

# Storage

FOR ACADEMIC LIBRARIES

## 33 LINEAR MILES OF SHELVING SOLVES SPACE CONCERNS IN NEW CMU LIBRARY

When the Central Michigan University Charles V. Park library underwent a four-floor renovation and addition, over 33 linear miles of high-density mobile shelving was used to house 95-percent of the library's collection - 1.1 million volumes.

To house the combined collections, which were consolidated from several campus locations, would have required 75,000 square feet if stationary shelving were used. By utilizing high-density mobile shelving, the university was able to reduce the space needs to 45,000 square feet, which contributed to a six-million dollar savings in construction costs.

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Manager of Library Business Services

"The suggestion of mobile shelving came from our architects as a part of our design process in order to save space," states Gerry Edgar, manager of library business services for Central Michigan University. "It was a trade off. If you have less space devoted to shelving, you have more building for other things - for seating, for circulation, and all of the other necessary functions."

The renovation of the original library building, which was not structurally engineered to support the weight load resulting from the mobile system, was planned to accommodate all of the support services, study rooms, and management spaces. The new addition was dedicated to house all of the stacks needed to store the entire collection, allowing ample open space so that the library could be designed with a much simpler, aesthetic look. The resulting structure includes a beautiful multi-floor atrium with an abundance of natural light throughout the stacks.

"The idea of using compact shelving came about because of the need to reduce the floor area to a more manageable size," explained Paul



Powered mobile systems with passive safety features provide a secure environment for the open-access library at CMU.

# Solved



Scripsema of URS Corporation, the lead architect on the project. "We had no option but to find ways to to cut square footage and reduce the building costs. With this in mind, it was only natural that one of the things we would begin to seriously look at was the use of compact shelving."

Careful structural engineering went into the new building to support the additional weight load of the compacted book stacks. The load capacity was increased to 300 lbs. per square foot to support the mobile as compared to 125 to 150 for standard stacks. Even with the additional costs of structural support, the university still realized a significant cost savings by using mobile storage.

"In the final analysis, the more we read and talked to people about it, the more mobile shelving made sense. A lot of money was saved and there is still plenty of room to add to our collections."

— Pamela Grudzien,  
Head of Collection Department

With nearly the entire collection being open access to students, the mobile storage needed to provide ease of use and safety around the clock. A powered system solution was incorporated throughout the entire four-floor stack area to provide completely passive safety (Zero Force Sensor®) that is fully functional and safe with any untrained user.

"The more we read and talked to people about it, the more mobile shelving made sense," said Pamela Grudzien, head of collection department. "A lot of money was saved and there is still plenty of room to add to our collections. We were able to add a few things that weren't in the original program budget as a result of that decision."

Spacesaver shelving and mobile systems are used throughout the entire new CMU Park Library.