

Environmental Design+Construction

Interior Residential: Cartledge Residence

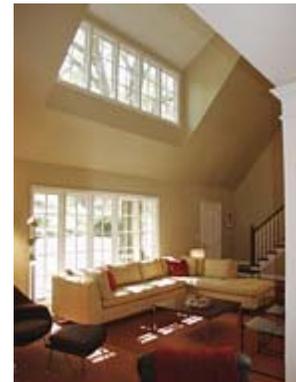


Atlanta
Submitted by SawHorse Inc.
Atlanta

The Cartledge Residence renovation project, completed in May 2002, demonstrates how a home can be transformed by retaining much of the original structure and incorporating new building technologies. This alternative needed no new foundation by reusing the existing footprint. By renovating the existing house instead of tearing it down and building a new one, less materials were placed in the waste stream and fewer new materials were used to construct the project.



The 1950's era ranch was converted into a two-story residence by updating interior finishes with sustainable choices. Decisions were made to reduce the amount of material used for the construction by taking advantage of steep slopes and large dormers in the new roof to create living space without constructing a full-height second floor. The use of natural light reduces the need for electric lighting during most daylight hours. Energy efficiency is also achieved through a well-insulated envelope, Energy Star appliances, 90+AFUE and 14 SEER HVAC equipment, high efficiency vent fans and compact fluorescent lights.



By constructing a combustion closet for the new second floor furnace with outside combustion air and providing a dampered exterior fresh air intake into the return plenum, fresh air is run through a high efficiency air filter and conditioned before being introduced into the living space. Water conserving techniques were also incorporated into the home.

Materials used on the home include:

- Halo lighting
- Icynene spray foam insulation
- Kohler plumbing fixtures
- Marvin low-E windows
- Metlund on-demand hot water pump
- Panasonic vent fans
- Tyvek housewrap

The project was completed by SawHorse Inc.'s Carl Seville (partner in charge), Glenn Cartledge (owner and architect) and Norman Joss (production manager). The Cartledge Residence is an EarthCraft House. EarthCraft, a program of the Greater Atlanta Home Builders Association Inc. and Southface Energy Institute, is a blueprint for healthy, comfortable, affordable homes that cut energy and water bills and protect the environment.