


# MICHIGAN STATE UNIVERSITY

October 30, 2020

**APPROVED**  
**OCTOBER 30, 2020**  
**BOARD OF TRUSTEES**  
**MICHIGAN STATE UNIVERSITY**

## MEMORANDUM

**To:** Committee on Budget and Finance

**From:** Daniel J. Bollman   
Vice President for Strategic Infrastructure Planning and Facilities

**Subject:** **Project Approval - Authorization to Proceed**  
Veterinary Medical Center HVAC Replacement and Programmatic Renovations

### RECOMMENDATION

The Trustee Committee on Budget and Finance recommends that the Board of Trustees authorize the Administration to proceed with capital renewal and programmatic improvements at the Veterinary Medical Center.

### RESOLUTION

BE IT RESOLVED, that the Board of Trustees of Michigan State University hereby authorizes the Administration to proceed with the project entitled "Veterinary Medical Center HVAC Replacement and Programmatic Renovations" with a total budget of \$10,600,000.

### BACKGROUND

The Veterinary Medical Center (VMC) D-wing houses the small animal veterinary teaching hospital. The teaching hospital is critical for professional students in the clinical phase of their DVM degree, and for nursing students in the veterinary nursing program to complete clinical competencies. Those teaching activities are integral for students to meet AVMA-COE accreditation requirements for graduation.

The HVAC units, HVAC-1 and HVAC-21, are the original units dating back to the hospital's opening in 1965 and are beyond their useful life. Replacing these original units and upgrading to current standards is essential as the existing system is at risk of terminal failure. The scope and complexity of the HVAC replacement coupled with the required continued operation of the clinical teaching and service operations requires a phased approach. The phasing will vacate and shut down certain areas of the teaching hospital over a period of approximately 18 months. This anticipated disruption provided an opportunity to develop a coordinated programmatic improvement that will bring the teaching hospital to 21<sup>st</sup> century standards, improving the health and safety for all stakeholders and enhancing the educational experience. The teaching



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hospital has received limited improvements since it opened. The coordination also provides efficiencies in the design and construction and eliminates future programmatic disruption and associated costs.

**Description of Project:**

The Veterinary Medical Center is on Wilson Road in the central academic district. The project includes a new mechanical penthouse with new air handling unit, new ductwork, air terminal units, chilled water and heating water piping, new ceiling and lighting. The programmatic work scope includes improving biosecurity through an external entrance for the small animal isolation unit; reconfiguration of ward areas to provide more open work space for the clinical teams that enables observation of all patients and the ability to work effectively in teams; creating a dedicated wound management room adjacent to the anesthesia area and operating rooms; and the provision of natural daylight.

The Construction Manager is Granger Construction Company. The Architect/Engineer is Peter Basso & Associates.

**Communication Feedback:**

Members of the campus community had opportunities to provide feedback during the planning phase. Any concerns they expressed have been addressed in the project design.

The Campus Infrastructure Planning Work Group supports the recommendation to proceed with the project.

As construction proceeds, the schedule will be shared with the campus community.

**Project Cost and Timetable:**

The revised budget for this Construction Management project is \$10,600,000. The project will be funded by the general fund-capital renewal and the College of Veterinary Medicine.

Construction is expected to begin in November 2020, with substantial completion expected in October 2022.

cc: Board of Trustees, S. Stanley, T. Woodruff, N. Beauchamp, N. Barr, M. Zeig, B. Quinn, D. Bollman, V. Gore, M. Haas, J. Gaboury, B. Kranz, M. McCabe, J. Mumma, J. Rayis, L. Adams, K. Oosterhoff, C. Leese, L. Senecal, B. Puschner

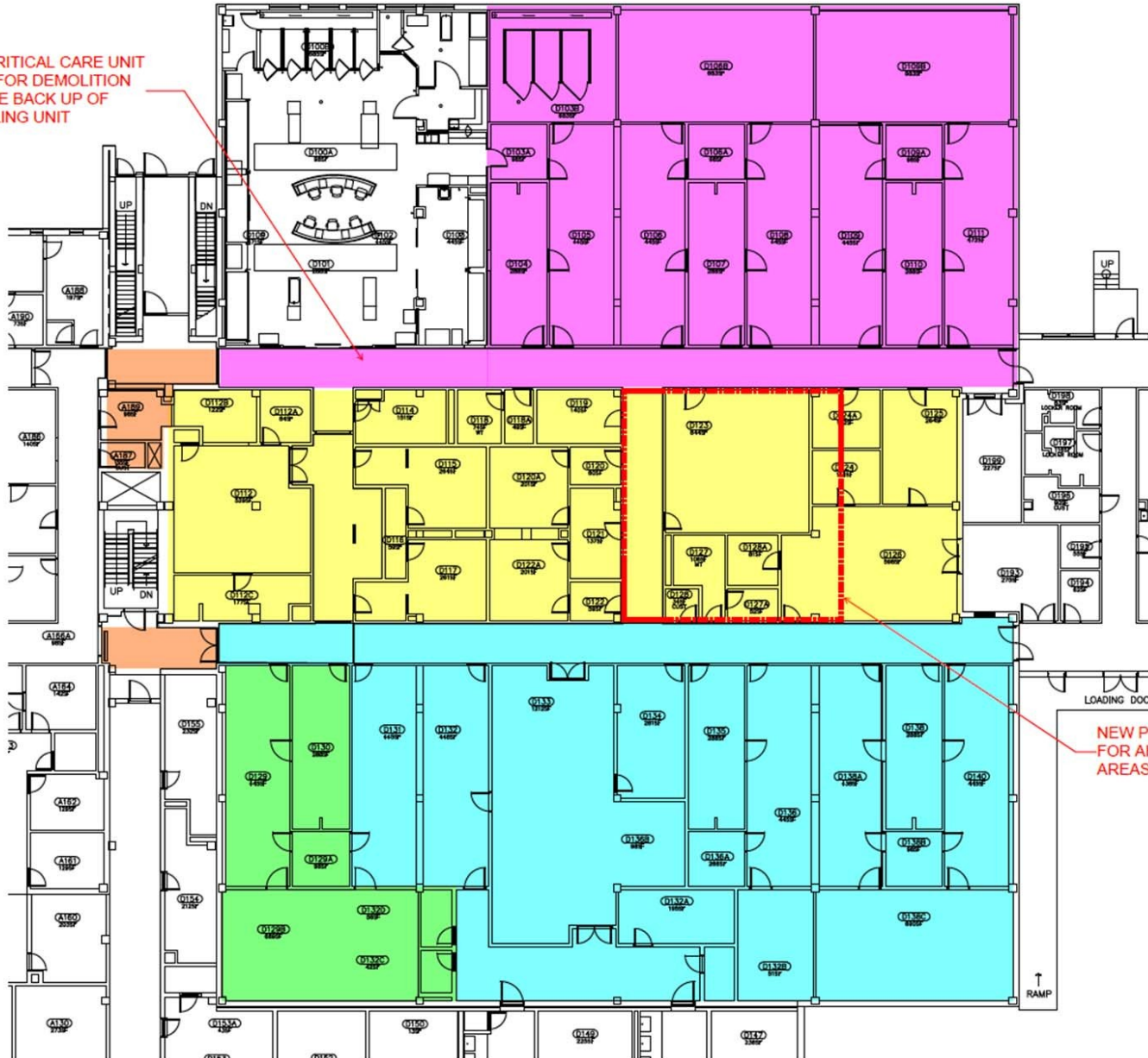
Project Approval - Authorization to Proceed  
Veterinary Medical Center HVAC Replacement and Programmatic Renovations



# Project Approval - Authorization to Proceed

## Veterinary Medical Center HVAC Replacement and Programmatic Renovations

CORRIDOR OUTSIDE OF CRITICAL CARE UNIT  
TO BE OFF HOURS WORK FOR DEMOLITION  
OF DUCTWORK & POSSIBLE BACK UP OF  
CRITICAL CARE AIR HANDLING UNIT



FIRST FLOOR AREA D

Project Approval - Authorization to Proceed  
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Existing condition of air handling units



# Project Approval - Authorization to Proceed Veterinary Medical Center HVAC Replacement and Programmatic Renovations

## Phase 0 – procedure room space – swing space



# Project Approval - Authorization to Proceed Veterinary Medical Center HVAC Replacement and Programmatic Renovations

## Phase 2 NICU



isolation



# Project Approval - Authorization to Proceed Veterinary Medical Center HVAC Replacement and Programmatic Renovations

Phase 3 ortho (phase 2 NICU similar)



# **MICHIGAN STATE UNIVERSITY**

June 12, 2017



## **MEMORANDUM**

**To:** Trustee Finance Committee

**From:** Daniel J. Bollman *Daniel J. Bollman*  
Associate Vice President for Strategic Infrastructure Planning  
and Facilities

**Subject:** **Authorization to Plan**  
2017-18 Capital Renewal Program

### **RECOMMENDATION**

The Trustee Finance Committee recommends that the Board of Trustees authorize the Administration to plan for three major maintenance projects identified through the University's capital renewal and energy conservation programs.

### **RESOLUTION**

BE IT RESOLVED, that the Board of Trustees of Michigan State University hereby authorizes the Administration to plan for three major maintenance projects identified as part of the 2017-18 Capital Renewal Program.

### **BACKGROUND**

#### **Program Need:**

Through its capital renewal program, Infrastructure Planning and Facilities (IPF) partners with campus stakeholders to identify key general fund building deficiencies that must be addressed before building failure in order to maintain functions. Through the Energy Conservation Measures (ECM) program, IPF looks for opportunities to improve energy efficiency.

The resulting maintenance and ECM opportunities are compiled and prioritized annually. The process is based on the expert judgment of those in the field; the maintenance and ECM projects are coordinated with other construction and renovation projects on campus. The most critical projects are identified each year using the following "risk-based" criteria:

- Imminence of system failure.
- Potential for human or research safety to be jeopardized.



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- Potential for disruption and the impact of the disruption.
- Probability of escalating damage to other systems or property.
- Near-term programmatic planning affecting maintenance projects already identified; opportunities for coordination and cost savings.

### **General Description of the Projects:**

The following list includes known capital renewal and ECM opportunities to be funded in the next fiscal year. As planning begins, project teams will examine options to deliver these projects as efficiently as possible, including coordination with other infrastructure and programmatic needs. The projects will return for Board action at the Authorization to Proceed and, if appropriate, Bid and Contract Award stages:

- **Dairy Research Complex - Electrical Distribution**  
Remove overhead primary electrical service lines and replace with a new underground system. This electrical service feeds the Dairy Research Complex and the Anaerobic Digester.  
(CP17091; estimate of \$1,600,000 - \$2,000,000)
- **Veterinary Medical Center - Replace HVAC-1 and HVAC-21**  
Replace HVAC-1 and HVAC-21 to improve energy conservation.  
(CP16192; estimate of \$1,650,000 - \$2,000,000)
- **Wells Hall - Replace Induction Units - Phase 2 of 2**  
Replace failing induction units in building sections C and D. This is the final phase of this project (originally a three-phase project).  
(CP17092/CP16195; estimate of \$3,500,000 - \$4,000,000)

These projects are located throughout campus, and are consistent with the Campus Land Use Master Plan.

### **Communication Plan:**

Input will be solicited from the campus community during the planning phase.

### **Preliminary Project Cost Information:**

Based on cost experience for similar projects and current pricing information, preliminary project cost estimate ranges have been developed for these three projects, and the aggregate estimated project costs are \$6,750,000-\$8,000,000. The estimated cost for each project may change as the project and its scope are refined during the planning process. Each project's cost will be presented in the request for Authorization to Proceed.

The source of funds for the projects is expected to be the general fund – Capital Renewal.

cc: Trustee Policy Committee, L. Simon, J. Youatt, S. Udpa, B. Beekman, R. Noto, V. Gore, M. Haas, J. Gaboury, G. Klein, J. Rayis, L. Adams, B. Kranz, M. McCabe, J. Mumma, J. Samuels, K. Oosterhoff

CP17043, CP17091, CP16192, CP17092/CP16195