

CENTER FOR ENGINEERING AND COMPUTATIONAL SCIENCES

NEW FACILITY, RENOVATION OR DEMOLITION AND RECONSTRUCTION

NDSU seeks to meet North Dakota's workforce needs by recruiting and educating future generations of leaders in engineering, innovation, and entrepreneurship. The College of Engineering (COE) has more than 2,500 students in 12 different programs with nearly all currently choosing to be in person. The new facility will house numerous academic areas making it more efficient and creating interdisciplinary collaboration among high-demand, ground-breaking areas, including:

- **Precision agriculture and autonomous systems**

Designing the farm of the future that will improve the efficiency of food production for a growing global population.

- **Energy stewardship**

Harnessing our abundant resources in a manner that promotes the responsible and efficient generation, conversion, distribution, and storage of power and energy.

- **Computer science, cybersecurity, and artificial intelligence**

Providing advanced technological solutions for safety and security in a world that is becoming more driven by autonomous systems and marketplaces.

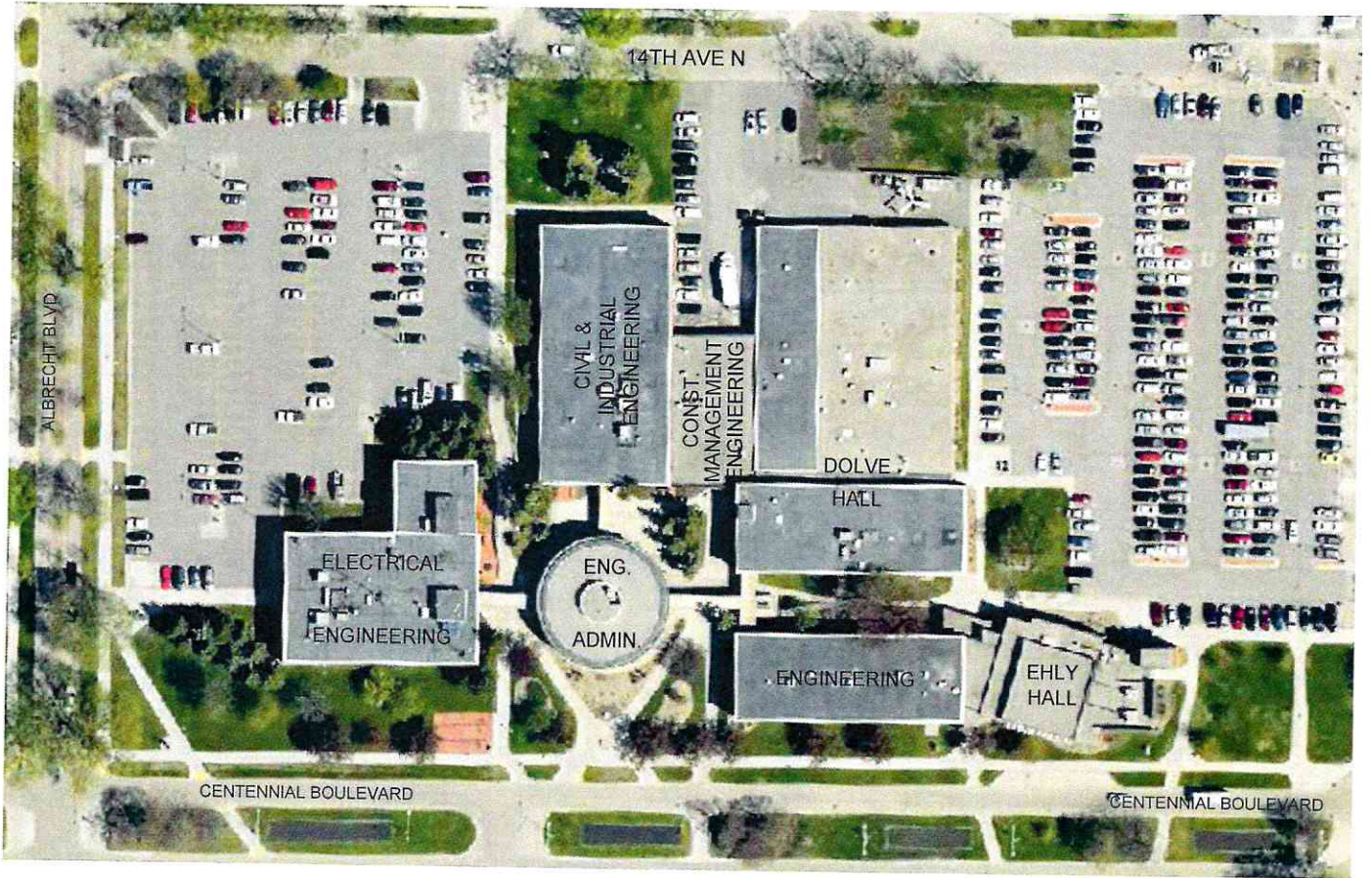
- **Entrepreneurship and commercialization of new technology**

Accelerating research to move innovative ideas from the laboratory into technology start-ups with solutions that benefit society.

The current engineering complex is comprised of seven buildings, and four of the buildings were constructed in 1965 when the engineering enrollment was approximately 300 students and virtually no research was being conducted. Since that time, only 20,000 square feet have been added, even though the enrollment and research operations have grown significantly (\$14.2 million in research awards were awarded to the COE in 2022). However, due to the space limitations, our research competes for resources needed by students. The request is to construct a new facility and to renovate some of the existing space. Engineering Administration and the Agricultural and Biosystems Engineering Building will both be demolished. Their operations will be transferred to the new facility.

An ultra-modern facility will advance NDSU's workforce and economy in multiple ways by: (1) supporting recruitment and retention of both North Dakota and out-of-state students; (2) providing a collaborative, interdisciplinary educational experience to ensure NDSU graduates field-ready engineers; (3) enabling NDSU to create high-quality, online content for new courses and programs via the facility's advanced educational and technical tools; and (4) generating even more return on investment through increased success on federal grants thanks to cutting-edge research lab space.

continued on back page...



CONCEPT A



NORTH DAKOTA STATE UNIVERSITY | ENGINEERING
16 AUGUST 2022 | 05/05 2555 01/02