

Grupe Homes



PROJECT

Carsten Crossings - Rocklin, CA

The solar, energy efficient homes at Carsten Crossings built by The Grupe Company feature six distinctive designs and range from approximately 2,100 to 2,700 square feet of living space. Models showcase three to five bedrooms and two to three-and-a-half bathrooms with flexible floor plans. Additional options include: dens, offices, retreats, game rooms, super-sized family rooms, workshops and tandem garages (per plan). The 144 homes at Carsten Crossings are set on spacious 6,000 square foot home sites and start in the high \$400,000s.

The community is Grupe's first to feature all GrupeGreen homes that exceed California's Title 24 Building Standards and include on-site solar electricity as a standard feature, which can reduce electrical bills by up to 50 percent. Other standard GrupeGreen features include the Smart-Vent system to reduce cooling loads in the summer months, Continuous Ventilation Systems (CVS) for improved indoor air quality, 94 percent efficient heating systems, tankless water heaters, Low-E windows, enhanced (R49) attic insulation, radiant heat barriers and foam-wrapped (R5) building envelopes.

Part of the Whitney Ranch masterplanned community, Carsten Crossings is located across the street from the new Whitney High School. Just beyond is the 40-acre community park, including sports fields and play areas.

MAKING THE DECISION

The Grupe Company has always had a deep respect for the land and believes that respect is the first step in building timeless living environments. That philosophy eventually led the company to become *one of the first builders in California to earn Leadership in Energy and Environmental Design (LEED) certification for its Carsten Crossings community in Rocklin, where the company features its exclusive GrupeGreen homes.*

"Thinking green is good for the environment and good for the long-term appeal and livability of Carsten Crossings," said *Mark Fischer, Grupe's senior vice president of operations.* "By continuing to develop and improve the GrupeGreen program, we feel we are protecting the environment and improving the living experiences of home owners."

CHALLENGE

Fundamentally, Mr. Fischer believes that solar is the right thing to do for homeowners and the environment. But it took some convincing, and a hard look at the numbers, to prompt his company to be among the leaders of the solar home movement, and everyone wondered if the buyers would follow.

Additionally, the Carsten Crossings development was taking shape at the end of a major housing boom in Northern California. Midway through the project, Mr. Fischer could see the company would have to work much harder for sales in the slowed market and that every expense would have to be justified.

* Grupe Homes is part of the California Energy Commission's Zero Energy New Homes program. The program brings together energy efficient building design and technologies along with electricity generation from solar photovoltaics to reduce peak electricity use to nearly zero in new homes. The Zero Energy New Home program formed the foundation for the New Solar Homes Partnership.

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SOLUTION

By committing to offer solar as a standard feature on every home at Carsten Crossings, Mr. Fischer was able to secure the best possible price for materials and installation. The rebate from the California Energy Commission helped offset an additional 25 to 30 percent of the cost per unit. Mr. Fischer also made the argument that solar would help distinguish Carsten Crossings from other communities at Whitney Ranch, and accelerate the project absorption rate. Selling the homes faster could significantly reduce the company's carrying costs over time. Mr. Fischer was right. Carsten Crossings' homes sell an average of two times faster than other comparable communities nearby.

"In the beginning, some of the other developers at Whitney Ranch probably thought we were crazy to go solar on this project," said Mr. Fischer. *"Now, especially in a down market, they're all looking to the success of Carsten Crossings and acknowledge that the solar makes it easy for buyers to choose our community over the rest."*

PERFORMANCE RESULTS

The SunPower solar tiles Grupe uses blend in with typical concrete roofing tiles without taking away from the architectural design of the home. The seamless aesthetic of the tiles is actually a major selling point of the homes, in addition to electricity bill savings of between 60 and 70 percent.

Only a couple months into the hot Central Valley summer, Carsten Crossings home owners began to compare electricity bills. Larry Brittain proudly pointed to a \$75 utility bill for his 2,400 square foot home. Not only was this a significant savings compared to his previous home nearby, but the low utility bill came in July of 2006, a month when California experienced a record heat wave with temperatures higher than 100 degrees for two consecutive weeks. Residents were also pleased to qualify for the \$2,000 federal tax credit at the end of the year.

The extraordinary sales and home buyer satisfaction at Carsten Crossings have convinced The Grupe Company to now offer SunPower solar systems in its upcoming Charlotte's Oaks development, a gated, 104-home project in Stockton, California.

THE GRUPE COMPANY

The Grupe Company has been building award-winning communities for more than three decades, is renowned for its masterful planning and commitment to innovation and has played a leading role in Northern California's residential growth. Across 12 masterplanned communities, Grupe has established more than 400 acres of lakes and permanently preserved dedicated wildlife habitat areas and open space. The builder has created more than 200 parks, miles of trails and has planted more than 500,000 trees.

specifications

CITY: Rocklin, CA

OF SOLAR HOMES: 144

SOLAR PROVIDER: SunPower™

UTILITY: Pacific Gas and Electric (PG&E)

AVERAGE SYSTEM SIZE: 2.4 kW

ANNUAL ENERGY PRODUCTION: Estimated 3,530 kWh per home

MODULE TYPE: SunPower SunTiles®

INVERTER: Xantrex 2.5 GT Series