

**MINNESOTA STATE COLLEGES AND UNIVERSITIES
BOARD OF TRUSTEES**

Agenda Item Summary Sheet

Committee: Finance, Facilities and Technology **Date of Meeting:** March 19, 2008

Agenda Item: FY2010-2015 Capital Budget Process Design

Proposed Policy Action Approval Required by Policy Other Approvals Monitoring

Information

Cite policy requirement, or explain why item is on the Board agenda: Board Policy 6.5, Capital Program Planning, requires the Board of Trustees to establish criteria for and approve a prioritized multi-year capital budget, approve capital project priorities and guidelines, and final capital projects lists.

Scheduled Presenter(s): Allan Johnson, Associate Vice Chancellor for Facilities

Outline of Key Points/Policy Issues: Minnesota State Colleges and Universities expects to present a Fiscal Year 2010-2015 capital budget plan to the Minnesota Department of Finance, Governor and Legislature in June 2009 consistent with the state's anticipated capital bonding program for the 2010 legislative session. As part of that plan, specific capital projects recommended for design and/or construction in 2010 will be submitted for the FY2010 bonding bill. Projects recommended for the later years of FY2012 and 2014 will serve as "place holders" for future capital budgets.

Background Information: Following approval of the FY2008-2013 capital budget, the capital budget process was reviewed at the November 2007 Board meeting. Prior to that, several Board members expressed a desire to evaluate the process with an eye towards streamlining and becoming more efficient. The process was evaluated through a survey instrument sent to all college and university presidents and subsequently reviewed by the Leadership Council. In addition, discussions were held with college and university academic, administrative, finance and facilities officers. The results of these reviews are reflected in the Guidelines that are being presented for the first reading.

**BOARD OF TRUSTEES
MINNESOTA STATE COLLEGES AND UNIVERSITIES**

First Reading

BOARD ACTION

FY 2010-2015 Capital Budget Guidelines

BACKGROUND

Minnesota State Colleges and Universities expects to present a Fiscal Year 2010-2015 capital budget plan to the Minnesota Department of Finance, Governor and Legislature in June 2009 consistent with the state's anticipated capital bonding program for the 2010 legislative session. As part of that plan, specific capital projects recommended for design and/or construction in 2010 will be submitted for the FY2010 bonding bill. Projects recommended for the later years of FY2012 and 2014 will serve as "place holders" for future capital budgets.

At the time of this writing, the Legislature is still in session and has not acted on a capital bonding bill. However, colleges and universities should be planning for the FY2010-2015 capital budget assuming that the 2008 projects on the Board's approved list will have been authorized and funded prior to the 2010 legislative session.

The FY2008-2013 capital budget included a funding recommendation of \$350 million for 2008 and proposed levels of \$293 million and \$120 million for the 2010 and 2012 biennia respectively based on projects submitted and scored for the 2008 legislative session. Prioritization reflected the Board's desire to address the demonstrated facilities needs of the colleges and universities, and to preserve, maintain and modernize existing campus facilities. Important priorities included life safety and asset preservation; program enhancement, particularly in the area of science instruction; facilities revitalization or replacement; and collaborative ventures. Of the \$350 million budget in 2008, \$110 million was specifically requested for the Higher Education Asset Preservation and Replacement (HEAPR) program. The FY2008-2013 plan also featured significant follow-through funding of previously phased construction projects and new construction dollars for those projects funded for design in 2006 or earlier. Additionally, the FY2008-2013 plan included requests for land acquisition at five campuses for growth, boundary protection and program issues; acquisition of the Owatonna College and University Center as the 54th System campus; and multi-campus programs for demolition and renovation of science spaces and classrooms.

Following approval of the FY2008-2013 capital budget, the capital budget process was reviewed at the November 2007 Board meeting. Prior to that, several Board members expressed a desire to evaluate the process with an eye towards streamlining and becoming more efficient. The process was evaluated through a survey instrument sent to all college and university presidents and subsequently reviewed by the Leadership Council. In addition, discussions were held with college and university academic, administrative, finance and facilities officers. The results of these reviews are reflected in the Guidelines presented herein.

FOUNDATION OF THE CAPITAL BUDGET

The proposed FY2010-2015 capital budget will reflect the four strategic directions of the January 2006 System Strategic Plan:

- Increase access and opportunity
- Promote and measure high quality learning programs and services
- Provide programs and services integral to state and regional economic needs
- Innovate to meet current and future educational needs efficiently

Integrated academic, technology, finance and facilities plans of the institutions serve as the foundation on which capital priorities are evaluated. These plans, addressing each institution's vision for future academic and student services needs, should demonstrate facilities requirements in support of the academic mission. In addition, a fifth major criterion will be added this cycle to address the critical stewardship requirement for taking care of the state's investment in the physical assets of the colleges and universities. This fifth criterion will be called "building the sustainable campus" and will capture most of the facilities management issues addressed in prior capital budget cycles within the guidelines.

Sustainability issues and concerns have exploded on college and university campuses across the state and nation. Much of the initiative has come from students, faculty and staff as well as the general public and nearby communities. In the last three years, significant state legislation has emerged detailing a variety of environmental regulations including standards for building construction, improved physical plant systems, energy monitoring and conservation, use of renewable energy sources and reducing the carbon footprint of buildings and related operations. Several bills are advancing in both House and Senate this session as well. Since additional sources of funds have not been identified to advance most of these sustainability initiatives, each capital project, whether for new construction or renovation of existing space, must address a host of new requirements within the project budget. Each capital project must adhere to the letter and spirit of the law, embracing greater energy efficiency and providing for a healthier campus community. Further details will be provided to the Board after the legislative session.

FY2010-2015 CAPITAL BUDGET GUIDELINES

The FY2010-2015 Capital Budget Guidelines correspond to the Strategic Plan in overall tone and in the criteria used for project evaluation. These elements are highlighted below and are reflected in the grading criteria to be used by the Technical Advisory Teams. A draft project scoring instrument is at Attachment A.

1. INCREASE ACCESS AND OPPORTUNITY

- **The proposed project should demonstrate increased access and opportunity at the campus.**
- **The proposed project should connect to populations, workforce development or other areas:** Program development and related capital improvements reflecting increased access for students, particularly non-traditional students, or other means to

expand access to higher education. The project should note how campus diversity will be improved.

- **Collaboration:** Expanding access to underserved areas and creating efficiencies through joint use of facilities to support joint and/or distance delivery programs.

2. PROMOTE AND MEASURE HIGH QUALITY LEARNING PROGRAMS AND SERVICES

- **Planning components:** Effective facilities planning will improve the efficient delivery and quality of academic programs and services. Projects that have been a part of the six-year Board of Trustees capital plan, have received prior legislative recognition and/or appropriation, are included in a current campus master facilities plan, and have a completed predesign will compete favorably in the evaluation process.
- **Project must have a completed predesign** prior to submission of final documentation. Predesigned must be submitted in accordance with the published schedule in order to be evaluated by the Technical Advisory Teams.

Predesigned must include alternatives or options to the final solution. Options may include modified class scheduling, various initial cost and operational cost comparisons of building new or renovating existing space, etc.. Alternatives are imperative to confirm that the proposed capital project is the most optimum solution.

Predesigned must include specific space utilization relationships and data that directly connect the project to the Facilities Renewal and Reinvestment Model (FRRM) for backlog reduction and reinvestment. The FRRM data is a critical component of the justification and rationale for the project. (A detailed description of FRRM is contained in Attachment D.)

- **Space Utilization:** Enhanced and robust use of the learning space improves learning programs and services; and allows improved student access and increased space utilization resulting in cost savings that in turn directly benefits students.

Projects that improve the space utilization of a campus through reprogramming, creative scheduling, renovation or new square footage will be advantaged. For purposes of evaluation, only the current campus-reported space utilization information from the Integrated Student Record System (ISRS) or Resource 25 is to be used. This is actual campus space use data with percentage of utilization based on a 32 – hour week. Campuses are encouraged to use this specific occupancy and seat usage to explain why renovation or changes in the campus are required.

ASF (assignable square feet) may not be used as a benchmark, unless the campus master facilities plan or other recent study clearly describes the current situation. ASF data found in the ISRS system is not accurate (does not contain leased space, campuses have entered different net-to-gross space data, etc.). ASF will not be used as a measure of space; rather only the current space utilization data will be used. However, gross square feet per FYE (GSF/FYE) may be used as a high level benchmark. Note that technical college programs generally require large amounts of space and thus this is not as an

important benchmark as the number of classrooms or labs and how those spaces are best used in terms of number of classes and number of seats involved.

Credit Hour production per classroom or lab will continue to be used as a means to describe space utilization and justify new space. This information is found in the ISRS system, but separate from the space utilization data. (*Hourly student enrollment by campus is an ITS Management Report, Report Category: Enrollment; Enrollment Indicators: Hours by Campus. The campus will have to add the hours reported for Summer, Fall and Spring together to get one full year of credit hour production.*)

- **Facilities right-sizing:** Emphasis given to projects responding to demonstrated demographic or program growth to ensure access for educational and workforce needs. Conversely, campuses that address stable or declining demographics and programs by demolition of underutilized or obsolete square footage and target renovation of other parts of the campus for program enhancement or facilities renewal, including upgrading academic learning space and integration of technology for alternative delivery options, will also gain emphasis.

3. PROVIDE PROGRAMS AND SERVICES INTEGRAL TO STATE AND REGIONAL ECONOMIC NEEDS

- **Partnerships as a key component of the project:** Partnerships with other system institutions to pursue shared learning environments including lab and instructional space that connect facility, program and students across institutions. Additionally, partnerships with industry that leverage industry knowledge and investment in support of applied research and shared laboratory space.
- **Projects are clearly defined and rationale is compelling:** Description of academic or workforce related programs impacted; specific workforce connections; overall rationale is clear in addition to the information on backlog, reinvestment and space utilization.
- **Projects that bring private funds or other sources of funding will be favored:** Projects that include significant financial participation through use of non-state money will be recognized. However, campuses with limited outside financial resources will not be disadvantaged. Specifics of regional collaboration or partnerships should be detailed in the project narrative.
- **Economic vitality objective** involving workforce development and community partnerships is emphasized. Specifics on how a project will meet high-demand state or regional workforce and/or economic growth needs must be documented.

4. INNOVATION TO MEET CURRENT AND FUTURE EDUCATIONAL NEEDS EFFICIENTLY

- **Creation of innovative learning spaces and instructional delivery models** including construction of instructional laboratories and classrooms to support interactive technologies that transform pedagogy and the learning experience and connect faculty and students from across institutions and beyond.

- **Facilities providing flexibility to support multifunctional class sessions** made possible by technology, including interactive and engaging learning space design that promotes faculty-to-student and student-to-student collaborative learning environments.
- **Design of space that supports multiple uses and services** where students can access a full range of academic and non-academic resources.
- **Collaborations that enable flexibility, innovation and effective use of space.** Proposals demonstrate active collaboration among administrators and faculty, along with staff in facilities, registrar's office, IT, media and student services to plan new and flexible scheduling for the use of classroom and online facilities. Hybrid classes, for example, might require classrooms and labs at intermittent times during a semester or heavily at semester beginning and end. Plans for use of existing and new space should involve institution-wide discussion about course and semester schedules, ongoing versus intermittent needs for facilities and technologic tools.
- **Creates an innovative education delivery method:** Elements may be leadership in new models of learning and teaching environments; innovative curricula that are shareable through digital repositories; interactive learning technology that takes full advantage of modern research to promote active learning in collaborative virtual communities. Emphasize projects that stimulate critical thinking and growth for skill development that augments economic community development.
- **Solution is "best value for learning:"** Students receive an educational benefit proportional to the cost of the project.

5. BUILDING THE SUSTAINABLE CAMPUS

- **Planning components:** A hallmark of the sustainable campus is integrated planning. The campus master facilities plan should be current, and projects proposed should be linked to an overall plan for long-range campus development. Projects are reflected in the six-year Board capital plan (if prior approved); a completed and submitted predesign specifically addresses academic programs, workforce development, facilities renewal and the relationship to technology.
- **Condition of facilities (backlog of maintenance and repair, and forecasted facilities renewal):** Stewardship of existing facilities and on-going maintenance and repair programs enhance the learning experience, directly affect recruitment and retention, provide accessibility to programs, and support long-term sustainability. Data to be available in the 2008 FRRM update should be used to describe the backlog of maintenance and repair and acknowledge renewal needs that are satisfied by the proposed project.

Each campus will document the current Facilities Condition Index (FCI) based on current FRRM data. $FCI = \text{backlog of deferred maintenance as listed in the FRRM} \div \text{replacement value of the building where the project is located, as well as the entire campus}$. This data should be used as part of a project's predesign submittal for capital

and HEAPR requests. All capital projects for a campus must, in some manner, assist in reducing the backlog or addressing renewal needs unless otherwise justified.

Projects will be scored relative to the positive impact the proposed project will have on reducing the backlog of deferred maintenance, reducing overall building and campus FCI, and addressing current and future renewal requirements identified in the FRRM. Projects will be favored that improve the overall campus or building FCI, particularly where campuses are above the systemwide average. The intent is to reduce the backlog on campuses with an FCI above the system average of 14%, and to reduce the overall system backlog by 50% over the next ten years. Campuses with good FCI ratings will not be allowed to “backslide,” but rather will be examined for their renewal needs to maintain or lower the current FCI. The intent is to improve campuses with high FCI’s while still maintaining those campuses that are in acceptable condition. Points will be added to a project that reduces a “high” FCI as well as funding renewal projects that maintain or lower the FCI of campuses with lower than average FCI.

A detailed discussion of the FRRM, FCI, backlog and campus renewal is contained in Attachment D.

- **Effective use of Repair and Replacement (R&R) funds will also be evaluated** as it relates to reduction of the backlog or funding renewal needs. Campuses will also be evaluated on the dollar amount currently spent for Repair and Replacement (R&R) and modernization using operating funds. Demonstrated accomplishments in 2008 as well as proposed 2009 R&R budgeting will be a part of the evaluation.
- **Operational costs:** Proposed projects must include evidence that the campus can meet estimated operating costs, including existing debt and proposed project debt.
- **Sustainability and Energy Conservation:** Proposed projects must clearly define the improvements to the campus and the specific issues addressed by this project. There are a number of pending legislative actions; however, regardless of what legislative action occurs, sustainability issues should be advanced for energy conservation, improvements to air and water quality, use of sustainable materials and innovative construction techniques. All projects should reflect “B3 Guidelines” for new and renovation construction including energy modeling.
- **Utility and infrastructure must support of the project:** Inadequate capacity or functional obsolescence of utility infrastructure must be addressed and budgeted in the capital request. Documentation and detailed evidence will be required in project predesign noting that existing or potentially renewed utilities and infrastructure (parking, roads, sidewalks, etc.) are able to support the proposed capital project.

HIGHER EDUCATION ASSET PRESERVATION AND REPLACEMENT (HEAPR)

An increasingly important component of capital budgets in the last five biennia has been the request for major repair and replacement funding under the Higher Education Asset Preservation and Repair (HEAPR) program. The FY2000, 2002 and 2004 capital requests for HEAPR were \$100 million for each biennium; and in FY2006 and FY2008 it was \$110 million.

Prior HEAPR programs focused heavily on roof repair and replacement; mechanical and electrical infrastructure repair and replacement; general asset preservation; and improvements for fire and life safety. Projects were developed based on an increased awareness of campus administrations regarding the need to clearly identify and prioritize repair and renewal requirements as well as the knowledge base provided by the 1998-99 system wide Facilities Condition Assessment report and subsequent Office of Chancellor studies.

The 1998-99 Facilities Condition Assessment identified a \$498 million (1998 dollars) backlog of repair, maintenance and renewal work across all 53 campuses. While substantial HEAPR and capital funding has been provided in prior capital bonding appropriations, it has been insufficient, even when coupled to the annual operating budget and emphasis on capital project renewal to adequately maintain campus facilities or to reverse a growing backlog of needed repair and renewal. Indeed, the backlog was estimated at \$635 million by the FRRM in 2005, \$646 million in 2006, and \$672 million in 2007. Preliminary data results from the 2008 campus reports will be available at the May Board meeting. Regardless of the number of capital projects that are now including HEAPR-related projects, with the limited HEAPR funding it is expected that the 2008 data will show an increase in the deferred maintenance backlog. Both the capital projects that address the backlog and HEAPR funding will make substantial progress towards stabilizing the backlog; however, continued high level funding for HEAPR is necessary in the years ahead to bring the backlog under control.

The overall underfunding of the HEAPR request has been a concern. For the past 10 years; it has consistently fallen short of the requested amount. Despite addition of capital projects to improve HEAPR –related items, the growth in HEAPR requests has continued. The 2008 HEAPR requests exceeded \$303 million due to increasing need among the campus repair requests. Accordingly, the 2010 capital budget for HEAPR will once again recommend a funding amount of at least \$110 million systemwide.

The FY2010-2015 HEAPR guidelines further respond to the need for continued assessment of the condition of physical plant statewide; central management of a roof repair and replacement program (campuses are responsible for annual maintenance and minor repair, and roof project prioritization); analysis of base line data and life expectancy on mechanical and electrical infrastructure systems; analysis of fire, life safety and code compliance issues; allocation of annual operating funds specifically towards physical plant maintenance and repair; and timely delivery of projects funded from the capital HEAPR appropriation.

HEAPR BUDGET GUIDELINES

The 2010 HEAPR program will follow the established principles for preserving and improving the physical plant infrastructure to support quality education. Specifically, the HEAPR program will strive to keep students, staff and the public “warm, safe and dry.”

1. Focus on preservation and renewal to protect the state's investment in facilities, and to offer high quality, safe, attractive facilities where students can succeed. Stewardship will be reflected by an improvement (reduction) of the Facilities Condition Index (FCI). Goal will be to reduce high FCI ratings whenever possible or to assure that a campus will continue to maintain a low FCI. A copy of the updated FCI assessment and the project scenario clearly identifying the applicable HEAPR items must be attached to the request.

2. Improve the environmental impacts, conserve energy, reduce operation and maintenance costs, enhance life safety and accessibility in context with existing campus resources.
3. Maximize functionality of the facility to accommodate current academic programs.
4. Provide an infrastructure backbone for reliable utility services for all campus activities and to support technology to enhance teaching and learning.
5. Partner with college and university operating budget efforts in maintenance of facilities.
6. Per statute, comply with one or more of the following: code compliance, including health and safety; ADA requirements; hazardous material abatement; access improvement; air quality improvement; or building or infrastructure repairs necessary to preserve the interior and exterior of existing buildings; and renewal to support existing programs. Note the recent concern on elevator compliance for safety will increase the requests for this component.
7. Projects must be over \$25,000 in total cost. Projects that are substantive, complex or exceed \$1 million dollars are required to have a predesign study or engineering analysis indicating review of the estimated initial and operational costs of the proposed solution has been made.
8. Planned to guarantee construction delivery within 30 months of June 2010 (encumbrance of all funds by June 30, 2012; expenditure of all funds by December 31, 2012).

PRIORITY FOR HEAPR PROJECTS

To maintain sound facilities, and stressing “warm, safe and dry” campus conditions, priority will be given to the following HEAPR projects:

Roofs: Each campus should include roofs identified by their campus roof management report as requiring repair or replacement in 0-4 years. The Office of the Chancellor will determine a reasonable capital roof investment program that matches available state contractor resources for delivery of the program within a 30-month timeframe. Roof requests from campuses will be organized into a 5-year roof replacement budget plan.

Major mechanical and electrical system repair and replacement: Many HEAPR items are not “deferred maintenance” inasmuch as they are planned replacement or repair of items that have reached the end of their useful life. Many large HVAC (heating, ventilating and air conditioning) and electrical distribution systems are nearing or exceeding 40 years of age and require replacement. All mechanical and electrical infrastructure project requests over \$1 million must be accompanied by a completed preliminary engineering report funded by the institution. This report will study energy efficiency and climate issues for repair and replacement, impact of initial cost, operational costs and overall energy efficiency. Preliminary engineering reports should be completed by institutions prior to February 2009. After review by the Office of the Chancellor, projects may be considered for advance design either funded by the campus or advance HEAPR design funds.

Elevators: Changes in the building code are requiring updates to most of the System's approximate 300 elevators. From a cursory systemwide study there are a potential of 179 elevators that may be impacted by these safety changes that must be accomplished by 2012. Some of the costs for these safety measures are only \$50,000 but some require a full replacement project of \$250,000. At this time, it is unknown how many elevators will need updating; but the 2010 HEAPR program will be the last available source of funding other than campus operating budgets to ensure compliance.

Fire Protection, Detection and Warning: The HEAPR budget will continue to focus on fire safety items and code compliance at existing facilities. An effort will be made to fund all high priority fire detection, monitoring, protection and other code related items. A fire detection, monitoring, protection and testing plan should be included in each campus' asset protection and loss control plan.

Facilities Condition Index (FCI): Projects should reduce the building or campus FCI, noting the improvement and addressing backlog of deferred maintenance and/or renewal issues. The goal is to reduce the "high" FCI campus ratings, while maintaining or even lowering "low" FCI ratings. Preference will be given to projects that improve the overall FCI. To augment the planning methodology, campuses will be required to create a 6-year HEAPR plan as they update their Facilities Master Plan similar to the 6-year project-specific capital budget request.

CAPITAL BUDGET SCOPE

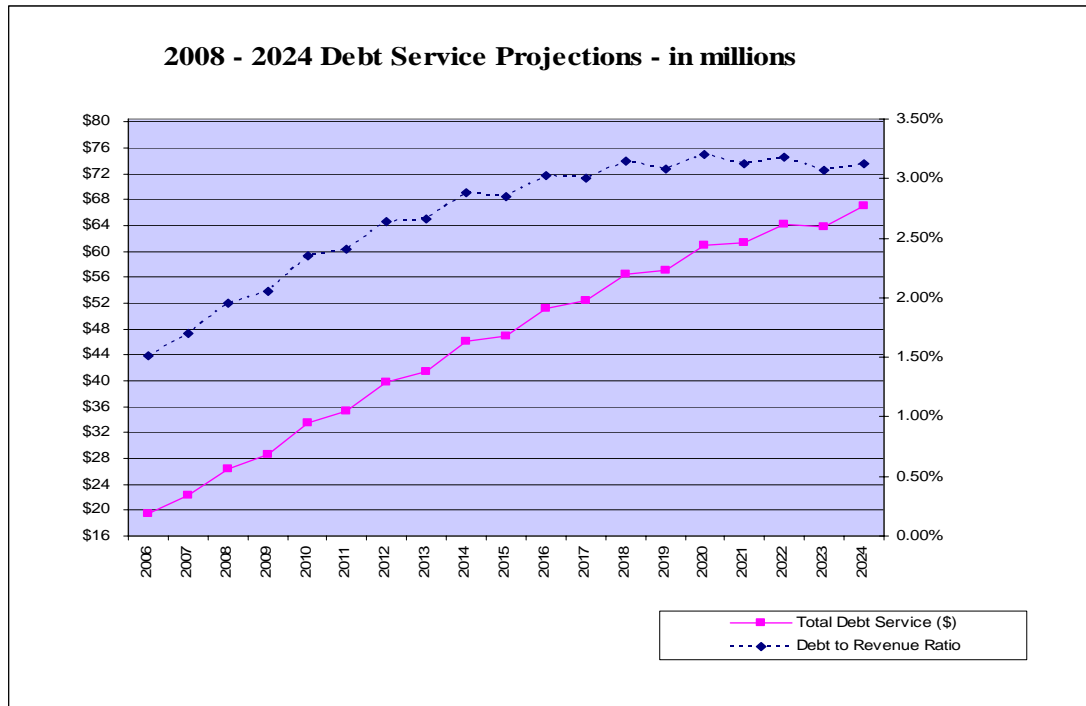
In addition to the academic imperatives addressed in the Strategic Plan, and a focus on campus sustainability, there are several additional items to consider in scoping the FY2010-2015 capital plan.

The Board approved the FY2008 - 2013 Capital Budget in June 2007 at \$350 million with specific projects and priorities for FY2008. That included \$110 million in HEAPR, \$273 million in general obligation bond financing, and \$77 million in MnSCU financing. The Board also recognized projects in the 2010 and 2012 program years as strong candidates for future funding. The proposed size of the 2010 capital budget at that time was suggested to be in the range of \$293 million including \$110 million for HEAPR. This equates to a general obligation financing request of \$232 million and MnSCU financing of \$61 million.

Beginning in 1991, the higher education systems now comprising the Minnesota State Colleges and Universities were required in session law to pay one-third of the debt service for projects funded by state general obligation bonds. Only the University of Minnesota and the Minnesota State Colleges and Universities have this requirement within the state bonding process. In 1996, the Board determined that half of the one-third would be passed on to the individual institutions that were receiving the benefit of the capital appropriation with the remaining half absorbed throughout the System. HEAPR projects do not incur debt for the System or campuses.

As the FY2010-2015 capital budget is prepared, each campus requesting a capital project must confirm their ability to pay their share of the debt obligation. Projections based on current and proposed debt on future capital budgets indicate that the system can absorb additional debt resulting from capital projects in the \$275 million range (excluding HEAPR), assuming a conservative 3% growth in revenue, and still be under the self-prescribed 3% limit of debt

service to general operating revenue. The chart below indicates the average debt-to-revenue ratio of 2.76% and the highest ratio is 3.36% for this level of capital budget over time.



Although the planning amount of \$293 million for 2010 did not include systemwide capital project initiatives, these smaller projects have received good support in past biennia, i.e. science and classroom renovations, and demolition of obsolete facilities. These systemwide initiatives have been extremely helpful in improving academic space and addressing deferred maintenance at a large number of campuses, and should be considered again for the 2010 program. These relatively modest modernization projects represent a significant improvement for academic program delivery.

Property acquisition projects to protect campus boundaries and address growth issues in accordance with master facilities plans are once again expected in the capital plan.

A new initiative, discussed during the development of the FY2008-2013 capital budget, involves the change in focus for technical college libraries. It was noted that three technical colleges had requested capital improvements as current library spaces had not kept up with the needs of technical education. An Office of the Chancellor Library Initiative was jointly undertaken by the planning units of Finance/Facilities and Academic & Student Affairs Divisions. A workgroup was formed, input was gathered from six technical colleges, a systemwide survey was completed, and consultant reviews were conducted at eleven campuses. At least eight campuses are potential candidates for funding to improve their spaces for today's technology needs. A capital project initiative similar to the science lab and classroom renovation initiatives is envisioned.

A capital budget principle long held by the System has been to complete projects that have had prior legislative and/or Board approval. Projects that have been funded for design, or phased construction, should continue to advance and hold their relative position on the priority list unless there are material changes in project scope or cost.

Finally, experience gained since merger of three higher education systems indicates the need for a more completely planned and rigorous six-year capital plan. That is not to say that every project submitted for consideration should somehow be programmed over the next three biennia. Rather, colleges and universities should submit their best estimates based on their master facilities plans of capital requirements for consideration in a long-range plan.

2010-2015 CAPITAL BUDGET PROCESS

To guide development of the FY2010-2015 capital budget, a work plan has been developed and is presented in Attachment B. The core element of this process is the identification of capital needs by each college and university, development of the required predesign and project description documents, and submission to the Chancellor and Board for consideration. Key elements of the process are described below:

Campus master facilities plan: A major initiative launched in 1998 has resulted in the creation of campus master facilities plans at all colleges and universities. Board policy requires all campuses to update their facilities master plan every five years to assure that correlation with academic programs and plans, adequate stewardship and appropriate reinvestment in the physical plant is taking place. All projects proposed for the FY2010-2015 capital budget must relate to the campus master facilities plan.

Project Predesign: A predesign document will be required at points noted in the schedule, Attachment B. There is clear evidence that projects with an underdeveloped or weak predesign correlate to a poor and/or ill-defined project. Conversely, a thoroughly defined and understandable predesign document correlates to a higher ranking project with less opportunity for scope or cost creep from the design phase to construction. As a result, failure to meet deadlines for predesign submission will eliminate the projects from consideration. Accordingly, it is anticipated that due to the large number of projects with construction requests in 2010 phased from the 2008 budget, and with adhering to this predesign completion requirement, the number of new projects could be less than in the past. (The proposed projects for 2010 that are phased over from 2008 amount to approximately \$260 million, not considering those projects that may not be funded from the 2008 list.)

Documentation: Further simplification will occur in the format for submitting projects for evaluation and scoring. Campuses will be required to fill out a standard sheet of information that addresses the major simple components of their project. In addition, a limit on the format will be the two page Department of Finance proposal with key elements included. These elements are noted in Attachment C.

Prior approved projects: Projects that were previously approved in the 2008 budget cycle will maintain their relative priority in the bonding request, unless they have materially increased in

cost and/or scope. Staff will evaluate cost, scope changes, if any, and inflation when projects are submitted. Unless there are material changes, the project will not be re-evaluated and scored. Projects with material changes will require scoring and presentation to the Board at the scheduled public hearings.

Evaluation teams: Following submittal of the projects, scoring will take place by a diverse, cross disciplinary Technical Advisory Team. The Technical Advisory Team will become more robust this cycle with greater academic representation. Attachment A is the scoring mechanism that matches directly to the criteria noted in the Capital Budget Guidelines.

Technical Advisory Team review of projects by a cross disciplinary team of academic, finance, facilities, technology and all types of institutions will be scheduled to take place in early January 2009.

Schedule: Per the work plan, Attachment B, institutions planning to submit projects for the FY2010-2015 capital budget should now be actively working on evaluation of approved master plan concepts to create a project predesign. Capital budget requests and initial project documentation must be submitted to the Office of the Chancellor in August 2008 for initial 50% predesign identification and for preliminary review by September 5, 2008.

During September through October, colleges and universities should be engaged in discussion of overall program enhancement, specific space utilization issues, energy efficiency considerations, and improvement of the FCI. Final documentation must be submitted by November 28, 2008.

Board of Trustees Public Hearings: Public hearings for new projects, or projects that have changed in scope and/or cost, will be heard by the Board of Trustees between February and March 2009. Presentation of a final, prioritized project list will be presented to the Leadership Council in April 2009; and to the Board in May and June 2009. Approval of the capital budget in June is necessary to meet the state timetable for the 2010 legislative session.

Definitions that are applicable to the capital budget process are contained in Attachment E.

RECOMMENDED COMMITTEE ACTION:

The Facilities/Finance/Technology Committee recommends that the Board of Trustees adopt the following motion.

RECOMMENDED MOTION:

The Board of Trustees approves the FY2010-2015 Capital Budget Guidelines as presented.

Date Presented to the Board of Trustees: March 19, 2008



Technical Advisory Team (TAT) Project Analysis
2010 Capital COMMENTS AND REVIEW
Institution – Campus _____

Project: _____

For each item, circle a number to indicate the extent to which the project will exemplify or attain the item's intent.

	Strategic Plan	Available Score	Not Applicable	Low		Average		High	Weight	Comments that justify your score
1.0	Increase Access and Opportunity		0	1	2	3	4	5		
1.1	Planned project connects to populations, workforce issues or other areas		0	1	2	3	4	5		
1.2	Collaboration – expands access		0	1	2	3	4	5		
2.0	Promotes and measures high quality learning programs and services		0	1	2	3	4	5		
2.1	Planning components – efficient delivery of academics		0	1	2	3	4	5		
2.2	Project completed predesign details learning		0	1	2	3	4	5		
2.3	Space utilization: maximizes space for academics		0	1	2	3	4	5		
2.4	Facilities rightsizing: maximizes learning spaces		0	1	2	3	4	5		
3.0	Provide programs and services integral to state and regional economic needs		0	1	2	3	4	5		
3.1	Partnerships as a key component of the project		0	1	2	3	4	5		
3.2	Projects are clearly defined and rationale is compelling		0	1	2	3	4	5		
3.3	Projects favored that bring private funds or other sources of funding		0	1	2	3	4	5		
3.4	Economic vitality objective		0	1	2	3	4	5		



Technical Advisory Team (TAT) Project Analysis
2010 Capital COMMENTS AND REVIEW
Institution – Campus _____

4.0	Innovation to meet current and future educational needs efficiently		0	1	2	3	4	5		
4.1	Creates an innovative learning space and instructional delivery model		0	1	2	3	4	5		
4.2	Facilities providing flexibility to support multifunctional class sessions		0	1	2	3	4	5		
4.3	Design of space that supports multiple learning uses and services		0	1	2	3	4	5		
4.4	Collaborations that enable flexibility, innovation and effective use of space		0	1	2	3	4	5		
4.5	Creates innovative education delivery method		0	1	2	3	4	5		
4.6	Solution is "best value for learning"		0	1	2	3	4	5		
5.0	Building A Sustainable Campus		0	1	2	3	4	5		
5.1	Integrates planning components		0	1	2	3	4	5		
5.2	Condition of facilities (backlog and renewal)		0	1	2	3	4	5		
5.3	Effective use of Repair and Replacement funds		0	1	2	3	4	5		
5.4	Operational costs		0	1	2	3	4	5		
5.5	Sustainability and Energy Conservation		0	1	2	3	4	5		
5.6	Utility and infrastructure supports the project		0	1	2	3	4	5		
		Total Score:								Out of possible 100 points.



Minnesota
STATE COLLEGES
& UNIVERSITIES

Technical Advisory Team (TAT) Project Analysis
2010 Capital COMMENTS AND REVIEW
Institution – Campus _____

General comments on the Project:

Suggestions to improve the project's academic components:

FY2010-2015 Capital Budget Schedule

March 2008	Leadership Council - review draft FY2010-2015 Capital Budget Guidelines FY2010 - 2015 Capital Budget Guidelines to the Board of Trustees – 1 st Reading Note: Campus workshops are available on an individual basis. Predesign RFP forms and assistance are available from the Office of the Chancellor.
April 2008	Campuses evaluate need for Systemwide Initiatives for possible development. Campuses begin predesigns for proposed 2010 projects based on approved Facilities Master Plans. Campus workshops are available on an individual basis. <u>Critical to start predesign documents while academic staff is available on campus.</u>
May 2008	FY2010 - 2015 Capital Budget Guidelines to the Board of Trustees – 2 nd Reading Campuses begin predesigns for 2010 projects based on approved Facilities Master Plans. Campus workshops are available on an individual basis. <u>Critical to start predesign documents prior to academic staff leaving at end of semester.</u>
June 6, 2008	Campuses submit tentative capital budget project titles and cost estimate. Advise the Office of the Chancellor of selected predesign architect.
June - August 2008	Develop predesign documents for 2010 capital projects.
September 5, 2008	50% predesign completed by September 5 and submitted to Office of the Chancellor. Review and comments by the Office of the Chancellor provided to campuses.
October 24, 2008	Capital project narrative (2 pages) and spreadsheets (2) submitted to Office of the Chancellor. Review and comments back to campuses. HEAPR: Campuses analyze FRRM backlog and renewal data; begin engineering studies for significant HEAPR projects (over \$1 million).
November 21, 2008	Master list of all campus requests for the 6-year Capital Plan developed; Review Team members chosen based on suggestions by Presidents. <u>Deadline: 100% completed predesign documents for 2010 projects</u>
December 5, 2008	Final capital project narrative (2 pages) and spreadsheets (2) due.
December 16, 2008	Project documents mailed to Technical Advisory Team members.
January 5-9, 2009	Technical Advisory Teams evaluate and score capital projects.
February 2009	Leadership Council reviews preliminary scores. HEAPR budget documents due; engineering reports 50% or more completed.
Feb - March 2009	Technical Advisory Teams' scores presented to Board. Board of Trustees public hearings on proposed capital projects MnSCU 6-Year Capital Plan developed

April 7, 2009	Leadership Council reviews preliminary FY2010-2015 Capital Budget
May 19, 2009	FY2010-2015 Capital Budget reviewed by Board of Trustees - 1 st Reading
June 16, 2009	FY2010-2015 Capital Budget approved by Board of Trustees - 2 nd Reading Capital Budget forwarded to Governor and Legislature
July – October 2009	Legislative Committees conduct campus bonding tours using June 16 project data
October 2009	Final Capital Budget revisions for project narratives and budgets due. One page description of project and pertinent graphics (created by campuses) due for inclusion in the MnSCU Capital Budget Bonding Book. Capital Budget requests frozen in the state’s Budget Information System.
January 2010	Governor's Capital Budget recommendations
February 2010	2010 Legislature convenes

Note: BOLD indicates activities relating to the college and university action

2010 STATE APPROPRIATION REQUEST:

AGENCY PROJECT PRIORITY: Not campus priority here 1, 2 or 3

PROJECT LOCATION:

PROJECT DESCRIPTION: No more than 300 words

PROJECT RATIONALE AND RELATIONSHIP TO AGENCY LONG RANGE STRATEGIC PLAN:

MnSCU Strategic Plan:

Increase Access and Opportunity:

High-quality Learning Programs and Services:

State and Regional Economic Needs:

Innovate to Meet Educational Needs Efficiently:

Institution Master Plans & Regional Collaborations:

Enrollment and Space Utilization:

FYE	FY2006	FY2007	FY2008	FY2009
Room Utilization				

Project Rationale:

Predesign:

Capacity of Current Utility Infrastructure:

IMPACT ON AGENCY OPERATING BUDGETS (FACILITIES NOTES):

Building Operations Expenses (Heating, Cooling, Electrical, Refuse, 1% Renewal account, etc):

Energy Efficiency/Sustainability/Adherence to B3:

Debt Service:

OTHER CONSIDERATIONS:

Consequences of Delayed Funding:

PROJECT CONTACT PERSON, TITLE, ADDRESS, PHONE, FAX, AND E-MAIL:



Minnesota
STATE COLLEGES
& UNIVERSITIES

**2008 Institution Profile
Name of State University or Community, Technical College
2010 Capital Budget**

**Attachment C-2
Project Analysis**

Project Description: Title (no more than 80 letters)

Simple, clear description of project. No more than 300 words. State need and how this project will address the need and what critical components of the Strategic Plan it will impact. State highlights of how this project will impact academic offerings, workforce and regional plans, square footage involved, specific energy efficiency issues, sustainability, space utilization and impact on the FCI

Space Utilization – FY2007				
Campus Square Feet	Efficiency GSF/ FYE	Number of Classrooms & Labs	Credit Hours Produced per Room	Percent of Fall 2005 Room Use

Impact from this project – FY2007			
Current FCI of impacted area	FCI result after this project	Current space utilization of impacted area	Proposed space utilization after this project

Debt Obligations – Assuming This Project				
Debt Type	2010 Debt Obligation	Operating Budget %	2015 Debt Obligation	Operating Budget %
Total Obligation				

Institution Priority 2010: 1
Institution Prior Received 2008: \$
Institution Request 2010: \$
Board approved 6-Year Plan for 2010: \$
Institution Request 2012: \$
Total Request: \$

Facilities Master Plan: Approved _____
Project Predesign: Approved _____
 name consultant, cost

Schematic Design: (if completed) state consultant, approval status and dates

Facilities Staff Analysis:

Academic and Project Advisory Team Analysis:

Team 1:

Team 2:

FYE Enrollments				
2006	2007	2008	Projected 2009	Change from 98

Past Capital and Major HEAPR Projects		
Year	Project	Cost

Facilities Condition Index (FCI) – FY2007				
Current Replacement Value (CRV)	Deferred Maint. Backlog	FCI	5-Year Renewal	FCI

Reprint from May 2006
2nd Reading 2008-2013 Capital Budget
Information on Renewal

***REPRINT OF FACILITIES CONDITION ASSESSMENT
FACILITIES RENEWAL AND REINVESTMENT MODEL (FRRM)
FACILITIES CONDITION INDEX (FCI)***

CAMPUS RENEWAL AND REINVESTMENT

The Minnesota State Colleges and Universities System includes classroom buildings, libraries, athletic/recreational facilities and other academic structures totaling 20.9 million square feet; and Revenue Fund residence halls, student unions and other revenue producing facilities totaling an additional 4.6 million square feet. The majority of system facilities were constructed during the 1960-1970 time period; some were built over 50 years ago; and less than 10% were constructed in the last ten years.

A baseline architectural/engineering assessment of the physical condition of these facilities was undertaken by the System in 1998-99 to investigate, document and analyze conditions at all 53 college and university campuses. This first systemwide Facilities Condition Assessment estimated that the backlog of deferred maintenance and repair was \$498 million at that time. The assessment's baseline data has been augmented by further work by consultants since that time to include (1) engineering studies of the mechanical and electrical systems at all seven state universities in 2000, seventeen two-year campuses in 2002, and ten two-year campuses in 2004; (2) annual engineering inspections of all existing roofs; and (3) a 2002 study of the status of fire detection and suppression devices.

This information has been consistently helpful in identifying repair and renewal needs for the individual campus as well as the System. However, the information was static and could not be practically or economically updated.

Taking a new approach, a working group composed of college and university leaders representing finance and facilities areas was convened in the fall of 2004 to help create a dynamic data base and model to easily monitor the condition of campus facilities as well as predict renewal and reinvestment needs over time. Such a model would also provide a rational framework for capital planning and assist campuses and the Office of Chancellor in the development of capital projects

In 2005, the Office of the Chancellor contracted with a national facilities consulting firm, Pacific Partners Consulting Group, to work with colleges and universities in developing the new data base and reinvestment model. In winter 2005 training to initially populate the model occurred at three regional locations with over 130 individuals participating. Initial data collection from the campuses and verification is now complete, providing a 2005 baseline. A second round of training recently occurred in January 2006 with over 59 campus personnel in attendance. The campus data will be updated for a new 2006 baseline by May.

FACILITIES RENEWAL AND REINVESTMENT MODEL (FRRM)

The new model responds to three fundamental objectives:

- Predict building systems replacement or renewal scheduling, and associated costs on a campus and systemwide basis;
- Estimate and update the magnitude of the deferred maintenance backlog;
- Provide a sustainable planning tool that has broad profiles and is able to predict future renewal needs for each building; and is easy to update and inexpensive to maintain.

The model provides the added benefits of collecting information in support of multi-year capital planning; saving costs by minimizing the need for detailed condition assessments; identifying buildings where reinvestment may not be cost effective, i.e. they may be candidates for demolition or mothballing; and providing tools to enable consolidation of capital projects in individual buildings as well as across building systems.

LIFE CYCLE MODELING

Several parameters are fundamental to the FRRM as a planning tool:

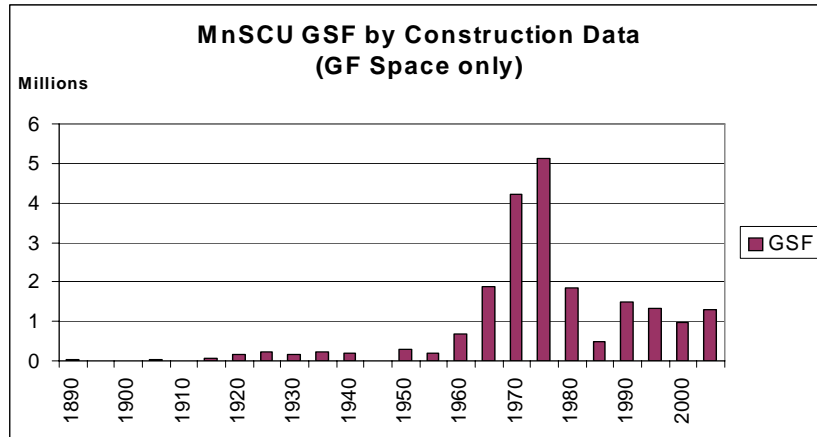
1. Building systems have predictable life expectancies; renewal needs for building systems are cyclical and predictable based on age, construction or quality of manufacture; performance history and maintenance of those systems. These extrapolate to a predicted “life cycle” or useful years left.
2. The remaining life of each building and its “subsystems” can be estimated; reinvestment needs vary year-over-year and can be 200 – 300% higher in costs in some years than in others.
3. Renewal costs can be estimated; and therefore campuses can systematically plan for capital repairs and improvements.
4. Backlog and renewal costs are related. If an item is not funded in the year it is anticipated and needed for renewal, then its cost moves into the backlog.

The FRRM methodology using this life cycle approach was developed at Stanford in the 1980’s. The approach has been endorsed in a book published jointly by APPA, NACUBO and SCUP, and has been implemented on over 100 campuses including the University of California System, Oregon University System, California State University System, University of Texas System, the Smithsonian, and Stanford University.

Subsystem life cycles are the components of the model and are based on industry standards and institutional experience. For example, several building subsystems have predicted life spans such as plumbing fixtures - 25 years; HVAC equipment and controls - 30 years; fire protection systems - 40 years; and interior finishes - 15 years.

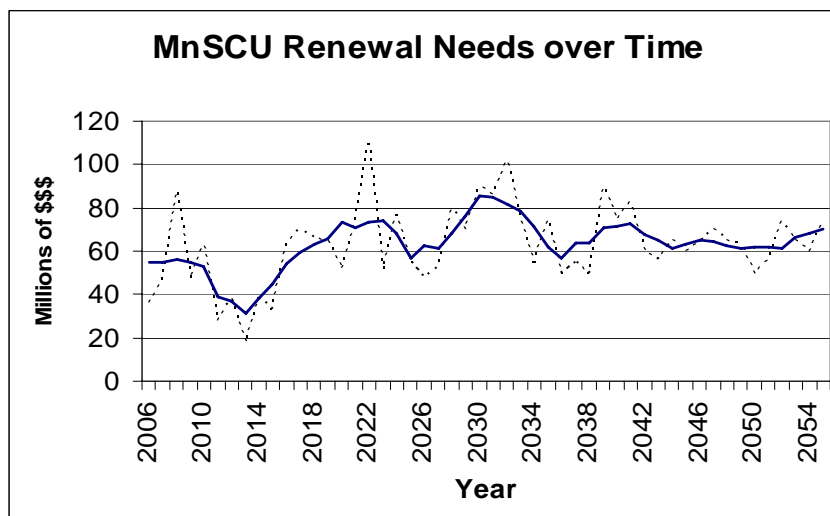
In addition to predicting renewal schedules, the FRRM also estimates costs. FRRM uses cost data determined from national sources as well as actual System experience using cost data from recent capital projects. In total, over 26 million square feet of project data was used to develop the cost estimating data base, including 1.2 million square feet of actual building costs data from recent System projects.

Life cycle modeling relates to the year of construction, maintenance history, and ongoing repair and renewal of the facilities. The graph below indicates the years in which new space (in million square feet) has been built in the System.

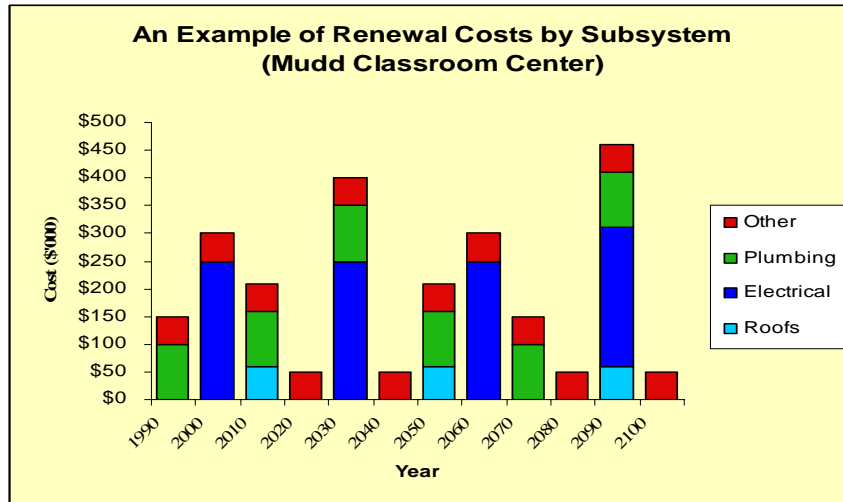


Since most of the college and university square footage was built 30-40 years ago, and many components of these structures are reaching or have already reached the end of their useful life, it is clear that the needs will be significant in the upcoming years. This has already proven true with roofing and mechanical systems that have failed or are failing.

As noted above, building systems have predictable, cyclical life expectancies. Thus, a renewal curve showing anticipated renewal costs over time is also cyclical. The graph below indicates future annual renewal costs for the System ascertained by the 2005 data indicating the year that renewal is required (data rolled-up from each college and university). The solid line averages the requirements over time.



Examples of life cycle need and systems component costs:



Example of projected renewal cost/year:

A Simplified Example					
Mudd Classroom Center					
Construction Date: 1970					
Gross Square Feet: 10,000					
Year	Roofs	Electrical	Plumbing	Other	Total
	40-yr-life \$6/sq. ft.	30-yr-life \$25/sq. ft.	20-yr-life \$10/sq. ft.	10-yr-life \$5/sq. ft.	
1990			\$100	\$50	\$150
2000		\$250		\$50	\$300
2010	\$60		\$100	\$50	\$210
2020				\$50	\$50
2030		\$250	\$100	\$50	\$400
2040				\$50	\$50
2050	\$60		\$100	\$50	\$210
2060		\$250		\$50	\$300
2070			\$100	\$50	\$150
2080				\$50	\$50
2090	\$60	\$250	\$100	\$50	\$460
2100				\$50	\$50

The FRRM uses data entered by each campus for the base year (2005) and current year (2006) and provides a variety of output information including:

- Building component profiles for each building (or sub-building)
- Detailed estimates of the backlog by building and System-wide
- Detailed renewal projections for the next 30 years by building, location and component system
- Easy to maintain web-based software
- User’s Guide and annual campus training

Specific estimates are provided per building, as well as per campus, in terms of current backlog and reinvestment and renewal requirements:

Campus: SF

Bldg: Fine Arts -1 **CRV (\$000's):** \$120 **Building Number:** 006A **GSF:** 48,470 **Year Built:** 1953 **FCI:** 0.12

Backlog and 5 year Renewal Forecast by building (\$000's)							
Subsystem:	Backlog	2005	2006	2007	2008	2009	Total
b.1 Building Exteriors (Hard)	\$336	\$0	\$0	\$0	\$0	\$0	\$336
c.1 Elevators and Conveying Systems	\$0	\$0	\$136	\$0	\$0	\$0	\$136
d.1 HVAC - Equipment/Controls	\$176	\$0	\$0	\$0	\$0	\$0	\$176
e.1 HVAC - Distribution Systems	\$0	\$805	\$0	\$0	\$0	\$0	\$805
f.1 Electrical - Equipment	\$291	\$0	\$0	\$0	\$0	\$0	\$291
h.1 Fire Protection	\$205	\$0	\$0	\$0	\$0	\$0	\$205
i.1 Built-in Equipment and Specialties	\$0	\$218	\$0	\$0	\$0	\$0	\$218
j.1 Interior Finishes: Walls, Floors, Doors	\$302	\$0	\$0	\$149	\$0	\$0	\$451
Total by building	\$1,310	\$1,023	\$136	\$149	\$0	\$0	\$2,618

From FRRM reports such as the sample above, a campus can document the condition of buildings, the backlog, and specific buildings or building systems that have upcoming renewal requirements.

Campuses can use this information to create a long-range Capital Improvement Plan (CIP) as part of their Facilities Master Plan as well as the short-range six-year plan prepared in conjunction with the biennial Capital Budget. The campus CIP indicates groupings of needs into projects and identifies tentative funding sources such as the campus operating budget, a major capital project, HEAPR project, or other.

The CIP lays the project planning groundwork by incorporating factual building conditions, historical and upcoming renewal data with the unique academic, financial and other program needs of the campus. For example, a 1960 building might have backlog in building envelope (exterior), interior remodeling and partial mechanical and electrical renewal needs. The campus thus might pursue a project that includes major modernization addressing all these requirements. Note that the entire backlog is not expected to be removed in any single project, as some items may be acceptable for current program use and other backlog items may be more critical to remove.

FUNDING FOR CAMPUS MAINTENANCE AND RENEWAL

Two significant elements that can affect the condition of a facility or building component are the quality of the initial construction and the level of maintenance and repair expended to maintain these components over time. For example, a boiler with a 30-year life expectancy may have its life extended by 10 years with excellent maintenance and timely replacement of components. The same is true relative to the on-going care, maintenance and replacement of equipment in a complete building structure.

Operating funds and capital funds are the two primary sources of funds for maintenance, repair and renewal of facilities. Funding sources from donors, grants and foundations tend to be used

for specific new programs or capital projects relating to growth issues, and are not commonly used for basic maintenance and renewal.

Operating funds provide for routine campus operations and maintenance. From a facilities perspective, this includes regularly scheduled maintenance of dynamic equipment; minor tune-ups and repairs to keep systems operating; general housekeeping; and grounds maintenance. Also included are those funds budgeted for Repair and Replacement (R&R). These R&R funds are budgeted towards major repair work and replacement of building systems' components that extend life cycles beyond their predicted timeframe. Normally, R&R funds should not be used to make improvements, or to change use of all or a portion of a building to another program use. Funds for these "upgrades" should come from other campus sources.

Capital funds are, for the most part, obtained via the biennial capital budget and legislative process. Capital funds go directly to renewal of existing space in cases of major renovation projects. Repair and replacement of building components are normally funded through the Higher Education Asset Preservation and Replacement (HEAPR) program. Capital funds are also used for construction of new space; land acquisition; demolition; and advance design work. The capital budget planning strategy in recent years has been to fund major renovations that remove backlog as well as add new programmatic life (modernization) to the campus.

In recent years, HEAPR has been targeted to replace building components that have already failed (such as leaking roofs), have exceeded their useful life and are in danger of failure (boilers, chillers, mechanical equipment), and other work contained in campus backlog.

In the case of R&R funding, the Office of the Chancellor over the last four years has strongly encouraged campuses to strive for a minimum spending of \$1.50 per square foot for R&R. At this time, the system average for R&R spending is still under \$1.00 per square foot with some campuses reporting R&R expenditures well below the average. Part of this problem may be the way colleges and universities are recording costs for this R&R work. The Office of the Chancellor is examining financial reporting procedures to improve data collection in the 2007 operating budget year.

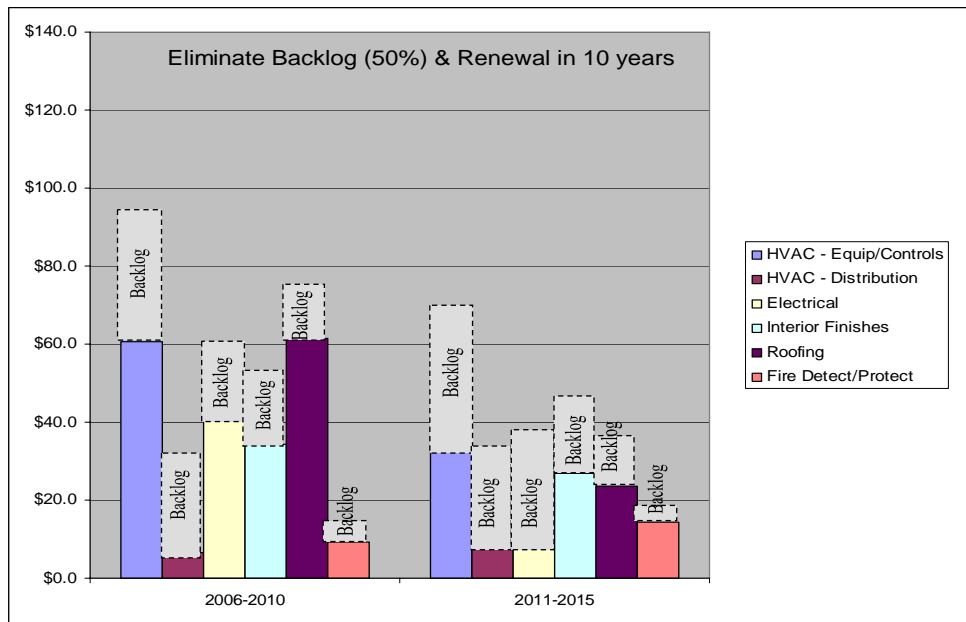
USING THE FRRM FOR THE 2008 CAPITAL BUDGET

The FRRM reports that the current backlog of the System in 2005 was approximately \$635 million. Final results of the 2006 projections will be available shortly, but at this time the backlog is expected to exceed \$660 million, not considering potential funding from the 2006 bonding bill. In addition, in the next ten years the System is facing a renewal need in excess of \$440 million for major building systems. Utility distribution systems, roads, hardscape, landscape, security systems, and other infrastructure items will require an additional \$98 million in the next decade. Add to this the requirement to modernize as facilities projects are undertaken estimated at \$260 million. In total, the ten-year renewal requirement is \$800 million.

To minimally "keep up" with current conditions thus requires \$80 million annually (\$160 million per biennium) for the next decade. Add to this the need to reduce the backlog or "catch up" with work not accomplished. Reducing the backlog by 50% over the next ten years requires an additional \$32 million per year or \$64 million per biennium. The total System need is therefore

\$112 million per year or \$224 million per biennium. The following chart indicates how the backlog could be reduced by 50% while upcoming renewal needs are also funded in the next decade. Note that this funding requirement does not include improvements for growth or program needs.

Capital and HEAPR project requests for 2008 will use this FRRM data to inform and enable prudent financial choices for the stewardship of System facilities.



FUNDING AND CAMPUS STEWARDSHIP

The Facilities Condition Index (FCI) is a nationally accepted measurement to evaluate the condition of a building or a campus of buildings. FCI is the amount of deferred maintenance (backlog) divided by the replacement cost of either a single building or campus. The lower the FCI is, the better the condition of the building or campus. Some experts indicate that an FCI of 4% is “good” and should be a target to pursue. That may be unrealistic however. Many higher education officials consider a campus in good condition with an FCI below 10%.

Data indicates that the current FCI for the System as a whole averages 14%. It is significant to note that if reinvestment is not accomplished over the next 10 years, 38 of the 53 System campuses will increase their FCI between 14% and 39%; and 23 out of the 53 will be above 23%. For our immediate purposes it is suggested that a plan be pursued to decrease the backlog by 50% over the next ten years, lowering the System-wide FCI to 7%. A ten year, 50% reduction plan was chosen as a reasonable, measurable and fiscally realistic approach to gradually improve individual campus conditions as well as bring campuses more “in line” across the System.

It is equally significant that campuses which have maintained their physical plant in good condition should not be disadvantaged in the capital budget process. These physical plants should be maintained at their current level of good condition. Their “low” or “average” FCI should not be allowed to increase as many of them face costly renewal requirements in the near term.

Thus it is proposed that funding be earmarked for a combination of specific line item capital projects and HEAPR projects to reduce the FCI of campuses above 14% and simultaneously fund the upcoming renewal needs of the remaining campuses to prevent growth in their backlog and increasing their FCI.

It is equally important that colleges and universities continue to fund ongoing repair and replacement projects that directly affect the FCI and long-term renewal needs. To do so, a funding level of at least \$1.00 per square foot should be strongly encouraged at each campus.

A summary of backlog, renewal needs and the corresponding FCI for each campus is contained in Attachment A.

Date Presented to the Board: May 17, 2006

Date Approved by the Board: May 17, 2006

Reprinted for the 2010-2015 Capital Budget Guidelines for March 19, 2008

Definitions for the 2010 Capital Budget Guidelines

- **Asset Preservation:** There is no legal or generally accepted definition for asset preservation, but the Department of Finance definition in the capital budget guidelines describe it as "committing necessary resources to preserving, repair, or adaptive re-use of current assets". Such projects are identified by including a dollar amount in the renewal (or asset preservation) column on the Project Construction spreadsheet in the official capital budget submission. Renewal in this context is defined as "expenditures to keep the physical plant in reliable operating condition for its present use, without programmatic change".
- **B3: Buildings, Benchmark and Beyond:** The B3 Guidelines are a legislative requirements applicable to all new buildings and should be used in all major renovations (where feasible). Guidelines are available at www.csbr.umn.edu/B3
- **Capital project:** A project for construction, renovation, major repair/replacement, and/or land acquisition, such that the total cost is "capitalized" on the books of the college or university. Capital projects are normally authorized and funded by the state legislature, through the sale of state general obligation bonds. Bonds are backed by the "full faith and credit" of the state, with interest based on the state's current bond rating, and are repaid over 20 years. A capital project includes all costs associated with delivery of that project: design, construction, demolition, testing, inspection, furniture and furnishings, equipment, land acquisition, and project management.
- **Debt service:** Payments made by the state for principal, interest and issuance costs for the 20-year general obligation bonds. Minnesota State Colleges and Universities pays one-third of the debt service on authorized projects except HEAPR. One-half of the assigned debt service (one-sixth of the total) is assigned to the college or university benefiting from the project; one-sixth is spread over the system as a whole.
- **Deferred Maintenance and Repair Backlog ("Backlog"):** Necessary facilities renewal work that has not been accomplished and has been deferred due to lack of funding. This is often referred to as "deferred maintenance" which can give the mistaken impression that work has been deferred due to inattentiveness to maintenance or repair. Items in the FRRM backlog run the gamut from being in marginal condition; to being obsolete where replacement parts are no longer available; to be failing or have already failed and will require expensive emergency repairs in the future. For example, a boiler or roof that is past its useful life expectancy and is marginally functioning would be in the backlog. A single pane window system may be 50 years old, has failing material composition due to age and is energy inefficient. Despite the fact it provides marginal view and weather protection, the window system would be in the backlog. On the other hand, a 40-year old boiler may be in top condition due to exceptional maintenance and timely replacement of components. It would not be in the backlog.

For the FRRM purposes, Backlog represents the existing (or extrapolated) estimated costs associated with major maintenance, repair and replacement requirements for buildings, grounds, fixed equipment and infrastructure. The total equals the amount of funding that is needed for a facility or entire campus to be "whole and at current value." It does not include work that is associated with program or academic improvements. Note the word 'deferred'

is used only in that lack of funding creates this ‘deferred’ condition and does not imply that the campus has willingly chosen to not maintain the physical plant.

- **Facility Condition Index (FCI):** A measure of the physical condition of a building, with the value of deferred maintenance and repair divided by the replacement plant value. The Association of Higher Education Facilities Officers (APPA) indicates an FCI less than 5% is considered “good;” 5% to 10% as “fair;” and over 10% as “poor.” The 2007 extrapolation indicated a systemwide average FCI of 13%. 34 campuses have an FCI of 13% or lower; 19 campuses have an FCI higher than the system average.
- **Facility Renewal Reinvestment Model (FRRM):** This program, implemented in 2005 uses evaluated life cycle components to determine overall campus conditions, both in backlog of needs not addressed (or deferred due to lack of funds) and the upcoming needs of major systems and sub-systems. The model is easily updated by campus personnel on a yearly basis, thus providing an ongoing assessment of campus conditions. The model has 2005 as the base year and was updated by campus personnel in February 2006, 2007 and current results are pending for 2008.
- **Furniture, fixtures and equipment (FF&E):** The outfitting phase of the project. State policy allows the purchase of FF&E funded by bond funds when included in a capital project. Most FF&E is purchased by the college or university using recommendations from the project architect, MinnCor (prison industries), or local preferences and sources. Computers and other technology equipment may also be procured this way as part of the project.
- **HEAPR: Higher Education Asset Preservation and Replacement.** The HEAPR program, defined in Minnesota Statutes Chapter 135A.046, focuses on facilities maintenance and repair needs that are unable to be funded through the campus operating budget. HEAPR also includes funding for compliance with life safety and building codes; Americans with Disabilities Act (ADA) requirements; hazardous material abatement and indoor air quality improvements; and facilities renewal in support of existing programs. As a part of the capital budget, HEAPR is usually expressed as a total, lump-sum requirement for appropriation purposes with a detailed campus-by-campus project list provided as backup information. HEAPR, since its inception in 1992, has been funded by general obligation bonds with no debt service allocated to the System.
- **Operating Costs:** In context with the capital budget, projects must consider the impact on the campus operating budget. Operating costs include utilities, custodial care, maintenance and repair, debt service and staff labor expenses.
- **Space utilization:** A measure of how efficiently space is used as expressed by (1) hours of class room usage and (2) square feet per student. Requires detailed space inventory (number and size of classrooms and number of seats), current and projected enrollment data, and class scheduling data.
 - 1) The space utilization data of the most importance is the number of classrooms or labs, seats and how they are used; in terms of usage of times and overall number of students in those classrooms for optimum utilization. Of increasing importance is the number of credit hours taught per classroom. ITV rooms are incorporated into this analysis; and it is noted that this form of delivery ensures appropriate student access.

- 2) Square feet per student is given only as a benchmark to understand general parameters of space and usage. Many technical programs require significant amounts of space to appropriately allow for student learning.
- **Sustainability:** The term best used for Sustainability we found is: "the ability to meet current needs without compromising the ability for future generations to do the same". Components of sustainability are recycling and solid waste issues, water, energy, purchasing, construction and development and grounds maintenance. For further information contact the United States Green Building Commission - www.usgbc.org or the local Minnesota sustainable guidelines at www.sustainabledesignguide.umn.edu
 - **Stages of a Project: Predesign – Design – Construction:**
 - **Predesign:** An element of project planning required by statute to define the project scope, cost and schedule. Predesign reports are commonly funded by the respective college or university from their operating budgets and generally cost less than 0.5% of the total project value. A professional architect/engineering firm should prepare the predesign report.
 - **Design:** The process that takes the project scope and budget as defined in the predesign and creates the architectural and engineering specifications and drawings on which a construction contractor will bid and perform the work. The design process normally has three phases: schematic design – the phase during which the project evolves as to siting, size, functionality, materials, and program placement; design development – the phase during which the architectural and engineering details emerge; and construction drawings – the final phase where specific drawings, specifications, details and instructions are provided to define the construction and provide the basis on which a contractor will bid. Cost estimates are prepared, analyzed and adjusted during all phases. Design of state buildings and other facilities must be accomplished by architects and engineers licensed to practice in Minnesota.
 - **Construction:** The phase of the project where construction trades build the new facility, and renovate or repair the existing facility. Construction is normally accomplished through one contract with one general contractor, thereby minimizing risk to the owner. However, two or more contracts may be used to facilitate progress, e.g. an early contract for asbestos removal, site work and utilities; or a later contract for a parking lot, landscaping, or ancillary items able to be funded through cost savings over the life of the project. Construction normally represents about 70% of the total project cost.
 - **Reinvestment:** The amount of funds that must be spent on an existing facility each year to preserve its physical state of readiness and programmatic value. The funds needed to return the capital asset to its full intended use, whether through planned renewal or reduction of the backlog. In the FRRM context, it is funding of Backlog plus Renewal. All building components have a predicted life span and must be replaced and/or refreshed periodically. To not reinvest is to “defer” and thus build a backlog of maintenance, repair and renewal.
 - **Renewal:** The amount required to maintain facilities “at par” condition. The current or anticipated replacement need of a subsystem. For example, a 40-year old boiler that is scheduled to be replaced due to its age in 2008 would be indicated in that year as a “renewal” need. The FRRM model predicts future renewal requirements.