

### MECHANICAL SYMBOLS LEGEND

**ABBREVIATIONS:**

AFF	ABOVE FINISHED FLOOR
BOD	BOTTOM OF DUCT
BTU	BRITISH THERMAL UNIT
CFM	CUBIC FEET PER MINUTE
DB	DRY BULB
EAT	ENTERING AIR TEMPERATURE
ESP	EXTERNAL STATIC PRESSURE
FOB	FLAT ON BOTTOM
HZ	FREQUENCY
NC	NOISE CRITERIA
PSI	POUNDS PER SQUARE INCH
RTU	ROOFTOP UNIT
TYP	TYPICAL
WC	WATER COLUMN
WB	WET BULB

**GRILLES/DIFFUSERS:**

	SUPPLY DIFFUSER
	SUPPLY DIFFUSER WITH 3-WAY THROW
	SUPPLY DIFFUSER WITH 2-WAY THROW
	SIDEWALL MOUNTED SUPPLY REGISTER
	RETURN GRILLE
	EXHAUST GRILLE
	LINEAR DIFFUSER

**EQUIPMENT:**

	ROOF MOUNTED EXHAUST FAN
	CEILING MOUNTED EXHAUST FAN
	ROOFTOP UNIT
	MAKE-UP AIR UNIT
	TEMPERATURE SENSOR - ELECTRIC
	THERMOSTAT
	CARBON DIOXIDE SENSOR
	DUCT SMOKE DETECTOR
	HUMIDITY SENSOR
	AUDIO/VISUAL REMOTE SMOKE DETECTOR ANNUNCIATOR

**DOUBLE LINE DUCT SYMBOLS:**

	NEW SHEET METAL DUCTWORK
	SUPPLY OR OUTSIDE AIR DUCT
	RETURN AIR DUCT
	EXHAUST AIR DUCT
	DUCTWORK TRANSITION
	DUCTWORK TRANSITION - RECTANGULAR TO ROUND
	SUPPLY DUCT ELBOW UP OR DOWN
	RETURN DUCT ELBOW UP OR DOWN

	EXHAUST DUCT ELBOW UP OR DOWN
	DUCT ELBOW WITH FIXED TURNING VANES
	DUCT BRANCH TAKE-OFF
	ROUND SPIN-IN WITH DAMPER
	SQUARE TO ROUND TAP WITH DAMPER
	FLEXIBLE DUCT CONNECTION
	VOLUME DAMPER
	BACKDRAFT DAMPER
	FLEXIBLE DUCTWORK

**GENERAL REFERENCES/NOTATIONS:**

	CONNECT TO EXISTING
#	NOTE DESIGNATION
#	REVISION DESIGNATION
TYPE #	MECHANICAL EQUIPMENT DESIGNATION
TAG CFM	DIFFUSER DESIGNATION AND CFM

**SYMBOLS LEGEND NOTES:**

- REFER TO SPECIFICATIONS AND PLAN NOTES FOR DETAILED DESCRIPTION OF ALL DEVICES SHOWN IN THIS SCHEDULE.
- PROJECT MAY NOT USE EVERY SYMBOL OR DEVICE INDICATED ON THIS LEGEND.

### GENERAL NOTES

- CONTRACTORS AND SUB-CONTRACTORS SHALL CAREFULLY REVIEW THE CONSTRUCTION DOCUMENTS. INFORMATION REGARDING THE COMPLETE WORK IS DISPERSED THROUGHOUT THE DOCUMENT SET AND CANNOT BE ACCURATELY DETERMINED WITHOUT REFERENCE TO THE COMPLETE DOCUMENT SET.
- COORDINATE WITH THE WORK OF OTHER SECTIONS, EQUIPMENT FURNISHED BY OTHERS, REQUIREMENTS OF THE OWNER, AND WITH THE CONSTRAINTS OF THE EXISTING CONDITIONS OF THE PROJECT SITE. PROVIDE DUCT RISES AND DROPS AS REQUIRED FOR FIELD INSTALLATION AND TRADE COORDINATION. NOTIFY ARCHITECT OF ANY DISCREPANCIES
- DRAWINGS FOR HVAC WORK ARE DIAGRAMMATIC, SHOWING THE GENERAL LOCATION, TYPE, LAYOUT, AND EQUIPMENT REQUIRED. THE DRAWINGS SHALL NOT BE SCALED FOR EXACT MEASUREMENT. REFER TO ARCHITECTURAL DRAWINGS FOR DIMENSIONS. REFER TO MANUFACTURER'S STANDARD INSTALLATION DRAWINGS FOR EQUIPMENT CONNECTIONS AND INSTALLATION REQUIREMENTS. PROVIDE DUCTWORK, CONNECTIONS, ACCESSORIES, OFFSETS, AND MATERIALS NECESSARY FOR A COMPLETE SYSTEM.
- ALL WORK SHALL COMPLY WITH STATE AND LOCAL CODE REQUIREMENTS AS APPROVED AND AMENDED BY THE GOVERNING CITY. PURCHASE ALL PERMITS ASSOCIATED WITH THE WORK. OBTAIN ALL INSPECTIONS REQUIRED BY CODE.
- INSTALL EQUIPMENT PER MANUFACTURER'S INSTRUCTIONS AND MAINTAIN MANUFACTURER'S RECOMMENDED CLEARANCE.
- CONTACT LANDLORD APPROVED ROOFING CONTRACTOR TO FLASH AND SEAL RELATED ROOF PENETRATIONS TO MAINTAIN ROOFING WARRANTY.
- INSTALL EXHAUST FAN A MINIMUM OF 10 FT FROM INTAKE AIR OPENINGS.

### INSULATION SCHEDULE

ALL EXPOSED DUCTWORK IN CONDITIONED SPACES	1" DUCT LINER
ALL EXTERIOR DUCTWORK	MIN. R-6
ALL CONCEALED SUPPLY AND RETURN DUCT	MIN. R-4.2
ALL EXHAUST UP TO 10'-0" FROM DISCHARGE	MIN. R-6

**NOTE:**

ALL SUPPLY AND RETURN AIR DUCTS AND PLENUMS SHALL BE INSULATED WITH A MINIMUM OF R-4.2 INSULATION WHEN LOCATED IN UNCONDITIONED SPACES AND WITH A MINIMUM OF R-6 INSULATION WHEN LOCATED OUTSIDE THE BUILDING ENVELOPE. WHEN LOCATED WITHIN A BUILDING ENVELOPE ASSEMBLY, THE DUCT OR PLENUM SHALL BE SEPARATED FROM THE BUILDING EXTERIOR OR UNCONDITIONED OR EXEMPT SPACES BY A MINIMUM OF R-6 INSULATION. ALL JOINTS, LONGITUDINAL AND TRANSVERSE SEAMS, AND CONNECTIONS IN DUCTWORK SHALL BE SECURELY FASTENED AND SEALED WITH WELDS, GASKETS, MASTICS, MASTIC-PLUS-EMBEDDED-FABRIC SYSTEMS OR TAPES. TAPES AND MASTICS SHALL BE LISTED AND LABELED IN ACCORDANCE WITH UL 181A OR UL 181B. DUCT CONNECTIONS TO FLANGES OF AIR DISTRIBUTION SYSTEM EQUIPMENT SHALL BE SEALED AND MECHANICALLY FASTENED. DUCT TAPE IS NOT PERMITTED AS A SEALANT ON ANY METAL DUCTS.

### ENERGY NOTES

- MOTORIZED DAMPERS SHALL BE INSTALLED ON ALL INTAKES AND EXHAUST OPENINGS UNLESS NOTED OTHERWISE.
- MAXIMUM FAN NAMEPLATE HORSEPOWER SHALL NOT EXCEED 1.1 HP/1000CFM.
- LOAD CALCULATIONS WERE BASED ON ASHRAE 2021 FUNDAMENTALS
- ALL PROGRAMMABLE THERMOSTATS SHALL HAVE 5 DEGREE DEADBAND AND SHALL HAVE 7-DAY CLOCK, 2-HOUR MANUAL OVERRIDE, 10 HOUR BACKUP AND SETBACK CAPABLE OF 55 DEGREES HEATING AND 85 DEGREES COOLING. (EXCEPT CONTINUOUS OPERATING ZONES)
- DUCT INSULATION AS SPECIFIED WITH MINIMUM VALUES AS FOLLOWS:  
a. R-4.2 SUPPLY AND RETURN DUCT INSULATION IN UNCONDITIONED SPACES.  
b. R-6 SUPPLY AND RETURN DUCT INSULATION FOR EXTERIOR DUCTS.  
c. R-4.2 SUPPLY AND RETURN DUCT INSULATION UNDERGROUND.  
d. 1" INTERNAL LINER ON DUCTS WITHIN INDIRECTLY CONDITIONED PLENUM SPACES.
- ALL DUCTWORK SHALL BE SEALED PRESSURE SENSITIVE TAPE IS NOT USED AS THE PRIMARY SEALANT. LONGITUDINAL AND TRANSVERSE SEAMS FOR DUCTS IN UNCONDITIONED SPACES AND WALL PENETRATIONS. TRANSVERSE SEAMS ON BURIED DUCTS.
- ALL MOTORS SHALL MEET THE REQUIREMENTS OF C405.8.
- PROVIDE COMMISSIONING PER C408.

### APPLICABLE CODES

AS ADOPTED BY THE CITY OF ORLANDO, FL :  
2023 FLORIDA MECHANICAL CODE  
2023 FLORIDA PLUMBING CODE  
2023 FLORIDA BUILDING CODE  
2023 FLORIDA FIRE CODE  
2023 FLORIDA ENERGY CONSERVATION CODE

### DESIGN CRITERIA

BASED ON ASHRAE HANDBOOK - 2021 FUNDAMENTALS  
  
ORLANDO, FL  
OUTDOOR DESIGN CONDITION  
1% COOLING: 92.5°/76.1°F DB/WB  
99.6% HEATING: 39.1°F DB  
  
INDOOR DESIGN CONDITION (ADJUSTABLE)  
SUMMER: 75°F DB/50% RH  
WINTER: 70°F DB

### SEQUENCE OF OPERATION

- PROVIDE STAND ALONE OR APPLICATION SPECIFIC CONTROLLERS AS REQUIRED TO PERFORM THE FOLLOWING SEQUENCES OF OPERATIONS.
- PACKAGED ROOFTOP UNITS
  - UNIT SHALL CONSIST OF SUPPLY AIR FAN, FILTERS, DX COOLING COIL, GAS-FIRED HEAT SECTION, AND A 7-DAY PROGRAMMABLE THERMOSTAT.
  - PROVIDE AN OVERRIDE SWITCH TO OPERATE THE UNIT DURING UNOCCUPIED HOURS. THIS SWITCH SHALL BE PART OF THE PROGRAMMABLE THERMOSTAT. OVERRIDE SWITCH ALLOWS THE UNIT TO OPERATE FOR TWO HOURS (ADJUSTABLE).
  - OCCUPIED MODE: BASED ON THE ROOFTOP UNIT'S HOURS OF OCCUPANCY, START THE UNIT AT THE BEGINNING OF OCCUPANCY AND SHUT DOWN THE UNIT AT THE END OF OCCUPANCY (NOTE: OUTSIDE AIR DAMPER WITHIN THE RTU SHALL OPEN AND THEN THE RTU SHALL START). THE UNIT SHALL START EARLIER AS DETERMINED BY THE PROGRAM FOR EARLY WARM-UP OR COOL DOWN. ON A SYSTEM STARTUP, THE RTU FAN SHALL START AND RUN CONTINUOUSLY AND THE INTERNAL FACTORY CONTROLS SHALL BE ENABLED. BASED ON THE SPACE TEMPERATURE SENSOR, THE UNIT SHALL CYCLE THE HEATING/COOLING TO MAINTAIN THE SPACE TEMPERATURE SETPOINT (COOLING 75 DEGREE F, HEATING 70 DEGREE F)
    - ECONOMIZER MODE: WHEN ENTHALPY OF OA IS BELOW 28 BTULB, ECONOMIZER MODE SHALL BE ENABLED. ECONOMIZER MODE SHALL LINEARLY MODULATE OUTDOOR AIR CFM FROM MINIMUM OA CFM TO 100% BASED ON ENTHALPY READINGS.
    - HUMIDITY CONTROL (WHEN NEEDED BASED ON CLIMATE): UPON DETECTION OF RELATIVE HUMIDITY ABOVE 55%, THE UNIT SHALL CYCLE INTO DEHUMIDIFICATION MODE IF NOT ALREADY IN COOLING.
  - UNOCCUPIED MODE: THE RTU INTERNAL OA DAMPERS SHALL REMAINED CLOSED WHEN THE BUILDING IS NOT OCCUPIED. THE RTU SHALL STOP HEATING/COOLING AND THE FAN SHALL STOP. IF THE SPACE TEMPERATURE FALLS BELOW 56 DEGREE F (ADJUSTABLE), THE UNIT SHALL START AND HEAT UNTIL THE SPACE TEMPERATURE IS 60 DEGREE F (ADJUSTABLE) AND THEN SHUTDOWN. IF THE SPACE TEMPERATURE RISES ABOVE 85 DEGREE F (ADJUSTABLE), THE UNIT SHALL START AND COOL UNTIL THE SPACE TEMPERATURE IS 80 DEGREE F (ADJUSTABLE) AND THEN SHUTDOWN.
- UPON DETECTION OF SMOKE BY UNIT SMOKE DETECTOR OR BOTH RTUS SHALL SHUT DOWN AND AN ALARM SHALL BE SENT TO THE FIRE ALARM CONTROL PANEL (WHERE APPLICABLE). LOCAL REMOTE ANNUNCIATORS SHALL ALSO BE ACTIVATED.
- KITCHEN HOOD EXHAUST FAN (KF-1)
  - THE KITCHEN HOOD EXHAUST FAN SHALL BE ENABLED WHEN ANY COOKING APPLIANCE LOCATED UNDER ITS RESPECTIVE HOOD, IS IN USE.
- MAKE UP AIR UNIT (MAU-1)
  - THE MAKE UP AIR UNIT SHALL BE ENABLED WHEN THE KITCHEN HOOD EXHAUST FAN (KF-1) IS ENERGIZED. THE INTERNAL MOTORIZED DAMPER WITHIN WITH MAU-1 SHALL OPEN AND THE FAN SHALL RUN. IF OA IS LESS THAN 65° (ADJ.), THE MAU-1 GAS-FIRED HEAT SECTION SHALL BE ENABLED TO MAINTAIN A MINIMUM OF 65°.
  - WHEN KF-1 IS OFF, MAU-1 SHALL BE DE-ENERGIZED AND THE INTERNAL MOTORIZED DAMPED SHALL CLOSE.
- ANSUL SYSTEM ACTIVATION
  - UPON ACTIVATION OF ANSUL SYSTEM, SHUT DOWN MAU-1 AND RTUS. PROVIDE RELAYS CONTACTS, INTERLOCKS, TRANSFORMERS AND ALL ASSOCIATED WIRING TO ACCOMPLISH SEQUENCE. MAU-1 IS ALREADY PREWIRED TO SHUT DOWN IN HOOD CONTROL PANEL. MECHANICAL CONTRACTOR SHALL INTERLOCK RTUS TO ALSO SHUT DOWN.

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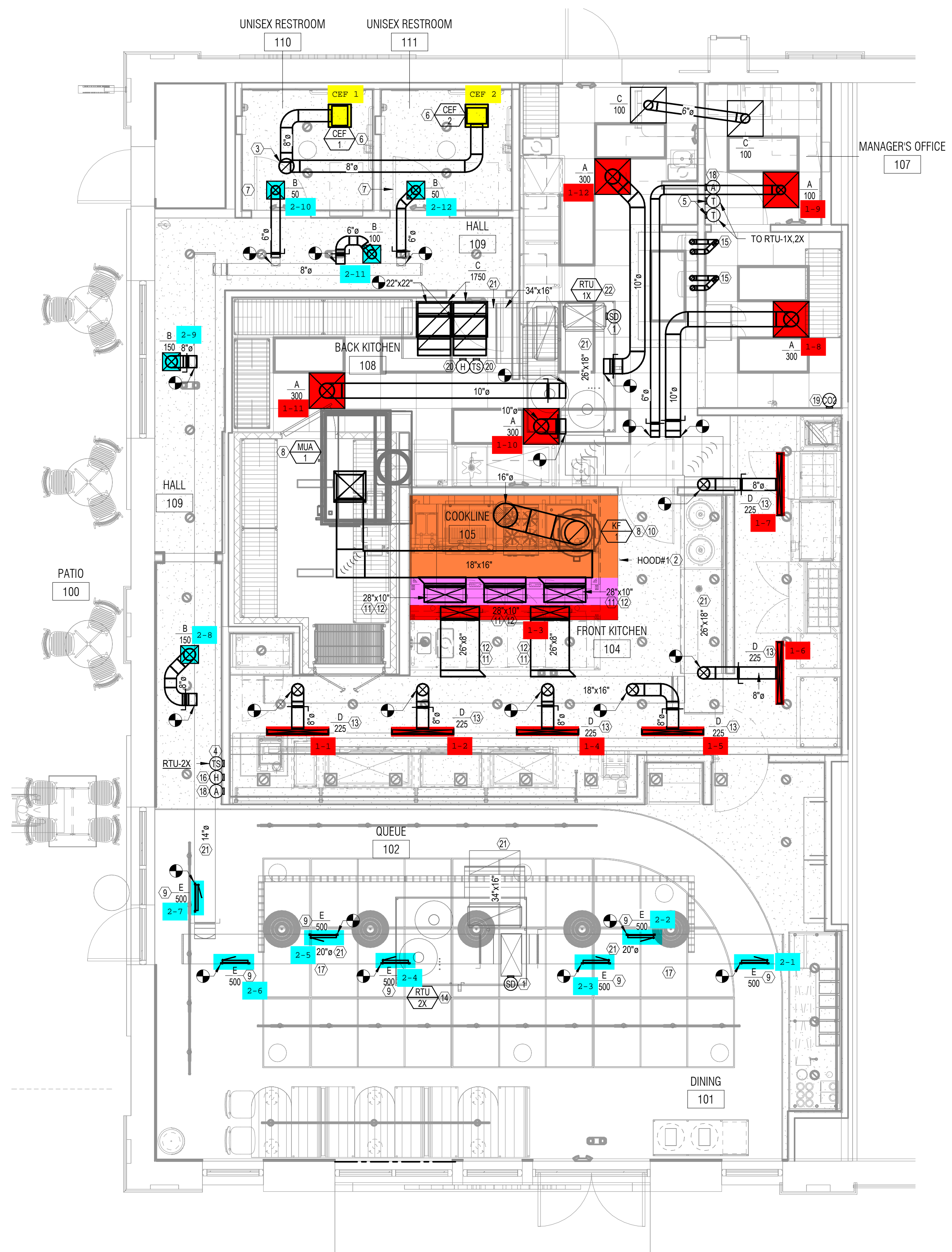
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MECHANICAL GENERAL  
NOTES, SYMBOLS & LEGENDS

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



**KEYED NOTES**

- DUCT MOUNTED SMOKE DETECTOR FURNISHED BY FIRE ALARM CONTRACTOR AND INSTALLED IN DUCT BY MECHANICAL CONTRACTOR. INTERLOCK WIRING BETWEEN FIRE ALARM SYSTEM RELAY AND ROOFTOP UNIT SHUTDOWN. CONTACT SHALL BE PROVIDED BY MECHANICAL CONTRACTOR. ALL OTHER WIRING BY FIRE ALARM CONTRACTOR. UPON DETECTION OF SMOKE, ROOFTOP UNIT SHALL SHUT DOWN UPON SIGNAL FROM FIRE ALARM SYSTEM. COORDINATE INSTALLATION LOCATION WITH ACCESS REQUIREMENTS. PROVIDE 18"x18" ACCESS PANEL AS REQUIRED. COORDINATE ACCESS PANEL'S FINISH WITH ARCHITECT.
- INSTALL OWNER FURNISHED TYPE I GREASE EXHAUST HOOD. SUPPORT HOOD PER MANUFACTURER'S INSTALLATION INSTRUCTIONS. PROVIDE TRAPEZE HANGERS, AND MOUNTING BRACKETS FOR ALL THREAD SUPPORT UNDER DUCTWORK AS REQUIRED. REFER TO HOOD DRAWINGS IN FOOD SERVICE SET FOR HOOD SPECIFICATION AND ADDITIONAL INFORMATION INCLUDING BALANCE OF MAKEUP AND CONDITIONED SUPPLY AIR TO HOOD.
- 10"Ø EXHAUST DUCT VENT THROUGH ROOF ABOVE.
- PROVIDE REMOTE TEMPERATURE SENSOR COMPATIBLE WITH THERMOSTAT. VERIFY FINAL LOCATION WITH ARCHITECT. WIRE BACK TO THERMOSTAT AT MANAGER'S DESK.
- INSTALL LED TOUCHSCREEN 24/7 PROGRAMMABLE THERMOSTAT (WITH CONTROLS LOCKED BY CODE) MOUNTED AT 48" AFF. COORDINATE EXACT LOCATION WITH OWNER.
- PROVIDE CEILING MOUNTED EXHAUST FAN. TRANSITION FROM FAN DISCHARGE TO DUCT SIZE SHOWN AND EXTEND UP THROUGH ROOF.
- UNDERCUT RESTROOM DOOR 1" FOR TRANSFER AIR.
- DUCT UP TO EQUIPMENT ON ROOF. REFER TO SHEET M201 FOR EQUIPMENT LOCATION.
- MOUNT REGISTER AT 15° ANGLE ON SIDE OF DUCT. ADJUST DIFFUSER BLADES TO WASH WINDOWS AS APPLICABLE. BALANCE AIR SCOOP TO CFM INDICATED.
- PROVIDE UL-2221 LISTED DOUBLE-WALL GREASE DUCT EQUAL TO CAPTIVEAIRE SYSTEMS MODEL DW-3R OR 32 ROUND 20 GAUGE 430 STAINLESS INNER DUCT INSULATED WITH A 24 GAUGE 430 STAINLESS OUTER SHELL. FROM HOOD COLLAR EXHAUST FAN ON ROOF. INSTALL EXHAUST DUCT PER MANUFACTURER'S INSTRUCTIONS. PROVIDE CLEANOUTS AT EVERY CHANGE OF DIRECTION IN THE DUCT AND/OR EVERY 10 FEET WITH A MINIMUM OF 3 FEET OF CLEARANCE IN FRONT OF CLEAN-OUT. COORDINATE ROUTING OF DUCTWORK WITH OWNER'S CAPTIVEAIRE REPRESENTATIVE.
- REFER TO HOOD DRAWINGS FOR BALANCE OF MAKEUP AIR AND CONDITIONED SUPPLY AIR.
- PROVIDE YOUNG REGULATOR MODEL 830ACC RECTANGULAR CABLE CONTROLLED OPPOSED BLADE BALANCING DAMPER, MODEL 270-301EZ BOWDEN CABLE CONTROL KIT, AND BOW CONTROL WIRE AND CASINGS. COORDINATE INSTALLATION LOCATION WITH ARCHITECT AND MOUNT CABLE CONTROLLER IN CEILING IN ACCORDANCE WITH MANUFACTURER'S RECOMMENDATIONS.
- REMOTE CABLE OPERATED BALANCING DAMPER, TYPICAL FOR BALANCING DAMPERS IN HARD CEILING APPLICATIONS.
- EXISTING 10-TON RTU (DINING) & CURB PROVIDED BY LANDLORD.
- EXTEND 3" COMBUSTION AIR AND FLUE IN CEILING SPACE. FIELD VERIFY EXACT ROUTING. EXTEND 3" COMBUSTION AIR AND FLUE UP TO CONCENTRIC VENT THROUGH ROOF ABOVE.
- PROVIDE REMOTE HUMIDITY SENSOR OR HUMIDISTAT COMPATIBLE WITH THERMOSTAT. MOUNT SENSOR 48" ABOVE FINISHED FLOOR.
- MOUNT SPIRAL DUCT TIGHT TO BOTTOM OF STRUCTURE.
- PROVIDE AUDIOVISUAL REMOTE SMOKE DETECTOR ANNUNCIATOR WITH REMOTE KEY OPERATED RESET FOR SMOKE DETECTOR MOUNTED AT 48" AFF. ALIGN ANNUNCIATOR WITH TEMPERATURE SENSOR WHERE APPLICABLE.
- PROVIDE CO2 MEASUREMENT SPECIALISTS RAD-0102-6 REMOTE CO2 STORAGE SAFETY ALARM (OR EQUAL). INSTALL PER MANUFACTURER'S RECOMMENDATIONS.
- REMOTE TEMPERATURE & HUMIDITY SENSOR MOUNTED WITHIN RETURN DUCT FOR RTU-1X. WIRE BACK TO THERMOSTAT AT MANAGER'S DESK.
- EXISTING INSULATED SA & RA DUCT MAIN & BRANCHES PROVIDED BY THE LANDLORD. COORDINATE FINAL LOCATIONS/SIZES WITH ACTUAL SITE CONDITIONS.
- EXISTING 10-TON RTU (KITCHEN) & CURB PROVIDED BY LANDLORD.

**AIR PLENUM NOTE**

THE CEILING IN DINING AREA IS BEING UTILIZED AS A RETURN AIR PLENUM. ALL PIPING, WIRING, AND DEVICES INSTALLED WITHIN THE PLENUM SHALL BE NONCOMBUSTIBLE OR SHALL HAVE A FLAME SPREAD INDEX OF NOT MORE THAN 25 AND A SMOKE DEVELOPMENT INDEX OF NOT MORE THAN 50 WHEN TESTED IN ACCORDANCE WITH ASTM 84.

**GENERAL NOTES**

- CONTRACTOR SHALL PROVIDE ALL MATERIALS AND EQUIPMENT AND PERFORM ALL LABOR AS REQUIRED TO INSTALL A COMPLETE AND OPERABLE HVAC SYSTEM PER THE NEW ARCHITECTURAL LAYOUT AND AS TO COMPLY WITH THE SPECIFICATIONS, DETAILS, THIS SCOPE OF WORK AND ALL APPLICABLE CODES.
- ALL WORK PERFORMED SHALL CONFORM TO ALL APPLICABLE STATE AND LOCAL CODES.
- IT IS THE RESPONSIBILITY OF THE CONTRACTOR TO FIELD VERIFY ALL EXISTING CONDITIONS AND COORDINATE ALL NEW WORK WITH ALL TRADES PRIOR TO ANY WORK BEING DONE TO ENSURE CONFLICTS DO NOT OCCUR.
- DISRUPTION OF ANY EXISTING SERVICE SHALL BE CLEARED WITH THE OWNER AND SHALL BE PERFORMED AT A TIME AND IN A MANNER SO AS TO CAUSE THE OWNER A MINIMUM OF INCONVENIENCE.
- ALL DUCT SIZES INDICATED ON PLANS AND RISERS ARE CLEAR INSIDE DIMENSIONS. DUCT SIZES NOT SHOWN SHALL BE SIZED TO VELOCITIES NO GREATER THAN UPSTREAM SECTION USING SIMILAR ASPECT RATIOS.
- ALL SUPPLY AIR TAKEOFFS FROM MAIN TRUNK DUCTS ARE TO BE INSTALLED WITH BELL MOUTH FITTINGS OR 45 DEGREE ENTRY TO PROVIDE THE SMOOTHEST AIR FLOW POSSIBLE.
- PROVIDE TURNING VANES IN ALL LOW-PRESSURE 90-DEGREE DUCT TURNS.
- ALL THERMOSTAT LOCATIONS SHALL BE APPROVED BY THE ARCHITECT.
- ALL DUCTS LOCATED ABOVE INACCESSIBLE CEILINGS ARE TO BE BALANCED PRIOR TO CEILING INSTALLATIONS.
- CONTRACTOR SHALL PROVIDE ACCESS DOORS FOR SERVICE AND MAINTENANCE OF ALL EQUIPMENT LOCATED ABOVE INACCESSIBLE CEILINGS.
- PROVIDE GUIDES, HANGERS, EXPANSION LOOPS AND SUPPLEMENTARY STEEL SUPPORT WHERE REQUIRED FOR ALL PIPING.
- DO NOT PENETRATE KITCHEN EXHAUST HOODS OR DUCTWORK WITH ANY TYPE OF FASTENING ASSEMBLY (I.E. SCREWS, RIVETS).
- IF NOT PAINTED, ALL DUCTWORK SHALL HAVE GASKET A SEAL.
- EXPOSED DUCTWORK IN THE DINING AREA SHALL BE MADE OF ELECTRO-GALVANIZED STEEL (PAINTLOCK). SEE MECHANICAL SPECIFICATIONS FOR ADDITIONAL INFORMATION.
- COORDINATE ACCESS PANEL LOCATIONS WITH ARCHITECTURAL SHEETS.

**HVAC COMMISSIONING**

GENERAL CONTRACTOR SHALL HIRE A THIRD PARTY REGISTERED DESIGN PROFESSIONAL OR APPROVED AGENCY TO DEVELOP A COMMISSIONING PLAN THAT SHALL INCLUDE THE FOLLOWING ITEMS:

- NARRATIVE DESCRIPTION OF ACTIVITIES THAT WILL BE ACCOMPLISHED DURING EACH PHASE OF COMMISSIONING, INCLUDING PERSONNEL INTENDED TO ACCOMPLISH EACH PHASE OF ACTIVITY.
- LISTING OF SPECIFIC EQUIPMENT, APPLIANCES OR SYSTEMS TO BE TESTED AND DESCRIPTION OF TESTS TO BE PERFORMED.
- FUNCTIONS TO BE TESTED, INCLUDING, BUT NOW LIMITED TO CALIBRATIONS AND ECONOMIZER CONTROLS.
- CONDITIONS UNDER WHICH TEST WILL BE PERFORMED. AT MINIMUM, TESTING SHALL AFFIRM WINTER AND SUMMER DESIGN CONDITIONS AND FULL OUTSIDE AIR CONDITIONS.
- MEASURABLE CRITERIA FOR PERFORMANCE.

A PRELIMINARY REPORT OF COMMISSIONING TEST PROCEDURES AND RESULTS SHALL BE COMPLETED AND CERTIFIED BY REGISTERED DESIGN PROFESSIONAL OR APPROVED AGENCY IN ACCORDANCE WITH REQUIREMENTS OF SECTION C408.2 OF THE ENERGY CONSERVATION CODE AND PROVIDED TO PROJECT OWNER. A COPY OF THE REPORT SHALL BE MADE AVAILABLE TO CODE OFFICIAL IF REQUESTED.

FINAL COMMISSIONING REPORT SHALL BE DUE TO PROJECT OWNER WITHIN 90 DAYS OF RECEIPT OF CERTIFICATE OF OCCUPANCY.

**REMODEL NOTES**

THIS DRAWING IS BASED ON BEST AVAILABLE INFORMATION AT TIME OF DESIGN AND MAY NOT REFLECT AS-BUILT CONDITIONS. ALL MECHANICAL INSTALLATIONS INDICATED ON THIS SHEET SHALL BE FIELD VERIFIED PRIOR TO BID AND DEMOLITION.

**EQUIPMENT CLEARANCE NOTES**

VERIFY ALL EXISTING EXHAUST OUTLETS WITHIN 10'-0" OF OUTDOOR AIR INTAKES ARE MINIMUM 3'-0" HIGHER THAN OUTDOOR AIR INTAKES. CONTACT THE ARCHITECT AND ENGINEER IMMEDIATELY IF ANY EXISTING EXHAUST OUTLETS WITHIN 10'-0" OF OUTDOOR AIR INTAKES ARE OBSERVED TO BE LESS THAN 3'-0" HIGHER THAN OUTDOOR AIR INTAKES.

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AOR PROJECT NUMBER:  
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MECHANICAL PLAN

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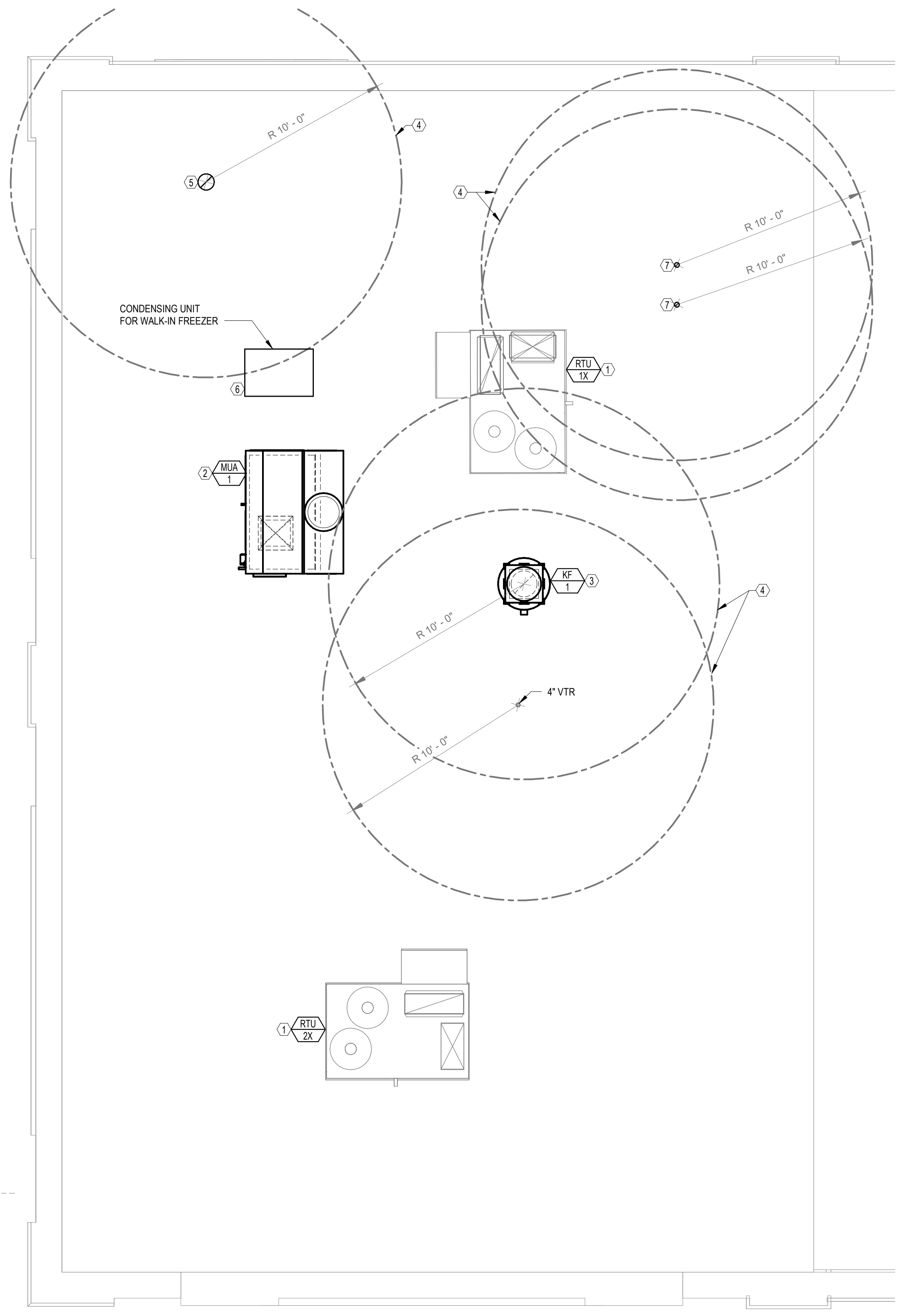
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**MECHANICAL ROOF PLAN**  
SCALE: 1/4" = 1'-0"



**GENERAL NOTES**

- ALL ROOFTOP EQUIPMENT LOCATIONS SHALL BE COORDINATED WITH ROOF DRAINS. REFER TO ARCHITECTURAL AND STRUCTURAL PLANS FOR EXACT LOCATIONS OF EQUIPMENT.
- THE INSTALLING CONTRACTOR SHALL PROVIDE ROOF CURBS AND LEVELING CURBS TO MATCH THE ROOF PITCH IF REQUIRED. THE ROOFING CONTRACTOR SHALL FLASH ALL CURBS INTO ROOF.
- ALL ROOFTOP EQUIPMENT SHALL BE SET ON CURBS OR RAILS. ALL PIPE AND DUCT PENETRATIONS THROUGH THE ROOF SHALL HAVE A WEATHER PROOF CURB OR FLASHING. ALL ROOF FLASHING SHALL BE PERFORMED BY THE ROOFING CONTRACTOR.
- ALL VENTS AND EXHAUSTS SHALL BE LOCATED A MINIMUM OF 10'-0" AWAY FROM FRESH AIR INTAKES PER LOCAL CODE.
- VENT TERMINATIONS PROVIDED BY THE PLUMBING CONTRACTOR SHALL BE 10'-0" MINIMUM FROM ANY AIR INTAKE. EXTEND TERMINATION HEIGHT TO PROVIDE 10'-0" CROSS SECTION CLEARANCE WHERE NEEDED.
- ANY PENETRATION THROUGH THE ROOF SHALL BE COORDINATED WITH THE ROOFING CONTRACTOR.
- ALL STRUCTURAL DUCT OPENINGS SHALL BE APPROVED BY THE STRUCTURAL ENGINEER PRIOR TO CUTTING. INDICATE ON 1/8" SHOP DRAWINGS EXACT LOCATION OF OPENINGS COORDINATED WITH STRUCTURAL TRADES. PROVIDE DUCT ROOF CURBS AT ALL DUCT PENETRATIONS THRU THE ROOF.
- ALL EQUIPMENT SHALL BE A MINIMUM OF 10'-0" AWAY FROM ROOF EDGE IF PARAPET IS LOWER THAN 42" PER CODE.
- ACCESS TO MECHANICAL APPLIANCES INSTALLED IN UNDER-FLOOR AREAS, IN ATTIC SPACES, AND ON ROOFS OR ELEVATED STRUCTURES SHALL BE IN ACCORDANCE WITH THE INTERNATIONAL MECHANICAL CODE.
- EXHAUST TERMINATION OF ENVIRONMENTAL AIR DUCTS SHALL TERMINATE NOT LESS THAN 3'-0" FROM A PROPERTY LINE, 10'-0" FROM A FORCED AIR INLET, AND 3'-0" FROM OPENINGS INTO BUILDINGS.
- CONTRACTOR TO PROVIDE SIGNED AND SEALED WIND LOAD CALCULATIONS PRIOR TO INSTALLATION OF ALL ROOF MOUNTED EQUIPMENT AND DUCTWORK.
- PROVIDE ENGINEERED ROOF CURBS AS NEEDED. PROVIDE MINIMUM WIND LOAD CALCULATIONS WITH P.E. CERTIFICATIONS.
- PROVIDE GUARDS FOR ANY MECHANICAL EQUIPMENT THAT REQUIRE SERVICE ON ROOF THAT IS LOCATED WITHIN 10' OF A ROOF EDGE. THE TOP OF THE GUARD SHALL BE LOCATED NOT LESS THAN 42" ABOVE THE ELEVATED SURFACE ADJACENT TO THE GUARD.

**KEYED NOTES**

- EXISTING ROOFTOP UNIT BY LANDLORD TO REMAIN AND BE RE-USED. FIELD VERIFY EXACT LOCATION OF UNIT AND ADJUST DUCTWORK ROUTING ACCORDINGLY. CLEAN UNIT, GREASE ALL BEARINGS, LEAK-CHECK AND CHARGE REFRIGERANT SYSTEM, REPLACE FILTERS, AND CLEAN INDOOR AND OUTDOOR COILS. RESHAPE MOTOR AS REQUIRED TO DELIVER SPECIFIED AIRFLOW.
- INSTALL OWNER FURNISHED MAKEUP AIR UNIT AND HURRICANE RATED ROOF CURB. SHIM UNIT AND CURB LEVEL. PROVIDE FLEXIBLE CONNECTORS ON THE SUPPLY AIR DUCT CONNECTION. TRANSITION TO DUCT SIZE SHOWN ON M100.
- INSTALL OWNER FURNISHED ROOF MOUNTED EXHAUST FAN ON HURRICANE RATED CURB.
- MAINTAIN A MINIMUM 10'-0" CLEARANCE FROM EXHAUST DISCHARGE TO OUTSIDE AIR INTAKES.
- EXTEND 10" Ø EXHAUST DUCT UP THROUGH ROOF. PROVIDE A ROOF JACK, STORM COLLAR, AND ALL-WEATHER CAP.
- PROVIDE ROOF MOUNTED EQUIPMENT SUPPORT RAILS AND INSTALL OWNER FURNISHED REMOTE CONDENSING UNIT FOR WALK-IN COOLER. INSTALL REFRIGERANT LINE SET, THERMOSTATIC EXPANSION VALVE, SOLENOID VALVE, TEMPERATURE CONTROL, SIGHT GLASS, FILTER DRIER, PRESSURE CONTROL, CRANKCASE HEATER, LOW AMBIENT CONTROLS, AND WEATHER PROOF HOUSING. PROVIDE ROOF RAILS TO SUPPORT CONDENSING UNIT ON ROOF. TRAP AND SLOPE REFRIGERANT LINES PER MANUFACTURER'S RECOMMENDATIONS. PROVIDE PIPE CURB ASSEMBLY FOR ROOF PENETRATIONS. SEAL PIPING PENETRATIONS THROUGH COOLER ROOF.
- PROVIDE WITH NAVIAN GXXX000057 CONCENTRIC VENT AT TERMINATION.

**EQUIPMENT CLEARANCE NOTE**

VERIFY ALL EXISTING EXHAUST OUTLETS WITHIN 10'-0" OF OUTDOOR AIR INTAKES ARE MINIMUM 3'-0" HIGHER THAN OUTDOOR AIR INTAKES. CONTACT THE ARCHITECT AND ENGINEER IMMEDIATELY IF ANY EXISTING EXHAUST OUTLETS WITHIN 10'-0" OF OUTDOOR AIR INTAKES ARE OBSERVED TO BE LESS THAN 3'-0" HIGHER THAN OUTDOOR AIR INTAKES.

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ORLANDO, FL 32803  
FOR  
CAVA  
14 Ridge Square NW #500, WASHINGTON, DC 20016

AOR PROJECT NUMBER:  
CAV064

ISSUE	DATE
PERMIT SET	10.25.2024
PERMIT REV	02.17.2025
IFC SET	05.27.2025

MECHANICAL ROOF PLAN

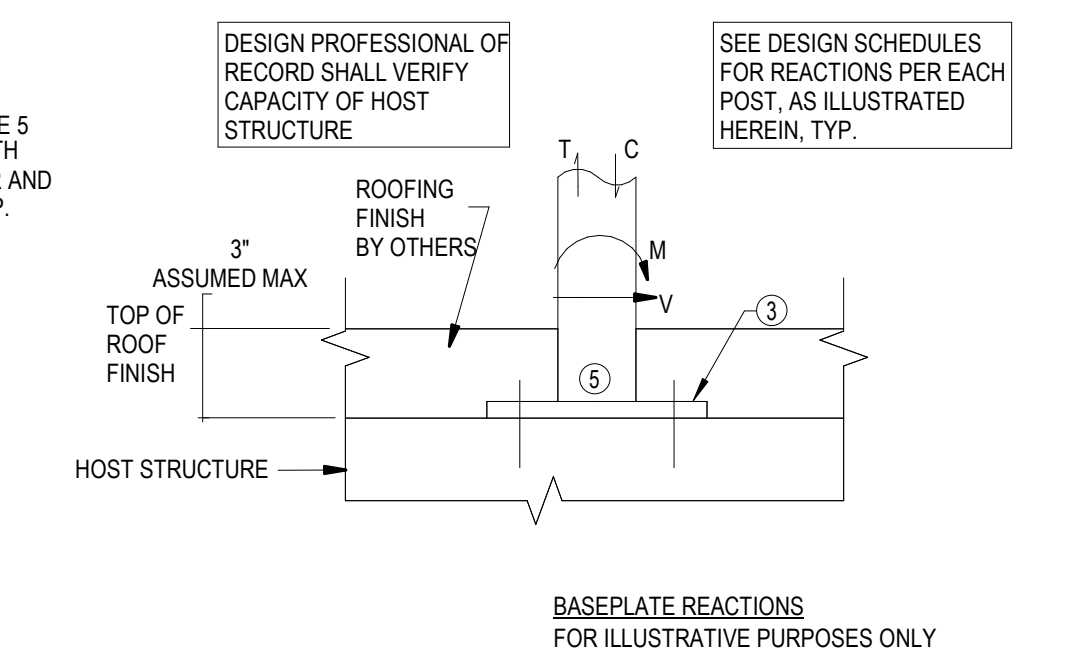
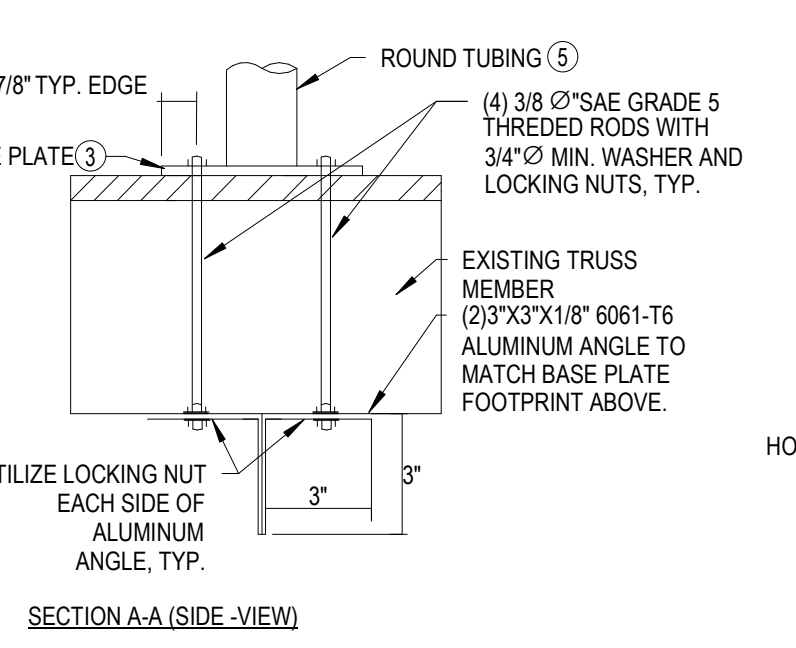
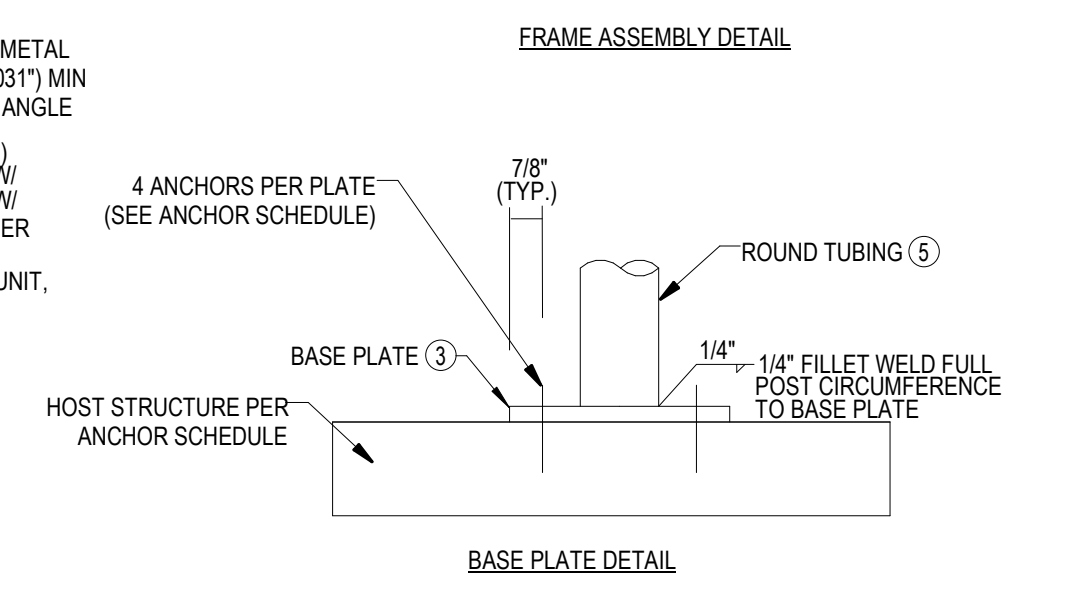
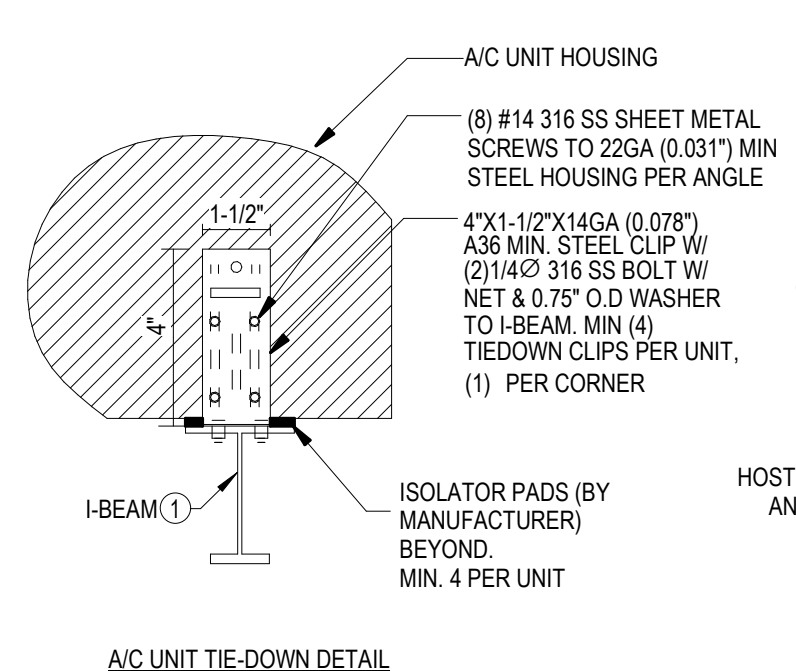
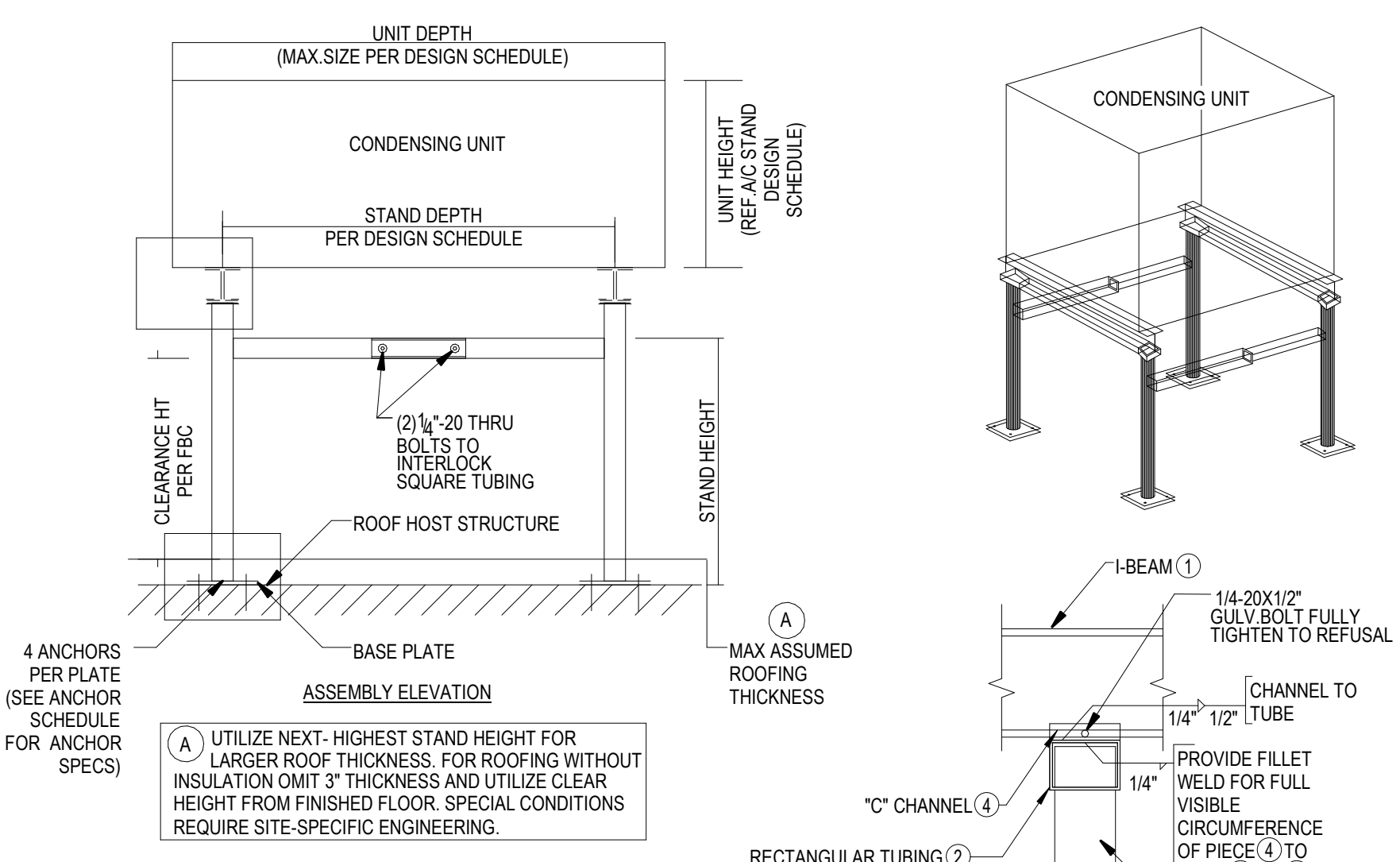
SHEET:

**M201**



2800 156th Ave SE | Suite 115 Bellevue, WA 98007  
T: 847.756.4100 | www.rtmec.com





**BASIS OF DESIGN:**  
PRECISION ALUMINUM PRODUCTS, INC.  
FL PRODUCT APPROVAL # FL16921-R5  
CONTACT FOR MORE DETAILS:  
PRECISION ALUMINUM PRODUCTS, INC.  
1339 SW 1ST WAY, DEERFIELD BEACH, FL 33441  
PH: (954) 480-6919

**GENERAL NOTES:**

- THIS SYSTEM HAS BEEN DESIGNED AND SHALL BE FABRICATED IN ACCORDANCE WITH THE STRUCTURAL PROVISIONS OF THE FLORIDA BUILDING CODE EIGHT EDITION (2023) AND THE 2023 FLORIDA BUILDING CODE FOR USE WITHIN AND OUTSIDE THE HIGH VELOCITY HURRICANE ZONE.
- CONTRACTOR SHALL ENSURE THAT EACH INSTALLATION ASSEMBLY MEET THE MINIMUM CLEARANCE HEIGHT PER F.B.C. SECTION 1510.10 FOR NON-HVHZ APPLICATIONS AND SECTION 1522.2 FOR HVHZ APPLICATIONS.
- ALL FASTENERS TO BE #10 OR GREATER SAE GRADE 5, UNLESS NOTED OTHERWISE. (ALUMINUM PLATED) OR OTHERWISE CORROSION RESISTANT MATERIAL AND SHALL COMPLY WITH ANY APPLICABLE FEDERAL, STATE AND LOCAL CODES. PROVIDE (5) PITCHES MIN PAST THREAD PLANE.
- ALUMINUM WELDING SHALL BE PERFORMED IN ACCORDANCE WITH FBC SECTION 2003.2.4 WITH WELD FILLER ALLOYS MEETING ANSII/AWS D10 STANDARDS TO ACHIEVE ULTIMATE DESIGN STRENGTH IN ACCORDANCE WITH THE ALUMINUM DESIGN MANUAL, TABLE A.3.3 WELD FILLER: 5383 ELECTRODES. ALL ALUMINUM CONSTRUCTION SHALL BE IN CONFORMANCE WITH THE TOLERANCES, QUALITY AND METHODS OF CONSTRUCTION AS SET FORTH IN F.B.C. SECTION 2003.2 AND THE AMERICAN WELDING SOCIETY'S STRUCTURAL WELDING CODE-ALUMINUM. MINIMUM WELD IS 1/8\"/>

**DESIGN CRITERIA:**

- ADOPTED BUILDING CODE: FLORIDA BUILDING CODE 2023 AND ALL APPLICABLE LOCAL CODES
- OCCUPANCY/RISK CATEGORY: SEE STRUCTURAL SHEETS FOR CRITERIA.
- WIND DESIGN CRITERIA: SEE STRUCTURAL SHEETS FOR CRITERIA.
- APPLIANCES AND SUPPORTS THAT ARE EXPOSED TO WIND SHALL BE DESIGNED AND INSTALLED TO RESIST WIND PRESSURES DETERMINED IN ACCORDANCE WITH THE FLORIDA BUILDING CODE.
- DESIGNED AND INSTALLED TO RESIST WIND PRESSURES DETERMINED IN ACCORDANCE WITH THE FLORIDA BUILDING CODE. DESIGN REQUIREMENTS FOR ROOFTOP MECHANICAL/ELECTRICAL/PLUMBING SUPPORTS AND ATTACHMENTS SHALL BE DEFERRED DESIGN WITH PROJECT-SPECIFIC SHOP DRAWINGS AND DOCUMENTATION SIGNED AND SEALED BY AN ENGINEER REGISTERED IN THE STATE OF FLORIDA TO BE SUBMITTED FOR APPROVAL TO THE AUTHORITY HAVING JURISDICTION.

**ANCHOR SCHEDULE:**  
FOR USE WITH DETAIL 3 ON THIS SHEET ONLY

ANCHOR TYPE	HOST STRUCTURE	ANCHOR DESCRIPTION
1	STEEL	(4) 3/8\"/>
2	CONCRETE	(4) 1/4\"/>
3	WOOD	(4) 1/4\"/>
4	STEEL	(4) 5/8\"/>

**ANCHOR NOTES:**

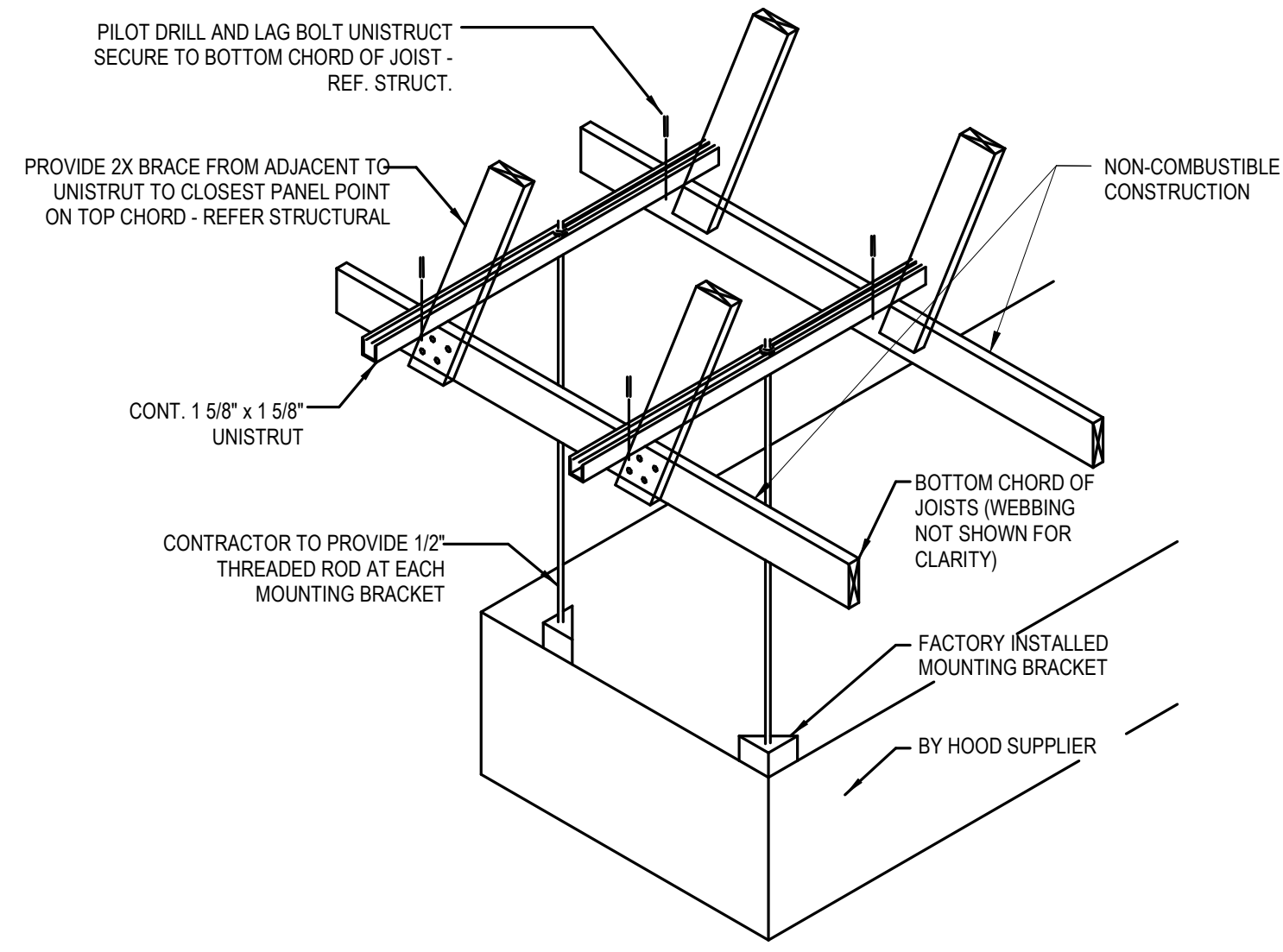
- IT IS UP TO THE INSTALLER TO ENSURE THAT THE HOST STRUCTURE IS SOLID AND CREATES A FIXED CONNECTION WITH THE A/C STAND IN THAT ROTATION IS STRICTLY PREVENTED. IF THIS IS AT ALL IN QUESTION THE BUILDING OFFICIAL SHALL REQUIRE A SITE SPECIFIC EVALUATION TO ENSURE STAND STABILITY.
- ANCHORS SHALL BE INSTALLED IN ACCORDANCE WITH MANUFACTURER'S RECOMMENDATIONS.
  - ENSURE MINIMUM EDGE DISTANCE AS NOTED IN ANCHOR SCHEDULE FOR EACH ANCHOR.
  - ALL CONCRETE SUBSTRATE SHALL HAVE MINIMUM COMPRESSIVE STRENGTH OF 3000 PSI. CONCRETE SUBSTRATE THICKNESS SHALL BE GREATER THAN OR EQUAL TO 1.5x ANCHOR EMBEDMENT. INSTALL CONCRETE ANCHORS TO UNCRACKED CONCRETE ONLY.
  - MINIMUM EMBEDMENT SHALL BE AS NOTED IN ANCHOR SCHEDULE. MINIMUM EMBEDMENT AND EDGE DISTANCE EXCLUDES ROOFING FINISHES.
  - WHERE EXISTING STRUCTURE IS WOOD TRUSSES EXISTING CONDITIONS MAY VARY. FIELD VERIFY THAT FASTENERS ARE INTO ADEQUATE WOOD TRUSS MEMBERS, NOT INTO PLYWOOD.

**1 CONDENSING UNIT STAND**  
SCALE: N.T.S.

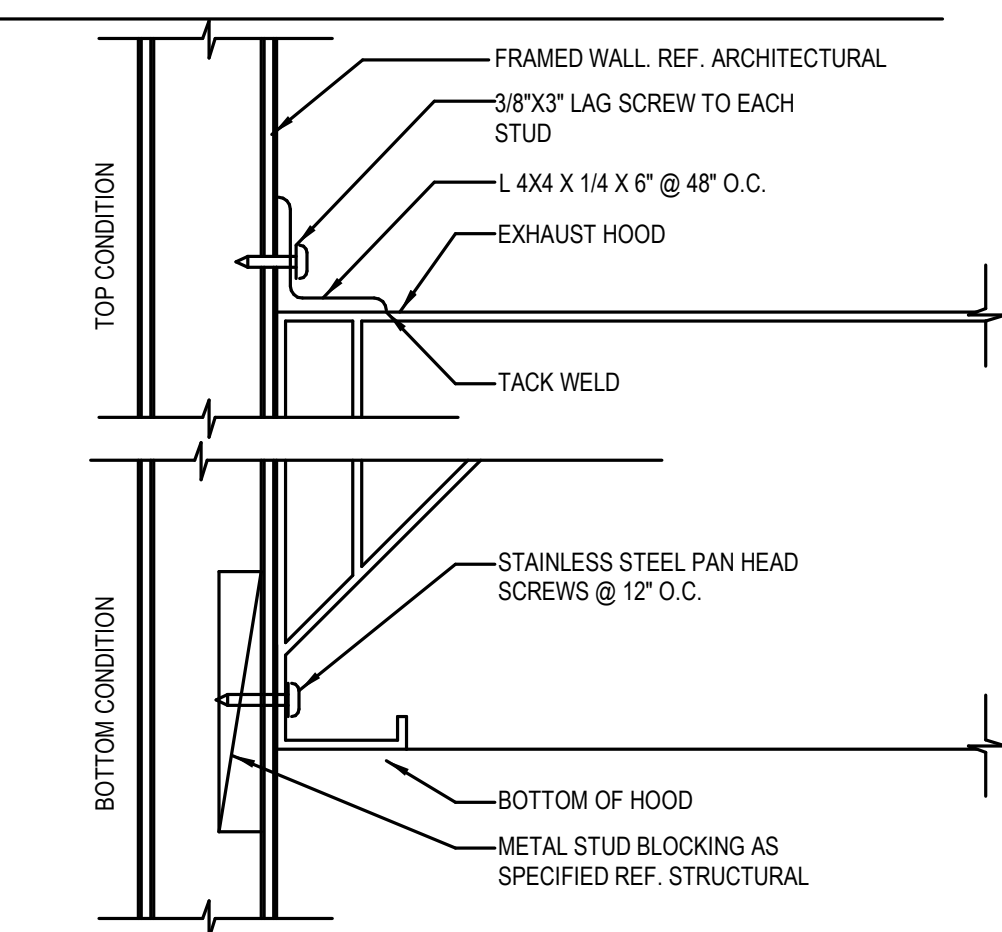
**DETAIL GENERAL NOTE**  
FINAL EQUIPMENT MOUNTING AND EQUIPMENT STANDS TO BE PROVIDED BY CONTRACTOR. WIND LOAD CALCULATIONS TO BE PERFORMED BY CONTRACTOR TO SHOW ROOF CURBS AND STANDS MEET WIND LOAD REQUIREMENTS.



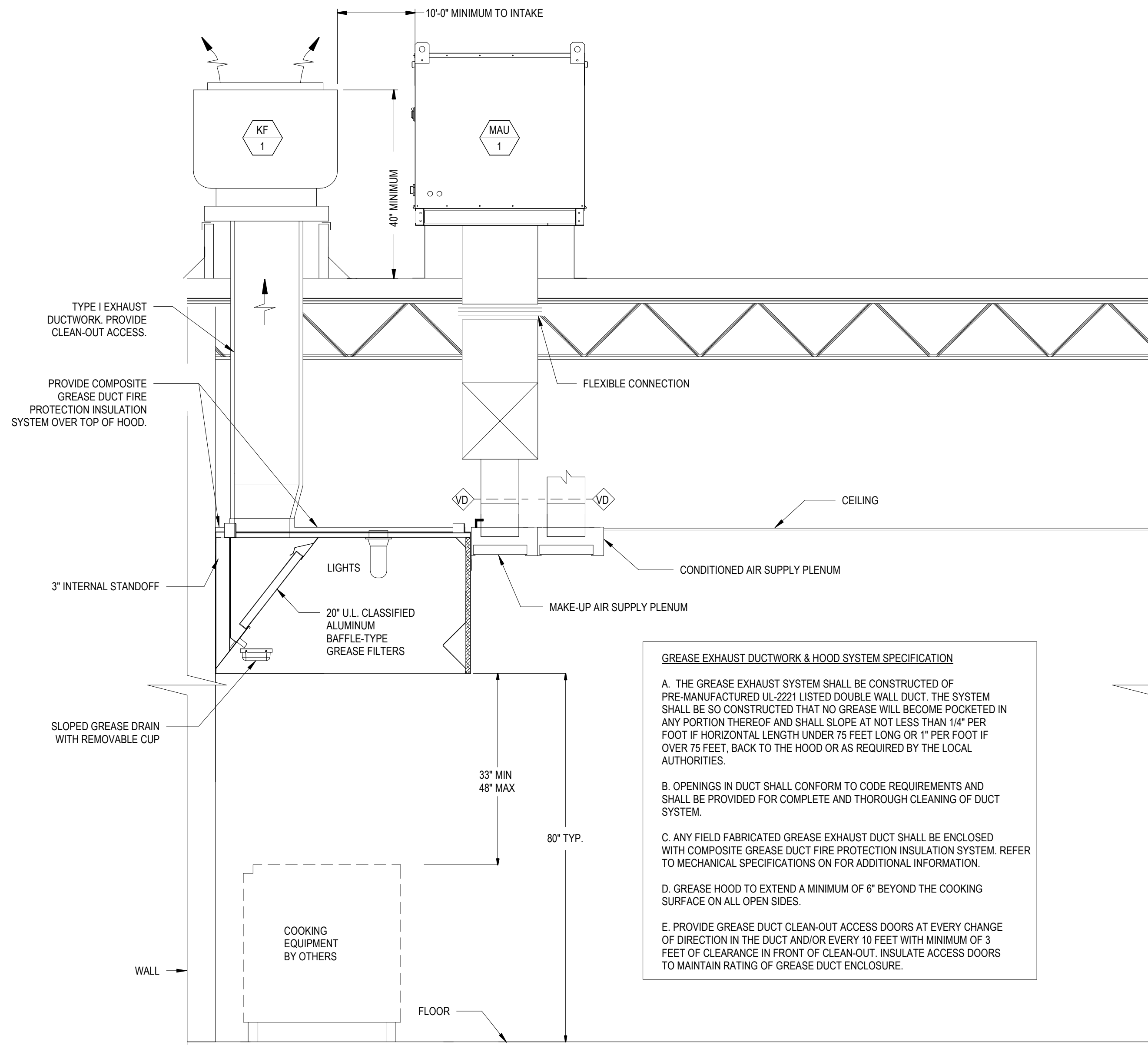
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1 TYPICAL HOOD SUPPORT AT TRUSS  
SCALE: N.T.S.



2 TYPICAL HOOD CLIP AT WALL  
SCALE: N.T.S.



3 KITCHEN HOOD SCHEMATIC  
SCALE: N.T.S.

**GREASE EXHAUST DUCTWORK & HOOD SYSTEM SPECIFICATION**

A. THE GREASE EXHAUST SYSTEM SHALL BE CONSTRUCTED OF PRE-MANUFACTURED UL-221 LISTED DOUBLE WALL DUCT. THE SYSTEM SHALL BE SO CONSTRUCTED THAT NO GREASE WILL BECOME POCKETED IN ANY PORTION THEREOF AND SHALL SLOPE AT NOT LESS THAN 1/4\"/>

B. OPENINGS IN DUCT SHALL CONFORM TO CODE REQUIREMENTS AND SHALL BE PROVIDED FOR COMPLETE AND THOROUGH CLEANING OF DUCT SYSTEM.

C. ANY FIELD FABRICATED GREASE EXHAUST DUCT SHALL BE ENCLOSED WITH COMPOSITE GREASE DUCT FIRE PROTECTION INSULATION SYSTEM. REFER TO MECHANICAL SPECIFICATIONS FOR ADDITIONAL INFORMATION.

D. GREASE HOOD TO EXTEND A MINIMUM OF 6\"/>

E. PROVIDE GREASE DUCT CLEAN-OUT ACCESS DOORS AT EVERY CHANGE OF DIRECTION IN THE DUCT AND/OR EVERY 10 FEET WITH MINIMUM OF 3 FEET OF CLEARANCE IN FRONT OF CLEAN-OUT. INSULATE ACCESS DOORS TO MAINTAIN RATING OF GREASE DUCT ENCLOSURE.

- NOTES:
1. PROVIDE UL LISTED TYPE 1 EXHAUST HOOD.
  2. THE GREASE HOOD SHALL MEET THE REQUIREMENTS OF THE MECHANICAL CODE, NSF AND NFPA FOR A TYPE I HOOD.
  3. FIRE DEPARTMENT APPROVAL SHALL BE REQUIRED ON FIRE PROTECTION SYSTEM FOR GREASE HOODS AND DUCTS AS REQUIRED BY THE MECHANICAL CODE AND AS REQUIRED BY THE FIRE CODE.
  4. PROVIDE CHEMICAL FIRE SUPPRESSION SYSTEM AS REQUIRED BY NFPA 17A.
  5. PERFORM SMOKE TEST ON GREASE EXHAUST DUCTWORK AFTER DUCTWORK INSTALLATION IS COMPLETE BUT PRIOR TO DUCTWORK CONCEALMENT PER REQUIREMENTS OF LOCAL CODE AUTHORITIES.

**INFORMATIONAL GUIDE FOR COMMERCIAL COOKING HOODS**

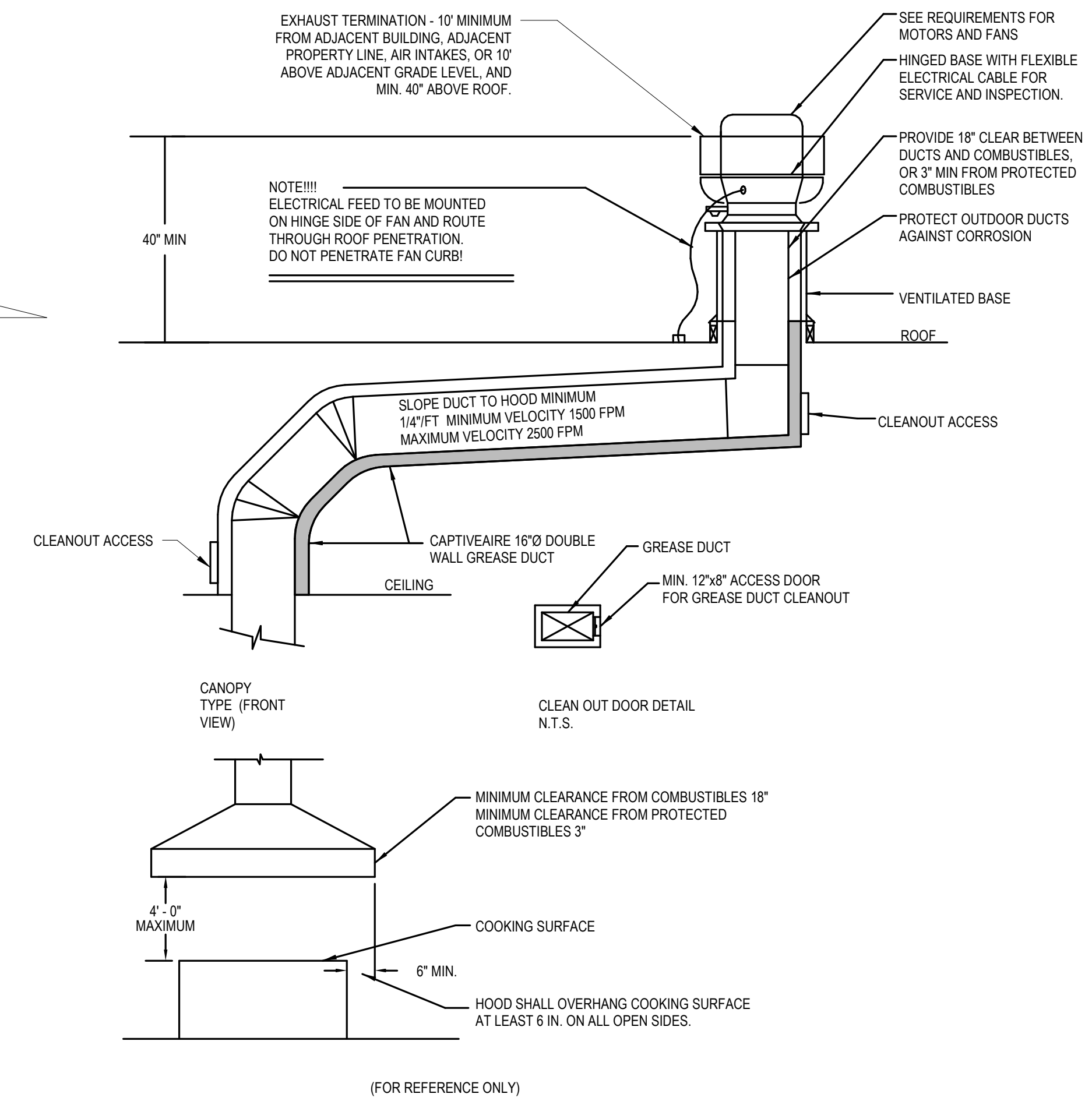
1. STAINLESS STEEL TO BE NO. 18 U.S. GAGE.
2. WHEN GUTTERS ARE PROVIDED THEY SHALL DRAIN TO A COLLECTING PAN WHICH IS READILY ACCESSIBLE FOR CLEANING.
3. SEE TABLE 607.2.8 FOR MINIMUM DISTANCE BETWEEN LOWER EDGE OF GREASE FILTER AND THE COOKING OR HEATING SURFACE.
4. GREASE FILTERS SHALL BE OF STEEL CONSTRUCTION AND READILY ACCESSIBLE FOR CLEANING.
5. ALL JOINTS AND SEAMS SHALL BE GREASE TIGHT.
6. HOODS SHALL BE SECURELY FASTENED IN PLACE BY INCOMBUSTIBLE SUPPORTS.

**NOTES**

1. PROVIDE ADEQUATE CLEANOUT OPENINGS FOR THOROUGH CLEANING OF DUCT SYSTEM.
2. PROVIDE ADEQUATE MAKE-UP AIR FOR PROPER OPERATION.
3. PROVIDE A SEPARATE DUCT SYSTEM FOR EACH HOOD.
4. THICKNESS OF DUCTS SHALL BE:  

DUCT AREA	U.S. GAGE STEEL
UP TO 4 SQ. FT.	16 GA
OVER 4 SQ. FT.	14 GA
5. SUPPORT THE DUCTS AS REQUIRED. DO NOT PENETRATE DUCT WALLS WITH SCREWS, NAILS, ETC.
6. SECTIONS OF DUCT SHALL NOT CONTAIN GREASE POCKETS.

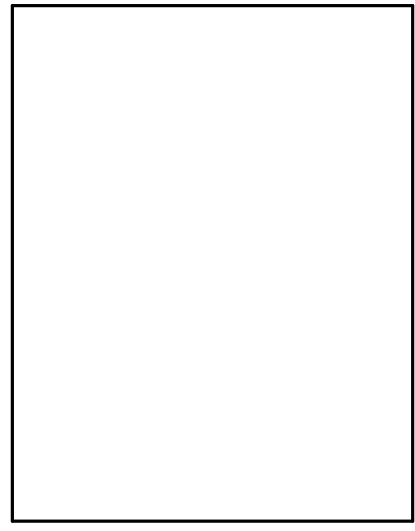
ALL ROOFING PENETRATIONS ARE TO BE PERFORMED BY THE SHELL BUILDING ROOFING CONTRACTOR.



4 TYPICAL HOOD VENTILATION AND SECTION  
SCALE: N.T.S.

**DETAIL GENERAL NOTE**

FINAL EQUIPMENT MOUNTING AND EQUIPMENT STANDS TO BE PROVIDED BY CONTRACTOR. WIND LOAD CALCULATIONS TO BE PERFORMED BY CONTRACTOR TO SHOW ROOF CURBS AND STANDS MEET WIND LOAD REQUIREMENTS.



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MECHANICAL DETAILS

SHEET:  
**M404**

**VENTILATION SCHEDULE**

ROOM NUMBER	ROOM NAME	OCCUPANCY CLASSIFICATION	ZONE FLOOR AREA	ZONE POPULATION	2023 FLORIDA MECHANICAL CODE							ACTUAL		EQUIPMENT	
					PEOPLE OUTDOOR AIR RATE	AREA OUTDOOR AIR RATE	BREATHING ZONE OUTDOOR AIRFLOW	Ez	REQUIRED OUTDOOR AIRFLOW	E.A. CFM	MAX SUPPLY CFM	OA CFM	EXHAUST CFM	SUPPLY FAN	EXHAUST FAN
101	DINING	DINNING	570	40	7.5	0.18	402	0.8	-	-	3200	-	-	RTU-2X	-
102	QUEUE	CORRIDOR	150	0	0.0	0.06	9	0.8	514	-	300	525	-	RTU-2X	-
104	FRONT KITCHEN	KITCHEN (COOKING)	500	10	7.5	0.12	135	0.8	169	350	2200	340	2117.0	RTU-1X	KF-1
106	BACK KITCHEN	KITCHEN (COOKING)	450	4	7.5	0.12	84	0.8	105	315	1200	-	RTU-1X		
107	MANAGER OFFICE	OFFICE SPACES	55	1	5.0	0.06	8	0.8	10	-	100	10	-	RTU-1X	-
108	HALL	CORRIDOR	210	0	0.0	0.06	13	0.8	16	-	400	68	-	RTU-2X	-
109	WOMENS	PUBLIC BATHROOM	50	1	0.0	0.00	0	0.8	0	50	50	8	125.0	RTU-2X	CEF-1
110	MENS	PUBLIC BATHROOM	50	1	0.0	0.00	0	0.8	0	50	50	8	125.0	RTU-2X	CEF-2
TOTAL			2035	57	-	-	651	-	813	765	7500	958	2367		

**EXHAUST FAN SCHEDULE**

ITEM TAG	TYPE	DRIVE	PERFORMANCE		ELECTRICAL		APPROX. WEIGHT (LBS)	SERVICE LOCATION	MANUFACTURER	OPERATION	MODEL	REMARKS
			AIR FLOW (CFM)	EXT. STATIC (IN W.C.)	V/PH/Hz	FAN MOTOR WATTS						
CEF-1	CEILING MOUNTED	DIRECT	125	0.3	120/1/60	83	25	WOMEN'S 109	GREENHECK	REMARK 1	SP-A250	2-5
CEF-2	CEILING MOUNTED	DIRECT	125	0.3	120/1/60	83	25	MEN'S 110	GREENHECK	REMARK 1	SP-A250	2-5

REMARKS:  
 1. FAN SHALL OPERATE ON RESTROOM OCCUPANCY SENSOR. FAN SHALL TURN OFF 1 MINUTE AFTER RESTROOM IS UNOCCUPIED. ELECTRICAL CONTRACTOR TO WIRE.  
 2. PROVIDE BACKDRAFT DAMPER ON EXHAUST FAN.  
 3. PROVIDE DISCONNECT SWITCH AND VIBRATION ISOLATION.  
 4. PROVIDE MANUFACTURER'S OPTIONAL SPEED CONTROLLER. SPEED CONTROLLER SHALL BE MOUNTED WITHIN FAN HOUSING.  
 5. EQUIPMENT PROVIDED BY MC.

**MAKE-UP AIR UNIT SCHEDULE - OWNER FURNISHED**

ITEM TAG	MANUFACTURER	MODEL	CONFIGURATION	DRIVE	AIR FLOW (CFM)	EXTERNAL STATIC (IN W.C.)	DX COOLING				GAS HEATING			ELECTRICAL				WEIGHT (LB)	REMARKS
							TOTAL (MBH)	SENSIBLE (MBH)	IEER	ISMRE	INPUT (MBH)	OUTPUT (MBH)	BURNER EFF.	V/PH/Hz	HP	MCA	MOCP		
MUA-1	ECON-AIR	EARTU1-1.175-18-5T-MPU	ROOF MOUNTED	DIRECT	1694	1	56.1	37.2	17.9	6.1	73.9	59.9	81%	460/3/60	2	13.4	15	1167	ALL

REMARKS:  
 1. INVERTER SCROLL COMPRESSOR WITH INTEGRATED OIL SENSOR. DIGITAL OR STAGED SCROLL NOT AN APPROVED EQUAL.  
 2. DIRECT DRIVE PLENUM BLOWER. BELT DRIVEN BLOWERS ARE NOT ACCEPTABLE.  
 3. INTEGRATED MONITORING VIA CELLULAR CONNECTION BY MANUFACTURER.  
 4. REFRIGERATION PRESSURE MONITORING ON HIGH AND LOW PRESSURE SIDE OF SYSTEM INCLUDED THROUGH DIGITAL INTERFACE.  
 5. EC MOTOR CONDENSING FANS.  
 6. ELECTRONIC EXPANSION VALVE. TXV NOT ACCEPTABLE.  
 7. SUCTION LINE ACCUMULATOR.  
 8. FACTORY COMMISSIONING WITH 5 YEAR PARTS WARRANTY, 25 YEAR WARRANTY ON STAINLESS STEEL HEAT EXCHANGER.  
 9. AVERAGING INTAKE, EVAP AND DISCHARGE TEMPERATURE SENSORS (DISCHARGE SENSOR TO BE FACTORY MOUNTED WITHIN UNIT).  
 10. 81% EFFICIENT FURNACE, WITH MODULATING INDUCER TO MAINTAIN CONSTANT COMBUSTION EFFICIENCY ACROSS FIRING RANGE. 6:1 TURNDOWN WITH NG AND 5:1 TURNDOWN WITH LP.  
 11. SUPPLY CFM MONITORING INTEGRAL TO UNIT WITH CFM MEASUREMENT INCLUDED THROUGH DIGITAL INTERFACE.  
 12. FULLY MODULATING HOT GAS REHEAT.  
 13. 1" EXTERIOR DUAL-WALL CONSTRUCTION W/ R-4.3 INSULATION-MINIMUM 24GA EXTERIOR W/ 19GA BASE.  
 14. DOWN DISCHARGE/NO RETURN.  
 15. PROVIDE 20" HIGH MANUFACTURER RECOMMENDED HURRICANE RATED ROOF CURB.  
 16. REFER TO ECON-AIR DRAWINGS FOR ADDITIONAL INFORMATION.  
 17. MIAMI DADE RATED.

**EXISTING PACKAGED GAS HEATING / ELECTRIC COOLING ROOFTOP UNIT SCHEDULE - BY LANDLORD**

TAG	MANUFACTURER	MODEL #	AREA SERVED	TONS	MIN. EER/SEER/IEER	BLOWER SECTION		COOLING CAPACITY		HEATING CAPACITY				ELECTRICAL DATA			FILTERS	REMARKS
						AIRFLOW CFM	OA CFM	ESP (IN. W.C.)	REFRIG. TYPE	MIN. GROSS (MBH)	MIN. INPUT (MBH)	MIN. OUTPUT (MBH)	MIN. AFUE (%)	VOLTAGE	MCA	MOCP		
RTU-1X	BY LL	BY LL	KITCHEN	10.0	11/14.6	3,500	350	1.00	-	120	120/180	98/148	81	480/3	BY LL	BY LL	MERV 8	ALL
RTU-2X	BY LL	BY LL	DINING	10.0	11/14.6	4,000	600	1.00	-	120	120/180	98/148	81	480/3	BY LL	BY LL	MERV 8	ALL

REMARKS:  
 1. TENANT MECHANICAL CONTRACTOR TO NOTIFY ENGINEER ON RECORD OF ANY DISCREPANCIES.  
 2. TENANT MECHANICAL CONTRACTOR TO BALANCE UNIT TO CFM VALUES LISTED IN THE SCHEDULE & SET MINIMUM OA SETTING PER THIS SCHEDULE.

**KITCHEN HOOD SCHEDULE - OWNER FURNISHED**

ITEM TAG	MANUFACTURER	MODEL	HOOD LENGTH	MAX COOKING TEMP (°F)	TOTAL EXHAUST CFM	LIGHTS		MISC.		REMARKS
						QTY.	TYPE	FIRE SUPP. SYSTEM	HANGING WEIGHT (LB)	
HOOD-1	CAPTIVEAIRE	6030 ND-2-ACPPSP-F	10'-7"	600	2117	6	L55 SERIES E26	YES	1132	ALL

REMARKS:  
 1. REFER TO KES AND ECON-AIR DRAWINGS FOR ACCESSORY INFORMATION.

**KITCHEN EXHAUST FAN SCHEDULE - OWNER FURNISHED**

ITEM TAG	MANUFACTURER	MODEL	TYPE	AIR FLOW (CFM)	EXTERNAL STATIC (IN W.C.)	ELECTRICAL		SERVICE	WEIGHT (LBS)	REMARKS
						V/PH/Hz	FAN MOTOR HP			
KF-1	CAPTIVEAIRE	DU85HFA	UTILITY SET	2117	1	115/1/60	1	KITCHEN HOOD	94	ALL

REMARKS:  
 1. PROVIDE WITH MANUFACTURER RECOMMENDED 26" HIGH HURRICANE ROOF CURB.  
 2. FAN SHALL BE INTERLOCKED WITH HOOD CONTROLS. REFER TO ECON-AIR DRAWINGS FOR ADDITIONAL INFORMATION.  
 3. PROVIDE FAN WITH ENVIROMATIC VIROGUARD HOOD EXHAUST FAN ROOFTOP CONTAINMENT SYSTEM.

**AIR BALANCE SCHEDULE**

	RTU-1X (KITCHEN)	RTU-2X (DINING)	MAU-1	KF-1	CEF-1 (WOMEN'S)	CEF-2 (MEN'S)	TOTAL
OUTSIDE AIR FLOW (CFM)	350	600	1694	0	0	0	2644
RETURN AIR FLOW (CFM)	3,150	3,400	0	0	0	0	6550
SUPPLY AIR FLOW (CFM)	3,500	4,000	1694	0	0	0	9194
EXHAUST AIR FLOW (CFM)	0	0	0	2117	125	125	2367
BUILDING PRESSURE (CFM)	350	600	1694	-2117	-125	-125	277
RESULTING BUILDING PRESSURIZATION (CFM)							277

**AIR DEVICE SCHEDULE**

TAG	TYPE	MAKE / MODEL	AIR STREAM	MOUNTING TYPE	NECK SIZE	SIZE	REMARKS
A	SQUARE CONE DIFFUSER	TITUS / PAS	SUPPLY	LAY IN	SEE PLAN	24"X24"	3.4.8
B	SQUARE CONE DIFFUSER	TITUS / OMNI	SUPPLY	SURFACE	SEE PLAN	12"X12"	1-4.8
C	LOUVERED RETURN GRILLE	TITUS / 350RL	RETURN	LAY IN	SEE PLAN	24"X24"	3.4
D	LINEAR DIFFUSER	TITUS / FL-20	SUPPLY	SURFACE	SEE PLAN	48"X4.75"	2-5.7
E	DOUBLE DEFLECTION SUPPLY GRILLE	TITUS / S300FS	SUPPLY	DUCT MOUNTED	SEE PLAN	20"X6"	3.6

REMARKS:  
 1. PROVIDE WITH INTEGRAL OPPOSED BLADE BALANCING DAMPER FOR DIFFUSERS MOUNTED IN HARD/INACCESSIBLE CEILINGS UNLESS NOTED OTHERWISE.  
 2. PROVIDE WITH SURFACE MOUNTING FRAME WHERE APPLICABLE.  
 3. COORDINATE FINISH AND LOCATION WITH ARCHITECT.  
 4. SEE PLAN FOR INLET SIZE.  
 5. 1 SLOT, 2.0" SLOT WIDTH, 8" DIA. INLET. PROVIDE WITH 1" INSULATED DIFFUSER PLENUM.  
 6. PROVIDE WITH DOUBLE DEFLECTION CORE AND AN AIR SCOOP DAMPER AT NECK.  
 7. PROVIDE DIFFUSER WITH REMOTE CABLE OPERATED BALANCING DAMPER.  
 8. SUPPLY DIFFUSERS TO BE INSULATED VIA FACTORY SYSTEM.

ferris+sloane

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**CAVA**

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MECHANICAL SCHEDULES

SHEET:

**M501**



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5/27/2025 10:33:51 AM

FOR QUESTIONS, CALL THE  
Maryland Mechanical  
REGIDN 76  
PHONE: (800) 988 - 0881  
EMAIL: reg76@captiveaire.com

**PATENT NUMBERS**  
AC-PSP (UNITED STATES) - US PATENT 7963830 B2.  
AC-PSP WALL (CANADA) - CA PATENT 2820509.  
AC-PSP ISLAND (CANADA) - CA PATENT 2520330.

**HOOD INFORMATION - JOB#7106540**

HOOD NO	TAG	MODEL	MANUFACTURER	LENGTH	MAX COOKING TEMP	TYPE	APPLIANCE DUTY	DESIGN CFM/FT	TOTAL EXH CFM	EXHAUST PLENUM RISER(S)					MUA CFM	AC CFM	HOOD CONSTRUCTION	HOOD CONFIG		
										WIDTH	LENG	HEIGHT	DIA	CFM				VEL	SP	END TO
1	33	6030 ND-2-ACPSP-F	CAPTIVEAIRE	10' 7"	600 DEG	I	HEAVY	200	2117		4'	16'	2117	1516	-0.653"	1694	846	430 SS WHERE EXPOSED	ALONE	ALONE

**HOOD INFORMATION**

HOOD NO	TAG	TYPE	FILTER(S)			EFFICIENCY @ 7 MICRONS	QTY	LIGHT(S)			UTILITY CABINET(S)			FIRE SYSTEM PIPING	HOOD HANGING WEIGHT		
			QTY	HEIGHT	LENGTH			QTY	TYPE	WIRE GUARD	LOCATION	SIZE	FIRE SYSTEM			SIZE	ELECTRICAL
1	33	CAPTRATE SOLID FILTER	7	20"	16'	85% SEE FILTER SPEC	6	L55 SERIES E26	NO	RIGHT	12"x60"x30"	TANK FS	4.0/4.0	DCV-1111	1 LIGHT 1 FAN	YES	1132 LBS

**HOOD OPTIONS**

HOOD NO	TAG	OPTION
1	33	FIELD WRAPPER 10.00" HIGH FRONT, RIGHT. LEFT END STANDOFF (FINISHED) 1" WIDE 60" LONG INSULATED. RIGHT VERTICAL END PANEL 27" TOP WIDTH, 21" BOTTOM WIDTH, 80" HIGH INSULATED 430 SS. LEFT WALL AS END PANEL.

**PERFORATED SUPPLY PLENUM(S)**

HOOD NO	TAG	POS	LENGTH	WIDTH	HEIGHT	TYPE	RISER(S)				
							WIDTH	LENG	DIA	CFM	SP
1	33	Front	140"	22"	6'	MUA	10"	28"		564	0.148"
						MUA	10"	28"		564	0.148"
						MUA	10"	28"		564	0.148"
						AC	8"	26"		423	0.095"
						AC	8"	26"		423	0.095"

**GREASE DUCT & CHIMNEY SPECIFICATIONS:**  
PROVIDE GREASE DUCT EQUAL TO CAPTIVEAIRE SYSTEMS MODEL "DW" ROUND 20 GAUGE 430 STAINLESS STEEL DUCTWORK. MODEL "DW" IS LISTED TO UL-1978 AND IS INSTALLED USING "V" CLAMP LOCKING CONNECTIONS SEALED WITH 3M FIRE BARRIER 2000 PLUS. MODEL "DW" DOES NOT REQUIRE WELDING PROVIDING IT HAS BEEN INSTALLED PER THE MANUFACTURERS INSTALLATION GUIDE.  
PROVIDE RATED ACCESS DOORS AT EVERY CHANGE IN DIRECTION AND EVERY 12' ON CENTER. PER MANUFACTURERS LISTING MODEL "DW" HORIZONTAL RUNS LESS THAN 75 FT. CAN BE SLOPED 1/16" PER 12", HORIZONTAL RUNS MORE THAN 75 FT. CAN BE SLOPED 3/16" PER 12". DUCT SHOULD BE SLOPED AS MUCH AS POSSIBLE TO REDUCE THE CHANCE OF GREASE ACCUMULATION IN HORIZONTAL RUNS.

IF THE DUCT OR CHIMNEY IS WITHIN 18 INCHES OF COMBUSTIBLE MATERIAL, PROVIDE UL-2221 OR UL-103 HT LISTED DOUBLE WALL GREASE DUCT OR DOUBLE WALL CHIMNEY EQUAL TO CAPTIVEAIRE SYSTEMS MODEL "DW- 2R, 2R TYPE HT, 3R, OR 3Z" ROUND 20 GAUGE 430 STAINLESS INNER DUCT INSULATED WITH A 24 GAUGE 430 STAINLESS OUTER SHELL.

CAPTIVEAIRE SYSTEMS RECOMMENDS THE USE OF LISTED, PRE-FABRICATED ROUND GREASE EXHAUST DUCT TO REDUCE STATIC PRESSURE IN THE SYSTEM, MINIMIZE INSTALLATION AND INSPECTION TIMES, AND ENSURE DUCT IS LIQUID TIGHT

**HVAC DISTRIBUTION NOTE**  
HIGH VELOCITY DIFFUSERS OR HVAC RETURNS SHOULD NOT BE PLACED WITHIN TEN (10) FEET OF THE EXHAUST HOOD. PERFORATED DIFFUSERS ARE RECOMMENDED.

**VERIFY CEILING HEIGHT**

\_\_\_\_' - \_\_\_\_"

HEIGHT REQUIRED TO VERIFY THAT HOOD FITS SPACE AND TO SIZE THE ENCLOSURE PANELS

**CUSTOMER APPROVAL TO MANUFACTURE:**

APPROVED AS NOTED   
APPROVED WITH NO EXCEPTION TAKEN   
REVISE AND RESUBMIT   
SIGNATURE \_\_\_\_\_  
YOUR TITLE \_\_\_\_\_ DATE \_\_\_\_\_

**SPECIFICATION: CAPTRATE® GREASE-STOP® SOLID FILTER**

THE CAPTRATE GREASE-STOP SOLID FILTER IS A SINGLE-STAGE FILTER FEATURING A UNIQUE S-BAFFLE DESIGN IN CONJUNCTION WITH A SLOTTED REAR BAFFLE DESIGN, TO DELIVER EXCEPTIONAL FILTRATION EFFICIENCY.

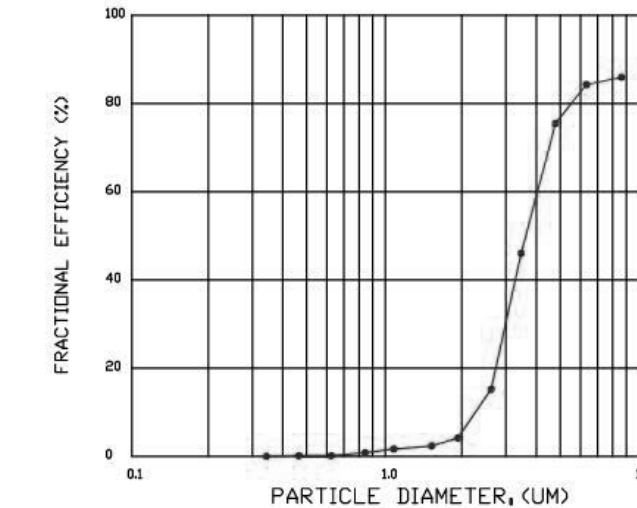
FILTER IS STAINLESS STEEL CONSTRUCTION, AND SIZED TO FIT INTO STANDARD 2-INCH DEEP HOOD CHANNEL(S).

UNITS SHALL INCLUDE STAINLESS STEEL HANDLES AND A FASTENING DEVICE TO SECURE THE TWO COMPONENTS WHEN ASSEMBLED.

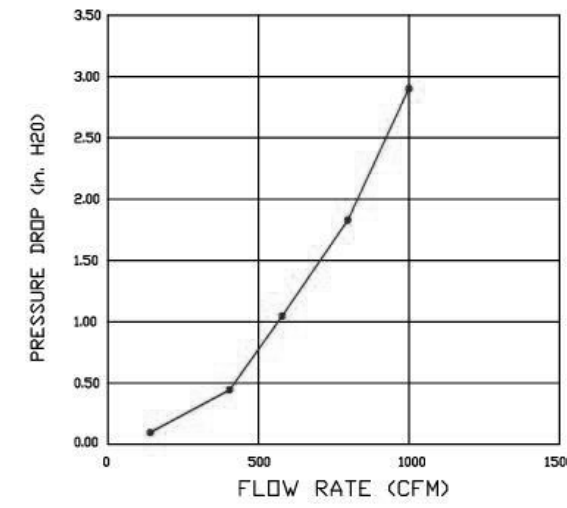
GREASE EXTRACTION EFFICIENCY PERFORMANCE SHALL REMOVE AT LEAST 75% OF GREASE PARTICLES FIVE MICRONS IN SIZE, AND 85% GREASE PARTICLES SEVEN MICRONS IN SIZE AND LARGER, WITH A CORRESPONDING PRESSURE DROP NOT TO EXCEED 1.0 INCHES OF WATER GAUGE.

THE CAPTRATE GREASE-STOP SOLID WAS TESTED TO ASTM STANDARD ASTM F2519-05. MANUFACTURER APPROVED FOR USE IN SOLID FUEL APPLICATIONS AS A SPARK ARRESTER.

EFFICIENCY VS. PARTICLE DIAMETER

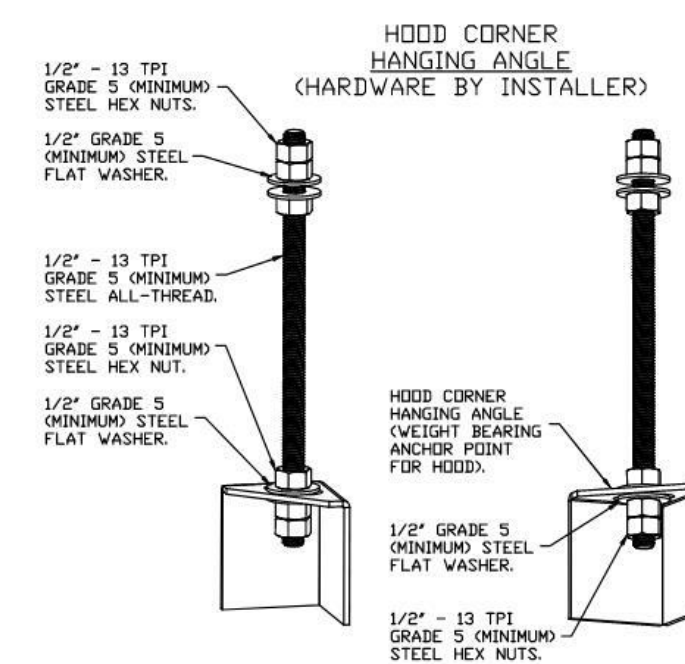


PRESSURE DROP VS. FLOW RATE



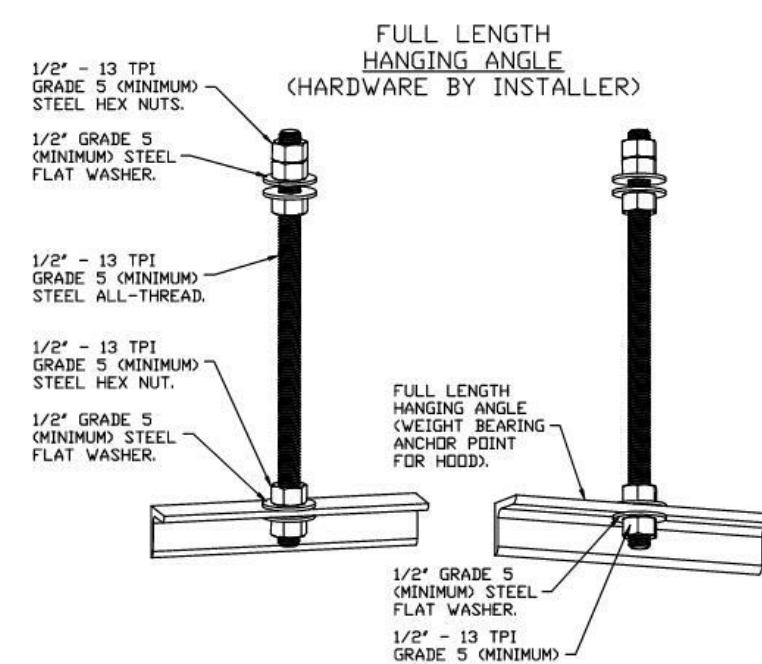
CAPTRATE FILTERS ARE BUILT IN COMPLIANCE WITH:

- NFPA #96.
- NSF STANDARD #2.
- UL STANDARD #1046.
- INT. MECH. CODE (IMC).
- ULC-S649.



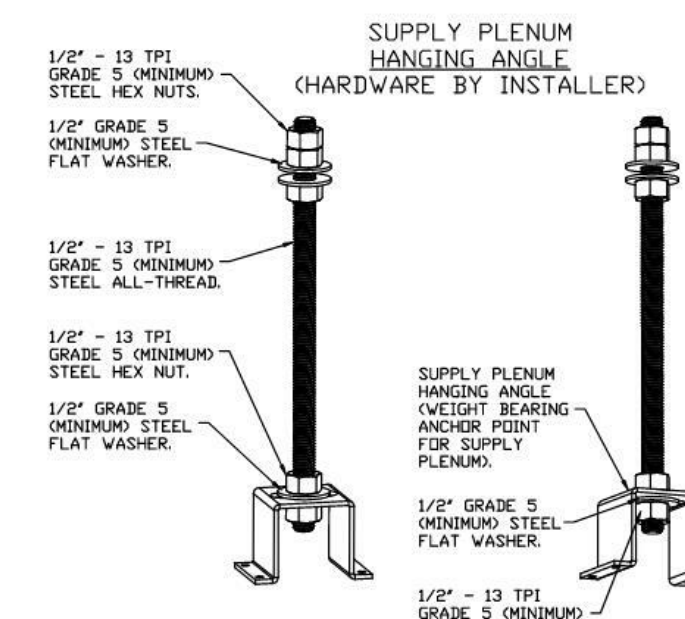
ASSEMBLY INSTRUCTIONS

HANGING ANGLE MUST BE SUPPORTED WITH 1/2" - 13 TPI GRADE 5 (MINIMUM) ALL-THREAD. SANDWICH HANGING ANGLES AND CEILING ANCHOR POINTS WITH 1/2" GRADE 5 (MINIMUM) STEEL FLAT WASHERS AND 1/2" - 13 TPI GRADE 5 (MINIMUM) HEX NUTS AS SHOWN. MUST USE DOUBLED HEX NUT CONFIGURATION BENEATH HOOD HANGING ANGLES AND ABOVE CEILING ANCHORS. MAINTAIN 1/4" OF EXPOSED THREADS BENEATH BOTTOM HEX NUT. TORQUE ALL HEX NUTS TO 57 FT-LBS.



ASSEMBLY INSTRUCTIONS

HANGING ANGLE MUST BE SUPPORTED WITH 1/2" - 13 TPI GRADE 5 (MINIMUM) ALL-THREAD. SANDWICH HANGING ANGLES AND CEILING ANCHOR POINTS WITH 1/2" GRADE 5 (MINIMUM) STEEL FLAT WASHERS AND 1/2" - 13 TPI GRADE 5 (MINIMUM) HEX NUTS AS SHOWN. MUST USE DOUBLED HEX NUT CONFIGURATION ABOVE CEILING ANCHORS. SINGLE HEX NUT BENEATH HANGING ANGLE IS ACCEPTABLE FOR FULL LENGTH HANGING ANGLES. MAINTAIN 1/4" OF EXPOSED THREADS BENEATH BOTTOM HEX NUT. TORQUE ALL HEX NUTS TO 57 FT-LBS.



ASSEMBLY INSTRUCTIONS

HANGING ANGLE MUST BE SUPPORTED WITH 1/2" - 13 TPI GRADE 5 (MINIMUM) ALL-THREAD. SANDWICH HANGING ANGLES AND CEILING ANCHOR POINTS WITH 1/2" GRADE 5 (MINIMUM) STEEL FLAT WASHERS AND 1/2" - 13 TPI GRADE 5 (MINIMUM) HEX NUTS AS SHOWN. MUST USE DOUBLED HEX NUT CONFIGURATION ABOVE CEILING ANCHORS. SINGLE HEX NUT BENEATH HANGING ANGLE IS ACCEPTABLE FOR PSP HANGING ANGLES. MAINTAIN 1/4" OF EXPOSED THREADS BENEATH BOTTOM HEX NUT. TORQUE ALL HEX NUTS TO 57 FT-LBS.

**CLEARANCE TO COMBUSTIBLES**

HOODS #	SURFACE	*CLEARANCE
1	TOP	18"
	FRONT	0"
	BACK	18"
	LEFT	0"
	RIGHT	0"

- 0" CLEARANCE TO COMBUSTIBLES CONFORMS TO UL710 STANDARD.
- HOOD MOUNTED UTILITY CABINETS REQUIRE 36" SERVICE CLEARANCE.

**REVISIONS**

DESCRIPTION	DATE

**CAPTIVEAIRE**

Maryland Mechanical  
www.captiveaire.com  
8120 Woodmont Avenue, Suite 720, Bethesda, MD, 20814 PHONE: (800) 988-0881 FAX: 9192279591 EMAIL: reg76@captiveaire.com

Cava - Orlando, FL\_R2  
3157 East Colonial Drive,  
Orlando, FL, 32803

DATE: 10/16/2024  
DWG.#: 7106540  
DRAWN BY: JPH - 76  
SCALE: 3/4" = 1'-0"  
MASTER DRAWING

SHEET NO. 1

ferris+sloane

100 N. Howard Street, Suite 4563, Spokane, WA 99201

**CAVA**

CAVA #010547  
3157 E. COLONIAL DR.  
ORLANDO, FL 32803  
FOR CAVA  
14 Ridge Square NW #500, WASHINGTON, DC 20016

AOR PROJECT NUMBER: CAV064

ISSUE	DATE
PERMIT SET	10.25.2024
PERMIT REV	02.17.2025
IFC SET	05.27.2025

MECHANICAL HOOD DETAIL PLAN

SHEET: **M601**

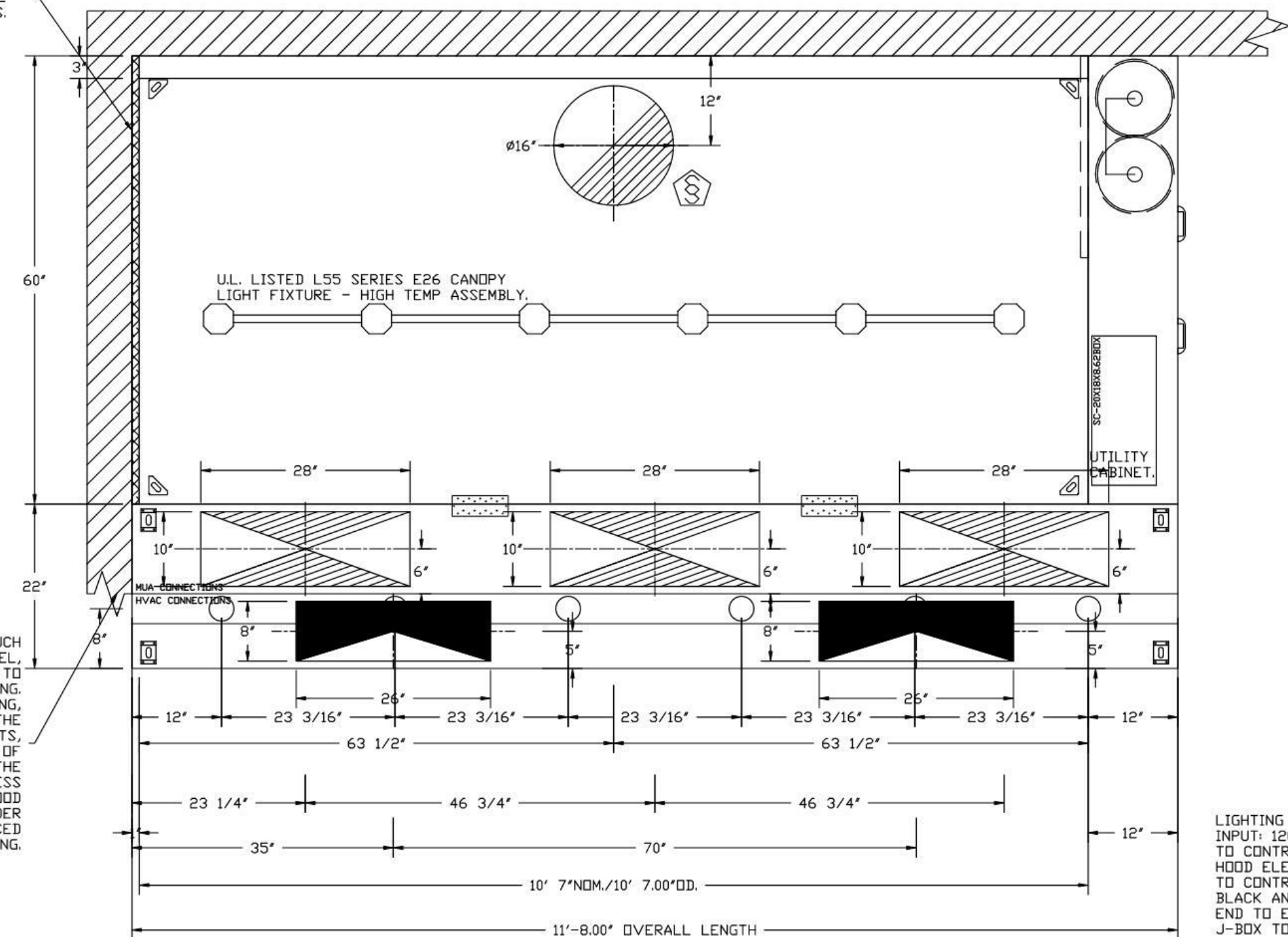
**DETAIL GENERAL NOTE**  
DETAILS PROVIDED ON THE PLAN ARE FOR REFERENCE ONLY. FINAL EQUIPMENT MOUNTING AND EQUIPMENT STANDS ARE TO BE PROVIDED BY THE EQUIPMENT VENDOR OR CONTRACTOR.



5/27/2025 10:33:52 AM

1" LAYER OF INSULATION  
FACTORY INSTALLED IN  
100" END STANDOFF MEETS  
0" REQUIREMENT'S CLEARANCE  
TO COMBUSTIBLE SURFACES.

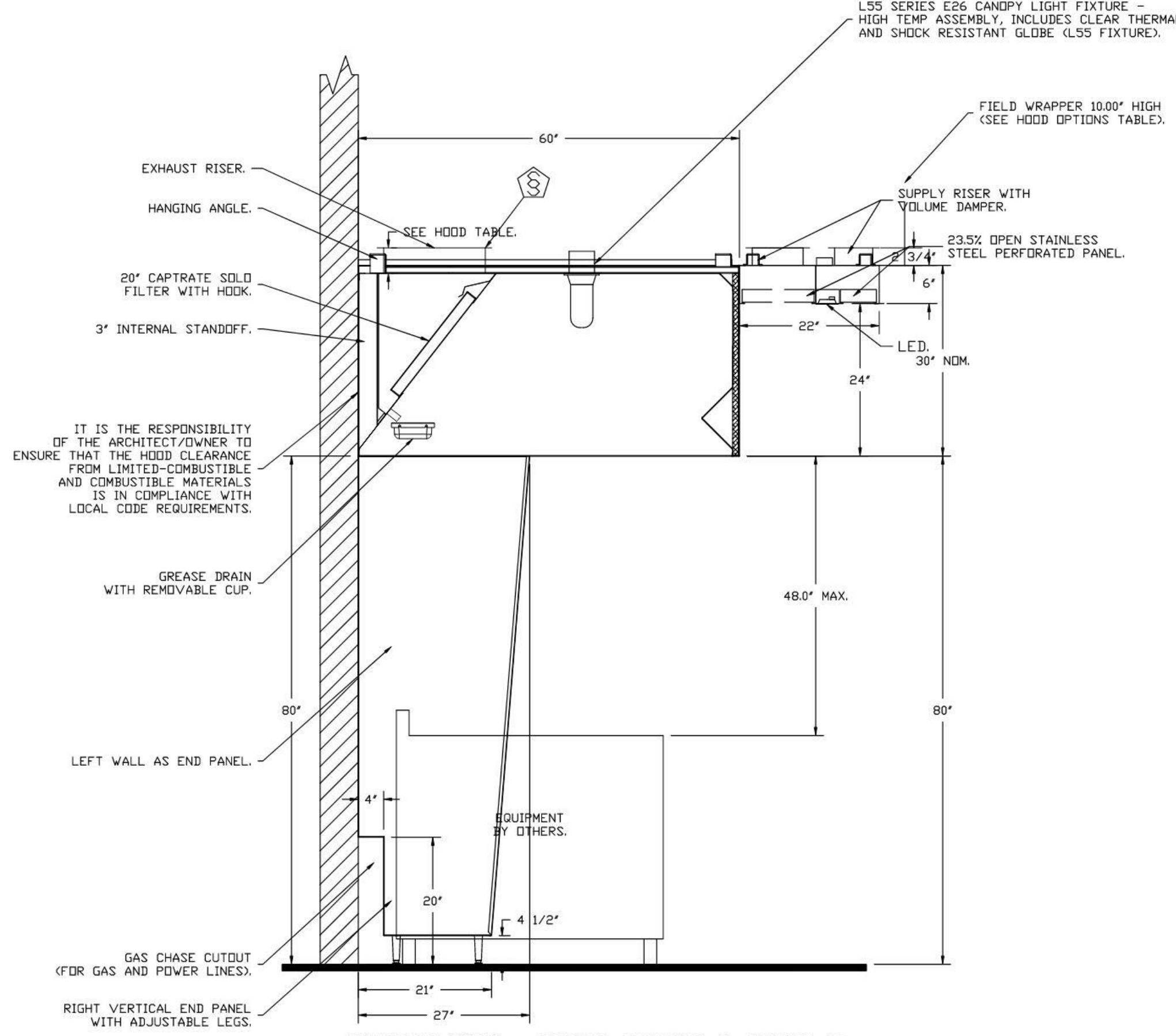
INSTALLER MUST CONFIRM HOOD IS INSTALLED SUCH  
THAT THE SPECIFIED WALL, ACTING AS AN END PANEL,  
IS MATED TIGHT TO THE CORRECT END OF HOOD TO  
ACHIEVE A REDUCED MINIMUM EXHAUST CFM LISTING.  
NON-COMPLIANCE WILL NULLIFY THE ETL LISTING.  
VOID THE MANUFACTURER'S WARRANTY, AND HOLD THE  
CONTRACTOR LIABLE FOR ANY AND ALL LOSSES, COSTS,  
AND EXPENSES RELATED TO THE NON-COMPLIANCE OF  
THE MANUFACTURER'S SPECIFIED INSTRUCTION THE  
WALL ACTING AS AN END PANEL MUST EXTEND NO LESS  
THAN 20" FROM THE INTERSECTING WALL ON WHICH HOOD  
IS MOUNTED AND MUST EXTEND NO LESS THAN 20" UNDER  
BOTTOM OF HOOD TO BE ELIGIBLE FOR REDUCED  
MINIMUM EXHAUST CFM LISTING.



LIGHTING FOR ACPSP JOB # 7106540 - HOOD #1  
INPUT: 120V AC, 1 PHASE, 50/60HZ, 35 WATTS PER LIGHT.  
TO CONTROL LIGHTS WITH HOOD LIGHT SWITCH, WIRE PER  
HOOD ELECTRICAL CONTROL PANEL SCHEMATIC.  
TO CONTROL LIGHTS WITH BUILDING LIGHT SWITCH, WIRE  
BLACK AND WHITE WIRE TO A 120VAC SERVICE.  
END TO END ACPSPS REQUIRE 120VAC FIELD WIRING FROM  
J-BOX TO J-BOX. REPLACE LIGHTS WITH LED LIGHTS ONLY.

PLAN VIEW - HOOD #1 (33)  
10' 7.00\"/>

ACPSP SHIPS LOOSE FOR FIELD INSTALLATION



SECTION VIEW - MODEL 6030ND-2-ACPSP-F  
HOOD - #1 (33)

REVISIONS	
DESCRIPTION	DATE

**CAPTIVE**

Maryland Mechanical  
www.captiveare.com  
8120 Woodmont Avenue, Suite 720, Bethesda, MD, 20814 PHONE: (800) 988-0881 FAX: 9192275931 EMAIL: reg76@captiveare.com

Cava - Orlando, FL\_R2  
3157 East Colonial Drive,  
Orlando, FL, 32803

DATE:	10/16/2024
DWG.#:	7106540
DRAWN BY:	JPH - 76
SCALE:	3/4" = 1'-0"
MASTER DRAWING	

SHEET NO.  
2

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**CAVA**

CAVA #010547  
3157 E. COLONIAL DR.  
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CAVA  
14 Ridge Square NW #500, WASHINGTON, DC 20016

AOR PROJECT NUMBER:  
CAV064

ISSUE	DATE
PERMIT SET	10.25.2024
PERMIT REV	02.17.2025
IFC SET	05.27.2025

MECHANICAL HOOD DETAIL  
PLAN

SHEET:  
**M602**

**DETAIL GENERAL NOTE**  
DETAILS PROVIDED ON THE PLAN ARE FOR  
REFERENCE ONLY. FINAL EQUIPMENT  
MOUNTING AND EQUIPMENT STANDS ARE TO  
BE PROVIDED BY THE EQUIPMENT VENDOR OR  
CONTRACTOR.



**FIRE SYSTEM INFORMATION - JOB#7106540**

FIRE SYSTEM NO	TAG	TYPE	SIZE	MAX FP	DESIGN FP	INSTALLATION	
						SYSTEM	LOCATION ON HOOD
1	33A	TANK FS	4.0/4.0	40	37	FIRE CABINET RIGHT	RIGHT, HOOD 1

**FIRE SYSTEM PARTS LIST KEY**

FIRE SYSTEM NO	TAG	KEY NUMBER - PART DESCRIPTION	QTY BY FACTORY	QTY BY DIST
0	0	0 - TANK FIRE SUPPRESSION POST-DISCHARGE PROCEDURE UTILITY CABINET LABEL SHEET.	1	0
0	0	0 - TANK FIRE SUPPRESSION MAINTENANCE GUIDE UTILITY CABINET LABEL SHEET.	1	0
0	0	0 - 12-F28021-32144-0T-360 DUCT FIRE THERMOSTAT WITH 12 FOOT WIRE LEADS. NO. CLOSE ON TEMP RISE AT 360°F. (A003431D).	1	0
0	0	0 - 32-00002 QUICK SEAL - 1/2" (UL).	1	0
0	0	0 - 4429K153 1/2" MALE NPT TO 1/2" FEMALE NPT ELBOW, BRASS.	2	0
0	0	0 - 4429K422 1/2" X 1/4" BRASS REDUCING BUSHING.	1	0
0	0	0 - 79525 1/2" 90 PRO-PRESS ELBOW WITH 1/2" NPT FEMALE CONNECTION, VIEGA.	1	0
0	0	0 - 79580 1/2" X 1/2" PRO-PRESS TEE X 1/2" NPT FEMALE CONNECTION, VIEGA.	2	0
0	0	0 - 87-120042-001 SECONDARY ACTUATOR VALVE (SVA) - SINGLE ACTUATOR, REQUIRES PRIMARY RELEASE ACTUATOR, TANK FIRE SUPPRESSION.	1	0
0	0	0 - 87-120045-001 HOSE, SECONDARY ACTUATOR HOSE, 7.5' BRAIDED STAINLESS STEEL, TANK FIRE SUPPRESSION.	1	0
0	0	0 - 87-300001-001 TANK - PRESSURIZED TANK USED FOR TANK FIRE SUPPRESSION.	2	0
0	0	0 - 87-300030-001 PRIMARY ACTUATOR KIT (PAK) - ACTUATOR AND RELEASE SOLENOID ASSEMBLY, ONE NEEDED PER FIRE SYSTEM, SUPERVISED, TANK FIRE SUPPRESSION.	1	0
0	0	0 - 87-300152-001 HARDWARE, SVA BOLTS, TANK FIRE SUPPRESSION.	8	0
0	0	0 - 9055455PC PRO PRESS 1/2 PRESS X PRESS 90 ELBOW LD.	6	0
0	0	0 - 9097200PC PRO PRESS PC611 1/2 PRESS TEE LD.	7	0
0	0	0 - 98694A115 HARDWARE, DATANKLOCK LOCKING BRACKET SQUARE NUTS 5/16" ZINC, TANK FIRE SUPPRESSION.	4	0
0	0	0 - A0034332 JUNCTION BOX FOR MANUAL PULL STATION. 1.5" DEEP BACK BOX, RED COLOR.	1	0
0	0	0 - A31484 1/4" NPT SCHRADER VALVE AND CAP, JB INDUSTRIES. 1/4" FLARE X 1/4" MPT HALF UNION. USED ON TANK SERVICE PDR.	1	0
0	0	0 - 81145 3/8" BLACK IRON 90 ELL.	3	0
0	0	0 - DATANKLOCK DISCHARGE ADAPTER TANK LOCKING PLATE FOR FIRE SYSTEM TANK INSTALLATION IN UTILITY CABINETS, TANK FIRE SUPPRESSION.	2	0
0	0	0 - TANK STRAP TANK STRAP - USED FOR TANK FIRE SUPPRESSION.	6	0
0	0	0 - TFS-UCTANKBRACKET TANK BRACKET FOR FIRE SYSTEM TANK INSTALLATION IN UTILITY CABINETS, TANK FIRE SUPPRESSION.	2	0
0	0	0 - WK-283952-000 DISCHARGE ADAPTER, TANK FIRE SUPPRESSION.	2	0
16	16	16 - 79210 1/2" X 3/8" NPT MALE ADAPTER, VIEGA.	8	0
16	16	16 - 16 - DL-F NOZZLE - TANK PROTECTION APPLIANCE COVERAGE NOZZLE (INCLUDES METAL BLOW OFF CAP, LANYARD, USED WITH CHROME-PLATED PIPE).	8	0
26	26	26 - 26 - QSA-3/8 QUICK SEAL - 3/8" (UL).	8	0
34	34	34 - A0034331 24VDC SINGLE ACTION MANUAL ACTUATION DEVICE (PUSH/PULL STATION) WITH PROTECTIVE COVER, ONE (1) NORMALLY OPEN CONTACT. RED COLOR.	1	0

**NOTES**

- FIELD PIPE DROPS AS SHOWN
- PIPING, ELBOWS, TEES, AND NOZZLES SUPPLIED BY CAS.
- FIELD INSTALLED DROP: FACTORY WILL PROVIDE QTY 2 60IN LONG PIECES OF CHROME PLATED PIPING SHIPPED LOOSE TO BE FIELD-INSTALLED.
- SHIP LOOSE DROP: FACTORY WILL PROVIDE THE EXACT CHROME PIPE LENGTH NEEDED SHIPPED LOOSE TO BE FIELD-INSTALLED.
- RELOCATE NOZZLES IF FLOW PATTERN IS BLOCKED BY SHELVING, SALAMANDERS, ETC.
- OVERLAPPING COVERAGE SHALL NOT BE USED ON ANY APPLIANCE WITH AN OBSTRUCTION.
- IF APPLICABLE, EXTENDED PRE-PIPED DROPS ARE SHIPPED LOOSE.
- FACTORY PIPING EXTENDS A MAXIMUM OF 6' ABOVE THE TOP OF THE HOOD.

- APPLIANCE DIMENSIONS LISTED REPRESENT THE COOKING SURFACE SIZE, NOT THE OVERALL APPLIANCE SIZE.
- THIS FIRE SYSTEM COMPLIES WITH U.L. 300 REQUIREMENTS.

- DL-F NOZZLE PART NUMBER REPLACES 3070-3/8H-10-SS

JOB #: 7106540.  
JOB NAME: CAVA - ORLANDO, FL\_R2.

SYSTEM SIZE: TANK-SP-2 DESIGN FP: 37. MAXIMUM FP: 40.  
HOOD # 1 10' 7.00' LONG X 60" WIDE X 30" HIGH.  
RISER # 1 SIZE: 16" DIA.  
HOOD # 1 METAL BLOW-OFF CAPS INCLUDED.

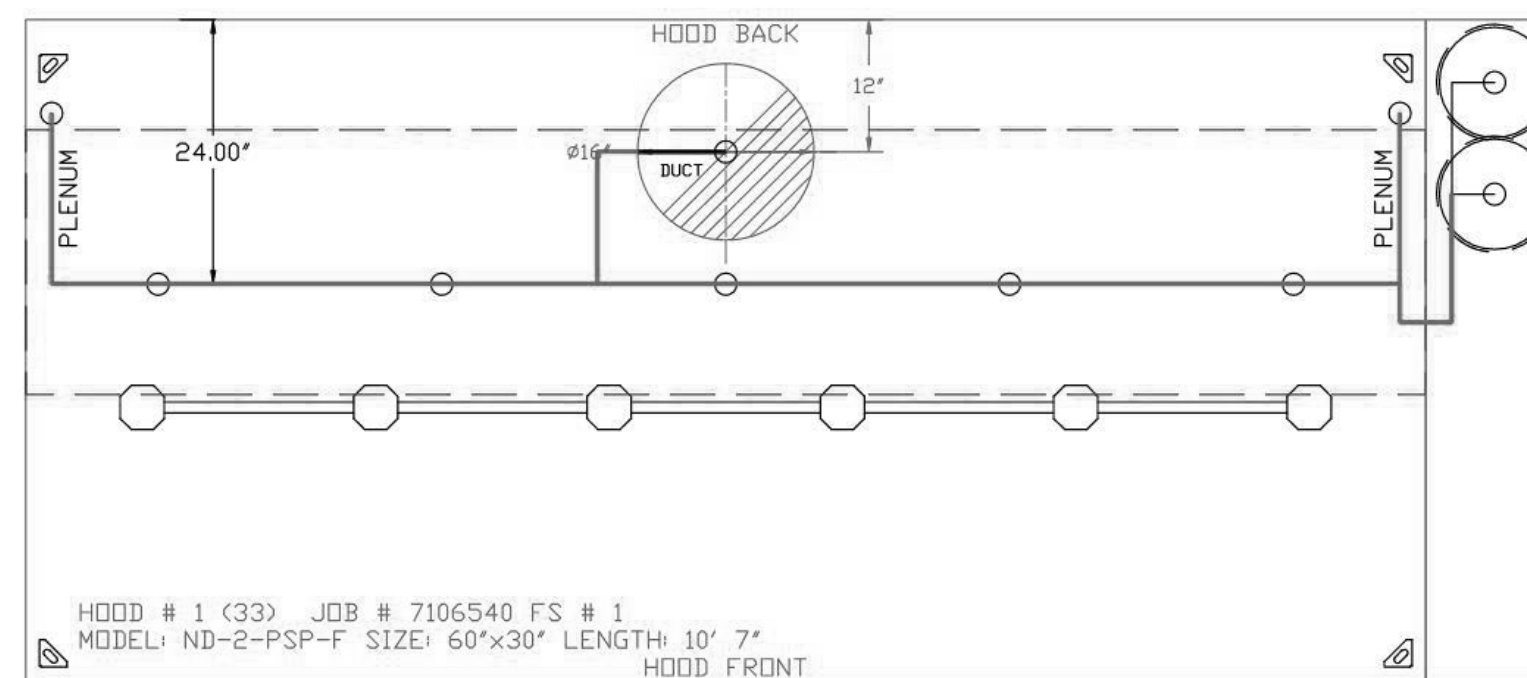
- HEAVY-DUTY APPLIANCES (RATED 600°F) WILL REQUIRE AN ADDITIONAL DOWNSTREAM FIRESTAT IN THE EVENT THAT THE DUCTWORK CONTAINS ANY HORIZONTAL RUNS OVER 25 FT IN LENGTH.
- MEDIUM TO LIGHT-DUTY APPLIANCES (RATED 450°F) WILL NOT REQUIRE ANY ADDITIONAL DOWNSTREAM DETECTION.

AGENT DISTRIBUTION PIPING LIMITATIONS	
PIPE SECTION	MAX PIPE LENGTH (FT)
MAX SUPPLY LINE TO FIRST OVERLAPPING NOZZLE	42
OVERLAPPING NOZZLE APPLIANCE BRANCH	10
DEDICATED NOZZLE APPLIANCE BRANCH	10

**LEGEND - FIRE CABINET TANK SYSTEM**

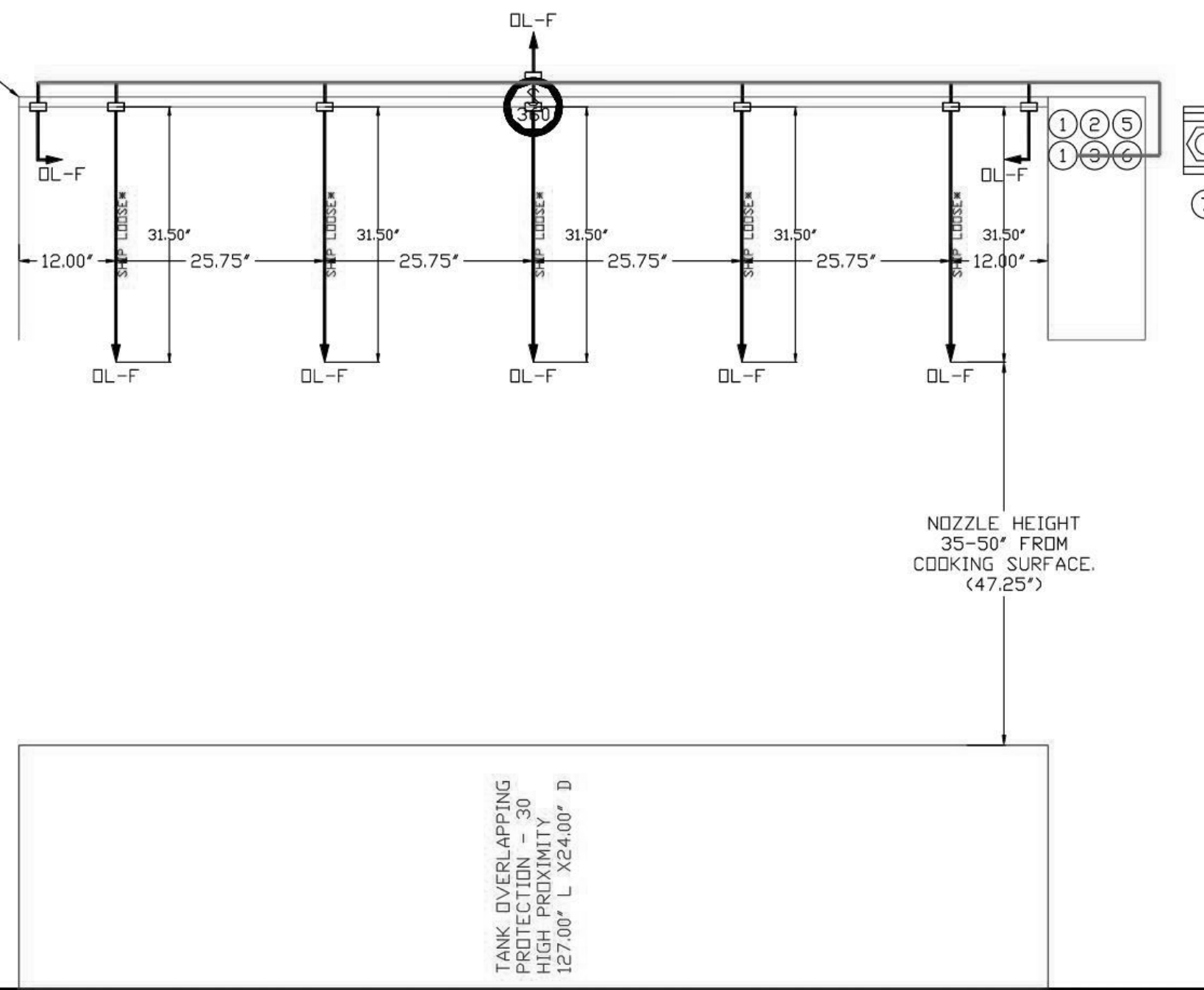
- 1 4 GALLON TANK.
- 2 PRIMARY ACTUATOR RELEASE.
- 3 SECONDARY ACTUATOR RELEASE.
- 4 PRESSURE SUPERVISION SWITCH.
- 5 PRIMARY HOSE ASSEMBLY.
- 6 SECONDARY HOSE ASSEMBLY.
- 7 REMOTE MANUAL ACTUATION DEVICE.

INCLUDES: FIELD INSTALLATION AND HOOKUP DURING NORMAL BUSINESS HOURS BY CERTIFIED INSTALLERS ONLY IN THE LOCATION NOTED ABOVE. TWO SITE VISITS ONLY (ONE VISIT TO SET PULL STATION & SYSTEM HOOKUP AND ONE VISIT FOR ONE TEST). ADDITIONAL VISITS WILL RESULT IN ADDITIONAL CHARGES. ONE MECHANICAL OR ELECTRICAL GAS VALVE PER SYSTEM AT A MAXIMUM SIZE OF 2". PERMIT, AND SYSTEM TEST. EXCLUDES: UNION LABOR & PREVAILING WAGE (LABOR & WAGES WILL BE ADDED IF APPLICABLE), GAS VALVE INSTALLATION, ELECTRICAL HOOKUP AND CONNECTIONS, HANGING OF FIRE CABINET, SHUNT TRIP, HANDHELD EXTINGUISHER(S), ON-SITE RE-PIPING DUE TO EQUIPMENT LAYOUT CHANGES.



SYSTEM REQUIRES A MINIMUM OF 7 FT OF EQUIVALENT PIPE LENGTH BETWEEN TANK AND NEAREST APPLIANCE NOZZLE FOR MOST APPLIANCES. EACH 90 DEGREE ELBOW ADDS 1.3 FT OF EQUIVALENT LENGTH. SEE MANUAL FOR DETAILS

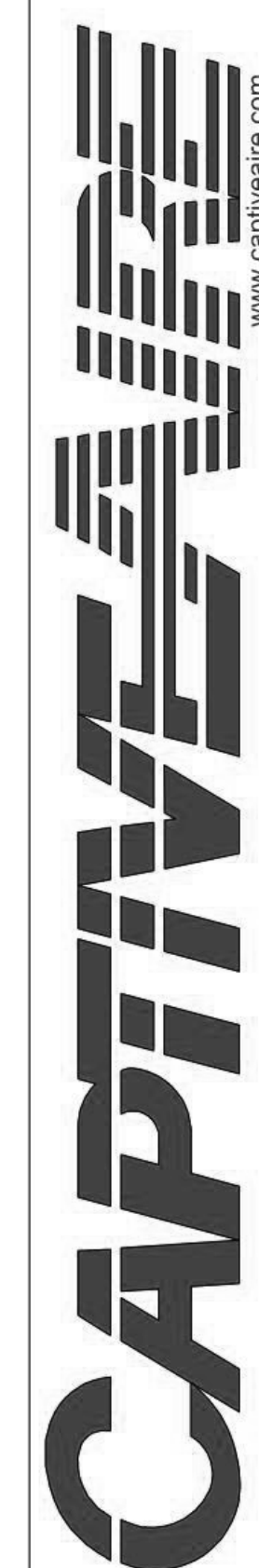
FACTORY PIPING EXTENDS A MAXIMUM OF 6' ABOVE THE TOP OF THE HOOD.



TANK OVERLAPPING PROTECTION: 30 IN. DIA. X 127.00' L. X 624.00' D

**REVISIONS**

DESCRIPTION	DATE



Cava - Orlando, FL\_R2  
3157 East Colonial Drive,  
Orlando, FL, 32803

DATE: 10/16/2024

DWG.#: 7106540

DRAWN BY: JPH - 76

SCALE: 3/4" = 1'-0"

MASTER DRAWING

SHEET NO. 3

ferris+sloane  
100 N. Howard Street, Suite 4503, Spokane, WA 99201

**CAVA**

CAVA #010547  
3157 E. COLONIAL DR.  
ORLANDO, FL 32803  
FOR CAVA  
14 Ridge Square NW #500, WASHINGTON, DC 20016

AOR PROJECT NUMBER: CAV064

ISSUE	DATE
PERMIT SET	10.25.2024
PERMIT REV	02.17.2025
IFC SET	05.27.2025

MECHANICAL HOOD DETAIL PLAN

SHEET:

**M603**

**DETAIL GENERAL NOTE**  
DETAILS PROVIDED ON THE PLAN ARE FOR REFERENCE ONLY. FINAL EQUIPMENT MOUNTING AND EQUIPMENT STANDS ARE TO BE PROVIDED BY THE EQUIPMENT VENDOR OR CONTRACTOR.



**EXHAUST FAN INFORMATION - JOB#7106540**

FAN UNIT NO	TAG	QTY	FAN UNIT MODEL #	MANUFACTURER	CFM	ESP	RPM	MOTOR ENCL	HP	BHP	PHASE	VOLT	FLA	DISCHARGE VELOCITY	WEIGHT (LBS)	SONES
1	33B - KEF	1	DUBSHFA	CAPTIVEAIRE	2117	1.000	1474	TEAD-ECM	1.000	0.5780	1	115	11.6	670 FPM	94	14.8

**DOAS/RTU FAN SCHEDULE - JOB#7106540**

FAN UNIT NO	TAG	QTY	DOAS/RTU MODEL #	MANUFACTURER	FAN INFORMATION										ELECTRICAL INFORMATION										COOLING INFORMATION										GAS HEAT INFORMATION										NOTES
					BLOWER	RETURN AIR CFM	MAX OUTSIDE AIR CFM	TOTAL CFM	WEIGHT (LBS)	ESP	HP	PHASE	VOLT	MCA	MDCP	OUTSIDE AIR DB	OUTSIDE AIR WB	MIXED AIR DB	MIXED AIR WB	LEAVING AIR DB	LEAVING AIR WB	DP	TOTAL	SENS.	IEER	ISMRE	GAS TYPE	INPUT BTUs	OUTPUT BTUs	TEMP RISE	REQUIRED INPUT GAS PRESSURE														
2	MAU	1	EARTUI-1.75-18-ST-MPU	ECDA-AIR	18MF-1-RTU	0	1694	1694	1167	1.000	2.00	3	460	13.4A	15A	93.7°F	76.2°F	93.7°F	76.2°F	72.8°F	67.3°F	64.7°F	56.1 MBH	37.2 MBH	17.9	6.1	NATURAL	73959	59907	31°F	7 IN. W.C. - 14 IN. W.C.	1,2,3,4,5,6,7,8,9,10,11,12,13,14,15													

**NOTES:**

- INVERTER SCROLL COMPRESSOR WITH INTEGRATED OIL SENSOR. DIGITAL OR STAGED SCROLL NOT AN APPROVED EQUAL
- DIRECT DRIVE PLENUM BLOWER. BELT DRIVEN BLOWERS ARE NOT ACCEPTABLE
- INTEGRATED MONITORING VIA CELLULAR CONNECTION BY MANUFACTURER
- REFRIGERATION PRESSURE MONITORING ON HIGH AND LOW PRESSURE SIDE OF SYSTEM INCLUDED THROUGH DIGITAL INTERFACE
- EC MOTOR CONDENSING FANS
- ELECTRONIC EXPANSION VALVE. TXV NOT ACCEPTABLE
- SUCTION LINE ACCUMULATOR
- FACTORY COMMISSIONING WITH 5 YEAR PARTS WARRANTY, 25 YEAR WARRANTY ON STAINLESS STEEL HEAT EXCHANGER
- AVERAGING INTAKE, EVAP AND DISCHARGE TEMPERATURE SENSORS (DISCHARGE SENSOR TO BE FACTORY MOUNTED WITHIN UNIT)
- 81% EFFICIENT FURNACE, WITH MODULATING INDUCER TO MAINTAIN CONSTANT COMBUSTION EFFICIENCY ACROSS FIRING RANGE. 6:1 TURNDOWN WITH NG AND 5:1 TURNDOWN WITH LP
- SUPPLY CFM MONITORING INTEGRAL TO UNIT WITH CFM MEASUREMENT INCLUDED THROUGH DIGITAL INTERFACE
- MIAMI DADE RATED
- HAIL GUARD FOR CONDENSING COIL
- 1' EXTERIOR DUAL-WALL CONSTRUCTION W/ R-4.3 INSULATION-MINIMUM 24GA EXTERIOR W/ 18GA BASE
- DOWN DISCHARGE/NO RETURN

**FAN OPTIONS**

FAN UNIT NO	TAG	QTY	DESCRIPTION
1	33B - KEF	1	GREASE BOX
		1	MIAMI DADE CERTIFICATION - NDA-1 ALUMINUM UPBLAST
		1	ECM WIRING PACKAGE - PWM SIGNAL FROM ECPM03 PREWIRE (TELCO MOTOR), CCW ROTATION
		1	2 YEAR PARTS WARRANTY
		1	INLET PRESSURE GAUGE, 0-35"
		1	MANIFOLD PRESSURE GAUGE, 0 TO 10" WC, 1 FURNACE
		1	TOTAL CFM MONITORING
		1	INTAKE FIRESTAT SET TO 135°F
		1	FREEZESTAT
		1	DISCHARGE FIRESTAT SET TO 240°F
		1	SHIP LOOSE GAS STRAINER 3/4"
		1	CASLINK BUILDING MONITORING SYSTEM - INTERNET OR CELLULAR CONNECTION REQUIRED
		1	CONSTRUCTION MODE - MODIFIES START-UP SETTINGS TO ALLOW TEMPERING A BUILDING STILL UNDER CONSTRUCTION
		1	2" MERV 13 FILTERS FOR RTU1 (QTY. 4)
		1	2" MERV 8 FILTERS FOR RTU1 (QTY. 4)
		1	RTU1 DOWN DISCHARGE
		1	RTU1 FIXED 100% DA INTAKE CONTROL
		1	RTU1 NO RETURN - 100% DA - MPU
		1	RTU1 CURB DUCT HANGER
		2	MAU
1	RTU1 MIAMI DADE CERTIFICATION		
1	5 TON MODULATING COOLING OPTION, 460/480V. R410A REFRIGERANT, VARIABLE SPEED COMPRESSOR, DL ECM CONDENSING FAN		
1	RTU1 HAIL GUARD		
1	SINGLE POINT ELECTRICAL CONNECTION FOR RTU. 750VA TRANSFORMER USED. IF A NON-DCV PREWIRE CONTROLS THIS UNIT, THE #2B, #47, "MA", OR "E2" PREWIRE OPTION MUST BE SELECTED. DOES NOT PROVIDE SUPPLY STARTER IN PREWIRE		
1	MOISTURE ELIMINATOR FOR SIZE 1, 5 TON RTU. NO REHEAT		
1	UNIT MOUNTED VFD CONFIGURED FOR DCV		
1	LOAD REACTOR MOUNTED IN FAN		
1	5 YEAR ENTIRE UNIT PARTS WARRANTY, 10 YEAR ENTIRE UNIT PARTS WARRANTY WITH REMOTE MONITORING AND CAPTIVEAIRE SERVICE CONTRACT, 25 YEAR STAINLESS STEEL FURNACE PARTS WARRANTY (SEE ADDITIONAL DETAILS)		
1	EXTERIOR GAS CONNECTION PROVIDED BY FACTORY WITH QUICK SEAL AND ANTI-ROTATION BRACKET		

**FAN ACCESSORIES**

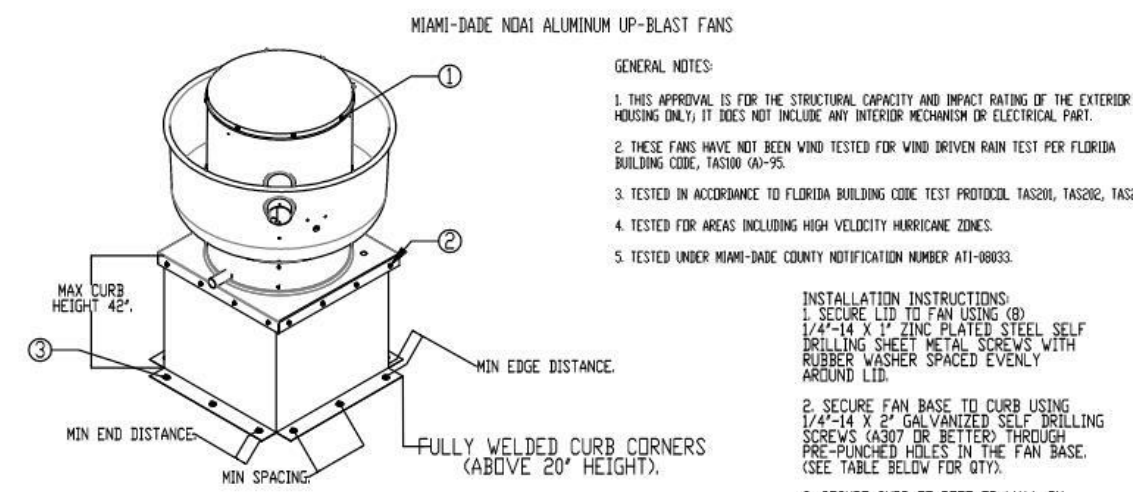
FAN UNIT NO	TAG	EXHAUST				SUPPLY			
		GREASE CUP	GRAVITY DAMPER	WALL MOUNT	SIDE DISCHARGE	GRAVITY DAMPER	MOTORIZED DAMPER	WALL MOUNT	
1	33B - KEF	YES							

**CURB ASSEMBLIES**

NO	DN FAN	TAG	WEIGHT	ITEM	SIZE
1	# 1	33B - KEF	70 LBS	CURB	23.000"W X 23.000"L X 26.000"H VENTED HINGED 16 GAUGE.
2	# 2	MAU	103 LBS	CURB	41.000"W X 71.000"L X 20.000"H INSULATED.

**HMI SCHEDULE**

UNIT NUMBER	HMI #	HMI LOCATION	TEMP AVERAGING	MODBUS ADDRESS
FAN #2	HMI #1 - UNIT	IN UNIT	NOT AVERAGED	55



**GENERAL NOTES:**

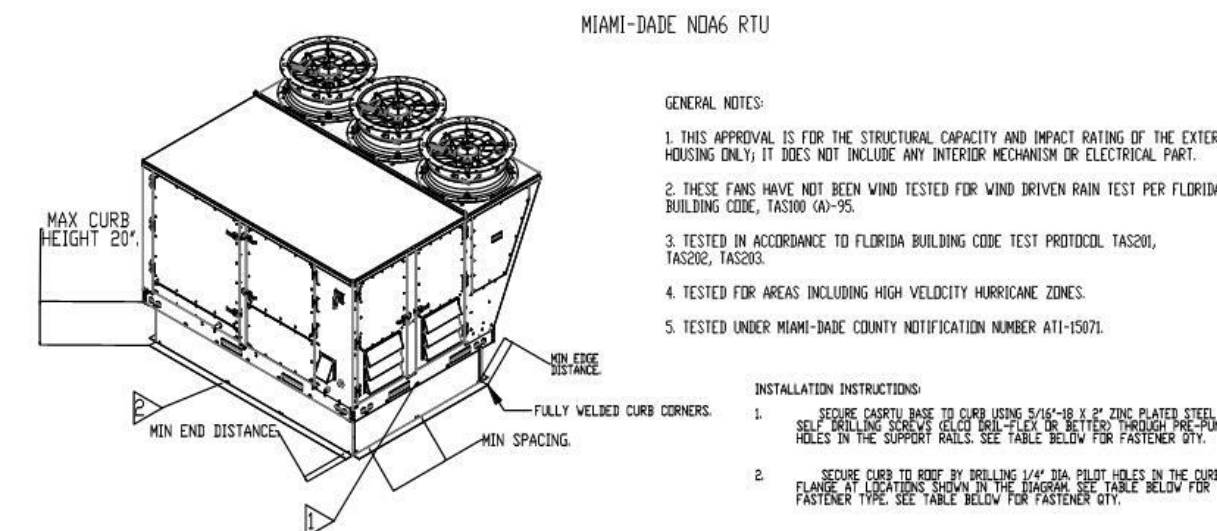
- THIS APPROVAL IS FOR THE STRUCTURAL CAPACITY AND IMPACT DRAINING OF THE EXTERIOR HOUSING ONLY. IT DOES NOT INCLUDE ANY INTERIOR MECHANICAL OR ELECTRICAL PARTS.
- THESE FANS HAVE NOT BEEN WIND TESTED FOR WIND DRIVEN RAIN TEST PER FLORIDA BUILDING CODE, SECTION 905.5.
- TESTED IN ACCORDANCE TO FLORIDA BUILDING CODE TEST PROTOCOL, TASC01, TASC02, TASC03.
- TESTED FOR AREAS INCLUDING HIGH VELOCITY HURRICANE ZONES.
- TESTED UNDER MIAMI-DADE COUNTY NOTIFICATION NUMBER A11-0803.

**INSTALLATION FASTENER TYPES**

	FAN TO CURB	WOOD (80 + 0.42 MIN.)	STEEL (12 GAUGE MIN.)	CONCRETE (2500 PSI MIN. CRACKED CONCRETE)
FASTENER	5/16" X 2" SELF DRILLING SCREW (ELCO DRILL-FLEX OR BETTER)	3/8" DIA. ZINC PLATED LAG BOLT	1/4" X 14 DRILL-FLEX SELF DRILLING SCREW	3/8" DIA. SS HILTI KWIK BOLT 1/2" EXPANSION ANCHOR
MINIMUM THREAD PENETRATION	N/A	2-1/2"	12 GAUGE	2"
MINIMUM EDGE DISTANCE	N/A	1-1/2"	3/8"	3"
MINIMUM END DISTANCE	N/A	2-5/8"	3/8"	3"
MINIMUM SPACING	N/A	1-1/2"	3/4"	5-1/2"

**INSTALLATION FASTENER QTY**

FAN MODEL	CURB TO FAN (SQFT)				CURB TO FAN (QWALL)				WOOD (80+)				STEEL (12 GAUGE)				CONCRETE (2500 PSI)			
	LONG SIDE	SHORT SIDE	TOTAL	QTY	LONG SIDE	SHORT SIDE	TOTAL	QTY	LONG SIDE	SHORT SIDE	TOTAL	QTY	LONG SIDE	SHORT SIDE	TOTAL	QTY	LONG SIDE	SHORT SIDE	TOTAL	
33B	3	12	3	12	4	16	4	16	5	20	5	20	5	20	4	16	4	16	4	16



**GENERAL NOTES:**

- THIS APPROVAL IS FOR THE STRUCTURAL CAPACITY AND IMPACT DRAINING OF THE EXTERIOR HOUSING ONLY. IT DOES NOT INCLUDE ANY INTERIOR MECHANICAL OR ELECTRICAL PARTS.
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- TESTED IN ACCORDANCE TO FLORIDA BUILDING CODE TEST PROTOCOL, TASC01, TASC02, TASC03.
- TESTED FOR AREAS INCLUDING HIGH VELOCITY HURRICANE ZONES.
- TESTED UNDER MIAMI-DADE COUNTY NOTIFICATION NUMBER A11-1501.

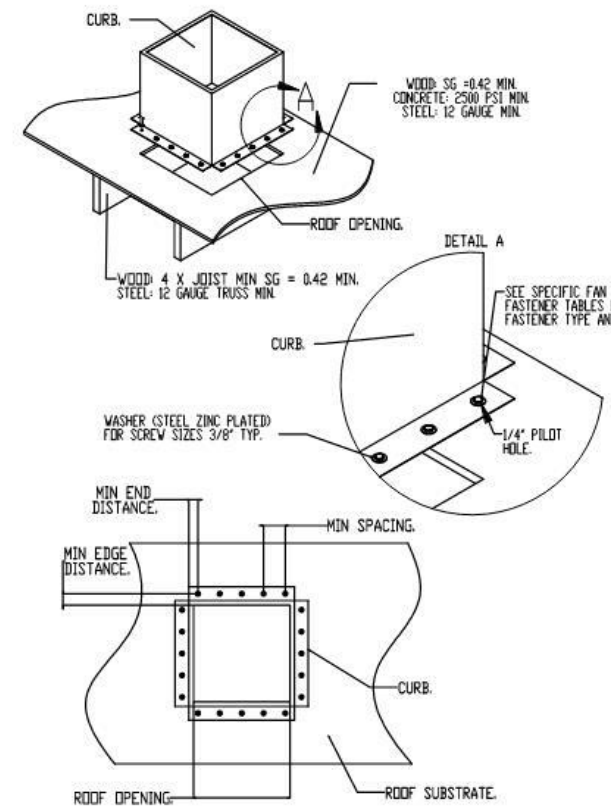
**INSTALLATION FASTENER TYPES**

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FASTENER	5/16" X 2" SELF DRILLING SCREW (ELCO DRILL-FLEX OR BETTER)	3/8" DIA. ZINC PLATED LAG BOLT	1/4" X 14 DRILL-FLEX SELF DRILLING SCREW	3/8" DIA. SS HILTI KWIK BOLT 1/2" EXPANSION ANCHOR
MINIMUM THREAD PENETRATION	N/A	2-1/2"	12 GAUGE	2"
MINIMUM EDGE DISTANCE	N/A	1-1/2"	3/8"	3"
MINIMUM END DISTANCE	N/A	4-1/2"	4-1/2"	4-1/2"
MINIMUM SPACING	N/A	1-1/2"	6"	6"

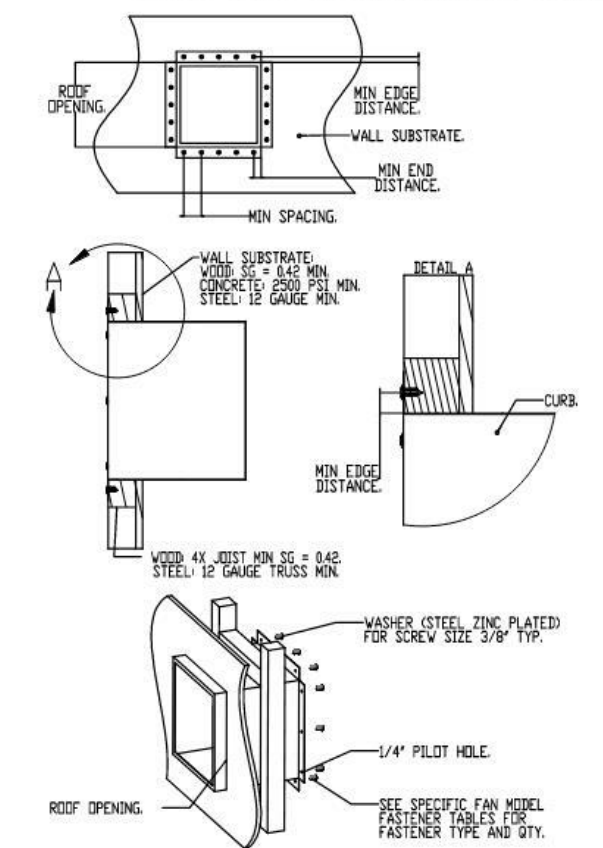
**INSTALLATION FASTENER QTY**

FAN MODEL	CURB TO FAN				WOOD (80+)				STEEL (12 GAUGE)				CONCRETE			
	LONG SIDE	SHORT SIDE	TOTAL	QTY	LONG SIDE	SHORT SIDE	TOTAL	QTY	LONG SIDE	SHORT SIDE	TOTAL	QTY	LONG SIDE	SHORT SIDE	TOTAL	
HVAC1	7	4	22	12	6	36	15	7	44	12	6	36				

**MIAMI-DADE COUNTY - CURB ROOF INSTALLATION GUIDE**



**MIAMI-DADE COUNTY - WALL CURB INSTALLATION GUIDE**



**DETAIL GENERAL NOTE**

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**REVISIONS**

NO.	DESCRIPTION	DATE

**CAPTIVEAIRE**  
 Maryland Mechanical  
 www.captiveaire.com  
 8120 Woodmont Avenue, Suite 720, Bethesda, MD 20814  
 PHONE: (800) 988-0881 FAX: 9192275931 EMAIL: reg766@captiveaire.com

Cava - Orlando, FL\_R2  
 3157 East Colonial Drive,  
 Orlando, FL, 32803

DATE: 10/16/2024

DWG.#: 7106540

DRAWN BY: JPH - 76

SCALE: 3/4" = 1'-0"

MASTER DRAWING

SHEET NO. 4

ferris+sloane  
 100 N. Howard Street, Suite 4500, Spokane, WA 99201

**CAVA**

CAVA #010547  
 3157 E. COLONIAL DR.  
 ORLANDO, FL 32803  
 FOR CAVA

ADR PROJECT NUMBER: CAV064

ISSUE	DATE
PERMIT SET	10.25.2024
PERMIT REV	02.17.2025
IFC SET	05.27.2025

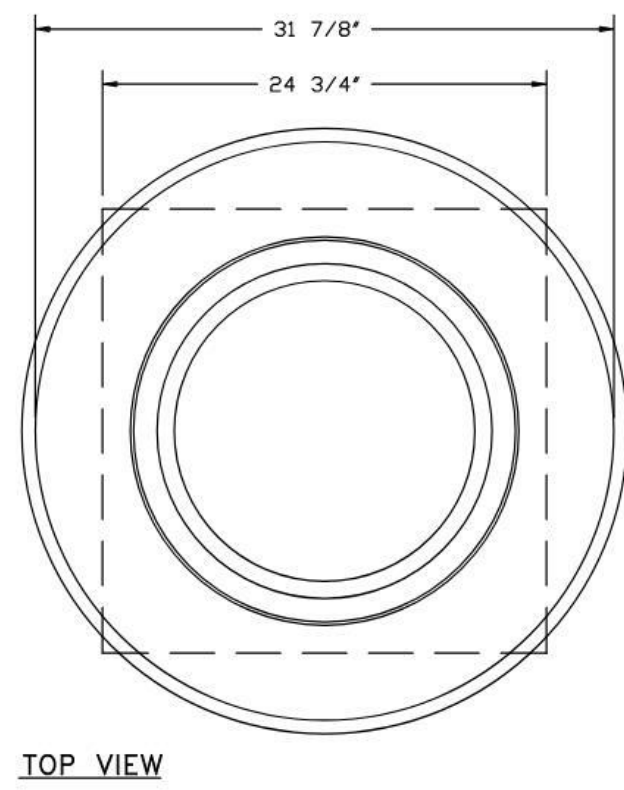
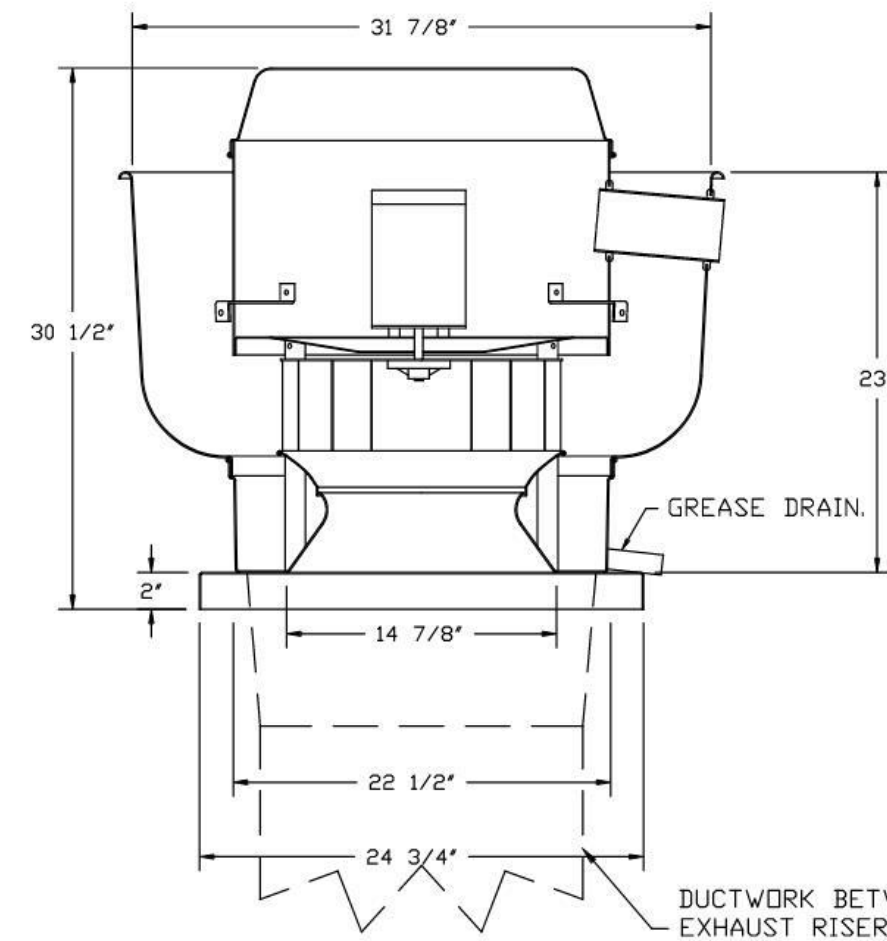
MECHANICAL HOOD DETAIL PLAN

SHEET:

**M604**

**rtm**  
 engineering consultants  
 2801 156th Ave SE | Suite 115 | Bellevue, WA 98007  
 T: 847.756.4100 | www.rtmec.com

FAN #1 DUBSHFA - EXHAUST FAN (33B - KEE)



**FEATURES:**

- DIRECT DRIVE CONSTRUCTION (NO BELTS/PULLEYS).
- ROOF MOUNTED FANS.
- RESTAURANT MODEL.
- UL705 AND UL762 AND ULC-S645
- VARIABLE SPEED CONTROL.
- INTERNAL WIRING.
- THERMAL OVERLOAD PROTECTION (SINGLE PHASE).
- HIGH HEAT OPERATION 300°F (149°C).
- GREASE CLASSIFICATION TESTING.
- NEMA 3R SAFETY DISCONNECT SWITCH.

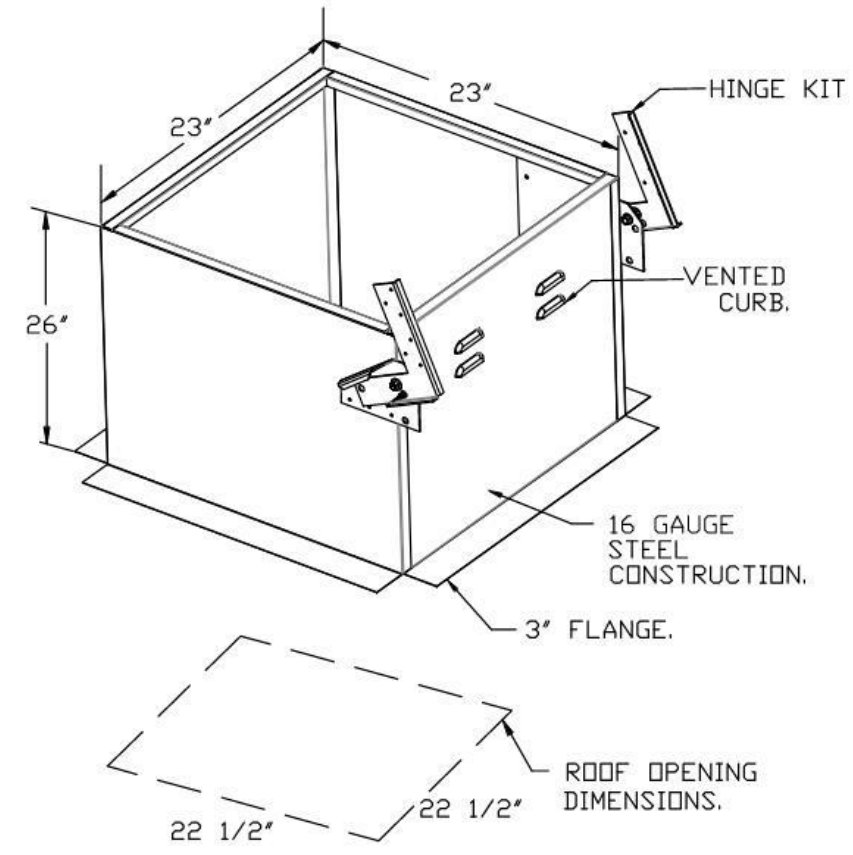
**NORMAL TEMPERATURE TEST**  
EXHAUST FAN MUST OPERATE CONTINUOUSLY WHILE EXHAUSTING AIR AT 300°F (149°C) UNTIL ALL FAN PARTS HAVE REACHED THERMAL EQUILIBRIUM, AND WITHOUT ANY DETERIORATING EFFECTS TO THE FAN WHICH WOULD CAUSE UNSAFE OPERATION.

**ABNORMAL FLARE-UP TEST**  
EXHAUST FAN MUST OPERATE CONTINUOUSLY WHILE EXHAUSTING BURNING GREASE VAPORS AT 600°F (316°C) FOR A PERIOD OF 15 MINUTES WITHOUT THE FAN BECOMING DAMAGED TO ANY EXTENT THAT COULD CAUSE AN UNSAFE CONDITION.

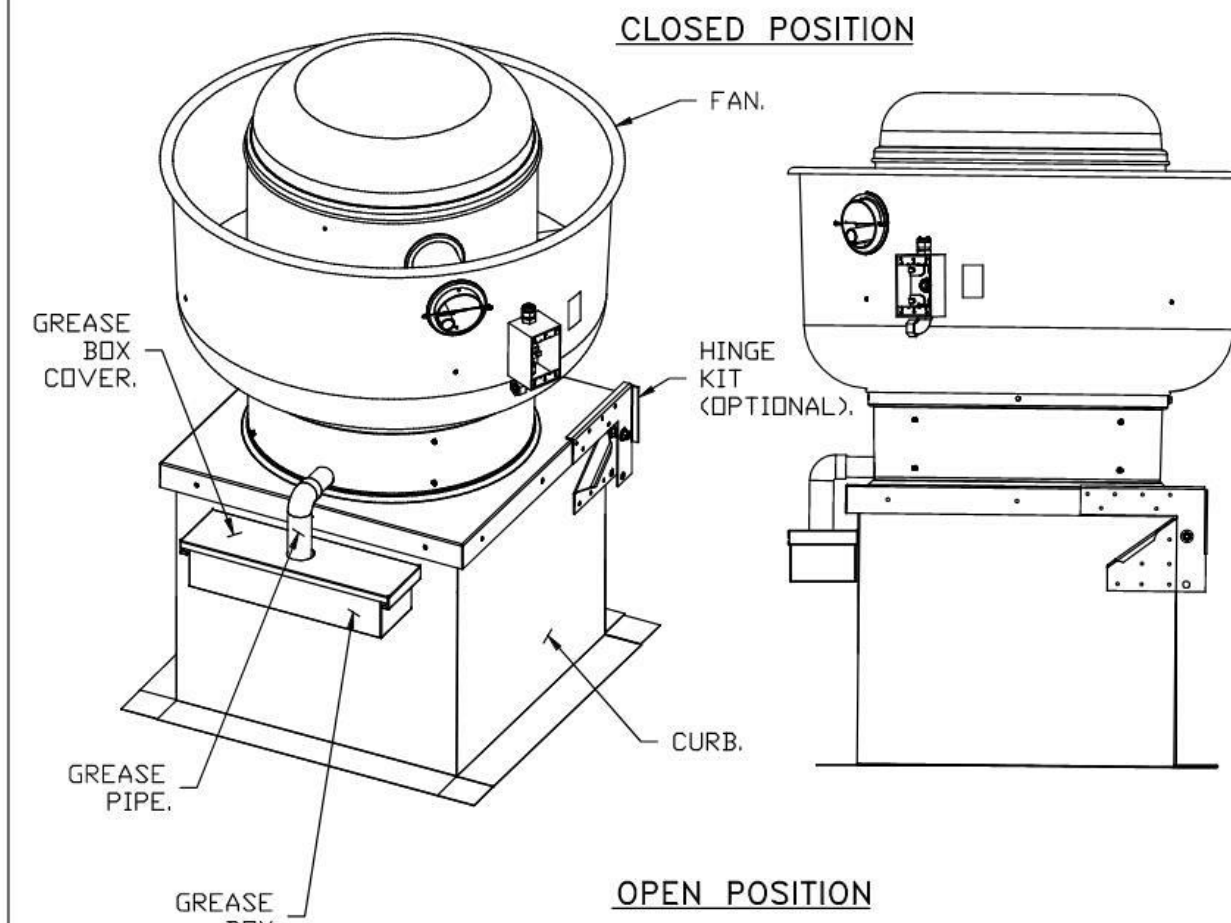
**OPTIONS**

- GREASE BOX.
- MIAMI DADE CERTIFICATION - NDA-1 ALUMINUM UPBLAST.
- ECM WIRING PACKAGE - PWM SIGNAL FROM ECM33 PREWIRE (TELCO MOTOR), CCM ROTATION.
- 2 YEAR PARTS WARRANTY.

DUCTWORK BETWEEN EXHAUST RISER ON HOOD AND FAN (BY OTHERS).



**GREASE BOX INSTALLATION**

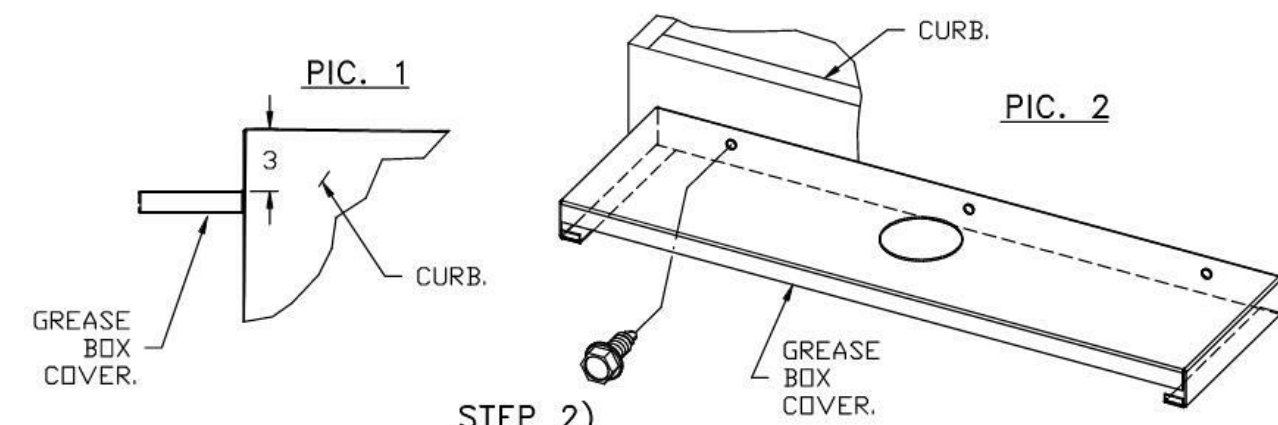


**PARTS INCLUDED**

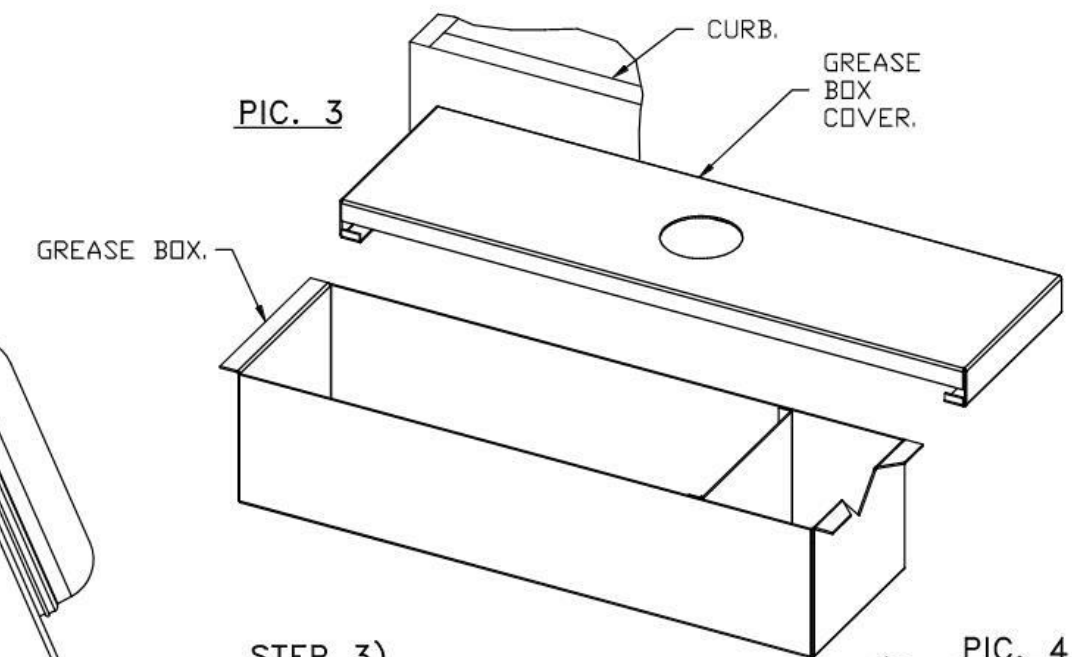
- GREASE BOX.
- GREASE BOX COVER.
- GREASE PIPE.
- SHEET METAL SCREWS  
3 - LONG (3/4" LG.)

**GREASE BOX FIELD INSTALLATION**

**STEP 1)**  
ATTACH GREASE BOX COVER TO THE CURB, HOLD 3" DIMENSION AS SHOWN ON PIC. 1. SCREW GREASE BOX COVER TO CURB USING (3) LONG (3/4" LG.) SCREWS AS SHOWN ON PIC. 2.



**STEP 2)**  
ATTACH GREASE BOX TO GREASE BOX COVER, SLIDE AND DROP. AS SHOWN ON PIC. 3.



**STEP 3)**  
INSTALL GREASE PIPE AS SHOWN ON PIC. 4.

\*NOTE: UL 705 INSTALL.

**DETAIL GENERAL NOTE**

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REVISIONS	
DESCRIPTION	DATE

**CAPTIVE**  
Maryland Mechanical  
www.captiveair.com  
8120 Woodmont Avenue, Suite 720, Bethesda, MD, 20814 PHONE: (800) 988-0881 FAX: 9192275931 EMAIL: reg76@captiveair.com

Cava - Orlando, FL\_R2  
3157 East Colonial Drive,  
Orlando, FL, 32803

DATE: 10/16/2024

DWG.#:  
7106540

DRAWN BY: JPH - 76

SCALE:  
3/4" = 1'-0"

MASTER DRAWING

SHEET NO.  
5

ferris+sloane  
100 N. Howard Street, Suite 4503 Spokane, WA 99201



**CAVA**

CAVA #010547  
3157 E. COLONIAL DR.  
ORLANDO, FL 32803  
FOR CAVA  
14 Ridge Square NW #500, WASHINGTON, DC 20016

AOR PROJECT NUMBER:  
CAV064

ISSUE	DATE
PERMIT SET	10.25.2024
PERMIT REV	02.17.2025
IFC SET	05.27.2025

MECHANICAL HOOD DETAIL PLAN

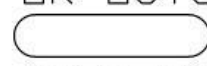
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**M605**

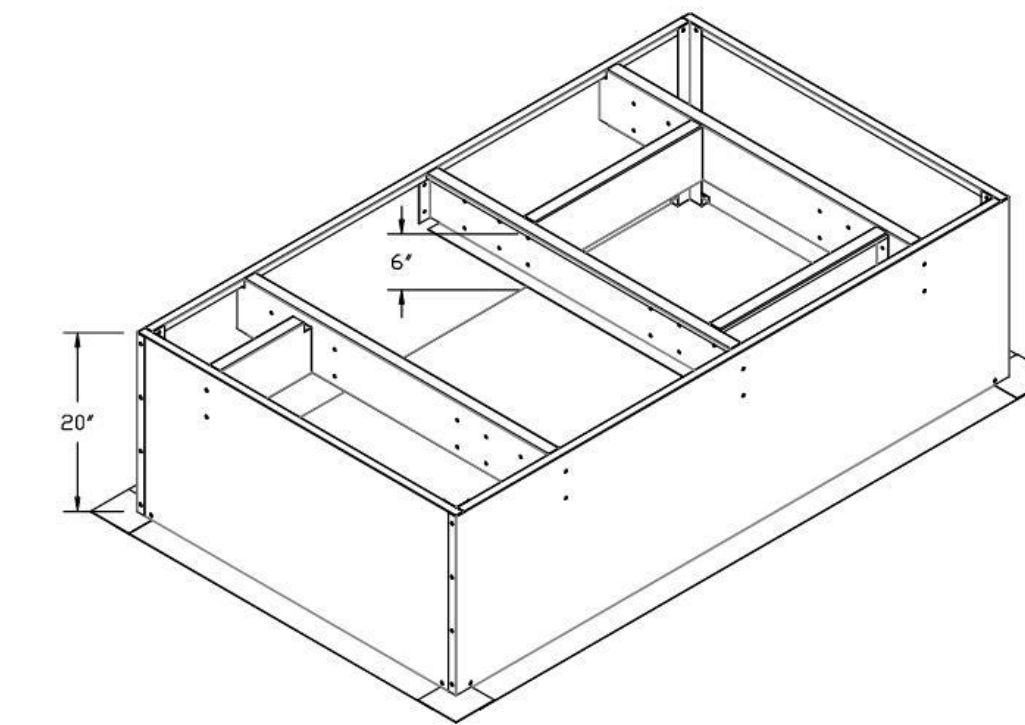
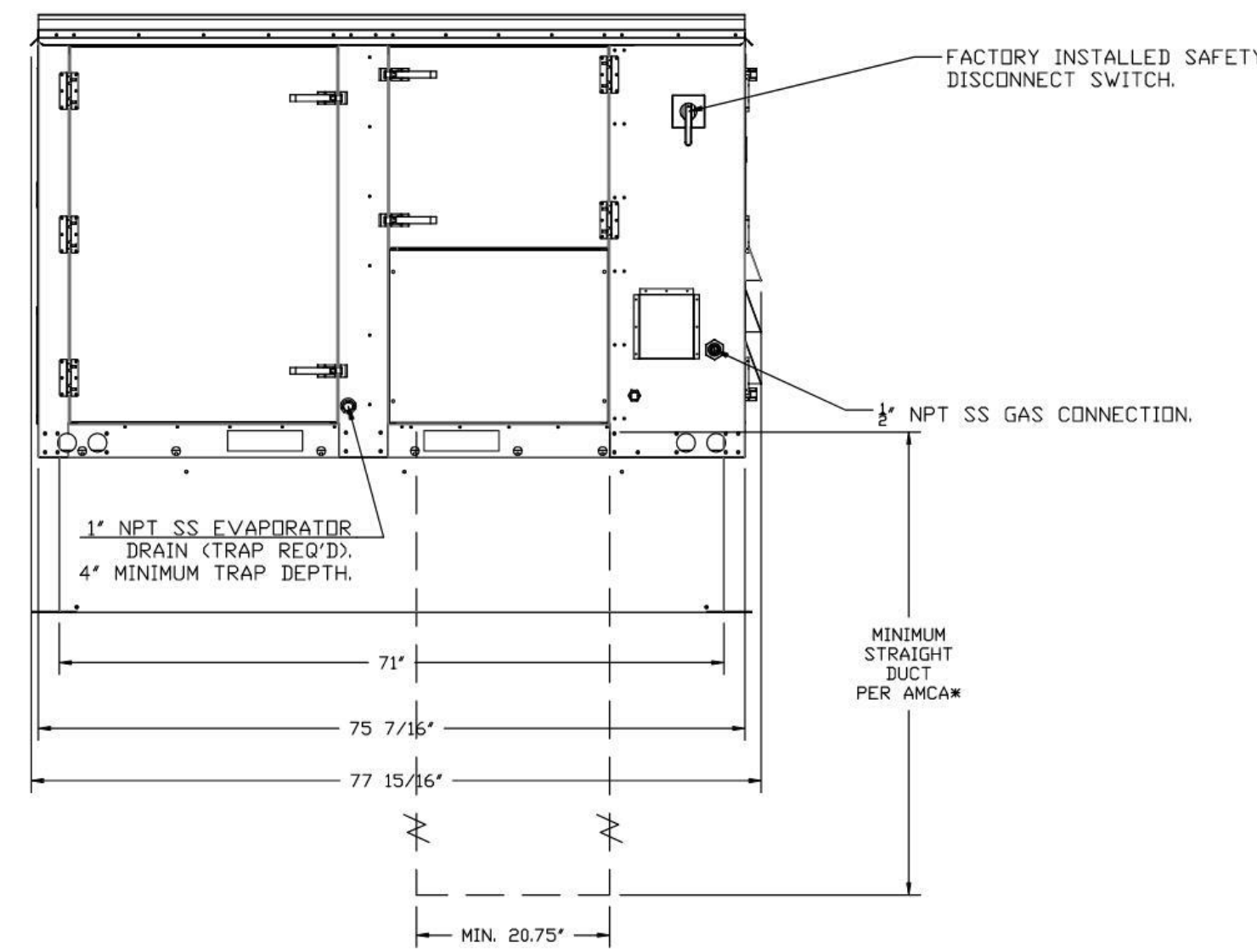
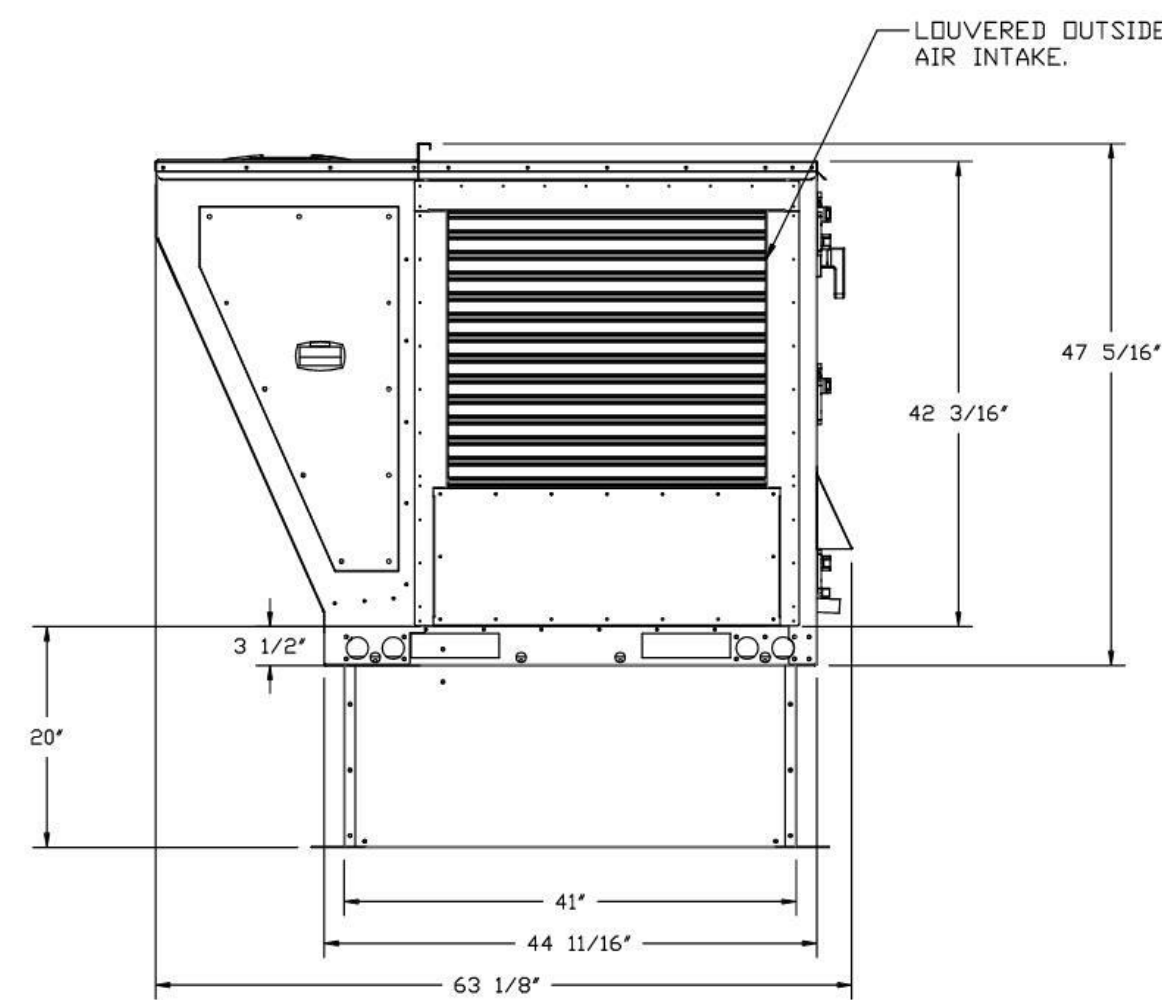
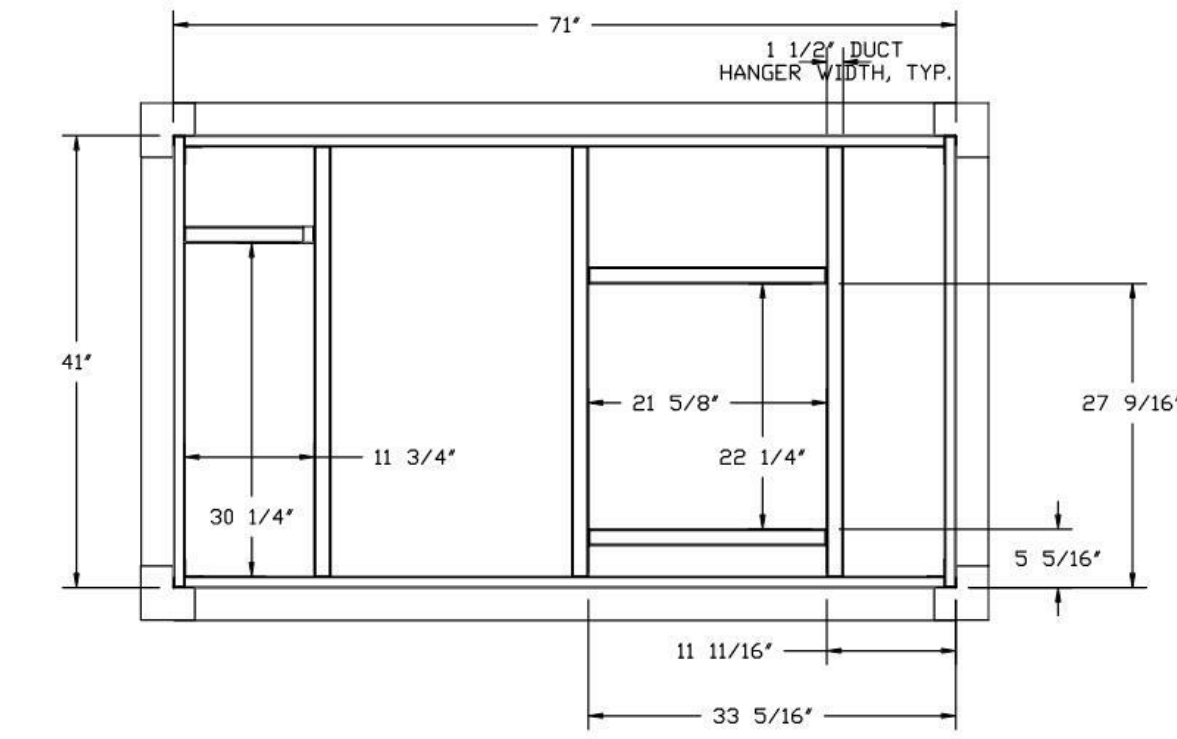
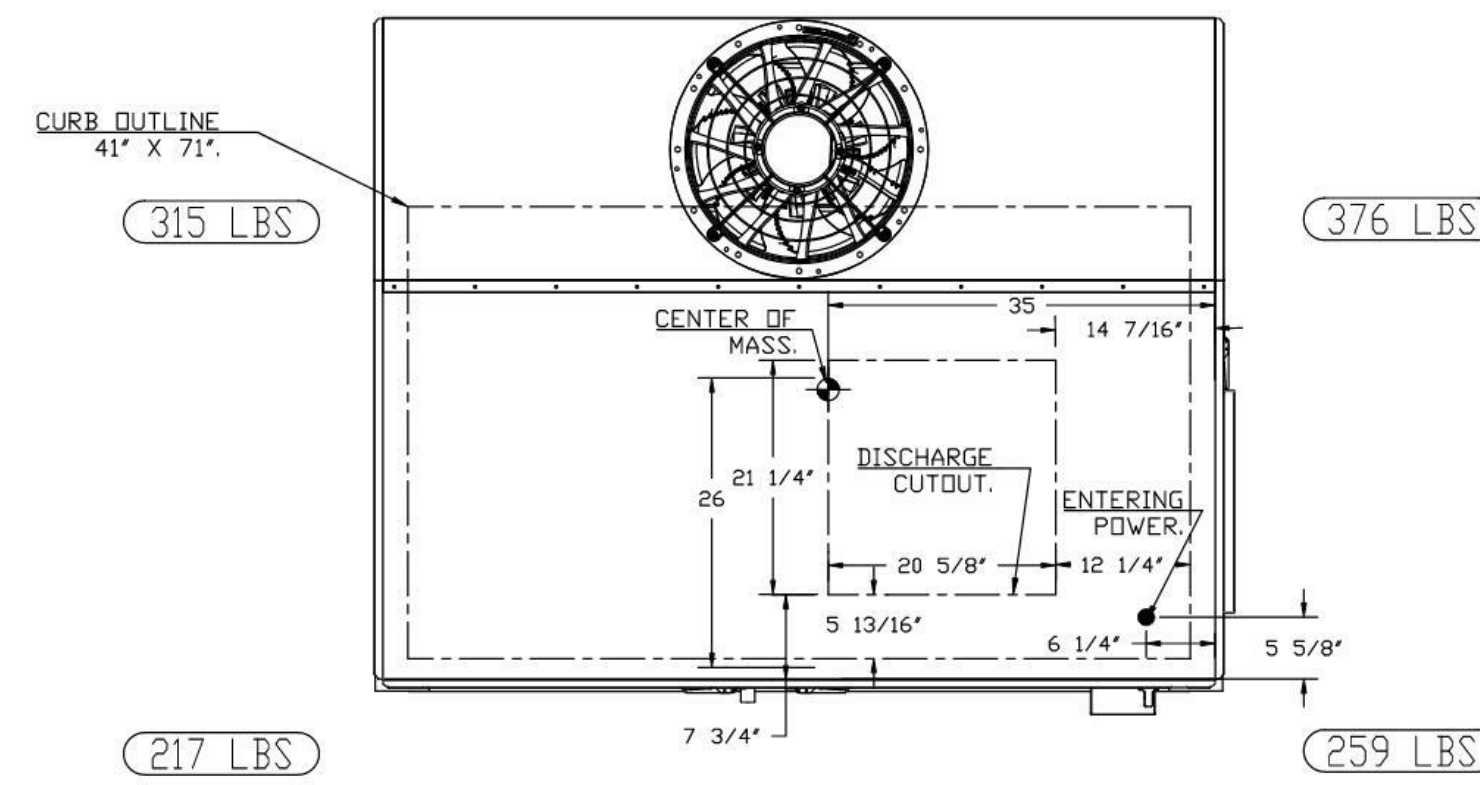
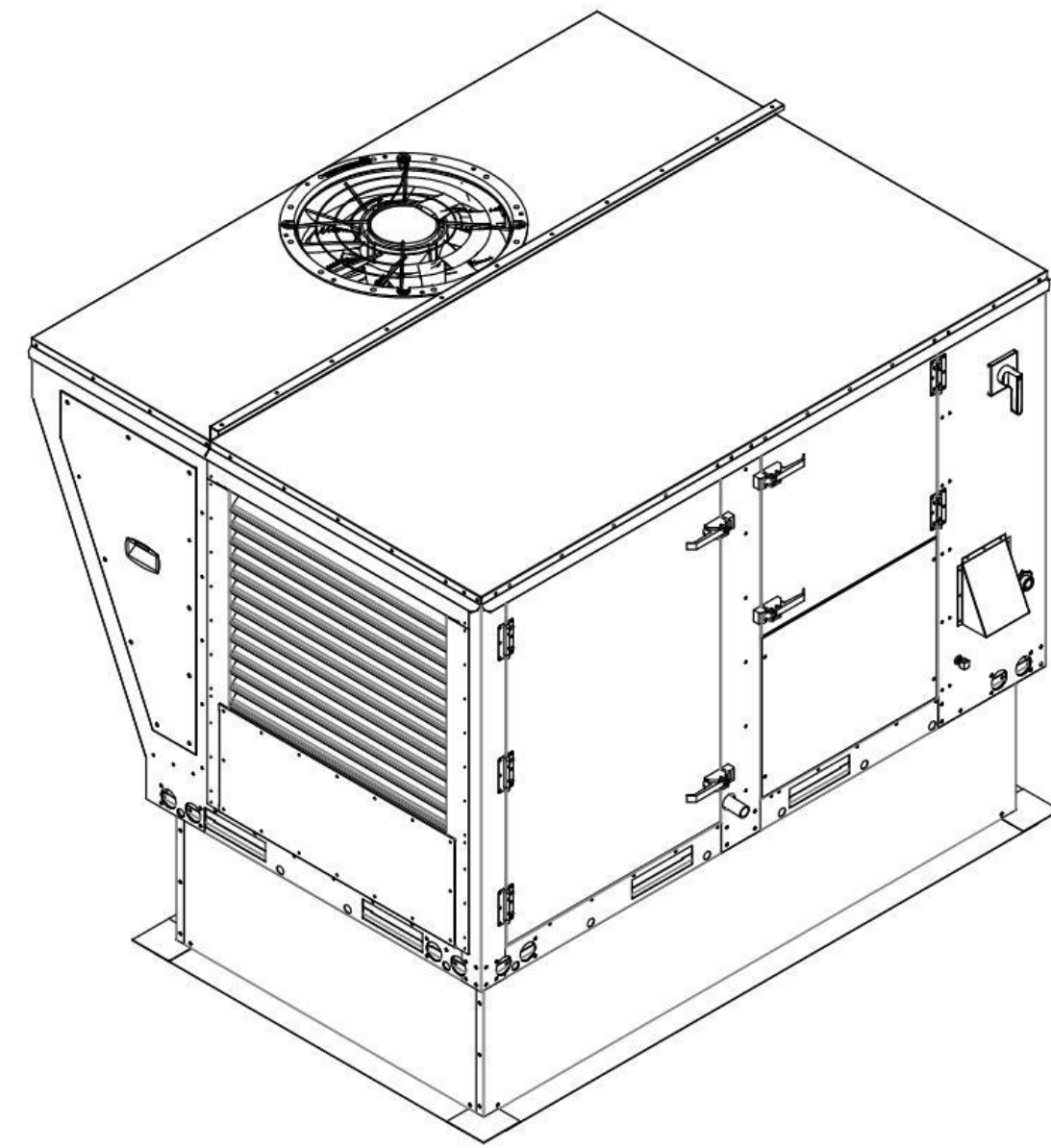
**rtm**  
engineering consultants  
2001 156th Ave SE | Suite 115 Bellevue, WA 98007  
T: 847.756.4100 www.rtmec.com

FAN #2 EARTU1-I.75-18MF-5T-MPU - HEATER (MAU)

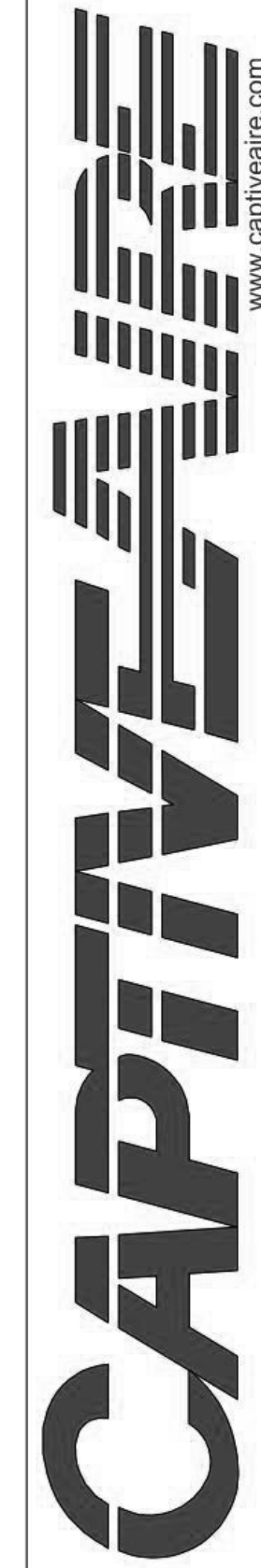
NOTES:

- DO NOT OBSTRUCT OUTSIDE AIR INLET, OUTSIDE AIR COIL OR OUTSIDE AIR FAN.
-  DENOTES CORNER WEIGHT.
- ROOF OPENING MUST BE 2" SMALLER THAN CURB DIMENSIONS IN BOTH DIRECTIONS.
- CONNECTION FROM BREAKER TO UNITS SAFETY DISCONNECT SWITCH TO BE COPPER WIRE ONLY.
- EXTERIOR GAS CONNECTION PROVIDED BY FACTORY WITH QUICK SEAL AND ANTI-ROTATION BRACKET.

\*NOTE: SUPPLY DUCT MUST BE INSTALLED TO MEET SMACNA STANDARDS. A MINIMUM STRAIGHT DUCT LENGTH MUST BE MAINTAINED DOWNSTREAM OF UNIT DISCHARGE AS OUTLINED IN AMCA PUBLICATION 201. WHEN USING RECTANGULAR DUCTWORK, ELBOWS MUST BE RADIUS THROAT, RADIUS BACK WITH TURNING VANES. FLEXIBLE DUCTWORK AND SQUARE THROAT/SQUARE BACK ELBOWS SHOULD NOT BE USED. ANY TRANSITION AND/OR TURNS IN THE DUCTWORK WILL CAUSE SYSTEM EFFECT. SYSTEM EFFECT WILL DRASTICALLY INCREASE STATIC PRESSURE AND REDUCE AIRFLOW. DO NOT RELY ON UNIT TO SUPPORT DUCT IN ANY WAY. FAILURE TO PROPERLY SIZE DUCTWORK MAY CAUSE SYSTEM EFFECTS AND REDUCE PERFORMANCE OF THE EQUIPMENT. SUGGESTED STRAIGHT DUCT SIZE IS 20.75" x 21.5".



REVISIONS	
DESCRIPTION	DATE



Maryland Mechanical  
8120 Woodmont Avenue, Suite 720, Bethesda, MD, 20814 PHONE: (800) 988-0881 FAX: 9192275931 EMAIL: reg76@captiveair.com

Cava - Orlando, FL\_R2  
3157 East Colonial Drive,  
Orlando, FL, 32803

DATE: 10/16/2024

DWG.#:  
7106540

DRAWN BY: JPH - 76

SCALE:  
3/4" = 1'-0"

MASTER DRAWING

SHEET NO.  
6

ferris+sloane

100 N. Howard Street, Suite 4503 Spokane, WA 99201

CAVA

CAVA #010547  
3157 E. COLONIAL DR.  
ORLANDO, FL 32803  
FOR  
CAVA  
14 Ridge Square NW #500, WASHINGTON, DC 20016

AOR PROJECT NUMBER:  
CAV064

ISSUE	DATE
PERMIT SET	10.25.2024
PERMIT REV	02.17.2025
IFC SET	05.27.2025

MECHANICAL HOOD DETAIL  
PLAN

SHEET:

M606

DETAIL GENERAL NOTE  
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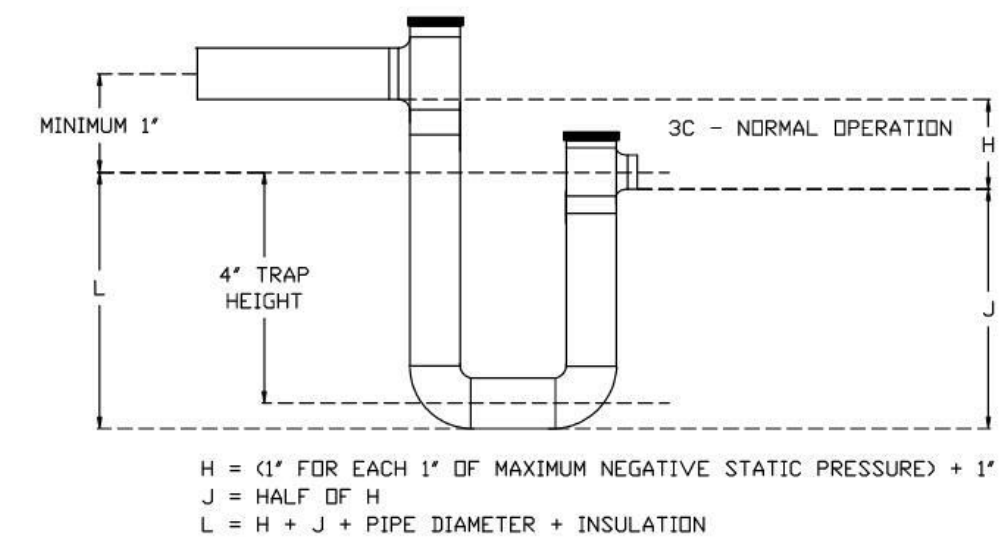
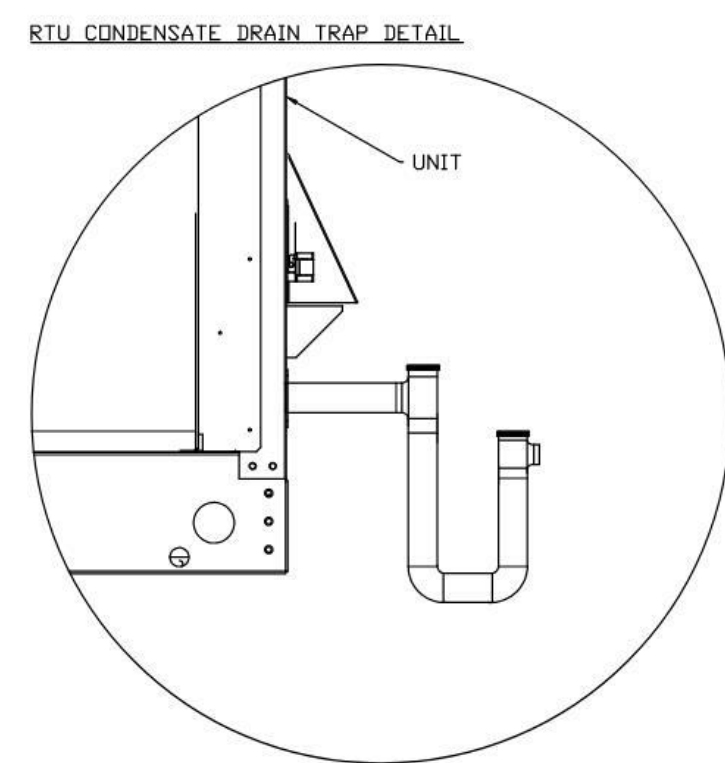
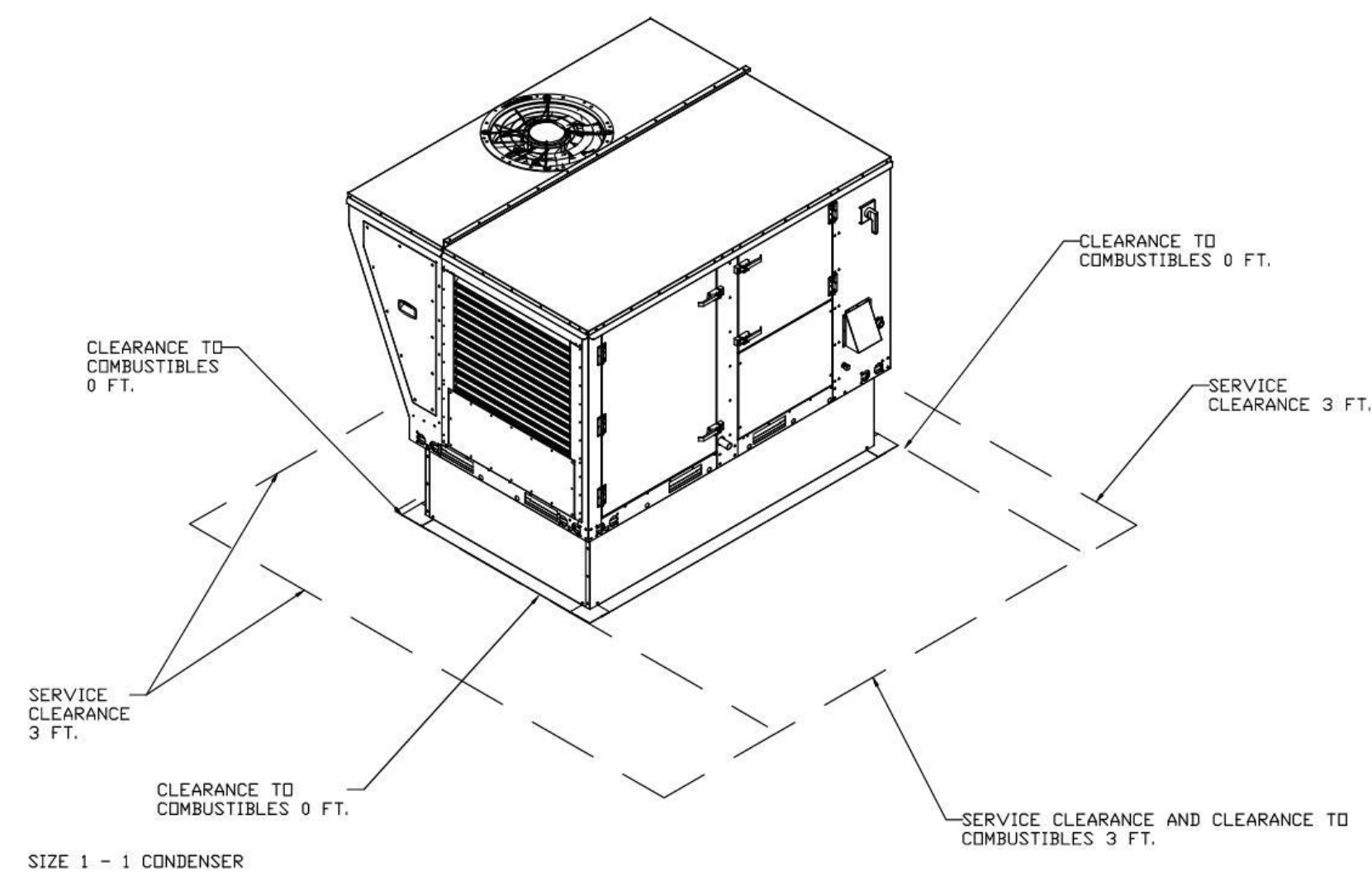


**GREASE DUCT & CHIMNEY SPECIFICATIONS:**  
 PROVIDE GREASE DUCT EQUAL TO CAPTIVEAIRE SYSTEMS MODEL "DW"  
 ROUND 20 GAUGE 430 STAINLESS STEEL DUCTWORK. MODEL "DW"  
 IS LISTED TO UL-1978 AND IS INSTALLED USING "V" CLAMP LOCKING  
 CONNECTIONS SEALED WITH 3M FIRE BARRIER 2000 PLUS. MODEL "DW"  
 DOES NOT REQUIRE WELDING PROVIDING IT HAS BEEN INSTALLED PER  
 THE MANUFACTURES INSTALLATION GUIDE.  
 PROVIDE RATED ACCESS DOORS AT EVERY CHANGE IN DIRECTION AND EVERY 12' ON CENTER.  
 PER MANUFACTURES LISTING MODEL "DW" HORIZONTAL RUNS LESS THAN 75 FT. CAN BE  
 SLOPED 1/16" PER 12", HORIZONTAL RUNS MORE THAN 75 FT. CAN BE SLOPED 3/16" PER 12".  
 DUCT SHOULD BE SLOPED AS MUCH AS POSSIBLE TO REDUCE THE CHANCE OF GREASE  
 ACCUMULATION IN HORIZONTAL RUNS.

IF THE DUCT OR CHIMNEY IS WITHIN 18 INCHES OF COMBUSTIBLE MATERIAL, PROVIDE  
 UL-2221 OR UL-103 HT LISTED DOUBLE WALL GREASE DUCT OR DOUBLE WALL CHIMNEY  
 EQUAL TO CAPTIVEAIRE SYSTEMS MODEL "DW- 2R, 2R TYPE HT, 3R, OR 3Z" ROUND 20 GAUGE  
 430 STAINLESS INNER DUCT INSULATED WITH A 24 GAUGE 430 STAINLESS OUTER SHELL.

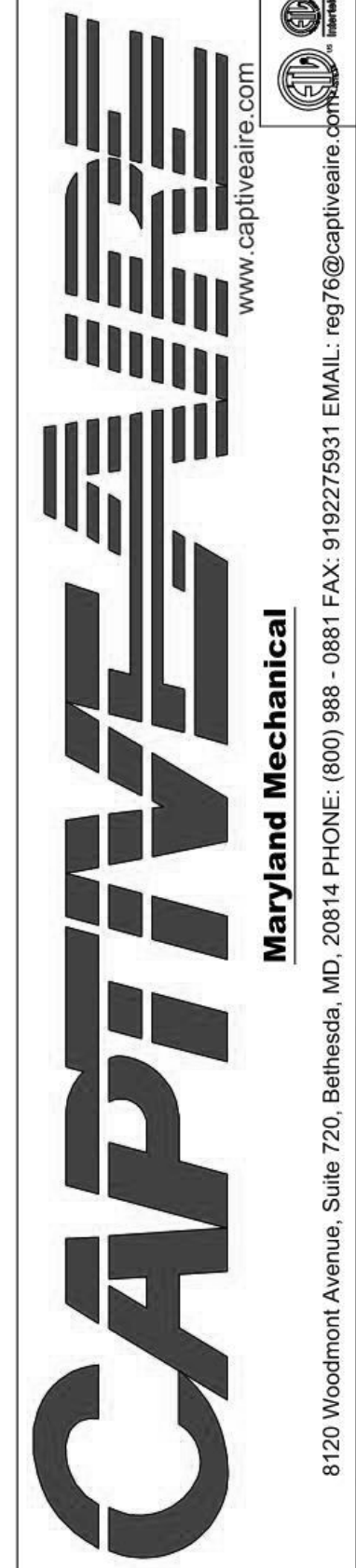
**CUSTOMER APPROVAL TO MANUFACTURE:**

APPROVED AS NOTED	<input type="checkbox"/>
APPROVED WITH NO EXCEPTION TAKEN	<input type="checkbox"/>
REVISE AND RESUBMIT	<input type="checkbox"/>
SIGNATURE _____	
YOUR TITLE _____	DATE _____



**REVISIONS**

DESCRIPTION	DATE



Cava - Orlando, FL\_R2  
 3157 East Colonial Drive,  
 Orlando, FL, 32803

**DATE:** 10/16/2024  
**DWG.#:** 7106540  
**DRAWN BY:** JPH - 76  
**SCALE:** 3/4" = 1'-0"  
**MASTER DRAWING**  
**SHEET NO.** 7

**CAVA #010547**  
 3157 E. COLONIAL DR.  
 ORLANDO, FL 32803  
 FOR CAVA  
 14 Ridge Square NW #500, WASHINGTON, DC 20016

AOR PROJECT NUMBER: CAV064

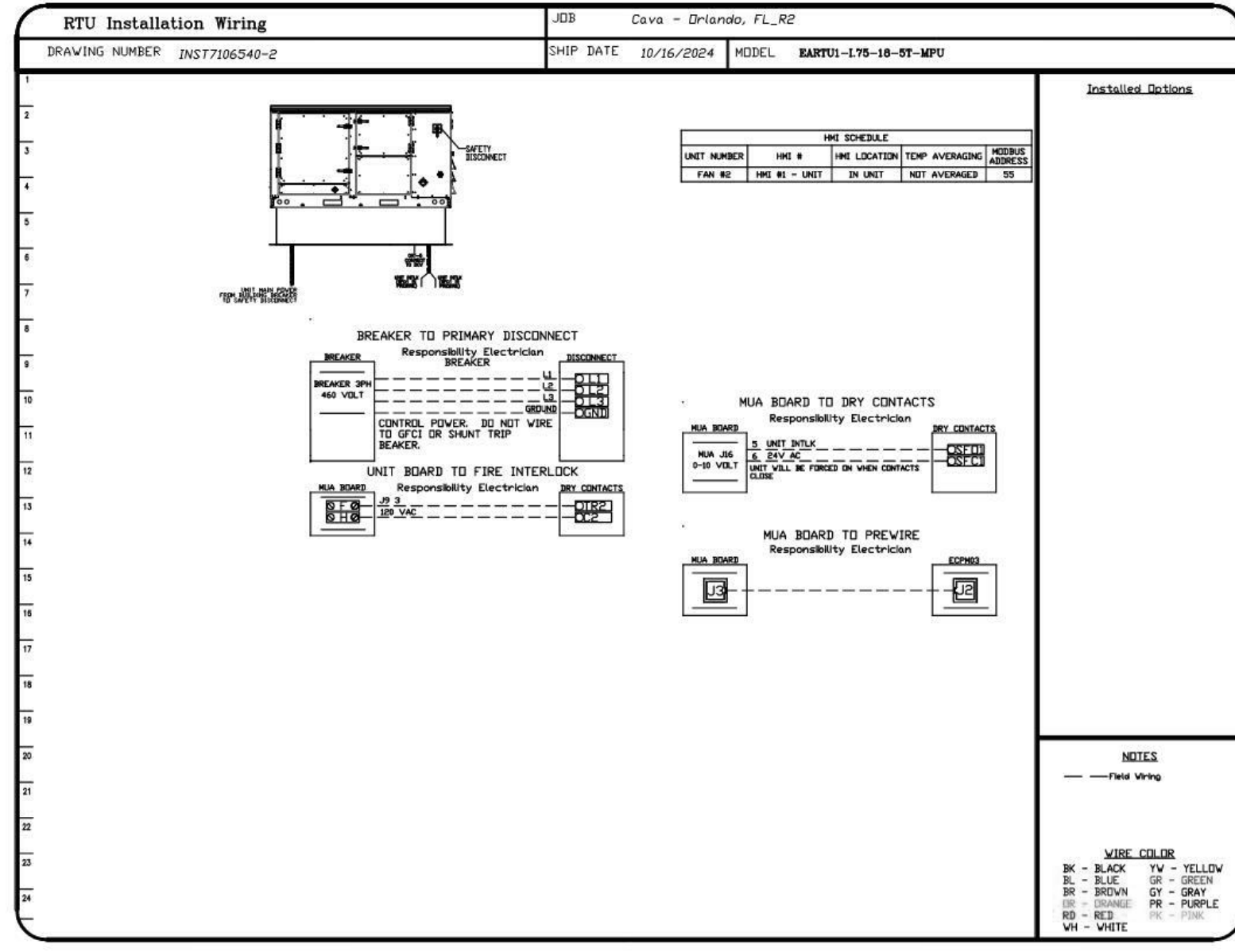
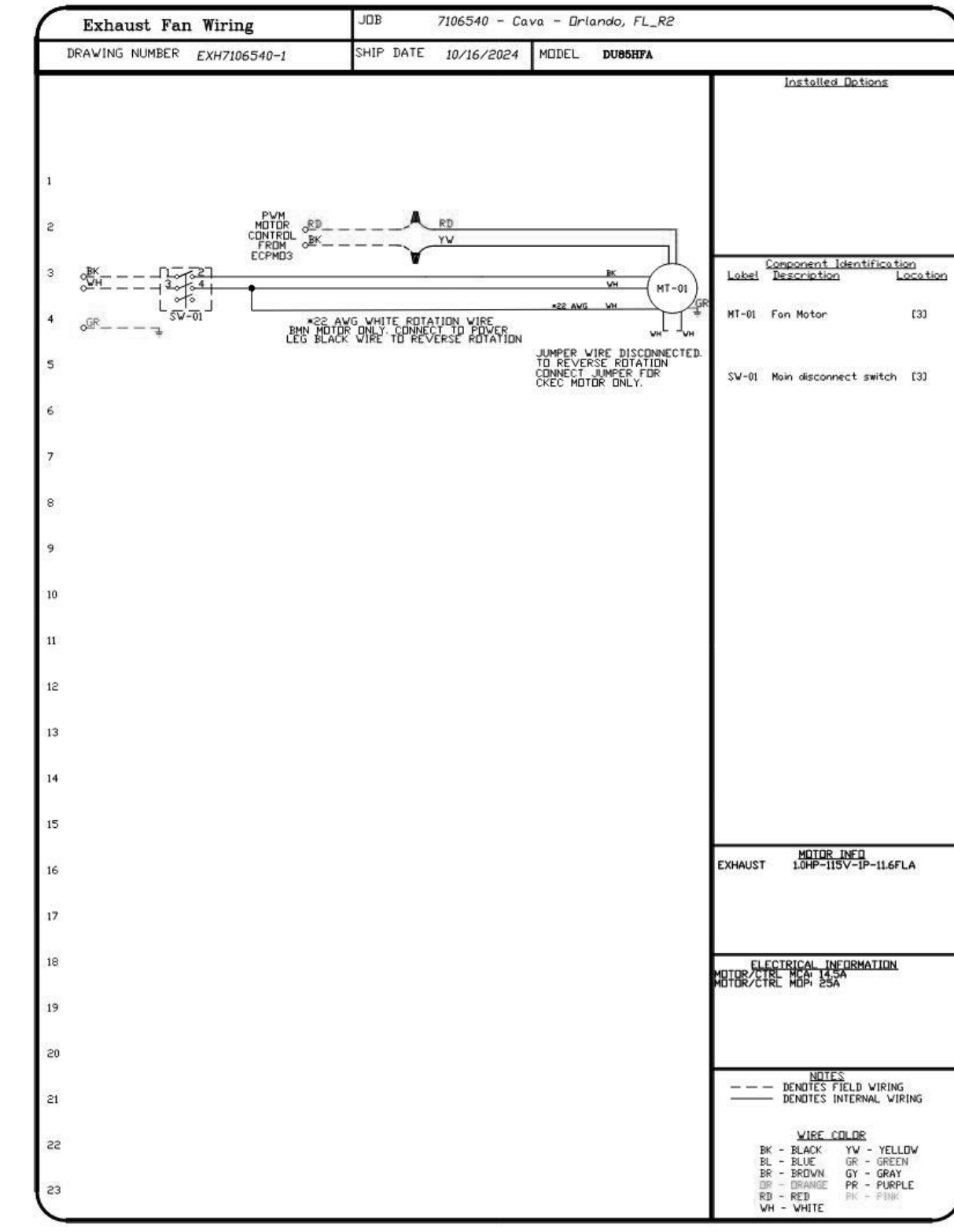
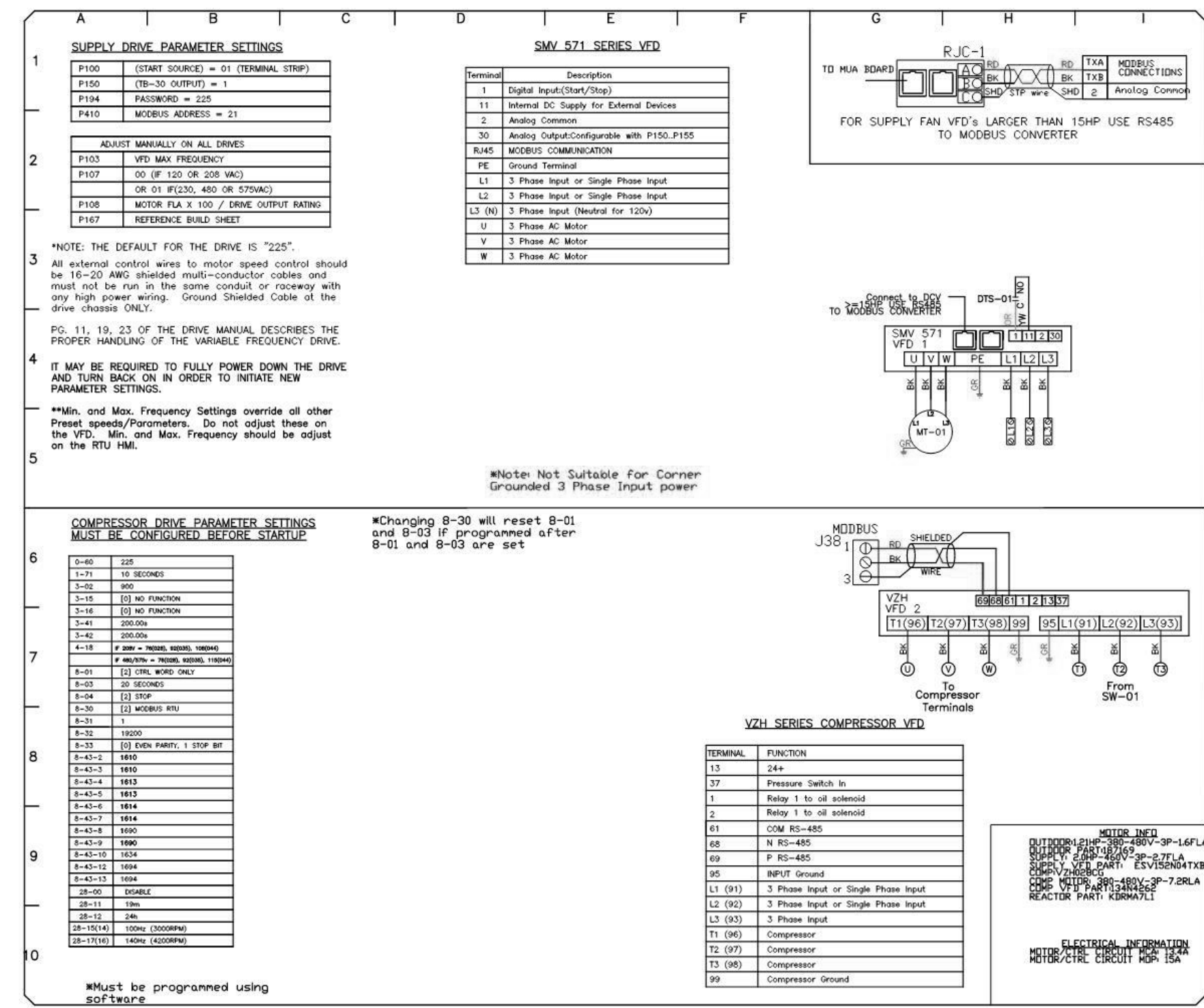
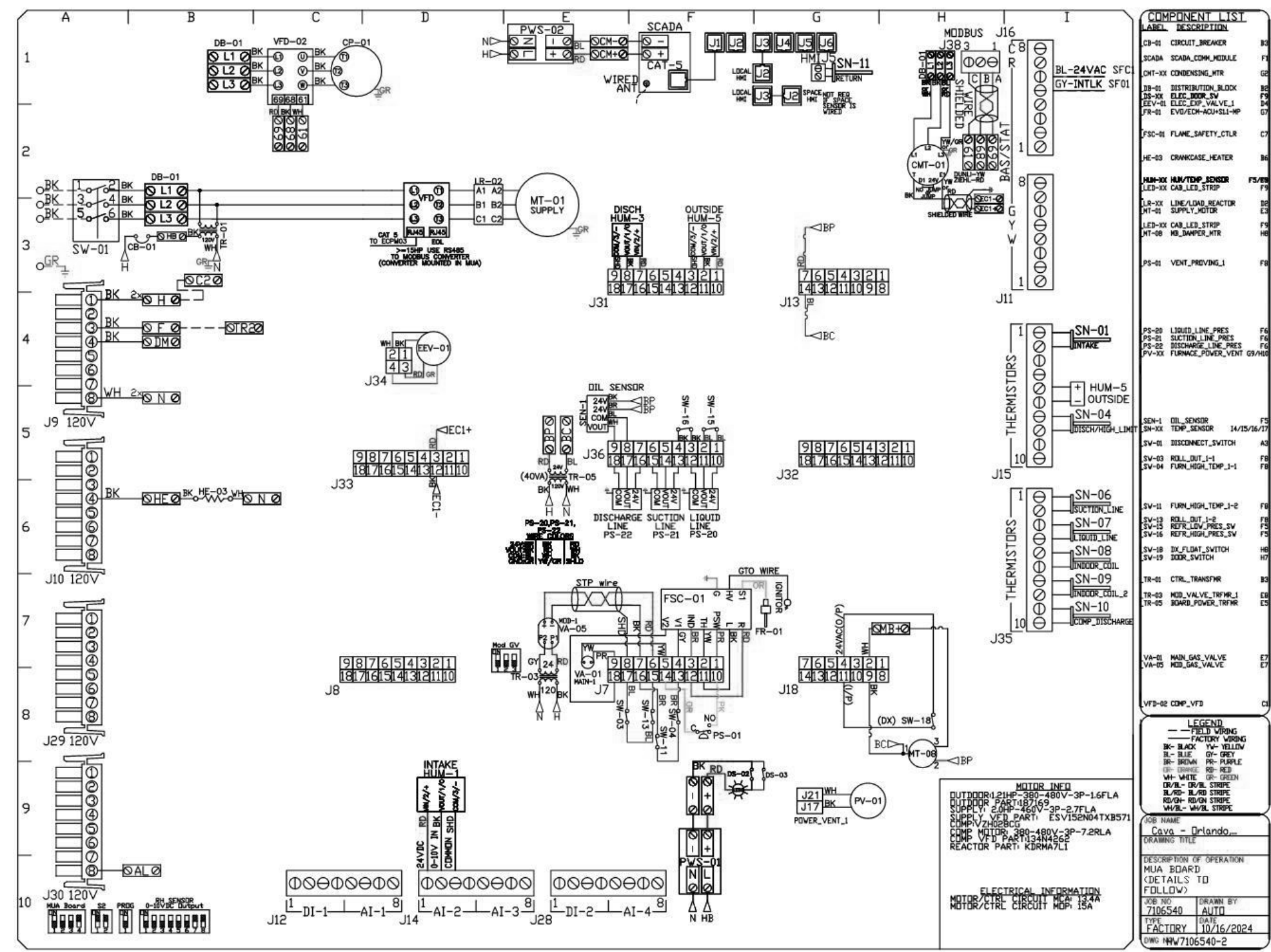
ISSUE	DATE
PERMIT SET	10.25.2024
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IFC SET	05.27.2025

MECHANICAL HOOD DETAIL PLAN  
 SHEET: **M607**

**DETAIL GENERAL NOTE**  
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**ferris+sloane**  
 100 N. Howard Street, Suite 4500 Spokane, WA 99201



**REVISIONS**

NO.	DESCRIPTION	DATE

**CAPTIVE**

Maryland Mechanical  
 8120 Woodmont Avenue, Suite 720, Bethesda, MD, 20814  
 PHONE: (800) 995-0881 FAX: (301) 919-2759  
 EMAIL: reg@captivemechanical.com

Cava - Orlando, FL\_R2  
 3157 East Colonial Drive,  
 Orlando, FL, 32803

**DATE:** 10/16/2024  
**DWG.#:** 7106540  
**DRAWN BY:** JPH - 76  
**SCALE:** 3/4" = 1'-0"  
**MASTER DRAWING**

**SHEET NO.**  
8

**DETAIL GENERAL NOTE**

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ferris+sloane

100 N. Howard Street, Suite 4503, Spokane, WA 99201

**CAVA**

CAVA #010547  
 3157 E. COLONIAL DR.  
 ORLANDO, FL 32803  
 FOR CAVA

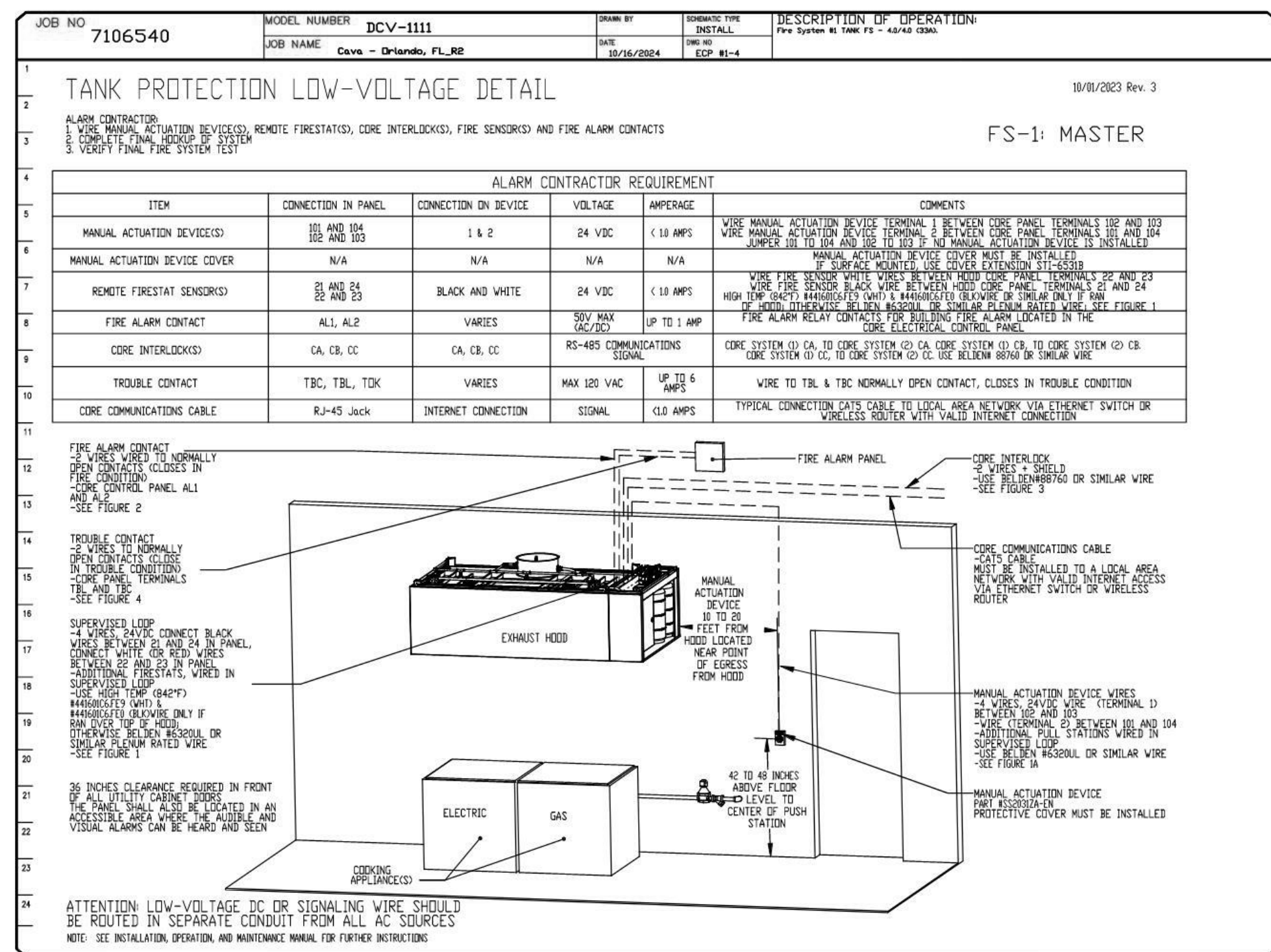
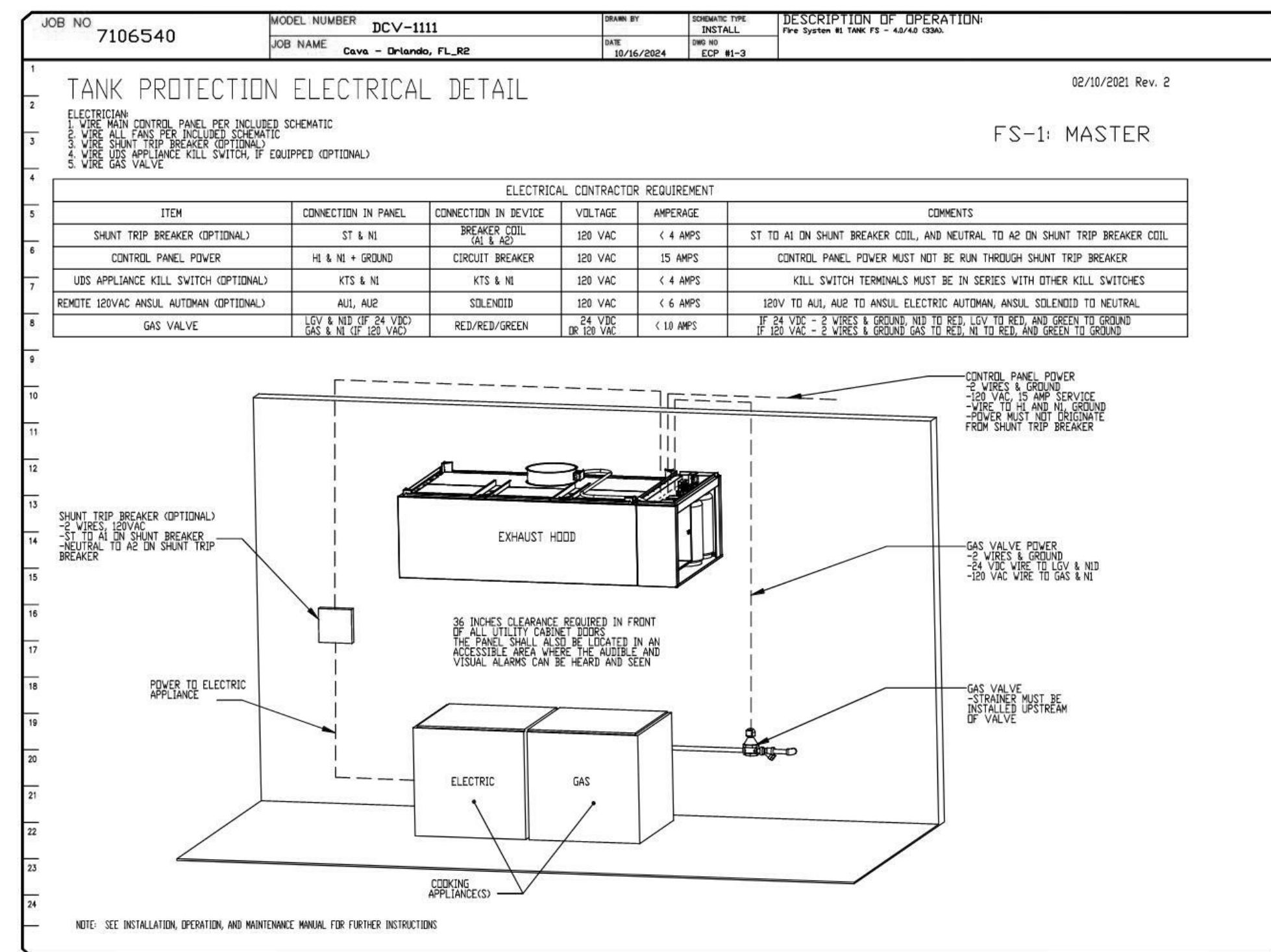
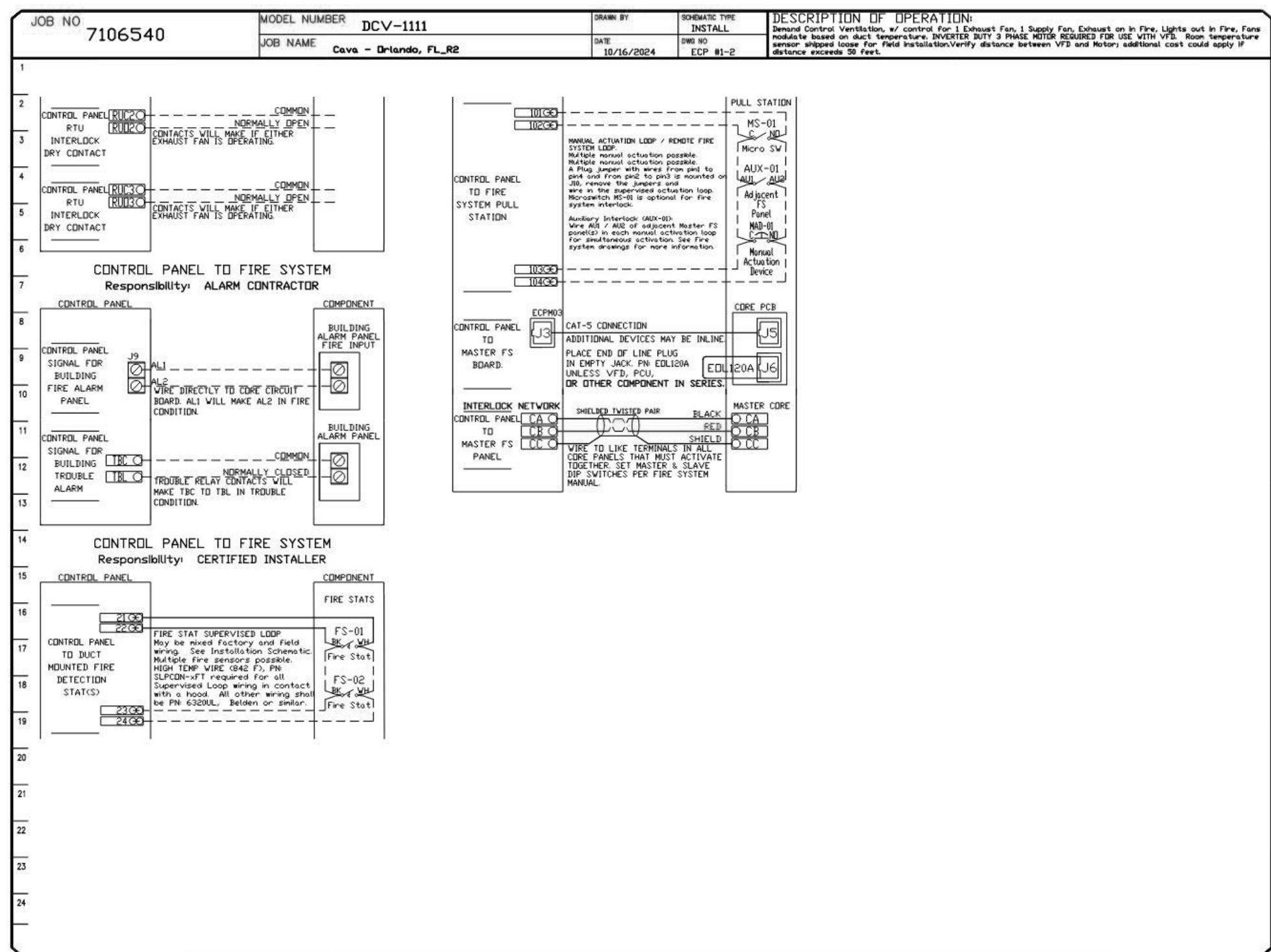
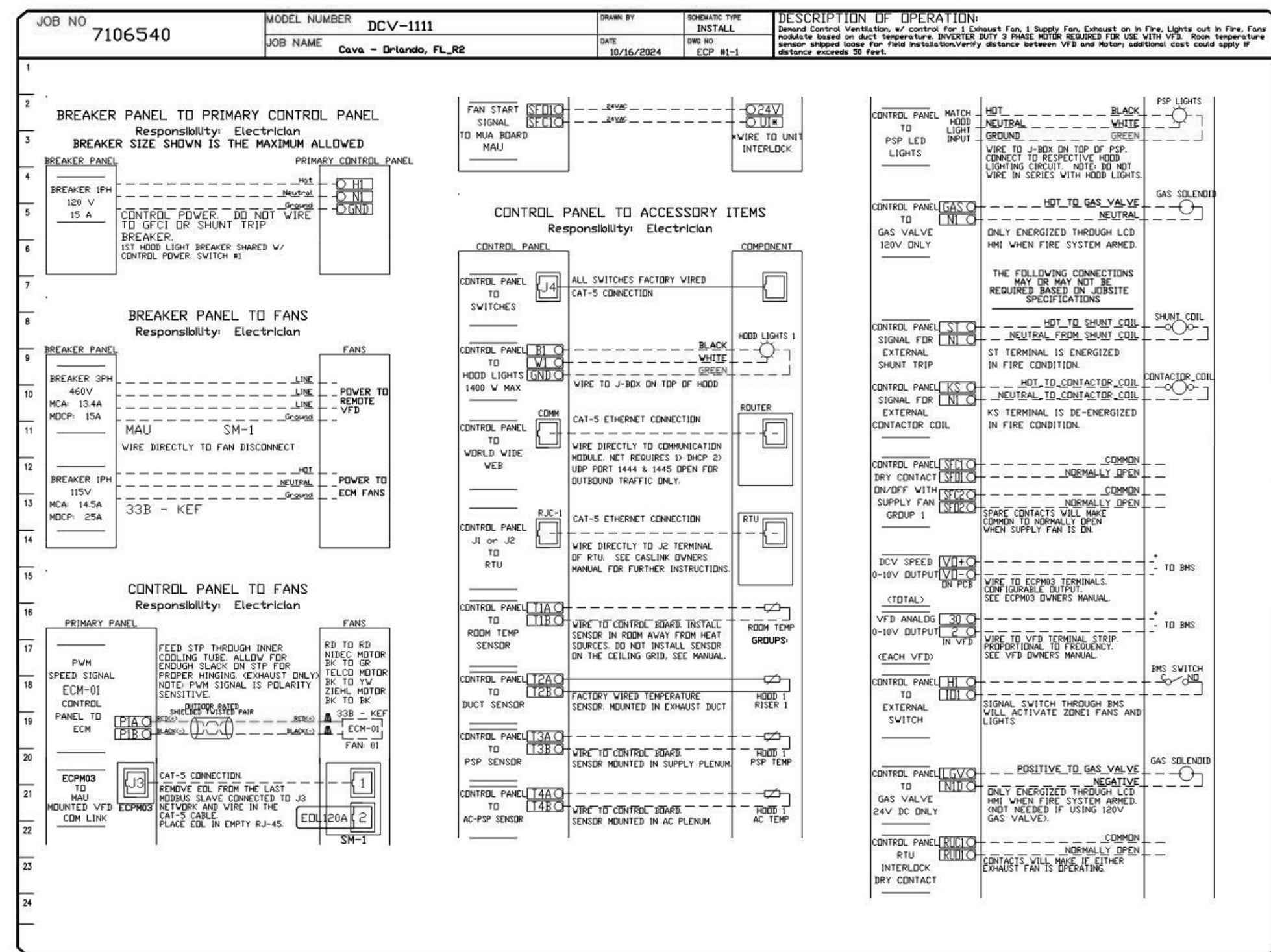
AOR PROJECT NUMBER:  
CAV064

ISSUE DATE  
 PERMIT SET 10.25.2024  
 PERMIT REV 02.17.2025  
 IFC SET 05.27.2025

MECHANICAL HOOD DETAIL PLAN

SHEET:  
**M608**

ELECTRICAL PACKAGE - JOB#7106540												
NO	TAG	PACKAGE #	LOCATION	SWITCHES		OPTION	FANS CONTROLLED					
				LOCATION	QUANTITY		FAN TAG	TYPE	#	HP	VOLT	FLA
1		DCV-1111	UTILITY CABINET RIGHT	UTILITY CABINET RIGHT	1 LIGHT	SMART CONTROLS DCV	33B - KEF	EXHAUST	1	1.000	115	11.6
				HOOD # 1	1 FAN		MAU	SUPPLY	3	2.000	460	2.7



**REVISIONS**

NO.	DESCRIPTION	DATE

**CAPTIVE**

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Cava - Orlando, FL\_R2  
3157 East Colonial Drive,  
Orlando, FL, 32803

DATE: 10/16/2024  
DWG.#: 7106540  
DRAWN BY: JPH - 76  
SCALE: 3/4" = 1'-0"  
MASTER DRAWING

**SHEET NO. 9**

**DETAIL GENERAL NOTE**

DETAILS PROVIDED ON THE PLAN ARE FOR REFERENCE ONLY. FINAL EQUIPMENT MOUNTING AND EQUIPMENT STANDS ARE TO BE PROVIDED BY THE EQUIPMENT VENDOR OR CONTRACTOR.



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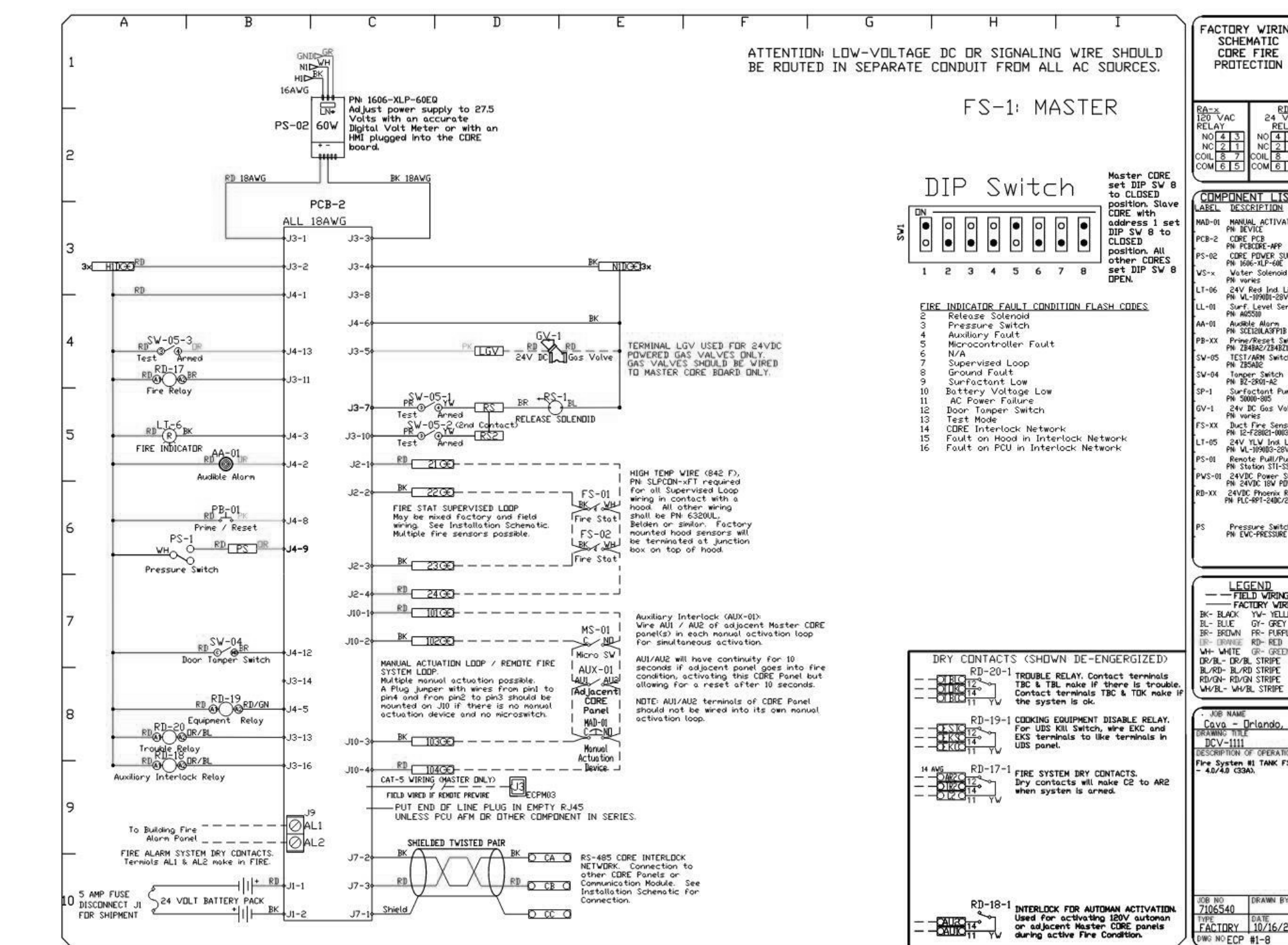
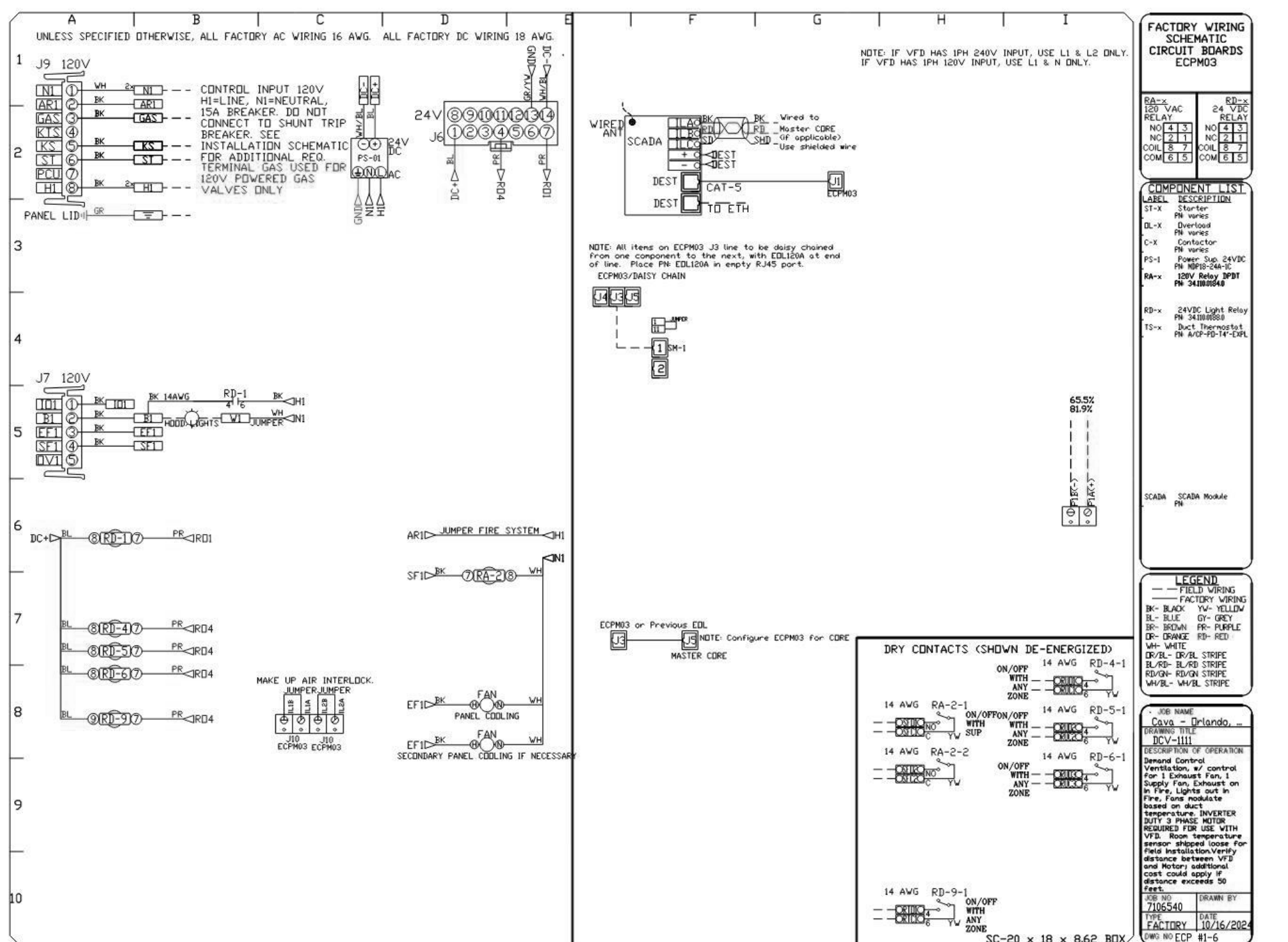
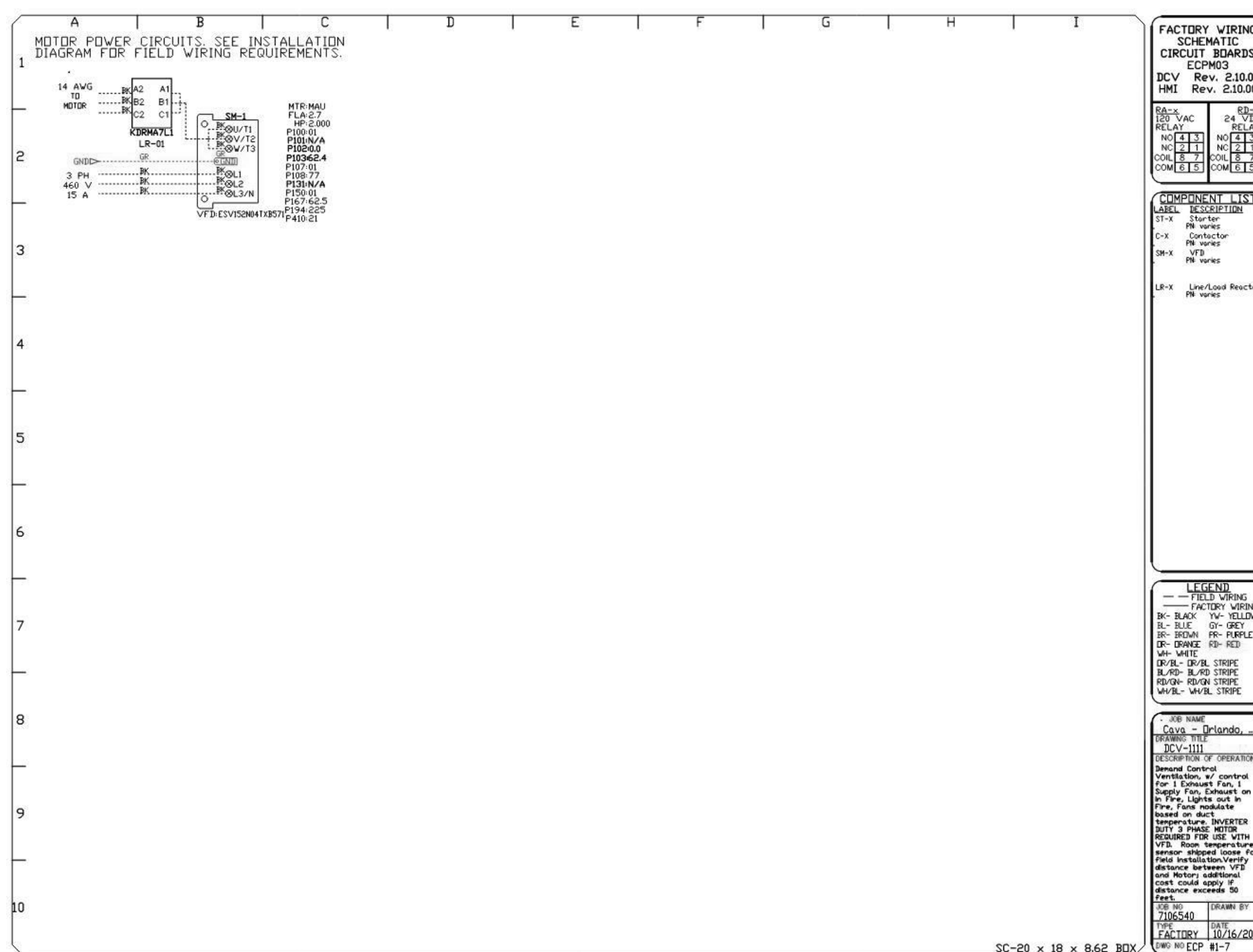
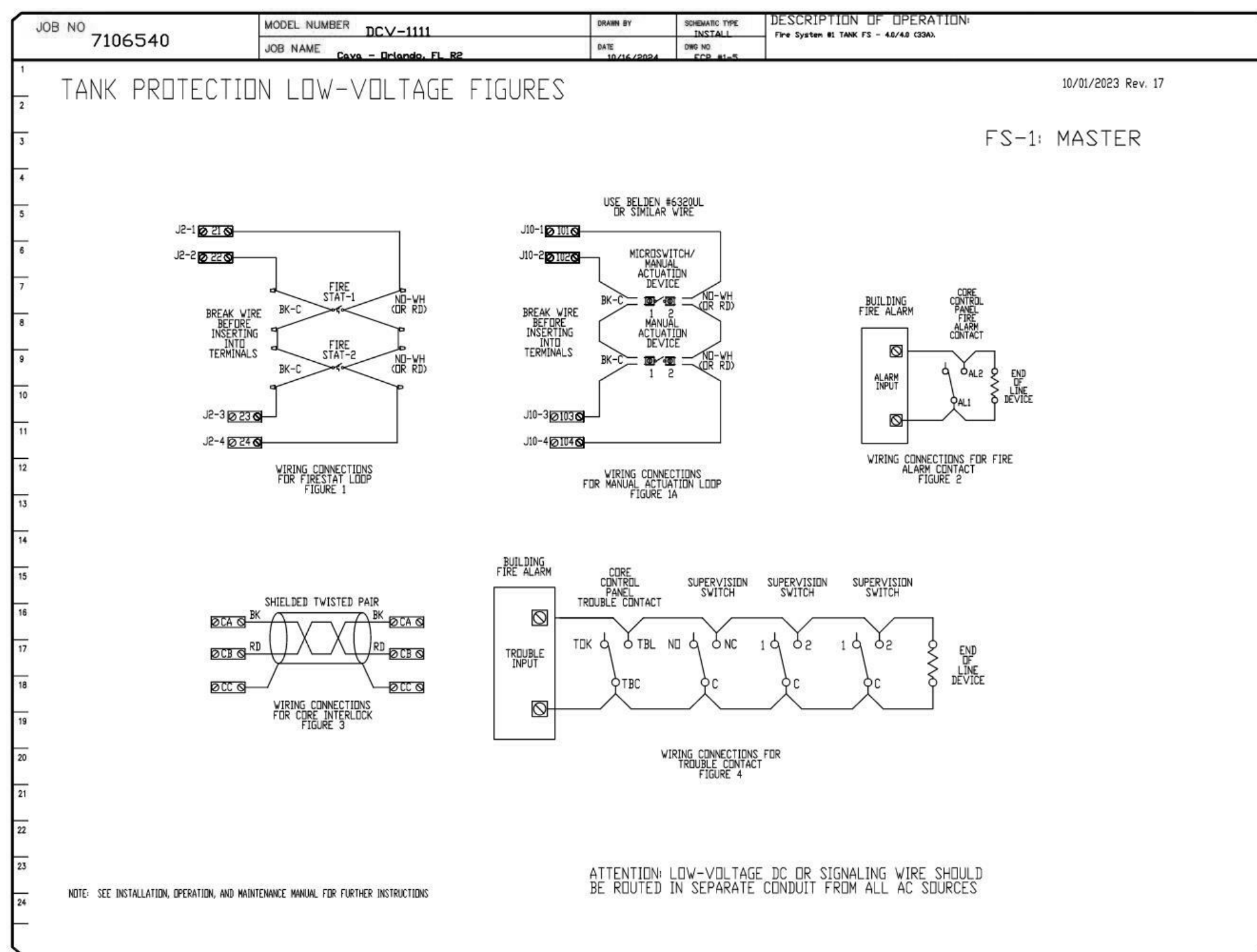
**CAVA**

CAVA #010547  
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ORLANDO, FL 32803  
FOR CAVA

14 Ridge Square NW #500, WASHINGTON, DC 20016

MECHANICAL HOOD DETAIL PLAN

SHEET: **M609**



**REVISIONS**

DESCRIPTION	DATE

**CAPTIVE**

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DATE: 10/16/2024

DWG.#: 7106540

DRAWN BY: JPH - 76

SCALE: 3/4" = 1'-0"

MASTER DRAWING

SHEET NO. 10

**DETAIL GENERAL NOTE**

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MECHANICAL HOOD DETAIL PLAN

SHEET:

ISSUE	DATE
PERMIT SET	10.25.2024
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IFC SET	05.27.2025

M610

CAVA #010547  
3157 E. COLONIAL DR.  
ORLANDO, FL 32803  
FOR CAVA

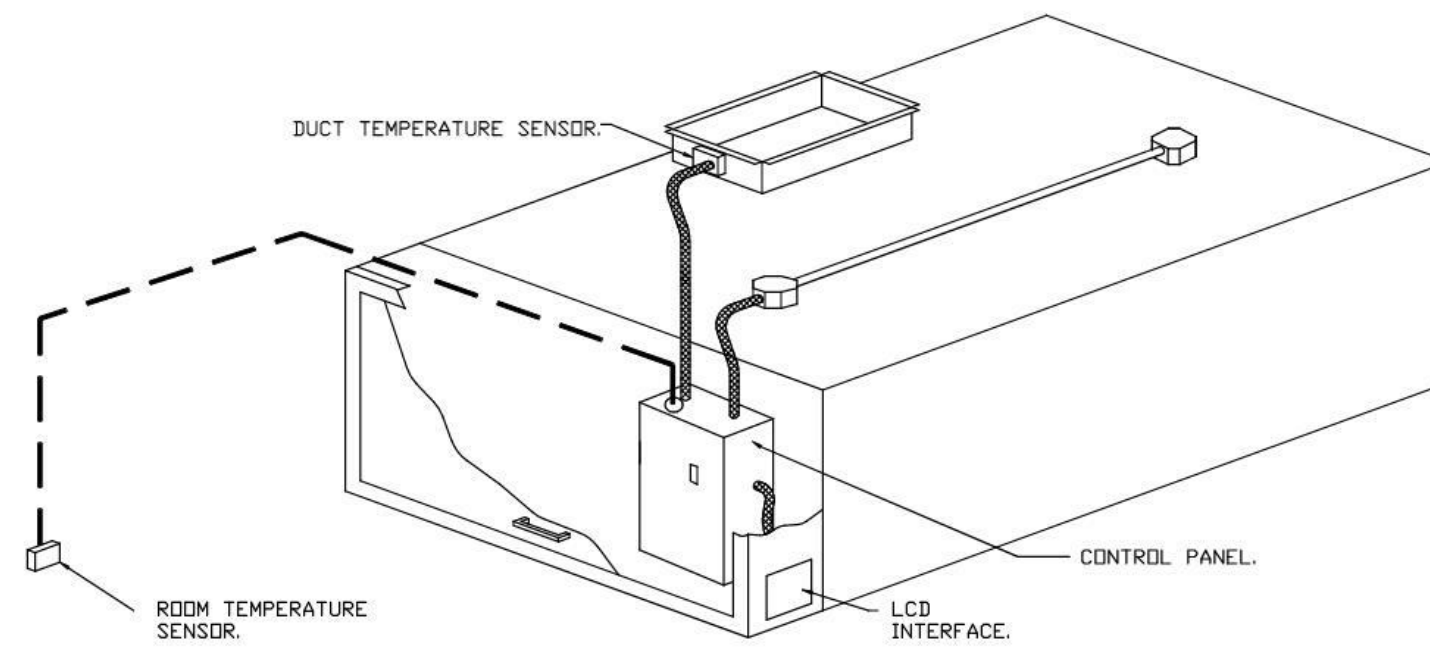
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**DEMAND CONTROL VENTILATION HOOD CONTROL PANEL SPECIFICATIONS:**

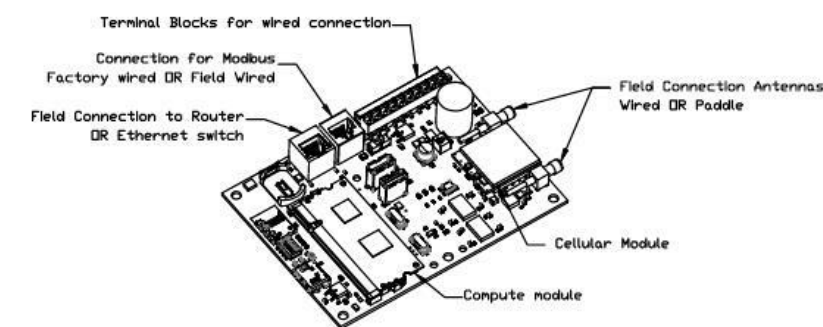
- CONTROLS SHALL BE LISTED BY ETL (UL 508A) AND SHALL COMPLY WITH DEMAND VENTILATION SYSTEM TURNDOWN REQUIREMENTS OUTLINED IN IECC 403.7.5 (2021).
- THE CONTROL ENCLOSURE SHALL BE NEMA 1 RATED AND LISTED FOR INSTALLATION INSIDE OF THE EXHAUST HOOD UTILITY CABINET. THE CONTROL ENCLOSURE MAY BE CONSTRUCTED OF STAINLESS STEEL OR PAINTED STEEL.
- TEMPERATURE PROBE(S) LOCATED IN THE EXHAUST DUCT RISER(S) SHALL BE CONSTRUCTED OF STAINLESS STEEL.
- A DIGITAL CONTROLLER SHALL BE PROVIDED TO ACTIVATE THE HOOD EXHAUST FANS DYNAMICALLY BASED ON A FIXED DIFFERENTIAL BETWEEN THE AMBIENT AND DUCT TEMPERATURES SENSORS. THIS FUNCTION SHALL MEET THE REQUIREMENTS OF IMC 507.1.1.
- A DIGITAL CONTROLLER SHALL PROVIDE ADJUSTABLE HYSTERESIS SETTINGS TO PREVENT CYCLING OF THE FANS AFTER THE COOKING APPLIANCES HAVE BEEN TURNED OFF AND/OR THE HEAT IN THE EXHAUST SYSTEM IS REDUCED.
- A DIGITAL CONTROLLER SHALL PROVIDE AN ADJUSTABLE MINIMUM FAN RUN-TIME SETTING TO PREVENT FAN CYCLING.
- VARIABLE FREQUENCY DRIVES (VFDs) SHALL BE PROVIDED FOR FANS AS REQUIRED. THE DIGITAL CONTROLLER SHALL MODULATE THE VFDs BETWEEN A MINIMUM SETPOINT AND A MAXIMUM SETPOINT ON DEMAND. THE DUCT TEMPERATURE SENSOR INPUT(S) TO THE DIGITAL CONTROLLER SHALL BE USED TO CALCULATE THE SPEED REFERENCE SIGNAL.
- THE VFD SPEED RANGE OF OPERATION SHALL BE FROM 0% TO 100% FOR THE SYSTEM, WITH THE ACTUAL MINIMUM SPEED SET AS REQUIRED TO MEET MINIMUM VENTILATION REQUIREMENTS.
- AN INTERNAL ALGORITHM TO THE DIGITAL CONTROLLER SHALL MODULATE SUPPLY FAN VFD SPEED PROPORTIONAL TO ALL EXHAUST FANS THAT ARE LOCATED IN THE SAME FAN GROUP AS THE SUPPLY FAN.
- THE SYSTEM SHALL OPERATE IN PREP MODE DURING LIGHT COOKING LOAD OR COOL DOWN MODE WHEN SUFFICIENT HEAT REMAINS UNDERNEATH THE HOOD SYSTEM AFTER COOKING OPERATIONS HAVE COMPLETED. OPERATION DURING EITHER OF THESE PERIODS WILL DISABLE THE SUPPLY FANS AND PROVIDE AN EXHAUST FAN SPEED THAT IS EQUAL TO THE MINIMUM VENTILATION REQUIREMENT.
- A DIGITAL CONTROLLER SHALL DISABLE THE SUPPLY FAN(S), ACTIVATE THE EXHAUST FAN(S), ACTIVATE THE APPLIANCE SHUNT TRIP, AND DISABLE AN ELECTRIC GAS VALVE AUTOMATICALLY WHEN FIRE CONDITION IS DETECTED ON A COVERED HOOD.
- A DIGITAL CONTROLLER SHALL ALLOW FOR EXTERNAL BMS FAN CONTROL VIA DRY CONTACT (EXTERNAL CONTROL SHALL NOT OVERRIDE FAN OPERATION LOGIC AS REQUIRED BY CODE).
- AN LCD INTERFACE SHALL BE PROVIDED WITH THE FOLLOWING FEATURES:
  - ON/OFF PUSH BUTTON FAN & LIGHT SWITCH ACTIVATION.
  - INTEGRATED GAS VALVE RESET FOR ELECTRONIC GAS VALVES (NO RESET RELAY REQUIRED).
  - VFD FAULT DISPLAY WITH AUDIBLE & VISUAL ALARM NOTIFICATION.
  - DUCT TEMPERATURE SENSOR FAILURE DETECTION WITH AUDIBLE & VISUAL ALARM NOTIFICATION.
  - MIS-WIRED DUCT TEMPERATURE SENSOR DETECTION WITH AUDIBLE & VISUAL ALARM NOTIFICATION.
  - A SINGLE LOW VOLTAGE CAT-5 RJ45 WIRING CONNECTION.
  - AN ENERGY SAVINGS INDICATOR THAT UTILIZES MEASURED KWH FROM THE VFDs.



TYPICAL HOOD CONTROL PANEL INSTALLATION

**SEQUENCE OF OPERATIONS:**

- THE HOOD CONTROL PANEL IS CAPABLE OF OPERATING IN ONE OR MORE OF THE FOLLOWING STATES AT ANY GIVEN TIME:
- **AUTOMATIC:** THE SYSTEM OPERATES BASED ON THE DIFFERENTIAL BETWEEN ROOM TEMPERATURE AND THE TEMPERATURE AT THE HOOD CAVITY OR EXHAUST DUCT COLLAR. FANS ACTIVATE AT A CONFIGURABLE TEMPERATURE DIFFERENTIAL THRESHOLD. DEPENDING ON THE JOB CONFIGURATION EACH FAN ZONE CAN BE CONFIGURED AS STATIC OR DYNAMIC. THESE TERMS REFER TO WHETHER A VARIABLE MOTOR (SUCH AS EC MOTORS OR VFD DRIVEN MOTORS) MODULATE WITH TEMPERATURE. IF THE PANEL IS EQUIPPED WITH VARIABLE SPEED FANS AND THE ZONE IS DEFINED AS "DYNAMIC", THESE WILL MODULATE WITHIN A USER-DEFINED RANGE BASED ON THE TEMPERATURE DIFFERENTIAL. PANELS EQUIPPED WITH VARIABLE SPEED FANS AND A FAN ZONE DEFINED AS "STATIC", FANS WILL RUN AT A SET SPEED CALCULATED FOR THE DRIVE. DEMAND CONTROL VENTILATION SYSTEMS ARE CAPABLE OF MODULATING EXHAUST AND MAKE UP AIR FAN SPEEDS PER THE REQUIREMENTS OUTLINED IN IECC 403.7.5 (2021).
  - **MANUAL:** THE SYSTEM OPERATES BASED ON HUMAN INPUT FROM AN HMI.
  - **SCHEDULE:** A WEEKLY SCHEDULE CAN BE SET TO RUN FANS FOR A SPECIFIED PERIOD THROUGHOUT THE DAY. THERE ARE THREE OCCUPIED TIMES PER DAY TO ALLOW FOR THE USER TO SET UP A TIME THAT IS SUITABLE TO THEIR NEEDS. ANY TIME THAT IS WITHIN THE DEFINED OCCUPIED TIME, THE SYSTEM WILL RUN AT MODULATION MODE AND FOLLOW THE FAN PROCEDURE ALGORITHM BASED ON TEMPERATURE DURING THIS TIME. DURING UNOCCUPIED TIME, THE SYSTEM WILL HAVE AN EXTRA OFFSET TO PREVENT UNINTENDED ACTIVATION OF THE SYSTEM DURING A TIME WHERE THE SYSTEM IS NOT BEING OCCUPIED.
  - **OTHER:** THE SYSTEM OPERATES BASED ON THE INPUT FROM AN EXTERNAL SOURCE (DDC, BMS OR HARD-WIRED INTERLOCK).
  - **FIRE:** UPON ACTIVATION OF THE HOOD FIRE SUPPRESSION SYSTEM, THE EXHAUST FAN WILL COME ON OR CONTINUE TO RUN, THE HOOD MAKEUP AIR WILL SHUTDOWN, AND A SIGNAL WILL BE SENT FOR ACTIVATING THE SHUNT TRIP BREAKER PROVIDED BY THE ELECTRICIAN. FUEL GAS WILL SHUT OFF VIA A MECHANICAL/ELECTRICAL GAS VALVE ACTUATED BY THE HOOD FIRE SUPPRESSION SYSTEM.



CASlink Monitor and Control

- Hood control panel to support communications to cloud-based Building Management System.
- Hood Control Panel to allow cloud-based Building Management System to monitor real time parameters outlined as MONITOR in the points list.
- Hood Control Panel to allow cloud-based Building Management System to control parameters outlined as CONTROL in the points list.
- Hood Control Panel to allow cloud-based Building Management System to implement SYSTEM ECONOMIZER control strategies for fully integrated Building Management.

**MONITORING AND CONTROL POINTS LIST**

DDV Packages	Function	DC Packages	Function
Room Temperature	MONITOR	Room Temperature(s)	MONITOR
Duct Temperature(s)	MONITOR	Duct Temperature(s)	MONITOR
MHA Discharge Temperature	MONITOR	MHA Discharge Temperature	MONITOR
Kitchen RTU Discharge Temperature	MONITOR	Kitchen RTU Discharge Temperature	MONITOR
Fan Speed	MONITOR	Controller Faults	MONITOR
Fan Amperage	MONITOR	Fan Faults	MONITOR
Fan Power	MONITOR	Fan Status	MONITOR
VFD Faults	MONITOR	PCU Faults	MONITOR
Controller Faults	MONITOR	PCU Filter Clap Percentage	MONITOR
Fan Faults	MONITOR	Fan Condition	MONITOR
Fan Status	MONITOR	COSE Fire System	MONITOR
PCU Faults	MONITOR	Building Pressure	MONITOR
PCU Filter Clap Percentage	MONITOR	Fans Button(s)	MONITOR & CONTROL
Fire Condition	MONITOR	Lights Button(s)	MONITOR & CONTROL
COSE Fire System	MONITOR	Flush Button	MONITOR & CONTROL
Building Pressure	MONITOR		
Prep Time Button	MONITOR & CONTROL		
Fans Button	MONITOR & CONTROL		
Lights Button	MONITOR & CONTROL		
Flush Button	MONITOR & CONTROL		

**SYSTEM DESIGN VERIFICATION (SDV)**

IF ORDERED, CAS SERVICE WILL PERFORM A SYSTEM DESIGN VERIFICATION (SDV) ONCE ALL EQUIPMENT HAS HAD A COMPLETE START UP PER THE OPERATION AND INSTALLATION MANUAL. TYPICALLY, THE SDV WILL BE PERFORMED AFTER ALL INSPECTIONS ARE COMPLETE.

ANY FIELD RELATED DISCREPANCIES THAT ARE DISCOVERED DURING THE SDV WILL BE BROUGHT TO THE ATTENTION OF THE GENERAL CONTRACTOR AND CORRESPONDING TRADES ON SITE. THESE ISSUES WILL BE DOCUMENTED AND FORWARDED TO THE APPROPRIATE SALES OFFICE. IF CAS SERVICE HAS TO RESOLVE A DISCREPANCY THAT IS A FIELD ISSUE, THE GENERAL CONTRACTOR WILL BE NOTIFIED AND BILLED FOR THE WORK. SHOULD A RETURN TRIP BE REQUIRED DUE TO ANY FIELD RELATED DISCREPANCY THAT CANNOT BE RESOLVED DURING THE SDV, THERE WILL BE ADDITIONAL TRIP CHARGES.

DURING THE SDV, CAS SERVICE WILL ADDRESS ANY DISCREPANCY THAT IS THE FAULT OF THE MANUFACTURER. SHOULD A RETURN TRIP BE REQUIRED, THE GENERAL CONTRACTOR AND APPROPRIATE SALES OFFICE WILL BE NOTIFIED. THERE WILL BE NO ADDITIONAL CHARGES FOR MANUFACTURER DISCREPANCIES.

REVISIONS	
DESCRIPTION	DATE

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DATE: 10/16/2024

DWG.#:  
7106540

DRAWN BY: JPH - 76

SCALE:  
3/4" = 1'-0"

MASTER DRAWING

SHEET NO.  
11

**DETAIL GENERAL NOTE**

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ADR PROJECT NUMBER:  
CAV064

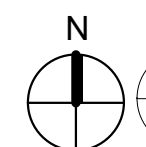
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IFC SET	05.27.2025

MECHANICAL HOOD DETAIL PLAN

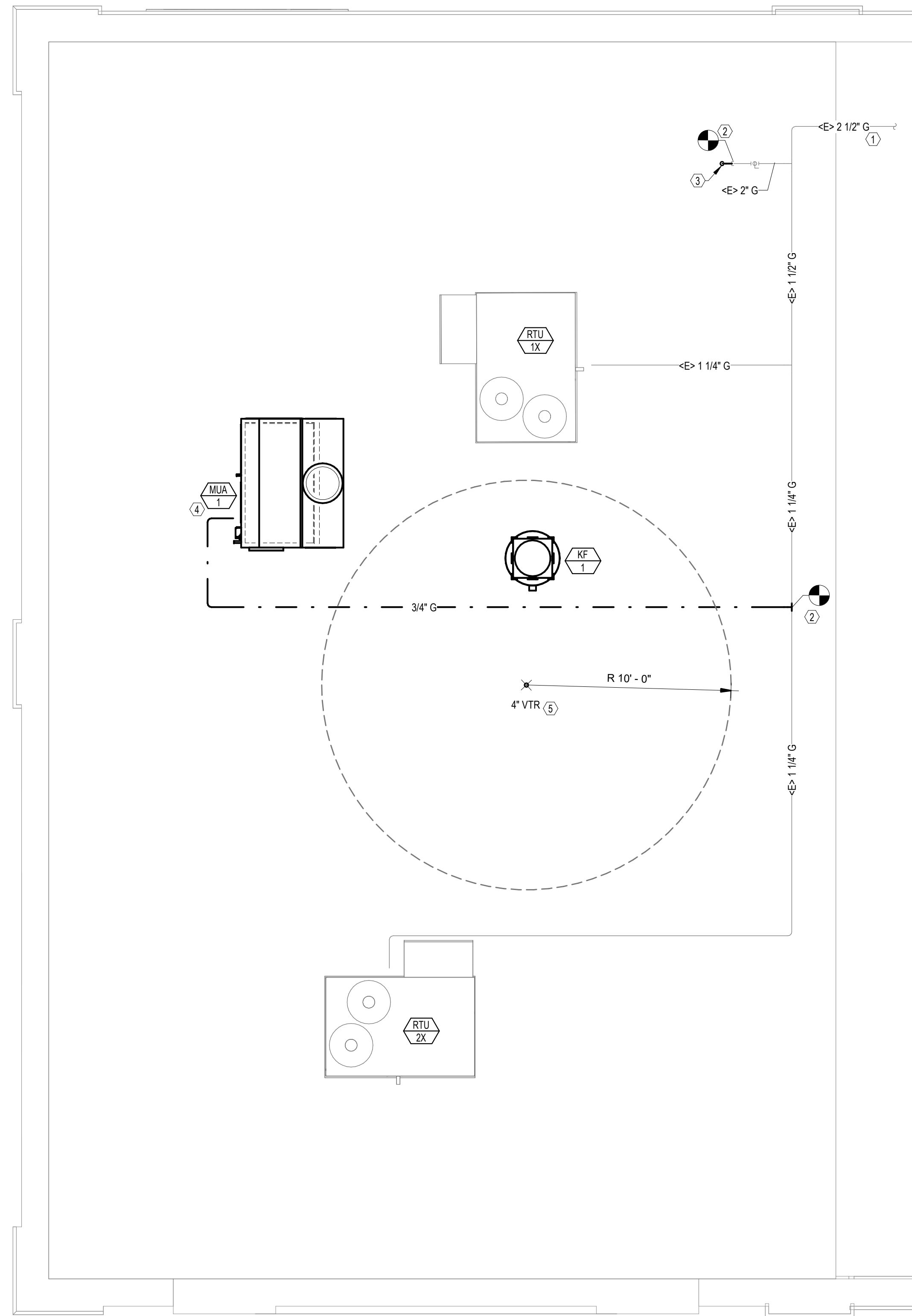
SHEET:

**M611**

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1 PL01 PLUMBING ROOF PLAN  
SCALE: 1/4" = 1'-0"



### GENERAL NOTES

1. REFER TO GENERAL NOTES ON SHEET P000.
2. REFER TO SPECIFICATIONS ON SHEETS P701, P702, AND P703.
3. ROUTE CONDENSATE PIPING ON ROOF TO NEAREST ROOF DRAIN.

### KEY NOTES

1. PROVIDE 2-1/2" GAS SERVICE. FIELD VERIFY EXACT SIZE AND LOCATION PRIOR TO BID, AND UPSIZE METER AS REQUIRED TO PROVIDE 1,187 CFH. GAS PIPING IS SIZED PER 2018 IFGC TABLE 402.4(2) WITH A TOTAL DEVELOPED LENGTH OF 175' AND A CONNECTED GAS LOAD OF 1,187 CFH. COORDINATE WITH LOCAL UTILITY COMPANY.
2. ROUTE NEW GAS PIPING IN CEILING SPACE AND CONNECT INTO EXISTING GAS SERVICE IF AVAILABLE. FIELD VERIFY EXACT SIZE AND LOCATION PRIOR TO BID.
3. ROUTE NEW 2" G DOWN THROUGH ROOF TO SERVE WATER HEATERS AND KITCHEN EQUIPMENTS.
4. ROUTE NEW 3/4" GAS TO SERVE MAKE AIR UNIT. PROVIDE WITH 6" DIRTLEG, SHUT OFF VALVE, AND UNION PRIOR TO FINAL CONNECTION.
5. NEW 4" VTR. CONFIRM A MINIMUM OF 10'-0" CLEARANCE FROM ANY MECHANICAL INTAKE.

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# CAVA

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 FOR  
 CAVA  
 14 Ridge Square NW #500, WASHINGTON, DC 20016

AOR PROJECT NUMBER:  
 CAV064

ISSUE	DATE
PERMIT SET	10.25.2024
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PLUMBING ROOF PLAN

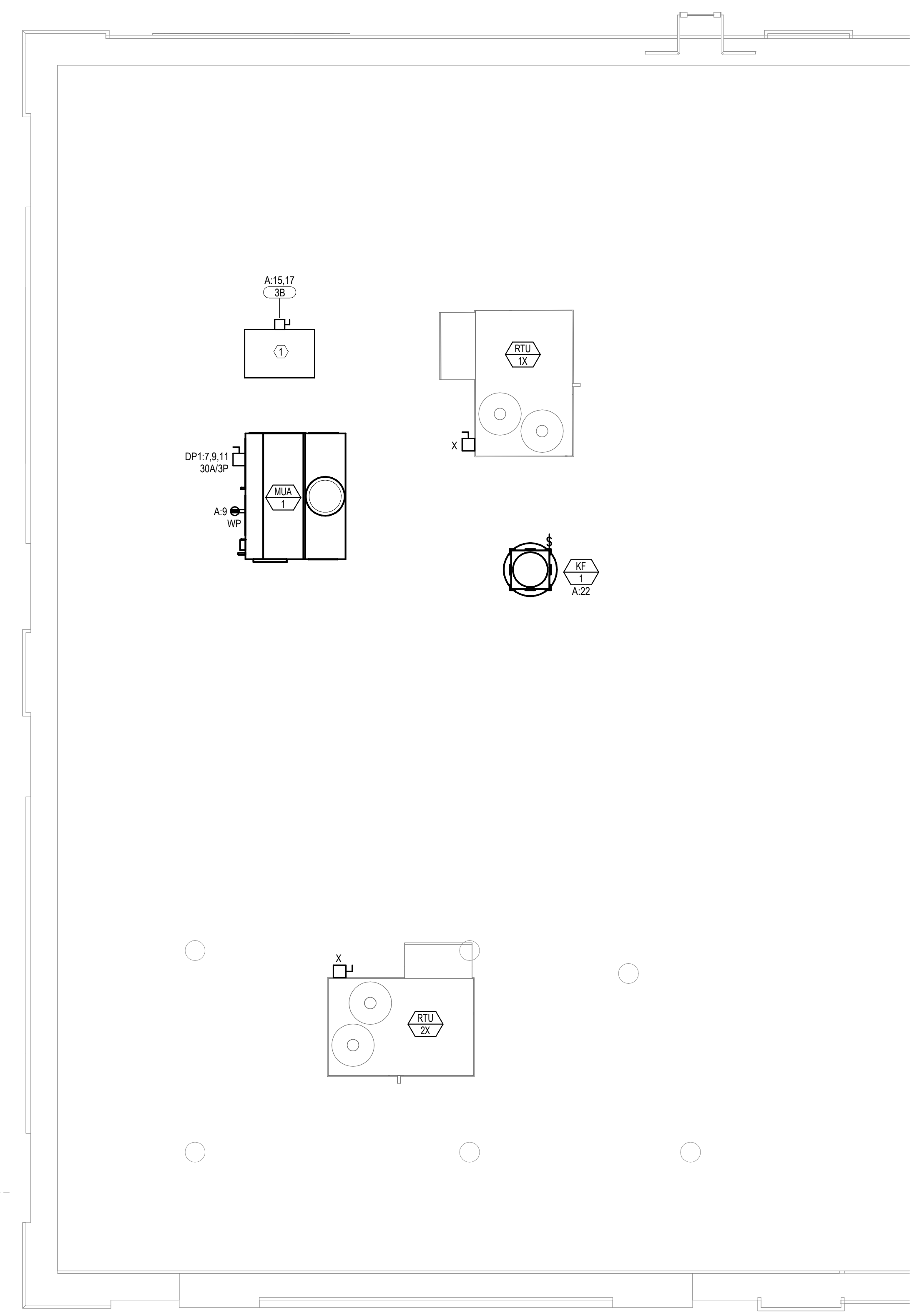
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## P401



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



**GENERAL NOTES**

1. REFER TO GENERAL NOTES ON SHEET E000.
2. REFER TO ELECTRICAL SPECIFICATIONS ON SHEET E701 AND E702.
3. PROVIDE ALL NECESSARY SEISMIC BRACING AND SUPPORTS.

**KEY NOTES**

- ① W.I.C. CONDENSING UNIT (PROVIDED BY KES); 15 MCA, 208V/1PH. PROVIDE (2) #12 CU AWG & (1) #12 CU AWG GND. IN 3/4" CONDUIT FROM 20A/2P BREAKER THRU 30A/2P NEMA 3R NON FUSED DISC SWITCH TO UNIT. MAKE FINAL CONNECTION. W.I.C. SUPPLIER TO LOCATE UNIT, LOCATION SHOWN FOR REFERENCE ONLY.

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CAV064

ISSUE	DATE
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ROOF POWER PLAN

SHEET:  
**E201**



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