



**FRONT** 

REAR:

SIDES:

NUMBER OF STORIES:

OCCUPANCY GROUP:

SPRINKLERED:

**ROOF RATING:** 

HIGH FIRE ZONE:

**CONSTRUCTION TYPE:** 

MAX. HEIGHT PROPOSED:

PROJECT DIRECTORY

# MONO COUNTY PROTOTYPE ACCESSORY DWELLING UNIT - PLAN 4

MONO COUNTY, CA

PROJECT CHECKLIST

#### **FOUNDATION**

NOTE: THIS PROJECT ASSUMES A SITE WITH STANDARD SOIL CONDITIONS. IF THE ADU IS TO BE LOCATED ON A SITE WITH EXPANSIVE OR OTHERWISE UNUSUAL SOIL, THE APPLICANT MUST PROCURE A GEOTECHNICAL REPORT AND MAY REQUIRE A NEW FOUNDATION DESIGN.

- ☐ SLAB ON GRADE \* STRIKE THROUGH T24-B401/402/403
- ☐ RAISED FOUNDATION \* STRIKE THROUGH T24-A401/402/403

#### **WASTE WATER**

- ☐ SEWER
- ☐ SEPTIC (REQUIRES APPROVAL)

# FIRE SPRINKLERS

DOES THE PRIMARY RESIDENCE HAVE NFPA 13D SPRINKLERS?

- □ NO
- ☐ YES

REQUIRED AT PROPOSED ADU:

- NO (NOT REQUIRED IF THE PRIMARY RESIDENCE IS UNSPRINKLERED
- YES (REQUIRED IF THE PRIMARY RESIDENCE IS SPRINKLERED

#### FIRE SPRINKLERS NOTES

IF FIRE SPRINKLERS ARE REQUIRED AT PROPOSED ADU THEN THE

- 1. DETAILED SPRINKLER PLANS SHALL BE SUBMITTED TO THE FIRE PREVENTION BUREAU AND APPROVED PRIOT TO INSTALLATION. PLANS AND INSTALLATION MUCH BE BY A C16 LICENSED SPRINKLER
- SECTION 903.3.1.3 NFPA 13D SPRINKLER SYSTEMS AUTOMATIC FIRE SPRINKLER SYSTEMS INSTALLED IN ONE- AND TWO-FAMILY DWELLINGS,
- 3. SECTION 903.2.8 GROUP R AN AUTOMATIC SPRINKLER SYSTEM INSTALLED IN ACCORDANCE WITH SECTION 903.3 SHALL BE PROVIDED THROUGHOUT ALL BUILDINGS WITH A GROUP R FIRE AREA.
- . SECTION 903.2.8.1 GROUP R-3 AN AUTOMATIC SPRINKLER SYSTEM INSTALLED IN ACCORDANCE WITH SECTION 903.3.1.3 SHALL BE PERMITTED IN GROUP R-3 OCCUPANCIES.
- 5. LOCATION AND SIZE OF WATER SERVICE UNDERGROUND SHALL BE INSTALLED AS SHOWN ON APPROVED FIRE SPRINKLER PLANS. A MINIMUM 1 INCH WATER SHALL BE INSTALLED.
- 7. A HYDRO INSPECTION OF THE FIRE SPRINKLER SYSTEM IS REQUIRED PRIOR TO FRAME INSPECTION. ONLY THE NEW PIPING SHALL BE TESTED.

6. A FIRE UNDERGROUND FLUSH CERTIFICATION SHALL BE REQUIRED AT

### ONSITE PARKING REQUIRED

- NONE, EXCEPTION USED:
  - THE ADU IS LOCATED WITHIN 1/2 MILE OF PUBLIC TRANSIT
  - ☐ OFF STREET PARKING PERMITS ARE REQUIRED BUT NOT OFFERED TO THE OCCUPANT OF THE ADU.
  - ☐ WHEN THERE IS A CAR SHARE VEHICLE LOCATED WITHIN ONE BLOCK OF THE ADU.
- ONE PARKING SPACE (STUDIO OR 1-BEDROOM ADU)
- TWO PARKING SPACES (2-BEDROOM ADU)

# **WILDLAND-URBAN INTERFACE FIRE AREA**

PROPERTY, INCLUDING INJURY OR DEATH, OR ECONOMIC LOSSES, ARISING OUT

THE PLANS ATTACHED HERE ARE APPROVED FOR ONLY USE IN MONO COUNTY

ISSUING JURISDICTION AND CHIEF BUILDING OFFICIAL. ANY UNAPPROVED PLAN

MODIFICATIONS MAY BE DEVELOPED THROUGH RRM DESIGN GROUP AND THE

NO DEVIATIONS, ALTERATIONS, OR OPTIONS BEYOND THOSE SPECIFICALLY

OF THE USE OF THESE CONSTRUCTION DOCUMENTS.

- 1. PORTIONS OF THE COUNTY OF MONO ARE LOCATED IN WITHIN THE WILDLAND-URBAN INTERFACE FIRE AREA (AS DEFINED BY 2022 CRC R337.2). a. AREA DEFINED BY STATE AS A "FIRE HAZARD SEVERITY ZONE" b. AREA DESIGNATED BY ENFORCING AGENCY TO BE AT A SIGNIFICANT RISK
- 2. AN ADU WITHIN THE WILDLAND-URBAN INTERFACE FIRE AREA SHALL COMPLY
- WITH THE 2022 CRC SECTION R337. THIS PROTOTYPE PLAN IS DESIGNED TO COMPLY WITH THE PROVISIONS REQUIRED BY THE 2022 CRC SECTION R337, REGARDLESS IF LOCATED IN A WILDLAND-URBAN INTERFACE FIRE AREA.

#### **REQUIRED W.U.I. DETAILS**

- 1. REFER TO "W.U.I. REQUIREMENT NOTES" ON SHEET G-101.
- ROOF DETAILS: SHEETS AD-902, AD-903, AD-904, AD-905, AND AD-906
- ☐ VENTS: W.U.I. COMPLIANT ATTIC VENT, SEE LEGEND ON ROOF PLANS SHEET
- EXTERIOR WALL COVERING DETAIL: SEE EXTERIOR ELEVATIONS LEGEND
- EXTERIOR WINDOWS: "WINDOW GENERAL NOTE" #6 ON FLOOR PLANS SHEET
- EXTERIOR DOORS: "DOOR GENERAL NOTE" #6 ON FLOOR PLANS SHEET

#### **VERY-HIGH FIRE SEVERITY ZONE**

☐ YES

SIGNATURE:

- 1. IN ACCORDANCE WITH THE 2022 CFC SECTION 4904, STRUCTURES LOCATED IN THE VERY HIGH FIRE HAZARD SEVERITY ZONE SHALL PROVIDE & MAINTAIN A FUEL MODIFICATION ZONE. FUEL MODIFICATION ZONES: THE APPLICANT SHALL PROVIDE & MAINTAIN FIRE/FUEL BREAKS TO THE SATISFACTION OF THE LOCAL FIRE DEPARTMENT. FIRE/FUEL BREAKS SHALL BE SHOWN ON THE GRADING, MAP, AND BUILDING PLANS.
- 2. HOMEOWNER TO PROVIDE COMPLIANT VENTS/ICC REPORT IF IN A HIGH FIRE

#### **EXTERIOR WALL MATERIAL**

- ☐ CEMENT PLASTER STUCCO
- FIBER CEMENT BOARD AND BATTEN SIDING
- FIBER CEMENT LAP SIDING
- FIBER CEMENT SHINGLE SIDING

#### **ROOF MATERIAL WINDOW MATERIAL**

☐ VINYL ☐ COMPOSITION SHINGLES

- ☐ FIBERGLASS ☐ STANDING SEAM METAL ROOF
- ☐ WOOD ☐ CLAY ROOF TILES
- ☐ ALUMINUM CLAD WOOD

#### **SNOW LOADING CATEGORIES**

- □ < 65 PSF ☐ 66 PSF - 80 PSF
- 81 PSF 120 PSF
- 220 PSF 235 PSF

#### STYLE SELECTION

NOTE: WHEN SELECTING ONE OF THE TWO ARCHITECURAL STYLES, PLEASE SELECT THE OPTION THAT IS THE SAME OR A SIMILAR DESIGN TO THE PRINCIPAL RESIDENCE. THE ADU BUILDING COLORS AND MATERIALS SHALL BE THE SAME OR SIMILAR TO THE PRINCIPAL RESIDENCE.

RURAL MOUNTAIN

\*STRIKE THROUGH HIGH DESERT SHEETS: A4-122/202/302 AND AD-904

\*STRIKE THROUGH RURAL MOUNTAIN SHEETS: A4-121/201/301 AND AD-903

DATE 01/10/2024 S SHEET UBL

THESE PLANS ARE PROVIDED BY MONO

UNDER A SEPARATE PERMIT ONCE THE

BUILDING PERMIT FOR THE ADU HAS BEEN ISSUED AND FINAL INSPECTION COMPLETED. II YOU DO NOT HAVE THE CONSTRUCTION

COUNTY AS PART OF THE PRE-APPROVED ADU PROGRAM AND ARE PUBLIC DOMAIN. THERE

PLANS. NO ALTERATIONS TO THESE PLANS ARE

allowed. All alterations must be done

KNOWLEDGE AND EXPERIENCE TO CONTRUCT

THESE PLANS WITHOUT FURTHER DETAILS, IT IS RECOMMENDED YOU HIRE A CONTRACTOR TO DO THE CONSTRUCTION. THE CITY WILL NOT PROVIDE FURTHER INFORMATION OR DETAILS

AND BUILDING INSPECTORS WILL NOT PROVIDE

STEP BY STEP INSTRUCTIONS IN THE FIELD.

0

0 2

CANNOT BE A CHARGE TO PROVIDE THESE

A4-301 **BUILDING SECTIONS - RURAL MOUNTAIN BUILDING SECTIONS - HIGH DESERT** ARCHITECTURAL DETAILS - COMMON AD-901 ARCHITECTURAL DETAILS - COMMON AD-902 AD-903 ARCHITECTURAL DETAILS - RURAL MOUNTAIN AD-904 ARCHITECTURAL DETAILS - HIGH DESERT AD-905 ARCHITECTURAL DETAILS - HIGH DESERT AD-931 ADAPTABILITY DETAILS SHEET INDEX, ABBREVIATIONS & SYMBOLS S-101 S-102 S-103 GENERAL NOTES, SPECIAL INSPECTION & TESTS S4-201A FOUNDATION PLANS - HIGH DESERT FOUNDATION PLANS - RURAL MOUNTAIN S4-201B S4-202A **ROOF PLANS - HIGH DESERT** S4-202B **ROOF PLANS - RURAL MOUNTAIN** S-301 TYPICAL CONCRETE DETAILS S-311 CONCRETE DETAILS S-312 CONCRETE DETAILS S-313 CONCRETE DETAILS S-401 TYPICAL WOOD DETAILS S-402 TYPICAL WOOD DETAILS TYPICAL WOOD DETAILS S-404 TYPICAL WOOD DETAILS S-421 ROOF FRAMING DETAILS S-422 ROOF FRAMING DETAILS Grand total: 43 **SUPPORTING DOCUMENTS ENERGY COMPLIANCE** PREPARED BY: CARSTAIRS ENERGY INC. DATE PREPARED: 08/04/2022 JOB NUMBER: 22-051011 **DEFERRED SUBMITTALS** TRUSS DESIGN AND CALCULATIONS. PV SYSTEM DESIGN. SLAB ON GRADE PROJECT REQUIRES A 1.99 kWdc PV SYSTEM. RAISED FOUNDATION PROJECT REQUIRES A 2.08 kWdc PV

SYSTEM SHALL BE COMPLETED PRIOR TO FINAL INSPECTION

**SHEET INDEX** 

G-102

G-101

G-201

A4-202

TITLE SHEET - PLAN 4

**GENERAL NOTES** 

ABBREVIATIONS AND SYMBOLS

CAL GREEN RESIDENTIAL REQUIREMENTS

CAL GREEN RESIDENTIAL REQUIREMENTS

T24-A401 ENERGY COMPLIANCE - PLAN 4 - SLAB ON GRADE

T24-A402 ENERGY COMPLIANCE - PLAN 4 - SLAB ON GRADE

T24-A403 ENERGY COMPLIANCE - PLAN 4 - SLAB ON GRADE

SITE PLAN INSTRUCTIONS & EXAMPLE

ROOF PLAN & RCP - RURAL MOUNTAIN

EXTERIOR ELEVATION - HIGH DESERT

EXTERIOR ELEVATION - RURAL MOUNTAIN

ROOF PLAN & RCP - HIGH DESERT

T24-B402 ENERGY COMPLIANCE - PLAN 4 - RAISED FOUNDATION

T24-B403 ENERGY COMPLIANCE - PLAN 4 - RAISED FOUNDATION

FLOOR PLAN / DOOR WINDOW SCHEDULES

FINISH PLAN, MECHANICAL & ELECTRICAL PLANS

**ENERGY COMPLIANCE - PLAN 4 - RAISED FOUNDATION** 

# (TO BE PROVIDED BY OWNER) **APPLICANT RRM DESIGN GROUP** ADDRESS: 3765 S HIGUERA ST, SUITE 102 SAN LUIS OBISPO, CA 93401 PHONE: P:(805) 543-1794 PROJECT INFORMATION **PROJECT SCOPE:** 1. CONSTRUCTION OF A NEW DETACHED 1 STORY 840 SF ACCESSORY OR PRIMARY DWELLING UNIT WITH 2 BEDROOMS AND 1 BATH(S). 2. ALL SITE WORK WITHIN THE PROPERTY LINE. 3. ALL THE WORK SHOWN IN THE DRAWINGS AND SPECIFICATIONS. SITE INFORMATION: (TO BE PROVIDED BY COUNTY OF MONO OR TOWN OF MAMMOTH LAKES) STREET ADDRESS: **ZONING:** LOT SIZE: LAND USE: **EXISTING USE:** PROPOSED USE: **FLOOR AREA RATIO** (TO BE PROVIDED BY COUNTY OF MONO OR TOWN OF MAMMOTH LAKES) MAXIMUM FAR: PROPOSED FAR: LOT COVERAGE (TO BE PROVIDED BY OWNER) BUILDING: HARDSACPE/PAVING LANDSCAPE: **SETBACKS** (TO BE PROVIDED BY COUNTY OF MONO OR TOWN OF MAMMOTH LAKES)

4' - 0" (A.B. NO. 68)

4' - 0" (A.B. NO. 68)

REFER TO ELEVATIONS. VARIES BY STYLE

REFER TO 'WILDLAND-URBAN INTERFACE FIRE

AREA' AND 'VERY-HIGH FIRE SEVERITY ZONE

CLASS A

SECTIONS ON SHEET

(TO BE PROVIDED BY COUNTY OF MONO OR TOWN OF MAMMOTH LAKES)

MAX. HEIGHT ALLOWED:(PER 2022 CBC TABLE 504.3) / (ASSEMBLY BILL 68)

MAX. HEIGHT ALLOWED: (PER COUNTY OF MONO)

# **BUILDING AREAS**

AREAS - PLAN 4		
AREAS - FLAN 4		
CONDITIONED		
PLAN 4 FLOOR		840 SF
UNCONDITIONED		
PLAN 4 FRONT PORCH - RM		43 SF

# FIRE-RESISTANCE REQ.

SELECT THE APPROPRIATE BOX BELOW (ONLY 1): NOTE: EXTERIOR WALLS SHALL HAVE A MINIMUM FIRE SEPARATION DISTANCE OF A' O" EDOM DRODERTY LINE ALL BOOK EAVES ARE 10" DEED

DISTANCE OF 4-0 FROM PROPERTY LINE. F	ALL ROOF EAVES ARE TO DEE
NON-SPRINKLERED	
FIRE SEPARATION DISTANCE: ≥5'-0" (EXTERIOR WALLS, PROJECTIONS, OPENINGS, AND PENETRATIONS)	NO FIRE-RESISTANCE RATING REQUIRED
FIRE SEPARATION DISTANCE: 4'-0" - 5'-0"	

(EXTERIOR WALLS, OPENINGS, AND PROJECTION SEPARATION DIST.: ≥3'-0" **NO FIRE-RESISTANCE** OPENINGS, AND PENETRATIONS **RATING REQUIRED** EXTERIOR WALLS AND PROJECTIONS 1-HR FIRE-RESISTANCE REFER TO EAVE AND RAKE

**SPRINKLERED** 

FIRE SEPARATION DISTANCE: ≥4'-0" NO FIRE-RESISTANCE (EXTERIOR WALLS, OPENINGS, AND RATING REQUIRED

(TO BE PROVIDED BY OWNER)

**VICINITY MAP** 

DETAILS FOR MORE INFO

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.
- PROVIDE (2) LAYERS OF GRADE D PAPER OR EQUAL WHEN PLASTER IS INSTALLED OVER WOOD BASED SHEATHING. (2022 CRC R703.7.3) 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.
- 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) 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

SECTION 17921.3(B). 9. BATH ACCESSORIES: PROVIDE MINIMUM 1 TOILET PAPER HOLDER AND 1 TOWEL BAR PER BATHROOM, PROVIDE NECESSARY BLOCKING FOR TOILET

OF MECHANICAL ENGINEERS STANDARD A112.19.2. H & S CODE,

- PAPER HOLDER AND TOWEL BARS. 10. WHOLE-BUILDING MECHANICAL VENTILATION SYSTEM PER ASHRAE STANDARD 62.2. AT TIME OF BUILDING PERMIT APPLICATION. APPLICANT TO PROVIDE THE FOLLOWING INFORMATION:
- 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
- d. TYPE OF SYSTEM USED AND PROVIDE COMPLETED CF-6R-MECH-05
- e. FANS SHALL BE A MAXIMUM OF 1 SONE. FANS SHALL BE PROVIDED A COVER OF R-4.2 WHEN OFF.
- 11. ATTIC ACCESS: a. WHERE REQUIRED, PROVIDE 30" MIN. HEADROOM IN THE ATTIC SPACE
- (2022 CRC R807.1) b. 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.
- THE ROUGH-FRAMED OPENING SHALL NOT BE LESS THAN 22" X 30" AND SHALL BE LOCATED NOT OVER 20 FEET FROM THE EQUIPMENT. (2022
- 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
- e. PROVIDE A 120V RECEPTACLE AND A LIGHT NEAR THE EQUIPMENT WITH LIGHT SWITCH LOCATED AT THE ATTIC ACCESS
- 12. BATHTUB AND SHOWER FLOORS AND WALLS ABOVE BATHTUBS WITH INSTALLED SHOWER HEADS AND IN SHOWER COMPARTMENTS SHALL BE FINISHED WITH A NONABSORBENT SURFACE. SUCH WALL SURFACES SHALL EXTEND TO A HEIGHT OF NOT LESS THAN 6 FEET ABOVE THE FLOOR PER 2022 CRC, SECTION R307.2.

CALL BEFORE YOU DIG! CONTACT UNDERGROUND SERVICE ALERT (USA) AT

UNLESS OTHERWISE NOTED ON THE PLANS, FINISHED GROUND SURFACES

SHALL BE GRADED TO DRAIN THE FINISHED SITE PROPERLY WITHIN 10-FEET

BUILDING OR STRUCTURE. ALL EXTERIOR HARDSCAPE WITHIN 10-FEET OF A

AWAY FROM ANY BUILDING OR STRUCTURE. DRAINAGE SWALES SHALL BE A

1.5% MINIMUM SLOPE. ALL GRADED SLOPES SHALL HAVE A MAXIMUM SLOPE

SLOPE TOWARD PROPERTY LINES IN A MANNER WHICH WOULD CAUSE STORM

OF ANY BUILDING FOUNDATION WITH A SLOPE OF 5% AWAY FROM ANY

BUILDING FOUNDATION SHALL BE INSTALLED WITH A 2% MINIMUM SLOPE

LOT GRADING SHALL CONFORM AT THE PROPERTY LINES AND SHALL NOT

WATER TO FLOW ONTO NEIGHBORING PROPERTY. HISTORIC DRAINAGE

PATTERNS SHALL NOT BE ALTERED IN A MANNER TO CAUSE DRAINAGE

NEW RAINWATER DOWNSPOUTS SHALL BE DISCONNECTED AND DIRECT

CONTRACTOR TO FIELD VERIFY EXISTING DRAINAGE. IF THE EXISTING

RUNOFF TO A LANDSCAPED AREA. DOWNSPOUTS MAY BE CONNECTED TO A

SPLASH BLOCKS OR COBBLESTONES THAT DIRECT WATER AWAY FROM THE

DRAINAGE SYSTEM IS DAMAGED DURING EXCAVATION, CONTRACTOR SHALL

REPAIR AND/OR REROUTE DRAINAGE SYSTEM AND CONNECT TO EXISTING

EXISTING PUBLIC IMPROVEMENTS THAT ARE DAMAGED BY THE PROJECT

REPLACED EVEN IF THE DAMAGE OCCURRED PRIOR TO THE START OF

OCTOBER 1 AND SHALL BE MAINTAINED DAILY UNTIL APRIL 30. THESE

AS NECESSARY PRIOR TO AND DURING RAIN EVENTS.

EXISTING STORM DRAIN FACILITIES. EROSION AND SEDIMENT CONTROL

SEASONALLY APPROPRIATE BEST MANAGEMENT PRACTICES FOR THE

ROUND: 1) EROSION CONTROL: 2) RUN-ON AND RUN-OFF CONTROL: 3)

CONSTRUCTION SHALL BE REPAIRED OR REPLACED. EXISTING DAMAGED

PUBLIC IMPROVEMENTS WITHIN THE PROJECT LIMITS SHALL BE REPAIRED OR

EROSION AND SEDIMENT CONTROL FACILITIES SHALL BE INSTALLED PRIOR TO

FACILITIES SHALL CONTROL AND CONTAIN EROSION-CAUSED SILT DEPOSITS

AND PROVIDE FOR THE SAFE DISCHARGE OF SILT-FREE STORM WATERS INTO

SUPPLIES MUST BE KEPT ON-SITE DURING THE DRY SEASON AND EMPLOYED,

FOLLOWING SITE MANAGEMENT CATEGORIES MUST BE IMPLEMENTED YEAR-

SEDIMENT CONTROL; 4) GOOD SITE MANAGEMENT; AND 5) NON-STORMWATER

ACTIVITY WITHIN A PUBLIC STREET RIGHT OF WAY THAT HAS BEEN ACCEPTED

AN ENCROACHMENT PERMIT WILL BE REQUIRED FOR ANY CONSTRUCTION

POP-UP DRAINAGE EMITTER IN THE LANDSCAPED AREA OR MAY DRAIN TO

1-800-227-2600 AT LEAST 2 WORKING DAYS BEFORE EXCAVATING.

OF 3H TO 1V (33%), UNLESS SHOWN OTHERWISE ON THE PLANS.

PROBLEMS TO NEIGHBORING PROPERTY.

DRAINAGE FACILITY AS NECESSARY.

SITE NOTES

BUILDING.

MANAGEMENT

BY THE CITY

#### **ELECTRICAL NOTES**

- . CONFORM WITH CURRENT CEC, NFPA, MFR'S, AND LOCAL REQUIREMENTS. ELECTRICAL SYSTEM GROUND TO BE PROVIDED PER NEC ARTICLE 250-81.
- 3. ALL MATERIALS TO BE U.L. LABELED. 4. METER IS NOT REQUIRED. IF IT IS PROVIDED FOR ADU, MAIN PANEL IS REQUIRED FOR ADU WITH MINIMUM OF 225 AMP BUS-BAR. IF MAIN PANEL IS NOT PROVIDED FOR ADU, ELECTRICAL PERMIT SHALL BE PULLED FOR THE
- PRIMARY RESIDENCE WITH ELECTRICAL LOAD CALCULATIONS. 5. IF PROVIDED, ELECTRICAL SUB PANEL: FLUSH MOUNT, 30" CLEARANCE. 100
- 6. CONDUCTORS: TW, THW, COPPER, MINIMUM 14 AT LIGHTING, 12 AT OTHER CIRCUITS.
- . ALL LUMINARIES SHALL COMPLY WITH 2022 CENC SECTION 150.0 (K) AND TABLE 150.0-A AS REFERENCED IN ENERGY NOTES, LUMINAIRE REQUIREMENTS SHEET G-101.
- 8. ALL ELECTRICAL OUTLETS INSTALLED IN BATHROOMS, GARAGES, LAUNDRY AREAS, 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 MORE
- THAN ONE BATHROOM. (2022 CEC 210.11(C)) 10. THERMOSTAT SHALL BE A PROGRAMMABLE TYPE, HONEYWELL TH8320 OR
- 11. 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).
- 12. ALL LUMINARIES, LAMPHOLDERS, AND RETROFIT KITS SHALL BE LISTED (2022 CEC 410.6).
- 13. 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)).
- 14. 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 400.10, AND (4) NON-GROUNDING RECEPTACLES USED FOR REPLACEMNETS AS PERMITTED IN CEC 406.4(D)(2)(A).
- 15. 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
- 16. BALLAST FOR LAMPS 13 WATTS OR GREATER SHALL BE ELECTRONIC AND HAVE AN OUTPUT FREQUENCY NO LESS THAT 20 kHz.
- 17. 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.
- 18. CARBON MONOXIDE ALARMS SHALL RECEIVE THEIR PRIMARY POWER FROM THE BUILDING WIRING AND PROVIDED WITH A BATTERY BACK-UP. ALL
- CARBON MONOXIDE ALARAMS SHALL BE INTERCONNECTEED. 19. 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). 20. IN ADDITION TO THE NUMBER OF BRANCH CIRCUTS REQUIRED BY OTHER PARTS OF THE CODE, TWO OR MORE 20-AMPERE SMALL-APPLIANCE BRANCH CIRCUTS SHALL BE PROVIDED FOR ALL RECEPTACLE OUTLETS IN THE KITCHEN, PANTRY, BREAKFAST ROOM, DINING ROOM, OR SIMILAR AREA PER 2022 CEC, ARTICLE 210.11 (C)(1). THE CIRCUTS SHALL HAVE NO OTHER OUTLETS PER 2022 CEC, ARTICLE 210.52(B).
- 21. IN ADDITION TO THE NUMBER OF BRANCH CIRCUTS REQUIRED BY OTHER PARTS OF THE CODE AT LEAST ONE ADDITIONAL 20-AMPERE BRANCH CIRCUT SHALL BE PROVIDED TO SUPPLY THE LAUNDRY RECEPTACLE OUTLET(S) REQUIRED BY 2022 CEC, ARTICLE 210.52 (F). THIS CIRCUT SHALL HAVE NO OTHER OUTLETS PER 2022 CEC, ARTICLE 201.11(C)(2).

# **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). 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. 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.
- ANY LIGHT SOURCE NOT OTHERWISE LISTED. B. SCREW-BASED LUMINAIRES. SCREW-BASED LUMINAIRES SHALL CONTAIN LAMPS THAT COMPLY WITH REFERENCE JOINT APPENDIX JA8.
- C. RECESSED DOWNLIGHT LUMINAIRES IN CEILINGS. LUMINAIRES RECESSED INTO CEILINGS SHALL MEET ALL OF THE FOLLOWING REQUIREMENTS:
- 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 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.

#### **ENERGY NOTES CONTINUED**

- D. 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.
- E. 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. A. **EXCEPT:** CEILING FANS MAY PROVIDE CONTROL OF INTEGRATED
- LIGHTING VIA A REMOTE CONTROL. B. 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).
- C. LIGHTING CONTROLS SHALL COMPLY WITH THE APPLICABLE

REQUIREMENTS OF SECTION 110.9.

- D. 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 CONTROLS SPECIFIED IN SECTION 150.0(K)2A.
- E. AUTOMATIC-OFF CONTROLS. 1. IN BATHROOMS, GARAGES, LAUNDRY ROOMS, UTILITY ROOMS AND WALK-IN CLOSETS, AT LEAST ONE INSTALLED LUMINAIRE SHALL BE CONTROLLED 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.
- **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.
- G. 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: 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:
  - CONTROLLED BY A MANUAL ON AND OFF CONTROL SWITCH THAT PERMITS THE AUTOMATIC ACTIONS OF ITEMS II OR III BELOW; & ii. CONTROLLED BY A PHOTOCELL AND EITHER A MOTION SENSOR OR
- AN AUTOMATIC TIME SWITCH CONTROL; OR iii. 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 AL 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)3)

#### ADDTIONAL NOTES PER AGING IN PLACE REQUIREMENTS:

- 1. ELECTRICAL RECEPTABLE OUTLET, SWITCH AND CONTROLS (INCLUDING CONTROLS FOR HEATING, VENTILATION AND AIR CONDITIONING) INTENDED TO BE USED BY OCCUPANTS SHALL BE LOCATED NO MORE THAN 48" MEASURED FROM THE TOP OF THE OUTLET BOX AND NOT LESS THAN 15" MEASURED FROM THE BOTTOM OF THE OUTLET BOX ABOVE THE FINISH FLOOR (PER CRC R327.1.2).
- 2. DOORBELL BUTTONS OR CONTROLS, WHEN INSTALLED, SHALL NOT EXCEED 48" ABOVE EXTERIOR FLOOR OR LANDING, MEASURED FROM THE TOP OF THE DOORBELL BUTTON ASSEMBLY. WHERE DOORBELL BUTTONS INTEGRATED WITH OTHER FEATURES ARE REQUIRED TO BE INSTALLED. ABOVE 48" MEASURED FROM THE EXTERIOR FLOOR OR LANDING, A STANDARD DOORBELL BUTTON OR CONTROL SHALL ALSO BE PROVIDED AT A HEIGHT NOT EXCEEDING 48" ABOVE EXTERIOR FLOOR OR LANDING. MEASURED FROM THE TOP OF THE DOORBELL BUTTON OR CONTROL (PER CRC R327.1.4)

#### **ENERGY STORAGE READINESS**

**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)**
- 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." 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. THE MAIN PANELBOARD SHALL HAVE A MINIMUM BUSBAR RATING OF 225 AMPS. 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.

#### PLUMBING NOTES

- 1. CONFORM WITH CURRENT CPC AND LOCAL REQUIREMENTS.
- 2. DOMESTIC WATER (WITHIN BUILDING): COPPER OR PEX PIPE OR APPROVED FQUAL
- 3. AIR CHAMBERS: 12" LONG CAPPED NIPPLE AT END OF EACH BRANCH TO
- EACH FIXTURE. 4. DIELECTRIC UNIONS "F.P.C.O." REQUIREMENT AT ALL DISSIMILAR MATERIAL CONNECTIONS.
- 5. WHEN "OPTIONAL" SOFT-WATER LOOP INTALLED, PROVIDE WITH 2 GATE VALVES.
- 6. WATER SERVICE PIPE SHALL BE PER CIVIL PLANS OR AS REQUIRED BY THE JURISDICTION.
- 7. WATER METER: PER WATER DISTRICT (REFER SIZE W/ FIRE SPRINKLER PLANS IF APPLICABLE) 8. SHOWER HEADS AND FAUCETS: FLOW RATES PER 2022 CGBSC SECTION
- 4 303 9. WATER HEATER (REFER TO BUILDING ENERGY ANALYSIS REPORT): A. ALL DOMESTIC HOT WATER PIPING SHALL BE INSULATED. (2022 CPC
- 609.12.1) 1. PIPES UP TO 2 INCHES IN DIAMETER: INSULATION WALL THICKNESS
- NOT LESS THAN DIAMETER OF PIPE. (2022 CPC 609.12.2) 2. PIPES GREATER THAN 2 INCHES IN DIAMETER: INSULATION WALL THICKNESS NOT LESS THAN 2 INCHES. (2022 CPC 609.12.2)
- 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) B. PROVIDE A TEMPERATURE AND PRESSURE RELIEF VALVE WITH A FULL
- SIZE DRAIN OF GALVANIZED STEEL OR HARD DRAWN COPPER TO THE OUTSIDE OF THE BUILDING WITH THE END OF THE PIPE PROTRUDING 6" MINIMUM @ 2' MAX. ABOVE GRADE POINTING DOWNWARD TO THE TERMINATION - UNTHREADED. C. COMBUSTION AIR PER MANUFACTURE REQUIREMENTS.
- D. CLEARANCES PER MANUFACTURE REQUIREMENTS. 10. PLUMBING INSULATION PER 2022 CENC 150.0 (J) AND CBC 609.11
- A. DOMESTIC HOT WATER PIPING SHALL BE INSULATED. B. HOT WATER PIPE INSULATION SHALL HAVE A MINIMUM WALL THICKNESS OF NOT LESS THAN THE DIAMETER OF THE PIPE FOR A PIPE UP TO 2 INCHES (50 MM) IN DIAMETER. INSULATION WALL THICKNESS SHALL BE
- MORE IN DIAMETER. 1. PIPING THAT PENETRATES FRAMING MEMBERS SHALL NOT BE REQUIRED TO HAVE PIPE INSULATION FOR THE DISTANCE OF THE

NOT LESS THAN 2 INCHES (51 MM) FOR A PIPE OF 2 INCHES (50 MM) OR

- FRAMING PENETRATION. 2. HOT WATER PIPING BETWEEN THE FIXTURE CONTROL VALVE OR SUPPLY STOP AND THE FIXTURE OR APPLIANCE SHALL NOT BE
- REQUIRED TO BE INSULATED. C. SERVICE WATER HEATING SYSTEMS PIPING TO INCLUDE. 1. RECIRCULATING SYSTEM PIPING, INCLUDING THE SUPPLY AND
- RETURN PIPING TO THE WATER HEATER. 2. THE FIRST 8 FEET OF HOT AND COLD OUTLET PIPING, INCLUDING PIPING BETWEEN A STORAGE TANK AND A HEAT TRAP, FOR A
- NON-RECIRCULATING STORAGE SYSTEM. 3. PIPES THAT ARE EXTERNALLY HEATED. SHALL BE INSULATED AS FOLLOWS: UP TO 1" PIPE DIAMETER TO HAVE 1.0 MIN THICKNESS OR R7/7 **RATING PER CENC TABLE 120.3A**
- **EXCEPTIONS:** 1. FACTORY-INSTALLED PIPING WITHIN SPACE-CONDITIONING EQUIPMENT CERTIFIED UNDER SECTION 110.1 OR 110.2. 2. PIPING THAT PENETRATES FRAMING MEMBERS SHALL NOT BE
- REQUIRED TO HAVE PIPE INSULATION FOR THE DISTANCE OF THE FRAMING PENETRATION. METAL PIPING THAT ENETRATES METAL FRAMING SHALL USE GROMMETS, PLUGS, WRAPPING OR OTHER INSULATING MATERIAL TO ASSURE THAT NO CONTACT IS MADE WITH THE METAL FRAMING.
- 3. PIPING INSTALLED IN INTERIOR OR EXTERIOR WALLS SHALL NOT BE REQUIRED TO HAVE PIPE INSULATION IF ALL OF THE REQUIREMENTS ARE MET FOR COMPLIANCE WITH QUALITY INSULATION INSTALLATION (QII) AS SPECIFIED IN THE REFERENCE RESIDENTIAL APPENDIX RA3.5.
- 4. 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 11. INSULATION 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. 12. PIPE INSULATION: REFER TO TITLE 24 - MANDATORY MEASURES - "SPACE
- CONDITIONING, WATER HEATING & PLUMBING SYSTEM MEASURES" 13. STRAPS AND HANGERS: PROVIDE AS NECESSARY TO INSURE A STABLE INSTALLATION. SEE TITLE-24 FOR WATER HEATER REQUIREMENTS. 14. ALL HOSE BIBS SHALL HAVE APPROVED BACK FLOW PREVENTION
- 15. PLUMBING FIXTURES (WATER CLOSETS) AND FITTINGS (FAUCETS AND SHOWERHEADS) SHALL MEET THE STANDARDS REFERENCED IN CALGREEN
- **16.** 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]
- 17. 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.

# PROJECT GENERAL NOTES

- APPLICABLE CODES AND STANDARDS:
- 1.1. 2022 CALIFORNIA BUILDING CODE AND ITS APPENDICES AND STANDARDS.
- 1.2. 2022 CALIFORNIA PLUMBING CODE AND ITS APPENDICES AND STANDARDS. 1.3. 2022 CALIFORNIA MECHANICAL CODE AND ITS APPENDICES AND STANDARDS.
- 1.4. 2022 CALIFORNIA FIRE CODE AND ITS APPENDICES AND STANDARDS. 1.5. 2022 CALIFORNIA ELECTRICAL CODE AND ITS APPENDICES AND STANDARDS.
- 1.6. 2022 CALIFORNIA BUILDING ENERGY EFFICIENCY STANDARDS.
- 1.7 2022 CALIFORNIA GREEN BUILDING STANDARDS CODE AND ITS APPENDICES AND STANDARDS.
- 1.8 CURRENT COUNTY OF MONO COUNTY, CA MUNICIPAL CODE.
- 2. ALL WORK DESCRIBED IN THE DRAWINGS SHALL BE VERIFIED FOR DIMENSION, GRADE, EXTENT AND COMPATIBILITY WITH EXISTING SITE CONDITIONS, ANY DISCREPANCIES AND UNEXPECTED CONDITIONS THAT AFFECT OR CHANGE THE WORK DESCRIBED IN THE CONTRACT DOCUMENTS SHALL BE BROUGHT TO THE ARCHITECT'S ATTENTION IMMEDIATELY. DO NOT PROCEED WITH THE WORK IN THE AREA OF DISCREPANCIES UNTIL ALL SUCH DISCREPANCIES ARE RESOLVED. IF THE CONTRACTOR CHOOSES TO DO SO, HE/SHE SHALL BE PROCEEDING AT HIS/HER OWN RISK.
- DIMENSIONS SHOWN SHALL TAKE PRECEDENCE OVER DRAWING SCALE OR PROPORTION. LARGER SCALE DRAWINGS SHALL TAKE PRECEDENCE OVER SMALLER SCALE DRAWINGS
- 4. IN THE EVENT OF THE UNFORESEEN ENCOUNTER OF MATERIALS SUSPECTED TO BE OF AN ARCHAEOLOGICAL OR PALEONTOLOGICAL NATURE, ALL GRADING AND EXCAVATION SHALL CEASE IN THE IMMEDIATE AREA AND THE THE CONTRACTOR SHALL NOTIFY THE OWNER. THE FIND SHALL BE LEFT UNTOUCHED UNTIL AN EVALUATION BY A QUALIFIED ARCHAEOLOGIST OR PALEONTOLOGIST IS MADE.
- CONTRACTOR IS TO BE RESPONSIBLE FOR BEING FAMILIAR WITH THESE
- DOCUMENTS INCLUDING ALL CONTRACT REQUIREMENTS. GRADING PLANS, DRAINAGE IMPROVEMENTS, ROAD AND ACCESS REQUIREMENTS AND ENVIRONMENTAL HEALTH CONSIDERATIONS SHALL COMPLY WITH ALL LOCAL ORDINANCES.
- SHOP WELDS MUST BE PERFORMED BY A LICENSED FABRICATOR'S SHOP. THE FOLLOWING ITEMS SHOWN ON THE DRAWINGS ARE OWNER PROVIDED. OWNER INSTALLED. UTILITIES PROVIDED FOR THESE ITEMS WILL BE PROVIDED BY THE CONTRACTOR. CONTRACTOR TO COORDINATE
- INSTALLATION WITH OWNER. 8.1. TV/DVD SYSTEMS
- 8.2 ICE MACHINE
- 8.3 VENDING MACHINE
- 8.4 REFRIGERATOR 8.5 MICROWAVE
- OSHA PERMITS REQUIRED FOR VERTICAL CUTS 5' OR OVER.
- 10. CONTRACTOR TO PROVIDE COMPLETE DETAILS OF ENGINEERED TEMPORARY SHORING OR SLOT CUTTING PROCEDURES ON PLANS. CALL FOR INSPECTION BEFORE EXCAVATION BEGINS
- 11. THE SOILS ENGINEER IS TO APPROVE THE KEY OR BOTTOM AND LEAVE A CERTIFICATE ON THE SITE FOR THE GRADING INSPECTOR. THE GRADING INSPECTOR IS TO BE NOTIFIED BEFORE ANY GRADING BEGINS, AND FOR BOTTOM INSPECTION, BEFORE FILL IS PLACED. FILL MAY NOT BE PLACED
- WITHOUT APPROVAL OF THE GRADING INSPECTOR. 12. CONTRACTOR TO REVIEW CALIFORNIA GREEN CODE REQUIREMENTS FOR CONTRACTOR REQUIREMENTS.
- 13. A SEPARATE OFFICER, ACCESS EASEMENT/AGREEMENT, AND/OR RECIPROCAL ACCESS EASEMENT/AGREEMENT MAY BE REQUIRED TO INSURE THAT THE PROPOSED PRIVATE ACCESS ROADWAY WILL REMAIN OPEN TO THROUGH TRAFFIC AND EMERGENCY VEHICLES PRIOR TO FINAL OF BUILDING

THESE PLANS ARE PROVIDED BY MONO COUNTY AS PART OF THE PRE-APPROVED ADU PROGRAM AND ARE PUBLIC DOMAIN. THERE CANNOT BE A CHARGE TO PROVIDE THESE PLANS. NO ALTERATIONS TO THESE PLANS ARE ALLOWED. ALL ALTERATIONS MUST BE DONE UNDER A SEPARATE PERMIT ONCE THE BUILDING PERMIT FOR THE ADU HAS BEEN ISSUED AND FINAL INSPECTION COMPLETED. IF YOU DO NOT HAVE THE CONSTRUCTION KNOWLEDGE AND EXPERIENCE TO CONTRUCT THESE PLANS WITHOUT FURTHER DETAILS, IT IS RECOMMENDED YOU HIRE A CONTRACTOR TO DO THE CONSTRUCTION. THE CITY WILL NOT PROVIDE FURTHER INFORMATION OR DETAILS AND BUILDING INSPECTORS WILL NOT PROVIDE STEP BY STEP INSTRUCTIONS IN THE FIELD.

# **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 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.). LAUNDRY DRYER VENT TO EXTERIOR TO BE 14 FEET MAXIMUM. LESS 2 FEET PER 90 DEGREE TURN IN EXCESS OF 2 PER CMC 504.4.2.1. IF VENT IS OVER 14' AN APPROVED
- POWER ASSISTED DEVICE IS REQUIRED. DRYER EXHAUST DUCT POWER VENTILATORS SHALL BE LISTED AND LABELED IN ACCORDANCE WITH UL 705 AND INSTALLED IN ACCORDANCE WITH THE MANUFACTURER'S INSTALLATION INSTRUCTIONS PER 2022 CMC, SECTION 504.2.2.3. SEE NOTE
- 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 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) 6. BATHROOM EXHAUST FANS SHALL PROVIDE MINIMUM 50 CFM EXHAUST RATE (2022 CMC TABLE 403.7). KITCHEN EXHAUST FANS SHALL PROVIDE MINIMUM 100 CFM EXHAUST RATE

(2022 CMC TABLE 403.7)

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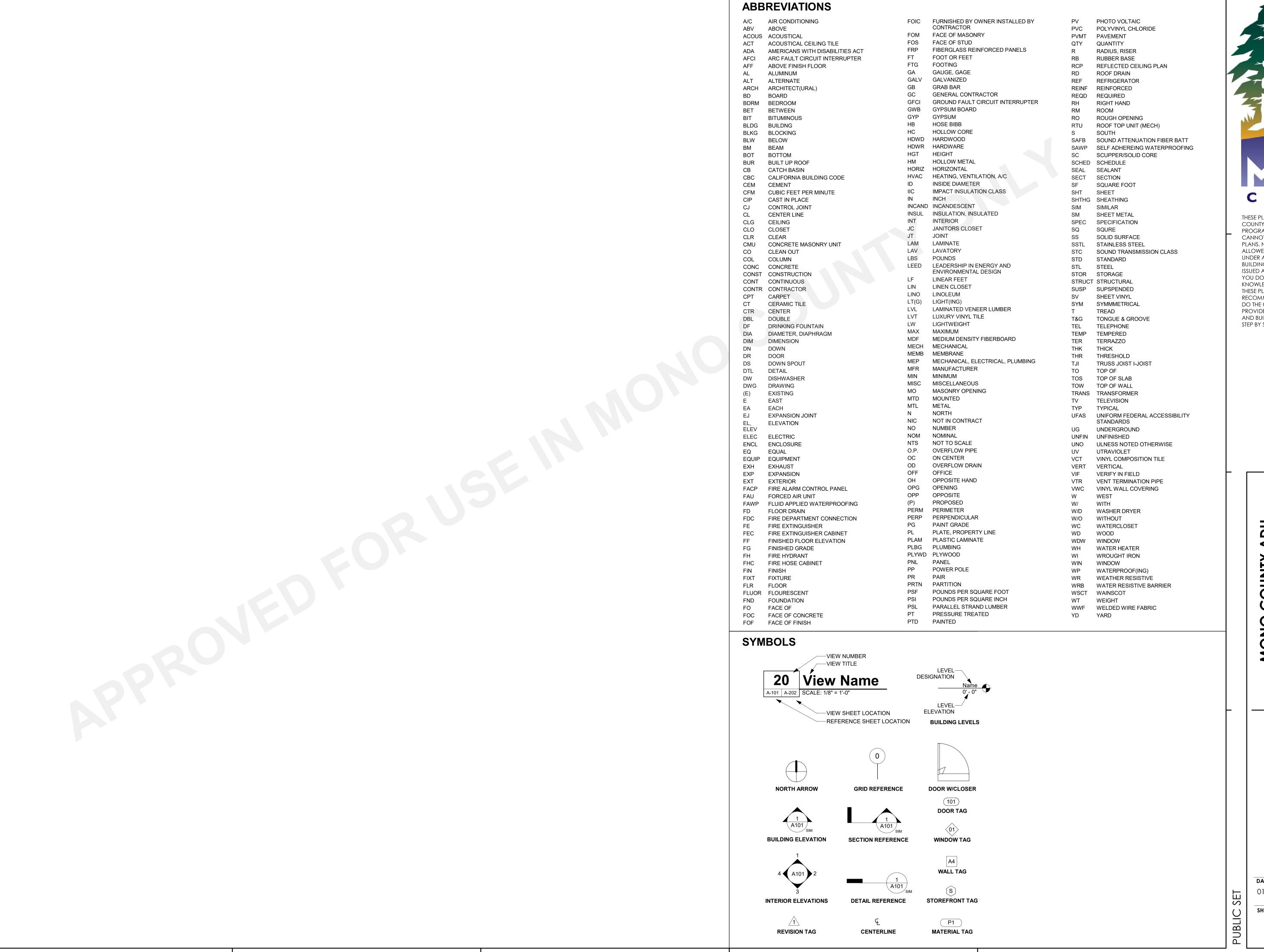
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SHEET



COUNTY

THESE PLANS ARE PROVIDED BY MONO COUNTY AS PART OF THE PRE-APPROVED ADU PROGRAM AND ARE PUBLIC DOMAIN. THERE CANNOT BE A CHARGE TO PROVIDE THESE PLANS. NO ALTERATIONS TO THESE PLANS ARE ALLOWED. ALL ALTERATIONS MUST BE DONE UNDER A SEPARATE PERMIT ONCE THE BUILDING PERMIT FOR THE ADU HAS BEEN ISSUED AND FINAL INSPECTION COMPLETED. IF YOU DO NOT HAVE THE CONSTRUCTION KNOWLEDGE AND EXPERIENCE TO CONTRUCT THESE PLANS WITHOUT FURTHER DETAILS, IT IS RECOMMENDED YOU HIRE A CONTRACTOR TO DO THE CONSTRUCTION. THE CITY WILL NOT PROVIDE FURTHER INFORMATION OR DETAILS AND BUILDING INSPECTORS WILL NOT PROVIDE STEP BY STEP INSTRUCTIONS IN THE FIELD.

> **ADU** COUNTY

MONO

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DATE

01/10/2024

G-102

# 2022 CALIFORNIA GREEN BUILDING STANDARDS CODE

# RESIDENTIAL MANDATORY MEASURES (SHEET 1)

# **CHAPTER 1 - ADMINISTRATION SECTION 101 GENERAL**

THESE REGULATIONS SHALL BE KNOWN AS THE CALIFORNIA GREEN BUILDING STANDARDS CODE AND MAY BE CITED AS SUCH AND WILL BE REFERRED TO HEREIN AS "THIS CODE." IT IS INTENDED THAT IT SHALL ALSO BE KNOWN AS THE CALGREEN CODE. THE CALIFORNIA GREEN BUILDING STANDARDS CODE IS PART 11 OF THIRTEEN PARTS OF THE OFFICIAL COMPILATION AND PUBLICATION OF THE ADOPTION, AMENDMENT AND REPEAL OF BUILDING REGULATIONS TO THE CALIFORNIA CODE OF REGULATIONS, TITLE 24, ALSO REFERRED TO AS THE CALIFORNIA BUILDING STANDARDS CODE.

THE PURPOSE OF THIS CODE IS TO IMPROVE PUBLIC HEALTH, SAFETY AND GENERAL WELFARE BY ENHANCING THE DESIGN AND CONSTRUCTION OF BUILDINGS THROUGH THE USE OF BUILDING CONCEPTS HAVING A REDUCED NEGATIVE IMPACT OR POSITIVE ENVIRONMENTAL IMPACT AND ENCOURAGING SUSTAINABLE CONSTRUCTION PRACTICES IN THE **FOLLOWING CATEGORIES:** 

- . PLANNING AND DESIGN 2. ENERGY EFFICIENCY.
- 3. WATER EFFICIENCY AND CONSERVATION. 4. MATERIAL CONSERVATION AND RESOURCE EFFICIENCY.
- ENVIRONMENTAL QUALITY.

#### 101.3 SCOPE.

THE PROVISIONS OF THIS CODE SHALL APPLY TO THE PLANNING, DESIGN, OPERATION, CONSTRUCTION, USE AND OCCUPANCY OF EVERY NEWLY CONSTRUCTED BUILDING OR STRUCTURE, UNLESS OTHERWISE INDICATED IN THIS CODE, THROUGHOUT THE STATE OF CALIFORNIA.

IT IS NOT THE INTENT THAT THIS CODE SUBSTITUTE OR BE IDENTIFIED AS MEETING THE CERTIFICATION REQUIREMENTS OF ANY GREEN BUILDING

#### **SECTION 102 CONSTRUCTION DOCUMENTS AND INSTALLATION VERIFICATION**

CONSTRUCTION DOCUMENTS AND OTHER DATA SHALL BE SUBMITTED IN ONE OR MORE SETS WITH EACH APPLICATION FOR A PERMIT. WHERE SPECIAL CONDITIONS EXIST, THE ENFORCING AGENCY IS AUTHORIZED TO REQUIRE ADDITIONAL CONSTRUCTION DOCUMENTS TO BE PREPARED BY A LICENSED DESIGN PROFESSIONAL AND MAY BE SUBMITTED SEPARATELY.

**EXCEPTION:** THE ENFORCING AGENCY IS AUTHORIZED TO WAIVE THE SUBMISSION OF CONSTRUCTION DOCUMENTS AND OTHER DATA NOT REQUIRED TO BE PREPARED BY A LICENSED DESIGN PROFESSIONAL.

#### 102.2 INFORMATION ON CONSTRUCTION DOCUMENTS.

CONSTRUCTION DOCUMENTS SHALL BE OF SUFFICIENT CLARITY TO INDICATE THE LOCATION, NATURE AND SCOPE OF THE PROPOSED GREEN BUILDING FEATURE AND SHOW THAT IT WILL CONFORM TO THE PROVISIONS OF THIS CODE, THE CALIFORNIA BUILDING STANDARDS CODE AND OTHER RELEVANT LAWS, ORDINANCES, RULES AND REGULATIONS AS DETERMINED BY THE ENFORCING AGENCY.

DOCUMENTATION OF CONFORMANCE FOR APPLICABLE GREEN BUILDING MEASURES SHALL BE PROVIDED TO THE ENFORCING AGENCY. ALTERNATE METHODS OF DOCUMENTATION SHALL BE ACCEPTABLE WHEN THE ENFORCING AGENCY FINDS THAT THE PROPOSED ALTERNATE DOCUMENTATION IS SATISFACTORY TO DEMONSTRATE SUBSTANTIAL CONFORMANCE WITH THE INTENT OF THE PROPOSED GREEN BUILDING

#### **CHAPTER 3 - GREEN BUILDING**

#### **SECTION 301 GENERAL**

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 PROVISIONS 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

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**

IN MIXED OCCUPANCY BUILDINGS, EACH PORTION OF A BUILDING SHALL COMPLY WITH THE SPECIFIC GREEN BUILDING MEASURES APPLICABLE TO EACH SPECIFIC OCCUPANCY.

# **CHAPTER 4 - RESIDENTIAL** MANDATORY MEASURES

#### **DIVISION 4.1 PLANNING AND DESIGN** 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.

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
- FRENCH DRAINS
- 4. WATER RETENTION GARDENS

5. OTHER WATER MEASURES WHICH KEEP SURFACE WATER AWAY FROM BUILDINGS AND AID IN GROUNDWATER RECHARGE. **EXCEPTIONS:** ADDITIONS AND ALTERATIONS NOT ALTERING THE

#### 4.106.4 ELECTRIC VEHICLE (EV) CHARGING FOR NEW CONSTRUCTION NEW CONSTRUCTION SHALL COMPLY WITH SECTION 4.106.4.1, 4.106.4.2, OR 4.106.4.3, 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.

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 ACCOMODATE A DEDICATED 208/240-VOLT BRANCH CIRCUIT. THE RACEWAY SHALL NOT BE LESS THAN TRADE SIZE 1 (NOMINAL 1-INCH INSIDE DIAMTER). 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 MINIMUM DEDICATED BRANCH CIRCUIT AND SPACE(S) RESERVED TO PERMIT INSTALLATION OF A BRANCH CIRCUIT OVERCURRENT PROTECTION DEVICE.

#### 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".

#### 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.

#### 4.106.4.2.1 MULTIFAMILY 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

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

- 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.
- 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

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 CAPABLÉ" 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.

CONSTRUCTION DOCUMENTS SHALL SHOW LOCATIONS OF FUTURE EV THERE IS NO REQUIREMENT FOR EV SPACES TO BE CONSTRUCTED OR AVAILABLE UNTIL RECEPTACLES FOR EV CHARGING OR EV CHARGERS ARE

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

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: 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.

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

- 1. THE MINIMUM LENGTH OF EACH EV SPACE SHALL BE 18 FEET. 2. THE MINIMUM WIDTH OF EACH EV SPACE SHALL BE 9 FEET.
- 3. ONE IN EVERY 25 CHARGING SPACES, BUT NOT LESS THAN ONE, SHALL ALSO HAVE AN 8-FOOT WIDE MINIMUM AISLE. A 5-FOOT WIDE MINIMUM AISLE SHALL BE PERMITTED PROVIDED THE MINIMUM WIDTH OF THE EV SPACE IS 12 FEET.
- 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

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 OR 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

**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.

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.

**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 CAPABLÉ" 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.

 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 FOLLOWING:

#### 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 TOILET.

#### 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

NOTE: THE EFFECTIVE FLUSH VOLUME OF DUAL FLUSH TOILETS IS

DEFINED AS THE COMPOSITE. AVERAGE FLUSH VOLUME OF TWO

#### **4.303.1.3 SHOWERHEADS**

REDUCED FLUSHES AND ONE FULL FLUSH.

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 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 ALLOW ONLY 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

AT 60 PSI.

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

METERING FAUCETS WHEN INSTALLED IN RESIDENTIAL BUILDINGS

#### 4.303.1.4.3 METERING FAUCETS

0.5 GALLONS PER MINUTE AT 60 PSI.

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

SHALL NOT DELIVER MORE THAN 0.2 GALLONS PER CYCLE.

**NOTE:** WHERE COMPLYING FAUCETS ARE UNAVAILABLE, AERATORS OR OTHER MEANS MAY BE USED TO ACHIEVE REDUCTION.

#### 4.303.2 SUBMETERS FOR MULTIFAMILY BUILDINGS AND DWELLING UNITS IN MIXED-USE RESIDENTIAL/COMMERCIAL BUILDINGS SUBMETERS SHALL BE INSTALLED TO MEASURE WATER USAGE OF

INDIVIDUAL RENTAL DWELLING UNITS IN ACCORDANCE WITH THE CALIFORNIA PLUMBING CODE.

4.303.2 SUBMETERS FOR MULTIFAMILY BUILDINGS AND DWELLING UNITS IN MIXED-USE 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

THIS TABLE COMPILES THE DATA IN SECTION 4.303.1 AND IS INCLUDED AS A CONVENIENCE FOR THE USER.

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

#### 4.304 OUTDOOR WATER USE

URINALS

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.

1. THE MODEL WATER EFFICIENT LANDSCAPE ORDINANCE (MWELO) IS LOCATED IN THE CALIFORNIA CODE OF REGULATIONS, TITLE 23, CHAPTER 2.7, DIVISION 2.

0.125 GAL/FLUSH

MWELO AND SUPPORTING DOCUMENTS, INCLUDING A 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 LCOSING 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 NONHAZARDOUS 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.

 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 ACCEPTIONS 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 COMFORMANCE 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 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 MATERIAL DIVERTED SHALL BE CALCULATED BY WEIGHT OR

#### 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].

VOLUME, BUT NOT BY BOTH.

PROJECTS THAT GENERATE A TOTAL COMBINED WEIGHT OF CONSTRUCTION AND DEMOLITION WASTE DISPOSED OF IN LANDFILLS. WHICH DO NOT EXCEED 3.4 POUNDS PER SQUARE FOOT OF THE BUILDING AREA SHALL MEET THE MINIMUM 65 PERCENT 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-PERCENT CONSTRUCTION WASTE REDUCTION REQUIREMENT IN SECTION 4.408.1.

DOCUMENTATION SHALL BE PROVIDED TO THE ENFORCING AGENCY WHICH

DEMONSTRATES COMPLIANCE WITH SECTION 4.408.2, ITEMS 1 THOUGH 5.

SECTION 4.408.3 OR SECTION 4.408.4 1. SAMPLE FORMS FOUND IN "A GUIDE TO THE CALIFORNIA GREEN BUILDING STANDARDS CODE (RESIDENTIAL)" LOCATED AT

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).

WWW.HCD.CA.GOV/CALGREEN.HTML MAY BE USED TO ASSIST IN

THESE PLANS ARE PROVIDED BY MONO COUNTY AS PART OF THE PRE-APPROVED ADU PROGRAM AND ARE PUBLIC DOMAIN. THERE CANNOT BE A CHARGE TO PROVIDE THESE PLANS. NO ALTERATIONS TO THESE PLANS ARE ALLOWED. ALL ALTERATIONS MUST BE DONE UNDER A SEPARATE PERMIT ONCE THE BUILDING PERMIT FOR THE ADU HAS BEEN ISSUED AND FINAL INSPECTION COMPLETED. IF YOU DO NOT HAVE THE CONSTRUCTION KNOWLEDGE AND EXPERIENCE TO CONTRUCT THESE PLANS WITHOUT FURTHER DETAILS, IT IS RECOMMENDED YOU HIRE A CONTRACTOR TO DO THE CONSTRUCTION. THE CITY WILL NOT PROVIDE FURTHER INFORMATION OR DETAILS AND BUILDING INSPECTORS WILL NOT PROVIDE STEP BY STEP INSTRUCTIONS IN THE FIELD.

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01/10/2024

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SHEET

# 2022 CALIFORNIA GREEN BUILDING STANDARDS CODE

# **RESIDENTIAL MANDATORY MEASURES (SHEET 2)**

#### 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

- 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 INSPECTION VERIFICATIONS REQUIRED BY
- THE ENFORCING AGENCY OR THIS CODE. 11. INFORMATION FROM CAL FIRE 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 IS IDENTIFIED FOR THE DEPOSITING, STORAGE AND COLLECTION OF NON-HAZARDOUS MATERIALS FOR RECYCLING, INCLUDING (AT A MINIMUM) PAPER, CORRUGATED CARDBOARD, GLASS. PLASTICS, ORGANIC WASTE, AND METALS, OR MEEL A LAWFULLY ENACTED LOCAL RECYCLING ORDINANCE, IF MORE RESTRICTIVE.

RURAL JURISDICTIONS THAT MEET AND APPLY FOR THE EXEMPTION IN PUBLIC RESOURCES CODE SECTION 42649.82 (A)(2)(A) ET SEQ. ARE NOT REQUIRED TO COMPLY WITH THE ORGANIC WASTE PORTION OF THIS

#### **DIVISION 4.5 ENVIROMENTAL QUALITY**

#### **4.501 GENERAL**

#### 4.501.1 SCOPE

THE PROVISIONS OF THIS CHAPTER SHALL OUTLINE MEANS OF REDUCING THE QUANTITY OF AIR CONTAMINANTS THAT ARE ODOROUS. IRRITATING AND/OR HARMFUL TO THE COMFORT AND WELL-BEING OF A BUILDING'S INSTALLERS, OCCUPANTS AND NEIGHBORS.

# 4.503 FIREPLACES

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 AND 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. SHEETMETAL OR OTHER METHODS ACCEPTABLE TO THE ENFORCING AGENCY TO REDUCE THE AMOUNT OF WATER, DUST AND 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, SEALANTS 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 TRICHLOROETHYLENE), 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

#### 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: . MANUFACTURER'S PRODUCT SPECIFICATION.

2. FIELD VERIFICATION OF ON-SITE PRODUCT CONTAINERS.

#### 4.504.3 CARPET SYSTEMS

#### 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/PAG ES/VOC.ASPX

#### 4.504.3.2 CARPET ADHESIVE

ALL CARPET ADHESIVE SHALL MEET THE REQUIREMENTS OF TABLE

#### 4.504.4 RESILIENT FLOORING SYSTEMS

WHERE RESILIENT FLOORING IS INSTALLED, AT LEAST 80 PERCENT 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.

HTTPS://WWW.CDPH.CA.GOV/PROGRAMS/CCDPHP/DEODC/EHLB/IAQ/PAG ES/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 BUILDING SHALL MEET THE REQUIREMENTS FOR FORMALDEHYDE AS SPECIFIED IN ARB'S AIR TOXICS CONTROL MEASURE FOR COMPOSITE WOOD (17 CCR 93120 ET SEQ.) 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
  - PRODUCT CERTIFICATIONS AND SPECIFICATIONS.

INCLUDE AT LEAST ONE OF THE FOLLOWING

- CHAIN OF CUSTODY CERTIFICATIONS. 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, AND CANADIAN CSA 0121, CSA 0151, CSA 0153 AND CSA 0325
- 5. OTHER METHODS ACCEPTABLE TO THE ENFORCING AGENCY.

TABLE 4.504.1 - ADHESIVE VOC LIMIT	
(LESS WATER AND LESS EXEMPT COMPOUNDS IN GRAMS PER LITER)	
ARCHITECTURAL APPLICATIONS	CURRENT VOC LIMIT
INDOOR CARPET ADHESIVES	50
CARPET PAD ADHESIVES	50
OUTDOOR CARPET ADHESIVES	150
WOOD FLOORING ADHESIVES	100
RUBBER FLOORING ADHESIVES	60
SUBFLOOR ADHESIVES	50
CERAMIC TILE ADHESIVES	65
VCT AND ASPHALT TILE ADHESIVES	50
DRYWALL AND PANEL ADHESIVES	50
COVE BASE ADHESIVES	50
MULTIPURPOSE CONSTRUCTION ADHESIVES	70
STRUCTURAL GLAZING ADHESIVES	100
SINGLE-PLY ROOF MEMBRANE ADHESIVES	250
OTHER ADHESIVES NOT SPECIFICALLY LISTED	50
SPECIALTY APPLICATIONS	CURRENT VOC LIMIT
PVC WELDING	510
CPVC WELDING	490
ABD 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 AND TRIM ADHESIVES	250
SUBSTRATE SPECIFIC APPLICATIONS	CURRENT VOC LIMIT
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
- 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	CURRENT VOC LIMIT						
ARCHITECTURAL	250						
MARINE DECK	760						
NONMEMBRANE ROOF	300						
ROADWAY	250						
SINGLE-PLY ROOF MEMBRANE	450						
OTHER	420						
SEALANT PRIMERS	CURRENT VOC LIMIT						
ARCHITECTURAL							
NONPOROUS	250						

MODIFIED BITUMINOUS

MARINE DECK

OTHER

#### TABLE 4.504.3 - VOC CONTENT LIMITS FOR ARCHITECTURAL COATINGS<sup>2, 3</sup>

500

COATING CATEGORY	CURRENT VOC LIMIT
FLAT COATINGS	50
NONFLAT COATINGS	100
NONFLAT-HIGH GLOSS COATINGS	150
SPECIALTY COATINGS	CURRENT VOC LIMIT
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
IDUSTRIAL MAINTENANCE COATINGS	250
LOW SOLIDS COATINGS <sup>1</sup>	120
MAGNESITE CEMENT COATINGS	450
MASTIC TEXTURE COATINGS	100
METALLIC PIGMENTED COATINGS	500
MULTICOLOR COATINGS	250
PRETREATMENT WASH PRIMERS	420
PRIMERS, SEALERS, AND UNDERCOATERS	100
REACTIVE PENETRATING SEALERS	350
RECYCLED COATINGS	250
ROOF COATINGS	50
RUST PREVENTATIVE COATINGS	250
SHELLACS	
CLEAR	730
OPAQUE	550
SPECIALTY PRIMERS, SEALERS AND UNDERCOATERS	100
STAINS	250
STONE CONSOLIDANTS	450
SWIMMING POOL COATINGS	340
TRAFFIC MARKING COATINGS	100
TUB AND 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 AND
- INCLUDING EXEMPT COMPOUNDS. 2. THE SPECIFIED LIMITS REMAIN IN EFFECT ENLESS 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, FEBUARY 1, 2008. MORE INFORMATION IS AVAILABLE FROM THE AIR RESOURCES BOARD.

#### TABLE 4.504.5 - FORMALDEHYDE LIMITS<sup>1</sup> (MAXIMUM FORMALDEHYDE EMISSIONS IN PARTS PER MILLION)

PRODUCT	CURRENT LIMIT
HARDWOOD PLYWOOD VENEER CORE	0.05
HARDWOOD PLYWOOD COMPOSITE CORE	0.05
PARTICLEBOARD	0.09
MEDIUM DENSITY FIBERBOARD	0.11
THIN MEDIUM DENSITY FIBERBOARD2	0.13

- 1. VALUES IN THIS TABLE ARE DERIVED FROM THOSE SPECIFIED BY THE CALIFORNIA AIR RESOURCES BOARD, AIR TOXICS CONTROL MEASURE FOR COMPOSITE WOOD AS TESTED IN ACCORDANCE WITH ASTM E1333. FOR ADDITIONAL INFORMATION, SEE CALIFORNIA CODE OF REGULATIONS, TITLE 17, SECTIONS 93120
- 2. THIN MEDIUM DENSITY FIBERBOARD HAS A MAXIMUM THICKNESS OF 5/16 INCH (8MM).

#### **DIVISION 4.5 ENVIORNMENTAL QUALITY** CONTINUED

#### 4.505 INTERIOR MOISTURE CONTROL

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 THE 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

A CAPILLARY BREAK SHALL BE INSTALLED IN COMPLIANCE WITH AT

- LEAST ONE OF THE FOLLOWING: 1. A 4-INCH-THICK (101.6 MM) BASE OF 1/2 INCH (12.7 MM) OR LARGER CLEAN AGGREGATE SHALL BE PROVIDED WITH A VAPOR RETARDER 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
- 2. OTHER EQUIVALENT METHODS APPROVED BY THE ENFORCING
- 3. A SLAB DESIGN SPECIFIED BY A LICENSED DESIGN PROFESSIONAL.

#### 4.505.3 MOISTURE CONTENT OF A BUILDING

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:

- 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.
- 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 TO BE 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
- a. 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. b. A HUMIDITY CONTROL MAY BE A SEPARATE COMPONENT TO THE EXHAUST FAN AND IS NOT REQUIRED TO BE INTEGRAL (I.E., BUILT-IN).

- 1. FOR THE PURPOSES OF THIS SECTION, A BATHROOM IS A ROOM WHICH CONTAINS A BATHTUB, SHOWER, OR TUB/ SHOWER
- 2. LIGHTING INTEGRAL TO BATHROOM EXHAUST FANS SHALL COMPLY WITH THE CALIFORNIA ENERGY CODE.

#### 4.507 ENVIROMENTAL COMFORT

#### 4.507.1 RESERVED

#### 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—2016 (RESIDENTIAL LOAD CALCULATION), ASHRAE HANDBOOKS OR OTHER EQUIVALENT DESIGN SOFTWARE
- OR METHODS. 2. DUCT SYSTEMS ARE SIZED ACCORDING TO ANSI/ACCA 1 MANUAL D-2016 (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—2016 (RESIDENTIAL EQUIPMENT SELECTION) OR OTHER EQUIVALENT DESIGN SOFTWARE OR

**EXCEPTION:** USE OF ALTERNATE DESIGN TEMPERATURES NECESSARY TO ENSURE THE SYSTEMS FUNCTION ARE ACCEPTABLE.

# **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
- 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

- 1. SPECIAL INSPECTORS SHALL BE INDEPENDENT ENTITIES WITH NO FINANCIAL INTEREST IN THE MATERIALS OR THE PROJECT THEY ARE NSPECTING 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

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.

#### 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.

THESE PLANS ARE PROVIDED BY MONO COUNTY AS PART OF THE PRE-APPROVED ADU PROGRAM AND ARE PUBLIC DOMAIN. THERE CANNOT BE A CHARGE TO PROVIDE THESE PLANS. NO ALTERATIONS TO THESE PLANS ARE ALLOWED. ALL ALTERATIONS MUST BE DONE UNDER A SEPARATE PERMIT ONCE THE BUILDING PERMIT FOR THE ADU HAS BEEN ISSUED AND FINAL INSPECTION COMPLETED. IF YOU DO NOT HAVE THE CONSTRUCTION KNOWLEDGE AND EXPERIENCE TO CONTRUCT THESE PLANS WITHOUT FURTHER DETAILS, IT IS RECOMMENDED YOU HIRE A CONTRACTOR TO DO THE CONSTRUCTION. THE CITY WILL NOT PROVIDE FURTHER INFORMATION OR DETAILS AND BUILDING INSPECTORS WILL NOT PROVIDE STEP BY STEP INSTRUCTIONS IN THE FIELD.

# $Z \cong$

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01/10/2024

SHEET

CERTIFICATE OF COMPLIANCE - RESIDENTIAL PERFORMANCE COMPLIANCE METHOD

Standard Design Source

Energy (EDR1) (kBtu/ft<sup>2</sup> -yr)

0.32

0.44

3.71

12.5

0.32

0.44

3.71

16.97

CERTIFICATE OF COMPLIANCE - RESIDENTIAL PERFORMANCE COMPLIANCE METHOD

Module Type

Standard Design TDV Energy

(EDR2) (kTDV/ft<sup>2</sup> -yr)

3.64

4.74

49.02

84.64

3.64

49.02

142.04

Project Name: Mono County ADU (Plan 4)

Calculation Description: Title 24 Analysis

**ENERGY USE SUMMARY** 

**Energy Use** 

Space Heating

IAQ Ventilation

Water Heating

Jtilization/Flexibility

Credit

North Facing

**Efficiency Complianc** 

Total

Space Heating

Space Cooling

Water Heating

Credit

**East Facing Efficiency** 

**Compliance Total** 

Calculation Date/Time: 2023-11-07T14:19:41-08:00

Proposed Design Source

Energy (EDR1) (kBtu/ft<sup>2</sup> -yr)

7.37

0.07

0.44

1.85

7.23

0.08

1.85

Input File Name: Mono County ADU (Plan 4) 2022.ribd22x

Proposed Design TDV Energy Compliance

(EDR2) (kTDV/ft<sup>2</sup> -yr)

80.93

0.76

23.77

110.2

23.72

108.04

78.58

CERTIFICATE OF COMPLIANCE - RESIDENTIAL PERFORMANCE COMPLIANCE METHOD Project Name: Mono County ADU (Plan 4) Calculation Description: Title 24 Analysis

Calculation Date/Time: 2023-11-07T14:19:41-08:00 Input File Name: Mono County ADU (Plan 4) 2022.ribd22x

GENERAL INFORMATION Project Name | Mono County ADU (Plan 4) Run Title Title 24 Analysis Project Location Standards Version 2022 City | Mono County Software Version EnergyPro 9.2 Zip code Climate Zone 16 Front Orientation (deg/ Cardinal) All orientations Building Type | Single family Number of Dwelling Units Project Scope Newly Constructed Number of Bedrooms Addition Cond. Floor Area (ft<sup>2</sup>) Number of Stories Existing Cond. Floor Area (ft<sup>2</sup>) n/a Fenestration Average U-factor 0.3 Glazing Percentage (%) 12.81% ADU Bedroom Count n/a ADU Conditioned Floor Area n/a

COMPLIANCE RESULTS 01 Building Complies with Computer Performance This building incorporates features that require field testing and/or verification by a certified HERS rater under the supervision of a CEC-approved HERS provider. 03 This building incorporates one or more Special Features shown below

Registration Number: 223-P016612497A-000-000-0000000-0000

CERTIFICATE OF COMPLIANCE - RESIDENTIAL PERFORMANCE COMPLIANCE METHOD

Standard Design Source

Energy (EDR1) (kBtu/ft<sup>2</sup> -yr)

12.5

0.32

0.44

3.71

16.97

Standard Design TDV Energy

(EDR2) (kTDV/ft<sup>2</sup> -yr)

3.64

4.74

142.04

84.64

3.64

4.74

49.02

142.04

Registration Date/Time: 2023-11-27 08:33:56

Proposed Design Source

Energy (EDR1) (kBtu/ft<sup>2</sup> -yr)

0.1

0.44

0.12

0.44

1.84

9.61

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Input File Name: Mono County ADU (Plan 4) 2022.ribd22x

Proposed Design TDV Energy | Compliance

1.09

79.11

1.22

4.74

23.71

108.78

(EDR2) (kTDV/ft<sup>2</sup>-yr) Margin (EDR1) Margin (EDR2)

5.45

0.22

0

1.87

5.29

0.2

0

1.87

7.36

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Compliance

7.92

2.55

25.31

35.78

5.53

2.42

0

25.31

33.26

CA Building Energy Efficiency Standards - 2022 Residential Compliance

Project Name: Mono County ADU (Plan 4)

Calculation Description: Title 24 Analysis

**ENERGY USE SUMMARY** 

**Energy Use** 

Space Heating

Space Cooling

**IAQ** Ventilation

Water Heating

Utilization/Flexibility

Credit

South Facing

fficiency Complianc

Total

Space Heating

Space Cooling

IAQ Ventilation

Water Heating

Utilization/Flexibility Credit

**West Facing Efficiency** 

Compliance Total

Report Version: 2022.0.000 Schema Version: rev 20220901

CERTIFICATE OF COMPLIANCE - RESIDENTIAL PERFORMANCE COMPLIANCE METHOD

CF1R-PRF-01E Project Name: Mono County ADU (Plan 4) Calculation Date/Time: 2023-11-07T14:19:41-08:00 (Page 2 of 12) Input File Name: Mono County ADU (Plan 4) 2022.ribd22x Calculation Description: Title 24 Analysis

	Energy Design Ratings		Compliance Margins			
Source Energy (EDR1)	Efficiency <sup>1</sup> EDR (EDR2efficiency)	Total <sup>2</sup> EDR (EDR2total)	Source Energy (EDR1)	Efficiency <sup>1</sup> EDR (EDR2efficiency)	Total <sup>2</sup> EDR (EDR2total)	
47.6	53.8	60.9				
	Propose	d Design				
35.2	41.7	53.6	12.4	12.1	7.3	
35	40.9	53.1	12.6	12.9	7.8	
34.7	40.2	52.7	12.9	13.6	8.2	
35	41.2	53.3	12.6	12.6	7.6	
	47.6 35.2 35 34.7	Source Energy (EDR1)   Efficiency¹ EDR (EDR2efficiency)     47.6   53.8     Propose   35.2   41.7     35   40.9     34.7   40.2	Source Energy (EDR1)         Efficiency¹ EDR (EDR2efficiency)         Total² EDR (EDR2total)           47.6         53.8         60.9           Proposed Design           35.2         41.7         53.6           35         40.9         53.1           34.7         40.2         52.7	Source Energy (EDR1)   Efficiency   EDR (EDR2total)   Source Energy (EDR1)     47.6   53.8   60.9     Proposed Design     35.2   41.7   53.6   12.4     35   40.9   53.1   12.6     34.7   40.2   52.7   12.9	Source Energy (EDR1)         Efficiency¹ EDR (EDR2total)         Total² EDR (EDR2total)         Source Energy (EDR1)         Efficiency¹ EDR (EDR2efficiency)           47.6         53.8         60.9           Proposed Design           35.2         41.7         53.6         12.4         12.1           35         40.9         53.1         12.6         12.9           34.7         40.2         52.7         12.9         13.6	

Efficiency EDR includes improvements l<mark>ike a</mark> better building envelope and more efficient equipment <sup>2</sup>Total EDR includes efficiency and dem<mark>and</mark> response measures such as photovoltaic (PV) system and batteries <sup>3</sup>Building complies when source energy, efficiency and total compliance margins are greater than or equal to zero and unmet load hour limits are not exceeded

Proposed PV Capacity Scaling: North (0.00 kWdc) East (0.00 kWdc) South (0.00 kWdc) West (0.00 kWdc)

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HERS Provider: CalCERTS inc.

Registration Number: 223-P016612497A-000-000-0000000-0000 CA Building Energy Efficiency Standards - 2022 Residential Compliance

Project Name: Mono County ADU (Plan 4)

02

Calculation Description: Title 24 Analysis

REQUIRED PV SYSTEMS

Mono County ADU (Plan 4)

DC System Size

(kWdc)

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(deg)

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HERS Provider: CalCERTS inc. Report Generated: 2023-11-07 14:21:18

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3.71

2.88

25.25

31.84

6.06

25.3

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| Margin (EDR1) | Margin (EDR2

5.13

0.25

1.86

5.27

0.24

1.86

7.37

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CERTIFICATE OF COMPLIANCE - RESIDENTIAL PERFORMANCE COMPLIANCE METHOD CF1R-PRF-01E Project Name: Mono County ADU (Plan 4) Calculation Date/Time: 2023-11-07T14:19:41-08:00 (Page 7 of 12) Calculation Description: Title 24 Analysis Input File Name: Mono County ADU (Plan 4) 2022.ribd22x

	02	03	03     04     05       HVAC System Name     Zone Floor Area (ft²)     Avg. Ceiling Height     V       HVAC System1     840     8		05	06	07	
Zone Name	Zone Type	HVAC System Name			Water Heating System 1	Status New		
Living Area	Conditioned	HVAC System1			DHW Sys 1			
AQUE SURFACES								
01	02	03	04	05	06	07	08	
Name	Zone	Construction	Azimuth	Orientation	Gross Area (ft <sup>2</sup>	Window and Door Area (ft2)	Tilt (deg)	
Front Wall	Living Area	R-21 Wall	0	Front	240	62.6	90	
Left Wall	Living Area	R-21 Wall	90	Left	224	27	90	
Rear Wall	Living Area	R-21 Wall	180	Back	240	0	90	
Right Wall	Living Area	R-21 Wall	270	Right	224	18	90	
Roof	Living Area	R-38 Roof Attic	n/a	n/a	840	n/a	n/a	

ATTIC											
01	02	03	04	C05 V	06	07	08				
Name	Construction	Туре	Roof Rise (x in 12)	Roof Reflectance	Roof Emittance	Radiant Barrier	Cool Roof				
Attic Living Area	Attic RoofLiving Area	Ventilated	8	0.1	0.85	No	No				

FENESTRATION /	GLAZING												
01	02	03	04	05	06	07	08	09	10	11	12	13	14
Name	Туре	Surface	Orientation	Azimuth	Width (ft)	Height (ft)	Mult.	Area (ft <sup>2</sup> )	U-factor	U-factor Source	SHGC	SHGC Source	Exterior Shading
В	Window	Front Wall	Front	0			1	16	0.3	NFRC	0.23	NFRC	Bug Screen
Door A1	Window	Front Wall	Front	0			1	20	0.3	NFRC	0.23	NFRC	Bug Screen
B.5	Window	Front Wall	Front	0			1	20	0.3	NFRC	0.23	NFRC	Bug Screen

Registration Number: 223-P016612497A-000-000-0000000-0000 CA Building Energy Efficiency Standards - 2022 Residential Compliance

OUNTY WOW

THESE PLANS ARE PROVIDED BY MONO COUNTY AS PART OF THE PRE-APPROVED ADU PROGRAM AND ARE PUBLIC DOMAIN. THERE CANNOT BE A CHARGE TO PROVIDE THESE PLANS. NO ALTERATIONS TO THESE PLANS ARE ALLOWED. ALL ALTERATIONS MUST BE DONE UNDER A SEPARATE PERMIT ONCE THE BUILDING PERMIT FOR THE ADU HAS BEEN

ISSUED AND FINAL INSPECTION COMPLETED. IF

KNOWLEDGE AND EXPERIENCE TO CONTRUCT THESE PLANS WITHOUT FURTHER DETAILS, IT IS RECOMMENDED YOU HIRE A CONTRACTOR TO DO THE CONSTRUCTION. THE CITY WILL NOT PROVIDE FURTHER INFORMATION OR DETAILS AND BUILDING INSPECTORS WILL NOT PROVIDE

YOU DO NOT HAVE THE CONSTRUCTION

STEP BY STEP INSTRUCTIONS IN THE FIELD.

DATE 01/10/2024

CERTIFICATE OF COMPLIANCE - RESIDENTIAL PERFORMANCE COMPLIANCE METHOD CF1R-PRF-01E Project Name: Mono County ADU (Plan 4) Calculation Date/Time: 2023-11-07T14:19:41-08:00 (Page 5 of 12) Calculation Description: Title 24 Analysis Input File Name: Mono County ADU (Plan 4) 2022.ribd22x Standard Design (kBtu/ft<sup>2</sup> - yr ) Proposed Design (kBtu/ft<sup>2</sup> - yr ) Compliance Margin (kBtu/ft<sup>2</sup> - yr ) Margin Percentage 33.58 26.95 6.63 19.74 33.58 26.95 6.63 19.74 33.58 26.59 6.99 20.82 33.58 26.59 6.99 20.82 33.58 21.47 26.37 33.58 21.47 33.58 20.31 26.76 6.82 33.58 20.31 1. Gross EUI is Energy Use Total (not including PV) / Total Building Area.

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Tilt Array Angle Tilt: (x in Inverter Eff.

(deg)

12)

The following are features that must be installed as condition for meeting the modeled energy performance for this computer analysis. PV exception 2: No PV required when minimum PV size (Section 150.1(c)14) < 1.8 kWdc (0 kW) Variable capacity heat pump compliance option (verification details from VCHP Staff report, Appendix B, and RA3) Northwest Energy Efficiency Alliance (NEEA) rated heat pump water heater; specific brand/model, or equivalent, must be installed

Array Type

HERS FEATURE SUMMARY The following is a summary of the features that must be field-verified by a certified HERS Rater as a condition for meeting the modeled energy performance for this computer analysis. Additional detail is provided in the building tables below. Registered CF2Rs and CF3Rs are required to be completed in the HERS Registry

Indoor air quality ventilation Kitchen range hood HERS PROVIDER

Verified Refrigerant Charge Airflow in habitable rooms (SC3.1.4.1.7) Verified heat pump rated heating capacity Wall-mounted thermostat in zones greater than 150 ft2 (SC3.4.5)

Ductless indoor units located entirely in conditioned space (SC3.1.4.1.8) **BUILDING - FEATURES INFORMATION** Number of Dwelling Units

Registration Date/Time: 2023-11-27 08:33:56

Number of Ventilation Number of Water Cooling Systems **Heating Systems** 

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2. Net EUI is Energy Use Total (including PV) / Total Building Area.

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CA Building Energy Efficiency Standards - 2022 Residential Compliance

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INDOOR AIR QUALITY (IAQ) FANS SFam IAQVentRpt

CERTIFICATE OF COMPLIANCE - RESIDENTIAL PERFORMANCE COMPLIANCE METHOD CF1R-PRF-01E Calculation Date/Time: 2023-11-07T14:19:41-08:00 (Page 8 of 12) Project Name: Mono County ADU (Plan 4) Calculation Description: Title 24 Analysis Input File Name: Mono County ADU (Plan 4) 2022.ribd22x FENESTRATION / GLAZING 04 | 05 | 06 | 07 | 08 | 09 | 10 | 13 SHGC Source Exterior Shading NFRC Front Wall 0.23 Bug Screer Window C 2 NFRC NFRC Window Front Wall 0.3 0.23 Bug Screen C 3 Window Front Wall 0.3 0.23 NFRC Bug Screer B.1 NFRC NFRC Left Wall Left 0.23 Window Bug Screen B.3 NFRC NFRC Left Wall Left 0.3 0.23 Bug Screer B.3 2 0.3 NFRC 0.23 NFRC **Bug Screen** Right Wall Right SLAB FLOORS 03 07 04 Edge Insul. R-value Edge Insul. R-value Area (ft<sup>2</sup>) Perimeter (ft) Heated and Depth and Depth OPAQUE SURFACE CONSTRUCTIONS 05 | 06 | 07 Interior / Exterio Total Cavity **Assembly Layers Construction Name** Continuous R-value R-value

Inside Finish: Gypsum Board R-21 Wall **Exterior Walls** Wood Framed Wal 2x6 @ 16 in. O. C. R-21 None / None Cavity / Frame: R-21 / 2x6 Exterior Finish: 3 Coat Stucco

Registration Number: 223-P016612497A-000-000-0000000-0000 CA Building Energy Efficiency Standards - 2022 Residential Compliance

Project Name: Mono County ADU (Plan 4)

Calculation Description: Title 24 Analysis

01

**Dwelling Unit** 

CERTIFICATE OF COMPLIANCE - RESIDENTIAL PERFORMANCE COMPLIANCE METHOD

VARIABLE CAPACITY HEAT PUMP COMPLIANCE OPTION - HERS VERIFICATION

Airflow (CFM

02

**VCHP System** 

03

Rooms

03

(W/CFM)

0.35

04

Ductless Units

Space

04

IAQ Fan Type

Exhaust

Registration Date/Time: 2023-11-27 08:33:56 Report Version: 2022.0.000

Airflow per RA3.3 and

SC3.3.3.4.1

08

**HERS Verification** 

Schema Version: rev 20220901

Calculation Date/Time: 2023-11-07T14:19:41-08:00

06

**Drop Rating** 

06

IAQ Recovery

Effectiveness -

SRE/ASRE

n/a / n/a

Input File Name: Mono County ADU (Plan 4) 2022.ribd22x

07

Low Leakage

Ducts in

Conditioned

Space

07

Indicator Display?

HERS Provider: CalCERTS inc. Report Generated: 2023-11-07 14:21:18

CF1R-PRF-01E CERTIFICATE OF COMPLIANCE - RESIDENTIAL PERFORMANCE COMPLIANCE METHOD (Page 11 of 12)

> Timothy Carstairs Carstairs Energy Inc.

Fan Continuously 09

05

Thermostat

05

Heat/Energy

Recovery?

Registration Number: 223-P016612497A-000-000-0000000-0000

CA Building Energy Efficiency Standards - 2022 Residential Compliance

Registration Date/Time: 2023-11-27 08:33:56 Report Version: 2022.0.000 Schema Version: rev 20220901

HERS Provider: CalCERTS inc. Report Generated: 2023-11-07 14:21:18

**Project Name:** Mono County ADU (Plan 4)

CERTIFICATE OF COMPLIANCE - RESIDENTIAL PERFORMANCE COMPLIANCE METHOD

Calculation Date/Time: 2023-11-07T14:19:41-08:00 Calculation Description: Title 24 Analysis Input File Name: Mono County ADU (Plan 4) 2022.ribd22x

OPAQUE SURFACE CONSTRUCTIONS 05 06 07 Total Cavity Interior / Exterior **Construction Name** Surface Type onstruction Type Continuous **Assembly Layers** R-value R-value Roofing: Light Roof (Asphalt Shingle) Roof Deck: Wood Wood Framed Attic RoofLiving Area R-0 2x4 @ 24 in. O. C. None / 0 Attic Roofs Siding/sheathing/decking Cavity / Frame: no insul. / 2x4 Over Ceiling Joists: R-28.9 insul. Wood Framed Ceilings (below R-38 Roof Attic 2x4 @ 24 in. O. C. R-38 None / None Cavity / Frame: R-9.1 / 2x4 Inside Finish: Gypsum Board

BUILDING ENVELOPE - HERS VERIFICATION Quality Insulation Installation (QII) High R-value Spray Foam Insulation Building Envelope Air Leakage CFM50 CFM50 Not Required n/a Not Required

WATER HEATING SYSTEMS

01 05 Water Heater Solar Heating Compact **Water Heater Name Number of Unit HERS Verification** System Distribution Name (#) Domestic Hot n/a DHW Sys 1 DHW Heater 1 n/a None DHW Heater 1 (1) Standard Water (DHW)

WATER HEATERS - NEEA HEAT PUMP **NEEA Heat Pump** NEEA Heat Pump # of Units Tank Vol. (gal) **Tank Location** Duct Inlet Air Source Duct Outlet Air Source XE50T10H22U0 (50 DHW Heater 1 TankZone Living Area Living Area gal, JA13)

Registration Number: 223-P016612497A-000-000-0000000-0000 CA Building Energy Efficiency Standards - 2022 Residential Compliance

Report Version: 2022.0.000 Schema Version: rev 20220901

Registration Date/Time: 2023-11-27 08:33:56

Report Generated: 2023-11-07 14:21:18

CF1R-PRF-01E

HERS Provider: CalCERTS inc.

CF1R-PRF-01E

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CERTIFICATE OF COMPLIANCE - RESIDENTIAL PERFORMANCE COMPLIANCE METHOD

Project Name: Mono County ADU (Plan 4) Calculation Description: Title 24 Analysis

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CF1R-PRF-01E

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WATER HEATING - HERS VERIFICATION 03 06 **Compact Distribution** ower Drain Water Heat **Parallel Piping** Compact Distribution **Recirculation Control** Pipe Insulation Recovery Not Required Not Required Not Required DHW Sys 1 - 1/1 Not Required Not Required None

SPACE CONDITIONING SYSTEMS 04 05 06 07 09 **Cooling Unit Name** Fan Name **Distribution Name** Count Count Thermostat Type Heat pump Heat Pump System leat Pump System HVAC System1 Setback heating cooling HVAC - HEAT PUMPS 04 05 06 07 08

System Type **HERS Verification** Name Efficiency PF2/COP Cap 47 Cap 17 Efficiency Type HSPF 12000 8000 EERSEER **VCHP-ductless** Not Zonal System 1 1-hers-htpump

HVAC HEAT PUMPS - HERS VERIFICATION 04 05 Verified **Verified Heating** Verified rified Refrigerant Verified Heating Verified Airflow Verified EER/EER2 Name **Airflow Target** Cap 47 Cap 17 SEER/SEER2 Charge HSPF/HSPF2 Heat Pump System Not Required Not Required Not Required 1-hers-htpump

Registration Number: 223-P016612497A-000-000-0000000-0000

Registration Date/Time: 2023-11-27 08:33:56

HERS Provider: CalCERTS inc. Report Generated: 2023-11-07 14:21:18

CA Building Energy Efficiency Standards - 2022 Residential Compliance

Report Version: 2022.0.000 Schema Version: rev 20220901

Calculation Date/Time: 2023-11-07T14:19:41-08:00 (Page 12 of 12) Project Name: Mono County ADU (Plan 4) Calculation Description: Title 24 Analysis Input File Name: Mono County ADU (Plan 4) 2022.ribd22x DOCUMENTATION AUTHOR'S DECLARATION STATEMENT I certify that this Certificate of Compliance documentation is accurate and complete. mentation Author Name Timothy Carstairs 2023-11-08 09:52:39 CEA/ HERS Certification Identification (If applicable) 2238 Bayview Heights Drive, Suite E r160610042 Los Osos, CA 93402 805-904-9048 RESPONSIBLE PERSON'S DECLARATION STATEMENT I am eligible under Division 3 of the Business and Professions Code to accept responsibility for the building design identified on this Certificate of Compliance. I certify that the energy features and performance specifications identified on this Certificate of Compliance conform to the requirements of Title 24, Part 1 and Part 6 of the California Code of Regulations. The building design features or system design features identified on this Certificate of Compliance are consistent with the information provided on other applicable compliance documents, worksheets, calculations, plans and specifications submitted to the enforcement agency for approval with this building permit application. Randy Russom Date Signed: 2023-11-27 08:33:56 RRM Design Group

Digitally signed by CalCERTS. This digital signature is provided in order to secure the content of this registered document, and in no way implies Registration Provider responsibility for the accuracy of the information.

Registration Number: 223-P016612497A-000-000-0000000-0000 CA Building Energy Efficiency Standards - 2022 Residential Compliance

3765 S. Higuera Street, Suite 102

City/State/Zip: San Luis Obispo, CA 94301

Registration Date/Time: 2023-11-27 08:33:56 Report Version: 2022.0.000 Schema Version: rev 20220901

805-543-1794

Report Generated: 2023-11-07 14:21:18

Easy to Verify at CalCERTS.com

HERS Provider: CalCERTS inc.

☐ Addition /☐ Existing+
otal Cond. Floo

Single Multi F

DATE

THESE PLANS ARE PROVIDED BY MONO

COUNTY AS PART OF THE PRE-APPROVED ADU

PROGRAM AND ARE PUBLIC DOMAIN. THERE

CANNOT BE A CHARGE TO PROVIDE THESE PLANS. NO ALTERATIONS TO THESE PLANS ARE

ALLOWED. ALL ALTERATIONS MUST BE DONE

UNDER A SEPARATE PERMIT ONCE THE

BUILDING PERMIT FOR THE ADU HAS BEEN ISSUED AND FINAL INSPECTION COMPLETED. IF

YOU DO NOT HAVE THE CONSTRUCTION

STEP BY STEP INSTRUCTIONS IN THE FIELD.

AD

MONO

KNOWLEDGE AND EXPERIENCE TO CONTRUCT THESE PLANS WITHOUT FURTHER DETAILS, IT IS RECOMMENDED YOU HIRE A CONTRACTOR TO DO THE CONSTRUCTION. THE CITY WILL NOT PROVIDE FURTHER INFORMATION OR DETAILS AND BUILDING INSPECTORS WILL NOT PROVIDE

SET **PUBLIC** 

01/10/2024

COUNTY THESE PLANS ARE PROVIDED BY MONO COUNTY AS PART OF THE PRE-APPROVED ADU

PROGRAM AND ARE PUBLIC DOMAIN. THERE CANNOT BE A CHARGE TO PROVIDE THESE PLANS. NO ALTERATIONS TO THESE PLANS ARE ALLOWED. ALL ALTERATIONS MUST BE DONE UNDER A SEPARATE PERMIT ONCE THE BUILDING PERMIT FOR THE ADU HAS BEEN ISSUED AND FINAL INSPECTION COMPLETED. IF YOU DO NOT HAVE THE CONSTRUCTION KNOWLEDGE AND EXPERIENCE TO CONTRUCT THESE PLANS WITHOUT FURTHER DETAILS, IT IS RECOMMENDED YOU HIRE A CONTRACTOR TO DO THE CONSTRUCTION. THE CITY WILL NOT PROVIDE FURTHER INFORMATION OR DETAILS AND BUILDING INSPECTORS WILL NOT PROVIDE STEP BY STEP INSTRUCTIONS IN THE FIELD.

MONO COUNTY ADU PROTOTYPES MONO COUNTY

Y COMPLIANCE - P SLAB ON GRADE

PUBLIC SET

01/10/2024

T24-A403

Calculation Description: Title 24 Analysis Input File Name: Mono County ADU (Plan 4)(raised foundation) 2022.ribd22x GENERAL INFORMATION Project Name | Mono County ADU (Plan 4) Run Title Title 24 Analysis City Mono County Standards Version 2022 Software Version EnergyPro 9.2 Zip code Front Orientation (deg/ Cardinal) All orientations Climate Zone 16 Building Type | Single family Number of Dwelling Units Project Scope Newly Constructed Number of Bedrooms Number of Stories Addition Cond. Floor Area (ft<sup>2</sup>) Fenestration Average U-factor 0.3 Existing Cond. Floor Area (ft<sup>2</sup>) n/a Glazing Percentage (%) 10.43% Total Cond. Floor Area (ft<sup>2</sup>) 840 ADU Bedroom Count n/a ADU Conditioned Floor Area In/a

Calculation Date/Time: 2023-11-20T07:32:56-08:00

(Page 3 of 12)

4.56

3.44

25.51

70.51

38.71

4.33

3.44

25.54

72.02

CF1R-PRF-01E

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Margin (EDR1) Margin (EDR2)

9.13

0.34

0.32

1.86

11.65

9.23

0.34

0.32

1.87

11.76

**Building Complies with Computer Performance** 

02 This building incorporates features that require field testing and/or verification by a certified HERS rater under the supervision of a CEC-approved HERS provider.

03 This building incorporates one or more Special Features shown below

CERTIFICATE OF COMPLIANCE - RESIDENTIAL PERFORMANCE COMPLIANCE METHOD

Standard Design Source

Energy (EDR1) (kBtu/ft<sup>2</sup> -yr)

14.81

0.63

0.99

14.81

0.63

Standard Design TDV Energy

(EDR2) (kTDV/ft<sup>2</sup> -yr)

100.13

7.61

10.71

49.11

167.56

100.13

7.61

CERTIFICATE OF COMPLIANCE - RESIDENTIAL PERFORMANCE COMPLIANCE METHOD

Project Name: Mono County ADU (Plan 4)

Registration Number: 223-P016617249A-000-000-0000000-0000 CA Building Energy Efficiency Standards - 2022 Residential Compliance

Project Name: Mono County ADU (Plan 4) Calculation Description: Title 24 Analysis

**ENERGY USE SUMMARY** 

**Energy Use** 

Space Heating

Space Cooling

**IAQ** Ventilation

Water Heating

ficiency Complian

Total

Space Heating

Space Cooling

Registration Date/Time: 2023-11-27 08:34:03 Report Version: 2022.0.000 Schema Version: rev 20220901

Energy (EDR1) (kBtu/ft<sup>2</sup> -yr)

0.33

0.67

1.83

8.28

5.57

0.33

Calculation Date/Time: 2023-11-20T07:32:56-08:00

Input File Name: Mono County ADU (Plan 4)(raised foundation) 2022.ribd22x

(EDR2) (kTDV/ft<sup>2</sup> -yr)

3.56

7.27

23.54

61.88

3.46

7.27

96.19

Proposed Design Source Proposed Design TDV Energy Compliance

HERS Provider: CalCERTS inc. Report Generated: 2023-11-20 07:34:35

Margin (EDR1)

9.36

0.3

0.32

1.87

11.85

9.24

0.3

0.32

11.73

CF1R-PRF-01E

Margin (EDR2)

4.05

3.44

25.57

73.06

38.25

4.15

3.44

71.37

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CF1R-PRF-01E (Page 1 of 12)

CERTIFICATE OF COMPLIANCE - RESIDENTIAL PERFORMANCE COMPLIANCE METHOD CF1R-PRF-01E Calculation Date/Time: 2023-11-20T07:32:56-08:00 (Page 2 of 12) Project Name: Mono County ADU (Plan 4) Calculation Description: Title 24 Analysis Input File Name: Mono County ADU (Plan 4)(raised foundation) 2022.ribd22x

		<b>Energy Design Ratings</b>		Compliance Margins		
	Source Energy Efficiency <sup>1</sup> EDR Total <sup>2</sup> EDR (EDR1) (EDR2efficiency) (EDR2total)		Source Energy (EDR1)	Efficiency <sup>1</sup> EDR (EDR2efficiency)	Total <sup>2</sup> EDR (EDR2total)	
Standard Design	45.2	55.8	46.1			
	•	Propose	d Design			
North Facing	26.8	32.3	31.1	18.4	23.5	15
East Facing	26.6	31.8	30.9	18.6	24	15.2
South Facing	26.5	31.5	30.7	18.7	24.3	15.4
West Facing	26.7	32	31	18.5	23.8	15.1

<sup>2</sup>Total EDR includes efficiency and dema<mark>nd</mark> response measures such as photovoltaic (PV) system and batteries <sup>3</sup>Building complies when source energy, efficiency and total compliance margins are greater than or equal to zero and unmet load hour limits are not exceeded Proposed PV Capacity Scaling: North (2.12 kWdc) East (2.12 kWdc) South (2.12 kWdc) West (2.12 kWdc)

Registration Number: 223-P016617249A-000-000-0000000-0000 CA Building Energy Efficiency Standards - 2022 Residential Compliance Registration Date/Time: 2023-11-27 08:34:03 Report Version: 2022.0.000 Schema Version: rev 20220901

HERS Provider: CalCERTS inc. Report Generated: 2023-11-20 07:34:35

CF1R-PRF-01E

Registration Number: 223-P016617249A-000-000-0000000-0000 CA Building Energy Efficiency Standards - 2022 Residential Compliance

Project Name: Mono County ADU (Plan 4)

**Calculation Description:** Title 24 Analysis

NA

IAQ Ventilation System: as low as 0.41818<mark>2 W</mark>/CFM

Indoor air quality ventilation

IAQ Ventilation System Heat Recovery: minimum 80 SRE and 80 ASRE

REQUIRED PV SYSTEMS

DC System Size

(kWdc)

2.12

CERTIFICATE OF COMPLIANCE - RESIDENTIAL PERFORMANCE COMPLIANCE METHOD

Standard (14-17%)

The following are features that must be installed as condition for meeting the modeled energy performance for this computer analysis.

detail is provided in the building tables below. Registered CF2Rs and CF3Rs are required to be completed in the HERS Registry

Northwest Energy Efficiency Alliance (NEEA) rated heat pump water heater; specific brand/model, or equivalent, must be installed

The following is a summary of the features that must be field-verified by a certified HERS Rater as a condition for meeting the modeled energy performance for this computer analysis. Additional

IAQ Ventilation System: supply outside air inlet, filter, and H/ERV cores accessible per RACM Reference Manual Variable capacity heat pump compliance option (verification details from VCHP Staff report, Appendix B, and RA3)

CERTIFICATE OF COMPLIANCE - RESIDENTIAL PERFORMANCE COMPLIANCE METHOD

Energy (EDR1) (kBtu/ft<sup>2</sup> -yr)

0.63

14.81

0.63

0.99

Project Name: Mono County ADU (Plan 4)

Calculation Description: Title 24 Analysis

**ENERGY USE SUMMARY** 

**Energy Use** 

Space Heating

Space Cooling

IAQ Ventilation

Water Heating

Jtilization/Flexibility Credit North Facing

fficiency Compliand

Total

Space Heating

Space Cooling

IAQ Ventilation

Water Heating

ilization/Flexibility

Credit

**East Facing Efficiency** 

**Compliance Total** 

HERS Provider: CalCERTS inc. Registration Date/Time: 2023-11-27 08:34:03 Report Version: 2022.0.000 Report Generated: 2023-11-20 07:34:35

Calculation Date/Time: 2023-11-20T07:32:56-08:00

Azimuth (deg)

Input File Name: Mono County ADU (Plan 4)(raised foundation) 2022.ribd22x

Tilt Array Angle Tilt: (x in Inverter Eff.

(deg) 12)

Calculation Date/Time: 2023-11-20T07:32:56-08:00

Standard Design Source | Standard Design TDV Energy | Proposed Design Source | Proposed Design TDV Energy | Compliance

Energy (EDR1) (kBtu/ft<sup>2</sup> -yr)

0.29

0.67

5.58

0.29

0.67

1.83

8.37

Schema Version: rev 20220901

(EDR2) (kTDV/ft<sup>2</sup> -yr)

7.61

10.71

49.11

167.56

100.13

7.61

10.71

49.11

167.56

Input File Name: Mono County ADU (Plan 4)(raised foundation) 2022.ribd22x

(EDR2) (kTDV/ft<sup>2</sup> -yr)

63.13

3.05

7.27

23.6

61.42

3.28

7.27

23.57

95.54

Registration Number: 223-P016617249A-000-000-0000000-0000

CA Building Energy Efficiency Standards - 2022 Residential Compliance

Registration Date/Time: 2023-11-27 08:34:03 Report Version: 2022.0.000

CERTIFICATE OF COMPLIANCE - RESIDENTIAL PERFORMANCE COMPLIANCE METHOD Project Name: Mono County ADU (Plan 4)

Calculation Date/Time: 2023-11-20T07:32:56-08:00

oject Name: Mono County AD	OU (Plan 4)	Calculation Date/Time: 2023-11-20T07:32:56-08:00						
Iculation Description: Title 24	Analysis	Input File Name:	Mono County ADU (Plan 4)(raised four	ndation) 2022.ribd22x				
ERGY USE INTENSITY								
	Standard Design (kBtu/ft <sup>2</sup> - yr )	Proposed Design (kBtu/ft <sup>2</sup> - yr )	Compliance Margin (kBtu/ft <sup>2</sup> - yr )	Margin Percentage				
orth Facing								
Gross EUI <sup>1</sup>	37.17	25.62	11.55	31.07				
Net EUI <sup>2</sup>	23.19	11.64	11.55	49.81				
st Facing								
Gross EUI <sup>1</sup>	37.17	25.37	11.8	31.75				
Net EUI <sup>2</sup>	23.19	11.39	11.8	50.88				
uth Facing								
Gross EUI <sup>1</sup>	37.17	25.24	11.93	32.1				
Net EUI <sup>2</sup>	23.19	11.26	11.93	51.44				
est Facing	HE	RSPROV	IDER					
Gross EUI <sup>1</sup>	37.17	25.51	11.66	31.37				
Net EUI <sup>2</sup>	23.19	11.52	11.67	50.32				

IAQ Ventilation 0.99 10.71 0.67 Water Heating Self Utilization/Flexibilit Credit West Facing Efficiency 20.13 167.56 **Compliance Total** 

Schema Version: rev 20220901

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CERTIFICATE OF COMPLIANCE - RESIDENTIAL PERFORMANCE COMPLIANCE METHOD CF1R-PRF-01E Calculation Date/Time: 2023-11-20T07:32:56-08:00 (Page 7 of 12) Project Name: Mono County ADU (Plan 4) Calculation Description: Title 24 Analysis Input File Name: Mono County ADU (Plan 4)(raised foundation) 2022.ribd22x ZONE INFORMATION Zone Name Zone Type **HVAC System Name** Zone Floor Area (ft<sup>2</sup>) Avg. Ceiling Height Water Heating System 1 Status

Living Area	Conditioned	HVAC Systems	040	'	0	DUM 3A2 I	New
OPAQUE SURFACES							
01	02	03	04	05	06	07	08
Name	Zone	Construction	Azimuth	Orientation	Gross Area (ft <sup>2</sup>	) Window and Door Area (ft2)	Tilt (deg)
Front Wall	Living Area	R-21 Wall	0	Front	240	62.6	90
Left Wall	Living Area	R-21 Wall	90	Left	224	27	90
Rear Wall	Living Area	R-21 Wall	180	Back	240	0	90
Right Wall	Living Area	R-21 Wall	270	Right	224	18	90
Roof	Living Area	R-38 Roof Attic	n/a	n/a	840	n/a	n/a
Raised Floor	Living Area	R-19 Floor Crawlspace	n/a	n/a	840	n/a	n/a
							•

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			- All	1 1 2	n .	- 570	-	-	· -	-			
ATTIC			1	HE	K >	P	K	UV	ID	EK			
01		02	0	3		04		05		06	0	7	08
Name	С	Construction	Ту	pe	Roof Ri	ise (x in 12)	Roof	Reflectar	ice Roo	f Emittance	Radiant	Barrier	Cool Roof
Attic Living Are	ea Attic	RoofLiving Area	Venti	lated		8		0.1		0.85	N	0	No
FENESTRATION / 0	NESTRATION / GLAZING												
01	02	03	04	05	06	07	08	09	10	11	12	13	14

B.5 Window Front Wall 0.23 NFRC Bug Screen Front Wall 0.23

Registration Date/Time: 2023-11-27 08:34:03 HERS Provider: CalCERTS inc. Report Generated: 2023-11-20 07:34:35 Report Version: 2022.0.000 Schema Version: rev 20220901

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> OUNTY WOW

(L) 24

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DATE 01/10/2024

SHEET

Kitchen range hood Verified Refrigerant Charge Airflow in habitable rooms (SC3.1.4.1.7) Verified heat pump rated heating capacity Wall-mounted thermostat in zones greater than 150 ft2 (SC3.4.5) Ductless indoor units located entirely in conditioned space (SC3.1.4.1.8) **BUILDING - FEATURES INFORMATION** 01 03 Number of Dwelling Number of Ventilation Number of Water **Project Name Number of Zones** onditioned Floor Area (ft<sup>2</sup>) Units Cooling Systems Heating Systems Mono County ADU (Plan 4) Registration Date/Time: 2023-11-27 08:34:03 HERS Provider: CalCERTS inc. HERS Provider: CalCERTS inc. Registration Number: 223-P016617249A-000-000-0000000-0000 Registration Number: 223-P016617249A-000-000-0000000-0000 Registration Number: 223-P016617249A-000-000-0000000-0000 Registration Date/Time: 2023-11-27 08:34:03 Report Generated: 2023-11-20 07:34:35 CA Building Energy Efficiency Standards - 2022 Residential Compliance Report Generated: 2023-11-20 07:34:35 CA Building Energy Efficiency Standards - 2022 Residential Compliance Report Version: 2022.0.000 CA Building Energy Efficiency Standards - 2022 Residential Compliance Report Version: 2022.0.000 Schema Version: rev 20220901 Schema Version: rev 20220901

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CERTIFICATE OF COMPLIANCE - RESIDENTIAL PERFORMANCE COMPLIANCE METHOD

Surface

Front Wall

Front Wall

Left Wall

Left Wall

Right Wall

Exterior Walls

Attic Roofs

Registration Number: 223-P016617249A-000-000-0000000-0000

Project Name: Mono County ADU (Plan 4)

Calculation Description: Title 24 Analysis

Heat Pump System 1

INDOOR AIR QUALITY (IAQ) FANS

**Dwelling Unit** 

SFam IAQVentRpt

1-1

CA Building Energy Efficiency Standards - 2022 Residential Compliance

CERTIFICATE OF COMPLIANCE - RESIDENTIAL PERFORMANCE COMPLIANCE METHOD

VARIABLE CAPACITY HEAT PUMP COMPLIANCE OPTION - HERS VERIFICATION

Airflow (CFM)

Low-Static

VCHP System

Habitable

Not required Required

(W/CFM)

0.418182

in Conditioned

04

IAQ Fan Type

Side of Building

Front Wall

2x6 @ 16 in. O. C.

2x4 @ 24 in. O. C.

Construction Type

Wood Framed Wall

Wood Framed

Project Name: Mono County ADU (Plan 4)

Calculation Description: Title 24 Analysis

Window

FENESTRATION / GLAZING

Name

C 2

C 3

B.1

B.3 2

OPAQUE DOORS

OPAQUE SURFACE CONSTRUCTIONS

**Construction Name** 

R-21 Wall

Attic RoofLiving Area

CF1R-PRF-01E

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Bug Screen

Bug Screen

Bug Screen

Bug Screen

Bug Screen

SHGC Source Exterior Shading

NFRC

NFRC

NFRC

NFRC

NFRC

**U-factor** 

0.2

Assembly Layers

Inside Finish: Gypsum Board

Exterior Finish: 3 Coat Stucco

Roofing: Light Roof (Asphalt Shingle)

Roof Deck: Wood

Siding/sheathing/decking

Cavity / Frame: no insul. / 2x4

CF1R-PRF-01E

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09

HERS Provider: CalCERTS inc.

Report Generated: 2023-11-20 07:34:35

Certified

08

**HERS Verification** 

non-continuous Running

Cavity / Frame: R-21 / 2x6

Calculation Date/Time: 2023-11-20T07:32:56-08:00

Area (ft<sup>2</sup>)

05 06 07

Interior / Exterior

Continuous

None / None

None / 0

Calculation Date/Time: 2023-11-20T07:32:56-08:00

& Pressure

Required Not required

**Drop Rating** 

IAQ Recovery

Effectiveness -

SRE/ASRE

Input File Name: Mono County ADU (Plan 4)(raised foundation) 2022.ribd22x

Includes Fault

Indicator Display?

Low Leakage

Ducts in

Conditioned

Space

Minimum Airflow per

RA3.3 and

SC3.3.3.4.1

0.644

20

Total Cavity

R-21

R-0

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Wall Mount

Thermostat

Heat/Energy

Recovery?

Calcello, IIIC. HERS PROVIDER

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R-value

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Source

NFRC

NFRC

NFRC

NFRC

NFRC

0.23

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^ <u>A</u>S

ADU MONO

**CERTIFICATE OF COMPLIANCE - RESIDENTIAL PERFORMANCE COMPLIANCE METHOD** CF1R-PRF-01E Calculation Date/Time: 2023-11-20T07:32:56-08:00 (Page 12 of 12) Project Name: Mono County ADU (Plan 4) Calculation Description: Title 24 Analysis Input File Name: Mono County ADU (Plan 4)(raised foundation) 2022.ribd22x **DOCUMENTATION AUTHOR'S DECLARATION STATEMENT** I certify that this Certificate of Compliance documentation is accurate and complete. Timothy Carstairs Timothy Carstairs Carstairs Energy Inc. 2023-11-20 08:18:47 CEA/ HERS Certification Identification (If applicable): 2238 Bayview Heights Drive, Suite E r160610042 Los Osos, CA 93402 805-904-9048 1. I am eligible under Division 3 of the Business and Professions Code to accept responsibility for the building design identified on this Certificate of Compliance I certify that the energy features and performance specifications identified on this Certificate of Compliance conform to the requirements of Title 24, Part 1 and Part 6 of the California Code of Regulations. The building design features or system design features identified on this Certificate of Compliance are consistent with the information provided on other applicable compliance documents, worksheets, calculations, plans and specifications submitted to the enforcement agency for approval with this building permit application. RAL Randy Russom 2023-11-27 08:34:03 RRM Design Group 3765 S. Higuera Street, Suite 102 City/State/Zip: San Luis Obispo, CA 94301 Phone: 805-543-1794

Digitally signed by CalCERTS. This digital signature is provided in order to secure the content of this registered document, and in no way implies Registration Provider responsibility for the accuracy of the information.

Registration Number: 223-P016617249A-000-000-0000000-0000 CA Building Energy Efficiency Standards - 2022 Residential Compliance

CERTIFICATE OF COMPLIANCE - RESIDENTIAL PERFORMANCE COMPLIANCE METHOD

03

Construction Typ

Wood Framed Floor

03

Tank Vol. (gal)

04

2x10 @ 16 in. O. C.

2x4 @ 24 in. O. C.

**Building Envelope Air Leakage** 

05

04

Distribution Type | Water Heater Name | Number of Units

DHW Heater 1

NEEA Heat Pump

02

Surface Type

Ceilings (below

Quality Insulation Installation (QII) High R-value Spray Foam Insulation

02

System Type

Water (DHW)

# of Units

Registration Number: 223-P016617249A-000-000-0000000-0000

CA Building Energy Efficiency Standards - 2022 Residential Compliance

**Project Name:** Mono County ADU (Plan 4)

Calculation Description: Title 24 Analysis

BUILDING ENVELOPE - HERS VERIFICATION

OPAQUE SURFACE CONSTRUCTIONS

**Construction Name** 

R-19 Floor Crawlspace

R-38 Roof Attic

WATER HEATING SYSTEMS

01

Name

DHW Sys 1

Name

DHW Heater 1

WATER HEATERS - NEFA HEAT PUMP

Report Version: 2022.0.000 Schema Version: rev 20220901

at CalCERTS.com HERS Provider: CalCERTS inc. Report Generated: 2023-11-20 07:34:35

CF1R-PRF-01E

(Page 9 of 12)

Floor Surface: Carpeted Floor Deck: Wood

Siding/sheathing/decking

Over Ceiling Joists: R-28.9 insul.

Cavity / Frame: R-9.1 / 2x4

Inside Finish: Gypsum Board

CFM50

09

Water Heater

Name (#)

DHW Heater 1 (1)

Living Area

08

**HERS Verification** 

n/a

HERS Provider: CalCERTS inc.

Report Generated: 2023-11-20 07:34:35

Duct Inlet Air Source | Duct Outlet Air Source

Calculation Date/Time: 2023-11-20T07:32:56-08:00

**Total Cavity** 

R-value

R-19

R-38

Solar Heating

System

05

NEEA Heat Pump

XE50T10H22U0 (50

Report Version: 2022.0.000

Schema Version: rev 20220901

gal, JA13)

Registration Date/Time: 2023-11-27 08:34:03

05 | 06 | 07

Continuous

R-value

None / None

None / None

Input File Name: Mono County ADU (Plan 4)(raised foundation) 2022.ribd22x

07

Compact Distribution

06

Tank Location

CERTIFICATE OF COMPLIANCE - RESIDENTIAL PERFORMANCE COMPLIANCE METHOD

Not Required

Heating Unit Name

Heat Pump System

**Airflow Target** 

System Type

Heat pump

VCHP-ductless

**Verified Airflow** 

Not Required

Registration Number: 223-P016617249A-000-000-0000000-0000

CA Building Energy Efficiency Standards - 2022 Residential Compliance

HVAC HEAT PUMPS - HERS VERIFICATION

heating cooling

Not Required

Not Required

**Cooling Unit Name** 

Heat Pump System

Verified

Not Required

Report Version: 2022.0.000

Schema Version: rev 20220901

SEER/SEER2

04 05 06 07 08

Heating Efficiency PF2/COP Cap 47 Cap 17 Efficiency Type

Heating

04

Verified EER/EER2

Not Required

Project Name: Mono County ADU (Plan 4)

Calculation Description: Title 24 Analysis

WATER HEATING - HERS VERIFICATION

DHW Sys 1 - 1/1

01

Name

HVAC System1

HVAC - HEAT PUMPS

01

Heat Pump System

1-hers-htpump

SPACE CONDITIONING SYSTEMS

Calculation Date/Time: 2023-11-20T07:32:56-08:00

**Compact Distribution** 

Type

None

Cooling

Verified Refrigera

Registration Date/Time: 2023-11-27 08:34:03

Charge

EERSEER

Input File Name: Mono County ADU (Plan 4)(raised foundation) 2022.ribd22x

Fan Name

SEER/SE EER/EER Controlled

14 11.7 Not Zonal

Verified

HSPF/HSPF2

Not Required

08

Distribution Name

n/a

CF1R-PRF-01E

(Page 10 of 12)

Shower Drain Water Heat

Recovery

Not Required

Required

Thermostat Type

Setback

**HERS Verification** 

Cap 17

Verified Heating Verified Heating

Cap 47

HERS Provider: CalCERTS inc.

Report Generated: 2023-11-20 07:34:35

PUBLIC

DATE

01/10/2024

COUNTY THESE PLANS ARE PROVIDED BY MONO COUNTY AS PART OF THE PRE-APPROVED ADU PROGRAM AND ARE PUBLIC DOMAIN. THERE CANNOT BE A CHARGE TO PROVIDE THESE PLANS. NO ALTERATIONS TO THESE PLANS ARE ALLOWED. ALL ALTERATIONS MUST BE DONE UNDER A SEPARATE PERMIT ONCE THE BUILDING PERMIT FOR THE ADU HAS BEEN ISSUED AND FINAL INSPECTION COMPLETED. IF YOU DO NOT HAVE THE CONSTRUCTION KNOWLEDGE AND EXPERIENCE TO CONTRUCT THESE PLANS WITHOUT FURTHER DETAILS, IT IS RECOMMENDED YOU HIRE A CONTRACTOR TO DO THE CONSTRUCTION. THE CITY WILL NOT PROVIDE FURTHER INFORMATION OR DETAILS AND BUILDING INSPECTORS WILL NOT PROVIDE STEP BY STEP INSTRUCTIONS IN THE FIELD.

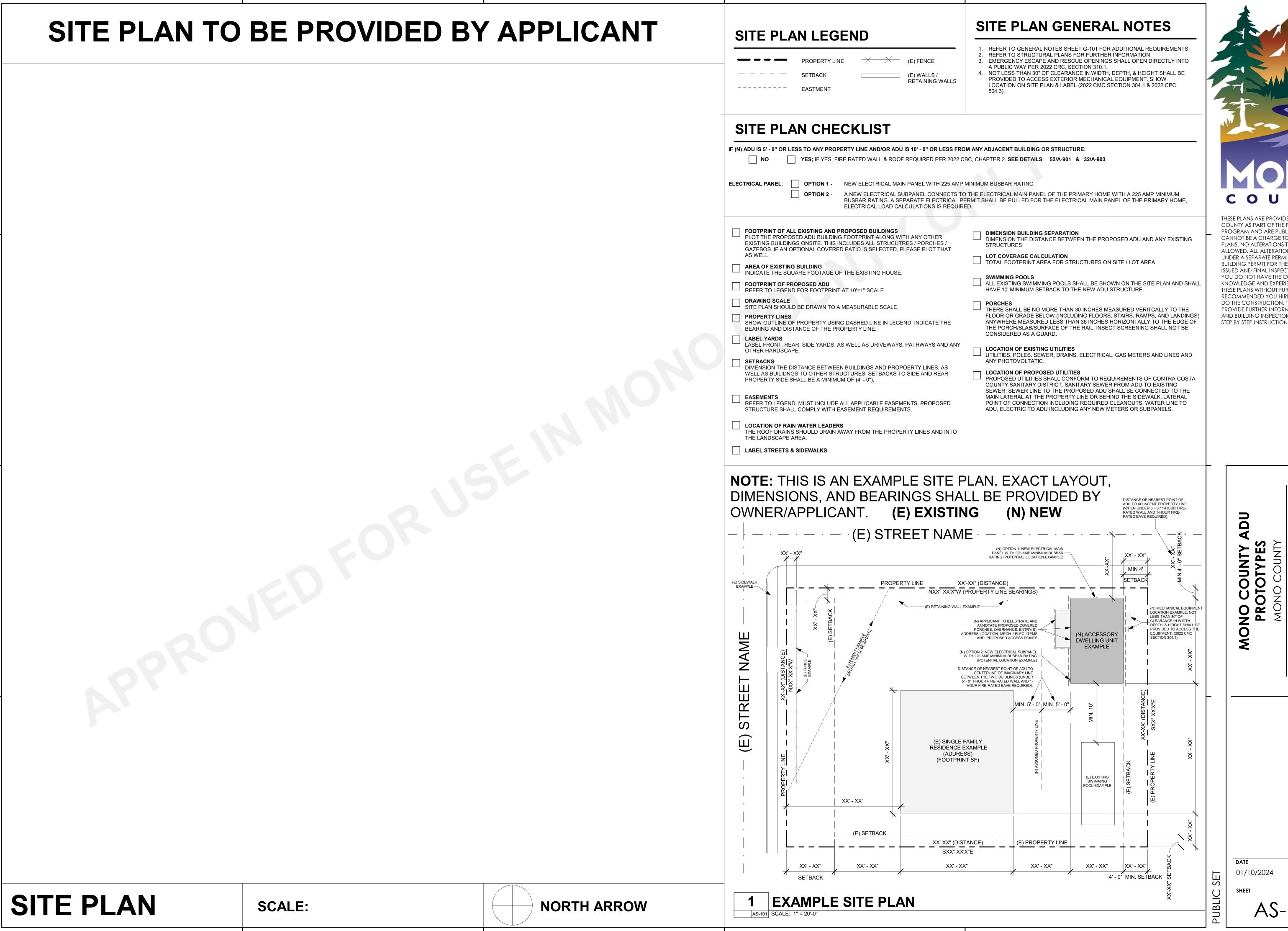
MONO COUNTY ADU
PROTOTYPES
MONO COUNTY

ENERGY COMPLIANCE - PLAN RAISED FOUNDATION

01/10/2024

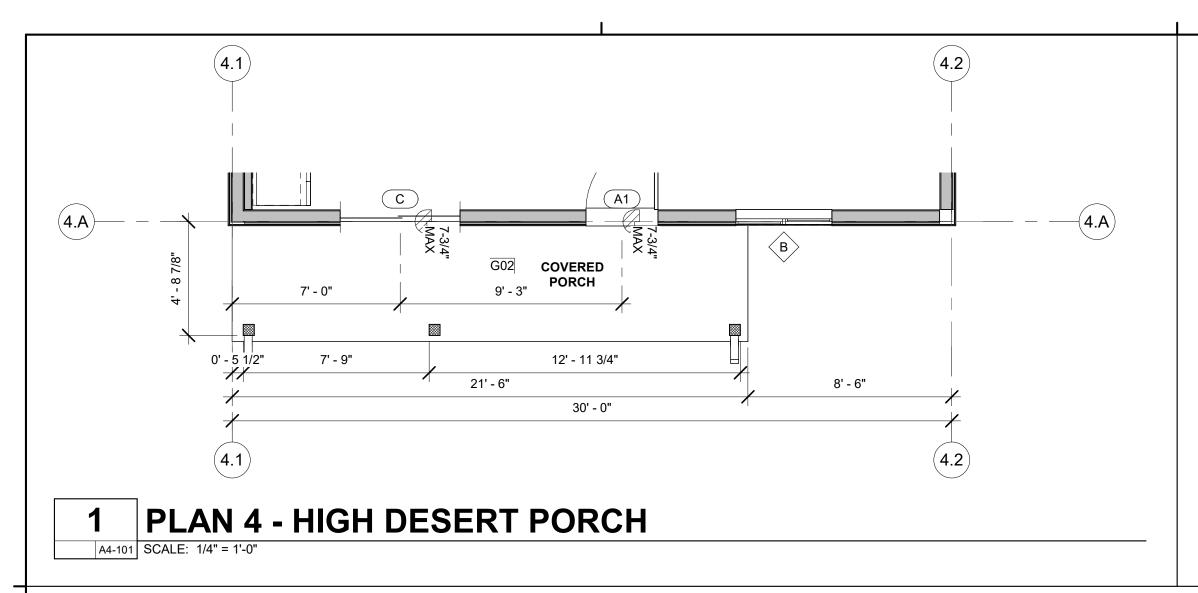
T24-B403

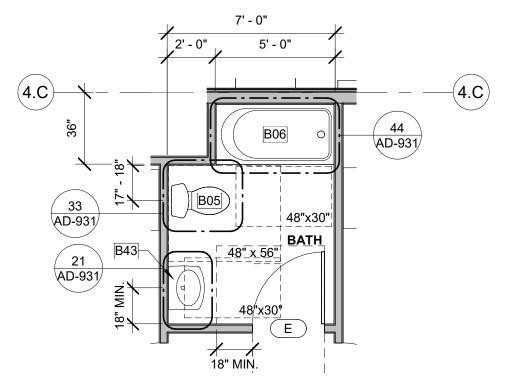
PUBLIC SET



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AS-101





OPT. ADAPTABLE BATH A1-201 A4-101 SCALE: 1/4" = 1'-0"

# RURAL HIGH **MOUNTAIN DESERT** (4.2)A4-201 A4-202 30' - 0" 10' - 8" 8' - 1" 11' - 3" E.3 B14 B06 BED 1 B.1 C01 (B.1) C01 \_\_\_\_CL\_\_\_ (4.B) -(4.B)**COVERED** PORCH 7' - 0" 7' - 0" G02 10' - 6" 9' - 0" 10' - 6" 30' - 0" 4.2

#### **KEYNOTES**

- REFRIGERATOR LOCATION PER OWNER. PROVIDE ROUGH PLUMBING FOR ICE MAKER (RECESS IN WALL).
- STACKED WASHER/DRYER MACHINE LOCATION. PROVIDE WASTE AND WATER IN RECESSED WALL BOX. PROVIDE DRYER VENT. VENT TO
- 24" WIDE FREE STANDING ELECTRIC RANGE OVEN. PROVIDE VENT HOOD. VENT TO EXTERIOR, STAINLESS STEEL.
- MICROWAVE OVER RANGE.
- DISPOSAL. REFER TO WATER EFFICIENCY REQUIREMENTS ON CALGREEN

30" SINGLE COMPARTMENT UNDER-MOUNT KITCHEN SINK W/ GARBAGE

- LAVATORY SINK. REFER TO WATER EFFICIENCY REQUIREMENTS ON
- CALGREEN CODE NOTES SHEETS. WATER CLOSET. REFER TO WATER EFFICIENCY REQUIREMENTS ON
- CALGREEN CODE NOTES SHEETS. 30" x 60" x 72" TUB AND SHOWER COMBINATION. FIBER-CEMENT BACKER SHALL BE USED AS A BASE FOR CERAMIC WALL TILES IN TUB/SHOWER
- 50 GALLON TANK TYPE ELECTRIC WATER HEATER. REFER TO TITLE 24 FOR ADDITIONAL INFORMATION.

AREA. GREEN BOARD SHALL NOT BE USED. MODEL BY BUILDER. PROVIDE

- EXTERIOR RATED ELECTRIC SUB PANEL 80 AMP 120/240 VOLT. CONTRACTOR TO VERIFY MAIN PANEL.
- WALL-MOUNTED MULTI-ZONE HEAT PUMP CONDENSING UNIT. REFER TO PLANS FOR LOCATION OF INDOOR FAN FAN COIL UNITS. REFER TO TITLE 24 FOR ADDITIONAL INFORMATION.
- FAN COIL. REFER TO PLANS FOR LOCATION OF OUTDOOR CONDENSING UNIT. PROVIDE CONDENSATE DRAIN TO EXTERIOR PER MANUF. REFER TO TITLE 24 FOR ADDITIONAL INFORMATION. PROVIDE OUTLET.
- ACCESSIBLE WALL MOUNTED LAVATORY SINK. MAX HEIGHT 34". REFER TO WATER EFFICIENCY REQUIREMENTS ON CALGREEN CODE NOTES
- SINGLE WOOD SHELF AND POLE.
- 12" DEEP UPPER CABINET
- 24" DEEP UPPER CABINET. 34 1/2" HIGH BASE CABINET AND COUNTERTOP.
- 30" HIGH BASE CABINET AND COUNTERTOP.
- AT [SLAB ON GRADE] CONCRETE FLATWORK. 1/4"/FT SLOPE AWAY FROM BUILDING. AT [RAISED FOUNDATION] 2X COMPOSITE IGNITION RESISTANT DECKING, TREX OR EQUAL, OVER 4X6 PT WOOD JOISTS @ 16" O.C. REFER TO DETAILS 41, 51, 52, 54 SHEET AD-902.

#### **WINDOW GENERAL NOTES**

- REFER TO GENERAL NOTES ON SHEET G-101 FOR ADDITIONAL
- REQUIREMENTS. REFER TO FLOOR PLANS FOR WINDOW LOCATIONS.
- CONTRACTOR TO VERIFY EXACT ROUGH OPENING SIZES PRIOR TO FABRICATION OF ROUGH OPENINGS.
- INSTALL PER MANUFACTURERS WRITTEN INSTRUCTIONS.
- REFER TO ENERGY COMPLIANCE REPORTS FOR U-FACTOR, SHGC AND ADDITIONAL WINDOW REQUIREMENTS.
- ALL GLAZING IS DOUBLE PANE WITH A MINIMUM OF ONE TEMPERED PANE OR TO BE 20-MINUTE FIRE-RESISTENCE RATING. (LISTED AND APPROVED
- EGRESS WINDOWS SHALL HAVE A CLEAR OPENING WITH A MAX. SILL HEIGHT
- OF 44" AFF, MIN NET CLEAR OPENING FOR EMERGENCY ESCAPE SHALL BE 5.7 S.F. EXCEPTION: MIN 5 S.F. AT GROUND FLOOR, MINIMUM NET CLEAR OPENING DIMENSIONS: HEIGHT: 24", WIDTH: 20".

#### WINDOW REMARKS

- REQUIRED EGRESS WINDOW. REFER TO GENERAL NOTE #7 FOR ADDITIONAL
- 2. HAZARDOUS LOCATION. WINDOW INCLUDES BOTH PANES TEMPERED
- 3. HIGH WINDOW. REFER TO ELEVATIONS FOR LOCATION.

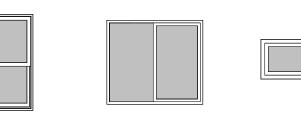
#### **WINDOW SCHEDULE**

				SIZE		
NO.	TYPE	COUNT	WIDTH	HEIGHT	HEIGHT	REMARKS
				·	·	
PLAN 4	В	1	4' - 0"	4' - 0"	6' - 9"	
PLAN 4	B.1	1	3' - 0"	3' - 0"	6' - 8"	
PLAN 4	B.3	2	4' - 6"	4' - 0"	6' - 8"	1
PLAN 4	B.5	1	5' - 0"	4' - 0"	6' - 9"	

	SCHEDULE-WINDOW PLAN 4 HIGH DESERT								
			5	SIZE	HEAD				
NO.	TYPE	COUNT	WIDTH	WIDTH HEIGHT		REMARKS			
				•	•	•			
PLAN 4	В	1	4' - 0"	4' - 0"	6' - 8"				
PLAN 4	B.1	1	3' - 0"	3' - 0"	6' - 8"				
PLAN 4	B.3	2	4' - 6"	4' - 0"	6' - 8"	1			
PLAN 4	С	3	1' - 8"	1' - 4"	11' - 10"	3			

#### **WINDOW LEGEND**

SINGLE HUNG.



C - C.1 FIXED

#### FLOOR PLAN GENERAL NOTES

- REFER TO GENERAL NOTES SHEET G-101 AND G-102 FOR ADDITIONAL REQUIREMENTS.
- REFER TO STRUCTURAL PLANS FOR FURTHER INFORMATION. REFER TO ELECTRICAL PLANS FOR FURTHER INFORMATION IF PROVIDED.
- 4. REFER TO MECHANICAL PLANS, DRAWINGS OR REPORTS FOR FURTHER
- 5. ALL FURNITURE AND EQUIPMENT IS BY OWNER AND IS SHOWN FOR COORDINATION PURPOSES ONLY.
- 7. DIMENSIONS ARE TO FACE OF FRAMING UNLESS SPECIFICALLY NOTED
- 8. PROVIDE ADEQUATE BLOCKING IN WALLS FOR CABINETS AND OTHER WALL MOUNTED ACCESSORIES INCLUDING BUT NOT LIMITED TO HANDRAILS, SHELVING AND BATHROOM FIXTURES.
- 9. PROVIDE FIREBLOCKING FOR WALL CAVITIES THAT EXCEED 2019 CBC HEIGHT LIMITATIONS
- 10. DOOR AND WINDOW DIMENSIONS ARE CENTERED AT OPENINGS 11. WHERE DOOR IS LOCATED WITHOUT DIMENSION AT THE CORNER OF A ROOM IT SHALL BE 4" FROM FACE OF FRAMING OF ADJACENT WALL TO
- ROUGH DOOR OPENING 12. WHERE RECESSED FIXTURES OCCUR IN WALLS OR HORIZONTAL

ASSEMBLIES, THE FIRE RATING OF THOSE ASSEMBLIES SHALL BE

13. AT ALL PENETRATIONS AND INTERSECTIONS OF FIRE-RATED PARTITIONS, PROVIDE FIRE SEALANT AND/OR FIRE STOPPING TO MAINTAIN CONTINUITY

# **LEGEND**

OF PARTITION RATING



EXTERIOR - 5 1/2" WOOD STUD W/ PLYWOOD SHEATHING AND EXTERIOR FINISH (REFER TO ELEVATIONS), ONE LAYER 5/8" TYPE X GYPSUM WALL BOARD INTERIOR.



INTERIOR - 3 1/2" WOOD STUD W/ONE LAYER 5/8" TYPE X GYPSUM WALL BOARD EACH SIDE.

# **DOOR GENERAL NOTES**

- REFER TO GENERAL NOTES SHEET G-101 FOR ADDITIONAL REQUIREMENTS REFER TO PLANS FOR LOCATION OF DOORS.
- VERIFY ROUGH OPENING SIZE WITH DOOR MANUFACTURER SPECIFICATIONS PRIOR TO CONSTRUCTION.
- 4. CONTRACTOR TO VERIFY ACTUAL DOOR SIZE TO FIT FINISH OPENING PRIOR TO FABRICATION OF DOOR AND FINISH OPENING. INSTALL PER MANUFACTURERS WRITTEN INSTRUCTIONS.
- EXTERIOR DOORS SHALL EITHER HAVE A FIRE-RESISTANCE RATING OF NOT LESS THAN 20-MINUTES OR SHALL BE CONSTRUCTED OF SOLID CORE WOOD THAT COMPLIES WITH THE FOLLOWING REQUIREMENTS:
- A. STILES AND RAILS SHALL NOT BE LESS THAN 1-3/8" THICK. B. PANELS SHALL NOT BE LESS THAN 1-1/4" THICK, EXCEPT FOR THE EXTERIOR PERIMETR OF THE PANEL SHALL BE PERMITTED TO TAPER
- TO A TONGUE OF NOT LESS THAN 3/8" THICK. REFER TO DOOR TYPES LEGEND FOR GLAZING.
- 8. REFER TO T24 REPORT FOR GLAZING ENERGY REQUIREMENTS. 9. GLAZING IN DOORS SHALL BE TEMPERED PER SECTION R308.4.1.

#### DOOR REMARKS

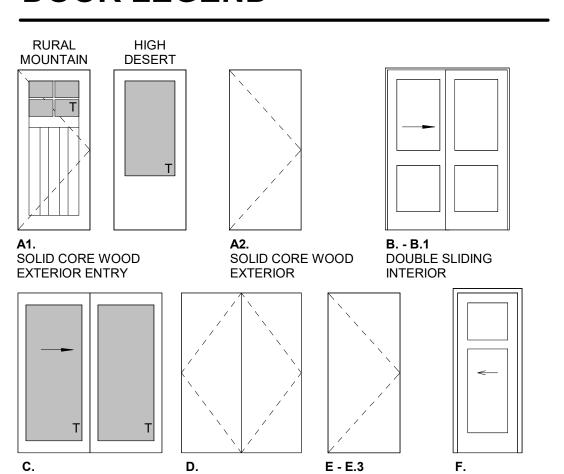
- 1. FIRE RATED DOOR, REFER TO GENERAL DOOR NOTE #5
- GLAZING PER DOOR TYPES. TEMPERED. 3. PROVIDE 100 SQ INCHES OF VENTING IN DOOR OR BY OTHER APPROVED
- 4. OPTIONAL DOOR.
- 5. OPTIONAL GLAZING IN DOOR. TEMPERED (BOTH PANES)

#### **DOOR SCHEDULE**

		SCI	HEDULE-DOOR PLA	AN 4
NO.	TYPE	WIDTH	HEIGHT	REMARKS
PLAN 4	A1	3' - 0"	6' - 8"	
PLAN 4	B.1	5' - 0"	6' - 8"	
PLAN 4	С	5' - 0"	6' - 8"	
PLAN 4	E.1	2' - 8"	6' - 8"	
PLAN 4	E.3	2' - 0"	6' - 8"	
1 L/\\\\ +	L.3	2 - 0	0 - 0	
I LANT	L.3	SCHE	DULE-DOOR PLAN	4 ADA
NO.	TYPE	SCHE		4 ADA REMARKS
		SCHE	DULE-DOOR PLAN	
NO.		SCHE	DULE-DOOR PLAN	
NO.	ТҮРЕ	SCHE WIDTH	DULE-DOOR PLAN DOOR HEIGHT	
NO. PLAN 4 PLAN 4	TYPE A1	SCHE WIDTH	DULE-DOOR PLAN DOOR HEIGHT  6' - 8"	
NO. PLAN 4 PLAN 4 PLAN 4	<b>TYPE</b> A1  B.1	SCHE WIDTH  3' - 0" 5' - 0"	DULE-DOOR PLAN DOOR HEIGHT 6' - 8" 6' - 8"	
NO.	A1 B.1 C	SCHE  WIDTH  3' - 0"  5' - 0"  5' - 0"	DULE-DOOR PLAN  DOOR  HEIGHT  6' - 8"  6' - 8"  6' - 8"	

#### **DOOR LEGEND**

SLIDING GLASS EXTERIOR.



SOLID CORE WOOD HOLLOW CORE

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UNDER A SEPARATE PERMIT ONCE THE BUILDING PERMIT FOR THE ADU HAS BEEN ISSUED AND FINAL INSPECTION COMPLETED. IF YOU DO NOT HAVE THE CONSTRUCTION KNOWLEDGE AND EXPERIENCE TO CONTRUCT THESE PLANS WITHOUT FURTHER DETAILS, IT IS RECOMMENDED YOU HIRE A CONTRACTOR TO DO THE CONSTRUCTION. THE CITY WILL NOT PROVIDE FURTHER INFORMATION OR DETAILS AND BUILDING INSPECTORS WILL NOT PROVIDE STEP BY STEP INSTRUCTIONS IN THE FIELD.

01/10/2024

SHEET A4-101

SET

HOLLOW CORE WOOD POCKET

A1-201A4-101 1/4" = 1'-0"

2 | PLAN 4 - GROUND FLOOR PLAN (RURAL MOUNTAIN PORCH)

#### FINISH PLAN GENERAL NOTES

- REFER TO GENERAL NOTES SHEET G-101 FOR ADDITIONAL REQUIREMENTS. REFER TO ELECTRICAL PLANS FOR FURTHER INFORMATION.
- REFER TO PLUMBING PLANS FOR FURTHER INFORMATION. 4. REFER TO DETAILS FOR FLOOR/CEILING ASSEMBLIES AND INTERIOR FINISH
- 5. ALL HARD SURFACE FLOORING SHALL BE SLIP RESISTANT AND MEET THE ANSI A326.3 STANDARD FOR MEASURING THE DYNAMIC COEFFICIENT OF FRICTION (DCOF).
- 6. ALL FLOORING MATERIALS SHALL COMPLY WITH 2022 CBC SEC. 804.1. 7. ALL WALL AND CEILING FINISHES SHALL COMPLY WITH 2022 CBC TABLE 803.12 FOR MAXIMUM FLAME SPREAD AND SMOKE DENSITY.

#### **FINISH LEGEND**



CERAMIC TILE (CT)



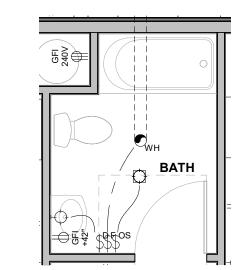
CONCRETE (EC)

# FINISH SCHEDULE

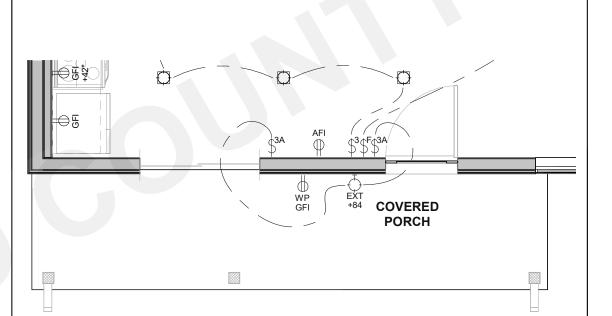
FINISH SCHEDULE PLAN 2									
NUMBER	NAME	FLOOR	CEILING	BASE	NOTES				
109	BEDROOM	CPT	GWB						
110	LIVING	LVT	GWB						
111	KITCHEN	LVT	GWB						
112	BATH	СТ	GWB						
113	W.I.C.	CPT	GWB						



01-GROUND FLOOR FINISH PLAN 4 A1-201 A4-111 SCALE: 1/4" = 1'-0"





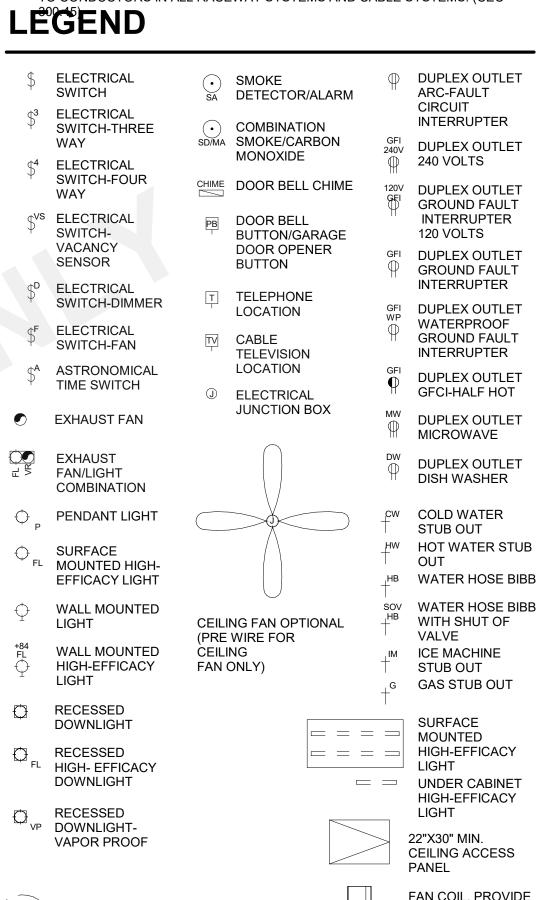


**PLAN 4 - ELECTRICAL HIGH DESERT** 

A1-201 A4-111 SCALE: 1/4" = 1'-0"

# **GENERAL ELECTRICAL NOTES**

1. REFER TO ELECTRICAL NOTES ON SHEET G-101. 2. DANGER SIGNS SHALL BE CONSPICUOUSLY POSTED AT POINTS OF ACCESS TO CONDUCTORS IN ALL RACEWAY SYSTEMS AND CABLE SYSTEMS. (CEC





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DEDICATED

FAN COIL, PROVIDE 120V OUTLET

B41 ----KITCHEN/DINING

COVERED

PLAN 4 - MECHANICAL A1-201 A4-111 SCALE: 1/4" = 1'-0"

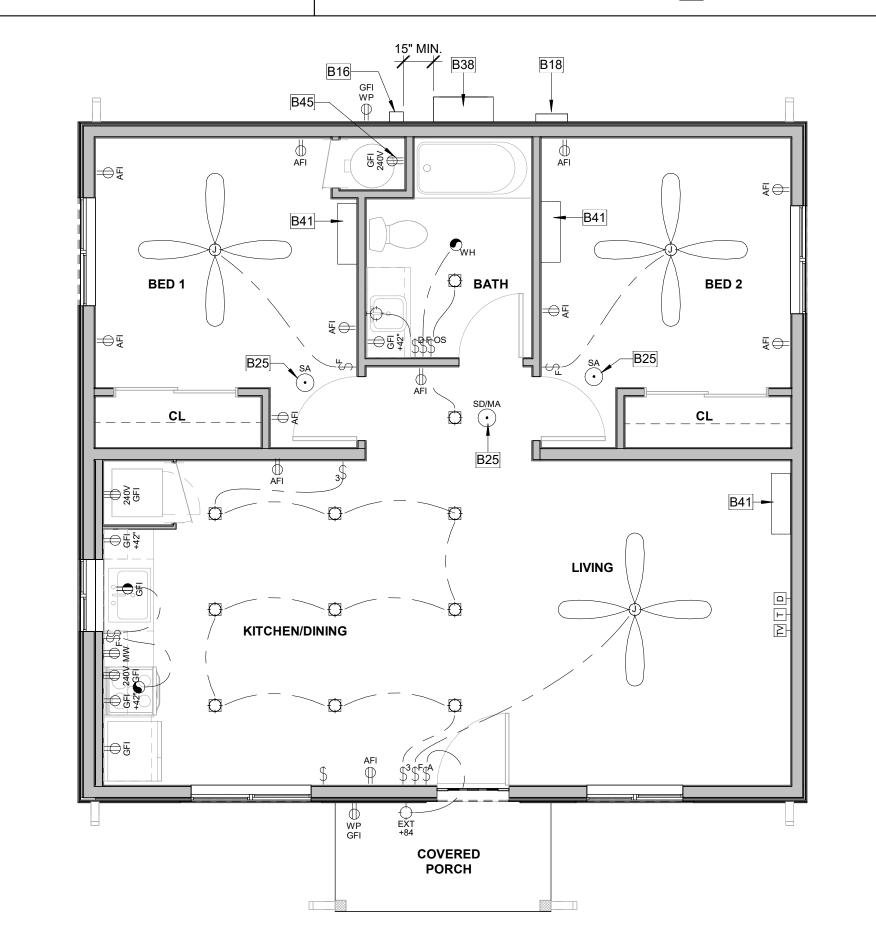
# **KEYNOTES**

- A06 STACKED WASHER/DRYER MACHINE LOCATION. PROVIDE WASTE AND WATER IN RECESSED WALL BOX. PROVIDE DRYER VENT. VENT TO OUTSIDE
- A10 (50) CFM MIN. INTERMITTENT VENTILATION HOOD.
- B14 50 GALLON TANK TYPE ELECTRIC WATER HEATER. REFER TO TITLE 24 FOR ADDITIONAL INFORMATION.
- B16 220V AIR GAP DISCONNECT, 30" CLEAR WORKING SPACE REQUIRED IN FRONT OF ELECTRICAL EQUIPMENT

- B41 FAN COIL. REFER TO PLANS FOR LOCATION OF OUTDOOR CONDENSING UNIT. PROVIDE CONDENSATE DRAIN TO EXTERIOR PER MANUF. REFER TO TITLE 24 FOR ADDITIONAL INFORMATION. PROVIDE OUTLET.
- B45 OUTLET SERVING WATER HEATER SHALL BE ACCESSIBLE TO THE WATER HEATER WITH NO OBSTRUCTION. LOCATE OUTLET AT 72" A.F.F.

#### **VENTILATION SUMMARIES**

BATHROOM	OPTION A	OPTION B	TOTAL (MINIMUM) REQUIRED VENTILATION RATE  PER ASHRAE STANDARD 62.2, CEC EQUATION 150.0-B
BATHROOM FAN FLOW (cfm)	50 CFM	50 CFM	QCFM = .03(FLOOR AREA) + 7.5 (# OF BEDROOMS + 1)
DUCT TYPE	FLEX DUCT	SMOOTH DUCT	
DUCT SIZE (in)	4"	4"	WHOLE DWELLING UNIT MECHANICAL VENTILATION
MAX. ALLOWABLE DUCT LENGTH (ft)		105'	PER SECTION 150.0(O)(C)(i) [ASHRAE 62.2:4.1.2]
THIS EXHAUST FAN IS REQUIRED TO BE RATED FO	OR SOUND AT A MAX.	OF 3 SONES.	1 BED - MINIMUM CUBIC FEET PER MINUTE (CFM) (Equation 150.0-B)
KITCHEN	OPTION A	OPTION B	Qtot = 0.03Afloor + 7.5(Nbr + 1)
KITCHEN FAN FLOW (cfm)	100 CFM	50 CFM	Qtot = 0.03(840 sf) + 7.5 (1+1) = 40.2 CFM < 50 CFM
DUCT TYPE		SMOOTH DUCT	
DUCT SIZE (in)		5"	EFFECTIVE ANNUAL AVERAGE INFILTRATION RATE
MAX. ALLOWABLE DUCT LENGTH (ft)		85'	PER SECTION 150.0(O)(C)(ii)
THIS EXHAUST FAN IS REQUIRED TO BE RATED FO	OR SOUND AT A MAX.	OF 3 SONES.	a. (Equation 150.0-C) Q50 = Vdu (x) 2 ACH50 / 60minute
			a. (Equation 150.0-D) Q50 = Vdu (x) Verified ACH50 / 60minutes
IOLE BUILDING VENTILATION	OPTION A	OPTION B	b. (Equation 150.0-E) Qtot = 0.052 (x) Q50 x wsf x
PER ASHRAE STANDARD 62.2, CEC EQUAT			[H/Hr]^z [ASHRAE 62.2:4.1.2.1]
BUILDING FAN FLOW (cfm)		50 CFM	
DUCT TYPE		SMOOTH DUCT	REQUIRED MECHANICAL VENTILATION RATE
DUCT SIZE (in)	4"	4"	AND REQUIRED MECHANICAL VENTILATION RATE PER 150.0(O)(C)
MAX. ALLOWABLE DUCT LENGTH (ft)	70'	105"	(iii)
THIS EXHAUST FAN IS REQUIRED TO BE RATED FO	OR SOUND AT A MAX.	OF 1 SONE.	[ASHRAE 62.2:4.1.2]
THIS EXHAUST FAN IS REQUIRED TO OPERATE CO	NTINUOUSLY TO ENS	SURE	(Equation 150.0-F) <b>Qfan = Qtot (-) φ (Qinf (x) Aext)</b>
CONTINUOUSLY TO ENSURE INDOOR AIR QUALITY			



ELECTRICAL

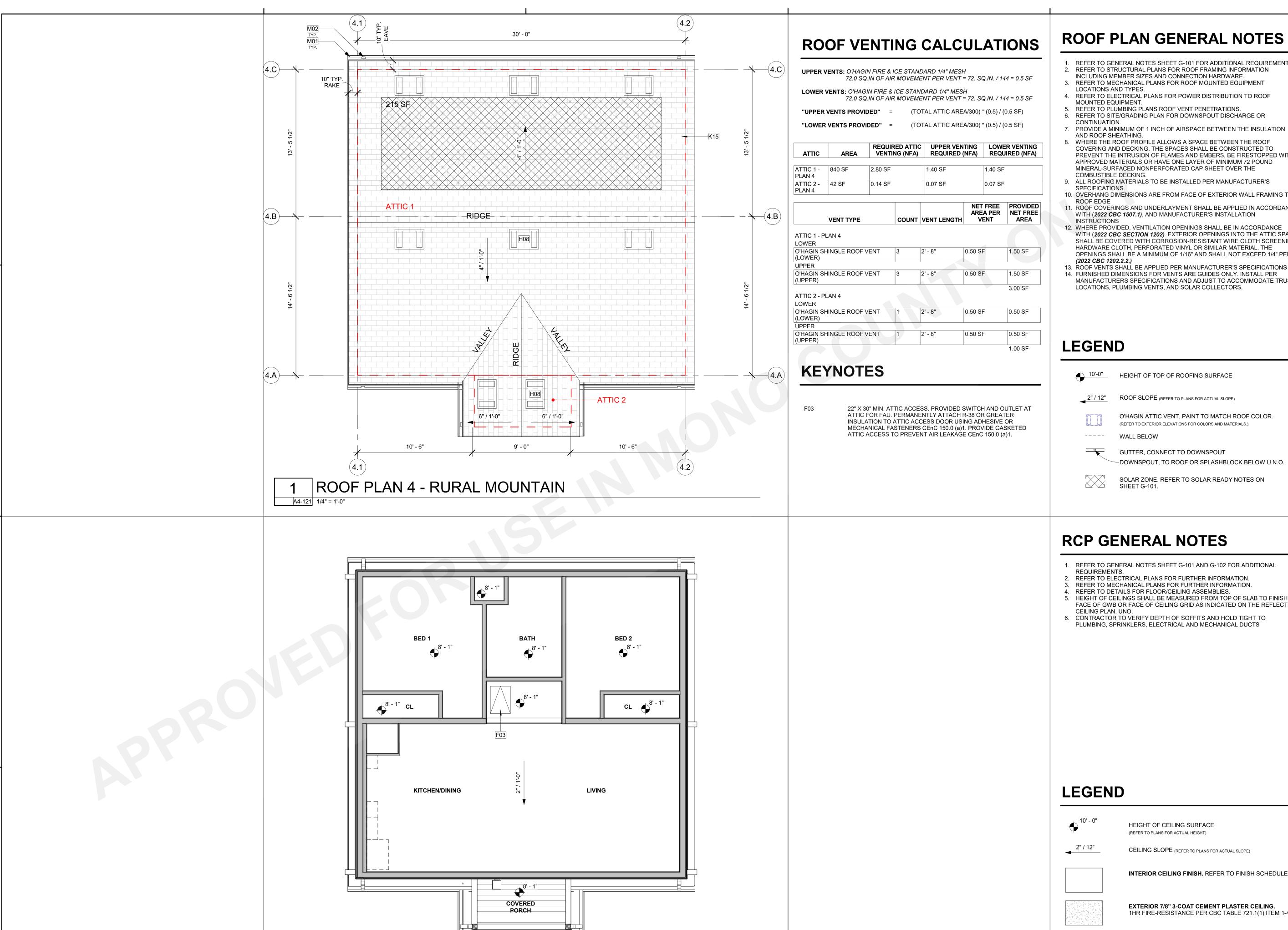
WIRING

SET

DATE 01/10/2024

SHEET A4-11

PLAN 4 - ELECTRICAL



2 REFLECTED CEILING PLAN 4 - RURAL MOUNTAIN

#### **ROOF PLAN GENERAL NOTES**

- REFER TO GENERAL NOTES SHEET G-101 FOR ADDITIONAL REQUIREMENTS 2. REFER TO STRUCTURAL PLANS FOR ROOF FRAMING INFORMATION
- INCLUDING MEMBER SIZES AND CONNECTION HARDWARE.
- 3. REFER TO MECHANICAL PLANS FOR ROOF MOUNTED EQUIPMENT LOCATIONS AND TYPES.
- 4. REFER TO ELECTRICAL PLANS FOR POWER DISTRIBUTION TO ROOF MOUNTED EQUIPMENT.
- REFER TO PLUMBING PLANS ROOF VENT PENETRATIONS.
- REFER TO SITE/GRADING PLAN FOR DOWNSPOUT DISCHARGE OR CONTINUATION.
- AND ROOF SHEATHING. WHERE THE ROOF PROFILE ALLOWS A SPACE BETWEEN THE ROOF COVERING AND DECKING, THE SPACES SHALL BE CONSTRUCTED TO PREVENT THE INTRUSION OF FLAMES AND EMBERS, BE FIRESTOPPED WITH
- COMBUSTIBLE DECKING. ALL ROOFING MATERIALS TO BE INSTALLED PER MANUFACTURER'S
- SPECIFICATIONS. 10. OVERHANG DIMENSIONS ARE FROM FACE OF EXTERIOR WALL FRAMING TO
- 11. ROOF COVERINGS AND UNDERLAYMENT SHALL BE APPLIED IN ACCORDANCE WITH (2022 CBC 1507.1), AND MANUFACTURER'S INSTALLATION
- 12. WHERE PROVIDED, VENTILATION OPENINGS SHALL BE IN ACCORDANCE WITH (2022 CBC SECTION 1202). EXTERIOR OPENINGS INTO THE ATTIC SPACE SHALL BE COVERED WITH CORROSION-RESISTANT WIRE CLOTH SCREENING, HARDWARE CLOTH, PERFORATED VINYL OR SIMILAR MATERIAL. THE OPENINGS SHALL BE A MINIMUM OF 1/16" AND SHALL NOT EXCEED 1/4" PER
- (2022 CBC 1202.2.2.) 13. ROOF VENTS SHALL BE APPLIED PER MANUFACTURER'S SPECIFICATIONS
- 14. FURNISHED DIMENSIONS FOR VENTS ARE GUIDES ONLY. INSTALL PER MANUFACTURERS SPECIFICATIONS AND ADJUST TO ACCOMMODATE TRUSS

### **LEGEND**

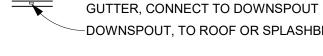
HEIGHT OF TOP OF ROOFING SURFACE



2" / 12" ROOF SLOPE (REFER TO PLANS FOR ACTUAL SLOPE)



O'HAGIN ATTIC VENT, PAINT TO MATCH ROOF COLOR. (REFER TO EXTERIOR ELEVATIONS FOR COLORS AND MATERIALS.)



-DOWNSPOUT. TO ROOF OR SPLASHBLOCK BELOW U.N.O.

SOLAR ZONE. REFER TO SOLAR READY NOTES ON

# **RCP GENERAL NOTES**

WALL BELOW

- 1. REFER TO GENERAL NOTES SHEET G-101 AND G-102 FOR ADDITIONAL
- REFER TO ELECTRICAL PLANS FOR FURTHER INFORMATION.
- REFER TO MECHANICAL PLANS FOR FURTHER INFORMATION. REFER TO DETAILS FOR FLOOR/CEILING ASSEMBLIES.
- HEIGHT OF CEILINGS SHALL BE MEASURED FROM TOP OF SLAB TO FINISH FACE OF GWB OR FACE OF CEILING GRID AS INDICATED ON THE REFLECTED
- CEILING PLAN, UNO. 6. CONTRACTOR TO VERIFY DEPTH OF SOFFITS AND HOLD TIGHT TO PLUMBING, SPRINKLERS, ELECTRICAL AND MECHANICAL DUCTS

HEIGHT OF CEILING SURFACE (REFER TO PLANS FOR ACTUAL HEIGHT)

CEILING SLOPE (REFER TO PLANS FOR ACTUAL SLOPE)



EXTERIOR 7/8" 3-COAT CEMENT PLASTER CEILING.
1HR FIRE-RESISTANCE PER CBC TABLE 721.1(1) ITEM 1-4.1

INTERIOR CEILING FINISH. REFER TO FINISH SCHEDULE.



EXTERIOR FIBER CEMENT BOARD CEILING.

HARIE SOFFIT PANELS - BEADED PORCH PANEL OR EQ.

01/10/2024

A4-121

THESE PLANS ARE PROVIDED BY MONO

COUNTY AS PART OF THE PRE-APPROVED ADU

PROGRAM AND ARE PUBLIC DOMAIN. THERE

PLANS. NO ALTERATIONS TO THESE PLANS ARE

CANNOT BE A CHARGE TO PROVIDE THESE

ALLOWED. ALL ALTERATIONS MUST BE DONE

UNDER A SEPARATE PERMIT ONCE THE

BUILDING PERMIT FOR THE ADU HAS BEEN ISSUED AND FINAL INSPECTION COMPLETED. IF

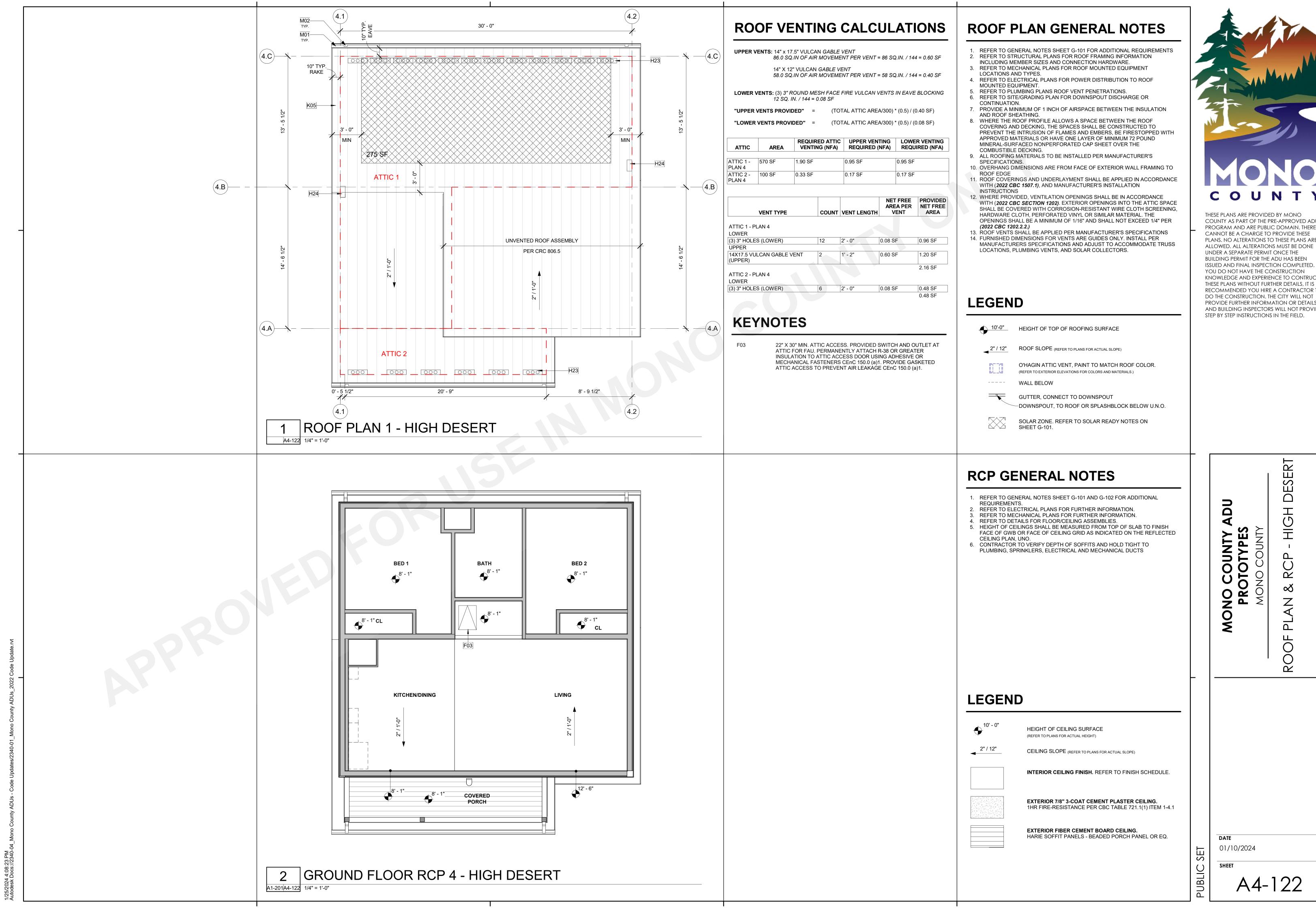
YOU DO NOT HAVE THE CONSTRUCTION KNOWLEDGE AND EXPERIENCE TO CONTRUCT THESE PLANS WITHOUT FURTHER DETAILS, IT IS RECOMMENDED YOU HIRE A CONTRACTOR TO

DO THE CONSTRUCTION. THE CITY WILL NOT

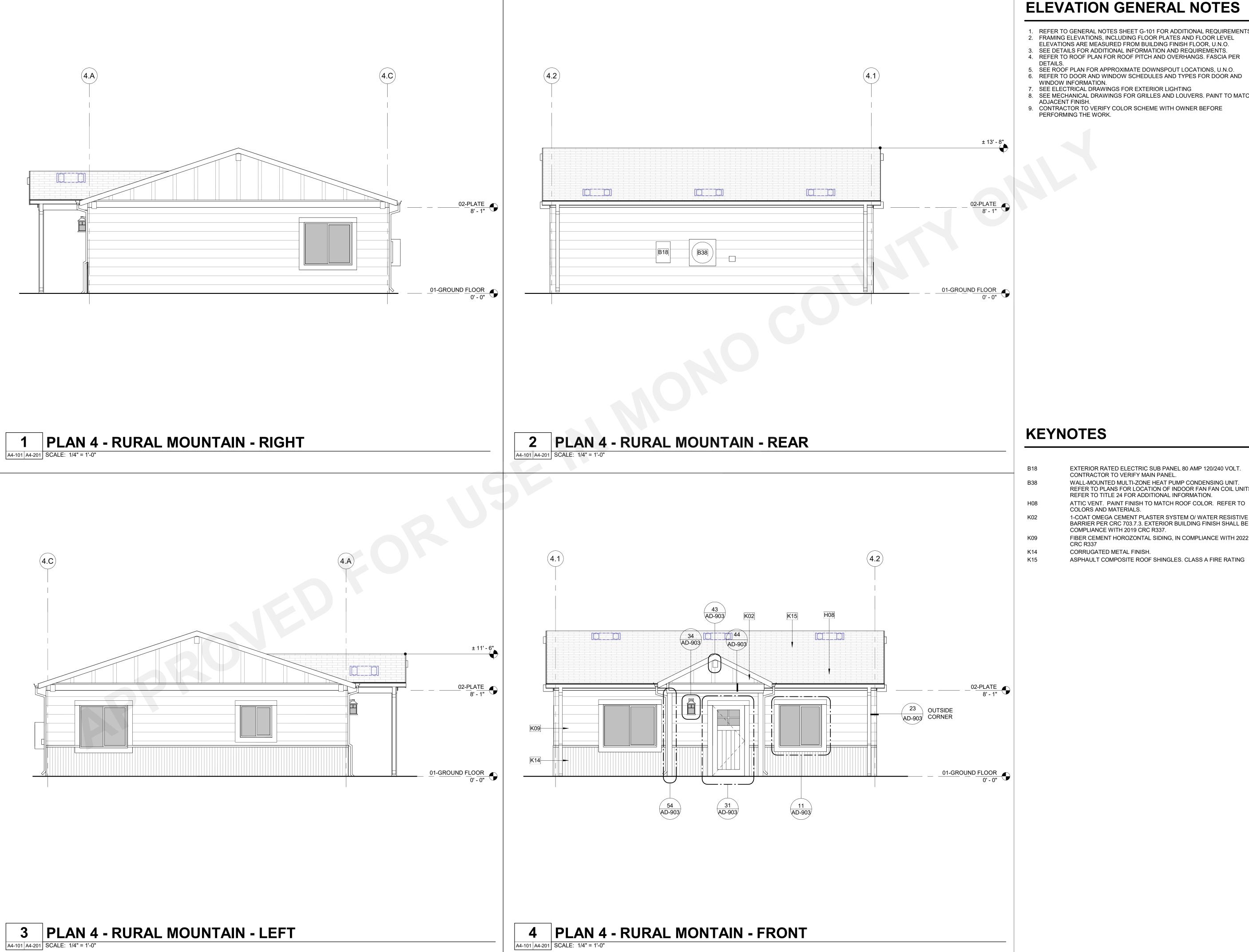
STEP BY STEP INSTRUCTIONS IN THE FIELD.

PROVIDE FURTHER INFORMATION OR DETAILS

AND BUILDING INSPECTORS WILL NOT PROVIDE



COUNTY AS PART OF THE PRE-APPROVED ADU PROGRAM AND ARE PUBLIC DOMAIN. THERE PLANS. NO ALTERATIONS TO THESE PLANS ARE ALLOWED. ALL ALTERATIONS MUST BE DONE ISSUED AND FINAL INSPECTION COMPLETED. IF KNOWLEDGE AND EXPERIENCE TO CONTRUCT THESE PLANS WITHOUT FURTHER DETAILS, IT IS RECOMMENDED YOU HIRE A CONTRACTOR TO PROVIDE FURTHER INFORMATION OR DETAILS AND BUILDING INSPECTORS WILL NOT PROVIDE



# **ELEVATION GENERAL NOTES**

- 1. REFER TO GENERAL NOTES SHEET G-101 FOR ADDITIONAL REQUIREMENTS. 2. FRAMING ELEVATIONS, INCLUDING FLOOR PLATES AND FLOOR LEVEL
- ELEVATIONS ARE MEASURED FROM BUILDING FINISH FLOOR, U.N.O. 3. SEE DETAILS FOR ADDITIONAL INFORMATION AND REQUIREMENTS.
- 5. SEE ROOF PLAN FOR APPROXIMATE DOWNSPOUT LOCATIONS, U.N.O.
- 6. REFER TO DOOR AND WINDOW SCHEDULES AND TYPES FOR DOOR AND
- 7. SEE ELECTRICAL DRAWINGS FOR EXTERIOR LIGHTING
- 8. SEE MECHANICAL DRAWINGS FOR GRILLES AND LOUVERS. PAINT TO MATCH
- 9. CONTRACTOR TO VERIFY COLOR SCHEME WITH OWNER BEFORE

COUNTY

THESE PLANS ARE PROVIDED BY MONO COUNTY AS PART OF THE PRE-APPROVED ADU PROGRAM AND ARE PUBLIC DOMAIN. THERE CANNOT BE A CHARGE TO PROVIDE THESE PLANS. NO ALTERATIONS TO THESE PLANS ARE ALLOWED. ALL ALTERATIONS MUST BE DONE UNDER A SEPARATE PERMIT ONCE THE BUILDING PERMIT FOR THE ADU HAS BEEN ISSUED AND FINAL INSPECTION COMPLETED. IF YOU DO NOT HAVE THE CONSTRUCTION KNOWLEDGE AND EXPERIENCE TO CONTRUCT THESE PLANS WITHOUT FURTHER DETAILS, IT IS RECOMMENDED YOU HIRE A CONTRACTOR TO DO THE CONSTRUCTION. THE CITY WILL NOT PROVIDE FURTHER INFORMATION OR DETAILS AND BUILDING INSPECTORS WILL NOT PROVIDE STEP BY STEP INSTRUCTIONS IN THE FIELD.

EXTERIOR RATED ELECTRIC SUB PANEL 80 AMP 120/240 VOLT. CONTRACTOR TO VERIFY MAIN PANEL.

WALL-MOUNTED MULTI-ZONE HEAT PUMP CONDENSING UNIT. REFER TO PLANS FOR LOCATION OF INDOOR FAN FAN COIL UNITS.

ATTIC VENT. PAINT FINISH TO MATCH ROOF COLOR. REFER TO COLORS AND MATERIALS. 1-COAT OMEGA CEMENT PLASTER SYSTEM O/ WATER RESISTIVE

BARRIER PER CRC 703.7.3. EXTERIOR BUILDING FINISH SHALL BE IN COMPLIANCE WITH 2019 CRC R337.

FIBER CEMENT HOROZONTAL SIDING, IN COMPLIANCE WITH 2022

ADU

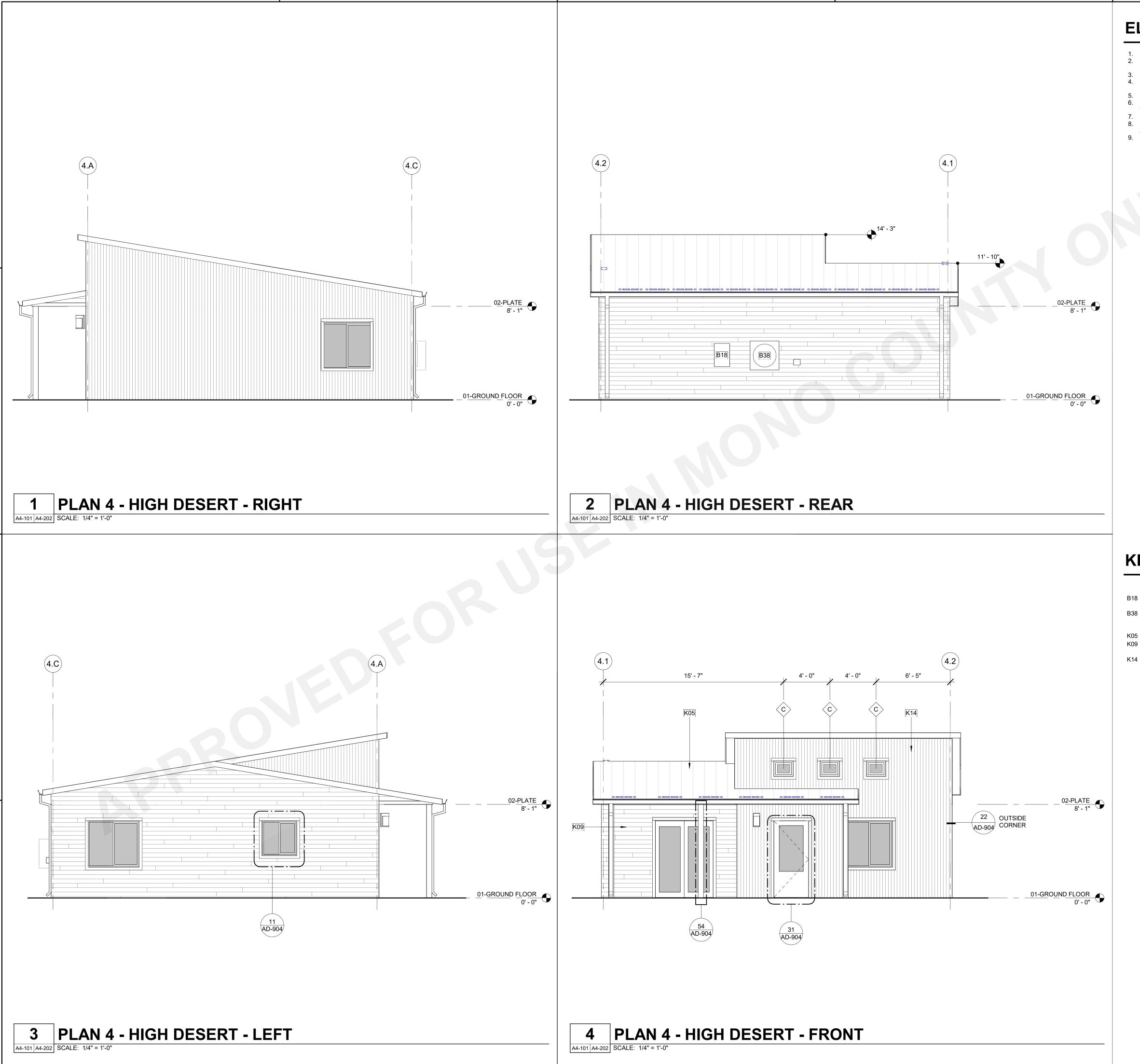
01/10/2024

SHEET

SET

PUBLIC

A4-201



# **ELEVATION GENERAL NOTES**

- 1. REFER TO GENERAL NOTES SHEET G-101 FOR ADDITIONAL REQUIREMENTS. 2. FRAMING ELEVATIONS, INCLUDING FLOOR PLATES AND FLOOR LEVEL
- ELEVATIONS ARE MEASURED FROM BUILDING FINISH FLOOR, U.N.O.

  3. SEE DETAILS FOR ADDITIONAL INFORMATION AND REQUIREMENTS.
- 4. REFER TO ROOF PLAN FOR ROOF PITCH AND OVERHANGS. FASCIA PER 5. SEE ROOF PLAN FOR APPROXIMATE DOWNSPOUT LOCATIONS, U.N.O.
- 6. REFER TO DOOR AND WINDOW SCHEDULES AND TYPES FOR DOOR AND
- WINDOW INFORMATION. 7. SEE ELECTRICAL DRAWINGS FOR EXTERIOR LIGHTING
- 8. SEE MECHANICAL DRAWINGS FOR GRILLES AND LOUVERS. PAINT TO MATCH ADJACENT FINISH.
- 9. CONTRACTOR TO VERIFY COLOR SCHEME WITH OWNER BEFORE PERFORMING THE WORK.



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# **KEYNOTES**

EXTERIOR RATED ELECTRIC SUB PANEL 80 AMP 120/240 VOLT. CONTRACTOR TO VERIFY MAIN PANEL.

WALL-MOUNTED MULTI-ZONE HEAT PUMP CONDENSING UNIT. REFER TO PLANS FOR LOCATION OF INDOOR FAN FAN COIL UNITS.

REFER TO TITLE 24 FOR ADDITIONAL INFORMATION. CORRUGATED METAL ROOF. CLASS A FIRE RATING

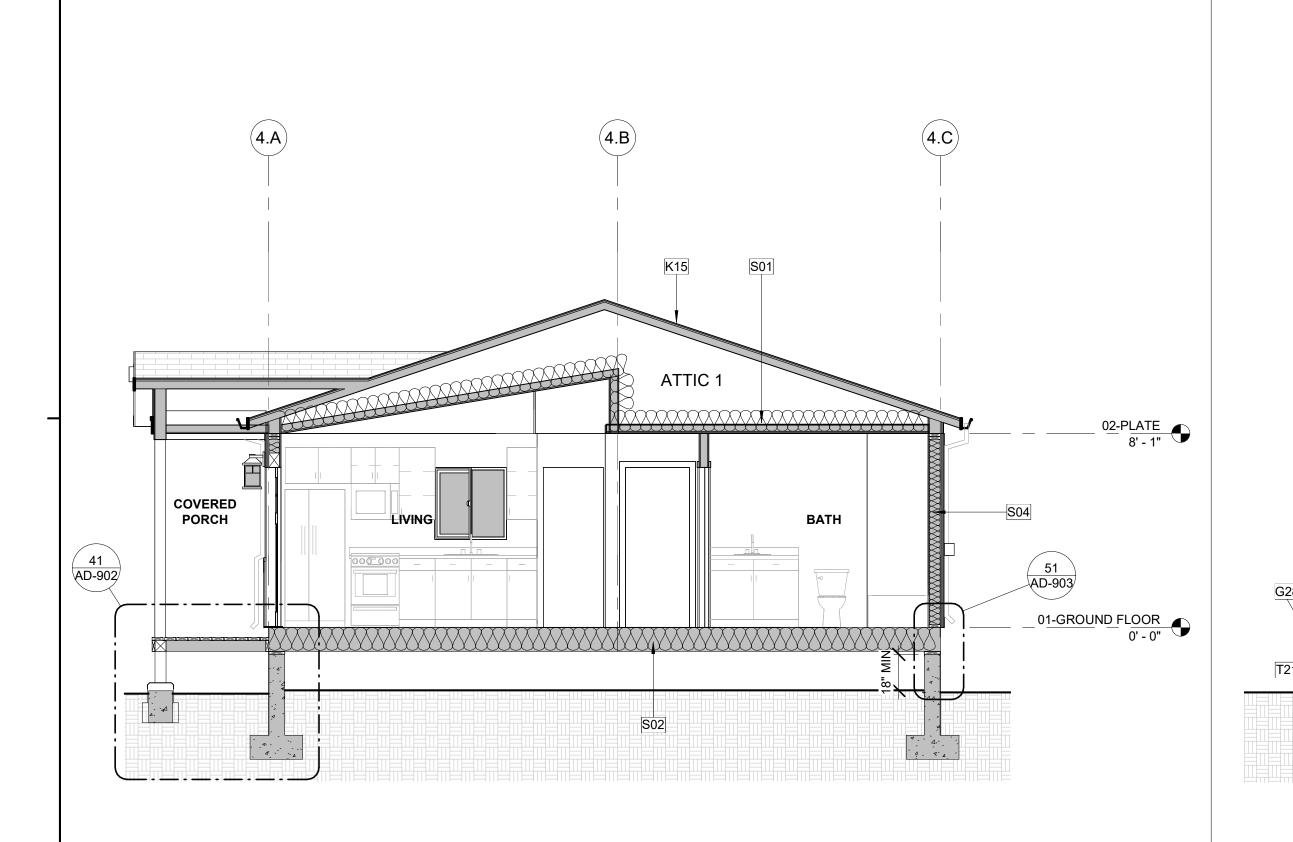
FIBER CEMENT HOROZONTAL SIDING, IN COMPLIANCE WITH 2022

CORRUGATED METAL FINISH.

ADU

01/10/2024

SET



3 PLAN 4 - RM - SECTION 1 - RAISED FOUNDATION

PLAN 4 - RM - SECTION 1 - SLAB-ON-GRADE

A4-301 SCALE: 1/4" = 1'-0"

A4-101 A4-301 SCALE: 1/4" = 1'-0"

4 PLAN 4 - RM - SECTION 2 - RAISED FOUNDATION A4-101 A4-301 SCALE: 1/4" = 1'-0"

KITCHEN/DINING

# 02-PLATE 8' - 1" COVERED 01-GROUND FLOOR

KITCHEN/DINING LIVING 01-GROUND FLOOR

LIVING

2 PLAN 4 - RM - SECTION 2 - SLAB-ON-GRADE A4-301 SCALE: 1/4" = 1'-0"

#### **SECTIONS GENERAL NOTES**

- 1. THE PURPOSE OF THESE DRAWINGS IS TO SHOW CONSTRUCTION MATERIALSS/ASSEMBLIES. FOR SPECIFIC SIZES AND DETAILS REFER TO ARCHITECTURAL PLANS, ELEVATIONS, DETAILS, AND STRUCTURAL PLANS. \*KEYNOTES ONLY APPLY IF REFERENCED ON PLANS.
- WALL ASSEMBLIES TO BE PER FLOOR PLAN. DOORS AND WINDOWS TO BE PER APPLICABLE SCHEDULE. REFER TO
- FLOOR PLANS FOR IDENTIFICATION. 4. INSULATION: REFER TO TITLE 24 REPORT AND "INSULATION" NOTES ON
- SHEET FOR ADDITIONAL RATINGS, REQUIREMENTS, AND INFORMATION. FIREBLOCKING TO BE LOACATED AT THE FOLLOWING LOCATIONS PER 2022 CRC SECTION R302.11:
  - 1. FIREBLOCKING SHALL BE PROVIDED IN CONCEALED SPACES OF STUD WALLS AND PARTITIONS, INCLUDING FURRED SPACES AND PARALLEL ROWS OF STUDS OR STAGGERED STUDS, AS FOLLOWS: 1. VERTICALLY AT CEILING AND FLOOR LEVELS 2. HORIZONTALLY AT INTERVALS NOT EXCEEDING 10 FEET.
  - 2. AT INTERCONNECTIONS BETWEEN CONCEALED VERTICAL AND HORIZONTAL SPACES SUCH AS SOFFITS, DROP CEILINGS AND COVE
  - 3. IN CONCEALED SPACES BETWEEN STAIR STRINGERS AT THE TOP AND BOTTOM OF THE RUN. ENCLOSED SPACES UNDER STAIRS SHALL COMPLY WITH SECTION R302.7. 4. AT OPENINGS AROUND VENTS, PIPES, DUCTS, CABLES AND WIRES AT
  - CEILINGS AND FLOOR LEVEL, WITH AN APPROVED MATERIAL TO RESIST THE FREE PASSAGE OF FLAME PRODUCTS OF COMBUSTION. THE MATERIAL FILLING THIS ANNULAR SPACE SHALL NOT BE REQUIRED TO MEET THE ASTM E136 REQUIREMENTS.
  - 5. FOR THE FIREBLOCKING OF CHIMNEYS AND FIREPLACES, SEE **SECTION R1003.19**. FIREBLOCKING OF CORNICES OF A TWO-FAMILY DWELLING IS REQUIRED AT THE LINE OF DWELLING-UNIT SEPARATION.
- SECTION R302.11.1 FIREBLOCKING MATERIALS SHALL CONSIST OF FOLLOWING MATERIALS: 1. TWO-INCH NOMINAL LUMBER
- 2. TWO THICKNESSES OF ONE-INCH NOMINAL LUMBER WITH BROKEN
- 3. THE THICKNESS OF 0.719-INCH WOOD STRUCTURAL PANELS WITH JOINTS BACKED BY 0.719-INCH WOOD STRUCTURAL PANELS 4. THE THICKNESS OF 0.75-INCH PARTICLE BOARD WITH JOINTS
- BACKED BY 0.75-INCH PARTICLE BOARD 5. ONE-HALF-INCH GYPSUM BOARD

DURABLE OR PRESERVATIVE-TREATED WOOD.

- 6. ONE-FOURTH-INCH CEMENT-BASED MILLBOARD 7. BATTS OR BLANKETS OF MINERAL WOOL, MINERAL FIBER OR OTHER
- APPROVED MATERIAL INSTALLED IN SUCH A MANNER AS TO BE SECURELY RETAINED IN PLACE 8. CELLULOSE INSULATION INSTALLED AS TESTED IN ACCORDANCE
- WITH ASTM E119 OR UL 263, FOR THE SPECIFIC APPLICATION. PER 2022 CRC SECION R317 SLEEPERS AND SILLS ON A CONCRETE OR MASONRY SLAB THAT IS IN DIRECT CONTACT WITH GROUND, UNLESS SEPARATED BY AN IMPERVIOUS MOISTURE BARRIER SHALL BE NATURALLY

#### **KEYNOTES**

02-PLATE

01-GROUND FLOOR

RAISED FLOOR FOUNDATION. REFER TO STRUCTURAL. ASPHAULT COMPOSITE ROOF SHINGLES. CLASS A FIRE RATING CEILING INSULATION. REFER TO TITLE 24 (R-38 MIN.). HORIZONTAL FLOOR INSULATION. REFER TO TITLE 24 (R-19 MIN.) 2X6 WALL INSULATION. REFER TO TITLE 24 (R-21 MIN.) FOUNDATION VENTS @ STEM WALL TO BE LOCATED AS APPROPRIATE ON SITE PER CONTRACTOR. REFER TO FOUNDATION CALCS ON BUILDING SECTIONS FOR NUMBER OF VENTS REQUIRED. REFER TO G-101 FOR ADDITIONAL VENTILATION REQUIREMENTS. CRAWL SPACE ACCESS PANEL. MINIMUM 18" X 24" PER CBC 1209.1

#### FOUNDATION VENTING CALCS

LOCATION DETERMINED ON SITE PER CONTRACTOR.

PER 2022 CBC 1202.4, THE SPACE BETWEEN THE BOTTOM OF THE FLOOR JOISTS AND THE EARTH UNDER ANY BUILDING EXCEPT SPACES OCCUPIED BY BASEMENTS OR CELLARS SHALL BE PROVIDED WITH VENTILATION. REFER TO UNDER-FLOOR VENTING NOTES ON SHEET G-101 FOR ADDITIONAL INFORMATION.

UNDER-FLOOR CALCULATION FORMULA NFA OF AIR MOVEMENT PER VENT = 62 SQ.IN./144 IN./FT = 0.430 SF "VENTS PROVIDED" = (451/150) / 0.430 SF

VENT PRODUCT INFO

108 SF

VENT MANUFACTURER: VULCAN VENTS PRODUCT: 8" X 14" FLANGE FRONT OR APPROVED EQUAL

UNDER-FLOOR AREA (SF)	REQUIRED FOUNDATION VENTING @ 1/150	FOUNDATION VENTS REQUIRED	FOUNDATION VENTS PROPOSED
340 SF	5.6	14	

SET

A4-30

01/10/2024

COUNTY

COUNTY AS PART OF THE PRE-APPROVED ADU

PROGRAM AND ARE PUBLIC DOMAIN. THERE

PLANS. NO ALTERATIONS TO THESE PLANS ARE

ISSUED AND FINAL INSPECTION COMPLETED. IF

KNOWLEDGE AND EXPERIENCE TO CONTRUCT

THESE PLANS WITHOUT FURTHER DETAILS, IT IS

DO THE CONSTRUCTION. THE CITY WILL NOT

STEP BY STEP INSTRUCTIONS IN THE FIELD.

PROVIDE FURTHER INFORMATION OR DETAILS

RECOMMENDED YOU HIRE A CONTRACTOR TO

AND BUILDING INSPECTORS WILL NOT PROVIDE

ALLOWED. ALL ALTERATIONS MUST BE DONE

UNDER A SEPARATE PERMIT ONCE THE

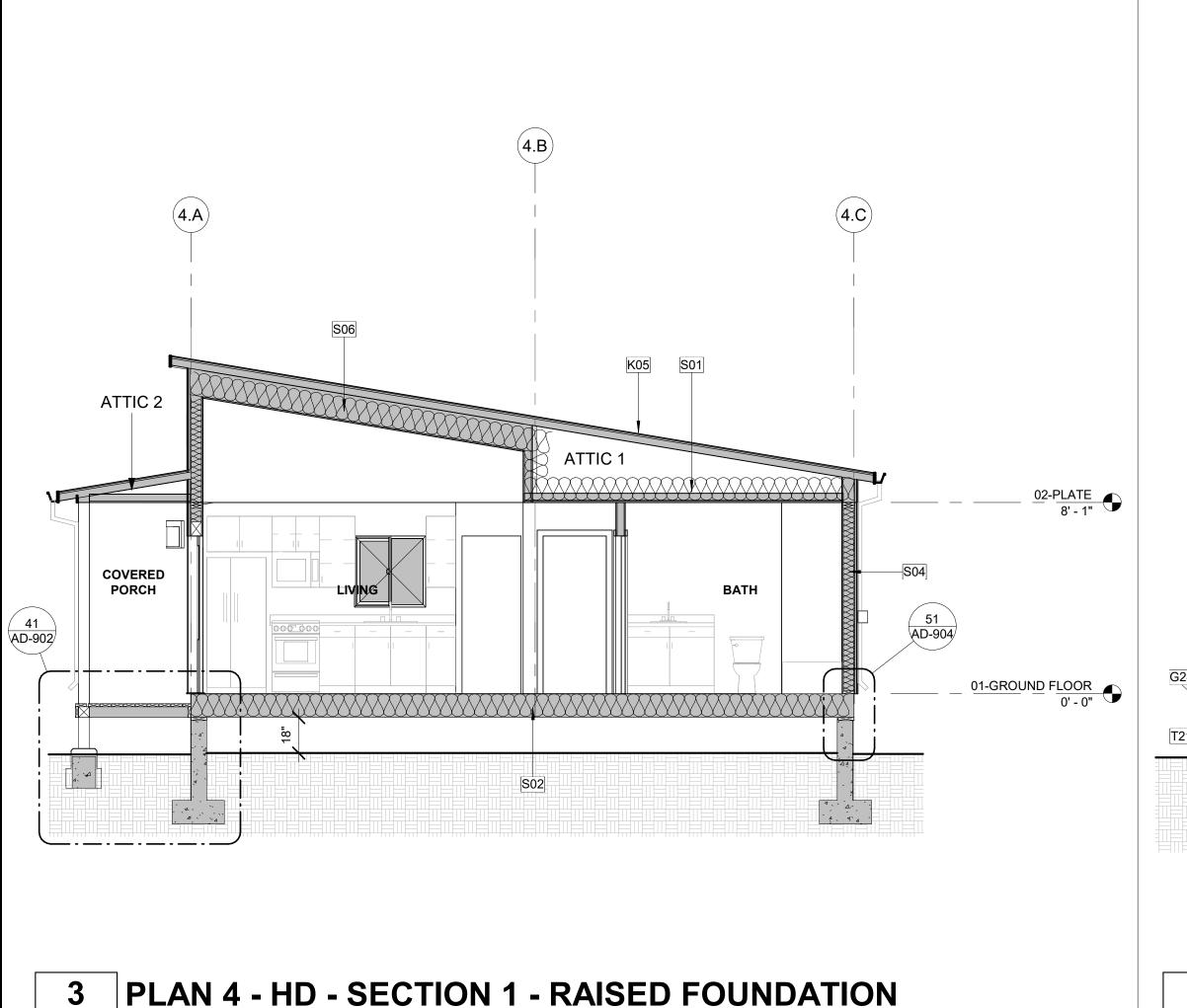
BUILDING PERMIT FOR THE ADU HAS BEEN

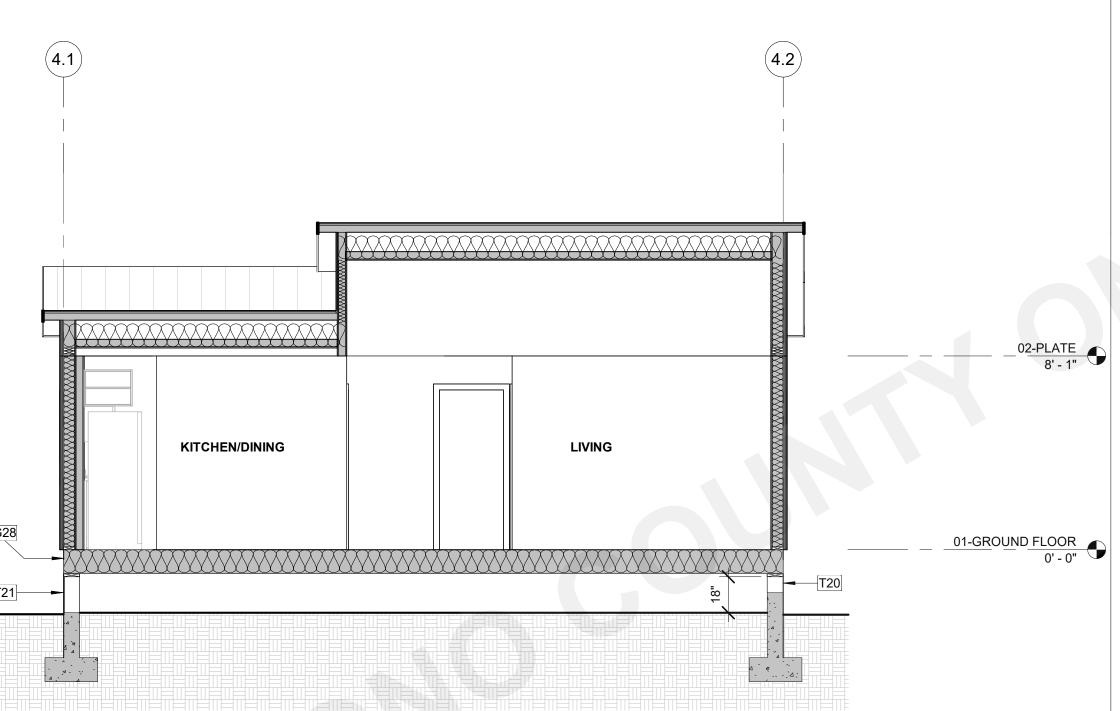
YOU DO NOT HAVE THE CONSTRUCTION

CANNOT BE A CHARGE TO PROVIDE THESE

THESE PLANS ARE PROVIDED BY MONO

SHEET





PLAN 4 - HD - SECTION 2 - RAISED FOUNDATION

# **SECTIONS GENERAL NOTES**

- 1. THE PURPOSE OF THESE DRAWINGS IS TO SHOW CONSTRUCTION MATERIALSS/ASSEMBLIES. FOR SPECIFIC SIZES AND DETAILS REFER TO ARCHITECTURAL PLANS, ELEVATIONS, DETAILS, AND STRUCTURAL PLANS. \*KEYNOTES ONLY APPLY IF REFERENCED ON PLANS.
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  - 3. IN CONCEALED SPACES BETWEEN STAIR STRINGERS AT THE TOP AND BOTTOM OF THE RUN. ENCLOSED SPACES UNDER STAIRS SHALL COMPLY WITH **SECTION R302.7**. 4. AT OPENINGS AROUND VENTS, PIPES, DUCTS, CABLES AND WIRES AT CEILINGS AND FLOOR LEVEL, WITH AN APPROVED MATERIAL TO
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# **KEYNOTES**

RAISED FLOOR FOUNDATION. REFER TO STRUCTURAL. CORRUGATED METAL ROOF. CLASS A FIRE RATING CEILING INSULATION. REFER TO TITLE 24 (R-38 MIN.). HORIZONTAL FLOOR INSULATION. REFER TO TITLE 24 (R-19 MIN.). 2X6 WALL INSULATION. REFER TO TITLE 24 (R-21 MIN.) ROOF INSULATION. UNVENTED ROOF PER CRC 806.5. REFER TO 41/AD-904 FOR DETAIL. FOUNDATION VENTS @ STEM WALL TO BE LOCATED AS APPROPRIATE ON SITE PER CONTRACTOR. REFER TO FOUNDATION CALCS ON BUILDING SECTIONS FOR NUMBER OF VENTS REQUIRED. REFER TO G-101 FOR ADDITIONAL VENTILATION REQUIREMENTS. CRAWL SPACE ACCESS PANEL. MINIMUM 18" X 24" PER CBC 1209.1

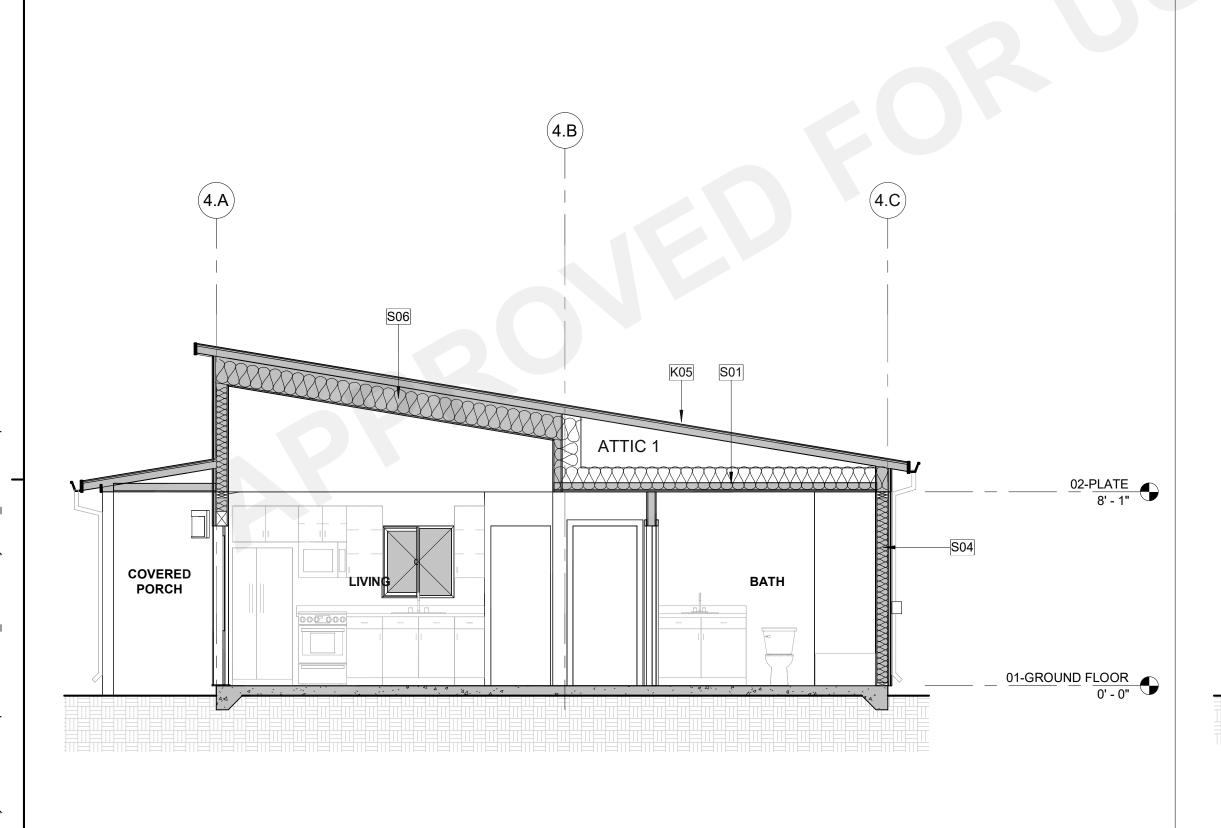
LOCATION DETERMINED ON SITE PER CONTRACTOR.

PER 2022 CBC 1202.4, THE SPACE BETWEEN THE BOTTOM OF THE FLOOR JOISTS AND THE EARTH UNDER ANY BUILDING EXCEPT SPACES OCCUPIED BY BASEMENTS OR CELLARS SHALL BE PROVIDED WITH VENTILATION. REFER TO UNDER-FLOOR VENTING NOTES ON SHEET G-101 FOR ADDITIONAL INFORMATION.

"VENTS PROVIDED" = (451/150) / 0.430 SF

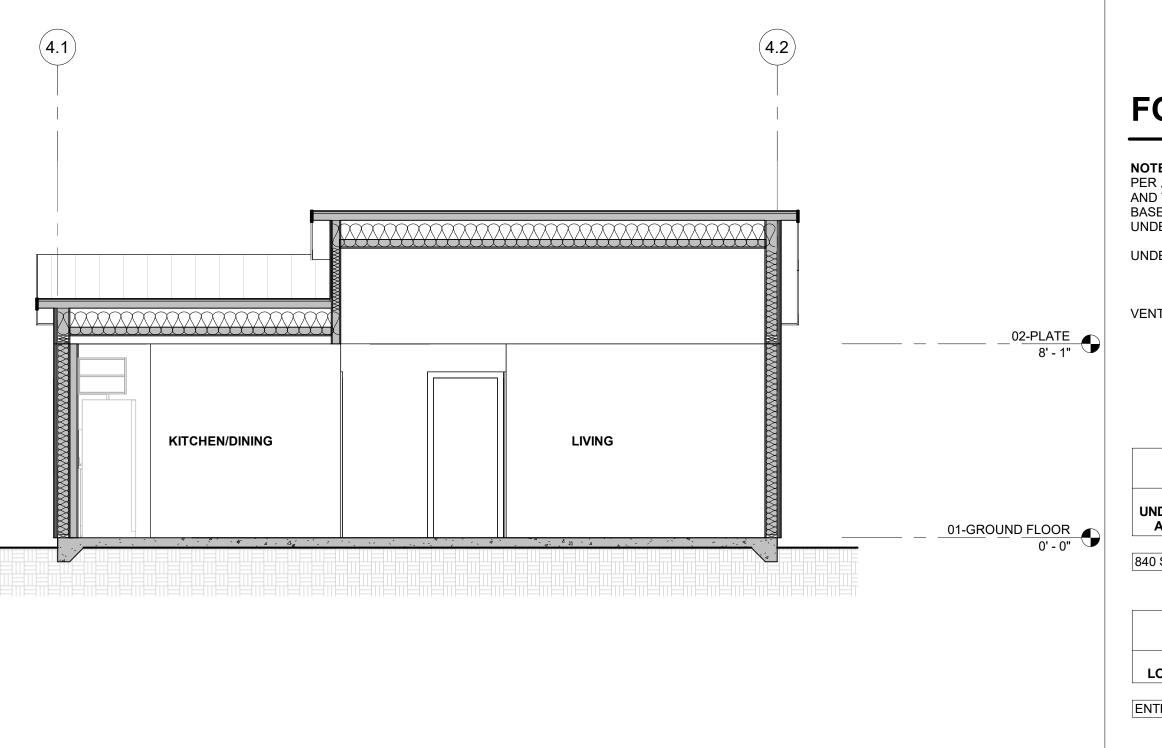
VENT PRODUCT INFO

UNDER-FLOOR AREA (SF)		NDATION IG @ 1/150		DATION REQUIRED		OUNDATION TS PROPOSED
040.05	15.0					
840 SF	5.6		14			
	VENTIN	NG-PORCH- C	ALCULATI	ON - PLAN 4		
	VENTIN BALCONY AREA (SF)	REQUIRED E	BALCONY	ON - PLAN 4  VENT LENG  REQUIRED	GTH	VENT LENGHT
LOCATION	BALCONY	REQUIRED E	BALCONY	VENT LEN	GTH (FT)	_



1 PLAN 4 - HD - SECTION 1 - SLAB-ON-GRADE

A3-101 A4-302 SCALE: 1/4" = 1'-0"



2 PLAN 4 - HD - SECTION 2 - SLAB-ON-GRADE

A4-302 SCALE: 1/4" = 1'-0"

FOUNDATION VENTING CALCS

UNDER-FLOOR CALCULATION FORMULA NFA OF AIR MOVEMENT PER VENT = 62 SQ.IN./144 IN./FT = 0.430 SF

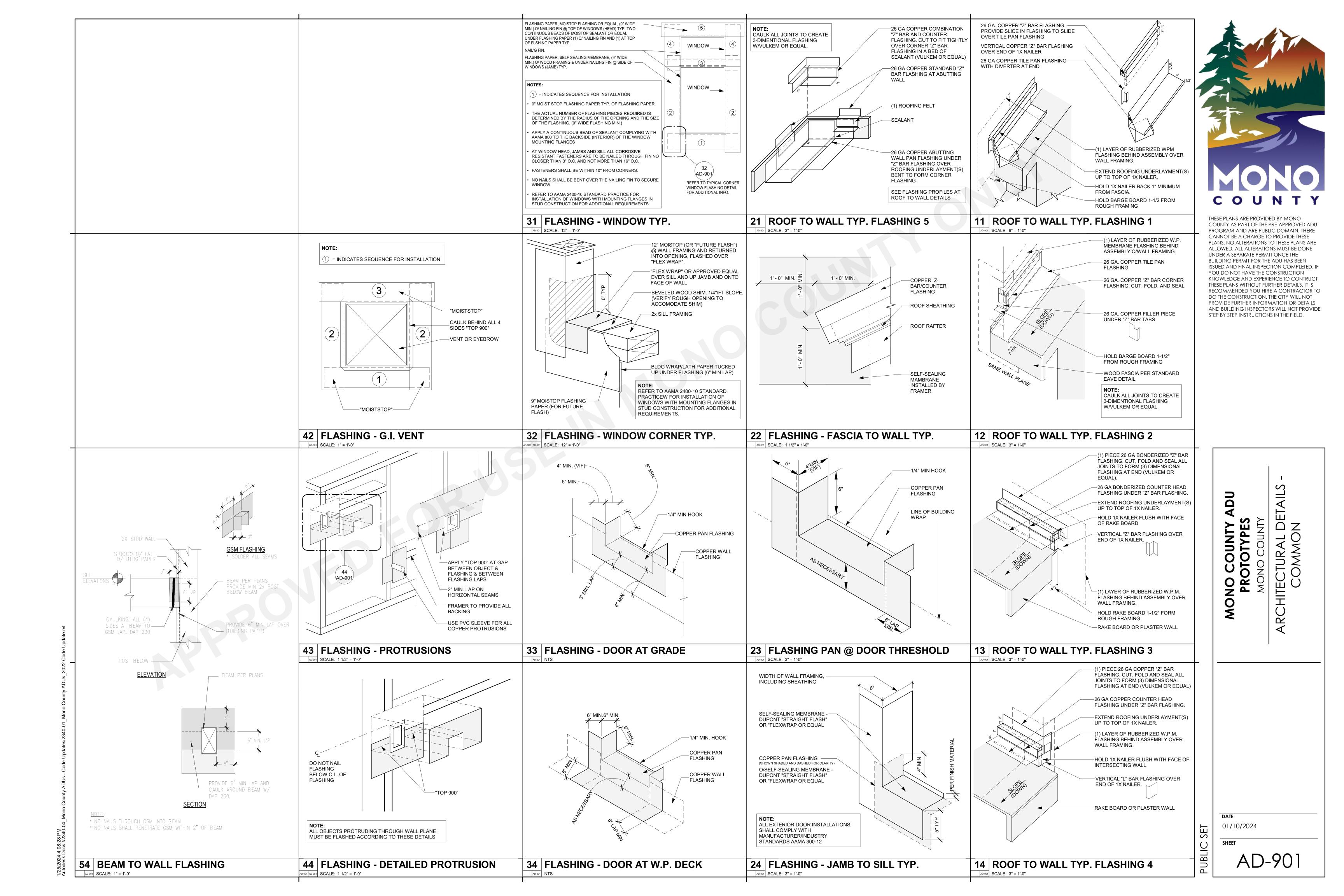
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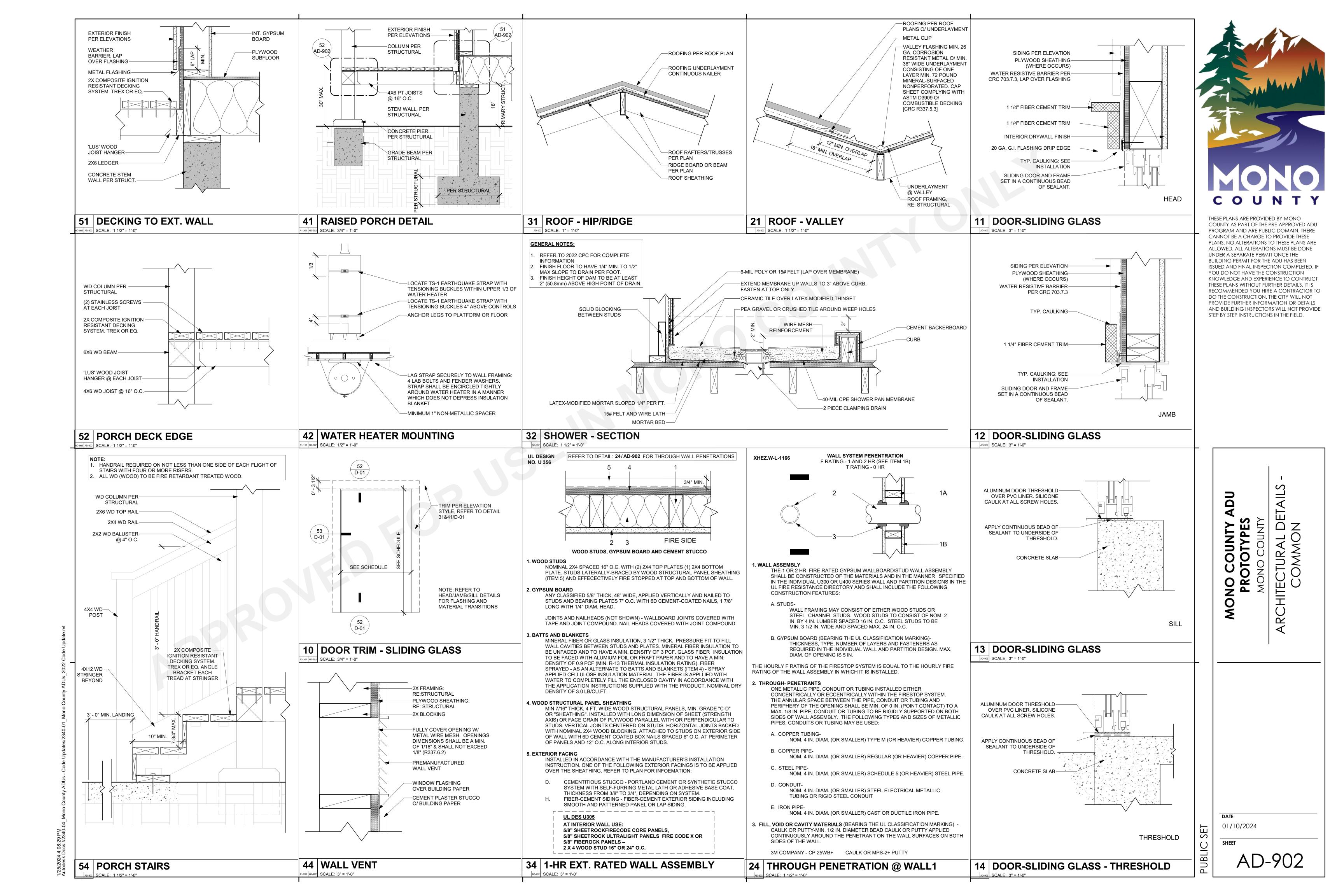
840 SF	5.6	14	•	
	VENTI	NG-PORCH- CALCULAT	ION - PLAN 4	
LOCATION	BALCONY AREA (SF)		VENT LENG	
	100.00	In =		
ENTRY	108 SF	0.716667	2	3

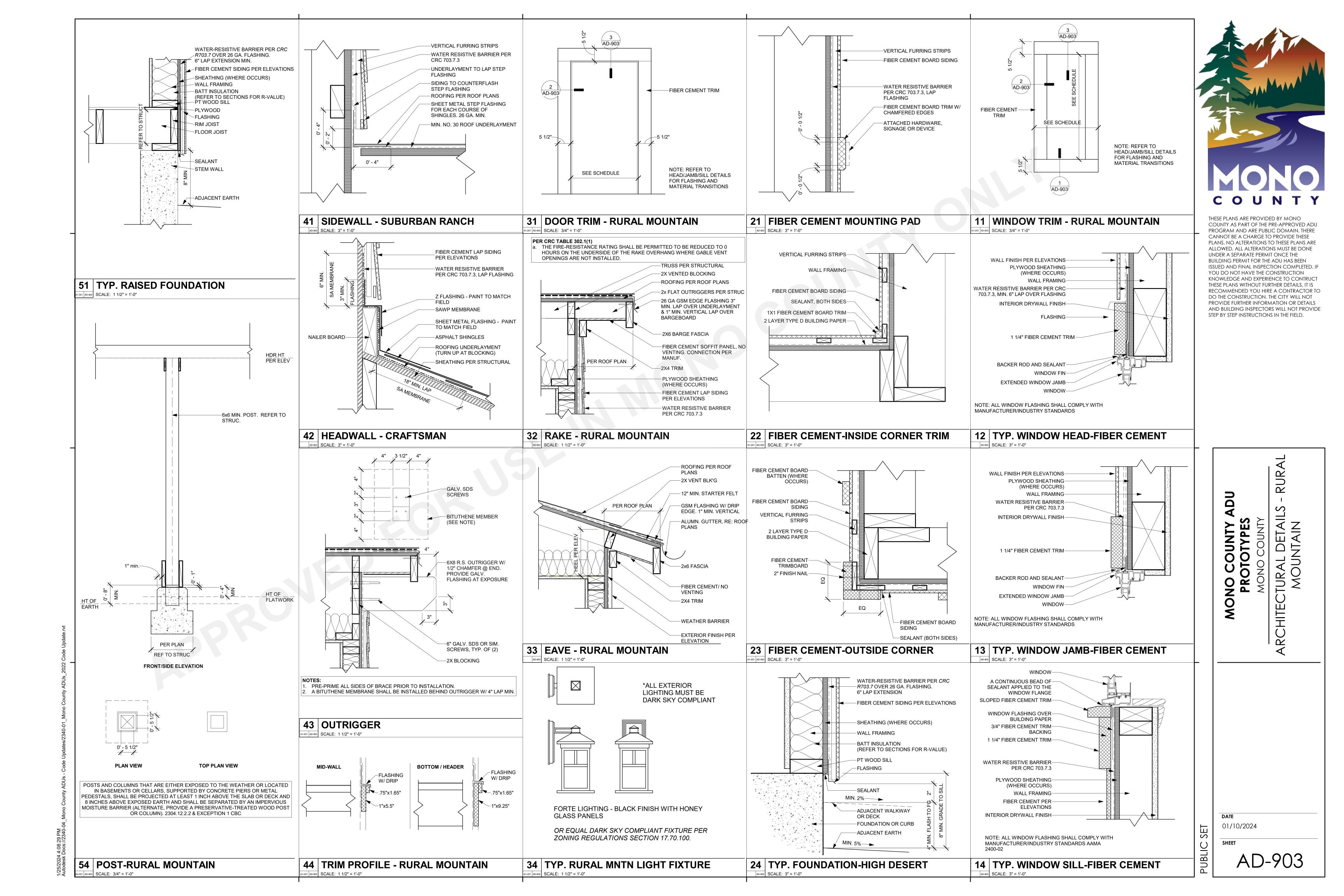
**VENTING-FOUNDATION - CALCULATION - PLAN 4** 

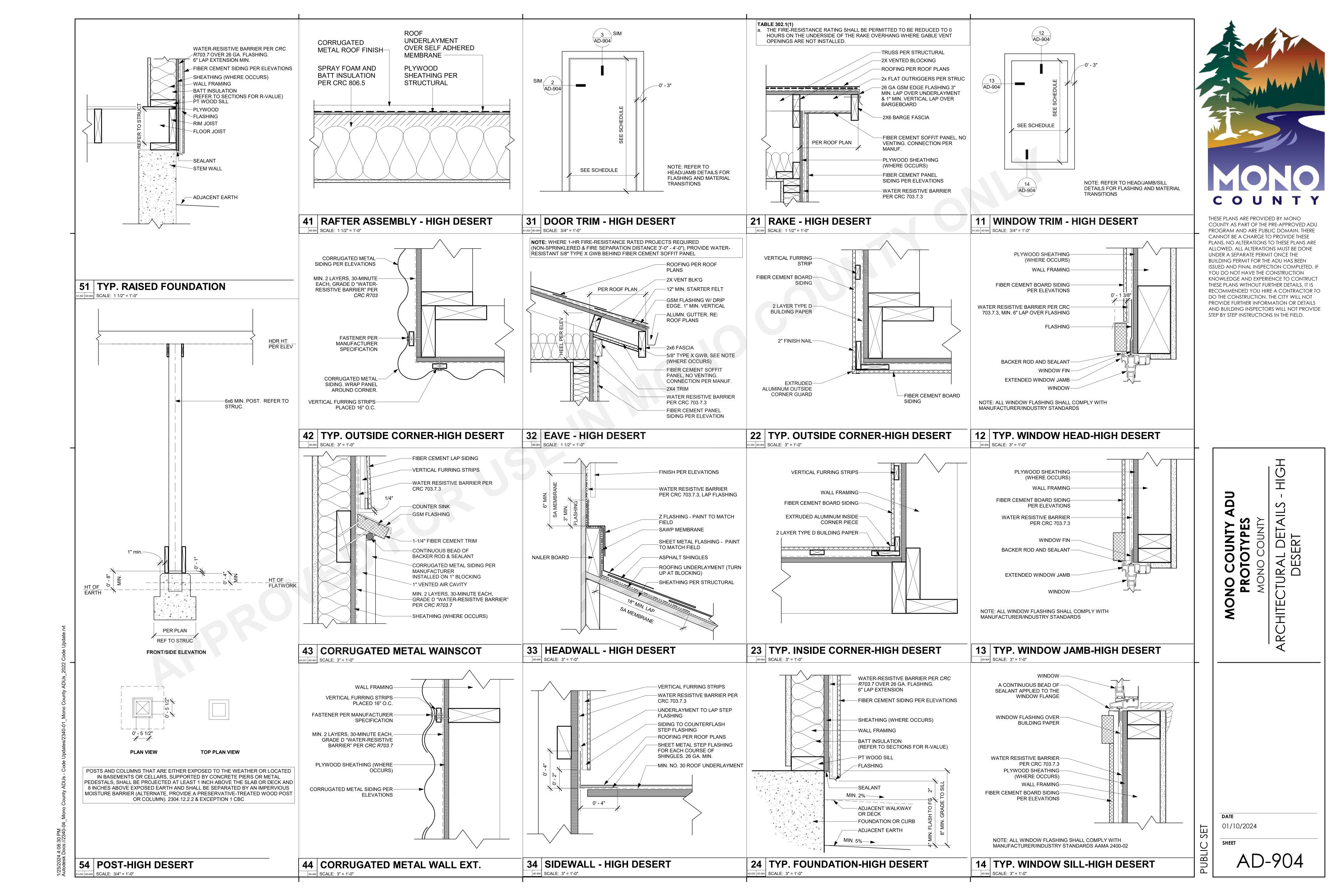
01/10/2024 SET

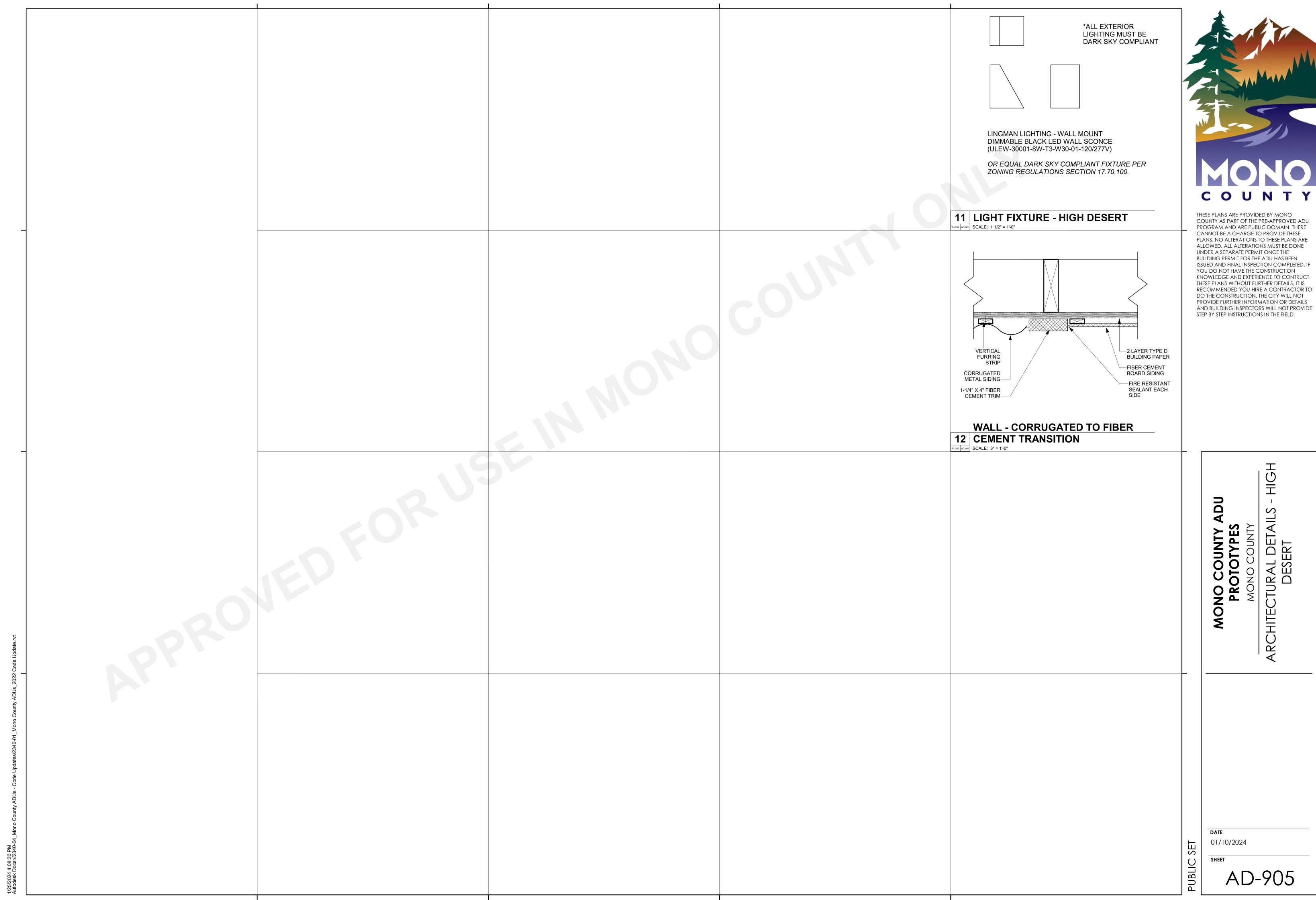
SHEET



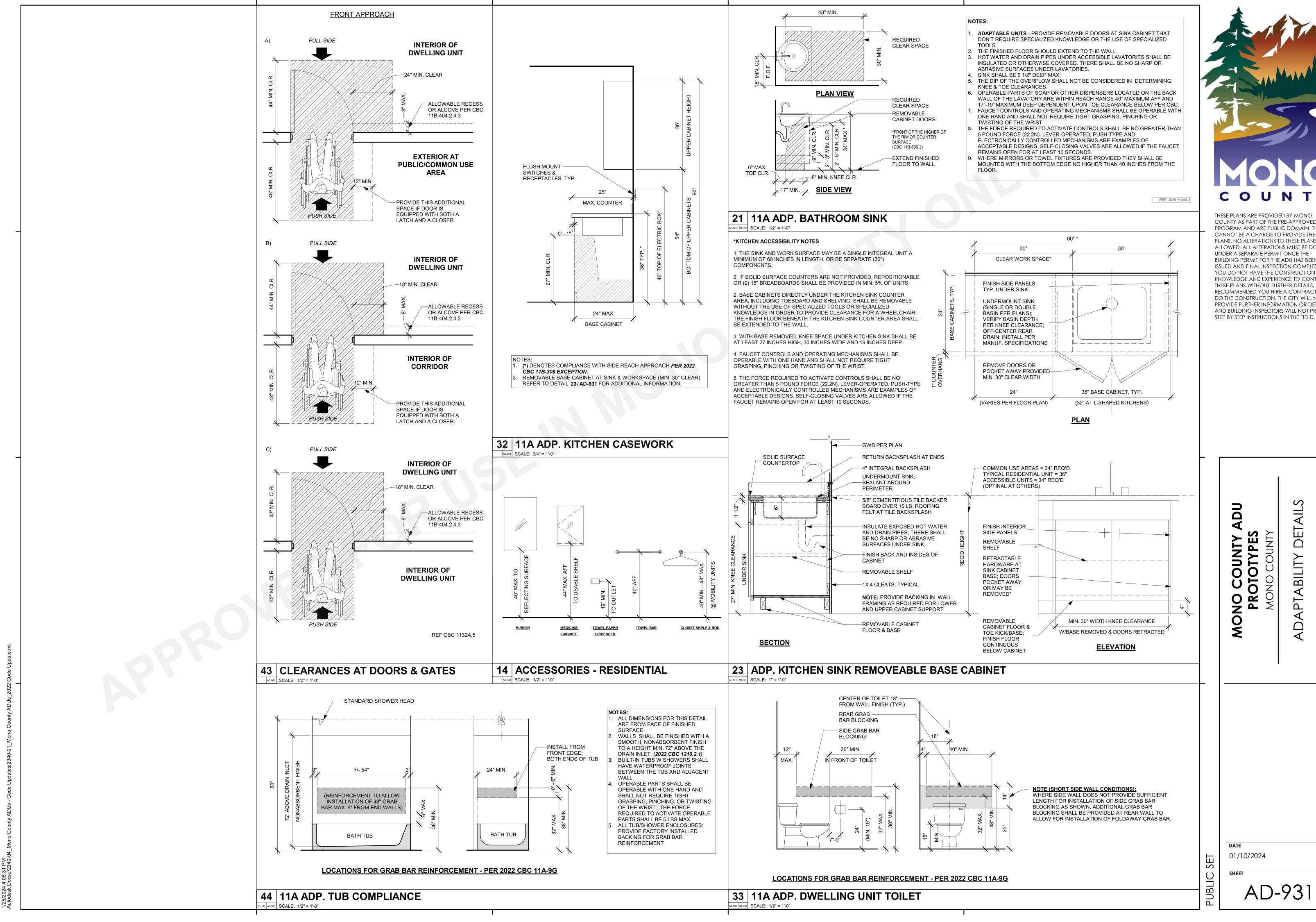




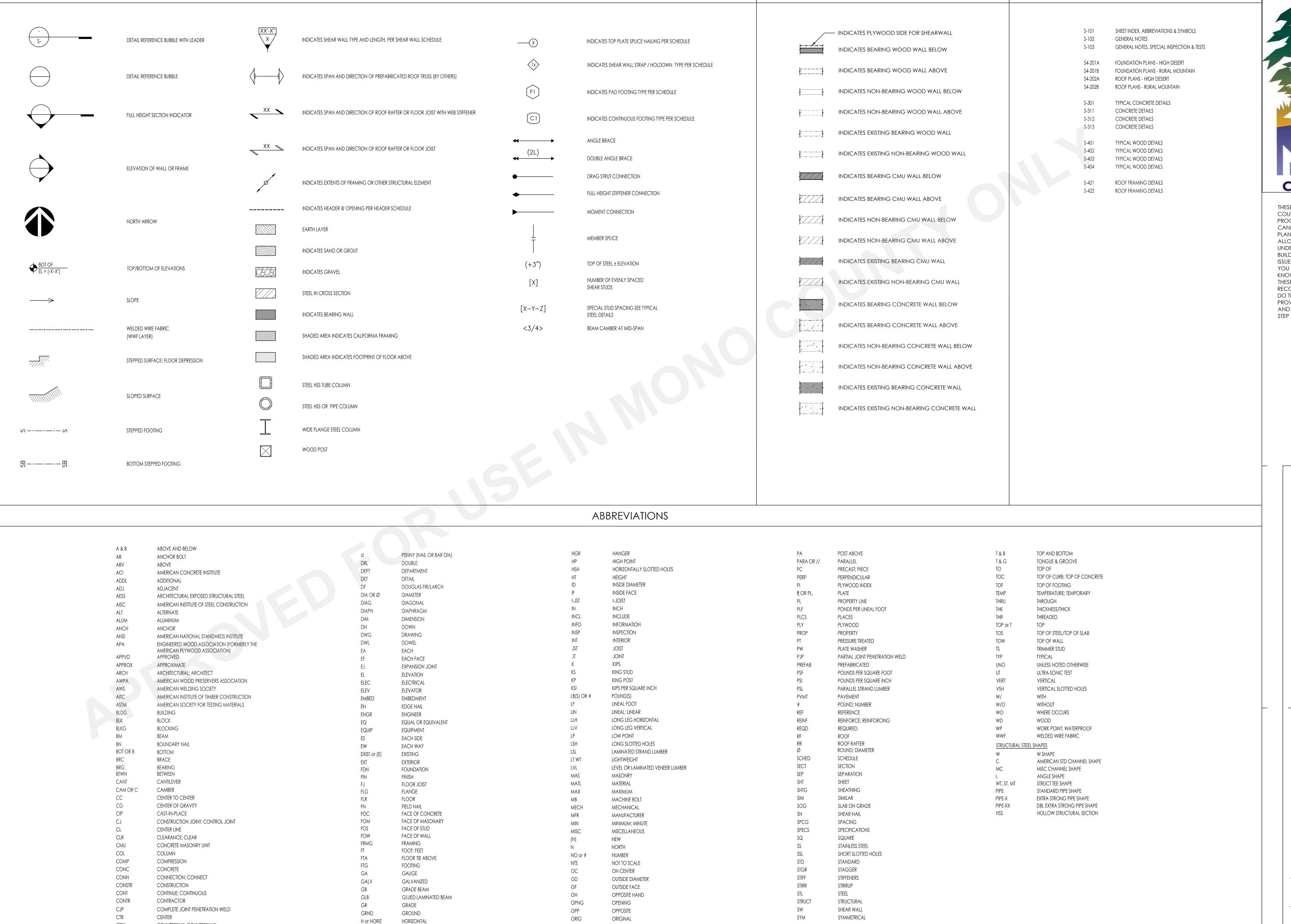




COUNTY AS PART OF THE PRE-APPROVED ADU ISSUED AND FINAL INSPECTION COMPLETED. IF RECOMMENDED YOU HIRE A CONTRACTOR TO AND BUILDING INSPECTORS WILL NOT PROVIDE



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OSB

ORIENTED STRAND BOARD

TIE BEAM

WALL TYPES

SYMBOLS

CTSK

CU FT

COUNTERSINK; COUNTERSUNK

CUBIC FOOT

HDR

HEADER



SHEET INDEX

THESE PLANS ARE PROVIDED BY MONO COUNTY AS PART OF THE PRE-APPROVED ADU PROGRAM AND ARE PUBLIC DOMAIN. THERE CANNOT BE A CHARGE TO PROVIDE THESE PLANS. NO ALTERATIONS TO THESE PLANS ARE ALLOWED. ALL ALTERATIONS MUST BE DONE UNDER A SEPARATE PERMIT ONCE THE BUILDING PERMIT FOR THE ADU HAS BEEN ISSUED AND FINAL INSPECTION COMPLETED. IF YOU DO NOT HAVE THE CONSTRUCTION KNOWLEDGE AND EXPERIENCE TO CONTRUCT THESE PLANS WITHOUT FURTHER DETAILS, IT IS RECOMMENDED YOU HIRE A CONTRACTOR TO DO THE CONSTRUCTION. THE CITY WILL NOT PROVIDE FURTHER INFORMATION OR DETAILS AND BUILDING INSPECTORS WILL NOT PROVIDE STEP BY STEP INSTRUCTIONS IN THE FIELD.

# MONO COUNTY ADU PROTOTYPES

SHEET INDEX
ABBREVIATIONS & S

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MB

DATE
NOVEMBER 20, 2023

EET

S-101

#### WOOD (GENERAL)

#### PRESERVATIVE TREATMENT:

- A. WOOD MEMBERS SHALL BE PRESERVATIVE TREATED IN ACCORDANCE WITH AITC 109-07, STANDARD FOR PRESERVATIVE TREATMENT, BASED ON THE SERVICE CONDITION PER THE USE CATEGORIES (UC#) SPECIFIED IN
- a. UC1 INTERIOR CONSTRUCTION, ABOVE GROUND, DRY NO PRESERVATIVE TREATMENT REQUIRED b. UC2 - INTERIOR CONSTRUCTION, ABOVE GROUND, WET - PRESERVATIVE TREATMENT REQUIRED IF THE
- HUMIDITY OR MOISTURE CONDENSATION IS 20% OR GREATER. c. UC3 - EXTERIOR CONSTRUCTION ABOVE GROUND - PRESERVATIVE TREATMENT REQUIRED.
- FOR ALL TREATED WOOD MEMBERS, ALL CUTS, HOLES AND INJURIES SUCH AS ABRASIONS OR HOLES FROM REMOVAL OF NAILS AND SPIKES WHICH MAY PENETRATE THE TREATED ZONE SHALL BE FIELD TREATED IN ACCORDANCE WITH AWPA M4-06. THE FOLLOWING FIELD TREATMENTS SHALL BE USED:
- a. BORED HOLES: HOLES FOR CONNECTORS OR BOLTS MAY BE TREATED BY PUMPING COAL TAR ROOFING CEMENT MEETING ASTM D5643 INTO HOLES USING A GREASE GUN OR SIMILAR DEVICE
- b. EXTERIOR: COPPER NAPHTHENATE c. Interior: Inorganic Boron Preservatives Limited to use in Applications not in Contact With GROUND AND CONTINUOUSLY PROTECTED FROM LIQUID WATER

#### SAWN LUMBER

FRAMING LUMBER SHALL MEET THE FOLLOWING MINIMUM STANDARDS EXCEPT WHERE OTHERWISE NOTED:

FRAMING LUMBER SHALL MEET	THE FOLLOWING MINIMU	M STANDARD	2 EXCEPT WHERE OTHER	MISE NOTED:
	SAWN LUMBER	PROPER	TIES	
USE	SIZE	SPECIES	GRADE	REFERENCE
	2 X 4	D.F.	STANDARD OR BETTER PRESSURE TREATED	
MUDSILLS	2 X 6 AND LARGER	D.F.	NO. 2 OR BETTER PRESSURE TREATED	2022 CBC 2303.1.9
	2 X	REDWOOD	FOUNDATION GRADE	
	HORIZONTAL FRA	AMING LUMBE	R	
ROOF JOISTS AND RAFTERS	2 x	D.F.	NO. 2	
FLOOR JOISTS	2 X	D.F.	NO. 2	
HEADERS AND BEAMS	4 X	D.F.	NO. 2	WCLIB & WWPA
AND OTHER HORIZONIAL	4 X 4 AND SMALLER	D.F.	NO. 2	1
ANY OTHER HORIZONTAL	6 X 6 AND LARGER	D.F.	NO. 1	-
	VERTICAL FRAM	AING LUMBER		•
TOP PLATES	2 X	D.F.	NO. 2	
STUDS	2 X 4 & 3 X 4	D.F.	STUD	WCLIB &
310D3	2 X 6 & 2 X 8	D.F.	NO. 2	WWPA
POSTS	4 X 4 & 4 X 6 POSTS	D.F.	NO. 2	
1 0010	6 X 6 & LARGER POSTS	D.F.	NO. 1	
	ALL OTHER FRA	MING LUMBER	?	
ALL OTHER FRAMING LUMBER	ALL SIZES	D.F.	STANDARD & BETTER	WCLIB & WWPA
	·	-	·	

- 2. FLOOR JOISTS SHALL BE GRADE STAMPED "S-DRY" WHICH INDICATES A MOISTURE CONTENT NOT EXCEEDING
- 3. ALL SOLE PLATES AND TOP PLATES SHALL BE GRADE STAMPED "KD" WHICH INDICATES KILN DRIED WITH A MOISTURE CONTENT NOT EXCEEDING 15 PERCENT.
- 4. STUD WALLS SHOWN ON PLANS ARE NONBEARING PARTITIONS WALLS, BEARING WALLS OR SHEAR WALLS BELOW THE FRAMING LEVEL, UNLESS NOTED OTHERWISE. STUDS SHALL BE SIZE AND SPACING AS NOTED IN THE Drawings, see plans and architectural drawings. Unless otherwise noted.
- MINIMUM FRAMING NAILING SHALL CONFORM TO CBC TABLE 2304.10.1. ALL NAILS SHALL BE COMMON WIRE NAILS. PREDRILL NAIL HOLES TO 70% OF NAIL SHANK DIAMETER WHERE NAILING TENDS TO SPILT WOOD.
- 6. UNLESS OTHERWISE NOTED, ALL WOOD SILL PLATES UNDER BEARING, EXTERIOR, OR SHEAR WALLS IN CONTACT WITH CONCRETE OR MASONRY SHALL BE BOLTED TO THE CONCRETE OR MASONRY WITH 5/8" Ø X 12" BOLTS W/ 0.229" X 3" X 3" PLATE WASHER (GALV) AT 4'-O" O.C. BEGINNING AT 9" O.C. MAXIMUM FROM EACH END OF THE PLATES. THE BOLTS SHALL EXTEND A MINIMUM OF 7" INTO THE CONCRETE OR MASONRY. (POWDER DRIVEN PINS AT 1/3 OF THE BOLT SPACING OR 24" O.C. MAXIMUM MAY BE SUBSTITUTED FOR THE ANCHOR BOLTS AT INTERIOR NON-SHEAR WALLS ONLY).
- ALL LUMBER IN CONTACT WITH CONCRETE SHALL BE PRESSURE TREATED LUMBER WITH AWPA TREATMENT C2 USING EITHER ALKALINE QUAT (ACQ TYPE B AND D), COPPER AZOLE (CBA-A, CA-B), OR SODIUM BORATES (SBX). ANCHOR BOLTS, FASTENERS, AND METAL FRAMING CONNECTORS IN CONTACT WITH PRESSURE TREATED LUMBER SHALL BE HOT-DIPPED GALVANIZED TO A RATING OF G-185 PER ASTM A653.
- 8. PROVIDE 2 STUDS UNDER ALL 4 X 10 AND LARGER BEAMS OR HEADERS AT SPANS 6 FEET OR LONGER, UNLESS OTHERWISE NOTED. WHERE POSTS OR MULTIPLE STUDS UNDER BEAMS OR HEADERS ARE CALLED FOR ON DRAWINGS THOSE POSTS OR MULTIPLE STUDS SHALL BE CARRIED TO THE FOUNDATION/PODIUM LEVEL.
- 9. PROVIDE THE FOLLOWING BLOCKING AS A MINIMUM, UNLESS SHOWN OTHERWISE: 2" X FULL DEPTH SOLID BLOCKING BETWEEN JOISTS OVER SUPPORT. 2" X FULL DEPTH SOLID BLOCKING BETWEEN JOISTS OVER AND BELOW PARTITION WALLS.
- 10. DOUBLE JOISTS UNDER PARTITIONS RUNNING PARALLEL TO JOISTS, UNLESS SUPPORTED BY A WALL BELOW OR SHOWN OTHERWISE. NAIL DOUBLED JOISTS WITH 16D AT 12" O.C., STAGGERED.
- 11. BRIDGING SHALL BE 2 X SOLID BLOCKS, INSTALLED AS FOLLOWS: ROOF JOISTS MORE THAN 10" DEPTH, 8'-O" O.C. MAXIMUM, NOT MORE THAN 8'-0' FROM SUPPORT. FLOOR JOISTS MORE THAN 10" DEPTH, 8'-0" O.C. MAXIMUM, NOT MORE THAN 8'-0' FROM SUPPORT.
- 12. JOIST HANGERS AND OTHER METAL FRAMING ACCESSORIES ARE REFERRED TO ON PLANS BY PARTICULAR TYPE AS MANUFACTURED BY SIMPSON STRONG-TIE COMPANY, STOCKTON, CALIFORNIA. ACCESSORIES OF OTHER MANUFACTURE WITH EQUIVALENT LOAD CARRYING CHARACTERISTICS MAY BE USED.
- 13. FIRE STOPPING, BACKING FOR INTERIOR FINISHES, NONBEARING WALLS, AND OTHER NON-STRUCTURAL FRAMING ARE NOT NECESSARILY SHOWN ON STRUCTURAL DRAWINGS.

#### HARDWARE AND CONNECTORS

USE ALL SPECIFIED FASTENERS AS SPECIFIED ON PLANS, IF NOT INDICATED ON PLANS PROVIDE FASTENERS PER MFR'S APPROVED ICC-ESR REPORT OR PRODUCT LITERATURE

- DO NOT OVER TIGHTEN NUTS ON TIE-DOWN ANCHOR RODS OR BOLTS. TIGHTEN ANCHOR ROD NUTS ONE-THIRD TO ONE HALF TURN BEYOND FINGER TIGHT
- 2. INSTALL ALL HOLDOWNS TIGHT TO END STUDS/POST, DO NOT USE FILLER BLOCKS. FOR MISALIGNED ANCHOR BOLTS, EXTEND THE ANCHOR ROD AT A 1:6 (HORIZ/VERT) USING A COUPLER WITH EQUIVALENT ANCHOR ROD
- AND INSTALL THE HOLDOWN HIGHER ON END STUD / POST FOR HOLDOWNS THAT BOLT TO END POSTS, INSTALL THE HEAD OF THE BOLT TO THE BRACKET SIDE, AND ON THE SIDE OPPOSITE THE BRACKET, INSTALL A WASHER BETWEEN THE NUT AND THE STUD / POSTS

- TIE DOWN AND COLLECTOR STRAPS SHALL BE INSTALLED STRAIGHT AND TRUE. DO NOT FOLD, BEND, KINK OR
- OTHERWISE ALTER CONNECTOR STRAPS INSTALL TIE DOWN STRAPS DIRECT TO POST IN LIEU OF OVER SHEATHING. STRAPS MAY BE INSTALLED ON THE UNSHEATHED SIDE OF THE END STUDS / POSTS

#### REINFORCING STEEL

- REINFORCING BARS SHALL CONFORM TO THE REQUIREMENTS OF CHAPTER 19 OF THE CODE AND WITH THE PROVISIONS OF ACI 318-19, ASTM A706, GRADE 60 UNO. ASTM A615 GR 60 STEEL MAY BE SUBSTITUTED FOR ASTM A706 GR60 STEEL PER ACI 318-19 SECTION 20.2.2.5 PROVIDED THE FOLLOWING CONDITIONS ARE MET:
- A. THE ACTUAL YIELD STRENGTH BASED ON MILL TESTS DOES NOT EXCEED THE SPECIFIED YIELD STRENGTH BY
- MORE THAN 18,000 PSI. B. THE RATIO OF THE ACTUAL ULTIMATE TENSILE STRESS TO THE ACTUAL YIELD STRENGTH IS NOT LESS THAN
- C. WHERE REINFORCEMENT COMPLYING WITH ASTM A615 IS TO BE WELDED, CHEMICAL TESTS SHALL BE PERFORMED TO DETERMINE WELDABILITY IN ACCORDANCE WITH SECTION 26.6.4 OF ACI 318-19.
- 2. BARS SHALL BE CLEAN OF RUST, GREASE, OR OTHER MATERIALS LIKELY TO IMPAIR BOND. ALL REINFORCING BAR BENDS SHALL BE MADE COLD.
- 3. WELDED WIRE REINFORCEMENT (WWR), PLAIN OR DEFORMED, SHALL CONFORM TO ASTM A185. WELDED DEFORMED WIRE REINFORCEMENT (WWR) SHALL CONFORM TO ASTM A1064. ALL WWR FOR STAIR PANS AND ALL WWR FOR CONCRETE FILL ON METAL DECK TO BE PLAIN WWR. PROVIDE LAPS PER ACI 318-19 SECTION 25.5.3 OR 25.5.4 MINIMUM. WWR SHALL BE SUPPORTED ON APPROVED CHAIRS.
- REINFORCING BAR LAP SPLICES SHALL BE MADE AS INDICATED ON THE DRAWINGS. LAP ALL HORIZONTAL BARS AT CORNERS AND INTERSECTIONS, STAGGER ALL SPLICES UNLESS NOTED OTHERWISE ON PLANS.
- A. MINIMUM LAP SPLICE LENGTH FOR REINFORCING STEEL BARS IN CONCRETE SHALL BE PER ACI 318-19 SECTION 25.5.2 AND THE REINFORCING SCHEDULE ON THE DRAWINGS.
- B. MINIMUM LAP SPLICE LENGTH FOR REINFORCING STEEL BARS IN MASONRY SHALL BE PER ACI 530-13 SECTION 8.1.6.7.1 OR 9.3.3.4 AND THE REINFORCING SCHEDULE ON THE DRAWINGS.
- ALL BARS SHALL BE MARKED SO THEIR IDENTIFICATION CAN BE MADE WHEN THE FINAL IN-PLACE INSPECTION IS MADE. ALL REINFORCING CONFORMING TO DIFFERING ASTM SPECIFICATIONS AND/OR OF DIFFERING GRADES SHALL BE CLEARLY MARKED TO DIFFERENTIATE THEM FROM OTHER REINFORCING STEEL IF CONCURRENTLY PRESENT ON SITE.
- WHERE WELDING OF REINFORCING IS APPROVED BY THE STRUCTURAL ENGINEER, IT SHALL BE DONE BY AWS CERTIFIED WELDERS USING E80XX OR APPROVED ELECTRODES. WELDING PROCEDURES SHALL CONFORM TO THE REQUIREMENTS OF STRUCTURAL WELDING CODE- REINFORCING STEEL", AWS-D1.4-15. REINFORCING BARS TO BE WELDED SHALL CONFORM TO THE REQUIREMENTS OF ASTM A706.
- REINFORCING STEEL SHALL BE ACCURATELY PLACED AND ADEQUATELY SUPPORTED BEFORE THE CONCRETE IS PLACED AND SHALL BE SECURED AGAINST DISPLACEMENT DURING CONSTRUCTION WITHIN PERMITTED TOLERANCES. ADEQUATE SUPPORTS ARE ALSO NECESSARY TO KEEP THE REINFORCING STEEL AT THE PROPER DISTANCE FROM THE FORMS. USE WIRE BAR SUPPORTS, PRECAST CONCRETE SUPPORTS, SPACERS, BOLSTERS, REINFORCEMENT OR OTHER MEANS OF SUPPORT PER THE "CRSI MANUAL OF STANDARD PRACTICE", LATEST
- REINFORCING STEEL SHALL BE DETAILED IN ACCORDANCE WITH THE "CRSI MANUAL OF STANDARD PRACTICE FOR DETAILING REINFORCED CONCRETE STRUCTURES", LATEST EDITION.
- 9. COMPLETE AND DETAILED REINFORCING PLACEMENT DRAWINGS SHALL BE PREPARED AND SUBMITTED TO THE ARCHITECT FOR APPROVAL BY THE SEOR PRIOR TO FABRICATION IN ACCORDANCE WITH THE SPECIFICATIONS AND APPLICABLE CODES. THESE DRAWINGS SHALL BE AVAILABLE ON THE JOB SITE PRIOR TO PLACING OF CONCRETE. THE REINFORCING PLACEMENT DRAWINGS SHALL INCLUDE ALL PRIMARY REINFOREMENT, LAP SPLICES, TIES, DOWELS, HEADED U-DOWELS, EMBED PLATES, ANCHOR BOLTS, ETC. AREAS OF CONGESTION SHALL BE DETAILED SUFFICIENTLY TO DEMONSTRATE THAT PLACEMENT OF REBAR MEETS SPACING REQUIREMENTS OF ACI 318-19.
- WHEN REQ'D, INSPECTION OF CONCRETE SHALL INCLUDE INSPECTION DURING INSTALLATION OF REINFORCING STEEL. INSPECTION SHALL BE SCHEDULED SO THAT PLACEMENT OF REINFORCING STEEL, CONDUIT, SLEEVES, AND EMBEDDED ITEMS MAY BE CORRECTED PRIOR TO PLACEMENT OF OVERLYING GRIDS OR REINFORCING STEEL.

#### 11. CONCRETE PROTECTION FOR REINFORCEMENT

	FOLLOWING MINIMUM CONCRETE COVER SHALL BE PROVIDED FOR FORCEMENT IN CAST-IN-PLACE CONCRETE (NON-PRESTRESSED):	MINIMUM COVER, IN.
A.	CONCRETE CAST AGAINST AND PERMANENTLY EXPOSED TO EARTH	3
В.	CONCRETE EXPOSED TO EARTH OR WEATHER: NO.6 THROUGH NO. 18 BAR NO.5 BAR, W31 OR D31 WIRE & SMALLER	2 1½"
C.	CONCRETE NOT EXPOSED TO WEATHER OR IN CONTACT WITH GROUND: SLABS, WALLS, JOISTS: NO.14 AND NO.18 BARS NO.11 BAR & SMALLER BEAMS, COLUMNS: PRIMARY REINFORCEMENT TIES, STIRRUPS, SPIRALS	1½" ¾" 1½"

- 12. MECHANICAL BAR SPLICE CONNECTIONS SHALL CONFORM TO THE REQUIREMENTS OF ACI 318-19 SECTION 25.5.7 USE OF MECHANICAL CONNECTIONS SHALL BE APPROVED BY THE STRUCTURAL ENGINEER. SPLICES MUST BE TESTED AS INDICATED IN THE CONCRETE REINFORCEMENT SPECIFICATION. ACCEPTABLE PRODUCTS
  - LENTON STANDARD COUPLERS (IAPMO-ES 0129) LENTON FORM SAVERS, TYPE SA (IAPMO-ES 0129)
  - LENTON WELDABLE HALF COUPLERS (IAPMO-ES 0129) LENTON LOCK COUPLERS PER (IAPMO-ES 0129)
  - NOTE THAT REBAR ATTACHED TO PLATE USING LENTON WELDABLE HALF COUPLERS SHALL
  - BE ASTM A706 PER IAPMO-ES 0129.
  - ALL MECHANICAL BAR SPLICE CONNECTIONS IN SPECIAL STRUCTURAL WALLS, SPECIAL MOMENT FRAMES AND CONCRETE DIAPHRAGMS SHALL BE TYPE 2 CONFORMING TO THE REQUIREMENTS OF ACI 318-19 SECTION 18.2.7 & 18.12.7.4

#### CONCRETE

- ALL CONCRETE CONSTRUCTION SHALL CONFORM WITH CHAPTER 19 OF THE CODE AND WITH THE PROVISIONS OF ACI 318-19.
- 2. CONCRETE MATERIALS SHALL BE IN ACCORDANCE WITH THE FOLLOWING STANDARDS:

MATERIAL	ASTM STANDARD
PORTLAND CEMENT (TYPE II) <sup>A</sup>	C150
CONCRETE AGGREGATES (HARDROCK)	C33
WATER <sup>B</sup>	C1602
COAL FLY ASH OR POZOLLAN (CLASS F)	C618
NATURAL OR MANUFACTURED SAND	C33
SLAG	C989

- A. FOR SOILS WITH HIGH CONCENTRATIONS OF SULFATES (EXPOSURES S2 OR S3 PER ACI 318-19 TABLE 19.3.2.1) PORTLAND CEMENT SHALL BE TYPE V. VERIFY WITH PROJECT GEOTECHNICAL REPORT.
- B. WATER SHOULD ONLY BE ADDED AT THE BATCH PLANT. IN NO CASE SHALL THE DESIGN WATER/ CEMENT RATIO BE EXCEEDED.
- 3. CONCRETE MIXES SHALL BE PROPORTIONED BASED ON SECTION 26.4.3 OF ACI 318-19, WHICH REFERENCES ACI 301-10 ARTICLE 4.2.3. MIX DESIGNS SHALL INCLUDE DOCUMENTATION OF MIX AVERAGE COMPRESSIVE STRENGTH THROUGH FIELD TEST DATA OR TRAIL MIXTURES IN ACCORDANCE WITH ACI 301-10 ARTICLE 4.2.3.4. SCHEDULE OF STRUCTURAL CONCRETE STRENGTHS AND LOCATIONS (UNO):

LOCATION IN STRUCTURE	MINIMUM STRENGTH (PSI)*	DENSITY (PCF)	MAX SLUMP (IN±1)	MAX WATER/CEMENT RATIO	FLY ASH <sup>A</sup> (MAX)
CONCRETE FOUNDATIONS, GRADE BEAMS, TIE BEAMS	2,500	150	4	0.5	0.15
CONCRETE BASEMENT WALLS/STEM WALLS	2,500	150	4	0.5	0.15
CONCRETE SLAB ON GRADE	2,500	150	4	0.45	0.15
STAIRS ON GRADE, CURBS AND OTHER NON- STRUCTURAL CONCRETE	2,500	150	4	0.5	0.15
SITE WALLS	2,500	150	4	0.5	0.15

- A. AS MEASURED BY CEMENTITIOUS WEIGHT
- \* IF FOOTINGS ARE EXPOSED TO FROST CYCLES, INCREASE STRENGTH TO 4,500 PSI.
- 4. READY MIXED CONCRETE SHALL BE MIXED AND DELIVERED IN ACCORDANCE WITH THE REQUIREMENTS OF ASTM C94 OF C685.
- 5. DEPOSITING AND CONVEYING OF CONCRETE SHALL CONFORM TO SECTION 26.5 OF ACI 318-19 AND PROJECT SPECIFICATIONS.
- 6. ALL CONCRETE SURFACES AGAINST WHICH NEW CONCRETE IS TO BE PLACED SHALL BE CLEANED AND ROUGHENED TO 1/4" AMPLITUDE.
- 7. ALL REINFORCING BARS, ANCHOR BOLTS AND OTHER CONCRETE INSERTS SHALL BE WELL SECURED IN POSITION PRIOR TO PLACING CONCRETE.
- PROVIDE SLEEVES FOR PLUMBING AND ELECTRICAL OPENINGS IN CONCRETE BEFORE PLACING. DO NOT CUT ANY REINFORCING WHICH MAY CONFLICT. CORING IN CONCRETE IS NOT PERMITTED WITHOUT SEOR APPROVAL, NOTIFY THE SEOR IN ADVANCE OF CONDITIONS NOT SHOWN ON THE DRAWINGS, SEE THE DRAWINGS FOR ADDITIONAL RESTRICTIONS ON THE PLACEMENT OF OPENINGS IN SLABS AND WALLS.
- 9. PIPES EMBEDDED IN CONCRETE:
- A. CONCRETE a. PIPES LARGER THAN 1-1/2" DIAMETER SHALL NOTE BE EMBEDDED IN STRUCTURAL CONCRETE
  - EXCEPT WHERE SPECIFICALLY APPROVED BY SEOR. b. PIPES SHALL NOT DISPLACE OR INTERRUPT REINFORCING BARS.
  - c. DO NOT STACK CONDUITS, SPACE EMBEDDED PIPES AND CONDUITS AT A MINIMUM OF 3

DIAMETERS CLEAR FROM OTHER EMBEDDED PIPES/CONDUITS AND REBAR.

#### FOUNDATION

- GEOTECHNICAL INFORMATION AND FOUNDATION DESIGN IS BASED ON THE FOLLOWING: A. DESIGN LATERAL SOIL LOADS ARE IN ACCORDANCE WITH 2022 CBC TABLE 1610.1
  - ALLOWABLE FOUNDATION BEARING AND LATERAL PRESSURES ARE IN ACCORDANCE WITH 2022 CBC TABLE 1806.2

#### 2. SPREAD OR CONTINUOUS FOOTINGS:

		ALLOWABLE LATE	ral resistance <sup>B</sup>
ELEMENT	ALLOWABLE BEARING CAPACITY (PSF) <sup>A</sup>	PASSIVE RESISTANCE (PSF/FT BELOW GRADE) <sup>E</sup>	COHESION (PSF)
ONTINUOUS FOOTINGS	1,500	100	120

- A. THE ALLOWABLE CAPACITY MAY BE INCREASED BY ONE-THIRD WHEN CONSIDERING LOADS OF SHORT DURATION SUCH AS WIND OR SEISMIC FORCES.
- B. THE ALLOWABLE LATERAL RESISTANCE CAN BE TAKEN AS THE SUM OF THE FRICTIONAL RESISTANCE AND PASSIVE RESISTANCE.
- C. THE UPPER 0 FOOT OF SOIL NOT PROTECTED BY PAVEMENT SHALL BE NEGLECTED WHEN
- CALCULATING PASSIVE RESISTANCE. D. COMPACTED FILL SHOULD BE PREPARED AS FOLLOWS: A MIN OF 12" OF COMPACTED FILL SHALL BE

PROVIDED, COMPACTED TO A MIN OF 90 PERCENT MODIFIED PROCTOR IN ACCORDANCE WITH

E. MAY BE DOUBLED FOR ISOLATED POLES PER 2022 CBC 1806.3.4

ASTM D 1557 (2022 CBC 1804.6)

- 4. WHERE NOT SHOWN ON THE DRAWINGS, CONTRACTOR TO PROVIDE FOR DESIGN AND INSTALLATION OF ALL CRIBBING, SHEATHING AND SHORING REQUIRED AND SHALL BE SOLELY RESPONSIBLE FOR ALL EXCAVATION PROCEDURES INCLUDING LAGGING, SHORING, AND PROTECTION OF ADJACENT PROPERTY, STRUCTURES, STREETS, AND UTILITIES IN ACCORDANCE WITH ALL NATIONAL, STATE AND LOCAL SAFETY ORDINANCES.
- 5. CONTRACTOR TO PROVIDE FOR DE-WATERING OF EXCAVATIONS FROM SURFACE WATER, GROUND WATER AND/OR SEEPAGE.
- 6. ALL EXCAVATIONS SHALL BE PROPERLY BACKFILLED. DO NOT PLACE BACKFILL BEHIND RETAINING WALLS BEFORE CONCRETE OR GROUT HAS ATTAINED FULL DESIGN STRENGTH, CONTRACTOR SHALL PROVIDE FOR DESIGN, PERMITS AND INSTALLATION OF SUCH BRACING.
- 7. EXCAVATIONS SHALL BE CUT SQUARE AND SMOOTH, WITH LEVEL BOTTOMS.
- 8. FOOTING BACKFILL AND UTILITY TRENCH BACKFILL WITHIN BUILDING AREA SHALL BE MECHANICALLY COMPACTED IN LAYERS.
- 9. ALL ABANDONED FOOTINGS, UTILITIES, ETC. SHALL BE REMOVED. NEW FOOTINGS MUST EXTEND INTO UNDISTURBED SOILS.

#### DESIGN INFORMATION

#### ROOF LIVE LOADS (2022 CBC SECTION 1603.1.2)

	ROOF LIVE LOA	AD\$		
	OCCUPANCY OR USE	UNIFORM (PSF)	CONC. (LBS)	REFERENCE
	ROOF ORDINARY FLAT, PITCHED AND CURVED ROOFS (THAT ARE NOT OCCUPIABLE)	20		2022 CBC TABLE 1607.1
2.	ROOF SNOW LOADS (2022 CBC SECTION 1603.1.3):			

SNOW DESIGN DATA			
PARAMETER	VALUE	REFERENCE	
GROUND SNOW LOAD	Pg = PROVIDED BY OWNER BASED ON PROJECT LOCATION	ASCE 7-16 7.2	

#### 3. WIND DESIGN DATA (2022 CBC SECTION 1603.1.4):

# WIND DESIGN DATA

PARAMETER	VALUE	REFERENCE
ULTIMATE DESIGN WIND SPEED (3-SEC GUST)	V <sub>ULT</sub> = 115 MPH	2022 CBC FIG. 1609.3
NOMINAL DESIGN WIND SPEED (3-SEC GUST)	V <sub>ASD</sub> = 90 MPH	2022 CBC 1609.3.1
EXPOSURE CATEGORY	С	2022 CBC 1609.4.3
INTERNAL PRESSURE COEFFICIENT:	GCpi = ± 0.18	ASCE 7-16 TABLE 26.13-1
	GCpi = ± 0.18	

CON	MPONENTS & (	CLADDING WIN	D PRESSURES (PSF	=)
LOCATIO	AI.	COMP	ONENT TRIBUTARY ARE	A (SQ FT)
LOCATION	V	10	100	500
	ZONE 1	-48.4	-23.9	-23.9
	ZONE 2e	-48.4	-23.9	-23.9
роог	ZONE 2n	-53.3	-33.7	-28.8
ROOF	ZONE 2r	-48.4	-23.9	-23.9
	ZONE 3e	-65.5	-41.0	-28.8
	ZONE 3r	-53.3	-33.7	-28.8
	ZONE 1	-67.9	-43.5	-43.3
	ZONE 2e	-67.9	-43.5	-43.3
OVEDLIANO	ZONE 2n	-72.8	-53.3	-48.4
OVERHANG	ZONE 2r	-67.9	-43.5	-43.5
	ZONE 3e	-85.0	-60.6	-48.4
	ZONE 3r	-72.8	-53.3	-48.4
\A/ A I I	ZONE 4	-31.3	-27.1	-23.9
WALL	ZONE 5	-38.6	-30.0	-23.9

#### 4. EARTHQUAKE DESIGN DATA (2022 CBC SECTION 1603.1.5):

#### PARAMETER REFERENCE RISK CATEGORY 2022 CBC TABLE 1604.5 SEISMIC IMPORTANCE FACTOR ASCE 7-16 TABLE 1.5-2 $S_S = 2.00$ 1 = 0.65

D (DEFAULT)

 $S_{DS} = 1.60$ 

 $S_{D1} = 0.737$ 

2022 CBC 1613.2.2

2022 CBC 1613.2.4

SITE AND OCCUPANCY PARAMETERS

BUIL	DING PARAMETERS		
PARAMETER	VALUE	REFERENCE	
SEISMIC DESIGN CATEGORY	SDC = D	2022 CBC 1613.2.5	
BASIC SEISMIC FORCE RESISTING SYSTEM	LIGHT FRAME (WOOD) WALLS SHEATHED WITH WOOD STRUCTURAL PANELS RATED FOR SHEAR RESISTANCE	ASCE 7-16 TABLE	
RESPONSE MODIFICATION FACTOR	$R = 6\frac{1}{2}$	12.2-1	
SYSTEM OVERSTRENGTH FACTOR	Ω0 = 3		
DEFLECTION AMPLIFICATION FACTOR	Cd = 4		
DESIGN BASE SHEAR	V = 11.7	ASCE 7-16 12.8.1	
SEISMIC RESPONSE COEFFICIENTS	Cs = 0.246	ASCE 7-16 12.8.1.1	
ANALYSIS PROCEDURE USED	EQUIVALENT LATERAL FORCE	ASCE 7-16 12.8	

#### 5. DEAD LOAD DESIGN DATA

SITE CLASS

SPECTRAL RESPONSE COEFFICIENTS:

DEAD LOADS				
LOCATION	MAX UNIFORM (PSF)	CONC. (LBS)	REFERENCE	
ROOF (ASPHALT SHINGLES) *INCLUDES 4 PSF ALLOWANCE FOR SOLAR PANELS	26*			
WALL (SIDING)	11			

#### EXISTING UNDERGROUND UTILITIES

- 1. THE ARCHITECT AND ENGINEERS ARE NOT RESPONSIBLE FOR THE LOCATIONS OF EXISTING UNDERGROUND UTILITIES WHETHER OR NOT SHOWN ON THE DRAWINGS. DRAWINGS, IF ANY, IS APPROXIMATE. THE CONTRACTOR SHALL EXERCISE EXTREME CAUTION IN EXCAVATING AND TRENCHING ON THE SITE. THE CONTRACTOR SHALL IMMEDIATELY NOTIFY THE ARCHITECT AND/OR STRUCTURAL ENGINEER SHOULD ANY SUCH UNIDENTIFIED CONDITIONS BE DISCOVERED.
- 2. THE CONTRACTOR SHALL BE RESPONSIBLE FOR ANY DAMAGES WHICH MAY RESULT FROM HIS FAILURE TO EXACTLY LOCATE AND PRESERVE ALL EXISTING UNDERGROUND UTILITIES.
- 3. AN UNDERGROUND SERVICE ALERT INQUIRY IDENTIFICATION NUMBER MUST BE OBTAINED AT LEAST TWO WORKING DAYS BEFORE STARTING WORK WITH THIS PERMIT. A. FOR PROJECTS IN SOUTHERN CALIFORNIA TELEPHONE NO. 1-800-422-4133. B. FOR PROJECTS IN NORTHERN CALIFORNIA TELEPHONE NO. 1-800-227-2600.

#### GENERAL

- ALL WORK SHALL CONFORM TO THE MINIMUM STANDARDS OF THE FOLLOWING CODES AND STANDARDS:
- A. 2022 CALIFORNIA BUILDING CODE, PART 2, VOLUME 2 OF 2, AND TITLE 24 C.C.R. 2022 EDITION AND
- LATEST REVISIONS (INCLUDING SUPPLEMENTS AND ERRATA) HEREIN REFERRED TO AS "THE CODE". B. ANY OTHER REGULATING AGENCIES WHICH HAVE AUTHORITY OVER ANY PORTION OF THE WORK,

INCLUDING THE STATE OF CALIFORNIA DIVISION OF OCCUPATIONAL SAFETY AND HEALTH (CAL/OSHA).

- C. CODES & STANDARDS REFERENCED IN THE CODE OR LISTED IN THESE NOTES AND SPECIFICATIONS.
- ALL DRAWINGS ARE CONSIDERED TO BE A PART OF THE CONTRACT DOCUMENTS. THE CONTRACTOR SHALL BE RESPONSIBLE FOR THE REVIEW AND COORDINATION OF ALL DRAWINGS AND SPECIFICATIONS PRIOR TO THE START OF CONSTRUCTION. ANY DISCREPANCIES THAT OCCUR SHALL BE BROUGHT TO THE ATTENTION OF THE ARCHITECT PRIOR TO START OF CONSTRUCTION SO THAT A CLARIFICATION CAN BE ISSUED. ANY WORK PERFORMED IN CONFLICT WITH THE CONTRACT DOCUMENTS OR ANY CODE REQUIREMENTS SHALL BE CORRECTED BY THE CONTRACTOR AT THEIR OWN EXPENSE AND AT NO EXPENSE TO THE OWNER OR
- NOTES AND DETAILS ON DRAWINGS SHALL TAKE PRECEDENCE OVER GENERAL NOTES AND TYPICAL DETAILS. WHERE NO DETAILS ARE GIVEN, CONSTRUCTION SHALL BE AS SHOWN FOR SIMILAR WORK.
- 4. THE CONTRACTOR SHALL VERIFY ALL DIMENSIONS PRIOR TO STARTING CONSTRUCTION. THE ARCHITECT SHALL BE NOTIFIED OF ANY DISCREPANCIES OR INCONSISTENCIES. IN NO INSTANCE SHALL DIMENSIONS BE SCALED FROM THE DRAWINGS.
- 5. SEE ARCHITECTURAL DRAWINGS FOR THE FOLLOWING:
- A. SIZE AND LOCATION OF ALL DOOR AND WINDOW OPENINGS, EXCEPT AS NOTED
- B. SIZE AND LOCATION OF ALL INTERIOR AND EXTERIOR NON-BEARING PARTITIONS UNLESS NOTED AND/OR DETAILED ON THE STRUCTURAL DRAWINGS
- C. SIZE AND LOCATION OF ALL CONCRETE CURBS, EQUIPMENT PADS, PITS, FLOOR DRAINS, SLOPES, DEPRESSED AREAS, CHANGE IN LEVEL, CHAMFERS, GROOVES, INSERTS, ETC
- D. SIZE AND LOCATION OF ALL FLOOR AND ROOF OPENINGS EXCEPT AS SHOWN
- E. FLOOR AND ROOF FINISHES
- F. MISCELLANEOUS DRAINAGE AND WATERPROOFING
- G. ALL FIREPROOFING REQUIREMENTS INCLUDING FIREPROOFING OF STRUCTURAL STEEL
- 6. SEE MECHANICAL, PLUMBING AND ELECTRICAL DRAWINGS FOR THE FOLLOWING:

H. DIMENSIONS NOT SHOWN ON STRUCTURAL DRAWINGS

- A. PIPE RUNS, SLEEVES, HANGERS, TRENCHES, WALL AND SLAB OPENINGS, ETC., EXCEPT AS SHOWN OR NOTED.
- B. ELECTRICAL CONDUIT RUNS, BOXES, OUTLETS IN WALLS AND SLABS. C. CONCRETE INSERTS FOR ELECTRICAL, MECHANICAL OR PLUMBING FIXTURES.
- D. SIZE AND LOCATION OF MACHINE OR EQUIPMENT BASES, ANCHOR BOLTS FOR MOTOR MOUNTS.
- 8. THE CONTRACT STRUCTURAL DRAWINGS AND SPECIFICATIONS REPRESENT THE FINISHED STRUCTURE. THEY DO NOT INDICATE THE METHOD OF CONSTRUCTION. THE CONTRACTOR SHALL PROVIDE ALL MEASURES NECESSARY TO PROTECT THE STRUCTURE DURING CONSTRUCTION. SUCH MEASURES SHALL INCLUDE, BUT NOT BE LIMITED TO, BRACING, SHORING FOR LOADS DUE TO CONSTRUCTION EQUIPMENT ETC. THE CONTRACTOR IS RESPONSIBLE FOR PROVISION OF TEMPORARY SHORING AND OTHER CONSTRUCTION AIDS, INCLUDING ALL ENGINEERING OF SUCH SYSTEMS, FOR TEMPORARY SUPPORT OF NEW AND/OR EXISTING STRUCTURAL ELEMENTS AS REQUIRED FOR ERECTION AND OTHER CONTRACTOR'S MEANS AND METHODS OF CONSTRUCTION (UNO). OBSERVATION VISITS TO THE SITE BY THE STRUCTURAL ENGINEER SHALL NOT INCLUDE INSPECTION OF THE ABOVE ITEMS OR CONCERN CONSTRUCTION MEANS AND METHODS OR CONSTRUCTION
- BACKFILL SHALL NOT BE PLACED BEHIND EXTERIOR AND INTERIOR RETAINING WALLS UNTIL THE CONCRETE / CMU HAS ACHIEVED FULL DESIGN STRENGTH. FOR BRACED WALLS SUPPORTED BY STRUCTURAL DIAPHRAGMS BACKFILL SHALL NOT BE PLACED BEHIND THE WALL UNTIL THE DIAPHRAGM HAS BEEN INSTALLED, AND FOR CONCRETE DIAPHRAGMS, HAS ACHIEVED FULL DESIGN STRENGTH.
- 10. THE CONTRACT STRUCTURAL DRAWINGS SHOW THE BUILDING IN ITS FINAL INTENDED POSITION, CONTRACTOR SHALL MAKE PROVISIONS IN THE LAYOUT OF THE BUILDING TO TAKE INTO ACCOUNTS SHRINKAGE, CREEP, SHORTENING, ETC..
- 11. OPENINGS, POCKETS, ETC., LARGER THAN 6" SHALL NOT BE PLACED IN CONCRETE SLABS, DECKS, WALLS, UNLESS SPECIALLY DETAILED ON THE STRUCTURAL DRAWINGS. NOTIFY THE STRUCTURAL ENGINEER WHEN DRAWINGS BY OTHERS SHOW OPENINGS, POCKETS, ETC., LARGER THAN 6" NOT SHOWN ON THE STRUCTURAL DRAWINGS, BUT WHICH ARE LOCATED IN STRUCTURAL MEMBERS.
- 12. ASTM SPECIFICATIONS ON THE DRAWINGS SHALL BE THE VERSION REFERENCED IN CHAPTER 35 OF THE CODE OR AS REFERENCED IN THE APPLICABLE DESIGN STANDARD.
- 13. CONTRACTOR SHALL INVESTIGATE SITE DURING CLEARING AND EARTHWORK OPERATIONS FOR FILLED EXCAVATIONS OR BURIED STRUCTURES, SUCH AS CESSPOOLS, CISTERNS, FOUNDATIONS, ETC. IF ANY SUCH STRUCTURES ARE FOUND, THE STRUCTURAL ENGINEER AND GEOTECHNICAL ENGINEER SHALL BE NOTIFIED
- 14. CONSTRUCTION MATERIAL SHALL BE SPREAD OUT IF PLACED ON FRAMED ROOF OR FLOOR. LOAD SHALL NOT EXCEED THE DESIGN LIVE LOAD PER SQUARE FOOT. THE CONTRACTOR TO DESIGN AND PROVIDE ADEQUATE SHORING AND/OR BRACING WHERE STRUCTURE HAS NOT ATTAINED DESIGN STRENGTH.
- 15. CONTRACTOR SHALL COORDINATE SHORING WITH DRAWINGS OF RECORD TO INSURE PROVISIONS FOR POCKETS, BLOCKOUTS, OFFSETS, STEPPED FOOTINGS AND ANY OTHER ITEMS AFFECTED BY THE SHORING
- 16. AN UNDERGROUND SERVICE ALERT INQUIRY IDENTIFICATION NUMBER MUST BE OBTAINED AT LEAST TWO WORKING DAYS BEFORE STARTING WORK WITH THIS PERMIT. A. FOR PROJECTS IN SOUTHERN CALIFORNIA TELEPHONE NO. 1-800-422-4133.
- B. FOR PROJECTS IN NORTHERN CALIFORNIA TELEPHONE NO. 1-800-227-2600.

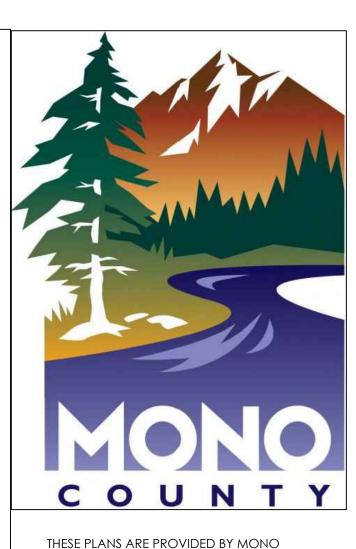
17. EDGE OF SLAB DIMENSIONS TO BE COORDINATED AND VERIFIED BY THE GENERAL CONTRACTOR PRIOR TO

#### DIMENSIONS

- 1. DIMENSIONS SHALL BE DEFINED TO INCLUDE BOTH HORIZONTAL DIMENSIONS AND VERTICAL DIMENSIONS
- (ELEVATIONS). 2. WRITTEN DIMENSIONS SHALL TAKE PRECEDENCE OVER SCALED DRAWINGS.

4. SEE ARCHITECTURAL AND/OR CIVIL DRAWINGS FOR FINISH FLOOR ELEVATIONS.

- 3. SEE ARCHITECTURAL DRAWINGS FOR DIMENSION NOT NOTED ON STRUCTURAL DRAWINGS.
- 5. SEE ARCHITECTURAL DRAWINGS FOR ALL TOP OF SHEATHING AND/OR ROOF ELEVATIONS.
- 6. THE CONTRACTOR SHALL REVIEW AND VERIFY ALL DIMENSIONS PRIOR TO STARTING CONSTRUCTION. THE ARCHITECT SHALL BE NOTIFIED IMMEDIATELY OF ANY DISCREPANCIES OR INCONSISTENCIES.



COUNTY AS PART OF THE PRE-APPROVED ADU PROGRAM AND ARE PUBLIC DOMAIN. THERE CANNOT BE A CHARGE TO PROVIDE THESE PLANS. NO ALTERATIONS TO THESE PLANS ARE ALLOWED. ALL ALTERATIONS MUST BE DONE UNDER A SEPARATE PERMIT ONCE THE BUILDING PERMIT FOR THE ADU HAS BEEN ISSUED AND FINAL INSPECTION COMPLETED. IF YOU DO NOT HAVE THE CONSTRUCTION KNOWLEDGE AND EXPERIENCE TO CONTRUCT THESE PLANS WITHOUT FURTHER DETAILS, IT IS RECOMMENDED YOU HIRE A CONTRACTOR TO DO THE CONSTRUCTION. THE CITY WILL NOT PROVIDE FURTHER INFORMATION OR DETAILS AND BUILDING INSPECTORS WILL NOT PROVIDE STEP BY STEP INSTRUCTIONS IN THE FIELD.

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NOVEMBER 20, 2023

#### SHOP FABRICATION

- 1. SHOP FABRICATION REQUIRES SPECIAL INSPECTION IN ACCORDANCE WITH CODE SECTION 1704.2.5. EXCEPTION: SHOP SPECIAL INSPECTIONS ARE NOT REQUIRED WHEN WORK IS DONE ON THE PREMISES OF FABRICATOR REGISTERED AND APPROVED TO PERFORM SUCH WORK IN ACCORDANCE WITH CODE SECTION 1704.2.5.1. THE FOLLOWING ACCREDITATIONS MEET THE REQUIREMENTS OF THIS EXCEPTION: A. WOOD BUILDING
  - a. WOOD STRUCTURAL PANELS (SHEATHING) SHALL BE IDENTIFIED BY THE APA TRADEMARK.
  - b. TRUSS MANUFACTURER SHALL BE FABRICATED IN A SHOP WITH CURRENT FABRICATOR COMPLIANCE CERTIFICATES PER CBC SECTION 1704.2.5.1.

#### REQUIRED VERIFICATION AND INSPECTIONS

CONCRETE CON CODE TABLE	_	_	ON	
SPECIAL INSPECTION OR TEST	CONTINUOUS	PERIODIC	REFERENCED STANDARD	CBC REFERENCE
1. INSPECT REINFORCMENT AND VERIFY PLACEMENT.	_	Х	ACI 318: CH 20, 25.2, 25.3, 26.6.1-26.6.3	1908.4
<ul> <li>2. REINFORCING BAR WELDING:</li> <li>a. VERIFY WELDABILITY OF REINFORCING BARS OTHER         THAN ASTM A706</li> <li>b. INSPECT SINGLE-PASS FILLET WELDS, MAXIMUM <sup>5</sup>/<sub>6</sub>"         AND</li> <li>c. INSPECT ALL OTHER WELDS</li> </ul>		X X	AWS D1.4 ACI 318: 26.6.4	_
3. INSPECT ANCHORS CAST IN CONCRETE		Х	ACI 318: 17.8.2	_
4. INSPECT ANCHORS POST-IONSTALLED IN HARDENED CONCRETE MEMBERS (b)  (a) ADHESIVE ANCHORS INSTALLED IN HORIZONTALLY OR UPWARDLY INCLINED ORIENTATIONS TO RESIST SUSTAINED TENSION LOADS  (b) MECHANICAL ANCHORS AND ADHESIVE ANCHORS NOT DEFINED IN 4.a.	Х	Х	ACI 318: 17.8.2.4 ACI 318: 17.8.2	_
5. VERIFY USE OF REQUIRED MIX DESIGN	_	Х	ACI 318: CH. 19, 26.4.3, 26.4.4	1904.1, 1904.2, 1908.2, 1908.3
6. PRIOR TO CONCRETE PLACEMENT, FABRICATE SPECIMENS FOR STRENGTH TESTS, PERFORM SLUMP AND AIR CONTENT TESTS, AND DETERMINE THE TEMPERATURE OF THE CONCRETE.	Χ		ASTM C 172 ASTM C 31 ACI 318: 26.5, 26.12	1908.10
8. VERIFY MAINTENANCE OF SPECIFIED CURING TEMPERATURE AND TECHNIQUES.		Х	ACI 318: 26.5.3- 26.5.5	1908.9
12. INSPECT FORMWORK FOR SHAPE, LOCATION, AND DIMENSIONS OF THE CONCRETE MEMBER BEING FORMED.	_	Х	ACI 318: 26.11.1.2 (b)	

INDICATES INSPECTION REQ'D FOR ALL CONCRETE WORK

INDICATES INSPECTION REQ'D FOR 3,000 PSI AND GREATER CONCRETE WORK ONLY

WOOD CODE CHAPTER 17 AND REFERENCED 2018 NDS AND AWG	SDPV	VS-201	75
SPECIAL INSPECTION OR TEST	CONTINUOUS	PERIODIC	CBC REFERENCE
1. HIGH LOAD DIAPHRAGM WOOD STRUCTURAL PANELS - VERIFY THE FOLLOWING:  - GRADE  - THICKNESS  - NOMINAL SIZE OF FRAMING MEMBERS AT ADJOINING PANEL EDGES  - NAIL OR STAPLE DIAMETER AND LENGTH  - NUMBER OF FASTENER LINES  - SPACING BETWEEN FASTENERS IN EACH LINE  - SPACING BETWEEN FASTENERS AT EDGE MARGINS	_	X	1705.5.1 2306.2
3. WOOD LATERAL FORCE-RESISTING SYSTEM WITH FASTENER SPACING OF THE SHEATHING LESS THAN OR EQUAL TO 4" OC.  - WOOD SHEAR WALLS  - WOOD DIPHRAGMS  - DRAG STRUTS  - SHEAR PANELS  - HOLD-DOWNS	_	Х	1705.12.2
4. WOOD LATERAL FORCE-RESISTING SYSTEM WITH FASTENER SPACING OF THE SHEATHING GREATER THAN 4" OC (NOT REQUIRED)  - WOOD SHEAR WALLS  - WOOD DIAPHRAGMS  - DRAG STRUTS  - SHEAR PANELS  - HOLD-DOWNS			1705.12.2

SOILS CODE TABLE 1705.6		
SPECIAL INSPECTION OR TEST	CONTINUOUS	PERIODIC
1. VERIFY MATERIALS BELOW SHALLOW FOUNDATIONS ARE ADEQUATE TO ACHIEVE THE DESIGN BEARING CAPACITY		Х
2. VERIFY EXCAVATIONS ARE EXTENDED TO PROPER DEPTH AND HAVE REACHED PROPER MATERIAL.		Х
3. PERFORM CLASSIFICATION AND TESTING OF COMPACTED FILL MATERIALS		Χ
4. VERIFY USE OF PROPER MATERIALS, DENSITIES, AND LIFT THICKNESSES DURING PLACEMENT AND COMPACTION OF COMPACTED FILL.	Х	_
5. PRIOR TO PLACEMENT OF COMPACTED FILL, INSPECT SUBGRADE AND VERIFY THAT SITE HAS BEEN PREPARED PROPERLY.		Х

#### STRUCTURAL COMPOSITE LUMBER

- STRUCTURAL COMPOSITE LUMBER SHALL HAVE STRUCTURAL CAPACITIES AND DESIGN PROVISIONS ESTABLISHED AND MONITORED IN ACCORDANCE WITH ASTM D5456 PER CODE SECTION 2303.1.10
- 2. STRUCTURAL COMPOSITE LUMBER SHALL BE IDENTIFIED WITH THE MANUFACTURER'S NAME AND/OR LOGO, THE NAME AND OR LOGO OF THE INSPECTION AGENCY (PFS CORP , INTERTEK, OR APA-EWS) AND THE EVALUATION REPORT NUMBER, THE PLANT NUMBER, PRODUCT DESIGNATION OR TYPE, PRODUCTION DATE, AND GRADE.
- 3. INSTALLATION, FABRICATION, IDENTIFICATION AND CONNECTION DETAILS SHALL BE IN ACCORDANCE WITH THE APPLICABLE ICC REPORT.
- 4. LAMINATED VENEER LUMBER (LVL)
  - A. LAMINATED VENEER LUMBER SHALL BE ONE OF THE FOLLWING:
  - a. MICROLLAM LAMINATED VENEER LUMBER GRADE 2.0E-2750F<sub>b</sub> WS, MANUFACTURED BY WEYERHAEUSER IN ACCORDANCE WITH ICC-ESR 1387.
  - b. REDLAM LAMINATED VENEER LUMBER GRADE 2.0E DF/LP/WH, MANUFACTURED BY REDBUILT IN ACCORDANCE WITH ICC-ESR 2993.
  - B. IDENTIFICATION: IN ADDITION TO THE IDENTIFICATION LISTED FOR STRUCTURAL COMPOSITE LUMBER ABOVE, LVL SHALL BE IDENTIFIED WITH THE SPECIES OR SPECIES GROUP.
- 5. PARALLEL STRAND LUMBER (PSL)
- A. PARALLEL STRAND LUMBER SHALL BE PARALLAM PARALLEL STRAND LUMBER GRADE 2.0E DF, MANUFACTURED BY WEYERHAEUSER IN ACCORDANCE WITH ICC-ESR 1387.
- 6. LAMINATED STRAND LUMBER (LSL)
- A. LAMINATED STRAND LUMBER SHALL BE TIMBERSTRAND LAMINATED STRAND LUMBER GRADE 1.55E, MANUFACTURED BY WEYERHAEUSER IN ACCORDANCE WITH ICC-ESR 1387.
- 7. PRODUCTS FROM OTHER MANUFACTURER'S MAY BE USED WITH EQUAL OR GREATER CAPACITIES. REQUESTS FOR PRODUCT SUBSTITUTION SHALL FOLLOW THE REQUIREMENTS LISTED IN THE SUBMITTALS SECTION.

#### PRE-FABRICATED WOOD TRUSS NOTES

- 1. THE DESIGN OF METAL PLATE CONNECTED WOOD TRUSSES SHALL BE IN ACCORDANCE WITH THE FOLLOWING A. CODES AND STANDARDS:
  - a. THE GOVERNING CODE LISTED IN THE PROJECT GENERAL NOTES
  - b. MINIMUM DESIGN LOADS FOR BUILDINGS AND OTHER STRUCTURES (ASCE 7-16) c. NATIONAL DESIGN STANDARD FOR WOOD CONSTRUCTION AND SUPPLEMENT (ANSI/AWC NDS-2018)
  - d. SPECIAL DESIGN PROVISIONS FOR WIND & SEISMIC (AWC SDPWS-2015)
  - e. THE NATIONAL DESIGN STANDARD FOR METAL PLATE CONNECTED WOOD TRUSS

#### CONSTRUCTION (ANSI/TPI 1-2014) B. DESIGN CRITERIA:

a. Trusses shall be designed for the following minimum vertical loads and other LOADS INDICATED ON THE CONSTRUCTION DOCUMENTS (ATTIC MECHANICAL UNITS, ETC.)

ROOF TRUSS LOADING: TOP-CHORD DEAD LOAD: 17.2 PSF (15.8 PSF SUPERIMPOSED)

BOT CHORD DEAD LOAD: 6.5 PSF (5.4 PSF SUPERIMPOSED) ROOF - LIVE LOAD: TOP CHORD - SNOW LOAD: PER PLAN AND SPECIFIC LOCATION OWNER/CONTRACTOR TO PROVIDE TO TRUSS MANUF.

LIVE LOAD ONLY

L/240 L/360

b. ( ) INDICATES HORIZONTAL SEISMIC/WIND LOAD ON COLLECTOR TRUSSES. THE TRUSS DESIGNER SHALL DESIGN FOR THE TRUSSES FOR THE INDICATED HORIZONTAL LOAD ACTING IN BOTH THE TOP AND BOTTOM TRUSS CHORDS AND FOR THE TRANSFER OF THE FORCE TO THE CHORDS THROUGH THE WEB.

#### CONTRACTOR REQUIREMENTS:

- A. THE CONTRACTOR SHALL MEET ALL THE REQUIREMENTS LISTED IN SECTION 2.3.4 OF ANSI/TPI 1-2014
- INCLUDING THE FOLLOWING: a. MEANS AND METHODS: THE CONTRACTOR IS RESPONSIBLE FOR ALL MEANS AND METHODS, TECHNIQUES, SEQUENCES, PROCEDURES, PROGRAMS AND SAFETY IN CONNECTION WITH THE RECEIPT, STORAGE, HANDLING, INSTALLATION, RESTRAINING, AND BRACING OF THE TRUSSES. REFER TO THE GUIDE TO GOOD PRACTICE FOR HANDLING, INSTALLING, RESTRAINING &
- BRACING OF METAL PLATE CONNECTED WOOD TRUSSES (BCSI-B1) b. TRUSS INSTALLATION SHALL COMPLY WITH INSTALLATION TOLERANCES SHOWN IN BCSI-B1
- c. TEMPORARY INSTALLATION RESTRAINT/BRACING FOR THE TRUSS SYSTEM AND THE PERMANENT TRUSS SYSTEM SHALL BE INSTALLED IN ACCORDANCE WITH BCSI-B2.
- d. CONSTRUCTION LOADING ON TRUSSES SHALL BE DONE IN ACCORDANCE WITH BCSI-B4.
- e. TRUSS DAMAGE, JOBSITE MODIFICATIONS & INSTALLATION ERRORS SHALL BE BROUGHT TO THE IMMEDIATE ATTENTION OF THE EOR AND THE TRUSS DESIGNER, REFERENCE BCSI-B5.
- f. SUBMIT THE DRAWINGS FROM THE TRUSS DESIGNER/MANUFACTURER TO THE BUILDING DEPARTMENT PRIOR TO FABRICATION FOR APPROVAL. A COPY OF THIS SUBMITTAL SHALL BE PROVIDED TO THE COUNTY BUILDING DEPARTMENT OF RECORD FOR REVIEW OF GENERAL CONFORMANCE TO THE DESIGN INTENT. THE CONTRACTOR SHALL INCORPORATE THE TIME REQUIRED FOR THE SUBMITTAL TO BE REVIEWED, STAMPED AND APPROVED BY ALL PARTIES AND SHALL HAVE THE APPROVED TRUSS PLANS ON THE JOB SITE PRIOR TO FOUNDATION INSPECTION.

#### 3. TRUSS DESIGNER REQUIREMENTS:

- A. THE TRUSS DESIGNER SHALL MEET ALL THE REQUIREMENTS LISTED IN SECTION 2.3.5 OF ANSI/TPI 1-2014 INCLUDING THE FOLLOWING:
  - a. Truss designer shall supervise the preparation of the truss design drawings which SHALL CONTAIN THE INFORMATION LISTED IN SECTION 2.3.5.5 OF ANSI/TPI 1-2014. THIS INCLUDES ALL TRUSS TO TRUSS CONNECTIONS, AND DETAILS FOR THE "CALIFORNIA FILL" AREAS.
  - b. TRUSS DESIGNER SHALL COMPLY WITH THE REFERENCED CODE AND DESIGN CRITERIA ABOVE.
- c. Truss designer shall show all hangers, bracing and restraints as well as method OF RESTRAINT/BRACING ON THE TRUSS PLANS TO MEET ANY SEISMIC AND WIND REQUIREMENTS OF THE CODE.
- d. SUBMIT TRUSS DESIGN DRAWINGS INCLUDING ALL RELEVANT DETAILS FOR THE FABRICATION OF THE TRUSSES AND PREPARE CALCULATIONS. ALL PLANS, DETAILS AND CALCULATIONS FOR THE TRUSSES SHALL BE STAMPED AND SIGNED BY A LICENSED PROFESSIONAL ENGINEER (CIVIL OR STRUCTURAL), LICENSED TO PRACTICE IN THE STATE OF CALIFORNIA.

#### WOOD STRUCTURAL PANELS (SHEATHING)

1. WOOD STRUCTURAL PANELS SHALL MEET THE FOLLOWING MINIMUM STANDARDS EXCEPT WHERE OTHERWISE NOTED:

		WOO	D STRUCTUF	RAL PANEL PRO	OPERTIES		
USE	PLY	BOND CLASSIFICATION <sup>C</sup>	SHEATHING GRADE	PERFORMANCE RATING	SPAN RATING	RATING <sup>B</sup>	REFERENC
ROOF	5	EXPOSURE 1	refer to ty	APA	2019 CB( 2303.1.5		
FLOOR	5	EXPOSURE 1	AP		APA	(DOC PS 1 OR PS 2-1	
WALL D	5	EXPOSURE 1	REFER TO TY	PICAL SHEAR WALL	SCHEDULE	APA	

#### TABLE NOTES:

- A. WOOD STRUCTURAL PANELS SHALL CONFORM TO THE REQUIREMENTS FOR THEIR TYPE IN ACCORDANCE WITH THE FOLLOWING VOLUNTARY STANDARDS BY THE ENGINEERED WOOD ASSOCIATION (APA):
- a. VOLUNTARY PRODUCT STANDARD, STRUCTURAL PLYWOOD, PS 1-09
- b. VOLUNTARY PRODUCT STANDARD, PERFORMANCE STANDARD FOR WOOD-BASED STRUCTURAL-USE PANELS, PS 2-10
- B. WOOD STRUCTURAL PANELS SHALL BE IDENTIFIED BY THE APA TRADEMARK INDICATING CONFORMANCE TO THE APPLICABLE VOLUNTARY STANDARD
- C. WHERE PANELS ARE EXPOSED TO REPEATED WETTING AND REDRYING, LONG-TERM EXPOSURE TO WEATHER, OR CONDTIONS OF SIMILAR SEVERITY, "EXTERIOR" APA RATED PLYWOOD SHEATHING SHALL BE USED. C-D "EXPOSURE 1" APA RATED PLYWOOD SHEATHING (CDX) SHALL NOT BE USED FOR CONDITIONS INVOLVING LONG-TERM EXPOSURE TO WEATHER.
- a. EXCEPTION: WOOD STRUCTURAL PANEL ROOF SHEATHING EXPOSED TO THE OUTDOORS ON THE UNDERSIDE IS PERMITTED TO BE "EXPOSURE 1" TYPE.
- b. WOOD STRUCTURAL PANELS TO BE USED AS SIDING SHALL COMPLY WITH ANSI/APA PRP-210.
- D. ORIENTED STRAND BOARD (OSB) WITH EQUIVALENT CLASSIFICATION AND RATINGS MAY BE USED IN LIEU OF PLYWOOD FOR WOOD STRUCTURAL PANEL WALL SHEATHING.

#### 2. TRANSPORTATION, STORAGE, AND HANDLING:

A. TRANSPORTATION

a. IN TRANSPORTING PANELS ON OPEN TRUCK BEDS, COVER THE BUNDLES WITH A TARP.

#### B. STORAGE

- a. ALWAYS STORE THE PANELS UNDER COVER WHENEVER POSSIBLE
- b. WHEN STORING PANELS OUTSIDE STACK THEM ON A LEVEL SURFACE ON TOP OF STRINGERS OR OTHER BLOCKING, THREE STRINGERS MINIMUM.
- c. NEVER LEAVE PANELS IN CONTACT WITH THE GROUND
- d. COVER THE STACK WITH A PLASTIC TARP, ENSURING THAT THE BUNDLE IS WELL VENTILATED TO PREVENT MILDEW.
- e. IF MOISTURE ABSORPTION IS EXPECTED, CUT THE STEEL BAND TO PREVENT DAMAGE
- f. KEEP SANDED OR OTHER APPEARANCE GRADE PANELS AWAY FROM HIGH TRAFFIC AREAS

#### C. HANDLING

- a. ALWAYS PROTECT ENDS AND EDGES, ESPECIALLY TONGUE AND GROOVE PRODUCTS, FROM PHYSICAL DAMAGE.
- b. ACCLIMATIZE THE PANELS FOR 24 HOURS MINIMUM BEFORE INSTALLATION BY STANDING THE PANELS ON EDGE WITH A GAP BETWEEN EACH TO ALLOW FOR AIR CIRCULATION OR PER MANUFACTURER'S RECOMMENDATIONS.

#### 3. PLYWOOD ORIENTATION

- A. ROOF AND FLOOR SHEATHING SHALL BE LAID WITH THE GRAIN OF THE OUTER PILES PERPENDICULAR TO THE FRAMING MEMBERS, SHALL BE CONTINUOUS OVER 2 JOIST BAYS MINIMUM AND END JOINTS SHALL BE JOINED OVER FRAMING AND STAGGERED, LEAVE A ½" GAP BETWEEN PANELS TO ALLOW FOR PANEL EXPANSION UNLESS RECOMMENDED OTHERWISE BY THE PANEL MANUF. REFER TO SPECIFIC DETAILS IN THE DRAWINGS FOR FURTHER PARAMETERS.
- B. PLYWOOD OR OSB WALL SHEATHING MAY BE APPLIED VERTICALLY OR HORIZONTALLY. ALL END JOINTS

#### BE JOINED OVER FRAMING AND STAGGERED. 4. BLOCKING:

- A. ROOF: ALL ROOF SHEATHING SHALL BE BLOCKED UNLESS SPECIFICALLY ALLOWED ON PLANS. WHERE PERMITTED TO BE UNBLOCKED, ALL UNBLOCKED EDGES SHALL BE TONGUE AND GROOVE.
- B. ALL FLOOR SHEATHING SHALL BE BLOCKED UNLESS SPECIFICALLY ALLOWED ON PLANS. WHERE PERMITTED TO BE UNBLOCKED, ALL UNBLOCKED EDGES SHALL BE TONGUE AND GROOVE.
- C. WALLS: ALL SHEAR WALLS SHALL BE FULLY BLOCKED AT PLYWOOD EDGES.

#### FASTENERS

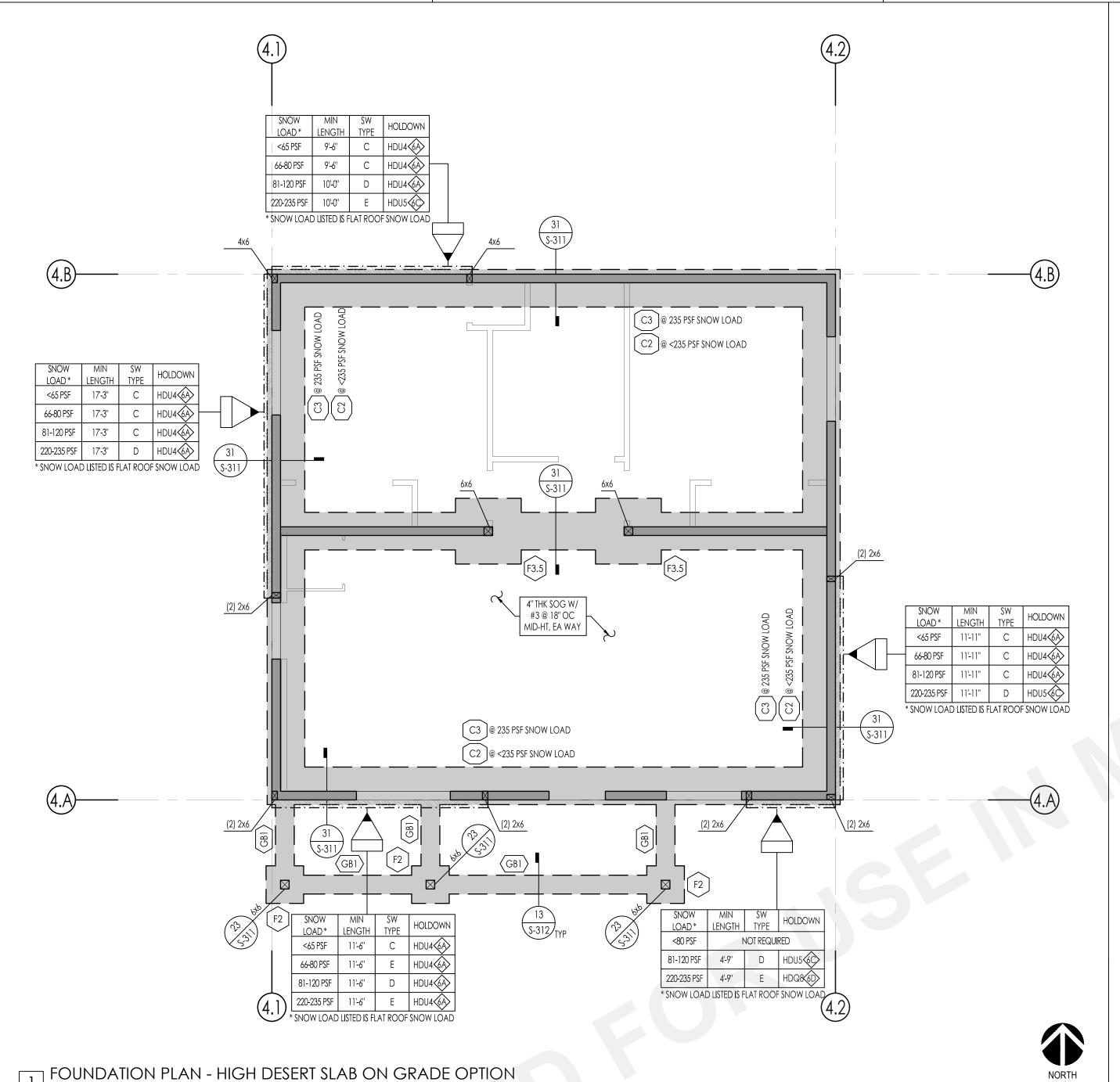
- A. USE SHEATHING NAILS SAME GAUGE AS COMMON WIRE NAILS WITH LENGTHS AT LEAST EQUAL TO SHEATHING THICKNESS PLUS REQUIRED PENETRATION PER AWS SDPWS TABLE 4.2A OR 4.3A (AS
- B. EQUIVALENT PNEUMATIC DRIVE NAILS OR STAPLES MAY BE USED IF FASTENER MANUFACTURER HAS RECEIVED ICC OR IAPMO APPROVAL FOR THE INTENDED US. FASTENERS TO BE SUBSTITUTED SHALL BE EQUIVALENT IN LATERAL AND WITHDRAWAL STRENGTH TO THE SIZE OF COMMON NAIL SPECIFIED.
- C. USE OF MACHINE NAILING IS SUBJECT TO A SATISFACTORY JOB SITE DEMONSTRATION FOR EACH PROJECT AND THE APPROVAL BY THE PROJECT ARCHITECT OR STRUCTURAL ENGINEER. THE APPROVAL IS SUBJECT TO CONTINUED SATISFACTORY PERFORMANCE. MACHINE NAILING WILL NOT BE APPROVED IN 5/16" PLYWOOD OR OSB SHEATHING. IF NAIL HEADS PENETRATE THE OUTER PLY MORE T HAN WOULD BE NORMAL FOR A HAND HAMMER OR IF MINIMUM ALLOWABLE EDGE DISTANCES ARE NOT MAINTAINED, THE PERFORMANCE WILL BE DEEMED UNSATISFACTORY.
- D. TYPICAL NAILING SHALL BE 10D AT 6" O.C. AT ALL SUPPORTED EDGES AND OVER SHEAR WALLS, AND 10D AT 12" O.C. AT ALL INTERMEDIATE SUPPORTS, UNLESS OTHERWISE NOTED, SEE PLANS AND REFER TO SHEAR WALL SCHEDULE.

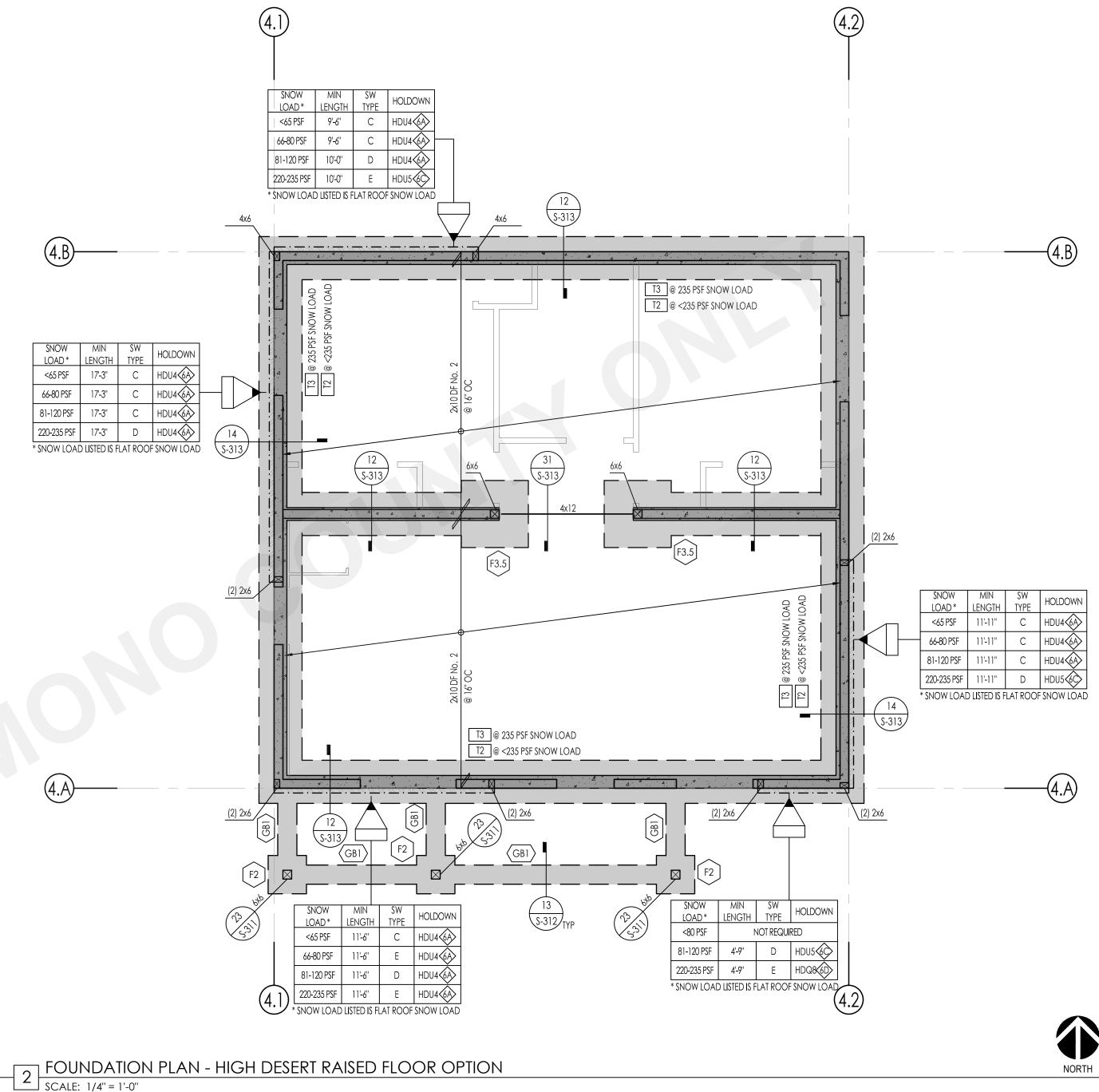


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NOVEMBER 20, 2023





SCHEDULES

HOLDOWN SCHEDULE SPECIFIES HOLDOWN/ 1x INDICATES HOLDOWN/ STRAP DETAIL INDICATES SIMPSON SSTB HOLDOWN TO: 12/S-311 CONC FOUNDATION: CONC STEM WALL: 22/S-311 INDICATES SIMPSON SB HOLDOWN TO: 14/S-311 CONC FOUNDATION: 24/S-311 CONC STEM WALL:

SYMBOL LEGEND

SEE SCHEDULE ON 13/S-402

INDICATES SHEAR WALL TYPE AND LENGTH,

INDICATES CONCRETE WALL PER DETAIL 22/S-311

		CONTINUOUS FO	OOTING SCHEDUL	.E	
MARK	WIDTH	MIN EMBED BELOW LOWEST PAD GRADE	LONG REINF	TRANS REINF	DETAIL
C2	2'-0"	SEE NOTE 16	(3) #5 T&B	#3 @ 12" OC, BOT	31/\$-311
C3	3'-0"	SEE NOTE 16	(4) #5 T&B	#3 @ 12" OC, BOT	31/S-311

PAD GRADE  (CR) 1'0" SEE NOTE 14 (2) #4 @ TOP #2 @ 24" OC 13		GRADE BEAM SCHEDULE							
CP1 1'0" 1'0" SEE NOTE 14 (2) #4 @ TOP #3 @ 24" OC 13	ſΑΙL	DETA	TRANS REINF	LONG REINF	BELOW LOWEST	THICKNESS	WIDTH	TYPE	_
	-312	13/\$-3	#3 @ 24" OC	(2) #4 @ TOP (2) #4 @ BOT	SEE NOTE 16	1'-0"	1'-0"	(GB1)	1

			T-FOOTING	SCHEDULE		
TYPE	WIDTH	THICKNESS	MIN EMBED BELOW LOWEST PAD GRADE	LONG REINF	TRANS REINF	DETAIL
T2	2'-0"	1'-0"	SEE NOTE 16	(3) #4 @ TOP (3) #4 @ BOT	#3 @ 24" OC	13/S-312
ТЗ	3'-0"	1'-0"	SEE NOTE 16	(4) #4 @ TOP (4) #4 @ BOT	#3 @ 24" OC	13/S-312

			PAI	O FOOTING SCHEE	DULE		
TYPE	WIDTH	LENGTH	THICKNESS	MIN EMBED BELOW LOWEST PAD GRADE	TOP REINF	BOT REINF	DETAIL
F2	2'-0"	2'-0"	1'-6"	SEE NOTE 16	(3) #5, EW	(3) #5, EW	11/S-312
F3.5	3'-6"	3'-6"	1'-6"	SEE NOTE 16	(4) #5, EW	(4) #5, EW	11/S-312

NOTE: FOOTING MUST BE DEEPENED LOCALLY PER DETAIL 32/S-301 TO ACCOMMODATE AB

#### FOUNDATION PLAN NOTES

1. REFER TO THE FOLLOWING SHEETS FOR TYPICAL DETAILS: S-101 SYMBOLS AND ABBREVIATIONS STRUCTURAL GENERAL NOTES TESTING AND INSPECTION S-103 TYPICAL CONCRETE DETAILS S-301

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

- TYPICAL WOOD DETAILS S-401 - S-404 2. SEE ARCHITECTURAL DRAWINGS FOR FINISHED FLOOR ELEVATIONS. REFERENCE FINISHED FLOOR
- ELEVATION = 0'-0" COORESPONDS TO FINISHED FLOOR ELEVATION. 3. ALL DIMENSIONS SHOWN ARE FROM FACE OF CONCRETE/MASONRY, FACE OF SHEATHING, OR
- 4. FOR ANY DIMENSIONAL INFORMATION NOT SHOWN, SEE ARCHITECTURAL DRAWINGS.

CENTERLINE OF COLUMN. ALL COLUMNS ARE CENTERED IN STUD WALLS, UNO.

- 5. SEE ARCHITECTURAL DRAWINGS FOR ANY EMBEDDED ITEMS AND ALL EXTERIOR CONCRETE PAVE
- 6. SEE PLANS AND ARCHITECTURAL DRAWINGS FOR DEPRESSIONS AND/OR SLOPES IN CONCRETE
- 7. SEE ARCHIECTURAL DRAWINGS FOR SIZE AND LOCATION OF ALL DOOR AND WINDOW OPENINGS IN BEARING AND NON-BEARING WALLS.
- 8. SEE ARCHITECTURAL DRAWINGS FOR LOCATION OF INTERIOR NON-BEARING PARTITIONS.
- 9. SEE ARCHITECTURAL, PLUMBING, MECHANICAL AND ELECTRICAL DRAWINGS FOR ADDITIONAL EMBEDDED ITEMS AND SLAB PENETRATIONS.
- 10. FOR TYPICAL SLAB-ON-GRADE REQUIREMENTS, INCLUDING SLAB JOINTS, SEE DETAIL 31/S-301.
- 11. ALL POSTS IN 4" WALLS SHALL BE 4x4, UNLESS NOTED OTHERWISE ALL POSTS IN 6" WALLS SHALL BE 6x6, UNLESS NOTED OTHERWISE
- 12. PLATE WASHERS ARE REQUIRED FOR ALL SILL PLATE ANCHOR BOLTS. REFER TO 34/S-402 FOR PLATE WASHER REQUIREMENTS AT SHEAR WALLS.

#### 13. ALL HOLDOWN ANCHOR NUTS SHALL BE TIGHTENED JUST PRIOR TO COVERING.

14. ALL BOLT HOLES IN WOOD MEMBERS, SHALL BE DRILLED A MAXIMUM OF 1/16" OVERSIZED. INSPECTOR TO VERIFY.

15. THE BUILDING PAD SHALL BE PREPARED AS OUTLINED IN DETAIL 53/S-301. THE BUILDING OFFICIAL SHALL REQUIRE PAD CERTIFICATION BY A GEOTECHNICAL ENGINEER AT THEIR DISCRETION.

16. BOTTOM OF FOOTING SHALL BE, UNLESS DEEPER FOUNDATIONS ARE REQUIRED BY THE BUILDING OFFICIAL:

A. 18" BELOW PAD OR ADJACENT GRADE AT PERIMETER, WHICHEVER IS DEEPER, UNO. B. 18" BELOW PAD OR ADJACENT GRADE AT INTERIOR GRADE BEAMS, WHICHEVER IS DEEPER, UNO. NOTE: FOOTING MUST BE DEEPEND LOCALLY PER DETAIL 32/S-301 TO ACCOMMODATE ANCHOR BOLT HOLDOWN EMBED DEPTHS, OR FROST DEPTHS AS INDICATED BY THE

17. DIAPHRAGM TYPE: ALL FLOOR DIAPHRAGMS SHALL BE TYPE D, UNO REFER TO 12/S-403

OWNER MAY SELECT EITHER SLAB ON GRADE FOUNDATION OR THE RAISED FLOOR FOUNDATION, TO SUIT THE SPECIFIC SITE.

WHERE RAISED FLOOR FOUNDATION IS SELECTED, OWNER HAS THE OPTION TO USE CRIPPLE STUD WALLS IN LIEU OF THE SPECIFIED CONCRETE STEM WALLS BELOW THE FLOOR FRAMING. CRIPPLE STUDS ARE TO MATCH TYPICAL WALL FRAMING, AND TO BE SHEATHED TO MATCH SHEARWALLS ABOVE. HOLDOWNS SPECIFIED SHALL BE INSTALLED ACROSS THE FLOOR FRAMING PER DETAIL 12/S-405 AND THEN INTO THE CONCRETE STEM WALL PER DETAILS 22/S-311 AND 24/S-311.

20. REFER TO ARCHITECTURAL DRAWINGS FOR SIZE AND LOCATION OF UNDERFLOOR ACCESS HOLE.

21. REFER TO ARCHITECTURAL DRAWINGS FOR UNDERFLOOR HEIGHT ALLOWANCE.

22. ALL SNOW LOADS LISTED ARE THE FLAT ROOF SNOW LOAD. TO FIND THE FLAT ROOF SNOW LOAD, FOLLOW THIS EQUATION: FLAT ROOF SNOW =  $0.77 \times GROUND$  SNOW LOAD.

23. LOCATION OF CRAWL SPACE ACCESS IS SPECIFIC TO SITE. REFER TO DETAIL 33/S-313 FOR OPENING AT CONC WALL FOOTING.

HOLDOWN EMBED DEPTHS

NOVEMBER 20, 2023

COUNTY

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COUNTY COTYPES COUNTY

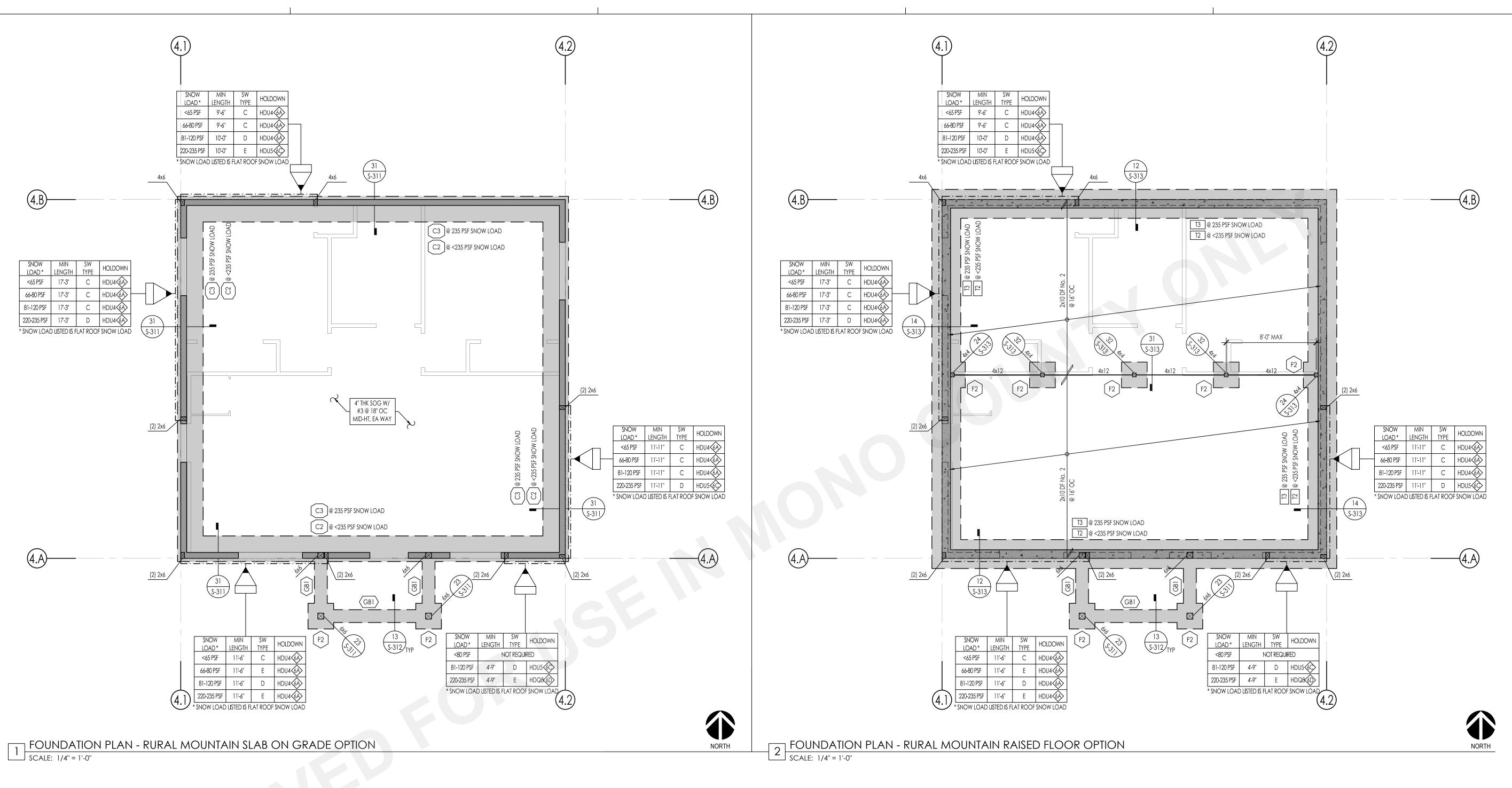
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OUNDATION PLAN HIGH DESERT

CANNOT BE A CHARGE TO PROVIDE THESE

PLANS. NO ALTERATIONS TO THESE PLANS ARE ALLOWED. ALL ALTERATIONS MUST BE DONE



FOUNDATION PLAN NOTES

1. REFER TO THE FOLLOWING SHEETS FOR TYPICAL DETAILS:

DESCRIPTION SHEET (S)

SYMBOLS AND ABBREVIATIONS S-101

STRUCTURAL GENERAL NOTES S-102 - S-103

TESTING AND INSPECTION S-103

TYPICAL CONCRETE DETAILS S-301

TYPICAL WOOD DETAILS S-401 - S-404

- 2. SEE ARCHITECTURAL DRAWINGS FOR FINISHED FLOOR ELEVATIONS. REFERENCE FINISHED FLOOR ELEVATION = 0'-0" COORESPONDS TO FINISHED FLOOR ELEVATION.
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- 8. SEE ARCHITECTURAL DRAWINGS FOR LOCATION OF INTERIOR NON-BEARING PARTITIONS.
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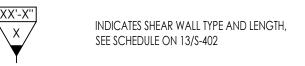
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NOTE: FOOTING MUST BE DEEPEND LOCALLY PER DETAIL 32/S-301 TO ACCOMMODATE ANCHOR BOLT HOLDOWN EMBED DEPTHS, OR FROST DEPTHS AS INDICATED BY THE

- 17. DIAPHRAGM TYPE:
  ALL FLOOR DIAPHRAGMS SHALL BE TYPE D, UNO
  REFER TO 12/S-403
- 18. OWNER MAY SELECT EITHER SLAB ON GRADE FOUNDATION OR THE RAISED FLOOR FOUNDATION, TO SUIT THE SPECIFIC SITE.
- 19. WHERE RAISED FLOOR FOUNDATION IS SELECTED, OWNER HAS THE OPTION TO USE CRIPPLE STUD WALLS IN LIEU OF THE SPECIFIED CONCRETE STEM WALLS BELOW THE FLOOR FRAMING. CRIPPLE STUDS ARE TO MATCH TYPICAL WALL FRAMING, AND TO BE SHEATHED TO MATCH SHEARWALLS ABOVE. HOLDOWNS SPECIFIED SHALL BE INSTALLED ACROSS THE FLOOR FRAMING PER DETAIL 12/S-405 AND THEN INTO THE CONCRETE STEM WALL PER DETAILS 22/S-311 AND 24/S-311.
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- 22. ALL SNOW LOADS LISTED ARE THE FLAT ROOF SNOW LOAD. TO FIND THE FLAT ROOF SNOW LOAD, FOLLOW THIS EQUATION: FLAT ROOF SNOW = 0.77 x GROUND SNOW LOAD.
- 23. LOCATION OF CRAWL SPACE ACCESS IS SPECIFIC TO SITE. REFER TO DETAIL 33/S-313 FOR OPENING AT CONC WALL FOOTING.

# SYMBOL LEGEND



INDICATES CONCRETE WALL PER DETAIL 22/S-311

# HOLDOWN SCHEDULE HOLDOWN/ — IX INDICATES HOLDOWN/ DETAIL MAR

SPECIFIES HOLE STRAP DETAIL	DOWN/ — IX INDICATES HOLDOWN/ STRAP TYPE	DETAIL
⟨6x⟩	INDICATES SIMPSON SSTB HOLDOWN TO: CONC FOUNDATION: CONC STEM WALL:	12/S-311 22/S-311
√7x>	INDICATES SIMPSON SB HOLDOWN TO: CONC FOUNDATION: CONC STEM WALL:	14/S-311 24/S-311

		CONTINUOUS F	OOTING SCHEDUI	.E	
MARK	WIDTH	MIN EMBED BELOW LOWEST PAD GRADE	LONG REINF	TRANS REINF	DETAIL
C2	2'-0"	SEE NOTE 16	(3) #5 T&B	#3 @ 12" OC, BOT	31/\$-311
C3	3'-0"	SEE NOTE 16	(4) #5 T&B	#3 @ 12" OC, BOT	31/S-311

SCHEDULES

			T-FOOTING	SCHEDULE		
TYPE	WIDTH	THICKNESS	MIN EMBED BELOW LOWEST PAD GRADE	LONG REINF	TRANS REINF	DETAIL
T2	2'-0''	1'-0"	SEE NOTE 16	(3) #4 @ TOP (3) #4 @ BOT	#3 @ 24" OC	13/\$-312
ТЗ	3'-0"	1'-0"	SEE NOTE 16	(4) #4 @ TOP (4) #4 @ BOT	#3 @ 24" OC	13/\$-312

			PAI	D FOOTING SCHEE	DULE		
TYPE	WIDTH	LENGTH	THICKNESS	MIN EMBED BELOW LOWEST PAD GRADE	TOP REINF	BOT REINF	DETAIL
F2	2'-0"	2'-0"	1'-6"	SEE NOTE 16	(3) #5, EW	(3) #5, EW	11/S-312

GRADE BEAM SCHEDULE

LONG REINF

(2) #4 @ TOP

(2) #4 @ BOT

1'-6" | SEE NOTE 16 | (4) #5, EW | (4) #5, EW | 11/S-312

TRANS REINF

#3 @ 24" OC | 13/S-312

DETAIL

MIN EMBED

PAD GRADE

SEE NOTE 16

TYPE | WIDTH | THICKNESS | BELOW LOWEST |

1'-0"

NOTE: FOOTING MUST BE DEEPENED LOCALLY PER DETAIL 32/S-301 TO ACCOMMODATE AB HOLDOWN EMBED DEPTHS

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MONO COUNTY ADU PROTOTYPES MONO COUNTY

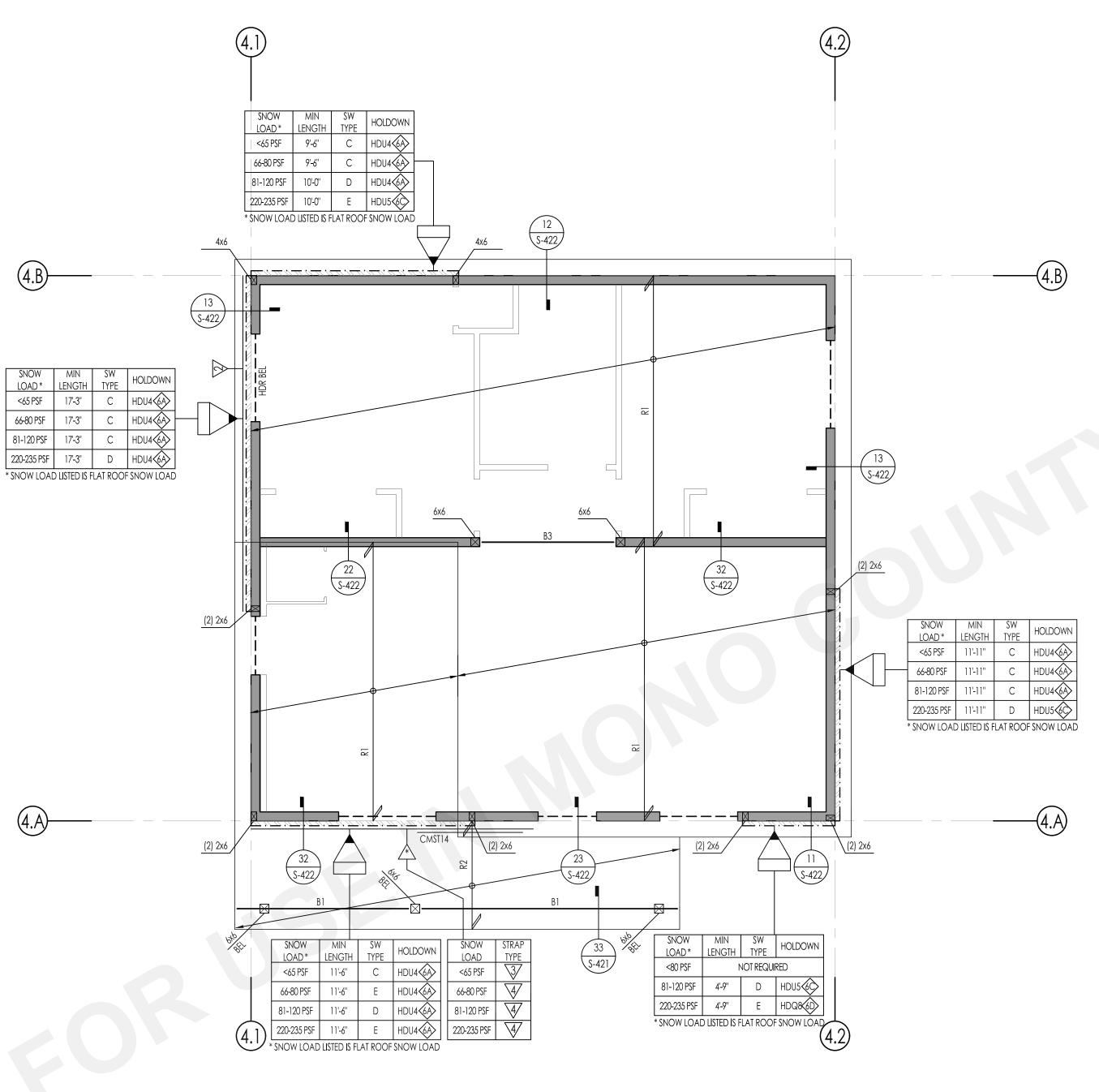
TION PLANS MOUNTAIN

FOUNDAT RURAL /

NOVEMBER 20, 2023

SHEET

S4-201B



NORTH

1 ROOF FRAMING PLAN - HIGH DESERT

#### ROOF FRAMING PLAN NOTES

- SEE ARCHITECTURAL DRAWINGS FOR ALL DIMENSIONS AND ELEVATIONS INCLUDING, BUT NOT LIMITED TO THE FOLLOWING, ALL DIMENSIONS TO BE VERIFIED PRIOR TO CONSTRUCTION:
   A. GRID DIMENSIONS AND HORIZONTAL CONTROL
- B. ALL DIMENSIONS, ELEVATIONS, FINISH SURFACE, SLOPES, DRAINS, SLAB DEPRESSIONS, ETCC. LOCATION AND EXTENT OF EXTERIOR WALL ASSEMBLIES AND OPENINGS
- D. ALL NON STRUCTURAL WALLS

#### 2. REFER TO THE FOLLOWING SHEETS FOR TYPICAL DETAILS:

DESCRIPTION	SHEET (S)
SYMBOLS AND ABBREVIATIONS	S-101
STRUCTURAL GENERAL NOTES	S-102 - S-103
TESTING AND INSPECTION	S-103
TYPICAL CONCRETE DETAILS	S-301
TYPICAL WOOD DETAILS	S-401 - S-405

- 3. SEE ARCHITECTURAL DRAWINGS FOR ALL TOP OF SHEATHING AND TOP OF WALL ELEVATIONS.
- 4. SEE ARCHITECTURAL, PLUMBING, MECHANICAL AND ELECTRICAL DRAWINGS FOR SIZE AND LOCATION OF PIPES, DUCTS AND OTHER ROOF PENETRATIONS. FOR ROOF PENETRATIONS NOT SHOWN ON ROOF FRAMING PLAN, SEE DETAIL 23/S-403 FOR TYPICAL OPENINGS, UNO.
- ALL POSTS IN 4" WALLS SHALL BE 4x4, UNLESS NOTED OTHERWISE. ALL POSTS IN 6" WALLS SHALL BE 6x6, UNLESS NOTED OTHERWISE.

TYPICAL WALL FRAMING SHALL BE:

2x6 @ 16" OC @ ALL EXTERIOR WALLS, UNO

2x6 @ 16" OC @ ALL INTERIOR BEARING WALLS, UNO

2x4 @ 16" @ ALL INTERIOR NON-BEARING WALLS, UNO

- 6. ALL INTERIOR WALLS NOT SHOWN ON THE STRUCTURAL FRAMING PLANS BUT SHOWN ON THE ARCHIECTURAL DRAWINGS SHALL BE CONSTRUCTED PER NON-BEARING PARTION WALL DETAIL 43/S-401, UNO.
- 7. DIAPHRAGM TYPES:
  < 65 PSF SNOW LOAD, ROOF DIAPHRAGM, TYPE A
  66-80 PSF SNOW LOAD, ROOF DIAPHRAGM, TYPE A
  81-120 PSF SNOW LOAD, ROOF DIAPHRAGM, TYPE B
  220-235 PSF SNOW LOAD, ROOF DIAPHRAGM, TYPE C
  REFER TO 12/-403

# 8. ALL LINES AND/OR MEMBERS INDICATED AS "STRUT" SHALL RECEIVE (2) ROWS OF BOUNDARY NAILING (RN.). STGR

NAILING (BN), STGR.

9. TRUSS MEMBERS AND COMPONENTS SHALL NOT BE CUT, NOTCHED, DRILLED OR OTHERWISE

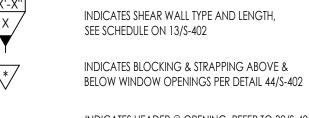
ALTERED IN ANY WAY WTHOUT WRITTEN CONCURRENCE AND APPROVAL OF A REGISTERED

- 10. ALTERATIONS RESULTING IN THE ADDTION OF LOADS TO ANY MEMBER (E.G. HVAC EQUIPMENT, WATER HEATER) SHALL NOT BE PERMITTED WITHOUT VERIFICATION THAT THE TRUSS IS CAPABLE OF
- 11. TRUSSES ARE TO BE DESIGNED FOR THE PROPER SITE SPECIFIC SNOW LOAD. TRUSS DRAWINGS SHALL BE SUBMITTED TO THE BUILDING DEPARTMENT FOR REVIEW AND APPROVAL PRIOR TO FABRICATION. FOR OTHER TRUSSES DESIGN CRITERIA REFER TO SHEET S-103 PRE-FABRICATED WOOD TRUSSES 1.B.a.

SUPPORTING SUCH ADDITIONAL LOADING.

- 12. TRUSSES SHALL INCLUDED PROPER ICE DAMN LOADING AT EAVES, SLIDING SNOW AND SNOW DRIFTS PER ASCE 7-16 WHERE APPLICABLE BASED ON THE ROOF CONFIGURATION.
- 13. WHERE THE OWNER WOULD LIKE TO SUBSTITUTE TRUSSES IN PLACE OF SPECIFIED RAFTERS THAT IS STRUCTURALLY ACCEPTABLE. THESE TRUSSES SHALL BE INCLUDED IN THE SUBMITTAL TO THE BUILDING DEPARTMENT.
- 14. AL LUMBER EXPOSED TO THE ELEMENTS SHALL BE SELECT STRUCTURAL GRADE.
- 15. SHEARWALL CONSTRUCTION, HOLDOWNS, RAFTERS AND HEADERS SHALL BE SELECTED FROM THE TABLES BASED ON THE SNOW LOADING FOR THE SPECIFIC SITE.
- 16. SHEARWALL LENGTHS LISTED IN THE TABLES ABOVE ARE CONSIDERED THE MINIMUMS. THE SHEARWALL CAN BE PLACED ANYWHERE ALONG THE BUILDING LINE AS LONG AS IT IS NOT INTERRUPTED BY A DOORWAY OR WINDOW.
- 17. ALL SNOW LOADS LISTED ARE THE FLAT ROOF SNOW LOAD. TO FIND THE FLAT ROOF SNOW LOAD, FOLLOW THIS EQUATION: FLAT ROOF SNOW = 0.77 x GROUND SNOW LOAD.

#### SYMBOL LEGEND



INDICATES HEADER @ OPENING. REFER TO 32/S-401 FOR HEADER SIZE, UNO ON PLANS
INDICATES TOP PLATE SPLICE NAILING PER 33/S-403

INDICATES TOP PLATE SPLICE NAILING PER 33/S-403
NOTE THAT NAILING APPLIES TO ENTIRE LENGTH OF TOP
PLATE. PROVIDE TYPE C SPLICE, UNO

INDICATES CONT BLK & STRAP PER 24/S-405 @ ROOF, UNO

INDICATES STRAP PER 34/S-405, UNO

DSC# INDICATES DRAG TRUSS CONNECTOR PER 31/S-405, UNO

### SCHEDULES

			_			
	HOLDOWN SCHEDULE				R	20
SPECIFIES HOLD	DOWN/ — INDICATES HOLDOWN/	DETAIL		MARK	SNOW LOAD	
STRAP DETAIL	STRAP TYPE				<65 PSF	
⟨6x⟩	INDICATES SIMPSON SSTB HOLDOWN TO:  CONC FOUNDATION:	12/\$-311		D1	66-80 PSF	İ
	CONC STEM WALL:	22/S-311		R1	81-120 PSF	Γ
$\langle \overline{7x} \rangle$	INDICATES SIMPSON SB HOLDOWN TO:  CONC FOUNDATION:	14/S-311			220-235 PSF	
	CONC STEM WALL:	24/\$-311		<b>D</b> O	<235 PSF	
				R2	000 000	t

	R	OOF RAFTER SCHEDULE	
MARK	SNOW LOAD	SIZE	REMARKS
	<65 PSF	(2) 2x10 @ 16" OC	
D1	66-80 PSF	(2) 2x10 @ 16" OC	
R1	81-120 PSF	(2) 2x12 @ 16" OC	
	220-235 PSF	(2) 1 ¾" x 14" LVL @ 16" OC	
DΩ	<235 PSF	2x6 @ 16" OC	
R2	235 PSF	2x8 @ 16" OC	

BEAM SCHEDULE						
MARK	SNOW LOAD	SIZE	REMARKS			
В1	<80 PSF	6x10				
	81-120 PSF	6x12				
	121-235 PSF	6x14				
DΩ	<80 PSF	6x6				
B2	81-235 PSF	6x8				
В3	<80 PSF	6x8				
	81-120 PSF	6x10				
	121-235 PSF	6x12				



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> MONO COUNTY ADU PROTOTYPES MONO COUNTY

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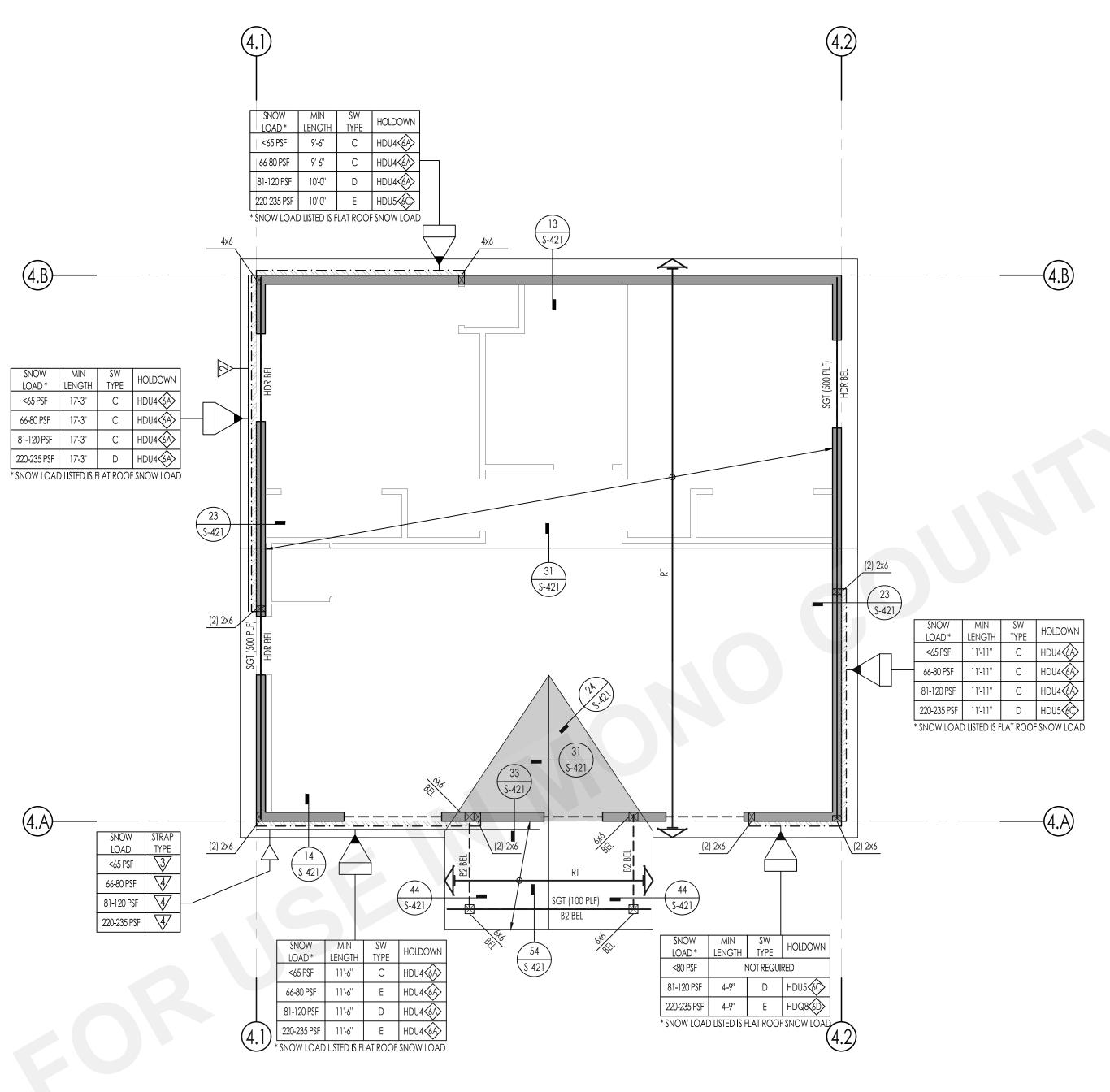
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NOVEMBER 20, 2023

SHEET

S4-202A



ROOF FRAMING PLAN - RURAL MOUNTAIN

#### ROOF FRAMING PLAN NOTES

- 1. SEE ARCHITECTURAL DRAWINGS FOR ALL DIMENSIONS AND ELEVATIONS INCLUDING, BUT NOT LIMITED TO THE FOLLOWING, ALL DIMENSIONS TO BE VERIFIED PRIOR TO CONSTRUCTION: A. GRID DIMENSIONS AND HORIZONTAL CONTROL
- B. ALL DIMENSIONS, ELEVATIONS, FINISH SURFACE, SLOPES, DRAINS, SLAB DEPRESSIONS, ETC C. LOCATION AND EXTENT OF EXTERIOR WALL ASSEMBLIES AND OPENINGS
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TYPICAL CONCRETE DETAILS	S-301
TYPICAL WOOD DETAILS	S-401 - S-404

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- 5. ALL POSTS IN 4" WALLS SHALL BE 4x4, UNLESS NOTED OTHERWISE. ALL POSTS IN 6" WALLS SHALL BE 6x6, UNLESS NOTED OTHERWISE.

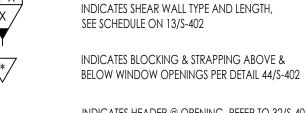
TYPICAL WALL FRAMING SHALL BE: 2x6 @ 16" OC @ ALL EXTERIOR WALLS, UNO 2x6 @ 16" OC @ ALL INTERIOR BEARING WALLS, UNO 2x4 @ 16" @ ALL INTERIOR NON-BEARING WALLS, UNO

- 6. ALL INTERIOR WALLS NOT SHOWN ON THE STRUCTURAL FRAMING PLANS BUT SHOWN ON THE ARCHIECTURAL DRAWINGS SHALL BE CONSTRUCTED PER NON-BEARING PARTION WALL DETAIL 43/S-401, UNO.
- 7. DIAPHRAGM TYPES: < 65 PSF SNOW LOAD, ROOF DIAPHRAGM, TYPE A 66-80 PSF SNOW LOAD, ROOF DIAPHRAGM, TYPE A 81-120 PSF SNOW LOAD, ROOF DIAPHRAGM, TYPE B 220-235 PSF SNOW LOAD, ROOF DIAPHRAGM, TYPE C REFER TO 12/-403

#### 8. ALL LINES AND/OR MEMBERS INDICATED AS "STRUT" SHALL RECEIVE (2) ROWS OF BOUNDARY NAILING (BN), STGR.

- 9. TRUSS MEMBERS AND COMPONENTS SHALL NOT BE CUT, NOTCHED, DRILLED OR OTHERWISE ALTERED IN ANY WAY WTHOUT WRITTEN CONCURRENCE AND APPROVAL OF A REGISTERED
- 10. ALTERATIONS RESULTING IN THE ADDTION OF LOADS TO ANY MEMBER (E.G. HVAC EQUIPMENT, WATER HEATER) SHALL NOT BE PERMITTED WITHOUT VERIFICATION THAT THE TRUSS IS CAPABLE OF SUPPORTING SUCH ADDITIONAL LOADING.
- 11. TRUSSES ARE TO BE DESIGNED FOR THE PROPER SITE SPECIFIC SNOW LOAD. TRUSS DRAWINGS SHALL BE SUBMITTED TO THE BUILDING DEPARTMENT FOR REVIEW AND APPROVAL PRIOR TO FABRICATION. FOR OTHER TRUSSES DESIGN CRITERIA REFER TO SHEET S-103 PRE-FABRICATED WOOD TRUSSES 1.B.a.
- 12. TRUSSES SHALL INCLUDED PROPER ICE DAMN LOADING AT EAVES, SLIDING SNOW AND SNOW DRIFTS PER ASCE 7-16 WHERE APPLICABLE BASED ON THE ROOF CONFIGURATION.
- 13. WHERE THE OWNER WOULD LIKE TO SUBSTITUTE TRUSSES IN PLACE OF SPECIFIED RAFTERS THAT IS STRUCTURALLY ACCEPTABLE. THESE TRUSSES SHALL BE INCLUDED IN THE SUBMITTAL TO THE BUILDING DEPARTMENT.
- 14. AL LUMBER EXPOSED TO THE ELEMENTS SHALL BE SELECT STRUCTURAL GRADE.
- 15. SHEARWALL CONSTRUCTION, HOLDOWNS, RAFTERS AND HEADERS SHALL BE SELECTED FROM THE TABLES BASED ON THE SNOW LOADING FOR THE SPECIFIC SITE.
- 16. SHEARWALL LENGTHS LISTED IN THE TABLES ABOVE ARE CONSIDERED THE MINIMUMS. THE SHEARWALL CAN BE PLACED ANYWHERE ALONG THE BUILDING LINE AS LONG AS IT IS NOT INTERRUPTED BY A DOORWAY OR WINDOW.
- 17. ALL SNOW LOADS LISTED ARE THE FLAT ROOF SNOW LOAD. TO FIND THE FLAT ROOF SNOW LOAD, FOLLOW THIS EQUATION: FLAT ROOF SNOW = 0.77 x GROUND SNOW LOAD.

#### SYMBOL LEGEND



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INDICATES HEADER @ OPENING. REFER TO 32/S-401 FOR HEADER SIZE, UNO ON PLANS INDICATES TOP PLATE SPLICE NAILING PER 33/S-403 NOTE THAT NAILING APPLIES TO ENTIRE LENGTH OF TOP PLATE. PROVIDE TYPE (C) SPLICE, UNO

INDICATES CONT BLK & STRAP PER 24/S-405 @ ROOF, UNO INDICATES STRAP PER 34/S-405, UNO

INDICATES DRAG TRUSS CONNECTOR PER 31/S-405, UNO

### SCHEDULES

HOLDOWN SCHEDULE					
SPECIFIES HOLE STRAP DETAIL	DETAIL				
<del>6</del> X	INDICATES SIMPSON SSTB HOLDOWN TO: CONC FOUNDATION: CONC STEM WALL:	12/S-311 22/S-311			
√7x>	INDICATES SIMPSON SB HOLDOWN TO: CONC FOUNDATION: CONC STEM WALL:	14/S-311 24/S-311			

#### PREFABRICATED ROOF TRUSS

1. FOR PREFABRICATED ROOF TRUSS NOTES SEE NOTES ON SHEET S-103

	ROOF TRUSS SCHEDU	LE
MARK	DESCRIPTION	REMARKS
RT	ROOF TRUSS (COMMON)	24" OC MAX
SGT	STRUCTURAL GABLE TRUSS	
SCT	SCISSOR TRUSS	
MT	MONO PITCH TRUSS	24" OC MAX
JT	JACK TRUSS	24" OC MAX
VJT	VALLEY JACK TRUSS	24" OC MAX
CJT	CORNER JACK TRUSS	
GT	GIRDER TRUSS	
MGT	MONO PITCH GIRDER TRUSS	
DT (#*)	DRAG TRUSS	
CGT	CALIFORNIA GIRDER TRUSS	
HR	HIP RAFTER / JACK RAFTER	
CHT	CALIFORNIA HIP TRUSS	24" OC MAX
FOULLIABLE	0.50005111100.004.0.5000510.43	OTODED   E\ /E\ /O 7E\

(#\*) - EQUALS DRAG FORCE IN LBS, DRAG FORCE IS AT A FACTORED LEVEL (0.7E) DRAG FORCES CALCULATED IN ACCORDANCE WITH ASCE 7-16 12.10.1.1. IN STRUCTURES ENTIRELY BRACED BY LIGHT FRAME SHEAR WALLS, OR PORTIONS THEREOF, DRAG MEMBERS SHALL BE DESIGNED TO RESIST FORCES USING THE LOAD COMBINATIONS OF ASCE 7-16 SECTION 12.4.2.3 IN ALL OTHER STRUCTURES DRAGS SHALL INCLUDE THE EFFECT OF OVER STRENGTH PER ASCE 7-16 12.4.3.2



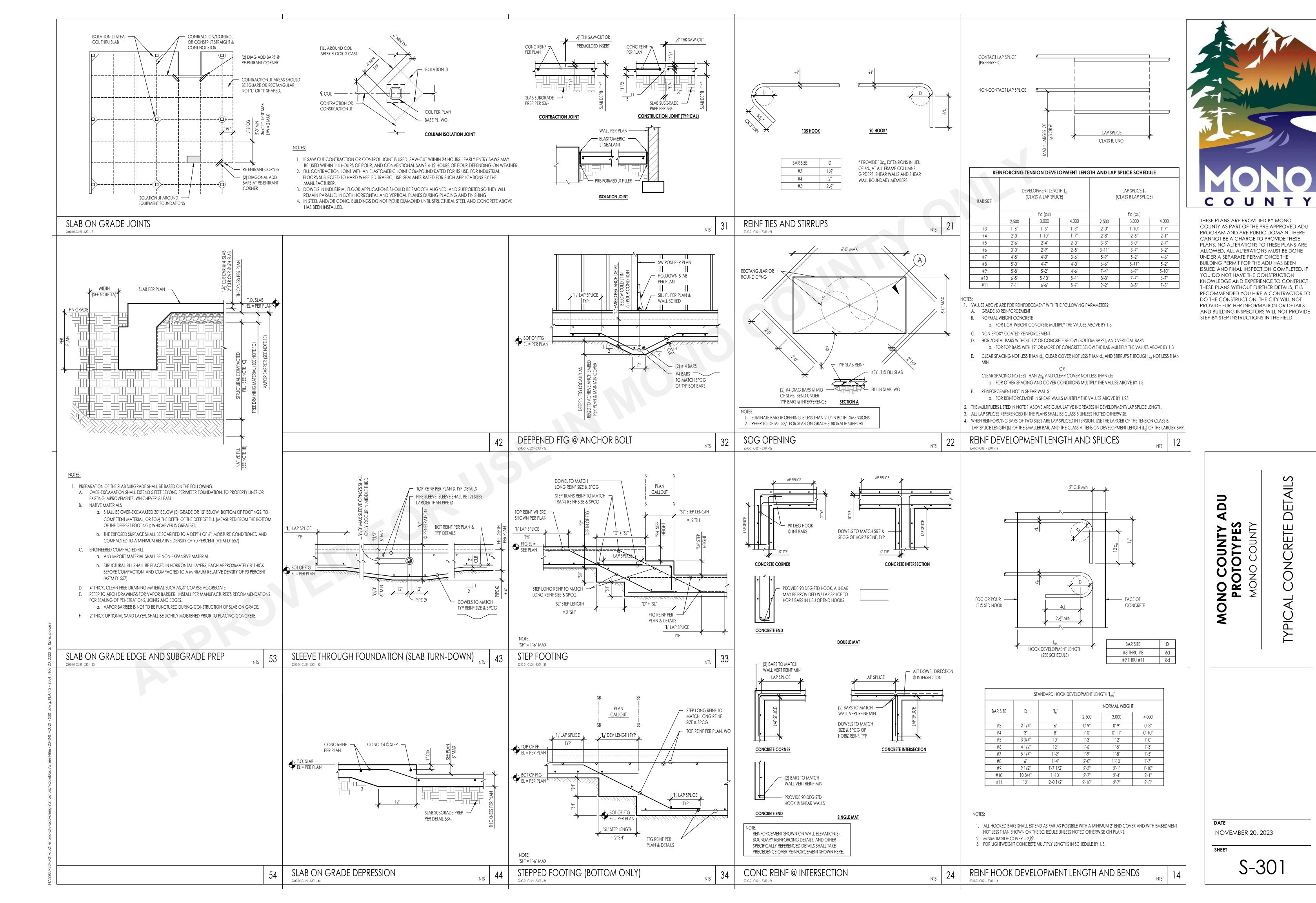
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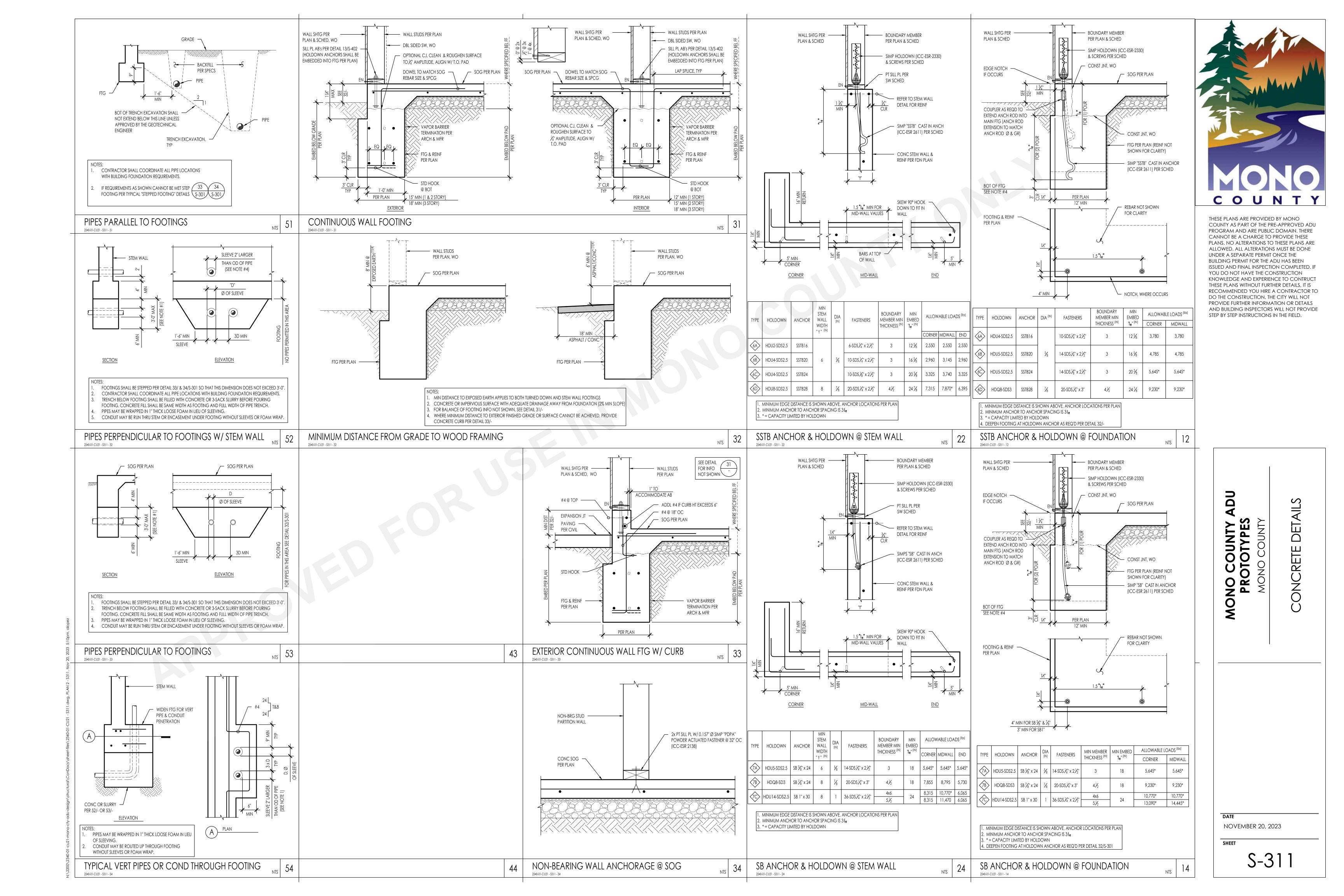
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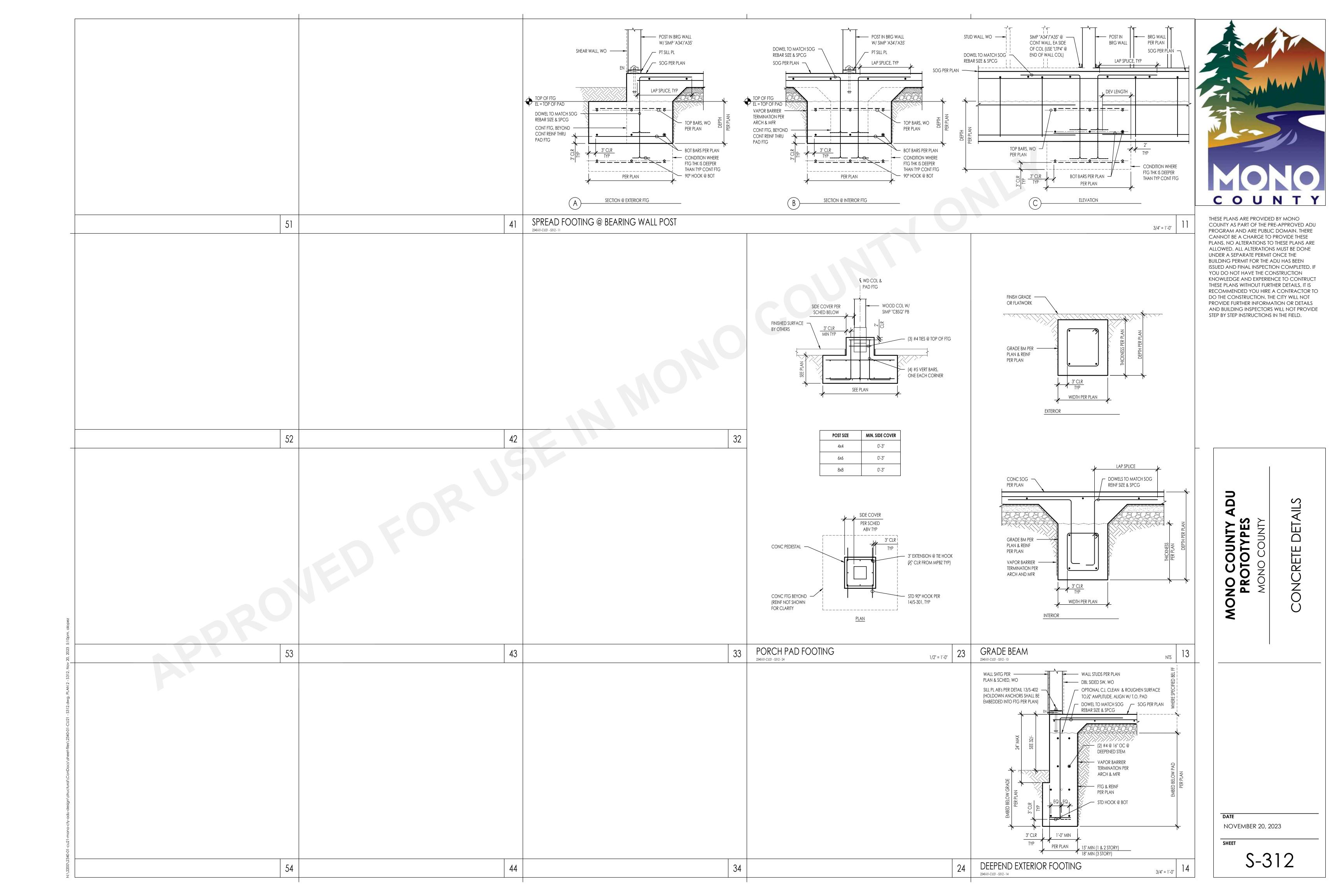
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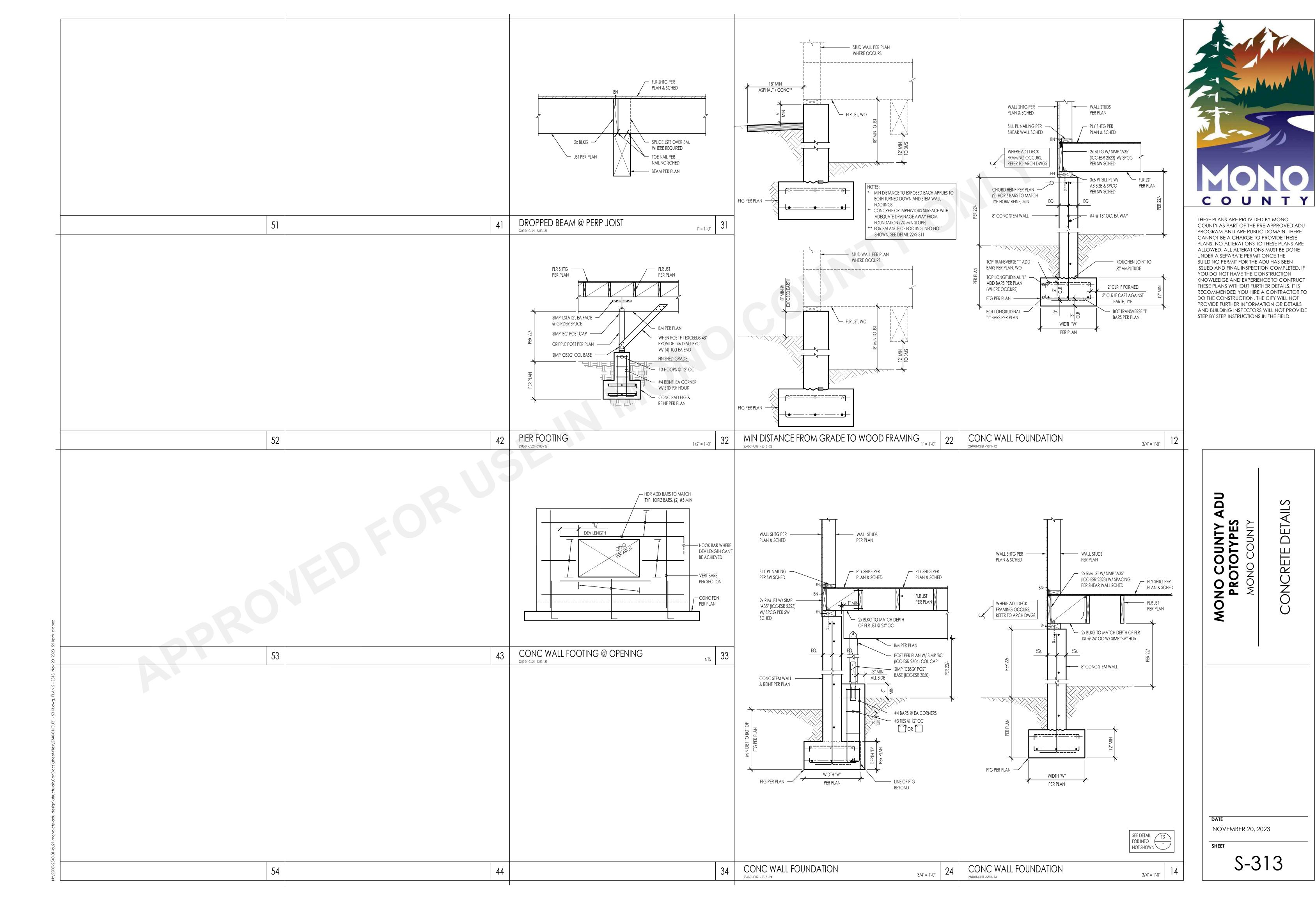


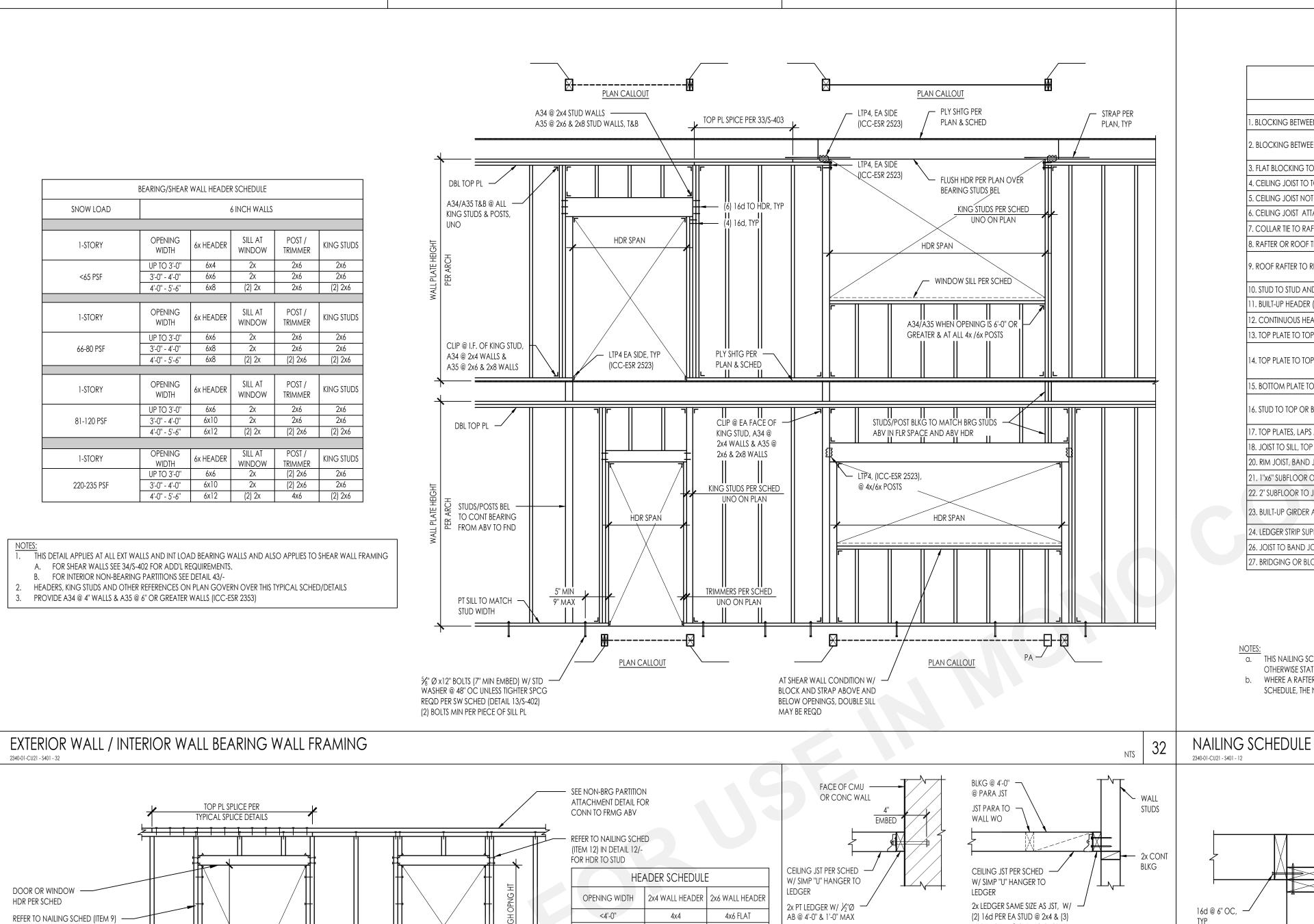
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FASTENING S PER 2019 CBC		
CONNECTION	FASTENING	LOCATION
. BLOCKING BETWEEN CEILING JOISTS, RAFTERS OR TRUSSES TO TOP PLATE OR OTHER FRAMING BELOW	3-8d COMMON	EACH END, TOENAIL
	2-8d COMMON	EACH END, TOENAIL
2. BLOCKING BETWEEN RAFTERS OR TRUSS NOT AT THE WALL TO TOP PLATE, TO RAFTER OR TRUSS	2-16d COMMON	END NAIL
3. FLAT BLOCKING TO TRUSS AND WEB FILLER	16d COMMON @ 6" OC	FACE NAIL
4. CEILING JOIST TO TOP PLATE	3-8d COMMON	EACH JOIST, TOENAIL
5. CEILING JOIST NOT ATTACHED TO PARALLEL RAFTER, LAPS OVER PARTITIONS	3-16d COMMON	FACE NAIL
S. CEILING JOIST ATTACHED TO PARALLEL RAFTER (HEEL JOINT)	3-16d COMMON	FACE NAIL
7. COLLAR TIE TO RAFTER	3-10d COMMON	FACE NAIL
3. RAFTER OR ROOF TRUSS TO PLATE	3-10d COMMON	TOENAIL <sup>b</sup>
D DOOF DAFTED TO DIDGE WALLEY OR HID DAFTED, OR DOOF DAFTED TO 2 INCLUDIDGE DEAM	2-16d COMMON	END NAIL
P. ROOF RAFTER TO RIDGE VALLEY OR HIP RAFTER; OR ROOF RAFTER TO 2-INCH RIDGE BEAM	3-10d COMMON	TOENAIL
0. STUD TO STUD AND ABUTTING STUDS AT INTERSECTING WALL CORNERS	16d COMMON	16" OC FACE NAIL
1. BUILT-UP HEADER (2" TO 2" HEADER)	16d COMMON	16" OC EACH EDGE, FACE NAIL
2. CONTINUOUS HEADER TO STUD	4-10d COMMON	TOENAIL
3. TOP PLATE TO TOP PLATE	16d COMMON	16" OC FACE NAIL
4. TOP PLATE TO TOP PLATE, AT END JOINTS	8-16d COMMON	EACH SIDE OF END JOINT, FACE NAIL (MINIMUM 24" LAP SPLICE LENGTH EACH SIE OF END JOINT)
5. BOTTOM PLATE TO JOIST, RIM JOIST, BAND JOIST OR BLOCKING	2-16d COMMON	16" OC FACE NAIL
LA CTUD TO TOD OD DOTTOM DIATE	4-8d COMMON	TOENAIL
16. STUD TO TOP OR BOTTOM PLATE	2-16d COMMON	END NAIL
7. TOP PLATES, LAPS AT CORNERS AND INTERSECTIONS	2-16d COMMON	FACE NAIL
8. JOIST TO SILL, TOP PLATE, OR GIRDER	3-8d COMMON	TOENAIL
20. RIM JOIST, BAND JOIST, OR BLOCKING TO TOP PLATE, SILL OR OTHER FRAMING BELOW	8d COMMON	6" OC, TOENAIL
21. 1"x6" SUBFLOOR OR LESS TO EACH JOIST	2-8d COMMON	FACE NAIL
22. 2" SUBFLOOR TO JOIST OR GIRDER	2-16d COMMON	FACE NAIL
23. BUILT-UP GIRDER AND BEAMS, 2" LUMBER LAYERS	20d COMMON (4" x 0.192")	32" OC FACE NAIL AT TOP AND BOTTOM STAGGERED ON APPOSITE SIDE
24. LEDGER STRIP SUPPORTING JOIST OR RAFTERS	3-16d COMMON	EACH JOIST OR RAFTER, FACE NAIL
26. JOIST TO BAND JOIST OR RIM JOIST	3-16d COMMON	END NAIL
27. BRIDGING OR BLOCKING TO JOIST, RAFTER OR TRUSS	2-8d COMMON	EACH END, TOENAIL

COUNTY

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WOW

NO COUNTY /
PROTOTYPES
MONO COUNTY

NOVEMBER 20, 2023

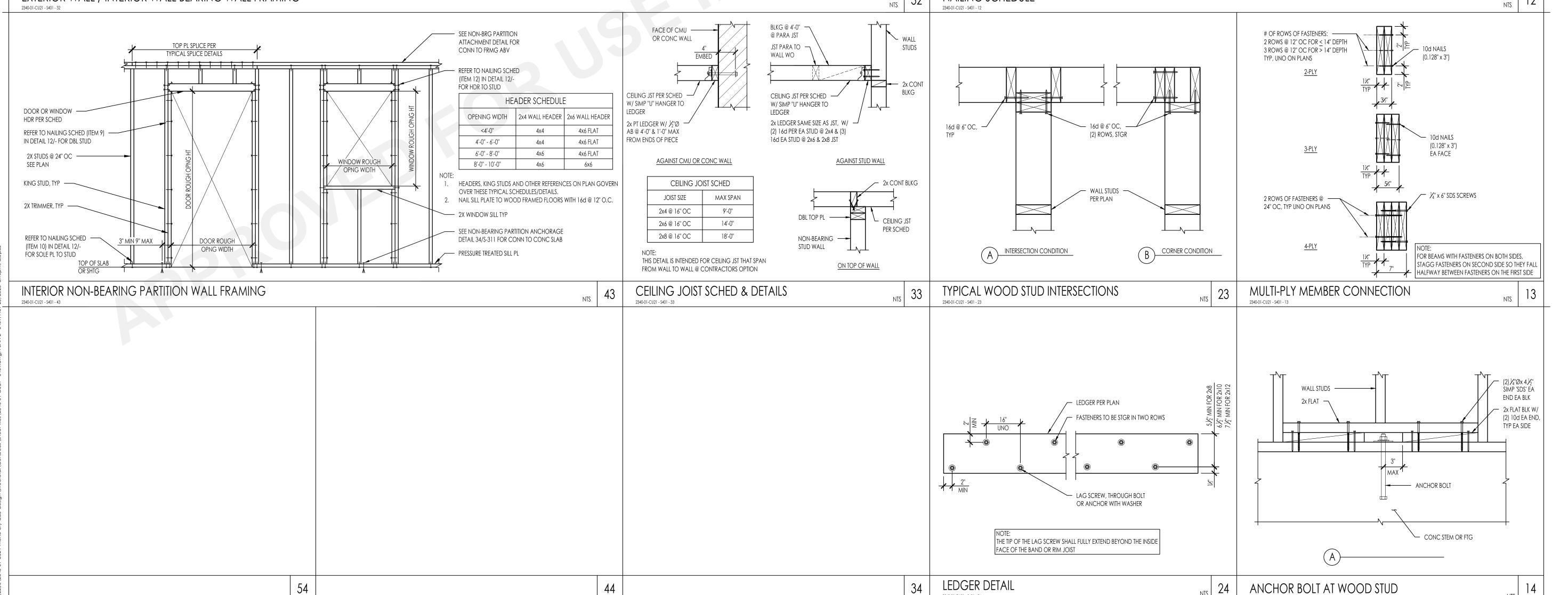
S-401

TYPICAL WOOD DETAILS

a. THIS NAILING SCHEDULE SHALL ONLY BE USED IF CONDITION IS NOT OTHERWISE DETAILED OR SPECIFIED ON THE CONSTRUCTION DOCUMENTS. COMMON NAILS SHALL BE USED EXCEPT WHERE OTHERWISE STATED

b. WHERE A RAFTER IS FASTENED TO AN ADJACENT PARALLEL CEILING JOIST IN ACCORDANCE WITH THIS SCHEDULE AND THE CEILING JOIST IS FASTENED TO THE TOP PLATE IN ACCORDANCE WITH THIS

SCHEDULE, THE NUMBER OF TOENAILS IN THE RAFTER SHALL BE PERMITTED TO BE REDUCED BY ONE NAIL



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