Renovation to New Construction

Elizabeth, IL

This family bought their property with a house on it. After research, it was decided renovating was not the best option, so new construction began. They chose geothermal due to the efficiency of using a renewable resource. The house has a very unique design so it takes care of the homeowners as a family, but also meets the needs of the parents as the kids grow. While this home doesn't currently have PV solar, it is setup to do so in the future.

"After researching and comparing the different options for heating/cooling our house, we felt geo was the most cost-effective way in the long run."

—David (Homeowner)

PROJECT DETAILS

Home Size:	5,800 square feet
Loop Type:	Horizontal Loop
Geothermal Equipment:	(Model and size) GWT060 X2 and GYT04
Installation Date:	Summer of 2016
Installation Features:	The placement of the house allows it to take advantage of passive solar heat. The windows, walls, and floors make it possible for the home to distribute solar energy in the form of heat in the winter and reject solar heat in the summer. The house is set up with 9 zones using forced air and radiant, in-floor to heat and cool. The radiant floor is set in gyp-crete for further efficiency. The system uses an Aprilaire 8820 WiFi thermostats with humidity controllers. This allows the homeowners to remotely access the thermostats and monitor usage with a histogram.
Contractors:	Installer: Doug Schuster (Schuster Heating and Pump Company)
	Architect: Jim Baranski (BHMS)
	Builder: Nick Timmerman (Montgomery Timmerman Construction)
Savings:	Average yearly savings on heating and cooling $3,826

CONSTRUCTION TYPE
New Construction

APPLICATION TYPE
Forced Air System

SYSTEM TYPE
Radiant System

LOOP TYPE
Horizontal Loop

Clockwise from top left:

The kitchen, which opens up to the living room

The geothermal system takes up little space and allows for the homeowners to use this room for storage, if needed

The stairway has a bookcase built into it, so it's multi-purpose