

## Meeting Notes

### Building Research Committee (BRC)

Wednesday, April 20, 2016, 8:30 a.m. to 12:00 p.m.

The Italian Cultural Centre Society

3075 Slocan Street

#### In Attendance:

Bill McEwen – Masonry Institute of BC (Chair)  
Denisa Ionescu – BC Housing  
Cindy Moran – BC Housing (Recording)  
Wilma Leung – BC Housing  
Carolina Maloney – Morrison Hershfield  
Chris Mattock – Habitat Design +Consulting  
Christian Cianfrone – Morrison Hershfield  
Derek Townson – Building Officials Association of BC  
Emma Conway – E3 Eco Group Inc  
Ernest W. Kortschak – Dupont Building Innovations  
Fitsum Tariku – BCIT  
Glade Schoenfeld – Read Jones Christoffersen Ltd  
Graham Finch – RDH Engineering  
Jason Teetaert – SMT Research  
Jeff Fisher – Urban Development Institute

Jieying Wang – FP Innovations  
Les Yard – Dow Building Solutions  
Lorne Ricketts – RDH Engineering  
Nima Shijini – BCIT  
Patrick Enright – City of Vancouver  
Patrick Roppel – Morrison Hershfield  
Patrick Shek – City of Burnaby  
Phalguni Mukhopadhyaya – University of Victoria  
Ralph Moore – Aviva Canada  
Riccardo DiSantis – Intertek Building Products  
Richard Kadulski – Richard Kadulski Architect  
Tom Pierre Frappé-Sénéclauze – Pembina Institute  
Wei Chen – Tri Can Consulting Ltd.  
Zachary May – Building and Safety Standards Branch

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#### 1. Approval of the Agenda/Additional Items

The meeting was called to order at 8:35 a.m. B. McEwen welcomed everyone to the meeting on behalf of the BRC followed by a roundtable introduction. The November 25, 2015 meeting agenda was approved.

#### 2. Approval of November 25, 2015 Meeting Minutes

The minutes from the November 25, 2015 BRC meeting were approved.

#### 3. Hydrothermal Performance Assessment of High Insulates Wall Systems: An Experimental Study

Nima Shijini presented the first year results of a field experimental study. Climate change initiatives are driving the desire for designs to meet higher energy performance standards. The study looks at higher R values walls in order to determine best practice options. The drying capability of various wall assemblies with a variety of vapour retarders and insulation is examined under field conditions at the BCIT test hut.

#### 4. Energy Consumption of Low to Mid-Rise Wood Frame Multi Unit Residential Buildings

Graham Finch presented preliminary data on a study sponsored by HPO, which addresses the options available to new builds and retrofits. Initially the focus of the study were buildings with a minimum of six storey, however the study will be expanded to include townhouses and low-rise multi-unit residential buildings. The data collected will compare energy efficiency between wood-framed multi-unit residential buildings versus high-rise construction. Energy consumption in newer builds will be examined to see where improvements have been made in recent years, and also a review of how low-rise MURBS have increased their efficiency and quality while reducing their energy use. The data will be used to determine where incentives should be provided to make the biggest impact. Focusing on smaller items may be more effective at increasing energy efficiency, rather than incentivising large

features. District energy's availability and efficiency was also discussed; further research is required to determine the significance it would have on energy consumption and the costs that connecting to it would incur.

### **5. Energy Efficiency Working Group: Provincial Stretch Code**

Zack May presented key drivers pushing the "stretch code" beyond base code, and how building requirements have changed through the Building Act and the Climate Action Charter, and possible solutions to increasing the current code baseline.

Complying with the stretch code will not be enforced, but rather it will be optional for local governments to adopt; as a direct result, the base BCBC will not change. Efficiency will need to be monitored in a format that provides measurable feedback and performance, to ensure that buildings are performing beyond baseline requirements.

### **6. Stretch Code and Climate Leadership Plan for Buildings: Pembina Perspectives**

Tom-Pierre Frappé-Sénéclauze presented on the effects that an increased population is having on climate change and how it will affect a 50% reduction goal of GHG emissions for 2030. In order to meet a target of Net Zero by 2020, building equipment must be high on efficiency, and homes must reduce their gas consumption. Regulation changes and updates require that building baselines be increased, as Passive House is already easily achievable; the building baseline also requires more specific guidelines.

The most difficult aspect of achieving improved efficiency goals is training builders and providing adequate support. Options to make Passive House more broadly used at a faster pace are to, provide builders with previously used specifications and product information -to reduce cost and justify build; rather than waiting for building costs to increase before a change is seen. Incentives could also be created to increase public demand, by reducing taxes, requiring realtors to inspect and classify houses prior to listing. The need for universal labelling and universal requirements were also addressed.

### **7. Forum Discussion 10:45-11:55**

- Jeff inquired about the government's position on the requirement to increase the use of wood, for both the private and public sector, and also what will the regulations and requirements be?
- Richard discussed the impact of a Vancouver Building By-law on super high building envelope. What will the efficiency be and how will it relate to energy and increase use on air-conditioners in the summer months.
- Phalguni discussed that UVic's new Civil Engineering Department will be formally announced in September. UVic will be conducting a study on the high performance of doors in Northern Canada and are seeking partners for their industry panel.
- Denisa invited the council to participate or collaborate on current BC Housing projects.
- Wilma discussed the stretch code and different projects that support it:
  - Fortis BC high performance training for builders
  - Minister of Energy and Mines, BC Hydro study
  - RDH, City of Vancouver, BC Housing MURBS airtightness testing study
  - High performance training for residents

### **8.0 Next BRC Meeting**

- Meeting is scheduled for Wednesday, November 3rd, 2016 8:30am-12:00pm.