

Common Sense Enables Municipalities To Go Green

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Sente Rubel Bosman Lee Architects (SRBL) believes it is important to demonstrate responsibility to the environment in our building design. Increasingly, our municipal clients agree. They are requesting educational programs about sustainable design and Leadership in Energy and Environmental Design (LEED) certification and asking us to explore sustainable design options as a part of their project process. As architects working with municipalities these activities have helped us recognize that common sense plays a major component in the quest for greener facilities.

Sustainable design or green architecture provides a framework for which owners, architects and contractors can design and construct facilities that improve occupant comfort, promote energy efficiency, and sustain the earth's resources.

The United States Green Building Council's (USGBC) LEED Green Building Rating System creates a common language for recognition and standardization of sustainable architecture and construction. The program also enables municipalities to receive environmental design foundation grants. If a facility is LEED Certified by the USGBC, It meets the highest standards of sustainable design as evaluated by an independent judging system.

LEED certification is analogous to the Underwriters Laboratories' seal of approval and offers municipalities the opportunity to set an example for green design practices. LEED has gained the highest level of acceptance from government and institutions; more than 10% of the top 25% of new buildings by these sectors are represented by LEED registration or certification. The federal government, Cook County, the City of Chicago and the states of Michigan and Wisconsin all support sustainable design strategies with policies and ordinances that require LEED certification.

SUSTAINABLE DESIGN CHARRETTE

The Village of Orland Park and the Orland Park Police Department recently asked SRBL to host a sustainable design charrette focused on education and project goal-setting. As a result, design of the new 61,000 SF police headquarters on the site of an existing commercial property will include opportunities to incorporate sustainable design and construction practices and pursue LEAD Silver certification. The existing warehouse will be gutted, renovated and expanded to accommodate the police department's needs. The village's early decision to "recycle" an existing building played an important role in enabling the village to pursue LEAD certification.

During the half-day charrette, participants learned about sustainable design and the LEED rating system, and identified viable sustainable design strategies for Orland Park. The design team demonstrated many simple methods that could easily create the opportunity for a LEED Silver certification.

It is important to recognize that many of the sustainable design practices discussed for the new police

headquarters are not particularly new or innovative. Most are practical design choices which architects hope to utilize in all projects. The benefits of reducing long term operation/maintenance costs while simultaneously reducing environmental impact far outweigh the up-front investment.

Highlights of the sustainable design characteristics for the new Orland Park Police Headquarters include:

- ◆ Re-use of at least 75% of the existing commercial building shell.
- ◆ Development of the site that includes protecting or restoring open space, storm water management, landscape and building design that reduces environmental heat gain and minimizes pollution.
- ◆ Use of water reduction methods that include installation of water efficient fixtures and planting of water efficient landscaping.
- ◆ Specification of mechanical, electrical and building systems that optimize energy performance, and are evaluated through a commissioning process.
- ◆ Recycling of construction waste on site.
- ◆ Selection of indoor and outdoor building materials that contain recycled content, emit low amounts of toxic gases, and are manufactured or harvested locally/regionally.
- ◆ Control of indoor air quality by carbon dioxide monitoring, reduction in use of chemical pollutants, and thermal controls.
- ◆ Creation of opportunities for community members of all ages to tour the new police headquarters and learn about sustainable design.

Sustainable design characteristics can easily be achieved in a variety of projects from renovation to new construction, from administrative offices to public works. Like Orland Park, every municipality can create civic pride with environmental responsibility. ■

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