



## PROJECT SPOTLIGHT

### Lafarge partners on low-income, sustainable housing

Lafarge recently partnered with a number of its customers to donate materials and labor for building the first three homes in Habitat for Humanity's Fairview Cottages Project in Olympia, Wash. Working under the Washington State Evergreen Green Building Standards, the planned, 15-home development is making major advances in achieving Habitat for Humanity's goal to create sustainable housing and promoting the numerous green-living benefits that concrete products offer.

The Fairview Cottages feature a wide range of sustainable benefits, only two of which are listed:

- ▶ Radiant floor heating uses the thermal mass benefits of concrete to efficiently heat the home.
- ▶ To build 15 homes on a lot that would normally hold only 6, pervious pavement was used as a solution for storm-water management. A 30-car parking area and pathways were paved using pervious materials.

Among the companies contributing materials and expertise, Lafarge donated the cement.

### Finrock signs parking structure contract for Virginia development

Finrock Design-Manufacture-Construct recently signed a design-build contract with Unicorp National Development Inc. for four parking structures. The structures will serve a new town-center type of development in Richmond, Va.

The redesign of the structure from the original concept drawings eliminated fire sprinklers and brought the project back into budget. The \$21.4 million project is scheduled for completion at the end of 2008.

### Sika products used in Oakland Bay Bridge

Sika is playing a part in the construction of the Skyway section of the new east span of the Oakland Bay Bridge. The Skyway portion of the bridge connects the Oakland touchdown structure to the suspension section just east of Yerba Buena Island. It is the longest component of the east span and where Sika products are currently being used by the joint venture partnership builder KFM: Kiewit Pacific, FCI Constructors, and Manson Construction Co.

The Skyway section, which contains 452 precast concrete roadway sections, is the largest contract ever awarded by Caltrans, at \$1.04 billion. Each segment was cast in Stockton, Calif., (approximately 100 miles [160 km] from the project) and then was shipped on barges to the site.

Prior to shipping, the transverse cables were tensioned and the ducts were grouted with SikaGrout 300PT. More than 16,000 gal. (61,000 L) of Sikadur 31 SBA was applied to each side of each precast concrete segment prior to final placement and tensioning. Sikadur 31 SBA serves as a lubricant to allow for adjusting the placement of the segments during erection and as waterproofing for joints after placement of the segments and tensioning of the cables.

The Skyway section consists of a westbound and eastbound deck over 1 mile (1.6 km) long. The two roadways each have five lanes of traffic, emergency shoulders, and 15-ft-wide (4.6 m) pedestrian/bike paths. The new structure is designed to meet current seismic codes as well as other

codes pertaining to roadway shoulders, lane widths, stopping sight distances, and other factors to substantially improve public safety.

More than 200,000 bags of SikaGrout 300PT were supplied to fill the ducts containing the post-tensioned cables. The grout provides additional protection to the steel cables as well as enhanced bonding of the cables to the duct and precast concrete segment.

The Oakland Bay Bridge was constructed at the same time as the Golden Gate Bridge and opened for traffic in 1936. The 1989 Loma Prieta earthquake, measuring 7.1 on the Richter scale, severely damaged the double-decker truss structure east of Yerba Buena Island, knocking down a portion of the upper deck.

**Sika provides products for the Oakland, Calif., Bay Bridge project.** Photo courtesy of Sika Corp.

