BlazeMaster®
FIRE SPRINKLER SYSTEMS

# Case Study

*Largest dorm in North America completes fire sprinkler retrofit in record 11 months without displacing students*

**Type of Construction:**
Dormitory

**Installation Type:**
Retrofit

**Location:**
Austin, Texas

**Scope of Project:**
Heads: ≈12,000
Sq. Feet: ≈1million+
Stories: 3 towers
4 floors
10 floors
14 floors

**Fire Sprinkler Contractor:**
Western States Fire Protection

*Engineered by Schirmer Engineering*

**Accelerated Schedule Credited to Ease and Speed of Installation of BlazeMaster® CPVC Sprinkler System**

With 3,000 beds inside and 1 million+ square feet of housing that comprise an entire city block, Jester Center at the University of Texas at Austin is recognized as the largest dormitory in North America. When the State Fire Marshall mandated that the University retrofit all of its high-rise residence halls, the biggest challenge was deciding how to complete the retrofit at Jester Center on time and what to do with the thousands of students who lived there.

"We originally thought we were going to have more time to complete the installation," said Doug Garrard, Associate Director of Housing and Food Services for the University of Texas. "But when the State Fire Marshall mandated a shorter time schedule, we faced a major dilemma. We could have met the timeline by closing the entire facility, but that would have left 3,000 students without housing. We looked at the option of closing one floor at a time, but even that wouldn't allow us to meet our deadline. We knew, under normal circumstances with a metallic fire sprinkler system, that we would have to take multiple floors offline. But with each floor housing approximately 100 students, there were major cost implications to relocate all those students. In addition, we were already experiencing a housing crunch with limited housing options."

It was Schirmer Engineering, based in Dallas, that recommended the installation of a BlazeMaster® CPVC fire sprinkler system as the only way to meet such a tight schedule. Schirmer, through its work with Western States Fire Protection Co., was familiar with the ease and speed of installation afforded by a CPVC system. BlazeMaster CPVC pipe utilizes a one-step, solvent cement joining system that does not require a torch or heavy equipment.

The University, however, had no previous experience with any material other than metal and initially questioned the performance and reliability of the CPVC alternative. After a joint presentation by

BlazeMaster CPVC representatives and the project manager for Western States that addressed administrative concerns, the key decision makers approved the BlazeMaster CPVC system because of the quality and durability it offered. Key to the approval of the BlazeMaster CPVC system was the fact that the product has a proven, 18-year track record in commercial applications – a history that is unmatched by any other CPVC product on the market. BlazeMaster fire sprinkler systems are also approved for more applications than any other non-metallic system.

**Beating the Deadline With No Student Disruptions**

Installation began in November with work being done simultaneously on both Jester Center towers. The University hired a Coordinator of Student Logistics to handle all student communications regarding schedules and instructions for packing personal belongings. An aggressive schedule was set to complete six to seven rooms per day. Students were vacated at 8:00 A.M. and told they could return to their rooms by the end of that same day.

"We worked around computers and personal belongings that had been moved to the center of the rooms," explained Jerry Allen, Senior Project Manager for Western States. "We never would have been able to do this with a metallic system."

Allen further noted that the various configurations of the dorm rooms presented additional challenges that were minimized by the decision to install

**Now listed for more types of applications than any other non-metallic system.**

CPVC. "With metal, we would have had to pre-fabricate," Allen explained. "With the BlazeMaster system, we were able to cut as we progressed. This was a real labor saver since the rooms had different configurations and required a lot of transitions."

Also facilitating the installation was the fact that BlazeMaster fire sprinkler systems are lighter in weight and easier to move around the job site. "We were able to set up an assembly line process downstairs from the rooms where we were working. This turned out to be very efficient and actually allowed us to stay ahead of the Fire Marshall's schedule," said Allen.

The added incentive for Western States to stay on schedule was a special clause in the contract with the University of Texas that instituted a large per day delay penalty if students were not able to return to their rooms at the end of the day.

"Thanks to the ease of installation of the BlazeMaster pipe, the project went smoothly – even better than expected," noted Allen. "As a result, we did not have to pay any penalties."

"We installed more than one million feet of BlazeMaster pipe on this job, compared to an average dorm installation that may only require a couple thousand feet," said Allen. "In addition, the installation probably included about 50,000 joints. With that many lineal feet and all those transitions, you would normally expect more problems with leaks, but our problems were very minimal."

Garrard concluded, "We could not have accomplished what we did and met the tight schedule with steel. We would have had to find temporary housing which would have added significant costs to the project. I believe that one of the greatest advantages of the BlazeMaster CPVC system is that it allows you to work in occupied rooms with minimum disruption to students. Since my dad was a pipefitter, I know what's involved in a steel installation. It's noisy, it's dirty, and you have the risk of using a torch. In addition, I don't think you have as many issues over time with CPVC, such as the deterioration of steel pipe."

Garrard describes the CPVC retrofit as highly successful. "Based on my experience, the CPVC fire sprinkler system is an extremely attractive option because it allowed us to meet our schedule even in occupied rooms. Who would have ever believed that such a large undertaking could have been accomplished so smoothly in just 11 months without relocating a single student?"



For more information, call 888-234-2436, e-mail blazemaster@blazemaster.com or visit www. blazemaster.com



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