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## Transformative Facilitation

TEAM BUILDING AND COLLABORATION FOSTER INDEPENDENCE FOR MEMBERS OF THE OREGON SUSTAINABILITY CENTER TEAM.



Defining the sustainable values, vision and particular goals of a project is the best way to increase the odds of achieving effective and meaningful design. An eco-charrette early in the process can chart a clear direction, devise a clear purpose statement for the project, create measurement metrics and put an action plan in place for implementation.

In Portland, Ore., a unique project is under way. At approximately 220,000 square feet, the Oregon Sustainability Center (OSC) is seeking to be the first high-rise commercial building to meet the International Living Building Institute's Living Building Challenge. Set in the downtown core, the facility is slated to be the focal point of Portland's and Oregon's sustainability activities. The project combines a complex public/private partnership between city and state government, higher education, nonprofit organizations and the business community.

As the name implies, the Living Building Challenge is a progressive set of standards. Among other measures, the OSC is intended to generate 100 percent of its energy onsite through renewable sources for net-zero annual energy consumption; adhere to strict requirements for materials content and origination; meet all building and site water needs solely through capture and reuse; and provide a non-toxic, state-of-the-art workplace environment for all occupants of the facility.

More than 80 stakeholders — including two architecture firms on the design team — and the rigorous building standards spurred a revolutionary exercise. Ideally, the project would have multiple charrettes throughout the design process, but the compressed timeframe for a very detailed feasibility study — a mere three months — spurred sustainable building consulting firm Green Building Services Inc. to lead a dynamic five-day eco-charrette.

### Group Empathy

While an eco-charrette provides a means to clarify specific targets and set action items, one of the most valuable outcomes of the process is forging relationships, enhancing communications and fostering interdependence among team members. Outside facilitators provide value as they enter the process without preconceived notions about the project.

An eco-charrette also brings assumptions to light and clarifies expectations. For example, the various OSC tenant groups were not on the same page about what it meant to be located in a Living Building. The eco-charrette helped expand their awareness from the feel-good concept of being in a Living Building to the reality of being active participants on a day-to-day basis and understanding how a Living Building will work. Occupant engagement is key to building performance, as energy and water use in buildings the size of OSC must be monitored and controlled at a scale that provides real-time feedback and opportunities for improvement against the rigorous baseline set by the net-zero targets. Occupants will all need to accept some personal responsibility for their comfort and be mindful of how their actions impact the building's energy use. By the end of the week, the design was in no way complete, but the eco-charrette helped to define and clarify for occupants their relationship to the building.

AN ECO-CHARRETTE HELPED EXPAND AWARENESS AND UNDERSTANDING OF A LIVING BUILDING.  
PHOTO COURTESY OF GREEN BUILDING SERVICES, INC.

### Clean Slate

The OSC challenges the way buildings are designed, and every aspect of the design was up for discussion: the depth of the floor plate, the floor-to-floor height, even the concepts of removing all the walls and not using fans to move air within the space.

Careful planning of the week's events resulted in an agenda that began with a visioning exercise and delved into a research approach for the project, detailed programming, explorations of form and design, as well as concepts related to the integrated systems that will make a Living Building feasible.

An animated process took shape: Breakout group tables became canvases for multiple concept sketches, and walls were posted with colorful lists of values, principles and key points. Rather than focus solely on the Living Building criteria, the eco-charrette was orchestrated to drive ideas toward how to design and operate in a self-sufficient and even restorative manner. The facilitators encouraged participants to imagine what the project could be. The participants then examined their various agendas and programming needs and honed these down to basic elements. The elements culminated in the emer-

gence of five principles that have been guiding the project team since the charrette:

- Appropriately scale systems for optimal performance;
- Make less do more;
- Design for resource equity;
- Integrate natural systems to benefit all species; and
- Recognize that people are the life in Living Buildings.

### Pulling the Thread

The iterative process could not help but inspire bigger-picture thinking. Questions arose about what is the appropriate scale for systems such as rainwater harvesting, renewable energy and onsite waste management. If the scale is large enough to sustain a high-rise building, what does that mean for its neighbors? For example, if OSC creates wide enough surfaces for solar photovoltaic generation to serve the needs of the 13-story building, will that shade adjacent buildings leaving them with fewer options for solar energy? The idea that the building could retain all water that falls onsite and reuse it without releasing it seems positive, but if all buildings in the downtown area aspired to this,

what impact would that have on the watersheds as less water entered them?

The purpose of the eco-charrette was not to answer all the questions or to design the project, but to unite the stakeholder group with a common vision and foster deeply inventive thinking. The complex nature of the project and numerous players inspired the five-day charrette, but when properly structured, a half-day or one-day charrette can provide the same value. As teams seek to establish a common vision, the eco-charrette is a productive tool to arrive at a purposeful roadmap for any project team aspiring to create a well-integrated high-performance project. [Read More](#)

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The final eco-charrette report is available at [http://oregonsustainabilitycenter.files.wordpress.com/2009/04/osc\\_charrette\\_report\\_final-rev060409.pdf](http://oregonsustainabilitycenter.files.wordpress.com/2009/04/osc_charrette_report_final-rev060409.pdf)

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