

## **Old Main HVAC Controls Modifications & Repairs**

### **Recommendation**

It is recommended that the Board of Governors authorize the President, or his designee, to award contracts to make various improvements to Old Main building controls for a project cost not to exceed \$2,200,000. Funding will be provided from the University Deferred Maintenance fund.

### **Background and Project Description**

Old Main, built in stages between 1896 and 1937 and located on Cass and Warren Avenues, houses the largest number of general purpose classrooms on campus. In 1996 an addition was constructed for music performance spaces and an art gallery. An independent chiller and boiler plant serve the building. Controls for the facility consist of multiple ad-hoc pneumatic and digital systems projects, installed during phased changes over decades. Pneumatic systems are reliant on air compressors and a complex system of tubing, connected to controls that are sensitive and prone to failure. Pneumatic systems do not provide high levels of control required of modern and sustainable HVAC systems. Digital systems have limited manufacturer support life and require upgrading after notice of phase-out support. Failures of these systems are unrepairable, and elevate building vulnerability. Limited control of these systems affects student and department comfort. Humidity control adversely affects musical instruments and fine art housed in the facility.

This project will replace pneumatic components of fan control units with digital devices, offering more control reliability and monitoring within the University Building Automation Command Center. Elimination of the remaining pneumatics fully transitions the building to a digitally controlled facility. Digital devices no longer supported by the manufacturer will be replaced with the campus standard automation controllers. The proposed improvements to Old Main will provide synchronized control, energy savings and a monitored digital control system for the heating and cooling systems.

All contracts for this project will be awarded in accordance with University policies and procedures, and with a focus on sustainability. If approved, the project would be completed in the spring of 2019.

**Project Budget**

<b>Funding Sources</b>		<b>Balance of Reserve Account</b>
Deferred Maintenance	\$2,200,000	
<b>TOTAL Sources</b>	<b>\$2,200,000</b>	
<b>Expenditures Plan</b>		
Design Fees	\$243,000	
Construction	\$1,691,000	
Project Management	\$66,000	
Contingency	\$200,000	
<b>TOTAL Expenditures</b>	<b>\$2,200,000</b>	