

OUTSIDE THE BOX:

A New Approach to Fire-Rated Temporary Containment



Tasked with implementing one-hour fire-rated temporary barriers that were HCAI approved, aesthetically pleasing and easy to remove and relocate, S+B James Construction leveraged FireblockWall™ from STARC Systems.

When Medford, Ore.-based **S+B James Construction** expanded into the Sacramento market four years ago, the 45-year-old construction and design firm set its sights on growing its relationship with a major healthcare provider that operates a number of hospitals in California.

It wasn't long before S+B James Construction, which offers a range of services spanning pre- through post-construction, identified a suitable first project: the replacement of a linear accelerator at a not-for-profit, fully accredited, regional hospital with 355 beds, physician staff of nearly 900, and more than 2,300 employees.

The job called for replacing outdated radiation therapy equipment, which was encased in a concrete vault, as well as making room renovations that would be necessary to accommodate the new equipment and to facilitate ADA compliance.

An Occupied Renovation

Although S+B James Construction originally bid on the RFP in 2019, a series of pandemic related starts and stops delayed construction, which is now expected to be completed in 2023.

Project Manager Hayden Meyers recalls that as the project got underway, one of the biggest challenges stemmed from the fact that the linear accelerator, as well as the bathroom and changing rooms included in the renovation work, were located in the middle of an active cancer treatment center. That meant scrapping the original plans, completed roughly a year before work commenced, and regrouping with the architect to discuss temporary containment options.



Hayden Meyers
Project Manager
S+B James Construction

The Challenge

"The temporary barriers we originally planned for were challenging in the sense that part of our work was going to be modifying, and temporarily removing and relocating, existing corridor firewalls," Meyers said. "This was compounded by all the utilities and the lack of space above the ceiling. We started exploring other options, looking for something that could be easily constructed, had HCAI approval, and met the needs of the project stakeholders, including patients and staff."

The team recalled finding success with a modular wall solution on previous projects that demanded sound attenuation and an aesthetically pleasing appearance: RealWall,™ manufactured by Brunswick, Maine-based **STARC Systems**. Although RealWall delivered a durable, reusable containment system that clients responded to favorably, however, it wasn't a one-hour fire-rated solution.

Partnering For Success

S+B James Construction decided to reengage STARC to discuss viable options. Together, they sat down with the architect to evaluate a new solution STARC was in the process of rolling out—one specifically engineered with fire safety in mind.

In fact, STARC had recently received OPM approval from the California Department of Health Care Access and Information (HCAI) for temporary construction barriers, when approved for a specific location, use and compliance.

The solution, called FireblockWall,™ is **a first-of-its-kind reusable, one-hour fire-rated temporary containment system. It meets ASTM E119, ASTM E84, NFPA 241, and IBC requirements—as well as ICRA Class V guidelines. It installs four times faster than drywall, saving time and money, and as the only safe and sustainable solution that can be used over and over, FireblockWall promised unmatched performance and durability. The team was convinced it would meet their needs.**

"Having that OPM approval makes it really easy for architects and engineers to add those items to their documents, so the process is pretty easy from that perspective," Meyers added.

Implementing the Solution

Garrett Conrad, a Project Engineer with S+B James Construction, worked with one of the firm's carpenters to install the wall.

Containing the linear accelerator called for approximately 45 linear feet of FireblockWall, which Conrad estimates took three days to complete, including the finishing touches.

"Next time, it will probably only take two days," Conrad said. "Training went well and was completed about a week before the installation. When it came time for installation, we ended up also using the installation guides as a reference and, considering it was our first time working with FireblockWall, the entire process was very efficient."

Conrad thinks it would have taken at least a week longer to build a standard wall, adding to labor costs, and the end result wouldn't have looked nearly as nice. "FireblockWall has a nice, glossy finish," he said. "If you bump into it and leave a scuff, it cleans up easily. You can't do that with drywall."

Not to mention the healthcare provider, like most health systems, maintains stringent standards that must be met during construction, especially in occupied areas. Having a one-hour fire-rated temporary containment system that goes up fast and cleans easily is a game-changer for their contractors.

In addition, S+B James Construction displays high-quality printed signage at its job sites, a final touch Conrad feels finishes out very nicely with FireblockWall. "On drywall, the same signage just doesn't convey the same professional look," he added.



Garrett Conrad
Project Engineer
S+B James Construction

Challenges & Opportunities

Of course, as with any solution implemented for the first time, the linear accelerator job wasn't without a few challenges.

In a couple spots, the finished edge lifted off the wall a bit, but Conrad and a carpenter with S+B James Construction were able to finesse it so the top soffit track fit perfectly flush against the wall. In another area, the T-bar grid wasn't sitting perfectly flush with the soffit; but, once again, they were able to resolve the issue quickly.

In one case, there was an issue where two panels weren't attaching properly, but after speaking with their STARC representative, they were able to quickly swap out the panels for replacements—a benefit that underscores the importance of choosing the right business partner.

Another big benefit STARC offers, according to Project Manager Hayden Meyers, is the company's fast turnaround on fire-rated doors, frames and hardware.

"From conversation-one to on-site installed was a super-fast process—maybe four weeks," Meyers said. "With another source, it would be at least eight weeks. It goes back to that OPM approval STARC has; it really streamlines the approval steps."

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Conclusion

Replacement of the linear accelerator and related tenant improvements called for a one-hour fire-rated temporary containment system that S+B James Construction could access and install quickly, without compromising the safety or comfort of patients, caregivers and staff.

The solution selected, which S+B James Construction plans to continue using in the future, is FireblockWall from STARC Systems. This reusable temporary containment system meets four industry fire codes, including the critical certification for a one-hour fire barrier—as well as ICRA Class V guidelines. It installs four times faster than drywall, saving time and money, and it ranks as the only safe, sustainable solution on the market that can be used over and over, thanks to its unmatched performance and durability.

Equally important is STARC's role as an innovator in the temporary containment space. The U.S.-based company engineers, manufactures, and continually evolves its solutions in response to customer feedback.

For example, since the linear accelerator project commenced, STARC has followed up on the success of its FireblockWall system with the introduction of FireblockCap,[™] a ceiling that creates a fully fire-rated enclosure. This accessory eliminates the need for facility managers and contractors to build through the spaghetti above the ceiling—or construct a soffit to the deck—in order to meet code requirements during occupied renovations in healthcare settings.

When fire safety, infection control, sound attenuation, reusability and durability are compelling factors in the selection of a temporary containment system, these innovative systems warrant serious consideration.



Use FireblockCap to create a fully fire-rated enclosure

Create a fully certified and listed one-hour fire barrier “envelope” for your construction zone with FireblockCap, the simplest of three options that avoids the hassle and mess of duct work, wiring, and everything else below the deck.

STARC Systems designs and manufactures innovative temporary containment solutions that eliminate the disruption of innovation. The company's RealWall,[™] LiteBarrier[™] and FireblockWall[™] systems enable contractors, healthcare facilities and building professionals to easily install, move and reconfigure wall panels while providing quiet, dust-free solutions to their clients. By leveraging superior design and engineering, STARC offers the most durable, aesthetically pleasing and easiest-to-use containment systems on the market. For more information, visit STARCSystems.com.