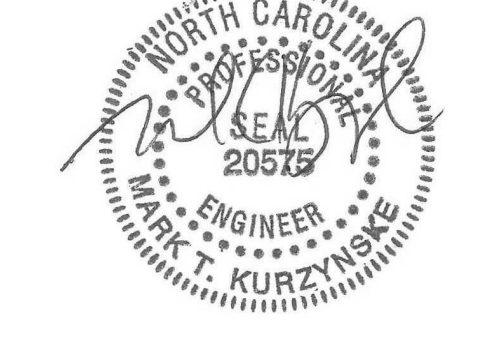




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KURZYNSKE & ASSOCIATES LICENSE  
 NO. F-0823, EXPIRES 06/30/22



04/18/22

**CHICK-FIL-A**  
 RELO Southern Pines  
 265 Turner Street  
 Aberdeen, NC 28315

**FSR#05048**  
 BUILDING TYPE / SIZE: P13 LE ALL  
 RELEASE: v2.18.08

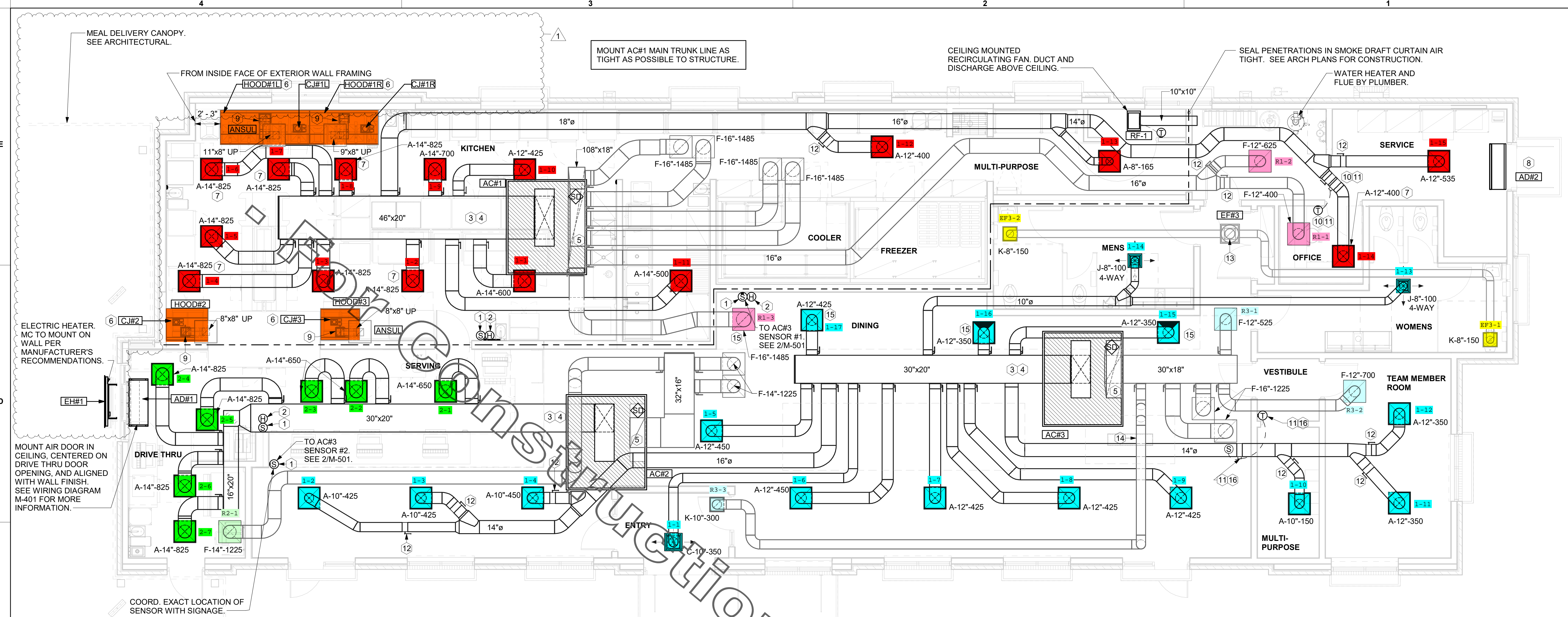
REVISION SCHEDULE		
NO.	DATE	DESCRIPTION
1	04/18/2022	DESIGN NOTES

**CONSTRUCTION**

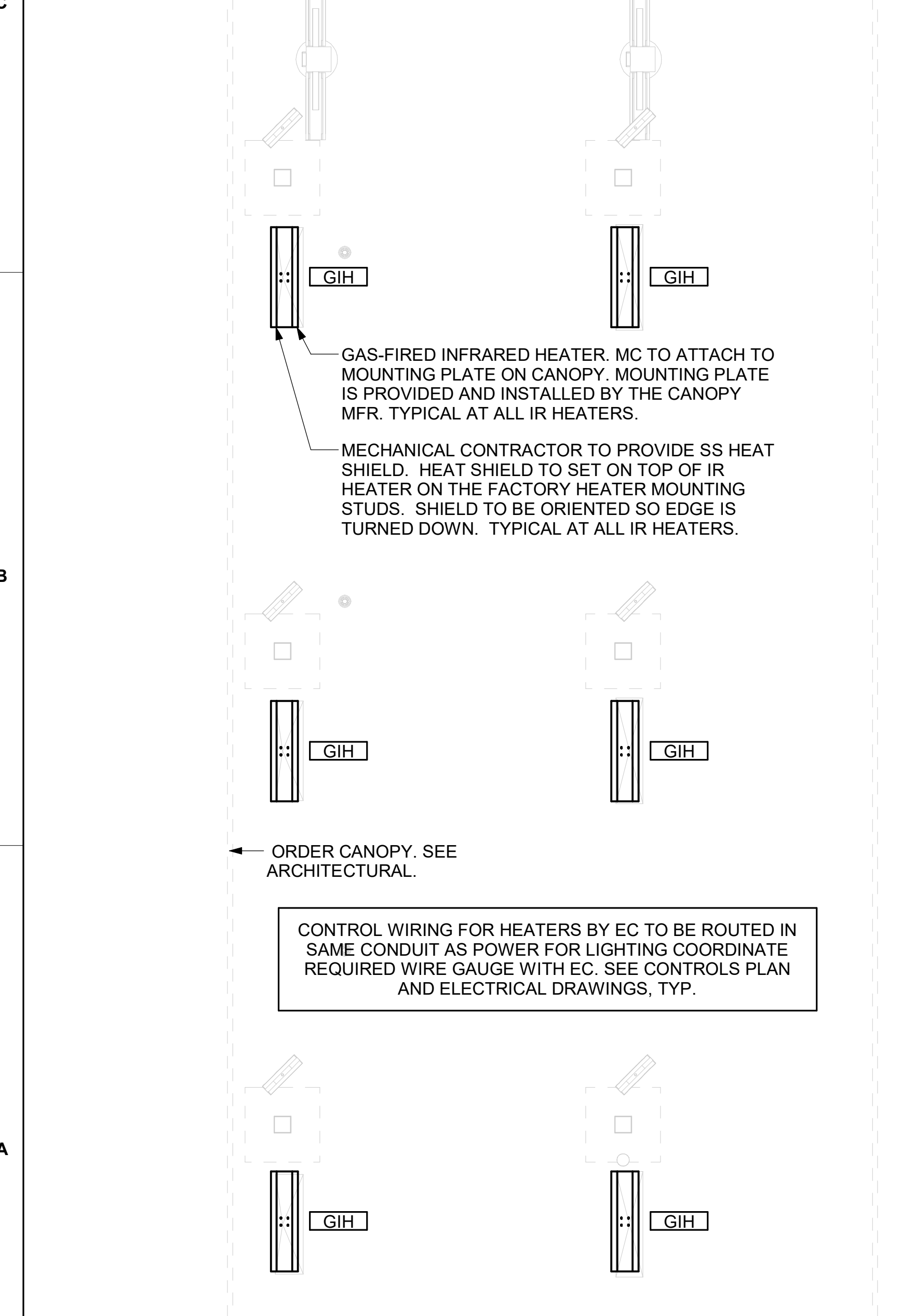
CONSULTANT PROJECT #	21178.HF.S
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SHEET: MECHANICAL FLOOR PLAN  
 SHEET NUMBER: M-201



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



**2 MECHANICAL FLOOR PLAN - ORDER CANOPY**  
 1/4" = 1'-0"

**SHEET NOTES**

- DUCT SIZES SERVING DIFFUSERS AND GRILLES ARE SAME SIZE AS DIFFUSER OR GRILLE NECK UNLESS NOTED OTHERWISE.
- FLEXIBLE DUCT NOT SHOWN FOR CLARITY. ALL TAKE-OFFS SHALL INCLUDE FLEXIBLE DUCT. SEE DETAIL 1/M-401 FOR FLEXIBLE DUCT INSTALLATION REQUIREMENTS.
- FOR SUPPLY AND RETURN OPENINGS, CUT OPENING AROUND DUCT DROPS 4" TO 8" MINIMUM (EXCEPT WHERE STRUCTURE PREVENTS THIS). SEE ARCHITECTURAL AND STRUCTURAL DRAWINGS.
- 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.
- UNLESS NOTED OTHERWISE, MC TO ADJUST ALL DIFFUSER AIR PATTERN DEFLECTORS TO THROW HORIZONTALLY ALONG THE CEILING.
- SUPPORT ALL DUCT DROPS AT BASE OF DROP FROM STRUCTURE.

**CANOPY 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 WILL BE DETERMINED BY SITE-SPECIFIC CANOPY LAYOUT AND EQUIPMENT LOCATIONS, AS INDICATED ON ARCHITECTURAL PLANS.
- CONTROL WIRING FOR HEATERS WITH EC. COORDINATE REQUIRED WIRE GAUGE WITH EC. SEE CONTROLS PLAN AND ELECTRICAL DRAWINGS, TYP.

**KEY NOTES**

- MOUNT REMOTE SENSOR ON WALL AT 5'-0" AFF U.N.O. AND ROUTE WIRING BACK TO SUNCOAST TEMP CONTROL PANEL. FOR SENSOR SERVING AC#1, COORDINATE EXACT LOCATION WITH KITCHEN EQUIPMENT.
- MOUNT LENNOX HUMIDITY SENSOR ON WALL ABOVE SPACE TEMP SENSOR AND ROUTE WIRING TO UNIT ON ROOF.
- BRANCH TAKE-OFFS ARE NOT TO BE LOCATED CLOSER THAN 3'-0" FROM ANY OFFSET OR 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. WHERE THE DUCT IS SHOWN OFFSET HORIZONTALLY, PROVIDE ELBOW WITH TURNING VANES. FOR DROPS WITH NO HORIZONTAL OFFSET, EXTEND DROP BELOW STRUCTURE TO ACCOMMODATE START COLLARS. TERMINATE DROP A MINIMUM 0'-10" ABOVE CEILING. (0'4" ABOVE CEILING IF REQUIRED TO ACCOMMODATE TAKE-OFF AND DROP IS NOT LOCATED DIRECTLY ABOVE A LIGHT.)
- TRANSITION IN VERTICAL DROP FROM FULL SIZE OF CURB OPENING TO SIZE SHOWN. SEE DETAIL 6/M-401 FOR REQUIRED TRANSITION GEOMETRY. TRANSITION WITHIN CURB WHERE REQUIRED TO AVOID STRUCTURE. WHERE THE DUCT IS SHOWN OFFSET HORIZONTALLY, PROVIDE ELBOW WITH TURNING VANES. FOR DROPS WITH NO HORIZONTAL OFFSET, EXTEND DROP BELOW STRUCTURE TO ACCOMMODATE START COLLARS. TERMINATE DROP A MINIMUM 0'-10" ABOVE CEILING. (0'4" ABOVE CEILING IF REQUIRED TO ACCOMMODATE TAKE-OFF AND DROP IS NOT LOCATED DIRECTLY ABOVE A LIGHT.)
- SEE ELEVATIONS ON M-301 FOR CJ FAN DUCTING REQUIREMENTS.
- MECHANICAL CONTRACTOR TO ADJUST PATTERN DEFLECTORS TO THROW STRAIGHT DOWN.
- 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 BACKSIDE 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.
- HALTON KBD DAMPER AT HOOD COLLAR BY MECHANICAL CONTRACTOR. SEE HOOD ELEVATIONS ON M-301 FOR LOCATION.
- YOUNG REGULATOR 12" MODEL 4075-LMB24-IF ROUND ZONE DAMPER WITH MODEL T-720A AUTOMATIC CHANGEOVER THERMOSTAT. MOUNT T'STAT AT 4'-0" AFF. POWER OPEN/SPRING CLOSE. ADJUST MECHANICAL LIMIT FOR 50 CFM MINIMUM AIRFLOW. CHICK-FIL-A HAS A NATIONAL ACCOUNT WITH TOM BARROW COMPANY FOR THE ZONE DAMPER. THE MECHANICAL CONTRACTOR SHALL PURCHASE THE ZONE DAMPER DIRECTLY FROM TOM BARROW COMPANY. CONTACT MR. SCOTT GEORGE AT 404-351-1010, FOR PRICING AND AVAILABILITY. ZONE DAMPERS NOT PURCHASED THRU TOM BARROW COMPANY WILL NOT BE ACCEPTED.
- PROVIDE 120V/84V 50 VA TRANSFORMER TO SERVE YOUNG REGULATOR ZONE DAMPER ACTUATOR AND THERMOSTAT. POWER TRANSFORMER FROM 120V POWER CIRCUIT THAT REMAINS LIVE 24/7. PROVIDE ALL NECESSARY WIRING AND COMPONENTS TO MAKE CONTROL AND POWER CONNECTIONS TO TRANSFORMER, ZONE DAMPER, AND THERMOSTAT PER MANUFACTURER'S IOM. THERE IS NO INTERLOCKING OR MONITORING BY WAY OF THE S.E.C. CFA-500 PANEL. SEE WIRING DIAGRAMS ON M-501.
- RUSKIN MDRS25 MVD W/LOCKING QUADRANT HANDLE.
- 10X10 EXHAUST DUCT DOWN.
- ROUTE DUCT WITHIN STRUCTURE.
- SAURA GRILLE REQUIRES PRICE AMF SURELOC MOUNT ADAPTER FRAME.
- YOUNG REGULATOR 14" MODEL 4075-LMB24-IF ROUND ZONE DAMPER WITH MODEL T-720A AUTOMATIC CHANGEOVER THERMOSTAT. MOUNT T'STAT AT 4'-0" AFF. POWER OPEN/CLOSE/MODULATING. ADJUST MECHANICAL LIMIT FOR 300 CFM MINIMUM AIRFLOW. ADJUST MAXIMUM LIMIT TO FULLY OPEN POSITION. INITIAL BALANCE TO BE DONE WITH VAV AT THE FULL OPEN POSITION. CHICK-FIL-A HAS A NATIONAL ACCOUNT WITH TOM BARROW COMPANY FOR THE ZONE DAMPER. THE MECHANICAL CONTRACTOR SHALL PURCHASE THE ZONE DAMPER DIRECTLY FROM TOM BARROW COMPANY. CONTACT MR. SCOTT GEORGE AT 404-351-1010, FOR PRICING AND AVAILABILITY. ZONE DAMPERS NOT PURCHASED THRU TOM BARROW COMPANY WILL NOT BE ACCEPTED.

**LEGEND**

Symbol	DESCRIPTION	Symbol	DESCRIPTION
A-12-400	TYPE - NECK SIZE - CFM	EF#1	EXHAUST FAN #1 (TYP.)
[Symbol]	SPIN-IN FITTING WITH MANUAL BALANCING DAMPER, WITHOUT SCOOP	AC#1	AIR CONDITIONING UNIT #1 (TYP.)
[Symbol]	SPIN-IN HARD Ø FLEXIBLE Ø DIFFUSER	[Symbol]	RETURN/EXHAUST (TYP.)
(S)	REMOTE TEMPERATURE SENSOR	[Symbol]	SUPPLY DIFFUSER, SQ FACE (TYP.)
(H)	HUMIDITY SENSOR	(1)	PLAN NOTE REFERENCE
[Symbol]	SMOKE DETECTOR	[Symbol]	MANUAL VOLUME DAMPER
12x18	DUCT SIZE (reverse for elevation views) 1ST NUMBER - HORIZONTAL DIMENSION 2ND NUMBER - VERTICAL DIMENSION	[Symbol]	DIRECTION OF THROW ON DIFFUSER
[SW]	AIR DOOR SWITCH	[GIH]	GAS INFRARED HEATER (TYP.)
EC	ELECTRICAL CONTRACTOR	B/G	BELOW GRADE
MC	MECHANICAL CONTRACTOR	(T)	THERMOSTAT

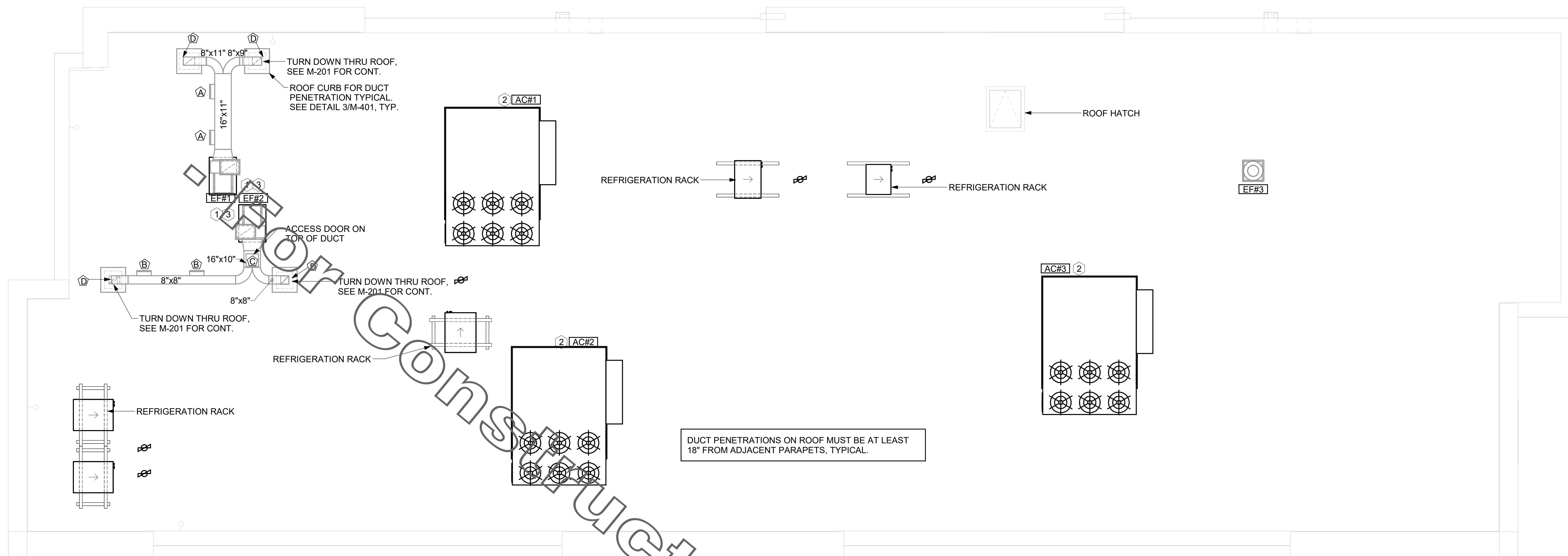
**H.E.S. SYSTEM**

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.

**AIR BALANCE SCHEDULE**

Mark	SUPPLY AIR	RETURN AIR	OUTSIDE AIR	EXHAUST AIR	BUILDING POSITIVE PRESSURE
AC#1	9500	8450	1050		
AC#2	5250	3675	1575		
AC#3	6000	3975	2025		
EF#1				1912	
EF#2				1402	
EF#3				300	
	20750	16100	4650	3614	1036

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 30-LE-05048-M-201-MECHANICAL FLOOR PLAN



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

GREASE ACCESS DOOR SCHEDULE			
MARK	OPENING SIZE	DOOR SIZE	REMARKS
A	9H X 14W	11H X 16W	1
B	5.5H X 14W	7.5H X 16W	1
C	12H X 12W	14H X 14W	1
D	10H X 14W	12H X 16W	1

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.

SHEET NOTES

- 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 ACRYLIC PRIMER 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.
- MECHANICAL CONTRACTOR TO SEE ARCHITECTURAL ROOF PLAN FOR NOTES REGARDING LEVELING FRAMES FOR RTUS. COORDINATE WITH GENERAL CONTRACTOR EXACT LOCATIONS AND SIZE NEEDED.
- GREASE EXHAUST DUCT LOCATED ON ROOF SHALL SLOPE 1/4" PER FOOT TOWARDS THE HOOD, THE FAN, OR A COMBINATION OF THE TWO SUCH TO 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 CONTRACTOR 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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KURZYNSKE & ASSOCIATES LICENSE  
NO. F-0823, EXPIRES 06/30/22



04/18/22

**CHICK-FIL-A**  
RELO Southern Pines  
265 Turner Street  
Aberdeen, NC 28315

**FSR#05048**  
BUILDING TYPE / SIZE: P13 LE ALL  
RELEASE: v2.18.08

REVISION SCHEDULE

NO.	DATE	DESCRIPTION

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SHEET MECHANICAL ROOF PLAN

SHEET NUMBER  
**M-250**

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.

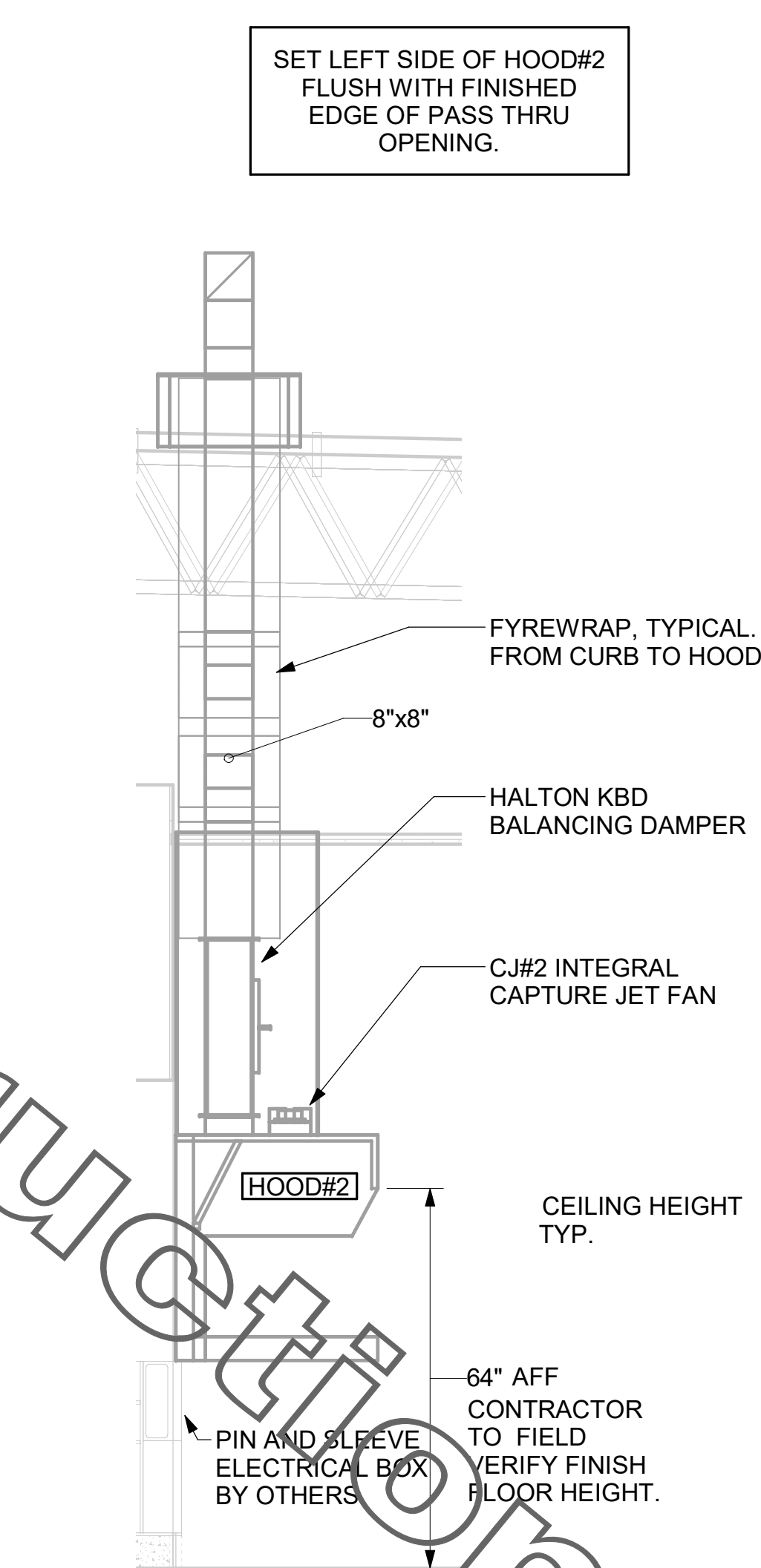
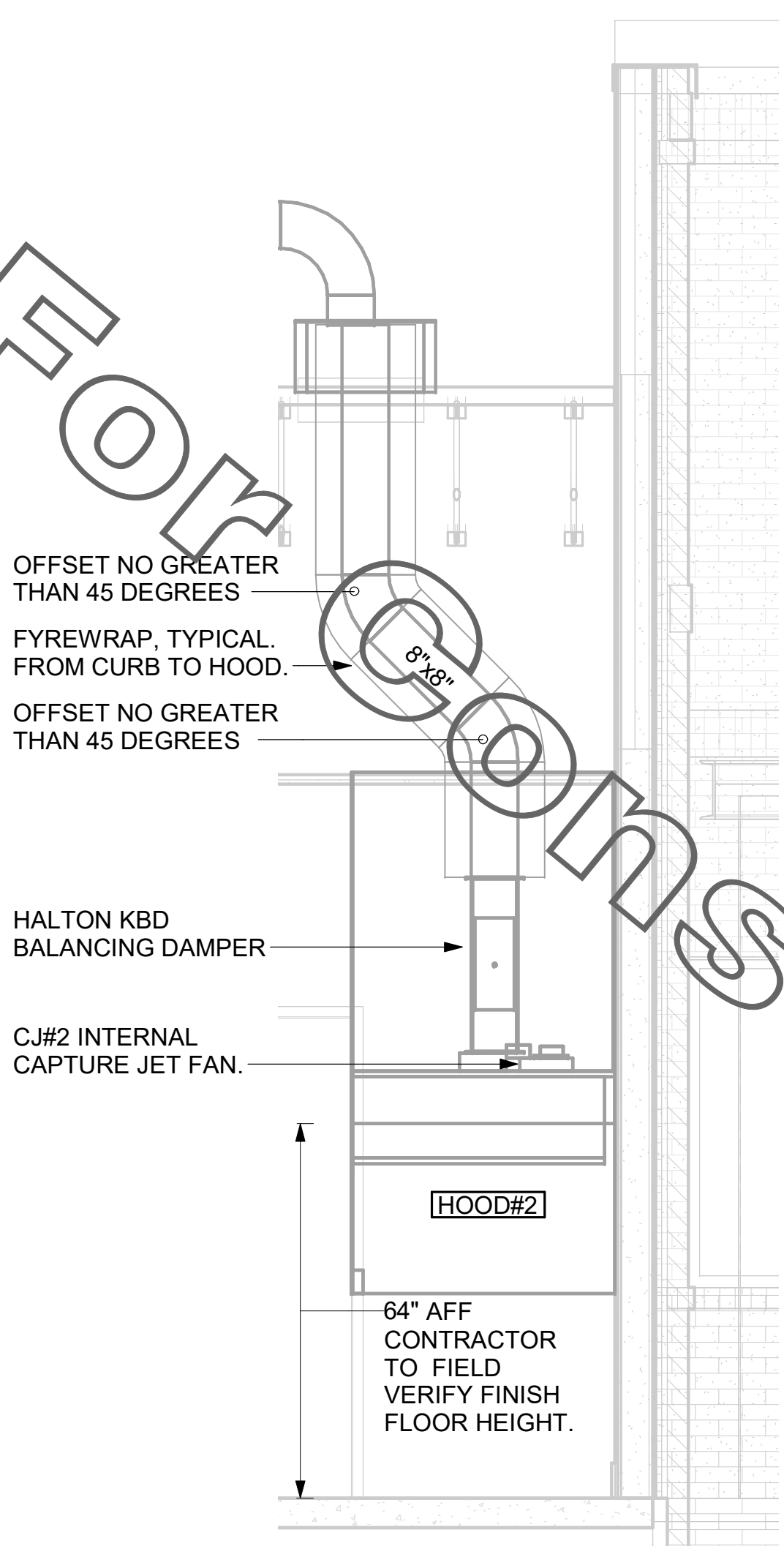
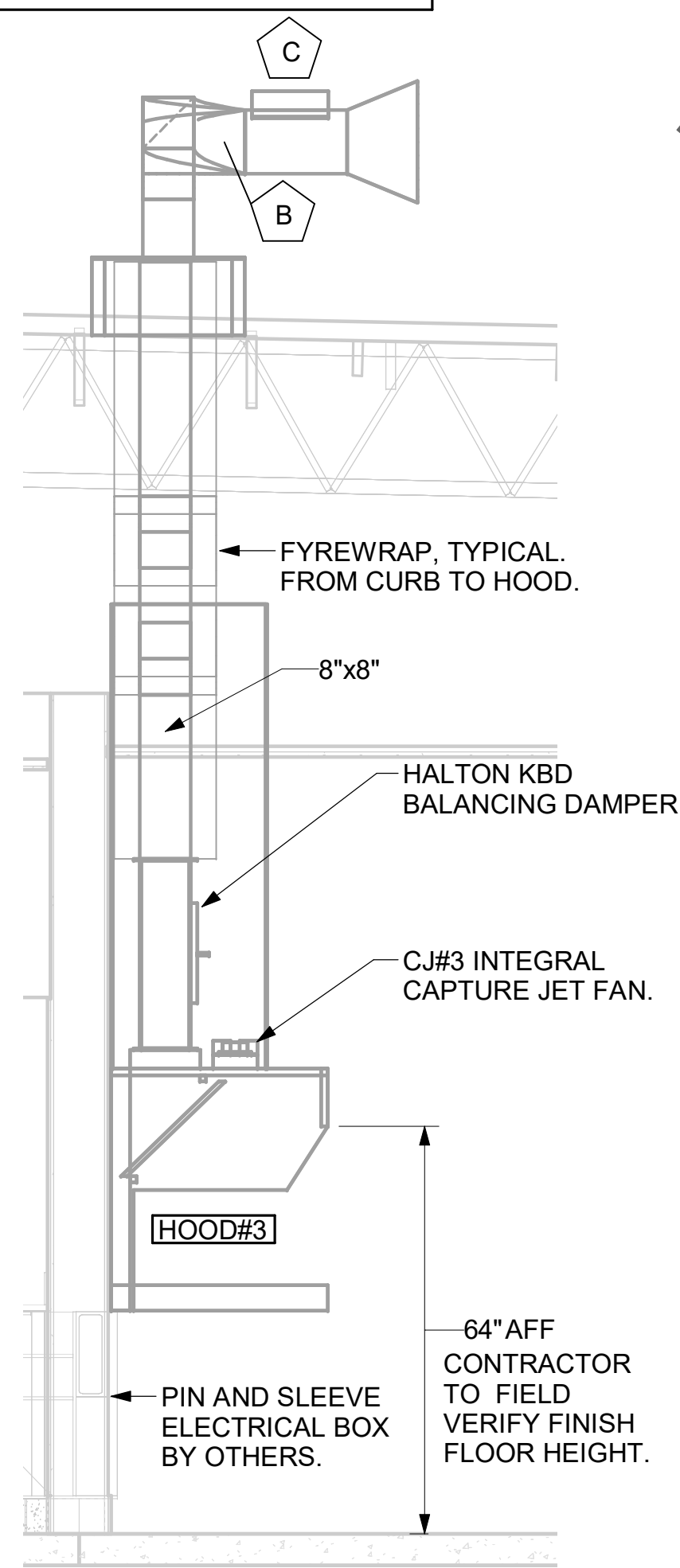
HOOD SCHEDULE											
MARK	EXHAUST CFM	SP @ TAB PORT	CAPTURE JET CFM & S.P.	TYPE	COLLAR SIZE	WIDTH	DEPTH	HEIGHT	MANUFACTURER	MODEL	REMARKS
HOOD#1L	1080	0.13"	72 @ 0.30"	BACKSHELF	11"x8"	96"	37"	38"	HALTON	KVL-2	SEE SHOP DRAWING FOR OPTIONS
HOOD#1R	832	0.12"	55 @ 0.30"	BACKSHELF	9"x8"	74"	37"	38"	HALTON	KVL-2	SEE SHOP DRAWING FOR OPTIONS
HOOD#2	701	0.30"	30 @ 0.29"	BACKSHELF	8"x8"	45"	34"	38"	HALTON	KVL-C	SEE SHOP DRAWING FOR OPTIONS
HOOD#3	701	0.30	30 @ 0.29	BACKSHELF	8"x8"	42"	34"	38"	HALTON	KVL-C	SEE SHOP DRAWING FOR OPTIONS

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

- 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, 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.

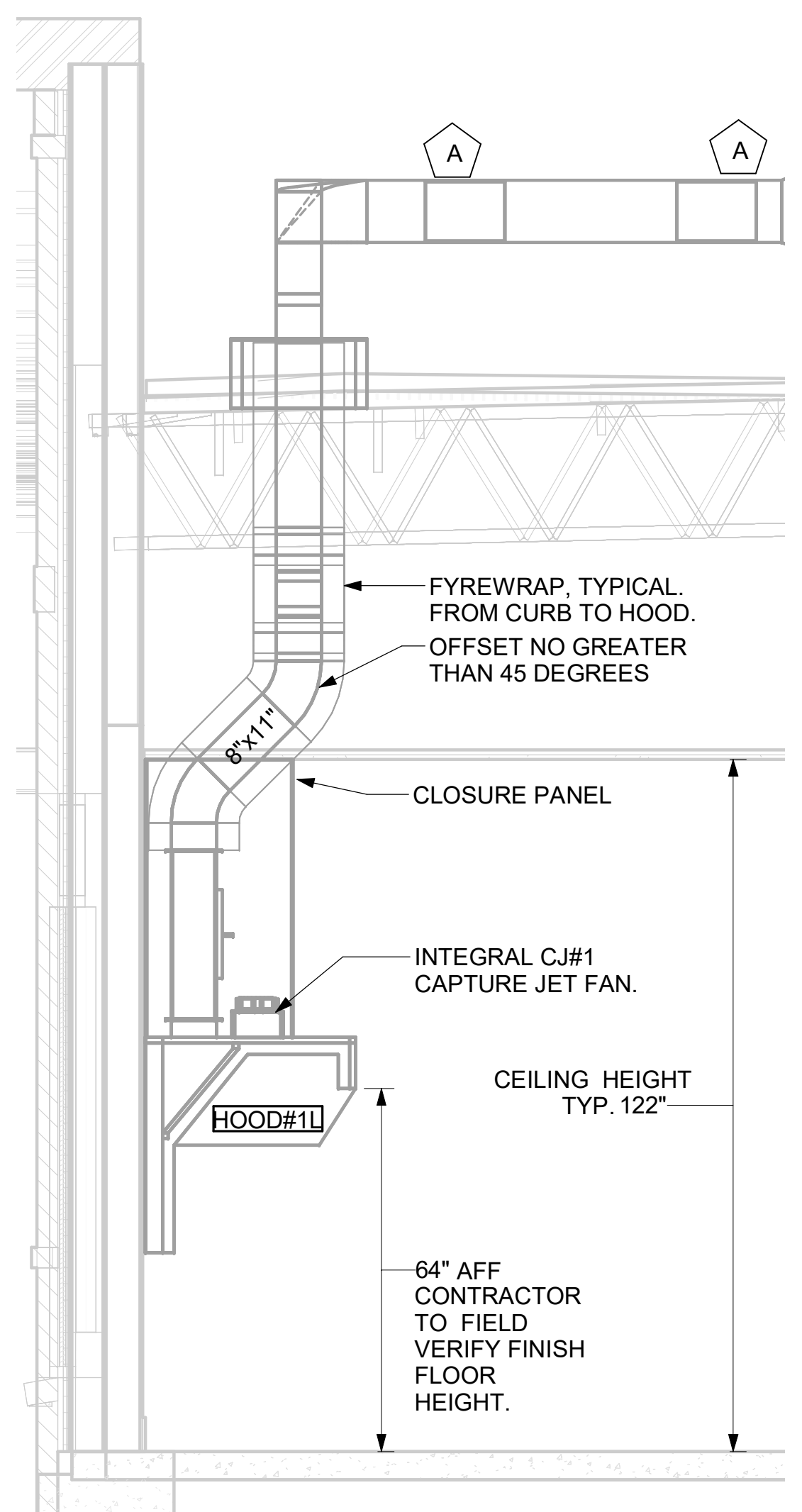
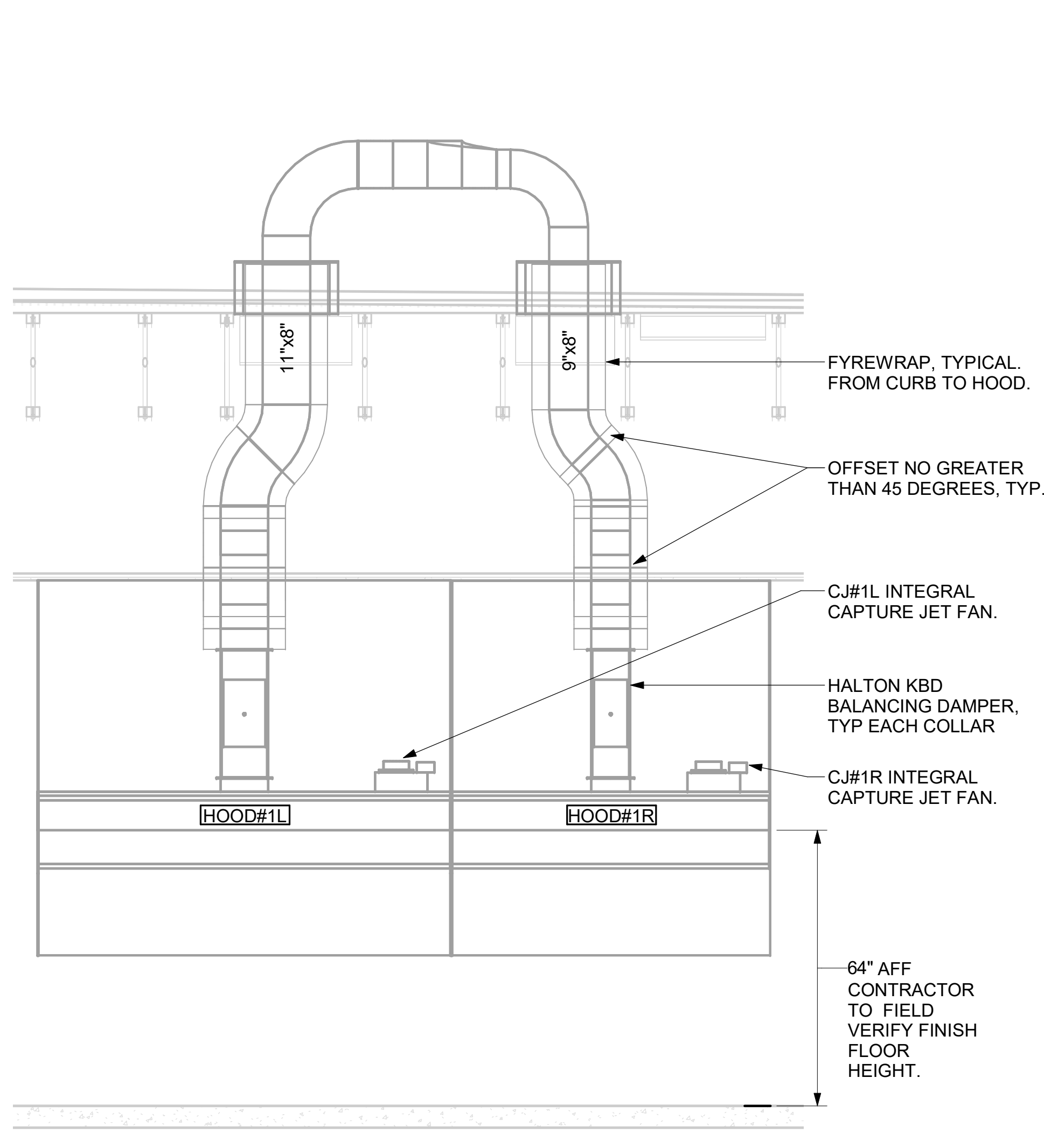
SET LEFT SIDE OF HOOD#2 FLUSH WITH FINISHED EDGE OF PASS THRU OPENING.



7 HOOD ELEVATION - HOOD#3  
 NOT TO SCALE

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

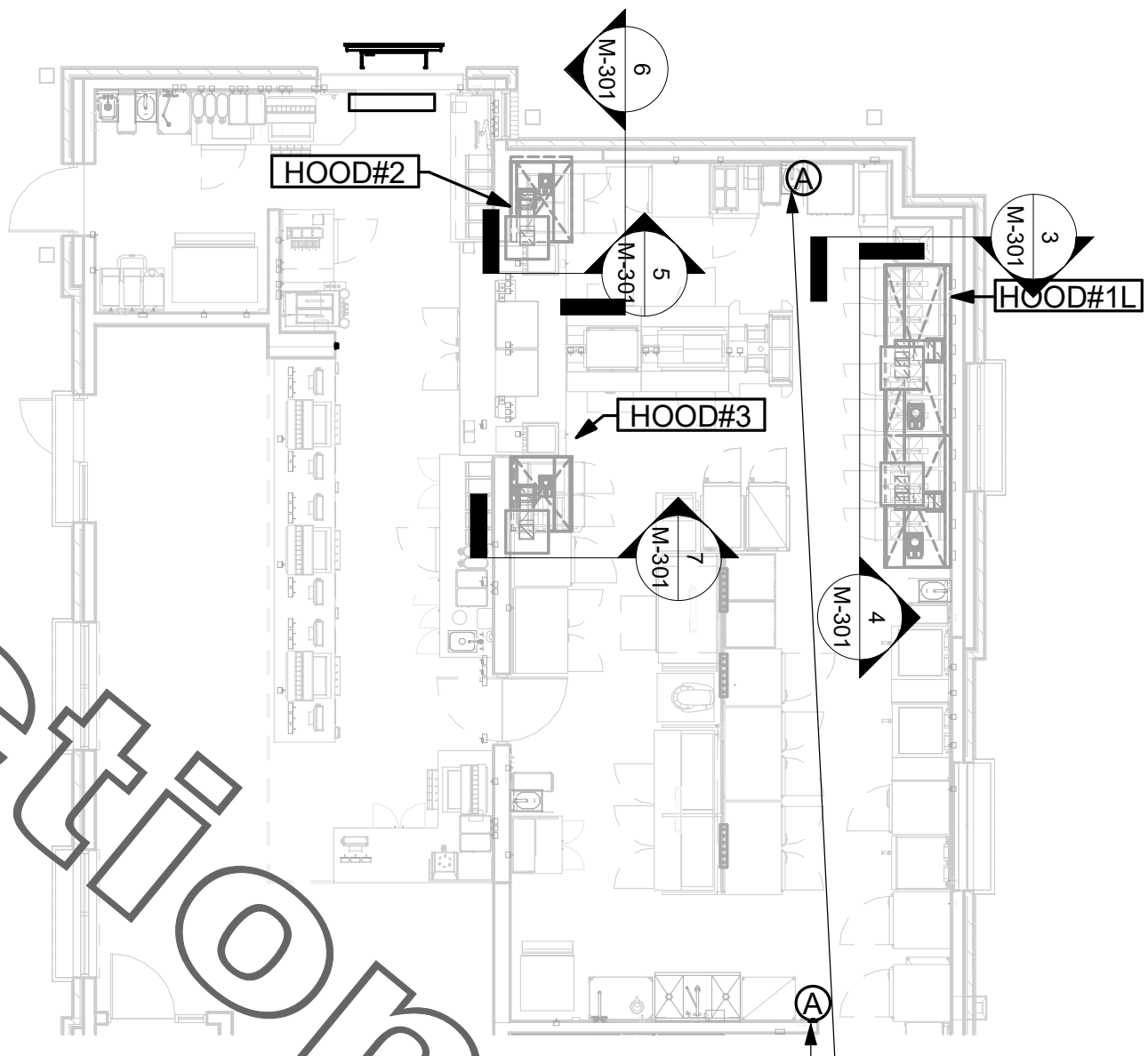
5 HOOD ELEVATION - HOOD#2 - SIDE  
 NOT TO SCALE



4 HOOD ELEVATION - HOOD#1 - FRONT  
 NONE

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

NOTE: SEE ARCHITECTURAL PLANS FOR HOOD LOCATIONS.



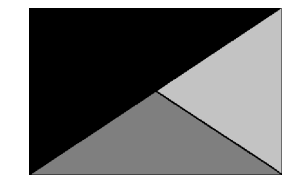
ANSUL PULL STATION SERVING HOOD#1. LOCATE ANSUL PULL STATION BETWEEN 42" AND 48" AFF. COORDINATE EXACT LOCATION WITH KITCHEN EQUIPMENT ELEVATIONS. J-BOX AND CONDUIT ARE BY ELECTRICAL. PROVIDE RED BAKELITE LABEL WITH 1/4" HIGH WHITE LETTERS INDICATING THE HOODS SERVED, I.E.: "MAIN COOKLINE HOOD".

ANSUL PULL STATION SERVING BOTH HOOD#2 AND HOOD#3 ADJACENT TO HANDSINK. LOCATE ANSUL PULL STATION BETWEEN 42" AND 48" AFF. COORDINATE EXACT LOCATION WITH KITCHEN EQUIPMENT ELEVATIONS. J-BOX AND CONDUIT ARE BY ELECTRICAL. PROVIDE RED BAKELITE LABEL WITH 1/4" HIGH WHITE LETTERS INDICATING THE HOODS SERVED, I.E.: "PASS THRU HOODS".

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

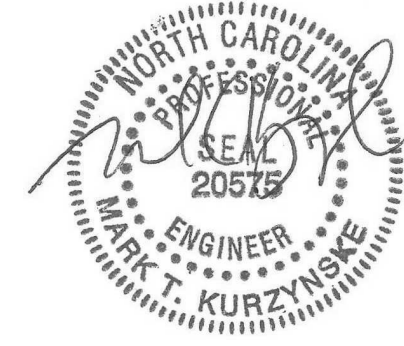


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04/18/22

**CHICK-FIL-A**  
 RELO Southern Pines  
 265 Turner Street  
 Aberdeen, NC 28315

**FSR#05048**  
 BUILDING TYPE / SIZE: P13 LE ALL  
 RELEASE: v2.18.08

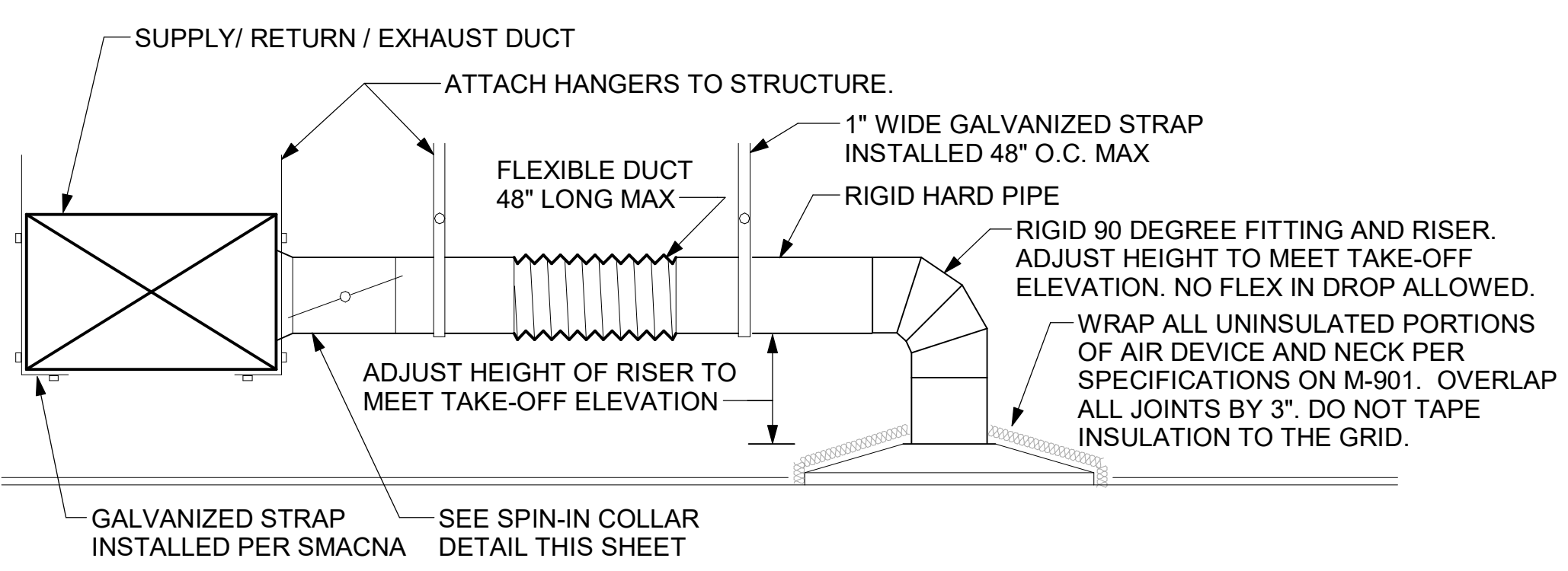
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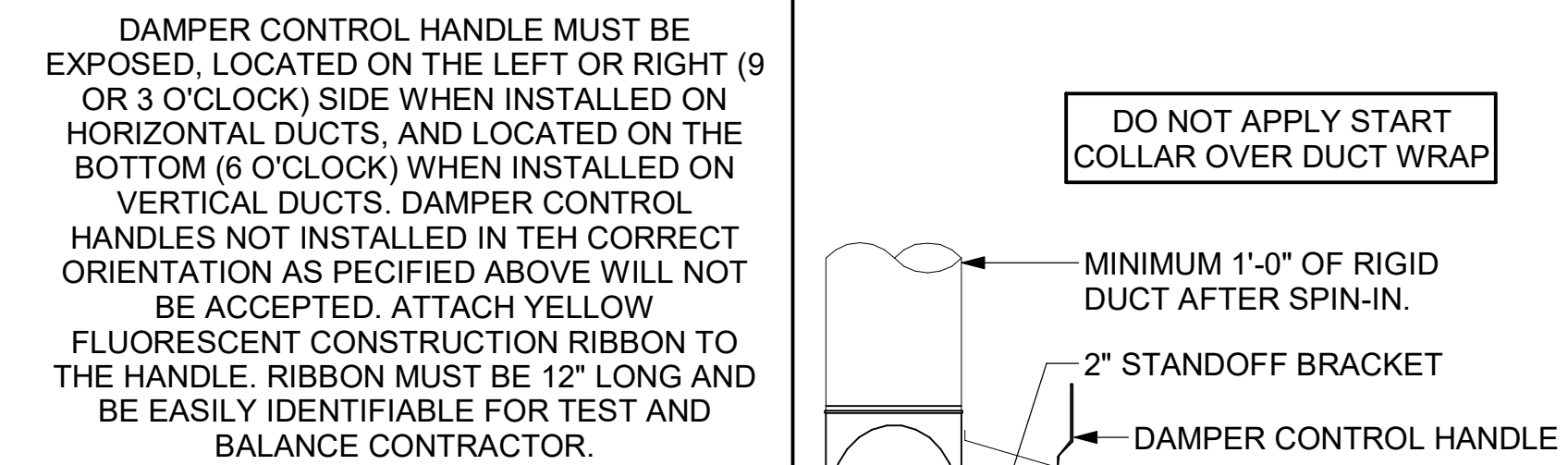
SHEET: HOOD DETAILS AND SCHEDULES

SHEET NUMBER  
**M-301**



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

CHICK-FIL-A HAS A NATIONAL ACCOUNT WITH TOM BARRAW 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 BARRAW COMPANY. CONTACT MR. SCOTT GEORGE AT 404-351-1010 FOR PRICING AND AVAILABILITY. ROYAL METAL PRODUCTS START COLLARS NOT PURCHASED THRU TOM BARRAW COMPANY WILL NOT BE ACCEPTED.



2 START COLLAR NOT TO SCALE

GAS FIRED ROOFTOP UNIT SCHEDULE

Table with columns: MARK, TOTAL COOLING MBH, SENSIBLE COOLING MBH, HEATING INPUT MBH, HEATING OUTPUT MBH, STAGES, SUPPLY, O.A., HP, ESP, MODEL R-410A, MANUFACTURER, REMARKS. Includes entries for AC#1, AC#2, and AC#3.

- NOTES: COOLING CAPACITIES ARE GROSS, BASED ON ENTERING: 80FDB/67FWB, OUTDOOR: 95FDB, AND 400 CFM PER TON. CHICK-FIL-A MAINTAINS A NATIONAL ACCOUNT FOR EQUIPMENT WITH LENNOX CORPORATION. CONTACT LENNOX NATIONAL ACCOUNTS AT 800-367-6285 (OR BY FAX AT 972-497-5112) FOR PRICING, ORDERING AND AVAILABILITY. MECHANICAL CONTRACTOR TO VERIFY LENNOX SUBMITTAL WITH CONSTRUCTION DOCUMENTS.

- REMARKS: 1. PROVIDE DIFFERENTIAL ENTHALPY ECONOMIZER WITH POWER EXHAUST. 2. PROVIDE 14" HIGH ROOF CURB. 3. SEE DETAIL 2/M-501 FOR SETTING OF PRODIGY M3 BOARD CONTROL PARAMETERS BY MC. 4. PROVIDE FACTORY INSTALLED AND UNIT POWERED 115V GFI SERVICE OUTLET. 5. PROVIDE FACTORY INSTALLED 115V 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 FACTORY INSTALLED CONDENSATE PAN DRAIN OVERFLOW SWITCH. 13. PROVIDE HUMIDITY CONTROL OPTION WITH FACTORY WALL MOUNTED HUMIDITY SENSOR. 14. PROVIDE FACTORY INSTALLED BELT TENSER. 15. PROVIDE FACTORY CONFIGURED PHASE LOSS PROTECTION. 16. PROVIDE UNIT WITH MSAV BLOWER.

BROMIC ELECTRIC HEATER SCHEDULE

Table with columns: MARK, KW, FRAME LENGTH, FRAME WIDTH, FRAME DEPTH, MOUNTING TYPE, MODEL, MANUFACTURER. Includes notes and remarks regarding Chick-Fil-A account and heater specifications.

RECIRCULATING FAN SCHEDULE

Table with columns: Mark, Fan CFM, Fan ESP, Fan RPM, Fan HP, Area Served, Model, Manufacturer, Fan Remarks. Includes remarks for NEMA 1 prewired disconnect and thermostat settings.

EXHAUST FAN SCHEDULE

Table with columns: MARK, Fan CFM, ESP, RPM, Tip Speed, HP, Area Served, MODEL, MANUFACTURER, REMARKS. Includes entries for EF#1, EF#2, and EF#3.

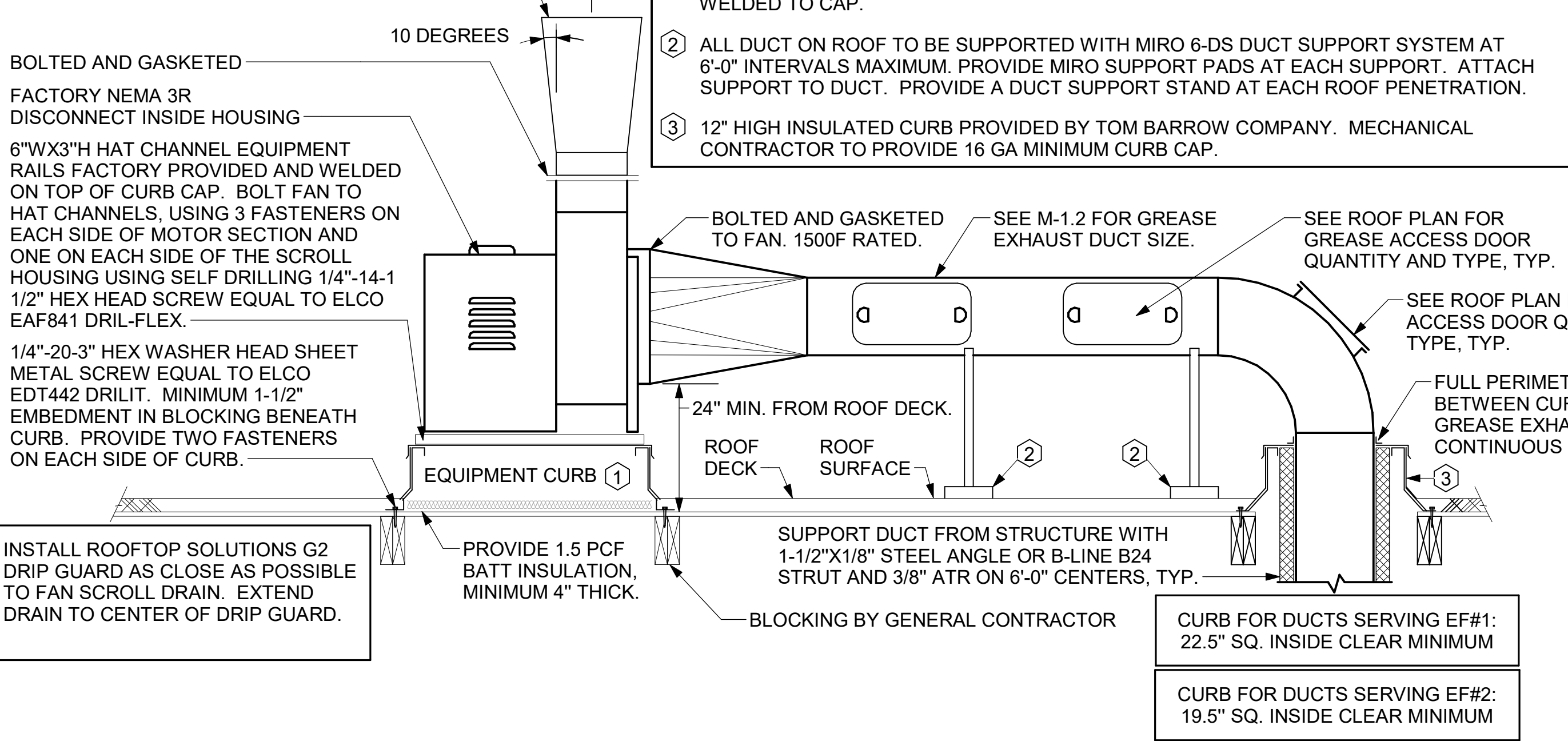
- NOTES: GREASE EXHAUST FAN RPM BASED ON 80 DEGREE F AIR AT 1000 FEET ABOVE SEA LEVEL. GREASE EXHAUST FANS TO BE U.L. 762 LISTED. CHICK-FIL-A HAS A NATIONAL ACCOUNT WITH TOM BARRAW COMPANY FOR THE FAN/CURB PACKAGE. THE MECHANICAL CONTRACTOR IS REQUIRED TO PURCHASE THE FAN/CURB PACKAGE DIRECTLY FROM TOM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

- REMARKS: 1. UPBLAST, ARRANGEMENT 10, CW ROTATION. SEE PLANS TO CONFIRM CONFIGURATION. 2. PROVIDE FACTORY STEEL FAN WHEEL. 3. PROVIDE FACTORY INSTALLED, PRE-WIRED, NEMA 3 NON-FUSED DISCONNECT. 4. PROVIDE FACTORY STEEL INLET FLANGE AND INLET COMPANION FLANGE. 5. PROVIDE AND INSTALL ROOFTOP SOLUTIONS G2 DRIP GUARD. MECHANICAL CONTRACTOR TO CONTACT ROOFTOP SOLUTIONS AT 800-913-7034. 6. PROVIDE FACTORY WEATHER HOUSING W/ HINGED ACCESS DOOR. 7. PROVIDE FACTORY DRAIN CONNECTION. 8. PROVIDE FACTORY BOLTED ACCESS DOOR ON SCROLL. 9. PROVIDE FACTORY INSTALLED BELT DRIVE WITH ADJUSTABLE MOTOR SHEAVE AND SPARE BELT. 10. PROVIDE FACTORY STEEL OUTLET COMPANION FLANGE. 11. INTEGRAL THERMAL OVERLOAD WITH AUTOMATIC RESET. 12. PROVIDE BIRDSCREEN. 13. BACKDRAFT DAMPER IN DUCT BY MECHANICAL CONTRACTOR AS SHOWN ON 4/M-401. 14. STARTER BY ELECTRICAL CONTRACTOR. INTERLOCK WITH LIGHTS BY ELECTRICAL CONTRACTOR. 15. PROVIDE 12" HIGH CURB. 16. PROVIDE FACTORY INSTALLED AND WIRED SPEED CONTROLLER. 17. UTILITY SET FAN CURB AND ASSOCIATED EXHAUST DUCT CURB PROVIDED BY TOM BARRAW COMPANY.

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 ACRYLIC PRIMER PRIOR TO PAINTING.

- KEYED NOTES: 1. EQUIPMENT CURB WITH REINFORCED BASE AND STEEL CURB CAP PROVIDED BY TOM BARRAW 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. 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 BARRAW COMPANY. MECHANICAL CONTRACTOR TO PROVIDE 16 GA MINIMUM CURB CAP.

FABRICATE 18 GA STAINLESS NOZZLE. NOZZLE INLET FULL SIZE OF FAN DISCHARGE. MINIMUM NOZZLE HEIGHT 1'-0". EXTEND NOZZLE AS NEEDED TO TERMINATE 0'-2" ABOVE TOP OF ALL CONDENSING UNITS, RTUS, AND PARAPETS WITHIN 10'-0".



3 KITCHEN HOOD EXHAUST FANS NOT TO SCALE

4 RESTROOM EXHAUST FAN NOT TO SCALE

AIR DOOR SCHEDULE

Table with columns: MARK, CFM, VELOCITY, HEATING CAP, HP, AREA SERVED, MODEL, MANUFACTURER, REMARKS. Includes entries for AD#1 and AD#2.

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

- REMARKS: 1. FACTORY PROVIDED, WIRED, AND UNIT MOUNTED SPEED CONTROLLER LOCATED ABOVE CEILING. 2. FACTORY WIRE DISCONNECT. 3. FACTORY PROVIDED, FIELD INSTALLED BY MC. REMOTE WALL SWITCHES FOR HEATING ON/OFF AND FAN ON/AUTO SWITCH. SEE DETAIL, AIR CURTAIN WIRING DIAGRAM. 4. FACTORY PROVIDED MAGNETIC DOOR CONTACT WITH FACTORY INSTALLED LOW VOLTAGE CONTROLS LOCATED IN AIR DOOR CABINET. 5. PROVIDE WITH A DIVERTER BOX. PROVIDE WITH MOUNTING BRACKETS PER MANUFACTURER'S RECOMMENDATIONS.

AIR DEVICE SCHEDULE

Table with columns: MARK, DESCRIPTION, LOCATION, NECK SIZE, FACE SIZE, FRAME TYPE, REMARKS. Includes entries for A, C, F, J, and K.

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

- REMARKS: 1. STANDARD OFF WHITE FINISH. 2. PROVIDE MODEL VCS9 NECK DAMPER. 3. SEE DRAWING M-201 FOR THROW. 4. PROVIDE MODEL VCR7 NECK DAMPER ON GRILLES IN RESTROOMS SERVING EXHAUST FAN. 5. PROVIDE BACKPAN. MC TO SEAL JOINTS WITH MASTIC AND INSULATE EXTERNALLY. 6. FIELD INSULATE BACKPAN AS SHOWN ON DETAIL 1/M-401. 7. FACTORY INSULATED R-6 BACKPAN. 8. PRICE AMF SURFACE MOUNT ADAPTER FRAME. SEE 1/M-201 FOR LOCATION AND QUANTITY.

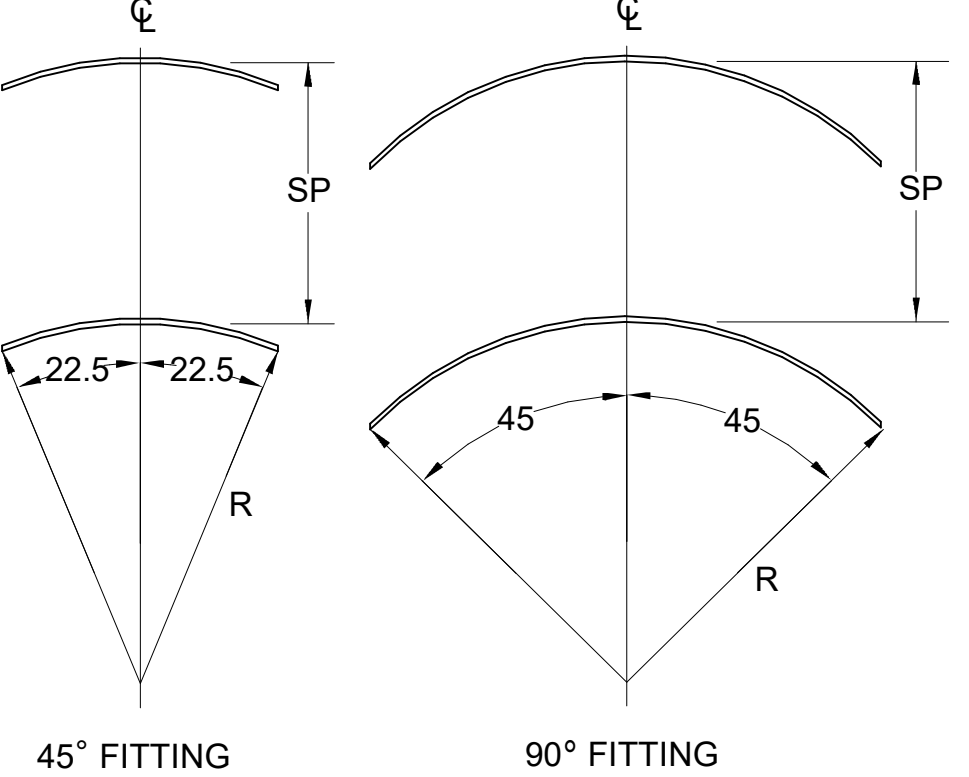
GAS FIRED INFRARED HEATER SCHEDULE

Table with columns: MARK, INPUT (MBH), FRAME LENGTH, FRAME WIDTH, FRAME DEPTH, MOUNTING TYPE, MODEL, MANUFACTURER. Includes entry for GH.

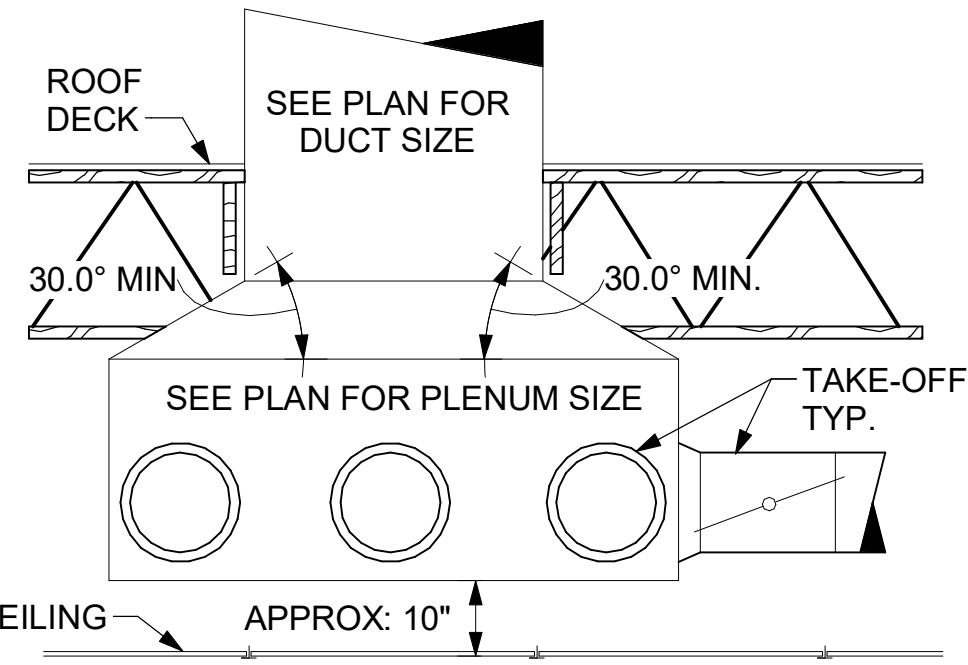
- NOTES: CONFIRM HEATER QUANTITY WITH CANOPY SHOP DRAWINGS. CHICK-FIL-A HAS A NATIONAL ACCOUNT WITH TOM BARRAW COMPANY FOR THE GAS FIRED INFRARED HEATERS. THE MECHANICAL CONTRACTOR SHALL PURCHASE THE HEATER PACKAGE DIRECTLY FROM TOM BARRAW COMPANY. CONTACT MR. SCOTT GEORGE AT 404-351-1010. FOR PRICING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

- REMARKS: 1. STEEL BURNER WITH CERAMIC BURNER TILES. 2. STAINLESS STEEL LENS WITH BLACK EMISSION COATING. 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 FORWARD, 12" LATERALLY FROM THE LONG SIDE OF THE HEATER. 4. STAINLESS STEEL HEAT SHIELDS PROVIDED BY TOM BARRAW COMPANY.

TURNING VANE SCHEDULE table with columns R, SP, GA and rows for 2" and 1.5" sizes.

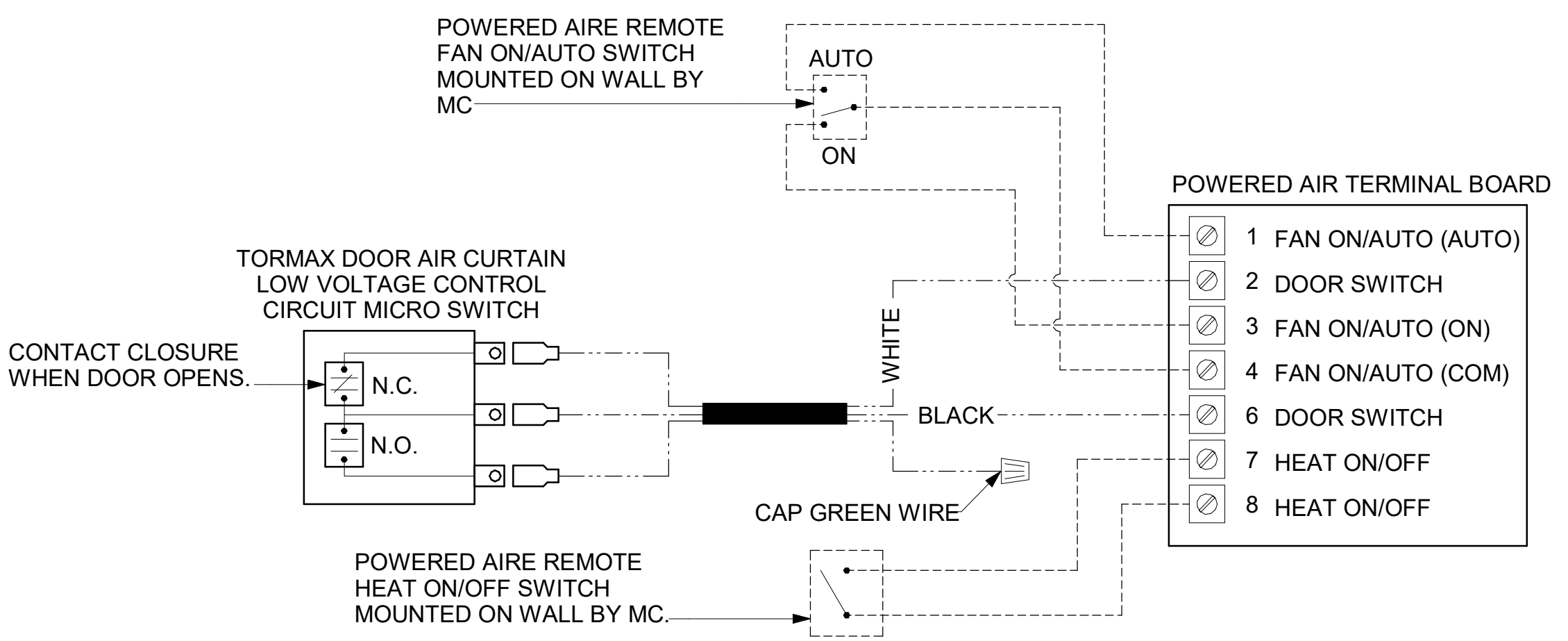


5 TURNING VANES NOT TO SCALE



6 RETURN DROP GEOMETRY NOT TO SCALE

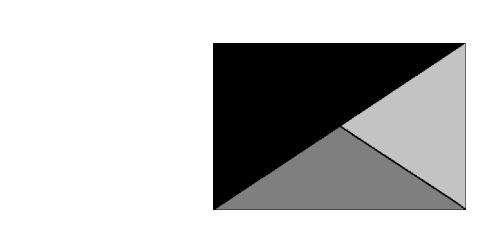
LEGEND table describing wiring types: 18 AWG MIN LOW VOLTAGE WIRING BY MC, U.N.O. and 22 AWG LOW VOLTAGE WIRING PROVIDED BY TORMAX.



7 AIR CURTAIN WIRING DIAGRAM NOT TO SCALE

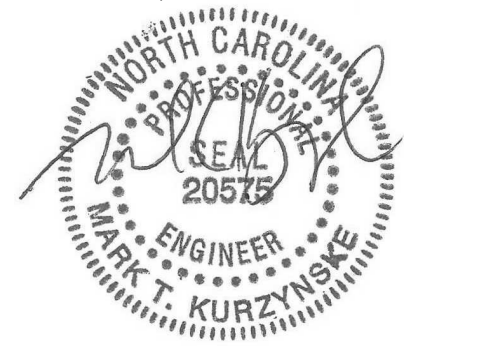


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KURZYNSKE & ASSOCIATES LICENSE NO. F-0823, EXPIRES 06/30/22



04/18/22

CHICK-FIL-A
RELO Southern Pines

265 Turner Street
Aberdeen, NC 28315

FSR#05048
BUILDING TYPE / SIZE: P13 LE ALL
RELEASE: v2.18.08

REVISION SCHEDULE table with columns NO, DATE, DESCRIPTION

CONSTRUCTION

CONSULTANT PROJECT # 21178.HF.S
PRINTED FOR CONSTRUCTION
DATE 01/06/2022
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HVAC DETAILS AND SCHEDULES

SHEET NUMBER M-401

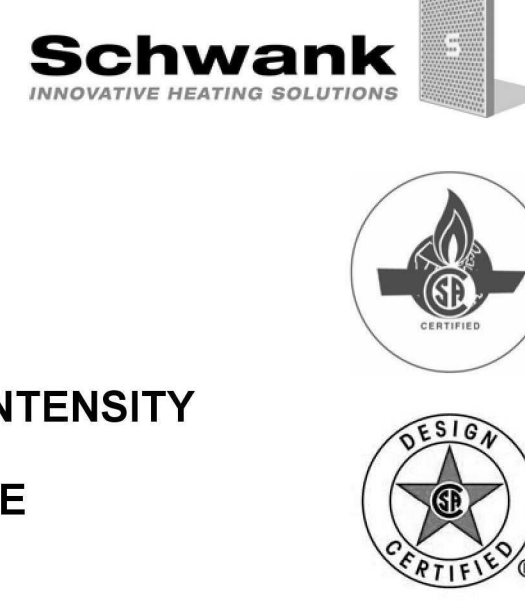
**SUBMITTAL DATA**

**2300 SERIES**  
**MODELS 2312, 2313, 2352**  
**HIGH EFFICIENCY / COMBINED INTENSITY**  
**INFRA-RED PATIO HEATERS**  
**FOR OUTDOOR AND INDOOR USE**

PROJECT:	
ENGINEER:	
CONTRACTOR:	
DISTRIBUTOR:	
SCHWANK MODEL #:	
FUEL:	<input type="checkbox"/> N.G. <input type="checkbox"/> L.P.G.
APPROVED BY:	
DATE:	
APPROVAL #:	

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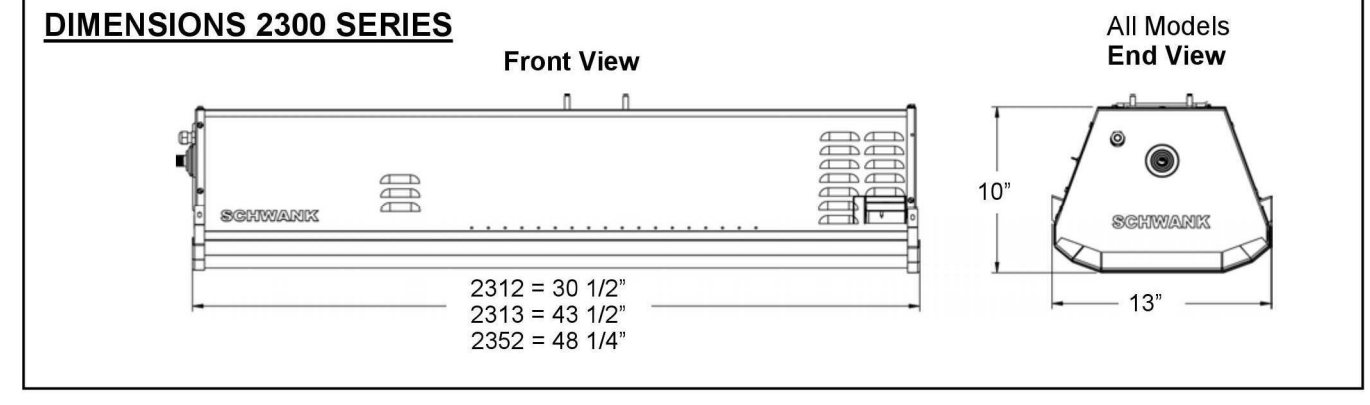


**CERTIFICATION**

The 2300 Series heater is approved for outdoor and indoor use to the following standards:  
 • Outdoor: ANSI Z83.26 / CSA 2.37 Gas-Fired Outdoor Infrared Patio Heaters  
 • Indoor: ANSI Z83.19 / CSA 2.35 Gas-Fired High Intensity Infrared Heaters

**Outdoor Definition per ANSI Z83.26 / CSA 2.37 Approval Standard.**  
 An appliance approved for "outdoor use" may be installed with shelter no more inclusive than:  
 • With walls on all sides, but with no overhead cover, (overhead permanently open) or  
 • Within a partial enclosure which includes an overhead cover and no more than two side walls. These side walls may be parallel, as in a breezeway, or at right angle to each other. The open sides must be permanently open or  
 • Within a partial enclosure which includes an overhead cover and three side walls, as long as 30 percent or more of the horizontal periphery of the enclosure is permanently open.

If "outdoor" conditions are not met, Models 2312 & 2313 are approved for "indoor use" and ventilation requirements of local codes apply.

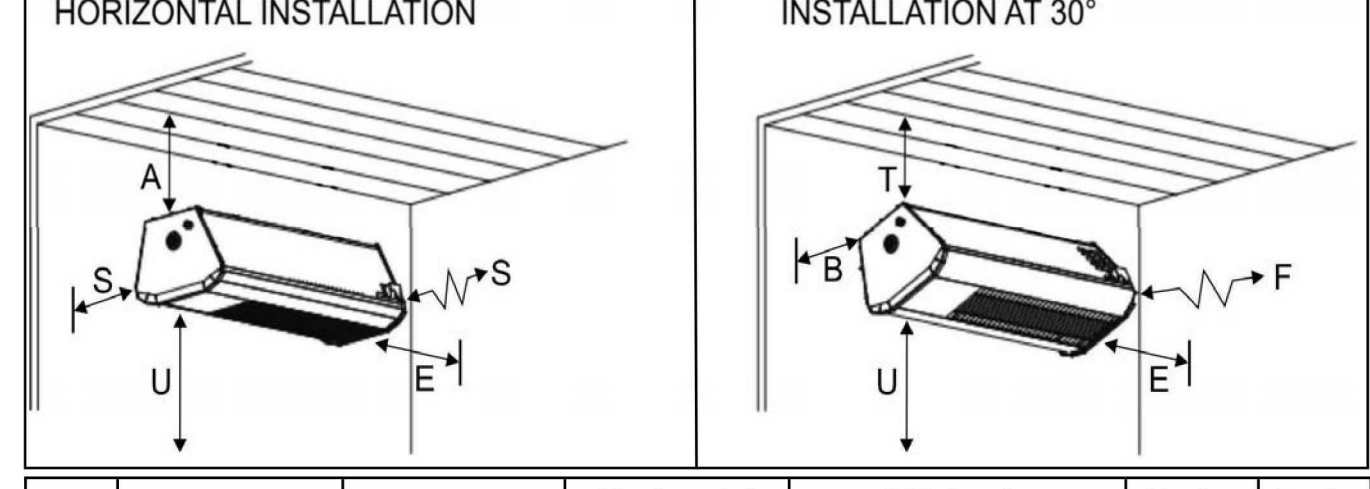


QTY	MODEL NO.	INPUT CAPACITY BTUH	GAS	1/2" GAS INLET PIPE SIZE		MANIFOLD PRESSURE	ELECTRICAL	WEIGHT (LBS.)
				MINIMUM GAS LINE PRESSURE	MAXIMUM GAS LINE PRESSURE			
	2312-N	23,000	NAT	6" W.C.	14" W.C.	5" W.C.	VOLT-AGE 24VAC	32
	2312-L	23,000	LP	11" W.C.	14" W.C.	10" W.C.		32
	2313-N	35,000	NAT	6" W.C.	14" W.C.	5" W.C.		44
	2313-L	35,000	LP	11" W.C.	14" W.C.	10" W.C.	CURRENT AMPS 40VA*	44
	2352-N	50,000/35,000	NAT ONLY	6" W.C.	14" W.C.	5" W.C.		49

\*For a multiple heater installation, the transformer is sized: 40 VA for the first heater + 20 VA for each additional heater. If total VA is between transformer sizes, select the next higher VA rating.

**MINIMUM CLEARANCES TO COMBUSTIBLES**

Note that clearances to combustible material are different for indoor application than for outdoor. (See Table below)



QTY	Application	MODEL NO	Horizontal		30° Angle		Under	Ends	
			A	S	T	B			F
	OUTDOOR	2312	5.5"	7"	9.5"	1"	9.5"	48"	3"
	OUTDOOR	2313	7.5"	9"	9.5"	1.5"	21"	48"	5"
	OUTDOOR	2352	12"	28"	16"	10"	36"	60"	21"
	INDOOR	2312	8"	10"	12.5"	2.5"	14"	60"	4"
	INDOOR	2313	10.5"	14.5"	14.5"	2.5"	26"	60"	6"

**SUGGESTED MOUNTING HEIGHT FOR COMFORT:**  
 • 2312: 8 ft to 10 ft  
 • 2313: 8 ft-6 in to 11 ft  
 • 2352: 9 ft to 12 ft

**Do not mount less than 8 ft [2438 mm] above floor.**  
**Do not store or place anything directly under heater.**

- Notes:**
- Ensure mounting height in any location is sufficient to prevent patrons from coming in contact with heater, and clearances to combustibles are maintained.
  - The clearance to combustible material represents the minimum distance that must be maintained between the outer heater surface and a nearby surface. The stated clearance to combustibles represents a surface temperature of **Indoor** = 90°F (50°C) above room temperature; **Outdoor** = 117°F (65°C) above ambient temperature.
  - It is the installer's responsibility to ensure that building materials with a low heat tolerance which may degrade at lower temperatures are protected to prevent degradation. Examples of low heat tolerance materials include awnings, vinyl siding, fabrics, some plastics, filmy materials, etc.

**2300 SERIES: OPTIONS**

OPTION	QTY	DESCRIPTION
CONTROL OPTIONS		PATIO CONTROL PANEL 24 VOLT
		REMOTE CONTROL
		2-STAGE ILLUMINATED SWITCH GANG (2352 Only)
MOUNTING OPTIONS <small>Heater must be rigidly mounted - not chain</small>		Fits All Models JP-2100-CB-K Ceiling Mount Kit Stainless Steel construction <i>(one end shown)</i>
		Fits All Models - 30° Mount JP-2100-MB Black Painted Steel JP-2100-MB-SS Stainless Steel
		2312 & 2313 Models Only - 30° Mount JP-2300-MB Black Painted Steel JP-2300-MB-SS Stainless Steel
		Fits All Models - 30° Mount at 30 inches from wall JP-2300-MK Black Painted Steel JP-2300-MK-SS Stainless Steel
		Fits All Models - 30° Mount from 4" dia. pole JP-2300-PK Black Painted Steel JP-2300-PK-SS Stainless Steel

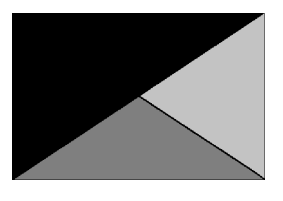
**2300 SERIES: COMPONENT DESCRIPTION**

2312, 2313 COMBINATION GAS VALVE	<input type="checkbox"/>	NATURAL GAS 5" W.C. MANIFOLD PRESSURE; 24 VAC
	<input type="checkbox"/>	PROPANE 10" W.C. MANIFOLD PRESSURE; 24 VAC
2352 COMBINATION GAS VALVE	<input type="checkbox"/>	TWO-STAGE NATURAL GAS ONLY 5" / 3.0" W.C. MANIFOLD PRESSURE; 24 VAC
IGNITION		DIRECT SPARK MODULE: 3 TRIAL IGNITION SEQUENCE; AUTOMATIC SOFT LOCK-OUT WITH AUTO RESET AFTER 40 MINUTES FOR IGNITION RETRIAL
WIND SCREEN		MARINE GRADE 316 STAINLESS STEEL W/ BLACK EMISSIVE COATING
CABINET		MARINE GRADE 316 STAINLESS STEEL W/ BLACK EMISSIVE COATING
VENTURI TUBE		STEEL BUILT INTO BURNER HOUSING
BURNER		ONE ATMOSPHERIC BURNER COMPLETE WITH IGNITION / FLAME SENSING / MONITORING SYSTEM
CERAMIC TILE		SCHWANK EFFECT TILE 144 WITH INCREASED SURFACE INDENTATIONS AND HARD FINISHED EDGES
TILE RETAINERS		STAINLESS STEEL
COMBUSTION		TILE SURFACE TEMPERATURE: 1,780°F (960°C) "COLD STATE" COMBUSTION TRANSFERS HEAT INSTANTANEOUSLY TO TILE SURFACE AND MINIMIZES EMISSIONS: CO: 10 - 48 ppm, air free [11 - 50 mg/kWh] NOx: 9 - 14 ppm, air free [15 - 25 mg/kWh]

BIM: 360/INC\_05048\_RELO Southern Pines\_2021\_10\_FSR05048\_RELO Southern Pines\_MEI.rvt  
 4/15/2022 9:55:13 AM  
 30-LE-05048-M-402-IR HEATER CUT SHEETS



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KURZYNSKE & ASSOCIATES LICENSE  
 NO. F-0823, EXPIRES 06/30/22



04/18/22

**CHICK-FIL-A**  
**RELO Southern Pines**  
 265 Turner Street  
 Aberdeen, NC 28315

**FSR#05048**  
 BUILDING TYPE / SIZE: P13 LE ALL  
 RELEASE: v2.18.08

REVISION SCHEDULE		
NO.	DATE	DESCRIPTION

CONSULTANT PROJECT # 21178.HF.S  
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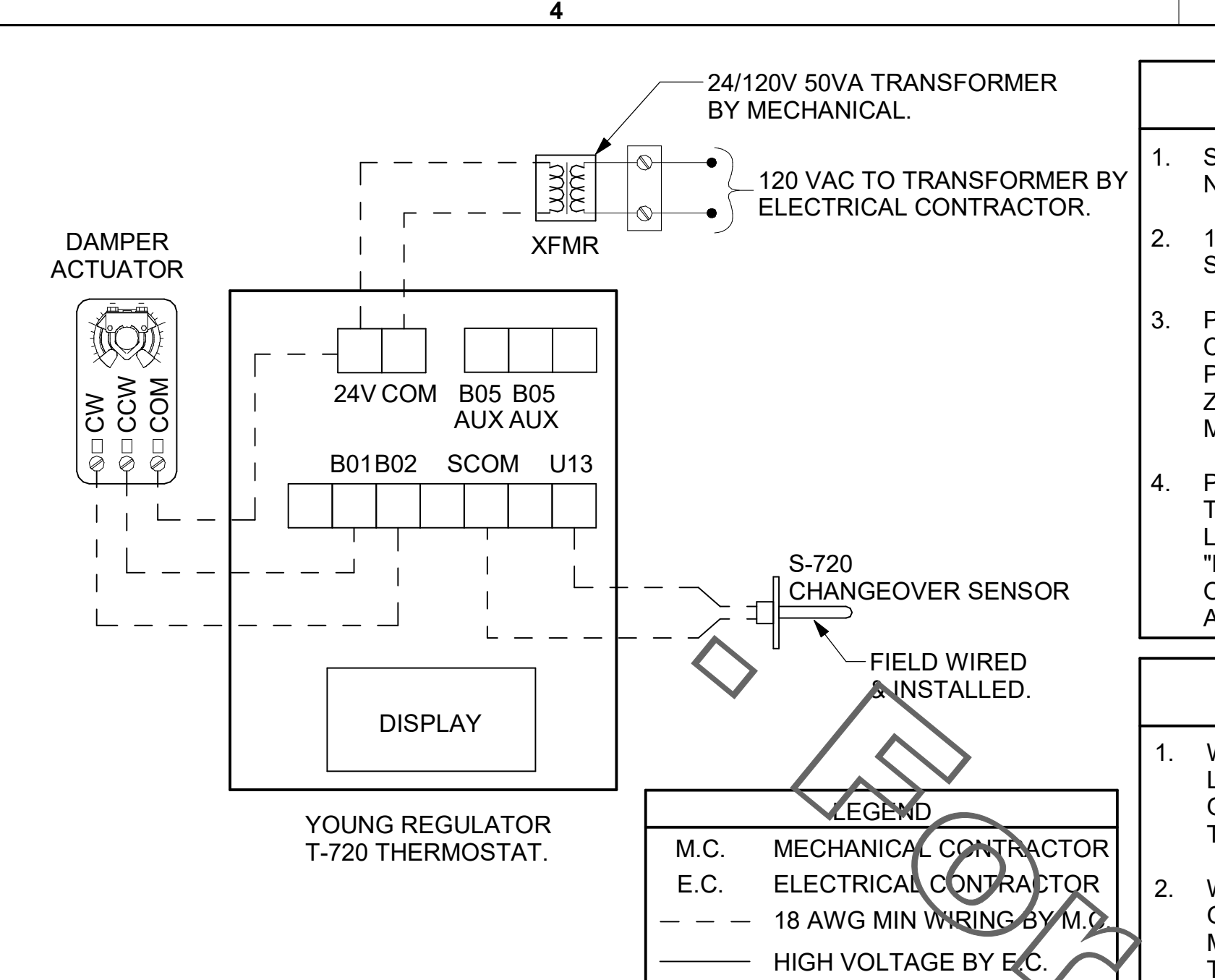
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SHEET IR HEATER CUT SHEETS

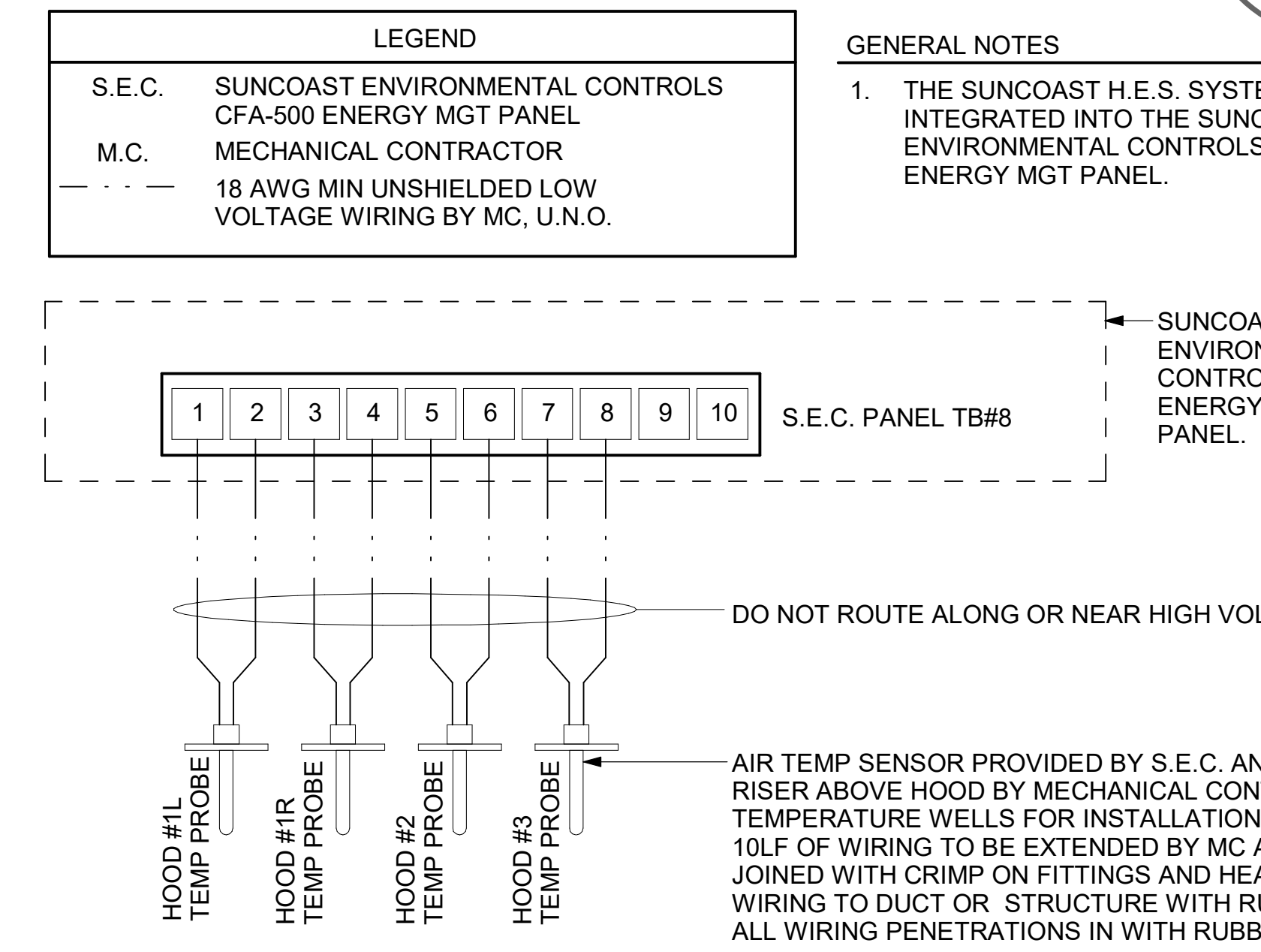
SHEET NUMBER

**M-402**

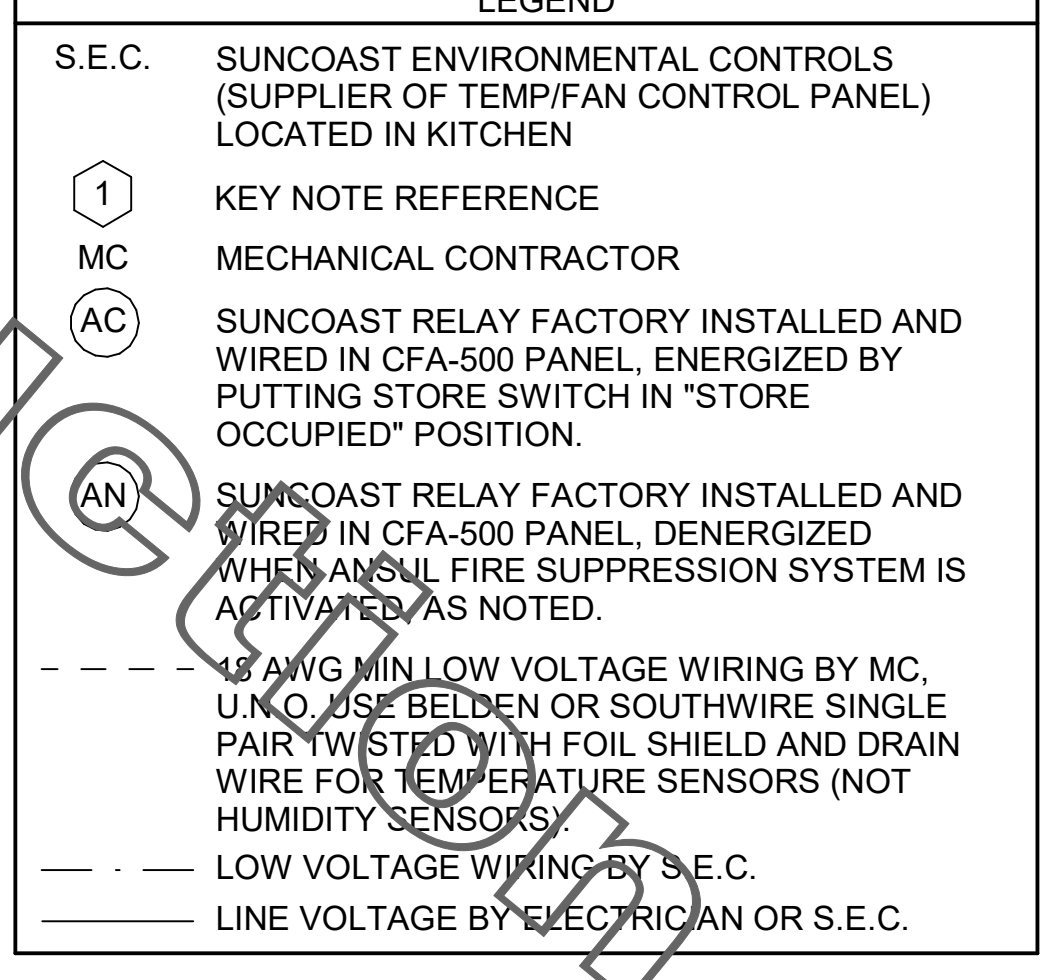
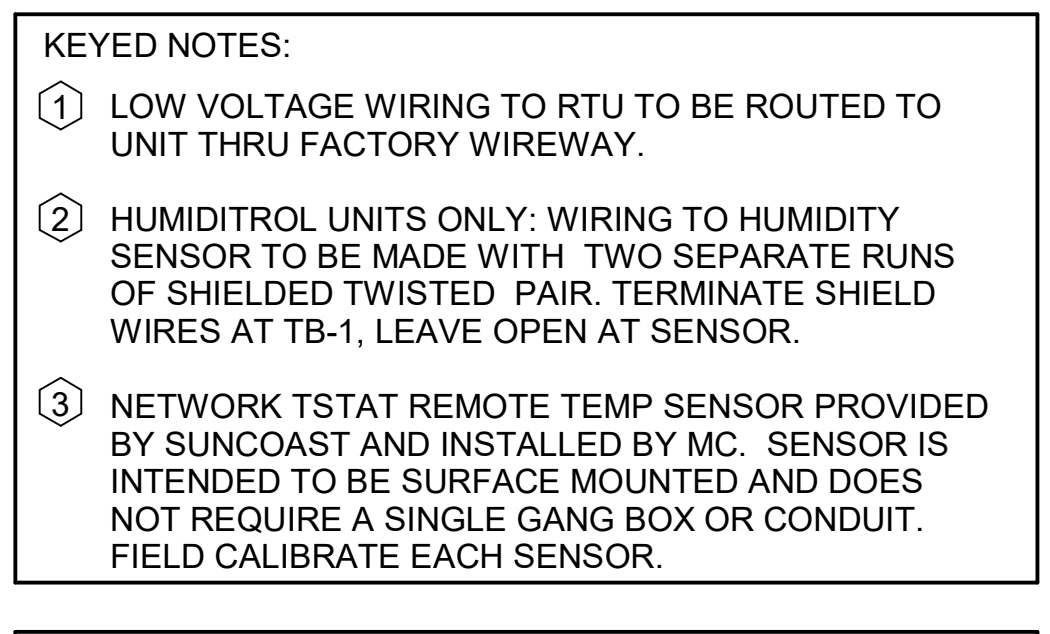
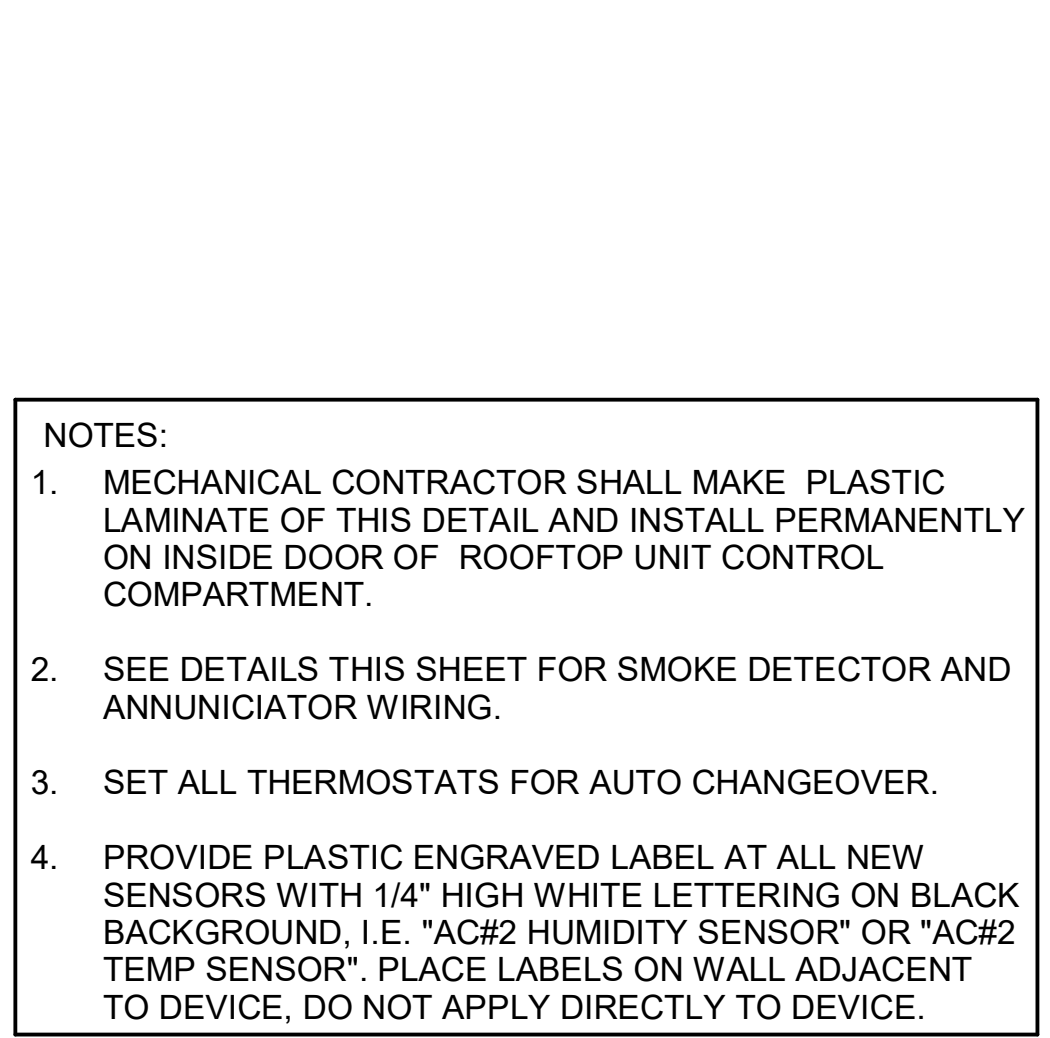
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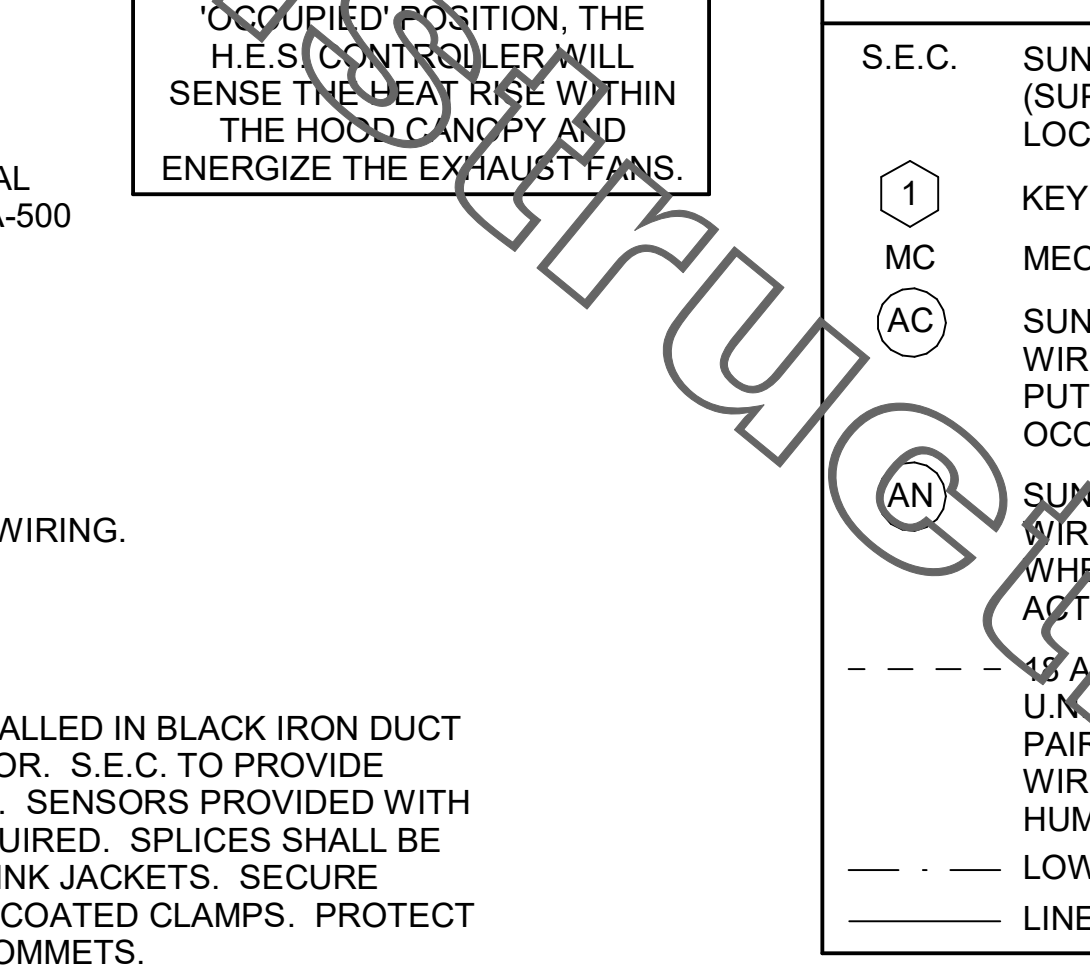
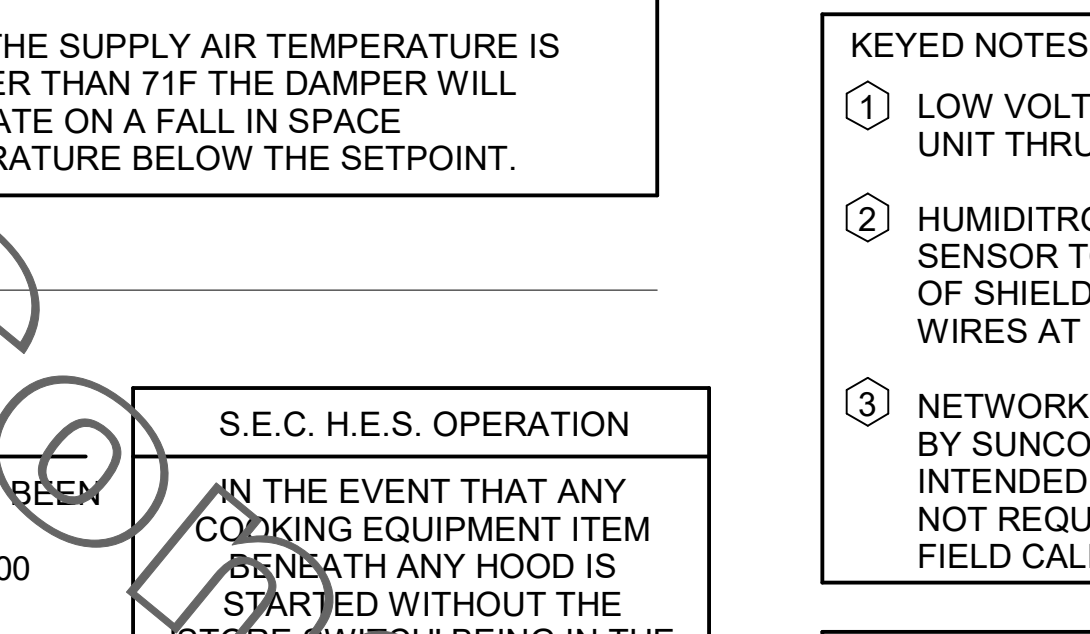
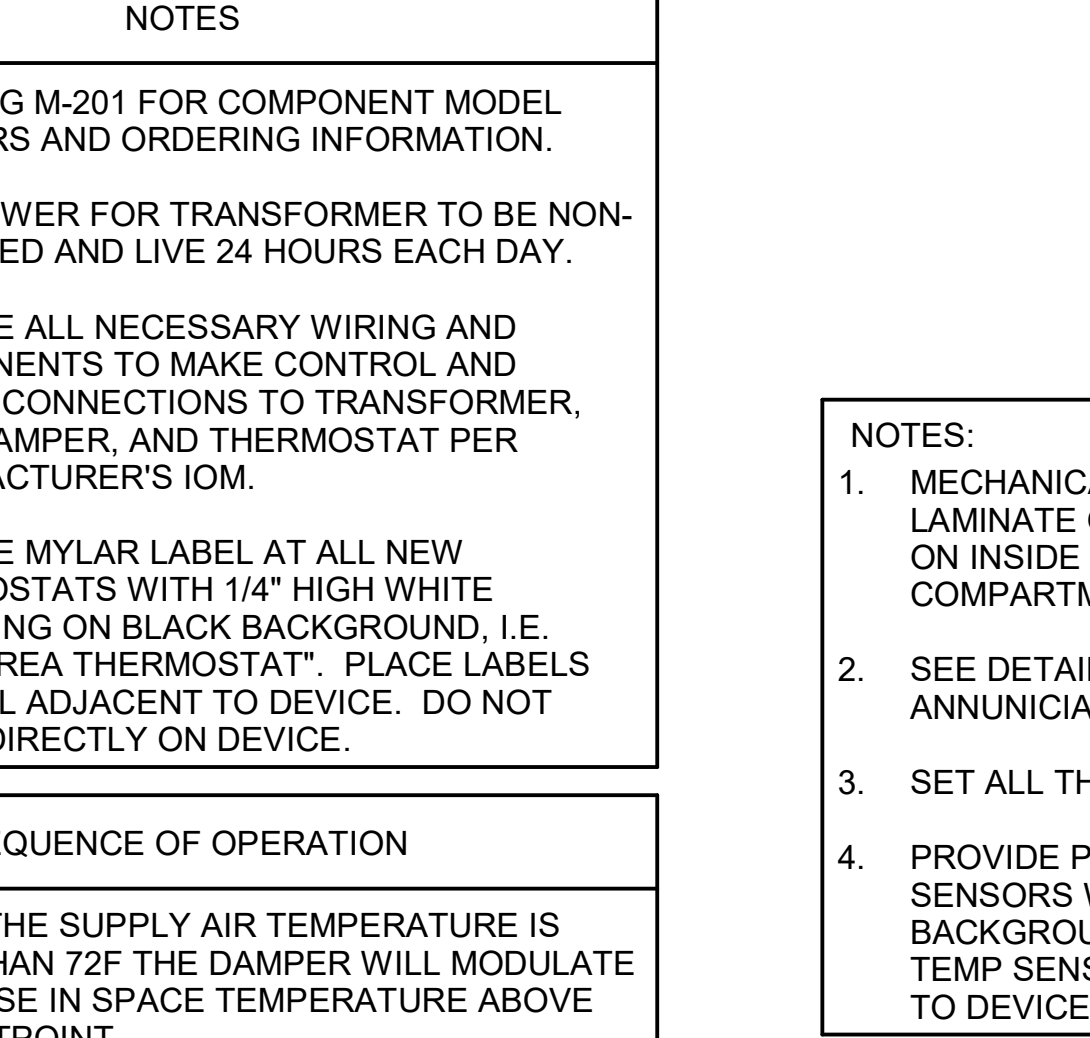
**4 VAV DAMPER AND TSTAT - TEAM MEMBER ROOM**  
 NOT TO SCALE



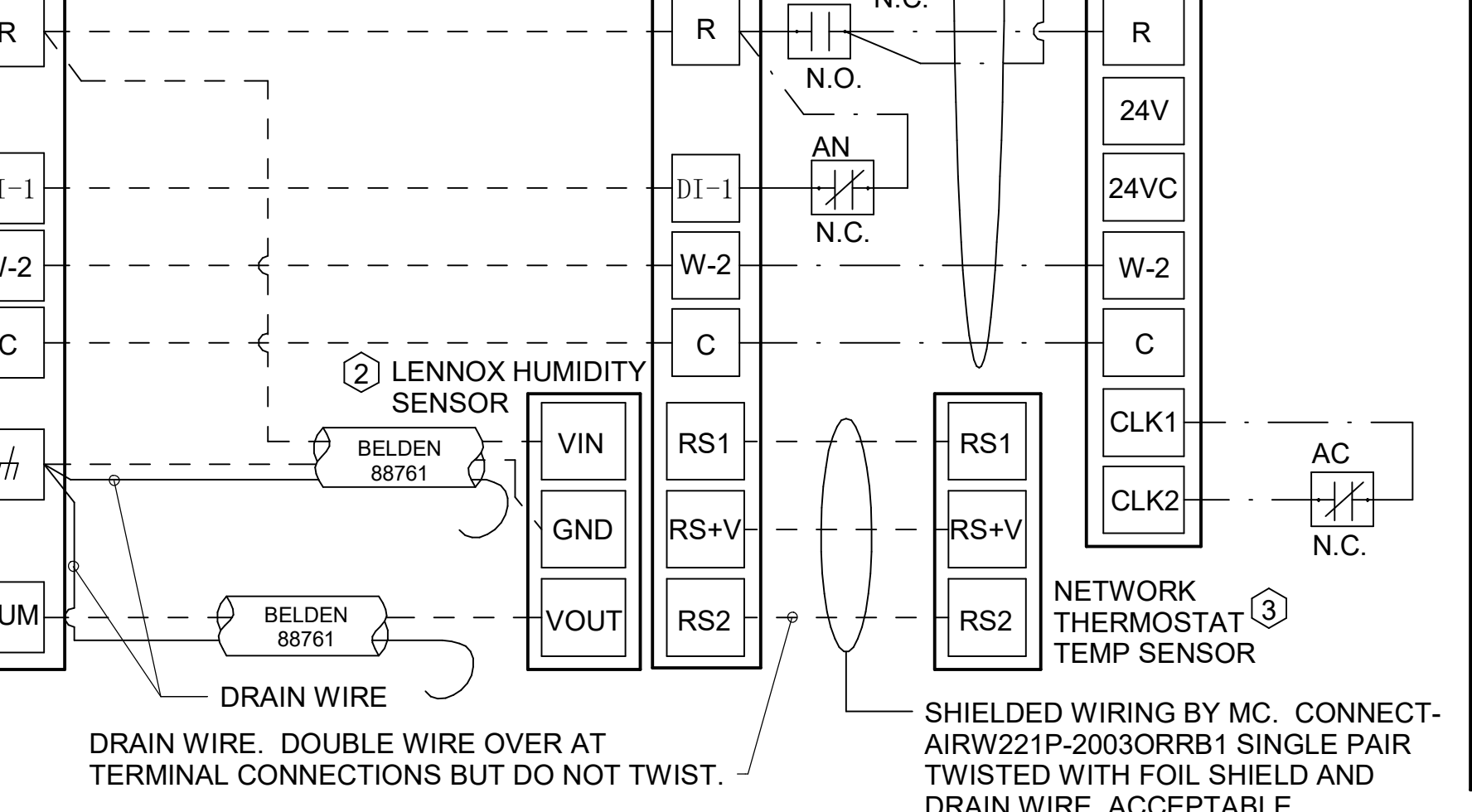
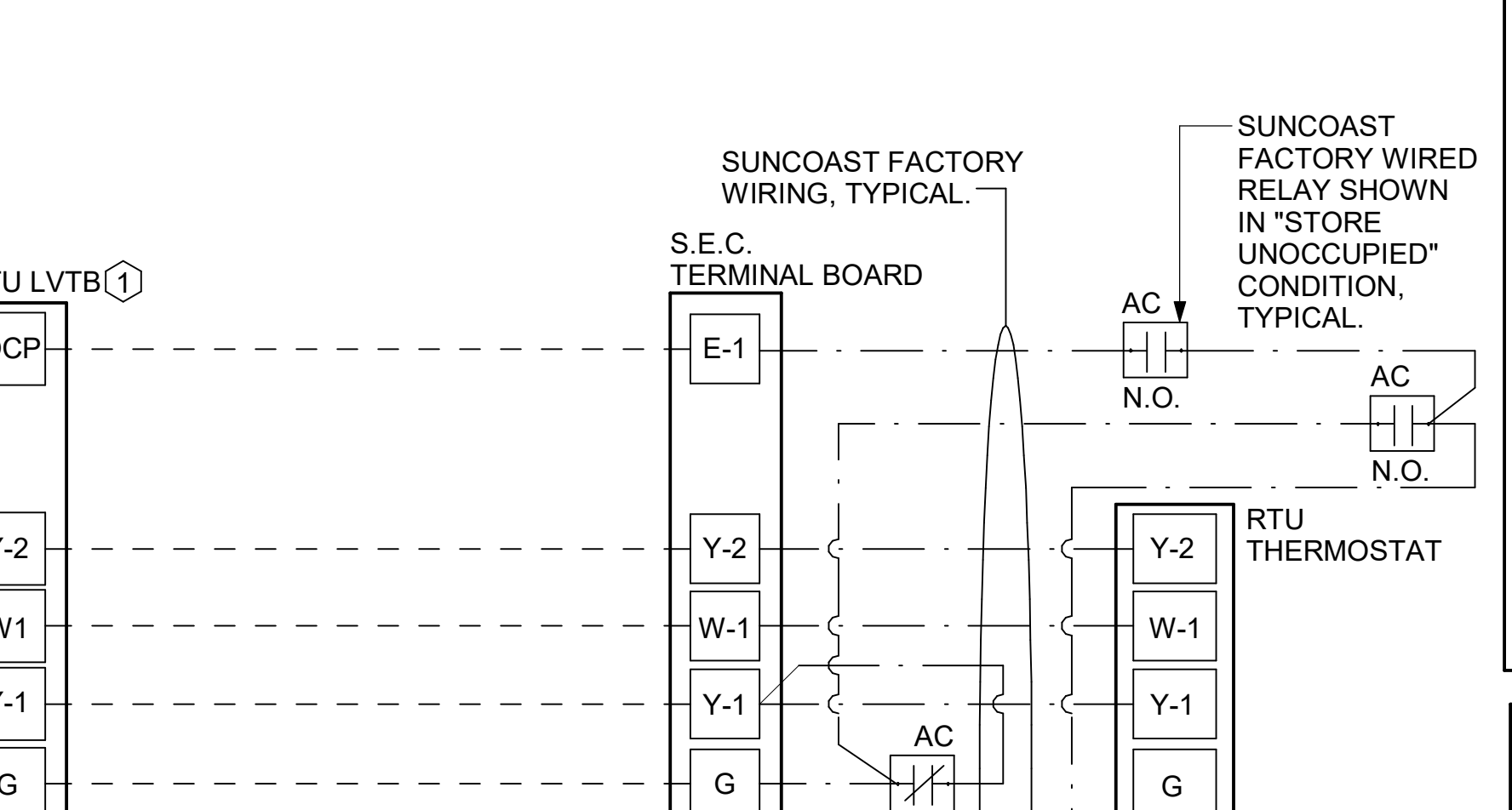
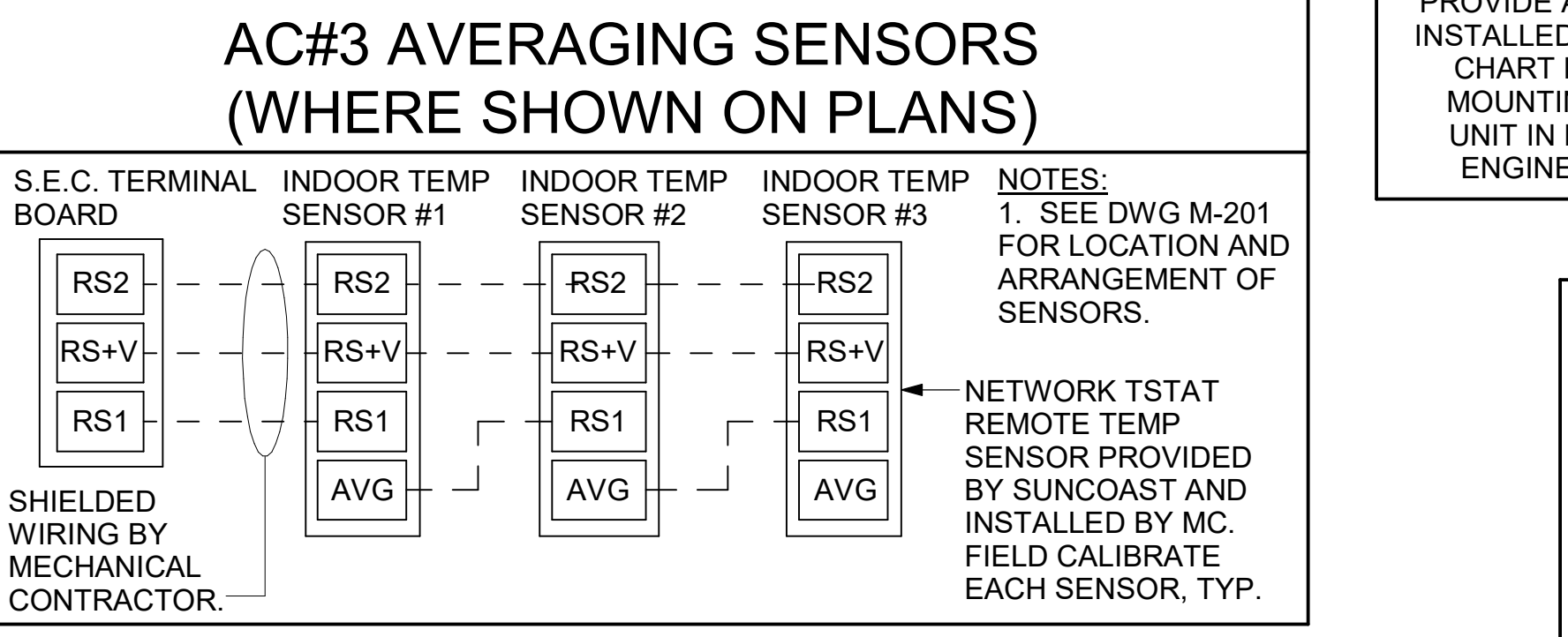
**5 HOOD FAN/EQUIPMENT INTERLOCK - 3 Hood (4 Collars) - CFA500 Integrated**  
 1/4" = 1'-0"



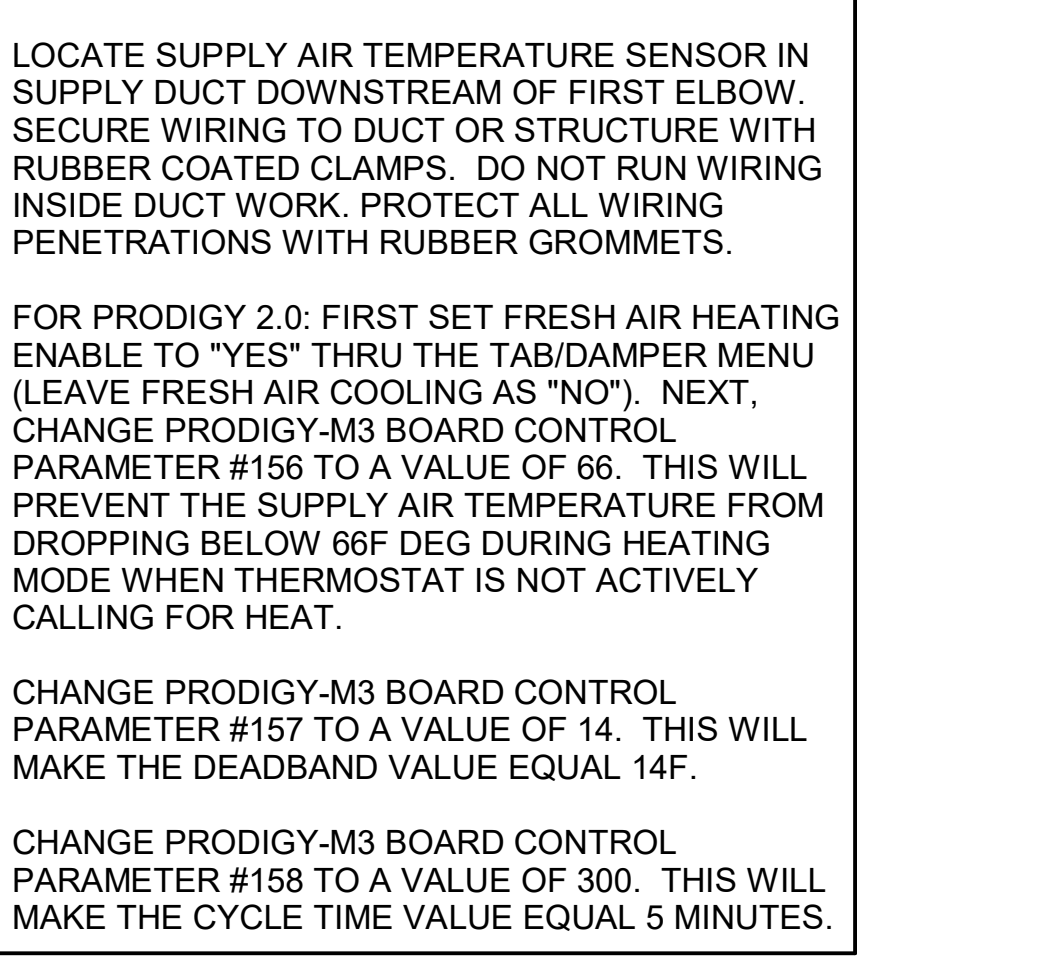
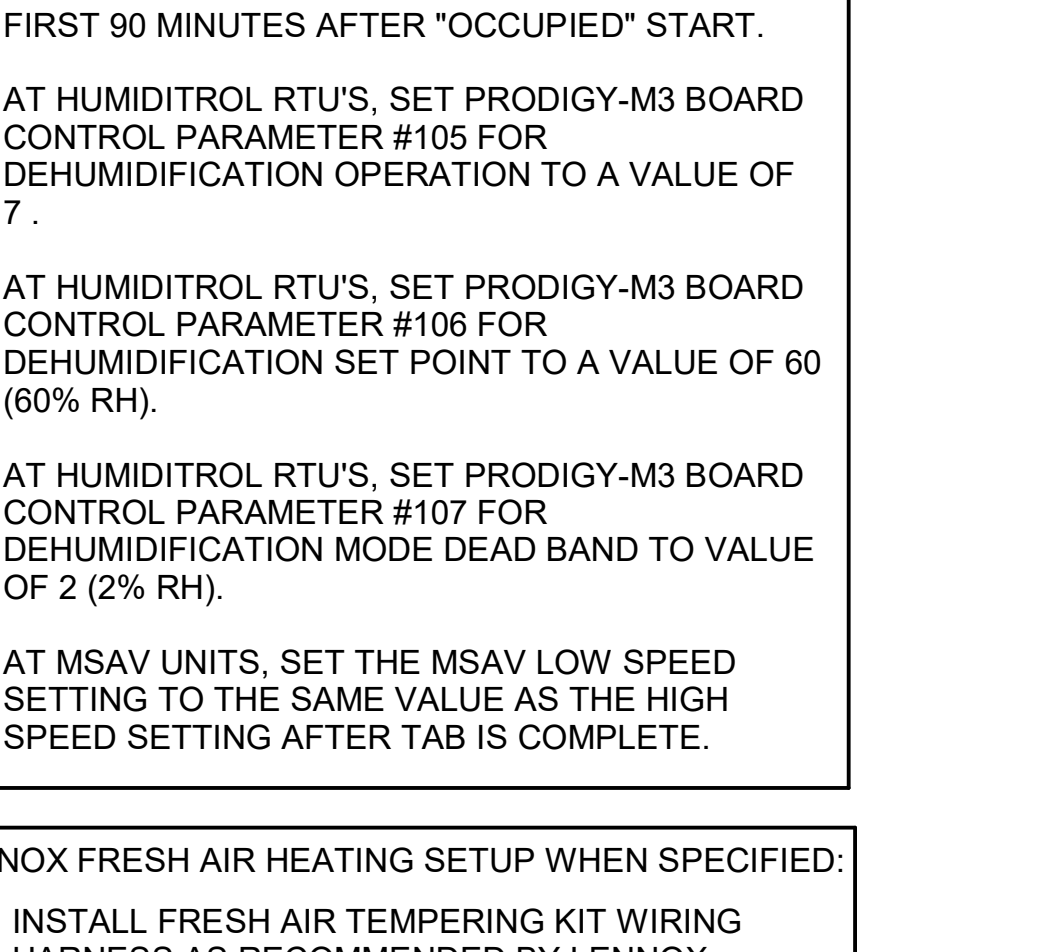
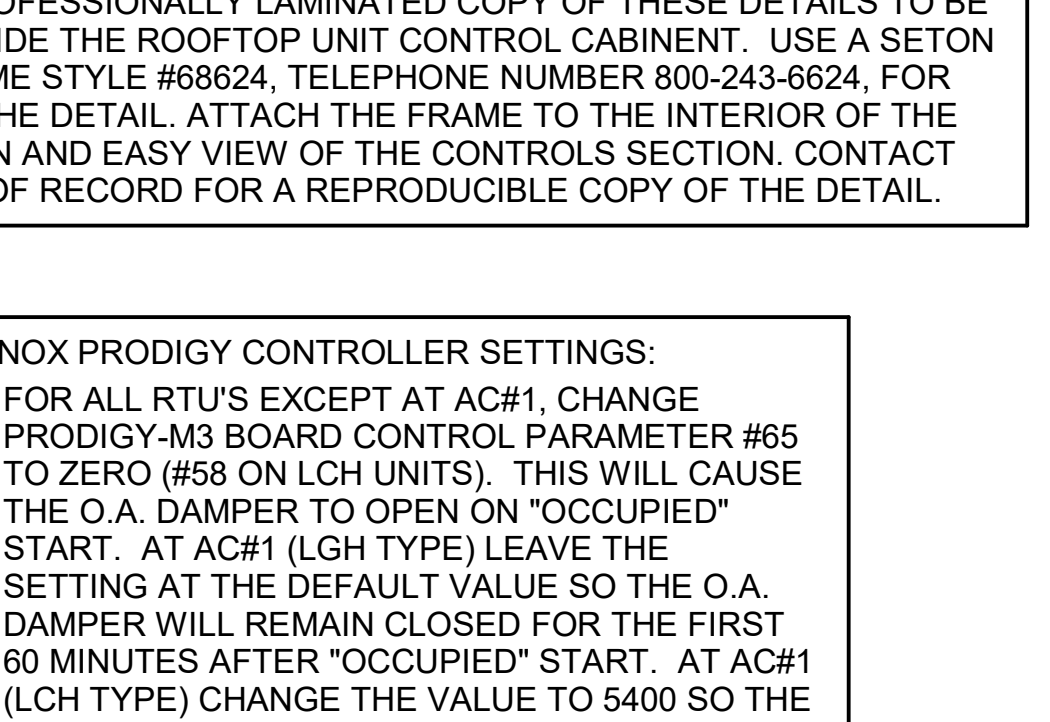
**3 VAV DAMPER AND TSTAT - MGRS OFFICE**  
 NOT TO SCALE



**6 DTT CLOSET CONTROL DIAGRAM - RF#1**  
 NOT TO SCALE



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



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

PROVIDE A PROFESSIONALLY LAMINATED COPY OF THESE DETAILS TO BE INSTALLED INSIDE THE ROOFTOP UNIT CONTROL CABINET. USE A SETON CHART FRAME STYLE #68624, 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.

**LENNOX PRODIGY CONTROLLER SETTINGS:**

- FOR ALL RTU'S EXCEPT AT AC#1, CHANGE PRODIGY-M3 BOARD CONTROL PARAMETER #65 TO ZERO (#58 ON LCH UNITS). THIS WILL CAUSE THE O.A. DAMPER TO OPEN ON "OCCUPIED" START. AT AC#1 (LGH 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 AC#1 (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 RTU'S, SET PRODIGY-M3 BOARD CONTROL PARAMETER #105 FOR DEHUMIDIFICATION OPERATION TO A VALUE OF 7.
- AT HUMIDITROL RTU'S, SET PRODIGY-M3 BOARD CONTROL PARAMETER #106 FOR DEHUMIDIFICATION SET POINT TO A VALUE OF 60 (60% RH).
- AT HUMIDITROL RTU'S, SET PRODIGY-M3 BOARD CONTROL PARAMETER #107 FOR DEHUMIDIFICATION MODE DEAD BAND TO VALUE OF 2 (2% RH).
- AT MSAV UNITS, SET THE MSAV LOW SPEED SETTING TO THE SAME VALUE AS THE HIGH SPEED SETTING AFTER TAB IS COMPLETE.

**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 #156 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 #157 TO A VALUE OF 14. THIS WILL MAKE THE DEADBAND VALUE EQUAL 14F.
- CHANGE PRODIGY-M3 BOARD CONTROL PARAMETER #158 TO A VALUE OF 300. THIS WILL MAKE THE CYCLE TIME VALUE EQUAL 5 MINUTES.

**LEGEND**

M.C. MECHANICAL CONTRACTOR  
E.C. ELECTRICAL CONTRACTOR  
--- 18 AWG MIN WIRING BY M.C.  
--- 18 AWG MIN LOW VOLTAGE FACTORY WIRING  
--- HIGH VOLTAGE BY E.C.

**LEGEND**

M.C. MECHANICAL CONTRACTOR  
E.C. ELECTRICAL CONTRACTOR  
--- 18 AWG MIN WIRING BY M.C.  
--- 18 AWG MIN LOW VOLTAGE FACTORY WIRING  
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**LEGEND**

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**LEGEND**

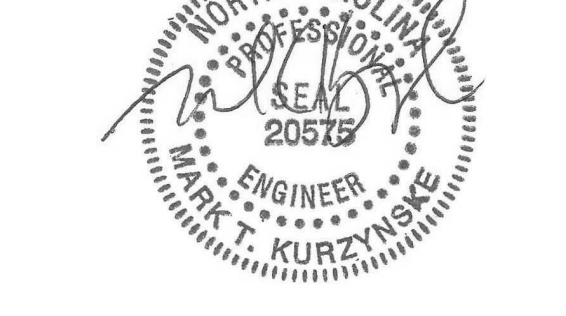
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--- 18 AWG MIN WIRING BY M.C.  
--- 18 AWG MIN LOW VOLTAGE FACTORY WIRING  
--- HIGH VOLTAGE BY E.C.



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KURZYNSKE & ASSOCIATES LICENSE  
 NO. F-0823, EXPIRES 06/30/22



04/18/22

**CHICK-FIL-A**  
 RELO Southern Pines  
 265 Turner Street  
 Aberdeen, NC 28315

**FSR#05048**  
 BUILDING TYPE / SIZE: P13 LE ALL  
 RELEASE: v2.18.08

REVISION SCHEDULE		
NO.	DATE	DESCRIPTION

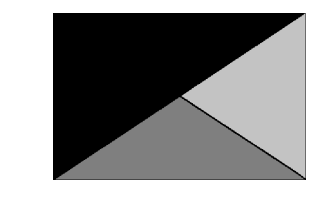
  

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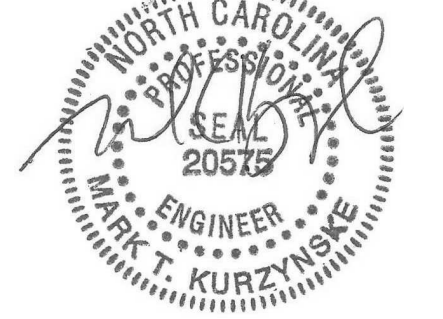
**Chick-fil-A**

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04/18/22

**CHICK-FIL-A**  
RELO Southern Pines  
265 Turner Street  
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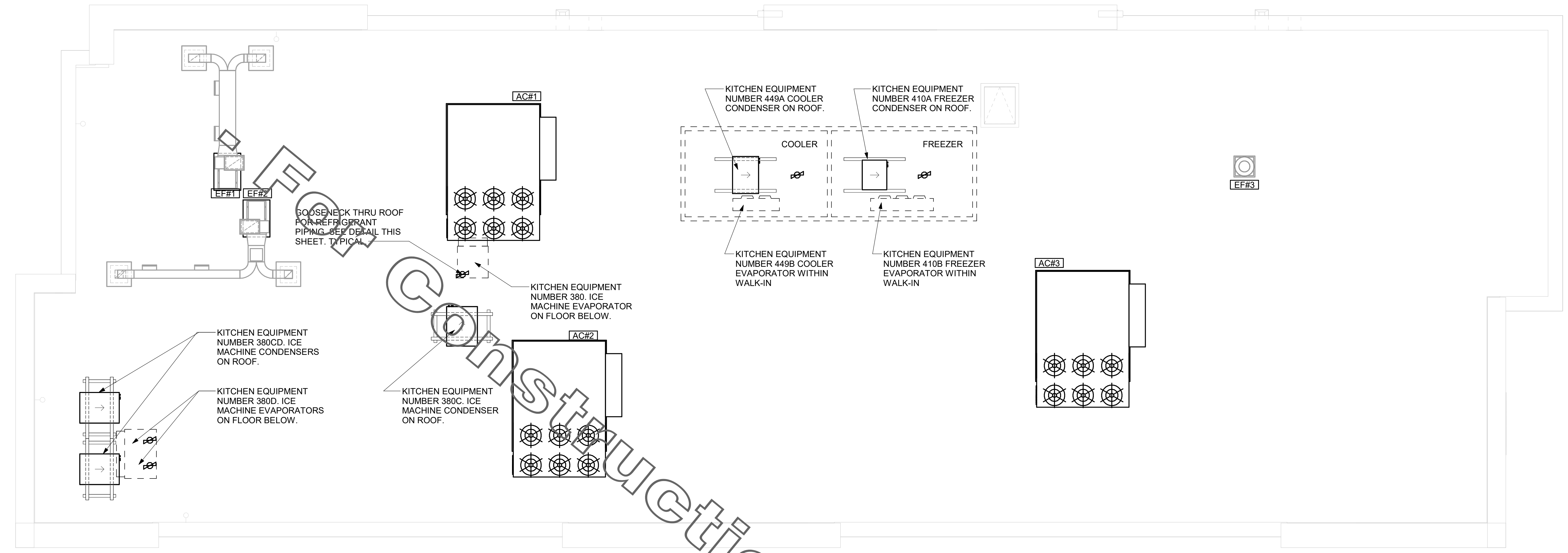
**FSR#05048**  
BUILDING TYPE / SIZE: P13 LE ALL  
RELEASE: v2.18.08

REVISION SCHEDULE		
NO.	DATE	DESCRIPTION

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SHEET REFRIGERATION PLANS

SHEET NUMBER  
**M-601**



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

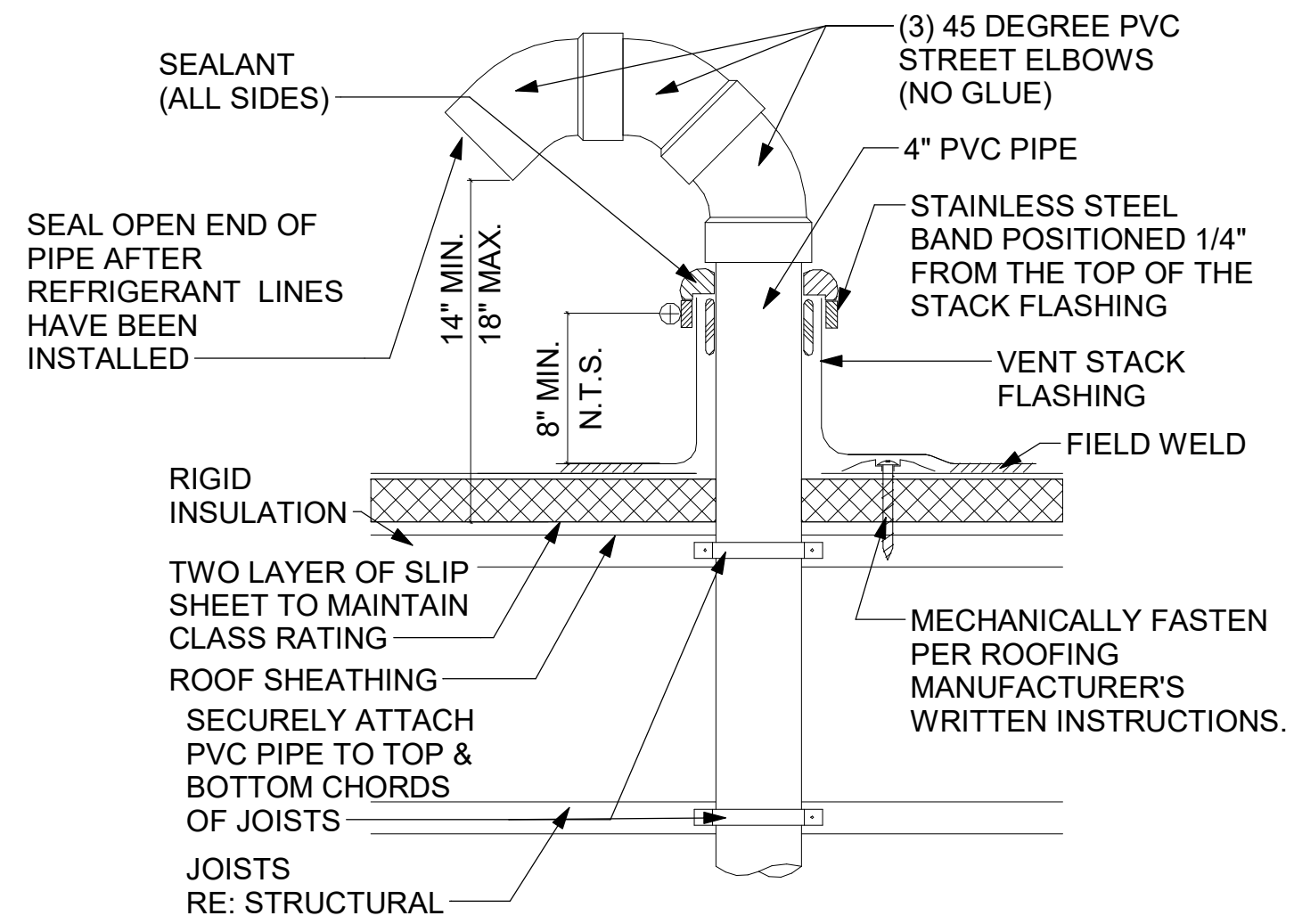
REFRIGERATION CALCULATIONS AND OTHER INFORMATION REQUIRED PER CHAPTER 11 NCMC

WALK-IN COOLER/FREEZER  
1. REFRIGERANT TYPE: R-404A  
2. REFRIGERATION CLASSIFICATION: A1  
3. REFRIGERANT SYSTEM CLASSIFICATION: LOW PROBABILITY  
4. MAXIMUM REFRIGERANT QUANTITY: 31 LBS./1000FT3  
5. SYSTEM APPLICATION/VOLUME CALCULATION:  
A - COOLER VOLUME: 11'-7"L X 7'-6"W X 9'-6"H  
825 FT3  
B - FREEZER VOLUME: 11'-7"L X 7'-3"W X 9'-6"H  
798 FT3  
6. MAXIMUM ALLOWABLE REFRIGERANT IN SYSTEM:  
A - COOLER: 825 \* (31LB./1000FT3) = 25.6 LB MAX  
B - FREEZER: 798 \* (31LB./1000FT3) = 24.7 LB MAX

FREEZER AND COOLER SHALL HAVE NO MORE THAN THE MAXIMUM ALLOWABLE REFRIGERANT SHOWN ABOVE.

OTHER ITEMS REQUIRED FOR REVIEW:  
1) PIPING MATERIAL SHALL COMPLY WITH 1107.5 NCMC. COPPER REFRIGERANT PIPING IS TO BE USED FOR INSTALLATION.  
2) ROOF REFRIGERANT PIPE PENETRATION SHOWN ON THIS SHEET, "GOOSENECK PENETRATION DETAIL."  
3) WALK-IN COOLER/FREEZER CONDENSING AND EVAPORATOR CUT SHEETS ARE LOCATED ON SHEET M-602.  
4) EVAPORATOR AND CONDENSING UNIT LOCATIONS ARE SHOWN ON THIS SHEET AND ON THE ROOF PLAN.  
5) EVAPORATOR CONDENSATE PIPING IS SHOWN ON SHEETS P-101 AND P-201.

EQUIPMENT	PLAN MARK	MANUFACTURER	MODEL	WIDTH (IN.)	DEPTH (IN.)	HEIGHT (IN.)	REFRIGERANT						PRE-CHARGE LINES (FT)	MATERIAL	WEIGHT (LBS)	
							TYPE	CLASSIFICATION	SYSTEM CLASSIFICATION	MAX. ALLOWED (LB / 1000QFT)	SPACE VOLUME (QFT)	MAX. ALLOWED TOTAL (LB)				AMOUNT OF CHARGE (LB)
ICE MAKER CONDENSER	380C	FOLLET	HCD1410	22.7	24.5	21.25	R 404A	AI	LOW	31	--	--	13.0	35	COPPER	270
ICE MAKER CONDENSER	380CD	FOLLET	HCD1810	30.0	38.5	25.75	R 404A	AI	LOW	31	--	--	14.5	35	COPPER	295
ICE MAKER CONDENSER	380CD	FOLLET	HCD1810	30.0	38.5	25.75	R 404A	AI	LOW	31	--	--	14.5	35	COPPER	295
FREEZER CONDENSER	410A	THERMO-KOOL	M0H031L63	37.75	28.25	19.75	R 404A	AI	LOW	31	777	24	14.0	40	COPPER	223
COOLER CONDENSER	449A	THERMO-KOOL	M0H010X63	23.75	28.25	17.25	R 404A	AI	LOW	31	793	24	5.5	40	COPPER	138



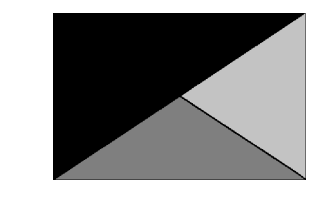
**2 GOOSENECK PENETRATION DETAIL**  
1/4" = 1'-0"

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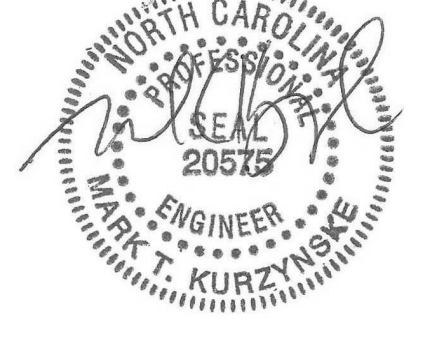
Chick-fil-A

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04/18/22

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**FSR#05048**  
BUILDING TYPE / SIZE: P13 LE ALL  
RELEASE: v2.18.08

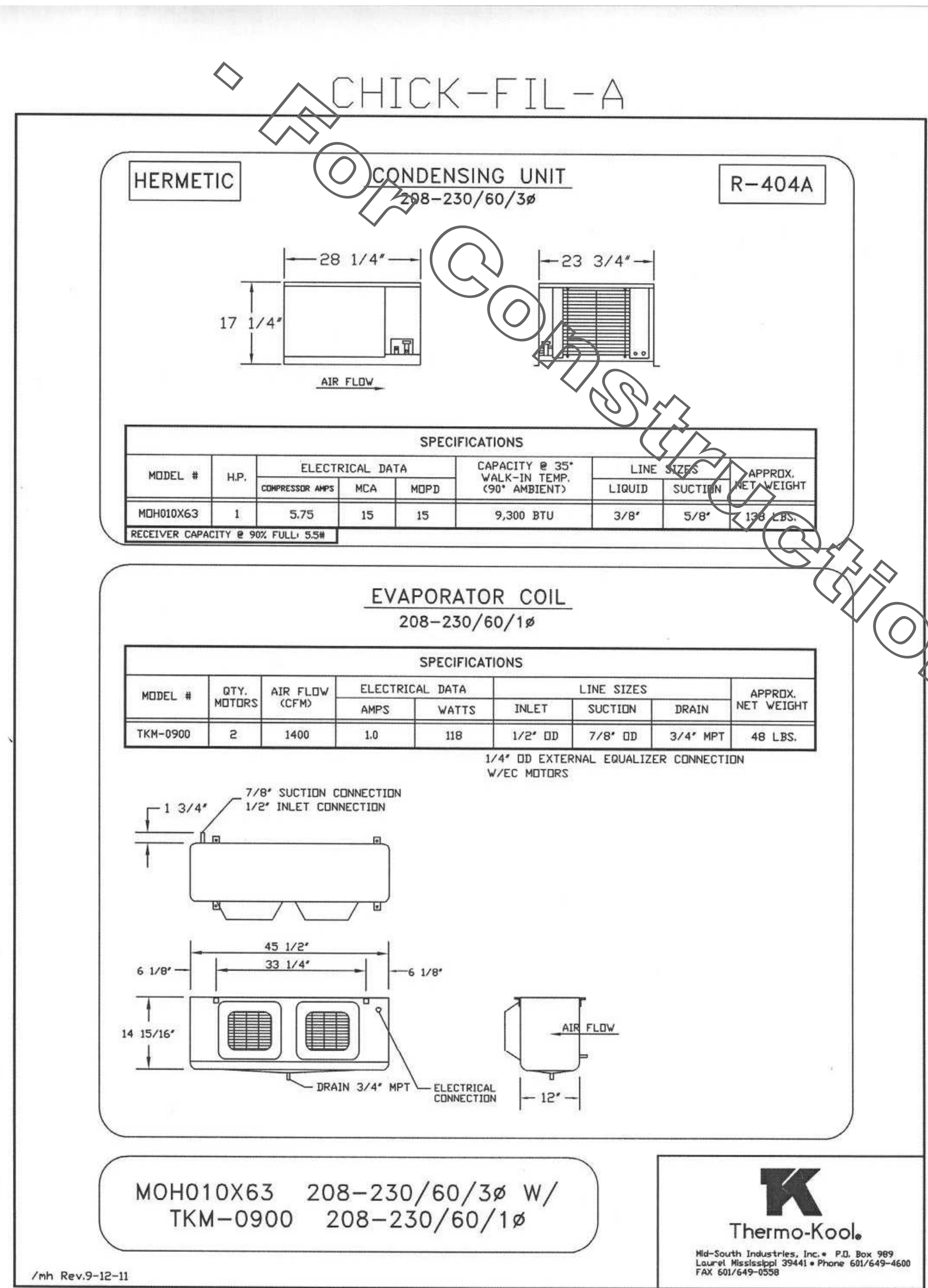
REVISION SCHEDULE		
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CONSULTANT PROJECT #	21178.HF.S
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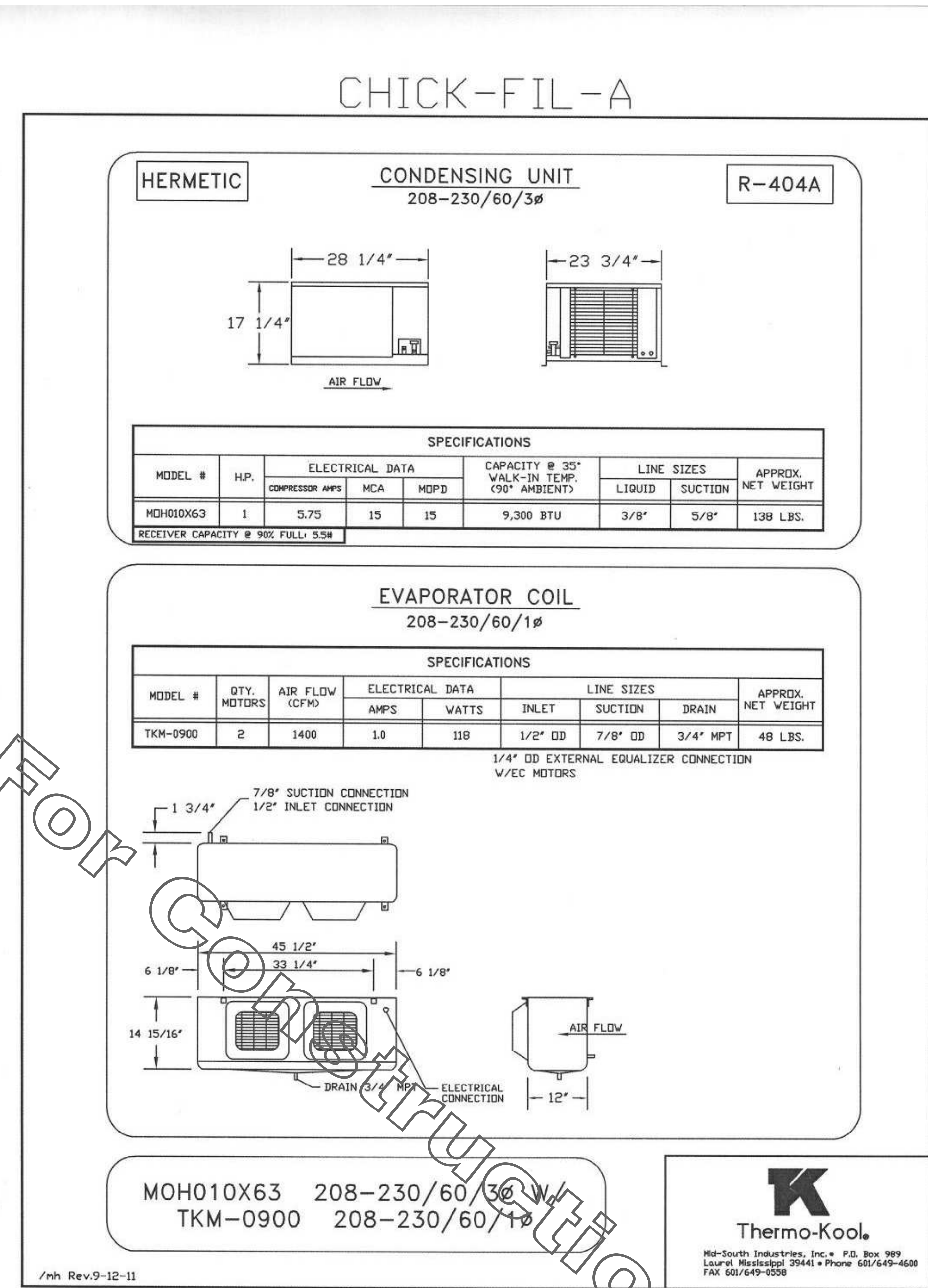
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SHEET  
MECHANICAL  
REFRIGERATION DETAILS

SHEET NUMBER  
**M-602**



**1 WALK-IN COOLER MECHANICAL EQUIPMENT DETAIL**  
1 1/2" = 1'-0"



**2 WALK-IN FREEZER MECHANICAL EQUIPMENT DETAIL**  
1 1/2" = 1'-0"

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4/15/2022 9:55:16 AM  
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E  
D  
C  
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A

# 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-94, 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, DUCTWORK, AND AIR DEVICES SHALL BE INSPECTED AND 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 BY LENNOX 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 OVERTEMPORATURE 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 A 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 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 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 11" 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 PENUMS, GRILLES/DIFFUSERS, BACK PANS, AND BOOTHS SHALL BE INSULATED. INSULATION TYPE IS COVERED ELSEWHERE IN THIS SPECIFICATION.
- J. RESTROOM RECTANGULAR EXHAUST AIR DUCTWORK SHALL BE LINED WITH 1/2" 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, FIBREGLASS INSULATION WITH POLYETHYLENE OR MYLAR VAPOR BARRIER. ALL COMPONENTS SHALL HAVE APPROPRIATE U.L. APPROVAL AND SHALL BE EQUIVALENT TO THE WAFLEX MIKE.
- N. FLEXIBLE DUCT SHALL BE INSTALLED PER THE "ADD 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. LENNOX 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 TESTING. FUNCTIONAL 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, NIBG 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.

## 2018 APPENDIX B BUILDING CODE SUMMARY FOR ALL COMMERCIAL PROJECTS (PROVIDE ON THE MECHANICAL SHEETS IF APPLICABLE)

### MECHANICAL DESIGN MECHANICAL SYSTEMS, SERVICE SYSTEMS AND EQUIPMENT

<b>Thermal Zone</b>	
winter dry bulb: 16	
summer dry bulb: 93	
<b>Interior design conditions</b>	
winter dry bulb: 68	
summer dry bulb: 75	
relative humidity: 95%	
<b>Building heating load:</b>	417,533 BTU/h
<b>Building cooling load:</b>	641,287 BTU/h
<b>Mechanical Spacing Conditioning System</b>	
Unitary	(3) DX Cooling/Gas-Fired Heating Packaged Rooftop Units
heating efficiency:	80% - Gas
cooling efficiency:	ACR1: 10.5 EER    ACR2: 12.0 EER    ACR3: 12.0 EER
size category of unit:	ACR1: 25 ton    ACR2: 17.5 ton    ACR3: 20.0 ton
Boiler	Size category: If oversized, state reason: NA
Chiller	Size category: If oversized, state reason: NA
List equipment efficiencies:	NA

## 3 APPENDIX B - MECHANICAL

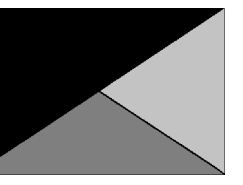
1/4" = 1'-0"

## NATIONAL ACCOUNTS

1. LENNOX EQUIPMENT - CONTACT LENNOX NATIONAL ACCOUNTS AT 972-497-6260 (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. 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, 3B, AND 3C OF THE MECHANICAL SPECIFICATIONS FOR MORE INFORMATION.
6. 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.
7. 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.
8. 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.



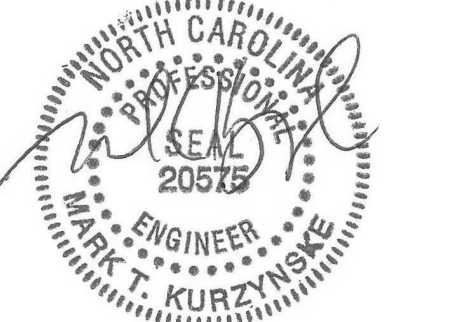
**Chick-fil-A**  
5200 Buffington Road  
Atlanta, Georgia  
30349-2998



**Kurzynske & Associates**

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

KURZYNSKE & ASSOCIATES LICENSE  
NO. F-0823, EXPIRES 06/30/22



04/18/22

**CHICK-FIL-A**  
RELO Southern Pines  
265 Turner Street  
Aberdeen, NC 28315

**FSR#05048**

BUILDING TYPE / SIZE: P13 LE ALL  
RELEASE: v2.18.08

REVISION SCHEDULE

NO. DATE DESCRIPTION

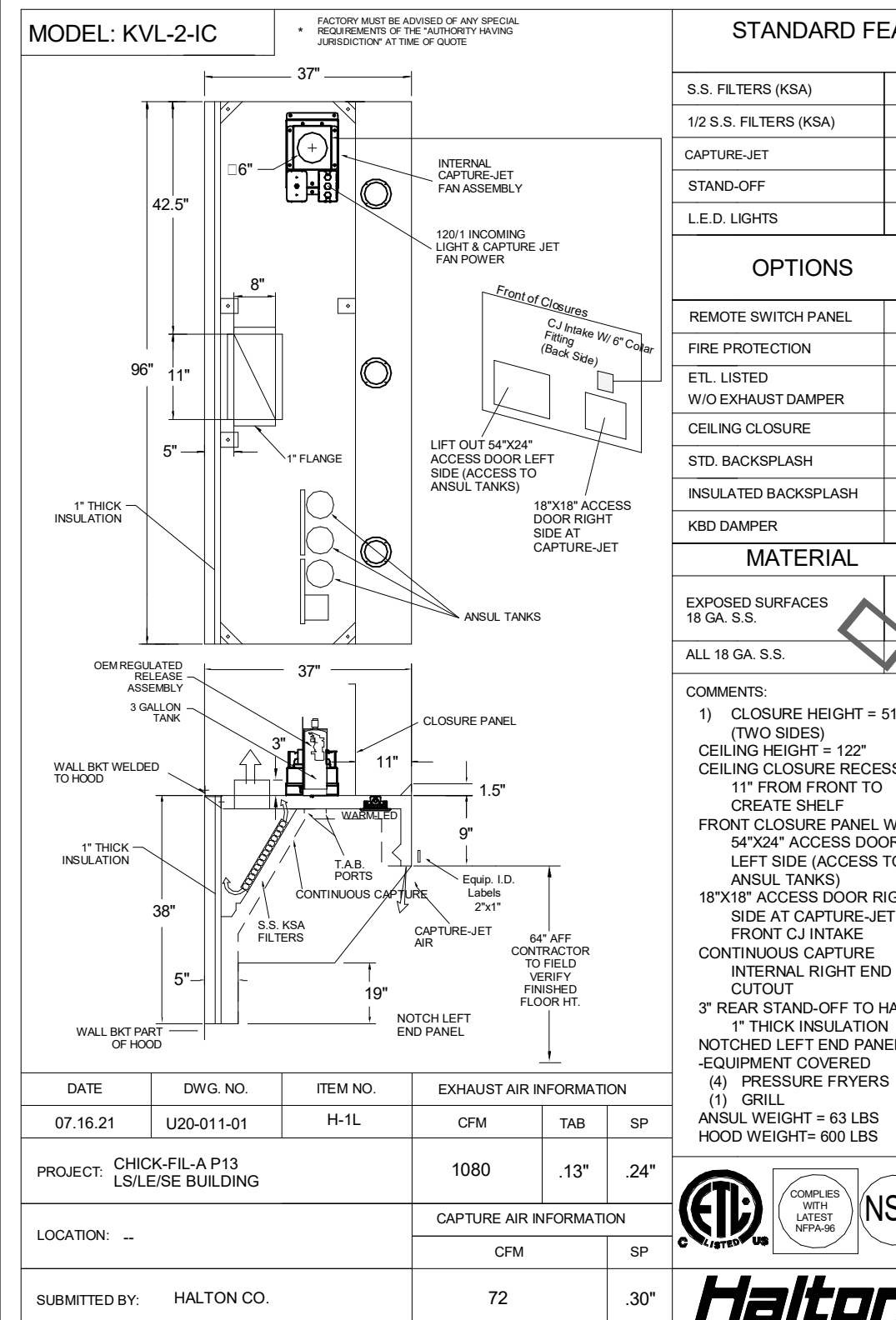
CONSULTANT PROJECT # 21178.HF.S  
PRINTED FOR CONSTRUCTION  
DATE 01/06/2022  
DRAWN BY AK

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SHEET  
MECHANICAL  
SPECIFICATIONS

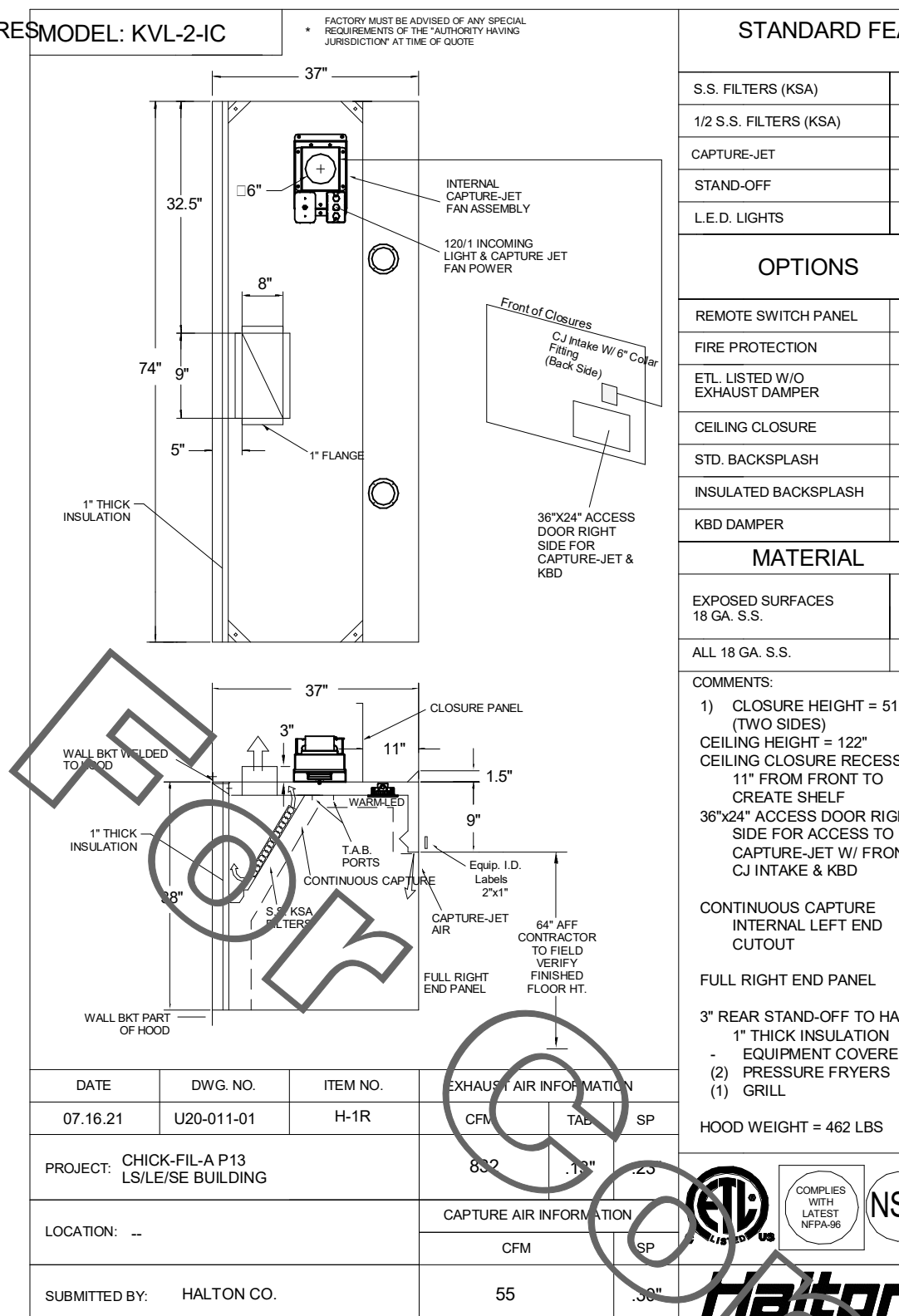
SHEET NUMBER

**M-901**



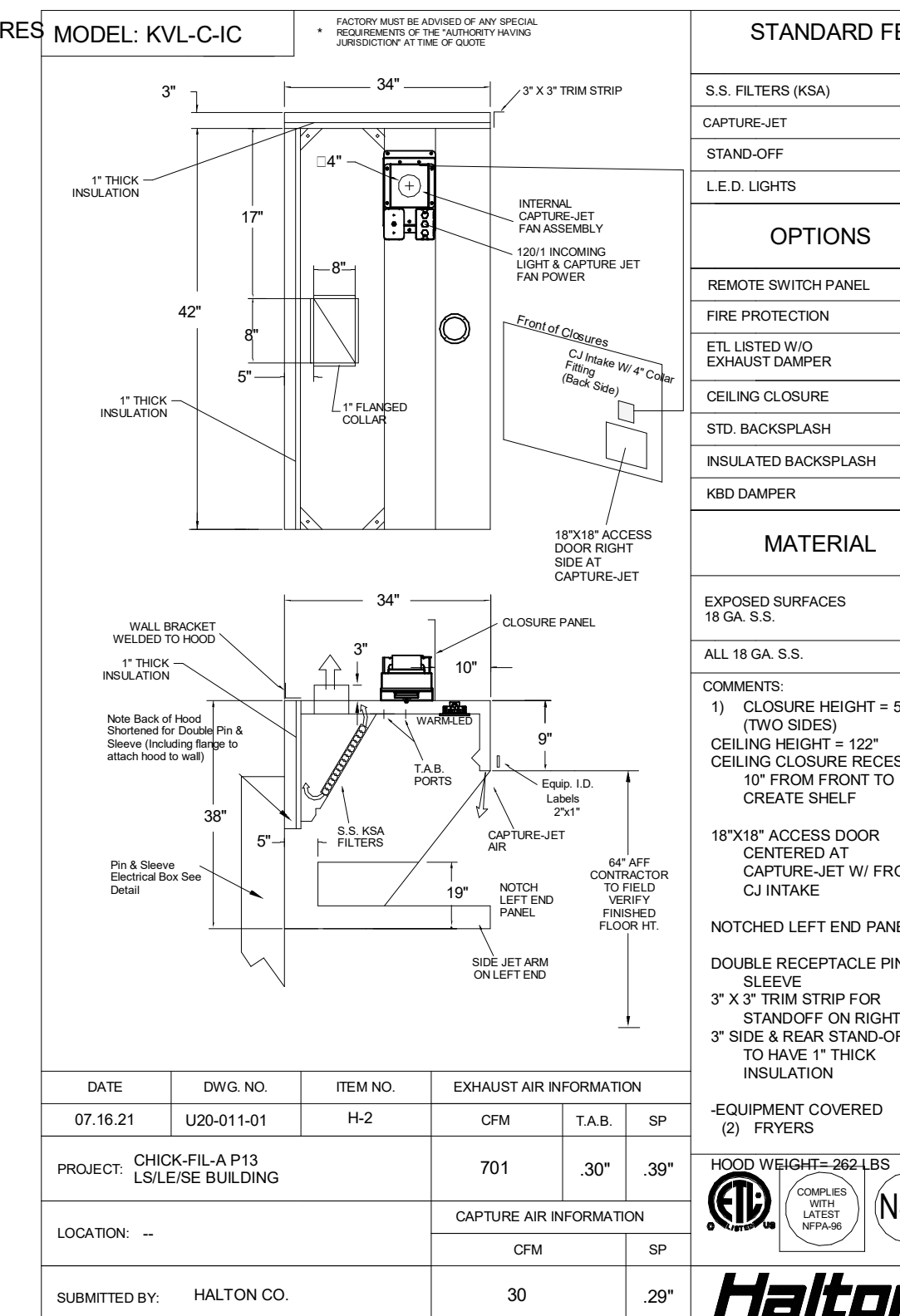
MODEL: KVL-2-IC

Table listing standard features (S.S. Filters, Capture-Jet, Stand-off, L.E.D. Lights) and options (Remote Switch Panel, Fire Protection, ETL Listed, etc.) for Model KVL-2-IC. Includes material specifications and a Halton logo.



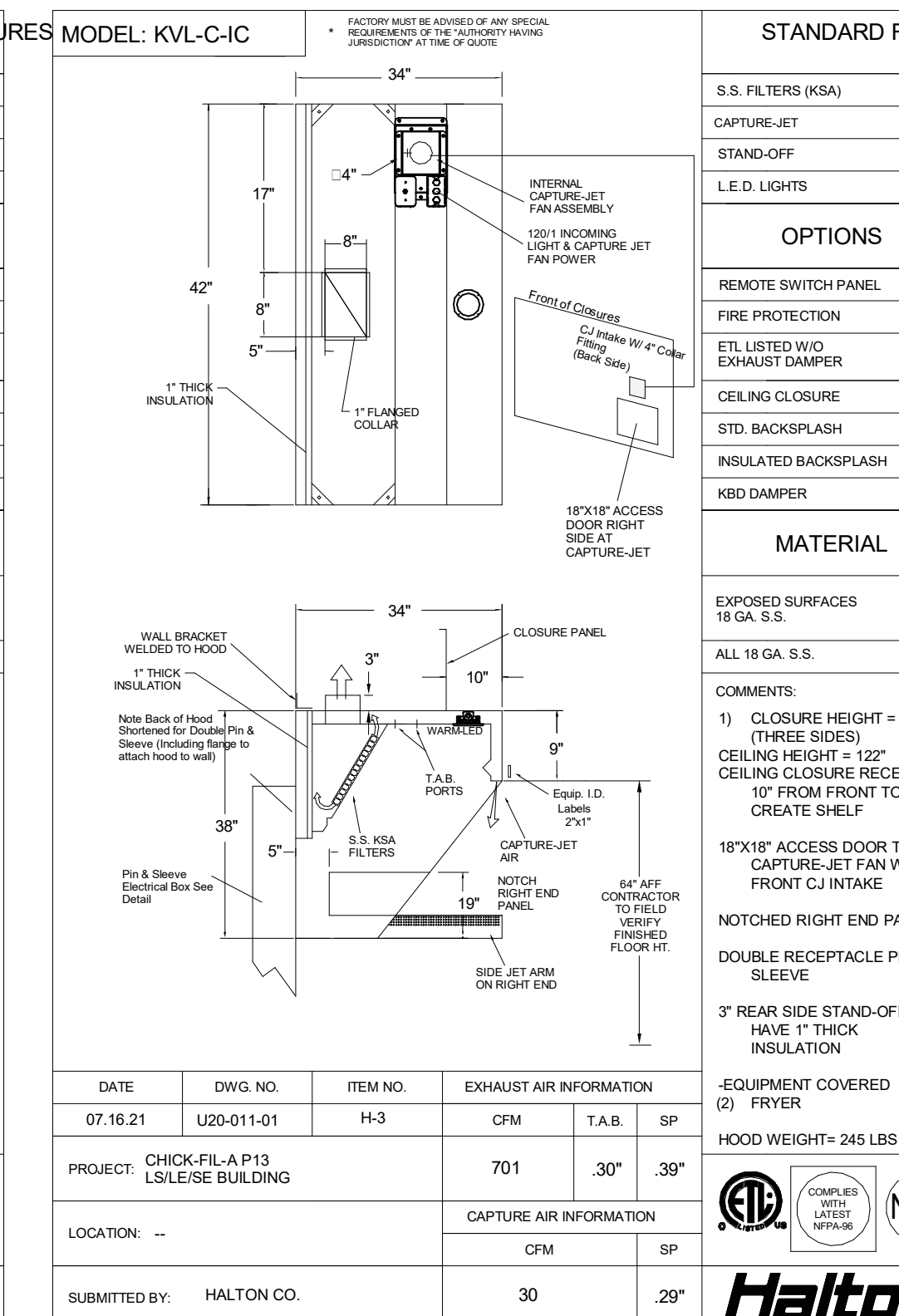
MODEL: KVL-2-IC

Table listing standard features (S.S. Filters, Capture-Jet, Stand-off, L.E.D. Lights) and options (Remote Switch Panel, Fire Protection, ETL Listed, etc.) for Model KVL-2-IC. Includes material specifications and a Halton logo.



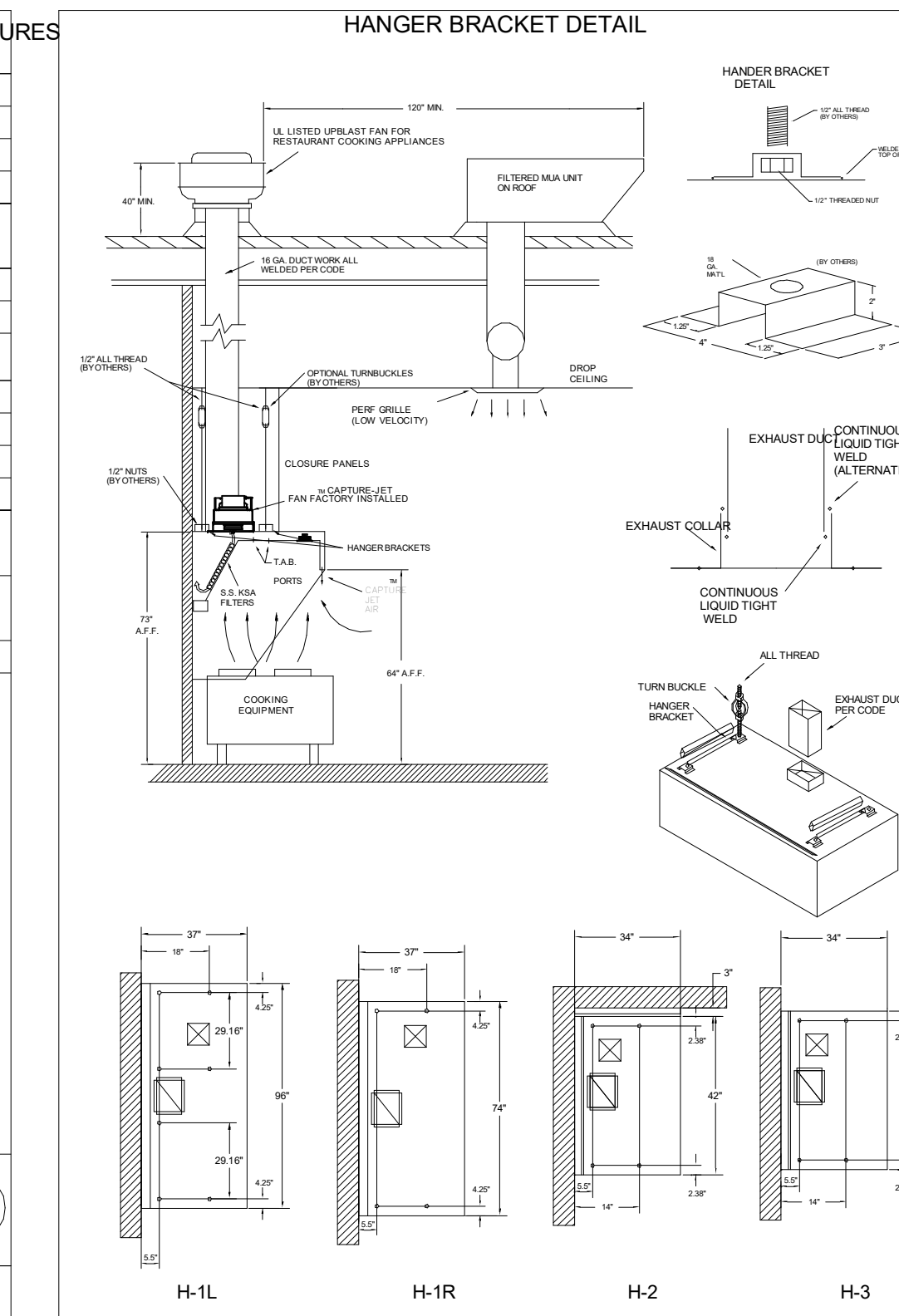
MODEL: KVL-C-IC

Table listing standard features (S.S. Filters, Capture-Jet, Stand-off, L.E.D. Lights) and options (Remote Switch Panel, Fire Protection, ETL Listed, etc.) for Model KVL-C-IC. Includes material specifications and a Halton logo.



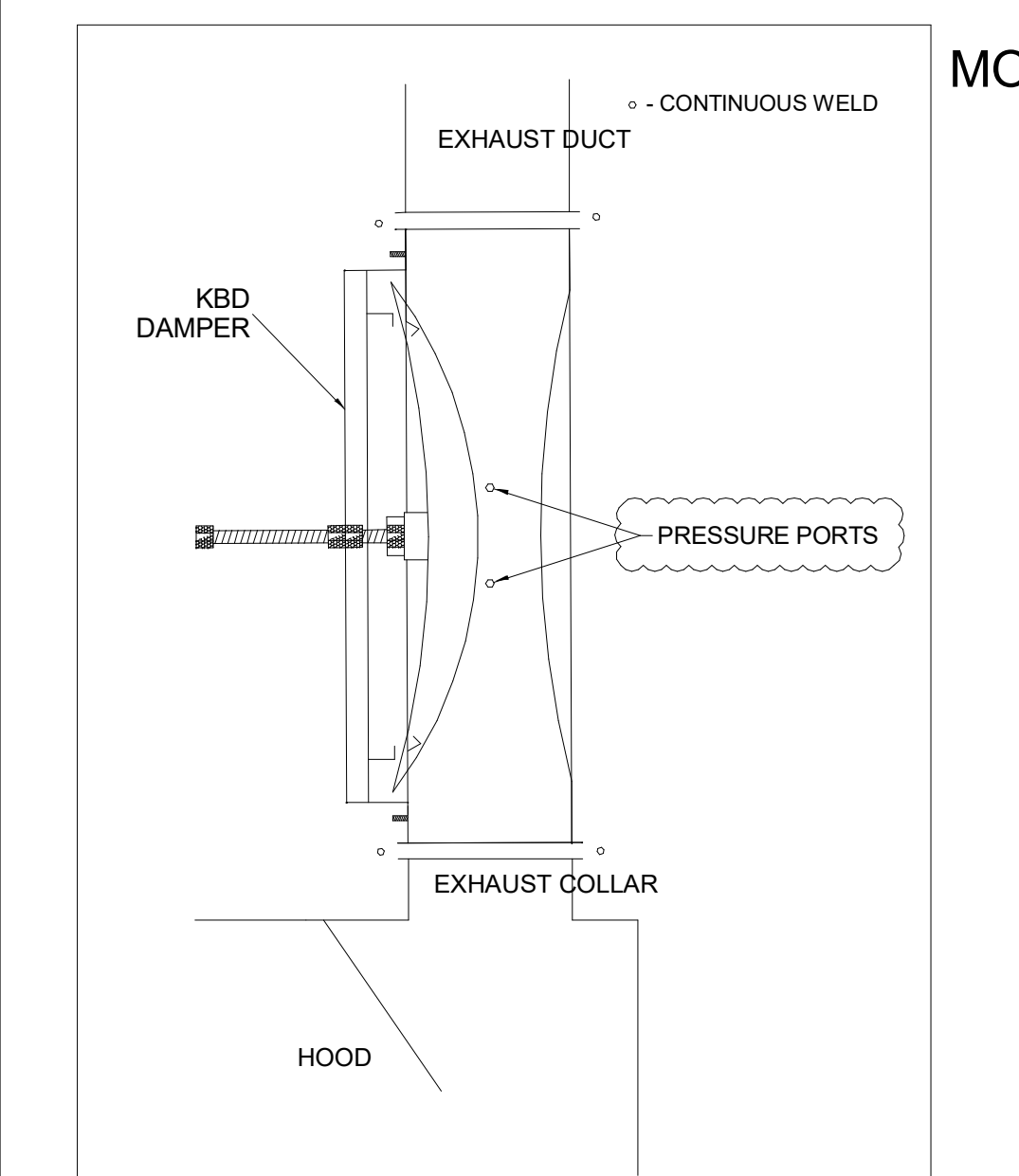
MODEL: KVL-C-IC

Table listing standard features (S.S. Filters, Capture-Jet, Stand-off, L.E.D. Lights) and options (Remote Switch Panel, Fire Protection, ETL Listed, etc.) for Model KVL-C-IC. Includes material specifications and a Halton logo.



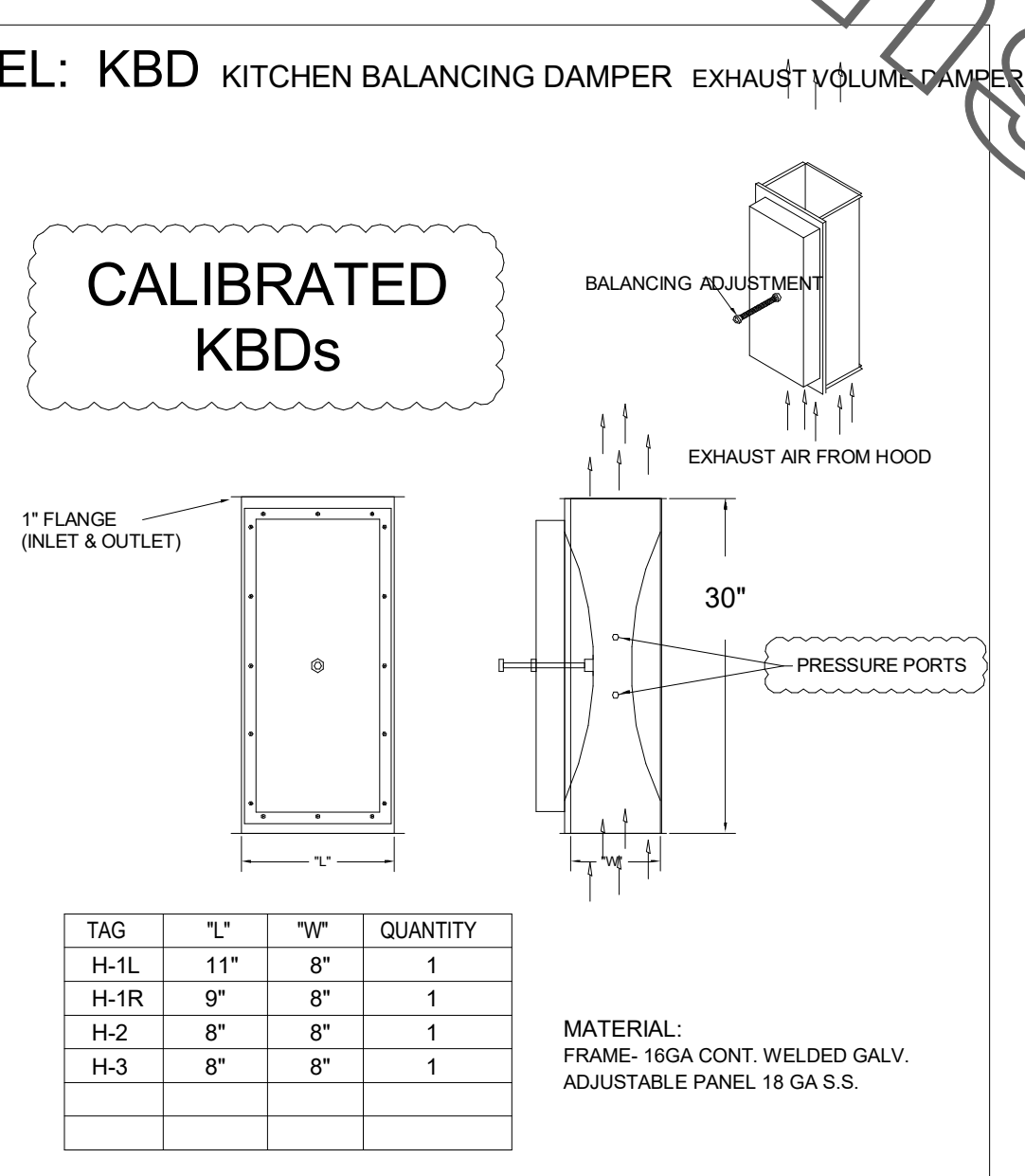
HANGER BRACKET DETAIL

Table listing standard features (S.S. Filters, Capture-Jet, Stand-off, L.E.D. Lights) and options (Remote Switch Panel, Fire Protection, ETL Listed, etc.) for the Hanger Bracket Detail. Includes material specifications and a Halton logo.



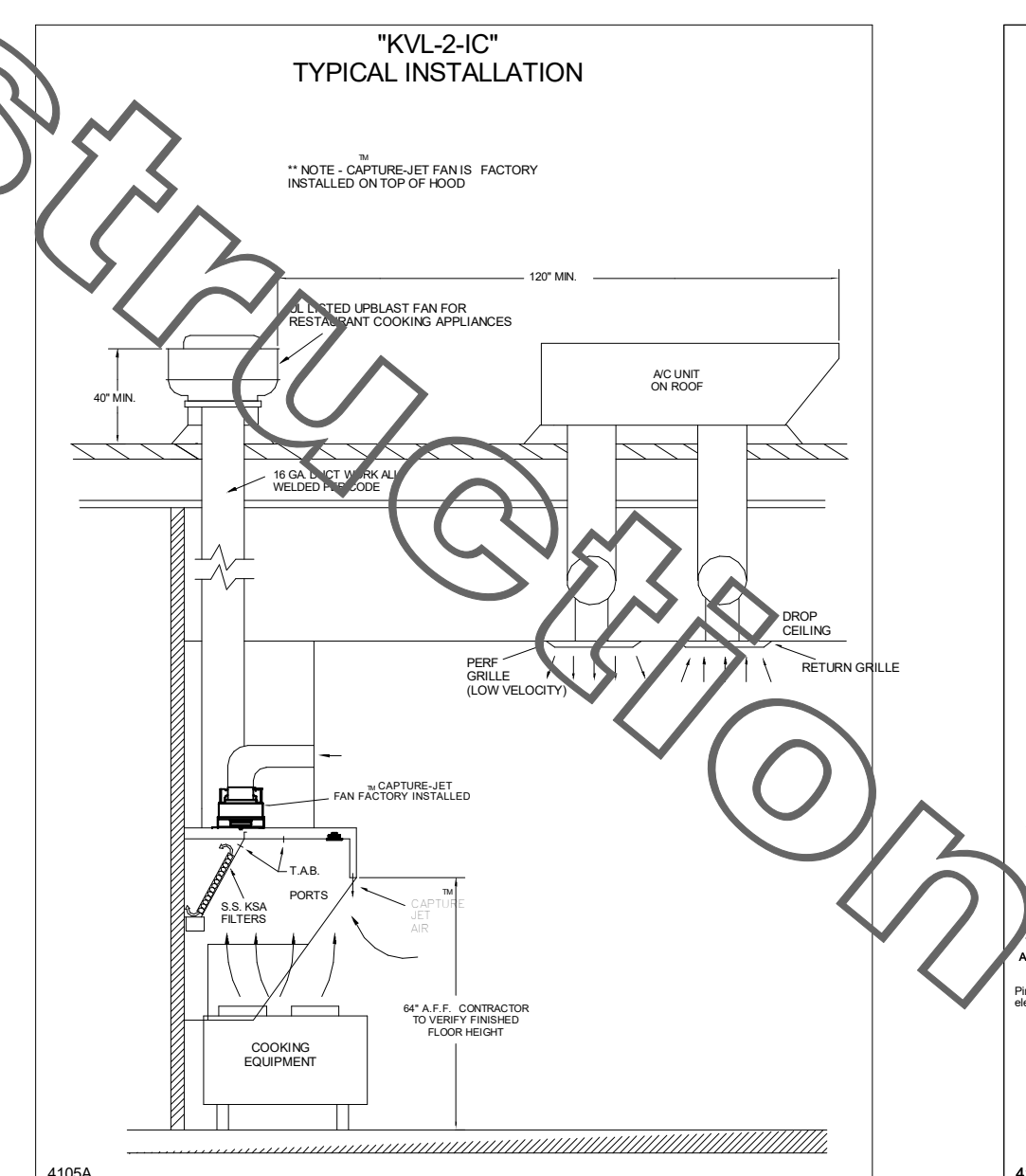
MODEL: KBD

Table listing standard features and options for Model KBD. Includes material specifications and a Halton logo.



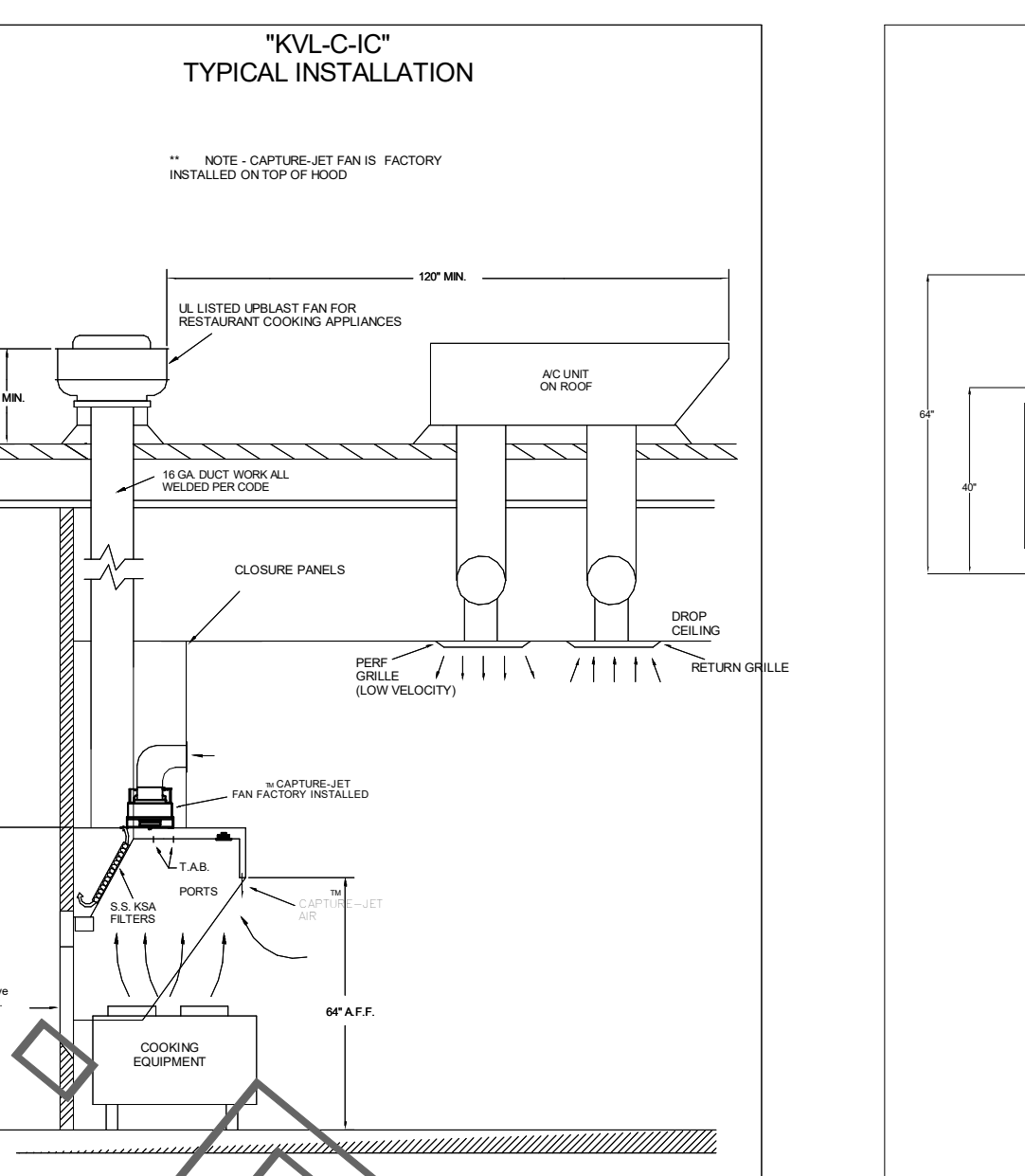
MODEL: KBD

Table listing standard features and options for Model KBD. Includes material specifications and a Halton logo.



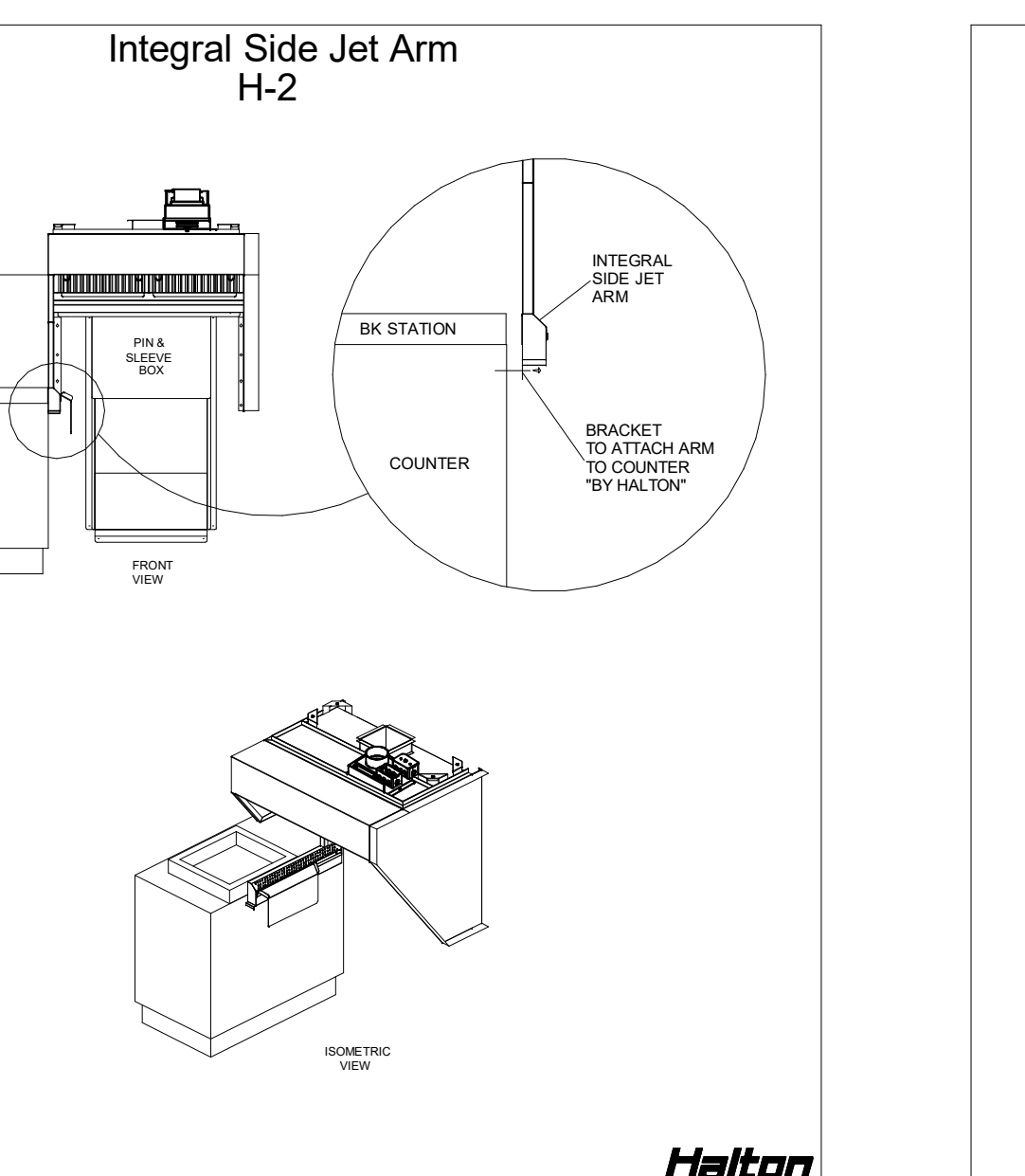
MODEL: KVL-2-IC

Table listing standard features and options for Model KVL-2-IC. Includes material specifications and a Halton logo.



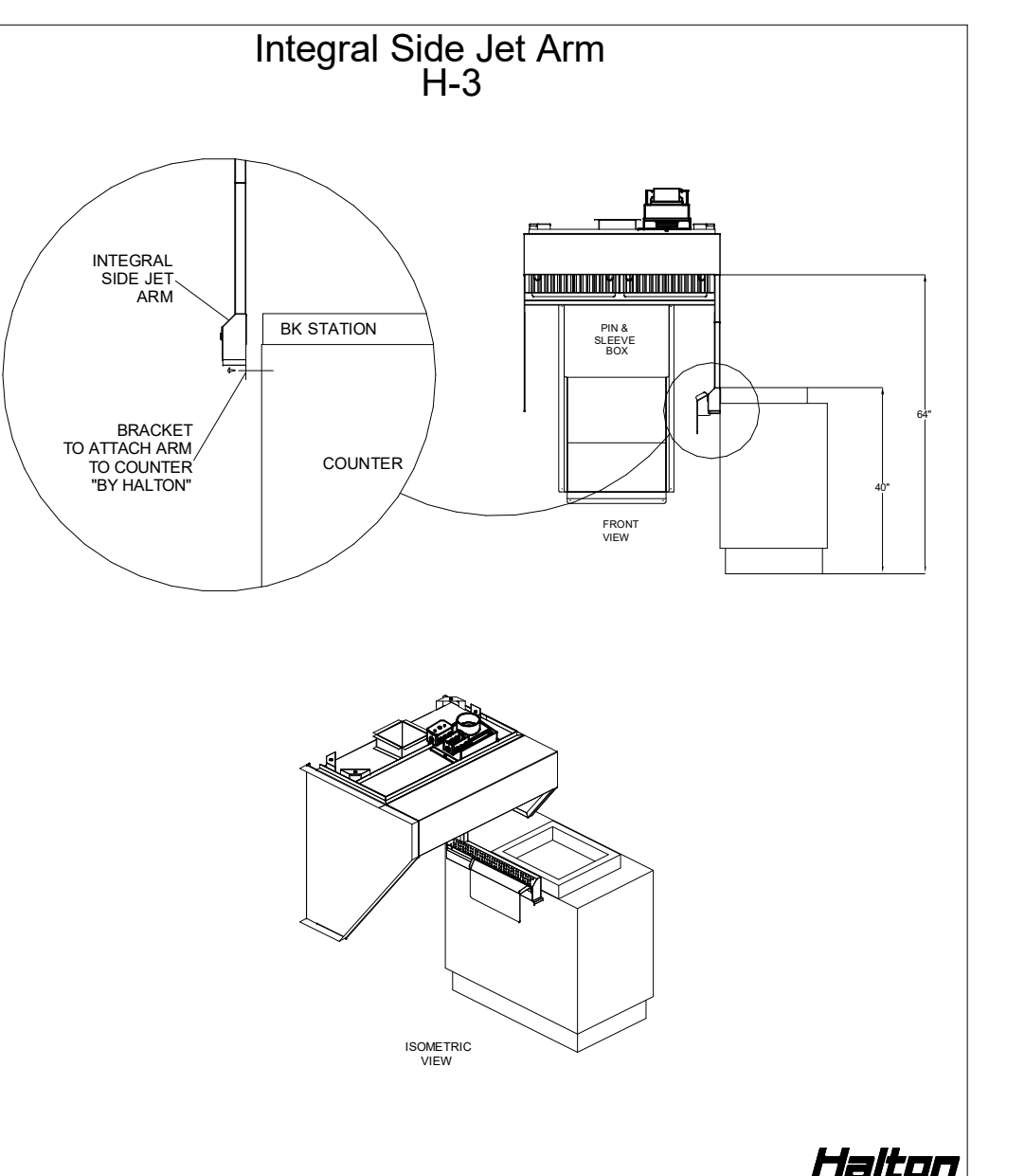
MODEL: KVL-C-IC

Table listing standard features and options for Model KVL-C-IC. Includes material specifications and a Halton logo.



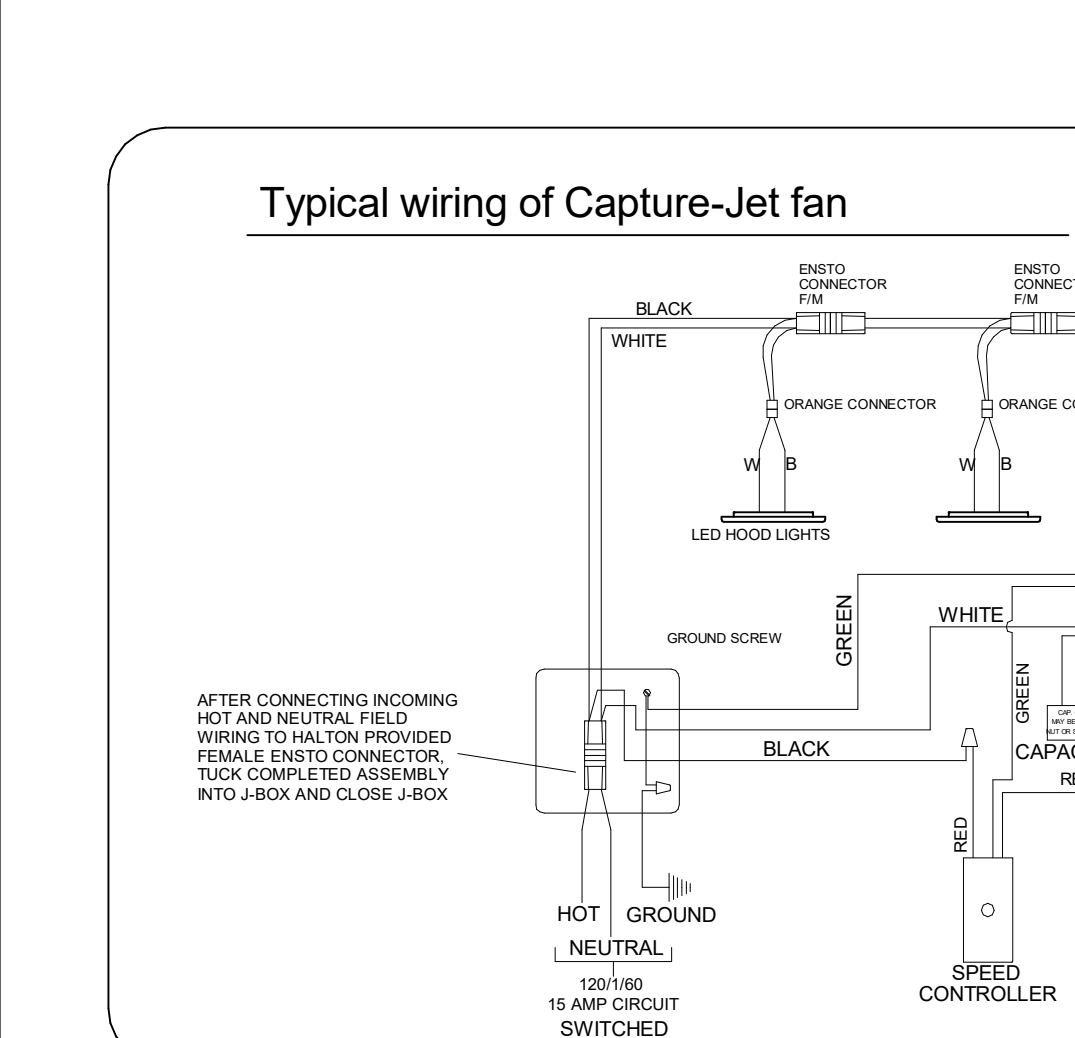
MODEL: H-2

Table listing standard features and options for Model H-2. Includes material specifications and a Halton logo.

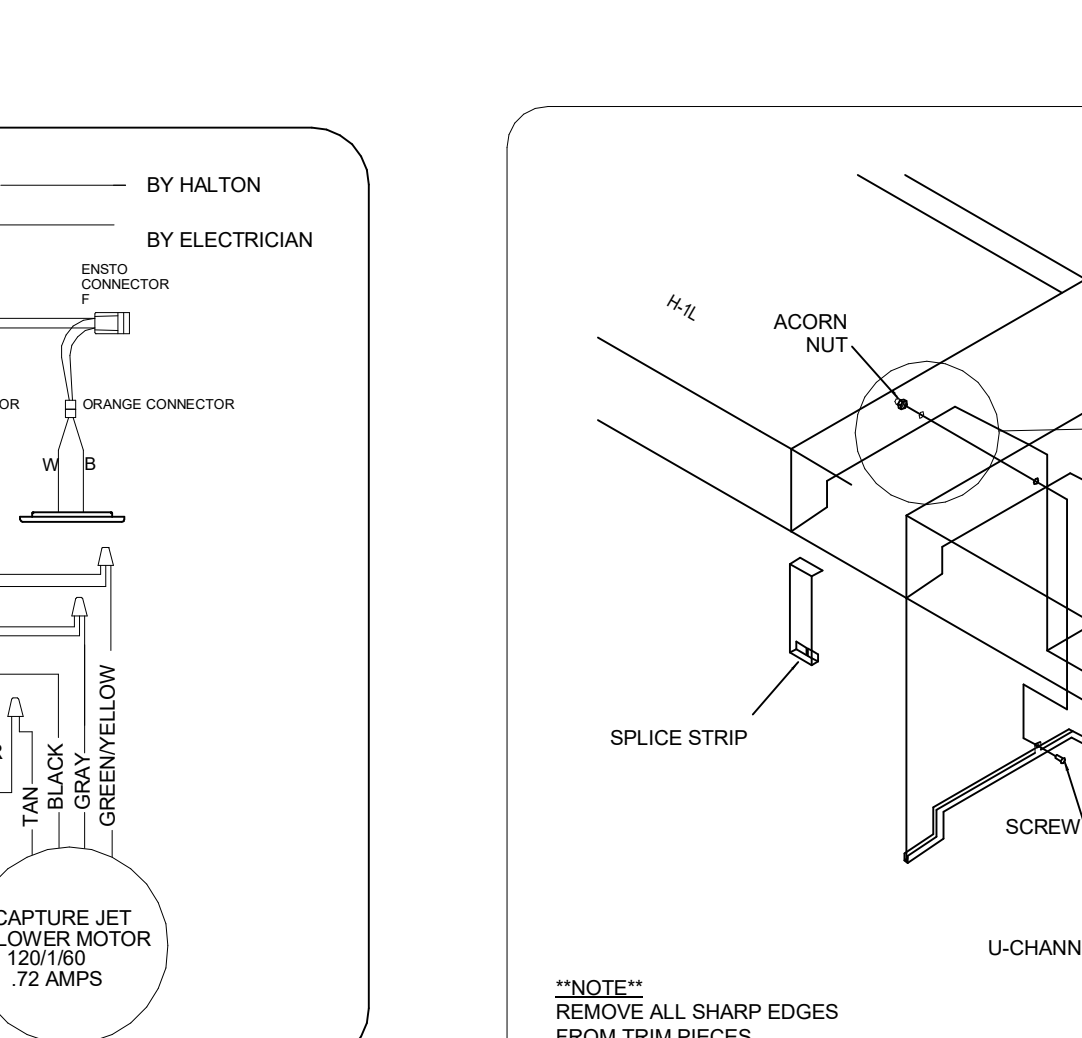


MODEL: H-3

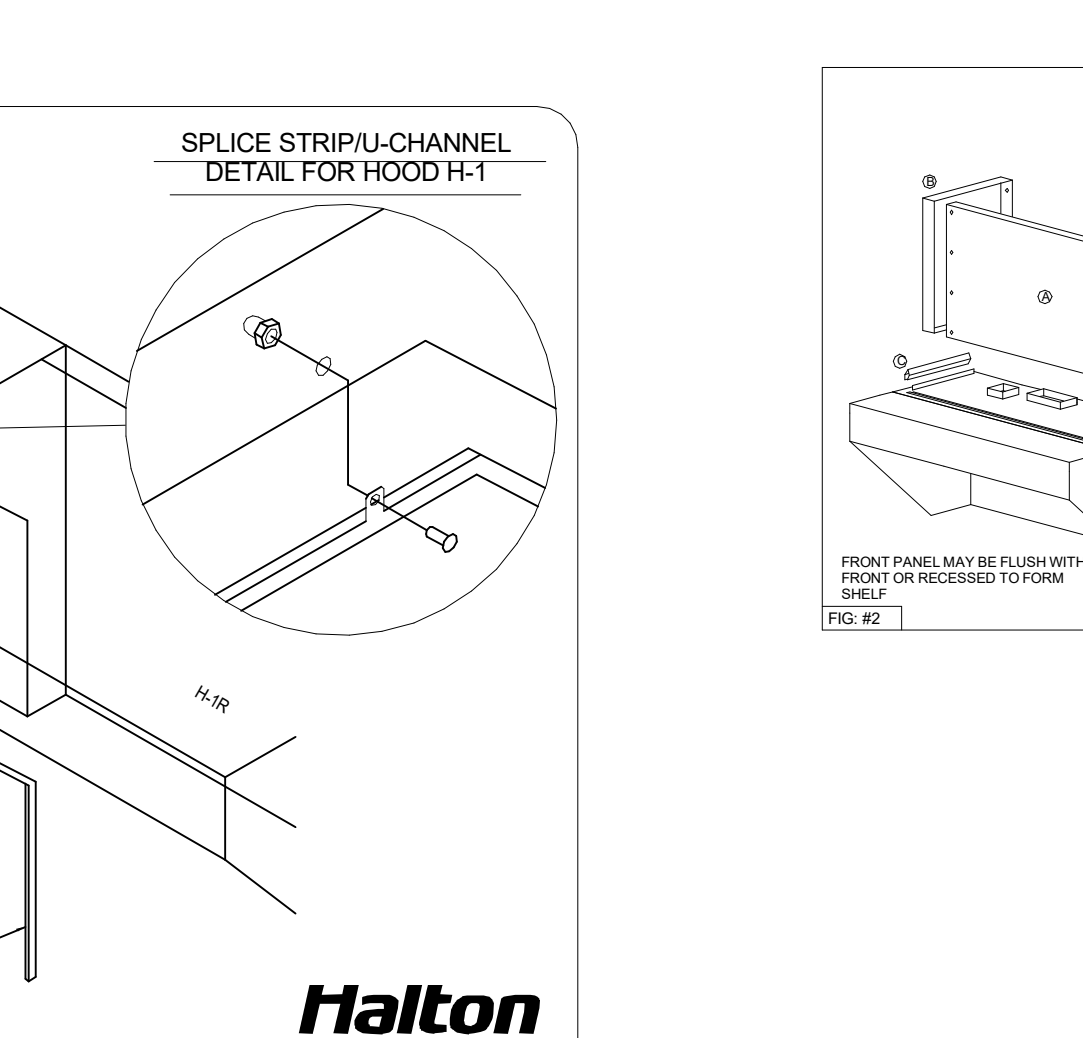
Table listing standard features and options for Model H-3. Includes material specifications and a Halton logo.



Typical wiring of Capture-Jet fan

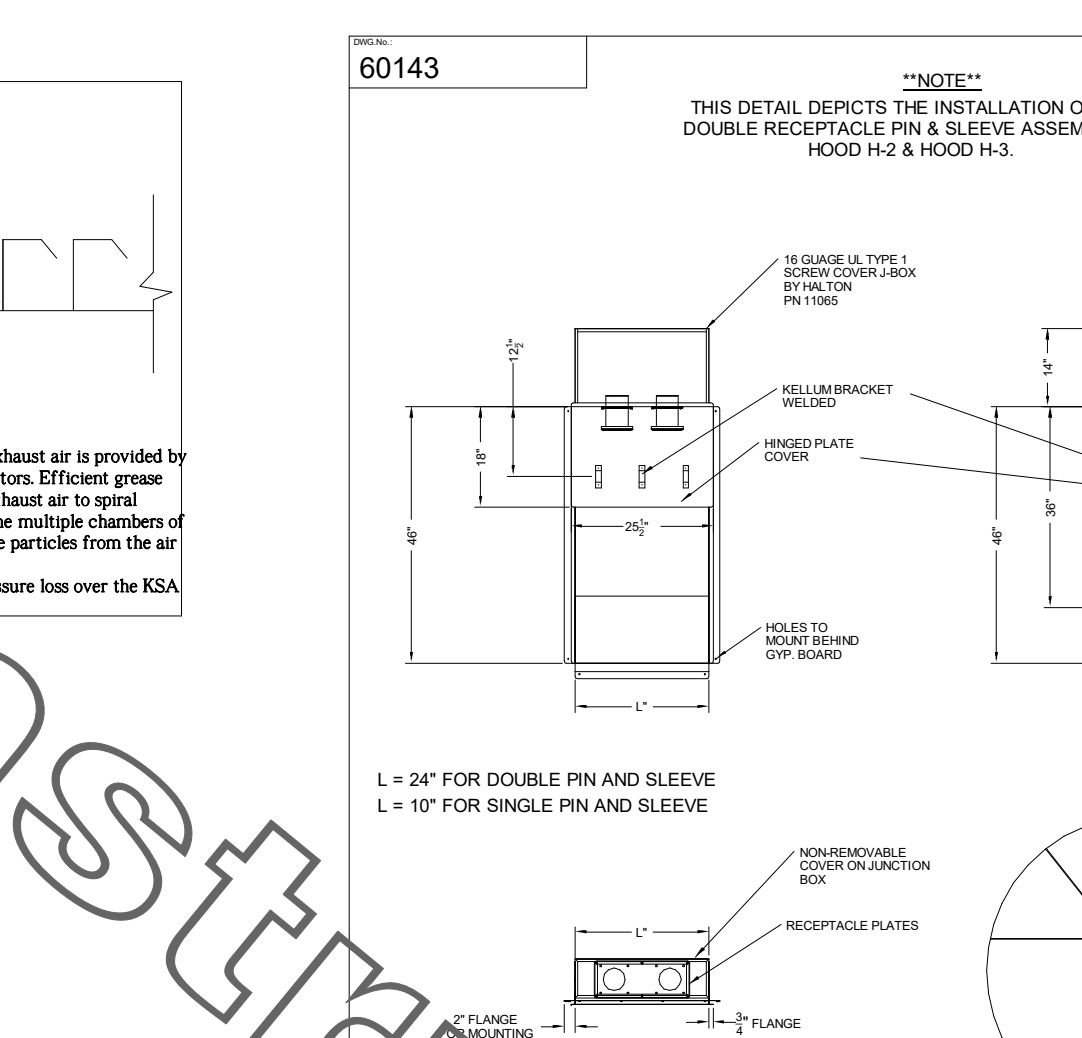


SPLICE STRIP/CHANNEL DETAIL FOR HOOD H-1

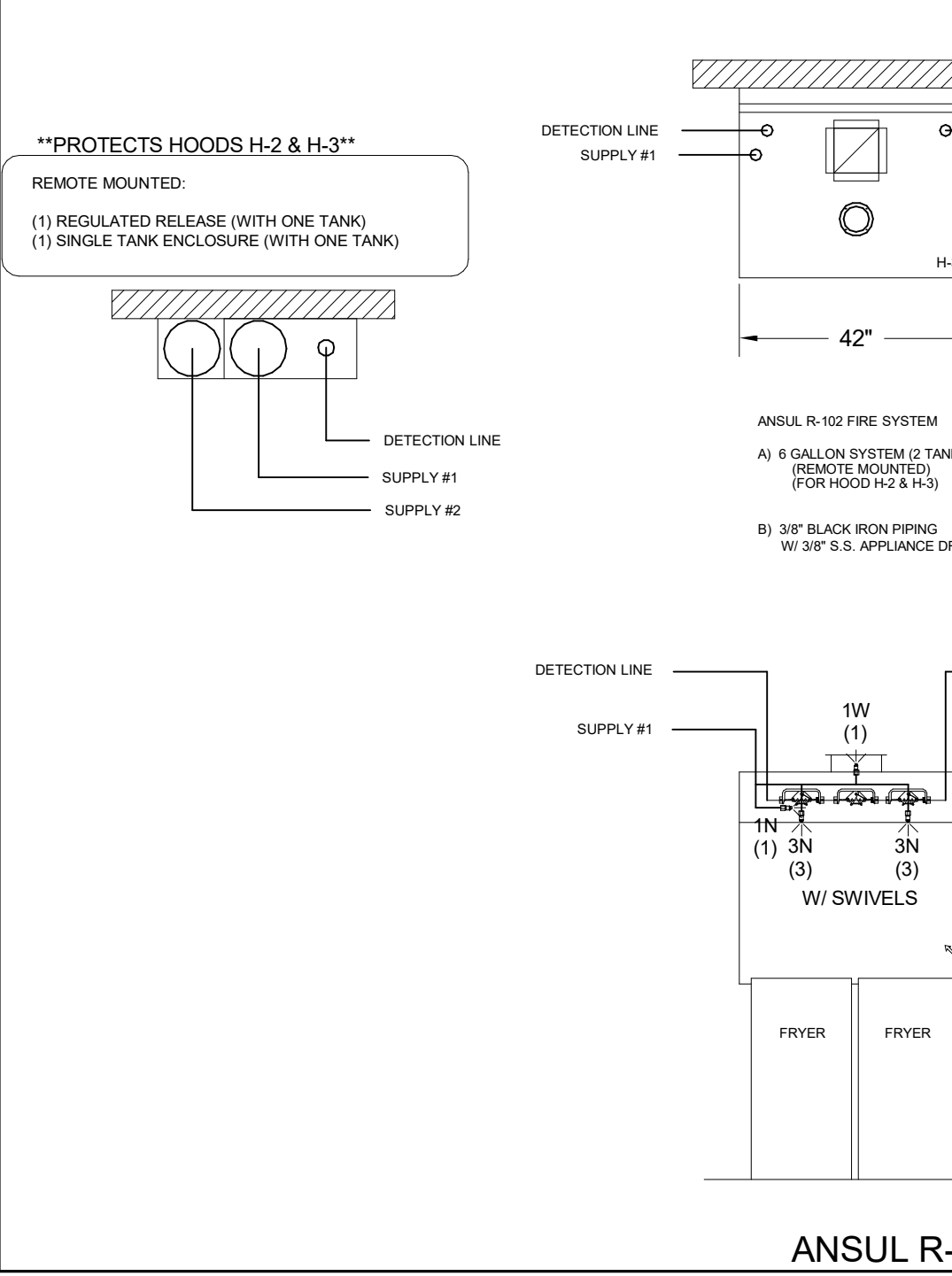


KSA Grease Extractor

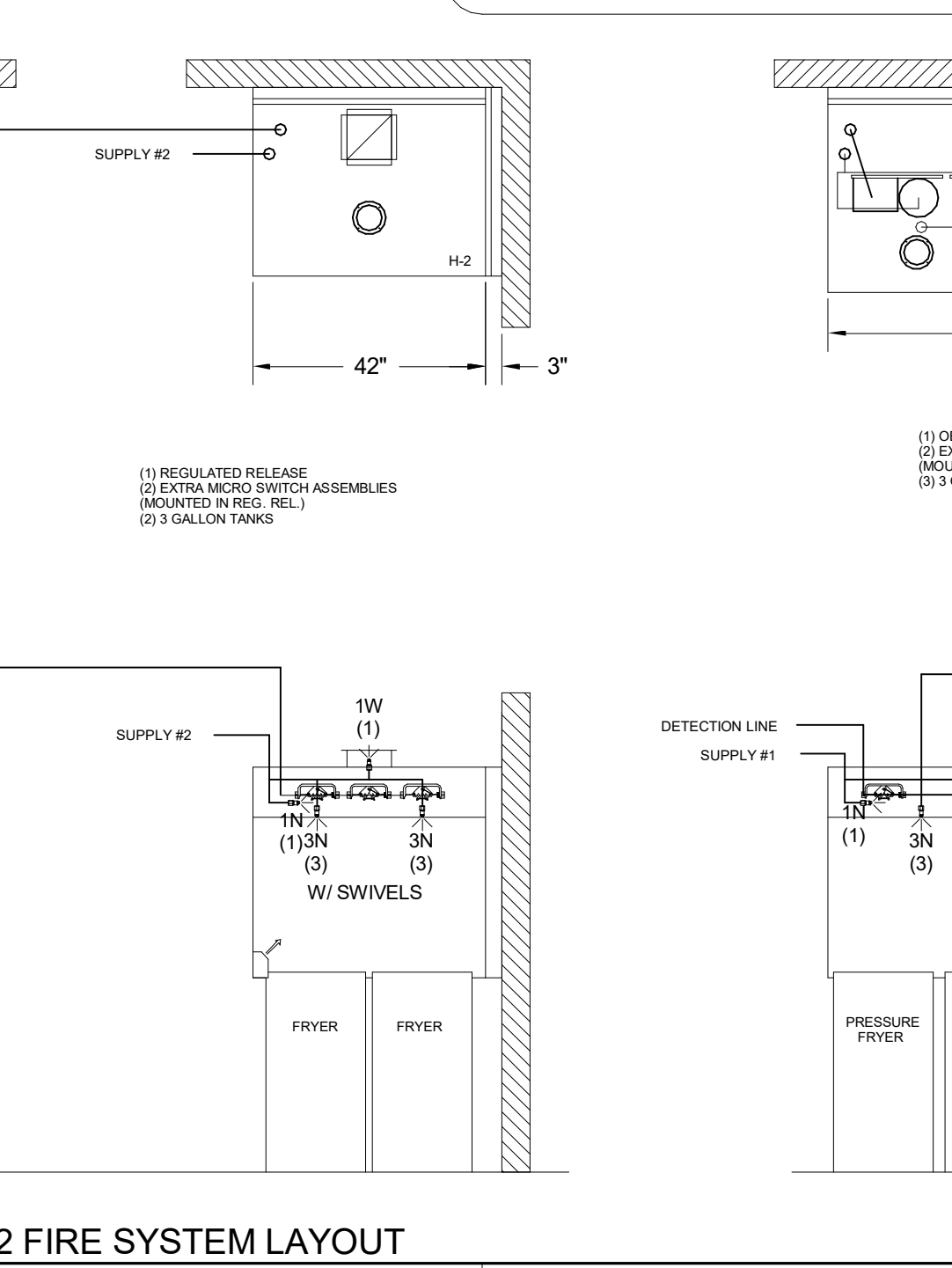
FUSIBLE LINK RATINGS table listing item numbers, descriptions (Open Fryers, Burners, etc.), and temperature ratings.



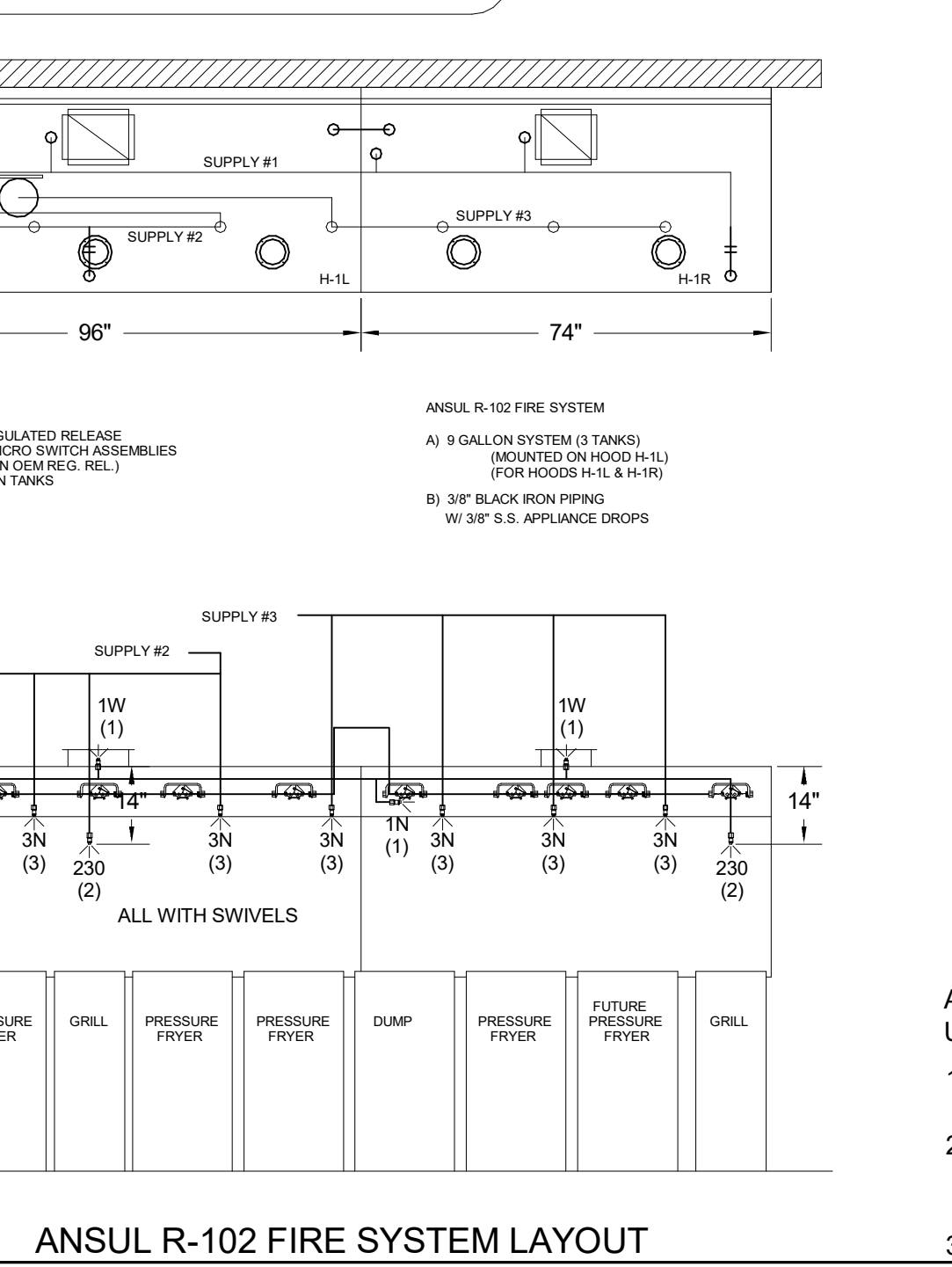
PIN & SLEEVE BOX DETAIL



ANSUL R-102 FIRE SYSTEM LAYOUT



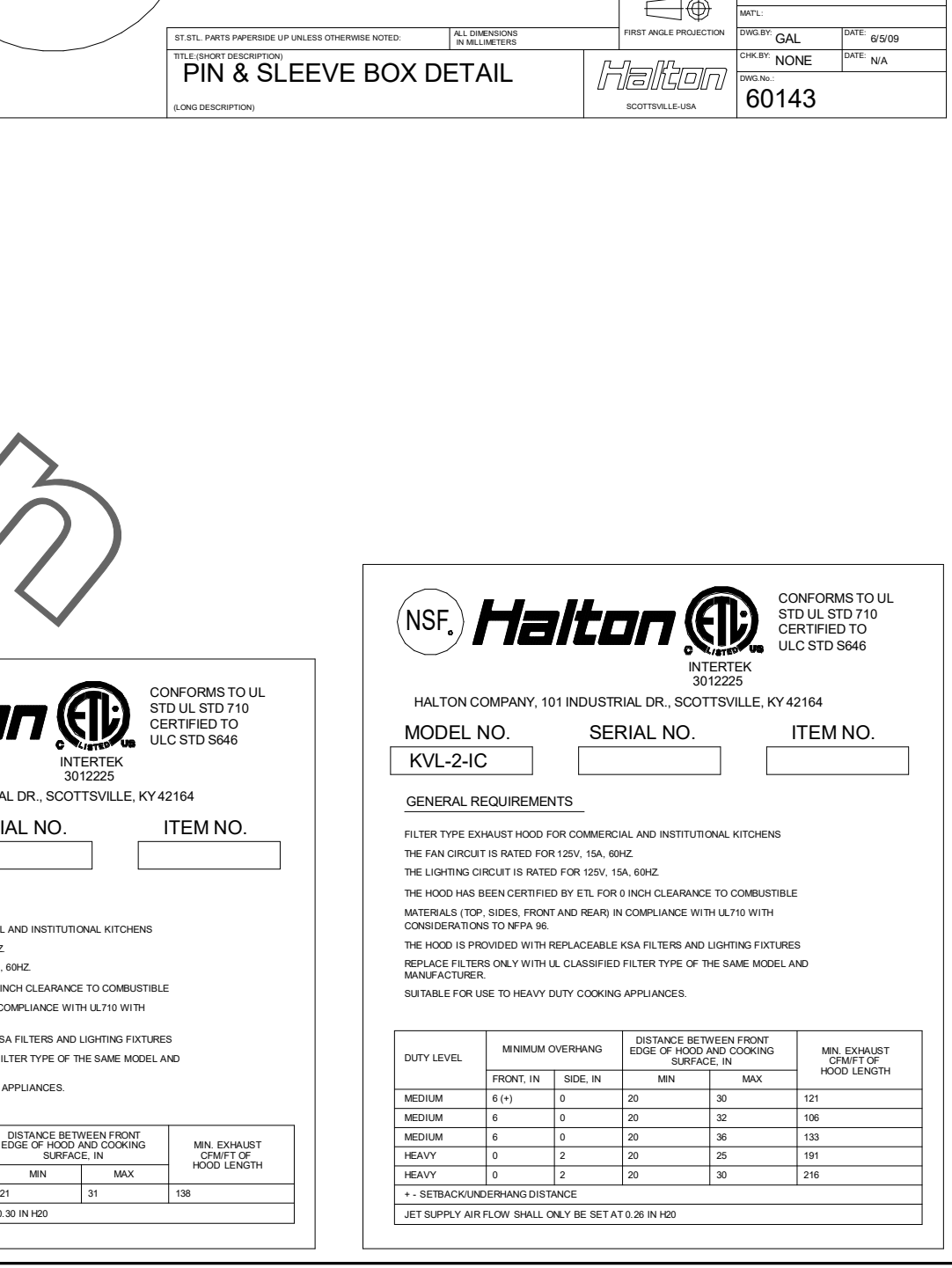
ANSUL R-102 FIRE SYSTEM LAYOUT



ANSUL R-102 FIRE SYSTEM LAYOUT

Item list table for fire system components including detectors, sprinklers, and pull stations.

Item list table for fire system components including detectors, sprinklers, and pull stations.



PIN & SLEEVE BOX DETAIL

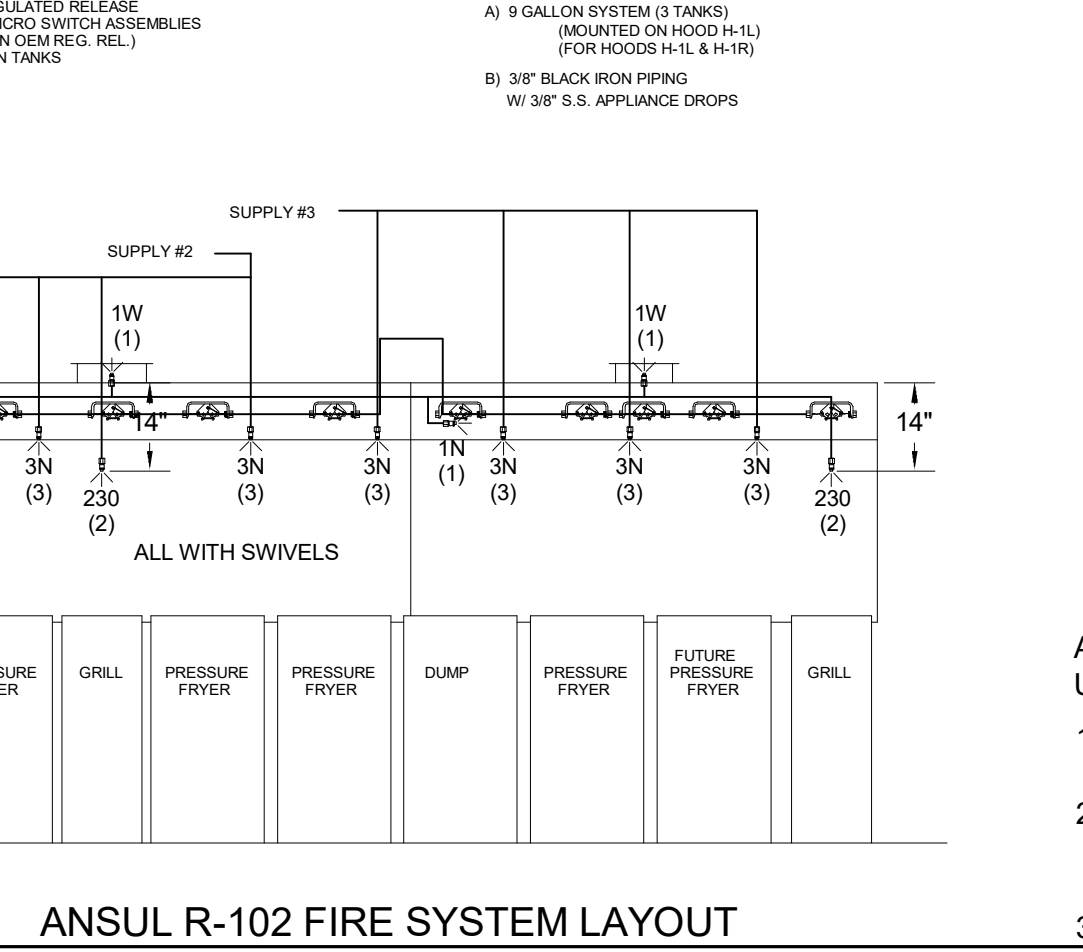
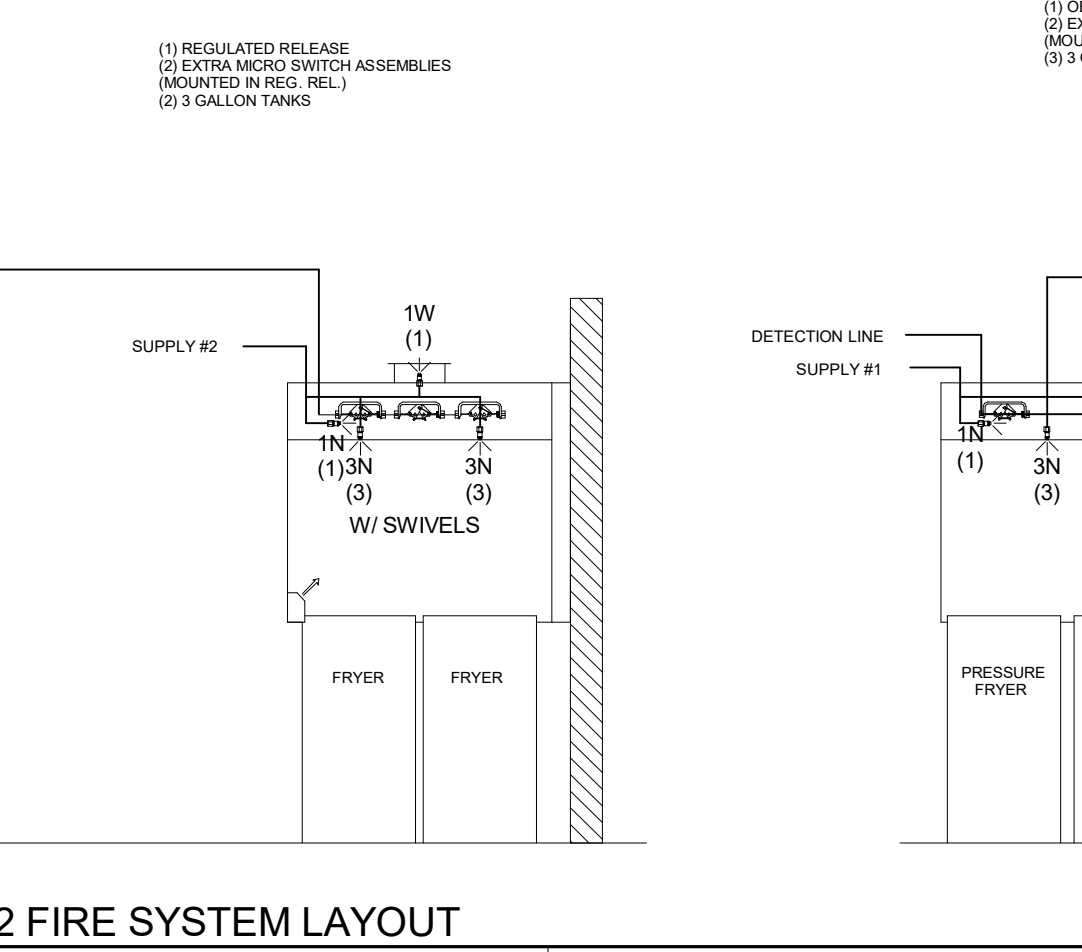
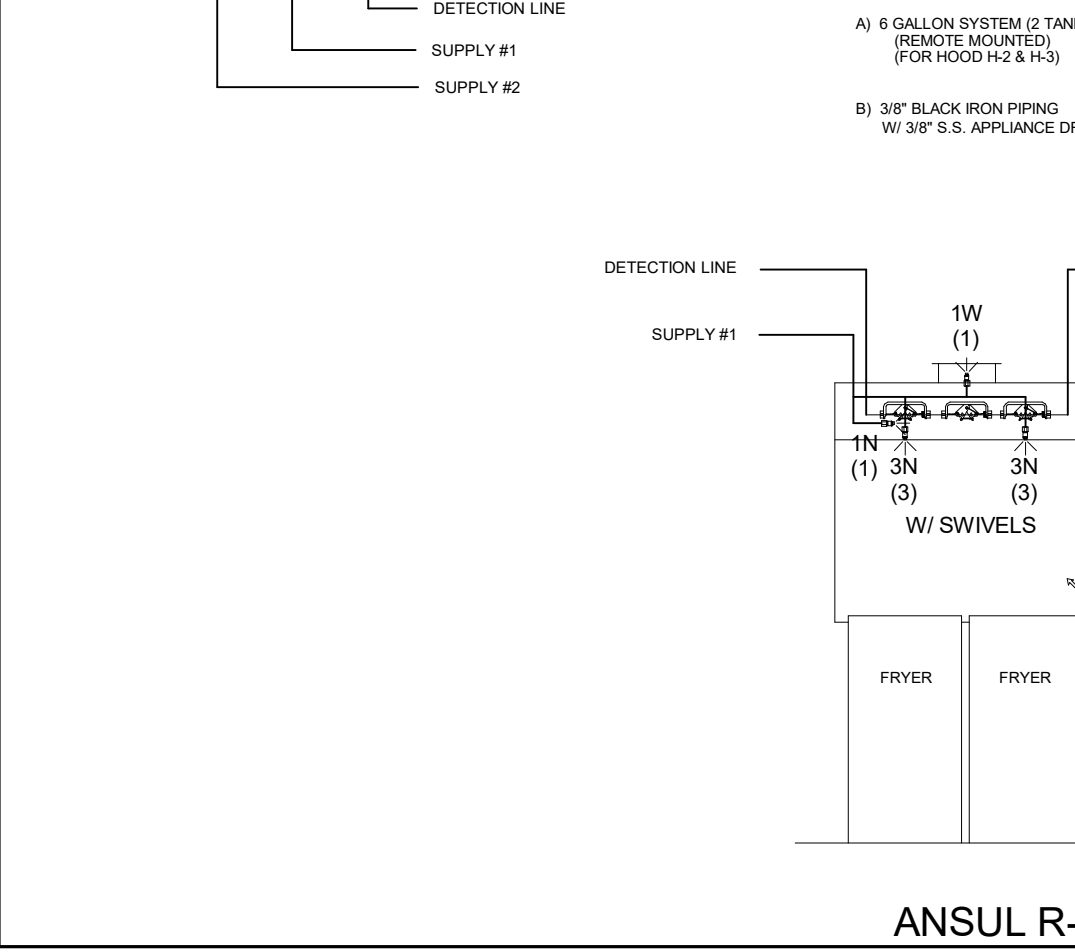
Chick-fil-A logo and address information: 5200 Buffington Road, Atlanta, Georgia 30349-2998.

Kurzynske & Associates logo and address information: 2705 Lebanon Pike, Nashville, Tennessee 37214.

Professional Engineer Seal for T. Kurzynske, State of North Carolina, License No. 20572.

CHICK-FIL-A RELO Southern Pines logo and address: 265 Turner Street, Aberdeen, NC 28315.

FSR#05048 project information including building type, release date, and revision schedule.



Item list table for fire system components including detectors, sprinklers, and pull stations.

