



STATE OF WASHINGTON

STATE BUILDING CODE COUNCIL

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STATE BUILDING CODE COUNCIL SUMMARY MEETING MINUTES

LOCATION: DES Building – First Floor Presentation Room
1500 Jefferson St. SE
Olympia, Washington

DRAFT

MEETING DATE: Friday, July 12, 2019

Members in Attendance: Chair Doug Orth, Vice-Chair; Diane Glenn, Leanne Guier, Traci Harvey, Kjell Anderson, Andrew Klein, Eric Vander Mey, Micah Chappell, Steve Simpson & Kevin Shutty

Members Absent: Al French, Robert Graper, Phillip Lemley & Barry Long

Staff in Attendance: Richard Brown, Managing Director; Krista Braaksma, Ray Shipman & Carrie Toebbe

Visitors Present: Jeremy Smithson, Ken Brouillette, Lisa Rosehow, Bryce Eschenbacker, Mike Thomson, Mike Baranick, David Reddy, Roussi Rousser, Shilpa Surana, Mike Kennedy, Louis Starr, Mike Rosenberg, Gary Keikkinen, Chuck Murray, Denise Fong, Mathew Ojala, Beth Doglio, Kirsten Smith, Kelly Richards, Tim Strasser, MC McAllen, Duane Lewellen, Carol Lewellen, Kim Barker, Angela Ewert, G.F. Schauer mann, T. Sweek, Lauren Burnes, Dennis Richardson, Tom Crawford, Robby Oylear, Cheryl Burwell, Patrick Gilroy, Allen Spaulding, Misato Kogure, Marc Nard, Patrick Reilly, Tony Usibelli, David Baylon, Poppy Storm & Annabel Drayton

Agenda Items	Council Actions/Discussion
1. Welcome and Introductions	Meeting called to order at 10:02 am by Chair, Doug Orth. Everyone was welcomed and introductions were made.
2. Review & Approve Agenda	Doug Orth stated that Council action indicated under Item #5 on the agenda needed to be struck as the Council would not be taking action today. Motion carried.
3. Public Comments not on the Agenda	None
4. Review & Approve June 16, 2019 Minutes	The minutes were approved as written. It was noted that one of the links was broken within the minute’s document. Staff will update and repost.

5. Public Testimony on
2018 IBC

Mathew Ojala: Good morning my name is Matt Ojala and I am with Forterra, we are a non-profit base in Seattle working to make our communities and region as a whole more sustainable and livable. We're also the convener of a State-wide coalition to move forward the market place for mass timber in Washington State and as you'll recall last year we partnered with AIA Washington Council and other state culturalist in our coalition to propose code change amendments to both the 2015 and 2018 state building codes to allow taller mass timber buildings. In your wisdom, last November you unanimously approved the proposal from 2015 state building code, so we thank you for doing that. The changes within the 2018 amendment before you now are the exact same proposals. Of course we urge you to be supportive again. These were well vetted proposals with a diverse group of state voters that provided input, since we've last discussed mass timber codes the ICC approved the code changes at the national level. I will just wrap up with two quick points. We have noticed a few errors within the 2018 mass timber section as we submitted those to staff with correction before the vote on the 26th. Lastly, I will just note that we're in support of the request from Micah and the City of Seattle that has just been submitted to staff taking into consideration the recent actions by ICC addressing the mass timber section for the 2018 amendment. That's it thank you very much.

Kirsten Smith: I also want to testify on the mass timber amendments as you just heard from Matt on the ICC that you've heard before and voted on before. My name is Kirsten Smith I represent the American Institute of Architects Washington Council, so the State's Architects and I really appreciate you looking at these in the past. I want to call your attention to three items. Number one, just looking at the ICC code committee went through the rigger of the fire tests and then success of the National ICC committee votes which Matt eluded too. Both with the committee and the online voting there were fourteen code proposals and they passed between 68% and 94% approval. We were really excited about those results and we urge you guys to vote on those when they come up for your approval. Thanks, that is all I have.

Dennis Richardson: Good morning my name is Dennis Richardson I am a Western Regional Manager for the American Wood Council. The American Wood Council provides the national design specification as well as the special design provisions for wind and seismic. We are also the organization that asked the ICC if they have an ad-hoc committee to develop the tall wood provisions that you'll be voting on. Wanted to ask you to support it and they have been well vetted. I represented the ICC in the western states so have gone through kind of similar motions in Oregon and earlier in Washington. We are in the same process now in California and also Montana is considering this. So you guys are out there on the early adopters of this and I encourage you to adopt it. The thing I wanted to mention is if there are any questions that come up at all from a technical stand point, there have been folks particularly from opposing industries that

have opposed some of these provisions and sometimes some of the questions and issues that are raised don't match what the reality of some of the testing that has gone on. So if there are some things like that that are raised, we ask you to ask the question and we'd like to provide the information that can help us set the record straight. Otherwise I will be very brief. Thank you and I hope you support this.

{Staff note: This testimony from Mr. Crawford is for the WSEC-C}

Tom Crawford: Good morning, my name is Tom Crawford. I am the Board Chair of Thurston Climate Action Team here in Thurston County. I have been working over the past few years with local government and they have established size based, very aggressive targets for reducing carbon emissions throughout Thurston County community wide. We know through our work in developing greenhouse gas emissions inventories throughout the County that building energy is the largest source of greenhouse gas emissions at least for our community. So as a result the governments of Thurston County, Olympia, Lacey and Tumwater have come together and set very aggressive targets for reducing those emissions. We are now in the process of developing a process and moving forward to take actions to reduce those emissions. So tools such as, I understand additional flexibility for achieving additional energy savings through codes are part of the proposal being considered today or being considered over the next few weeks so we would strongly support that because it will provide additional tools for our local governments to be able to achieve the targets that they need to achieve. Again, knowing that building energy is the biggest source of greenhouse gas emissions in our communities. Appreciate your consideration and thank you for your work and thank you for your time this morning.

Micah Chappell: Micah Chappell, Technical Code Development Manager, representing Seattle's Department of Construction and Inspections. A lot of these items I worked on prior to being appointed to the State Building Code Council. I wanted to bring up a couple public comments for the IBC. One of those of course is provided or is provided in writing to address those on mass timber. One of those deals with the special inspection requirements under chapter 17. These two proposals, we have one for chapter 17 and one for chapter 23 were not complete at the national level by the ad-hoc committee for ICC. When the proposal went in to make the modifications to the 2018 Washington state building code, so we wanted to address those. The council was made aware of those previously in previous testimony and that was what my public comment for Seattle addresses. Its chapter 17 for special inspections and then under chapter 23 for the fire resistance rating requirements for the connections. That public comment is submitted and we want the council to definitely consider that as part of the package for mass timber and included in the 2018 Washington state building code. The second public comment that I wanted to bring up deals with item number eighty on the CR...

Council Member Eric Vander Mey asked a question of Micah: Is that also a recommended change for the 2015 that we have already adopted?

Micah Chappell: I believe the direction from the council previously was that was going to be under interpretation, which that request has been submitted by Jon Siu of City of Seattle already and maybe Richard can address how that is going to apply to the 2015 that went into effect July 1st.

Richard Brown: I haven't seen it yet. Micah, it is fresh off the press. It's on the agenda for the council meeting in two weeks and it will be to address that interpretation.

Micah Chappell: Thank you Richard. Now my second item brought up for discussion is item number eighty on the spreadsheet that was provided in this CR102, dealing with Type A units under section 1107.6.2.2.1. What was in the CR102 we found some mistakes with, but we want to make sure we address those that did not clearly identify what the Tag was wanting or desired in their notes. Under that section that the Tag approved deleting exception number two only and not modify that entire section. I believe in the CR102, it deleted that entire section which technically has three other changes from the state of Washington that deal with Type A units and the triggers for those and we definitely did not want to delete that section. We want to maintain that section other than deleting exception number two, which that exception takes into account that the exception excluded existing units in the count in Washington previously amended that. We want to again delete that exception number two, we want the existing units to be counted in as far as requiring for type A units. Those were my two public comments and I see some faces that may have some questions.

Cheryl Burwell: My name is Cheryl Burwell. I am here representing the City of Seattle. I am a licensed structural engineer here in the state of Washington and my role with the City of Seattle is I am one of the engineering and technical codes managers. I also oversee our high-rise and structural peer review process and I was one of the team members that originally created the 2015 Seattle building code amendments for the high-rise provisions. These amendments were incorporated into the 2015 Washington state building code as part of an off code cycle inclusion. I'm here just to comment on the proposal that was submitted by Mr. Lee Krantz, Ron Hamburger and Steve Phipper. That public proposal is to make some modifications to these high-rise provisions that are in section 16.13. I have three comments to make on these proposals. I have been in touch with the proponents and I have support from, I know Lee's on a boat somewhere on vacation but from the City of Bellevue's building official, Greg Schrader. I just wanted to preface that. I believe you have all been sent my three code change proposals? I don't want to be repeating any reason statements that you've already read. They are posted ok great. I am here to answer any questions that may come up. The first one I titled Burwell one for lack of a title. This

addresses, there are some changes that ASE's 7.16 which is the new addition of the minimum structural load provision code that's referenced in the 2018. There are some changes to that table that were made and as well as the section 12.6 in ASE 7.16. This public comment is mainly just editorial, it is to capitalize a few of the terms seismic design category that was not capitalized Lee Krantz's original proposal. It is also to clarify the term when we say height we're specifying that this is the structural height and know that when people design a building that there is building code, land use, structural provision and there is many different ways of how the height is calculated and determined. This is just to clarify that the height limit is based on the structural height. Any questions on that public comment? Great I see none on that. The second public comment titled Burwell two. This is intended to bring back language into the Washington state amendment that was kind of erroneously left out in the ASE's 7.16 publication. A lot of us engineers were told and under the assumption that transfer diaphragms would be amplified. The forces that go through a transfer diaphragms would be amplified. That is correct but it is very limited in one that applies. These original amendments were intended for these transfer diaphragm forces to be amplified in many different conditions. For example in a high-rise building the most common locations that this occurs is if you have a tower coming down onto a podium and your lateral forcing existing system you may have a continuous core go down but perhaps you have additional concrete sheer walls in that podium. You might have some transfer forces in that podium, slab or roof slab that maybe some levels down and it's to provide amplification of those forces. It is also the second major condition and where this occurs is what a lot of people call their grade slab where you might have a tower core coming down to your perimeter basement walls that core continues but you have some transfer forces to that stiffer basement walls that get transferred out through those diaphragms. The purpose of this public comment is to just bring this back into these amendments. We were hoping that this could be taken out which is what we originally proposed but as we dug a little bit further into the language of the ASE's 7.16 we found that the condition is limited and it wasn't capturing all of the transfer diaphragm conditions that we intended originally with these amendments. The third public comment Burwell three, this has to do with one of these additional criteria for the high-rise buildings. They are between 160-240 feet. This is a clarification as to how these amplified forces are applied for the foundation design. It was intended that a designer would take the forces that come out of there, perhaps a central concrete core and they would need to amplify them for the foundation design. If there is any additional increase in force that we use what is called a redundant C-factor system that applies on top of these amplification requirements. This proposal is just to clarify that as we have been using these provisions for the last few years. There has been a few questions by the design community as well as local building officials as to whether or not this additional redundancy factor applies. The original intent was that yes, it does apply. This redundancy factor is a completely

separate issue from these amplification factors and we just wanted to put this additional sentence in there as a clarification. Any questions? Thank you very much and I urge your support in passing these public comments.

{Staff Note: This testimony from Mr. Crawford is for the IFC}

Patrick Gilroy: My name Patrick Gilroy. I am a Washington state self-storage association board member. I am also an owner operator and developer of self-storage in the Washington state area. I am here to comment on a propose change in the IBC and I am going to distribute a letter that has comments on that particular proposal. This was also emailed to the council by our lobbyist Mr. Mark Jurassic yesterday. Dear Chairman and Board thank you for the opportunity to provide testimony. I am sorry but first let me just start off by saying I apologize for the tardiness of our testimony on this particular item. Once this particular code change item came to our attention we wanted the opportunity to check with the stakeholders and our members both on the state level and the national level to collect comments. Thank you for the opportunity to provide testimony on Friday July 12th regarding section 903.2.9 which regulates the sprinklers that are required in group S1 occupancies. The 2012 edition of the IBC added additional number five threshold that states a group S1 occupancy that is used for the storage of upholstered furniture or mattresses exceeds 2500 square feet. The language raises a bunch of questions. Is the 2500 square foot barrier calculated as only the area storing upholstered furniture and mattresses or the entire area of the occupancy? Number two. Can the occupancies be separated by fire area or fire wall if needed? Number three. Does this requirement apply only to the exclusive storage of furniture or does it apply anywhere to an upholstered piece of furniture or where a mattress could be stored. The self-storage association had an opportunity during the 2021 IBC code development cycles to support an amendment that makes the language clear and enforceable. Because the three story and 12,000 square foot fire area threshold that are already in place and successful in already protecting these facilities over the years the SSA proposed a blanket exemption to 903.2.9 paragraph five for self-storage facilities. As well as “inaudible” language to be enforced that would then read, “group S1”, strike occupancy and insert “fire area that is used for the storage of upholstered furniture or mattresses exceeds 2500 square feet”. Then adding new language, “exception of self-storage facilities”. Do to the consensus nature of the code development process and a negotiated agreement that was reached with other stakeholders, meaning self-storage owners and users. Including the proponent responsible for adding disputed language to the 2012 IBC. The 2021 edition of the IBC, section 903.2.2 deletes this paragraph five and adds the following new subsection; “group S1 upholstered furniture and mattresses, an automatic sprinkler system shall be provided through a group S1 fire area where the fire area used for the area used for upholstered furniture exceeds 2500 square feet, exception self-storage facilities no greater than one story above

a grade plane where all storage facilities can be accessed directly from the exterior”. The self-storage association urges the council’s support of one of the two above suggested code amendments to section 903.2.9 which would provide a reasonable exemption or simply bring Washington state IBC into alignment with the most up to date code. Thank you for your consideration. Submitted, Mark Jurassic public affairs consultant for the Washington state self-storage association and Joe Doherty, Senior VP and legal counsel for the national self-storage association. That is a summary of my comments are there any questions that I can answer?

The question was raised if the public comment was in regards to one of the code change proposals on the CR102 or just a public comment on the existing 2012? Is it being modified or omitted? *{Staff note: The confusion occurred primarily because this testimony addressing the IFC was received while considering the IBC.}*

{Staff Note: This testimony from Councilman Kline is for the IFC}
Andrew Klein, Council Member: Self-storage association is a client of mine and I have helped them out on the national level actually getting this language that you see here into the code. As Patrick mentioned prior to this language getting into the code, the code cycles had been messed up for two cycles, 2012, 2015, actually three and 2018. The 2021 edition fixed all of this so that A, it is enforceable and B, it is clear where it applies. Last year they did not have an opportunity to put anything in because the language hadn’t been finalized they wanted to come with something that had been codified at the national code hearing. You are at a risk here in Washington if you do adopt something. That is the reason why he apologies for coming in late. But yes, in the code now it is something that should be changed it has been changed nationally so they’re asking to bring it forward sooner.

{Staff Note: This testimony from Mr. Crawford is for the IFC}

Patrick Gilroy: Sorry if I may, it was my understanding that there was a proposed code change of May of last year that concerned this particular code section that was not considered in the last amendment cycle. It was brought to our attention by a friendly organization that we should be providing comment on this issue. I apologize that I don’t have the details on that in front of me. I remember that the proponent of the change was a fire marshal in the Spokane area.

{Staff Note: This testimony from Representative Doglio is for the WSEC-C}

Beth Doglio: For the record, I am representative Beth Doglio and I represent the 22nd legislative district, which you all are sitting in so welcome to my district. I am here to encourage the council to continue on the path of creating the strongest building codes possible given the urgency of climate change and the need to move toward a fossil free future as soon as possible. Indeed the 2019 legislative session made great strides in moving the needle ensuring that we

meet the states greenhouse gases reduction goals that are currently in statute. As a legislator I serve on the Energy and Environment Committee of the house and the Capital Budget Committee. I focus a lot on the built-in environment working to continue the good work that this state has already done to reduce carbon intensity in all aspects of building from the embodied carbon in building materials to the operational efficiency of the buildings over their lifetimes. Had I been in the legislature in 2009, which I wasn't, I would have wholeheartedly supported the legislative mandate that all new buildings be 70% more efficient by 2031 essentially net-zero ready than they were in 2006. This past session I was the prime sponsor of HB 1257, which has been passed and signed by the Governor recently. This bill sets a performance standard for existing commercial buildings over 50,000 square feet, which comes into play about 2026. Requires gas companies to invest in efficiency measures and requires buildings that are offering on-site parking new building to be EV ready among other things. One of those things that I would like to highlight which I think is very relevant to the work that you are doing, is a change in section 17 of that bill that directs the council to get to the 2009 mandated reduction goal with the lowest overall cost versus all changes needing to be cost effective. That is a big change. In passing this section of 1257 legislators have said that meeting the 70% energy savings target is the priority for energy code development moving forward. This is accomplished, I think that you are on the right path in terms of giving a lot of flexibility in about how to meet the efficiency goals for the builder and the designer and I encourage you to continue to move in that direction. Thank you very much for all of the hard work that you are doing it is very important work and I appreciate all of the time and energy and thought that you are putting into this process. This is within HB 1257 and we did pass that bill so we need to implement it at this point that is the direction of the legislature at this time. Thank you.

{Staff Note: This testimony from Mr. Audette is for the IFC}

Al Audette: Al Audette, building industry of eastern Washington. 903.2.9 is in the CR102. On the surface no details, first of all I would question how this is a critical life safety issue which is the box that was checked on this one. There hasn't been a storage unit fire since 2016. The one before that was in 2011. Now they are steel framed and built with concrete. The second part is it looks to me like one of the changes is that it says self-storage instead of storage unit so self-storage instead of storage unit. I am wondering is there a difference there and if there is, they are different there should be a cost benefit analysis done on here which would make this both incomplete. Thank you for your time.

{Staff Note: This testimony from Mr. Crawford is for the IFC}

Patrick Reilly: My name is Patrick Reilly and I am the former national chair of the self-storage association. I am also the current president of the Washington self-storage association as well as the founder of the international self-storage association which includes

Modesto which is the European union, in Japan and also Lasso which is a Latin American self-storage association so I have been involved with a lot of code around self-storage and a lot of development. I think that the issue around this self-storage and the origination of this inclusion in the code going back to the mattress fire which was a mixed use building. Storage was an ancillary use and was not self-storage. There are some clarifications needed to move forward with interpreting this code as currently written. Whatever that process is with this community we look for clarification from the council on whether there is a CR that you are going to respond to or whether or not we need to work with a jurisdiction to ask for clarification. There are about 1,200 self-storage facilities in this state, about 60,000 nationally with a very low rate of fire. One thing that needs to be considered is and I believe it is written in the letter that you have before you. That single story self-storage facilities do not have occupancy within them in the building if they are externally accessed "inaudible" large garage doors all around the building. A sprinkler system is really not protecting, it's not a life safety issue there is nobody in the building. The proposed language for clarification; there is two proposed exceptions one or the other it addresses the exterior access. There is also something unique with self-storage that other real estate tenancies don't enjoy and that is if there is an apartment building issue or there is a potential issue hazard inside the apartment you need to give a three day notice in most jurisdictions. That peril can last for a long period of time before really checking it. So self-storage typically in a rental agreement you can check on demand so at any time. That flows directly to the fire marshal's ability to inspect a unit before hazardous materials along with prohibitions "inaudible" against things like explosive items, gas, vehicles things like that so there is a lot of controls that can be put on self-storage that you can't really put on other uses. I'd urge the committee to or council to get back to us or we can work with you to determine what the path is to clarify some of these items as it exists because they are ambiguous. Thank you for your time.

Eric Vander Mey: Good morning. Eric Vander Mey representing myself. I'd like to look at section 909.6.3 of the IBC and just make a couple of comments. If you could pull that up Krista. I will be following-up with some written comments. This is editorial in nature but the sentence there refers to 909.20 of this code and 909.21 of the International Fire Code as necessary to determine the stair shaft meets the pressurization requirements of the IBC section 909.20. So that sentence, 909.20 of the building code is stairway pressurization. 909.21 of the building code is elevator pressurization. 909.21 of the fire code is also elevator pressurization. That sentence needs to be revised in the second half, you're talking about both elevators and stairs and then you say stair shaft pressurization requirements. That needs to be clarified. As well as IFC 909.6.3 as part of collation that would need to be updated to match this language because that says something completely different like that. There is some editorial work to be done to this section. Thank you.

Public Testimony on the IFC	Ken Brouillette: Ken Brouillette, Seattle fire. If you can pull up on the screen page 7 of the CR102's 13.1. Its page 7, 510.4.2.4, signal booster requirements. It appears it is a typo. In number one and number two. It should be IP65 not 656. So the number one and the number two both say IP656 and it should just be 65. That's the first typo. The next one would be 510.5.3, number eight. It should be words incorporated to class B signal booster devices or class C modified fiber remote devices. The proposal is to strike that language which read systems should be tested "inaudible" and onward so I don't know what happened. The proposal was F-10-2018 and that is all I had.
Public Testimony on the WSEC-C	Forthcoming due to the volume. In the meantime, please refer to the meeting recording.
8. Staff Report	<p>Richard reported that the third code specialist position will not be filled until January 2020. Fiscal budget expenditures are being monitored in order to provide funding before posting the position.</p> <p>There was an error in the minutes from the last Council meeting. Public comment on the group 1 codes does not end on July 19th. The governing document is the CR102 and states that public comment must be submitted by July 12th, midnight.</p> <p>The CR102 addressing amending the SBCC process for code amendments has been filed and SBCC is tracking through the rulemaking process.</p> <p>Staff is working with WABO on the Washington custom codes (all the codes except Energy). The changes/updates should be completed by February 2020.</p> <p>Chairman Orth requested staff include a budget update with their staff reports.</p>
9. Other Business	None offered.
10. Adjourn	The meeting was adjourned at 1:20 p.m.