## REQUEST FOR COMMISSIONING SERVICES

Project Name: Lakeshore Residence Hall Phase 2
Project Location: UW Madison
DSF Project No. 10G3D
November 2010

FOR THE STATE OF WISCONSIN
DEPARTMENT OF ADMINISTRATION, DIVISION OF STATE FACILITIES
STATE ADMINISTRATION BUILDING, 101 EAST WILSON STREET,
MADISON, WISCONSIN 53707

#### PROJECT INFORMATION

The project generally consists of

Residence Hall: Design and construct the second phase of the Lakeshore Residence Hall and Food Service Development project. The scope includes a new residence hall that consists of approximately 155 beds totaling approximately 52,800 GSF and the renovation of approximately 4,100 GSF of Holt Commons. The project will be built on lot 32, directly east of Holt Commons and south of Showerman House. Initial massing studies were done to study the site and determine the approximate footprint for the new hall. Depending on the design, the building will be four or five stories in height (which includes a basement level). In addition to the resident rooms, the new hall will include a two bedroom apartment for the Residence Life staff, a classroom, a main building lounge (with a capacity of 155), a recreation room, a laundry room, a music room, a study den on each floor, and a social lounge on each floor (with an attached kitchenette), four staff offices, and a staff conference room. Each floor will contain one House fellow room which is a single room with bathroom. (See the Space Program in this document for a complete list of rooms.) The building will be fully accessible and contain two elevators that will serve all levels. It is desirable to have a connection at the basement and first levels between the new building and Holt Commons. This new building should reflect the architectural character of the surrounding buildings.

Holt Commons: The second component of this project will be to renovate approximately 4,100 GSF of Holt Commons. The majority of the renovation will happen on the second floor. Modifications to Holt Commons include:

- 1. Removing the wall between the servery and the dining area.
- 2. Removal of the ceiling and flooring on the second floor Dining Room and replacing them with new.
- 3. Provide a new air handling unit for the second floor of the building. The AHU will contain A/C and will be connected to the new campus chilled water line. The controls for this AHU should be interconnected to the controls of the existing AHU for the first floor.
- 4. Remove the chiller for the first floor AHU. Connect this AHU to the campus chilled water line.
- 5. The existing kitchen will remain as is. A new wall with a door will be constructed along the south edge of the kitchen (room 203) to close it off from the old Dining Room.
- 6. The east entrance to Holt is not currently accessible. This project will design and construct a new entry on the east elevation which is accessible and creates a 'front door' for students entering from the east. It would be very desirable for the entry to the new residence hall and the entry for Holt to be combined into one new entry. This combined entry could contain elevators which could provide access to the resident floors as well as to the basement level of Holt.
- 7. The canopy over the west entry will also be removed. A new west entry will be designed and constructed to create a 'front door' entrance for students entering from the west.
- 8. The coffee shop on the first floor will remain
- 9. The seating area on the first floor will remain (including the ceiling and flooring).
- 10. Removal of the eastern part of the loading dock (up to the stone face of the original building). The A/E will need to develop a new way to screen trash dumpsters and a generator that will be located in the area.

The owner's project requirements are described in REQUEST FOR ARCHITECTURAL & ENGINEERING PROGRAMMING AND DESIGN SERVICES, August 2010.

The construction estimate is \$ 10,489,000 with total project budget of \$ 13,023,000.

# **Proposed Schedule**

Start of Design: December 2010
Start of Construction February 2012
Substantial Completion May 2013

### **Project Design Team**

Design team includes prime A/E Eppstein Uhen Architects, Madison, WI and primary sub consultants DAAR (Milwaukee) for civil, KJWW for mechanical and electrical, Graef (Madison) for structural, and Henneman (Madison) for plumbing and fire protections.

#### **Contacts:**

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## **COMMISSIONING SERVICES**

Commissioning services will be in accordance with DSF Level 2 commissioning as described in the DSF <u>A/E and Consultant Policy and Procedure Manual Section Two</u>. The intent is to verify that building systems and equipment are installed and perform according to the owner's project requirements, basis of design, and construction documents.

The commissioning services provider (CxP) will be independent of the design team and will report directly to DSF. DSF expects commissioning services to commence at the start of design phase.

Scope of commissioning activities and commissioned systems will be as indicated in the two attached tables.

#### **Deliverables**

Deliver all required submittals in electronic form, either in source or PDF form, in formats compatible with DSF's computer equipment and software. In addition, provide two hard copies.

## LETTER OF INTEREST

# Proposed commissioning team

Identify who will be providing commissioning services and any sub consultants.

## **Qualifications**

Provide documentation of expertise, qualifications and descriptions of relevant past projects for the consulting firm and for the individual(s) who will be performing the services.

# COMMISSIONING ACTIVITIES / SERVICES

The following activities correspond to DSF's Commissioning policy and procedures that can be found in Section Two of the <u>A/E and Consultant Policy and Procedure Manual</u>. Reference the manual for a more detailed description of the required services.

	Commissioning Requirement	Cx Policy Reference	Table 2.1 & 2.2 Ref.			
Design Phase						
	Review Basis of Design/Design Concept to evaluate if construction documents meets Owner's Project Requirements and DSF guidelines.	2.E.2.a	4.			
	Provide input to A/E for inclusion of verification check lists and functional performance test forms into the construction specifications.	2.E.2.b	5.			
	Review Preliminary Design documents to evaluate and comment on the design meeting the Owner's Project Requirements and project goals.	2.E.2.b	5.			
	Review Final Design documents to ensure incorporation of preliminary review comments for all disciplines, elimination of construction ambiguities and format of verification check lists and functional performance test forms.	2.E.2.b	5.			
$\boxtimes$	Review Bid documents for inclusion of DSF & CxP comments for all disciplines.	2.E.2.b	5.			
	Develop a Commissioning Plan including commissioning team, procedures, system tests, test sampling, milestones and responsibilities.	2.E.2.c	8.			
Construction Phase						
	Attend Construction Progress Meetings and provide Commissioning Plan overview at the Pre-construction Meeting.	2.E.3.a	10.			
	Review Contractor's Quality Control Plan for incorporation into the Commissioning plan.	2.E.3.a	9.			
	Conduct regularly scheduled Commissioning Meetings and provide updated commissioning plan tracking status and responsibilities	2.E.3.d	9.			
	For all construction disciplines, systems, equipment, components and materials maintain an Issues tracking and resolution list including commissioning, test and balance issues, deficiencies, non-conformance items and responsibilities.					
	Perform field checks of the contractor completed Construction Verification check lists. If more than 10% deficiencies and recheck is required it is the contractor's responsibility for the CxP's time and material	2.E.3.f	12.			
	Establish sampling protocol for Functional Performance Testing and witness and document Functional Performance Testing and report deficiencies on the issues list.	2.E.3.g	13.			
	Review Construction Verification, Functional Performance Testing and HVAC testing and balancing and report deficiencies on the issues list including tracking responsibilities and resolution.	2.E.3.h	14.			
	Review Operations and Maintenance Manuals for inclusion of the Cx comments into the A/E's review.	2.E.3.i	16.			
	Attend agency training sessions, collect attendee training and evaluate and review for adequate training.	2.E.3.k	19.			
Post Construction Phase						
	Develop and distribute commissioning report with draft submitted upon substantial completion.	2.E.4.a	21.			
	Within 10 months of substantial completion coordinate and facilitate a substantial completion review meeting and document findings to complete the final commissioning report.	2.E.4.b	22.			
$\boxtimes$	Witness the Seasonal Functional Performance Testing and document the results	2.E.4.c	23.			
Optional Commissioning Activities/Services						
$\boxtimes$	Complete an Energy Modeling Review	2.E.4.d	24.			
	Complete a M&V One-Year Report	2.E.4.d	24.			

# **COMMISSIONED SYSTEMS**

The following systems will be commissioned:

	General Construction Concrete Masonry Waterproofing Roofing Doors and Windows Division 11 Equipment Elevators	Electrical Lighting and Daylighting Controls Conductors, Conduit, Raceway and Cable Tray Grounding and Bonding Substations Transformers Switchgear, Switches and Circuit Breakers Motor Control Centers and Motor Starters Panelboards Lighting and Lighting Contactors
	Site Utilities Water Distribution Systems Sanitary Sewer and Storm Drainage Systems Steam and Condensate Systems Chilled Water Systems Compressed Air Systems Electrical Power Distribution Systems	Communications Systems Fire Alarm Systems Generators and Transfer Switches Transient Voltage Suppression Access Control Systems
	Communications Systems Fuel Storage and Distribution Systems	Renewable Energy Systems domestic solar hot water system  Fire Protection
$\boxtimes$	HVAC Temp. Control and Building Automation Systems Testing and Balancing	Sprinkler and Standpipe Systems Fire Pumps and Controls
	Variable Frequency Drives Piping Systems, Valves and Specialties Ductwork, Dampers and Casing Systems Pumps Coils and Heat Exchangers Fans and Air Handlers Compressors and Condensing Units Chillers and Cooling Towers Dry Coolers and Heat Rejection Equipment Boilers and Fuel Fired Equipment Boiler Feedwater and Blowdown Systems Terminal Units Fan Coils, Unit Ventilators, Unit Heaters Heat Recovery Systems Humidifiers Laboratory Systems Smoke Control Systems	Plumbing Domestic Water Systems Domestic Hot Water Systems Plumbing Equipment Plumbing Fixtures Lab and Healthcare Gas and Vacuum Systems Laboratory and Healthcare Pure Water Systems Fuel Piping Systems

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