

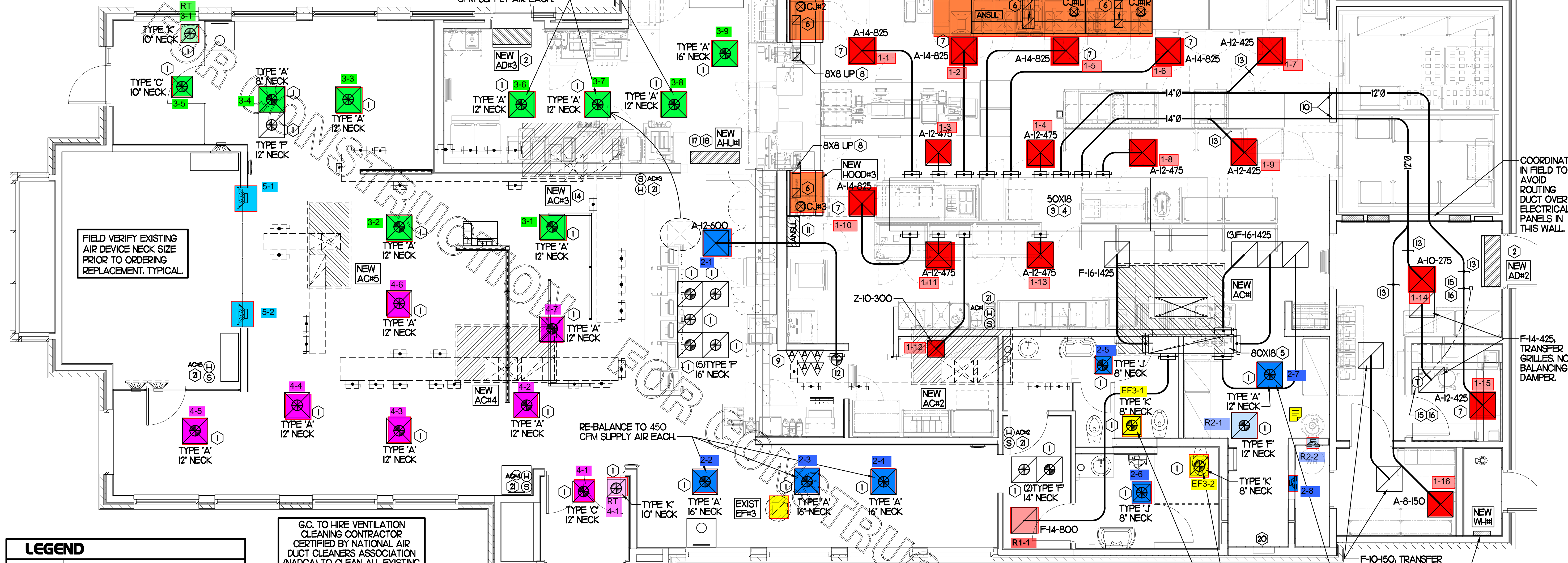
H.E.S. SYSTEM

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

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-HI 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.



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 M2.I AND HOOD DETAILS ON M.H.I FOR CAPTURE-LET FANS DUCTING REQUIREMENTS.
- HARDPIPE SHALL BE USED FOR ALL TAKE-OFFS EXCEPT WHERE ALLOWED BY DETAIL 1/M3.I. 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.I. 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.I. 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.
- TRANSITION IN VERTICAL DROP FROM FULL SIZE OF CURB OPENING TO SIZE SHOWN. TRANSITION WITHIN CURB WHERE REQUIRED TO AVOID STRUCTURE. PROVIDE TURNING VANES IN ELBOWS, INCLUDING THE SUPPLY AIR DROP FROM UNIT.
- 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 M2.I AND M.H.I 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 M.I.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 1" WRAP AT WALL PENETRATION.
- ANSUL UTILITY CABINET. LOCATE TOP OF CABINET 0'-2" BELOW CEILING. COORDINATE FINAL MOUNTING LOCATION WITH KITCHEN EQUIPMENT.
- PROVIDE & INSTALL NEW SPIN-IN COLLAR AND ROUTE NEW DUCT TO NEW GRILLE AS SHOWN.
- RUSKIN MODEL MDRS25 OR EQUIVALENT MANUAL VOLUME DAMPER WITH LOCKING QUADRANT HANDLE.
- 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.

TOTAL AIR BALANCE SCHEDULE

EQUIPMENT MARK	ACH1 (EXIST)	ACH2 (NEW)	ACH3 (NEW)	ACH4 (NEW)	ACH5 (NEW)	EF#1 (NEW)	EF#2 (NEW)	EF#3 (EXIST)	TOTAL
SERVES	KITCHEN	SIDE DINING	MAIN DINING	MAIN DINING	PLAY AREA	HOOD#L HOOD#R	HOOD#2 HOOD#3	REST-ROOMS	
SUPPLY AIR CFM	8,500	2,830	4,000	2,765	1,800				19,895
RETURN AIR CFM	6,500	2,080	3,000	2,165	1,500				15,245
OUTSIDE AIR CFM	2,000	750	1,000	600	300				+4,650
EX-HAUST CFM						1,913	1,402	475	-3,790
PRESSURIZATION									+860
REMARKS	ADJUST AND VERIFY BALANCE OF ALL HVAC EQUIPMENT IS AS SHOWN IN ORDER TO MAINTAIN BUILDING AIR BALANCE.								



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

MARK T. KURZYSKIE
NEW JERSEY LICENSE # GE444646
MSPE
REGISTERED PROFESSIONAL ENGINEER
8-14-23

CHICK-FIL-A
MARLTON FSU
220 Route 73 N
Marlton, NJ 08053

FSR#01647
BUILDING TYPE / SIZE: S06
RELEASE: 22.05

REVISION SCHEDULE

NO.	DATE	DESCRIPTION

CONSULTANT PROJECT # 22019.HF.R
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SHEET MECHANICAL FLOOR PLAN
SHEET NUMBER

M1.1

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

STANDARD FEATURES

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

OPTIONS

- REMOTE SWITCH PANEL
- FIRE PROTECTION
- ETL LISTED V/D EXHAUST DAMPER
- CEILING CLOSURE
- STD. BACKPLASH
- INSULATED BACKPLASH
- M/D DAMPER
- EXPOSED SURFACES 18 GA. S.S.

MATERIAL

ALL 18 GA. S.S.

COMMENTS:

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

DATE	DWG. NO.	ITEM NO.	EXHAUST AIR INFORMATION
10.21.22	U22-809-01	H-1L	CFM TAB SP

PROJECT: CHICK-FIL-A #1647 MARLTON FSU

LOCATION: MARLTON, NJ

SUBMITTED BY: HALTON CO.

K FACTOR EQUATION: CFM = K FACTOR * 3365

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

STANDARD FEATURES

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

OPTIONS

- REMOTE SWITCH PANEL
- FIRE PROTECTION
- ETL LISTED V/D EXHAUST DAMPER
- CEILING CLOSURE
- STD. BACKPLASH
- INSULATED BACKPLASH
- M/D DAMPER
- EXPOSED SURFACES 18 GA. S.S.

MATERIAL

ALL 18 GA. S.S.

COMMENTS:

CLOSURE HEIGHT = TBD (TWO SIDES)
 CEILING HEIGHT = ADVISE
 CEILING CLOSURE RECESSED 1" FROM FRONT TO CREATE SHELF.
 38"x24" ACCESS DOOR RIGHT SIDE FOR CAPTURE-JET & M/D.
 CONTINUOUS CAPTURE INTERNAL LEFT END OUTLET.
 3" REAR STAND-OFF TO HAVE 1" THICK INSULATION.
 EQUIPMENT COVERED (3) PRESSURE FRYERS.

DATE	DWG. NO.	ITEM NO.	EXHAUST AIR INFORMATION
10.21.22	U22-809-01	H-1R	CFM TAB SP

PROJECT: CHICK-FIL-A #1647 MARLTON FSU

LOCATION: MARLTON, NJ

SUBMITTED BY: HALTON CO.

K FACTOR EQUATION: CFM = K FACTOR * 1959

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

STANDARD FEATURES

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

OPTIONS

- REMOTE SWITCH PANEL
- FIRE PROTECTION
- ETL LISTED V/D EXHAUST DAMPER
- CEILING CLOSURE
- STD. BACKPLASH
- INSULATED BACKPLASH
- M/D DAMPER
- EXPOSED SURFACES 18 GA. S.S.

MATERIAL

ALL 18 GA. S.S.

COMMENTS:

CLOSURE HEIGHT = TBD (THREE SIDES)
 CEILING HEIGHT = ADVISE
 CEILING CLOSURE RECESSED 1" FROM FRONT TO CREATE SHELF.
 18"x18" ACCESS DOOR CENTERED AT CAPTURE-JET WITH FRONT QJ INTAKE.
 NOTCH LEFT END PANEL.
 DOUBLE RECEPTACLE PIN & SLEEVE.
 3" REAR SIDE STAND-OFF TO HAVE 1" THICK INSULATION.
 EQUIPMENT COVERED (2) FRYERS.

DATE	DWG. NO.	ITEM NO.	EXHAUST AIR INFORMATION
10.21.22	U22-809-01	H-2	CFM TAB SP

PROJECT: CHICK-FIL-A #1647 MARLTON FSU

LOCATION: MARLTON, NJ

SUBMITTED BY: HALTON CO.

K FACTOR EQUATION: CFM = K FACTOR * 1291

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

STANDARD FEATURES

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

OPTIONS

- REMOTE SWITCH PANEL
- FIRE PROTECTION
- ETL LISTED V/D EXHAUST DAMPER
- CEILING CLOSURE
- STD. BACKPLASH
- INSULATED BACKPLASH
- M/D DAMPER
- EXPOSED SURFACES 18 GA. S.S.

MATERIAL

ALL 18 GA. S.S.

COMMENTS:

CLOSURE HEIGHT = TBD (THREE SIDES)
 CEILING HEIGHT = ADVISE
 CEILING CLOSURE RECESSED 1" FROM FRONT TO CREATE SHELF.
 18"x18" ACCESS DOOR CENTERED AT CAPTURE-JET WITH FRONT QJ INTAKE.
 NOTCH RIGHT END PANEL.
 DOUBLE RECEPTACLE PIN & SLEEVE.
 3" REAR SIDE STAND-OFF TO HAVE 1" THICK INSULATION.
 EQUIPMENT COVERED (2) FRYERS.

DATE	DWG. NO.	ITEM NO.	EXHAUST AIR INFORMATION
10.21.22	U22-809-01	H-3	CFM TAB SP

PROJECT: CHICK-FIL-A #1647 MARLTON FSU

LOCATION: MARLTON, NJ

SUBMITTED BY: HALTON CO.

K FACTOR EQUATION: CFM = K FACTOR * 1291

HANGER BRACKET DETAIL

DETAILS H-1L, H-1R, H-2, H-3.

MODEL: MBD EXHAUST VOLUME DAMPER

MATERIAL: ALUMINIZED FRAME 166A CONT. WELDED OUTER SHELL AND ADJUSTABLE BLADES.

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

MODEL: KVL-2-IC TYPICAL INSTALLATION

4105A

MODEL: KVL-C-IC TYPICAL INSTALLATION

4105A

60143 PIN & SLEEVE BOX DETAIL

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

BACK SHELF HOOD SCANDY HOOD 96" WIDE

Halton CONFORMS TO UL STD. LISTED PER LATEST 710 STANDARD - NSF LISTED

GENERAL REQUIREMENTS

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

MODEL NO. SERIAL NO. ITEM NO.

GENERAL REQUIREMENTS

HALTON HOODS

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

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

MAIL APPROVED DRAWINGS TO APPROPRIATE FACTORY BELOW:

WEBSITE: www.halton.com

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

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

PROJECT: CHICK-FIL-A #1647 MARLTON FSU

LOCATION: MARLTON, NJ

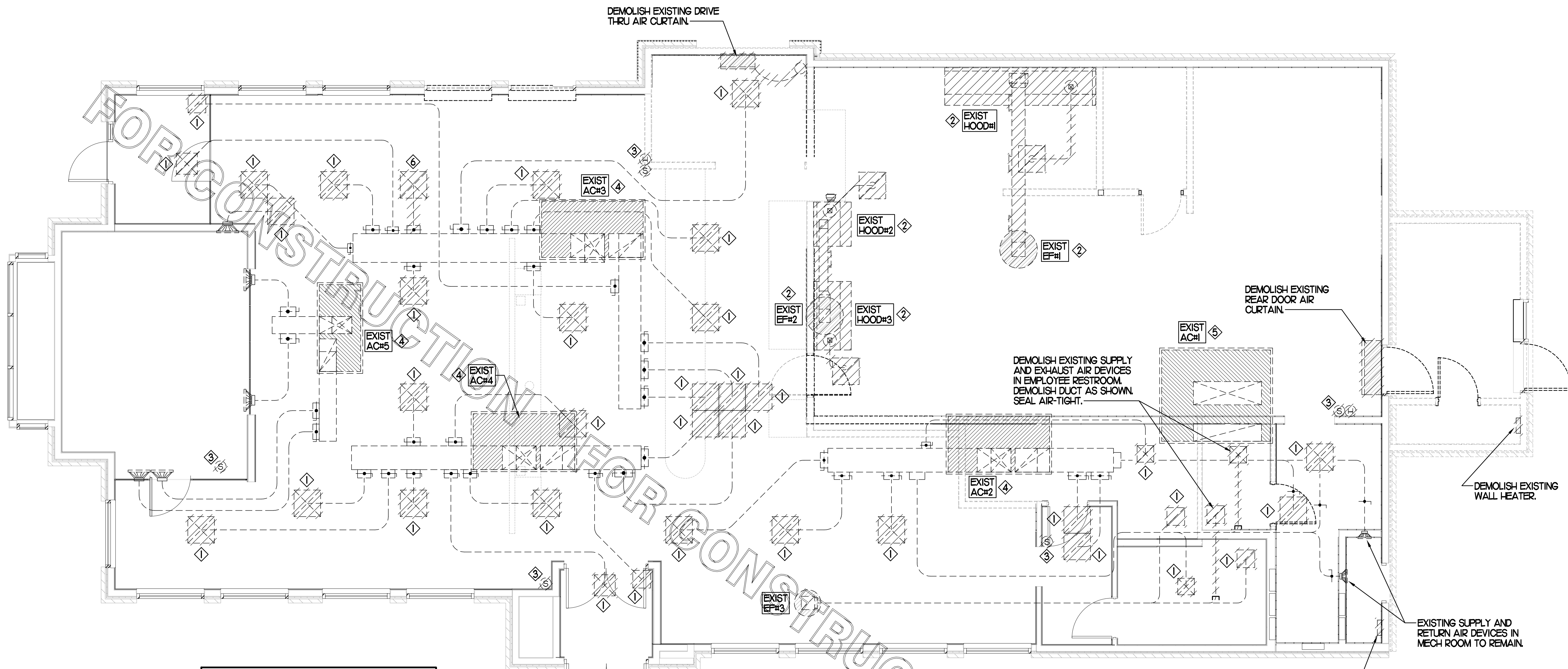
DATE: 10.21.22

SCALE: NOT TO SCALE

Halton

DRAWING NO.: U22-809-01

SHEET NO.: MH1.1



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

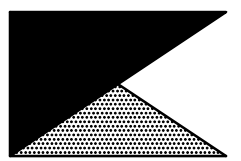
DEMOLITION KEY NOTES

- 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, T'STAT, 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, T'STAT, REMOTE SMOKE DETECTOR TEST/RESET STATION, ETC.), SUPPLY/RETURN AIR DROPS, ALL ASSOCIATED SUPPLY/RETURN DUCT & AIR DEVICES (UNLESS NOTED OTHERWISE). COVER ROOF CURB WEATHER-TIGHT FOR RE-USE. SEE SHEET M.II.
- ⑥ DEMOLISH EXISTING AIR DEVICE AND ASSOCIATED BRANCH DUCT. SEAL PLENUM AIR-TIGHT.



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



8-14-23

CHICK-FIL-A
MARLTON FSU
220 Route 73 N
Marlton, NJ 08053

FSR#01647

BUILDING TYPE / SIZE: S06
RELEASE: 22.05

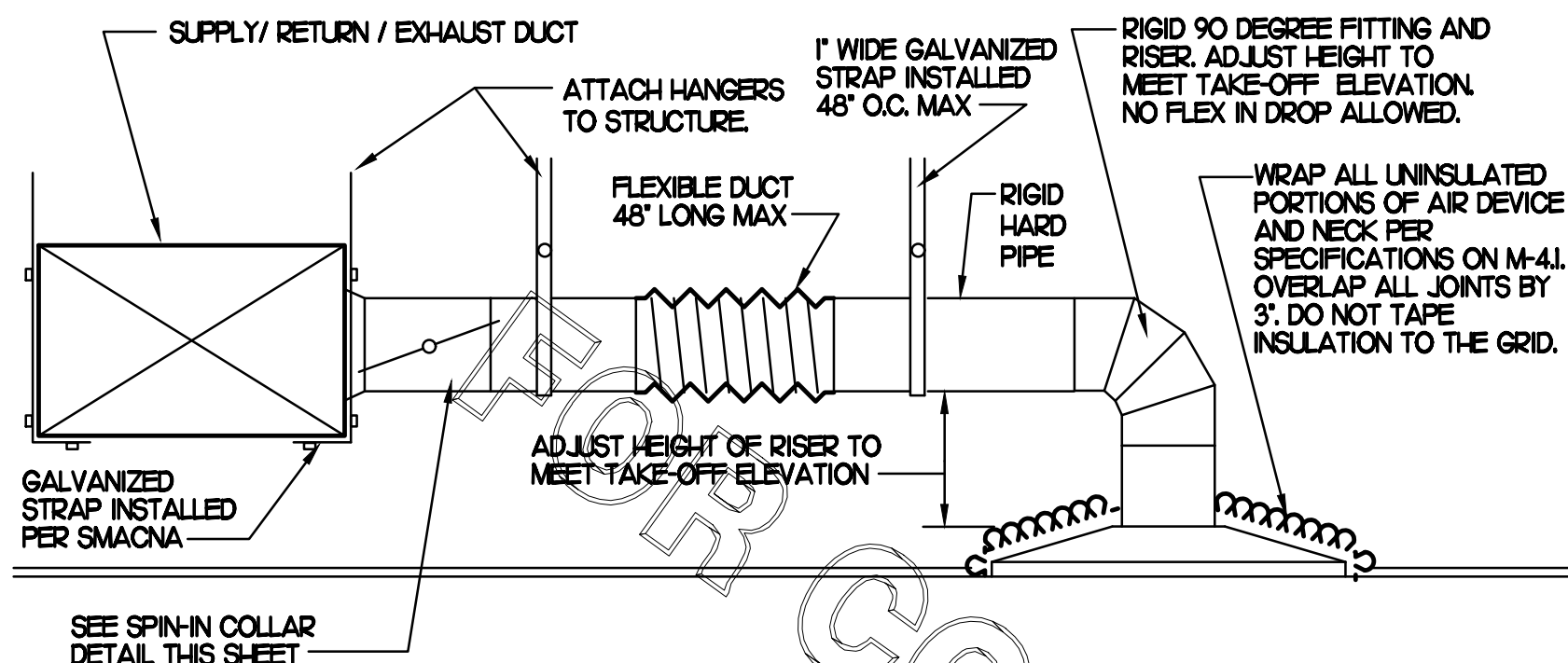
REVISION SCHEDULE		
NO.	DATE	DESCRIPTION

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SHEET
MECHANICAL
DEMO PLAN
SHEET NUMBER

M0.1

CONSTRUCTION



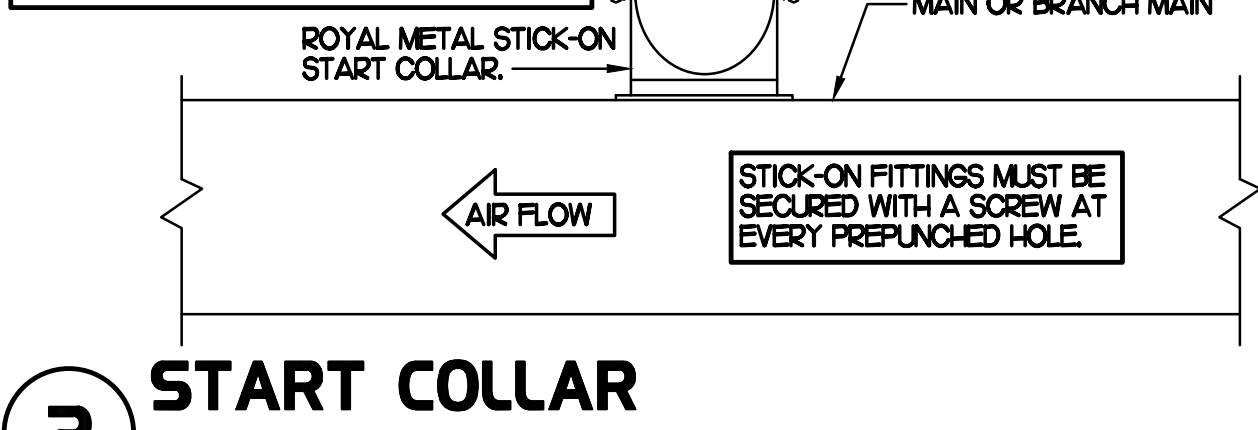
1 SAG/RAG/GRILLE TAKE-OFF

NO SCALE

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

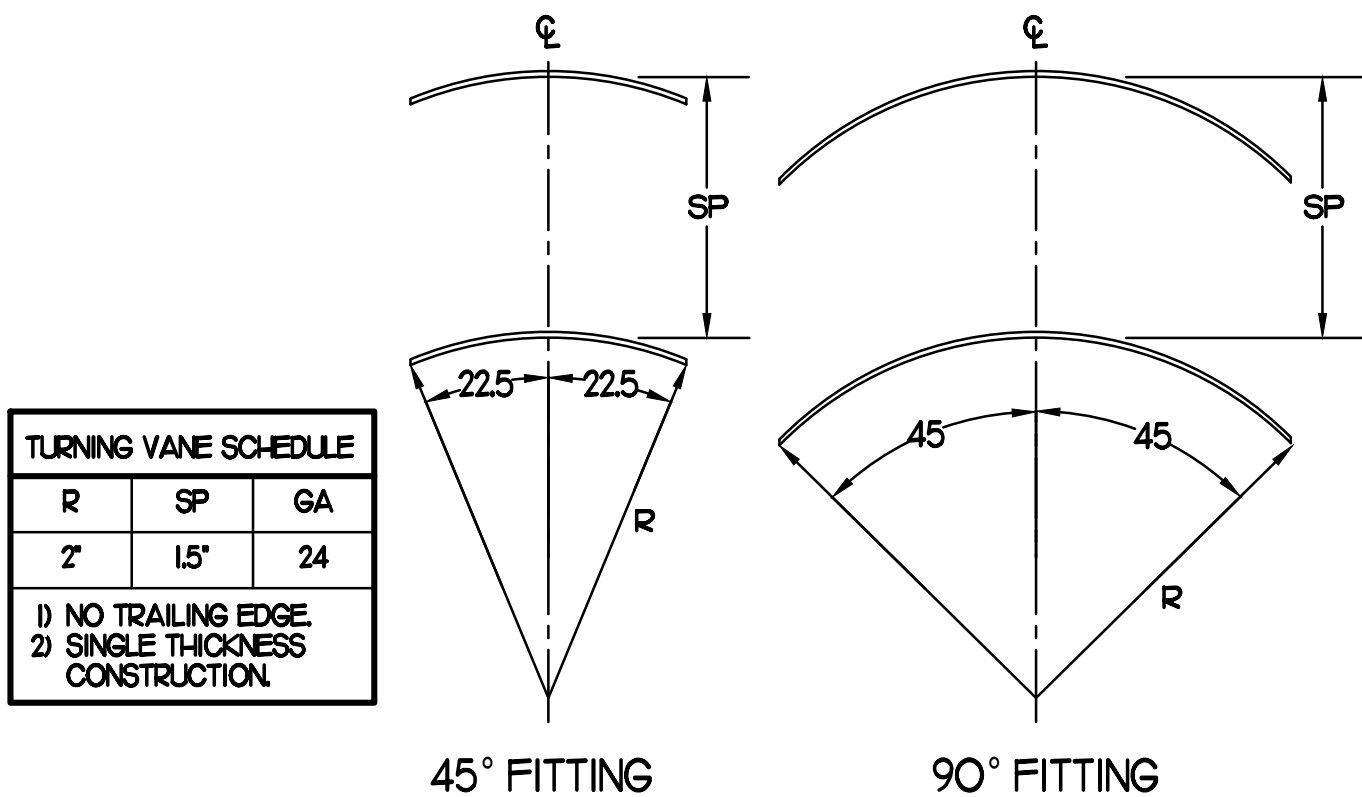
DAMPER CONTROL HANDLE MUST BE LEFT EXPOSED, LOCATED ON THE LEFT OR RIGHT SIDE WHEN INSTALLED ON HORIZONTAL DUCTS, AND LOCATED ON THE BOTTOM WHEN INSTALLED ON VERTICAL DUCTS. DAMPER CONTROL HANDLES NOT INSTALLED IN THE CORRECT ORIENTATION AS SPECIFIED ABOVE WILL NOT BE ACCEPTED. ATTACH A YELLOW FLUORESCENT CONSTRUCTION RIBBON TO THE HANDLE. RIBBON MUST BE 12" LONG AND BE EASILY IDENTIFIABLE FOR TEST AND BALANCE CONTRACTOR.

DO NOT APPLY START COLLAR OVER DUCT WRAP.
MINIMUM 1'-0" OF RIGID DUCT AFTER SPIN-IN.
DAMPER CONTROL HANDLE
ROYAL METAL STICK-ON START COLLAR.
MAIN OR BRANCH MAIN



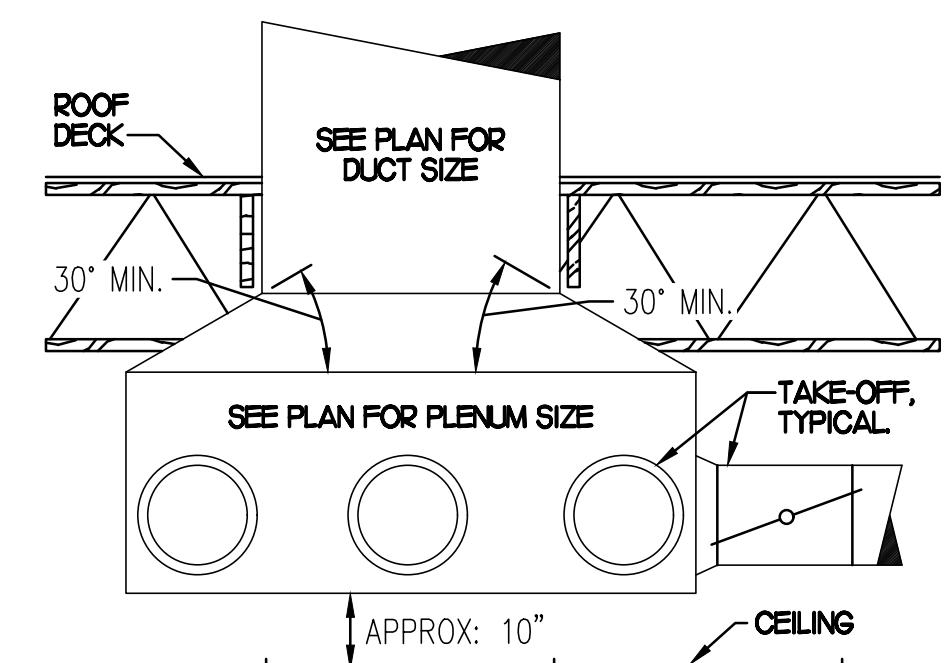
2 START COLLAR

NO SCALE



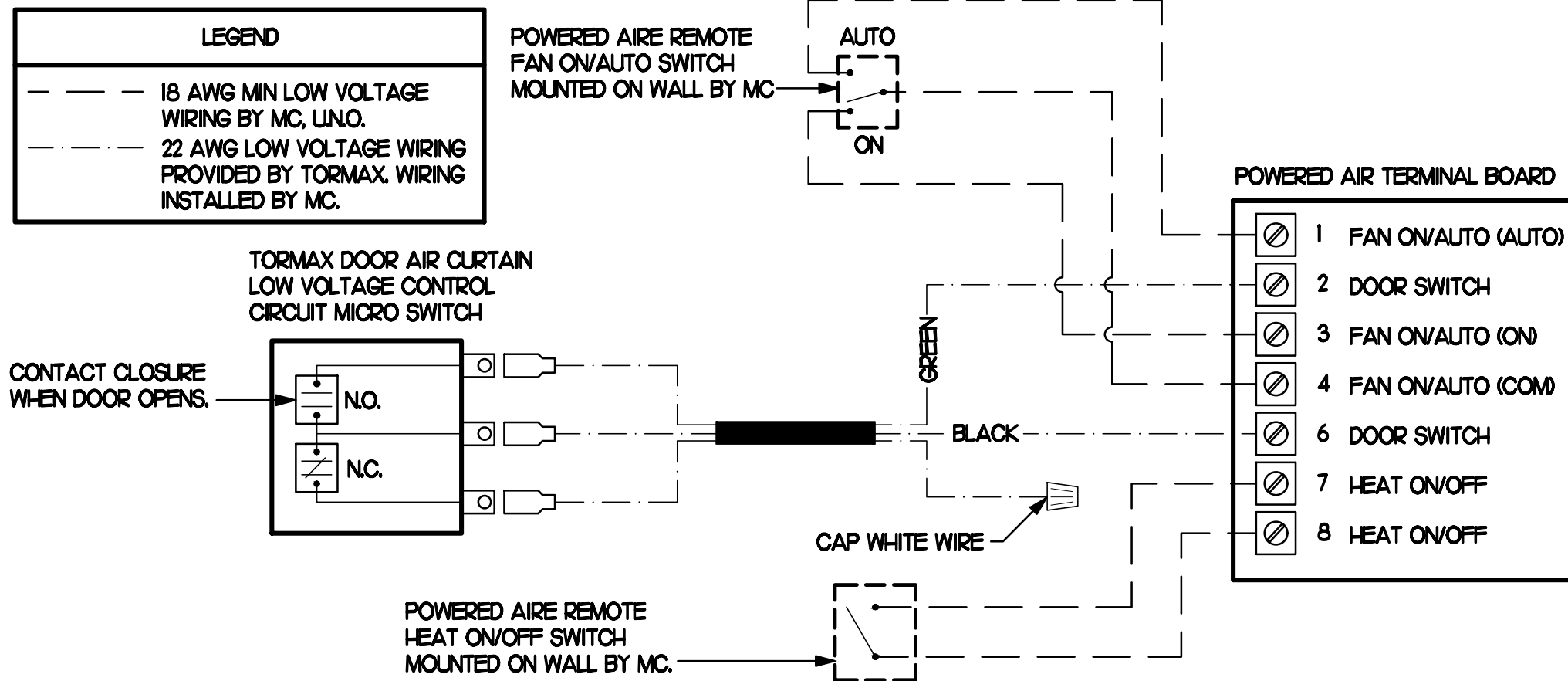
3 TURNING VANES

NO SCALE



5 RETURN DROP GEOMETRY

NO SCALE



4 AIR CURTAIN WIRING DIAGRAM

NO SCALE

EXHAUST FAN SCHEDULE

MARK	CFM	ESP	RPM	TIP SPEED (FPM)	HP (WATTS)	AREA SERVED	MODEL	MANUFACTURER	REMARKS
EF#1 (NEW)	1983	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#3	150 CPS	LOREN COOK	H2
EF#3 (EXIST)	475	-	-	-	-	RESTROOMS	-	EXISTING	-

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 BARROW COMPANY FOR FAN/CURB PACKAGE.
• MECHANICAL CONTRACTOR IS REQUIRED TO PURCHASE THE FAN/CURB PACKAGE DIRECTLY FROM TOM BARROW COMPANY. CONTACT MR. SCOTT GEORGE AT 404-351-0100 FOR PRICING AND AVAILABILITY. FANS AND CURBS NOT PURCHASED THRU TOM BARROW COMPANY WILL NOT BE ACCEPTED.

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

ELECTRIC WALL HEATER SCHEDULE

MARK	KW	FRAME SIZE (IN)		CFM	MOUNTING TYPE	MODEL	MANUFACTURER
		WIDTH	HEIGHT				
WH#1	15	16	21	175	SURFACE	HP3324TD-RP	MARKEL

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

REMARKS
1. AUTOMATIC FAN DELAY SWITCH AND INTEGRAL DISCONNECT.
2. INTEGRAL TAMPERPROOF THERMOSTAT SET AT 65 DEG. F.
3. CAPACITY SHOWN IS BASED ON 208V SERVICE.
4. CONFIRM ELECTRICAL CHARACTERISTICS WITH E-SHEETS PRIOR TO ORDERING EQUIPMENT.
5. POWDER COATED 18 GA. STEEL GRILLE WITH ALUMINUM FRAME.
6. AUTOMATIC RESET THERMAL LIMIT SWITCH.
7. TUBULAR STEEL ELEMENT WITH STEEL FINS.

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-1-48B	POWERED-AIRE	2-5
AD#2 (NEW)	3,867	4,220	NA	3/4	REAR DOOR	RBT-1-48	POWERED-AIRE	1
AD#3 (NEW)	2,899	4,220	NA	3/4	DRIVE THRU DOOR	RBT-1-36	POWERED-AIRE	1

NOTES
• CHICK-FIL-A HAS A NATIONAL ACCOUNT WITH TOM BARROW COMPANY FOR THE AIR DOORS. THE MECHANICAL CONTRACTOR SHALL PURCHASE THE AIR DOORS DIRECTLY FROM TOM BARROW COMPANY. CONTACT MR. SCOTT GEORGE AT 404-351-0100 FOR PRICING AND AVAILABILITY. AIR DOORS NOT PURCHASED THRU TOM BARROW COMPANY WILL NOT BE ACCEPTED.

REMARKS
1. FACTORY PROVIDED MAGNETIC DOOR CONTACT WITH FACTORY INSTALLED LOW VOLTAGE CONTROLS LOCATED IN AIR DOOR CABINET.
2. FACTORY PROVIDED, WIRED, AND UNIT MOUNTED SPEED CONTROLLER LOCATED ABOVE CEILING.
3. FACTORY WIRED DISCONNECT.
4. FACTORY PROVIDED, FIELD INSTALLED REMOTE WALL SWITCHES FOR HEATING ON/OFF AND FAN ON/AUTO SWITCH. SEE AIR CURTAIN WIRING DIAGRAM DETAIL THIS SHEET.
5. PROVIDE WITH DIVERTER BOX FROM TOM BARROW COMPANY. PROVIDE WITH MOUNTING BRACKETS PER MANUFACTURER'S RECOMMENDATIONS. INSTALL PER MANUFACTURER'S MOUNTING 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 APDOR ALUMINUM PERFORATED FACE RETURN AIR GRILLE.	RESTROOMS ENTRYS	14X4	17X17	SURFACE	1,4,5,6
Z	PRICE MODEL APDC ALUMINUM SUPPLY AIR DIFFUSER WITH INDIVIDUALLY ADJUSTABLE CURVED AIR PATTERN CONTROLLERS.	KITCHEN	10	16X16	LAY-IN	1,7

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

REMARKS
1. STANDARD OFF WHITE FINISH.
2. PROVIDE MODEL VCS3 NECK DAMPER.
3. SEE DRAWING M11 FOR THROW.
4. PROVIDE MODEL VCR7 NECK DAMPER ON GRILLES IN RESTROOMS.
5. PROVIDE BACKPAN MC TO SEAL JOINTS WITH MASTIC AND INSULATE EXTERNALLY.
6. FIELD INSULATE BACKPAN AS SHOWN ON DETAIL 1/M3.1.
7. 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.					
ACH (NEW)	2763	2013	4000	3240	2	8,500	2,000	62	0.8	YS1300A350H	TRANE	H4
ACH2 (NEW)	1031	73.8	200.0	162.0	2	2,830	750	31	0.8	YS102A350H	TRANE	H3,5
ACH3 (NEW)	1244	95.9	240.0	194.0	2	4,000	1,000	31	0.8	YS120A350H	TRANE	H3,6
ACH4 (NEW)	932	69.7	200.0	162.0	2	2,765	600	31	0.8	YS1090A350H	TRANE	H3,7
ACH5 (NEW)	586	43.6	130.0	104.0	2	1,800	300	10	0.8	YHCO67E38H	TRANE	1,4-12,8-20

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.

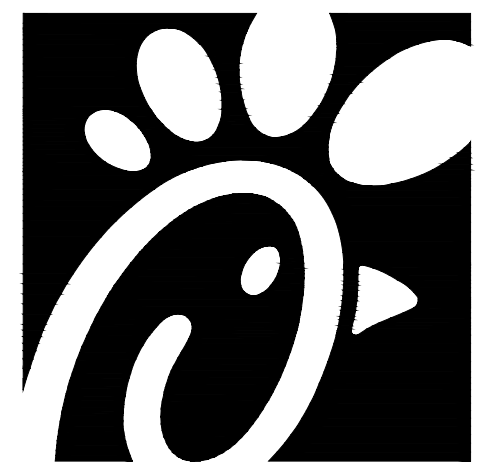
REMARKS
1. PROVIDE DIFFERENTIAL ENTHALPHY ECONOMIZER WITH FIELD INSTALLED POWER EXHAUST.
2. PROVIDE FACTORY INSTALLED AND UNIT POWERED 15V GFI SERVICE OUTLET.
3. PROVIDE FACTORY INSTALLED NON-FUSED DISCONNECT.
4. PROVIDE FACTORY INSTALLED RETURN SIDE SMOKE DETECTOR.
5. PROVIDE 2" MERV 8 THROW AWAY FILTERS.
6. PROVIDE HINGED PANELS FOR FILTER ACCESS, FAN MOTOR ACCESS, COMPRESSOR ACCESS AND CONTROL COMPARTMENT ACCESS.
7. ADJUST GAS MANIFOLD PRESSURE AT LOCATIONS WHERE ELEVATION EXCEEDS 2000' ABOVE SEA LEVEL AS RECOMMENDED BY MANUFACTURER.
8. PROVIDE FACTORY INSTALLED COIL HAIL GUARD.
9. PROVIDE HOT GAS RE-HEAT OPTION AND FACTORY PROVIDED REMOTE HUMIDITY SENSOR (BAYSSEN036A).
10. PROVIDE FACTORY INSTALLED CONDENSATE DRAIN PAN OVERFLOW SWITCH.
11. PROVIDE FACTORY INSTALLED MULTI-SPEED FAN OPTION.
12. PROVIDE FACTORY SUPPLY AIR TEMPERING KIT, FIELD INSTALLED.
13. PROVIDE HIGH FALLT SCOR (6SK).
14. PROVIDE WITH CURBS PLUS ADAPTER CURB. UNIT BEING REPLACED IS LENNOX MODEL LGC1804H. ADAPTER CURB IS PROVIDED BY TRANE AS PART OF THE TOTAL EQUIPMENT PACKAGE.
15. PROVIDE WITH CURBS PLUS ADAPTER CURB. UNIT BEING REPLACED IS LENNOX MODEL LGAI02H. ADAPTER CURB IS PROVIDED BY TRANE AS PART OF THE TOTAL EQUIPMENT PACKAGE.
16. PROVIDE WITH CURBS PLUS ADAPTER CURB. UNIT BEING REPLACED IS LENNOX MODEL LGC120H. ADAPTER CURB IS PROVIDED BY TRANE AS PART OF THE TOTAL EQUIPMENT PACKAGE.
17. PROVIDE WITH CURBS PLUS ADAPTER CURB. UNIT BEING REPLACED IS LENNOX MODEL LGAO90H. ADAPTER CURB IS PROVIDED BY TRANE AS PART OF THE TOTAL EQUIPMENT PACKAGE.
18. PROVIDE WITH CURBS PLUS ADAPTER CURB. UNIT BEING REPLACED IS LENNOX MODEL LGAO60H. ADAPTER CURB IS PROVIDED BY TRANE AS PART OF THE TOTAL EQUIPMENT PACKAGE.
19. EC PROVIDED AND INSTALLED DISCONNECT W/ CURRENT LIMITING FUSE.
20. PROVIDE FACTORY INSTALLED 15V GFI SERVICE OUTLET.

DUCTLESS SPLIT SYSTEM HEAT PUMP UNIT SCHEDULE

MARK	COOLING CAPACITY (MBH)		HEATING CAPACITY (MBH)		EFFICIENCIES	FAN SECTION (CFM)			ELECTRICAL DATA		R-410A MODEL	MFR	
	MIN	MAX	MIN	MAX		SEER	HSPF	AIR FLOW (WET)	MCA	MOCP			VOLTAGE
AHUM/CU#1 (NEW)	18.0	33.5	18.0	40.0	16.2	10.0	635-730-830	28	40	208V/60	PKA-A36KA7	PLZ-HA36N-HA5	MITSUBISHI

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

REMARKS
1. ELECTRICIAN TO PROVIDE NON-FUSED DISCONNECT.
2. MECHANICAL TO PROVIDE AND INSTALL REFRIGERANT PIPING AS PER MFR RECOMMENDATIONS.
3. PROVIDE ENGRAVED PLASTIC LABEL AT AHU AND CU WITH 1" HIGH WHITE LETTERS ON A BLACK BACKGROUND RIVETED TO UNIT CABINET.
4. PROVIDE WITH ADEQUATE REFRIGERANT LINE SET. FIELD VERIFY DISTANCE FROM WHERE CONDENSER IS TO BE SET TO AIR HANDLER LOCATION PRIOR TO ORDERING.
5. PROVIDE WITH WALL MOUNTED THERMOSTAT (TAR-CTO1MAU-SB). USE TWO-WIRE, STANDARD, NON-POLAR CONTROL WIRE TO CONNECTOR TB15 ON INDOOR UNIT CONTROLLER. PROGRAM THERMOSTAT CONTROLS TO MATCH DRIVE-THRU RTU SETPOINTS.
6. PROVIDE PAC-SE55RA-E CONNECTOR AT INDOOR UNIT (CONNECTOR ON#3), WIRE ORANGE AND RED WIRES TO SPARE POLE ON RELAY R-1 IN SUNCOAST T-500 PANEL (TERMINALS 11 AND 7 RESPECTIVELY) AND CAP THE BROWN WIRE.
7. PROVIDE WITH CONDENSATE PUMP (BLUE DIAMOND MAXI BLUE MODEL# X87-721).



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



8-14-23

CHICK-FIL-A
MARLTON FSU

220 Route 73 N
Marlton, NJ 08053

FSR#01647

BUILDING TYPE / SIZE: S06
RELEASE: 22.05

REVISION SCHEDULE
NO. DATE DESCRIPTION

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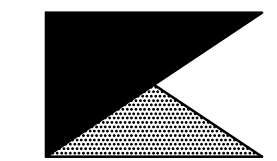
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SHEET
MECH DETAILS & SCHEDULES
SHEET NUMBER

M3.1



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



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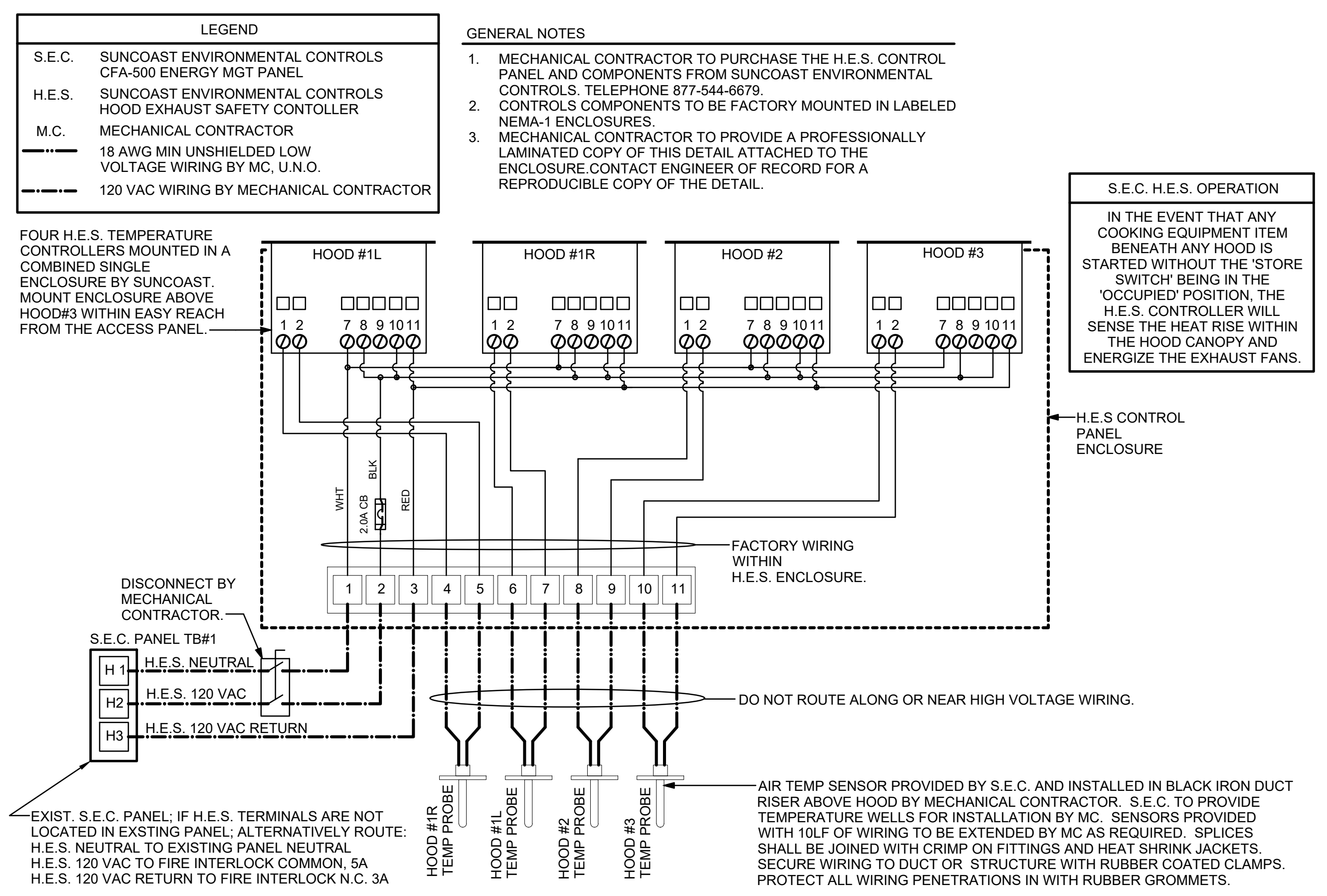
SHEET HVAC CONTROLS

SHEET NUMBER

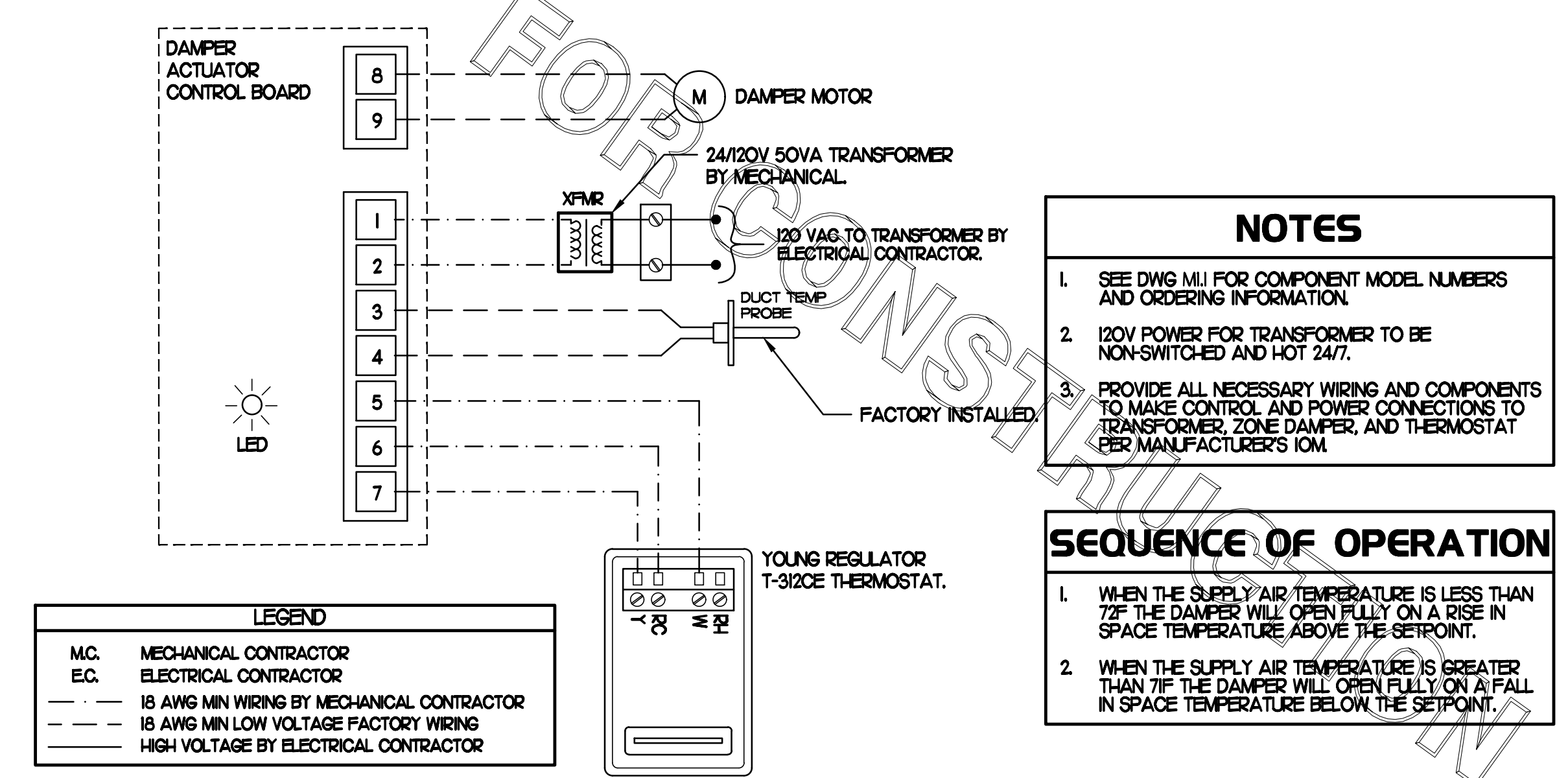
M4.1

FOR CONSTRUCTION

FOR CONSTRUCTION



1 HOOD EXHAUST SAFETY SWITCH (H.E.S.) WIRING DIAGRAM
NONE



2 OFFICE VAV DAMPER AND TSTAT
NO SCALE

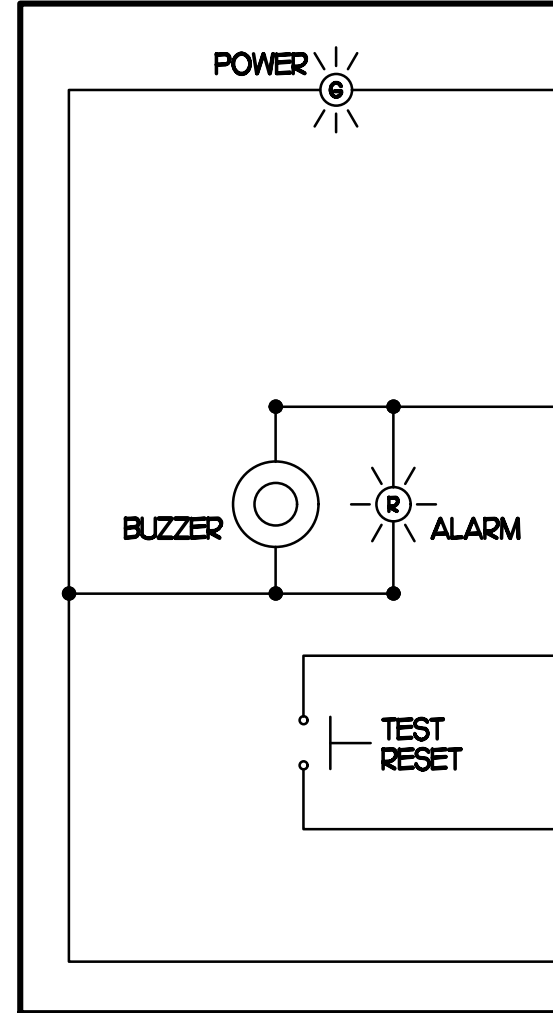
CONSTRUCTION

THERE WILL BE A SMOKE DETECTOR ANNUNCIATOR PROVIDED FOR THE RETURN SIDE DUCT DETECTOR. WHERE A SUPPLY SIDE DUCT DETECTOR IS SHOWN ON THE FLOOR PLAN AND/OR CALLED FOR ON THE RTU SCHEDULE, AN ADDITIONAL SMOKE DETECTOR ANNUNCIATOR WILL ALSO BE PROVIDED.

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

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

SUNCOAST CONTROLS ANNUNCIATOR

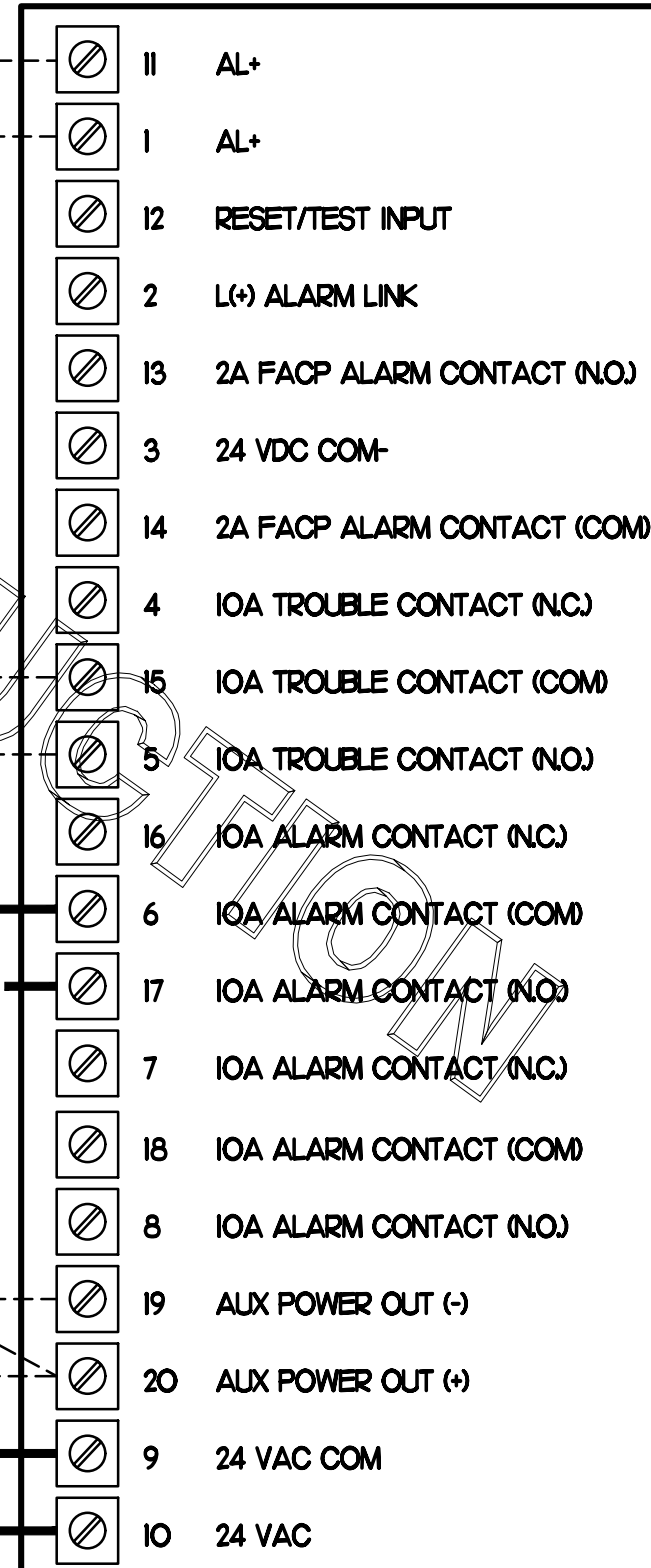


RELATEL CONTROL BOARD

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

TRANE FACTORY WIRING

TRANE FACTORY INSTALLED DUCT DETECTOR AIR PRODUCTS M/N SL-2000-P



1 SMOKE DETECTOR AND ANNUNCIATOR WIRING DIAGRAM - TRANE

NO SCALE

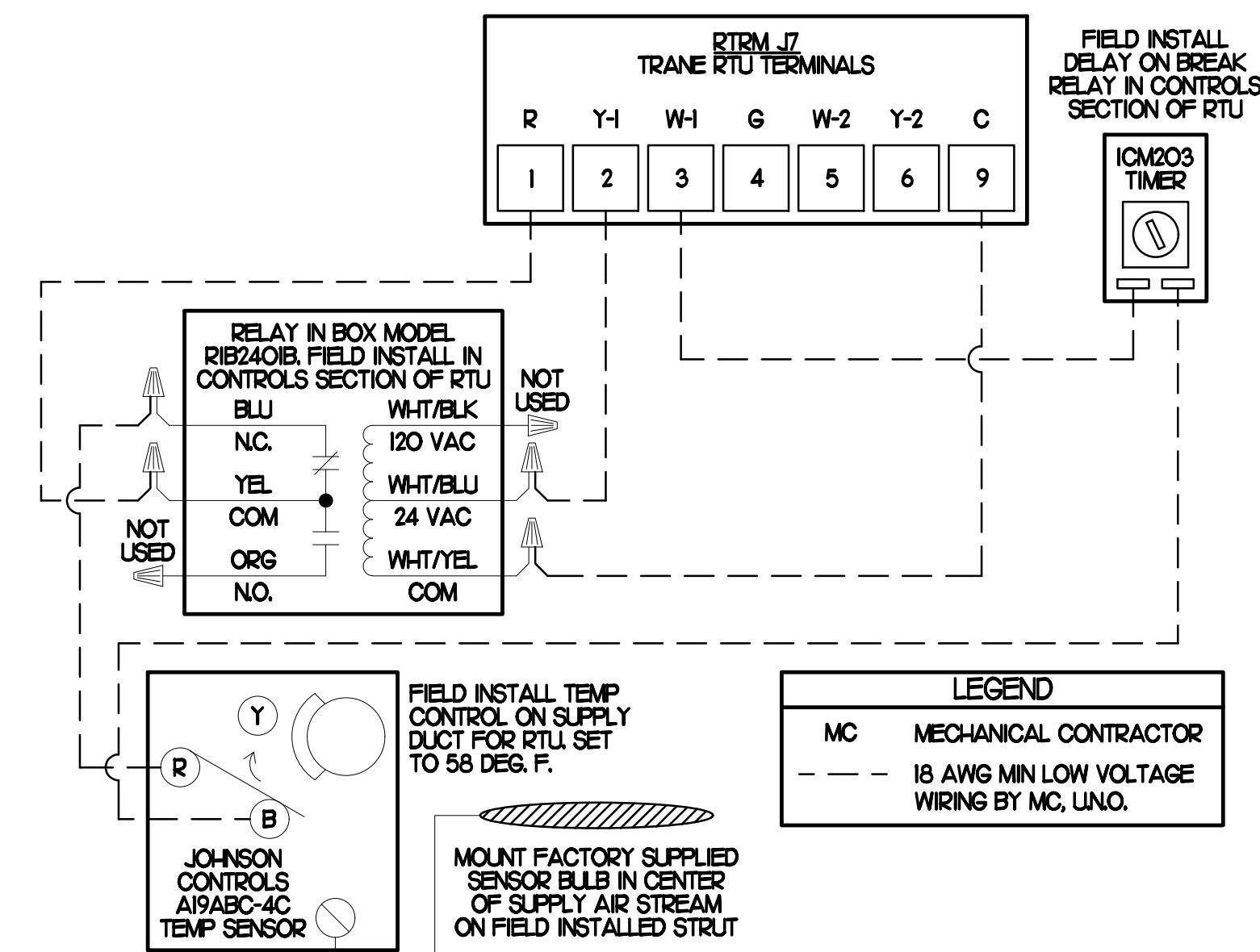
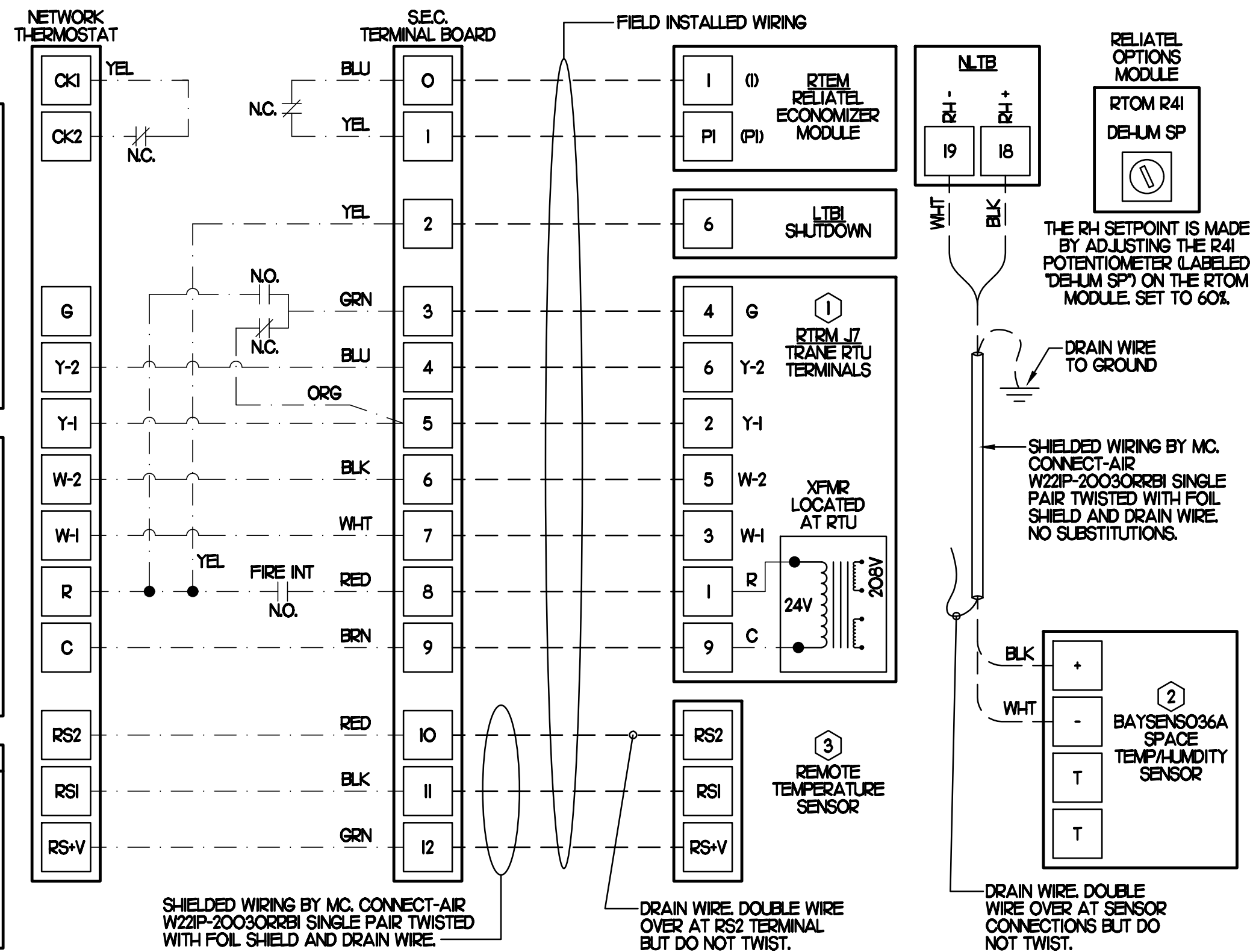
NOTES
 1. MECHANICAL CONTRACTOR SHALL MAKE PLASTIC LAMINATE OF THIS DETAIL AND INSTALL PERMANENTLY ON INSIDE DOOR OF ROOFTOP UNIT CONTROL COMPARTMENT.
 2. SEE DETAILS THIS SHEET FOR SMOKE DETECTOR AND ANNUNCIATOR WIRING.
 3. SET ALL THERMOSTATS FOR AUTO CHANGEOVER.
 4. PROVIDE PLASTIC ENGRAVED LABEL AT ALL NEW SENSORS WITH 1/4" HIGH WHITE LETTERING ON BLACK BACKGROUND, I.E. "ACH2 HUMIDITY SENSOR" OR "ACH2 TEMP SENSOR". PLACE LABELS ON WALL ADJACENT TO DEVICE. DO NOT APPLY DIRECTLY TO DEVICE.

KEYED NOTES
 ① LOW VOLTAGE WIRING TO RTU TO BE ROUTED TO UNIT THRU FACTORY WIREWAY.
 ② HOT GAS RE-HEAT UNITS ONLY: WIRING TO HUMIDITY SENSOR TO BE MADE WITH SHIELDED TWISTED PAIR AS SHOWN. TERMINATE SHIELD WIRES AT TB-1, LEAVE OPEN AT SENSOR.
 ③ NETWORK TSTAT REMOTE TEMP SENSOR PROVIDED BY SUNCOAST AND INSTALLED BY MC. SENSOR IS INTENDED TO BE SURFACE MOUNTED AND DOES NOT REQUIRE A SINGLE GANG BOX OR CONDUIT. FIELD CALIBRATE EACH SENSOR.

LEGEND
 SEC. SUNCOAST ENVIRONMENTAL CONTROLS (SUPPLIER OF TEMP/FAN CONTROL PANEL) LOCATED IN KITCHEN
 KEY NOTE REFERENCE
 MC MECHANICAL CONTRACTOR
 - - - 22 AWG MIN LOW VOLTAGE WIRING BY MC, UNO.
 LOW VOLTAGE WIRING BY SEC.

2 ROOFTOP UNIT CONTROL WIRING - TRANE

NONE



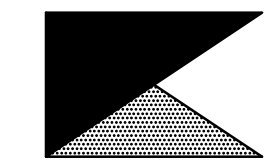
3 SUPPLY AIR TEMPERING WIRING - TRANE

NONE



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



8-14-23

CHICK-FIL-A
MARLTON FSU
 220 Route 73 N
 Marlton, NJ 08053

FSR#01647
 BUILDING TYPE / SIZE: S06
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SHEET HVAC CONTROLS

SHEET NUMBER

M4.2



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 5200 Buffington Road
 Atlanta, Georgia 30349



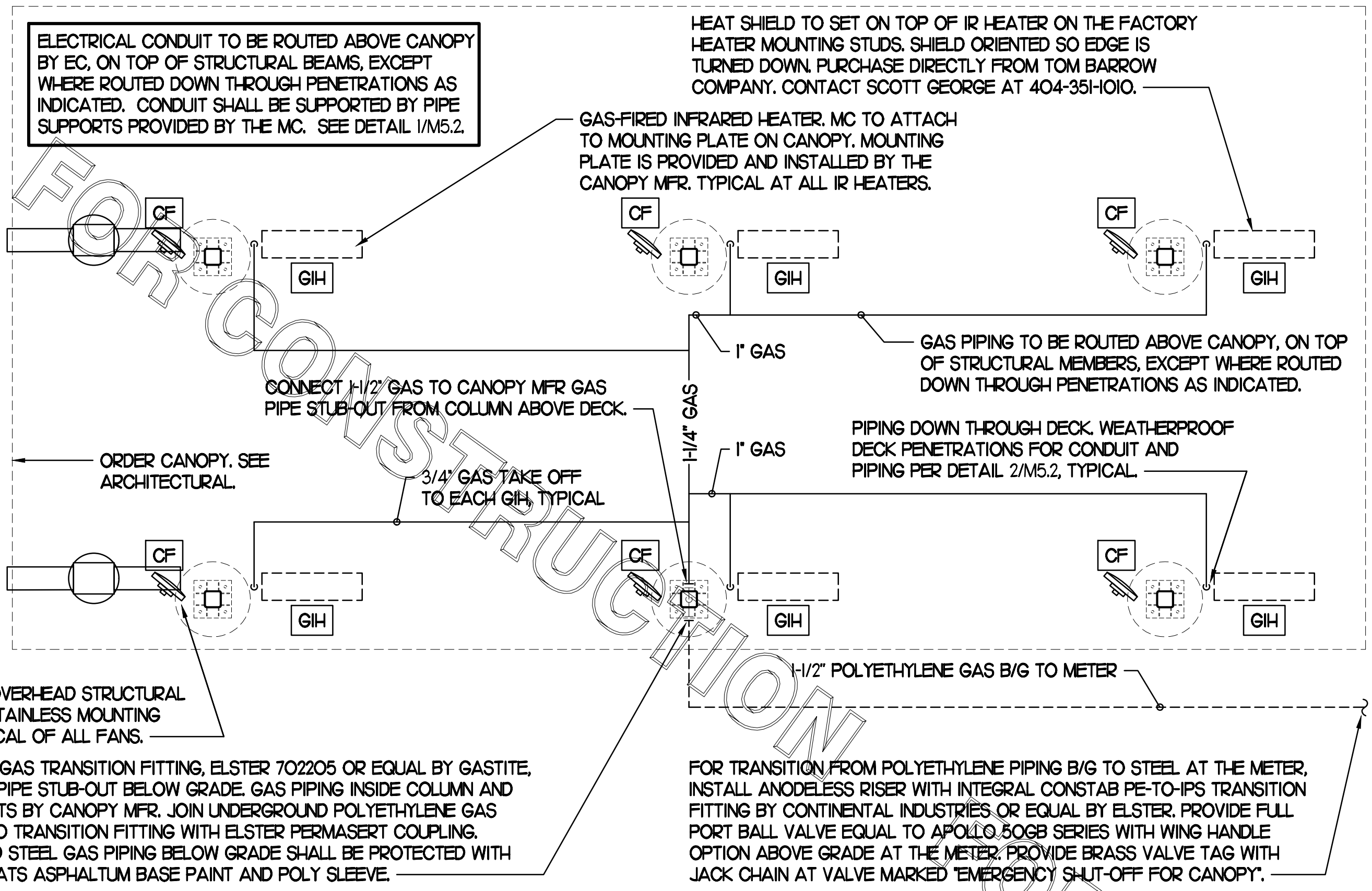
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LEGEND			
CF#	CIRCULATING FAN # (TYP)	B/G	BELOW GRADE
GH#	GAS INFRARED HEATER # (TYP)	EC	ELECTRICAL CONTRACTOR
---	NEW GAS PIPING ABOVE GRADE	MC	MECHANICAL CONTRACTOR
---	NEW GAS PIPING BELOW GRADE	---	CONDUIT ABOVE CANOPY DECK

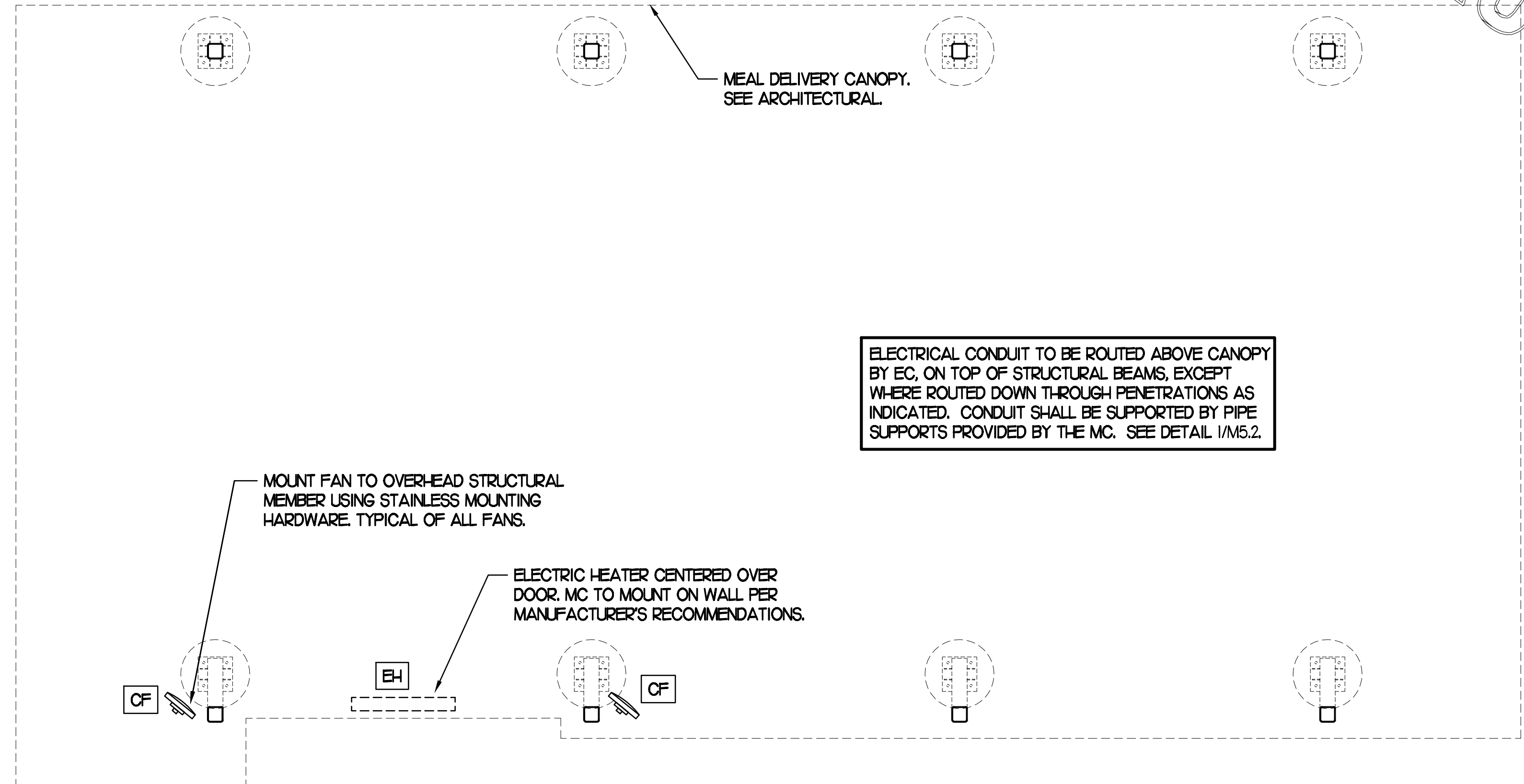
GENERAL NOTES

- 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.



1 HVAC PLAN - DOUBLE LANE ORDER CANOPY

NTS



2 HVAC PLAN - MEAL DELIVERY CANOPY

NTS

CHICK-FIL-A
MARLTON FSU
 220 Route 73 N
 Marlton, NJ 08053

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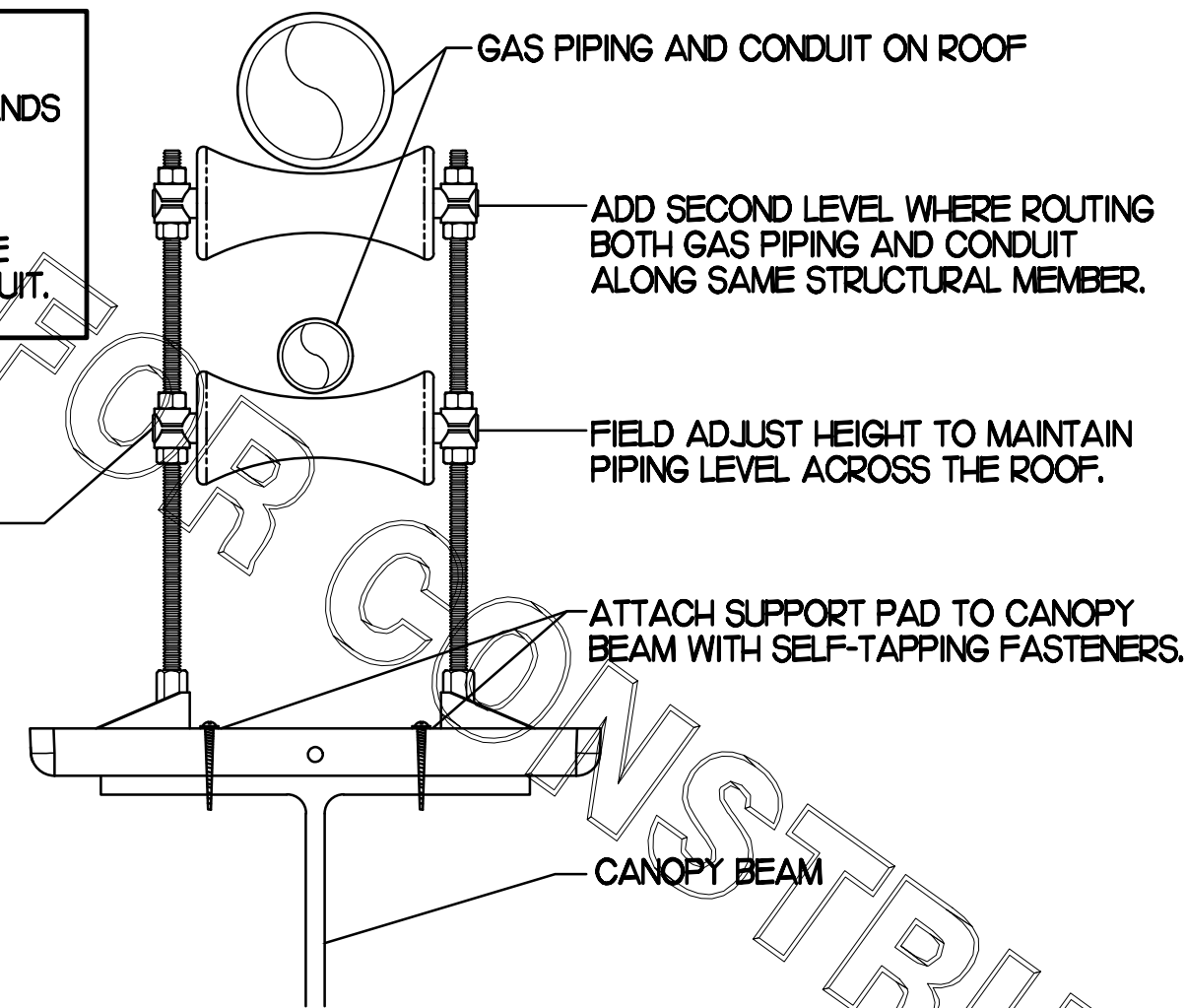
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SHEET
 CANOPY HVAC
 PLANS
 SHEET NUMBER

M5.1

NOTES

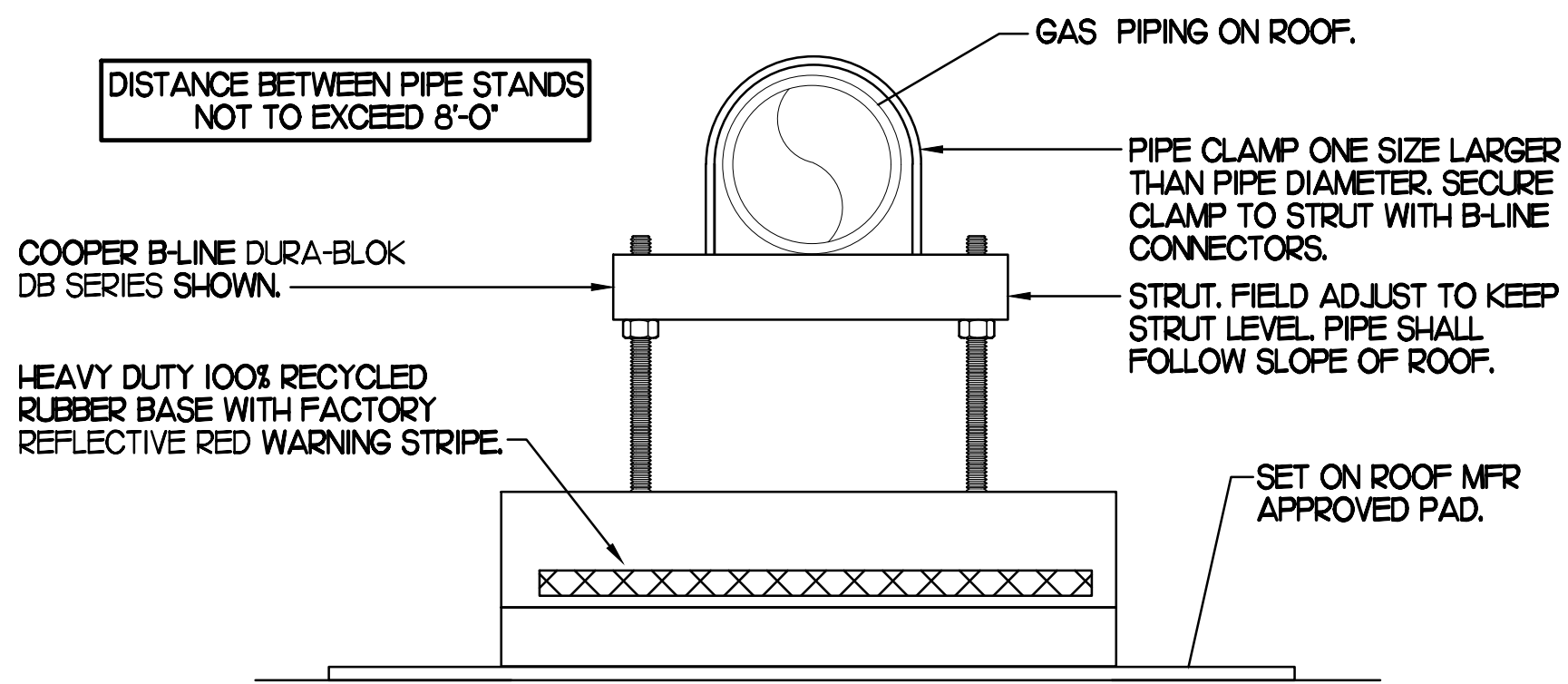
- DISTANCE BETWEEN PIPESTANDS NOT TO EXCEED 8'-0".
- MC TO PROVIDE DUAL LEVEL SUPPORT TO ACCOMMODATE BOTH GAS PIPING AND CONDUIT.



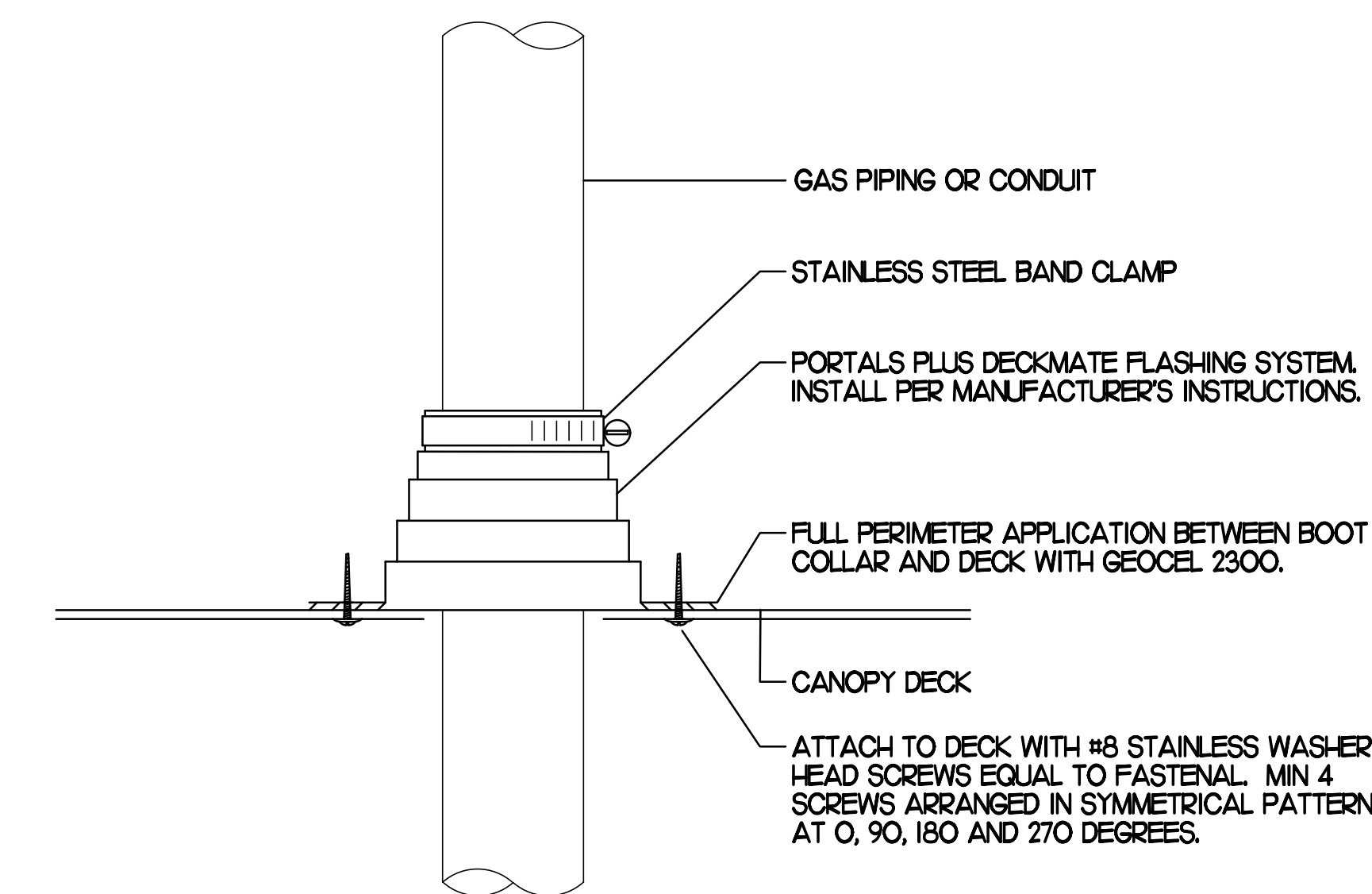
1 PIPING SUPPORT ON CANOPY
NO SCALE

NOTES

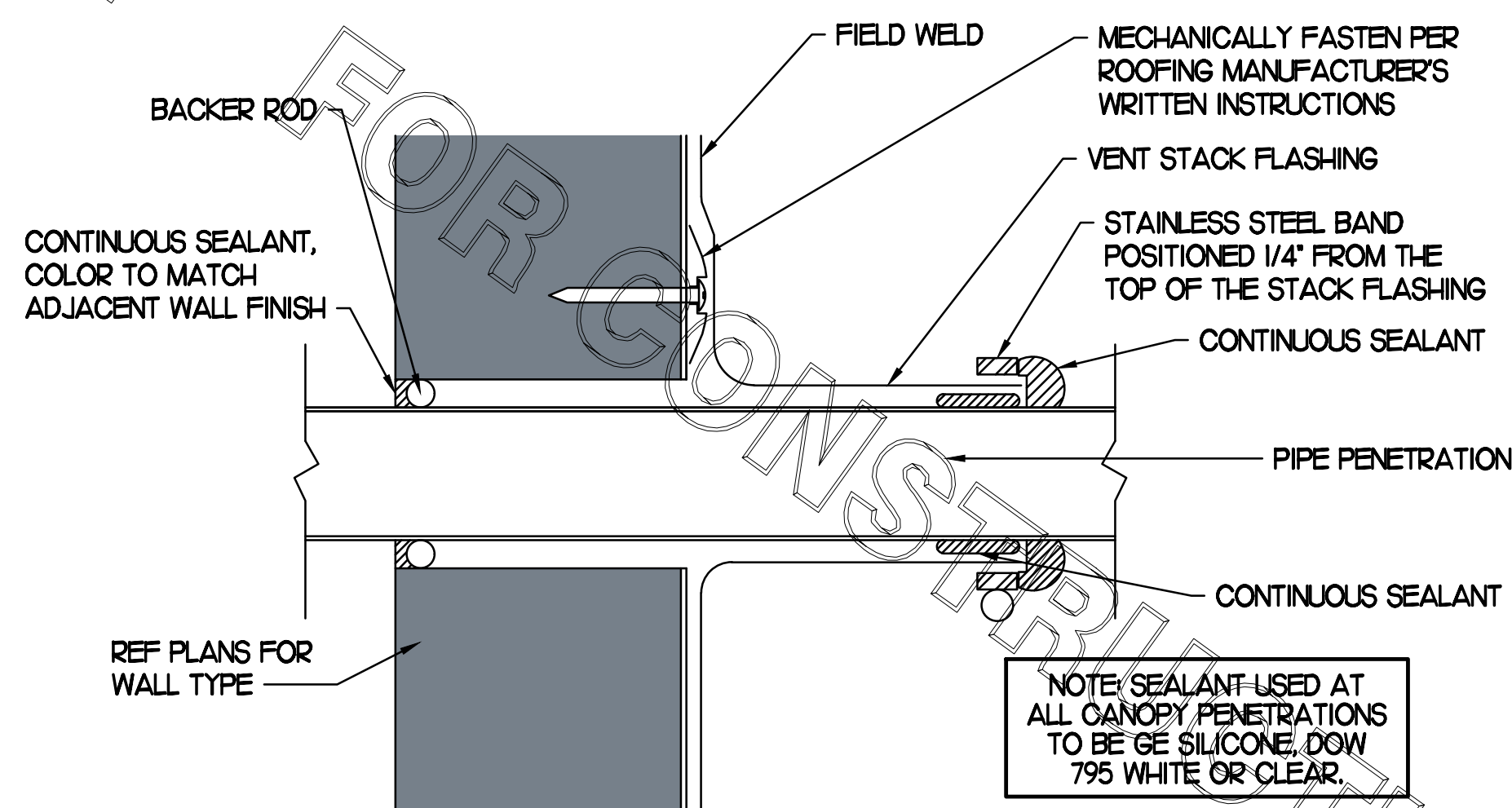
- NON ADJUSTABLE MODEL DB610 PIPE STAND TO BE USED FOR NON-ELEVATED PIPING INSTALLED FLAT ON ROOF DECK.
- PROVIDE MODEL DBE 10-8 OR DBE 10-12 OR DBE 10-16 AS NEEDED FOR ELEVATING PIPING FOR GAS PIPING CROSSING OVER CONDENSATE PIPING.
- ENSURE GAS PIPING DOES NOT OBSTRUCT ROOFTOP EQUIPMENT ACCESS OPENINGS.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



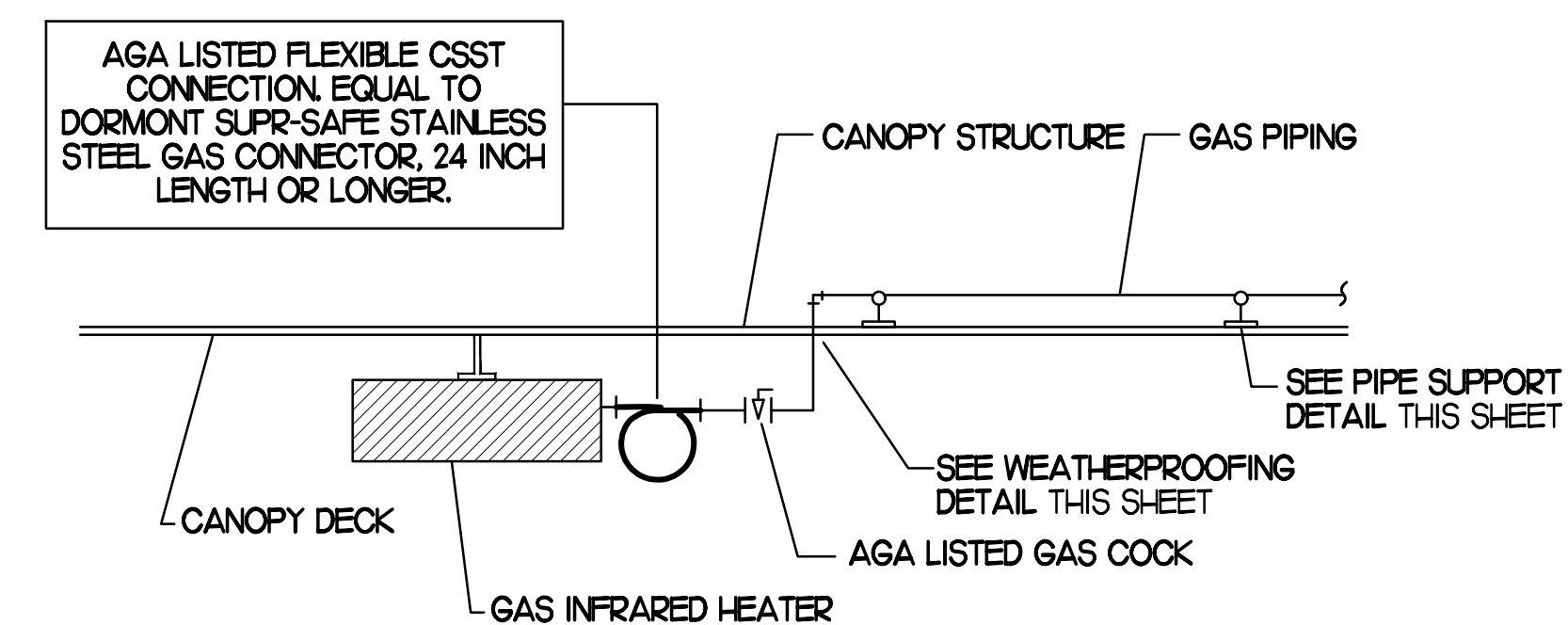
4 PIPING SUPPORT ON MAIN BLDG ROOF
NO SCALE



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
5200 Buffington Road
Atlanta, Georgia 30349



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

MARK T. KURZYNSKIE
NEW JERSEY LICENSE # GE44646



8-14-23

CHICK-FIL-A
MARLTON FSU

220 Route 73 N
Marlton, NJ 08053

FSR#01647

BUILDING TYPE / SIZE: S06
RELEASE: 22.05

REVISION SCHEDULE
NO. DATE DESCRIPTION

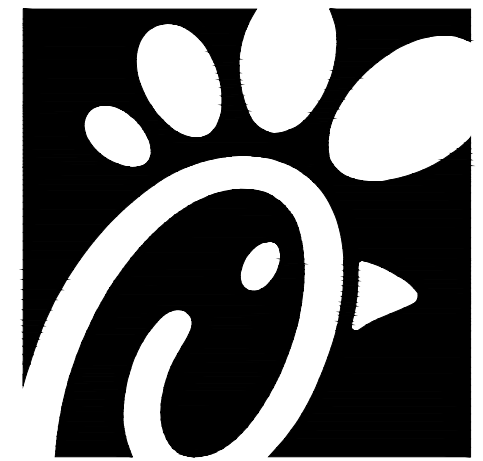
CONSULTANT PROJECT # 22019.HF.R
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SHEET
CANOPY DETAILS
& SCHEDULES
SHEET NUMBER

M5.2

CONSTRUCTION



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

MARK T. KURZYNSKE
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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 #1647
 Location: Marlton, New Jersey
 Climate Zone: 4a
 Project Type: Addition

Construction Site: 220 Route 73 N, Marlton, NJ 08053
 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-Kitchen/Storage (Dining, Cafeteria/Fast Food) - Nonresidential	576

Envelope Assemblies

Assembly	Gross Area or Perimeter	Cavity R-Value	Cont. R-Value	Proposed U-Factor	Budget U-Factor _{req}
Roof 1: Insulation Entering Above Deck; High Albedo Roof Required, [Bldg Use 1 - Kitchen/Storage]	576	---	30.0	0.032	0.032
Floor 1: Slab-On-Grade Uninsulated, Vertical 2 ft., [Bldg Use 1 - Kitchen/Storage] (6)	112	---	10.0	0.540	0.540
NORTH Exterior Wall 1: Wood-Framed, 16" o.c., [Bldg Use 1 - Kitchen/Storage]	203	20.0	0.0	0.064	0.064
EAST Exterior Wall 2: Wood-Framed, 16" o.c., [Bldg Use 1 - Kitchen/Storage]	638	20.0	0.0	0.064	0.064
Door 1: Insulated Metal, Swinging, [Bldg Use 1 - Kitchen/Storage]	28	---	---	0.330	0.610
SOUTH Exterior Wall 3: Wood-Framed, 16" o.c., [Bldg Use 1 - Kitchen/Storage]	203	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 5% 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 #1647
 Location: Marlton, New Jersey
 Climate Zone: 4a
 Project Type: Addition

Construction Site: 220 Route 73 N, Marlton, NJ 08053
 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 = 324 kBtu/h Proposed Efficiency = 81.00% EER, Required Efficiency: 80.00 % Et or 80% AFUE Cooling: 1 each - Single Package DX Unit, Capacity = 276 kBtu/h, Air-Cooled Condenser, Air Economizer Proposed Efficiency = 9.80 EER, Required Efficiency: 9.80 EER + 11.4 IEER Fan System: AC#1 (25 ton) Kitchen - Compliance (Motor nameplate HP method) : Passes Fans: Supply Supply, Constant Volume, 8500 CFM, 6.2 motor nameplate hp, 0.0 fan efficiency grade Exhaust Exhaust, Constant Volume, 2000 CFM, 0.8 motor nameplate hp, 0.0 fan efficiency grade
1	AC#2 (8.5 ton) (Single Zone): Heating: 1 each - Central Furnace, Gas, Capacity = 162 kBtu/h Proposed Efficiency = 81.00% EER, Required Efficiency: 80.00 % Et or 80% AFUE Cooling: 1 each - Single Package DX Unit, Capacity = 103 kBtu/h, Air-Cooled Condenser, Air Economizer Proposed Efficiency = 11.00 EER, Required Efficiency: 11.00 EER + 12.6 IEER Fan System: AC#2 (8.5 ton) Dining - Compliance (Motor nameplate HP method) : Passes Fans: Supply Supply, Constant Volume, 2830 CFM, 3.1 motor nameplate hp, 0.0 fan efficiency grade Exhaust Exhaust, Constant Volume, 750 CFM, 0.9 motor nameplate hp, 0.0 fan efficiency grade
1	AC#3 (10 ton) (Single Zone): Heating: 1 each - Central Furnace, Gas, Capacity = 194 kBtu/h Proposed Efficiency = 81.00% EER, Required Efficiency: 80.00 % Et or 80% AFUE Cooling: 1 each - Single Package DX Unit, Capacity = 124 kBtu/h, Air-Cooled Condenser, Air Economizer Proposed Efficiency = 11.00 EER, Required Efficiency: 11.00 EER + 12.6 IEER Fan System: AC#3 (10 ton) Dining - Compliance (Motor nameplate HP method) : Passes Fans: Supply Supply, Constant Volume, 4000 CFM, 3.1 motor nameplate hp, 0.0 fan efficiency grade Exhaust Exhaust, Constant Volume, 1000 CFM, 0.9 motor nameplate hp, 0.0 fan efficiency grade
1	AC#4 (7.5 ton) (Single Zone): Heating: 1 each - Central Furnace, Gas, Capacity = 162 kBtu/h Proposed Efficiency = 81.00% EER, Required Efficiency: 80.00 % Et or 80% AFUE Cooling: 1 each - Single Package DX Unit, Capacity = 93 kBtu/h, Air-Cooled Condenser, Air Economizer Proposed Efficiency = 11.00 EER, Required Efficiency: 11.00 EER + 12.6 IEER Fan System: AC#4 (7.5 ton) Dining - Compliance (Motor nameplate HP method) : Passes

Quantity / System Type & Description

Fans:	Supply Supply, Constant Volume, 2765 CFM, 3.1 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	AC#5 (5 ton) (Single Zone): Heating: 1 each - Central Furnace, Gas, Capacity = 104 kBtu/h Proposed Efficiency = 80.00% EER, Required Efficiency: 80.00 % Et or 80% AFUE Cooling: 1 each - Single Package DX Unit, Capacity = 69 kBtu/h, Air-Cooled Condenser, Air Economizer Proposed Efficiency = 17.20 SEER, Required Efficiency: 14.00 SEER Fan System: AC#5 (5 ton) Play Area - Compliance (Motor nameplate HP method) : Passes Fans: Supply Supply, Constant Volume, 1800 CFM, 1.0 motor nameplate hp, 0.0 fan efficiency grade Exhaust Exhaust, Constant Volume, 300 CFM, 0.8 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 = 18.00 SEER, Required Efficiency: 14.00 SEER Fan System: None
6	GH (Infrared Heater) (Single Zone): Heating: 1 each - Radiant Heater, Gas, Capacity = 50 kBtu/h No minimum efficiency requirement applies Fan System: None
1	EH (Infrared Heater) (Single Zone): Heating: 1 each - Radiant Heater, Electric, Capacity = 20 kBtu/h No minimum efficiency requirement applies Fan System: None
1	WH#1 (Wall Heater) (Single Zone): Heating: 1 each - Unit Heater, Electric, Capacity = 5 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 _____

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 TRANE 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 TRANE CORPORATION. PRICING FOR THE EQUIPMENT HAS BEEN ESTABLISHED IN ADVANCE. CONTACT TRANE NATIONAL ACCOUNTS AT 630-400-4285 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. RADIUSSED ELBOWS MAY BE SUBSTITUTED FOR 90 DEGREE ELBOWS AT THE DISCRETION OF THE CONTRACTOR. CENTERLINE RADIUS EQUAL TO: R=W PER FIGURE NO. 2-2 IN SMACNA HVAC DUCT CONSTRUCTION STANDARDS.
- Q. EXTERNAL INSULATION ON BOTTOM OF DUCTS 24" OR WIDER SHALL BE SUPPORTED WITH STICK PINS ON 18" CENTERS. STICK PIN WASHERS SHALL BE COVERED WITH DUCT TAPE OR MASTIC.

2.03 CONTROLS (C15735)

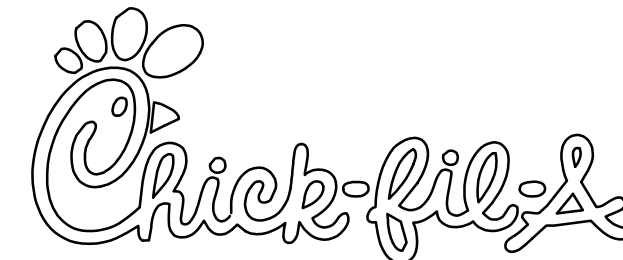
- A. SYSTEMS SHALL BE COMPLETE WITH CONNECTIONS TO EXISTING CFA-500 TEMPERATURE CONTROL PANEL AS MANUFACTURED BY SUNCOAST ENVIRONMENTAL CONTROLS (S.E.C.) (PH: 877-544-6679). CONTROL WIRING TERMINATIONS ARE BY THE MECHANICAL CONTRACTOR.
- B. THE SMOKE DETECTORS SHALL BE FACTORY INSTALLED AND WIRED BY THE ROOFTOP UNIT MANUFACTURER.
- C. A FACTORY INSTALLED SMOKE DETECTOR IN THE RETURN AIR SECTION OF EACH AIR CONDITIONING UNIT SHALL STOP THE INDOOR FAN AND CLOSE THE OUTSIDE AIR DAMPER IN THE EVENT OF EXCESSIVE TEMPERATURE OR SMOKE. SMOKE DETECTOR SHALL BE LOCATED PRIOR TO ANY EXHAUST FROM THE BUILDING OR MIXING WITH FRESH AIR MAKE-UP. UPON DETECTION, THE SYSTEM SHALL NOT RESTART UNTIL THE DEVICE IS MANUALLY RESET. DEVICES SHALL BE LOCATED WHERE THEY CAN BE EASILY ACCESSED AND WHERE CLEAR OF FILTERS.
- D. CHICK-FIL-A HAS A NATIONAL ACCOUNT WITH SUNCOAST ENVIRONMENTAL CONTROLS FOR THE SMOKE DETECTOR TEST/RESET ANNUNCIATOR STATIONS. THE TEST/RESET STATIONS WILL BE PURCHASED AND INSTALLED BY THE MECHANICAL CONTRACTOR AS A PART OF A NATIONAL ACCOUNT PACKAGE.
- E. THE REMOTE TEST/RESET ANNUNCIATORS SHALL BE PROVIDED AND INSTALLED BY THE MECHANICAL CONTRACTOR. INSTALLATION BY MECHANICAL SHALL INCLUDE MOUNTING OF THE ANNUNCIATORS AND ALL WIRING FROM EACH DEVICE TO THE RTU OR AHU. PROVIDE A JUNCTION BOX IN THE WALL WITH 1/2" CONDUIT STUBBED UP ABOVE THE CEILING FOR EACH REMOTE TEST STATION. ANNUNCIATOR SHALL BE SUNCOAST CONTROLS REMOTE TEST/RESET STATION WITH POWER LED, TROUBLE LED, ALARM LED, 90DB HORN AND TEST/RESET BUTTON.
- F. THE RESTROOM FAN SHALL BE INTERLOCKED TO THE LIGHTS SERVING THE MEN AND WOMEN'S RESTROOMS. THE HOOD FANS SHALL BE CONTROLLED VIA THE SUNCOAST CFA-500 CONTROL PANEL. WIRING, RELAYS AND SWITCHES FOR CONTROL OF ALL FANS ARE BY ELECTRICAL CONTRACTOR.
- G. TRANE UNITS - THERMOSTATS ARE PROVIDED AND INTEGRATED INTO THE TEMPERATURE CONTROL PANEL BY SUNCOAST ENVIRONMENT 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.	TRANE EQUIPMENT - CONTACT TRANE NATIONAL ACCOUNTS AT 630-400-4285 FOR PRICING, ORDERING AND AVAILABILITY. TRANE EQUIPMENT NOT PURCHASED THRU TRANE 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.



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



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NEW JERSEY LICENSE # GE44646



8-14-23

CHICK-FIL-A
MARLTON FSU

220 Route 73 N
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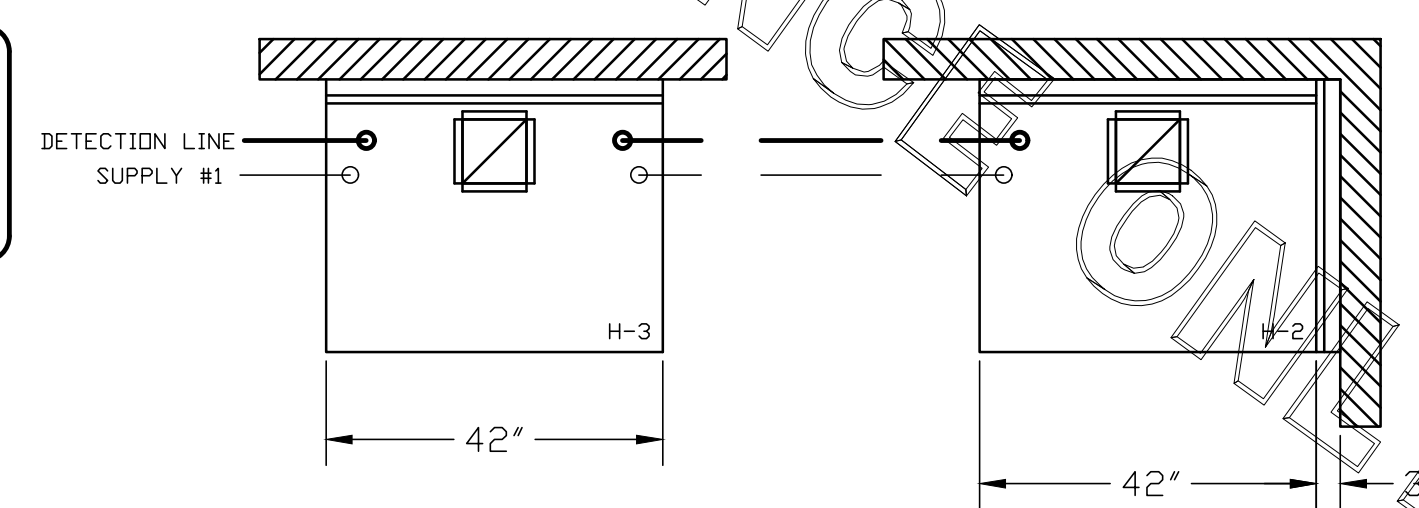
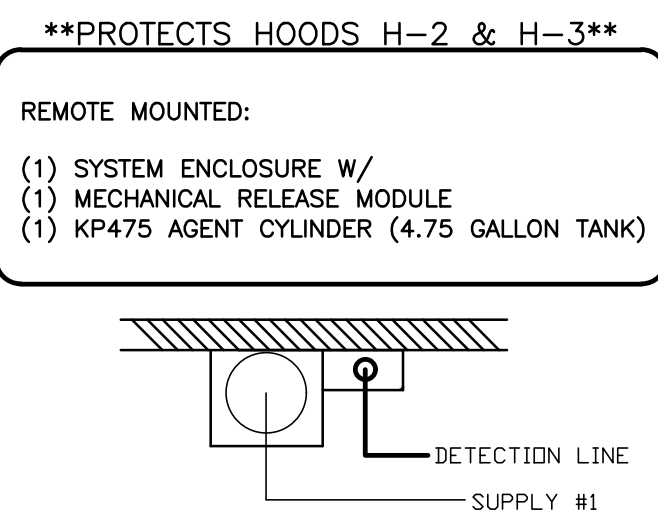
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SPECIFICATIONS
SHEET NUMBER

M7.1

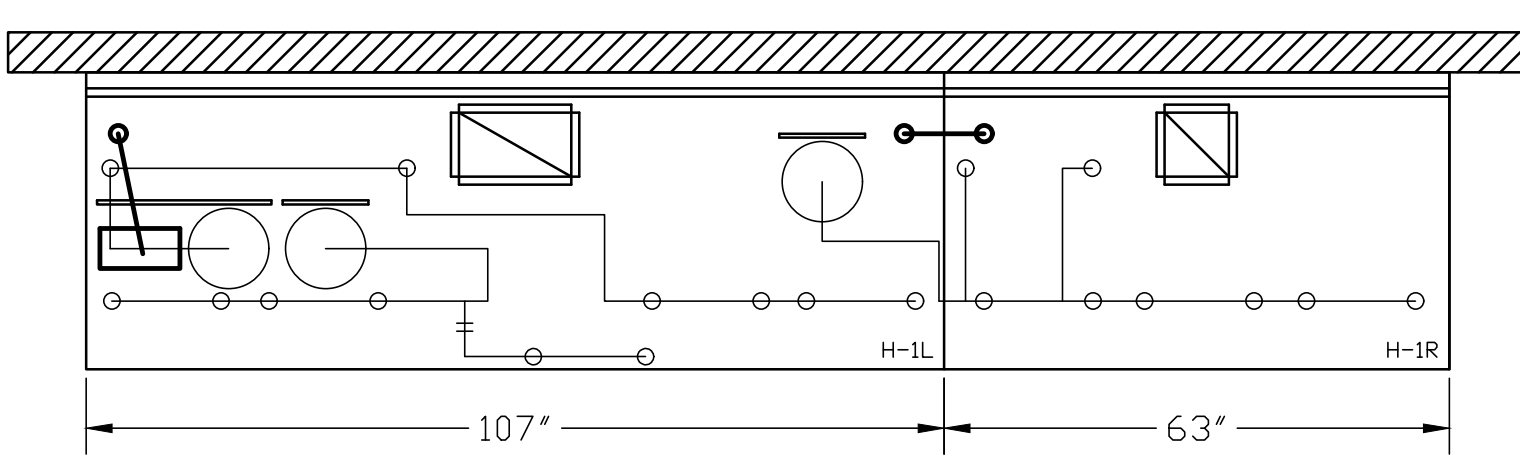
CONSTRUCTION

FOR REFERENCE ONLY

FIRE EXTINGUISHER	
AMEREX	
11238 5 LBS ABC MODEL B402	QTY _____
11239 10 LBS ABC MODEL B456	QTY _____
11240 6 LTR CLASS K MODEL C-260	QTY _____
SUPPLIED BY HALTON	



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



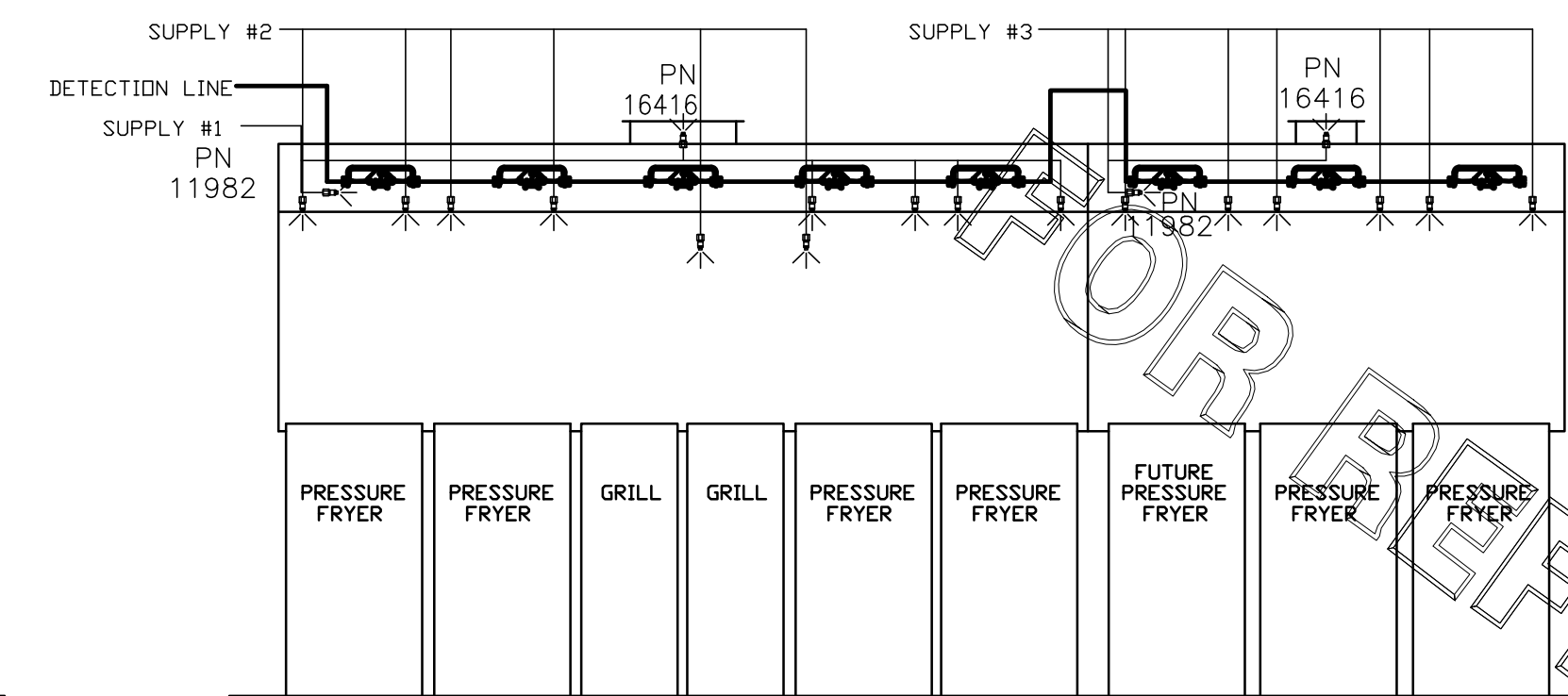
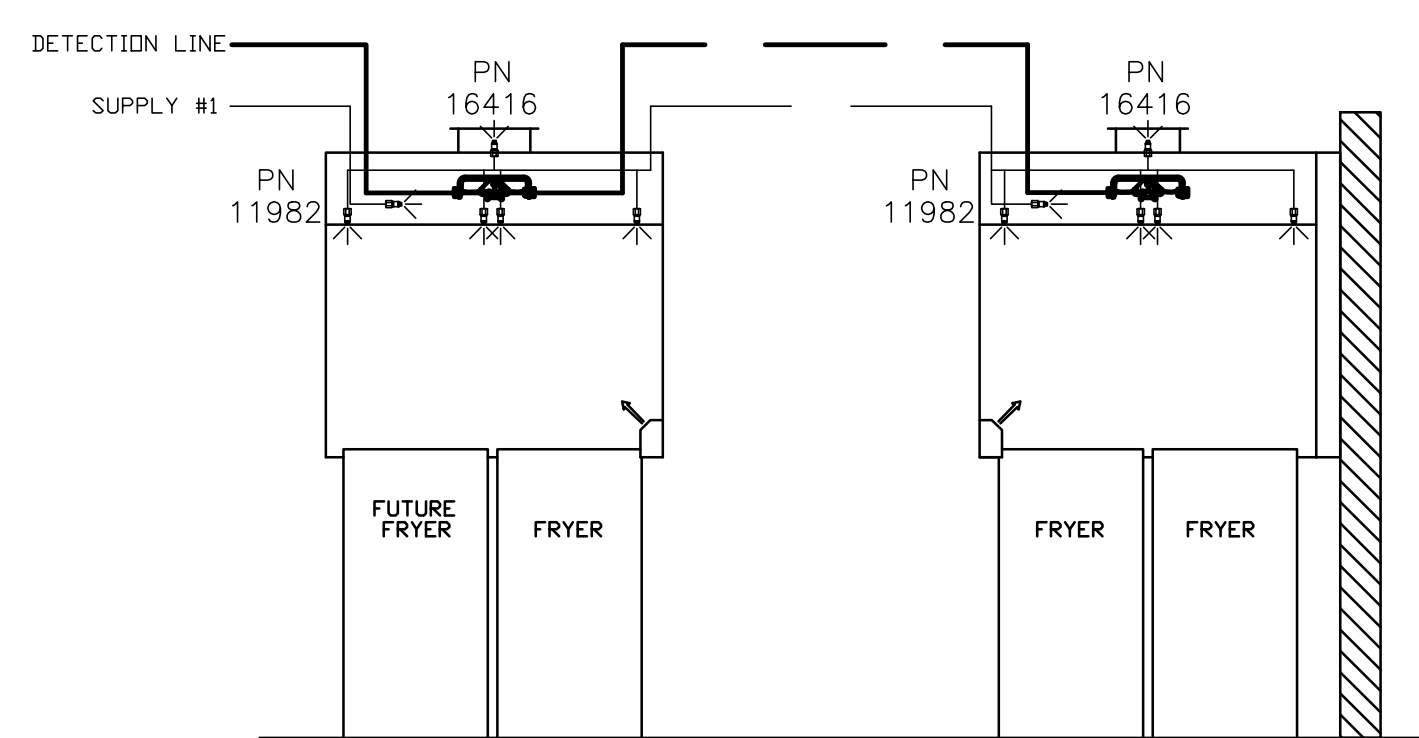
- (1) SYSTEM ENCLOSURE
 (1) MECHANICAL RELEASE MODULE
 (2) EXTRA MICRO SWITCH ASSEMBLIES (MOUNTED IN MECHANICAL REL. MODULE)
 (1) KP475 AGENT CYLINDERS (4.75 GALLON TANK)

- AMEREX FIRE SYSTEM
 A) (1) KP475 TANKS - 14 FLOW POINTS (REMOTE MOUNTED) (FOR HOOD H-2 & H-3)
 B) 3/8" BLACK IRON PIPING W/ 3/8" S.S. APPLIANCE DROPS

- AMEREX FIRE SYSTEM
 A) (1) KP375 TANK - 11 FLOW POINTS
 (2) KP475 TANKS - 14 FLOW POINTS (MOUNTED ON HOOD H-1L) (FOR HOODS H-1L & H-1R)
 B) 1/2" & 3/8" BLACK IRON PIPING W/ 3/8" S.S. APPLIANCE DROPS

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

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



AMEREX FIRE SYSTEM LAYOUT

FUSIBLE LINK RATINGS

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

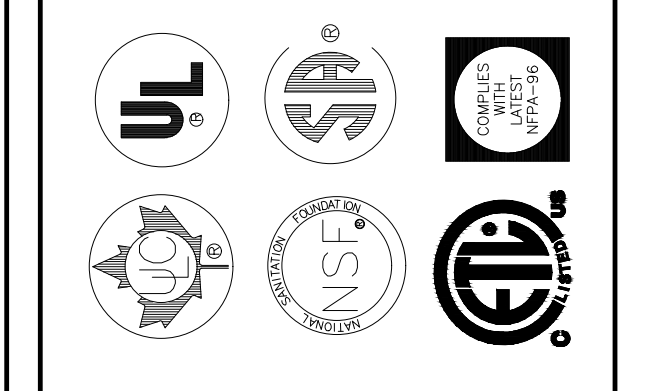
AMEREX FIRE SYSTEM NOTES
 (1) KP375 & (2) KP475 TANK SYSTEM MOUNTED ON TOP OF (H-1L)
 MAXIMUM FLOW POINTS = 39

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

ITEM	QTY	DESCRIPTION	FLOW PTS (TOTAL)
16416	4	DUCT NOZZLES	4
11982	4	PLENUM NOZZLES	4
11982	8	APPLIANCE NOZZLES	8
14178	2	APPLIANCE NOZZLES	4
13729	14	APPLIANCE NOZZLES	28
		TOTAL FLOW POINTS	48
ITEM	QTY	DESCRIPTION	
12508-P001	10	DETECTORS BRACKET ASSEMBLY	
13334	1	KP375 AGENT CYLINDER	
17379	3	KP475 AGENT CYLINDER	
18001	1	MECHANICAL RELEASE MODULE W/ DOUBLE POLE MICRO SWITCH	
25851	1	SYSTEM ENCLOSURE W/ DOUBLE POLE MICRO SWITCH	
16920	1	WALL MOUNTING BRACKET	
21481	3	REMOTE MANUAL PULL STATION	

- AMEREX FIRE SYSTEM
 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 AMEREX INSTALLER
 3. REMOTE PULL STATION LOCATED PER MECHANICAL DRAWINGS

THIS DRAWING MUST BE CHECKED, SIGNED AND RETURNED TO THE APPROPRIATE FACTORY. PLEASE VERIFY THE FOLLOWING:
 1. ALL DIMENSIONAL INFORMATION, MOUNTING POSITIONS 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.
 REVERSE AND RESUBMIT
 APPROVED FOR FABRICATION
 WITH NO CHANGES
 WITH CHANGES AS NOTED
 APPROVED BY _____ DATE _____



MAIL APPROVED DRAWINGS TO APPROPRIATE FACTORY BELOW:	REVISION DESCRIPTION	DATE
WEBSITE: www.halton.com HALTON CO. (USA) 101 INDUSTRIAL DRIVE SCOTTSDALE, KY 42164 1-270-237-5600	BY	
HALTON CO. (CANADA) 1021 BREVIK PLACE MISSISSAUGA, ON L4W 3R7 1-905-624-0301	DATE	
REV. 1		
REV. 2		
REV. 3		
REV. 4		
REV. 5		

PROJECT: CHICK-FIL-A #1647
 MARTON FSU

LOCATION: MARLTON, NJ
 DRAWN BY: SKM
 DATE: 10.21.22
 SCALE: NOT TO SCALE

Halton

DRAWING No.: U22-809-01
 SHEET No.: MH1.2