



Project Description and Scope:

This project will complete specific repairs and upgrades necessary for the operation of Upham Hall Greenhouse. Items to be repaired include (1) replacement of swamp coolers, (2) replacement of energy curtains and shade covering, (3) provide an assessment of the glass glazing, (4) replace the worn horizontal air circulation and exhaust fans, (5) replace existing environmental controllers and operating computer software.

Project Justification:

Construction of Upham Hall Greenhouse was completed in 1980 and many items have broken due to normal aging or become non-functional. Repair and upgrade of the mentioned items will result in improved efficiency, energy savings and teaching effectiveness. For example, the swamp cooler units are non-functional and non-repairable. Replacement parts are hard to come by and now the pans are rotting out to the point of not holding water. These units have reached the end of life.

The system that controls the energy curtains (2) is broken, preventing operation of the system. Replacement of this system will allow us to reduce energy consumption by 40 to 60%. We believe the greenhouse glass (3) is still functional, but a professional assessment should be completed to verify this. The horizontal air circulation and exhaust fans (4) in the greenhouse are worn and inefficient. Replacement of these fans will reduce energy consumption and improve temperature control. (5) is necessary as the original equipment is inefficient to operate and past its useful life.

Issues/Concerns:

None at this time

Estimated Project Costs:

Construction	\$120,000
Design Fees	\$12,000
Management Fees	\$6,000
Contingency	\$12,000
Equipment	\$0.00
Other	\$0.00
Total Project:	\$150,000

Operating Budget Impact:

Custodial Staff
Maintenance Staff/Expenses
Utility
Other

Annual Operational Impact:

Funding:

General Fund Supported Borrowing
Program Revenue Supported Borrowing
Building Trust Funds
Gifts and Grants
Program Revenue Cash
Total:

Proposed Timeline:

State Enumeration:	
A/E Selection:	
35% Design Report:	December 2022
Bid Date:	June 2023
Substantial Completion:	August 2023
Occupancy:	