

Contact: John Nash

ANNUAL FACILITIES REPORT

Action Requested: Recommend the Board approve all Capital Plans, approve the Institutional Roads Program and receive the Facilities Governance Report.

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Section A

CAPITAL PLANS

Executive Summary: Recommend the Board approve the Five-Year Capital Plan for State Funds, including the Capital Request for FY 2024, the Five-Year Capital Plan for UIHC and the Five-Year Capital Plan for Other Funds for UI, ISU and UNI.

1. Five-Year Capital Plan for State Funds, Including Capital Request for FY 2024

Projects Requesting State Funds		FY 2024	FY 2025	FY 2026	FY 2027	FY 2028	State Request	University Funds, Private Gifts	Total
UI, ISU, UNI	New Building Renewal Commitment	\$ 30,000	\$30,000	\$ 30,000	\$30,000	\$ 30,000	\$150,000	\$ -	\$ 150,000
UI, ISU, UNI	Tuition Replacement Appropriation	\$ 30,000	\$30,000	\$ 30,000	\$30,000	\$ 30,000	\$150,000	\$ -	\$ 150,000
ISU	Veterinary Diagnostic Laboratory - Phase 2	15,700	18,800	16,810	11,200	-	62,510	3,990	66,500
ISD	Girls Dormitory HVAC / Electrical	5,713	-	-	-	-	5,713	-	5,713
IA LL	Iowa Lakeside Lab - Housing Facility	1,100	7,152	-	-	-	8,252	-	8,252
Total =		\$ 82,513	\$85,952	\$ 76,810	\$71,200	\$ 60,000	\$376,475	\$ 3,990	\$380,465

a. New Building Renewal Commitment and Tuition Replacement
Board Office

To address building renewal needs in General Education Fund (GEF) facilities, the Board requests an amendment to Iowa Code 262A to allow the BOR to bond for academic buildings without specific authorization from the General Assembly and Governor. In addition and as described in more detail below, the following requests include \$30 million capital commitment be set aside annually in the Rebuild Iowa Infrastructure Fund (RIIF) budget for the Board to use for GEF building renewal projects and an additional \$30 million annually to meet existing annual debt service obligations on academic building revenue bonds replacement obligations (tuition replacement appropriation) allowing the Board to apply any remaining funds to building renewal projects.

Advantages to Tackling Building Renewal:

- Avoid inadequate HVAC systems, which could lead to health and safety risks
- Avoid entire system failures, which could lead to building shutdowns, class disruptions
- Avoid emergency or more complex breakdown repairs, which lead to higher repair costs
- Avoid reduced overall equipment efficiency, which lead to higher energy costs
- Avoid inadequate regulatory compliance, which could lead to fines and affect reputations

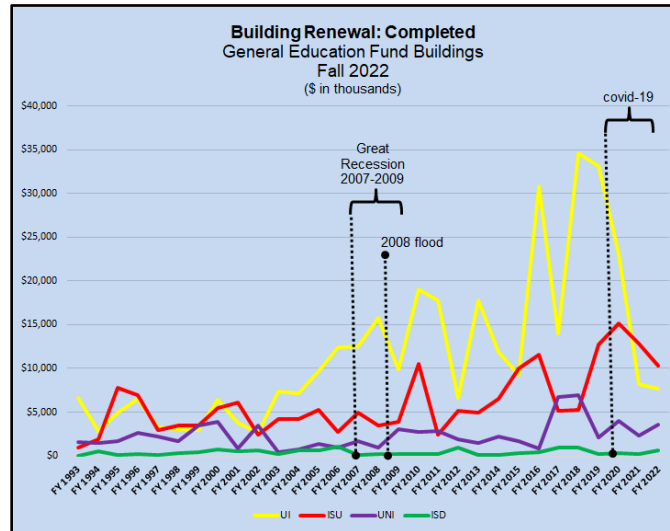
New Building Renewal Commitment - Over the last 17 years, the Regent institutions have averaged \$33 million in capital appropriations for GEF facilities. Over this same period, the Regent institutions have funded 31% of the GEF capital project costs, which also received state RIIF appropriations. The requested annual \$30 million would be matched at 50% in aggregate by the institutions. Funds would be used to pay for GEF building renewal projects directly or for debt service of bonds issued to fund improvements.

New Building Renewal Commitment from State

State Funding	University Match	Total
\$30,000,000	\$15,000,000	\$45,000,000

Specifically, these building renewal funds would be allocated by the Board primarily towards deferred maintenance projects in GEF facilities. Building renewal would also include fire and environmental safety, campus security, regulatory compliance, energy conservation, modernization and building replacement projects in GEF facilities.

Regent institutions spent an average of \$33 million per year over the last 10 years to minimize the \$1.2 billion GEF building renewal backlog.

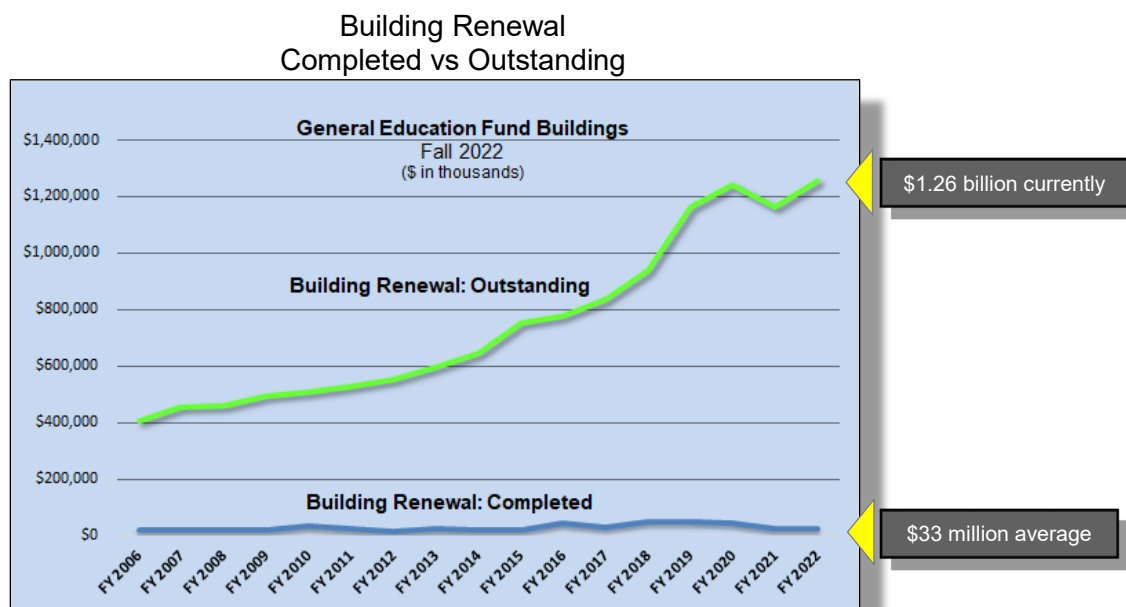


**General Education
Facility square
footage distribution:**
UI = 47%
ISU = 38%
UNI = 13%
ISD = 2%
Total = 100%

Most recently, Regent institutions completed over \$22 million in FY 2022 in GEF building renewal projects, which was down 4% from last year's \$23 million. Decreases in funding building renewal projects over the last two years has been largely due to the unprecedented financial impact of COVID-19 on Regent institutions.

Building Renewal: Outstanding General Education Fund Buildings Fall 2022 (\$ in thousands)					
	UI	ISU	UNI	ISD	Total
Individual					
Buildings ¹	\$341,660	\$576,736	\$166,579	\$1,775	\$1,086,751
Utilities	-	27,890	5,644	-	33,534
Subtotal	\$341,660	\$604,626	\$172,223	\$1,775	\$1,120,285
Included within Five Year Capital Plan (FY 2021 - FY 2025)					
Buildings ¹	\$65,234	\$29,261	\$40,000	\$0	\$134,495
Utilities	-	2,750	-	-	2,750
Subtotal	\$65,234	\$32,011	\$40,000	\$0	\$137,245
Grand Total					
Buildings ¹	\$406,894	\$605,997	\$206,579	\$1,775	\$1,221,246
Utilities	-	30,640	5,644	-	36,284
Total	\$406,894	\$636,637	\$212,223	\$1,775	\$1,257,530

¹ Includes site work.

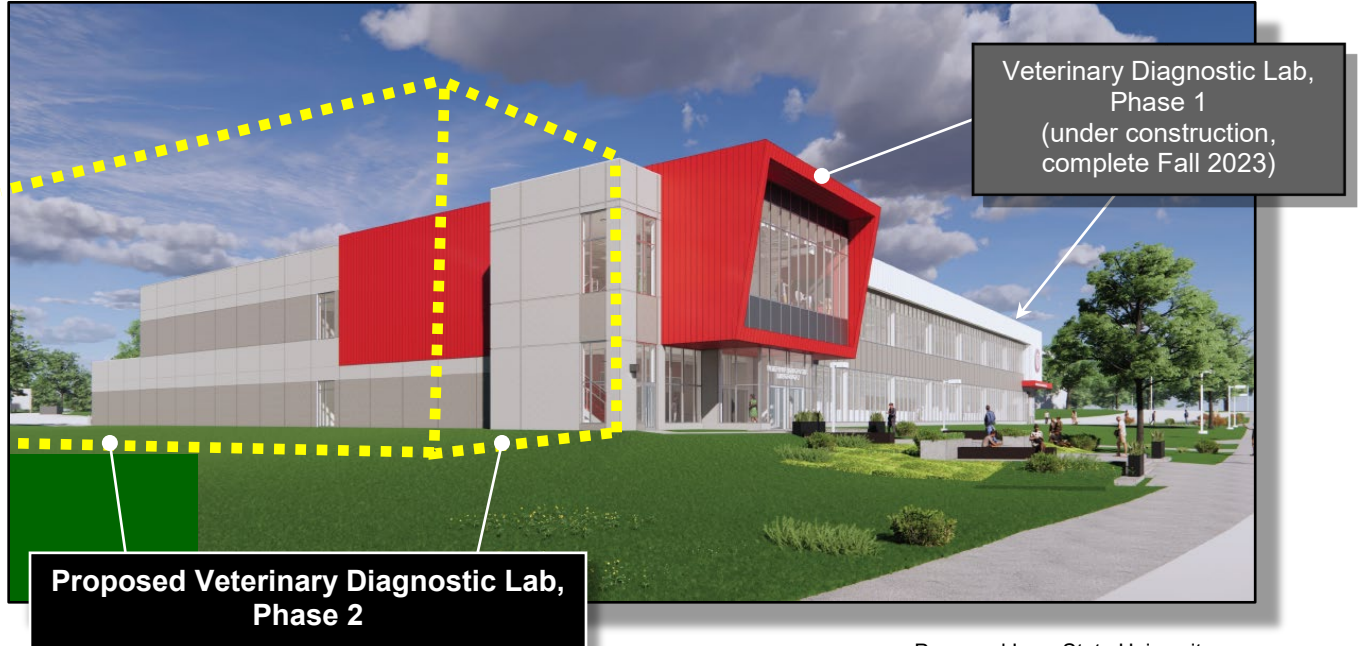


For additional building renewal information, see page 51.

Tuition Replacement Appropriation - The 1969 General Assembly passed legislation (Iowa Code 262A) permitting the issuance of Academic Building Revenue bonds to fund capital projects at the Regent universities. The bonding program has enabled the Regents to finance critical academic construction needs at Iowa's public universities through the public sale of long-term bonds. The issuance of these bonds currently requires approval of the General Assembly and the Governor. Tuition replacement appropriations represent an ongoing commitment of the state to meet the debt service cost of Academic Building Revenue bonds. The Board requests an amendment to the Code to eliminate the legislative approval allowing the Board to issue bonds for academic facility improvements similar to other Board-issued bonds. Tuition revenue is pledged to pay the principal and interest on the bonds and the tuition replacement appropriation replaces that revenue.

The tuition replacement appropriation has ranged from \$32.45 million in FY 2017 to \$27.9 million in FY 2023. In addition to the new building renewal appropriation with the matching funds outlined on the previous page, this request includes an annual \$30 million commitment in tuition replacement funding for existing debt service on previously issued bonds and would allow the Regents to utilize the difference either directly or as additional debt service on Academic Building Revenue Bonds for GEF building renewal projects.

b. ISU Veterinary Diagnostic Laboratory, Phase 2
Iowa State University



Proposed Iowa State University,
Veterinary Diagnostic Laboratory Phase 2 project

Proposed Project Budget

	Appropriations	Gifts	University Funds	Total
FY 2024	\$ 15,700,000	-	-	\$ 15,700,000
FY 2025	18,800,000	-	-	18,800,000
FY 2026	16,810,000	1,330,000	2,660,000	20,800,000
FY 2027	11,200,000	-	-	11,200,000
FY 2028	-	-	-	-
Total	\$ 62,510,000	\$ 1,330,000	\$ 2,660,000	\$ 66,500,000

Annual Operating Expenses

Operations and Maintenance	\$ 230,000
Utilities	572,000
Other (Grounds, Mail, Environmental Health & Safety, Department of Public Safety)	58,000
Annual Capital Renewal	552,000
Total	\$1,412,000

Annual Operating Expenses: Source of Funds

ISU College of Veterinary Medicine

In 2018, the General Assembly authorized \$63.5 million toward the design and construction of the new \$75 million Veterinary Diagnostic Lab (VDL) Phase 1 project, which houses case receiving, initial assessment, and sample processing functions. That project is currently under construction and is scheduled to be complete in Fall 2023.

This capital request for \$62.51 million in state funds would go toward a \$66.5 million, 69,600 gsf addition to VDL Phase 1 to accommodate all remaining VDL programs under one roof, including laboratory testing, research space and support functions. These remaining programs constitute critical laboratory functions, which affect more than 80% of all cases processed by the VDL. This addition would consolidate all VDL operations, provide efficient and effective process flow, address critical issues of space quantity and quality, and provide the necessary biosafety and biocontainment for the only full-service and fully-accredited veterinary diagnostic lab in the state of Iowa.

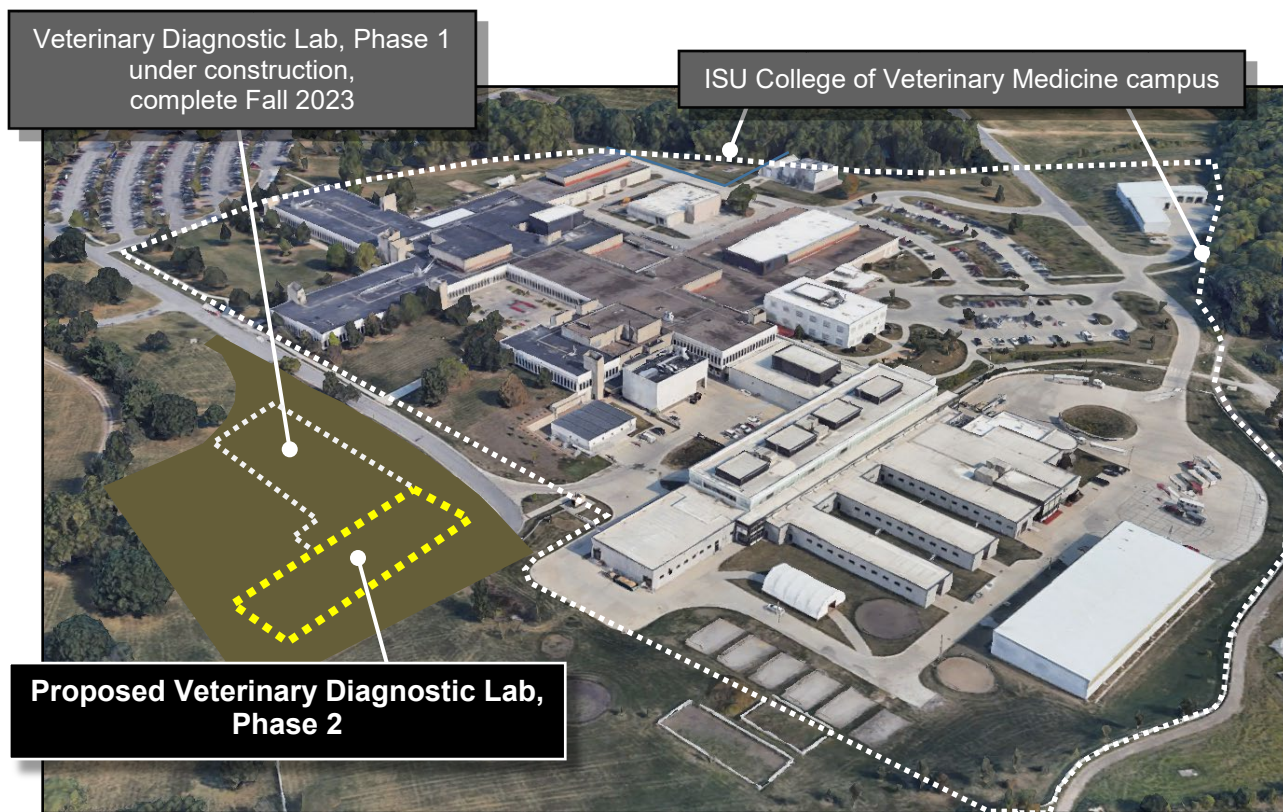
Project Schedule

Planning and Design	8 months
Bidding	2 months
Construction	24 months
Occupancy	2 months
Total	36 months



VDL faculty and technical staff have grown from 11 faculty and 20 staff in 1976 to approximately 25 faculty and 140 technical staff, processing over 115,000+ diagnostic case submissions and conducting more than 1.5 million diagnostic assays each year for livestock and poultry producers, pet owners and wildlife.

Over the past forty-four years, the limited footprint of the VDL has not kept pace with the growth in caseload and diagnostic medicine teaching needs; new areas of disease and expertise have emerged, the breadth of diagnostic services provided to the livestock and poultry industries, wildlife, and pets has expanded substantially, opportunities to assist with providing testing to support public health (e.g. Covid-19 testing) have evolved, and staffing has grown to meet client expectations associated with accessible, timely, accurate, valid and consistent test results. Growth has been accommodated in an ad-hoc manner. There is a co-mingling of public and private, clean and dirty, noisy and quiet, public and secure functions. Biosafety and biocontainment are compromised due to poor control of airflow, poor layout and non-optimal workflow patterns.



Proposed ISU Veterinary Diagnostic Laboratory, Phase 2 project

North



Mechanical systems are outdated, air distribution poor, plumbing inadequate, and electrical and data systems are limited in capacity and distribution. Growth in the quantity of diagnostic case submissions as well as the procurement of new instruments and the equipment required to keep up with the demands of Iowa's progressive livestock and poultry industries and the College of Veterinary Medicine's educational needs have created overcrowding. Space quality and quantity are critical concerns. Many of the current programs and services areas are severely overcrowded with minimal room for expansion and no space for future growth or for the addition of new programs and capabilities.

Today, new constraints and regulations are in place. Health and life safety codes are more stringent and the neutralization/disposal of infectious agents, test samples and animals must be considered in the design and operation of the facility. Current space, functional layout, and building environmental infrastructure systems have a serious negative impact on the ability of the VDL to serve animal agriculture industry, companion animal owners, wildlife populations and more broadly, public health. These space issues affect the lab's ability to incorporate new technologies and state-of-the-art services, ensure separation of incompatible activities, accomplish applied research, as well as detect, identify and respond to emerging domestic and foreign animal disease outbreaks which would negatively impact the state's and nation's animal agriculture industry and public health in the case of zoonotic diseases.

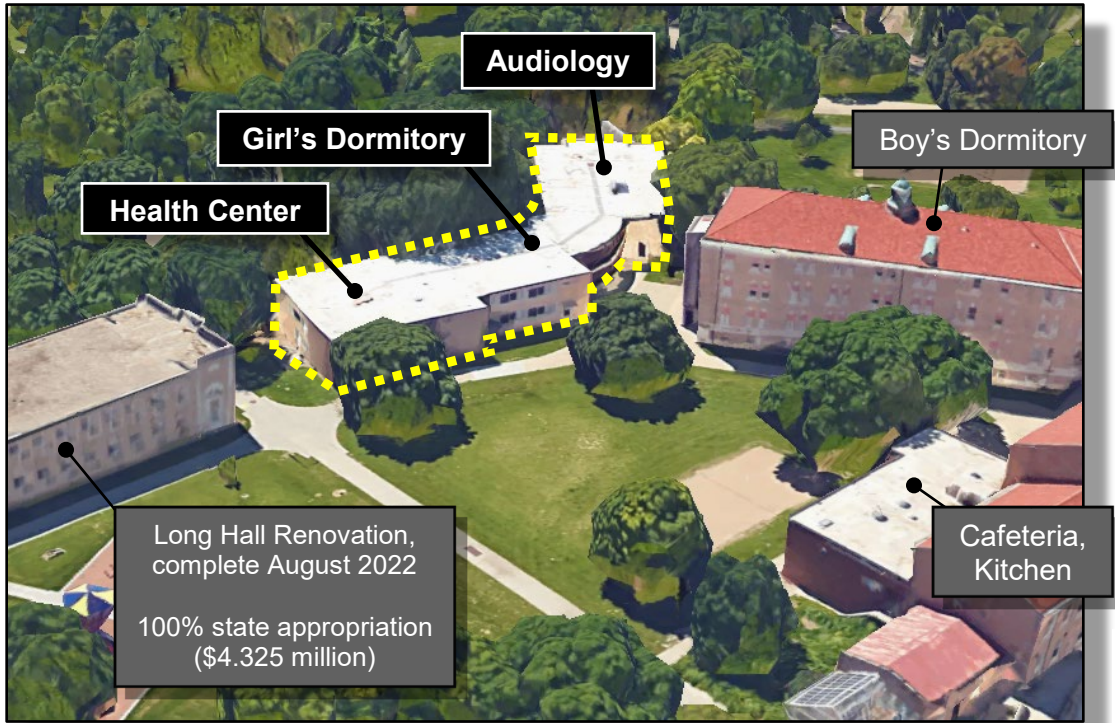
The state funding authorized in FY 2019 is an excellent first step towards providing a new comprehensive and cutting-edge diagnostic laboratory environment. A new facility is currently under construction and would partially address issues of biosafety, biocontainment, and sufficient modern space required for the front-end functions of the diagnostic processes performed on 115,000+ cases per year by the VDL. The sections and functions that cannot be accommodated would remain in inadequate, obsolete, constricted, and unappealing spaces. Outdated building systems and materials, along with biocontainment and biosafety concerns still exist for the remaining laboratory functions. These testing functions are critical to the laboratory operations, impacting 80% of all the testing completed at the diagnostic laboratory.

Alternatives Considered

Laboratory processes are sequential, integrated, and need to be in close proximity. All solutions recognized the need for additional, efficiently designed and optimally organized space, building and technology infrastructure that accommodates the needs of a 21st century laboratory, and a space that meets bio-containment and biosafety requirements. Renovation of existing space was considered, but adequacy and location of swing space, extended construction intervals due to phasing, and the magnitude of the infrastructure improvements required to address biosecurity and biocontainment needs were significant limiting factors. Any solution must minimize disruptions to laboratory functions, not interfere with the operational continuity of the VDL and not affect the veracity of lab results or client responsiveness.

Having the front-end functions of the lab and the testing sections in two different buildings would create challenges with the flow of samples and impedes optimal workflow. To support critical long-term efficiency, effectiveness, and ensure future flexibility to develop and implement new and emerging technologies, a facility that consolidates all diagnostic laboratory functions is required.

c. ISD Girls Dormitory HVAC & Electrical
Iowa School for the Deaf



Proposed ISD Girl's Dormitory HVAC & Electrical project, looking northwest
ISD's Girl's Dormitory, built in 1961 & 1971

Project Budget

	Proposed Appropriations	Gifts & Other Funds	Total
FY 2024	\$ 5,713,312	-	\$ 5,713,312
FY 2025	-	-	-
FY 2026	-	-	-
FY 2027	-	-	-
FY 2028	-	-	-
Total	\$ 5,713,312	\$ 0	\$ 5,713,312

Project Schedule

Planning	1.5 months
Bidding	1.0 months
Construction	12.0 months
Occupancy	0.5 months
Total	15.0 months

\$3,800,000 in building renewal would be eliminated by this project.

Built in 1961 (southern half, three stories) and 1971 (northern half, four stories), ISD's Girls' Dormitory houses 35 female students year-round ages five to 18 years old and includes two institutional departments, the Health Center and Audiology. The Girl's Dormitory, Health Center and Audiology would all be renovated in this project.

The heating, ventilation and air conditioning (HVAC) systems throughout are inefficient and have reached the end of their useful lives. While the Health Center, Audiology and student lounges have window air conditioning units, the sleeping quarters for the 35 girls are not air-conditioned. Updating the HVAC would require simultaneous enhancements to the electrical system, including new lighting and electrical power.

The fire detection system needs to be upgraded to adequately notify deaf, blind and deaf and blind students, also faculty, staff and members of the public. For example, the system would emit a blue strobe light for an intruder, amber strobe light for bad weather and white strobe light for fire. Likewise, rather than the standard fire alarm sound, the system would broadcast a human voice, plainly describing the hazardous event.

In addition, the 61-year-old brick exterior walls have water and air infiltration, making residents uncomfortable and causing the existing HVAC system to work even harder. Water is seeping into the basement through cracks in the concrete foundation walls. To resolve this, this project would waterproof the foundation and tuckpoint the exterior walls.

As defined by the Coordinating Council and approved by the Board of Regents, ISD implements the 'preferred vision,' which includes year-round extended learning opportunities for students who are deaf, blind, or deaf and blind. This requires year-round housing, making ISD the only program out of five in the state of Iowa that have on-site residency. The upgrades would address the inefficiencies and provide space conducive to achieving the mission of both ISD and Iowa Educational Services for the Blind and Visually Impaired (IESBVI).

Alternatives Considered

While it is possible to continue to defer maintenance and upgrades to the ISD Girl's Dormitory HVAC and electrical systems, this is an ill-advised, short-term strategy, especially given the 61-year-old age of the structure. Experience with these buildings and similar buildings on other campuses suggest that the proposed renovations are appropriately timed. The lack of upgraded HVAC and electrical systems continues to have a negative impact on students and academic programs.

d. Iowa Lakeside Lab – Housing Facility

Iowa Lakeside Laboratory Regents Resource Center



Iowa Lakeside Lab is a residential campus with students living primarily in 10 heatless cabins or two former motel buildings, which were built in the 1950s. Without heat, the cabins are only used in the summer and have 25 beds. The motel buildings have 40 beds and are used year-round. Together, all 65 beds are filled during the summer during maximum bed demand. During the fall, winter or spring, capacity falls to 22.



Existing Iowa Lakeside Lab housing: 40 motel beds (two buildings)
for year-round use



Existing Iowa Lakeside Lab housing: 25 cabin beds (10 cabins)
for summer use only due to the lack of heating

Project Budget

	Proposed Appropriations	Gifts & Other Funds	Total
FY 2024	\$ 1,100,000	-	\$ 1,100,000
FY 2025	7,151,551	-	7,151,551
FY 2026	-	-	-
FY 2027	-	-	-
FY 2028	-	-	-
Total	\$ 8,251,551	\$0	\$ 8,251,551

Project Schedule

Planning	10.0 months
Bidding	1.5 months
Construction	12.0 months
Occupancy	0.5 months
Total	24.0 months

\$500,000 in building renewal would be eliminated by this project.

Not only are the 10 heatless cabins only used in the summer, they share a centralized restroom and shower facility. In the early 2000s, the two motel buildings were purchased from a resort in Spencer for \$55,000 and moved to the Iowa Lakeside Lab. While the motel buildings do have electric heat and bathrooms, they are extremely energy inefficient with minimal wall/floor/ceiling insulation, have doors that open directly to the outdoors, and are served by individual, energy-consuming window air conditioning units.

In addition, the motel and the cabins lack fire detection and fire suppression per a State of Iowa Fire Marshall inspection, storm shelters, secure entries, ADA compliant enhancements and ADA accessible parking.

In early 2022, Iowa Lakeside Lab subsequently hired CMBA Architects of Spencer to conduct a comprehensive housing study of existing housing and to provide any options for housing improvements.



Iowa Lakeside Lab – Proposed Housing Facility (75 beds),
South end, looking northwest

CMBA Architects' Study and Summary of Alternatives Considered

CMBA Architects of Spencer conducted a study of Iowa Lakeside Lab's housing needs.

Option 1: The initial goal was to add 15 heated spaces with interior bathroom access to the existing housing motel units. The study produced multiple options, including one that included new, stand-alone modular quadplexes with bedrooms connected to a common area with a kitchenette and bathroom. This option was rejected as the cost was prohibitively expensive and required building upon existing Iowa Lakeside Lab green space.

- Option 1 = stand-alone modular quadplexes with bedrooms connected to a common area with a kitchenette and bathroom for a prohibitively high cost.

Option 2 and 3: Not surprisingly, the CMBA study revealed that the two 72-year-old motel buildings were found to be well past their expected service lives.

The next two options involved replacing the two motel buildings with one housing facility, either a 35-bed or a 75-bed residence hall. Both took advantage of the existing underground utility lines, removed \$500,000 in Iowa Lakeside Lab building renewal (two motel buildings) and preserved valuable green space.

- Option 2 = 35-bed residence hall for \$4.5 million
- Option 3 = 75-bed residence hall for \$8.25 million. Selected by Iowa Lakeside Lab.

The net gain in beds with the 35-bed residence hall was minimal at 9 beds, compared to the 75-bed residence hall net gain of 49 beds. Subsequently, Iowa Lakeside Lab selected the 75-bed residence hall.



Proposed Iowa Lakeside Lab – Housing Facility (75 beds),
South common area, looking south

Subsequently, the Iowa Lakeside Lab requests \$8.25 million to demolish the two motel buildings and build a new 75-bed, 21,200 gross square foot residence hall. The 75-bed residence hall would cover the maximum 65 bed demand in the summer and have built-in capacity for future enrollment growth. Demolition of the two motel buildings would eliminate \$500,000 in building renewal.



Proposed Iowa Lakeside Lab – Housing Facility (75 beds),
Typical residence hall room

Construction of new housing is a critical step as Iowa Lakeside Lab seeks to expand the number of students, faculty and interns that can be housed at Iowa Lakeside Lab and participating in year-round education, research, and outreach programs. This is essential in maximizing the value of Iowa Lakeside Lab to Regent universities and northwest Iowa.

With the completion of this project, Iowa Lakeside Lab anticipates serving 300+ additional post-secondary students annually.



Proposed Iowa Lakeside Lab – Housing Facility (75 beds),
North end, looking southeast

Annual Operating Expenses	
Operations and Maintenance	\$ 26,000
Utilities	19,000
Other (Grounds, Mail, Environmental Health & Safety, Department of Public Safety	12,000
Annual Capital Renewal	50,000
Total	\$107,000

Annual Operating Expenses: Source of Funds

Student housing contracts, internship rentals, existing operating funds

About Iowa Lakeside Laboratory Regent Resource Center

The Iowa Lakeside Laboratory Regent Resource Center is owned by the state of Iowa and operated through the Board of Regents. Lakeside's 147-acre campus is located on scenic West Okoboji Lake. Lakeside offers university courses focused on experiential learning models along with research opportunities for undergraduate and graduate students. A thriving internship program builds career skills for students in STEM fields as well as education, public health, communication, among other disciplines. Lakeside also includes formal K-12 STEM education in partnership with northwest Iowa schools and inquiry-based summer camps.

Outreach efforts bring Regent scholarships to the public through presentations, workshops and other community engagement events. Iowa Lakeside Lab's water quality monitoring program provides valuable data to the Iowa Great Lakes community for the long-term protection and enhancement of the Okoboji lakes. Lakeside also engages with the humanities by hosting artists and writers for residencies, open studio events and collaborations with students and faculty.

All capital improvement projects at Iowa Lakeside Laboratory are managed by the University of Iowa.

2. Five-Year Capital Plan for UIHC



UIHC's Five-Year Capital Plan for Other Funds would be for \$786 million, up 51% from last year's \$521 million, mainly due to a new Inpatient Bed Tower project.

Of course, this plan includes multiple projects that enhance UIHC infrastructure, renovate laboratories to accommodate new technology, convert inpatient rooms to single-bed rooms and meet accreditation requirements.

FIVE-YEAR CAPITAL PLAN for UIHC FY 2024 - FY 2028 * (\$ in thousands)

	FY 2024	FY 2025	FY 2026	FY 2027	FY 2028	Total	Source of Funds*
Fire and Environmental Safety							
Facility Wide Improvements to Meet Accreditation/Regulatory Requir	\$ 200	\$ 200	\$ 200	\$ 200	\$ 200	\$ 1,000	9
Fire Protection Systems Replacement / Enhancements (multiple p	200	200	200	200	200	1,000	9
	\$ 400	\$ 400	\$ 400	\$ 400	\$ 400	\$ 2,000	
RENOVATION							
UIHC Electrical Power Enhancements (multiple projects)	\$ -	\$ -	\$ 3,525	\$ 3,080	\$ 6,300	\$ 12,905	9
UIHC Facilities Enhancement Program (multiple projects)	-	2,000	2,000	2,000	-	6,000	9
Installation of Diagnostic & Therapeutic Imaging Equipment Per Siemens Agreement	12,080	11,256	9,651	3,740	8,333	45,060	9, 11
Cancer Center Infusion Expansion	-	400	3,300	-	-	3,700	9
JPP L7-10 Inpatient Tower Expansion	12,000	50,000	33,580	-	-	95,580	9, 11
Inpatient Bed Tower++	2,900	148,000	152,000	157,000	161,000	620,900	9, 11, 4
Subtotal =	\$ 26,980	\$ 211,656	\$ 204,056	\$ 165,820	\$ 175,633	\$ 784,145	
Total =	\$ 27,380	\$ 212,056	\$ 204,456	\$ 166,220	\$ 176,033	\$ 786,145	

*** Source of Funds Key:**

1 (not used: report State Funds in Table 1)	5 Dept'l Renewal and Replacemer	9 University Hospitals Building Usage Funds
2 Building Renewal Funds	6 Aux. Service or Enterprise Reve	10 Center for Disabilities & Development
3 Treasurer's Temporary Investments (TTI) Inco	7 Iowa DOT (Road Use Tax Funds	Building Usage Funds
4 Gifts and Grants	8 Student Health Fees	11 UIHC Bonds

* All projects identified in UIHC's Five-Year Capital Plan are contingent upon the availability of self-generated UI Hospitals and Clinics funding, UIHC bond revenue and/or gifts, approval through UIHC's annual capital budget process, finalizing specific renovation projects associated with UIHC's "Strategic Facility Master Plan" for FY 2006-2035, and approval of each project by the Board of Regents, State of Iowa. In addition, the "cutting edge" responsibility of the UIHC constantly brings about some revisions in planning. While this list includes all projects now envisioned for the FY 2024-2028 period, the dynamics of clinical service-educational demands, corollary societal forces, accreditation, and regulatory requirements may mandate other projects over time. In accord with long-standing practice, any such changes which arise will be fully documented for consideration and approval by the Board of Regents, State of Iowa.

The UIHC Five-Year Capital Plan includes only those projects that are anticipated to be initiated during FY 2024-2028. It does not include projects with previously approved budgets that will have expenditures during the FY 2024-2028 period.

++ This report does not include projected spending in FY 2023 or FY 2029.

The Five-Year Capital Plan for Other Funds for \$1 billion for all three universities is up 33% from last year's \$751 million.

Other Funds include all funds, except GEF building funds. Specifically, Other Funds include operating budget building repair funds, income from Treasurer's Temporary Investments (TTI), auxiliary service or enterprise bond funds (athletics, residence systems, parking, utilities and student unions), donor gifts, federal grants, departmental renewal and replacement funds.

While campus road repair projects are primarily funded by the Iowa Department of Transportation's "State Parks and Institutional Roads Program" funds, replenished annually by the Iowa Road Use Tax Fund (RUTF), Other Funds do occasionally supplement them.

Does not include state or UIHC funds
(\$ in thousands)

	FY 2024	FY 2025	FY 2026	FY 2027	FY 2028	Total
UI	\$110,624	\$168,086	\$163,341	\$149,408	\$67,834	\$659,293
ISU	57,031	66,756	41,626	23,541	39,226	228,180
UNI	35,793	46,822	15,098	3,798	12,368	113,879
Total	\$203,448	\$281,664	\$220,065	\$176,747	\$119,428	\$1,001,352 *

* up 33% from last year's \$751,736



The UI's Five-Year Capital Plan for Other Funds would be for \$659 million, up 72% from last year's \$384 million, mainly due to a new Medical Education Building Replacement project.

FIVE-YEAR CAPITAL PLAN for OTHER FUNDS

(\$ in thousands)

	FY 2024	FY 2025	FY 2026	FY 2027	FY 2028	Five-Year Total	Source of Funds*
NEW CONSTRUCTION							
Medical Education Building Replacement	\$ 7,888	\$ 35,036	\$ 54,427	\$ 66,090	\$ 48,595	\$212,036	3, 4, 5, 9
Athletic Facilities - Track, Field Hockey, Softball, Baseball	17,000	11,000	18,000	10,000	-	\$ 56,000	4, 6
IIHR Facility	-	3,500	12,000	5,500	-	\$ 21,000	3, 4, 5
Tippie College of Business Facility	12,000	11,500	4,000			\$ 27,500	4, 5
Subtotal =	\$ 36,888	\$ 61,036	\$ 88,427	\$ 81,590	\$ 48,595	\$316,536	
RENOVATIONS							
Athletic Facilities - Renewal & Improvements	500	500	500	500	500	2,500	4, 6
East Campus Research Center		3,500	16,000	15,000	5,000	39,500	2, 3
IMU Modernization, Phase I	20,000	40,000	20,000			80,000	4, 6, 8
Calvin Hall - Renovate	-	1,800	8,000	1,400	-	11,200	2, 3
College of Medicine Facilities - Renewal & Improvements	25,768	12,382	11,085	7,053	3,489	59,777	3, 4, 5
Housing Facilities - Renewal & Improvements	13,398	13,398	5,023	7,750	4,750	44,319	6
Old Museum of Art - Revitalization	5,000	20,000	5,000			30,000	2, 3, 4
Telecommunications - Renewal & Improvements	3,100	3,100	3,100	3,100	3,100	15,500	5
Subtotal =	\$ 67,766	\$ 94,680	\$ 68,708	\$ 34,803	\$ 16,839	\$282,796	
PARKING / INSTITUTIONAL ROADS							
IMU Ramp Replacement	-	-	-	29,870	-	29,870	5, 6
Institutional Roads Program	945	1,145	2,020	295	275	4,680	7
Parking System - Renewal & Improvements	5,025	11,225	4,186	2,850	2,125	25,411	5, 6
Subtotal =	\$ 5,970	\$ 12,370	\$ 6,206	\$ 33,015	\$ 2,400	\$ 59,961	
UI Total =	\$ 110,624	\$ 168,086	\$ 163,341	\$ 149,408	\$ 67,834	\$ 659,293	

*** Source of Funds Key:**

- 1 (not used: report State Funds in Table 1)
- 2 General Fund Building Renewal
- 3 Income from Treasurer's Temporary Investments
- 4 Gifts and Grants
- 5 Departmental Renewal and Replacement Funds
- 6 Auxiliary Service or Enterprise Revenue Bonds

- 7 Iowa DOT (Road Use Tax Funds)
- 8 Student Health Fee
- 9 University Hospital Building Usage Fund
- 10 Center for Disabilities and Development Building Usage Fund
- 11 University Hospital Revenue Bonds
- 12 Federal Appropriations

IOWA STATE UNIVERSITY

ISU's Five-Year Capital Plan for Other Funds would be for \$228 million, down 11% from last year's \$255 million, mainly due to fewer renovation projects.

FIVE-YEAR CAPITAL PLAN for OTHER FUNDS

(\$ in thousands)

	FY 2024	FY 2025	FY 2026	FY 2027	FY 2028	Five Year Total	Source of Funds
UTILITY IMPROVEMENTS							
Cooling Tower Condenser Water Pipe Replacement	1,250	1,000	-	-	-	2,250	6
Boilers #8, 9, 10 Superheater Improvements	750	-	-	-	-	750	6
Well #9 Replacement	500	-	-	-	-	500	6
Subtotal = \$	2,500	\$ 1,000	\$ -	\$ -	\$ -	\$ 3,500	
NEW CONSTRUCTION							
CCEE Intelligent Infrastructure Facility	5,000	5,000	-	-	-	10,000	4
Southwest Recreation Complex-Challenge Course	-	-	-	-	1,500	1,500	6
Southwest Field Complex Lighting	-	-	-	1,000	-	1,000	6
Subtotal = \$	5,000	\$ 5,000	\$ -	\$ 1,000	\$ 1,500	\$ 12,500	
RENOVATIONS							
Swine Teaching and Research	-	\$ 1,500	\$ 3,000	\$ 3,000	\$ -	\$ 7,500	4
Black Engineering Renovation	-	-	2,500	2,500	-	5,000	4
Town Engineering Building Renovation and Addition	5,000	10,000	10,000	-	-	25,000	4
Memorial Union-Third Floor-Remodel	3,500	-	-	-	-	3,500	6
Agronomy Hall - Cold rooms and growth chamber rooms renovations	1,000	1,000	1,000	-	-	3,000	5
Agronomy Hall - Energy Conservation Improvements	-	1,500	-	-	-	1,500	5
Bessey Hall - Energy Conservation Improvements	-	-	-	700	-	700	4
Kildee Hall - Energy Conservation Improvements	-	-	1,200	-	-	1,200	4
Molecular Biology Building - Energy Conservation Improvements	-	-	-	2,200	-	2,200	4
Greenhouse reorg/demolitions/relocations	-	1,000	1,000	1,000	-	3,000	4
Beyer Hall Resurface Outdoor Basketball and Fitness Space	-	-	350	-	-	350	6
Cardio Equipment Replacement	-	300	-	-	-	300	6
Resurface 2nd Floor Lied Jogging Track and Old State Gym Track	-	-	-	350	-	350	6
Memorial Union Parking Ramp Capital Improvements	-	-	-	-	25,000	25,000	5
Ross Hall - Develop multi-departmental reception area	-	550	-	-	-	550	5
Catt Hall - Remodel Student Services area (first floor)	-	330	-	-	-	330	5
VB/Tennis Facility	8,000	-	-	-	-	8,000	6
Videoboard Upgrades	-	10,000	-	-	-	10,000	6
Hilton and Scheman Renovations/Deferred Maintenance	-	-	-	-	-	-	
Private Funds	4,000	-	-	-	-	4,000	4
Auxiliary Funds	13,000	13,000	-	-	-	26,000	6
Union Drive Marketplace Phase IV	2,000	-	-	-	-	2,000	6
Knapp Storms Update	1,000	-	-	-	-	1,000	6
Seasons Life Cycle Refresh	-	2,000	-	-	-	2,000	6
Conversations Life Cycle Refresh	-	-	1,000	-	-	1,000	6
Design Café Renovation	-	-	500	-	-	500	6
Courtyard Café Renovation	-	-	300	-	-	300	6
MU Market Renovation	-	350	-	-	-	350	6
Memorial Union Second Floor Lounge	3,000	-	-	-	-	3,000	6
Eastside Market Renovation	-	250	-	-	-	250	6
Westside Market Renovation	-	250	-	-	-	250	6
Subtotal = \$	40,500	\$42,030	\$20,850	\$ 9,750	\$25,000	\$138,130	

IOWA STATE UNIVERSITY

(Continued)

	FY 2024	FY 2025	FY 2026	FY 2027	FY 2028	Five Year Total	Source of Funds
TELECOMMUNICATIONS	\$ 1,850	\$ 9,520	\$ 11,570	\$ 560	\$ 2,470	\$ 25,970	6
Subtotal =	\$ 1,850	\$ 9,520	\$ 11,570	\$ 560	\$ 2,470	\$ 25,970	
PARKING / INSTITUTIONAL ROADS							
Institutional Roads Program	\$ 936	\$ 936	\$ 936	\$ 936	\$ 936	\$ 4,680	7
Annual Parking Lot Pavement Preservation	2,300	2,600	2,600	2,600	2,600	12,700	6
Subtotal =	\$ 3,236	\$ 3,536	\$ 3,536	\$ 3,536	\$ 3,536	\$ 17,380	
RESIDENCE SYSTEM							
Deferred Maintenance (Residence Halls only)	395	395	395	395	395	1,975	6
Frederiksen Court-Life Cycle Improvements	1,200	950	950	950	950	5,000	6
Friley Residence Hall-Bathroom Renovations-Remaining Phases	1,975	3,950	3,950	1,975	-	11,850	6
Helser Residence Hall-Bathroom Renovations-3 Phases (4 Stacks)	-	-	-	5,000	5,000	10,000	6
Various Fire Alarm Upgrades	250	250	250	250	250	1,250	6
Various Life Cycle Paint & Corridor Flooring	125	125	125	125	125	625	6
Subtotal =	\$ 3,945	\$ 5,670	\$ 5,670	\$ 8,695	\$ 6,720	\$ 30,700	
ISU Total =	\$ 57,031	\$ 66,756	\$ 41,626	\$ 23,541	\$ 39,226	\$ 228,180	

Source of Funds Key:

- 1 (not used: report State Funds in Table 1)
- 2 General Fund Building Renewal
- 3 Income from Treasurer's Temporary Investments
- 4 Gifts and Grants

- 5 Departmental Renewal and Replacement Funds
- 6 Auxiliary Service or Enterprise Revenue Bonds
- 7 Iowa DOT (Road Use Tax Funds)



UNI's Five-Year Capital Plan for Other Funds would be for \$113 million, unchanged from last year.

FIVE-YEAR CAPITAL PLAN for OTHER FUNDS

(\$ in thousands)

	FY 2024	FY 2025	FY 2026	FY 2027	FY 2028	Five Year Total	Source of Funds*
UTILITY IMPROVEMENTS							
Power Plant Replace CFU Main Tie Transformer	\$ -	\$ 500	\$ 500	\$ -	\$ -	\$ 1,000	6
Power Plant Boiler #4 Gas Conversion	\$ -	\$ -	\$ 500	\$ 1,000	\$ -	\$ 1,500	6
Steam and Condensate Line Replacement AEB to CEEE	\$ -	\$ -	\$ -	\$ 500	\$ 500	\$ 1,000	6
Subtotal =	\$ -	\$ 500	\$ 1,000	\$ 1,500	\$ 500	\$ 3,500	
NEW CONSTRUCTION							
Outdoor Soccer Field	\$ -	\$ 2,104	\$ -	\$ -	\$ -	\$ 2,104	4
Basketball/Volleyball Practice Facility	\$ -	\$ 15,000	\$ -	\$ -	\$ -	\$ 15,000	4
Wrestling Practice Facility	\$ -	\$ 5,000	\$ -	\$ -	\$ -	\$ 5,000	4
Subtotal =	\$ -	\$ 22,104	\$ -	\$ -	\$ -	\$ 22,104	
RENOVATIONS							
Industrial Technology Center Modernization (Private funds portion)	\$ 2,138	\$ -	\$ -	\$ -	\$ -	\$ 2,138	4
Gallagher Bluedorn Performing Arts Center Expansion	\$ 8,884	\$ -	\$ -	\$ -	\$ -	\$ 8,884	4
Gallagher Bluedorn Performing Arts Center Seating Replacement	\$ -	\$ -	\$ 480	\$ 430	\$ -	\$ 910	4
Campanile Renovation and Landscape	\$ 1,000	\$ -	\$ -	\$ -	\$ -	\$ 1,000	4
Wellness Recreation Center Climbing Wall Replacement & New Bouldering Wall	\$ 1,700	\$ -	\$ -	\$ -	\$ -	\$ 1,700	2, 4, 5, 6
Maucker Union Main Level Lighting and Finish Update	\$ 1,000	\$ -	\$ -	\$ -	\$ -	\$ 1,000	6
Outdoor Track Replacement	\$ 1,703	\$ -	\$ -	\$ -	\$ -	\$ 1,703	4
UNI-Dome Fabric Roof Replacement	\$ 5,000	\$ -	\$ -	\$ -	\$ -	\$ 5,000	2, 4, 5 or 6
UNI-Dome Restroom and Club Box Renovation	\$ 12,000	\$ 20,000	\$ 10,000	\$ -	\$ -	\$ 42,000	4
Building Repair	\$ 1,400	\$ 1,400	\$ 1,400	\$ 1,400	\$ 1,400	\$ 7,000	2
Subtotal =	\$ 34,825	\$ 21,400	\$ 11,880	\$ 1,830	\$ 1,400	\$ 71,335	
PARKING / INSTITUTIONAL ROADS							
Institutional Roads	\$ 468	\$ 468	\$ 468	\$ 468	\$ 468	\$ 2,340	7
Parking Lot Rehabilitation	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	10
Subtotal =	\$ 468	\$ 468	\$ 468	\$ 468	\$ 468	\$ 2,340	
RESIDENCE SYSTEM							
Residence Hall Roof Replacement and Envelope Sealing and Caulking (Bender & Dancer)	\$ -	\$ 750	\$ 750	\$ -	\$ -	\$ 1,500	6
Residence System - ResNet Upgrades	\$ 500	\$ 600	\$ -	\$ -	\$ -	\$ 1,100	6
Residence Hall Renovation	\$ -	\$ -	\$ -	\$ -	\$ 10,000	\$ 10,000	6
Maucker Union Food Service Upgrade	\$ -	\$ 1,000	\$ 1,000	\$ -	\$ -	\$ 2,000	6
Subtotal =	\$ 500	\$ 2,350	\$ 1,750	\$ -	\$ 10,000	\$ 14,600	
UNI Total =	\$ 35,793	\$ 46,822	\$ 15,098	\$ 3,798	\$ 12,368	\$ 113,879	

*** Source of Funds Key:**

- 1 (not used: report State Funds in Table 1)
- 2 General Fund Building Renewal
- 3 Income from Treasurer's Temporary Investments
- 4 Gifts and Grants
- 5 Departmental Renewal and Replacement Funds

- 6 Auxiliary Service or Enterprise Revenue Bonds
- 7 Iowa DOT (Road Use Tax Funds)
- 8 Student Health Fee
- 9 Multimodal Transportation Center Maintenance funds
- 10 Parking Operations

**End of Section A:
Capital Plans**

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Section B

INSTITUTIONAL ROADS PROGRAM

Executive Summary: This year's \$11,800,000 Institutional Roads Program, funded through the Iowa Department of Transportation's "State Parks and Institutional Roads Program," is up 7% from last year's \$11,000,000. Per the Board's *Policy Manual* §2.3, Board approval is required to use these DOT funds.

Funded through the:



1. Five-Year Institutional Roads Program

Institutional Roads Program Project Summary		Calendar Years					Total		
		CY 2023	CY 2024	CY 2025	CY 2026	CY 2027			
UI	Reconstruction and Improvements	Front Street (E/W and N/S)	\$ 600,000	\$ -	\$ -	\$ -	\$ -	\$ 600,000	
		Finkbine Drive (asphalt portion)	-	800,000	-	-	-	800,000	
		Raptor Ridge Road NE (Macbride Nature Recreation Area / MNRA)	-	-	1,700,000	-	-	1,700,000	
		Reconstruction and Improvement Subtotal	\$ 600,000	\$ 800,000	\$ 1,700,000	\$ -	\$ -	\$ 3,100,000	
	Repair	Pavement Management	\$ 45,000	\$ 45,000	\$ 45,000	\$ 45,000	\$ 45,000	\$ 225,000	
		Annual Special Maintenance	300,000	300,000	275,000	250,000	230,000	1,355,000	
		Repair Subtotal	\$ 345,000	\$ 345,000	\$ 320,000	\$ 295,000	\$ 275,000	\$ 1,580,000	
	SUI Total		\$ 945,000	\$ 1,145,000	\$ 2,020,000	\$ 295,000	\$ 275,000	\$ 4,680,000	
	ISU	Reconstruction	Scholl Road - Ontario to just north of railroad tracks	\$ 335,000	\$ 68,000	\$ -	\$ -	\$ -	\$ 403,000
			13th Street - Stange Road east to ISU property limit	-	-	222,000	276,000	386,000	884,000
Improvement Subtotal			\$ 335,000	\$ 68,000	\$ 222,000	\$ 276,000	\$ 386,000	\$ 1,287,000	
Improvements		Mortensen Road - Traffic Control (City of Ames would add \$200,000 to this \$200,000 allocation of DOT funds.)	\$ 200,000	\$ -	\$ -	\$ -	\$ -	\$ 200,000	
		South 16th Street (east of Jack Trice Stadium) - traffic signal	-	200,000	200,000	-	-	400,000	
		University Boulevard & 6th Street - Signal Replacement	-	170,000	170,000	260,000	-	600,000	
		Reconstruction Subtotal	\$ 200,000	\$ 370,000	\$ 370,000	\$ 260,000	\$ -	\$ 1,200,000	
Repair		Pavement Management	\$ 15,000	\$ 15,000	\$ 15,000	\$ 15,000	\$ 15,000	\$ 75,000	
		Annual Special Maintenance	85,000	85,000	85,000	85,000	85,000	425,000	
		Pavement Preservation	301,000	398,000	244,000	300,000	450,000	1,693,000	
		Repair Subtotal	\$ 401,000	\$ 498,000	\$ 344,000	\$ 400,000	\$ 550,000	\$ 2,193,000	
ISU Total		\$ 936,000	\$ 936,000	\$ 936,000	\$ 936,000	\$ 936,000	\$ 4,680,000		
UNI		Reconstruction	Wisconsin Street (North of W. 26th Street)	443,000	-	-	-	-	443,000
			Dakota Street (Ohio Street to Redeker Drive)	-	443,000	-	-	-	443,000
			West 31st Street Modifications/Improvements	-	-	243,000	-	-	243,000
	West 22nd Street (Hudson Road to 200' west)		-	-	200,000	-	-	200,000	
	Campus Street (South of University Avenue)		-	-	-	443,000	200,000	643,000	
	Towers Drive		-	-	-	-	243,000	243,000	
	Reconstruction Subtotal		\$ 443,000	\$ 443,000	\$ 443,000	\$ 443,000	\$ 443,000	\$ 2,215,000	
	Repair	Pavement Maintenance	\$ 25,000	\$ 25,000	\$ 25,000	\$ 25,000	\$ 25,000	\$ 125,000	
		Repair Subtotal	\$ 25,000	\$ 25,000	\$ 25,000	\$ 25,000	\$ 25,000	\$ 125,000	
	UNI Total		\$ 468,000	\$ 468,000	\$ 468,000	\$ 468,000	\$ 468,000	\$ 2,340,000	
	ISD and IA LL	crack sealing, pavement repairs	\$ 20,000	\$ 20,000	\$ 20,000	\$ 20,000	\$ 20,000	\$ 100,000	
		ISD and Iowa Lakeside Laboratory Total	\$ 20,000	\$ 20,000	\$ 20,000	\$ 20,000	\$ 20,000	\$ 100,000	
GRAND TOTAL		\$ 2,369,000	\$ 2,569,000	\$ 3,444,000	\$ 1,719,000	\$ 1,699,000	\$ 11,800,000		

2. Overview of Five-Year Institutional Roads Program

Per *Iowa Code* §307.24, the DOT's "State Parks and Institutional Roads Program" provides 65/100 of one percent of the \$1.6-\$1.9 billion Iowa Road Use Tax Fund (RUTF) for the construction, reconstruction, improvement and maintenance of roads and streets located on all state land, including the Regents. The Regents' annual allocation is 30 percent of this amount.

Established in 1949, the RUTF is adjusted annually based on actual road use tax receipts.



Regent Institutional Roads	
University of Iowa =	32.7 miles
Iowa State University =	45.3 miles
University of Northern Iowa =	10.0 miles
Iowa School for the Deaf =	1.9 miles
Iowa Lakeside Laboratory =	0.3 miles
<hr/>	
Total = 90.2 miles	

Each year, the Iowa DOT provides the Board Office with their allocation. Over the last five years, that allocation has been roughly \$2.2 million per year for each of the next five calendar years. While it is understood that state funds are scarce, it is important to note here that this level of funding is not sufficient to address all Regent roadway improvement needs.

For the most urgent roadway needs, the Regents' CY 2023 – CY 2027 \$11,800,000 allocation from the DOT breaks out as follows:

40% University of Iowa =	\$ 4,680,000
40% Iowa State University =	4,680,000
<u>20% University of Northern Iowa =</u>	<u>2,340,000</u>
Total = \$11,700,000	

<u>Iowa School for the Deaf and Iowa Lakeside Lab =</u>	<u>100,000</u>
Total = \$11,800,000	

UI, ISU and UNI's most urgent roadway needs fall into three categories:

- reconstruction,
- improvements and
- repairs.

3. CY 2023 only

The \$2,369,000 proposed for CY 2023 is a 32% increase from last year's \$1,797,000, while proposed funding for all five years increased 7%.

Funded through the:



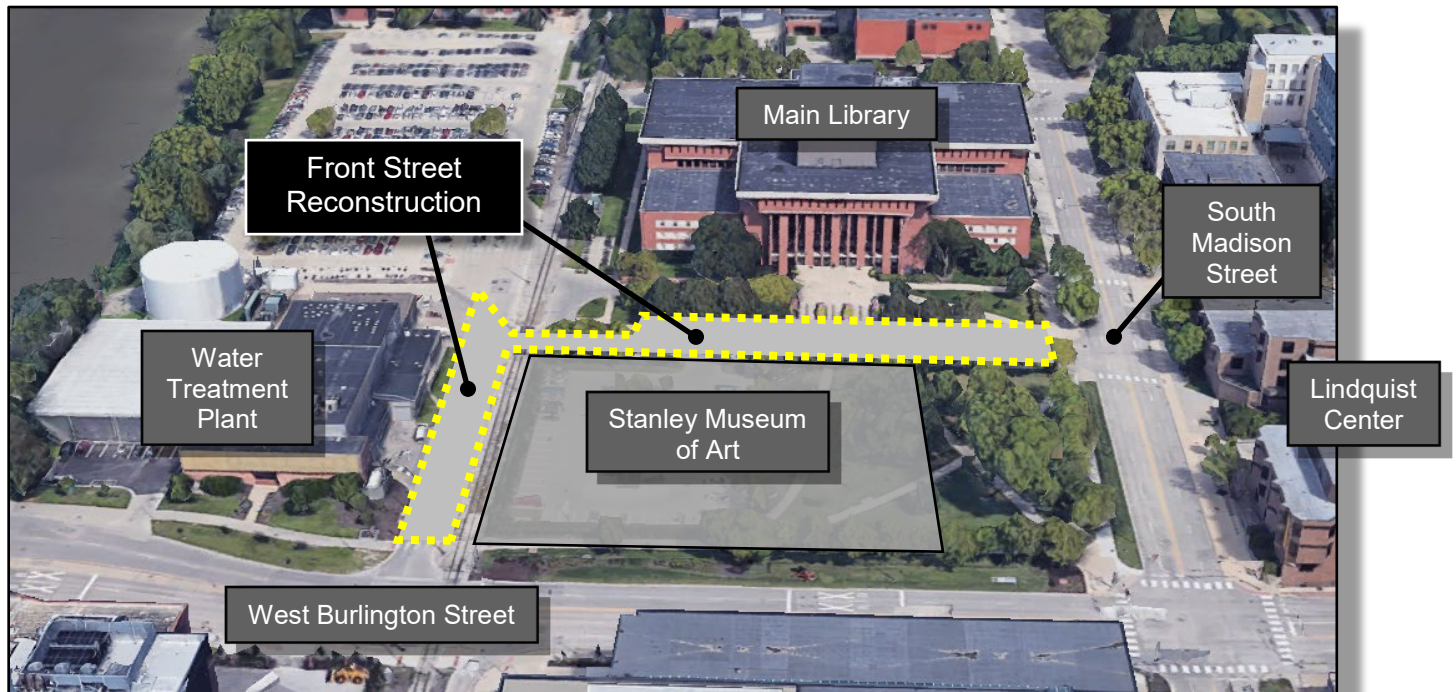
UI		CY 2023	Total
See next pages.	Front Street (E/W and N/S)	\$ 600,000	
	Pavement Management (ongoing)	45,000	
	Annual Special Maintenance (ongoing)	300,000	\$ 945,000
ISU			
See next pages.	Scholl Road – Ontario to just north of railroad tracks	335,000	
	Mortensen Road - Traffic Control (City of Ames would add \$200,000 to this \$200,000 allocation of DOT funds.)	200,000	
	Pavement Management (ongoing)	15,000	
	Annual Special Maintenance (ongoing)	85,000	
	Pavement Preservation (ongoing)	301,000	\$ 936,000
UNI			
See next pages.	Wisconsin Street (North of W. 26th Street)	\$ 443,000	
	Pavement Maintenance (ongoing)	25,000	\$ 468,000
ISD & Iowa Lakeside Lab			
	crack sealing/repairs	\$ 20,000	\$ 20,000

Proposed Institutional Roads projects for CY 2023 \$ 2,369,000

Should the Board approve these projects, they would be subject to the Board's capital project approval process, consistent with the Board's *Policy Manual* §2.3.

4. Institutional Road Program Project Descriptions

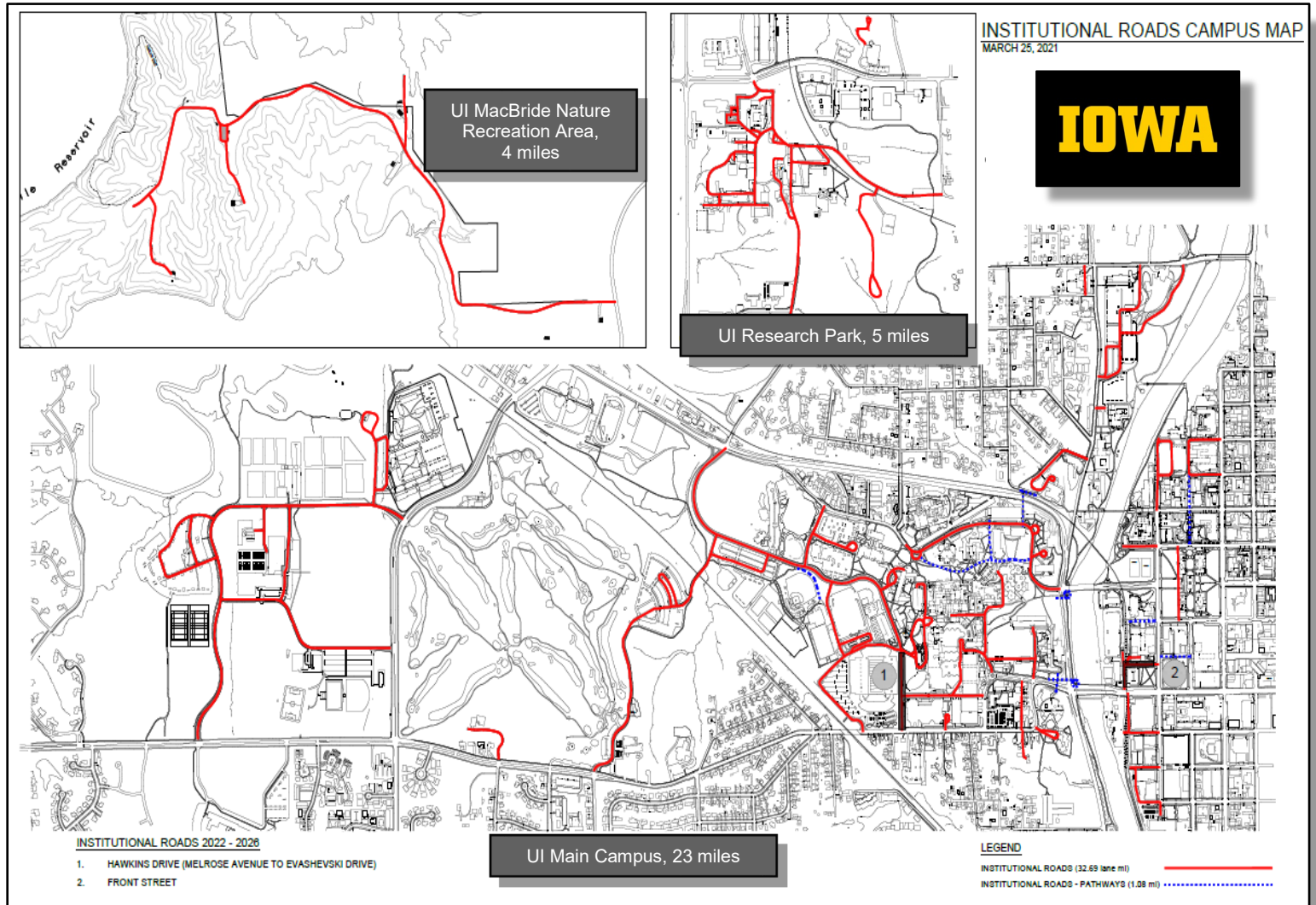
- a. **University of Iowa:** Hawkeye Park Road Phase 1, Melrose Avenue to Hawkeye Drive planned for CY 2023



University of Iowa, Front Street Reconstruction project



University of Iowa: Institutional Roads

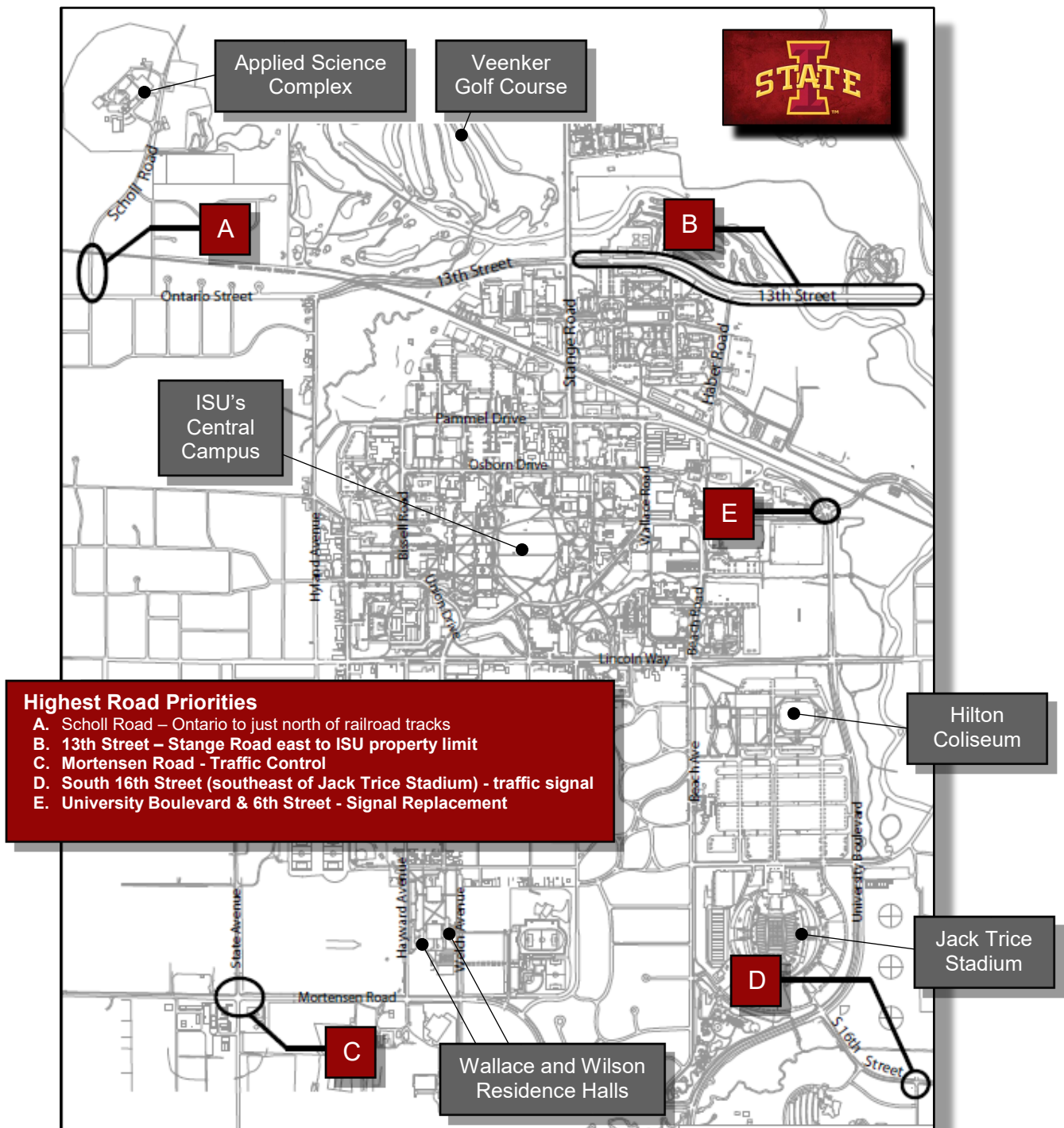


University of Iowa's Institutional Roads,
32 total Institutional Road miles

North



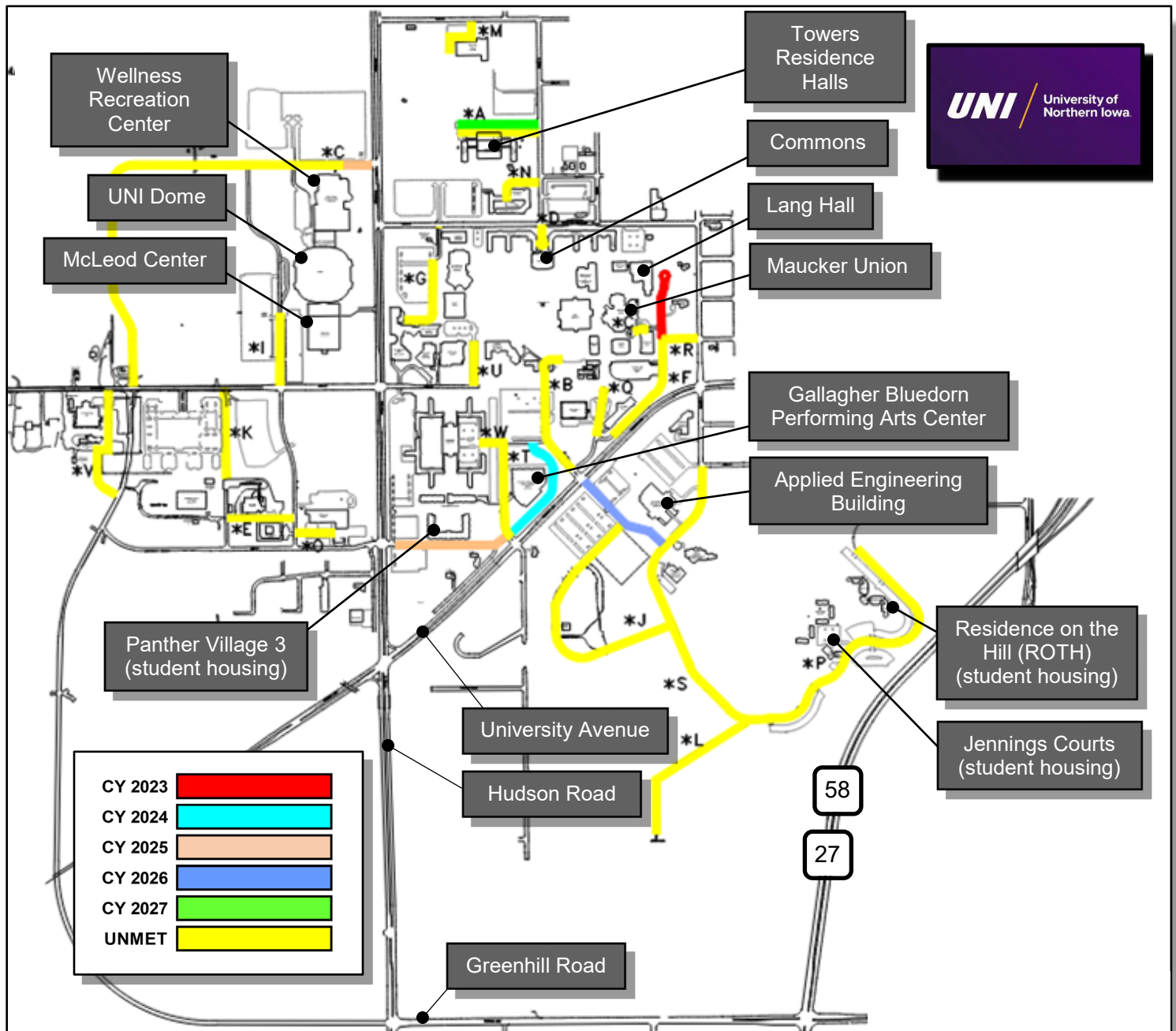
b. **Iowa State University:** Institutional Roads projects for CY 2023- CY 2027



Iowa State University Institutional Roads,
45 total Institutional Road miles



c. University of Northern Iowa: Institutional Roads projects planned for CY 2023- CY 2027



University of Northern Iowa Institutional Roads,
10 total Institutional Road miles

End of Section B:
Institutional Roads Programs

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Section C

FACILITIES GOVERNANCE REPORT

Executive Summary: The annual Facilities Governance Report for FY 2022, required by the Board's *Policy Manual* §2.3, is intended to provide the Board with a broad overview of the size, age, value and general condition of Regent facilities.

Combined with intellectual, financial and human resources, facilities are a primary asset of higher education institutions. Quality facilities help ensure excellent academic programs and the ability to attract and retain students, faculty and staff.

1. Quick Facts

Size, Age and Replacement Cost of Facilities

• Acres, total	= 5,236 acres*
• Number of buildings	= 883
• Square footage, GEF facilities only	= 19 million gsf
• Square footage, all facilities	= 41 million gsf
• Building average age, GEF facilities only	= 45 years
• Building average age, all facilities	= 41 years
• Replacement cost, GEF facilities only	= \$10 billion
• Replacement cost, all facilities	= \$21 billion

All Funds Spent: projects over \$250,000

• FY 2022, up 3% from last year	= \$ 217 million
• Average, last 10 years	= 382 million
decrease from 10-year average	= (\$ 165 million)

Fire Safety: General Education Fund facilities only

• FY 2022, completed, down 45%	= \$ 1.3 million
• Average completed, last 10 years	= 2.1 million
decrease from 10-year average	= (\$ 0.8 million)
• FY 2023, planned, up 17%	= \$ 3.4 million
• Outstanding Fire Safety, up 25%	= \$15.2 million**

Building Renewal: General Education Fund facilities only

• FY 2022, completed, down 4%	= \$ 22 million
• Average completed, last 10 years	= 33 million
decrease from 10-year average	=(\$ 11 million)
• FY 2023, planned, up 31%	= \$ 72 million
• Outstanding Building Renewal, up 7.9%	= \$1.26 billion**

* Does not include ISU's 9,982 Agricultural Research Farm acres.

2. Size, Age and Replacement Cost of Facilities

a. Regent acres:

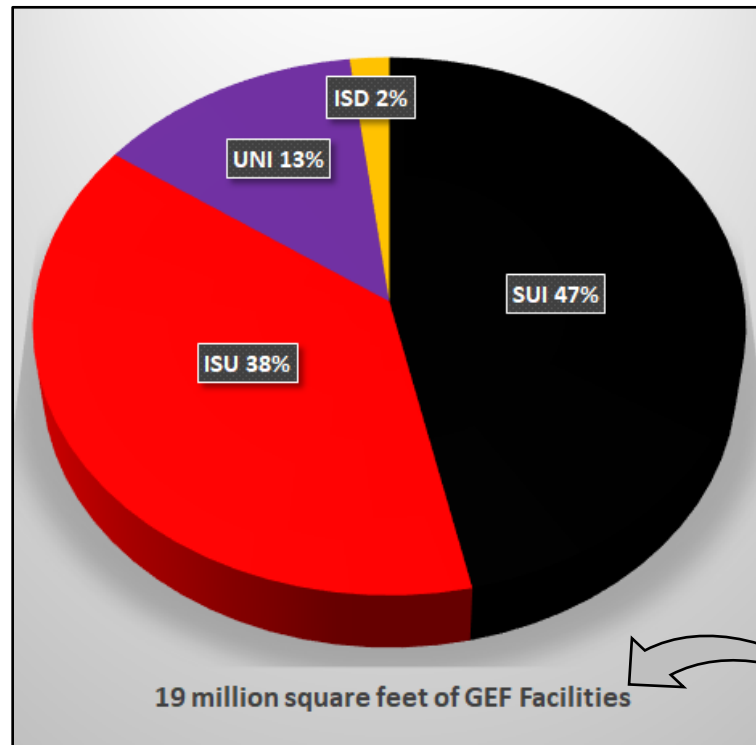
4,719 = on-campus acres, up 3% from last year, added Iowa Lakeside Lab's 147 acres.

517 = off-campus acres, unchanged from last year.*

5,236 = total acres or 8.2 square miles

* Does not include ISU's 9,982 Agricultural Research Farm acres, up 0.04% from last year's 9,978 acres.

b. Regent square footage: GEF facilities, UIHC, athletics, residence halls, parking, utilities and all other facilities



Regent Square Footage by Institution and Use

Gross Square Feet	SUI	ISU	UNI	ISD	Total
Academic, Research, & Administration (GEF)	9,077,983	7,453,917	2,572,318	381,236	19,485,454
GEF subtotal =					19,485,454
UIHC	4,468,736				4,468,736
All Other	7,808,646	7,646,582	2,141,658	-	17,596,886
UIHC and Other Fund subtotal =					22,065,622
Total	21,355,365	15,100,499	4,713,976	381,236	41,551,076

c. Replacement Cost of Facilities

All Regent facilities have a total of 41.5 million gross square feet (gsf) with a replacement cost of \$21 billion. Of those 41.5 million gsf, GEF facilities occupy 19.5 million or 47% and has a replacement cost of \$10 billion.

Replacement costs play an important role in setting a facility's building renewal budget. The Board's *Policy Manual* §2.3 requires that institutions annually budget 1.5% of a new facility's replacement cost to fund its future routine maintenance and building renewal costs. This 1.5% is not intended to fund the current \$1.2 billion backlog in building renewal in other facilities.

Replacement costs are based on the following set of \$/gsf values used by all Regent institutions.

Regent Facility Type	Replacement Cost per GSF
academic classroom and offices	\$447
administrative offices	\$375
animal facility	\$466
athletics, recreation or general use	\$430
day care	\$323
hospital	\$993
laboratory	\$533
laboratory service	\$331
library	\$415
medical clinic	\$476
museum	\$465
parking garage	\$75
performing arts	\$613
residence or house	\$285
shop or storage	\$318
student union	\$386

These replacement costs were derived through teamwork between the Regent institutions and the use of cost data from the following construction industry cost experts.

- R.S. Means construction data, a subsidiary of Gordian
- U.S. Department of Defense
- APPA (Association of Physical Plant Administrators)
- College Planning & Management Magazine
- Regent capital projects

Final replacement costs were ultimately a combination of averages across these five sources and in-house interpolations by Regent institutions, attaining replacement costs that best fit the Regents' wide variety of building types.

d. Age and Quality: Gordian, a nationally known strategic planning and advisory firm specializing in higher education facilities, has consulted with all three universities at various times, and tracks over 400 campuses in 44 states and four provinces in Canada. They report there have been two major waves of construction over the last 65 years, which stress all of higher education's ability to care for their facilities, and contribute to 58% of Regent building renewal.

Regent Construction: mid 1800's to present

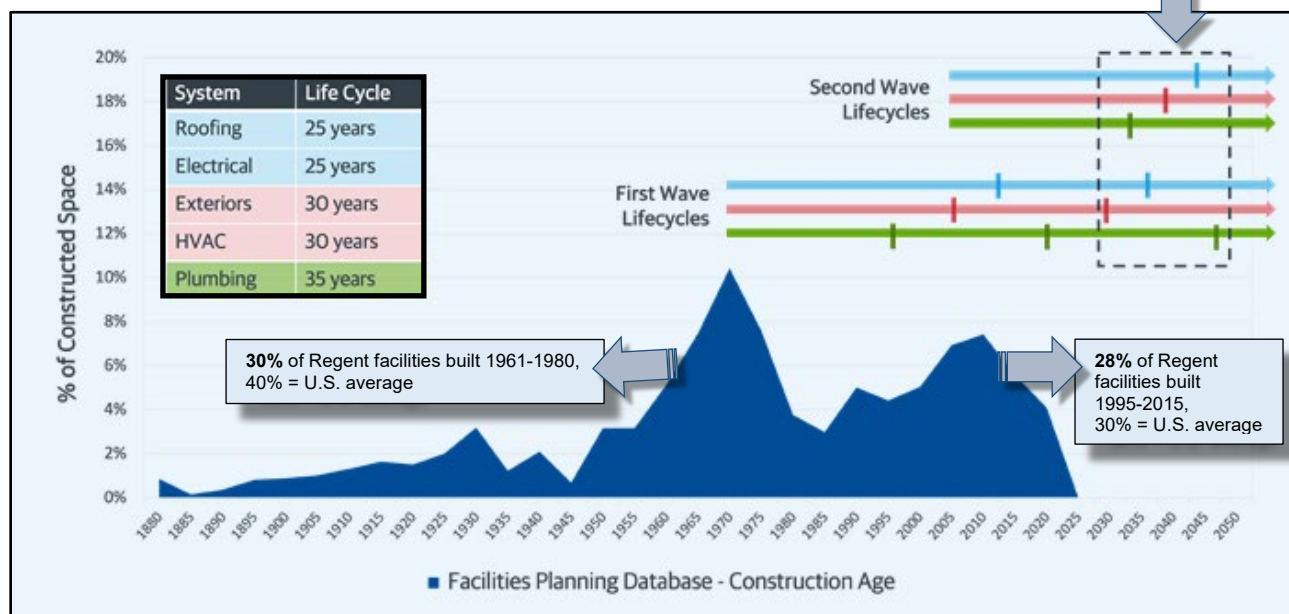
Gross Square Feet (GSF)	GEF (Academic, Research, Administrative, including SUI's Oakdale campus)		All Regent Facilities	
	GSF of original construction	% of Total	GSF of original construction	% of Total
Years				
mid 1800's-1930	3,469,669	18%	4,983,944	12%
1931-1950	676,668	3%	1,443,146	3%
1951-1960	632,236	3%	1,903,917	5%
1961-1970	2,763,658	14%	7,002,672	17%
1971-1980	3,329,128	17%	5,267,977	13%
1981-1990	1,611,749	8%	3,619,385	9%
1991-2000	2,141,780	11%	4,923,521	12%
2001-2010	2,464,370	13%	5,803,992	14%
2011-2020	2,333,062	12%	6,358,246	15%
2021	63,134	0%	244,276	1%
Total =	19,485,454	100%	41,551,076	100%

GEF facilities make up 47% of all Regent square footage.

First Wave of Construction, 1961-1980.

Second Wave of Construction, 1995-2015.

Most of the First and Second Wave's roofing, electrical, exterior, HVAC and plumbing systems will be ready for replacement from 2025-2045.



The majority of U.S. campus buildings were constructed before 1975. The Regents' average facility age is 41 years, just like last year. In any facility, age and the quality of the original construction are the two biggest contributors to deferred maintenance and fire safety deficiencies.

➤ **First Wave of Construction**

The "First Wave" of construction in the 1960s and 1970s represents 30 percent (see previous graph) of Regent GEF facilities and 40 percent of all campus construction in the United States. It was generated by the G.I. Bill of 1944 and the Baby Boomer Generation (persons born between 1946 and 1964). This construction wave is characterized by buildings that were built quickly, but poorly and now represents the Regents' single largest source of building renewal. Now 42 to 61 years old, most of these facilities and/or their building components have reached or will soon reach the end of their useful lives. These buildings must be repaired, renovated or replaced in order to maintain competitive programs on Regent campuses.

This wave represents our "catch up" need in building renewal.

➤ **Second Wave of Construction**

The "Second Wave" of construction from 1995 to 2015 represents 28 percent (see previous graph) of Regent GEF facilities and 30 percent of all campus construction in the United States. It was largely generated by the increasing enrollment of millennials (persons born between 1981 and 1996), who had new higher education expectations, including a higher demand for newer technologies and more collaboration. This wave produced buildings that met those needs, were much more energy efficient and were much more "high tech." However, these buildings require much more routine and major maintenance to keep their more sophisticated systems operating at optimal levels.

This wave represents our "keep up" need in building renewal.

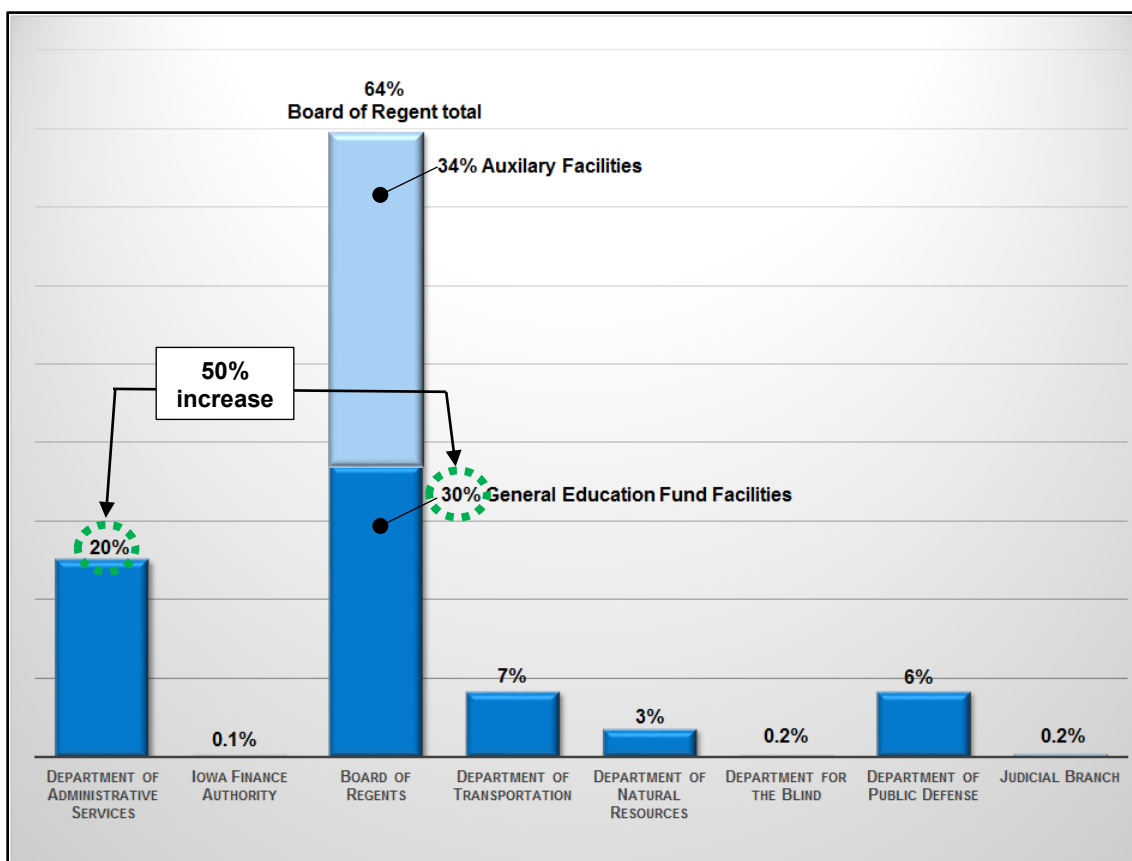
In summary, the Regent's "catch up" needs (30 percent-First Wave) and "keep up" needs (28 percent-Second Wave) make up 58 percent of all outstanding building renewal in Regent facilities.

3. State-Funded Square Footage Comparison: Regents vs Seven Other State Agencies

The following graph compares the amount of state-funded (appropriations and/or Academic Revenue Bonds (ABRs)) square footage of eight state of Iowa agencies. It does not include the Iowa Department of Education, whose facilities are not funded by appropriations or ABRs.

When adding the Regents' auxiliary facilities on top of the Regents' GEF square footage, the Board of Regents own, operate and maintain 64 percent of all square footage at these eight state agencies. Auxiliary facilities include the University of Iowa Hospitals and Clinics, utilities, athletic facilities, residence halls, recreation facilities, parking, student unions and Iowa State University Agricultural Experiment Station.

State-Funded Vertical Infrastructure Square Footage*



* 2019, does not include the Department of Education

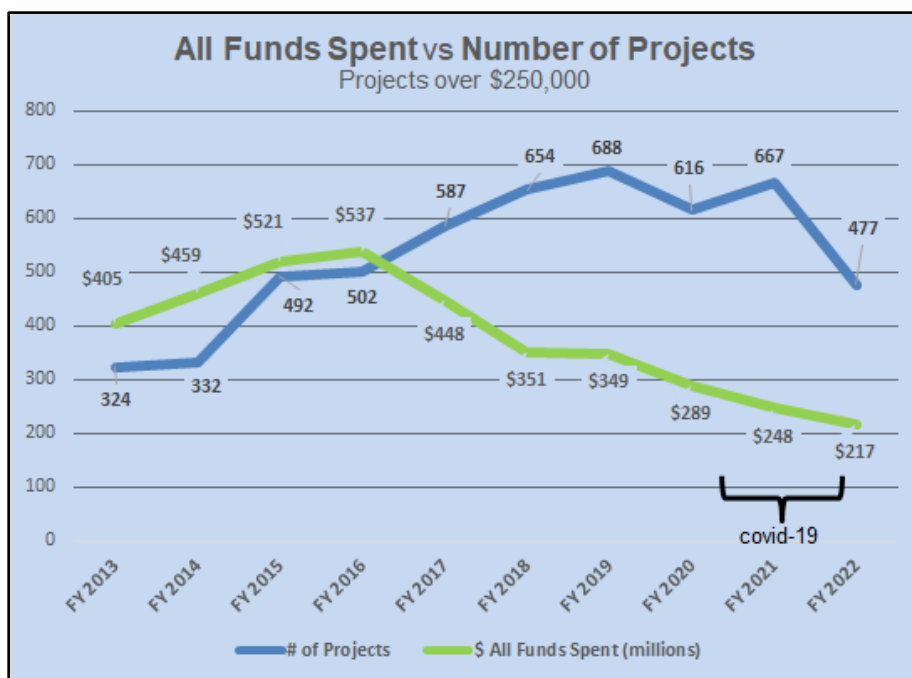
As shown above, the Regents' have 50% more state-funded vertical infrastructure facilities than the Iowa Department of Administrative Services (DAS).

4. All Funds Spent

“All Funds” include state appropriations, building renewal (repair) funds, institutional road funds (DOT), gifts and grants; Treasurer’s Temporary Investments (TTI) income, proceeds of academic building (ABRs), dormitory, athletics, telecommunications and other revenue bonds, University of Iowa Hospitals and Clinics (UIHC) building usage funds and revenue bonds.

In FY 2022, institutions spent \$217 million, which is a 13% decrease from last year’s \$248 million. The 10-year average is \$382 million.

For the first four of those 10 years, the number of projects and funds spent increased together until FY 2016, when institutions started executing smaller projects to minimize building renewal and make other capital project improvements.



5. Space Utilization

The impact of COVID-19 was unprecedented and substantial. It reduced classrooms to roughly 50 percent and heavily skewed space utilization data. In general, the first row of seats in each classroom were left unoccupied to attain social distancing between instructors and students. Due to social distancing requirements, smaller classrooms were not big enough for certain class sections. Classrooms lacking forced ventilation were not used. In addition, classes shifted to 100 percent or partial on-line pedagogy.

In October 2015, Ad Astra, a classroom efficiency and scheduling consultant specializing in higher education, presented to the Board its analyses, recommendations and implementation strategies to improve the utilization of classrooms and laboratories at all three universities.

A number of factors including capacity, seating type and location, as well as the quality and condition of the space, can affect the utilization of a classroom or laboratory.

Fall 2021 data

Space Utilization		University Classrooms			Laboratories		
		UI	ISU	UNI	UI	ISU	UNI
Rooms	# of Rooms	278	206	123	170	329	115
	Average Room Periods Used per Week	25.1	23.9	18.8	13.5	12.5	10.1
Seats	# of Seats	14,115	14,584	6,025	4,949	9,042	3,716
	Utilization of Seats when Room is Occupied	56.7%	64.4%	70.1%	60.7%	30.20%	56.8%

University of Iowa

Classroom Scheduling with the Office of the Registrar continues to support the recommendations of the 2015 Ad Astra Study and the 2016 TIER (Transparent, Inclusive Efficiency Review). Classroom Scheduling in partnership with Facilities Management follows the recommendations of centralized scheduling in assignment of campus classroom and laboratory instructional spaces and continues to look for areas of continued efficiency improvements.

Classroom Scheduling maintains their prior policy to limit non-standard course offerings and provides ongoing training support for new academic schedulers of Level 1, shared University Classrooms within Ad Astra Schedule software to achieve transparency of room availability across campus. To date, Classroom Scheduling manages the Ad Astra software for not only our centralized scheduling office, but for an additional 19 academic departments with viewing rights to multiple service areas, including Facilities Management. These 19 departments schedule their departmentally-assigned space within the Ad Astra software, which increases the transparency of room availability. Currently, configuration of another College of Liberal Arts department to schedule in the Ad Astra software is underway.

In 2021, a review of programmed classrooms occurred, which resulted in the removal of 10 classrooms due to off-campus location and unavailability of use by undergraduate students as well as reassessment of room capacities.

Iowa State University

➤ Optimal Utilization

Iowa State University has adopted policies, procedures and practices to provide for the optimal utilization of existing campus facilities. The primary responsibility for the effective and efficient use of space rests with the Facilities Planning and Management (FPM) Planning Services, with support from administration. Planning Services is responsible for maintaining information about facilities availability and utilization, and using this information to provide analyses and advice to the university administration about how existing and new space could be used to solve university program space needs. Planning Services is assisted by departments and colleges in the management of space within their control, and by the university administration in the review and approval of project specific recommendations.

➤ Space Allocation

Space is a limited resource owned by the university and available for reallocation to support the university's mission. The Facilities Planning and Management (FPM) Space Management Office is responsible for recommending the effective and efficient use of university facilities. FPM Space Management Office, in consultation with the offices of the Executive Vice President and Provost and the Senior Vice President for Operations & Finance, determines the allocation of new physical space to a college or department of the university. Space vacated when occupants move to a new building will follow the same procedure as for new space.

➤ Space Conversion

Advance notice and approval of facility conversion or renovation enhances the university's ability to manage space. The conversion or renovation of space from one function to another requires notification and prior approval of Facilities Planning and Management (FPM) Space Management. Similarly, contracted space or commitments to new staff, which ultimately require additional space beyond that already assigned, needs prior approval of FPM Space Management.

➤ Resource Management Model

The Resource Management Model assigns income and expenses to major organizational units of the university. One of the elements of the model is units pay the operating costs of space used.

The President, advised by the Capital Project Advisory Committee, is the final authority on use of existing space and development of new space.

University of Northern Iowa

Information provided is based on the university's database as of June 1, 2022. In 2015, the university retained a space management consultant, Ayers Saint Gross (ASG) of Washington, D.C., to update the space inventory and verify utilization rates, number of rooms, number of stations and square footage calculations, etc. ASG was subsequently retained to update the report in 2020. UNI has also initiated numerous space utilization studies including the South Campus, West Campus, ITTC/Bartlett, and McCollum Science Hall.

Additionally, the University of Northern Iowa has created the Office of Planning and Space Management to provide ongoing facilities space planning, space allocation and facility data information to ensure that university resources are planned, maintained and managed in a way that contributes to its mission and desired student outcomes.

The University of Northern Iowa has established Principles and Procedures for Space Assignment. These state that building space on campus is university space and is to be utilized for the maximum benefit of the institution. Space is to be utilized so that it maximizes resources consistent with the University Strategic Plan.

The assignment of instructional space rests with the Registrar's Office. While the Registrar may assign priority use of classrooms and labs to individual units, the space remains university space, and the Registrar retains the authority to schedule the space when not otherwise in use.

Assignment of academic space is the purview of the provost and non-instructional space is made by the division vice president to whom the space is assigned. Principles for non-instructional space state that landscape open office concepts will be utilized as much as possible for administrative functions and for adjunct faculty, graduate students, and emeritus faculty space. Assignment of emeritus and adjunct faculty office space is on a space available university-wide basis. The standard faculty office is 120 sq. ft.

The Facilities Planning Advisory Committee, composed of members representing each university division, the Academic Affairs Council, the Council of Department Heads, the Faculty Senate, and the Northern Iowa Student Government consider capital project priorities and the assignment of space and forward recommendations for consideration by the President's Senior Leadership Team.

The Facilities Management Department (FM) works with campus stakeholders on capital projects to maximize outcomes. For example, FM has coordinated with the Registrar's Office on all major capital projects to determine appropriate classroom and lab needs. Attention is given during planning to maximize usable space in facilities for a high net to gross square foot ratio. Energy use and sustainability are also key planning elements in the facilities planning process.

Iowa School for the Deaf

The Iowa School for the Deaf Council Bluffs site leased some facilities space with five other agencies/groups during FY22; they were the Iowa Educational Services for the Blind and Visually Impaired, Children's Choice Country, FAMILY, Inc., Green Hills AEA, and Promise Partners.

- In August 2022, ISD completed a \$4.3 million renovation of Long Hall, the middle and high school. The project upgraded classrooms, installed ADA-compliant building components, and corrected multiple building renewal issues to accommodate the needs of deaf, blind, and deaf and blind students.

6. Strategies for Optimal Use of Facilities

- a. Each university should adopt general principles, consistent with the Board's and each university's strategic plan, regarding space assignment and scheduling of classes, and should so inform the campus community. Each university should also ensure that its policies and procedures regarding space are consistent with these principles.
- b. The universities should use their appropriate campus committees to stimulate discussions on improving the utilization of campus space and facilities and to provide recommendations to the university administration.
- c. Space planning should continue to be an institutional responsibility and be part of comprehensive long-range campus planning, which includes an analysis of the quality, quantity and location of the space.
- d. Requests for new space should continue to be documented and justified on a functional need basis with a demonstration that the identified program need cannot be met more economically through more efficient use of existing space or renovation, consistent with the Board policy.
- e. Each university should review its existing utilization data when planning for new or renovated space. To the greatest extent possible, objective measures should be used to determine space needs. These objective measures could include benchmarking data or objective models, supplemented by further analyses and specialized studies.
- f. Each university should consider development of policies regarding office space for part-time employees, including adjunct faculty, graduate students and emeritus faculty.
- g. Each university should keep and utilize project guidelines for the size of offices as each new construction or renovation project is carried out.
- h. Each institution should submit with its request to lease space, an explanation of how campus spaces were first examined and what spaces were found unsuitable.
- i. Classrooms, class laboratories and other facilities should be designed and scheduled for optimal utilization given program needs and student expectations.
- j. The universities should strive to design efficient facilities, providing for as much usable (net) square footage as reasonably possible within the gross square footage and program goals.
- k. Institutions should be as thorough and innovative as possible in their allocation and reallocation of space within their existing physical plants.
- l. For those facilities thought to be obsolete, the institutions should, of course, assess the building's physical condition, but also its contribution to the university's mission, heritage and potential for reuse. Based upon this assessment, each university should determine whether it is prudent to retain such facilities or raze and recycle them.

7. Interinstitutional Collaboration on Facilities

a. Electronic bidding

Since January 2018, all Regent capital projects utilize an online bidding system, Bid Express®. This system saves the Regents nearly \$100,000 per year over paper bids through less administrative time, no copying, no mailings, no paper, and virtually zero bidding errors or bid disputes. The Regents bid roughly 200 projects per year.

- Depending on the number of times contractors bid on Regent projects, they also save money through quicker bid adjustments, fewer in-person bid openings and fewer bidding mistakes.

b. Electronic signatures

Since September 2018, all Regent capital projects utilize the electronic signature software DocuSign®. It saves the Regents over \$34,000 per year over wet signatures through less administrative time, no copying, no mailings, no paper, no missed signatures and no waiting for documents in the mail.

- In FY 2022, facility DocuSigns® totaled 326 = 189 UI & UIHC + 137 ISU, UNI & ISD.

c. Electronic meetings

Starting in October 2018, Regent capital project staff started using Zoom to replace three of their four quarterly, in-person interinstitutional meetings. This change has saved the Regents over \$12,500 per year through a 75% reduction in meeting time, transportation costs and meeting expenses.

d. Indefinite Services Agreements (Five Years) for Design Professionals

Over the last two years, UI, ISU and UNI have collaborated and developed 116 "Indefinite Services Agreements" to quickly acquire the services of architects, engineers and other design professionals.

- Those agreements are grouped into 32 categories such as General Architecture, Structural Engineering, Civil Engineering, Lab Design, Building MEPT (mechanical, electrical, plumbing and telecommunications), Building Envelope Commissioning and MEPT Commissioning.
- Out of these 32 IS Agreements, two have been customized specifically for UIHC in order to fit the unique building type and infrastructure of a hospital.
- Projects have been sped up significantly by eliminating roughly four weeks of traditional negotiations between the institutions and Design Professionals.
- Administrative costs have been substantially minimized through fewer Design Professional solicitations.

e. Capital Project Management

- In July 2021, ISU and UNI finished the complete replacement of their outdated internal contract management softwares, FAMIS, Centric and EasyNetPay, with two softwares; Lucernex and Famis360. FAMIS and Centric have been used by both institutions for the last 20 years.
- UI continues to provide capital project oversight at Iowa Lakeside Laboratory.
- ISU continues to provide capital project oversight at the Iowa School for the Deaf.

- UNI and ISU continue to meet regularly to share best practices for the power plant operations and utilities.
- Building maintenance, grounds and custodial staff continue to meet annually to share planning strategies, information and best practices.
- On-going monitoring of state licensure requirements for staff including electricians, plumbers, HVAC techs, fire alarm system installers, elevator mechanics, etc. to assure applicability and compliance for all Regents' institutions.
- The Board's *Policy Manual* §2.3 continues to be updated to remain current with the *Iowa Code*, reflect evolving design and construction practices, and simplify administrative processes.

f. Environmental Testing and Hazardous Waste Disposal

The universities continue to share service contracts for environmental testing, hazardous and universal waste disposal, electronic waste recycling and boiler water treatment.

g. Webinars for Design and Construction Trade Organizations

In September 2021 and March 2022, the Board Office and facility representatives from UI, ISU and UNI hosted three separate webinars entitled "Regent Design and Construction Processes" for Master Builders of Iowa (MBI), the American Institute of Architects (AIA) and the Iowa Engineering Society (IES).

h. Renewable Fuel: Miscanthus

UI and ISU continue the development of Miscanthus; a dedicated energy crop grown by local farmers and used as a biofuel replacement of coal at UI's Power Plant.

- Miscanthus grass was selected as a source of alternative energy for the University of Iowa in partnership with Iowa State University's Agronomy Department and AgGrow Tech, a private firm who is a leader in Miscanthus technology and production.
- One acre of Miscanthus grass displaces 8,000 pounds (4 tons) of coal. Since 2013, UI has planted over 1,200 acres, displacing 9.6 million pounds (4,800 tons) of coal.

i. Facility Routine Maintenance and Cleaning Supplies


UNI, UI and ISU collaborate on a routine maintenance repair and operations contract (MRO) with W.W. Grainger, who provides a wide variety of equipment and routine maintenance supply items to facilities staff.

All three also work in partnership to purchase facility cleaning chemicals through a contract with Supply Works.

8. Fire and Environmental Safety

Fire and environmental safety standards are established by the *State of Iowa Building Code*, which is part of the *Iowa Code*. The State Fire Marshal's Office, a division of the Iowa Department of Public Safety, and the Iowa Occupational and Safety Act (IOSHA), a division of Iowa Workforce Development, implement those standards by teaming with Regent facility personnel and local fire departments. Fire and environmental safety deficiencies are identified during scheduled site visits with one or more of these agencies.

a. Fire Safety: Potentially life-threatening deficiencies are promptly addressed and corrected, or the facilities are closed, until they can be made safe. Lesser risks are prioritized using multiple factors, including hazard assessments and regulatory requirements. Corrective work is undertaken as funds are available, or as part of a renovation project.

 <p>The authority having jurisdiction over Regent facilities is the State of Iowa Fire Marshal. Fire safety inspections at Regent facilities are conducted biannually by the State of Iowa's Fire Marshal's Office directly or indirectly with assistance from the city fire departments, local officials, and Regent institutions.</p>	<table> <tr> <th colspan="2">Latest Fire Safety Inspections at Regent Facilities</th></tr> <tr> <td>University of Iowa ¹</td><td>= 2021</td></tr> <tr> <td>UIHC ²</td><td>= 2022</td></tr> <tr> <td>Iowa State University ³</td><td>= 2021</td></tr> <tr> <td>University of Northern Iowa ⁴</td><td>= 2021</td></tr> <tr> <td>Iowa School for the Deaf ⁵</td><td>= 2022</td></tr> <tr> <td colspan="2">¹ The SFMO, City of Iowa City and the UI conduct inspections at the UI biannually.</td></tr> <tr> <td colspan="2">² The SFMO, City of Iowa City and the UI conduct inspections at UIHC biannually. Also, the Joint Commission conducts unannounced surveys of UIHC's life safety systems every three years.</td></tr> <tr> <td colspan="2">³ In 2017, the SFMO authorized ISU's Environmental, Health & Safety (EH&S) to conduct fire safety inspections at ISU biannually.</td></tr> <tr> <td colspan="2">⁴ The SFMO and UNI conduct fire safety inspections at UNI biannually.</td></tr> <tr> <td colspan="2">⁵ The SFMO and City of Council Bluffs conduct inspections at ISD biannually.</td></tr> </table>	Latest Fire Safety Inspections at Regent Facilities		University of Iowa ¹	= 2021	UIHC ²	= 2022	Iowa State University ³	= 2021	University of Northern Iowa ⁴	= 2021	Iowa School for the Deaf ⁵	= 2022	¹ The SFMO, City of Iowa City and the UI conduct inspections at the UI biannually.		² The SFMO, City of Iowa City and the UI conduct inspections at UIHC biannually. Also, the Joint Commission conducts unannounced surveys of UIHC's life safety systems every three years.		³ In 2017, the SFMO authorized ISU's Environmental, Health & Safety (EH&S) to conduct fire safety inspections at ISU biannually.		⁴ The SFMO and UNI conduct fire safety inspections at UNI biannually.		⁵ The SFMO and City of Council Bluffs conduct inspections at ISD biannually.	
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Each institution systematically maintains and prioritizes a list of fire safety issues and updates it as issues are resolved or discovered. Additions to the list often occur when the use of a space changes; when, for example, an office changes to a wet lab.

Should the State Fire Marshal issue a fire safety citation, those can be classified as:

- User: housekeeping or procedural items such as use of a doorstep to prop open a door,
- Maintenance: items requiring no design and minimal expense, such as door repairs, or
- Other deficiencies: items for which the correction requires an outlay of funds beyond facility management maintenance funds; these items are documented and prioritized.

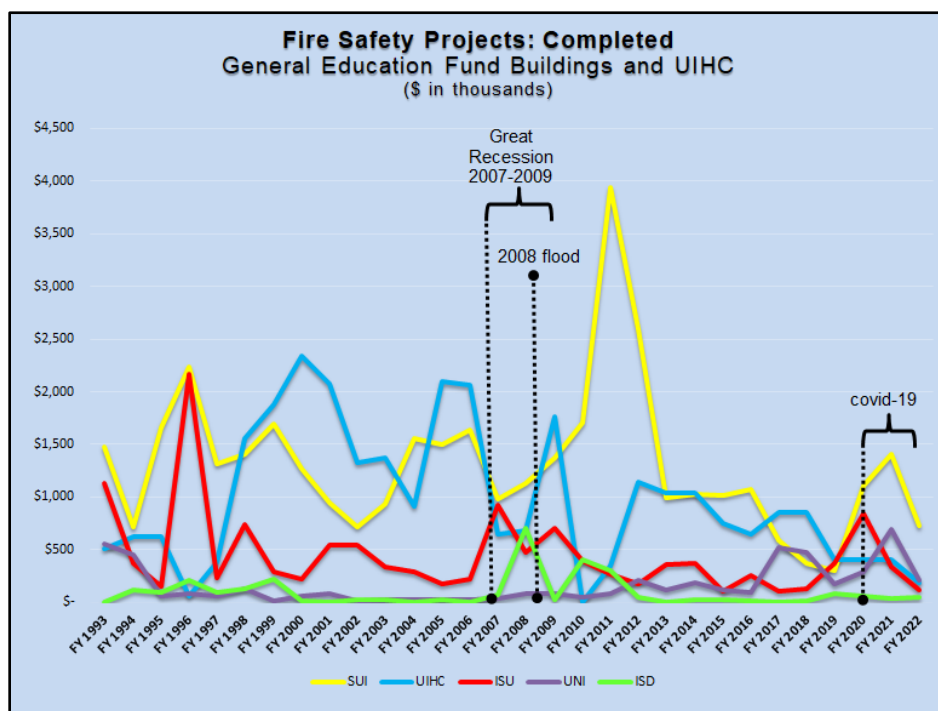
b. Environmental Safety: Environmental compliance at the institutions is overseen by IOSHA, Environmental Health and Safety (EH&S), Facilities Management personnel and the Office of Risk Management.

Many environmental safety issues come directly from facilities. Issues include asbestos, lead, Underground Storage Tanks (USTs), Spill Prevention, Control, & Countermeasure (SPCC) Plans, Storm Water Pollution Prevention Plans (SWPPP), Polychlorinated Biphenyls ((PCBs) banned in 1978 and found in fluorescent light ballasts, floor mastic and caulking in 1950-1970 buildings), mercury, the Clean Air Act and radioactive sites. Environmental safety deficiencies are identified by campus personnel and regulatory entities and corrected by the institutions as required.

Asbestos abatement continues to be one of the most common and costly environmental safety issues. For example in FY 2022, Iowa State University spent \$160,686, down from last year's \$468,311 at 74 locations to abate asbestos in GEF facilities alone. ISU plans to spend another \$430,000 on GEF asbestos abatement in FY 2023.

c. Fire Safety Projects: Completed

Regent institutions completing \$1.3 million in FY 2022 in GEF fire safety projects, which is down 55% from last year's \$2.8 million. The ten-year average is \$2.1 million.



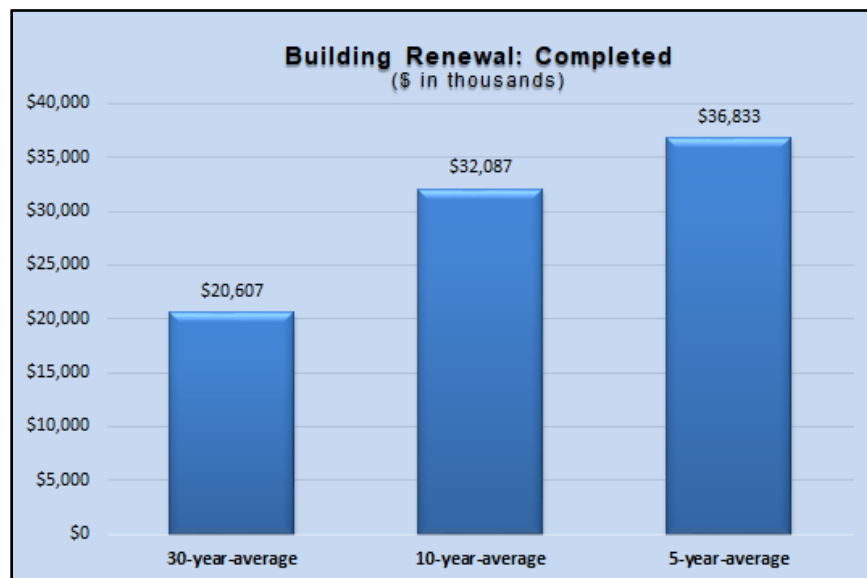
General Education Facility square footage distribution:	
UI	= 47%
ISU	= 38%
UNI	= 13%
ISD	= 2%
Total = 100%	

Looking forward to FY 2023, over \$3.4 million in fire safety projects are planned.

**Fire Safety and Building Renewal
Comparison**



While the completion of fire safety projects in GEF facilities has remained steady over the last 10 years, the completion of building renewal in those same buildings has improved 15% during the same time period.



d. Fire Safety Projects: Outstanding

Outstanding fire safety projects include items identified by the State Fire Marshal's Office, Iowa City Fire Department, Environmental Health & Safety, Council Bluffs Fire Department's Fire Inspector and institutional departments authorized by the State Fire Marshal's Office to conduct fire inspections. It excludes work in buildings to be demolished, and buildings with waivers from the State Fire Marshal's Office.

Fire Safety Projects: Outstanding ¹					
General Fund Buildings					
Fall 2022					
(\$ in thousands)					
	SUI ²	ISU	UNI	ISD	Total
Fire Safety Projects	\$8,682	\$2,490	\$3,755	\$275	\$15,202
¹ Items identified by State Fire Marshal's Office, city officials and university officials; excludes pending demolitions and special State Fire Marshal waivers.					
² Does not include UIHC.					

This \$15.2 million in outstanding fire safety projects is a 25 percent increase from last year's \$12.2 million.

e. Comments from the Institutions on Fire Safety and Environmental Safety Projects

University of Iowa

Department of Public Safety (UIDPS) and Facilities Management's Fire and Life Safety Department (FM FLS) work together to ensure compliance with fire safety codes in General Fund and other campus facilities. Design and Construction teams include them for plans and designs of new buildings, as well as renovation projects, so they can be reviewed for code compliance and checked for outstanding fire safety deficiencies. When fire safety deficiencies need to be incorporated into a project, they are formally communicated to the project's design manager, and design professional in the planning stages of projects. These individuals routinely consult with UIDPS and FM FLS to resolve challenges to fire safety deficiencies.

Under the UI fire safety program, buildings are continually inspected and evaluated.

- Bi-annual basis by inspectors from the State Fire Marshal's Office (SFMO) with assistance from the UI Fire Safety Coordinator. In addition to bi-annual inspections, construction and pre-occupancy inspections are being conducted by the State Fire Marshal's Office and State Building Code Bureau with the assistance of the UI Fire Safety Coordinator. These inspections evaluate newly constructed or renovated buildings prior to occupancy and have mitigated the possibility of finding major deficiencies during future inspections.
- Iowa City Fire Department (ICFD) conducts annual inspections of each campus building focusing on the prevention of fire incidents and becoming familiar with UI buildings for emergency response purposes. The ICFD inspection reports are categorized and corrections are made in 30 days after issuance to the user group or Facilities Management.
- FM FLS conducts monthly inspections of the buildings they service, as well as Semi-Annual and Annual Fire Alarm inspections, and annual fire protection inspections.

The University continues to provide maintenance and periodic replacement of building fire safety systems, including fire detection, sprinkler, and suppression systems, along with portable fire

extinguishers. During recent years, Facilities Management's Fire Safety Inspectors have identified minor fire code deficiencies during their normal monthly tours checking fire equipment in GEF facilities. They bring the issues to the attention of the user group or make the necessary work orders upon completion of the building's inspection. These deficiencies are then corrected within a short timeframe.

On a regular basis, corrections report(s) from the latest state fire inspection, and updates from previous reports are submitted to the State Fire Marshal's Office for approval. These plans are a continuation of the annual agreement between the University and the State Fire Marshal's Office, which identifies each deficiency from the inspection reports with corrections and timetables noted.

Iowa State University

Starting in 2017, Iowa State University's Environmental Health & Safety (EH&S) was authorized by the State Fire Marshal's Office to conduct ISU's fire inspections.

- *Process Used to Incorporate Fire Safety Deficiencies into Renovation Projects*

EH&S works to ensure compliance with fire safety codes in General Fund facilities. All plans and designs for new buildings and renovation projects are reviewed for code compliance and checked for outstanding fire safety deficiencies. Fire safety deficiencies needing to be incorporated into a project are formally communicated to the project designers and engineers. Project designers and engineers routinely consult with EH&S to resolve challenging fire safety deficiencies early in the planning stages.

- *Fire Safety Deficiencies*

During FY22, due to a challenging construction bidding climate, only \$121,798 was expended for health and life safety projects for general fund facilities. In FY23, approximately \$825,000 is planned for general fund facilities. The most current estimate to correct remaining fire safety deficiencies identified by the State Fire Marshal in General Fund facilities is \$2,490,000. This estimate includes the cost of adding sprinkler systems to five buildings to address fire corridor deficiencies cited in the 2019 inspection. Funding for correcting fire safety deficiencies comes from the overhead use fund and the capital renewal fund and are specifically identified as the health and life safety projects.

- *Asbestos*

Asbestos removal is required when remodeling and renovation projects will disturb asbestos-containing material (ACM). Scheduling asbestos removal when buildings are being renovated has proven to be cost-effective and time-efficient because the asbestos work is planned to coincide with other major disruptions in a building. During FY22, \$160,886 was expended for asbestos removal from General Fund facilities. In FY23, it is estimated that \$430,000 will be expended on asbestos abatement for General Fund facilities. The cost to remove all ACM is estimated to be \$6,000,000.

Asbestos removal not associated with renovation is managed under an operations and maintenance (O&M) program. ACM needing repair are submitted to Facilities Planning and Management (FP&M) where funds are identified for removal/repair. These repairs are required while asbestos is managed in place until major renovation projects can allow for the complete removal of the ACM.

- *Underground Storage Tanks*

Transportation Services operates and maintains two regulated underground storage tanks, the last remaining on University property. These double-wall fiberglass-reinforced plastic fuel tanks were installed in July 1988; the underground piping and distribution systems were completely replaced in August 2010. State and Federal regulations require operator training, leak detection sensors, spill prevention equipment, monthly checks, annual certification, and biennial third-party inspections of the fuel storage and distribution systems. Because of these preventive measures, the university has operated these tanks incident-free for many years. No additional installations of underground tanks on University property are under consideration.

- *Polychlorinated Biphenyls (PCBs)*

All large pieces of equipment containing PCBs have been removed from campus.

The last known PCB-containing transformer was removed in June 2014 at a cost of \$4,440. Small sources, such as light ballasts and capacitors, continue to be collected for proper disposal as they are removed from service. ISU continues to segregate non-PCB ballasts from PCB-containing ballasts, significantly reducing disposal costs. Any oil-filled equipment scheduled for decommissioning are tested for PCBs prior to removal.

University of Northern Iowa

- *Process Used to Ensure Fire Safety Deficiencies are Included in Renovation Projects*

During the design phase of renovation projects, Facilities Management's project management team works with licensed architects and engineers, the Office of Risk Management and Environmental Health & Safety (EHS), and the State Fire Marshal's office to address fire safety and other code items within the project. EHS staff receive a project update report bi-weekly, and participate in bi-weekly project update meetings to stay informed of projects being developed and constructed to provide support and direction to ensure deficiencies are addressed.

- *Environmental Safety*

The University of Northern Iowa identifies and addresses environmental safety deficiencies through its Office of Risk Management and Environmental Health & Safety (EHS). EHS conducts regular inspections of the university's facilities and works with external entities inspecting campus for deficiencies, e.g. Iowa Department of Public Health. EHS also provides training to university employees on how to safely identify environmental safety deficiencies and works to promote a safety culture that encourages members of the campus community to report any suspected safety deficiency observed on campus.

- *Asbestos*

The university has in place an Asbestos Management Plan that addresses any operation, including maintenance activities, involving the potential or actual disturbance of asbestos containing materials. This plan complies with all state and federal regulations, including those promulgated by Iowa OSHA, OSHA and the EPA.

- *Underground Storage Tanks*

There are no underground storage tanks on the UNI campus.

- *Polychlorinated Biphenyls (PCBs)*

There are no pieces of large equipment containing PCBs on the UNI campus.

Iowa School for the Deaf

The State Fire Marshal's office conducted its most recent inspection of the Iowa School for the Deaf in November 2020. The inspection is performed every two years.

- For FY 2022, ISD spent \$43,368 fire safety repairs throughout two buildings.
- For FY 2023, ISD plans to spend \$275,000 to replace two fire panels.

In April of 2019, an environmental review was conducted at ISD by ISU's Environmental Health and Safety (EH&S) staff recommending \$24,600 in asbestos removal. ISD's environmental review is conducted every three years.

- For FY 2022, ISD spent \$86,003 on asbestos abatement and security camera equipment.
- For FY 2023, ISD plans to spend \$40,540 for additional security camera equipment.

9. Building Renewal

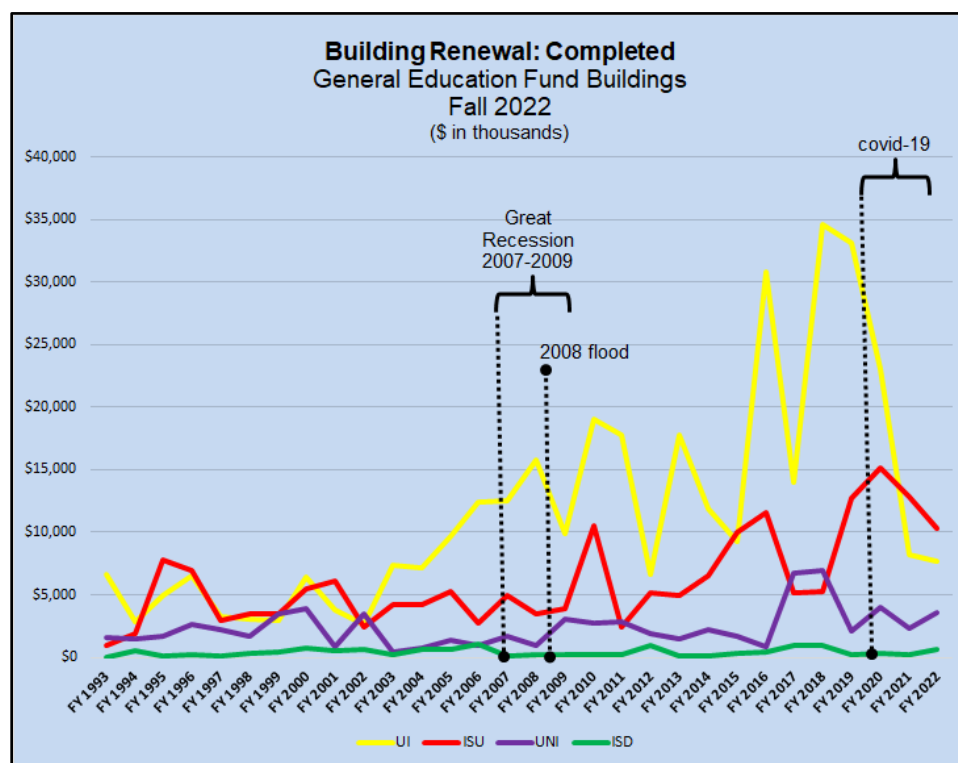
Building renewal in higher education is not just a Regent issue, but a very large national problem. Regardless, minimizing and eliminating building renewal is a high priority for Regent institutions and the Board Office.

Definition of Building Renewal:

"The repair or replacement of all, or part of an existing capital asset, which was not repaired or replaced at the appropriate time, because of a lack of funds."

a. Building Renewal: Completed

However, Regent institutions have spent an average of \$33 million per year over the last ten years to minimize the \$1.2 billion backlog. To support this effort, the Board Office has requested \$20 million per year and made a one-time \$30 million request for FY 2022, but neither was funded.



General Education Facility square footage distribution:

UI = 47%
ISU = 38%
UNI = 13%
ISD = 2%
Total = 100%

Specifically, Regent institutions completed over \$22 million in FY 2022 in GEF building renewal projects, which was down 4% from last year's \$23 million. Decreases in funding building renewal projects over the last two years has been largely due to the unprecedented financial impact of COVID-19 on Regent institutions and throughout the world.

Building Renewal Budget Development: For new facilities per the Board's *Policy Manual* §2.3 and industry standards, institutions should budget 1.5% of a new facility's replacement cost annually to fund its future routine maintenance and building renewal costs. This 1.5% is intended only for the new facility, and not for the Regents' existing building renewal backlog.

b. Building Renewal: Outstanding

Building Renewal: Outstanding General Education Fund Buildings Fall 2022 (\$ in thousands)					
	UI	ISU	UNI	ISD	Total
Individual					
Buildings ¹	\$341,660	\$576,736	\$166,579	\$1,775	\$1,086,751
Utilities	-	27,890	5,644	-	33,534
Subtotal	\$341,660	\$604,626	\$172,223	\$1,775	\$1,120,285
Included within Five Year Capital Plan (FY 2021 - FY 2025)					
Buildings ¹	\$65,234	\$29,261	\$40,000	\$0	\$134,495
Utilities	-	2,750	-	-	2,750
Subtotal	\$65,234	\$32,011	\$40,000	\$0	\$137,245
Grand Total					
Buildings ¹	\$406,894	\$605,997	\$206,579	\$1,775	\$1,221,246
Utilities	-	30,640	5,644	-	36,284
Total	\$406,894	\$636,637	\$212,223	\$1,775	\$1,257,530

¹ Includes site work.

A widely accepted and standard facility management benchmark used to objectively assess a facility's current and projected condition is the Facility Condition Index (FCI). By definition, the FCI is the ratio of a building's building renewal cost to its replacement value.

- University of Virginia had \$144 million in building renewal in 2018 and a \$2.871 billion replacement value for an FCI of **5.0%** or fair condition.
- The U.S. Department of the Interior has \$16.4 billion in building renewal in 2019 with a replacement value of \$300 billion for an FCI of **5.5%**, also in fair condition.
- The Regents' GEF facilities have a \$1.257 billion in building renewal in 2022 and \$10.293 billion replacement value for an FCI of **12.2%** or poor condition.
- Kansas State University's portfolio (7 institutions) has \$87 million in building renewal in 2016 and a \$428 million replacement value for an FCI of **20.3%**, also in poor condition.

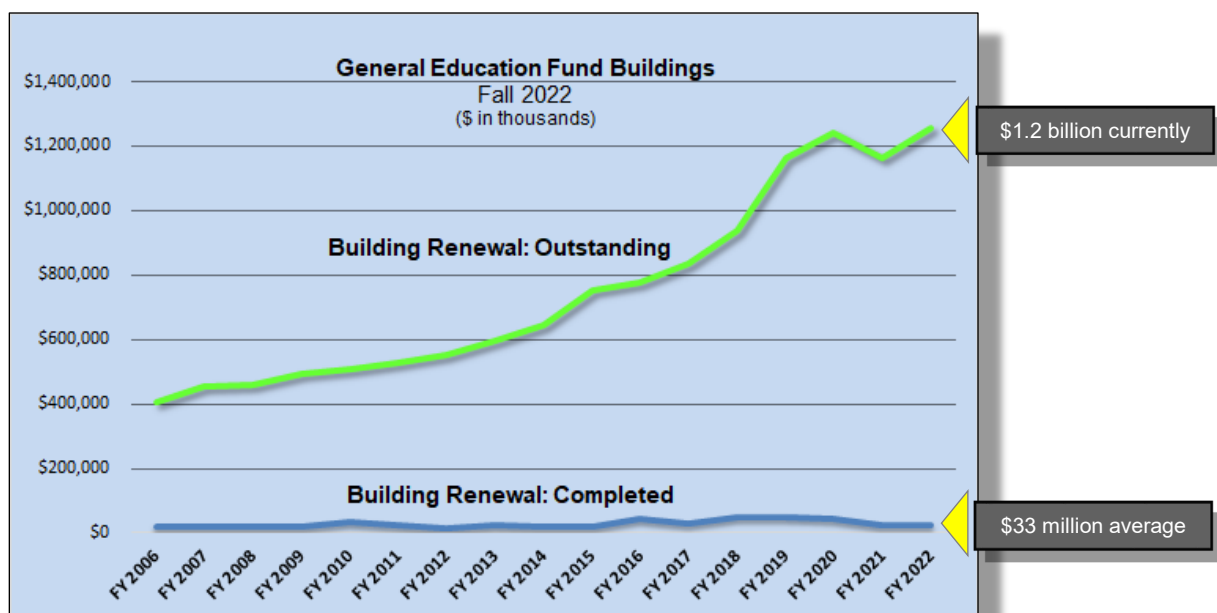
Facility Condition Index (FCI):

- "Good" Condition: 0% - 5% (*University of Virginia = 5.0%, U.S. Dept. of Interior = 5.5%*)
- "Fair" Condition: 5% - 10%
- "Poor" Condition: 10% - 30% (*Regents = 12.2%, Kansas State = 20.3%*)
- "Critical" Condition: 30%+

The purpose of the FCI is to provide an objective way of comparing all facilities, allowing senior decision makers, like the Board and the Legislature, to better understand Regent building renewal funding needs.

Building renewal starts once a building component has outlived its useful life. For example as the warranty expires in year 51 of a 50-year roof warranty, replacing the roof shifts from the contractor to the owner, requiring the owner to then pay 100% of the roof replacement. The building renewal cost of the roof is then determined utilizing industry standards, such as RS Means cost per square foot information, consultation with Gordian, and comparisons to similar Regent projects. Since 1940, RS Means has been a primary construction cost resource used by contractors, architects, engineers and owners. Gordian is a higher education consultant employed by the Regent institutions at various times, who specializes in facilities operations, costs and capital investment.

To augment FCI, Regent institutions also ascertain building renewal costs through the assessment of nine different building systems, including building envelope, roof, window, HVAC, electrical, plumbing, interior, elevators and site. Replacement cost of the building, the warranty of a specific building component and the condition of those components according to university maintenance staff is also taken into account.



d. Building Renewal: Institutional Comments
University of Iowa

General Education Fund Facilities

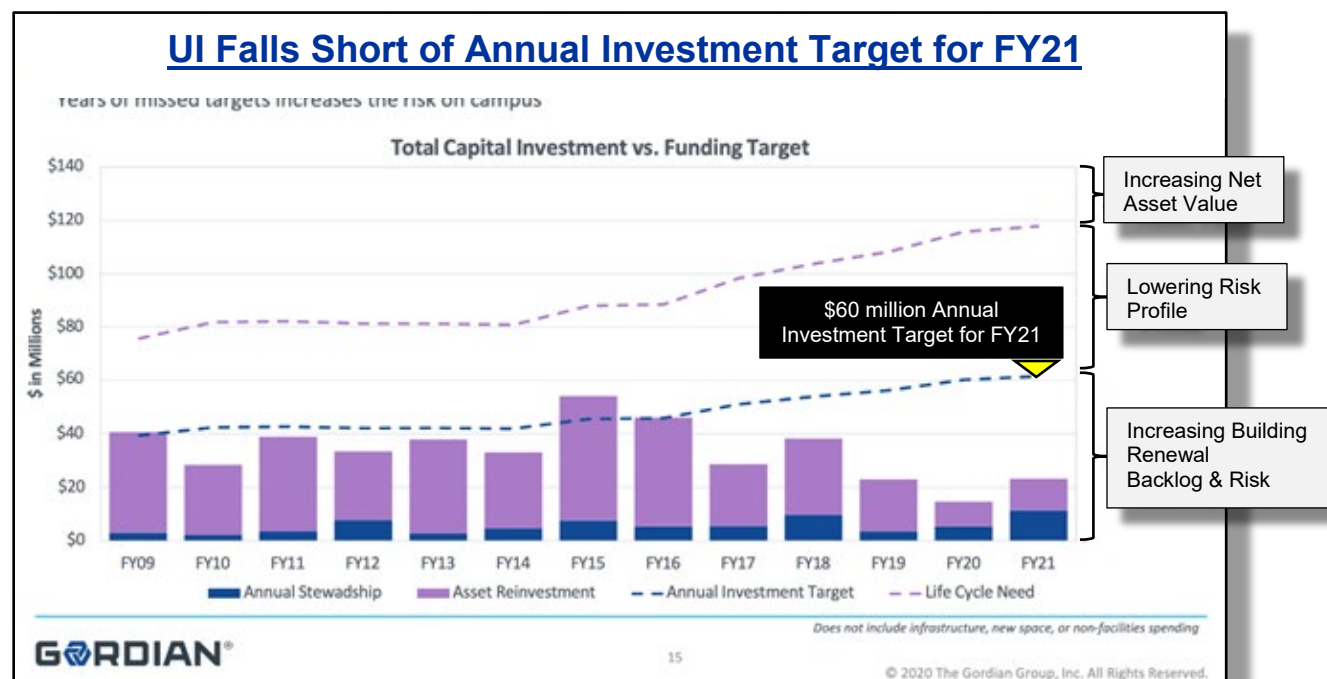
UI had a 3% increase in outstanding building renewal from last year.

The condition of existing facilities, their functionality and their suitability to foster student success, research and discovery inform the use of various facilities stewardship strategies. These strategies include ongoing maintenance and operational care of existing facilities, reduction of building renewal, and reinvestment in the renewal of long-term physical assets. In instances where facilities have become obsolescent and have substantial building renewal issues, the university considers decommissioning or removal.

The University of Iowa also uses a *total cost of ownership* evaluative framework philosophy when weighing the various alternatives that may include renovation, improvement, or demolition of existing facilities. The *total cost of ownership* framework includes all stewardship costs, including the initial project cost and on-going care, utilities and energy costs over the useful life of a facility. When renewal will not result in useful space configurations or will prolong the inefficient use of existing land, the UI may consider removing a building. In situations where building removal is considered, historical value and heritage are carefully weighed.

UI Facilities Management uses four basic facilities stewardship strategies to manage the condition of existing GEF facilities:

- Ongoing maintenance and operational care of existing facilities,
- Reinvestment in the renewal of long-term physical assets,
- Reduction of the backlog of deferred maintenance, and
- Decommission obsolescent facilities, those with substantial building renewal issues.



Beginning in 2004, the UI has contracted with third parties for periodic facilities condition assessments. The summary data for GEF facilities in this report is now data provided through UI's work with Gordian.

From FY09 through FY15, the UI maintained the generally good condition of its facilities at a consistent equilibrium, with rate of renewal in balance with the rate of deterioration. This changed in FY16, when the annual funding for these efforts was cut approximately in half. As evidenced in the chart, above, expenditures were buoyed by commitments made prior to FY16, but show the drop in FY17. Investments initiated after FY16 were closer to \$15 million annually, and funding has continued to decline with each passing year. In addition, we see a further reinvestment gap in FY20 due decreased funding and funds targeted to new facilities, i.e. the new College of Pharmacy Building and Psychological Brain Sciences Building. We anticipate this gap to shrink as the UI begins to renovate facilities as a part of Capital Plan.

With the current level of funding, the UI no longer is positioned to "keep up" with the rate of building deterioration nor to "catch up" to the demands for program-related modernization. The gap between the available funding and need is significant, and not quickly resolvable.

We are applying the UI's newly developed matrix to align funding stewardship and determine priorities that will be based on a number of factors, including asset criticality, urgency, student success and operational impact. The University of Iowa is tracking the performance of its mission critical buildings that currently face the highest risk of failure. The UI Campus Development Team is reviewing those buildings to determine the course of action, the timeframe and any transitional space, if needed. The University of Iowa has developed an institutional specific project scoring matrix to be used in conjunction with the facility condition assessment database for objective scoring, prioritization, and alignment with institutional priorities.

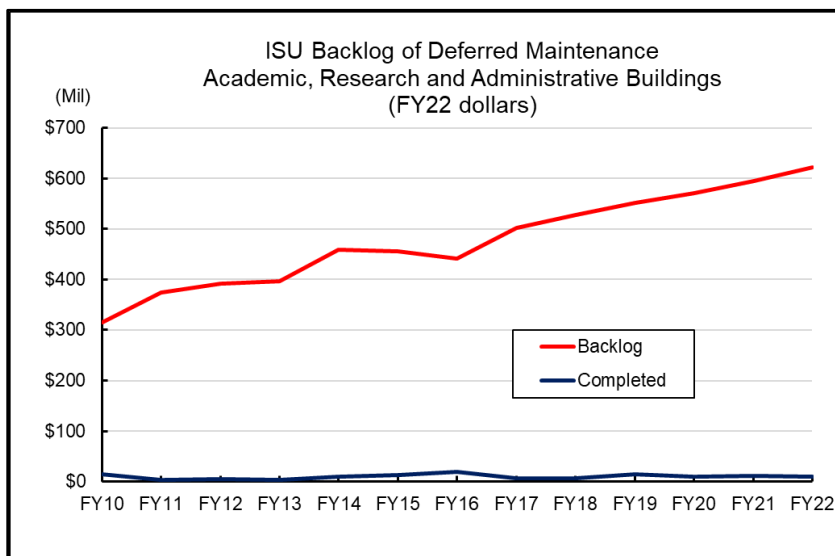
➤ **University of Iowa Hospitals and Clinics**

As a self-supporting auxiliary unit, the University of Iowa Hospitals and Clinics funds its own building renewal repairs.

Iowa State University
General Education Fund Facilities

ISU had a 15% increase in outstanding building renewal from last year.

As available funding for major maintenance and repair of GEF facilities remains limited, the condition of campus facilities continues to decline, as reflected in the steady growth of building renewal (see graph below). The much higher rate of construction inflation experienced in FY 2022 also significantly increased the cost to correct this building renewal.



Major projects completed in FY 2022 include the replacement of windows in Parks Library and the replacement of roofs, or sections of roofs, on the Enrollment Services Building, the Veterinary Medicine Building, and the Applied Sciences II Building. Projects continuing in FY 2023 include the replacement of windows in the College of Design, replacement of roofs, or sections of roofs, on Carver Hall, the Administrative Services Building, Stephens Auditorium, and the Veterinary Medicine Building; the replacement of mechanical systems in Parks Library, the Livestock Infectious Disease Isolation Facility, the Administrative Services Building and Kildee Hall. Farm House Lane, in the heart of campus, which is not an institutional road, will be resurfaced in FY 2023.

The University has a Maintenance and Improvement Committee, including stakeholders from academics, research, student affairs, operations and finance, and facilities that meet regularly to review and prioritize deferred maintenance and capital renewal requirements and allocate the available resources. Requirements are prioritized by the negative impact on teaching, research or outreach, situations that significantly compromise safety, or the risk to the ability of the University to continue to provide services. This process assures the University addresses the most critical needs within the limited available resources.

The recently completed ISU Strategic Facilities Plan is also intended to guide future capital investment in the renewal and replacement of facilities required for the University's mission of education, research, and outreach.

- *ISU Utility Building Renewal*

The Utility Enterprise tracks and budgets building renewal for the central campus cogeneration plant, satellite heating and cooling plants, and underground distribution systems.

The annual Utility Enterprise budget includes \$4.25 million for routine / preventative maintenance and \$3.5 million for major repairs and overhauls. Major repair funds are first allocated to perform scheduled overhauls of turbines, boilers, chillers, and associated auxiliary equipment as required by the University's insurance carrier and to ensure reliable utility production. The overhaul schedule was developed to minimize year-to-year budget fluctuation, with annual overhauls costs typically totaling between \$500,000 and \$800,000. Remaining utility repair funds are allocated based on building renewal plans (prioritized by safety and reliability), other required or emergent repairs, and quarterly revenue projections.

This approach has been successful in maintaining the critical, campus-serving utility systems are in safe and good operating condition. The utility building renewal backlog is approximately \$30.6 million, relative to a replacement value over \$582 million.

University of Northern Iowa

General Education Fund Facilities

UNI had a 1% increase in outstanding building renewal from last year.

The University continues to update its building renewal information through building and system assessments. Information is obtained from users of the buildings, along with the maintenance personnel for the respective areas. When planning renovations, Facilities Management design and construction staff review the building renewal deficiencies and address those as part of the project.

The University has a backlog of \$212,222,957 in building renewal, which is an increase of \$1,495,280 from the previous year. An increase in annual budgeted funds will be required to sustain an adequate maintenance schedule for campus buildings.

The University is striving to maintain its facilities on a building repairs budget of \$1,400,000. This is 0.10% of the UI's \$1,398,970,682 estimated replacement value. The Board of Regents *Policy Manual* §2.3 states that institutions should plan for an annual investment of approximately 1.5% of replacement value. According to national standards, 1% is the minimum commitment to prevent future facilities deterioration. Operations and maintenance personnel focus their resources based on a priority system that addresses safety issues, educational support, and repair of facilities equipment to lengthen the assets life.

The University has identified approximately \$34,159,190 in building renewal projects in general fund facilities planned for or continued in FY 2023. Building renewal projects completed in FY 2022 totaled \$3,611,775. Future projects will continue to be selected from the top 25 Building renewal list and from the Major Maintenance Project found in the Five-Year Capital Plan.

e. Building Renewal Trends and Recommendations

Regent institutions continue to take a pro-active stance on building renewal, creatively developing strategies to minimize their “keep up” and “catch up” costs. In doing so, they set priorities based on a number of factors, including building condition, building utilization, operational demands and program growth. From there, the institutions track the performance of its mission critical buildings that currently face the highest risk of failure to determine the best course of action.

The sheer aging of facilities and budget challenges over the years have led to an increase in building renewal issues, fire safety projects, environmental safety deficiencies and have hindered our institution’s abilities to “catch up” and “keep up” with building renewal.

Maintenance cycles and preventative maintenance activities have been delayed or eliminated, placing buildings and occupants more at risk for unanticipated outages. In general, delays in the maintenance of roofs, exterior building envelopes, windows, mechanical and electrical systems can cause further damage, increasing building renewal cost exponentially.

Building Renewal Trends¹

There are three key conditions affecting higher education facilities and, specifically, building renewal.

- A growing backlog of building renewal: Facility funds are spread more thinly as the Regents continue to “catch up” and “keep up” with building renewal.
- Compounding Waves of Building Renewal Needs: From 2030-2045, the two previously mentioned waves of construction, 1961-1980 and 1995-2015, are projected to produce multiple overlapping building renewal projects.
- Fewer Students and Less Revenue: It is well known that that US birthrates have been declining in the wake of the Great Recession of 2007-2009, raising the prospect of fewer young people moving through any educational system. In addition, state and institutional funds are scarce, particularly in the wake of COVID-19, starting in March 2020.

¹ Gordian: 2020 State of Facilities in Higher Education

Building Renewal Recommendations¹

In addition to harnessing all possible financial resources to minimize the GEF building renewal backlog, Gordian provides these recommendations.

- Invest facility funds to maximize the use of existing space.
- Maximize the impact of each investment. Continue to connect building renewal investment with student success, mission and priorities.
- Continue to make tough decisions about facilities that do not further the institution’s mission or provide a competitive edge. Plan where not to spend facility funds.

¹ Gordian: 2017 State of Facilities in Higher Education