

DGS-30-456

(Rev. 10/18)

**Construction Management at Risk
Procurement Review Submittal Form**

General Project Information

Agency Name:	221 (Old Dominion University)		
Is the agency a covered institution per §2.2-4379?			NO
Project Name:	Construct a New Health Sciences Building, Phase I		
Project Number:	221-18335-000		

Other Project Information

Advising A/E Name:	CANNONDESIGN	License Number:	407004238
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)	NO
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: §2.2-4380.C.5, §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)				
Construction of a New Health Sciences Building, 126,154 GSF, multi-story building, 40 year construction, that will be a signature facility to show improved educational healthcare through Inter-Professional Education and collaboration. The building will house a student centered "home base" for students that will include informal interactive learning areas with state of the art teaching/learning environments. Research space will be included for the School of Medical Diagnostics and Translational Services, with teaching, research and lab space for the School of Rehabilitation Sciences, teaching and lab space for the School of Dental Hygiene, as well as a public accessible Physical Therapy Clinic, Inter-Professional Classrooms and Collaboration areas with offices and program support, and a Dean's suite.				
The building location will be located on 41st street and Monarch Way.				
Construction Cost:	\$60,635,000	(COV Sections: §2.2-4380.C.3; §2.2-4381.D.3)		
Project schedule: (COV Sections: §2.2-	Design Start Date	14-Feb-19	Design Compl. Date	15-Jun-20
	Const. Start Date	1-Sep-20	Const. Compl. Date	30-Jun-22

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:

Determination: Old Dominion University has determined that the use of competitive sealed bidding for this project is neither practicable nor fiscally advantageous based on the following factors in order of priority, as follows:

Project Complexities:

* **Complexity of building and system designs in supporting Lab, Clinical, and other space types:** This project requires an unusually varied assortment of spaces with widely disparate requirements, a mixture of dental hygiene instructional spaces including 12 simulation stations and anatomage tables, as well as a 36 station Dental Clinic serving clientele from the broader Norfolk community, six (6) research labs for Medical Diagnostic and Translational Science with associated cell culture and other technical support spaces, a 12-station Anatomy instructional facility including cadaver storage, Occupational and Physical Therapy instructional spaces and clinic, and clinical simulation spaces for Dental and Anatomy. This wide assortment of space types requires complex utility services within a height-limited building, achievable only through careful coordination of architectural, MEP and structural designs through all design phases. Because of the decreased availability of land on the campus, the design phases will require significant evaluation and input to determine whether the building is going to be 4 stories or 5. The required systems to support the various functions/uses of the building impacts the floor-to-floor dimensioning, cost impact and complexity of construction as it could result in negative impacts such as surpassing the City-imposed 75' limit for the highest occupied floor. The inclusion of a CMAR at an early stage of design will significantly assist in the development of a well-coordinated, least-cost, least-height, and readily-constructible design.

* **Building Mechanical/Utility Systems:** The design will require the necessary mechanical/utility systems necessary to support requirements for lab gases, deionized water, fume hood exhaust systems (utilizing 100% make-up air), and complex and sufficient HVAC systems to handle the combined, large heat loads from the various research labs and equipment, including refrigeration and freezers for a cadaver lab, which will also require a separate security system. Lab waste will be discharged through a separated lab waste system and neutralization tank separated from the domestic waste system.

* **Building Site:** Due to the proposed location of this project, near other future construction projects and existing student residence halls, the construction site will be tightly constrained with minimal laydown area requiring just-in-time material deliveries. This site will also require extreme care to maintain safe pedestrian and vehicular passage around the construction site. Also, building in the Chesapeake Bay Preservation area for storm water management requires a contractor fully experienced in erosion and sediment control as well as experience in construction Best Management Practices (BMP) or other more advanced stormwater

Construction: Given the challenging nature of the compressed and active campus site as well as the extensive technical and management coordination required, selection of the builder should not be based on price alone as expertise, experience, and coordination capability are major factors to ensure success. Pursuit of LEED certification will benefit from CM constructability and budget reviews.

Project Timeline: As has now been substantiated by the Programming effort the ODU College of Health Science is current working out of dramatically inadequate space, both from quantify (sf) and utility-supported bases, only being able to house about 60% of the University's Health Science programs. With a construction timeline projected to be twenty (20) months after final approval of WD's, a CMAR process is the only way to bring these new facilities on-line in a timely manner, and provide Norfolk, the Tidewater region and greater Virginia the benefits of these important Health Sciences and research programs and graduates. Additionally, the schedule will include the required relocation of existing complex Health Science related programs into the new facility with minimal impact to the Universities ability to educate students and treat patients with minimal interruption.

Value Engineering and Constructability Analysis: The participation of a Construction Manager during pre-construction services and the design phases will better inform the design process and ensure sequencing of work is efficiently planned, providing critical constructability analysis. Having a Construction Manager on board early can create scheduling flexibility that can mitigate construction concerns, improving overall construction. Value engineering connected to the constructability analysis throughout the project design phases is essential to budgetary and overall project success and to produce the higher standard of quality promised to our faculty and students. Use of a Construction Manager can reduce time consuming/costly change orders and produce a higher level of quality on the front-end of design process. A Construction Manager also can provide guidance in the generation, evaluation, and pricing of alternative solutions to complex technical constraints to optimize construction of complicated and specialized spaces.

Budget Control: We propose to engage the CM for pre-construction services to assist in cost control by providing current real world cost values and value engineering analysis and guidance. Additionally, we will ultimately establish a Guaranteed Maximum Price with the CM to ensure that the project budget is maintained.

Vendor Pre-Qualification: By using the CMAR delivery method, the University will have selected a firm based on the experience and qualifications best suited for the project. Also, and as necessary, key subcontractors may be pre-qualified for certain work packages. This is particularly important for a project including the sophisticated academic requirements of the various occupants of the proposed building.

Interim GMP's: Using the CM delivery method for this project will provide the University with an option to request Interim GMP's for Early Release Packages should the design schedule slip due to design complexities or code compliance requirements, allowing the University to keep an already constrained construction time line on schedule.

Submitted by: Harry R. Smithson, Jr., CPPO, VCCO

Signature: _____

Title:

Assistant Director, Procurement Services

Date:

March 26, 2019

(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

3/26/19