

**DGS-30-456**

(Rev. 10/18)

## Construction Management at Risk Procurement Review Submittal Form

**General Project Information**

Agency Name:	The University of Virginia	
Is the agency a covered institution per §2.2-4379?	Yes	
Project Name:	Athletics Complex Phase 3	
Project Number:	P06619	

**Other Project Information**

Advising A/E Name:	Timothy Williams	License Number:	O401017629
COV Sections: §2.2-4380.B.2, §2.2-4381.C.2			
Attach written determination for use of CM at Risk.			
COV Sections: §2.2-4380.C.2, §2.2-4380.B.1; §2.2-4381.D.2, §2.2-4381.C.1			
Is the procurement process proposed a two-step process?			
			Yes
COV Sections: §2.2-4380.C.2, §2.2-4380.B.7; §2.2-4381.D.2, §2.2-4381.C.7			

**Agency Reasons for Use of CM at Risk**

Construction Cost (COV Sections: §2.2-4381.B.1, §2.2-4380.C.3, §2.2-4381.D.3)	Yes
Building Use (COV Sections: §2.2-4381.B.1, §2.2-4380.C.3, §2.2-4381.D.3)	Yes
Project Timeline (COV Sections: §2.2-4381.B.1, §2.2-4380.C.3, §2.2-4381.D.3)	Yes
Need for Project Phasing (COV Sections: §2.2-4380.C.5, §2.2-4381.D.5)	Yes
Project Complexity (COV Sections: §2.2-4381.B.1, §2.2-4380.C.4, §2.2-4381.D.4)	Yes
Value Eng. and/or Constructability Analysis Concurrent with Design (COV Sections: §2.2-4381.A)	Yes
Need for Quality Control/Vendor Prequalification (COV Sections: §2.2-4380.C.5, §2.2-4381.D.5)	Yes
Need for Cost/Design Control (COV Sections: §2.2-4380.C.5, §2.2-4381.D.5)	Yes

**Supporting Information for Procurement Method Selection**

Project Use (i.e. lab, classroom, office, etc.): (COV Sections: §2.2-4380.C.3; §2.2-4381.D.3)
<p>The UVA Department of Athletics is redeveloping their existing Athletics Precinct. This is Phase 3 of redevelopment and includes renovation of the Athletic Training Center (McCue) and phased construction of a large addition to McCue for Olympic Sports. This also includes construction of a portion of a wide, landscaped, exterior pedestrian walkway that passes through the building site, existing sports fields, and athletic/commuter parking lots, to connect Goodwin Bridge at Emmet Street to the sports facilities across Copeley Road. This Project will be located off Massie Road on a very challenging site that slopes steeply down to Meadow Creek that is piped under the adjacent parking lot. The highly concentrated 1-1/2 acre site is located between existing occupied facilities including the Basketball/ Concert Arena, the Indoor Football Practice Facility (Welsh), active athletic playing fields, primary pedestrian routes, a major access road, a parking lot for the existing buildings, and critical utility infrastructure including a 34KV electrical duct bank feeding a significant portion of the City of Charlottesville, major telecommunication/ data lines, and a natural gas artery feeding the UVA Heat Plant. Further, the Phase 2 new Football Operations Center (FOC) will be under</p>

construction to the south when this Project starts, and the limits of construction adjoin and overlap with Phase 3 in many areas. The Olympic Sports addition will tie directly into/ share a wall with McCue while it is occupied.

Phase 2 FOC was submitted earlier as a multi-building project. Funding was not available for the entire project in a single procurement as originally planned, and this Phase 3 will now be managed as a separate procurement. The two new operations buildings and McCue are planned to contain approximately 200,000 SF of high quality new and renovated spaces. The buildings will include multifaceted cutting edge program space to support student athletes including state-of-the-art lounges, food service, wellness, sport specific needs, academic development areas for individual tutoring, group tutoring, as well as class space for leadership classes, and offices dedicated to academic and career development staff. Sports medicine will be located for easy student athlete access and include numerous hydrotherapy pools, locker rooms, weight training facilities, offices, and classrooms/ meeting spaces. A large all-player meeting space will have specialized audio-visual systems, player demonstration space, and an automated partition divider. To accommodate these spaces, the structural system will be more complex to allow for longer clear-span spaces.

Construction Cost:	\$40,000,000	(COV Sections: §2.2-4380.C.3; §2.2-4381.D.3)		
Project schedule: (COV Sections: §2.2-4380.C.3; §2.2-4381.D.3)	Design Start Date	2/17/2020	Design Compl. Date	3/31/2023
	Const. Start Date	4/3/2023	Const. Compl. Date	9/30/2025
	Attach bar chart schedule to illustrate fast tracking or other schedule complexities. (COV Sections: §2.2-4380.C.3, §2.2-4380.C.4; §2.2-4381.D.3, §2.2-4381.D.4)			

Competitive sealed bidding and Design/ Build are not practical for this Project.

#### Construction Cost

Collaborative involvement by the CM with the Design Team throughout the Preliminary Design and Working Drawing phases, well before construction begins, will better inform design processes, enhance Project cost estimation, ensure sequencing of work is efficiently planned and budgeted, and provide constructability analysis – all of which are critical to maintaining overall Project scope and costs within our tight budget. Extensive value engineering and constructability analysis will enhance Project quality through elimination of costly and time-consuming change orders. The creation, evaluation, and pricing of multiple solutions to complex technical constraints will optimize construction of the complicated phased designs envisioned for these buildings and the intersecting walkway.

#### Building Use

The new Phase 2 FOC, and the new Phase 3 Olympic Sports addition and existing McCue renovation will both align with the new Promenade and share key infrastructure components and utilities. The new Phase 3 program addition and the renovated spaces in McCue, will include the coordination of extensive zoning of the HVAC systems, controls, and lighting. Further, the HVAC system in each of these areas will be designed to allow various temperature control depending on the use and activity level of spaces, but also be efficient enough to meet the University's high sustainability goals. The Project Team is looking at targeting a minimum of LEED Silver certification and designing a zero-energy building. This typically requires unique equipment and/or specialized building systems like chilled beams or valance units. UVA needs a CM onboard early so that they are part of the design process, commit to providing a building that meets these standards, and ensures that all necessary building testing can occur to confirm that all sustainability requirements and goals are met. Early coordination between the Design Team and CM regarding building MEP, life safety systems, and vertical circulation will be critical to ensure life safety requirements are maintained and that the necessary building systems for vertical and horizontal conveyance and operations are provided.

#### Project Complexity

Initial geo-tech borings indicate the area by the new Olympic Sports building had fill soils up to 50 ft deep. We saw from other area borings that there is very shallow rock in the area as well as a high-water table.

Considering the highly variable results and the overall size of the Project it will include significant foundation work/ below grade excavation. Complex geo-tech conditions may drive the need for alternative foundation systems and the Geotechnical Engineer will provide recommendations. Use of a CM, particularly during the design phase, will ensure optimal construction techniques are identified early on to optimize cost and time. The scheduling and site logistics of this Project will provide an additional level of complexity that needs to be coordinated early in the process. This Project will need to coordinate with the construction of the Phase 2 new FOC and ensure that it is not being detrimental to the FOC schedule. Further, the McCue renovation will not be able to start until the new FOC is completed, but the Olympic Sports addition will start beforehand to ensure completion by the time the McCue renovation work is complete. CM expertise and leadership will be critical in navigating the Project Team through complex issues regarding staging and phasing for the new building's construction activities, renovation construction activities, and scheduling each of these phases to allow users the ability to occupy one phase before the next can begin. The new buildings abut to the east and the west to outdoor training fields and to the south to Welsh. These construction phases will all be in progress while McCue and Welsh are in use as well as all the surrounding outdoor practice fields. A CM will provide expertise to understand the site logistics of how to keep immediately adjacent spaces operational and work closely with Athletics and the Design Team to develop detailed plans to allow safe movement of student athletes and staff to and from the playing/ practice fields and to the buildings.

Additionally, site complexity for this Project will be intense. Extensive existing underground utilities immediately within and adjacent to the Project site will drive unusually impactful site constraints. Most of the utilities feeding the new buildings will be new or upgraded in size to meet the Project requirements. A new electrical service will need to be installed from Massie Road, the City of Charlottesville will need to demolish portions of their existing gas line and run new lines to the new building and to McCue, the existing storm system draining into the adjacent Meadow Creek will need to be relocated, increased in size, and closely monitored for toxic discharges from the site, and new sanitary and domestic water lines will connect to the main in Massie. Challenges that must be overcome include:

(1) The Project site is heavily congested and bound at its perimeter by critical existing utility infrastructure, primary pedestrian circulation routes, and heavily occupied existing buildings. Site security will be required.

Working through and planning coordination of all utility relocations, and related grading and environmental

working through and planning coordination of all utility relocations, and related grading and environmental issues is critical to maintaining existing utility services, pedestrian flow, and adjacent building operations.

(2) Coordinating with the City of Charlottesville Utilities Department to reroute the existing domestic water, sanitary sewer, and gas lines currently located in the footprint of the new building to feed McCue while keeping it operational, and to feed the new building.

(3) Rerouting/ upgrading the existing main storm drainage system located in the footprint of the new building and constructing a new tie-in to the main system (all storm structures are concrete). This system also serves the Phase 1 athletic fields and upstream parking areas.

(4) Coordinating with UVA Central Utilities for chilled water, heating water, and electrical building systems and installing them after relocation of existing utilities. The existing high voltage electrical feed for McCue, Welsh, and some field lighting is in the footprint of the new building.

(5) Additional unique site complexities include a 34KV electrical duct bank that feeds the Athletics precinct and supports a significant portion of the North Grounds and City runs immediately adjacent to the Olympic Sports footprint and McCue along Massie Road. The duct bank must remain intact and operational throughout construction. Additionally, there are critical primary utility mains running along Massie Road that include domestic water, sanitary, storm drainage, City natural gas, major telecommunications/ data lines, and UVA heating hot water and chilled water. CM constructability input is imperative to effectively routing the Project's utilities and any utility crossings.

#### Fire Lane Access

The district is not set up to easily allow fire truck access, especially when construction disrupts the current routes. The new building will require early enabling work to extend existing fire life safety routes to these spaces. A CM's expertise is required to review the existing routes, provide alternative routes and phasing during construction, and work together with the Football Operations CM, the Charlottesville Fire Department, and UVA FM Occupational Health & Safety to ensure all existing buildings and FDC's are always accessible.

#### Need for Quality Control/ Vendor Prequalification

Use of two-step procurement procedures will ensure selection of a builder with qualifications, expertise, and experience best suited for this Project. Due to budget constraints and the complexity of this Project, Subcontractor/ Vendor prequalification by and/or coordination with the CM for select scope (complex foundations, specialized AV, zero-energy building systems, kitchen equipment, sports medicine theory pools and equipment, overhead doors, specialty flooring, exercise equipment accommodations, track surfaces, and office space enclosures) will be essential to managing the budget and accelerated schedule. Special building preparations/ coordination will be required for many vendor items.

#### Summary

A CM is critical due to the difficult and challenging location, complex site coordination, extensive sustainability requirements, and intricate phasing required for new and adjacent space occupancy, maintaining operational utilities, site security, and code required safe accessibility at all times to facilities and fire truck access routes.

Fire Life Safety access to the district is a driving design factor in how the buildings are situated on the site and

Fire Life Safety access to the district is a driving design factor in how the buildings are situated on the site and the site contains fill soils up to 50', and possibly shallow rock and a high-water table. Early cost model building site options require a CM to optimize cost and schedule for these important issues. We believe that this complex Project will gain significant fiscal benefit, added value, and necessary construction expertise and coordination experience from bringing a seasoned CM team on board early in the design process.

(COV Sections: §2.2-4380.C.4; §2.2-4381.D.4)

Submitted by:	Jeff Moore	DocuSigned by: <i>Jeff Moore</i> 392ED34280F241D...	Date:	4/7/2022		
	<table border="0"> <tr> <td rowspan="2">Signature:</td> <td rowspan="2"><i>Don Sundgren</i></td> <td rowspan="2">4/7/2022</td> </tr> <tr> </tr> </table>				Signature:	<i>Don Sundgren</i>
Signature:	<i>Don Sundgren</i>	4/7/2022				
Title:	Associate Vice President & Chief Facilities Officer (Agency Head or Authorized Representative)					

#### For DGS Use Only

Based upon the information provided by the Agency, the use of Construction Management at Risk  
is not recommended for this project.

Recommended by:

*W. Michael Coppa*

W. Michael Coppa, RA  
Director, Division of Engineering and Buildings