



# Stone Ledge Development Leawood, Kansas



What if you didn't have to do anything with your house but decorate it and live in it? How much more time would that leave you to spend doing other, more important things? These are the questions Gene and Patricia wanted to answer when they dreamt of creating a virtually maintenance-free community.

## A dream come true

The Pattons formed Stone Ledge Developments, Ltd., to build a dream community. What they came up with is a neighborhood, also called Stone Ledge, located in Leawood, Kansas.

The homes are brick, stone and/or acrylic stucco with the color built in. All wood is covered with aluminum so no wood is exposed on the outside of the house which means no painting—ever. The homes also have decks made of Trex, recycled plastic and wood, which is guaranteed to never chip, warp or splinter and requires no painting.

Fire proof roofs and insulation and an alarm system ensure restful nights; and low E windows, wet blown cellulose insulation and a GeoExchange system ensure energy efficiency.

The best selling point is 'what you pay for up front, you save in the long run in time and money.' "The people who are interested in these homes are looking for efficiency, not just in money, but in time," said Gene Patton. "Most people spend a fortune in maintenance over the course of a lifetime. These homes will be virtually worry-free."

## What's inside

The GeoExchange systems provide all of the heating and cooling required for the homes. An ultra-quiet Premier2™ unit will be nestled within each home, protecting it from the elements and thus extending the life of the unit when compared to conventional systems. The unit works in conjunction with a network of Earth loops made of high strength plastic pipe. These loops are installed under each homeowner's yard making it possible to tap into a free 'power plant'—the Earth itself. Based on the principle that below a certain depth, the Earth is a relatively constant temperature year round, GeoExchange systems offer savings of up to 60% on monthly bills. It is estimated that the total energy usage for the homes in Stone Ledge will be under \$1,000 a year for heating cooling and hot water. How is that so? GeoExchange systems transfer rather than create heat energy.

### Key Features

**Square Footage:** 2,500 - 4,000  
**Type of System:** Vertical Closed Loops  
**Number of Units:** 1 Per Home  
**Total Capacity (HVAC Tons):** Average 4-6 Tons

## **Behind the technology**

Loops can be installed as part of an open system using a well as an energy source, or as part of a closed system in which the loop is filled with a water solution that is circulated through the closed circuit. The Stone Ledge homes will all use closed loops installed vertically with an average of 170 feet per ton.

The loop system is used as a heat source in the winter and a heat sink in the summer. In heating, the loop picks up heat from the Earth and transfers it to the indoor unit where it is compressed to a higher temperature and distributed via ducts. In the summer, the unit works much like a refrigerator, extracting heat from and depositing it into the cooler Earth.

Environmental Control Specialists Corp. (ECS Corp.), located in Kansas City, Missouri, was contracted to install the GeoExchange units. “This is the first time we have used GeoExchange and we think its fabulous. I like that it is clean, comfortable, quiet, environmentally friendly and energy efficient. In fact, we’ve had a lot of people come through the model home who just want to look at the GeoExchange system and hear about how it works,” Patton says.

ECS Corp., owned by Dan Thibeau and Brian Fowler, has been in business for five years and is one of the largest WaterFurnace dealers in the country. They install numerous GeoExchange systems each year. “GeoExchange technology gives us an edge over our competitors, and secures a niche for us in the HVAC market,” said Thibeau. “Rather than knowing a little about a lot, we can focus our efforts on one particular product. GeoExchange now makes up about 95% of our business. We use WaterFurnace because they offer superior products with good manufacturing support.”

KCPL is also closely involved with the Stone Ledge project. They offer everyone involved unbeatable security. KCPL finances the loop installation during the period of construction until the home sells,” said Judy

Spinner, Marketing Project Consultant. “This eliminates the need for the developer to finance the loops—saving them money. We also guarantee customer satisfaction. If the homeowner moves in and doesn’t like the GeoExchange system, we will replace it with a conventional system.”

## **Low maintenance inside**

The closed loop GeoExchange comfort systems fit perfectly with the Patton’s dream development because they are worry-free and require only the periodic changing of filters. GeoExchange boasts no flame, no flue and no fumes. Their operation lends to a clean, safe, healthy home environment.

In fact, Patton marveled at the cleanliness of his model home. “This home is the cleanest house I have ever experienced. We have a glass table top that has not had to be dusted in three months which I contribute to the clean air WaterFurnace system,” said Patton.

## **Overall package**

The final products will sell for \$300,000 and up. Stone Ledge is going all out. Any one feature in the Stone Ledge homes is enough to turn some heads, but put them all together and you have a house that becomes more than just a roof over your head, it becomes a worry-free dream come true.

*Case Study Courtesy of WaterFurnace International*