

**MINUTES**  
**Building Research Committee Meeting**  
**Tuesday, June 13, 2006 at 9:00 am**  
**Plaza 500 Hotel, 500 West 12<sup>th</sup> Avenue, Vancouver, B.C.**

**In attendance:**

Bob Sloat – Cement Association of Canada (chair)	Chris Kiiveri – HPO (recording)
Hua Ge – BCIT	Innes Hood – Sheltair Group
Richard Kadulski – AIBC	Elia Sterling - Theodor Sterling Associates
Dave Ricketts – APEGBC	Bob Switzer – Polygon
Tony Gioventu – CHOA	Brennan Vollering – Halsall Associates
Allan Dobie – CMHC/BCYRO	Ian Theaker – Canada Green Building Council
Rick McWhinney	Steve Olmstead - BCREA
John Bell – HPO	

**Conference call attendees:**

Theresa Weston – DuPont	Silvio Plescia – CMHC National Office
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**Regrets:**

George Humphrey - BOABC	Jennifer O'Connor - Forintek Canada Corporation
Bill Billups – CWC	Bill McEwen – Masonry Institute of BC
Bob Thompson – BC Building Policy Branch	

**1. Introduction**

The meeting was called to order at 9:15 a.m. B. Sloat welcomed everyone to the meeting on behalf of BCBECC.

**2. Approval of June 13, 2006 agenda and additional items.**

The June 13, 2006 BRC meeting agenda and additional items were approved.

**3. Approval of November 29, 2005 Meeting Minutes and agenda.**

The minutes from the November 29, 2005 BRC meeting were approved.

**4. Business arising from last meeting**

**Canadian Green Building Council (CaGBC) Task Force on Durable Buildings**

- I. Theaker will provide an update on the draft report (Item 5)

**Built Green BC program**

- The Built Green BC checklist was distributed to BRC members
- The official launch of the Built Green BC program will take place on June 23, 2006 in Langley, B.C.

## 5. Report on Green Building Initiatives and Research

### CMHC presentation on Net Zero Energy Healthy Home initiative (handout)

A. Dobie presented CMHC's Net Zero Energy Healthy Home initiative.

- A Net Zero home produces as much energy as it uses on an annual basis with low/no environmental impacts and integrated within a sustainable community plan.
- CMHC has provided funding for the first phase of the Net Zero initiative
- CMHC is inviting those interested to submit an Expression of Interest for the Net Zero Energy Healthy Housing Pilot Demonstration Initiative.
- The multi-unit buildings for the 2010 Winter Olympics Athletes Village in Vancouver will be Net Zero homes, in addition to a LEED Gold/Platinum rating.

B. Switzer asked whether single detached or multi-units were the target for the funding and mentioned that a number of barriers exist in BC including building and plumbing codes and product approvals. A. Dobie said it would be mainly new, single detached.

### Update on the Canadian Green Building Council's (CaGBC) Task Force on Durable Buildings

I. Theaker provided a summary of the recommendations from the Task Force on Durable Buildings draft report (handout).

- New tables will be introduced to facilitate applying for the durability credit.
- Release of an addendum this fall to remove the 'implied guarantee' from the durability credit and all future credits will be reviewed by errors and admissions insurers.
- I. Theaker requested BRC members to forward their suggestions and comments on the draft report

⇒ HPO to distribute CaGBC Task Force on Durable Buildings draft report to BRC members

Achieving the LEED Canada Durable Building Credit workshop, presented by Bob Marshall, will be held on July 11, 2006 in Victoria and July 19, 2006 in Vancouver (handout).

## 6. Preliminary findings: "Indoor Humidity Control in Multi-Unit Residential Buildings for Temperate Coastal Climates" research project

I. Hood presented the preliminary findings of this research study, including:

- Impact of ventilation rates on indoor humidity levels
- Humidity control strategies to manage humidity levels within the suites
- Additional research requirements were identified
- Suites typically have air handler supply with kitchen and bathroom fans
- Study to be completed in several months

E. Sterling mentioned the importance of dewpoint tracking. D. Ricketts said buildings are being built with increasing airtightness and mechanical ventilation is essential.

## 7. Report on active/new research projects

### CMHC Report

S. Plescia provided an update of CMHC's current research projects (handout).

### HPO Report

J. Bell provided an update of HPO R&E projects (handout)

### BCIT Report

H. Ge provided an update of BCIT's projects including:

- **Wind and Rain Impact on Buildings Study**  
This study involves eight buildings in the Vancouver region including single detached, multi-unit and high-rise buildings.
- **Monitoring Performance of Rainscreen Wall Assemblies Study**  
Monitoring study equipment is currently being transferred to BCIT
- **BCIT Test Hut Facility**  
The BCIT test hut will be a two-story, 24' x 40' building with the option to install two panel sizes - 8' x 8' and 8' x 16'.

### Vancouver field exposure testing at Coquitlam test hut

J. Bell and B. Sloat provided some information on the Coquitlam test hut private research initiative:

- Seven different types of wall panels are being tested
- Establishing the baseline performance is currently underway
- Future studies include the introduction of moisture/water into the test panel wall cavities

### Reports from other organizations carrying out research

B. Sloat mentioned that the Cement Association of Canada has released a study "Building Thermal Mass and Energy Savings Report" and is available on CD - contact Bob Sloat for a copy.

## 8. Committee Discussion

J. Bell invited BRC members to discuss new research issues. The following topics were discussed:

### Durability of underground parking structures

R. McWhinney mentioned several potential research topics:

- Durability of parking structures and corrosion of reinforcing steel
- Flooding/water ingress issues into parking structures and buoyancy issues with 3-4 storey buildings

D. Ricketts mentioned saltwater intrusion into underground parking structures and the concerns with warranty issues, corrosion issues, how to deal with it, and what amount of intrusion is acceptable.

### Residential high-rise in-slab ductwork

T. Gioventu mentioned several issues with in-slab ductwork in high-rises including:

- Water intrusion into suites from the condensation from crushed/clogged ventilation ducts in the slab.
- Nearly 30% of the vents in one high-rise were crushed/clogged, which were made from a thin gauge metal.
- Costly and difficult to repair – retrofit dropped runs in some cases

⇒ HPO to distribute a draft work statement on residential high-rise in-slab ventilation ducts to BRC members - please provide comments and feedback to Chris Kiiveri at [ckiiveri@hpo.bc.ca](mailto:ckiiveri@hpo.bc.ca)

### **Commissioning/quality assurance**

E. Sterling mentioned commissioning projects and quality assurance:

- Work towards publishing ASHRAE Standard 180 - Inspection and Maintenance is currently underway
- Also mentioned that the cost of commissioning systems is a barrier

I. Hood mentioned the CMHC Quality Assurance Protocol.

⇒ HPO has created a webpage of links related to quality control, quality assurance, and commissioning applicable to residential buildings - please review and provide your comments to Chris Kiiveri at [ckiiveri@hpo.bc.ca](mailto:ckiiveri@hpo.bc.ca)

### **9. Next Steps**

B. Sloat said the next steps are to:

- Identify the issues that merit research
- E-mail correspondence with a few BRC members to flush out the issues/topics
- Develop a work statement

⇒ E-mail follow-up and circulate prior to next meeting

### **10. Next BRC meeting is planned for Thursday, November 9<sup>th</sup>, 2006.**

The meeting adjourned at 12:15 p.m.