

February 16, 2018 Exterior Elevated Elements Workshop
DRAFT EXPRESS TERMS
FOR
PROPOSED BUILDING STANDARDS
REGARDING PROPOSED CHANGES TO
CALIFORNIA BUILDING STANDARDS CODE
(agenda items 3a – 3c)

(The State agency shall draft the regulations in plain, straightforward language, avoiding technical terms as much as possible and using a coherent and easily readable style. The agency shall draft the regulation in plain English. A notation shall follow the express terms of each regulation listing the specific statutes authorizing the adoption and listing specific statutes being implemented, interpreted, or made specific. (PART 1 – ADMINISTRATIVE CODE)

LEGEND FOR DRAFT EXPRESS TERMS

1. Existing California amendments are in *italics*. Existing model code text appears in standard font.
2. Proposed California amendments: All such language appears *underlined and in italics*.
3. Repealed text: All such language appears in ~~strikeout~~.

CALIFORNIA BUILDING CODE
PART 2, CHAPTER 2
(refer to agenda item “3a”)

...

2.02 DEFINITIONS

BALCONY. *An exterior floor, projecting from and supported by an exterior wall structure without additional independent supports.*

EXTERIOR ELEVATED WALKING SURFACE. *A exterior floor other than a balcony, for purpose of egress or assembly, meeting all conditions below:*

1 Greater than 6 feet above grade below.

2 Exposed to water from direct or blowing rain, snow, or irrigation.

3 Not part of a rated floor-ceiling assembly.

4 Not located above a habitable space.

...

RATIONALE: SB465 developed and used the term “exterior elevated element”. When the emergency regulations were developed that term was not used, since ICC had not used or defined it. Since the effective date of the emergency regulations, some jurisdictions have had confusion in determining just what portions of a building are included, to be bound to the provisions. The Commission Subcommittee recommended that definitions of key terms be developed. These two terms will appropriately identify the target portions of buildings that need to be of concern.

PART 2, CHAPTER 16
(refer to agenda item “3b”)

...
TABLE 1607.1
MINIMUM UNIFORM DISTRIBUTED LIVE LOADS, L_o,
AND MINIMUM CONCENTRATED LIVE LOADS^g

OCCUPANCY OR USE	UNIFORM (psf)	CONCENTRATED (lbs)
1. Apartments (see residential)	---	---
...
5. Balconies and decks <u>exterior elevated walking surfaces^h</u>	<i>[BSC] 1.5 times the live load for the area served, not required to exceed 100</i>	---
...

RATIONALE: “Decks” is a defined term (by DPH amendment) to apply to swimming pools. Thus BSC proposes to be consistent with the text of emergency regulations and to mirror the now-defined language within this group of proposed actions, that the terms shown be a part of the Table. This promotes continuity, and will increase the understanding of applicability.

Notation

Authority: Health and Safety Code Section 18934.5.

Reference(s): Health and Safety Code Sections 18928, 18930, 18934.5, 18934.8. Government Code Section 11346.1.

PART 2, CHAPTER 23
WOOD
(refer to agenda item “3c”)

...

2304.12.2.7 Inspection portals. *Enclosed framing in exterior balconies or exterior elevated walking surfaces shall be provided with inspection portals into each framing void supporting such. Openings shall be closeable and shall allow a 6-inch sphere to pass through into the framing void, to enable inspection.*

...

RATIONALE: The Commission Subcommittee suggested that a proposal be made to incorporate the need for ongoing post-occupancy inspection of enclosed projections such as balconies and elevated walkway surfaces. This provision would enable such a statute to be effective, and to be cost-effective for the public. An advantage of this provision is that the existing Sect 2304.12.2.6 provision for venting may be possible via this inspection portal, thus achieving compliance with both provisions in the same action.

Notation

Authority: Health and Safety Code Section 18934.5.

Reference(s): Health and Safety Code Sections 18928, 18930, 18934.5, 18934.8. Government Code Section 11346.1.

**February 16, 2018 Exterior Elevated Elements Workshop
DRAFT EXPRESS TERMS
FOR
PROPOSED BUILDING STANDARDS
OF THE
DIVISION OF THE STATE ARCHITECT–STRUCTURAL SAFETY (DSA-SS AND DSA-SS/CC)
REGARDING PROPOSED CHANGES TO
CALIFORNIA BUILDING STANDARDS CODE**

(The State agency shall draft the regulations in plain, straightforward language, avoiding technical terms as much as possible and using a coherent and easily readable style. The agency shall draft the regulation in plain English. A notation shall follow the express terms of each regulation listing the specific statutes authorizing the adoption and listing specific statutes being implemented, interpreted, or made specific. (PART 1 – ADMINISTRATIVE CODE)

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**CALIFORNIA BUILDING CODE
PART 2, CHAPTER 16
(refer to agenda item “3b”)**

**SECTION 1616
ADDITIONAL REQUIREMENTS FOR COMMUNITY COLLEGES [DSA-SS/CC]**

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1616.5 Live loads.

...

1616.5.1 Modifications to Table 1607.1.

...

1616.5.1.2 Item 5. ~~Balconies and decks~~ *exterior elevated walking surfaces*. *The minimum uniform live load for balconies and decks is 1.5 times the live load for the area served, not required to exceed 100 psf.*

RATIONALE: “Decks” is a defined term (by DPH amendment) to apply to swimming pools. Thus, DSA proposes to be consistent with the text of emergency regulations and to mirror the now-defined language within this group of proposed actions, that the terms shown be a part of the Table. This promotes continuity, and will increase the understanding of applicability.

...

Notation for [DSA-SS/CC]:

Authority: Education Code § 81053.

Reference: Education Code §§ 81052, 81053, and 81130 through 81147.

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PART 2, CHAPTER 16A
(refer to agenda item “3b”)

...
TABLE 1607A.1
MINIMUM UNIFORM DISTRIBUTED LIVE LOADS, L_o,
AND MINIMUM CONCENTRATED LIVE LOADS^g

OCCUPANCY OR USE	UNIFORM (psf)	CONCENTRATED (lbs)
1. Apartments (see residential)	---	---
...
5. Balconies and decks <u>exterior elevated walking surfaces</u> ^h	<i>[DSA-SS] 1.5 times the live load for the area served, not required to exceed 100</i>	---
...

RATIONALE: “Decks” is a defined term (by DPH amendment) to apply to swimming pools. Thus, DSA proposes to be consistent with the text of emergency regulations and to mirror the now-defined language within this group of proposed actions, that the terms shown be a part of the Table. This promotes continuity, and will increase the understanding of applicability.

Notation for [DSA-SS]:

Authority: Education Code § 17310 and 81142, and H&S Code §16022.

Reference: Education Code §§ 17280 through 17317, and 81130 through 81147, and Health and Safety Code §§16000 through 16023.

Office of the State Fire Marshal

Draft proposal for the Balcony/Elevated Walking Surface workshop

(refer to agenda item “4a”)

California Building Code, Part 2, Title 24, CCR

705.2.3.2 (formerly 1406.3.1) Vents. [SFM] Vents required by Section 2304.12.2.6 are allowed in exterior balconies or elevated walkway surfaces, when voids created at the intersection of the exterior wall and the balcony floor are sealed with an approved material or system to retard the interior spread of fire and hot gases. Rated assemblies shall comply with Section 715.

Rationale: SB 465 created the Exterior Elevated Elements Subcommittee to address issues of the structural failure of balconies and other exterior elevated elements. The subcommittee addressed the need for ventilation in concealed spaces of wood construction, to alleviate moisture buildup that can lead to decay of structural support. The OSFM is proposing regulations to allow vents in the exterior elevated elements while maintaining the fire rating of the exterior wall, ensuring that there is not a pathway for smoke from the exterior to compromise the interior space.

Draft proposal for the Balcony/Elevated Walking Surface workshop.

(refer to agenda item “4c”)

California Building Code, Part 2, Title 24, CCR

Proposal: For exterior balconies and elevated walkway surfaces, wood framing would be decay resistant, per 2304.12.2, when the assembly is enclosed and is protected by an impervious moisture barrier.

Rationale/discussion: SB 465 created the Exterior Elevated Elements Subcommittee to address issues of structural failure of balconies and other exterior elevated elements, due to decay. The subcommittee addressed the possible need for increased resistance to decay of wood framing members in concealed spaces that support exterior balconies and other elevated walking surfaces, even though protected by an impervious moisture barrier, presuming some degree of possible wet service.

Such a proposal will entail consideration of special materials for fastening and hanging/connecting members, due to corrosion potential.

Consideration will include a discussion of any adjacent materials within a given assembly that may contribute to decay.

Draft proposal for the Balcony/Elevated Walking Surface workshop.

(refer to agenda item “4d”)

California Building Code, Part 10, Title 24, CCR

Proposal: For exterior balconies and elevated walkway surfaces, the supporting wood framing is to be repaired or altered, per requirements of this code, for new construction.

Rationale/discussion: Emergency regulations became effective January 30, 2017 to address issues of structural failure in balconies and other exterior elevated elements, due to wood decay. During certification of emergency rulemaking, a commenter brought forth the concept of addressing the possible need for having the provisions of the emergency regulation apply to the alteration or repair of exterior balconies and other elevated walking surfaces. Currently, existing buildings are generally permitted to be altered or repaired, under the code that was effective at the time of original construction, per Sections 301.1 and 302.4. This proposal would become an exception, requiring such elements to be altered or repaired in accordance with regulations in effect at the time of the alteration or repair.

It needs to be clarified whether the proposal would affect the entire projected assembly, or just the structural framing.

Draft proposal for the Balcony/Elevated Walking Surface workshop.

(refer to agenda item “4e”)

California Building Code, Part 2, Title 24, CCR

Proposal: Restrict sheathing materials of balconies and elevated walking surfaces to be of a particular type composition, for enclosed assemblies, and in the presence of an impervious moisture barrier. Allow only plywood products to be used as a sheathing material.

Rationale/discussion: SB 465 created the Exterior Elevated Elements Subcommittee to address issues of the structural failure of balconies and other exterior elevated elements, due to decay. The subcommittee addressed the possible need for increased resistance to decay of wood sheathing in concealed spaces that support exterior balconies and other elevated walking surfaces. This proposal presumes that the enclosed assemblies of balconies and elevated walking surfaces will need to possess some degree of wet service.

Currently, existing buildings are generally permitted to allow many accepted types of wood sheathing, as underlayment beneath an impervious moisture barrier. This proposal would restrict that sheathing type, to allow only plywood.

Inherent in this proposal is a consideration of the moisture storage characteristics of various sheathing types.

Division of the State Architect

Draft proposal for the Balcony/Elevated Walking Surface workshop

(refer to agenda item “4f”)

California Building Code, Part 2, Title 24, CCR

110.3.8.1 Weather-exposed balcony and walking surface waterproofing. [DSA-SS, DSA-SS/CC]

Where balconies or other elevated walking surfaces are exposed to water from direct or blowing rain, snow or irrigation, and the structural framing is protected by an impervious moisture barrier, all elements of the impervious moisture barrier system shall not be concealed until inspected and approved.

Exception: *Where special inspections are provided in accordance with Section 1705A.1.1, Item 3.*

AND

California Building Code, Part 10, Title 24, CCR

109.3.7.1 Weather-exposed balcony and walking surface waterproofing. [DSA-SS, DSA-SS/CC]

Where the scope of work involves balconies or other elevated walking surfaces exposed to water from direct or blowing rain, snow, or irrigation, and the structural framing is protected by an impervious moisture barrier, all elements of the impervious moisture barrier system shall not be concealed until inspected and approved.

Exception: *Where special inspections are provided in accordance with Section 1705A.1.1, Item 3.*

Proposal: Regarding waterproofing requirements for “weather-exposed” exterior balconies and elevated walking surfaces as specified in Part 2, Section 110.3.8.1 and Part 10, Section 109.3.7.1: Instead of using any descriptors for water as regulatory qualifiers for when the section does or does not apply, present them as non-exhaustive examples.

Rationale/discussion: Such a proposal will entail consideration of sources of weather and water, ice, etc.

Consideration will include a discussion of descriptors of water sources that have the greatest potential to contribute to support elements’ risk of decay and therefore be of concern.

“...walking surfaces exposed to water from direct or blowing rain, snow, or irrigation...” appears to unnecessarily narrow the origins from where the water can be from. “Exposed to water from any source” might be sufficient?

Other sources not necessarily identified by the language as currently written might include water from ice, melting snow, irrigation spray head, resident hosing down their balcony, a potted plant that sits for years on a deck, etc.

Is there indirect rain? If we're calling it *direct* rain, then is indirect rain a concern too, such as water flowing out of a downspout? Or is that considered *direct* rain? Wouldn't any kind of rain, direct or not, be a concern? Is rain that blows onto a surface not direct? Would the term "wind-driven" be technically more proper than "blowing"?

*"Where the scope of work involves balconies or other elevated walking surfaces exposed to water, **including but not limited to, direct or blowing rain, snow, or irrigation,** and the structural framing is protected...."*