



Historic District Properties Lead the Way for Green Buildings in Springfield

Sustainability Pilot Background

EPA's Brownfields Sustainability Pilots provide technical assistance to assist communities in achieving greener, more sustainable results when redeveloping brownfields. These pilots also provide models for other communities across the country.

EPA provided technical assistance to the City of Springfield, Missouri to assess plans for adaptive reuse at three brownfields properties in Springfield's Commercial Street Historic District. EPA provided green design recommendations for the buildings and conducted a Sustainable Design Workshop. The workshop facilitated the integration of green concepts into building design at the three selected properties and raised community awareness of green building design efforts in Springfield.



Springfield Commercial Street Historic District Project Background

The City of Springfield is redeveloping Commercial Street, a six block National Historic Registered District. Commercial Street is blighted from 20 years of disinvestment, closed gas stations, and the adjacent rail yard. The city chose three properties within the Commercial Street Historic District to be addressed by the Sustainability Pilot, including a microbrewery, a professional massage training center with a day spa, and an historic city owned property. All three properties previously received EPA funded Phase I and II environmental site assessments (ESAs). Petroleum and petroleum related contaminants at the professional massage training center and the city owned properties did not exceed nonresidential standards. The ESAs identified aboveground and underground storage tanks, as well as floor tiles containing asbestos at the microbrewery property. After cleanup no further environmental concerns were found.

Project Highlights

EPA's technical assistance to the City of Springfield included recommendations for sustainable design and adaptive reuse for three Commercial Street projects, and convening a Sustainable Design Peer Workshop to review and evaluate sustainable design and construction options for the projects. Project owners were provided a report identifying and analyzing energy efficiency and environmental opportunities for their consideration, plus recommendations for next steps. Eighteen design features were analyzed including process engineering, daylighting, energy efficient lighting, insulation, green materials, water conservation, and grey water systems. Recommendations included:

- Establishing green design goals based on cost effectiveness and performance
- Using the integrated team design approach to reduce costs and improve quality of construction and operation
- Sponsoring a Commercial Street Design Peer Workshop to advance the projects and spread the initiative to other Commercial Street properties

Following the recommendations, the city sponsored a Sustainable Design Peer Workshop and community meeting focused on the three Commercial Street projects. The workshop format allowed each project team, consisting of the owner, architect and engineer, to work with EPA consultants to fine tune current design and construction plans. Briefings included updates on energy modeling and Leadership in Energy and Environmental Design ratings. An open house community meeting was held for the public to visit and view project progress.

The three Commercial Street projects are moving forward and incorporating recommendations from the EPA technical assistance report where feasible. For example, skylights for daylighting and a light reflective roof were installed at the microbrewery property resulting in decreased heating and cooling costs. Beyond the three pilot projects, other property owners in the area expressed interest in using the cost benefit analyses and recommendations report to identify opportunities for incorporating green design concepts into their projects.

Challenges and Lessons Learned

Dispelling Perceptions that Going Green is Expensive

EPA's technical assistance, the cost analyses and recommendations report, and the Sustainable Design Peer Workshop helped show owners that green technology can be cost effective. Owners, architects, and engineers worked to find the most suitable, cost effective green designs for each overall project.

Making the Case for Energy and Water Conservation When Costs are Already Relatively Low

In Springfield, current energy and water costs are relatively low and do not motivate businesses or consumers to conserve energy. Energy conservation measures face a hurdle in showing cost effective investment and near term payback. Green design decision making should include looking at long term life cycle and energy costs. Project owners in the Pilot demonstrated a commitment to incorporating these long term critical elements in their design plans.



The historic Commercial Club Building in Springfield.

Sources for Additional Information

For more information this project, please see the full Commercial Street Historic District technical assistance reports at: http://www.epa.gov/brownfields/sustain_plts/reports/springfield_fr.pdf and http://www.epa.gov/brownfields/sustain_plts/reports/Final_Workshop_Report_Springfield.pdf

Regional Contact Information

For more information on the Springfield Commercial Street Historic District project, please contact:

Alma Moreno Lahm

EPA Region 7

913-551-7380

moreno-lahm.alma@epa.gov