CALIFORNIA STATE POLYTECHNIC UNIVERSITY, POMONA
Architecture
College of Environmental Design

SIMPSON GUMPERTZ & HEGER
Engineering of Structures
and Building Enclosures

Re: Call for Papers – BESS 2010 Symposium
"High Performance Building Enclosures – Practical Sustainability"

The Cal Poly Pomona Department of Architecture and Simpson Gumpertz & Heger Inc. are pleased to extend to you advanced notice of our call for papers for the above-named symposium to be held on the Cal Poly campus 30 April – 1 May 2010.

You are receiving this notice due to your organization's position of leadership in sustainable design. We hope that you will be interested in participating in this inaugural symposium.

This symposium will provide industry professionals, academic leaders, and students a forum to share and discuss state-of-the-art of sustainable enclosure design. By focusing on practical application, we envision that attendees will gain both the necessary knowledge base and the desire to put sustainable enclosure concepts into practice.

We invite you to submit papers that demonstrate your practical experience with sustainable enclosure design, construction, and operations.

Sincerely yours,

Judith Sheine, RA
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CALL FOR PAPERS – BESS 2010 SYMPOSIUM
"HIGH PERFORMANCE BUILDING ENCLOSURES – PRACTICAL SUSTAINABILITY"

BUILDING ENCLOSURE DESIGN

Occupying one of the most important and visible positions in the realm of architecture, building enclosures serve a crucial dual role in both sheltering building occupants from environmental forces and promoting aesthetic and / or bio-climatic expression. Consequently, the design of building enclosures (whether opaque or transparent) is paramount in not only providing basic life-safety functions, but also in further implementing sustainability for the built environment. Given the importance of building enclosure design, the Cal Poly Pomona Department of Architecture and Simpson Gumpertz & Heger Inc. are pleased to announce a two-day, intensive peer-reviewed technical symposium to explore the state-of-the-art in professional and academic techniques and teaching tools related to building enclosure design that seeks to promote integrated practice by bringing together students, faculty, and registered professionals in each of the disciplines responsible for the design and construction of Building Enclosure Systems.

Architects, engineers, contractors, industry members, and related professionals are invited to submit papers for presentation and publication in the symposium proceedings. Submitted papers should address the following topics:

Context – Cultural and Aesthetic

Spanning the teleological distance from Mesa Verde's cliff dwellings to Jean Nouvel's Institut du Monde Arabe, architects, engineers, and builders have striven for appropriate responses to the various contextual challenges in creating suitable building enclosures. As such, responding to urban and sociological conditions, vernacular precedents and technology, and the public's expectations of architectural form constitute the basis of a contextual examination of building enclosures past, present, and future. Papers should identify various contextual forces that shape the definition and drive the design of wall, roof, and fenestration systems as subsets of building enclosures.

Design - Orientation and Site Dynamics

What we once called common sense and "just how we do things here" we now refer to as "Bio-Climactic" and "Green Design." Using strategies developed for various climate regions over generations of human habitation, the planning and programming phases set the stage for the energy consumption, comfort, and efficiency of the building. Mistakes or improper choices at this stage become more difficult and expensive to overcome later, requiring the use of expensive materials, systems, and high-performance skins. Papers should discuss the impact of proper orientation, space planning, and macro- and micro-climate and site response on energy use.

Design – Wall

With the exception of modern *glass boxes*, opaque walls make up the largest and arguably the most important part of the building enclosure. Offering the potential benefits of thermal mass, insulation and shading, design and construction of opaque walls have changed dramatically since the advent of the modern curtain wall. Vis-à-vis sustainability, papers should identify present shortcomings of opaque wall design and methods that can improve the thermal, acoustic, and weather-resistive performance and durability of opaque walls. Papers that address balancing the benefits and liabilities of opaque walls and fenestration are encouraged, as are papers that re-introduce traditional and vernacular (i.e., passive) approaches for occupant comfort.

Design – Roof

The most weather-exposed part of a building enclosure, roofs have been at the forefront of the green building movement. While state-of-the-art roofing design practices are relatively well developed, questions remain about the long-term viability of "living" roofs and the ability of cool roofs to maintain their energy-saving properties. Furthermore, the resurgence of solar roof systems has broad implications for the roofing industry. Papers should address current trends in sustainable roof design with a focus on life-cycle costs, and embodied and in-service energy use. Papers that present alternatives to presently-popular sustainable roof design are encouraged.

Design - Windows

Glazing provides strong advantages and disadvantages for the sustainable enclosure; balancing the pros and cons with those of opaque walls is essential in seeking sustainability. Topics may include active solar systems, as well as techniques of selecting glass composition, surface coatings, frit patterns, and related features to passively improve the energy efficiency of conventional systems. Papers should describe the technical aspects, short- and long-term benefits and drawbacks, upfront costs and payoff durations, and present and projected market prominence of the selected approaches. Practical guidance on selling sustainable practices to project owners should also be included.

Detailing

A focus on detailing ensures that building enclosure systems and materials are assembled, integrated, and holistically perform in accordance with sustainable criterion. Topics may include, but are not limited to, detailing for systems such as air-barrier, thermal, waterproofing, fireproofing, fenestration, shading and passive heating, cooling, and ventilation. Papers should emphasize how quality of detailing directly impacts the overall durability, efficiency, adaptability, and sustainability of the building enclosure. Case studies identifying the value and benefits of proper detailing and how it ultimately translates to improved cost and energy savings are encouraged.

Analysis

Analytical methods and assumptions are the foundation for implementing sustainability in building enclosure systems. Topics may range from basic to advanced, and may include insulation value quantification, dew-point analysis, infiltration estimation, probabilistic analysis, and life cycle cost analysis. Papers that provide insight toward the impact of analytical decisions on actual performance and include comparative examples are encouraged.

Case Studies

The manifestation of the above-listed topics into buildings presents a great opportunity for dissemination. This section focuses on built projects that demonstrate exemplary building enclosure performance. Unbuilt projects may also be included if they demonstrate extraordinary innovations in advanced enclosure systems. Papers should discuss design priorities, describe the design, and summarize the strategies employed. In projects where energy analysis and measurement and verification were carried out, authors should provide a comparison between anticipated and actual performance.

DEADLINES:

Papers due 15 February 2010, 3:00PM (PST)
Acceptances and Resource Page templates distributed 12 March 2010
Resource Pages due 29 March 2010, 3:00PM (PST)
Final reformatted papers due 29 March 2010, 3:00PM (PST) (Please format according to the style sheet that will be distributed.)

INSTRUCTIONS FOR SUBMITTING PAPERS:

1. All materials should be submitted via the "OpenConf" system which can be accessed at http://www.openconf.org/bess2010.
2. From the main page (OpenConf Home), in the “Authors” section, click “Make a Submission.”
3. A submission form will appear. Fill in the details requested, including Paper Title, whether you are a student, Author Name(s), Author Organization(s), Designate a Contact Author, and choose one of the 8 topics. You can leave the Keywords and Abstract forms blank at this time. Choose a password and click “Make Submission.”
4. On the next screen, click “Proceed to upload file.” Papers should be submitted as Word files (.doc only) and should not exceed 4,000 words / 10 megabytes and should have no identifying marks (including those automatically generated by word processing programs). Images should be embedded in the Word files. Please use the following file-naming convention - BESS_2010_ID#.doc [Replace ID# with your ID#].

5. You should receive a confirmation email following your submittal.
6. You can edit your submission until the deadline by clicking on “Edit a submission” in the Authors section.
7. **Papers are due by 15 February 2010, 3:00PM (PST).**
8. Questions should be directed to symposium@sgh.com.

For more information about the symposium, please visit http://www.sgh.com/bess2010.