Campus Planning with a Sustainability Focus
The Way of the Future

Following is a report on one of the recent proceedings held by SCUP entitled "Well, Well, Well... One Approach to Sustainability Master Planning."

Boston - Sustainability will drive more than individual building design in the future; it will also drive campus planning, according to two higher education facilities officers, an architect, and an engineer who spoke at the recent NA-SCUP meeting March 25 at MIT.

"You are used to master planning from the ground up," commented David P. Helpern, FAIA, of Helpern Architects in New York, as he introduced the topic. "But now that sustainability has become internalized, you will need to plan starting deep under your campus, considering your campus' sub-surface and all that infrastructure." Helpern organized and moderated the panel, which featured case studies, insights into comprehensive university sustainability policy and approach, and lessons learned from Boston College's Marc LeBrun, PE; Columbia University's Joseph Mannino, AIA; and Haley & Aldrich's Paul Ormond, PE.

"For nearly 200 years, we've been planning campuses depending on where or if land were available around the academy's original field or hilltop location," Helpern remarked. "Land is not so readily available anymore. And, between oil crises, the EPA Audit Initiative, and the surge in environmental awareness, people now are very informed about why and how to green a campus's facilities. Sustainability master planning is the next important step."

The panelists used geothermal projects at Boston College, Columbia, and Yale as the litmus test for how to rethink campus planning. In fact, although each institution considered a geothermal energy approach, not all projects or locations were a good fit.

The panel talked about how to establish sustainability goals, set up the right team to coordinate and incorporate new technologies campus wide, and decide when and whether to use alternative energy. Some of their advice included:

- Know your university's goals, which could include ROI on new approaches to energy, wresting program space from equipment space, achieving parity in environmental stewardship with competing institutions, matching USGBC levels, or — no small matter — meeting municipal mandates.
- Rank all your environmental goals. The university may want to achieve social justice, but your mandate is more likely to manage stormwater, conserve water, improve air quality, and shrink energy-related expenditures.
- Determine your metrics at the start. Some of them could be: payback period, efficiency compared with other sustainability offerings, constructability, and the ability to integrate new systems.
- Consider geothermal wells not just for the savings they provide but also for aesthetic and noise abatement benefits. In fact, they are an excellent solution when you renovate historic structures.
- Phase your planning, since systems happen over time.

One of the biggest issues with new technologies and alternative energy sources is making them compatible with the existing plant -- and monitoring and maintaining all of them.

- Establish stakeholder roles and responsibilities, so things get done. It's a very large group of people once you start to plan from a sustainability perspective. The team has to come together early and understand what's involved.
- To instill a sustainable ethos, you need good governance — starting with the president and trustees.
- Planners versus project managers! It's a good idea to resolve their inevitable differences right at the start.
- You can't do a high-performance building any more without dealing with its neighbors and campus operations.
- Undertaking new systems is a learning process. The maintenance staff has to be on board. Include their involvement and training in the timing and cost.

"Well, Well, Well" speakers at the NA-SCUP conference: l-r Boston College's Marc LeBrun, Haley & Aldrich's Paul Ormond, Columbia University's Joseph Mannino, and Helpern Architects' David P. Helpern who organized and moderated the program.