

Contact: Joan Racki/John Nash

**REGISTER OF UNIVERSITY OF IOWA**  
**CAPITAL IMPROVEMENT BUSINESS TRANSACTIONS**

**Actions Requested:** Consider recommending to the Board approval of the:

1. Following actions for the **UIHC-Renovation and Expansion of Central Sterilization Services** and **UIHC-Adult Inpatient Single Bed Conversion** projects; both major capital projects as defined by Board policy:
  - a. Acknowledge receipt of the University's initial submission of information to address the Board's capital project evaluation criteria (see Attachment A for Central Sterilization Services and Attachment B for Single Bed Conversion);
  - b. Accept the Board Office recommendation that the projects meet the necessary criteria for Board consideration; and
  - c. Authorize permission to proceed with project planning including the design professional selection process and exploration of the utilization of construction manager – agent delivery method for both projects.
2. Following actions for the **Psychological and Brain Sciences Building - Construct Facility** 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 C);
  - b. Accept the Board Office recommendation that the project meets the necessary criteria for Board consideration;
  - c. Raze a portion of Seashore Hall; and
  - d. Approve the schematic design, project description, and budget (\$33,500,000), with the understanding that approval will constitute final Board approval and authorization to proceed with construction.
3. Project description and budget (\$6,200,000) for the **Utilities Distribution System - Reconstruct Currier Steam Tunnel at Burge Hall** project.

**Executive Summary:**

The University requests permission to proceed with project planning including the design professional selection process for the **Renovation and Expansion of Central Sterilization Services (CSS)** project. CSS is an integrated facility within the UIHC that sterilizes medical instruments, devices, and other consumables that are used for patients undergoing perioperative and other procedures. The project would renovate 20,000 gross square feet of space currently occupied by CSS and UIHC Processed Stores on the lower level of John Colloton Pavilion. Followed by the relocation of Processed Stores through other projects, this project would allow the CSS facility, built in 1993, to be renovated and expanded into a larger area to meet an ever-increasing demand for services. The estimated project cost of \$20 million would be funded by UIHC Building Usage Funds.

The University requests permission to proceed with project planning including the design professional selection process for the **UIHC-Adult Inpatient Single Bed Conversion (SBC)** project. This 90,000 square foot project would convert, after completion of the Children's Hospital, two pediatric inpatient units (level 3 of the John Colloton Pavilion (JCP) and level 7 of the John Pappajohn Pavilion) into single-bed adult inpatient units. The project also includes the conversion of the Respiratory Specialty and Comprehensive Care Unit (RSSCU) and Palliative Care Unit (level 7 of the JCP) into a new adult inpatient burn unit and clinic.

The estimated project cost of \$46 million would be funded by University Hospitals Building Usage Funds. Funding through the issuance of hospital revenue bonds may be included for later phases of the project and would be a factor in the overall financing plan. Cost figures would be further developed and refined as planning proceeds.

For both the CSS and SBC projects, UIHC seeks permission to explore the options for construction management assistance for the project. Once the Architect of Record is selected, UIHC would utilize the architect's expertise to assist in determining the need for construction management services. This may include pre-construction and/or construction phase activities. The development of a phasing plan would be an integral part of the design process and would determine the need for a construction management firm.

The University requests approval of the schematic design, project description, and budget (\$33,500,000) for the **Psychological and Brain Sciences Building - Construct Facility** project (formerly the **College of Liberal Arts and Sciences – Psychology and Learning Center Building** project), which would construct a new facility for the Department of Psychological and Brain Sciences with state-of-the-art teaching and research space. The department, which is currently housed in three buildings – Seashore Hall, Spence Laboratories of Psychology and the renovated Stuit Hall – is the largest department in the College of Liberal Arts & Sciences. The Department has been assigned space in Seashore Hall, constructed in 1899 as the University's first hospital, since 1930. The quality, type, and organization of space are inadequate to serve either the teaching or research missions of the department.

This new building includes two general assignment classrooms, student learning commons, research laboratories, offices and conference rooms, and the department office for Psychological and Brain Sciences. The project also includes razing of the southeast wing of Seashore Hall (14,300 gross square feet) to enable construction and connection to Spence Laboratories. The remainder of Seashore Hall would be razed as a separate project. The new building would directly connect to Spence Laboratories floor by floor, providing for connectivity and community for the department. The schematic design booklet is included with the Board's agenda materials.

The project would improve campus space efficiency by constructing a new optimized building that enables the removal of a much larger, outdated Seashore Hall. Approximately 76,000 gross square feet would be removed from campus after the new facility is complete, associated programs are relocated, and the remaining sections of Seashore Hall are razed. As a result of this project and future Seashore demolition, the University would have fewer but better designed and utilized general assignment classrooms.

The project would be funded by Treasurer's Temporary Investment Income, Building Renewal, College of Liberal Arts & Sciences gifts and earnings, and indirect cost recoveries from sponsored research.

The University requests approval of the project description and budget (\$6,200,000) for the **Utilities Distribution System – Reconstruct Currier Steam Tunnel at Burge Hall** project. This project consists of the reconstruction of approximately 435 lineal feet of existing Currier Steam Tunnel north of the T. Anne Cleary walkway and stretching from Davenport Street to Bloomington Street (see Attachment D). The tunnel houses high pressure steam, low pressure steam, and condensate lines that serve several buildings on the north end of campus including several residence halls and the North Campus Chilled Water Plant. The project would be funded through the Utilities and Energy Management System Renewal and Improvement Fund.

**Details of the Projects:**

**UIHC-Renovation and Expansion of Central Sterilization Services**

Project Summary

	<u>Amount</u>	<u>Date</u>	<u>Board Action</u>
Permission to Proceed with Project Planning		Apr. 2016	Requested
Initial Review and Consideration of Capital Project Evaluation Criteria		Apr. 2016	Receive Report
Consideration of Use of Construction Manager - Agent Delivery Method		Apr. 2016	Requested

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The existing Central Sterilization Services (CSS) facility infrastructure, needed to support a sterile environment, is fully depreciated and in need of upgrades and repair. This project provides those infrastructure upgrades by improving all air-handling, mechanical, electrical, and plumbing systems.

In the past decade, the UIHC has seen an increase of 43% in surgical volume and substantial growth in other procedural services. Subsequently, requirements for sterilization services have also increased steadily to 7.8 million items in FY 2015. This steady increase has created a significant space constraint and severe workflow issues, which often result in a backlog of CSS items waiting to be processed.

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**UIHC-Adult Inpatient Single Bed Conversion**

Project Summary

	<u>Amount</u>	<u>Date</u>	<u>Board Action</u>
Permission to Proceed with Project Planning		Apr. 2016	Requested
Initial Review and Consideration of Capital Project Evaluation Criteria		Apr. 2016	Receive Report
Consideration of Use of Construction Manager Agent Delivery Method		Apr. 2016	Requested

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The conversion to all private (single occupancy) patient rooms is becoming a best practice adopted by many teaching and community hospitals. Single bed inpatient rooms provide a number of evidenced-based benefits to both patients and the organizations which are caring for them. Benefits include reducing the risk of hospital acquired infections, improving patient privacy, reducing patient falls, and increasing patient and family satisfaction.

Currently, over 40 percent of UIHC's beds are semi-private. Single patient rooms on most nursing units are significantly undersized compared to contemporary standards. The opening of the new UI Children's Hospital provides the UIHC with the opportunity to use the vacated units to meet initial needs for upgraded nursing units to especially accommodate burn and bone marrow transplant patients, and provide sufficient capacity for general acute care medical and surgical patients. This work can be accomplished without decommissioning inpatient beds during construction. The patient populations that are planned to occupy the proposed single-bed adult inpatient units were evaluated and selected based on a number of factors including census growth in these areas, the need for contemporary facilities to meet the needs of each patient population, patient safety, the facility upgrade requirements, and existing and future space constraints.

The overall project would be structured as three separate phases to allow for the demolition of existing space and construction of single-bed adult inpatient rooms as follows:

1. **Level Three John Colloton Pavilion (JCP):** The current Pediatric inpatient units would be converted to the Adult Leukemia and Blood & Marrow Transplant Unit.
  2. **Level Seven John Pappajohn Pavilion:** The current Pediatric inpatient units would be converted to the Respiratory Specialty and Comprehensive Care Unit and Palliative Care Unit.
  3. **Level Seven JCP:** The current Respiratory Specialty and Comprehensive Care Unit (RSSCU) and Palliative Care Unit would be converted into Burn Inpatient Unit and Clinic (Burn).
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**Psychological and Brain Sciences Building - Construct Facility**

Project Summary

	<u>Amount</u>	<u>Date</u>	<u>Board Action</u>
Permission to Proceed with Project Planning		Oct. 2010	Approved
Initial Review and Consideration of Capital Project Evaluation Criteria		Oct. 2010	Received Report
Selection of Design Professional (BNIM Architects, Des Moines, IA)		Dec. 2010	Not Required*
Design Professional Agreement (Programming - Schematic Design)	\$ 513,290	Feb. 2014	Not Required*
Design Professional Agreement (Schematic Design, expansion only)	110,900	Feb. 2016	Not Required*
Program Statement		Mar. 2016	Not Required*
Schematic Design		Apr. 2016	Requested
Project Description and Budget	33,500,000	Apr. 2016	Requested
Final Review and Consideration of Capital Project Evaluation Criteria		Apr. 2016	Receive Report

\*Approved by Executive Director, consistent with Board policies.

The Department of Psychological and Brain Sciences is the largest in the College of Liberal Arts & Sciences (CLAS). It generates approximately \$7 million in external grant funding (second in CLAS), while providing 22,000 instructional credit hours per year and serving over 1,200 psychology majors. The new facility would foster recruitment and a development of a community for the students, faculty and staff in the Psychological and Brain Sciences department through efficient co-location of student space, classrooms, laboratories, graduate student space, and administrative offices.

The following summarizes the functional components included in the program statement and schematic design:

<u>Function</u>	<u>Program Net Square Feet (nsf)</u>
Psychological and Brain Sciences Laboratories	12,593 nsf
Psychological and Brain Sciences Faculty Offices	5,619 nsf
Psychological and Brain Sciences Administrative Offices	3,517 nsf
General Assignment Classrooms	3,398 nsf
Learning Commons	8,722 nsf
Total Area	34,795 nsf

In compliance with the University's policy of efficient long-term land stewardship and appropriate site density, the building is a six-story structure, which establishes a vertical mass comparable to the adjacent Spence Labs. This massing also provides for a physical connection to all levels of Spence

Labs increasing the functionality of both buildings and presenting increased opportunities for collaboration.

The building and site development accommodates existing campus pedestrian movement and provides for convenient and accessible entrances from the west, east, and north. The link between Spence Labs and the Psychological and the Brain Sciences Building would be enclosed with a glass curtainwall system. It would exhibit a high level of transparency and visibility where the buildings connect. On the building's ground floor and lower level, learning commons and circulation spaces are visible from the south. The overhang of the building mass would mitigate solar gain at the ground level public spaces and would also provide shelter for an outdoor gathering area adjacent to the sidewalk along Iowa Avenue. The four upper floors of the building would be clad in an easy-care terracotta panel system in a warm earth tone color to complement the adjacent precast and brickwork on Spence Labs. The panel system is designed to provide efficient shading for the windows of office and lab spaces.

The lower level and first floor would have student learning and teaming space, general assignment classrooms, building systems, and maintenance spaces. The second floor would be occupied by the departmental office and administrative staff. The third through sixth floors are planned to house laboratories, smaller student collaboration spaces, associated faculty offices, building systems, and custodial spaces.

Project Budget

Planning, Design & Management	\$ 4,723,150
Construction	24,789,400
Furniture & Equipment	1,956,650
Contingency	<u>2,030,800</u>
Total	\$ 33,500,000

It is anticipated that the design development and construction document phases would be completed by April 2017; the project would bid in May / June 2017; and construction would be substantially complete by April 2019.

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**Utilities Distribution System – Reconstruct Currier Steam Tunnel at Burge Hall**

Project Summary

	<u>Amount</u>	<u>Date</u>	<u>Board Action</u>
Permission to Proceed with Project Planning		Oct. 2015	Approved
Design Professional Selection (Shive-Hattery, Iowa City)		Oct. 2015	Approved
Design Professional Agreement (Schematic Design – Construction Administration)	\$ 468,300	Dec. 2015	Not Required*
Project Description and Budget	6,200,000	Apr. 2016	Requested

\*Approved by Executive Director, consistent with Board policies.

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The structural integrity of the steam tunnels was assessed in 2015 as part of a campus-wide assessment of utilities conditions. Significant deterioration was identified in the tunnel; temporary wood shoring was installed at that time in 300 feet of this proposed 435 foot tunnel reconstruction project to provide added structural support.

The reliability of this tunnel is critical to maintaining steam service to several buildings on the north end of campus. The current condition with shoring restricts the access for maintenance personnel. This project addresses the most critical portion of the tunnel system. A future project would reconstruct the remainder of the tunnel to the south that has deteriorated due to age, but not to the level of the section addressed by this project.

There is also construction that will occur in this area associated with the Madison Street Residence Hall (MSRH) and the pedestrian bridge connecting this facility to T. Anne Cleary Walkway. It is critical to complete construction of this project by summer 2017 so that T. Anne Cleary walkway and the pedestrian bridge connection are fully open when MSRH opens in Fall 2017.

Project Budget

Planning, Design & Management	\$ 870,241
Construction	4,846,356
Contingency	<u>483,403</u>
Total	\$ 6,200,000

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UIHC – Renovation and Expansion of Central Sterilization Services  
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 would contribute to the UIHC's efforts in meeting all elements of its tripartite mission. It would greatly enhance the UIHC's capabilities for fulfilling its patient care mission by providing the necessary space to accommodate expansion of critical sterilization services required for perioperative patient care and for performing other procedural and clinic services. The educational and research missions would also be supported through the timely preparation of sterile instruments and other items that are needed to assure efficient training of residents, fellows, and students engaged in clinical training in accord with accrediting body standards. The project also is supportive of each of the six major goals that have been established in UI Health Care's Strategic Plan for FY 2014 – 2016 by providing the facilities that are required to assist UI Health Care's efforts 1) to provide world class healthcare services to optimize health for everyone, 2) to advance world class discovery through excellence and innovation in biomedical and health services research, 3) to develop world class health professionals and scientists through excellent, innovative, and humanistic educational curricula for learners at every stage, 4) to foster a culture of excellence that values, engages, and enables our workforce, 5) to create an environment of inclusion where individual differences are respected and all feel welcome, and 6) to optimize a performance-driven business model that assures financial success.

Other Alternatives Explored: Other alternatives that were considered for meeting UIHC's requirements for sterile instruments and supplies included development of a free standing off-site facility and constructing an addition to existing facilities. Each of these options, though, proved to be much more expensive than the selected option and would also require a much longer time frame to implement. The evaluation of these options led to the conclusion that the use of the present Processed Stores facilities in the lower level of the John Colloton Pavilion (JCP) would provide the best available means for meeting sterilization requirements due to its adjacency to the existing Central Sterilization Services (CSS) facility and vertical integration with the perioperative suites, other procedural units, and clinics. Expansion of the facilities would also enhance efficiencies while preserving valuable components of the CSS infrastructure.

Impact on Other Facilities and Square Footage: No space would be abandoned as a result of this project and all space transferred to expand CSS facilities would be productively utilized.

Financial Resources for Construction Project: The project would be financed with 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 would be involved.

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

External Forces Justifying Approval: The renovation and expansion of CSS is necessary to meet contemporary environmental codes and other requirements including those of the Facility



Guidelines Institute (see 2010 edition of the Guidelines for Design and Construction of Hospital and Healthcare Facilities). These guidelines regulate hospital construction in Iowa and most other states. They are used by Medicare and the Joint Commission to develop new regulations and standards. The design would also meet Health Insurance Portability and Accountability Act (HIPAA) requirements for patient privacy and confidentiality. The renovation and expansion of CSS facilities is also needed to support continued growth in surgical and other procedures, inpatient census growth, and increases in clinic patients, all of which necessitate larger volumes of sterilized instruments and patient equipment.

UIHC-Adult Inpatient Single Bed Conversion  
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 would contribute to the UI Hospitals and Clinics' efforts in meeting all elements of its tripartite mission. It would greatly enhance the UI Hospitals' capabilities for fulfilling its patient care mission by providing greatly improved patient accommodations for adult patients through conversion of semi-private and small single patient rooms into contemporary, adequately sized single occupancy, private inpatient rooms. The educational and research missions would also be enhanced through development of the contemporary inpatient nursing units so that students, residents, and fellows receive their clinical experience in modern, state-of-the-art, and efficiently operated facilities and in accord with accrediting body standards. The project also is supportive of each of the six major goals that have been established in UI Health Care's Strategic Plan for FY 2014 – 2016 by developing facilities that would 1) provide world class healthcare services to optimize health for everyone, 2) advance world class discovery through excellence and innovation in biomedical and health services research, 3) develop world class health professionals and scientists through excellent, innovative and humanistic educational curricula for learners at every stage, 4) foster a culture of excellence that values, engages and enables our workforce, 5) create an environment of inclusion where individual differences are respected and all feel welcome, and 6) to optimize a performance-driven business model that assures financial success.

Other Alternatives Explored: UIHC studied several alternative designs for developing all single patient room nursing units in the Carver, Colloton and Pappajohn Pavilions current inpatient facilities. The selected model has now been used in developing two units. These are the Mother-Baby Unit on 6 JPP and the CVICU on 4 JCP. The opening of the new UI Children's Hospital provides the opportunity to apply the same model in redeveloping vacated pediatric inpatient units into contemporary adult single bed inpatient units.

Impact on Other Facilities and Square Footage: The existing inpatient units currently occupied by ALBMT (7 RCP), RSCCU (7JCP), and Burn (8 JCP) would be converted into single room nursing units and thus no facilities would be abandoned in undertaking this project.

Financial Resources for Construction Project: The project would be financed with 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. Funding through the issuance of hospital revenue bonds may be included for later phases of these projects and would be a factor in the overall financing plan developed for the projects. No state capital appropriated dollars would be involved.

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

External Forces Justifying Approval: Acute care hospitals must meet the standards of the Facility Guidelines Institute and standards, as presented in the 2010 Edition, Guidelines for Design and Construction of Hospital and Healthcare Facilities. These guidelines have been adopted by Iowa

and most other states to regulate hospital construction. They are used by Medicare and the Joint Commission to develop new regulations and standards. The FGI 2010 Guidelines regulate that, in major construction projects: "the maximum number of beds per rooms shall be one unless the functional program eliminates the necessity of a two bed arrangement." The design would also meet Health Insurance Portability and Accountability Act (HIPAA) requirements for patient privacy and confidentiality.

SUI - Psychological and Brain Sciences Building - Construct Facility  
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 department of Psychological and Brain Sciences is a nationally prominent department making the very highest level of contributions in terms of research productivity, teaching, and service. A recent assessment by the Provost Office Task Force on Graduate Education placed the department in the very select, "exemplary" category for programs across the University. The department generates approximately \$7 million in external grant funding (second among all departments within the College of Liberal Arts and Sciences) while providing 22,000 instructional credit hours per year and serving over 1,200 psychology majors (highest within the College).

Currently, the department of Psychological and Brain Sciences is housed in three buildings: Seashore Hall, Spence Laboratories of Psychology, and Stuit Hall. Seashore Hall was constructed in 1899 as the University's first hospital; the department has been assigned space in the facility since 1930. Both the quality and organization of space is inadequate to serve the teaching and research missions of the department. The building's age and condition make it one of the campus' highest deferred maintenance needs. Several spaces cannot be occupied due to major building code deficiencies. It is essential that a new building be constructed for the department in order to continue to function at a high level and allow for the razing of Seashore Hall. The department of Psychological and Brain Sciences is the largest and among the most noted in the College of Liberal Arts & Sciences. The current facilities challenge the long-term success of this important department. The new building would serve as the new face of the department, provide long needed modern space, reduce campus square footage and eliminate major deferred maintenance needs.

The project would improve campus space efficiency by constructing a new optimized building that enables the removal of a much larger, outdated Seashore Hall. Approximately 76,000 gross square feet would be removed from campus after the new facility is complete, associated programs are relocated, and the remaining sections of Seashore Hall are razed. Ultimately, as a result of this project and future Seashore demolition, the University would have fewer but better designed and utilized general assignment classrooms.

Other Alternatives Explored: In August 2007, the University commissioned OPN Architects, Cedar Rapids, Iowa to conduct a study of Seashore Hall. The purpose of the study was to determine the viability of keeping Seashore Hall as an integral building serving University needs. In addition to this study, OPN Architects of Cedar Rapids and Sasaki Associates, Watertown, Massachusetts conducted a Master Planning evaluation and studied the possible options for the future use of the site area around Seashore Hall, Spence Labs, and Old Music Building (now Stuit Hall). The results of that study, completed in March 2008, indicated that certain sections of Seashore Hall could not be effectively renovated at a reasonable cost. Other sections of the building could be renovated for standard academic office space but could not accommodate modern research or classroom space. This was confirmed in a follow-up study completed in 2014 by BNIM Architects.

The current project is an important first step in a long-range plan to raze Seashore Hall. It would permit the building to be vacated, with other smaller programs being relocated to other existing University facilities in coordination with a campus-wide effort to maximize space.

Impact on Other Facilities and Square Footage: Approximately 24,000 net square feet of space within Seashore Hall would be vacated upon completion of the project, with the complete removal of Seashore Hall executed in a future project.

Financial Resources for Construction Project: The project would be financed with Treasurer's Temporary Investment Income, Building Renewal, College of Liberal Arts & Sciences gifts and earnings and sponsored research indirect cost recoveries.

Financial Resources for Operations and Maintenance: Estimated annual operating and maintenance costs are \$363,000.

External Forces Justifying Approval: Failing to advance this project would negatively impact the department's ability to meet its teaching and research missions, and would negatively impact the department's prominent national reputation. Facilities play a major role in faculty recruitment and retention, research productivity and external funding opportunities. Inadequate teaching and student space negatively impact instructional offerings and the recruitment of high achieving students. This modernization project would also enable the reduction in total UI campus space and would make portions of the existing Seashore site available for future generation development.

