

SECTION 15080 - MECHANICAL INSULATION

PART 1 - GENERAL

1.1 SECTION REQUIREMENTS

- A. Submittals: None.
B. Quality Assurance: Labeled with maximum flame-spread rating of 25 and maximum smoke developed rating of 50 according to ASTM E 84.

PART 2 - PRODUCTS

2.1 PIPE INSULATION

- A. Preformed Glass Fiber Pipe Insulation: ASTM C 547, Class 1, with factory applied, all purpose, vapor retarder jacket.
B. Polyolefin Pipe Insulation: Unicellular polyethylene, preformed pipe insulation. Comply with ASTM C 534, Type I, except for density.

2.2 DUCT INSULATION

- A. TYPE D-1: ASTM C1290, Type III, flexible glass fiber, commercial grade with factory applied reinforced aluminum foil jacket meeting ASTM C1136, Type II.
a. Duct and plenum insulation and sealing: Supply and return air ducts and plenums shall be insulated with a minimum of R-6 insulation where located in unconditioned spaces and where located outside the building with a minimum of R-8 insulation in Climate Zones1 through 4 and a minimum ofR-12 insulation in Climate Zones5 through 8.
Exceptions:
1. Where located within equipment.
2. Where the design temperature difference between the interior and exterior of the duct or plenum is not greater than 15°F (8°C).

PART 3 - EXECUTION

3.1 INSTALLATION - PIPING SYSTEMS

- A. Install vapor barriers on insulated pipes with surface operating temperatures below 60 deg F.
B. Insulate fittings, valves, and specialties.
C. Seal vapor barrier penetrations for hangers, supports, anchors, and other projections.
D. Coat glass fiber pipe insulation ends with vapor barrier coating.
E. Roof Penetrations: Apply insulation for interior applications to a point even with the top of the roof flashing.
F. Exterior Wall Penetrations: For penetrations of below grade exterior walls, terminate insulation flush with mechanical sleeve seal.
G. Interior Walls and Partitions Penetrations: Apply insulation continuously through walls and partitions, except fire rated walls and partitions.
H. Fire Rated Walls and Partitions Penetrations: Terminate insulation at penetrations through fire rated walls and partitions. Seal around penetration with through penetration firestop systems.
I. Floor Penetrations: Terminate insulation at the underside of the floor assembly and at the floor support at top of floor. Seal around penetration with through penetration firestop systems.
J. Glass Fiber Insulation Installation: Bond insulation to pipe with adhesive. Seal seams and joints with vapor barrier compound.
K. Interior Piping System Applications: Insulate the following piping systems:
1. Hydronic water system piping.
2. Steam and condensate system piping.
3. Refrigerant piping.
L. Do not apply insulation to the following systems, materials, and equipment:
1. Flexible connectors.
2. Fire protection piping systems.
3. Piping specialties, including air chambers, unions, strainers, check valves, plug valves, and flow regulators.
M. Pipe Insulation Thickness Application Schedule: Insulate piping with the following materials and thicknesses:

3.2 INSTALLATION - DUCTWORK SYSTEMS

- A. Duct dimensions indicated on Drawings are finished inside dimensions.
B. Insulated ductwork conveying air below ambient temperature:
1. Provide insulation with vapor retarder jackets.
2. Finish with tape and vapor retarder jacket.
3. Continue insulation through walls, sleeves, hangers, and other duct penetrations.
4. Insulate entire system including fittings, joints, flanges, fire dampers, flexible connections, and expansion joints.
C. Insulated ductwork conveying air above ambient temperature:
1. Provide with or without standard vapor retarder jacket.
2. Insulate fittings and joints. Where service access is required, bevel and seal ends of insulation.

END OF SECTION 15080

SECTION 15737 - VARIABLE REFRIGERANT FLOW HVAC SYSTEMS

Part 1 - GENERAL

1.1 SUMMARY

- A. Section Includes:
1. Mini-Split and/or VRF style heat-pump units and air handling units.

1.2 SUBMITTALS

- A. Product Data: Submit data including, cooling and heating capacities, dimensions, rough-in connections and connection requirements, duct connections, electrical requirements with electrical characteristics and connection requirements, controls and accessories.
B. Manufacturer's Installation Instructions: Submit assembly, support details, connection requirements, and include start-up instructions.

1.3 CLOSEOUT SUBMITTALS

- A. Record of actual locations of equipment, lineset routing and controls installed remotely from units.
B. Operation and Maintenance Data: Submit manufacturer's descriptive literature, operating instructions, installation instructions, and maintenance repair data to owner's representative.
C. Maintain one copy of each document on site.

1.4 DELIVERY, STORAGE, AND HANDLING

- A. Accept equipment on site in factory packaging. Inspect for damage.
B. Comply with manufacturer's installation instructions for rigging, unloading and transporting units.
C. Protect equipment from damage by providing temporary covers until construction is complete.

1.5 COORDINATION

- A. Coordinate piping rough-in locations, and electrical rough-in locations to accommodate work of this section.
B. Coordinate installation of condensing units with roof structure.
C. Coordinate installation of air handling units with building structure.

1.6 WARRANTY

- A. Furnish 5-year manufacturer's warranty for compressors.

Part 2 - PRODUCTS

2.1 MINI-SPLIT, AND/OR VRF SYSTEMS:

- A. Manufacturers:
1. As shown on Mechanical Schedules Sheet.
2. Substitutions: None Permitted
B. Furnished and installed in accordance with local Authority Having Jurisdiction's standards.
C. Product description: Mini-Split or VRF system consisting of air handling unit(s), and condensing unit including, but not limited to, evaporator fan, refrigerant cooling/heating coil, compressor, refrigerant circuit, condenser, refrigerant controller, air filters, controls, accessories, and refrigeration specialties.

2.2 AIR HANDLING UNIT:

- A. Configuration: As shown on plans and Mechanical Schedules.
B. Evaporator Coil: Constructed of copper tubes expanded onto aluminum fins. Factory leak tested under water.
C. Refrigeration System: As shown in Mechanical Schedules controlled by factory installed thermal expansion valve.
D. Accessories: As shown in Mechanical Schedules.

2.3 CONDENSING UNIT:

- A. General: Factory assembled and tested air cooled condensing unit consisting of casing, compressors, condensers, coils, condenser fans and motors, and unit controls.
B. Compressor: As shown in Mechanical Schedules with rotary or hermetic reciprocating type compressors, resiliently mounted, with positive lubrication, and internal motor overload protection.
C. Condenser Coil: Constructed of copper tubing mechanically bonded to fins, factory leak and pressure tested.
D. Controls: Furnish operating and safety controls including high and low pressure cutouts. Control transformer. Furnish magnetic contactors for compressor and condenser fan motors.
E. Condenser Fans and Drives: Direct drive propeller fans statically and dynamically balanced. Wired to operate with compressor. Permanently lubricated ball bearing type motors with built-in thermal overload protection.
F. Accessories: As shown in Mechanical Schedules.
G. Refrigeration Specialties: Furnish the following for each circuit. Charge of compressor oil, holding charge of refrigerant. Replaceable core type filter drier, Liquid line sight glass and moisture indicator, shut-off valves on suction and liquid piping, liquid line solenoid valve, charging valve, oil level sight glass, crankcase heater, hot gas muffler, pressure relief device.
H. Refrigerant: Furnish charge of refrigerant.

2.4 CONTROLS:

- A. Thermostat: 7 day programmable electronic space thermostat with single stage heating, and single stage cooling with automatic changeover and heating/cooling setback.

2.5 ELECTRICAL CHARACTERISTICS AND COMPONENTS:

- A. Disconnect switch: As noted on mechanical schedules, and electrical plans.

Part 3 - EXECUTION

1.1 INSTALLATION - AIR HANDLING UNITS

- A. Provide equipment per the manufacturer's installation instructions.
B. Install unit on drain pan on units where specified.
C. Install air handling units on vibration isolators.
D. Connect air handling units to supply and return ductwork (where applicable) with flexible connections.
E. Install condensate piping with trap and route from drain to location shown on plans.
F. Arrange all piping for easy dismantling to permit tube cleaning.
G. Install components furnished loose for field mounting.
H. Install connection to electrical power wiring in accordance with Section 16100.

1.2 INSTALLATION - CONDENSING UNITS

- A. Install condensing units on vibration isolators.
B. Install refrigerant piping from air handling unit to condensing unit or heat recovery unit (refer to mechanical plans). Install refrigerant specialties furnished with unit.
C. Evacuate refrigerant piping and install initial charge of refrigerant. Install electrical devices furnished loose for field mounting.
D. Install control wiring between air handling units, heat-pump unit, field installed accessories and heat recovery unit(if applicable).
E. Install connection to electrical power in accordance with Section 16100.

1.3 INSTALLATION - HEAT RECOVERY UNIT

- A. Install unit on vibration isolators.
B. Install refrigerant piping from unit to air handling unit and condensing unit.
C. Evacuate refrigerant piping and install initial charge of refrigerant. Install electrical devices furnished loose for field mounting.
D. Install control wiring between air handling units, heat-pump unit, field installed accessories and heat recovery unit.
E. Install connection to electrical power in accordance with Section 16100.

1.4 MANUFACTURER'S FIELD SERVICES

- A. Furnish initial start-up and shutdown.

1.5 CLEANING

- A. After construction is complete, including painting, clean exposed surfaces of units.
B. Vacuum clean coils and inside of cabinets.
C. Touch up mamed or scratched surfaces of factory finished cabinets.
D. Install new throwaway filters in units after Substantial Completion.

END OF SECTION 15737

SECTION 15810 - DUCTS AND ACCESSORIES

PART 1 - GENERAL

1.1 SECTION REQUIREMENTS

- A. Submittals: Product Data for fire and smoke dampers.
B. Comply with NFPA 90A for systems serving spaces more than 25,000 cu. ft. in volume or building Types II, IV, and V construction more than 3 stories in height.
C. Comply with NFPA 90B for systems serving spaces in 1 or 2 family dwellings or serving spaces less than 25,000 cu. ft..
D. Comply with NFPA 96, "Ventilation Control and Fire Protection of Commercial Cooking Operations," for kitchen hood ducts.
E. Comply with UL 181 and UL 181A for ducts and closures.
F. Testing, Adjusting, and Balancing Agency Qualifications: AABC certified (to be furnished by Tenant).

PART 2 - PRODUCTS

2.1 DUCTS

- A. Spiral Duct: Spiral Lock Seam, without insulation, G90 galvanized finish, ASTM A-653/924
1. Basis of Design Manufacturers: Lindab SPIROsafe, alternates to the basis of design must be submitted for review.
2. Fittings: Factory produced standing seam construction with internal sealing. Fittings with a major axis of 36" or smaller shall be 20 gauge. Fittings with a major axis of 37"-48" shall be 18 gauge.
B. Galvanized Steel Sheet: Forming steel, ASTM A 653/653M, G90 coating designation.
C. Duct Liner: ASTM C 1071, Type II, with an airstream surface coated with a temperature resistant coating. Thickness: 1-1/2 inch. R-value : 8.
1. Adhesive: ASTM C 916, Type I.
2. Mechanical Fasteners: Galvanized steel pin, length as required to penetrate liner plus a 1/8 inch projection maximum into the airstream.
D. Joint and Seam Tape: Comply with UL 181A.
E. Joint and Seam Sealant: Comply with UL 181A.
F. Rectangular Metal Duct Fabrication: Comply with SMACNA's "HVAC Duct Construction Standard" for metal thickness, reinforcing types and intervals, tie rod applications, and joint types and intervals.

2.2 ACCESSORIES

- A. Volume-Control Dampers: Factory fabricated volume control dampers, complete with required hardware and accessories. Single blade and multiple opposed blade, standard leakage rating, and suitable for horizontal or vertical applications..
B. Fire Dampers: Factory-fabricated fire dampers, complete with required hardware and accessories. UL labeled according to UL 555, "Fire Dampers".
C. Flexible Connectors: Flame retardant or noncombustible fabrics, coatings, and adhesives complying with UL 181, Class 1.
D. Flexible Ducts: Factory fabricated, insulated, round duct, with an outer jacket enclosing 2 inch thick, glass fiber insulation, R-value: 6.0, around a continuous inner liner.

PART 3 - EXECUTION

3.1 INSTALLATION

- A. Duct System Pressure Class: Construct and install each duct system with 2 inch positive and negative duct pressure classifications.
B. Conceal ducts from view in finished and occupied spaces. Except where noted as exposed.
C. Avoid passing through electrical equipment spaces and enclosures.
D. Support and connect metal ducts according to SMACNA's "HVAC Duct Construction Standard".
E. Install duct accessories according to applicable portions of details of construction as shown in SMACNA standards.
F. Install liner and/or insulation on ductwork per the material schedule on sheet M010.
G. Install volume control dampers in lined duct with methods to avoid damage to liner and to avoid erosion of duct liner.
H. Install fire and smoke dampers according to manufacturer's UL approved written instructions.
I. Install fusible links in fire dampers.
J. Provide saddle taps at tees for exposed ductwork.

3.2 TESTING, ADJUSTING, AND BALANCING

- A. The Tenant will supply an independent balance agent to to balance and adjust the HVAC installation. The balance agent will be responsible for any pulley or belt changes required.
B. The GC is to have trained staffed available during the balancing to correct issues noted by the balance agent.
C. The balance agent is to balance airflow within distribution systems, including submains, branches, and terminals to indicated quantities +/- 10%. The hood exhaust system shall be balanced to a tolerance of -0+10% and the make-up air system to a tolerance of -10+0%.
D. The balance agent is to supply a copy of the balance report to the Tenant, engineer and general contractor for review.

END OF SECTION 15810

SECTION 15855 - DIFFUSERS, REGISTERS, AND GRILLES

PART 1 - GENERAL

1.1 SECTION REQUIREMENTS

- A. Submittals: None.

PART 2 - PRODUCTS

2.1 OUTLETS AND INLETS

- A. All air terminal devices:
1. Refer to Grills, Registers, and Diffusers Schedule for equipment schedule
2. Manufacturer: As scheduled
3. Material: As scheduled.
4. Finish: As scheduled.
5. Mounting: As scheduled.

PART 3 - EXECUTION

3.1 INSTALLATION

- A. Coordinate location and installation with duct installation and installation of other ceiling and wall mounted items.
B. Locate ceiling diffusers, registers, and grilles, as indicated on the architectural "reflected ceiling plans." Unless otherwise indicated, locate units in center of acoustical ceiling panels.

END OF SECTION 15855

CALIFORNIA GREEN BUILDING STANDARDS CODE

5.410 BUILDING MAINTENANCE AND OPERATION

5.410.4 TESTING AND ADJUSTING:

Testing and adjusting of systems installed shall be required for buildings less than 10,000 square feet or new systems to swerve an addition or alteration subject to Section 303.1.

5.410.4.2 SYSTEMS:

Develop a written plan of procedures for testing and adjusting systems. Systems to be included for testing and adjusting shall include at a minimum, as applicable to the project:

- 1. HVAC systems and controls
2. Indoor and outdoor lighting and controls
3. Water heating systems
4. Renewable energy systems
5. Landscape irrigation systems
6. Water reuse systems

5.410.4.3 PROCEDURES:

Perform testing and adjusting procedures in accordance with manufacturer's specifications and applicable standards on each system.

5.410.4.3.1 HVAC BALANCING:

In addition to testing and adjusting, before a new space-conditioning system serving a building or space is operated for normal use, the system shall be balanced in accordance with the procedures defined by the Testing Adjusting and Balancing Bureau National Standards; the National Environmental Balancing Bureau Procedural Standards; Associated Air Balance Council National Standards or as approved by the enforcing agency.

5.410.4.4 REPORTING:

After completion of testing, adjusting and balancing, provide a final report of testing signed by the individual responsible for performing these services.

5.410.4.5 OPERATION AND MAINTENANCE MANUAL:

Provide the building owner or representative with detailed operating and maintenance instructions and copies of warranties/warranties for each system. O&M instructions shall be consistent with OSHA requirements in CCR, Title 8, Section 5142, and other related regulations.

5.410.4.5.1 INSPECTIONS AND REPORTS:

Include a copy of all inspection verifications and reports required by the enforcing agency.

5.504 POLLUTANT CONTROL

5.504.1 TEMPORARY VENTILATION:

The permanent HVAC system shall only be used during construction if necessary to condition the building or areas of addition or alteration within the required temperature range for material and equipment installation. If the HVAC system is used during construction, use return air filters with a Minimum Efficiency Reporting Value (MERV) of 8, based on ASHRAE 52.2-1999, or an average efficiency of 30% based on ASHRAE 52.1-1992. Replace air filters immediately prior to occupancy, or, if the building is occupied alteration, at the conclusion of construction.

5.504.3 COVERING OF DUCT OPENINGS OF MECHANICAL EQUIPMENT DURING CONSTRUCTION:

At the time of rough installation and during storage on the construction site until final startup of the heating, cooling and ventilating equipment, all duct and other related air distribution component openings shall be covered with tape, plastic, sheet metal, or other methods acceptable to the enforcing agency to reduce the amount of dust, water and debris which may collect in the system.

5.508 OUTDOOR AIR QUALITY

5.508.1 OZONE DEPLETION AND GREENHOUSE GAS REDUCTIONS:

Installations of HVAC, refrigeration, and fire suppression equipment shall comply with Section 5.508.1.1 and 5.508.1.2.

5.508.1.1 CHLOROFLUOROCARBONS (CFCs):

Install HVAC, refrigeration and fire suppression equipment that do not contain CFCs.

5.508.1.2 HALONS:

Install HVAC, refrigeration and fire suppression equipment that do not contain Halons.

HVAC ABBREVIATIONS

- AFF ABOVE FINISHED FLOOR
AFG ABOVE FINISHED GRADE
AHU AIR HANDLING UNIT
BC BLOWER COIL
CD CEILING DIFFUSER
CU CONDENSING UNIT
EF TENANT EXHAUST FAN
ER EXHAUST REGISTER
EXT'G EXISTING
GD GRAVITY DAMPER
HD HOOD
HES HVAC EQUIPMENT SUPPLIER
KEF KITCHEN EXHAUST FAN
KES KITCHEN EQUIPMENT SUPPLIER
LV LOUVER
MAU MAKEUP AIR UNIT
MD MOTORIZED DAMPER
OBD OPPOSED BLADE DAMPER
RG RETURN GRILLE
RTU ROOFTOP UNIT
SR SUPPLY REGISTER
VSC VARIABLE SPEED CONTROL

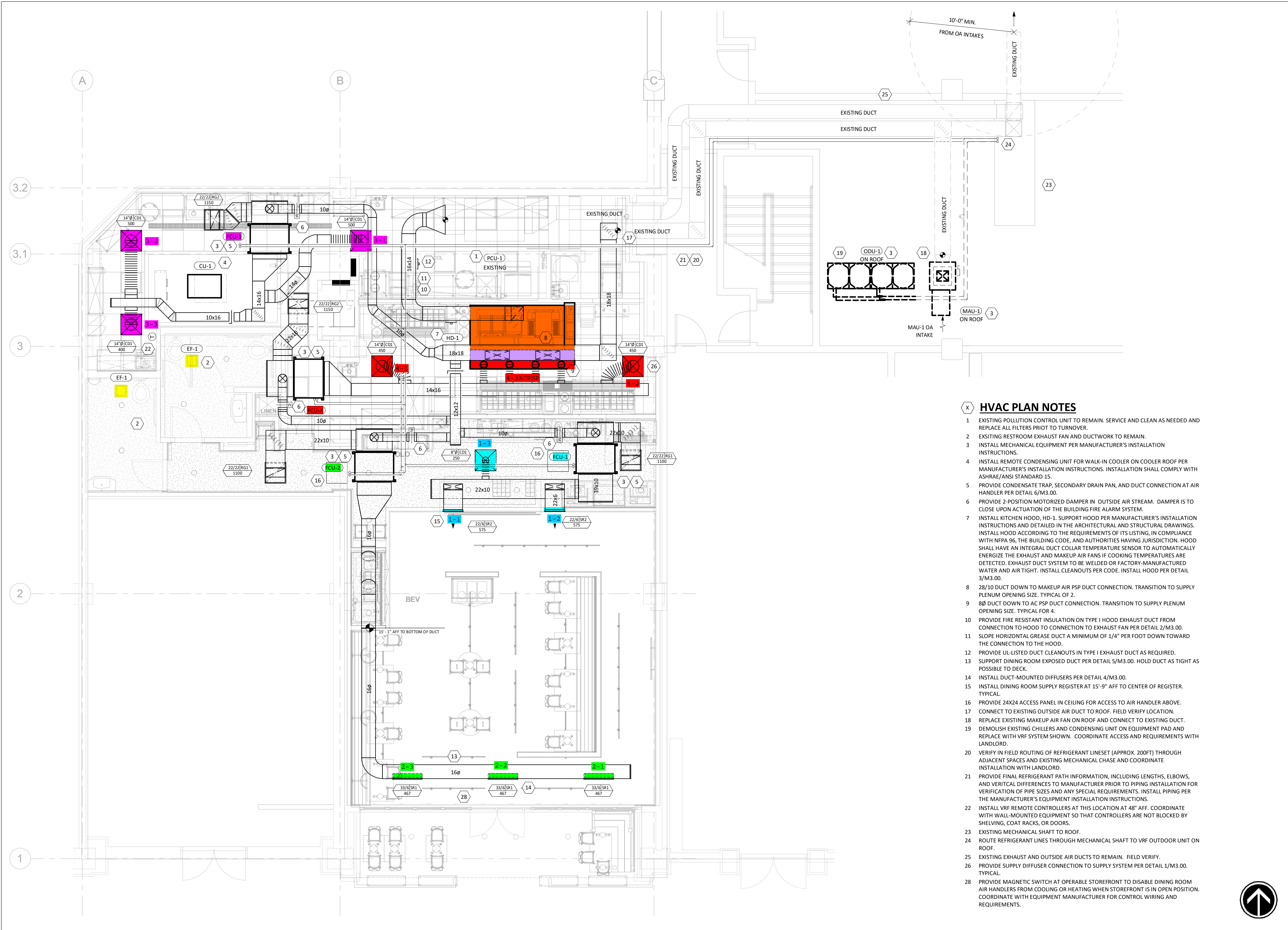
MATERIAL SCHEDULE

Table with 3 columns: CATEGORY, APPLICATION, ALLOWABLE MATERIAL. Rows include EXPOSED SUPPLY, EXPOSED RETURN, EXPOSED GEN. EXHAUST, CONCEALED, SUPPLY, CONCEALED, RETURN, CONCEALED, GEN. EXHAUST, CONCEALED, TYPE I HOOD EXHAUST, CONCEALED, TYPE II HOOD EXHAUST.

HVAC SYMBOLS

- CEILING DIFFUSER
CEILING-MOUNTED RETURN OR EXHAUST REGISTER
SUPPLY REGISTER
RETURN REGISTER
FLEXIBLE DUCT
MITERED CORNER WITH TURNING VANES
DUCTWORK INTERNAL FREE DIMENSIONS (WIDTH/HEIGHT)
RECTANGULAR TO ROUND DUCT TRANSITION
DUCT-MOUNTED SMOKE DETECTOR
MOTOR-OPERATED DAMPER
MANUAL VOLUME DAMPER
GREASE DUCT CLEANOUT
MITERED CORNER WITHOUT TURNING VANES
THERMOSTAT
REMOTE TEMPERATURE SENSOR
PLAN NOTE: SEE PLAN NOTES LISTED ON THE SAME SHEET FOR NOTE MEANING
CONNECT TO EXISTING
EQUIPMENT TAG: SEE EQUIPMENT SCHEDULE ON SHEET M2.00 FOR EQUIPMENT INFORMATION
AUDIO/VISUAL REMOTE SMOKE DETECTOR ANNUNCIATOR WITH REMOTE KEY OPERATED RESET
GRILL, REGISTER, OR DIFFUSER TAG: TAG NECK SIZE AIRFLOW [CFM]

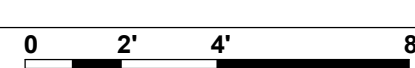
Project information for Mendocino Farms - Glendale, CA. Includes architect NORR, engineer information, registration seal, and sheet title MECHANICAL SPECIFICATIONS M0.00.



X HVAC PLAN NOTES

- 1 EXISTING POLLUTION CONTROL UNIT TO REMAIN. SERVICE AND CLEAN AS NEEDED AND REPLACE ALL FILTERS PRIOR TO TURNOVER.
- 2 EXISTING RESTROOM EXHAUST FAN AND DUCTWORK TO REMAIN.
- 3 INSTALL MECHANICAL EQUIPMENT PER MANUFACTURER'S INSTALLATION INSTRUCTIONS.
- 4 INSTALL REMOTE CONDENSING UNIT FOR WALK-IN COOLER ON COOLER ROOF PER MANUFACTURER'S INSTALLATION INSTRUCTIONS. INSTALLATION SHALL COMPLY WITH ASHRAE/ANSI STANDARD 15.
- 5 PROVIDE CONDENSATE TRAP, SECONDARY DRAIN PAN, AND DUCT CONNECTION AT AIR HANDLER PER DETAIL 6/M3.00.
- 6 PROVIDE 2-POSITION MOTORIZED DAMPER IN OUTSIDE AIR STREAM. DAMPER IS TO CLOSE UPON ACTUATION OF THE BUILDING FIRE ALARM SYSTEM.
- 7 INSTALL KITCHEN HOOD, HD-1. SUPPORT HOOD PER MANUFACTURER'S INSTALLATION INSTRUCTIONS AND 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. INSTALL HOOD PER DETAIL 3/M3.00.
- 8 28/10 DUCT DOWN TO MAKEUP AIR PSP DUCT CONNECTION. TRANSITION TO SUPPLY PLENUM OPENING SIZE. TYPICAL OF 2.
- 9 8Ø DUCT DOWN TO AC PSP DUCT CONNECTION. TRANSITION TO SUPPLY PLENUM OPENING SIZE. TYPICAL FOR 4.
- 10 PROVIDE FIRE RESISTANT INSULATION ON TYPE I HOOD EXHAUST DUCT FROM CONNECTION TO HOOD TO CONNECTION TO EXHAUST FAN PER DETAIL 2/M3.00.
- 11 SLOPE HORIZONTAL GREASE DUCT A MINIMUM OF 1/4" PER FOOT DOWN TOWARD THE CONNECTION TO THE HOOD.
- 12 PROVIDE UL-LISTED DUCT CLEANOUTS IN TYPE I EXHAUST DUCT AS REQUIRED.
- 13 SUPPORT DINING ROOM EXPOSED DUCT PER DETAIL 5/M3.00. HOLD DUCT AS TIGHT AS POSSIBLE TO DECK.
- 14 INSTALL DUCT-MOUNTED DIFFUSERS PER DETAIL 4/M3.00.
- 15 INSTALL DINING ROOM SUPPLY REGISTER AT 15'-9" AFF TO CENTER OF REGISTER. TYPICAL.
- 16 PROVIDE 24X24 ACCESS PANEL IN CEILING FOR ACCESS TO AIR HANDLER ABOVE.
- 17 CONNECT TO EXISTING OUTSIDE AIR DUCT TO ROOF. FIELD VERIFY LOCATION.
- 18 REPLACE EXISTING MAKEUP AIR FAN ON ROOF AND CONNECT TO EXISTING DUCT.
- 19 DEMOLISH EXISTING CHILLERS AND CONDENSING UNIT ON EQUIPMENT PAD AND REPLACE WITH VRF SYSTEM SHOWN. COORDINATE ACCESS AND REQUIREMENTS WITH LANDLORD.
- 20 VERIFY IN FIELD ROUTING OF REFRIGERANT LINESET (APPROX. 200FT) THROUGH ADJACENT SPACES AND EXISTING MECHANICAL CHASE AND COORDINATE INSTALLATION WITH LANDLORD.
- 21 PROVIDE FINAL REFRIGERANT PATH INFORMATION, INCLUDING LENGTHS, ELBOWS, AND VERTICAL DIFFERENCES TO MANUFACTURER PRIOR TO PIPING INSTALLATION FOR VERIFICATION OF PIPE SIZES AND ANY SPECIAL REQUIREMENTS. INSTALL PIPING PER THE MANUFACTURER'S EQUIPMENT INSTALLATION INSTRUCTIONS.
- 22 INSTALL VRF REMOTE CONTROLLERS AT THIS LOCATION AT 48" AFF. COORDINATE WITH WALL-MOUNTED EQUIPMENT SO THAT CONTROLLERS ARE NOT BLOCKED BY SHELVING, COAT RACKS, OR DOORS.
- 23 EXISTING MECHANICAL SHAFT TO ROOF.
- 24 ROUTE REFRIGERANT LINES THROUGH MECHANICAL SHAFT TO VRF OUTDOOR UNIT ON ROOF.
- 25 EXISTING EXHAUST AND OUTSIDE AIR DUCTS TO REMAIN. FIELD VERIFY.
- 26 PROVIDE SUPPLY DIFFUSER CONNECTION TO SUPPLY SYSTEM PER DETAIL 1/M3.00. TYPICAL.
- 27 PROVIDE MAGNETIC SWITCH AT OPERABLE STOREFRONT TO DISABLE DINING ROOM AIR HANDLERS FROM COOLING OR HEATING WHEN STOREFRONT IS IN OPEN POSITION. COORDINATE WITH EQUIPMENT MANUFACTURER FOR CONTROL WIRING AND REQUIREMENTS.

1 HVAC PLAN
1/4" = 1'-0"



Mendocino Farms

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11/16/2022 8:13:04 PM

PROJECT: **MENDOCINO FARMS - GLENDALE, CA**
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REVISIONS:

#	DATE	DESCRIPTION

SHEET TITLE: **MECHANICAL PLAN**

SHEET NO: **M1.00**

