



# Safety Codes Council

## MINUTES OF THE SECOND BUILDING SUB-COUNCIL MEETING OF 2020

**DATE:** January 16, 2020

**TIME:** 8:35 a.m. to 3:05 p.m.

**LOCATION:** Safety Codes Council Office, Edmonton

**PRESENT:** *Sub-Council Members*

Andy Smith, Chair  
Greg Beck  
David Flanagan  
Rick Gratton  
Stephen Hill  
Keith Jansen  
Corey Klimchuk  
Robert Kralka  
Matthew Kramer  
Darin Sceviour  
Bruce Schultz, Vice Chair South  
Ulrik Seward

*Safety Codes Council*

Allison Karch, Kathryn Derkach

*Alberta Municipal Affairs*

Paul Chang (item 5.1. only), Richard Frederick, Renna Alqasrani

**REGRETS:** Russell Croome, Vice Chair North; Lee Phillips; Colin Belliveau; Ken Roskell

**GUESTS:** Laura Ritchie, AACA; Terrance O'Flaherty, MCAA; Chris Taylor, FSC Liaison; Karen Muir, BFSC Liaison; Gerry Wiles, ESC Liaison; Cameron Bardas, FSC (item 4.3 only); Mark Hagel and Nicholle Miller, Alberta Masonry Council (item 4.2 only); Sean Pearce, Lubrizol (item 4.1 only)

**RECORDER:** Kathryn Derkach

**2020 MEETINGS:** February 19, March 19, May 14, September 17, November 5

## 1. Meeting Opening

The Chair called the meeting to order at 8:35 a.m. A round table introduction was held.

### 1.1 Agenda Adoption

The following items were added to the agenda:

- 4.10 14-BCV-007 Interior Stairways for Roof Access
- 4.8 Working Group Reports
- 4.9 Council Updates

**Rick Gratton / Bruce Schultz moved that the agenda be adopted, as amended; CARRIED**

### 1.2 Adoption of November 7, 2019 Minutes

**Stephen Hill / Ulrik Seward moved that the minutes of the November 7, 2019 meeting be adopted, as circulated; CARRIED**

## 2. Matters for Decision

*None identified*

## 3. Review Matters Arising/Action List

*None identified*

## 4. Matters for Discussion

### 4.1. Sprinklers in Residential Occupancies Presentation

Sean Pearce, Fire Protection Business Development Manager at Lubrizol, gave a presentation outlining a request for the sub-council to create a working group. This proposed working group would review the NBC and complete a document review of all areas where fire sprinklers provide a current trade off for the other safety construction requirements. From that work, the group would then develop a code change request to allow for residential construction allowances where fire sprinkler systems are installed.

Highlights of the presentation included:

- It was noted that this group would not be trying to make fire sprinklers mandatory.
- The group could consist of various stakeholders, including the Province of Alberta, National Home Builders Association, Canadian Association of Fire Chiefs, Canadian Automatic Sprinkler Association, Industry manufacturers and International Fire Fighters Association.
- Part 3 of the NBC has numerous allowances for fire sprinklers but Part 9 does not.
- The intent would be to review various related codes and documents, consider municipal impacts, then consolidate documents and create a concise building code change that includes all the necessary stakeholders.

Discussion around the presentation included:

- Implications on the water supply structure for municipalities would be positive, but there would be some trade offs. This would have to be reviewed further within the group.
- The group would be examining Part 3 trade-off options and how they could apply to Part 9.
- The options would be reviewed for both new developments and redevelopments.

**Bruce Schultz / Rick Gratton moved to form a working group to develop a building code change proposal regarding trade offs for sprinklers in Part 9 buildings; CARRIED.**

Terms of reference for this working group will be reviewed at the March BSC meeting. The Fire Sub-Council will be invited to give input on this working group.

#### **4.2. Pre-Engineered Solution for Thin Masonry Veneers Presentation**

Dr. Mark Hagel, Executive Director, and Nicholle Miller, Director of Marketing and Communications, at the Alberta Masonry Council (AMC) presented to the sub-council on a proposed STANDATA. The AMC would like to see adhered masonry veneers codified in Part 9 in the 2025 NBC(AE). In the meantime, they have worked with the Building Administrator on a draft Variance STANDATA that would recognize a pre-engineered solution for thin masonry veneers that could be used in place of project-specific engineering.

Highlights of the presentation included:

- The STANDATA would allow for specificity in components resulting in consistency and confidence in the final assembly.
- The STANDATA would not apply to installations exceeding 10 ft in height, products not on the approved products list, and non-Part 9 buildings.
- The pre-engineered solution acts as an installation guide.
- It would not eliminate the Form A or stamped letter, just reduces the number of projects that require it.

Discussion around the presentation included:

- There is confusion in the field regarding flashing, so a note on the applicable flashing requirements would be good to include.
- Using Form A, there's oversight of the installation but with the issuance of this STANDATA, that oversight would go away. That would mean extra work for an SCO, as they would need to ensure the installation instructions are followed. This could be difficult to inspect given that many QMP's are not set up to allow for this.
- It was suggested that there is no need to limit this to 10 ft. in height if you added another inspection to address the larger safety risk.
- It was suggested that technical images be included in the documents for clarity.

As this document is still a work in progress, Municipal Affairs will continue to work with AMC and bring back revisions to the next BSC meeting. [Chang]

**Bruce Schultz / Rick Gratton moved to support proceeding with this STANDATA as per comments; CARRIED with one noted opposition, Ulrik Seward.**

#### **4.3. Grenfell Tower Fire Presentations**

Cameron Bardas from the FSC gave a presentation on Combustible Exteriors based on the findings from the Grenfell Tower fire.

Highlights of this presentation included:

- Grenfell tower is 24 storeys with single stairwell, no sprinklers, shelter in place practices.

- The fire started inside a suite, moved to the exterior cladding, then moved back inside on subsequent floors through the windows.
- The individual components all had an acceptable fire rating, but it was the combination of the cladding components and how they worked together that caused an issue.
- The City of Edmonton reviewed 160 buildings and three received a second review to determine if there was a risk for a similar fire, but no major potential issues were identified.
- With more buildings moving towards energy efficiency, which prompts the use of combustible exterior insulations, this risk may increase.
- The NFPA Effect tool provides a risk-indexing approach to assess building safety based on several major variables.

Bruce Schultz presented the Grenfell Tower Inquiry: Phase 1 Report Overview.

Highlights of this presentation included:

- Background details of past renovations to Grenfell Tower
  - Over-cladding with new insulation and rain screen cladding system.
  - New polyisocyanurate insulation
  - New aluminum composite material (ACM) rain screen cladding system with 3mm polyethylene insulation core between 2 0.5mm aluminum sheets
- Fire event summary
- Fire event conclusions
  - It was found that the main reason the flames spread so rapidly up, down and around the building was the presence of ACM rain screen panels with polyethylene cores, which acted as a source of fuel.
  - Fire spread horizontally and downwards because the melting and dripping of burning polyethylene from the crown and spandrel and column panels.
  - Fire on the outside of the building quickly entered many flats and smoke rapidly spread through the interior causing compartmentation loss.
- Issues Arising from the report
  - It was recommended that no panels with polyethylene cores be used.
  - Testing of cladding for high rises are not as rigorous or effectively enforced as they should be.

The effectiveness of CAN/ULC S-134 came into question. When performing this test, the upper and lower edges of the combustion chamber are non-flammable. This does not reflect the Grenfell scenario, where the fire moved into the cladding assembly via a flammable gap around a window rather than through the cladding assembly itself. It was proposed that BSC further inquire about S134 and whether it addresses the issues that arose out of Grenfell.

**Bruce Schultz / Corey Klimchuk moved to request that Municipal Affairs inquire with ULC on whether S134 is consistent in its ability to provide proof of protection in light of the findings of Grenfell; CARRIED.**

It was suggested that these presentations be made at the Council conference in May. Council staff will look into this. [Council Administration]

#### 4.4. Possible Nominating Organizations for Potential Energy Efficiency Seat

It was reported that Council staff have received two suggestions that will be followed up with. If sub-council members have any other suggestions for potential nominating organizations, specifically regarding building energy modeling, please send them to Council staff. [All]

#### 4.5 Exiting to a Public Thoroughfare

This issue came up at the FSC and was brought forward for BSC consideration.

There is a perceived gap in the definition of egress and thoroughfare. The FSC has run into several issues where the means of egress to a public thoroughfare included slopes or narrow grass swales between the building and fence lines. While people can exit the building, they can't necessarily move away from the building safely. There is concern that the oversight from the building discipline stops at the door when it should consider the path as well.

Discussion around this topic included:

- There's no clear definition of 'open access' or 'access' which is leaving this open for interpretation.
- It was suggested that because it's outside but still attached to the building that the path of travel should fall under the building discipline.
- This concern was not just for care facilities but for residential buildings as well.
- Maintenance of a path of egress would fall under the fire discipline.
- A sample drawing showing this issue was viewed and it was suggested that a building plans examiner would not find an issue.
- There were no statistics provided on this issue making it difficult to judge how big of an issue it really is.
- This could be an awareness and educational item for building owners.

It was requested that Municipal Affairs provide clarity around what 'access to thoroughfare' means. [Chang]

The FSC liaison will take this discussion back to the FSC and ask for statistics/data on the scope of this issue. [Taylor]

#### 4.6 Liaison Reports

##### 4.6.1 Fire Sub-Council

The following report of the FSC's activities was provided:

- Review of a new STANDATA on qualifications of service providers.
- Review of proposed national code changes released for public review.
- Qualified persons' registry is being discussed.
- Exiting to a public thoroughfare is being discussed.

##### 4.6.2 Barrier Free Sub-Council

The following report of the BFSC's activities was provided:

- Recommendations around assisted listening devices and operational controls and heights are being submitted through the Barrier Free Administrator to NRC.

#### **4.6.2.1 New Liaison Needed**

It was reported that the current liaison is retiring from the BSC. Corey Klimchuk and Keith Jansen will share this position.

### **4.7 Farm Buildings**

Vice Chair South chaired this agenda item.

Andy Smith gave a presentation on farm buildings, the confusion around their permit process under the existing code and harmonization with forthcoming proposed 'Large Farm Buildings' in the NBC 2020.

Highlights of the presentation included:

- Currently the NBC(AE) does not apply to most farm buildings which means in most cases, no building permits are required, however there is confusion in the industry as to when a permit would be required.
- When a farm building includes space for human occupancy, it's unclear if a building permit would be required.
- The 2020 code update will incorporate the National Farm Building Code 1995, but it is unknown exactly what that section will look like.
- It was requested that the BSC investigate the introduction of a permit waiver so that AHJ's/SCO's have the opportunity to look at the drawings of these buildings to confirm that the exclusion of a building permit applies.

Discussion around the presentation included:

- Looking at other provinces and how they handle these types of buildings would be a good place to start.
- This is an educational opportunity as there's a lot of confusion in the industry as to whether or not a building permit is needed.
- It would be helpful to know some statistics and trends around this issue to better understand the safety risks associated.

It was suggested that BSC wait to see what the code changes around this topic are before moving forward. This will be added to the March meeting. [Council Administration]

### **4.8 Working Group Reports**

#### **4.8.1 Occupant Load**

A written report was included in the portal. The group is continuing work on determining key issues and what harmonization might look like. It was hoped that a recommendation would be ready for the March meeting.

#### **4.8.2 Escalators as Stairs**

The following report of the working group's activities was provided:

- Their key issue is how to safely lock the escalator so it will not go into a free fall. Since escalators were not designed to be locked and walked on, this may not be possible.
- The rise and run of the escalator stairs may be able to be overcome if the escalator can be locked out safely.

- If it is found that an escalator cannot be locked, this may be a dead issue.
- There has been talk of education to better design buildings so they don't solely rely on escalators to move people around.
- It was noted that the working group has only identified issues with older buildings that currently have a higher traffic volume than they were originally designed for.

#### **4.9 Council Updates**

A written report was included in the portal and updates were provided on:

- The process for 'in-camera sessions' and clarification that any motions made during those sessions must be made out of camera and recorded in the minutes.
- Allison will be on maternity leave starting in March. Please remember to include Kathryn on all emails going forward.
- There are number of member training sessions coming up, please contact Gerry to register:
  - New Member Orientation – March 5
  - Effective Meetings Workshop – March 23
  - Appeals Training – March 24
- Registration for Conference 2020 will open for sub-council members in February. Please be sure to register before the end of February to guarantee a room at the Rimrock. Any registrations after that may be at a different hotel.
- Reminder to submit any outstanding 2019 expense claims.

#### **4.10 14-BCV-007 Interior Stairways for Roof Access**

Deferred to next meeting. Terry O'Flaherty will discuss this item with Ken Roskell, the departing member representing Mechanical Contractors, to continue work on this item. [O'Flaherty]

### **5. Meeting Finalization**

#### **5.1. Round Table**

- It was reported that James Orr is now the Fire Commissioner as well as the Director, Codes and Standards.
- 5G antennas are becoming a bigger issue. This will be added to the next meeting agenda. [Council Administration/Seward]
- Greg Beck and Ken Roskell were thanked for their years of service on the sub-council.

#### **5.2. Next Meeting**

The next meeting was reconfirmed for February 19, 2020 at the Council office at 8:30 a.m.

#### **5.3. Meeting Adjournment**

The meeting was adjourned at 3:05 p.m.

-- NEW ACTION ITEMS --

**4.3. Grenfell Tower Fire Presentations**

It was suggested that these presentations be made at the Council conference in May. Council staff will look into this. [Council Administration]

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**-- MOTIONS --**

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