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California Building Standards Commission
2525 Natomas Park Drive, Suite 130
Sacramento, CA 95833

Re: Emergency Building Standards – Exterior Balcony and Elevated Walking Surfaces

Dear Madam Chair and Commissioners,

I would like to thank the commission, the ad-hoc committee, and the state agencies for your effort on this important area of building safety. We are in support of the proposed changes and are confident that the amendments before you today are a step in the right direction to improve the safety for building occupants. These provisions will enhance the performance of Exterior Elevated Elements or (EEE's) where the balcony or other elevated walking surfaces are exposed to water from rain, snow, or irrigation.

Whereas these amendments do include some important provisions which will improve performance of EEE's and their structural elements, they do not address the decay resistance of wood structural members where used to support moisture permeable floors where the balcony or other elevated walking surfaces are exposed to water from rain, snow, or irrigation.

We believe there is an opportunity in California Building Code (CBC) Section 2304.12 to amend model code language to improve performance of EEE's where the balcony or other elevated walking surfaces are exposed to water from rain, snow, or irrigation. (See attached Section 2304.12.2.3). This section could be amended to require the use of preservative-treated wood where used to support moisture permeable floors where the balcony or other elevated walking surfaces are exposed to water from rain, snow, or irrigation.

These additional amendments will address a very important element of this problem which is not addressed by the 2018 IBC changes or the changes before you today: decay resistance of wood structural elements. Requiring preservative-treated lumber for all EEE's where the balcony or other elevated walking surfaces are exposed to water from rain, snow, or irrigation can provide an additional measure of protection against

failure, and is a good "prescriptive method" to improve the overall performance and safety of EEE's.

This is an issue of statewide significance, as these elements continue to be designed into new buildings. We hope there is an opportunity to work with the state agencies during the certifying rulemaking to propose language to try to make these changes and broaden the scope of the amendments to include the requirement for preservative-treated structural members for these types of EEE's.

We understand that this may open up the issue for a broader debate, however we believe that to properly address the safety of EEE's, a comprehensive approach must include a discussion about the decay resistance of wood structural members supporting these types of floors.

Because the issue of decay resistance of EEE's was not addressed by the 2018 IBC, it may not be available as a change to the model code until the 2021 IBC and 2022 CBC. There are likely thousands or tens of thousands of these types of balconies across the state, and as building safety officials, and policy makers, I believe we have a duty to try to comprehensively address this issue for the safety of people occupying buildings with EEE's in our state.

If these changes are made to the California Building Code, the end result may be that the model code will include the changes adopted by California. This means that our efforts can influence change at the national level and increase building safety across the nation, and even other countries who adopt the International Building Code.

Thank you for the opportunity to speak on this issue.



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Attachment 1 – CBC Section 2304.12 (Excerpt)

2304.12 Protection against decay and termites. Wood shall be protected from decay and termites in accordance with the applicable provisions of Sections 2304.12.1 through 2304.12.7.

2304.12.1 Locations requiring water-borne preservatives or naturally durable wood. Wood used above ground in the locations specified in Sections 2304.12.1.1 through 2304.12.1.5, 2304.12.3 and 2304.12.5 shall be naturally durable wood or preservative-treated wood using water-borne preservatives, in accordance with AWP A U1 for above-ground use.

2304.12.1.1 Joists, girders and subfloor. Wood joists or wood structural floors that are closer than 18 inches (457 mm) or wood girders that are closer than 12 inches (305 mm) to the exposed ground in crawl spaces or unexcavated areas located within the perimeter of the building foundation shall be of naturally durable or preservative-treated wood.

2304.12.1.1.1 [SPCB] *There shall be a clearance of at least 18 inches (457 mm) between the underside of wood floor joists and the finished surface of the ground, and at least 12 inches (305 mm) between the underside of any other wood horizontal framing member and the finished surface of the ground. The ground underneath floor joists shall be leveled or smoothed off so as to maintain a reasonably even surface.*

Exception: For purposes of structural pest control inspection, a minimum of 12 inches (305 mm) of clearance under-floor joists shall be considered adequate except that such clearance shall not be necessary where the subarea soil is of such a nature as to prevent excavation or where excavation would create a hazard from shifting soil or other causes.

2304.12.1.2 Wood supported by exterior foundation walls. Wood framing members, including wood sheathing, that are in contact with exterior foundation walls and are less than 8 inches (203 mm) from exposed earth shall be of naturally durable or preservative-treated wood.

Exception: [DSA-SS and OSHPD 1, 2 & 4] At exterior walls where the earth is paved with an asphalt or concrete slab at least 18 inches (457 mm) wide and draining away from the building, the bottom of sills are permitted to be 6 inches (152 mm) above the top of such slab. Other equivalent means of termite and decay protection may be accepted by the enforcement agency.

2304.12.1.3 Exterior walls below grade. Wood framing members and furring strips in direct contact with the interior of exterior masonry or concrete walls below grade shall be of naturally durable or preservative-treated wood.

2304.12.1.4 Sleepers and sills. Sleepers and sills on a concrete or masonry slab that is in direct contact with

earth shall be of naturally durable or preservative-treated wood.

2304.12.1.4.1 Additional requirements. [DSA-SS and OSHPD 1, 2 & 4] *Stud walls or partitions at shower or toilet rooms with more than two plumbing fixtures, excluding floor drains, and stud walls adjacent to unroofed paved areas shall rest on a concrete curb extending at least 6 inches (152 mm) above finished floor or pavement level.*

2304.12.1.5 Wood siding. Clearance between wood siding and earth on the exterior of a building shall not be less than 6 inches (152 mm) or less than 2 inches (51 mm) vertical from concrete steps, porch slabs, patio slabs and similar horizontal surfaces exposed to the weather except where siding, sheathing and wall framing are of naturally durable or preservative-treated wood.

2304.12.2 Other locations. Wood used in the locations specified in Sections 2304.12.2.1 through 2304.12.2.5 shall be naturally durable wood or preservative-treated wood in accordance with AWP A U1. Preservative-treated wood used in interior locations shall be protected with two coats of urethane, shellac, latex epoxy or varnish unless water-borne preservatives are used. Prior to application of the protective finish, the wood shall be dried in accordance with the manufacturer's recommendations.

2304.12.2.1 Girder ends. The ends of wood girders entering exterior masonry or concrete walls shall be provided with a 1/2-inch (12.7 mm) airspace on top, sides and end, unless naturally durable or preservative-treated wood is used.

2304.12.2.2 Posts or columns. Posts or columns supporting permanent structures and supported by a concrete or masonry slab or footing that is in direct contact with the earth shall be of naturally durable or preservative-treated wood.

Exception: Posts or columns that are not exposed to the weather, are supported by concrete piers or metal pedestals projected at least 1 inch (25 mm) above the slab or deck and 8 inches (152 mm) above exposed earth and are separated by an impervious moisture barrier.

2304.12.2.3 Supporting member for permanent appurtenances. Naturally durable or preservative-treated wood shall be utilized for those portions of wood members that form the structural supports of buildings, balconies, porches or similar permanent building appurtenances where such members are exposed to the weather without adequate protection from a roof, eave, overhang or other covering to prevent moisture or water accumulation on the surface or at joints between members.

Exception: When a building is located in a geographical region where experience has demonstrated that climatic conditions preclude the need to use durable materials where the structure is exposed to the weather.