MECHANICAL LEGEND

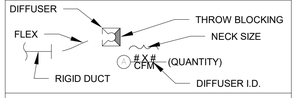
SYMBOL	ABBREVIATION	DESCRIPTION
	(E)	EXISTING (LIGHT LINE)
	(D) DEMO	TO BE DEMOLISHED
	(N)	NEW (HEAVY LINE)
CHR	CHR	DUAL TEMPERATURE RETURN
CHS	CHS	DUAL TEMPERATURE SUPPLY
CR	CR	CHILLED WATER RETURN
CS	CS	CHILLED WATER SUPPLY
CWR	CWR	CONDENSER WATER RETURN
CWS	CWS	CONDENSER WATER SUPPLY
HWR	HWR	HEATING WATER RETURN
HWS	HWS	HEATING WATER SUPPLY
HPC	HPC	HIGH PRESSURE CONDENSATE
HPS	HPS	HIGH PRESSURE STEAM
LPC	LPC	LOW PRESSURE CONDENSATE
LPS	LPS	LOW PRESSURE STEAM
MPC	MPC	MEDIUM PRESSURE CONDENSATE
MPS	MPS	MEDIUM PRESSURE STEAM
PC	PC	PUMPED CONDENSATE
RD	RD	REFRIGERANT DISCHARGE
RL	RL	REFRIGERANT LIQUID
RS	RS	REFRIGERANT SUCTION
	CW	DOMESTIC COLD WATER
	HW	DOMESTIC HOT WATER
	HWC	DOMESTIC HOT WATER CIRCULATION
A	A	AIR PIPING (COMPRESSED)
D	D	DRAIN
DIC	DIC	DE-IONIZED WATER CIRCULATION
F	F	FIRE
FOR	FOR	FUEL OIL RETURN
FOS	FOS	FUEL OIL SUPPLY
FOV	FOV	FUEL OIL VENT
G	G	GAS
GW	GW	GREASE WASTE
IW	IW	INDIRECT WASTE
MA	MA	MEDICAL AIR
N	N	NITROGEN
ORDL	ORDL	OVERFLOW ROOF DRAIN LEADER
O	OXY	OXYGEN
RDL	RDL	ROOF DRAIN LEADER
SAN	SAN	SANITARY WASTE
SMS	SMS	SNOW MELT SUPPLY
SMR	SMR	SNOW MELT RETURN
SOD	SOD	SAND AND OIL DRAIN
ST	ST	STORM
VAC	VAC	VACUUM
V	V	VENT
W	W	WASTE
	AFF	ABOVE FINISHED FLOOR
	AFG	ABOVE FINISHED GRADE
	BFF	BELOW FINISHED FLOOR
	DWV	DOMESTIC WASTE & VENT
	EC	ELECTRICAL CONTRACTOR
	EOR	ENGINEER OF RECORD
	GC	GENERAL CONTRACTOR
	MC	MECHANICAL CONTRACTOR
	PC	PLUMBING CONTRACTOR
	ER	EXISTING RETURN AIR DEVICE
	ES	EXISTING SUPPLY AIR DEVICE
	ET	EXISTING TRANSFER AIR DEVICE
	RR	RELOCATED RETURN AIR DEVICE
	RS	RELOCATED SUPPLY AIR DEVICE
	RT	RELOCATED TRANSFER AIR DEVICE

SYMBOL	DESCRIPTION
	PIPE UP AND DOWN ELBOW
	PIPE DOWN TEE
	PIPE CONTINUATION
	PIPE FLOW DIRECTION (SHOWN TO RIGHT)
	PIPE REDUCER
	PIPE UNION AND CAP
	BALL VALVE, SHUTOFF VALVE
	MOTORIZED VALVE - 2-WAY
	MOTORIZED VALVE - 3-WAY
	PRESSURE REDUCING VALVE
	CHECK VALVE
	BUTTERFLY VALVE, GLOBE VALVE
	BALANCE VALVE
	STRAINER
	HOSE-END DRAIN VALVE
	STRAINER WITH BLOW-OFF
	VENTURI
	GAS COCK
	PUMP
	DUAL CHECK BACKFLOW PREVENTOR
	REDUCED PRESSURE BACKFLOW PREVENTOR
	PRESSURE-TEMPERATURE TAP
	PRESSURE-TEMPERATURE RELIEF VALVE
	AIR VENT
	PIPE GUIDE OR SLEEVE
	PIPE EXPANSION JOINT
	PIPE ANCHOR
	VACUUM RELIEF VALVE
	THERMOMETER
	PRESSURE GAUGE
	FLOW SENSOR
	FLOOR DRAIN
	FLOOR SINK-FULL-3/4-HALF GRATE
	DRAIN ABOVE
	ROOF DRAIN
	ROOF DRAIN - OVERFLOW
	DOWNSPOUT NOZZLE
	CLEANOUT - VERTICAL
	CLEANOUT - HORIZONTAL
W H	WALL HYDRANT, HOSE BIBB

SYMBOL	DESCRIPTION
	SMOKE DETECTOR
20/16	DUCT SIZE INDICATING SHEET METAL DIMENSIONS. FIRST NUMBER WIDTH AND SECOND IS DEPTH (INCHES).
	DUCT ELBOW WITH TURNING VANE
	DUCT TEE WITH TURNING VANES
	MANUAL DAMPER WITH LOCKING QUADRANT.
M	MOTORIZED DAMPER
	FLEXIBLE DUCT CONNECTOR
	SPIN-IN FITTING WITH DAMPER
	45° DUCT TAKE-OFF
	RECTANGULAR SUPPLY AIR DUCT UP
	RECTANGULAR RETURN AIR DUCT UP
	RECTANGULAR EXHAUST AIR DUCT UP
	ROUND DUCT UP
U.C. - S.D.	DOOR UNDERCUT
	FIRE DAMPER
	FIRE AND SMOKE DAMPER
	SMOKE DAMPER
	EXISTING FIRE DAMPER
	SUPPLY DIFFUSER
	RETURN OR TRANSFER GRILLE
	EXHAUST GRILLE
CO	CARBON MONOXIDE SENSOR
XXX	THERMOSTAT OR TEMPERATURE SENSOR FOR DEVICE "XXX"
XXX	HUMIDISTAT OR HUMIDITY SENSOR FOR DEVICE "XXX"
CO2	CARBON DIOXIDE SENSOR
	CONNECTION NEW TO EXISTING

CO SENSOR LIMIT 49' SF 192 (1/16"=1'-0")

CO SENSOR LIMIT 49' SF 96 (1/8"=1'-0")



NOTE: NOT ALL SYMBOLS ON THIS LEGEND ARE NECESSARILY USED ON THIS PROJECT.

SPECIFICATION GENERAL NOTES

GENERAL NOTES:

A. REVIEW THE CONTRACT CONDITIONS AND GENERAL REQUIREMENTS FOR INFORMATION THAT APPLIES.
B. THE WORD "PROVIDE" IS USED TO MEAN "FURNISH AND INSTALL."
C. PROVIDE ALL ITEMS FOR A COMPLETE AND SUCCESSFUL OPERATION OF ALL SYSTEM SHOWN ON THESE DRAWINGS
D. THE DRAWINGS ARE DIAGRAMMATIC AND INDICATE GENERAL ARRANGEMENT OF THE WORK. LOCATIONS ARE APPROXIMATE UNLESS DIMENSIONED. MINOR MODIFACTIONS IN LOACTION TO MEET SITE REQUIREMENTS ARE ACCEPTABLE. REFER TO LATEST ARCHITECTURAL DRAWINGS FOR EXACT WALL LOCATIONS AND DIMENSIONS
E. THE ARCHITECTURAL AND ENGINEERING DRAWINGS ARE COMPLEMENTARY. GENERAL CONTRACTORS, SUBCONTRACTORS, AND VENDORS SHALL ACKNOWLEDGE ALL THE ARCHITECTURAL AS WELL AS ALL THE ENGINEERING DRAWINGS AND INCLUDE ALL WORK NECESSARY TO ACHIEVE A COMPLETE WORKING INSTALLATION FOR ALL DEVICES OR EQUIPMENT WHICH MAY BE SHOWN ON ONE DRAWING BUT NOT SHOWN ON ANOTHER. WHERE ELEMENTS ARE INDICATED OR DESCRIBED IN ANY DRAWING, IT IS THE INTENT THAT ALL RELATED CONSTRUCTION ASSOCIATED WITH SUCH ELEMENTS IS TO BE INCLUDED IN ORDER TO OBTAIN A COMPLETE INSTALLATION. FOR INSTANCE, IF A PIECE OF EQUIPMENT IS IDENTIFIED IN THE ARCHITECTURAL AND/OR MECHANICAL DRAWINGS, BUT THE ELECTRICAL CIRCUIT FOR SUCH EQUIPMENT IS NOT IDENTIFIED IN THE ELECTRICAL DRAWINGS, THE CONTRACTOR IS TO PROVIDE SUCH CIRCUIT IN ORDER TO HAVE FULLY OPERATIONAL EQUIPMENT. FOR ANOTHER EXAMPLE, IF A SINK IS INDICATED, IT IS THE INTENT THAT RELATED PLUMBING WORK INCLUDING DRAINS, VENT, PIPING, VALVES, ETC. ARE TO BE INCLUDED IN ORDER TO RESULT IN A FULLY OPERATIONAL SYSTEM. NO SUBCONTRACTOR SHALL BE ALLOWED TO EXCLUDE PORTIONS OF THE COMPLIMENTARY DRAWING SET.
F. LAY OUT ALL WORK IN ADVANCE. DO NOT DEFACE THE WORK OF OTHER TRADES OR THE EXISTING BUILDING,
G. LOCATION OF PIPES, DUCTS, SWITCHES, PANELS, EQUIPMENT, AND FIXTURES SHALL BE ADJUSTED TO ACCOMMODATE THE WORK OR INTERFERENCES ANTICIPATED AND ENCOUNTERED. DETERMINE THE EXACT ROUTE AND LOCATION OF EACH PIPE AND DUCT PRIOR TO FABRICATION.
   a. RIGHT-OF-WAY: LINES WHICH PITCH SHALL HAVE THE RIGHT-OF-WAY OVER THOSE WHICH DO NOT PITCH. LINES WHOSE ELEVATIONS CANNOT BE CHANGED SHALL HAVE THE RIGHT-OF-WAY OVER LINES WHOSE ELEVATIONS CAN BE CHANGED.
   b. OFFSETS, TRANSITIONS, AND CHANGES IN DIRECTION: OFFSETS, TRANSITIONS, AND CHANGES IN DIRECTION OF IPIES AND DUCTS SHALL BE MADE AS REQUIRED TO MAINTAIN PROPER HEAAADROOM AND PITCH OF SLOPING LINES WHETHER OR NOT INDICATED ON THE DRAWINGS.
   c. FURNISH AND INSTALL ALL TRAPS, AIR VENTS, SANITARY VENTS, AND DEVICES AS REQUIRED TO EFFECT THESE OFFSETS, TRANSITIONS, AND CHANGES IN DIRECTION.
H. ALL PENETRATIONS OF FIRE RATED WALLS, FLOORS, AND CEILINGS SHALL HAVE THE SPACE AROUND PENETRATIONS SEALED WITH A FIRE BARRIER SEALANT MEETING THE REQUIREMENTS OF u.l. STAND 1479 AND ASTM-E 814. INSTALL SEALANT IN FULL COMPLIANCE WITH MANUFACTURER'S STANDARD INSTALLATION INSTRUCTIONS.
I. ALL MATERIALS LOCATED ABOVE CEILING SHALL BE SUITABLE FOR USE WITHIN A RETURN AIR PLENUM AS REQUIRED BY THE ADOPTED EDITION OF THE INTERNATIONAL MECHANICAL CODE.
J. WHEN USING A TORCH OR OTHER FLAME-PRODUCING DEVICE ON THIS PROJECT, CONTRACTOR SHALL PROVIDE ONE APPROVED FIRE EXTINGUISHER OR WATER HOSE EQUIPPED WITH A SUITABLE NOZZLE, SUFFICIENT IN LENGTH TO REACH ALL PORTIONS OF THE BUILDING AND CONNECTED TO A WATER SUPPLY ON THE PREMISES WHERE SAID BURNING OPERATION IS PERFORMED. COMBUSTIBLE MATERIAL IN THE CLOSE PROXIMITY OF OPEN FLAME SHALL BE PROTECTED AGAINST IGNITION BY SHIELDING, WETTING, OR OTHER MEANS. IN ALL CASES, A FIRE WATCH SHALL BE MAINTAINED IN THE VICINITY OF THE OPERATION BY THE CONTRACTOR FOR ONE-HALF HOUR AFTER THE TORCH OR FLAME-PRODUCING DEVICE HAS BEEN USED.
K. THE CONTRACTOR SHALL VISIT THE SITE PRIOR TO BIDDING THE PROJECT AND TAKE INTO CONSIDERATION CONDITIONS THAT MAY AFFECT THE WORK. NO ADDITIONAL COMPENSATION WILL BE APPROVED FOR FAILURE TO VISIT THE SITE PRIOR TO PRICING THE WORK.
L. MAINTAIN A CONTRACT SET OF THESE DRAWINGS AT THE SITE, WITH ALL CHANGES OR DEVIATIONS FROM THE ORIGINAL DRAWINGS NEATLY MARKED ON THEM IN RED COLOR. THIS SHALL BE A SEPARATE SET OF DRAWINGS NOT USED FOR CONSTRUCTION PURPOSES. WHICH SHALL BE KEPT UP TO DATE AS THE JOB PROGRESSES AND SHALL BE MADE AVAILABLE FOR INSPECTION BY THE ENGINEER AT ALL TIMES. UPON COMPLETTION OF THE CONTRACT, THIS SET OF "AS-BUILTS" SHALL BE DELIVERED TO THE OWNER WITHIN 15 DAYS OF COMPLETION OF THE PROJECT.
M. MATERIAL SHALL BE AS SPECIFIED. SUBSITUTIONS WILL BE CONSIDERED IF SUBMITTED FOR PRIOR APPROVAL AT LEASE ONE (1) WEEK PRIOR TO THE CONTRACT BID DATE. SUBSITUTIONS SHOULD BE SUBMITTED SEPERATELY FOR EACH PRODUCT WITH SUPPORTING DATA, DRAWINGS AND SAMPLES AS APPROPRIATE, INCLUDING: 1.) COMPARISON OF THE QUALITIES OF THE PROPOSED SUBSTITUTION WITH THAT SPECIFIED. 2.) CHANGES REQUIRED IN OTHER ELEMENTS OF THE WORK BECAUSE OF THE SUBSITUTION. 3.) COST DATA COMPARING THE PROPOSED SUBSTITUTION WITH THE PRODUCT SPECIFIED. THE ENGINEER WILL DETERMINE THE ACCEPTABILITY OF THE PROPOSED SUBSITUTION.
N. SUBMIT ELECTRONIC PDF OF MANUFACTURERS SHOP DRAWINGS FOR EQUIPMENT AND DEVICES. PRIOR TO SUBMITTING THE SHOP DRAWINGS FOR REIVEW, THE CONTRACTOR SHALL REVIEW AND CERTIFY SAME AS TO COMPLIANCE WITH THE PLANS AND SPECIFICATIONS AND FOR DIMENSIONAL SUITABILITY FOR THE APPLICATIONS.
O. WHEN ALTERNATE OR SUBSITUTED EQUIPMENT IS USED, CONTRACTOR IS RESPONSIBLE FOR COORDINATING SPACE REQUIREMENTS, CONFIGURATIONS, CHANGES IN SUPPORS OR STRUCTURAL MEMBERS, ELECTRICAL REQUIREMENTS, AND COORDINATION OF OTHER TRADES THAT MAY BE AFFECTED BY THEIR USE. CONTRACTOR IS RESPONSIBLE FOR VERIFYING THE SAME WHEN USING LISTED APPROVED MANUFACTURERS OTHER THAN THE BASIS OF DESIGN.
P. THE CONTRACTOR SHALL PROVIDE ALL EQUIPMENT AND PERSONNEL REQUIRED FOR TESTING OF INSTALLED EQUIPMENT.
Q. THE CONTRACTOR SHALL DEMONSTRATE THE PROPER OPERATION AND CALIBRATION OF ALL SYSTEMS TO THE OWNER, AT A TIME AS AGREED TO BY THE OWNER AND DIRECTED BY THE OWNER.
R. THE CONTRACTOR SHALL PROVIDE THE OWNDER IWTH OPERATION AND MAINTENANCE MANUALS FOR ALL SYSTEMS WITHIN 15 DAYS OF THE COMPLETION OF THE PROJECT.

CODES REGULATIONS AND STANDARDS:

1. ALL WORK SHALL BE IN STRICT ACCORD WIT LOCAL GOVERNING LAWS, ORDINANCES, AND REGULATIONS. ALL WORK MUST BE IN FULL ACCORDANCE WITH ALL CODES, ORDINANCES, AND CODE RULINGS. CONTRACTOR SHALL PROVIDE, WITHOUT EXTRA CHARGE, THE LABOR AND MATERIALS REQUIRED FOR CODE COMPLIANCE.
2. ALL MATERIALS SHALL BE NEW AND SHALL COMPLY WITH THE SPECIFICATIONS ON DRAWINGS.
3. CONTRACTOR SHALL OBTAIN AND PAY FOR ALL LOCAL FEES, PERMITS, AND SERVICES OF INSPECTION AUTHORITIES REQUIRED BY THE WORK OF THE PROJECT, THE CONTRACTOR SHALL ARRANGE FOR ALL INSPECTIONS WHEN THEY BECOME DUE AND SHALL NOT COVER NEW WORK UNTIL APPROVED BY THE INSPECTION AUTHORITY.

GUARANTEE:

A. THE CONTRACTOR SHALL GUARANTEE ALL WORKMANSHIP, MATERIALS, AND EQUIPMENT PROVIDED FOR THE PROJECT AGAINST DEFECTS AND/OR FAULTY WORKMANSHIP FOR A PERIOD OF ONE YEAR FROM THE DATE OF FINAL ACCEPTANCE BY THE OWNER.
B. THE CONTRACTOR SHALL REPAIR AND/OR REPLACE DEFECTIVE OR FAULTY WORKMANSHIP, MATERIALS, OR EQUIPMENT, AND SHALL BE RESPONSIBLE FOR THE REPAIR AND/OR REPLACEMENT OF OTHER PROPERTY OR WORK DAMAGED AS A RESULT, WITHOUT CHARGE TO THE OWNER AND AS QUICKLY AS POSSIBLE, DURING THE GUARANTEE PERIOD.

BUILDING CODE DATA

	CODE	EDITION
GENERAL	BUILDING CODE OF NYS	2020
HVAC/MECHANICAL	MECHANICAL CODE OF NYS	2020
PLUMBING	PLUMBING CODE OF NYS	2020
ELECTRICAL	NATIONAL ELECTRIC CODE OF NYS	2017
FIRE PROTECTION	FIRE CODE OF NYS	2020
	NFPA STANDARDS	CURRENT
FUEL	FUEL GAS CODE OF NYS	2020
ENERGY	ENERGY CONSERVATION CODE OF NYS	2020
LOCAL AMENDMENTS	PART II, GENERAL LEGISLATION, CHAPTER 125	CURRENT

NOTES:
A. ALL WORK PERFORMED SHALL COMPLY WITH THE REQUIREMENTS OF THE LISTED CODES, LOCAL CODE AMENDMENTS, AND REFERENCED STANDARDS AS ENFORCED BY THE AUTHORITY HAVING JURISDICTION (AH J).
B. ALL WORK SUBJECT TO INSPECTION BY THE AHJ AT THE PROJECT SITE FOR COMPLIANCE

PROJECT DESCRIPTION

THIS PROJECT CONSISTS OF A TENANT FINISH OF A BRAND NEW CORE AND SHELL BUILDING. THE TENANT FINISH OF THIS 2,325 SQUARE FOOT SPACE WILL BE A RESTAURANT. THE RESTAURANT NEW MECHANICAL WORK INCLUDES NEW ROOFTOP UNITS, NEW KITCHEN HOOD SYSTEM WITH EXHAUST FAN/MAKEUP AIR UNIT, AND NEW RESTROOM EXHAUST FAN

REVISION	DATE	CHKD
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0 PERMIT SET	10/21/22	

PROJ.: 22025
DATE: 10/07/2022
CHKD: 10/04/2022

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10-21-2022

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AUBURN, NY 12021

SHEET TITLE:

M010

MECHANICAL LEGENDS AND NOTES

TEMPERATURE CONTROLS

1. THE HVAC SYSTEM CONTROLS ARE TO BE FULLY AUTOMATIC UNLESS OTHERWISE LISTED BELOW.
   A. CONTROLS SHALL HAVE INTEGRAL FUALT DETECTION AND DIAGNOSTIC CAPABILITIES.
2. ALL CONTROL SYSTEMS SHALL BE DESIGNED AND PROVIDED BY A CONTROL MANUFACTURER WHO HAS BEEN IN THE BUSINESS OF MANUFACTURING, DESIGNING, AND INSTALLING CONTROL COMPONENTS FOR A MINIMUM OF TEN (10) YEARS.
3. COORDINATE WITH ELECTRICAL CONTRACTOR FOR INTERFACE WITH LINE VOLTAGE WIRING, CONNECTIONS, RELAYS, ETC.
4. SET POINTS:
   A. OCCUPIED:
      a. HEATING: 68 DEGREES FAHRENHEIT (ADJUSTABLE).
      b. COOLING: 75 DEGREES FAHRENHEIT (ADJUSTABLE).
   B. UNOCCUPIED
      a. HEATING: 55 DEGREES FAHRENHEIT (ADJUSTABLE).
      b. COOLING: 85 DEGREES FAHRENHEIT (ADJUSTABLE).
5. THERMOSTATS OR TEMPERATURE SENSORS:
   A. ALL SETPOINTS ARE TO BE ADJUSTABLE.
   B. TEMPERATURE CONTROL SETUP AND SETBACK SHALL BE ACCOMPLISHED BY MEANS OF A DEDICATED PROGRAMMABLE THERMOSTAT WITH ADJUSTABLE HEATING AND COOLING SETPOINTS.
   C. CONTRACTOR SHALL PROGRAM THERMOSTATS FOR OCCUPIED/UNOCCUPIED PERIODS BASED ON A SCHEDULE PROVIDED BY THE OWNER.
   D. CONTROLS SHALL HAVE A 5 DEGREE F. DEAD-BAND FOR AUTO-CHANGEOVER SYSTEM, WITH OVERLAP RESTRICTIONS.
   E. SYSTEM SHALL HAVE A MINIMUM OF A 7-DAY PROGRAM.
   F. PROVIDE A 2-HOUR MINIMUM OCCUPIED OVERRIDE.
   G. PROVIDE MINIMUM TO A 10-HOUR BATTERY BACKUP.
6. CONTROLS ARE TO BE ELECTRIC/ELECTRONIC.
7. ROOFTOP UNITS (RTU-1, RTU-2):
   A. THE TEMPERATURE IN EACH ZONE IS CONTROLLED BY SPACE TEMPERATURE SENSORS CONNECTED TO THE THERMOSTATS LOCATED IN THE OFFICE. ALL ZONES SHALL OPERATE WITH CONTINUOUS FAN OPERATION DURING OCCUPIED TIMES AND INTERMITTENTLY AS NEEDED TO MAINTAIN SET POINTS DURING UNOCCUPIED TIMES. OUTSIDE AIR DAMPER SHALL BE OPEN CONTINUOUSLY WHEN EITHER IN OCCUPIED MODE OR WHEN THE HOOD SYSTEM IS ON AND SHALL BE CLOSED DURING UNOCCUPIED PERIODS.
   B. THE THERMOSTATS SHALL DETERMINE OCCUPIED/UNOCCUPIED STATUS BASED ON THE SCHEDULES IN THE ENERGY MANGEMENT SYSTEM.
8. EXHAUST FAN (EF-2):
   A. EXHAUST FAN TO RUN DURING ALL OCCUPIED HOURS (OWNER DETERMINED).
9. KITCHED HOOD SYSTEM (HD-1, EF-1, MAU-1):
   A. EXHAUST FAN EF-1 AND MAKE UP AIR UNIT MAU-1 SHALL BE INTERLOCKED TO OPERATE TOGETHER. THIS CONTROL CIRCUIT IS ACTIVATED BY A SWITCH AND INCLUDES A FIRE PROTECTION OVERRIDE.
   B. EF-1 AND MAU-1 SHALL HAVE AUTOMATIC CONTROLS TO ENGAGE WHEN ANY APPLIANCE UNDER HD-1 IS TURNED ON.

HVAC GENERAL NOTES

1. THE NEW MECHANICAL SYSTEMS SHALL BE BY THE MECHANICAL CONTRACTOR. THIS INCLUDES, BUT IS NOT LIMITED TO:
   A. THE AIR DISTRIBUTION SYSTEMS WITH: AIR HANDLING EQUIPMENT, DUCTWORK, FLEXIBLE DUCT, DIFFUSERS, GRILLES, DAMPERS, CONTROL SYSTEMS, ETC.
2. CONTRACTOR SHALL SECURE THE SERVICES OF AN INDEPENDANT TEST, ADJUST, AND BALANCE CONTRACTOR WHO IS A MEMBER OF THE NEBB OR EQUIVALENT. FOLLOWING ALL TAB WORK, SUBMIT TEST RESULTS IN A BOUND MANUAL, STAMPED AND SIGNED BY A CERTIFIED BALANCING SUPERVISOR OR REGISTERED PE ON STAFF WITH TAB CONTRACTOR. REQUIRED FINAL AIR AND HYDRONIC BALANCE TOLERANCE SHALL BE +10% TO -5% OF QUANTATIES SHOWN ON THESE PLANS.
3. PROJECT DESIGN CONDITIONS ARE
   A. LOCATION: AUBURN, NEW YORK
   B. SITE ELEVATION: 686 FEET.
   C. HVAC DESIGN CONDTIONS PER CHVAC LOAD PROGRAM WITH MEETS OR EXCEEDS ASHRAE 99% HEATING, 1% COOLING ARE:
      a. LOCATION USED FOR CONDITIONS:
      b. HEATING OUTDOOR DB: 23 DEGREES FAHRENHEIT,
      c. COOLING OUTDOOR DB/MCWB: 90/66 DEGREEES FAHRENHEIT.
      d. INDOOR DESIGN TEMPERATURES AS STATED IN THE TEMPERATURE CONTROLS INFORMATION.
4. IDENTIFY ALL HVAC AND REFRIGERATION EQUIPMENT AS TO THE AREA SERVED BY THE EQUIPMENT. IDENTIFICATION SHALL BE ENGRAVED PLASTIC TAGS PERMANENTLY AFFIXED TO EACH PIEVE OF EQUIPMENT.
5. PROVIDE ALL CURBS, SUPPORTS, AND ANCHORS FOR MECHANICAL WORK. NO CHAIN, TAPE OR WIRE MAY BE USED FOR HANGING OR SUPPORTING.
6. RECEIVE, UNCRATE, ASSEMBLE, AND INSTALL ALL EQUIPMENT FURNISHED BY THIS CONTRACT AND FURNISHED BY THE OWNER IN CONFORMANCE TO THE MANUFACTURER'S RECOMMENDATIONS.
7. DUCT DIMENSIONS ARE CLEAR INSIDE DIMENSIONS. WHERE DUCT LINER IS USED, OVERALL OUTSIDE DUCT DIMENSIONS SHALL BE ADJUSTED TO ALLOW FOR LINER THICKNESS.
8. ALL SHEET METAL TO BE MADE AND INSTALLED TO SMACNA STANDARDS (AND IN ACCORDANCE WITH THE INTERNATIONAL MECHANICAL CODE) WITH 45 DEGREE MAXIMUM REDUCING. 30 DEGREE MAXIUMUM EXPANDING TRANSITIONS. ALL EXPOSED RECTANGULAR TO BE PAINT LOCK GALVANIZED. SINGLE BLADE TURNING VANES AND 1.5 CENTERLINE RADIUS FOR ALL ELBOWS AND TEES.
9. ALL SUPPLY AND RETURN RECTANGULAR DUCTS TO HAVE 1" THICK 2 LB/CF DENSITY ACOUSTIC DUCT LINER MINIMUM R-5 CLASS I, UL-181
10. ALL OUTSIDE AIR DUCTS TO HAVE R-8 1-1/2" TICK AND 1-1/2 LB/CF DENSITY UL 181 CLASS ONE FIBERGLASS DUCT WRAP.
11. DUCT LINER SHALL BE ATTACHED WITH STIC-CLIPS 15"OC EACH WAY AND 100% COVERAGE OF FLAME PROOF ADHESIVE. INCREASE DUCT TO ALLOW FOR LINER. SEAL ALL DUCT AIRTIGHT WITH TWO COATS OF DUCT DEALANT. DUCT SEALANT TO BE CLEAR PAINTABLE SILICON CAULK ON ALL EXPOSED DUCTWORK.
12. CAULK ALL DUCT LONGITUDINAL AND TRANSVERSE JOINTS AND SEAMS AIR AND WATER TIGHT WITH PERMANENT COMMERCIAL CAULK PER MANUFACTURER'S RECCOMENDATIONS.
13. CONCEALED ROUND SUPPLY DUCTS SHALL BE LOW-PRESSURE CONSTRUCTION, SEALED AIRTIGHT AND EXTERNALLY INSULATED WITH 1-1/2", 3/4 LB/CF DENSITY BLANKET INSULATION WITH FOIL SCRIM KRAFT FACING. FOIL TAPE ALL JOINTS, MINIMUM R5 FIBERGLASS.
14. EXOPOSED ROUND DUCTS SHALL BE PAINT LOCK SPIRAL, ONE GAGE HEAVIER THAN SMANCA STANDARD. HARD PIPE TO DIFFUSERS (NO FLEX) AND SEAL WITH CLEAR, PAINTABLE, SILICONE CAULK.
15. ALL FLEXIBLE DUCTWORK SHOWN SHALL BE INSULATED, CLASS I, UL 181, SEMI-RIGID FLEXIBLE DUCT. R4.2 FLEXMASTER 5M OR THERMOPILEX XMK, AND SHALL CONFORM TO LOCAL CODES. NO FLEX DUCT IN EXPOSED AREAS.
16. ALL FLEXIBLE DUCT TAKEOFFS SHALL BE CONICAL BELL MOUNT SPIN-IN FITTINGS WITH MANUAL VOLUME DAMPER WHERE POSSIBLE. MAKE CONNECTION WITH DRAW BANDS AT EACH END OF FLEX.
17. ALL FLEXIBLE DUCT TO BE SAME SIZE AS DIFFUSER CONNECTION.
18. LIMIT FLEXIBLE DUCTWORK TO 5-FT MAXIMUM LENGTH.
19. THIS CONTRACTOR SHALL COORDINATE ALL DUCTOWRK PRIOR TO INSTALLATION.
20. WEATHERPROOF ALL MECHANICAL ROOF PENETRATIONS PER CODES AND ALL ROOFING MANUFACTURER RECCOMENDATIONS.
21. PROVIDE SMOKE DETECTORS IN RETURN DUCT FOR MECHANICAL SYSTEMS OVER 2000 CFM (INDIVIDUALLY OR COLLECTIVELY IN A SHARED RETURN AIR PLENUM) AS REQUIRED BY SECTION 606 OF THE INTERNATIONAL MECHANICAL CODE.
22. PROVIDE SLEEVES AND COLLARS FOR ALL DUCTWORK AND PIPES THROUGH WALL, FLOORS, AND CEILINGS. SEAL ALL EXTERNAL PENETRATIONS OF FIRE RATED WALL, FLOORS, AND CEILINGS WITH APPROVED FIRE STOP MATERIAL IN COMPLIANCE ASTM E 814 AND UL 1479.
23. CONFIRM VOLTAGE, PHASE, AND AMPACITY WITH ELECTRICAL CONTRACTOR PRIOR TO ORDERING EQUIPMENT BY MECHANICAL CONTRACTOR. THREE-PHASE MOTORS TO HAVE MAGNETIC STARTERS WITH PROTECTION ON ALL THREE LADS, CONTROL, AND HEATING/COOLING EQUIPMENT TO AUTOMATICALLY RESTART AFTER POWER FAILURE. ALL WIRING SHALL BE WITHIN CONDUIT AS REQUIRED BY CODE.
24. A MINIMUM CLEARANCE OF 30 INCHES SHALL BE PROVIDED AROUND ALL EQUIPMENT (I.E. FANS, PUMPS, BOILERS, AIR CONDITIONERS, ETC.) FOR SERVICE AND MAINTENANCE AND AS REQUIRED BY MANUFACTURER'S INSTALLATION INSTRUCTIONS.
25. ROOF MOUNTED EQUIPMENT LOCATED WITHIN 10 FEET OF THE EDGE OF THE ROOF SHALL BE PROVIDED WITH SAFETY RAILINGS AS REQUIRED PER CODES OR AS DETAILED ON THE ARCHITECTURAL DRAWINGS.
26. REFRIGERANT PIPING SHALL BE TYPE "ARC" SOFT OR HARD DRAWN COPPER WITH WROUGHT COPPER BRAZED FITTINGS.
   A. INSULATE ALL EXPOSED NEW PIPING, VALVES, AND FITTINGS FOR REFRIGERANT SUCTION LINE SERVICE:
      a. 1/2" THICK ELASTOMERIC PIPE INSULATION INSTALLED IN COMPLIANCE WITH MANUFACTURERS STAND INSTALLATION INSTRUCTIONS.
      b. REFRIGERANT SUCTION PIPE INSULATION SHALL BE WRAPPED WITH ALUMINIUM JACKETING SECURED TO PIPE AND INSULATION AT MINIMUM 24" ON CENTER.
27. ALL PIPE INSULATION MATERIALS SHALL CONFORM TO ATMS 84, NFPA 50A, AND 255 AND UL 723 NOT TO EXCEED RATING OF 25 FLAME SPREAD AND 50 SMOKE DEVELOPED. ALL INSTALLED INSULATION SHALL MEET OR EXCEED ASHRAE STANDARD 90.1
28. ALL DUCT AND PIPE INSULATION EXPOSED OUTSIDE SHALL BE WEATHER PROTECTED AND UV RESISTANT WITH ALUMINIUM JACKET.
29. SEE TEMPERATURE CONTROLS ON THIS SHEET FOR TEMPERATURE CONTROLS REQUIREMENTS.
30. ALL RECIRCULATED AIR SHALL PASS THROUGH STANDARD 2" PLEATED MERV 8 THROW AWAY FILTERS. PROVIDE ONE ADDITIONAL SET FOR OWNER AT PROJECT COMPLETION.
31. INSTALL ALL NEW MECHANICAL EQUIPMENT IN COMPLETE COMPLIANCE WITH MANUFACTURER'S STAND INSTALLATION INSTRUCTIONS. ARRANGE ALL EQUIPMENT TO PERMIT EASY REMOVAL OF COILS, MOTORS, FILTERS, AND ALL OTHER PARTS WHICH MIGHT REQUIRE PERIODIC REPLACEMENT OR MAINTENANCE.
32. GENERAL NOTES APPLY TO MECHANICAL SHEETS.
33. WORK SHALL COMPLY WITH STATE AND LOCAL CODE REQUIREMENTS AS APPROVED AND AMENDED BY THE
34. CONTRACTOR AND SUBCONTRACTOR SHALL REVIEW A COMPLETE SET OF THE CONSTRUCTION DOCUMENTS.
35. COORDINATE WORK WITH THE WORK OF OTHER TRADES, EQUIPMENT FURNISHED BY OTHERS, REQUIREMENTS OF THE OWNER, AND OF THE EXISTING CONDITIONS AT THE PROJECT SITE.

	REVISION	DATE	CHKD
5			
4			
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1			
0	PERMIT SET	10/21/22	

PROJ.: 22025
DATE: 10/07/2022
CHKD: 10/04/2022

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STATE OF NEW YORK · AYMAN IBRAHIM ELBARASI · 102639 · LICENSED PROFESSIONAL ENGINEER
10-21-2022

PLAZA DRIVE GROUP OF CNY, LLC

1 PLAZA DRIVE,
AUBURN, NY 12021

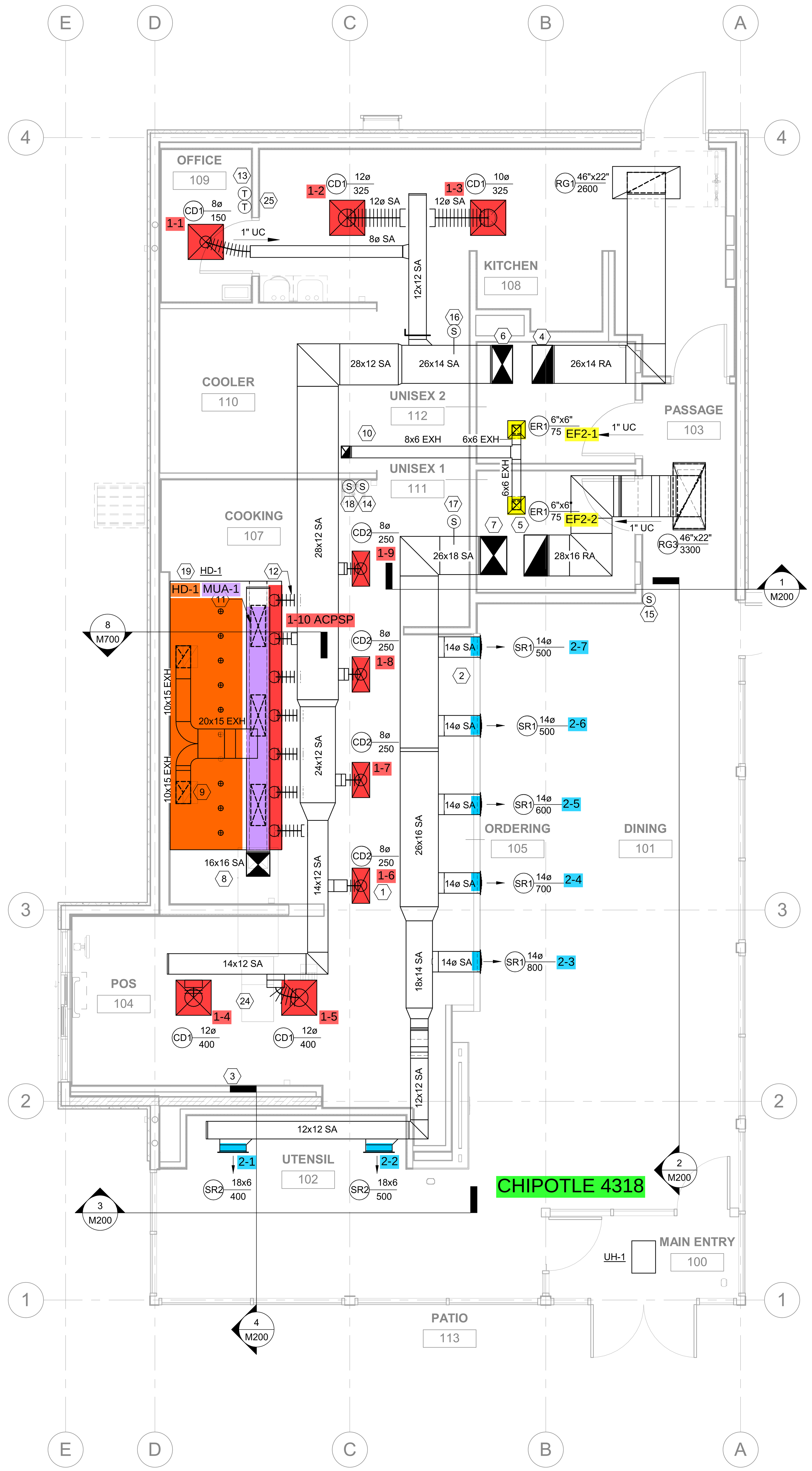
SHEET TITLE:

M020

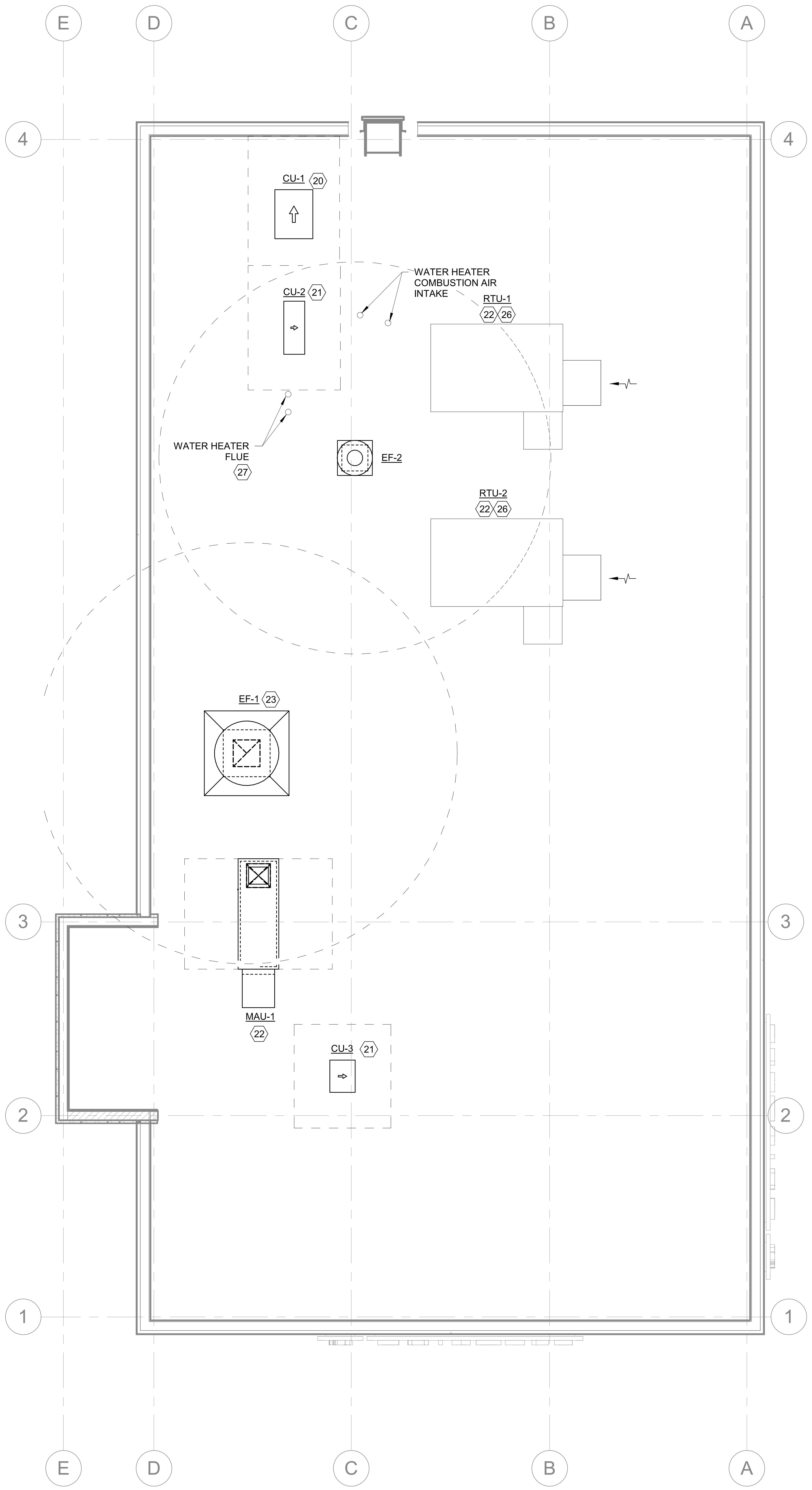
MECHANICAL CONTROLS AND NOTES

WORK NOTES:

1 SEE ARCHITECTURAL REFLECTED CEILING PLAN FOR CEILING MOUNTED EQUIPMENT LOCATION. TYPICAL.
2 PAINT DUCTWORK VISIBLE THROUGH DINING ROOM SUPPLY REGISTERS BLACK. TYPICAL.
3 PENETRATIONS THROUGH SHEAR WALL SHALL BE LIMITED TO 10" DIAMETER (OR A GROUP OF PENETRATIONS ALL CONTAINED WITHIN 10" DIAMETER). IF LARGER PENETRATIONS OR GROUPS OF PENETRATIONS ARE REQUIRED COORDINATE WITH STRUCTURAL ENGINEER FOR APPROPRIATE BRACING. SEE STRUCTURAL DRAWINGS FOR SHEAR WALL LOCATION.
4 26"x14" DUCT UP FOR TRANSITION TO RTU-1 RETURN CONNECTION IN ROOF CURB. RTU-1 SHALL HAVE AN INTEGRAL SMOKE DETECTOR MOUNTED IN THE RETURN AIR STREAM. INTERLOCK SMOKE DETECTOR TO RTU-1 OPERATION.
5 26"x18" DUCT UP FOR TRANSITION TO RTU-2 RETURN CONNECTION IN ROOF CURB. RTU-2 SHALL HAVE AN INTEGRAL SMOKE DETECTOR MOUNTED IN THE RETURN AIR STREAM. INTERLOCK SMOKE DETECTOR TO RTU-2 OPERATION.
6 26"x14" DUCT UP FROM BUILDING SUPPLY THROUGH ROOF. TRANSITION TO RTU-1 SUPPLY CONNECTION IN ROOF CURB.
7 26"x18" DUCT UP FROM BUILDING SUPPLY TO RTU-2 SUPPLY CONNECTION. TRANSITION IN ROOF CURB.
8 16"x16" DUCT UP THROUGH ROOF. TRANSITION TO MAU-1 SUPPLY CONNECTION IN ROOF CURB.
9 10"x15" DUCTS UP FROM HOOD TO 20/15 DUCT THROUGH ROOF TO EF-1 COMPLIANT WITH NFPA 96. PROVIDE RADIUSED ELBOWS WITH AN INSIDE RADIUS OF 0.5W AT ELBOWS IN GREASE DUCT.
10 8"x6" DUCT UP THROUGH ROOF TO EF-2.
11 28"x10" DUCT DOWN TO MAKEUP AIR PSP DUCT CONNECTION. TRANSITION TO SUPPLY PLENUM OPENING SIZE. TYPICAL OF 3.
12 8" DIA. DUCT DOWN TO AC PSP DUCT CONNECTION. TRANSITION TO SUPPLY PLENUM OPENING SIZE. TYPICAL. TYPICAL OF 7. CAP UNUSED DUCT CONNECTIONS.
13 INSTALL GRIDPOINT THERMOSTATS FURNISHED BY TEMS FOR RTU-1 AND RTU-2 AT THIS LOCATION AT 48" AFF. COORDINATE WITH ELECTRICAL SWITCHING IN THIS AREA. PROVIDE WIRING AS SHOWN IN DETAIL 8/E710.
14 INSTALL GRIDPOINT ZONE SENSOR MODULE FURNISHED BY TEMS FOR RTU-1 AT THIS LOCATION 60" AFF DIRECTLY TO WALL (NO JUNCTION BOX). COORDINATE LOCATION WITH EQUIPMENT. PROVIDE WIRING AS SHOWN IN DETAIL 8/E710.
15 INSTALL GRIDPOINT ZONE SENSOR MODULE FURNISHED BY TEMS FOR RTU-2 AT THIS LOCATION 66" AFF DIRECTLY TO WALL (NO JUNCTION BOX). COORDINATE LOCATION WITH EQUIPMENT. PROVIDE WIRING AS SHOWN IN DETAIL 8/E710.
16 INSTALL GRIDPOINT SUPPLY PROBE FURNISHED BY TEMS FOR RTU-1 IN THE SUPPLY DUCTWORK UPSTREAM FROM THE FIRST BRANCH CONNECTION. PROVIDE WIRING AS SHOWN IN DETAIL 8/E710.
17 INSTALL GRIDPOINT SUPPLY PROBE FURNISHED BY TEMS FOR RTU-2 IN THE SUPPLY DUCTWORK UPSTREAM FROM THE FIRST BRANCH CONNECTION. PROVIDE WIRING AS SHOWN IN DETAIL 8/E710.
18 INSTALL REMOTE TEMPERATURE SENSOR FOR HOOD HD-1 AT THIS LOCATION 66" AFF. COORDINATE LOCATION WITH EQUIPMENT. PROVIDE (2) #18 G. THERMISTOR CABLE FROM TEMPERATURE SENSOR TO HOOD CONTROL PANEL.
19 INSTALL KITCHEN HOOD, HD-1. SUPPORT HOOD PER MANUFACTURER'S INSTALLATION INSTRUCTIONS AND AS DETAILED IN THE ARCHITECTURAL AND STRUCTURAL DRAWINGS. INSTALL HOOD ACCORDING TO THE REQUIREMENTS OF ITS LISTING, IN COMPLIANCE WITH NFPA 96, THE BUILDING CODE, AND AUTHORITIES HAVING JURISDICTION. HOOD SHALL HAVE AN INTEGRAL DUCT COLLAR TEMPERATURE SENSOR TO AUTOMATICALLY ENERGIZE THE EXHAUST AND MAKEUP AIR FANS IF COOKING TEMPERATURES ARE DETECTED. EXHAUST DUCT SYSTEM TO BE WELDED OR FACTORY-MANUFACTURED WATER AND AIR TIGHT. INSTALL CLEANOUTS PER CODE AND AS SHOWN. INSTALL HOOD PER DETAILS 2 AND 4/M700. CHIPOTLE WILL PROVIDE AN INDEPENDENT TESTING
20 INSTALL REMOTE CONDENSING UNIT FOR WALK-IN COOLER ON ROOF AS DETAILED IN THE ARCHITECTURAL AND STRUCTURAL DRAWINGS. INSTALL REFRIGERANT LINE SET, THERMOSTATIC EXPANSION VALVE, SOLENOID VALVE, TEMPERATURE CONTROL, SIGHT GLASS, FILTER DRIER, PRESSURE CONTROL, LOW AMBIENT CONTROLS, AND WEATHERPROOF HOUSING. TRAP AND SLOPE REFRIGERANT LINES PER MANUFACTURER'S RECOMMENDATIONS. INSTALLATION SHALL COMPLY WITH ASHRAE/ANSI STANDARD 15. INSTALL THE REFRIGERANT LINE SET UNDER THE ROOF DECK TO WITHIN 3' OF THE CONDENSING UNIT. CUT 2-1/2" HOLE IN WALK-IN COOLER ROOF FOR REFRIGERANT LINE SET AND SEAL PER THE COOLER MANUFACTURER'S INSTALLATION INSTRUCTIONS AFTER LINE SET IS INSTALLED.
21 INSTALL REMOTE CONDENSER FOR ICE MACHINE ON ROOF AS DETAILED IN THE ARCHITECTURAL AND STRUCTURAL DRAWINGS. INSTALL REFRIGERANT LINE SET, THERMOSTATIC EXPANSION VALVE, SOLENOID VALVE, TEMPERATURE CONTROL, SIGHT GLASS, FILTER DRIER, PRESSURE CONTROL, LOW AMBIENT CONTROLS, AND WEATHERPROOF HOUSING. TRAP AND SLOPE REFRIGERANT LINES PER MANUFACTURER'S RECOMMENDATIONS. SEAL PIPING PENETRATIONS THROUGH ROOF. INSTALLATION SHALL COMPLY WITH ASHRAE/ANSI STANDARD 15. INSTALL THE REFRIGERANT LINE SET UNDER THE ROOF DECK TO WITHIN 3' OF THE REMOTE CONDENSER. IF REFRIGERANT PIPING TO ICE MAKER IS EXPOSED TO PUBLIC VIEW CONCEAL WITHIN A STAINLESS STEEL SHROUD AS SHOWN IN THE ARCHITECTURAL DRAWINGS.
22 INSTALL ROOFTOP EQUIPMENT PER MANUFACTURER'S INSTALLATION INSTRUCTIONS AND AS DETAILED IN THE ARCHITECTURAL AND STRUCTURAL DRAWINGS.
23 INSTALL EXHAUST FAN EF-1 PER DETAIL 5/M700 AND AS DETAILED IN THE ARCHITECTURAL AND STRUCTURAL DRAWINGS. INSTALL GREASE VIROGUARD SYSTEM FURNISHED BY CHIPOTLE ON EXHAUST FAN, EF-1.
24 PROVIDE SUPPLY DIFFUSER CONNECTION TO SUPPLY SYSTEM PER DETAIL 1/M700. TYPICAL.
25 PROVIDE AUDIO/VISUAL REMOTE SMOKE DETECTOR ANNUNCIATOR WITH REMOTE KEY OPERATED RESET. WIRE A UNIT BACK TO EACH SMOKE DETECTOR. MOUNT UNIT 60" AFF. TYPICAL.
26 INSTALL REME HALO AIR PURIFIER FURNISHED BY TUV IN RTU PER DETAIL 6/M700. SEE ELECTRICAL DRAWINGS FOR POWER CONNECTION INFORMATION. INSTALL UV WARNING STICKERS ON FACE OF ENCLOSURE PER DETAIL AND ON ANY RTU ACCESS DOOR(S) THROUGH WHICH THE REME HALO WOULD BE VISIBLE IF OPENED.
27 MAINTAIN 10' CLEARANCE BETWEEN WATER HEATER FLUE TERMINATION AND OUTSIDE AIR INTAKES. MAINTAIN 10' CLEARANCE BETWEEN WATER HEATER COMBUSTION AIR INTAKE AND EXHAUST FAN EF-1 DISCHARGE. SEE PLUMBING DRAWINGS FOR MORE INFORMATION ON WATER HEATER FLUE AND COMBUSTION AIR TERMINATIONS.



1 M100 FLOOR PLAN
1/4" = 1'-0"



2 M100 ROOF PLAN
1/4" = 1'-0"

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

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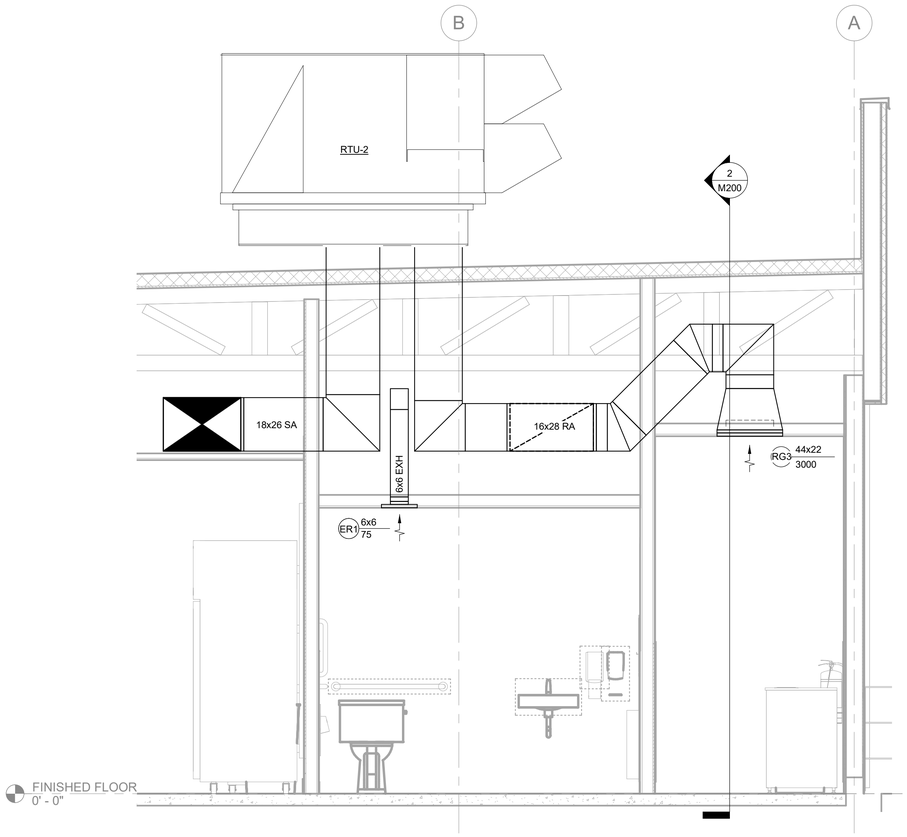
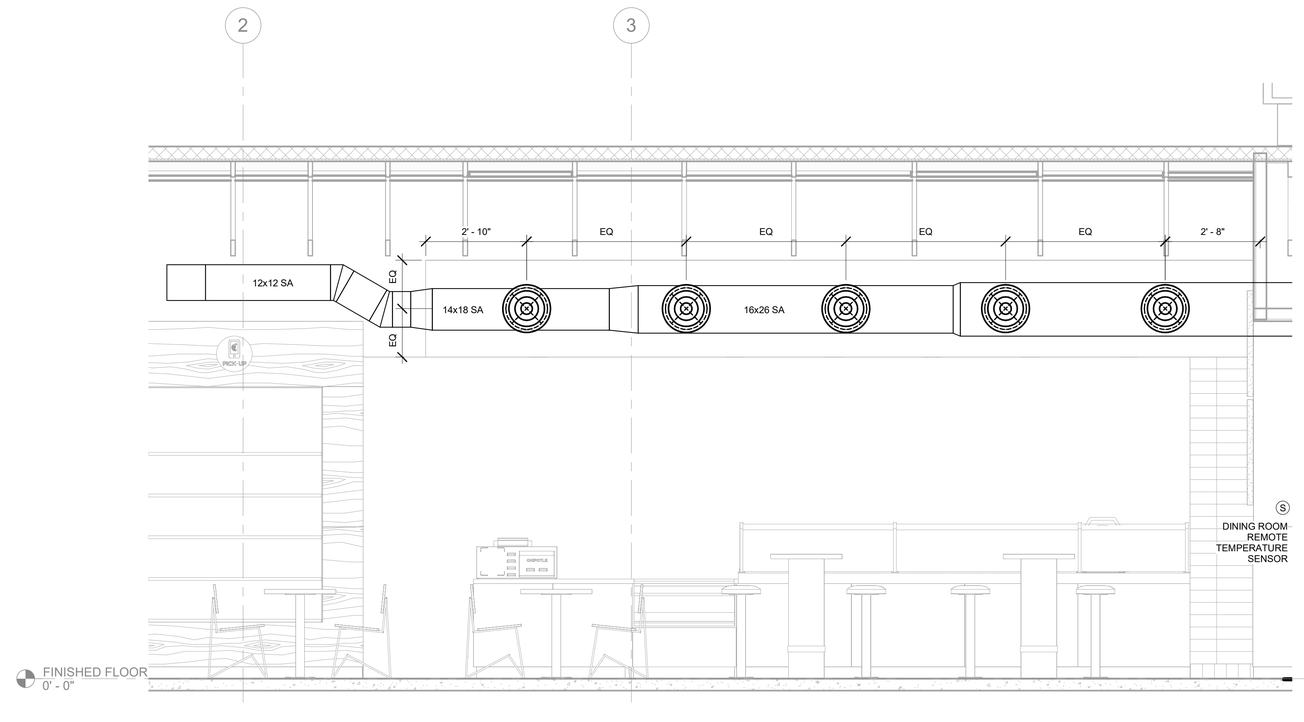
SHEET TITLE:
M100
MECHANICAL FLOOR PLANS



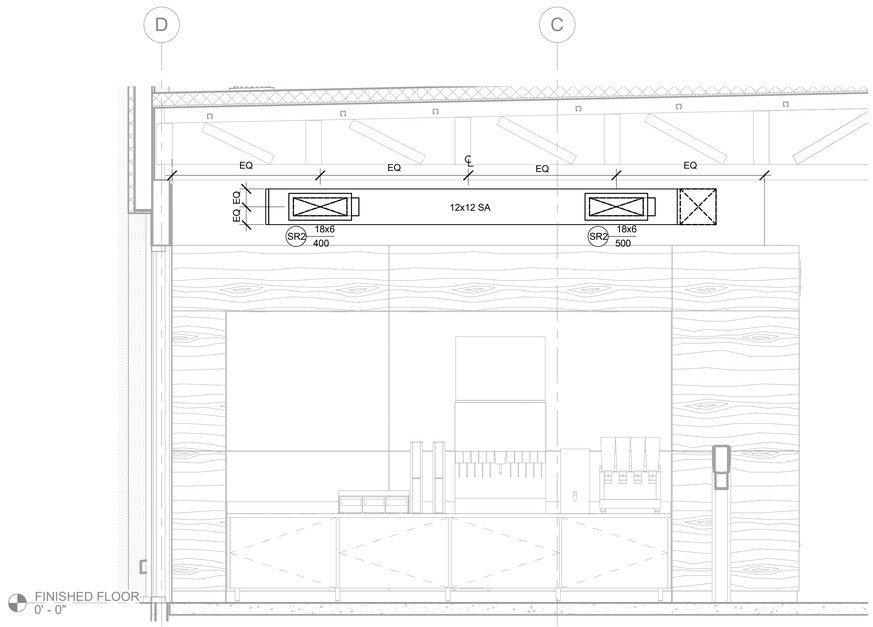
1 M200 HVAC DINING ROOM RETURN SECTION

1/2" = 1'-0"



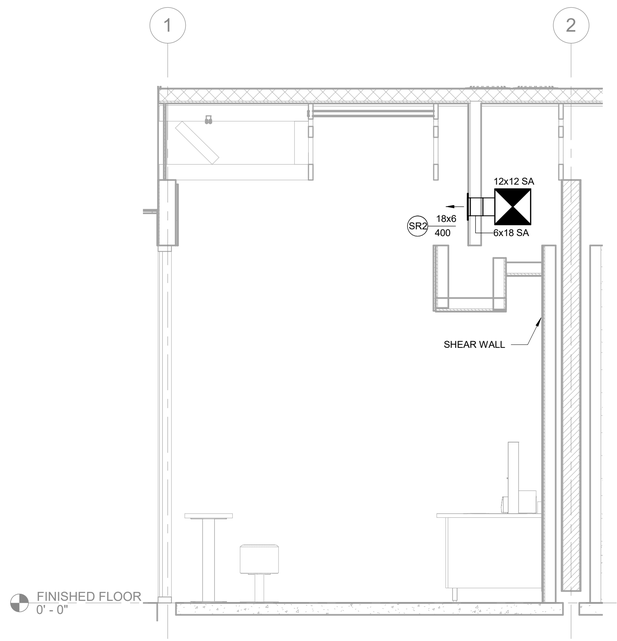
2 M200 HVAC MAIN DINING ROOM SECTION2

1/2" = 1'-0"



3 M200 HVAC UTENSIL AREA SECTION NORTH

1/2" = 1'-0"



4 M200 HVAC UTENSIL AREA SECTION WEST

1/2" = 1'-0"

2' 1' 0' 2' 4'

GRAPHIC SCALE: 1/2" = 1'-0"

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STATE OF NEW YORK * AYMAN IBRAHIM ELBARASI * 102639 LICENSED PROFESSIONAL ENGINEER
10-21-2022

PLAZA DRIVE GROUP OF CNY, LLC

1 PLAZA DRIVE,
AUBURN, NY 12021

SHEET TITLE:

M200

MECHANICAL SECTIONS

AIR BALANCE SCHEDULE

TAG	SUPPLY AIRFLOW (CFM)	RETURN AIRFLOW (CFM)	EXHAUST AIRFLOW (CFM)	SUBTOTAL (CFM)
EF-1	0	0	3200	-3200
EF-2	0	0	150	-150
MAU-1	1950	0	0	1950
RTU-1	3400	2,600	0	800
RTU-2	4000	3,300	0	700
			NET PRESSURIZATION	100

VENTILATION CALCULATIONS

Ventilation Calculations Comply with: ASHRAE 62.1

Room Name	Room Area (Az)	Room Type	Zone Air Distribution Effectiveness (Ez)	Number of People (Pz)	CFM/Person (Rp)	CFM/sqft	Breathing Zone OA (Vbz)	Zone Outdoor Airflow (Voz)	System Ventilation Efficiency (Ev)	Required Outdoor Air Intake (Vot)	Outside Air Provided
RTU-1 - KITCHEN (MULTIPLE ZONE WITH SINGLE RECIRC)											
104 - POS	215	Cafeteria, fast food	0.8	22	7.5	0.18	204	255	0.69	**786**	**800**
106 - SERVING	46	Cafeteria, fast food	0.8	5	7.5	0.18	46	58			
107 - COOKING	354	Kitchens (cooking)	0.7 CFM/SF EXHAUST								
108 - KITCHEN (FOOD PREP)	311	Cafeteria, fast food	0.8	31	7.5	0.18	288	361			
109 - OFFICE	45	Office spaces	0.8	1	5	0.06	8	10			
Total							**546**	**684**			
RTU-2 - DINING (SINGLE ZONE)											
101 - DINING/ORDERING	668	Dining rooms	0.8	42	7.5	0.18	442	553	N/A	**558**	**700**
102 - UTENSIL	37	Dining rooms									
103 - PASSAGE	65	Corridors	0.8	0	0	0.06	4	5			
Total							**446**	**558**			

HVAC MATERIAL SCHEDULE

TYPE	APPLICATION	ALLOWABLE MATERIAL
DUCT	CONCEALED, GENERAL EXHAUST	RECTANGULAR OR ROUND AS SHOWN
DUCT	CONCEALED, RETURN	RECTANGULAR OR ROUND AS SHOWN, LINED OR INSULATED
DUCT	CONCEALED, SUPPLY	RECTANGULAR OR ROUND AS SHOWN, LINED OR INSULATED
DUCT	CONCEALED, TYPE I HOOD EXHAUST	RECTANGULAR 16 GA. BLACK IRON WITH WRAP OR UL 1978 FACTORY-MANUFACTURED DUCT WITH WRAP (SUBMIT SHOP DRAWINGS FOR FACTORY-MANUFACTURED DUCT PRIOR TO ORDERING FOR APPROVAL)
DUCT	EXPOSED GENERAL EXHAUST	RECTANGULAR, NO EXPOSED DUCT-SEALING MASTIC
DUCT	EXPOSED RETURN	RECTANGULAR, NO EXPOSED DUCT-SEALING MASTIC
DUCT	EXPOSED SUPPLY	RECTANGULAR LINED OR ROUND AS SHOWN, NO EXPOSED DUCT-SEALING MASTIC

UNIT HEATER SCHEDULE

TAG	DESCRIPTION	MANUFACTURER	MODEL	LOCATION	FAN DATA			ELECTRICAL DATA				NOTES
					AIRFLOW	AIR TEMP. RISE	MOUNT	WATTS	AMPS	VOLTAGE	PHASE	
UH-1	CEILING MOUNTED UNIT HEATER	INDEECO	931U03000V	MAIN ENTRY	160 CFM	45 F	CEILING	2250	11.2	208	1	1, 2

NOTES:
1. PROVIDE WITH BUILT-IN TAMPERPROOF THERMOSTAT.
2. INSTALL UNIT RECESSED INTO VESTIBULE CEILING.

AIR DEVICE SCHEDULE

TAG	DESCRIPTION	MANUFACTURER	MODEL	MATERIAL	FINISH	MOUNTING	FACE SIZE	NECK SIZE	OPPOSED BLADE DAMPER	SERVICE	MAXIMUM NOISE CRITERIA (NC)	NOTES
BS-1	BATHROOM AIR PURIFICATION UNIT	RGF ENVIRONMENTAL GROUP	BRU ASSEMBLY	STAINLESS STEEL	STAINLESS STEEL	SURFACE	N/A	N/A	N/A	PURIFICATION	N/A	1
CD-1	PERFORATED CEILING DIFFUSER	NAILOR	4320A TYPE L	ALUMINUM	WHITE	LAY-IN	24" X 24"	SEE PLANS	YES	SUPPLY	35	2, 3, 5
CD-2	PERFORATED CEILING DIFFUSER	NAILOR	4320A TYPE L	ALUMINUM	WHITE	SURFACE	24" X 12"	SEE PLANS	YES	SUPPLY	35	2, 3, 4, 5
ER-1	PERFORATED CEILING EXHAUST	NAILOR	4330R TYPE S	ALUMINUM	WHITE	SURFACE	12" X 12"	SEE PLANS	YES	EXHAUST	35	2, 3
RG-1	PERFORATED CEILING RETURN	NAILOR	4330R TYPE L	ALUMINUM	WHITE	LAY-IN	48" X 24"	SEE PLANS	NO	RETURN	35	2, 3
RG-3	PERFORATED CEILING RETURN	NAILOR	4330R TYPE S	ALUMINUM	WHITE	SURFACE	48" X 24"	SEE PLANS	NO	RETURN	35	2, 3
SR-1	ADJUSTABLE TURBO NOZZLE	AIRCONCEPTS	ANR-14	ALUMINUM	WHITE	WALL	NECK + 1-2"	SEE PLANS	YES	SUPPLY	35	2, 3, 6
SR-2	DOUBLE DEFLECTION SUPPLY REGISTER	NAILOR	51DH	ALUMINUM	WHITE	WALL	NECK + 2"	SEE PLANS	YES	SUPPLY	35	2, 3, 5

NOTES:
1. SEE ELECTRICAL PLAN FOR CONNECTION INFORMATION.
2. MAXIMUM STATIC PRESSURE DROP OF 0.15"WC UNLESS OTHERWISE NOTED.
3. SEE PLANS FOR SIZES AND QUANTITIES.
4. REMOVE 4-WAY DEFLECTORS.
5. PROVIDE WITH INTEGRAL OBD.
6. PROVIDE WITH CONCEALED MOUNTING AND FACE ACCESSIBLE OBD.

CONDENSING UNIT SCHEDULE

TAG	DESCRIPTION	MANUFACTURER	MODEL	NUMBER OF		REFRIGERANT		WEIGHT	ELECTRICAL				NOTES
				COMPRESSORS	CIRCUITS	TYPE	CHARGE		MOCP	FLA	V/P/H		
CU-1	CONDENSING UNIT - WALK IN COOLER	HARFORD	KPCL99MZOP-3E	1	1	R-404A	10.4 LB	250 LBS	15 A	9 A	208/3/60		1, 2
CU-2	REMOTE CONDENSER - LOW CAPACITY ICE MAKER	HOSHIZAKI	URC-9F	0	1	R-404A	11.46 LB	100 LBS			120/1/60		1, 3
CU-3	REMOTE CONDENSER - SODA MACHINE ICE MAKER	HOSHIZAKI	URC-5F	0	1	R-404A	3.86 LB	100 LBS			120/1/60		1, 3

NOTES:
1. EQUIPMENT SPECIFIED BY OTHERS, SHOWN FOR REFERENCE ONLY.
2. FURNISHED WITH WALK-IN COOLER.
3. FURNISHED WITH ICE MAKER.

EXHAUST FAN SCHEDULE

TAG	DESCRIPTION	MANUFACTURER	MODEL	SERVICE	LOCATION	FAN DATA			ELECTRICAL DATA					NOTES
						AIRFLOW	E.S.P.	MOUNT	DRIVE	MOTOR POWER	AMPS	VOLTAGE	PHASE	
EF-1	UPBLAST UL762 EXHAUST FAN	CAPTIVEAIRE	DU240HFA	KITCHEN HOOD	ROOF	3,200 CFM	1.2"WC	ROOF CURB	DIRECT	3.0 HP	10.2	208	3	1-4
EF-2	DOWNBLAST RESTROOM EXHAUST FAN	CAPTIVEAIRE	DR12HFA	RESTROOMS	ROOF	150	0.6"WC	ROOF CURB	DIRECT	0.25 HP	2.9	115	1	5-7

NOTES:
1. WEATHERPROOF DISCONNECT.
2. 20" HIGH VENTED ROOF CURB
3. GREASE DRAIN.
4. ENVIROMATIC VIROGUARD HOOD EXHAUST FAN ROOFTOP CONTAINMENT SYSTEM.
5. INTEGRAL DISCONNECT.
6. SPEED CONTROL.
7. 26" CURB WITH BACKDRAFT DAMPER.
8. E.S.P. INCLUDES E.S.P. OF EXHAUST PLENUM LISTED IN KITCHEN HOOD SCHEDULE.

VIROGUARD SCHEDULE

TAG	DESCRIPTION	DUCT CONNECTION SIZE	BASIS FOR DESIGN MANUFACTURER	FAN	SERVICE	FURNISHED BY	INSTALLED BY
VG-1	VIROGUARD HOOD EXHAUST FAN ROOFTOP CONTAINMENT SYSTEM	18" X 18"	ENVIROMATIC	CAPTIVE-AIRE DU240HFA	KITCHEN HOOD EXHAUST FAN	TDC	GC

KITCHEN HOOD SCHEDULE

TAG	DESCRIPTION	MANUFACTURER	MODEL	MAX COOKING TEMP	EXHAUST PLENUM							PERFORATED SUPPLY PLENUMS									# OF LIGHT FIXTURES	WEIGHT	NOTES
					AIRFLOW	E.S.P.	WIDTH	LENGTH	DUCT COLLARS #	DUCT COLLARS WIDTH	DUCT COLLARS LENGTH	WIDTH	LENGTH	MAKEUP AIR PLENUM AIRFLOW	MAKEUP AIR PLENUM DUCT COLLARS #	MAKEUP AIR PLENUM DUCT COLLARS WIDTH	MAKEUP AIR PLENUM DUCT COLLARS LENGTH	HVAC PLENUM AIRFLOW	HVAC PLENUM DUCT COLLARS #	HVAC PLENUM DUCT COLLARS DIAMETER			
HD-1	TYPE 1 CANOPY HOOD WITH PERFORATED MAU AND HVAC SUPPLY PLENUMS	CAPTIVEAIRE	5424 ND-2-ACPSP-F	600 DEG. F.	3,200 CFM	0.8" WC	4'-3"	14'-3"	2	10"	1'-3"	1'-10"	15'-3"	1,950 CFM	3	10"	2'-4"	800 CFM	7	8"	10	1,070 LBS	1-11

NOTES:
1. 18 GAUGE TYPE 430 STAINLESS STEEL CONSTRUCTION.
2. FURNISHED WITH VAPORPROOF INCANDESCENT LIGHT FIXTURES.
3. 16" TALL HE SS FILTERS.
4. INTEGRAL UTILITY CABINET.
5. ANSUL SYSTEM.
6. DUCT COLLAR TEMPERATUER SENSOR.
7. PREWIRE PACKAGE.
8. SPARE FIRE SYSTEM DRY CONTACT.
9. 4-POLE 20A CONTACTOR.
10. DVC-1 KITCHEN FAN CONTROL CENTER TO ENGAGE ASSOCAITED MAKE-UP AIR UNIT AND EXHAUST FAN AND CONTROL LIGHTS.
11. UL LISTED FIRE SUPPRESSION AND GREASE COLLECTION SYSTEM.

MAKEUP AIR UNIT SCHEDULE

TAG	DESCRIPTION	MANUFACTURER	MODEL	SERVICE	AIRFLOW	E.S.P.	HEATING DATA				ELECTRICAL DATA				WEIGHT	NOTES
							INPUT	OUTPUT	EAT	LAT	MOTOR POWER	AMPS	VOLTAGE	PHASE		
MAU-1	DIRECT-FIRED MAKEUP AIR UNIT	CAPTIVEAIRE	A1-D.250-15D	KITCHEN HOOD	1,950 CFM	0.5"WC	131 MBH	120 MBH	27 DEG. F	70 DEG. F.	2.0 HP	7.7	208	3	510 LBS	1-7

NOTES:
1. 12.5:1 MAXIMUM TURNDOWN.
2. FURNISHED WITH DISCONNECT.
3. 20" ROOF CURB.
4. SCREENED INTAKE.
5. WASHABLE ALUMINUM FILTERS.
6. DOWN DISCHARGE SUPPLY AIR.
7. INTERLOCKED WITH KITCHEN HOOD.

ROOFTOP UNIT SCHEDULE

TAG	DESCRIPTION	MANUFACTURER	MODEL	NOMINAL CAPACITY	AIRFLOW			COOLING DATA				HEATING DATA		ELECTRICAL DATA					NOTES
					SUPPLY AIR	OUTSIDE AIR	E.S.P.	REFRIGERANT	TOTAL CAPACITY (NET)	SENSIBLE CAPACITY (NET)	EER	IEER	FUEL	INPUT	OUTPUT	MOCP	MCA	VOLTAGE	PHASE	
RTU-1	KITCHEN ROOFTOP UNIT	YORK	ZJ102N12R2B5EAA2A2	8.5 TONS	3,400 CFM	800 CFM	0.8"WC	R-410A	99.2 MBH	59.8 MBH	12.0	13.8	N. GAS	108.2 MBH	86.5 MBH	60	48.3	230	3	1-9
RTU-2	DINING ROOM ROOFTOP UNIT	YORK	ZJ120N18R2B5EAA2A2	10 TONS	4,000 CFM	700 CFM	0.8"WC	R-410A	111.3 MBH	83.0 MBH	12.0	14.6	N. GAS	162.3 MBH	129.8 MBH	50	44.9	230	3	1-9

NOTES:
1. FURNISHED WITH ENTHALPY ECONOMIZER AND BAROMETRIC RELIEF.
2. SMOKE DETECTOR WITH REMOTE KEYED ANNUNCIATOR/RESET.
3. MOTORIZED OUTSIDE AIR DAMPER.
4. MERV-8 FILTERS.
5. ROOF CURB.
6. HAIL GUARD.
7. TOOL-LESS HINGED ACCESS PANELS.
8. UNIT DISCONNECT.
9. UNIT-MOUNTED CONVENIENCE RECEPTACLE.

REVISION	DATE	CHKD
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PROJ.: 22025
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STATE OF NEW YORK * AYMAN IBRAHIM ELBARASI * 102639 * LICENSED PROFESSIONAL ENGINEER
10-21-2022

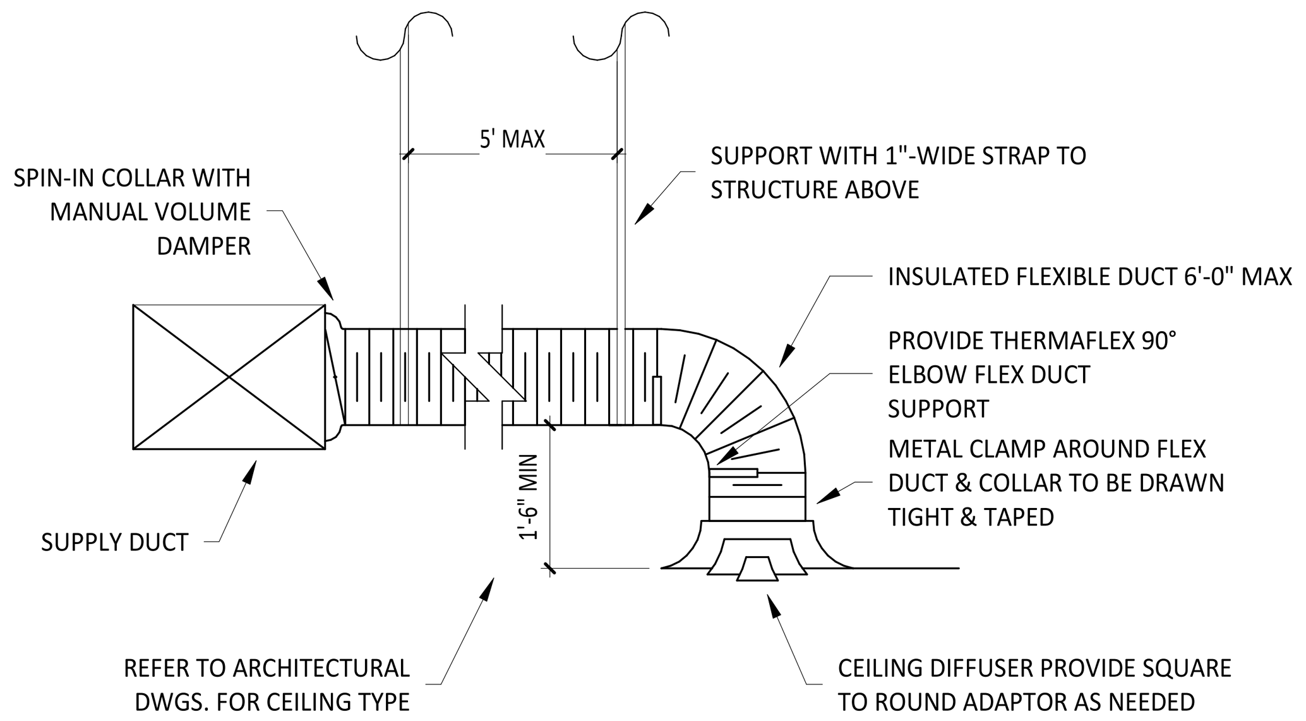
PLAZA DRIVE GROUP OF CNY, LLC

1 PLAZA DRIVE,
AUBURN, NY 12021

SHEET TITLE:

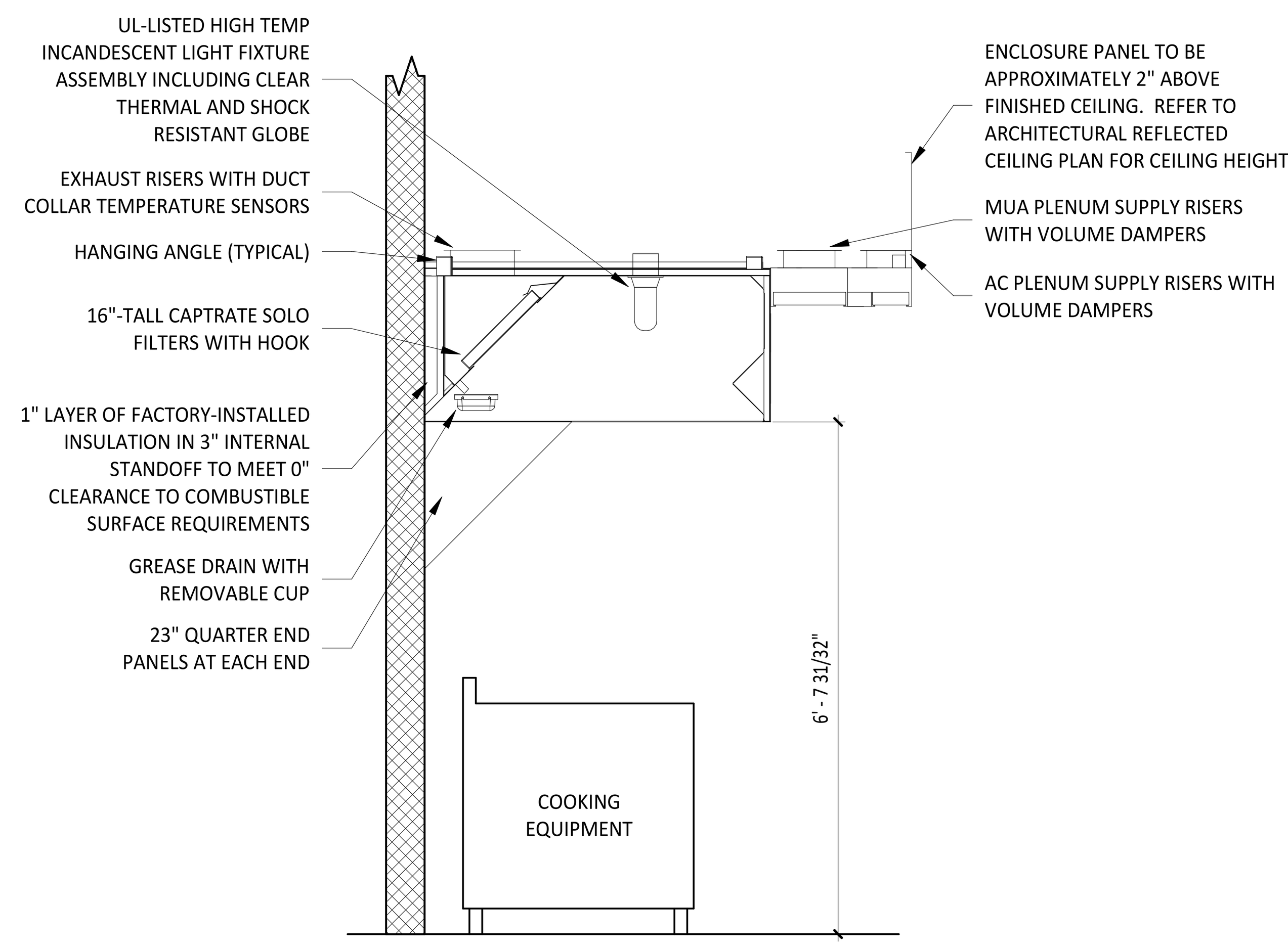
M600

MECHANICAL SCHEDULES



NOTE:
1. METHOD OF INSTALLATION FOR AIRTIGHT SEAL IS TYPICAL FOR ALL FLEX CONNECTIONS TO AIR DISTRIBUTION DEVICES.

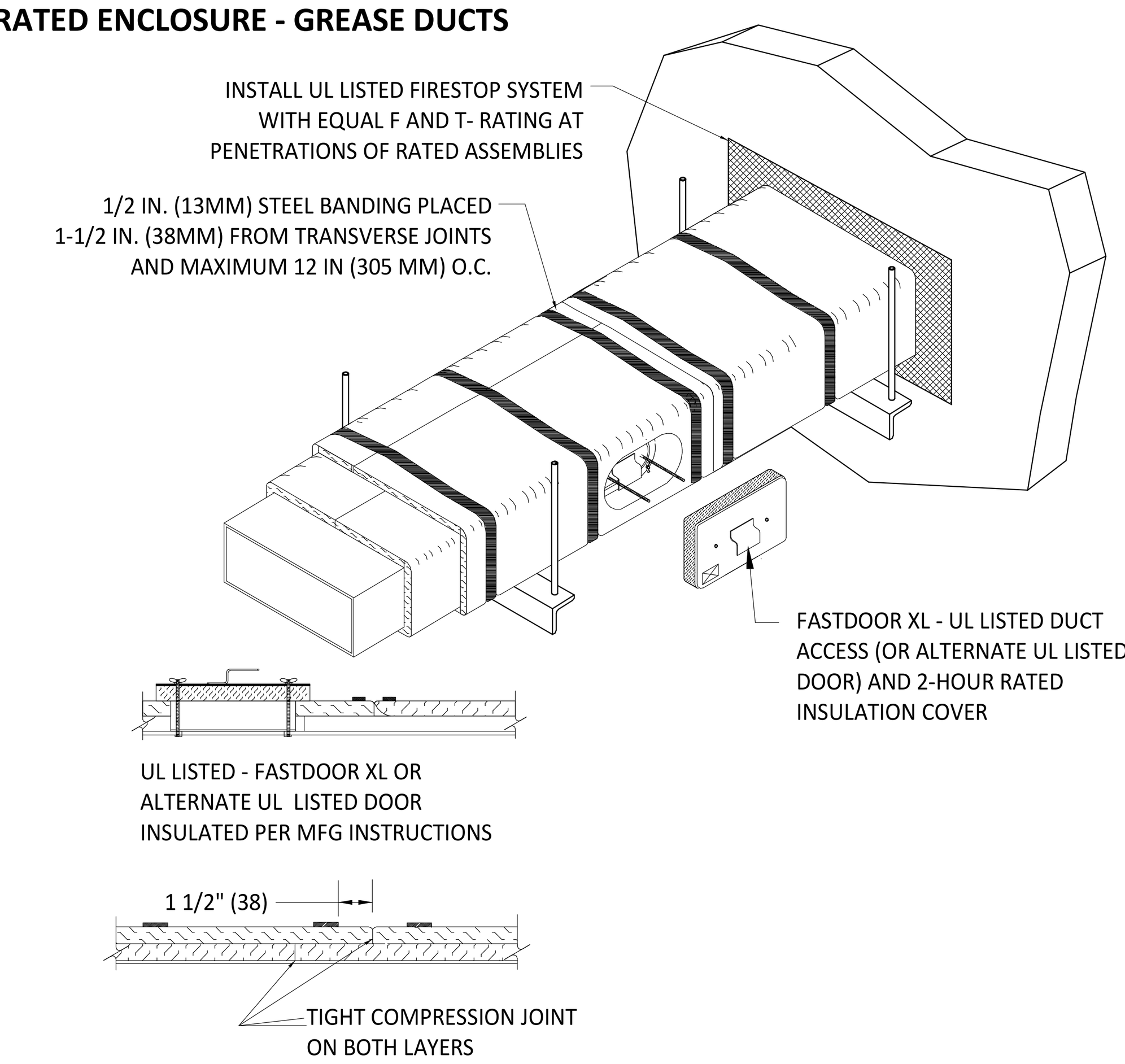
1 M700 **DIFFUSER CONNECTION**
NOT TO SCALE



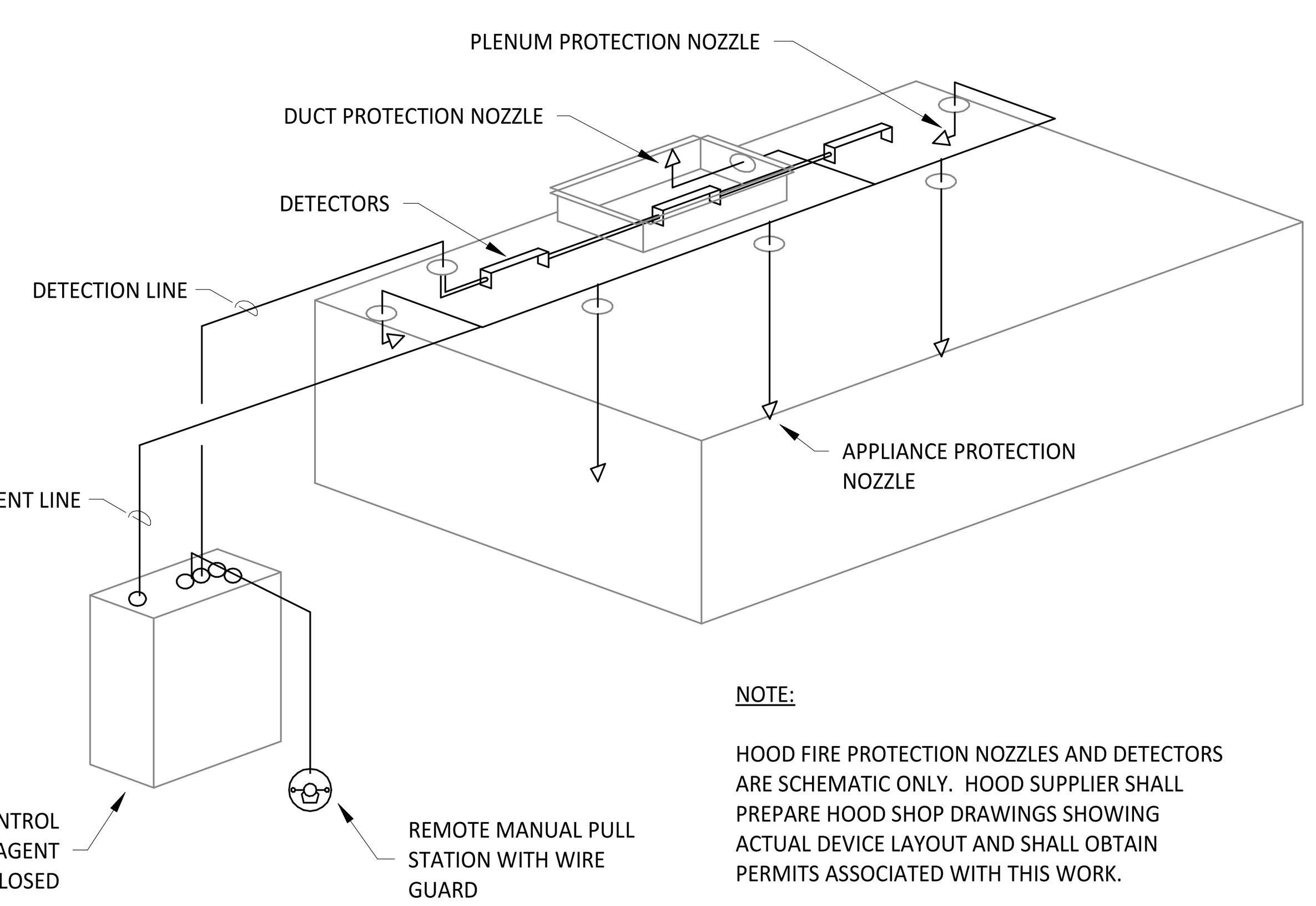
2 M700 **HOOD SECTION VIEW**
NOT TO SCALE

FIRE RATED ENCLOSURE - GREASE DUCTS

1. THERMAL CERAMICS FIREMASTER FASTWRAP XL IS TESTED TO ASTM E2336 AND UL LISTED PER HNKT.G18 TO PROVIDE ZERO CLEARANCE TO COMBUSTIBLES AND TO PROVIDE A 1- OR 2-HOUR ENCLOSURE. THROUGH PENETRATIONS FIRESTOP SYSTEMS ARE TESTED IN ACCORDANCE WITH ASTM E 814 (UL 1479). ICC CODE EVALUATION PER REPORT UL ER 14229-01.
2. COMPLIANT TO THE FOLLOWING CODES:
   NFPA 96
   INTERNATIONAL MECHANICAL CODES
   UNIFORM MECHANICAL CODE
   MECHANICAL CODE OF NEW YORK
   INSULATION APPLIED IN TWO LAYERS WITH TIGHT COMPRESSION JOINT ON BOTH LAYERS AT ALL JOINTS.
3. MINIMUM 16 GAUGE CARBON STEEL (OR 18 GAGE STAINLESS STEEL) RECTANGULAR OR ROUND GREASE EXHAUST DUCT
4. INSTALL UL LISTED AND LIQUID TIGHT THERMAL CERAMICS FASTDOOR XL ACCESS DOORS, OR ALTERNATE DOOR UL LISTED PER UL1978, AT ALL CHANGES IN DIRECTION AND AT MINIMUM EVERY 20 FT ON HORIZONTAL RUNS.
5. SUPPORT HANGER SYSTEMS DO NOT NEED TO BE WRAPPED PROVIDED THE HANGER RODS ARE MINIMUM OF 3/8 IN. DIAMETER AND SUPPORTS ARE MINIMUM 2 X 2 X 1/8 IN. STEEL ANGLE OR SMACNA EQUIVALENT SUPPORT SYSTEM.
6. THERMAL CERAMICS DUCT WRAP SHALL BE INSTALLED DIRECTLY ONTO THE DUCT AND APPLIED FROM THE HOOD CONNECTION TO THE CONNECTION TO THE FAN.
7. THERMAL CERAMICS DUCT ENCLOSURE SYSTEM SHALL BE INSTALLED IN STRICT ACCORDANCE WITH MANUFACTURERS INSTRUCTIONS AND UL LISTINGS.

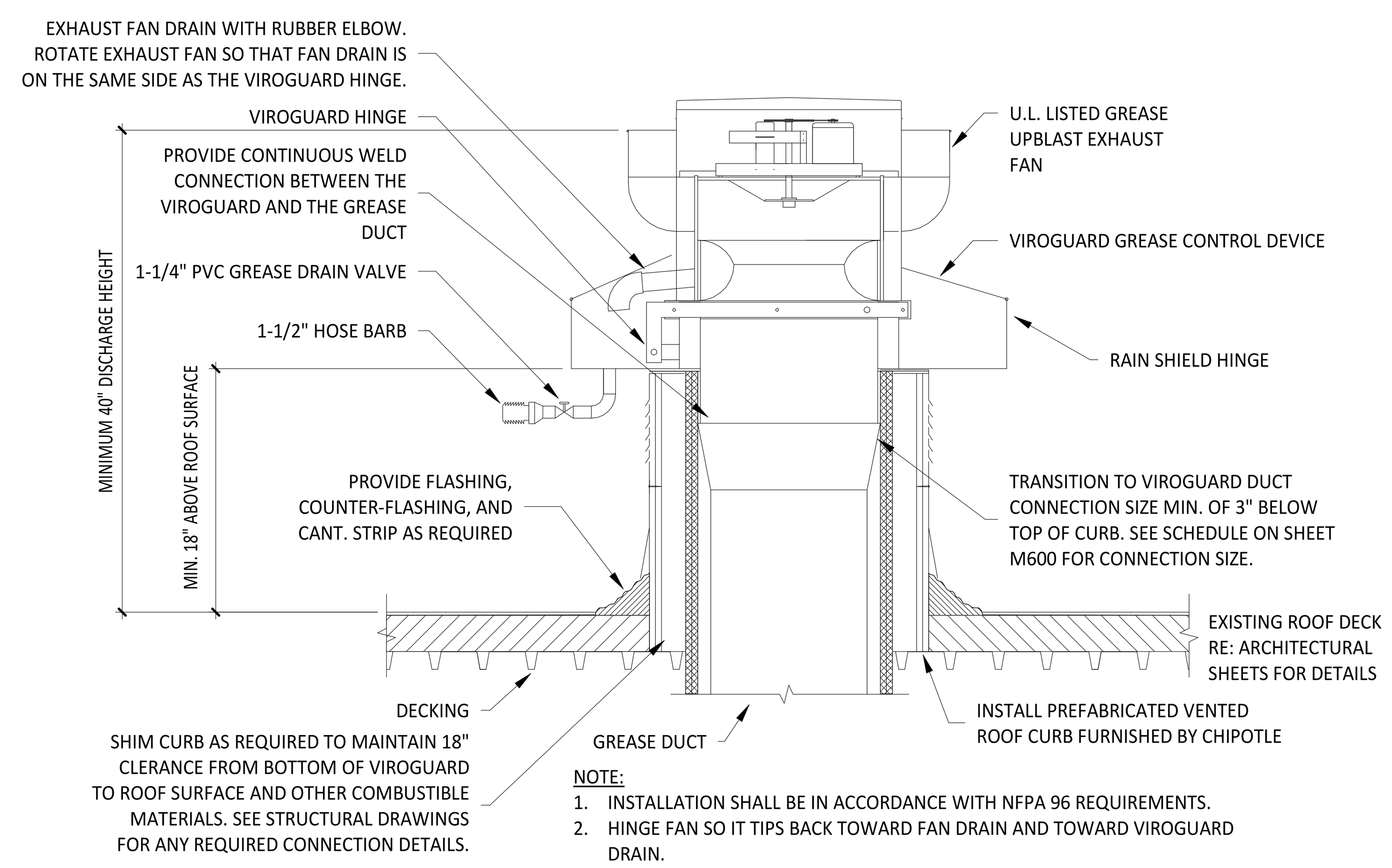


3 M700 **FIREMASTER DUCT WRAP - UL HNKT-G18**
NOT TO SCALE



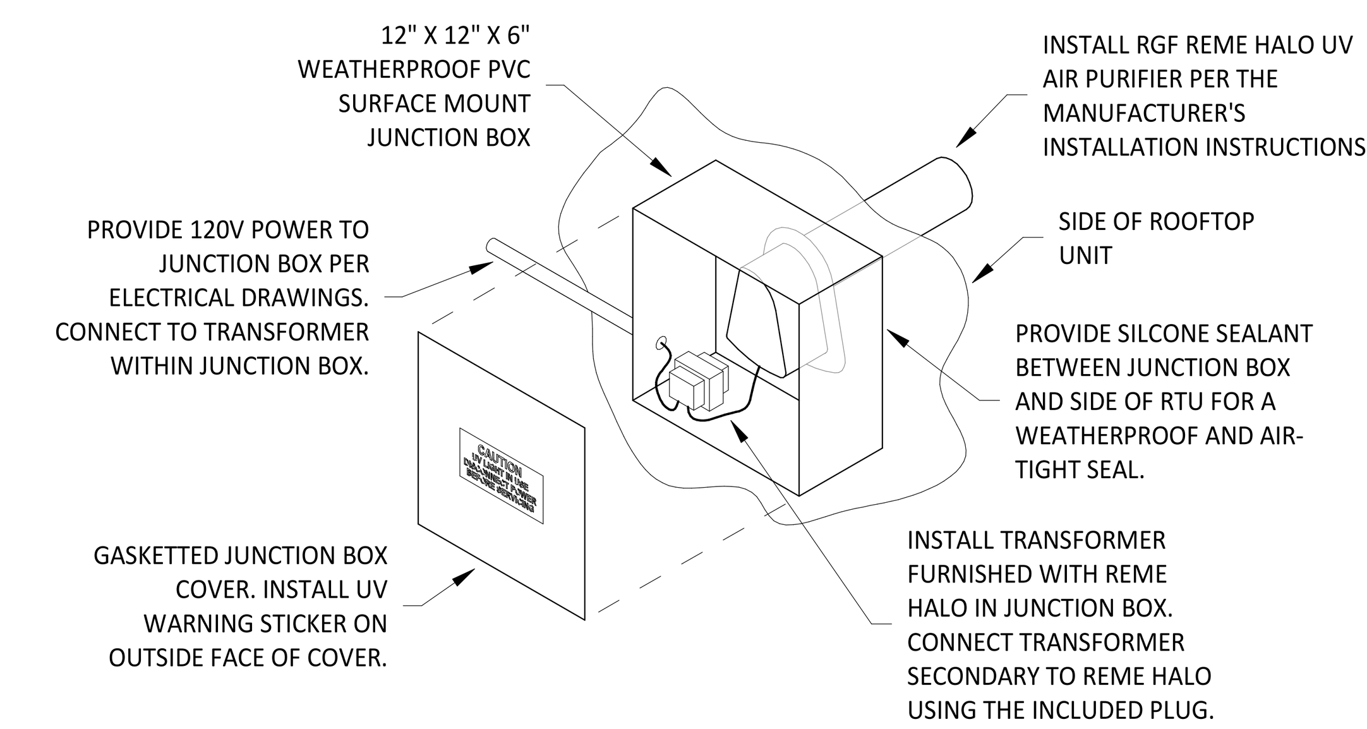
NOTE:
HOOD FIRE PROTECTION NOZZLES AND DETECTORS ARE SCHEMATIC ONLY. HOOD SUPPLIER SHALL PREPARE HOOD SHOP DRAWINGS SHOWING ACTUAL DEVICE LAYOUT AND SHALL OBTAIN PERMITS ASSOCIATED WITH THIS WORK.

4 M700 **FIRE SUPPRESSION SYSTEM SCHEMATIC**
NOT TO SCALE



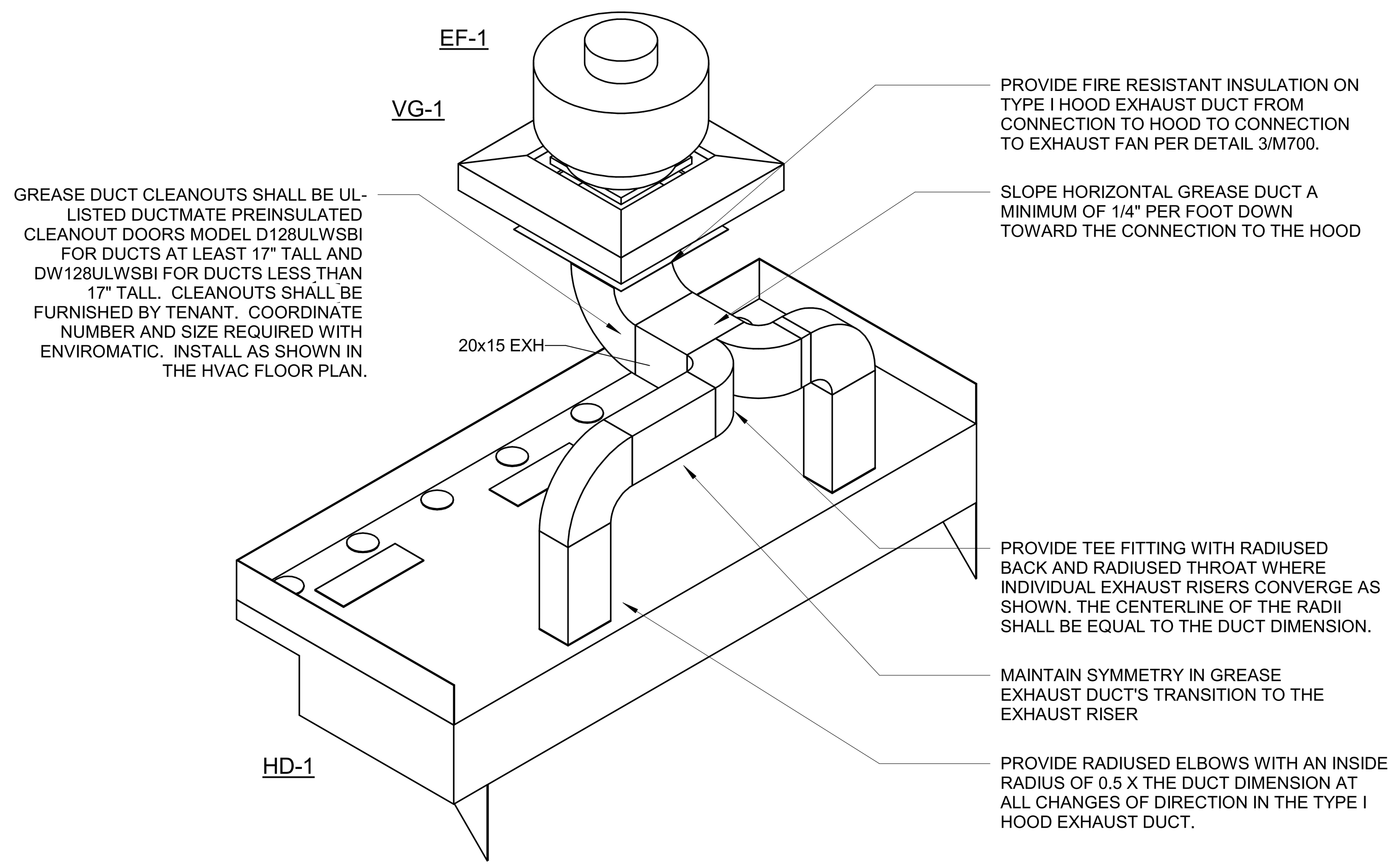
NOTE:
1. INSTALLATION SHALL BE IN ACCORDANCE WITH NFPA 96 REQUIREMENTS.
2. HINGE FAN SO IT TIPS BACK TOWARD FAN DRAIN AND TOWARD VIROGUARD DRAIN.

5 M700 **GREASE EXHAUST FAN**
NOT TO SCALE

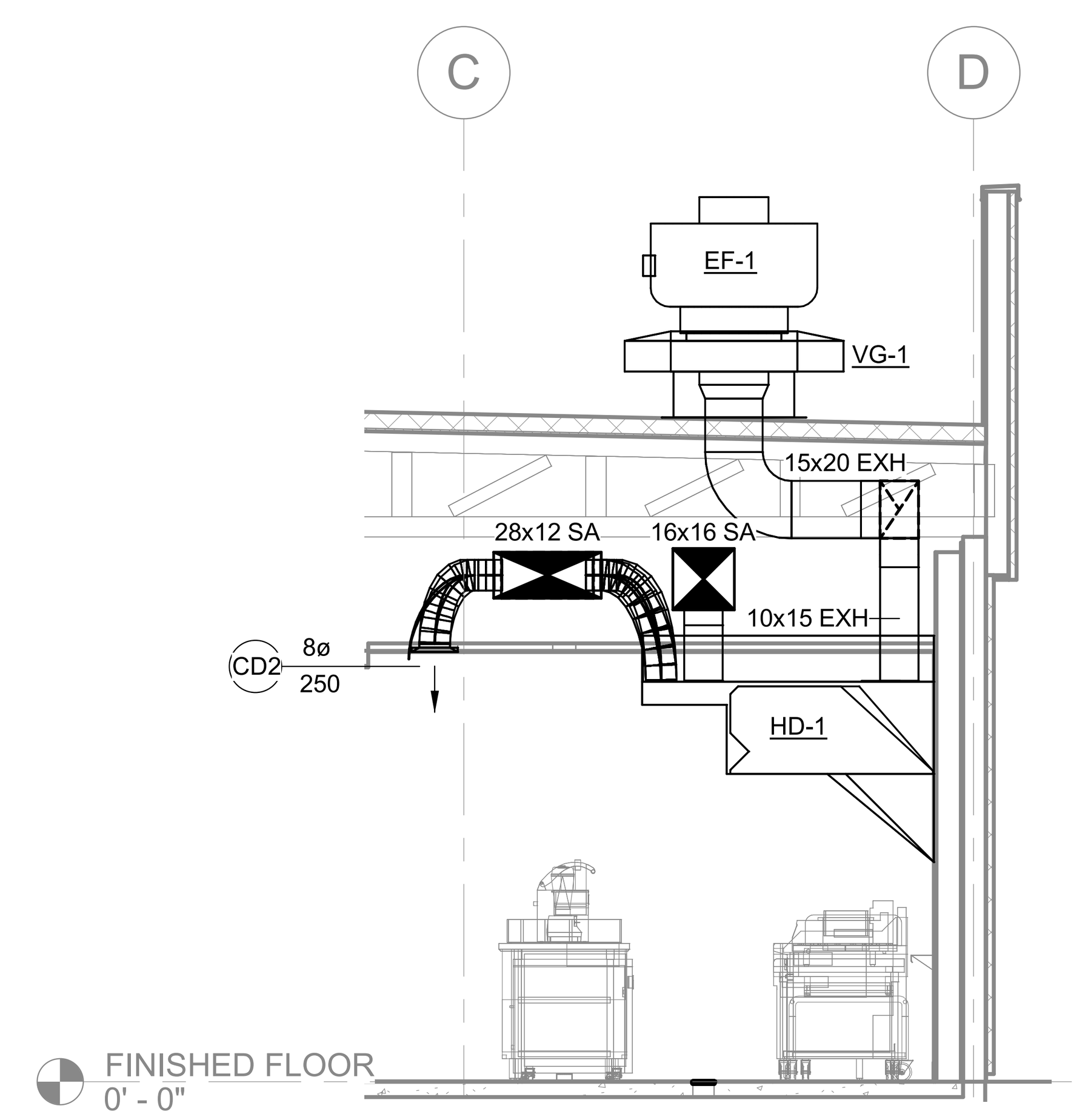


INSTALLATION LOCATION
INSTALL AIR PURIFIER WITH JUNCTION BOX ON OUTSIDE FACE OF ROOFTOP UNIT AND WITH UV LAMP TUBE EXTENDING INTO THE INTERIOR OF THE ROOFTOP UNIT. FIELD VERIFY EXACT LOCATION TO AVOID DAMAGING, TOUCHING, OR INTERFERING WITH ANY RTU INTERIOR COMPONENTS. INSTALLATION LOCATION SHALL BE AS FOLLOWS:
TRANE: INSTALL INTO THE SUPPLY AIR STREAM THROUGH THE REMOVABLE PANEL COVERING THE HORIZONTAL DISCHARGE SUPPLY AIR OPENING.
YORK: INSTALL INTO THE SUPPLY AIR PLENUM FROM THE BACK SIDE OF THE UNIT JUST ABOVE THE HEAT EXCHANGER.

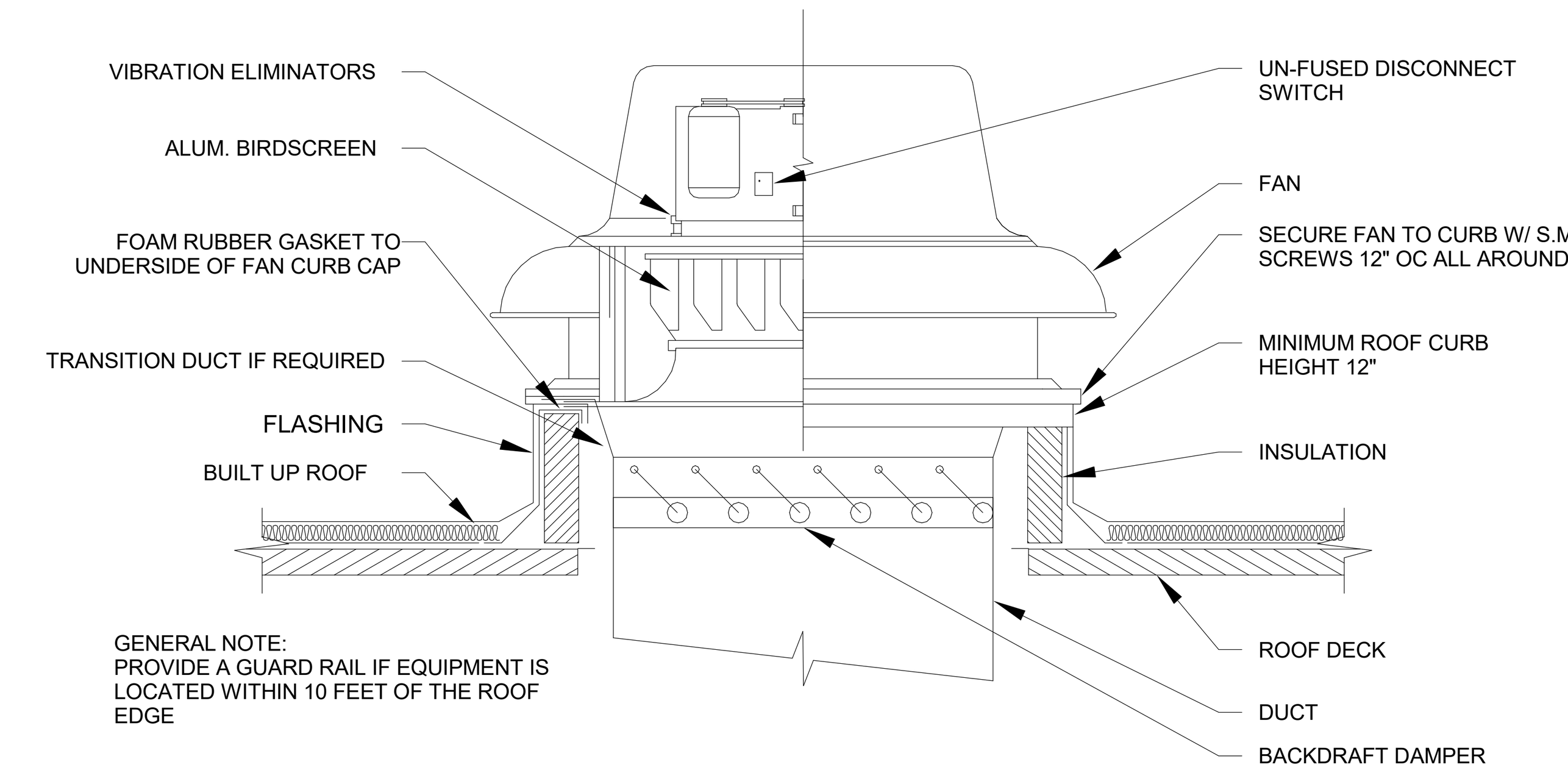
6 M700 **UV AIR PURIFIER INSTALLATION**
NOT TO SCALE



7 M700 **HOOD EXHAUST ISOMETRIC**
NOT TO SCALE



8 M700 **DUCT SECTION AT HOOD**
NOT TO SCALE



GENERAL NOTE:
PROVIDE A GUARD RAIL IF EQUIPMENT IS LOCATED WITHIN 10 FEET OF THE ROOF EDGE

9 M700 **EXHAUST FAN DETAIL - CENTRIFUGAL**
NOT TO SCALE

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SHEET TITLE:
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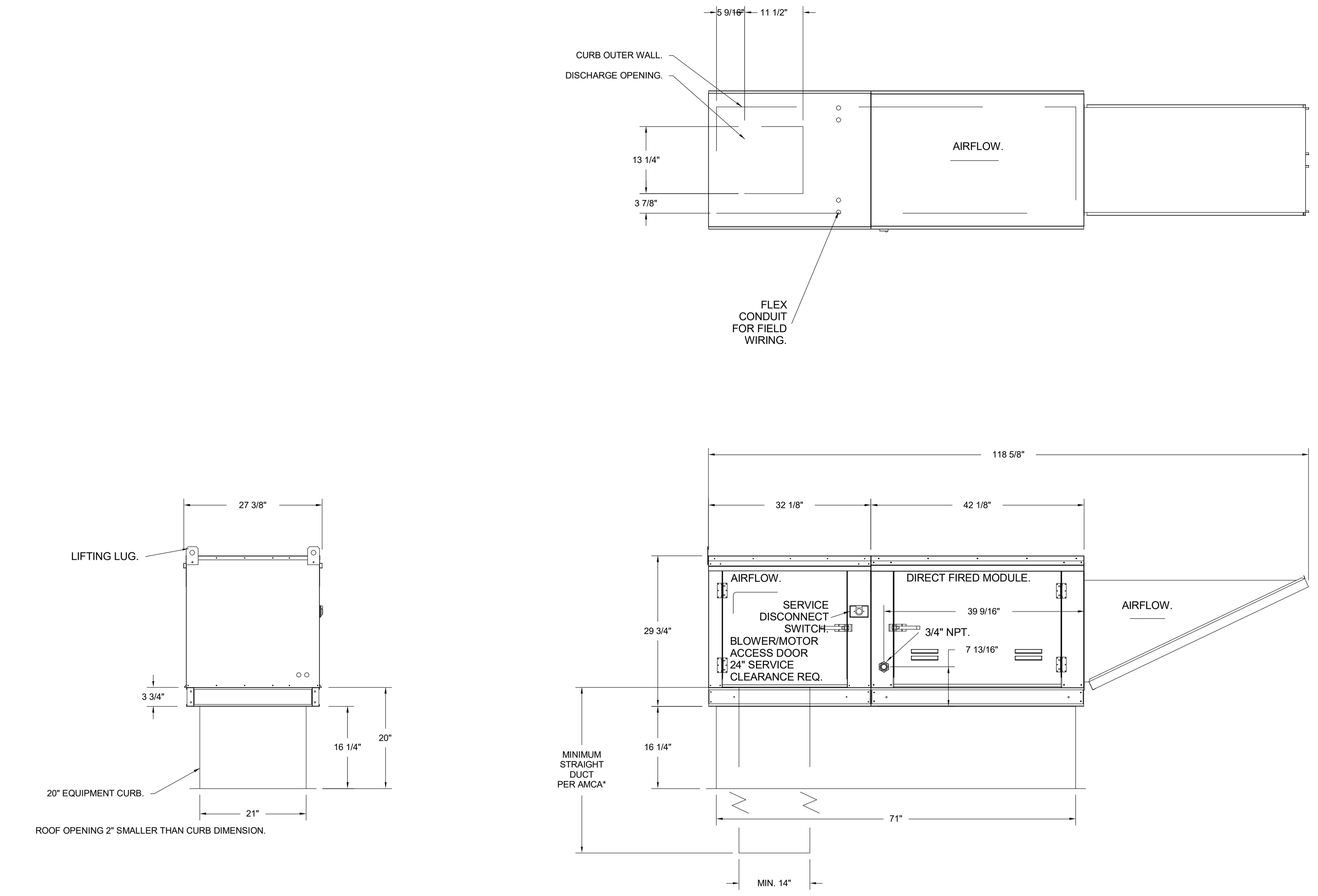

1 M710 **MAKEUP AIR UNIT DETAIL**

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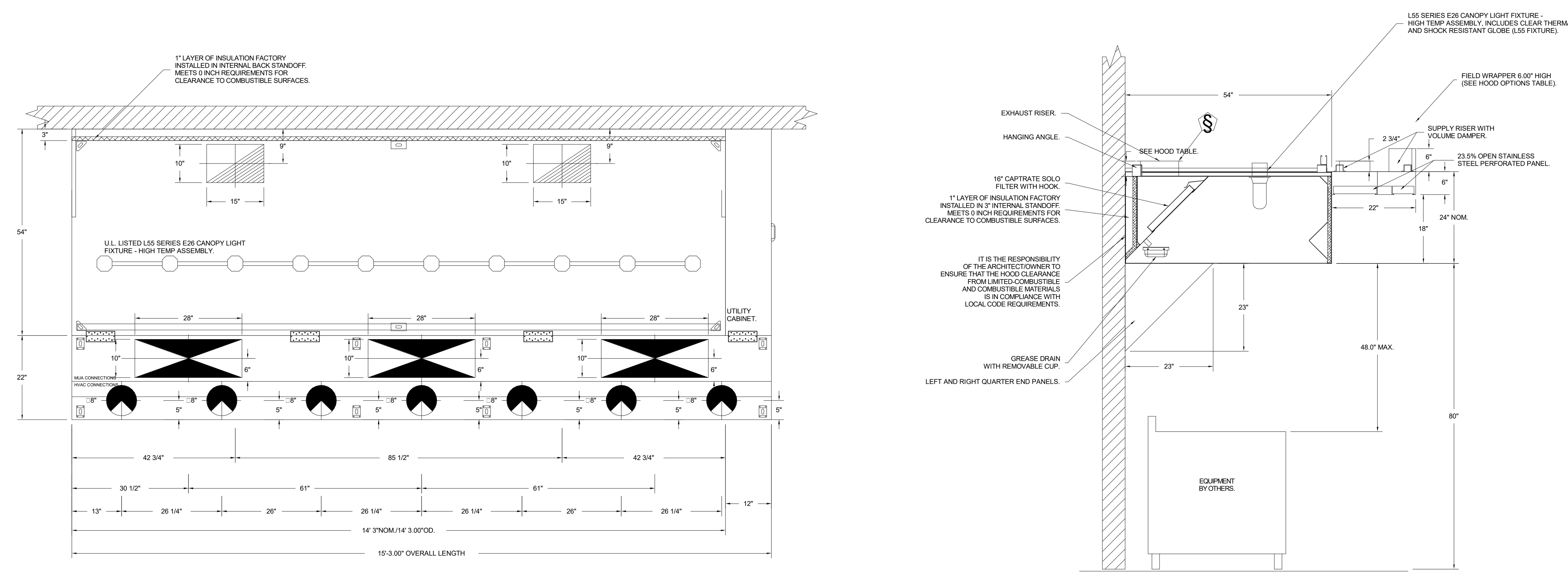

2 M710 **KITCHEN HOOD DETAIL**

NOT TO SCALE

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