

Funding to Support LEED Certification at the New Science and Health Science Building

Primary Proposal Contact(s)

Lily Strehlow, Sustainability Specialist

Collaboration

- Brian Drollinger, Director of Risk Management, Safety, and Sustainability
- Mike Carney, Committee Chair, Associate Vice Chancellor
- Kristin Anderson, DFDM Project Manager
- Cathy Weiss, UW System Representative
- Amber Anderson, Mayo Clinic Health System
- Tim Nelson, Mayo Clinic Health System
- Grace Crickette, Vice Chancellor for Finance & Administration
- Troy Terhark, Director of Facilities
- Renee Strehlau, Associate Director of Facilities and Sustainability Coordinator
- Andrew Nord, Facilities Construction Project Manager
- Kent Gerberich, Director of Learning and Technology Services
- Derek Gingerich, Associate Professor, Biology
- Jamie Lyman-Gingerich, Associate Professor, Biology
- Jenny Dahl, Associate Professor, Chemistry
- Ezra Zeitler, Chair, Professor, Geography & Anthropology
- Brian Mahoney, Professor, Geology
- Laura Suppes, Assistant Professor, Public Health & Environmental Studies
- Marc McEllistrem, Professor, Materials Science & Biomedical Engineering
- Erik Hendrickson, Chair, Physics/Astronomy
- Rakib Islam, Assistant Professor, Computer Science
- Meg Lagunas, Assistant Professor, Director of Clinical Learning Center, Nursing
- Doug Matthews, Professor, Psychology/Neuroscience
- Maddie Loeffler, Alumni
- Aidan Voon, Student Senate Rep.

Project Abstract

UW-Eau Claire will be constructing a new Science and Health Science building to replace the existing Phillips Hall Science Building, which was constructed in 1963. The UW System included a \$235.5 million request to complete the planning and construction of the new building and the demolition of Phillips Science Hall in their most recent budget request. The State legislature will consider the request when planning for the 2023-2025 Biennial budget, beginning in January 2023.

UW-Eau Claire is committed to achieving Leadership in Energy and Design (LEED) Certification for the new Science and Health Science building. Achieving LEED Certification requires sustainable features are included in the building design (pre-construction). These features can be incorporated into future courses focused on sustainability.

To ensure the sustainability features chosen for the finalized design will meet LEED certification standards, The Administrative Office of Sustainability is proposing to allocate \$217,555 to hire the architect and engineering firm Potter Lawson to incorporate the right combination of sustainability features to achieve certification. This must take place now, during the creation of the final building design. In future fiscal years the Administrative Office of Sustainability will propose follow-up legislation requesting another \$50,000 to support the commissioning agent responsible for the certification process post construction. For a list of the current potential and prioritized sustainability options please see appendix C "sustainable Strategies" in the [Pre-Design Report](#).

Narrative

Sustainability Area(s) Addressed

The sustainability areas addressed include:

- Addressing climate change & sustainability as outlined in the UW-Eau Claire Strategic Plan
- Creating a state-of-the art learning facility where students can experience sustainability through their built environment and through classroom learning, simultaneously

The LEED Certification program, created by the US Green Building Council, is a leader in building for the environment. LEED assesses building design and construction in terms of energy efficiency, water usage, air quality, and choice of building materials as well as environmental factors such as access to public transportation and responsible land use. Commissioning through the LEED certification process establishes the building operating conditions and parameters, driving quality assurance, and ensuring the design and construction meet our sustainability goals.

LEED building credit breakdown:

- 35% of the credits in LEED are related to climate change
- 20% of the credits directly impact human health
- 15% of the credits impact water resources
- 10% of the credits affect biodiversity
- 10% of the credits relate to the green economy
- 5% of the credits impact community
- 5% of the credits impact natural resources.

The innovative combination of sustainability features the new Science and Health Science Building is required to include in order achieve LEED certification ensures UW-Eau Claire continues to combat climate change in multiple, compounding ways. We will simultaneously be working towards our commitment of achieving carbon neutrality by 2050, providing a facility which facilitates hands-on learning, and teaching the subjects imperative to solving climate change.

To elaborate, once construction and LEED certification has been completed, the features included in the Science and Health Science building will provide opportunities for student to examine sustainability hands on, weather that be through air quality monitoring, solar panel data tracking, or any of the other potential sustainability features included in the pre-design sustainability features matrix.

The Pre-Design report executive summary provides more details on the context and goals of sustainability within the New Science Building: "The Project will be designed to comply with DFD Sustainability Guidelines going into effect in October 2021 and will include additional sustainable design strategies to be determined by UWEC in future design phases. Various ideas are under consideration for bundling into the most impactful overall strategy while maintaining a balance with other competing considerations to keep the overall project in line with the proposed budget. Sustainability is a guiding principle for UWEC, and a key part of its strategic plan. The Project may pursue LEED Certification if UWEC chooses to do so with their funds, but Certification will not be provided using DFD project funds....

The greatest cost of owning State facilities over their lifetime is the cost of energy to heat, cool, light and operate them. The goals of this project are to:

- a. Achieve the highest energy efficiency and lowest energy consumption that life-cycle costing will justify
- b. Incorporate the most energy-efficient materials, products, equipment and systems consistent with Program and budget

- c. Incorporate renewable energy technologies at the earliest possible stages of design whenever they are technically and economically feasible
- d. Consider the impact on the utility infrastructure of the existing facility
- e. Select environmentally responsible materials and products with reduced maintenance required”

Sustainability Outcomes

Sustainability is valuing the interdependence of our economic, environmental, and social systems. Please explain how your project addresses these three components of sustainability.

1. Economic Responsibilities

This project will provide a significant benefit to our students and university in terms of meeting one of our strategic goals of sustainability. The majority of funding for the new Science and Health Science building is provided by the State of Wisconsin and will provide a significant economic benefit for the university, and our wider community. The ability to have high-quality science and laboratory facilities will enhance student recruitment and retention, which is vital to the university’s economic health. This project also protects precious natural resources and ensures a sustainable future for the university and students.

2. Environmental Responsibilities

It was identified early that sustainability is one of the guiding principles critical to the campus strategic plan and the success of the new Science and Health Science building. The LEED certification program is the leading international program for sustainable building design and construction. Attaining LEED certification demonstrates environmentally responsible building practices and provides proof that the building is performing as advertised by the vendors selected to construct it.

Sustainable Strategies for the new Science and Health Science building are not finalized yet, since the final building design is being completed. This funding is key to ensuring that the architect and engineering firm Potter Lawson can incorporate the correct combination of sustainability features required for LEED certification into building design. The certification itself will confirm that the building has achieved high environmental standards, which is particularly difficult for laboratory buildings. For a list of the potential sustainability options please see appendix C “sustainable Strategies” in the [Pre-Design Report](#).

3. Social Responsibilities

Term: Fall, 2022

This project is anchored in the University's mission and long tradition of providing integrated and experiential learning and undergraduate research opportunities for its students. It will enable the University's future vision to provide nationally recognized learning and research in service to health and human wellbeing.

The strategic goals for the building are designed to foster collaboration across the sciences by organizing the building in a manner that creates opportunities for interactions and the collision of ideas across disciplines, breaking down traditional siloed departmental arrangements. Science will be visibly on display throughout the building thanks to the requirements of LEED. The lower floors especially are designed to house the higher through-put classes where more students, visitors, and collaborative community partners will have access to see, observe, inquire, and engage with the science applied throughout the building itself.

Project Timeline

The timeline for this building is detailed below. Currently the second half of funding has been sent to the Wisconsin legislature as part of the UW System budget request. The legislature will consider the budget beginning in January 2023, determining funds for the 2023-2025 state biennial budget.

The science building is moving from its pre-design phase, when feedback was collected, and an ideal science building created, to the finalized design. This will require determining which features to keep and which features to cut in order to remain within the proposed budget. Hiring the architect and engineering firm Potter Lawson now will ensure that core requirements for LEED Certification remain in the design plans during this process.

Spring 2021	Pre-Design
Summer 2022	Early Site Demolition
Fall 2022	Full Design
Spring 2023	Full Bidding Documents
Winterim 2024	Construction Begins
Spring 2026	Construction Ends
Fall 2026	Building Opens

Term: Fall, 2022

Assessment

This project will be assessed by a trained LEED commissioning agent, who will verify the construction and operations of the new Science and Health Science Building meets LEED or higher standards. The LEED certification process is extensive and will help guarantee quality construction and subsequent indoor learning environment for students.

Maintenance

All buildings require maintenance. UW-Eau Claire's facilities team will take over the care of the building once it is completed. Depending on the sustainability features incorporated into the building, the new Science and Health Science Building may require lower maintenance needs due to better internal sensing and notification systems when compared to older campus buildings.

Communication

There are consistent and pervasive communication efforts surrounding the new Science and Health science building on campus. Sustainability has been a component of each stage of this process and will continue to be central to the narrative of the science building. Once the final design is complete a new sub-page on the sustainability website will be created detailing the exact sustainability features selected, which will be updated once the building is complete with the level of LEED certification achieved. The new sustainability newsletter will also include a description of these finalized features. Additionally, students utilizing the building will see the LEED seal at the entrance and other sustainability messaging as they move throughout the building.

Project Budget

Current Budget:

Cost	Purpose
\$109,000,000	Phase 1
\$235,500,000	Phase 2: Completing the planning and construction of the new building and the demolition of Phillips Science Hall
13,700,000 (Donation)	For the Mayo Health Clinic 10,000 Sq. ft. research space housed within the new Science and Health Science building

Request to SOS:

Cost	Purpose
\$217,555	Architect and Engineer Fees - Potter Lawson Team

Please note, the Administrative Office of Sustainability will propose follow-up legislation requesting another \$50,000 to support the commissioning agent responsible for the certification process post construction.

Additionally, WELL Certification will be sought for this building. The Administrative Office of Sustainability and other campus stakeholders will utilize this building to learn the process of collecting and providing the required paperwork for WELL Certification, instead of working through a contractor. Building this body of knowledge among staff will facilitate future WELL certifications on other campus buildings.