

Contact: Sheila Doyle

REGISTER OF UNIVERSITY OF IOWA
CAPITAL IMPROVEMENT BUSINESS TRANSACTIONS

Actions Requested: Consider approval of:

1. Permission to proceed with project planning, and the selection of Shive-Hattery, Cedar Rapids, Iowa, for the **Oakdale Campus – Non-Energy Utility Infrastructure Improvements** project.
2. Schematic design, and project description and budget (\$5,975,000) for the **University Hospitals and Clinics – Institute for Orthopaedics, Sports Medicine and Rehabilitation – Phase 1** project, a major capital project as defined by Board policy.
 - a. Acknowledge receipt of the University's final submission of information to address the Board's capital project evaluation criteria (see Attachment A);
 - b. Accept the Board Office recommendation that the project meets the necessary criteria for Board consideration; and
 - c. Approve the schematic design and project description and budget (\$5,975,000) with the understanding that this approval will constitute final Board approval and authorization to proceed with construction.
3. Project descriptions and budgets for the **Oakdale Campus – Upgrade Electrical Distribution** project (\$7,471,000), and **Power Plant Boiler #10 – Conversion to Partial Biomass Fuel Capability** project (\$2,700,000).
4. Revised project budget (\$46,988,790) and construction contract award to Cardinal Construction, Waterloo, Iowa (\$12,790,700) for the **Chemistry Building Renovation** project.

Executive Summary: The **Oakdale Campus – Non-Energy Utility Infrastructure Improvements** project would develop the necessary utility infrastructure (data/telecommunications, domestic water, fire water, sanitary sewer and storm sewer systems) to support the construction of the State Hygienic Laboratory and other buildings (currently in design) at the Oakdale Campus. The new utility systems would also be connected to existing Oakdale Campus buildings as individual building upgrades are completed. The anticipated project cost of \$5 million would be funded by the sale of Utility System Revenue Bonds, Building Renewal Funds, and Income from Treasurer's Temporary Investments.

The University wishes to retain the firm of Shive-Hattery, Cedar Rapids, Iowa, to provide engineering services for the project. Shive-Hattery is the project engineer for the electrical distribution upgrade for the Oakdale Renewable Energy Plant; the University believes the use of the same engineering firm for these projects will result in a number of design and construction efficiencies.

The **University Hospitals and Clinics – Institute for Orthopaedics, Sports Medicine and Rehabilitation Development (IOSMR) – Phase 1** project would consolidate in one location on the Hawkeye Campus (the University's far west campus located west of Mormon Trek Boulevard) the multi-disciplinary programs and services of the UI Sports Medicine Center (currently located in the UIHC Pappajohn Pavilion) and other University rehabilitation services. A map indicating the project site (approved by the Board in December 2007) is included as Attachment B.

The IOSMR would offer a multi-disciplinary program to respond to the growing need for patient care, education, and research in orthopaedics, sports medicine and rehabilitation. The facility would offer comprehensive diagnostic, treatment, and physical therapy/rehabilitation services for ambulatory orthopaedic patients, the general public, University of Iowa athletes, and other public and privately-sponsored athletic programs.

The project budget of \$5,975,000 would be funded by University Hospitals Building Usage Funds.

The University reports that a Phase 2 expansion project may be undertaken at a future date to provide space for specialty athletic training and performance enhancement services, and multi-disciplinary clinical research. The timetable, financing, and other details for a Phase 2 project have yet to be determined.

The **Oakdale Campus – Upgrade Electrical Distribution** project would upgrade the antiquated electrical distribution system on the Oakdale Campus. The new distribution system is needed to provide additional capacity for the Oakdale Campus to accommodate construction of the State Hygienic Laboratory and other planned buildings. The project would also provide more reliable primary and back-up power for the existing Oakdale Campus buildings.

The project budget of \$7,471,000 would be funded by the sale of Utility System Revenue Bonds.

The **Main Power Plant Boiler #10 – Conversion to Partial Biomass Fuel Capability** project would install biomass (oat hull) in-plant piping and storage, and boiler injectors, for Boiler #10 in the Main Power Plant. The project would facilitate the use of lower cost, sustainable biomass fuel, which the University currently burns in Boiler #11, to supplement the stoker coal currently used in Boiler #10. This would reduce utility costs and greenhouse gas emissions, and would facilitate the goal of the University's Energy Conservation Strategic Plan that 15 percent of all energy consumed on campus be produced from renewable resources by the year 2013.

The project budget of \$2,700,000 would be funded by the sale of Utility System Revenue Bonds.

The **Chemistry Building Renovation** project is upgrading the facility to provide modern, code-compliant laboratories to accommodate state-of-the-art instruction and research; new general university classrooms, a library, and administrative office area; and new building systems and windows.

The revised budget of \$46,988,790, an increase of \$1,884,290, reflects extraordinary cost increases for mechanical and electrical materials (stainless steel and copper) which are being used in the renovation of laboratory space that houses external grant-supported research. The University reports that these building components are critical to the University's external research funding and therefore they cannot be removed or reduced from the project.

In addition, in an effort to complete as much of the project as possible, the revised budget would provide funding for the add alternates included in the construction contract award to Cardinal Construction. The alternates include the shelling and fit-out of two laboratories, the update of restroom facilities, and the correction of deferred maintenance and landscaping issues in the south courtyard.

The budget increase would be funded by Building Renewal Funds and Income from Treasurer's Temporary Investments.

Details of Projects:

Oakdale Campus – Non-Energy Utility Infrastructure Improvements

Project Summary

	<u>Amount</u>	<u>Date</u>	<u>Board Action</u>
Permission to Proceed		May 2008	Requested
Selection of Shive-Hattery, Cedar Rapids, IA		May 2008	Requested

University Hospitals and Clinics – Institute for Orthopaedics, Sports Medicine and Rehabilitation Development

Project Summary

	<u>Amount</u>	<u>Date</u>	<u>Board Action</u>
Permission to Proceed with Project Planning		May 2007	Approved
Site Selection		Dec. 2007	Approved
Program Statement		March 2008	Not Required
Revised Program Statement		April 2008	Not Required
Schematic Design		May 2008	Requested
Project Description and Total Budget	\$ 5,975,000	May 2008	Requested

The design booklet is included with the Board's meeting materials.

The building would consist of one level. The majority of the building would house the Institute's clinical areas (patient examination and treatment rooms, and staff workstations). The main entrance and patient waiting area would be located at the north end of the building. The physical therapy area would be located along the east wall, and the MRI imaging area would be located in the northwest corner. The staff office areas would be located at the south end of the building.

The building would consist of a pre-engineered metal building with a pre-finished metal exterior and curtain wall along the east wall. The window area would showcase the physical therapy space from the building exterior and provide natural lighting into the area. The exterior design would complement other recent construction on the Hawkeye Campus, specifically the Hawkeye Tennis and Recreation Center and the Karro Hall of Fame.

The project has been designed to allow future expansion to the north and south should the University proceed with the Phase 2 project at a future date.

The square footages in the schematic design are identical to the approved revised building program.

Detailed Building Program

Clinical Areas	8,381	
Physical Therapy	5,134	
Faculty Work Areas	1,646	
Building Support	1,180	
MRI Areas	<u>1,251</u>	
Total Net Assignable Space		17,592 nsf
Anticipated Gross Square Feet		26,000 gsf
Anticipated Net-to-Gross Ratio = 68 percent		

The University anticipates commencing construction in the summer of 2008, with estimated completion in October 2009.

Project Budget

Construction	\$ 4,780,000
Professional Fees	478,000
Planning and Supervision	239,000
Contingencies	<u>478,000</u>
TOTAL	<u>\$ 5,975,000</u>
Source of Funds:	
University Hospitals Building Usage Funds	<u>\$ 5,975,000</u>

Oakdale Campus – Upgrade Electrical Distribution

Project Summary

	<u>Amount</u>	<u>Date</u>	<u>Board Action</u>
Permission to Proceed		Dec. 2007	Approved
Project Description and Total Budget	\$7,471,000	May 2008	Requested

Project Budget

Construction	\$ 6,138,675
Planning and Design	870,450
Contingencies	<u>461,875</u>
TOTAL	<u>\$ 7,471,000</u>
Source of Funds: Utility System Revenue Bonds and Utility System Revenues	<u>\$ 7,471,000</u>

Main Power Plant Boiler #10 – Conversion to Partial Biomass Fuel Capability

Project Summary

	<u>Amount</u>	<u>Date</u>	<u>Board Action</u>
Permission to Proceed		Aug. 2007	Approved
Project Description and Total Budget	\$ 2,700,000	May 2008	Requested

Project Budget

Construction	\$ 1,932,350
Planning and Design	574,596
Contingencies	<u>193,054</u>
TOTAL	<u>\$ 2,700,000</u>
Source of Funds: Utility System Revenue Bonds and Utility User Charges	<u>\$ 2,700,000</u>

Chemistry Building Renovation

<u>Project Summary</u>			
	<u>Amount</u>	<u>Date</u>	<u>Board Action</u>
Architectural Selection (Brooks Borg Skiles, Des Moines, IA)		Jan. 2003	Approved
Negotiated Architectural Agreement— Programming and Schematic Design (Brooks Borg Skiles, Des Moines, IA)	\$ 649,000	April 2003	Approved
Initial Review and Consideration of Capital Project Evaluation Criteria		Sept. 2003	Received with Capital Request
Interim Review and Consideration of Capital Project Evaluation Criteria		March 2004	Received Report
Program Statement		March 2004	Approved
Final Review and Consideration of Capital Project Evaluation Criteria		May 2004	Received Report
Schematic Design		May 2004	Approved
Project Description and Budget	35,200,000	May 2004	Approved
Architectural Agreement—Design Development Through Construction (Brooks Borg Skiles, Des Moines, IA)	2,778,984	May 2004	Approved
Construction Contract Award—Phase 1A - Chemical Stores Relocation, Greenhouse Demolition, Elec. Substation Construction (McComas-Lacina Construction)	1,248,000	July 2004	Ratified
Construction Contract Award—Phase 1B - Demolition (Selzer Werderitsch Assoc.)	438,000	May 2005	Not Required**
Construction Contract Award—Phase 1B - General Construction (Miron Construction)	17,156,900	Sept. 2005	Not Required**
Construction Contract Award—Phase 1B - Direct Digital Controls (Johnson Controls)	855,000	Sept. 2005	Not Required**
Construction Change Orders (Miron Construction Company)			
Change Orders #1- #3	31,801		Not Required*
Change Order #4	411,747	April 2006	Not Required**
Change Order #5	31,486		Not Required*
Change Order #6	30,816		Not Required*
Change Order #7	37,286		Not Required*
Change Order #8	195,546	Oct. 2006	Not Required**
Change Order #9	14,543		Not Required*
Change Order #10	67,784	Nov. 2006	Not Required**
Revised Project Budget	41,432,500	March 2007	Approved
Revised Project Budget	45,104,500	Sept. 2007	Approved
Revised Project Budget	46,988,790	May 2008	Requested
Construction Contract Award (Cardinal Construction, Waterloo, IA)	12,790,700	May 2008	Requested

*Approved by University in accordance with Board procedures.

**Approved by Executive Director in accordance with Board procedures

Project Budget

	Revised Budget <u>Sept. 2007</u>	Revised Budget <u>May 2008</u>
Construction	\$ 36,004,200	\$ 37,526,282
Design, Inspection & Administration	5,518,580	5,729,684
Contingency	<u>3,581,720</u>	<u>3,732,824</u>
TOTAL	<u>\$ 45,104,500</u>	<u>\$ 46,988,790</u>
Source of Funds:		
Academic Building Revenue Bonds, Utility Improvement Funds, Income From Treasurer's Temporary Investments, and Building Renewal Funds	\$ 39,818,500	\$ 41,702,790
Carver Grant	<u>5,286,000</u>	<u>5,286,000</u>
TOTAL	<u>\$ 45,104,500</u>	<u>\$ 46,988,790</u>

University Hospitals and Clinics – Institute for Orthopaedics, Sports Medicine and Rehabilitation –
Phase 1

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: Sports medicine is defined as the care and treatment of sports- or activity-related injuries. These services have been provided at the UIHC, predominately through the Department of Orthopaedics and Rehabilitation, for over 30 years. Beginning with the provision of prevention, treatment and rehabilitative services to University of Iowa intercollegiate, intramural and recreational athletes, these sports medicine services have expanded over time to include programs for locally sponsored sports teams and recreational athletes of all backgrounds and ages. In addition, the provision of this type of proactive ambulatory care is designed for and will be of significant benefit to all Iowans interested in maintaining or increasing their current level of physical activity.

To meet the Department of Orthopaedics and Rehabilitation's goal of developing a comprehensive orthopaedic, sports medicine and rehabilitation program for elite to recreational athletes (including the increasingly more active "boomer" population as well as female and adolescent athletes), the Department will require new facilities that can adequately meet the current Sports Medicine Center's growing clinical service responsibilities, which include the prevention, treatment and rehabilitation of sports and activity-related injuries. The new facilities will also support the Sports Medicine Center's educational service obligations and, in a later phase, its clinical research mission. The IOSMR is consistent with the UIHC's patient care, education and research missions and is aligned with the strategic vision to provide innovative care, excellent service and exceptional outcomes.

The cornerstone of the IOSMR is to provide superior patient care with exemplary service and convenient access. Patients of all ages will be provided with state-of-the-art diagnostic and rehabilitation services designed to identify the underlying pathology and to develop a comprehensive, multi-disciplinary treatment plan that is grounded in evidence-based clinical rationale and specifically tailored to meet a particular patient's needs. The IOSMR project supports several of the UIHC's Strategic Plan goals, most notably by providing a continuously improving, safe environment for all patients and staff; by providing the necessary facilities for developing and implementing new and more efficient healthcare delivery models that emphasize a quality-driven patient experience, and by implementing a facilities plan that supports the projected future needs for the UIHC and provides facilities that enhance a patient-centered experience, in conjunction with UIHC's goals. This initiative is also consistent with UIHC's efforts to deliver patient-centered care and will meet the needs of an aging population that increasingly engages in physical exercise and sport activity to maintain health and well-being.

The IOSMR will meet its educational mission by offering on-site and outreach programs for patients, residents of Iowa, health care professionals, and students training for degrees in athletic training or the health care professions. An affiliation has already been established between the IOSMR and the Department of Exercise Science within the UI College of Liberal Arts and Sciences to permit Athletic Training Program students to participate in educational and training opportunities within the IOSMR. Students from programs within the Colleges of Medicine, Dentistry, and Nursing and residents and fellows from a number of clinical departments will also benefit from access to educational programs and training provided by IOSMR faculty and staff. Post-graduate fellowships in Orthopaedics, Primary Care, or Rehabilitation Sports Medicine will be enhanced through this comprehensive approach.

While the scope of research activities that may be incorporated in the program for the IOSMR will be determined through planning for a second phase of this development, in undertaking this final component of its mission, the IOSMR will follow established practices of its parent department, the Department of Orthopaedics and Rehabilitation, by conducting research in musculoskeletal disorders. Development of the IOSMR may further the Department's reputation for innovative research by allowing for collaborative clinical research projects between IOSMR staff and faculty of the Carver College of Medicine, the Graduate Program in Physical Therapy and Rehabilitation, and the Department of Exercise Science. The new IOSMR may also facilitate research and development activities such as those now being undertaken with the College of Engineering to develop a virtual reality rehabilitation program and with the Department of Orthopaedics and Rehabilitation's Cell and Molecular Biology Laboratory to develop new cartilage solutions.

Other Alternatives Explored: The enhanced orthopaedic, sports medicine and rehabilitation patient care, teaching and research initiatives embodied in the development of the IOSMR can only be accomplished through the assignment of additional space that is not available on the main UIHC campus. A location within new construction in the south end zone expansion at Kinnick Stadium was evaluated but was ruled out due to cost, lack of adequate visibility and parking, and lack of sufficient space to meet the IOSMR's programmatic needs. A location at the University's Hawkeye Campus is accessible and convenient for patients, provides adequate space to accommodate the necessary Phase I and future Phase II building space and adjacent parking, and can be developed at a more reasonable cost. The development of the IOSMR on the Hawkeye Campus is consistent with the University's long-term master plan for this campus as a sports and recreation area. The IOSMR is unique because of its close relationship with university athletics, recreational sports and fitness facilities. The site's proximity to several athletic complexes, the new fitness center, biking trails, Finkbine Golf Course and the UIHC makes it a desirable location, while the affiliation with the Hawkeyes creates an opportunity that promotes relationship-building and economic development by implementing UI Hospitals and Clinics' innovations in settings outside the UI Hospitals and Clinics campus.

Impact on Other Facilities and Square Footage: On completion of this project, approximately forty-eight hundred gross square feet of space on the lower level of Pappajohn Pavilion now utilized for sports medicine patient care clinic and rehabilitation services will be reassigned for use in meeting other UIHC space needs.

Financial Resources for Construction Project: The IOSMR's clinic, imaging, physical therapy/rehabilitation, and associated supporting facilities will be funded through University Hospitals Building Usage Funds acquired from depreciation allowances of third parties underwriting the cost of patient care plus hospital net earnings from paying patients. No state capital appropriated dollars will be involved. The estimated internal rate of return over the life of this project is 9.5%.

Financial Resources for Operations and Maintenance: The source of funds to cover the associated operating and maintenance costs of the clinic, imaging and rehabilitation facilities will be University Hospital operating revenues derived from providing patient care services.

External Forces: A comprehensive analysis of UIHC's market area indicates sports medicine services, including promotion of health and wellness, ambulatory treatment of musculoskeletal and medical disorders, and minimally invasive surgery are strong areas of patient need and thus potential areas for future growth. This project will provide the IOSMR with the necessary space to meet the projected growth in patient service volume and provide a more comprehensive array of clinical services and programs.



Institute for Orthopaedics, Sports Medicine and Rehabilitation

