

DIGGING FOR A DEEPER GREEN

CSDA winners reflect dominance of public sector in sustainable design in a time of recession

By Joshua Radoff on behalf of the judges



The entries in this year's Colorado Sustainable Design Awards reflect a number of trends in the market over the past year.

The deeper green projects are coming more from the public sector, while the private sector continues to be in a holding pattern – that is, with the exception of those recession-proof industries such as beer drinking.

There are simply fewer projects going on in the private sector, and those that are being developed are targeting more modest green building goals.

In the communities category, for example, we see master planning projects that nicely complement the towns in which the developments are taking place (Durango and Avon) in a way that is relatively dense and embraces New Urbanist principles. But the sustainability goals, while present, are far less ambitious than we've previously seen.

The two really standout projects this year are in the civic category. The first is the net-zero energy Research Support Facility building on the National Renewable Energy Laboratory campus in Golden. Net-zero energy means that the energy used by the building is accommodated – over the course of the year – by onsite production of renewable energy, in this case solar.

There has been an increased interest in the net-zero concept, and more and more projects are exploring what it might mean to try and achieve this goal, but to our knowledge no building of this size has thus far been able to achieve it.

The other entry is the Carbondale Recreation Center, submitted by DHM Design. This is a Leadership in Energy and Environmental Design (LEED) Platinum building that addresses all of the major environmental impact areas – as a Platinum project certainly must do – most notably transportation and community connectivity. The ability to walk to the center, a former brownfield site, from downtown Carbondale makes the building a new and revitalizing element of the community.

Meanwhile, the NREL building, for all its amazing accomplishments, is not located in a downtown environment (unlike the LEED Gold-certified Environmental Protection Agency building in Denver), and the use of land, the lack of community integration, and need for auto-dependent transportation is a significant part of its overall footprint.

Similarly, in the residential category, the pattern seems to be: The more remote the home, the deeper the energy and environmental goals. In the end, we chose Casa Chiara – a project that has very modest green building performance attributes (a Home Energy Rating System (HERS) score of only between 65 and 71). But this affordable multifamily project, which has relatively small unit sizes, offers density and is connected to and adds to the social fabric of the larger North Denver community.

Furthermore, it explores the use of prefabricated modular housing in an affordable manner – a development many look to as a way to achieve larger scale green residential for the common man – helping to set the stage for other projects to follow in its footsteps. The others in this category, while impressive architecturally, in their use of passive design, and in their high performance targets, were generally larger and generally more remote.

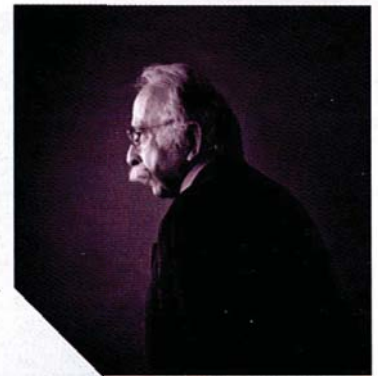
Meanwhile, in the commercial category, we chose a project that, while not in the public sector, seems to be recession proof: the Odell Brewery Co. expansion in Fort Collins. This project contains a number of nuts-and-bolts sustainability measures that integrate very nicely into the overall architecture.

Great daylight for the brewing and tasting spaces obviates the need for electric lighting; the landscape beautifully treats storm water while creating amenity and pedestrian spaces and minimizing asphalt. We also liked the elegant use of simple materials like metal, masonry and wood, and the honking solar photovoltaic system.

- Joshua Radoff, principal, YRG Sustainability Consultants, Boulder
- Richard Farley, principal, Richard Farley Urban Design LLC, Denver
- Doug Walter, principal, Doug Walter Architects, Denver
- Conor Merrigan, high performance building program manager, Colorado Governor's Energy Office



Joshua Radoff



Richard Farley



Doug Walter



Conor Merrigan

1st
PLACE

**Odell
Brewing Co.
Expansion**

Architect
RB+B
Architects Inc.

General
contractor/builder
Delta Construction



OVERVIEW

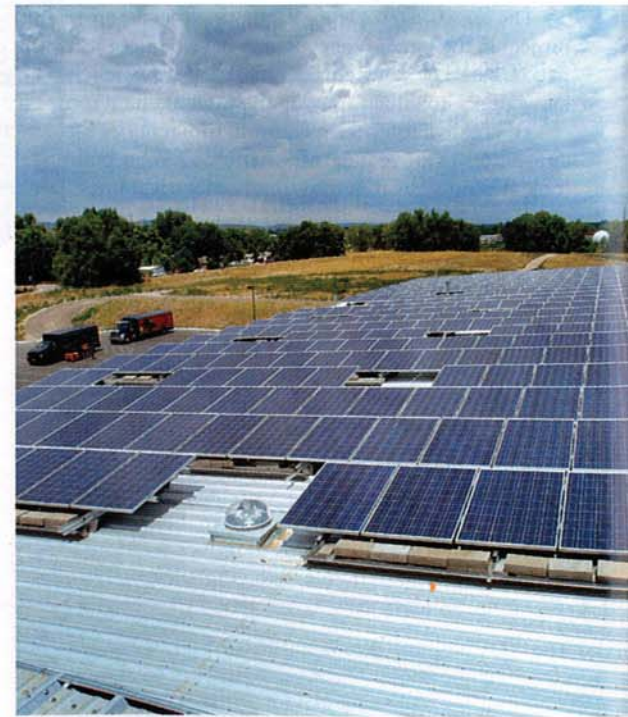
Odell Brewing Co., a Fort Collins beer maker known for such brands as 90 Shilling and 5 Barrel Pale Ale, nearly doubled the size of its headquarters with a project that expanded its production area, administration center and tasting room.

The nearly 50,000-square-foot building on the 4-acre site is located near downtown but adjacent to an older residential neighborhood. The building's design borrows from agriculture and industrial forms, featuring a granary-type roofline and cupola, shed roofs and a stair-stepping parapet.

The 16,000-square-foot production area expansion includes a new enclosed tank farm for fermenting tanks, an extension of the bottling line and warehouse and a larger cooler that will serve new truck docks.

SUSTAINABLE FEATURES

- A solar photovoltaic array on the roof of the new warehouse, which includes 384 panels, provides as much as 4 percent of the facility's electrical needs.
- An electric traction elevator – an alternative to a traditional hydraulic elevator – uses up to 60 percent less electricity and eliminates waste oil.
- Natural ventilation is used in the offices, warehouse and tap room via operable windows and garage doors. Large ceiling fans move air slowly in the production space.
- Tube skylights provide daylight in the production area, distributing natural light evenly. Electric lights are controlled by photocell so they don't operate when adequate sunlight is available to light the rooms.
- Connections to trails and bike racks tie Odell to the community and reduce auto use by staff members and visitors.
- Waste water left over from beer production is used to irrigate the landscape instead of being sent through the city's water treatment system.



JUDGES' COMMENTS

THE ENTIRE DESIGN OF THIS PROJECT DEMONSTRATES A STRONG COMMITMENT TO SUSTAINABILITY."