

Contact: Joan Racki

REGISTER OF UNIVERSITY OF IOWA
CAPITAL IMPROVEMENT BUSINESS TRANSACTIONS

Actions Requested: Consider

1. Approval of:
 - a. Permission to proceed with project planning, and the selection of OPN Architects, Cedar Rapids, Iowa, for the **Oakdale Hall – Raze Building** project.
 - b. Project descriptions and budgets for the **Art Building West – Flood Mitigation and Permanent Recovery** project (\$14,820,507), and **Oakdale Utility Power Plant – Install Biomass Gasifier & Steam Generator** project (\$6,717,524).
 - c. Revised project budget (\$5,158,763) for the **Oakdale Renewable Energy Plant – Install Central Chilled Water Production** project.
 - d. Revised scope for the **College of Public Health – Academic Building** project.
2. Receipt of the oral report from the University on the football facilities improvement project.

Executive Summary: The University seeks approval to proceed with planning for the demolition of Oakdale Hall, a 220,000 gross square foot building constructed in 1917, located on the University's research campus in Coralville. The primary tenant of the building is the University Hygienic Laboratory, which will move to its new state-of-the-art facility this spring. The anticipated cost of the **Oakdale Hall – Raze Building** project is \$3.8 million, which would be funded by the general education fund and/or income from treasurer's temporary investments.

The flood waters of June 2008 completely inundated the basement of Art Building West, which houses the building's air handling equipment, pumps, elevators, electrical systems, information technology service closet, and facilities maintenance rooms. Approximately four feet of flood water also entered the building's first level. The **Art Building West – Flood Mitigation and Permanent Recovery** project will repair the basement and first floor levels and will install a demountable exterior flood wall, underground pump station and emergency generator to protect the building against possible future flood events. The project cost of \$14,820,507 would be funded by the Federal Emergency Management Agency, Academic Building Revenue Bonds, School of Art & Art History Gifts, and Building Renewal Funds.

The **Oakdale Renewable Energy Plant – Install Biomass Gasifier and Steam Generator** project provides for the installation of both a new biomass gasifier and a biomass/natural gas fired steam boiler in the Oakdale Renewable Energy Plant. The new boiler, which will replace an outdated boiler, will increase the Plant's steam output. In addition, it will serve as a demonstration project that will use wood chips and other biomass from local sources (e.g. construction and demolition waste, oat hulls and other energy crops), to produce a renewable gaseous fuel. The project cost of \$6,717,524 is anticipated to be funded through a grant from the U.S. Department of Energy (\$900,000), Utility System Earnings, and Revenue Bond proceeds.

The University requests approval of a revised project budget/scope for the **Oakdale Renewable Energy Plant - Central Chilled Water Production** project. The project description and budget (\$5,645,000) approved in March 2009 provided for two distinct types of chilled water production.

Chilled water was to be produced with standard base load electrical chillers and chillers capable of utilizing waste heat from electric power production. In lieu of providing both types of chilled water production now, the University proposes to divide the project into two separate phases. The initial phase would construct the chilled water building addition to the Oakdale Power Plant and install the standard base load electric chiller. The second phase would install chillers capable of utilizing waste heat from electric production or thermal chillers, an option not yet available to the University. The revised budget for the project is \$5,158,763, a decrease of \$486,237.

At its September 2007 meeting, the Board approved the schematic design and project description and budget for the **College of Public Health Academic Building**, which is currently under construction. The facility is providing: a physical identity and academic home, including classrooms and offices, for the College that encourages interdisciplinary work and integration; a gathering place for the Public Health community; and space for anticipated and planned College and departmental growth. The revised scope would add fifth floor shell space (approximately 11,900 gross square feet) on the north wing of the facility within the previously approved budget of \$47.7 million. Renderings that communicate the visual change associated with the fifth floor are available from the Board Office.

The University previously presented master plans for capital improvements of its athletics facilities and Athletic Director Gary Barta indicated that periodic updates would be provided to the Board. In October 2008, the Board granted the University permission to proceed with project planning for physical improvements for the University's football program, which would be financed entirely by private gifts. Substance Architecture (Des Moines, IA) was selected to assist the Athletic Department and University Facilities Management staff in examining options for improving football facilities outside of Kinnick Stadium, and for subsequent development of schematic designs and budgets.

Mr. Barta will provide to the Board, at its March 2010 meeting, an update on progress in accomplishing the football facilities improvements and the expected timetables for subsequent Board actions on this project.

Details of Projects:

Oakdale Hall – Raze Building

	<u>Project Summary</u>		
	<u>Amount</u>	<u>Date</u>	<u>Board Action</u>
Permission to Proceed		March 2010	Requested
Selection of Design Professional - (OPN Architects; Cedar Rapids, IA)		March 2010	Requested

The University seeks Board approval to proceed with planning for the demolition of Oakdale Hall (see Attachment A for a map showing the location of Oakdale Hall) located on the research campus in Coralville. Completion of the new University Hygienic laboratory this spring will permit the vacation of a large portion of the building. The University is also requesting approval of two leases (see Agenda Item 8 – Institutional Agreements, Leases and Easements) to permit the relocation of other occupants prior to the demolition.

Oakdale Hall originally served as a sanatorium hospital. In 1965, the Oakdale Campus and its facilities became part of the University of Iowa.

The University reports that razing the facility, which has outlived its useful life, will significantly reduce ongoing deferred maintenance needs (estimated at \$39.6 million when the most recent Facilities Governance report was submitted) and will address energy waste associated with its outdated building systems. It is anticipated that the demolition will result in an annual savings of approximately \$2 million in operations, maintenance and utility costs, most of which is utility costs.

The University conducted a preliminary study to investigate the various options related to removing the building using sustainable techniques. OPN Architects (Cedar Rapids) completed the study. Given the basic design requirements needed for demolition, and OPN's familiarity with the structure, the University requests permission to negotiate design services with OPN Architects.

Art Building West – Flood Mitigation and Permanent Recovery

Project Summary

	<u>Amount</u>	<u>Date</u>	<u>Board Action</u>
Permission to Proceed with Project Planning (waiver of Policy Manual provisions granted)		July 2008	Approved
Design Professional Selection/Agreement - Flood Recovery (BNIM Iowa Architects, Des Moines, IA)	\$ 408,000	Aug. 2008/ Mar. 2009	Not Required* Not Required*
Design Professional Agreement - Schematic Design – Invisible Flood Wall (BNIM Iowa Architects)	176,240	Sept. 2009	Not Required*
Design Professional Agreement – Flood Mitigation Permanent Recovery (BNIM Iowa Architects)	562,590	Jan. 2010	Not Required*
Project Description and Budget	\$14,820,507	Mar. 2010	Requested

*Approved by Executive Director consistent with Board policy

The project will provide for flood repair of the basement, which houses mechanical equipment and the first floor, which contains classrooms, offices, a gallery, conference rooms, and restrooms, and mitigation from future floods for Art Building West. The building is being recovered to its original condition prior to the 2008 flood and will conform to any codes or University standards established since the construction of the building (completed in 2006).

The University envisions bidding the work with two alternates. The first one, requested by Facilities Management, will include: replacement of atrium light fixtures for longer lamp life, installation of access controls on exterior doors, replacement of in-floor closers with overhead closers on exterior doors, repair of cracks in the concrete floor on the second and third floors, and the installation of energy saving temperature sensors at the air handling unit coils. A second alternate would include minor modifications requested by the School of Art and Art History. This work would occur on the first floor and includes the installation of a sink in a workroom, the construction of a partition in the Administrative Office to separate the reception area from the rest of the office suite, and the construction of a partition to separate the curator's office from the adjacent production area.

The University explored several mitigation options including: 1) hardening the exterior walls (dry flood-proofing), 2) moving the mechanical, electrical and communications systems out of the basement and to a higher elevation outside the building, 3) wet flood-proofing the basement which would keep the building systems in the basement dry but allow water on to the first floor level, and 4) installing a demountable flood wall around the building. The installation of the demountable flood wall system was the only option that provided the maximum assurance of protection against flooding the building, did not negatively impact the architecture of this award winning building, and was the most cost effective option. After careful study, the various options were reviewed with the Federal Emergency Management Agency.

The demountable 12-foot high flood wall can be erected and removed as needed. It will protect the building to a level that is two feet above a 500 year flood level, which is in accord with the protective standards set by the UI Flood Mitigation Task Force. The map showing the location of Art Building West and a recovery site plan showing the location of the demountable flood wall and underground pump station are included as Attachment B and C.

Pending final approval from the Federal Emergency Management Agency (FEMA), construction is anticipated to commence in the spring of 2010. All construction is scheduled to be completed the spring of 2011.

Project Budget

Construction	\$11,533,628
Design, Inspection and Administration	2,174,283
Contingencies	<u>1,112,596</u>
TOTAL	<u>\$14,820,507</u>

Source of Funds:

Federal Emergency Management Agency, Academic Building
Revenue Bonds, School of Art & Art History Gifts, Building
Renewal Funds

Oakdale Renewable Energy Plant – Install Biomass Gasifier and Steam Generator

Project Summary

	<u>Amount</u>	<u>Date</u>	<u>Board Action</u>
Permission to Proceed with Project Planning		June 2009	Approved
Design Professional Agreement – Implementation Planning and Technical Coordination/Support, Nexterra Systems Corp (Vancouver, BC, Canada)	\$100,000	Sept. 2009	Not Required*
Selection of Design Professional, Shive - Hattery (Iowa City, IA)		Oct. 2009	Not Required*
Design Professional Agreement, Shive- Hattery (Iowa City, IA)	301,222	Mar. 2010	Not Required*
Project Description and Budget	\$6,717,524	Mar. 2010	Requested

*Approved by the Executive Director consistent with Board policy

This project provides for the installation of a new biomass gasifier and a biomass/natural gas fired steam boiler in the Oakdale Renewable Energy Plant. The new boiler will replace an outdated boiler, which will be demolished to provide the required space within the existing plant. Net generating capacity will increase by approximately 10,000 lbs of steam/hour to address the growing steam demand on the Oakdale/Research Campus.

A map showing the location of the **Oakdale Renewable Energy Plant – Biomass Gasifier & Steam Generator** is included as Attachment D.

Facilities Management will partner with the College of Engineering to maximize the education and research opportunities this facility will provide.

The biomass used will displace natural gas used at the existing Oakdale Heating Plant. It is anticipated that the biomass fuel will be procured at a substantially lower cost and with less volatility, compared to natural gas. Since burning biomass fuel does not result in new CO₂ emissions, using biomass will reduce the Plant’s greenhouse gas emissions. The project will make a substantial contribution to the University Energy Plan goals to increase the amount of renewable energy used by the institution.

Project Budget

Construction	\$5,468,337
Design, Inspection and Administration	703,688
Contingencies	<u>545,499</u>
TOTAL	<u>\$6,717,524</u>

Source of Funds:

- US Department of Energy Grant (approximately \$900,000)
- Utility System Earnings, Utility Revenue Bond Proceeds

Oakdale Renewable Energy Plant – Central Chilled Water Production

Project Summary

	<u>Amount</u>	<u>Date</u>	<u>Board Action</u>
Permission to Proceed with Project Planning		Feb. 2008	Approved
Design Professional Selection/Agreement (Stanley Consultants; Muscatine, IA)	\$ 391,400	Feb. 2008	Approved
Project Description and Budget	5,645,000	Apr. 2008	Not Required*
		Mar. 2009	Approved
Revised Project Description and Budget	5,158,763	Mar. 2010	Requested

* Approved by Executive Director consistent with Board policy

The project description and budget previously approved by the Board provided for two types of chilled water production. Along with standard base load electric chillers, chillers capable of utilizing waste heat from electric power production were to be included in the project.

The production plant and base load electric chiller must continue on a construction schedule to support the Data Center project, which was recently bid. While the University is making progress in negotiating with the City of Iowa City for purchase of its landfill gas, a final agreement has not

yet been reached. Without the landfill gas, the engines would have to operate on natural gas, which is not the preferred option. The location of the project is shown on Attachment E.

Project Budget

	Budget <u>March 2009</u>	Revised Budget <u>March 2010</u>
Construction	\$4,390,944	\$3,824,875
Design, Inspection and Administration	815,350	951,888
Contingencies	<u>438,706</u>	<u>382,000</u>
TOTAL	<u>\$5,645,000</u>	<u>\$5,158,763</u>

Source of Funds:

Utility System Revenue Earnings and Revenue Bonds, Federal and State Grants

College of Public Health Academic Building

Project Summary

	<u>Amount</u>	<u>Date</u>	<u>Board Action</u>
Initial Review and Consideration of Capital Project Evaluation Criteria		Aug. 2005	Received Report
Permission to Proceed		Aug. 2005	Approved
Presentation on University's Capital Request		Nov. 2005	Received
Architectural Selection (Rohrbach Associates, Iowa City)		Feb. 2006	Approved
Architectural Agreement through Schematic Design (Rohrbach Assoc.)	\$ 955,000	Aug. 2006	Not Required*
Architectural Agreement - Design Development through Construction Administration (Rohrbach Assoc.)			
Program Statement		Sept. 2007	Not Required*
Final Review and Consideration of Capital Project Evaluation Criteria		Sept. 2007	Approved
Schematic Design		Sept. 2007	Approved
Project Description and Total Budget	\$ 47,700,000	Sept. 2007	Approved
Architectural Agreement Design Development through Construction Administration	3,000,000	Dec. 2007	Not Required*
Architectural Agreement Amendments (both agreements)	574,650		Not Required*
Informal Bid Package #1- Chilled Water Connections (Carter & Assoc, Coralville)	48,790	Mar. 2008	Not Required*
Change Orders to Informal Bid Package #1	12,150		Not Required
Informal Bid Package #2 – Steam/Condensate Connections (American Piping Group, Eldridge)	123,570	Mar. 2008	Not Required
Change Orders to Informal Bid Package #2	-9,935		Not Required
Bid Package #1 – Utility Relocation, Site Preparation and Building Demolition (Carter & Assoc., Coralville)	2,568,000	Apr. 2008	Not Required
Bid Package #2 – College of Public Health Academic Building (McComas-Lacina, Iowa City)	27,195,260	Dec. 2008	Not Required*
Change Orders to Bid Package # 2 through March 1, 2010	86,880		Not Required*
Project Purchase Orders	1,051,506		
Architectural Agreement – Selection of Furnishings (Rohrbach Assoc.)	100,000	Nov. 2009	Not Required*
Revised Scope (5 th Floor Shell Space – North Wing)		Mar. 2010	Requested

*Approved by Executive Director consistent with Board policy

At its September 2007 meeting, the Board of Regents approved the schematic design and project description and budget (\$47.7 million) for the **College of Public Health – Academic Building**

project. Bids on the project were received on December 9, 2008, from eight general contractors. Due to the economic climate and a high level of market competition, the bids were well below the estimated cost of construction. The contract was awarded to McComas-Lacina Construction Company (Iowa City); construction commenced shortly thereafter.

The revised project scope would add a fifth floor of shelled space to the north wing of the building within the originally approved budget. The addition of this space will provide future opportunities for further program consolidations on the site and offer opportunities for developing institutes of study within the College.

Long-term growth at the site is limited. To maximize long-term College of Public Health build-out, the master plan for the site identifies a small future wing that could be added to the north end of the building. The University reports that addition of a fifth floor, now, will help improve site density and would tie into the long-term growth plan.

In addition to enhancing programmatic opportunities for the College, the addition of the fifth floor shell during the construction phase helps ensure a lower cost than if the expansion of space were to be considered at some point in the future. It also avoids future difficulties related to program interruptions and site/building disruptions during a post-occupancy construction.

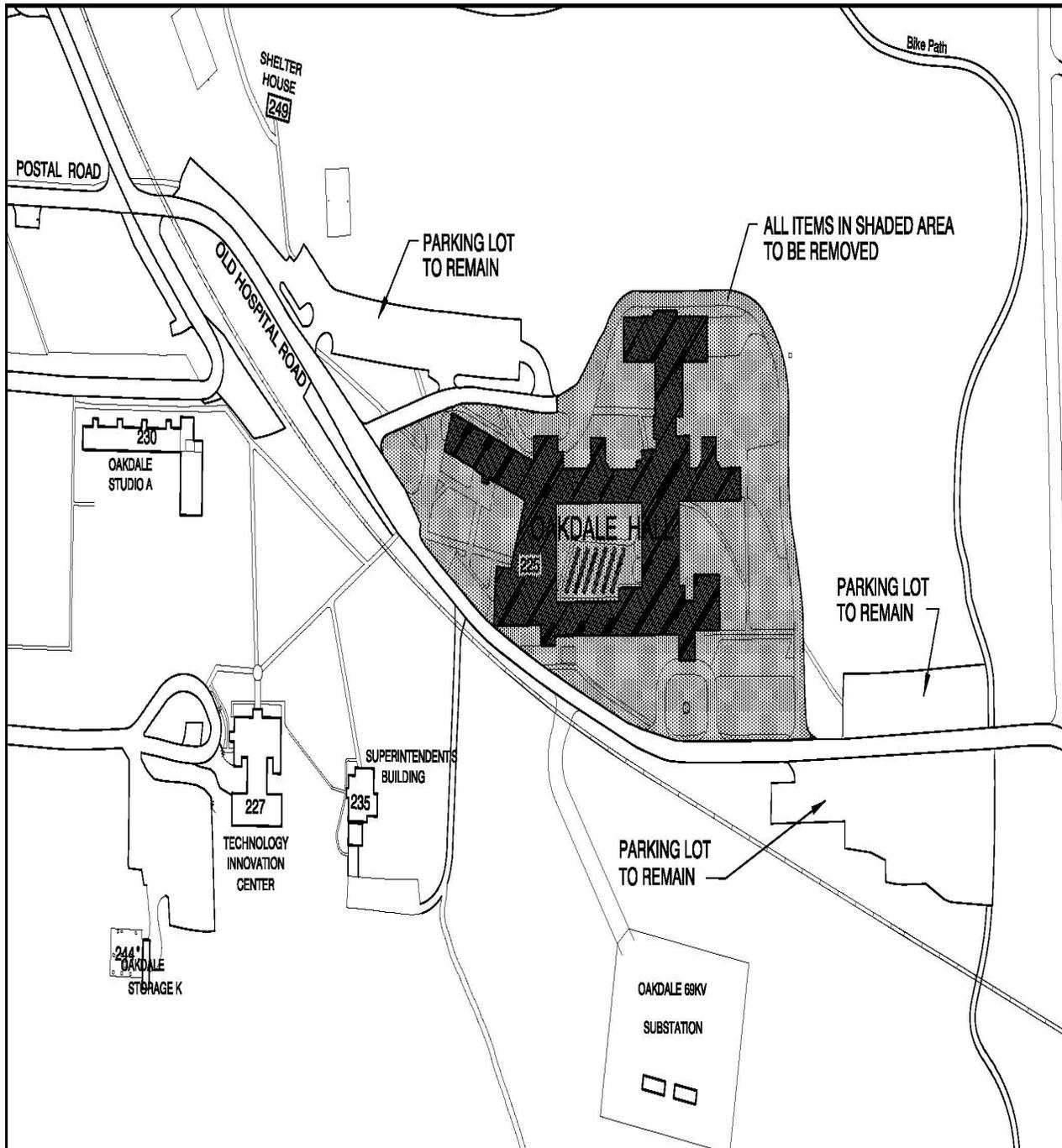
The University reports that adding the fifth floor after completion of the building would create a premium of an estimated \$1 million - \$1.5 million in work related to removal and patching of existing interior and exterior finishes. Cost escalations would increase that impact over time. The proposed change order to shell-out the fifth floor is \$3.32 million.

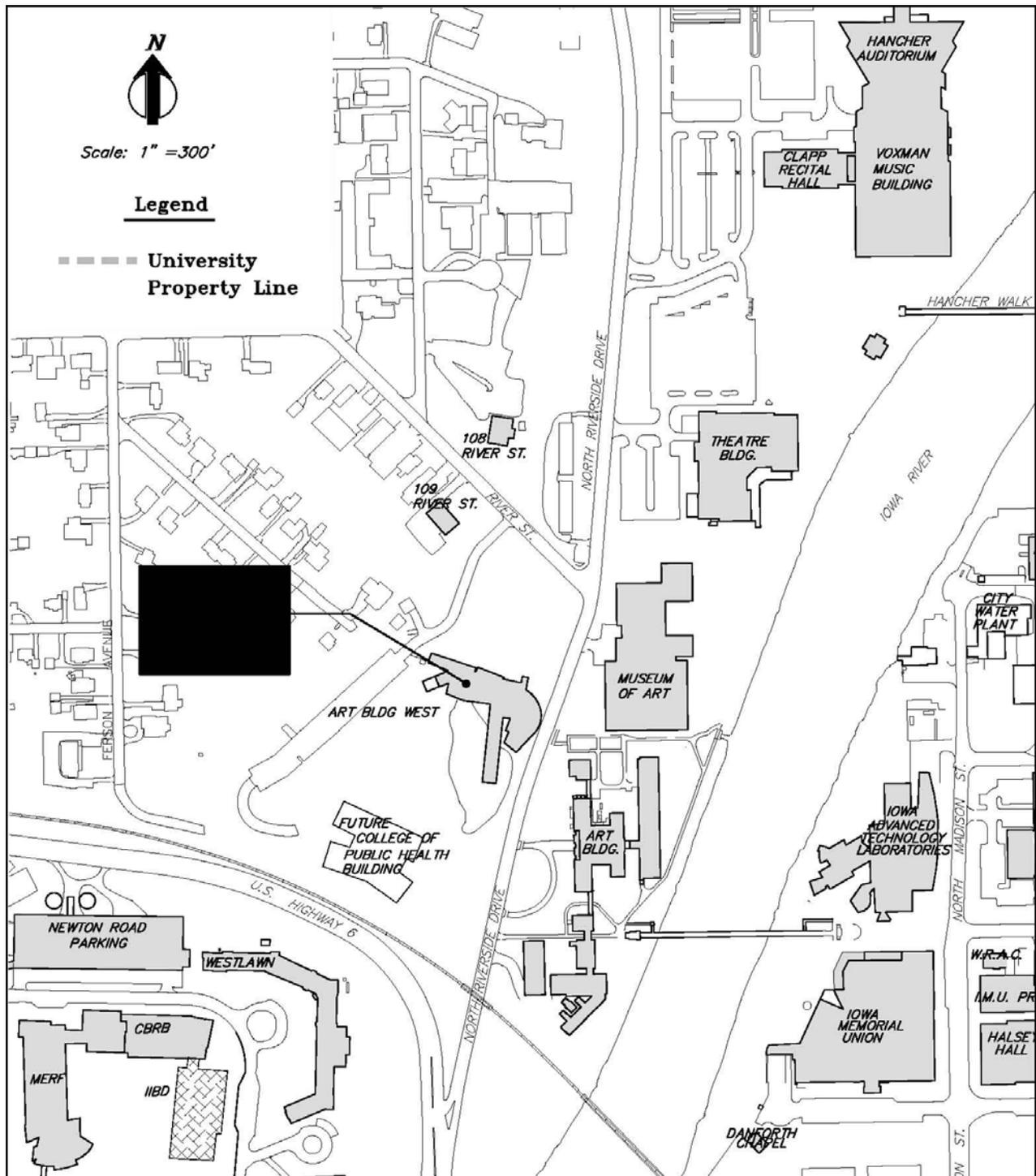
The revised scope will provide additional space for the College to create a Public Health Research Institute; cross-disciplinary research will be conducted on topics such as:

- Innovations in health care organization and delivery that minimize cost growth and maximize health outcomes
- Integration of wellness and prevention into community-based public health infrastructure and health care delivery
- Occupational safety
- Environmental health and safety
- Health communications for prevention and management of chronic illness
- Population surveillance to track progress in health status and health outcomes
- Public health preparedness
- Innovations in research study design that accelerate knowledge acquisition and transfer

The College of Public Health's current fund raising campaign, "Building Today for a Healthy Tomorrow", and the upcoming University-wide campaign are excellent opportunities to showcase the Public Health Research Institute and to raise the necessary funds to finish the shelled space. This assumes the University is able to complete the fifth floor shell as part of the current construction.

The shelled fifth floor would be approximately 11,900 gross square feet. This project will provide the structural steel framing, an exterior envelope that will consist of the same construction materials used on the lower floors and a roof matching the design of the original building. The shell space on the fifth floor will have exposed concrete floors, no ceiling or interior finishes. The elevator shaft will be extended to Level 5 with associated modifications to the elevator's operating mechanism. The stair shafts will be extended to Level 5, providing required exiting pathways from this floor.





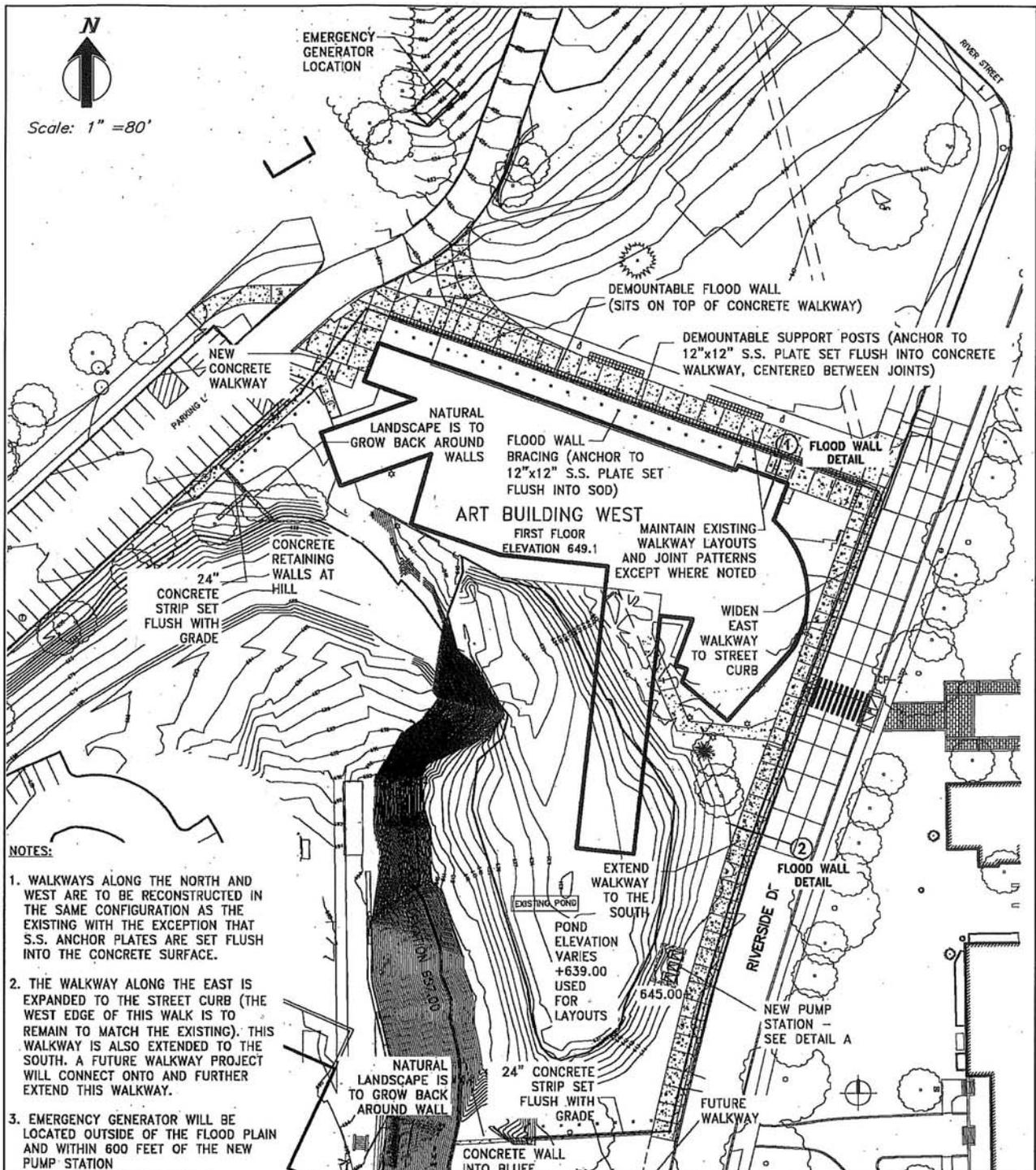
**THE UNIVERSITY
OF IOWA**

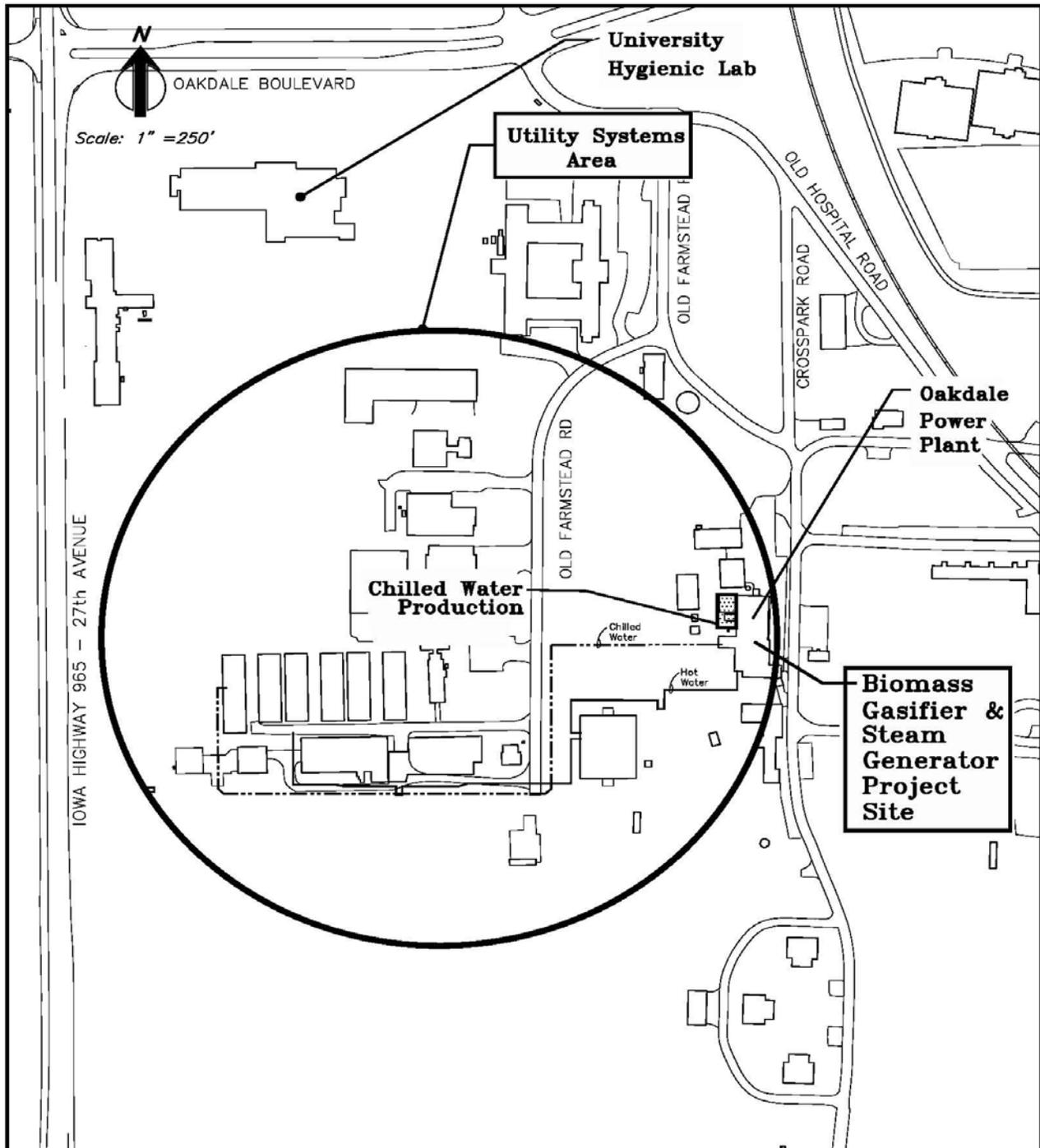
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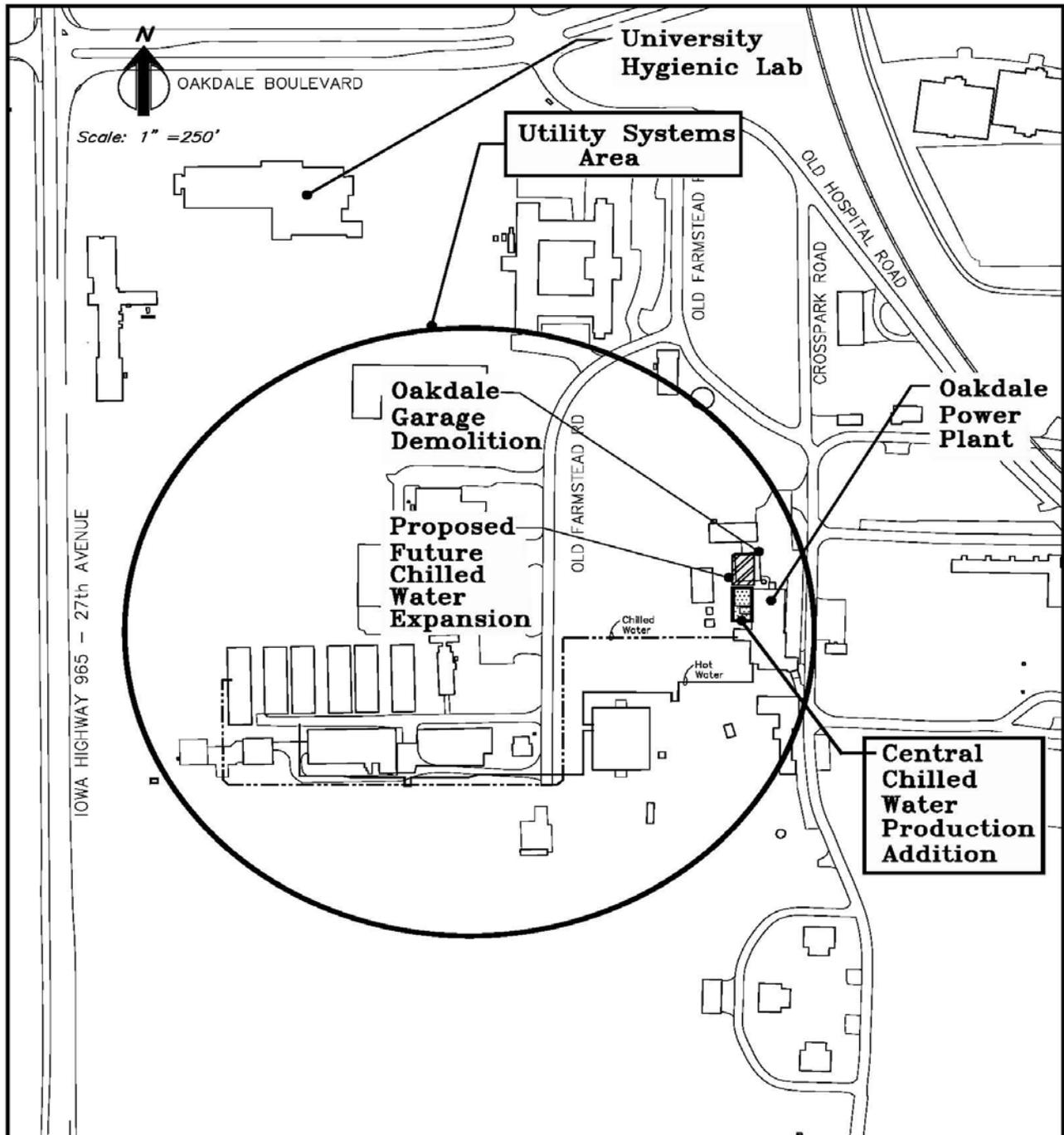
LOCATON MAP

**Art Building West
Flood Mitigation and Permanent Recovery**

Project # 0131601







 **THE UNIVERSITY
OF IOWA**
#0097701
Plotted: Mar. 4, 2010
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Location Map
Oakdale Renewable Energy Plant
Central Chilled Water Production