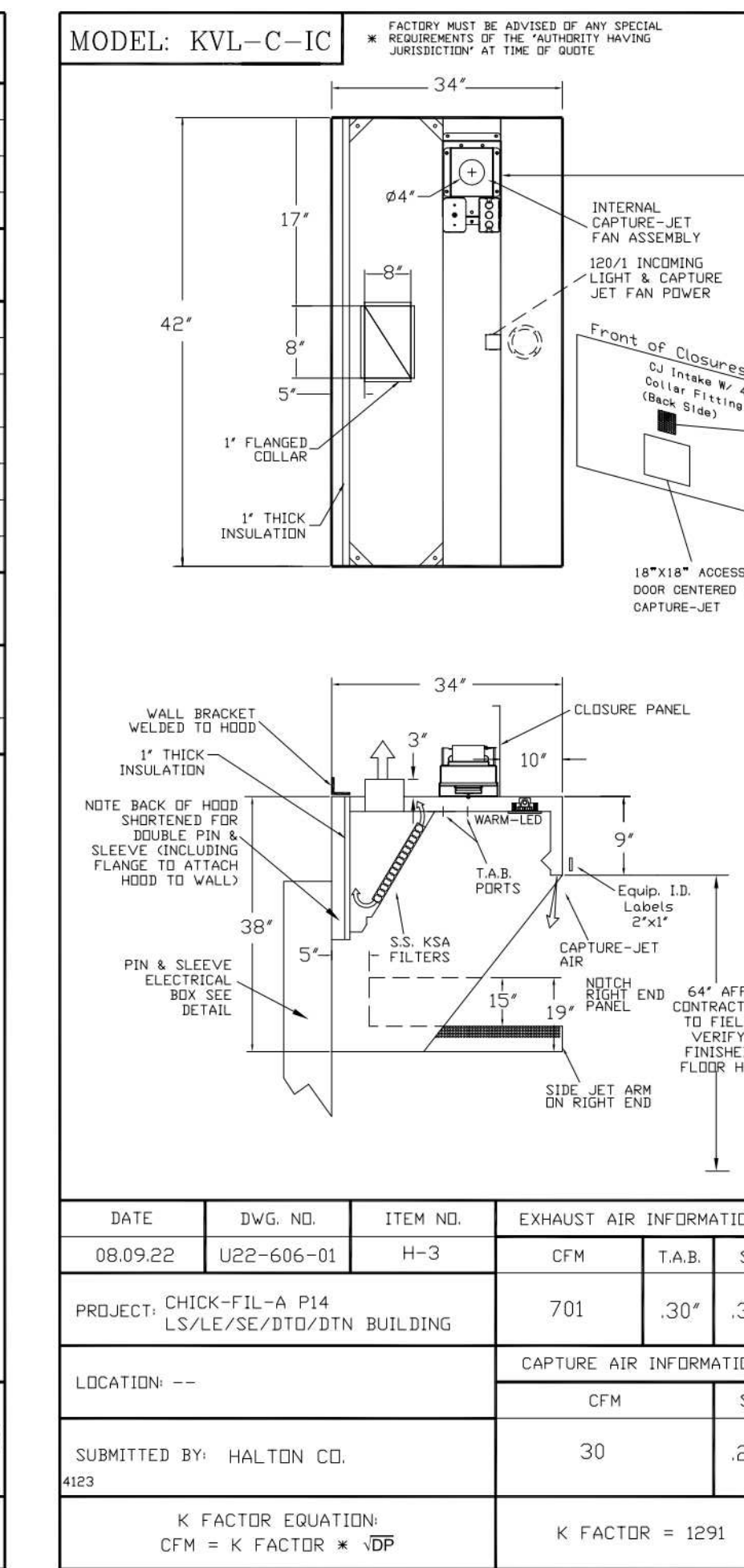
MATERIAL	
EXPOSED SURFACES	18 GA. S.S.
ALL 18 GA. S.S.	*

COMMENTS	
CLOSURE HEIGHT = 51" (TWO SIDES)	
CEILING HEIGHT = 122" (THREE SIDES)	
CEILING CLOSURE RECESSED 10" FROM FRONT TO CREATE SHELF	
FRONT CLOSURE PANEL WITH 64"x24" LIFT OUT DOOR LEFT SIDE (ACCESS TO FIRE SUPPRESSION SYSTEM)	
24"x24" LIFT OUT DOOR RIGHT SIDE AT CAPTURE-JET	
64" AFF. CONTRACTOR TO FIELD VERIFY FINISHED FLOOR HT.	
NOTCH LEFT END PANEL	
DOUBLE RECEPTACLE PIN & SLEEVE	
3" X 3" TRIM STRIP FOR STAND-OFF ON RIGHT END	
3" SIDE & REAR STAND-OFF TO HAVE 1" THICK INSULATION	
EQUIPMENT COVERED (2) FRYERS	

EQUIPMENT COVERED (2) FRYERS			
DATE	DWG. NO.	ITEM NO.	EXHAUST AIR INFORMATION
08.09.22	U22-606-01	H-2	CFM TAB SP
PROJECT: CHICK-FIL-A P14	LS/LE/SE/DTN BUILDING	701	.30' .39'
LOCATION: --	CAPTURE AIR INFORMATION	CFM	SP
SUBMITTED BY: HALTON CO.	30	.29'	



STANDARD FEATURES	
S.S. FILTERS (KSA)	2
CAPTURE-JET	*
STAND-OFF	*
LED LIGHTS	1

OPTIONS	
REMOTE SWITCH PANEL	*
FIRE PROTECTION	*
ETL LISTED W/D EXHAUST DAMPER	*
CEILING CLOSURE	3
STD. BACKSPLASH	*
INSULATED BACKSPLASH	*
KBD DAMPER	*

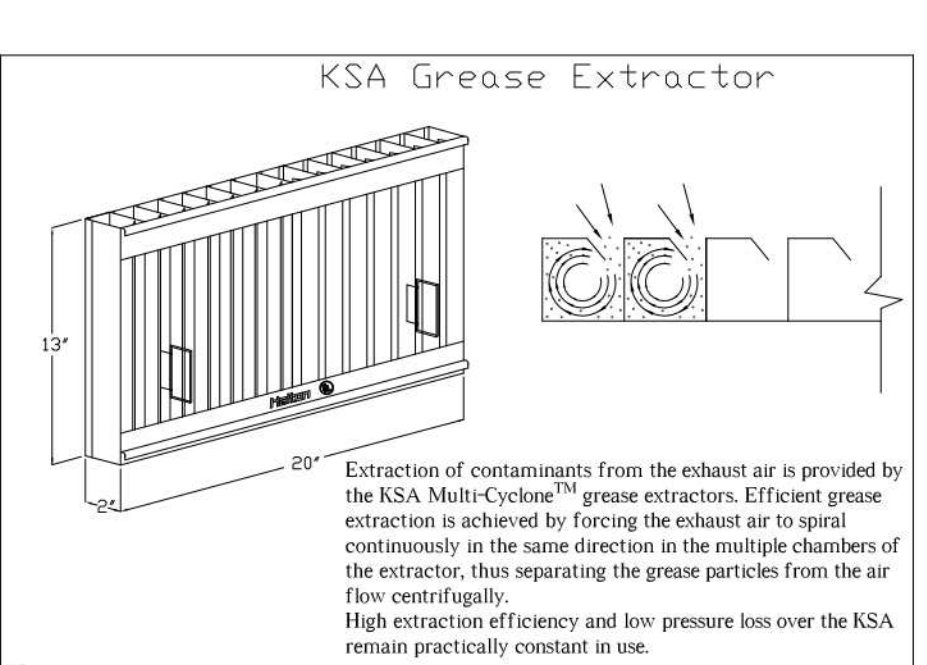
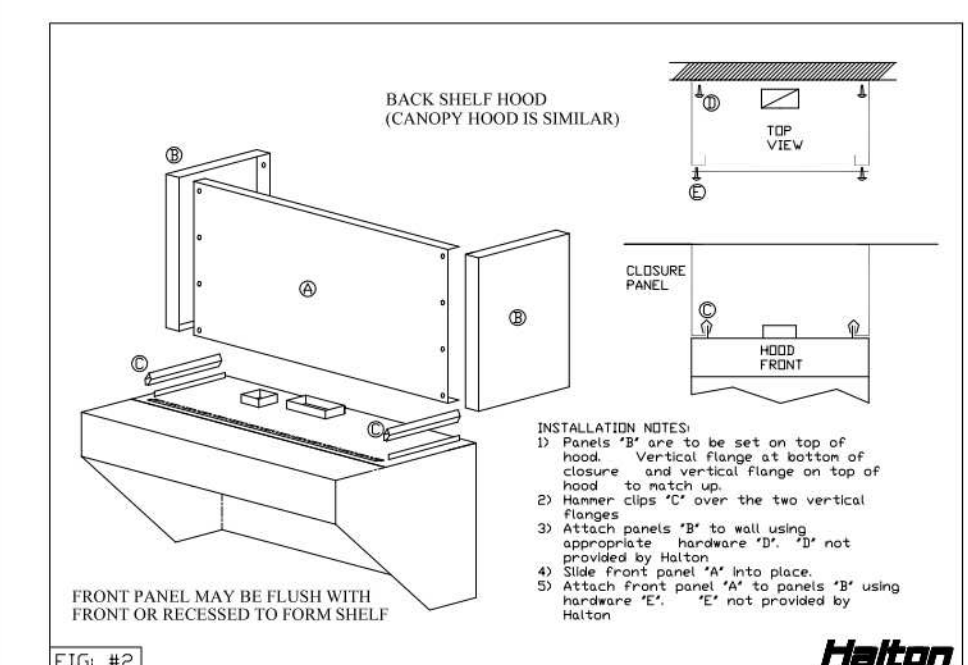
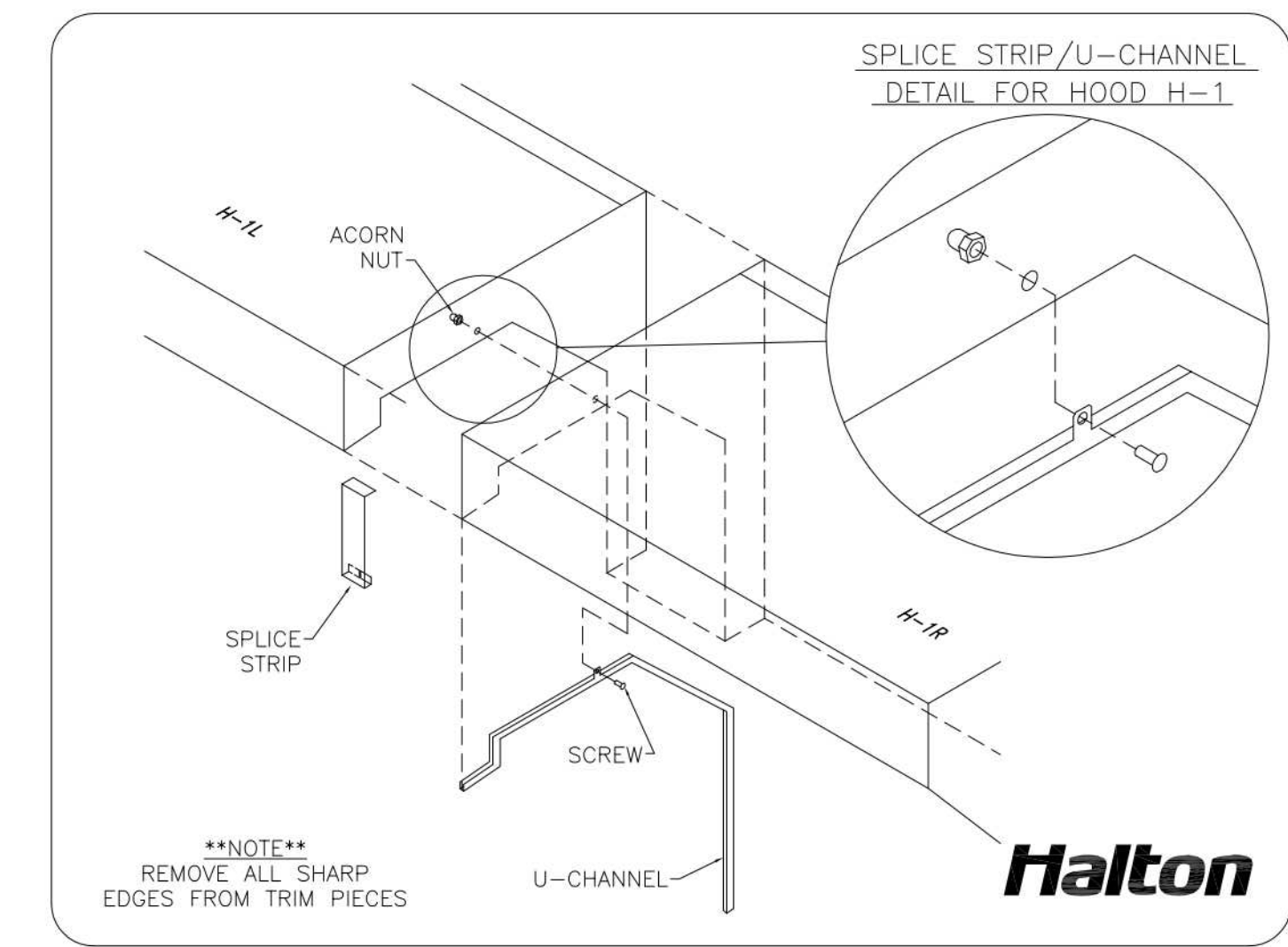
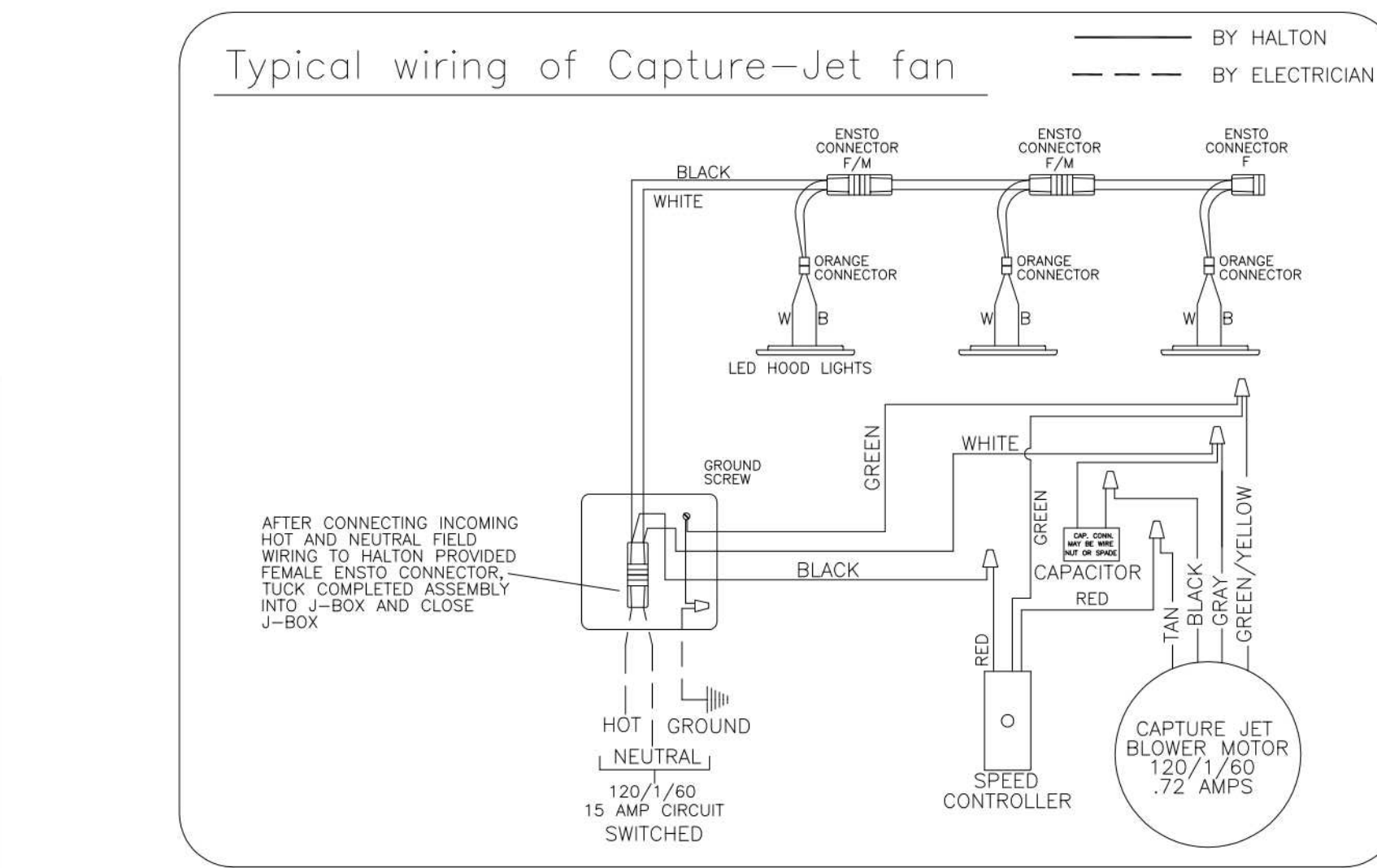
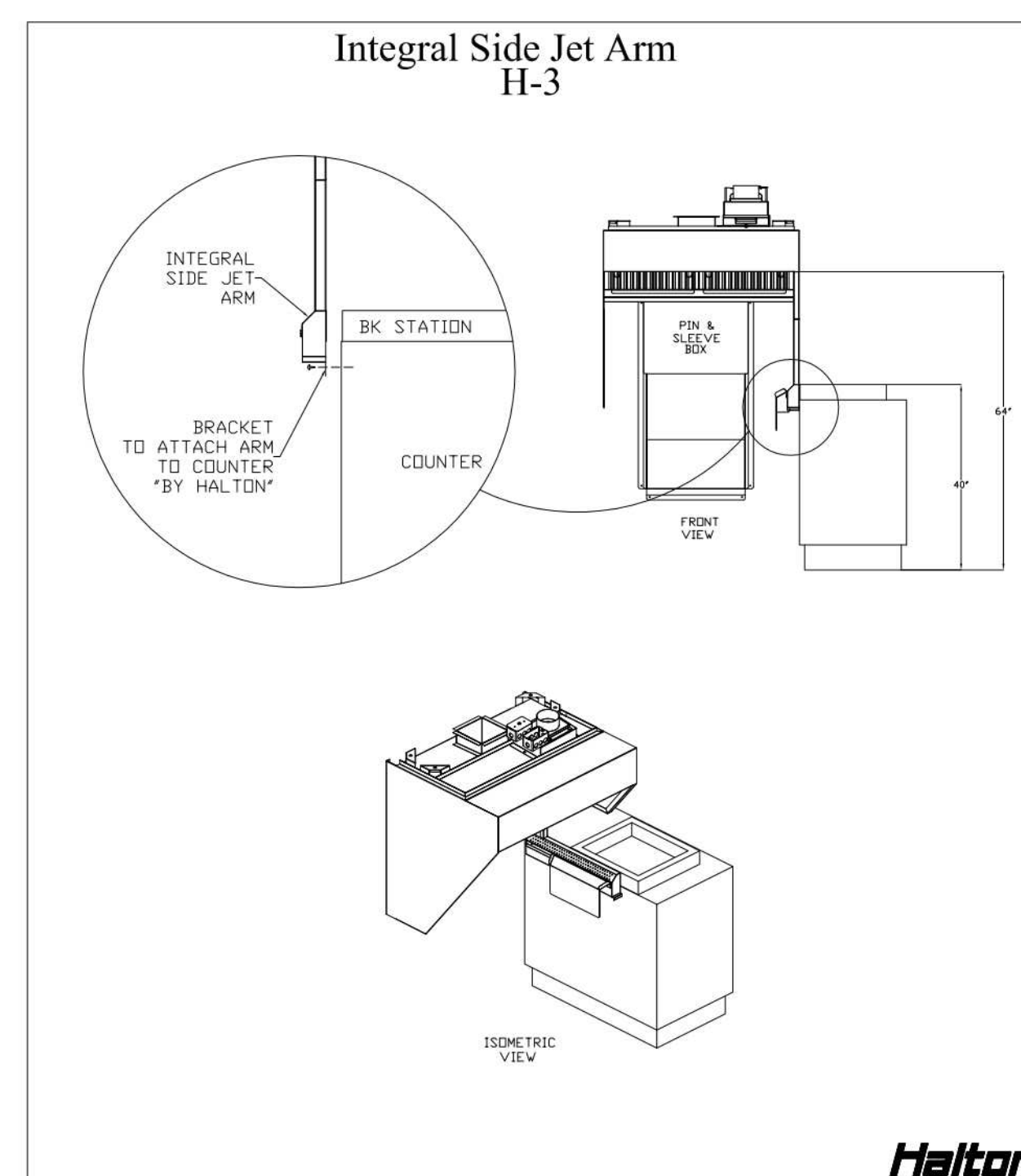
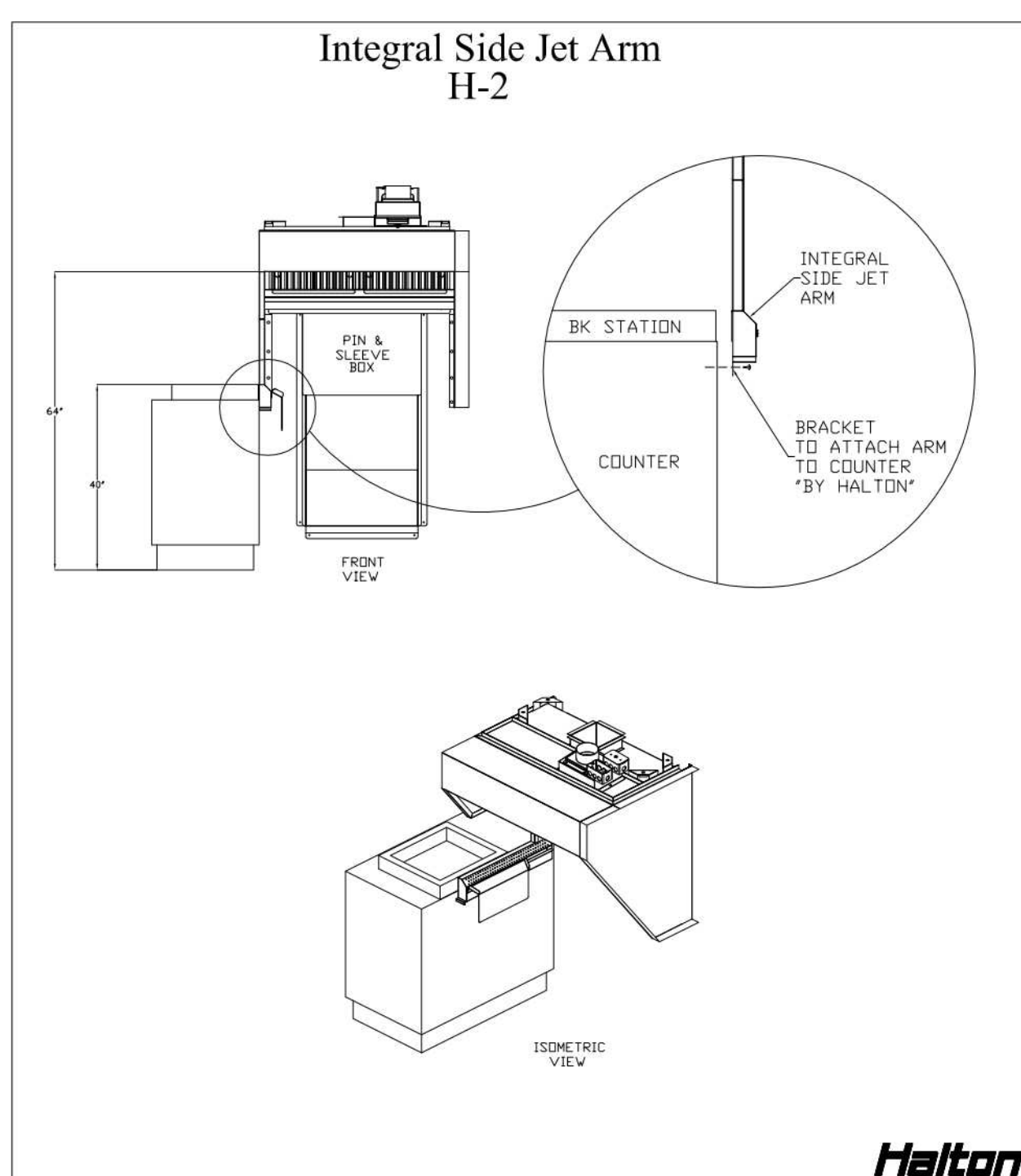
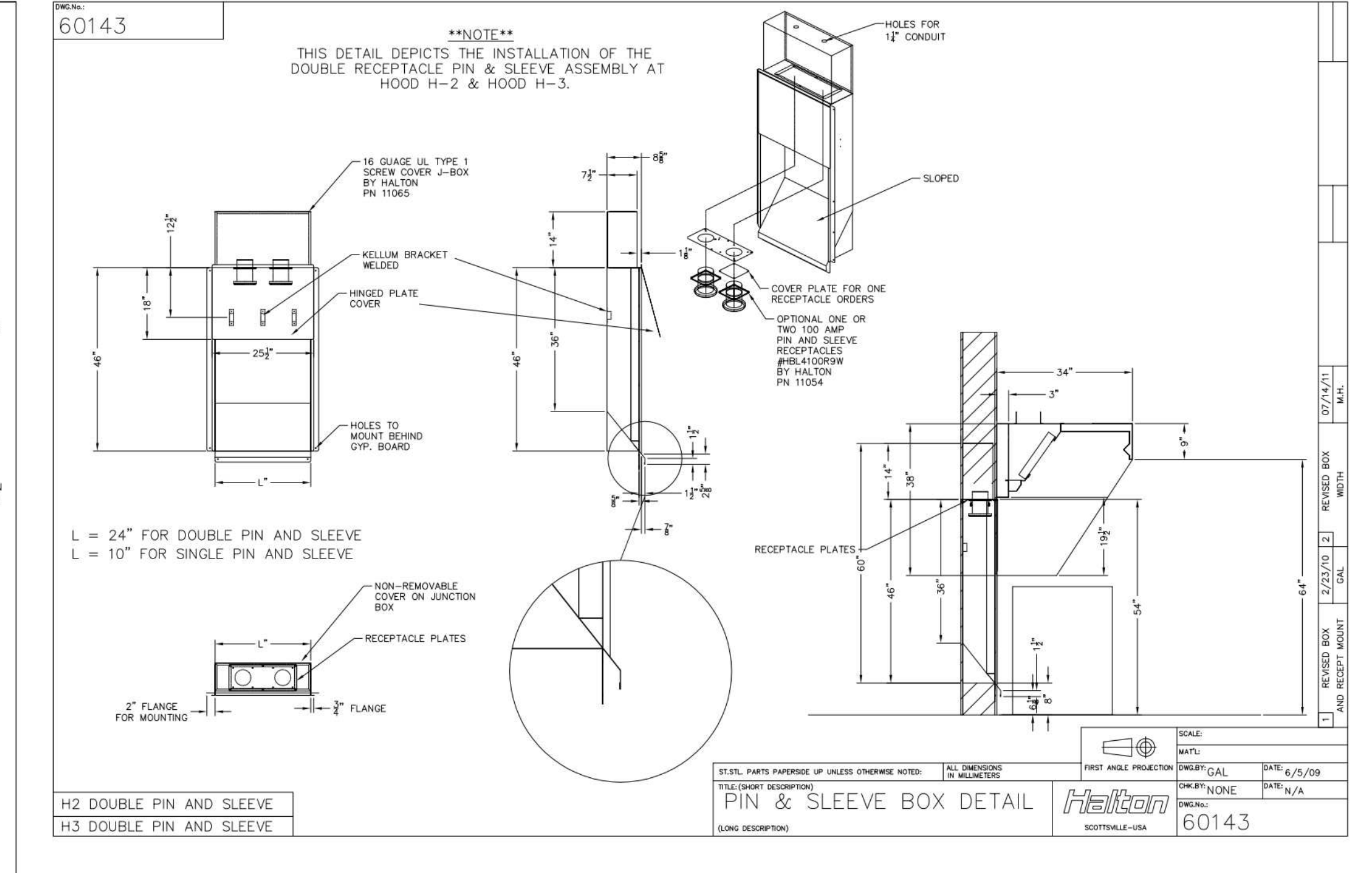
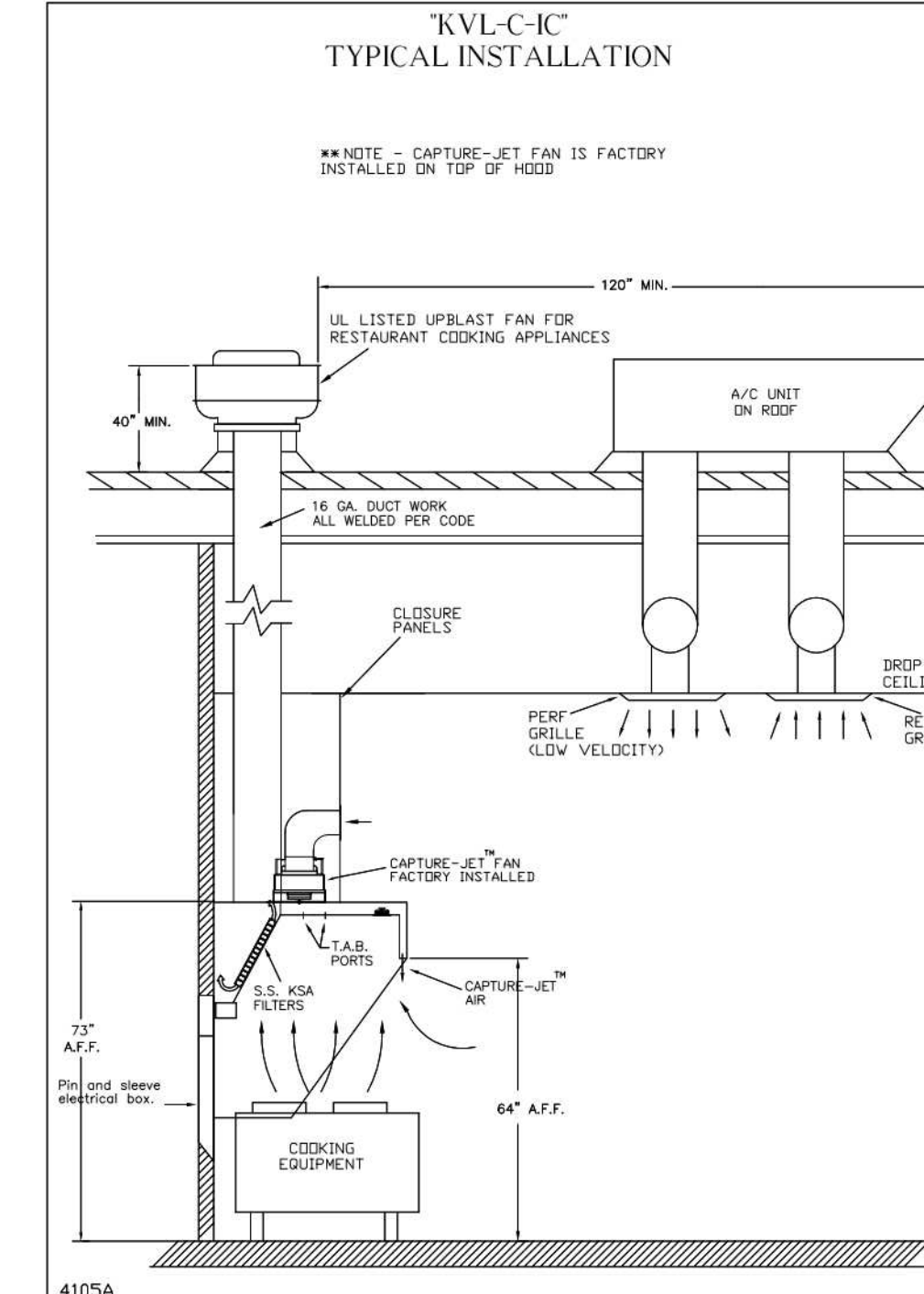
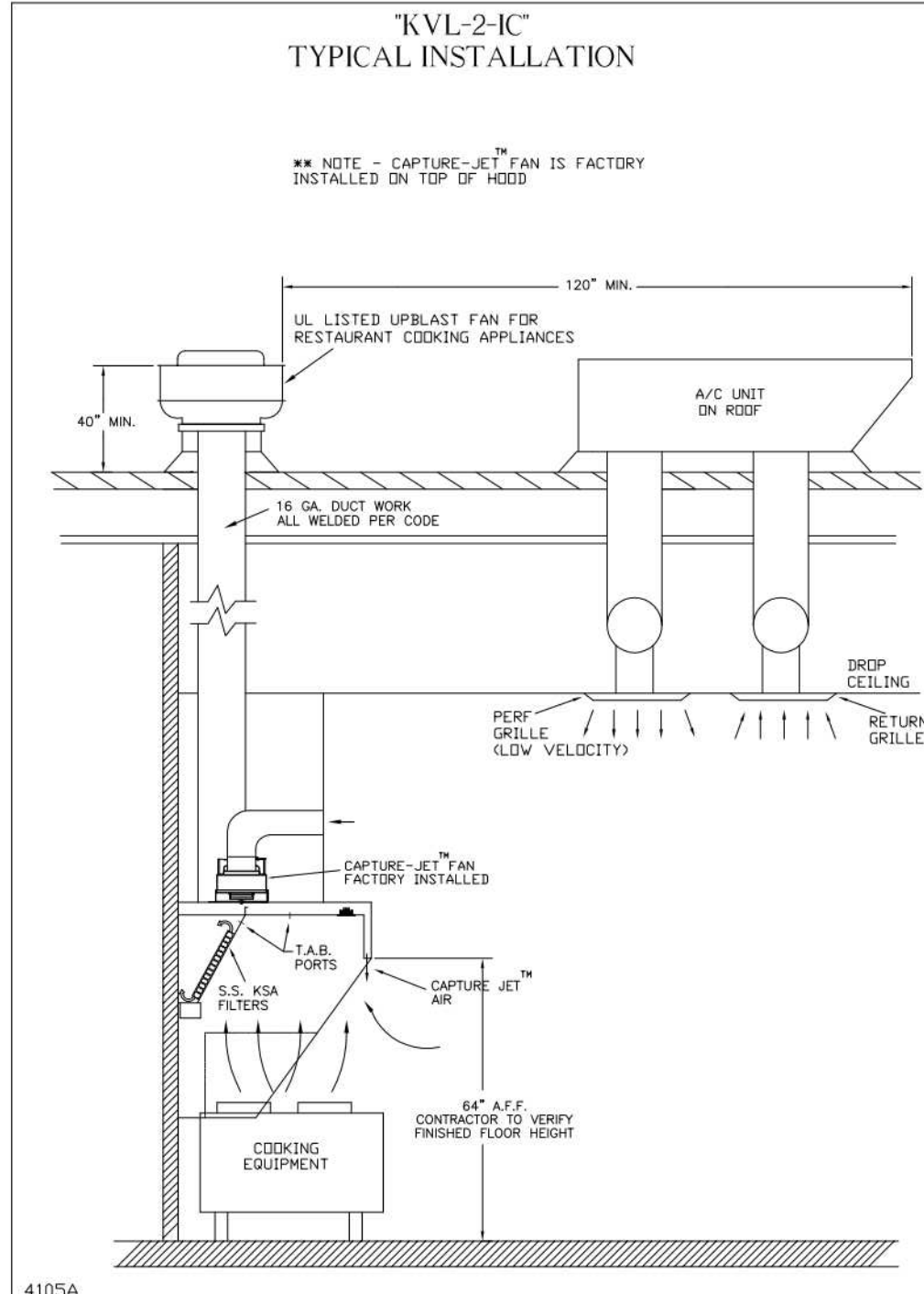
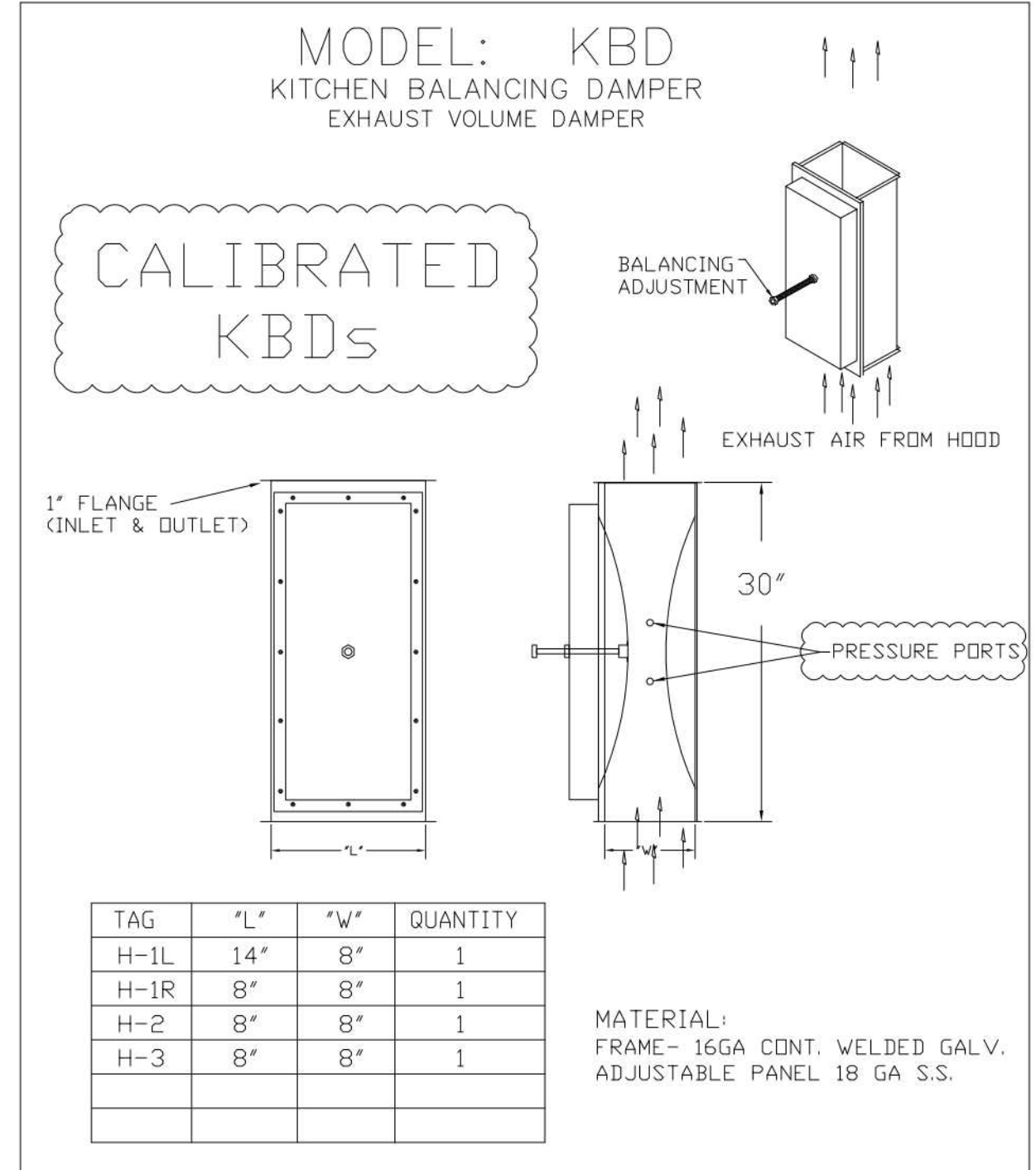
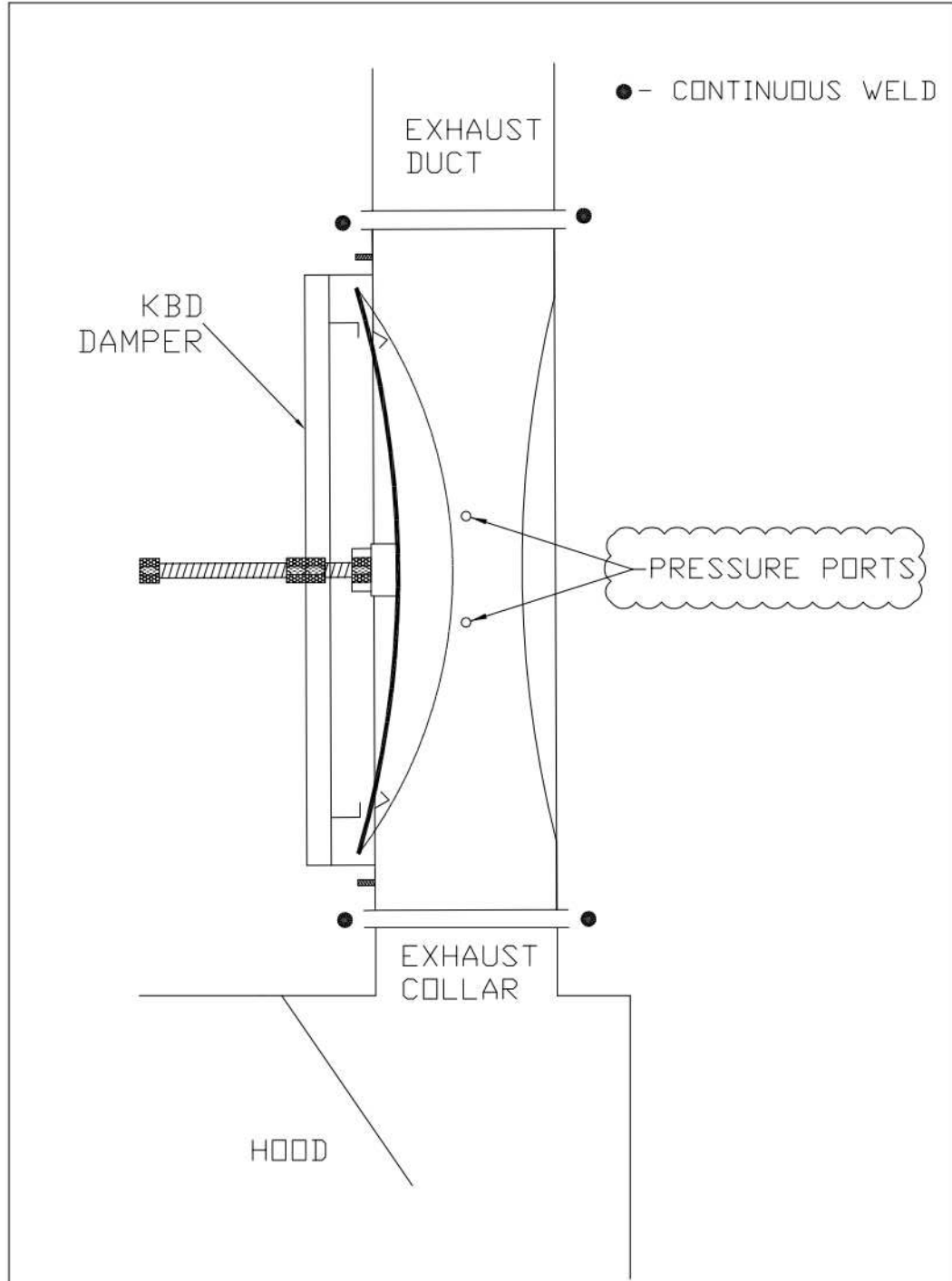
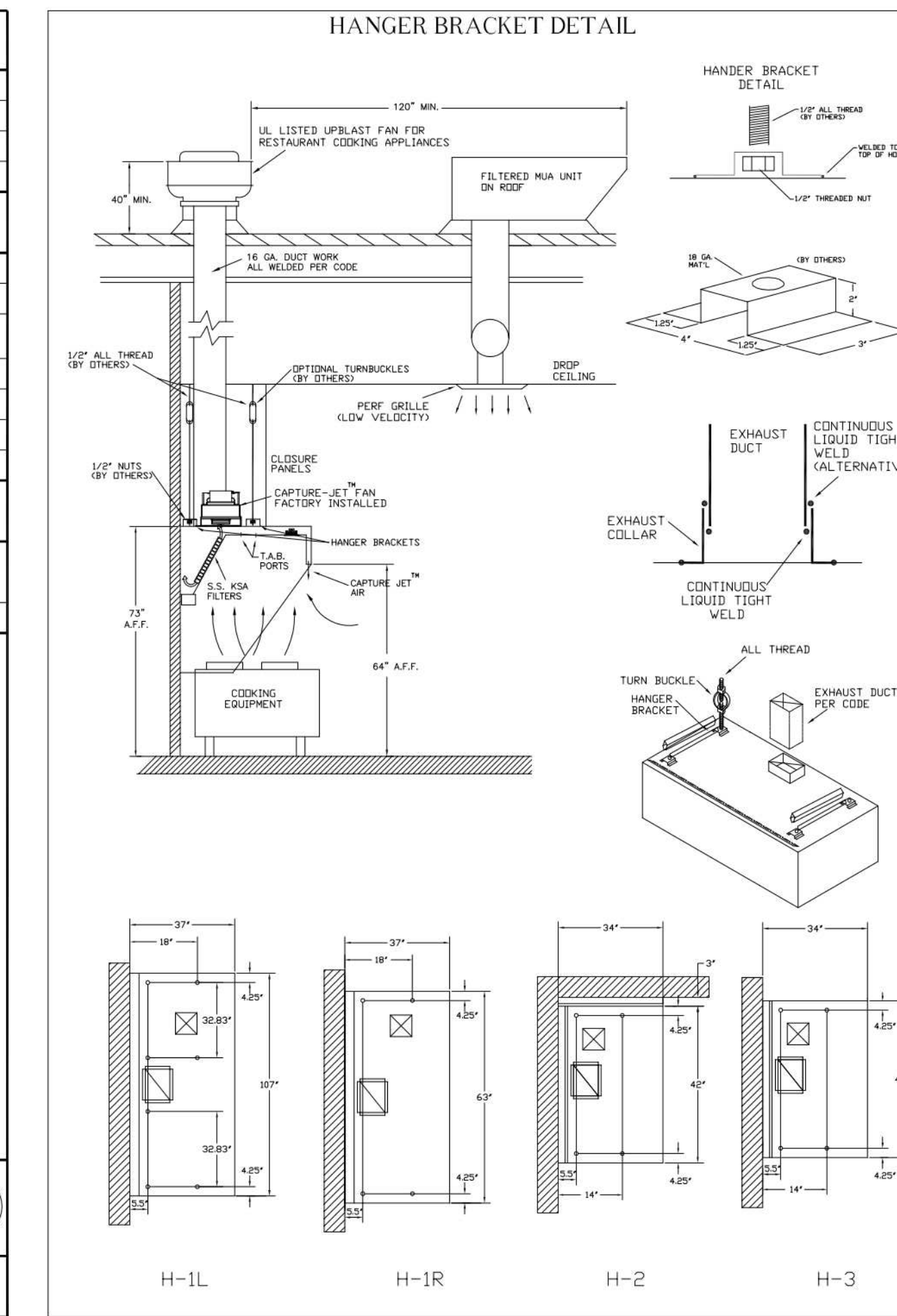
MATERIAL	
EXPOSED SURFACES	18 GA. S.S.
ALL 18 GA. S.S.	*

COMMENTS	
CLOSURE HEIGHT = 51" (TWO SIDES)	
CEILING HEIGHT = 122" (THREE SIDES)	
CEILING CLOSURE RECESSED 10" FROM FRONT TO CREATE SHELF	
FRONT CLOSURE PANEL WITH 64"x24" LIFT OUT DOOR LEFT SIDE (ACCESS TO FIRE SUPPRESSION SYSTEM)	
24"x24" LIFT OUT DOOR RIGHT SIDE AT CAPTURE-JET	
64" AFF. CONTRACTOR TO FIELD VERIFY FINISHED FLOOR HT.	
NOTCH RIGHT END PANEL	
DOUBLE RECEPTACLE PIN & SLEEVE	
3" REAR SIDE STAND-OFF TO HAVE 1" THICK INSULATION	
EQUIPMENT COVERED (2) FRYERS	

EQUIPMENT COVERED (2) FRYERS			
DATE	DWG. NO.	ITEM NO.	EXHAUST AIR INFORMATION
08.09.22	U22-606-01	H-3	CFM TAB SP
PROJECT: CHICK-FIL-A P14	LS/LE/SE/DTN BUILDING	701	.30' .39'
LOCATION: --	CAPTURE AIR INFORMATION	CFM	SP
SUBMITTED BY: HALTON CO.	30	.29'	



DUTY LEVEL		MINIMUM OVERHANG	DISTANCE BETWEEN FRONT EDGE OF HOOD AND COOKING SURFACE	MIN. HOOD HEIGHT	MIN. HOOD LENGTH
MEDIUM	6" x 12"	0"	20"	30"	180"
HEAVY	6" x 12"	0"	20"	30"	180"
HEAVY	6" x 12"	0"	20"	30"	180"

**NSE Halton** CONFORMS TO UL LISTED TO UL STD. 710 CERTIFIED TO UL STD. 5446

HALTON COMPANY, 101 INDUSTRIAL DR., SCOTTSVILLE, KY 42164

MODEL NO. SERIAL NO. ITEM NO.

**KVL-2-1C**

GENERAL REQUIREMENTS: FILTER TYPE EXHAUST HOOD FOR COMMERCIAL AND INSTITUTIONAL KITCHENS. THE FAN CIRCUIT IS RATED FOR 120V, 15A, 60HZ. THE LIGHTING CIRCUIT IS RATED FOR 120V, 15A, 60HZ. THE HOOD HAS BEEN CERTIFIED BY ETL FOR 30" CLEARANCE TO COMBUSTIBLE MATERIALS (SEE FRONT AND REAR) IN COMPLIANCE WITH UL759 CONSIDERATIONS TO NFPA 96. THE HOOD IS PROVIDED WITH RELEASABLE KSA FILTERS AND LIGHTING FEATURES. RELEASABLE FILTERS ONLY WITH UL CLASSIFIED FILTER TYPE OF THE SAME MODEL AND SUITABLE FOR USE TO HEAVY DUTY COOKING APPLIANCES.

WEBSITE: WWW.HALTON.COM

HALTON CO. (USA)  
101 INDUSTRIAL DRIVE  
SCOTTSVILLE, KY 42164  
1-270-237-9600

HALTON CO. (CANADA)  
1021 BREVK PLACE 3R7  
MISSISSAUGA, ON  
1-905-624-0301

PROJECT: CHICK-FIL-A P14  
LS/LE/SE/DTN BUILDING

LOCATION: --

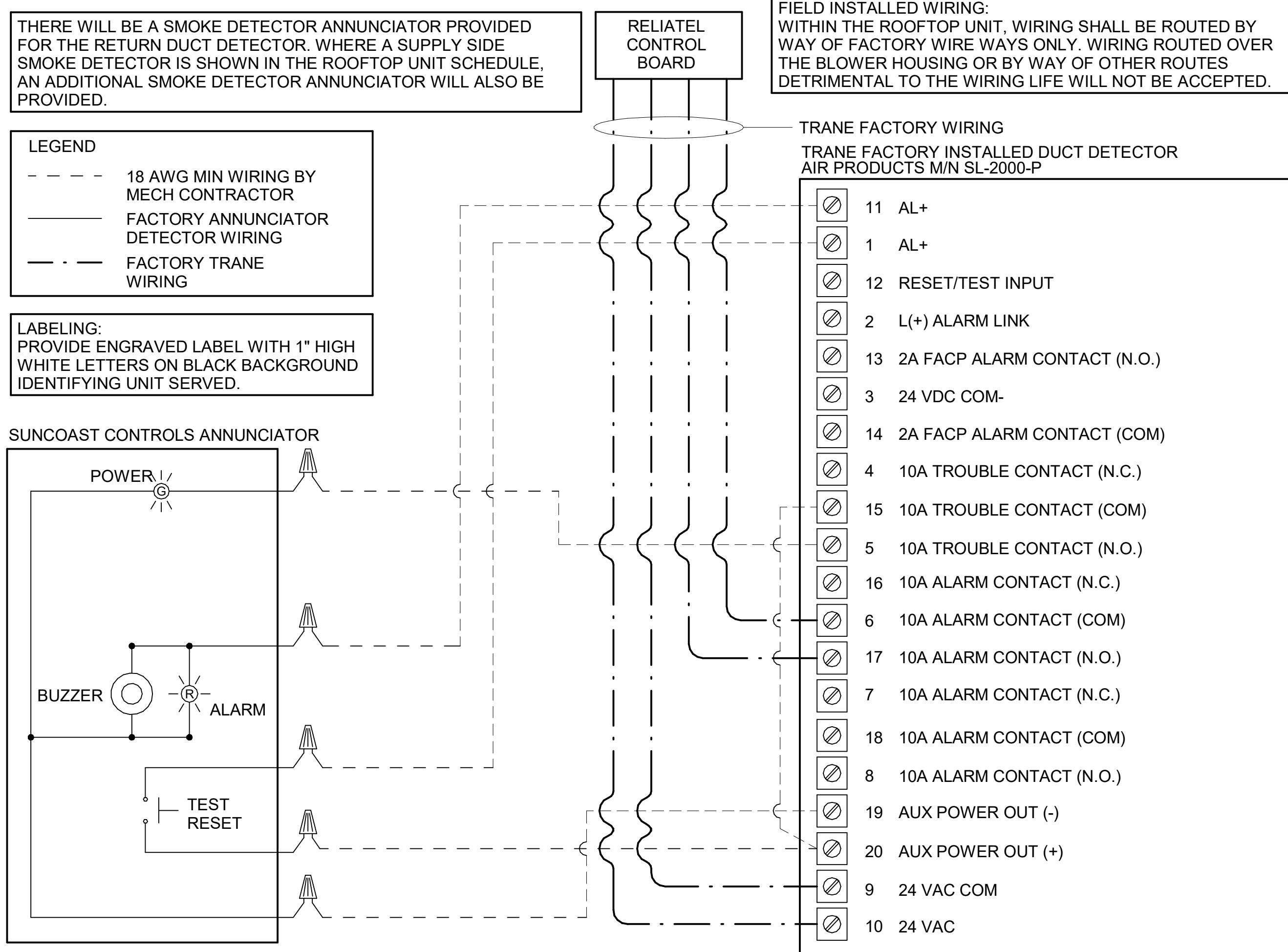
DATE: 08.09.22

SCALE: NTS

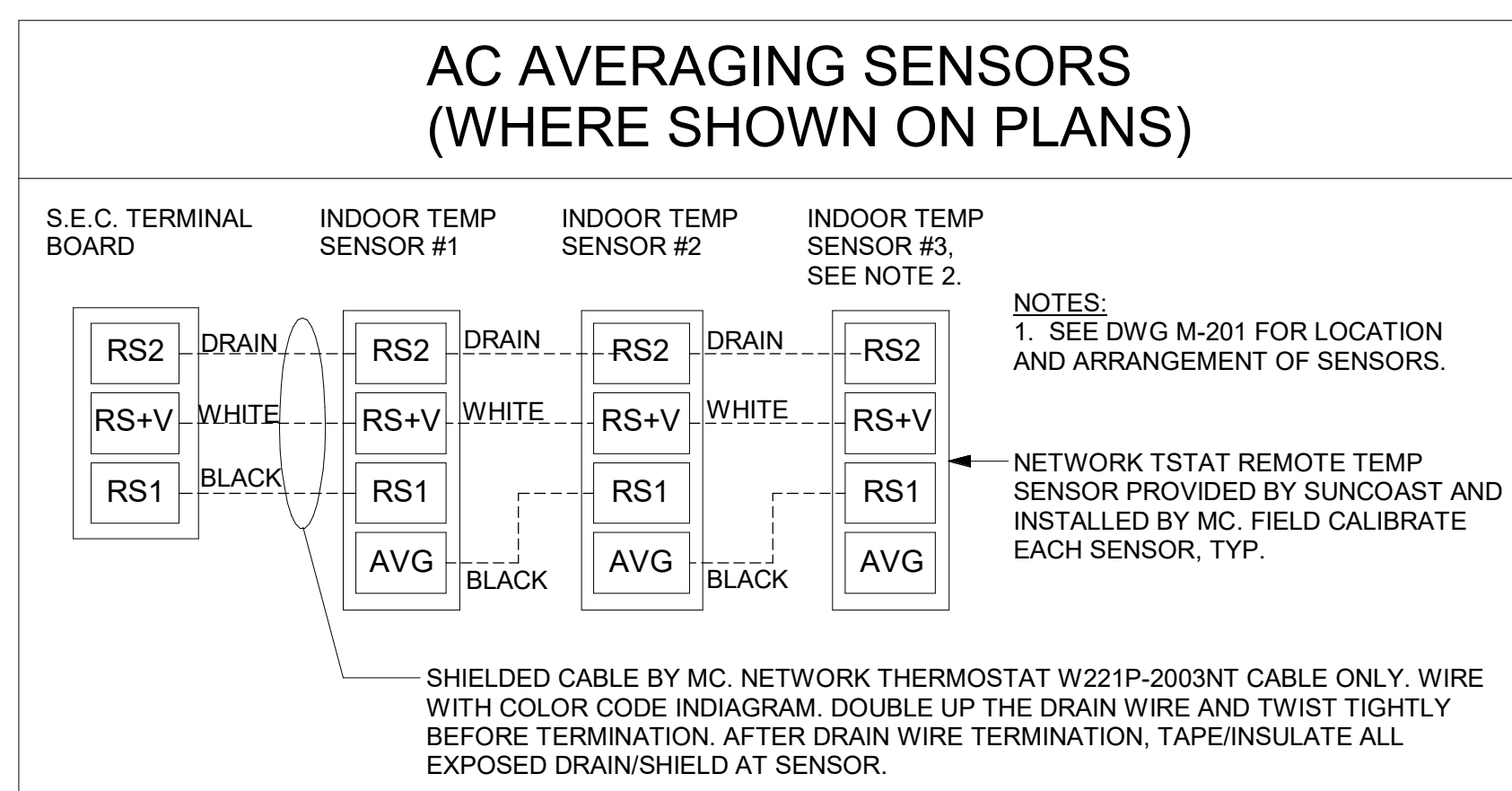
Halton Dwg. U22-606-01

**Halton** CARE FOR INDOOR AIR

Sheet MH-1.1

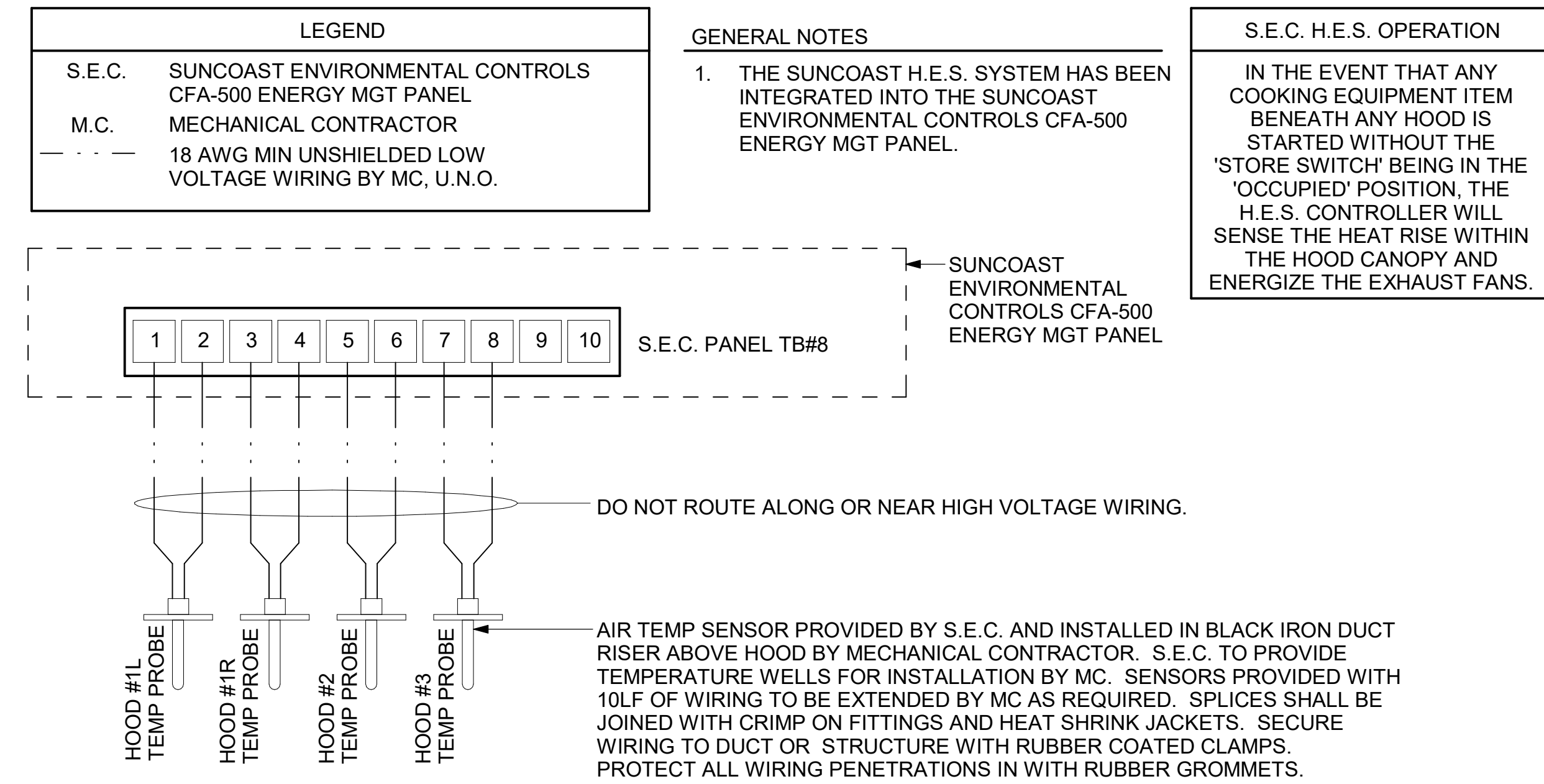


**1 SMOKE DETECTOR AND ANNUNCIATOR WIRING DIAGRAM**  
NOT TO SCALE

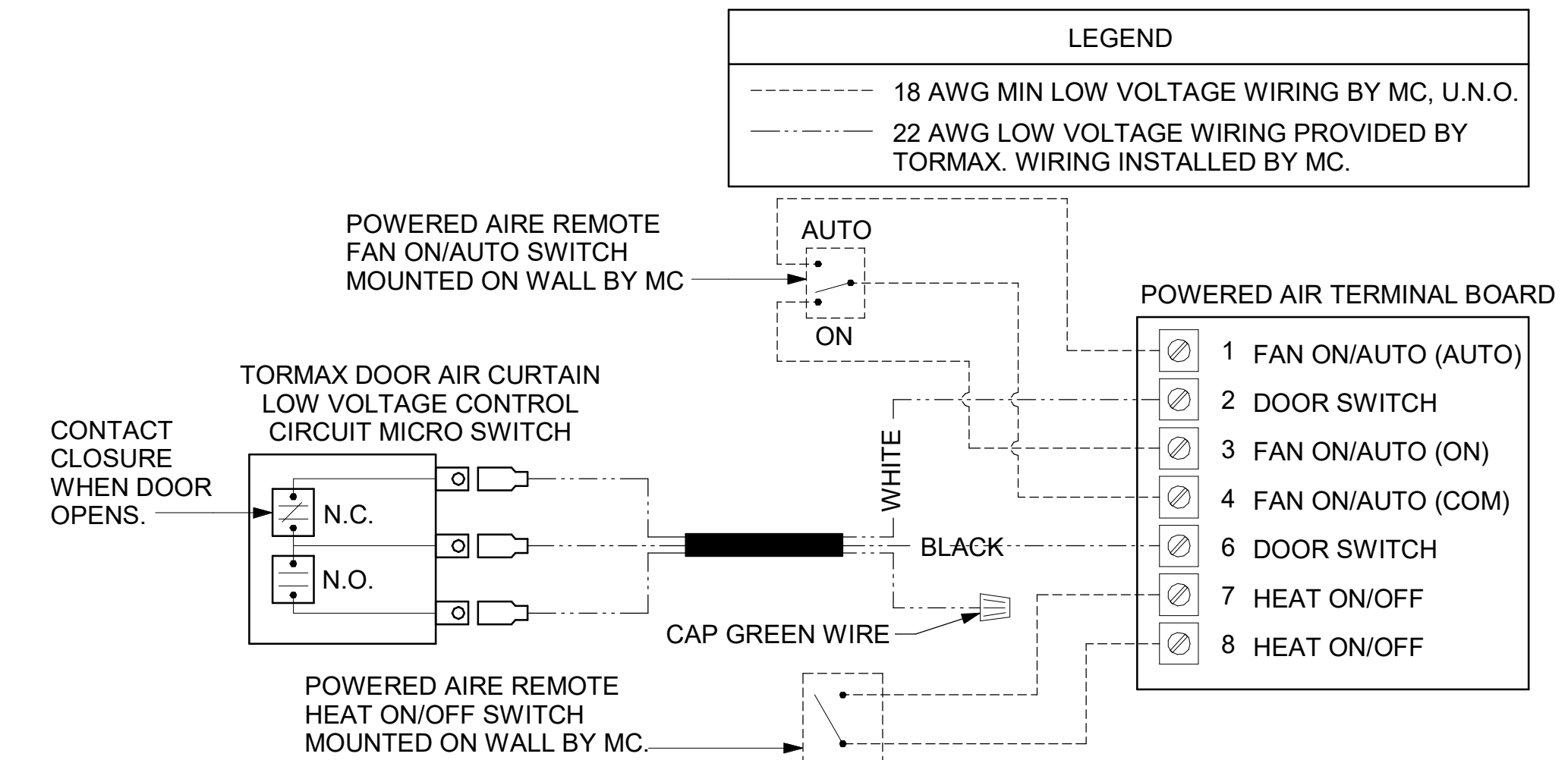


PROVIDE A PROFESSIONAL LAMINATED COPY OF THESE DETAILS TO BE INSTALLED INSIDE THE ROOFTOP UNIT CONTROL CABINET. USE A SETON CHART FRAME STYLE #68824. TELEPHONE NUMBER 800-243-6624. FOR MOUNTING THE DETAIL, ATTACH THE FRAME TO THE INTERIOR OF THE UNIT IN PLAIN AND EASY VIEW OF THE CONTROLS SECTION. CONTACT ENGINEER OF RECORD FOR A REPRODUCIBLE COPY OF THE DETAIL.

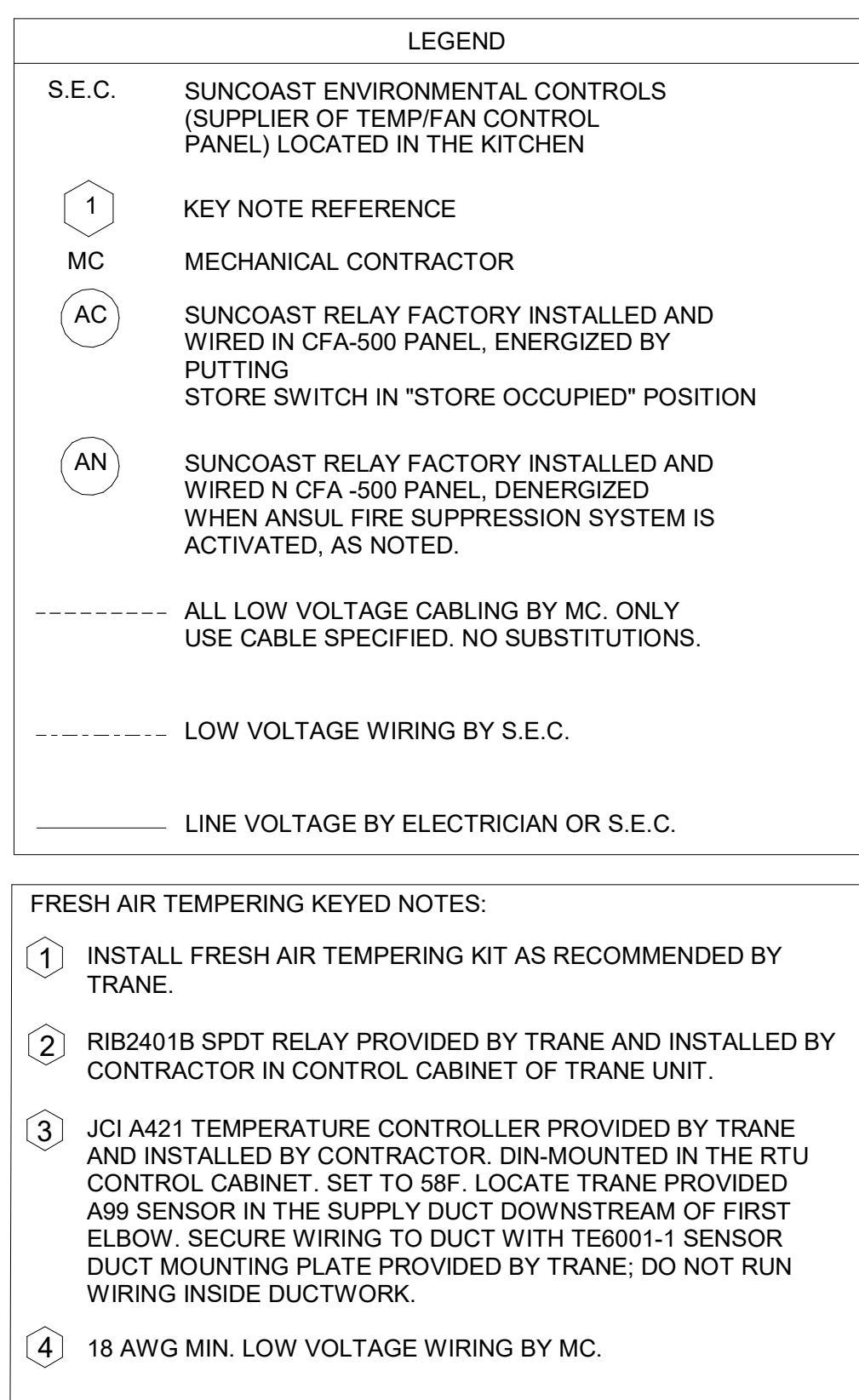
- KEYED NOTES:**
- LOW VOLTAGE WIRING TO RTU TO BE ROUTED TO UNIT THRU FACTORY WIREWAY. LEAVE 4FT SERVICE LOOP AT RTU FOR TERMINATION AND FUTURE CONTROLS. DO NOT CUT OFF EXTRA CONDUCTORS.
  - NETWORK TSTAT REMOTE TEMP SENSOR PROVIDED BY SUNCOAST AND INSTALLED BY MC. SENSOR IS INTENDED TO BE SURFACE MOUNTED AND DOES NOT REQUIRE A SINGLE GANG BOX OR CONDUIT. FIELD CALIBRATE EACH SENSOR. SEAL CABLE PENETRATION AT ALL WALL LOCATIONS.
  - THE RH SETPOINT IS ESTABLISHED BY ADJUSTING THE R41 POTENTIOMETER (LABELED "DEHUMID SP") ON THE RTOM MODULE. SET TO 60%.
- NOTES:**
- MECHANICAL CONTRACTOR SHALL MAKE PLASTIC LAMINATE OF THIS DETAIL AND INSTALL PERMANENTLY ON INSIDE DOOR OF ROOFTOP UNIT CONTROL COMPARTMENT.
  - SEE DETAILS THIS SHEET FOR SMOKE DETECTOR AND ANNUNCIATOR WIRING.
  - SET ALL THERMOSTATS FOR AUTO CHANGEOVER.
  - PROVIDE PLAC ENGRAV/LABEL AT ALL NEW SENSORS WITH 1/4" HIGH WHITE LETTERING ON BLACK BACKGROUND, I.E. "ACH2 HUMIDITY SENSOR" OR "ACH2 TEMP SENSOR". PLACE LABELS ON WALL ADJACENT TO DEVICE, DO NOT APPLY DIRECTLY TO DEVICE.



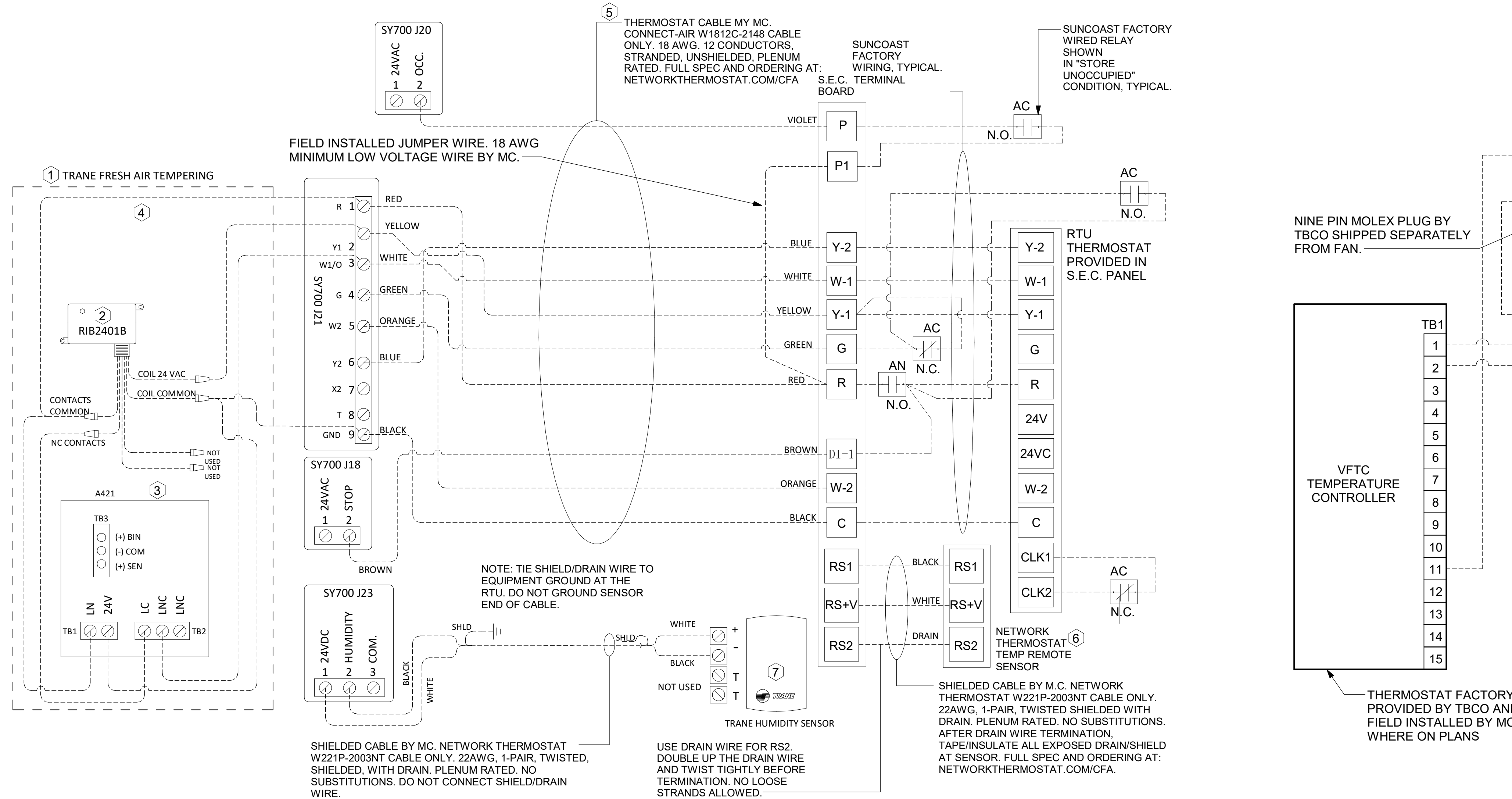
**5 HOOD FAN/EQUIPMENT INTERLOCK - 3 Hood (4 Collars) - CFA500 Integrated**  
1/4" = 1'-0"



**3 AIR CURTAIN WIRING DIAGRAM**  
NOT TO SCALE



**2 ROOFTOP UNIT CONTROL WIRING - TRANE**  
NOT TO SCALE



**4 TECH CLOSET CONTROL DIAGRAM**  
NOT TO SCALE



**Chick-fil-A**  
**Chick-fil-A**  
 5200 Buffington Road  
 Atlanta, Georgia  
 30349-2998

**Kurzynske & Associates**  
 2705 Lebanon Pike - Suite One  
 Nashville, Tennessee 37214  
 Telephone: (615) 255-5203



5/5/23

**CHICK-FIL-A**  
**HWY 76 ON THE STRIP**  
**FSU**  
 2915 W. 76 Country Blvd  
 Branson, MO 65616

**FSR#05380**  
 BUILDING TYPE / SIZE: P14 LS LRG  
 RELEASE: 22.08  
 PRINTED FOR: ISSUED FOR CONSTRUCTION

NO.	DATE	DESCRIPTION
2	5/5/23	ISSUED FOR CONSTRUCTION

CONSULTANT PROJECT # 23043.CD.S  
 DATE 03/27/2023  
 DRAWN BY BLM

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**HVAC CONTROLS**

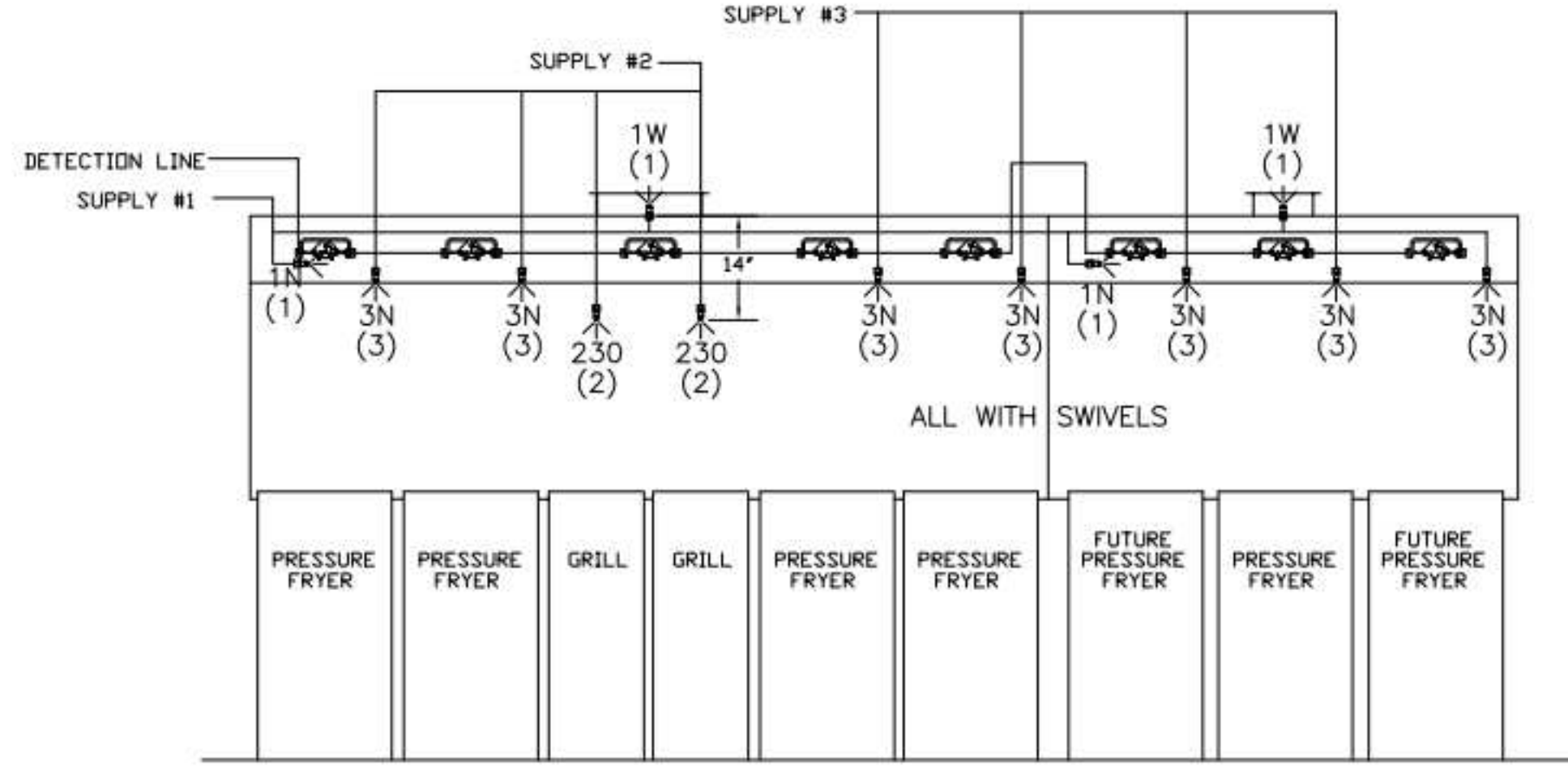
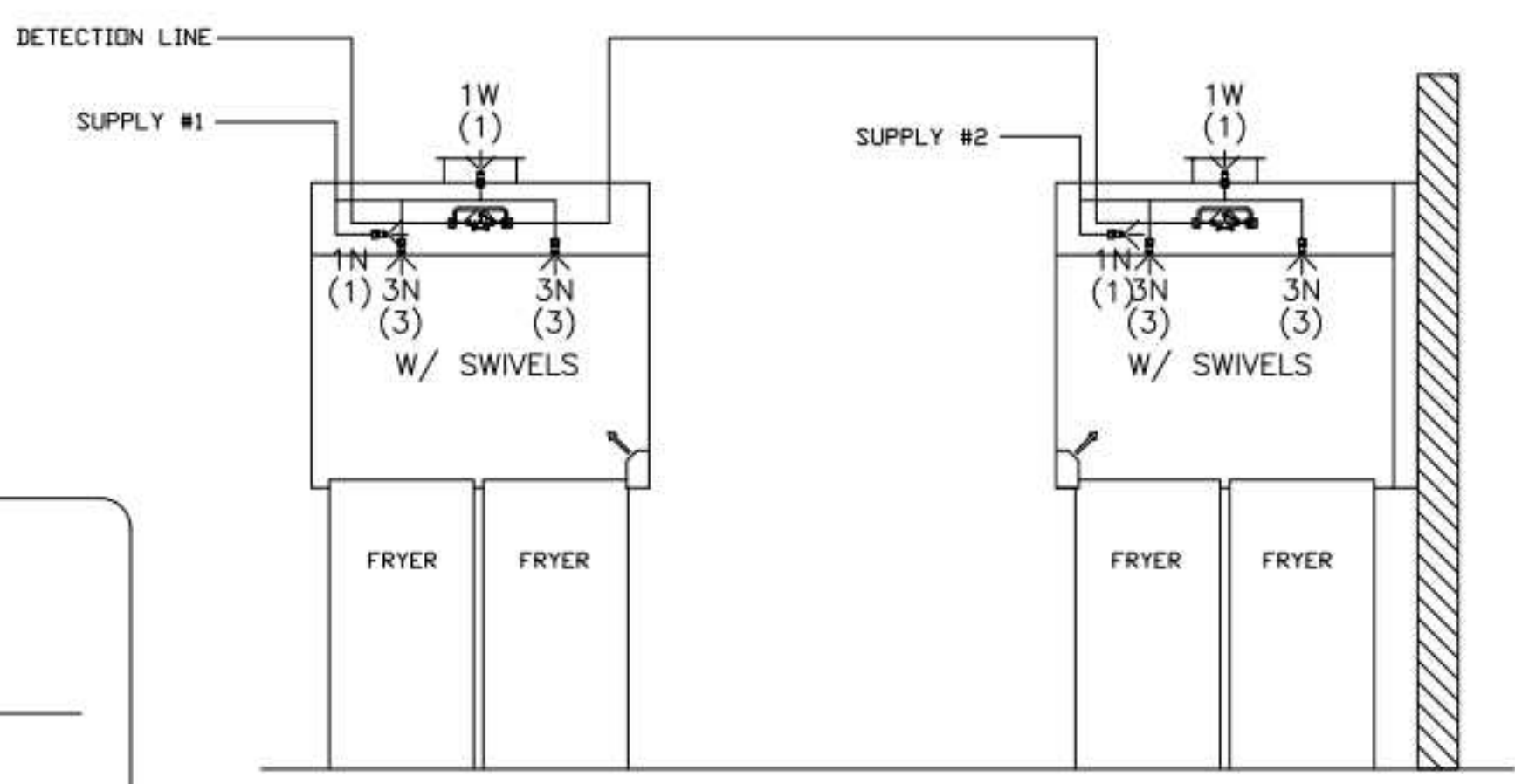
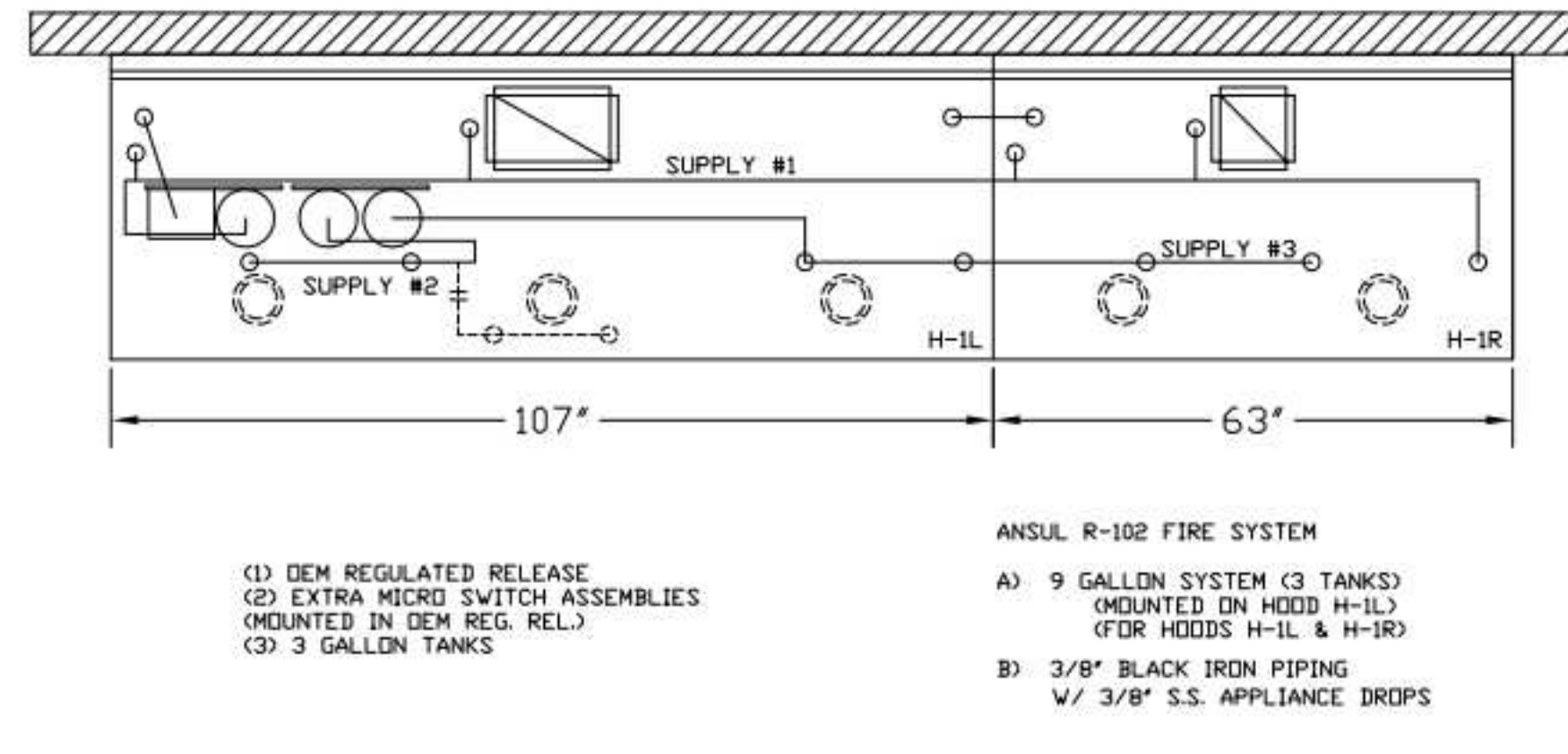
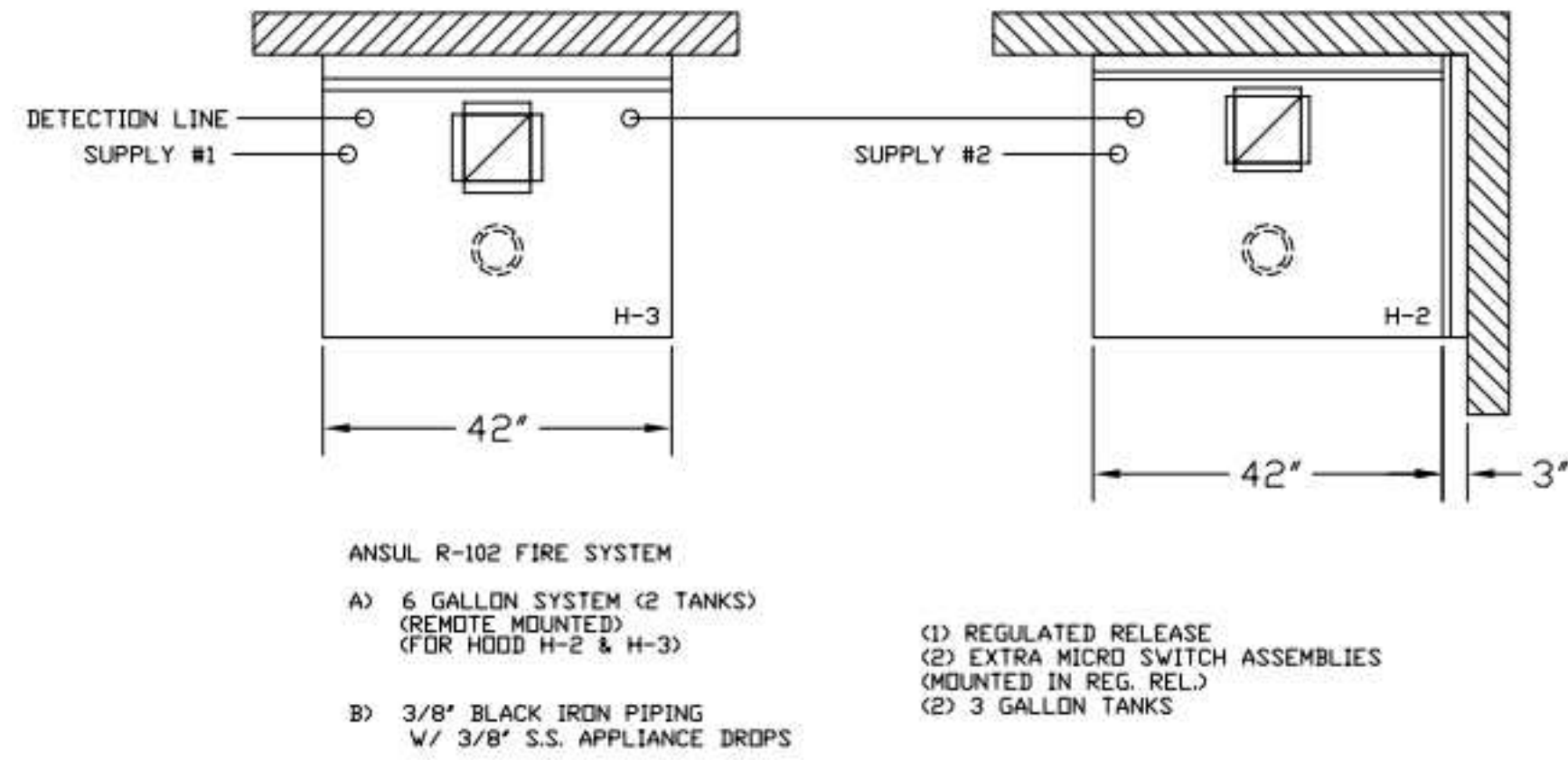
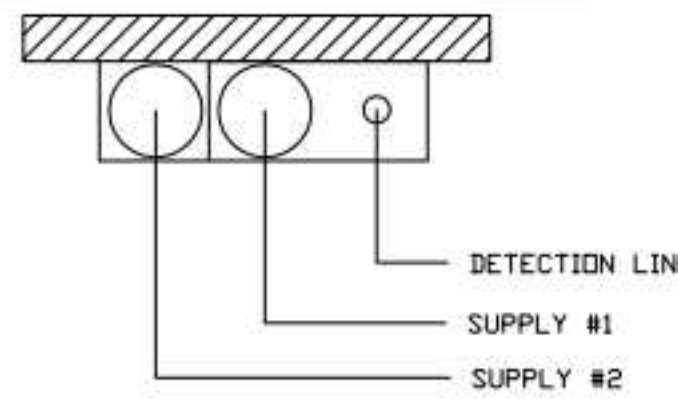
**M-501**

Autodesk Docs://MO\_05380\_West Branson (MO) FSU\_2022.12\_FSR05380\_West Branson (MO) FSU\_MEC.rvt  
 5/4/2023 8:35:56 AM  
 3D-LS-05380-M-501-HVAC CONTROLS

**NOTE:**

FIRE SYSTEM TYPE TO BE DETERMINED AT TIME OF ORDER RELEASE.

**\*\*PROTECTS HOODS H-2 & H-3\*\***  
 REMOTE MOUNTED:  
 (1) REGULATED RELEASE (WITH ONE TANK)  
 (1) SINGLE TANK ENCLOSURE (WITH ONE TANK)



FUSIBLE LINK RATINGS

ITEM	TEMP
OPEN FRYERS	450°
2 BURNER / FLAT TOP	450°
PRESSURE FRYERS	450°
GRILL	450°
EXHAUST COLLARS	450°

ANSUL R-102 FIRE SYSTEM NOTES  
 THREE TANK SYSTEM MOUNTED ON TOP OF (H-1L)  
 MAXIMUM FLOW POINTS = 33

ANSUL R-102 FIRE SYSTEM NOTES  
 TWO TANK SYSTEM REMOTE MOUNTED  
 MAXIMUM FLOW POINTS = 22

ITEM #	QTY	DESCRIPTION	FLOW PTS (TOTAL)
1W	4	DUCT NOZZLES	4
1N	4	PLENUM NOZZLES	4
230	2	APPLIANCE NOZZLES	4
3N	11	APPLIANCE NOZZLES	33
<b>TOTAL FLOW POINTS - 45</b>			

ITEM #	QTY	DESCRIPTION
#200	8	SERIES DETECTORS W/ FUSIBLE LINKS
#201	2	TERMINAL DETECTOR W/ FUSIBLE LINKS
#202	1	DEM REGULATED RELEASE W/ DOUBLE POLE MICRO SWITCH
#202	1	REGULATED RELEASE W/ DOUBLE POLE MICRO SWITCH
#203	5	3 GALLON TANKS
#204	1	SINGLE TANK ENCLOSURE
#205	2	REMOTE PULL STATION

ANSUL R-102 FIRE SYSTEM  
 UL LISTED PER STD LATEST STD 300  
 1. FINAL INSTALLATION IS TO BE MADE IN ACCORDANCE WITH ALL APPLICABLE CODES  
 2. ALL ELECTRICAL COMPONENTS FOR EQUIPMENT SHUT DOWN TO BE PROVIDED BY THE ELECTRICIAN. MICRO-SWITCH INSTALLED IN REGULATED RELEASE BY ANSUL INSTALLER  
 3. REMOTE PULL STATION LOCATED PER MECHANICAL DRAWINGS



THIS DRAWING MUST BE CHECKED, SIGNED AND RETURNED TO THE APPROPRIATE FACTORY. PLEASE VERIFY THE FOLLOWING:  
 1. ALL DIMENSIONAL INFORMATION, MOUNTING POSITIONS  
 2. THE LOCATION AND TYPE OF COOKING EQUIPMENT.  
 NOTE TO APPROVER: ANY CHANGES IN COOKING EQUIPMENT SUCH AS INCREASED ENERGY INPUTS OR EQUIPMENT POSITION MAY AFFECT EXHAUST AIRFLOW. HALTON MUST BE NOTIFIED IF ANY OF THESE CHANGES OCCUR. A RECALCULATION EXHAUST AIRFLOW MAY BE REQUIRED.  
 REVISE AND RESUBMIT  
 APPROVED FOR FABRICATION  
 WITH NO CHANGES  
 WITH CHANGES AS NOTED  
 DATE



**FIRE EXTINGUISHER**

ISO VIEW W/BACKET

5 LBS. ABC MODEL B402 QTY: \_\_\_\_\_

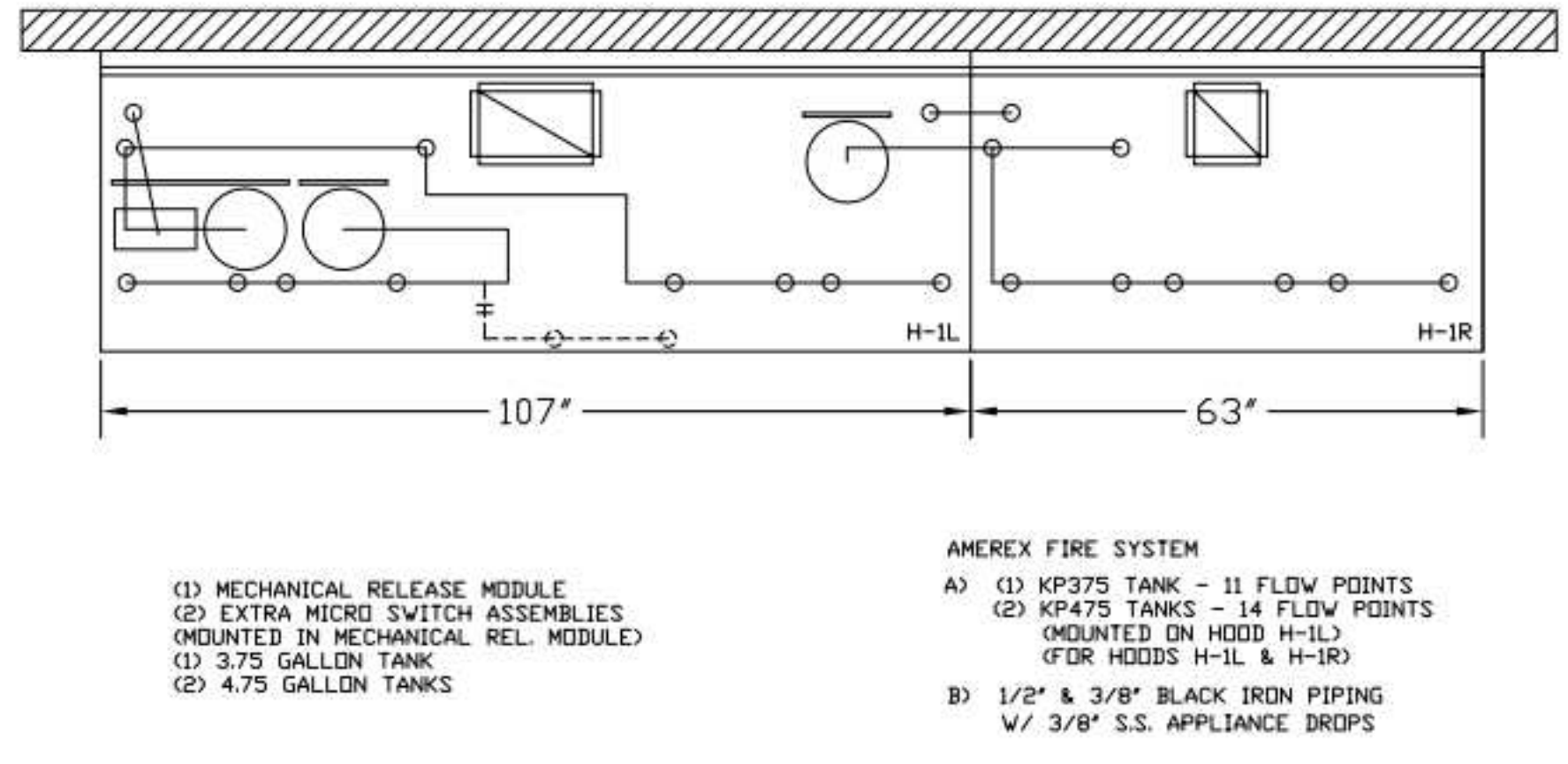
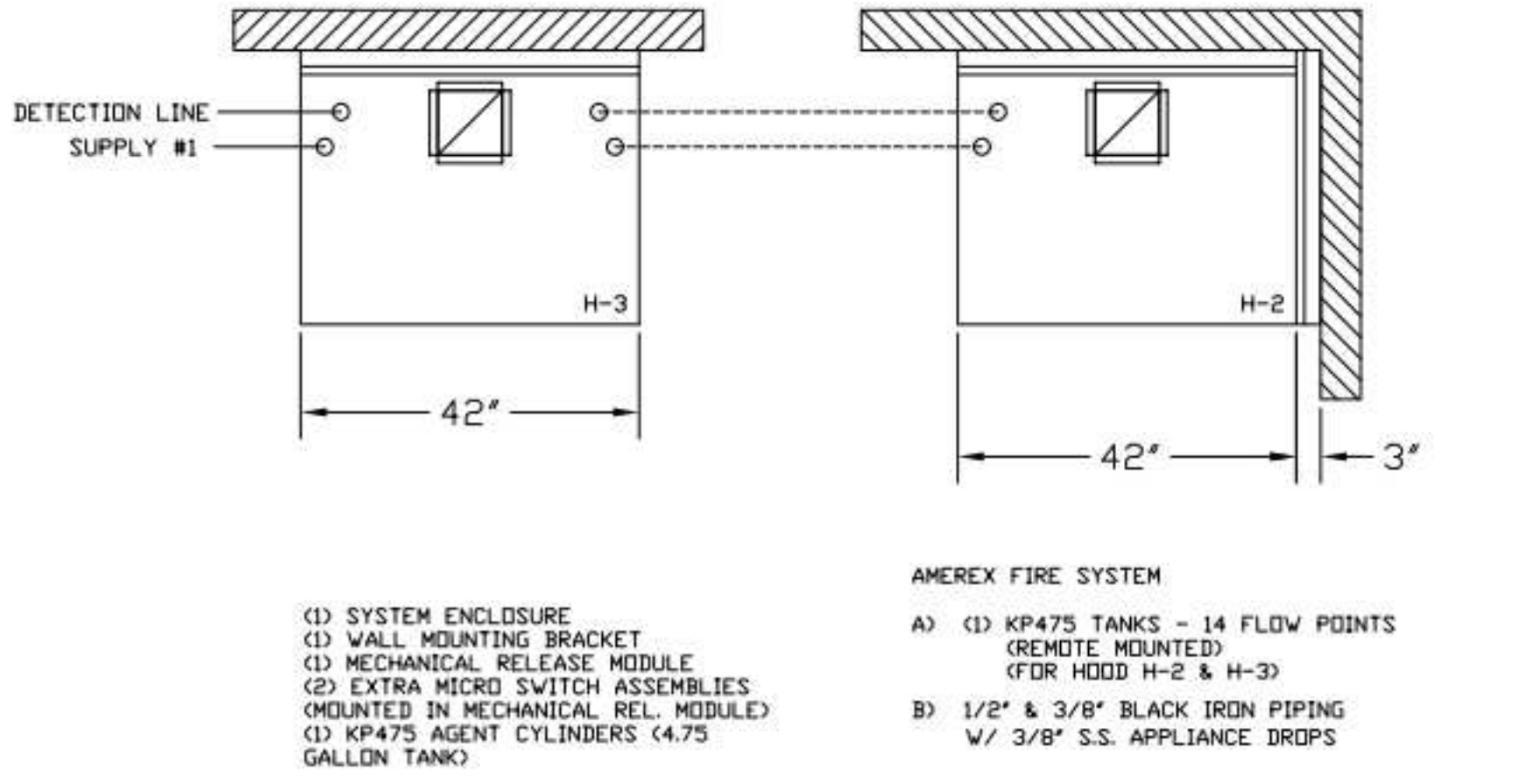
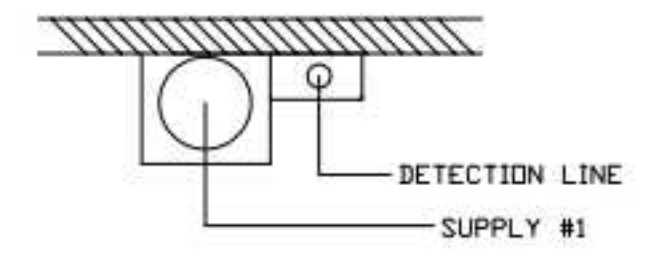
10 LBS. ABC MODEL B456 QTY: \_\_\_\_\_

6 LTR CLASS K MODEL C-260 QTY: \_\_\_\_\_

SUPPLIED BY HALTON

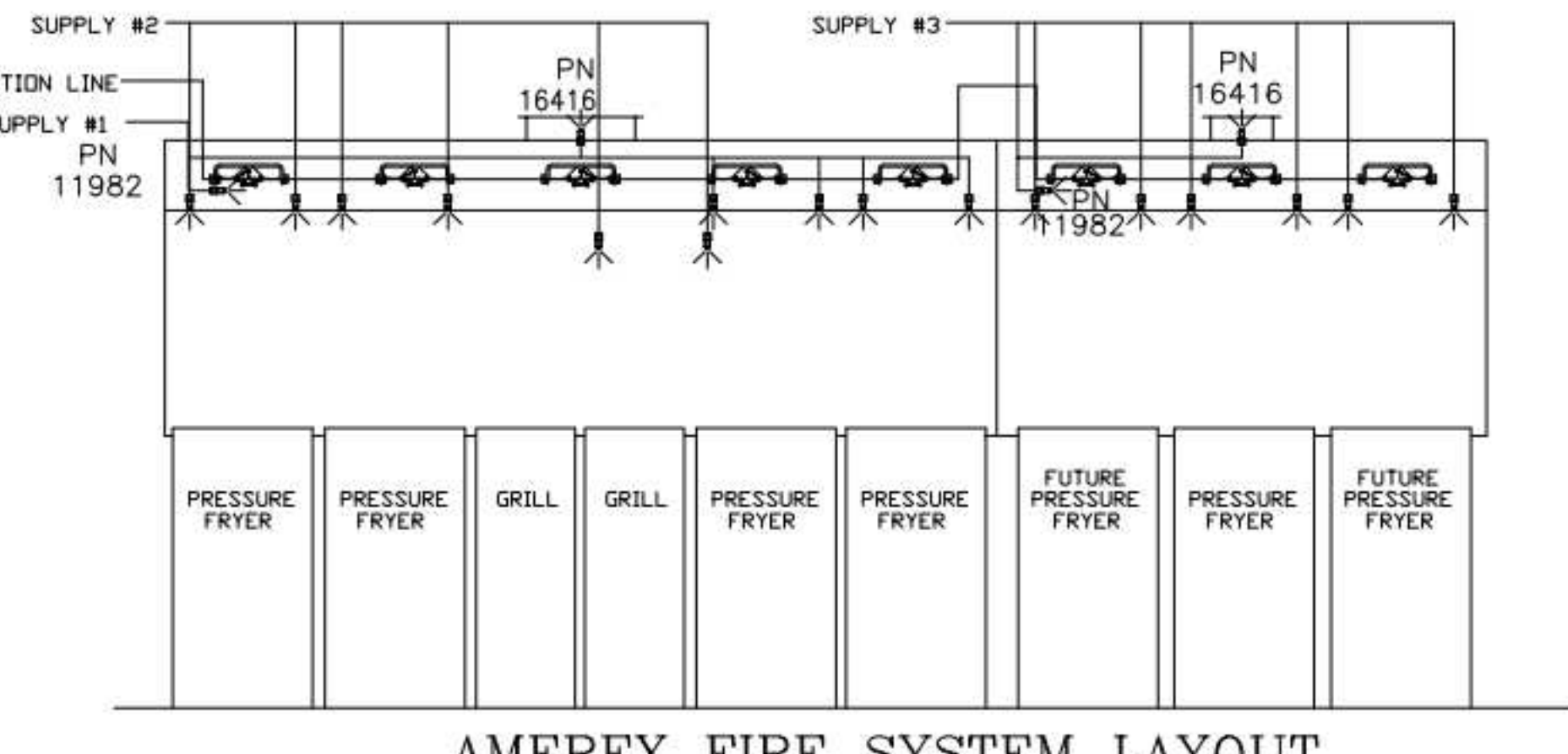
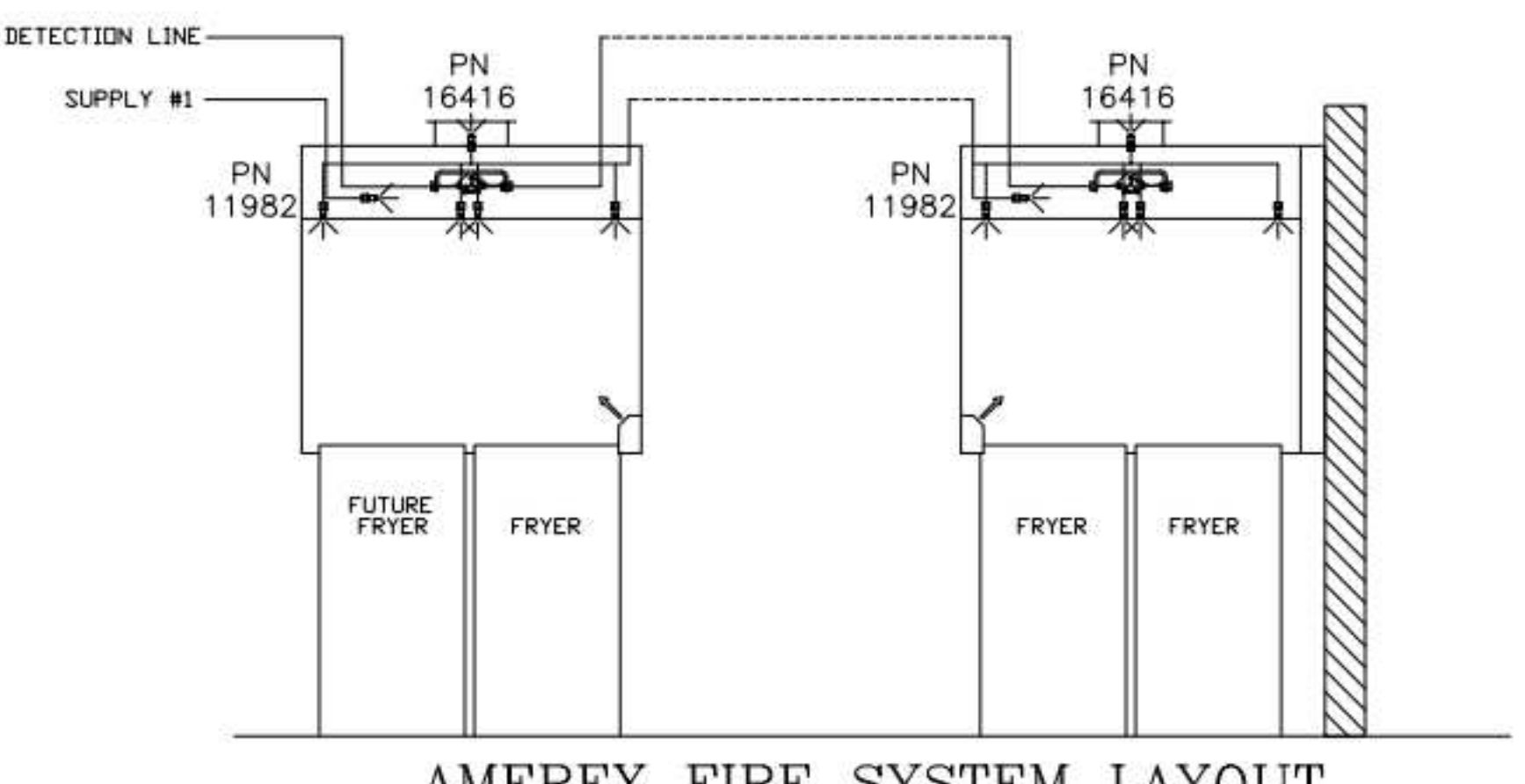
1/2" BLACK IRON SUPPLY LINE REQ'D FROM TANK TO FIRST BRANCH LINE FOR 475 TANKS ONLY!

**\*\*PROTECTS HOODS H-2 & H-3\*\***  
 REMOTE MOUNTED:  
 (1) SYSTEM ENCLOSURE  
 (1) WALL MOUNTING BRACKET  
 (1) MECHANICAL RELEASE MODULE  
 (1) KP475 AGENT CYLINDER (4.75 GALLON TANK)



ALL APPLIANCE NOZZLES FOR H-2 & H-3 ARE PN 11982 NOZZLES W/ SWIVELS.

ALL APPLIANCE NOZZLES FOR PRESSURE FRYERS ARE PN 13729 NOZZLES W/ SWIVELS. ALL GRILL NOZZLES ARE 14178 NOZZLES W/ SWIVELS.



FUSIBLE LINK RATINGS

ITEM	TEMP
OPEN FRYERS	450°
2 BURNER / FLAT TOP	450°
PRESSURE FRYERS	450°
GRILL	450°
EXHAUST COLLARS	450°

AMEREX FIRE SYSTEM NOTES  
 (1) KP375 & (2) KP475 TANK SYSTEM MOUNTED ON TOP OF (H-1L)  
 MAXIMUM FLOW POINTS = 39

AMEREX FIRE SYSTEM NOTES  
 KP475 TANK SYSTEM REMOTE MOUNTED  
 (1) TANK  
 MAXIMUM FLOW POINTS = 14

ITEM #	QTY	DESCRIPTION	FLOW PTS (TOTAL)
16416	4	DUCT NOZZLES	4
11982	4	PLENUM NOZZLES	4
11982	8	APPLIANCE NOZZLES	8
14178	2	APPLIANCE NOZZLES	4
13729	14	APPLIANCE NOZZLES	28
<b>TOTAL FLOW POINTS - 48</b>			

ITEM #	QTY	DESCRIPTION
12508-P001	10	DETECTOR BRACKET ASSEMBLY
13334	1	KP375 AGENT CYLINDER
17379	3	KP475 AGENT CYLINDER
18001	1	MECHANICAL RELEASE MODULE W/ DOUBLE POLE MICRO SWITCH
25851	1	SYSTEM ENCLOSURE W/ DOUBLE POLE MICRO SWITCH
16920	1	WALL MOUNTING BRACKET
21481	3	REMOTE MANUAL PULL STATION

AMEREX FIRE SYSTEM  
 TESTED & LISTED BY UNDERWRITERS LABORATORIES, INC. TO UL STANDARD 300.  
 1. FINAL INSTALLATION IS TO BE MADE IN ACCORDANCE WITH ALL APPLICABLE CODES  
 2. ALL ELECTRICAL COMPONENTS FOR EQUIPMENT SHUT DOWN TO BE PROVIDED BY THE ELECTRICIAN. MICRO-SWITCH INSTALLED IN REGULATED RELEASE BY AMEREX INSTALLER  
 3. REMOTE PULL STATION LOCATED PER MECHANICAL DRAWINGS



MAIL APPROVED DRAWINGS TO APPROPRIATE FACTORY BELOW:

WEBSITE: WWW.HALTON.COM  
 HALTON CO. (USA)  
 101 INDUSTRIAL DRIVE  
 SCOTTSDALE, KY 42164  
 1-270-237-9600

HALTON CO. (CANADA)  
 1021 BREVK PLACE 3R7  
 MISSISSAUGA, ON L4W 1L9  
 1-905-624-0301

PROJECT: CHICK-FIL-A P14  
 LS/LE/SE/DTO/DTN BUILDING  
 LOCATION: ---  
 DRAWN BY: CG DATE: 08.09.22  
 SCALE: NTS  
 Halton Dwg: U:22-606-02FS

Sheet  
 MH-1.2



**GREASE EXHAUST DUCT CLEARANCE NOTE:**  
 CLEARANCES ABOVE CEILING ARE TIGHT. MECHANICAL CONTRACTOR TO FIELD VERIFY EXACT ROUTING AND CLEARANCES PRIOR TO FABRICATING GREASE EXHAUST DUCT.

**CLEANOUT DOOR NOTE:**  
 DUCT WRAP SHALL BE APPLIED TO THE CLEANOUT DOOR PER THE WRAP MFR'S INSTALLATION INSTRUCTIONS. NO EXCEPTIONS. ALSO, THE CLEANOUT DOOR MUST BE REMOVABLE WITHOUT TOOLS AND MUST BE CLEARLY AND PERMANENTLY LABELED.

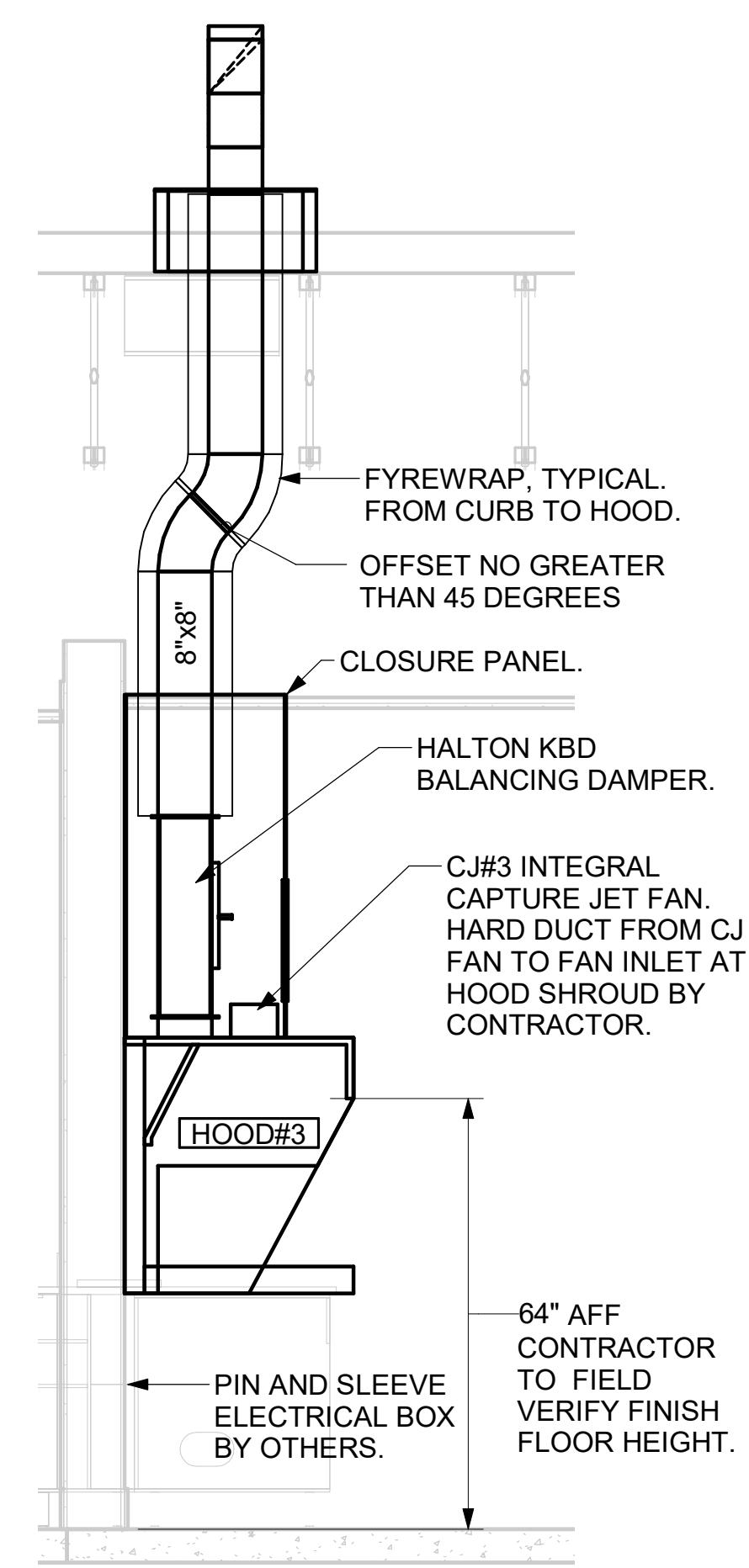
HOOD SCHEDULE											
MARK	EXHAUST CFM	SP @ TAB PORT	CAPTURE JET CFM & S.P.	TYPE	COLLAR SIZE	WIDTH	DEPTH	HEIGHT	MANUFACTURER	MODEL	REMARKS
HOOD#1L	1,204 CFM	0.13"	80 @ 0.30"	BACKSHELF	14"X8"	107"	37"	38"	HALTON	KVL-2 IC	1
HOOD#1R	709 CFM	0.13"	47 @ 0.30"	BACKSHELF	8"X8"	63"	37"	38"	HALTON	KVL-2 IC	1
HOOD#2	701 CFM	0.30"	30 @ 0.29"	BACKSHELF	8"X8"	45"	34"	38"	HALTON	KVL-C IC	1
HOOD#3	701 CFM	0.30"	30 @ 0.29"	BACKSHELF	8"X8"	42"	34"	38"	HALTON	KVL-C IC	1

NOTES: DIMENSIONS OF HOODS INCLUDE BACK AND SIDE SPACERS (HEIGHT DOES NOT INCLUDE CLOSURE PANELS).

REMARKS: 1. REFER TO HOOD SHOP DRAWINGS FOR HOOD OPTIONS AND CONSTRUCTION. HOOD SHOP DRAWINGS ARE INCLUDED FOR REFERENCE ON SHEETS MH-1.1 AND MH-1.2.

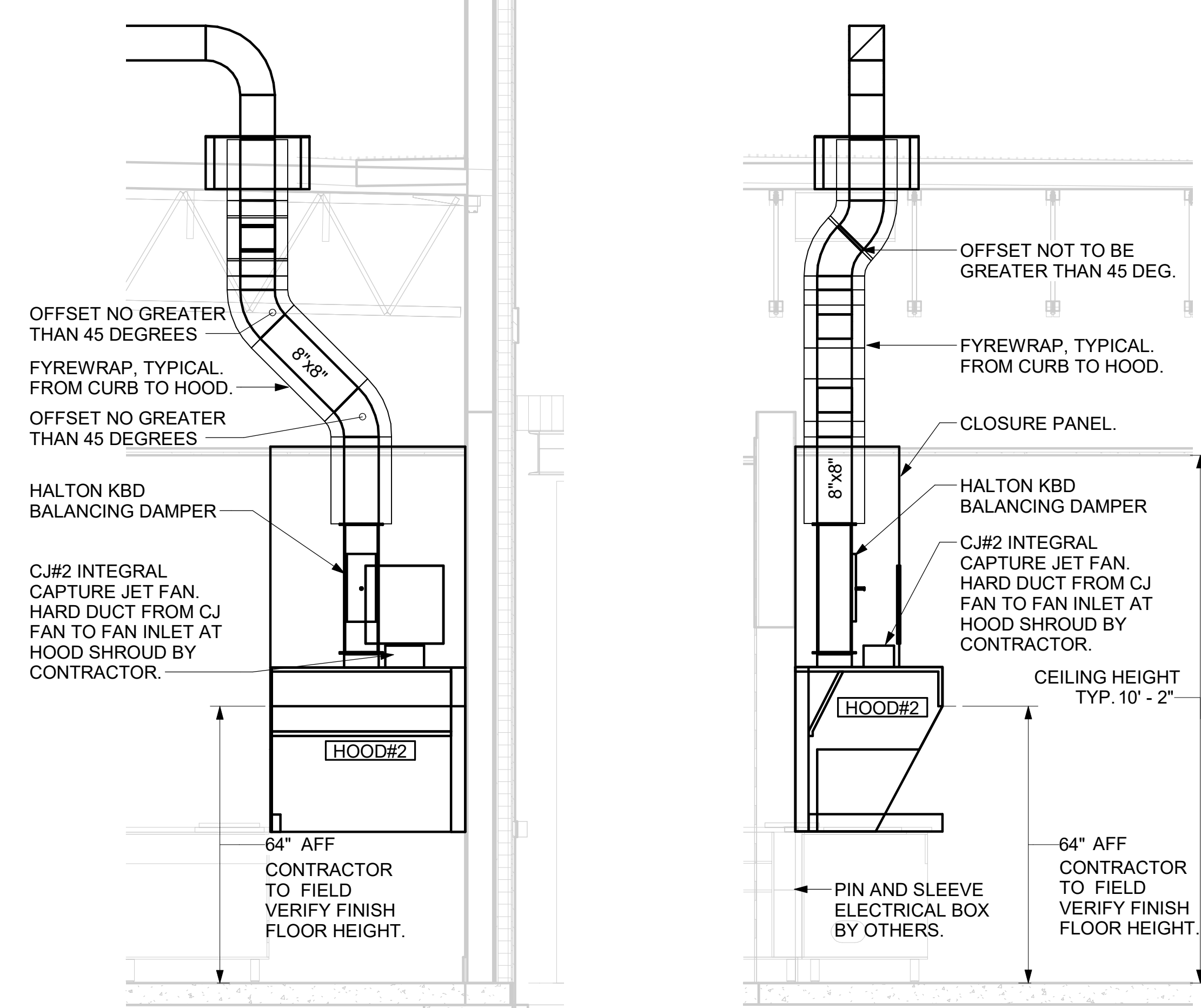
- KITCHEN HOOD SYSTEMS NOTES**
- CHICK-FIL-A MAINTAINS A NATIONAL ACCOUNT WITH HALTON CO. FOR THE HOODS. CHICK-FIL-A WILL PURCHASE AND PROVIDE THE HOODS FOR INSTALLATION BY THE MECHANICAL CONTRACTOR. THE MECHANICAL CONTRACTOR SHALL BE RESPONSIBLE FOR RECEIVING THE HOODS. CONTACT HALTON CO. AT 270-237-5600 FOR MORE INFO.
  - THE FIRE SUPPRESSION SYSTEM SHALL CONSIST OF A COMPLETE WET CHEMICAL SYSTEM FURNISHED BY HALTON. THE HOOD SHALL BE FURNISHED PRE-PIPED BY HALTON.
  - THE FIRE SUPPRESSION SYSTEM EXTERNAL TO THE HOODS SHALL BE INSTALLED IN ACCORDANCE WITH HOOD MANUFACTURER'S SHOP DRAWINGS BY AN AUTHORIZED INSTALLER SELECTED AND HIRED BY HALTON. COST FOR INSTALLATION INCLUDED IN PRICE OF HOODS TO CFA.
  - HOOD EXHAUST DUCTWORK SHALL BE 16 GA. BLACK STEEL WITH CONTINUOUS LIQUID TIGHT WELD OF JOINTS & SEAMS.
  - TURNS IN GREASE EXHAUST DUCTWORK SHALL BE LONG RADIUS TYPE, WITH A CENTERLINE RADIUS  $R=3W/2$ , UNLESS OTHERWISE NOTED. NO MITERED FITTINGS ALLOWED.
  - ALL STAINLESS STEEL CLOSURE PANELS SHALL BE SUPPLIED BY HOOD MANUFACTURER AND INSTALLED BY THE MECHANICAL CONTRACTOR ACCORDING TO MANUFACTURER'S RECOMMENDATIONS.
  - SLOPE ALL GREASE EXHAUST DUCT BACK TO HOOD AT 1/4" PER FOOT OF RUN.
  - WRAP NEW GREASE DUCT WITH UNIFRAX FYREWAP. INSULATION ON ACCESS DOORS SHALL BE INSTALLED ACCORDING TO MANUFACTURER'S INSTALLATION RECOMMENDATIONS. UNIFRAX FYREWAP PRODUCT USED SHALL MEET LOCAL CODE REQUIREMENTS.
  - SUPPORT ALL HOODS WITH THREADED ROD AT EACH FACTORY SUPPORT POINT. EACH SUPPORT POINT MUST SUPPORT THE HOOD WEIGHT EQUALLY. ATTACH TO STRUCTURE AS DETAILED ON STRUCTURAL DRAWINGS. ATTACH HOOD TO WALL AT 16" INTERVALS ALONG FULL LENGTH OF HOOD ON TOP AND BOTTOM. ATTACHMENT TO WALL REQUIRES FIELD DRILLING OF SUPPORT ANGLE AT BACK OF HOODS. EACH WALL ATTACHMENT POINT MUST OCCUR AT A WALL STUD. ATTACHMENT HARDWARE TO BE #12-24 HEX HEAD SHEET METAL SCREW EQUAL TO TEXTRON SDS EDT265, LENGTH AS REQUIRED TO FULLY PENETRATE THE STUD.
  - MECHANICAL CONTRACTOR TO PROVIDE AND INSTALL SUNCOAST H.E.S. SYSTEM FOR ALL HOODS. SEE HOOD FAN/EQUIPMENT INTERLOCK WIRING DIAGRAM ON M-501 FOR MORE INFORMATION.

SET RIGHT SIDE OF HOOD#3 FLUSH WITH FINISHED EDGE OF PASS THRU OPENING.

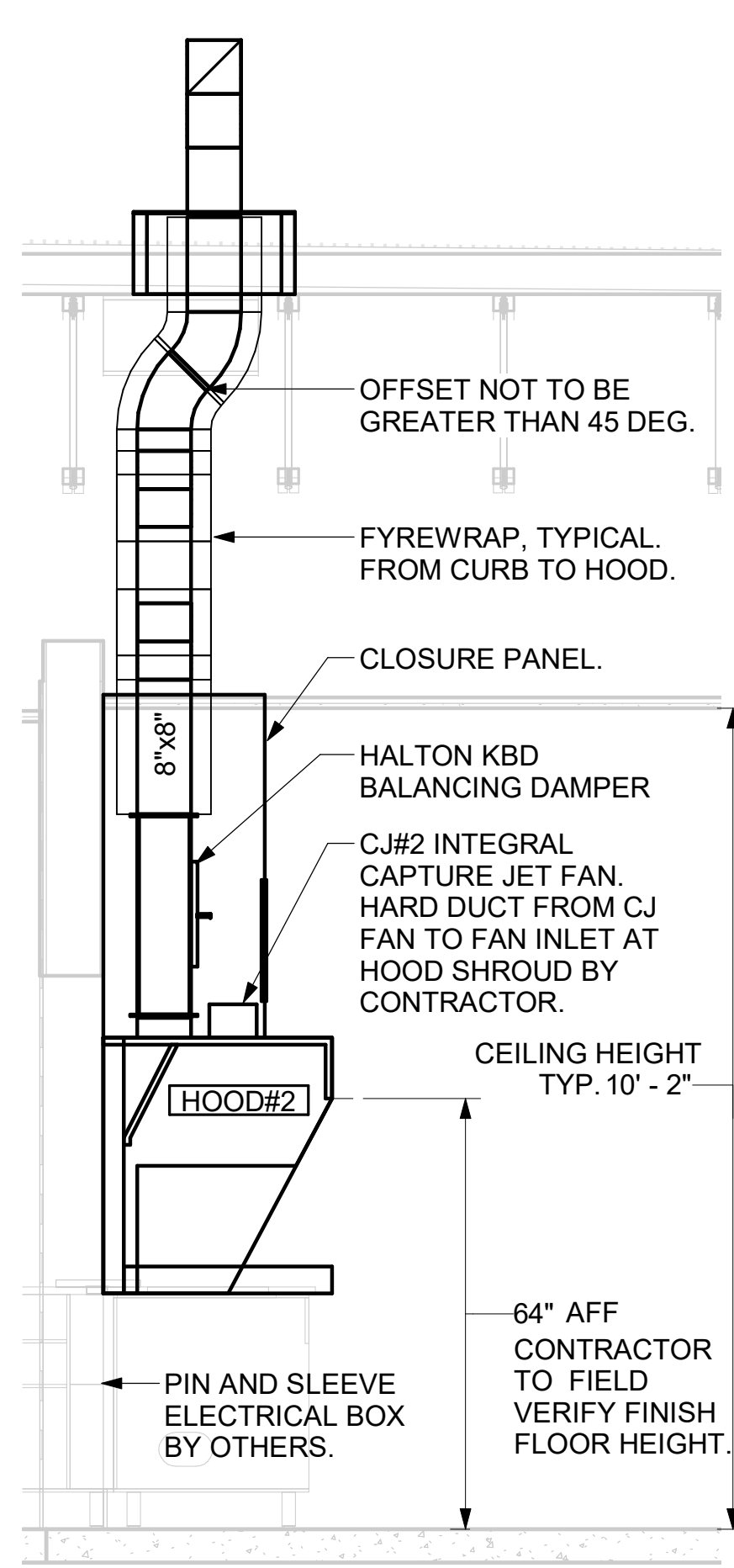


7 HOOD ELEVATION - HOOD#3  
 NOT TO SCALE

SET LEFT SIDE OF HOOD#2 FLUSH WITH FINISHED EDGE OF PASS THRU OPENING.

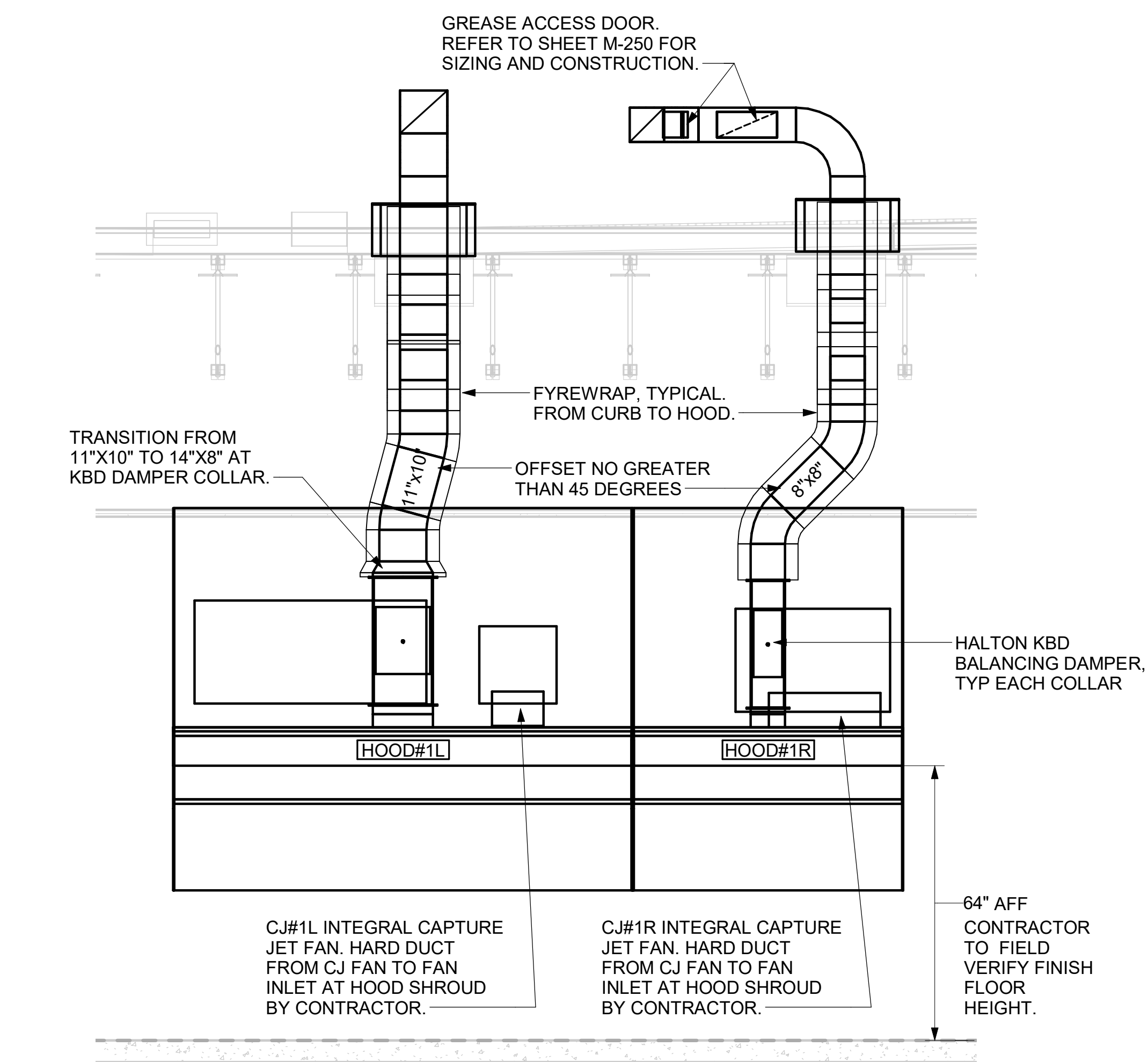


6 HOOD ELEVATION - HOOD#2 - FRONT  
 NOT TO SCALE

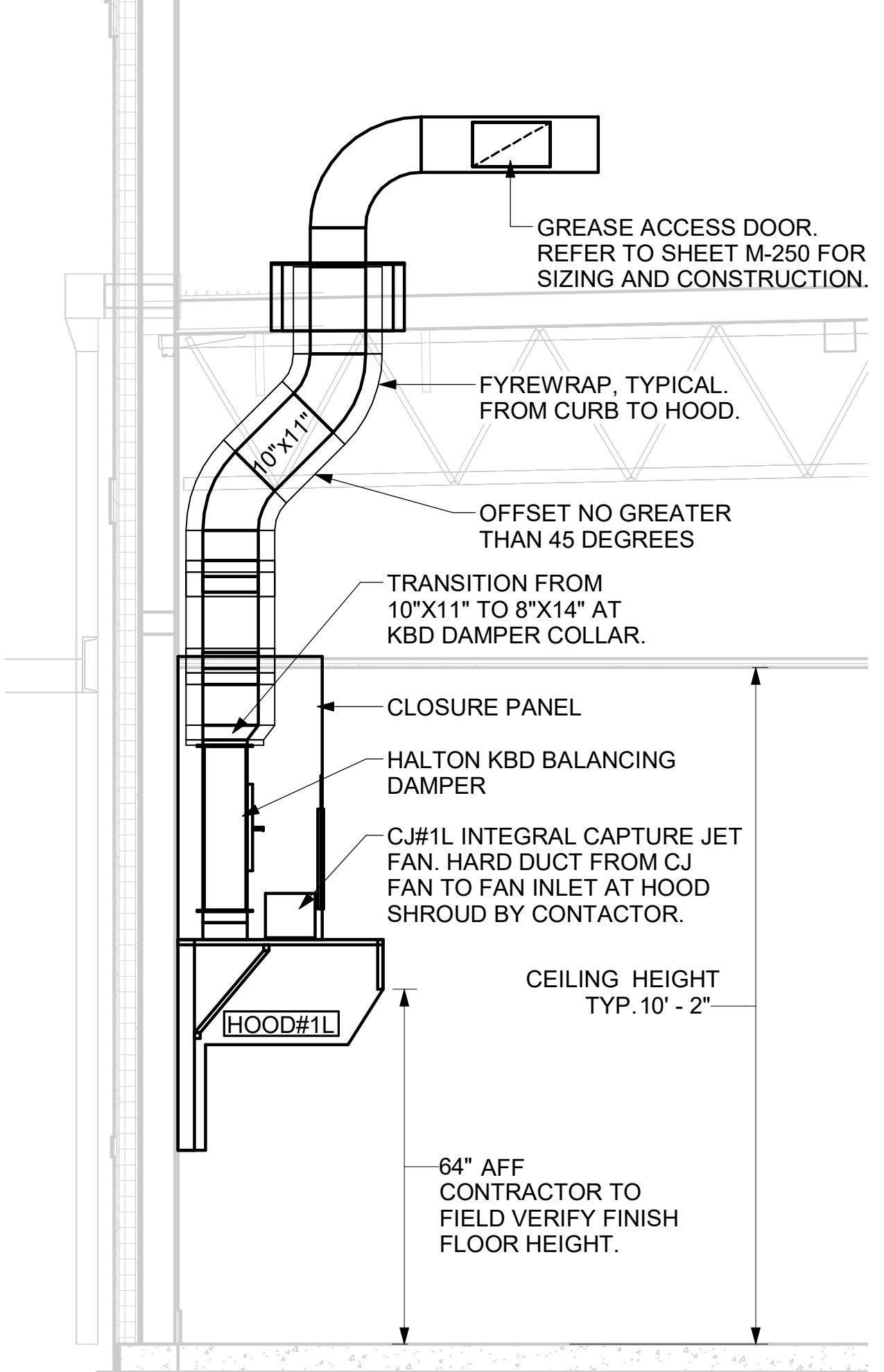


5 HOOD ELEVATION - HOOD#2 - SIDE  
 NOT TO SCALE

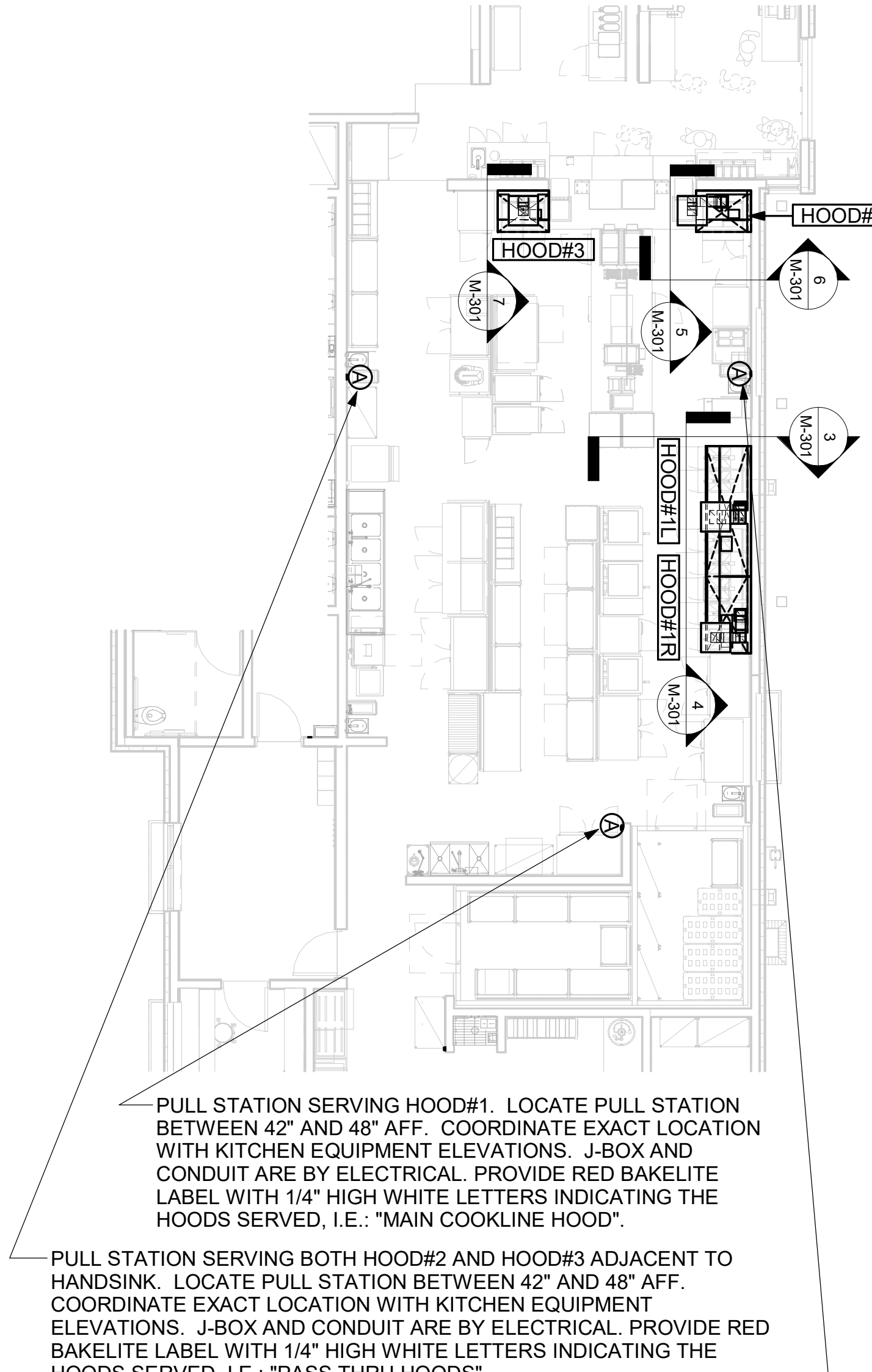
NOTE: SEE ARCHITECTURAL PLANS FOR HOOD LOCATIONS.



4 HOOD ELEVATION - HOOD#1 - FRONT  
 NONE



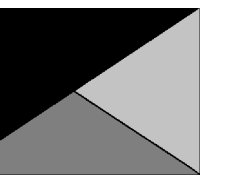
3 HOOD ELEVATION - HOOD#1 - SIDE  
 NOT TO SCALE



1 HOOD LAYOUT  
 1/8" = 1'-0"



**Chick-fil-A**  
 5200 Buffington Road  
 Atlanta, Georgia  
 30349-2998



**Kurzynske & Associates**  
 2705 Lebanon Pike - Suite One  
 Nashville, Tennessee 37214  
 Telephone: (615) 255-5203



5/5/23

**CHICK-FIL-A**  
 HWY 76 ON THE STRIP  
 FSU  
 2915 W. 76 Country Blvd  
 Branson, MO 65616

**FSR#05380**

BUILDING TYPE / SIZE: P14 LS LRG  
 RELEASE: 22.08  
 PRINTED FOR: ISSUED FOR CONSTRUCTION  
 NO. DATE DESCRIPTION  
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CONSULTANT PROJECT # 23043.CD.S  
 DATE 03/27/2023  
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SHEET HOOD DETAILS AND SCHEDULES

SHEET NUMBER **M-301**

1. SECTION C15000 - MECHANICAL SPECIFICATIONS

PART I - GENERAL

1.01 SCOPE

- A. IT IS THE RESPONSIBILITY OF CONTRACTOR TO READ ALL SPECIFICATIONS AND CONSULT ALL DRAWINGS WHICH MAY AFFECT THE INSTALLATION AND COORDINATION OF HIS WORK WITH OTHER TRADES. CONTRACTOR SHALL COORDINATE AND MAKE MINOR ADJUSTMENTS IN LOCATION OF EQUIPMENT AND MATERIALS AS NECESSARY TO SECURE COORDINATION.
- B. COMPLETED INSTALLATION SHALL CONFORM TO ALL APPLICABLE FEDERAL, STATE AND LOCAL CODES AND ORDINANCES, INCLUDING BUT NOT LIMITED TO THE LATEST APPROVED EDITIONS OF NFPA-96, NFPA-90A, NFPA-54, SMACNA, ASHRAE 90.1 AND ASHRAE 62.
- C. SYSTEM LAYOUT IS SCHEMATIC AND EXACT LOCATIONS SHALL BE DETERMINED BY STRUCTURAL CONDITIONS. COORDINATION WITH OTHER TRADES, COORDINATION WITH FINISHES AND OTHER CONDITIONS. STRUCTURAL SUPPORTS SHALL NOT BE CUT OR ALTERED TO ASSURE FIT OF HVAC SYSTEM. TEN FOOT CLEARANCE SHALL BE MAINTAINED BETWEEN OUTSIDE AIR INTAKES AND EXHAUST FANS AND PLUMBING VENT TERMINALS.
- D. CONTRACTOR SHALL BE RESPONSIBLE FOR ALL DEFECTS, REPAIRS AND REPLACEMENTS IN MATERIALS AND WORKMANSHIP FOR A PERIOD OF ONE (1) YEAR AFTER FINAL PAYMENT IS APPROVED. CONTRACTOR SHALL HONOR FACTORY WARRANTIES ON ALL EQUIPMENT PROVIDED AS PART OF THIS SYSTEM.
- E. UPON COMPLETION OF PROJECT, ALL SYSTEM EQUIPMENT AND MATERIALS SHALL BE IN NEW, CLEAN CONDITION WITH ALL DAMAGE RESTORED TO CONDITION ACCEPTABLE TO THE OWNER'S REPRESENTATIVE. ALL EQUIPMENT, COMPONENTS, DUCTWORK AND AIR DEVICES SHALL BE INSPECTED THOROUGHLY CLEANED, CLEARED OF DEBRIS, AND READY FOR USE. AT COMPLETION OF JOB, ALL MISCELLANEOUS TOOLS, SCAFFOLDING, SURPLUS MATERIALS, RUBBISH AND DEBRIS SHALL BE REMOVED BY CONTRACTOR.
- F. CONTRACTOR SHALL PROVIDE TWO SETS OF 2" MERV 8 OR HIGHER THROW AWAY TYPE FILTERS. A CLEAN SET SHALL BE PROVIDED PRIOR TO TEST AND BALANCE AND AGAIN PRIOR TO OPENING.

PART II - PRODUCTS

2.01 HEATING AND COOLING EQUIPMENT (C15730)

- A. FURNISH AND INSTALL R-410A ROOFTOP SINGLE PACKAGE COMBINATION ELECTRIC COOLING AND NATURAL GAS FIRED HEATING UNITS AS SHOWN ON DRAWINGS. EQUIPMENT SHALL BE ARI CERTIFIED AND A.G.A. AND U.L. LISTED.
- B. ACCESSORIES SHALL INCLUDE LOW AND HIGH PRESSURE SAFETIES, CRANK CASE HEATER, OVERCURRENT AND OVERTEMPERATURE SAFETY, COMPRESSOR VIBRATION ISOLATORS, FILTER DRIERS, REFRIGERANT SERVICE VALVES, COIL HAIL GUARDS WHERE SCHEDULED, CONVENIENCE OUTLETS FACTORY INSTALLED ON SCHEDULED UNITS, UNIT MOUNTED NON-FUSED DISCONNECTS, LOW AMBIENT OPERATION DOWN TO 30 DEGREES F AND EVAPORATOR FREEZE STAT.
- C. COMPRESSORS SHALL BE FULLY HERMETIC SCROLL TYPE WITH INTERNAL VIBRATION ISOLATORS. COMPRESSORS SHALL BE PROVIDED WITH A MINIMUM FIVE (5) YEAR FULL WARRANTY.
- D. THE UNIT HEAT EXCHANGERS SHALL BE STEEL WITH ALUMINIZED STEEL COATING. HEATING CONTROLS SHALL CONSIST OF REDUNDANT GAS VALVES, INTERMITTENT PILOT WITH ELECTRONIC SPARK OR HOT PLATE IGNITION SYSTEM, COMBUSTION/EXHAUST FAN PROTECTED BY CENTRIFUGAL SWITCHES, HEAT LIMIT SWITCHES, TIME-DELAY RELAY, FLAME, AND PILOT SENSORS. ALL UNITS SHALL BE CAPABLE OF TWO STAGES OF HEAT. HEAT EXCHANGES SHALL HAVE TEN (10) YEAR WARRANTY. BURNERS SHALL BE ALUMINIZED IN-SHOT TYPE. THE DRAFT MOTOR SHALL BE MONITORED BY THE CONTROL SYSTEM.
- E. CHICK-FIL-A MAINTAINS A NATIONAL ACCOUNT FOR ROOFTOP EQUIPMENT. PRICING FOR THE EQUIPMENT HAS BEEN ESTABLISHED IN ADVANCE. CONTACT NATIONAL ACCOUNTS LISTED ON THIS SHEET FOR PRICING, ORDERING AND AVAILABILITY.

2.02 DUCTWORK (C15735) (SEE DWG M-301 FOR ADDITIONAL GREASE DUCT SYSTEM REQ.)

- A. ACCEPTABLE MANUFACTURERS OF INSULATION ARE MANVILLE, OWENS CORNING OR KNAUF.
- B. ALL DUCTWORK SHALL BE SHEET METAL, UNLESS NOTED OTHERWISE (U.N.O.).
- C. DUCT DIMENSIONS SHOWN ARE INSIDE CLEAR DIMENSIONS, U.N.O.
- D. CONSTRUCTION OF DUCTWORK SHALL MEET SMACNA 1" W.C. PRESSURE CLASS STANDARD AND RECOMMENDATIONS. SMACNA SHALL BE FOLLOWED WITH RESPECT TO GAGE THICKNESS, JOINTS, REINFORCING, CONSTRUCTION, INSTALLATION AND SUPPORT FOR PRESSURE CLASS STATED. ALL TRANSVERSE JOINTS IN RECTANGULAR AND ROUND DUCT INCLUDING DUCT CONNECTION TO AIR DEVICE COLLAR SHALL BE SEALED PER SMACNA SEAL CLASS C WITH U.L. DUCT MASTIC SEALANT APPROVED FOR INTENDED USE. DUCT TAPE IS NOT AN ACCEPTABLE SUBSTITUTE FOR MASTIC UNLESS EQUAL TO HARDCAST FOIL-GRIP 1402 BUTYL RUBBER ADHESIVE TAPE.
- E. DUCT SHALL BE SUPPORTED AT BASE OF DUCT DROPS. CURB DUCT RAILS ARE NOT INTENDED TO AND SHALL NOT SUPPORT THE WEIGHT OF THE DUCT.
- F. ALL DUCT INSULATION SHALL MEET MINIMUM R-VALUE REQUIRED BY ASHRAE 90.1 LATEST EDITION. ALL DUCT WRAP SHALL BE MINIMUM 2" THICK, 3/4 PCF AND 6 R-VALUE INSTALLED WITH EITHER A VAPOR BARRIER WITH MAXIMUM PERMEANCE 0.05 OR A MINIMUM 2 MIL ALUMINUM REINFORCED FOIL/KRAFT FACING.
- G. ALL DUCT DROPS FROM THE ROOFTOP UNITS SHALL BE EXTERNALLY INSULATED.
- H. SUPPLY AND RETURN AIR DUCTWORK SERVING ALL AREAS SHALL BE EXTERNALLY INSULATED.
- I. ALL AIR CONVEYANCE COMPONENTS SUCH AS, BUT NOT LIMITED TO DUCT, DUCT PLENUMS, GRILLES/DIFFUSERS, BACK PANS, AND BOOTS SHALL BE INSULATED. INSULATION TYPE IS COVERED ELSEWHERE IN THIS SPECIFICATION.
- J. RESTROOM RECTANGULAR EXHAUST AIR DUCTWORK SHALL BE LINED WITH 1" THICK, 1-1/2 PCF INSULATION. RESTROOM ROUND EXHAUST DUCT SHALL BE EXTERNALLY INSULATED PER SECTION 2.02F.
- K. TRUNK DUCTS SHALL BE ISOLATED FROM UNIT VIBRATION WITH THE USE OF NFPA AND U.L. APPROVED FLEXIBLE CONNECTORS INSTALLED AT THE TOP OF BOTH SUPPLY AND RETURN DROPS.
- L. INSULATED FLEXIBLE DUCT MAY BE UTILIZED FOR RUNOUTS TO GRILLES AND DIFFUSERS ONLY IN THE HORIZONTAL POSITION AND IN MAXIMUM LENGTHS OF 4'-0", NO EXCEPTIONS. SEE TAKE-OFF DETAIL ON DRAWING M-401.
- M. CONSTRUCTION OF FLEXIBLE DUCTWORK SHALL INCLUDE SPIRAL METAL HELIX BONDED TO A POLYESTER CORE, FIBERGLASS INSULATION WITH POLYETHYLENE OR MYLAR VAPOR BARRIER. ALL COMPONENTS SHALL HAVE APPROPRIATE U.L. APPROVAL AND SHALL BE EQUIVALENT TO THERMAFLEX MKE.
- N. FLEXIBLE DUCT SHALL BE INSTALLED PER THE "ADC FLEXIBLE DUCT PERFORMANCE AND INSTALLATION STANDARDS, 4TH ED" USING FOIL TAPE AND DRAWBAND ON THE INNER CORE AND TAPE OR DRAWBAND ON THE OUTER JACKET.
- O. DUCT TAPE SHALL BE EQUAL TO FASSON 181-B FX, 2-1/2" WIDE.
- P. SINGLE THICKNESS TURNING VANES SHALL BE INSTALLED AT 90 DEGREE TURNS IN SUPPLY DUCTWORK WHERE ANY ONE DIMENSION IS GREATER THAN 12".
- Q. RADIUS ELBOWS MAY BE SUBSTITUTED FOR 90 DEGREE ELBOWS AT THE DISCRETION OF THE CONTRACTOR. CENTERLINE RADIUS EQUAL TO, R=W PER FIGURE NO. 4-2 IN SMACNA HVAC DUCT CONSTRUCTION STANDARDS.
- R. EXTERNAL INSULATION ON BOTTOM OF DUCTS 24" OR WIDER SHALL BE SUPPORTED WITH STICK PINS ON 18" CENTERS. STICK PIN WASHERS SHALL BE COVERED WITH DUCT TAPE OR MASTIC.

2.03 CONTROLS (C15735)

- A. SYSTEMS SHALL BE COMPLETE WITH CONNECTIONS TO CFA-500 TEMPERATURE CONTROL PANEL AS MANUFACTURED BY SUNCOAST ENVIRONMENTAL CONTROLS (S.E.C.) (PH: 877-544-6679). THE PANEL IS PROVIDED AND MOUNTED BY THE ELECTRICAL CONTRACTOR. CONTROL WIRING TERMINATIONS ARE BY THE MECHANICAL CONTRACTOR.
- B. THE SMOKE DETECTORS SHALL BE FACTORY INSTALLED AND WIRED BY THE ROOFTOP UNIT MANUFACTURER.
- C. A FACTORY INSTALLED SMOKE DETECTOR IN THE RETURN AIR SECTION OF EACH AIR CONDITIONING UNIT SHALL STOP THE INDOOR FAN AND CLOSE THE OUTSIDE AIR DAMPER IN THE EVENT OF EXCESSIVE TEMPERATURE OR SMOKE. SMOKE DETECTOR SHALL BE LOCATED PRIOR TO ANY EXHAUST FROM THE BUILDING OR MIXING WITH FRESH AIR MAKE-UP. UPON DETECTION, THE SYSTEM SHALL NOT RESTART UNTIL THE DEVICE IS MANUALLY RESET. DEVICES SHALL BE LOCATED WHERE THEY CAN BE EASILY ACCESSED AND WHERE CLEAR OF FILTERS.
- D. CHICK-FIL-A HAS A NATIONAL ACCOUNT WITH SUNCOAST ENVIRONMENTAL CONTROLS FOR THE SMOKE DETECTOR TEST/RESET ANNUNCIATOR STATIONS. THE TEST/RESET STATIONS WILL BE PURCHASED BY THE ELECTRICAL CONTRACTOR AS A PART OF A NATIONAL ACCOUNT PACKAGE AND TURNED OVER TO THE MECHANICAL CONTRACTOR FOR INSTALLATION.
- E. THE REMOTE TEST/RESET ANNUNCIATORS SHALL BE PROVIDED BY THE ELECTRICAL CONTRACTOR AND INSTALLED BY THE MECHANICAL CONTRACTOR. INSTALLATION BY MECHANICAL SHALL INCLUDE MOUNTING OF THE ANNUNCIATORS AND ALL WIRING FROM EACH DEVICE TO THE RTU. ELECTRICAL WILL PROVIDE A JUNCTION BOX IN THE WALL WITH 1/2" CONDUIT STUBBED UP ABOVE THE CEILING FOR EACH REMOTE TEST STATION AS SHOWN ON THE ELECTRICAL PLANS. ANNUNCIATOR SHALL BE SUNCOAST CONTROLS REMOTE TEST/RESET STATION WITH POWER LED, TROUBLE LED, ALARM LED, 90DB HORN AND TEST/RESET BUTTON.
- F. THE RESTROOM FAN SHALL BE INTERLOCKED TO THE LIGHTS SERVING THE MEN AND WOMEN'S RESTROOMS. THE HOOD FANS SHALL BE CONTROLLED VIA THE SUNCOAST CFA-500 CONTROL PANEL. WIRING, RELAYS AND SWITCHES FOR CONTROL OF ALL FANS ARE BY ELECTRICAL CONTRACTOR.
- G. ROOFTOP UNITS - THERMOSTATS ARE PROVIDED AND INTEGRATED INTO THE TEMPERATURE CONTROL PANEL BY SUNCOAST ENVIRONMENTAL CONTROLS. SUNCOAST WILL PROVIDE A NETWORK THERMOSTAT US32-CFA THERMOSTAT PRE-WIRED IN THE TEMPERATURE CONTROL PANEL. A REMOTE TEMPERATURE SENSOR FOR EACH THERMOSTAT IS ALSO PROVIDED. MECHANICAL CONTRACTOR SHALL INSTALL ALL WIRING BETWEEN THE THERMOSTAT, THE REMOTE SENSOR AND THE ROOFTOP UNIT.
- H. MECHANICAL CONTRACTOR SHALL INSTALL CONTROL WIRING IN 1/2" CONDUIT WHERE REQUIRED BY CODE. WHERE NOT REQUIRED TO BE IN CONDUIT, ALL WIRING SHALL BE RUN PARALLEL TO STRUCTURAL MEMBERS OR PERPENDICULAR WITH NO DIAGONAL ROUTING. ALL WIRING SHALL BE SECURED TO THE FRAMING TO PREVENT SAGGING IN RUNS. WIRING TO ROOFTOP UNITS SHALL BE ROUTED THROUGH THE FACTORY THRU-BASE FITTING IN THE UNIT BASE. NO SPLICING OF WIRING WILL BE ACCEPTED. ALL WIRING ABOVE THE ROOF SHALL BE INSTALLED IN EXTERIOR GRADE FLEXIBLE CONDUIT. ALL CONTROL WIRING AND CONTROL WIRING CONDUIT SHALL BE FURNISHED AND INSTALLED BY THE MECHANICAL CONTRACTOR. WIRING SHALL BE INSTALLED IN ACCORDANCE WITH LATEST EDITION OF NEC. ALL LOW VOLTAGE CONTROL WIRING SHALL BE NO LESS THAN 18 AWG MIN. CONTROL WIRING CONDUCTORS SHALL BE SIZED TO ACCOUNT FOR LOAD AND LENGTH OF RUN TO ALLOW SUFFICIENT VOLTAGE AVAILABLE AT CONTROLLED DEVICE TO OPERATE THE SYSTEM RELIABLY.

PART III - EXECUTION

3.01 SCOPE

- A. FURNISH AND INSTALL SYSTEM IN ACCORDANCE WITH REFERENCED STANDARDS, APPLICABLE CODES, MANUFACTURER'S RECOMMENDATIONS AND AS INDICATED ON DRAWINGS.
  - B. CONTRACTOR SHALL INSTRUCT THE OWNER'S REPRESENTATIVE IN ALL MATTERS PERTAINING TO THE PROPER MAINTENANCE OF EQUIPMENT FURNISHED UNDER THIS CONTRACT THROUGH DEMONSTRATION AND EXPLANATION OF OPERATING & MAINTENANCE MANUALS.
  - C. CONTRACTOR SHALL PROVIDE A "SAMPLE MAINTENANCE PROPOSAL" TO THE OWNER'S REPRESENTATIVE IN ALL MATTERS PERTAINING TO THE PROPER MAINTENANCE OF EQUIPMENT FURNISHED UNDER THIS CONTRACT.
  - D. CONTRACTOR SHALL COMPLETE A/C EQUIPMENT STARTUP DOCUMENTATION PROVIDED BY OWNER AND/OR MANUFACTURER. THIS SHALL INCLUDE RE-TORQUE OF ALL FIELD AND FACTORY HIGH VOLTAGE CONNECTIONS.
- 3.02 LEED PROJECTS
- A. CONTRACTOR SHALL COMPLETE RECEIPT INSPECTION CHECKLISTS PROVIDED IN THE COMMISSIONING PLAN WITHIN 5 DAYS OF RECEIVING EQUIPMENT ON SITE.
  - B. CONTRACTOR SHALL COMPLETE PRE-FUNCTIONAL CHECKLISTS PROVIDED IN THE COMMISSIONING PLAN. CHECKLISTS SHALL BE RETURNED AT LEAST 5 DAYS PRIOR TO SCHEDULING FUNCTIONAL PERFORMANCE TESTING.
  - C. CONTRACTOR SHALL PROVIDE A TECHNICIAN TO ASSIST THE THIRD PARTY COMMISSIONING AUTHORITY WITH FUNCTIONAL PERFORMANCE TESTING. TESTING SHALL OCCUR AFTER ALL CONTROLS HAVE BEEN INSTALLED AND VERIFIED AND AFTER TEST AND BALANCE IS COMPLETE. THE FUNCTIONAL PERFORMANCE TEST PROCEDURES CAN BE FOUND IN THE COMMISSIONING PLAN.
  - D. IF THE TOTAL TIME REQUIRED TO CORRECT PROBLEMS DURING TESTING IS GREATER THAN FORTY-FIVE (45) MINUTES (UNLESS EXTENUATING CIRCUMSTANCES EXIST), THE TEST SHALL BE CONSIDERED FAILED AND MUST BE REPEATED IN ITS ENTIRETY.
  - E. RE-TESTING: DURING THE COURSE OF THE RETEST, IF AT ANY POINT A MAJOR DEFICIENCY IS DISCOVERED, THE TEST WILL BE STOPPED. REPEAT TESTS UNTIL ACCEPTABLE RESULTS ARE ACHIEVED. IF MORE THAN TWO FUNCTIONAL PERFORMANCE TESTS (ONE INITIAL TEST AND ONE RETEST) FOR ANY TYPE OF EQUIPMENT DUE TO ISSUES THAT THE CONTRACTOR HAD DIRECT OR INDIRECT CONTROL OVER ARE REQUIRED, THE COSTS FOR THE CXA TO WITNESS RETESTING OF SIMILAR TYPES OF EQUIPMENT UNTIL SATISFACTORY RESULTS ARE OBTAINED SHALL BE THE RESPONSIBILITY OF THE CONTRACTOR.

3.03 TEST & BALANCE

- A. OWNER SHALL TEST AND BALANCE MECHANICAL SYSTEM IN ACCORDANCE WITH NEBB, NBC OR AABC STANDARDS TO ASSURE CONFORMANCE WITH DESIGN. G.C. WILL MAKE MECHANICAL CONTRACTOR AVAILABLE DURING TEST AND BALANCE TO ASSIST TESTING AGENCY AND TO MAKE CORRECTIONS IMMEDIATELY NECESSARY. CONTRACTOR SHALL CORRECT ITEMS ON WRITTEN TEST AND BALANCE REPORT.
- B. ALL EQUIPMENT TO BE BALANCED MUST HAVE GONE THRU SUCCESSFUL START-UP PROCEDURE BY THE MECHANICAL CONTRACTOR (MC) PRIOR TO TAB VISIT.
- C. THE FLOOR OF THE RESTAURANT SHALL BE CLEARED OF DEBRIS, STAGED CONSTRUCTION MATERIALS, EQUIPMENT, ETC. WHICH MAY, IN THE OPINION OF THE TAB TECHNICIAN, OBSTRUCT ACCESS TO AIR DISTRIBUTION COMPONENTS IN AND ABOVE THE CEILING.
- D. EQUIPMENT ACCESS PANELS, DUCT AIR DEVICES SUCH AS BALANCING DAMPERS AND ACTUATORS SHALL BE ACCESSIBLE AND CLEAR OF PIPING, CONDUIT, FRAMING, SUPPORTS ETC...
- E. PROVIDE AN 8 FT PORTABLE A-FRAME STYLE LADDER DEDICATED FOR THE TAB TECHNICIAN'S USE DURING THE ENTIRE TAB EFFORT DURATION.
- F. THE MC SHALL BE AVAILABLE DURING THE ENTIRE DURATION OF THE TAB EFFORT AND HAVE ON-SITE THE RESOURCES AND TOOLS TO MAKE CORRECTIONS AS NEEDED UNDER THE DIRECTION OF THE TAB TECHNICIAN.

NATIONAL ACCOUNTS

1. LOREN COOK FAN AND CURB PACKAGE - THE MECHANICAL CONTRACTOR IS REQUIRED TO PURCHASE THE FAN/CURB PACKAGE DIRECTLY FROM TOM BARROW COMPANY. CONTACT MR. SCOTT GEORGE AT 404-351-1010 FOR PRICING AND AVAILABILITY. FANS AND CURBS NOT PURCHASED THRU TOM BARROW COMPANY WILL NOT BE ACCEPTED.
2. PRICE AIR DEVICES - THE MECHANICAL CONTRACTOR IS REQUIRED TO PURCHASE THE AIR DEVICES DIRECTLY FROM TOM BARROW COMPANY. CONTACT MR. SCOTT GEORGE AT 404-351-1010 FOR PRICING AND AVAILABILITY. AIR DEVICES NOT PURCHASED THRU TOM BARROW COMPANY WILL NOT BE ACCEPTED.
3. AIR DOORS - THE MECHANICAL CONTRACTOR IS REQUIRED TO PURCHASE THE AIR DOORS DIRECTLY FROM TOM BARROW COMPANY. CONTACT MR. SCOTT GEORGE AT 404-351-1010 FOR PRICING AND AVAILABILITY. AIR DOORS NOT PURCHASED THRU TOM BARROW COMPANY WILL NOT BE ACCEPTED.
4. SUNCOAST ENVIRONMENTAL CONTROLS - THE CFA 500 PANEL AND THE TEST/RESET STATIONS WILL BE PURCHASED AND PROVIDED BY THE ELECTRICAL CONTRACTOR AS A PART OF A NATIONAL ACCOUNT PACKAGE. SEE PART II PARAGRAPH 3A, 3D, AND 3E OF THE MECHANICAL SPECIFICATIONS FOR MORE INFORMATION.
5. HALTON HOODS - CHICK-FIL-A WILL PURCHASE AND PROVIDE THE HOODS FOR INSTALLATION BY THE MECHANICAL CONTRACTOR. THE MECHANICAL CONTRACTOR SHALL BE RESPONSIBLE FOR RECEIVING THE HOODS. CONTACT HALTON CO. AT 270-237-5600 FOR MORE INFO.
6. ROYAL METAL PRODUCTS START COLLARS - THE MECHANICAL CONTRACTOR IS REQUIRED TO PURCHASE THE START COLLARS DIRECTLY FROM TOM BARROW COMPANY. CONTACT MR. SCOTT GEORGE AT 404-351-1010 FOR PRICING AND AVAILABILITY. START COLLARS NOT PURCHASED THRU TOM BARROW COMPANY WILL NOT BE ACCEPTED.
7. SCHWANK INFRARED HEATER PACKAGE - THE MECHANICAL CONTRACTOR IS REQUIRED TO PURCHASE THE HEATER PACKAGE DIRECTLY FROM TOM BARROW COMPANY. CONTACT MR. SCOTT GEORGE AT 404-351-1010 FOR PRICING AND AVAILABILITY. HEATERS NOT PURCHASED THRU TOM BARROW COMPANY WILL NOT BE ACCEPTED.
8. BROMIC ELECTRIC HEATER - THE MECHANICAL CONTRACTOR IS REQUIRED TO PURCHASE THE HEATER DIRECTLY FROM BROMIC HEATING USA. CONTACT MR. BLAKE RUSSIE AT 858-381-4850 FOR PRICING AND AVAILABILITY. HEATERS NOT PURCHASED THRU BROMIC HEATING USA WILL NOT BE ACCEPTED.
9. TRANE EQUIPMENT - CONTACT MR. SCOTT ROWLEY AT 630-200-7155 FOR PRICING, ORDERING AND AVAILABILITY. TRANE EQUIPMENT NOT PURCHASED THRU TRANE NATIONAL ACCOUNTS WILL NOT BE ACCEPTED.

VENTILATION CALCULATIONS

ZONE	PEOPLE OUTDOOR AIR RATE (Rp)	ZONE POPULATION (Pz)	AREA OUTDOOR AIR RATE (Ra)	ZONE FLOOR AREA (Az)	OUTDOOR AIRFLOW RATE REQ'D (Vbz)
CORRIDOR (ENTRYWAYS)	--	--	0.06	180	11
SALES (SERVING AREA)	7.5	9	0.12	562	135
SALES (DINING AREA)	7.5	7	0.12	476	110
DINING (CAFETERIA, FAST FOOD)	7.5	93	0.18	928	865
OFFICE	5	1	0.06	66	9
STORAGE	--	--	0.12	247	30
TEAM MEMBER (RECEPTION)	5	5	0.06	171	35
KITCHEN	7.5	25	0.12	1256	338
PLAY AREA (GYM)	20	2	0.18	169	70

ZONE 1 - KITCHEN = 338 CFM.  
338 CFM (Vbz) / 0.8 = 423 CFM (Voz)  
AC#1 PROVIDES 1,750 CFM OUTSIDE AIR TO ZONE 1.

ZONE 2 - SALES (SERVING AREA) = 135 CFM.  
135 CFM (Vbz) / 0.8 = 169 CFM (Voz)  
AC#2 PROVIDES 1,155 CFM OUTSIDE AIR TO ZONE 2.

ZONE 3 - DINING + CORRIDORS + SALES (DINING AREA) + PLAY AREA = 1,056 CFM.  
1,056 CFM (Vbz) / 0.8 = 1,320 CFM (Voz)  
AC#3 PROVIDES 1,350 CFM OUTSIDE AIR TO ZONE 3.

ZONE 4 - TEAM MEMBER (RECEPTION) + STORAGE + OFFICE = 74 CFM.  
74 CFM (Vbz) / 0.8 = 93 CFM (Voz)  
AC#4 PROVIDES 500 CFM OUTSIDE AIR TO ZONE 4.

KITCHEN IS 1,256 SQUARE FEET. AT 0.70 CFM EXHAUST REQUIRED PER SQ. FT. KITCHEN IS REQUIRED TO EXHAUST 879 CFM.  
KITCHEN EXHAUSTS 3,315 CFM.

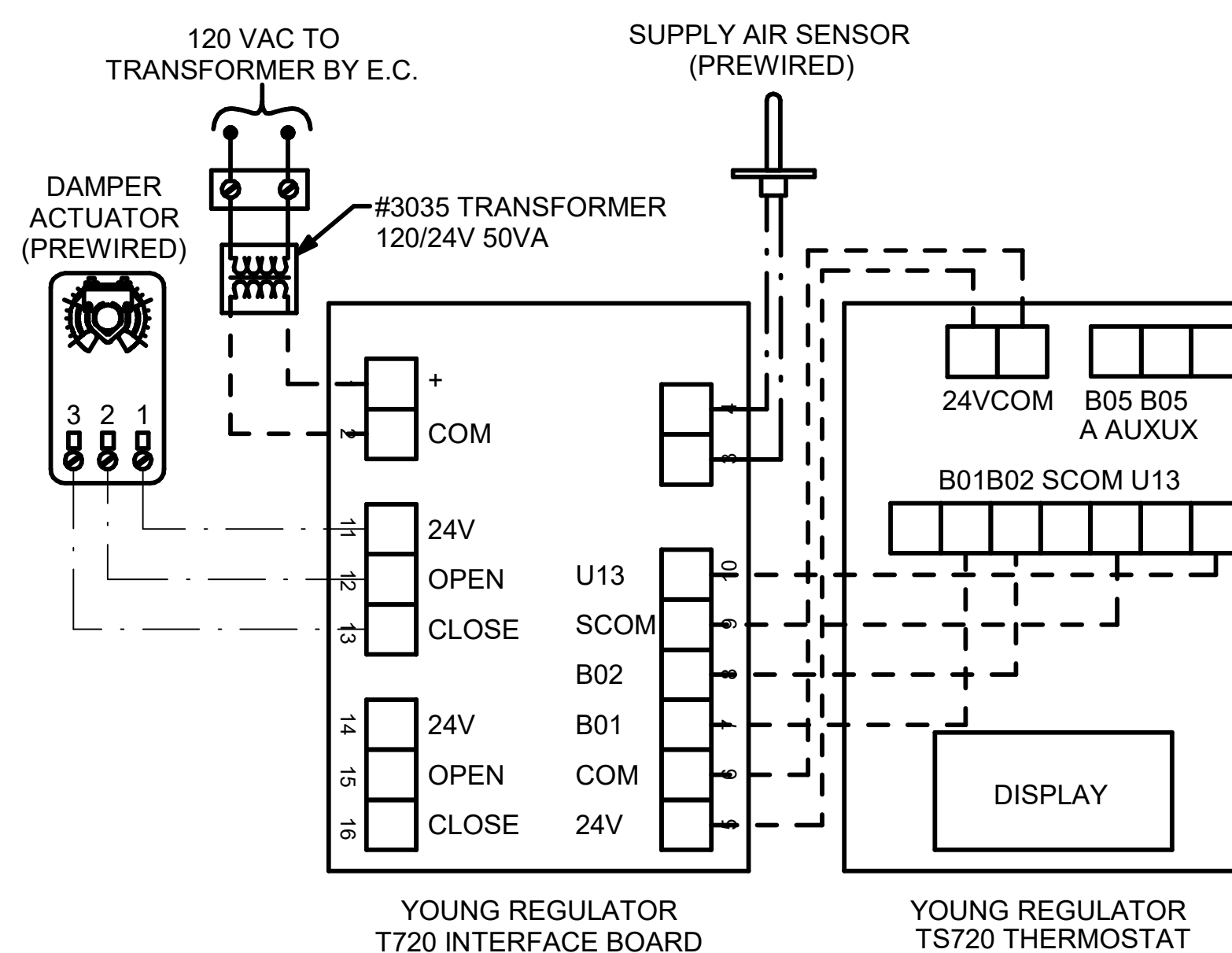
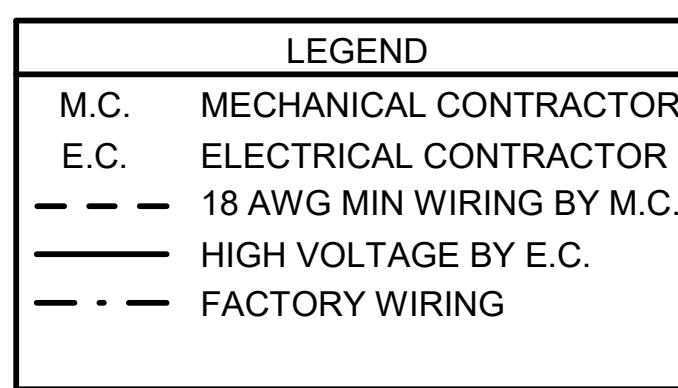
CALCULATIONS ARE BASED ON TABLE 403.3.3.1, 2018 INTERNATIONAL MECHANICAL CODE.  
(FOR OA RATE: Vbz = RpPz + RaAz || FOR ZONE OA RATE: Voz = Vbz/0.8)

NOTES

1. SEE DWG M-201 FOR COMPONENT MODEL NUMBERS AND ORDERING INFORMATION.
2. 120V POWER FOR TRANSFORMER TO BE NON SWITCHED AND LIVE 24 HOURS EACH DAY.
3. PROVIDE ALL NECESSARY WIRING AND COMPONENTS TO MAKE CONTROL AND POWER CONNECTIONS TO TRANSFORMER, ZONE DAMPER, AND THERMOSTAT PER MANUFACTURER'S IOM.
4. PROVIDE MYLAR LABEL AT ALL NEW THERMOSTATS WITH 1/4" HIGH WHITE LETTERING ON BLACK BACKGROUND, I.E. "OFFICE THERMOSTAT". PLACE LABELS ON WALL ADJACENT TO DEVICE. DO NOT APPLY DIRECTLY ON DEVICE.

SEQUENCE OF OPERATION

1. WHEN THE SUPPLY AIR TEMPERATURE IS LESS THAN 72F THE DAMPER WILL MODULATE ON A RISE IN SPACE TEMPERATURE ABOVE THE SETPOINT.
2. WHEN THE SUPPLY AIR TEMPERATURE IS GREATER THAN 71F THE DAMPER WILL MODULATE ON A FALL IN SPACE TEMPERATURE BELOW THE SETPOINT.



1 VAV DAMPER AND TSTAT  
NOT TO SCALE

Autodesk Docs/MO\_05380\_West Branson (MO) FSU\_2022.12\_FSR#05380\_West Branson (MO) FSU\_MEC.rvt  
5/4/2023 8:33:10 AM  
3D-LS-05380-M-301-MECHANICAL SPECIFICATIONS



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5/5/23

**CHICK-FIL-A**  
HWY 76 ON THE STRIP  
FSU  
2915 W. 76 Country Blvd  
Branson, MO 65616

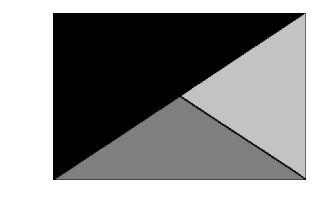
**FSR#05380**  
BUILDING TYPE / SIZE: P14 LS LRG  
RELEASE: 22.08  
PRINTED FOR: ISSUED FOR CONSTRUCTION

NO.	DATE	DESCRIPTION
2	5/5/23	ISSUED FOR CONSTRUCTION

CONSULTANT PROJECT # 23043.CD.S  
DATE 03/27/2023  
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MECHANICAL SPECIFICATIONS  
SHEET NUMBER  
**M-901**



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5/5/23

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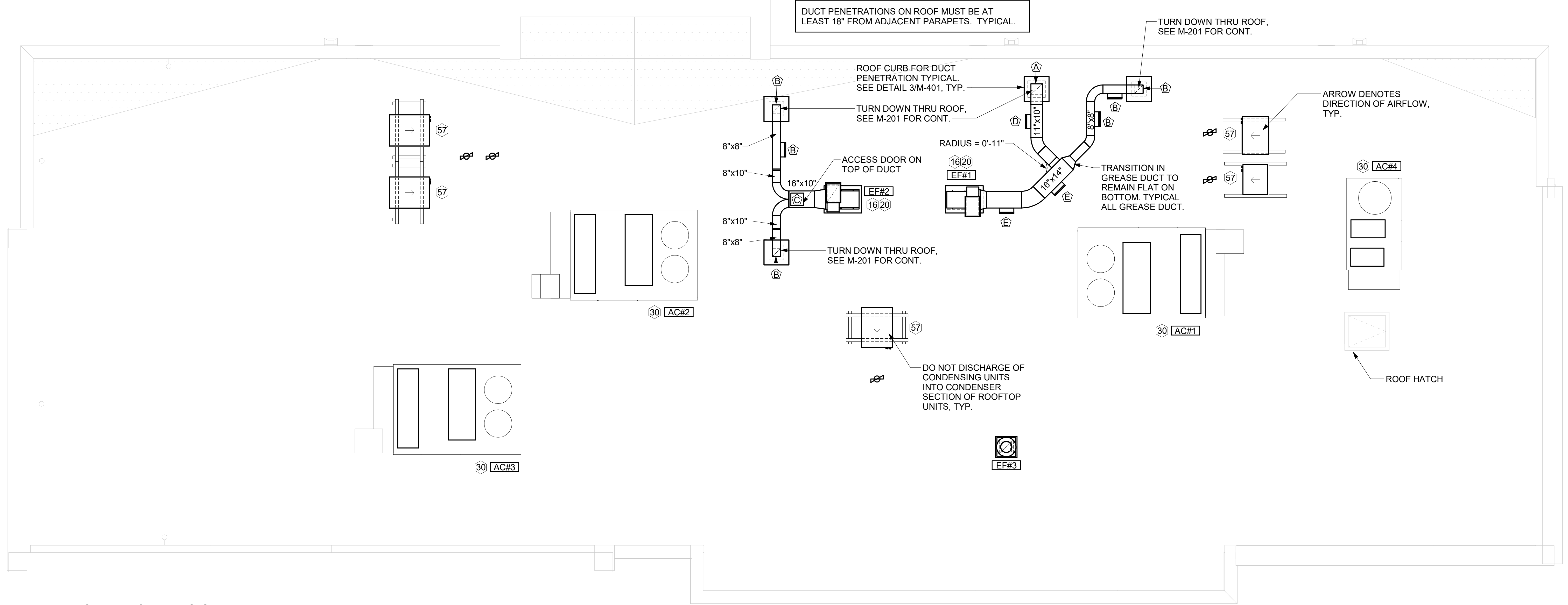
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SHEET MECHANICAL ROOF PLAN

SHEET NUMBER

**M-250**



**1 MECHANICAL ROOF PLAN**  
 1/4" = 1'-0"

**GAS FIRED ROOFTOP UNIT SCHEDULE**

MARK	TOTAL COOLING MBH	SENSIBLE COOLING MBH	HEATING INPUT MBH	HEATING OUTPUT MBH	SUPPLY CFM	OA CFM	HP	# of Fans	ESP (in-wg)	EER	IEER	VOLTAGE	PHASE	MCA	MOCAP	MODEL R-410A	MFR	REMARKS
AC#1	279.4	180.80	250	202.5	8,750	1,750	3.1	2	0.8	9.8	13	208 V	3	125 A	150 A	YSJ300A3S	TRANE	1,3,4,5,7,8,9,10,11,12,13,14,16
AC#2	185.4	108.90	320	259.2	5,250	1,155	3.1	2	0.8	10.8	14	208 V	3	83 A	110 A	YSJ180A3S	TRANE	1,3,4,5,7,8,9,10,11,12,13,14,16
AC#3	185.4	108.90	320	259.2	5,250	1,350	3.1	2	0.8	10.8	14	208 V	3	83 A	110 A	YSJ180A3S	TRANE	1,3,4,5,7,8,9,10,11,12,13,14,16
AC#4	59.1	44.20	130	104	1,875	500	1	1	0.8	13	17.2	208 V	3	33 A	45 A	YHC067E3R	TRANE	2,3,4,5,6,7,8,9,10,11,12,15,16

**NOTES**

- CHICK-FIL-A MAINTAINS A NATIONAL ACCOUNT FOR EQUIPMENT WITH TRANE CORPORATION. CONTACT TRANE TECH SUPPORT AT 866-986-4822 FOR PRICING, ORDERING AND AVAILABILITY OR BY EMAIL, CFA@TRANE.COM.
- MECHANICAL CONTRACTOR TO VERIFY TRANE SUBMITTAL WITH CONSTRUCTION DOCUMENTS.

**REMARKS**

- PROVIDE DIFFERENTIAL ENTHALPY ECONOMIZER WITH POWER EXHAUST. PROVIDE FACTORY FAULT DETECTION AND DIAGNOSTICS.
- PROVIDE DIFFERENTIAL ENTHALPY ECONOMIZER WITH BAROMETRIC EXHAUST. PROVIDE FACTORY FAULT DETECTION AND DIAGNOSTICS.
- PROVIDE 14" HIGH ROOF CURB.
- SEE DETAIL 2/M-501 FOR SETTING OF CONTROL PARAMETERS BY MC.
- PROVIDE FACTORY INSTALLED RETURN AIR SMOKE DETECTOR.
- PROVIDE FACTORY INSTALLED NON-FUSED DISCONNECT.
- PROVIDE 2" MERV 8 THROW AWAY FILTERS.
- PROVIDE HINGED PANELS FOR ACCESS TO FILTER(S), FAN BLOWER & MOTOR, COMPRESSOR(S) ACCESS AND CONTROLS.
- PROVIDE FACTORY INSTALLED COIL HAIL GUARD.
- PROVIDE HAS GAS DEHUMIDIFICATION OPTION WITH WALL MOUNTED HUMIDITY SENSOR.
- PROVIDE FACTORY CONFIGURED PHASE LOSS PROTECTION.
- PROVIDE FACTORY INSTALLED CONDENSATE PAN DRAIN OVERFLOW SWITCH.
- PROVIDE WITH 65K SCCOR RATING AND FACTORY CIRCUIT BREAKER.
- PROVIDE FACTORY INSTALLED 115V, 20 AMP GFI SERVICE OUTLET. SEPERATE 115V CIRCUIT PROVIDED BY ELECTRICAL CONTRACTOR.
- PROVIDE FACTORY INSTALLED AND POWERED 115V GFI SERVICE OUTLET.
- PROVIDE FRESH AIR TEMPERING KIT.

**SHEET NOTES**

- ALL DUCTWORK AND UNFINISHED METAL ON ROOF EXCEPT STAINLESS SHALL BE PREPARED WITH TWO COATS OF SHERWIN WILLIAMS PRO INDUSTRIAL DTM ACRYLIC COATING, SEMI-GLOSS, WHITE. DEGREASE AND PRIME BARE METAL SURFACE WITH ONE COAT OF SHERWIN WILLIAMS PRO INDUSTRIAL PRO-CRYL ACRYLIC UNIVERSAL PRIMER, WHITE, PRIOR TO PAINTING.
- AT EACH PIECE OF ROOF EQUIPMENT, PROVIDE A PLASTIC ENGRAVED LABEL WITH 1" HIGH WHITE LETTERS ON A BLACK BACKGROUND. THE LABEL IS TO HAVE A SELF ADHESIVE BACKING.
- MAINTAIN 18" CLEARANCE FROM GREASE EXHAUST DUCTWORK ABOVE ROOF TO ANY COMBUSTIBLE CONSTRUCTION INCLUDING PARAPET WALLS.

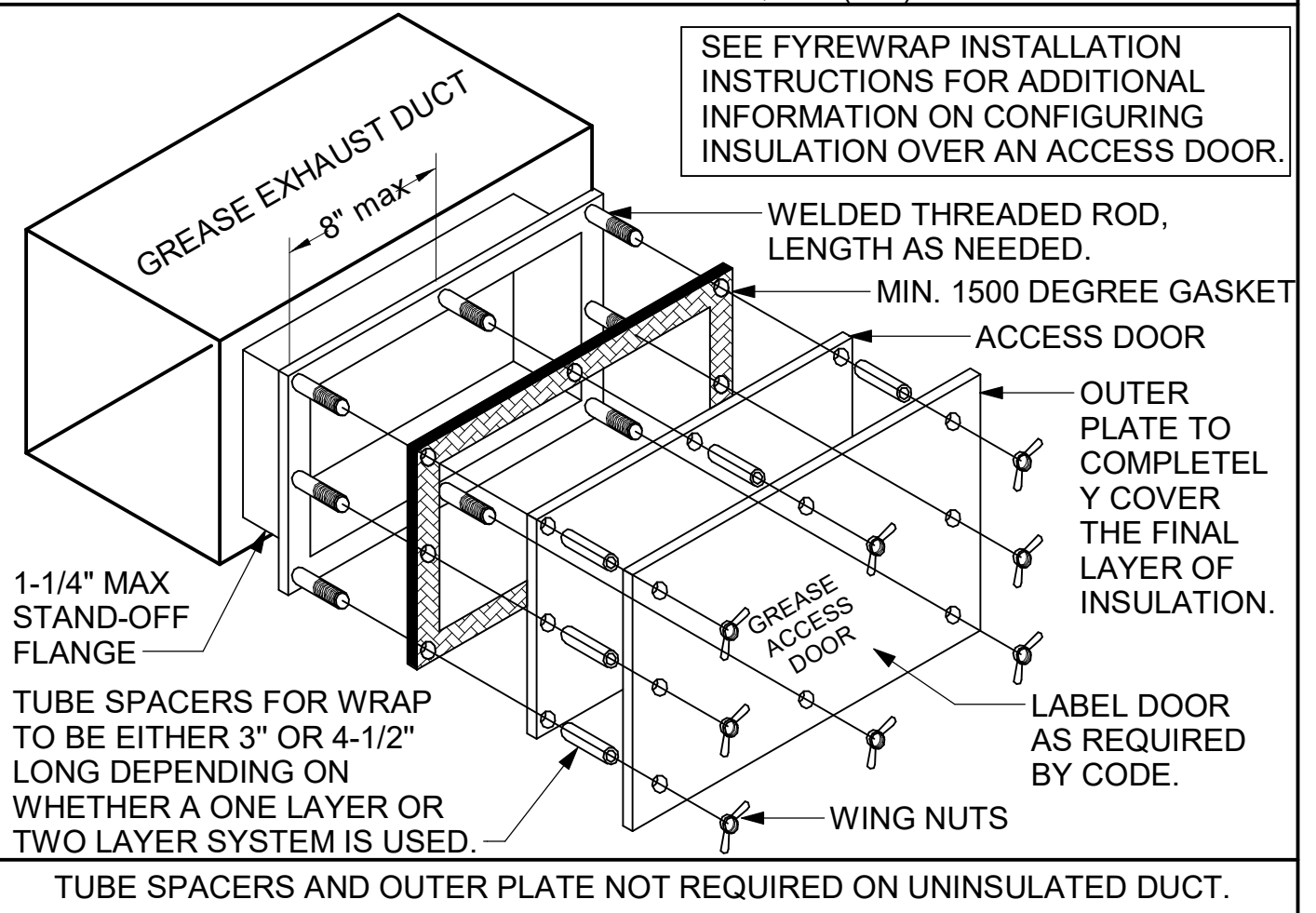
**KEY NOTES**

- FABRICATE DISCHARGE AIR NOZZLE. VERIFY EXHAUST TERMINATION IS A MINIMUM 10'-0" FROM PARAPETS AND OUTSIDE AIR INTAKES. SEE DETAIL 3/M-401.
- GREASE EXHAUST DUCT LOCATED ON ROOF SHALL SLOPE 1/4" PER FOOT TOWARDS THE HOOD, THE FAN, OR A COMBINATION OF THE TWO SUCH THAT NO PORTION OF THE RADIUS ELBOW AT THE CURB IS BELOW THE CURB CAP AND SUCH THAT THE FAN BASE SETS DIRECTLY ON THE CURB RAILS. THE BOTTOM OF THE RADIUS ELBOW MAY BE EVEN OR FLUSH WITH THE CURB CAP, BUT NOT BELOW THE CAP. THE DUCT AT THE FAN MUST BE CENTERED ON THE FAN INLET. THE MC MAY ADD A VERTICAL RISER AT THE RADIUS ELBOW LOCATED AT THE DUCT CURB AS NEEDED IN ORDER TO CENTER THE DUCT ON THE FAN INLET.
- MECHANICAL CONTRACTOR TO SEE ARCHITECTURAL ROOF PLAN FOR NOTES REGARDING LEVELING FRAMES FOR RTUS. COORDINATE WITH GENERAL CONTRACTOR EXACT LOCATIONS AND SIZE NEEDED.
- GC SHALL PROVIDE EQUIPMENT STANDS AS MANUFACTURED BY AVCOA OR EQUAL. STANDS SHALL BE INSTALLED PRIOR TO ROOF INSULATION SO THAT THE INSULATION IS CONTINUOUS UP TO THE PIPE POSTS. POSTS SHALL BE FLASHED IN ACCORDANCE WITH ROOFING MANUFACTURER'S INSTALLATION INSTRUCTIONS. COORDINATE BLOCKING BELOW THE ROOF DECK AS REQUIRED.

**GREASE ACCESS DOOR SCHEDULE**

MARK	OPENING SIZE	DOOR SIZE	REMARKS
A	9H X 14W	11H X 16W	1
B	6H X 14W	8H X 16W	1
C	12H X 12W	14H X 14W	1
D	8H X 14W	10H X 16W	1
E	12H X 14W	14H X 16W	1

- ACCESS DOORS SHALL BE U.L. 1978 LISTED OR FIELD FABRICATED. REQUIRE NO TOOLS FOR REMOVAL AND MEET THE REQUIREMENTS OF THE CURRENT EDITION OF THE IMC. ACCESS DOOR ASSEMBLY SHALL BE WELDED IN PLACE TO THE GREASE EXHAUST DUCT AND THE ACCESS DOOR SHALL BE SECURED WITH THUMB SCREWS. ACCESS DOORS SHALL BE SEALED WITH A MINIMUM 1500 DEGREE GASKET MATERIAL EQUIVALENT TO THAT MANUFACTURED BY BRENTON INDUSTRIES, INC (800) 382-2491.



Autodesk Docs://MO\_05380\_West Branson (MO) FSU\_2022.12\_FSR05380\_West Branson (MO) FSU\_MEC.rvt  
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