

**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.

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

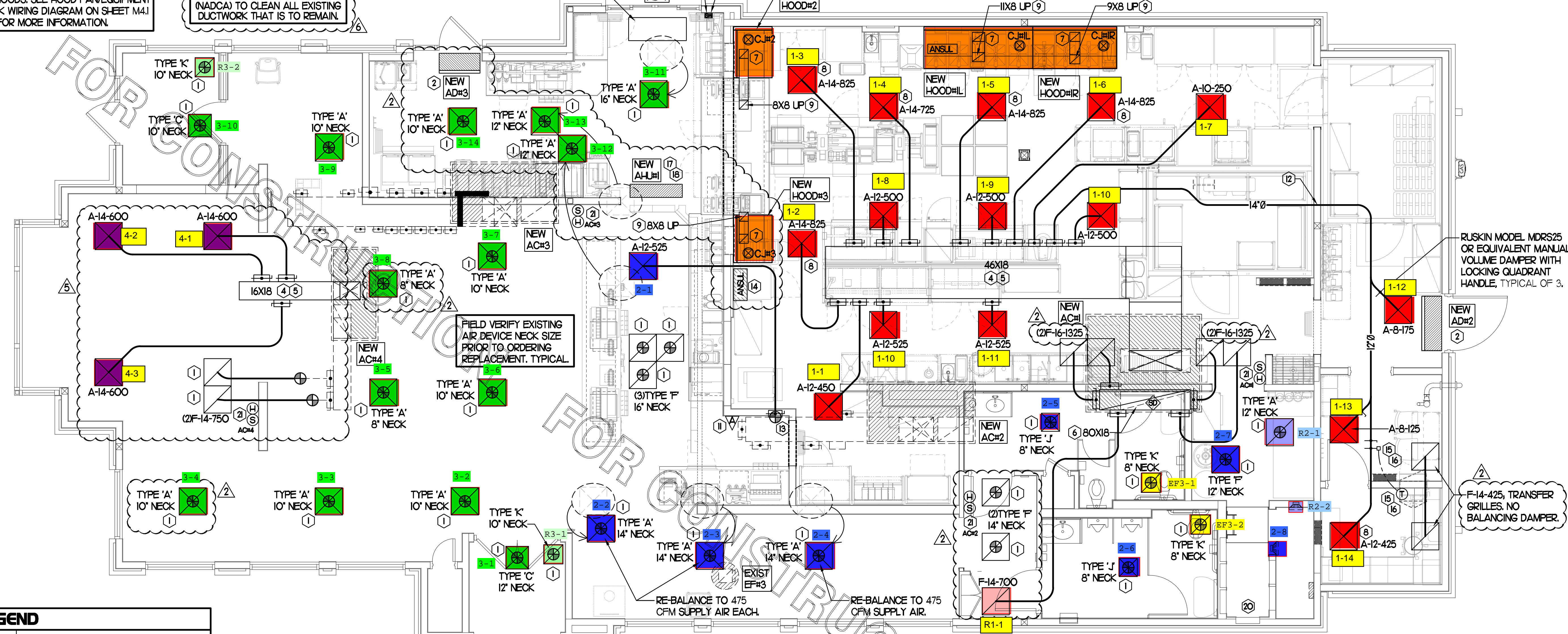
NEW AIR CURTAIN, AD#1 MOUNTED IN CEILING GRID, CENTERED ON THE DOOR, AT 4' OFF THE EXTERIOR WALL. MECHANICAL CONTRACTOR SHALL ADJUST AIR DEFLECTORS TOWARD AIR DIVERTER BOX.

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.

HOLD DUCT AT ACH# AS HIGH AS POSSIBLE DUE TO LIMITED CLEARANCE ABOVE CEILING.

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.

E  
D  
C  
B  
A



**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
①	KEY NOTE REFERENCE
⊕	EXISTING START COLLAR
⊕	EXISTING RUNNOUT 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-JET FANS DUCTING REQUIREMENTS.
- HARDPIPE SHALL BE USED FOR ALL TAKE-OFFS EXCEPT WHERE ALLOWED BY DETAIL I/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 I/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.
- NOT USED.
- 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 MED COLLAR. OFFSETS THRU ROOF NOT TO BE GREATER THAN 45 DEGREES. SEE SHEET M.I.2 FOR CONTINUATION.
- G.C. 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.
- REPLACE EXISTING SMOKE DETECTOR TEST/RESET STATION FOR ALL NEW A/C UNITS. CONTACT SUNCOAST ENVIRONMENTAL CONTROLS AT 1-877-544-6679 TO PURCHASE A NEW SMOKE DETECTOR TEST/RESET STATIONS FOR EACH NEW RTU.
- ROUTE DUCT BETWEEN WALL STUDS ABOVE CEILING. COORDINATE WITH ARCH AND STRUCTURAL FOR EXACT LOCATION. USE 1" WRAP AT WALL PENETRATION.
- PROVIDE & INSTALL NEW SPIN-IN COLLAR AND ROUTE NEW DUCT TO NEW GRILLE AS SHOWN.
- ANSUL UTILITY CABINET. LOCATE TOP OF CABINET 0'-2" BELOW CEILING. COORDINATE FINAL MOUNTING LOCATION WITH KITCHEN EQUIPMENT.

- YOUNG REGULATOR 12" MODEL 2010 ROUND ZONE DAMPER WITH MODEL T-312CE AUTOMATIC CHANGE-OVER 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 404-351-0101 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 M4.I FOR MORE INFORMATION.
- MOUNT AIR HANDLER ON OVERHEAD WALL ABOVE CASSED OPENING. MOUNT UNIT AT 12" ABOVE CASSED OPENING. ROUTE REFRIGERANT PIPING ABOVE CEILING AND UP THRU ROOF TO CONDENSING UNIT, CU#1. SEE SHEET M.I.2 FOR CONDENSING UNIT LOCATION. REFRIGERANT PIPING BELOW ROOF SHALL BE HIDDEN WITHIN WALLS AND CEILINGS.
- ROUTE CONDENSATE FROM A-H#1 TO TERMINATE INTO FLOOR DRAIN LOCATED BEHIND ICE MAKER IN DRIVE THRU. COORDINATE EXACT LOCATION OF DRAIN WITH PLUMBING PLANS. CONDENSATE PIPING SHALL BE TYPE K COPPER WITH 1/2" ARMAFLEX INSULATION. CONDENSATE MUST SLOPE MIN 1/8" PER FOOT TO TERMINATION POINT. CONTRACTOR SHALL INSTALL A CONDENSATE LIFT PUMP IN ORDER TO ROUTE CONDENSATE ABOVE CEILING.
- MOUNT A-H#1 THERMOSTAT ON WALL NEXT TO AD#1 REMOTE WALL SWITCHES. SEE SCHEDULE ON SHEET M3.I FOR INTERLOCK WITH T500 PANEL.
- CONTACT SUNCOAST ENVIRONMENTAL CONTROLS TO PURCHASE A NEW TSTAT FOR EACH NEW RTU. NEW TSTATS SHALL BE INSTALLED IN EXISTING CFA T500 PANEL. CONTROL WIRING TERMINATIONS BETWEEN NEW TSTATS, NEW SENSORS, AND NEW RTUS BY MECHANICAL CONTRACTOR. REFER TO WIRING DIAGRAM ON SHEET M4.I.
- MOUNT NEW REMOTE TEMP SENSOR AND NEW TRANE HUMIDITY SENSOR FOR ROOFTOP UNIT AS NOTED BELOW (OR ABOVE WAINSCOTING IF APPLICABLE). ROUTE NEW WIRING FOR NEW REMOTE TEMP SENSOR TO NEW TSTAT IN CFA T500 PANEL. ROUTE NEW WIRING FOR NEW TRANE HUMIDITY SENSOR TO UNIT ON ROOF. REFER TO WIRING DIAGRAM ON SHEET M4.I.
  - ACH#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 TRANE HUMIDITY SENSOR DIRECTLY ABOVE REMOTE TEMP SENSOR.
  - ACH#2 MOUNT NEW SENSORS IN THE SAME LOCATION AS DEMOLISHED SENSORS.
  - ACH#3 & ACH#4 MOUNT NEW REMOTE TEMP SENSOR ON WALL AT 5'-0" AFF. MOUNT NEW TRANE HUMIDITY SENSOR DIRECTLY ABOVE REMOTE TEMP SENSOR.

**TOTAL AIR BALANCE SCHEDULE**

EQUIPMENT MARK	ACH# (NEW)	ACH#2 (NEW)	ACH#3 (NEW)	ACH#5 (NEW)	EF#1 (NEW)	EF#2 (NEW)	EF#3 (EXIST)	TOTAL
SERVES	KITCHEN	SIDE DINING	MAIN DINING	FRONT DINING	HOOD#1L	HOOD#2	REST-ROOMS	
SUPPLY AIR CFM	8,000	2,830	5,000	1,800				17,630
RETURN AIR CFM	6,000	2,080	3,645	1,500				13,225
OUTSIDE AIR CFM	2,000	750	1,355	300				+4,405
EXHAUST CFM					1,912	1,402	400	-3,714
PRESSURIZATION								+691
REMARKS	ADJUST AND VERIFY BALANCE OF ALL HVAC EQUIPMENT IS AS SHOWN IN ORDER TO MAINTAIN BUILDING AIR BALANCE.							

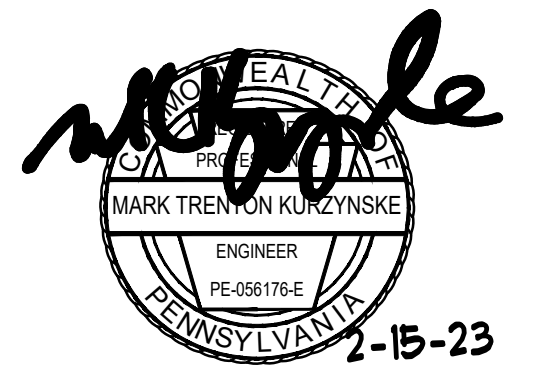


Chick-fil-A

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2-15-23

**CHICK-FIL-A**  
**QUAKERTOWN**  
602 N WEST END BLVD.  
QUAKERTOWN, PA 18951-4100

**FSR#02219**

BUILDING TYPE / SIZE: S06E  
RELEASE: v02.21

**REVISION SCHEDULE**

NO.	DATE	DESCRIPTION
2	03/14/22	Nov. Release Update
5	01/18/23	Playground Removal
6	02/07/23	Pre-Bid Notes

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SHEET  
MECHANICAL  
FLOOR PLAN  
SHEET NUMBER

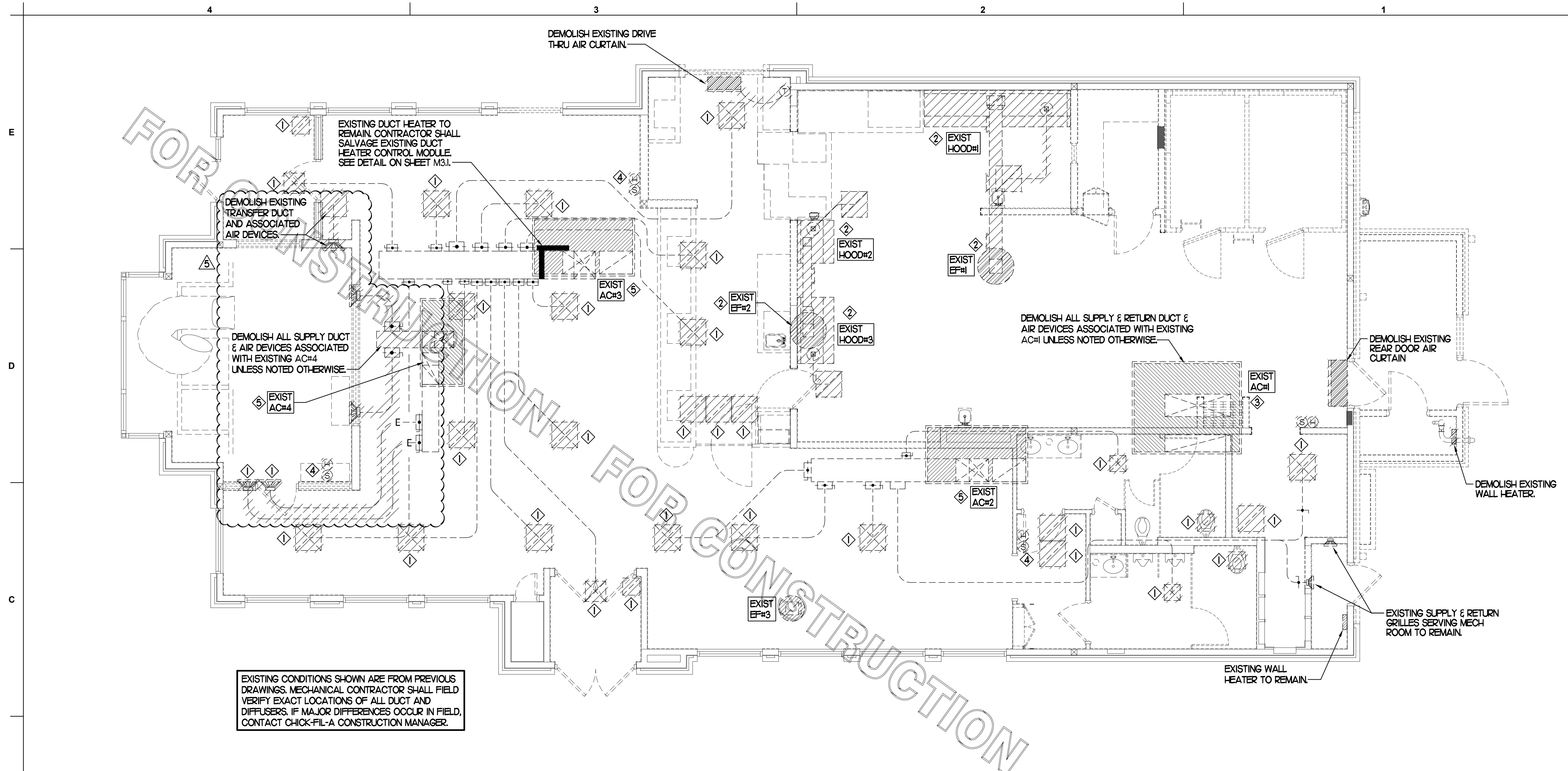
**M1.1**

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

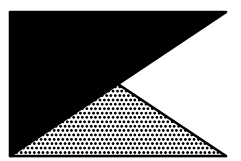
**DEMOLITION KEY NOTES**

- ① DETACH AND DEMOLISH EXISTING AIR DEVICE. SECURE DUCT ABOVE CEILING GRID FOR RE-CONNECTION. SEE SHEET M.I.I 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 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). COVER ROOF CURB WEATHER-TIGHT FOR RE-USE. SEE SHEET M.I.I.
- ④ EXISTING REMOTE TEMPERATURE AND/OR REMOTE HUMIDITY SENSORS TO BE REPLACED WITH NEW. DEMOLISH ASSOCIATED CONTROL WIRING. SEE SHEET M.I.I FOR FURTHER INFORMATION.
- ⑤ EXISTING AC UNIT TO BE REPLACED WITH NEW AS SCHEDULED ON SHEET M3.1. 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.



Chick-fil-A

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**CHICK-FIL-A**  
**QUAKERTOWN**  
602 N WEST END BLVD.  
QUAKERTOWN, PA 18951-4100

**FSR#02219**

BUILDING TYPE / SIZE: S06E  
RELEASE: v02.21

REVISION SCHEDULE

NO.	DATE	DESCRIPTION
5	01/18/23	Playground Removal

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SHEET  
MECHANICAL  
DEMO PLAN  
SHEET NUMBER

CONSTRUCTION

**M0.1**

FABRICATE 1/2" GA STAINLESS NOZZLE. NOZZLE INLET FULL SIZE OF FAN DISCHARGE. 1'-0" MINIMUM NOZZLE HEIGHT. TERMINATE 0'-2" ABOVE HIGHEST PARAPET WITHIN 10'-0".

**KEYED NOTES:**

- 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.
- 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.
- 12" HIGH INSULATED CURB PROVIDED BY TOM BARROW COMPANY. MECHANICAL CONTRACTOR TO PROVIDE 1/2" GA MINIMUM CURB CAP.

6"x3" HAT CHANNEL EQUIPMENT RAILS FACTORY PROVIDED AND WELDED ON TOP OF CURB CAP. BOLT FAN TO HAT CHANNELS, USING 3 FASTENERS ON EACH SIDE OF MOTOR SECTION AND ONE ON EACH SIDE OF THE SCROLL HOUSING USING SELF DRILLING 1/4"-14 1/2" HEX HEAD SCREW EQUAL TO ELCO EAF841 DRILL-FLEX.

1/4"-20-3" HEX WASHER HEAD SHEET METAL SCREW EQUAL TO ELCO EDT442 DRILLIT. MINIMUM 1/2" EMBEDMENT IN BLOCKING BENEATH CURB. PROVIDE TWO FASTENERS ON EACH SIDE OF CURB.

PROVIDE 15 PCF BATT INSULATION MINIMUM 4" THICK.

WHERE GREATER THAN 90 MPH GENERAL WIND SPEED. TIE-DOWN STRAP 2" WIDE 16 GA. GALV STEEL STRAP WITH #10-16 SS SHEET METAL SCREW AT 4" FROM CORNER AND 16" OC INTO UNIT RAIL AND INTO CURB BLOCKING. SEAL ALL EXPOSED FASTENERS WATER TIGHT.

BLOCKING BY GENERAL CONTRACTOR.

SUPPORT DUCT FROM STRUCTURE WITH 1-1/2" x 1/2" STEEL ANGLE OR 1/2" x 1/2" x 3/4" STRUT AND 3/4" ATR ON 6'-0" CENTERS. TYP.

CURBS FOR DUCTS 22.5" SQ. INSIDE CLEAR MINIMUM

**SHEET NOTES**

- ALL DUCTWORK AND UNFINISHED METAL ON ROOF EXCEPT STAINLESS SHALL BE PREPARED WITH TWO COATS OF SHERWIN WILLIAMS B66-200 SERIES DTM WHITE ACRYLIC SEMI-GLOSS INDUSTRIAL MAINTENANCE COATING, DEGREASE AND PRIME BARE METAL SURFACE WITH ONE COAT OF SHERWIN WILLIAMS DTM PRIMER PRIOR TO PAINTING.
- AT EACH PIECE OF ROOF EQUIPMENT, PROVIDE A PLASTIC ENGRAVED LABEL WITH 1" HIGH WHITE LETTERS ON A BLACK BACKGROUND. THE LABEL IS TO HAVE A SELF-ADHESIVE BACKING.
- MAINTAIN 18" CLEARANCE FROM GREASE EXHAUST DUCTWORK ABOVE ROOF TO ANY COMBUSTIBLE CONSTRUCTION INCLUDING PARAPET WALLS.

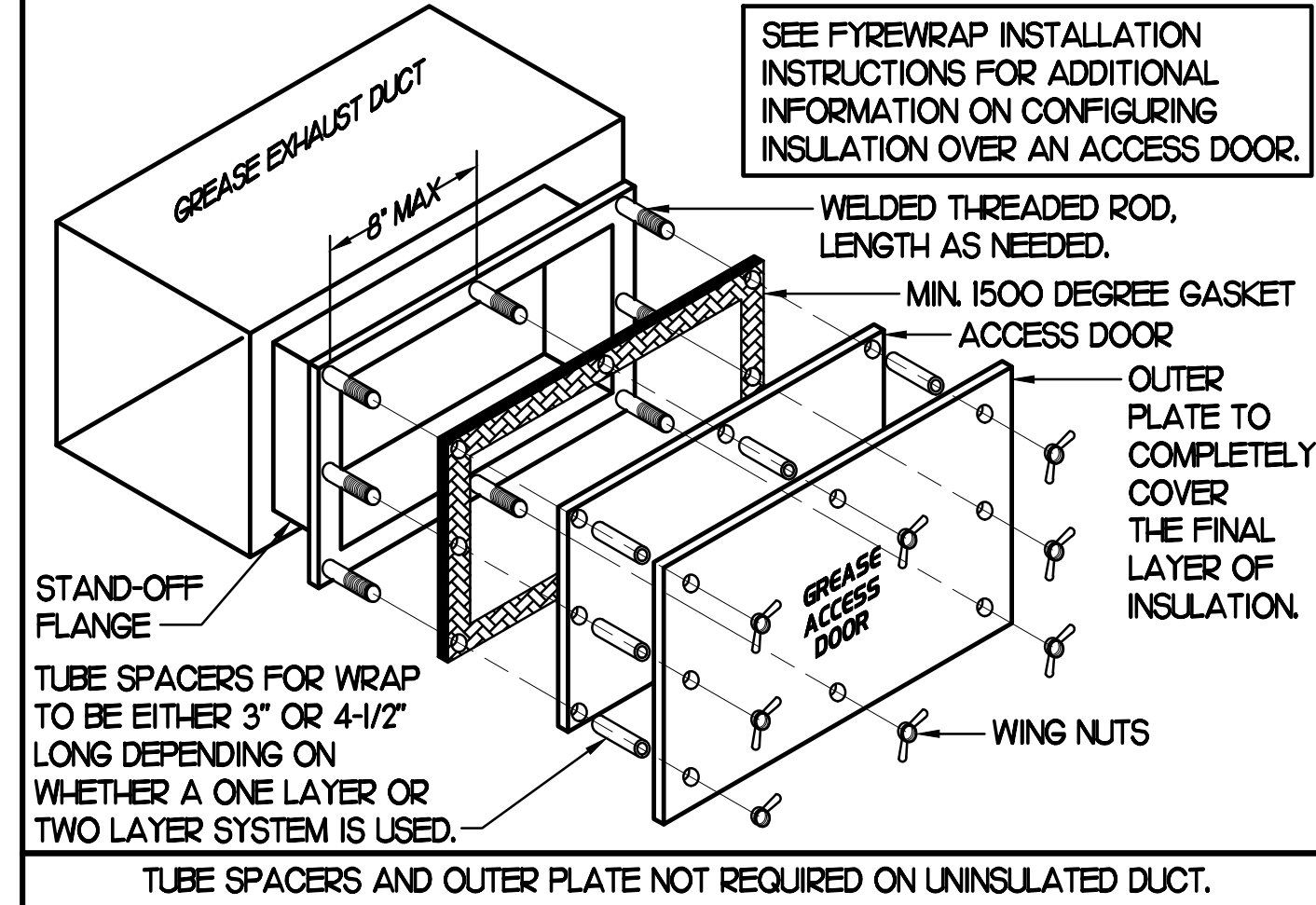
**KEY NOTES**

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

**GREASE ACCESS DOOR SCHEDULE**

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

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

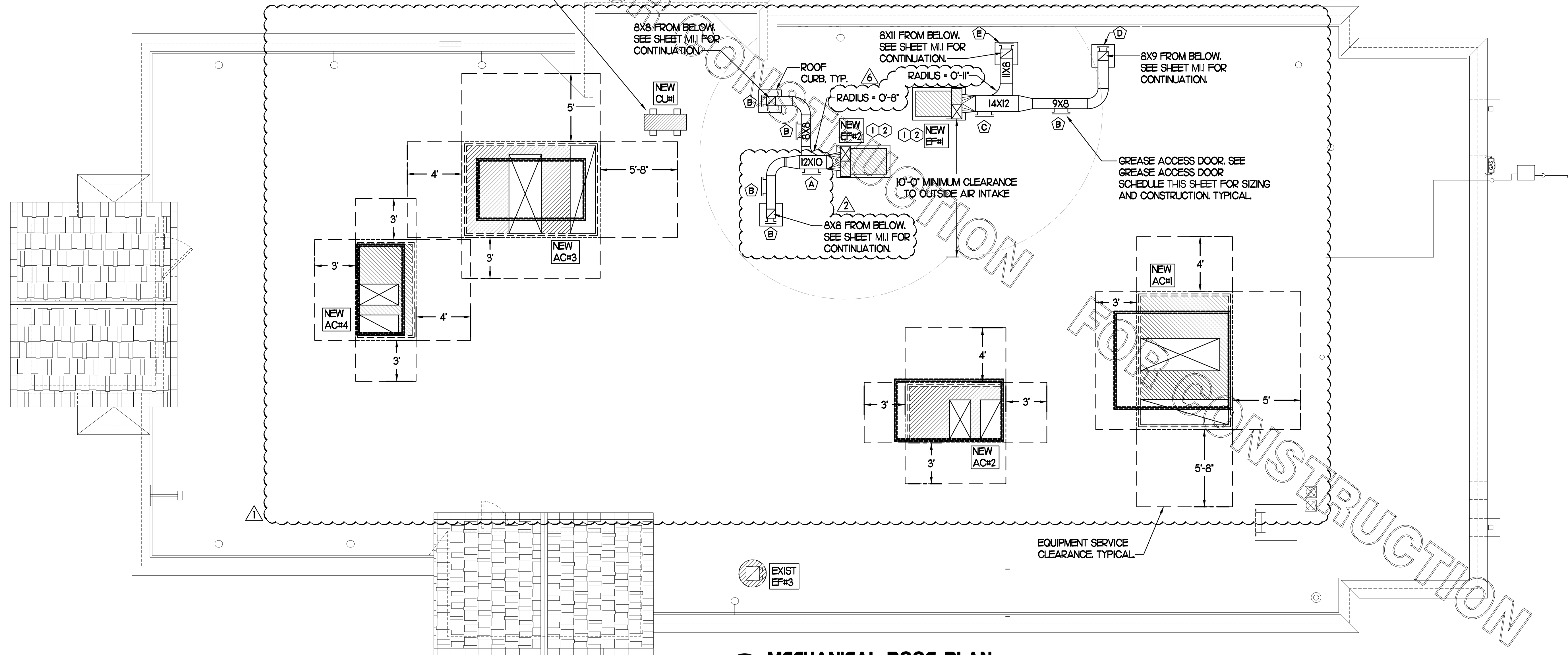


TUBE SPACERS AND OUTER PLATE NOT REQUIRED ON UNINSULATED DUCT.

**2 KITCHEN HOOD EXHAUST FAN - UTILITY SET FAN**

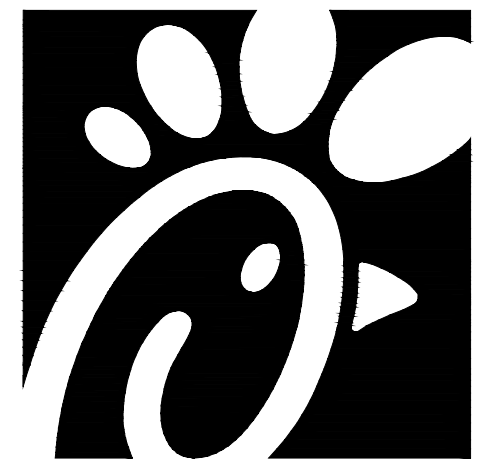
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SET CONDENSING UNIT ON ROOF USING TWO CURBS PLUS CPES-1 EQUIPMENT CURBS. SECURE CONDENSING UNIT TO CURBS ARRANGED IN PARALLEL. SET LONG SIDE OF CURB PARALLEL TO ROOF SLOPE. FLASH INTO ROOF BY GC. COORDINATE EXACT LOCATION WITH STRUCTURAL DRAWINGS.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



**1 MECHANICAL ROOF PLAN**

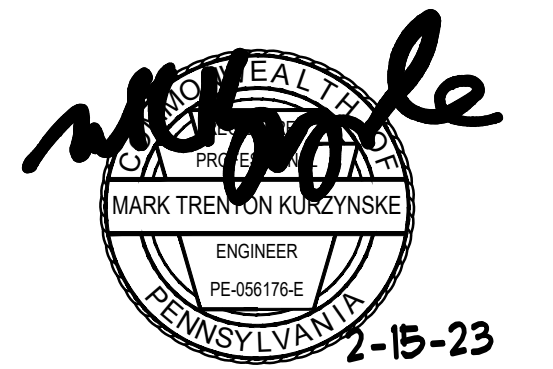
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SHEET  
MECHANICAL  
ROOF PLAN  
SHEET NUMBER

**M1.2**

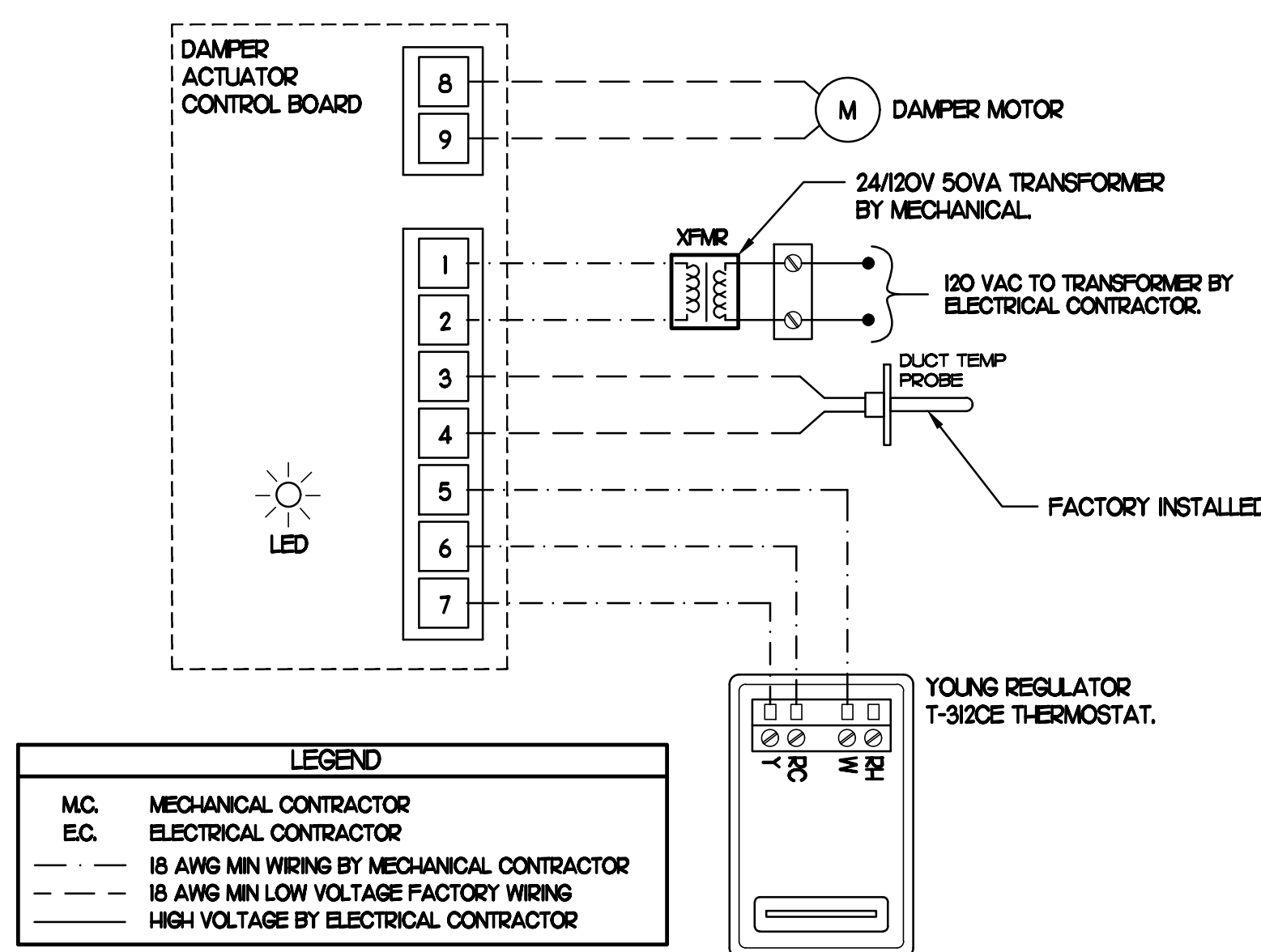
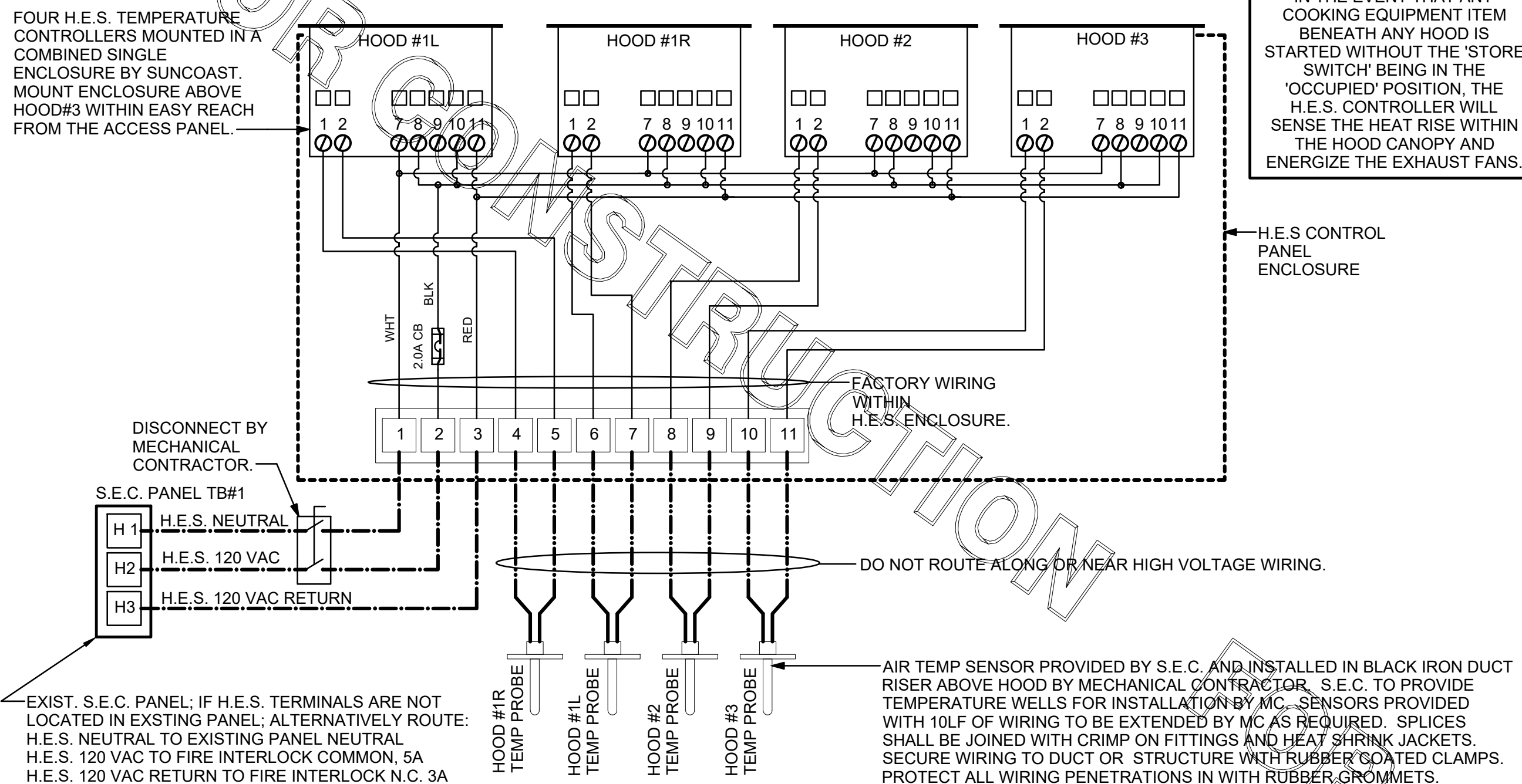
LEGEND	
S.E.C.	SUNCOAST ENVIRONMENTAL CONTROLS CFA-500 ENERGY MGT PANEL
H.E.S.	SUNCOAST ENVIRONMENTAL CONTROLS HOOD EXHAUST SAFETY CONTROLLER
M.C.	MECHANICAL CONTRACTOR
---	18 AWG MIN UNSHIELDED LOW VOLTAGE WIRING BY MC, U.N.O.
---	120 VAC WIRING BY MECHANICAL CONTRACTOR

**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.



- NOTES**
- SEE DWG M11 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 72°F THE DAMPER WILL OPEN FULLY ON A RISE IN SPACE TEMPERATURE ABOVE THE SETPOINT.
  - WHEN THE SUPPLY AIR TEMPERATURE IS GREATER THAN 71°F THE DAMPER WILL OPEN FULLY ON A FALL IN SPACE TEMPERATURE BELOW THE SETPOINT.

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

**2 OFFICE VAV DAMPER AND TSTAT**  
NO SCALE



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Telephone: (615) 255-5203



**CHICK-FIL-A**  
**QUAKERTOWN**  
602 N WEST END BLVD.  
QUAKERTOWN, PA 18951-4100

**FSR#02219**  
BUILDING TYPE / SIZE: S06E  
RELEASE: v02.21

REVISION SCHEDULE		
NO.	DATE	DESCRIPTION
1	10/22/21	Operator Revision

CONSULTANT PROJECT # 21071.HF.R  
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SHEET HVAC CONTROLS

SHEET NUMBER

**M4.1**

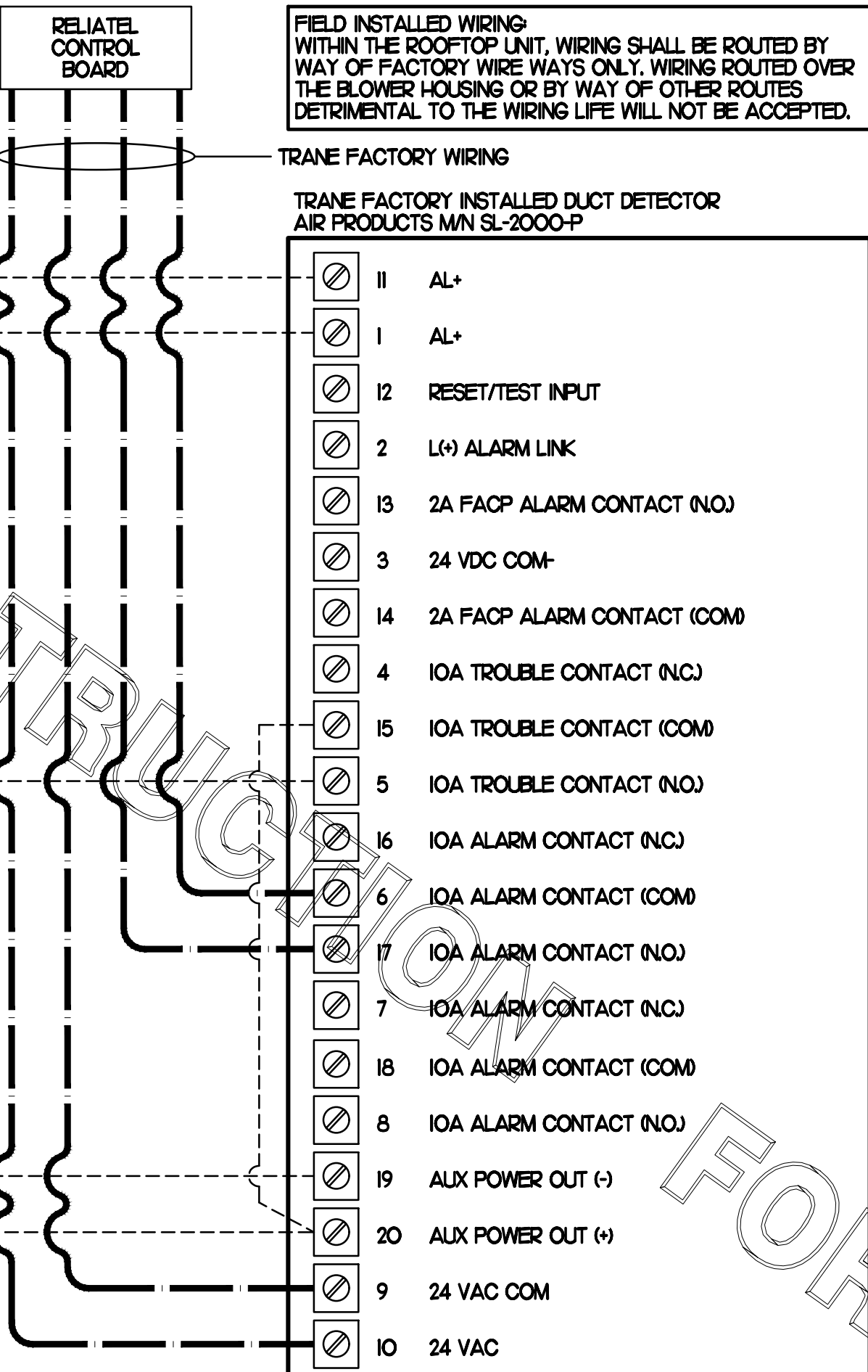
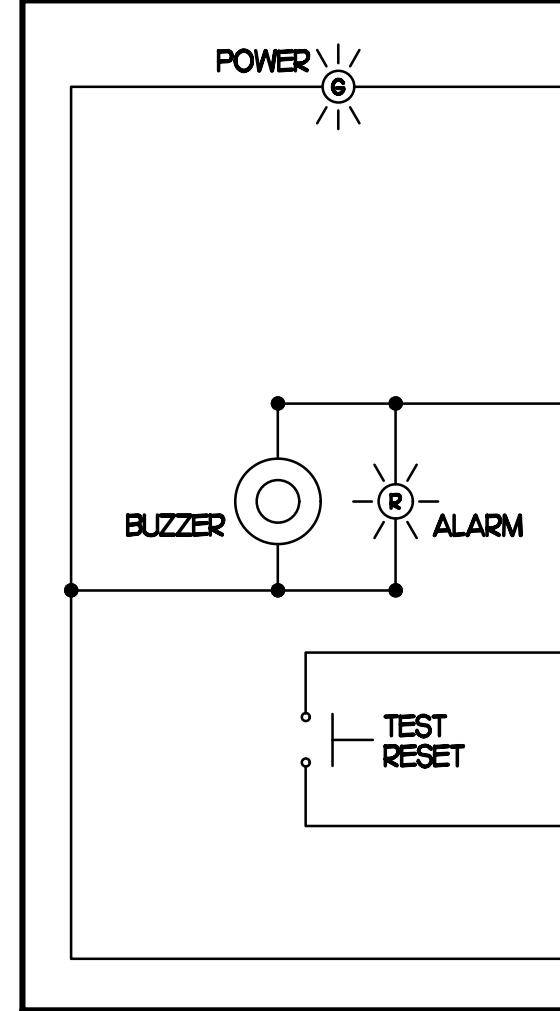
MOVED RTU WIRING DETAILS TO NEW SHEET M4.2

THERE WILL BE A SMOKE DETECTOR ANNUNCIATOR PROVIDED FOR EACH SUPPLY AND RETURN AIR DUCT DETECTOR. REFER TO RTU SCHEDULE FOR REQUIRED DUCT DETECTORS.

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

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

SUNCOAST CONTROLS ANNUNCIATOR



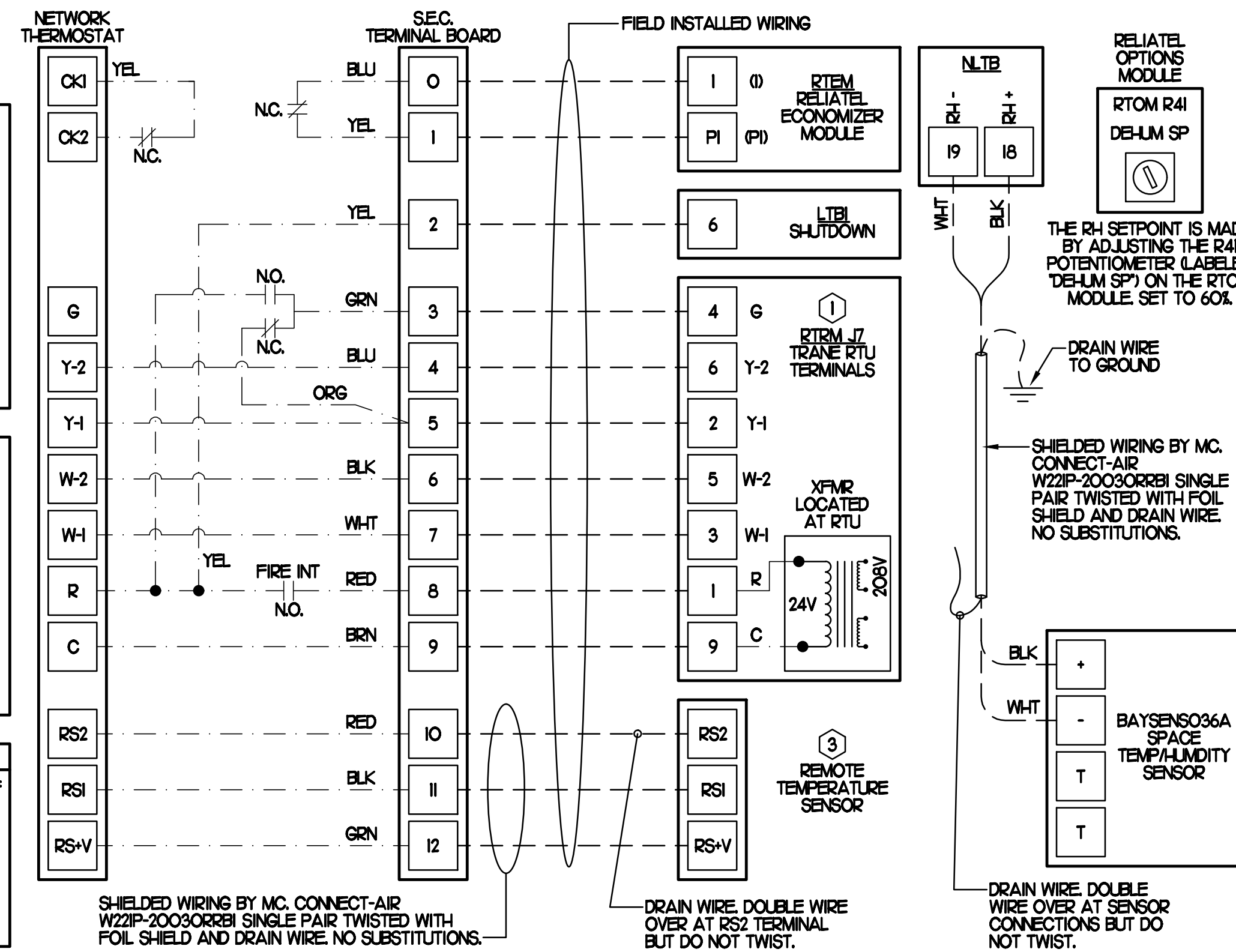
FIELD INSTALLED WIRING WITHIN THE ROOFTOP UNIT. WIRING SHALL BE ROUTED BY WAY OF FACTORY WIRE WAYS ONLY. WIRING ROUTED OVER THE BLOWER HOUSING OR BY WAY OF OTHER ROUTES DETRIMENTAL TO THE WIRING LIFE WILL NOT BE ACCEPTED.

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

- NOTES**
- MECHANICAL CONTRACTOR SHALL MAKE PLASTIC LAMINATE OF THIS DETAIL AND INSTALL PERMANENTLY ON INSIDE DOOR OF ROOFTOP UNIT CONTROL COMPARTMENT.
  - SEE DETAILS THIS SHEET FOR SMOKE DETECTOR AND ANNUNCIATOR WIRING.
  - SET ALL THERMOSTATS FOR AUTO CHANGEOVER.
  - PROVIDE PLASTIC ENGRAVED LABEL AT ALL NEW SENSORS WITH 1/4" HIGH WHITE LETTERING ON BLACK BACKGROUND. IE "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 WIRING.
  - HOT GAS RE-HEAT UNITS ONLY: WIRING TO HUMIDITY SENSOR TO BE MADE WITH SHIELDED TWISTED PAIR AS SHOWN. TERMINATE SHIELD WIRES AT TH-1, LEAVE OPEN AT SENSOR.
  - 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.

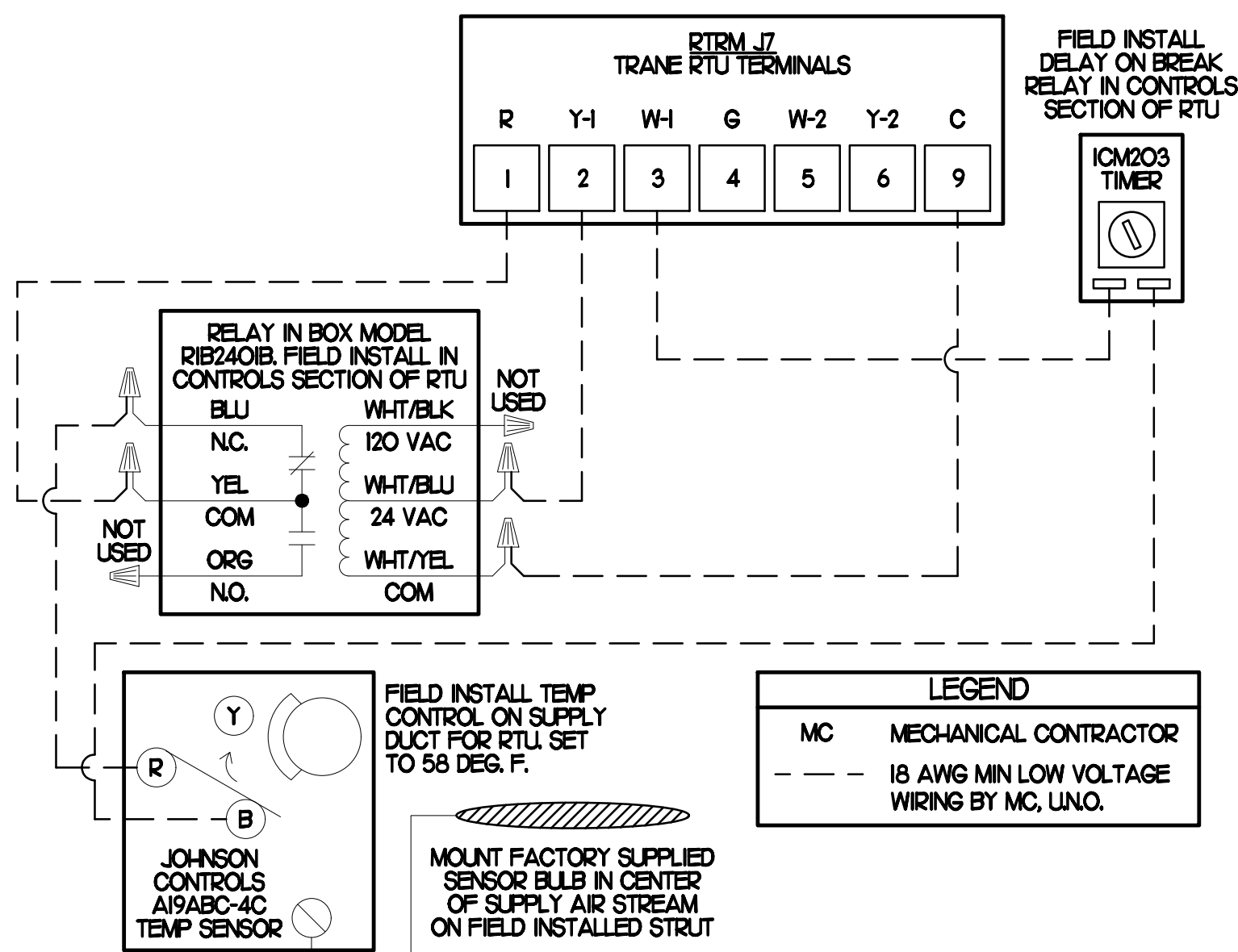
**LEGEND**  
 SEC. SUNCOAST ENVIRONMENTAL CONTROLS (SUPPLIER OF TEMP/FAN CONTROL PANEL) LOCATED IN KITCHEN  
 KEY NOTE REFERENCE  
 MC MECHANICAL CONTRACTOR  
 - - - 22 AWG MIN LOW VOLTAGE WIRING BY MC, UNO.  
 - - - LOW VOLTAGE WIRING BY SEC.



**1 SMOKE DETECTOR AND ANNUNCIATOR WIRING DIAGRAM - TRANE**

NO SCALE

**2 ROOFTOP UNIT CONTROL WIRING - TRANE**



**3 TRANE SUPPLY AIR TEMPERING WIRING**

NONE



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**CHICK-FIL-A**  
**QUAKERTOWN**  
 602 N WEST END BLVD.  
 QUAKERTOWN, PA 18951-4100

**FSR#02219**

BUILDING TYPE / SIZE: S06E  
 RELEASE: v02.21

**REVISION SCHEDULE**

NO.	DATE	DESCRIPTION
1	10/22/21	Operator Revision

CONSULTANT PROJECT # 21071.HF.R  
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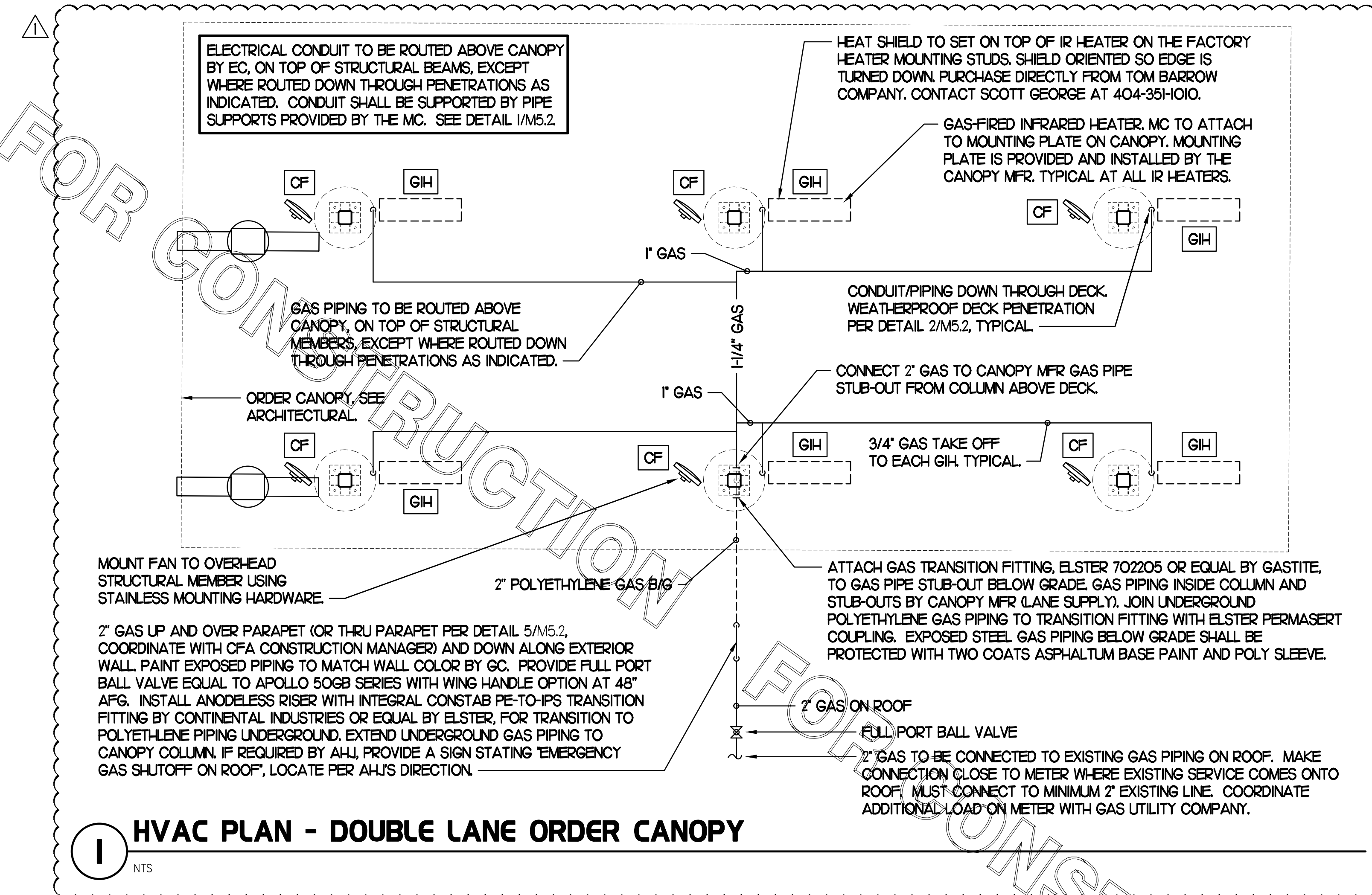
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SHEET  
 HVAC CONTROLS

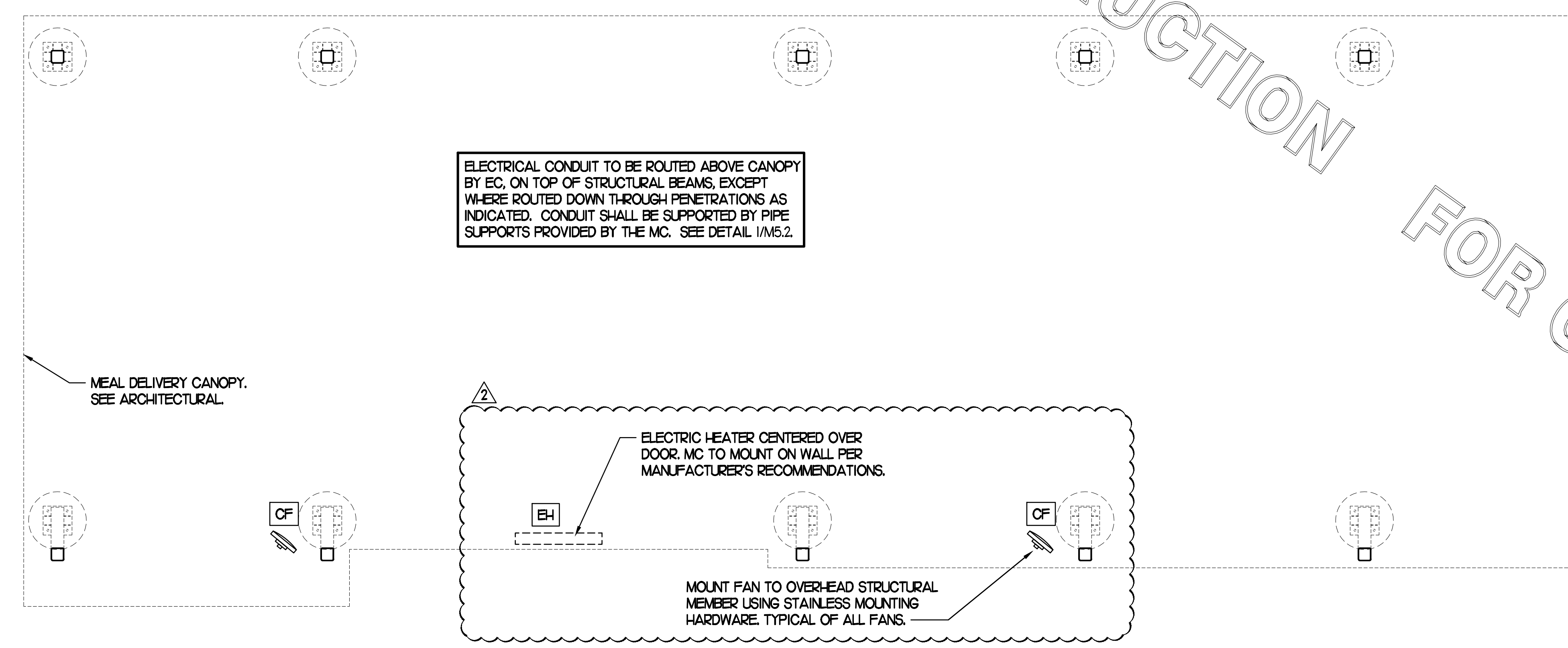
SHEET NUMBER

**M4.2**

ADDED SHEET TO SET.



**1 HVAC PLAN - DOUBLE LANE ORDER 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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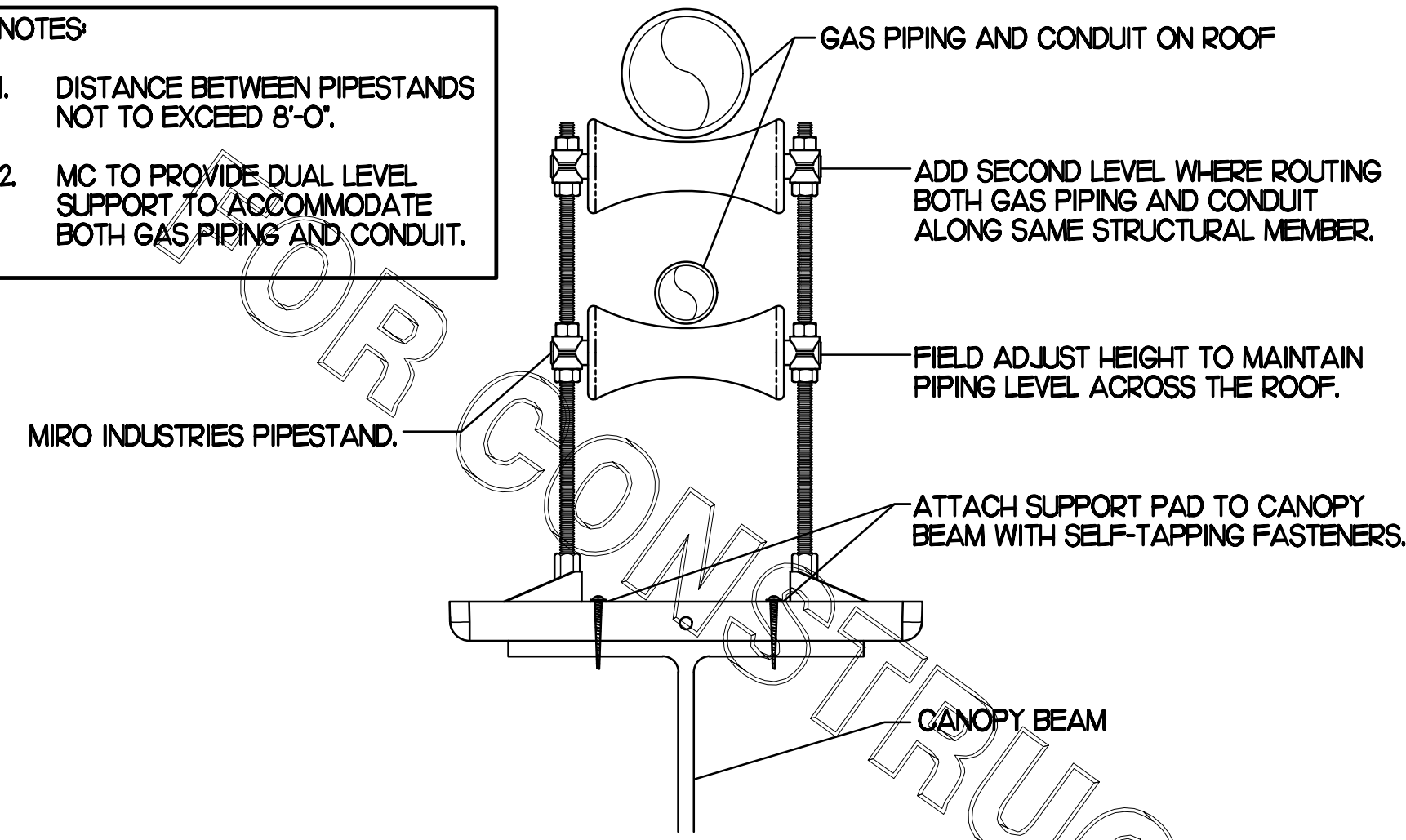
REVISION SCHEDULE		
NO.	DATE	DESCRIPTION
1	10/22/21	Operator Revision
2	03/14/22	Nov. Release Update

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 SHEET  
 CANOPY HVAC  
 PLANS  
 SHEET NUMBER

**M5.1**

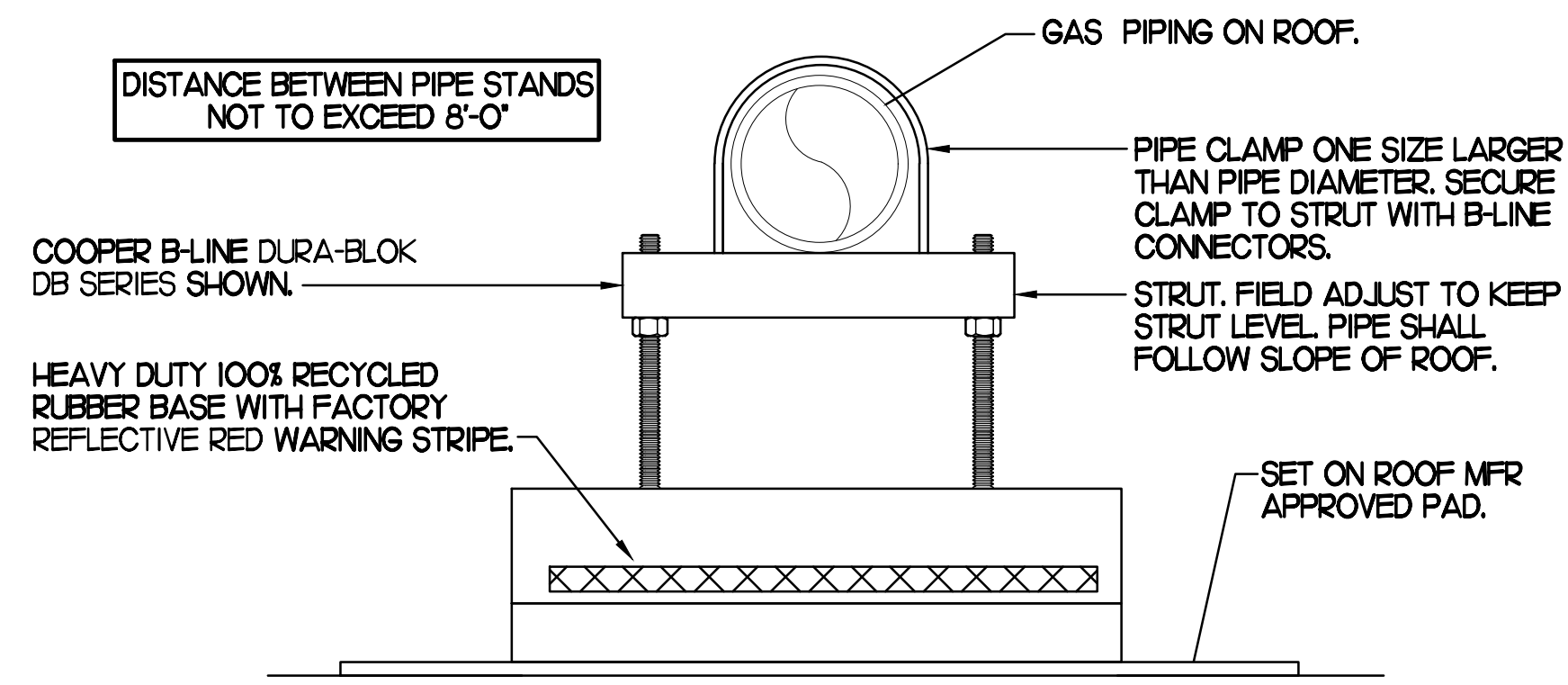
- NOTES**
- DISTANCE BETWEEN PIPESTANDS NOT TO EXCEED 8'-0".
  - MC TO PROVIDE DUAL LEVEL SUPPORT TO ACCOMMODATE BOTH GAS PIPING AND CONDUIT.



**1 PIPING SUPPORT ON CANOPY**

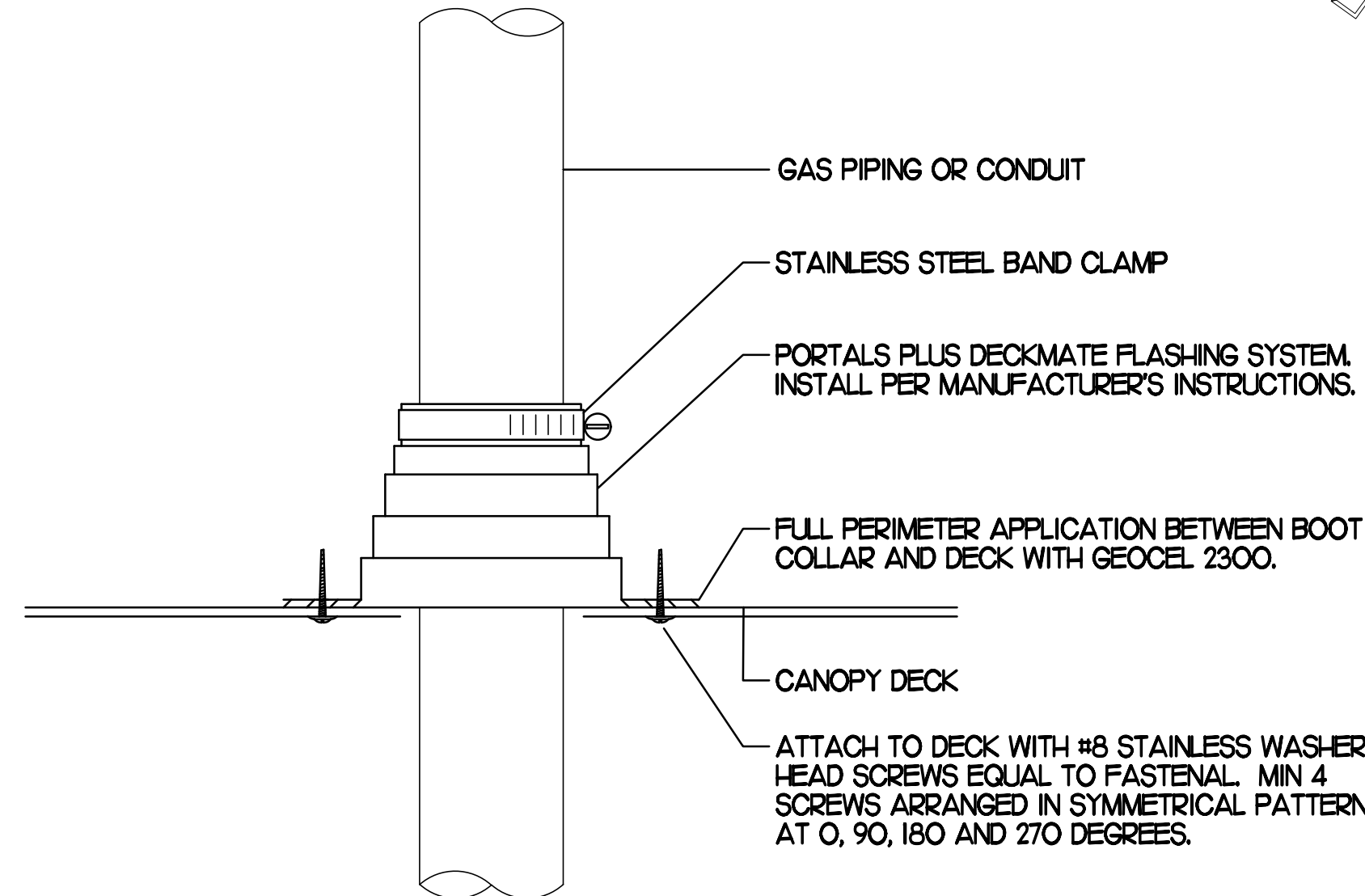
NO SCALE

- 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.



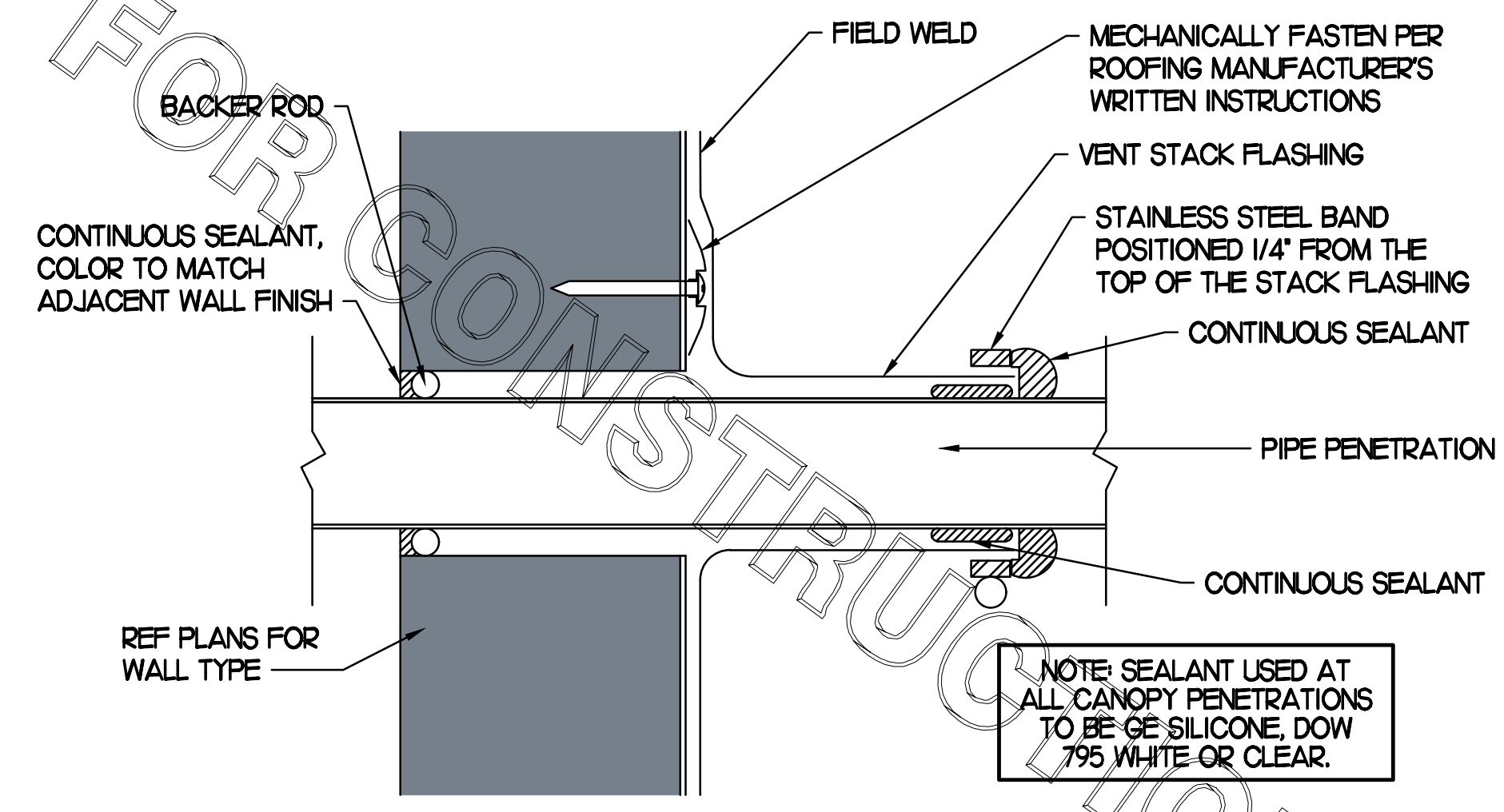
**4 PIPING SUPPORT ON MAIN BLDG ROOF**

NO SCALE



**2 WEATHERPROOFING AT CANOPY PENETRATION**

NO SCALE



**5 PARAPET PENETRATION DETAIL**

NO SCALE

**BROMIC ELECTRIC HEATER SCHEDULE**

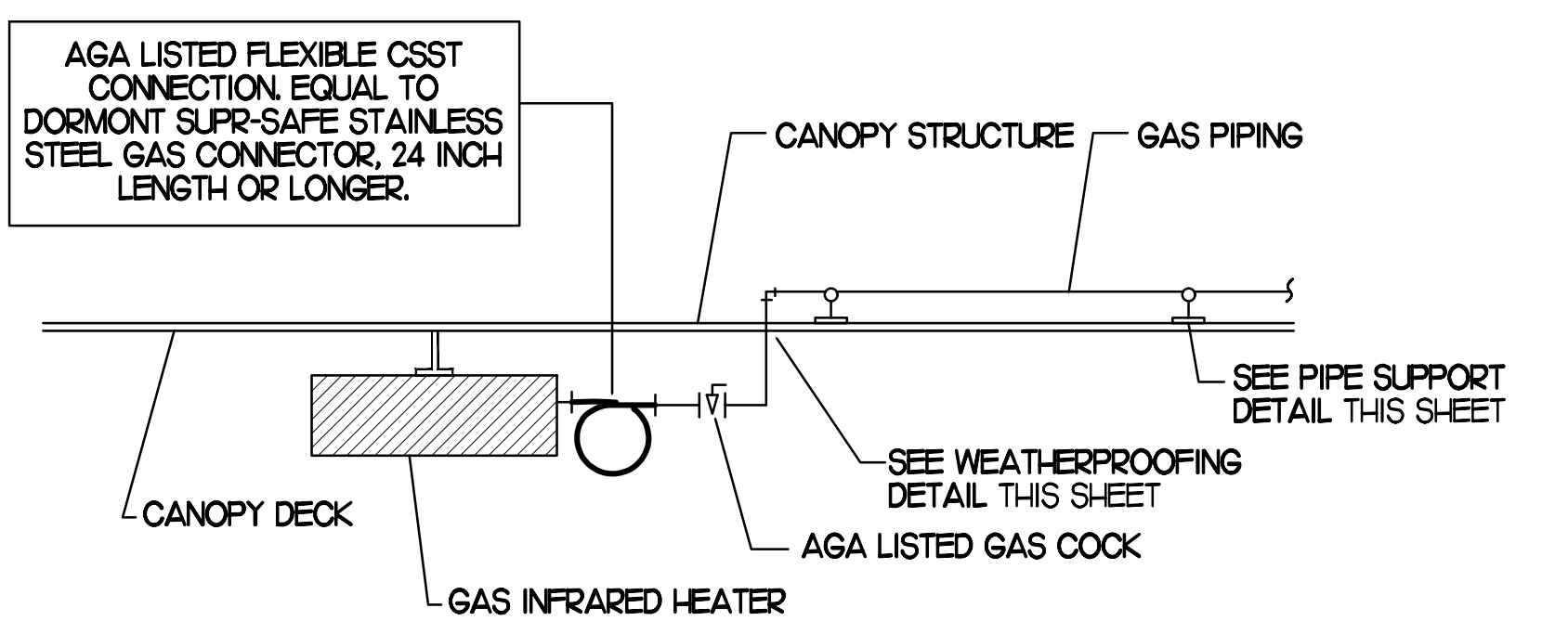
MARK	INPUT (KW)	FRAME SIZE			MOUNTING TYPE	MODEL	MANUFACTURER
		LENGTH	WIDTH	DEPTH			
ALL EH	6.0	56"	8.5"	3.5"	BRACKET	BH0420005	BROMIC
NOTES	<ul style="list-style-type: none"> <li>CHICK-FIL-A HAS A NATIONAL ACCOUNT WITH BROMIC COMPANY FOR THE ELECTRIC HEATER PACKAGE. THE MECHANICAL CONTRACTOR SHALL 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.</li> </ul>						
REMARKS	<ol style="list-style-type: none"> <li>STAINLESS STEEL LENS WITH BLACK EMISSIVE COATING.</li> <li>PROVIDE ENGRAVED PLASTIC LABEL AT EACH UNIT WITH UNIT DESIGNATION IN 1" HIGH WHITE LETTERS ON A BLACK BACKGROUND.</li> <li>PROVIDE WITH MOUNTING BRACKETS PER MANUFACTURER'S RECOMMENDATIONS.</li> </ol>						

**GAS FIRED INFRARED HEATER SCHEDULE**

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

**CIRCULATING FAN SCHEDULE**

MARK	CFM	RPM	HP	MODEL	MANUFACTURER
REMARKS	<ol style="list-style-type: none"> <li>ALUMINUM PADDLE WITH STEEL HUB/SPIDER PROPELLER.</li> <li>360 DEG. ROTATING HEAD HORIZONTALLY AND VERTICALLY.</li> <li>OSHA COMPLIANT DOUBLE LOCKING, COATED STEEL WIRE GUARD.</li> <li>3-SPEED, TOTALLY ENCLOSED, PERMANENTLY LUBRICATED BALL BEARING MOTOR.</li> <li>FACTORY PRE-WIRED POWER CORD.</li> <li>PROVIDE FACTORY WALL MOUNTING BRACKET.</li> <li>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 OVER-HANG, FACING DOWNWARD, 12" Laterally FROM THE FAN LOCATION.</li> <li>REMOVE PULL CHAIN EXTENSION AT ON/OFF SWITCH IN FIELD.</li> <li>FACTORY CERTIFIED FOR OUTDOOR INSTALLATION.</li> </ol>				



**3 GAS CONNECTION AT APPLIANCE**

NO SCALE



Chick-fil-A

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**CHICK-FIL-A**  
**QUAKERTOWN**  
602 N WEST END BLVD.  
QUAKERTOWN, PA 18951-4100

**FSR#02219**

BUILDING TYPE / SIZE: S06E  
RELEASE: v02.21

**REVISION SCHEDULE**

NO.	DATE	DESCRIPTION
2	03/14/22	Nov. Release Update

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SHEET CANOPY DETAILS & SCHEDULES  
SHEET NUMBER

**M5.2**

CONSTRUCTION

**COMcheck Software Version 4.1.5.1**  
**Envelope Compliance Certificate**

**Project Information**

Energy Code: 2015 IECC  
 Project Title: Chick-fil-A #2219  
 Location: Quakertown, Pennsylvania  
 Climate Zone: 4a  
 Project Type: Addition

Construction Site: 602 N West End Blvd, Quakertown, PA 18951  
 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	374

**Envelope Assemblies**

Assembly	Gross Area or Perimeter	Cavity R-Value	Cont. R-Value	Proposed U-Factor	Budget U-Factor <sub>90</sub>
Roof 1: Insulated Entirely Above Deck, [Bldg. Use 1 - Storage/Office]	404	---	30.0	0.032	0.032
Roof 1: Slab-On-Grade-Unheated, Vertical 2 ft., [Bldg. Use 1 - Storage/Office]	98	---	10.0	0.540	0.540
NORTH Exterior Wall 3: Wood-Framed, 16" o.c., [Bldg. Use 1 - Storage/Office]	130	20.0	0.0	0.064	0.064
SOUTH Exterior Wall 1: Wood-Framed, 16" o.c., [Bldg. Use 1 - Storage/Office]	130	20.0	0.0	0.064	0.064
WEST Exterior Wall 2: Wood-Framed, 16" o.c., [Bldg. Use 1 - Storage/Office]	567	20.0	0.0	0.064	0.064
Door 1: Insulated Metal, Swinging, [Bldg. Use 1 - Storage/Office]	28	---	---	0.330	0.810

(a) Budget U-factors are used for software compliance 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 2015 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. 4/15/22  
 Name - Title Signature Date

**COMcheck Software Version 4.1.5.1**  
**Mechanical Compliance Certificate**

**Project Information**

Energy Code: 2015 IECC  
 Project Title: Chick-fil-A #2219  
 Location: Quakertown, Pennsylvania  
 Climate Zone: 4a  
 Project Type: Addition

Construction Site: 602 N West End Blvd, Quakertown, PA 18951  
 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**

- ACR1 (25 ton) (Single Zone):  
 Heating: 1 each - Central Furnace, Gas, Capacity = 320 kBtu/h  
 Proposed Efficiency = 80.00% Et, Required Efficiency: 80.00 % Et  
 Cooling: 1 each - Single Package DX Unit, Capacity = 276 kBtu/h, Air-Cooled Condenser, Air Economizer  
 Proposed Efficiency = 10.60 EER, Required Efficiency: 9.80 EER + 11.4 IEER  
 Fan System: ACR1 | 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, 1800 CFM, 0.8 motor nameplate hp, 0.0 fan efficiency grade
- ACR2 (8.5 ton) (Single Zone):  
 Heating: 1 each - Central Furnace, Gas, Capacity = 160 kBtu/h  
 Proposed Efficiency = 80.00% Et, Required Efficiency: 80.00 % Et or 78% AFUE  
 Cooling: 1 each - Single Package DX Unit, Capacity = 96 kBtu/h, Air-Cooled Condenser, Air Economizer  
 Proposed Efficiency = 12.50 EER, Required Efficiency: 11.00 EER + 12.6 IEER  
 Fan System: ACR2 | Dining - Compliance (Motor nameplate HP method) - Passes  
 Fans:  
 Supply Supply, Constant Volume, 2830 CFM, 2.8 motor nameplate hp, 0.0 fan efficiency grade  
 Exhaust Exhaust, Constant Volume, 750 CFM, 0.9 motor nameplate hp, 0.0 fan efficiency grade
- ACR3 (12.5 ton) (Single Zone):  
 Heating: 1 each - Central Furnace, Gas, Capacity = 200 kBtu/h  
 Proposed Efficiency = 80.00% Et, Required Efficiency: 80.00 % Et or 78% AFUE  
 Cooling: 1 each - Single Package DX Unit, Capacity = 149 kBtu/h, Air-Cooled Condenser, Air Economizer  
 Proposed Efficiency = 12.10 EER, Required Efficiency: 10.80 EER + 12.2 IEER  
 Fan System: ACR3 | Dining - Compliance (Motor nameplate HP method) - Passes  
 Fans:  
 Supply Supply, Constant Volume, 5000 CFM, 3.0 motor nameplate hp, 0.0 fan efficiency grade  
 Exhaust Exhaust, Constant Volume, 1355 CFM, 0.8 motor nameplate hp, 0.0 fan efficiency grade
- ACR4 (5 ton) (Single Zone):  
 Heating: 1 each - Central Furnace, Gas, Capacity = 104 kBtu/h  
 Proposed Efficiency = 80.00% Et, Required Efficiency: 80.00 % Et or 78% AFUE  
 Cooling: 1 each - Single Package DX Unit, Capacity = 59 kBtu/h, Air-Cooled Condenser, Air Economizer  
 Proposed Efficiency = 17.20 SEER, Required Efficiency: 14.00 SEER  
 Fan System: ACR4 | Play Area - Compliance (Motor nameplate HP method) - Passes

**Quantity System Type & Description**

- Fans:  
 Supply Supply, Constant Volume, 1800 CFM, 1.0 motor nameplate hp, 0.0 fan efficiency grade  
 Exhaust Exhaust, Constant Volume, 300 CFM, 0.9 motor nameplate hp, 0.0 fan efficiency grade
- AH Unit 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 = 36.20 SEER, Required Efficiency: 14.00 SEER  
 Fan System: None
  - GH (Infrared Heater) (Single Zone):  
 Heating: 1 each - Radiant Heater, Gas, Capacity = 40 kBtu/h  
 No minimum efficiency requirement applies  
 Fan System: None
  - EH (Infrared 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 2015 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. 4/15/22  
 Name - Title Signature Date



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**FSR#02219**

BUILDING TYPE / SIZE: S06E  
 RELEASE: v02.21

**REVISION SCHEDULE**

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SHEET  
 MECH & ENVELOPE  
 COMCHECK  
 SHEET NUMBER

**M6.1**

# 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 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

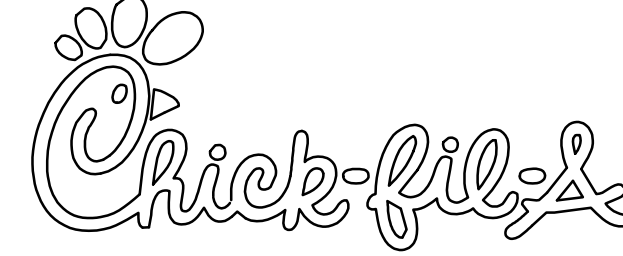
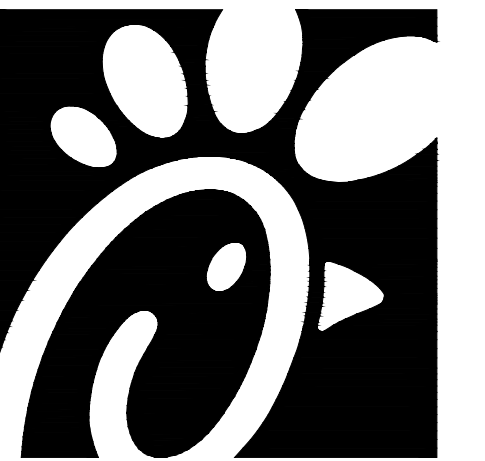
### 3.01 SCOPE

- 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.

TRANE 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.

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.

NATIONAL ACCOUNTS	
1.	LOREN COOK FAN AND CURB PACKAGE - THE MECHANICAL CONTRACTOR IS REQUIRED TO PURCHASE THE FAN/CURB PACKAGE DIRECTLY FROM TOM BARROW COMPANY. CONTACT MR. SCOTT GEORGE AT 404-351-1010 FOR PRICING AND AVAILABILITY. FANS AND CURBS NOT PURCHASED THRU TOM BARROW COMPANY WILL NOT BE ACCEPTED.
2.	PRICE AIR DEVICES - THE MECHANICAL CONTRACTOR IS REQUIRED TO PURCHASE THE AIR DEVICES DIRECTLY FROM TOM BARROW COMPANY. CONTACT MR. SCOTT GEORGE AT 404-351-1010 FOR PRICING AND AVAILABILITY. AIR DEVICES NOT PURCHASED THRU TOM BARROW COMPANY WILL NOT BE ACCEPTED.
3.	AIR DOORS - THE MECHANICAL CONTRACTOR IS REQUIRED TO PURCHASE THE AIR DOORS DIRECTLY FROM TOM BARROW COMPANY. CONTACT MR. SCOTT GEORGE AT 404-351-1010 FOR PRICING AND AVAILABILITY. AIR DOORS NOT PURCHASED THRU TOM BARROW COMPANY WILL NOT BE ACCEPTED.
4.	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.
5.	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.
6.	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.
7.	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.
8.	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



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



**CHICK-FIL-A**  
**QUAKERTOWN**  
602 N WEST END BLVD.  
QUAKERTOWN, PA 18951-4100

**FSR#02219**

BUILDING TYPE / SIZE: S06E  
RELEASE: V02.21

NO.	DATE	DESCRIPTION
1	10/22/21	Operator Revision
2	03/14/22	Nov. Release Update

CONSULTANT PROJECT # 21071.HF.R  
PRINTED FOR CONSTRUCTION  
DATE 06/14/2021  
DRAWN BY DSF

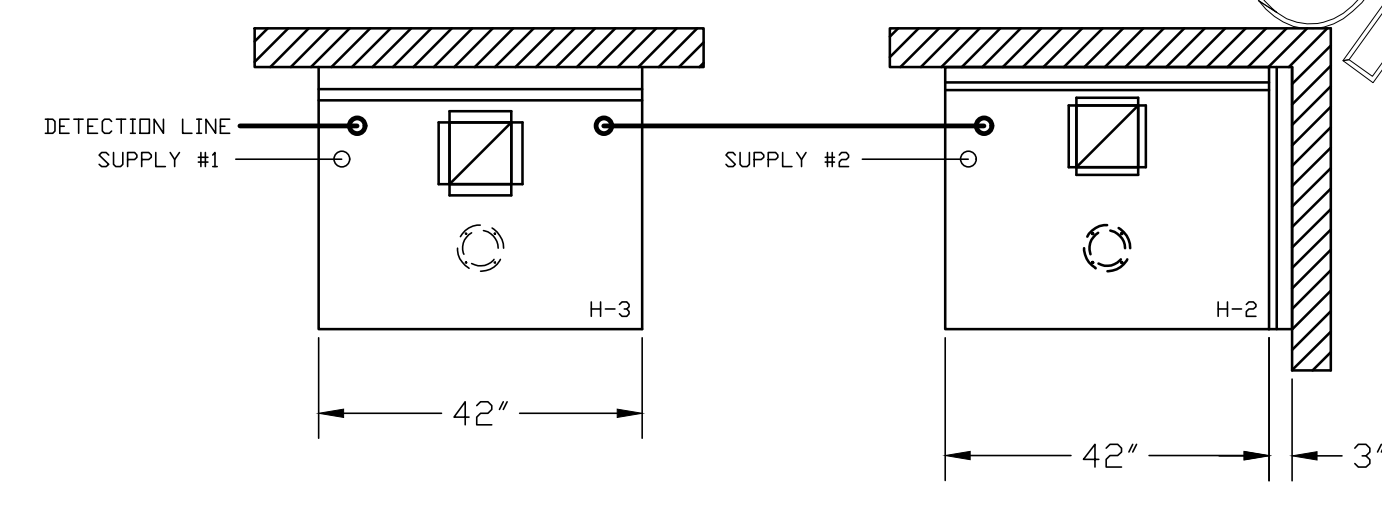
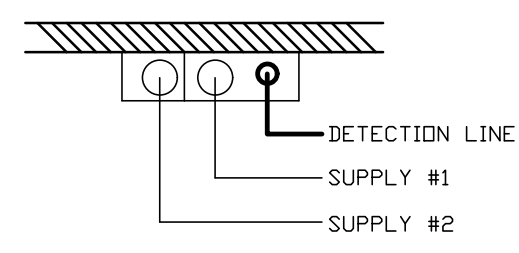
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SHEET  
MECHANICAL  
SPECIFICATIONS  
SHEET NUMBER

**M7.1**

CONSTRUCTION

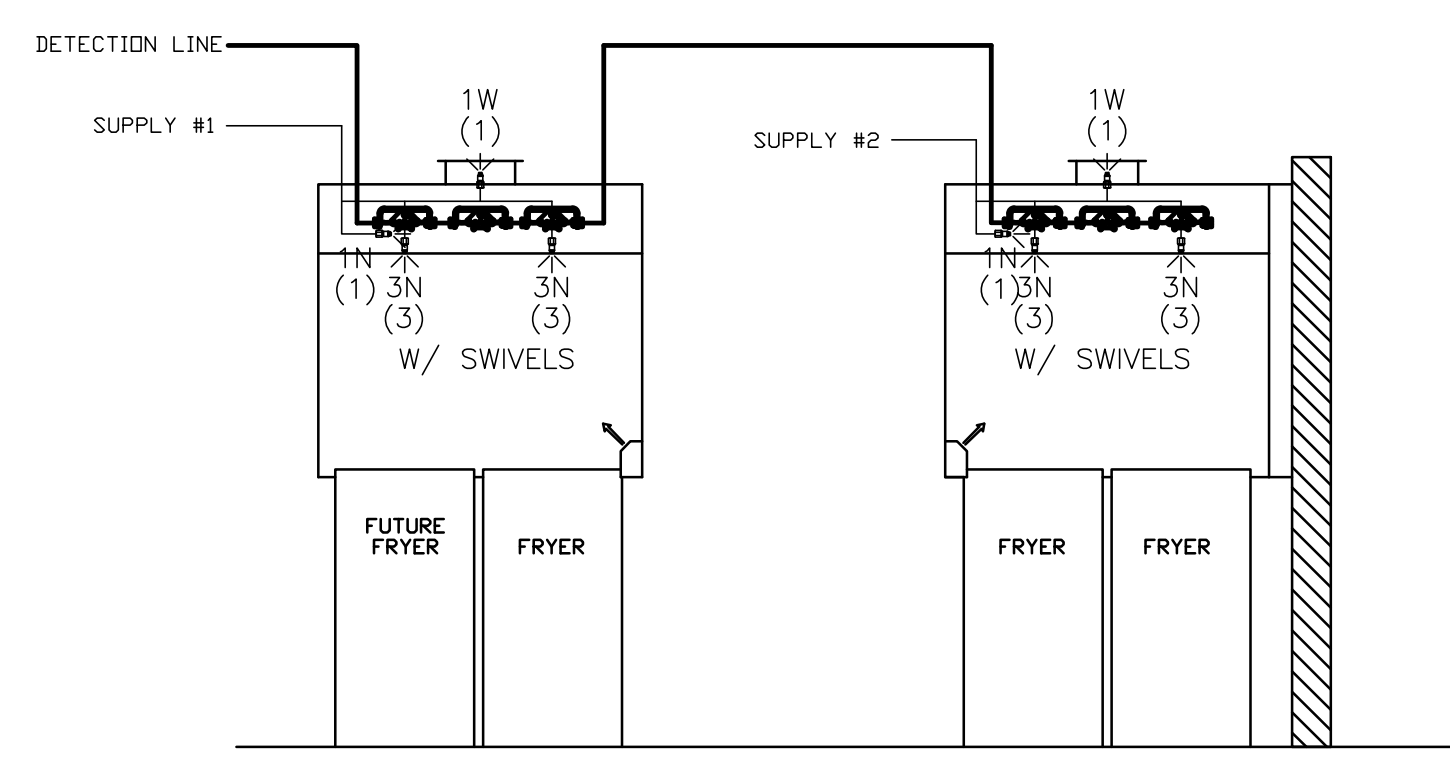
FOR REFERENCE ONLY

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

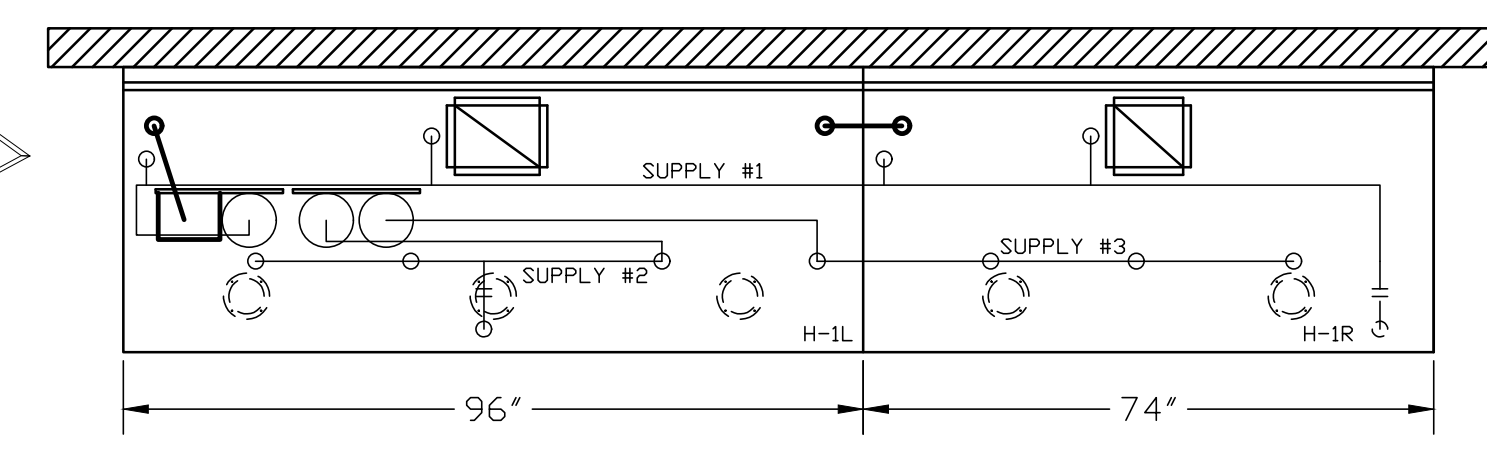


(1) REGULATED RELEASE  
 (2) EXTRA MICRO SWITCH ASSEMBLIES  
 (MOUNTED IN REG. REL.)  
 (1) SINGLE TANK ENCLOSURE  
 (2) 3 GALLON TANK

ANSUL R-102 FIRE SYSTEM  
 A) 6 GALLON SYSTEM (2 TANKS)  
 (REMOTE MOUNTED)  
 (FOR HOOD H-2 & H-3)  
 B) 3/8" BLACK IRON PIPING  
 W/ 3/8" S.S. APPLIANCE DRDPS

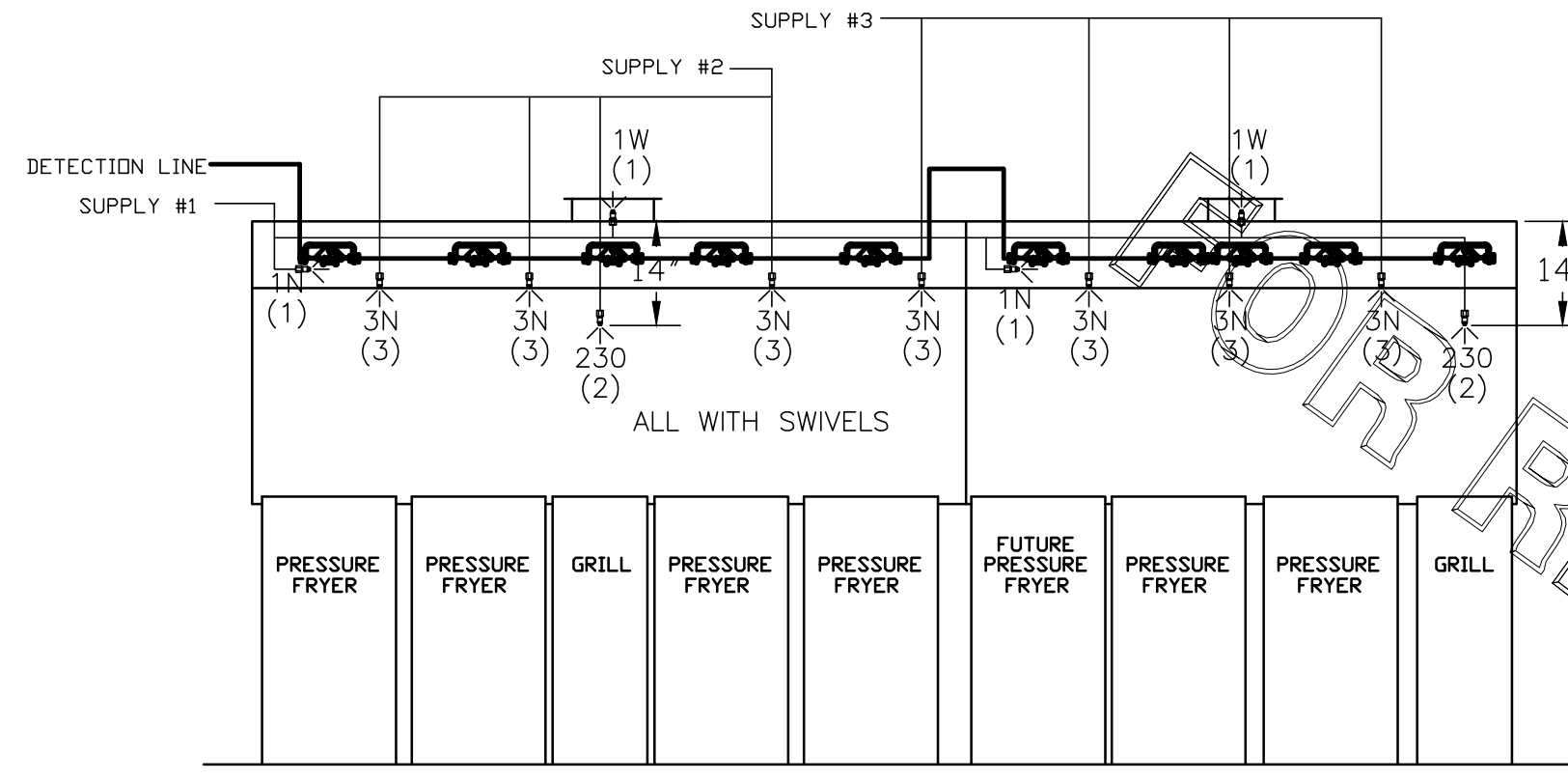


ANSUL R-102 FIRE SYSTEM LAYOUT



(1) DEM REGULATED RELEASE  
 (2) EXTRA MICRO SWITCH ASSEMBLIES  
 (MOUNTED IN DEM REG. REL.)  
 (3) 3 GALLON TANKS

ANSUL R-102 FIRE SYSTEM  
 A) 9 GALLON SYSTEM (3 TANKS)  
 (MOUNTED ON HOOD H-1L)  
 (FOR HOODS H-1L & H-1R)  
 B) 3/8" BLACK IRON PIPING  
 W/ 3/8" S.S. APPLIANCE DRDPS



ANSUL R-102 FIRE SYSTEM LAYOUT

FUSIBLE LINK RATINGS

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

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

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

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

TOTAL FLOW POINTS - 45

ITEM #	QTY	DESCRIPTION
#200	14	SERIES DETECTORS W/ FUSIBLE LINKS
#201	2	TERMINAL DETECTOR W/ FUSIBLE LINKS
#202	1	DEM REGULATED RELEASE W/ DOUBLE POLE MICRO SWITCH
#202	1	REGULATED RELEASE W/ DOUBLE POLE MICRO SWITCH
#203	5	3 GALLON TANKS
#204	1	SINGLE TANK ENCLOSURE
#205	2	REMOTE PULL STATION

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

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

MAIL APPROVED DRAWINGS TO APPROPRIATE FACTORY BELOW: WEBSITE: WWW.HALTONCOMPANY.COM

HALTON CO. (CANADA) 1021 BREVIK PLACE MISSISSAUGA, ON L4W 3R7 1-905-624-0301	HALTON CO. (USA) 101 INDUSTRIAL DRIVE SCOTTSDALE, KY 42164 1-270-237-5800
---	--

PROJECT: CHICK-FIL-A #2219  
 QUAKERTOWN  
 QUAKERTOWN, PA  
 DRAWN BY: AF DATE: 05.26.21  
 SCALE: NTS  
 Halton Dwg: U21-380-02

REV. 1 REVISION DESCRIPTION FOR H-1L & REVISED CJ FANS AF 11.24.21  
 2 REVISED HOOD H-3 & EQUIPMENT/ANSUL FOR HOOD H-1L/R AF 04.08.22  
 3  
 4  
 5  
 6  
 7

Sheet **MH1.2**

**Halton**  
CARE FOR INDOOR AIR

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