January 23, 2009

CHAIR OF THE BOARD
CHAIR OF THE COMMITTEE ON GROUNDS AND BUILDINGS
PRESIDENT OF THE UNIVERSITY

ACTION BY CONCURRENCE – AMENDMENT OF THE BUDGET FOR CAPITAL
IMPROVEMENTS AND THE CAPITAL IMPROVEMENT PROGRAM AND
APPROVAL OF EXTERNAL FINANCING, CHILLED WATER SYSTEM
IMPROVEMENTS PHASE 7B, DAVIS CAMPUS

EXECUTIVE SUMMARY

Campus: Davis
Project: Chilled Water System Improvements Phase 7B
Actions: Approval of project budget for $11,925,000
Total Project Cost: $11,925,000 to be funded from external financing
Previous Actions: None

Project Summary: The Davis campus requests project approval for the Chilled Water System Improvements Phase 7B. This project extends the chilled water and steam distribution infrastructure to serve buildings in the north east core of campus and provides chilled water and steam to buildings currently in design and under construction.

Issues:
- Critical timing needs require the campus to move forward with this project.
It is recommended that:

**Pursuant to Standing Order 100.4(q)**

(1) The President, subject to concurrence of the Chair of the Board, and the Chair of the Committee on Grounds and Buildings, amend the 2008-09 Budget for Capital Improvements and the Capital Improvement Program to include the following project:

   Davis: Chilled Water System Improvements Phase 7B - preliminary plans, working drawings, and construction -- $11,925,000 to be funded from external financing.

**Pursuant to Standing Order 100.4(nn)**

(2) The President be authorized to obtain external financing not to exceed $11,925,000 to finance the Chilled Water System Improvements Phase 7B project, the President requires:

   a. Interest only, based on the amount drawn down, shall be paid on the outstanding balance during the construction period.

   b. As long as the debt is outstanding, the Davis campus’ share of the University Education Fund shall be maintained in amounts sufficient to pay the debt service and to meet the related requirements of the authorized financing.

   c. The general credit of the Regents shall not be pledged.

(3) The Officers of the Regents be authorized to execute all documents necessary in connection with the above.
2008-09 Budget for Capital Improvements and Capital Improvement Program
Scheduled for Regents' Allocation, Loans, Income Reserves, University Registration Fee Reserves, Gift Funds and Miscellaneous Funds

<table>
<thead>
<tr>
<th>Campus and Project Title</th>
<th>Proposed 2008-09</th>
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</thead>
<tbody>
<tr>
<td>Davis</td>
<td></td>
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<tr>
<td>Chilled Water System Improvements</td>
<td></td>
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<tr>
<td>Phase 7B</td>
<td></td>
</tr>
<tr>
<td>P</td>
<td>$534,000</td>
</tr>
<tr>
<td>W</td>
<td>$668,000</td>
</tr>
<tr>
<td>C</td>
<td>$10,723,000</td>
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<tr>
<td>($11,925,000)</td>
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</table>

**DESCRIPTION**

The Davis campus requests project approval for the Chilled Water System Improvements Phase 7B (CHW7B) project at a total cost of $11,925,000 to be funded from external financing. The CHW7B project is part of a phased strategy to provide adequate chilled water and steam distribution capacity.

**Background**

The campus has been incrementally expanding its chilled water system to provide additional cooling capacity to serve new facilities recently completed, in design, or under construction. Beyond the new capacity requirements, upgrades to the central campus chilled water loop and the steam distribution system are needed in order to: 1) continue serving the north east section of the campus; 2) address efficiency and sustainability issues; and 3) maintain the hydraulic integrity of the system.

**Project Description**

The proposed Chilled Water System Improvements Phase 7B project would provide chilled water and steam distribution capacity to serve the King Hall Renovation and Expansion project and additional buildings within the core of campus. These distribution improvements are needed to also address increased demand from various facilities as Veterinary Medicine 3A, Life Sciences Addition, Mathematical Sciences Building, Sciences Laboratory Building, Robert Mondavi Institute for Wine and Food Science, and Physical Sciences Expansion. While these facilities have appropriate service, the increase in demand resulting from new buildings coming online would adversely affect performance of older parts of the system. The Chilled Water System Improvements Phase 7B would enhance the distribution system in the core of campus to mitigate this problem.
The components of the Chilled Water System Improvements Phase 7B would include:

- extending the main chilled water distribution piping (24-inch) from the intersection of California and La Rue Streets to Parking Lot 3;
- extending the main steam distribution piping (10-inch steam, 6-inch condensate) from the intersection of California and La Rue to Parking Lot 3;
- extending the main chilled water distribution piping (24-inch) from Parking Lot 3 to Hutchison Drive; and
- replacing two main Central Heating and Cooling Plant (CHCP) distribution pumps, and correct piping deficiencies and connections to the chilled water distribution system at the CHCP.

The system improvements described above reflect the most critical campus utility needs (based on preliminary engineering analysis) and are necessary for maintaining service standards as projects currently in construction are completed and require connection to the campus chilled water and steam systems.

Construction would commence in September 2009 with completion in July 2010.

**CEQA Classification**

The campus is preparing an Initial Study tiered from the Certified 2020 Long Range Development Plan to evaluate the EIR potential environmental effects of the proposed project. The project is consistent with the campus growth projections and land use designations contained in the 2003 LRDP, and it is expected that a Mitigated Negative Declaration will be proposed for adoption. The CEQA process will conclude in January 2009 prior to the design approval for the project.

**Policy on Sustainable Practices**

This project will comply with the *University Of California Policy On Sustainable Practices*. As required by this policy, the project will adopt the principles of energy efficiency and sustainability to the fullest extent possible, consistent with budgetary constraints and regulatory and programmatic requirements.

**Financial Feasibility**

The total project cost of $11,925,000 would be funded from external financing.

Repayment of the $11,925,000 would be from the Davis campus’ share of the University Education Fund. As long as debt is outstanding, the Davis campus’ share of the University Education Fund shall be maintained in amounts sufficient to pay the debt service and to meet the related requirements of the authorized financing. The projected annual debt service payable from the Davis campus’ share of the University Education Fund would be approximately $890,000 calculated at an interest rate of 6.25 percent for 30 years.
The University Education Fund Debt Repayment Policy requires that campuses meet two financial tests: (1) that the amount of projected maximum annual debt payments payable from the campus' Education Funds shall not exceed 65 percent of the campus's total Education Funds allocated each year, and (2) that no more than 33 percent of the campus's total Education Funds allocated each year are used for debt service payment. The Davis campus meets both tests. In fiscal year 2011-12, the first full year of occupancy and principal and interest for the project, 28 percent of the campus's total Education Funds allocation would be applied to debt service. The external financing will be paid from specific revenue sources specified in the external financing documents therefore; the general credit of the Regents will not be pledged.

A summary of the financial feasibility analysis is presented in Attachment 2.

Approved:  

\[Signature\]

Richard C. Blum  
Chair of the Board of Regents  

Leslie Tang Schilling  
Chair of the Committee on Grounds and Buildings

\[Signature\]  
1/26/09

Mark G. Yudof  
President of the University  

Attachments
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Mark G. Yudof
President of the University

Attachments
### PROJECT STATISTICS
CHILLED WATER SYSTEM IMPROVEMENTS PHASE 7B
CAPITAL IMPROVEMENT BUDGET
DAVIS CAMPUS
CCC 5733

<table>
<thead>
<tr>
<th>Cost Category</th>
<th>Amount</th>
<th>% of Total</th>
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<tbody>
<tr>
<td>Site Clearance Building Exterior Utilities</td>
<td>$9,560,000</td>
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<tr>
<td>Site Development A/E Fees</td>
<td>765,000</td>
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<tr>
<td>Campus Administration</td>
<td>335,000</td>
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<tr>
<td>Surveys, Tests</td>
<td>143,000</td>
<td>1.2%</td>
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<tr>
<td>Special Items (a)</td>
<td>645,000</td>
<td>5.4%</td>
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<tr>
<td>Contingency</td>
<td>477,000</td>
<td>4.0%</td>
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<tr>
<td><strong>Total</strong></td>
<td><strong>$11,925,000</strong></td>
<td><strong>100%</strong></td>
</tr>
</tbody>
</table>

(a) Special items include as-built survey & documentation, value engineering, constructability review, agency review, independent structural & seismic review, environmental services, Capital Asset Accounting and interest during construction of $495,000 totaling $645,000.

Statistics and comparison projects are not included due to the unique nature of this project.
SUMMARY FINANCIAL FEASIBILITY ANALYSIS

Project Title: Chilled Water System Improvements Phase 7B

Total Estimated Project Cost $11,925,000

Proposed Sources of Funding
External Financing $11,925,000

Proposed Financing Terms
Interest Rate: 6.25%
Duration: 30 years

Pledged Source of Repayment

- Davis Campus Education Fund (2011-12) (1) $16,231,000
- Approved Debt Service $2,556,000
- Projected Annual Debt Service – proposed project $890,000
- Additional Concurrent Proposed Debt – GSM $1,058,000
- Total $4,504,000

Pledge Ratio 28%
Debt Service Coverage 3.6X

(1) First full year of principal and interest payments.