

CUSTOMER: America's Educational System

APPLICATION: Potable Water

LOCATION: U.S.A.

CONTRACTOR: Frank Gay Services, RK Mechanical and Smith Electric

Taking education into the future

Across the nation, school districts and college campuses are investing in the construction of new buildings, as well as modernizations, upgrades, repairs, and renovations to aging public education infrastructure.

According to the 2016 State of Our Schools report*, K-12 public school facilities account for about 25% of all state and local infrastructure capital projects, second only to highways. Add in public higher education and public education accounts for the largest share of state and local capital investments with 34%.

While the investment is high, the report suggests that it's not nearly enough.

"We estimate that national spending falls short by about \$8 billion for maintenance and operations and \$38 billion for capital construction. In total, the nation is under spending on school facilities by \$46 billion — an annual shortfall of 32%."

Additionally, the overall condition of schools is cause for concern. According to the latest Report Card for America's Infrastructure, published in 2013, K-12 school infrastructures received a D.

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"Almost half of America's public school buildings were built to educate the baby boomers; a generation that is now retiring from the workforce," the report reads. "Public school enrollment is projected to gradually increase through 2019, yet state and local school construction funding continues to decline. National spending on school construction has diminished to approximately \$10 billion in 2012, about half the level spent prior to the recession, while the condition of school facilities continues to be a significant concern for communities."

Navigating this situation is complicated. It challenges communities and campuses to consider innovative and forward-thinking options.



Lake County Schools Repairs and Maintenance

When Lake County Schools in Central Florida had water systems go down in five different schools last summer, Frank Gay Services was hired to fix the problem.

"It was age. Over time they just went out," said Stephen Thomas, Field Service Supervisor. "Some were leaking and with the age of them, getting parts to repair them wasn't possible."

Frank Gay Services, a full-service plumbing, electrical, heating, and air conditioning company based in Orlando, FL, has been using Viega press systems for over a decade.

"We use the press system in all kind of applications, from water to air," Thomas said. "We've actually been using Viega ProPress for copper throughout the schools, mostly for repairs."

Utilizing Viega was an obvious choice for this job, where workers changed out hot water systems, installed new boilers, and reconnected the piping. According to Thomas, each system was replaced in about two to three days, which saved significant time.

"There's a lot of prep work when you solder," Thomas said. "You don't have to do that with ProPress. You pre-fit it, and then you actually leave it in place. When you're going through piping it, everything gets pressed as you're going. It cuts it down to a third of the time that it would have been to solder."



American Schools Project Profile

Frank Gay Services appreciates that Viega's quality product also offers a solid warranty, and the training and customer service have never disappointed.

"Our supplier has done a very good job for us," Thomas said. "He set up classes and training for us, and he also introduced the Viega MegaPressG system to us. We invested in it, and we actually used it in the schools. We had some gas pipe, and there was no way to cut and thread up in the ceiling."

There are also times when press systems have allowed Frank Gay Services employees to complete work with minimal disruption in a way not possible with soldering.

"At the school, if there's a leak someplace, you can't shut the water off in the school while the kids are there," Thomas said. "We can cut the line if it's going to a smaller portion, press a valve on, isolate what we're working on, and get that repair done in a timely manner."

Viega was the best choice for this project for many different reasons.

"Viega is one of the top-notch products on the market today," Thomas said. "It gives you the ability to speed up your timing and allow you to do things like pressing when water is running through your system. You can't do that with soldering. If it fits the application, we use the ProPress over soldering probably 98 to two."

New Construction of Rancho Campana High School

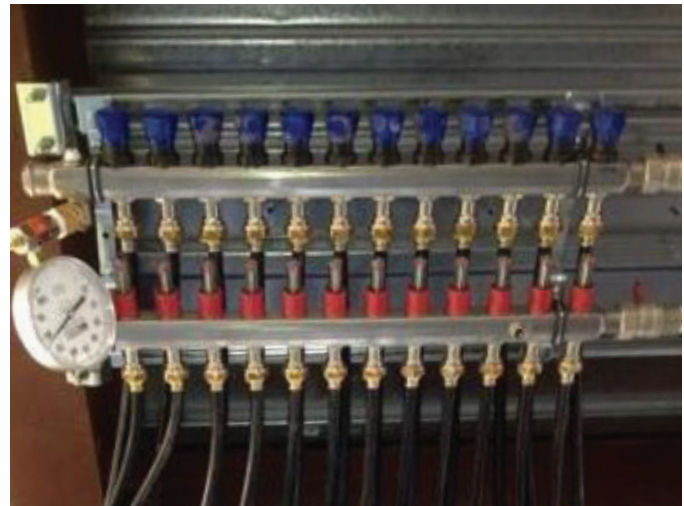
In Camarillo, CA, where temperatures average between 65 and 75 degrees year round, the Oxnard Union High School District decided that utilizing radiant heating would be the most efficient choice for the district's newest high school.

A unique school in its own regard, Rancho Campana High School is a new, 800-student, comprehensive academy high school for grades nine through twelve. Its focus is to provide a rigorous project-based curriculum in a nontraditional classroom setting.

"We don't teach in the traditional sense here," said Roger Adams, Principal of Rancho Campana. "Traditional American education has rows of seats with a teacher in the front of the classroom that talks for 45 minutes and then gives an assignment. We understand that students today learn a lot differently than the way we did when we were in school."

Having students comfortable in their environment plays a fundamental role in the school.

Smith Electric, an electric, mechanical, plumbing, and general



construction contractor based out of Santa Maria, CA, was awarded the job and installed Viega Rapid Grid with ViegaPEX Barrier tubing throughout each classroom, with each controlled independently.

"Where we live, we have amazing weather. We don't really have seasons here," Adams said. "When we developed this school, we wanted it to be highly efficient, in that we don't have air conditioners. When it gets warm, we have a ventilation system that will pull hot air out of the classroom and vents and windows that allow cool air to move in."

When the temperature in the classroom needs to be altered, Adams works with his district office and the school's facilities department to provide a range of temperatures in the classrooms.

When Smith Electric realized that manifolds could not be placed in the typical, wall-mounted position, they proposed a unique solution. Working with Glumac Engineering, Smith Electric moved forward.

“We came up with the idea of putting the manifolds in the ceiling,” said Kevin Kendall, Superintendent at Smith Electric. “I don’t know what we would have done without Viega. It would have doubled the manpower for sure.”

Kendall said one of Viega’s Radiant Sales Managers was a big help throughout the process, making it a smooth and enjoyable experience.

“He was on point with everything,” Kendall said. “Everything ran great. We had 60,000 feet of concrete floor and didn’t have any problems anywhere. And the guys had fun doing it.”

Redevelopment of Aggie Village Apartments at Colorado State University

Colorado State University (CSU) is no stranger to construction projects. Revitalization and redevelopment can be found taking place across CSU’s multiple campuses.

At the main campus, located in Fort Collins, CO, RK Mechanical is nearing completion on CSU’s largest project to date, a \$111 million redevelopment of the outdated Aggie Village Apartments.

RK Mechanical, headquartered in Denver, employs over 1,000 people and is the region’s largest mechanical contractor. The company fabricates and installs HVAC, plumbing, and piping systems, perform electrical installations, and provide facilities maintenance. RK Mechanical has fabricated and installed mechanical systems for many CSU projects over the years.

The Aggie Village project includes studio, one, two, three, and four-bedroom apartments with a total of 973 beds, replacing 145 apartments that were constructed in 1960. Community centers, study lounges, and meeting rooms are also included in the global community.

Last year, when it was time to decide what products to use on the project, there were many factors to consider, one of the biggest being that work was to be done in winter. The material matrix specified PEX, but RK Mechanical could choose the manufacturer.

“Viega PEX Press was more advantageous to use during the cold weather than different competitors,” said Rob Dunn, RK Mechanical Senior Project Manager. “You can press it with the press tool, even in cold temperatures.”

For RK Mechanical, who had never personally worked with Viega PEX Press before, the results have been better than they hoped.

“It worked out well, putting in the product during cold weather,” said Todd Price, Project Superintendent at RK



Mechanical. “We were able to pressure test right away after installation, which is a big plus for the schedule, and it performed just like it was supposed to.”

“The system is fairly easy to use and quick to install,” added Price. “In one building we used about 20,000 joints.”

Overall, the project included an estimated 300,000 feet of ViegaPEX Ultra tubing. RK Mechanical was grateful for the customer service, technical assistance, training, and quality product that Viega provided.

“We look at it case-by-case for each project, but I lean toward Viega because they provide great customer service,” said Dunn. “Anytime we have a question about anything technical regarding PEX, the customer service has been outstanding. It has been fantastic for the engineer as well. Viega really stepped up to the plate with the engineering staff to help get it approved and answer any questions.”

Dunn and Price said RK Mechanical has been working with CSU for many years and is proud to have been part of this project.

“We’re excited to be a part of CSU construction projects,” said Dunn. “We try hard to provide a quality project because we’re here for the long term commitment. And that’s one of the reasons we look at Viega. We want to make sure we’re providing them with a high-quality project. We’d like to be on the CSU campus for a substantial amount of time but also build a high-quality resume for other education facilities.”



American Schools Project Profile

Working together

From repairs and maintenance, to brand new construction and redevelopment, improvements are happening every day in the quest to provide the best educational environment possible for America. Viega has been presenting communities and corporations with forward-thinking options that will enable them to step up to the challenge of building, repairing and maintaining our educational campuses.

We've done that by spending more than 100 hours supporting the radiant installation at the Rancho Campana School, providing more than 150 ProPress fittings and 100 MegaPressG fittings to Lake County Schools, and 20,000 PEX Press fittings to Colorado State University.

Together, we connect quality products that save time, labor, and money to contractors so we can take educational facilities into the future.

For more information on Viega system solutions, visit www.viega.us, or call toll free: 800-976-9819.

*State of Our Schools: America's K-12 Facilities is a joint publication of the 21st Century School Fund, Inc., U.S. Green Building Council, Inc., and the National Council on School Facilities.