

Project Green Suburbia:
Remodeling a Mid-Range Subdivision House Sustainably and on a Budget
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Abstract

A ranch subdivision house in Carmel, Indiana was almost 20 years-old and had never undergone extensive renovation. The roof needed replacing, the bathroom plumbing was leaky, the grout was full of mildew, the kitchen cabinets were peeling their paper fronts, and the space was so poorly laid out that the largest room in the house, the entry space, went unused except for collecting clutter. The owner had made a commitment to replace all existing mechanical equipment and materials with ones that would last through several homeowners into the future. The heat pump and air conditioning unit was replaced with an Energy Star rated upgrade when the old one expired, as one example.

The designer's intent was to make the best possible use of the 1,500 sq. ft. available in this house by opening rooms and adding storage, since the size of the house should be quite adequate for a two-person family, given a smart design. Additionally, the designer aimed to specify materials and finishes that would not off-gas and that were either locally produced, reused, renewable or recyclable at the end of the life-cycle.

While many of those goals were met, particularly the non-off-gassing requirement, many others proved challenging and cost prohibitive on a strict budget. In the end, the best balance possible was achieved by selecting sustainable and non-off-gassing flooring and wall finishes, while doing the best available with cabinet and

furniture selections, specifying hard wood, metal and glass over particleboard and composite materials whenever possible.

However, as more homeowners choose the path of an environmentally conscious renovation, prices will begin to drop, and the true cost of petroleum and chemically-laden materials such as vinyl, laminate, solid-surfacing and asphalt shingles will be taken into account, allowing sustainably harvested natural materials to wisely take their place.