

Construction Management at Risk Procurement Review Submittal Form

General Project Information

Agency Name:	University of Virginia		
Is the agency a covered institution per §2.2-4379?			Yes
Project Name:	McIntire School of Commerce New Academic Facility		
Project Number:	P05456		

Other Project Information

Advising A/E Name:	Graham S. Wyatt	License Number:	401011795
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 existing McIntire School of Commerce is comprised of two existing buildings, Rouss and Robertson Hall. Rouss Hall was constructed in 1898. Robertson Hall was a large expansion that began in 2005 and has since served the school with offices, community spaces, flexible classrooms, and a shared courtyard space. To maintain the school's standing, the new facility will expand the School of Commerce facility and grounds even further, as it utilizes the existing adjacent Cobb Hall to make room for its new construction. The current expansion Project scope will include a large multi-purpose atrium, an entry lounge, large flexible classroom spaces, multifaceted program elements with specialized AV equipment needs including dynamic teaching labs to foster hands-on learning that includes data analytics visualization, behavioral research, and multimedia analysis, media production studios, enhanced study rooms, faculty and staff offices, a Café, and a catering kitchen.</p>				
Construction Cost:	\$67,000,000	(COV Sections: §2.2-4380.C.3; §2.2-4381.D.3)		
Project schedule:	Design Start Date	6/1/19	Design Compl. Date	10/8/21
(COV Sections: §2.2-	Const. Start Date	Early 2022	Const. Compl. Date	6/28/24

4380.C.3; §2.2-4381.D.3)

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)

Additional description to highlight key attributes that affect the project complexity, need for value engineering/constructability analysis, quality control/vendor prequalification, and cost/design control as indicated by "Yes" answers above:

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

Project Complexity

A CM is critical for this complex Project to maintain the smooth operation of the expansive multi-level business school that sits just south of the historic University Lawn and Rotunda and immediately north of the new Brandon Avenue Master Plan development. The two existing buildings, Rouss and Robertson Hall, are comprised of 141,338 GSF on six levels and they sit at the south corner of the Lawn of 1817. The adjacent Cobb Hall was originally built in 1917 for the Chemistry Department and included laboratories. The new academic expansion facility will require selective historic demolition and removal of 32,000 GSF comprising five levels of the entire 1931 rear wings of Cobb Hall where the stem of the "T," running north and south will be removed from the 1917 building. Historic renovation of the remaining 24,100 GSF four story head building will include the entry block which will remain and receive a full renovation that will restore the original character to rooms that were recently used as mechanical space and offices. The demolished wings will be replaced with a 74,155 GSF five story addition (including the mechanical penthouse). UVA did consult with the Virginia Department of Historic Resources early in this Project and a draft MOU outlining specific mitigation efforts the University will undertake to address the adverse impact that the demolition will have on the property has been submitted. The expansion Project will include a large multi-purpose atrium beneath a large exterior courtyard that connects Cobb Hall and its new addition internally underground. Exterior Project elements include converting a cul-de-sac drive to a major pedestrian corridor, and creating a plaza connecting the existing and new facilities, a large courtyard between Cobb Hall and the new addition, a terraced garden, a new streetscape, and a new service drive and access serving the entire Commerce School from the east side of the new addition. Significant exterior ADA access improvements will also be constructed on the steeply sloping site.

The Project site presents a significant challenge for the proposed construction which is surrounded by active/occupied University facilities and is directly adjacent to an arterial city street. On the east are hospital structures that include a major tele-com hub 30' from Cobb Hall, and McKim Hall that is within 60'. To the north and west are Varsity and Rouss-Robertson Halls, both within 80', and Wilson Hall at 130'. Jefferson Park Avenue is within 20' of the proposed addition on the south. The new addition will abut the preserved section of historic Cobb Hall and extend another floor below it. Excavations for the new addition will be 30' deep. A 320' long underground service tunnel, with a 10' by 10' cross section, will also be constructed to connect the new east-side service access with Rouss-Robertson Hall. Ruppel Drive, on the west between Cobb and Rouss-Robertson Halls, will be replaced with an accessible pedestrian corridor that drops 19'. For rooftop stormwater capture/ stormwater management, two large subsurface water detention structures will be installed under Ruppel Drive and another underground structure will be installed east of Cobb Hall. Construction of this new corridor will also require

phased relocation/ coordination with major underground utilities serving large sectors of the University and hospital. Existing utilities to be replaced and relocated include a 10" water main, an 8" sanitary sewer main with manholes, an electrical duct bank, and multiple storm water mains varying from 12" to 18".

LEED

The Project Team is targeting a minimum of LEED Silver certification and designing the Project with a goal of being a Net Zero Energy Building. This will require unique equipment and/or specialized building systems including chilled beams. 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 ensure that all necessary building testing can occur to confirm that all sustainability requirements and goals are met.

Site Logistics

CM expertise and leadership will be critical in navigating the Project Team through complex issues regarding staging and phasing for demolition activities, the new building's construction activities, renovation activities, and scheduling each of these phases. A CM will provide expertise to understand the site logistics of how to keep immediately adjacent spaces operational and work closely with the School of Commerce and the Design Team to develop detailed plans to allow safe movement of students and staff to and from the buildings.

Fire Lane Access

As the University has learned, the district is not set up to easily allow fire truck access, especially when construction disrupts the current routes. The new buildings will require early enabling work to extend and maintain existing fire life safety routes to surrounding buildings impacted by road demolition and utility work. A CM's expertise is required to review the existing routes, provide alternative routes and phasing during construction, and work hand-in-hand with the Charlottesville Fire Department and UVA FM Occupational Health & Safety to ensure all existing buildings and FDC's are accessible at all times.

Cost/ Design Control & VE/ Constructability Analysis

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 – all of which are critical to maintaining overall Project scope and costs within our 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.

QC/ Vendor Prequalification

The building's form relates to the steep slope upon which it sits and will include the Lawn's familiar details of ionic columns, grand arches, classical cornices, black slate roofing, and a courtyard wrapped with a three level curved curtain wall of painted aluminum windows. These details and strict waterproofing criteria required for underground envelope construction dictate the critical need to prequalify the CM and Subcontractors. 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 (architectural components described above, complex foundations, specialized AV, zero-energy building systems, kitchen

equipment, overhead doors, specialty flooring, etc.) 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 for minimizing construction time, providing cost efficiencies, and maintaining the highest quality construction for project elements. Significant complexity includes:

- A highly concentrated site surrounded by active/ occupied University and hospital facilities and directly adjacent to an arterial city street,
- Selective historic abatement, demolition, and removal activities,
- Extensive below-grade work including a 30' deep excavation and underpinning of historic Cobb Hall,
- A new addition that abuts preserved section of historic Cobb Hall and extends another floor below it,
- Historic renovations of Cobb Hall to restore the original character, and
- Redirecting the flow of significant volumes of pedestrian and service vehicles.

These and the other complicating factors described above will require a well-conceived phasing and site logistics plan embedded within the design effort. Early cost model building site options will require a CM to optimize cost and schedule for these important issues. In our professional opinion 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

Date:

9/1/2020

Signature:

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 recommended for this project.

Recommended by:

W. Michael Coppa, RA

Director, Division of Engineering and Buildings