

CAL-GREEN NOTES

A. ALL DUCT AND OTHER RELATED AIR DISTRIBUTION COMPONENT OPENINGS SHALL BE COVERED WITH TAPE, PLASTIC, OR SHEET METAL UNTIL THE FINAL STARTUP OF THE HVAC EQUIPMENT (CGGSC 5.504.3).

B. IF THE NEW HVAC SYSTEM IS USED DURING CONSTRUCTION, USE RETURN AIR FILTERS WITH A MERV 8 RATING. REPLACE ALL FILTERS IMMEDIATELY PRIOR TO OCCUPANCY (CGBSC 5.504.1).

C. THE HVAC, REFRIGERATION, AND FIRE SUPPRESSION EQUIPMENT SHALL NOT CONTAIN CFCs OR HALONS (CGBSC 5.508.1).

D. A FINAL REPORT FOR THE TESTING AND ADJUSTING OF ALL NEW SYSTEMS SHALL BE COMPLETED PRIOR TO FINAL APPROVAL BY THE FIELD INSPECTOR. THIS REPORT SHALL BE SIGNED BY THE INDIVIDUAL RESPONSIBLE FOR PERFORMING THESE SERVICES (CGBSC 5.410.4.4).

E. AN OPERATION & SYSTEMS MANUAL SHALL BE PROVIDED TO THE OWNER OR REPRESENTATIVE AND TO THE FIELD INSPECTOR AT THE TIME OF FINAL INSPECTION (CGBSC 5.410.4.5

APPLICABLE CODES & STANDARDS

2019 CALIFORNIA BUILDING CODE WITH STATEWIDE AMENDMENTS

2019 CALIFORNIA MECHANICAL CODE WITH STATEWIDE AMENDMENTS

2019 CALIFORNIA PLUMBING CODE WITH STATEWIDE AMENDMENTS

2019 CALIFORNIA ENERGY CONSERVATION CODE

2019 CALIFORNIA GREEN BUILDING STANDARDS

ICC/ANSI A117.1-09, ACCESSIBLE AND USABLE BUILDINGS AND FACILITIES, WITH STATEWIDE AMENDMENTS.

NFPA 90

MODULAR PERMANENT SUPPORTIVE HOUSING PROJECT

2853 WEST BLVD.

LOS ANGELES, CA 90013

SCOPE OF REVIEW

LOCAL AUTHORITY HAVING JURISDICTION (LAHJ)

STATE OF CALIFORNIA HOUSING & COMMUNITY DEVELOPMENT (HCD) DESIGN APPROVAL AGENCY

LOCAL FIRE DEPARTMENT

REVIEWER:

CITY OF LOS ANGELES DEPT. OF BUILDING & SAFETY (LADB5)

NTA

CITY OF LOS ANGELES FIRE DEPARTMENT (LAFD)

SCOPE SECTION/DESCRIPTION

PLAN REVIEW

HCD

LAHJ

LAFD

INSPECTION

HCD

LAHJ

LAFD

APPLICABLE CODES

2019 CALIFORNIA MECHANICAL CODE

Plumbing

LEVEL 01: HVAC FOR COMMON AREAS AND RESTROOM EXHAUST

LEVELS 02-06: HVAC SYSTEMS FOR LIVING SPACE AND RESTROOM EXHAUST FOR RESIDENTIAL UNITS

LEVELS 02-06: RESIDENTIAL UNITS (MODULAR)

HVAC ABBREVIATIONS

AAV
ABV
AP
AC
AFF
APPROX
ARCH
AS
@
&
AUTO

BOILER
BACKDRAFT DAMPER
BELOW
BAROMETRIC RELIEF DAMPER
BELOW FINISHED FLOOR
BUTTERFLY VALVE
BRAKE HORSEPOWER
BLDG
BOP
BTUH

COMBUSTION AIR
CUBIC FEET PER MINUTE
CHILLER
CHILLED WATER PUMP
COEFFICIENT OF PERFORMANCE
CONCRETE
CONNECTION
CONTINUATION
CHEMICAL POT FEEDER
CT
CTF
CWP
CWR
CWS

DB
DDC
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DWG

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AUTOMATIC AIR VENT
ABOVE
ACCESS PANEL
AIR CONDITIONING
ABOVE FINISHED FLOOR
APPROXIMATELY
ARCHITECTURAL
AIR SEPARATOR
AT
AND
AUTOMATIC

BOILER
BACKDRAFT DAMPER
BELOW
BAROMETRIC RELIEF DAMPER
BELOW FINISHED FLOOR
BUTTERFLY VALVE
BRAKE HORSEPOWER
BOTTOM OF PIPE
BRITISH THERMAL UNITS PER HOUR

COMBUSTION AIR
CUBIC FEET PER MINUTE
CHILLER
CHILLED WATER PUMP
COEFFICIENT OF PERFORMANCE
CONCRETE
CONNECTION
CONTINUATION
CHEMICAL POT FEEDER
COOLING TOWER
COOLING TOWER FILTER
CONDENSER WATER PUMP
CONDENSER WATER RETURN
CONDENSER WATER SUPPLY

DRY BULB (TEMPERATURE)
DIRECT DIGITAL CONTROL
DETAIL
DIAMETER
DETAIL
DOWN
DUCT/DOWN THRU FLOOR
DUCT/DOWN THRU ROOF
DRAWING

EXISTING
EACH / EXHAUST AIR
EXHAUST AIR GRILLE
EXHAUST AIR REGISTER
ENERGY EFFICIENCY RATIO
EXHAUST FAN
ELEVATION
ENTERING
EQUIPMENT
EXPANSION TANK

DEGREES FAHRENHEIT
FIRE DAMPER
FINISHED
FLEXIBLE
FLOOR
FEET PER MINUTE
FIRE SMOKE DAMPER
FLOOR SINK
FOOT / FEET
FACE VELOCITY

GAUGE
GALLON
GALVANIZED
GALLONS PER MINUTE

HEIGHT
HORIZONTAL
HORSEPOWER
HOUR
HEATING, VENTILATING AND AIR

CONDITIONING
HERTZ

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HVAC SPECIFICATIONS

- 0.00GENERAL PROVISIONS
- 0.01DEFINITIONS: THE TERMS LISTED BELOW ARE DEFINED AS FOLLOWS WHEN USED IN MECHANICAL AND PLUMBING WORK.
- 1.WORK: LABOR AND MATERIALS OF THE CONTRACTOR AND/OR SUBCONTRACTOR.
- 2.FURNISH: OBTAIN, COORDINATE, SUBMIT THE NECESSARY DRAWINGS, DELIVER TO THE JOBSITE IN NEW CONDITION AND GUARANTEE.
- 3.INSTALL: RECEIVE AT THE JOB-SITE, UNLOAD, STORE, SET IN PLACE, CONNECT, PLACE IN OPERATION AND GUARANTEE.
- 4.PROVIDE: FURNISH AND INSTALL.
- 5.CONNECT: BRING SERVICE TO THE EQUIPMENT AND MAKE FINAL ATTACHMENTS INCLUDING NECESSARY PIPE FITTINGS, DUCTWORK, TRANSITIONS, ETC.
- 6.CONCEALED: HIDDEN FROM SIGHT IN CHASES, FURRED SPACES, SHAFTS, ABOVE CEILING, EMBEDDED IN CONSTRUCTION, IN CRAWL SPACES OR BURIED.
- 7.EXPOSED: NOT INSTALLED UNDERGROUND NOR CONCEALED AS DEFINED ABOVE.
- 0.02PERFORMANCE: THE CONTRACTOR SHALL PERFORM ALL WORK SPECIFIED, INDICATED AND REQUIRED UNLESS OTHERWISE NOTED, INCLUDING FINAL CONNECTIONS, IN A WORKMANLIKE MANNER USING WORKERS SKILLED AND EXPERIENCED IN THE TRADE.
- 0.03SITE EXAMINATION: EXAMINE SITE BEFORE BIDDING. CLAIM NO EXTRAS RESULTING FROM LACK OF KNOWLEDGE OF SITE CONDITIONS. IF SITE CONDITIONS REQUIRE MODIFICATION OF THE SYSTEMS INDICATED IN THESE DOCUMENTS, SO ADVISE ENGINEER, AND IF ACCEPTED BY ENGINEER, INCLUDE COST OF SUCH MODIFICATIONS IN BID.
- 0.04JOBSITE CONDITIONS: ACCEPT SOLE AND COMPLETE RESPONSIBILITY FOR CONDITIONS OF THE JOB SITE, INCLUDING SAFETY OF ALL PERSONS AND PROPERTY DURING PERFORMANCE OF THE WORK.
- 0.05FULL FUNCTION: PROVIDE ALL MINOR ITEMS NECESSARY FOR A COMPLETE AND FULLY FUNCTIONAL INSTALLATION.
- 0.06ADMINISTRATION: PROVIDE EVIDENCE OF LICENSING, BONDING, AND INSURANCE, AND PERFORM OTHER ADMINISTRATIVE FUNCTIONS, AS REQUIRED.
- 0.07PERMITS: PROCURE AND PAY FOR ALL REQUIRED PERMITS AND SERVICE CHARGES.
- 0.08COORDINATION: CONFORM TO GENERAL CONSTRUCTION CONTRACT DOCUMENTS EXCEPT AS MODIFIED HEREIN. REFER ALSO TO ARCHITECTURAL STRUCTURAL AND ELECTRICAL CONTRACT DOCUMENTS. COORDINATE ALL WORK WITH OTHER TRADES.
- 0.09CUTTING AND PATCHING: CUT AND PATCH AS REQUIRED, CUT OR WELD STRUCTURAL MEMBERS ONLY WITH APPROVAL OF STRUCTURAL ENGINEER. PATCHING SUBJECT TO APPROVAL BY ARCHITECT.
- 0.10EXISTING FLOORS: TRENCH OR CORE BORE EXISTING FLOORS PER LANDLORD REQUIREMENTS.
- 0.11ROOF PENETRATIONS: COORDINATE WITH LANDLORD.
- 0.12EQUIPMENT SUBSTITUTIONS: SUBSTITUTIONS TO SCHEDULED MECHANICAL EQUIPMENT SHALL BE REVIEWED FOR CAPACITY, PERFORMANCE AND FUNCTIONALITY ONLY. CONTRACTOR IS RESPONSIBLE FOR FITTING SUBSTITUTED EQUIPMENT INTO SPACE. CONTRACTOR TO SUBMIT EQUIPMENT SUBSTITUTIONS TO THE ENGINEER OF RECORD FOR APPROVAL PRIOR TO ORDERING. REIMBURSE ELECTRICAL CONTRACTOR, AT NO CHARGE TO TENANT, FOR HIS COSTS INCURRED DUE TO SUBSTITUTION OF MECHANICAL EQUIPMENT HAVING ELECTRICAL REQUIREMENTS DIFFERING FROM THOSE INDICATED.
- 0.13ADJUSTMENTS: MAKE MINOR ADJUSTMENTS TO WORK WHERE REQUESTED BY TENANT, WHEN SUCH ADJUSTMENTS ARE NECESSARY TO PROPER OPERATION AND WITHIN THE INTENT OF THE CONTRACT.
- 0.14REFERENCE STANDARDS: COMPLY WITH APPLICABLE STANDARDS OF NFPA, ANSI, UL, ASHRAE, AND SMACNA, EXCEPT AS SUPERSEDED BY LOCAL AUTHORITY. CONFORM WITH CONTRACT DOCUMENTS WHERE THEY EXCEED CODE MINIMUM REQUIREMENTS.
- 0.15LOCAL REQUIREMENTS: COMPLY WITH THE REQUIREMENTS OF APPLICABLE CODES, LANDLORD, OWNER, SERVING UTILITIES, AND THE LOCAL AUTHORITY HAVING JURISDICTION. SECURE APPROVAL OF INSTALLATION BY LANDLORD, OWNER, LOCAL AUTHORITY, AND OTHERS AS REQUIRED.
- 0.16MATERIALS AND EQUIPMENT: PROVIDE NEW, UL LISTED, COMMERCIAL GRADE MATERIALS, DEVICES, EQUIPMENT, AND FIXTURES, SUITABLE FOR ENVIRONMENT. REUSE EXISTING ONLY WHEN COMPLIANT WITH THE CONTRACT DOCUMENTS, IN GOOD CONDITION, AND APPROVED BY THE ENGINEER. CLEAN AND PAINT ALL REUSED EQUIPMENT AND/OR DEVICES, AS APPLICABLE.
- 0.17SHOP DRAWINGS: BEFORE ORDERING EQUIPMENT AND MATERIALS, SUBMIT NOT LESS THAN FIVE CERTIFIED COPIES OF ALL SHOP AND EQUIPMENT DRAWINGS FOR ENGINEER'S REVIEW, WHO WILL RETAIN TWO COPIES. ONLY FURNISH SYSTEMS AND EQUIPMENT IN COMPLIANCE WITH ACCEPTED SHOP DRAWINGS.
- 0.18INSTALLATION: INSTALL ALL MATERIALS, EQUIPMENT AND SYSTEMS IN FULL ACCORD WITH MANUFACTURERS' INSTRUCTIONS.
- 0.19LAYOUT: INSTALL ALL PIPING AND DUCTWORK TO PRESENT A NEAT AND ORDERLY APPEARANCE. RUN ALL LINES PARALLEL WITH BUILDING CONSTRUCTION. MAINTAIN HEADROOM AND EQUIPMENT CLEARANCE, AND GRADIENT WHERE REQUIRED. ALLOW FOR EXPANSION AND CONTRACTION.
- 0.20ACCESS DOORS: PROVIDE ACCESS DOORS OR PANELS FOR ALL VALVES, CLEANOUTS, DAMPERS, CONTROLS, DEVICES, AND OTHER ITEMS REQUIRING INSPECTION OR MAINTENANCE. ACCESS PANELS SERVING HVAC COMPONENTS SHALL BE 12-INCHES BY 12-INCHES MINIMUM OR LARGER TO PROVIDE SUFFICIENT WORKING CLEARANCE FOR COMPONENT BEING ACCESSED.
- 0.21COMMISSIONING: THOROUGHLY TEST AND DEMONSTRATE PROPER OPERATION OF ALL SYSTEMS AND EQUIPMENT FURNISHED OR INSTALLED UNDER THIS CONTRACT.

- 0.22O & M MANUALS: FOUR COPIES OF OPERATION AND MAINTENANCE MANUAL SHALL BE PROVIDED TO THE BUILDING OWNER OR OPERATOR. THE MANUAL SHALL INCLUDE BASIC DATA RELATING TO THE OPERATION AND MAINTENANCE OF HVAC SYSTEMS AND EQUIPMENT. REQUIRED ROUTINE MAINTENANCE ACTIONS SHALL BE CLEARLY IDENTIFIED. WHERE APPLICABLE, HVAC CONTROLS INFORMATION SUCH AS DIAGRAMS, SCHEMATICS, CONTROL SEQUENCE DESCRIPTIONS, AND MAINTENANCE AND CALIBRATION INFORMATION SHALL BE INCLUDED.
- 0.23WARRANTY: UNCONDITIONALLY WARRANT ALL WORK TO BE FREE OF DEFECTS IN MATERIALS AND WORKMANSHIP FOR ONE YEAR FROM DATE OF FINAL ACCEPTANCE, EXCEPT WARRANT AIR CONDITIONING COMPRESSORS FOR FIVE YEARS AND GAS-FIRED HEAT EXCHANGERS FOR TEN YEARS. DURING WARRANTY PERIOD, REPAIR OR REPLACE DEFECTIVE MATERIALS, EQUIPMENT OR WORKMANSHIP WITHOUT COST TO TENANT.
- 0.24EQUIPMENT IDENTIFICATION: IDENTIFY ALL APPLICABLE ROOFTOP EQUIPMENT WITH TENANT'S NAME AND SPACE NUMBER, USING 2" PAINTED CHARACTERS OR STAMPED METAL TAG.
- 0.25DRAWINGS ARE DIAGRAMMATIC: VERIFY ALL DIMENSIONS AND LENGTHS, AND ADJUST EQUIPMENT, PIPE AND DUCT LOCATIONS TO AVOID CONFLICTS WITH OTHER CONSTRUCTION AND TRADES.
- 0.26DOCUMENT PRIORITY: DRAWING INDICATIONS AND NOTATIONS SUPERSEDE THESE SPECIFICATIONS.
- 0.27RATINGS: REFER TO DRAWINGS AND SCHEDULES FOR ADDITIONAL RATINGS AND REQUIREMENTS.
- 0.28PROJECT REQUIREMENTS: REFER TO DRAWINGS FOR PARTICULAR PROJECT REQUIREMENTS, AS NOT ALL ITEMS INCLUDED IN THESE SPECIFICATIONS MAY BE REQUIRED FOR THIS PROJECT.
- 0.29DOCUMENT ERRORS: NOTIFY THE ENGINEER OF ERRORS, DISCREPANCIES OR OMISSIONS BEFORE CONSTRUCTION OR FABRICATION OF AFFECTED WORK, OR, FAILING OF SUCH NOTICE, BE RESPONSIBLE FOR CORRECTING SAME WITHOUT COST TO THE OWNER, ARCHITECT OR ENGINEER.
- 1.00PIPE AND FITTINGS
- 1.10PIPE HANGERS AND SUPPORTS: PROPERLY SUPPORT ALL PIPING FROM JOISTS (TOP CHORD) OR OTHER STRUCTURAL MEMBERS. FOR PIPES UP TO 4" O.D., USE GRINNELL FIG. 260 CLEVIS HANGERS WITH 3/8" ROD, OR FIG. 195 BRACKETS.
- 1.20INSULATION SHIELDS: PROVIDE 18 GAUGE X 12" LONG GALVANIZED INSULATION SHIELDS AT SUPPORT POINTS FOR INSULATED PIPES.
- 1.30PIPE SUPPORT SPACING: SUPPORT PIPE NOT LESS THAN 6 FT. ON CENTER FOR COPPER PIPE UP TO 2" O.D., OR NOT LESS THAN 10 FT. ON CENTER FOR STEEL PIPE UP TO 4" O.D.
- 1.40COPPER CONTACT: PROVIDE COPPER PLATED HANGERS AND SUPPORTS WHERE IN CONTACT WITH COPPER PIPE.
- 1.50PIPE SLEEVES: SLEEVE ALL HORIZONTAL PIPING WHICH PENETRATES WALLS WITH STANDARD WEIGHT STEEL PIPE OF 1" GREATER DIAMETER THAN PIPE OR INSULATION O.D. CUT SLEEVE FLUSH WITH WALL FINISH BOTH SIDES.
- 1.60SEALANT: SEAL PIPE SLEEVES WITH ROPE AND EXPANDO NON-SHRINK SEALANT. FIRE/SMOKE SEAL PENETRATIONS OF RATED CONSTRUCTION TO MAINTAIN RATING.
- 1.70WALL PLATES: FIT UNCOVERED PIPE PASSING THROUGH WALLS WITH WALL PLATES, CRANE NO. 10 OR EQUAL.
- 1.80PRIMARY CONDENSATE FROM ALL AIR CONDITIONING EQUIPMENT SHALL BE TRAPPED AND ROUTED AS NOTED ON THE PLANS. CONDENSATE PIPING SHALL BE SCHEDULE 40 PVC (EXCEPT INSULATED COPPER IN HVAC PLENUMS).
- 1.90ALL PIPING ABOVE GRADE SHALL BE SUPPORTED BY THE BUILDING STRUCTURE AND SHALL NOT REST ON CEILING TILES OR CEILING STRUCTURE. PIPING HUNG FROM JOISTS SHALL BE HUNG FROM THE TOP CHORDS OF THE JOISTS.
- 2.00THERMAL AND ACOUSTIC INSULATION
- 2.10VIBRATION ISOLATION: PROVIDE EFFECTIVE VIBRATION ISOLATION DEVICES, AND FLEXIBLE CONNECTIONS, FOR ALL MOVING MACHINERY. PROVIDE DEVICES IN ACCORDANCE WITH THE RECOMMENDATIONS IN THE ASHRAE HANDBOOK, HVAC APPLICATIONS (LATEST EDITION), CHAPTER "NOISE AND VIBRATION CONTROL".
- 2.20NOISE TRANSMISSION: INSTALL PIPING AND DUCTWORK FREE FROM CONTACT WITH STRUCTURE OR EQUIPMENT TO PREVENT NOISE TRANSMISSION.
- 2.30INSULATION REQUIREMENTS: INSULATE SYSTEMS AS SPECIFIED ONLY AFTER THEY HAVE BEEN TESTED AND INSPECTED. CLEAN ALL SURFACES THOROUGHLY OF MOISTURE, FOREIGN MATERIAL, GREASE, AND RUST. INSTALL INSULATION CONTINUOUS THROUGH PENETRATIONS.
- 2.31INSULATION HAZARDS: USE ONLY INSULATION ADHESIVES, SEALERS, AND COATINGS WITH FIRE HAZARD RATING NOT TO EXCEED 25/50/50 FLAME SPREAD, FUEL CONTRIBUTED, AND SMOKE DEVELOPED, IN ACCORDANCE WITH UL 723 AND ASTM E84.
- 2.33INSULATED HVAC PIPING SYSTEMS: INSULATE REFRIGERANT SUCTION PIPING AND COOLING COIL CONDENSATE PIPING WITH 3/4-IN. THICK CLOSED CELL FOAM INSULATION, RUBATEX OR EQUAL.
- 2.34ACOUSTICALLY LINED SUPPLY AND RETURN DUCT: UNLESS OTHERWISE INDICATED ON THE PLANS, LINE SUPPLY AND RETURN DUCTWORK WITHIN 10-FEET OF THE DISCHARGE OF FAN-POWERED VAV BOXES AND DISCHARGE AND INTAKE OF AIR HANDLING UNITS WITH 1" THICK GLASS FIBER ACOUSTICAL DUCT LINER BOARD, OWENS-CORNING QUIETR, OR ENGINEER-APPROVED EQUAL. INCREASE DUCT SIZE INDICATED ON PLANS 2" IN EACH DIMENSION TO ACCOMMODATE DUCT LINER. MATERIALS SHALL HAVE A MOLD-, HUMIDITY-, AND CORROSION-RESISTANT SURFACE THAT MEETS THE REQUIREMENTS OF UL 181.

- 2.35EXTERNALLY INSULATED SUPPLY AND RETURN DUCT: INSULATE SHEET METAL DUCTWORK WITH 1 AND 1/2-INCH FIBERGLASS BLANKET DUCT WRAP WITH AN INTEGRAL VAPOR BARRIER FACING, OWENS-CORNING, OR EQUAL. THE INSULATION SHALL HAVE MINIMUM R = 6.0 HR-SQ.FT.-DEG. F/BTU-IN. THERMAL RESISTANCE. DO NOT INSULATE PORTIONS OF DUCTWORK WHICH ARE INTERNALLY LINED. DO NOT INSULATE SUPPLY AIR DUCTWORK IN CONDITIONED SPACES UNLESS OTHERWISE INDICATED ON THE DRAWINGS. IF DUCTWORK IN CONDITIONED SPACE MUST BE INSULATED, INSULATION SHALL BE INTERNAL AND NOT VISIBLE FROM THE OCCUPIED SPACE.
- 2.36INSULATED EXHAUST AIR DUCT: EXTERNALLY INSULATE EXHAUST AIR DUCT WITH 1-1/2" THICK GLASS FIBER INSULATION WITH KRAFT FOIL VAPOR BARRIER, OWENS-CORNING, OR EQUAL.
- 2.40INSULATED FLEXIBLE DUCT: FLEXIBLE DUCTWORK SHALL BE THERMAFLEX M-KE (U.L. 181 LISTED, CLASS 1 FLEXIBLE AIR DUCT). PROVIDE MINIMUM INSULATION VALUE OF R-6, R-8 WHEN LOCATED OUTSIDE THE THERMAL ENVELOPE OF THE BUILDING, OR GREATER WHERE REQUIRED BY APPLICABLE ENERGY CODE. AIR CONNECTORS ARE NOT ACCEPTABLE. FLEX DUCT DIAMETER SHALL MATCH DEVICE NECK DIAMETER. PROVIDE ROUND GALVANIZED STEEL DUCT RUNOUTS TO MAINTAIN A MAXIMUM FLEXIBLE DUCT LENGTH OF 5'-0". FLEXIBLE DUCTWORK SHALL BE INSTALLED AS STRAIGHT AS POSSIBLE AND SHALL BE ROUTED AND SUPPORTED WITHOUT FORMING CRIMPS OR OTHER AIR FLOW RESTRICTIONS. PROVIDE SQUARE TO ROUND ADAPTERS OR BOOTS TO CONNECT TO AIR DEVICE NECK WHEN REQUIRED.
- 2.50INSULATED EXTERIOR DUCTWORK: RIGID DUCTWORK INSTALLED EXTERIOR TO THE BUILDING ENVELOPE SHALL BE INSULATED WITH ARMACELL ARMATUFF LAMINATED INSULATION (SHEETS OR ROLLS, AS APPLICABLE), OR SUBMIT DESIRED SUBSTITUTION TO ENGINEER OF RECORD FOR WRITTEN APPROVAL. INSULATION SHALL BE MINIMUM 2" ARMAFLEX FLEXIBLE ELASTOMERIC THERMAL INSULATION WITH WHITE 17.5 MIL LAMINATED COVERING. CONTRACTOR TO SPECIFY INCLUSION OR EXCLUSION OF PRESSURE-SENSITIVE ADHESIVE WHEN ORDERING PRODUCT.
- 8.00DUCTWORK AND APPURTENANCES
- 8.10SHEET METAL DUCTWORK:
- 8.20ALL DUCTWORK SHALL BE CONSTRUCTED OF GALVANIZED SHEETMETAL IN ACCORDANCE WITH SMACNA HVAC DUCT CONSTRUCTION STANDARDS METAL AND FLEXIBLE OR UL 181, DUCT CONSTRUCTION STANDARDS, LATEST EDITION. JOINTS AND SEAMS IN SHEETMETAL DUCTWORK SHALL BE SEALED WITH DUCT SEALER. DUCT WRAP INSULATION ON SUPPLY, RETURN AND OUTSIDE AIR DUCT SHALL BE JOHNS MANVILLE MICROLITE XG OR EQUAL UL LISTED FIBERGLASS BLANKET INSULATION WITH FOIL VAPOR BARRIER. ANY PUNCTURES OR TEARS IN THE FOIL JACKET SHALL BE PATCHED WITH FOIL TAPE TO MAINTAIN THE INTEGRITY OF THE VAPOR BARRIER. INSULATE SHEET METAL DUCTWORK IN THE THICKNESSES AND DENSITIES LISTED BELOW:
- 8.21SHEET METAL SUPPLY AND OUTSIDE AIR DUCTWORK : 2" THICK, 1 LB/FT3 DENSITY, R-8 MINIMUM INSTALLED.
- 8.22INDOOR EXPOSED SPIRAL SUPPLY AIR DUCT SHALL BE LINED WITH 1-1/2" THICK ROUND DUCT LINER (MINIMUM R-8). JOHNS MANVILLE SPIRACOUSITC PLUS OR EQUAL.
- 8.23LINE ALL SHEETMETAL DUCTWORK A MINIMUM OF 10'-0" DOWNSTREAM OF ALL AIR HANDLING UNITS. DUCT LINER SHALL BE 1-1/2" THICK (R-4 OR GREATER WHERE REQUIRED BY APPLICABLE ENERGY CODE), JOHNS MANVILLE PERMACOTE LINACOUSITC R-300. THE LEADING EDGE OF THE DUCT LINER SHALL HAVE A SHEETMETAL NOSING.
- 8.25ROUND, SPIRAL DUCTWORK LEFT EXPOSED AND VISIBLE WHICH IS TO BE PAINTED SHALL BE CONSTRUCTED OF "PAINT-GRIP" TYPE DUCT.
- 8.30FIRE DAMPERS: AIR BALANCE, INC., LOUVERS & DAMPERS, RUSKIN, OR EQUAL. GALVANIZED STEEL CURTAIN TYPE WITH INTERLOCKING BLADES, STAINLESS STEEL CLOSURE SPRINGS AND LATCHES FOR HORIZONTAL OR VERTICAL INSTALLATION. BLADES OUT OF AIR STREAM, FUSIBLE LINKS RATED AT 160-165 DEGREES F. PER UL 33. FIRE DAMPERS SHALL BE UL-555 LISTED, MEETING OR EXCEEDING NFPA GUIDELINES. FIRE DAMPERS SHALL HAVE MAXIMUM STATIC PRESSURE DROP OF 0.05-IN. W.G. AT DESIGN DUCT VELOCITY. DAMPER SHALL HAVE CALIFORNIA STATE FIRE MARSHAL APPROVAL.
- 8.35FIRE/SMOKE DAMPERS: AIR BALANCE, INC., LOUVERS & DAMPERS, RUSKIN, OR EQUAL. GALVANIZED STEEL CURTAIN TYPE WITH INTERLOCKING BLADES, STAINLESS STEEL CLOSURE SPRINGS AND LATCHES FOR HORIZONTAL OR VERTICAL INSTALLATION. FUSIBLE LINKS RATED AT 160-165° F. PER UL 33. FIRE/SMOKE DAMPERS SHALL BE UL-555/UL-555S LISTED, MEETING OR EXCEEDING NFPA GUIDELINES. FIRE/SMOKE DAMPERS SHALL HAVE MAXIMUM STATIC PRESSURE DROP 0.05 IN. W.G. AT DESIGN DUCT VELOCITY. REFER TO SECTION 9.14 FOR SMOKE DETECTOR SPECIFICATION.
- 8.40AIR OUTLETS AND INLETS: PROVIDE TITUS, KRUEGER, PRICE OR ENGINEER-APPROVED EQUAL, AS SCHEDULED. DAMPER SHALL HAVE CALIFORNIA STATE FIRE MARSHAL APPROVAL ON PLANS. PROVIDE MISCELLANEOUS ITEMS AS NECESSARY FOR A COMPLETE AND PROPER INSTALLATION IN THE TYPES OF WALLS AND CEILINGS USED ON THE PROJECT. THIS SHALL INCLUDE SUCH ITEMS AS FASTENERS, PLASTER RINGS, SUPPORTS, ETC.
- 8.50DUCT ACCESS PANELS: AIR BALANCE, INC., VENTFABRICS, RUSKIN, OR EQUAL. PROVIDE DUCT ACCESS PANELS AT EACH FIRE DAMPER SIZED TO PERMIT MAINTENANCE AND RESETTING OF THE DAMPER. PANELS SHALL BE CONSTRUCTED OF THE SAME OR GREATER GAUGE AS DUCTWORK SERVED. PROVIDE INSULATED DOORS FOR INSULATED DUCTWORK. PROVIDE FLUSH FRAMES FOR UNINSULATED DUCTWORK AND EXTENDED FRAMES FOR EXTERNALLY INSULATED DUCTWORK. PROVIDE REMOVABLE DOORS FOR SIZES UP THROUGH 18-IN. (LARGEST DIMENSION) AND HINGED, TWO-HANDLE TYPE LATCHES FOR LARGER DOORS.
- 8.60ALL INTAKE OPENINGS AND RELIEF/EXHAUST OPENINGS LOCATED OUTSIDE OF BUILDING SHALL BE COVERED WITH 1/4" TO 1/2" WELDED WIRE BIRD SCREEN OF GALVANIZED STEEL. ALL INTAKES LOCATED IN OPEN CEILING AREAS WHICH ARE VISIBLE FROM BELOW SHALL BE COVERED WITH 1/4" WELDED WIRE SCREEN OF GALVANIZED STEEL AND THE INSIDE OF THE DUCTWORK AND/OR ACOUSTICAL LINING SHALL BE PAINTED FLAT BLACK FOR A MINIMUM DISTANCE OF 4' FROM THE OPENING OF THE DUCTWORK OR BELL MOUTH.
- 8.70DUCTWORK SHALL BE SUPPORTED BY THE BUILDING STRUCTURE AND SHALL NOT REST ON CEILING TILES OR CEILING STRUCTURE. DUCT SUPPORTS AND ATTACHMENT TO STRUCTURE SHALL BE PER SMACNA STANDARDS.

- 8.80ROUND AND FLEXIBLE SUPPLY AIR DUCTWORK SHALL BE CONNECTED TO MAIN DUCTS WITH A SPIN-IN FITTING WITH SCOOP AND BALANCING DAMPER.
- 8.90DUCTWORK DIMENSIONS SHOWN ON THE DRAWINGS ARE CLEAR INSIDE DIMENSIONS. ENLARGE DUCTWORK AS REQUIRED TO ACCOMMODATE INTERNAL DUCT LINER.
- 8.95LOCATIONS OF GRILLES, REGISTERS, AND DIFFUSERS SHOWN ON THE DRAWINGS ARE APPROXIMATE. COORDINATE EXACT LOCATIONS WITH LIGHTS, CEILING GRID, ETC. AND ARCHITECTURAL REFLECTED CEILING PLAN.
- 8.96FACTORY-MADE FLEXIBLE DUCTWORK AND CONNECTORS SHALL NOT BE USED IN LIEU OF RIGID ELBOWS OR FITTINGS.
- 9.00SYSTEM CONTROL AND OPERATION
- 9.10SPACE TEMPERATURE CONTROL: FURNISH AND INSTALL, UNLESS NOTED OTHERWISE, ALL THERMOSTATS, SENSORS, CONTROLLERS, RELAYS, CONTACTORS, DAMPERS, ACTUATORS, TUBING, CONTROL WIRING AND ALL OTHER ITEMS AND MATERIALS NECESSARY FOR A COMPLETE AND PROPERLY OPERATING TEMPERATURE CONTROL SYSTEM AS SPECIFIED ON THE PLANS. ALL THERMOSTATS AND OTHER CONTROL COMPONENTS SHALL BE HONEYWELL, OR ENGINEER-APPROVED EQUAL, UNLESS SPECIFIED OTHERWISE. ALL CONTROL WIRING SHALL BE INSTALLED IN CONDUIT.

- 9.11THERMOSTAT: REFER TO "HVAC CONTROLS" ON PLANS. THERMOSTATS SHALL BE ADA COMPLIANT AND SHALL HAVE OCCUPANT CONTROLLED SMART THERMOSTAT (OCST) PER REFERENCE JOINT APPENDIX JAS (IEC 120.2). MOUNT TOP OF THERMOSTATS 46" AFF UNLESS NOTED OTHERWISE. COORDINATE THERMOSTAT LOCATIONS WITH OTHER TRADES. PROVIDE LOCKOUT CONTROLS OR CLEAR LOCKING COVERS FOR ALL PUBLIC AREA THERMOSTATS.
- 9.12CO2 SENSOR FOR DEMAND-CONTROL VENTILATION SEQUENCE: REFER TO "HVAC CONTROLS" ON PLANS.
- 9.13DUCT SMOKE DETECTOR FOR AIR-MOVING EQUIPMENT: PROVIDE COMPATIBLE DUCT SMOKE DETECTORS IN SUPPLY DUCTS AS INDICATED (BOSCH MODEL D341/D342 - CSFM LISTING #: 3240-1615.0181 WITH D286 IONIZATION-TYPE SMOKE DETECTION HEAD, OR ENGINEER-APPROVED EQUAL). CONNECT TO DE-ENERGIZE FAN UPON SMOKE DETECTION. CONNECT TO REMOTE TEST STATION AND/OR FIRE ALARM SYSTEM, AS REQUIRED. ALL FANS SUPPLYING MORE THAN 2000 CFM OF AIR TO ANY SPACE SHALL BE INSTALLED WITH A SMOKE DETECTOR. DUCT SMOKE DETECTORS SHALL BE INSTALLED IN THE SUPPLY AIR PATH OF ANY AIR DISTRIBUTION SYSTEMS UTILIZING A COMMON SUPPLY AIR PLENUM WITH A COMBINED DESIGN CAPACITY GREATER THAN 2000 CFM. THE SMOKE DETECTOR SHALL BE WIRED TO STOP THE FAN UPON DETECTION OF SMOKE, AND SIGNAL THE BUILDING FIRE ALARM CONTROL PANEL.
- 9.14DUCT SMOKE DETECTOR FOR SMOKE DAMPER / COMBINATION FIRE/SMOKE DAMPER ACTUATION: PROVIDE COMPATIBLE PHOTOELECTRIC TYPE DUCT SMOKE DETECTORS IN AIR DUCTS IMMEDIATELY UPSTREAM OF EACH DUCT-MOUNTED SMOKE OR COMBINATION FIRE/SMOKE DAMPER. REFER TO DRAWINGS FOR DAMPER LOCATIONS (RUSKIN MODEL DSDP-D4120, OR ENGINEER-APPROVED EQUAL). CONNECT TO CLOSE DAMPER UPON SMOKE DETECTION. REFER TO ELECTRICAL DRAWINGS FOR ACTUATOR POWER REQUIREMENTS. PROVIDE REMOTE RESET DEVICE RTS2-AOS.
- 9.20SEQUENCE OF CONTROLS: REFER TO "HVAC CONTROLS" ON PLANS.
- 9.30TESTING, ADJUSTING, BALANCING
- 9.31AABC, NEBB, TABB OR NBC/NCI CERTIFIED TESTING AND BALANCING CONTRACTOR SHALL BE RESPONSIBLE FOR THE TESTING AND BALANCING OF EVERY HEATING, VENTILATING AND AIR CONDITIONING SYSTEM. THE PERSON OR AGENCY RESPONSIBLE FOR BALANCING OF THE SYSTEMS SHALL DOCUMENT IN WRITING THE AMOUNT OF OUTDOOR AIR BEING PROVIDED AND DISTRIBUTED FOR THE BUILDING OCCUPANTS AND ANY OTHER SPECIALTY VENTILATION. SEE PLANS FOR FURTHER REQUIREMENTS. TWO (2) COPIES OF A WRITTEN REPORT IN NEBB, AABC, OR TABB FORMAT SHALL BE SUBMITTED TO THE ENGINEER FOR REVIEW.
- 9.32AIR SYSTEMS SHALL BE BALANCED IN A MANNER TO MINIMIZE LOSSES FROM DAMPER THROTTLING BY FIRST ADJUSTING FAN SPEED THEN ADJUSTING DAMPERS TO MEET DESIGN FLOW CONDITIONS. DAMPER THROTTLING ALONE MAY BE USED FOR AIR SYSTEM BALANCING WITH FAN MOTORS OF 1 HP OR LESS, OR IF THROTTLING RESULTS IN NO GREATER THAN 1/3 HP FAN HORSEPOWER DRAW ABOVE THAT REQUIRED IF THE FAN SPEED WERE ADJUSTED.
- 9.33HVAC CONTROL SYSTEMS SHALL BE TESTED TO ASSURE THAT CONTROL ELEMENTS ARE CALIBRATED, ADJUSTED, AND IN PROPER WORKING CONDITION.
- 9.34IN SYSTEMS WHERE VAV BOXES ARE PART OF THE CENTRAL AIR SYSTEM AND SOME VAV BOXES SERVED BY THE SAME CENTRAL STATION AIR HANDLING UNIT / ROOFTOP UNIT AS SERVES THIS TENANT'S SPACE ARE LOCATED IN OTHER DEMISED SPACE(S), BALANCING CONTRACTOR SHALL ENSURE ALL VAV BOXES NOT IN THIS TENANT'S SPACE HAVE BEEN OPENED TO THEIR RELATIVE MAXIMUM POSITION BEFORE BALANCING OPERATION COMMENCES.



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T H E D A T E O F I S S U A N C E O F T H E S E D O C U M E N T S .
D U P L I C A T I O N O F T H E S E D O C U M E N T S O R
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C O N S E N T O F N A T I O N A L E N G I N E E R I N G &
C O N S U L T I N G I N C .

CLIENT:

JAIME PARTNERS
OF CALIFORNIA, INC.

1050 S. FLOWER STREET
LOS ANGELES, CA 90015

PROJECT:

2853 WEST BLVD

LOS ANGELES, CA 90016

C-JAIME-001		
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⚠	PC RESUBMITTAL	07/10/23
⚠	PC RESUBMITTAL	02/27/24

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SHEET TITLE:

HVAC
SPECIFICATIONS

SHEET NO:

M002

A

UNIT NO.	SERVING	MITSUBISHI MODEL	TONS	COOLING CAPACITY (MBH)	HEATING CAPACITY (MBH)	EER/SEER	COP	ELECTRICAL DATA					WEIGHT (lbs)	NOTES
								MCA	MOCp	VOLt	PH	HZ		
CU-1	ELEVATOR MACHINE ROOM - 1ST FLOOR	MUZ-GS18NA	1.5	18.0	--	13.5/20.5	--	12	15	208	1	60	119	SEE BELOW
NOTES: <ol style="list-style-type: none"> CONDENSING UNIT SHALL BE LISTED IN TITLE 24 CALIFORNIA CERTIFIED APPLIANCE DATABASE. PROVIDE ACCESSORY TUBING KITS/VALVES. COMPATIBLE TO FAN COIL UNIT. PROVIDE WITH LOW AMBIENT KIT. PROVIDE WITH 2" NEOPRENE PAD AND ROOF CURB. 														

SYMBOL	MAKE	AREA SERVING	CFM	HP	ELECTRICAL DATA			OPER. WEIGHT LBS.	NOTES
	MODEL				AMPS	VOLTS	PHASE		
5F-1	GREENHECK SAF-112	CORRIDOR / TRASH ROOM	1,220 @ .25 S.P.	1/4	5.8	115	1	185 LBS.	SEE BELOW
NOTES:									
1. PROVIDE MIN. MERV 13 FILTERS ON ALL SUPPLY AIR FANS. CONTRACTOR TO CONSTRUCT FILTER BOX CAPABLE OF HOUSING FILTERS IF NOT INCLUDED WITH EQUIPMENT SCHEDULED.									
2. PROVIDE W/ FACTORY ROOF CURB AND FILTER BOX. SUPPLY FAN TO OPERATE CONTINUOUSLY.									

LOS ANGELES, CA 90016

M003



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PROJECT:

2853 WEST BLVD

LOS ANGELES, CA 90016

C-JAIME-001

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△	PC RESUBMITTAL	07/10/23
△	PC RESUBMITTAL	02/27/24

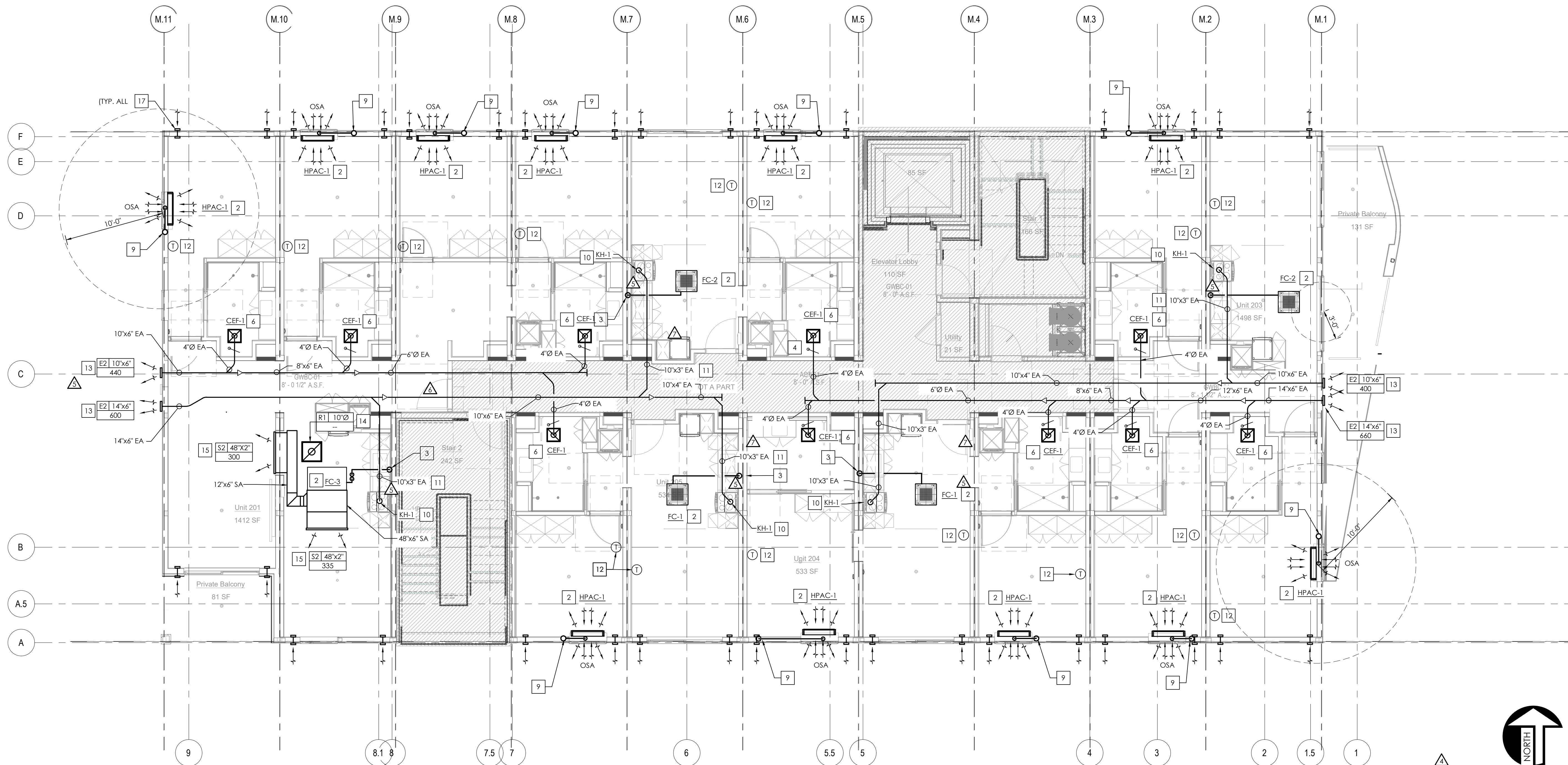
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SHEET TITLE:

△ **LEVEL 2
HVAC PLAN** △

SHEET NO:

M102



LEVEL 2 HVAC PLAN

SCALE
3/16" = 1'-0"

1

PLAN NOTES

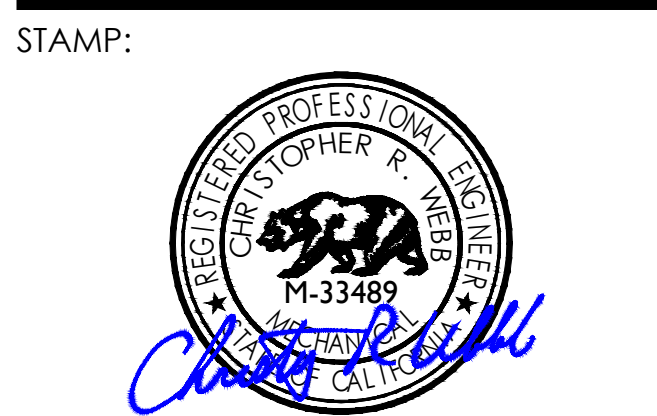
- REFER TO SHEET M001 FOR GENERAL MECHANICAL INFORMATION AND M002 FOR HVAC SPECIFICATIONS.
- REFER TO SHEET M003 FOR ALL SCHEDULES, SEQUENCES AND CONTROLS.
- REFER TO SHEET M401 FOR DETAILS.
- REFER TO SHEET M402 FOR OSA CALCULATIONS.
- REFER TO SHEET M101 FOR CONTINUATIONS BELOW AND SHEET M103 FOR CONTINUATIONS ABOVE.
- REFER TO MANUFACTURER'S GUIDELINES FOR PROPER INSTALLATION AND EQUIPMENT CLEARANCES.
- ALL CONDENSATE DRAIN PIPING TO MAINTAIN MINIMUM SLOPE OF 1/8" PER FT.
- PROVIDE ACCESS PANEL IN DUCT FOR INSPECTION / MAINTENANCE OF EACH FSD SHOWN ON PLANS.
- AIR LEAKAGE IN DWELLING UNITS SHALL BE LESS THAN OR EQUAL TO 0.3 CFM PER SQFT. OF DWELLING UNIT AT A DUCT STATIC PRESSURE OF 50 PASCALS (~0.2" W.C.).

KEY NOTES

- NUMBERS INDICATE NOTES SHOWN ON PLAN.
- NOT USED.
- CEILING CASSETTE FCU TO SERVE CONDITIONED SPACE, AS SHOWN. UNIT TO BE COORDINATE ALL ASPECTS OF INSTALLATION IN FIELD DURING CONSTRUCTION.
- ROUTE 3/4" CONDENSATE DRAIN PIPING DOWN TO DISCHARGE INTO TAILPIECE OF LAV.
- NOT USED.
- PROVIDE CLEANOUT AT EACH CHANGE IN DIRECTION.
- CEILING-MOUNTED BATHROOM EXHAUST FAN. PROVIDE 6"Ø EA DUCT (MIN. 26 GAUGE GALVANIZED STEEL) THRU FIRE-RATED WALL WITH MIN. 12" LONG BY 0.06" THICK STEEL SLEEVE, CENTERED IN EACH DUCT OPENING. DUCT PENETRATION MEETS ALL OF THE EXCEPTIONS LISTED IN SECTION 717.5.4 OF THE LABC.
- NOT USED.
- NOT USED.
- ROUTE 3/4" CONDENSATE DRAIN RISER DOWN TIGHT TO UNDERSIDE OF LEVEL 1 PODIUM.
- KITCHEN HOOD WITH FACTORY BACKDRAFT DAMPER.
- ROUTE 10"x3" EA DUCT FROM KITCHEN HOOD TO COMMON EXHAUST PLENUM. PROTECT PENETRATION THRU FIRE-RATED WALL W/ AN APPROVED FIRESTOP SYSTEM INSTALLED AS TESTED IN ACCORDANCE WITH ASTM E814 OR UL 1479. WITH A MINIMUM POSITIVE PRESSURE DIFFERENTIAL OF 0.01 INCH OF WATER AND SHALL HAVE AN F-RATING OF NOT LESS THAN THE REQUIRED FIRE-RESISTANCE RATING OF THE WALL.
- ROOM T-STAT. COORDINATE FINAL LOCATION WITH OWNER.
- ROUTE DUCT THRU EXTERIOR WALL TO EXHAUST LOUVER.
- PROVIDE RA CEILING GRILLE FOR PLENUM RETURN.
- PROVIDE SA DUCT TO SIDEWALL GRILLE FOR HORIZONTAL DISCHARGE.
- NOT USED.
- PROVIDE PASSIVE TEMPERATURE CONTROLLED FRESH AIR INTAKE VENT (ALDES AIRLET 700, OR ENGINEER-APPROVED EQUAL). COORDINATE FINAL LOCATION WITH OWNER.



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LOS ANGELES, CA 90015

PROJECT:

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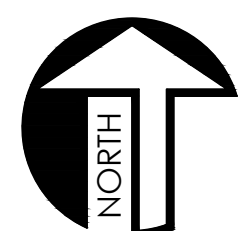
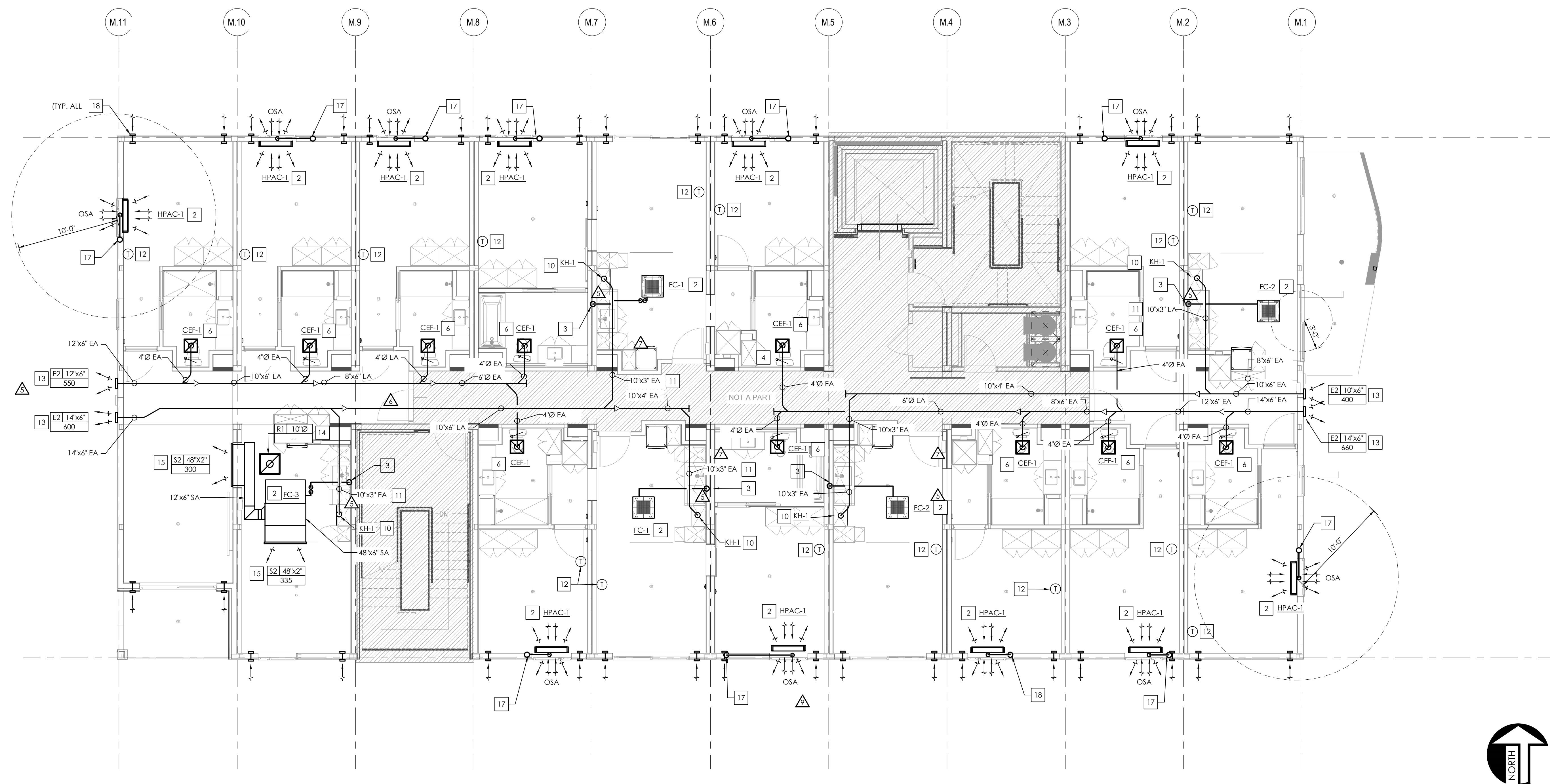
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SHEET TITLE:

**LEVEL 3
HVAC PLAN**

SHEET NO:

M103



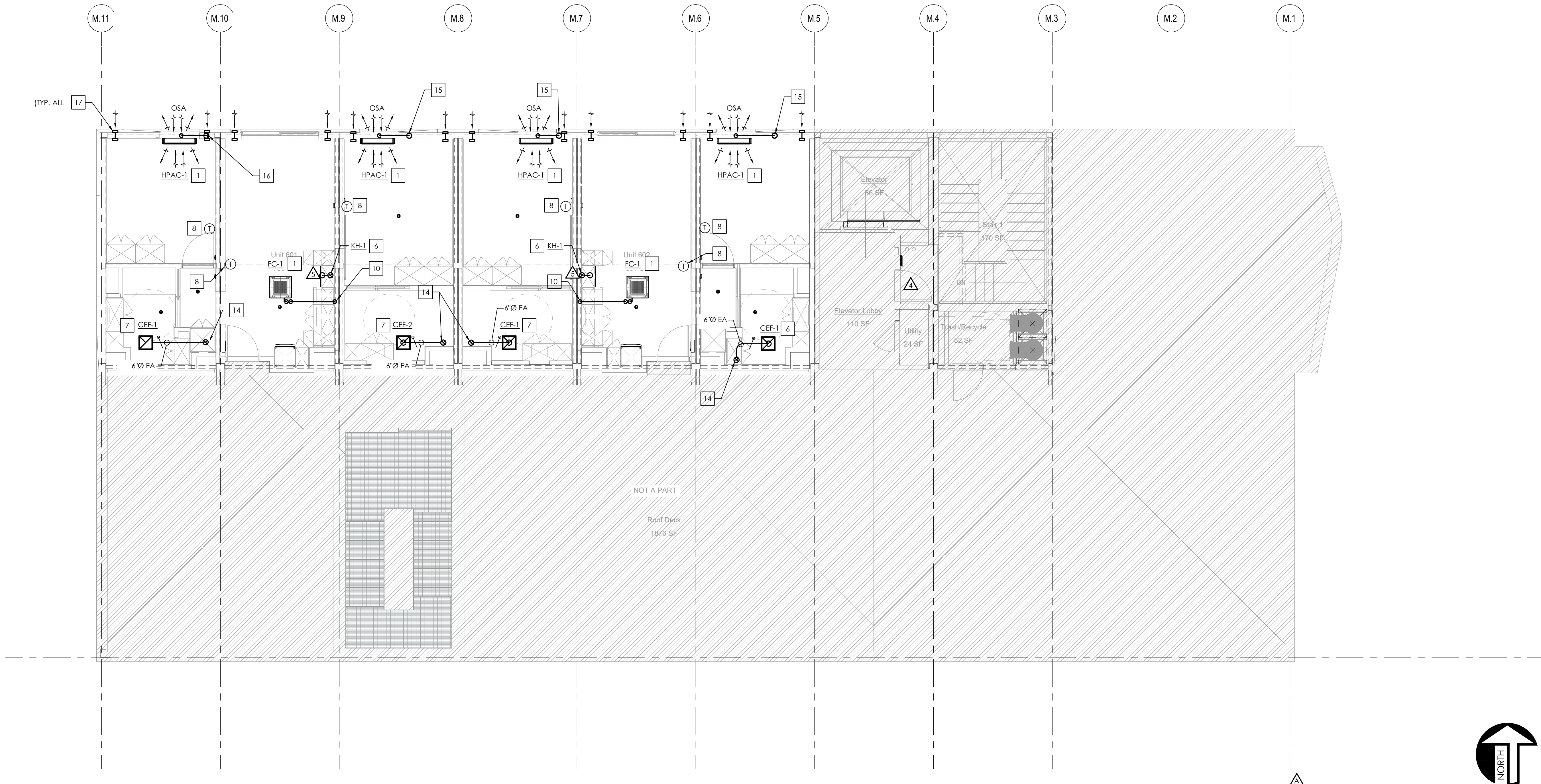
LEVEL 3 - HVAC PLAN SCALE 3/16" = 1'-0" **1**

PLAN NOTES

- A. REFER TO SHEET M001 FOR GENERAL MECHANICAL INFORMATION AND M002 FOR HVAC SPECIFICATIONS.
- B. REFER TO SHEET M003 FOR ALL SCHEDULES, SEQUENCES AND CONTROLS.
- C. REFER TO SHEET M401 FOR DETAILS.
- D. REFER TO SHEET M402 FOR OSA CALCULATIONS.
- E. REFER TO SHEET M101 FOR CONTINUATIONS BELOW AND SHEET M103 FOR CONTINUATIONS ABOVE.
- F. REFER TO MANUFACTURER'S GUIDELINES FOR PROPER INSTALLATION AND EQUIPMENT CLEARANCES.
- G. ALL CONDENSATE DRAIN PIPING TO MAINTAIN MINIMUM SLOPE OF 1/8" PER FT.
- H. PROVIDE ACCESS PANEL IN DUCT FOR INSPECTION / MAINTENANCE OF EACH FSD SHOWN ON PLANS.
- I. AIR LEAKAGE IN DWELLING UNITS SHALL BE LESS THAN OR EQUAL TO 0.3 CFM PER SQFT. OF DWELLING UNIT AT A DUCT STATIC PRESSURE OF 50 PASCALS (~0.2" W.C.).

KEY NOTES

- # NUMBERS INDICATE NOTES SHOWN ON PLAN
- 1. NOT USED.
- 2. CEILING CASSETTE FCU TO SERVE CONDITIONED SPACE, AS SHOWN. UNIT TO BE COORDINATE ALL ASPECTS OF INSTALLATION IN FIELD DURING CONSTRUCTION.
- 3. ROUTE 3/4" CONDENSATE DRAIN PIPING DOWN TO DISCHARGE INTO TAILPIECE OF LAV.
- 4. NOT USED.
- 5. PROVIDE CLEANOUT AT EACH CHANGE IN DIRECTION.
- 6. CEILING-MOUNTED BATHROOM EXHAUST FAN. PROVIDE 6"Ø EA DUCT (MIN. 26 GAUGE GALVANIZED STEEL) THRU FIRE-RATED WALL WITH MIN. 12" LONG BY 0.06" THICK STEEL SLEEVE, CENTERED IN EACH DUCT OPENING. DUCT PENETRATION MEETS ALL OF THE EXCEPTIONS LISTED IN SECTION 717.5.4 OF THE LABC.
- 7. NOT USED.
- 8. NOT USED.
- 9. NOT USED.
- 10. KITCHEN HOOD WITH FACTORY BACKDRAFT DAMPER.
- 11. ROUTE 10"x3" EA DUCT FROM KITCHEN HOOD TO COMMON EXHAUST PLENUM. PROTECT PENETRATION THRU FIRE-RATED WALL W/ AN APPROVED FIRESTOP SYSTEM INSTALLED AS TESTED IN ACCORDANCE WITH ASTM E814 OR UL 1479. WITH A MINIMUM POSITIVE PRESSURE DIFFERENTIAL OF 0.01 INCH OF WATER AND SHALL HAVE AN F-RATING OF NOT LESS THAN THE REQUIRED FIRE-RESISTANCE RATING OF THE WALL.
- 12. ROOM T-STAT. COORDINATE FINAL LOCATION WITH OWNER.
- 13. ROUTE DUCT THRU EXTERIOR WALL TO EXHAUST LOUVER.
- 14. PROVIDE RA CEILING GRILLE FOR PLENUM RETURN.
- 15. PROVIDE SA DUCT TO SIDEWALL GRILLE FOR HORIZONTAL DISCHARGE.
- 16. NOT USED.
- 17. ROUTE 3/4" CONDENSATE DRAIN RISER DOWN TIGHT TO UNDERSIDE OF LEVEL 1 PODIUM.
- 18. PROVIDE PASSIVE, TEMPERATURE CONTROLLED FRESH AIR INTAKE VENT (ALDES AIRLET 700, OR ENGINEER-APPROVED EQUAL). COORDINATE FINAL LOCATION WITH OWNER.



LEVEL 6 HVAC PLAN

SCALE 3/16" = 1'-0"

1

PLAN NOTES

- A. REFER TO SHEET M001 FOR GENERAL MECHANICAL INFORMATION AND M002 FOR HVAC SPECIFICATIONS.
- B. REFER TO SHEET M003 FOR ALL SCHEDULES, SEQUENCES AND CONTROLS.
- C. REFER TO SHEET M401 FOR DETAILS.
- D. REFER TO SHEET M402 FOR OSA CALCULATIONS.
- E. REFER TO SHEET M101 FOR CONTINUATIONS BELOW AND SHEET M103 FOR CONTINUATIONS ABOVE.
- F. REFER TO MANUFACTURER'S GUIDELINES FOR PROPER INSTALLATION AND EQUIPMENT CLEARANCES.
- G. ALL CONDENSATE DRAIN PIPING TO MAINTAIN MINIMUM SLOPE OF 1/8" PER FT.
- H. PROVIDE ACCESS PANEL IN DUCT FOR INSPECTION / MAINTENANCE OF EACH FSD SHOWN ON PLANS.
- I. AIR LEAKAGE IN DWELLING UNITS SHALL BE LESS THAN OR EQUAL TO 0.3 CFM PER SQFT. OF DWELLING UNIT AT A DUCT STATIC PRESSURE OF 50 PASCALS (-0.2" W.C.).

KEY NOTES

- NUMBERS INDICATE NOTES SHOWN ON PLAN
- 1. CEILING CASSETTE FCU TO SERVE CONDITIONED SPACE, AS SHOWN. COORDINATE ALL ASPECTS OF INSTALLATION IN FIELD DURING CONSTRUCTION.
- 2. NOT USED.
- 3. NOT USED.
- 4. NOT USED.
- 5. NOT USED.
- 6. KITCHEN RANGE HOOD W/ FACTORY BACKDRAFT DAMPER. PROVIDE 7" Ø EA DUCT THRU ROOF WITH FACTORY ROOF JACK. PROTECT PENETRATION THRU FIRE-RATED STRUCTURE W/ AN APPROVED FIRESTOP SYSTEM INSTALLED AS TESTED IN ACCORDANCE WITH ASTM E814 OR UL 1479, WITH A MINIMUM POSITIVE PRESSURE DIFFERENTIAL OF 0.01 INCH OF WATER AND SHALL HAVE AN F RATING OF NOT LESS THAN 1 HOUR BUT NOT LESS THAN THE REQUIRED FIRE-RESISTANCE RATING OF THE STRUCTURE PENETRATED.
- 7. CEILING MOUNTED BATHROOM EXHAUST FAN. PROVIDE 6" Ø EA DUCT (MIN. 26 GAUGE GALVANIZED STEEL) THRU FIRE-RATED WALL WITH MIN. 12" LONG BY 0.06" THICK STEEL SLEEVE, CENTERED IN EACH DUCT OPENING.
- 8. ROOM T-STAT. COORDINATE FINAL LOCATION WITH OWNER.
- 9. ROUTE DUCT THRU EXTERIOR WALL TO EXHAUST LOUVER.
- 10. ROUTE 3/4" CONDENSATE DRAIN PIPING DOWN TO DISCHARGE INTO TAILPIECE OF LAV.
- 11. PROVIDE RA CEILING GRILLE FOR PLENUM RETURN.
- 12. PROVIDE FULL SIZE SA DUCT TO SIDEWALL GRILLE FOR HORIZONTAL DISCHARGE.
- 13. NOT USED.
- 14. 6" Ø EA DTR W/ ROOF CAP.
- 15. ROUTE 3/4" CONDENSATE DRAIN RISER DOWN TO SERVE LOWER LEVELS.
- 16. ROUTE 3/4" CONDENSATE DRAIN DOWN THRU FIN. FLOOR INTO LVL 5 CEILING SPACE.
- 17. PROVIDE PASSIVE, TEMPERATURE CONTROLLED FRESH AIR INTAKE VENT (ALDES AIRLET 700, OR ENGINEER-APPROVED EQUAL). COORDINATE FINAL LOCATION WITH OWNER.



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SHEET TITLE:

**LEVEL 6
HVAC PLAN**

SHEET NO:

M106

JVX3240SJ

GE Appliances 24" Under the Cabinet Hood

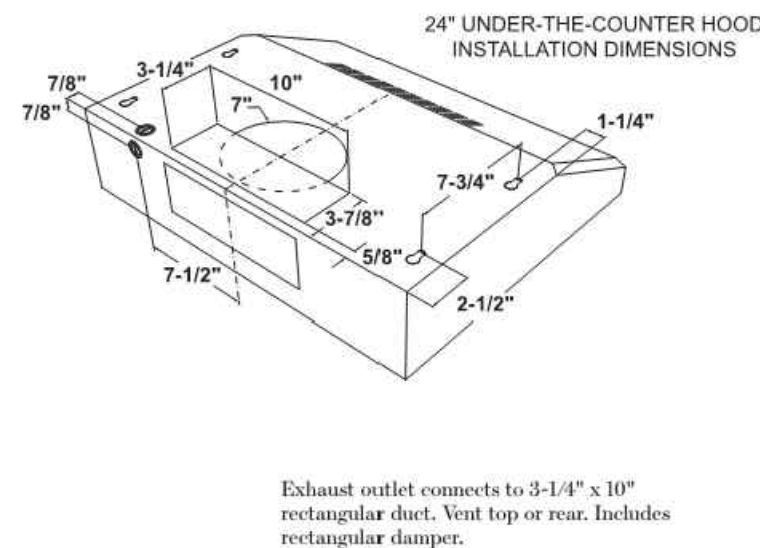
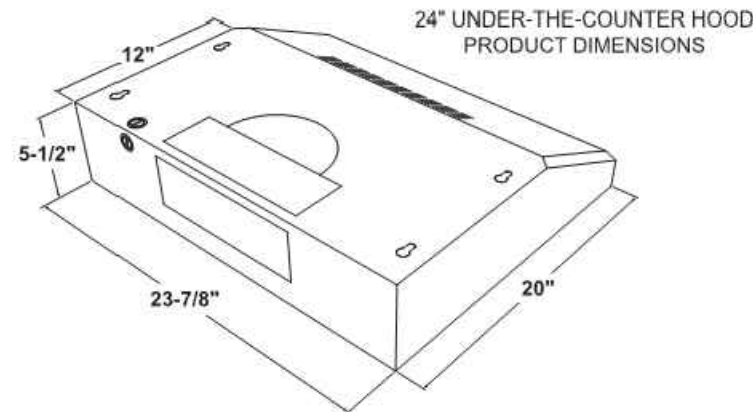
DIMENSIONS AND INSTALLATION INFORMATION (IN INCHES)

WB02X11537 replacement grease filter and JXCF53 replacement charcoal filter are available for additional cost. Call toll-free 800.626.2000.

Installation Information: Before installing, consult installation instructions,packed with product, for current dimensional data.

Additional accessories:
JXDA22 optional damper

AMP RATING	
120V	2.5



For answers to your Monogram, GE Café®, GE Profile® or GE Appliances product questions, visit our website at appliances.com or call GE Answer Center® Service, 800.626.2000.



Specification Revised 6/20

JVX3240SJ

GE Appliances 24" Under the Cabinet Hood

FEATURES AND BENEFITS

Easy installation – 10 minutes or less by one person

Two-speed, 200-CFM venting system – Removes smoke, grease, odors and moisture

Front controls – Enjoy easy access and a subtle appearance

Cooktop lighting – Illuminate cooking space and surrounding surface

Convertible venting options - Select recirculating or external venting

Vertical and rear exhaust – Exhausts from the top or rear of the hood

Appearance (Partially enclosed bottom) – Enjoy easy access to hood interior

Dishwasher safe filter – Filters grease and is dishwasher-safe

Model JVX3240SJSS – Stainless steel



CFM/SONES RATINGS	
Exhaust High Speed (HIS)	200/6.5
Exhaust Low Speed (LS)	130/5.0

Specification Revised 6/20



KITCHEN HOOD (KH-1)

SCALE	NO SCALE
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10

SIDEWALL GRILLE

SCALE	NO SCALE
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8

CONDENSATE DRAIN

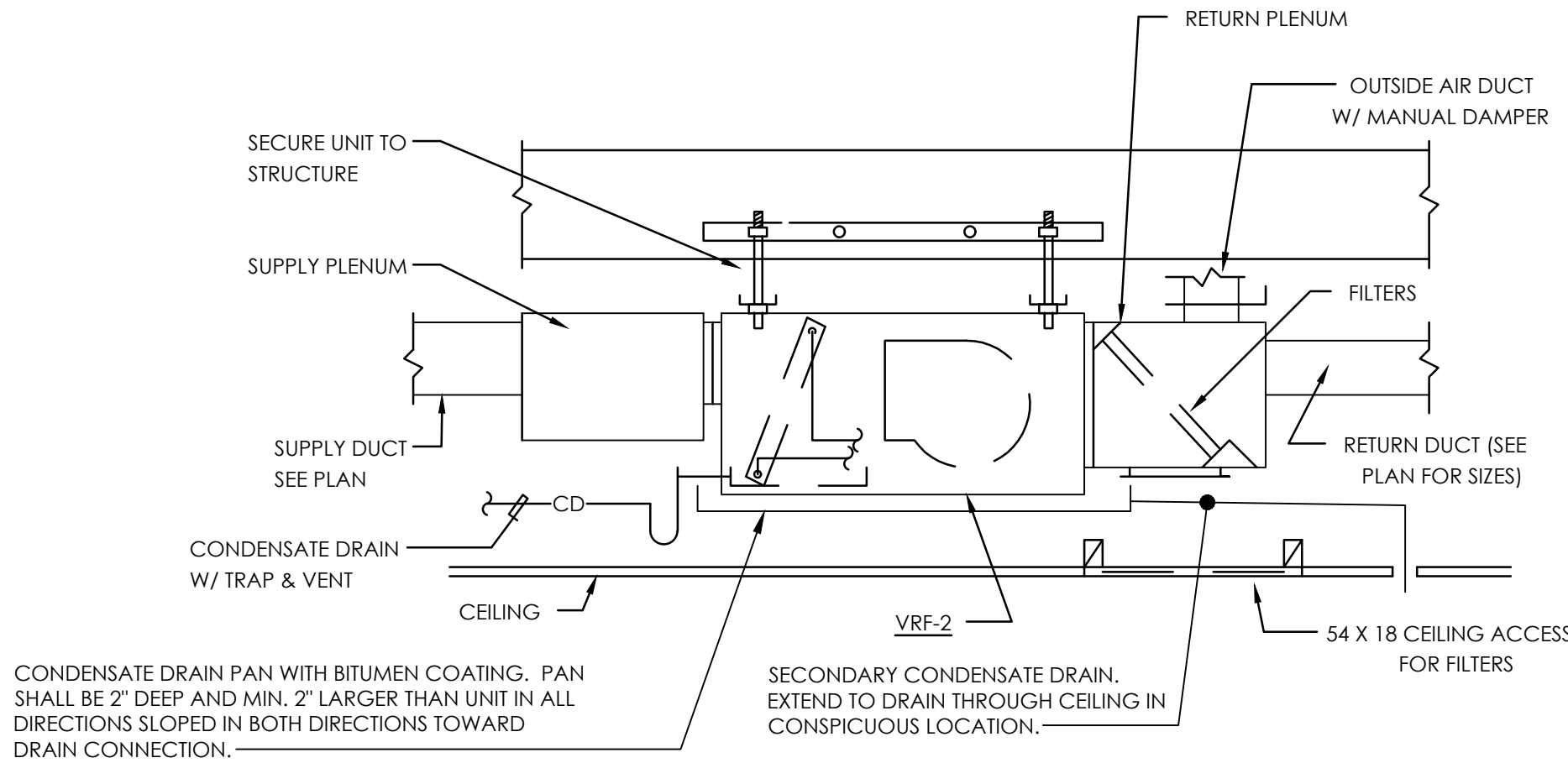
SCALE	NO SCALE
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5

CU / HP MOUNTING

SCALE	NO SCALE
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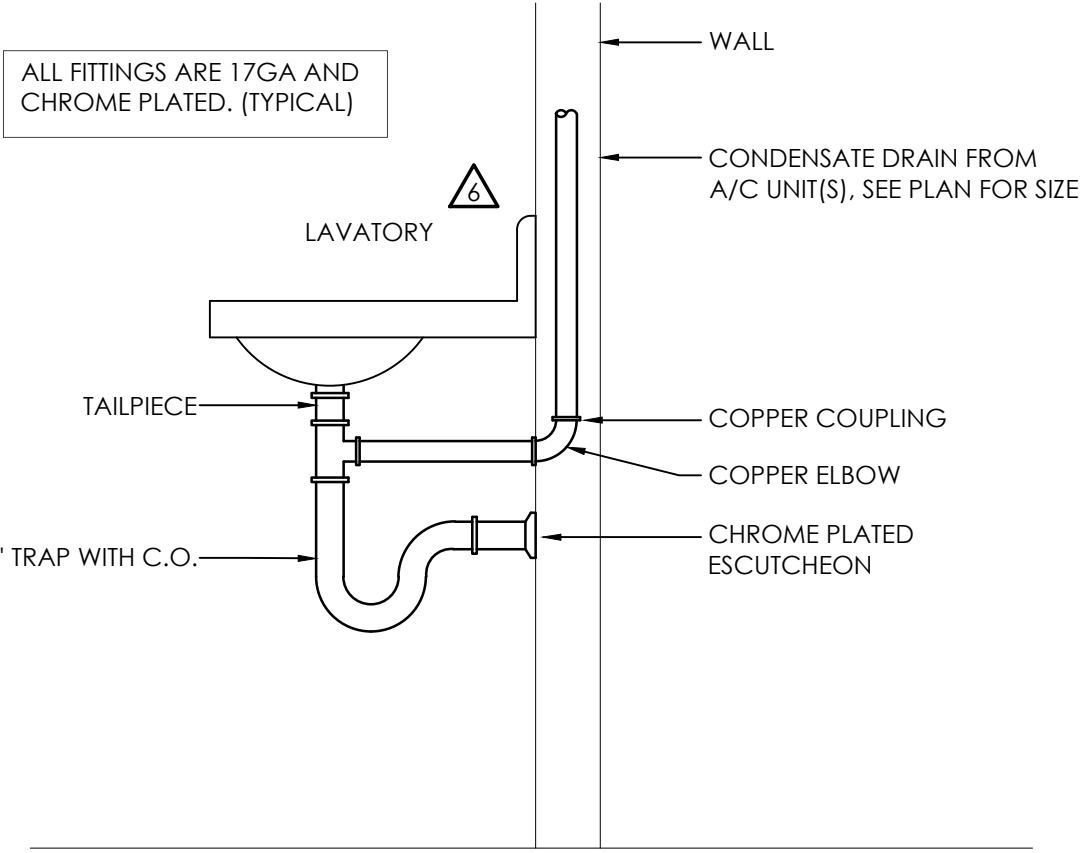
1



INDOOR FAN COIL UNIT

SCALE	N.T.S.
-------	--------

4



COND. DRAIN TO 'P' TRAP

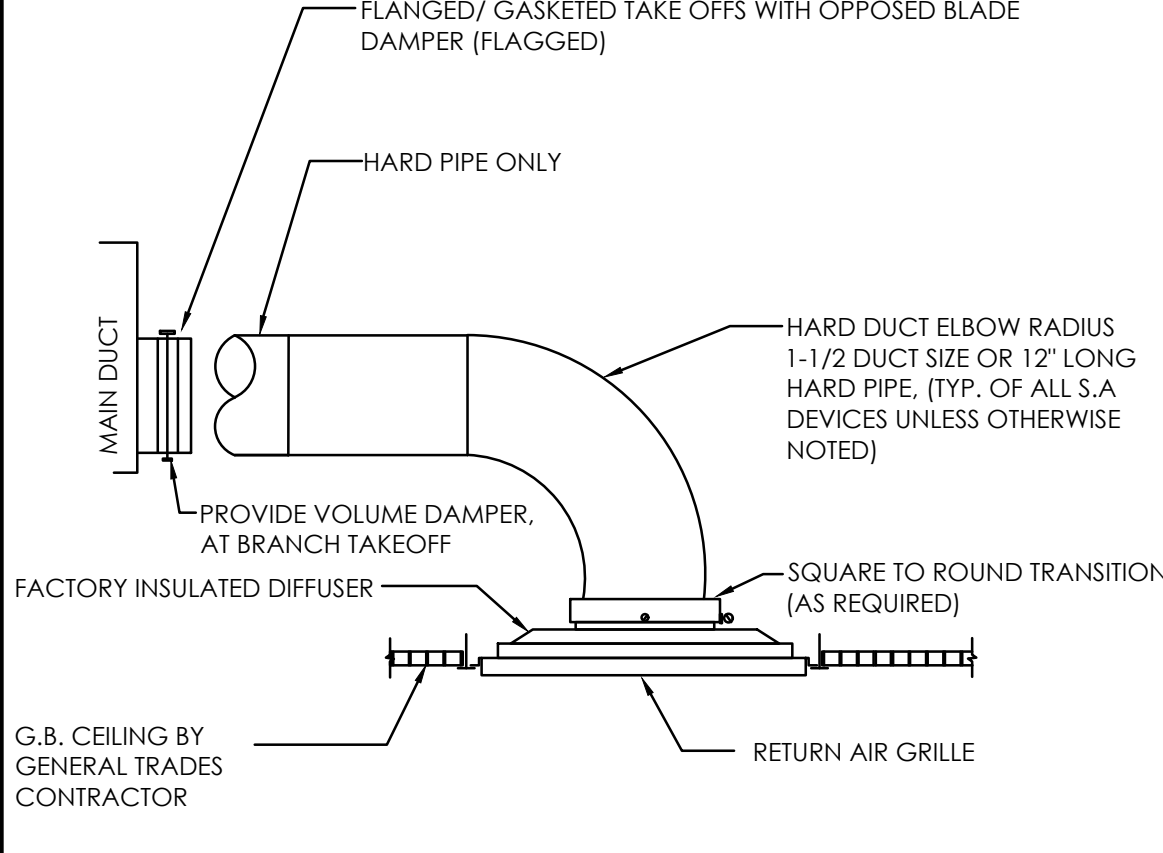
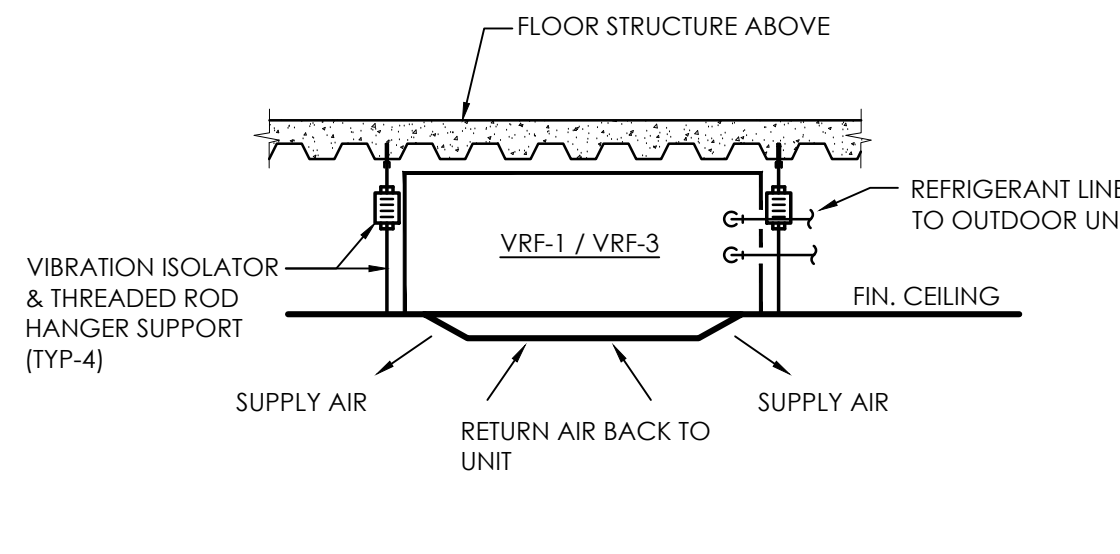
SCALE	NO SCALE
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7

VRF SUSPENSION

SCALE	NO SCALE
-------	----------

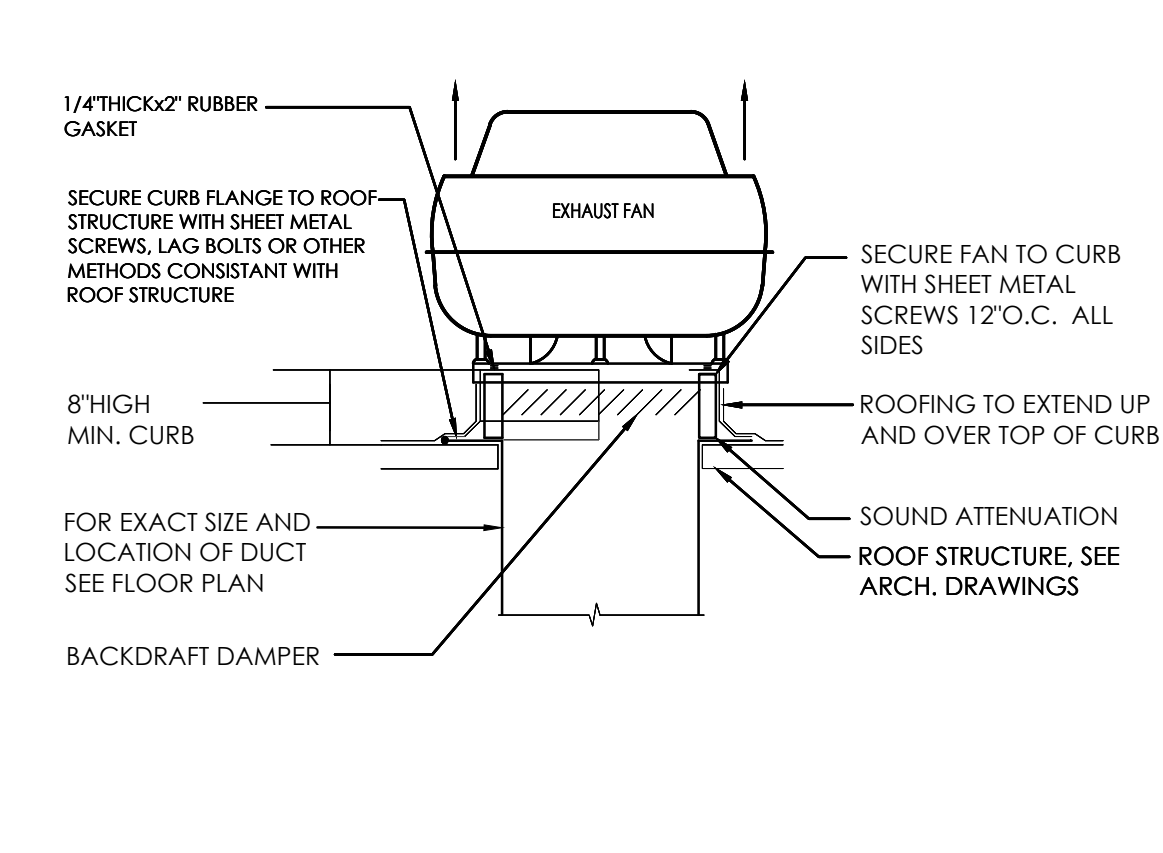
3



RETURN AIR GRILLE

SCALE	NO SCALE
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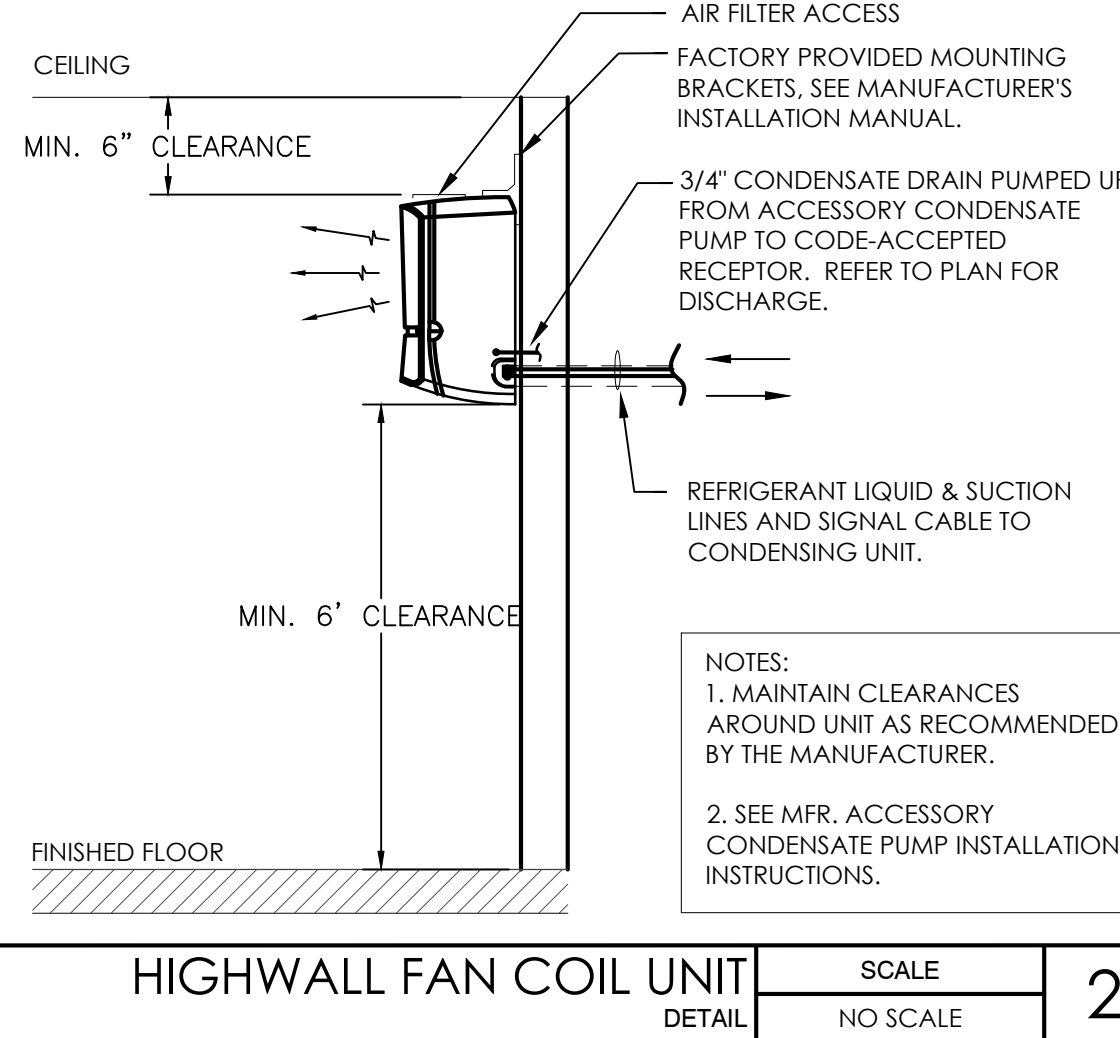
9



ROOF-MOUNTED EXHAUST FAN

SCALE	NO SCALE
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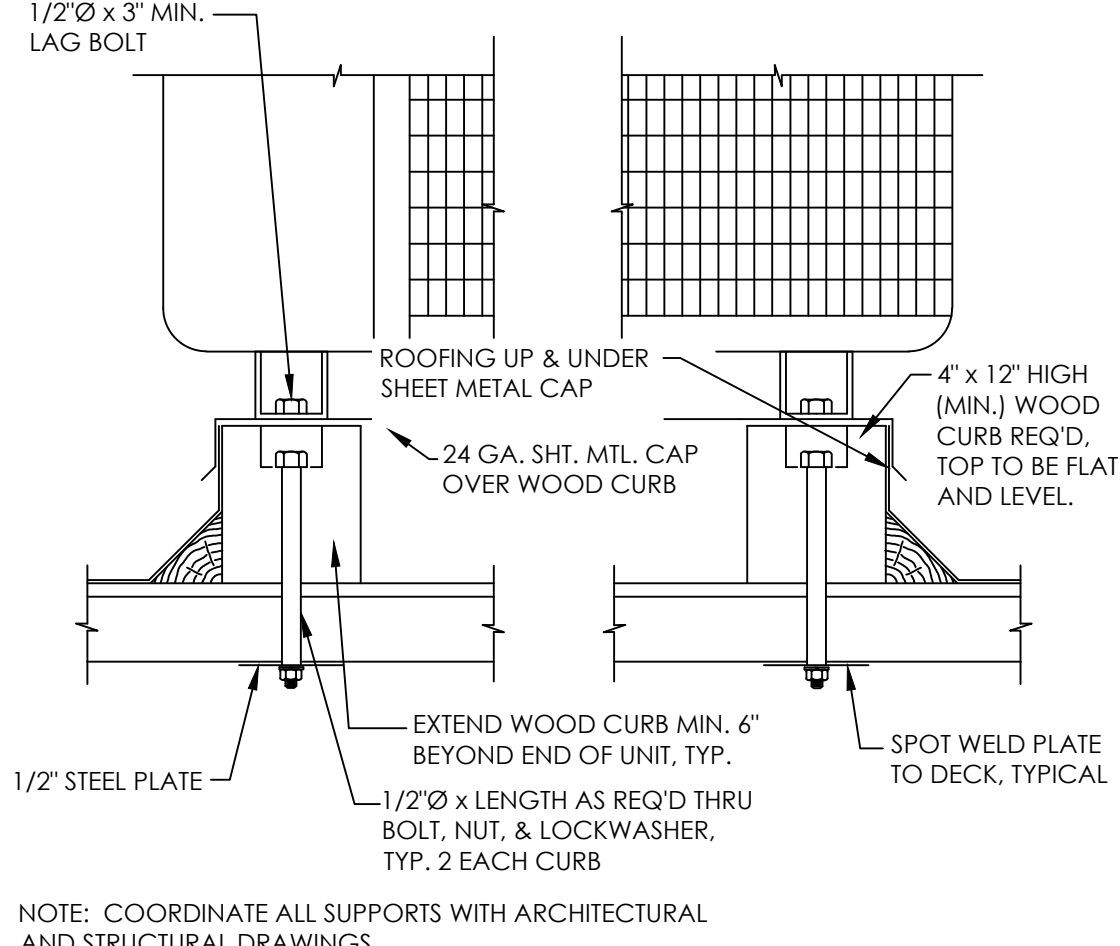
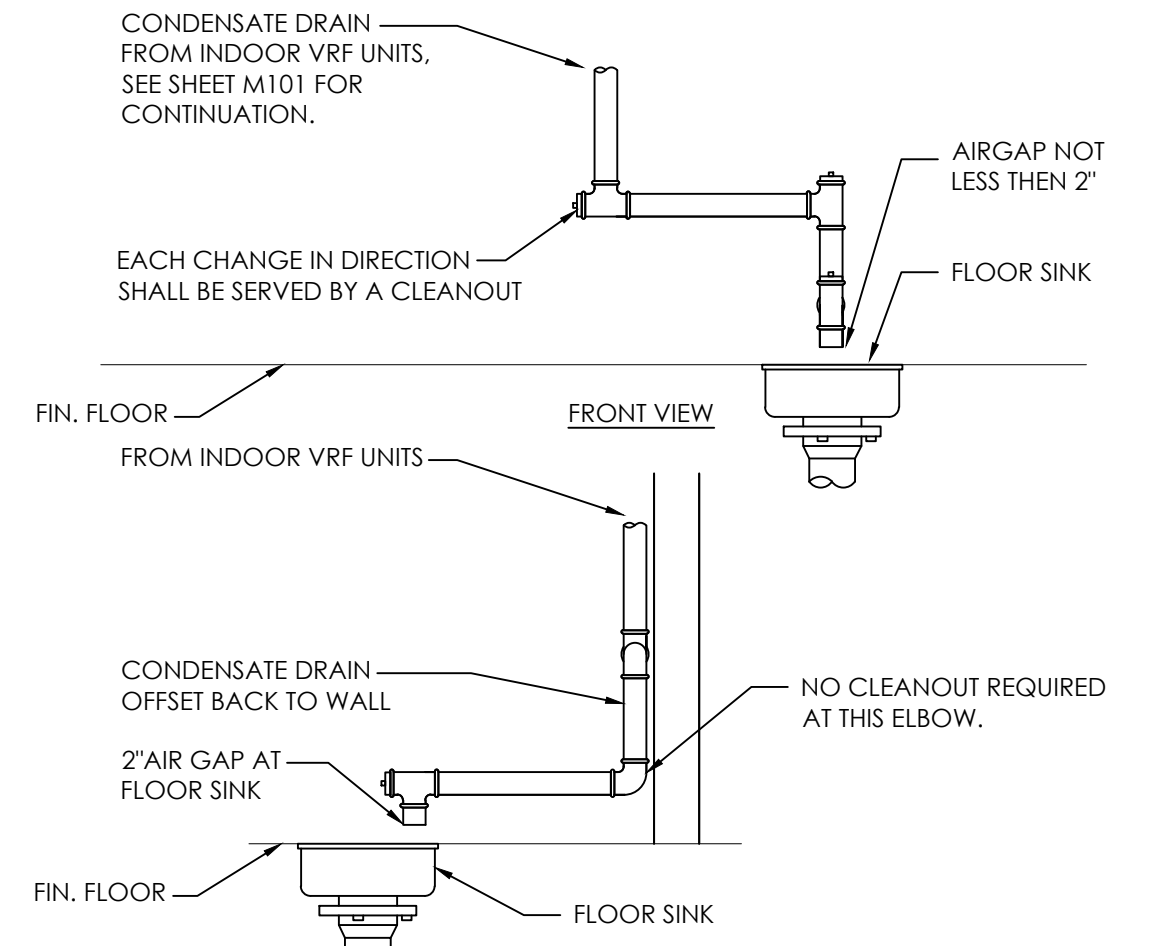
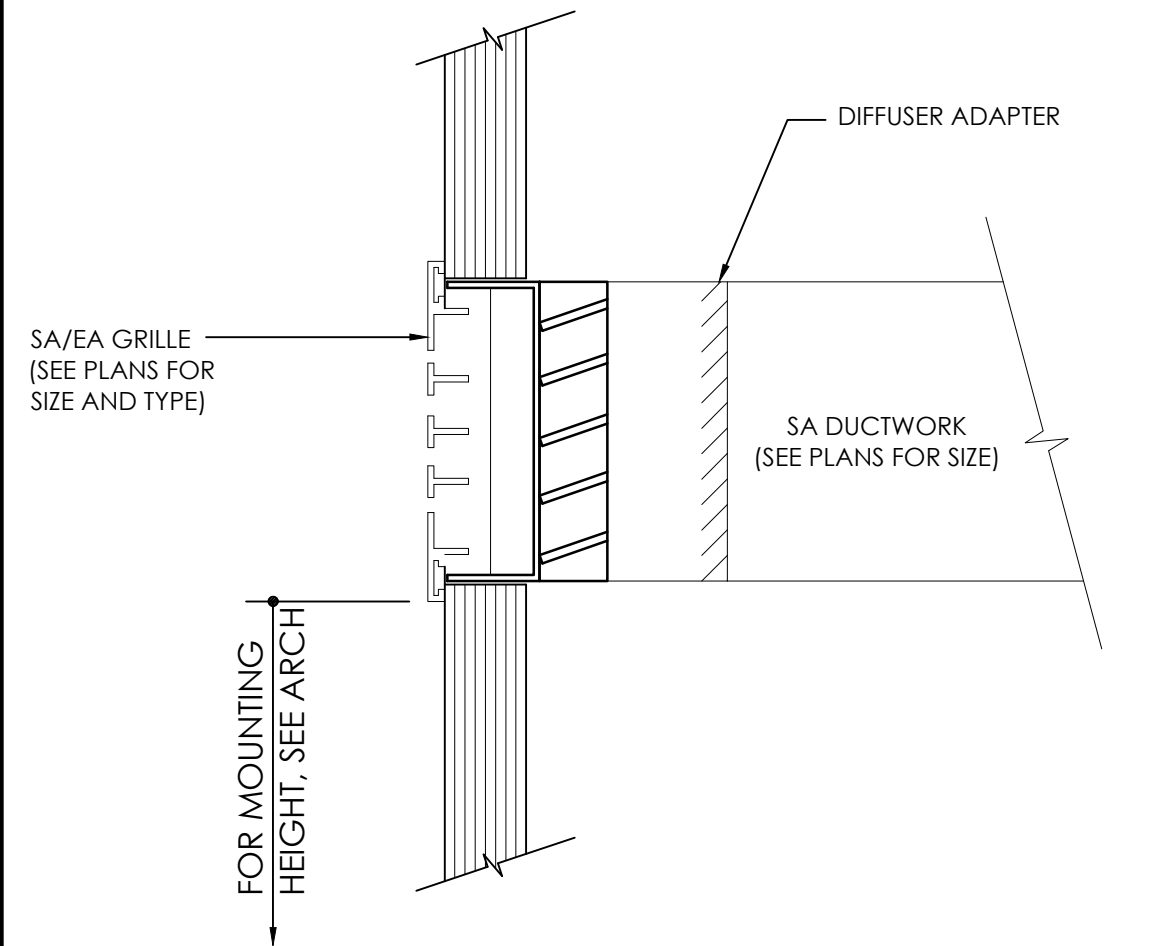
6



HIGHWALL FAN COIL UNIT

SCALE	NO SCALE
-------	----------

2



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CLIENT:

**JAIME PARTNERS
OF CALIFORNIA, INC.**

**1050 S. FLOWER STREET
LOS ANGELES, CA 90015**

PROJECT:

2853 WEST BLVD

LOS ANGELES, CA 90016

C-JAIME-001

#	DESCRIPTION	DATE
	1ST SUBMITTAL	10/04/21
	UTILITY COORDINATION	04/08/22
Δ	PC RESUBMITTAL	05/18/22
Δ	PC RESUBMITTAL	10/28/22
Δ	HCD REVISION 1	12/16/22
Δ	PC RESUBMITTAL	02/02/23
Δ	HCD & PC RESUBMITTAL	06/06/23
Δ	HCD RESUBMITTAL	06/14/23
Δ	PC RESUBMITTAL	07/10/23
Δ	PC RESUBMITTAL	02/27/24

Plot Date: 3/5/2024 2:03:12 PM

SHEET TITLE:

DETAILS

SHEET NO:

M401



<h2 style="margin: 0;">OUTDOOR AIRFLOW RATE CALCULATIONS</h2> <h3 style="margin: 0;">(COMMON CORRIDORS)</h3>	
[COMPLIANT WITH 2019 CMC SECTION 403.0]	
$V_{bz} = R_p P_z + R_o A_z$ <p>(Breathing Zone CFM: Equation 403.2.1)</p> $R_p = 5 \text{ CFM/Occupant}$ <p>(People outdoor air rate: Table 402.1 - Pg 77)</p> $P_z = 2 \text{ Occupants}$ <p>(Zone Population)</p> $R_o = 0.06 \text{ CFM/ft}^2$ <p>(Area outdoor air rate: Table 402.1 - Pg 77 [ASHRAE 62.1:6.2.2.1])</p> $A_z = 395 \text{ ft}^2$ <p>(Net Occupiable Floor Area)</p>	<div style="border: 1px solid black; padding: 5px; display: inline-block;"> $V_{bz} = 34 \text{ CFM}$ </div>
$V_{bz} = 5 \times 2 + 0.06 \times 395$ $V_{bz} = 34$ <hr style="border: 0.5px solid black;"/> $V_{oz} = V_{bz}/E_z$ <p>(Zone outdoor airflow: Equation 403.2.3)</p> $E_z = 1$ <p>(Zone air distribution effectiveness: Table 403.2.2 - Pg 79)</p> $V_{oz} = 34 \div 1$ $V_{oz} = 34 \text{ CFM}$ <p>(Single zone system outdoor airflow rate: Equation 4.3)</p>	<div style="border: 1px solid black; padding: 5px; display: inline-block;"> $V_{oz} = 34 \text{ CFM}$ </div>

OUTDOOR AIRFLOW RATE CALCULATIONS (LVL. 1)
(COMPLIANT WITH 2019 CMC SECTION 403.0)

$$V_{bz} = R_p P_z + R_o A_z$$

(Breathing Zone CFM; Equation 403.2.1)

$$R_p = 5 \text{ CFM/Occupant}$$

(People outdoor air rate; Table 402.1 - Pg 77)

$$P_z = 12 \text{ Occupants}$$

(Zone Population)

$$R_o = 0.06 \text{ CFM/ft}^2$$

(Area outdoor air rate; Table 402.1 - Pg 77 [ASHRAE 62.1:6.2.2.1])

$$A_z = 930 \text{ ft}^2$$

(Net Occupiable Floor Area)

$$V_{bz} = 5 \times 12 + 0.06 \times 930$$

$$V_{bz} = 116$$

$$V_{oz} = V_{bz}/E_z$$

(Zone outdoor airflow; Equation 403.2.3)

$$E_z = 1$$

(Zone air distribution effectiveness; Table 403.2.2 - Pg 79)

$$V_{oz} = 116 \div 1$$

$$V_{oz} = V_{oz} = 116 \text{ CFM}$$

(Single zone system outdoor airflow rate; Equation 4.3)

OUTDOOR AIRFLOW RATE CALCULATIONS (LVL. 2-5, UNIT # 4)

[COMPLIANT WITH 2019 CMC SECTION 403.0.]

$V_{bz} = R_p P_z + R_o A_z$ _____

(Breathing Zone CFM; Equation 403.2.1)

$R_p = 5$ CFM/Occupant

(People outdoor air rate; Table 402.1 - Pg 77)

$P_z = 3$ Occupants

(Zone Population)

$R_o = 0.06$ CFM/ft²

(Area outdoor air rate; Table 402.1 - Pg 77 [ASHRAE 62.1:6.2.2.1])

$A_z = 798$ ft²

(Net Occupiable Floor Area)

$V_{bz} = 5 \quad \times \quad 3 \quad + \quad 0.06 \quad \times \quad 798$

$V_{bz} = 63$

$V_{oz} = V_{bz} / E_z$ _____

(Zone outdoor airflow; Equation 403.2.3)

$E_z = 1$

(Zone air distribution effectiveness; Table 403.2.2 - Pg 79)

$V_{oz} = 63 \div 1$

$V_{o1} = V_{oz} = 63$ CFM

(Single zone system outdoor airflow rate; Equation 4.3)

$V_{bz} = 63$ CFM

$V_{oz} = 63$ CFM

OUTDOOR AIRFLOW RATE CALCULATIONS (LVL. 2-5, UNIT #1)
(COMPLIANT WITH 2019 CMC SECTION 403.0)

$V_{bz} = R_p P_z + R_o A_z$
(Breathing Zone CFM: Equation 403.2.1)

$R_p = 5 \text{ CFM/Occupant}$
(People outdoor air rate: Table 402.1 - Pg 77)

$P_z = 4 \text{ Occupants}$
(Zone Population)

$R_o = 0.06 \text{ CFM/ft}^2$
(Area outdoor air rate: Table 402.1 - Pg 77 [ASHRAE 62.1:6.2.2.1])

$A_z = 1,395 \text{ ft}^2$
(Net Occupiable Floor Area)

$V_{bz} = 5 \times 4 + 0.06 \times 1,395$
 $V_{bz} = 104$
 $V_{oz} = V_{bz}/E_z$ _____
(Zone outdoor airflow: Equation 403.2.3)

$E_z = 1$
(Zone air distribution effectiveness: Table 403.2.2 - Pg 79)

$V_{oz} = 104 \div 1$
 $V_{o1} = V_{oz} = 104 \text{ CFM}$
(Single zone system outdoor airflow rate: Equation 4.3)

OUTDOOR AIRFLOW RATE CALCULATIONS (LVL. 2-5, UNIT #5)

(COMPLIANT WITH 2019 CMC SECTION 403.0)

$V_{bz} = R_p P_z + R_o A_z$

(Breathing Zone CFM: Equation 403.2.1)

$R_p = 5 \text{ CFM/Occupant}$

(People outdoor air rate: Table 402.1 - Pg 77)

$P_z = 3 \text{ Occupants}$

(Zone Population)

$R_o = 0.06 \text{ CFM/ft}^2$

(Area outdoor air rate: Table 402.1 - Pg 77 [ASHRAE 62.1:6.2.2.1])

$A_z = 801 \text{ ft}^2$

(Net Occupiable Floor Area)

$V_{bz} = 5 \times 3 + 0.06 \times 801$

$V_{bz} = 63$

$V_{oz} = V_{bz}/E_z$

(Zone outdoor airflow: Equation 403.2.3)

$E_z = 1$

(Zone air distribution effectiveness: Table 403.2.2 - Pg 79)

$V_{oz} = 63 \div 1$

$V_{ot} = V_{oz} = 63 \text{ CFM}$

(Single zone system outdoor airflow rate: Equation 4.3)

<h2 style="margin: 0;">OUTDOOR AIRFLOW RATE CALCULATIONS (LVL. 2-5, UNIT #2)</h2> <p style="margin: 0; font-weight: normal;">(COMPLIANT WITH 2019 CMC SECTION 403.0)</p>	
$V_{bz} = R_p P_z + R_o A_z$ (Breathing Zone CFM: Equation 403.2.1)	<div style="border: 1px solid black; padding: 5px; display: inline-block;"> $V_{bz} = 63 \text{ CFM}$ </div>
$R_p = 5 \text{ CFM/Occupant}$ (People outdoor air rate: Table 402.1 - Pg 77)	
$P_z = 3 \text{ Occupants}$ (Zone Population)	
$R_o = 0.06 \text{ CFM/ft}^2$ (Area outdoor air rate: Table 402.1 - Pg 77 [ASHRAE 62.1:6.2.2.1])	
$A_z = 798 \text{ ft}^2$ (Net Occupiable Floor Area)	
$V_{bz} = 5 \times 3 + 0.06 \times 798$ $V_{bz} = 63$	
$V_{oz} = V_{bz}/E_z$	<div style="border: 1px solid black; padding: 5px; display: inline-block;"> $V_{oz} = 63 \text{ CFM}$ </div>
$E_z = 1$ (Zone air distribution effectiveness: Table 403.2.2 - Pg 79)	
$V_{oz} = 63 \div 1$ $V_{oz} = V_{oz} = 63 \text{ CFM}$ (Single zone system outdoor airflow rate: Equation 4.3)	

<h2 style="margin: 0;">OUTDOOR AIRFLOW RATE CALCULATIONS (LVL. 6, UNIT #1)</h2> <p style="margin: 0; font-weight: normal;">[COMPLIANT WITH 2019 CMCS SECTION 403.0]</p>	
$V_{bz} = R_p P_z + R_o A_z$ (Breathing Zone CFM; Equation 403.2.1)	$V_{bz} =$ 63 CFM
$R_p = 5$ CFM/Occupant (People outdoor air rate; Table 402.1 - Pg 77)	
$P_z = 3$ Occupants (Zone Population)	
$R_o = 0.06$ CFM/ft ² (Area outdoor air rate; Table 402.1 - Pg 77 [ASHRAE 62.1:6.2.2.1])	
$A_z = 798$ ft ² (Net Occupiable Floor Area)	
$V_{bz} = 5 \times 3 + 0.06 \times 798$ $V_{bz} = 63$	
$V_{oz} = V_{bz}/E_z$ (Zone outdoor airflow; Equation 403.2.3)	$V_{oz} =$ 63 CFM
$E_z = 1$ (Zone air distribution effectiveness; Table 403.2.2 - Pg 79)	
$V_{oz} = 63 \div 1$ $V_{oz} = 63$ CFM (Single zone system outdoor airflow rate; Equation 4.3)	

<h2 style="margin: 0;">OUTDOOR AIRFLOW RATE CALCULATIONS (LVL. 2-5, UNIT #3)</h2> <p style="margin: 0; font-size: 0.8em;">(COMPLIANT WITH 2019 CMC SECTION 403.0)</p>	
$V_{bz} = R_p P_z + R_o A_z$ (Breathing Zone CFM; Equation 403.2.1)	<div style="border: 1px solid black; padding: 5px; display: inline-block;"> $V_{bz} = 69 \text{ CFM}$ </div>
$R_p = 5 \text{ CFM/Occupant}$ (People outdoor air rate; Table 402.1 - Pg 77)	
$P_z = 3 \text{ Occupants}$ (Zone Population)	
$R_o = 0.06 \text{ CFM/ft}^2$ (Area outdoor air rate; Table 402.1 - Pg 77 [ASHRAE 62.1:6.2.2.1])	
$A_z = 903 \text{ ft}^2$ (Net Occupiable Floor Area)	
$V_{bz} = 5 \times 3 + 0.06 \times 903$ $V_{bz} = 69$	
$V_{oz} = V_{bz}/E_z$	<div style="border: 1px solid black; padding: 5px; display: inline-block;"> $V_{oz} = 69 \text{ CFM}$ </div>
(Zone outdoor airflow; Equation 403.2.3)	
$E_z = 1$ (Zone air distribution effectiveness; Table 403.2.2 - Pg 79)	
$V_{oz} = 69 \div 1$ $V_{oz} = 69 \text{ CFM}$	
(Single zone system outdoor airflow rate; Equation 4.3)	

<h2 style="margin: 0;">OUTDOOR AIRFLOW RATE CALCULATIONS (LVL. 6, UNIT #2)</h2> <p style="margin: 0; font-weight: normal;">[COMPLIANT WITH 2019 CMC SECTION 4.0.3.0]</p>	
$V_{bz} = R_p P_z + R_o A_z$ (Breathing Zone CFM; Equation 403.2.1)	$V_{bz} = \mathbf{63} \quad \mathbf{CFM}$
$R_p = 5 \quad \text{CFM/Occupant}$ (People outdoor air rate; Table 402.1 - Pg 77)	
$P_z = 3 \quad \text{Occupants}$ (Zone Population)	
$R_o = 0.06 \quad \text{CFM/ft}^2$ (Area outdoor air rate; Table 402.1 - Pg 77 (ASHRAE 62.1-6.2.2.1))	
$A_z = 799 \quad \text{ft}^2$ (Net Occupiable Floor Area)	
$V_{bz} = 5 \quad \times \quad 3 \quad + \quad 0.06 \quad \times \quad 799$ $V_{bz} = 63$	
$V_{oz} = V_{bz} / E_z$	$V_{oz} = \mathbf{63} \quad \mathbf{CFM}$
(Zone outdoor airflow; Equation 403.2.3)	
$E_z = 1$ (Zone air distribution effectiveness; Table 403.2.2 - Pg 79)	
$V_{oz} = 63 \quad \div \quad 1$ $V_{oz} = 63 \quad \text{CFM}$ (Single zone system outdoor airflow rate; Equation 4.3)	

OUTDOOR AIRFLOW RATE CALCULATIONS	SCALE	1
	NO SCALE	



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**JAIME PARTNERS
OF CALIFORNIA, INC.**

1050 S. FLOWER STREET
LOS ANGELES, CA 90015

PROJECT:

2853 WEST BLVD

LOS ANGELES, CA 90016

C-JAIME-001		
#	DESCRIPTION	DATE
	1ST SUBMITTAL	10/04/21
	UTILITY COORDINATION	04/08/22
	PC RESUBMITTAL	05/18/22
	PC RESUBMITTAL	10/28/22
	HCD REVISION 1	12/16/22
	PC RESUBMITTAL	02/02/23
	HCD & PC RESUBMITTAL	06/06/23
	HCD RESUBMITTAL	06/14/23
	PC RESUBMITTAL	07/10/23
	PC RESUBMITTAL	02/27/24

Plot Date: 3/5/2024 2:03:16 PM

SHEET TITLE:

DETAILS

SHEET NO:

M402



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OF CALIFORNIA, INC.**

1050 S. FLOWER STREET
LOS ANGELES, CA 90015

PROJECT:

2853 WEST BLVD

LOS ANGELES, CA 90016

C-JAIME-001

#	DESCRIPTION	DATE
	1ST SUBMITTAL	10/04/21
	UTILITY COORDINATION	04/08/22
⚠	PC RESUBMITTAL	05/18/22
⚠	PC RESUBMITTAL	10/28/22
⚠	HCD REVISION 1	12/16/22
⚠	PC RESUBMITTAL	02/02/23
⚠	HCD & PC RESUBMITTAL	06/06/23
⚠	HCD RESUBMITTAL	06/14/23
⚠	PC RESUBMITTAL	07/10/23
⚠	PC RESUBMITTAL	02/27/24

Plot Date: 3/5/2024 2:03:08 PM

SHEET TITLE:

**TITLE 24
COMPLIANCE**

SHEET NO:

M801





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**JAIME PARTNERS
OF CALIFORNIA, INC.**

1050 S. FLOWER STREET
LOS ANGELES, CA 90015

PROJECT:

2853 WEST BLVD

LOS ANGELES, CA 90016



STATE OF CALIFORNIA
NRCC-MCH-E
Mechanical Systems
CALIFORNIA ENERGY COMMISSION

CERTIFICATE OF COMPLIANCE
This document is used to demonstrate compliance for mechanical systems that are within the scope of the permit application and are demonstrating compliance using the prescriptive path outlined in §140.4, or §141.0(b)2 for alterations.
Project Name: JAIME-001
Project Address: 2853 WEST BLVD

Report Page: (Page 1 of 20)
Date Prepared: 10/4/2021

A. GENERAL INFORMATION

01 Project Location (city)	LOS ANGELES	04 Total Conditioned Floor Area	3725
02 Climate Zone	8	05 Total Unconditioned Floor Area	309
03 Occupancy Types Within Project:		06 # of Stories (Habitable Above Grade)	6
<input type="checkbox"/> Office (B)	<input type="checkbox"/> Retail (M)	<input checked="" type="checkbox"/> Non-refrigerated Warehouse (S)	
<input type="checkbox"/> Hotel/ Motel Guest Rooms (R-1)	<input type="checkbox"/> School (E)	<input type="checkbox"/> Healthcare Facility (I)	
<input type="checkbox"/> High-Rise Residential (R-2/R-3)	<input type="checkbox"/> Relocatable Class Bldg (E)	<input checked="" type="checkbox"/> Other (write in)	See Table J

B. PROJECT SCOPE
This table includes mechanical systems or components that are within the scope of the permit application and are demonstrating compliance using the prescriptive path outlined in §140.5, or §141.0(b)2 for alterations.

01	02	03
Air System(s)	Wet System Components	Dry System Components
<input checked="" type="checkbox"/> Heating Air System	<input type="checkbox"/> Water Economizer	<input type="checkbox"/> Air Economizer
<input checked="" type="checkbox"/> Cooling Air System	<input type="checkbox"/> Pumps	<input type="checkbox"/> Electric Resistance Heat
Mechanical Controls	<input type="checkbox"/> System Piping	<input checked="" type="checkbox"/> Fan Systems
<input checked="" type="checkbox"/> Mechanical Controls (existing to remain, altered or new)	<input type="checkbox"/> Cooling Towers	<input checked="" type="checkbox"/> Ductwork (existing to remain, altered or new)
	<input type="checkbox"/> Chillers	<input checked="" type="checkbox"/> Ventilation
	<input type="checkbox"/> Boilers	<input type="checkbox"/> Zonal Systems/ Terminal Boxes

Registration Number:
CA Building Energy Efficiency Standards - 2019 Nonresidential Compliance

Registration Date/Time:
Report Version: 2019.1.003
Schema Version: rev 20200601

Registration Provider: Energysoft
Report Generated: 2021-10-04 17:25:12

STATE OF CALIFORNIA
NRCC-MCH-E
Mechanical Systems
CALIFORNIA ENERGY COMMISSION

CERTIFICATE OF COMPLIANCE
Project Name: JAIME-001
Project Address: 2853 WEST BLVD

Report Page: (Page 2 of 20)
Date Prepared: 10/4/2021

C. COMPLIANCE RESULTS
Table C will indicate if the project data input into the compliance document is compliant with mechanical requirements. This table is not editable by the user. If this table says "DOES NOT COMPLY" or "COMPLIES with Exceptional Conditions" refer to Table D., or the table indicated as not compliant for guidance.

01		02		03		04		05		06		07		08	09
System Summary §110.1, §110.2, §140.4	AND	Pumps §140.4(k)	AND	Fans/ Economizers §140.4(c), §140.4(e)	AND	System Controls §110.2, §120.2, §140.4(f)	AND	Ventilation §120.1	AND	Terminal Box Controls §140.4(d)	AND	Distribution §120.3, §140.4(l)	AND	Cooling Towers §110.2(e)2	Compliance Results
(See Table F)		(See Table G)		(See Table H)		(See Table I)		(See Table J)		(See Table K)		(See Table L)		(See Table M)	
Yes	AND		AND	No	AND	Yes	AND	Yes	AND		AND	Yes	AND		COMPLIES
Mandatory Measures Compliance (See Table Q for Details)															

D. EXCEPTIONAL CONDITIONS
This table is auto-filled with uneditable comments because of selections made or data entered in tables throughout the form.

E. ADDITIONAL REMARKS
This table includes remarks made by the permit applicant to the Authority Having Jurisdiction.

Registration Number:
CA Building Energy Efficiency Standards - 2019 Nonresidential Compliance

Registration Date/Time:
Report Version: 2019.1.003
Schema Version: rev 20200601

Registration Provider: Energysoft
Report Generated: 2021-10-04 17:25:12

Plot Date: 3/5/2024 2:02:21 PM

SHEET TITLE:

**TITLE 24
COMPLIANCE**

SHEET NO:

M802

STATE OF CALIFORNIA

Mechanical Systems

NRCC-MCH-E

CALIFORNIA ENERGY COMMISSION

CERTIFICATE OF COMPLIANCE

Project Name:

JAIME-001

Report Page:

(Page 5 of 20)

Project Address:

2853 WEST BLVD

Date Prepared:

10/4/2021

H. FAN SYSTEMS & AIR ECONOMIZERS

System Name:	VHP-1 / HPAC-1	Economizer:	1	NA: <=54 kBTU/h cooling	Economizer Controls:	Designed per §140.4(c) and (m)	Fan System Fan Type:	Constant Volume
01	02	03	04	05	06	07	08	
Fan Name or Item Tag	Fan Function	Qty	Maximum Design Supply Airflow (CFM)	HP Unit*	Design HP	Fan Power Pressure Drop Adjustment - Table 140.4-B	Device	Design Airflow through Device (CFM)
SF	Supply	16	4352	BHP	1.2	NA	NA	NA
RF	Return	16	0	BHP	1.2	NA	NA	NA
Total System Design Supply Airflow (CFM):			4352	Total System Design (B)HP:	38.4	Maximum System Fan Power (B)HP:	0.26	

System Name:	VHP-1 / HPAC-1	Economizer:	1	NA: <=54 kBTU/h cooling	Economizer Controls:	Designed per §140.4(c) and (m)	Fan System Fan Type:	Constant Volume
01	02	03	04	05	06	07	08	
Fan Name or Item Tag	Fan Function	Qty	Maximum Design Supply Airflow (CFM)	HP Unit*	Design HP	Fan Power Pressure Drop Adjustment - Table 140.4-B	Device	Design Airflow through Device (CFM)
SF	Supply	16	4352	BHP	1.2	NA	NA	NA
RF	Return	16	0	BHP	1.2	NA	NA	NA
Total System Design Supply Airflow (CFM):			4352	Total System Design (B)HP:	38.4	Maximum System Fan Power (B)HP:	0.26	

Registration Number:

Registration Date/Time:

Registration Provider: Energysoft

CA Building Energy Efficiency Standards - 2019 Nonresidential Compliance

Report Version: 2019.1.003

Report Generated: 2021-10-04 17:24:15

Schema Version: rev 20200601

Mechanical Systems										CALIFORNIA ENERGY COMMISSION NRC-MCHS																									
(CERTIFICATE OF COMPLIANCE)										PRCC-MCH-E (Page 8 of 20)																									
Project Name:					JAIME-001					Report Page:																									
Project Address:					2853 WEST BLVD					Date Prepared:					10/4/2021																				
J. VENTILATION AND INDOOR AIR QUALITY																																			
This table is used to demonstrate compliance with mandatory ventilation requirements in §120.1 and §120.2(c)(3)B for all nonresidential, high-rise residential and hotel/motel occupancies. For alterations, only ventilation systems being altered within the scope of the permit application need to be documented in this table. In lieu of this table, the required outdoor ventilation rates and airflow may be shown on the plans or the calculations can be presented in a spreadsheet.																																			
01		<input type="checkbox"/>		Check the box if the project is showing ventilation calculations on the plans, or attaching the calculations instead of completing this table.																															
02		<input checked="" type="checkbox"/>		Check this box if the project included Nonresidential or Hotel/Motel spaces.																															
03		<input type="checkbox"/>		Check this box if the project included new or altered high-rise residential dwelling units.																															
03		<input type="checkbox"/>		Check the box if the project is using natural ventilation in any nonresidential or hotel/motel spaces to meet required ventilation rates per §120.1(c)(2).																															
Nonresidential and Hotel/ Motel Ventilation Systems																																			
04				05				06				07																							
System Name				HP-1 / VRF-1 / VRF-2				System Design OA CFM Airflow ^a				819				System Design Transfer Air CFM				0				Air Filtration per §120.1(c) and §141.0(b)(2) ^b Provided per §120.1(c) (NR and Hotel/Motel))											
08				09				10				11				12				13				14				15				16			
Space Name at item tag				Mechanical Ventilation Required per §120.1(c)(3) ^c												Exh. Vent per §120.1(c)(4)				DCV or Sensor Controls per §120.1(d)(3), §120.1(d)(5), and §120.1(e)(3) ^e															
Occupancy Type ^d				Conditioned Floor Area (ft²)				# of Shower heads/toilets				# of people ^f				Required Min OA CFM				Required Min CFM				Provided per Design CFM											
LOBBY / COMMON AREAS				Lobbies				1103				551.5				0				0				DCV				Provided per §120.1(d)(4)							
																								Occ Sensor				NA: Not required space type							
MECH / ELEC ROOMS				All others				348				0				0				0				DCV				NA: Not required per §120.1(d)(3)							
																								Occ Sensor				NA: Not required space type							
CORRIDORS / LOBBY (ZF)				Corridor				446				66.9				0				0				DCV				Provided per §120.1(d)(4)							
																								Occ Sensor				NA: Not required space type							

Registration Number:
Registration Date/Time:
Registration Provider: Energysoft

CA Building Energy Efficiency Standards - 2019 Nonresidential Compliance
Report Version: 2019.1.003
Schema Version: em_v20200601
Report Generated: 2021-10-04 17:25:12

STATE OF CALIFORNIA									
Mechanical Systems					CALIFORNIA ENERGY COMMISSION				
NICC-MCH-E					NICC-MSH-E				
CERTIFICATE OF COMPLIANCE					Page 11 of 20				
Project Name:					JAIME 001 Report Page:				
Project Address:					2853 WEST BLVD Date Prepared:				
					10/4/2021				
J. VENTILATION AND INDOOR AIR QUALITY									
UNIT 2 (3F)	All others	798			0	0	0	DCV	Provided per §120.1(d)4
								Occ Sensor	NA: Not required space type
UNIT 3 (3F)	All others	903			0	0	0	DCV	Provided per §120.1(d)4
								Occ Sensor	NA: Not required space type
UNIT 4 (3F)	All others	798			0	0	0	DCV	Provided per §120.1(d)4
								Occ Sensor	NA: Not required space type
UNIT 5 (3F)	All others	801			0	0	0	DCV	Provided per §120.1(d)4
								Occ Sensor	NA: Not required space type
UTILITY ROOMS (3F)	All others	98			0	0	0	DCV	NA: Not required per §120.1(d)3
								Occ Sensor	NA: Not required space type
17	Total System Required Min OA CFM				0	18	Ventilation for this System Completes?		Yes
04		05			06			07	
System Name	VHP-1 / HPAC-1	System Design OA CFM Airflow ¹		0	System Design Transfer Air CFM		0	Air Filtration per §120.1(c) and §140.0(b)2 ² Provided per §120.1(c) (NR and Hot/Air/Moist))	
08	09	10	11	12	13	14	15	16	
Mechanical Ventilation Required per §120.1(c)3 ³								Exh. Vent per §120.1(c)4	
Space Area or Item Tag	Occupancy Type ⁴	Conditioned Floor Area (ft²)	# of Shower heads/toilets	# of people ⁵	Required Min CFM	Required Min CFM	Provided per Design CFM	DCV or Sensor Controls per §120.1(d)3, §120.1(d)5, and §120.1(e)3 ⁶	

Registration Number:	Registration Date/Time:	Registration Provider: Energysoft
CA Building Energy Efficiency Standards - 2019 Nonresidential Compliance	Report Version: 2019.1.003 <small>(California Version: 01/01/2020)</small>	Report Generated: 2021-10-04 17:25:12

**JAIME PARTNERS
OF CALIFORNIA, INC.**

1050 S. FLOWER STREET
LOS ANGELES, CA 90015

PROJECT:

2853 WEST BLVD

LOS ANGELES, CA 90016

C-JAIME-001		
#	DESCRIPTION	DATE
	1ST SUBMITTAL	10/04/21
	UTILITY COORDINATION	04/08/22
⚠	PC RESUBMITTAL	05/18/22
⚠	PC RESUBMITTAL	10/28/22
⚠	HCD REVISION 1	12/16/22
⚠	PC RESUBMITTAL	02/02/23
⚠	HCD & PC RESUBMITTAL	06/06/23
⚠	HCD RESUBMITTAL	06/14/23
⚠	PC RESUBMITTAL	07/10/23
⚠	PC RESUBMITTAL	02/27/24

SHEET TITLE:

TITLE 24 COMPLIANCE

SHEET NO:

M803

STATE OF CALIFORNIA
Mechanical Systems
NRC-C-MCH-E
CALIFORNIA ENERGY COMMISSION
CERTIFICATE OF COMPLIANCE
Project Name: JAIME-001 Report Page: (Page 12 of 20)
Project Address: 2853 WEST BLVD Date Prepared: 10/4/2021

J. VENTILATION AND INDOOR AIR QUALITY											
UNIT 1 (4F)	All others	1395			0	0	0	DCV	Provided per §120.1(d)4		
								Occ Sensor	NA: Not required space type		
UNIT 2 (4F)	All others	798			0	0	0	DCV	Provided per §120.1(d)4		
								Occ Sensor	NA: Not required space type		
UNIT 3 (4F)	All others	903			0	0	0	DCV	Provided per §120.1(d)4		
								Occ Sensor	NA: Not required space type		
UNIT 4 (4F)	All others	798			0	0	0	DCV	Provided per §120.1(d)4		
								Occ Sensor	NA: Not required space type		
UNIT 5 (4F)	All others	801			0	0	0	DCV	Provided per §120.1(d)4		
								Occ Sensor	NA: Not required space type		
UTILITY ROOMS (4F)	All others	98			0	0	0	DCV	NA: Not required per §120.1(d)3		
								Occ Sensor	NA: Not required space type		
17	Total System Required Min OA CFM				0	18	Ventilation for this System Complies?		Yes		
04											
System Name		VHP-1 / HPAC-1	System Design OA CFM Airflow ¹		0	System Design Transfer Air CFM		0	Air Filtration per §120.1(c) and §141.0(b)2 ² Provided per §120.1(c) (NR and Hotel/Motel)		
08	09	10	11	12	13	14	15	16			

Registration Number: CA Building Energy Efficiency Standards - 2019 Nonresidential Compliance
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STATE OF CALIFORNIA
Mechanical Systems
NRC-C-MCH-E
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J. VENTILATION AND INDOOR AIR QUALITY
§ 120.2(a)3 requires systems serving rooms that are required by §130.1(c) to have lighting occupancy sensing controls to also have occupancy sensing zone controls for ventilation. Examples of spaces which require lighting occupancy sensors include offices 250ft² or smaller, multipurpose rooms less than 1,000 ft², classrooms, conference rooms, restrooms, aisles and open areas in warehouses, library book stack aisles, corridors, stairwells, parking garages, and loading and unloading zones, unless excepted by §130.1(c).
K. TERMINAL BOX CONTROLS
This section does not apply to this project.
L. DISTRIBUTION (DUCTWORK AND PIPING)
This table is used to show compliance with mandatory pipe insulation requirements found in §120.3 and prescriptive requirements found in §140.40, for duct leakage testing.
Duct Leakage Sealing
The answers to the questions below apply to the following duct systems: VHP-1 / HPAC-1 Duct leakage testing triggered for these systems? No
11 No The scope of the project includes only duct systems serving healthcare facilities
12 Yes Duct system provides conditioned air to an occupiable space for a constant volume, single zone, space-conditioning system.
13 Yes The space conditioning system serves less than 5,000 ft² of conditioned floor area.
14 No The combined surface area of the ducts in the following locations is more than 25% of the total surface area of the entire duct system:
Outdoors
In a space directly under a roof that has a U-factor greater than the u-factor of the ceiling, or if the roof does not meet the requirements of §140.3(a)18 or if the roof has fixed vents or openings to the outside/ unconditioned spaces
In an unconditioned crawl space
In other unconditioned spaces
15 The scope of the project includes extending an existing duct system, which is constructed, insulated or sealed with asbestos.
16 The scope of the project includes an existing duct system that is documented to have been previously sealed as confirmed through field verification and diagnostic testing in accordance with procedures in the Reference Nonresidential Appendix NA2.
17 Yes Duct system shall be sealed in accordance with the California Mechanical Code

Registration Number: CA Building Energy Efficiency Standards - 2019 Nonresidential Compliance
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STATE OF CALIFORNIA
Mechanical Systems
NRC-C-MCH-E
CALIFORNIA ENERGY COMMISSION
CERTIFICATE OF COMPLIANCE
Project Name: JAIME-001 Report Page: (Page 18 of 20)
Project Address: 2853 WEST BLVD Date Prepared: 10/4/2021

O. DECLARATION OF REQUIRED CERTIFICATES OF ACCEPTANCE
Selections have been made based on information provided in previous tables of this document. If any selection needs to be changed, please explain why in Table E Additional Remarks. These documents must be provided to the building inspector during construction and can be found online at https://www.energy.ca.gov/title24/2019standards/2019_compliance_documents/Nonresidential_Documents/NRCA/
Yes No Form/Title Systems To Be Field Verified Field Inspector Pass Fail
● ● NRCA-MCH-02-A - Outdoor Air must be submitted for all newly installed HVAC units. Note: MCH-02-A can be performed in conjunction with MCH-07-A Supply Fan VFD Acceptance (if applicable) since testing activities overlap. □ □
● ● NRCA-MCH-03-A - Constant Volume Single Zone HVAC NOTE: This form does not automatically move to "Yes" if Constant Volume Single Zone HVAC Systems are included in the scope, permit applicant should move this form to "Yes". □ □
● ● NRCA-MCH-04-A - Air Distribution Duct Leakage □ □
● ● NRCA-MCH-05-A - Air Economizer Controls □ □
● ● NRCA-MCH-06-A Demand Control Ventilation Systems must be submitted for all systems required to employ demand controlled ventilation (refer to §120.1(c)3) can vary outside ventilation flow rates based on maintaining interior carbon dioxide (CO₂) concentration setpoints. □ □
● ● NRCA-MCH-07-A Supply Fan Variable Flow Controls □ □
● ● NRCA-MCH-08-A Valve Leakage Test □ □
● ● NRCA-MCH-09-A Supply Water Temperature Reset Controls □ □
● ● NRCA-MCH-10-A Hydronic System Variable Flow Controls □ □
● ● NRCA-MCH-11-A Automatic Demand Shed Controls □ □
● ● NRCA-MCH-12-A FDD for Packaged Direct Expansion Units □ □
● ● NRCA-MCH-13-A Automatic FDD for Air Handling Units and Zone Terminal Units Acceptance □ □
● ● NRCA-MCH-14-A Distributed Energy Storage DX AC Systems Acceptance NOTE: This form does not automatically move to "Yes". If Distributed Energy System DX AC Systems are included in teh scope permit applicant should move this form to "Yes". □ □

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STATE OF CALIFORNIA
Mechanical Systems
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Project Name: JAIME-001 Report Page: (Page 13 of 20)
Project Address: 2853 WEST BLVD Date Prepared: 10/4/2021

J. VENTILATION AND INDOOR AIR QUALITY										
Space Name or Item Tag	Mechanical Ventilation Required per §120.1(c)3 ³					Exh. Vent per §120.1(c)4		DCV or Sensor Controls per §120.1(d)3, §120.1(d)5, and §120.1(e)3 ⁶		
	Occupancy Type ⁴	Conditioned Floor Area (ft ²)	# of Shower heads/ toilets	# of people ⁵	Required Min OA CFM	Required Min CFM	Provided per Design CFM	DCV	Provided per §120.1(d)4	
UNIT 1 (5F)	All others	1395			0	0	0	DCV	Provided per §120.1(d)4	
								Occ Sensor	NA: Not required space type	
UNIT 2 (5F)	All others	798			0	0	0	DCV	Provided per §120.1(d)4	
								Occ Sensor	NA: Not required space type	
UNIT 3 (5F)	All others	903			0	0	0	DCV	Provided per §120.1(d)4	
								Occ Sensor	NA: Not required space type	
UNIT 4 (5F)	All others	798			0	0	0	DCV	Provided per §120.1(d)4	
								Occ Sensor	NA: Not required space type	
UNIT 5 (5F)	All others	801			0	0	0	DCV	Provided per §120.1(d)4	
								Occ Sensor	NA: Not required space type	
UTILITY ROOMS (5F)	All others	98			0	0	0	DCV	NA: Not required per §120.1(d)3	
								Occ Sensor	NA: Not required space type	
17	Total System Required Min OA CFM					0	18	Ventilation for this System Complies?		Yes

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STATE OF CALIFORNIA
Mechanical Systems
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CALIFORNIA ENERGY COMMISSION
CERTIFICATE OF COMPLIANCE
Project Name: JAIME-001 Report Page: (Page 16 of 20)
Project Address: 2853 WEST BLVD Date Prepared: 10/4/2021

L. DISTRIBUTION (DUCTWORK AND PIPING)
The answers to the questions below apply to the following duct systems: VHP-1 / HPAC-1 Duct leakage testing triggered for these systems? No
11 No The scope of the project includes only duct systems serving healthcare facilities
12 Yes Duct system provides conditioned air to an occupiable space for a constant volume, single zone, space-conditioning system.
13 Yes The space conditioning system serves less than 5,000 ft² of conditioned floor area.
14 No The combined surface area of the ducts in the following locations is more than 25% of the total surface area of the entire duct system:
Outdoors
In a space directly under a roof that has a U-factor greater than the u-factor of the ceiling, or if the roof does not meet the requirements of §140.3(a)18 or if the roof has fixed vents or openings to the outside/ unconditioned spaces
In an unconditioned crawl space
In other unconditioned spaces
15 The scope of the project includes extending an existing duct system, which is constructed, insulated or sealed with asbestos.
16 The scope of the project includes an existing duct system that is documented to have been previously sealed as confirmed through field verification and diagnostic testing in accordance with procedures in the Reference Nonresidential Appendix NA2.
17 Yes Duct system shall be sealed in accordance with the California Mechanical Code
The answers to the questions below apply to the following duct systems: VHP-1 / HPAC-1 Duct leakage testing triggered for these systems? No
11 No The scope of the project includes only duct systems serving healthcare facilities
12 Yes Duct system provides conditioned air to an occupiable space for a constant volume, single zone, space-conditioning system.
13 Yes The space conditioning system serves less than 5,000 ft² of conditioned floor area.
14 No The combined surface area of the ducts in the following locations is more than 25% of the total surface area of the entire duct system:
Outdoors
In a space directly under a roof that has a U-factor greater than the u-factor of the ceiling, or if the roof does not meet the requirements of §140.3(a)18 or if the roof has fixed vents or openings to the outside/ unconditioned spaces
In an unconditioned crawl space
In other unconditioned spaces
15 The scope of the project includes extending an existing duct system, which is constructed, insulated or sealed with asbestos.
16 The scope of the project includes an existing duct system that is documented to have been previously sealed as confirmed through field verification and diagnostic testing in accordance with procedures in the Reference Nonresidential Appendix NA2.
17 Yes Duct system shall be sealed in accordance with the California Mechanical Code

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Mechanical Systems
NRC-C-MCH-E
CALIFORNIA ENERGY COMMISSION
CERTIFICATE OF COMPLIANCE
Project Name: JAIME-001 Report Page: (Page 19 of 20)
Project Address: 2853 WEST BLVD Date Prepared: 10/4/2021

O. DECLARATION OF REQUIRED CERTIFICATES OF ACCEPTANCE
NRCA-MCH-15-A Thermal Energy Storage (TES) System Acceptance NOTE: This form does not automatically move to "Yes". If Chilled water Storage, Ice-on-Coil Internal Melt, Ice-on-Coil External melt, Ice Harvesters, Brine, Ice-Slurry, Eutectic Salt, Clathrate Hydrate Slurry (CHS), Cryogenic or Encapsulated (Ice Ball) Systems are included in the scope, permit applicant should move this form to "Yes".
● ● NRCA-MCH-16-A Supply Air Temperature Reset Controls □ □
● ● NRCA-MCH-17-A Condenser Water Temperature Reset Controls □ □
● ● NRCA-MCH-18-A Energy Management Control Systems □ □
● ● NRCA-MCH-19-A Occupancy Sensor Controls □ □
● ● NRCA-MCH-20 Multi-Family Ventilation □ □
● ● NRCA-MCH-21 Multi-Family Envelope Leakage □ □
P. DECLARATION OF REQUIRED CERTIFICATES OF VERIFICATION
Selections have been made based on information provided in previous tables of this document. If any selection needs to be changed, please explain why in Table E Additional Remarks. These documents must be completed by a HERS Rater and provided to the building inspector during construction. The final documents must be created by a HERS Provider's registry, but drafts can be found online at https://www.energy.ca.gov/title24/2019standards/2019_compliance_documents/Nonresidential_Documents/NRCV/
Yes No Form/Title Field Inspector Pass Fail
● ● NRCV-MCH-04-H Duct Leakage Test NOTE: Must be completed by a HERS Rater □ □
● ● NRCV-MCH-24 Enclosure Air Leakage Worksheet NOTE: Must be completed by a HERS Rater □ □
● ● NRCV-MCH-27 High-rise Residential NOTE: Must be completed by a HERS Rater □ □
● ● NRCV-MCH-33 Local Mechanical Exhaust NOTE: Must be completed by a HERS Rater □ □

Q. MANDATORY MEASURES DOCUMENTATION LOCATION
This table is used to indicate where mandatory measures are documented in the plan set or construction documentation.
01 02
Compliance with Mandatory Measures documented through MCH Yes Plan sheet or construction document location
Mandatory Measures Note Block M-Sheets

Registration Number: CA Building Energy Efficiency Standards - 2019 Nonresidential Compliance
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Registration Provider: Energysoft
Report Generated: 2021-10-04 17:25:12

STATE OF CALIFORNIA
Mechanical Systems
NRC-C-MCH-E
CALIFORNIA ENERGY COMMISSION
CERTIFICATE OF COMPLIANCE
Project Name: JAIME-001 Report Page: (Page 14 of 20)
Project Address: 2853 WEST BLVD Date Prepared: 10/4/2021

J. VENTILATION AND INDOOR AIR QUALITY									
04		05		06			07		
System Name	VHP-1 / HPAC-1	System Design OA CFM Airflow ¹	0	System Design Transfer Air CFM	0	Air Filtration per §120.1(c) and §141.0(b)2 ² Provided per §120.1(c) (NR and Hotel/Motel)			
08	09	10	11	12	13	14	15	16	
Mechanical Ventilation Required per §120.1(c)3 ³						Exh. Vent per §120.1(c)4			
Space Name or Item Tag	Occupancy Type ⁴	Conditioned Floor Area (ft ²)	# of Shower heads/ toilets	# of people ⁵	Required Min OA CFM	Required Min CFM	Provided per Design CFM	DCV or Sensor Controls per §120.1(d)3, §120.1(d)5, and §120.1(e)3 ⁶	
UNIT 1 (6F)	All others	798			0	0	0	DCV	Provided per §120.1(d)4
								Occ Sensor	NA: Not required space type
UNIT 2 (6F)	All others	799			0	0	0	DCV	Provided per §120.1(d)4
								Occ Sensor	NA: Not required space type
UTILITY ROOMS (6F)	All others	98			0	0	0	DCV	NA: Not required per §120.1(d)3
								Occ Sensor	NA: Not required space type
17	Total System Required Min OA CFM				0	18	Ventilation for this System Complies?		Yes

¹ FOOTNOTES: System CFM should include both mechanical and natural ventilation for the zone/system
² Air filtration requirements apply to the following three system types per §120.1(c)1A: space conditioning systems utilizing ducts to supply air to occupiable space; supply-only ventilation systems providing outside air to occupiable space; supply side of balanced ventilation systems including heat recovery and energy recovery ventilation systems providing outside air to occupiable space.
³ Uniform Mechanical Code may have more stringent ventilation requirements; the most stringent code requirement takes precedence.
⁴ See Standards Tables 120.1-A and 120.1-B.
⁵ For lecture halls with fixed seating, the expected number of occupants shall be determined in accordance with the California Building Code.
Registration Number: CA Building Energy Efficiency Standards - 2019 Nonresidential Compliance
Registration Date/Time: Report Version: 2019.1.003 Schema Version: rev 20200601
Registration Provider: Energysoft
Report Generated: 2021-10-04 17:25:12

STATE OF CALIFORNIA
Mechanical Systems
NRC-C-MCH-E
CALIFORNIA ENERGY COMMISSION
CERTIFICATE OF COMPLIANCE
Project Name: JAIME-001 Report Page: (Page 17 of 20)
Project Address: 2853 WEST BLVD Date Prepared: 10/4/2021

L. DISTRIBUTION (DUCTWORK AND PIPING)
The answers to the questions below apply to the following duct systems: VHP-1 / HPAC-1 Duct leakage testing triggered for these systems? No
11 No The scope of the project includes only duct systems serving healthcare facilities
12 Yes Duct system provides conditioned air to an occupiable space for a constant volume, single zone, space-conditioning system.
13 Yes The space conditioning system serves less than 5,000 ft² of conditioned floor area.
14 No The combined surface area of the ducts in the following locations is more than 25% of the total surface area of the entire duct system:
Outdoors
In a space directly under a roof that has a U-factor greater than the u-factor of the ceiling, or if the roof does not meet the requirements of §140.3(a)18 or if the roof has fixed vents or openings to the outside/ unconditioned spaces
In an unconditioned crawl space
In other unconditioned spaces
15 The scope of the project includes extending an existing duct system, which is constructed, insulated or sealed with asbestos.
16 The scope of the project includes an existing duct system that is documented to have been previously sealed as confirmed through field verification and diagnostic testing in accordance with procedures in the Reference Nonresidential Appendix NA2.
17 Yes Duct system shall be sealed in accordance with the California Mechanical Code

M. COOLING TOWERS
This section does not apply to this project.
N. DECLARATION OF REQUIRED CERTIFICATES OF INSTALLATION
Selections have been made based on information provided in previous tables of this document. If any selection needs to be changed, please explain why in Table E Additional Remarks. These documents must be provided to the building inspector during construction and can be found online at https://www.energy.ca.gov/title24/2019standards/2019_compliance_documents/Nonresidential_Documents/NRCI/
Yes No Form/Title Field Inspector Pass Fail
● ● NRCI-MCH-01-E - Must be submitted for all buildings □ □

Registration Number: CA Building Energy Efficiency Standards - 2019 Nonresidential Compliance
Registration Date/Time: Report Version: 2019.1.003 Schema Version: rev 20200601
Registration Provider: Energysoft
Report Generated: 2021-10-04 17:25:12

STATE OF CALIFORNIA
Mechanical Systems
NRC-C-MCH-E
CALIFORNIA ENERGY COMMISSION
CERTIFICATE OF COMPLIANCE
Project Name: JAIME-001 Report Page: (Page 20 of 20)
Project Address: 2853 WEST BLVD Date Prepared: 10/4/2021

DOCUMENTATION AUTHOR'S DECLARATION STATEMENT
I certify that this Certificate of Compliance documentation is accurate and complete.
Documentation Author Name: Christopher Webb
Signature Date: 2021-10-04
Company: National Engineering & Consulting, Inc.
Address: 30 Thomas
City/State/Zip: Irvine, CA 92618
RESPONSIBLE PERSON'S DECLARATION STATEMENT
I certify the following under penalty of perjury, under the laws of the State of California:
1. The information provided on this Certificate of Compliance is true and correct.
2. I am eligible under Division 3 of the Business and Professions Code to accept responsibility for the building design or system design identified on this Certificate of Compliance (responsible designer)
3. The energy features and performance specifications, materials, components, and manufactured devices for the building design or system design identified on this Certificate of Compliance conform to the requirements of Title 24, Part 1 and Part 6 of the California Code of Regulations.
4. The building design features or system design features identified on this Certificate of Compliance are consistent with the information provided on other applicable compliance documents, worksheets, calculations, plans and specifications submitted to the enforcement agency for approval with this building permit application.
5. I will ensure that a completed signed copy of this Certificate of Compliance shall be made available with the building permit(s) issued for the building, and made available to the enforcement agency for all applicable inspections. I understand that a completed signed copy of this Certificate of Compliance is required to be included with the documentation the building provides to the building owner at occupancy.
Responsible Designer Name: Christopher Webb
Signature Date: 2021-10-04
Company: National Engineering & Consulting, Inc.
Address: 30 Thomas
City/State/Zip: Irvine CA 92618

Registration Number: CA Building Energy Efficiency Standards - 2019 Nonresidential Compliance
Registration Date/Time: Report Version: 2019.1.003 Schema Version: rev 20200601
Registration Provider: Energysoft
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PHONE: (949) 716-9990 | FAX: (949) 716-9997

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CONSENT NATIONAL ENGINEERING &
C O N S U L T I N G I N C .

CLIENT:

JAIME PARTNERS
OF CALIFORNIA, INC.

1050 S. FLOWER STREET
LOS ANGELES, CA 90015

PROJECT:

2853 WEST BLVD
LOS ANGELES, CA 90016

C-JAIME-001		
#	DESCRIPTION	DATE
	1ST SUBMITTAL	10/04/21
	UTILITY COORDINATION	04/08/22
△	PC RESUBMITTAL	05/18/22
△	PC RESUBMITTAL	10/28/22
△	HCD REVISION 1	12/16/22
△	PC RESUBMITTAL	02/02/23
△	HCD & PC RESUBMITTAL	06/06/23
△	HCD RESUBMITTAL	06/14/23
△	PC RESUBMITTAL	07/10/23
△	PC RESUBMITTAL	02/27/24

STATE OF CALIFORNIA

Domestic Water Heating System

NRCC-PUB-1

CALIFORNIA ENERGY COMMISSION

CERTIFICATE OF COMPLIANCE

NRCC-PUB-1

Project Name: JAMME-001

Report Page: Page 4 of 7

Project Address: 2853 WEST BLVD

Date Prepared: 10/4/2021

G. DOMESTIC HOT WATER DISTRIBUTION SYSTEM

This table is used to demonstrate compliance for nonresidential occupancies with distribution requirements in [§120.3](#) and [§140.5](#). For high-rise residential and hotel/motel occupancies, compliance is demonstrated with requirements [§110.3\(c\)](#), [§120.3](#), [§150.0](#), [§150.1](#)

Mandatory Pipe Insulation All Occupancies

12	<input checked="" type="checkbox"/>	<p>For systems serving nonresidential spaces, pipe insulation for the following applications is specified to comply with Table 120.3-A (see below) per §120.3 :</p> <ul style="list-style-type: none"> Recirculating system piping, including supply and return piping of the water heater The first 8 ft of hot and cold outlet piping, including between storage tank and heat trap, for a nonrecirculating storage system Pipes that are externally heated
13	<input checked="" type="checkbox"/>	<p>Insulation shall be protected from damage, including that due to sunlight, moisture, equipment maintenance, and wind. Insulation exposed to weather shall be installed with a cover suitable for outdoor service per §120.3(b) and §150.0(i)(3)</p>

TABLE 120.3-A PIPE INSULATION THICKNESS

Fluid Temperature Range (°F)	Conductivity Range (Btu-in per hr ft ² per °F)	Insulation Mean Rating Temp (°F)	Nominal Pipe Diameter (in)		
			< 1	1 to < 1.5	1.5 to < 4
			Minimum Insulation Required		
105-140	0.22 - 0.28	100	1.0 in or R-7.7	1.5 in or R-12.5	1.5 in or R-11

Registration Number:

Registration Date/Time:

Registration Provider: Energysoft

CA Building Energy Efficiency Standards - 2019 Nonresidential Compliance

Report Version: 2019-1.1003

Schema Version: rev 20190401

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STATE OF CALIFORNIA		CALIFORNIA ENERGY COMMISSION	
Domestic Water Heating System			
NRC-PLB-E		NRC-PLB-4	
CERTIFICATE OF COMPLIANCE		CERTIFICATE OF COMPLIANCE	
Project Name:		JAIME-001 Report Page: (Page 5 of 7)	
Project Address:		2853 WEST BLVD Date Prepared: 10/4/2021	

H. DOMESTIC HOT WATER CONTROLS				
<p><i>This table is used to demonstrate compliance with control requirements in §110.3 for all occupancies. For high-rise residential and hotel/motel occupancies, compliance is also demonstrated with requirements in §150.1(c)(8).</i></p>				
	Yes	No	Not Applicable	Requirement
01	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	Construction documents require manufacturer certification that service water-heating systems are equipped with automatic temperature controls capable of adjusting temperature settings, per §110.3(a) .
02	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	Systems with capacity > 167,000 BTUH equipped with outlet temperature controls per §110.3(c)(1) unless covered by California Plumbing Code 613.0.
03	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	Controls for circulating pumps or electrical heat trace systems are capable of automatically turning off the system per §110.3(c)(2) unless systems serves healthcare facility.
04	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	For recirculation systems serving multiple dwelling units, design includes automatic pump controls per §150.11(c)(8B) , or §150.2 for additions or alterations.
05	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	For recirculation systems serving individual dwelling units, design includes manual on/off controls as specified in Reference Appendix R44.4.9 per §150.1(c)(8) .
06	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	For replacement single heat pump water heaters serving individual dwelling units in climate zone 3-15, design includes communication interface that meets demand responsive control requirements of §110.12(g) per §150.2(b)(4)(iii) .

DECLARATION OF REQUIRED CERTIFICATES OF INSTALLATION		
<p><i>Statements have been made based on information provided in this document. If any selection have been changed by permit applicant, an explanation should be included in Table E. Additional Remarks. These documents must be provided to the building inspector during construction and can be found online at https://www.energy.ca.gov/title24/2019standards/2019_compliance_documents/Nonresidential_Documents/NRC/</i></p>		
Yes	No	Form/Title
<input checked="" type="radio"/>	<input type="radio"/>	NRCI-PLB-01-E - Must be submitted for all buildings
<input type="radio"/>	<input checked="" type="radio"/>	NRCI-PLB-02-E - Must be submitted for high-rise residential and hotel/motel central hot water distribution systems to be recognized for compliance.
<input type="radio"/>	<input checked="" type="radio"/>	NRCI-PLB-03-E - Must be submitted for high-rise residential and hotel/motel single dwelling unit hot water distribution systems to be recognized for compliance.

Registration Number:	Registration Date/Time:	Registration Provider: Energysoft
CA Building Energy Efficiency Standards - 2019 Nonresidential Compliance	Report Version: 2019.1.003 Schema Version: rev 20190401	Report Generated: 2021-10-14 17:25:12


STATE OF CALIFORNIA		CALIFORNIA ENERGY COMMISSION	
Domestic Water Heating System			
NRCC-PLB-4		NRCC-PLB-4	
CERTIFICATE OF COMPLIANCE		Report Page:	
Project Name: JAIME-001		(Page 6 of 7)	
Project Address: 2853 WEST BLVD		Date Prepared: 10/4/2021	

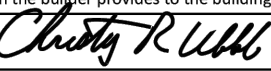
J. DECLARATION OF REQUIRED CERTIFICATES OF ACCEPTANCE			
There are no Certificates of Acceptance applicable to service water heating requirements.			

K. DECLARATION OF REQUIRED CERTIFICATES OF VERIFICATION				
<i>Selections have been made based on information provided in this document. If any selection have been changed by permit applicant, an explanation should be included in Table E. Additional Remarks. These documents must be completed by a HERS Rater and provided to the building inspector during construction. The final documents must be created by a HERS Providers registry, but drafts can be found online at https://www.energy.ca.gov/title24/2019standards/2019_compliance_documents/Nonresidential_Documents/NRCC/</i>				
Yes	No	Form/Title	Field Inspector	
			Pass	Fail
<input checked="" type="radio"/>	<input type="radio"/>	NRCV-PLB-21-H High-rise Residential Central Hot Water Distribution HERS Verification	<input type="checkbox"/>	<input type="checkbox"/>
<input type="radio"/>	<input checked="" type="radio"/>	NRCV-PLB-22-H High-rise Residential Individual Dwelling Unit Hot Water Distribution HERS Verification	<input type="checkbox"/>	<input type="checkbox"/>

Registration Number:	Registration Date/Time:	Registration Provider: Energysoft
CA Building Energy Efficiency Standards - 2019 Nonresidential Compliance	Report Version: 2019.1.003 Schema Version: rev 20190401	Report Generated: 2021-10-04 17:25:12

STATE OF CALIFORNIA Dormestic Water Heating System		CALIFORNIA ENERGY COMMISSION <small>NRC-PUB-6</small>	
CERTIFICATE OF COMPLIANCE		NRC-PUB-6	
Project Name:	JAIME-001	Report Page:	(Page 7 of 7)
Project Address:	2853 WEST BLVD	Date Prepared:	10/4/2021

DOCUMENTATION AUTHOR'S DECLARATION STATEMENT	
I certify that this Certificate of Compliance documentation is accurate and complete.	
Documentation Author Name: Christopher Webb	Documentation Author Signature: 
Company: National Engineering & Consulting, Inc.	Signature Date: 2021-10-04
Address: 30 Thomas	CEA/HERS Certification Identification (If applicable): 8043-009A-BE1F-87D9-5A73-54D5-8438-779B-B1AF-5D9D-2A75-0955-6C99-1F98-3987-8809
City/State/Zip: Irvine, CA 92618	Phone: (949) 716-9990

RESPONSIBLE PERSON'S DECLARATION STATEMENT	
I certify the following under penalty of perjury, under the laws of the State of California:	
1. The information provided on this Certificate of Compliance is true and correct. 2. I am eligible under Division 13 of the Business and Professions Code to accept responsibility for the building design or system design identified on this Certificate of Compliance (responsible designer) 3. The energy features and performance specifications, materials, components, and manufactured devices for the building design or system design identified on this Certificate of Compliance conform to the requirements of Title 24, Part 1 and Part 2 of the California Code of Regulations. 4. The building design features or system design features identified on this Certificate of Compliance are consistent with the information provided on other applicable compliance documents, worksheets, calculations, plans and specifications submitted to the enforcement agency for approval with this building permit application. 5. I will ensure that a completed signed copy of this Certificate of Compliance shall be made available with the building permit(s) issued for the building, and made available to the enforcement agency for all applicable inspections. I understand that a completed signed copy of this Certificate of Compliance is required to be included with the documentation the builder provides to the building owner at occupancy.	
Responsible Designer Name: Christopher Webb	Responsible Designer Signature: 
Company: National Engineering & Consulting, Inc.	Date Signed: 2021-10-04
Address: 30 Thomas	License: M-134389
City/State/Zip: Irvine CA 92618	Phone: 949-716-9990

Registration Number:	Registration Date/Time:	Registration Provider: Energysoft
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CA Building Energy Efficiency Standards - 2019 Nonresidential Compliance	Report Version: 2019.1.003 Schema Version: rev 20190401	Report Generated: 2021-10-04 17:25:12
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CLIENT

**JAIME PARTNERS
OF CALIFORNIA, INC.**

1050 S. FLOWER STREET
LOS ANGELES, CA 90015

PROJECT:

2853 WEST BLVD
LOS ANGELES, CA 90016

C- JAIME-001		
#	DESCRIPTION	DATE
	1ST SUBMITTAL	10/04/21
	UTILITY COORDINATION	04/08/22
⚠	PC RESUBMITTAL	05/18/22
⚠	PC RESUBMITTAL	10/28/22
⚠	HCD REVISION 1	12/16/22
⚠	PC RESUBMITTAL	02/02/23
⚠	HCD & PC RESUBMITTAL	06/06/23
⚠	HCD RESUBMITTAL	06/14/23
⚠	PC RESUBMITTAL	07/10/23
⚠	PC RESUBMITTAL	02/27/24

Plot Date: 3/5/2024 2:02:59 PM

SHEET TITLE:

TITLE 24
COMPLIANCE

SHEET NO.

M805