

MEMORANDUM

To: Board of Regents
From: Board Office
Subject: Governance Report on Deferred Maintenance
Date: November 4, 2002

Recommended Actions:

1. Receive the governance report on deferred maintenance.
2. Encourage the institutions to continue to correct identified deficiencies within the limits of available resources.

Executive Summary:

The Regent Policy Manual (§9.15) requires an annual governance report on deferred maintenance to be submitted to the Board in November of each year.

This report includes information on the deferred maintenance backlog and expenditures which are a performance indicator (#36) that the Board has selected to measure progress toward its strategic plan.

Amount of Deferred Maintenance Reduction of deferred maintenance has been a high priority of the Board of Regents for a number of years.

The estimated amount of deferred maintenance in general fund facilities and utilities, as identified by the institutions but not through a complete facilities audit, is \$145.7 million. This amount:

- Includes individual projects (\$93.2 million) and deferred maintenance components of major projects on the Board's Five-Year Capital Plan (\$52.5 million).
- Does not include deferred maintenance to be corrected by FY 2003 projects or the deferred maintenance components of on-going renovation projects.
- Compares with \$153.6 million reported in Fall 2000 and \$145.9 million reported in Fall 2001.

- Represents less than 5% of the \$3.5 billion estimated, current replacement value of general education, general fund facilities and utility systems at the Regent institutions.

Recent Efforts

During recent years, the institutions have made major efforts to correct deferred maintenance.

- From FY 1993 (the first year in which data were collected) through FY 2002, deferred maintenance projects totaling \$113.6 million were completed by the Regent institutions in general fund buildings and utilities; projects planned for or continued in FY 2003 total \$13.8 million. (See Table 1, page 14.)

From FY 1993 through FY 2002 renovation projects totaling \$80.9 million corrected significant amounts of deferred maintenance, as outlined on Table 1; planned or ongoing renovation projects which are correcting significant amounts of deferred maintenance total \$68.7 million.

Building Repair Budgets

Deferred maintenance continues even though significant sums of money have been expended to reduce it. Adequate funding in the operating budgets for building renewal (repair) is a critical factor in reducing current deferred maintenance and minimizing future deferred maintenance.

Of the \$113.6 million in deferred maintenance individual projects completed between FY 1993 and FY 2002, building repair (renewal) funds provided more than one-half of the total dollars (\$58.6 million).

- Reductions in building repair funds are likely to have an adverse impact on the ability of the institutions to address deferred maintenance needs.
- Due to significant budget reductions, Regent general education, operating budget building repair expenditures declined, in total, from a high of \$20.3 million in FY 2000 to \$11.5 million in FY 2002, a decline of 43.3%. (See Table 2, page 15.)
- FY 2003 general education building repair budgets total \$13.6 million and range from .06% to .59% of the replacement value of the institution's general fund facilities; at a minimum, building repair budgets should equal 1% of the replacement value.
 - An additional \$15.2 million would be needed if the budgets, in total, were to equal 1% of the replacement value.

Capital Funding

Significant reductions in state operating appropriations have resulted in institutional reductions in the operating budget line "building repair," which is used for ongoing repairs, correction of deferred maintenance items and fire safety improvements.

Consequently, the Board Office recommended and the Board approved funding for correction of deferred maintenance and fire and environmental safety deficiencies as the number one priority in the FY 2004 capital budget request. The requested amount is \$14.9 million.

Strategic Plan:

Key Result Area 4.0.0.0 of the Board's Strategic Plan: Meet the objectives of the Board and institutional strategic plans and provide effective stewardship of the institutions' state, federal and private resources.

Objective 4.3.0.0: Maintain and acquire physical facilities and equipment to meet stewardship responsibilities and changing institutional needs resulting from annual goal-setting and monitoring.

Correction of deferred maintenance is also addressed directly or indirectly in each institution's strategic plan.

Background:

The first deferred maintenance report was presented to the Board at its December 1988 meeting. Reports have been made on an annual basis since that time.

**Common
Definition**

For a number of years, the institutions and Board Office have used the following common definition:

Deferred maintenance is the repair or replacement of all, or a part of, an existing capital asset that was not repaired or replaced at the appropriate time because of a lack of funds.

- Deferred maintenance is dependent upon time. Replacement of a building or infrastructure system or component when it should be replaced is building renewal, not deferred maintenance.
- Deferred maintenance is sometimes referred to as "capital renewal backlog."

Causes

Deferred maintenance results from inaction on:

- Normal maintenance, including planned and preventive maintenance, and
- Renewal and replacement projects.

Adequate funding of regular maintenance can significantly extend the useful lives of facilities and their components. Adequate funding of building renewal is also needed to replace building components.

Focus of Report This report focuses on the correction of deferred maintenance items in general fund facilities and utility systems. The next largest component of university total space is the residence systems, which total approximately seven million gross square feet, with an estimated replacement value of \$1.2 billion. Deferred maintenance in the systems is addressed in the Residence System governance reports. The University of Iowa Hospitals and Clinics continues to report that there is no deferred maintenance in its 3.4 million gross square feet of facilities.

National Problem in Higher Education The largest percentage of higher education infrastructure (buildings, utility systems, roads, sidewalks etc.) in the United States, as well as Iowa, was built during the 1960s and 1970s.

- These facilities are aging and many of their component systems have reached the end of their design life or have become obsolete.

Deferred maintenance in higher education is a national problem and is partially the result of that building boom.

A 1995 study by the Association of Higher Education Facilities Officers, the National Association of College and University Business Officers, and Sallie Mae, which was reported in A Foundation to Uphold, estimated \$26 billion in total costs to eliminate accumulated deferred maintenance in American higher education.

- Urgent needs (conditions which, if not attended to in the next year, will further deteriorate and become more costly to remedy in the future) were estimated at \$5.7 billion.
- At the time the study was completed, the average public research university spent \$2.3 million annually on deferred maintenance against a deferred maintenance backlog of approximately \$64 million.

Institutional Efforts The Regent institutions have made major efforts to correct deferred maintenance over the last several years and have received significant state assistance, with funding from proceeds of the sales of Academic Building Revenue Bonds, operating budget building renewal (repair) funds, capital appropriations, and other funds. Table 1 (page 14) provides a summary of the expenditures and funding sources.

Analysis:

Reporting
Mechanism

This report represents the third year that the institutions used a consistent format to present deferred maintenance.

The reporting mechanism is designed to take the prior year listing of projects, deduct those accomplished during the prior year, and add newly identified ones; the adjusted list forms the base for the current fiscal year.

Deferred maintenance is categorized into work to be accomplished in the current year, work included in ongoing renovation projects, and deferred maintenance projects which would be incorporated into the major renovation projects in the Board-approved Five-Year Capital Plan (FY 2004 - FY 2008) for state funding. The remaining deferred maintenance items become the individual projects which will require future funding.

This reporting mechanism provides a systematic method for reporting deferred maintenance projects and permits progress to be tracked from year to year.

Identification and
Prioritization

The institutions have in place processes for identifying and prioritizing deferred maintenance items. A summary of the information provided on the processes is included in Appendix A.

Total Deferred
Maintenance

The following table summarizes the total deferred maintenance reported by the institutions. Individual projects and components of major projects on the Board's Five-Year Capital Plan (FY 2004 – FY 2008) are shown separately. (Dollar amounts for projects to be undertaken in FY 2003 and the deferred maintenance components of ongoing renovation projects are not included.)

These dollar amounts are institutional estimates and were not developed through a detailed, comprehensive facilities audit. Accordingly, caution is advised in making comparisons from one institution to another regarding the amount of deferred maintenance.

Total Deferred Maintenance
Fall 2002*
(\$ Thousands)

	<u>SUI</u>	<u>ISU***</u>	<u>UNI</u>	<u>ISD</u>	<u>IBSSS</u>	<u>Total</u>
<u>Individual Projects:</u>						
Buildings**	\$18,760.4	\$41,361.7	\$9,638.0	\$1,180.0	\$670.0	\$71,610.1
Utilities	<u>3,040.0</u>	<u>11,552.0</u>	<u>6,811.0</u>	<u>125.0</u>	<u>0.0</u>	<u>21,548.0</u>
Total	\$21,800.4	\$52,913.7	\$16,449.0	\$1,305.0	\$690.0	\$93,158.1
<u>Incorporated into Major Renovation Projects, Board's Five-Year Plan:</u>						
Buildings**	\$12,119.5	\$4,677.6	\$15,086.0	\$0.0	\$0.0	\$31,883.1
Utilities	<u>0.0</u>	<u>0.0</u>	<u>20,672.0</u>	<u>0.0</u>	<u>0.0</u>	<u>20,672.0</u>
Total	\$12,119.5	\$4,677.6	\$35,758.0	\$0.0	\$0.0	\$52,555.1
<u>Grand Total:</u>						
Buildings**	\$30,879.9	\$46,039.3	\$24,724.0	\$1,180.0	\$670.0	\$103,493.2
Utilities	<u>3,040.0</u>	<u>11,552.0</u>	<u>27,483.0</u>	<u>125.0</u>	<u>20.0</u>	<u>42,220.0</u>
Total	\$33,919.9	\$57,591.3	\$52,207.0	\$1,305.0	\$690.0	\$145,713.2
*Does not include dollar amounts for projects to be undertaken in FY 2003 and the deferred maintenance components of ongoing renovation projects.						
** Includes site work.						
*** ISU has excluded Morrill Hall from its report due to its unique situation. The building, which has never had any major remodeling or upgrading, has been unoccupied since 1998 and its condition has deteriorated substantially. The University announced in August 2002 a fund raising campaign to renovate the building. The cost of this work is estimated at \$9 - \$10 million.						

Renovations

Some of the renovation projects on the Board's Five-Year Plan (FY 2004 – FY 2008) for State Capital Funding that include correction of significant amounts of deferred maintenance are:

<u>Institution</u>	<u>Project</u>
SUI	Chemistry Building – Renovation
SUI	Seashore Hall Remodeling
SUI	Pentacrest Renewal and HVAC Modernization
ISU	Coover Hall - Information Science
ISU	Veterinary Teaching Hospital / Diagnostic Lab
ISU	Snedecor Hall Addition and Remodeling
UNI	Electrical Distribution Loop System / Load Break
UNI	Science Buildings Renovations
UNI	Commons Renovation

The Chemistry Building Renovation, Coover Hall - Information Science and Electrical Distribution Loop System are the top specific renovation projects in the Board's FY 2004 capital budget request.

- The three universities have estimated that, conservatively, these three projects would correct more than \$13 million in deferred maintenance.

Comparisons

The following table compares the total deferred maintenance reported in Fall 2000 (FY 2001), Fall 2001 (FY 2002) and Fall 2002 (FY 2003). Items to be undertaken during the current year and ongoing renovation (major) projects are excluded.

Buildings and Utilities*
Fall 2000, Fall 2001 and Fall 2002
(\$ Thousands)

	<u>Fall 2000</u> (FY 2001)	<u>Fall 2001</u> (FY 2002)	<u>Fall 2002</u> (FY 2003)
SUI			
Buildings	\$ 28,136.0	\$ 29,236.1	\$ 30,879.9
Utilities	<u>8,104.0</u>	<u>4,284.1</u>	<u>3,040.0</u>
SUI Total	\$ 36,240.0	\$ 33,520.2	\$ 33,919.9
ISU			
Buildings	\$ 45,777.3	\$ 47,275.2	\$ 46,039.3
Utilities	<u>12,168.0</u>	<u>11,990.0</u>	<u>11,552.0</u>
ISU Total	\$ 57,945.3	\$ 59,265.2	\$ 57,591.3
UNI			
Buildings	\$ 23,829.0	\$ 24,871.0	\$ 24,724.0
Utilities	<u>32,605.0</u>	<u>26,099.0</u>	<u>27,483.0</u>
UNI Total	\$ 56,434.0	\$ 50,970.0	\$ 52,207.0
ISD			
Buildings	\$ 1,485.0	\$ 1,195.0	\$ 1,180.0
Utilities	<u>340.0</u>	<u>145.0</u>	<u>125.0</u>
ISD Total	\$ 1,825.0	\$ 1,340.0	\$ 1,305.0
IBSSS			
Buildings	\$ 1,085.0	\$ 800.0	\$ 670.0
Utilities	<u>50.0</u>	<u>30.0</u>	<u>20.0</u>
IBSSS Total	\$ 1,135.0	\$ 820.0	\$ 690.0
Totals			
Buildings	\$100,312.3	\$103,377.3	\$103,493.2
Utilities	<u>53,267.0</u>	<u>42,548.1</u>	<u>42,220.0</u>
Grand Total	\$153,579.3	\$145,915.4	\$145,713.2
*Excludes work planned to be undertaken during identified year and work in ongoing renovation (major) projects.			

- Totals
- While the total amount of deferred maintenance has declined from Fall 2000, it remained, in total, approximately the same between Fall 2001 and Fall 2002 although there have been slight changes by institution.
- Iowa State University and the two special schools are showing declines from Fall 2001 to Fall 2002.
 - The University of Iowa and the University of Northern Iowa are showing slight increases in total deferred maintenance from Fall 2001 to Fall 2002.
- Utilities
- The reduction in utilities over the three-year period results primarily from the funding by the 2001 General Assembly of the \$12.7 million Steam Distribution System project at the University of Northern Iowa.
- Buildings
- While the total amount of deferred maintenance in buildings has remained approximately the same from Fall 2001 to Fall 2002, it has increased from Fall 2000.
- Changes in the amount of building deferred maintenance from Fall 2001 to Fall 2002 include the following:
- The University of Iowa has shown a slight increase (\$1.6 million) in the amount of building deferred maintenance. While work has been completed and is ongoing, additional items totaling \$3.7 million have been added due to the continuing age of the facilities and the refinement of internal building assessments which occur on an ongoing basis.
 - Significant items added this year are Dental Building Air Compressors (\$300,000, a portion of which is scheduled to be accomplished in FY 2003), Medical Education Building Tuckpointing (\$370,000, scheduled to be accomplished in FY 2003), and elevator modernizations in various buildings totaling \$805,000.
 - Iowa State University reports that its slight decrease is due primarily to work planned for FY 2003.

- The University of Northern Iowa is reporting a slight, net total decrease resulting from:
 - The funding by the 2002 General Assembly of the renovation of the East Gym for the Innovative Teaching and Technology Center, which will conservatively correct \$1.8 million in deferred maintenance, and the removal from the listing of deferred maintenance in the Center for Urban Education since the building has been sold; and
 - Inflationary adjustments to previously identified, but not yet completed, projects add to the total amount.
- Iowa School for the Deaf reports a slight decrease in the amount of deferred maintenance.
 - A number of projects on prior lists have been accomplished or are in the process of being undertaken, including the Curtain Wall Replacement in the Girls' Dormitory and the continuation of the Utility System upgrade, both of which were funded by FY 2003 capital appropriations.
- The slight reduction at the Iowa Braille and Sight Saving School is due to completed, ongoing or planned work on previously identified projects.

Comparisons of dollar amounts sometimes obscure progress that is being made in addressing deferred maintenance on the campuses.

- The University of Iowa Health Sciences Campus Master Plan will provide new research and teaching facilities and will eliminate or remove substantial deferred maintenance problems in the Steindler Building, Bowen Science Building, Medical Education Building and Westlawn. The University estimates these benefits at \$940,000.

Type of Deferred
Maintenance

Table 3 (page 16) summarizes Fall 2002 deferred maintenance by type of project.

As reported by institutional officials, heating, ventilating and air conditioning (HVAC) work is the largest single need.

- Excluding work to be undertaken in FY 2003, the institutions have estimated that HVAC modifications should be undertaken in 154 buildings (Iowa State University counts each building addition as a separate building) at an estimated cost of \$23.1 million.
- This amount compares to the \$21.2 million reported for Fall 2000 and \$23.7 million reported for Fall 2001.
- This reporting of needed expenditures for HVAC work is consistent with expectations since the systems included in buildings constructed in the late 1960's and early 1970's have or are reaching the end of their useful lives.

Corrective action to building roofs and envelopes helps ensure the integrity of the buildings and helps minimize damage to the interiors.

- The number of buildings with building envelopes needing work is estimated at 138 at a cost of \$17.0 million (slightly less than Fall 2001).
- The estimated cost of roof work is \$8.1 million; this is a decline of \$1.8 million from the \$9.9 million reported in Fall 2001.
- The amount needed for roofs is less than work needed for windows (\$13.3 million), electrical (\$13.8 million) and interior (\$14.2 million).

Comparisons with building fall 2001 data are included in Appendix B.

Current and Future
Funding

The amount of deferred maintenance would have grown at a much more rapid rate if the institutions had not increased their building repair expenditures over the last few years, consistent with the Board's emphasis in making this area a priority.

- General education, general fund building repair expenditures increased from \$7.1 million in FY 1990 to \$20.3 million in FY 2000. (See Table 2, page 15.)
- Internal reallocations provided a significant portion of the increased funds and appropriations added \$1.2 million between FY 1995 and FY 2000.

Expenditures were slightly lower in FY 2001 (\$19.3 million) and dropped to \$11.5 million in FY 2002, a decline of \$8.8 million (-43.3%).

The amount budgeted for FY 2003 from the general fund for general education facilities is \$13.6 million.

Building Repairs
and Routine
Maintenance

It is important that building repair budgets be returned to their prior levels as quickly as possible. Adequate annual funding of building repair and routine maintenance is needed to avoid further deterioration of buildings and to continue the reduction in the backlog of identified projects.

According to studies published by the Society for College and University Planning, the National Association of College and University Business Officers and the Association of Higher Education Facilities Officers, building repair funds should equal, at a minimum, 1% of the replacement value of campus facilities.

The FY 2003 Regent general fund, general education building repair operating budgets range from .06% to .59% of the replacement value of the campus' general education facilities.

As noted in prior deferred maintenance governance reports, capital asset renewal is one of the greatest challenges facing American higher education because facilities help ensure quality academic programs and the ability to attract and retain faculty and students.

Capital Funding

Capital funding for correction of deferred maintenance and fire safety has not been specifically appropriated since FY 1996.

Funding for correction of deferred maintenance and fire and environmental safety deficiencies is the number one priority in the Board's FY 2004 capital budget request (\$14.9 million).

- Each of the institutions has a list of "Top 25" deferred maintenance projects, all or a portion of which would be funded by the appropriations request.
- The institutions are knowledgeable in determining their most pressing needs and how these needs relate to other campus capital projects.

The Board's Five-Year Capital Plan (FY 2004 – FY 2008) for state funds includes a total of \$73.9 million in requested funds for correction of deferred maintenance and fire safety deficiencies.

As detailed earlier in this report, the correction of deferred maintenance items totaling approximately \$52.6 million will be incorporated into major renovation and utility projects included in the Regent approved Five-Year Plan (FY 2004 – FY 2008) if state funding is received.

While the focus of the above discussion has been on building repair (renewal funds) which are used to replace building components as well as deferred maintenance and fire safety projects, adequate funding of regular maintenance is also needed as it can significantly extend the useful lives of facilities and their components.

If routine maintenance is not properly funded, the useful life of a component is shortened and the need for capital renewal funding is even greater. If capital renewal funding is not available, the lack of replacement can cause further damage; i.e. a leaking, beyond-repair roof can cause damage to the interior. However, no level of maintenance can indefinitely extend the life of roofs, windows, mechanical systems and other building and utility systems.


Joan Racki


Approved: 
Gregory S. Nichols

TABLE 1

BOARD OF REGENTS, STATE OF IOWA FY 1993 - FY 2003
 GENERAL FUND BUILDING AND UTILITY DEFERRED MAINTENANCE PROJECTS AND
 RENOVATION PROJECTS WHICH INCLUDE CORRECTION OF DEFERRED MAINTENANCE
 (\$ thousands)

	SUI	ISU	UNI	ISD	IBSSS	Total
Deferred Maintenance Projects:						
Completed Projects**						
FY 1993	\$ 6,591.9	\$ 970.2	\$ 1,593.4	\$ 45.0	\$ 16.1	\$ 9,216.6
FY 1994	2,881.6	1,881.1	1,459.6	543.5	75.9	6,841.7
FY 1995	4,922.1	7,805.3	1,703.1	148.0	24.8	14,603.3
FY 1996	6,571.3	6,944.4	2,581.3	173.0	207.8	16,477.8
FY 1997	3,262.6	2,953.8	2,256.7	133.1	95.6	8,701.8
FY 1998	3,053.0	3,495.3	1,677.7	282.5	172.5	8,681.0
FY 1999	2,928.8	3,492.2	3,435.2	470.0	36.8	10,363.0
FY 2000	6,375.4	5,522.2	3,859.1	758.0	595.1	17,109.8
FY 2001	3,798.2	6,104.2	858.7	485.0	49.1	11,295.2
FY 2002	2,598.9	2,463.9	3,442.6	660.0	1,159.8	10,325.2
Subtotal	\$ 42,983.8	\$ 41,632.6	\$ 22,867.4	\$ 3,698.1	\$ 2,433.5	\$ 113,615.4
Projects Planned for or Continued in FY 2003	\$ 3,888.0	\$ 7,713.4	\$ 504.0	\$ 740.0	\$ 951.8	13,797.2
Total	\$ 46,871.8	\$ 49,346.0	\$ 23,371.4	\$ 4,438.1	\$ 3,385.3	\$ 127,412.6
FY 1993 - FY 2002 Renovation Projects Which Include Correction of Significant Amounts of Deferred Maintenance**	\$ 38,041.6	\$ 20,695.1	\$ 22,151.0			\$ 80,887.7
Renovation Projects Planned or Continued for FY 2003 with Correction of Significant Amounts of Deferred Maintenance**	\$ 16,840.0	\$ 21,027.8	\$ 30,800.0			\$ 68,667.8
GRAND TOTAL	\$ 101,753.4	\$ 91,068.9	\$ 76,322.4	\$ 4,438.1	\$ 3,385.3	\$ 276,968.1
Total - By Source of Funds						
Building Renewal/Building Maintenance/General University	\$ 24,015.8	\$ 28,887.5	\$ 17,721.6	\$ 1,833.1	\$ 1,274.8	\$ 73,732.8
Building Renewal/Academic Building Revenue Bonds	340.0		83.5			423.5
Income from Treasurer's Temporary Investments (TTI)	9,730.3	10,870.5	805.7			21,406.5
Gifts, Grants	2,580.7	8,658.4				11,239.1
Utility Renewal and Replacement	13,947.1	8,570.8				22,517.9
Academic Building Revenue Bonds; Project Notes	11,346.3	11,862.2	9,998.6			33,207.1
Capital and Special Appropriations	25,640.0	13,005.5	45,602.7	1,820.0	1,845.8	87,914.0
TTI, FY 96 Capital Appropriation, Utility Enterprise R & R	1,000.0					1,000.0
FY 96 Capital Appropriation, Utility Enterprise R & R	450.0					450.0
Agriculture Experiment Station & Cooperative Extension		895.2				895.2
Facilities Overhead Use Allowance	1,679.0	982.5				2,661.5
Building Repair / Treasurer's Temporary Investments	237.8					237.8
College of Medicine Gifts / Treasurer's Temporary Investments	2,468.4					2,468.4
College of Medicine Earnings and Gifts	1,645.9					1,645.9
Other (includes unspecified combination of above fund sources)	8,359.9	7,336.3	2,110.3	785.0	264.7	18,856.2
GRAND TOTAL - INDIVIDUAL DEFERRED MAINTENANCE ITEMS AND RENOVATION COSTS	\$ 101,753.4	\$ 91,068.9	\$ 76,322.4	\$ 4,438.1	\$ 3,385.3	\$ 276,968.1

Notes:

*SUI - includes projects approved and funded for FY 93 - FY 96; for FY 1993 also includes projects completed with Academic Building Revenue Bonds.

**Renovation projects include SUI - Gilmore Hall, Schaeffer Hall, Phillips Hall, Bowen Science Building Microbiology, Medical Education Building, Hancher Auditorium, Engineering Building, Biological Sciences - Phase 2, Hydraulics Laboratory Modernization; ISU - Catt Hall, Laboratory of Mechanics, Gilman Hall and Gilman Hall Systems Upgrade, State Gym, Beardshear Hall, and Hamilton Hall. UNI - Seerley, Wright and Lang Halls, Commons, Steam Distribution System Replacement - Phase 1, and Innovative Teaching and Technology Center (East Gym Renovation).

TABLE 2
BOARD OF REGENTS, STATE OF IOWA

OPERATING BUDGET GENERAL FUND BUILDING REPAIR EXPENDITURES

General University	FY 1990	FY 1991	FY 1992	FY 1993	FY 1994	FY 1995	FY 1996
SUI	\$ 2,609,724	\$ 1,765,221	\$ 2,296,461	\$ 3,356,426	\$ 3,902,015	\$ 4,579,894	\$ 5,200,910
ISU	2,060,158	2,614,546	3,206,425	5,458,582	4,991,869	6,159,403	6,120,634
UNI	2,030,674	1,592,040	1,473,058	1,315,056	3,473,110	2,473,399	2,563,818
ISD	311,657	318,759	343,125	286,814	332,161	307,219	412,919
IBSSS	93,124	55,409	28,093	34,682	72,001	71,707	104,880
Total	\$ 7,105,337	\$ 6,345,975	\$ 7,347,162	\$ 10,451,560	\$ 12,771,156	\$ 13,591,622	\$ 14,403,161

General University	FY 1997	FY 1998	FY 1999	FY 2000	FY 2001	FY 2002	FY 2003*
SUI	\$ 5,302,914	\$ 6,467,637	\$ 7,646,032	\$ 8,369,604	\$ 6,527,988	\$ 5,063,564	\$ 6,376,996
ISU	6,762,871	6,923,336	6,690,286	9,328,081	9,420,081	5,141,960	6,644,432
UNI	2,249,963	3,432,210	2,282,012	1,819,021	2,236,707	529,790	350,000
ISD	415,959	450,899	362,190	639,727	741,221	572,136	114,224
IBSSS	82,404	45,712	227,818	154,926	417,608	170,575	110,257
Total	\$ 14,814,111	\$ 17,319,794	\$ 17,208,338	\$ 20,311,359	\$ 19,343,605	\$ 11,478,025	\$ 13,595,909

* FY 2003 budgeted amount as approved in July 2002.

Table 3
BOARD OF REGENTS, STATE OF IOWA
CATEGORIZATION OF GENERAL FUND BUILDING DEFERRED MAINTENANCE BY TYPE OF PROJECT*
 As of Fall, 2002
 (\$ thousands)

Category	SUI		ISU		UNI		ISD		IBSSS		Total	
	# Blgs	\$	# Blgs**	\$	# Blgs	\$	# Blgs	\$	# Blgs	\$	# Blgs	\$
Building Envelope	13	\$ 4,421.4	102	\$ 9,053.4	14	\$ 3,086.0	3	\$ 250.0	6	\$ 140.0	138	\$ 16,950.8
HVAC	16	7,691.8	102	6,497.2	26	8,094.0	6	750.0	4	115.0	154	23,148.0
Roofs	7	2,257.7	91	4,214.2	6	1,581.0	1	40.0	3	50.0	108	8,142.9
Site Work				1,127.3		1,460.0				10.0		2,597.3
Windows	13	3,999.6	100	8,553.5	1	724.0			1	5.0	115	13,282.1
Plumbing	16	2,156.2	89	2,806.5	3	135.0			3	45.0	111	5,142.7
Electrical	17	3,069.5	104	5,680.3	10	4,918.0		80.0	4	90.0	135	13,837.8
Interior	17	1,520.6	102	8,106.9	22	4,252.0		60.0	5	215.0	146	14,154.5
Elevator	13	1,304.7									13	1,304.7
Exterior Accessories	9	3,205.7									9	3,205.7
Controls & Safety	13	1,252.7			6	474.0					19	1,726.7
Total		\$30,879.9		\$46,039.3		\$24,724.0		\$1,180.0		\$ 670.0		\$103,493.2

* Excludes projects in process or projects scheduled to begin during FY 2003, including major renovations.
 Includes deferred maintenance to be incorporated into major renovations included in the Board's Five-Year Capital Program, FY 2003 - FY 2007.

** Each building addition listed as a separate building.

Appendix A

Identification and Prioritization of Deferred Maintenance

SUI

The University refines the internal building assessment being carried out on a continuing basis.

The Facilities Condition Auditing System identifies deficient conditions, develops a list of projects to eliminate the deficiencies and their associated costs, prioritizes projects based on the severity of the deficiency, and provides a database capable of storing, analyzing and updating the deferred maintenance data.

Operations and Maintenance personnel familiar with building conditions are the primary resources in the audit process; the goal is to audit approximately 200,000 gross square feet per month.

The Facility Audit Team members visually inspect and assess each facility based on Primary Building System Categories which include building envelope, electrical systems, HVAC systems, exterior accessories, interior finishes, plumbing, and fire safety.

Deficiencies are classified by the following priorities:

- Priority 1 - critical, life safety (accomplish immediately);
- Priority 2 – potentially critical (accomplish in 1 year);
- Priority 3 – necessary, not yet critical (accomplish in 2-5 years); and
- Priority 4 – recommended

The University reports that these assessments will:

- Identify the extent and severity of the deferred maintenance backlog in the facilities being audited;
- Identify, prioritize and schedule deferred maintenance projects that take best advantage of available funds;
- Develop a long-range financial planning process to protect University facilities; and
- Maintain a continuously updated database, which reflects deferred maintenance projects as they are implemented.

ISU

The University's report is based upon a comprehensive systematic process for identifying the deferred maintenance needs of the campus buildings.

General fund buildings are assessed in eight categories: envelope, HVAC, roofs, site work, windows, plumbing, electrical and interior.

The assessment takes into account the replacement value of the building, the value of the sub-systems within the building, the age of the building and its systems, and the condition of those systems.

The area mechanic assigned to each building provides a condition assessment of each building system. This area mechanic is the same individual who performs routine operations and maintenance on building systems and equipment and is the individual best in a position to assess his/her assigned building.

Projects are prioritized by the Maintenance and Improvement Committee representing teaching, research, student affairs, business and facilities staff that meet regularly to review and prioritize projects and allocate building repair resources.

- The Committee prioritizes projects by the negative impact on teaching/research/outreach, situations that significantly compromise safety, or the ability of the University to continue to provide services.

UNI

Operations and maintenance personnel focus their resources on maintenance needs utilizing a priority system that addresses safety issues first, support to educational functions second, repair of facilities and mechanical equipment where it will lengthen the useful life of assets third, and support to general facility upgrades fourth.

A committee of staff engineers, architects and operations personnel with input from Physical Plant and Facilities Planning staff, Administration and Finance division directors, Academic Affairs deans, directors and department heads, Education and Student Services division directors and Advancement division directors, reviews the working list of deferred maintenance items annually.

The committee reviews the items to determine how they may impact other needs, such as fire safety, Americans with Disabilities Act, programmatic renovations, utilities distribution, energy conservation, and consistency with the campus Master Plan.

Deferred maintenance items that can be coordinated with or show a high degree of association with other requirements and available funding sources receive top priority. Unless there is a failure, imminent failure or accelerating deterioration in an area or item, the deferred maintenance items that satisfy the most needs receive the highest priority.

ISD

Any issues that deal with student safety are always dealt with first. Other deferred maintenance issues are discussed at weekly meetings.

IBSSS

Deferred maintenance items are identified by noting items that need attention or replacement during ongoing inspections. If the resources to correct the items are not immediately available, they are added to the deferred maintenance list.

Highest priority is given to those projects that involve safety, have highest rates of return on investment, and those that can accelerate into much larger problems if timely, corrective action is not taken.

Appendix B
Table B
University of Iowa
Deferred Maintenance*

Category	As of Fall, 2001 (FY 02)		As of Fall, 2002 (FY 03)		Difference	
	# Bldgs	\$ (000's)	# Bldgs	\$ (000's)	# Bldgs	\$ (000's)
Building Envelope	13	\$ 4,534.6	13	\$ 4,421.4		\$ (113.2)
HVAC	14	6,843.4	16	7,691.8	2	848.4
Roofs	9	1,719.8	7	2,257.7	-2	537.9
Elevator	4	375.4	13	1,304.7	9	929.3
Exterior Accessories	7	670.7	9	3,205.7	2	2,535.0
Windows	14	5,398.8	13	3,999.6	-1	(1,399.2)
Plumbing	14	1,450.3	16	2,156.2	2	705.9
Electrical	16	2,896.9	17	3,069.5	1	172.6
Interior	18	4,081.9	17	1,520.6	-1	(2,561.3)
Controls & Safety	13	1,264.3	13	1,252.7		(11.6)
Total		\$ 29,236.1		\$ 30,879.9		\$ 1,643.8

* Excludes work planned to be undertaken during identified fiscal year.
Includes work incorporated into major renovations included in the Board's approved Five-Year Plan

**Appendix B
Table C
Iowa State University
Deferred Maintenance***

Category	As of Fall, 2001 (FY 02)		As of Fall, 2002 (FY 03)		Difference	
	# Blds	\$ (000's)	# Blds	\$ (000's)	# Blds	\$ (000's)
Building Envelope	110	\$ 8,171.3	102	\$ 9,053.4	-8	\$ 882.1
HVAC	104	7,668.0	102	6,497.2	-2	(1,170.8)
Roofs	96	6,984.3	91	4,214.2	-5	(2,770.1)
Site Work	79	909.1	73	1,127.3	-6	218.2
Windows	104	7,574.5	100	8,553.5	-4	979.0
Plumbing	93	2,692.7	89	2,806.5	-4	113.8
Electrical	106	6,181.7	104	5,680.3	-2	(501.4)
Interior	108	7,093.6	102	8,106.9	-6	1,013.3
Controls & Safety						
Total		\$47,275.2		\$46,039.3		\$(1,235.9)

* Excludes work planned to be undertaken during identified fiscal year.
Includes work to be incorporated into renovations included in the Board approved Five-Year Capital Plan.
The University counts each addition as a separate building.

Appendix B
Table D
University of Northern Iowa
Deferred Maintenance*

Category	As of Fall, 2001 (FY 02)		As of Fall, 2002 (FY 03)		Difference	
	# Blgs	\$ (000's)	# Blgs	\$ (000's)	# Blgs	\$ (000's)
Building Envelope	13	\$ 2,853.1	14	\$ 3,086.0	1	\$ 232.9
HVAC	15	8,201.0	26	8,094.0	11	(107.0)
Roofs	5	1,112.0	6	1,581.0	1	469.0
Site Work	5	1,142.5	10	1,460.0	5	317.5
Windows	2	1,178.0	1	724.0	-1	(454.0)
Plumbing	5	281.0	3	135.0	-2	(146.0)
Electrical	10	5,695.0	10	4,918.0		(777.0)
Interior	10	3,946.4	22	4,252.0	12	305.6
Controls & Safety	4	462.0	6	474.0	2	12.0
Total		\$24,871.0		\$24,724.0		\$ (147.0)

* Excludes work planned to be undertaken during identified fiscal year.
Includes work incorporated into major renovations included in the Board's approved Five-Year Capital Plan, FY 2003 - FY 2007.

Appendix B
Table E
Iowa School for the Deaf
Deferred Maintenance*

Category	As of Fall, 2001 (FY 02)		As of Fall, 2002 (FY 03)		Difference	
	# Bldgs	\$ (000's)	# Bldgs	\$ (000's)	# Bldgs	\$ (000's)
Building Envelope	4	\$ 200.0	3	250	-1	\$ 50.0
HVAC	6	730.0	6	750		20.0
Roofs	1	45.0	1	40		(5.0)
Site Work / Campus		40.0				(40.0)
Windows						
Plumbing						
Electrical		120.0		80		(40.0)
Interior	1	60.0	1	60		
Controls & Safety						
Total		\$ 1,195.0		\$ 1,180.0		\$ (15.0)

* Excludes work planned to be undertaken in identified fiscal year.

**Appendix B
Table F
Iowa Braille and Sight Saving School
Deferred Maintenance***

Category	As of Fall, 2001 (FY 02)		As of Fall, 2002 (FY 03)		Difference	
	# Bldgs	\$ (000's)	# Bldgs	\$ (000's)	# Bldgs	\$ (000's)
Building Envelope	7	\$ 155.0	6	\$ 140.0	-1	\$ (15.0)
HVAC	5	215.0	4	115.0	-1	(100.0)
Roofs	1	30.0	3	50.0	2	20.0
Site Work / Campus		35.0		10.0		(25.0)
Windows	1	5.0	1	5.0		
Plumbing	3	45.0	3	45.0		
Electrical	4	65.0	4	90.0		25.0
Interior	5	250.0	5	215.0		(35.0)
Controls & Safety						
Total		\$ 800.0		\$ 670.0		\$(130.0)

* Excludes work planned to be undertaken during identified fiscal year.