



MICHIGAN STATE UNIVERSITY
BOARD OF TRUSTEES
Executive Action Summary

Committee Name: Budget and Finance

Date: October 27, 2023

Agenda Item: Authorization to Proceed – Greenhouses Renovation and Addition – Research Expansion and Learning

Information

Review

Action

Resolution:

BE IT RESOLVED, that the Board of Trustees of Michigan State University hereby authorizes the Administration to proceed with the project titled “Greenhouses Renovation and Addition – Research Expansion and Learning.”

Recommendation:

The Trustee Committee on Budget and Finance recommends that the Board of Trustees authorize the Administration to proceed with the Greenhouses Renovation and Addition with a project budget of \$35 million.

Prior Action by BOT: The Board authorized planning for this project on September 9, 2022.

Responsible Officers: Daniel Bollman, Vice President for Strategic Infrastructure Planning and Facilities
Barbara Kranz, Assistant Provost, Institutional Space Planning and Management

Summary: The project would upgrade the Plant Sciences Greenhouses through renovations and additions that include state-of-the-art environmental controls and LED lighting configured to respond to varying external climate conditions, and new headhouse. The upgraded and new greenhouses would have the ability to conduct controlled, replicated experiments regardless of the season and under a variety of growth, environmental, and stress conditions. The new headhouse provides administrative space for greenhouse staff, centralized environmental controls, utilities and water systems, and facilities for plant rearing, harvesting and analysis integral to the operations of the greenhouses.

The Construction Manager is Clark Construction. The design firm is HED. Construction is expected to commence in May 2024 with phased occupancy March 2025 through December 2026.

Background Information:

The Plant Sciences Greenhouses serve more than 70 faculty and 600 students, with more than 250 grants from federal agencies and more than \$30 million in annual research funding. Additionally, the greenhouses are important to MSU's participation in the Great Lakes Bioenergy Research Center, which has attracted more than \$160 million in funding since 2007. The greenhouses are critical facilities to maintain and advance MSU's leadership in the plant sciences, which comprise three colleges, nine departments, and more than 150 faculty, including many members of the National Academy of Science, University Distinguished Professors and Foundation Professors.

Two thirds of the greenhouses were built between 1955 and 1978 and lack the modern controlled environments necessary to perform year-round research in specialized conditions. Improved facilities are critical to recruiting and retaining top faculty and will expand research and funding opportunities for researchers now restricted to laboratory settings, accelerating the translation of new discoveries.

The greenhouses are at Farm Lane and Wilson Road within the East Lansing campus' central academic district.

Source of Funds:

The project would be funded by the below sources and may include debt financing:

- State of Michigan capital outlay appropriation (\$23 million of \$53 million) authorized by P.A. 166 of 2022
- Provost and Vice President for Academic Affairs
- Infrastructure Reserve
- Vice President for Research and Innovation
- AgBioResearch
- College of Agriculture and Natural Resources
- College of Natural Science
- Greenhouse user fees

Resource Impact:

The expanded footprint would result in additional building maintenance, custodial and utility costs. However, the project also will retire infrastructure that has exceeded its useful life and requires significant capital renewal.



Authorization to Proceed Greenhouse Renovation and Addition

Renovated greenhouses would provide modern plant science research and educational space, supporting continued top-ranking in Plant Sciences.



REASON FOR PROJECT

Renovation and expansion of the Plant Science Greenhouse range is critical to MSU maintaining and building on its strength and status as a world leader in plant science research. New and updated state-of-the-art plant science research facilities will allow MSU to have a major impact on Michigan agriculture and feeding the world in the 21st century. The outcome of this investment will enable Michigan State University to retain the very best faculty and students and expand world-leading research in crop yield improvement and resistance to a variety of stresses including pests, drought, floods, and low nutrient levels.

PROJECT BACKGROUND

- The greenhouses would be upgraded through renovations and additions that include state-of-the-art environmental controls and LED lighting configured to respond to varying external climate conditions.
- The greenhouses would allow controlled, replicated experiments regardless of the season and under a variety of growth, environmental, and stress conditions.

POINTS FOR CONSIDERATION

- Two thirds of the greenhouses were built between 1955 and 1978 and lack the modern controlled environments necessary to perform year-round research in specialized conditions.
- The Plant Sciences Greenhouses serve more than 70 faculty and 600 students, with more than 250 grants from federal agencies and more than \$30 million in annual research funding.
- They also are important to MSU's participation in the Great Lakes Bioenergy Research Center, which has attracted more than \$160 million in funding since 2007.



Authorization to Proceed Greenhouse Renovation and Addition

FUNDING PLAN

Funds would come from state of Michigan appropriation, university resources including greenhouse user fees and may include debt financing.

AUTHORIZATION TO PROCEED

Greenhouses – Renovation of Existing and Addition



AUTHORIZATION TO PROCEED

Greenhouses – Renovation of Existing and Addition

