



STATE OF WASHINGTON

## STATE BUILDING CODE COUNCIL

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### STATE BUILDING CODE COUNCIL PUBLIC HEARING RECORD

**Hearing Date and Time:** Friday, February 11, 2022, 10:00 a.m.

**Council Members in Attendance:** Andrew Klein, Chair; Tony Doan, Vice-Chair; Anthony Maschmedt; Jay Arnold; Jim Millbauer; Kjell Anderson; Caroline Traube; Micah Chappell; Todd Beyreuther; Lorin Lathrop

**Staff in Attendance:** Stoyan Bumbalov, Managing Director; Krista Braaksma; Ray Shipman; John McEntyre; Annette Haworth

**Others in Attendance:** Chris Edmark, Shamim Rashid-Sumar, Steve Skalko, Ken Brouillette, Terry Beals, Joelle Robinson, Barbara McMullen, Pamela Colley, Kathleen Petrie, Andrea Smith, Dave Kokot, Adam Hutchinson, Beth Jarot, Tom Young, Chris Russell, Jonny Kocher, Dylan Plummer, Joe Mayo, Roussi Roussev, Annie Phillips, Kinley Deller, Kerry Sutton, Sue Coffman, Robin Everett, Penny Rarick, Jon Siu

<b>WAC 51-54A, Adoption and amendments of the 2021 International Fire Code</b>	<b>WSR 22-02-041; The proposed rules adopt the 2021 edition of the International Fire Code, published by the International Code Council, with state amendments to incorporate proposed changes as adopted by the Washington State Building Code Council. The rules will provide increased clarity and life safety measures for building construction in Washington State.</b>
<b>From:</b>	<b>Testimony</b>
Ken Brouillette – Seattle Fire Department	<p>Ken’s testimony included <a href="#">written documents</a> that were shown on the screen as he referred to them.</p> <p>This is a proposal for Table 315.7.6(1) that’s currently a State Amendment and we’re looking at adding a footnote (a). There is some confusion regarding how much fire rated glazing you could have in these opening dikes so I’m just trying to put a pointer there to section 716 of the International Building Code.</p> <p>405.2: This section was missed by the TAG. It references R-4 occupancies. It should be struck.</p> <p>The fire evacuation plans, the current State Amendment changes some language and does not use the word “care recipients”.</p> <p><b>**REFERING to 403.3.1.1**</b> The language highlighted in yellow is what’s proposed to be added in and why I feel it’s necessary because in the section below it’s also mentioned as care recipients and therefore, we should be using the same language as in the charging section.</p> <p>404.2.3 - Lockdown plans. The State did not adopt this section.</p>

	<p>The City of Seattle is proposing to enact this and with additional language in the charging section which states when required by the fire code official the lockdown plans shall be submitted for review to the Fire Code official and then they should also include all of those items in there. **Again – referring to document on screen** The proposal is to put locked down drills into the state code, with the fire code official being able to review them when they desire. We're not requiring them; we are just saying that we'd like to review them.</p> <p>Section 918 - Alerting Systems. We are looking at deleting this entire section and the reason for this is it states in the very beginning "An approved alerting system shall be provided in buildings and structures as required in Chapter 4 and this section" but it's not required in Chapter 4 and Section 918 does not require an alerting system so it's very confusing. We'd like to have that section completely deleted.</p> <p>308.1.9 - Decorative open flame tables. It states "Gas-fired portable or fixed open flame fire tables and fireplaces". We're looking at striking the "and fireplaces" because it's not in the title. We'd also like to add some language in there that says "The protective device shall be not lower than the maximum height of the proposed flame. Would also like to add that gas fired portable or fixed open flame fire tables shall be used in accordance with their manufacturer's instructions and where required the fire code official is authorized to use technical assistance per section 104.8.2 to determine compliance with the section that is because there are many people that are customizing these fire tables and putting them in locations on roofs and there are not manufacturer's instructions, so this will allow the fire code official use the technical assistance section. Thank you very much.</p>
<p>Shamim Rashid-Sumar – NRMCA</p>	<p>I'm a Fire Protection Engineer and the Fire Safety advocate for NRMCA and National Ready Mix Concrete Association. I am providing testimony today regarding fire safety concerns related to the proposed amendments to the International Building Code and the International Fire Code section 903.3.1.2 on the topic of NFPA 13R-Sprinkler Systems. This proposed amendment will roll back previous changes that were made to the IFC and the IBC to limit the use of NFPA 13R sprinkler systems to buildings where the floor level of the highest level is 30 feet or less above the level of the Fire Department vehicle access. The intent of these changes really was to address more recent fire history in residential occupancies. Particularly podium style developments all over the country. There have been similar fires here in the state of Washington in multi-family residential structures in Bothell, Lynnwood, and Olympia. There are some distinct differences in the level of protection provided by NFP 13 and NFP 13R sprinkler systems. NFP 13 requires sprinkler protection in attics, closets, and bathrooms whereas NFP 13R does not. NFP 13R also allows for a shorter duration of water supply and allows for lesser water discharge demand. These are some of the reasons for our concern for that change to be rolled back. What I really wanted to do was share an alternate proposal to this code section that was approved as part of the client IBC code development cycle. I will submit details on that alternate, in writing, but I will describe it here. During the IBC 2021 code development cycle, there was a change to that previous requirement considered to look at a different approach that's modeled after some of the provisions that are in a NFP 13R, to address attics, as I mentioned, NFP 13 does not require a sprinkler protection in attics.</p>

	<p>However, in section 903.3.1.2.3 of NFP 13R, there is a trigger whereby NFP 13 is required for attics are certain height. In the alternate amendment that we are proposing to what is on the table, NFP 13 systems will still be required, where the floor level of the highest story is more than 30 feet above the lowest level of fire department access. However, you would still be able to use the 13R system for Group R2 occupancies where the roof assembly is less than 45 feet above the lowest level of Fire Department access. This approach of this alternate is to trigger NFP 13 protection based on the height of the attic and that set at a threshold of 45 feet. This would allow a typical four-story apartment building with nine-foot ceilings and one foot floor ceiling assemblies, an additional five feet to accommodate the height of a grade level slab that slopes downward. In considering this alternate proposal, the code will still strictly limit the permissible use of NFP 13R to R2 occupancies that don't exceed four stories, and which cannot include a combination of tall ceilings and upper-level mezzanine. This proposal has been limited to R2 occupancies. Recognizing the different operational occupant and architectural attributes of R2 verses R1 occupancies. We feel this alternate is middle ground between the proposal to limit to 60 feet and what was previously in the code at 30 feet. We ask for your consideration of this change that will appear in the 2024 International Building Code as an alternate to the amendment that's currently proposed for Washington state. Thank you.</p>
<p>Steve Skalko - Northwest Cement Council</p>	<p>I want to speak, obviously, in opposition to this 13R proposal as it's presently structured. I think what's being proposed far exceeds what's intended to be used for 13R systems and I point that out for two reasons. One, it is of course for four-story buildings, but by allowing it to go to 60 feet you do start to raise the question that you end up with a building much taller than what the 13R system may have originally been intended, because it only addresses it as four-story buildings. What complicates the proposal is the fact that the measurement of 60 feet is going to be taken above the horizontal assembly if it's on a podium type structure, and I want you to realize what you in essence have is a building let's say sitting on top of a single-story parking garage that might be 20 feet high then you're going to put four more stories of that building on top of that, so you could technically have the roof system as high as 80 feet above the ground. When the proposal, as the 2021 IBC presently is worded, was put in, it was put in especially because of concerns by the fire service when they go to respond to these podium style buildings, having equipment capabilities to reach high up, and of course the complication is these buildings don't have full sprinkler protection, especially lacking sprinkler protection in the attics and other concealed spaces and that's why that limit was lowered down from what the previous IBC and, of course, the Washington State Code would permit. I do think the alternate, that Shamim has mentioned, is something worth the Building Code Council considering. The proposal, as presently written, is way far in excess of what I think is proven or desirable for the safety of people in Group R occupancies. Thank you.</p>
<p><b>WAC 51-50, Adoption and amendment of the 2021</b></p>	<p><b>WSR 22-02-040; The proposed rule adopts the 2021 edition of the International Building Code, published by the International Code Council, with state amendments to incorporate proposed changes as adopted by the Washington State Building Code Council. The rules</b></p>

<b>International Building Code</b>	<b>will provide increased clarity and life safety measures for building construction in Washington State.</b>
<b>From:</b>	<b>Testimony</b>
Andrea Smith – Building Industry Association of Washington	<p>We are a trade association that represents a thousand members that build the places that we call home. I'm speaking today in reference to the IBC, specifically section 429, the Electric Vehicle Charging Infrastructure. Within the TAG process, the TAG members removed an exception that allows for an exemption of EV charging infrastructure installation if the utility infrastructure design was required to meet the increase look, and so, by doing so, it would increase utility side design by a cost factor of \$1,000 or more, per dwelling unit. BIAW would like to see that exception added back in before official adoption by the State Building Code Council. Our state is not just in a housing affordability and homelessness crisis, we are also in a rental crisis where we need at least 157,000 more rental units to come available for extremely low-income renters. According to the national low-income housing coalition, 60% of those low-income households are severely cost burdened by housing costs, which includes monthly utility payments. It is important to meet statutory mandates and prepare the state for an electric vehicle movement, we need to balance this with the unforeseen added cost to renters. The BIAW members that developed multifamily apartments have stated that utility upgrades can cost upwards of \$20,000, and if paid for by the developer, this cost is passed on in the form of larger rent premiums. While if it's paid by the utility company, it gets passed on in the form of higher monthly utility bills. Any amount of relief that can be done by the State Building Code Council for renters and developers, in the state, would be greatly appreciated. Thank you.</p>
Tom Young - Northwest Concrete Masonry Association, Seattle	<p>Our group has actively participated in the various Code TAGs and Committees during this code cycle and for many years. We appreciate the opportunity to comment today at the hearing. Our membership is opposed to proposal GP1-80, which would allow, if approved, firewalls to be built with combustible materials for Type 3 and 4 buildings. The proponent's primary reason for this was potential differential movement between dissimilar building materials. We believe this is something that can be addressed through proper design and detailing. It has been done for years and can be done. It's a challenge, but the detailing can take care of that issue and it's not a good reason, in our opinion, to reduce the fire resistance or performance of building firewalls. As most of you know, firewalls are a major component of fire safe building design. A similar proposal to this one was addressed at ICC and the group there voted to disapprove a similar proposal to this one with the Committee stating quote "there seems to be a lot of performance uncertainty preferring to be careful with allowances for type three and four construction." I think we need to keep in mind that that performance uncertainty that they were talking about was related to fire performance as it should not concerns with potential shrinkage between dissimilar materials, which again is the basis for the proposal in front of us. Additionally, the rationale for the acceptance of this mentioned the city of Seattle, and the fact that the city has allowed combustible materials in firewalls for these construction types. However, I think it's not relevant in</p>

	<p>terms of a statewide amendment, given that most cities in Washington State neither have the firefighting resources nor the rapid response times that the Seattle is fortunate enough to have. We would ask that the Council disapprove proposal GP1-80 and that would take us back to the provisions that are currently in the IBC and would be consistent with the recent ICC action. We thank you for the time to comment.</p>
<p>Steve Skalko - Northwest Cement Council</p>	<p>Speaking in opposition to the firewall change. There were multiple changes in this last cycle from the 2021 IBC to the 2024 IBC trying to introduce combustibles into the Code as is intended by this proposal, and all of them were defeated. Much of the reasons are that when you realize the importance of firewalls, they are one of the most distinct requirements in the Building Code in order to create separate buildings. They've always been non-combustible in many of the model codes for years. When the IBC was developed it, it did allow combustibles for type five construction which is typical wood frame construction, but it always kept it non-combustible from the other types of buildings. What's important to realize is that when you go to these Type 3 and Type 4 buildings, they have extremely large areas and yet the interior of the building is combustible material, so you got to think about it, as if, as my building gets bigger my firewall goes up. Some of these buildings can be just as large as a non-combustible building a Type 2 building or close to it. I want you to realize that's the reason there's always been this limitation on the firewalls. In the proponent's reasoning statement, they use the logic, about the fact that a Type 5 building can have a combustible firewall and yet the allowable area of it is about half of a Type 3 building. To me, that's exactly the reason why this ought to be disapproved. Now you're saying Type 3 is really twice as large a fire load. If you're increasing the fire load, why would you want to reduce the fire safety of your firewalls. Historically they've been non-combustible because of their important nature to provide a line of demarcation for a fire spread from one building to next not only to minimize property damage, but also to assist the fire service and in their fire tax. Thank you for allowing me to speak.</p>
<p>Shamim Rashid-Sumar - NRMCA</p>	<p>I'm also providing testimony today regarding the fire safety concerns we have to this proposed amendment on combustibles in firewalls - IBC section 706.3. I'm going to continue on some of the arguments that Steve made. This proposed amendment was based partly on the argument that Type 3 and Type 4 construction provide just as much fire resistance as non-combustible construction. I wanted to stress the point that a firewall is not the same as a fire resistance rated wall. Firewalls have to be designed and constructed in accordance with the code to allow collapse of a structure on either side, without collapse of the wall under fire conditions and that's why a firewall can function to separate a structure into two separate buildings. While fire resistance rated walls carry an hourly rating, they're not designed to withstand collapse in the same manner that's required for firewalls. The testing that is referenced in the rationale of the proposed amendment. You know that that testing was not for firewall performance, it was looking just at fire resistance. None of the fire testing that's been done for Type 4 construction conducted to date that I'm aware of has looked at walls functioning as firewalls it's only looked at testing for fire resistance rating. Steve mentioned this, but I'm going to mention it again. There were similar code change proposals that were considered as part of the most recent 2021 code development cycle and the ICC; four, to be exact, with the similar intent to</p>

	<p>allow combustible materials and firewalls. None of those proposals were approved at any stage in the process, they were also voted for disapproval in the online governmental consensus probe, and they will not be included as an amendment to the 2024 IBC. It's for these reasons, respectfully, that we ask for your consideration to disprove this proposed amendment in the Washington State Building Code. I'd like to thank you for the opportunity to testify today.</p>
<p>Beth Jarot - Resilient and Green Building Specialist for the City of Tacoma</p>	<p>The City of Tacoma's Office of Environmental Policy and Sustainability supports the adoption of Appendix P100 as part of the building code amendment process to increase the reuse and recycling of construction and demolition materials. Future adoption of this appendix, by our city, will support a variety of city goals related to waste management, housing, climate, and economic development. Provide code consistency for the Washington building community and serve as a catalyst for positive market transformation, sustainable materials management. Construction and demolition debris make up nearly 12% of the city's waste stream at our transfer station. Requiring tube collection on job sites and salvage reuse and recycling of construction and demolition materials are included as action items in our materials management plan to help the city meet it's 70% diversion goal by 2028. Housing: Multifamily development continues to grow in Tacoma including major investments in new construction and major renovation of existing property. As part of the city's affordable housing action strategy Home in Tacoma Phase 2 includes actions to create green sustainable and climate resilient housing, salvage and adaptive reuse are already part of that discussion. Historic preservation: Tacoma is a city rich with culture, history, archaeological resources, and historic architecture. Our historic preservation program encourages the rehabilitation, preservation, and adaptive reuse of commercial and retail buildings. Climate Action: The salvage and reuse of building materials contributes to reduction in greenhouse gas emissions from landfill diversion it also contributes to reduction and embodied carbon when salvage materials are used in new construction and renovation. Economic development: Recently supply chain issues and unstable lumber markets have negatively impacted the construction industry. This is an opportunity to support and expand our local economy. Existing building material reuse companies have the capacity to grow and there's also an opportunity for new companies to be established. Thank you.</p>
<p>Kathleen Petrie - King County</p>	<p>Speaking on the EV infrastructure proposal and the stance that I'm going to take in that is in support of an increase in EV infrastructure. We've got Washington as a zero-emission vehicle state, which will require the 8% of new vehicle sales to be zero emission vehicles by 2025. Washington State Department of Commerce is following in the steps of California Air Resources Board, which is developing regulations to mandate that 100% of sales of new passenger cars and trucks to be zero emission by 2035. The majority of charging is happening at home. Those who own homes have the advantage of making a decision to purchase electric vehicles and install home charging station. Those who rent, in particular, those who reside in affordable rental housing are at the mercy of the building developer, who may not want to add this amenity due to cost or otherwise, and therefore do not have the option to purchase a non-emission vehicle, this is an equity issue. US data currently shows that one in ten electric vehicles are being</p>

	<p>charged at a location where people work or where they're doing business. Those are all just some background facts, so to speak, and all this being said, we need to build some infrastructure in this code cycle at a minimum, to be prepared for the 8% of vehicles by 2025. To wait until the 2024 code cycle, it will be too late. The discussions on section 429 EV charging were primarily spent deciphering the intent of House Bill 1287. The content of proposal 196 went beyond the State's amendments EV capable with the requirements for install the chargers and EV ready parking spaces. But we just didn't have time to have much discussion, and we do need more than EV capable space requirements in the 2021 code. Because of the real cost and equity impacts and Andrea mentioned this before these, more voices need to be at the table. Requirements for EV should be more inclusively developed. More stakeholder voices. At one point, it was suggested in one of the meetings to create an EV charging TAG. Per House Bill 1287, EV charging infrastructure role should be implemented by July 1, 2024. I would like to ask the Council to please consider the formation of an EV Charging TAG that can address clarified house build directive, build accommodation for both battery and hydrogen fuel cell vehicles, and develop proper regulation that builds equitable and appropriate EV infrastructure not lagging but keeping in line with the vehicle stock on the roads. Thank you very much.</p> <p>Speaking in support of proposed Appendix P. The intent of this proposal is to reduce the amount of construction demolition waste that goes to landfills and shifts focus awareness towards recycling and, more importantly, salvage. This awareness is made through the two submittal documents. Per to beginning of a project a salvage assessment allows the owner to thoughtfully identified possible materials, systems, and appliances that might be salvageable from building, as it is dismantled. Salvageable elements can be reused on site, at other projects, or sold to retailers for resale. Keeping materials in use longer has environmental benefits such as carbon sequestration, reduce carbon emissions from material not needing to be processed. At project completion, the waste diversion report is submitted. If the jurisdiction has material diversion targets form helps the jurisdiction track percentages, what is being diverted and helps to identify what markets or processing facility types need to be increased. I would like to emphasize that this is proposed as an optional appendix meaning, it is not required to adopt but is approved by the State Building Council to adopt locally, if a jurisdiction chooses to do so. It is appropriate as an optional appendix because not all communities in Washington state have commercial salvage retail businesses or reasonable access to recycling processing facilities. If a jurisdiction wishes to prioritize material management and reductions in carbon emissions, then this appendix will provide the language and forms, without having to spend valuable staff time developing that. Thank you again for the opportunity to present.</p>
Adjourn	The Hearing was adjourned at 10:42 a.m.