

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 M41 FOR MORE INFORMATION.

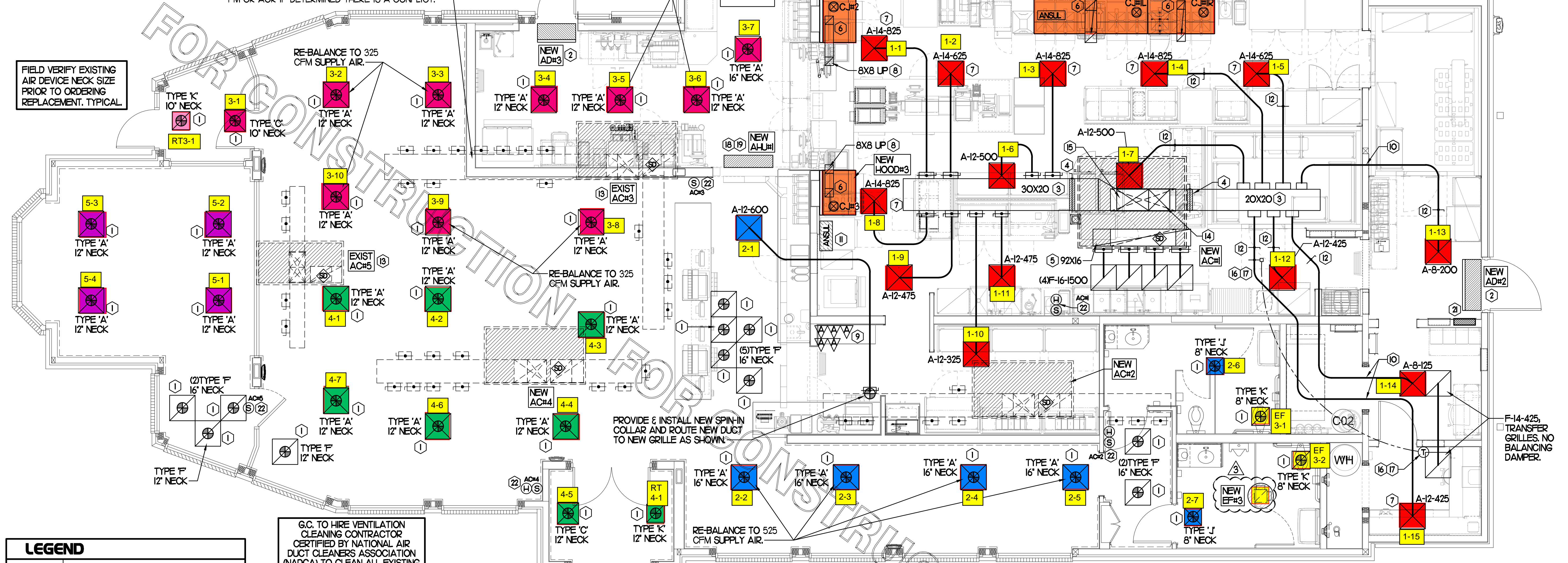
GC TO CONFIRM EXACT LOCATION OF AC#3 MAIN DUCT RUNS RELATIVE TO PROPOSED NEW WALL PRIOR TO START OF CONSTRUCTION. CONTACT JLL PM OR AOR IF DETERMINED THERE IS A CONFLICT.

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#1 MOUNTED IN CEILING GRID, CENTERED ON THE DOOR, AT 4" OFF THE EXTERIOR WALL. MECHANICAL CONTRACTOR SHALL ADJUST AIR DEFLECTORS TOWARD AIR DIVERTER BOX.

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.

FIELD VERIFY EXISTING AIR DEVICE NECK SIZE PRIOR TO ORDERING REPLACEMENT. TYPICAL.



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

LEGEND

A-12-400	TYPE - NECK SIZE - CFM
	SPIN-IN FITTING, MVD, NO SCOOP
	REMOTE TEMPERATURE SENSOR
	REMOTE HUMIDITY SENSOR
	SMOKE DETECTOR
	GREASE ACCESS DOOR TYPE
	DIRECTION OF THROW
	KEY NOTE REFERENCE
	EXISTING START COLLAR
	EXISTING RUNOUT TO REMAIN
	EXISTING RETURN/EXHAUST (TYP)
	EXISTING SUPPLY DIFFUSER (TYP)
	NEW RETURN/EXHAUST, UNO. (TYP)
	NEW SUPPLY DIFFUSER, UNO. (TYP)
	NEW DUCT (TYP)
	SMOKE DETECTOR TEST/RESET STATION

SHEET NOTES

- DUCT SIZES SERVING DIFFUSERS AND GRILLES ARE SAME SIZE AS DIFFUSER OR GRILLE NECK UNLESS NOTED OTHERWISE.
- REFER TO ELEVATIONS ON M21 AND HOOD DETAILS ON M41 FOR CAPTURE-LET 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.

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.
- BRANCH TAKE-OFFS SHALL NOT BE LOCATED CLOSER THAN 3'-0" FROM ANY ELBOW INCLUDING THE SUPPLY AIR DROP FROM CURB.
- PROVIDE RUSKIN CD35 MANUAL BALANCING DAMPER WITH 6" MAXIMUM BLADE WIDTH, OPPOSED BLADE ACTION, LOCKING QUADRANT HANDLE WITH 2" STANDOFF AND 16 GA GALVANIZED BLADE AND FRAME CONSTRUCTION.
- 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.
- HALTON MBD DAMPER AT HOOD COLLAR BY MECHANICAL CONTRACTOR. REFER TO SHEET M21 AND M41 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.
- MOUNT NEW SMOKE DETECTOR TEST/RESET STATIONS FOR ALL A/C UNITS ON WALL. COORDINATE EXACT LOCATION WITH KITCHEN ELEVATIONS AND ELECTRICAL. CONTACT SUNCOAST ENVIRONMENTAL CONTROLS AT 1-877-544-6679 TO PURCHASE A NEW SMOKE DETECTOR TEST/RESET STATION FOR EACH RTU.
- ROUTE DUCT BETWEEN WALL STUDS ABOVE CEILING. COORDINATE WITH ARCH AND STRUCTURAL FOR EXACT LOCATION. USE 'I' WRAP AT WALL PENETRATION.
- ANSUL UTILITY CABINET. LOCATE TOP OF CABINET 0'-2" BELOW CEILING. COORDINATE FINAL MOUNTING LOCATION WITH KITCHEN EQUIPMENT.
- RUSKIN MODEL MDRS25 OR EQUIVALENT MANUAL VOLUME DAMPER WITH LOCKING QUADRANT HANDLE.
- REPLACE EXISTING RETURN AIR SMOKE DETECTOR WITH NEW. REFER TO WIRING DIAGRAM ON SHEET M41.
- 20X20 VERTICAL DROP. PROVIDE TURNING VANES IN ELBOW. 20X20 SUPPLY MAIN TO BE LOCATED ENTIRELY BELOW JOISTS. HOLD 20X20 SUPPLY MAIN AS HIGH AS POSSIBLE DUE TO LIMITED CLEARANCE.
- 20X30 VERTICAL DROP. PROVIDE TURNING VANES IN ELBOW. ELBOW TO BE PARTIALLY LOCATED WITHIN STRUCTURE. BOTTOM OF ELBOW TO BE AT SAME ELEVATION AS BOTTOM OF 30X20 SUPPLY MAIN. 30X20 SUPPLY MAIN TO BE LOCATED ENTIRELY BELOW JOISTS. HOLD 30X20 SUPPLY MAIN AS HIGH AS POSSIBLE DUE TO LIMITED CLEARANCE.
- YOUNG REGULATOR 12" MODEL 2010 ROUND ZONE DAMPER WITH MODEL T-312CE AUTOMATIC CHANGEOVER THERMOSTAT. MOUNT TSTAT AT 4'-0" AFF. POWER OPEN/SRING CLOSE. ADJUST MECHANICAL LIMIT FOR 50 CFM MINIMUM AIRFLOW. CHICK-FIL-A HAS A NATIONAL ACCOUNT WITH TOM BARRON COMPANY FOR THE ZONE DAMPER. THE MECHANICAL CONTRACTOR SHALL PURCHASE THE ZONE DAMPER DIRECTLY FROM TOM BARRON COMPANY. CONTACT MR. SCOTT GEORGE AT 404-351-1010, FOR PRICING AND AVAILABILITY. ZONE DAMPERS NOT PURCHASED THRU TOM BARRON COMPANY WILL NOT BE ACCEPTED.
- PROVIDE 120V/24V 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. SEE DETAIL ON SHEET M41 FOR MORE INFORMATION.
- MOUNT AIR HANDLER ON OVERHEAD WALL ABOVE CASED OPENING. MOUNT UNIT AT 12" ABOVE CASED OPENING. ROUTE REFRIGERANT PIPING ABOVE CEILING AND UP THRU ROOF TO CONDENSING UNIT. CUH1. SEE SHEET M1.2 FOR CONDENSING UNIT LOCATION. REFRIGERANT PIPING BELOW ROOF SHALL BE HIDDEN WITHIN WALLS AND CEILINGS.
- ROUTE CONDENSATE FROM AHU#1 UP THRU ROOF TO CONNECT INTO RTU CONDENSATE LINE. FIELD VERIFY EXACT LOCATION OF CONDENSATE LINE ON ROOF. CONDENSATE PIPING SHALL BE TYPE K COPPER. CONDENSATE PIPING BELOW ROOF DECK SHALL HAVE 1/2" ARMAFLEX INSULATION. PROVIDE PRE-FAB PIPE CURB FOR PENETRATION THRU ROOF. CONDENSATE MUST SLOPE MIN. 1/8" PER FOOT TO TERMINATION POINT. CONTRACTOR SHALL INSTALL A CONDENSATE LIFT PUMP IN ORDER TO ROUTE CONDENSATE ABOVE ROOF.
- MOUNT AHU#1 THERMOSTAT ON WALL NEXT TO AD#1 REMOTE WALL SWITCHES. SEE SCHEDULE ON SHEET M3.1 FOR INTERLOCK WITH T500 PANEL.
- ELECTRICAL CONTRACTOR TO PURCHASE AND INSTALL NEW CFA T500 TEMP CONTROL PANEL WITH AUTOMATIC TIMER FOR LIGHTING CONTROLS AND 6-THERMOSTAT TEMP CONTROL CABINET. COORDINATE WITH ELECTRICAL CONTRACTOR FOR NEW LOCATION OF TEMP CONTROL CABINET. CONTROL WIRING TERMINATIONS BETWEEN NEW THERMOSTATS, NEW SENSORS, AND NEW/EXISTING RTUS BY MECHANICAL CONTRACTOR. REFER TO WIRING DIAGRAM ON SHEET M41.
- MOUNT NEW REMOTE TEMP SENSOR AND NEW LENNOX HUMIDITY SENSOR FOR ROOFTOP UNIT AS NOTED BELOW (OR ABOVE WAINGSCOTING IF APPLICABLE). ROUTE NEW WIRING FOR NEW REMOTE TEMP SENSOR TO NEW TSTAT IN CFA T500 PANEL. ROUTE NEW WIRING FOR NEW LENNOX HUMIDITY SENSOR TO UNIT ON ROOF. REFER TO WIRING DIAGRAM ON SHEET M41.
 - AC#1: MOUNT NEW REMOTE TEMP SENSOR ON WALL AT 5'-8" AFF. COORDINATE FINAL MOUNTING LOCATION IN FIELD WITH KITCHEN EQUIPMENT, SHELVING, AND ELECTRICAL. MOUNT NEW LENNOX HUMIDITY SENSOR DIRECTLY ABOVE REMOTE TEMP SENSOR.
 - AC#4 & AC#5: MOUNT NEW SENSORS IN THE SAME LOCATION AS DEMOLISHED SENSORS.
 - AC#2 & AC#3: MOUNT NEW REMOTE TEMP SENSOR ON WALL AT 5'-0" AFF. MOUNT NEW LENNOX HUMIDITY SENSOR DIRECTLY ABOVE REMOTE TEMP SENSOR.

TOTAL AIR BALANCE SCHEDULE

EQUIPMENT MARK	AC#1 (NEW)	AC#2 (NEW)	AC#3 (EXIST)	AC#4 (NEW)	AC#5 (EXIST)	EF#1 (NEW)	EF#2 (NEW)	EF#3 (NEW)	TOTAL
SERVES	KITCHEN	SIDE DINING	MAIN DINING	MAIN DINING	PLAY AREA	HOOD#1R	HOOD#2R	REST-ROOMS	
SUPPLY AIR CFM	8,000	2,830	4,000	2,750	2,000				19,580
RETURN AIR CFM	6,000	2,080	3,000	2,150	1,700				14,930
OUTSIDE AIR CFM	2,000	750	1,000	600	300				+4,650
EXHAUST CFM						1,913	1,402	500	-3,815
PRESSURIZATION									+835
REMARKS	ADJUST AND VERIFY BALANCE OF ALL HVAC EQUIPMENT IS AS SHOWN IN ORDER TO MAINTAIN BUILDING AIR BALANCE.								



Chick-fil-A

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FSR#01527

BUILDING TYPE / SIZE: S04-154
RELEASE: v22.05

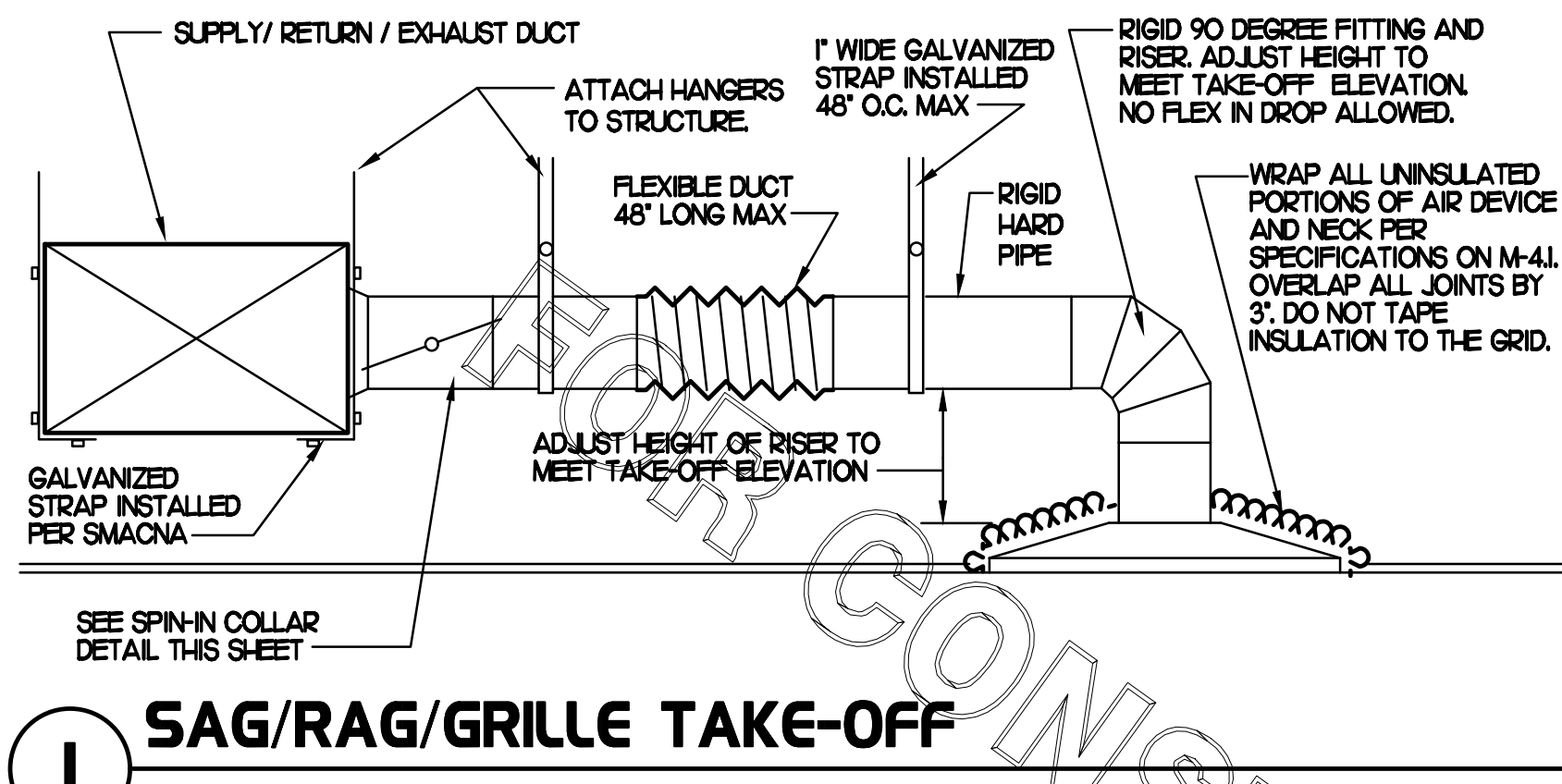
REVISION SCHEDULE

NO.	DATE	DESCRIPTION
3	05/02/23	Permit Comments - BLDG

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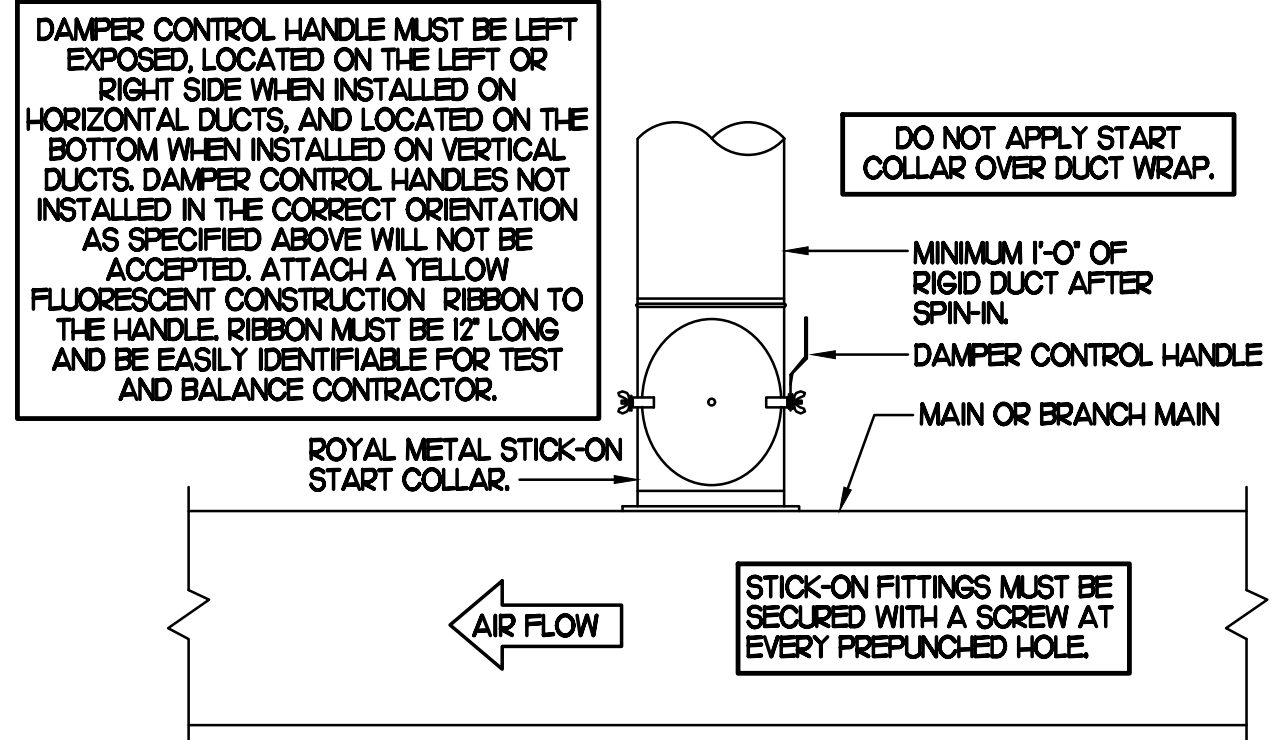
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SHEET
MECHANICAL
FLOOR PLAN
SHEET NUMBER

M1.1

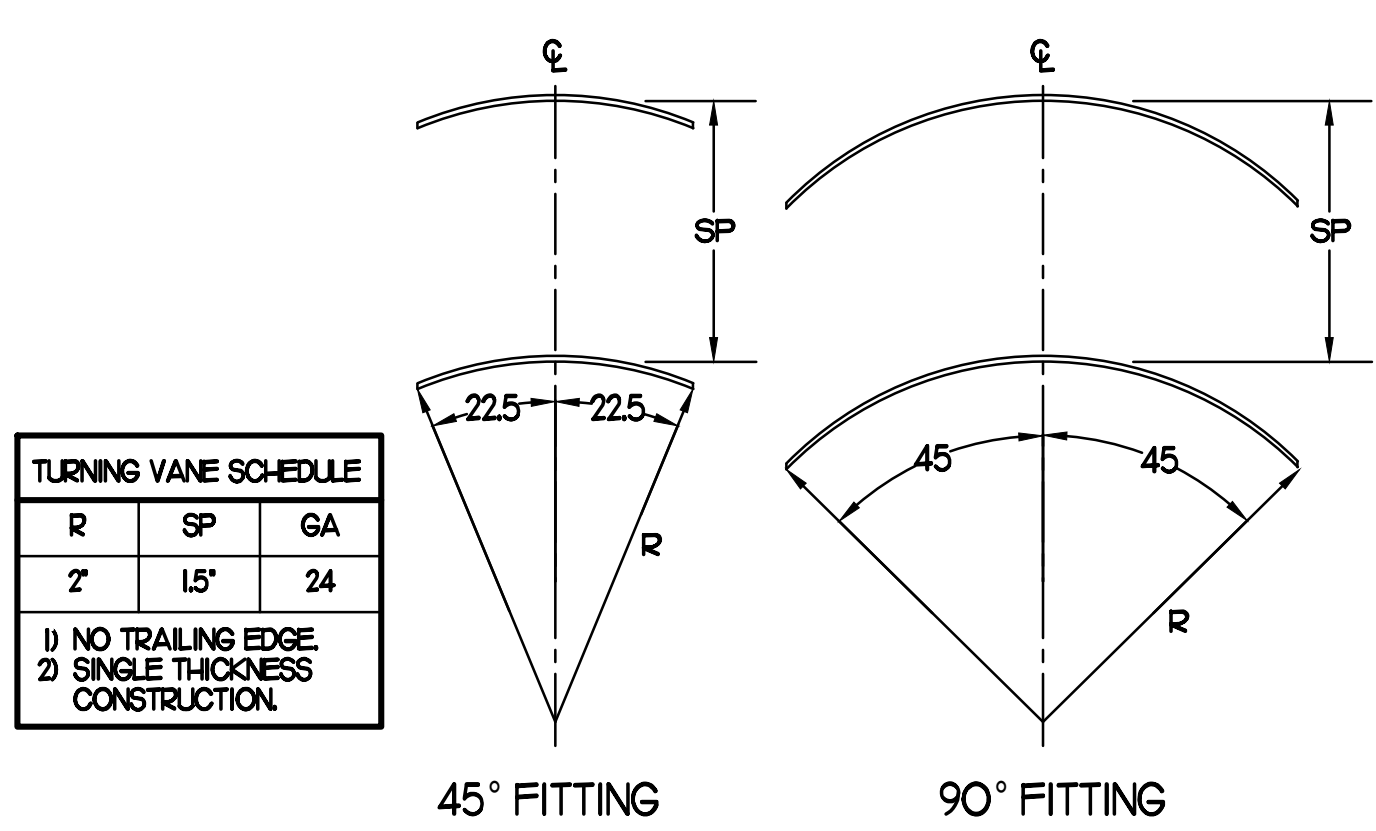


1 SAG/RAG/GRILLE TAKE-OFF
NO SCALE

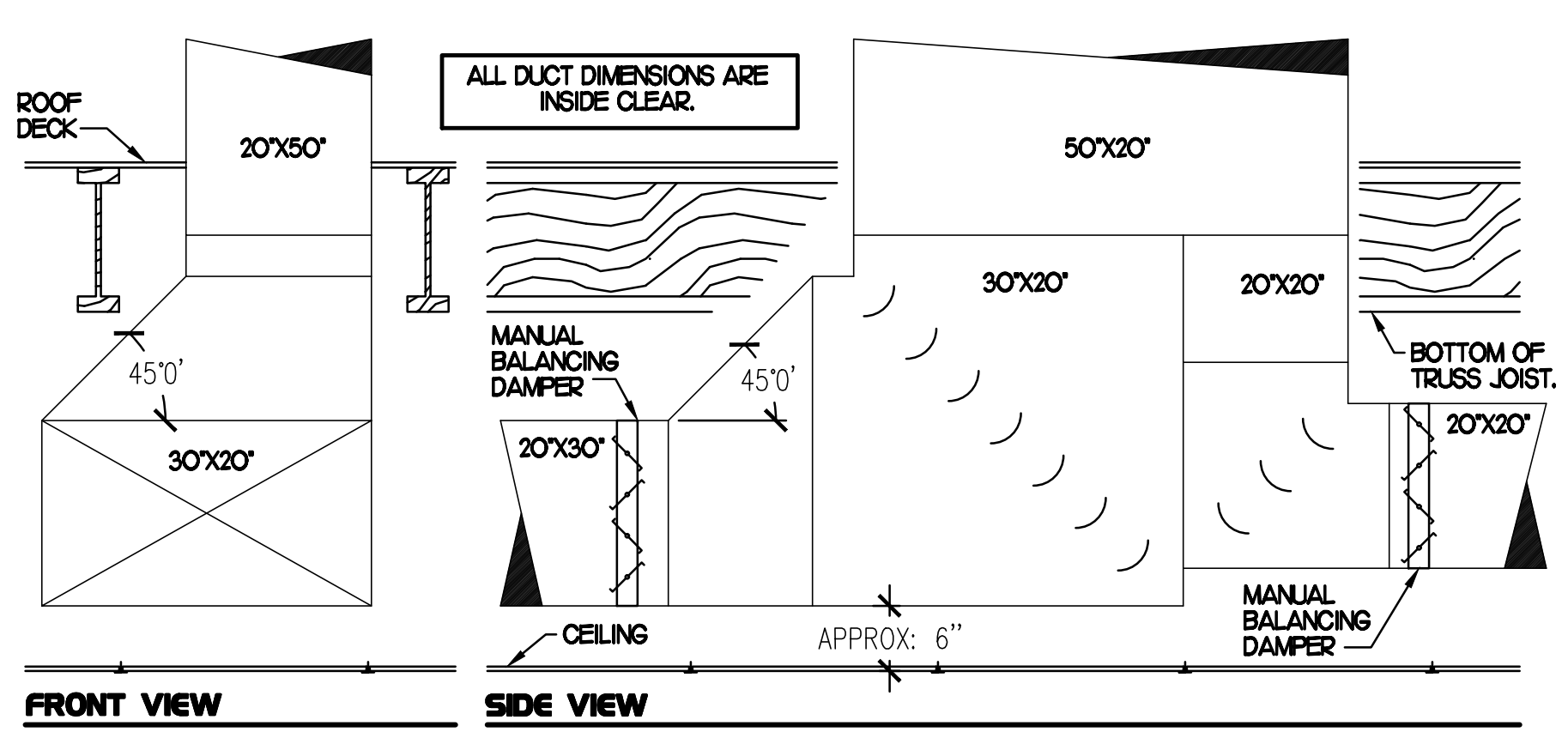
CHICK-FIL-A HAS A NATIONAL ACCOUNT WITH TOM BARRROW COMPANY FOR THE ROYAL METAL START COLLARS. THE MECHANICAL CONTRACTOR IS REQUIRED TO PURCHASE THE ROYAL METAL START COLLARS DIRECTLY FROM TOM BARRROW COMPANY. CONTACT MR. SCOTT GEORGE AT 404-351-0100 FOR PRICING AND AVAILABILITY. ROYAL METAL START COLLARS NOT PURCHASED THRU TOM BARRROW COMPANY WILL NOT BE ACCEPTED.



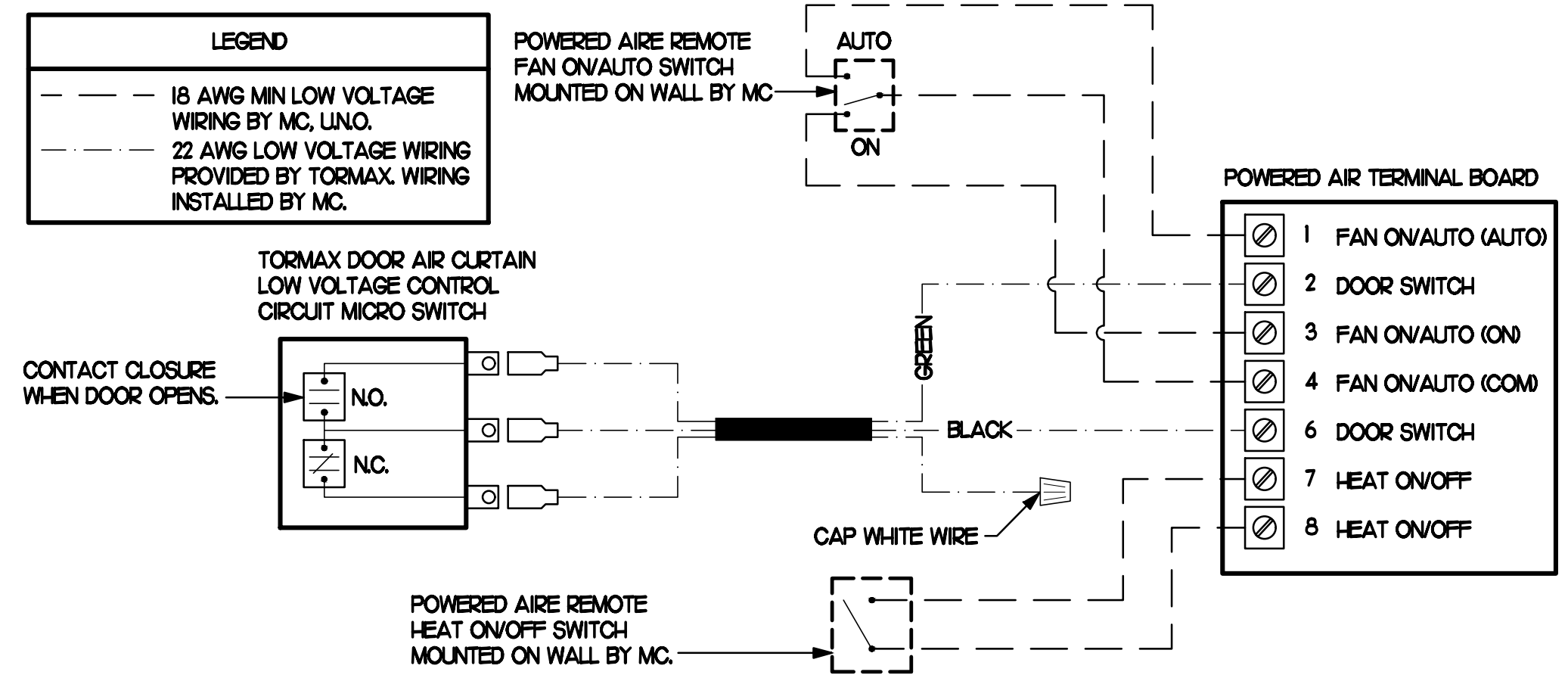
2 START COLLAR
NO SCALE



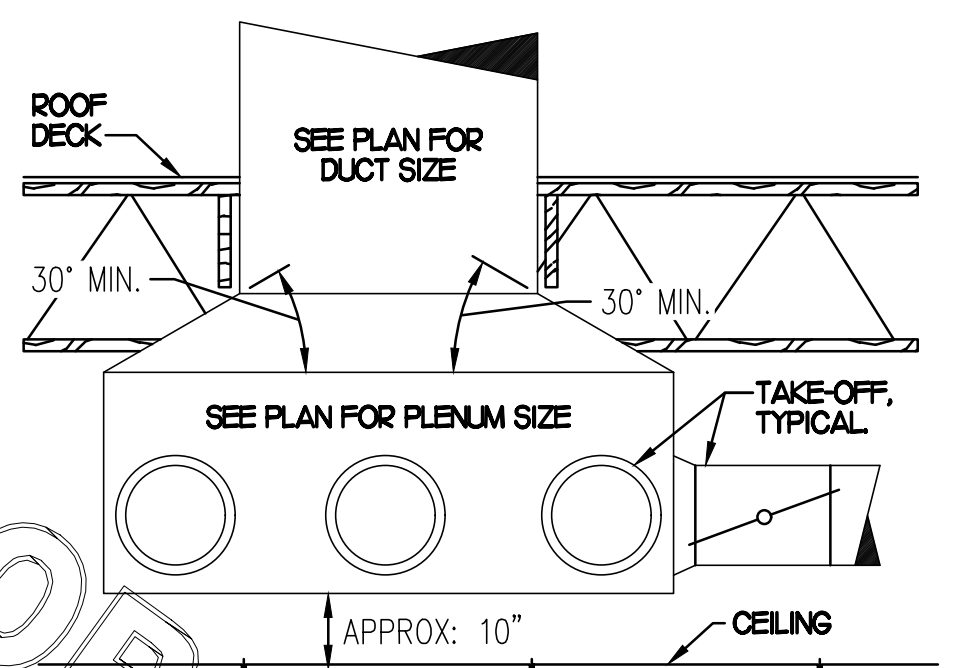
3 TURNING VANES
NO SCALE



6 AC#1 TEE CONSTRUCTION
NO SCALE



4 AIR CURTAIN WIRING DIAGRAM
NO SCALE



5 RETURN DROP GEOMETRY
NO SCALE

MARK	CFM	ESP	RPM	TIP SPEED (FPM)	HP (WATTS)	AREA SERVED	MODEL	MANUFACTURER	REMARKS
EF#1 (NEW)	1913	0.75	1331	5,226	3/4	HOOD#1 & HOOD#R	150 CPS	LOREN COOK	H2
EF#2 (NEW)	1402	0.95	1199	4,708	3/4	HOOD#2 & HOOD#S	150 CPS	LOREN COOK	H2
EF#3 (NEW)	500	0.375	1388	3,679	1/8	RESTROOMS	AGED 100015D4	LOREN COOK	2,3,13-17

NOTES

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

REMARKS

- PROVIDE AND INSTALL ROOFTOP SOLUTIONS G2 DRIP GUARD. MC. TO CONTACT ROOFTOP SOLUTIONS AT 800-913-7034
- PROVIDE FACTORY INSTALLED, PRE-WIRED, NEMA 3 NON-FUSED DISCONNECT. COORDINATE WITH E.C.
- INTEGRAL THERMAL OVERLOAD WITH AUTOMATIC RESET.
- UPBLAST, ARRANGEMENT 10, COW ROTATION SEE PLANS TO CONFIRM CONFIGURATION.
- PROVIDE FACTORY STEEL FAN WHEEL.
- PROVIDE FACTORY STEEL INLET FLANGE AND INLET COMPANION FLANGE.
- PROVIDE FACTORY WEATHER HOUSING W/ HINGED ACCESS DOOR.
- PROVIDE FACTORY DRAIN CONNECTION.
- PROVIDE FACTORY BOLTED ACCESS DOOR ON SCROLL.
- UTILITY SET FAN CLUB AND ASSOCIATED EXHAUST DUCT CLUB PROVIDED BY TOM BARRROW COMPANY.
- PROVIDE FACTORY BELT DRIVE WITH ADJUSTABLE MOTOR SHEAVE AND SPARE BELT.
- PROVIDE BIRDSCREEN.
- STARTER BY ELECTRICAL CONTRACTOR. INTERLOCK WITH LIGHTS BY ELECTRICAL CONTRACTOR.
- PROVIDE FACTORY INSTALLED AND WIRED SPEED CONTROLLER.
- EXISTING BACKDRAFT DAMPER IN DUCT TO BE RE-USED.
- PROVIDE WITH ADAPTER CURB. EXISTING FAN BEING REPLACED IS JENN MODEL RED10255 PER EXISTING DRAWINGS. FIELD VERIFY PRIOR TO ORDER.

LENNOX FRESH AIR TEMPERING SETUP

- 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.
- CHANGE PRODIGY-M3 BOARD CONTROL PARAMETER #156 TO A VALUE OF 66 (OLDER MI-8 IMC BOARD ECTO PARAMETER 620 SET TO A VALUE OF 145). THIS WILL PREVENT THE SUPPLY AIR TEMPERATURE FROM DROPPING BELOW 66F DEG DURING HEATING MODE WHEN THERMOSTAT IS NOT ACTIVELY CALLING FOR HEAT. NOTICE - THIS PARAMETER #156 (6.20) MUST BE CHANGED TO ACTIVATE THE FRESH AIR TEMPERING FEATURE.
- CHANGE PRODIGY-M3 BOARD CONTROL PARAMETER #157 TO A VALUE OF 14 (OLDER MI-8 IMC BOARD ECTO PARAMETER 621 SET TO A VALUE OF 21). THIS WILL MAKE THE DEADBAND VALUE EQUAL 14F.
- CHANGE PRODIGY-M3 BOARD CONTROL PARAMETER #158 TO A VALUE OF 300 (OLDER MI-8 IMC BOARD ECTO PARAMETER 622 SET TO A VALUE OF 37). THIS WILL MAKE THE CYCLE TIME VALUE EQUAL 5 MINUTES.

AIR DOOR SCHEDULE

MARK	CFM	VELOCITY	HEATING CAP	HP	AREA SERVED	MODEL	MANUFACTURER	REMARKS
AD#1 (NEW)	1543	2338	10 KW	3/4	DRIVE THRU	CHA-148E	POWERED-AIRE	2-5
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 BARRROW COMPANY FOR THE AIR DOORS. THE MECHANICAL CONTRACTOR SHALL PURCHASE THE AIR DOORS DIRECTLY FROM TOM BARRROW COMPANY. CONTACT MR. SCOTT GEORGE AT 404-351-0100, FOR PRICING AND AVAILABILITY. AIR DOORS NOT PURCHASED THRU TOM BARRROW COMPANY WILL NOT BE ACCEPTED.

REMARKS

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

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	1,7
C	PRICE MODEL SMCD STEEL SUPPLY AIR DIFFUSER FIELD ADJUSTABLE AIR PATTERN CONTROLLERS.	ENTRYS	14X4	20X20	BEVELLED	1,3,5,6
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	1,7
J	PRICE MODEL SMCD STEEL SUPPLY AIR DIFFUSER FIELD ADJUSTABLE AIR PATTERN CONTROLLERS.	RESTROOMS	10X10	16X16	BEVELLED	1,2,3,5,6
K	PRICE MODEL APDR ALUMINUM PERFORATED FACE RETURN AIR GRILLE.	RESTROOMS ENTRYS	14X4	17X17	SURFACE	1,4,5,6

NOTES

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

REMARKS

- STANDARD OFF WHITE FINISH.
- PROVIDE MODEL VCS3 NECK DAMPER.
- SEE DRAWING M11 FOR THROW.
- PROVIDE MODEL VCR7 NECK DAMPER ON GRILLES IN RESTROOMS.
- PROVIDE BACKPAN MC TO SEAL JOINTS WITH MASTIC AND INSULATE EXTERNALLY.
- FIELD INSULATE BACKPAN AS SHOWN ON DETAIL 1/MS1.
- FACTORY INSULATED R-6 BACKPAN.

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
ACH1 (NEW)	283.4	201.2	480.0	389.0	2	8,000	2,000	7.5	0.8	LGT300S4E	LENNOX	H1,3-16
ACH2 (NEW)	96.6	67.6	240.0	194.0	2	2,830	750	3.75	0.8	LGT1024E	LENNOX	H6
ACH3 (EXIST)	-	-	-	-	-	4,000	1,000	-	-	-	-	EXISTING
ACH4 (NEW)	93.0	64.6	240.0	194.0	2	2,750	600	3.75	0.8	LGT0924E	LENNOX	H6
ACH5 (EXIST)	-	-	-	-	-	2,000	300	-	-	-	-	EXISTING

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 FLUE, VENT ETC). IF SUCH CONDITIONS EXIST, CONTRACTOR IS REQUIRED TO DUCT OUTSIDE AIR INTAKE ON ROOF AWAY FROM ANY SUCH SOURCE.

REMARKS

- PROVIDE DIFFERENTIAL ENTHALPY ECONOMIZER WITH POWER EXHAUST. ECONOMIZER TO BE LOW LEAKAGE/HIGH PERFORMANCE.
- SEE DETAIL 2/M41 FOR SETTING OF PRODIGY M3 BOARD CONTROL PARAMETERS BY MC.
- PROVIDE FACTORY INSTALLED AND UNIT POWERED 115V GFI SERVICE OUTLET.
- PROVIDE FACTORY INSTALLED RETURN SIDE SMOKE DETECTOR.
- PROVIDE FACTORY INSTALLED NON-FUSED DISCONNECT.
- PROVIDE 2 MERV 5 THROW AWAY FILTERS.
- PROVIDE HINGED PANELS FOR FILTER ACCESS, FAN MOTOR ACCESS, COMPRESSOR ACCESS AND CONTROL COMPARTMENT ACCESS.
- ADJUST GAS MANIFOLD PRESSURE AT LOCATIONS WHERE ELEVATION EXCEEDS 2000' ABOVE SEA LEVEL AS RECOMMENDED BY MANUFACTURER.
- PROVIDE FACTORY INSTALLED COIL-HAIL GUARD.
- PROVIDE HUMIDITY CONTROL OPTION WITH FACTORY WALL MOUNTED HUMIDITY SENSOR.
- PROVIDE WITH FACTORY CONDENSATE DRAIN FAN OVERFLOW SWITCH.
- PROVIDE WITH FACTORY RETURN AIR ADAPTER PLATE.
- PROVIDE WITH MSAV BLOWER.
- PROVIDE FACTORY CONFIGURED PHASE LOSS PROTECTION.
- PROVIDE FACTORY FRESH AIR TEMPERING KIT.
- PROVIDE HIGH FAULT SCOR LOCK.

DUCTLESS SPLIT SYSTEM HEAT PUMP UNIT SCHEDULE

MARK	COOLING CAPACITY (MBH)		HEATING CAPACITY (MBH)		EFFICIENCIES	FAN SECTION (CFM)	ELECTRICAL DATA		R-410A MODEL	MFG			
	MIN	MAX	MIN	MAX			SEER	HSPFF			AMPS	VOLTS	
AH1/CH1 (NEW)	18.0	33.5	18.0	40.0	16.2	10.0	635-730-830	28	40	208V/160	PKA-A36KAT	FLZH-A36N4AS	MITSUBISHI

NOTES

- MECHANICAL CONTRACTOR SHALL PURCHASE THE SPLIT SYSTEM HEAT PUMP DIRECTLY FROM TRANSMITSUBISHI. CONTACT MS. LAURI FRANKOWSKI AT 630-400-4285, FOR PRICING AND AVAILABILITY.

REMARKS

- ELECTRICIAN TO PROVIDE NON-FUSED DISCONNECT.
- MECHANICAL TO PROVIDE AND INSTALL REFRIGERANT PIPING AS PER MFR RECOMMENDATIONS.
- PROVIDE ENGRAVED PLASTIC LABEL AT AHU AND CU WITH HIGH WHITE LETTERS ON A BLACK BACKGROUND RIVETED TO UNIT CABINET.
- PROVIDE WITH ADEQUATE REFRIGERANT LINE SET. FIELD VERIFY DISTANCE FROM WHERE CONDENSER IS TO BE SET TO AIR-HANDLER LOCATION PRIOR TO ORDERING.
- PROVIDE WITH WALL MOUNTED THERMOSTAT (TAR-CT01MAU-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.
- PROVIDE PAC-SE55RA-E CONNECTOR AT INDOOR UNIT (CONNECTOR CN3), WIRE ORANGE AND RED WIRES TO SPARE POLE ON RELAY R-1 IN SLMCOAST T-500 PANEL (TERMINALS 11 AND 7 RESPECTIVELY) AND CAP THE BROWN WIRE.
- PROVIDE WITH CONDENSATE PUMP (BLUE DIAMOND MAXI BLUE MODEL# X87-72).



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



CHICK-FIL-A
LIONVILLE
211 Eagleview Blvd
Exton, PA 19341-1158

FSR#01527
BUILDING TYPE / SIZE: S04-154
RELEASE: v22.05

REVISION SCHEDULE

NO.	DATE	DESCRIPTION
3	05/02/23	Permit Comments - BLDG

CONSULTANT PROJECT # 22177.HF.R
PRINTED FOR CONSTRUCTION
DATE 01/12/2023
DRAWN BY DSF

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SHEET
MECH DETAILS & SCHEDULES
SHEET NUMBER

M3.1

MODEL: KVL-2-IC FACTORY MUST BE ADVISED BY ANY SPECIAL REQUIREMENTS OF ANY SPECIAL EQUIPMENT AT TIME OF ORDER.

STANDARD FEATURES

- 5 S.S. FILTERS (KSA)
- 1/2 S.S. FILTERS (KSA)
- STAND-OFF
- 3 L.E.D. LIGHTS

OPTIONS

- REMOTE SWITCH PANEL
- FIRE PROTECTION
- ETL LISTED V/D EXHAUST DAMPER
- CEILING CLOSURE
- 2 STD. BACKPLASH
- INSULATED BACKPLASH
- M/D DAMPER

MATERIAL

- EXPOSED SURFACES 18 GA. S.S.
- ALL 18 GA. S.S.

COMMENTS:

- CLOSURE HEIGHT = TBD (THREE SIDES)
- CEILING HEIGHT = ADVISE
- CEILING CLOSURE RECESSED 11" FROM FRONT TO CREATE SHELF
- 40"x24" LEFT OUT OVER LEFT SIDE CLOSURE TO FIRE SUPPRESSION
- 40"x24" LEFT DOOR RIGHT SIDE AT CAPTURE-JET WITH FRONT OJ INTAKE
- CONTINUOUS CAPTURE INTERNAL RIGHT END OUTLET
- 3" REAR STAND-OFF TO HAVE 1" THICK INSULATION
- NOTCHED LEFT END PANEL

EXHAUST AIR INFORMATION

DATE	DWG. NO.	ITEM NO.	EXHAUST AIR INFORMATION
12.28.22	U22-951-01	H-1L	CFM TAB SP
			EQUIPMENT COVERED (4) PRESSURE FRYERS (2) GRILLS

CAPTURE AIR INFORMATION

DATE	DWG. NO.	ITEM NO.	CAPTURE AIR INFORMATION
			CFM SP
			EQUIPMENT COVERED (3) FRYERS

PROJECT: CHICK-FIL-A #1527 LINDVILLE FSU

LOCATION: EXTON, PA

SUBMITTED BY: HALTON CO.

K FACTOR EQUATION: CFM = K FACTOR * $\sqrt[3]{SP}$

K FACTOR = 3365

MODEL: KVL-2-IC FACTORY MUST BE ADVISED BY ANY SPECIAL REQUIREMENTS OF ANY SPECIAL EQUIPMENT AT TIME OF ORDER.

STANDARD FEATURES

- 3 S.S. FILTERS (KSA)
- 1/2 S.S. FILTERS (KSA)
- CAPTURE-JET
- STAND-OFF
- 2 L.E.D. LIGHTS

OPTIONS

- REMOTE SWITCH PANEL
- FIRE PROTECTION
- ETL LISTED V/D EXHAUST DAMPER
- CEILING CLOSURE
- 2 STD. BACKPLASH
- INSULATED BACKPLASH
- M/D DAMPER

MATERIAL

- EXPOSED SURFACES 18 GA. S.S.
- ALL 18 GA. S.S.

COMMENTS:

- CLOSURE HEIGHT = TBD (THREE SIDES)
- CEILING HEIGHT = ADVISE
- CEILING CLOSURE RECESSED 11" FROM FRONT TO CREATE SHELF
- 18"x18" ACCESS DOOR RIGHT SIDE AT CAPTURE-JET WITH FRONT OJ INTAKE
- CONTINUOUS CAPTURE INTERNAL LEFT END OUTLET
- 3" REAR STAND-OFF TO HAVE 1" THICK INSULATION
- EQUIPMENT COVERED (3) PRESSURE FRYERS

EXHAUST AIR INFORMATION

DATE	DWG. NO.	ITEM NO.	EXHAUST AIR INFORMATION
12.28.22	U22-951-01	H-1R	CFM TAB SP
			EQUIPMENT COVERED (4) PRESSURE FRYERS (2) GRILLS

CAPTURE AIR INFORMATION

DATE	DWG. NO.	ITEM NO.	CAPTURE AIR INFORMATION
			CFM SP
			EQUIPMENT COVERED (3) FRYERS

PROJECT: CHICK-FIL-A #1527 LINDVILLE FSU

LOCATION: EXTON, PA

SUBMITTED BY: HALTON CO.

K FACTOR EQUATION: CFM = K FACTOR * $\sqrt[3]{SP}$

K FACTOR = 1959

MODEL: KVL-C-IC FACTORY MUST BE ADVISED BY ANY SPECIAL REQUIREMENTS OF ANY SPECIAL EQUIPMENT AT TIME OF ORDER.

STANDARD FEATURES

- 2 S.S. FILTERS (KSA)
- CAPTURE-JET
- STAND-OFF
- 1 L.E.D. LIGHTS

OPTIONS

- REMOTE SWITCH PANEL
- FIRE PROTECTION
- ETL LISTED V/D EXHAUST DAMPER
- CEILING CLOSURE
- 2 STD. BACKPLASH
- INSULATED BACKPLASH
- M/D DAMPER

MATERIAL

- EXPOSED SURFACES 18 GA. S.S.
- ALL 18 GA. S.S.

COMMENTS:

- CLOSURE HEIGHT = TBD (THREE SIDES)
- CEILING HEIGHT = ADVISE
- CEILING CLOSURE RECESSED 10" FROM FRONT TO CREATE SHELF
- 18"x18" ACCESS DOOR CAPTURE-JET WITH FRONT OJ INTAKE
- NOTCHED LEFT END PANEL
- DOUBLE RECEPTACLE PIN & SLEEVE
- 3" X 3" TRIM STRIP FOR STAND-OFF ON RIGHT END
- 3" SIDE REAR STAND-OFF TO HAVE 1" THICK INSULATION

EXHAUST AIR INFORMATION

DATE	DWG. NO.	ITEM NO.	EXHAUST AIR INFORMATION
12.28.22	U22-951-01	H-2	CFM TAB SP
			EQUIPMENT COVERED (2) FRYERS

CAPTURE AIR INFORMATION

DATE	DWG. NO.	ITEM NO.	CAPTURE AIR INFORMATION
			CFM SP
			EQUIPMENT COVERED (2) FRYERS

PROJECT: CHICK-FIL-A #1527 LINDVILLE FSU

LOCATION: EXTON, PA

SUBMITTED BY: HALTON CO.

K FACTOR EQUATION: CFM = K FACTOR * $\sqrt[3]{SP}$

K FACTOR = 1291

MODEL: KVL-C-IC FACTORY MUST BE ADVISED BY ANY SPECIAL REQUIREMENTS OF ANY SPECIAL EQUIPMENT AT TIME OF ORDER.

STANDARD FEATURES

- 2 S.S. FILTERS (KSA)
- CAPTURE-JET
- STAND-OFF
- 1 L.E.D. LIGHTS

OPTIONS

- REMOTE SWITCH PANEL
- FIRE PROTECTION
- ETL LISTED V/D EXHAUST DAMPER
- CEILING CLOSURE
- 2 STD. BACKPLASH
- INSULATED BACKPLASH
- M/D DAMPER

MATERIAL

- EXPOSED SURFACES 18 GA. S.S.
- ALL 18 GA. S.S.

COMMENTS:

- CLOSURE HEIGHT = TBD (THREE SIDES)
- CEILING HEIGHT = ADVISE
- CEILING CLOSURE RECESSED 10" FROM FRONT TO CREATE SHELF
- 18"x18" ACCESS DOOR CAPTURE-JET WITH FRONT OJ INTAKE
- NOTCHED RIGHT END PANEL
- DOUBLE RECEPTACLE PIN & SLEEVE
- 3" REAR SIDE STAND-OFF TO HAVE 1" THICK INSULATION

EXHAUST AIR INFORMATION

DATE	DWG. NO.	ITEM NO.	EXHAUST AIR INFORMATION
12.28.22	U22-951-01	H-3	CFM TAB SP
			EQUIPMENT COVERED (2) FRYERS

CAPTURE AIR INFORMATION

DATE	DWG. NO.	ITEM NO.	CAPTURE AIR INFORMATION
			CFM SP
			EQUIPMENT COVERED (2) FRYERS

PROJECT: CHICK-FIL-A #1527 LINDVILLE FSU

LOCATION: EXTON, PA

SUBMITTED BY: HALTON CO.

K FACTOR EQUATION: CFM = K FACTOR * $\sqrt[3]{SP}$

K FACTOR = 1291

HANGER BRACKET DETAIL

STANDARD FEATURES

- 2 S.S. FILTERS (KSA)
- CAPTURE-JET
- STAND-OFF
- 1 L.E.D. LIGHTS

OPTIONS

- REMOTE SWITCH PANEL
- FIRE PROTECTION
- ETL LISTED V/D EXHAUST DAMPER
- CEILING CLOSURE
- 2 STD. BACKPLASH
- INSULATED BACKPLASH
- M/D DAMPER

MATERIAL

- EXPOSED SURFACES 18 GA. S.S.
- ALL 18 GA. S.S.

COMMENTS:

- CLOSURE HEIGHT = TBD (THREE SIDES)
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- 18"x18" ACCESS DOOR CAPTURE-JET WITH FRONT OJ INTAKE
- NOTCHED RIGHT END PANEL
- DOUBLE RECEPTACLE PIN & SLEEVE
- 3" REAR SIDE STAND-OFF TO HAVE 1" THICK INSULATION

EXHAUST AIR INFORMATION

DATE	DWG. NO.	ITEM NO.	EXHAUST AIR INFORMATION
12.28.22	U22-951-01	H-1L	CFM TAB SP
			EQUIPMENT COVERED (4) PRESSURE FRYERS (2) GRILLS

CAPTURE AIR INFORMATION

DATE	DWG. NO.	ITEM NO.	CAPTURE AIR INFORMATION
			CFM SP
			EQUIPMENT COVERED (3) FRYERS

PROJECT: CHICK-FIL-A #1527 LINDVILLE FSU

LOCATION: EXTON, PA

SUBMITTED BY: HALTON CO.

K FACTOR EQUATION: CFM = K FACTOR * $\sqrt[3]{SP}$

K FACTOR = 3365

MODEL: MBD EXHAUST VOLUME DAMPER

MATERIAL: ALUMINIZED FRAME 106GA CONT. WELDED OUTER SHELL AND ADJUSTABLE BLADES

TAG	L	W	QTY
H-1L	11"	10"	1
H-1R	8"	8"	1
H-2	8"	8"	1
H-3	8"	8"	1

TYPICAL INSTALLATION 'KVL-2-IC'

NOTE: CAPTURE-JET FAN IS FACTORY INSTALLED ON TOP OF HOOD.

TYPICAL INSTALLATION 'KVL-C-IC'

NOTE: CAPTURE-JET FAN IS FACTORY INSTALLED ON TOP OF HOOD.

60143

NOTE: THIS DETAIL DEPICTS THE INSTALLATION OF THE DOUBLE RECEPTACLE PIN & SLEEVE ASSEMBLY AT HOOD H-2 & HOOD H-3.

RECEPTACLE PLATES

60143

Integral Side Jet Arm H-2

ISOMETRIC VIEW

Integral Side Jet Arm H-3

ISOMETRIC VIEW

TYPICAL WIRING OF CAPTURE-JET FAN

SPURCE STRIP (U-CHANNEL) DETAIL FOR HOOD H-1

KSA Grease Extractor

Extraction of contaminants from the exhaust air is provided by the KSA Halton grease extractors. Efficient grease extraction is achieved by forcing the exhaust air to spiral continuously in the same direction in the multiple chambers of the extractor, thus separating the grease particles from the air flow centrifugally. High extraction efficiency and low pressure loss over the KSA remain practically constant in use.

INSTALLATION NOTES

- Mount "D" wire to be set on top of hood.
- Mount flange at bottom of hood.
- Mount flange on top of hood to match up.
- Mount "D" wire on top of hood.
- Attach panel to wall using appropriate hardware.
- Attach panel to wall using appropriate hardware.
- Attach panel to wall using appropriate hardware.

HALTON HOODS

- ETL LISTED PER LATEST 710 STANDARD
- BUILT PER NFPA 96
- NSF LISTED

GENERAL REQUIREMENTS

HALTON COMPANY, 101 INDUSTRIAL DR., SCOTTSVILLE, KY 42646

MODEL NO. KVL-C-IC SERIAL NO. ITEM NO.

GENERAL REQUIREMENTS

FILTER TYPE EXHAUST HOOD FOR COMMERCIAL AND INSTITUTIONAL KITCHENS

THE HOOD IS RATED FOR 150V, 15A, 60HZ.

THE LIGHTING CIRCUIT IS RATED FOR 150V, 15A, 60HZ.

THE HOOD IS BUILT PER NFPA 96.

THE HOOD IS PROVIDED WITH REPLACEABLE KSA FILTERS AND LIGHTING FIXTURES.

REPLACE FILTERS ONLY WITH UL CLASSIFIED FILTER TYPE OF THE SAME MAKE AND MANUFACTURER.

SUITABLE FOR USE TO HEAVY DUTY COOKING APPLIANCES.

BUTY LEVEL	HOODMAN OVERHANG	DISTANCE BETWEEN FRONT SURFACE	MIN. EXHAUST HOOD LENGTH
MEDIUM	6 1/2"	0	28"
MEDIUM	6 1/2"	0	28"
MEDIUM	6 1/2"	0	28"
MEDIUM	6 1/2"	0	28"
MEDIUM	6 1/2"	0	28"

NET SUPPLY AIR FLOW SHALL ONLY BE SET AT 0.30 IN HOOD

MAIL APPROVED DRAWINGS TO APPROPRIATE FACTORY BELOW:

WEBSITE: www.halton.com

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

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

PROJECT: CHICK-FIL-A #1527 LIONVILLE FSU

LOCATION: EXTON, PA

DATE: 12.28.22

SCALE: NOT TO SCALE

DATE: 12.28.22

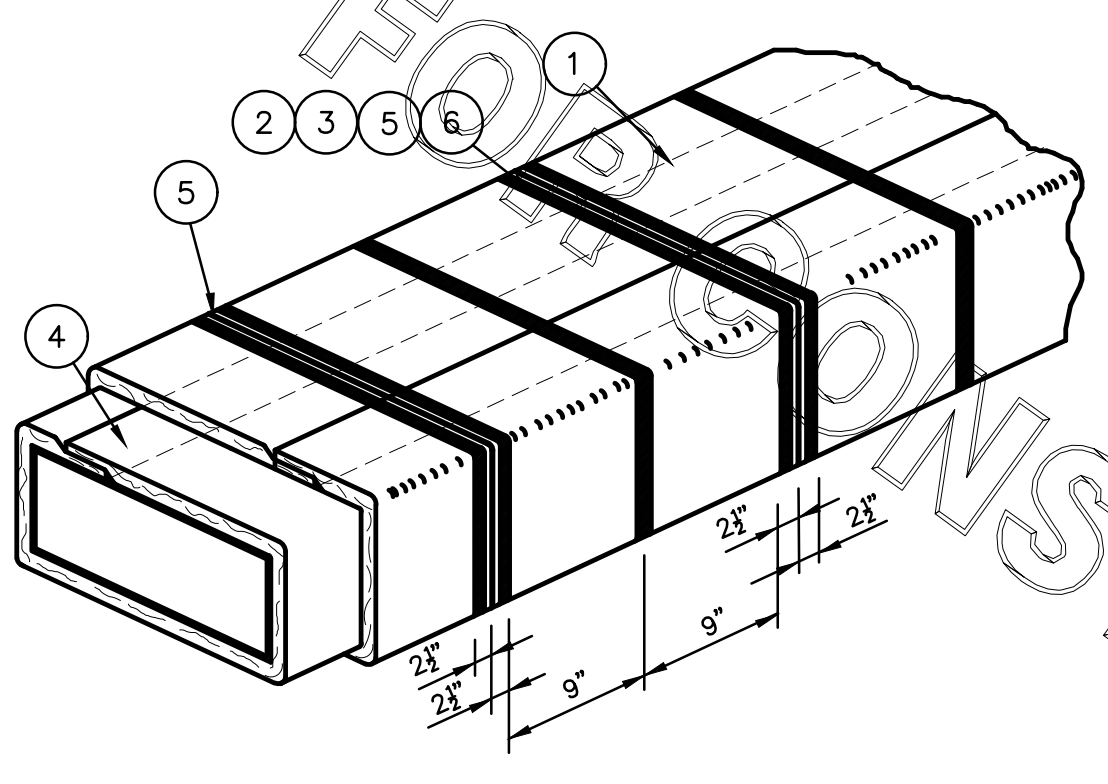
SCALE: NOT TO SCALE

Halton

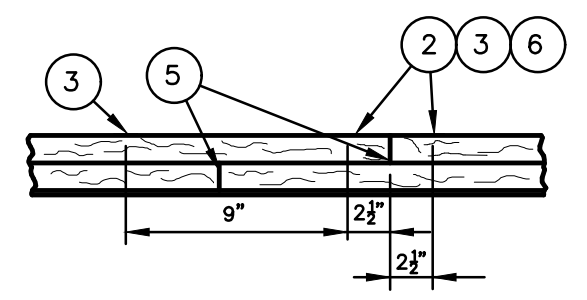
DRAWING NO.: U22-951-01

SHEET NO.: MH1.1

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:



- LEGEND:**
- 1 FYREWAP ELITE 1.5 DUCT INSULATION, TWO LAYERS (EACH 1 1/2" TOTAL THICKNESS - 3")
 - 2 FILAMENT TAPE (TEMPORARY HOLD)
 - 3 1/2" CARBON OR SS BANDING STRAPS (PERMANENT HOLD)
 - 4 3" MINIMUM LONGITUDINAL OVERLAP
 - 5 1" COMPRESSED BUTT JOINT
 - 6 3" WIDE ALUMINUM FOL TAPE AT 90 DEGREE TRANSVERSE BUTT JOINTS

Revision	Comments

SUBJECT: _____
 LOCATION: _____
 BLDG. NO.: _____ DATE: 04-05-2018 DRAWING NO. FP-693
 DRAWN: S.A.RUSTAY APPROVAL: _____ PROJECT NO. _____
 SCALE: N.T.S.

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 FYREWAP. INSULATION ON ACCESS DOORS SHALL BE INSTALLED ACCORDING TO MANUFACTURER'S INSTALLATION RECOMMENDATIONS. UNIFRAX FYREWAP 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 #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 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#HL	1204	0.13"	80 • 0.30"	BACK SHELF	10X11"	107"	37"	38"	HALTON	KVL-2	I
HOOD#R	709	0.13"	47 • 0.30"	BACK SHELF	8'X8"	63"	37"	38"	HALTON	KVL-2	I
HOOD#2	701	0.30"	30 • 0.29"	BACK SHELF	8'X8"	45"	34"	38"	HALTON	KVL-C	I
HOOD#3	701	0.30"	30 • 0.29"	BACK SHELF	8'X8"	42"	34"	38"	HALTON	KVL-C	I

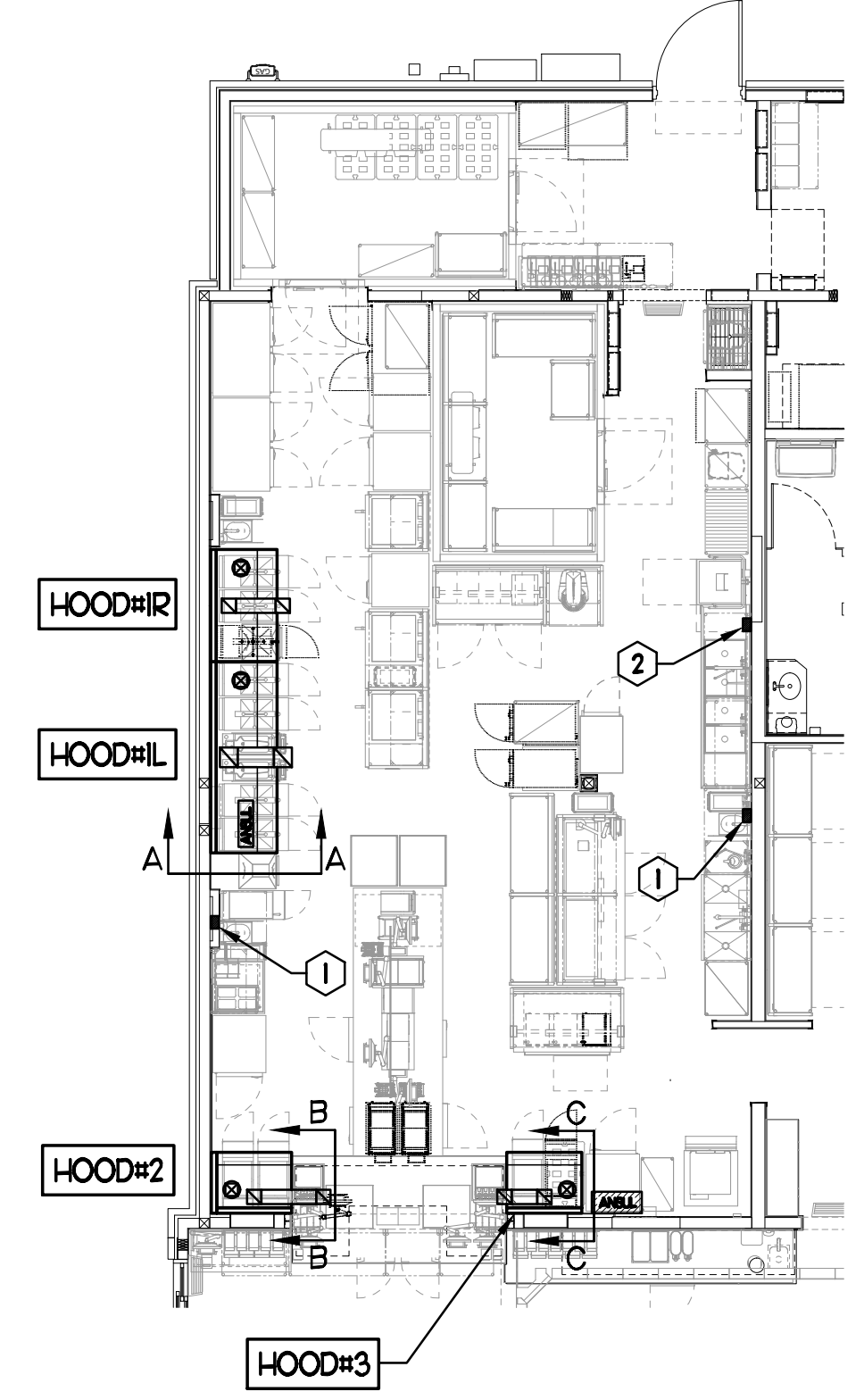
NOTES: DIMENSIONS OF HOODS INCLUDE BACK AND SIDE SPACERS (HEIGHT DOES NOT INCLUDE CLOSURE PANELS).
 REMARKS: I. HOOD SHOP DRAWINGS ARE INCLUDED FOR REFERENCE ON SHEETS M-1.1. REFER TO SHOP DRAWINGS FOR HOOD OPTIONS AND CONSTRUCTION.

NOTE:
SEE ARCHITECTURAL PLANS
FOR HOOD LOCATIONS.

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.

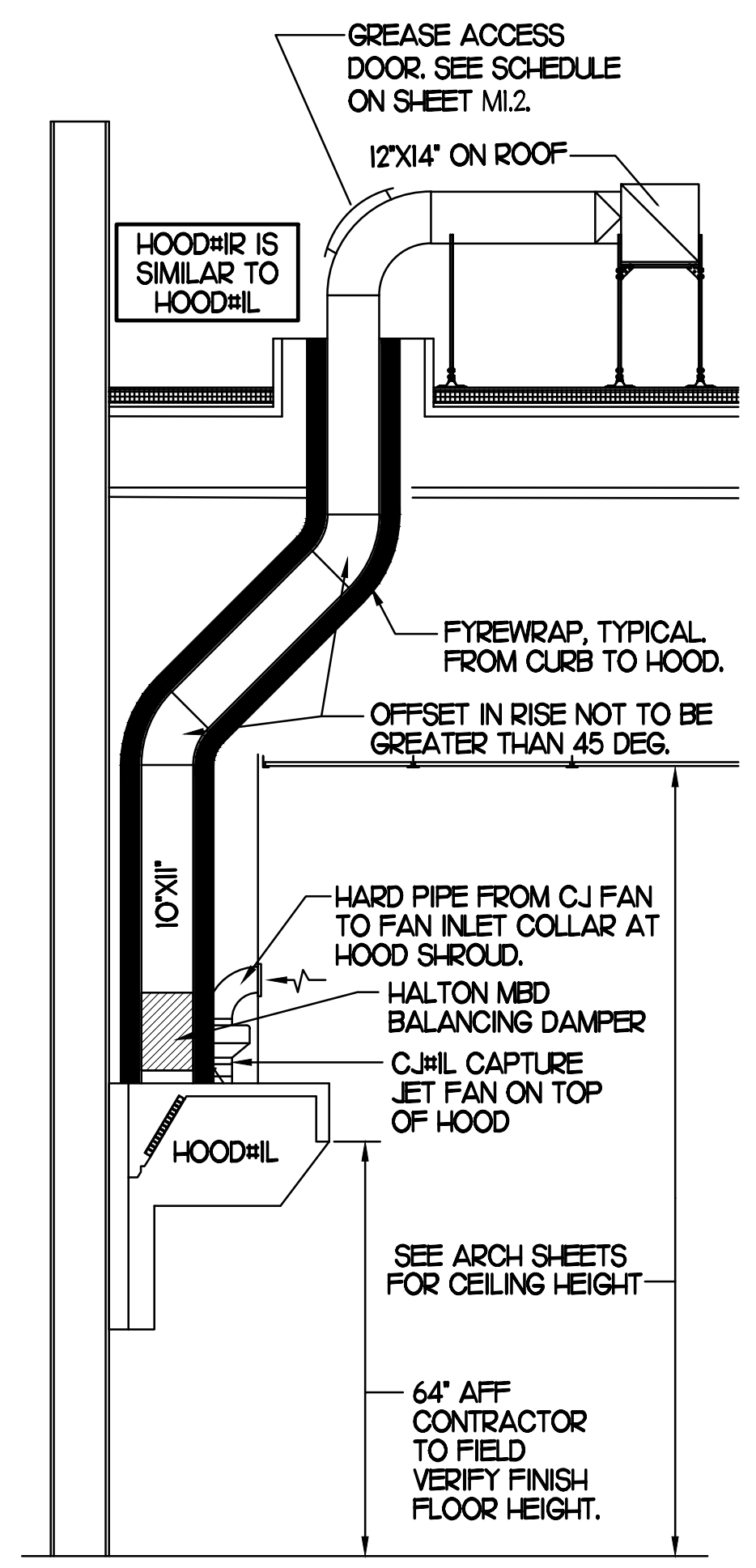
GREASE EXHAUST DUCT CLEARANCE NOTE:
 CLEARANCES ABOVE CEILING ARE TIGHT. MECHANICAL CONTRACTOR TO FIELD VERIFY EXACT ROUTING AND CLEARANCES PRIOR TO FABRICATING GREASE EXHAUST DUCT.

LIGHT TEST REQUIRED ON ALL GREASE DUCT PRIOR TO INSTALLATION OF FYREWAP. COORDINATE WITH BUILDING INSPECTOR.

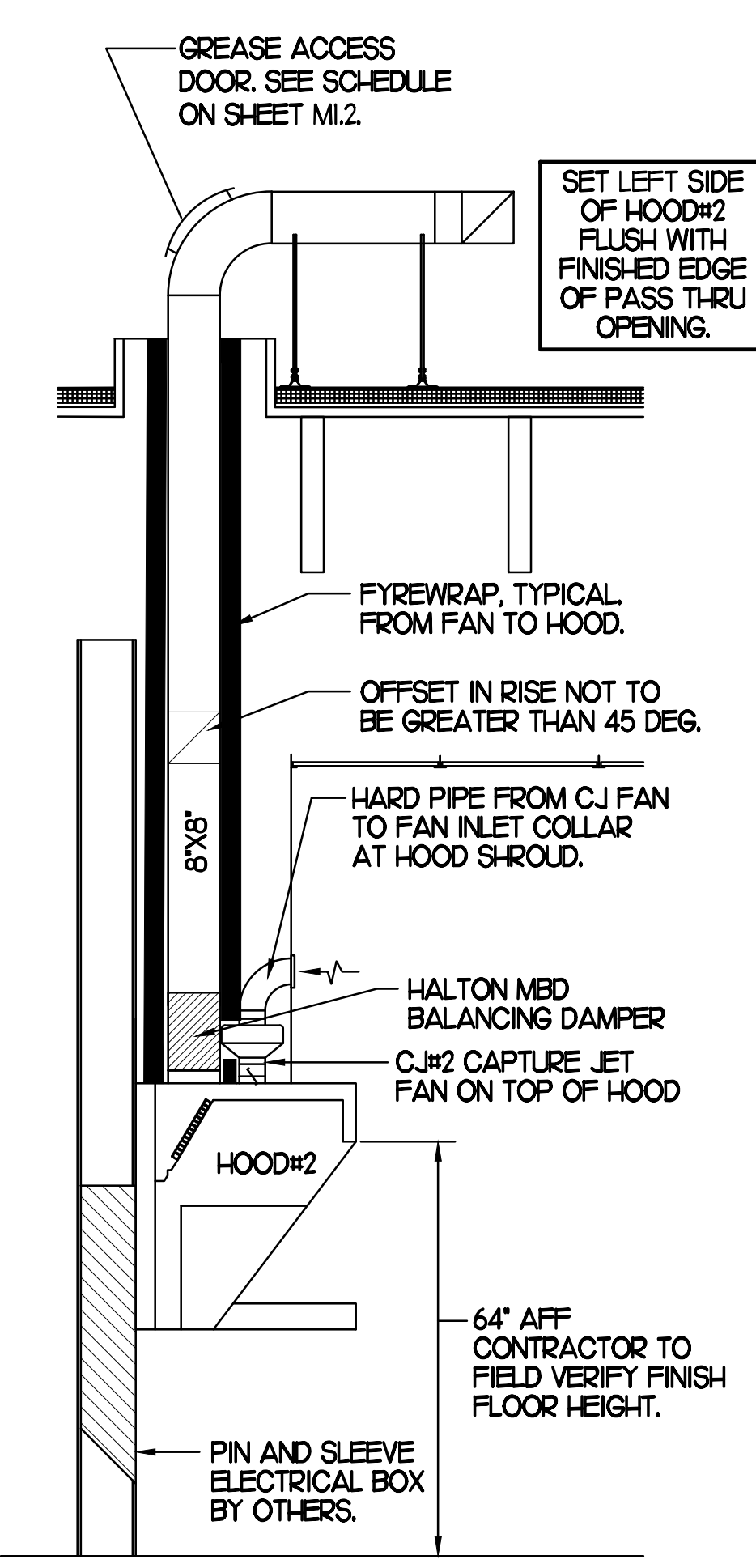


KEY NOTES

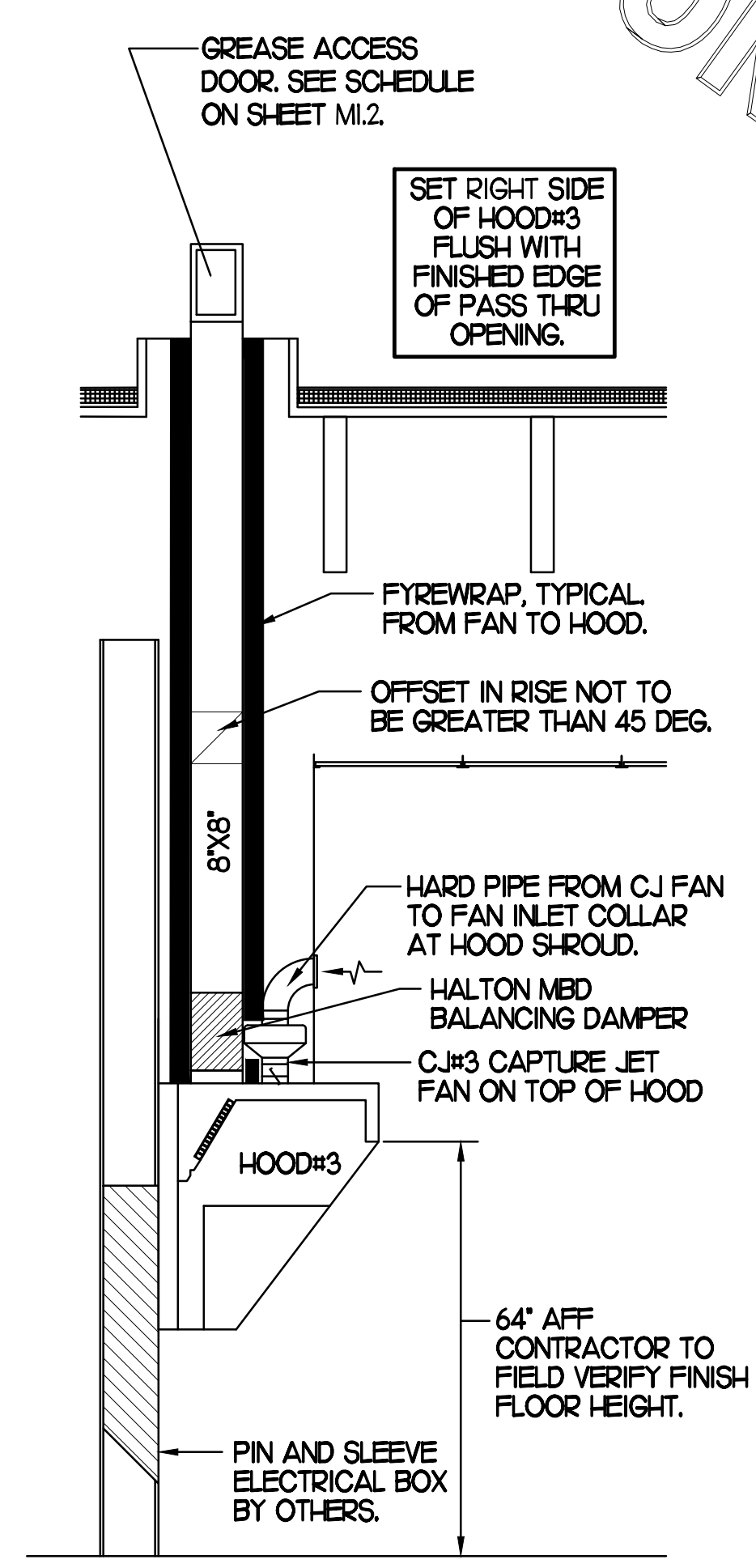
- ANSUL PULL STATIONS SERVING HOOD#2 AND HOOD#3. LOCATE ANSUL PULL STATION BETWEEN 42" AND 48" AFF. COORDINATE EXACT LOCATION WITH KITCHEN EQUIPMENT ELEVATIONS. J-BOX AND CONDUIT ARE BY ELECTRICAL. PROVIDE WHITE BAKELITE LABEL WITH 1/4" HIGH LETTERS INDICATING THE HOODS SERVED, IE: "PASS-THRU HOODS".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



SECTION "A-A"



SECTION "B-B"



SECTION "C-C"

3 HOOD ELEVATIONS
 NONE

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



Chick-fil-A

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



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



CHICK-FIL-A
LIONVILLE
 211 Eagleview Blvd
 Exton, PA 19341-1158

FSR#01527

BUILDING TYPE / SIZE: S04-154
 RELEASE: v22.05

REVISION SCHEDULE

NO.	DATE	DESCRIPTION
3	05/02/23	Permit Comments - BLDG

CONSULTANT PROJECT # 22177.HF.R
 PRINTED FOR CONSTRUCTION
 DATE 01/12/2023
 DRAWN BY DSF

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 SHEET
 HOOD DETAILS & SCHEDULES
 SHEET NUMBER

M2.1

CONSTRUCTION

FOR REFERENCE ONLY

FIRE EXTINGUISHER	
ANSUL	
13051 5 LBS ABC MODEL AA05	QTY _____
13052 10 LBS ABC MODEL AA10S	QTY _____
13053 6 LTR CLASS K-GUARD K01-3	QTY _____
SUPPLIED BY HALTON	

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

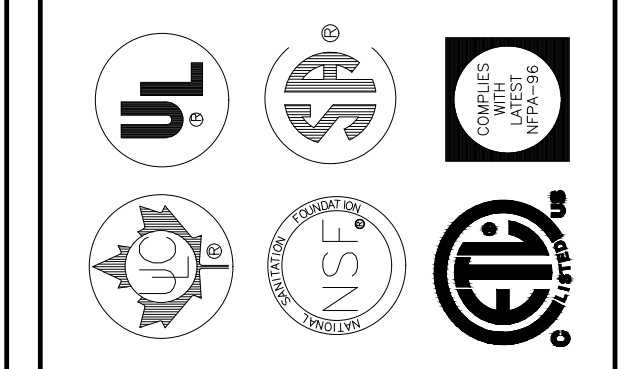
1. ALL DIMENSIONAL INFORMATION, MOUNTING POSITIONS AND CLEARANCES.
2. THE LOCATION AND TYPE OF COOKING EQUIPMENT.

NOTE TO APPROVER: THIS DRAWING IS FOR INFORMATION ONLY. ANY CHANGES TO THE EQUIPMENT POSITION MAY AFFECT EXHAUST AIRFLOW. HALTON MUST BE NOTIFIED IF ANY OF THESE CHANGES OCCUR. A RECALCULATION EXHAUST AIRFLOW MAY BE REQUIRED.

REVISION AND RESUBMIT WITH NO CHANGES WITH CHANGES AS NOTED

APPROVED FOR FABRICATION

DATE _____



****SHOP NOTE****
 PROVIDE A QUANTITY OF TWO REMOTE PULL STATIONS FOR FIRE SYSTEM FOR HOODS H-2 & H-3. ONE PULL STATION REQUIRED FOR HOOD H-1L/R. PROVIDE A TOTAL OF THREE PULL STATIONS!!

FUSIBLE LINK RATINGS

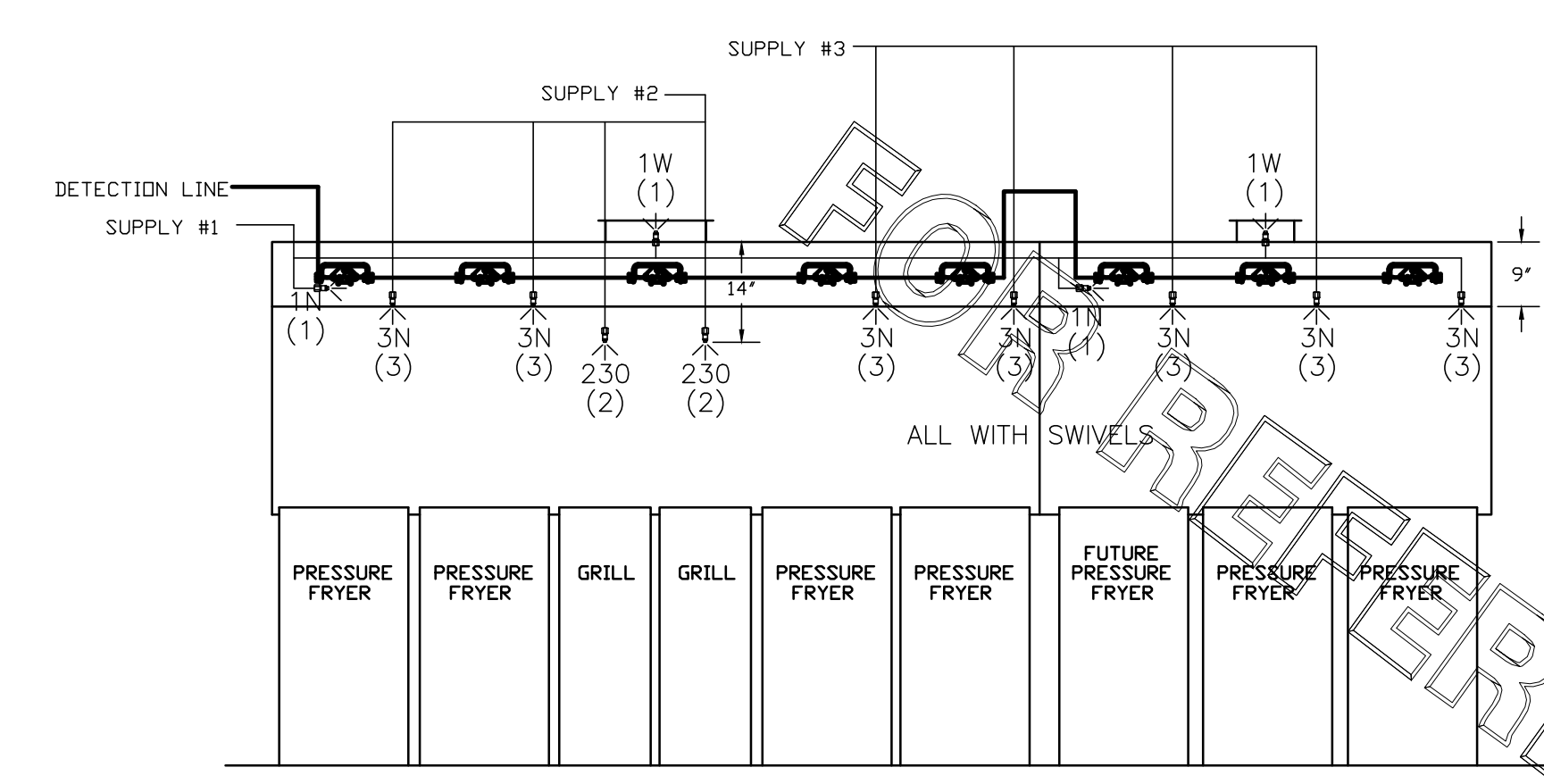
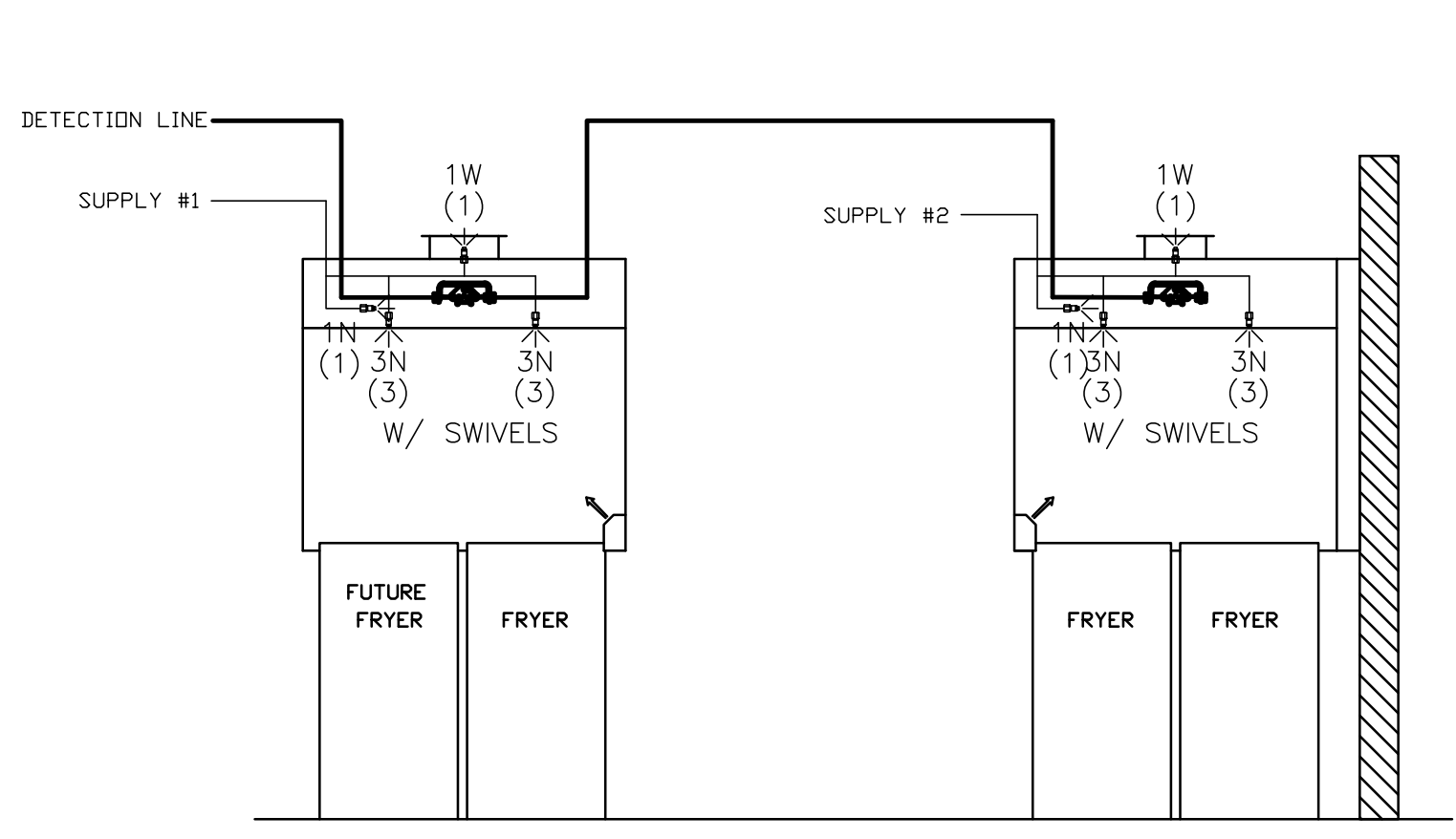
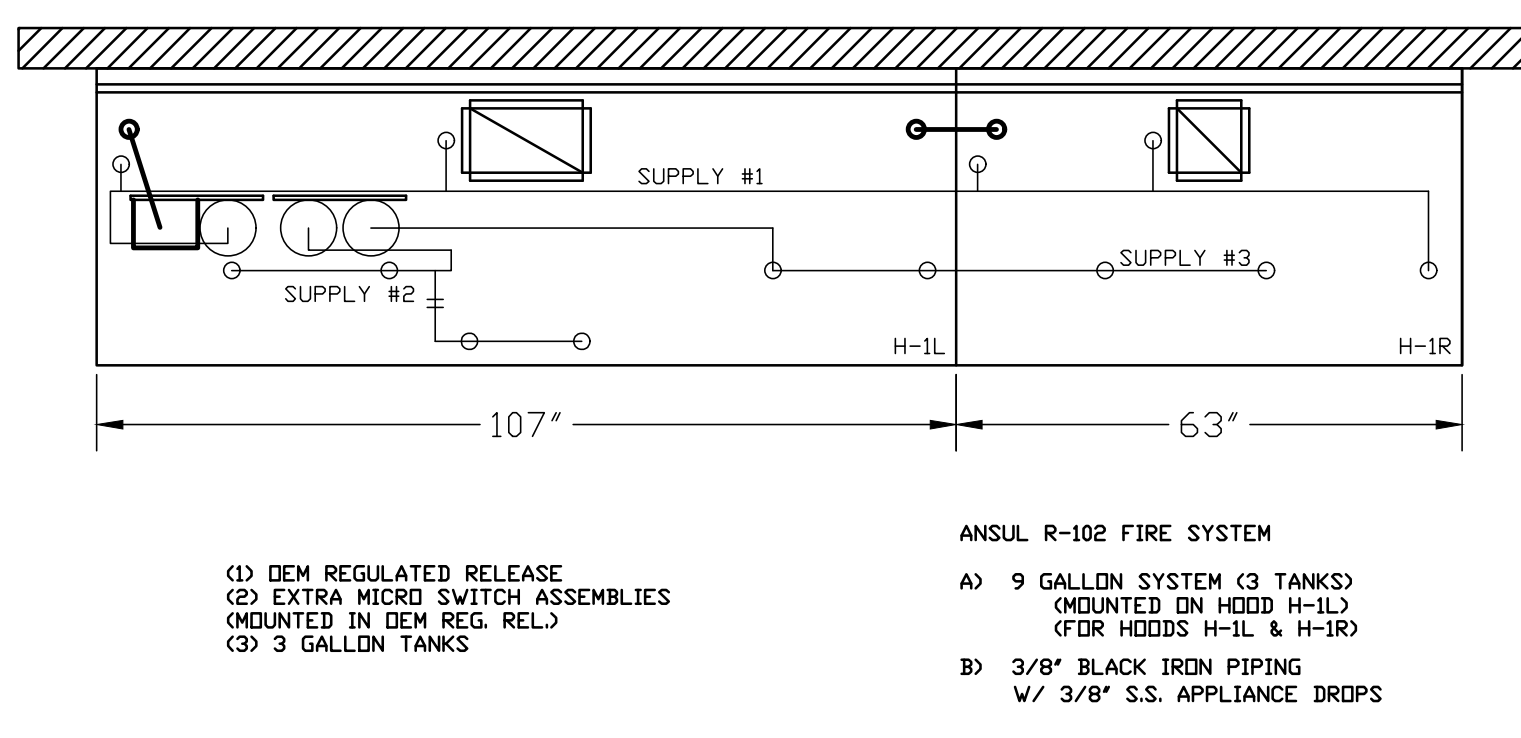
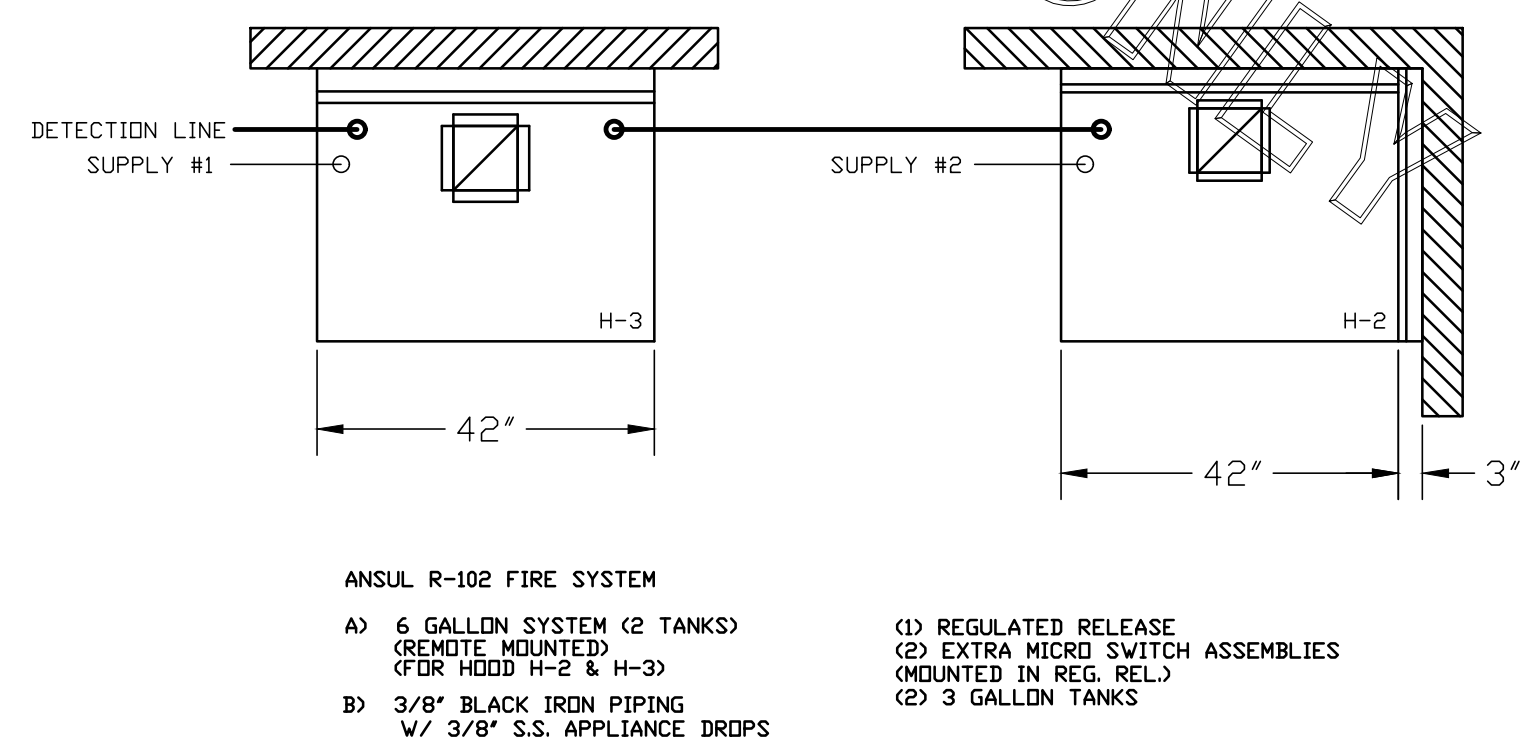
ITEM	TEMP
OPEN FRYERS	450°
2 BURNER / FLAT TOP	450°
PRESSURE FRYERS	450°
GRILL	450°
EXHAUST COLLARS	450°

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

****PROTECTS HOODS H-2 & H-3****

REMOTE MOUNTED:
 (1) REGULATED RELEASE (WITH ONE TANK)
 (1) SINGLE TANK ENCLOSURE (WITH ONE TANK)



ITEM	QTY	DESCRIPTION	FLOW PTS (TOTAL)
1W	4	DUCT NOZZLES	4
1N	4	PLENUM NOZZLES	4
230	2	APPLIANCE NOZZLES	4
3N	11	APPLIANCE NOZZLES	33
TOTAL FLOW POINTS			45

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

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

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

MAIL APPROVED DRAWINGS TO APPROPRIATE FACTORY BELOW:

WEBSITE: www.halton.com

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

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

PROJECT: CHICK-FIL-A #1527
 LIONVILLE FSU

LOCATION: EXTON, PA

DRAWN BY: SKM DATE: 12.28.22

SCALE: NOT TO SCALE

DRAWING No.: U22-951-02

SHEET NO.: MH1.2

Halton



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

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



CHICK-FIL-A
LIONVILLE
211 Eagleview Blvd
Exton, PA 19341-1158

FSR#01527
BUILDING TYPE / SIZE: S04-154
RELEASE: v22.05

NO.	DATE	DESCRIPTION
3	05/02/23	Permit Comments - BLDG

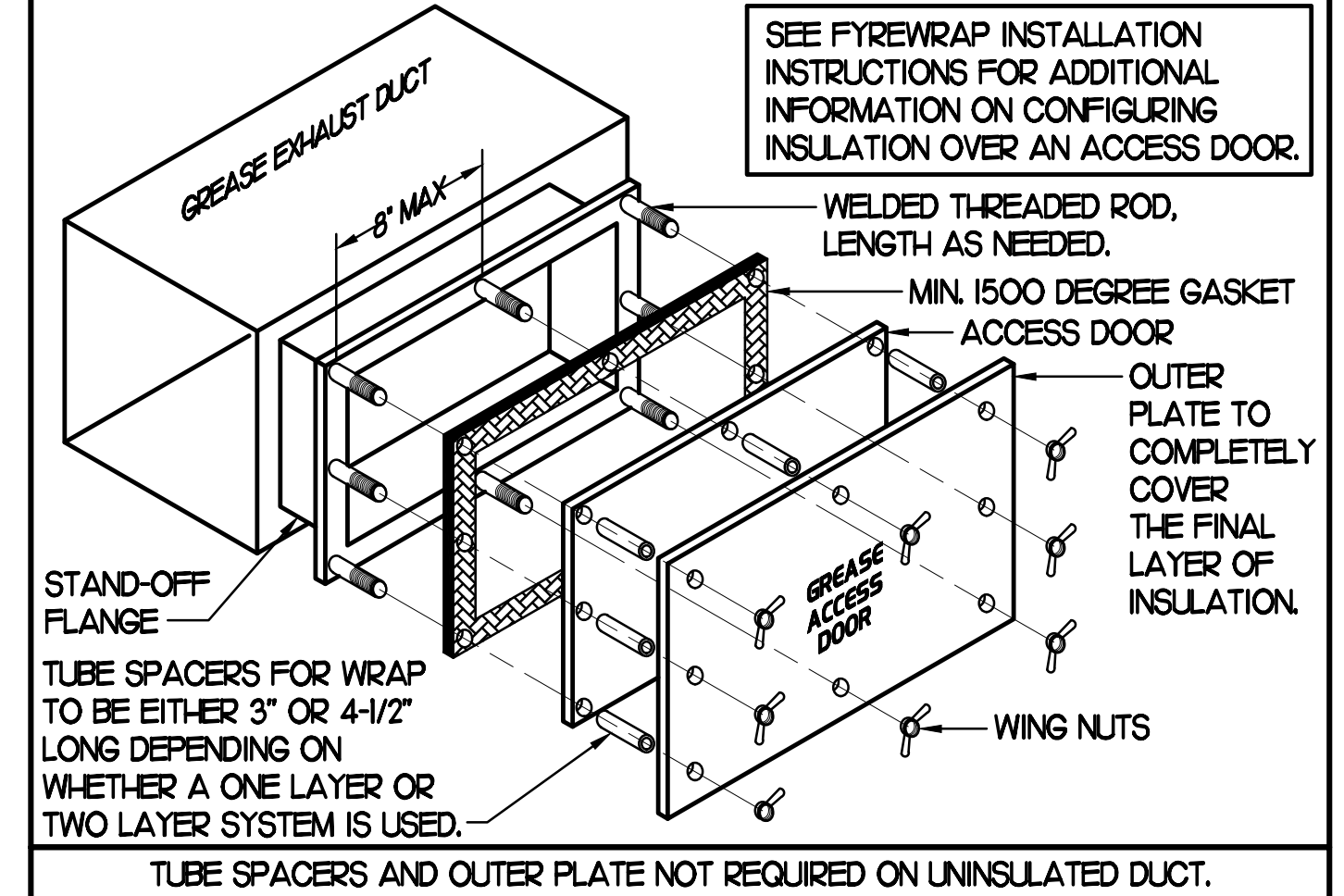
CONSULTANT PROJECT # 22177.HF.R
 PRINTED FOR CONSTRUCTION
 DATE 01/12/2023
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 SHEET
 MECHANICAL
 ROOF PLAN
 SHEET NUMBER

GREASE ACCESS DOOR SCHEDULE

MARK	OPENING SIZE	DOOR SIZE	REMARKS
A	7.5H X 14W	9.5H X 16W	1
B	5.5H X 14W	7.5H X 16W	1
C	9.5H X 14W	11.5H X 16W	1
D	8.5H X 14W	10.5H 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 TUMB SCREWS. ACCESS DOORS SHALL BE SEALED WITH A MINIMUM 1500 DEGREE GASKET MATERIAL EQUIVALENT TO THAT MANUFACTURED BY BRETON INDUSTRIES, INC (800) 382-2491.



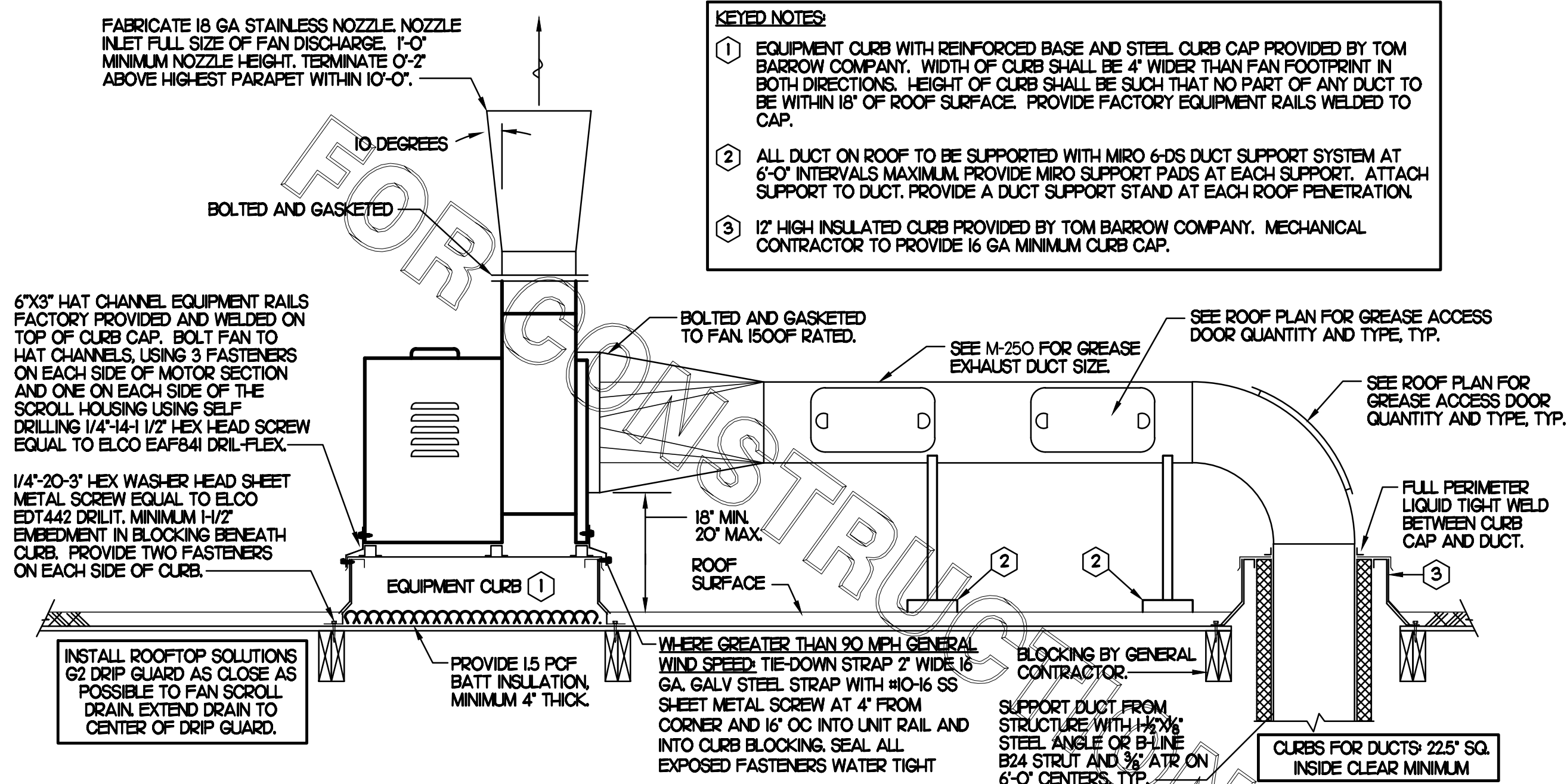
SHEET NOTES

- 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.

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.

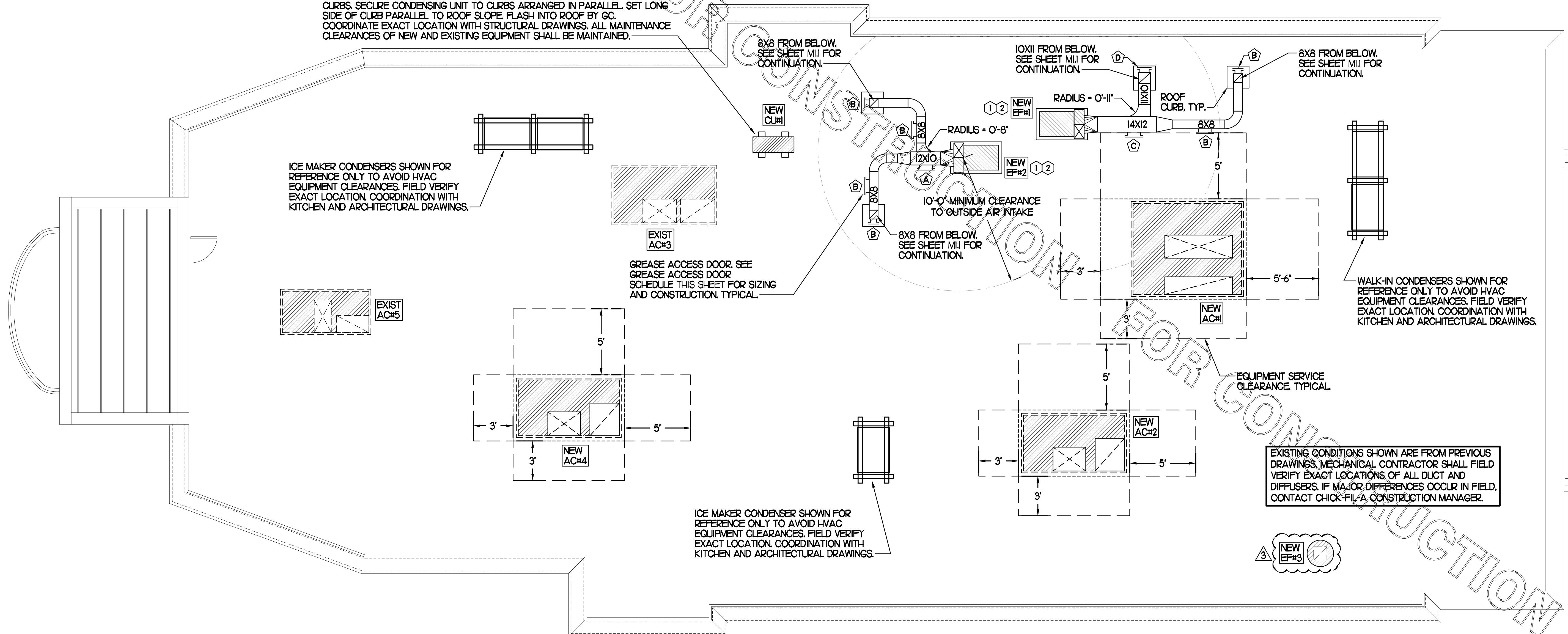
- KEYED NOTES:**
- 1 EQUIPMENT CURB WITH REINFORCED BASE AND STEEL CURB CAP PROVIDED BY TOM BARROW COMPANY. WIDTH OF CURB SHALL BE 4" WIDER THAN FAN FOOTPRINT IN BOTH DIRECTIONS. HEIGHT OF CURB SHALL BE SUCH THAT NO PART OF ANY DUCT TO BE WITHIN 18" OF ROOF SURFACE. PROVIDE FACTORY EQUIPMENT RAILS WELDED 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. MECHANICAL CONTRACTOR TO PROVIDE 16 GA MINIMUM CURB CAP.



2 KITCHEN HOOD EXHAUST FAN - UTILITY SET FAN

NO SCALE

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. COORDINATE EXACT LOCATION WITH STRUCTURAL DRAWINGS. ALL MAINTENANCE CLEARANCES OF NEW AND EXISTING EQUIPMENT SHALL BE MAINTAINED.



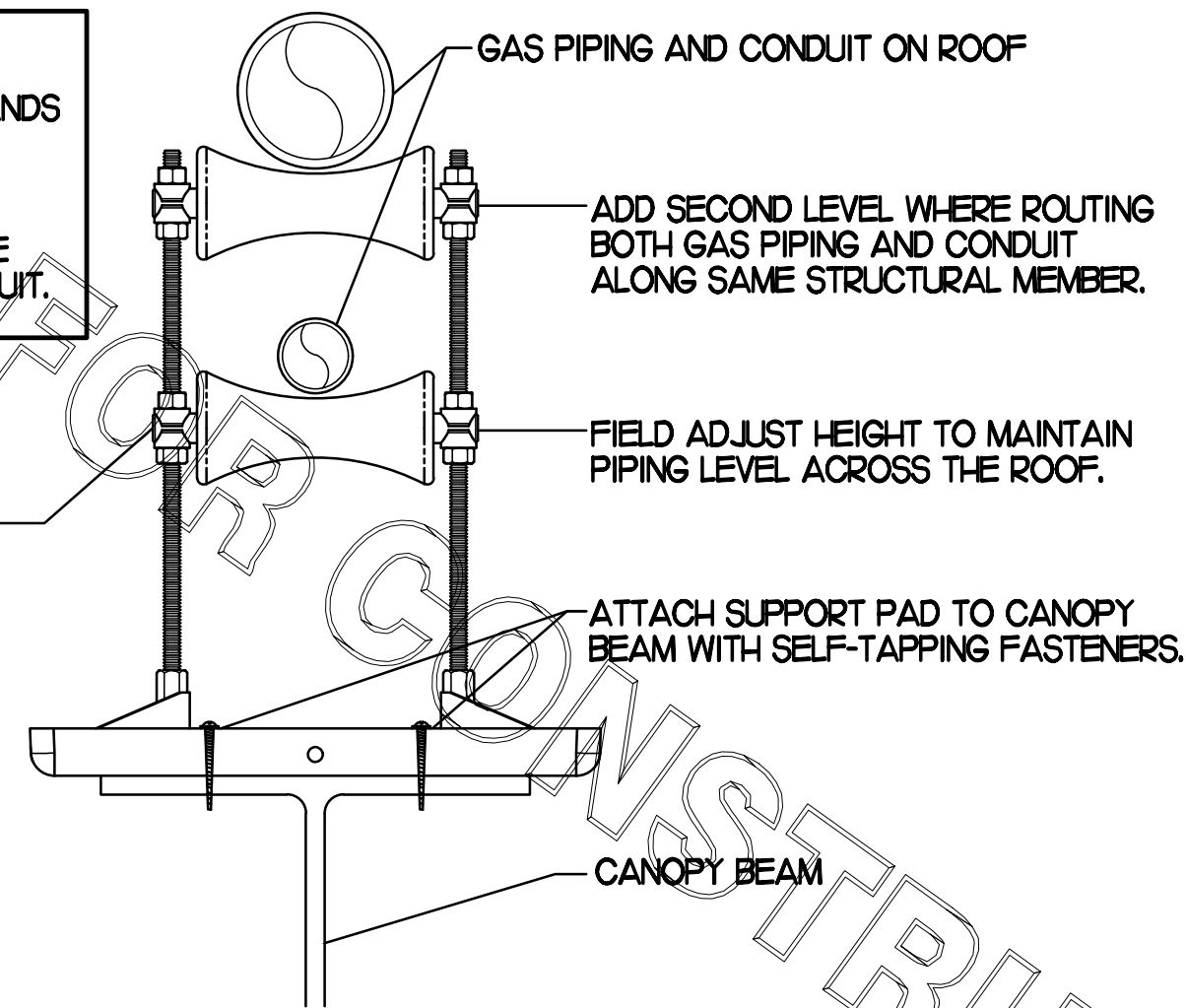
1 MECHANICAL ROOF PLAN

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

CONSTRUCTION

NOTES

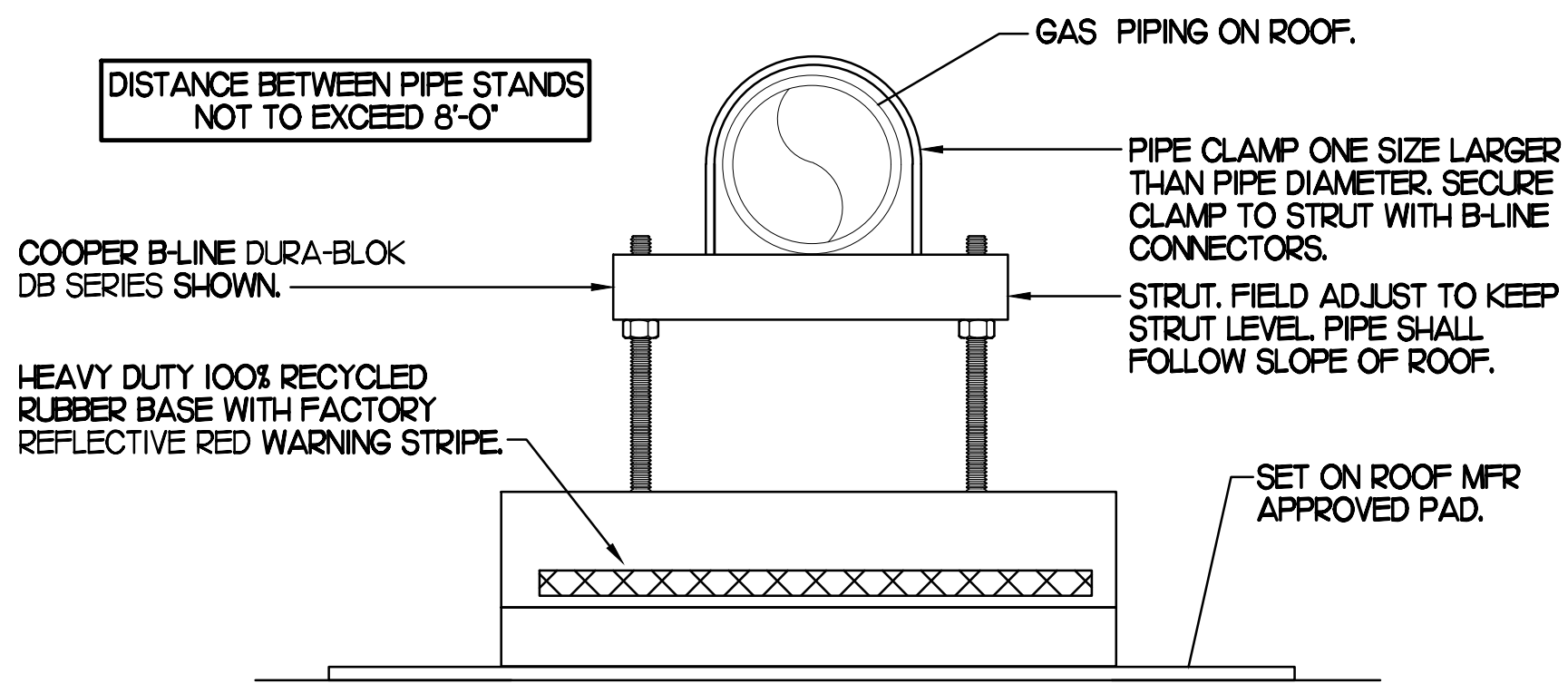
- DISTANCE BETWEEN PIPESTANDS NOT TO EXCEED 8'-0".
- MC TO PROVIDE DUAL LEVEL SUPPORT TO ACCOMMODATE BOTH GAS PIPING AND CONDUIT.



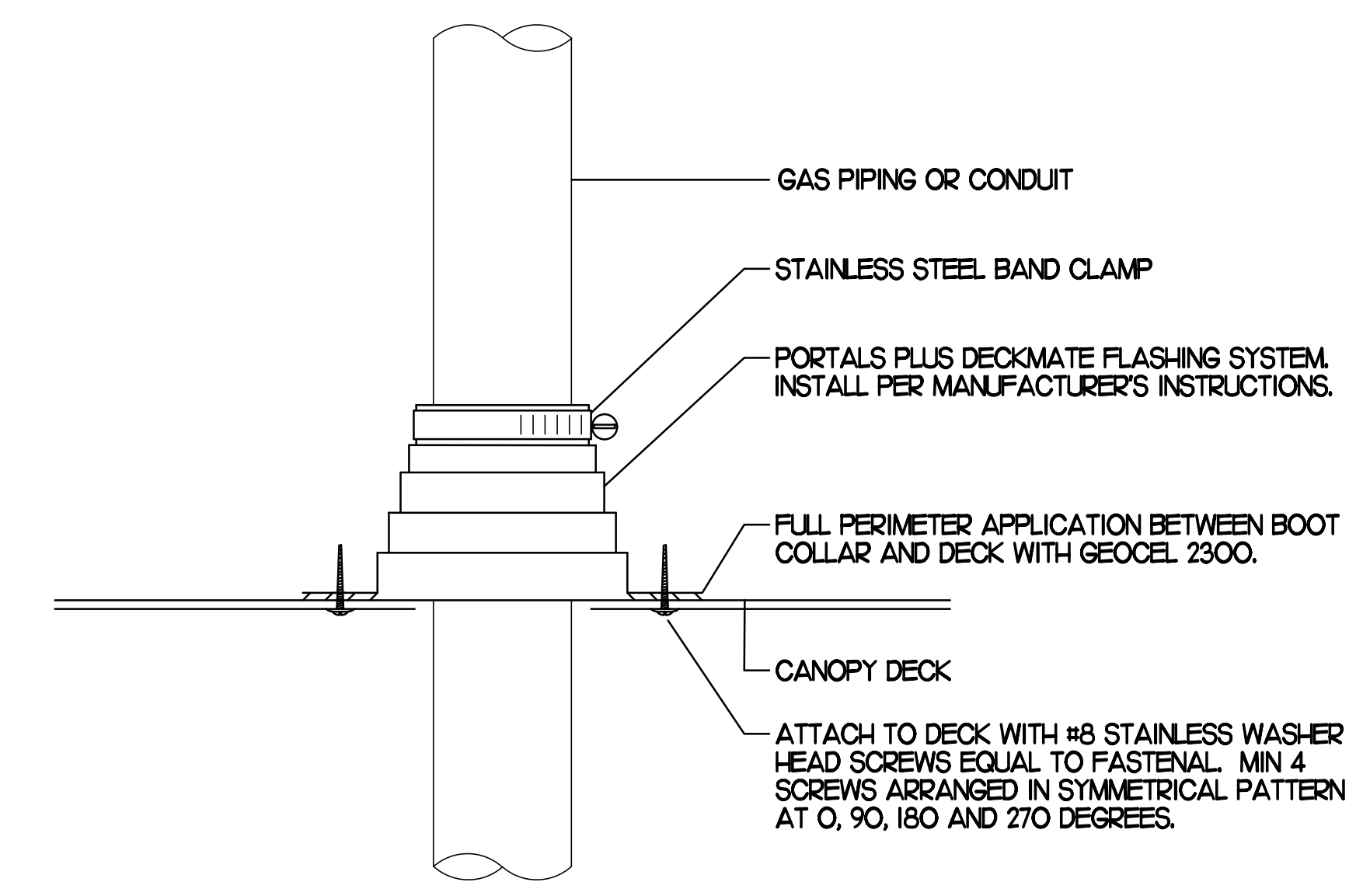
1 PIPING SUPPORT ON CANOPY
NO SCALE

NOTES

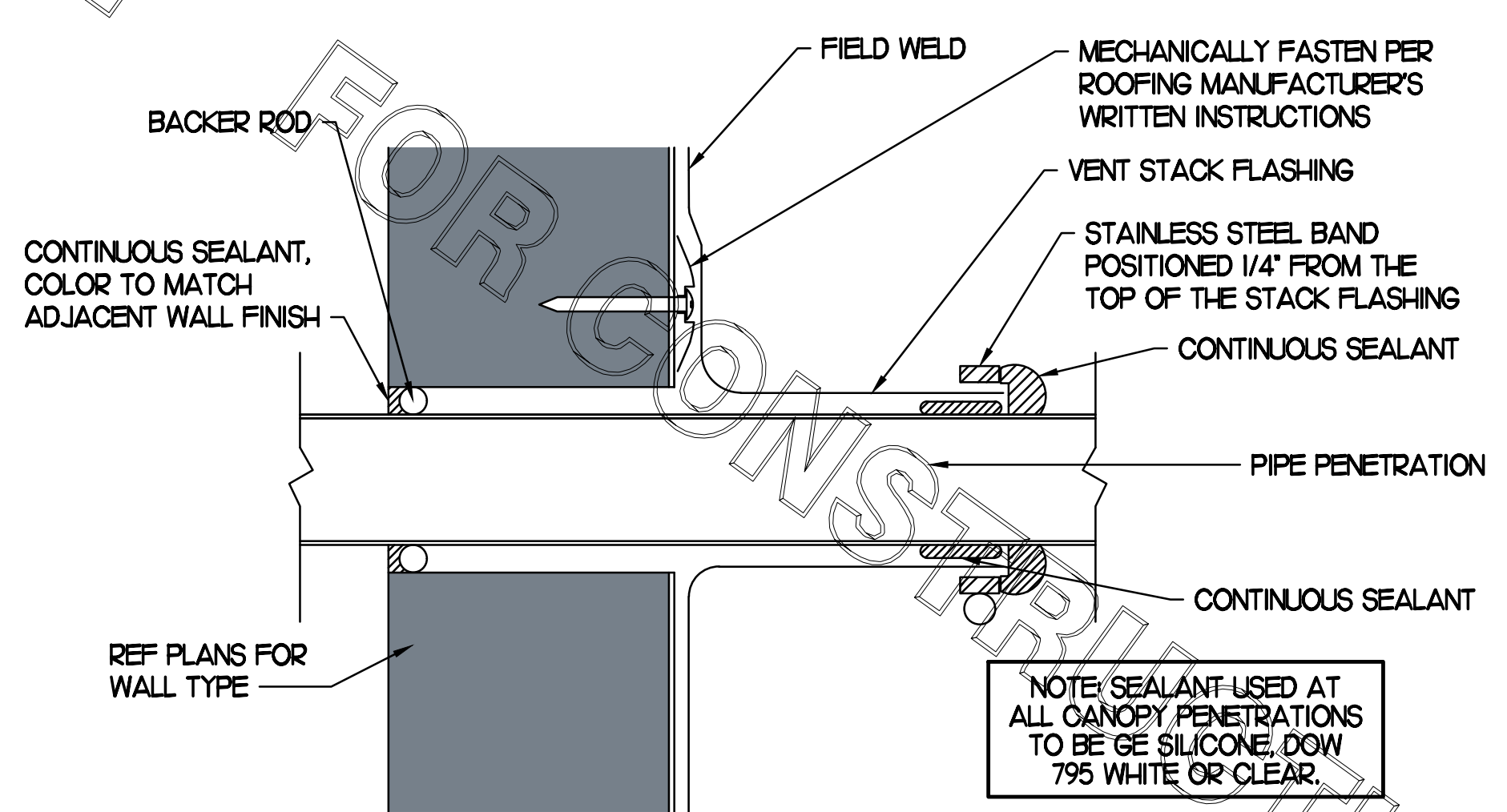
- NON ADJUSTABLE MODEL DB610 PIPE STAND TO BE USED FOR NON-ELEVATED PIPING INSTALLED FLAT ON ROOF DECK.
- PROVIDE MODEL DBE 10-8 OR DBE 10-12 OR DBE 10-16 AS NEEDED FOR ELEVATING PIPING FOR GAS PIPING CROSSING OVER CONDENSATE PIPING.
- ENSURE GAS PIPING DOES NOT OBSTRUCT ROOFTOP EQUIPMENT ACCESS OPENINGS.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



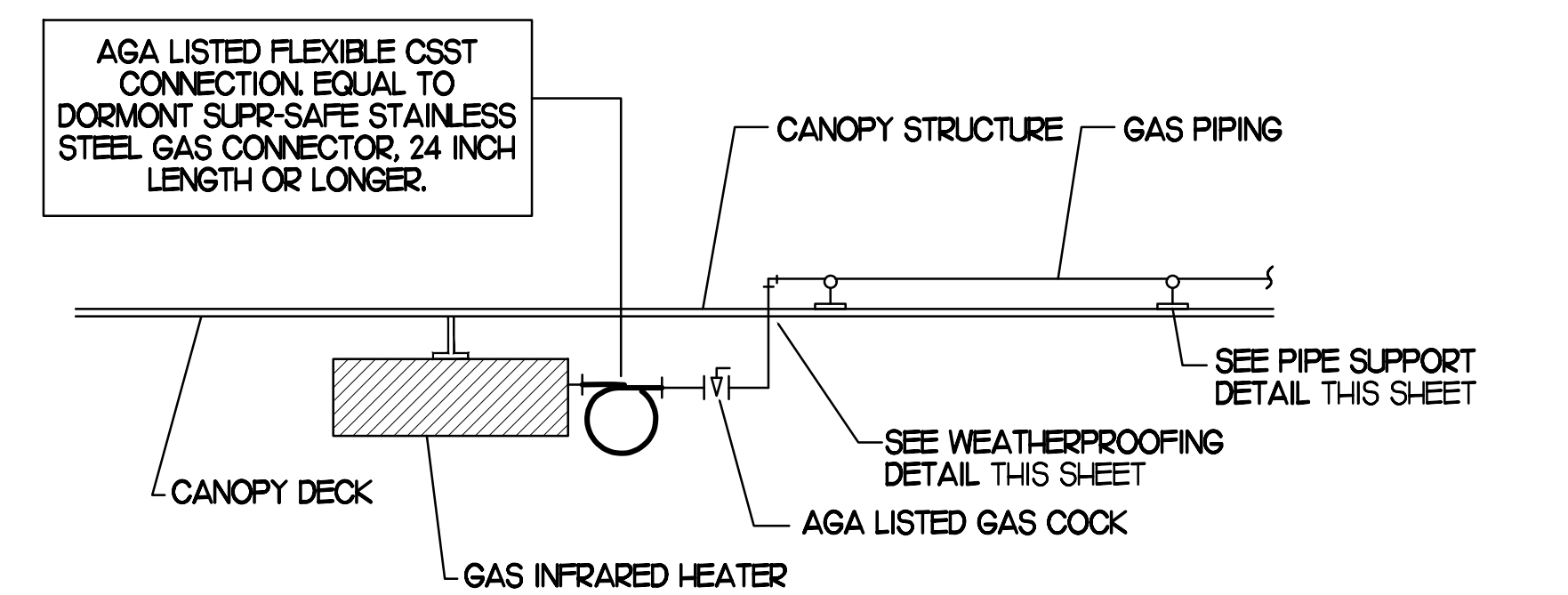
4 PIPING SUPPORT ON MAIN BLDG ROOF
NO SCALE



2 WEATHERPROOFING AT CANOPY PENETRATION
NO SCALE



5 PARAPET PENETRATION DETAIL
NO SCALE

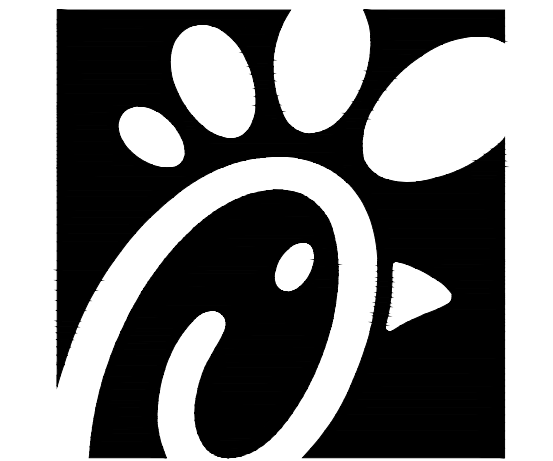


3 GAS CONNECTION AT APPLIANCE
NO SCALE

GAS FIRED INFRARED HEATER SCHEDULE							
MARK	INPUT (MBH)	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"> STEEL BURNER WITH CERAMIC BURNER TILES. STAINLESS STEEL LENS WITH BLACK EMISSIVE COATING. PROVIDE ENGRAVED PLASTIC LABEL AT EACH UNIT WITH UNIT DESIGNATION IN 1" HIGH WHITE LETTERS ON A BLACK BACKGROUND. MOUNT TO CANOPY DECK, FACING DOWNWARD, 12" Laterally FROM THE SIDE OF THE HEATER. MOUNTING BRACKET PROVIDED AND INSTALLED BY CANOPY MFR. PROVIDE HEAT SHIELD ABOVE EACH HEATER AT THE BOTTOM OF THE BRACKET. 						

BROMIC ELECTRIC HEATER SCHEDULE							
MARK	INPUT (KW)	FRAME SIZE			MOUNTING TYPE	MODEL	MANUFACTURER
		LENGTH	WIDTH	DEPTH			
ALL EH	6.0	56"	8.5"	3.5"	BRACKET	BH0420005	BROMIC
NOTES	<ul style="list-style-type: none"> CHICK-FIL-A HAS A NATIONAL ACCOUNT WITH BROMIC COMPANY FOR THE ELECTRIC HEATER PACKAGE. THE MECHANICAL CONTRACTOR SHALL PURCHASE THE ELECTRIC HEATERS DIRECTLY FROM BROMIC COMPANY. CONTACT BLAKE RUSSIE AT 858-381-4850, FOR PRICING AND AVAILABILITY. BROMIC HEATERS NOT PURCHASED THRU BROMIC COMPANY WILL NOT BE ACCEPTED. 						
REMARKS	<ol style="list-style-type: none"> STAINLESS STEEL LENS WITH BLACK EMISSIVE COATING. PROVIDE ENGRAVED PLASTIC LABEL AT EACH UNIT WITH UNIT DESIGNATION IN 1" HIGH WHITE LETTERS ON A BLACK BACKGROUND. PROVIDE WITH MOUNTING BRACKETS PER MANUFACTURER'S RECOMMENDATIONS. 						

CIRCULATING FAN SCHEDULE					
MARK	CFM	RPM	HP	MODEL	MANUFACTURER
REMARKS	<ol style="list-style-type: none"> ALUMINUM PADDLE WITH STEEL HUB/SPIDER PROPELLER. 360 DEG. ROTATING HEAD HORIZONTALLY AND VERTICALLY. OSHA COMPLIANT DOUBLE LOCKING, COATED STEEL WIRE GUARD. 3-SPEED, TOTALLY ENCLOSED, PERMANENTLY LUBRICATED BALL BEARING MOTOR. FACTORY PRE-WIRED POWER CORD. PROVIDE FACTORY WALL MOUNTING BRACKET. 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. REMOVE PULL CHAIN EXTENSION AT ON/OFF SWITCH IN FIELD. FACTORY CERTIFIED FOR OUTDOOR INSTALLATION. 				



Chick-fil-A

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LIONVILLE
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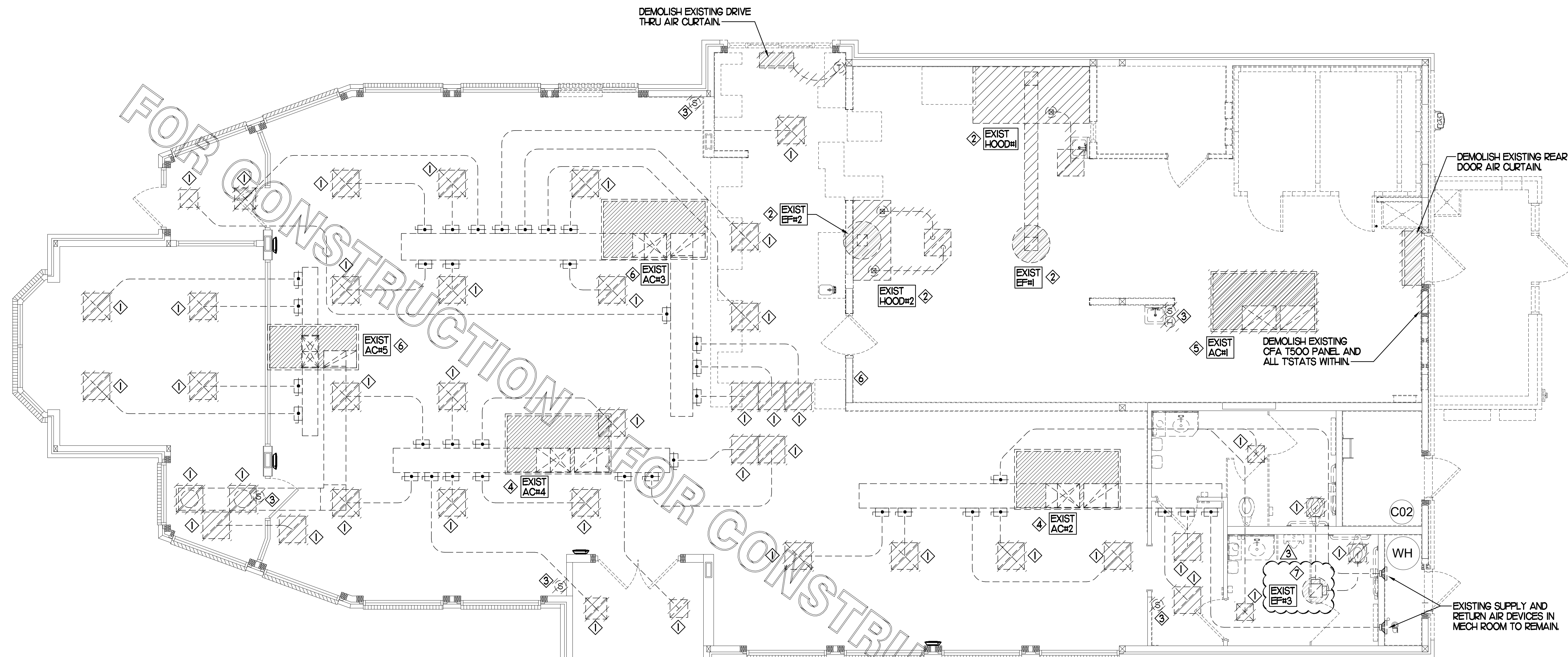
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NO. DATE DESCRIPTION

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SHEET CANOPY DETAILS & SCHEDULES
SHEET NUMBER

M5.2

CONSTRUCTION



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 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.

I MECHANICAL DEMOLITION FLOOR PLAN

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

DEMOLITION LEGEND	
	EXISTING EQUIPMENT, DUCT, AIR DEVICE ETC. TO REMAIN INTACT
	EQUIPMENT, DUCT, AIR DEVICE ETC. TO BE DEMOLISHED

DEMOLITION KEY NOTES

- ① DETACH AND DEMOLISH EXISTING AIR DEVICE. SECURE DUCT ABOVE CEILING GRID FOR RE-CONNECTION. SEE SHEET M.II FOR NEW CONNECTION.
- ② DEMOLISH EXISTING HOOD, ALL ASSOCIATED GREASE DUCT, CAPTURE JET FAN AND DIFFUSER (IF EXISTING), EXHAUST FAN, AND IT'S 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. DEMOLISH ALL ASSOCIATED CONTROL WIRING. SEE SHEET M.II FOR FURTHER INFORMATION.
- ④ EXISTING RTU 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, TSTAT, REMOTE SMOKE DETECTOR ANNUNCIATOR, ETC.). EXISTING ROOF CURB AND SUPPLY & RETURN DUCT TO REMAIN. COVER CURB WEATHER-TIGHT FOR RE-USE. GC BID ALTERNATE MATERIALS AND LABOR TO BE BILLED UNDER SEPARATE CONTRACT AND COORDINATED VIA WORK ORDER WITH FEQ SPECIALIST.
- ⑤ DEMOLISH EXISTING KITCHEN A/C UNIT, UNIT CONTROLS (REMOTE TEMP SENSOR, REMOTE HUMIDITY SENSOR, TSTAT, REMOTE SMOKE DETECTOR TEST/RESET STATION, ETC.), SUPPLY/RETURN AIR DROPS, ALL ASSOCIATED SUPPLY/RETURN DUCT & AIR DEVICES (UNLESS NOTED OTHERWISE), AND ASSOCIATED ROOF CURB. PATCH AND REPAIR ROOF TO MATCH SURROUNDING CONSTRUCTION.
- ⑥ DEMOLISH EXISTING DUCT SMOKE DETECTOR(S) AND REMOTE TEST/RESET STATION(S). SEE SHEET M.II FOR NEW.
- ⑦ EXISTING EXHAUST FAN TO BE REPLACED WITH NEW AS SCHEDULED ON SHEET M3.I. UNLESS NOTED OTHERWISE, EXISTING EXHAUST DUCT TO REMAIN COVER CURB WEATHER-TIGHT FOR RE-USE. GC BID ALTERNATE MATERIALS AND LABOR TO BE BILLED UNDER SEPARATE CONTRACT AND COORDINATED VIA WORK ORDER WITH FEQ SPECIALIST.



Chick-fil-A

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SHEET
MECHANICAL
DEMO PLAN
SHEET NUMBER

M0.1

CONSTRUCTION

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 MIL 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. RADIUS 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.

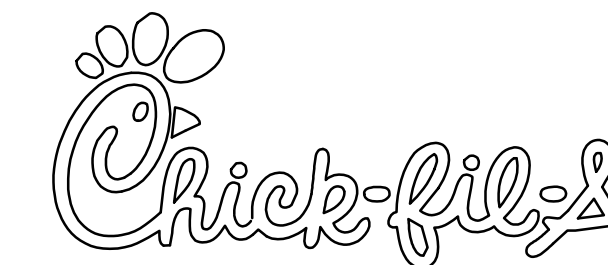
2.03 CONTROLS (C15735)

- 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 ENVIRONMENTAL CONTROLS. SUNCOAST WILL PROVIDE A NETWORK THERMOSTAT US32-CFA 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.
9.	BROMIC ELECTRIC HEATER PACKAGE - THE MECHANICAL CONTRACTOR IS REQUIRED TO PURCHASE THE HEATER DIRECTLY FROM BROMIC COMPANY. CONTACT BLAKE RUSSIE AT 858-381-4850 FOR PRICING AND AVAILABILITY. HEATERS NOT PURCHASED THRU BROMIC COMPANY WILL NOT BE ACCEPTED.



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CHICK-FIL-A
LIONVILLE
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FSR#01527

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SHEET
MECHANICAL
SPECIFICATIONS
SHEET NUMBER

M7.1

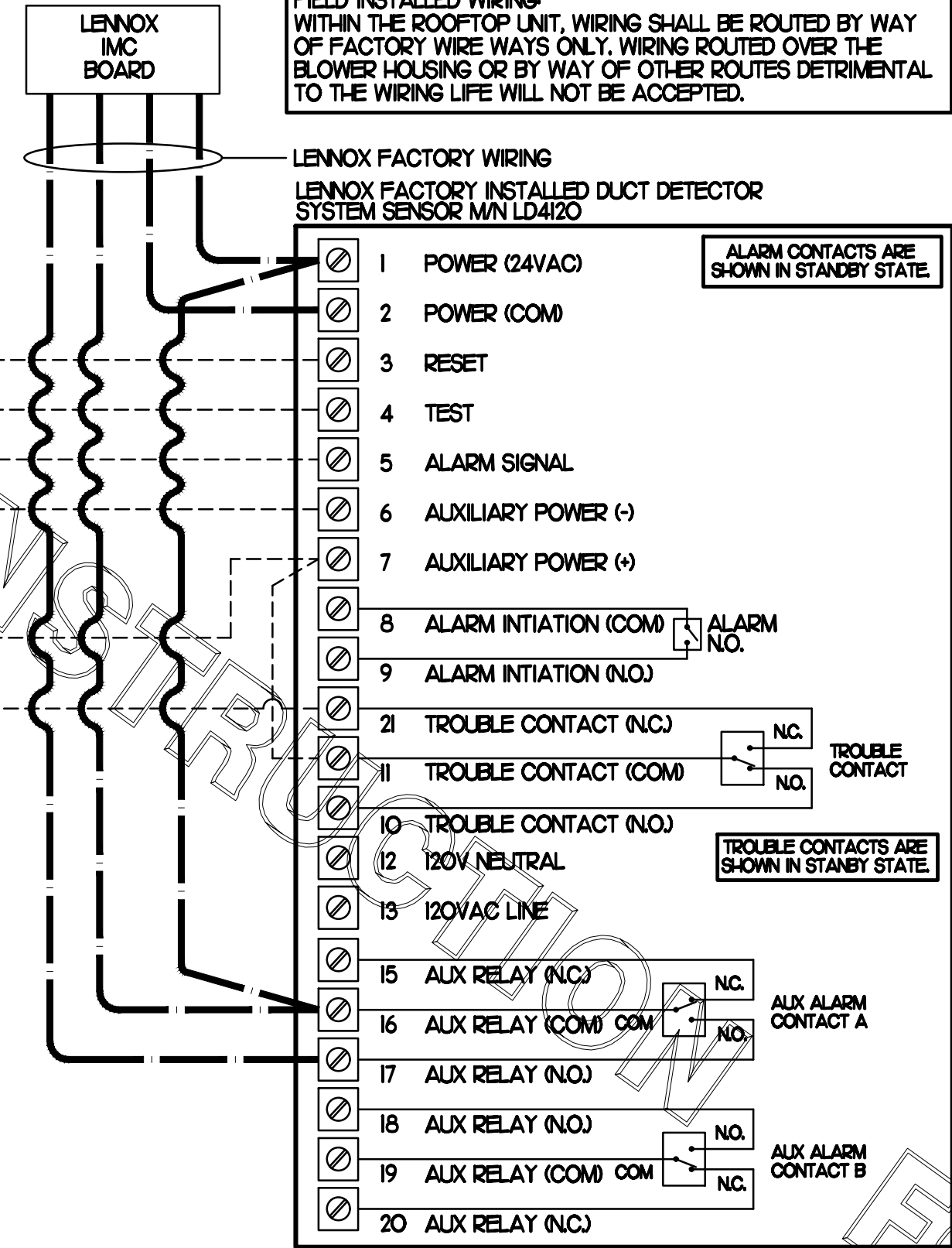
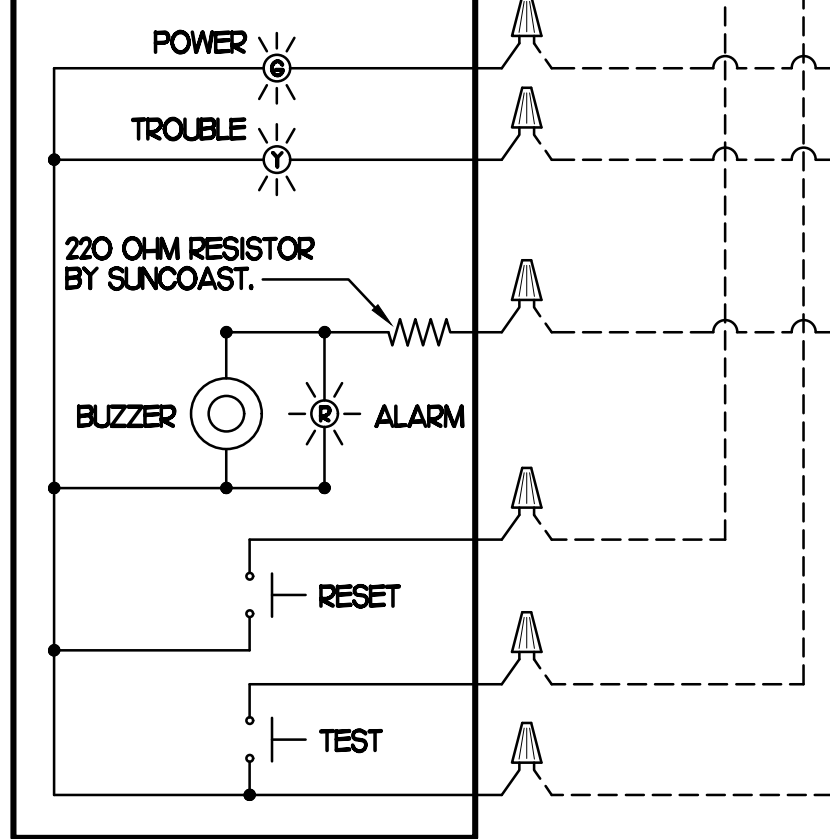
CONSTRUCTION

SUPPLY SIDE DUCT DETECTORS
WHERE SUPPLY SIDE DUCT DETECTORS ARE SHOWN ON DWG MJI AND/OR CALLED FOR ON THE RTU SCHEDULE, THE CONTRACTOR IS TO RELOCATE THE FACTORY INSTALLED SUPPLY SIDE DUCT DETECTOR FROM THE BLOWER SECTION TO THE DUCTWORK. SEE NOTES ON DWG MJI.

LEGEND
 --- 18 AWG MIN WIRING BY MECH CONTRACTOR
 --- FACTORY ANNUNCIATOR DETECTOR WIRING
 --- FACTORY LENNOX WIRING

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

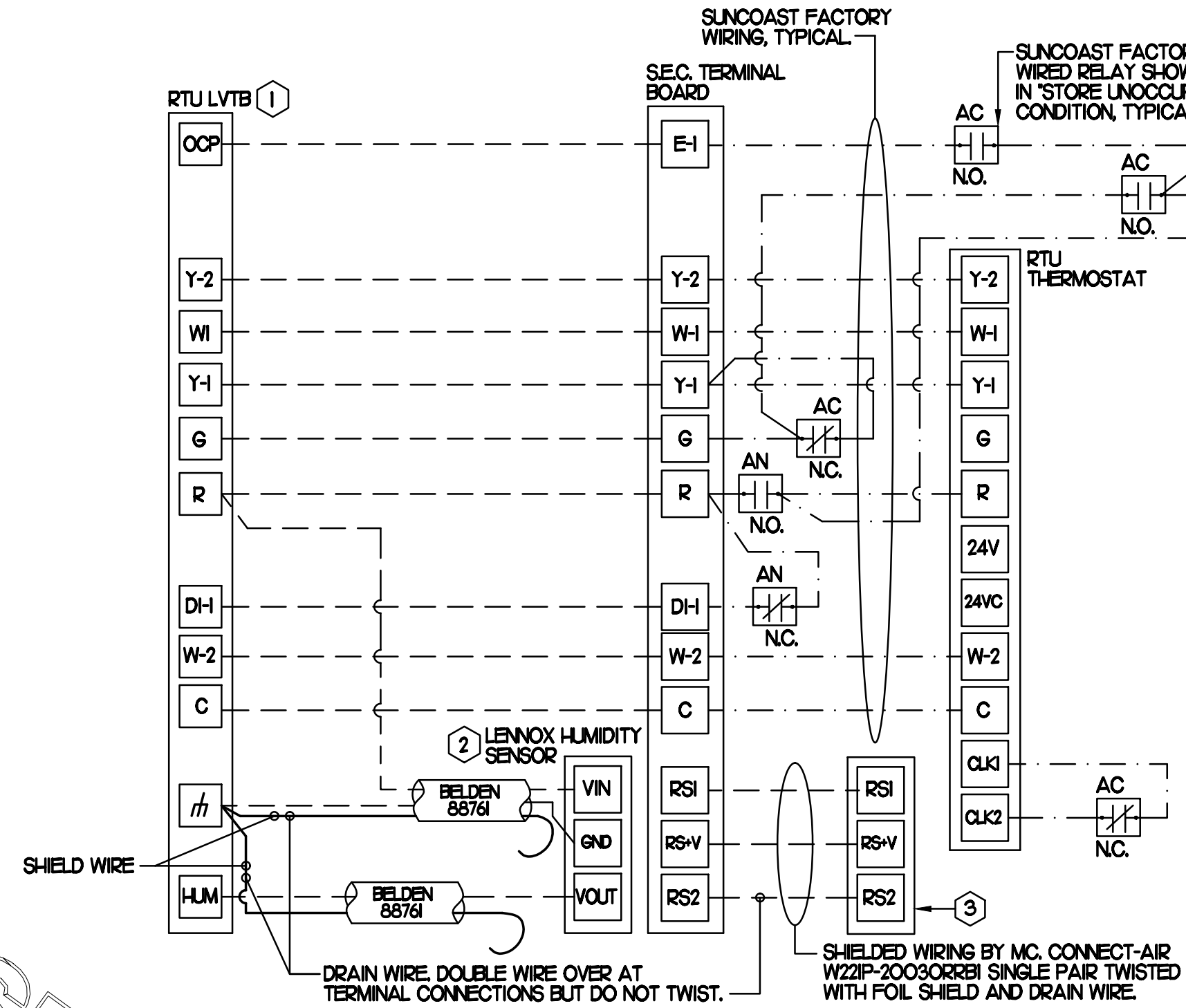
SUNCOAST CONTROLS ANNUNCIATOR



1 SMOKE DETECTOR AND ANNUNCIATOR WIRING DIAGRAM - LENNOX

NO SCALE

LEGEND
 SEC. SUNCOAST ENVIRONMENTAL CONTROLS (SUPPLIER OF TEMP/FAN CONTROL PANEL) LOCATED IN KITCHEN
 MC MECHANICAL CONTRACTOR
 AC SUNCOAST RELAY FACTORY INSTALLED AND WIRED IN CFA-500 PANEL, ENERGIZED BY PUTTING STORE SWITCH IN 'STORE OCCUPIED' POSITION.
 AN SUNCOAST RELAY FACTORY INSTALLED AND WIRED IN CFA-500 PANEL, DE-ENERGIZED WHEN ANSLL FIRE SUPPRESSION SYSTEM IS ACTIVATED, AS NOTED.
 --- 22 AWG MIN LOW VOLTAGE WIRING BY MC. U.N.O. USE CONNECT-AIR SINGLE PAIR TWISTED WITH FOIL SHIELD AND DRAIN WIRE FOR TEMPERATURE SENSORS. (NOT FOR HUMIDITY SENSORS)
 --- LOW VOLTAGE WIRING BY SEC.
 --- LINE VOLTAGE BY ELECTRICIAN OR SEC.



2 ROOFTOP UNIT CONTROL WIRING - LENNOX

NO SCALE

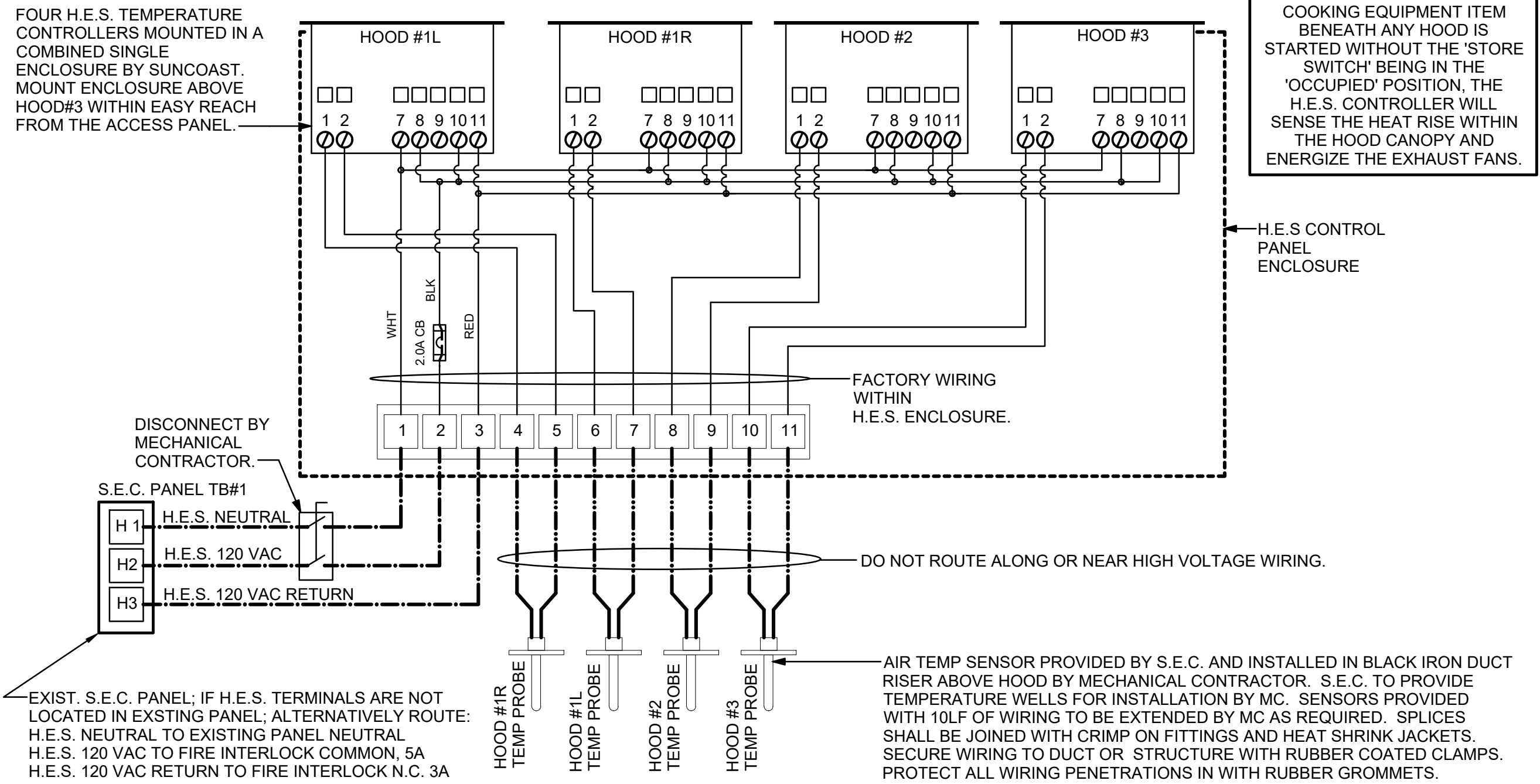
LEGEND
 S.E.C. SUNCOAST ENVIRONMENTAL CONTROLS CFA-500 ENERGY MGT PANEL
 H.E.S. SUNCOAST ENVIRONMENTAL CONTROLS HOOD EXHAUST SAFETY CONTROLLER
 M.C. MECHANICAL CONTRACTOR
 --- 18 AWG MIN UNSHIELDED LOW VOLTAGE WIRING BY MC, U.N.O.
 --- 120 VAC WIRING BY MECHANICAL CONTRACTOR

GENERAL NOTES

- MECHANICAL CONTRACTOR TO PURCHASE THE H.E.S. CONTROL PANEL AND COMPONENTS FROM SUNCOAST ENVIRONMENTAL CONTROLS. TELEPHONE 877-544-6679. CONTROLS COMPONENTS TO BE FACTORY MOUNTED IN LABELED NEMA-1 ENCLOSURES.
- MECHANICAL CONTRACTOR TO PROVIDE A PROFESSIONALLY LAMINATED COPY OF THIS DETAIL ATTACHED TO THE ENCLOSURE. CONTACT ENGINEER OF RECORD FOR A REPRODUCIBLE COPY OF THE DETAIL.

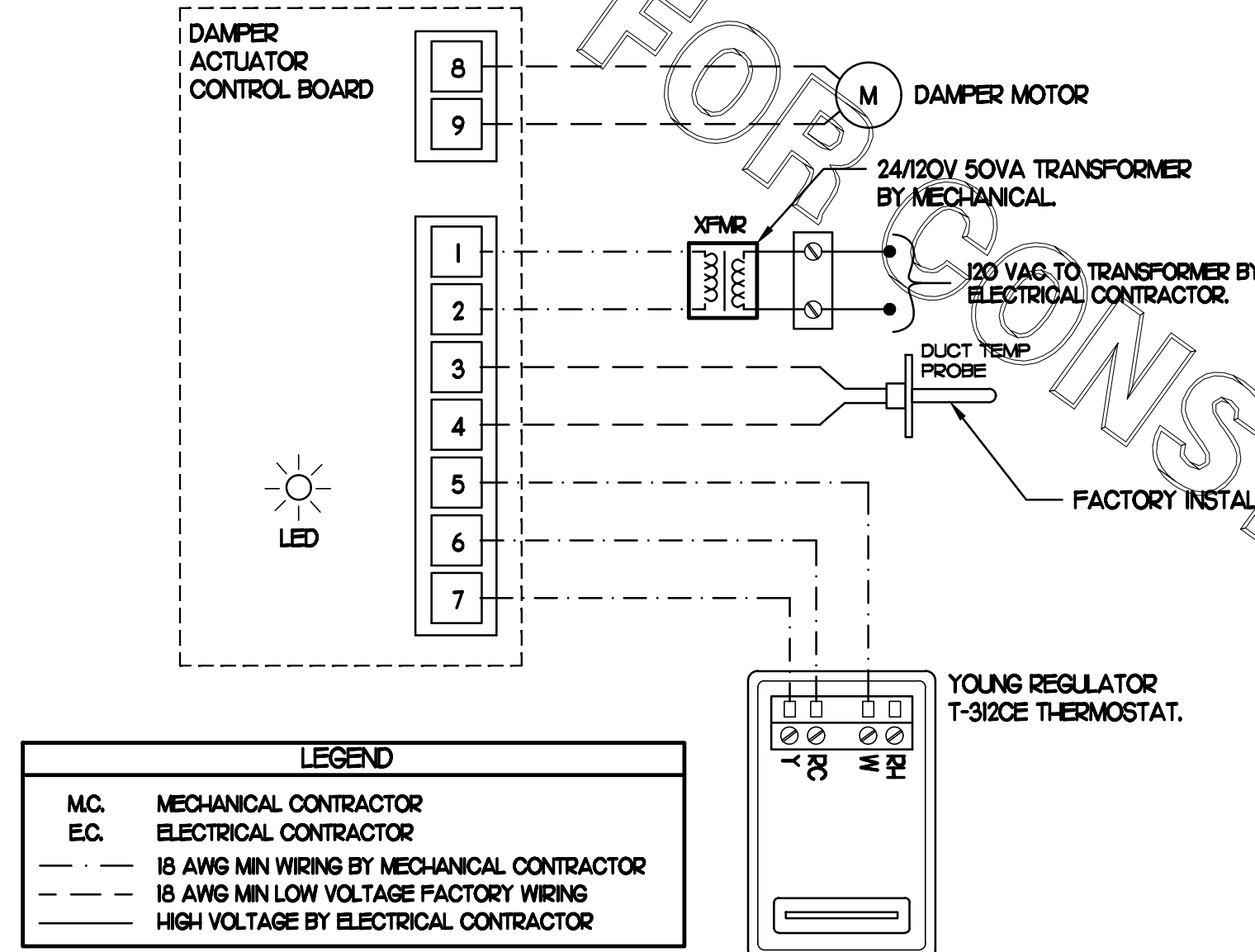
S.E.C. H.E.S. OPERATION

IN THE EVENT THAT ANY COOKING EQUIPMENT ITEM BENEATH ANY HOOD IS STARTED WITHOUT THE 'STORE SWITCH' BEING IN THE 'OCCUPIED' POSITION, THE H.E.S. CONTROLLER WILL SENSE THE HEAT RISE WITHIN THE HOOD CANOPY AND ENERGIZE THE EXHAUST FANS.



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

NO SCALE



4 OFFICE VAV DAMPER AND TSTAT

NO 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.

NOTES

- FOR ALL RTUS EXCEPT AT KITCHEN RTUS, CHANGE PRODIGY-M3 BOARD CONTROL PARAMETER #65 TO ZERO (#58 ON LCH UNITS). ON OLDER BOARDS THIS IS ECTO PARAMETER #01 FOR LCH UNITS OR ECTO #20 FOR LCH UNITS. THIS WILL CAUSE THE O.A. DAMPER TO OPEN ON 'OCCUPIED' START. AT KITCHEN RTUS (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 KITCHEN RTUS (LCH TYPE) CHANGE THE VALUE TO 5400 SO THE O.A. DAMPER WILL REMAIN CLOSED FOR THE FIRST 90 MINUTES AFTER 'OCCUPIED' START.
- 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.
- AT HUMIDITROL RTUS SET PRODIGY-M3 BOARD CONTROL PARAMETER #106 FOR DEHUMIDIFICATION OPERATION TO A VALUE OF 7. OLDER M-8 IMC BOARD ECTO PARAMETER 424 VALUE TO BE SET TO A VALUE OF 7.
- AT HUMIDITROL RTUS, SET PRODIGY-M3 BOARD CONTROL PARAMETER #106 FOR DEHUMIDIFICATION SET POINT TO A VALUE OF 60 (60% RH).
- AT HUMIDITROL RTUS, SET PRODIGY-M3 BOARD CONTROL PARAMETER #107 FOR DEHUMIDIFICATION MODE DEAD BAND TO A VALUE OF 2 (2% RH).
- SET ALL THERMOSTATS FOR AUTO CHANGEOVER.
- FOR MSAV UNITS, SET THE MSAV LOW SPEED SETTING TO THE SAME VALUE AS THE HIGH SPEED SETTING AFTER TAB IS COMPLETE.
- PROVIDE PLASTIC ENGRAVED LABEL AT ALL NEW SENSORS WITH 1" 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 RINGS 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.

NOTES

- SEE DWG MJI FOR COMPONENT MODEL NUMBERS AND ORDERING INFORMATION.
- 120V POWER FOR TRANSFORMER TO BE NON-SWITCHED AND HOT 24/7.
- PROVIDE ALL NECESSARY WIRING AND COMPONENTS TO MAKE CONTROL AND POWER CONNECTIONS TO TRANSFORMER, ZONE DAMPER, AND THERMOSTAT PER MANUFACTURER'S IOM

SEQUENCE OF OPERATION

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



Chick-fil-A

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CHICK-FIL-A
LIONVILLE
211 Eagleview Blvd
Exton, PA 19341-1158

FSR#01527

BUILDING TYPE / SIZE: S04-154
RELEASE: v22.05

REVISION SCHEDULE
NO. DATE DESCRIPTION

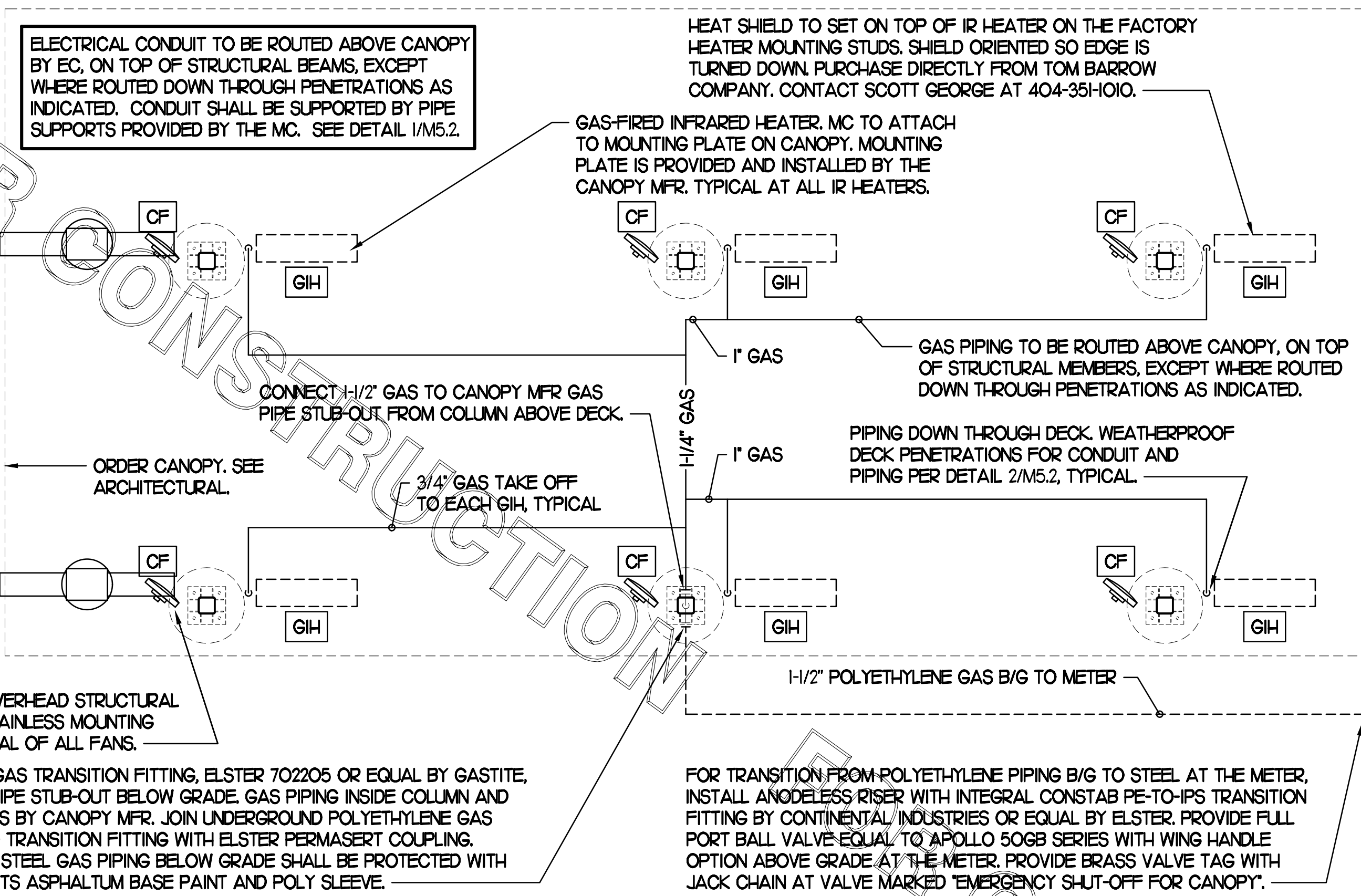
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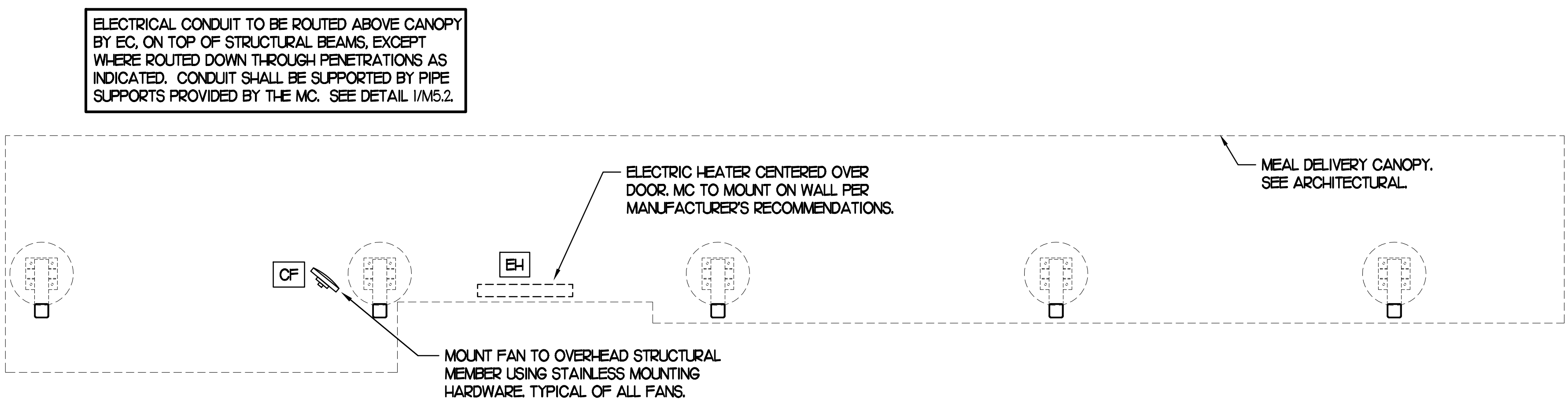
SHEET HVAC CONTROLS

SHEET NUMBER

M4.1



1 HVAC PLAN - ORDER POINT CANOPY
NTS



2 HVAC PLAN - MEAL DELIVERY CANOPY
NTS

LEGEND

CF#	CIRCULATING FAN # (TYP)	B/G	BELOW GRADE
GIH#	GAS INFRARED HEATER # (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.



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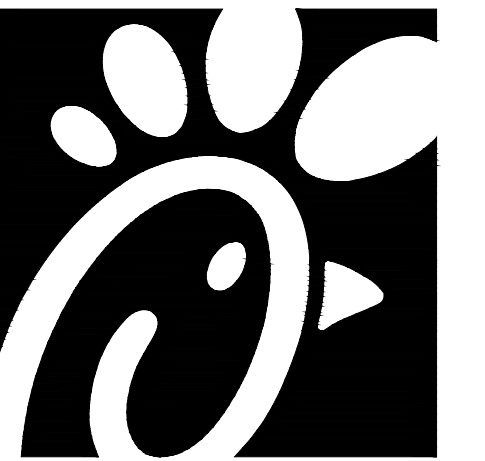
REVISION SCHEDULE

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 SHEET
 CANOPY HVAC
 PLANS
 SHEET NUMBER

M5.1



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SHEET
 MECH & ENVELOPE
 COMCHECK
 SHEET NUMBER

M6.1

COMcheck Software Version 4.1.5.1
Envelope Compliance Certificate

Project Information

Energy Code: 2018 IECC
 Project Title: Chick-fil-A #1527
 Location: Exton, Pennsylvania
 Climate Zone: 4a
 Project Type: Addition

Construction Site: 211 Eagleview Blvd, Exton, PA 19341
 Owner/Agent: Chick-fil-A, 5200 Buffington Road, Atlanta, GA 30349
 Designer/Contractor: Kurzynske & Associates, 2705 Lebanon Pike - Suite One, Nashville, TN 37214, 615-255-5203

Building Area	Floor Area
1-Storage/Office (Dining, Cafeteria/Fast Food) : Nonresidential	395

Envelope Assemblies

Assembly	Gross Area or Perimeter	Cavity R-Value	Cont. R-Value	Proposed U-Factor	Budget U-Factor _{req}
Roof: 7" Insulation (rigid) Above Deck; High Albedo Roof Required, (Bldg Use 1 - Storage/Office)	395	---	30.0	0.032	0.032
Floor: 1" Slab-On-Grade Uninsulated, Vertical 2 ft., (Bldg Use 1 - Storage/Office) (b)	104	---	10.0	0.540	0.540
NORTH					
Exterior Wall 1: Wood-Framed, 16" o.c., (Bldg Use 1 - Storage/Office)	139	20.0	0.0	0.064	0.064
EAST					
Exterior Wall 2: Wood-Framed, 16" o.c., (Bldg Use 1 - Storage/Office)	638	20.0	0.0	0.064	0.064
Door 1: Insulated Metal, Swinging, (Bldg Use 1 - Storage/Office)	28	---	---	0.330	0.610
SOUTH					
Exterior Wall 3: Wood-Framed, 16" o.c., (Bldg Use 1 - Storage/Office)	139	20.0	0.0	0.064	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.

Envelope PASSES: Design 6% 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 2018 IECC requirements in COMcheck Version 4.1.5.1 and to comply with any applicable mandatory requirements listed in the Inspection Checklist.

Name - Title _____ Signature _____ Date _____

COMcheck Software Version 4.1.5.1
Mechanical Compliance Certificate

Project Information

Energy Code: 2018 IECC
 Project Title: Chick-fil-A #1527
 Location: Exton, Pennsylvania
 Climate Zone: 4a
 Project Type: Addition

Construction Site: 211 Eagleview Blvd, Exton, PA 19341
 Owner/Agent: Chick-fil-A, 5200 Buffington Road, Atlanta, GA 30349
 Designer/Contractor: Kurzynske & Associates, 2705 Lebanon Pike - Suite One, 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 = 389 kBtu/h Proposed Efficiency = 81.00% EER, Required Efficiency: 80.00 % EER Cooling: 1 each - Single Package DX Unit, Capacity = 283 kBtu/h, Air-Cooled Condenser, Air Economizer Proposed Efficiency = 10.30 EER, Required Efficiency: 9.80 EER + 11.4 IEER Fan System: AC#1 Kitchen - Compliance (Motor nameplate HP method) : Passes Fans: Supply Supply, Constant Volume, 8000 CFM, 7.5 motor nameplate hp, 0.0 fan efficiency grade Exhaust Exhaust, Constant Volume, 2000 CFM, 0.7 motor nameplate hp, 0.0 fan efficiency grade
1	AC#2 (8.5 ton) (Single Zone): Heating: 1 each - Central Furnace, Gas, Capacity = 194 kBtu/h Proposed Efficiency = 81.00% EER, Required Efficiency: 80.00 % EER or 80% AFUE Cooling: 1 each - Single Package DX Unit, Capacity = 97 kBtu/h, Air-Cooled Condenser, Air Economizer Proposed Efficiency = 12.10 EER, Required Efficiency: 11.00 EER + 12.6 IEER Fan System: AC#2 Dining - Compliance (Motor nameplate HP method) : Passes Fans: Supply Supply, Constant Volume, 2830 CFM, 3.8 motor nameplate hp, 0.0 fan efficiency grade Exhaust Exhaust, Constant Volume, 750 CFM, 0.3 motor nameplate hp, 0.0 fan efficiency grade
1	AC#4 (7.5 ton) (Single Zone): Heating: 1 each - Central Furnace, Gas, Capacity = 194 kBtu/h Proposed Efficiency = 81.00% EER, Required Efficiency: 80.00 % EER or 80% AFUE Cooling: 1 each - Single Package DX Unit, Capacity = 93 kBtu/h, Air-Cooled Condenser, Air Economizer Proposed Efficiency = 12.30 EER, Required Efficiency: 11.00 EER + 12.6 IEER Fan System: AC#4 Dining - Compliance (Motor nameplate HP method) : Passes Fans: Supply Supply, Constant Volume, 2750 CFM, 3.8 motor nameplate hp, 0.0 fan efficiency grade Exhaust Exhaust, Constant Volume, 600 CFM, 0.9 motor nameplate hp, 0.0 fan efficiency grade
1	AHU#1/CU#1 (Single Zone): Split System Heat Pump Heating Mode: Capacity = 40 kBtu/h, Proposed Efficiency = 10.00 HSPF, Required Efficiency = 8.20 HSPF Cooling Mode: Capacity = 34 kBtu/h, Proposed Efficiency = 16.20 SEER, Required Efficiency: 14.00 SEER

Quantity / System Type & Description

6	GH (Gas Fired Heater) (Single Zone): Heating: 1 each - Radiant Heater, Gas, Capacity = 50 kBtu/h No minimum efficiency requirement applies Fan System: None
1	EH (Electric Heater) (Single Zone): Heating: 1 each - Radiant Heater, Electric, Capacity = 20 kBtu/h No minimum efficiency requirement applies 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 2018 IECC requirements in COMcheck Version 4.1.5.1 and to comply with any applicable mandatory requirements listed in the Inspection Checklist.

Mark Kurzynske, P.E.
 Name - Title _____ Signature _____ Date _____

FOR CONSTRUCTION