

# CALIFORNIA BUILDING CODE

## APPENDIX O

# EMERGENCY HOUSING

### SECTION O101 GENERAL

**O101.1 Scope.** This appendix shall be applicable to emergency housing and emergency housing facilities, as defined in Section O102. The provisions and standards set forth in this appendix shall be applicable to emergency housing established pursuant to the declaration of a shelter crisis under Government Code section 8698 et seq. and located in new or existing buildings, structures, or facilities owned, operated, erected, or constructed by, for or on behalf of the County of Sonoma on land owned or leased by the County of Sonoma.

**O101.2 Application.** Notwithstanding any provisions of this Code to the contrary, the following requirements shall apply to emergency housing operated during a shelter crisis, as provided for in Government Code Section 8698 et seq. Other than the specific requirements set forth in this appendix, the facilities need not comply with the requirements of this Code for Group R occupancies unless otherwise specified in this Code.

### SECTION O102 DEFINITIONS

**O102.1 General.** The following words and terms shall, for the purposes of this appendix, have the meanings shown herein. Refer to Chapter 2 of this code for general definitions.

**DECLARATION OF SHELTER CRISIS.** The duly proclaimed existence of a situation in which a significant number of persons are without the ability to obtain shelter, resulting in a threat to their health and safety. (See Government Code Section 8698.)

**DEPENDENT UNIT.** Emergency housing not equipped with a kitchen area, toilet, and sewage disposal system. Recreational vehicles that are not self-contained and without utility service connections shall be considered dependent units.

**EMERGENCY HOUSING.** Housing in a permanent or temporary structure(s), occupied during a declaration of state of emergency, local emergency, or shelter crisis. Emergency housing may include, but is not limited to, buildings and structures constructed in accordance with the California Building Standards Code; and emergency sleeping cabins, emergency transportable housing units, and tents constructed in accordance with this appendix.

**EMERGENCY HOUSING FACILITIES.** On-site common use facilities supporting emergency housing. Emergency housing facilities include, but are not limited to, kitchen areas, toilets, showers and bathrooms with running water. The use of emergency housing facilities is limited exclusively to the occupants of the emergency housing, personnel involved in operating the housing, and other emergency personnel.

**EMERGENCY HOUSING SITE.** A site containing emergency housing and emergency housing facilities supporting the emergency housing.

**EMERGENCY SLEEPING CABIN.** Relocatable hard-sided structure constructed in accordance with this appendix, which may be occupied only for emergency housing if allowed by the enforcing agency.

**EMERGENCY TRANSPORTABLE HOUSING UNIT.** A single- or multiple-section prefabricated structure that is transportable by a vehicle and that can be installed on a permanent or temporary site in response to a need for emergency housing. Emergency transportable housing units include, but are not limited to, manufactured homes, mobile-homes, multifamily manufactured homes, recreational vehicles, and park trailers. For the purposes of this appendix, emergency transportable housing units may also include commercial modulars as defined in the Health and Safety Code Section 18001.8, if approved by the enforcing agency. Emergency transportable housing units do not include factory-built housing as defined in the Health and Safety Code Section 19971.

**LANDING PLATFORM.** A landing provided as the top step of a stairway accessing a loft.

**LOCAL EMERGENCY.** Local Emergency as defined in the Government Code, Section 8558.

**LOFT.** A floor level located more than 30 inches (762 mm) above the main floor and open to it on at least one side with a ceiling height of less than 6 feet 8 inches (2032 mm), used as a living or sleeping space.

**MANUFACTURED HOME.** A structure designed to be used as a single-family dwelling, as defined in the Health and Safety Code, Section 18007.

**MEMBRANE STRUCTURE.** An air-inflated, air-supported, cable or frame-covered structure, not otherwise defined as a tent. (See Chapter 31 of this code.)

**MOBILE-HOME.** A structure designed to be used as a single-family dwelling, as defined in the Health and Safety Code, Section 18008.

**MULTIFAMILY MANUFACTURED HOME.** A structure designed to contain not less than two dwelling units, as defined in the Health and Safety Code, Section 18008.7.

**PARK TRAILER.** A trailer designed for human habitation that meets all requirements in the Health and Safety Code, Section 18009.3.

**RECREATIONAL VEHICLE.** A motor home, travel trailer, truck camper, or camping trailer, with or without motive power, designed for human habitation, that meets all requirements in the Health and Safety Code, Section 18010.

**STATE OF EMERGENCY.** State of Emergency as defined in the Government Code, Section 8558.

**TENT.** A structure, enclosure or shelter, with or without sidewalls or drops, constructed of fabric or pliable material supported by any manner except by air or the contents that it protects.

## **SECTION O103 EMERGENCY HOUSING**

**O103.1 General.** Emergency sleeping cabins, emergency transportable housing units, membrane structures and tents constructed and/or assembled in accordance with this appendix, shall be occupied only during declaration of state of emergency, local emergency, or shelter crisis.

Buildings and structures constructed in accordance with the California Building Standards Code, used as emergency housing, shall be permitted to be permanently occupied.

**O103.2 Existing buildings.** Existing residential and nonresidential buildings or structures shall be permitted to be used as emergency housing and emergency housing facilities provided such buildings or structures comply with the building code provisions and/or other regulations in effect at the time of original construction and/or alteration. Existing buildings or structures used as emergency housing shall not become or continue to be substandard buildings, as determined by the enforcing agency.

**O103.2.1 New additions, alterations, and change of occupancy.** New additions, alterations, and change of occupancy to existing buildings shall comply with the requirements of the California Building Standards Code effective at the time of addition, alteration, or change of occupancy. The requirements shall apply only to and/or within the specific area of the addition, alteration, or change of occupancy.

### **Exceptions:**

1. Existing buildings and structures used for emergency housing and emergency housing facilities may not be required to comply with the California Energy Code, as determined by the enforcing agency.
2. Change in occupancy shall not mandate conformance with new construction requirements set forth in the California Building Standards Code, provided such change in occupancy meets the minimum requirements set forth in this appendix.

**O103.3 Occupant load.** Except as otherwise stated in this appendix, the maximum occupant load allowed in buildings and structures used as emergency housing shall be determined by the enforcing agency, but the interior floor area shall not be less than 70 square feet (6.5 m<sup>2</sup>) for one occupant. Where more than one person occupies the building/structure, the required floor area shall be increased at the rate of 50 square feet (4.65 m<sup>2</sup>) for each occupant in excess of one.

### **Exceptions:**

1. Tents.
2. Recreational vehicles and park trailers designed for human habitation that meet the requirements in the Health and Safety Code, Sections 18009.3 and 18010, as applicable.

**O103.4 Fire and life safety requirements not addressed in this appendix.** If not otherwise addressed in this appendix, fire and life safety measures, including, but not limited to, means of egress, fire separation, fire sprinklers, smoke alarms, and carbon monoxide alarms, shall be determined and enforced by the enforcing agency.

**O103.5 Privacy.** Emergency housing shall be provided with a privacy lock on each entrance door and all windows for use by the occupants.

**O103.6 Heating.** All sleeping areas shall be provided with adequate heating as determined by the enforcing agency.

## **SECTION O104 EMERGENCY SLEEPING CABINS**

**O104.1 General.** Emergency sleeping cabins shall have an interior floor area of not less than ~~70~~ 60 square feet (~~6.5~~ 5.6 m<sup>2</sup>) for one occupant. Where more than one person occupies the cabin, the required floor area shall be increased at the rate of ~~50~~ 40 square feet (~~4.65~~ 3.7 m<sup>2</sup>) for each occupant in excess of one. The interior floor area shall not exceed 400 square feet (37 m<sup>2</sup>), excluding lofts.

**O104.2 Live loads.** Emergency sleeping cabins shall be designed to resist intrusion of wind, rain, and to support the following live loads:

1. Floor live loads not less than 40 pounds per square foot (1.92 kPa) of floor area.
2. Horizontal live loads not less than 15 pounds per square foot (718 Pa) of vertical wall and roof area.
3. Roof live loads not less than 20 pounds per square foot (958 Pa) of horizontal roof area.
4. In areas where snow loads are greater than 20 pounds per square foot (958 Pa), the roof shall be designed and constructed to resist these additional loads.

**O104.3 Minimum ceiling height.** Habitable space and hallways in emergency sleeping cabins shall have a ceiling height of not less than 80 inches (2032 mm). Bathrooms, toilet rooms, and kitchens, if provided, shall have a ceiling height of not less than 76 inches (1930 mm). Obstructions shall not extend below these minimum ceiling heights including beams, girders, ducts, lighting and other obstructions.

**Exception:** Ceiling heights in lofts constructed in accordance with Section O108 are permitted to be less than 80 inches (2032 mm).

**O104.4 Means of egress.** Emergency sleeping cabins shall be provided with at least two forms of egress placed remotely from each other. One form of egress may be an egress window complying with Section O104.4.1. When a loft is provided, one form of egress shall be an egress window complying with Section O104.4.1, provided in the loft space.

**O104.4.1 Egress window.** The bottom of the clear opening of the egress window shall not be more than 44 inches (1118 mm) above the floor. The egress window shall have a minimum net clear opening height of 24 inches (610 mm), and a minimum net clear

opening width of 20 inches (508 mm). The egress window shall have a minimum net clear opening area of 5 square feet (0.465 m<sup>2</sup>).

**O104.5 Plumbing and gas service.** If an emergency sleeping cabin contains plumbing or gas service, it shall comply with all applicable requirements of the California Plumbing Code and the California Mechanical Code.

**O104.6 Electrical.** Emergency sleeping cabins shall be provided with all of the following installed in compliance with the California Electrical Code:

1. Continuous source of electricity.

**Exception:** The source of electricity may be an emergency generator or renewable source of power such as solar or wind power.

2. At least one interior lighting fixture.

3. Electrical heating equipment listed for residential use and a dedicated receptacle outlet for the electrical heating equipment.

**Exception:** Electrical heating equipment and a dedicated receptacle outlet for the electrical heating equipment are not required if a nonelectrical source of heating is provided.

4. At least one GFCI-protected receptacle outlet for use by the occupant(s).

**O104.7 Ventilation.** Emergency sleeping cabins shall be provided with means of ventilation (natural and/or mechanical) allowing for adequate air replacement, as determined by the enforcing agency.

**O104.8 Smoke alarms.** Emergency sleeping cabins shall be provided with at least one smoke alarm installed in accordance with the California Residential Code, Section R314.

**O104.9 Carbon monoxide alarms.** If an emergency sleeping cabin contains a fuel-burning appliance(s) or a fireplace(s), a carbon monoxide alarm shall be installed in accordance with the California Residential Code, Section R315.

## **SECTION O105 EMERGENCY TRANSPORTABLE HOUSING UNITS**

**O105.1 General.** In addition to the requirements in this appendix, manufactured homes, mobile homes, multifamily manufactured homes, commercial modulares, recreational vehicles, and park trailers used as emergency transportable housing shall comply with all applicable requirements in the Health and Safety Code, Division 13, Part 2; and Title 25, Division 1, Chapter 3, Subchapter 2.

## **SECTION O106 TENTS AND MEMBRANE STRUCTURES**

**O106.1 General.** Tents shall not be used to house occupants for more than 7 days unless such tents are maintained with tight wooden floors raised at least 4 inches (101.6 mm) above the ground level and are equipped with baseboards on all sides to a height of at least 6 inches (152.4 mm). Tents may be maintained with concrete slabs with the finished surface at least 4 inches (101.6 mm) above grade and equipped with curbs on all sides at least 6 inches (152.4 mm) high.

A tent shall not be considered a suitable sleeping place when it is found necessary to provide heating facilities in order to maintain a minimum temperature of 50 degrees Fahrenheit (10 degrees Celsius) within such tent during the period of occupancy.

Membrane structures installed and/or assembled in accordance with Chapter 31 of this code, may be permitted to be used as emergency housing and emergency housing facilities, as determined by the enforcing agency.

## **SECTION O107 ACCESSIBILITY**

**O107.1 General.** Emergency housing shall comply with the applicable requirements in Chapter 11B and/or the US Access Board Final Guidelines for Emergency Transportable Housing.

**Note:** The Architectural and Transportation Barriers Compliance Board (US Access Board) issued the Final Guidelines for Emergency Transportable Housing on May 7, 2014. The final guidelines amended the 2004 ADA Accessibility Guidelines (2004 ADAAG) and the 2004 Architectural Barriers Act (ABA) Accessibility Guidelines (2004 ABAAG) to specifically address emergency transportable housing units provided to disaster survivors by entities subject to the ADA or ABA. The final rule ensures that the emergency transportable housing units are readily accessible to and usable by disaster survivors with disabilities.

## **SECTION O108 LOFTS IN EMERGENCY HOUSING**

**O108.1 Minimum loft area and dimensions.** Lofts used as a sleeping or living space shall meet the minimum area and dimension requirements of Sections O108.1.1 through O108.1.3.

**O108.1.1 Minimum area.** Lofts shall have a floor area of not less than 35 square feet (3.25 m<sup>2</sup>).

**O108.1.2 Minimum dimensions.** Lofts shall be not less than 5 feet (1524 mm) in any horizontal dimension.

**O108.1.3 Height effect on loft area.** Portions of a loft with a sloping ceiling measuring less than 3 feet (914 mm) from the finished floor to the finished ceiling shall not be considered as contributing to the minimum required area for the loft.

**Exception:** Under gable roofs with a minimum slope of 6:12, portions of a loft with a sloping ceiling measuring less than 16 inches (406 mm) from the finished floor to the finished ceiling shall not be considered as contributing to the minimum required area for the loft.

**O108.2 Loft access.** The access to and primary egress from lofts shall be any type described in Sections O108.2.1 through O108.2.4.

**O108.2.1 Stairways.** Stairways accessing lofts shall comply with the California Residential Code or with Sections O108.2.1.1 through O108.2.1.6.

**O108.2.1.1 Width.** Stairways accessing a loft shall not be less than 17 inches (432 mm) in clear width at or above the handrail. The minimum width below the handrail shall be not less than 20 inches (508 mm).

**O108.2.1.2 Headroom.** The headroom in stairways accessing a loft shall be not less than 74 inches (1880 mm), as measured vertically, from a sloped line connecting the tread or landing platform nosings in the middle of their width.

**O108.2.1.3 Treads and risers.** Risers for stairs accessing a loft shall be not less than 7 inches (178 mm) and not more than 12 inches (305 mm) in height. Tread depth and riser height shall be calculated in accordance with one of the following formulas:

1. The tread depth shall be 20 inches (508 mm) minus  $\frac{4}{3}$  of the riser height, or
2. The riser height shall be 15 inches (381 mm) minus  $\frac{3}{4}$  of the tread depth.

**O108.2.1.4 Landing platforms.** The top step of stairways accessing lofts shall be constructed as a landing platform where the loft ceiling height is less than 74 inches (1880 mm). The landing platform shall be 18 inches (457 mm) to 22 inches (559 mm) in depth measured from the nosing of the landing platform to the edge of the loft, and 16 inches (406 mm) to 18 inches (457 mm) in height measured from the landing platform to the loft floor.

**O108.2.1.5 Handrails.** Handrails shall comply with the California Residential Code, Section R311.7.8.

**O108.2.1.6 Stairway guards.** Guards at open sides of stairways shall comply with the California Residential Code, Section R312.1.

**O108.2.2 Ladders.** Ladders accessing lofts shall comply with Sections O108.2.2.1 and O108.2.2.2.

**O108.2.2.1 Size and capacity.** Ladders accessing lofts shall have a rung width of not less than 12 inches (305mm), and 10 inches (254 mm) to 14 inches (356 mm) spacing between rungs. Ladders shall be capable of supporting a 200 pound (90.7 kg) load on any rung. Rung spacing shall be uniform within  $\frac{3}{8}$  inch (9.5 mm).

**O108.2.2.2 Incline.** Ladders shall be installed at 70 to 80 degrees from horizontal.

**O108.2.3 Alternating tread devices.** Alternating tread devices are acceptable as allowed by the enforcing agency.

**O108.2.4 Loft guards.** Loft guards shall be located along the open side of lofts. Loft guards shall not be less than 36 inches (914 mm) in height or one-half of the clear height to the ceiling, whichever is less. Loft guards shall not have openings from the walking surface to the required guard height that allow passage of a sphere 4 inches (102 mm) in diameter.

## **SECTION O109 LOCATION, MAINTENANCE AND IDENTIFICATION**

**O109.1 Maintenance.** Emergency housing and emergency housing facilities shall be maintained in a safe and sanitary condition, and free from vermin, vectors and other matter of an infectious or contagious nature. The grounds within emergency housing sites shall be kept clean and free from accumulation of debris, filth, garbage and deleterious matter. Emergency housing and emergency housing facilities shall not be occupied if a substandard condition exists, as determined by the enforcing agency.

**O109.1.1 Fire hazards.** Dangerous materials or materials that create a fire hazard, as determined by the enforcing agency, shall not be allowed on the grounds within emergency housing sites.

**O109.2 Identification.** Emergency housing shall be designated by address numbers, letters, or other suitable means of identification. The identification shall be in a conspicuous location facing the street or driveway fronting the building or structure. Each identification character shall be not less than 4 inches (102 mm) in height and not less than 0.5 inch (12.7 mm) in width, installed/painted on a contrasting background.

## **SECTION O110 EMERGENCY HOUSING FACILITIES**

**O110.1 Drinking water.** Potable drinking water shall be provided for all occupants of emergency housing.

**O110.2 Kitchens.** Where occupants of dependent units are permitted or required to cook for themselves, a separate area shall be equipped and maintained as a common use kitchen. Refrigerated storage shall be provided for safe storage of food.

**O110.3 Toilet and bathing facilities.** When dependent units are used as emergency housing, the emergency housing site shall be provided with one toilet and one bathing facility for every 15 occupants of each gender. The enforcing agency may permit different types and ratios of toilet and bathing facilities. The approval shall be based upon a finding that the type and ratio of toilet and bathing facilities are sufficient to process the anticipated volume of sewage and waste water, while maintaining sanitary conditions for the occupants of the emergency housing.

Bathing facilities shall be provided with heating equipment which shall be capable of maintaining a temperature of 70 degrees F (21.0 degrees Celsius) within such facilities.

Lavatories with running water shall be installed and maintained in the toilet facilities or adjacent to the toilet facilities. This can include foot-pumped water at hand washing stations that are properly maintained.



**O110.4 Garbage, waste and rubbish disposal.** All garbage, kitchen waste and rubbish shall be deposited in approved covered receptacles, which shall be emptied when filled and the contents shall be disposed of in a sanitary manner acceptable to the enforcing agency.

**SECTION O111**  
**ALTERNATIVES AND MODIFICATIONS**

**O111.1 Alternatives and modifications.** Alternative compliance and/or modifications that are reasonably equivalent to the requirements in this appendix may be granted by the Authority Having Jurisdiction in individual cases when dealing with buildings or structures used for emergency housing.