

PROJECT TEAM | withheld

CLIENT | Diana Hun + John Ledbetter

LOCATION | Lenoir City, Tennessee

YEAR | 2010 - current

Frugal Farmhouse

The owners of this project are an engineer who works at Oak Ridge National Laboratory and an organic farmer with a PhD in history. The couple's ambition is to reinvigorate a long dormant farm with contemporary organic practices.

The site is 40 acres of gently sloping land bisected by an existing hedgerow, punctuated by a pond, and bounded by an robust creek just beyond the treeline. There are three agricultural buildings on the site from a previous farming operation. The clients wish for their house to be environmentally progressive with a particular interest in passive solar and indoor air quality. In accordance with their lifestyle and the financial needs of their fledgling farm they also require that their new farmhouse be inexpensive and require very little maintenance.

We saw this not only as an aesthetic and technical challenge but understood it as being part of a long tradition of frugal agricultural construction that informs outbuildings and residences alike. The projects suggests simple stripped-down forms and industrial materials. This strategy yields a house that, while being contemporary, easily takes its place alongside the existing buildings and links to the memory of the simple farmhouses that long populated this fertile river bottom just west of the less hospitable Appalachian Mountains.



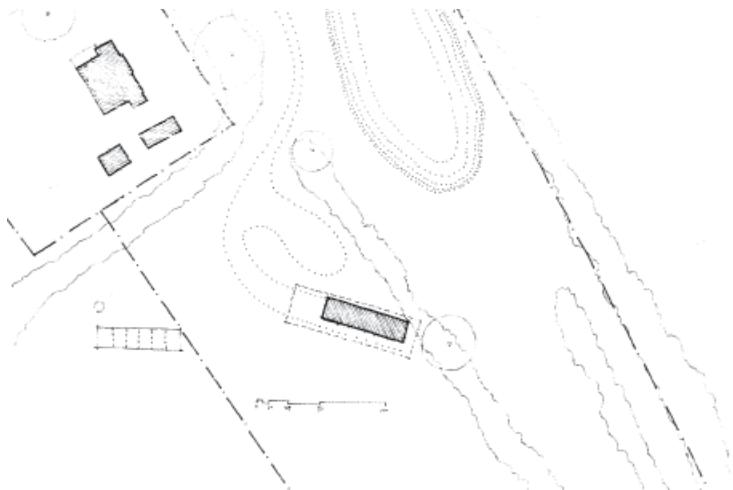
01 | above: Though long abandoned, the existing farm buildings exhibit a straightforward functional simplicity.

02 | right: The existing buildings are in various states of repair with most being salvageable for use on the new farm.



03 | right: The house nestles against an existing hedgerow and takes advantage of a large black walnut tree to create a shaded outdoor sitting area just to the east. The house is rotated away from the hedgerow both to establish a more favorable solar orientation and to create a visitors parking area in the wedge between the house and the hedgerow. The clients requested that their bedroom windows face the nearby pond so they could hear frogs in the evening.

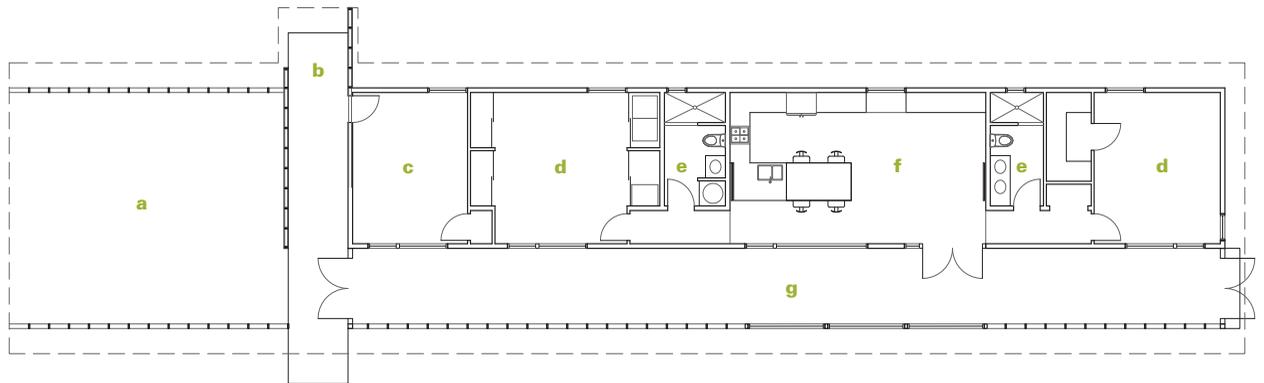
04 | below: A single extruded gable form created with plate trusses on 2x6 framing creates both the carport and the volume of the house proper. A screened porch stretches along the south side of the house mitigating unwanted solar gain and creating a generous outdoor living space that faces onto the fields. Both the siding and the roofing are agricultural metal.



05 | right above: On the north side of the house a simple extension of the roof and two wooden screens locate the entry for visitors and those doing business with the farm while not yielding entry to the more private areas of the house.

06 | right below: The interiors of the house exhibit a simple material palette that uses a polished concrete slab on grade, exposed wooden plate trusses and HVAC, and drywall. Refinished heart pine salvaged from a collapsing barn will be used as panelling on the east and west walls of the living/dining space.

07 | below: The plan is a simple arrangement that provides every significant space with access to solar gain and view and the possibility of cross ventilation. The bedroom / bathroom suites on either end can be isolated from the living space with a sliding door on barn hardware in anticipation of caring for an elderly parent.



- a** carport
- b** covered entry
- c** farm office
- d** bedroom
- e** bath
- f** living/dining/kitchen
- g** screened porch





08 | The south facing screened porch provides a sizable extension of the home's living space during three seasons.