FISCAL YEAR 2027
CAPITAL OUTLAY PROJECT REQUEST

Institution Name: Central Michigan University
Capital Outlay Code: TBD
Project Title: Brooks Hall Renovation
Project Focus: ✓ Academic ✓ Research ✓ Administrative/Support
Type of Project: ✓ Renovation ✓ Addition ☐ New Construction
Approximate Square Footage: 128,000
Total Estimated Cost: $45,000,000
Estimated Duration of Project: Design: 9 months; Construction: 18 months
Is the Five-Year Plan posted on the department(s) public Internet site? Yes
Is the requested project included in the Five-Year Capital Outlay Plan? Yes

1A. Project Purpose

Renovations are necessary to CMU's Brooks Hall to meet modern science and technology standards, helping to prepare students for high-demand careers that will positively impact Michigan's economy.

- Brooks Hall is the learning environment for more than 3,000 students preparing for in-demand science-related careers in fields including environmental engineering, biology and healthcare.
- Proposed updates to Brooks Hall would convert the 61-year-old facility into a safe, modern space to learn and conduct cutting-edge research for high-demand STEM fields.
- The project supports Michigan's talent enhancement and job creation efforts by producing graduates for high-demand, high-wage jobs in STEM fields.
- Modernizing research laboratories will allow CMU to consolidate research, enhancing on-campus collaboration and regional economic development.
- CMU will use strategic reserves and private fundraising to commit $15 million plus non-allowable costs to build upon an existing facility with the goal of reducing operating costs and having no impact on tuition.

Brooks Hall was constructed in 1964 as the primary location for Central Michigan University's science departments and programs. Since the building's original construction, pedagogical practices, technological developments in science, and laboratory safety standards have drastically changed and will continue to evolve. The proposed project will convert an existing, well-built 61-year-old facility into a modern, safe, energy-efficient facility that better supports effective teaching, learning, and research in high-demand fields of science and engineering.

Brooks Hall is home to several academic programs linked to growing career fields, including environmental engineering, environmental science, astronomy, meteorology, and geology. Brooks Hall provides classroom and instructional lab space for the introductory biology classes required for

students pursuing undergraduate degrees in science and health-related programs. These programs prepare students to pursue professional careers in nursing, pharmacy, physical therapy, dentistry, medicine, and many other fields. Introductory science courses in areas such as environmental sciences and biology help develop skills such as critical thinking and problem-solving, making these courses important components of CMU's general education program. Laboratories for CMU's environmental engineering, environmental sciences, meteorology, and geology research programs are also found in Brooks Hall. Graduates from all of these academic programs at CMU are fueling Michigan's economy, filling in-demand roles for industries vital to the state's future.

Brooks Hall supports more than 3,000 students who are enrolled in courses or labs during the 2025-2026 academic year, and more than 30 faculty who teach these courses. However, the building does not fully meet today's requirements for teaching, learning, or research in the sciences. It also fails to meet modern standards for energy efficiency.

To continue to serve CMU's students and to promote improved teaching and research, we must renovate Brooks Hall. The Brooks Hall renovation will address these issues by upgrading the teaching, laboratory, and advising spaces to meet the modern educational mission in these fields.

Building Overview

Brooks Hall provides key infrastructure supporting all STEM and health professions majors and is home to academic programs linked to several career fields identified for high growth and demand by the State of Michigan's Bureau of Labor Market Information and Strategic Initiatives. The current building houses several classrooms and instructional labs that serve undergraduate courses for all students, particularly the introductory courses of those students pursuing science and health careers. Several research labs in the building also serve these disciplines.

The proposed renovation will provide a home in Brooks Hall for CMU's exciting InSciTE (Integration of Science, Technology, and Engineering) certificate program. This interdisciplinary research-based cohort model of teaching and learning recruits students into the STEM fields and prepares them for high-demand careers in a rapidly evolving global economy. In addition to research with real-world applications, students receive training in critical skills needed in the STEM workforce, such as communication, collaboration, and project management. A renovated Brooks Hall will provide instructional and collaborative spaces for the InSciTE program. Retention rates for the first three cohorts of this program are significantly higher than the overall institutional first-to-second year retention rate.

The renovation also will enable the creation of a centralized Science and Engineering Student Hub, offering academic advising, tutoring, success coaching, professional development opportunities, and student meeting spaces. These proactive initiatives have a demonstrable positive impact on student retention, graduation rates, and success after graduation, based on the results from our College of Business Administration Hub.

Upgrades to the Brooks Astronomical Observatory and the greenhouse that supports the Fabiano Botanical Gardens also will enhance the university's offerings. Both facilities need infrastructure

upgrades and are included in the proposed renovation. The Brooks Astronomical Observatory, located on the roof of the building, includes a fully automated retractable dome that protects a 16-inch telescope used for courses, research, and community engagement. A greenhouse adjacent to Brooks Hall serves the needs of numerous biology courses and research initiatives while supporting the outdoor Fabiano Botanical Garden. The Fabiano Botanical Garden, in addition to being a place of outdoor learning and relaxation, is a focal point for collaboration with the Saginaw Chippewa Indian Tribe through an ethnobotanical garden. Incorporating a new and improved greenhouse in Brooks Hall will enhance academic programming and opportunities for cultural understanding.

CMU completed a space utilization study in 2021, which demonstrated that campus research laboratory space for science, technology, and engineering is insufficient. Currently, the laboratories in Brooks Hall do not adequately meet research needs, as they lack infrastructure for modern analytical tools and have insufficient storage facilities. As a result, CMU leases lab space from the Central Michigan University Research Corporation (CMURC), a separate 501(c)(3) entity located away from the academic core of the campus. The renovation of Brooks Hall will allow CMU to vacate those labs and return to Brooks Hall, which stands among other College of Science and Engineering buildings. This will enhance collaboration among CMU researchers while opening the space in CMURC for corporate partnerships and tech startup companies with great potential to enhance economic development in the region. Modern and functional laboratory space in Brooks Hall, with digital access control, will create additional research opportunities for CMU students and enhance student safety by restricting access to research facilities to those individuals who have completed the necessary safety and other specialized training.

The project also will include vital infrastructure upgrades including: heating, ventilation, and air conditioning improvements, and modernization to enhance air quality and energy efficiency. These changes in air handling and exhaust will improve indoor air quality for students, faculty, and staff learning and working in the facility.

As our state competes to attract new business, we must ensure we have a workforce with the knowledge, skills, and experience to tackle the jobs of the future. The requested renovations will enable CMU to produce Michigan's workforce of tomorrow – a workforce prepared to design and build next-generation vehicles, help society adapt to changing weather patterns, provide effective healthcare to all citizens, ensure a clean water supply, and create innovative technologies that enhance the quality of life.

CMU provides access to an affordable, hands-on education that prepares students for successful science and health-related careers *in Michigan*. Nearly 7 in 10 of our students stay in the state to work after graduation. Furthermore, The Carnegie Classification of Institutions of Higher Education recently designated CMU as the state's number one "Opportunity University," providing students both easy access to an education *and* a pathway to a well-paying career. This prestigious classification highlights several areas in which CMU excels:

- We offer one of the lowest undergraduate tuition rates compared to our Michigan peers.
- About 98 percent of our first-time, full-time undergraduate students receive a grant or scholarship.

- Nearly 95 percent of CMU students are employed or continuing their education within six months of graduation.

1B. Scope of the Project

The proposed Brooks Hall renovation will modernize the 128,000 square foot facility. The project is to include new mechanical, electrical, and plumbing infrastructure to support classrooms and modern instructional and research laboratories.

Renovation of Brooks Hall will include improved classroom and laboratory spaces for academic programs, including environmental engineering, environmental science, meteorology, astronomy, geology, and biology. Enhancements to the instructional classrooms and laboratory spaces, used by all undergraduate students, will include adjacent prep rooms to allow greater functionality and safe storage of biological and chemical teaching aids. These instructional spaces also will receive technology updates to improve teaching and learning, and will include a dedicated 50-seat computer lab space to be used by students across all majors within the College of Science and Engineering.

Career readiness, especially for fast-growing STEM careers, is a vital part of CMU's mission. The Brooks Hall renovation will support one of CMU's newest interdisciplinary programs, Integration of Science, Technology, and Engineering (InSciTE). This research-based, cohort-driven certificate program empowers students to develop the critical skills that employers seek, including interdisciplinary communication, collaboration, critical thinking, and problem-solving. InSciTE student-driven research projects address pressing real-world issues, providing opportunities for hands-on learning and skill building. Retention rates of students in the InSciTE program significantly exceeds the average rate for CMU. A dedicated, modern space for InSciTE in Brooks Hall will enable the program to expand its cohort size while providing the necessary instructional and collaborative workspaces required by the program model.

A key component of career readiness is academic success, which is also a component of the Brooks Hall renovation. The plans include a new Science and Engineering Student Hub to offer services such as academic advising, tutoring, success coaching, and career services. These proactive initiatives have been demonstrated to enhance students' academic success, improving retention and graduation rates. Career readiness also requires the ability to collaborate and work in teams; the new Science and Engineering Student Hub will include a modern, collaborative workspace for students.

Serving both instructional courses and research is the Brooks Astronomical Observatory. The renovation plan includes enhancements to the observatory, which houses a 16-inch telescope protected by a retractable dome and an adjacent open observation deck. A renovation of this space will provide students with access to hands-on training on a modern computer-controlled telescope and state-of-the art imaging cameras. This allows students to acquire skills valued in a wide range of industries, from automation to imaging in manufacturing processes. Accessibility to the observation deck will be improved through the installation of a new elevator system. Astronomy is a field that captures the public imagination and a renovated observatory at CMU will make science more accessible for all at regular public viewing events.

Another important feature of the Brooks Hall project is the replacement of a greenhouse which has outlived its service life and lacks proper environmental controls. The new design will meet current and future curricular and research needs while also adding flexible meeting and study space for broader campus use. Integrating the greenhouse in Brooks will allow for increased usage and will enhance courses and research conducted within the facility.

Laboratory renovations will support vital faculty research. This research provides hands-on, immersive experiences for students to work directly with faculty members in modern lab spaces, including a dedicated enclosed clean room environment designed to filter airborne particles of dust, microbes, chemicals, and metals to extremely low levels. A clean room will allow students to engage in research and service projects of interest to industry partners. Modernizing research laboratories and support spaces will allow for consolidation of research across multiple on-campus and off-campus spaces, providing greater opportunities for collaboration. Additionally, the renovation plan includes space for the Office of Laboratory and Field Safety, featuring a dedicated area for the safe handling of chemical waste and technology upgrades.

Additional infrastructure improvements in the project will include new exterior windows, new exterior doors at the primary entrances, elevator modernization, restroom upgrades and replacement of the electrical generator. The project includes building envelope replacements and repairs, such as roofing and masonry, as well as energy-efficient windows and exterior doors. Additionally, the project involves interior finish replacements (such as ceilings, doors, and flooring) and renovations that ensure the building meets current ADA standards and best practices vital to the student experience.

The plan includes providing modern and efficient infrastructure by replacing existing systems, including interior lighting, secondary electrical distribution, domestic piping and sanitary systems, and hydronic pumps and controls to support a new four-pipe HVAC system. Proposed additional infrastructure modernization includes installation of Direct Digital Controls; replacement of select dampers and ducts, Variable Air Ventilation (VAV) boxes, exhaust fans, heat pumps, heat exchange equipment, tanks, pumps and valves; replacement of select chilled water piping and valves, replacement of select domestic piping, valves, and equipment; and replacement of select sanitary and storm sewer piping.

CMU has historically invested in maintaining the Brooks Hall infrastructure and will continue to ensure the building meets the needs of today’s — and tomorrow’s — students. The renovation of Brooks Hall would extend the building's useful life and reduce its annual deferred maintenance needs.

1C. Program Focus of Occupants

Upon completion of the Brooks Hall renovation project, the facility will accommodate:

- Academic programs in astronomy, environmental engineering, environmental science, geology, and meteorology, as well as biology courses taken by students pursuing degrees in science and health professions, and those completing general education requirements.

- Modernized instructional classrooms, instructional laboratories, research laboratories, and support spaces to advance important activities in the academic programs listed above, with support for interdisciplinary programs, grants and contract work.
- Renovations to the Brooks Astronomical Observatory, which will improve access for students and the public to the telescope and observation deck.
- A 5,000 square foot greenhouse to replace the current structure, which is beyond its originally anticipated service life. The new design will continue to meet all current curricular and research needs and will provide modern flexible meeting and study space for broader campus use.
- Instructional and collaborative space for programs such as InSciTE.
- A centralized Science and Engineering Student Hub that will offer services including academic advising, tutoring, success coaching and career services — initiatives demonstrated to have a positive impact on student retention and graduation rates.
- Space for the Office of Laboratory and Field Safety, including a dedicated area for safe handling of chemical waste.

2. How does the project support Michigan's talent enhancement, job creation and economic growth initiatives on a local, regional, and/or statewide basis?

Jobs in STEM-related fields continue to grow, and students are increasingly interested in these programs. Science was cited as a primary area of interest by nearly 30 percent of the CMU incoming first-year class. Programs housed in Brooks Hall include astronomy, environmental engineering, environmental science, geology, and meteorology. Biology also has an essential presence in Brooks Hall that enables the teaching of foundational laboratory-based courses. The renovated spaces will keep students excited and engaged, increasing retention and enrollment in science, technology, and engineering programs. These academic programs, all located in Brooks Hall, produce graduates who go directly into high-paying positions in fast-growing fields. The following career and salary data come from the U.S. Bureau of Labor Statistics for the projected job market growth in years 2021-2031:

- Biochemist: $102,270; 15% growth
- Microbiologist: $79,260; 9% growth
- Physicists and Astronomers: $147,450; 8% growth
- Geoscientist: $83,680; 5% growth
- Environmental Scientist: $76,530; 5% growth
- Environmental Engineer: $96,820; 4% growth
- Atmospheric Scientist, including Meteorologist: $94,570; 4% growth

Furthermore, the academic programs in Brooks Hall provide the foundational science and technology courses for the following professions found on the list of Michigan's high-demand, high-wage jobs from the Bureau of Labor Market Information and Strategic Initiatives:

- Physician Assistants: $48-$62/per hour; 31.9% growth
- Medical Scientist: $29-$50/per hour; 20.2% growth
- Physical Therapists: $36-$48/per hour; 18.5% growth

The fairly recent addition of an environmental engineering program — ranked #3 in Best Engineering Jobs and #25 in Best STEM Jobs by U.S. News and World Report — will benefit from this project. The program is already producing graduates with in-demand skills, especially in water quality, waste management and sustainability. On a national level, the employment of environmental engineers is projected to grow four percent from 2021 to 2031. The growth rate in Michigan is currently outpacing the national average by about 50 percent.

As part of the university-wide, interdisciplinary focus, all undergraduate students will utilize Brooks Hall, especially those in other STEM-related fields. Therefore, the renovation of Brooks Hall will also impact students seeking careers in the following fields, which are found on the list of Michigan's high-demand, high-wage jobs from the Bureau of Labor Market Information and Strategic Initiatives:

- Data Scientists & Mathematical Science Occupations: $30-$49/per hour; 29.4% growth
- Software Developers & Quality Assurance Analysts: $37-$58/per hour; 22.8% growth
- Industrial Engineers: $36-$48/per hour; 20.4% growth
- Civil Engineers: $30-$47/per hour; 12.3% growth
- Industrial Production Managers: $39-$63/per hour; 10.1% growth
- Mechanical Engineers: $37-$49/per hour; 10.1% growth
- Electrical Engineers: $37-$58/per hour; 8.2% growth
- Computer & Information Systems Managers: $49-$78/per hour; 7.6% growth

Additionally, a new collaborative workspace for students in the InSciTE program will be included in the project. Research has consistently shown that engaged students are more likely to succeed in their studies. This has also been our experience at CMU with the Biosciences Building, whose modern design has been linked to higher academic success rates for students. This modernized and upgraded space in Brooks Hall will maximize student engagement with faculty and peers, expand active teaching and learning, and promote collaborative work. This activity is essential to preparing students for success in the professional world, while increasing performance outcomes such as retention and graduation.

A renovated Brooks Hall also will house the Science and Engineering Student Hub. This center will be a high-profile space dedicated to undergraduate student success and achievement. Services provided include academic advising, career services, internship placements and tutoring. Time spent with advisors is proven to increase retention and persistence and gives students a focused plan for timely degree completion. The Science and Engineering Student Hub will work closely with the CMU Career Development Center, which has built extensive relationships with employers across the state and supports the employment efforts of recent graduates and alumni. Employers post more than 130,000 jobs and internships a year through the university's Career Development Center. Based on CMU's most recent Career Outcomes Rate, nearly 95 percent of CMU graduates were gainfully employed, volunteering, or continuing their education within six months of graduation, and employers say they seek out CMU graduates for their knowledge, skill and work ethic.

3. How does the project support core academic, development of critical skill degrees, and/or research mission of CMU?

This project request focuses on enhancing the core academic and research missions of CMU, and the success of students in critical skills programs.

Academic Programs: The Brooks Hall renovation will provide a modern facility for students in many fields of science. Nearly 30 percent of CMU new, first-year students cite science as a primary area of interest, and nearly all undergraduate students will utilize Brooks Hall throughout their educational journey. The enhanced and modernized classrooms and laboratories will foster innovative teaching and learning in environmental engineering, environmental science, meteorology, astronomy and geology, in addition to biology.

Critical Skills and Student Success: CMU is a major contributor to meeting the State of Michigan's goals for critical skills education. During fiscal year 2024, CMU conferred 1,490 degrees to students graduating with majors in critical skills programs. Furthermore, CMU's fall term 2023 headcount enrollment included 4,025 students with authorized majors in critical skills areas and another 834 students who plan to major in critical skills fields such as biological and biomedical sciences, computer information systems, cybersecurity, engineering, engineering technology, health professions, mathematics and statistics, natural resources and conservation, physical sciences, and science technologies.

The new InSciTE undergraduate certificate program focuses on providing STEM majors with critical skills in teamwork, communication, and the development of a professional identity, preparing graduates to be proficient in working across boundaries and in their chosen field. The first three student cohorts (spring 2023, 2024, and 2025) total more than 135 students, and InSciTE is now CMU's largest undergraduate certificate program. Retention in the first three cohorts is 94 percent, which is a remarkable retention rate for any academic program. Program assessment reveals significant improvements in critical skills and a stronger sense of STEM identity as students progress through the program. We are also seeing interest in InSciTE during recruitment events for high school and transfer students. We expect InSciTE to be a flagship program that attracts STEM students from across the Midwest to CMU.

Critical skills programs tend to be some of the most intellectually challenging majors on campus, requiring significant academic advising and support to ensure we retain students in these fields. The planned renovation of Brooks Hall includes the creation of a Science and Engineering Student Hub, which will house academic advisors and provide space for tutoring and career services. In addition, space for students to study and collaborate will be incorporated in the Science and Engineering Student Hub to enhance its academic character and appeal. These features will help CMU recruit students into STEM disciplines and promote their academic success.

Research: The renovation will enhance research laboratories in environmental science and environmental engineering. These enhancements will increase opportunities for student research as well. CMU is committed to providing opportunities for undergraduate students to engage in original research with faculty mentors. In the last three years, more than 600 science and engineering

undergraduate students participated in faculty-led research projects, and nearly 100 of those students were co-authors on published scientific papers.

The proposed facility will foster greater collaboration among faculty, staff, students and community partners. Early interdisciplinary research in the classroom often burgeons into student opportunities serving around the state. Through a strong academic foundation built with faculty and peers in the courses and labs in Brooks Hall, students build advanced experiences and go on to be the next generation of scientists, engineers and health professionals.

4. Describe how the project will address, incorporate, or enhance any equity efforts, policies, or goals for the academic programs within the scope of the project or as a component of your institution and campus at large?

Renovations to Brooks Hall will contribute to CMU's vision of a university known for preparing innovators, learners and leaders who positively impact the communities they serve. The updated teaching classrooms, laboratories, and computer lab will enable our programs to remain relevant with updated curricula and technological advances. The academic programs impacted by the renovations will have space on par with other programs on campus. Currently, the computer lab space in Brooks Hall is a limiting factor. The larger computer lab will allow for the expansion of course offerings for several majors, including programs not currently housed in Brooks Hall. These renovations will impact all CMU students preparing for careers in science and health fields. Additionally, future leaders in other fields will benefit from the critical skills gained in the STEM courses taken as part of the general education program.

Spaces created for the InSciTE (Integration of Science, Technology, and Engineering) program and the Science and Engineering Hub will support all STEM students. The interdisciplinary InSciTE program focuses on real-world problems through collaboration and creative problem-solving. In the four years since the program's inception, enrollment has grown to more than 135 students and is expected to be over 200 students after the fall 2025 recruiting cycle. The new space in Brooks Hall will allow InSciTE to grow to our estimated capacity of 300, which is approximately 25 percent of the current number of declared majors in the College of Science and Engineering. The Science and Engineering Hub will bring together academic advising, career services, internship placements and tutoring resources for all STEM students, offering support throughout their degree programs. The combination of the InSciTE program and the Science and Engineering Hub will positively influence recruitment and retention of STEM students.

Updated research laboratories and space for the Office of Laboratory and Field Safety in Brooks Hall will address the need for increased laboratory safety and security. The laboratory changes will allow us to further grow our research efforts in environmental engineering, environmental science, geology, and meteorology and attract outstanding faculty and students.

5. Is the requested project focused on a single, stand-alone facility? If not, please explain.

Yes, the Brooks Hall renovation project is focused on a stand-alone facility.

6. How does the project support investment in or adaptive re-purposing of existing facilities and infrastructure?

This renovation will make Brooks Hall a showcase facility for all CMU students while keeping fiscal responsibility of finite state and university resources at the forefront of decision making.

The overall goal is to enhance the space to meet the needs of students and researchers today and in the future. The skills students attain in Brooks Hall are foundational to their academic knowledge in many fields of science. Time spent in Brooks Hall plays a critical role in helping students grow personally and intellectually as they choose a career path, often in science, medicine and other health professions.

The renovation will far better utilize the existing space. Master planning efforts identified efficiencies to be gained in this building, while also allowing for improved laboratory space with innovative technology critical for scientific research and support space for students, researchers and academic programs.

This project will revitalize a structurally sound 61-year-old building, completing the modernization of its infrastructure and support systems, and reducing annual deferred maintenance costs. This renovation will improve the environmental quality of the building and increase the energy efficiency of systems. The renovation will enhance laboratory safety, including chemical waste handling.

7. Does the project address or mitigate any current health/safety deficiencies relative to existing facilities?

Yes. A key component of the Brooks Hall renovation will be the enhancement of safety in the existing facilities. The current building was built in 1964, and laboratory spaces were built to meet that era's standards. Modern design processes will eliminate inefficiencies in the building’s mechanical systems and optimize improvements. The facility will meet increasingly stringent regulations, including those for expanded ADA compliance. Infrastructure upgrades will include all necessary environmental work.

The Brooks Hall renovation will enhance the ability to process chemical and hazardous waste more safely for disposal. Currently, this activity is carried out in the chemistry stockroom, which has a very small hood and limited bench space. A suitable dedicated room for waste processing will include space for a larger hood and more bench space and isolate activity away from current preparation and chemical storage areas, which have heavy foot traffic.

8. How does CMU measure utilization of its existing facilities, and how does it compare relative to established benchmarks for educational facilities? How does the project help to improve the utilization of existing space and infrastructure, or conversely how does current utilization support the need for additional space and infrastructure?

CMU completed a space utilization study in 2021, which demonstrated that current laboratory space for the sciences is insufficient. Brooks Hall contains four classrooms and 18 instructional laboratory spaces and is heavily utilized in courses required for science majors. Among the four buildings with lab spaces used by the College of Science and Engineering, Brooks Hall accounts for the largest proportion of semester credit hours (39 percent) and course enrollments (37 percent) in lab courses. Renovating Brooks Hall will address the need to increase and improve laboratory spaces, as well as classroom space needs for undergraduate students completing required biology classes for general education requirements and those pursuing degrees in the basic and health sciences. An updated Brooks Hall will be better equipped to engage and foster the science majors and health professionals of tomorrow.

9. How does CMU intend to integrate sustainable design principles to enhance the efficiency and operations of the facility?

The project will be built using design standards that incorporate sustainable technology and practices, ensuring proven energy and environmental improvements will be implemented across all aspects of this project's design and construction.

Primary components of sustainable design for the Brooks Hall renovation project include:

- Implementation of energy recovery, which will yield significant energy savings, as existing hoods currently operate on individual fans with 100 percent outside air.
- Upgraded controls to improve operations and occupant comfort; these enhancements will allow the ability to schedule spaces and to improve energy control.
- Upgraded lighting controls throughout the facility, including in areas such as classrooms and offices. The plan also includes new lighting controls for common spaces, such as hallways, and the addition of LED lighting in key locations throughout the building.
- Installation of high-performance glass on external windows, replacing the current single-pane windows.

It is important to note that enhanced commissioning, as described by the U.S. Green Building Council, is a standard practice for CMU. Sustainable design principles will be used in the design and construction of the project. The project will be designed and measured using the LEED Green Building Rating System, in accordance with the DTMB Capital Outlay Design Manual.

In 2020, CMU received a Gold Rating from the Sustainability Tracking, Assessment and Rating System (STARS) program, an initiative of the Association for the Advancement of Sustainability in Higher Education. CMU has a history of striving for LEED certifications. For example, CMU's Education and Human Services building is LEED Gold Certified; both Graduate Housing facilities are LEED Platinum Certified; and CMU's Biosciences, Ronan Hall (renovation), and the College of Medicine facilities are all LEED Silver Certified. Two facilities on campus have both rainwater

capture systems and solar panels. CMU will design to LEED Certification standards with the Brooks Hall renovation.

In addition, CMU has implemented additional sustainable policies and procedures on campus. The U.S Environmental Protection Agency awarded CMU the 2019 WasteWise College/University Partner of the Year Award — an award received again in 2020. The following year, CMU received the 2021 WasteWise National Narrative Sustainability Public Education Award. And, in 2022, CMU received high honors in the 2022 Campus Race to Zero Waste, taking first place for large-sized campuses in the Food Organics category, sponsored by the National Wildlife Federation. The university is active in recycling, composting, and green cleaning initiatives, led by the student-run Central Sustainability team, which is housed in the College of Science and Engineering.

10. Are matching resources currently available for the project? If yes, what is the source of the matching resources? If not, identify the intended source and the estimated timeline for securing said resources.

Yes, CMU plans to use available university strategic reserves for this project. CMU is also working to secure additional private/foundation gifts and industry partners to offset the construction costs of the renovation, which is one of the university's master plan priorities. CMU is fully committed to this project. We look forward to working with the state to provide our students with modernized facilities to enhance their opportunities for success in high-demand fields, while also fulfilling employer needs across the state.

11. If authorized for construction, the State typically provides a maximum of 75% of the total cost for university projects. Does the institution intend to commit additional resources that would reduce the State share from the amounts indicated?

CMU is requesting $30 million in state funding and will fund the additional $15 million project cost as well as all non-allowable costs associated with the project.

12. Will the completed project increase operating costs to CMU?

The proposed Brooks Hall renovation project will not increase operating costs for Central Michigan University. In fact, the project's goal is to reduce operating costs for the building through sustainable design, LEED practices, and sound engineering principles, such as energy recovery and control improvements. These operating cost savings received will help offset the impact of rising inflation.

13. What impact, if any, will the project have on tuition costs?

There will be no impact on tuition costs at CMU related to the renovation of Brooks Hall. The university currently intends to leverage strategic reserves for the institutional cost share of this project.

14. If this project is not authorized, what are the impacts to the institution and its students?

This project is essential to the continued success of CMU students, faculty, and staff who utilize Brooks Hall. The current, outdated spaces of this facility are heavily utilized, but faculty and student research are limited by the capabilities of the current facility and by the high demand for similar facilities on campus.

This space enhancement project is critically important to meet the needs of students today and in the future. Without this renovation, research and laboratory space will continue to be limited, minimizing student and faculty research. In addition, the ability to expand program offerings in the fields of environmental engineering and health-related fields will be limited, as the university is strained for the space needed to provide instructional and research opportunities.

To continue to be competitive in the higher education marketplace, CMU must evolve its facilities to attract students and provide them with high-level educational opportunities. These students are looking for state-of-the-art facilities, technology, and research opportunities that they cannot find elsewhere.

15. What alternatives to this project were considered? Why is the project preferable to those alternatives?

In December 2021, the CMU Board of Trustees approved a 10-year campus master plan and capital projects list following an extensive, campus-wide review of options and alternatives. The 10-year list was developed by a cross-campus team of faculty and staff based on input from many on-campus and community stakeholders.

The Brooks Hall renovation is a top priority on that list, based on safety needs, student demand, laboratory usage, scholarly research opportunities and state needs. Nearly 30 percent of CMU's new, first-year students cite science as a primary area of interest. This project was chosen based on high student demand and the extensive need to update the facility to meet the learning space requirements of students today and in the future.

Several other projects were considered, including the renovation of Pearce Hall, which opened in 1967. Pearce Hall serves many students in their first two years of coursework and is the home of programs such as mathematics, computer science, and world languages and cultures. While both facilities need substantial renovations, Brooks Hall was chosen due to high demand in the sciences (and programs that require a heavy science foundation), significant research opportunities currently limited by the availability and quality of laboratory space, and the job demand from employers. As such, this proposed capital outlay project will further CMU's and the State of Michigan's leadership in the sciences.