



Cementing the connection between historic preservation and sustainability, TDS Custom Construction dug out the soil from around this Madison home without damaging the oaks surrounding it.

THE BUNGALOWEN

TDS Custom Construction's sustainable renovation aims to preserve a very specific past **BY DAVID HUDNALL**

IN 1911, AN ENGINEERING professor named Ray Owen built a cottage on Lake Monona near Madison, Wisconsin. It was constructed largely from salvaged lumber, doors, and windows and came to be known as the "Bungalowen"—a fairly apparent combination of Owen's name and the style of the home. In 2009, Owen's granddaughter enlisted Madison's TDS Custom Construction to restore the historic structure.

"The goal was to restore it in a way that would be respectful to its unique history," says Sam Breidenbach, owner and president of TDS. This is a common sentiment among firms that, like TDS, specialize in historic preservation. But TDS's approach is significantly more exacting and comprehensive than most. The lead carpenter was instructed to avoid modern techniques and to instead think of how Owen would have approached certain situations given his "limited

resources and finish carpentry experience." Ceiling boards, doors, windows, siding, and 75 percent of the interior trim were salvaged and serve to complement the necessary modernization of the plumbing, heating, cooling, and electrical systems. To correct the sagging, rotting flooring—tree roots had literally sprouted in the toe kick of the kitchen cabinets—TDS dug out the soil underneath the home, but did so without damaging the mature oak trees that surround it, to create a new foundation. All in all, the Bungalowen restoration was a stunning achievement—and people noticed.

"We were awarded both the NARI [National Association of the Remodeling Industry] Madison Contractor of the Year and a historic preservation award from the Madison Trust for Historic Preservation in 2009 for our work on it," Breidenbach says. Founded in 1985, TDS works primarily in the

Madison area, taking on 30–40 jobs a year, many of which are pre-World War II housing and fall under the heading of historical preservation, just like the Bungalowen. In 1991, TDS introduced a cabinetmaker into its employee structure, which allows the firm to offer clients in-house custom kitchen, millwork, doors, and mantels. The custom cabinet shop, which offers an EcoCraft Cabinetry line, steers clear of oil-based products and purchases parts from regional sources. In these ways, TDS's custom and historical preservation skills are deeply intertwined with its green approach, Breidenbach says.

"Persuading clients to nurture and preserve existing structures is the purest form of green building," he says. In 2002, TDS became an ally of Focus on Energy, a statewide program affiliated with Home Performance With Energy Star and began regularly performing Home Performance evaluations on its projects, setting a baseline from which to measure improvements in mechanical, structural, and thermodynamic systems. In 2009, TDS stayed true to its sustainable philosophy when it moved into a new, 2,400-square-foot office building—a remarkably efficient structure with hydronic heating, plentiful daylighting, and a 3-kilowatt photovoltaic system that's net-metered with the local utility. It received a HERS rating of 53. "It would have been LEED Silver certified had I felt the expense of pursuing certification was worth the value," Breidenbach says.

Like many other states, Wisconsin offers façade restoration grants and tax credits for commercial renovations in historic districts. "The incentives go to the owner of the building, but it helps us sell ourselves," says Breidenbach, noting that historical preservation laws can occasionally prohibit the most efficient building. "[The state]

would rather see you restore an old window than replace it with a newer, more efficient window, which will sometimes turn clients away from the credits. So the historical preservation thing can be a limitation as well as an asset. But air sealing, insulation, and mechanical upgrades have a much higher cost-benefit ratio than things like windows, so for the most part, for us, it's an asset." **GBQ**

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IN THE SPOTLIGHT

NAME
The Bungalowen

LOCATION
Madison, WI

ORIGINALLY BUILT
1911

AWARDS
2009 Award, Madison Trust for Historic Preservation

UNIQUE FEATURES
Existing materials were salvaged and traditional methods were used