NEW MAIN HOUSE / JADU

1279 LAS PALMAS DR SANTA CLARA CA 95051

PROJECT DIRECTORY

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VICINITY MAP

APN MAP

SHEET INDEX

SCOPE OF WORK

1. EXISTING MAIN HOUSE REMODELING & ADDITION WITH (5) BEDROOM, (5 1/2) BATH,
   (1) KITCHEN, LIVING & DINING (2591 SQFT).
2. NEW ATTACHED JADU WITH (1) KITCHEN/ LIVING/DINING/ BED SPACE & (1) BATH (489 SQFT).

PROJECT DATA / DEVELOPMENT INFO

PROJECT ADDRESS	: 1279 LAS PALMAS DR SANTA CLARA, CA 95051
ASSESSOR'S PARCEL #	: 290-07-024
LEGAL DESCRIPTION	: TR 915 LOT 48
CONSTRUCTION	: V-B
ZONING	: R1
OCCUPANCY	: SINGLE FAMILY RESIDENTIAL
LOT SIZE	: 6000 SQFT. (0.130 ACRES)
EXISTING LOT COVERAGE	: 26.17%
PROPOSED LOT COVERAGE	: 40.00%
SETBACKS: (SETBACKS REQUIRED IN BRACKETS)	
FRONT YARD	: 20'-0"
SIDE YARD	: 5'-7", 5'-0"
REAR YARD	: 20'-0"
HEIGHT MAX. :	: 25'-0" OR DOUBLE STORY
DEFERRED SUBMITTALS:	: NONE
SPRINKLERS	: NO

BUILDING CODES

Applicable Codes:

2022 CALIFORNIA RESIDENTIAL CODE (CRC)
2022 CALIFORNIA BUILDING CODE (CBC)
2022 CALIFORNIA GREEN BUILDING STANDARDS CODE (CALGREEN)
2022 CALIFORNIA ELECTRICAL CODE
2022 FIRE CODE
2022CALIFORNIA BUILDING ENERGY EFFICIENT STANDARDS

	CLIENT INFORMATION HUNG NGUYEN hungnguyen_@msn.com STRUCTURAL ENGINEER	PROFESSIONAL SEAL	NEW MAIN HOUSE / JADU 1279 LAS PALMAS DR SANTA CLARA, CA 95051	DRAWN BY : S.A SCALE : AS NOTED DATE : 2/15/2025 JOB NO. : REV. :	SHEET NAME TITLE SHEET SHEET NUMBER **T-01**

1. THE CONTRACTOR SHALL THOROUGHLY EXAMINE THE PREMISES AND SHALL BASE HIS BID ON THE EXISTING CONDITIONS. THE CONTRACTOR SHALL NOTIFY THE ARCHITECT IMMEDIATELY OF ANY DISCREPANCIES BETWEEN THE DRAWING AND THE ACTUAL FIELD CONDITIONS. THE CONTRACTOR SHALL VERIFY AND BE RESPONSIBLE FOR ALL DIMENSIONS AND FIELD CONDITIONS.
2. THE WORK INCLUDED UNDER THIS CONTRACT SHALL INCLUDE ALL LABOR, MATERIALS, TRANSPORTATION, TOOLS AND EQUIPMENT NECESSARY FOR THE CONSTRUCTION OF THE PROJECT, LEAVING ALL WORK READY FOR USE.
3. PRIOR TO CONSTRUCTION, DISCREPANCIES BETWEEN THE ARCHITECTURAL AND ENGINEERING DRAWINGS SHALL BE REPORTED TO THE ARCHITECT.
4. THE CONTRACTOR SHALL BE RESPONSIBLE FOR PROVIDING ALL MATERIALS AND WORKMANSHIP IN ACCORDANCE WITH THE APPLICABLE UNIFORM BUILDING CODE, HANDICAP ACCESS CODE AND ALL APPLICABLE ORDINANCES, INCLUDING STATE AND LOCAL BUILDING CODES AND REQUIREMENTS.
5. THESE PLANS INDICATE THE GENERAL EXTENT OF DEMOLITION AND NEW CONSTRUCTION NECESSARY FOR THE WORK BUT ARE NOT INTENDED TO BE ALL INCLUSIVE. ALL DEMOLITION AND ALL NEW WORK NECESSARY TO ALLOW FOR A FINISHED JOB IN ACCORDANCE WITH THE INTENTION OF THESE DOCUMENTS SHALL BE INCLUDED REGARDLESS OF WHETHER SHOWN ON THE DRAWINGS OR IN THE NOTES. DO NOT DEMOLISH ANY ITEMS THAT APPEAR STRUCTURAL, UNLESS SPECIFICALLY INDICATED TO BE DEMOLISHED IN THE CONSTRUCTION DOCUMENT, WITHOUT PRIOR REVIEW AND WRITTEN APPROVAL BY THE ARCHITECT.
6. ANY ERRORS, OMISSIONS, AND CONFLICTS FOUND INN THESE CONSTRUCTION DOCUMENTS SHALL BE BROUGHT TO THE ATTENTION OF THE ARCHITECT AND OWNER FOR CLARIFICATION BEFORE PROCEEDING WITH WORK.
7. ALL DIMENSIONS ARE TO FACE OF FINISH UNLESS NOTED OTHERWISE. ALL DIMENSIONS SHALL BE VERIFIED.
8. THE CONTRACTOR SHALL CONFIRM IN WRITING APPROPRIATE ON-SITE DELIVERY DATES FOR ALL CONSTRUCTION ITEMS AS REQUIRED BY THE CONSTRUCTION DOCUMENTS AND SHALL NOTIFY THE ARCHITECT IN WRITING OF ANY POSSIBLE DELAYS AFFECTING OCCUPANCY.
9. THE CONTRACTOR SHALL PROVIDE A SCHEDULE FOR CONSTRUCTION AS REQUIRED TO MEET THE OWNER'S PHASING REQUIREMENTS AND ULTIMATE COMPLETION DATE.
10. THE CONTRACTOR SHALL VERIFY THAT NO CONFLICTS EXIST IN THE LOCATION OF ANY AND ALL MECHANICAL, ELECTRICAL, TELEPHONE, LIGHTING, PLUMBING AND THE FIRE SPRINKLER WORK. (INCLUDING PIPING, DUCTWORK AND CONDUIT), AND THAT ALL CLEARANCES FOR INSTALLATION AND MAINTANENANCE ARE PROVIDED.
11. NO WORK DEFECTIVE IN CONSTRUCTION OR QUALITY OR DEFICIENT IN ANY REQUIREMENT OF THE CONTRACT DOCUMENTS WILL BE ACCEPTABLE IN CONSEQUENCE OF THE OWNER'S OR ARCHITECT'S FAILURE TO DISCOVER OR POINT OUT DEFICIENCIES OR DEFECTS DURING CONSTRUCTION. DEFECTIVE WORK REVEALED WITHIN THE TIME REQUIRED BY GAURANTEES SHALL BE REPLACED BY WORK CONFORMING TO THE INTENT OF THE CONTRACT, NO PAYMENT, EITHER PARTIAL OR FINAL, SHALL BE CONSTRUED AS ACCEPTANCE OF WORK OR IMPROPER MATERIALS.
12. THE CONTRACTOR SHALL TAKE CARE NOT TO DAMAGE EXISTING CONSTRUCTION AND SHALL BE RESPONSIBLE FOR REPAIRING ALL DAMAGES CAUSED BY CONTRACTOR AND SUB-CONTRACTORS.
13. THE CONTRACTOR SHALL REVIEW, APPROVE, STAMP AND SUBMIT WITH REASONABLE PROMPTNESS AND IN SUCH SEQUENCE AS TO CAUSE NO DELAY IN THE WORK, PRODUCT DATA, SHOP DRAWINGS AND SAMPLES FOR THE PROJECT.
14. BY APPROVING, STAMPING AND SUBMITTING SHOP DRAWINGS, PRODUCT DATA AND SAMPLES, THE CONTRACTOR REPRESENTS THAT HE HAS DETERMINED AND VERIFIED MATERIALS, FIELD MEASUREMENTS, AND FIELD CONSTRUCTION CRITERIA RELATED THERE TO AND THAT HE HAS CHECKED AND COORDINATED THE INFORMATION WITHIN SUCH SUBMITTALS WITH THE REQUIREMENTS OF THE WORK AND CONTRACT DOCUMENTS.
15. THE CONTRACTOR SHALL NOT BE RELIEVED OF RESPONSIBILITY FOR ANY DEVIATION FORM THE REQUIREMENTS OF THE CONTRACT DOCUMENTS BY THE ARCHITECT'S REVIEW OF THE HOP DRAWINGS, PRODUCTS DATA OR SAMPLES, UNLESS THE CONTRACTOR HAS SPECIFICALLY INFORMED THE ARCHITECT IN WRITING OF SUCH DEVIATION AT THE TIME OF SUBMISSION AND THE ARCHITECT HAS GIVEN WRITTEN APPROVAL OF THE SPECIFIC DEVIATION.
16. THE ARCHITECT ASSUMES NO RESPONSIBILITY FOR DIMENSIONS OR QUANTITIES OR REVIEWED SUBMITTALS.
17. SUBSTITUTIONS, REVISIONS AND/OR CHANGES MUST HAVE PRIOR WRITTEN APPROVAL BY THE ARCHITECT.
18. THE CONTRACTOR SHALL MAINTAIN A CURRENT AND COMPLETE SET OF CONSTRUCTION DOCUMENTS ON THE JOB SITE DURING ALL PHASES OF CONSTRUCTION FOR USE BY ALL TRADES AND SHALL PROVIDE ALL SUBCONTRACTORS WITH CURRENT CONSTRUCTION DOCUMENTS AS REQUIRED.
19. EACH TRADE SHALL EXAMINE THE PREMISES TO ENSURE THAT CONDITIONS ARE APPROPRIATE FOR HIS WORK TO COMMENCE, PRIOR TO COMMENCING HIS WORK. AREAS NOT APPROPRIATE SHALL BE BROUGHT TO THE ATTENTION OF THE ARCHITECT. COMMENCING WORK IMPLIES ACCEPTANCE OF EXISTING CONDITIONS.

STANDARD EROSION CONTROL NOTES

1. SEDIMENT CONTROL MANAGEMENT:
TRACKING PREVENTION AND CLEAN UP: ACTIVITIES SHALL BE ORGANIZED, AND MEASURES TAKEN AS NEEDED TO PREVENT OR MINIMIZE TRACKING OF SOIL ONTO THE PUBLIC STREET SYSTEM. A GRAVEL OR PROPRIETARY DEVICE CONSTRUCTION ENTRANCE/EXIT IS REQUIRED FOR ALL SITES. CLEAN UP OF TRACKED MATERIAL SHALL BE PROVIDED BY MEANS OF A STREET SWEEPER PRIOR TO AN APPROACHING RAIN EVENT, OR AT LEAST ONCE AT THE END OF EACH WORKDAY THAT MATERIAL IS TRACKED, OR MORE FREQUENTLY AS DETERMINED BY THE COUNTY INSPECTOR. REFER TO EROSION AND SEDIMENT CONTROL FIELD MANUAL, 4TH EDITION (PAGES B-31 TO B-33) OR LATEST.
STORM DRAIN INLET AND CATCH BASIN INLET PROTECTION:
ALL INLETS WITHIN THE VICINITY OF THE PROJECT AND WITHIN THE PROJECT LIMITS SHALL BE PROTECTED WITH GRAVEL BAGS PLACED AROUND INLETS OR OTHER INLET PROTECTION. AT LOCATIONS WHERE EXPOSED SOILS ARE PRESENT, STAKED FIBER ROLES OR STAKED SILT FENCES CAN BE USED. INLET FILTERS ARE NOT ALLOWED DUE TO CLOGGING AND SUBSEQUENT FLOODING. REFER TO EROSION AND SEDIMENT CONTROL FIELD MANUAL, 4TH EDITION (PAGES B-49 TO B-51) OR LATEST.
STORM WATER RUNOFF:
NO STORM RUNOFF SHALL BE ALLOWED TO DRAIN IN TO THE EXISTING AND/OR PROPOSED UNDERGROUND STORM DRAIN OR OTHER ABOVE GROUND WATERCOURSES UNTIL APPROPRIATE EROSION CONTROL MEASURES ARE FULLY INSTALLED.
DUST CONTROL:
THE CONTRACTOR SHALL PROVIDE DUST CONTROL IN GRADED AREAS AS REQUIRED BY PROVIDING WET SUPPRESSION OR CHEMICAL STABILIZATION OR EXPOSED SOILS, PROVIDING FOR RAPID CLEAN UP OF SEDIMENTS DEPOSITED ON PAVED ROADS, FURNISHING CONSTRUCTION ROAD ENTRANCES AND VEHICLE WASH DOWN AREAS, AND LIMITING THE AMOUNT OF AREAS DISTURBED BY CLEARING AND EARTH MOVING OPERATIONS BY SCHEDULING THESE ACTIVITIES IN PHASES.
STOCK PILING:
EXCAVATED SOILS SHALL NOT BE PLACED IN STREETS OR ON PAVED AREAS. BORROW AND TEMPORARY STOCKPILES SHALL BE PROTECTED WITH APPROPRIATE EROSION CONTROL MEASURES (TARPS, STRAW BALES, SILT FENCES ETC) TO ENSURE SILT DOES NOT LEAVE THE SITE OR ENTER THE STORM DRAIN SYSTEM OR NEIGHBORING WATERCOURSE.
2. EROSION CONTROL: DURING THE RAINY SEASON, ALL DISTURBED AREAS MUST INCLUDE AN EFFECTIVE COMBINATION OF EROSION AD SEDIMENT CONTROL. IT IS REQUIRED THAT TEMPORARY EROSION CONTROL MEASURES ARE APPLIED TO ALL DISTURBED SOIL AREAS PRIOR TO A RAIN EVENT. DURING THE NON-RAINY SEASON, EROSION CONTROL MEASURES MUST BE APPLIED SUFFICIENT TO CONTROL WIND EROSION AT THE SITE.
3. INSPECTION AND MAINTENANCE: DISTURBED AREAS OF THE PROJECTS'S SITE, LOCATIONS WHERE VEHICLES ENTER OR EXIT THE SITE, AND ALL EROSION AND SEDIMENT CONTROLS THAT ARE IDENTIFIED AS PART OF THE EROSION CONTROL PLANS MUST BE INSPECTED BY THE CONTRACTOR BEFORE, DURING, AND AFTER STORM EVENTS, AND AT LEAST WEEKLY DURING SEASONAL WET PERIODS. PROBLEM AREAS SHALL BE IDENTIFIED AND APPROPRIATED ADDITIONAL AND/OR ALTERNATIVE CONTROL MEASURES IMPLEMENTED IMMEDIATELY, WITHIN 24 HOURS OF THE PROBLEM BEING IDENTIFIED.
4. PROJECT COMPLETION: PRIOR TO PROJECT COMPLETION AND SIGNOFF BY THE COUNTY INSPECTOR, ALL DISTURBED AREAS SHALL BE RESEEDED, PLANTED, OR LANDSCAPED TO MINIMIZE THE POTENTIAL FOR EROSION ON THE SUBJECT SITE.
5. IT SHALL BE THE OWNER'S/CONTRACTOR'S RESPONSIBILITY TO MAINTAIN CONTROL OF THE ENTIRE CONSTRUCTION OPERATION AND TO KEEP THE ENTIRE SITE IN COMPLIANCE WITH THE EROSION CONTROL PLAN.
6. EROSION AND SEDIMENT CONTROL BEST MANAGEMENT PRACTICES SHALL BE OPERABLE YEAR ROUND OR UNTIL VEGETATION IS FULLY ESTABLISHED ON LANDSCAPED SURFACES.

7. STANDARD BEST MANAGEMENT PRACTICE NOTES

8. SOLID AND DEMOLITION WASTE MANAGEMENT: PROVIDE DESIGNATED WASTE COLLECTION AREAS AND CONTAINERS ON SITE AWAY FROM STREETS, GUTTERS, STORM DRAINS, AND WATERWAYS, AND ARRANGE FOR REGULAR DISPOSAL. WASTE CONTAINERS MUST BE WATERTIGHT AND COVERED AT ALL TIMES EXCEPT WHEN WASTE IS DEPOSITED. REFER TO EROSION AND SEDIMENT CONTROL FIELD MANUAL, 4TH EDITION (PAGE C3) OR LATEST.
9. HAZARDOUS WASTE MANAGEMENT: PROVIDE PROPER HANDLING AND DISPOSAL OF HAZARDOUS WASTES BY A LICENSED HAZARDOUS WASTE MATERIAL HAULER. HAZARDOUS WASTES SHALL BE STORED AND PROPERLY LABELED IN SEALED CONTAINERS CONSTRUCTED OF SUITABLE MATERIALS. REFER TO EROSION AND SEDIMENT CONTROL FIELD MANUAL, 4TH EDITION (PAGES C-5 TO C-6) OR LATEST.
10. SPILL PREVENTION AND CONTROL: PROVIDE PROPER STORAGE AREAS FOR LIQUID AND SOLID MATERIALS, INCLUDING CHEMICALS AND HAZARDOUS SUBSTANCES, AWAY FROM STREETS, GUTTERS, STORM DRAINS, AND WATERWAYS. SPILL CONTROL MATERIALS MUST BE KEPT ON SITE WHERE READILY ACCESSIBLE. SPILLS MUST BE CLEANED UP IMMEDIATELY AND CONTAMINATED SOIL DISPOSED PROPERLY. REFER TO EROSION AND SEDIMENT CONTROL FIELD MANUAL, 4TH EDITION (PAGES C-7 TO C-8, C-13 TO C-14) OR LATEST.
11. VEHICLE AND CONSTRUCTION EQUIPMENT SERVICE AND STORAGE: AN AREA SHALL BE DESIGNATED FOR THE MAINTENANCE, WHERE ON-SITE MAINTENANCE IS REQUIRED, AND STORAGE OF EQUIPMENT THAT IS PROTECTED FROM STORMWATER RUN-ON AND RUNOFF. MEASURES SHALL BE PROVIDED TO CAPTURE ANY WASTE OILS, LUBRICANTS, OR OTHER POTENTIAL POLLUTANTS AND THESE WASTES SHALL BE PROPERLY DISPOSED OF OFFSITE. FUELING AND MAJOR MAINTENANCE/REPAIR, AND WASHING SHALL BE CONDUCTED OFF-SITE WHENEVER FEASIBLE. REFER TO EROSION AND SEDIMENT CONTROL FIELD MANUAL, 4TH EDITION (PAGES C-9) OR LATEST.
12. MATERIAL DELIVERY, HANDLING AND STORAGE: IN GENERAL, MATERIALS SHOULD NOT BE STOCKPILED ON SITE WHERE TEMPORARY STOCKPILES ARE NECESSARY AND APPROVED BY THE COUNTY, THEY SHALL BE COVERED WITH SECURED PLASTIC SHEETING OR TARP AND LOCATED IN DESIGNATED AREAS NEAR CONSTRUCTION ENTRANCES AND AWAY FROM DRAINAGE PATHS AND WATERWAYS. BARRIERS SHALL BE PROVIDED AROUND STORAGE AREAS WHERE MATERIALS ARE POTENTIALLY IN CONTACT WITH RUNOFF. REFER TO EROSION AND SEDIMENT CONTROL FIELD MANUAL, 4TH EDITION (PAGES C-11 TO C-12) OR LATEST.
13. HANDLING AND DISPOSAL OF CONCRETE AND CEMENT: WHEN CONCRETE TRUCKS AND EQUIPMENT ARE WASHED ON-SITE, CONCRETE WASTEWATER SHALL BE CONTAINED IN DESIGNATED CONTAINERS OR IN A TEMPORARY LINED AND WATERTIGHT PIT WHERE WASTED CONCRETE CAN HARDEN FOR LATER REMOVAL. IF POSSIBLE, HAVE CONCRETE CONTRACTOR REMOVE CONCRETE WASH WATER FORM SITE. I NO CASE SHALL FRESH CONCRETE BE WASHED INTO THE ROAD RIGHT-OF-WAY. REFER TO EROSION AND SEDIMENT CONTROL FIELD MANUAL, 4TH EDITION (PAGES C-15 TO C-16) OR LATEST.
14. PAVEMENT CONSTRUCTION MANAGEMENT: PREVENT OR REDUCE THE DISCHARGE OF POLLUTANTS FROM PAVING OPERATIONS, USING MEASURES TO PREVENT RUN-ON AND RUNOFF POLLUTIN AND PROPERLY DISPOSING OF WASTES. AVOID PAVING IN THE WET SEASON AND RESCHEDULE PAVING WHEN RAIN IS IN THE FORECAST. RESIDUE FORM SAW-CUTTING SHALL BE VACUUMED FOR PROPER DISPOSAL. REFER TO EROSION AND SEDIMENT CONTROL FIELD MANUAL, 4TH EDITION (PAGES C-17 TO C-18) OR LATEST.
15. CONTAMINATED SOIL AND WATER MANAGEMENT: INSPECTIONS TO IDENTIFY CONTAMINATED SOILS SHOULD OCCUR PRIOR TO CONSTRUCTION AND AT REGULAR INTERVALS DURING CONSTRUCTION. REMEDIATING CONTAMINATED SOIL SHOULD OCCUR PROMPT AFTER IDENTIFICATION AND BE SPECIFIC TO THE CONTAMINATED IDENTIFIED, WHICH MAY INCLUDE HAZARDOUS WASTE REMOVAL. REFER TO EROSION AND SEDIMENT CONTROL FIELD MANUAL, 4TH EDITION (PAGES C-19 TO C-20) OR LATEST.
16. SANITARY/SEPTIC WATER MANAGEMENT: TEMPORARY SANITARY FACILITIES SHOULD BE LOCATED AWAY FROM DRAINAGE PATHS, WATERWAYS, AND TRAFFIC AREAS. ONLY LICENSED SANITARY AND SEPTIC WASTE HAULERS SHOULD BE USED. SECONDARY CONTAINMENT SHOULD BE PROVIDED FOR ALL SANITARY FACILITIES. REFER TO EROSION AND SEDIMENT CONTROL FIELD MANUAL, 4TH EDITION (PAGES C-21) OR LATEST.
17. INSPECTION AND MAINTENANCE: AREAS OF MATERIAL AND EQUIPMENT STORAGE SITES AND TEMPORARY SANITARY FACILITIES MUST BE INSPECTED WEEKLY. PROBLEM AREAS SHALL BE IDENTIFIED AND APPROPRIATE ADDITIONAL AND/OR ALTERNATIVE CONTROL MEASURES IMPLEMENTED IMMEDIATELY, WITHIN 24 HOURS OF THE PROBLEM BEING IDENTIFIED.

CLIENT INFORMATION
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STRUCTURAL ENGINEER

PROFESSIONAL SEAL

NEW MAIN HOUSE / JADU

1279 LAS PALMAS DR
SANTA CLARA, CA 95051

DRAWN BY	: S.A
SCALE	: AS NOTED
DATE	: 2/15/2025
JOB NO.	:
REV.	:

SHEET NAME
GENERAL NOTES

SHEET NUMBER
T-01.1

FLOOR PLAN NOTES

1. **WATER HEATER** (REFER TO BUILDING ENERGY ANALYSIS REPORT):
   a. ALL DOMESTIC HOT WATER PIPING SHALL BE INSULATED. *(2022 CPC 609.12.1)*
   • PIPES UP TO 2 INCHES IN DIAMETER: INSULATION WALL THICKNESS NOT LESS THAN DIAMETER OF PIPE. *(2022 CPC 609.12.2)*
   • PIPES GREATER THAN 2 INCHES IN DIAMETER: INSULATION WALL THICKNESS NOT LESS THAN 2 INCHES. *(2022 CPC 609.12.2)*
   EXCEPTIONS:
1. PIPING THAT PENETRATES FRAMING MEMBERS SHALL NOT BE REQUIRED TO HAVE PIPE INSULATION FOR THE DISTANCE OF THE FRAMING PENETRATION. *(2022 CPC 609.12.2)*
2. HOT WATER PIPING BETWEEN THE FIXTURE CONTROL VALVE OR SUPPLY STOP AND THE FIXTURE OR APPLIANCE SHALL NOT BE REQUIRED TO BE INSULATED. *(2022 CPC 609.12.2)*
   a. PROVIDE A TEMPERATURE AND PRESSURE RELIEF VALVE WITH A FULLSIZE DRAIN OF GALVANIZED STEEL OR HARD DRAWN COPPER TO THEOUTSIDE OF THE BUILDING WITH THE END OF THE PIPE PROTRUDING 6"MINIMUM @ 2' MAX. ABOVE GRADE POINTING DOWNWARD TO THETERMINATION - UNTHREADED.
   b. COMBUSTION AIR PER MANUFACTURE REQUIREMENTS.
   c. CLEARANCES PER MANUFACTURE REQUIREMENTS.
1. **INSULATION FOR PIPING AND TANKS** (2022 CEC 105.0(j)):
   A. WATER PIPING, SOLAR WATER-HEATING SYSTEM PIPING, AND SPACE- CONDITIONING SYSTEM LINE INSULATION THICKNESS AND CONDUCTIVITY. PIPING SHALL BE INSULATED AS FOLLOWS:
   a. DOMESTIC HOT WATER PIPING, SEE NOTES ABOVE.
   b. PIPING FOR SPACE-CONDITIONING SYSTMES, SOLAR WATERHEATER SYSTEM COLLECTOR LOOP, SEE 2022 CEC SECTION 120.3(c).
   EXCEPTION:
1. PIPING SURROUNDED WITH A MINIMUM OF 1 INCH OF WALL INSULATION, 2 INCHES OF CRAWLSPACE INSULATION, OR 4 INCHES OF ATTIC INSULATION SHALL NOT BE REQUIRED TO HAVE PIPE INSULATION.
   A. I**NSULATION PROTECTION**. PIPE INSULATION SHALL BE PROTECTED FROM DAMAGE DUE TO SUNLIGHT, MOISTURE, EQUIPMENT MAINTENANCE AND WIND. PROTECTION SHALL, AT MINIMUM, INCLUDE THE FOLLOWING (2022 CEC SECTION 120.3(B)):
   a. PIPE INSULATION EXPOSED TO WEATHER SHALL BE PROTECTED BY A COVER SUITABLE FOR OUTDOOR SERVICE. THE COVER SHALL BE WATER RETARDANT AND PROVIDES SHIELDING FROM SOLAR RADIATION THAT CAN CAUSE DEGRADATION OF THE MATERIAL. ADHESIVE TAPE SHALL NOT BE USED TO PROVIDE THIS PROTECTION.
   b. PIPE INSULATION COVERING CHILLED WATER PIPING AND REFRIGERANT SUCTION PIPING LOCATED OUTSIDE THE CONDITIONED SPACE SHALL INCLUDE, OR BE PROTECTED BY, A CLASS I OR CLASS II VAPOR RETARDER. ALL PENETRATIONS AND JOINTS SHALL BE SEALED.
   c. PIPE INSULATION BURIED BELOW GRADE MUST BE INSTALLED IN A WATER PROOF AND NONCRUSHABLE CASING OR SLEEVE.
1. **WEATHER BARRIERS.**
   A. NOT FEWER THAN ONE-LAYER WATER-RESISTIVE BARRIER SHALL BE APPLIED OVER STUDS OR SHEATHING OF ALL EXTERIOR WALLS CONTINUOUS FROM TOP OF WALS AND TERMINATED AT PENETRATIONS AND BUILDING APPENDAGES WITH FLASHING. MINIMUM NO. 15 FELT COMPLYING WITH ASTM D226, TYPE 1.
   B. PROVIDE (2) LAYERS OF GRADE D PAPER OR EQUAL WHEN PLASTER IS INSTALLED OVER WOOD BASED SHEATHING. *(2022 CRC R703.7.3)*
2. **DOMESTIC RANGE** VENTILATION DUCTS SHALL HAVE SMOOTH INTERIOR SURFACES. (2022 CMC 504.3)
3. **CLOTHES DRYER** MOISTURE EXHAUST DUCTS SHALL TERMINATE OUTSIDE THE BUILDING AND HAVE A BACK-DRAFT DAMPER. EXHAUST DUCT IS LIMITED TO 14'-0" W/ TWO ELBOWS. THIS SHALL BE REDUCED 2'-0" FOR EVERY ELBOW IN EXCESS OF TWO. MIN. DIA. 4", SMOOTH, METAL DUCT.*(2022 CMC 504.4)*
4. **ALL MANUFACTURED EQUIPMENT** SHALL BE INSTALLED AS PER MANUFACTURER'S SPECIFICATION AND DIMENSIONS VERIFIED WITH INSTALLATION REQUIREMENTS. ALL MANUFACTURER'S INSTALLATION INSTRUCTIONS SHOULD BE ON SITE FOR INSPECTIONS.
5. **SHOWERS AND TUB-SHOWER COMBINATIONS:** CONTROL VALVES MUST BE PRESSURE BALANCED OR THERMOSTATIC MIXING VALVES. *(2022 CPC 417.0.)*
6. **WET-ROOM GLAZING.** PROVIDE TEMPERED GLAZING IN DOORS AND ENCLOSURES FOR SHOWERS, BATHTUBS, SAUNAS, STEAM ROOMS, HOT TUBS & SIMILAR USES WHERE THE BOTTOM EXPOSED EDGE IS LESS THAN 60-INCHES ABOVE A STANDING SURFACE. *(2022 CRC R308.4.5)*
7. **HEATING AND AIR-CONDITIONING SYSTEM DESIGN** SHALL CONFORM TO CALGREEN SEC. 4.507, ENVIRONMENTAL COMFORT.
8. **WATER CLOSETS.**
   a. CLEARANCES: 24" MIN. FRONT, 30" MIN COMPARTMENT WIDTH.
   b. PROVIDE A MIN 3 SF WINDOW, 1/2 OF WHICH SHALL BE OPENABLE OR AN EXHAUST FAN 50 CFM FOR INTERMITTENT OR 20 CFM FOR CONTINUOUS. DIRECT VENT TO OUTSIDE WITH BACKDRAFT DAMPER. *(2022 CRC R303.3)*
   c. NEW WATER CLOSETS AND ASSOCIATED FLUSHOMETER VALVES, IF ANY SHALL USE NO MORE THAN 1.28 GALLONS PER FLUSH AND SHALL MEET PERFORMANCE STANDARDS ESTABLISHED BY THE AMERICAN SOCIETY OF MECHANICAL ENGINEERS STANDARD A112.19.2. H & S CODE, SECTION 17921.3(B).
9. **BATH ACCESSORIES:** PROVIDE MINIMUM 1 TOILET PAPER HOLDER AND 1 TOWEL BAR PER BATHROOM. PROVIDE NECESSARY BLOCKNG FOR TOILET PAPER HOLDER AND TOWEL BARS.
10. **WHOLE-BUILDING MECHANICAL VENTILATION SYSTE**M PER ASHRAE STANDARD 62.2. PROVIDE THE CITY INSPECTOR THE FOLLOWING INFORMATION AT OR BEFORE THE TIME OF INSPECTION:
   a. CALCULATIONS FOR REQUIRED VENTING RATES.
   b. CALCULATION ADJUSTMENTS FOR INTERMITTENT SYSTEMS IF APPLICABLE.
   c. DUCT DIAMETER AND MAXIMUM DUCT LENGTH PER ASHRAE 62.2 TABLE 7.1.
   d. TYPE OF SYSTEM USED AND PROVIDE COMPLETED CF-6R-MECH-05 FORM.
   e. FANS SHALL BE A MAXIMUM OF 1 SONE.
   f. FANS SHALL BE PROVIDED A COVER OF R-4.2 WHEN OFF.
11. **ATTIC ACCESS:**
   a. PROVIDE 30" MIN. HEADROOM IN THE ATTIC SPACE (2022 CRC R807.1)
   b. IN ATTIC, PROVIDE LIGHT AND SWITCH, AND ALL NECESSARY ELECTRICAL. PROVIDE UNOBSTRUCTED PASSAGEWAY 24" WIDE OF SOLID CONTINUOUS FLOORING FROM ACCESS TO EQUIPMENT AND IT'S CONTROLS. ALSO PROVIDE UNOBSTRUCTED WORK SPACE IN FRONT OF EQUIPMENT 30" DEPTH MINIMUM. PROVIDE COMBUSTION AIR AND CONDENSATE LINE TO OUTSIDE OR AN APPROVED DRAIN FOR OPTIONAL AIR CONDITIONING.
   c. BUILDINGS WITH COMBUSTIBLE CEILING OR ROOF CONSTRUCTION SHALL HAVE AN ATTIC ACCESS OPENING TO ATTIC AREAS THAT EXCEED 30 SQUARE FEET AND HAVE A VERTICAL HEIGHT OF 30-INCHES OR GREATER. THE VERTICAL HEIGHT SHALL BE MEASURED FROM TOP OF THE CEILING FRAMING MEMBERS TO THE UNDERSIDE OF THE ROOF FRAMING MEMBERS.
   d. THE ROUGH-FRAMED OPENING SHALL NOT BE LESS THAN 22" X 30" AND SHALL BE LOCATED NOT OVER 20 FEET FROM THE EQUIPMENT. (2022 CRC R807.1)
   e. PROVIDE A 120V RECEPTACLE AND A LIGHT NEAR THE EQUIPMENT WITH LIGHT SWITCH LOCATED AT THE ATTIC ACCESS.

ELECTRICAL NOTES

1. CONFORM WITH CURRENT CEC, NFPA, MFR'S, AND LOCAL REQUIREMENTS.
2. ELECTRICAL SYSTEM GROUND TO BE PROVIDED PER NEC ARTICLE 250-81.
3. ALL MATERIALS TO BE U.L. LABELED.
4. METER: 120 VOLT/ 240 VOLT, 1 AND 3 WIRE GROUND OR EQUAL.
5. ELECTRICAL SUB PANEL: FLUSH MOUNT, 30" CLEARANCE. 225 AMP.
6. CONDUCTORS: TW, THW, COPPER, MINIMUM 14 AT LIGHTING, 12 AT OTHER CIRCUITS.
7. LAMPS: FOR GENERAL LIGHTING IN KITCHENS AND BATH SHALL HAVE AN EFFICIENCY OF NOT LESS THAN 40 LUMENS/ WATT. ALL SOCKETS FILLED WITH SOFT-WHITE, 55 WATT FLUORESCENT: COOL WHITE, RS, SOUND RATING "A", 40 WATT (U.O.N.).
8. ALL ELECTRICAL OUTLETS INSTALLED IN BATHROOMS, GARAGES, BASEMENTS, CRAWL SPACES, OUTDOORS, KITCHEN COUNTERS, AND AT WET BAR SINKS SHALL HAVE GROUND-FAULT CIRCUIT-INTERRUPTER PROTECTION IN COMPLIANCE WITH NEC Art. 210-8, CONSISTING OF 125 VOLT,SINGLE-PHASE, 15- AND 20- AMPERE RECEPTACLES.
9. ALL BATHROOM RECEPTACLE OUTLETS SHALL BE SUPPLIED BY A MINIMUM OF ONE 120-VOLT, 20-AMPERE BRANCH CIRCUIT. SUCH CIRCUITS SHALL HAVE NO OTHER OUTLETS. THIS DEDICATED CIRCUIT MAY SERVE MORETHAN ONE BATHROOM. (2022 CEC 210.11(C))
10. PROVIDE ELECTRIC OUTLET AND PUSH-BUTTON WIRE FOR GARAGE OPENER (INCLUDE OPENER).
11. THERMOSTAT SHALL BE A PROGRAMMABLE TYPE, HONEYWELL TH8320 OR EQUAL.
12. CEILING-SUSPENDED (PADDLE) FANS SHALL BE SUPPORTED INDEPENDENTLY OF AN OUTLET BOX OR BY LISTED OUTLET BOX OR OUTLET BOX SYSTEMS IDENTIFIED FOR THE USE AND INSTALLED IN ACCORDANCE WITH 2022 CEC 314.27(C) (2022 CEC 422.18).
13. ALL LUMINARIES, LAMPHOLDERS, AND RETROFIT KITS SHALL BE LISTED (2022 CEC 410.6).
14. ALL 120-VOLT, SINGLE PHASE 15- AND 20- AMPERE BRANCH CIRCUITS SUPPLYING OUTLETS INSTALLED IN DWELLING UNIT KITCHENS, FAMILY ROOMS, LIVING ROOMS, DINING ROOMS, PARLORS, LIBRARIES, DENS, BEDROOMS, SUNROOMS, RECREATION ROOMS, CLOSETS, HALLWAYS OR SIMILAR ROOMS OR AREAS SHALL BE PROTECTED BY A LISTED ARC-FAULT CIRCUIT INTERRUPTER, COMBINATION-TYPE, INSTALLED TO PROVIDE PROTECTION OF THE BRANCH CIRCUIT. (2022 CEC 210-12(A)).
15. ALL NON-LOCKING TYPE 125-VOLT, 15 AND 20 AMPERE RECEPTACLES IN A DWELLING UNIT SHALL BE LISTED TAMPER-RESISTANT RECEPTACLES. EXCEPTIONS: (1) RECEPTACLES MORE THAN 5'6" ABOVE THE FLOOR, (2) RECEPTACLES PART OF A LUMINAIRE OR APPLIANCE, (3) A SINGLE RECEPTACLE OR A DUPLEX RECEPTACLE FOR TWO APPLIANCES THAT ARE NOT EASILY MOVED AND LOCATED WITHIN DEDICATED SPACE AND ARE CHORD-AND-PLUG CONNECTED AS PER CEC 400.7, AND (4) NON-GROUNDING RECEPTACLES USED FOR REPLACEMNETS AS PERMITTED IN CEC 406.4(D)(2) (A).
16. HIGH EFFICACY LUMINAIRES OTHER THAN OUTDOOR HID LIGHTING CONTAIN ONLY ONLY HIGH EFFICACY LAMPS AS OUTLINED IN TABLE 150-C OF THE RESIDENTIAL ENERGY CODE AND NOT CONTAIN A MEDIUM SCREW BASE SOCKET.
17. BALLAST FOR LAMPS 13 WATTS OR GREATER SHALL BE ELECTRONIC AND HAVE AN OUTPUT FREQUENCY NO LESS THAT 20 kHz.
18. SMOKE DETECTORS SHALL RECEIVE THEIR PRIMARY POWER FROM THE BUILDING WIRING AND PROVIDED WITH A BATTERY BACK-UP. ALL SMOKE DETECTORS SHALL BE INTERCONNECTEED. ALL SMOKE DETECTORS SHALL MAINTAIN A MINIMUM 3 FOOT CLEARANCE TO HVAC SUPPLY OR RETURN AIR REGISTERS.
19. CARBON MONOXIDE ALARMS SHALL RECEIVE THEIR PRIMARY POWER FROM THE BUILDING WIRING AND PROVIDED WITH A BATTERY BACK-UP. ALL CARBON MONOXIDE ALARMS SHALL BE INTERCONNECTEED.
20. EXHAUST FANS WILL BE CONTROLLED BY A HUMIDISTAT PER THE GREEN BUILDING STANDARDS CODE SECTION 4.506. EXHAUST FANS MUST BE SWITCHED SEPARATELY FROM LIGHTS *(2022 CEnC 150.0(k)2G).*

ENERGY NOTES

1. THE BUILDER MUST PROVIDE NEW HOMEWONERS WITH A LUMINAIRE SCHEDULE THAT INCLUDES A LIST OF INSTALLED LAMPS AND LUMINARIES.

LUMINAIRE REQUIREMENTS *(2022 CEnC 150.0(k)1).*
A. **LUMINAIRE EFFICACY.** ALL INSTALLED LUMINAIRES SHALL MEET THE REQUIREMENTS IN TABLE 150.0-A.
EXCEPT: *INTEGRATED DEVICE LIGHTING. LIGHTING INTEGRAL TO EXHAUST FANS, KITCHEN RANGE HOODS, BATH VANITY MIRRORS AND GARAGE DOOR OPENERS. NAVIGATION LIGHTING: SUCH AS NIGHT LIGHTS, STEP LIGHTS, AND PATH LIGHTS LESS THAN 5 WATTS. CABINET LIGHTING: LIGHTING INTERNAL TO DRAWERS, CABINETRY AND LINEN CLOSETS WITH AN EFFICACY OF 45 LUMENS PER WATT OR GREATER.*

THE FOLLOWING ARE HIGH-EFFICACY LIGHT SOURCES PER TABLE 150.0-A: THE FOLLOWING LIGHT SOURCES, OTHER THAN THOSE INSTALLED IN CEILING RECESSED DOWNLIGHT LUMINAIRES, ARE NOT REQUIRED TO COMPLY WITH REFERENCE JOINT APPENDIX JA8:
1. *LED LIGHT SOURCES INSTALLED OUTDOORS.*
2. *INSEPARABLE SOLID STATE LIGHTING (SSL) LUMINAIRES CONTAINING COLORED LIGHT SOURCES THAT ARE INSTALLED TO PROVIDE DECORATIVE LIGHTING.*
3. *PIN-BASED LINEAR FLUORESCENT OR COMPACT FLUORESCENT LIGHT SOURCES USING ELECTRONIC BALLASTS.*
4. *HIGH INTENSITY DISCHARGE (HID) LIGHT SOURCES INCLUDING PULSE START METAL HALIDE AND HIGH PRESSURE SODIUM LIGHT SOURCES.*
5. *LUMINAIRES WITH HARDWIRED HIGH FREQUENCY GENERATOR AND INDUCTION LAMP.*
6. *CEILING FAN LIGHT KITS SUBJECT TO FEDERAL APPLIANCE REGULATIONS.*

THE FOLLOWING LIGHT SOURCES ARE ONLY CONSIDERED TO BE HIGH EFFICACY IF THEY ARE CERTIFIED TO THE COMMISSION AS HIGH EFFICACY LIGHT SOURCES IN ACCORDANCE WITH REFERENCE JOINT APPENDIX JA8 AND MARKED AS REQUIRED BY JA8:
1. *ALL LIGHT SOURCES INSTALLED IN CEILING RECESSED DOWNLIGHT LUMINAIRES. NOTE THAT CEILING RECESSED DOWNLIGHT LUMINAIRES SHALL NOT HAVE SCREW BASES REGARDLESS OF LAMP TYPE AS DESCRIBED IN SECTION 150.0(K)1C.*
2. *ANY LIGHT SOURCE NOT OTHERWISE LISTED.*

A. **SCREW-BASED LUMINAIRES.** SCREW-BASED LUMINAIRES SHALL CONTAIN LAMPS THAT COMPLY WITH REFERENCE JOINT APPENDIX JA8.
B. **RECESSED DOWNLIGHT LUMINAIRES IN CEILINGS.** LUMINAIRES RECESSED INTO CEILINGS SHALL MEET ALL OF THE FOLLOWING REQUIREMENTS:
1. SHALL NOT CONTAIN SCREW BASE LAMP SOCKETS; AND
2. HAVE A LABEL THAT CERTIFIES THE LUMINAIRE IS AIRTIGHT WITH AIR LEAKAGE LESS THAN 2.0 CFM AT 75 PASCALS WHEN TESTED IN ACCORDANCE WITH ASTM E283. AN EXHAUST FAN HOUSING WITH INTEGRAL LIGHT SHALL NOT BE REQUIRED TO BE CERTIFIED AIRTIGHT; AND
3. BE SEALED WITH A GASKET OR CAULK BETWEEN THE LUMINAIRE HOUSING AND CEILING, AND HAVE ALL AIR LEAK PATHS BETWEEN CONDITIONED AND UNCONDITIONED SPACES SEALED WITH A GASKET OR CAULK, OR BE INSTALLED PER MANUFACTURER'S INSTRUCTIONS TO MAINTAIN AIRTIGHTNESS BETWEEN THE LUMINAIRE HOUSING AND CEILING; AND
4. MEET THE CLEARANCE AND INSTALLATION REQUIREMENTS OF CALIFORNIA ELECTRICAL CODE SECTION 410.116 FOR RECESSED LUMINAIRES.

EXCEPT: *RECESSED LUMINAIRES MARKED FOR USE IN FIRE-RATED INSTALLATIONS EXTRUDED INTO CEILING SPACE AND RECESSED LUMINAIRES INSTALLED IN NONINSULATED CEILINGS.*
A. **LIGHT SOURCES IN ENCLOSED OR RECESSED LUMINAIRES.** LAMPS AND OTHER SEPARABLE LIGHT SOURCES THAT ARE NOT COMPLIANT WITH THE JA8 ELEVATED TEMPERATURE REQUIREMENTS, INCLUDING MARKING REQUIREMENTS, SHALL NOT BE INSTALLED IN ENCLOSED OR RECESSED LUMINAIRES.
B. **BLANK ELECTRICAL BOXES.** THE NUMBER OF ELECTRICAL BOXES THAT ARE MORE THAN 5 FEET ABOVE THE FINISHED FLOOR AND DO NOT CONTAIN A LUMINAIRE OR OTHER DEVICE SHALL BE NO GREATER THAN THE NUMBER OF BEDROOMS. THESE ELECTRICAL BOXES MUST BE SERVED BY A DIMMER, VACANCY SENSOR CONTROL, LOW VOLTAGE WIRING OR FAN SPEED CONTROL.

INDOOR LIGHTING CONTROLS *(2022 CEnC 150.0(k)2)***.**
A. LIGHTING SHALL HAVE READILY ACCESSIBLE WALL-MOUNTED CONTROLS THAT ALLOW THE LIGHTING TO BE MANUALLY TURNED ON AND OFF. ***EXCEPT:*** *CEILING FANS MAY PROVIDE CONTROL OF INTEGRATED LIGHTING VIA A REMOTE CONTROL.*
A. NO CONTROLS SHALL BYPASS A DIMMER, OCCUPANT SENSOR OR VACANCY SENSOR FUNCTION WHERE THAT DIMMER OR SENSOR HAS BEEN INSTALLED TO COMPLY WITH SECTION 150.0(K).
B. LIGHTING CONTROLS SHALL COMPLY WITH THE APPLICABLE REQUIREMENTS OF SECTION 110.9.
C. AN ENERGY MANAGEMENT CONTROL SYSTEM (EMCS) OR A MULTISCENE PROGRAMMABLE CONTROL MAY BE USED TO COMPLY WITH DIMMING, OCCUPANCY AND LIGHTING CONTROL REQUIREMENTS IN SECTION 150.0(K)2 IF IT PROVIDES THE FUNCTIONALITY OF THE SPECIFIED CONTROLS IN ACCORDANCE WITH SECTION 110.9, AND THE PHYSICAL CONTROLSSPECIFIED IN SECTION 150.0(K)2
D. A.**AUTOMATIC-OFF CONTROLS.**1. IN BATHROOMS, GARAGES, LAUNDRY ROOMS, UTILITY ROOMS ANDWALK-IN CLOSETS, AT LEAST ONE INSTALLED LUMINAIRE SHALL BECONTROLLED BY AN OCCUPANCY OR VACANCY SENSOR PROVIDING AUTOMATIC-OFF FUNCTIONALITY.
2. FOR LIGHTING INTERNAL TO DRAWERS AND CABINETRY WITH OPAQUE FRONTS OR DOORS, CONTROLS THAT TURN THE LIGHT OFF WHEN THE DRAWER OR DOOR IS CLOSED SHALL BE PROVIDED.

E. **DIMMING CONTROLS.** LIGHTING IN HABITABLE SPACES, INCLUDING BUT NOT LIMITED TO LIVING ROOMS, DINING ROOMS, KITCHENS AND BEDROOMS, SHALL HAVE READILY ACCESSIBLE WALL-MOUNTED DIMMING CONTROLS THAT ALLOW THE LIGHTING TO BE MANUALLY ADJUSTED UP AND DOWN. FORWARD PHASE CUT DIMMERS CONTROLLING LED LIGHT SOURCES IN THESE SPACES SHALL COMPLY WITH NEMA SSL 7A.
EXCEPT: *CEILING FANS MAY PROVIDE CONTROL OF INTEGRATED LIGHTING VIA A REMOTE CONTROL. LUMINAIRES CONNECTED TO A CIRCUIT WITH CONTROLLED LIGHTING POWER LESS THAN 20 WATTS OR CONTROLLED BY AN OCCUPANCY OR VACANCY SENSOR PROVIDING AUTOMATIC-OFF FUNCTIONALITY. NAVIGATION LIGHTING SUCH AS NIGHT LIGHTS, STEP LIGHTS, AND PATH LIGHTS LESS THAN 5 WATTS, AND LIGHTING INTERNAL TO DRAWERS AND CABINETRY WITH OPAQUE FRONTS OR DOORS OR WITH AUTOMATIC-OFF CONTROLS.*

F. **INDEPENDENT CONTROLS.** INTEGRATED LIGHTING OF EXHAUST FANS SHALL BE CONTROLLED INDEPENDENTLY FROM THE FANS. THE FOLLOWING SHALL BE CONTROLLED SEPARATELY FROM CEILING-INSTALLED LIGHTING SUCH THAT ONE CAN BE TURNED ON WITHOUT TURNING ON THE OTHER:
1. UNDERCABINET LIGHTING, UNDERSHELF LIGHTING, INTERIOR LIGHTING OF DISPLAY CABINETS, AND SWITCHED OUTLETS.

RESIDENTIAL OUTDOOR LIGHTING *(2022 CEnC 150.0(k)3)***.** IN ADDITION TO MEETING THE REQUIREMENTS OF SECTION 150.0(K)1A, LUMINAIRES PROVIDING RESIDENTIAL OUTDOOR LIGHTING SHALL MEET THE FOLLOWING REQUIREMENTS, AS APPLICABLE:
A. FOR SINGLE-FAMILY RESIDENTIAL BUILDINGS, OUTDOOR LIGHTING PERMANENTLY MOUNTED TO A RESIDENTIAL BUILDING OR TO OTHER BUILDINGS ON THE SAME LOT SHALL MEET THE REQUIREMENT IN ITEM I AND THE REQUIREMENTS IN EITHER ITEM II OR ITEM III:
1. CONTROLLED BY A MANUAL ON AND OFF CONTROL SWITCH THAT PERMITS THE AUTOMATIC ACTIONS OF ITEMS II OR III BELOW; AND
2. CONTROLLED BY A PHOTOCELL AND EITHER A MOTION SENSOR OR AN AUTOMATIC TIME SWITCH CONTROL; OR
3. CONTROLLED BY AN ASTRONOMICAL TIME CLOCK CONTROL.

NOTE: CONTROLS THAT OVERRIDE TO ON SHALL NOT BE ALLOWED UNLESS THE OVERRIDE AUTOMATICALLY RETURNS THE AUTOMATIC CONTROL TO ITS NORMAL OPERATION WITHIN 6 HOURS. AN ENERGY MANAGEMENT CONTROL SYSTEM THAT PROVIDES THE SPECIFIED LIGHTING CONTROL FUNCTIONALITY AND COMPLIES WITH ALL REQUIREMENTS APPLICABLE TO THE SPECIFIED CONTROLS MAY BE USED TO MEET THESE REQUIREMENTS.

1. ALL JOINTS, PENETRATIONS AND OTHER OPENINGS IN THE BUILDING ENVELOPE THAT ARE POTENTIAL SOURCES OF AIR LEAKAGE SHALL BE CAULKED, GASKETED, WEATHER-STRIPPED OR OTHERWISE SEALED TO LIMIT INFILTRATION AND EXFILTRATION (2022 CEnC 110.7).
2. ATTIC ACCESS DOORS SHALL HAVE PERMANENTLY ATTACHED INSULATION USING ADHESIVE OR MECHANICAL FASTENERS. THE ATTIC ACCESS SHALL BE GASKETED TO PREVENT AIR LEAKAGE (2022 CEnC 150.0(a)2)

ENERGY STORAGE READINESS

1. **ENERGY STORAGE SYSTEM (ESS) REQUIREMENTS:**
   • IN SINGLE-FAMILY RESIDENTIAL BUILDINGS THAT INCLUDE ONE OR TWO DWELLINGS, EACH DWELLING UNIT SHALL BE PROVIDED WITH DEDICATED RACEWAYS, DESIGNATED BRANCH CIRCUITS AND ISOLATION DEVICES FOR ENERGY STORAGE SYSTEMS AS SPECIFIED IN CALIFORNIA ENERGY CODE SECTION 150.0(S). ADDITIONALLY, THE PANELBOARDS SHALL BE PROVIDED WITH THE MINIMUM BUSBAR RATING AS SPECIFIED IN CALIFORNIA ENERGY CODE SECTION 150.0(S). (2022 CEC SECTION 706.10)

CALIFORNIA ENERGY CODE SECTION 150.0(S)
1. AT LEAST ONE OF THE FOLLOWING SHALL BE PROVIDED:
   A. ESS READY INTERCONNECTION EQUIPMENT WITH A MINIMUM BACKED-UP CAPACITY OF 60 AMPS AND A MINIMUM OF FOUR ESS-SUPPLIED BRANCH CIRCUITS, OR
   B. A DEDICATED RACEWAY FROM THE MAIN SERVICE TO A PANELBOARD (SUBPANEL) THAT SUPPLIES THE BRANCH CIRCUITS IN SECTION 150.0(S) (2). ALL BRANCH CIRCUITS ARE PERMITTED TO BE SUPPLIED BY THE MAIN SERVICE PANEL PRIOR TO THE INSTALLATION OF AN ESS. THE TRADE SIZE OF THE RACEWAY SHALL BE NOT LESS THAN 1 INCH. THE PANELBOARD THAT SUPPLIES THE BRANCH CIRCUITS (SUBPANEL) MUST BE LABELED "SUBPANEL SHALL INCLUDE ALL BACKEDUP LOAD CIRCUITS."
2. A MINIMUM OF FOUR BRANCH CIRCUITS SHALL BE IDENTIFIED AND HAVE THEIR SOURCE OF SUPPLY COLLOCATED AT A SINGLE PANELBOARD SUITABLE TO BE SUPPLIED BY THE ESS. AT LEAST ONE CIRCUIT SHALL SUPPLY THE REFRIGERATOR, ONE LIGHTING CIRCUIT SHALL BE LOCATED NEAR THE PRIMARY EGRESS AND AT LEAST ONE CIRCUIT SHALL SUPPLY A SLEEPING ROOM RECEPTACLE OUTLET.
3. THE MAIN PANELBOARD SHALL HAVE A MINIMUM BUSBAR RATING OF 225 AMPS.
4. SUFFICIENT SPACE SHALL BE RESERVED TO ALLOW FUTURE INSTALLATION OF A SYSTEM ISOLATION EQUIPMENT/TRANSFER SWITCH WITHIN 3 FEET OF THE MAIN PANELBOARD. RACEWAYS SHALL BE INSTALLED BETWEEN THE PANELBOARD AND THE SYSTEM ISOLATION EQUIPMENT/TRANSFER SWITCH LOCATION TO ALLOW THE CONNECTION OF BACKUP POWER SOURCE.

MECHANICAL NOTES

1. CONFORM WITH CURRENT ADOPTED CRC, CMC, SMACCNA, NFPA AND LOCAL REQUIREMENTS.
2. DUCTWORK: SMACCNA "LOW VELOCITY DUCT CONSTRUCTION" NFPA STANDARD #90A. ALL TRANSVERSE DUCT PLENUM AND FITTING JOINTS SHALL BE SEALED WITH PRESSURE SENSITIVE NON-CLOTH TAPE MEETING THE REQUIREMENTS OF UL181, 181A, OR 181B, OR MASTIC TO PREVENT AIR LOSS. DUCTS SHALL BE INSULATED AS REQUIRED BY THE UMC. SEE FLOOR PLAN FOR F.A.U. AND FIREPLACES. DUCTS PENETRATING A WALL OR FLOOR-CEILING BETWEEN GARAGE & DWELLING TO BE MINIMUM 26 GAUGE METAL WITHOUT OPENING IN GARAGE. FIRE DAMPER REQUIRED OTHERWISE.
3. GRILLES AND REGISTERS, DIFFUSERS, ETC: SUBJECT TO OWNERS APPROVAL. "CARNES" OR EQUAL FANS: DIRECTLY VENTED TO OUTSIDE, BACK DRAFT DAMPERS ARE REQUIRED (PER TABLE 2-53V, TITLE 24 C.A.C.).
4. THE RETURN AIR PLENUM SERVING THE MECHANICAL EQUIPMENT MUST BEFULLY DUCTED FROM THE EQUIPMENT TO THE CONDITIONED SPACE. DROPCEILINGS, WALL CAVITIES AND EQUIPMENT PLATFORMS MAY NOT BE USEDAS PLENUMS.
5. LAUNDRY DRYER VENT TO EXTERIOR TO BE 14 FEET MAXIMUM, LESS 2 FEETPER 90 DEGREE TURN PER CMC 504.3.2.2. IF VENT IS OVER 14' AN APPROVED POWER ASSISTED DEVICE IS REQUIRED.
6. BATHROOM EXHAUST FANS (BATHROOM APPLIES TO ROOMS CONTAINING BATHTUB, SHOWER, OR TUB/SHOWER COMBINATION) WHICH EXHAUST DIRECTLY FROM BATHROOMS SHALL COMPLY WITH THE FOLLOWING *(2022 CGBSC SEC. 4.506.1)*:
   a. FANS SHALL BE ENERGY STAR COMPLIANT AND BE DUCTED TO TERMINATE OUTSIDE THE BUILDING MIN 3' FROM OPENINGS.
   b. UNLESS FUNCTIONING AS A COMPONENT OF A WHOLE HOUSE VENTILATION SYSTEM, FANS MUST BE CONTROLLED BY A HUMIDITY CONTROL.
   • HUMIDITY CONTROLS SHALL BE CAPABLE OF ADJUSTMENT BETWEEN A RELATIVE HUMIDITY RANGE OF ≤ 50 PERCENT TO A MAXIMUM OF 80 PERCENT. A HUMIDITY CONTROL MAY UTILIZE MANUAL OR AUTOMATIC MEANS OF ADJUSTMENT.
   • A HUMIDITY CONTROL MAY BE A SEPARATE COMPONENT TO EXHAUST FAN AND IS NOT REQUIRED TO BE INTEGRAL(I.E. BUILT IN)
7. BATHROOM EXHAUST FANS SHALL PROVIDE MINIMUM 50 CFM EXHAUST RATE *(2022 CMC TABLE 403.7)*.
8. KITCHEN EXHAUST FANS SHALL PROVIDE MINIMUM 100 CFM EXHAUST RATE *(2022 CMC TABLE 403.7)*
9. PER 2022 CEnC 150(m) PORTIONS OF SUPPLY-AIR AND RETURN-AIR DUCTS AND PLENUMS SHALL BE INSULATED TO A MINIMUM INSTALLED LEVEL OF R-6.0 (OR ANY LEVEL HIGHER LEVEL REQUIRED BY 2022 CMC SECTION 605) OR BE ENCLOSED ENTIRELY IN CONDITIONED SPACE.

PLUMBING NOTES

1. CONFORM WITH CURRENT CPC AND LOCAL REQUIREMENTS.
2. PIPING:
   a. DOMESTIC WATER (WITHIN BUILDING): COPPER OR PEX PIPE OR APPROVED EQUAL.
   b. GAS, EXPOSED TO WEATHER: GALVANIZED
   c. AIR CHAMBERS: 12" LONG CAPPED NIPPLE AT END OF EACH BRANCH TO EACH FIXTURE.
   d. DIELECTRIC UNIONS "F.P.C.O." REQUIREMENT AT ALL DISSIMILAR MATERIAL CONNECTIONS.
   e. WHEN "OPTIONAL" SOFT-WATER LOOP INTALLED, PROVIDE WITH 2 GATE VALVES.
3. WATER SERVICE PIPE SHALL BE PER CIVIL PLANS OR AS REQUIRED BY THE JURISDICTION.
4. WATER METER: PER WATER DISTRICT (REFER SIZE W/ FIRE SPRINKLER PLANS IF APPLICABLE)
5. SHOWER HEADS AND FAUCETS: FLOW RATES PER 2022 *CGBSC SECTION 4.303*.
6. PIPE INSULATION: REFER TO TITLE 24 - MANDATORY MEASURES - "SPACE CONDITIONING, WATER HEATING & PLUMBING SYSTEM MEASURES"
7. STRAPS AND HANGERS: PROVIDE AS NECESSARY TO INSURE A STABLE INSTALLATION. SEE TITLE-24 FOR WATER HEATER REQUIREMENTS.
8. ALL HOSE BIBS SHALL HAVE APPROVED BACK FLOW PREVENTION DEVICES.
9. PLUMBING FIXTURES (WATER CLOSETS) AND FITTINGS (FAUCETS AND SHOWERHEADS) SHALL MEET THE STANDARDS REFERENCED IN CALGREEN TABLE 4.303.3.
10. WATER HEATER SHALL BE PROVIDED WITH A TEMPERATURE AND PRESSURE RELIEF VALVE. PER [2022 CPC 505.2] THE RELIEF VALVE SHALL BE PROVIDED WITH A DRAIN LINE WHICH EXTENDS FROM THE VALVES TO THE OUTSIDE OF THE BUILDING. PER [2022 608.5 CPC]
11. PER 2022 CPC 603.5.7 OUTLETS WITH HOSE ATTATCHMENTS. POTABLE WATER OUTLETS WITH HOSE ATTACHMENTS, OTHER THAN WATER HEATER DRAINS, BOILER DRAINS, AND CLOTHES WASHER CONNECTIONS, SHALL BE PROTECTED BY A NONREMOVABLE HOSE BIBB TYPE BACKFLOW PREVENTER, A NONREMOVABLE HOSE BIBB TYPE VACUMM BREAKER, OR BY AN ATMOSPHERE VACUUM BREAKER INSTALLED NOT LESS THAN 6 INCHES ABOVE THE HIGHEST POINT OF USAGE LOCATED ON THE DISCHARGE SIDE OF THE LAST VALVE. IN CLIMATES WHERE FREEZING TEMPERATURES OCCUR, A LISTED SELF DRAINING FROST-PROOF HOSE BIBB WITH AN INTEGRAL BACKFLOW PREVENTER OR VACUUM BREAKER SHALL BE USED.

ABBREVATIONS

ADJ.	ADJACENT
ALUM.	ALUMINUM
A.B.	ANCHOR BOLT
AUTO.	AUTOMATIC
B.S.	BASE OF SLOPE
B.W.	BASE OF WALL
BATH	BATHROOM
BM	BEAM
BRG.	BEARING
BDRM	BEDROOM
BLK	BLOCKING
B.D.	BOARD
BTU	BRITISH THERMAL UNIT
BLDG.	BUILDING
B.N.	BOUNDARY NAIL
CA	CASEMENT
CAB	CABINET
C.I	CAST IRON
CLG.	CEILING
C.J.	CEILING JOIST
CL	CENTER LINE
C.O	CLEAN OUT
CLR.	CLEAR
COL.	COLUMN
COMP.	COMPOSITION
CONC.	CONCRETE
CONT.	CONTINUOUS
CNTRL	CONTROL
CNTR.	COUNTER
CU.FT	CUBIC FEET
CU.IN.	CUBIC INCHES
CU.YD.	CUBIC YARD
DET	DETAIL
DEMO	DEMOLITION
DR.	DOOR
DBL	DOUBLE
D.H.	DOUBLE HUNG
D.F.	DOUGLAS FIR
DN.	DOWN
DS.	DOWN SPOUT
D	PENNY(NAIL)
EA	EACHE
E.N	EDGE NAIL
ELEV.	ELEVATION
EQ.	EQUAL
EXT.	EXTERIOR
F.N.	FIELD NAIL
F.N.	FINISH NAIL
FIN.	FINISH
F.D.	FIRE DAMPER
FJ	FLOOR JOIST
FP	FIRE PLACE
FX	FIXED
FLASH	FLASHING
FLR	FLOOR
FLR DR	FLOOR DRAIN
FL.BM.	FLUSH BEAM
F.A.U.	FORCED AREA UNIT
FOUND	FOUNDATION
G.I.	GALVANIZED IRON
GAR.	GARAGE
G	GAS
GA	GAUGE
GLU-LAM	GLUED LAMINATED
GRD	GROUND
G.F.I	GROUND FAULT INTERRUPTOR
GYP.	GYPSUM
GYP.BD.	GYPSUM BOARD
HORZ OR H	HORIZONTAL
HDR	HEADER
HLD.	HOLODOWN
H.C.	HOLLOW CORE
H.B.	HOSE BIB
INS.	INSULATION

INT.	INTERIOR
I.C.B.O.	INTERNATIONAL CONFERENCE OF BUILDING OFFICIALS
INV.	INVERTED ELEVATION
JAC.	JACUZZI
JSTK	JOIST
KIT	KITCHEN
LAV	LAVATORY
JAC.	JACUZZI
JSTK	JOIST
KIT	KITCHEN
LAV	LAVATORY
LF	LINEAR FEET
LOC	LOCATION
LUM CLG	LUMINOUS CEILING
LB.	POUND
M.B.	MACHINE BOLT
MFTR	MANUFACTURER
MAT'L	MATERIAL
MAX.	MAXIMUM
M.C.	MEDICINE CABINET
MTL	METAL
MTR.	METER
MIN	MINIMUM
WD	WOOD
N.I.C.	NOT IN CONTRACT
NTS	NOT TO SCALE
NO.	NUMBER
O/	OVER
O.C.	ON CENTER
O	DIAMETER
PNL	PANEL
P.C.	PHOTO CELL
PLWD	PLYWOOD
PRE FAB	PREFABRICATED
PTDF	PRESSURE TREATED DOUGLAS FIR
PL	PROPERTY LINE
RR	ROOF RAFTER
RWD	REDWOOD
REQ'D	REQUIRED
SEC	SECTION
SERV	SERVICE
S	SEWER
SHTG	SHEATING
SHT	SHEET
SIM	SIMILAR
S.C	SOLID CORE
STR.	STRUCTURAL
SH.	SINGLE HUNG
SL	SLIDER
SPEC'S	SPECIFICATIONS
S.F.	SQUARE FEET
STL	STEEL
S4S	SURFACE FUR SIDES
TAB	TABUALTION
TEMP	TEMPERED,TEMPERATURE
T&G	TONGLE AND GROOVE
T*B	TOP & BOTTOM
TOC	TOP OF CURB
T.S.	TOP OF SLOPE
T.B.	TOP OF WALL
TYP.	TYPICAL
U.B.C	UNIFORM BUILDING CODE
U.N.O	UNLESS NOTED OTHERWISE
V.T.R	VENT TROUGH ROOF
V.T.W.	VENT THROUGH WALL
VERT or V	VERTICAL
V	VOLTS
W.C.	WATER CLOSET
W.H.	WATER HEATER
W.R	WEATHER RESISTANT
W.W.M	WELDED WIRE MESH
W/	WITH
W	WATER

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DATE : 2/15/2025
JOB NO. :
REV. :

SHEET NAME
GENERAL NOTES

SHEET NUMBER
GN-01

2022 CALIFORNIA GREEN BUILDING STANDARDS CODE
RESIDENTIAL MANDATORY MEASURES, SHEET 1 (January 2023)

Y | N/A | RESPON. PARTY

CHAPTER 3
GREEN BUILDING
SECTION 301 GENERAL

301.1 SCOPE. Buildings shall be designed to include the green building measures specified as mandatory in the application checklists contained in this code. Voluntary green building measures are also included in the application checklists and may be included in the design and construction of structures covered by this code, but are not required unless adopted by a city, county, or city and county as specified in Section 101.7.

301.1.1 Additions and alterations. [HCD] The mandatory provisions of Chapter 4 shall be applied to additions or alterations of existing residential buildings where the addition or alteration increases the building's conditioned area, volume, or size. The requirements shall apply only to and/or within the specific area of the addition or alteration.

The mandatory provision of Section 4.106.4.2 may apply to additions or alterations of existing parking facilities or the addition of new parking facilities serving existing multifamily buildings. See Section 4.106.4.3 for application.

Note: Repairs including, but not limited to, resurfacing, restriping and repairing or maintaining existing lighting fixtures are not considered alterations for the purpose of this section.

Note: On and after January 1, 2014, residential buildings undergoing permitted alterations, additions, or improvements shall replace noncompliant plumbing fixtures with water-conserving plumbing fixtures. Plumbing fixture replacement is required prior to issuance of a certificate of final completion, certificate of occupancy or final permit approval by the local building department. See Civil Code Section 1101.1, et seq., for the definition of a noncompliant plumbing fixture, types of residential buildings affected and other important enactment dates.

301.2 LOW-RISE AND HIGH-RISE RESIDENTIAL BUILDINGS. [HCD] The provisions of individual sections of CALGreen may apply to either low-rise residential buildings high-rise residential buildings, or both. Individual sections will be designated by banners to indicate where the section applies specifically to low-rise only (LR) or high-rise only (HR). When the section applies to both low-rise and high-rise buildings, no banner will be used.

SECTION 302 MIXED OCCUPANCY BUILDINGS

302.1 MIXED OCCUPANCY BUILDINGS. In mixed occupancy buildings, each portion of a building shall comply with the specific green building measures applicable to each specific occupancy.

Exceptions:
1. [HCD] Accessory structures and accessory occupancies serving residential buildings shall comply with Chapter 4 and Appendix A4, as applicable.
2. [HCD] For purposes of *CAL*Green, live/work units, complying with Section 419 of the *California Building Code*, shall not be considered mixed occupancies. Live/Work units shall comply with Chapter 4 and Appendix A4, as applicable.

DIVISION 4.1 PLANNING AND DESIGN

ABBREVIATION DEFINITIONS:

HCD	Department of Housing and Community Development
BSC	California Building Standards Commission
DSA-SS	Division of the State Architect, Structural Safety
OSHPD	Office of Statewide Health Planning and Development
LR	Low Rise
HR	High Rise
AA	Additions and Alterations
N	New

CHAPTER 4
RESIDENTIAL MANDATORY MEASURES

SECTION 4.102 DEFINITIONS

4.102.1 DEFINITIONS
The following terms are defined in Chapter 2 *(and are included here for reference)*

FRENCH DRAIN. A trench, hole or other depressed area loosely filled with rock, gravel, fragments of brick or similar pervious material used to collect or channel drainage or runoff water.

WATTLES. Wattles are used to reduce sediment in runoff. Wattles are often constructed of natural plant materials such as hay, straw or similar material shaped in the form of tubes and placed on a downflow slope. Wattles are also used for perimeter and inlet controls.

4.106 SITE DEVELOPMENT

4.106.1 GENERAL. Preservation and use of available natural resources shall be accomplished through evaluation and careful planning to minimize negative effects on the site and adjacent areas. Preservation of slopes, management of storm water drainage and erosion controls shall comply with this section.

4.106.2 STORM WATER DRAINAGE AND RETENTION DURING CONSTRUCTION. Projects which disturb less than one acre of soil and are not part of a larger common plan of development which in total disturbs one acre or more, shall manage storm water drainage during construction. In order to manage storm water drainage during construction, one or more of the following measures shall be implemented to prevent flooding of adjacent property, prevent erosion and retain soil runoff on the site.

1. Retention basins of sufficient size shall be utilized to retain storm water on the site.
2. Where storm water is conveyed to a public drainage system, collection point, gutter or similar disposal method, water shall be filtered by use of a barrier system, wattle or other method approved by the enforcing agency.
3. Compliance with a lawfully enacted storm water management ordinance.

Note: Refer to the State Water Resources Control Board for projects which disturb one acre or more of soil, or are part of a larger common plan of development which in total disturbs one acre or more of soil.

(Website: https://www.waterboards.ca.gov/water_issues/programs/stormwater/construction.html)

4.106.3 GRADING AND PAVING. Construction plans shall indicate how the site grading or drainage system will manage all surface water flows to keep water from entering buildings. Examples of methods to manage surface water include, but are not limited to, the following:

1. Swales
2. Water collection and disposal systems
3. French drains
4. Water retention gardens
5. Other water measures which keep surface water away from buildings and aid in groundwater recharge.

Exception: Additions and alterations not altering the drainage path.

4.106.4 Electric vehicle (EV) charging for new construction. New construction shall comply with Sections 4.106.4.1 or 4.106.4.2 to facilitate future installation and use of EV chargers. Electric vehicle supply equipment (EVSE) shall be installed in accordance with the *California Electrical Code,* Article 625.

Exceptions:
1. On a case-by-case basis, where the local enforcing agency has determined EV charging and infrastructure are not feasible based upon one or more of the following conditions:
   1.1 Where there is no local utility power supply or the local utility is unable to supply adequate power.
   1.2 Where there is evidence suitable to the local enforcing agency substantiating that additional local utility infrastructure design requirements, directly related to the implementation of Section 4.106.4, may adversely impact the construction cost of the project.
2. Accessory Dwelling Units (ADU) and Junior Accessory Dwelling Units (JADU) without additional parking facilities.

4.106.4.1 New one- and two-family dwellings and townhouses with attached private garages. For each dwelling unit, install a listed raceway to accommodate a dedicated 208/240-volt branch circuit. The raceway shall not be less than trade size 1 (nominal 1-inch inside diameter). The raceway shall originate at the main service or subpanel and shall terminate into a listed cabinet, box or other enclosure in close proximity to the proposed location of an EV charger. Raceways are required to be continuous at enclosed, inaccessible or concealed areas and spaces. The service panel and/or subpanel shall provide capacity to install a 40-ampere 208/240-volt minimum dedicated branch circuit and space(s) reserved to permit installation of a branch circuit overcurrent protective device.

Exemption: A raceway is not required if a minimum 40-ampere 208/240-volt dedicated EV branch circuit is installed in close proximity to the proposed location of an EV charger at the time of original construction in accordance with the *California Electrical Code*.

4.106.4.1.1 Identification. The service panel or subpanel circuit directory shall identify the overcurrent protective device space(s) reserved for future EV charging as "EV CAPABLE". The raceway termination location shall be permanently and visibly marked as "EV CAPABLE".

Y | N/A | RESPON. PARTY

4.106.4.2 New multifamily dwellings, hotels and motels and new residential parking facilities.
When parking is provided, parking spaces for new multifamily dwellings, hotels and motels shall meet the requirements of Sections 4.106.4.2.1 and 4.106.4.2.2. Calculations for spaces shall be rounded up to the nearest whole number. A parking space served by electric vehicle supply equipment or designed as a future EV charging space shall count as at least one standard automobile parking space only for the purpose of complying with any applicable minimum parking space requirements established by a local jurisdiction. See Vehicle Code Section 22511.2 for further details.

4.106.4.2.1Multifamily development projects with less than 20 dwelling units; and hotels and motels with less than 20 sleeping units or guest rooms.
The number of dwelling units, sleeping units or guest rooms shall be based on all buildings on a project site subject to this section.

1.EV Capable. Ten (10) percent of the total number of parking spaces on a building site, provided for all types of parking facilities, shall be electric vehicle charging spaces (EV spaces) capable of supporting future Level 2 EVSE. Electrical load calculations shall demonstrate that the electrical panel service capacity and electrical system, including any on-site distribution transformer(s), have sufficient capacity to simultaneously charge all EVs at all required EV spaces at a minimum of 40 amperes.

The service panel or subpanel circuit directory shall identify the overcurrent protective device space(s) reserved for future EV charging purposes as "EV CAPABLE" in accordance with the California Electrical Code.

Exceptions:

1. When EV chargers (Level 2 EVSE) are installed in a number equal to or greater than the required number of EV capable spaces.
2. When EV chargers (Level 2 EVSE) are installed in a number less than the required number of EV capable spaces, the number of EV capable spaces required may be reduced by a number equal to the number of EV chargers installed.

Notes:

a.Construction documents are intended to demonstrate the project's capability and capacity for facilitating future EV charging.

b.There is no requirement for EV spaces to be constructed or available until receptacles for EV charging or EV chargers are installed for use.

2.EV Ready. Twenty-five (25) percent of the total number of parking spaces shall be equipped with low power Level 2 EV charging receptacles. For multifamily parking facilities, no more than one receptacle is required per dwelling unit when more than one parking space is provided for use by a single dwelling unit.

Exception: Areas of parking facilities served by parking lifts.

4.106.4.2.2 Multifamily development projects with 20 or more dwelling units, hotels and motels with 20 or more sleeping units or guest rooms.
The number of dwelling units, sleeping units or guest rooms shall be based on all buildings on a project site subject to this section.

1.EV Capable. Ten (10) percent of the total number of parking spaces on a building site, provided for all types of parking facilities, shall be electric vehicle charging spaces (EV spaces) capable of supporting future Level 2 EVSE. Electrical load calculations shall demonstrate that the electrical panel service capacity and electrical system, including any on-site distribution transformer(s), have sufficient capacity to simultaneously charge all EVs at all required EV spaces at a minimum of 40 amperes.

The service panel or subpanel circuit directory shall identify the overcurrent protective device space(s) reserved for future EV charging purposes as "EV CAPABLE" in accordance with the California Electrical Code.

Exception: When EV chargers (Level 2 EVSE) are installed in a number greater than five (5) percent of parking spaces required by Section 4.106.4.2.2, Item 3, the number of EV capable spaces required may be reduced by a number equal to the number of EV chargers installed over the five (5) percent required.

Notes:

a.Construction documents shall show locations of future EV spaces.

b.There is no requirement for EV spaces to be constructed or available until receptacles for EV charging or EV chargers are installed for use.

2.EV Ready. Twenty-five (25) percent of the total number of parking spaces shall be equipped with low power Level 2 EV charging receptacles. For multifamily parking facilities, no more than one receptacle is required per dwelling unit when more than one parking space is provided for use by a single dwelling unit.

Exception: Areas of parking facilities served by parking lifts.

3.EV Chargers. Five (5) percent of the total number of parking spaces shall be equipped with Level 2 EVSE. Where common use parking is provided, at least one EV charger shall be located in the common use parking area and shall be available for use by all residents or guests.

When low power Level 2 EV charging receptacles or Level 2 EVSE are installed beyond the minimum required, an automatic load management system (ALMS) may be used to reduce the maximum required electrical capacity to each space served by the ALMS. The electrical system and any on-site distribution transformers shall have sufficient capacity to deliver at least 3.3 kW simultaneously to each EV charging station (EVCS) served by the ALMS. The branch circuit shall have a minimum capacity of 40 amperes, and installed EVSE shall have a capacity of not less than 30 amperes. ALMS shall not be used to reduce the minimum required electrical capacity to the required EV capable spaces.

4.106.4.2.2.1 Electric vehicle charging stations (EVCS).
Electric vehicle charging stations required by Section 4.106.4.2.2, Item 3, shall comply with Section 4.106.4.2.2.1.

Exception: Electric vehicle charging stations serving public accommodations, public housing, motels and hotels shall not be required to comply with this section. See California Building Code, Chapter 11B, for applicable requirements.

4.106.4.2.2.1.1 Location.
EVCS shall comply with at least one of the following options:

1.The charging space shall be located adjacent to an accessible parking space meeting the requirements of the California Building Code, Chapter 11A, to allow use of the EV charger from the accessible parking space.

2.The charging space shall be located on an accessible route, as defined in the California Building Code, Chapter 2, to the building.

Exception: Electric vehicle charging stations designed and constructed in compliance with the California Building Code, Chapter 11B, are not required to comply with Section 4.106.4.2.2.1.1 and Section 4.106.4.2.2.1.2, Item 3.

4.106.4.2.2.1.2 Electric vehicle charging stations (EVCS) dimensions.
The charging spaces shall be designed to comply with the following:

1.The minimum length of each EV space shall be 18 feet (5486 mm).

2.The minimum width of each EV space shall be 9 feet (2743 mm).

3.One in every 25 charging spaces, but not less than one, shall also have an 8-foot (2438 mm) wide minimum aisle. A 5-foot (1524 mm) wide minimum aisle shall be permitted provided the minimum width of the EV space is 12 feet (3658 mm).

a.Surface slope for this EV space and the aisle shall not exceed 1 unit vertical in 48 units horizontal (2.083 percent slope) in any direction.

4.106.4.2.2.1.3 Accessible EV spaces.
In addition to the requirements in Sections 4.106.4.2.2.1.1 and 4.106.4.2.2.1.2, all EVSE, when installed, shall comply with the accessibility provisions for EV chargers in the California Building Code, Chapter 11B. EV ready spaces and EVCS in multifamily developments shall comply with California Building Code, Chapter 11A, Section 1109A.

4.106.4.2.3 EV space requirements.
1.Single EV space required. Install a listed raceway capable of accommodating a 208/240-volt dedicated branch circuit. The raceway shall not be less than trade size 1 (nominal 1-inch inside diameter). The raceway shall originate at the main service or subpanel and shall terminate into a listed cabinet, box or enclosure in close proximity to the location of the proposed location of the EV space. Construction documents shall identify the raceway termination point, receptacle or charger location, as applicable. The service panel and/ or subpanel shall have a 40-ampere minimum dedicated branch circuit, including branch circuit overcurrent protective device installed, or space(s) reserved to permit installation of a branch circuit overcurrent protective device.

Exception: A raceway is not required if a minimum 40-ampere 208/240-volt dedicated EV branch circuit is installed in close proximity to the location or the proposed location of the EV space, at the time of original construction in accordance with the California Electrical Code.

2.Multiple EV spaces required. Construction documents shall indicate the raceway termination point and the location of installed or future EV spaces, receptacles or EV chargers. Construction documents shall also provide information on amperage of installed or future receptacles or EVSE, raceway method(s), wiring schematics and electrical load calculations. Plan design shall be based upon a 40-ampere minimum branch circuit. Required raceways and related components that are planned to be installed underground, enclosed, inaccessible or in concealed areas and spaces shall be installed at the time of original construction.

NOT FOR CONSTRUCTION - THIS PLAN IS FOR BUILDING DEPARTMENT REVIEW ONLY. SUBJECT TO REVISION

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2022 CALIFORNIA GREEN BUILDING STANDARDS CODE
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Y | N/A | RESPON. PARTY

Exception: A raceway is not required if a minimum 40-ampere 208/240-volt dedicated EV branch circuit is installed in close proximity to the location or the proposed location of the EV space at the time of original construction in accordance with the California Electrical Code.

4.106.4.2.4 Identification.
The service panel or subpanel circuit directory shall identify the overcurrent protective device space(s) reserved for future EV charging purposes as "EV CAPABLE" in accordance with the California Electrical Code.

4.106.4.2.5 Electric Vehicle Ready Space Signage.
Electric vehicle ready spaces shall be identified by signage or pavement markings, in compliance with Caltrans Traffic Operations Policy Directive 13-01 (Zero Emission Vehicle Signs and Pavement Markings) or its successor(s).

4.106.4.3 Electric vehicle charging for additions and alterations of parking facilities serving existing multifamily buildings.
When new parking facilities are added, or electrical systems or lighting of existing parking facilities are added or altered and the work requires a building permit, ten (10) percent of the total number of parking spaces added or altered shall be electric vehicle charging spaces (EV spaces) capable of supporting future Level 2 EVSE.

Notes:
1.Construction documents are intended to demonstrate the project's capability and capacity for facilitating future EV charging.
2.There is no requirement for EV spaces to be constructed or available until EV chargers are installed for use.

DIVISION 4.2 ENERGY EFFICIENCY

4.201 GENERAL
4.201.1 SCOPE. For the purposes of mandatory energy efficiency standards in this code, the California Energy Commission will continue to adopt mandatory standards.

DIVISION 4.3 WATER EFFICIENCY AND CONSERVATION

4.303 INDOOR WATER USE
4.303.1 WATER CONSERVING PLUMBING FIXTURES AND FITTINGS. Plumbing fixtures (water closets and urinals) and fittings (faucets and showerheads) shall comply with the sections 4.303.1.1, 4.303.1.2, 4.303.1.3, and 4.303.4.4.

Note: All noncompliant plumbing fixtures in any residential real property shall be replaced with water-conserving plumbing fixtures. Plumbing fixture replacement is required prior to issuance of a certificate of final completion, certificate of occupancy, or final permit approval by the local building department. See Civil Code Section 1101.1, et seq., for the definition of a noncompliant plumbing fixture, types of residential buildings affected and other important enactment dates.

4.303.1.1 Water Closets. The effective flush volume of all water closets shall not exceed 1.28 gallons per flush. Tank-type water closets shall be certified to the performance criteria of the U.S. EPA WaterSense Specification for Tank-type Toilets.

Note: The effective flush volume of dual flush toilets is defined as the composite, average flush volume of two reduced flushes and one full flush.

4.303.1.2 Urinals. The effective flush volume of wall mounted urinals shall not exceed 0.125 gallons per flush. The effective flush volume of all other urinals shall not exceed 0.5 gallons per flush.

4.303.1.3 Showerheads.

4.303.1.3.1 Single Showerhead. Showerheads shall have a maximum flow rate of not more than 1.8 gallons per minute at 80 psi. Showerheads shall be certified to the performance criteria of the U.S. EPA WaterSense Specification for Showerheads.

4.303.1.3.2 Multiple showerheads serving one shower. When a shower is served by more than one showerhead, the combined flow rate of all the showerheads and/or other shower outlets controlled by a single valve shall not exceed 1.8 gallons per minute at 80 psi, or the shower shall be designed to only allow one shower outlet to be in operation at a time.

Note: A hand-held shower shall be considered a showerhead.

4.303.1.4 Faucets.

4.303.1.4.1 Residential Lavatory Faucets. The maximum flow rate of residential lavatory faucets shall not exceed 1.2 gallons per minute at 60 psi. The minimum flow rate of residential lavatory faucets shall not be less than 0.8 gallons per minute at 20 psi.

4.303.1.4.2 Lavatory Faucets in Common and Public Use Areas. The maximum flow rate of lavatory faucets installed in common and public use areas (outside of dwellings or sleeping units) in residential buildings shall not exceed 0.5 gallons per minute at 60 psi.

4.303.1.4.3 Metering Faucets. Metering faucets when installed in residential buildings shall not deliver more than 0.2 gallons per cycle.

4.303.1.4.4 Kitchen Faucets. The maximum flow rate of kitchen faucets shall not exceed 1.8 gallons per minute at 60 psi. Kitchen faucets may temporarily increase the flow above the maximum rate, but not to exceed 2.2 gallons per minute at 60 psi, and must default to a maximum flow rate of 1.8 gallons per minute at 60 psi.

Note: Where complying faucets are unavailable, aerators or other means may be used to achieve reduction.

4.303.1.4.5 Pre-rinse spray valves.
When installed, shall meet the requirements in the *California Code of Regulations*, Title 20 (Appliance Efficiency Regulations), Sections 1605.1 (h)(4) Table H-2, Section 1605.3 (h)(4)(A), and Section 1607 (d)(7) and shall be equipped with an integral automatic shutoff.

FOR REFERENCE ONLY: The following table and code section have been reprinted from the *California Code of Regulations*, Title 20 (Appliance Efficiency Regulations),Section 1605.1 (h)(4) and Section 1605.3 (h)(4)(A).

TABLE H-2	
STANDARDS FOR COMMERCIAL PRE-RINSE SPRAY VALUES MANUFACTURED ON OR AFTER JANUARY 28, 2019	
PRODUCT CLASS [spray force in ounce force (ozf)]	**MAXIMUM FLOW RATE (gpm)**
Product Class 1 (≤ 5.0 ozf)	1.00
Product Class 2 (> 5.0 ozf and ≤ 8.0 ozf)	1.20
Product Class 3 (> 8.0 ozf)	1.28

Title 20 Section 1605.3 (h)(4)(A): Commercial prerinse spray values manufactured on or after January 1, 2006, shall have a minimum spray force of not less than 4.0 ounces-force (ozf)[113 grams-force(gf)]

4.303.2 Submeters for multifamily buildings and dwelling units in mixed-used residential/commercial buildings.
Submeters shall be installed to measure water usage of individual rental dwelling units in accordance with the *California Plumbing Code*.

4.303.3 Standards for plumbing fixtures and fittings. Plumbing fixtures and fittings shall be installed in accordance with the *California Plumbing Code*, and shall meet the applicable standards referenced in Table 1701.1 of the *California Plumbing Code*.
NOTE:
THIS TABLE COMPILES THE DATA IN SECTION 4.303.1, AND IS INCLUDED AS A CONVENIENCE FOR THE USER.

TABLE - MAXIMUM FIXTURE WATER USE	
FIXTURE TYPE	**FLOW RATE**
SHOWER HEADS (RESIDENTIAL)	1.8 GMP @ 80 PSI
LAVATORY FAUCETS (RESIDENTIAL)	MAX. 1.2 GPM @ 60 PSI MIN. 0.8 GPM @ 20 PSI
LAVATORY FAUCETS IN COMMON & PUBLIC USE AREAS	0.5 GPM @ 60 PSI
KITCHEN FAUCETS	1.8 GPM @ 60 PSI
METERING FAUCETS	0.2 GAL/CYCLE
WATER CLOSET	1.28 GAL/FLUSH
URINALS	0.125 GAL/FLUSH

Y | N/A | RESPON. PARTY

4.304 OUTDOOR WATER USE
4.304.1 OUTDOOR POTABLE WATER USE IN LANDSCAPE AREAS. Residential developments shall comply with a local water efficient landscape ordinance or the current California Department of Water Resources' Model Water Efficient Landscape Ordinance (MWELO), whichever is more stringent.

NOTES:

1. The Model Water Efficient Landscape Ordinance (MWELO) is located in the *California Code Regulations,* Title 23, Chapter 2.7, Division 2. MWELO and supporting documents, including water budget calculator, are available at: https://www.water.ca.gov/

DIVISION 4.4 MATERIAL CONSERVATION AND RESOURCE EFFICIENCY

4.406 ENHANCED DURABILITY AND REDUCED MAINTENANCE
4.406.1 RODENT PROOFING. Annular spaces around pipes, electric cables, conduits or other openings in sole/bottom plates at exterior walls shall be protected against the passage of rodents by closing such openings with cement mortar, concrete masonry or a similar method acceptable to the enforcing agency.

4.408 CONSTRUCTION WASTE REDUCTION, DISPOSAL AND RECYCLING
4.408.1 CONSTRUCTION WASTE MANAGEMENT. Recycle and/or salvage for reuse a minimum of 65 percent of the non-hazardous construction and demolition waste in accordance with either Section 4.408.2, 4.408.3 or 4.408.4, or meet a more stringent local construction and demolition waste management ordinance.

Exceptions:

1. Excavated soil and land-clearing debris.
2. Alternate waste reduction methods developed by working with local agencies if diversion or recycle facilities capable of compliance with this item do not exist or are not located reasonably close to the jobsite.
3. The enforcing agency may make exceptions to the requirements of this section when isolated jobsites are located in areas beyond the haul boundaries of the diversion facility.

4.408.2 CONSTRUCTION WASTE MANAGEMENT PLAN. Submit a construction waste management plan in conformance with Items 1 through 5. The construction waste management plan shall be updated as necessary and shall be available during construction for examination by the enforcing agency.

1. Identify the construction and demolition waste materials to be diverted from disposal by recycling, reuse on the project or salvage for future use or sale.
2. Specify if construction and demolition waste materials will be sorted on-site (source separated) or bulk mixed (single stream).
3. Identify diversion facilities where the construction and demolition waste material collected will be taken.
4. Identify construction methods employed to reduce the amount of construction and demolition waste generated.
5. Specify that the amount of construction and demolition waste materials diverted shall be calculated by weight or volume, but not by both.

4.408.3 WASTE MANAGEMENT COMPANY. Utilize a waste management company, approved by the enforcing agency, which can provide verifiable documentation that the percentage of construction and demolition waste material diverted from the landfill complies with Section 4.408.1.

Note: The owner or contractor may make the determination if the construction and demolition waste materials will be diverted by a waste management company.

4.408.4 WASTE STREAM REDUCTION ALTERNATIVE [LR]. Projects that generate a total combined weight of construction and demolition waste disposed of in landfills, which do not exceed 3.4 lbs./sq.ft. of the building area shall meet the minimum 65% construction waste reduction requirement in Section 4.408.1

4.408.4.1 WASTE STREAM REDUCTION ALTERNATIVE. Projects that generate a total combined weight of construction and demolition waste disposed of in landfills, which do not exceed 2 pounds per square foot of the building area, shall meet the minimum 65% construction waste reduction requirement in Section 4.408.1

4.408.5 DOCUMENTATION. Documentation shall be provided to the enforcing agency which demonstrates compliance with Section 4.408.2, items 1 through 5, Section 4.408.3 or Section 4.408.4..

Notes:

1. Sample forms found in "A Guide to the California Green Building Standards Code (Residential)" located at www.hcd.ca.gov/CALGreen.html may be used to assist in documenting compliance with this section.
2. Mixed construction and demolition debris (C & D) processors can be located at the California Department of Resources Recycling and Recovery (CalRecycle).

4.410 BUILDING MAINTENANCE AND OPERATION
4.410.1 OPERATION AND MAINTENANCE MANUAL. At the time of final inspection, a manual, compact disc, web-based reference or other media acceptable to the enforcing agency which includes all of the following shall be placed in the building:

1. Directions to the owner or occupant that the manual shall remain with the building throughout the life cycle of the structure.
2. Operation and maintenance instructions for the following:
   a. Equipment and appliances, including water-saving devices and systems, HVAC systems, photovoltaic systems, electric vehicle chargers, water-heating systems and other major appliances and equipment.
   b. Roof and yard drainage, including gutters and downspouts.
   c. Space conditioning systems, including condensers and air filters.
   d. Landscape irrigation systems.
   e. Water reuse systems.
3. Information from local utility, water and waste recovery providers on methods to further reduce resource consumption, including recycle programs and locations.
4. Public transportation and/or carpool options available in the area.
5. Educational material on the positive impacts of an interior relative humidity between 30-60 percent and what methods an occupant may use to maintain the relative humidity level in that range.
6. Information about water-conserving landscape and irrigation design and controllers which conserve water.
7. Instructions for maintaining gutters and downspouts and the importance of diverting water at least 5 feet away from the foundation.
8. Information on required routine maintenance measures, including, but not limited to, caulking, painting, grading around the building, etc.
9. Information about state solar energy and incentive programs available.
10. A copy of all special inspections verifications required by the enforcing agency or this code.
11. Information from the Department of Forestry and Fire Protection on maintenance of defensible space around residential structures.
12. Information and/or drawings identifying the location of grab bar reinforcements.

4.410.2 RECYCLING BY OCCUPANTS. Where 5 or more multifamily dwelling units are constructed on a building site, provide readily accessible area(s) that serves all buildings on the site and are identified for the depositing, storage and collection of non-hazardous materials for recycling, including (at a minimum) paper, corrugated cardboard, glass, plastics, organic waster, and metals, or meet a lawfully enacted local recycling ordinance, if more restrictive.

Exception: Rural jurisdictions that meet and apply for the exemption in Public Resources Code Section 42649.82 (a)(2)(A) et seq. are note required to comply with the organic waste portion of this section.

DIVISION 4.5 ENVIRONMENTAL QUALITY

SECTION 4.501 GENERAL
4.501.1 Scope
The provisions of this chapter shall outline means of reducing the quality of air contaminants that are odorous, irritating and/or harmful to the comfort and well being of a building's installers, occupants and neighbors.

SECTION 4.502 DEFINITIONS
5.102.1 DEFINITIONS
The following terms are defined in Chapter 2 *(and are included here for reference)*

AGRIFIBER PRODUCTS. Agrifiber products include wheatboard, strawboard, panel substrates and door cores, not including furniture, fixtures and equipment (FF&E) not considered base building elements.

COMPOSITE WOOD PRODUCTS. Composite wood products include hardwood plywood, particleboard and medium density fiberboard. "Composite wood products" does not include hardboard, structural plywood, structural panels, structural composite lumber, oriented strand board, glued laminated timber, prefabricated wood I-joists or finger-jointed lumber, all as specified in California Code of regulations (CCR), title 17, Section 93120.1.

DIRECT-VENT APPLIANCE. A fuel-burning appliance with a sealed combustion system that draws all air for combustion from the outside atmosphere and discharges all flue gases to the outside atmosphere.

NOT FOR CONSTRUCTION - THIS PLAN IS FOR BUILDING DEPARTMENT REVIEW ONLY. SUBJECT TO REVISION

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2022 CALIFORNIA GREEN BUILDING STANDARDS CODE
RESIDENTIAL MANDATORY MEASURES, SHEET 1 (January 2023)

Y	N/A	RESPON. PARTY

MAXIMUM INCREMENTAL REACTIVITY (MIR). The maximum change in weight of ozone formed by adding a compound to the "Base Reactive Organic Gas (ROG) Mixture" per weight of compound added, expressed to hundredths of a gram (g O^3/g ROC).
Note: MIR values for individual compounds and hydrocarbon solvents are specified in CCR, Title 17, Sections 94700 and 94701.

MOISTURE CONTENT. The weight of the water in wood expressed in percentage of the weight of the oven-dry wood.

PRODUCT-WEIGHTED MIR (PWMIR). The sum of all weighted-MIR for all ingredients in a product subject to this article. The PWMIR is the total product reactivity expressed to hundredths of a gram of ozone formed per gram of product (excluding container and packaging).
Note: PWMIR is calculated according to equations found in CCR, Title 17, Section 94521 (a).

REACTIVE ORGANIC COMPOUND (ROC). Any compound that has the potential, once emitted, to contribute to ozone formation in the troposphere.

VOC. A volatile organic compound (VOC) broadly defined as a chemical compound based on carbon chains or rings with vapor pressures greater than 0.1 millimeters of mercury at room temperature. These compounds typically contain hydrogen and may contain oxygen, nitrogen and other elements. See CCR Title 17, Section 94508(a).

4.503 FIREPLACES

4.503.1 GENERAL. Any installed gas fireplace shall be a direct-vent sealed-combustion type. Any installed woodstove or pellet stove shall comply with U.S. EPA New Source Performance Standards (NSPS) emission limits as applicable, and shall have a permanent label indicating they are certified to meet the emission limits. Woodstoves, pellet stoves and fireplaces shall also comply with applicable local ordinances.

4.504 POLLUTANT CONTROL

4.504.1 COVERING OF DUCT OPENINGS & PROTECTION OF MECHANICAL EQUIPMENT DURING CONSTRUCTION. At the time of rough installation, during storage on the construction site and 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 water, dust or debris which may enter the system.

4.504.2 FINISH MATERIAL POLLUTANT CONTROL. Finish materials shall comply with this section.

4.504.2.1 Adhesives, Sealants and Caulks. Adhesives, sealant and caulks used on the project shall meet the requirements of the following standards unless more stringent local or regional air pollution or air quality management district rules apply:

1. Adhesives, adhesive bonding primers, adhesive primers, sealants, sealant primers and caulks shall comply with local or regional air pollution control or air quality management district rules where applicable or SCAQMD Rule 1168 VOC limits, as shown in Table 4.504.1 or 4.504.2, as applicable. Such products also shall comply with the Rule 1168 prohibition on the use of certain toxic compounds (chloroform, ethylene dichloride, methylene chloride, perchloroethylene and tricloroethylene), except for aerosol products, as specified in Subsection 2 below.

2. Aerosol adhesives, and smaller unit sizes of adhesives, and sealant or caulking compounds (in units of product, less packaging, which do not weigh more than 1 pound and do not consist of more than 16 fluid ounces) shall comply with statewide VOC standards and other requirements, including prohibitions on use of certain toxic compounds, of *California Code of Regulations*, Title 17, commencing with section 94507.

4.504.2.2 Paints and Coatings. Architectural paints and coatings shall comply with VOC limits in Table 1 of the ARB Architectural Suggested Control Measure, as shown in Table 4.504.3, unless more stringent local limits apply. The VOC content limit for coatings that do not meet the definitions for the specialty coatings categories listed in Table 4.504.3 shall be determined by classifying the coating as a Flat, Nonflat or Nonflat-High Gloss coating, based on its gloss, as defined in subsections 4.21, 4.36, and 4.37 of the 2007 California Air Resources Board, Suggested Control Measure, and the corresponding Flat, Nonflat or Nonflat-High Gloss VOC limit in Table 4.504.3 shall apply.

4.504.2.3 Aerosol Paints and Coatings. Aerosol paints and coatings shall meet the Product-weighted MIR Limits for ROC in Section 94522(a)(2) and other requirements, including prohibitions on use of certain toxic compounds and ozone depleting substances, in Sections 94522(e)(1) and (f)(1) of *California Code of Regulations*, Title 17, commencing with Section 94520; and in areas under the jurisdiction of the Bay Area Air Quality Management District additionally comply with the percent VOC by weight of product limits of Regulation 8, Rule 49.

4.504.2.4 Verification. Verification of compliance with this section shall be provided at the request of the enforcing agency. Documentation may include, but is not limited to, the following:

1. Manufacturer's product specification.
2. Field verification of on-site product containers.

TABLE 4.504.1 - ADHESIVE VOC LIMIT[1,2]

(Less Water and Less Exempt Compounds in Grams per Liter)

ARCHITECTURAL APPLICATIONS	VOC LIMIT
INDOOR CARPET ADHESIVES	50
CARPET PAD ADHESIVES	50
OUTDOOR CARPET ADHESIVES	150
WOOD FLOORING ADHESIVES	100
RUBBER FLOOR ADHESIVES	60
SUBFLOOR ADHESIVES	50
CERAMIC TILE ADHESIVES	65
VCT & ASPHALT TILE ADHESIVES	50
DRYWALL & PANEL ADHESIVES	50
COVE BASE ADHESIVES	50
MULTIPURPOSE CONSTRUCTION ADHESIVE	70
STRUCTURAL GLAZING ADHESIVES	100
SINGLE-PLY ROOF MEMBRANE ADHESIVES	250
OTHER ADHESIVES NOT LISTED	50
SPECIALTY APPLICATIONS	
PVC WELDING	510
CPVC WELDING	490
ABS WELDING	325
PLASTIC CEMENT WELDING	250
ADHESIVE PRIMER FOR PLASTIC	550
CONTACT ADHESIVE	80
SPECIAL PURPOSE CONTACT ADHESIVE	250
STRUCTURAL WOOD MEMBER ADHESIVE	140
TOP & TRIM ADHESIVE	250
SUBSTRATE SPECIFIC APPLICATIONS	
METAL TO METAL	30
PLASTIC FOAMS	50
POROUS MATERIAL (EXCEPT WOOD)	50
WOOD	30
FIBERGLASS	80

1. IF AN ADHESIVE IS USED TO BOND DISSIMILAR SUBSTRATES TOGETHER, THE ADHESIVE WITH THE HIGHEST VOC CONTENT SHALL BE ALLOWED.

2. FOR ADDITIONAL INFORMATION REGARDING METHODS TO MEASURE THE VOC CONTENT SPECIFIED IN THIS TABLE, SEE SOUTH COAST AIR QUALITY MANAGEMENT DISTRICT RULE 1168.

TABLE 4.504.2 - SEALANT VOC LIMIT

(Less Water and Less Exempt Compounds in Grams per Liter)

SEALANTS	VOC LIMIT
ARCHITECTURAL	250
MARINE DECK	760
NONMEMBRANE ROOF	300
ROADWAY	250
SINGLE-PLY ROOF MEMBRANE	450
OTHER	420
SEALANT PRIMERS	
ARCHITECTURAL	
NON-POROUS	250
POROUS	775
MODIFIED BITUMINOUS	500
MARINE DECK	760
OTHER	750

TABLE 4.504.3 - VOC CONTENT LIMITS FOR ARCHITECTURAL COATINGS[2,3]

GRAMS OF VOC PER LITER OF COATING, LESS WATER & LESS EXEMPT COMPOUNDS

COATING CATEGORY	VOC LIMIT
FLAT COATINGS	50
NON-FLAT COATINGS	100
NONFLAT-HIGH GLOSS COATINGS	150
SPECIALTY COATINGS	
ALUMINUM ROOF COATINGS	400
BASEMENT SPECIALTY COATINGS	400
BITUMINOUS ROOF COATINGS	50
BITUMINOUS ROOF PRIMERS	350
BOND BREAKERS	350
CONCRETE CURING COMPOUNDS	350
CONCRETE/MASONRY SEALERS	100
DRIVEWAY SEALERS	50
DRY FOG COATINGS	150
FAUX FINISHING COATINGS	350
FIRE RESISTIVE COATINGS	350
FLOOR COATINGS	100
FORM-RELEASE COMPOUNDS	250
GRAPHIC ARTS COATINGS (SIGN PAINTS)	500
HIGH TEMPERATURE COATINGS	420
INDUSTRIAL MAINTENANCE COATINGS	250
LOW SOLIDS COATINGS[1]	120
MAGNESITE CEMENT COATINGS	450
MASTIC TEXTURE COATINGS	100
METALLIC PIGMENTED COATINGS	500
MULTICOLOR COATINGS	250
PRETREATMENT WASH PRIMERS	420
PRIMERS, SEALERS, & UNDERCOATERS	100
REACTIVE PENETRATING SEALERS	350
RECYCLED COATINGS	250
ROOF COATINGS	50
RUST PREVENTATIVE COATINGS	250
SHELLACS	
CLEAR	730
OPAQUE	550
SPECIALTY PRIMERS, SEALERS & UNDERCOATERS	100
STAINS	250
STONE CONSOLIDANTS	450
SWIMMING POOL COATINGS	340
TRAFFIC MARKING COATINGS	100
TUB & TILE REFINISH COATINGS	420
WATERPROOFING MEMBRANES	250
WOOD COATINGS	275
WOOD PRESERVATIVES	350
ZINC-RICH PRIMERS	340

1. GRAMS OF VOC PER LITER OF COATING, INCLUDING WATER & EXEMPT COMPOUNDS

2. THE SPECIFIED LIMITS REMAIN IN EFFECT UNLESS REVISED LIMITS ARE LISTED IN SUBSEQUENT COLUMNS IN THE TABLE.

3. VALUES IN THIS TABLE ARE DERIVED FROM THOSE SPECIFIED BY THE CALIFORNIA AIR RESOURCES BOARD, ARCHITECTURAL COATINGS SUGGESTED CONTROL MEASURE, FEB. 1, 2008. MORE INFORMATION IS AVAILABLE FROM THE AIR RESOURCES BOARD.

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SCALE : AS NOTED
DATE : 2/15/2025
JOB NO. :
REV. :

SHEET NAME
CGBSC-2

SHEET NUMBER
GN-03

2022 CALIFORNIA GREEN BUILDING STANDARDS CODE
RESIDENTIAL MANDATORY MEASURES, SHEET 1 (January 2023)

Y	N/A	RESPON. PARTY

TABLE 4.504.5 - FORMALDEHYDE LIMITS[1]	
MAXIMUM FORMALDEHYDE EMISSIONS IN PARTS PER MILLION	
PRODUCT	**CURRENT LIMIT**
HARDWOOD PLYWOOD VENEER CORE	0.05
HARDWOOD PLYWOOD COMPOSITE CORE	0.05
PARTICLE BOARD	0.09
MEDIUM DENSITY FIBERBOARD	0.11
THIN MEDIUM DENSITY FIBERBOARD[2]	0.13

1. VALUES IN THIS TABLE ARE DERIVED FROM THOSE SPECIFIED BY THE CALIF. AIR RESOURCES BOARD, AIR TOXICS CONTROL MEASURE FOR COMPOSITE WOOD AS TESTED IN ACCORDANCE WITH ASTM E 1333. FOR ADDITIONAL INFORMATION, SEE CALIF. CODE OF REGULATIONS, TITLE 17, SECTIONS 93120 THROUGH 93120.12.

2. THIN MEDIUM DENSITY FIBERBOARD HAS A MAXIMUM THICKNESS OF 5/16" (8 MM).

DIVISION 4.5 ENVIRONMENTAL QUALITY (continued)

4.504.3 CARPET SYSTEMS. All carpet installed in the building interior shall meet the requirements of the California Department of Public Health, "Standard Method for the Testing and Evaluation of Volatile Organic Chemical Emissions from Indoor Sources Using Environmental Chambers," Version 1.2, January 2017 (Emission testing method for California Specification 01350)

See California Department of Public Health's website for certification programs and testing labs.

https://www.cdph.ca.gov/Programs/CCDPHP/DEODC/EHLB/IAQ/Pages/VOC.aspx.

4.504.3.1 Carpet cushion. All carpet cushion installed in the building interior shall meet the requirements of the California Department of Public Health, "Standard Method for the Testing and Evaluation of Volatile Organic Chemical Emissions from Indoor Sources Using Environmental Chambers," Version 1.2, January 2017 (Emission testing method for California Specification 01350)

See California Department of Public Health's website for certification programs and testing labs.

https://www.cdph.ca.gov/Programs/CCDPHP/DEODC/EHLB/IAQ/Pages/VOC.aspx.

4.504.3.2 Carpet adhesive. All carpet adhesive shall meet the requirements of Table 4.504.1.

4.504.4 RESILIENT FLOORING SYSTEMS. Where resilient flooring is installed , at least 80% of floor area receiving resilient flooring shall meet the requirements of the California Department of Public Health, "Standard Method for the Testing and Evaluation of Volatile Organic Chemical Emissions from Indoor Sources Using Environmental Chambers," Version 1.2, January 2017 (Emission testing method for California Specification 01350)

See California Department of Public Health's website for certification programs and testing labs.

hhttps://www.cdph.ca.gov/Programs/CCDPHP/DEODC/EHLB/IAQ/Pages/VOC.aspx.

4.504.5 COMPOSITE WOOD PRODUCTS. Hardwood plywood, particleboard and medium density fiberboard composite wood products used on the interior or exterior of the buildings shall meet the requirements for formaldehyde as specified in ARB's Air Toxics Control Measure for Composite Wood (17 CCR 93120 et seq.), by or before the dates specified in those sections, as shown in Table 4.504.5

4.504.5.1 Documentation. Verification of compliance with this section shall be provided as requested by the enforcing agency. Documentation shall include at least one of the following:

1. Product certifications and specifications.
2. Chain of custody certifications.
3. Product labeled and invoiced as meeting the Composite Wood Products regulation (see CCR, Title 17, Section 93120, et seq.).
4. Exterior grade products marked as meeting the PS-1 or PS-2 standards of the Engineered Wood Association, the Australian AS/NZS 2269, European 636 3S standards, and Canadian CSA 0121, CSA 0151, CSA 0153 and CSA 0325 standards.
5. Other methods acceptable to the enforcing agency.

4.505 INTERIOR MOISTURE CONTROL

4.505.1 General. Buildings shall meet or exceed the provisions of the *California Building Standards Code*.

4.505.2 CONCRETE SLAB FOUNDATIONS. Concrete slab foundations required to have a vapor retarder by California Building Code, Chapter 19, or concrete slab-on-ground floors required to have a vapor retarder by the California Residential Code, Chapter 5, shall also comply with this section.

4.505.2.1 Capillary break. A capillary break shall be installed in compliance with at least one of the following:

1. A 4-inch (101.6 mm) thick base of 1/2 inch (12.7mm) or larger clean aggregate shall be provided with a vapor barrier in direct contact with concrete and a concrete mix design, which will address bleeding, shrinkage, and curling, shall be used. For additional information, see American Concrete Institute, ACI 302.2R-06.
2. Other equivalent methods approved by the enforcing agency.
3. A slab design specified by a licensed design professional.

4.505.3 MOISTURE CONTENT OF BUILDING MATERIALS. Building materials with visible signs of water damage shall not be installed. Wall and floor framing shall not be enclosed when the framing members exceed 19 percent moisture content. Moisture content shall be verified in compliance with the following:

1. Moisture content shall be determined with either a probe-type or contact-type moisture meter.Equivalent moisture verification methods may be approved by the enforcing agency and shall satisfy requirements found in Section 101.8 of this code.
2. Moisture readings shall be taken at a point 2 feet (610 mm) to 4 feet (1219 mm) from the grade stamped end of each piece verified.
3. At least three random moisture readings shall be performed on wall and floor framing with documentation acceptable to the enforcing agency provided at the time of approval to enclose the wall and floor framing.

Insulation products which are visibly wet or have a high moisture content shall be replaced or allowed to dry prior to enclosure in wall or floor cavities. Wet-applied insulation products shall follow the manufacturers' drying recommendations prior to enclosure.

4.506 INDOOR AIR QUALITY AND EXHAUST

4.506.1 Bathroom exhaust fans. Each bathroom shall be mechanically ventilated and shall comply with the following:

1. Fans shall be ENERGY STAR compliant and be ducted to terminate outside the building.
2. Unless functioning as a component of a whole house ventilation system, fans must be controlled by a humidity control.
   a. Humidity controls shall be capable of adjustment between a relative humidity range less than or equal to 50% to a maximum of 80%. A humidity control may utilize manual or automatic means of adjustment.
   b. A humidity control may be a separate component to the exhaust fan and is not required to be integral (i.e., built-in)

Notes:

1. For the purposes of this section, a bathroom is a room which contains a bathtub, shower or tub/shower combination.
2. Lighting integral to bathroom exhaust fans shall comply with the *California Energy Code*.

4.507 ENVIRONMENTAL COMFORT

4.507.2 HEATING AND AIR-CONDITIONING SYSTEM DESIGN. Heating and air conditioning systems shall be sized, designed and have their equipment selected using the following methods:

1. The heat loss and heat gain is established according to ANSI/ACCA 2 Manual J - 2011 (Residential Load Calculation), ASHRAE handbooks or other equivalent design software or methods.
2. Duct systems are sized according to ANSI/ACCA 1 Manual D - 2014 (Residential Duct Systems), ASHRAE handbooks or other equivalent design software or methods.
3. Select heating and cooling equipment according to ANSI/ACCA 3 Manual S - 2014 (Residential Equipment Selection), or other equivalent design software or methods.

Exception: Use of alternate design temperatures necessary to ensure the system functions are acceptable.

Y	N/A	RESPON. PARTY

CHAPTER 7
INSTALLER & SPECIAL INSPECTOR QUALIFICATIONS

702 QUALIFICATIONS

702.1 INSTALLER TRAINING. HVAC system installers shall be trained and certified in the proper installation of HVAC systems including ducts and equipment by a nationally or regionally recognized training or certification program. Uncertified persons may perform HVAC installations when under the direct supervision and responsibility of a person trained and certified to install HVAC systems or contractor licensed to install HVAC systems. Examples of acceptable HVAC training and certification programs include but are not limited to the following:

1. State certified apprenticeship programs.
2. Public utility training programs.
3. Training programs sponsored by trade, labor or statewide energy consulting or verification organizations.
4. Programs sponsored by manufacturing organizations.
5. Other programs acceptable to the enforcing agency.

702.2 SPECIAL INSPECTION [HCD]. When required by the enforcing agency, the owner or the responsible entity acting as the owner's agent shall employ one or more special inspectors to provide inspection or other duties necessary to substantiate compliance with this code. Special inspectors shall demonstrate competence to the satisfaction of the enforcing agency for the particular type of inspection or task to be performed. In addition to other certifications or qualifications acceptable to the enforcing agency, the following certifications or education may be considered by the enforcing agency when evaluating the qualifications of a special inspector:

1. Certification by a national or regional green building program or standard publisher.
2. Certification by a statewide energy consulting or verification organization, such as HERS raters, building performance contractors, and home energy auditors.
3. Successful completion of a third party apprentice training program in the appropriate trade.
4. Other programs acceptable to the enforcing agency.

Notes:

1. Special inspectors shall be independent entities with no financial interest in the materials or the project they are inspecting for compliance with this code.
2. HERS raters are special inspectors certified by the California Energy Commission (CEC) to rate homes in California according to the Home Energy Rating System (HERS).

[BSC] When required by the enforcing agency, the owner or the responsible entity acting as the owner's agent shall employ one or more special inspectors to provide inspection or other duties necessary to substantiate compliance with this code. Special inspectors shall demonstrate competence to the satisfaction of the enforcing agency for the particular type of inspection or task to be performed. In addition, the special inspector shall have a certification from a recognized state, national or international association, as determined by the local agency. The area of certification shall be closely related to the primary job function, as determined by the local agency.

Note: Special inspectors shall be independent entities with no financial interest in the materials or the project they are inspecting for compliance with this code.

703 VERIFICATIONS

703.1 DOCUMENTATION. Documentation used to show compliance with this code shall include but is not limited to, construction documents, plans, specifications, builder or installer certification, inspection reports, or other methods acceptable to the enforcing agency which demonstrate substantial conformance. When specific documentation or special inspection is necessary to verify compliance, that method of compliance will be specified in the appropriate section or identified applicable checklist.

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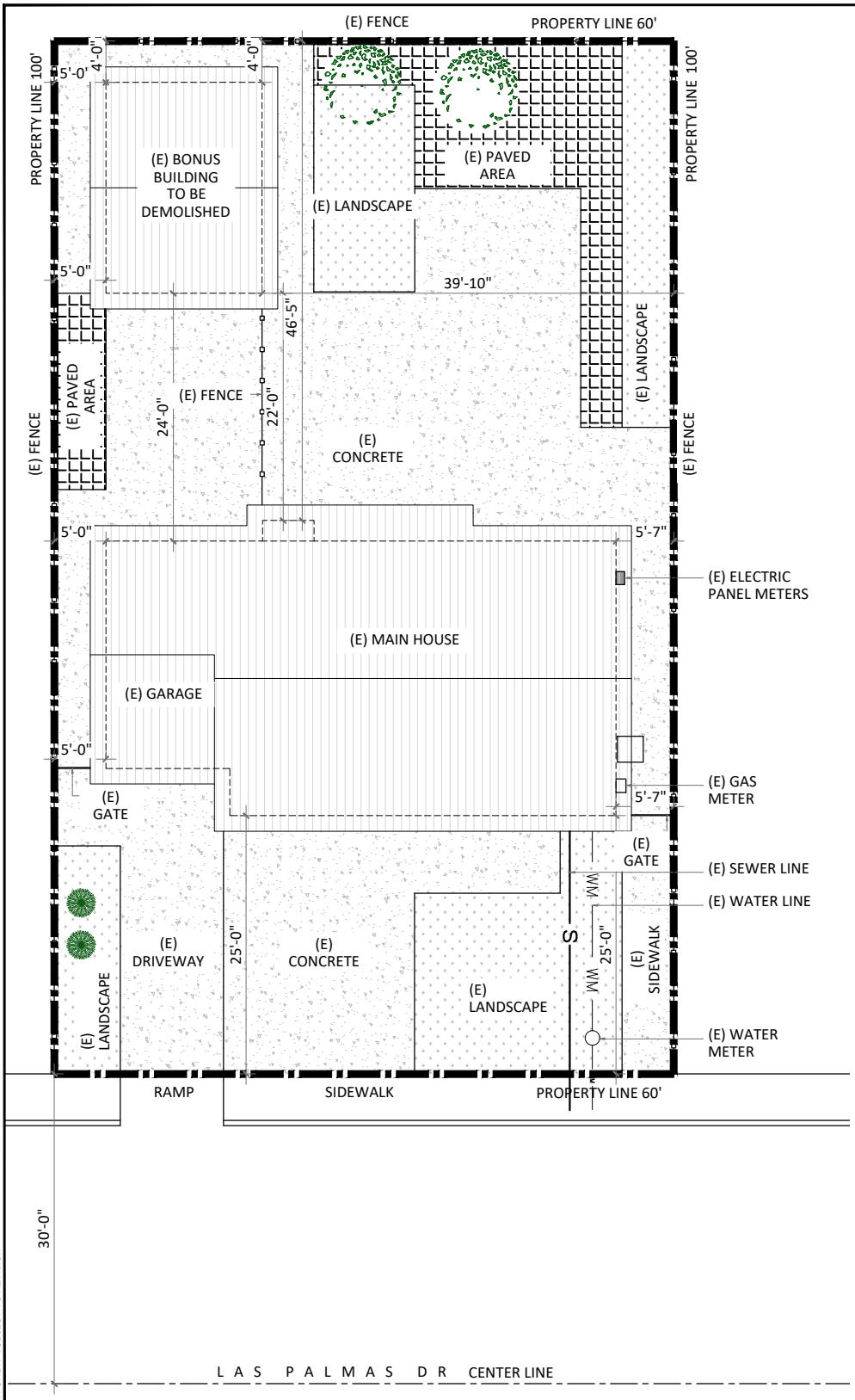

1 EXISTING SITE PLAN

SCALE: 1/16"=1'-0"

SITE ANALYSIS

(E) LOT AREA	-	6000 SQFT.
(E) LOT COVERAGE	-	26.17%
(E) MAIN BUILDING AREA	-	1006 SQFT.
(E) GARAGE AREA	-	255 SQFT.
(E) BONUS BUILDING AREA	-	309 SQFT.

LEGEND

S = SEWER LINE

WM = WATER LINE

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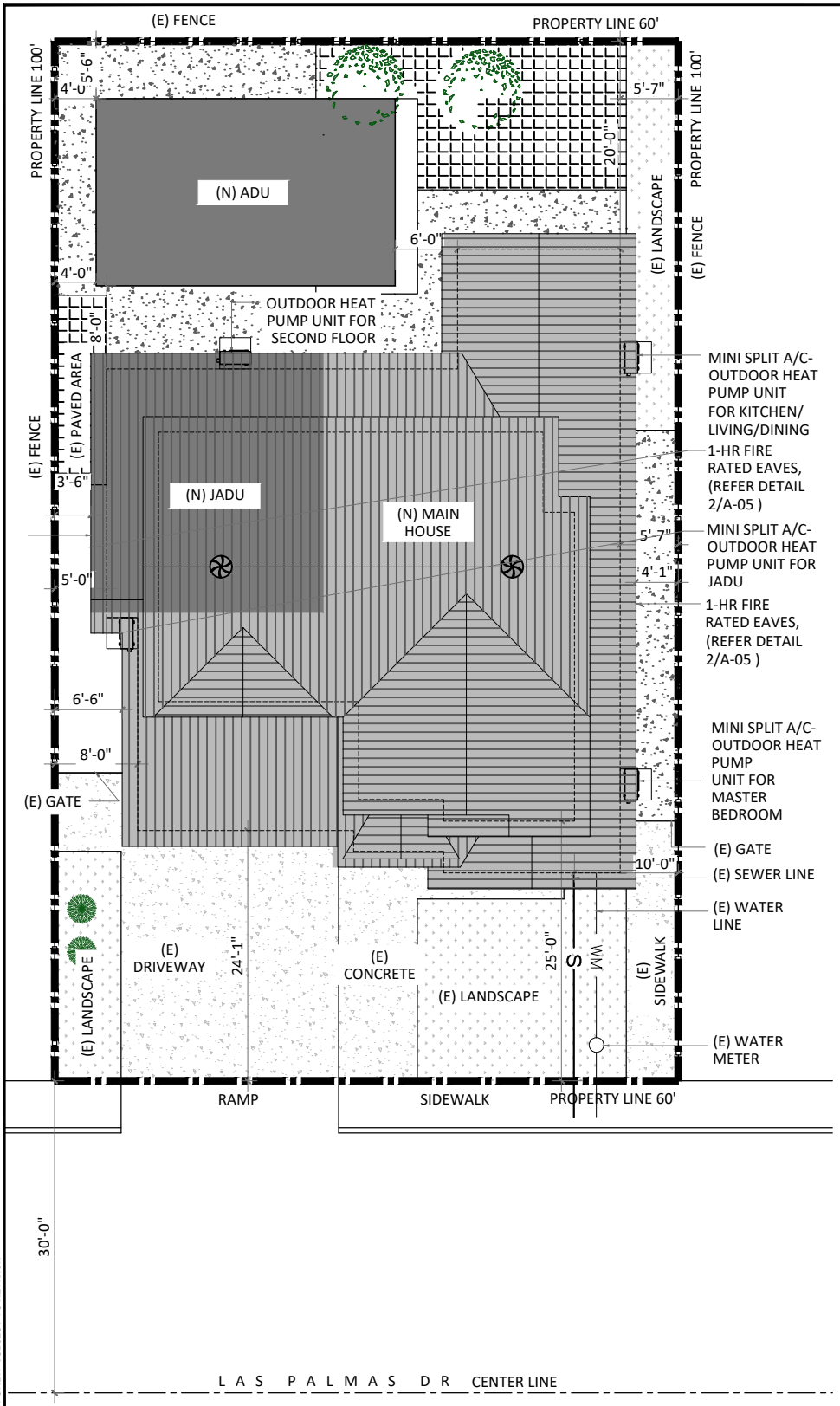
SCALE	: AS NOTED
DATE	: 2/15/2025
JOB NO.	:
REV.	:

SHEET NAME: EXISTING SITE PLAN

SHEET NUMBER: **A-01**



1 PROPOSED SITE PLAN

SCALE: 1/16"=1'-0"

SITE ANALYSIS

(E) LOT AREA	-	6000 SQFT.
(N) LOT COVERAGE	-	40.00 %
MAIN HOUSE		
(N) FIRST FLOOR LIVABLE AREA	-	1414 SQFT.
(N) SECOND FLOOR LIVABLE AREA	-	1177 SQFT.
(N) TOTAL LIVABLE AREA	-	2591 SQFT.
(N) GARAGE AREA	-	459 SQFT.
(N) ENTRY PORCH	-	38 SQFT.
(N) JADU AREA	-	489 SQFT.
(N) ADU AREA	-	518 SQFT.

THE ADU AND SECOND FLOOR LIVABLE SPACE NOT COUNTED TOWARDS LOT COVERAGE

LEGEND

S = SEWER LINE

WM = WATER LINE

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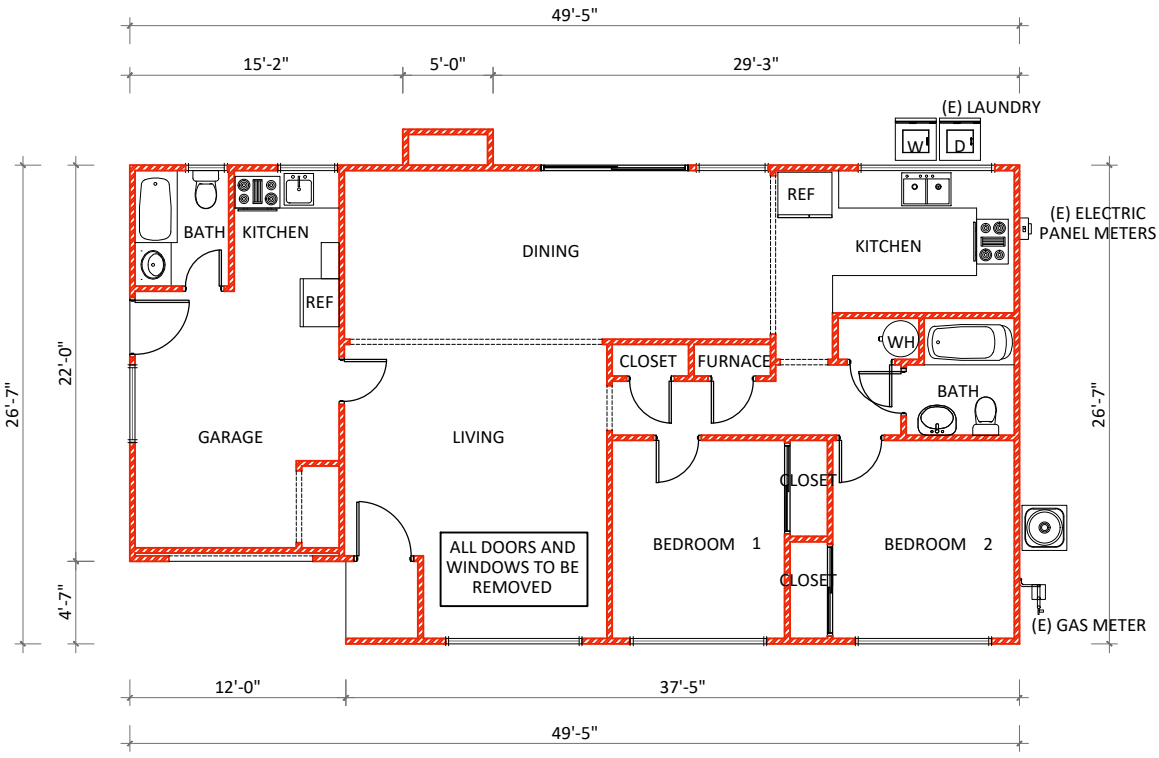
SCALE	: AS NOTED
DATE	: 2/15/2025
JOB NO.	:
REV.	:

SHEET NAME: PROPOSED SITE PLAN

SHEET NUMBER: **A-02**



1 EXISTING FIRST FLOOR DEMOLITION PLAN

SCALE: 3/32"=1'-0"

AREA

DEMO WALL

(E)	LIVABLE AREA	1006 SQFT.
(E)	GARAGE AREA	255 SQFT.

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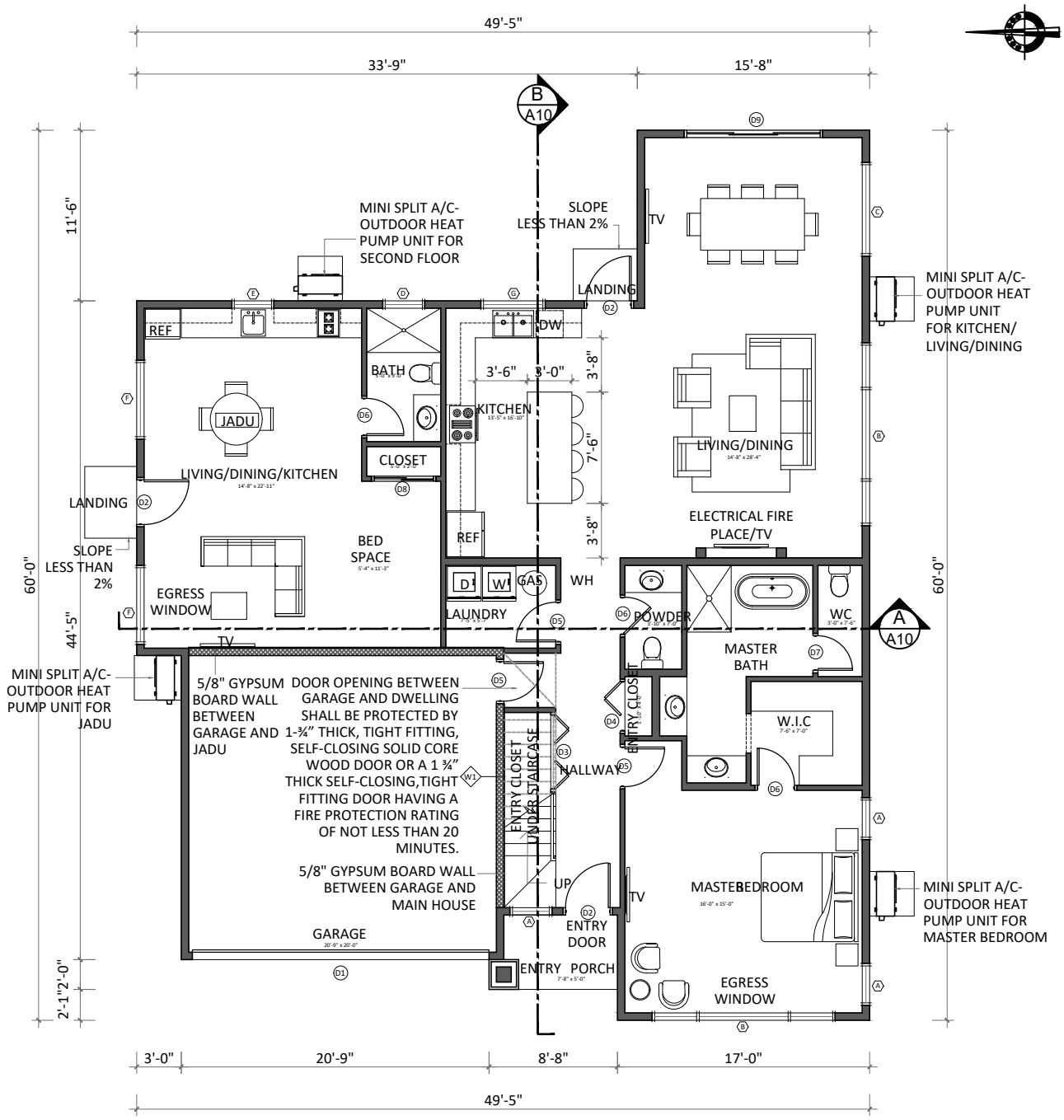
SHEET NAME
EXISTING FIRST FLOOR DEMOLITION PLAN

SHEET NUMBER
A-03



1 PROPOSED FIRST FLOOR PLAN

SCALE: 3/32"=1'-0"

AREA

FIRST FLOOR LIVABLE AREA	-	1414 SQFT.
SECOND FLOOR LIVABLE AREA	-	1177 SQFT.
TOTAL LIVABLE AREA	-	2591 SQFT.
GARAGE AREA	-	459 SQFT.
ENTRY PORCH	-	38 SQFT.
JADU AREA	-	489 SQFT.

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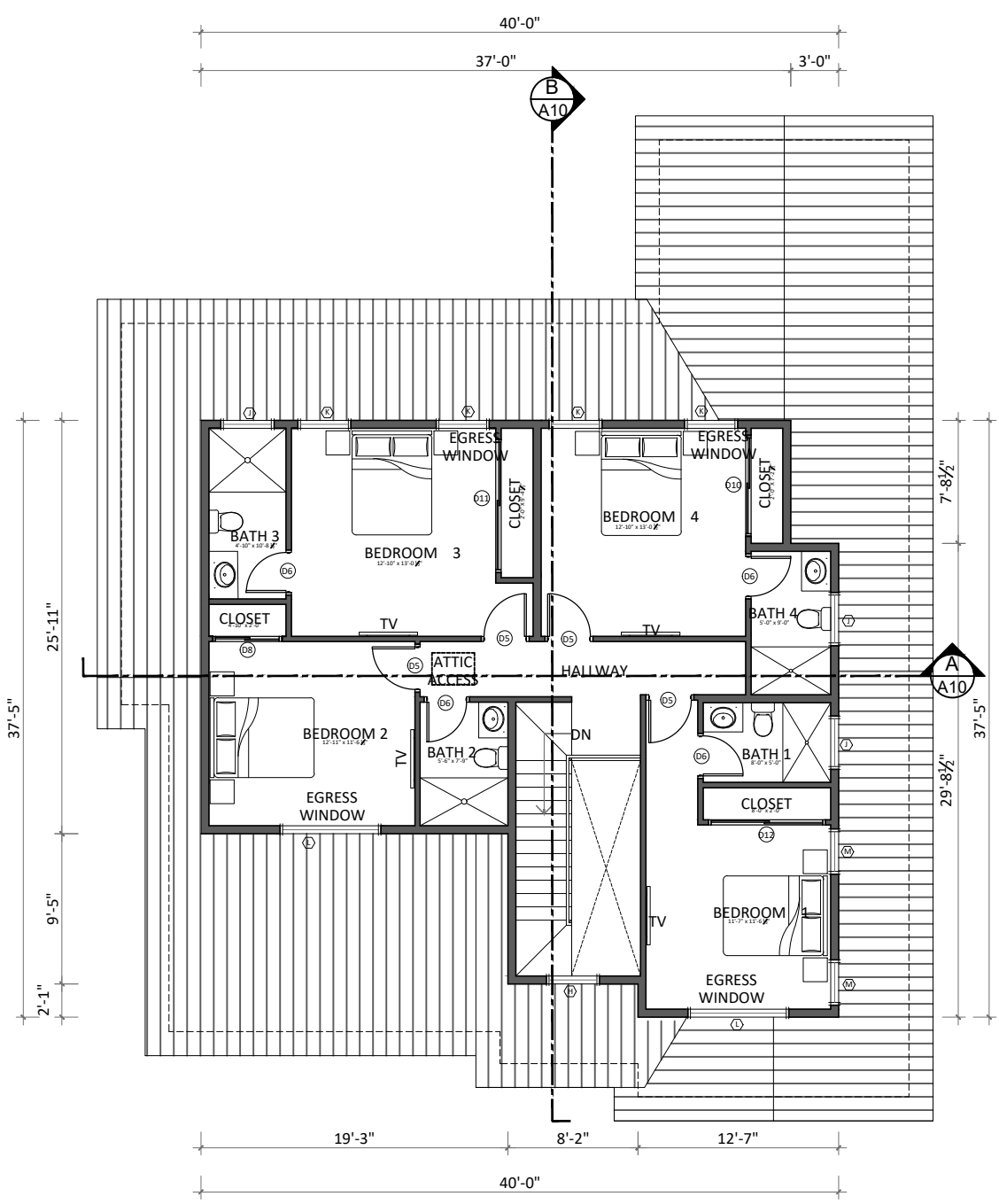
REV. :

SHEET NAME
PROPOSED FIRST FLOOR PLAN

SHEET NUMBER
A-04



1 PROPOSED SECOND FLOOR PLAN

SCALE: 3/32"=1'-0"

AREA

FIRST FLOOR LIVABLE AREA	-	1414 SQFT.
SECOND FLOOR LIVABLE AREA	-	1177 SQFT.
TOTAL LIVABLE AREA	-	2591 SQFT.
GARAGE AREA	-	459 SQFT.
ENTRY PORCH	-	38 SQFT.
JADU AREA	-	489 SQFT.

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REV. :

SHEET NAME

PROPOSED SECOND FLOOR PLAN

SHEET NUMBER

A-05

DOOR SCHEDULE				
TYPE MARK	WIDTH	HEIGHT	REMARKS	COUNT
D1	20'-0"	8'-0"	GARAGE DOOR	1
D2	3'-0"	8'-0"	SINGLE DOOR	3
D3	5'-0"	6'-8"- 3'-4"	BI-FOLD DOOR	1
D4	3'-4"	6'-8"	BI-FOLD DOOR	1
D5	2'-8"	7'-0"	SINGLE DOOR	7
D6	2'-6"	7'-0"	SINGLE DOOR	7
D7	2'-4"	7'-0"	SINGLE DOOR	1
D8	4'-0"	6'-8"	SLIDING DOOR	2
D9	9'-0"	8'-0"	SLIDING DOOR	1
D10	6'-0"	6'-8"	SLIDING DOOR	1
D11	8'-0"	6'-8"	SLIDING DOOR	1
D12	7'-0"	6'-8"	SLIDING DOOR	1

WINDOW SCHEDULE				
TYPE MARK	WIDTH	HEIGHT	REMARKS	COUNT
A	2'-6"	6'-0"	CASEMENT WINDOW	3
B	12'-0"	6'-0"	CASEMENT WINDOW	2
C	6'-0"	6'-0"	CASEMENT WINDOW	1
D	2'-6"	2'-0"	CASEMENT WINDOW	1
E	2'-6"	3'-0"	CASEMENT WINDOW	1
F	5'-0"	6'-0"	CASEMENT WINDOW	2
G	4'-0"	3'-0"	CASEMENT WINDOW	1
H	3'-0"	3'-0"	FIXED WINDOW	1
J	3'-0"	2'-0"	CASEMENT WINDOW	3
K	3'-0"	5'-0"	CASEMENT WINDOW	4
L	6'-0"	3'-0"	CASEMENT WINDOW	2
M	2'-6"	2'-4"	CASEMENT WINDOW	2

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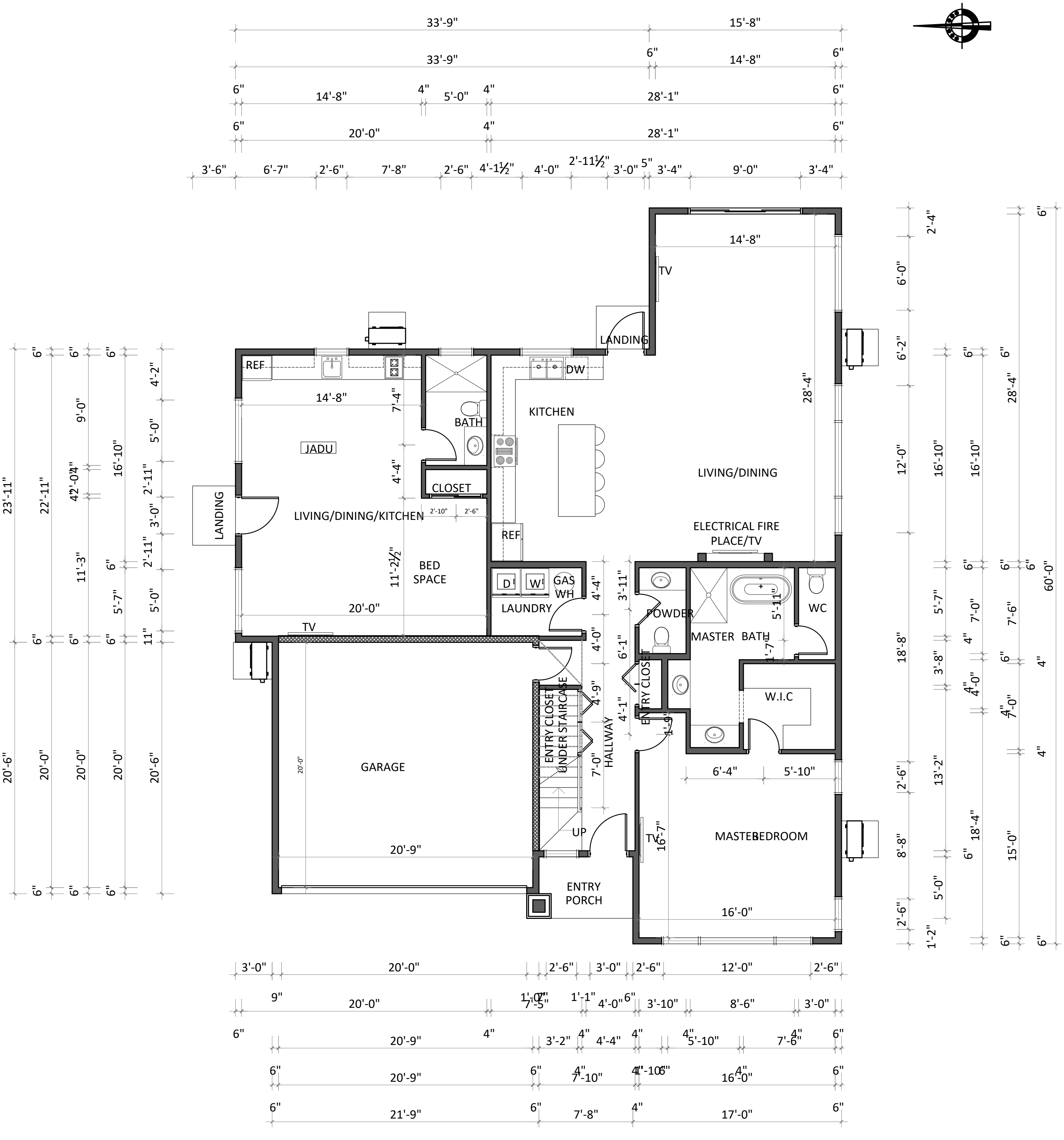
REV. :

SHEET NAME
DOOR AND WINDOW SCHEDULE

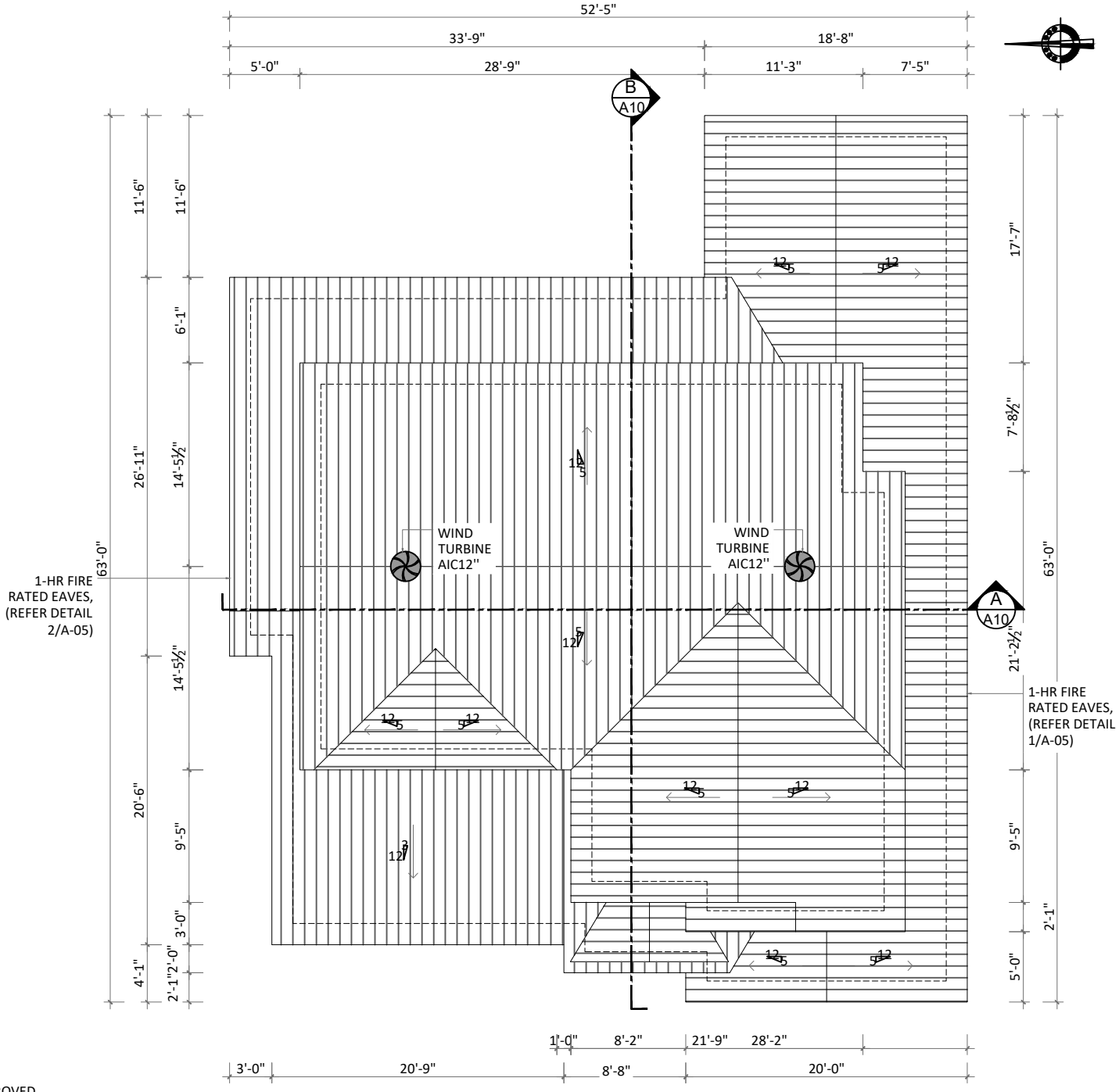
SHEET NUMBER
A-05.1



1 FIRST FLOOR DIMENSIONED PLAN

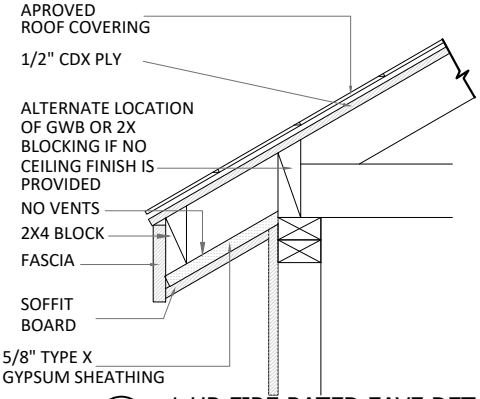
SCALE: 3/32"=1'-0"

CLIENT INFORMATION HUNG NGUYEN hungnguyen_@msn.com STRUCTURAL ENGINEER	PROFESSIONAL SEAL	NEW MAIN HOUSE / JADU 1279 LAS PALMAS DR SANTA CLARA, CA 95051	DRAWN BY : S.A SCALE : AS NOTED DATE : 2/15/2025 JOB NO. : REV. :	SHEET NAME FIRST FLOOR DIMENSIONED PLAN SHEET NUMBER A-06



1 PROPOSED ROOF PLAN

SCALE: 3/32"=1'-0"



2 1-HR FIRE RATED EAVE DETAIL

SCALE: NTS

ATTIC VENT CALCULATION

ATTIC AREA	- 1235 SQFT.
VENTILATION REQUIRED	- 1199/150=8.23 SQFT X 144 = 1185 SQ.IN
VENTILATION PROVIDED	- PROVIDED 2 MASTER FLOW® 12" INTERNALLY BRACED ALUMINUM WIND TURBINE AIC12 & 2 GABLE VENT (120x2+520x2) =1280 SQ.IN. (SEE ELEVATIONS)

1. AN INTERNALLY BRACED TURBINE ROOF VENTILATOR MADE OF ALUMINUM WITH AN OCTAGONAL ALUMINUM BASE. THE BASE IS 18" IN WIDTH. THE OVERALL HEIGHT OF THE ASSEMBLY IS 19-5/8"
2. SUITABLE FOR ROOF PITCH OF 2:12 (MINIMUM) UP TO 12:12 (MAXIMUM)
3. 1 TURBINE WILL VENT ROUGHLY 500-SQ FT OF ATTIC SPACE REQUIRING MINIMUM INTAKE OF ABOUT 120-SQ IN OF NFA

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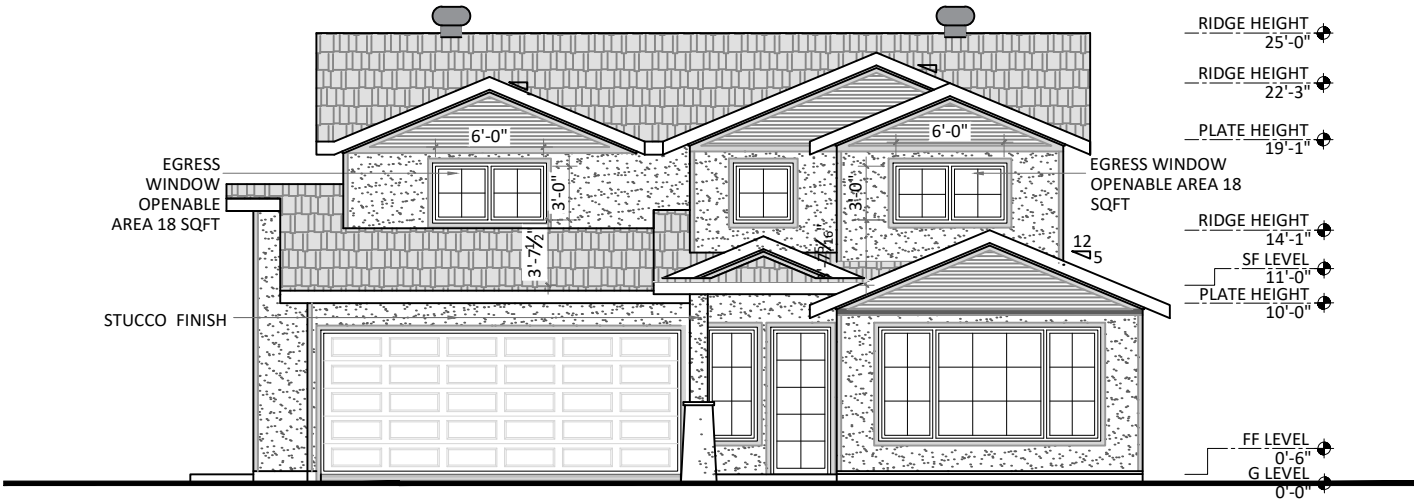
DRAWN BY	: S.A
SCALE	: AS NOTED
DATE	: 2/15/2025
JOB NO.	:
REV.	:

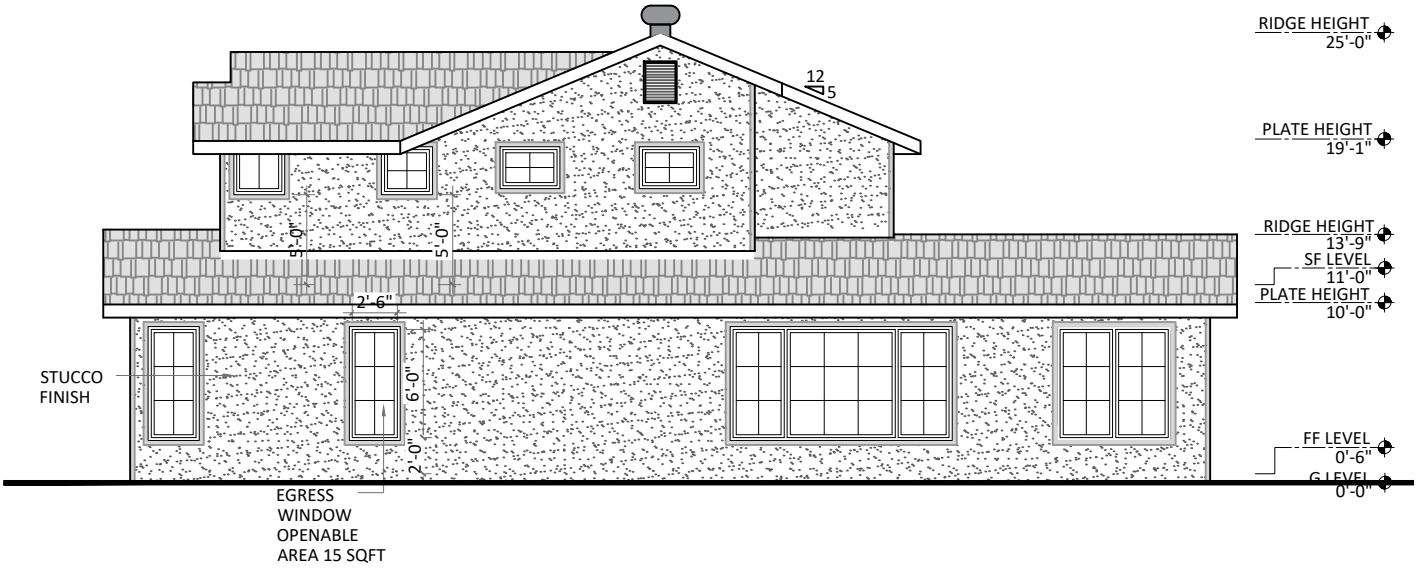
SHEET NAME
PROPOSED ROOF PLAN

SHEET NUMBER
A-08



1 WEST ELEVATION

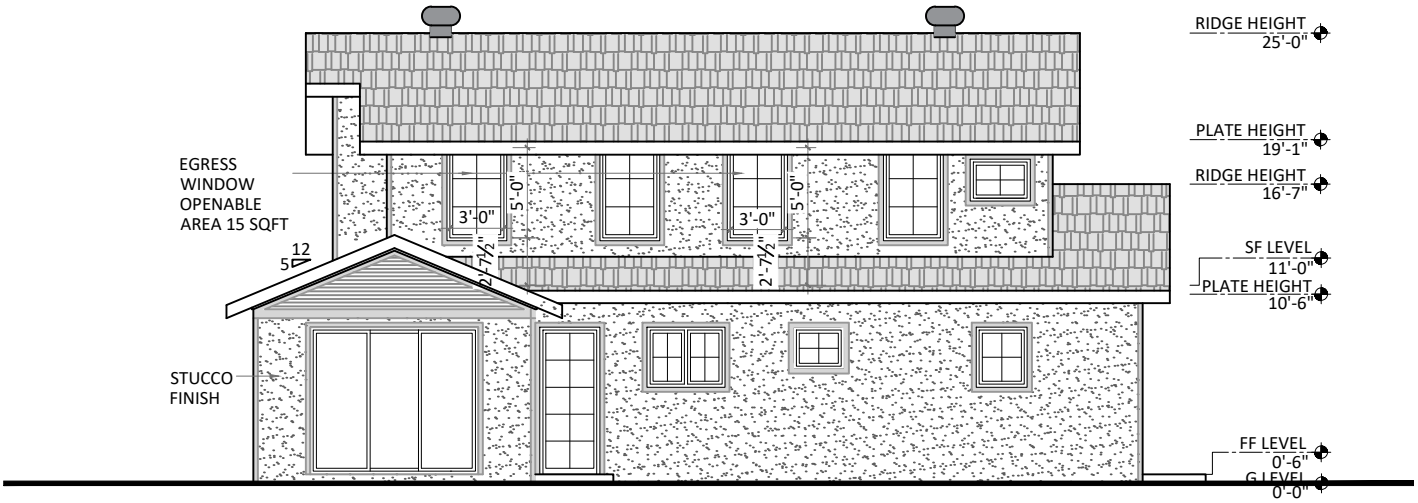
SCALE: 3/32"=1'-0"



2 SOUTH ELEVATION

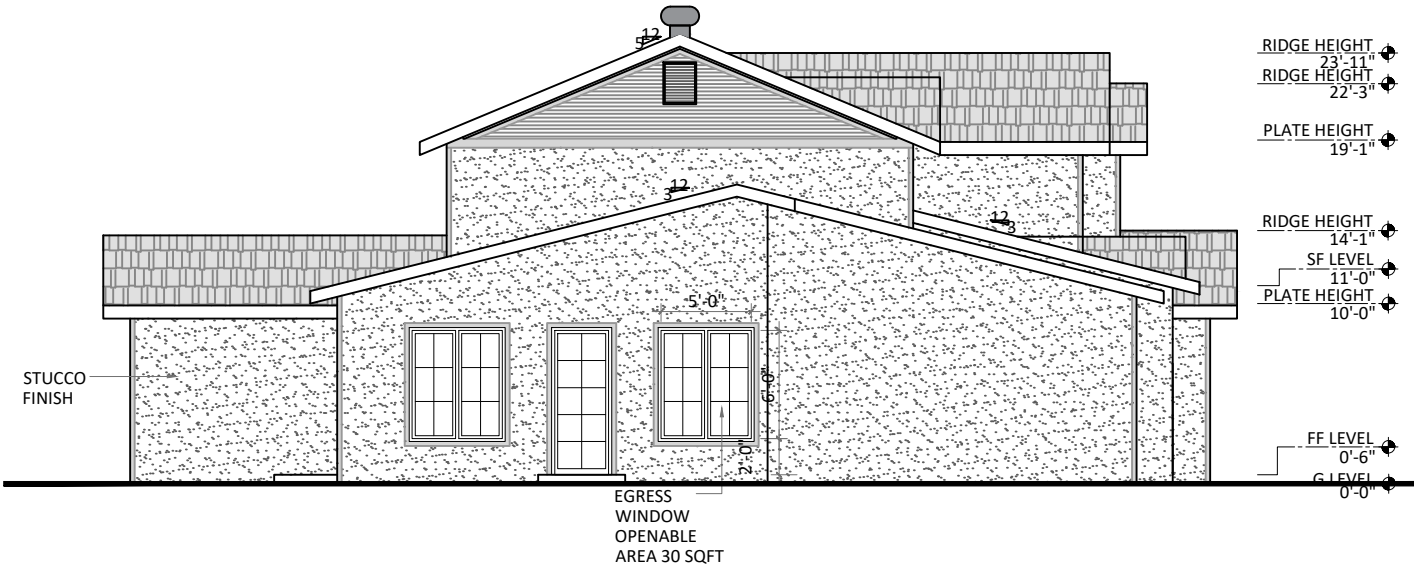
SCALE: 3/32"=1'-0"

	CLIENT INFORMATION HUNG NGUYEN hungnguyen_@msn.com STRUCTURAL ENGINEER	PROFESSIONAL SEAL	NEW MAIN HOUSE / JADU 1279 LAS PALMAS DR SANTA CLARA, CA 95051	DRAWN BY : S.A SCALE : AS NOTED DATE : 2/15/2025 JOB NO. : REV. :	SHEET NAME PROPOSED ELEVATIONS SHEET NUMBER **A-09**



1 EAST ELEVATION

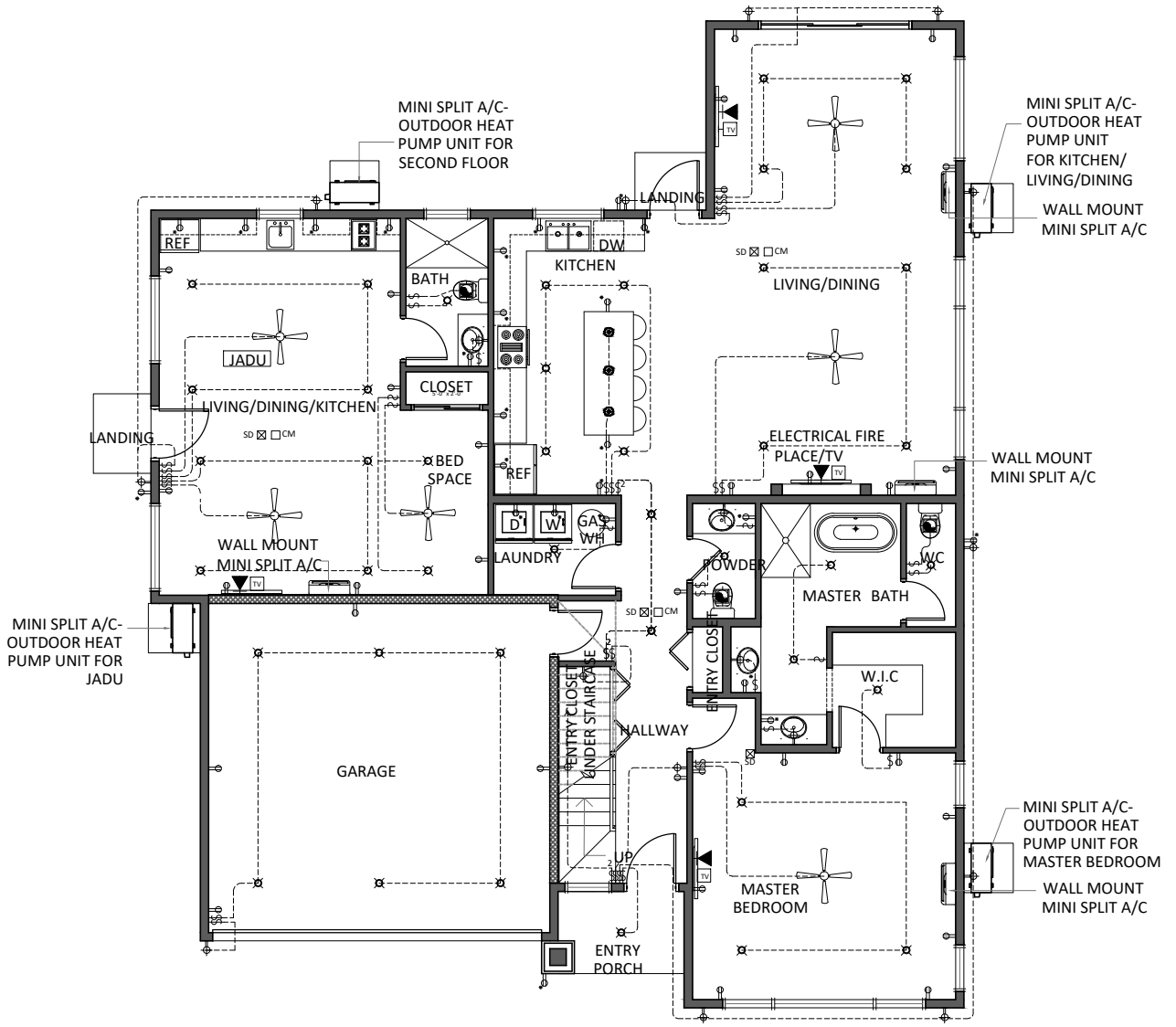
SCALE: 3/32"=1'-0"



2 NORTH ELEVATION

SCALE: 3/32"=1'-0"

	CLIENT INFORMATION HUNG NGUYEN hungnguyen_@msn.com STRUCTURAL ENGINEER	PROFESSIONAL SEAL	NEW MAIN HOUSE / JADU 1279 LAS PALMAS DR SANTA CLARA, CA 95051	DRAWN BY : S.A SCALE : AS NOTED DATE : 2/15/2025 JOB NO. : REV. :	SHEET NAME PROPOSED ELEVATIONS SHEET NUMBER **A-09.1**



1 FIRST FLOOR ELECTRICAL PLAN

SCALE: 3/32"=1'-0"

LEGEND

*	110V DUPLEX OUTLET(Arc fault interrupt) * =GFI-Ground Fault Interrupt WP-Weather Proof		EXHAUST FAN/LIGHT (50CFM W/ HUMIDISTAT)
			SMOKE DETECTOR
		CM	CARBON MONOXIDE ALARM
	FUSE BOX		240V/40AMP DUPLEX OUTLET
*	SWITCH * =3-Three way switch 4-Four way switch M-w/motion Detector A-w/Accoustic Detector		240V/50AMP DUPLEX OUTLET
			PENDANT LIGHT
	CEILING MOUNT LIGHT		CEILING FAN
	WALL BRACKET LIGHT		MINI SPLIT AC

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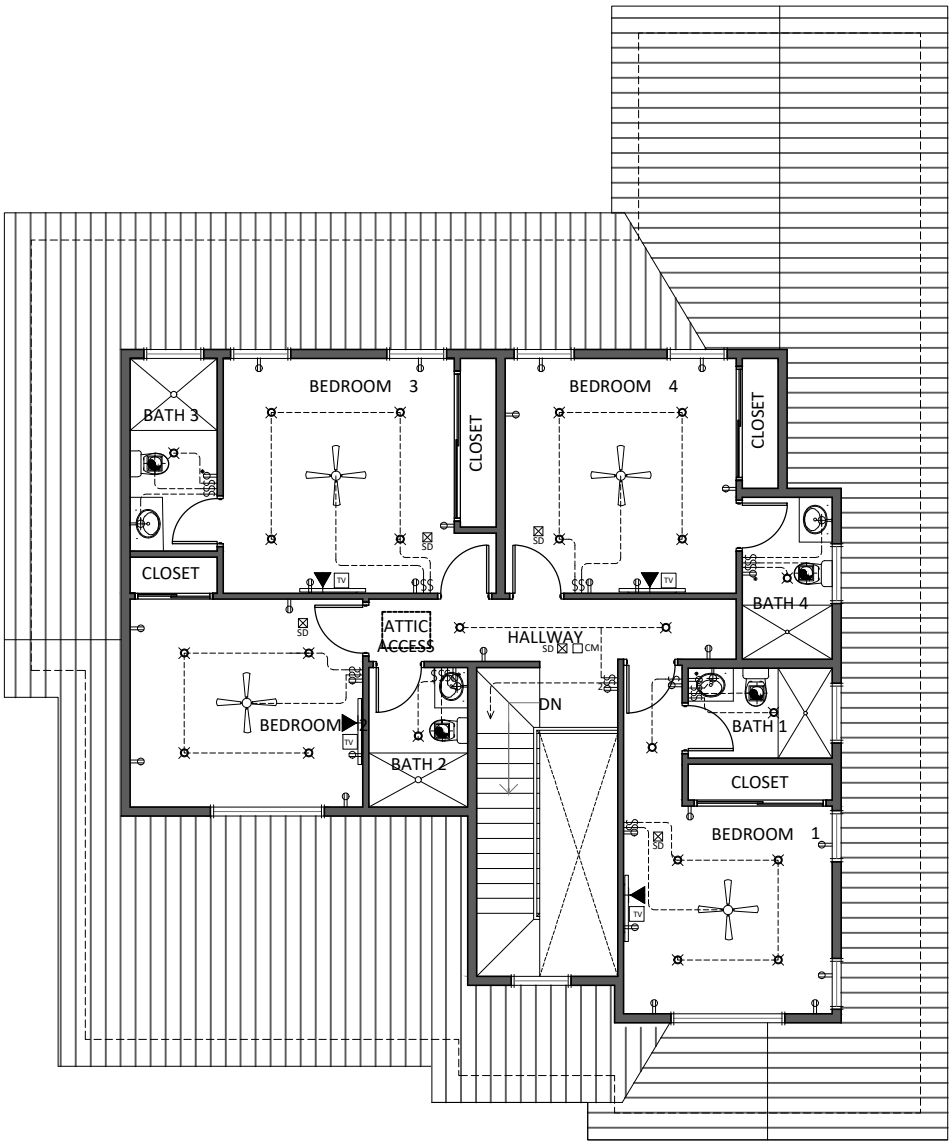
DRAWN BY	: S.A
SCALE	: AS NOTED
DATE	: 2/15/2025
JOB NO.	:
REV.	:

SHEET NAME: FIRST FLOOR ELECTRICAL PLAN

SHEET NUMBER: **E-01**



1 SECOND FLOOR ELECTRICAL PLAN

SCALE: 3/32"=1'-0"

LEGEND

			EXHAUST FAN/LIGHT (50CFM W/ HUMIDISTAT)
*	110V DUPLEX OUTLET(Arc fault interrupt) * =GFI-Ground Fault Interrupt WP-Weather Proof		SMOKE DETECTOR
		CM	CARBON MONOXIDE ALARM
	FUSE BOX		240V/40AMP DUPLEX OUTLET
*	SWITCH * =3-Three way switch 4-Four way switch M-w/motion Detector A-w/Accoustic Detector		240V/50AMP DUPLEX OUTLET
			PENDANT LIGHT
			CEILING FAN
	CEILING MOUNT LIGHT		
	WALL BRACKET LIGHT		MINI SPLIT AC

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DRAWN BY	: S.A
SCALE	: AS NOTED
DATE	: 2/15/2025
JOB NO.	:
REV.	:

SHEET NAME: SECOND FLOOR ELECTRICAL PLAN

SHEET NUMBER: **E-02**

LIGHTING NOTES:

- GARAGE, LAUNDRY ROOM AND UTILITY ROOM LIGHTING SHALL BE HIGH EFFICACY.
- LUMINAIRES AND CONTROLLED BY A VACANCY SENSOR (MANUAL-ON OCCUPANCY SENSOR) AND MOTION SENSOR THAT COMPLIES WITH CEC SECTION 110.9(B) AND SHALL NOT HAVE A CONTROL THAT ALLOWS THE LUMINAIRES TO BE TURNED ON AUTOMATICALLY OR THAT HAS AN OVERRIDE ALLOWING THE LUMINAIRES TO BE ALWAYS ON.
- ALL RECESS LIGHTS SHALL BE IC RATED, ELECTRONIC BALLAST AND AIR-T.
- CF-2R-LTG-01E FORM MUST BE PROVIDED TO THE CITY BUILDING INSPECTOR, PRIOR TO FINAL INSPECTION.

NEW BATHROOMS:
- NEW 20AMP DEDICATED CIRCUIT FOR BATH ROOM.
- FLUORESCENT LIGHTS (SUITABLE FOR DAMP LOCATIONS)/ HIGH EFFICACY.
- GFCI OUTLETS.
- ELECTRICAL AIR VENT (EXHAUST) 50 CUBIC FEET MIN, DIRECTLY VENTED TO OUTSIDE (SUITABLE FOR DAMP LOCATIONS).
- 1.28g TOILETS 24" CLEAR IN FRONT AND 15" FROM ITS CENTER TO THE SIDE WALL FIXTURE.
- TEMPER GLASS AT BATHTUB ENCLOSURES.
- SHOWER AREA THAT HAS WALLS TO BE HARD,
- NON-ABSORBENT SURFACE OVER MOISTURE RESISTANT UNDER LAYMENT CEMENT FIBER CEMENT GLASS MAT GYPSUM, TO A HEIGHT OF 72" ABOVE DRAIN INLET.
- SHOWER PAN SHALL BE 1.05 CUBIC INCHES AND A MINIMUM FINISH DIMENSION OF 30" X 30" INCHES IN ANY DIRECTION SHOWER DOORS SHALL OPEN SO AS TO MAINTAIN NOT LESS THAN A 22" UNOBSTRUCTED CLEAR OPENING.
- SHOWER HEAD TO HAVE A MAX FLOW OF 1.8GPM AND FAUCETS TO HAVE A MAX FLOW OF 1.2GPM @ 60PSI MAX AT LAVATORY FAUCETS.
- SHOWER AND TUB-SHOWER COMBINATIONS SHALL BE PROVIDED WITH INDIVIDUAL CONTROL VALVES OF THE PRESSURE BALANCE OR THE THERMOSTATIC MIXING VALVE TYPE.

GENERAL UTILITY NOTES:

1. OUTLETS, RECEPTACLES, LIGHT FIXTURES, AND SWITCHES SHOWN ON THE PLANS ARE FOR REFERENCE PURPOSES ONLY.
   - THE ELECTRICAL CONTRACTOR AND OWNER SHALL CONFIRM AND/OR ADJUST LOCATIONS AS REQUIRED TO ENSURE COMPLIANCE WITH ALL APPLICABLE CODE REQUIREMENTS.

2. GARAGE DOOR OPENERS WILL BE INSTALLED WITH A BATTERY BACKUP PER SB 969.

3. THE BUILDING SHALL HAVE ADDRESS NUMBERS PLACED IN A CLEARLY VISIBLE POSITION FROM THE STREET OR ROAD FRONTING THE PROPERTY.
   - NUMBERS SHALL CONTRAST WITH THE BACKGROUND AND BE ARABIC OR ALPHABETICAL LETTERS.
   - MINIMUM 4" HIGH WITH A 1/2" STROKE.
   - NUMBERS SHALL BE INTERNALLY ILLUMINATED TO ENSURE VISIBILITY DURING DARK HOURS (FMC 5-239(2)(A)).

4. ALL RECEPTACLE OUTLET LOCATIONS SHALL COMPLY WITH CEC ARTICLE 210.52:
   - SPACING REQUIREMENT: NO POINT ALONG THE FLOOR LINE OF ANY WALL SPACE SHALL BE MORE THAN 6 FEET FROM AN OUTLET IN THAT SPACE.
   - ALL 125-VOLT, 15-20 AMP RECEPTACLES SHALL BE LISTED TAMPER-RESISTANT RECEPTACLES.

5. ELECTRICAL DEVICE SPECIFICATIONS FOR DWELLINGS:
   A. TAMPER-RESISTANT RECEPTACLES ARE REQUIRED FOR ALL LOCATIONS DESCRIBED IN CEC 210.52 (I.E., ALL RECEPTACLES IN DWELLINGS).
   B. WEATHER-RESISTANT RECEPTACLES MUST BE INSTALLED IN DAMP OR WET LOCATIONS (OUTDOOR AREAS).
   C. ARC-FAULT PROTECTION IS REQUIRED FOR ALL OUTLETS (NOT JUST RECEPTACLES) IN ROOMS SPECIFIED IN NEC 210.12(A), INCLUDING:
      - KITCHENS, LAUNDRY AREAS, FAMILY ROOMS, LIVING ROOMS, BEDROOMS, DINING ROOMS, HALLWAYS, ETC.
   D. GFCI-PROTECTED OUTLETS ARE REQUIRED FOR LOCATIONS SPECIFIED IN NEC 210.8(A), INCLUDING:
      - LAUNDRY AREAS, KITCHEN DISHWASHERS, KITCHENS, GARAGES, BATHROOMS, OUTDOOR LOCATIONS, AND WITHIN 6 FEET OF A SINK, ETC.

RECESS LIGHTING NOTES:

RECESS LIGHTING NOTES:
- ALL RECESSED LIGHTS SHALL BE IC-RATED, ELECTRONIC BALLAST, AND AIR-TIGHT (AT-RATED) FOR SUCH RECESSED LUMINAIRES.
- RECESSED LIGHT FIXTURES IN INSULATED CEILINGS SHALL BE APPROVED, LISTED, ZERO-CLEARANCE INSULATION COVER (IC) TYPE, CERTIFIED AIR-TIGHT (ASTM E 282), AND SEALED WITH A GASKET OR CAULKING BETWEEN THE HOUSING AND CEILING.
- FIXTURES SHALL BE CERTIFIED TO COMPLY WITH SECTION 1199(N) AND SHALL ALLOW BALLAST MAINTENANCE AND REPLACEMENT TO BE READILY ACCESSIBLE TO BUILDING OCCUPANTS FROM BELOW (CEC 150(K)12 / TITLE 24).

WINDOWS NOTES:
- THE NFRC LABELS, WHICH STATE THE REQUIRED U-VALUE AND SHGC FOR ALL FENESTRATION PRODUCTS, SHALL NOT BE REMOVED PRIOR TO INSPECTION OR REMOVAL BY A BUILDING INSPECTOR.
- THE VALUES ON THE LABELS SHALL MATCH THE ENERGY REPORT.

ELECTRICAL NOTES:

- DEDICATED 20-AMP CIRCUIT REQUIRED FOR:
  - KITCHEN COUNTER, DISHWASHER, REFRIGERATOR, MICROWAVE OVEN, HOOD, AND GARBAGE DISPOSAL.
- ALL RECEPTACLES MUST BE TAMPER-RESISTANT.
- RECEPTACLES MAY NOT BE LOCATED MORE THAN 12 INCHES BELOW THE COUNTER SURFACE AND SHALL NOT BE INSTALLED BELOW A COUNTER THAT EXTENDS MORE THAN 6 INCHES BEYOND THE COUNTER EDGE.

INTERIOR LIGHTING SWITCHING DEVICES AND CONTROLS
INTERIOR LIGHTING SWITCHING DEVICES AND CONTROLS SHALL COMPLY WITH THE FOLLOWING:

1. ALL FORWARD PHASE-CUT DIMMERS USED WITH LED LIGHT SOURCES SHALL COMPLY WITH NEMA SSL 7A.
2. EXHAUST FANS SHALL BE CONTROLLED SEPARATELY FROM LIGHTING FIXTURES.
3. LIGHTING SHALL HAVE READILY ACCESSIBLE WALL-MOUNTED CONTROLS THAT ALLOW THE LIGHTING TO BE MANUALLY TURNED ON OR OFF.
4. IN BATHROOMS, GARAGES, LAUNDRY ROOMS, AND UTILITY ROOMS, AT LEAST ONE LUMINAIRE IN EACH OF THESE SPACES SHALL BE CONTROLLED BY AN OCCUPANT OR VACANCY SENSOR PROVIDING AUTOMATIC OFF FUNCTIONALITY.
   - IF AN OCCUPANCY SENSOR IS INSTALLED, IT SHALL BE INITIALLY CONFIGURED TO MANUAL-ON OPERATION USING THE MANUAL CONTROL REQUIRED UNDER SECTION 150.0(K)2C.
5. LUMINAIRES THAT ARE OR CONTAIN LIGHT SOURCES THAT MEET REFERENCE JOINT APPENDIX JA8 REQUIREMENTS FOR DIMMING, AND THAT ARE NOT CONTROLLED BY OCCUPANCY OR VACANCY SENSORS, SHALL HAVE DIMMING CONTROLS.
6. UNDER-CABINET LIGHTING SHALL BE CONTROLLED SEPARATELY FROM CEILING-INSTALLED LIGHTING SO THAT ONE CAN BE TURNED ON WITHOUT TURNING ON THE OTHER.

BRANCH CIRCUIT REQUIREMENTS
ALL BRANCH CIRCUITS THAT SUPPLY 120-VOLT, SINGLE-PHASE, 15- AND 20-AMPERE OUTLETS INSTALLED IN DWELLING UNIT SPACES—INCLUDING:
- FAMILY ROOMS, DINING ROOMS, LIVING ROOMS, PARLORS, LIBRARIES, DENS, BEDROOMS, SUNROOMS, RECREATION ROOMS, HALLWAYS, CLOSETS, OR SIMILAR ROOMS OR AREAS—

SHALL BE PROTECTED BY A LISTED ARC-FAULT CIRCUIT INTERRUPTER (AFCI), INSTALLED TO PROVIDE PROTECTION OF THE BRANCH CIRCUIT.

RESIDENTIAL ENERGY LIGHTING REQUIREMENTS (ES 150.0(K))

1. ALL LUMINAIRES SHALL BE HIGH-EFFICIENCY IN ACCORDANCE WITH ES TABLE 150.0-A. LIGHT SOURCES THAT ARE NOT MARKED "JA8-2016-E" SHALL NOT BE INSTALLED IN ENCLOSED LUMINAIRES.

2. IN BATHROOMS, GARAGES, LAUNDRY ROOMS, AND UTILITY ROOMS, AT LEAST ONE LUMINAIRE SHALL BE CONTROLLED BY A VACANCY SENSOR.

3. DIMMERS OR VACANCY SENSORS SHALL CONTROL ALL LED-STYLE LUMINAIRES, WITH TWO EXCEPTIONS:
   - FIXTURES INSTALLED IN HALLWAYS
   - CLOSETS UNDER 70 SQUARE FEET

4. RECESSED CAN LIGHT FIXTURES SHALL BE IC-LISTED, AIR-TIGHT LABELED, AND SHALL NOT BE EQUIPPED WITH A STANDARD MEDIUM BASE SCREW LAMP HOLDER.

5. SFD OUTDOOR LIGHTING FIXTURES THAT ARE ATTACHED TO A BUILDING ARE REQUIRED TO:
   - BE HIGH EFFICIENCY
   - HAVE A MANUAL ON/OFF SWITCH
   - HAVE BOTH MOTION SENSOR AND PHOTOCELL CONTROL

SEE ES 150.0(K) FOR ADDITIONAL CONTROL OPTIONS.

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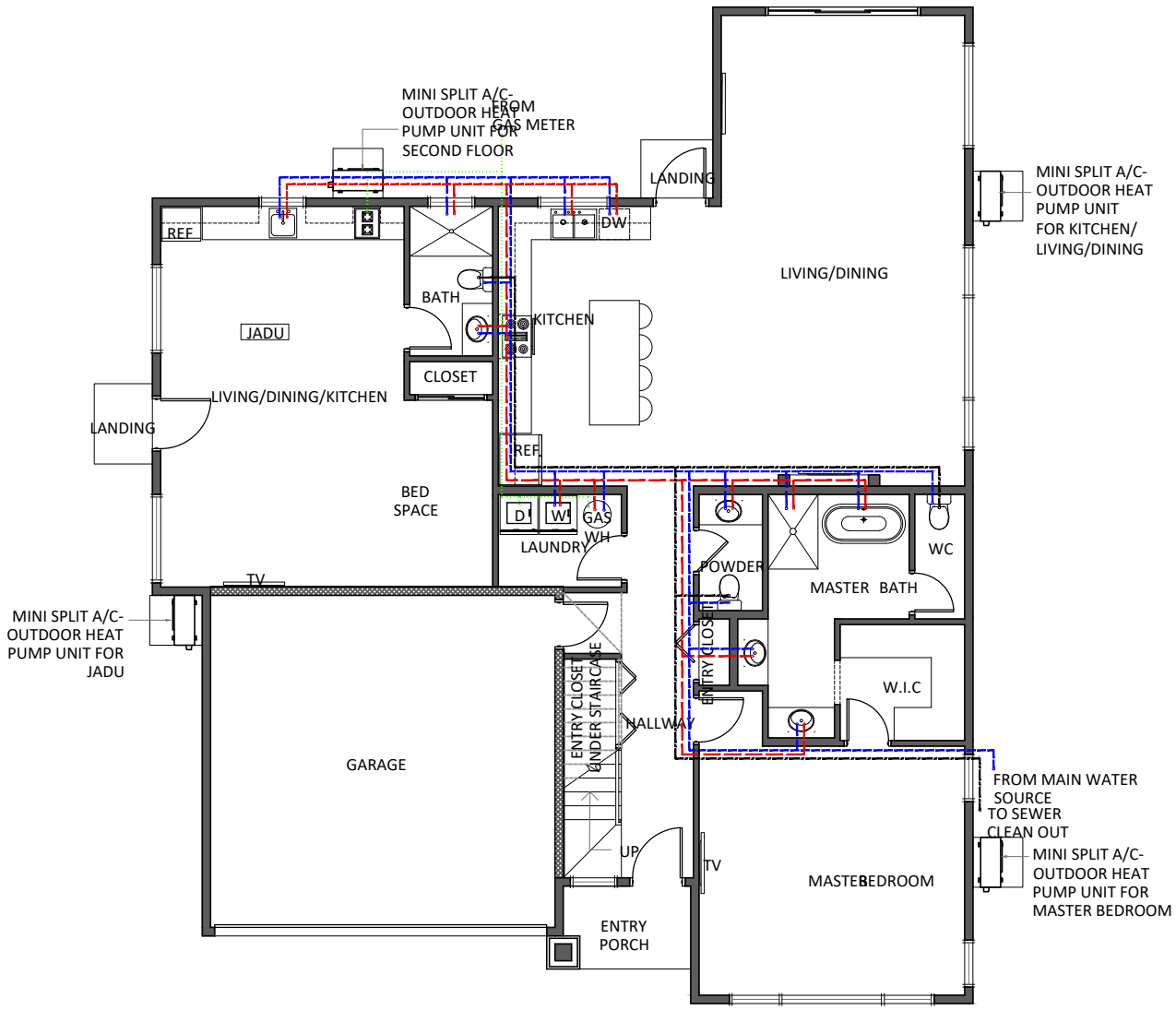
DRAWN BY	: S.A
SCALE	: AS NOTED
DATE	: 2/15/2025
JOB NO.	:
REV.	:

SHEET NAME
ELECTRICAL NOTES

SHEET NUMBER
E-03



1 FIRST FLOOR PLUMBING PLAN

SCALE: 3/32"=1'-0"

LEGEND

- HOT WATER PIPE
- COLD WATER PIPE
- SOIL VENT PIPE
- GAS PIPE

NOT FOR CONSTRUCTION - THIS PLAN IS FOR BUILDING DEPARTMENT REVIEW ONLY. SUBJECT TO REVISION

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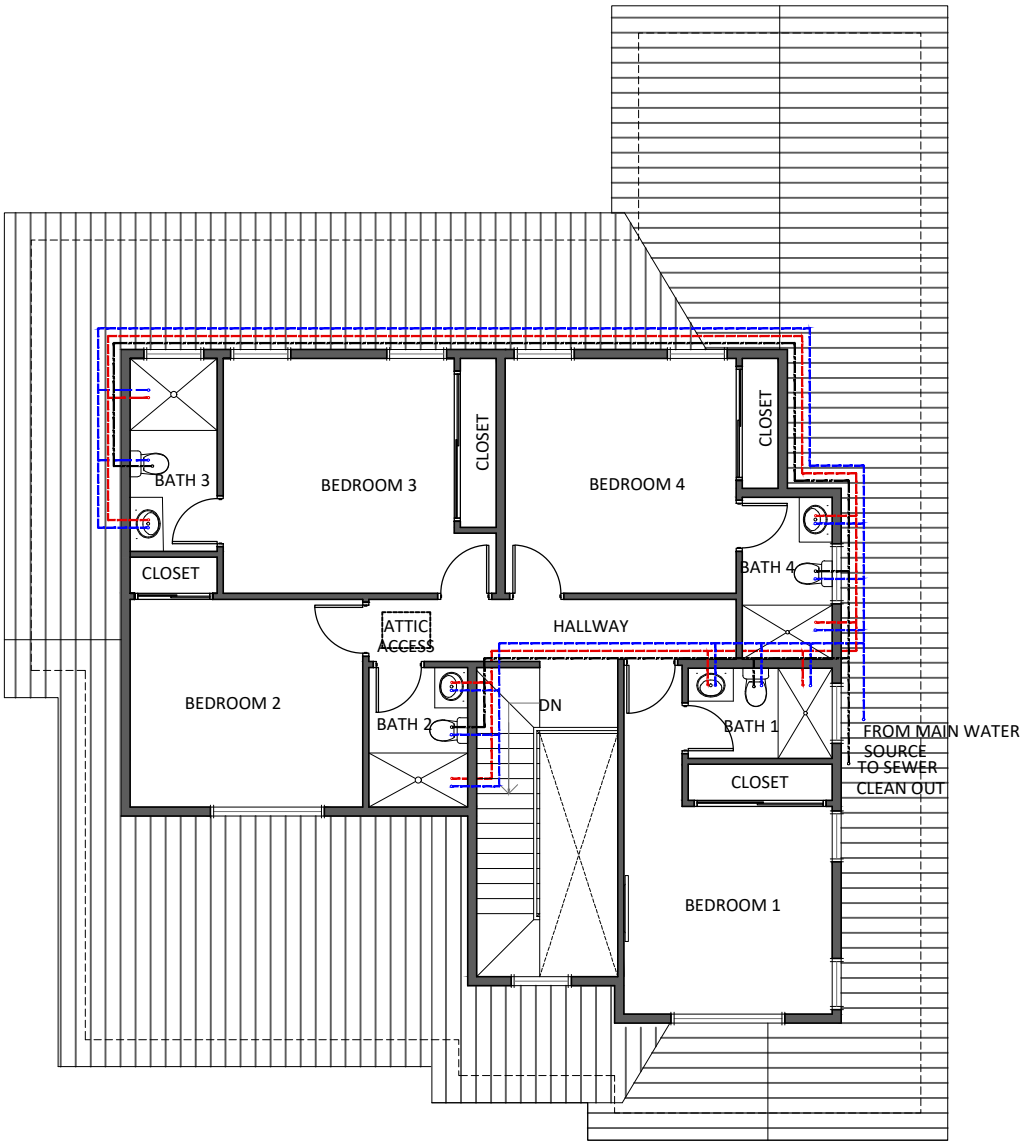

1 SECOND FLOOR PLUMBING PLAN

SCALE: 3/32"=1'-0"

LEGEND

- HOT WATER PIPE
- COLD WATER PIPE
- SOIL VENT PIPE
- GAS PIPE

NOT FOR CONSTRUCTION - THIS PLAN IS FOR BUILDING DEPARTMENT REVIEW ONLY. SUBJECT TO REVISION

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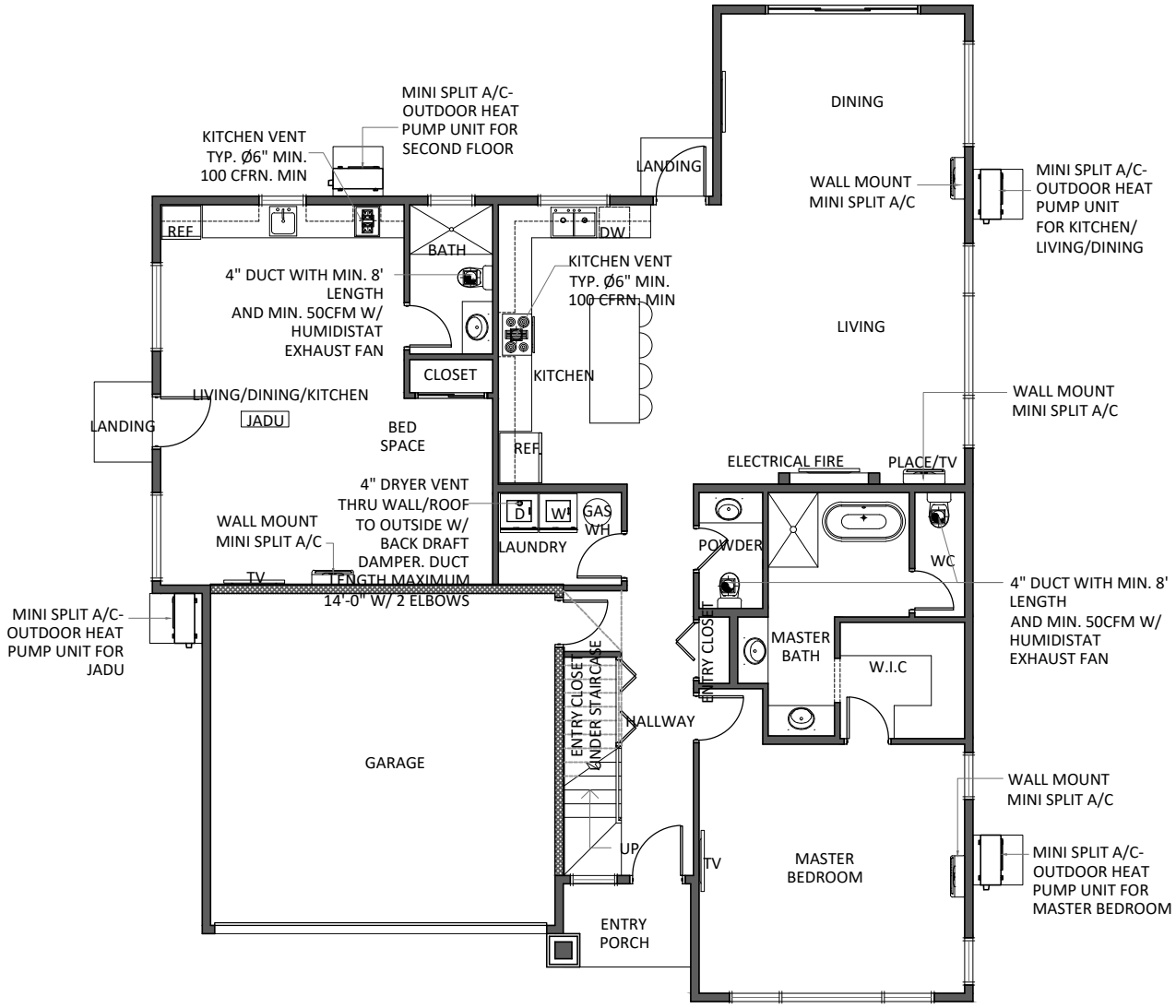
DRAWN BY	: S.A
SCALE	: AS NOTED
DATE	: 2/15/2025
JOB NO.	:
REV.	:

SHEET NAME
SECOND FLOOR PLUMBING PLAN

SHEET NUMBER
P-02



1 FIRST FLOOR MECHANICAL PLAN

SCALE: 3/32"=1'-0"

MECHANICAL LEGEND

	SUPPLY GRILL
	RETURN GRILL
x x	SUPPLY DUCT
	RETURN DUCT
	EXHAUST FAN/LIGHT (50CFM W/ HUMIDISTAT)
	KITCHEN HOOD (300 CFM)
	MINI SPLIT AC

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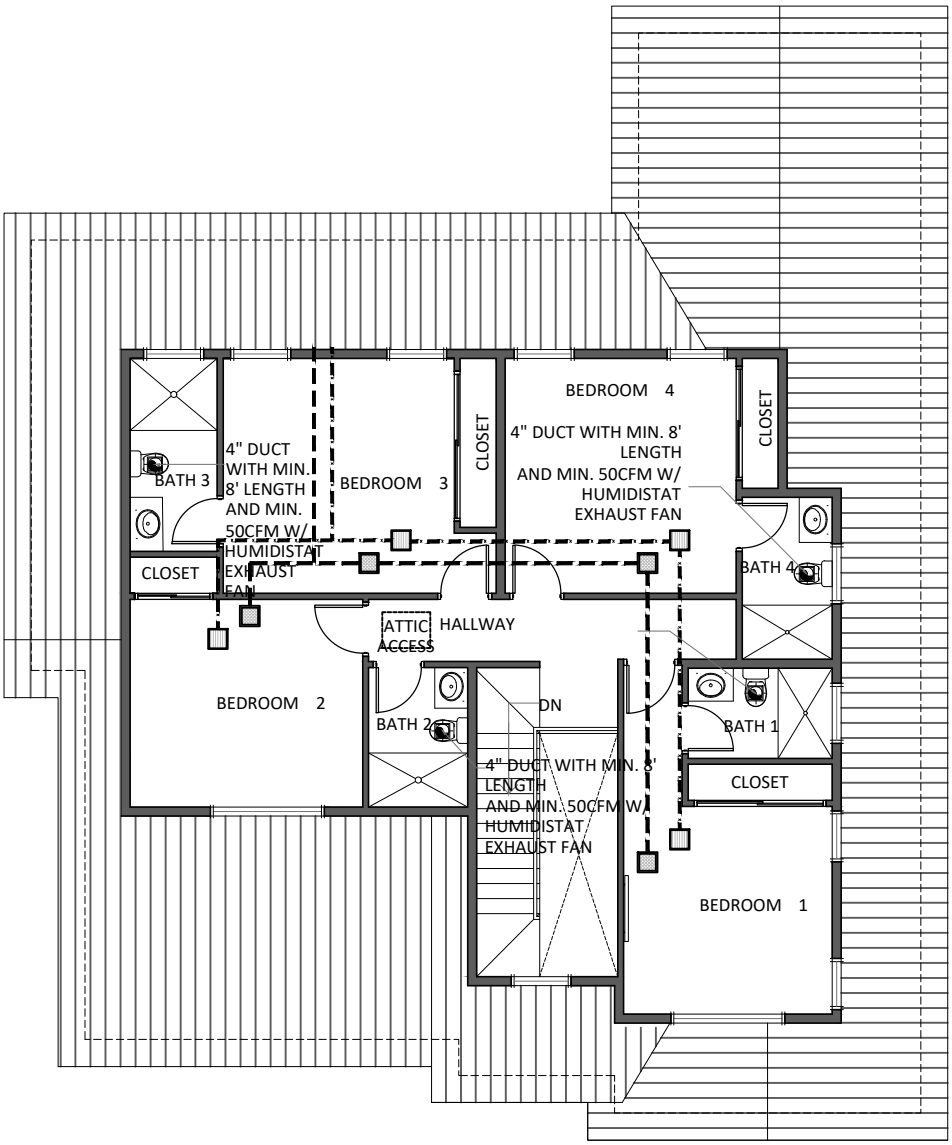
DRAWN BY	: S.A
SCALE	: AS NOTED
DATE	: 2/15/2025
JOB NO.	:
REV.	:

SHEET NAME: FIRST FLOOR MECHANICAL PLAN

SHEET NUMBER: **M-01**



1 SECOND FLOOR MECHANICAL PLAN

SCALE: 3/32"=1'-0"

MECHANICAL LEGEND

- SUPPLY GRILL
- RETURN GRILL
- SUPPLY DUCT
- RETURN DUCT
- EXHAUST FAN/LIGHT (50CFM W/ HUMIDISTAT)
- KITCHEN HOOD (300 CFM)
- MINI SPLIT AC

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REV.	:

SHEET NAME
SECOND FLOOR MECHANICAL PLAN

SHEET NUMBER
M-02

HVAC GENERAL NOTES

1. CONTRACTOR SHALL CAREFULLY REVIEW THESE PLANS AND SPECIFICATIONS PRIOR TO BID.CONTRACTOR SHALL ALSO REVIEW PLANS AND SPECIFICATIONS OF OTHER RELATED TRADES (INCLUDING CIVIL,STRUCTURAL AND ELECTRICAL)PRIOR TO BID TO ENSURE AN ACCURATE UNDERSTANDING OF EXACT SCOPE OF WORK.ANY ITEMS REQUIRING CLARIFICATION SHALL BE BROUGHT TO THE ATTENTION OF THE ARCHITECT IN SUFFICIENT TIME TO BE INCORPORATED INTO THE BID.

2.CONTRACTOR SHALL VERIFY ALL EQUIPMENT MODEL NUMBERS,CAPACITIES,SIZES,VOLTAGES AND ALL OTHER SCHEDULED INFORMATION WITH ALL OTHER APPLICABLE TRADES AND WITH THE MANUFACTURER PRIOR TO INSTALLATION.

3.CONTRACTOR SHALL VERIFY ALL LOCATIONS,SIZES,P.O.C.'s AND AVAILABILITY OF ALL EXISTING ITEMS (I.E.: OUTSIDE AIR,CWS & CWR,EXHAUST ETC.) PRIOR TO INSTALLATION OF ANY MATERIAL OR EQUIPMENT.

4.THESE DRAWINGS ARE ESSENTIALLY DIAGRAMMATIC AND ARE NOT INTENDED TO INDICATE ALL NECESSARY OFFSETS OF DUCTWORK AND PIPING.THE CONTRACTOR SHALL INSTALL MATERIAL AND EQUIPMENT IN A MANNER AS TO CONFORM TO STRUCTURE,AVOID OBSTRUCTIONS,PRESERVE HEADROOM,AND KEEP OPENINGS AND PASSAGEWAYS CLEAR.ALL INSTALLATIONS SHALL BE CONSISTENT WITH NORMALLY ACCEPTABLE, INDUSTRY STANDARDS.THE CONTRACTOR SHALL NOTIFY THE ARCHITECT IN WRITING OF ANY DISCREPANCIES OR CONFLICTS THAT WOULD AFFECT THE SYSTEM PERFORMANCE OR WHICH WOULD INCUR ADDITIONAL COSTS. THIS NOTIFICATION SHALL BE MADE PRIOR TO THE INSTALLATION OF THE ITEMS CONCERNED.

5.NEW AND/OR EXISTING EQUIPMENT INDICATED ON THIS DRAWING IS SHOWN IN APPROXIMATE POSITION(S). CONTRACTOR SHALL FIELD VERIFY ALL EXISTING CONDITIONS INCLUDING EQUIPMENT LOCATIONS,P.O.C's AND STRUCTURAL MEMBERS PRIOR TO INSTALLATION.IN ALL CASES,ADEQUATE ACCESS (PER MANUFACTURER'S RECOMMENDATIONS AND CODE COMPLIANCE) FOR MAINTENANCE AND REPLACEMENT OF EQUIPMENT SHALL BE PROVIDED.

6.ALL WORK SHALL BE DONE IN ACCORDANCE WITH ALL APPLICABLE CODES.NOTHING SHOWN IN THE PLANS OR STATED IN THE SPECIFICATIONS IS INTENDED TO INDICATE THAT THE INSTALLATION OF CONNECTIONS OF ANY ITEM OR DEVICE SHOULD BE DONE CONTRARY TO THE MANUFACTURER'S INSTRUCTIONS AND ALL APPLICABLE CODES AND REGULATIONS.THE CONTRACTOR IS RESPONSIBLE TO ENSURE THAT THE INSTALLATION AND CONNECTIONS OF ALL ITEMS AND DEVICES CONFORM TO MANUFACTURER'S INSTRUCTIONS AND TO ALL APPLICABLE CODES AND REGULATIONS.

7.ALL HVAC EQUIPMENT,MATERIAL,AND ALL CONNECTION THERETO SHALL BE INSTALLED COMPLETE PER MANUFACTURER'S INSTRUCTIONS TO PROVIDE A COMPLETE AND FULLY OPERATIONAL SYSTEM.

8.DUCT SIZES INDICATED ON DRAWINGS ARE INSIDE NET CLEARANCE DIMENSIONS.

9.CONTRACTOR MAY,AT HIS OPTION,REVISE DUCTWORK SIZING AND ROUTING TO ALLOW FOR INSTALLATION IN THE AVAILABLE SPACE.DUCTWORK THAT IS RESIZED MUST MAINTAIN THE SAME CROSS-SECTIONAL AREA.FLEX DUCT IS LIMITED TO A MAXIMUM OF 5' AT EACH REGISTER.

10.ALL NEW SUPPLY ,RETURN,AND EXHAUST (AIR DISTRIBUTION) GRILLES,REGISTERS,AND DIFFUSERS SHALL MATCH (IF APPLICABLE) EXISTING,AND BE APPROVED BY ARCHITECT.THE MAXIMUM NOISE NC LEVEL SHALL BE 35.

11. ALL SUPPLY,RETURN,AND EXHAUST REGISTER CONNECTIONS TO DUCT WORK SHALL BE PROVIDED WITH ACCESSIBLE MANUAL VOLUME DAMPERS.ALTERNATIVELY,ACCESSIBLE MANUAL VOLUME DAMPERS MAY BE PROVIDED IN DUCT WORK FEEDER LINES SERVING INDIVIDUAL REGISTERS.

12.SUBSTITUTION OF HVAC EQUIPMENT WITH EFFICIENCIES LOWER THAT THOSE INDICATED ON THE PLANS MAY REQUIRE RECALCULATION OF TITLE 24 DOCUMENTS.IF THE CONTRACTOR CHOOSES TO UTILIZE SUCH EQUIPMENT, HE ASSUMES FULL RESPONSIBILITY FOR THE RECALCULATION AND JURISDICTIONAL APPROVAL OF TITLE 24 DOCUMENTS.

13.IF THE CONTRACTOR'S USE OF SUBSTITUTE MATERIALS,EQUIPMENT,OR METHODS OF INSTALLATION REQUIRES ANY CHANGES IN OTHER TRADES' WORK FROM THAT SHOWN ON THE DRAWINGS,THE EXTRA COST OF THE OTHER TRADES' WORK SHALL BE THE RESPONSIBILITY OF THE CONTRACTOR INITIATING THE SUBSTITUTION.

14.SUBMITTALS: APPROVAL OF SUBMITTALS DOES NOT RELEASE THE CONTRACTOR FROM OBLIGATIONS TO COMPLY WITH ALL REQUIREMENTS OF THE CONSTRUCTION DOCUMENTS OR APPLICABLE CODE REGULATIONS.

15.WHERE NONMETALLIC PIPING PENETRATES AREA SEPARATION WALLS,THE PIPE SECTION PASSING THROUGH THE WALLS AND THE FIXTURE CONNECTIONS THERETO SHALL BE METAL ONLY.

16.NO RANGE HOODS,DRYER VENTS,COMBUSTION VENTS,OR HEATING DUCTS ARE PERMITTED IN AREA SEPERATION WALLS.

17. A. CONTRACTOR TO VERIFY LOCATION OF FIRE AND FIRE/SMOKE BARRIER WALLS WITH ARCHITECT PRIOR TO FIRE AND/OR SMOKE DAMPER,DETECTOR AND ACTUATOR INSTALLATION.

B. ALL CEILING FIRE DAMPERS TO BE ONE (1) HOUR U.L AND C.S.F.M. APPROVED.

C. ALL FIRE RATED WALLS SHALL BE PROVIDED WITH U.L.AND C.S.F.M APPROVED SMOKE/FIRE DAMPERS (EQUAL TO WALL RATING),MOTOR,ACTUATOR,AND SMOKE DETECTOR.

D. ALL SMOKE BARRIER WALLS SHALL BE PROVIDED WITH U.L. AND C.S.F.M. APPROVED SMOKE/FIRE DAMPERS (EQUAL TO WALL RATING),MOTOR,ACTUATOR,AND SMOKE DETECTOR.

E. ALL PENETRATIONS OF ONE (1) HOUR CORRIDOR WALLS AND CEILINGS THAT WOULD REQUIRE THE INSTALLATION OF A FIRE DAMPER SHALL BE APPROVED WITH A U.L AND C.S.F.M.APPROVED COMBINATION SMOKE/FIRE DAMPER,(EQUAL TO WALL RATING),MOTOR,ACTUATOR,AND SMOKE DETECTOR.

F. PROVIDE ALL FIRE & SMOKE DAMPERS WITH ACCESS DOORS AS NECESSARY.

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DRAWN BY	: S.A
SCALE	: AS NOTED
DATE	: 2/15/2025
JOB NO.	:
REV.	:

SHEET NAME
MECHANICAL NOTES

SHEET NUMBER
M-03