

All Agency Project Request

2009 - 2011 Biennium

<u>Agency</u>	<u>Institution</u>	<u>Building No.</u>	<u>Building Name</u>
University of Wisconsin	Stevens Point	285-0K-9924	Utility - Site Steam & Condensate
<u>Project No.</u>	09C3W	<u>Project Title</u>	UWSTP Steam/Cond Repl Laterals

Project Intent

This project replaces fifteen (15) sections of underground steam conduits serving various campus facilities, originally installed within steel jackets, cast iron casings, and insulating concrete (Z-Crete). New concrete box conduits will be constructed to enclose the replacement steam and condensate piping sections, reusing the steam piping where possible.

Project Description

Project work includes replacing approximately 1,661 LF of lateral condensate return piping; removing the steel jackets from the high pressure supply steam pipe; and installing new thermal insulation on both supply and return piping. All asbestos containing insulation material will be abated as necessary. Sections of steam piping determined to require replacement after removal of the protective jacket and insulation will also be included. The new supply and return piping will be enclosed in an insulated, waterproof concrete box conduit. Temporary isolation valves or blanks will be installed in each section to allow construction activities to occur without extended steam shutdowns to other buildings served by the distribution system.

The project includes site restoration for all areas disturbed by project work, including turf, irrigation systems, nursery stock trees, pedestrian walkways, driveways, and street closings. The steam and condensate piping between Pit 29 and Steiner Hall will be re-directed around a stand of mature oak and maple trees to minimize root damage. Steam Pit 12 at the southwest corner of the Dreyfus University Center will also be rebuilt.

The following piping segments will be replaced:

- 77 LF Burroughs Hall to Watson Hall
- 94 LF Knutzen Hall to Burroughs Hall
- 189 LF Steam Pit 6 to Smith Hall
- 50 LF Steam Pit 8 to Sims Hall
- 71 LF Steam Pit 9 to Health Enhancement Center
- 41 LF Steam Pit 17 Delzell Hall
- 73 LF Steam Pit 17 to University Center
- 84 LF Steam Pit 18 to Learning Resource Center
- 72 LF Steam Pit 18 to Steam Pit 19
- 116 LF Steam Pit 19 to College of Natural Resources
- 263 LF Steam Pit 24 to Science Building
- 22 LF Steam Pit 24A to Health Enhancement Center
- 186 LF Steam Pit 29 to Steiner Hall
- 141 LF Steam Pit 30 to Hansen Hall
- 182 LF Steam Pit 32 to Thomson Hall

1,661 LF Total

Project Justification

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Following completion of project 07A21 in 2007, all 2.5 miles of primary steam and condensate piping on the campus loop system were excavated, repaired, and placed in concrete box conduits or re-installed with direct buried steel casings. The remaining work included in this project replaces a number of laterals of various length, size, age, and types to individual buildings. The average age of this piping is more than 40 years old, and in most cases, they travel under sidewalks or roads and are subject to the same corrosive elements which caused failures along the entire length of the primary supply loop. Once the outer jacket fails, the piping thermal insulation is ineffective. The roof of Pit 12 at the southwest corner of the Dreyfus University Center is spalled and has exposed reinforcing bar. The water integrity has been breached and the pit has standing water.

A/E Consultant Requirements

A/E Selection Required?

Consultants should have specific expertise and experience in the design and coordination of in the design and coordination of underground concrete box steam conduit installations as part of a design team. Work includes site surveys, acquiring field data, and verifying as-built conditions to assure accurate development of design and bidding documents and production of necessary design and bidding documents. Consultants should indicate specific projects from past experience (including size, cost, and completion date) in their letter of interest and when known, include proposed consulting partners and specialty consultants.

Commissioning

- Level 1
- Level 2

Project Budget

Construction Cost:		\$1,922,000	
Haz Mats:		\$91,000	
Construction Total:		\$2,013,000	
Contingency:	15%	\$302,000	
A/E Design Fees:	8%	\$161,000	
DFD Mgmt Fees:	4%	\$92,600	
Equipment/Other:		\$0	
		\$2,568,600	

Funding Source

	<u>Total</u>
GFSB - Utilities Repair & Renovation [Z080]	\$1,592,500
PRSB - Utilities Repair & Renovation [T570]	\$976,100
Agency/Institution Cash []	\$0
Gifts	\$0
Grants	\$0
Building Trust Funds [BTF]	\$0
Other Funding Source	\$0
	\$2,568,600

Project Schedule

- SBC Approval: 10/2010
- A/E Selection: 11/2010
- Bid Opening: 12/2011
- Construction Start: 04/2012
- Substantial Completion: 11/2012
- Project Close Out: 04/2013

Project Contact

- Contact Name: Paul Hasler, P.E.
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- Telephone No.: (715) 346-4275 x

Project Scope Consideration Checklist

- | | <u>Y</u> | <u>N</u> |
|---|-------------------------------------|-------------------------------------|
| 1. Will the building or area impacted by the project be occupied during construction? If yes, explain how the occupants will be accommodated during construction.

All project work will be coordinated through campus physical plant staff to minimize disruptions to daily operations and activities. | <input checked="" type="checkbox"/> | <input type="checkbox"/> |
| 2. Is the project an extension of another authorized project? If so, provide the project #... | <input type="checkbox"/> | <input checked="" type="checkbox"/> |

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3. Are hazardous materials involved? If yes, what materials are involved and how will they be handled?

Required hazardous materials abatement of asbeston containing materialhas been included in the estimated project schedule and project budget. Comprehensive environmental survey inventory data is not available on Wisconsin's Asbestos & Lead Management System (WALMS) <<http://walms.doa.state.wi.us/>>.

4. Will the project impact the utility systems in the building and cause disruptions? If yes, to what extent?

All project work will be coordinated through campus physical plant staff to minimize disruptions to daily operations and activities.

5. Will the project impact on the utility capacities supplying the building? If yes, to what extent?

6. Will the project impact the heating plant or the primary electrical system supplying the campus or institution? If yes, to what extent?

7. Have you identified the WEPA designation of the project...Type I, Type II, or Type III?
Type III.

8. Is the project affected by historic status?

9. Are there any other issues affecting the cost or status of this project?

10. Will the construction work be limited to a particular season or window of opportunity? If yes, explain the limitations and provide proposed solution.

Project work is seasonal. Preferred project work schedule should be limited to late spring, summer, and/or early fall months if possible. Priority must be given to complete the residence halls and academic facilities during the summer months to limit the impact to instruction and residential occupancy. Other office and service buildings can be more flexible in responding to the impact of construction. Street crossings will be most appropriate to complete during the summer months when traffic is significantly less.