

# REQUEST FOR COMMISSIONING SERVICES

## Witte Renovation University of Wisconsin – Madison Campus DFD Project No. 14E20

FOR THE STATE OF WISCONSIN  
DEPARTMENT OF ADMINISTRATION, DIVISION OF FACILITIES DEVELOPMENT  
STATE ADMINISTRATION BUILDING, 101 EAST WILSON STREET,  
MADISON, WISCONSIN 53703

### PROJECT INFORMATION

The project generally consists of renovation of Witte residence hall, located at 615 West Johnson Street. Witte Hall was opened in 1964 and is 147,794 ASF/ 230,799 GSF and houses approximately 1,150 primarily first year students and is composed of two towers, of nine resident floors each. Each floor has two wings with double rooms arranged along both sides of the central corridors with share bathrooms in the center core. The project will also construct a connecting link, with new restrooms and elevator core, and 11<sup>th</sup> floor additions.

The owner's project requirements are described in a Pre-Design Report, dated 8/4/2015.

The construction estimate is **\$39,798,800** with total project budget of **\$47,000,000**.

### Proposed Schedule

Start of Design:	January/2016
Start of Construction	March/2017
Substantial Completion	November/2019

### Project Design Team

Design team includes prime A/E Uihlein/ Wilson Architects, Milwaukee and primary subconsultants: Structural Engineering – OTIE, Madison; Site/Civil-Landscape – SmithGroup JJR, Madison; Mechanical, Plumbing and Fire Protection – KJWW Engineering, Middleton.

**Agency Contact:** Stu LaRose, 608-263-3004. [slarose@fpm.wisc.edu](mailto:slarose@fpm.wisc.edu)

### COMMISSIONING SERVICES

Commissioning services will be in accordance with DFD [Policy and Procedure Manual for A/E and Consultants](#), Section Two - Commissioning. The intent is to verify that systems and equipment are installed and performs according to the owner's project requirements, basis of design, and construction documents and that the building operator has received equipment and systems documentation and training.

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

Scope of commissioning activities and commissioned systems are indicated on the two attached tables.

### Deliverables

Distribute the Commissioning Report as one hard copy and one electronic copy in PDF format to DFD, the Agency and A/E.

### LETTER OF INTEREST

**Proposed commissioning team:** Identify who will be providing commissioning services, their roles 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 DFD's Commissioning policy and procedures that can be found in Section Two of the [Policy and Procedure Manual for A/E and Consultants](#). Reference the manual for a more detailed description of the required services.

Commissioning Requirement		Cx Policy Reference	Table 2.1 & 2.2 Ref.
<b>Design Phase</b>			
<input type="checkbox"/>	Review Basis of Design/Design Concept to evaluate if construction documents meet Owner's Project Requirements and DFD guidelines.	2.E.2.a	4.
<input type="checkbox"/>	Provide input to A/E for inclusion in the Construction Verification Checklists and Functional Performance Test forms into the project manual.	2.E.2.b	5.
<input type="checkbox"/>	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.
<input checked="" type="checkbox"/>	Review Final Design documents to ensure incorporation of preliminary review comments, elimination of construction ambiguities and completeness of the Construction Verification Checklists and Functional Performance Test forms.	2.E.2.b	5.
<input checked="" type="checkbox"/>	Review Bid documents for inclusion of DFD & CxP comments.	2.E.2.b	5.
<input checked="" type="checkbox"/>	Develop a Commissioning Plan identifying the commissioning team, procedures, system tests, test sampling, milestones and responsibilities.	2.E.2.c	8.
<b>Construction Phase</b>			
<input checked="" type="checkbox"/>	Attend and participate in the Construction Progress Meetings and lead the commissioning team of contractors and consultants. Provide Commissioning Plan overview at the Pre-construction Conference.	2.E.3.a/c	10.
<input type="checkbox"/>	Review Contractor's Quality Control Plan, comment to DFD and incorporate into the Commissioning Plan.	2.E.3.a	9.
<input type="checkbox"/>	Conduct regularly scheduled Commissioning Meetings and regularly update the Commissioning Plan tracking status and responsibilities.	2.E.3.d	9.
<input checked="" type="checkbox"/>	Enter construction, functional performance, design discrepancies, etc. into the WisBuild Issues List. Track the issues to help move the issue to correction. When Contractor, A/E or DFD indicates an issue is corrected, verify and close the issue within WisBuild.	2.E.3.e	11.
<input checked="" type="checkbox"/>	Perform field checks of the Contractor completed Construction Verification Checklists. Enter non-conformance items into the Issues List. If there is more than a 10% deficiency, Contractor to correct and CxP to recheck.	2.E.3.f	12.
<input checked="" type="checkbox"/>	Establish sampling protocol for Functional Performance Testing. Witness, record and document the testing and report any deficiencies on the Issues List.	2.E.3.g	13.
<input checked="" type="checkbox"/>	Review HVAC testing, adjusting and balancing report, field verify with contractor, report deficiencies on the Issues List, track issues to resolution, verify corrections and close the Issues.	2.E.3.h	14.
<input type="checkbox"/>	Review Operations and Maintenance Manuals and provide comments to the A/E so they can include with the A/E's review comments.	2.E.3.i	16.
<input type="checkbox"/>	Attend Agency training sessions, provide and collect attendee evaluation forms and evaluate training to ensure Agency training is adequate.	2.E.3.k	19.
<input checked="" type="checkbox"/>	Complete draft Commissioning Report and distribute to DFD, A/E, Contractors and Agency Contact.	2.E.4.a	19.
<b>Post Construction Phase</b>			
<input checked="" type="checkbox"/>	Witness the Seasonal Functional Performance Testing, document the results and enter deficiencies into the Issues List and provide follow-up through closure.	2.E.4.c	23.
<input type="checkbox"/>	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.d	22.
<input checked="" type="checkbox"/>	Complete final Commissioning Report and distribute to DFD, A/E and Agency Contact.	2.E.4.c	21.
<b>Optional Commissioning Activities/Services</b>			
<input type="checkbox"/>	Complete an Energy Modeling Review	2.E.4.d	24.
<input type="checkbox"/>	Complete a M&V One-Year Report	2.E.4.d	24.
<input type="checkbox"/>	Complete Systems Manual	2.E.3.j	17.
<input type="checkbox"/>			

**COMMISSIONED SYSTEMS** - The following systems will be commissioned:

**Divisions 3 thru 14 - General Construction**

- Concrete
- Masonry
- Waterproofing
- Thermal Protection
- Building Envelope Sealing and Infiltration
- Roofing
- Doors and Windows
- Division 11 Equipment
- Division 13 Equipment
- Elevators
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**Division 21 - Fire Suppression**

- Sprinkler and Standpipe Systems
- Fire Pumps and Controls
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**Division 22 - 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
- Solar Thermal Systems
- Food Service Equipment
- Swimming Pool Equipment
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**Division 23 – HVAC\***

- Temp. Control and Building Automation Systems\*
- Testing and Balancing
- Variable Frequency Drives
- Piping Systems, Valves and Specialties
- Pumps
- Ductwork, Duct Accessories and Casing Systems
- Air Inlets and Outlets
- Filtration
- Coils and Heat Exchangers
- Fans and Air Handlers
- Compressors and Condensing Units
- Chillers and Cooling Towers
- Computer Room Air Conditioning Equipment
- Heat Pumps
- Dry Coolers and Heat Rejection Equipment

- Boilers and Fuel Fired Equipment
- Boiler Feedwater and Blowdown Systems
- Terminal Units
- Fan Coils, Unit Ventilators, Unit Heaters
- Energy Recovery Systems
- Humidifiers
- Smoke Control Systems
- Stairwell Pressurization Systems
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**Division 26 – Electrical**

- Lighting and Daylighting Controls\*
- Lighting Fixtures and Contactors
- Exterior Site Lighting and Controls
- Conductors, Conduit, Raceway and Cable Tray
- Grounding and Bonding
- Switchboards and Panelboards
- Motor Starters and Motor Control Centers
- Disconnect Switches and Circuit Breakers
- Wiring Devices, Switches, Receptacles, Etc.
- Generators and Transfer Switches
- Metering
- Surge Protective Devices
- Transformers
- Unit Substations
- Medium Voltage Switchgear
- Medium Voltage Cable
- Fire Alarm Systems
- Communication Cabling, Outlets and Equipment
- Audio/Visual Systems
- Access Control Systems
- Video Surveillance Systems
- Nurse Call Systems
- Solar Photovoltaic Systems
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**Divisions 32 & 33 – Exterior Improvements & Utilities**

- Soil Preparation, Seeding and Plantings
- Bioretention and Bioinfiltration Systems
- Correctional Fencing
- Water Distribution Systems
- Sanitary Sewer and Storm Drainage Systems
- Steam and Condensate Systems
- Chilled Water and Hot Water Systems
- Fuel Storage and Distribution Systems
- Geothermal Well Systems
- Renewable Energy Systems\*
- Underground Storm Water Retention

Systems followed by an asterisk (\*) are required to be commissioned in LEED® projects.