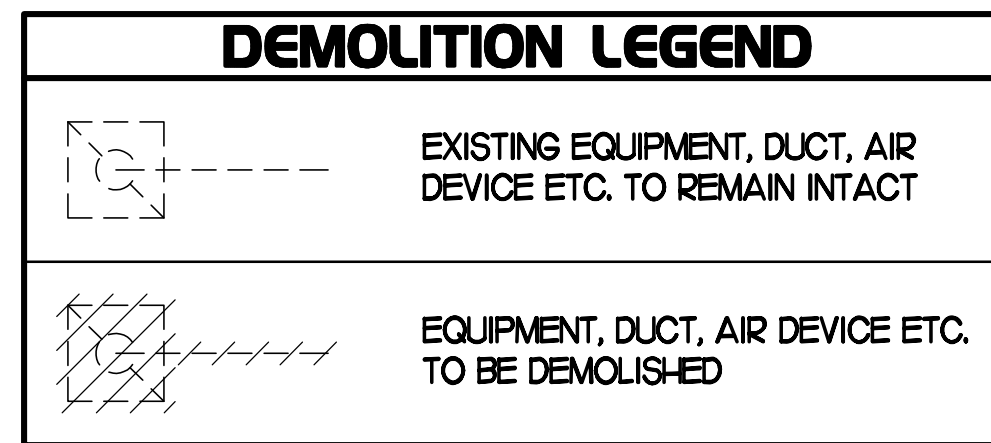


**DEMOLITION NOTES**

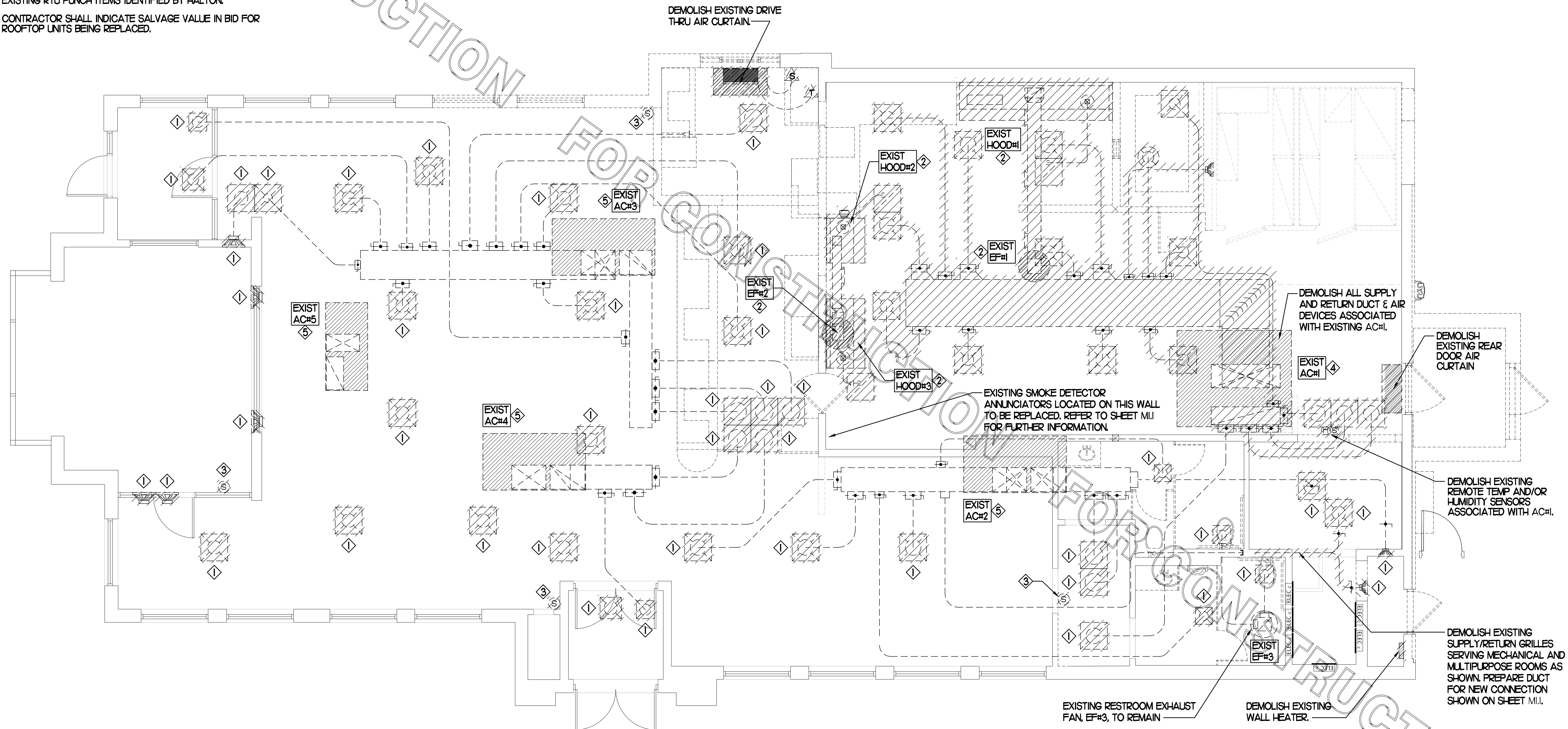
- ① CONTRACTOR IS RESPONSIBLE FOR OBTAINING ALL NECESSARY PERMITS AND PAYING ALL APPLICABLE FEES.
- ② DISPOSAL OF EQUIPMENT AND MATERIALS REQUIRED TO BE REMOVED SHALL BE THE RESPONSIBILITY OF THE CONTRACTOR PERFORMING THE WORK.
- ③ DE-ENERGIZE ALL ELECTRICAL CIRCUITS RELATED TO EQUIPMENT THAT WILL BE MOVED OR REMOVED PRIOR TO STARTING WORK. DE-ENERGIZED CIRCUITS SHALL BE PROTECTED WITH LOCKING DEVICES USING APPROPRIATE WARNING LABELS.
- ④ MECHANICAL CONTRACTOR SHALL BE RESPONSIBLE FOR PATCHING ROOF AFTER REMOVAL OF EXISTING MECHANICAL EQUIPMENT. SEE ARCHITECTURAL DRAWINGS FOR ROOF PATCHING REQUIREMENTS.
- ⑤ EXCEPT WHERE NOTED, EXISTING REMOTE TEMPERATURE &/OR HUMIDITY SENSORS TO REMAIN. IF DURING RENOVATION PURPOSES CONTROLS SHALL BE TAKEN DOWN, MECHANICAL CONTRACTOR SHALL BE RESPONSIBLE FOR REINSTALLING AND TO PROVIDE ANY ADDITIONAL WIRING NEEDED. VERIFY EXISTING UNIT CONTROLS ARE IN GOOD WORKING ORDER. IF NOT, CONTACT CHICK-FIL-A CONSTRUCTION MANAGER.
- ⑥ MECHANICAL CONTRACTOR SHALL REPLACE FILTERS FOR ALL RTUS AT END OF PROJECT AND PRIOR TO REOPENING. MC TO PROVIDE PROPOSAL TO FACILITIES MANAGER, CONSTRUCTION MANAGER, AND OPERATOR TO CORRECT EXISTING RTU PUNCH ITEMS IDENTIFIED BY HALTON.
- ⑦ CONTRACTOR SHALL INDICATE SALVAGE VALUE IN BID FOR ROOFTOP UNITS BEING REPLACED.



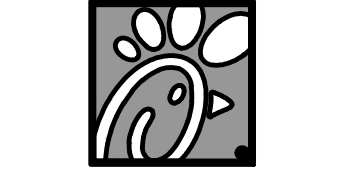
EXISTING CONDITIONS SHOWN ARE FROM PREVIOUS DRAWINGS. MECHANICAL CONTRACTOR SHALL FIELD VERIFY EXACT LOCATIONS OF ALL DUCT AND DIFFUSERS. IF MAJOR DIFFERENCES OCCUR IN FIELD, CONTACT CHICK-FIL-A CONSTRUCTION MANAGER.

**DEMOLITION KEY NOTES**

- ① DETACH AND DEMOLISH EXISTING AIR DEVICE. SECURE DUCT ABOVE CEILING GRID FOR RE-CONNECTION. SEE SHEET M.I. FOR NEW CONNECTION.
- ② DEMOLISH EXISTING HOOD, ALL ASSOCIATED GREASE DUCT, CAPTURE JET FAN AND DIFFUSER (IF EXISTING), EXHAUST FAN, AND ITS ASSOCIATED ROOF CURB. PATCH AND REPAIR ROOF TO MATCH SURROUNDING CONSTRUCTION.
- ③ EXISTING REMOTE TEMPERATURE AND/OR REMOTE HUMIDITY SENSORS TO BE REPLACED WITH NEW. SEE SHEET M.I. FOR FURTHER INFORMATION.
- ④ EXISTING ACH1 TO BE REPLACED WITH NEW. DETACH CONTROLS, GAS, AND ELECTRICAL CONNECTIONS FROM EXISTING ACH1 AND DEMOLISH UNIT. COVER CURB WEATHER-TIGHT FOR RE-USE. SEE SHEET M.I. FOR FURTHER INFORMATION.
- ⑤ EXISTING AC UNIT TO BE REPLACED WITH NEW AS SCHEDULED ON SHEET M3.I. UNLESS NOTED OTHERWISE, DEMOLISH ALL EXISTING UNIT CONTROLS (REMOTE TEMP. SENSOR, REMOTE HUMIDITY SENSOR, T'STAT, REMOTE SMOKE DETECTOR ANNUNCIATOR, ETC.). EXISTING ROOF CURB AND SUPPLY & RETURN DUCT TO REMAIN. COVER CURB WEATHER-TIGHT FOR RE-USE.



**MECHANICAL DEMOLITION FLOOR PLAN**  
SCALE: 1/4"=1'-0"



**Chick-fil-A**

5200 Buffington Rd.  
Atlanta Georgia,  
30349-2998

Revisions:

Mark	Date	By
△	04.15.20	
△	08.12.20	PERMIT ISSUE
△	11.25.20	PERMIT RESUBMITTAL
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△		CONSTRUCTION ISSUE



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STORE #01947  
GLENSTONE FSU

3700 S GLENSTONE AVE.  
SPRINGFIELD, MO  
65804

SHEET TITLE  
**MECHANICAL  
DEMO PLAN**

VERSION: S06C  
ISSUE DATE: 02.01.2021

Job No. : 20031.CD.R  
Store : 01947  
Date : 02.01.21  
Drawn By : AK  
Checked By : MK

Sheet  
**MO.0I**

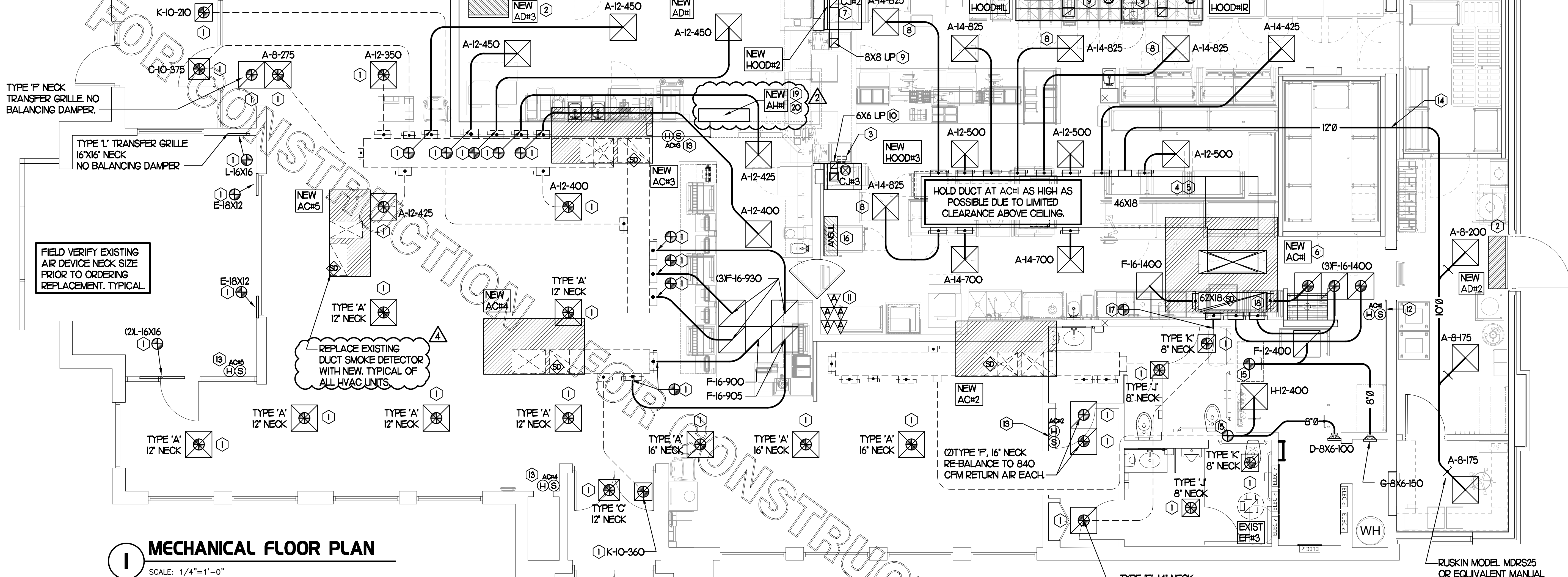
G.C. TO HIRE VENTILATION CLEANING CONTRACTOR CERTIFIED BY NATIONAL AIR DUCT CLEANERS ASSOCIATION (NADCA) TO CLEAN ALL EXISTING DUCTWORK THAT IS TO REMAIN.

**H.E.S. SYSTEM**  
MECHANICAL CONTRACTOR TO PROVIDE AND INSTALL SUNCOAST H.E.S. SYSTEM FOR ALL NEW HOODS. SEE HOOD FAN/EQUIPMENT INTERLOCK WIRING DIAGRAM ON SHEET M4.1 FOR MORE INFORMATION.

MOUNT AH-UH1 THERMOSTAT ON WALL NEXT TO FF#2 REMOTE WALL SWITCHES. SEE SCHEDULE ON SHEET M3.01 FOR INTERLOCK WITH T500 PANEL.

AIR CURTAIN REMOTE WALL SWITCHES BY MECHANICAL. REFER TO AIR DOOR SCHEDULE AND AIR CURTAIN WIRING DIAGRAM FOR FURTHER INFORMATION. COORDINATE EXACT LOCATION FOR SWITCHES WITH KITCHEN EQUIPMENT AND PLANS.

NEW AIR CURTAIN, AD-H1 MOUNTED IN CEILING GRID, CENTERED ON THE DOOR, APPROX. 4' OFF THE EXTERIOR WALL. PROVIDE CFA DIVERTER BOX.



**MECHANICAL FLOOR PLAN**  
SCALE: 1/4"=1'-0"

EXISTING CONDITIONS SHOWN ARE FROM PREVIOUS DRAWINGS. MECHANICAL CONTRACTOR SHALL FIELD VERIFY EXACT LOCATIONS OF ALL DUCT AND DIFFUSERS. IF MAJOR DIFFERENCES OCCUR IN FIELD, CONTACT CHICK-FIL-A CONSTRUCTION MANAGER.

**SHEET NOTES**

- DUCT SIZES SERVING DIFFUSERS AND GRILLES ARE SAME SIZE AS DIFFUSER OR GRILLE NECK UNLESS NOTED OTHERWISE.
- REFER TO ELEVATIONS ON M2.1 AND HOOD DETAILS ON M4.1 FOR CAPTURE-JET FANS DUCTING REQUIREMENTS.
- HARDPIPE SHALL BE USED FOR ALL TAKE-OFFS EXCEPT WHERE ALLOWED BY DETAIL 1/M3.1. USE OF FLEXIBLE DUCT SHALL BE LIMITED TO THOSE SITUATIONS WHERE NO OTHER MEANS TO ACCOMPLISH ROUTING IS POSSIBLE.
- COORDINATE NEW WORK WITH EXISTING CONDUITS, STRUCTURE AND PIPING. FIELD VERIFY EXISTING CONDITIONS PRIOR TO COMMENCING WORK. CONTRACTOR TO NOTIFY DESIGN TEAM WITHOUT DELAY IF ACTUAL LOCATION OF EXISTING MECHANICAL EQUIPMENT DOES NOT MATCH FLOOR PLAN.
- MECHANICAL CONTRACTOR SHALL BALANCE HVAC SYSTEM AS SHOWN ON THIS PLAN & IN SCHEDULES ON SHEET M3.1. IF AIRFLOWS DIFFER BY MORE THAN 5%, CONTACT CFA CONSTRUCTION MANAGER. TEST AND BALANCE REPORT SHALL BE DONE PRIOR TO STORE TURNOVER AND SUBMITTED TO CFA'S CONSTRUCTION MANAGER.

**TOTAL AIR BALANCE SCHEDULE**

EQUIPMENT MARK	ACH1 (NEW)	ACH2 (NEW)	ACH3 (NEW)	ACH4 (NEW)	ACH5 (NEW)	EFF#1 (NEW)	EFF#2 (NEW)	EFF#3 (NEW)	TOTAL
SERVES	KITCHEN	SIDE DINING	MAIN DINING	MAIN DINING	PLAY AREA	HOOD#1 HOOD#R	HOOD#2 HOOD#3	REST-ROOM	
SUPPLY AIR CFM	8,000	2,830	4,000	2,765	1,800				19,395
RETURN AIR CFM	6,300	2,080	3,000	2,165	1,500				15,045
OUTSIDE AIR CFM	1,700	750	1,000	600	300				+4,350
EXHAUST CFM						1,912	1,091	400	-3,403
PRESSURIZATION									+947
REMARKS	ADJUST AND VERIFY BALANCE OF ALL HVAC EQUIPMENT IS AS SHOWN IN ORDER TO MAINTAIN BUILDING AIR BALANCE.								

**KEY NOTES (THIS SHEET ONLY)**

- CONNECT NEW AIR DEVICE TO EXISTING TAKE-OFF. IF NECESSARY, MECHANICAL CONTRACTOR SHALL PROVIDE AND INSTALL NEW DUCT IN ORDER TO MAKE CONNECTION TO AIR DEVICE IN NEW LOCATION. ANY FLEX DUCT USED SHALL NOT BE LONGER THAN 4'-0". SEE DETAIL 1/M3.1. COORDINATE AIR DEVICE LOCATIONS WITH ARCHITECTURAL REFLECTED CEILING PLAN.
- AIR CURTAIN MOUNTED OVER DOOR HEADER AT 7'-2" AFF TO BOTTOM OF UNIT. PROVIDE BLOCKING IN WALL BEHIND AIR CURTAIN. USE FACTORY PRE-PUNCHED MOUNTING HOLES ON BACK SIDE OF AIR CURTAIN ONLY. ATTACH AIR CURTAIN TO WALL USING 3/8" LAG BOLTS, LENGTH AS REQUIRED TO FULLY PENETRATE BLOCKING. LOCATE MAGNETIC CONTACT TYPE MICROSWITCH IN DOOR FRAME ON STRIKE SIDE.
- CJ#4 MOUNTED INSIDE CABINETS SERVING SCJ PLENUM, SEE DETAIL 2/M2.1.
- BRANCH TAKE-OFFS SHALL NOT BE LOCATED CLOSER THAN 3'-0" FROM ANY ELBOW INCLUDING THE SUPPLY AIR DROP FROM CURB.
- TRANSITION IN VERTICAL DROP FROM FULL SIZE OF CURB OPENING TO SIZE SHOWN. TRANSITION WITHIN CURB WHERE REQUIRED TO AVOID STRUCTURE. PROVIDE TURNING VANES IN ELBOWS, INCLUDING THE SUPPLY AIR DROP FROM UNIT. HOLD DUCT AS HIGH AS POSSIBLE DUE TO LIMITED CLEARANCES.
- INSTALL NEW ACH1 ONTO EXISTING ROOF CURB. RE-CONNECT EXISTING GAS AND CONDENSATE TO NEW ROOFTOP UNIT. CONNECTION TO NEW ANNUNCIATOR TEST/RESET STATION AND TSTAT/REMOTE SENSORS.
- HALTON MBD DAMPER AT HOOD COLLAR BY MECHANICAL CONTRACTOR. REFER TO SHEET M2.1 AND M4.1 FOR FURTHER INFORMATION.
- MECHANICAL CONTRACTOR TO ADJUST PATTERN DEFLECTORS TO THROW STRAIGHT DOWN.
- GREASE DUCT UP THRU ROOF FROM FULL SIZE OF MBD COLLAR. OFFSETS THRU ROOF NOT TO BE GREATER THAN 45 DEGREES. SEE SHEET M1.2 FOR CONTINUATION.
- TRANSITION GREASE DUCT FROM FULL SIZE OF MBD COLLAR TO 6X6. ROUTE 6X6 GREASE DUCT UP THRU ROOF. OFFSETS THRU ROOF NOT TO BE GREATER THAN 45 DEGREES. SEE SHEET M1.2 FOR CONTINUATION.
- REPLACE EXISTING SMOKE DETECTOR TEST/RESET STATION FOR ALL NEW A/C UNITS. CONTACT SUNCOAST ENVIRONMENTAL CONTROLS AT 1-877-544-6679 TO PURCHASE A NEW SMOKE DETECTOR TEST/RESET STATIONS FOR EACH NEW RTU.
- MOUNT REMOTE TEMP SENSOR FOR KITCHEN RTU ON WALL AT 5'-8" AFF. COORDINATE FINAL MOUNTING LOCATION IN FIELD WITH KITCHEN EQUIPMENT, SHELVING, AND ELECTRICAL. ROUTE WIRING TO TSTAT IN TEMP CONTROL CABINET. MOUNT NEW LENNOX HUMIDITY SENSOR DIRECTLY ABOVE REMOTE TEMP SENSOR AND ROUTE WIRING TO UNIT ON ROOF.
- MOUNT NEW REMOTE TEMP SENSOR AND NEW LENNOX HUMIDITY SENSOR FOR ROOFTOP UNIT IN THE SAME LOCATION AS DEMOLISHED SENSORS (OR ABOVE WAINSCOTTING IF APPLICABLE). ROUTE WIRING FOR NEW REMOTE TEMP SENSOR TO NEW TSTAT IN TEMP. CONTROL CABINET. ROUTE WIRING FOR NEW LENNOX HUMIDITY SENSOR TO UNIT ON ROOF.
- ROUTE DUCT THRU FRAMED OPENING ABOVE CEILING. COORDINATE WITH ARCH AND STRUCTURAL FOR EXACT LOCATION.
- EXTEND NEW 12" DUCT FROM POINT OF CONNECTION TO NEW SUPPLY/RETURN GRILLES.
- ANSUL UTILITY CABINET. LOCATE TOP OF CABINET 0'-2" BELOW CEILING. COORDINATE FINAL MOUNTING LOCATION WITH KITCHEN EQUIPMENT.
- EXTEND NEW 14" DUCT AND CONNECT TO NEW RETURN AIR PLENUM.
- TRANSITION IN VERTICAL DROP FROM FULL SIZE OF CURB OPENING TO SIZE SHOWN. TRANSITION WITHIN CURB WHERE REQUIRED TO AVOID STRUCTURE. NO TURNING VANES IN ELBOW.
- MOUNT AIR HANDLER ON OVER-HEAD WALL ABOVE CASSED OPENING. MOUNT UNIT AT 12" ABOVE CASSED OPENING. ROUTE REFRIGERANT PIPING ABOVE CEILING AND UP THRU ROOF TO CONDENSING UNIT, CU#1. SEE SHEET M1.02 FOR CONDENSING UNIT LOCATION. REFRIGERANT PIPING BELOW ROOF SHALL BE HIDDEN WITHIN WALLS AND CEILINGS.
- ROUTE CONDENSATE FROM AH-UH1 TO TERMINATE INTO FLOOR DRAIN LOCATED BEHIND ICE MAKER IN DRIVE THRU. COORDINATE EXACT LOCATION OF DRAIN WITH PLUMBING PLANS. CONDENSATE PIPING SHALL BE TYPE K COPPER WITH 1/2" ARMAFLEX INSULATION. CONDENSATE MUST SLOPE MIN. 1/8" PER FOOT TO TERMINATION POINT. CONTRACTOR SHALL INSTALL A CONDENSATE LIFT PUMP IN ORDER TO ROUTE CONDENSATE ABOVE CEILING.

**LEGEND**

SYMBOL	DESCRIPTION	SYMBOL	DESCRIPTION
A-12-400	TYPE - NECK SIZE - CFM	⊕	KEY NOTE REFERENCE
⊕	SPIN-IN FITTING, MVD, NO SCOOP	⊕	EXISTING START COLLAR
⊕	SPIN-IN HARD ⌀ FLEXIBLE ⌀ DIFFUSER	⊕	EXISTING RUNNOUT TO REMAIN
⊕	REMOTE TEMPERATURE SENSOR	⊕	EXISTING RETURN/EXHAUST (TYP)
⊕	REMOTE HUMIDITY SENSOR	⊕	EXISTING SUPPLY DIFFUSER (TYP)
⊕	SMOKE DETECTOR	⊕	EXISTING DUCT (TYP)
⊕	GREASE ACCESS DOOR TYPE	⊕	NEW RETURN/EXHAUST, UNO. (TYP)
⊕	POINT OF CONNECTION TO EXISTING	⊕	NEW SUPPLY DIFFUSER, UNO. (TYP)
⊕	DIRECTION OF THROW	⊕	NEW DUCT (TYP)
⊕	SMOKE DETECTOR ANNUNCIATOR	⊕	MANUAL VOLUME DAMPER
⊕		⊕	CONDENSATE PIPING

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30349-2998

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STORE #01947  
GLENSTONE FSU

3700 S GLENSTONE AVE  
SPRINGFIELD, MO  
65804

SHEET TITLE  
MECHANICAL  
FLOOR PLAN

VERSION: S06C  
ISSUE DATE: 02.01.2021

Job No.: 20031.CD.R  
Store: 01947  
Date: 02.01.21  
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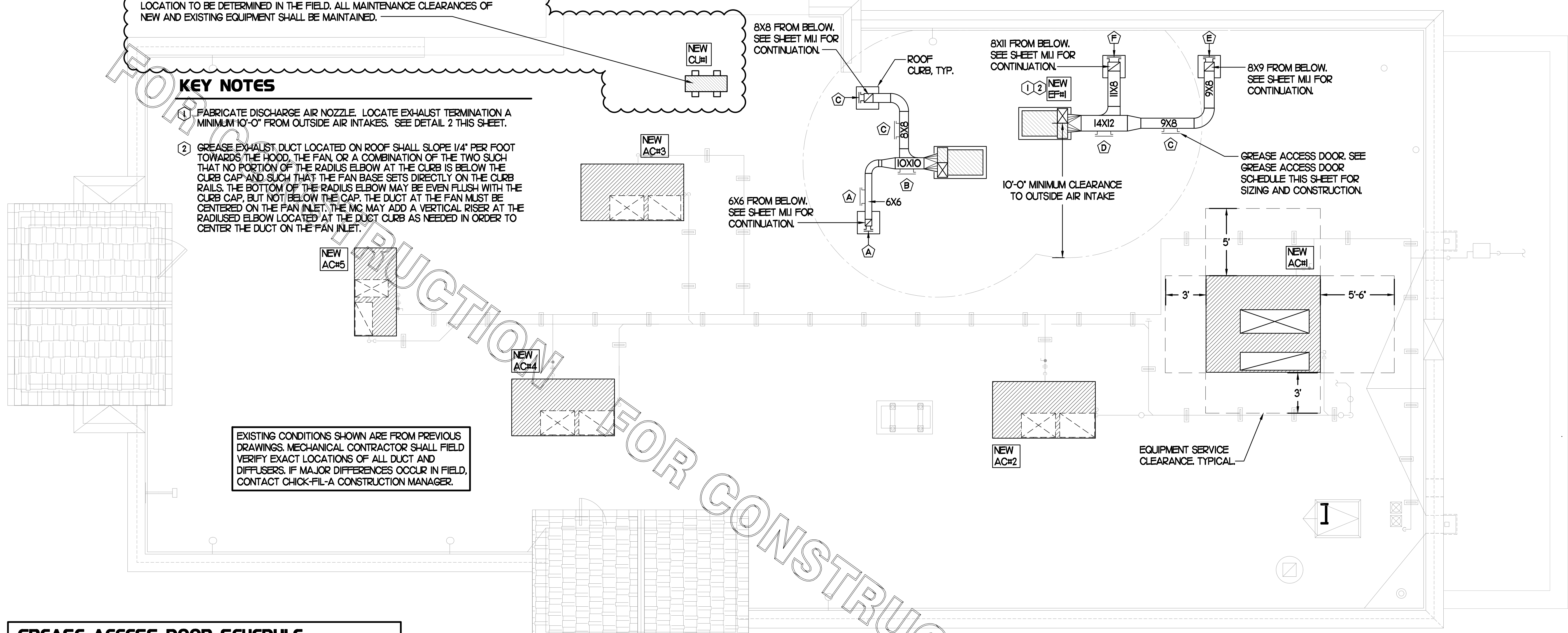
MI.OI

SET CONDENSING UNIT ON ROOF USING TWO CURBS PLUS CPES-1 EQUIPMENT CURBS. SECURE CONDENSING UNIT TO CURBS ARRANGED IN PARALLEL. SET LONG SIDE OF CURB PARALLEL TO ROOF SLOPE. FLASH INTO ROOF BY GC. FINAL LOCATION TO BE DETERMINED IN THE FIELD. ALL MAINTENANCE CLEARANCES OF NEW AND EXISTING EQUIPMENT SHALL BE MAINTAINED.

**KEY NOTES**

- 1 FABRICATE DISCHARGE AIR NOZZLE. LOCATE EXHAUST TERMINATION A MINIMUM 10'-0" FROM OUTSIDE AIR INTAKES. SEE DETAIL 2 THIS SHEET.
- 2 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 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.

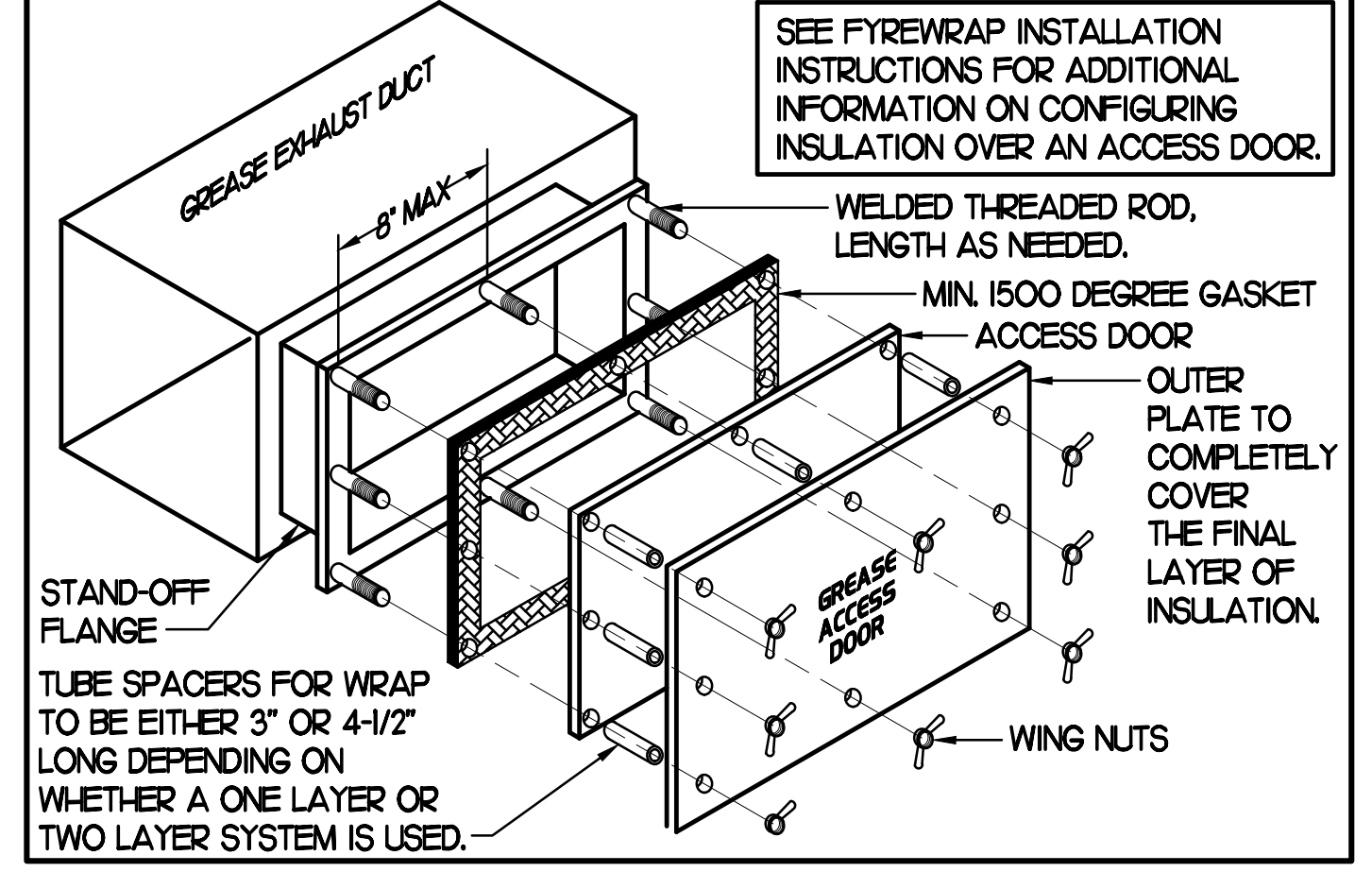
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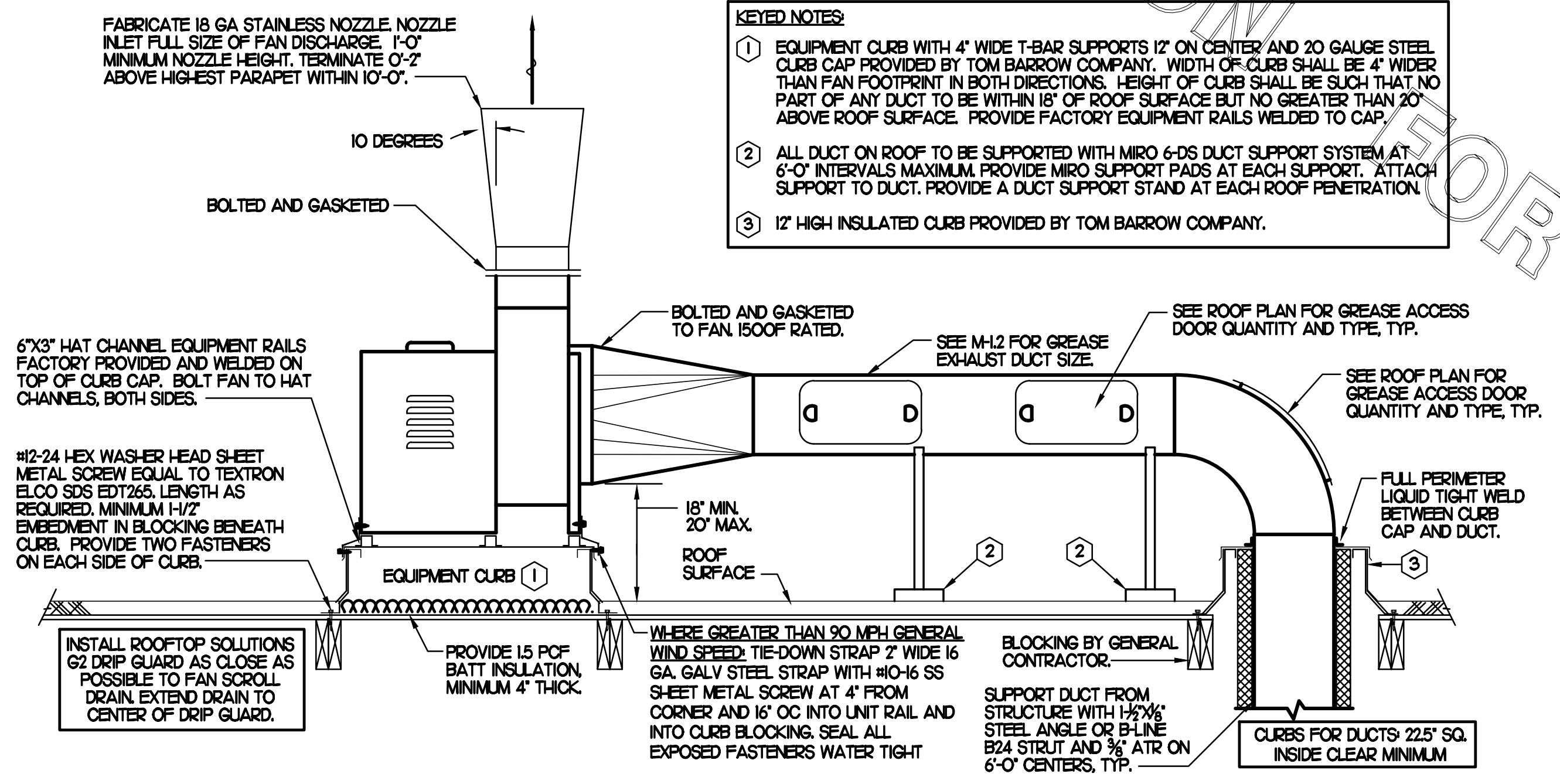
**GREASE ACCESS DOOR SCHEDULE**

MARK	OPENING SIZE	DOOR SIZE	REMARKS
A	4H X 14W	6H X 16W	I
B	7.5H X 14W	9.5H X 16W	I
C	5.5H X 14W	7.5H X 16W	I
D	9.5H X 14W	11.5H X 16W	I
E	6.5H X 14W	8.5H X 16W	I
F	8.5H X 14W	10.5H X 16W	I

I. ACCESS DOORS SHALL BE UL 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 BRETON INDUSTRIES, INC (800) 382-2491.



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



**2 KITCHEN HOOD EXHAUST FAN - UTILITY SET FAN**  
NO SCALE

- KEYED NOTES:**
- 1 EQUIPMENT CURB WITH 4" WIDE T-BAR SUPPORTS 12" ON CENTER AND 20 GAUGE STEEL CURB CAP PROVIDED BY TOM BARROW COMPANY. WIDTH OF CURB SHALL BE 4" WIDER THAN FAN FOOTPRINT IN BOTH DIRECTIONS. HEIGHT OF CURB SHALL BE SUCH THAT NO PART OF ANY DUCT TO BE WITHIN 18" OF ROOF SURFACE BUT NO GREATER THAN 20" ABOVE ROOF SURFACE. PROVIDE FACTORY EQUIPMENT RAILS WELDED TO CAP.
  - 2 ALL DUCT ON ROOF TO BE SUPPORTED WITH MIRO 6-DS DUCT SUPPORT SYSTEM AT 6'-0" INTERVALS MAXIMUM. PROVIDE MIRO SUPPORT PADS AT EACH SUPPORT. ATTACH SUPPORT TO DUCT. PROVIDE A DUCT SUPPORT STAND AT EACH ROOF PENETRATION.
  - 3 12" HIGH INSULATED CURB PROVIDED BY TOM BARROW COMPANY.

**SHEET NOTES**

- 1 ALL DUCTWORK AND UNFINISHED METAL ON ROOF EXCEPT STAINLESS SHALL BE PREPARED WITH TWO COATS OF SHERWIN WILLIAMS B66-200 SERIES DTM WHITE ACRYLIC SEMI-GLOSS INDUSTRIAL MAINTENANCE COATING. DEGREASE AND PRIME BARE METAL SURFACE WITH ONE COAT OF SHERWIN WILLIAMS DTM PRIMER PRIOR TO PAINTING.
- 2 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.
- 3 MAINTAIN 18" CLEARANCE FROM GREASE EXHAUST DUCTWORK ABOVE ROOF TO ANY COMBUSTIBLE CONSTRUCTION INCLUDING PARAPET WALLS.



Revisions:

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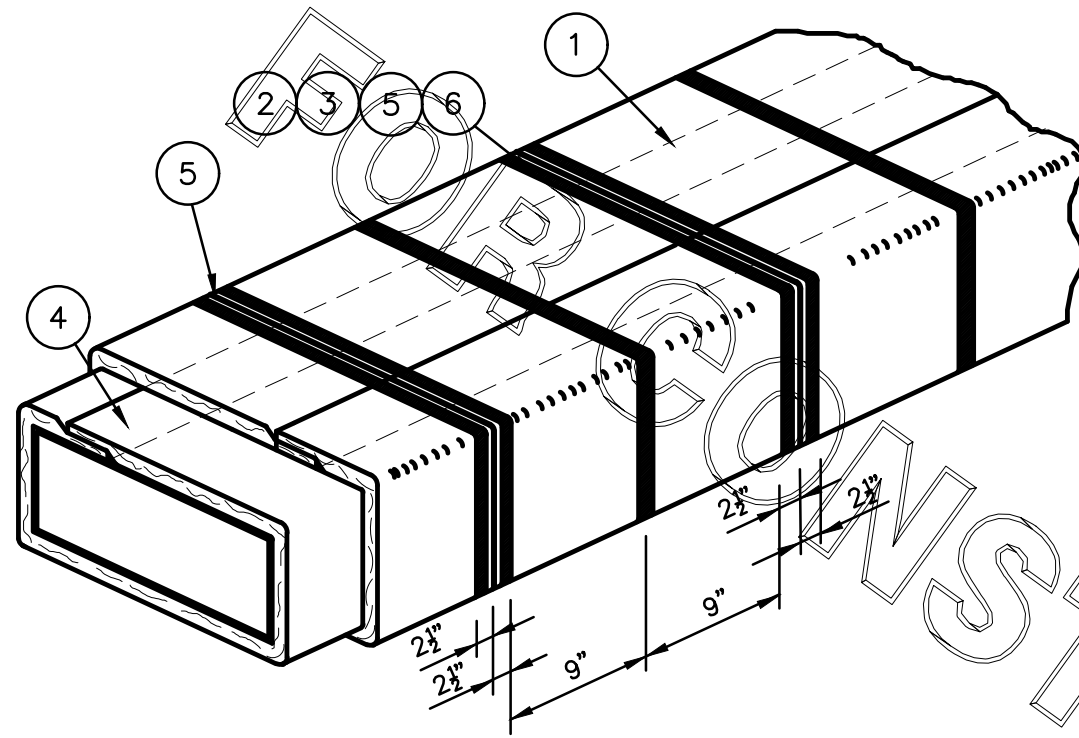
SHEET TITLE  
MECHANICAL  
ROOF PLAN

VERSION: S06C  
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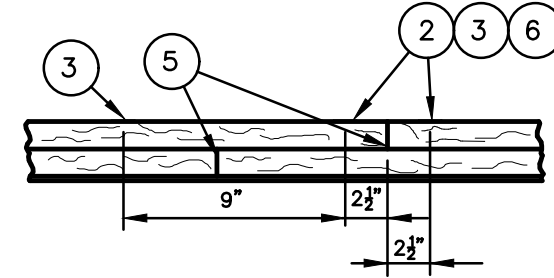
Job No. : 20031.CD.R  
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Sheet  
**MI.02**

FyreWrap® Elite 1.5 Duct Insulation  
 Commercial Kitchen Grease Duct System  
 ASTM E 2336/ICCES AC101 System  
 1 and 2 Hour Fire-Rated Enclosure, Shaft Alternative  
 Zero Clearance to Combustibles  
 Intertek Design No. UNI/BI 120-02  
 Butt Joint System (Both Layers, Max. 24"x24" Duct)



**INSTALLATION METHOD:**



Butt-Joint  
Adjacent Blanket Pieces

Legend:

- FyreWrap Elite 1.5 Duct Insulation, Two Layers (each 1 1/2", total thickness = 3")
- Fiberglass Tape (Temporary Hold)
- 1/2" Carbon or SS Banding Straps (Permanent Hold)
- 3" Minimum Longitudinal Overlap
- 1" Compressed Butt Joint
- 3" Wide Aluminum Foil Tape at 2nd Layer Transverse Butt Joints

Revisions	Comments

UNIFRAX

SUBJECT-	
LOCATION-	
BLDG. NO. -	
DRAWN - S.A. Rustay	DATE - 04-05-2011
SCALE - N.T.S.	
DRAWING NO. -	FP-693
PROJECT NO. -	

**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 ANSUL SYSTEM FURNISHED BY HALTON. THE HOOD SHALL BE FURNISHED PRE-PIPED BY HALTON.
- THE R-102 ANSUL FIRE SUPPRESSION SYSTEM EXTERNAL TO THE HOODS SHALL BE INSTALLED IN ACCORDANCE WITH HOOD MANUFACTURER'S SHOP DRAWINGS BY AN AUTHORIZED ANSUL SYSTEM INSTALLER SELECTED AND HIRED BY HALTON. COST FOR ANSUL 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, NO EXCEPTIONS ALLOWED. 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 FyreWRAP. INSULATION ON ACCESS DOORS SHALL BE INSTALLED ACCORDING TO MANUFACTURER'S INSTALLATION RECOMMENDATIONS. UNIFRAX FyreWRAP PRODUCT USED SHALL MEET LOCAL CODE REQUIREMENTS.
- SUPPORT 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 #2-24 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 SHEET M4.1 FOR MORE INFORMATION.

**HOOD SCHEDULE**

MARK	EXHAUST CFM	SP • TAB PORT	CAPTURE JET CFM & SP.	TYPE	COLLAR SIZE	WIDTH	DEPTH	HEIGHT	MANUFACTURER	MODEL	REMARKS
HOOD#1L	1,080	0.13"	72 • 0.30"	BACK SHELF	8"X11"	96"	37"	38"	HALTON	KVL-2	1
HOOD#1R	832	0.13"	55 • 0.30"	BACK SHELF	8"X9"	74"	37"	38"	HALTON	KVL-2	1
HOOD#2	701	0.30"	30 • 0.29"	BACK SHELF	8"X8"	45"	34"	38"	HALTON	KVL-C	1
HOOD#3	390	0.37"	18 • 0.30"	BACK SHELF	8"X8"	24"	34"	38"	HALTON	KVL-D	1

NOTES: DIMENSIONS OF HOODS INCLUDE BACK AND SIDE SPACERS (HEIGHT DOES NOT INCLUDE CLOSURE PANELS).  
 REMARKS: 1. HOOD SHOP DRAWINGS ARE INCLUDED FOR REFERENCE ON SHEETS M4.1 AND M4.2. REFER TO SHOP DRAWINGS FOR HOOD OPTIONS AND CONSTRUCTION.

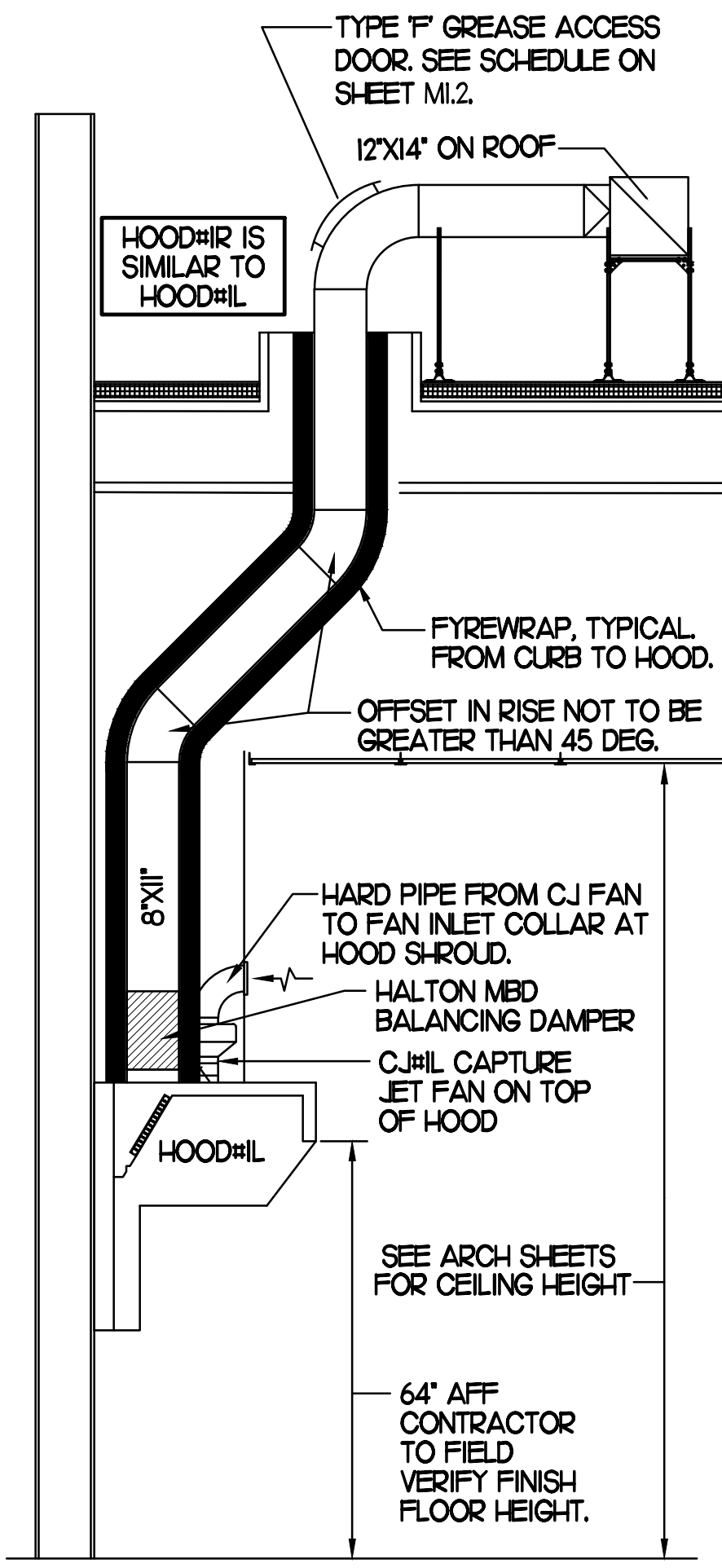
**GREASE EXHAUST DUCT CLEARANCE NOTE:**

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

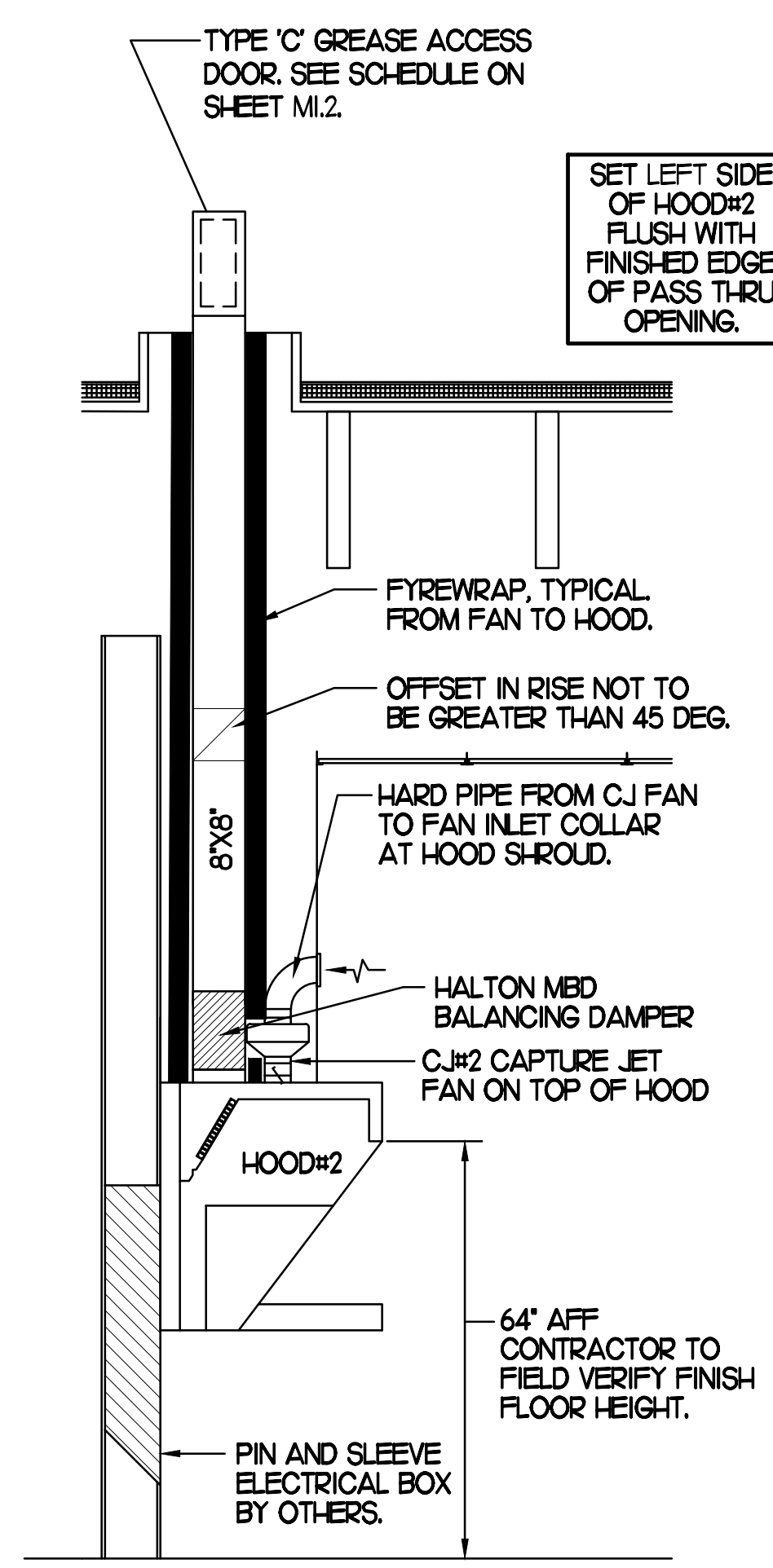
**CLEANOUT DOOR NOTE:**

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.

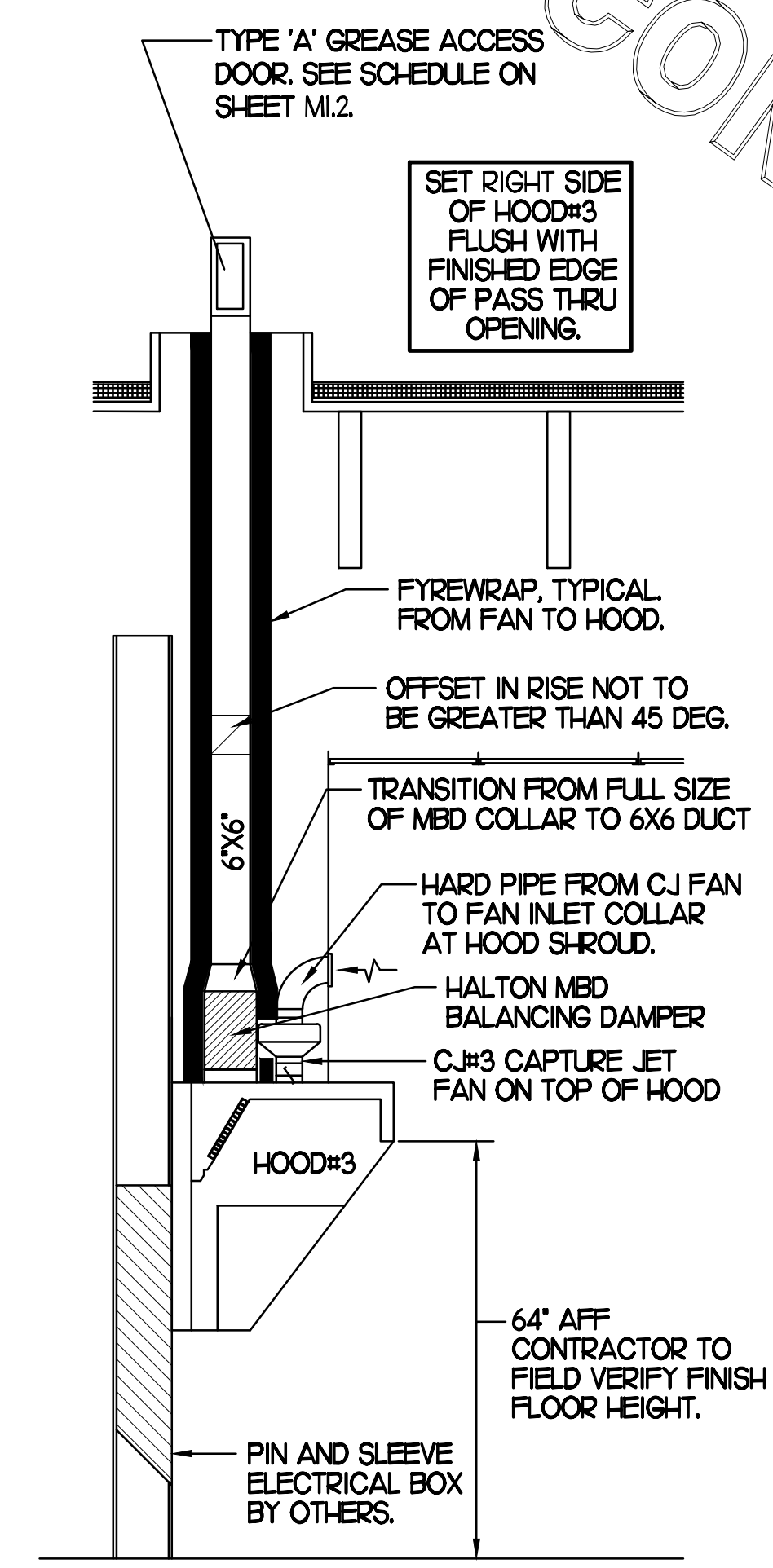
NOTE: SEE ARCHITECTURAL PLANS FOR EXACT HOOD LOCATIONS.



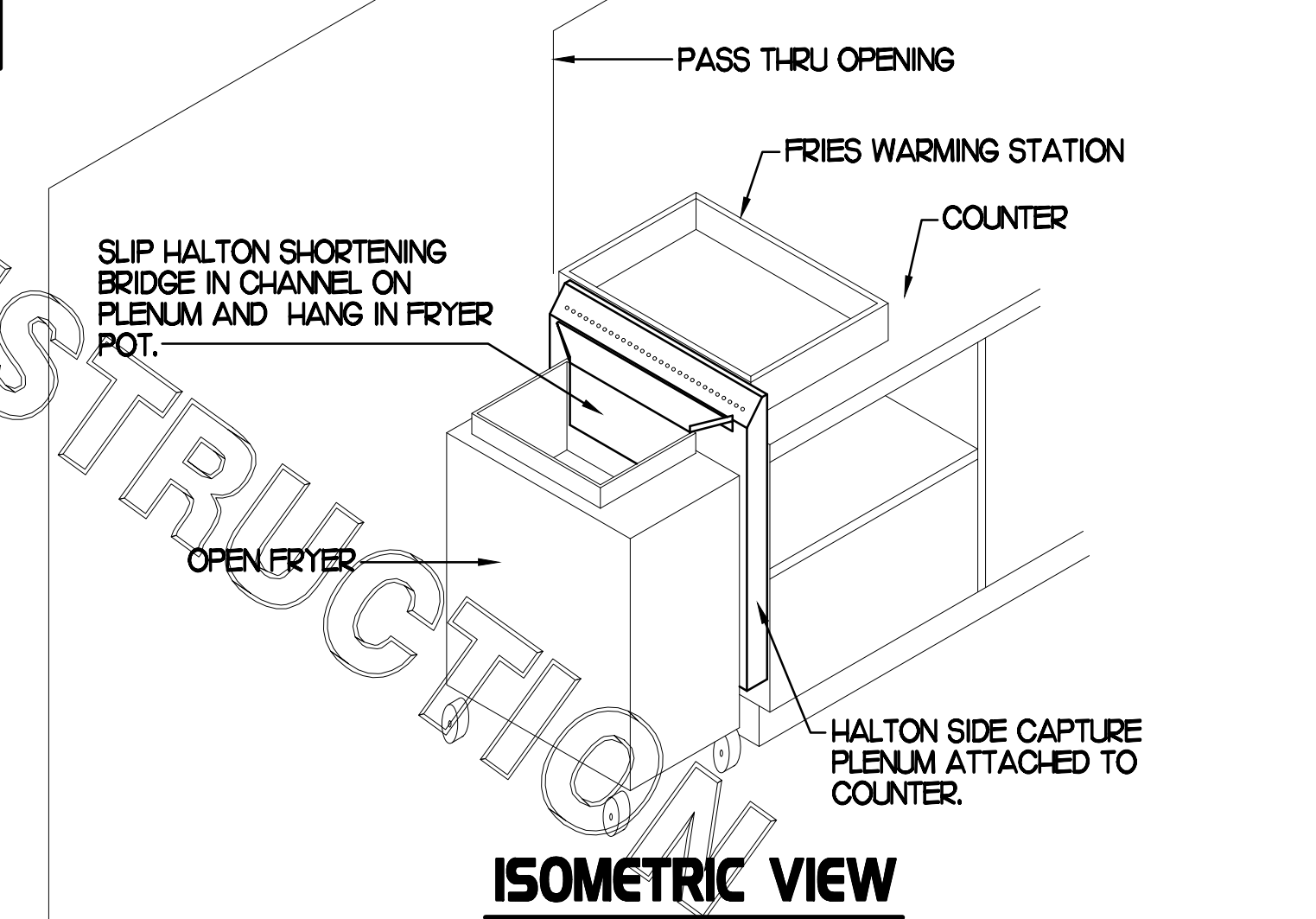
**SECTION "A-A"**



**SECTION "B-B"**

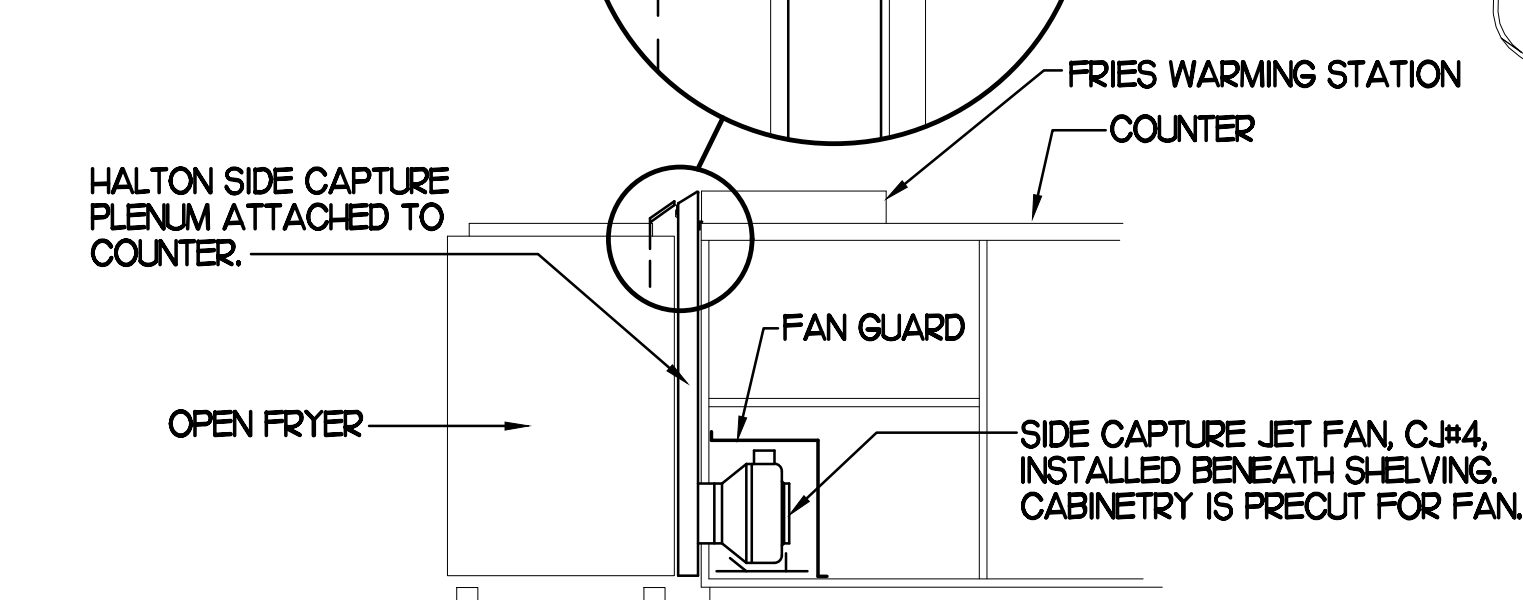


**SECTION "C-C"**

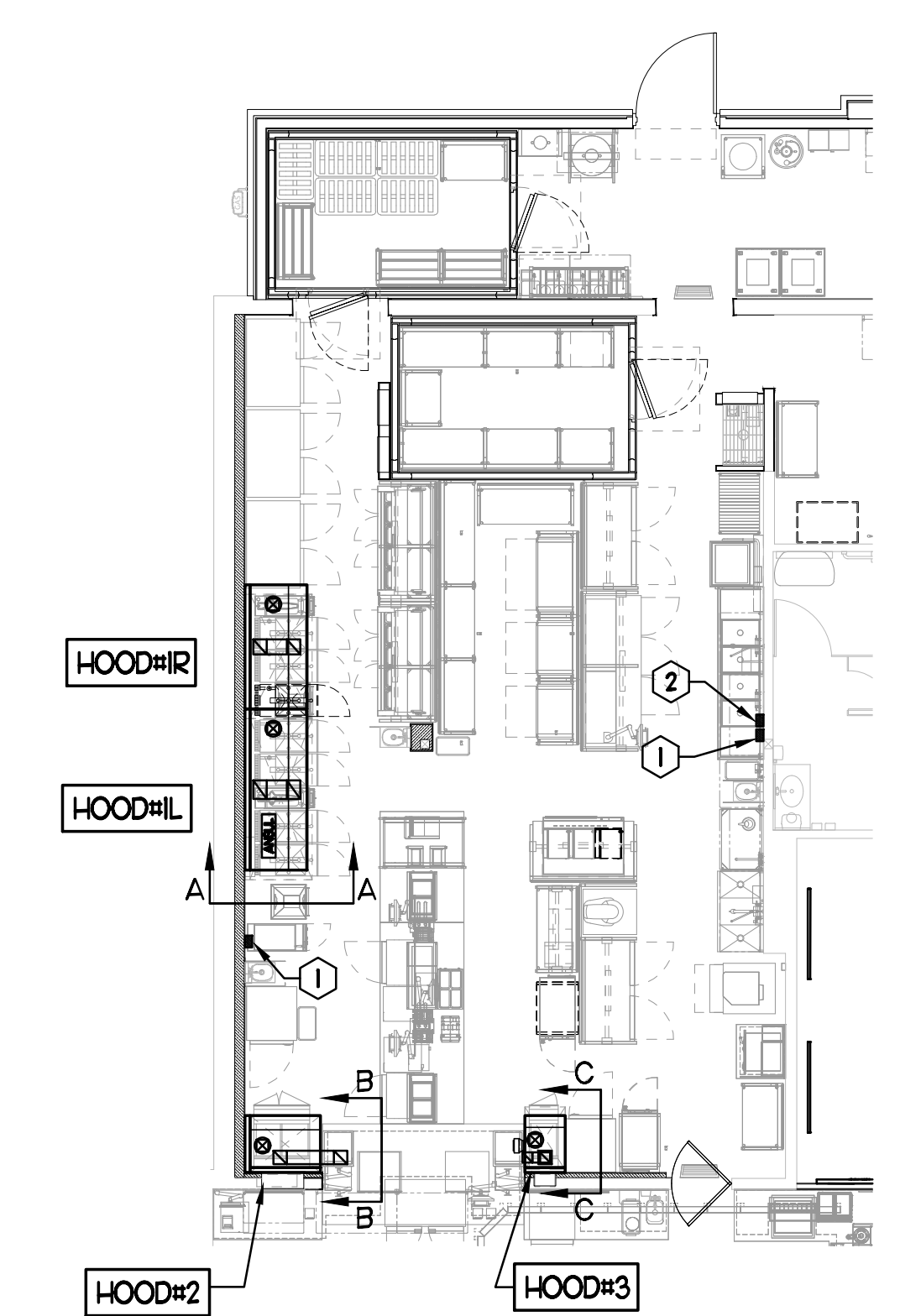


SEE HALTON SHOP DRAWINGS FOR DETAILED INSTALLATION INSTRUCTIONS.

SLIP HALTON SHORTENING BRIDGE IN CHANNEL ON PLENUM AND HANG IN FRYER POT.



**FRONT VIEW**



**KEY NOTES**

- ANSUL PULL STATIONS SERVING HOOD#2 AND HOOD#3. LOCATE ANSUL PULL STATION BETWEEN 42" AND 48" AFF. COORDINATE EXACT LOCATION WITH KITCHEN EQUIPMENT ELEVATIONS. J-BOX AND CONDUIT ARE BY ELECTRICAL. PROVIDE WHITE BAKELITE LABEL WITH 1/4" HIGH LETTERS INDICATING THE HOODS SERVED, I.E. 'PASS-THRU HOODS'. BOTH PULL STATIONS SERVE THE SAME REMOTE MOUNTED ANSUL TANKS.
- ANSUL PULL STATION SERVING HOOD#1L AND HOOD#1R. LOCATE ANSUL PULL STATION BETWEEN 42" AND 48" AFF. COORDINATE EXACT LOCATION WITH KITCHEN EQUIPMENT ELEVATIONS. J-BOX AND CONDUIT ARE BY ELECTRICAL. PROVIDE WHITE BAKELITE LABEL WITH 1/4" HIGH LETTERS INDICATING THE HOODS SERVED, I.E. 'MAIN COOKLINE HOODS'.

**3 HOOD ELEVATIONS**

**2 HALTON SIDE CAPTURE JET PLENUM**

**1 HOOD LAYOUT**

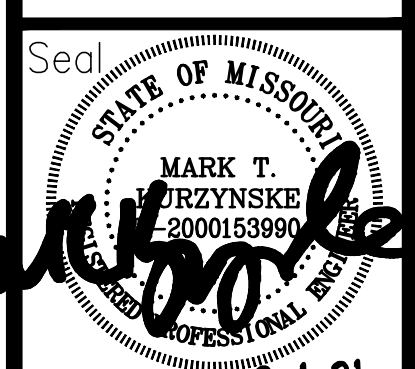


Chick-fil-A

5200 Buffington Rd.  
Atlanta Georgia,  
30349-2998

Revisions:

Mark	Date	By
△	04.15.20	
△	PERMIT ISSUE	
△	08.12.20	
△	PERMIT RESUBMITTAL	
△	11.25.20	
△	ISSUE FOR BID	
△	12.18.20	
△	PERMIT RESUBM.	
△	02.01.21	
△	CONSTRUCTION ISSUE	



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SHEET TITLE

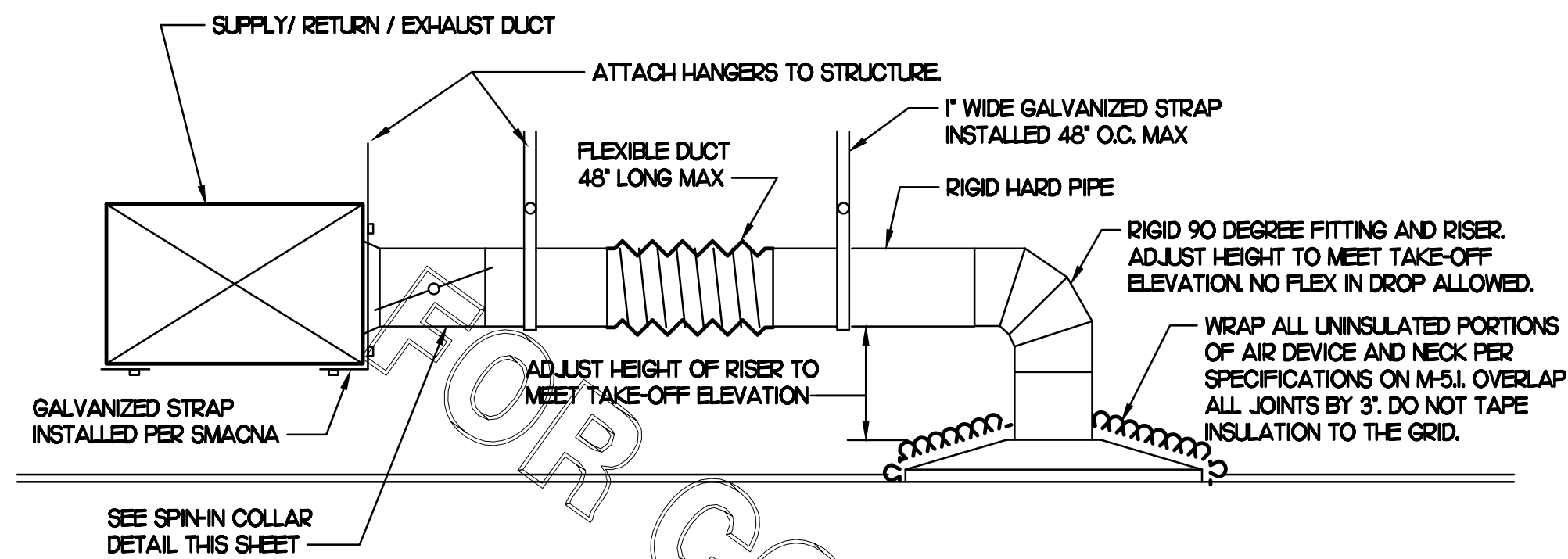
HOOD DETAILS

VERSION: S06C  
ISSUE DATE: 02.01.2021

Job No. : 20031.CD.R  
Store : 01947  
Date : 02.01.21  
Drawn By : AK  
Checked By : MK

Sheet

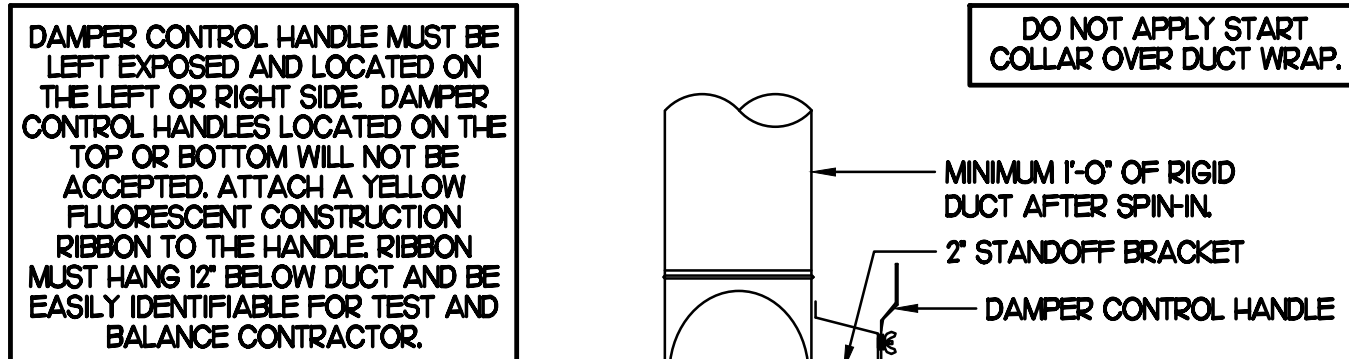
**M2.01**



### 1 SAG/RAG/GRILLE TAKE-OFF

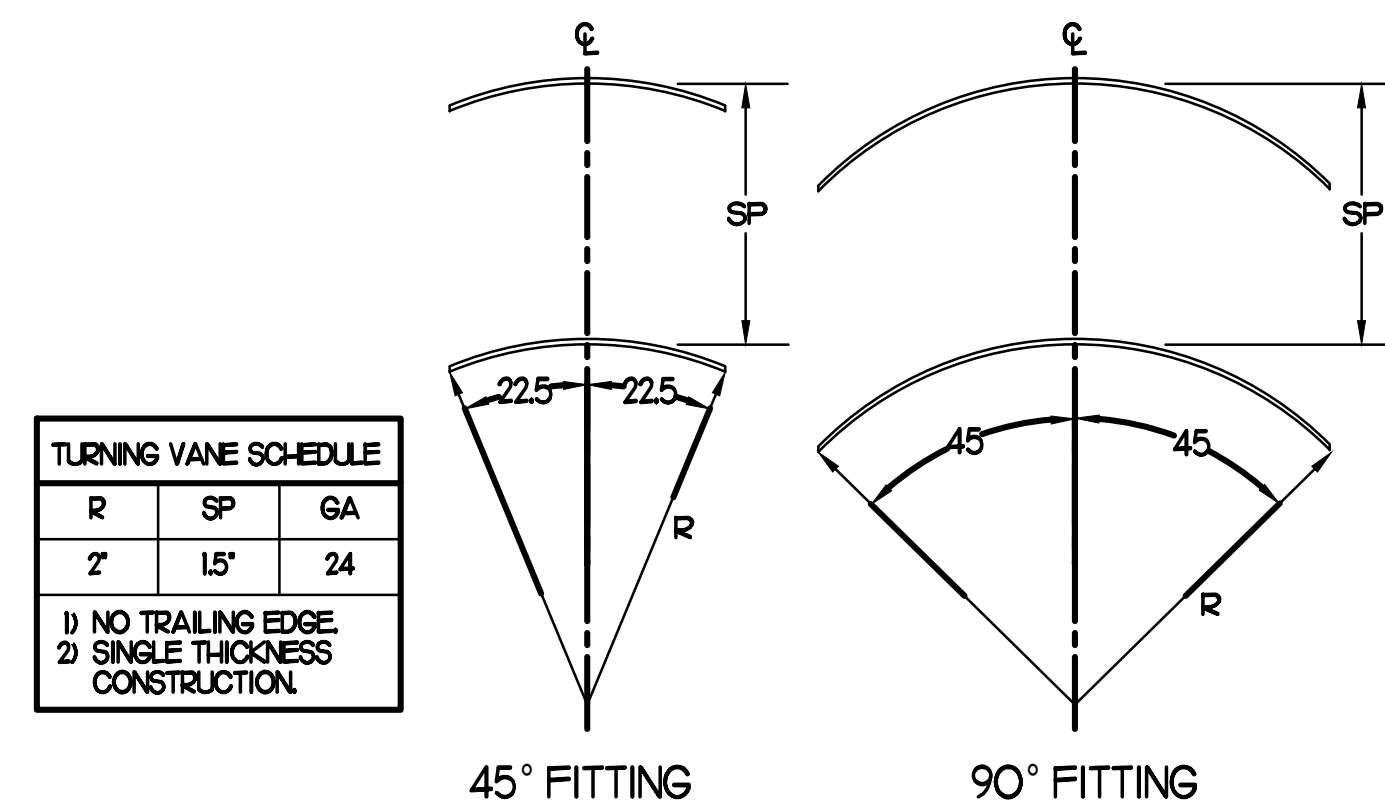
NO SCALE

CHICK-FIL-A HAS A NATIONAL ACCOUNT WITH TOM BARROW COMPANY FOR THE ROYAL METAL PRODUCTS START COLLARS FOR BOTH WITH AND WITHOUT A MANUAL BALANCING DAMPER. THE MECHANICAL CONTRACTOR IS REQUIRED TO PURCHASE THE ROYAL METAL PRODUCTS START COLLARS DIRECTLY FROM TOM BARROW COMPANY. CONTACT MR. SCOTT GEORGE AT 404-351-0100 FOR PRICING AND AVAILABILITY. ROYAL METAL PRODUCTS START COLLARS NOT PURCHASED THRU TOM BARROW COMPANY WILL NOT BE ACCEPTED.



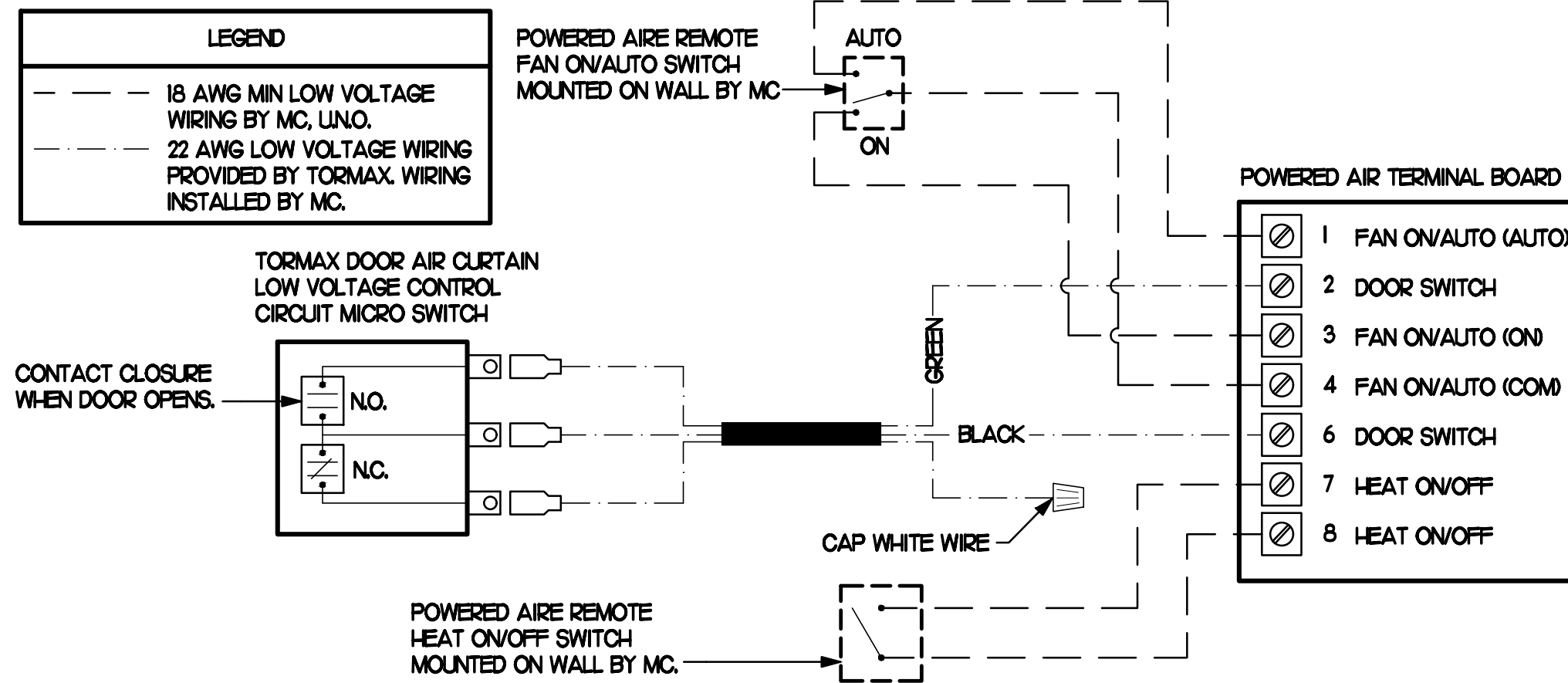
### 2 START COLLAR

NO SCALE



### 3 TURNING VANES

NO SCALE



### 4 AIR CURTAIN WIRING DIAGRAM

NO SCALE

MARK	CFM	ESP	RPM	TP SPEED (FFM)	HP	AREA SERVED	MODEL	MANUFACTURER	REMARKS
EF#1 (NEW)	1,912	0.75	1,331	5,225	3/4	HOOD#1 & HOOD#R	150 CPS	LOREN COOK	H-2
EF#2 (NEW)	1,091	0.75	1,224	4,325	1/2	HOOD#2 & HOOD#S	135 CPS	LOREN COOK	H-2
EF#3 (EXIST)	400	-	-	-	-	RESTROOMS	-	EXISTING	-

NOTES:  
• GREASE EXHAUST FAN RPM BASED ON 80 DEGREE F AIR AT 1000 FEET ABOVE SEA LEVEL.  
• GREASE EXHAUST FANS TO BE ULL 762 LISTED.  
• CHICK-FIL-A HAS A NATIONAL ACCOUNT WITH TOM BARROW COMPANY FOR THE FAN/CLUB PACKAGE. THE MECHANICAL CONTRACTOR IS REQUIRED TO PURCHASE THE FAN/CLUB PACKAGE DIRECTLY FROM TOM BARROW COMPANY. CONTACT MR. SCOTT GEORGE AT 404-351-0100 FOR PRICING AND AVAILABILITY. FANS AND CURBS NOT PURCHASED THRU TOM BARROW COMPANY WILL NOT BE ACCEPTED.

REMARKS:  
1. UTILITY SET FAN CURB AND ASSOCIATED EXHAUST DUCT CURB PROVIDED BY TOM BARROW COMPANY.  
2. PROVIDE FACTORY INSTALLED, PRE-WIRED, NEMA 3 NON-FUSED DISCONNECT. COORDINATE WITH E.C.  
3. PROVIDE AND INSTALL ROOFTOP SOLUTIONS G2 DRIP GUARD. MC TO CONTACT ROOFTOP SOLUTIONS AT 800-913-7034.  
4. INTEGRAL THERMAL OVERLOAD WITH AUTOMATIC RESET.  
5. UP/BLAST, ARRANGEMENT 10, COW ROTATION. SEE PLANS TO CONFIRM CONFIGURATION.  
6. PROVIDE FACTORY STEEL INLET FLANGE AND INLET COMPANION FLANGE.  
7. PROVIDE FACTORY STEEL INLET COMPANION FLANGE.  
8. PROVIDE FACTORY STEEL OUTLET COMPANION FLANGE.  
9. PROVIDE FACTORY WEATHER HOUSING W/ HINGED ACCESS DOOR.  
10. PROVIDE FACTORY BELT DRIVE WITH ADJUSTABLE MOTOR SHEAVE AND SPARE BELT.  
11. PROVIDE FACTORY BOLTED ACCESS DOOR ON SCROLL.  
12. PROVIDE FACTORY BELT DRIVE WITH ADJUSTABLE MOTOR SHEAVE AND SPARE BELT.

### AIR DEVICE SCHEDULE

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.	DINING AREA KITCHEN	SEE PLAN	24X24	LAY-IN	1,8
C	PRICE MODEL SMCD STEEL SUPPLY AIR DIFFUSER FIELD ADJUSTABLE AIR PATTERN CONTROLLERS.	ENTRYS	14X14	20X20	BEVELLED	1,3,5,7
D	TITUS MODEL 772FS DOUBLE DEFLECTION ALUMINUM SIDEWALL SUPPLY GRILLE FRONT BLADE PARALLEL TO SHORT SIDE.	MECHANICAL ROOM	8X6	10X8	SURFACE	1
E	PRICE MODEL 22 DOUBLE DEFLECTION ALUMINUM SIDEWALL SUPPLY GRILLE FRONT BLADE PARALLEL TO LONG SIDE.	PLAY AREA	18X12	20X14	SURFACE	1
F	PRICE MODEL 80 EGGRATE RETURN AIR GRILLE WITH REMOVABLE WHITE CORE FACTORY FLAT BLACK BACKPAN AND ROUND NECK.	DINING KITCHEN	SEE PLAN	24X24	LAY-IN	1,8
G	TITUS MODEL 56FL ALUMINUM SIDEWALL RETURN GRILLE FRONT BLADE PARALLEL TO LONG SIDE.	MECHANICAL ROOM	8X6	10X8	SURFACE	1
H	PRICE MODEL APDC ALUMINUM SUPPLY AIR DIFFUSER WITH INDIVIDUALLY ADJUSTABLE CURVED AIR PATTERN CONTROLLERS.	OFFICE	12	24X24	LAY-IN	1,6,8
J	PRICE MODEL SMCD STEEL SUPPLY AIR DIFFUSER FIELD ADJUSTABLE AIR PATTERN CONTROLLERS.	RESTROOMS	10X10	16X16	BEVELLED	1,2,3,5,7
K	PRICE MODEL APDOR ALUMINUM PERFORATED FACE RETURN AIR GRILLE.	RESTROOMS ENTRYS	14X14	17X17	SURFACE	1,4,5,7
L	PRICE MODEL 21 ALUMINUM SIDEWALL RETURN GRILLE FRONT BLADE PARALLEL TO LONG SIDE.	PLAY AREA	16X6	18X8	SURFACE	1

NOTES:  
• MECHANICAL CONTRACTOR SHALL PURCHASE THE AIR DEVICES DIRECTLY FROM TOM BARROW COMPANY. CONTACT MR. SCOTT GEORGE AT 404-351-0100, FOR PRICING AND AVAILABILITY. AIR DEVICES NOT PURCHASED THRU TOM BARROW COMPANY WILL NOT BE ACCEPTED.

REMARKS:  
1. STANDARD OFF WHITE FINISH.  
2. PROVIDE MODEL VCS3 NECK DAMPER.  
3. SEE DRAWING M11 FOR THROW.  
4. PROVIDE MODEL VCR7 NECK DAMPER ON GRILLES IN RESTROOMS.  
5. PROVIDE BACKPAN MC TO SEAL JOINTS WITH MASTIC AND INSULATE EXTERNALLY.  
6. PROVIDE VCR7 NECK DAMPER, ADJUSTABLE THRU DIFFUSER FACE.  
7. FIELD INSULATE BACKPAN AS SHOWN ON DETAIL 1M3-1.  
8. FACTORY INSULATED R-6 BACKPAN.

### AIR DOOR SCHEDULE

MARK	CFM	VELOCITY	HEATING CAP	HP	AREA SERVED	MODEL	MANUFACTURER	REMARKS
AD#1 (NEW)	1,543	2,338	10 KW	3/4	DRIVE THRU	CHA-148EB	POWERED-AIRE	2-4
AD#2 (NEW)	3,867	4,220	NA	3/4	REAR DOOR	RBT-148	POWERED-AIRE	1
AD#3 (NEW)	2,899	4,220	NA	3/4	DRIVE THRU DOOR	RBT-136	POWERED-AIRE	1

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 404-351-0100, FOR PRICING AND AVAILABILITY. AIR DOORS NOT PURCHASED THRU TOM BARROW COMPANY WILL NOT BE ACCEPTED.

REMARKS:  
1. FACTORY PROVIDED MAGNETIC DOOR CONTACT WITH FACTORY INSTALLED LOW VOLTAGE CONTROLS LOCATED IN AIR DOOR CABINET.  
2. FACTORY PROVIDED, WIRED, AND UNIT MOUNTED SPEED CONTROLLER LOCATED ABOVE CEILING.  
3. FACTORY WIRED DISCONNECT.  
4. FACTORY PROVIDED, FIELD INSTALLED REMOTE WALL SWITCHES FOR HEATING ON/OFF AND FAN ON/AUTO SWITCH. SEE AIR CURTAIN WIRING DIAGRAM DETAIL THIS SHEET.

### DUCTLESS SPLIT SYSTEM HEAT PUMP UNIT SCHEDULE

MARK	COOLING CAPACITY (MBH)	HEATING CAPACITY (MBH)	EFFICIENCIES	FAN SECTION (CFM)	ELECTRICAL DATA	R-410A MODEL	MFR						
MIN	MAX	MIN	MAX	SEER	HSPFF	AIR FLOW (MET)	MCA	MOCP	VOLTAGE	AHJ	CJ		
AHJH/CJH (NEW)	18.0	33.5	18.0	40.0	16.2	10.0	635-730-830	28	40	208/11/60	FKA-A36KA7	FLZ-HA36NH45	MITSUBISHI

NOTES:  
• MECHANICAL CONTRACTOR SHALL PURCHASE THE SPLIT SYSTEM HEAT PUMP DIRECTLY FROM TRANEMITSUBISHI. CONTACT MR. ISAAC LOCKETT AT 678-775-4226, FOR PRICING AND AVAILABILITY.

REMARKS:  
1. ELECTRICIAN TO PROVIDE NON-FUSED DISCONNECT.  
2. MECHANICAL TO PROVIDE AND INSTALL REFRIGERANT PIPING AS PER MFR RECOMMENDATIONS.  
3. PROVIDE ENGRAVED PLASTIC LABEL AT AHJ AND CJ WITH 1" HIGH WHITE LETTERS ON A BLACK BACKGROUND RIVETED TO UNIT CABINET.  
4. PROVIDE WITH ADEQUATE REFRIGERANT LINE SET. FIELD VERIFY DISTANCE FROM WHERE CONDENSER IS TO BE SET TO AIR HANDLER LOCATION PRIOR TO ORDERING.  
5. PROVIDE WITH WALL MOUNTED THERMOSTAT (TAR-CTO1MALJ-SB). USE TWO-WIRE, STANDARD, NON-POLAR CONTROL WIRE TO CONNECTOR TB5 ON INDOOR UNIT CONTROLLER. PROGRAM THERMOSTAT CONTROLS TO MATCH DRIVE-THRU RTU SETPOINTS.  
6. PROVIDE PAC-SE552A-E CONNECTOR AT INDOOR UNIT (CONNECTOR ON3), WIRE ORANGE AND RED WIRES TO SPARE POLE ON RELAY R-1 IN SLNOOAST T-500 PANEL (TERMINALS 11 AND 7 RESPECTIVELY) AND CAP THE BROWN WIRE.  
7. PROVIDE WITH CONDENSATE PUMP (BLUE DIAMOND MAXI BLUE MODEL# X87-72).

### GAS FIRED ROOFTOP UNIT SCHEDULE

MARK	COOLING CAPACITY (MBH)	HEATING CAPACITY (MBH)	FAN SECTION (CFM)	MODEL	MANUFACTURER	REMARKS						
TOTAL	SENS	INPUT	OUTPUT	STAGES	SUPPLY	O.A.	HP	ESP				
ACH (NEW)	279.6	198.5	480.0	384.0	2	8,000	1,700	7.5	1.0	LGH300S4B	LENNOX	123,5,6,7,8,9,10,11,12,15
ACH2 (NEW)	100.3	70.2	240.0	192.0	2	2,830	750	2.0	1.0	LGH20H4B	LENNOX	12,3,5,6,7,8,9,10,11,12,13,15
ACH3 (NEW)	124.4	89.6	240.0	192.0	2	4,000	1,000	3.0	1.0	LGH20H4B	LENNOX	12,3,5,6,7,8,9,10,11,12,13,15
ACH4 (NEW)	99.6	68.7	240.0	192.0	2	2,765	600	2.0	1.0	LGH0924B	LENNOX	12,3,5,6,7,8,9,10,11,12,13,15
ACH5 (NEW)	67	43.8	150.0	120.0	2	1,800	300	1.0	0.85	LGH0604E	LENNOX	12,3,5,6,7,8,9,10,11,12,14,16

NOTES:  
• COOLING CAPACITIES ARE GROSS, BASED ON INDOOR EDB 80F, INDOOR EWB 67F, OUTDOOR EDB 95F.  
• FOR PROPER BUILDING AIR BALANCE, VERIFY AMOUNT OF OUTSIDE AIR PROVIDED BY ALL EXISTING UNITS. ADJUST AS PER SCHEDULE IF NECESSARY.  
• VERIFY MIN 10' DISTANCE OF O.A. INTAKE OPENINGS OF A/C UNITS FROM ANY EXISTING SOURCE OF AIR POLLUTION (EXHAUST FAN, COMBUSTION FLE, VENT ETC.) IF SUCH CONDITIONS EXIST, CONTRACTOR IS REQUIRED TO DUCT OUTSIDE AIR INTAKE ON ROOF AWAY FROM ANY SUCH SOURCE.

REMARKS:  
1. PROVIDE DIFFERENTIAL ENTHALPY ECONOMIZER WITH POWER EXHAUST. ECONOMIZER TO BE LOW LEAKAGE/HIGH PERFORMANCE.  
2. SEE DETAIL 2/M4-1 FOR SETTING OF PRODIGY M3 BOARD CONTROL PARAMETERS BY MC.  
3. PROVIDE WITH FACTORY DRAIN PAN OVERFLOW SWITCH.  
4. PROVIDE FACTORY INSTALLED AND UNIT POWERED 15V GFI SERVICE OUTLET.  
5. PROVIDE FACTORY INSTALLED 15V GFI SERVICE OUTLET.  
6. PROVIDE FACTORY INSTALLED RETURN SIDE SMOKE DETECTOR.  
7. PROVIDE FACTORY INSTALLED NON-FUSED DISCONNECT.  
8. PROVIDE 2" MERV 8 THROW AWAY FILTERS.  
9. PROVIDE HINGED PANELS FOR FILTER ACCESS, FAN MOTOR ACCESS, COMPRESSOR ACCESS AND CONTROL COMPARTMENT ACCESS.  
10. ADJUST GAS MANIFOLD PRESSURE AT LOCATIONS WHERE ELEVATION EXCEEDS 2000' ABOVE SEA LEVEL AS RECOMMENDED BY MANUFACTURER.  
11. PROVIDE FACTORY COIL HAIL GUARD, FIELD INSTALLED.  
12. PROVIDE HUMIDIDITY OPTION WITH FACTORY WALL MOUNTED HUMIDITY SENSOR (STATES OF CA AND AZ EXCLUDED).  
13. PROVIDE WITH FACTORY RETURN AIR ADAPTER PLATE.  
14. PROVIDE WITH ADAPTER CURB. UNIT BEING REPLACED WITH LENNOX MODEL LG6060H. ADAPTER CURB IS PROVIDED BY LENNOX AS PART OF THE TOTAL EQUIPMENT PACKAGE.  
15. PROVIDE FACTORY INSTALLED BLOWER BELT AUTO-TENSIONER.  
16. PROVIDE WITH MSAV BLOWER.



Revisions:

Mark	Date	By
△	04.15.20	
△	08.12.20	
△	11.25.20	
△	12.18.20	
△	02.01.21	



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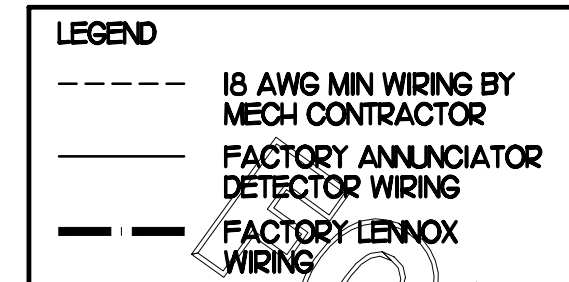
SHEET TITLE  
HVAC DETAILS  
& SCHEDULES

VERSION: S06C  
ISSUE DATE: 02.01.2021

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Date : 02.01.21  
Drawn By : AK  
Checked By : MK

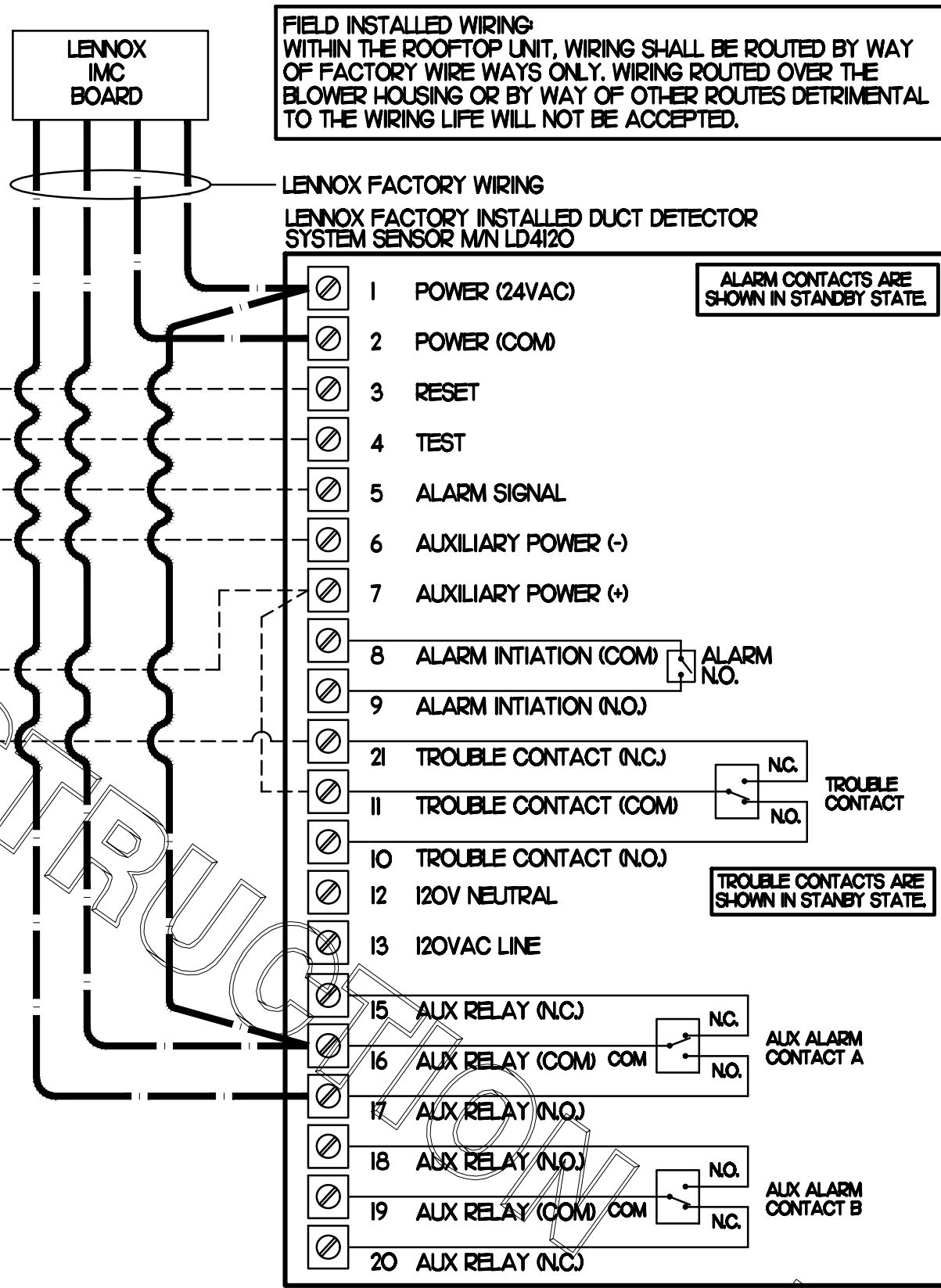
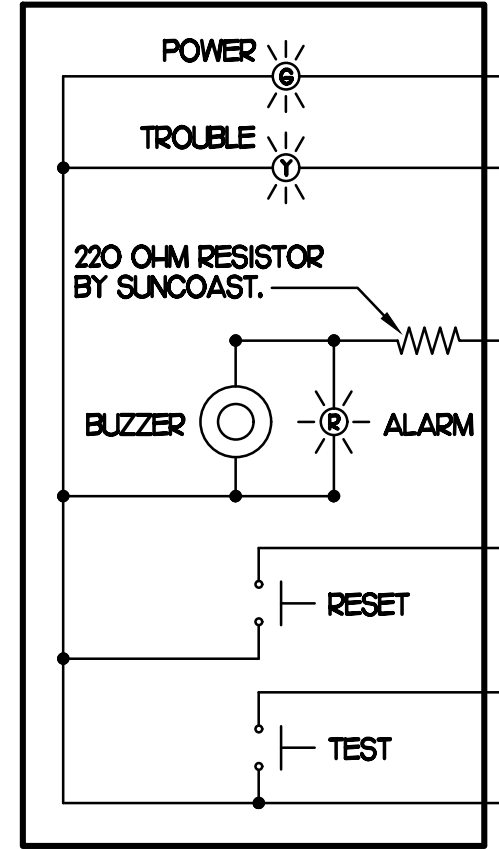
Sheet  
**M3.0I**

SUPPLY SIDE DETECTORS:  
IF SUPPLY SIDE SMOKE DETECTORS ARE SHOWN ON DWG M/L AND CALLED FOR ON RTU SCHEDULE, THE CONTRACTOR IS TO RELOCATE FACTORY INSTALLED SUPPLY SMOKE DETECTOR FROM BLOWER SECTION TO DUCTWORK. SEE NOTES ON DWG M/L.

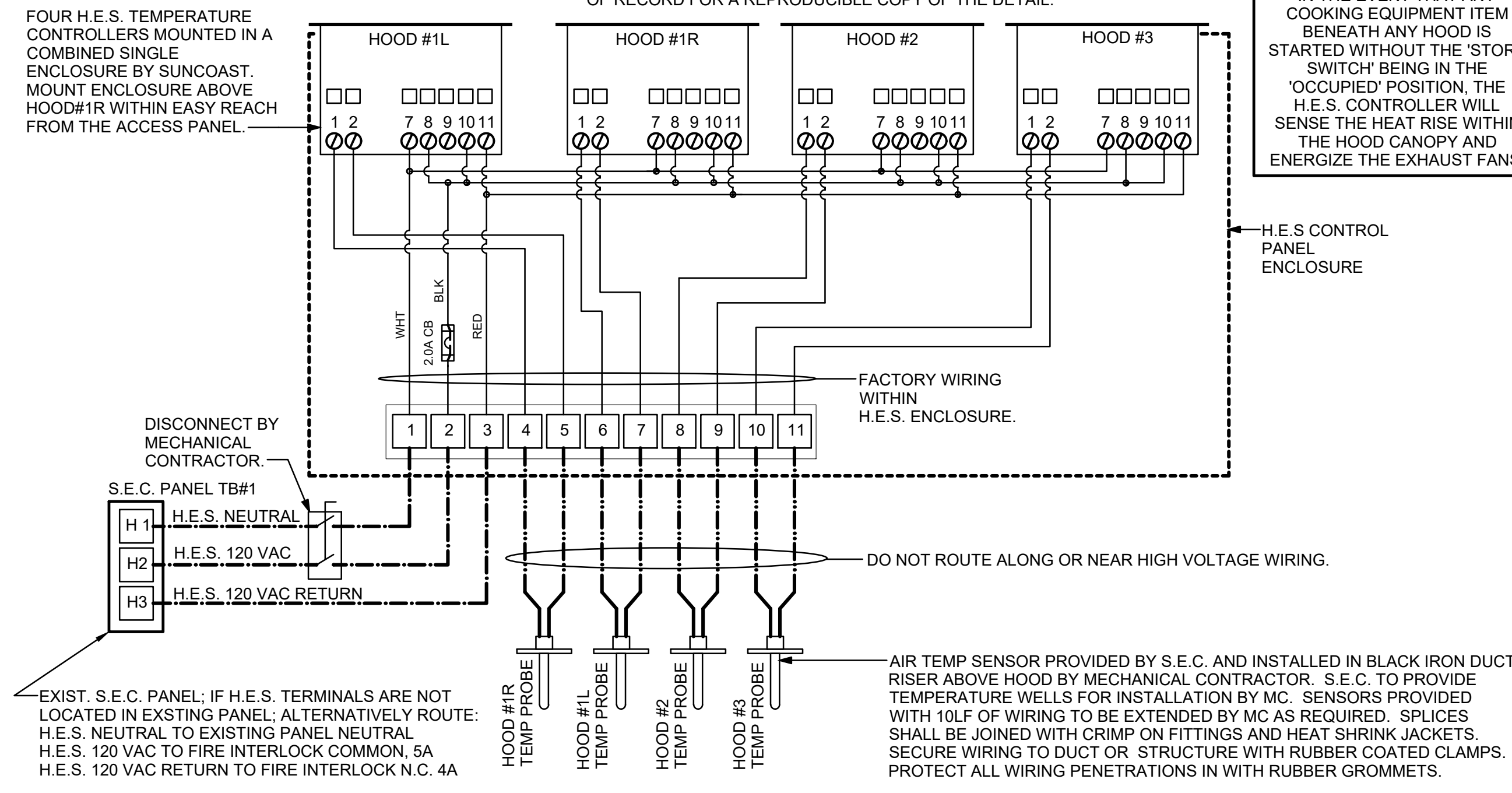
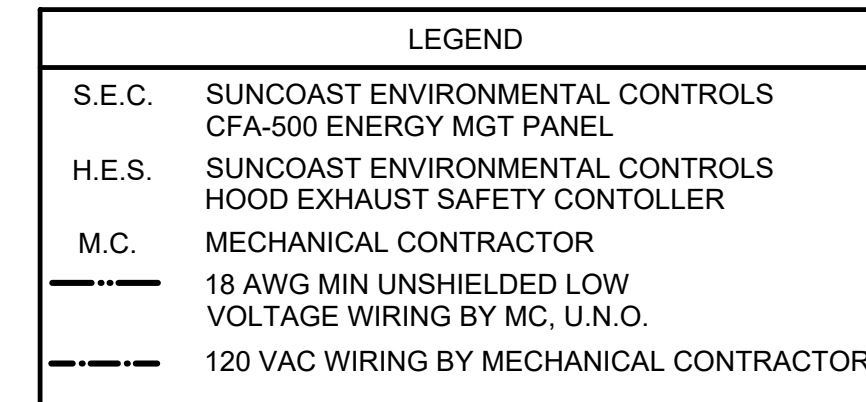


**LABELING**  
PROVIDE ENGRAVED LABEL WITH 1/4" HIGH WHITE LETTERS ON BLACK BACKGROUND IDENTIFYING UNIT SERVED.

SUNCOAST CONTROLS ANNUNCIATOR



**FIELD INSTALLED WIRING**  
WITHIN THE ROOFTOP UNIT, WIRING SHALL BE ROUTED BY WAY OF FACTORY WIRE WAYS ONLY. WIRING ROUTED OVER THE BLOWER HOUSING OR BY WAY OF OTHER ROUTES DETRIMENTAL TO THE WIRING LIFE WILL NOT BE ACCEPTED.

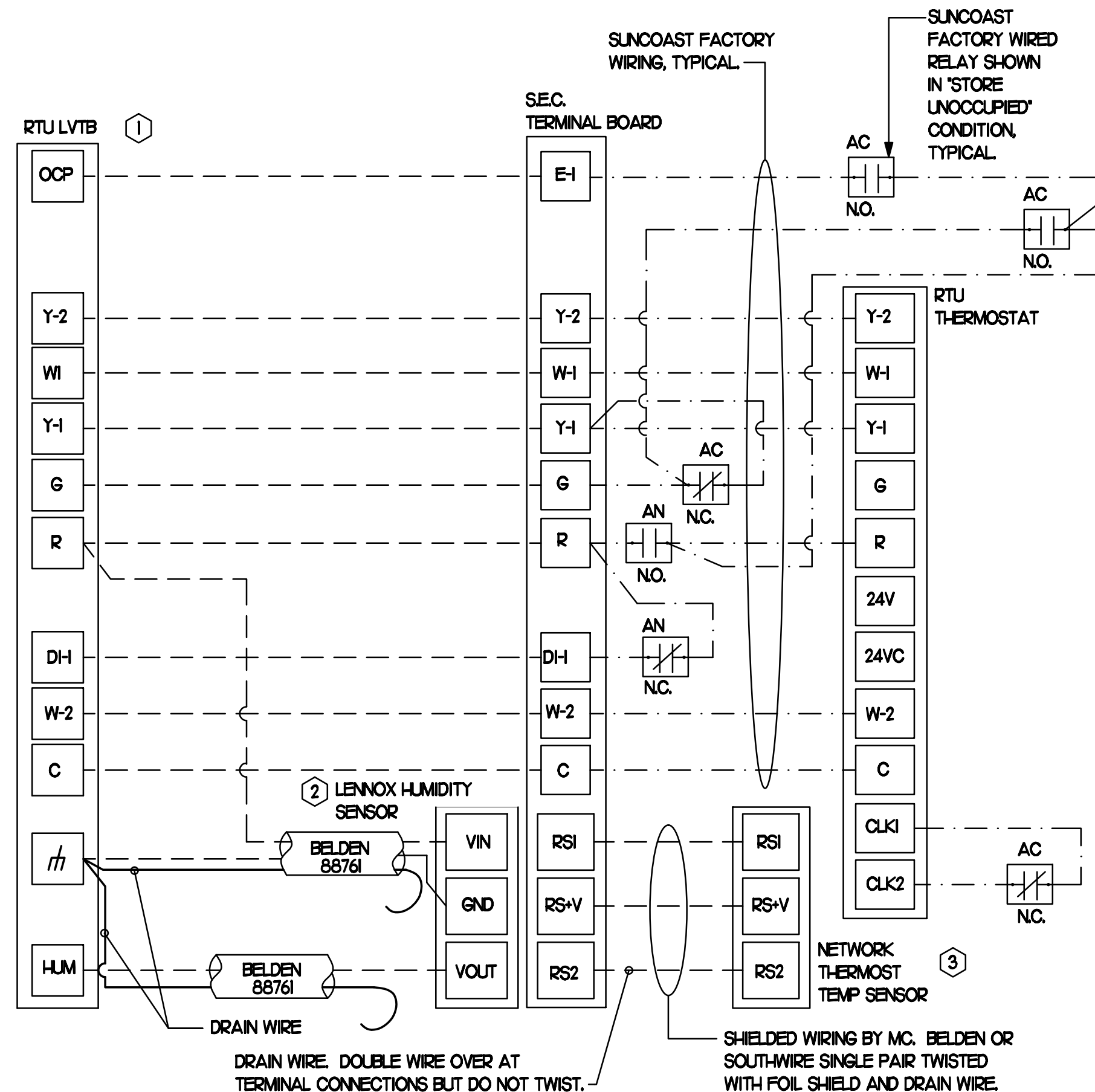
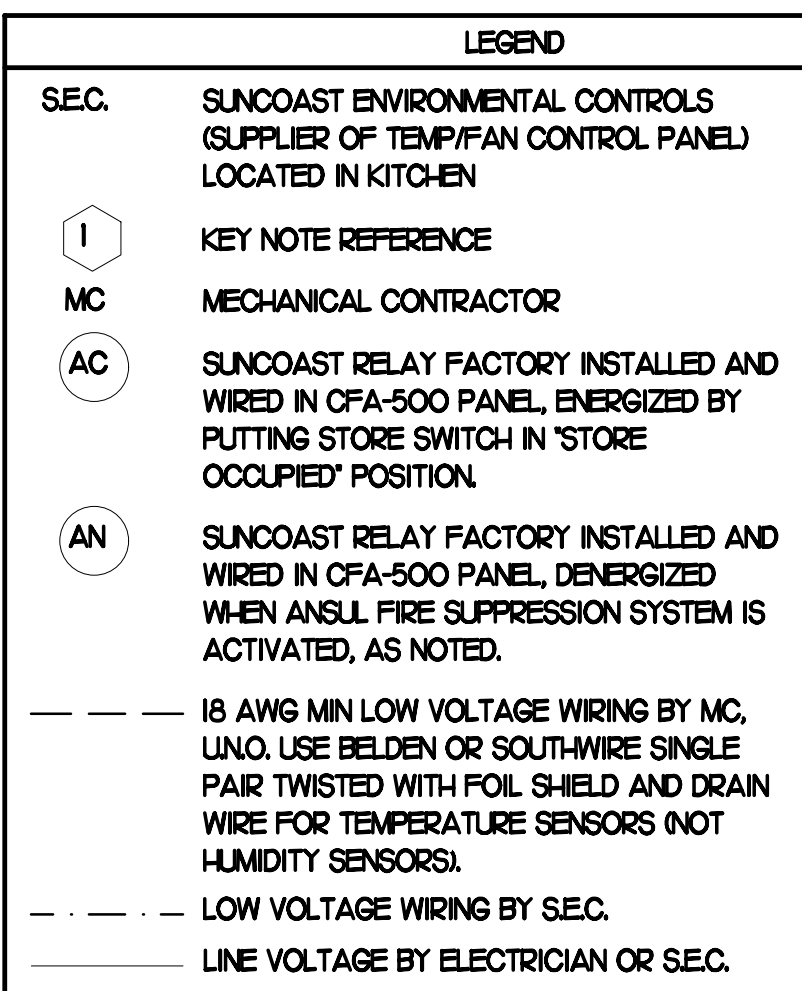


## 1 SMOKE DETECTOR AND ANNUNCIATOR WIRING DIAGRAM - LENNOX

NONE SCALE

- 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 PLASTIC ENGRAVED 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.

- KEYED NOTES**
- LOW VOLTAGE WIRING TO RTU TO BE ROUTED TO UNIT THRU FACTORY WIREWAY.
  - HUMIDITROL UNITS ONLY: WIRING TO HUMIDITY SENSOR TO BE MADE WITH TWO SEPARATE RUNS OF SHIELDED TWISTED PAIR. TERMINATE SHIELD WIRES AT TB-1, LEAVE OPEN AT SENSOR.
  - NETWORK TSTAT REMOTE TEMP SENSOR PROVIDED BY SUNCOAST AND INSTALLED BY MC. FIELD CALIBRATE EACH SENSOR.



- LENNOX FRESH AIR HEATING SETUP WHEN SPECIFIED:**
- INSTALL FRESH AIR TEMPERING KIT WIRING HARNESS AS RECOMMENDED BY LENNOX.
  - LOCATE SUPPLY AIR TEMPERATURE SENSOR IN SUPPLY DUCT DOWNSTREAM OF FIRST ELBOW. SECURE WIRING TO DUCT OR STRUCTURE WITH RUBBER COATED CLAMPS. DO NOT RUN WIRING INSIDE DUCT WORK. PROTECT ALL WIRING PENETRATIONS WITH RUBBER GROMMETS.
  - FOR PRODIGY 2.0 FIRST SET FRESH AIR HEATING ENABLE TO 'YES' THRU THE TAB/DAMPER MENU LEAVE FRESH AIR COOLING AS 'NO'. NEXT, CHANGE PRODIGY-M3 BOARD CONTROL PARAMETER #56 TO A VALUE OF 66. THIS WILL PREVENT THE SUPPLY AIR TEMPERATURE FROM DROPPING BELOW 66F DEG DURING HEATING MODE WHEN THERMOSTAT IS NOT ACTIVELY CALLING FOR HEAT.
  - CHANGE PRODIGY-M3 BOARD CONTROL PARAMETER #57 TO A VALUE OF 14. THIS WILL MAKE THE DEADBAND VALUE EQUAL 14F.
  - CHANGE PRODIGY-M3 BOARD CONTROL PARAMETER #58 TO A VALUE OF 300. THIS WILL MAKE THE CYCLE TIME VALUE EQUAL 5 MINUTES.

- LENNOX PRODIGY CONTROLLER SETTINGS:**
- FOR ALL RTUS EXCEPT AT ACH1, CHANGE PRODIGY-M3 BOARD CONTROL PARAMETER #65 TO ZERO (#68 ON LCH UNITS). THIS WILL CAUSE THE O.A. DAMPER TO OPEN ON 'OCCUPIED' START. AT ACH1 (LCH TYPE) LEAVE THE SETTING AT THE DEFAULT VALUE SO THE O.A. DAMPER WILL REMAIN CLOSED FOR THE FIRST 60 MINUTES AFTER 'OCCUPIED' START. AT ACH1 (LCH TYPE) CHANGE THE VALUE TO 5400 SO THE O.A. DAMPER WILL REMAIN CLOSED FOR THE FIRST 90 MINUTES AFTER 'OCCUPIED' START.
  - AT HUMIDITROL RTUS, SET PRODIGY-M3 BOARD CONTROL PARAMETER #105 FOR DEHUMIDIFICATION OPERATION TO A VALUE OF 7.
  - AT HUMIDITROL RTUS, SET PRODIGY-M3 BOARD CONTROL PARAMETER #106 FOR DEHUMIDIFICATION MODE SET POINT TO A VALUE OF 60 (60F RH).
  - AT HUMIDITROL RTUS, SET PRODIGY-M3 BOARD CONTROL PARAMETER #107 FOR DEHUMIDIFICATION MODE DEAD BAND TO A VALUE OF 2 (2% RH).
  - AT MS4V UNITS, SET THE MS4V LOW SPEED SETTING TO THE SAME VALUE AS THE HIGH SPEED SETTING AFTER TAB IS COMPLETE.

## 3 HOOD EXHAUST SAFETY SWITCH (H.E.S.) WIRING DIAGRAM

NONE

## 2 ROOFTOP UNIT CONTROL WIRING - LENNOX

NONE



5200 Buffington Rd.  
Atlanta Georgia,  
30349-2998

Revisions:

Mark	Date	By
△	04.15.20	
△	PERMIT ISSUE	
△	08.12.20	
△	PERMIT RESUBMITTAL	
△	11.25.20	
△	ISSUE FOR BID	
△	12.18.20	
△	PERMIT RESUBM.	
△	02.01.21	
△	CONSTRUCTION ISSUE	



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STORE #01947  
GLENSTONE FSU

3700 S GLENSTONE AVE.  
SPRINGFIELD, MO  
65804

SHEET TITLE  
HVAC  
CONTROLS

VERSION: S06C  
ISSUE DATE: 02.01.2021

Job No. : 20031.CD.R  
Store : 01947  
Date : 02.01.21  
Drawn By : AK  
Checked By : MK

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**M4.OI**

LEGEND			
CF#1	CIRCULATING FAN #1 (TYP)	B/G	BELOW GRADE
GIH#1	GAS INFRARED HEATER #1 (TYP)	EC	ELECTRICAL CONTRACTOR
---	NEW GAS PIPING ABOVE GRADE	MC	MECHANICAL CONTRACTOR
---	NEW GAS PIPING BELOW GRADE	---	CONDUIT ABOVE CANOPY DECK

### GENERAL NOTES

- COORDINATE NEW WORK WITH EXISTING CONDUIT, STRUCTURE, AND PIPING. FIELD VERIFY EXISTING CONDITIONS PRIOR TO START OF WORK.
- COORDINATE LOCATION AND RESPONSIBILITIES FOR UNDERGROUND PIPING AND ASSOCIATED TRENCHING WITH GENERAL CONTRACTOR PRIOR TO START OF WORK.
- EXPOSED GAS PIPING SHALL BE PAINTED BY GENERAL CONTRACTOR.
- ACTUAL NUMBER OF GAS INFRARED HEATERS & COOLING FANS WILL BE DETERMINED BY SITE-SPECIFIC CANOPY LAYOUT AND EQUIPMENT LOCATIONS, AS INDICATED ON ARCHITECTURAL PLANS.
- CONTROL WIRING FOR HEATERS BY EC. COORDINATE WIRE GAUGE WITH EC. SEE ELECTRICAL AND CONTROLS DRAWINGS, TYP.

HEAT SHIELD TO SET ON TOP OF IR HEATER ON THE FACTORY HEATER MOUNTING STUDS. SHIELD ORIENTED SO EDGE IS TURNED DOWN. PURCHASE DIRECTLY FROM TOM BARROW COMPANY. CONTACT SCOTT GEORGE AT 404-351-1010.

ORDER CANOPY. SEE ARCHITECTURAL.

ELECTRICAL CONDUIT TO BE ROUTED ABOVE CANOPY BY EC, ON TOP OF STRUCTURAL BEAMS, EXCEPT WHERE ROUTED DOWN THROUGH PENETRATIONS AS INDICATED. CONDUIT SHALL BE SUPPORTED BY PIPE SUPPORTS PROVIDED BY THE MC. SEE DETAIL 1/M5.2.

WIRING FOR HEATERS BY EC ROUTED IN SAME 3" CONDUIT FOR LIGHTING. COORDINATE REQUIRED WIRE GAUGE WITH ELECTRICAL CONTRACTOR. SEE CONTROLS PLAN ON ELECTRICAL SHEETS. TERMINATIONS BY MC.

1/2" GAS UP AND OVER PARAPET (OR THRU PARAPET PER DETAIL 5 SHEET M5.2) COORDINATE WITH CFA CONSTRUCTION MANAGER) AND DOWN ALONG EXTERIOR WALL. PAINT EXPOSED PIPING TO MATCH WALL COLOR BY GC. PROVIDE FULL PORT BALL VALVE EQUAL TO APOLLO 50GB SERIES WITH WING HANDLE OPTION AT 48" AFG. INSTALL ANODELESS RISER WITH INTEGRAL CONSTAB PE-TO-IPS TRANSITION FITTING BY CONTINENTAL INDUSTRIES OR EQUAL BY ELSTER, FOR TRANSITION TO POLYETHYLENE PIPING UNDERGROUND. EXTEND UNDERGROUND GAS PIPING TO CANOPY COLUMN. IF REQUIRED BY AHJ, PROVIDE A SIGN STATING "EMERGENCY GAS SHUTOFF ON ROOF". LOCATE PER AHJ'S DIRECTION.

GAS-FIRED INFRARED HEATER. MC TO ATTACH TO MOUNTING PLATE ON CANOPY. MOUNTING PLATE IS PROVIDED AND INSTALLED BY THE CANOPY MFR. TYPICAL AT ALL IR HEATERS.

MOUNT FAN TO OVER-HEAD STRUCTURAL MEMBER USING STAINLESS MOUNTING HARDWARE.

GAS PIPING TO BE ROUTED ABOVE CANOPY, ON TOP OF STRUCTURAL MEMBERS, EXCEPT WHERE ROUTED DOWN THROUGH PENETRATIONS AS INDICATED.

CONDUIT/PIPING DOWN THROUGH DECK. WEATHERPROOF DECK PENETRATION PER DETAIL 2/M5.2, TYPICAL.

CONNECT 1/2" GAS TO CANOPY MFR GAS PIPE STUB-OUT FROM COLUMN ABOVE DECK.

ATTACH GAS TRANSITION FITTING, ELSTER 702205 OR EQUAL BY GASTITE, TO GAS PIPE STUB-OUT BELOW GRADE. GAS PIPING INSIDE COLUMN AND STUB-OUTS BY CANOPY MFR (LANE SUPPLY). JOIN UNDERGROUND POLYETHYLENE GAS PIPING TO TRANSITION FITTING WITH ELSTER PERMASERT COUPLING. EXPOSED STEEL GAS PIPING BELOW GRADE SHALL BE PROTECTED WITH TWO COATS ASPHALTUM BASE PAINT AND POLY SLEEVE.

1/2" GAS ON ROOF  
FULL PORT BALL VALVE

NEW 1/2" GAS TO BE CONNECTED TO EXISTING GAS PIPING ON ROOF. MAKE CONNECTION CLOSE TO METER WHERE EXISTING SERVICE COMES ONTO ROOF. MUST CONNECT TO MINIMUM 2" EXISTING LINE. COORDINATE ADDITIONAL LOAD ON METER WITH GAS UTILITY COMPANY.

## 1 HVAC PLAN - DOUBLE LANE ORDER CANOPY

ELECTRICAL CONDUIT TO BE ROUTED ABOVE CANOPY BY EC, ON TOP OF STRUCTURAL BEAMS, EXCEPT WHERE ROUTED DOWN THROUGH PENETRATIONS AS INDICATED. CONDUIT SHALL BE SUPPORTED BY PIPE SUPPORTS PROVIDED BY THE MC. SEE DETAIL 1/M5.2.

GAS-FIRED INFRARED HEATER. MC TO ATTACH TO MOUNTING PLATE ON CANOPY. MOUNTING PLATE IS PROVIDED AND INSTALLED BY THE CANOPY MFR. TYPICAL AT ALL IR HEATERS.

GAS PIPING TO BE ROUTED ABOVE CANOPY, ON TOP OF STRUCTURAL MEMBERS, EXCEPT WHERE ROUTED DOWN THROUGH PENETRATIONS AS INDICATED.

HEAT SHIELD TO SET ON TOP OF IR HEATER ON THE FACTORY HEATER MOUNTING STUDS. SHIELD ORIENTED SO EDGE IS TURNED DOWN. PURCHASE DIRECTLY FROM TOM BARROW COMPANY. CONTACT SCOTT GEORGE AT 404-351-1010.

ORDER CANOPY. SEE ARCHITECTURAL.

MOUNT FAN TO OVER-HEAD STRUCTURAL MEMBER USING STAINLESS MOUNTING HARDWARE.

PIPING DOWN THROUGH DECK. WEATHERPROOF DECK PENETRATIONS FOR CONDUIT AND PIPING PER DETAIL 2/M5.2, TYPICAL.

3/4" GAS TAKE OFF TO EACH GIH, TYPICAL

1/4" GAS ON ROOF

PROVIDE FULL PORT BALL VALVE EQUAL TO APOLLO 50GB SERIES WITH WING HANDLE OPTION ON BUILDING ROOFTOP. PROVIDE BRASS VALVE TAG WITH JACK CHAIN AT VALVE MARKED "EMERGENCY SHUTOFF FOR CANOPY". CAN ROUTE UP AND OVER PARAPET AND DOWN ALONG WALL OR THROUGH PARAPET, CONSULT WITH CFA CONSTRUCTION MANAGER. PAINT TO MATCH ADJACENT

NEW 1/4" GAS TO BE CONNECTED TO EXISTING GAS PIPING ON ROOF. MAKE CONNECTION CLOSE TO METER WHERE EXISTING SERVICE COMES ONTO ROOF. MUST CONNECT TO EXISTING LINE MINIMUM ONE SIZE LARGER THAN CANOPY SERVICE BRANCH. COORDINATE ADDITIONAL LOAD ON METER WITH GAS UTILITY COMPANY.

## 2 HVAC PLAN - MEAL DELIVERY CANOPY - UTILITIES AT EXISTING RESTAURANT



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△	08.12.20	
△	11.25.20	
△	12.18.20	
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65804

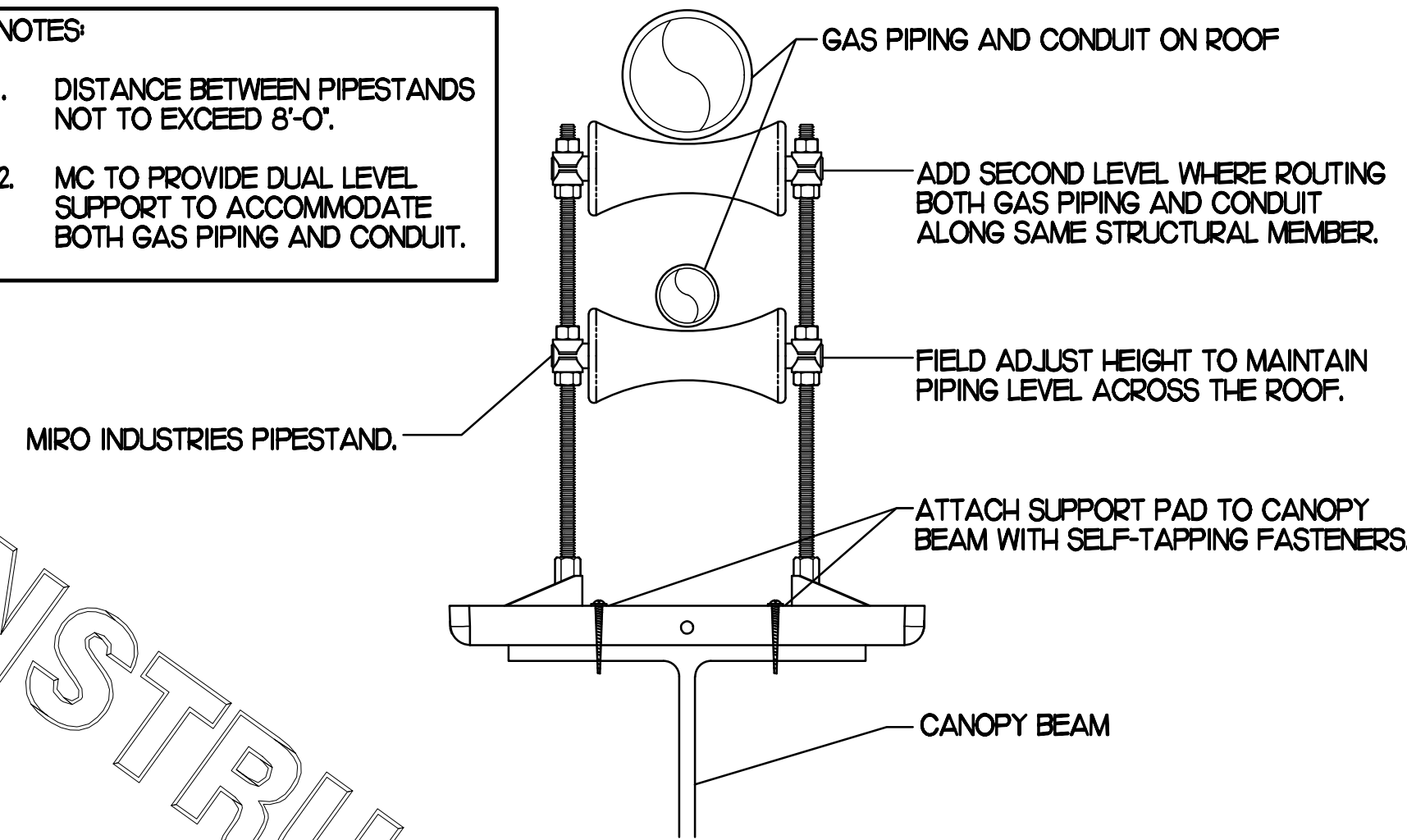
SHEET TITLE  
CANOPY  
HVAC PLANS

VERSION: S06C  
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Job No. : 20031.CD.R  
Store : 01947  
Date : 02.01.21  
Drawn By : AK  
Checked By : MK

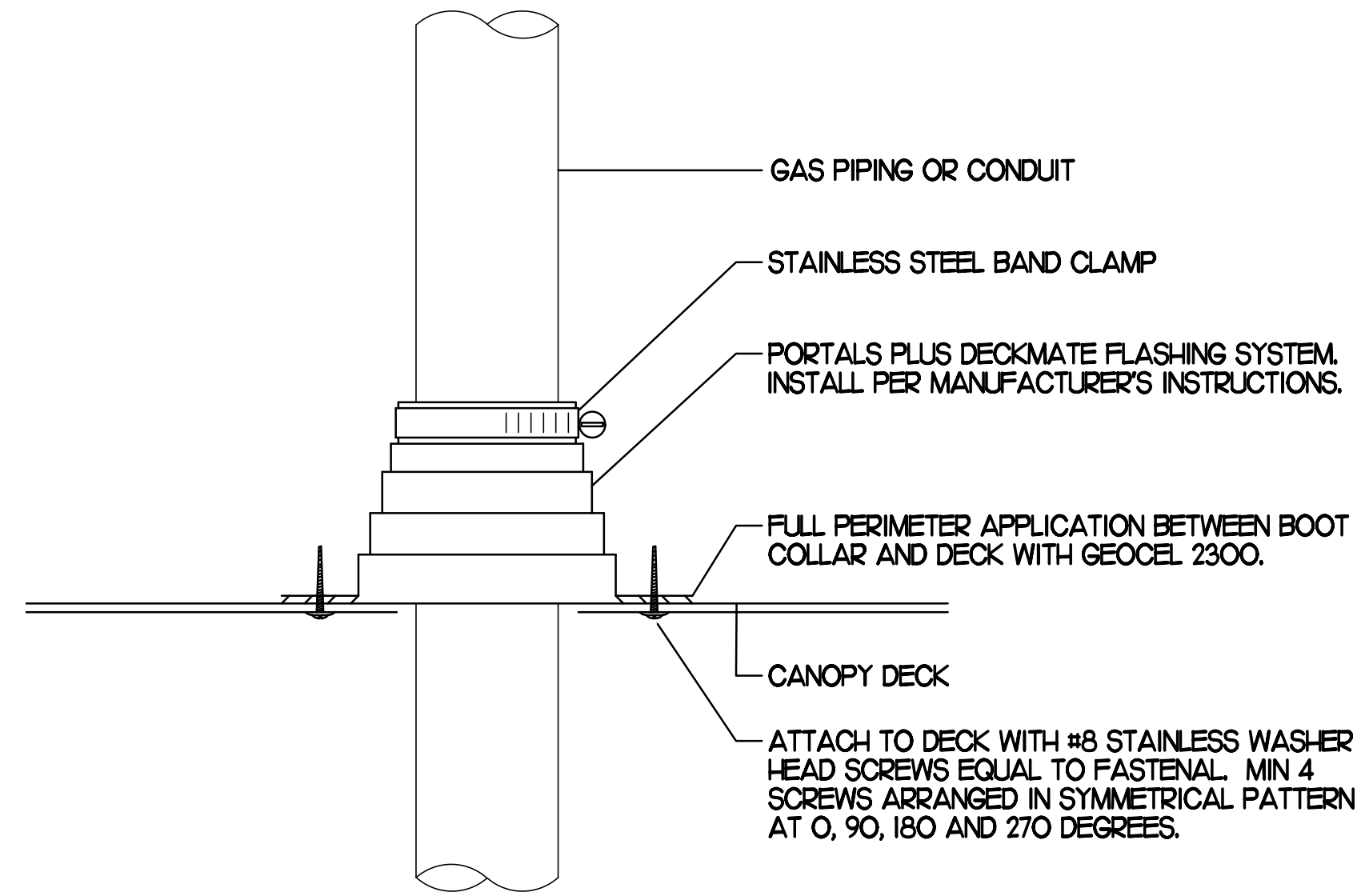
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**M5.01**

- NOTES**
1. DISTANCE BETWEEN PIPESTANDS NOT TO EXCEED 8'-0".
  2. MC TO PROVIDE DUAL LEVEL SUPPORT TO ACCOMMODATE BOTH GAS PIPING AND CONDUIT.



**1 PIPING SUPPORT ON CANOPY**

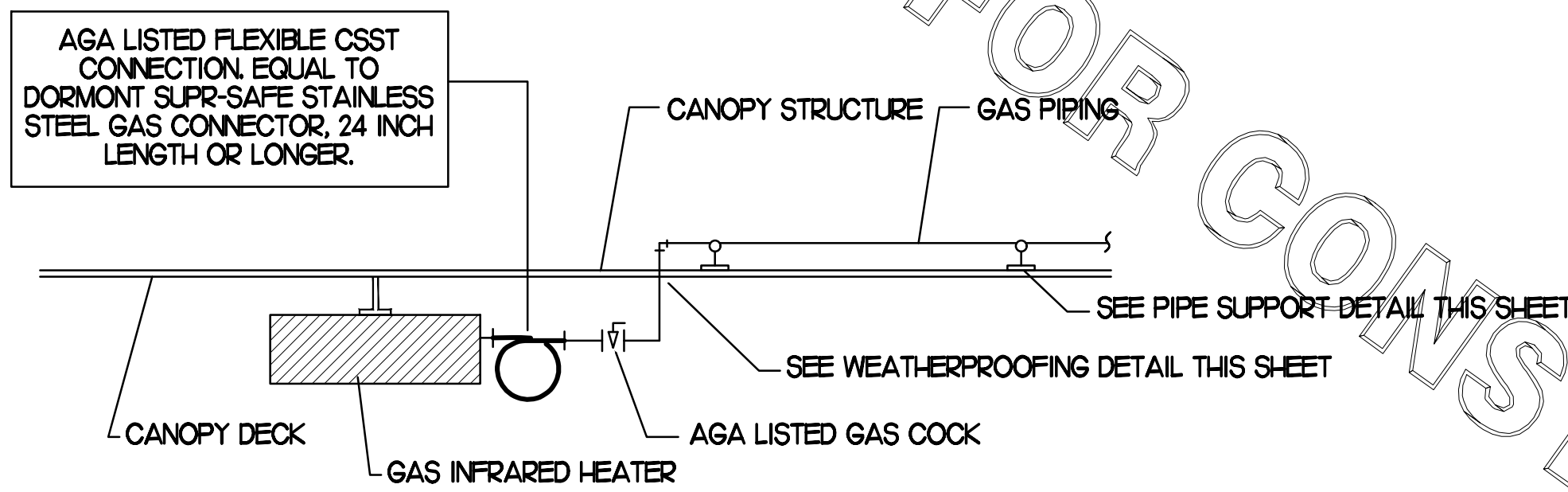
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**2 WEATHERPROOFING AT CANOPY PENETRATION**

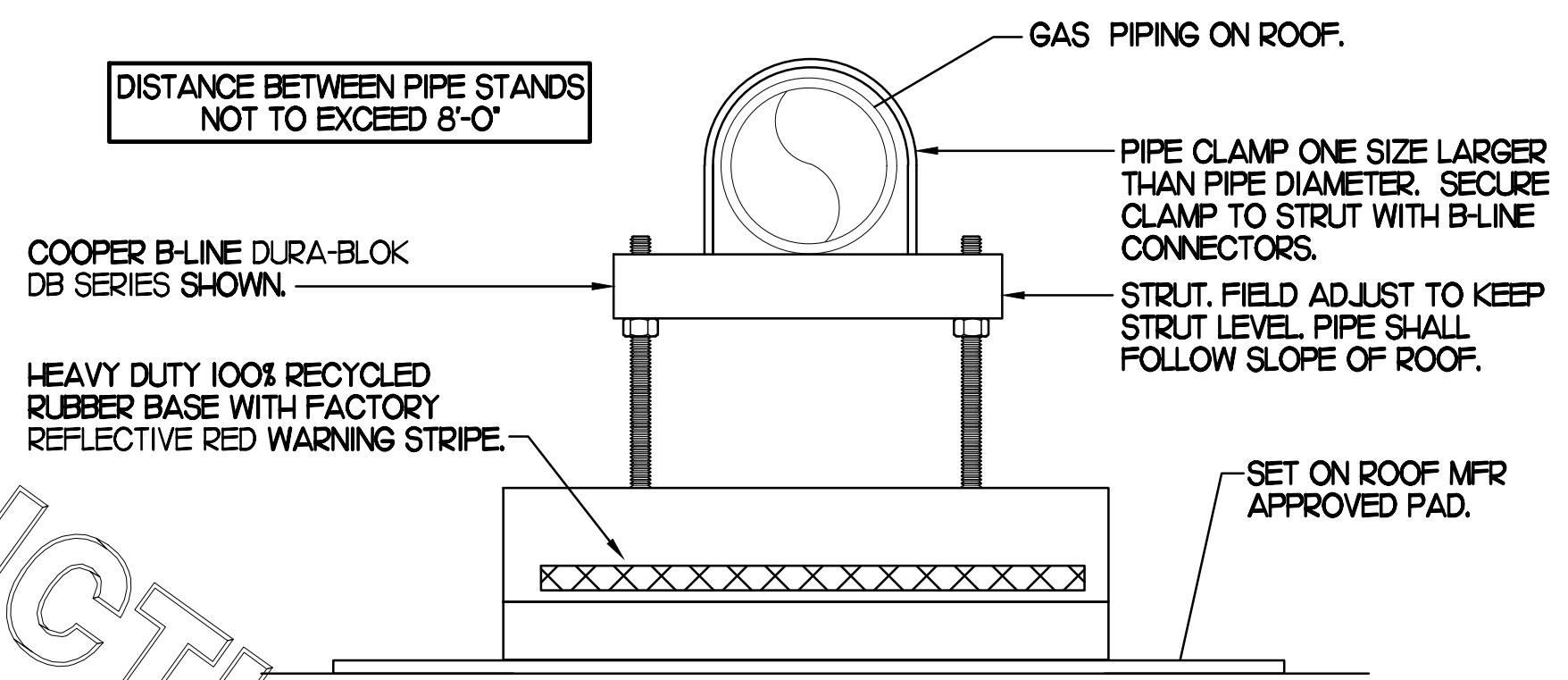
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- NOTES**
1. NON ADJUSTABLE MODEL DB610 PIPE STAND TO BE USED FOR NON-ELEVATED PIPING INSTALLED FLAT ON ROOF DECK.
  2. PROVIDE MODEL DBE 10-8 OR DBE 10-12 OR DBE 10-16 AS NEEDED FOR ELEVATING PIPING FOR GAS PIPING CROSSING OVER CONDENSATE PIPING.
  3. ENSURE GAS PIPING DOES NOT OBSTRUCT ROOFTOP EQUIPMENT ACCESS OPENINGS. RE-PIPING OF SYSTEMS DUE TO CONFLICTS WITH EQUIPMENT ACCESS OPENINGS SHALL BE DONE AT PLUMBING CONTRACTOR'S EXPENSE.



**3 GAS CONNECTION AT APPLIANCE**

NO SCALE



**4 PIPING SUPPORT ON MAIN BLDG ROOF**

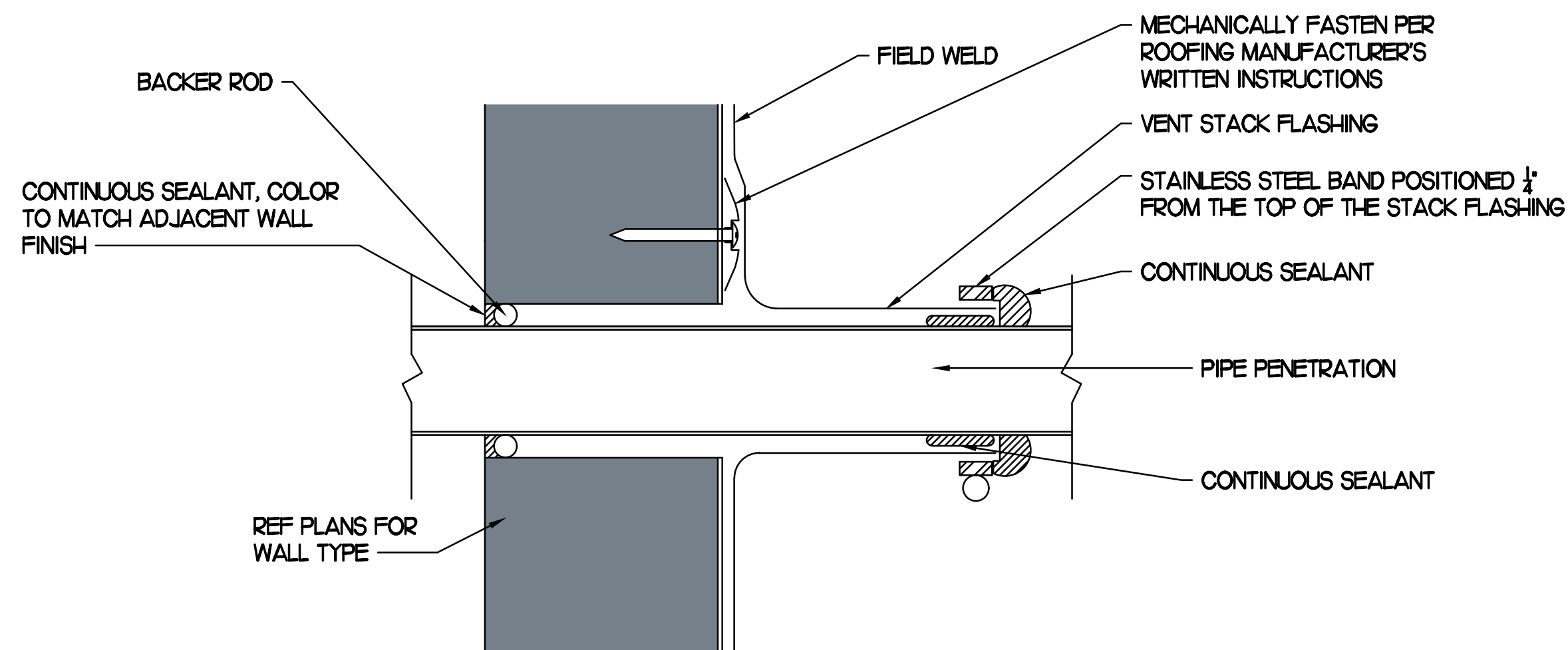
NO SCALE

**GAS FIRED INFRARED HEATER SCHEDULE**

MARK	INPUT (MER-I)	FRAME SIZE			MOUNTING TYPE	MODEL	MANUFACTURER
		LENGTH	WIDTH	DEPTH			
ALL GIH	50.0	48"	13"	10"	BRACKET	2352-NG	SCHWANK
REMARKS	<ol style="list-style-type: none"> <li>1. STEEL BURNER WITH CERAMIC BURNER TILES.</li> <li>2. STAINLESS STEEL LENS WITH BLACK EMISSIVE COATING.</li> <li>3. PROVIDE ENGRAVED PLASTIC LABEL AT EACH UNIT WITH UNIT DESIGNATION IN 1" HIGH WHITE LETTERS ON A BLACK BACKGROUND. MOUNT TO CANOPY DECK, FACING DOWNWARD, 12" Laterally FROM THE SIDE OF THE HEATER.</li> <li>4. MOUNTING BRACKET PROVIDED AND INSTALLED BY CANOPY MFR.</li> <li>5. PROVIDE HEAT SHIELD ABOVE EACH HEATER AT THE BOTTOM OF THE BRACKET.</li> </ol>						

**CIRCULATING FAN SCHEDULE**

MARK	CFM	RPM	HP	MODEL	MANUFACTURER
REMARKS	<ol style="list-style-type: none"> <li>1. ALUMINUM PADDLE WITH STEEL HUB/SPIDER PROPELLER.</li> <li>2. 360 DEG. ROTATING HEAD HORIZONTALLY AND VERTICALLY.</li> <li>3. OSHA COMPLIANT DOUBLE LOCKING, COATED STEEL WIRE GUARD.</li> <li>4. 3-SPEED, TOTALLY ENCLOSED, PERMANENTLY LUBRICATED BALL BEARING MOTOR.</li> <li>5. FACTORY PRE-WIRED POWER CORD.</li> <li>6. PROVIDE FACTORY WALL MOUNTING BRACKET.</li> <li>7. PROVIDE ENGRAVED PLASTIC LABEL AT EACH UNIT WITH UNIT DESIGNATION IN 1" HIGH WHITE LETTERS ON A BLACK BACKGROUND. MOUNT TO UNDERSIDE OF CANOPY OR EXISTING OVERHANG, FACING DOWNWARD, 12" Laterally FROM THE FAN LOCATION.</li> <li>8. REMOVE PULL CHAIN EXTENSION AT ON/OFF SWITCH IN FIELD.</li> </ol>				



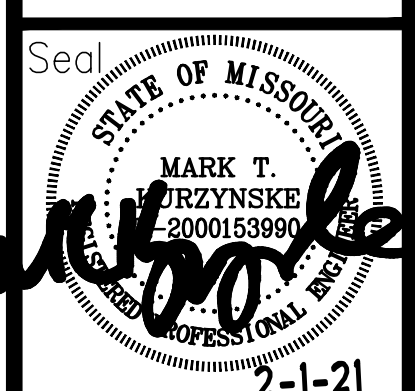
**5 PARAPET PENETRATION DETAIL**

NO SCALE



Revisions:

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△	02.01.21	



Seal: 2-1-21

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GLENSTONE FSU

3700 S GLENSTONE AVE.  
SPRINGFIELD, MO  
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SHEET TITLE  
CANOPY  
DETAILS &  
SCHEDULES

VERSION: S06C  
ISSUE DATE: 02.01.2021

Job No. : 20031.CD.R  
Store : 01947  
Date : 02.01.21  
Drawn By : AK  
Checked By: MK

Sheet

**M5.02**

FOR CONSTRUCTION

**COMcheck Software Version 4.1.1.0**  
**Envelope Compliance Certificate**

**Project Information**  
 Energy Code: 2012 IECC  
 Project Title: Chick-fil-A #1947  
 Location: Springfield, Missouri  
 Climate Zone: 4a  
 Project Type: Addition

Construction Site: 3700 S Glenstone Ave, Springfield, MO 65804  
 Owner/Agent: Chick-fil-A, 5200 Buffington Road, Atlanta, GA 30349  
 Designer/Contractor: Kurzynske & Associates, 2900 Lebanon Pike Ste. 201, Nashville, TN 37214, 615-255-5203

Building Area	Floor Area
1-Storage (Dining: cafeteria/fast food) : Nonresidential	384
2-Drive Thru (Dining: cafeteria/fast food) : Nonresidential	26

Envelope Assemblies	Gross Area or Perimeter	Cavity R-Value	Cont. R-Value	Proposed U-Factor	Budget U-Factor <sup>(a)</sup>
Roof 1: Insulation Entirely Above Deck: High Albedo Roof Required, (Bldg. Use 1 - Storage)	384	---	30.0	0.032	0.039
Floor 1: Slab-On-Grade Unheated, Vertical 2 ft., (Bldg. Use 1 - Storage) (b)	102	---	10.0	0.540	0.540
Roof 2: Insulation Entirely Above Deck: High Albedo Roof Required, (Bldg. Use 2 - Drive Thru)	26	---	30.0	0.032	0.039
Floor 2: Slab-On-Grade Unheated, Vertical 2 ft., (Bldg. Use 2 - Drive Thru) (b)	24	---	10.0	0.540	0.540
<b>NORTH</b>					
Exterior Wall 1: Wood-Framed, 16" o.c., (Bldg. Use 1 - Storage)	115	19.0	0.0	0.067	0.064
Exterior Wall 4: Wood-Framed, 16" o.c., (Bldg. Use 2 - Drive Thru)	60	19.0	0.0	0.067	0.064
<b>EAST</b>					
Exterior Wall 2: Wood-Framed, 16" o.c., (Bldg. Use 1 - Storage)	504	19.0	0.0	0.067	0.064
Door 2: Insulated Metal, Swinging, (Bldg. Use 1 - Storage)	28	---	---	0.330	0.610
<b>SOUTH</b>					
Exterior Wall 3: Wood-Framed, 16" o.c., (Bldg. Use 1 - Storage)	115	19.0	0.0	0.067	0.064
<b>WEST</b>					
Exterior Wall 5: Wood-Framed, 16" o.c., (Bldg. Use 2 - Drive Thru)	30	19.0	0.0	0.067	0.064

(a) Budget U-factors are used for software baseline calculations ONLY, and are not code requirements.  
 (b) Slab-On-Grade proposed and budget U-factors shown in table are F-factors.

Project Title: Chick-fil-A #1947 Report date: 03/05/20  
 Data filename: F:\Prototypes\Chick-fil-A\2020-CFA Projects\CFA Remodel Projects\20031.CD.R - Springfield, MC Page 1 of 9 (Glenstone) - 1947\Comcheck\CFA #1947 2012 IECC ComCheck.cck

Envelope PASSES: Design 3% better than code

**Envelope Compliance Statement**  
 Compliance Statement: The proposed envelope design represented in this document is consistent with the building plans, specifications, and other calculations submitted with this permit application. The proposed envelope systems have been designed to meet the 2012 IECC requirements in COMcheck Version 4.1.1.0 and to comply with any applicable mandatory requirements listed in the Inspection Checklist.

MARK KURZYNSKE, P.E. Signature: *Mark Kurzynske* Date: 3/6/20

Name - Title Signature Date

Project Title: Chick-fil-A #1947 Report date: 03/05/20  
 Data filename: F:\Prototypes\Chick-fil-A\2020-CFA Projects\CFA Remodel Projects\20031.CD.R - Springfield, MC Page 2 of 9 (Glenstone) - 1947\Comcheck\CFA #1947 2012 IECC ComCheck.cck

**COMcheck Software Version 4.1.4.0**  
**Mechanical Compliance Certificate**

**Project Information**  
 Energy Code: 2012 IECC  
 Project Title: Chick-fil-A #1947  
 Location: Springfield, Missouri  
 Climate Zone: 4a  
 Project Type: Addition

Construction Site: 3700 S Glenstone Ave, Springfield, MO 65804  
 Owner/Agent: Chick-fil-A, 5200 Buffington Road, Atlanta, GA 30349  
 Designer/Contractor: Kurzynske & Associates, 2900 Lebanon Pike Ste. 201, Nashville, TN 37214, 615-255-5203

**Mechanical Systems List**

Quantity	System Type & Description
1	AC#1 (25-ton) (Single Zone): Heating: 1 each - Central Furnace, Gas, Capacity = 384 kBtu/h Proposed Efficiency = 80.00% E1, Required Efficiency: 80.00 % E1 Cooling: 1 each - Single Package DX Unit, Capacity = 278 kBtu/h, Air-Cooled Condenser, Air Economizer Proposed Efficiency = 10.50 EER, Required Efficiency: 9.80 EER + 9.9 IEER Fan System: None
1	AC#2 (8.5-ton) (Single Zone): Heating: 1 each - Central Furnace, Gas, Capacity = 192 kBtu/h Proposed Efficiency = 80.00% E1, Required Efficiency: 80.00 % E1 (or 78% AFUE) Cooling: 1 each - Single Package DX Unit, Capacity = 104 kBtu/h, Air-Cooled Condenser, Air Economizer Proposed Efficiency = 12.20 EER, Required Efficiency: 11.00 EER + 11.2 IEER Fan System: None
1	AC#3 (10-ton) (Single Zone): Heating: 1 each - Central Furnace, Gas, Capacity = 192 kBtu/h Proposed Efficiency = 80.00% E1, Required Efficiency: 80.00 % E1 (or 78% AFUE) Cooling: 1 each - Single Package DX Unit, Capacity = 108 kBtu/h, Air-Cooled Condenser, Air Economizer Proposed Efficiency = 12.00 EER, Required Efficiency: 11.00 EER + 11.2 IEER Fan System: None
1	AC#4 (7.5-ton) (Single Zone): Heating: 1 each - Central Furnace, Gas, Capacity = 192 kBtu/h Proposed Efficiency = 80.00% E1, Required Efficiency: 80.00 % E1 (or 78% AFUE) Cooling: 1 each - Single Package DX Unit, Capacity = 92 kBtu/h, Air-Cooled Condenser, Air Economizer Proposed Efficiency = 12.50 EER, Required Efficiency: 11.00 EER + 11.2 IEER Fan System: None
1	AC#5 (5-ton) (Single Zone): Heating: 1 each - Central Furnace, Gas, Capacity = 120 kBtu/h Proposed Efficiency = 80.00% E1, Required Efficiency: 80.00 % E1 (or 78% AFUE) Cooling: 1 each - Single Package DX Unit, Capacity = 63 kBtu/h, Air-Cooled Condenser, Air Economizer Proposed Efficiency = 17.10 SEER, Required Efficiency: 13.00 SEER Fan System: None
6	GH (Single Zone): Heating: 1 each - Radiant Heater, Gas, Capacity = 50 kBtu/h No minimum efficiency requirement applies Fan System: None

Project Title: Chick-fil-A #1947 Report date: 11/24/20  
 Data filename: F:\Prototypes\Chick-fil-A\2020-CFA Projects\CFA Remodel Projects\20031.CD.R - Springfield, MC Page 1 of 10 (Glenstone) - 1947\Comcheck\CFA #1947 2012 IECC ComCheck.cck

**Quantity System Type & Description**

1	AHU1 (Single Zone): Split System Heat Pump Heating Mode Capacity = 80 kBtu/h Proposed Efficiency = 7.00 HSPF, Required Efficiency = 7.70 HSPF Cooling Mode Capacity = 34 kBtu/h, Air Economizer Proposed Efficiency = 18.20 SEER, Required Efficiency: 13.00 SEER Fan System: None
---	--

**Mechanical Compliance Statement**  
 Compliance Statement: The proposed mechanical design represented in this document is consistent with the building plans, specifications, and other calculations submitted with this permit application. The proposed mechanical systems have been designed to meet the 2012 IECC requirements in COMcheck Version 4.1.4.0 and to comply with any applicable mandatory requirements listed in the Inspection Checklist.

MARK KURZYNSKE, P.E. Signature: *Mark Kurzynske* Date: 11/25/20

Name - Title Signature Date

Project Title: Chick-fil-A #1947 Report date: 11/24/20  
 Data filename: F:\Prototypes\Chick-fil-A\2020-CFA Projects\CFA Remodel Projects\20031.CD.R - Springfield, MC Page 2 of 10 (Glenstone) - 1947\Comcheck\CFA #1947 2012 IECC ComCheck.cck

FOR CONSTRUCTION



Chick-fil-A

5200 Buffington Rd.  
Atlanta Georgia,  
30349-2998

Revisions:

Mark	Date	By
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SHEET TITLE  
MECH &  
ENVELOPE  
COMCHECK

VERSION: S06C  
ISSUE DATE: 02.01.2021

Job No. : 20031.CD.R  
 Store : 01947  
 Date : 02.01.21  
 Drawn By : AK  
 Checked By: MK

Sheet

M6.01

# I. 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 OWNERS REPRESENTATIVE. ALL EQUIPMENT, COMPONENTS AND DUCTWORK SHALL BE INSPECTED AND THOROUGHLY CLEANED, 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 ELECTRIC HEATING UNITS BY LENNOX AS SHOWN ON DRAWINGS. EQUIPMENT SHALL BE ARI CERTIFIED 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 HEATING ELEMENTS SHALL BE BARE NICHROME WIRE EXPOSED TO THE AIR STREAM. HEATING CONTROLS SHALL INCLUDE TIME DELAY THAT SHALL BRING ELEMENTS ON AND OFF IN SEQUENCE WITH TIME DELAY BETWEEN EACH ELEMENT. HEATING SHALL BE PROVIDED IN TWO STAGES. LIMIT CONTROL SHALL PROVIDE OVERLOAD AND SHORT CIRCUIT PROTECTION. HEATER SHALL HAVE A ONE (1) YEAR WARRANTY.
- E. CHICK-FIL-A MAINTAINS A NATIONAL ACCOUNT FOR EQUIPMENT WITH LENNOX CORPORATION. PRICING FOR THE EQUIPMENT HAS BEEN ESTABLISHED IN ADVANCE. CONTACT LENNOX NATIONAL ACCOUNTS AT 972-497-6260 (OR BY FAX AT 972-497-5112) FOR PRICING, ORDERING AND AVAILABILITY.

### 2.02 DUCTWORK (C15735) (SEE DWG M2.1 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 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. 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 5.6 R-VALUE INSTALLED WITH EITHER A VAPOR BARRIER WITH MAXIMUM PERMEANCE 0.05 OR A MINIMUM 2 ML ALUMINUM REINFORCED FOIL/KRAFT FACING.
- F. ALL DUCT DROPS FROM THE ROOFTOP UNITS SHALL BE EXTERNALLY INSULATED.
- G. SUPPLY AND RETURN AIR DUCTWORK SERVING ALL AREAS SHALL BE EXTERNALLY INSULATED.
- H. 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.
- I. RESTROOM RECTANGULAR EXHAUST AIR DUCTWORK SHALL BE LINED WITH 1" THICK 1-1/2 PCF INSULATION.
- J. 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.
- K. 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 M3.1.
- L. 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.
- M. 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.
- N. DUCT TAPE SHALL BE EQUAL TO FASSON 181-B FX, 2-1/2" WIDE.
- O. SINGLE THICKNESS TURNING VANES SHALL BE INSTALLED AT 90 DEGREE TURNS IN SUPPLY DUCTWORK WHERE ANY ONE DIMENSION IS GREATER THAN 12".
- P. RADIUSSED ELBOWS MAY BE SUBSTITUTED FOR 90 DEGREE ELBOWS AT THE DISCRETION OF THE CONTRACTOR. CENTERLINE RADIUS EQUAL TO: R=W PER FIGURE NO. 2-2 IN SMACNA HVAC DUCT CONSTRUCTION STANDARDS.
- Q. 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 EXISTING CFA-500 TEMPERATURE CONTROL PANEL AS MANUFACTURED BY SUNCOAST ENVIRONMENTAL CONTROLS (S.E.C.) (PH: 877-544-6679). 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 AND INSTALLED BY THE MECHANICAL CONTRACTOR AS A PART OF A NATIONAL ACCOUNT PACKAGE.
- E. THE REMOTE TEST/RESET ANNUNCIATORS SHALL BE PROVIDED AND INSTALLED BY THE MECHANICAL CONTRACTOR. INSTALLATION BY MECHANICAL SHALL INCLUDE MOUNTING OF THE ANNUNCIATORS AND ALL WIRING FROM EACH DEVICE TO THE RTU OR AHU. PROVIDE A JUNCTION BOX IN THE WALL WITH 1/2" CONDUIT STUBBED UP ABOVE THE CEILING FOR EACH REMOTE TEST STATION. 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. LENNOX UNITS - THERMOSTATS ARE PROVIDED AND INTEGRATED INTO THE TEMPERATURE CONTROL PANEL BY SUNCOAST ENVIRONMENT CONTROLS. SUNCOAST WILL PROVIDE A NETWORK THERMOSTAT US32-NX TSTAT PRE-WIRED IN THE TEMPERATURE CONTROL PANEL. A REMOTE TEMPERATURE SENSOR FOR EACH THERMOSTAT IS ALSO PROVIDED. SOME UNITS MAY HAVE MORE THAN ONE SENSOR. MECHANICAL CONTRACTOR SHALL INSTALL ALL WIRING BETWEEN THE THERMOSTAT, THE REMOTE SENSOR AND THE ROOFTOP UNIT OR AHU.
- 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. OWNER SHALL TEST AND BALANCE MECHANICAL SYSTEM IN ACCORDANCE WITH NCI 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.
- C. 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.
- D. 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.
- E. CONTRACTOR SHALL COMPLETE A/C EQUIPMENT STARTUP DOCUMENTATION PROVIDED BY OWNER.

NATIONAL ACCOUNTS	
1.	LENNOX EQUIPMENT - CONTACT LENNOX NATIONAL ACCOUNTS AT 800-367-6285 (OR BY FAX AT 972-497-5112) FOR PRICING, ORDERING AND AVAILABILITY. LENNOX EQUIPMENT NOT PURCHASED THRU LENNOX NATIONAL ACCOUNTS WILL NOT BE ACCEPTED.
2.	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.
3.	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.
4.	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.
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.	CIRCULATING FAN PACKAGE - THE MECHANICAL CONTRACTOR IS REQUIRED TO PURCHASE THE FAN PACKAGE 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.



Revisions:	Mark	Date	By
1		04.15.20	PERMIT ISSUE
2		08.12.20	PERMIT RESUBMITTAL
3		11.25.20	ISSUE FOR BID
4		12.18.20	PERMIT RESUBM.
5		02.01.21	CONSTRUCTION ISSUE



**Kurzynske & Associates**  
**CONSULTING ENGINEERS**  
 2900 Lebanon Pike, Ste. 201  
 Nashville, Tennessee 37214  
 Telephone: (615) 255-5203  
 Fax: (615) 255-5207  
 Email: mail@kurzynske.com

STORE #01947  
 GLENSTONE FSU

3700 S GLENSTONE AVE.  
 SPRINGFIELD, MO  
 65804

SHEET TITLE  
**MECHANICAL SPECIFICATIONS**

VERSION: S06C  
 ISSUE DATE: 02.01.2021

Job No. : 20031.CD.R  
 Store : 01947  
 Date : 02.01.21  
 Drawn By : AK  
 Checked By: MK

Sheet  
**M7.0I**

**MODEL: KVL-2**

FACTORY MUST BE ADVISED BY THE ORIGINAL REQUIREMENTS OF THE "APPROPRIATE" HAVING AUTHORITY OF THE USER.

**STANDARD FEATURES**

- S.S. FILTERS (KSA) 4
- 1/2 S.S. FILTERS (KSA) 1
- CAPTURE-JET COLLAR AND RETRICE FIRE DAMPER \*
- CAPTURE-JET FIRE DAMPER \*
- STAND-OFF \*

**OPTIONS**

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

**MATERIAL**

EXPOSED SURFACES 18 GA. S.S. \*

ALL 18 GA. S.S. \*

**COMMENTS:**

- CLOSURE HEIGHT = T80 (TWO SIDES) CEILING HEIGHT = ADVISE CEILING CLOSURE RECESSED 1/2" FROM FRONT TO CREATE SHELF
- FRONT CLOSURE PANEL WITH 18"x18" ACCESS DOOR LEFT SIDE (ACCESS TO CAPTURE-JET W/ FRONT CJ INTAKE)
- 18"x18" ACCESS DOOR RIGHT SIDE (ACCESS TO CAPTURE-JET W/ FRONT CJ INTAKE)
- CONTINUOUS CAPTURE INTERNAL RIGHT END OUTLET
- 3" REAR STAND-OFF TO HAVE 1" THICK INSULATION NOTCHED LEFT END PANEL
- EQUIPMENT COVERED (2) PRESSURE FRYERS (2) GRILL
- ANGUL. WEIGHT= 63 LBS HOOD WEIGHT= 600 LBS

**DATE:** 02.21.20 **DWG. NO.:** U20-171-01 **ITEM NO.:** H-1L **EXHAUST AIR INFORMATION:** CFM TAB SP

**PROJECT:** CHICK-FIL-A #1947 GLENSTONE 1080 .13' .24'

**LOCATION:** SPRINGFIELD, MD **CAPTURE AIR INFORMATION:** CFM SP

**SUBMITTED BY:** HALTON CO. **DATE:** 02.21.20 **DWG. NO.:** U20-171-01

**MODEL: KVL-2**

FACTORY MUST BE ADVISED BY THE ORIGINAL REQUIREMENTS OF THE "APPROPRIATE" HAVING AUTHORITY OF THE USER.

**STANDARD FEATURES**

- S.S. FILTERS (KSA) 3
- 1/2 S.S. FILTERS (KSA) 1
- CAPTURE-JET COLLAR AND RETRICE FIRE DAMPER \*
- CAPTURE-JET FIRE DAMPER \*
- STAND-OFF \*

**OPTIONS**

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

**MATERIAL**

EXPOSED SURFACES 18 GA. S.S. \*

ALL 18 GA. S.S. \*

**COMMENTS:**

- CLOSURE HEIGHT = T80 (TWO SIDES) CEILING HEIGHT = ADVISE CEILING CLOSURE RECESSED 1/2" FROM FRONT TO CREATE SHELF
- FRONT CLOSURE PANEL WITH 18"x18" ACCESS DOOR RIGHT SIDE FOR ACCESS TO CAPTURE-JET W/ FRONT CJ INTAKE
- 18"x18" ACCESS DOOR LEFT SIDE (ACCESS TO CAPTURE-JET W/ FRONT CJ INTAKE)
- CONTINUOUS CAPTURE INTERNAL LEFT END OUTLET
- FULL RIGHT END PANEL
- 3" REAR STAND-OFF TO HAVE 1" THICK INSULATION
- EQUIPMENT COVERED (2) PRESSURE FRYERS (2) GRILL
- ANGUL. WEIGHT= 462 LBS

**DATE:** 02.21.20 **DWG. NO.:** U20-171-01 **ITEM NO.:** H-1R **EXHAUST AIR INFORMATION:** CFM TAB SP

**PROJECT:** CHICK-FIL-A #1947 GLENSTONE 832 .12' .23'

**LOCATION:** SPRINGFIELD, MD **CAPTURE AIR INFORMATION:** CFM SP

**SUBMITTED BY:** HALTON CO. **DATE:** 02.21.20 **DWG. NO.:** U20-171-01

**MODEL: KVL-C**

FACTORY MUST BE ADVISED BY THE ORIGINAL REQUIREMENTS OF THE "APPROPRIATE" HAVING AUTHORITY OF THE USER.

**STANDARD FEATURES**

- S.S. FILTERS (KSA) 2
- CAPTURE-JET COLLAR AND RETRICE FIRE DAMPER \*
- STAND-OFF \*

**OPTIONS**

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

**MATERIAL**

EXPOSED SURFACES 18 GA. S.S. \*

ALL 18 GA. S.S. \*

**COMMENTS:**

- CLOSURE HEIGHT = T80 (TWO SIDES) CEILING HEIGHT = ADVISE CEILING CLOSURE RECESSED 1/2" FROM FRONT TO CREATE SHELF
- FRONT CLOSURE PANEL WITH 18"x18" ACCESS DOOR CENTERED AT CAPTURE-JET W/ FRONT CJ INTAKE
- NOTCHED LEFT END PANEL
- DOUBLE RECEPTACLE PIN & SLEEVE
- 3" X 3" TRIM STRIP FOR STAND-OFF ON RIGHT END
- 3" X 3" TRIM STRIP FOR STAND-OFF ON RIGHT END
- 3" X 3" TRIM STRIP FOR STAND-OFF TO HAVE 1" THICK INSULATION
- EQUIPMENT COVERED (2) FRYERS
- HOOD WEIGHT= 262 LBS

**DATE:** 02.21.20 **DWG. NO.:** U20-171-01 **ITEM NO.:** H-3 **EXHAUST AIR INFORMATION:** CFM TAB SP

**PROJECT:** CHICK-FIL-A #1947 GLENSTONE 701 .30' .39'

**LOCATION:** SPRINGFIELD, MD **CAPTURE AIR INFORMATION:** CFM SP

**SUBMITTED BY:** HALTON CO. **DATE:** 02.21.20 **DWG. NO.:** U20-171-01

**MODEL: KVL-D**

FACTORY MUST BE ADVISED BY THE ORIGINAL REQUIREMENTS OF THE "APPROPRIATE" HAVING AUTHORITY OF THE USER.

**STANDARD FEATURES**

- S.S. FILTERS (KSA) 1
- CAPTURE-JET FIRE DAMPER \*
- STAND-OFF \*

**OPTIONS**

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

**MATERIAL**

EXPOSED SURFACES 18 GA. S.S. \*

ALL 18 GA. S.S. \*

**COMMENTS:**

- CLOSURE HEIGHT = T80 (THREE SIDES) CEILING HEIGHT = ADVISE CEILING CLOSURE RECESSED 1/2" FROM FRONT TO CREATE SHELF
- FRONT CLOSURE PANEL WITH 18"x18" ACCESS DOOR TO CAPTURE-JET W/ FRONT CJ INTAKE
- 18"x18" ACCESS DOOR CENTERED AT CAPTURE-JET W/ FRONT CJ INTAKE
- NOTCHED LEFT END PANEL
- DOUBLE RECEPTACLE PIN & SLEEVE
- 3" X 3" TRIM STRIP FOR STAND-OFF ON RIGHT END
- 3" X 3" TRIM STRIP FOR STAND-OFF ON RIGHT END
- 3" REAR SIDE STAND-OFF TO HAVE 1" THICK INSULATION
- EQUIPMENT COVERED (2) FRYERS
- HOOD WEIGHT= 150 LBS

**DATE:** 02.21.20 **DWG. NO.:** U20-171-01 **ITEM NO.:** H-3 **EXHAUST AIR INFORMATION:** CFM TAB SP

**PROJECT:** CHICK-FIL-A #1947 GLENSTONE 390 .37' .42'

**LOCATION:** SPRINGFIELD, MD **CAPTURE AIR INFORMATION:** CFM SP

**SUBMITTED BY:** HALTON CO. **DATE:** 02.21.20 **DWG. NO.:** U20-171-01

**Capture-Jet Fan Installation and Dimensional Data**

**Front of Closures**

CJ Intake w/ Collar Fitting (Back side)

**TABLES:**

MODEL	AIR FLOW @1" SP	ØD	Ød	A	HP	FLA	VOLTAGE	LBS.
K4XL	30 CFM - 80 CFM	9.50"	4.0"	6.0"	.11	.75	120/1/60	6.6
K6XL	70 CFM - 170 CFM	13.20"	6.0"	6.0"	.20	1.31	120/1/60	10.6
K8XL	100 CFM - 240 CFM	13.20"	8.0"	6.0"	.20	1.32	120/1/60	11

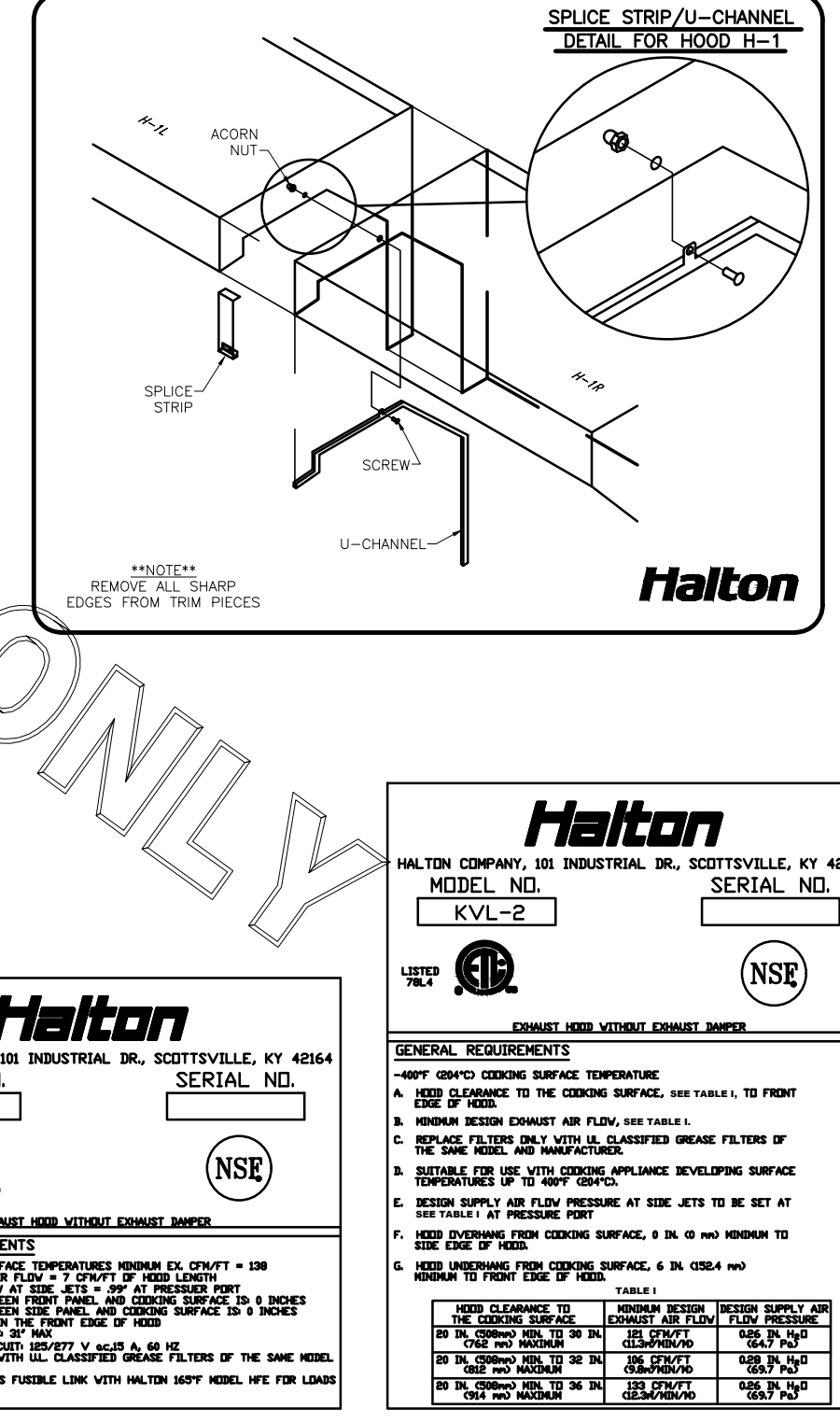
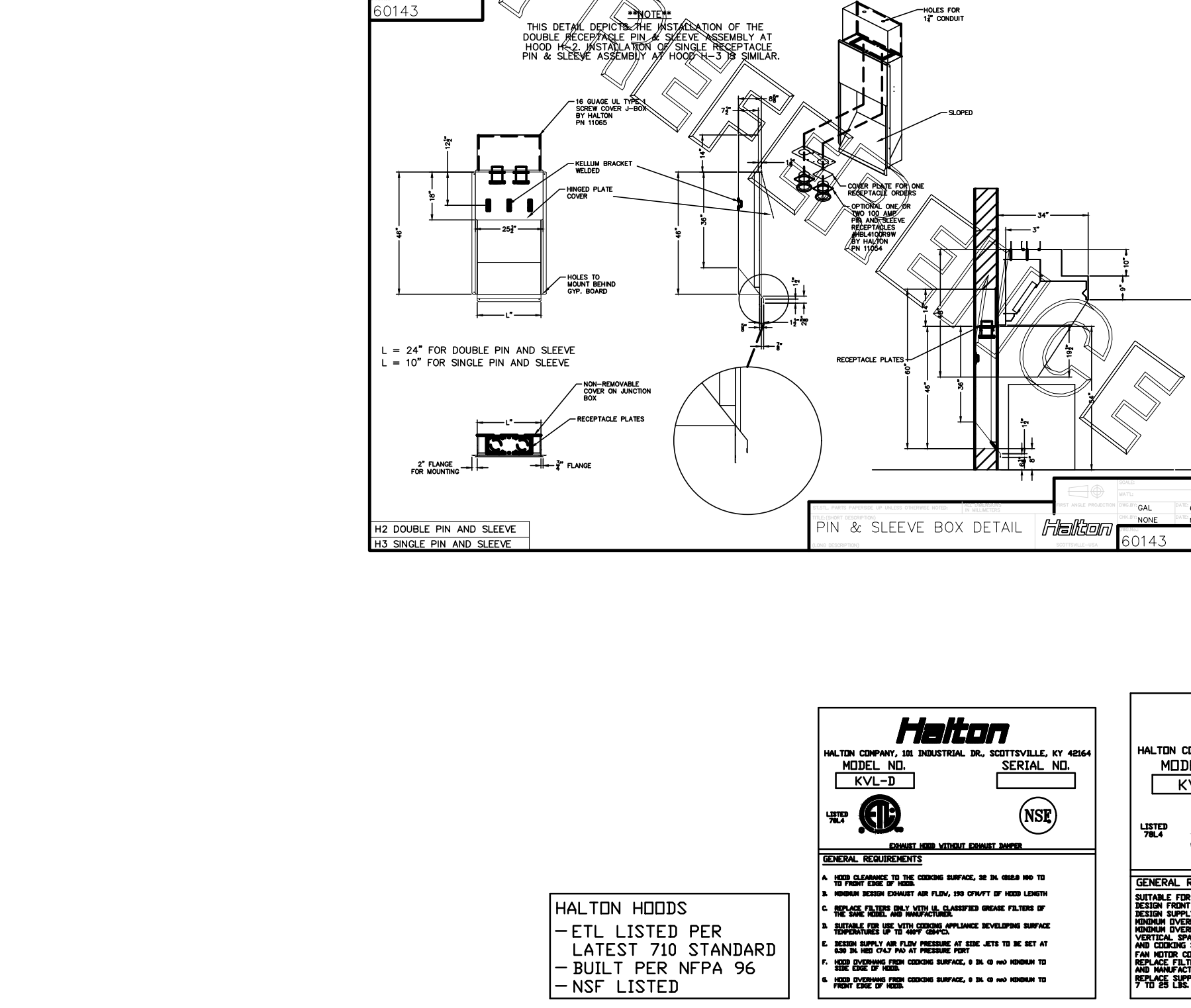
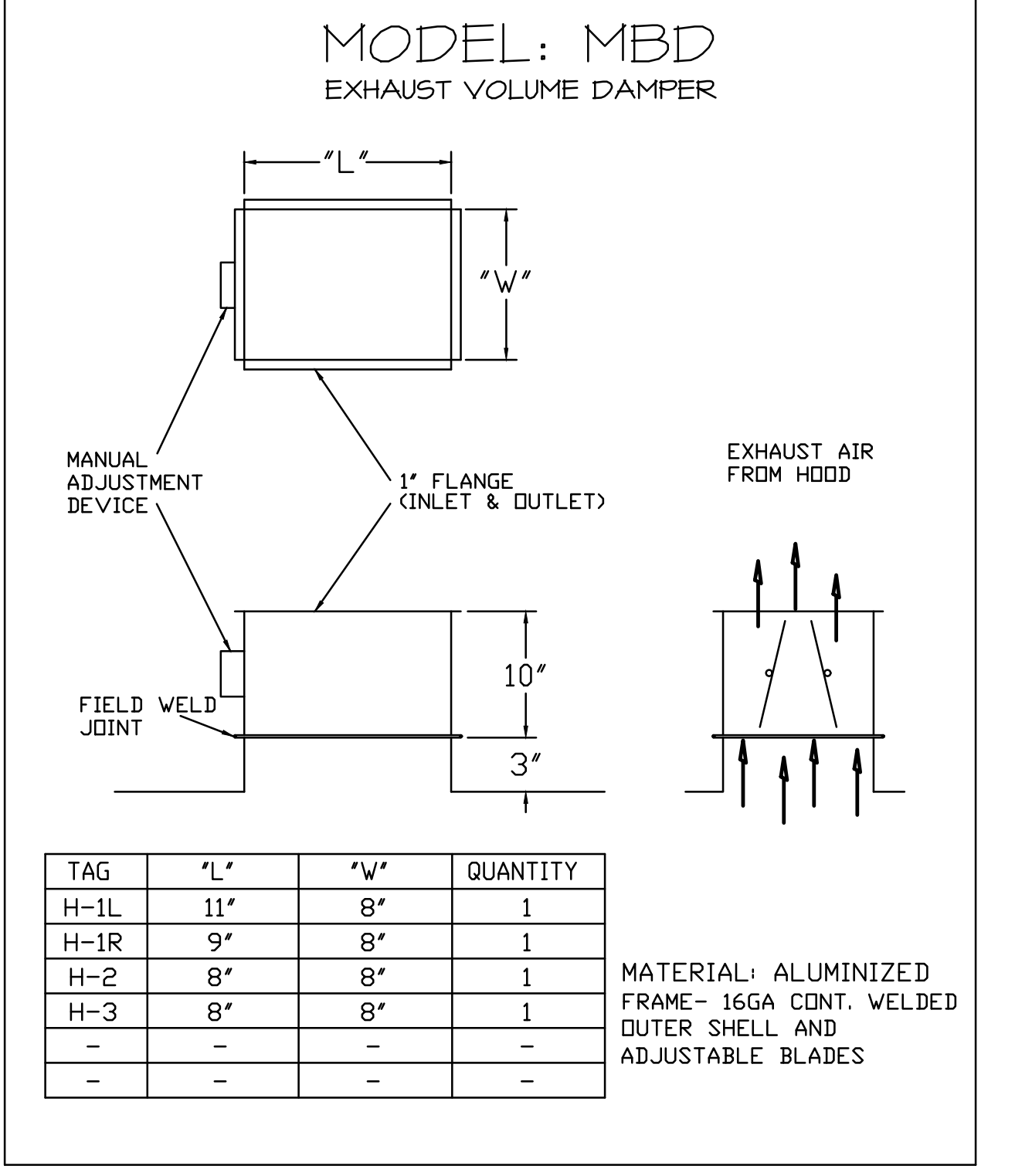
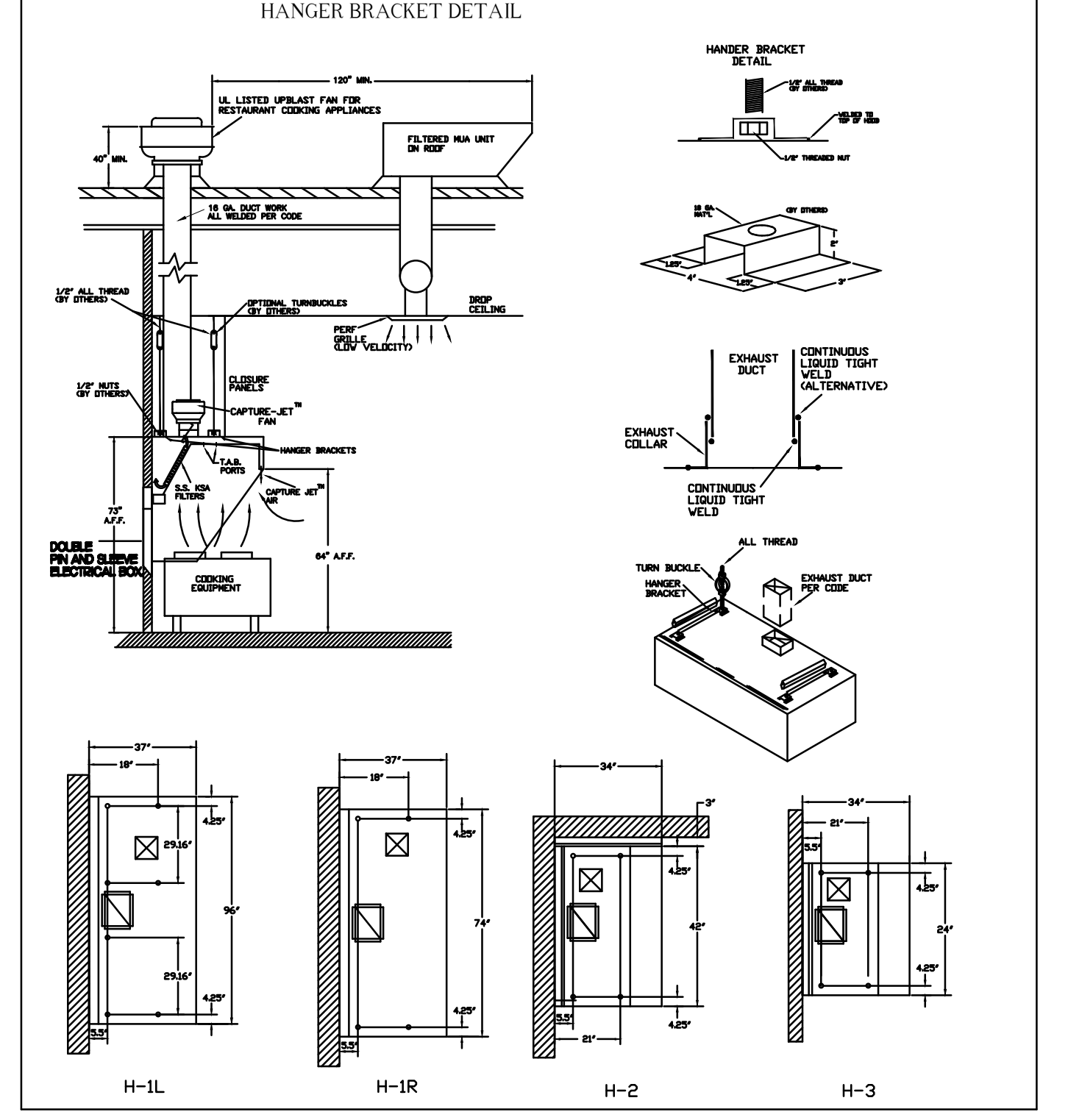
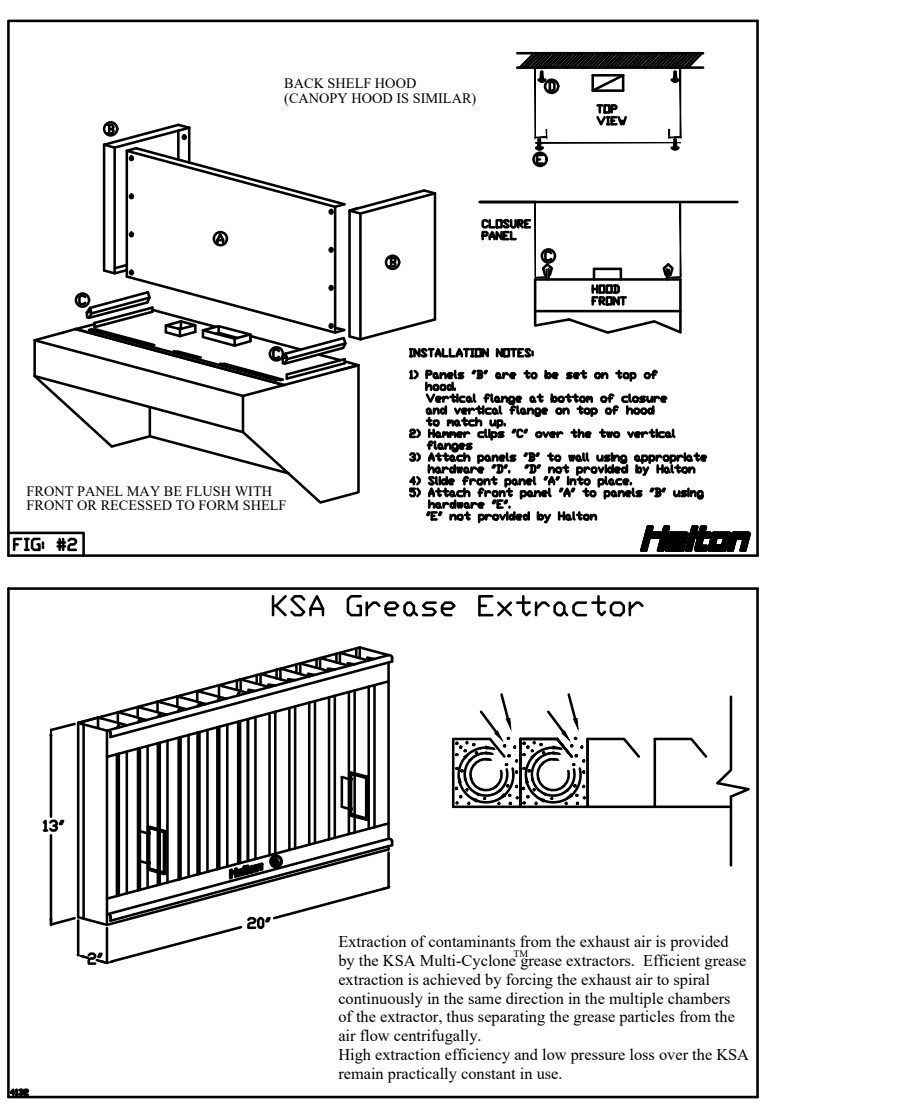
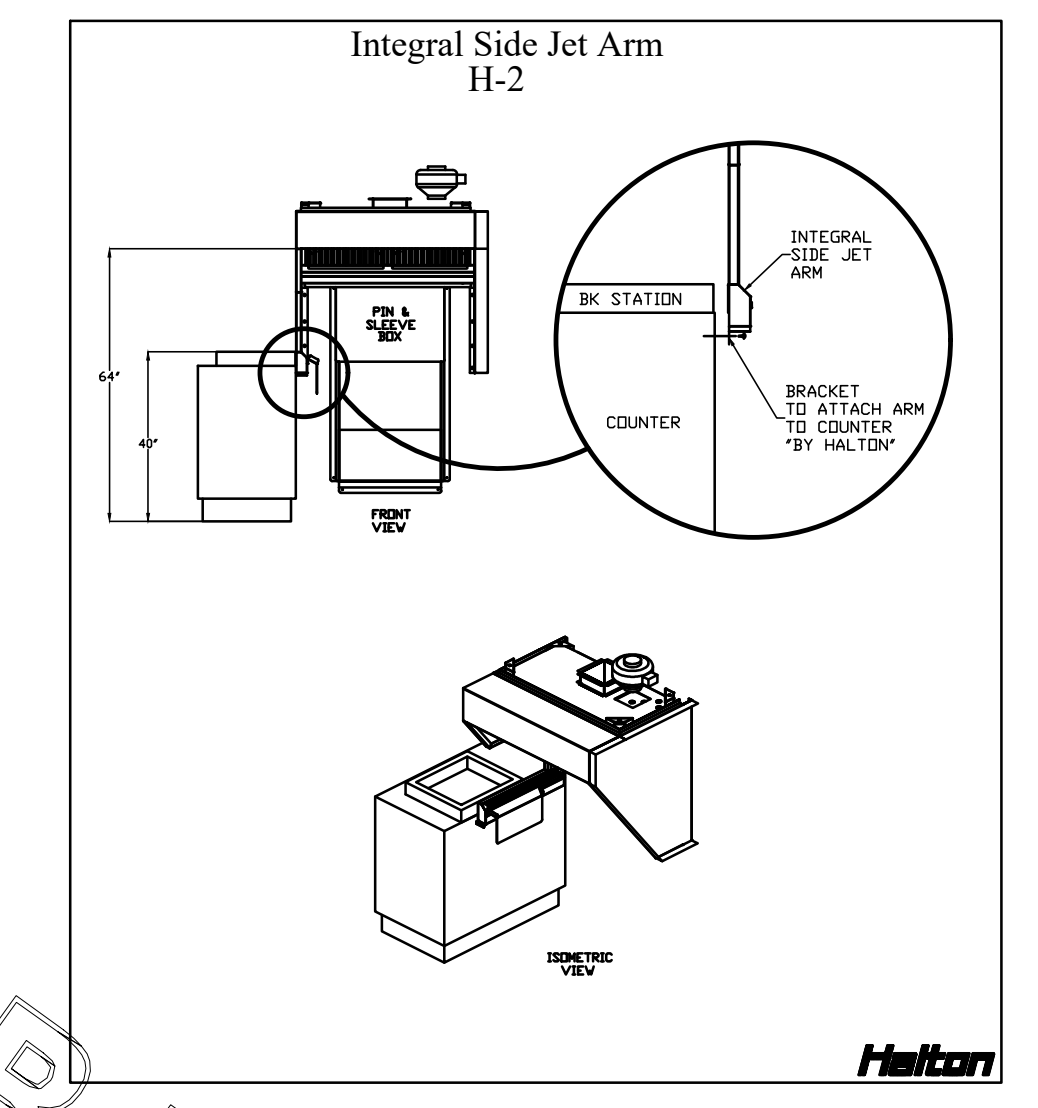
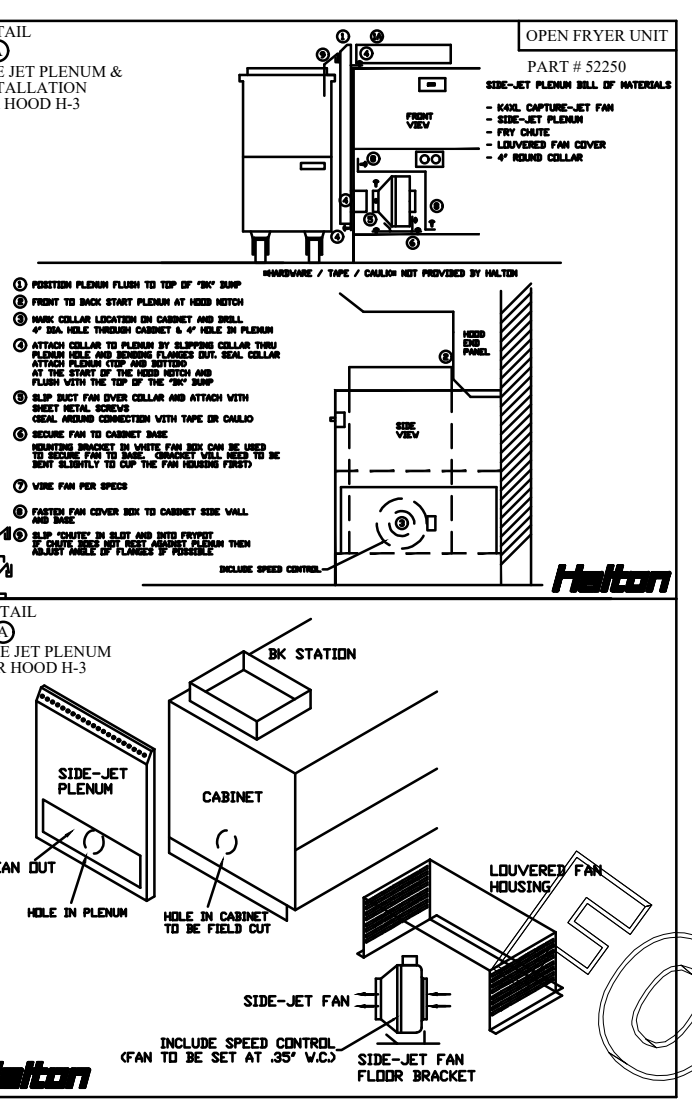
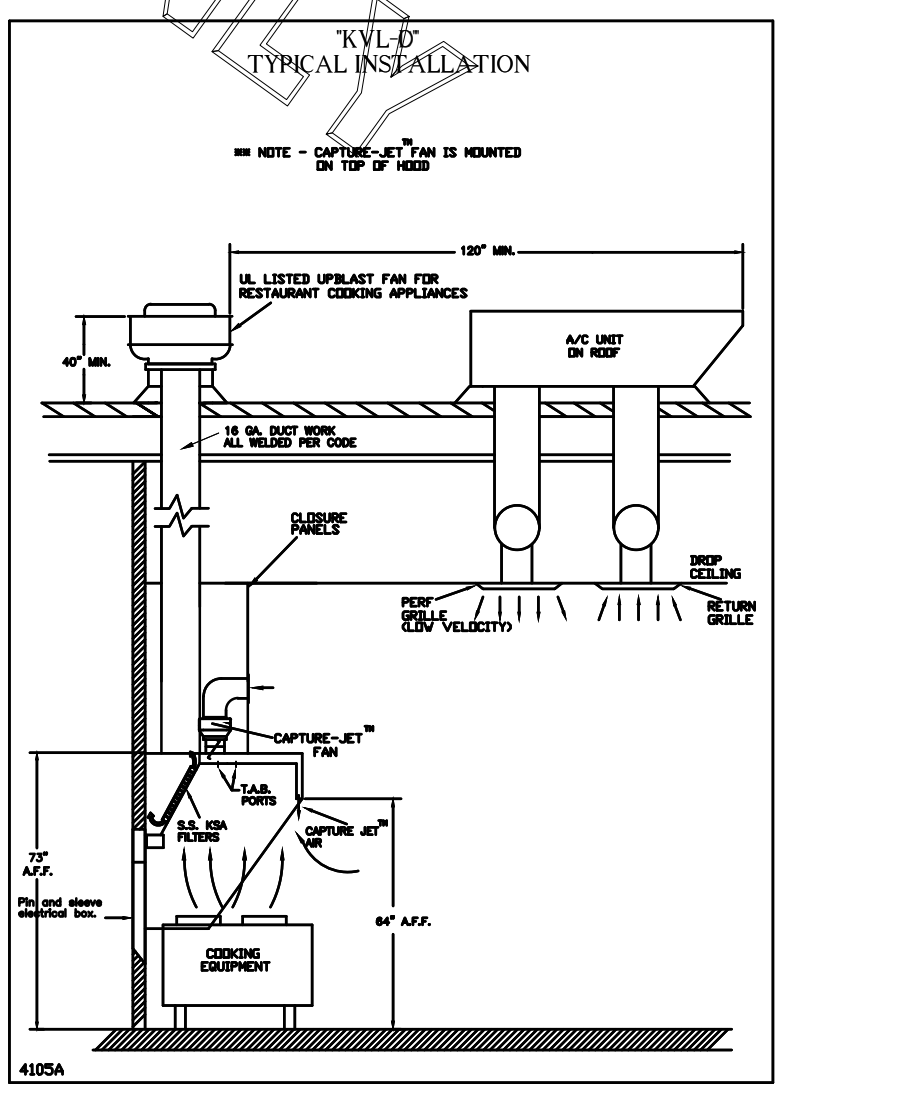
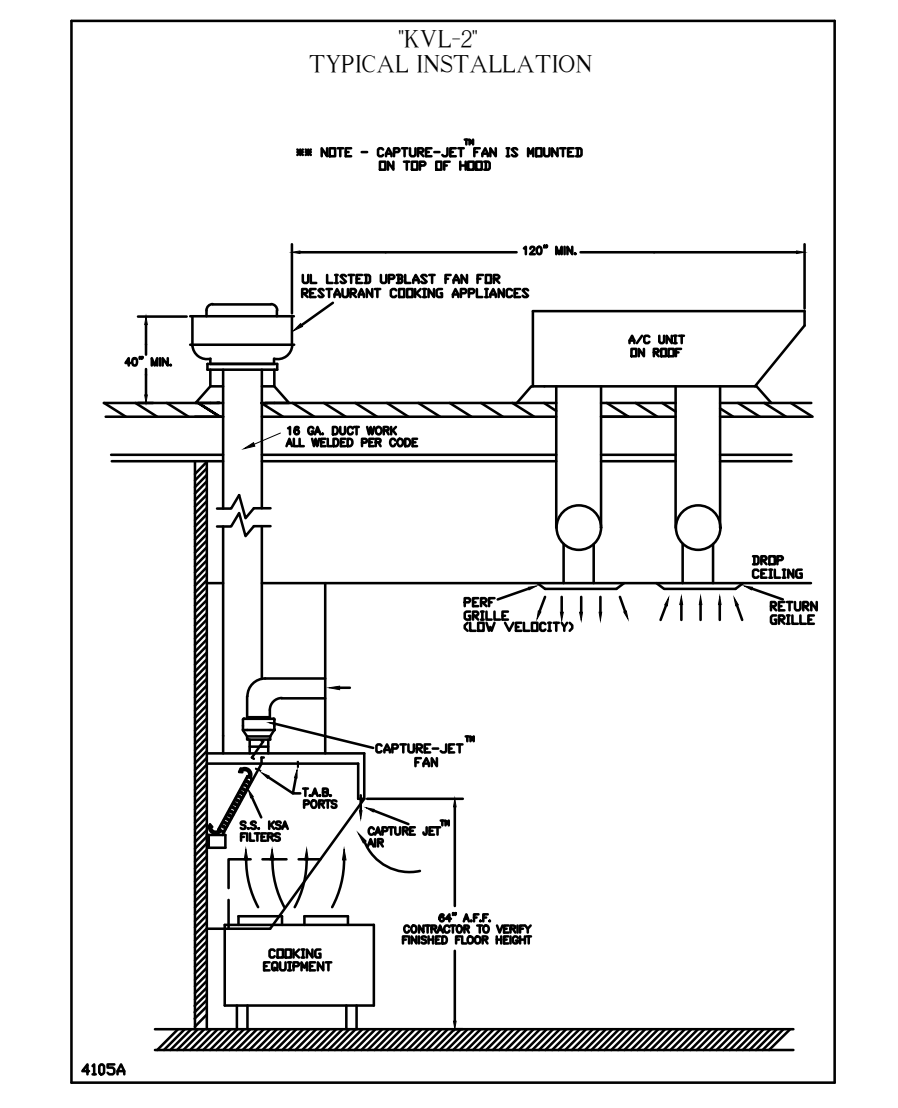
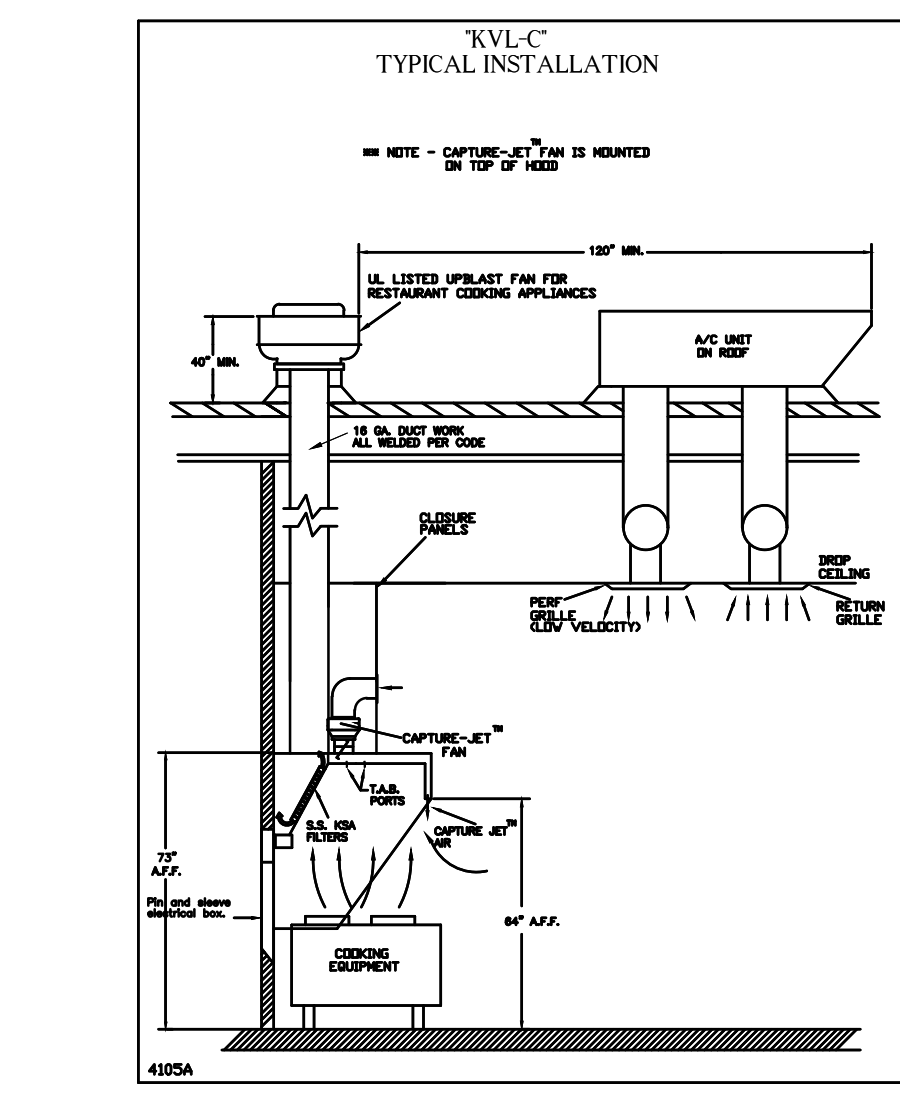
TAG	MODEL	QTY	AIRFLOW
H-1L	K6XL	1	72
H-1R	K4XL	1	55
H-2	K4XL	1	30
H-3	K4XL	1	18

**5 AMP SPEED CONTROLLER LOCATION:**

- TOP OF HOOD
- MOTOR CONTROL PANEL

**PROJECT:** CHICK-FIL-A #1947 **DATE:** 02.21.20

**LOCATION:** SPRINGFIELD, MD **DWG. NO.:** U20-171-01



THIS DRAWING MUST BE CHECKED, SIGNED AND RETURNED TO THE APPROPRIATE FACTORY. PLEASE VERIFYING THE FOLLOWING:

- ALL DIMENSIONAL INFORMATION, MOUNTING POSITIONS AND CLEARANCES.
- THE LOCATION AND TYPE OF COOKING EQUIPMENT.

**NOTE TO APPROVER:**

ANY CHANGES IN COOKING EQUIPMENT, SUCH AS INCREASED ENERGY INPUTS OR EQUIPMENT CHANGES, OCCURRING AFTER THE DRAWING IS APPROVED, WILL REQUIRE A RE-CALCULATION EXHAUST AIRFLOW MAY BE REQUIRED.

REVISE AND RESUBMIT  WITH CHANGES AS NOTED

APPROVED FOR FABRICATION  WITH NO CHANGES

APPROVED BY: \_\_\_\_\_ DATE: \_\_\_\_\_

MAIL-APPROVED DRAWINGS TO APPROPRIATE FACTORY BELOW:

WEBSITE: WWW.HALTONCOMPANY.COM

HALTON CO. (USA) 101 INDUSTRIAL DRIVE SCOTTSDALE, KY 42164 1-270-237-5600

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

PROJECT: CHICK-FIL-A #1947 GLENSTONE

LOCATION: SPRINGFIELD, MO

DRAWN BY: AF DATE: 02.21.20

SCALE: NTS

Revision Table:

REV.	DESCRIPTION	DATE
1		
2		
3		
4		
5		
6		
7		

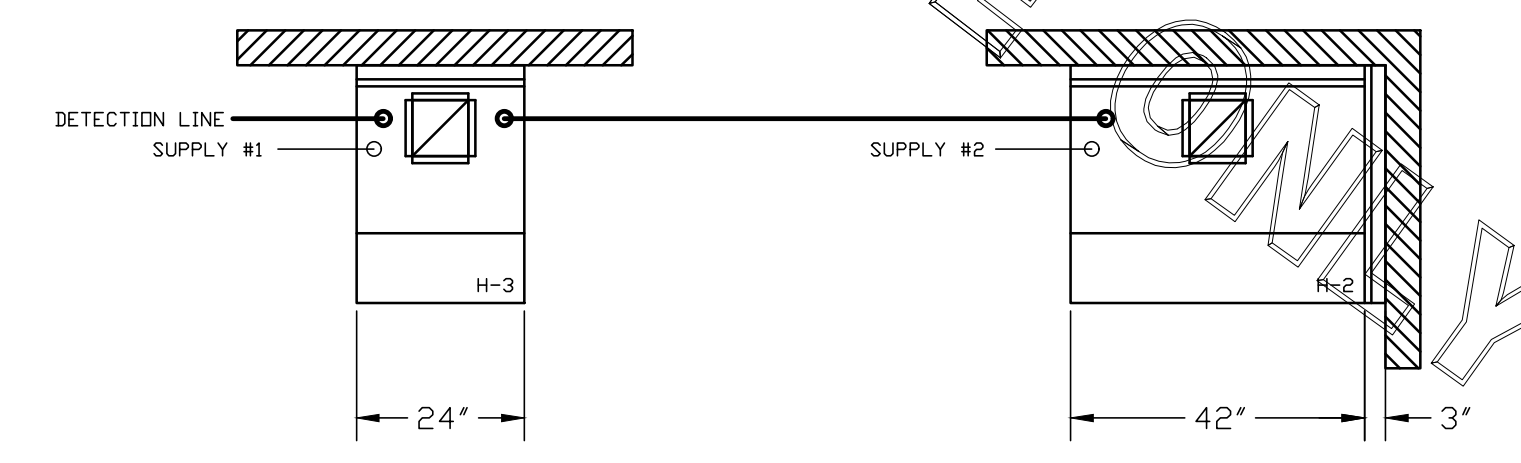
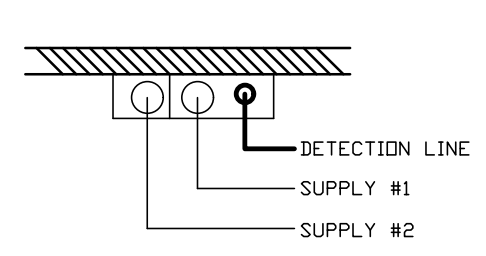
Halton Dwg: U20-171-01

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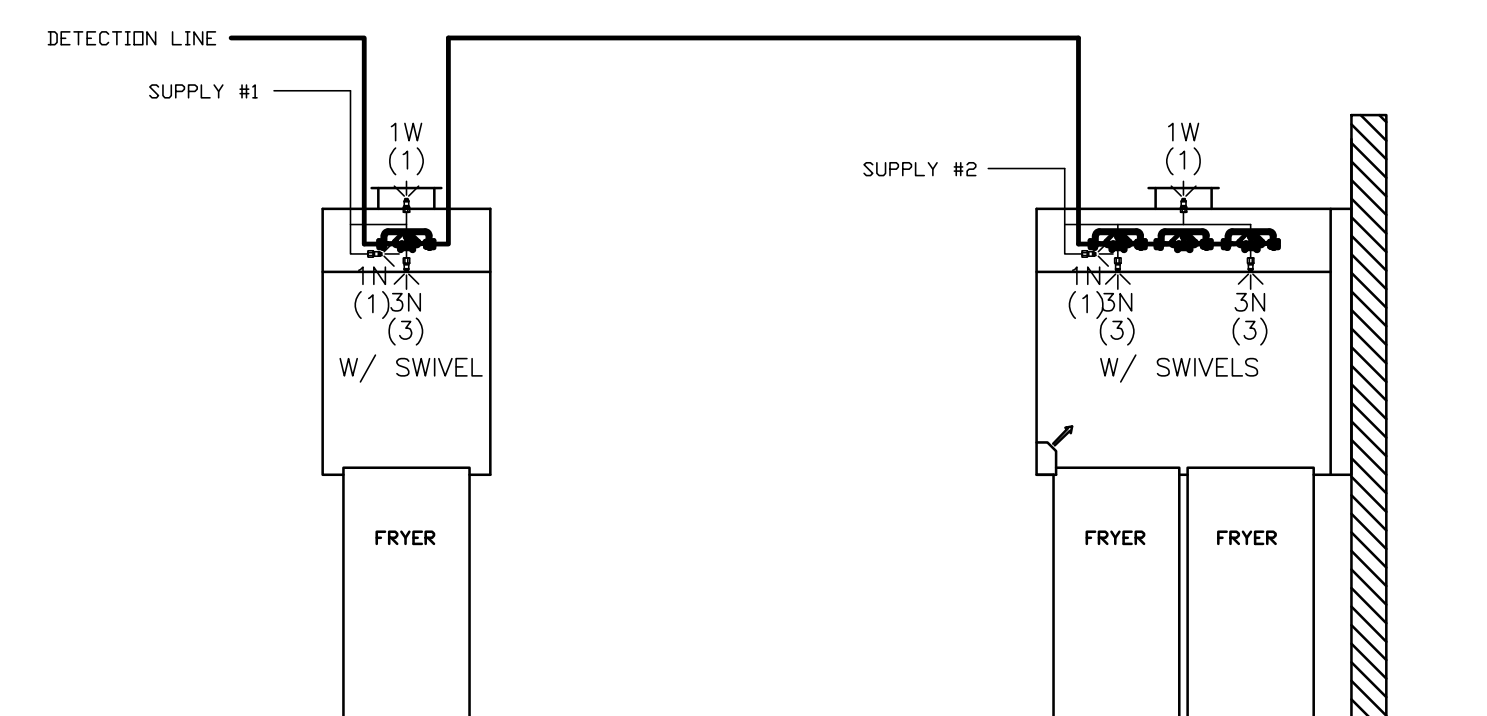
FOR REFERENCE ONLY

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

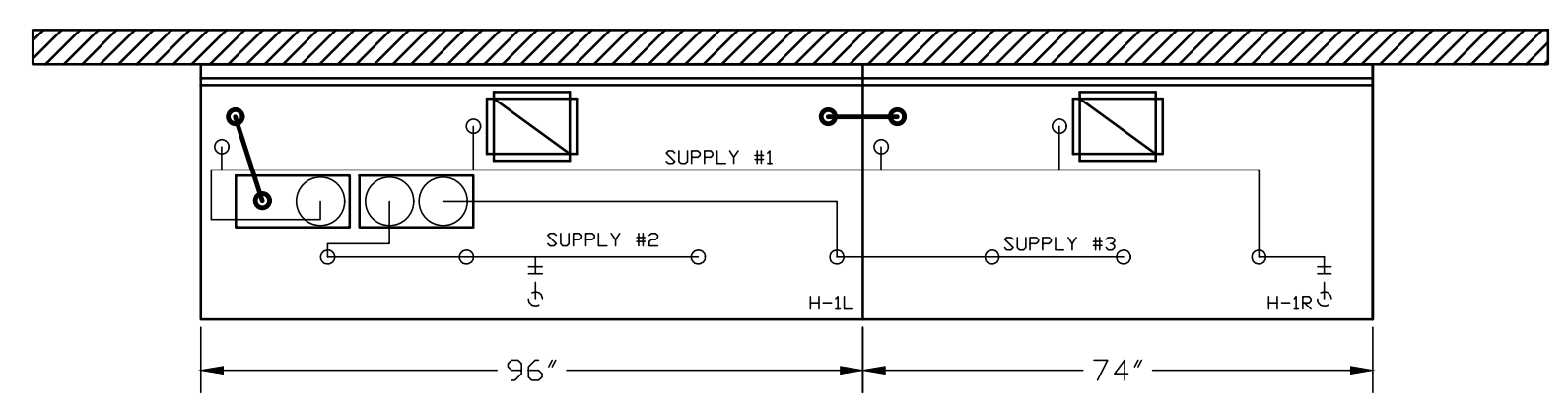


ANSUL R-102 FIRE SYSTEM  
 (1) REGULATED RELEASE  
 (2) EXTRA MICRO SWITCH ASSEMBLIES (MOUNTED IN REG. REL.)  
 (3) SINGLE TANK ENCLOSURE  
 (2) 3 GALLON TANK

A) 6 GALLON SYSTEM (2 TANKS)  
 (REMOTE MOUNTED)  
 (FOR HOOD H-2 & H-3)  
 B) 3/8" BLACK IRON PIPING  
 W/ 3/8" S.S. APPLIANCE DROPS

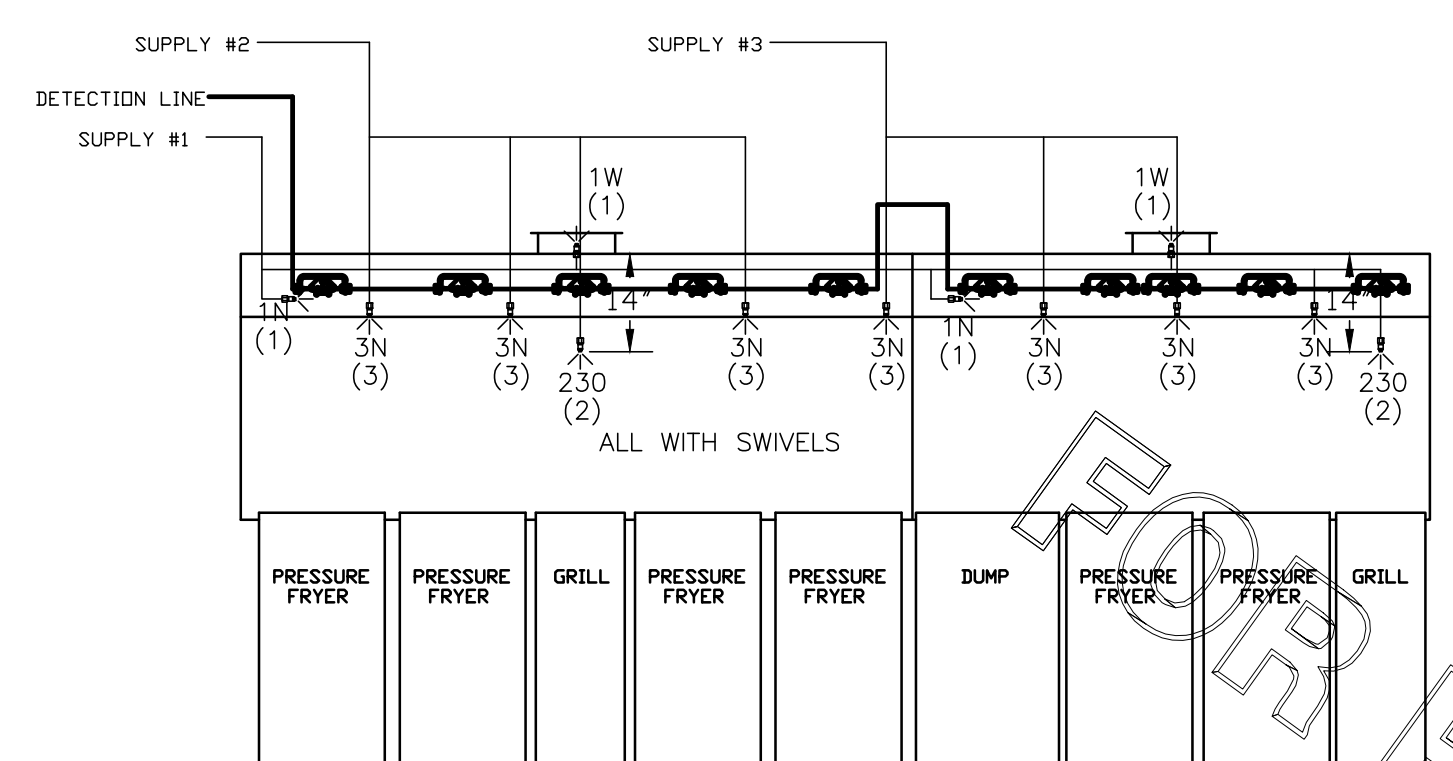


ANSUL R-102 FIRE SYSTEM LAYOUT



ANSUL R-102 FIRE SYSTEM  
 (1) REGULATED RELEASE  
 (2) EXTRA MICRO SWITCH ASSEMBLIES (MOUNTED IN REG. REL.)  
 (3) DOUBLE TANK ENCLOSURE  
 (2) 3 GALLON TANKS

A) 9 GALLON SYSTEM (3 TANKS)  
 (MOUNTED ON HOOD H-1L)  
 (FOR HOODS H-1L & H-1R)  
 B) 3/8" BLACK IRON PIPING  
 W/ 3/8" S.S. APPLIANCE DROPS



ANSUL R-102 FIRE SYSTEM LAYOUT

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	10	APPLIANCE NOZZLES	30

TOTAL FLOW POINTS - 42

ITEM #	QTY	DESCRIPTION
#200	12	SERIES DETECTORS W/ FUSIBLE LINKS
#201	2	TERMINAL DETECTOR W/ FUSIBLE LINKS
#202	2	REGULATED RELEASE W/ DOUBLE POLE MICRO SWITCH
#203	5	3 GALLON TANKS
#204	1	SINGLE TANK ENCLOSURE
#205	1	DOUBLE TANK ENCLOSURE
#206	2	REMOTE PULL STATION

ANSUL R-102 FIRE SYSTEM  
 UL LISTED PER STD LATEST STD 300

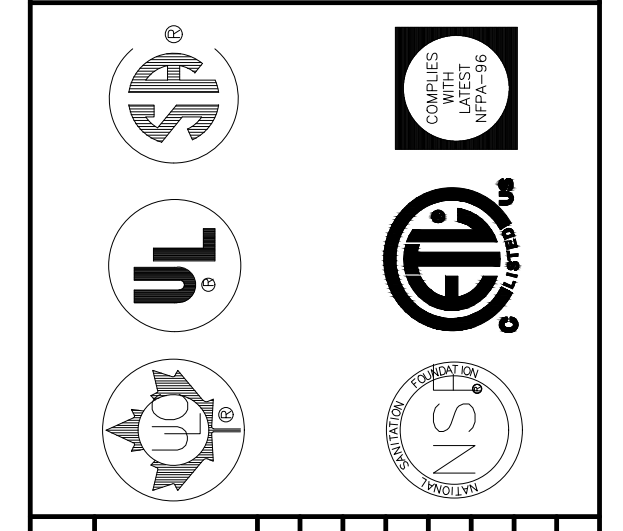
- FINAL INSTALLATION IS TO BE MADE IN ACCORDANCE WITH ALL APPLICABLE CODES
- ALL ELECTRICAL COMPONENTS FOR EQUIPMENT SHUT DOWN TO BE PROVIDED BY THE ELECTRICIAN. MICRO-SWITCH INSTALLED IN REGULATED RELEASE BY ANSUL INSTALLER
- REMOTE PULL STATION LOCATED PER MECHANICAL DRAWINGS

THIS DRAWING MUST BE CHECKED, SIGNED AND RETURNED TO THE APPROPRIATE FACTORY. PLEASE VERIFYING THE FOLLOWING:  
 1. ALL DIMENSIONAL INFORMATION, MOUNTING POSITIONS AND CLEARANCES.  
 2. THE LOCATION AND TYPE OF COOKING EQUIPMENT.

**NOTE TO APPROVER**  
 ANY CHANGES IN COOKING EQUIPMENT SUCH AS INCREASED ENERGY INPUTS OR EQUIPMENT CHANGES OCCURRING AFTER THE DRAWING IS APPROVED MUST BE NOTED IN THE COMMENTS. CHANGES OCCURRING AFTER RECALCULATION EXHAUST AIRFLOW MAY BE REQUIRED.

REVISE AND RESUBMIT   
 APPROVED FOR FABRICATION   
 WITH NO CHANGES  WITH CHANGES AS NOTED

APPROVED BY: \_\_\_\_\_ DATE: \_\_\_\_\_



MAIL APPROVED DRAWINGS TO APPROPRIATE FACTORY BELOW:

WEBSITE: WWW.HALTONCOMPANY.COM	HALTON CO. (USA)	DATE: _____
101 INDUSTRIAL DRIVE	SCOTTSDALE, KY 42164	BY: _____
1-270-237-5600		
HALTON CO. (CANADA)	1021 BREVIK PLACE	REVISION DESCRIPTION
MISSISSAUGA, ON L4W 3R7	1-905-624-0301	
REV. 1		
REV. 2		
REV. 3		
REV. 4		
REV. 5		
REV. 6		
REV. 7		

PROJECT: CHICK-FIL-A #1947  
 GLENSTONE

LOCATION: SPRINGFIELD, MO

DRAWN BY: AF DATE: 02.21.20

SCALE: NTS

Halton Dwg: U20-171-02

**Halton**  
 CARE FOR INDOOR AIR

Sheet **MHI.02**