

Room to Congregate

St. Louis, MO



Mark and Gayle serve as a pastoral couple to a growing congregation in a church located in Creve Coeur, Missouri, and they have four children and eight grandchildren. They dreamed of a day that they'd have enough space to host them all. Mark and Gayle long considered buying an existing home or a new construction home to purchase. It became clear that they needed to build a truly custom home to meet all of their needs.

Mark has always liked studying technology and anything that saves energy. Mark and Gayle believe, "as Christ's followers, we know that God has called the human race to be good

stewards of the earth." The home had to be built to high-energy efficiency, low, predictable utility costs, and healthy standards as Mark and Gayle move into retirement. Mark started reading about the different types of heating and cooling systems, which is when he found GeoComfort.

Mark and Gayle picked GeoComfort because of the personalized experience they had with GeoComfort representatives, the all-aluminum micro-channel air coil (increase the unit's life expectancy), and Mark said, "It's the only geothermal system their installer recommends."



“We had a really, really cold January and our total electric bill was only \$130.00. That is for everything in the house. And, the unit is super quiet.”

—Mark and Gayle

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Project Details

Building Size:	4,495 sq. ft. of conditioned space
Loop Type:	Vertical, closed-loop system, Three 200' vertical wells for 1,200 feet of loop total
Geothermal Equipment:	4 Ton, Two-Stage Navigator Multi-Positional Vertical Packaged Unit (GYT048)
Additional Accessories:	Geo Prime water tank
Installation Date:	Fall 2017
Efficiency Features:	Ground Source Heat Pump / Electric <ul style="list-style-type: none">• Heating COP 4.3• Cooling EER 20.2 R-values of insulation <ul style="list-style-type: none">• Foundation walls: R-13• Above-grade walls: R-24• Attic: R-49 Air leakage: 0.45 air changes per hour at 50 Pascals <ul style="list-style-type: none">• Passive House standard: 0.6 ACH 50• Typical American Home: 15 ACH 50 ResNet HERS Index of energy efficiency: 43 (Typical American home is 100)
Builder:	Hibbs Homes, 314-392-9631, www.hibbshomes.com
Contractor / Installer:	Scott-Lee Heating Company, (314) 200-0788, www.scottleeheating.com
Estimated Annual Costs:	Heating: \$365 Cooling: \$119 Hot Water: \$108 Total/year: \$592

 CONSTRUCTION TYPE
New, Custom Built

 APPLICATION TYPE
Forced Air Heating and Cooling, Hot Water Assist

 LOOP TYPE
Vertical



Clockwise from top left:
Exterior of Mark and Gayle's custom home.
The kitchen, which features high-efficiency appliances
The geothermal system takes up little space and allows for Mark and Gayle to use most of this room for storage
The master bathroom