

Akey Farms

The Owner acquired a 45-acre farm near Westminster, MD with plans to develop a grass-fed cattle operation. TerraLogos design a master plan for the intended farm operation and phasing schedule for future build out. Siting and concept designs for out buildings such as the kitchen barn for processing and sales, the animal winter shelter with corral, the portable chicken coop and the customization of a farmhouse design from old timber barn structures. Operational design features included the layout of the pastures into 1 to 2 acre parcels separated by movable electric fencing used to raise the cattle on a series of grass pastures.

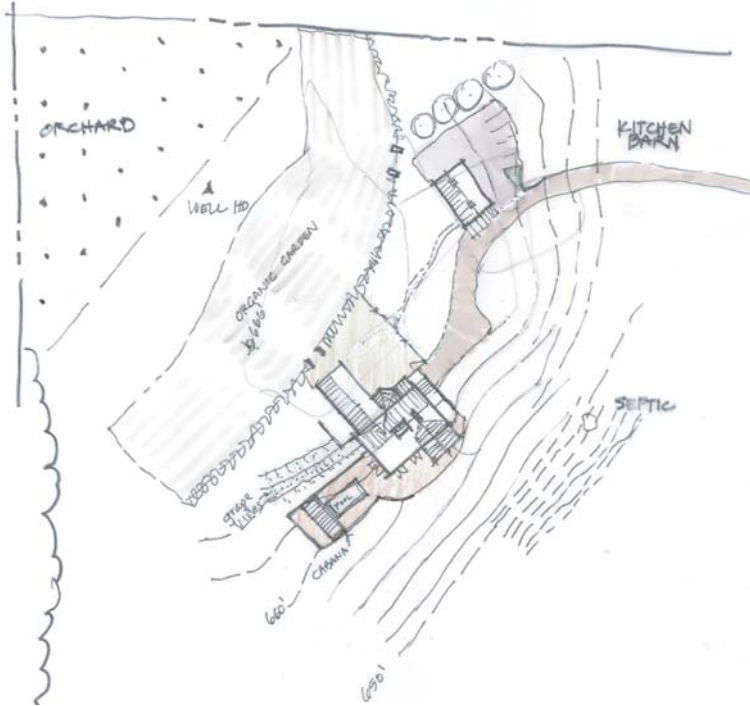


TERRALOGOS
ECO ARCHITECTURE, PC

CLIENT:
Michael Akey

PROJECT LOCATION:
Carroll County, Maryland

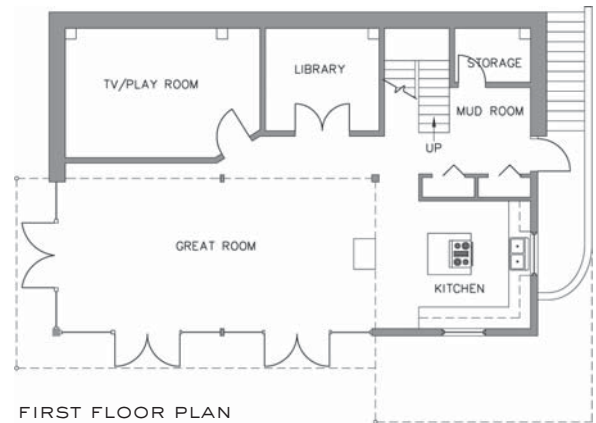
COMPLETION:
Fall 2008 of the Master Plan



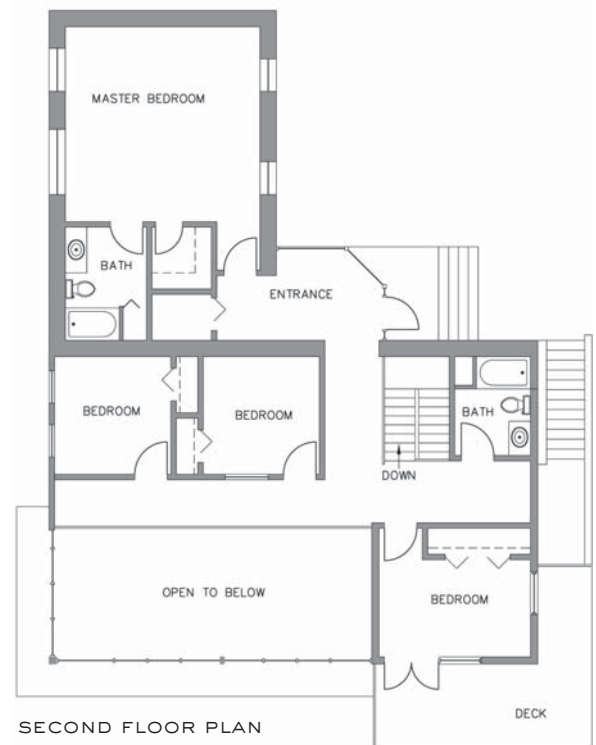
SITE PLAN

ENVIRONMENTAL DESIGN FEATURES:

- **Sustainable Site Design** – working with the land, natural contours and solar path, determined the siting of the farmhouse and outbuildings. The Owner will evaluate grass growing capabilities as the farm transitions from conventional soybean and corn to a natural pasturage and organic gardening. The farmhouse and barns are sited to maximize passive solar design and to take advantage of the natural ventilation and breezes
- **Water Conservation** – The property is on well and septic and has a small stream on the eastern boundary. There is a livestock pond on the property but due to the sequential grazing of the cattle, watering stations are needed near the pastures. This is located at the high point of the pastures for gravity feed to lower level or portable watering stations.
- **Energy Optimization** – All structures are oriented to use passive solar, windows appropriately shaded for summer and winter sun capture, well insulated structures and the use of geothermal to heat and cool the farmhouse. Thinking about building orientation during the site planning phase will ensure the construction of efficient structures that use the site to conserve energy usage.
- **Research** – During our research TerraLogos learned that sustainable agriculture provides many opportunities for integration and overlapping of systems and animal husbandry. For example as the cattle are moved from pasture to pasture, the portable chicken coop is brought in to allow the chickens to feed on grubs and pests while dispersing the cow manure (natural fertilizer). This allows the grass to grow back fast, be healthy and nutritionally rich for the next grazing by the cattle. It's a win-win-win situation for the farmer, the animals and the nature!



FIRST FLOOR PLAN



SECOND FLOOR PLAN