**COMMISSION FOR HIGHER EDUCATION**

Friday, March 13, 2009

**DECISION ITEM B-1: Wetherill Air Handler Units Replacement at Purdue University West Lafayette**

**Staff Recommendation** That the Commission for Higher Education recommend approval to the State Budget Agency and the State Budget Committee of the project *Wetherill Air Handler Units Replacement at Purdue University West Lafayette*, as described in the project description and staff analysis dated March 4, 2009.

**Background** By statute, the Commission for Higher Education must review all projects to repair or rehabilitate buildings or facilities of a cost greater than $1,000,000 regardless of the source of funds. A project that has been approved or authorized by the General Assembly is not subject to review by the Commission for Higher Education. However, the Commission for Higher Education shall review a project approved or authorized by the General Assembly if the review is requested by the Budget Agency or the Budget Committee. This project was not authorized by the General Assembly.

This phased project will replace, as necessary, the air handler units and associated systems throughout the Wetherill building. The scope will affect 475 rooms within the building and includes the replacement of fan coil units, fume hoods, fume hood control devices, fans and general exhaust. This project also will improve the building humidity control and investigate opportunities to group fume hoods into manifold exhaust systems for heat recovery purposes. The estimated cost of this project is $12,000,000, to be funded from bonds issued for Repair and Rehabilitation as authorized by the Indiana General Assembly in P.L. 192-2006. No state funds would be spent on this project.

**Supporting Document** *Wetherill Air Handler Units Replacement at Purdue University West Lafayette*, March 4, 2009.

**Wetherill Air Handler Units Replacement at Purdue University West Lafayette**

**March 4, 2009**

# Project Description and Staff Analysis

## SUMMARY:

The Trustees of Purdue University request authorization to proceed with the *Wetherill Air Handler Units Replacement* project on the West Lafayette campus. This phased project will replace, as necessary, the air handler units and associated systems throughout the Wetherill building. The scope will affect 475 rooms within the building and includes the replacement of fan coil units, fume hoods, fume hood control devices, fans and general exhaust. This project also will improve the building humidity control and investigate opportunities to group fume hoods into manifold exhaust systems for heat recovery purposes. The estimated cost of this project is $12,000,000, to be funded from bonds issued for Repair and Rehabilitation as authorized by the Indiana General Assembly in P.L. 192-2006. No state funds would be spent on this project.

DESCRIPTION OF THE PROJECT:

The existing Grounds Maintenance Facility and Printing Services facilities are located within the area designed as Discovery Park on the south side of the West Lafayette campus. The existing facilities are old and are in an area designed by the university master plan for academic expansion. Therefore, Purdue plans to demolish the existing buildings and construct new facilities to house the Grounds Department and Printing Services.

The new facilities would be pre engineered structures and be programmed to meet current and future operational needs of the Grounds Department and Printing Services.

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| **Project Summary:** |  |  |
|  Space in Project: |  | N/A |
|  Project Cost: | $12,000,000 |  |
|  Source of Funds: | (2006) Repair and Rehabilitation Bonding  | $12,000,000 |
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PU expected to bid the project in April 2009, begin construction in June 2009 and occupy the renovated space in June 2010.

PROJECT NEED:

To a large degree the Wetherill Laboratory of Chemistry Building mechanical systems are original to the initial construction, which is from the 1930's and 1950's. The poor temperature control and lack of humidity control from the existing HVAC system could jeopardize the research and teaching goals and creates an environment conducive to mold and mildew growth. The result has been a detrimental effect on the experiments and has proven to be a hindrance in recruiting top notch faculty, educators, and researchers. After the project completion the entire building will be supplied with fresh air that meets the quantity, temperature, and humidity recommendations of ASHRAE. The air will be distributed throughout the building at temperatures that allow the continued use of most of the existing un-insulated ductwork without the risk of sweating and condensation problems. Air handling units will be reused where possible and replace only where necessary to achieve the project goals or modern code compliance.

The Wetherill Laboratory of Chemistry Building is an integral part of the University's Chemistry department and has a significant impact on the Department's research, as well as housing numerous classrooms, two large lecture halls, and offices. The main goal of the project is to provide control of the heating and air conditioning systems that is appropriate for a modern chemistry research and teaching facility. This action is in direct support of the Strategic Plan and Mission of the University.

RELATIONSHIP TO MISSION AND LONG RANGE PLANNING:

Completion of this project will facilitate future laboratory renovations and provide better indoor air quality to help keep research results accurate and building occupants healthy.

#### STAFF ANALYSIS:

1. No state funds are used for the construction project. However, mandatory student fees are used in part to repay the debt issued to fund this project.
2. The Wetherill Laboratory of Chemistry was largely constructed between 1930 and 1950. Most of the original mechanical systems are still in place and the poor quality HVAC system is detrimental to quality research and teaching.
3. Purdue University is funding this project through a $60,000,000 bonding authorization from the 2006 General Assembly for repair and rehabilitation. The debt is repaid through a combination of a mandatory student R&R fee assessed all Purdue students beginning in the fall of 2007. Purdue also uses internal departmental funds and indirect cost recovery to repay the debt. No state funds are received from Purdue to repay the debt.
4. The R&R bonding authority was requested by Purdue and was granted by the 2006 General Assembly in a non-budget year. The Commission did not take a formal position on the policy. Purdue came forward with the plan because of recognition that Purdue was accumulating a backlog of deferred maintenance on campus that could not be funded through the state’s R&R formula. The state’s R&R formula has not been fully funded for several biennia.
5. With the funding of this project, Purdue will have spent approximately $53,000,000 of their $60,000,000 authorization. Staff has engaged Purdue University to enter a discussion about whether this policy has worked for Purdue, whether Purdue will come back for more authorization at a later date, and whether this is a reasonable model for other institutions.