

REQUEST FOR COMMISSIONING SERVICES

Gymnasium/Natatorium Replacement UW Madison DFDM Project No. 18H3E

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

PROJECT INFORMATION

Background:

The original facility was constructed in an era and for a purpose vastly different than current physical activity demands. The building was designed to host men-only physical education classes and activity. It was expanded with single-use activity rooms, long windowless corridors between activity spaces, and men's restrooms. The Gymnasium/Natatorium boasts annual participation from 1.5 million campus users and 100,000 users from the hosted special events. It provides facilities for robust fitness and wellness programs and a multitude of sports, swimming, and group-based activities options. The 2007 Recreational Sports Master Plan was updated in 2013. A campus referendum was approved in March 2014 that included a \$223 million plan to reconstruct the Southeast Recreational Facility and the Gymnasium/Natatorium and to renovate the Near East and West Playfields. A feasibility study was completed in 2017 to validate the programmatic needs for the replacement facility, and this proposed scope of work and budget estimate is based upon that effort.

Project Description:

This project razes the original Gymnasium/Natatorium, prepares the site, and constructs a new replacement facility with an adaptive fitness laboratory for the Kinesiology program, basketball courts, ice sheet with spectator seating, indoor track, multi-purpose activity spaces, racquetball courts, expanded fitness for cardio and strength training, and a wellness center for Recreational Sports. These amenities are prevalent at peer institutions. Although the modest net square footage increase will still not meet the National Intramural and Recreational Sports Association (NIRSA) standards for square footage per student, it will allow the Recreational Sports program to grow and provide increased accessibility, visibility, and utilization by students. As the university seeks to increase enrollment, additional facilities will be required to accommodate that growth and the critical space needs have been identified and included in this request. The following summary is the construction cost portion for the proposed scope of work.

Demolition	249,579 GSF
Renovation	0 GSF
New Construction	262,108 GSF

The new facility will be designed to promote a connection to the exterior campus, with natural light permeating deep into the interior to allow a natural interaction between the activities taking place both inside and outside the building. The proposed additional square footage is anticipated to produce a significant increase to space utilization by maximizing the connections between and among various activities. Some of these connections will be blended into each other, thus removing the circulation component. New and enhanced activity spaces and opportunities are anticipated to generate revenue for the Recreational Sports programs from club sports, faculty, staff, community, and external entities that use the facility, for example the Wisconsin Interscholastic Athletic Association (WIAA).

Completion of this project will also allow Intercollegiate Athletics, as per their master plan, to repurpose and fully occupy the Camp Randall Sports Center, space that is currently shared with Recreational Sports. A new ice

arena, with a singular new sheet of ice, will be located in the proposed new Gymnasium/Natatorium and effectively relocating the sheet of ice currently located in the Sports Center. The campus has secured a gift donation to be dedicated specifically to the creation of a new ice arena.

Project Cost:

The current total construction cost estimate is \$72,580,000. With total project budget of \$95,025,000 (in today’s dollars).

The owner’s project requirements are described in the RDG Associates Feasibility Study (no date):
<https://cpd.fpm.wisc.edu/planning/natatorium-study-pre-design/>

Proposed Schedule

AE Selection	Apr 2019
Design Report	Dec 2019
SBC Approval	Feb 2020
Bid Date	Dec 2020
Start Project	Feb 2021
Substantial Comp	Dec 2022

Project Design Team

Design team includes prime A/E Kahler Slater + HOK (Milwaukee/Kansas City)and primary subconsultants .

Agency Contact: Bo Muwahid, 608-265-0465, bo.muwahid@wisc.edu

COMMISSIONING SERVICES

Commissioning services will be in accordance with DFDM [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 DFDM. DFDM expects commissioning services to commence at the Preliminary Design 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 DFDM, 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 DFDM’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.

ENVELOPE COMMISSIONING SERVICES:

DESIGN PHASE

1. Lead a Cx kick-off meeting to review overall project expectations, building enclosure performance expectations, confirm scope of Work.
2. Review Opinion of Probable Cost, Preliminary & Final Design Documents to confirm and validate building enclosure design and function, provide comments and recommendations.
3. Review Opinion of Probable Cost, Preliminary & Final Design Documents regarding the design’s ability to meet the performance goals set at the kick-off meeting.
4. Develop a Commissioning plan.
5. Provide Construction Verification Checklists and Functional Performance Test Forms relative to the building envelope to be incorporated into the Specifications.
6. Participate in Cx meetings and conference calls with the Project Team. (quantity TBD)

CONSTRUCTION PHASE

1. Participate in Cx meetings and conference calls with the Project Team. (quantity TBD)
2. Participate in review and comment on building envelope shop drawings and submittals, including verification of material assembly and compatibility. This review will be in conjunction with the review by the AE of Record.
3. Participate in building envelope Pre-Installation Meeting(s). The purpose will be to meet with the General Prime Contractor and all building envelope trade contractors to confirm overall project performance expectations, review specific details, and review façade mock-up.
4. Perform periodic site visits to review work in progress and completed work to note compliance with the contract documents and deficiencies (work not in compliance with the contract documents). A report shall follow no later than 5 days from each visit. During the site visit CVCs and FPT forms will be reviewed.
5. Witness building envelope FPT and provide documentation.

POST CONSTRUCTION PHASE

1. Prepare building envelope final commissioning report including: Executive Summary of project, meeting minutes from commissioning meetings, CVCs and FPTs, issues list and outcome, lessons learned.
2. Conduct a 10-month site visit (during the 12 month warranty period) with Agency staff and prepare formal report of findings and requirements for remedial repairs (if any).

Update building enclosure commissioning final report as needed.

Commissioning Requirement		Cx Policy Reference	Table 2.1 & 2.2 Ref.
Design Phase			
<input checked="" type="checkbox"/>	Review Basis of Design/Design Concept to evaluate if construction documents meet Owner’s Project Requirements and DFDM guidelines.	2.E.2.a	4.
<input checked="" 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 checked="" 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 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.
Construction Phase			
<input 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 checked="" 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.
Post Construction Phase			
<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 checked="" 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.
Optional Commissioning Activities/Services			
<input type="checkbox"/>	Complete an Energy Modeling Review	2.E.4.d	24.
<input checked="" 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
- Ice Rink System
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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
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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
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Systems followed by an asterisk (*) are required to be commissioned in LEED® projects.