

Contact: Joan Racki

REGISTER OF IOWA STATE UNIVERSITY
CAPITAL IMPROVEMENT BUSINESS TRANSACTIONS

Action Requested: Consider approval of:

1. The following actions for the **Biosciences Facilities, Buchanan Residence Hall – Building #2, Friley Residence Hall – Dining Renovation, Jack Trice Stadium Improvements – Phase 3 South End Zone and Green Space, and Iowa State Center Flat Space** projects:
 - a. Acknowledge receipt of the University's initial submission of information to address the Board's capital project evaluation criteria (Biosciences - Attachment A, Buchanan – Attachment B, Friley – Attachment C, Jack Trice – Attachment D, Iowa State Center – Attachment E);
 - b. Accept the Board Office recommendation that the projects meet the necessary criteria for Board consideration;
 - c. Authorize permission to proceed with project planning for the Biosciences Facilities project including the design professional selection process, the continued use of The S/L/A/M Collaborative for the formal building program, and consideration of the use of an alternative construction delivery method other than the normal design-bid-build process for the project;
 - d. Authorize permission to proceed with project planning for the Buchanan project including the design professional selection process, and consideration of the use of an alternative construction delivery method other than the normal design-bid-build process for the project;
 - e. Authorize permission to proceed with project planning for the Jack Trice project, including the design professional selection process and the selection of The Weitz Company as construction manager – agent;
 - f. Authorize permission to proceed with project planning, including the design professional selection process and consideration of the use of the construction manager agent delivery method, for the Iowa State Center Flat Space project, subject to City of Ames voter approval of the sale of up to \$19 million in bonds at a March 4, 2014 referendum.
2. The following actions for the **Marston Hall Renovation** project:
 - g. Acknowledge receipt of the University's final submission of information to address the Board's capital project evaluation criteria (Attachment F);
 - h. Accept the Board Office recommendation that the project meets the necessary criteria for Board consideration; and
 - i. Approve the schematic design, and project description and budget (\$24,100,000), with the understanding that approval will constitute final Board approval and authorization to proceed with construction.
3. The revised project descriptions and budgets for the **Lagomarcino Hall Office Remodeling** (\$5,443,500) and **Willow Residence Hall – Perimeter Wall Modifications** (\$3,300,000) projects.

Executive Summary:

The University requests permission to proceed with project planning for the **Biosciences Facilities** project, which is the Board's top project priority for the University for FY 2015 state capital funding. This project would construct approximately 160,000 gross square feet (gsf) including a new 115,000 gsf Biosciences Center for Advanced Teaching and Research facility and a 45,000 gsf addition to Bessey Hall, as well as renovate existing space as part of a holistic, comprehensive plan to address the programmatic space needs of the biosciences programs. Attachment G shows the proposed location of the new facility and the addition to Bessey Hall. The anticipated project cost of \$80 million would be funded by state appropriations and private giving. The Governor's budget includes \$2 million in FY 2015 for the planning of the project.

A planning study for Biosciences was initiated and a formal design professional selection completed in February 2013 at which time The S/L/A/M Collaborative of Glastonbury, CT was selected. The planning study was completed in December 2013. Due to The S/L/A/M Collaborative's knowledge of the programmatic space needs, existing buildings and related infrastructure, the University requests permission to continue with The S/L/A/M Collaborative for development of the formal building program effort. A formal design professional selection process would occur prior to the end of formal building programming, with the selected design team(s) responsible for the schematic design through construction documents.

The University requests permission to proceed with project planning, including the design professional selection process, for the **Buchanan Residence Hall Building #2** project, which would construct an approximate 700 bed undergraduate residence hall and associated community spaces. The University reports that since 2005, demand for on-campus housing has grown by 3,361 beds (42.5%) from 7,909 to 11,270. To meet the increased demand, the University, with Board approval, leased 503 beds off campus, built 720 apartment beds at Frederiksen Court and utilized 436 beds in den / common area locations. The Department of Residence believes that the strong demand for housing will continue into the foreseeable future. Although a detailed budget has not been developed, the estimated project cost is \$50 million which would be funded by dormitory revenue bonds. The proposed location of the new residence hall is shown on Attachment H.

The University also requests permission to consider the use of alternative construction delivery methods other than the normal design-bid-build process for Biosciences and Buchanan Hall projects. As the projects are developed, the University will consider the advantages and disadvantages of the available delivery systems including Construction Manager Agent, Construction Manager at Risk, and Design-Build and propose a delivery system that provides the best value and managed risk to the projects.

The University requests permission to proceed with project planning, including the design professional selection process, for the **Friley Residence Hall – Dining Renovation** project, which would convert inactive dining space and the corresponding kitchen area into a food court concept with supporting storage rooms, student dining space, private dining space and a new exterior entry at Friley Residence Hall. This facility would help address the increased demand for food service with the increased student enrollment and would operate with multiple proposed venues, with each venue having its own menu and cashier area. Food venues would be open at various times during both peak and off-peak hours, and the seating area would be open all day for use by students. The estimated project cost of \$5 million would be funded by Dormitory Revenue Bonds. The location of Friley Residence Hall is shown in Attachment I.

The University requests permission to proceed with project planning, including the design professional selection process, for the **Jack Trice Stadium Improvements Phase 3 – South End Zone and Green Space** project, which would replace and renovate the existing south end zone seating, upgrade the south end zone concourse infrastructure, upgrade the stadium south video board and sound system components, and construct additional premium seating (club, suite or lounge) and storage. The project would also develop the space between the stadium and Reiman Gardens as green space to improve both the entry to Reiman Gardens and the south entry into the University. These developments will necessitate reconfiguration of parking in the area, development of new parking for student vehicles, and will likely add fan amenities adjacent to Jack Trice Stadium. The location of the project is shown on Attachment J.

The University also requests the selection of The Weitz Company as construction manager - agent for the project to lead a collaborative and integrated project delivery process; the company provided construction management services for the first two phases of improvements to Jack Trice Stadium. The current estimated cost of not-to-exceed \$60 million would be funded by private giving and the athletic department. The University has obtained a lead gift of \$25 million for the project. Debt financing may be required to fund a portion of the project; the athletic department intends to service the debt from incremental revenues available from the stadium renovation and additional donor pledges.

The Ames Convention and Visitors Bureau (ACVB) has been analyzing the need for additional convention space in the Ames community to maintain and meet the target educational market sector historically served on the University's campus and to maintain a competitive facility with other cities throughout Iowa. After exploring numerous alternatives for locations and financing the needed facility expansion, the ACVB determined that the most viable option is an addition to the Scheman Building with participation and joint funding from the City of Ames and Iowa State University.

Therefore, the University requests approval of permission to proceed with project planning for the **Iowa State Center Flat Space** project, which would construct convention style flat floor space (above the floodplain) as an addition to the north side of Scheman Building and also provide for renovations within Scheman Building which is 40 years old and in need of updating. The goal of the project would be an accessible facility that includes new meeting rooms, a new exhibit hall with flexible seating and room configurations, lobby/pre-function space, dressing/green room, restrooms, banquet kitchen, concessions/café, offices, loading dock and necessary support spaces and functions to serve the new addition. A map showing the location of the Scheman Building and the proposed flat space is shown in Attachment K.

The request to proceed with planning is contingent upon approval by the City of Ames voters of a \$19 million bond referendum (scheduled for March 4, 2014), which would fund approximately one-half of the estimated \$38 million project cost. It is anticipated that the project budget would include \$32.2 million for the exhibit space addition and \$6.8 million for renovating and upgrading the Scheman Building. The University's share of the project would be funded by private giving, naming rights, user revenues and University resources. The University also requests that it be permitted to consider the use of the construction manager-agent delivery method for the project. The use of this method would provide the flexibility in packaging and bidding the work that may be necessary to assure that all commitments are met and that any schedule requirements are feasible and cost effective.

The University requests approval of the schematic design and project description and budget (\$24,100,000) for the **Marston Hall Renovation** project which would renovate approximately 60,000 gross square feet in the facility constructed to 1903. Marston Hall is the home of the College of Engineering and a landmark building on the University campus. However, the facility no longer provides an appropriate environment for teaching, student services, faculty, staff, and guests. The renovation would correct approximately \$2.4 million in deferred maintenance. The project would be financed with \$15.9 million in University funds and \$8.2 million in private giving. The schematic design booklet, which includes the location of Marston Hall, is included with the Board's agenda materials.

The University requests approval of a revised project budget (\$5,443,500 an increase of \$341,000) for the **Lagomarcino Hall – Office Remodeling** project which would remodel, consolidate and reallocate space, services and resources within the north wing of Lagomarcino Hall to provide a new centralized area for the School of Education Administration within the College of Human Sciences. Eight bids for the project were opened on November 7, 2013. The low bid exceeded the estimated construction cost by 8.9% (approximately \$279,000). Consistent with Board policies, the Executive Director awarded the construction contract for the base bid and an alternate to provide updated finishes in additional rooms; the total award was \$3,455,081. The Executive Director also approved a revised project budget to continue the University's plan to purchase furniture and equipment within the existing project. Board ratification of Executive Director's action is now requested.

The University requests approval of a revised project budget (\$3,300,000, an increase of \$1,305,000) for the **Willow Residence Hall – Perimeter Wall Modifications** project, which will improve the quality of the perimeter exterior wall by installing an insulated drywall partition on the interior side of the perimeter walls in 272 student rooms. The initial project budget of \$1,995,000 was approved by the Board Office, consistent with Board policies, in December 2013. Investigative work was done over the winter break and some unexpected hidden conditions were discovered. As a result of this investigation, additional work will be required and the scope of work has been revised to include additional wall partition work, electrical and telecommunications conduit rerouting and mechanical system repairs. The work would be funded by dormitory system improvement funds.

Details of the Projects:

Biosciences Facilities

<u>Project Summary</u>			
	<u>Amount</u>	<u>Date</u>	<u>Board Action</u>
Selection of The S/L/A/M Collaborative for (Glastonbury, CT) for Planning Study		Feb. 2013	Not Required*
Facilities Planning Study Project Des. & Budget	\$591,500	May 2013	Not Required*
Professional Services Agreement with The S/L/A/M Collaborative	552,718	July 2013	Not Required*
Board of Regents FY 2015 Capital Request		Sept. 2013	Approved
Permission to Proceed with Project Planning		Feb. 2014	Requested
Initial Review and Consideration of Capital Project Evaluation Criteria		Feb. 2014	Receive Report
Selection of The S/L/A/M Collaborative for Programming		Feb. 2014	Requested
Consideration of Use of Alternative Delivery Method		Feb. 2014	Requested

*Approved by Executive Director, consistent with Board policies

The University's biosciences programs have a critical need for high quality disciplinary and multi-disciplinary research laboratories; classrooms and teaching laboratories; core support facilities, including computational, biological, wet, and specialized instrumentation laboratories; and collaboration spaces. The buildings currently used by the biosciences programs, many of which are more than 40 years old, were not designed and constructed with flexibility and modularity to accommodate collaboration across multiple disciplines and provide flexible research space that responds to changes in research activity.

Buchanan Residence Hall Building 2

<u>Project Summary</u>			
	<u>Amount</u>	<u>Date</u>	<u>Board Action</u>
Permission to Proceed with Project Planning		Feb. 2014	Requested
Initial Review and Consideration of Capital Project Evaluation Criteria		Feb. 2014	Receive Report
Consideration of Use of Alternative Delivery Method		Feb. 2014	Requested

On May 15, 2013 the Department of Residence stopped accepting contracts from any student not classified as New Direct from High School (NDHS) to make room in the 'residence hall' system for NDHS.

With potential class sizes reaching 6,000 freshmen and 2,000 transfers and using historical return and capture rates, the University reports that the Department of Residence may not be able to accommodate between 1,030 students and 1,565 students in the next four years. The enrollment applications for 2014 indicate this trend will continue. This project would position the Department and University to respond to a portion of that demand and provide a quality first year experience for New Direct from High School students.

In making a determination as to whether an alternative construction delivery method, other than the normal design-bid-build process, would provide best value and managed risk for the Biosciences and Buchanan projects, the University anticipates considering the following:

- Necessity for use of methods that provide for accelerated design and construction schedules and/or a fast-track approach to the project as required to allow the University to begin beneficial use of the facilities as soon as possible.
- Maximizing collaboration during the design phase between construction professionals and design professionals to improve project outcomes.
- Maximizing competition and the use of Iowa based contractors and subcontractors.
- Assuring that construction professionals are selected that have the necessary specialized knowledge or expertise required for the project.

As the project scope, schedule and phasing are defined, the University will determine whether an alternative delivery method other than the normal design-bid-build process would provide benefit to the projects. If this determination is made, the University would seek authorization from the Executive Director to proceed with the delivery system selected and would report to the Board at a later date on the process utilized to make the determination and the advantages and disadvantages considered.

Friley Residence Hall – Dining Renovation

Project Summary

	<u>Amount</u>	<u>Date</u>	<u>Board Action</u>
Permission to Proceed with Project Planning		Feb. 2014	Requested
Initial Review and Consideration of Capital Project Evaluation Criteria		Feb. 2014	Receive Report

This facility would operate with multiple proposed venues, with each venue having its own menu and cashier area. Utilizing a separate cashier for each venue much like a mall food court will split up the lines per venue. The core components of the menus would come from a central kitchen with some of the food finishing and preparation done within each venue. Food venues would be open at various times during both peak and off-peak hours. Final venue concepts would be determined with student input. Concepts would focus on freshness, healthful options and variety.

The proposed location, within a residence hall, would easily serve students on a meal plan, ISU Dining's key customer base. The facility would also have the ability to draw in students who do not have a meal plan, and faculty and staff since the location would function like a food court.

Jack Trice Stadium Improvements Phase 3

<u>Project Summary</u>			
	<u>Amount</u>	<u>Date</u>	<u>Board Action</u>
Permission to Proceed with Project Planning		Feb. 2014	Requested
Selection of The Weitz Company as Construction Manager - Agent		Feb. 2014	Requested
Initial Review and Consideration of Capital Project Evaluation Criteria		Feb. 2014	Receive Report

Jack Trice Stadium has reached a functional crossroad due to changing demographics, increased demand for guest amenities, and ticket demand that has outpaced the stadium's current capacity. For the past two football seasons average attendance has exceeded 55,000. Stadium capacity is 56,800 including approximately 12,000 general admission grass hillside seats. For the last season, over 43,000 season tickets were sold to the general public and students.

Iowa State Center Flat Space

<u>Project Summary</u>			
	<u>Amount</u>	<u>Date</u>	<u>Board Action</u>
Permission to Proceed with Project Planning		Feb. 2014	Requested
Initial Review and Consideration of Capital Project Evaluation Criteria		Feb. 2014	Receive Report
Consideration of Use of Construction Manager Agent		Feb. 2014	Requested

Completion of this project would increase the opportunity for the City of Ames and Iowa State University to be competitive with surrounding regional convention facilities and attract new visitors through conventions and business meetings to both the campus and to the City of Ames. It would also provide critically needed space for University events such as job fairs, student events and major meetings. The University currently lacks space to accommodate large University groups for function and meal space.

The Scheman Building is in the flood plain and was repaired and flood proofed after the 2010 flood. It is envisioned that this project would add an elevated exhibit addition on the north side of Scheman, removing the north glass wall and converting that area to a pre-function connection space to the new exhibit space. A new service drive and loading dock would be developed to the west with access from Beach Avenue. The ground level (in the flood plain) below the new exhibit addition would be covered parking with access to the building.

As the project scope and schedule are defined, the University will determine whether the construction manager - agent delivery method would provide benefit to the project. If this determination is made, the University will seek authorization from the Executive Director to proceed with the selection for construction management services. The construction manager would serve as the University's agent in coordinating and managing multiple prime construction contracts. All packages would be bid competitively and the University would hold all of the prime contracts on the project.

Marston Hall Renovation

<u>Project Summary</u>			
	<u>Amount</u>	<u>Date</u>	<u>Board Action</u>
Permission to Proceed with Project Planning		June 2013	Approved
Selection of Design Professional (Substance Architecture Interiors Design; Des Moines)		June 2013	Approved
Consideration of Use of Construction Manager - Agent		June 2013	Approved
Initial Review and Consideration of Capital Project Evaluation Criteria		June 2013	Received Report
Design Professional Agreement (Substance Architecture Interiors Design; Des Moines)	\$ 1,550,390	Sept. 2013	Not Required*
Program Statement		Jan. 2014	Not Required*
Schematic Design		Feb. 2014	Requested
Project Description and Budget	24,100,000	Feb. 2014	Requested
Final Review and Consideration of Capital Project Evaluation Criteria			Receive Report

*Approved by Executive Director, consistent with Board policies

The renovation of Marston Hall represents the College of Engineering's commitment to improved student services and teaching innovation, as well as a respect for the College's institutional history. The design will respectfully maintain the exterior of this important and venerable building, while reinventing the interior to better serve students and the administration of the College of Engineering. The project would:

- Create a welcoming environment for students that includes break-out and study spaces.
- Create new, larger classroom spaces to allow greater flexibility, as well as accommodating collaborative and interactive teaching techniques.
- Maximize the impact of daylight on the building's interior spaces.
- Recapture some of the building's historic, sky lit volumes.
- Respect historic planning principles such as symmetry and hierarchy when developing a new interior expression.

- Utilize highly sustainable, energy efficient building systems.
- Provide new elevators and stairways to facilitate the movement of students and staff through the building, as well as create a new sense of entry from the west.
- Consolidate Student Services spaces including Advising, Classification, Study Abroad and Recruiting on the entry level floor – to better serve students.
- Consolidate Career Services into a single, flexible office suite.
- Create a new administrative suite on the underutilized top (4th) floor of the building.

Student functions would include two classroom types. The smaller would accommodate up to 80 students, while the lecture hall would accommodate up to 172 students. Areas of the facility would be devoted to flexible student-interaction spaces including a combination of large open areas and smaller meeting rooms to offer relaxed study space, classroom breakout areas, student organization meeting areas and Career Services interview rooms.

There have been no major changes in project scope since the approval of the building program by the Board Office in December 2013. The changes in square footage shown below reflect changes in the reporting of circulation areas within the office suites. Additionally, several dedicated conference rooms, work rooms, and storage areas were removed from individual departments and are now shared spaces to reduce duplication of space and improve efficiency.

During the schematic design phase a storage need for student organizations was identified. This space will revert to additional college storage should other facilities be identified for student organizations.

Program and Schematic Design Net Assignable Square Feet

<u>Function</u>	Program NASF	Schematic Design NASF
Classrooms	9,267	8,404
Student Interaction / Meeting Space	8,308	7,124
College of Engineering Student Services	4,339	5,201
College of Engineering Career Services	1,934	2,042
College of Engineering College Relations	1,224	1,563
College of Engineering ISU Foundation	2,096	1,381
College of Engineering Dean's Office	2,229	3,700
Building Support Spaces	6,657	7,820
Shared Spaces	N/A	3,291
Student Organization	<u>N/A</u>	<u>117</u>
TOTAL NASF	36,054	40,643

*NASF – net assignable square feet

Project Budget

Construction Costs	\$18,937,230
Planning, Design & Management	3,376,250
Furniture & Equipment	976,350
Project Contingency	<u>810,170</u>
TOTAL	<u>\$24,100,000</u>
Source of Funds:	
University Funds	\$15,880,838
ISU Foundation	<u>8,219,162</u>
TOTAL	<u>\$24,100,000</u>

It is anticipated that the design development and construction documents phase will be completed in July 2014, the project bid in September 2014, and construction substantially complete by March 2016.

Lagomarcino Hall – Office Remodeling

<u>Project Summary</u>			
	<u>Amount</u>	<u>Date</u>	<u>Board Action</u>
Project Description and Budget	\$1,900,000	Jan. 2012	Not Required*
Design Professional Selection (Haila Architecture; Ames, IA)		Jan. 2012	Not Required*
Design Professional Agreement (Pre-Design – Schematic Design)	82,400	April 2012	Not Required*
Revised Project Description and Budget	2,900,000	April 2012	Approved
Program Statement		July 2012	Not Required*
Schematic Design		Oct. 2012	Approved
Revised Project Description and Budget	3,725,000	Oct. 2012	Approved
Final Review and Consideration of Capital Project Evaluation Criteria		Oct. 2012	Received Report
Design Professional Agreement (Design Development through Construction)	292,488	April 2013	Not Required*
Revised Schematic Design		June 2013	Approved
Revised Project Description and Budget	5,102,500	June 2013	Approved
Construction Contract Award (Pro Commercial, LLC; Huxley)	3,455,081	Dec. 2013	Not Required*
Revised Project Description and Budget	5,443,500	Feb. 2014	Requested

*Approved by Executive Director, consistent with Board policies

This project will remodel, consolidate and reallocate space, services and resources within the north wing of Lagomarcino Hall for the newly formed School of Education. In December 2011, the Board approved the new School of Education which will combine the Department of Educational Leadership and Policy Studies and the Department of Curriculum and Instruction into one academic unit.

Administrative offices, advising offices and support spaces will be consolidated around a new north main entrance and lobby. The new main entrance will serve as an exterior identifying point to help create a higher visibility for the School, as well as provide a common entry for ease of building way-finding and circulation. This entrance addition will utilize exterior materials including brick masonry, glass and steel that are similar in context to the existing Lagomarcino Hall.

The project involves relocation and technology upgrades for the STEM (Science, Technology, Engineering and Math) and Literacy classrooms. A science classroom will be included at the lower level. The faculty, staff and students formerly separated by departments will now share resources, spaces, and services. Both formal and informal collaborative and common spaces are incorporated into the schematic design to better serve modern pedagogies of education.

The revised project budget includes funding for additional construction costs related to the increased square footage of the office remodeling, corridor finish upgrades and replacement of heating ventilating and air conditioning system components. The budget also includes funding for additional professional service fees due to the expanded project scope and funding for increased furniture, fixtures and equipment.

Project Budget

	<u>Revised Budget (June 2013)</u>	<u>Revised Budget (Feb. 2014)</u>
Construction	\$3,715,800	\$4,052,800
Planning, Design & Management	931,010	947,670
Furniture & Equipment	370,000	373,000
Project Contingency	<u>85,690</u>	<u>70,030</u>
TOTAL	<u>\$5,102,500</u>	<u>\$5,443,500</u>
Source of Funds:		
University Funds	<u>\$5,102,500</u>	<u>\$5,443,500</u>
TOTAL	<u>\$5,102,500</u>	<u>\$5,443,500</u>

Willow Residence Hall – Perimeter Wall Modifications

Project Summary

	<u>Amount</u>	<u>Date</u>	<u>Board Action</u>
Project Description and Budget	\$1,995,000	Dec. 2013	Not Required*
Use of Construction – Manager Agent Delivery Method		Dec. 2013	Not Required*
Revised Project Description and Budget	3,300,000	Feb. 2014	Requested

*Approved by Executive Director, consistent with Board policies

A study conducted in October 2013 identified that the building enclosure required thermal insulation at the exterior walls to reduce the potential for both summer and winter condensation. Implementing an interior insulation solution will involve modifications to the interior finishes and furnishings.

Investigative work was done over the winter break and some unexpected hidden conditions were discovered. As a result of this investigation, additional work will be required and the scope of work has been revised to include additional wall partition work, electrical and telecommunications conduit rerouting and mechanical system repairs.

Project Budget

	Initial Budget <u>(Dec 2013)</u>	Revised Budget <u>(Feb. 2014)</u>
Construction	\$1,692,630	\$2,922,840
Planning, Design & Management	200,000	265,000
Project Contingency	<u>102,370</u>	<u>112,160</u>
TOTAL	<u>\$1,995,000</u>	<u>\$3,300,000</u>
Source of Funds:		
Dormitory System Improvement Funds	<u>\$1,995,000</u>	<u>\$3,300,000</u>
TOTAL	<u>\$1,995,000</u>	<u>\$3,300,000</u>

Biosciences Facilities
Evaluation Criteria

Since the project meets the Board's definition of a major capital project, the University has provided the following information in response to the Board's evaluation criteria.

Institutional Mission / Strategic Plan: Iowa State University and the state of Iowa are home to the nation's largest biotechnology enterprise. The biosciences are central to the core mission of Iowa State University and biosciences-based industries are a primary economic driver for the state of Iowa.

Facilities support the biosciences by providing critical capabilities for high-quality learning, research, and technology across multiple colleges, academic departments, and research centers. Existing biosciences facilities are inadequate in terms of the quantity of space and, in many cases, the quality of space.

A holistic plan for new and renovated/repurposed biosciences facilities will foster collaboration; enhance program quality; increase the capacity for learning, outreach, and research; and capture operational efficiencies. New facilities, in coordination with significantly renovated and repurposed existing facilities, will encompass teaching laboratories, research laboratories, classrooms, collaboration spaces, administrative spaces, and core facilities that support computational, experimental, and specialized technological purposes.

A significant increase in enrollment in bioscience-related disciplines has been driven by student interest and employer demand. Undergraduate enrollment has grown more than 20% in the last 3 years in six of the core bioscience departments and enrollment in biology courses has grown more than 40% in the same timeframe. More than 450 faculty members are actively involved in this area and represent an unusual breadth of disciplines, spanning twenty-five departments and five colleges. Growing enrollment and expanding research has resulted in a 7% increase in faculty as well.

A critical shortage of space, capacity and functional capabilities; and antiquated, functionally obsolete facilities, present significant programmatic challenges and limitations.

Alternatives Explored and Rationale for Proposed Project: The planning study identified and quantified programmatic space needs for the six core departments (ecology, evolution and organismal biology; genetics, developmental and cell biology; plant physiology and molecular biology; natural resources ecology and management; biochemistry, biophysics and molecular biology; entomology) support space and general university classrooms; those needs were then compared to the existing quantity and quality of space currently available.

Using national academic benchmarking data and ISU standards, the study identified the need for an additional almost 160,000 gross square feet. The need for additional space is simply too significant in amount to meet with existing campus space resources; new space is required. In some cases, the existing space is also not capable of supporting the appropriate environment for interdisciplinary and collaborative research and interactive, student-based instruction and will be repurposed through this effort to match building capabilities with appropriate programmatic functions.

The planning study evaluated the existing buildings that house the six core departments. The evaluation identified up to seven inadequate or deficient structures and up to 85,000 gross square feet that may be abandoned and demolished as a part of the overall plan.

The recommended project approach will address the mission-critical needs of the biosciences through the construction of new space, the renovation of existing space, and demolition of substandard structures. This combined, holistic approach will make the most effective and efficient use of space and land resources for the institution and the State of Iowa.

Project Size and Impact on Other Facilities: This project recommends the construction of about 160,000 gross square feet of additional space. Significant additional space is being proposed to support research activities, additional research labs and associated support space, and instructional activities such as introductory and advanced teaching labs, classrooms, as well as space for formal and informal collaboration.

A new advanced teaching and research building on the site of the existing Industrial Education II site, and a new wing to Bessey Hall are proposed. The Bessey Hall wing will provide much needed additional space for introductory and advanced teaching, in a building that is directly adjacent to central campus and easily accessible to undergraduate students. The new building will be located in the neighborhood of other bioscience departments, fostering easy collaboration among a variety of departments and disciplines. The site will also provide future expansion capabilities.

Effective and efficient remodeling of vacated space will also help address overall programmatic space needs in a cost-efficient and sustainable manner.

Financial Resources for Construction Project: Project funding of \$80.0 million will be provided by state appropriations of \$55.0 million and private funds of \$25.0 million.

Financial Resources for Operations and Maintenance: The estimated operational and maintenance costs associated with the additional and renovated space are:

Operations and Maintenance \$465,000
Utilities \$890,000
Other (Grounds/Mail/EHS/DPS) \$150,000

Proposed sources of funds: the College of Liberal Arts and Sciences and the College of Agriculture and Life Sciences.

External Forces Justifying Approval: Serving as the north anchor to the Des Moines-Ames Technology Corridor, new and improved biosciences facilities will provide critical high-quality learning, research, and technology space across multiple colleges, academic departments and research centers.

Buchanan Residence Hall – Building #2
Evaluation Criteria

Since the project meets the Board's definition of a major capital project, the University has provided the following information in response to the Board's evaluation criteria.

Institutional Mission / Strategic Plan: Student Success is one of the core missions of Iowa State University. On campus housing contributes in the following ways:

- On campus students are bench-marked to their off-campus peers in several ways:
 - Achieve higher GPAs by classification
 - More likely to graduate from Iowa State University
 - Higher first year to second year persistence
 - Take more classes
 - More successful transition to life at ISU
 - They like ISU
 - More well-rounded socially and participate in campus events and activities
 - Lower binge drinking
 - Involved in leadership positions
- Participate in learning communities and have a higher campus involvement and stronger peer connections as well as a higher overall evaluation of the university and their experience.
- Achieve on campus housing capacity to meet 1/3 of the student body housing needs.

Alternatives Explored and Rationale for Proposed Project: Several siting alternatives to meet expanding New Direct from High School student demands for on-campus traditional housing have been considered. These alternatives include:

- Richardson Court Association (east side of campus),
- Union Drive Association (west side of campus),
- Towers Association (south side of campus).

The construction of traditional housing at the Buchanan site was identified as the most feasible alternative to provide the quality of living and learning environment.

Project Size and Impact on Other Facilities: This project adds approximately 174,000 GSF to the residential inventory to provide approximately 700 beds; no space will be vacated as a result of this project.

Financial Resources for Construction: Project funds of \$50 million will be debt financed with debt service payments made with Department of Residence revenues generated by student housing contracts.

Operations and Maintenance Funding: The maintenance and operational costs are estimated at \$520,000 annually and will be funded through revenues generated by the housing contracts from the additional rooms/beds.

Friley Residence Hall – Dining Renovation
Evaluation Criteria

Since the project meets the Board’s definition of a major capital project, the University has provided the following information in response to the Board’s evaluation criteria.

Institutional Mission / Strategic Plan: This project will continue to allow students to, as stated on the University’s website, “immerse [themselves] in a university where top-notch academics and a vibrant student life form the ultimate college adventure”—and enjoy the adventure. By creating a location where students can informally interact with one another, the proposed dining facility would enhance the sense of community among members of the student population.

Alternatives Explored and Rationale for Proposed Project: Several alternatives have been considered that included both location and service style. After discussion and research, a food court style venue offering meals to go as well as additional seating for those who want to dine in would bring increased opportunities to serve ISU Dining’s core customer base of meal plan holders. The proposed facility, with its central location, has the ability to serve the greater campus community. By utilizing existing building stock versus constructing new, the renovation of existing space increases value in centrally-located property already in place. Having the facility centrally located and easily accessible to a large community of students was the primary rationale for the proposed project.

Project Size and Impact on Other Facilities: The existing space is a former dining center and kitchen area that was vacated when the current Union Drive Community Center was constructed. The existing building floor plate will remain in place with internal modifications as necessary to accommodate the new dining facility, with exterior modifications limited to a new east entrance vestibule.

Financial Resources for Construction: Department of Residence and ISU Dining Services. A complete financial plan and budget will be submitted for approval concurrent with schematic design approval.

Operations and Maintenance Funding: Proposed source of funds: Department of Residence and ISU Dining Services.

Jack Trice Stadium Improvements – Phase 3 South End Zone and Green Space
Evaluation Criteria

Since the project meets the Board's definition of a major capital project, the University has provided the following information in response to the Board's evaluation criteria.

Institutional Mission / Strategic Plan: Jack Trice Stadium plays an important role in Iowa State University's strategic plan. More than 300,000 people currently visit the university each year because of Jack Trice Stadium and the football program. This project will provide for an enriched experience and potential for additional visitors to the university's campus. The success of these visits is not only measured by the success of the football team and game day, it is measured by the quality of the overall university community experience which will be enhanced by this project.

Alternatives Explored and Rationale for Proposed Project: Although Jack Trice Stadium is a good facility, there are areas that need improvement due to changing demographics and increasing demand for amenities by guests. Alternatives are limited and replacing the stadium with a new facility is not necessary to meet the university's needs.

This project will complete the original facility master plan proposed in June 2006 and the Permission to Proceed with Planning for the South End Zone in May 2008 that will allow increased revenue capabilities via the addition of permanent seating, premium seating and improved amenities for stadium patrons. This project will also provide much needed storage space, address infrastructure upgrades, and re-configure parking areas in the vicinity of the stadium.

The addition of an upper deck to the south end zone will provide an opportunity to increase the stadium's capacity with noticeable aesthetic improvements to the stadium.

The south end zone video board and sound system will be replaced to provide enhancements to the existing stadium systems.

This project will create an improved fan experience outside the stadium and beautify the grounds immediately adjacent to Jack Trice Stadium and Reiman Gardens.

Project Size and Impact on Other Facilities: This project will replace and expand the existing south end zone seating, gate entrances, video board, sound system, and upgrade south concourse infrastructure and storage.

Financial Resources for Construction: The University has obtained a lead gift of \$25 million for this project. As debt financing may be required to fund a portion of the project, Athletics intends to service the debt from incremental revenues available from the stadium renovation and additional donor pledges.

Operations and Maintenance Funding: Operating and maintenance funding will be paid from Athletic Department revenues.

Iowa State Center Flat Space
Evaluation Criteria

Since the project meets the Board's definition of a major capital project, the University has provided the following information in response to the Board's evaluation criteria.

Institutional Mission / Strategic Plan: Completion of this project will increase the opportunity for the City of Ames and Iowa State University to be competitive with surrounding regional convention facilities and attract new visitors through conventions and business meetings to both the campus and to the City of Ames and provide critically needed space for University events such as job fairs, student events and major meetings. The university currently lacks space to accommodate large university groups in function and meal space. This project is critical to the economic development of Ames, Story County, and Iowa State University meetings and events and further reinforces Iowa State University's position as a strong partner working in tandem with the Ames community.

Alternatives Explored and Rationale for Proposed Project: Initial planning evaluated four alternative sites in the Ames community and a variety of alternatives at the Iowa State Center. The addition to the north of Scheman Building was selected as it maximized the use of existing facilities within Scheman Building, provided the highest quality of guest services for attendee experience, and provided an increased marketability for external events as the most cost effective alternative evaluated.

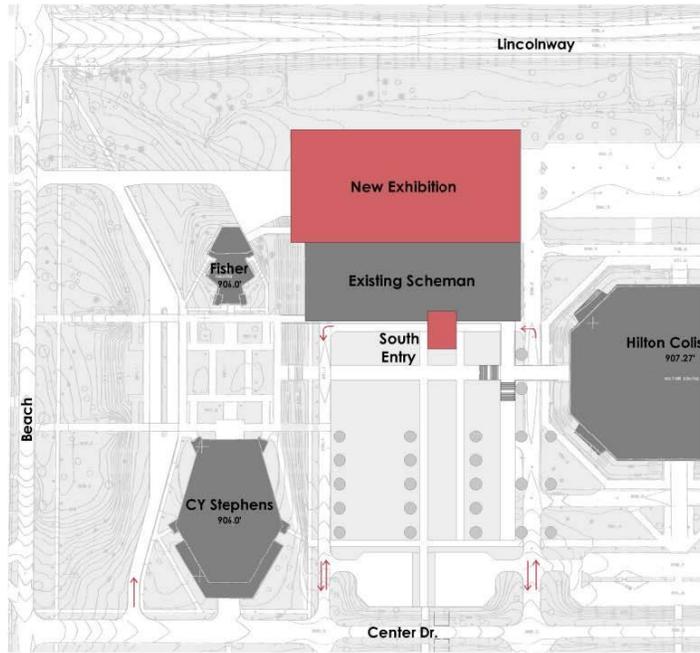
Project Size and Impact on Other Facilities: This project adds approximately 128,000 GSF of new multi-use space to the Scheman Building while remodeling the interior of the existing Scheman Building. Scheman is in the flood plain and was repaired and flood proofed after the 2010 flood. This project would add an elevated exhibit addition on the north side of Scheman, removing the north glass wall converting that area to a pre-function connection space to the new exhibit space. A new service drive and loading dock would be developed to the west with access from Beach Avenue. The ground level below the new exhibit addition in the flood plain would be covered parking with access to the building.

Financial Resources for Construction: Project funds of \$38 million would be financed by the City of Ames (\$19 million), Private Giving, Naming Rights, User Revenues and University Resources.

Operations and Maintenance Funding: The maintenance and operational costs for the addition are estimated at \$800,000 and will be funded through revenues generated by projected hotel motel tax collections from additional room nights in the Ames community, funded by the Ames Convention and Visitors Bureau.

External Forces Justifying Approval: The City of Ames will hold a public bond referendum on March 4, 2014 to finance the community portion of the project. The construction and operation of the facility will be the responsibility of the university. As currently exists, the university will seek proposals from management firms for both the operation of the building and food services as part of the Iowa State Center (excluding Hilton Coliseum which is managed by Athletics).

An Operating and Joint Use Agreement, similar to the agreement for the operation of the Ames/ISU Ice Arena will be developed. The development of this agreement will be done in consultation with the Board Office and Bond and Legal Counsel. As in the case of the Ice Arena, the ownership interests of both the City and University will be recognized in proportion to their financial contributions. The agreement will be presented to the Board for its approval. Rental rates will be discounted for some university and city groups.



SITE PLAN



Marston Hall Renovation
Evaluation Criteria

Since the project meets the Board's definition of a major capital project, the University has provided the following information in response to the Board's evaluation criteria.

Institutional Mission / Strategic Plan: The vision of the College of Engineering is to be the premier engineering program among public universities known for value and commitment to education, research, and engagement. With the renovation of Marston Hall, the college will be able to support the students of the college by providing high quality service throughout their academic careers and provide spaces that will foster an environment of scholarship, leadership and collaboration.

The project will reflect the values and ideals of Iowa State University creating spaces for world-class education, sharing of knowledge, and improving the quality of life for students, faculty and staff who use and occupy the building.

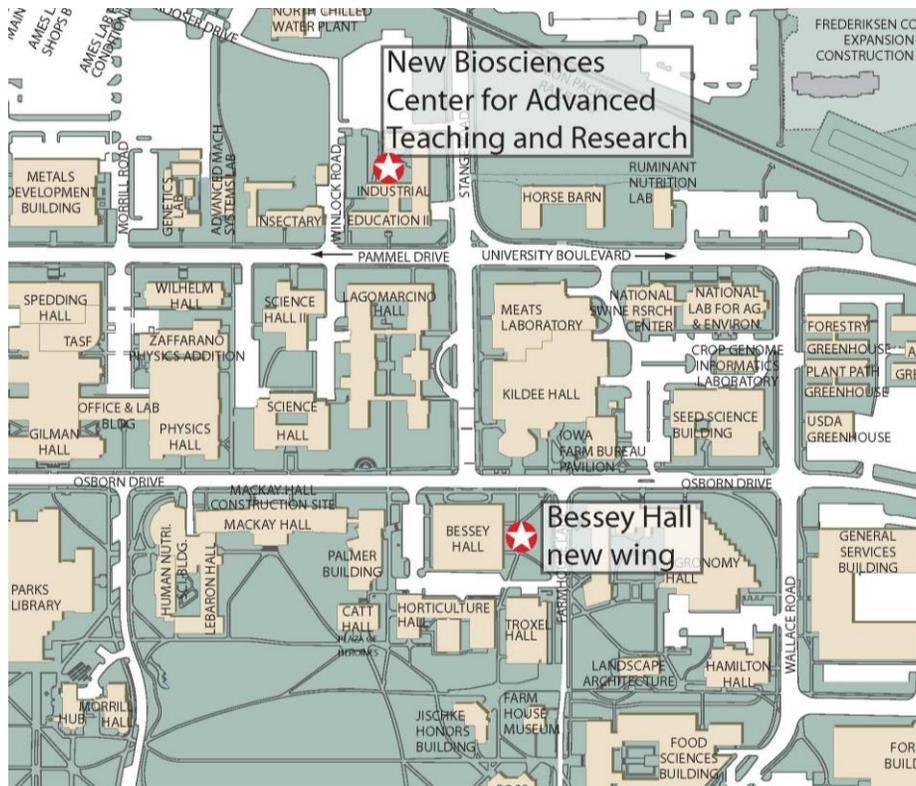
Other Alternatives Explored: Marston Hall is an iconic and structurally sound building and has been home to the College of Engineering since its construction. A feasibility study was conducted in June 2011 and looked at renovating the building for the College of Engineering and included updating and replacing building infrastructure systems. Through the schematic design process, planning parameters and goals used in that study were confirmed and further options explored to create a project that will renovate the building for another century of use by engineering students, faculty and staff. The project also includes the renovation of a large auditorium and the development of several large university classrooms; the renovation of Marston Hall will provide much-needed support to undergraduate education overall.

Impact on Other Facilities and Square Footage: This project will renovate the approximately 60,900 gross square feet in Marston Hall to provide improved student access to student services and classrooms through refurbishment and reallocation of space.

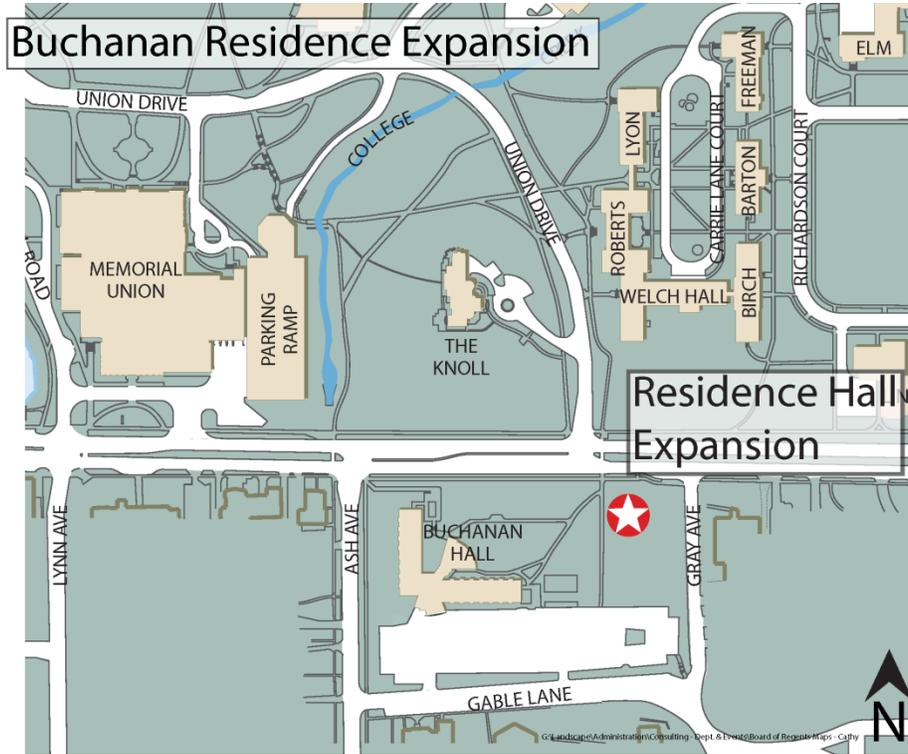
Financial Resources for Construction Project: The university has established a project budget of \$24.1 million dollars. Funding will be provided from Private Giving and University Funds.

Financial Resources for Operations and Maintenance: Operating and maintenance costs are not expected to increase because of the project. These costs may actually decrease because new electrical and mechanical systems will reduce the need for extensive maintenance and will significantly reduce energy consumption.

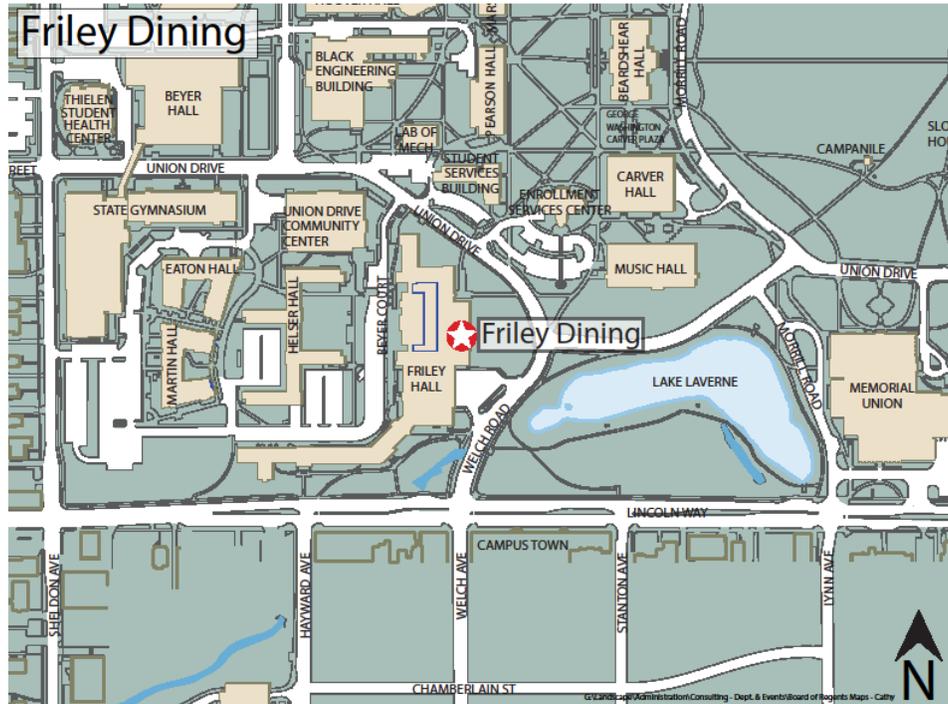
Biosciences Facilities



Buchanan Residence Hall – Building #2

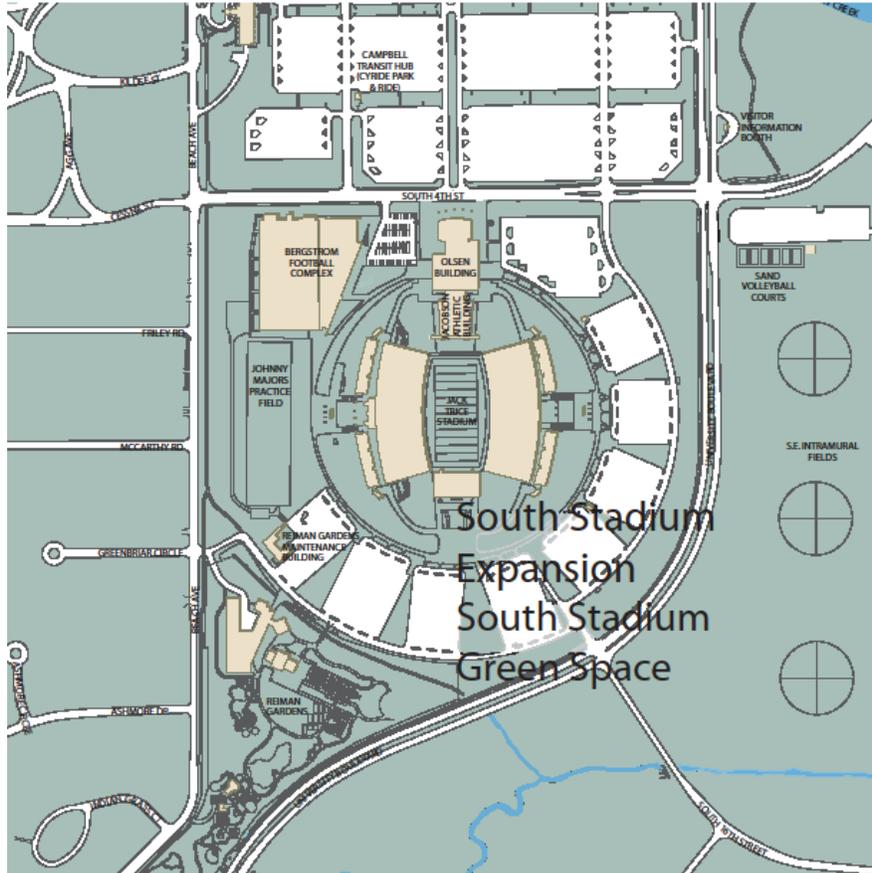


Friley Residence Hall – Dining Renovation



Jack Trice Stadium Improvements – Phase 3 South End Zone and Green Space

South Stadium Expansion



Iowa State Center Flat Space

