

- **Owner:**
The Pennsylvania State University
- **Services:**
 - Structural Design
 - Construction Administration
- **Size:**
5,700 SF
- **Construction Cost:**
\$1.42 Million
- **Year Completed:**
Design: 2020
Construction: 2021



Read More on Penn State News:
<https://news.psu.edu/story/632112/2020/09/16/academics/penn-state-mechanical-engineering-breaks-ground-innovative>

Mechanical Engineering Knowledge Lab



The Pennsylvania State University, University Park, PA

Stahl Sheaffer provided structural design and construction administration services as part of an architect-led team for the renovation of a 5,700 SF space in the basement of the Reber Building into a knowledge lab for the Penn State College of Engineering's Department of Mechanical Engineering. The Reber Building serves as Penn State's hub for the mechanical engineering department. The renovations created a new undergraduate lab experience focusing on providing hands-on opportunities to interact with the latest technology, including a makerspace with 3D printers, virtual reality learning, an autonomous vehicle lab, and lab stations for learning about turbines and battery cells.

Stahl Sheaffer worked with the design team and estimator to evaluate the cost of various retaining wall materials to select a final design that was both cost-effective and met the desired aesthetics of the final space. Concrete retaining walls, ramps, and stairs were selected to provide circulation and provide ADA accessibility for the new knowledge lab. Schematic underpinning designs were also provided as there was no information on the existing foundations in that portion of Reber Building.

As part of construction administration, Stahl Sheaffer regularly visited the site to provide revised direction as existing conditions were exposed, including a large rock outcropping under the proposed ramp. Construction was completed in 2021.

