

2022 Title 24 Significant Changes



Contact Information

- Nevada County Building Department
 - BuildingDept@co.nevada.ca.us
 - (530) 265-1222
- www.mynevadacounty.com/1114/Building-Department

- Nick McBurney
 - Supervising Building Plans Examiner
 - (530) 265-1542
- nicholas.mcburney@nevadacountyca.gov

Resources

Nevada County/NCCA Building Department Outpost

Staffed Thursdays 8:30am-12:30pm
Self-Serve Kiosk anytime NCCA is open

Over-the-Counter Wednesday Plan Review Program

Every Wednesday
Scheduled by appointment – First come-first serve
(530) 265-1222
BuildingDept@co.nevada.ca.us

Listserv

<https://www.mynevadacounty.com/list.aspx>



Who's in the Room?



VS

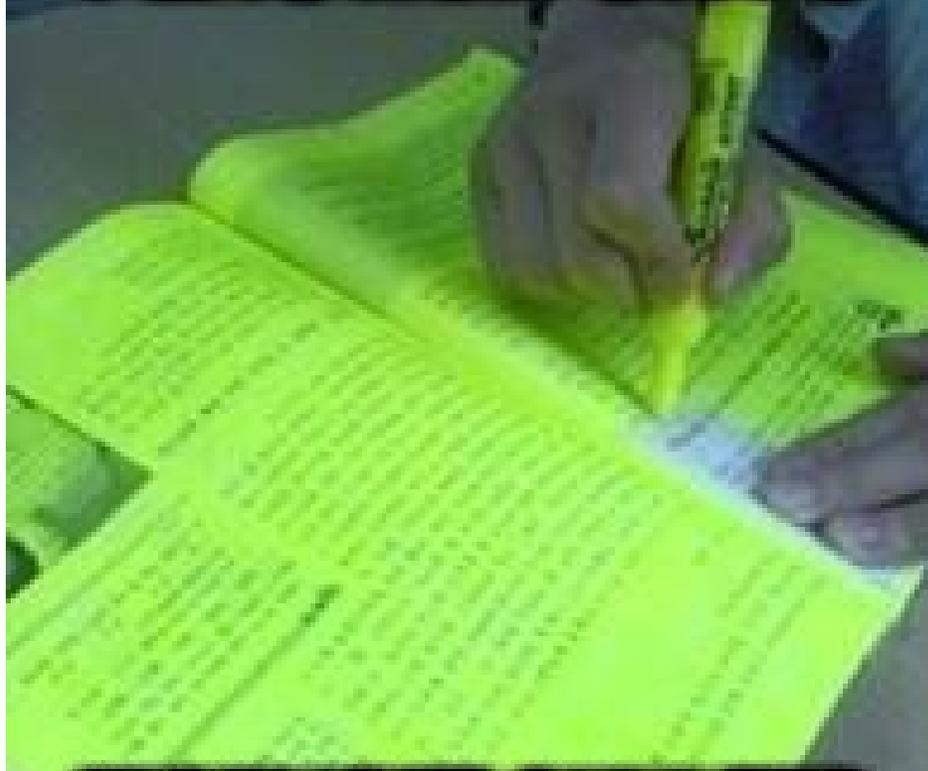




VS

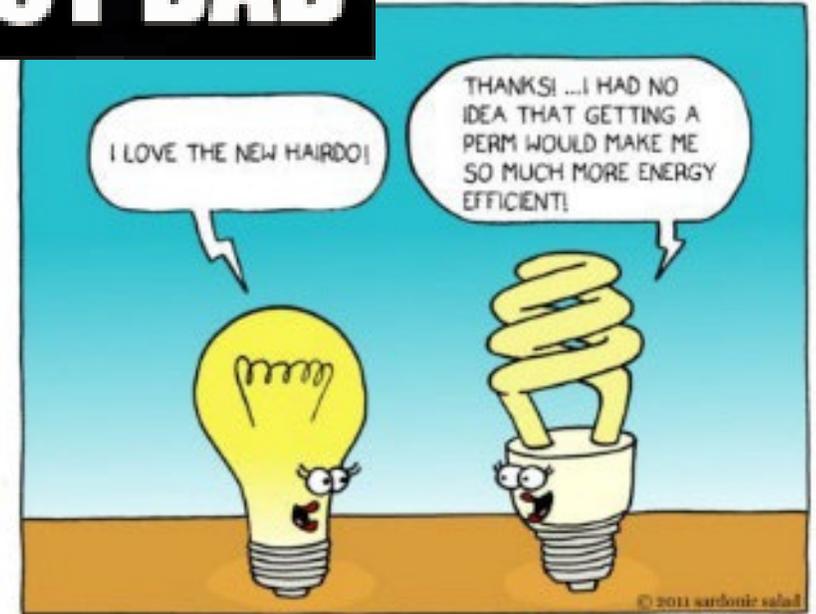


TEACHER SAYS



**HIGHLIGHT ONLY THE
IMPORTANT PARTS**

quickmeme.com





Effective

January 1, 2023

All permit applications submitted
on or after this date

Includes Master Plans



All Codes Viewable
Online for **FREE**

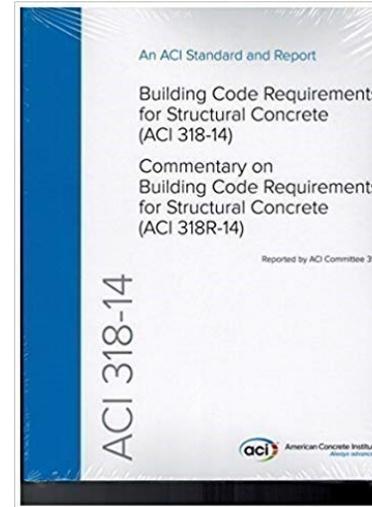
<https://www.dgs.ca.gov/BSC/Codes>

Significant changes to the 2022 California Building Code

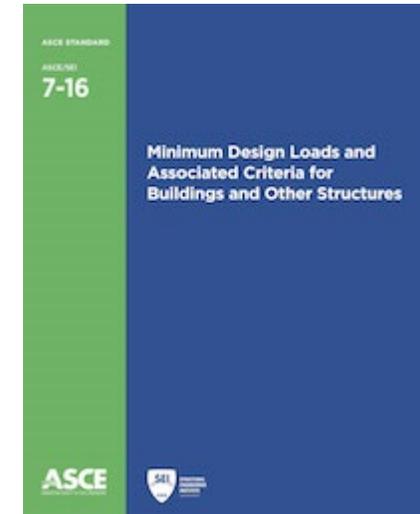


Primary Referenced Standards

ACI 318-19 – Structural Concrete



TMS 402/602-16 – Structural Masonry



ASCE 7-16 – Design Loads for Buildings/Structures

105.2 Work exempt from permits

- WUI may apply to 120sf exempt structures built within 50' of an applicable structure.



105.5.1 Permit Expiration

- Permit is valid for one year after issuance and one year after suspension of work once it has commenced
- Allows for extension of up to 180 days.

POST this CARD in a CONSPICUOUS PLACE

NOTICE OF TWENTY-FOUR HOURS REQUIRED FOR INSPECTION
FOR INSPECTIONS CALL 764-3532
KEEP THIS CARD FOR REFERENCE
THIS IS YOUR RECORD OF FIELD INSPECTIONS
CITY OF RIO DELL
BUILDING DEPARTMENT
RIO DELL, CALIFORNIA

INSPECTION RECORD CARD # 010515

OWNER Steve + Sharon Wolff
ADDRESS 3 Hunter St
APN 052-331-012
CONTRACTORS Crane Power

PERMIT # 010515

NOTES: DO NOT COVER WALLS UNLESS FRAME, ROUGH WIRING, ROUGH PLUMBING AND GAS PIPING HAVE BEEN SIGNED. PERMITS WILL BE VOIDED IF WORK IS STOPPED FOR 180 CONSECUTIVE DAYS.

BUILDING		
INSPECTION	INSPECTOR'S SIGNATURE	DATE
FOUNDATION: LOCATION, FORMS, SETBACK	<u>AK</u>	<u>2-3-08</u>
FRAME	<u>BSoman</u>	<u>2/1/05</u>
INTERIOR FINISH		
EXTERIOR FINISH		

PLUMBING		
INSPECTION	INSPECTOR'S SIGNATURE	DATE
ROUGH PLUMBING		
GAS SERVICE		

ELECTRICAL		
INSPECTION	INSPECTOR'S SIGNATURE	DATE
ROUGH ELECTRICAL SERVICE	<u>BDanner</u>	<u>2/1/05</u>

MECHANICAL		
INSPECTION	INSPECTOR'S SIGNATURE	DATE

FINAL APPROVALS		
INSPECTION	INSPECTOR'S SIGNATURE	DATE
BUILDING		
PLUMBING		
MECHANICAL		
ELECTRICAL		

PLEASE REPORT THIS NO. WHEN CALLING

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INSPECTION RECORD CARD # 100308

OWNER Steve + Sharon Wolff
ADDRESS 3 Hunter St
APN 052-331-012
CONTRACTORS

PERMIT # 100308

NOTES: DO NOT COVER WALLS UNLESS FRAME, ROUGH WIRING, ROUGH PLUMBING AND GAS PIPING HAVE BEEN SIGNED. PERMITS WILL BE VOIDED IF WORK IS STOPPED FOR 180 CONSECUTIVE DAYS.

BUILDING		
INSPECTION	INSPECTOR'S SIGNATURE	DATE
FOUNDATION: LOCATION, FORMS, SETBACK		
FRAME		
INTERIOR FINISH		
EXTERIOR FINISH		

PLUMBING		
INSPECTION	INSPECTOR'S SIGNATURE	DATE
ROUGH PLUMBING	<u>HC</u>	<u>2-04-04</u>
GAS SERVICE		

ELECTRICAL		
INSPECTION	INSPECTOR'S SIGNATURE	DATE
ROUGH ELECTRICAL SERVICE	<u>HK</u>	<u>2-04-04</u>

MECHANICAL		
INSPECTION	INSPECTOR'S SIGNATURE	DATE

FINAL APPROVALS		
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BUILDING		
PLUMBING		
MECHANICAL		
ELECTRICAL		

PLEASE REPORT THIS NO. WHEN CALLING



Construction Type IV-A, IV-B and IV-C



305.2 Group E Child Care

Now includes more than 6 children 36 months of age or older



306.2: Addition uses in group F1

Energy storage systems (ESS) and water/sewer treatment facilities added to group F1 occupancy classification



307.1.1 Uses other than group H

- Distilling or brewing of beverages conforming to the requirements of the California Fire Code.
- The storage of beer, distilled spirits and wines in barrels and casks conforming to the requirements of the California Fire Code.



311.2 Group S1 and 311.3 Group S2

Group S1, Moderate-hazard storage to include Beverages over 16-percent alcohol content

Group S2, Low-hazard storage to include Beverages up to and including 16-percent alcohol content

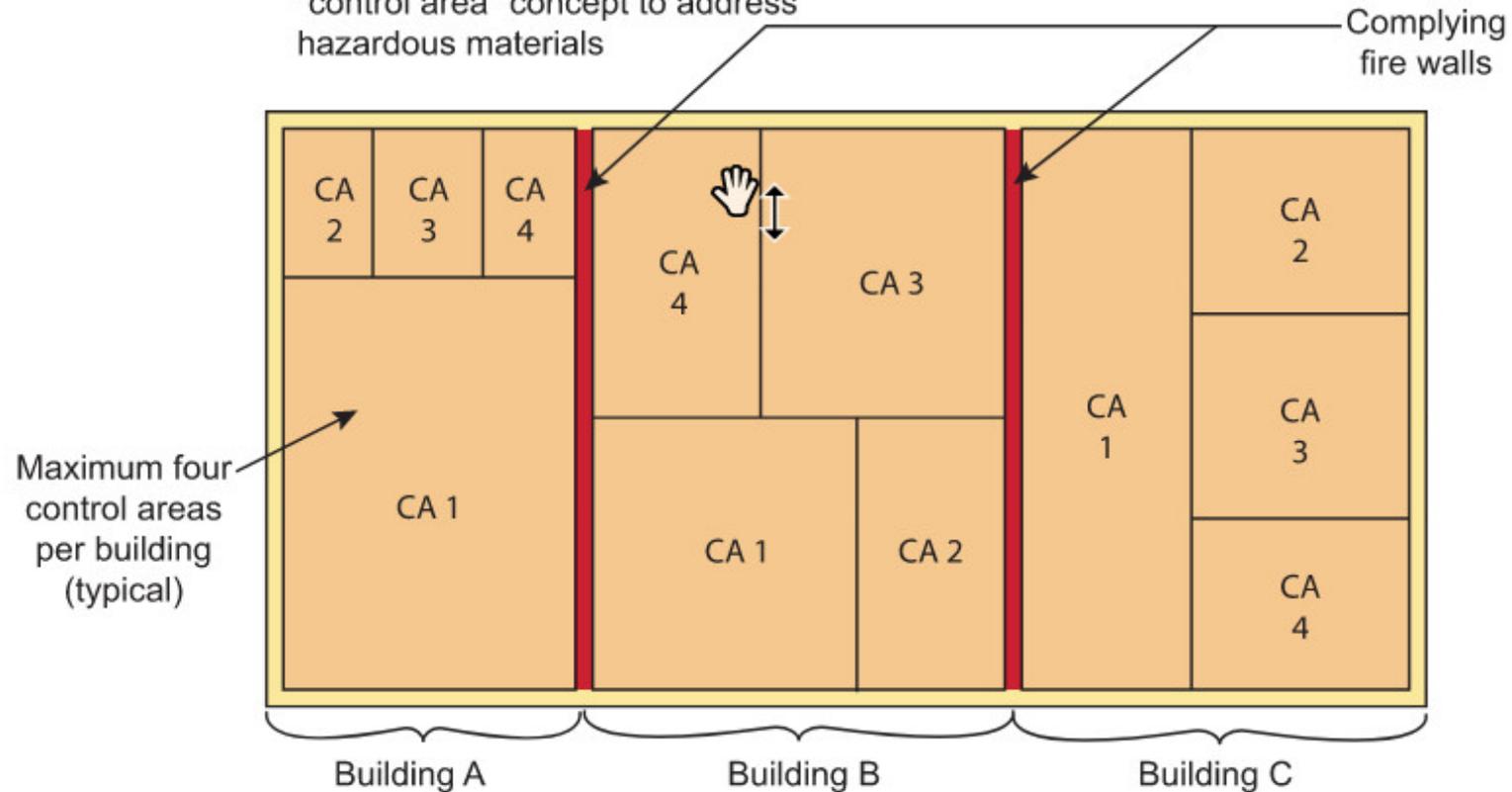


411.5 Puzzle Room Exits

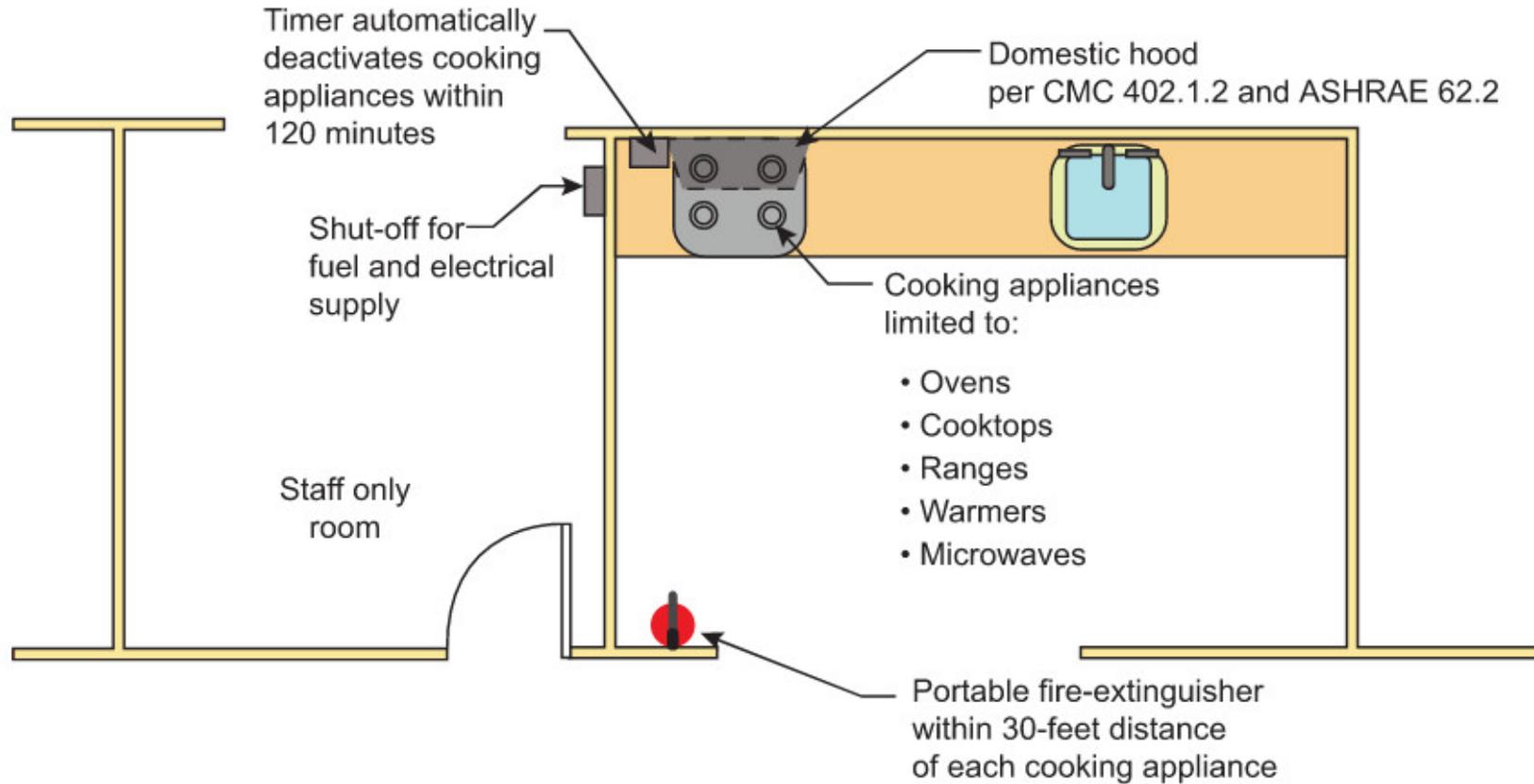
Puzzle rooms shall have exits that automatically open upon activation of alarms and shall have a manual control at a constantly monitored location

414.2.3 Fire wall use for Control Areas

Example: One-story manufacturing facility using "control area" concept to address hazardous materials



Cooking in Ambulatory Care Facilities



903.2.9.3 Fire Sprinklers in S-1 Occupancies

Fire sprinkler systems required for S-1 occupancy distilled spirits or wine and upholstered furniture and mattresses

1031.4 Emergency Escape and Rescue Doors

Requires door to be either swinging or sliding.

11B-108 Maintenance of accessible features

Features required by chapter 11B shall be maintained in operable working condition.



1210.3 New Public Restroom added

New requirement for a screening wall or other obscuring measure in the entry to the restroom.

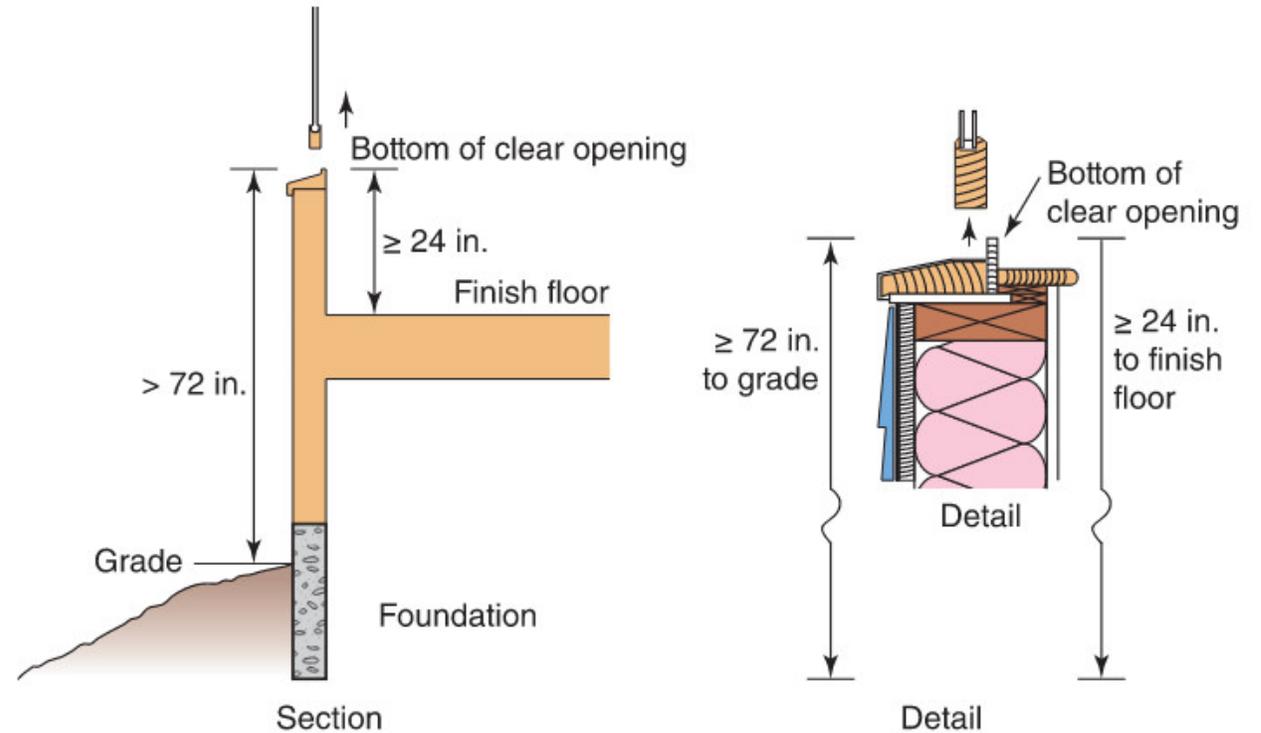


Significant Changes to the 2022 California Residential Code



312.2 Window Fall Protection

To be measured from the clear opening.



Measurements for window fall protection are taken to the bottom of the clear opening.

Building-integrated photovoltaic (BIPV)

324.6 Roof access and pathways exc 4: BIPV systems listed in accordance with Section 690.12(B) (2) of the California Electrical Code, where the removal or cutting away of portions of the BIPV system during firefighting operations have been determined to not expose a firefighter to electrical shock hazards.

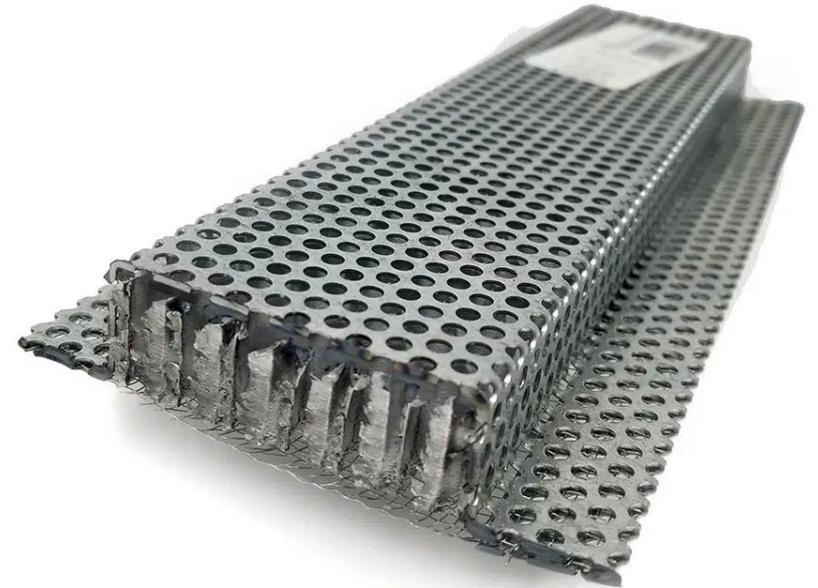
702A: FIRE-RESISTANT VEGETATION

Added new definition of plants less likely to ignite, contribute heat or spread flame. Also provides a list of resources for more information about these types of plants.

R806.1.1 Vents in the WUI

All vents required to resist building ignition from the intrusion of flame and burning embers through the ventilation openings

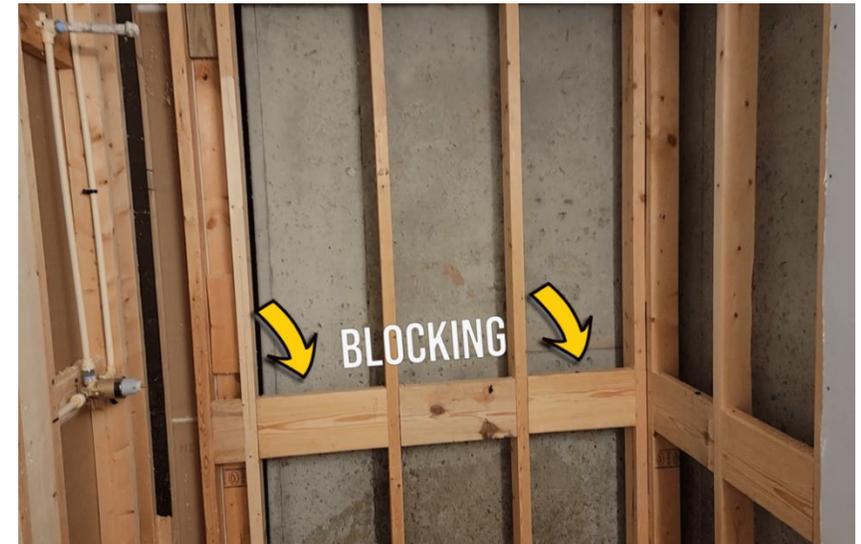
- Crawlspace vents
- Gable end vents
- Eave vents
- Exception: Off ridge and ridge vents installed on a sloped roof



327.1 Aging-in-place design and fall protection

- Grab bar reinforcement in bathroom on entry level: to be installed on both sides of the or back and side of water closet
- Shower reinforcement shall be continuous when framing is provided
- Documentation of reinforcement locations is required

Continued...



327.1 Aging-in-place design and fall protection

- Receptacle outlets to be installed no lower than 15” to bottom of box and no higher than 48” to top of box
- Effective July 1st, 2024: One bathroom and one bedroom shall have doorway with a net clear area of 32” with the door open
- Doorbell buttons when installed, shall not exceed 48” from top of button to exterior floor or landing

R328.4 Energy Storage Systems Locations

- Detached garages; attached garages with drywall separation
- Outdoor not less than 3 feet from windows and doors
- Enclosed utility closets, basements, storage or utility spaces within dwelling unit with finished or non-combustible walls and ceiling (drywall).



R328.7 ESS Fire Detection

- Smoke alarms required in locations where ESS are installed



R328.7 ESS Protection from Impact

Area subject to vehicular damage

- With of garage doors to back wall; 48” high; 36” additional at back wall, 24” deep
- Exception: Garage door opening is 7’6” or less then 36” high is considered safe

Impact protection options

- Bollards
- Wheel Barriers

R305.1 Ceiling Height Exception 4.

- Beams and girders spaced apart not less than 36 inches in clear finished width shall project not less than 78 inches from the finished floor



R301.1.4 Intermodal Shipping Containers.

- Intermodal shipping containers that are repurposed for use as buildings or structures shall be designed in accordance with the structural provisions in section 3115 of the California building code.



Significant Changes to the 2022 California Mechanical Code



Kitchen Exhaust Fans

Kitchen Exhaust Fans – Expanded section for kitchen exhaust hood requirements regarding continuous and intermittent fans (405.4, 405.4.1)



Significant Changes to the 2022 California Electrical Code



210.8 Receptacles in Indoor Damp Locations

All 125-volt through 250-volt receptacles installed in indoor damp locations, mud rooms, finished basements, and receptacles designated for laundry equipment shall have GFCI protection for personal use



210.52 (C) (1) Kitchen Island Receptacles

A minimum of 1 receptacle is required at each kitchen island as follows: one receptacle is required for first 9 ft² two receptacles required from 10 ft² – 27 ft² three receptacles required for 28 ft² – 47 ft² and four receptacles required for 48 ft² or more



230.67 Surge Protection Device

All services supplying dwelling units shall be provided a surge protection device. The SPD shall be an integral part of the service equipment or shall be located immediately adjacent thereto

406.12 Tamper Resistant Receptacles

Dwelling unit including attached and detached garages and accessory buildings shall have tamper resistant receptacles



230.85 Service Entrance Conductor Termination

For one and two-family dwellings, all service conductors shall terminate in a readily accessible **outdoor** location



518.6 Illumination in Assembly Occupancies

In assembly occupancies, illumination shall be provided for all working spaces about service equipment install outdoors

690.13 (A) Photovoltaic Disconnects

Where PV disconnecting means (above 30 volts) are readily accessible to unqualified persons, any enclosure door or hinged cover that exposes live parts when opened, is now required to be locked or require a tool to open (CEC 690.13 (A))

690.56 (C) (2) Shutdown Labeling

Buildings with PV systems shall have a permanent label located at each service indicating the location of the rapid shut down initiation device(s), and the initiation device shall be label “RAPID SHUTDOWN SWITCH FOR SOLAR PV SYTEM” located not more than 3’ from switch

Significant Changes to the 2022 California Plumbing Code



707.4 (3) Kitchen Sink Cleanout

Kitchen sinks required to have a cleanout on piping above the floor level of the lowest floor of the building



408.5 Wet Locations

The entire floor space in a room where the shower has no threshold shall be considered a wet location.



309.6 Dead Legs

“Dead Legs” shall have a method of flushing

Table 702.1 Note #9 Bathtub to Shower Retrofit

For bathtub to shower retrofit, a 1-1/2" trap and trap arm are allowed with a maximum shower size 36"W x 60"L (Table 702.1 note #9)

606.9 Check Valve for water circulation

All systems that circulate water with a pump or mechanically shall have a check valve or equivalent device



Temperature Limiting Requirements

New temperature limiting requirements and standards for
Gang Showers (408.3.2), Bathtubs and Whirlpool Bathtubs
(409.4)

Significant Changes to the 2022 California Energy Code

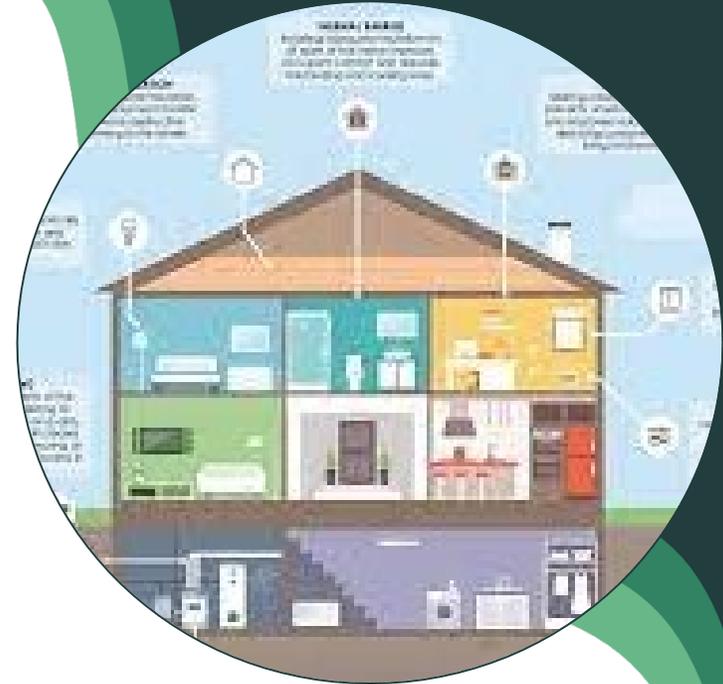


Table 150.0-A High Luminous Efficacy lighting

- ◆ Mandatory Measures require use of only “**high luminous efficacy**” lighting of 2 types—Automatic High Efficacy & others meeting jA8 requirements. (2022 CEC Table 150.0-A). High-efficacy lighting **exceptions:** for Integrated Device Lighting, Navigation Lighting and Cabinet Lighting.
(150.k(1)A)

150.0(a)1 Insulation either above or below roof deck

Exceptions:

- Air handler and ducts located entirely in conditioned space
- <12 linear feet of ducting in unconditioned space

150.2(b) Ceiling/Attic Alterations

If air handlers and ducting are within vented attic

- Altered ceiling must be insulated to R-49 in Climate Zones 1-4, 6, and 8-16
- Ceiling can lights are to be covered with same depth of insulation as rest of ceiling
- Requirements for sealing of ceiling plane must be met

150.0 Electric Ready

Gas fire appliance locations shall be provided with the infrastructure necessary for electric alternatives.

150(n) Water Heaters

Gas or propane water heaters must be installed in or adjacent to a space large enough to accommodate a heat pump water heater (2.5'x2.5'x7')

- Within 3ft of water heater with dedicated 125 volt/20 amp outlet with 120/240 volt 3 conductor branch circuit
- More than 3 ft 240 volt/30 amp electrical feed.

150.0(t) Furnaces

- Provide a 240 volt/30 amp electrical feed to the furnace for future heat pump

150.0(u) Cooktops

- Include a 240 volt/50 amp feed for future cooktop

150.0(v) Dryer

- Include a 240 volt/30 amp feed for dryer if the unit has a gas line for a dryer
- Each Electric Ready item requires breaker space and labeling in panel

150.0(s) Energy Storage System

Battery Ready

At least one of the following must be provided

- Interconnection equipment with a minimum backed up capacity of 60 amps
- A dedicated raceway from the main service to a subpanel that supplies the branch circuits
- Refrigerator, lighting circuit near primary egress, a sleeping room receptacle outlet, and one of your choice

150.0(s) Energy Storage System Continued

- Main panel shall be minimum 225 amps
- Sufficient space shall be reserved to allow future installation of system isolation equipment or transfer switch within 3' of the main panelboard
- Raceway will be installed between the panelboard and the system isolation equipment or transfer switch location to allow the connection of backup power source

Lighting

Bathrooms, Laundry/Utility Rooms, **Walk-in Closets & Garages.**

Require Controls:

- At least one lamp or luminaire (of any type) to be controlled by vacancy or occupancy sensor with auto-off function per space
- Dimmer not required since this is not considered a “habitable Space”

Habitable Spaces

Required controls for Habitable Spaces:

- Readily-accessible, wall mounted dimmer controls that allow lighting to be adjusted up and down
- Dimmer not required when:
 - Auto-off sensors are utilized for vacancy/occupancy controls in the space
 - Luminaires are connected to a circuit with controlled lighting power <20 watts.

150.0(o)1G New Kitchen Hoods

New Kitchen Hood Table 150.0-G is based on

- Home Size
- Fuel Type

150.2(b) HVAC Alterations

Duct Systems:

- Alterations to duct systems leakage must now test at 10% (formerly 15%)

Significant Changes to the 2022 California Green Building Standards Code



QUESTIONS?