PROJECT DESCRIPTION:
The 3,000 square-foot house at Project Living Proof (PLP) is outfitted with a variety of green options for insulation and air-sealing; air- and ground-source heat pumps; a high-efficiency gas furnace; an instant water heater; solar panels that generate electricity, heat air or heat water; AC- and DC-powered lighting; hyper-efficient appliances; interior finishes and paints that don’t pollute the air; salvaged wood; vintage furniture; and displays that show real-time utility costs.

The 7,000 square foot site features a water-pervious driveway with provisions for electric vehicle charging and natural gas fueling; raised vegetable beds; a native shade garden; a truly low-maintenance lawn; a boardwalk and deck made from recycled plastics; a variety of rainwater harvesting and infiltration strategies; and plans for more to come.

PROJECT GOALS:
- Restore a modest, historic home and garden in a manner that is healthy and energy-efficient, in a setting that is accessible to the public.
- Demonstrate green-building products and services ranging from the experimental to the readily available.
- Showcase options, test assumptions and articulate lessons of sustainable and regenerative design.

COMMUNITY BENEFITS AND LESSONS LEARNED:
Since October 2010, Project Living Proof has hosted more than 1,000 local, national and international visitors. The house is estimated to be 67 percent more energy efficient post improvement. The early installation of the solar photovoltaic (PV) array made the project a net generator during construction, producing nearly 5,500 kilowatt hours (kWh) in its first year, and the array is among components being piloted by KCP&L for consideration with a smart grid.

By infiltrating or collecting more than 95 percent of the rain that falls on the site, PLP reduces irrigation and prevents rainwater runoff into the combined sewer — requiring less energy for pumping and treating water. The landscape design is a pilot for the SITES Initiative — a landscape-based rating system. The Rockhill Homes Association and Kansas City Landmarks Commission credit the house for its sensitivity to historic restoration. The live-in caretaker regularly hosts social events, educational sessions and meetings.

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