BUILDING DEPARTMENT

1033 FIFTH STREET • CLOVIS, CA 93612

**2022 CRC REsidential Plan Check Corrections**

**Date:**

**Permit Number:**

**Standard Plan Number:**

**Plans Examiner: Jesse D. Newton**

**Email: Jessen@cityofclovis.com**

**PHONE NUMBER: 559-324-2334**

**PLANS Shall NOT BE BACK-CHECKED OVER THE COUNTER.**

**cloud ALL REVISIONS ON THE PLAN, OR use the** Δ **Symbol. pLANS RETURNED WITHOUT CORRECTIONS, AS NOTED, WILL BE SUBJECT TO ADDITIONAL PLAN CHECK FEES.**

**redlines will not be accepted at the counter. all correctionS are REQUIRED to be properly incorporated into the plans, either blueprinted, ink drawn, or EQUIVALENT. no ink pens. no pencils.**

**returned revised plans properly assembled. loose sheets May be accepted on a case-BY-case basis.**

**this plan check is a "review for Code compliance" only 2022 CRC Section R106.3.1.**

This report is a result of a complete plan review. The list may increase once required documentation is submitted or if any item on the plan set has been modified.

All red marks shall be addressed on every page that has corrections. This also includes all red-marks on structural calculations and any other attachments.

To avoid additional Plan Check fees, **all marked-up plans, specifications,**

**and other documents** (Structural Calculations., truss packages, Energy code, or other documents.) SHALL BE RETURNED with your resubmittal package.

Suppose this is a submittal or resubmittal for a standard plan with different options or elevations (with separate SPNs). All documents shall be submitted as separate packages per plan, or the submittal/resubmittal will not be accepted.

**Standard Plan Submittal Requirements**

1. No internal changes are permitted that will affect Title 24 compliance. (No change to foundation system.)

**NOTE:** Options to convert the garage area to a conditioned area (i.e., optional bedroom, Bonus Room option, etc.) are not allowed. An Option to convert the garage area to a conditioned area will require an entirely new standard plan submittal package.

2. A maximum of six roofline changes or elevations. This may be increased with approval from the Deputy Building Official or the Building Official.

3. Changes that modify the foundation system, size, or configuration require a separate Standard Plan (except 50 square feet for bay windows or entertainment centers); flopped plans are ok. If flopped plans are going to be built, plans must provide flopped foundation and roof plan. (**See NOTE under item #1 above**.)

**NOTE**: An option that modifies the Foundation System (Size, configuration, additional interior bearings, etc. More than just the allowable 50sq.ft. as mentioned above) (ex.: a standard Bedroom being changed to a Bedroom Suite option where the foundation needs minor changes does trigger the need for a separate Standard Plan Submittal. For example, a Bedroom Suite was an additional Bathroom, etc.

4. Options that alter the living area that add or decrease the living area by more than 50 square feet require a new standard plan. (Bay windows or entertainment centers are permitted.) (**See NOTE under item #1 above**.)

5. Options that alter the garage area by more than 250 square feet will require a new standard plan.

**NOTE:** Options for a 3rd Car Garage Bay (Minimum dimensions: 10’-0" X 20’-0") are allowed. Or as allowed by the Approved conditions per the Residential Site Plan Review.

6. All Title 24 energy requirements must meet the worst-case scenario.

7. Photovoltaic is required on the standard plans. The building division will no longer take in standard solar plans as a separate submittal/

**GOVERNING CODES**

1. According to Section R1.1.7.3.1 of 2022 CRC, structures covered by the latest versions of the codes may be designed and constructed per the Code (2022 CRC). Unless the proposed structure(s) or element(s) exceed the design limitations established in this 2022 CRC, use the California Building Code (2022 CBC).
2. Revise all references to the Building Code on all sheets to show either the 2022 CRC or the 2022 CBC.

**COVER SHEET**

1. Provide, on the Cover Sheet, the "Climatic and Geographic Design Criteria" for Clovis California:
2. California Building, Plumbing, Electric, Mechanical, Fire Code 2022
3. Residential Building Code 2022
4. California Green Building Code 2022
5. California Energy Code 2022
6. Wind Exposure 85 V asd / 110 V ult.
7. Seismic Design Category D
8. Climate Zone 13
9. Exposure B or C
10. Soil 1500psi
11. Roof Live Load is 20 PSF, and Dead Load depends on the roof material used.
12. Yearly Rain – 3"
13. Snow Load – 0
14. Provide the completed AB 1400 New Universal Design Checklist on the cover sheet of the plans.

**AB 1400 New Universal Design Checklist**

**2007 NEW HOME UNIVERSAL DESIGN OPTION CHECKLIST (AB 1400)**

Name of Development, if applicable \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

Home/Lot Address/ID \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

Developer (Contact) Name \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

Phone # \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ Fax\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

Address \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

California law, section 17959.6 of the Health and Safety Code, requires a builder of new for-sale residential units to provide buyers with a list of specific "universal design features" which make a home safer and easier to use for persons who are aging or frail, or who have certain temporary or permanent activity limitations or disabilities. A developer is not required to provide the listed features during construction or at any other time unless the developer has offered to provide a feature. The buyer has requested it and agreed to provide payment.

**Part I** summarizes which features, if any, are available or offered.

**Part II** is an explanation of the laws governing the Checklist and use of the Checklist

**Part III** includes those features related to exterior adaptations, doors and openings, interior

adaptations, kitchens, and bathrooms or powder rooms.

**Part IV** includes features that apply to other parts of the house and are commonly requested or considered universal design features.

**Part V** provides space for details or for any other external or internal feature that may be requested if it is requested at a reasonable time by the buyer, is reasonably available, is reasonably feasible to install or construct, and makes the home more usable and safer for a person with any type of activity limitation or disability.

**PART I: SUMMARY OF FEATURES AVAILABLE OR OFFERED**

**(If "available," see Parts III, IV, and/or V)**

Feature Available Not Available

III. 1. Exterior Features (accessible route to door) \_\_\_\_\_\_\_ \_\_\_\_\_\_\_

III. 2. Exterior Doors, Openings, and Entries Features \_\_\_\_\_\_\_ \_\_\_\_\_\_\_

III. 3. General Interior Feature’s \_\_\_\_\_\_\_ \_\_\_\_\_\_\_

III. 4. Kitchen Features \_\_\_\_\_\_\_ \_\_\_\_\_\_\_

III. 5. Bathroom/Powder Room Features \_\_\_\_\_\_\_ \_\_\_\_\_\_\_

IV. 6. Common Room Features (Dining and Living) \_\_\_\_\_\_\_ \_\_\_\_\_\_\_

IV. 7. Bedroom Features \_\_\_\_\_\_\_ \_\_\_\_\_\_\_

IV. 8. Laundry Area Features \_\_\_\_\_\_\_ \_\_\_\_\_\_\_

V. Other Features \_\_\_\_\_\_\_ \_\_\_\_\_\_\_

1. Add the following to the Cover Sheet:

**NOTICE**

**LANDSCAPE IMPROVEMENTS WILL TRIGGER THE REQUIREMENTS OF WELO (CITY OF CLOVIS MUNICIPAL CODE CHAPTER 6.5). THE APPLICANT IS DIRECTED TO INCORPORATE THE REQUIREMENTS OF WELO IN THE LANDSCAPE DESIGN PACKAGE AND OBTAIN A PERMIT FOR THE INSTALLATION OF THE IRRIGATION SYSTEM.**

If the applicant intends to install a landscaping and irrigation system as part of this project. A WELO plan must be reviewed and approved before the Building Permit issuance.

Suppose the applicant DOES NOT intend to install landscaping and irrigation during the construction and before the Final Building Inspection. In that case, a note on the cover sheet must be provided stating so.

1. **Note on the cover sheet regarding fire sprinklers.**

Add a note on the Cover Sheet specifying whether this residence is equipped with Residential Fire Sprinkler System. - 2022 CRC R106.1.1. and r313 Automatic Fire Sprinkler System

1. **Note on the cover sheet that indicates the scope of work for this project.**

Note on the cover sheet of the plans the scope of work for this project. Include all building, plumbing, electrical and mechanical, etc. - 2022 CRC R106.1.1

1. **Are SPNs (STANDARD PLAN NUMBER) provided on the cover sheet?**

Provide the SPN(s) for each option on the cover sheet of the plans. - 2022 CRC R106.1.1

1. **Job address provided.**

Provide the job address on the cover sheet. - 2022 CRC R106.1.1

1. **APN provided.**

Provide the Assessor's Parcel Number on the cover sheet. - 2022 CRC R106.1.1

1. **Building Square footage provided.**

Provide the building area on the cover sheet. Include all possible options in a formatted schedule(s). - 2022 CRC R106.1.1 (i.e., livable, habitable, garage, storage, covered patios, and so on)

1. **Provide a schedule of all sheets of the plan.**

Provide a schedule of all sheets of the plans and all individual attachments on the cover sheet. **The total number of pages of the plans, truss drawings, Title 24, structural, and any other attachments on the cover sheet.** - 2022 CRC R106.1.1

1. **Note, If Any Features of This Home**

Note on the cover sheet if any features of this home comply with the universal design handicapped standards under California AB 1400, chapter 648 of 2003. An addendum of such changes shall be submitted to the Clovis Building Department, and a separate permit shall be issued for such changes. - 2022 CRC R106.1.1

1. **Index provided?**

Provide an accurate index on the cover sheet. - 2022 CRC R106.1.1

1. **Solar (PV) System Minimum Capacity per registered CF1R?**

On the Cover Sheet of the Building Plans, provide the Solar (PV) System capacity in KWs and the notes as shown below.

Text, letter

Description automatically generated

1. **Occupancy class listed.**

List the Occupancy Class on the cover sheet. - 2022 CRC R106.1.1

Single Family Residential = R-3/U

1. **Construction Type listed.**

List the Construction Type on the cover sheet. - 2022 CRC R106.1.1

Construction Type = V-B

1. **Engineer or Architect Stamps provided.**

Provide all sheets to be stamped by an Architect or Engineer licensed to practice in the State of California. - Cal Bus & Prof. Code 5537 Last Updated July 19, 2018**. (When applicable)**

**Architect signature provided?**

1. Provide all applicable sheets to be stamped by a licensed Architect. - Cal Bus & Prof. Code 5537 Last Updated July 19, 2018. A digital signature is ok. **(When applicable)**

**Engineer's signature provided?**

1. Provide all applicable sheets to be stamped by a licensed Engineer. - Cal Bus & Prof. Code 5537 Last Updated July 19, 2018. A digital signature is ok **(When applicable)**

**Draftsperson's information provided?**

1. Provide the Draftsperson's information on the cover sheet. - 2022 CRC R106.1.1

**Owner's information provided?**

1. Provide the owner's name, address, zip code, and phone number. - 2022 CRC R106.1.1

**Tract number(s) specified?**

1. Specify the tract number(s) in which this residence will be constructed on the cover sheet. - 2022 CRC R106.1.1

**Contractor's information provided?**

1. Provide the contractor's name, address, zip code, phone number, and State of California contractor's license number. - 2022 CRC R106.1.1

-Provide a City of Clovis Business License for the Contractor.

-If an owner-builder project, provide the following items:

-Provide a completed Owner-Builder form

**Architect's information provided?**

1. Provide the Architects name, address, zip code, and phone number. - 2022 CRC R106.1.1 **(When applicable)**

**Engineer's information provided?**

1. Provide the engineer's name, address, zip code, and phone number. - 2022 CRC R106.1.1 **(When applicable)**

**docUMENTS**

**Is a Site plan provided?**

1. Provide a completed City of Clovis Site Plan form. - 2022 CRC R106.2

**Copies of all documents?**

1. At the time of resubmittal, provide one copy of all corrected documents with the redline plan set. Also, provide **a thumb drive with a PDF of all documents with the corrected set.** - 2022 CRC R106.1.1

Also, please return all the **REDLINE plan sheets** and remarked documentation along with this corrections list.

**Business license for contractor provided.**

1. Provide a City of Clovis Business License for the Contractor. - 2022 CRC R106.1.1

**Assessor's floor plan provided.**

1. Provide an additional copy of the Floor Plan (Sheet X-#) for the Fresno County Assessor's office, same paper size as the plan sheet, but folded to no larger than 8 1/2" X 11".

Provide the proper address, APN number, and owner's name in the lower right-hand corner. - 2022 CRC R106.1.1

**School fees paid.**

1. Provide this division with a receipt from the Clovis Unified School District showing that all fees have been paid before permit issuance. - 2022 CRC R106.1.1

**Regional Transportation Management fees (RTMF) paid.**

1. Provide this division with a Regional Transportation District receipt showing that all fees have been paid before permit issuance. - 2022 CRC R106.1.1

**Is a Certificate from the San Joaquin Valley Air Pollution Control District provided for Demolition Work?**

1. Provide a certificate from the San Joaquin Valley Air Pollution Control District for any demolition/renovation work performed on this project. Additional information may be obtained by contacting the San Joaquin Valley Air Pollution Control District @ 559-230-6000

**Is a "Will Serve" letter provided for projects with a valuation in excess of $50,000.00? Or a Construction Waste Management Plan on the cover sheet?**

1. Provide a "Will Serve" letter from an approved Construction debris recycling/waste hauler for this project. This letter is to be provided by & signed by the "Waste/Recycling Hauler" before any permit issuance. - 2022 Cal. Green Code 4.408

Or,

Provide a construction waste management plan for this project that complies with 1 – 5 of the 2022 Cal. Green Code, sec. 4.408.2 on the cover sheet of the plans. - 2022 Cal. Green 4.408.2 (Provide City of Clovis Waste Management Plan)

**Are soil reports provided for this project?**

1. Provide a soil report for this project from a licensed professional. - 2022 CRC R106.1.1, Clovis Municipal Code Chapter 9.114 Soils Report, Clovis Municipal Code Section 9.22.070 Geologic/seismic hazards. **(When applicable)**

**Does this project have a Residential Site Plan Number?**

1. Provide the Residential Site Plan Review Number on the cover sheet of the plans. - 2022 CRC R106.1.1

If Standard Plans, coordinate with the Planning Department regarding the Conditions of Approval for the Tract Map. Make sure Standard Plans comply with all the final Conditions of Approval.

**SINGLE-FAMILY RESIDENCE / FLOOR PLAN**

**Is the North arrow shown on the floor plan?**

* + - 1. Show the north arrow on the floor plan. - 2022 CRC R106.1.1

**Complete floor plans for each floor included?**

1. Provide a complete floor plan for each floor. - 2022 CRC R106.1.1

**This is for new construction and additions/Alterations.**

**Are the size and types of all windows and doors shown?**

1. Plans must show the size and type of all windows and doors. Specify the operation of all windows, i.e., fixed, slider, single hung, etc. - 2022 CRC R106.1.1

**Is there a cross-section provided?**

1. Include a cross-section for each condition as shown on the plan set. - 2022 CRC R106.1.1

**Is the ceiling height for all rooms noted on the floor plan?**

1. Specify the ceiling height in each room on all the floor plans. Include all rooms in the home, garage, porch & patio. - 2022 CRC R106.1.1

**Are any walls less than 5 feet to a property line 1hr fire rated?**

1. Where the exterior walls are less than 5' of the property line, it is required to be of 1-hour construction. Unless the residence is provided with fire sprinklers, the 1-hour construction is required at less than 3'. - 2022 CRC Table R302.1 (1) (non-sprinkled) & CRC Table R302.1 (2) (for new Structures.)

**Is the garage a conforming two or three-car garage?**

1. The garage must be 20'x22' clear. These dimensions must be clear, inside/inside, with no obstructions. - Clovis Municipal Code 9.32.040 & Table 3-12.

**Note for the non-conforming three-car garage on the foundation?**

1. Note on the foundation plan that this three-car garage is non-conforming, and the required side yard setbacks may not be relaxed. - 2022 CRC R106.1.1

**Is there a door shown** **from the garage into a sleeping room?**

1. Openings from a private garage directly into a room used for sleeping purposes shall not be permitted. - 2022 CRC R302.5.1

**Is there a 1-3/8 thick solid core or 20-minute self-closing door between the dwelling and the garage?**

1. The door between the garage and the dwelling must be a solid wood door of not less than 1 3/8 inch in thickness, solid or honeycomb core steel doors not less than 1 3/8 inches thick, or 20-minute fire-rated doors, equipped with self-closing or automatic-closing and self-latching devices door. - 2022 CRC R302.5.1

**Is proper ceiling height provided in all areas requiring it?**

1. Habitable space, hallways, and basement portions containing these spaces shall have a ceiling height of not less than 7 feet. Bathrooms, toilet rooms, and laundry rooms shall have a minimum height of 6 feet 8 inches. - 2022 CRC R305.1

**Exception**: Where the residence and the private garage are protected by an automatic fire sprinkler system, other doors between the private garage and the residence need only be self-closing and self-latching. **This Exception shall not apply to rooms used for sleeping purposes.**

**Are all glazed areas in hazardous locations glazed with safety material?**

1. Glazing in a hazardous location is required to be glazed with safety material. - 2022 CRC R308

**Do all habitable rooms have 8% of the floor area in natural light?**

1. This area requires glazed opening(s) having an area equal to 8% or more of the floor area. - 2022 CRC R303.1 (Review exceptions.)

**Do all habitable rooms have 4% of the floor area inoperable exterior openings?**

1. This area requires operable exterior opening(s) having an area equal to 4% or more of the floor area. - 2022 CRC R303.1 (Review exceptions.)

**Is a mechanical venting system provided if a restroom (1/2 bath) does not have an exterior window?**

1. A restroom is required to have an openable window of not less than 3 square feet, one-half of which shall be operable or a mechanical ventilation system. - 2022 CRC R303.3

**Full bathroom with tub, shower, or tub/shower installed.**

1. Each bathroom containing a bathtub, shower, or tub/shower combination shall be mechanically ventilated for humidity control in accordance with the - 2022 CMC Chapter 4. and 2022 CRC R303.3.1

**If an interior room is considered a portion of an adjoining room, is the correct size opening provided for light and ventilation sharing?**

1. A room must have light and ventilation directly to the exterior or share light and ventilation with another room. To share, 1/2 of the common wall area must be open and unobstructed and provide an opening of not less the one-tenth of the floor area and not less than 25 square feet. - 2022 CRC 303.2

**Do all rooms used for sleeping and basements have an egress opening?**

1. The sleeping areas require an exterior opening for emergency escape and rescue. The minimum opening width is 20", the minimum opening height is 24," and the required openable area is 5.7 Square Feet. The sleeping areas on the first floor may be 5.0 five Square Feet. With the same opening dimensions. - 2022 CRC R310.2.1, R310.1.2 & R310.1.3

**Is a 2-inch clearance provided around the masonry chimney?**

1. Any portion of a masonry chimney located in the interior of the building or within the exterior wall of the building shall have minimum airspace to combustible of 2 inches - 2022 CRC R1003.18

**Is the hearth the correct size?**

1. The size of the hearth must meet the minimum requirements. - 2022 CRC R1001.9 & R1001.10

**Is the gas fireplace an approved unit?** - **2022 CMC 912.2**

1. (1) Shall be direct-vent sealed-combustion type (HDC 1 & HDC 2),
   1. Installed according to their listing and manufacturer's installation instructions and installed in or attached to combustible material shall be specifically listed for such installation.
   2. Unlisted vented gas fireplaces shall not be installed in or attached to combustible material (See clearance within this section)
   3. Panels, grilles, and access doors that are required to be removed for normal servicing operations shall not be attached to the building
   4. Direct-vent gas fireplaces shall be installed with the vent-air intake terminal outdoors and in accordance with the manufacturer's installation instructions.

**Is the garage separated from the dwelling & its attic?**

1. The garage and its attic must be separated from the dwelling by ½" sheetrock on the garage side's common wall. Sheetrock must extend from the foundation to the roof sheathing or be installed on the common wall up to the garage ceiling and the garage ceiling. - 2022 CRC R302.6 & Table R302.6

**What is the separation of habitable rooms above the garage or carport?**

1. ½-inch sheetrock on the common wall, 5/8-inch Type X Gypsum on the ceiling, and 1/2-inch gypsum board on the walls supporting floor/ceiling assemblies. - 2022 CRC Table R302.6.

**Townhouse separation:**

1. Common walls in townhouses shall be separated in accordance with the - 2022 CRC Section

**Do the corridors have the minimum required finish width of 36 inches?**

1. The minimum finish width of a corridor is 36 inches. - 2022 CRC R311.6

**If there is enclosed usable space under stairs, are walls and ceiling protected with ½" sheetrock?**

1. The enclosed usable space under the stairs that is accessed by a door or an access panel must be protected by ½" sheetrock. - 2022 CRC R302.7

**Are smoke detectors provided in each sleeping room?**

1. A smoke detector is required in all rooms used for sleeping purposes. - 2022 CRC R314.3 (1)

**Are smoke detectors provided in the immediate vicinity of the bedrooms?**

1. Smoke detectors outside each separate area in the immediate vicinity of the bedrooms.- 2022 CRC R314.3 (2)

**Upper-level rooms used for sleeping are equipped with a smoke detector** Installed per the manufactures specification and installation manual.

1. Each additional story of the dwelling unit includes basements and a habitable attic and not to include crawl spaces and uninhabitable attics. - 2022 CRC R314.3 (3)

**Smoke alarm location new bathrooms**.

1. Smoke alarms shall be installed not less than 3 feet horizontally from the door or opening of a bathroom that contains a bathtub or shower. - 2022 CRC R314.3 (4)

**Smoke Alarms at different ceiling heights.**

1. In the hallway and in the room open to the hallway in dwelling units where the ceiling height of a room open to a hallway serving bedrooms exceeds that of the hallway by 24 inches or more. - 2022 CRC R314.3 (5)

**Smoke detector Interconnection & Power Source:**

1. Note on the electrical plan: **All** smoke alarms throughout this residence are required to be interconnected and must receive their primary power from the building wire and shall be equipped with battery backup. - 2022 CRC R314.4 & R314.6

**Carbon Monoxide Alarms installed in this dwelling?**

1. Show at least one Carbon Monoxide Alarm installed on each floor level in the dwelling unit & in the immediate vicinity of each separate sleeping area. All Carbon Monoxide Alarms and must receive their primary power from the building wire and shall be equipped with battery backup. - 2019 CRC R315.3 & R315.6

**EXTERIOR ELEVATION/SECTION DETAILS**

**Elevation requirements for new construction, additions, and alterations.**

1. For Additions or Alterations impacting exterior walls and rooflines, provide front and side exterior elevations showing all heights above surrounding grade, existing and new roof and wall materials, and new windows and doors, existing doors and windows, chimneys, and attic vents for the areas impacted by the proposed addition. - 2022 CRC R106.1.1

For new construction, provide all elevation sides of the structure (using North, South, East, and West identifications) to show the location of new doors and windows, chimneys, and attic vents for the proposed constructions. Show the heights above the adjacent finished grade and overhang dimension. Exterior finish, veneer, planters, and roof covering shall also be indicated. The exterior elevations shall also show a new roof, new wall materials, and new windows and doors. - 2022 CRC R106.1.1

**Exterior walls of the residence less than 3' from the property line?**

1. All exterior walls of the residence that are less than 5' from the property line without a fire sprinkler system shall be 1-hour construction. Any exterior wall less than 3’ from property lines with a fire sprinkler system shall be a 1-hour construction per Section 703.3 of the 2022 CBC. Provide a framing section detail at ½” scale for the affected walls and specify all materials that show how compliance is provided. - 2022 CRC Table R302.1 (1), or Table R302.1 (2)

**Are all heights above the surrounding grade shown for exterior elevations?**

1. Show the height of the building above the adjacent finished grade. - 2022 CRC R106.1.1,

**Does the chimney extend 2 feet above the roofing?**

1. The chimney must extend 2 feet above any roofing within 10 feet, but not less than 3' above the highest point where the chimney passes through the roof. - 2022 CRC R1003.9

**Are all materials for exterior elevations specified?**

1. Specify all materials for exterior elevations. - 2022 CRC R106.1.1

**Is the Overhang length noted on the roof framing and exterior elevation sheets?**

1. Note the overhang length on the exterior elevation and on the roof framing plan. - 2022 CRC R106.1.1 & Table R302.1(1) for existing, Non-Sprinklered dwellings & Table R302.1 (2) for Sprinklered dwellings

**Are the chimney, parapets, roof-to-wall connections flashing, and counter flashing?**

1. Show all flashing, counter-flashing, and crickets for chimneys, parapets, and roof-to-wall connections. Provide details. - 2022 CRC R903.2.1 & R903.2.2 & R903.2.3.

**Is building paper shown?**

1. Specify approved water-resistant barrier material to be applied to exterior walls. - 2022 CRC R703.2

**2 Layers of Grade D Building paper are shown over Wood Sheathing (applies to exterior plaster).**

1. Two layers of Grade D building paper or other approved material must be installed over wood sheathing. - 2022 CRC R703.7.3

**Are masonry veneer ties shown?**

1. Specify masonry veneer ties & wire. - 2022 CRC R703.8.4

**Lath and plaster specified?**

1. Specify lath and plaster to comply with 2022 CRC 703.7. Note on plans the thickness, wire gauge, and makeup and "provide weep-screeds in accordance with Chapter 7 requirements". Foam-type backing for stucco requires waterproof backing. Submit specifications and ICC report# for two-coat stucco systems. - 2022 CRC R106.1.1 & R703.7

**Is exposed foam protected in the attic at gable end conditions and unfinished garages?**

1. Show exposed foam protection in the attic at gable end conditions and unfinished garages. - 2022 CRC R316.4 & R316.5.3

**Age-in-place design for newly constructed dwellings.** - **2022 CRC Section R327**

1. At least one bathroom on the entry-level shall be provided with reinforcement installed for grab bars. If no entry-level bathroom is available on the floor, at least one bathroom on the 2nd floor shall comply with is section.

**2022 CRC R327.1.1 Reinforcement for grab bars.**

1. At least one bathroom on the entry-level shall (or above in needed) be provided with reinforcement of solid 2x8 nominal for grab bars. Located 32-39-1/4 inches AFF, additional blocking at tub bottom edge not more than 6” above tub rim (5 exceptions)

**2022 CRC R327.1.1.1 Documentation for grab bar reinforcement.**

1. Information and/or drawings identifying the location of grab bar reinforcement shall be placed in the operation and maintenance manual in accordance with the California Green Building Standards Code, Chapter 4, Division 4.4.

**2022 CRC R327.1.2 Electrical receptacle outlet, switch, and control heights.**

1. Electrical receptacle outlets, switches, and controls (including controls for heating, ventilation, and air conditioning) intended to be used by occupants shall be located no more than 48 inches measured from the top of the outlet box and not less than 15 inches from the bottom of the outlet box above the finish floor.

**2022 CRC R327.1.3 Interior doors.**

1. Effective July 1, 2024, at least one bathroom and one bedroom on the entry-level shall provide a doorway with a net clear opening of not less than 32 inches, measured with the door positioned at an angle of 90 degrees from the closed position; or, in the case of a two- or three-story single-family dwelling, on the second or third floor of the

dwelling if a bathroom or bedroom is not located on the entry-level.

**2022 CRC R327.1.4 Doorbell buttons.**

1. Doorbell buttons or controls, when installed, shall not exceed 48 inches above the 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 inches measured from the exterior floor or landing, a standard doorbell button or control shall also be provided at a height not exceeding 48 inches above the exterior floor or landing, measured from the top of the doorbell button or control.

**INTERIOR ELEVATIONS**

**Are the interior walls and ceiling finishes specified?**

1. Specify all interior wall and ceiling finishes. - 2022 CRC R106.1.1

**Water-resistant gypsum board specified?**

1. Indicate that the wall surface behind ceramic tile or other finish wall materials subject to water splash is constructed of materials not adversely affected by water. Note the use of fiber-cement, fiber-mat reinforced cement, or glass mat gypsum backers on the floor plan. Note that water-resistant gypsum board is no longer permitted in these locations. - 2022 CRC R702.4.2 & Table R702.4.2

**STAIRS**

**Was stairway detail provided?**

1. Provide a complete stairway cross section detail. - 2022 CRC R106.1.1

**Section detail with 6'8" headroom provided?**

1. Provide a section detail at the stairs showing the required headroom clearance. The minimum headroom vertically from a line intersecting the nosing of the stairs is 6 feet 8 inches. - 2022 CRC R311.7.2

**Do stairs have the minimum required width?**

1. Dimension the stairs to provide the required minimum width of 36 inches in clear width at all points above the permitted handrail height and below the required headroom height. The clear width of stairways at or below the handrail height, including treads and landings, shall not be less than 31-1/2 inches where one handrail is installed on one side and 27 inches where handrails are installed on both sides. - 2022 CRC R311.7.1.

**Note that a 6" dia.** **sphere cannot pass through.**

1. The guardrail detail shows that a 6" diameter sphere cannot pass through where the triangular area, formed by the guardrail's riser, tread, and bottom element, meets. - 2022 CRC R312.1.3 Exception #1

**Is there a handrail along the stairway?**

1. A handrail is required along a stairway. It must be 34 to 38 inches above the nosing of the steps, and if the side is open, the maximum size of an opening in the railing at the stairway is 4-3/8 inches. - 2022 CRC R311.7.8 & R312.1.3 exception. #2

**Does the handrail have proper continuity?**

1. Handrails shall be continuous for the full length of the flight, from a point directly above the top riser of the flight to a point directly above the lowest riser of the flight. Handrail ends shall be returned toward a wall, guard, or walking surfaces continuously to itself or to a post. 2022 CRC R311.7.8.4

* Handrail continuity shall be permitted to be interrupted by a newel post at a turn in a flight with winders, at a landing, or over the lowest tread.
* A volute, turnout, or starting easing shall be allowed to terminate over the lowest tread.

**Do residential stairs comply with the rise (7-3/4" max.) And the run (10" min.) Requirements?**

1. The maximum rise is 7-3/4" inches, and the minimum run is 10 inches. Show this in the stair details. - 2022 CRC R311.7.5.1 & R311.7.5.2

**Residential guardrail 42" high where the step is 30 inches or more provided?**

1. Guards shall be provided for portions of open-side walking surfaces, including floors, stairs, ramps, and landings that are located more than 30iinches measured vertically to the floor or grade below at a point within 36-inches horizontally to the edge of the open side. The minimum height of the guard is 42-inches above the walking surface. The spacing between vertical members shall not allow a 4-inch sphere to pass through. - 2022 CRC R312.1.1 R312.1.2 & R312.1.3

**Guardrail height at the stairway?**

1. Guards on the open side of stairs shall have a height of not less than 34" measured vertically from a line connecting the nosing. - 2022 CRC R312.1.2 Exception #1

The top rail of the guardrail serves as the handrail on the open sides of stairs; the top of the guard shall be not less than 34" and not more than 38" measured vertically from a line connecting the nosing. - 2022 CRC R312.1. Exception #2

**Guards on the open side of the stairs.**

1. Guards on the open side of stairs shall not have openings that allow passage of a sphere 4-3/8 inches in diameter. - 2022 CRC R312.1.2 & R312.1.3 Exception #2.

**Guardrail, handrail, or balcony railing designed to resist a 200 lb. Concentrated load.**

1. Show guardrail, stair handrail, or balcony railing is designed to resist a single concentrated load of 200lbs. Provide details and connections. - 2022 CRC Table R301.5

**Note that the largest and smallest riser difference shall not exceed 3/8".**

1. Provide a note stating that the difference between the largest and smallest riser shall not exceed 3/8". - 2022 CRC R311.7.5.1

**Note that the largest and smallest run difference shall not exceed 3/8".**

1. Provide a note stating that the difference between the largest and smallest run shall not exceed 3/8". - 2022 CRC R311.7.5.2

Winding stair treads have a minimum run of 6" with a minimum width and required tread depth at a point of 12" from the edge.

1. Show winding stair tread to have a minimum tread depth of 6" min. Winding stairs shall have a minimum width and required tread depth at a point 12" from the edge. - 2022 CRC R311.7.5.2.1

**Structural/Lateral Analysis (**When Applicable)

**Review the analysis and make the changes.**

1. Review the pages of the engineer's analysis and make the necessary changes to the plans. - 2022 CRC R106.1.1

**Are all design loads shown on the calculations?**

1. Show all design loads (wind, seismic, live, dead, etc.) Used to design this building in the calculations. - 2022 CRC 106.1.1

**Architectural sections keyed to structural details for clarity?**

1. Key all connections shown on architectural sections to structural sections for clarity. Show all hardware and fasteners. Specify all hardware and fasteners at all connections. - 2022 CRC R106.1.1

**The lateral analysis was provided.**

1. Provide an Engineer's lateral analysis for this structure **(when walls exceed 11’-7" from floor to top plate.**). Exception will allow 13’-7” story height with a maximum wall stud height of 12’-0” - 2022 CRC R106.1.1 and Section R301.3 and R602.3.1

**Are engineering calculations provided for all Glu-Lam, solid, or lvls Beams?**

1. Provide Engineering calculations for Glulam, LVL, Solid, or Similar Beams. - 2022 CRC R106.1.1

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**For Additions or Alterations with electrical systems.**

1. For Additions or Alterations with electrical systems or detached structures, show an approved grounding method and the location on the Foundation Plan. - 2022 CRC R106.1.1 & 2022 California Electrical Code, Article 250.52

**Is a foundation design included in the plans?**

1. Provide a complete foundation design for this building based on the soil for this site. Provide a complete foundation plan(s) for each option provided in the plans. - 2022 CRC 106.1.1

**Are flopped plans provided for all foundation options?**

1. Provide complete flopped foundation plan(s) for each possible option in the plans. A partial foundation plan(s) is not permitted. - 2022 CRC R106.1.1

**Location of approved ground method and indicated on the foundation plan?**

1. Indicate the type of approved grounding method and the location on the foundation plan - 2022 CEC 250.52 & 2022 CRC 106.1.1

**Compressive strength Concrete F'c specified from engineer's calculations?**

1. Specify the concrete F'c from the engineer's calculations on the plan set. - 2022 CRC 106.1.1

**Compressive strength of F'c for concrete specified?**

1. Specify that concrete shall have a minimum strength of 2500 psi in 28 days. - 2022 CRC R402.2 & Table R402.2
2. **Note for the non-conforming three-car garage on the foundation?**

Note on the foundation plan that this three-car garage is non-conforming, and the required side yard setbacks may not be relaxed. - 2022 CRC R106.1.1.

**Is the height of the finished floor for the slab noted to be 15.65" above the centerline of the street or 1.3' above the top of the curb?**

1. Note on the foundation plan that the finished floor for the structure must be 15.65" above the centerline of the street or 1.3' above the top of the curb. - 2022 CRC R106.1.1

**Are bearing wall footings dimensioned?**

1. Dimension all bearing wall footings. - 2022 CRC R106.1.1,

**Does the Foundation plan show the location of all footings: Exterior, interior, and piers?**

1. The foundation plan must show the location of all interior and exterior footings and piers. - 2022 CRC R106.1.1

**Hold downs, special anchor bolting installed at the time of inspection noted?**

1. Note on the foundation plan that all hold-downs, special anchor bolting requirements, and straps applicable to the building are in place at the time of foundation inspection. - 2022 CRC R106.1.1

**Hold downs and special anchor bolting dimensioned on the foundation plan?**

1. Dimension of all hold downs, special anchor bolting requirements, and straps apply directly to the building on the foundation plan. - 2022 CRC R106.1.1

**Foundation naturally durable wood or preservative-treated wood plates specified for sills on concrete?**

1. Specify naturally durable wood to decay or preservative-treated wood for sills on concrete in direct contact with the ground or unless separated from such slab by an impervious moisture barrier: - 2022 CRC R317.1 #3.

**Wood in contact or embedded in the ground or in concrete.**

1. All wood in contact with the ground, embedded in concrete in direct contact with the ground, or embedded in concrete exposed to weather that supports permanent structures intended for human occupancy shall be approved pressure-preservative-treated wood suitable for ground contact. - 2022 CRC R317.1.2

**Termite Protection Noted?**

1. Note on the foundation plan how termite protection is provided. - 2022 CRC R318.1
2. **Wood-to-earth separation 8" minimum?**

Note on the foundation plan and/or in the foundation details that 8" wood-to-earth separation is required when preservative-treated material is not used. - 2022 CRC R317.1 (2)

**Has minimum slab thickness shown?**

1. Show 3 1/2" minimum thickness for slab floors. - 2022 CRC R506.1

**Is Drainage provided for Court Yards?**

1. Note that surface water will be drained away from the building. The Foundation Plan shall show how the surface water is drained away from the building. Identify landscape drains & inlets - 2022 CRC R106.1.1

**ACCESS TO CRAWL SPACE**

**Are all crawl space areas provided access (18 X 24 minimum)?**

* + - 1. Show access is required to the crawl space area. The minimum size is 18 inches by 24 inches. - 2022 CRC R408.4 (Verify equipment to ensure crawl space access is ok)

**Crawl space ventilated?**

* + - 1. The crawl space area is required to be ventilated. Provide the underfloor ventilation calculations. One square foot for every 150 square feet of underfloor area is required. Show all vent locations and provide adequate cross ventilation. - 2022 CRC R408.2 (What about the other requirements for venting?)

**ROOF/floor framing**

**Truss drawings package provided.**

1. Provide manufacturer’s truss drawings. - 2022 CRC R106.1 & 2022 CRC R502.11.4 Floor Trusses, and R802.10 Roof Trusses.

**Is a roof framing plan provided?**

1. Provide a COMPLETE roof framing plan ¼” = 1-foot scale. - 2022 CRC R106.1.1

**Roof coverings detailed?**

1. Provide a complete list of materials used for the roof covering. Specify the roofing material fire classifications; if using tile, indicate the type and provide the square foot weight of the tile used. - 2022 CRC R106.1.1, & R902

**Are flopped plans provided for all roof framing plan options?**

1. Provide complete flopped roof framing plan(s) for each possible option in the plans. A partial roof framing plan(s) is not permitted. - 2022 CRC R106.1.1

**Is a floor framing plan provided?**

1. Provide a COMPLETE floor framing plan. - 2022 CRC R106.1.1

**Are all floor joists within the maximum allowed span?**

1. Make sure all floor joists are withinthe maximum allowed span. - 20122 CRC Tables R502.3.1 (1) & R502.3.1 (2) or per manufacturer's specifications, the Manufacurues span tables are ok to use. (I-joist systems)

**Is a Draftstop required at the floor-ceiling assembly?**

1. In combustible construction where there is useable space both above and below the concealed space of a floor-ceiling assembly, draftstops shall be installed so that the area of the concealed space does not exceed 1,000 square feet. The draft-stopping shall divide the concealed space into approximately equal areas. Specify the location of the draft-stopping & draft-stopping material. Clearly show the draft-stopping on the floor framing plan. - 2022 CRC R302.12

**Do all beams have support down to the foundation?**

1. Show support for all beams to the foundation. - 2022 CRC R502.6 and R802.6

**Rafter spans to comply with CRC Tables R802.4.1 (1) through R802.4.1 (8)**

1. Rafter spans shall comply with the maximum allowed spans. 2022 CRC Tables R802.4.1(1) through R802.4.1(8)

**Are rafters shown framed opposite of each other or offset on ridge board.?**

1. Show all roof rafters framed opposite of each other or offset not more than 1 ½" inches from each other on a ridge board. - 2022 CRC R802.4.2

**Are Collar ties, Straps, or Gussets shown?**

1. Show collar ties at 48" on center or strapping across the top of the rafters at 48" on center. Collar ties are to be a minimum of 1" x4". - 2022 CRC R802.4.2

**In conjunction with Collar ties or strapping, is the ceiling joist installed.?**

1. Are Ceiling joists installed, sized, and have proper connections? - 2022 CRC R802.5, R802.5.1, R802.5.2, R802.5.2.1 Ceiling joist lapped, and Table R802.5.2.

**When Rafter Ties or Kickers are Required**

1. When ceiling joists do not run parallel to rafters, Rafter ties are to be a minimum of 2" x4" and installed, Provide detail and show them on the roof framing plan. - 2022 CRC Table R802.5.2, R802.5.2.2

**Is Ridge size shown?**

1. Show the size of the ridge. - 2022 CRC R802.3

**Was Framing at openings provided?**

1. Provide framing detail at openings in the roof to comply. - 2022 CRC R802.9

**Stud Framing requirements.**

1. Where joists, trusses, or rafters are spaced more than 16 inches on-center, and the bearing studs below are spaced 24 inches on-center, such members shall bear within 5 inches of the studs. - 2022 CRC R602.3.3

**Exception**:

* + - 1. The top plates are two 2-inch by 6-inch or two 3-inch by 4-inch.
      2. A third top plate is installed
      3. Solid blocking equal in size to the stud is installed to reinforce the double top plate. - 2022 CRC R602.3.3

**Are Purlin detail and location shown?**

1. Show the location of all purlins and provide construction detail. - 2022 CRC R802.1.5

**Ladder to roof equipment no more than 15' above grade?**

1. Buildings of more than 15 ft in height shall have an inside means of access to the roof **unless other means acceptable to the authority having jurisdiction are used**.

- 2022 CMC 304.3.1

**22" X 30" attic access shown?**

1. Show the attic access with minimum dimensions of 22" X 30". Show attic access at each location where attics are separated and have 30" or greater over an area of not less than 30 square feet. - 2022 CRC R807.1,

**Gasketed Attic Access Door**

1. Note on the plan that all attic access openings are gasketed to prevent air loss. - 2022 CEC 150.0 (a) 3

**Skylight dual glazed?**

1. Indicate on the roof framing or floor plan that skylights are dual-glazed. Specify the manufacturer & the required maximum U-factor of 0.45 and a maximum SHGC of 0.23

- 2022 CEC Section 150.0 (q) (1) and Table 150.1-a

**Is the size of all roof framing members specified?**

1. Specify the size, species, grade & spacing of all roof framing members. - 2022 CRC R106.1.1

**Is the framing lumber at least the minimum grade shown in the CRC?**

1. Specify the size, species, grade & spacing of all framing members. - 2022 CRC R106.1.1

**Is the spacing of all roof framing members specified?**

1. Specify the spacing of all roof framing members. 2022 CRC R106.1.1

**Does the roof sheathing have a span-rated callout?**

1. Specify the panel span rating for roof sheeting. - 2022 CRC Table R503.2.1.1(1)

**Is roof panel edge and field nailing specified?**

1. Specify the roof panel edge nailing. - 2022 CRC Tables R602.3(1)

**Is roof diaphragm perimeter nailing specified?**

1. Specify the roof diaphragm perimeter nailing. (When Applicable) - 2022 CRC R106.1.1

**Shear transfers to roof diaphragm detailed?**

1. Detail all shear transfers from the walls to the roof diaphragm. Show all hardware and indicate the number of fasteners. When applicable and designed by an engineer, - 2022 CBC chapter 16 (When Applicable)

**Are all required bracing/purlins shown in the roof structure clearly shown?**

1. Show the required bracing/purlins in the roof structure. (When Applicable) - 2022 CRC R802.4.5

**Is 1/150th attic ventilation provided, and is the location and size of the ventilation openings indicated?**

1. Provide attic ventilation 1 square foot for every 150 square feet of the vent space. Show the location and size of ventilating openings. To use the 1/300th method, at least 40% and not more than 50% of the required venting must be shown in the upper portion of the attic area, not more than 3' below the ridge & the remainder of the required ventilation must be shown as eave or cornice vents. The calculations must specify the percentage of upper and lower venting. - 2022 CRC 806.2

**Attic venting provided for enclosed rafter spaces at the porch/patio with enclosed ceiling/rafter spaces?**

1. Enclosed rafter spaces where the ceiling is applied directly to the underside of rafters shall have cross ventilation for each separate space. Provide attic ventilation for each separate attic space. - 2022 CRC R806.1, R806.2 & R806.5

**Is weather protection provided for Glu-lam's?**

1. Add the following note on the Roof Framing Plan:

The portions of glue-laminated timbers that form the structural supports of a building or other structure exposed to weather and not fully protected from moisture by a roof, eave, or similar covering or exterior rated glulam beams shall be pressure treated with preservative or be manufactured from naturally durable or preservative-treated wood. - 2022 CRC R317.1 #8

**Are the sizes of the headers for the wall openings specified?**

1. Specify sizes of headers for wall openings or from an engineer's design on the plan set. - 2022 CRC R602.7 & Tables R602.7(1), R602.7(2) & R602.7.3

**Fire blocks at the floor, ceiling coves, and soffits?**

1. Show fire-blocking at floor lines, ceiling coves, and soffits. - 2022 CRC R302.11.1

**Over-framing detail provided.**

1. Provide a detail of the over-framing for the trusses/rafters. Indicate all material sizes and connectors on the plan set. - 2022 CRC R106.1.1

**Show the size of supporting elements for overhangs and patio covers.**

1. Specify the size of members supporting overhangs or patio roofs, i.e., outriggers. Specify the spacing of the outriggers. - 2022 CRC R106.1.1

**Truss Specifications and Layout plan**.

1. Provide roof/floor truss specifications and Layout plan. - 2022 CRC 106.1.1

**The roof/floor framing plan shall match the manufactured truss specifications and plan.**

1. All trusses are to be identified on the roof or floor framing plan. Show the spacing and direction of all members. - 2022 CRC 106.1.1

**Multi-ply truss locations shown?**

1. Show the exact location of all multi-ply truss locations on the roof framing plan(s). - 2022 CRC R106.1.1

**Connections of the truss to the top plate or truss-to-truss connections specified and detailed?**

1. Specify and detail the connection of trusses to the top plate and/or truss-to-truss connections on the roof/floor framing plan. - 2022 CRC R106.1.1 (look at the truss specifications, this will also have connectors required)

**Bearing of bottom chord for sloped trusses at the top plate detailed?**

1. Detail bearing of bottom chord for sloped trusses at the top plate. - 2022 CRC 106.1.1

**Gable end outrigger details provided?**

1. Specify the overhang support at gable end conditions. See the roof framing plan, for example - 2022 CRC R106.1.1

**Air-conditioning or mechanical equipment located on the truss/roof framing plan?**

1. When air-conditioning or mechanical equipment is installed on the roof framing plan or the trusses, show all additional dead loads on the rafters. Provide truss calculations to reflect additional loads due to mechanical equipment. - 2022 CRC R106.1.1

**Connections of beams to walls, beams to beams, joist/rafters to beams shown?**

1. Show connections of all beams to the wall, beam to beam, and joist/rafter to beam connections. Callout the type of connector used. - 2022 CRC R106.1.1

**Walls/framing**

**Specify the fastener type and spacing used per Table R602.3 (1) & Table 602.3(2).**

1. Specify fasteners and spacing for all conditions in this structure, per table, CRC Table R602.3 (1) & Table R602.3 (2). - 2022 CRC R106.1.1

**Specify the fastener type and spacing used for the gypsum board/panel per Table 702.3.5 and Table 602.3 (1).**

1. Specify the fasteners used and the spacing for the gypsum board in the plans. - 2022 CRC R106.1.1 & Table 702.3.5. Also, Table 602.3 (1) for Gypsum Sheathing for structural fasteners.

**Fasteners & connectors for preservative-treated wood specified on the framing plan?**

1. Add the following note:

Fasteners & connectors in direct contact with preservative-treated wood shall be of hot-dipped zinc-coated galvanized steel, stainless steel, silicon bronze, or copper. Staples shall be made of stainless steel. - 2022 CRC R317.3.1

**Is the stud size and spacing correct?**

1. The size and spacing of studs are not shown correctly. - 2022 CRC R602.3.1 & Table R602.3(5) or R602.3 (6)

**Framing details provided?**

1. Provide typical framing details. - 2022 CRC 106.1.1

**Indicate the type and location of sill plate fastening.**

1. Show sill plate fasteners and locations. - 2022 CRC R106.1.1

**Unbraced stud height exceeded?**

1. The maximum height for unbraced studs has been exceeded. Provide larger studs or bracing that meet the requirements of the Code. - 2022 CRCTable R602.3(5)

**Is exterior bracing Shown on the plans?**

1. Show the required exterior braced wall locations. - 2019 CRC R602.10

**Interior bracing detailed?**

1. Show The required interior bracing. - 2022 CRC R602.10

**Fire Blocking was installed correctly.**

1. **Is fire blocking shown on the cross-section plan?** - **2022 CRC R302.11**

**PLUMBING**

**Plumbing plans provided?**

1. Provide a complete plumbing plan. Include hot & cold water lines & waste lines. Include sizing for each. - 2022 CPC 104.3.1

**Water heater location, vents, and clearances are shown?**

1. Show water heater location, vents, and clearances. - 2022 CPC 104.3.1

**Location of shower valves & showerhead shown?**

1. Show the control valves and showerhead on the sidewall of the shower compartment. Clearly show that the showerhead does not discharge at the entrance to the shower compartment. - 2022 CPC 408.9

**Is a thermostatic mixing valve noted on the floor plan?**

1. On the Plumbing Plan, add the following note: All shower and tub/shower valves must be pressure balance and/or thermostatic mixing types. The device must limit the water temperature to a maximum of 120 degrees. - 2022 CPC 408.3

**Seismic bracing for water heater provided?**

1. Show minimum seismic restraint requirements for all water heaters. The water heater is required to be strapped at the upper & lower 1/3 of the tank. A 4" minimum shall be maintained between the strap and the water heater controls. - 2022 CPC 507.2

**Is the water heater's first-hour rating noted on the floor plan?**

1. On the Plumbing Plan, add the following note: The minimum first-hour recovery for the water heater on the floor plan. - 2022 CPC 501.1 & Table 501.1. (1)

**Minimum plumbing facilities per 2022 CPC Table 422.1?**

1. Provide the minimum plumbing facilities specified in 2022 CPC Table 422.1.

**Minimum Waste pipe size?**

1. Only five water closets or six-unit traps are allowed on a 3" vertical pipe or stack, and not to exceed five water closets or six-unit traps on a horizontal branch or drain. - 2022 CPC Table 703.2 Footnote (4)

**Non-removable type backflow prevention devices on all hose bibbs?**

1. Add the following note, On the Plumbing Plan: Non-Removable Type Backflow Prevention Device required on all hose bibbs. - 2022 CPC 603.5.7

**Are appliances installed in garages and warehouses subjected to mechanical damage protected?**

1. Add the following note, On the Plumbing Plan: Appliances installed in garages, warehouses, or other areas where they may be subjected to mechanical damage shall be guarded against such damage by being installed behind protective barriers or by being elevated or located out of the flow of vehicles. - 2022 CPC 507.13, 507.13.1 & 2022 CMC 305.1 & CMC 305.1.1

**Access and working space for mechanical equipment provided?**

1. Provide access and working space for mechanical equipment that meets the requirements of - 2022 CMC 304.0

**Shower doors must be at least 22" wide.**

1. Shower door to be tempered and provide a minimum of 22" clear, unobstructed opening. -

**Fuel Gas Piping**

1. All fuel gas systems plans shall have a layout showing the maximum developed length of all branches and the appropriate size for the main and all branches based on the total demand. All calculations and sizing shall be based on 2022 CPC Section 1215.1.1 Longest Length Method, 1215.1.2 Branch Length Method, or 1215.1.3 Hybrid method. Use 2022 CPC Tables 1215.2(1) through 1215.2. (23) for the type of material used for gas piping. All piping layouts shall show the demand at each outlet.
2. In a common system serving a number of individual buildings, a shut-off shall be installed at each building. 2022 CPC 1210.9.2 This shut-off shall not be the meter shut-off.

**Is the water heater in the garage on an approved platform?**

1. The water heater shall be installed on an 18" platform - CPC 507.13

**Is the PEX flush note on the plumbing plan?**

1. Identify piping material for water delivery. If PEX is used, the following note must be provided on the drawings:

At the time of fill, each fixture shall have a removable tag applied stating: 'This new plumbing system was first filled and flushed on \_\_\_\_\_\_ (date) by \_\_\_\_\_\_\_\_ (name). The State of California requires that the system be flushed after standing at least one week after the fill date specified above. If this system is used earlier than one week after the fill date, the water must be allowed to run for at least two minutes before use for human consumption, and This tag may not be removed before the completion of the required second flushing except by the owner or occupant. - 2022 CPC 604.1.2

**MECHANICAL**

**Are mechanical plans and calculations provided?**

1. Provide mechanical plans and calculations. Show all register sizes, duct sizes, location of the mechanical unit, and duct insulation R-value. - 2022 CMC 104.3.1

**HVAC equipment location specified?**

1. Specify HVAC equipment locations on the Mechanical Sheet (roof mount, attic, or other). - 2022 CMC 104.3.1

**Is a level working platform provided?**

1. Where equipment or appliances that require service are installed on a roof having a slope of 4 units vertical in 12 units horizontal or more, a level platform of not less than 30 inches by 30 inches shall be provided at the service side of the equipment or appliance - 2022 CMC 304.2

**Mechanical ventilation provided?**

1. The required mechanical ventilation outdoor air rate (Qtot) shall be calculated in accordance with Equation 405.2

Exception: For existing buildings, the total mechanical ventilation (Qtot) is not required where Qtot is calculated to be less than 15 ft3/min.

(Equation 405.2)

Where:

Qtot = Total required ventilation outdoor air rate, CFM

Afloor = Floor area, ft2

Nbr = number of bedrooms more than 1

**Exhaust fans showed in restrooms?**

1. Show exhaust fans in restrooms. A mechanical exhaust directly to the outdoors shall be provided in each room containing a bathtub, shower, or tub/shower combination. The fan shall run intermittently (on demand) or continuously. A readily accessible manual control designed to be operated as needed or an automatic control shall be provided for intermittent operations. Specify a minimum of 50 CFM for intermittent fans or 20 CFM for continuous operation. - 2022 CMC 405.3

Fans shall be ENERGY STAR compliant and be ducted to terminate outside the building. Unless functioning as a whole house ventilation system, fans must be controlled by a humidity control. a) Humidity controls shall be capable of adjustment between a relative humidity range of ≤ 50 percent to a maximum of 80 percent. A humidity control may be a separate component to the exhaust fan and is not required to be integral (i.e., built-in). - 2022 Cal. Green Code. 4.506.1

**Are Mechanical exhausts shown in the kitchen(s)?**

1. Show exhaust fan(s) in kitchen(s). A mechanical exhaust directly to the outdoors shall be provided in each kitchen. The fan shall run intermittently (on demand) or continuously. A readily accessible manual control designed to be operated as needed or an automatic control shall be provided for intermittent operations. For intermittent-controlled operations, the exhaust rate shall be not less than 100 cfm for range hoods or 300 cfm for mechanical exhaust fans, including downdraft appliances. For continuously operated ventilation, the exhaust rate shall be not less than 5 air changes per hour based on kitchen volume for enclosed kitchens. - 2022 CMC 405.4

**Ventilation openings provided?**

1. Occupiable spaces shall be provided with a readily accessible ventilation opening openable to the outdoors. The opening shall be not less than 5 square feet or 4 percent of the occupied floor area. The openable area shall be based on a free, unobstructed area through the opening. - 2022 CMC 405.5

**Is exhaust termination shown on plans?**

1. Environmental air duct exhaust shall terminate not less than 3 feet from a property line, 10 feet from a forced air inlet, 10 feet above a public walkway, and 3 feet from openings into the building. Environmental exhaust ducts shall not be directed onto a public walkway. - 2022 CMC 502.2.1

**Are combustion air openings shown?**

1. How are you going to provide combustion air to the appliances per the 2022 CMC Chapter 7? - 2022 CMC 701.1

**Indoor Combustion Air**

The required volume of indoor air shall be determined in accordance with the method in Section 701.4.1 or Section 701.4.2, except that where the air infiltration rate is known to be less than 0.40 ACH (air change per hour), the method in Section 701.4.2 shall be used. The Total required volume shall be the sum of the required volume calculated for appliances located within the space. Rooms communicating directly with the space in which the appliances are installed through openings not furnished with doors, and through combustion air openings sized and located in accordance with Section 701.5, are considered a part of the required volume. - 2022 CMC 701.4

**Standard Method**

The minimum required volume shall be 50 cubic feet per 1000 British thermal units per hour (Btu/h). - 2022 CMC 701.4.1

**Known Air Infiltration Rate Method**

Where the infiltration rate of a structure is known, the minimum required volume shall be determined as follows:

1. For appliances other than fan-assisted, calculate using the following Equation 701.4.2(1)
2. For fan-assisted appliances, calculate using the following Equation 701.4.2(2).

Where:

Iother = All appliances other than fan-assisted input (Btu/h)

Ifan = (Fan-assisted appliance input (Btu/h)

ACH = Air change per hour (percent of volume of space exchanged per hour, expressed as a decimal)

1. For purposes of these calculations, an infiltration rate greater than 0.60 ACH shall not be used in the equations in Section 701.4.2(1) and Section 701.4.2(2).

**Outdoor Combustion Air**

Outdoor combustion air shall be provided through the opening(s) to the outdoors in accordance with the methods in Section 701.6.1 or 701.6.2. The minimum dimension of air openings shall not be less than 3 inches. - 2022 CMC 701.6

**Is the dryer vent to the exterior of the building?**

1. Provide a minimum 4-inch diameter, rigid metal dryer vent to the exterior of the building. The vent shall be 0.016 inch thick minimum. - 2022 CMC 504.4.2

Unless otherwise permitted or required by the dryer manufacturer’s instructions and approved by the Authority Having Jurisdiction, domestic dryer moisture exhaust ducts shall not exceed a total combined horizontal and vertical length of 14 feet, including two 90-degree elbows. A length of 2 feet shall be deducted for each 90-degree elbow in excess of two.

**Exception**: Where an exhaust duct power ventilator, listed and labeled in accordance with UL 705 and installed in accordance with the manufacturer's installation instructions, is used, the maximum length of the dryer exhaust duct shall be permitted to be in accordance with the dryer exhaust duct power ventilator manufacturer’s installation instructions. - 2022 CMC 504.4.2.1

Listed clothes dryer transition ducts up to 6 feet in length shall be permitted to be used to connect the Type 1 dryer to the exhaust ducts. Transition ducts and flexible clothes dryer transition ducts shall not be concealed within the construction and shall be installed in accordance with the manufacturer’s installation instructions. - 2022 CMC 504.4.2.2

**Is a backdraft damper provided at the dryer vent?**

1. Exhaust ducts shall terminate outside the building and shall be equipped with backdraft dampers or with motorized dampers that automatically shut where the systems or spaces served are not in use. - 2022 CMC 504.1.1

**ELECTRICAL**

**For Additions or Alterations with electrical systems.**

1. For Additions or Alterations with electrical systems, provide a detailed Electrical Plan showing compliance with the latest codes. If a detached structure, identify the Subpanel's location and the approved grounding method. Provide electrical calculations. - 2022 CRC R106.1.1

**Illuminated address sign note on the electrical plan?**

1. Clearly show the location of the "Illuminated address sign" on the electrical plan. Address numbersshall be a minimum of 4 inches high with a minimum stroke width of ½ inch. Show the address sign to be installed to be seen from the street. - R319.1 & Clovis FD STD. #1.8.

**Size of service specified?**

1. Specify the size of the main service panel. - 2022 CEC 220.10 - Minimum busbar rating of 225A - 2022 CEC 150.0(s)3

**Size of sub-panels specified?**

1. Specify the size of the sub-panel. - 2022 CRC R106.1.1

**What type of grounding system is being used?**

1. Call out the approved type of grounding, - 2022 CEC 250.52

**Size/material of grounding method specified?**

1. Specify the size and material of the grounding method - 2022 CEC 250.52

**Is the grounding method shown on the foundation plan?**

1. Show the location of the ground method on the foundation plan. - 2022 CEC 250.52

**Size of service grounding conductor to be specified?**

1. Specify the size of the service grounding conductor. - 2022 CEC 250.64 & Table 250.66

**Size of the water bond specified?**

1. Specify the size of the Water bond. - 2022 CEC 250.104 (A) and 2022 CEC Table 250.102(C)(1)

**Size of the gas bond specified?**

1. Specify the size of the Water bond. - 2022 CEC 250.104 (B) and 2022 CEC Table 250.122

**Inter-System bonding noted on the electrical plan?**

1. Note on the electrical plan that inter-system bonding is required for this residence. - 2022 CEC 800.100 & 820.100

**Are working clearances adjacent to subpanels or service equipment maintained?**

1. Working clearances around or adjacent to sub panels or service equipment must be maintained per - 2022 CEC Table 110.26(A)(1)

**Positive means of disconnect adjacent to the equipment served provided?**

1. Show equipment regulated by the Mechanical Code requiring electrical connections of more than 50 volts shall have a positive means of disconnecting adjacent to and insight from the equipment served. - 2022 CEC 440.14 (Air conditioning or refrigerating equipment)

**Outlet within 25' of mechanical equipment?**

1. Provide an electrical outlet within 25' of mechanical equipment & located on the same level to servicing the equipment. - 2022 CEC 210.63 & 2022 CMC 301.4 (2).

**Are outlets provided at the front and rear of the structure?**

1. Provide outlets at the front and rear of the structure. 2022 CEC 210.52 (E) (1).

**Are outlets provided on Balconies, Decks, and Porches?**

1. Balconies, Decks, and Porches within 4” horizontally to the dwelling unit and accessible from inside the dwelling unit shall have at least one receptacle outlet, GFI protected and waterproof type, accessible from the Balcony Deck or Porch. The receptacle outlet shall not be more than 6.5 ft. Above the Balcony, Deck, or Porch walking surface. - 2022 CEC 210.52 (E) (3).

**Do double lavatories have proper outlet requirements?**

1. At least one receptacle outlet shall be installed in bathrooms, and such an outlet shall be located within 36 inches of the outside edge of each lavatory basin. - 2022 CEC 210.52 (D)

**Is a receptacle provided for each vehicle space in attached or detached garages with power?**

1. Show a GFCI, Tamper-resistant receptacle for each vehicle parking space in the garage. 2022 CEC 210.11 (C) (4) Garage Branch Circuits. At least one 120-volt, 20-ampere branch circuit shall be installed to supply receptacle outlets in an attached and detached garage with electric power. This circuit shall have no other outlets.

**Exception**: This circuit shall be permitted to supply readily accessible outdoor receptacle outlets.

**Are outlets provided at 12' on center?**

1. Receptacles must be located so that no point in any wall space is more than 6' from a receptacle. - 2022 CEC 210.52(A)(1)

Wall Space:

#1 Any space that is 2 feet or more in width, including space measured around corners, and that is unbroken along the floor line by doorways and similar openings, fireplaces, and fixed cabinets that do not have countertops or similar work surfaces. - 2022 CEC Section 210.52 (A) (2) (1)

#2 the space is occupied by fixed panels in exterior walls, excluding sliding panels. - 2022 CEC 210.52 (A) (2) (2)

#3 Receptacle outlets in floors shall not be counted as part of the required number of receptacle outlets except where located within 18 inches of the wall. - 2022 CEC Section 210.52 (A) (2) (3)

**4 Wire feeder note for ranges & dryer noted?**

1. 2022 CEC 250.140 (are there other methods? 250.134, 250.138, and the Exception?) note that a four-wire feeder is now required at all ranges, dryers, counter-mounted cooking units, and ovens. The neutral conductor may no longer be used to ground the frame or J box of the range, oven, and dryer.

**Receptacle outlet at each counter in kitchens and dining rooms?**

1. Receptacles in the kitchen, dining, and similar locations shall be required in the following locations. Any surfaces in areas other of this use shall meet the requirements of. - 2022 CEC 210.52(C)(1)-(3)

**Exception:** Countertop spaces separated by range tops, refrigerators, or sinks shall be considered separate countertop spaces. Where a range, counter-mounted cooking unit, or sink is installed in an island or peninsula countertop and the depth of the countertop behind the range, counter-mounted cooking unit, or sink is less than 12 inches, the range, counter-mounted cooking unit, or sink has divided the countertop space into two separate countertop spaces as defined in 2019 CEC Section E3901.4.4. - 2022 CEC Figure 210.52 (C) (1)

* A receptacle outlet shall be installed at each wall countertop and work surface that is 12 inches or wider. Receptacle outlets shall be installed so that no point along the wall line is more than 24 inches, measured horizontally, from a receptacle outlet in that space. - 2022 CEC 210.52(C)(1).
* Island and Peninsular countertop spaces: (a) At least on receptacle shall be provided for the first 9 sq. ft. or fraction of the countertop or work surface. Additional receptacles shall be provided for each additional 18 sq. ft. or fraction thereof, of counter space or work surface. (b) At least one receptacle shall be located with 2’ of the outer end of a peninsular countertop or work surface. Any additional receptacles shall comply with 210.52(C)(3) - 2022 CEC Section 210.52(C)(2)(a)-(b)
* Receptacle Outlet location: - 2022 CEC 210.52(C)(3).

1. On or above countertop or work surfaces: Receptacles can be installed on or above the surface, but not more than 20” above the counter of work surfaces:
2. In countertop or work surfaces: Receptacles listed for use in counter tops can be installed in countertop or work surfaces.
3. Below countertop or work surfaces: Receptacle outlets shall be permitted to be mounted not more than 12 inches below the countertop or work surface. Receptacles installed below the work surface shall not be located where the surface extends more than 6’ beyond the support base.

**Arc Fault Circuit Interrupter provided for the protection of all habitable rooms in this residence.**

1. Note on the electrical sheet that all 120-volt, single-phase, 15 & 20 amp branch circuits supplying outlets or devices installed in dwelling unit kitchens, family rooms, dining rooms, living rooms, parlors, libraries, dens, bedrooms, sunrooms, recreation rooms, closets, hallways, laundry area, or all similar rooms or areas shall be protected by a listed arc-fault circuit interrupter, by any approved means as per this code section. - 2022 CEC 210.12(A) 1-6

**Is** **GFCI protection at these locations?**

1. Indicate that all 125V-250V (with 150V or less to Ground) receptacles in the following locations are equipped with GFCI protection. - 2022 CEC 210.8 (A) 1-10

* Bathrooms
* Garages and accessory buildings that have a floor located at grade.
* Outdoors
* Crawlspaces
* Basements
* Unfinished portions or areas of the basement are not intended for habitable rooms.
* Kitchens, where receptacles are serving the counter surface.
* Sinks, where receptacles are installed within 6’ of the outside edge of the bowl of the sink,
* Boathouses,
* Bathtubs or shower stalls, where receptacles are installed within 6’ of the outside edge of the bathtub or shower stall.
* Laundry Areas.
* Indoor damp and wet locations

**Is the dishwasher circuit noted as GFCI protected?**

1. Note/show on the electrical sheet that the dishwasher is required to be GFCI protected. - 2022 CEC 210.8(D) and CEC 422.5(A)

**Is Receptacle for Servicing Equipment GFCI protected?**

1. Note/show on the electrical sheet that all receptacles required by CEC 210.63 for servicing equipment is required to be GFCI protected. - 2022 CEC 210.8(E)

**Are All Outdoor outlets GFCI protected?**

1. Note/show on the electrical sheet that all exterior outlets rated 150V to ground or less, 50A or less, shall be GFCI protected. - 2022 CEC 210.8(F)

**Exception**: Lighting outlets are not required to be GFCI protected

**At least one wall switch-controlled lighting outlet in every habitable room, hallways, bathrooms, stairways, attached garages, and outdoor entrances?**

1. Indicate that at least (1) wall switch-controlled lighting outlet shall be installed in every habitable room, hallways, bathrooms, stairways, attached and detached garages, and outdoor entrances or exits. - 2022 CEC 210.70 (A), (1)&(2)

**Are Receptacles to close to Bathtub and Shower Space?**

1. Note: Per 2022 CEC 314.27(C), Outlet boxes mounted in the ceilings of habitable rooms of dwelling occupancies in a location acceptable for the installation of a ceiling-suspended (paddle) fan shall comply with one of the following:
2. Listed for the sole support of ceiling-suspended (paddle) fans
3. An outlet box complying with the applicable requirements of CEC 314.27 and providing access to structural framing capable of supporting of a ceiling-suspended (paddle) fan bracket or equivalent

**Exterior outlets waterproof type?**

1. All exterior outlets must be waterproof type. - 2022 CEC 406.9 (A) (B)

* Damp Locations: A receptacle installed outdoors in a location protected from the weather or in other damp locations shall have an enclosure for the receptacle that is weatherproof when the receptacle cover(s) is closed, and an attachment plug cap is not inserted. Installation suitable for wet locations shall also be considered suitable for damp locations. A receptacle shall be considered to be in a location protected from the weather where located under roofed open porches, canopies, and similar structures and not subject to rain or water runoff. Fifteen- and 20-ampere, 125- and 250-volt non-locking receptacles installed in damp locations shall be listed as weather-resistant types. - 2022 CEC 2022 CEC 406.9, (A)
* Wet Locations: Receptacles of 15 or 20 amperes, 125 and 250 volts installed in wet locations shall have an enclosure that is weatherproof whether or not the attachment plug cap is inserted. - 2022 CEC 406.9. (B) (1)

**Are Vacancy Sensor switching controls provided for the bathroom, garage, laundry, and utility rooms?**

1. Every bathroom, garage, laundry room, and utility room is required to have high efficacy lighting & must have at least one luminaire controlled by a vacancy sensor. 2019 CEC 150 (k) 2 (E)(i) and 150 (k) 1-A

**Is Surge Protection Provided?**

1. Surge protection required - 2022 CEC 230.67 (A)-(D)

(A) All services supplying dwelling units shall be provided with a surge-protective device (SPD).

(B) The SPD shall be an integral part of the service equipment or shall be located immediately adjacent thereto.

**Exception**: The SPD shall not be required to be located in the service equipment as required in (B) if located at each next level distribution equipment downstream toward the load.

(C) The SPD shall be a Type 1 or Type 2 SPD.

(D) Where service equipment is replaced, all of the requirements of this section shall apply.

**Is it noted 45 lumens per watt?**

1. Note: Receptacles shall not be installed within a zone measured 900 mm (3 ft) horizontally and 2.5 m (8 ft) vertically from the top of the bathtub rim or shower stall threshold. The identified zone is all-encompassing and shall include the space directly over the tub or shower stall.

**Exception No. 1**: In bathrooms with less than the required zone, the receptacle(s) shall be permitted to be installed opposite the bathtub rim or shower stall threshold on the farthest wall within the room.

**High Efficacy Lighting For Bathrooms Provided?**

1. Every bathroom shall have at least (1) high efficacy light fixture controlled by a vacancy sensor. All other lighting installed in each bathroom shall be high efficacy or controlled by a vacancy sensor. - 2022 CEC 150 (k) 5.

**Is it noted 45 lumens per watt?**

1. Note on the electrical sheet that the fluorescent lighting must be a minimum of 45 lumens per watt. - JA8.4.1

**Clearance of light fixtures in closets to the point of storage shown?**

1. Dimension the light fixture in closets to the nearest point of storage. - 2022 CEC 410.16 (C)

**Title 24 ENERGY COMPLIANCE AND GREEN ENERGY CODE**

**Title 24 documents provided.**

1. Provide Title 24 Energy Compliance Summary. - CCR Title 24 §100 (a) 1,2,3 & 2019 CRC R106.1

**Building components insulated to comply?**

1. Show building components to comply with the Energy Conservation Standards of Title 24, Part 6, Art. 2, - 2022 CRC 106.1.1

**Are copies of the CF-1R forms on the plans?**

1. Provide copies of the CF-1R forms in the plans set **or** on a separate sheet in an 8 ½” x 11” format. **Both are not required**. - 2022 CRC 106.1.1 and the 2022 CCR section 2.2

**Are the insulation type and rating specified for walls, floors, and ceilings?**

1. Specify the type and rating of the wall insulation (this includes pony and knee walls - 2022 CEC Table 150.1 (A)

**Are the HERS required inspections noted on the Mechanical plan?**

1. Add a copy of the HERS Feature Summary to the Mechanical Plan showing all HERS required testing for this residence on the mechanical plan (i.e., IAQ, Duct Sealing, Minimum Airflow, etc.) - 2022 CRC 106.1.1

**Are the CF-2R and CF-3R forms notes provided?**

1. Note that forms CF-2R and CF-3R must be submitted to the Building Inspector before the final inspection. - 2022 CRC 106.1.1 (This can be accomplished with the SEER or HERS apps, this would be the preferred method)

**Heating, ventilating, and air conditioning equipment, including efficiency ratings listed and described on the mechanical plan?**

1. List and describe all heating, ventilating, and air conditioning equipment, including efficiency ratings on the mechanical plan. - 2022 CRC 106.1.1

**Are duct R-values listed on the mechanical sheet?**

1. List duct R-values on the mechanical sheet. - 2022 CRC 106.1.1 CEC Table 150.1 (A)

**Central Fan integrated (CFI) Ventilation requirements).**

1. 2022 CEC Section 150.0 (o) (1) (b) (I, ii, iii, iv)

* Continuous operation is prohibited
* Outdoor air dampner(s). A motorized damper is required. Verify the dampener on the plan set.
* Damper controls.
* Variable Ventilation. CFI shall incorporate control to track outdoor air ventilation.

**Water heater Requirements?**

1. 2022 CEC 150.0 (n) (1) Water heater systems: (Gas).

Shall designate a space of at least 2.5 feet by 2.5 feet wide and 7 feet tall for the Future heat pump water heater.

* The designated space is within 3 feet of the water heater.
* A dedicated 125 volt, 15, or 20 amp electric receptacle that is connected to the electric panel with a 120/240 volt 3 conductor, 10 AWG copper branch circuit, within 3 feet from the water heater and accessible to the water heater with no obstructions.
* Both ends of the conductor shall be labeled “Spare” and be isolated
* A reserved single pole circuit breaker space in the electric panel adjacent to the circuit breaker branch circuit. Labeled “Future 240V use.”
* A condensate drains no more than 2 inches above the base of the installed water heater and allows natural draining with the use of a pump.
* The designated space is 3 feet or more from the water heater.
* Shall have a dedicated 240-volt branch circuit installed within 3 feet of the designated space. This shall be a 30 amp minimum. The blank cover shall be ID as 240V ready.
* The man service panel will have reserved space for a 2 pole circuit breaker. The reserved space shall be marked “ For Future 240V use.”
* Either a dedicated cold water supply or the cold water supply shall pass through the designated area.
* The hot and cold water piping shall be exposed and readily accessible for future installation.
* A condensate drains no more than 2 inches above the base of the installed water heater and allows natural draining with the use of a pump.

**Note that the luminaire schedule is provided for inspection purposes.**

1. The certificate (CF2R-LTG) is the primary compliance documentation for residential lighting. There will be one or more CF2R-LTG forms submitted for each project. Confirm that a CF2R-LTG covers lighting systems and lighting controls in the project. Confirm that all CF2R-LTG forms are registered if the project requires HERS field verification and diagnostic testing. (HERS verification is not required for residential lighting, but registration is required if any project measures do require HERS verification). - 2022 California Residential Manual 6.8.2 (A)

**Verify local mechanical exhaust in kitchen and bathrooms**

1. 2022 CEC Section 150.0 (o) (1) (G) (i, ii, iii, iv, and v)

* Nonenclosed Kitchens
* Enclosed kitchens and all bathrooms
* Demand-controlled mechanical exhaust
* Control and operation
* Ventilation rate and capture efficiency
* Continuous mechanical exhaust
* Control and operation
* Ventilation rate.
* Airflow measurements of local mechanical exhaust by the system installer.

**Verify Fenstartion Requirements**.

1. 2022 CEC Table 150.1-A

**Energy storage systems (ESS) Ready**

1. 2022 CEC Section 150.0 (s)

* At least one of the following shall be provided:
* ESS Ready interconnection equipment with a minimum backup capacity of 60 amps and a minimum of 4 ESS-supplied branch circuits
* A dedicated raceway from the main service to a panelboard that supplies the branch circuits. The raceway shall not be smaller than 1 inch. All branch circuits are permitted to be supplied by the main service panel before the installation of t an ESS. The panel board that supplies the branch circuits shall be labeled “Subpanel shall include all backup load circuits.
* A minimum of 4 branch circuits shall be identified and have their source of supply collocated at a single panelboard suitable for ESS. At least one circuit shall supply the refrigerator, one light circuit located near the primary egress, and at least 1 circuit shall supply a bedroom receptacle outlet.
* The main panel board 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 service. Raceways between the panelboard and the isolation equipment/transfer switch allow a backup power source.

**Energy Storage Systems (ESS) 2022 CEC Section R328**

**R328.1 General.**

1. Energy storage systems (ESS) shall comply with the provisions of this section.

**Exceptions:**

ESS listed and labeled in accordance with UL 9540 and marked “For use in residential dwelling units” were installed in accordance with the manufacturer’s instructions and the California Electrical Code.

* ESS less than 1 kWh (3.6 megajoules).

**R328.2 Equipment listings.**

1. Energy storage systems (ESS) shall be listed and labeled in accordance with UL 9540.

**Exception:** Where approved, repurposed unlisted battery systems from electric vehicles are allowed to be installed outdoors or in detached sheds located not less than 5 feet from exterior walls, property lines, and public ways.

**R328.3 Installation.**

1. ESS shall be installed in accordance with the manufacturer’s instructions and their listing.

**R328.3.1 Spacing.**

1. Individual units shall be separated from each other by not less than 3 feet except where smaller separation distances are documented to be adequate based on large-scale fire testing complying with Section 1207.1.5 of the California Fire Code.

**R328.4 Locations.**

1. ESS shall be installed only in the following locations:

* Detached garages and detached accessory structures.
* Attached garages separated from the dwelling unit living space in accordance with Section R302.6.
* Outdoors or on the exterior side of exterior walls located not less than 3 feet (914 mm) from doors and
* windows are directly entering the dwelling unit.
* Enclosed utility closets, basements, storage, or utility spaces within dwelling units with finished or noncombustible walls and ceilings. Walls and ceilings of unfinished wood-framed construction shall be provided with not less than 5/8-inch Type X gypsum wallboard. ESS shall not be installed in sleeping rooms, closets, or spaces opening directly into sleeping rooms or in habitable spaces of dwelling units.

**R328.5 Energy ratings.**

1. Individual ESS units shall have a maximum rating of 20 kWh. The aggregate rating of the ESS shall not exceed:

* 40 kWh within utility closets, basements, and storage or utility spaces.
* 80 kWh in attached or detached garages and detached accessory structures.
* 80 kWh on exterior walls.
* 80 kWh outdoors on the ground. ESS installations exceeding the permitted individual or aggregate ratings shall be installed in accordance with Section 1207 of the California Fire Code.

**R328.6 Electrical installation.**

1. ESS shall be installed in accordance with the California Electrical Code. Inverters shall be listed and labeled in accordance with UL 1741 or provided as part of the UL 9540 listing. Systems connected to the utility grid shall use inverters listed for utility interaction.

**R328.7 Fire detection.**

1. Rooms and areas within dwelling units, basements, and attached garages in which ESS are installed shall be protected by smoke alarms in accordance with Section R314. A heat detector, listed and inter-connected to the smoke alarms, shall be installed in locations within dwelling units and attached garages where smoke alarms cannot be installed based on their listing.
2. **[SFM]** ESS installed in Group R-3 and townhomes shall comply with the following:

* 1. Rooms and areas within dwelling units, sleeping units, basements, and attached garages in which ESS are installed shall be protected by smoke alarms in accordance with Section R314.
* 2. A listed heat alarm interconnected to the smoke alarms shall be installed in locations within dwelling units, sleeping units, and attached garages where smoke alarms cannot be installed based on their listing.

**R328.8 Protection from impact.**

1. ESS installed in a location subject to vehicle damage in accordance with Section R328.8.1, or R328.8.2 shall be provided with impact protection in accordance with Section R328.8.3.

**R328.8.1 Garages.**

1. Where an ESS is installed in the normal driving path of vehicle travel within a garage, impact protection complying with Section 1207.11.7.3 shall be provided. The normal driving path is a space between the garage vehicle opening and the interior face of the back wall to a height of 48 inches above the finished floor. The width of the normal driving path shall be equal to the width of the garage door opening. Impact protection shall also be provided for ESS installed at either of the following locations (See Figure R328.8.1):

* On the interior face of the back wall and located within 36 inches to the left or to the right of the normal driving path.
* On the interior face of a side wall and located within 24 inches from the back wall and 36 inches (914 mm) of the normal driving path.

**Exception:**

Where the clear height of the vehicle garage opening is 7 feet 6 inches or less, ESS installed not less than 36 inches above finished floor are not subject to vehicle impact protection requirements.

**R328.8.2 Other locations subject to vehicle impact.**

1. Where an ESS is installed in a location other than as defined in Section R328.8.1 and is subject to vehicle damage, impact protection shall be provided in accordance with Section R328.8.3.

**R328.8.3 Impact protection options.**

1. Where ESS is required to be protected from impact in accordance with Section R328.8.1 or R328.8.2, such protection shall comply with one of the following:

1. Bollards constructed in accordance with one of the following:

1.1. Minimum 48 inches in length by 3 inches in diameter Schedule 80 steel pipe embedded in a concrete pier not less than 12 inches deep and 6 inches in diameter, with at least 36 inches of pipe exposed, filled with concrete and spaced at a maximum interval of 5 feet. Each bollard shall be located not less than 6 inches from an ESS.

1.2. Minimum 36 inches in height by 3 inches in diameter Schedule 80 steel pipe fully welded to a minimum 8-inch by 1/4-inch thick steel plate and bolted to a concrete floor by means of 41/2 inch concrete anchors with 3-inch minimum embedment. Spacing shall be not greater than 60 inches, and each bollard shall be located not less than 6 inches from the ESS.

1.3. Pre-manufactured steel pipe bollards shall be filled with concrete and anchored in accordance with the manufacturer’s installation instructions, with spacing not greater than 60 inches, and each bollard shall be located not less than 6 inches from the ESS.

2. Wheel barriers constructed in accordance with one of the following:

2.1. Four inches in height by 5 inches in width by 70 inches in length wheel barrier made of concrete or polymer, anchored to the concrete floor not less than every 36 inches and located not less than 54 inches from the ESS. Minimum 31/2-inch diameter concrete anchors with a 3-inch embedment per barrier shall be used. Spacing between barriers shall be no greater than 36 inches.

2.2. Pre-manufactured wheel barriers shall be anchored in accordance with the manufacturer’s installation instructions.

3. Approved method designed to resist a 2000-lb. (8899 Newtons) impact in the direction of travel at 24 inches (608 mm) above grade.

**R328.9 Ventilation.**

1. Indoor installations of ESS that produce hydrogen or other flammable gases during charging shall be provided with mechanical ventilation in accordance with the California Mechanical Code.

**R328.10 Electric vehicle use.**

1. The temporary use of an owner or occupant’s electric-powered vehicle to power a dwelling unit while parked in an attached or detached garage or outdoors shall comply with the vehicle manufacturer’s instructions and the California Electrical Code.

**R328.11 Documentation and labeling.**

1. The following information shall be provided:

1. A copy of the manufacturer’s installation, operation, maintenance, and decommissioning instructions shall be provided to the owner or placed in a conspicuous location near the ESS equipment.

2. A label on the installed system containing the contact information for the qualified maintenance and service providers.

**R328.12 Toxic and highly toxic gas.**

1. ESS that have the potential to release toxic or highly toxic gas during charging-discharging and normal use conditions shall not be installed within Group R-3 or R-4 occupancies.

**Verify Heat pump space heater (ready).**

1. 2022 CEC Section 150.0 (t)

Shall have a dedicated 240-volt branch circuit installed within 3 feet of the furnace with no obstructions. This shall be a 30 amp minimum branch circuit. The blank cover shall be ID as 240V ready.

The man service panel will have reserved space for a double pole circuit breaker for a future heat pump. The reserved space shall be marked “ For Future 240V use.”

**Verify Electric cooktop (ready).**

1. 2022 CEC Section 150.0 (u)

Shall have a dedicated 240-volt branch circuit installed within 3 feet of the cooktop with no obstructions. The blank cover shall be ID as 240V ready. The branch circuit conductor shall be rated at 50 amps minimum.

The man service panel will have reserved space for a double pole circuit breaker for a future electric cooktop. The reserved space shall be marked “ For Future 240V use.”

**Verify Electric clothes dryer (ready).**

1. 2022 CEC Section 150.0 (u)

Shall have a dedicated 240-volt branch circuit installed within 3 feet of the clothes dryer with no obstructions. The blank cover shall be ID as 240V ready. The branch circuit conductor shall be rated at 50 amps minimum.

The man service panel will have reserved space for a double pole circuit breaker for a future electric clothes dryer. The reserved space shall be marked “ For Future 240V use.”

**Photovoltaic Requiements:**

1. 2022 CEC Section 150.1 (c) (14)

All single-family residential buildings shall have a newly installed photovoltaic system or newly installed PV Modules meeting the minimum requirements of JA11, of no less than the smaller PV system that can be installed in the building’s solar access roof area (SARA).

SARA includes the roof section that can support the PV, Roof areas of garages and carports, and all other newly constructed structures.

Any roof area that has less than 70 percent annual solar access.

**Exception** 1: for steep slope roof

**Exception** 2: no PV system is required if the specified size is less than 1.8 kW dc.

**Exception** 3: When determined it is not possible for a PV system by the Enforcement Authority

**Exception** 4: shading from roof design for steep roofs or roof areas not allowed by mandatory conditions. Approved by local planning departments.

**Exception** 5: systems by be reduced by 25 percent if installed in conjunction with an ESS with a minimum capacity of 7.5 kWh.

**Verify any alterations or additions requirements**

1. **Per the 2022 CEC chapter 9**

**Is a 6" square fresh air intake provided for the gas appliance fireplace at an exterior wall?**

1. Provide a 6" square fresh air intake for the gas appliance fireplace. – 2019 CEC 150.0 (e) (2)

**Are the Electric Vehicle Charging Station notes on the electrical sheet?**

1. Effective July 1, 2015, the following requirements for Residential "Electric Vehicle Charging Stations" shall apply: Note on the Electrical sheet that a minimum 1" ID listed raceway to accommodate a min. 40 amp. A dedicated 208/240-volt circuit be installed in the service panel for future electric vehicle charging. The panel must be labeled "EV CAPABLE." The receptacle or blank at the charging location shall be permanently & visibly marked as "EV CAPABLE." 2019 Cal. Green Code 4.106.4.1 (for single-family dwellings) & 4.106.4.2 (for multifamily dwellings).