

8-Apr-10						
Preliminary Program for BEST 2 Conference - April 12-14, 2010						
Session Code	Session	Session Chairs and Topics	Duration hour/min	Begin	End	
	11-Apr-10	Pre-Conference Evening				
		Early Registration at Conference Hotel		5:00 PM	6:30 PM	
		Reception at Conference Hotel		6:30 PM	8:30 PM	
	12-Apr-10	Conference day 1: Monday				
		Registration at convention center		7:00 AM	9:00 AM	
		Continental Breakfast		7:00 AM	7:45 AM	
	<i>Rob Kistler</i>	Monday morning : plenary sessions			7:45 AM	11:50 AM
P1	<i>Rob Kistler</i>	Welcome on behalf of the Portland BEC Organizing Committee	0:15	7:45 AM	8:00 AM	
		P1-1 Keynote Address by Leslie L. Shepherd, Chief Architect, U.S. General Services Administration,	0:45	8:00 AM	8:45 AM	
		P1-2 Antonio Colantonio, representing National Research Council, Canada	0:30	8:45 AM	9:15 AM	
		P1-3 Sam Rashkin, US Environmental Protection Agency	0:30	9:15 AM	9:45 AM	
		Break	0:20	9:45 AM	10:05 AM	
P2	<i>Henry Green</i>	P2-1 Introduction from the National Institute of Building Sciences, Washington, DC	0:20	10:05 AM	10:25 AM	
	<i>Cory Vanderpool</i>	P2-2 Strategies and Incentives for Retrofitting Buildings to Reduce Energy Consumption	0:40	10:25 AM	11:05 AM	
	<i>Mark Bomberg</i>	P2-3 Introduction to Energy Efficiency Track (EE), Syracuse U.	0:20	11:05 AM	11:25 AM	
	<i>Don Onysko</i>	P2-4 Introduction to the Whole Building Track (WB-M), DMO Associates, Ottawa, ON	0:10	11:25 AM	11:35 AM	
	<i>Stanley Yee</i>	P2-5 Introduction to Fenestration sessions (WB-F), Façade group, Portland, OR	0:10	11:35 AM	11:45 AM	
		Lunch	1:00	11:45 AM	12:45 PM	
	12-Apr-10	Monday afternoon: track sessions			12:45 PM	4:30 PM
EE3	Energy Efficiency Invited Session	Chair: Antonio Colantonio, Public Works and Government Services Canada	2:00	12:45 PM	2:45 PM	
		EE3-1 Energy Use in Uid and High-Rise Residential Buildings in BC - Graham Finch, Eric Burnett, and Warren Knowles, RDH Building Engineering, Vancouver, BC				
		EE3-2 Design of Sustainable Buildings Requires a New Approach - Warren Knowles, Paul Kernan, Graham Finch, and Eric Burnet, RDH Building Engineering, Vancouver, BC				
		EE3-3 Optimization of Net Zero Energy Houses - Gary Proskiw, Proskiw Eng , Winnipeg and Anil Parekh, NRCan, Ottawa, On				
WB3	Case Studies	chair: Bill Rose, U of Ill, School of Architecture	2:00	12:45 PM	2:45 PM	
		WB3-1 Building Case Studies in Peer Reviewed Literature - William B. Rose, William B Rose & Associates				
		WB3-2 Upgrade of Glazing at Guggenheim Museum - Angel Ayon and Bill Rose				
		WB3-3 (C148:C178) Upgrade of Building Enclosure at the Guggenheim Museum - Bill Rose and Angel Ayon				
		WB3-4 Six Ways for Condensation - Wagdy Anis, WJE, Boston, MA				

Break			0:25	2:45 PM	3:10 PM
EE4	Design and Rehabilitation	Chair: Dudley McFarquhar, McFarquhar Group, Dallas EE4-1 Review of Curtain Walls - Karol Kazmierczak, Morrison Hershfield Corp., Plantation, FL EE4-2 Review of High-rise Construction - Pierre Michel Busque, Busque Eng, Richmond, BC EE4-3 Energy considerations in the rehab of buildings - Michael B. Waite	1:30	3:10 PM	4:40 PM
WB4	Case studies	Chair: Donald Onysko, DMO Associates WB4-1 Development of New Whole Building Hygrothermal Model - Fitsum Tariku, Kumar Kumaran, Institute for Research in Construction, Ottawa, ON, and Paul Fazio, Concordia University, Montreal, QC WB4-2 Best Practices and Quality Issues in Residential Stucco Applications, Brad Oberg and Rich Baker, IBACOS WB4-3 Thermal Rehabilitation of Existing Buildings with Vacuum Insulation Panel - Christoph Buxbaum, W. Gallent, S. Kircher, Carinthia U.of Applied Sciences, Spittal an der Drau, and O. Pankratz, Haiderhofen, and A. Seiler, KNAUF, Austria	1:30	3:10 PM	4:40 PM
P5	Peter Ryan moderator	Evening Plenary and Reception	2:00	4:40 PM	6:40 PM
		P5-1 Rick Ames, Next Phase Studios, Daylighting as inspiration for Design	1:00	4:40 PM	5:40 PM
		P5-2 Brad Oberg, IBACOS, Sustainable Lighting Products, Practices, and Principles	1:00	5:40 PM	6:40 PM
		<i>Reception at Convention Center</i>	1:20	6:40 AM	8:00 AM
	13-Apr-10	Conference day 2: Tuesday			
		Registration		7:00 AM	9:00 AM
		Continental Breakfast		7:00 AM	7:45 AM
		Tuesday Morning Sessions		7:45 AM	11:50 AM
EE6	High R Value	Chair : Mark Bomberg, Syracuse University EE6-1 Vacuum Insulation Panels in Wood Frame Wall Constructions – Measurements and Simulations, Thomas Haavi, Bjørn Jelle, Arild Gustavsen, Steinar Grynning, Sivert Uvsløkk, Ruben Baetens and Roland Caps EE6-2 Effect of aging on service life of vacuum insulation, Erlend Wegger, Bjørn Petter Jelle, Erlend Sveipe, Steinar Grynning, Ruben Baetens and Jan Vincent Thue, Norwegian U and SINTEF, Trondheim, Norway EE6-3 Insulated composite panels designed for brick backup - Keith Boyer, CENTRIA, Pittsburgh, PA and John Preece, 90ten Architects, Lawrenceville, GA EE6-4 Evaluating R40 Above Grade Walls for a Production Built Zero Energy House - John Broniek, Kevin Brozyna & Dave Stecher, IBACOS Inc., Pittsburgh, PA. EE6-5 Practical Residential Wall Systems: R-30 and beyond - William Zoeller, Lois B. Arena, Robb A. Aldrich, Steven Winter Associates, Inc. Norwalk, CT	2:15	7:45 AM	10:00 AM
WB6	Airtightness of Buildings	chair: Gary Proskiw, Proskiw Engineering Ltd WB6-1 Air leakage Difficulties in Measurement and Energy Simulation - M.B. Waite and S.M. O'Brien SGH WB6-2 Evaluating the Field Performance of Windows and Curtain Walls of Large Buildings - Mario D.Gonçalves, Patenaude-Trempe, and Robert Jutras, Air-Ins Inc., Montreal GC WB6-3 Airtightness Measurements of Wood Frame Low Energy Row Housing, Sverre B. Holøs, SINTEF and Thor-Oskar Relander, Norwegian University of Science and Technology, Trondheim, Norway	2:15	7:45 AM	10:00 AM

		WB6-4 Air Barrier Assembly Testing to Replicate Real World Conditions- Craig Boucher, WR Grace, Cambridge, MA			
		WB6-5 Successful Implementation of Air Tightness Requirements in Residential Buildings - Bruce D Nelson, Minnesota Department of Commerce, Office of Energy Security, St. Paul, Minnesota			
Break			0:25	10:00 AM	10:25 AM
EE7	Daylighting	chair: Richard Keleher, The Thompson & Lichtner Company EE7-1 The Daylighting Design Process - Keith J. Yancey, Lam Partners, Cambridge, MA EE7-2 (Day)lighting the Way to Zero Net Energy - James R. Benya, Benya Lighting Design, Portland, OR EE7-3 Daylighting of a New England Elementary School - Michael Rosenfeld, FAIA	1:20	10:25 AM	11:45 AM
WB7	Wall-window interface: Air and Water Control	chair: Karol Kazmierczak, Morrison Hershfield WB7-1 A Comparison of the Water Tightness Performance of Window Installation Details- Michael Lacasse, Wahid Maref, IRC, Ottawa, ON WB7-2 Eliminating the Potential for Air and Moisture Infiltration at the Window-Wall Interface - Peter Poirier, Tremco Glazing Solutions Group, Ashland, OH, and Brian Stroik, Oscar J. Boldt Construction, Waukesha, WI WB7-3 Observations Regarding Window Testing and Failures - R. G. Morse and P.E. Haas, Morse Zehnter Associates, Troy, NY	1:20	10:25 AM	11:45 AM
Lunch			0:50	11:45 AM	12:35 PM
13-Apr-10		Tuesday Afternoon - visit to sponsors and sessions		1:00 PM	4:30 PM
EE8	Design & Energy Efficiency	EE8-1 Troubleshooting During Design - Mark Lawton, Morrison Hershfield Limited, Vancouver, BC	1:10	1:00 PM	2:10 PM
WB8	Moisture Measurement	WB8-1 Moisture Measurements in Wood - Chris Schumacher, Building Science Corp, Waterloo ON., Don Onysko, DMO Associates, Ottawa, ON. and Peter Garrahan, FPInnovations, Forintek Division, Ottawa, ON WB8-2 A Method to Detect Roof Leaks Using Conductive Tapes - David Vokey, DETEC Systems, Tacoma WA	1:10	1:00 PM	2:10 PM
Break			0:20	2:10 PM	2:30 PM
EE9	Innovative materials	chair: David Yarbrough, R&D Services EE9-1 Bio-fiber Insulation Batts and Boards - Mark Bomberg, TI Research, Ottawa, ON and George Chrenka, Cellulose Material Solutions, Grand Rapids, MI EE9-2 Applying Lessons from Clay Brick Veneer to Design of Stucco Mixes - Marcin Pazera, SGH, Rockville, MD and Mark Bomberg, TI Research, Ottawa, ON EE9-3 Performance of Glass-Fiber Lath as a Base with Exterior Cement Plaster (Stucco) - William F. Egan and Eric Auman, BASF Construction Chemicals, LLC - Wall Systems, Jacksonville, FL EE9-4 OSB with Integral WRB - Thomas Thorsell and M. Bomberg, Syracuse U, Syracuse, NY	2:00	2:30 PM	4:30 PM
WB 9	Fenestration 1	Chair: Stanley Yee, Facade Group WB9-1 Electrochromic glass- the next generation is here - Helen Sanders and Louis Podbelski, SAGE WB9-2 Selecting the Ideal windows for a High Performance Home in a Cold Climate - Ari Rapport, IBACOS Inc. WB9-3 Window Optimization in High-Performance Commercial Buildings - Kerry Haglund, Center for Sustainable Building Research, University of Minnesota, Minneapolis, MN	2:00	2:30 PM	4:30 PM

		WB9-4 Developing The Next Three Generations of Zero-Energy Windows, Brandon Tinianov, Serious Materials, Sunnyvale, CA			
P10	Peter Ryan	moderator	Afternoon Plenary		
		P10-1 Joseph W. Lstiburek - Adventures in Building Science	1:40	4:50 PM	6:30 PM
	14-Apr-10	Conference day 3: Wednesday			
		Registration		7:00 AM	9:00 AM
		Continental Breakfast		7:00 AM	7:45 AM
		Wednesday Morning Sessions			
				7:45 AM	11:50 AM
EE11	System Performance	chair: Joseph J. Deringer, Inst. For the Sustainable Performance of Buildings	2:00	7:45 AM	9:45 AM
		EE11-1 Inherent risk of going green - Graham H. Davis, IBACOS, Colorado Springs, CO			
		EE11-2 Proposed Building Envelope Criteria for ASHRAE/IESNA Standard 90.1-2010 - John Hogan, Seattle Department of Planning and Development, Seattle, WA			
		EE11-3 Moisture-Safe Unvented Wood Roof Systems - J. Straube, (U. of Waterloo and Building Science Corporation, Waterloo), Jon Smegal (BSC, Westford), John Smith (Johns Manville, Denver)			
		EE11-4 Pressure Moderated Precast Rainscreen - A. Levy, G. Finch and N. Portal, RDH Building Engineering, Vancouver, BC			
WB11	Material performance	chair and panel lead: Roger G. Morse, Morse Zehnter Associates	2:00	7:45 AM	9:45 AM
		WB11-1 Osmotic Pressure and Blistering of Cold-Applied Asphaltic Urethane Waterproofing -Brian Hubbs, Graham Finch, RDH Building Engineering, Vancouver, BC, Robert Bombino, RDH Building Sciences, Seattle, WA			
		WB11-2 Restoration and Repair of Spray Urethane Foam Defects - Roger G. Morse			
		WB11-3 Observed Roof Failures Due to Hurricane Winds – Lessons Learned, Roger G. Morse			
		WB11-4 Developing an Owners Manual - Roger G. Morse			
		Break			
			0:25	9:45 AM	10:10 AM
EE12	HVAC and Interaction with Building Enclosure	chair: Lew Harriman, Mason-Grant	1:40	10:10 AM	11:50 AM
		EE12-1 Introduction to DBZ Concepts - presentation, R.C. Richman, Ryerson University, Toronto, ON			
		EE12-2 Using Solar Dynamic Buffer Zone Walls to Increase Performance of Air Source Heat Pumps in Cold Climates - C. Cianfrone, Morrison Hershfield Limited, R.C. Richman, Ryerson University. and K.D. Pressnail, University of Toronto			
		EE12-3 Monitoring Internal Moisture Loads in Residential Buildings - Research Design and Early Findings - Lois B. Arena, Steven Winters Associates, Inc., and Michael D. Blanford, U.S. Department of Urban Housing and Development			
		<i>panel discussion</i>			
WB12	Hygrothermal considerations	chair and panel lead: Paul Totten, SGH	1:40	10:10 AM	11:50 AM
		WB12-1 Moisture Intrusion through a Cavity Wall with Fill Insulation - R.G. Morse, S.M. Lattanzio, Morse Zehnter Associates, Troy, NY			

		WB12-2 Thermal and Hygrothermal Analysis in Building Envelope Commissioning - Philip Parker, Read Jones Christoffersen Ltd and Cara Lozinsky, University of British Columbia, Vancouver, BC, Canada <i>panel discussion</i>			
Lunch			0:55	11:50 AM	12:45 PM
Wednesday Afternoon Sessions				12:45 PM	6:05 PM
EE13	Energy Efficiency 2	chair: William Nash, Whitlock Dalrymple Poston & Associates, P.C. EE13-1 High R Wall Systems - John Straube and Jonathan Smegal, Building Science Corp., Waterloo, ON EE13-2 Stucco Failures and Remediation - Roger G. Morse, Paul E. Haas, Morse Zehnter Associates, Troy, NY EE13-3 Improving Building Enclosures: Thermal Performance as a Goal of Energy Efficiency - Paul Totten & Marcin Pazera, SGH EE13-4 Field Monitoring of Hygrothermal Response of Wood-Frame Walls with Exterior Insulation - Wahid Maref, Marianne Armstrong, Madeleine Rousseau and William Lei, National Research Council Canada,	2:20	12:45 PM	3:05 PM
WB13	Strategic Issues in Building Design	chair: Brian Stroik, Oscar J. Boldt Construction WB13-1 Thermographic Assessment Specification Requirements for Commissioning and Building Condition Applications, Antonio Colantonio & Michel Theauvette, Public Works & Gov't Services Canada, Gatineau, QC WB13-2 Energy Efficient Architectural Design Strategies in Hot-Dry Area of Iran: Kashan - Kamyar T. Behbood, Mohammad Taleghani, and Shahin Heydari, Faculty of Architecture, University of Tehran, IRAN WB13-3 Architecture, engineering, Construction, Owner Operator: Phase 1 (AECOO-1) Joint Testbed - Deke Smith, buildingSMART alliance, NIBS WB13-4 Decision-making Methodology & Selection Tools for High Performance Window Systems in U.S. Climates - Kerry Haglund, Center for Sustainable Building Research, University of Minnesota, Minneapolis, MN WB13-5 A Journey in Integrated Design - Ketchum Hall in U of Colorado- Linda Morrison, Ambient Energy; Melanie Short, SLATERPAULL Architects; and Michael Kaufman, Ambient Energy, Denver, CO WB13-6 Design Communication with BIM: What the Drawings Are Not Telling You - J. Williams, Rogers-O'Brian Construction	2:20	12:45 PM	3:05 PM
Break			0:25	3:05 PM	3:30 PM
EE14	Commissioning	chair and moderator: Mark Bomberg, Syracuse University EE14-1 The Ultimate Envelope – Honest, Effective and Affordable - Keiryn Ross, Marc Zuluaga, Mike Khazzam, Steven Winters Associates, Inc EE14-2 Functional Performance Testing within the BE Commissioning - Kevin D. Knight, John A. Runkle, Architectural Testing Inc., York, PA, Bryan J. Boyle, Retro-Specs Consultants Ltd., Winnipeg, MB EE14 3&4 Commissioning the Building Enclosure - Brian Stroik, Oscar J. Boldt Construction, Waukesha WI EE14-5 Commissioning: The Good, the Bad, and the Ugly - Stroik, Mathis, Totten, Pazera, Runkle & Aldous <i>panel discussion</i>	2:20	3:30 PM	5:50 PM
WB14	Fenestration 2	Chair: Stanley Yee, Facade Group WB14-1 Solar Radiation Glazing Factors for Electrochromic Windows for Building Applications - Bjørn P. Jelle, SINTEF, and Arild Gustavsen, Norwegian University, Trondheim, Norway WB14-2 Considerations for Condensation Resistance of Fenestration Assemblies - Tracy Rogers, Edgetech IG, Inc., Cambridge, OH	2:20	3:30 PM	5:50 PM

		WB14-3 Comparisons of Thermal Performance and Energy Consumption of Facades Used in Commercial Buildings - Lawrence D. Carbary, Dow Corning Corp, Midland, MI; Valerie Hayez, Seneffe, Belgium, and Andreas Wolf, Mahabir Bhandari, Wiesbaden, Germany			
P15	Closure	Closure and announcement of BEST 3 conference - chair Larry Ray, BEC Atlanta	0:20	5:50 PM	6:10 PM