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Metal Wrap

A REMODELED HOME IS ENCASED IN METAL

BY ADAM MILLER

ADAM TOGUCHI AND BRUCE WEATHERFORD'S 864-square-foot, 2-bedroom, 1-bathroom pinewood home on Jewell Street in South Austin, Texas, was built in the postwar housing boom of the late 1940s. In 2006, the owners decided they wanted more space and a sustainable, energy-efficient home that would be innovative and attractive with great space and functionality. At the same time, they were conscious of their surroundings and wanted the home to fit in well with its neighborhood.

The end result exceeded their expectations. The home was completely renovated and refitted to be brighter, more stylish and energy efficient while retaining most of its original layout. Approximately 1,100 square feet of new space was added in such a way as to maintain the home's small footprint, leaving much of the backyard untouched.

The primarily glass-enclosed first-floor structure houses a very modern and bright kitchen and dining space. The entire upstairs is nested in a metal wrap that creeps up the east side of the building, housing the stairwell, then expanding to create the roof before crawling down the west wall. Finally, the metal cuts into the home's interior to become the floor of the second story. This metal-encased second story is perched upon and overlaps the glass kitchen, creating an elegant structure that seems to echo Mies Van der Rohe.

This standing seam, coated steel was chosen for aesthetic purposes, as well as for its overall function and performance. Architect David Webber of Webber + Studios Design, Austin, explains, "The whole unfurling [metal] wrap sits on top of the glass box that's on the ground floor. We could have done this a lot of different ways but I just like the idea of metal folding over easily and expressing the fact that it is a protective skin. You have the bedroom—a sensitive space where you want it dark and quiet. This is wrapped in the metal, which acts as a more protective coating." Meanwhile, the kitchen and dining room, which are social spaces, are left very open.

STRIKING APPEARANCE

Webber feels that in the harsh Austin climate, metal is one of the only materials that won't get beaten up by the sun, heat, rain and hail. It's very durable, won't rot, and is low maintenance.

THE ENTIRE UPSTAIRS IS NESTED IN A METAL WRAP THAT CREEPS UP THE EAST SIDE OF THE BUILDING, HOUSING THE STAIRWELL, THEN EXPANDING TO CREATE THE ROOF BEFORE CRAWLING DOWN THE WEST WALL.

The material also has a sustainability story to tell. "You can count on steel being made of up of 50 percent recycled content, if not more," Webber says. Although metal roofing may not be the cheapest option at installation, its durability and longevity make it a good investment that will save money in the long run. As for walls, metal often winds up being less expensive than wood or other siding solutions, so metal was the material Webber turned to first for this job.

Perhaps the main reason for using metal, however, is for how striking it can look. "There are a lot of things about metal that aren't necessarily thought of as beautiful," Webber says. "We want to show people how beautiful these materials can be."

The house was awarded a five-star rating, the highest rating possible, from Austin Energy's Green Building program. Many factors went into receiving this rating, including the choice to use a soy-based spray foam on the addition, planting a bamboo wall on one side of the house to protect the windows from the sun, installing a tankless water heater, planting zoysiagrass (a grass that needs less water to grow), selecting Energy Star appliances and using metal.

To help the metal cool the home, it was coated with a reflective charcoal gray coating.