



**REQUEST FOR ARCHITECTURAL  
AND ENGINEERING DESIGN SERVICES**

**Sandburg Residence Hall Renovation  
UW-Milwaukee**

**March 2017**

**DFD Project No. 16L1U**

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## **PROJECT BACKGROUND AND PURPOSE**

The Sandburg Hall facility complex is comprised of four resident room towers, a residence commons, and a parking structure and serves approximately 2,800 students. The 20-floor south tower, 16-floor west tower, and commons were opened in 1970. The 28-floor north tower was opened in 1971 and the 19-floor east tower was opened in 2001. The original three towers provide suite style accommodations with single and double bedrooms. The newest tower provides apartment style accommodations. The commons includes food service and dining facilities, a convenience store, a cinema, and administrative and support spaces for the University Housing operation.

The Sandburg Hall complex is located on Maryland Avenue, north of Hartford Avenue. It opened in 1970 with two towers, West (16 floors) South (20 floors) and Green Commons. The North tower (28 floors) opened in 1971. These three towers provide suite style rooms. The Commons includes food service, convenience store, cinema, administrative and support spaces. The East tower (19 floors) opened in 2001 providing apartment style rooms.

Most building system components in the original Sandburg Hall have reached the end of their useful lives. More than three quarters of the building infrastructure is more than 45 years old. The frequency of slow leaks and bursting pipes have become too numerous to repair within operational budget limitations and require complete system replacement. A single leak can require the shutdown of an entire tower quadrant, impacting up to 280 students in 56 suites.

The building's HVAC, fire sprinkler protection, fire alarm, data and electrical systems lack capacity and reliability. Sandburg Hall cooling, heating and compressed air requirements are met with campus chilled water, steam and compressed air services via underground distribution piping from the central plant.

The North, South and West Towers have comparable HVAC systems. One (1) ground or lower level heating and ventilating make-up air handling unit (AHU) at the base of each tower delivers tempered outside air to elevator lobbies (or floor commons area). Individual resident rooms have perimeter finned tube hot water heat. Restrooms in each tower quadrant have roof top exhaust fans with connecting duct risers.

In addition, the parking structure is heated with hot water unit heaters with smaller miscellaneous, heating, cooling, ventilation, and exhaust systems serving utility spaces in the commons areas and in each tower.

The 2 levels of shared spaces designated "commons" (above 2 levels of parking) and the dining, food service, conference and office spaces are served by various heating/ventilating/cooling/reheat air handler units and exhaust fans located in the roof-top mechanical penthouse and on the roof atop the commons area. The commons area has hot water perimeter finned tube heating below windows. In addition, a heating/cooling AHU was later installed in the lower level of the east tower and ducted over to the first floor commons area to supplement heating and cooling requirements.

The failing domestic water and sanitary sewer piping infrastructure has required extensive and emergency maintenance and repairs starting in 2010, primarily in the north and south towers. While these problems were immediately addressed and the facility condition stabilized, the leaks damaged other parts of the building. The continued deterioration and failure of these critical building systems adversely impacts student housing retention and campus enrollment. This proposed scope of work is based on the University Housing strategic plan and pre-design work already completed.

Reliable elevators are essential building services in a high-rise facility, such as Sandburg Hall. The elevator banks in the original facilities have become unreliable, difficult to maintain due to discontinued parts, and no longer meet ADA accessibility, nor modern life and safety requirements. The mechanical parts are worn and loose fitting, the bearings and sheaves have significantly deteriorated, and overall performance has been below design standards. These elevators have lasted almost twice as long as their designed useful service and are due for equipment reconditioning and/or replacement. The elevators did receive safety improvements to the traction braking systems in 2008. The east tower elevator is only 16 years old, and is not included in this project.

## **PROJECT DESCRIPTION**

This project will require extensive programming, including comprehensive building code and facilities condition assessments on the entire facility complex, including exterior, and development of a project plan to renovate and repair Sandburg Hall. Design alternatives, phasing options, and plan implementation scenarios with resulting budget estimates and schedules will be analyzed for the proposed scope of work included in this request, as well as anticipated future renovations and repairs. The phasing options will be developed to plan renovations during the summer as much as is feasible to allow the facility to remain operational. It is understood that the complete scope of renovation work identified in the project plan may not be fully completed under this proposed enumeration request.

This project renovates and repairs the north, south, and west resident room towers (267,525 ASF/429,449 GSF and serving 2,166 students) of Sandburg Hall to replace deteriorated domestic water and sanitary sewer piping infrastructure; renovate and replace elevator equipment and controls; and renovate and/or replace the HVAC systems, electrical infrastructure and distribution, and fire alarm and smoke detection systems to resolve maintenance deficiencies and meet current life and safety codes. Resident rooms, restrooms, showers, and common spaces will be renovated to meet current ADA accessibility standards and replace architectural finishes and furnishings to facilitate the infrastructure repair work. It is anticipated that multiple phases may be required to complete this proposed scope of work and address the most urgent needs.

There is currently a feasibility study in progress (DFD #16A2T) for the proposed renovation of the kitchen, dining, and commons areas in the Sandburg Commons. This potential scope of work will not be included in, or become part of the overall Sandburg master plan. A separate project for dining and food service will be brought forward for enumeration in a future biennium.

The UWSA Board of Regents approved this project as an addition to the 2017-19 Biennium Enumeration Request and the UWSA submitted the Request to the Wisconsin Department of Administration for inclusion in the UWSA Biennial Budget Submission.

### **SCOPE OF SERVICES**

The A/E will provide pre-design through construction administration services as indicated in the DFD "Policy and Procedure Manual for Architects/Engineers and Consultants", the "Guide for Developing Program Statements for Projects Requiring Enumeration", and the DFD "Contract for Professional Services as directed by DFD at the Design Kickoff meeting. The services may be contracted for in multiple contracts or contracts with multiple parts with project-specific review/ approval/ authorization points in the contract as determined by the needs of the project. Authorization for subsequent services will be issued in writing upon satisfactory performance and completion of contracted services and deliverables.

Additionally, the A/E shall provide the following services and deliverables:

Pre-Design Services: In addition to the requirements for pre-design the following addition and clarifications should be noted:

- Perform a facility condition assessment (FCA) and evaluation of previous project work on the building exterior and interior, existing conditions and exterior envelope, and building and campus utility systems capacities to plan for renovations.
- Prepare a comprehensive building code assessment and recommendations on the entire facility complex.
- Perform Project Planning. Evaluate and prepare for DFD and campus consideration options and scenarios for determining project priorities and project delivery, including scheduling and phasing and estimated cost, inflation, and loss of revenue implications. The highest priority will be to address the most pressing needs for plumbing and ADA compliance. Subsequent priorities will be scoped as part of the project planning.
- Prepare a Project Plan with a Program Statement per the DFD *Policy and Procedure Manual for Architects/Engineers and Consultants* incorporating the Facilities Condition Assessment, code assessment, and project delivery scenarios/options described above.
- Prepare documents for, participate in, and assist campus staff in public review meetings. The A/E team will also prepare documents necessary for Board of Regents and State Building Commission approvals.

Preliminary and Final Design Services: In addition to the requirements for preliminary design through construction in the DFD *Policy and Procedure Manual for Architects/Engineers and Consultants*, the following additions and clarifications should be noted:

- The A/E will work with the DFD and the appropriate campus staff to review the Program Statement, Preliminary Design, and Final Design documents. The A/E team will attend a

design review meeting at each of the Preliminary Design and Final Design review stages. The reviewers will provide written comments to the DFD Project Manager based on the documents, and discuss the comments with the A/E and their sub consultants. Written responses are required to be provided by the A/E to the DFD Project Manager. The A/E will provide the campus with eight (8) complete review sets in addition to the review sets required for DFD during the Preliminary Review and Final Reviews.

Note that per the *DFD Policy and Procedure Manual for Architects/Engineers and Consultants*, the following services will not be included in the scope of services:

- Hazardous material abatement design will be provided by a consultant under separate contract with DFD based on the A/E's demolition plans. Abatement documents will be incorporated into the bid set.

Deliverables: In addition to the requirements in the *DFD Policy and Procedure Manual for Architects/Engineers and Consultants*, deliverables shall include:

- Six (6) bound color copies of the Program Plan, bound together or separately, letter size. (Diagrams may be 11" x 17", folded to fit in the bound report).
- Electronic copies, in PDF format, either downloadable or two (2) CD copies. All diagrams shall be capable of full graphic clarity in either color or black and white.
- In addition, for the Board of Regents, provide PDF formatted site plans, interior floor plans and possible interior images.
- At the end of construction, the A/E will provide the campus with two (2) electronic and two (2) hard-copies each of O&M manuals and record drawings/specifications in AutoCAD/MS Word/PDF format, including the work of all sub-consultants, furnishings, signage, etc. Any renderings or models generated by the AE will also be turned over to the campus.

**PROJECT BUDGET**

**Project Budget Summary**

Construction Cost:	\$27,170,000
A/E Design Fees:	\$2,261,000
Other Fees:	\$272,000
DFD Management Fees:	\$1,191,000
Contingency:	\$2,606,000
Movable/Special Equip.:	\$0
Total Budget	\$33,500,000.00

**PROJECT SCHEDULE**

**Project Schedule (Per Enumeration)**

A/E Selection:	May 2017
Design Report:	Jan 2018
Bid Date:	Jul 2020
Start Construction:	Sep 2020
Substantial Completion:	Jul 2022

**PROJECT CONDITIONS & ISSUES**

Architectural Conditions and Issues

ADA updates are required due to the age of the building. Elevator updates are needed for obsolescence and ADA requirements. Kitchenettes are inadequate and in need of updating

Plumbing, Mechanical, Electrical, Telecommunications Conditions and Issues

Frequent bursting pipes and slow leaks have become too numerous to repair, requiring replacement. The most urgent needs are bathrooms, and kitchenettes. HVAC, fire sprinkler protection, fire alarm, data and electrical systems lack capacity and reliability.

Hazardous Materials Conditions and Issues

Wisconsin Asbestos and Lead Management System (WALMS) inspections of the commons, south, west and north towers were completed in 2001. Asbestos containing materials (ACM's), including pipe fittings and floor tile and mastic will be abated as part of the overall project scope using the AE's demolition plans, but under a separate abatement contract by DFD.

### WEPA Compliance Conditions

In accordance with the Wisconsin Environmental Policy Act (WEPA), this project will require a Type III WEPA action that will be completed by UWM.

### Additional Documents

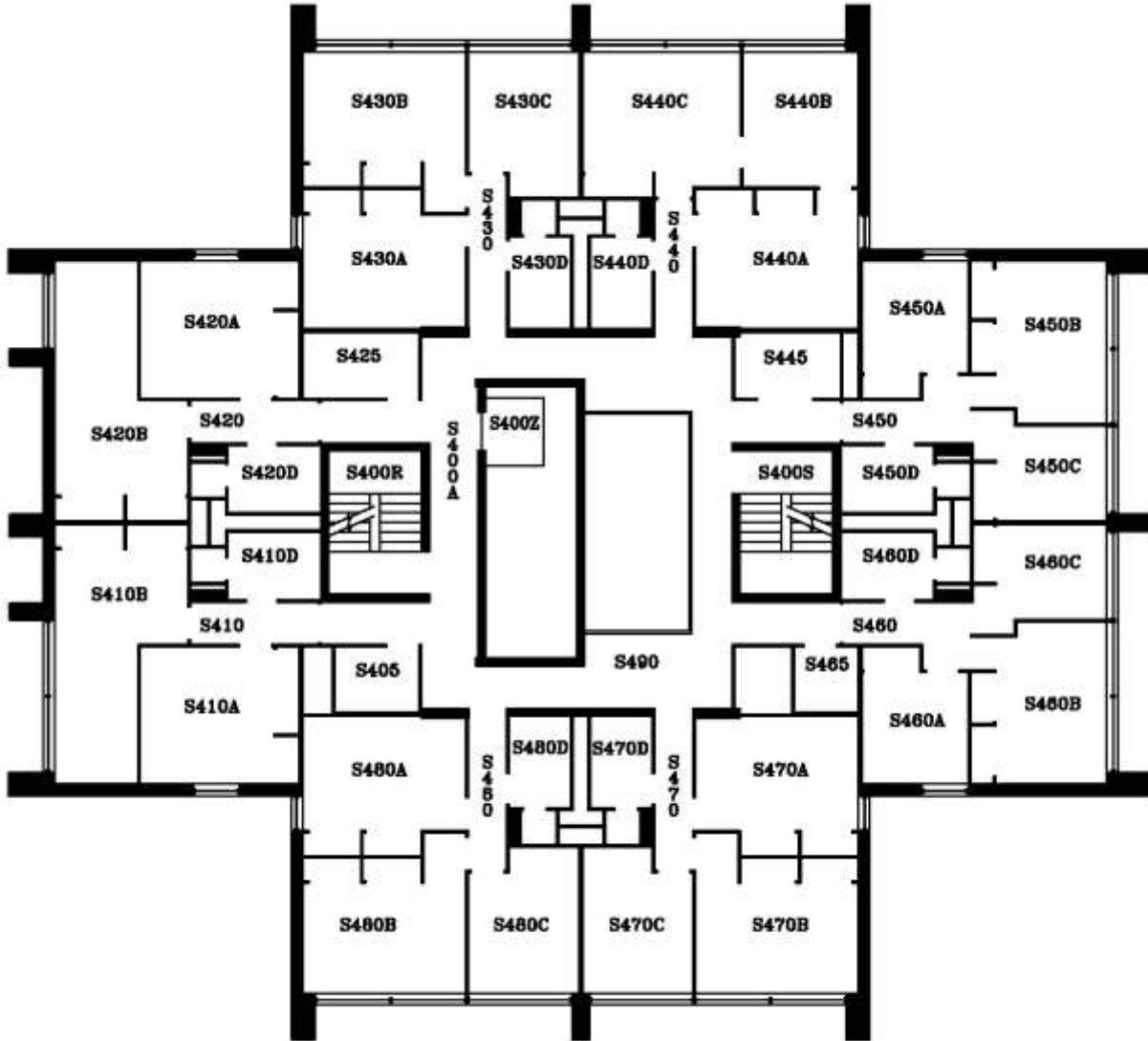
The following information will be made available to the selected consultant team:

- Existing campus site plan in AutoCAD including utilities and surface features.
- Block floor plans in AutoCAD
- Construction documents for existing buildings





Typical Tower Floor Plan

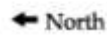


UNIVERSITY OF WISCONSIN - MILWAUKEE  
Campus Planning

SANDBURG HALL SOUTH

Level 4

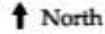
Revised: 09/17/1993



SANDBURG HALL COMMONS

Level 1

Revised: 06/13/2008



NORTH  
TOWER



WEST  
TOWER

