



VILLA DUCHESNE SCHOOL



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| PROPERTY: | Villa Duchesne School St. Louis, Missouri |
| ARCHITECT: | Hastings & Chivetta |
| CONSTRUCTION MANAGER: | Hercules Construction |
| DESIGN/BUILD: | Murphy Company |
| OBSTACLE: | Maintain the architectural integrity of a 75-year-old building while providing modern climate comfort. |

"SureFlow® acts like a 4-pipe system, but it's a 2-pipe. We were able to reduce a significant amount of pipe and the corresponding labor on this job."

-John Robben, Project Manager, Murphy Company

BUILDING ORIGINS

Originally outfitted with radiators and ceiling fans when it was constructed in 1929, the exclusive Villa Duchesne private academy had never been remodeled to include an HVAC system. For the past decade, school administrators had toyed with the idea of installing one, but it wasn't until they were presented with the option of using the innovative SureFlow® system that the project was given the green light.

Murphy Company had seen the SureFlow® system at a trade show and knew that it was the perfect choice for this project because of its ease of installation, system efficiency and superior quality. Another benefit of the SureFlow® system is the installed-cost savings from the reduction of pipes and fittings. Because SureFlow® is a 2-pipe system that performs like a 4-pipe, a substantial amount of the expense usually spent on materials and labor was eliminated.

SPECIALIZED CONVERSION NEEDS

A major challenge the design team faced was protecting the structural integrity of the 75-year-old building during the installation. Installing a traditional DX system with ductwork would have been expensive and difficult. The amount of core drilling needed to install a standard 4-pipe system could have compromised the school's architecture. SureFlow® eliminated these concerns. By using the SureFlow® design, the number of penetrations needed to accommodate a system that provided 4-pipe performance was reduced by 40 percent.

Another challenge was ensuring that the elegant look of the school would not be compromised. Visible piping in the classrooms would have diminished the stately feel of Villa Duchesne. Because SureFlow® drastically reduces the amount of piping necessary to complete the job, there is not a single piece of pipe visible in any of the eighty-one classrooms.



PROBLEM: Installing a cooling system for the first time in a 75-year-old building.

SOLUTION: SureFlow®'s ease of installation, cost efficiency, and superior quality made it the perfect choice for this unique application.



PROBLEM: Core drilling needed to be minimized from a cost and structural integrity standpoint.

SOLUTION: Because SureFlow® uses 40% less piping than standard units, the amount of core drilling needed to install piping was substantially reduced.



PROBLEM: The finished look of the project was critical.

SOLUTION: SureFlow®'s design greatly reduced the amount of piping needed to complete the job. The piping that was used was then enclosed in custom made wall cabinets.

INSTALLATION SPECIFICS

The goal of this project was to ensure that when classes resumed in the fall, the students and faculty of Villa Duchesne would be able to enjoy air conditioned classrooms for the first time. The ambitious work schedule on the project meant that the crew had to start working in the spring, while classes were still in session. The school expected the HVAC installation to take 18 months but, due to the ease of installation of the SureFlow® system, the project was actually completed in less than 5 months. Because the amount of piping needed is reduced with SureFlow®, the installation time was reduced. SureFlow® allowed the team to reach the anticipated deadline of the first day of school in the fall ahead of schedule.

"Everything at Villa Duchesne is fancy, and we didn't want to disturb a thing. They have eighty-one classrooms, and because of the SureFlow® system, you don't see a single piece of pipe."

-Chris Hiemenz, Business Development Director
Murphy Company



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