



CASE STUDY: CONNECTING TO CAMPUS





Moving back to campus

A major university's off-site library and archives had been housed in a converted warehouse on the far outskirts of the city since the mid-1990s, and the building began approaching capacity in the early 2000s. After exploring various options for leasing, renting, or purchasing a new facility, the planning team decided to build a new, purpose-built facility on campus. The goal of the new building was to maintain an optimal preservation environment for collections while also fostering a better connection between campus and the collections. The challenge was to build that facility on a relatively small footprint while still allowing for 20 years' worth of future growth.





Planning for success

The new facility is just two light-rail stops away from the bustling center of campus, and its public areas are designed to welcome researchers and students. While the on-campus location was appealing for a number of reasons, it also meant that space was limited. Because using the available space in the most efficient manner possible was of utmost importance, the design-build firm Stuart Olson contacted Spacesaver early in the design process. They decided to install Spacesaver's XTend® High-Bay Storage System, which takes full advantage of a building's vertical space.

High-bay shelving is a complex product, and a number of factors need to be considered when determining the system layout. The Spacesaver team visited campus multiple times and acted as a liaison between the design-build firm and the university employees who would be using the facility every day. "This is such a specialized product, so you need to deal with people who are the professionals," said Sean Kangas, who managed the project for Stuart Olson. "It was really helpful to be able to hire a team that's willing to come to the table and be part of the construction team. They brought their expertise forward and helped us understand what the owner wanted and ultimately what we could afford."

"My biggest thing with Spacesaver was that they were willing to come here, take the time to sit around the table with everyone, understand what our requirements were and what needed to be stored, and then come back and say, 'This is how many racks we need, and this is the optimal layout."

-Sean Kangas, Stuart Olson



Maximizing space for growing archives

While the bulk of the high-bay shelving system is devoted to library materials, one of the new facility's most anticipated features is improved access to the university's archives. The archives include the business records of the university as well as records related to student groups, staff associations, and various campus institutes. The archives were allotted four aisles in the facility, and full-time archivists will be working at the facility. "It's designed to make sure we can exercise our core functions," said the university records archivist. "That includes acquiring material, processing it, preserving it, accessing it, and making it available." He added that by the end of 2017, as the facility was nearing completion, the university's archival collection measured about 9.7 linear kilometers of printed material, analog AV material, photographs, and other records – and it was growing all the time.





Smart planning saves space

Every square inch matters when storing millions of records, and the Spacesaver team helped the university's archivists understand how smart planning could save space and allow for future growth.

The archivists had never undertaken such a large project, and they appreciated guidance. Spacesaver's consultants showed them how they could store thousands more boxes in the same amount of space by making a small adjustment to the shelving heights. "We thought we'd need a certain amount of clearance between each shelf and the boxes, but we realized that didn't give us enough space for our boxes in our aisles," said the university's digital archivist.

The Spacesaver team came to visit and showed them that a finger's clearance was enough to allow for convenient access and helped them understand how gaining just a few centimeters per shelf would multiply throughout the facility. "If you can fit it into one notch smaller that gives you three extra shelves per bay, which is an extra 20-some odd boxes per bay times 40 bays a row times 4 rows." the archivist said. "You can fit thousands more boxes. Making these little tiny adjustments just had this massive ripple effect of impact, and knowing where you can do that push and pull made a huge, huge difference."

"Making little tiny adjustments had this massive ripple effect of impact."

-Digital Archivist







Integrating with mechanical systems

Accommodating millions of books, journals, and archival records was not the design team's only concern; they also had to build a collections space that would ensure the optimal preservation environment for those materials. Keeping such a large space at a relatively constant temperature and humidity required massive mechanical systems, including air ducts, fans, heaters, and other equipment. The shelving had to fit in with the facility's mechanical systems while also providing as much shelving as possible. The Spacesaver team worked with Stuart Olson to design a high-bay shelving system that made the best use of the available space. "A lot of the building structure and mechanicals were already designed and set in place, so it was a matter of designing the system within the parameters that were given," Kangas said. "We basically said, 'This is the space we have to work within and we need racking for 3.1 million volumes and 20 years of growth,' and the Spacesaver consultants took that and ran with it."



The end result is a collections space that will not only preserve the university's archival records, books, journals, and other materials in optimal conditions for decades to come; it will also make them more accessible to the campus community and the general public. "It's a new building and a fresh start," said one of the archivists. "It's closer and more accessible so hopefully we can make ourselves better known to the community."

"This is the type of thing that only happens once every 20 or 30 years. So this is a once-in-a-career event for all of us. We have never done this before and we won't be here when it happens again."

-Digital Archivist



Start building your team

If you're considering a high-bay shelving project, contact Spacesaver early in the design process to get expert insight and space planning assistance. While this might be a once-in-a-career opportunity for you, please keep in mind that our project managers and space planners work on these projects every day. We're ready to help you think through all aspects of planning your new space.

Contact us to see how we can help.

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