MICHIGAN STATE
UNIVERSITY

April 6, 2011

MEMORANDUM

To: Trustee Finance Committee

From: Fred L. Poston

Subject: **Project Approval - Authorization to Proceed**
Facility for Rare Isotope Beams - Utility Relocation - Phase II

RECOMMENDATION

BE IT RESOLVED that the Trustee Finance Committee recommends that the Board of Trustees authorize the Administration to proceed with the project entitled Facility for Rare Isotope Beams - Utility Relocation - Phase II, and to approve a budget of $6,300,000.

BACKGROUND

Program Need:

Construction is scheduled to commence in 2012 on the primary building for the Facility for Rare Isotope Beams (FRIB). Prior to start of this work, the university must relocate utilities to support FRIB in a manner that manages potential timing and staging conflicts between these utility requirements and the ongoing Cyclotron High Bay construction addition.

Description of the Project:

This project is located in the central academic district, roughly bounded by the Biochemistry Building, Wharton Center, Plant and Soil Sciences, and the Cyclotron. This project includes the relocation of chilled water main distribution, electrical and communication duct banks, steam tunnels, and a natural gas main.

The Architect/Engineer is SmithGroup. The Construction Manager is Skanska.

Based on an assessment of the factors stated in the Project Planning and Approval process concerning Project Labor Agreements (PLA), the Vice President for Finance and Operations and Treasurer has determined that a PLA would not be required for this project.

OFFICE OF THE
VICE PRESIDENT FOR
FINANCE AND
OPERATIONS

Fred L. Poston
Vice President and
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Communication Feedback:
The campus community was given opportunities to provide feedback during the planning phase; concerns have been addressed in the project design.

The Office of Campus Planning and Administration has reviewed this project and found it to be consistent with the Campus Master Plan and Planning Principles. The Campus Infrastructure Planning Work Group also supports the recommendation to proceed with the project.

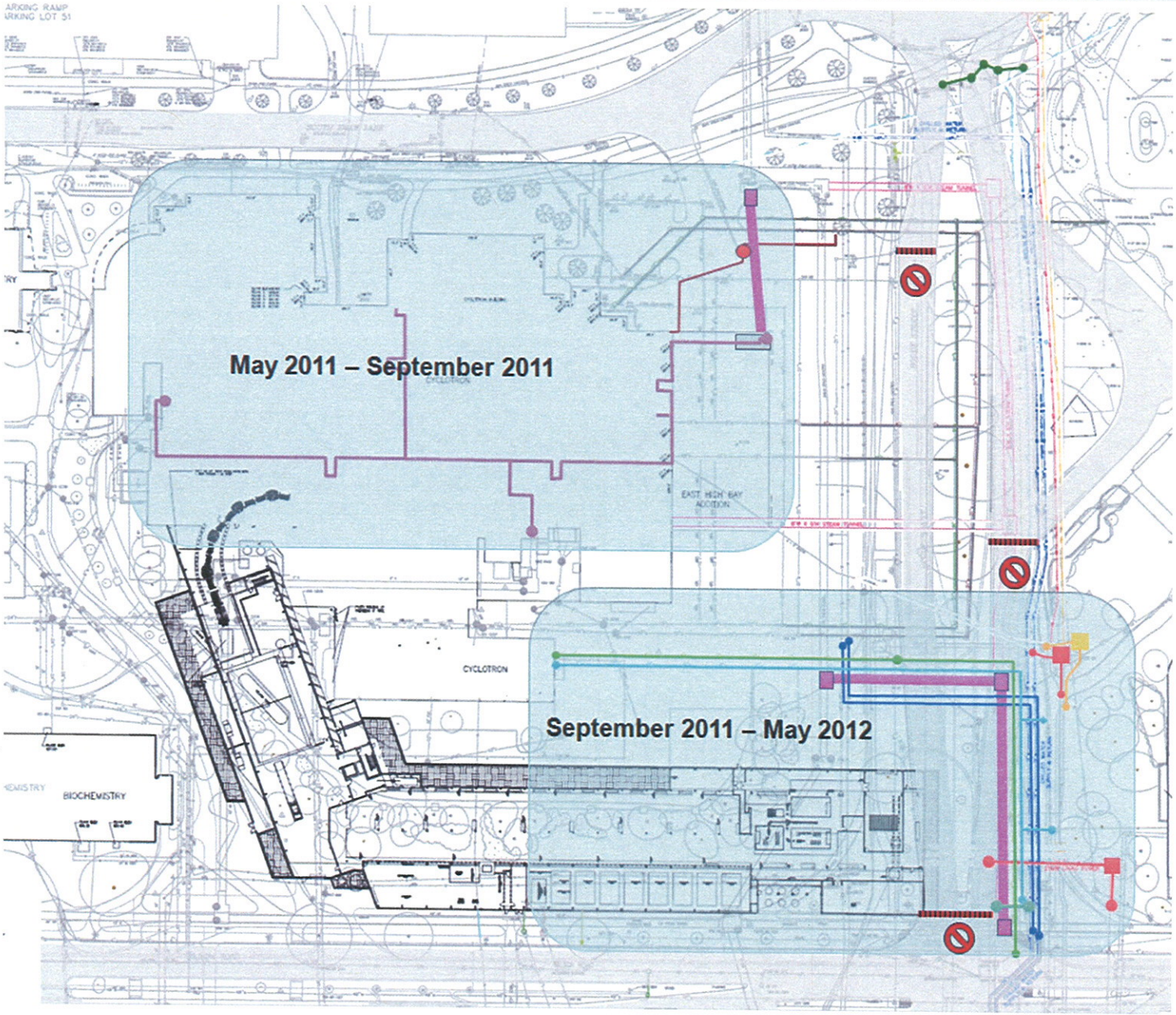
As construction proceeds, the schedule and phasing will be reviewed with the campus community.

Project Cost and Timetable:
The budget for this Construction Manager project is $6,300,000. The source of funds for this project is expected to be from FRIB project funds or tax-exempt financings with debt repayment from the general fund.

Construction for this project is planned to begin in May 2011 with substantial completion in June 2012, and a final completion in December 2012.

cc: D. Brower, R. Flinn, M. Haas, J. Kacos, G. Klein, B. Kranz, K. Lindahl, M. McCabe, J. Mumma, R. Nestle, D. Quinney, K. Gelbke, L. Adams, T. Glasmacher, C. Grubbe

CP10057/CP07493/CP09298


May 2011 – September 2011
September 2011 – May 2012
CYCLOTRON
BIOCHEMISTRY

Background Information

MICHIGAN STATE
UNIVERSITY

May 7, 2008

MEMORANDUM

APPROVED
MAY 16 2008
Board of Trustees
Michigan State University
V.P. Finance and Operations

To: Trustee Finance Committee

From: Fred L. Poston

Subject: **Authorization to Plan**
Facility for Rare Isotope Beams

RECOMMENDATION

BE IT RESOLVED that the Trustee Finance Committee recommends to the Board of Trustees that it authorize the administration to plan for the project entitled Facility for Rare Isotope Beams.

BACKGROUND

Program Need:

The National Superconducting Cyclotron Laboratory (NSCL) at MSU is the world-leading rare isotope science facility at this time. Scientists at NSCL study the interaction of atomic nuclei and the origin of the elements on earth. Discovery potential in this field of science is related to the power of the driver accelerator, which for the NSCL, is the coupled cyclotron accelerator system. The current NSCL facility is being eclipsed by a Japanese facility, which became operational in 2007, and a facility under construction in Germany. Successful attainment of funding would enable the establishment of a world-class national user facility for the next several decades on the MSU campus. The facility for rare isotope beams represents a logical progression of NSCL's scientific and research capabilities.

General Description of the Project:

The planning of this project is anticipated to support a successful application to the U.S. Department of Energy Funding Opportunity Announcement for a facility for rare isotope beams. MSU proposes to replace the coupled cyclotron driver accelerators with a linear driver accelerator (based on superconducting cavities) - the latter is about 100 times more powerful than the existing coupled cyclotrons.

The Department of Energy has issued a draft FOA (Funding Opportunity Announcement), which is based on a linear driver accelerator and the production mechanisms currently used at NSCL, in addition to a rare isotope beam reacceleration capability. MSU has started to add a 3.2 MeV reacceleration capability to NSCL, as approved by the Board of Trustees on April 18, 2008.

The Facility for Rare Isotope Beams (FRIB) will replace the cyclotron driver accelerators at NSCL with a superconducting linac accelerator, thereby making it the world's most powerful rare isotope science facility.

The Cyclotron building is located on the corner of South Shaw Lane and Bogue Street in the Central Academic District. The location of this project is consistent with the Campus Master Plan and Planning Principles.

OFFICE OF THE
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Communication and Labor Planning:
During the planning phase, the campus community will be given an opportunity to provide feedback on the project as it is being designed. The planning process will include multiple feedback opportunities. Input from the project planning team will also be solicited during the design phase. Because planning authorization is needed early to support the funding application process, it is not yet possible to assess the utility of requiring a project labor agreement for construction.

Preliminary Project Cost Information:
Based on the draft FOA issued by the Department of Energy the project funding may be up to $550,000,000. This estimate may change as planning progresses.

cc: D. Brower, R. Flinn, J. Kacos, G. Klein, W. Latta, K. Lindahl, M. McCabe, J. Mumma, R. Nestle, D. Quinney, D. Lawton, K. Gelbke

CP07493

MICHIGAN STATE
UNIVERSITY

April 7, 2010

MEMORANDUM

To: Trustee Finance Committee

From: Fred L. Poston

Subject: **Project Approval - Authorization to Proceed**
Facility for Rare Isotope Beams - Utility Relocation - Phase I

RECOMMENDATION

BE IT RESOLVED that the Trustee Finance Committee recommends that the Board of Trustees authorize the Administration to proceed with the project entitled Facility for Rare Isotope Beams - Utility Relocation - Phase I, and to approve a budget of $6,300,000.

BACKGROUND

Program Need:

The Facility for Rare Isotope Beams (FRIB) primary building facility is scheduled to commence construction in 2013. Prior to start of this work, the university must relocate utilities to support FRIB. The relocations will cross Wilson Road, Bogue Street, and the Plant Science Expansion project, which begins construction this spring. If the utility relocation is coordinated with the Plant Sciences Expansion project, MSU will eliminate construction coordination conflicts between the two projects and minimize closures of Wilson Road over the next four years, providing the least amount of disruption to campus operations.

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Description of the Project:

This project is located in the central academic district, roughly bounded by the Biochemistry Building, Wharton Center, Plant and Soil Sciences, and the Cyclotron. It coordinates the FRIB utility relocation work with the Plant Science Building construction site work and will relocate chilled water, natural gas, sanitary and storm sewers, domestic water, communication, and electrical distribution.

The Architect/Engineer is SmithGroup. The Construction Manager is The Christman Company.

Based on an assessment of the factors stated in the Project Planning and Approval process concerning project labor agreements, the Vice President for Finance and Operations has determined that a project labor agreement would not be required for this project.

Communication Feedback:
The campus community was given an opportunity to provide feedback during the planning phase. There were requests to minimize Wilson Road closure and this has been addressed in the project design.

The Office of Campus Planning and Administration has reviewed this project and found it to be consistent with the Campus Master Plan and Planning Principles. The Campus Infrastructure Planning Work Group also supports the recommendation to proceed with the project.

As construction proceeds, the schedule and phasing will be reviewed with the campus community.

Project Cost and Timetable:
The budget for this Construction Management project is $6,300,000. The source of funds for this project is expected to be from tax-exempt financings with debt repayment from the general fund.

Construction is planned to begin May 2010 and will be substantially complete by November 30, 2010, with final completion by November 2011. Wilson Road will be closed from May 15 through August 13, 2010.

cc: D. Brower, R. Flinn, J. Kacos, G. Klein, B. Kranz, K. Lindahl, M. McCabe, J. Mumma, R. Nestle, D. Quinney, K. Gelbke, L. Adams

CP10057/CP07493