

New Urbanism Village Goes Green

Sonoma Mountain Village, a new infill mixed-use development, will showcase green building and New Urbanist principles, which promote planning and architecture that create human-scale, walkable communities and cities. Located in Rohnert Park, a small city in Sonoma County, California, about 45 miles north of San Francisco, the 200-acre site will provide homes for 5,000 residents and jobs for 3,000 people.

Construction on the project began in late 2006. The contractor is Coding Enterprises, a family-owned business that has been building in Sonoma County since 1849.

New Urbanist Principles

Sonoma Mountain Village aims to replace and then exceed the more than 3,000 area jobs that used to exist on this site. Sonoma Mountain Village's architecture and land plan will provide many pedestrian-friendly amenities to the local community and are estimated to cut auto trips by 40%. Public transit stops are planned within $\frac{1}{2}$ mile of every workplace, with shopping and community parks a quick walk away.

As a live/work community, the development will provide employment in the industrial, medical, consulting, retail, and personal-services sectors. These businesses are planned to occupy more than 500,000 ft² of custom industrial and office space, ranging from 10,000 ft² to 250,000 ft², all centrally located within Sonoma Mountain Village's 25-acre business center.

Both New Urbanism and green design principles encourage rich amenities and recreational facilities within the immediate community. The development's village square will include retail shops, restaurants, a civic center, over 25 acres of parks, a dog park, an international all-weather soccer field, and a proposed wellness and fitness center. The entire community will be easily accessible by foot or bike.



Sonoma Mountain Village homes will provide modern features with a strong focus on energy-saving designs.

Home Designs

Sonoma Mountain Village will include 900 single- and multistory lofts, condominiums, and apartments and approximately 1,000 single-family houses that will range from 1,000 ft² to 3,500 ft² to accommodate all sectors of the community. Sonoma Mountain Village homes will provide modern features with a strong focus on energy-saving designs. A minimum of 15% of the homes will be affordable by deed, meaning that property restrictions will require that some of these homes must be sold to families whose income is less than or equal to 80% of the area median income or the state median income, whichever is less. Other homes will be affordable by design, meaning that they will have smaller footprints and fewer features. These affordable-by-design homes will sell for around \$300,000. The affordable-by-deed homes will sell for around \$200,000.

The 900 single- and multistory lofts, condominiums, and apartments will be built in the upper levels of the three- to seven-story buildings around the village square and throughout the community. Many will feature balconies overlooking the village square, and all will have dedicated parking.

Sonoma Mountain Village's proposed 1,000 single-family houses are being built for a range of size and budget requirements, with a focus on

energy-saving design and construction. All houses will be built within $\frac{1}{2}$ mile of the village square, for easy access by walking or biking, and all houses will have a PV option.

Green and Efficient Features

As a development, Sonoma Mountain Village is a pioneer in large-scale sustainability. It will feature \$7,500,000 in solar panels to produce sustainable electricity, the largest solar installation in Sonoma County. Sonoma Mountain Village is aiming for a Platinum LEED Certification for the community. It will also make extensive use of recycled building materials, to preserve and respect the natural environment.

The homes will be framed with either recycled steel or FSC-certified wood, the choice to be determined based on the affordability of each product. However, Syphers says that the development is leaning toward steel, since given the tight design of the homes, steel framing presents less of a fire hazard. The homes will be built using engineered optimal-value framing with insulated headers.

Heating in condominiums and apartments will be provided by condensing or combined radiant systems with Munchkin boilers. Although some units may include air conditioners, evaporative coolers using reclaimed water will be the first choice for cooling. The homes will

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Green Building

also rely on passive heating and cooling features, such as deep overhangs, to help reduce heating and cooling needs.

Sonoma Mountain Village's plan for conserving water includes using reclaimed water for irrigation, yards, parks, fire hydrants, and building sprinklers. Low-flow showerheads (no more than 1.5 gpm) will be used in all homes, and dual-flush toilets and waterless urinals will be standard. Energy Star appliances will be used throughout the homes.

In addition, Sonoma Mountain Village will buy back all of its sewage from the city, and rainwater collection will be established on some homes. The development plans to use no more drinking water than was used by former occupants of the site, so as not to add to the water burden.

The homes will all be Energy Star certified. All homes will achieve a minimum of 20% above California Title 24, with the goal of achieving closer to 35% above code for all homes.

Sonoma Mountain Village will rely on the GreenPoint system, a green building program started in Alameda County, to keep track of both energy efficiency and green building measures. In order to meet the tight energy efficiency goals, extensive daylighting will be used in the homes, along with high-quality fluorescent electronically ballasted fixtures.

To ensure that everything runs smoothly in this new community, Sonoma Mountain Village will provide an aggressive training program for the staff that oversees all construction processes. "This may be the most energy-efficient measure we use," says Syphers. Through careful monitoring of the building process, staff will be able to catch potential construction problems before it's too late to deal with them.

Construction for the first two buildings—Coddling Enterprises and the Innovation Center—began in late 2006, and the surrounding area will be constructed beginning in the spring of

2007. From there, the development will be built from the village square outward over the next 10 to 15 years. During this time, Syphers says that he encourages students, homeowners, and builders to visit and observe the building process.

"We want this to become a living laboratory," says Syphers.

—Elka Karl

Elka Karl is an associate editor with Home Energy magazine.

For more information:

To learn more about Sonoma Mountain Village, go to www.sonomamountainvillage.com.