

MEMORANDUM

To: Board of Regents
From: Board Office
Subject: Register of Iowa State University Capital Improvement Business Transactions for Period of September 20, 2002, Through October 17, 2002
Date: October 7, 2002

Recommended Action:

Approve the Register of Capital Improvement Business Transactions for Iowa State University.

Executive Summary:

Requested Approvals

Schematic design for the **MacKay Hall—Food Science and Human Nutrition Laboratory Renovation—Phase 3** project which would complete the remodeling of antiquated food laboratories and support spaces in the building (see page 2).

Project description and budgets for:

Utilities—Veterinary Medicine Chilled Water System Upgrade project (\$693,070) which would replace the building's deteriorated cooling coils to increase the efficiency of the cooling system (see page 4).

Parking Lot 93 Reconstruction project (\$573,570) which would reconstruct the deteriorated parking lot located north of the Veterinary Medicine complex (see page 5).

Revised project budgets for:

Indoor Multipurpose Use and Training Facility project (\$9,371,800) which reflects a revised estimate of project costs for construction of a training and practice facility near Jack Trice Stadium (see page 6).

Reiman Gardens—Conservatory project (\$10,348,300) for expanded equipment requirements for the butterfly laboratory (see page 8).

College of Veterinary Medicine—Biosecurity Unit project (\$3,337,559) for Board ratification; the revised budget was approved by the Executive Director to allow award of the construction contract (see page 10).

Architectural agreements with:

Brooks Borg and Skiles, Des Moines, Iowa (\$154,860) for design services for a greenhouse for the Roy J. Carver Co-Laboratory project (see page 12).

Architects Collaborative, Spencer, Iowa (\$25,000) for the Lakeside Laboratory—Mahan Hall and MacBride Laboratory Remodel project (see page 14).

Background and Analysis:

MacKay Hall—Food Science and Human Nutrition Laboratory Renovation—Phase 3

Project Summary

	<u>Amount</u>	<u>Date</u>	<u>Board Action</u>
Permission to Proceed		May 2002	Approved
Project Description and Total Budget	\$ 1,100,000	June 2002	Approved
Program Statement		Sept. 2002	Requested
Architectural Agreement—Schematic Design through Construction Phases (Baldwin White Architects, Des Moines, IA)	118,000	Sept. 2002	Approved
Schematic Design		Oct. 2002	Requested

Background

The University has undertaken the first two phases of work to upgrade the antiquated space in the Food Science and Human Nutrition Laboratory in MacKay Hall to provide modern, safe teaching facilities, utilizing state-of-the-art equipment and teaching technologies.

- The Laboratory is located in the west wing of MacKay Hall, which was constructed in 1911; the last major renovation of the building occurred in the 1950s.

The University has been proceeding with the project in phases as funding has become available.

The Phase 3 project, the final phase of the laboratory renovation, would remodel approximately 5,500 gross square feet of teaching, research and support space on the second floor of MacKay Hall, and install new heating, ventilating and air conditioning, and telecommunications equipment.

Schematic Design

The project would provide remodeled food preparation laboratory/classroom areas, an equipment room, library/conference room, sensory evaluation booth and support services for food storage, dishwashing, and laundry. (The schematic designs for the renovated and existing areas are included as Attachments A and B.)

- The south wall would include two food laboratory/classroom areas with sensory booths located between the two areas.
- The west wall would house the third laboratory/classroom area.
- The north wall would include the support services area, conference room, laboratory equipment room, and a restroom area.

Funding

The project would be funded by Private Giving, General University Funds, and the Agriculture Experiment Station.

The following table compares the square footages included in the schematic design for the project with the square footages included in the program approved by the Board in September 2002.

Detailed Building Program

	<u>Building Program</u>	<u>Schematic Design</u>	
Program Teaching Areas			
Teaching Laboratories	3,100	2,940	
Laboratory Equipment Room	185	180	
Sensory Booth	500	506	
Library/Conference Room	<u>185</u>	<u>270</u>	
	3,970		3,896 nsf
Program Support Areas			
Support Services	600	495	
Store Keeper's Office	120	140	
Dry Storage Room	<u>160</u>	<u>220</u>	
	<u>880</u>		<u>855 nsf</u>
Total	4,850		4,751 nsf
Total Gross Square Feet	5,500		5,462 gsf
Net-to-Gross Ratio = 87 percent (schematic)			

Schedule

The University anticipates that the project would be bid in January 2003 for completion by February 2004.

Utilities—Veterinary Medicine Chilled Water System Upgrade

Project Summary

	<u>Amount</u>	<u>Date</u>	<u>Board Action</u>
Project Description and Total Budget	\$ 693,070	Oct. 2002	Requested

Background	<p>The College of Veterinary Medicine facility was constructed over 25 years ago.</p> <p>The cooling system, which is original to the building's construction, no longer operates efficiently.</p> <p>The inefficiencies result from deteriorated cooling coils which have reached the end of their useful lives.</p>
Project Scope	<p>This project would replace the cooling coils on four air handlers, install a new chilled water pump, and upgrade the controls on the air handlers and chillers.</p> <p>The project is expected to provide significant energy and operational efficiencies for the cooling system.</p>
Funding	Utility Infrastructure Funds.

Project Budget

Construction Cost	\$ 658,640
Professional Fees	26,090
Contingency	<u>8,340</u>
TOTAL	<u>\$ 693,070</u>

Parking Lot 93 Reconstruction

Project Summary

	<u>Amount</u>	<u>Date</u>	<u>Board Action</u>
Project Description and Total Budget	\$ 573,570	Oct. 2002	Requested
Engineering Agreement (Snyder and Associates, Ankeny, IA)	32,304	Oct. 2002	Requested

Background	Parking Lot 93, located north of the Veterinary Medicine complex, is in very poor condition and in need of reconstruction. (See Attachment C for map.)
Project Scope	The scope of work will include pavement patching, full depth pavement replacement, and asphalt overlay for approximately 14,467 square yards of pavement.
Design Services	The agreement with Snyder and Associates would provide full design services for a fee of \$32,304, including reimbursables.
Funding	Parking System Funds.

Project Budget

Construction Cost	\$ 476,560
Professional Fees	83,900
Contingency	<u>13,110</u>
TOTAL	<u>\$ 573,570</u>

Indoor Multipurpose Use and Training Facility

Project Summary

	<u>Amount</u>	<u>Date</u>	<u>Board Action</u>
Permission to Proceed		Jan. 2002	Approved
Architectural Agreement—Pre-Design Through Construction Phase Design Services (RDG Sports, Des Moines, IA)	\$ 678,650	May 2002	Approved
Program Statement		June 2002	Approved
Schematic Design		July 2002	Approved
Project Description and Total Budget	8,721,800	July 2002	Approved
Revised Project Budget	9,371,800	Oct. 2002	Requested

Background Iowa State University wishes to construct an indoor multipurpose use, training and practice facility for use by varsity football and other field-sports programs.

- The facility may be expanded at a future date, subject to the availability of funding, to also accommodate a number of large University, student, community, and state activities.

The facility would be constructed in the proximity of Jack Trice Stadium over the existing artificial turf practice field.

Revised Budget The revised budget of \$9,371,800, an increase of \$650,000, reflects a revised estimate of project costs.

- The additional costs are associated with construction of the super-truss metal roofing structure and the location of the building over the existing artificial turf field.

Funding Discussions are currently underway among the Board Office, the University, and the Board's bond counsel and financial advisor, regarding financing of the facility. Further information should be available at the November Board meeting.

Project Budget

	Initial Budget <u>July 2002</u>	Revised Budget <u>Oct. 2002</u>
Construction Costs	\$ 7,332,310	\$ 8,104,460
Professional Fees	1,191,100	1,217,340
Contingency	<u>198,390</u>	<u>50,000</u>
TOTAL	<u>\$ 8,721,800</u>	<u>\$ 9,371,800</u>

Reiman Gardens—Conservatory

<u>Project Summary</u>			
	<u>Amount</u>	<u>Date</u>	<u>Board Action</u>
Permission to Proceed		March 1999	Approved
Project Description and Total Budget	\$ 7,835,300	July 1999	Approved
Architectural Agreement through Schematic Design (Architects Smith Metzger)	739,740	July 1999	Approved
Program Statement		Nov. 1999	Approved
Schematic Design		June 2000	Approved
Revised Project Budget	9,624,300	June 2000	Approved
Architectural Amendment #1	97,790	June 2000	Approved
Construction Contract Award (Story Construction Company)	7,778,000	June 2001	Ratified
Revised Project Budget	9,901,300	June 2001	Approved
Architectural Amendment #2	15,525		Approved*
Architectural Amendment #3	38,200	July 2001	Approved
Revised Project Budget	10,168,300	March 2002	Approved
Architectural Amendment #4	45,600	June 2002	Approved
Revised Project Budget	10,348,300	Oct. 2002	Requested
Architectural Amendment #5	16,100	Oct. 2002	Requested

*Approved by the University in accordance with Board procedures.

Background

This project, which is under construction, will build a conservatory facility at the Reiman Gardens to support the University's multi-disciplinary academic programs and extension activities at the Gardens, particularly activities of the Department of Horticulture.

The primary features of the facility include a glass structure garden conservatory area which will be used for permanent and rotating plant displays, growing greenhouses for plant production, a head house for preparation of plants for production and display, and a butterfly flight house and laboratory.

The facility includes an auditorium and multi-purpose room for educational and outreach activities, and a café/kitchen area and gift shop to serve visitors.

Revised Budget The revised budget of \$10,348,300, an increase of \$180,000, would provide additional funds to meet expanded equipment requirements for the butterfly laboratory as prescribed by U.S. Department of Agriculture.

The additional funds would be provided by private giving and Income from Treasurer's Temporary Investments.

Architectural Amendment Amendment #5 (\$16,100) to the agreement with Architects Smith Metzger would provide compensation for additional design services for the expanded equipment requirements, and reimbursement for additional travel expenses which resulted from a modified construction schedule.

Project Budget

	Revised Budget <u>March 2002</u>	Revised Budget <u>Oct. 2002</u>
Construction Costs	\$ 8,376,920	\$ 8,539,000
Professional Fees	1,531,600	1,542,100
Movable Equipment	230,000	230,000
Contingency	<u>29,780</u>	<u>37,200</u>
 TOTAL	 <u>\$ 10,168,300</u>	 <u>\$ 10,348,300</u>
Source of Funds:		
Private Giving	\$ 9,876,300	\$ 9,966,300
Income from Treasurer's Temporary Investments	250,000	340,000
Iowa Department of Natural Resources	<u>42,000</u>	<u>42,000</u>
 TOTAL	 <u>\$ 10,168,300</u>	 <u>\$ 10,348,300</u>

College of Veterinary Medicine—Biosecurity Unit

Project Summary

	<u>Amount</u>	<u>Date</u>	<u>Board Action</u>
Permission to Proceed		Oct. 2001	Approved
Project Description and Total Budget	\$ 3,100,000	Oct. 2001	Approved
Architectural Agreement (RDG Architects, Des Moines, IA)	313,702	Oct. 2001	Approved
Program Statement		Jan. 2002	Approved
Schematic Design		Jan. 2002	Approved
Revised Project Budget	3,337,559	Oct. 2002	Ratification
Construction Contract Award (Miron Construction Company)	2,515,500	Oct. 2002	Ratification

Background The 1994 and 1997 legislative sessions authorized planning and construction funds for development of the Livestock Infectious Disease Isolation Facility at Iowa State University.

The first component of the project included the construction of a Biological Safety Level 2 (BL-2) facility at the Veterinary Medical Research Institute for the study of infectious organisms and food safety; this component has been completed.

In May 1999, the Board authorized the University to enter into an agreement with the Agricultural Research Service (ARS) of the U. S. Department of Agriculture (USDA) for the construction and operation of a Livestock Infectious Disease Isolation Biosafety Level 3 (BL-3) Facility at the National Animal Disease Center (NADC) in Ames, which would have been the second component of the project.

The USDA decided that the BL-3 component was not in its best interest and the University developed the **Biosecurity Unit** component to replace the previously proposed component at the NADC.

A portion of the 1997 appropriated funds for the project were deappropriated in the 2002 legislative session; a new FY 2003 appropriation was made.

Project Scope The **Biosecurity Unit** project would develop a Biosafety Level 2 (BL-2) diagnostic laboratory as part of the College of Veterinary Medicine Veterinary Diagnostic Laboratory (VDL), and remodel existing animal containment facilities to accommodate the growing number of patients at the small and large animal clinics.

Revised Budget The revised budget of \$3,337,559, an increase of \$237,559, was approved by the Executive Director to allow award of the construction contract to the low bidder.

The additional funds would be provided by capital appropriations remaining from the allocation to the completed BL-2 facility at the Veterinary Medical Research Institute, and the Veterinary Diagnostic Laboratory.

Project Budget

	Initial Budget <u>Oct. 2001</u>	Revised Budget <u>Oct. 2002</u>
Construction Costs	\$ 2,449,300	\$ 2,798,860
Professional Fees	537,100	513,460
Movable Equipment	21,000	15,750
Relocation	10,800	<u>0</u>
Contingency	<u>81,800</u>	<u>9,489</u>
 TOTAL	 <u>\$ 3,100,000</u>	 <u>\$ 3,337,559</u>
Source of Funds:		
Capital Appropriations	\$ 3,100,000	\$ 3,117,559
Veterinary Diagnostic Laboratory	<u>0</u>	<u>220,000</u>
	 <u>\$ 3,100,000</u>	 <u>\$ 3,337,559</u>

Roy J. Carver Co-Laboratory

Project Summary

	<u>Amount</u>	<u>Date</u>	<u>Board Action</u>
Permission to Proceed		Dec. 1999	Approved
Project Description and Total Budget	\$ 7,000,000	Dec. 1999	Approved
Architectural/Engineering Agreement— Schematic Design & Site Planning (Brooks Borg and Skiles)	150,000	March 2000	Approved
Revised Project Budget	9,200,000	June 2000	Approved
Architectural Amendment #1 (Brooks Borg and Skiles)	48,000	June 2000	Approved
Program Statement		July 2000	Approved
Schematic Design		Oct. 2000	Approved
Revised Project Budget	9,500,000	Oct. 2000	Approved
Architectural/Engineering Agreement— Design Development through Construction (Brooks Borg and Skiles)	519,000	Oct. 2000	Approved
Revised Project Budget	12,750,000	May 2001	Approved
Architectural Amendment #1 (Brooks Borg and Skiles)	264,000	June 2001	Approved
Construction Contract Award—General Construction (HPC, L.L.C.)	7,570,000	Oct. 2001	Ratified
Architectural Amendment #2 (Brooks Borg and Skiles)	36,840	Nov. 2001	Approved
Architectural Amendment #3 (Brooks Borg and Skiles)	17,941	March 2002	Approved
Construction Contract—Electrical/ Telecommunications Utility Extensions (Meisner Electric)	382,443	June 2002	Ratified
Construction Contract—Mechanical Utility Extensions (Ames Trenching & Excavating)	174,600	June 2002	Ratified
Revised Project Budget	18,498,000	June 2002	Approved
Architectural Amendment #4 (Brooks Borg and Skiles, Des Moines, IA)	56,135	June 2002	Approved
Construction Change Order #1 (HPC, L.L.C.)	55,000 (est)	June 2002	Approved
Construction Change Order #2 (HPC, L.L.C.)	200,000 (est)	Sept. 2002	Approved
Architectural Agreement—Greenhouse (Brooks Borg and Skiles, Des Moines, IA)	154,860	Oct. 2002	Requested

Background

The Roy J. Carver Co-Laboratory will construct a new facility where scientists from Iowa State University, private industry, and the world can meet in a collaborative and interactive environment to conduct state-of-the-art plant research and address critical issues in plant science.

The co-laboratory would emphasize and promote interdisciplinary collaboration within the plant sciences and other core areas of the University.

The building, under construction in the northwest area of campus, includes state-of-the-art laboratories, research space for visiting scientists, and small laboratories for industry incubators.

The revised project budget (\$18,498,000) approved in June 2002 included the costs for construction of a greenhouse for the co-laboratory and finishing additional space in the basement level of the building.

Design
Agreement

The agreement with Brooks Borg and Skiles would provide full design services for the greenhouse for a fee of \$154,860, including reimbursables.

Lakeside Laboratory—Mahan Hall and MacBride Laboratory Remodel

Project Summary

	<u>Amount</u>	<u>Date</u>	<u>Board Action</u>
Project Description and Total Budget	\$ 390,000	Sept. 2002	Approved
Architectural Agreement (Architects Collaborative, Spencer, IA)	25,000	Oct. 2002	Requested

Background	<p>Mahan Hall is the largest classroom/lecture space at the Lakeside Laboratory; it is used by large classes, visiting university and high school classes and other groups, and for a variety of public programs.</p> <ul style="list-style-type: none"> The building was constructed in the early 1960s; renovation of the antiquated instructional areas is needed to improve facilities for the summer teaching and public outreach programs, and the environmental education programs during the academic year. <p>Macbride Laboratory is one of four main teaching laboratories/classrooms constructed in 1935 – 1936 by the Civilian Conservation Corps.</p> <ul style="list-style-type: none"> The buildings have not been renovated or modernized since their construction; renovation of these teaching facilities is needed for Lakeside Laboratory to continue to develop and expand as a year-round environmental education center consistent with its long-range strategic plan.
Project Scope	<p>Renovations to the Mahan Hall would create a computer laboratory and a large state-of-the-art classroom/lecture hall which would accommodate approximately 60 people.</p> <p>Work in the Macbride Laboratory would consist of the upgrade of the building's heating, cooling, electrical, plumbing and lighting systems, installation of new laboratory furnishings and equipment, and accessibility and other improvements.</p>
Design Services	<p>The agreement with Architects Collaborative would provide full design and construction observation services for a fee of \$25,000.</p>
Funding	<p>Capital appropriations authorized by the 2002 General Assembly.</p>

Included in the University's capital register for Board ratification are two project budgets under \$250,000, one construction contract awarded by the Executive Director, and the acceptance of one completed construction contract. These items are listed in the register prepared by the University and are included in the Regent Exhibit Book.


Sheila Lodge

Approved: 
Gregory S. Nichols