

Hoffman Lake House

Greenville, Illinois



This young couple wanted their home to be comfortable and healthy, since the wife works from home. Their small home was built in 1952, and it sits on Governor Bond Lake. In the spring, summer, and fall the homeowners spend most of their time outside entertaining friends and enjoying the lake, so choosing a heating and cooling system that wouldn't have a negative

impact on their outdoor living space was essential. Because they are still in the early stages of home ownership, it was also important to the family that they would have the flexibility to add a pool sometime in the future without disrupting the ground loop field.

Project Details

Building Size:	1,400 sq. ft. home with 38' x 52' shed/workshop
Geothermal Equipment:	3-ton GeoComfort Compass Series Multi-Positional Vertical Packaged system (house); 4-ton GeoComfort Combination system (shed/workshop)
Loop Type:	Horizontal loop
Installation Date:	2013
Installation Details:	The home uses an Ecobee Wifi thermostat and washable 1" electrostatic filters for both the house and shed. Additionally, the homeowners added new ductwork in the rooms with hot and cool spots, as well as in the basement. The unit in the house utilizes a horizontal racetrack loop field and directional bore headering to protect the landscaping and to eliminate interior piping. The loops enter the house through the basement very near the geothermal unit. The geothermal unit in the shed used directional bore loops (200' coils) 20 feet below the middle of back yard to give the homeowners the option of adding a pool in the future. GeoSolar headers were used on both the house and the shed.



CONSTRUCTION TYPE
Existing Home



SYSTEM TYPE
Forced Air System



SYSTEM TYPE
Radiant System



LOOP TYPE
Horizontal Loop

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Project Details *(continued)*

Other Features: After the geothermal system was put in, the home was insulated with spray foam and cellulose insulation. Spray foam insulation was added to the floor joists allowing the family to heat and cool the basement to a comfortable temperature.

Operational Costs: July 2012 electric bill (before installation) = \$220
July 2013 electric bill (after installation) = \$89

Geothermal Contractor: Ernst Heating & Cooling, Hamel, IL • (618) 887-6513 • www.ernstheating.com



Back view of the home.



Back yard area showing the home and shed. The horizontal loop field is buried in the yard shown here.



Exterior views of the detached shed.