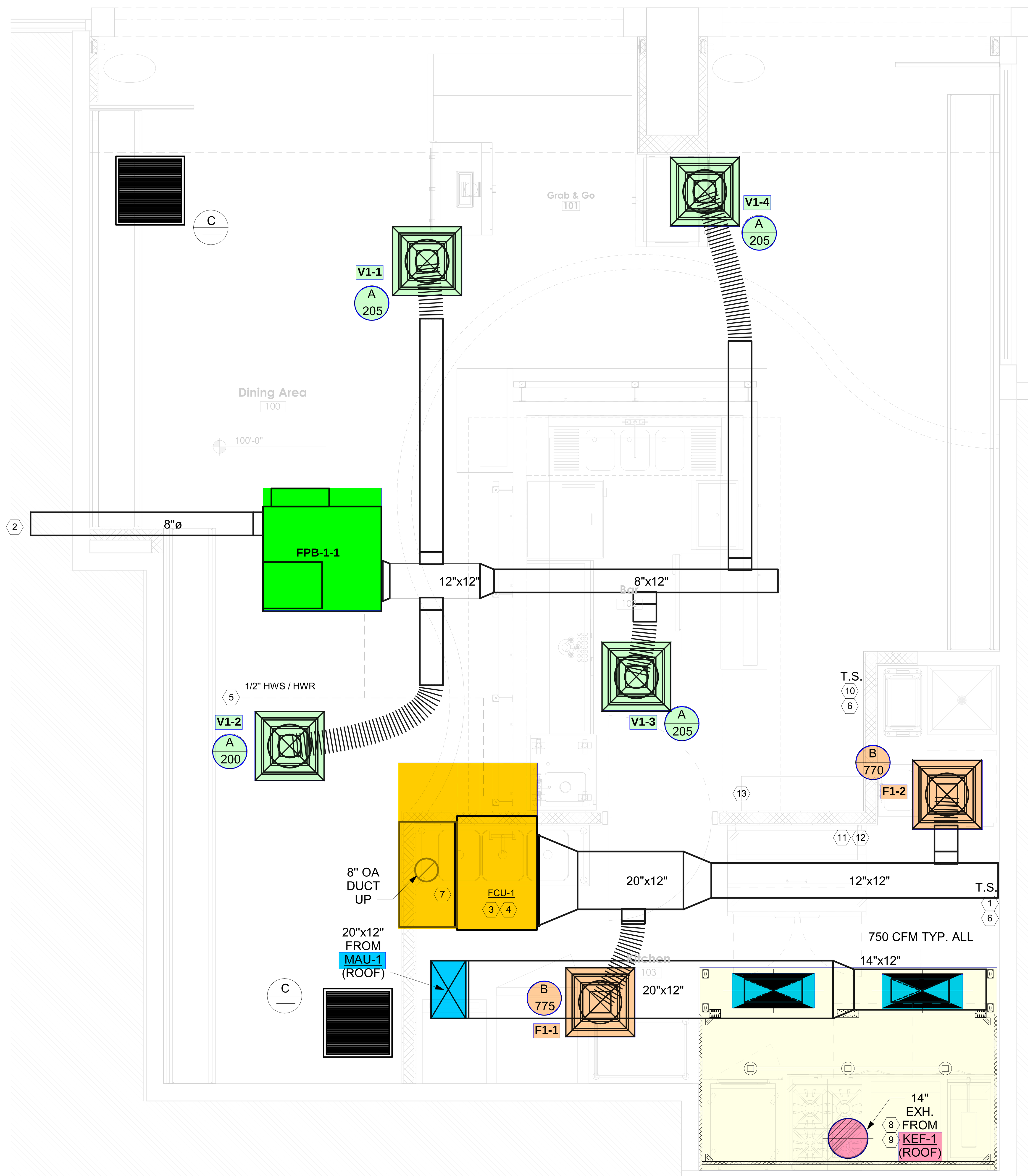
MECHANICAL GENERAL NOTES - AIRPORT:

- A MINIMUM OF A 30" CLEARANCE SHALL BE MAINTAINED IN FRONT OF ALL GREASE DUCT CLEAN OUTS.
- ALL GREASE DUCT SHALL BE TESTED WITH A 100-WATT MINIMUM LIGHT ON THE FLOOR PRIOR TO INSTALLING IT.
- GREASE DUCT BRACING AND SUPPORTS SHALL BE OF NONCOMBUSTIBLE MATERIAL SECURELY ATTACHED TO THE STRUCTURE AND DESIGNED TO CARRY GRAVITY AND SEISMIC LOADS WITHIN THE STRESS LIMITATIONS OF THE INTERNATIONAL BUILDING CODE. BOLTS, SCREWS, RIVETS, AND OTHER MECHANICAL FASTENERS SHALL NOT PENETRATE DUCT WALLS.
- ALL GREASE DUCT MUST BE INSPECTED ON THE FLOOR BEFORE INSTALLING IT WITH ONLY THE FINAL CONNECTIONS TESTED AFTERWARD.
- 506.3.1.1 GREASE DUCT MATERIALS
- GREASE DUCTS SERVING TYPE I HOODS SHALL BE CONSTRUCTED OF STEEL HAVING A MINIMUM THICKNESS OF 0.0575 INCH (1.463 MM)(NO. 16 GAGE) OR STAINLESS STEEL NOT LESS THAN 0.0450 INCH (1.14 MM)(NO. 18 GAGE) IN THICKNESS.
- EXCEPTION: FACTORY-BUILT COMMERCIAL KITCHEN GREASE DUCTS LISTED AND LABELED IN ACCORDANCE WITH UL 1978 AND INSTALLED IN ACCORDANCE WITH SECTION 304.1
- SEPARATION OF GREASE DUCT SYSTEM •A SEPARATE GREASE DUCT SYSTEM SHALL BE PROVIDED FOR EACH TYPE I HOOD. A SEPARATE GREASE DUCT SYSTEM IS NOT REQUIRED WHERE ALL OF THE FOLLOWING CONDITIONS ARE MET:
- ALL INTERCONNECTED HOODS ARE LOCATED WITHIN THE SAME STORY.
- ALL INTERCONNECTED HOODS ARE LOCATED WITHIN THE SAME ROOM OR IN ADJOINING ROOMS.
- INTERCONNECTING DUCTS DO NOT PENETRATE ASSEMBLIES REQUIRED TO BE FIRE-RESISTANCE RATED.
- THE GREASE DUCT SYSTEM DOES NOT SERVE SOLID FUEL FIRED APPLIANCES.
- 506.3.12 GREASE DUCT FIRE-RESISTIVE ACCESS OPENING WHERE CLEANOUT OPENINGS ARE LOCATED IN DUCTS WITHIN A FIRE-RESISTANCE-RATED ENCLOSURE, ACCESS OPENINGS SHALL BE PROVIDED IN THE ENCLOSURE AT EACH CLEANOUT POINT. ACCESS OPENINGS SHALL BE EQUIPPED WITH TIGHT-FITTING SLIDING OR HINGED DOORS THAT ARE EQUAL IN FIRE-RESISTIVE PROTECTION TO THAT OF THE SHAFT OR ENCLOSURE. AN APPROVED SIGN SHALL BE PLACED ON ACCESS OPENING PANELS WITH WORDING AS FOLLOWS: "ACCESS PANEL. DO NOT OBSTRUCT." •
- 507.1.1 OPERATION COMMERCIAL KITCHEN EXHAUST HOOD SYSTEMS SHALL OPERATE DURING THE COOKING OPERATION. THE HOOD EXHAUST RATE SHALL COMPLY WITH THE LISTING OF THE HOOD OR SHALL COMPLY WITH SECTION 507.5. THE EXHAUST FAN SERVING A TYPE I HOOD SHALL HAVE AUTOMATIC CONTROLS THAT WILL ACTIVATE THE FAN WHEN ANY APPLIANCE THAT REQUIRES SUCH TYPE I HOOD IS TURNED ON, OR A MEANS OF INTERLOCK SHALL BE PROVIDED THAT WILL PREVENT OPERATION OF SUCH APPLIANCES WHEN THE EXHAUST FAN IS NOT TURNED ON. WHERE ONE OR MORE TEMPERATURE OR RADIANT ENERGY SENSORS ARE USED TO ACTIVATE A TYPE I HOOD EXHAUST FAN, THE FAN SHALL ACTIVATE NOT MORE THAN 15 MINUTES AFTER THE FIRST APPLIANCE SERVED BY THAT HOOD HAS BEEN TURNED ON. A METHOD OF INTERLOCK BETWEEN AN EXHAUST HOOD SYSTEM AND APPLIANCES EQUIPPED WITH STANDING PILOT BURNERS SHALL NOT CAUSE THE PILOT BURNERS TO BE EXTINGUISHED. A METHOD OF INTERLOCK BETWEEN AN EXHAUST HOOD SYSTEM AND COOKING APPLIANCES SHALL NOT INVOLVE OR DEPEND UPON ANY COMPONENT OF A FIRE-EXTINGUISHING SYSTEM. AIRFLOW SENSORS SHALL CONTINUOUSLY MONITOR AIR FLOW OPTIMIZING PERFORMANCE AND GREASE REMOVAL WHILE AN INTERLOCKING SYSTEM WILL NOT ALLOW COOKING APPLIANCES TO FUNCTION IF FILTERS ARE MISSING, CLOGGED, OR IN THE EVENT OF A FIRE.
- 507.2 TYPE I HOODS TYPE I HOODS SHALL BE INSTALLED WHERE COOKING APPLIANCES PRODUCE GREASE OR SMOKE AS A RESULT OF THE COOKING PROCESS. TYPE I HOODS SHALL BE INSTALLED OVER MEDIUM-DUTY, HEAVY-DUTY AND EXTRA-HEAVY-DUTY COOKING APPLIANCES. EXCEPTION: A TYPE I HOOD SHALL NOT BE REQUIRED FOR AN ELECTRIC COOKING APPLIANCE WHERE AN APPROVED TESTING AGENCY PROVIDES DOCUMENTATION THAT THE APPLIANCE EFFLUENT CONTAINS 5 MG/M3 OR LESS OF GREASE WHEN TESTED AT AN EXHAUST FLOW RATE OF 500 CFM (0.236 M3/S) IN ACCORDANCE WITH UL 710B.
- 507.2.6 CLEARANCES FOR TYPE I HOOD A TYPE I HOOD SHALL BE INSTALLED WITH A CLEARANCE TO COMBUSTIBLES OF NOT LESS THAN 18 INCHES (457 MM). EXCEPTION: CLEARANCE SHALL NOT BE REQUIRED FROM GYPSUM WALLBOARD OR 1/2 -INCH (12.7 MM) OR THICKER CEMENTITIOUS WALLBOARD ATTACHED TO NONCOMBUSTIBLE STRUCTURES PROVIDED THAT A SMOOTH, CLEANABLE, NONABSORBENT AND NONCOMBUSTIBLE MATERIAL IS INSTALLED BETWEEN THE HOOD AND THE GYPSUM OR CEMENTITIOUS WALLBOARD OVER AN AREA EXTENDING NOT LESS THAN 18 INCHES (457 MM) IN ALL DIRECTIONS FROM THE HOOD.
- AN APPROVED MECHANICAL PLAN REVIEW DOES NOT RELIEVE COMPLIANCE WITH THE A TEST AND BALANCE REPORT MUST BE REVIEWED BY THE ENGINEER OF RECORD, STAMPED, SIGNED, AND APPROVED THEN SENT TO DFW CODE PRIOR TO RECEIVING A MECHANICAL FINAL.
- CONDENSATE DRAINS SHALL DISCHARGE INTO THE SANITARY SEWER
- ALL HVAC CONTROLS, VALVES, STRAINERS, COILS, AND FILTERS MUST BE ACCESSIBLE.
- PER THE MECHANICAL CODE, THERE MUST BE A 30" MINIMUM CLEARANCE IN FRONT OF ALL CONTROLS, VALVES, AND FILTERS. IF A VAV IS ABOVE A HARD CEILING. A MINIMUM OF 24"X24" ACCESS DOOR SHALL BE INSTALLED TO PROVIDE ACCESS TO ALL COMPONENTS; INCLUDING BUT NOT LIMITED TO FILTERS.
- ALL CONTROL DAMPERS MUST BE ACCESSIBLE.
- ALL FIRE DAMPERS MUST HAVE A FIRE RATED ACCESS DOOR LARGE ENOUGH TO SERVICE THE FIRE DAMPER.
- ALL EQUIPMENT ON THE ROOF MUST HAVE A CONVENIENCE RECEPTACLE FOR MAINTENANCE PURPOSES WITHIN 25'.



1 MECHANICAL LAYOUT

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

MECHANICAL GENERAL NOTES:

1. CODES, RULES AND REGULATIONS - DESIGN OF SYSTEM
   A) ALL WORK AND MATERIALS SHALL BE IN FULL ACCORDANCE WITH ALL APPLICABLE FEDERAL, STATE, AND LOCAL LAWS, ORDINANCES AND CODES.
   B) WHEN THE DRAWINGS CALL FOR MATERIALS OR CONSTRUCTION OF A BETTER QUALITY OR LARGER SIZES THAN REQUIRED BY THE ABOVE MENTIONED CODES AND RULES. WORK SHALL BE AS SPECIFIED OR SHOWN RATHER THAN AS REQUIRED BY CODE. ALL ITEMS OR FEATURES OF THE Q MECHANICAL SYSTEMS REQUIRED BY CODE SHALL BE INCLUDED, EVEN THOUGH NOT SPECIFIED HEREIN.
   C) INSTALLATION OF THE SYSTEMS SHALL BE IN ACCORDANCE WITH THE ABOVE MENTIONED CODES AND REGULATIONS AND ALSO SHALL CONFORM TO GOOD, ACCEPTED MECHANICAL PRACTICES.
2. PROVED AND INSTALL VOLUME DAMPERS IN ALL BRANCH DUCTS.
3. FLEXIBLE CONNECTIONS AT SUPPLY AND RETURN AIR OPENINGS OF ALL AIR CONDITIONING UNITS.
4. FLEXIBLE DUCTS TO BE R-8 GLASS-FLEX 15'-0" MAXIMUM IN LENGTH, WHERE APPLICABLE.
5. COORDINATE EXACT LOCATION OF ALL AIR OUTLETS AND INLETS (DIFFUSERS, REGISTERS AND GRILLES) WITH APPROPRIATE ARCHITECTURAL PLAN, AND VERIFY THEIR LOCATION WITH ARCHITECT ON THE JOB SITE BEFORE INSTALLATION. COLOR AS DIRECTED BY ARCHITECT/OWNER.
6. AUTOMATIC TEMPERATURE CONTROL DEVICE FOR REGULATION OF SPACE TEMPERATURE SHALL BE CAPABLE OF BEING SET FROM 55 TO 85°F, AND HAVE THE ABILITY TO OPERATE THE HEATING AND COOLING IN SEQUENCE. CONTROL SHALL BE ADJUSTABLE TO PROVIDE A RANGE OF UP TO 5°F BETWEEN FULL HEATING AND FULL COOLING.
7. APPLIANCES DESIGNED TO BE FIXED IN POSITION SHALL BE FASTENED IN PLACE.
8. A MAINTENANCE LABEL SHALL BE AFFIXED TO MECHANICAL EQUIPMENT AND A MAINTENANCE MANUAL SHALL BE PROVIDED FOR THE OWNERS USE.
9. PROVIDE ACCESS PANEL FOR ALL CEILING MOUNTED EQUIPMENT & YOUNG PROVIDE ACCESS PANEL FOR ALL CEILING MOUNTED EQUIPMENT & YOUNG
10. PROVIDE MIN. 10'-0" SEPARATION BETWEEN POINT OF EXHAUST AND ANY PROVIDE MIN. 10'-0" SEPARATION BETWEEN POINT OF EXHAUST AND ANY FRESH AIR INTAKE, OR A/C UNIT OUTSIDE AIR INTAKE.
11. PROVIDE FIRE DAMPERS OR SMOKE/FIRE DAMPERS WHERE DUCT PENETRATES FIRE RATED CEILING OR WALL IF APPLICABLE.
12. TRANSVERSE JOINTS FOR ALL AIR SUPPLY DUCTS INSTALLED WHERE AIR LEAKAGE WOULD BE NON-BENEFICIAL TO THE OCCUPIED AREA, TEMPERATURE REQUIREMENTS SHALL BE SEALED WITH APPROVED MASTIC OR TAPE.
13. ALL DUCT SIZES SHOWN ON THE FLOOR PLANS ARE CLEAR INSIDE DIMENSIONS. CONTRACTOR SHALL ENLARGE DUCT SIZE IN ORDER TO ACCOMMODATE LINING INSIDE OF DUCT.
14. THE MECHANICAL CONTRACTOR SHALL SECURE AND PAY FOR ALL REQUIRED PERMIT AND FEES.
15. SHOP PRIME ALL MISCELLANEOUS INTERIOR BRACKETS AND HANGERS UNLESS GALVANIZED OR STAINLESS STEEL.
16. ENERGY CONSERVATION STANDARDS FOR NEW NONRESIDENTIAL BUILDINGS HAVE BEEN REVIEWED AND DESIGN SUBSTANTIALLY CONFORMS TO THEM.
17. EACH SINGLE SYSTEM PROVIDING HEATING OR COOLING AIR IN EXCESS OF 2,000 CFM SHALL BE EQUIPPED WITH AN AUTOMATIC SHUT-OFF. THE SMOKE DETECTOR SHALL BE INSTALLED IN THE MAIN RETURN DUCT AHEAD OF OSA INTAKE. SEE CODE FOR EXEMPTIONS AND LOCAL AUTHORITY FOR CODE INTERPRETATION, OR AS INDICATED ON PLAN.
18. ALL EQUIPMENT AND APPLIANCES ARE LISTED PRODUCTS, AND WILL BE INSTALLED ACCORDING TO THEIR LISTING, AND ALL LISTING INFORMATION WILL BE AVAILABLE FOR INSPECTION.
19. REFER TO DETAILS OR GUIDELINES FOR MECHANICAL CONSTRUCTION REQUIREMENTS. INSTALL IN FULL ACCORDANCE WITH PROPER CODES AND GUIDELINES.
20. COORDINATE IN THE FIELD THE EXACT LOCATION OF ALL CEILING MOUNTED GRILLES AND DIFFUSERS WITH LIGHT FIXTURES AND (ARCHITECTURAL) REFLECTED CEILING PLAN.
21. ALL EXTERIOR BRACKETS CLAMPS AND HANGERS SHALL BE HOT DIPPED GALVANIZED. COAT ALL CUT ENDS AND WELDS WITH "ZRC" COLD GALVANIZING COMPUTE.

X MECHANICAL KEYNOTES:

1. PROVIDE TEMPERATURE SENSOR. COORDINATE FINAL LOCATION WITH OWNER PRIOR TO INSTALLATION.
2. LOCATION OF EXISTING AIRPORT PROVIDED MEDIUM PRESSURE SUPPLY AIR DUCT. MECHANICAL CONTRACTOR SHALL VERIFY THAT THE EXISTING DUCT IS A MINIMUM OF 14".
3. ROUTE CONDENSATE DRAIN LINE DOWN TO MOP SINK OR SINK TAIL PIECE. CONDENSATE DRAIN TO BE SLOPED A MINIMUM OF 1/4" PER FOOT. SEE PLANS FOR DRAIN TERMINATION POINT.
4. PROVIDE UNIT WITH MANUFACTURERS SUGGESTED CLEARNACES FOR ACCESS AND MAINTENANCE. CONTRACTOR SHALL COORDINATE WILL ALL OTHER TRADES PRIOR TO INSTALL OR FABRICATION TO ENSURE PROPER CLEANACES OF SYSTEMS AND CODE REQUIREMENTS ARE MAINTAINED. PROVIDE AHU WITH INTEGRAL FILTER RACK.
5. AIRPORT PROVIDED HW HVAC LINES. MECHANICAL CONTRACTOR SHALL VERIFY SIZE OF EXISTING LINES PRIOR TO MAKING CONNECTION. IF EXISTING SIZE IS SMALLER CONTACT DESIGN ENGINEER.
6. INSTALL HONEYWELL GAS DETECTION SYSTEM. VERIFY FINAL LOCATION WITH ARCHITECT/OWNER PRIOR TO CONSTRUCTION. GAS DETECTION SYSTEM TO BE PROVIDED BY MECHANICAL CONTRACTOR.
7. PROVIDE OUTSIDE AIR INTAKE COOK PR-24 OR APPROVED EQUIVALENT.
8. EXHAUST DUCT IN 2-HR. FIRE RATED WRAP. EXHAUST DUCT SHALL BE BLACK MINIMUM 16 GAUGE WITH WELDED JOINTS AND GREASE TIGHT. KITCHEN EXHAUST FAN HEIGHT SHALL BE COORDINATED WITH ARCHITECT.
9. FINAL DUCT SIZE SHALL BE VERIFIED WITH MANUFACTURER PRIOR TO CONSTRUCTION. SEE HOOD MANUFACTURER'S DUCT DRAWINGS.
10. PROTECT AND REUSE THE EXISTING HVAV THERMOSTAT. IF THERMOSTAT IS DAMAGED, A NEW CONTROLLED MODULE WILL NEED TO BE INSTALLED ON THE HVAC UNIT. COORDINATE FINAL LOCATION WITH OWNER PRIOR TO INSTALLATION.
11. CONTRACTOR SHALL EVALUATE EXISTING ROOF PENETRATIONS AND REUSE IF APPLICABLE.
12. CONTRACTOR SHALL INSPECT FOR EXISTING UNUSED EQUIPMENT AND REMOVE. CAP AND SEAL ALL PENETRATIONS IF NOT UTILIZED.
13. MASTER TEMPERATURE CONTROL. COORDINATE MASTER CONTROLS WITH TEMPERATURE SENSORS TO ENSURE PROPER OPERATION.

RETURN FLEX DUCT SIZING SCHEDULE

SIZE	AIRFLOW (CFM)
4"∅	0 - 50
6"∅	50 - 100
8"∅	100 - 200
10"∅	200 - 300
12"∅	300 - 400
14"∅	400 - 500

MECHANICAL CONTRACTOR NOTES

PIPING BOTH VERTICAL AND HORIZONTALLY TO ROUTE MECHANICAL SYSTEM.

GRILLE SIZING SCHEDULE

STANDARD GRILLE

DESIGNATES GRILLE TYPE (REFERENCE GRILLE SCHEDULE) — A

100 — AIR QUANTITY IN CFM TO TRAVERSE GRILLE

CONDENSATE DRAIN SIZING SCHEDULE

PIPE DIA.	EQUIPMENT CAPACITY
3/4"∅	UP TO 5 TONS
1"∅	OVER 5 TONS TO 25 TONS
1-1/4"∅	OVER 25 TONS TO 60 TONS
1-1/2"∅	OVER 60 TONS TO 100 TONS
2"∅	OVER 100 TONS TO 200 TONS

SUPPLY DIFFUSER NECK SIZING SCHEDULE

SIZE	AIRFLOW (CFM)
4"∅	0 - 50
6"∅	50 - 100
8"∅	100 - 210
10"∅	210 - 380
12"∅	380 - 500
14"∅	500 - 700

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Bugatti Bar & Taverna

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REVISIONS

No.	Date

SHEET TITLE

MECHANICAL LAYOUT

05/08/2024

SHEET NO:

M1.1