THE CHALLENGE: When Wake Forest University’s Z. Smith Reynolds Library started their off-site storage project, the Library was congested with shelving and there was a lack of freedom of space that students were looking for in order to collaborate and study.

OFF-SITE STORAGE MAXIMIZED
WAKE FOREST UNIVERSITY SELECTS SPACESAVER XTEND® MOBILE HIGH BAY STORAGE TO HOUSE THEIR OFF-SITE COLLECTIONS.

“Libraries are more dynamic and social now, than the days when they may have been just a place to store books and retrieve them,” said Jim Alty, Associate Vice President of Facilities and Campus Services at Wake Forest University.

At the time, the library had a contract with a commercial off-site storage facility to handle their overflow of materials. However, they had to pay a fee anytime a book needed to be retrieved, again when the item was returned to the storage facility, and then they were also charged for storing books based on the linear foot of shelving occupied.

“That was cost prohibitive,” said Mary Beth Lock, Director of Access Services at Z. Smith Reynolds Library, “It really wasn’t a model that we could continue to use.”

In order to save on costs as they grew their off-site collection, the library decided to bring the materials that were being stored at the commercial vendor back to campus.

THE SOLUTION

The school had purchased a warehouse with approximately 50-foot high ceilings, but it had a small footprint of width and depth. Because of this area limitation, they needed a way to maximize the capacity of the space through a smart storage solution.

According to Alty, they came to the conclusion early on that XTend® Mobile High Bay Storage from Spacesaver would allow them to store greater volumes in this space than with other conventional shelving solutions.

“This is a much better solution for us,” said Lock.
The school worked with Patterson Pope, an Authorized Spacesaver Representative, as well as the project architect, Matt Takacs from ESPA Architects and Planners, to design and install a massive XTend Mobile High Bay storage system. The new storage system houses bound journals from years prior to 2000, a small number of books and archival boxes.

The XTend Mobile High Bay Storage system installed for Wake Forest University features:

- 34’ high mobile storage units
- 30 tiers of shelving
- Starting storage capacity of 155,000 volumes
- Projected capacity of 300,000 volumes
- Photo sweep and aisle entry sensors to recognize when someone is in the aisle
- Integrated guide wire: when the bays open up and give someone access to the aisle, the forklift is centered on a guide wire, which keeps it on course. This means a user cannot run off course and into the shelving system.

“This was a unique project with many different variables,” said Takacs. In order to properly install this functional off-site storage solution, modifications needed to be made to the internal structure of the warehouse.

“Books are like a sponge,” said Lock. It was critically important to control humidity and temperature, since books are very sensitive, and can become damaged or even moldy if exposed to the elements or drastic shifts in temperature.

In order to create a climate controlled building, the team essentially built a room within the existing exterior of the warehouse. “It was a room within a room,” said Takacs.

There were also structural concerns, since the existing floor was not adequate to support the weight of the mobile high bay storage. When building the new interior “room,” they
poured an additional slab of concrete on top of the existing slab to create the support needed to hold the system.

“Early collaboration proved to be the most successful and rewarding part of this project,” said Takacs.

STORAGE SOLVED

The new warehouse provides the library with the additional off-site storage capacity the campus needed in order to start repurposing existing spaces.

“We have converted the library to house more social spaces and more engaging spaces that the students are in love with,” said Alty.

The new storage system has additionally created a more efficient and user friendly experience for patrons requesting off-site materials.

There is now a mechanism built within the online library catalog that allows students and faculty to request material from this new facility. If the request is for a book, the staff quickly retrieves it from the warehouse and brings it to the library to be checked out. If the material requested is a journal, then the staff will retrieve it from the shelving, scan it into an electronic format and then send it to the patron via email. This is faster and more responsive service than the patrons were previously used to when the library was using the commercial storage vendor.

The staff involved in this project also values the expandability of the system. During the planning process, they knew they couldn’t install all of the shelving they wanted, but they planned on adding more units to this facility, and growing their off-site collection when the need for more space arose.

“With static systems you sort of just plop it all down, set it up, and it’s not relocatable, not expandable and you’re stuck with what you have,” said Alty.

The Spacesaver XTend Mobile High-Bay solution offered Wake Forest University the ability to grow their storage...
capacity when necessary, and since the time of the original installation they have already expanded the system twice to accommodate more material.

“There are other organizations on our campus that have dire archiving or storage needs that have not been met as of this time,” said Alty, “There is opportunity now to consider this system for other archival needs that would then decongest other parts of our campus for student and academic life needs.”