



DEPARTMENT OF GENERAL SERVICES, DIVISION OF
ENGINEERING AND BUILDINGS

Project Delivery Method Reviews by the Department
of General Services for Fiscal Year 2024

TO GOVERNOR YOUNGKIN, CHAIRMEN OF THE HOUSE COMMITTEE ON APPROPRIATIONS, THE
HOUSE COMMITTEE ON GENERAL LAWS, THE SENATE COMMITTEE ON FINANCE AND
APPROPRIATIONS, AND THE SENATE COMMITTEE ON GENERAL LAWS AND TECHNOLOGY



COMMONWEALTH OF VIRGINIA
RICHMOND
December 1, 2024

Authority and Summary:

Code of Virginia §2.2-4383. A requires the Department of General Services (DGS) to: “report by December 1 of each year to the Governor and the Chairmen of the House Committee on Appropriations, the House Committee on General Laws, the Senate Committee on Finance and Appropriations, and the Senate Committee on General Laws and Technology the following information: (i) the number of projects reviewed pursuant to Articles 2 (§ 2.2-4380) and 3 (§ 2.2-4381) and (ii) for each project (a) the identity of the state public body or covered institution and a description of each such project, (b) the estimated cost of the project at the time of the Department's review, (c) the decision made by the Department concerning the proposed procurement method, (d) if such project was a construction management or design-build project, the qualifications that made such project complex, and (e) the final procurement method used by the state public body or covered institution.”

Pursuant to this requirement, DGS is reporting data for projects reviewed during Fiscal Year 2024 (July 1, 2023, through June 30, 2024). During Fiscal Year 2024, DGS reviewed fourteen (14) project procurement submittals. Of those fourteen (14) submittals, thirteen (13) were for Construction Management at Risk (CM) procurement, and one (1) was for Design-Build (DB) procurement. The details of these reviews are found in the attached table titled “DGS Procurement Reviews/Recommendations in Fiscal Year 2024”.

The stated project values ranged from \$10.25M to \$260M. The average cost of the projects was \$86.7M and the median cost was \$47.2M.

DGS concurred with the Agency’s or Covered Institution’s selected method of procurement on twelve (12) of the fourteen (14) submittals (86%).

In the cases where DGS concurred, the Agency or Covered Institution continued with the procurement as submitted.

In the two (2) instances where DGS did not concur with the Agency or Covered Institution’s proposed procurement method, in one case, the Agency or Covered Institution changed the procurement method and, in the other case, proceeded with their chosen procurement method having received a negative recommendation from DGS.

Request Date	FY	Agency Authority	Project Number	Project Title	Description	Project Value	Agency Proposed Procurement Method	DGS Concurrs Method is Appropriate	Agency Implemented Procurement Method
08/08/23	2024	Covered Institution	208-B3208-001	VT - Student Life Village (Phase 1)	<p>The Student Life Village is a new, phased delivery residential district with student housing, supporting facilities and infrastructure to enhance on-campus residential living. Located in the far westernmost region of the main campus in Blacksburg, the project will be built on land that is lightly developed, currently lacking infrastructure necessary to support the project. The overall district is envisioned to be developed in three long-term phases. (This project delivers Phase I only.)</p> <ul style="list-style-type: none"> • Phase I project scope includes: <ul style="list-style-type: none"> o Four multi-building quadrangles of "Living-Learning Community" residence halls providing 1,752 beds. o 900-seat state-of-the-art dining/mixed use facility with capacity to handle 4,000+ meal transactions daily. o 23,500 GSF recreation facility plus outdoor recreation area, village trail, and ecological buffer. o Extensive, community-wide utilities and infrastructure including a bus transit plaza. • Cumulative scope and scale of Phase I is inherently complex and drives the need for use of an alternative procurement methodology in lieu of traditional Design-Bid-Build. Key components that justify use of CMaR include: <ul style="list-style-type: none"> o Anticipated cost of construction of Phase I is estimated at \$260M. o Project is long-term, multi-phased with early delivery of critical components in Phase I. o Buildings/quads will feature multiple room configurations with integrated laboratories that can accommodate programmatic activities such as maker spaces, design studios, performing arts venues, and IT/AV-intensive student/faculty collaboration spaces that provide real-time/real-world engagement. o Early planning coupled with phased construction of myriad infrastructure components is critically important to the project and overall Student Life Village concept. o Preparation and release of early procurement packages including long-lead materials, extensive sitework, and utilities/infrastructure for fast-track execution are essential. o Properly phased construction of residential, dining and well-being/enrichment facilities will trigger timely revenue streams into the project business model to initiate debt service strategies. 	\$260,000,000	CM	Yes	CM

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09/19/23	2024	Covered Institution	236-18500-000	VCU - Arts and Innovation Academic Building	<p>The Art Innovation Academic facility is a unique multi-discipline facility where the consolidation of use and function is a fundamentally more efficient use of long-term resources. To accomplish this functionality, complex interrelated elements must be constructed to work independently and holistically with the facility creating the potential for very high costs. Elements like the proper earth retention system for a zero lot-line deep foundation system against urban infrastructure, critical infrastructure pathways within orchestra pits, theatre seating systems and fly-towers, noise and vibration isolating connections between spaces, and others that require a CMaR team's input to inform design with material and constructability detail. Focus will not only be on value management, but will require cost containment strategies of uniquely complicated systems to encompass economic volatility and material availability.</p> <p>During the construction process highly complex performance systems and assemblies will require significant coordination and collaboration with varied project specialists due to the innovative multi-discipline building use. This design collaboration will include efforts to ensure space amenities and configurations meet the needs of multi-functional space to operate at a top national level. Among the unique challenges of this project are the many acoustical details that must be evaluated to keep the sounds of a musical performance on a lower level from intruding on a theatrical performance on the top level all while the entirety of the facility keeps the sounds of Broad St. from affecting any spaces acoustics. Without the input of the CMaR team, the ability to build a facility that works together with special relationships that must function independently would likely fail when the details intersect.</p> <p>It is very rare that a single facility would have class laboratories and performance theaters under the same roof. Facilities like this one supporting multi-disciplinary functions are uncommon and complex as the difference in those environments must overcome unique challenges to avoid creating adverse effects to the other spaces. These unique issues require specialized installers to work with the design team to overcome constructability issues. This unique scenario is compounded by the large size of the facility where this cross collaboration will be much greater than a single intersection further increasing the complexity of the project.</p> <p>Due to the availability of many critical facility components specific to performing arts and digital technology, value engineering and constructability analysis concurrent during design with suppliers and installers will be paramount in ensuring availability of cost and functionally effective components.</p> <p>Equipment like performance theatre sound systems, lighting and actor rigging systems, and advanced media production technology have widely variable cost scales. The rate of technological advancement affecting many of these systems is fast paced which increases the impact of the CMaR's construction input during design.</p> <p>With so many intersecting functions and construction assemblies, the quality of those installations must be exact. Construction partners vetted for their responsible experience with these specialized systems will be paramount to not only install the components, but to provide feedback if and adverse condition exists. Without the ability to vet those with an adequate experience and competency with these components would likely set the vendor up to fail and ultimately the project. VCU upholds its responsibility to ensure the success of construction partners. The functions described above are critical elements to do so.</p>	\$186,888,000	CM	Yes	CM

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09/08/23	2024	State Public Body	211-18665-000	VMI - Construct Moody Hall	<p>Moody Hall is a \$54 million large, technically complex project located on a physically challenging site in a sensitive, historic district. The location and layout of the site in this historic area requires early involvement by the CM for constructability reviews and design input due to the significant coordination and extreme care required to protect adjacent cultural and historic resources. Early CM involvement is also critical to addressing: the phasing and sequencing requirements for demolition and personnel moves, difficulties associated with the site location (size, access, adjacent historic structures and being the entrance to a historic district while protecting views of National Historic Landmarks) and unknown subsurface conditions. CM involvement in the design phase is absolutely essential to performing constructability analyses, planning for long lead-time items, cost analysis and value engineering concurrently with the design process to ensure the project remains on schedule and within scope and budget.</p> <p>This project's complexity is characterized by a challenging site location, historic designation of the location and surrounding structures and some complicated phasing and sequencing issues. These elements of project complexity have many contributing factors requiring early CM involvement in the project to address constructability, costs, long lead items and long term logistics issues, value engineering. Early involvement also allows the CM to coordinate for in demand, specialty contractors (such as blasting, historic preservation, stucco) and receive their input during the design process.</p> <p>In terms of site location contributing factors to project complexity include:</p> <ul style="list-style-type: none"> - Close proximity contributing structures to the Historic District designation - The small size of the site (under 2 acres) relative to the size of the building (1.2 acres) complicating material laydown, parking, crane erection, scaffold erection, storage, all of which must be reviewed during the design process - Site is at the main entrance to this Post and at a major intersection - Site access is restricted to one highly used, restricted width, restricted turn radius, historic street making everything from material deliveries to utilities work and equipment erection difficult operations requiring detailed planning and coordination early in the design process - The location is also in a karst topography environment which will likely require explosive, mechanical and chemical means of removing rock for the foundation. These intrusive and disruptive operations will take place in close proximity to historic buildings, the main entrance to post and within a National Historic District thus necessitating early involvement of the CM and subcontractors during the design process. <p>Relative to Historic Designation of the location:</p> <ul style="list-style-type: none"> - The site is within a National Historic District requiring detailed coordination with DHR and AARB. - The project will involve the demolition of three Contributing Structures to the National Historic District - The site is also within close proximity to several other Contributing Structures of the Historic District - The project site is positioned at the classic entrance to the VMI Historic District and must create a "sense of arrival" and the project must perfectly match the Gothic Revival architecture of A J site is within a National Historic District. - The project will create a connection between the new building and the adjacent Smith Hall, Marshall Lawn and the Center for Leadership and Ethics. <p>Early involvement of the CM in the design process will better prepare the project team to address constructability issues that may impact adjacent historic structures and also develop means and methods of protecting historic structures during construction. Finally, the CM's early involvement ensures that they can take into account the special requirements of working in such a sensitive historic area and address the constructability of historic connections, view sheds and unique architectural features.</p> <p>As to Phasing of the project:</p> <ul style="list-style-type: none"> - Project involves the demolition of three buildings and relocation of 33 personnel and their associated office and support spaces. - Demolition of the buildings must be synchronized and executed to minimize impacts on key events, military training and daily operations of the occupants. 	\$54,000,000	CM	Yes	CM

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				VMI - Moody Hall Continued	<p>- Permanent or temporary swing space may be necessary for some or even all of the displaced personnel.</p> <p>- Occupation of the new building will have to be phased as personnel return to work in their new offices</p> <p>- Key activities such as reunions, board meetings and special events will have to be relocated to other venues and phased out of Moody Hall.</p> <p>The CM's early involvement with the design team and the agency will allow project leaders to address issues surrounding the sequencing of construction, construction methods, construction schedule and their impacts on phasing and movement of personnel.</p> <p>Unique equipment and specialized systems resident in this building include:</p> <ul style="list-style-type: none"> - Dining and Food Service spaces - A audio/video recording studio - A wide array of audio visual and information technology requirements that are unique to various rooms and spaces within the building - Development of the most energy efficient, suitable HVAC system for a structure with such a wide array of potential uses. - Construction of a separate Honorary Space to host artifacts, displays, plaques and other historic memorabilia. <p>The inclusion of the CM early in our design process will better position the project team to arrive at the best and most cost effective solutions for these various systems and spaces.</p> <p>In summary, early incorporation of the CM into the design team will enable the constructability, schedule, cost, value engineering and construction means and methods analysis that will be critical to protecting adjacent historic resources, minimizing disruptions to operations, working in a difficult site location and arriving at the most cost effective solutions for the overall project and the unique systems in particular.</p>				

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09/29/23	2024	State Public Body	211-18604-000	VMI - Barracks Windows	<p>Replace Windows Old and New Barracks is a large and complex \$32 million project in a historically and culturally sensitive location. The windows are a contributing typology to the National Historic Landmark status of the barracks the project must adhere to strict, unique standards for replacement. The historic significance of the buildings will also require extensive coordination with Department of Historic Resources (DHR) and the Art and Architectural Review Board (AARB).</p> <p>This technically complex project will address 793 windows and 271 openings over six stories. The substrates of these windows and openings are of high concern based on a 2014 survey. They lack flashing causing water entrapment that caused heavy deterioration of window openings. The Hazardous Materials Report indicates the presence of lead paint virtually on all surfaces and areas potentially requiring asbestos abatement. Furthermore, this project will take place in a tight, high visibility and highly trafficked location requiring constant changes and early coordination by the CM to plan laydown areas, equipment and material movements, staging and safety control measures for working in such a crowded and confined area.</p> <p>The phasing of this project will require early involvement of a CM firm in the design process. The Old and New Barracks will be at least partially occupied for the entire duration of the project. A phasing plan must be coordinated with dozens of stakeholders and construction executed in a way that will not interfere with the daily routine of cadets or military activities. This coordination must take place at least a year prior to the project start and be carefully managed and constantly updated. There is no swing space available to accommodate cadets so the selected CM firm will have to work a constant parade of ever changing events, schedules and training requirements that make early involvement all the more urgent.</p>	\$32,300,000	CM	Yes	CM

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11/01/23	2024	Covered Institution	208-18682-000	VT - Expand Carilion School of Medicine & Fralin Biomedical Research Institute	<p>Project Complexity: This project includes two components:</p> <ul style="list-style-type: none"> •Educational component: Construction of a new, free-standing, approximately 100,000 GSF building for the school of medicine. The facility will include patient clinical exam rooms and support spaces, a wet anatomy laboratory with cadaver cooler, medical instruction laboratories, team instruction rooms, large and medium-size lecture halls, a testing center, academic support space, and administration spaces. The facility will double existing enrollment capacity from 200 to 400 students and expand faculty from 33 to 66 personnel. The facility will be located on land provided by Virginia Tech's partner, Carilion Clinic, in close proximity to the existing building. •Research component: Renovation of the existing 51,000 GSF medical school space to create research laboratory and computation/data analytics capacity for FBRI. Renovations will create additional dry research space, wet research space, office and administrative space, including customized spaces for the research institute's growing programs in human subjects and patient research. This renovation will allow the institute to grow its research portfolio, compete for additional research grants and contracts, and increase externally sponsored research in the Commonwealth. The building will remain operational and occupied during renovations to avoid disrupting the ongoing, critical research of FBRI. <p>Other specific project complexity considerations include:</p> <ul style="list-style-type: none"> •Complex facility infrastructure and systems. Medical facility construction will include, but is not limited to, complex components such as robust mechanical systems to support high air change rates, dedicated lab exhaust, specialty medical equipment, plumbed lab gas and purified water systems, and multi-feed electrical systems to support the larger equipment and systems. Specialty medical and research equipment will likely include chemical fume hoods, snorkels, cold rooms, environmental chambers, biological safety cabinets, -80° freezers, and sterilizers. •Pedestrian and traffic control. VTC SOM will be near and within the existing school of medicine and FBRI where hundreds of students, faculty, staff and patrons/patients interact. Additionally, the local area is densely populated with neighboring apartment complexes, retail venues, etc. CMaR early planning and coordination of pedestrian and vehicular traffic through and around the construction area will be essential for safety and logistics management. •Site location challenges. Prior projects in this area of southwest Virginia have encountered large underground karst formations and extensive veins of rock. As site conditions become more fully known during design, alternative foundation systems and below grade building characteristics on many structures may be required. Additionally, flood plain considerations will need to be taken into account. Early CMaR involvement will enhance design decisions addressing these concerns. <p>Construction Cost with Need for Cost/Design Control: Construction costs are anticipated at \$183.7M. Project cost, complexity, scope, scale, and schedule drive the need for a robust, sophisticated CMaR with significant experience in:</p> <ul style="list-style-type: none"> •Medical and research facility construction standards. •Phased project delivery and complex occupied renovations. •Comprehensive cost estimating and cost control to ensure scope and budget alignment throughout all phases of design and construction. •Guiding determination and management of early procurement packages to fast-track essential long-lead components. •Managing multiple, high-value, highly complex scopes of work in requiring sophisticated cost control mechanisms, logistics management and collaborative scheduling. <p>Collaborative involvement of the CMaR with the A/E throughout preliminary design and working drawings will 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 project costs within budget.</p> <p>Project Timeline and Need for Project Phasing</p>	\$183,700,000	CM	Yes	CM

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				VT - Expand Carilion School of Medicine & Fralin Biomedical Research Institute continued	<p>Project phasing timeline:</p> <ul style="list-style-type: none"> •Phase 1 – Construction of new medical school: The project will deliver the new 100,000 GSF facility for VTC SOM. •Phase 2 – Renovations of existing, vacated VTC SOM space: Upon completion of phase 1, existing 51,000 GSF facility will be renovated for FBRI expansion. FBRI will continue to occupy adjacent space within the existing facility during phase 2 renovation. <p>Operations within the existing VTC SOM and FBRI facilities cannot be interrupted during construction, so vacancy, occupancy, and construction phasing logistics, to include an occupied renovation of the existing facility, will be primary project drivers. Medical research will be ongoing adjacent active construction. Maintaining utilities, life safety systems, code-compliant egress, and minimizing sound and vibration intrusion within the active spaces will be imperative throughout the renovation. Early involvement of the CMaR during design to ensure phasing/constructability considerations will be essential.</p> <p>Need for Quality Control/Vendor Prequalification:</p> <ul style="list-style-type: none"> •Use of two-step procurement procedures will help ensure selection of a CMaR with the qualifications, expertise and experience best suited for this project. •Due to the budget constraints and intense delivery timelines, subcontractor pre-qualification by the CMaR for certain work packages will be essential for effective financial management and cost control. •Southwest Virginia has a limited subcontractor population and use of CMaR will expand market reach through early subcontractor involvement during design. 				

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12/6/2023	2024	State Public Body	211-18542-000	VMI - Construct Center for Leadership and Ethics Phase II and Parking Structure	<p>The CLE Phase II and Parking Structure project will cost nearly \$90 million total in hard and soft costs. It is a large and technically complex project involving the construction of two multi-faceted structures tied together in program and site footprint. There are significant construction related savings realized if the two facilities are constructed simultaneously. Allowing this project to be executed using the CM@Risk project delivery will further enhance those savings.</p> <p>This project is a priority component of VMI's Strategic Plan and the VMI Post Facilities Master Plan. It is pivotal in furthering VMI's mission thus requiring a pre-qualified construction manager for proper quality control and execution. This project will bring together portions of the Leadership Development Program and VMI Museum system into a new facility allowing them to share resources, collaborate on programming, and grow the VMI leadership development experience for leaders at all levels with focus on the Corps of Cadets. By design, the Leadership Development program reinforces VMI culture, provides attendees with enhanced self-awareness, teaches baseline advanced leadership skills, offers opportunities for critical thinking and development of the Corps of Cadets, and professional development of the faculty and staff.</p> <p>The location, topography and layout of the site in this compact historic area will require early involvement by the CM for constructability reviews and design input due to the significant coordination and paramount care required to protect adjacent cultural and historic resources. Specifically, Marshall Hall and George C. Marshall Library are very important, historic VMI facilities which are located nearby and occupied daily. Washington and Lee University (W&L) is also an adjacent property bordering the proposed construction site. A small piece of their land will need to be acquired prior to CLE Ph II construction. Early planning and coordination will be required with active involvement and constructability reviews of the CM resulting in sequenced, coordinated project planning to support Post operations and mitigation of impacts to neighboring Washington and Lee University and their campus resources.</p> <p>Early CM involvement is critical to addressing and mitigating the difficulties associated with the challenging site location which is characterized by it's compact size, steep grades, limited site access, proximity to adjacent structures, and unknown subsurface conditions. The small size of the site (under 2 acres) relative to the size of the building (1.2 acres) will complicate material laydown, crane erection, scaffold erection, and storage, all of which must be reviewed during the design. Site access will be restricted making everything from material deliveries to utilities work and equipment erection complicated. These operations will require detailed planning and coordination early in the design process.</p> <p>The site is also located in a karst topography environment which will likely require explosive, mechanical and/or chemical means of removing rock for the foundation. These intrusive and disruptive operations will take place in close proximity to historic buildings, the main entrance to Post and within a National Historic District thus necessitating early involvement of the CM and subcontractors during the design process. Early involvement allows the CM to coordinate for in-demand, specialty contractors (such as blasting, historic preservation, stucco) and receive their input early during the design process.</p> <p>There will be a restriction of everyday VMI traffic patterns and parking during construction furthering the desire to use CM@Risk. A parking study was completed by Wiley Wilson in 2021 detailing the reality that parking will be severely limited at VMI while looking at future planned capital projects. This is the genesis of the need to construct this parking structure. During construction of CLE Ph II, the existing Marshall Hall parking lot will be offline furthering the strain on day-to-day parking with the loss of 149 parking spots. Early CM involvement will help plan, coordinate and implement interim parking measures while the new parking structure is being staged and constructed. VMI is seeking private support and utilization of debt to support the construction of the parking structure. A solid value engineering effort and cost/design control with a CM on board will ensure the proper and efficient use of donor funding. Being good stewards of money spent during these philanthropic efforts creates further donor buy-in for future projects.</p> <p>Perhaps the most challenging aspect of this project requiring early CM input will be the extensive, multiple utility relocations that will be required as part of the project. There is an overhead, 3 phase electrical power line that is located in the middle of the site. The overhead power will have to be re-routed underground. It is one of the main power sources feeding VMI so there will be an extensive outage plan required. Also, the main natural gas feed to VMI Post will have to be re-routed. The VMI and W&L master meter for natural gas</p>	\$89,800,000	CM	Yes	CM

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				VMI - Construct Center for Leadership and Ethics Phase II and Parking Structure continued	<p>is located in the site footprint. These will have to be relocated requiring CM input for outage coordination in dealing with the multiple agencies and utility providers. CM involvement will allow these efforts to be planned for constructability and executed safely with the least amount of impact to operations at VMI.</p> <p>A major portion of this project is the relocation and expansion of VMI's Museum from Memorial Hall to the new CLE Ph II facility. The inclusion of the CM early in our design process will better position the project team to arrive at the most cost effective and sound solutions for construction of a separate honorary space which will host artifacts, displays, exhibits, plaques and other historic memorabilia. Having a pre-qualified, experienced CM assist in planning the relocation of countless historic artifacts and property from Memorial Hall will be of great benefit to the project to ensure adequate sensitivity in management of museum collection items.</p> <p>In summary, early incorporation of the CM into the design team will benefit the constructability, schedule, cost, sequencing, and construction means and methods analysis that will be critical in executing this technically complex project on a difficult site location while minimizing disruptions to VMI operations. The project complexity as described necessitates early CM involvement. This will help Virginia Military Institute arrive at the most cost effective solution for the overall project.</p>				
12/06/23	2024	Covered Institution	260-18573-000	VCCS - NVCC - Expand Medical Campus	<p>Project Timeline: The principal critical requirement for this project is the compressed overall timeline with overlapping critical completion dates which will require an aggressive schedule, experienced planning, and complex coordination. The project is reliant on ARPA State and Local Fiscal Recovery Funds (SLFRF) that must be entirely obligated by December 31, 2024 and spent by December 31, 2026. CM@R will provide the flexibility for early package approvals, infrastructure planning, adequate constructability, and cost control reviews to occur within the constraints set by the funding source. A CM@R delivery method allows the project to be under contract, with all funds obligated, prior to the December, 2024 deadline, while final design phase approvals are expected to extend into October, 2024 and construction completed, with all funds spent, before the December, 2026 deadline. The CM@R will provide the strictest control of cost for this fixed SLFRF allocation and the limited available local funds that will be infused to deliver a highly advanced and technical medical educational facility.</p> <p>Project Complexity: The medical education facility construction will require the coordination and installation of complex systems including enhanced mechanical systems, dedicated lab exhausts, lab gases, purified water systems, environmental chambers, biological cabinets, and other specialty equipment. The technical complexity of the project will benefit from the design phase constructability analysis for cost savings and quality control. The existing facility will remain fully operational and occupied as well as provide the supporting infrastructure for the new expansion project. Critical coordination of the utilities, services and site improvements will be required in collaboration with the completion of the design documents.</p> <p>Project Site Challenges: The Medical Education Campus is a tight urban project site constrained on all sides by public roadways providing an extremely limited workable area available to the contractor. The existing medical education and parking facilities must remain safely open and available ensuring the hundreds of students, faculty and staff may safely navigate the vehicular parking and pedestrian access while construction is occurring. Early involvement and planning by the CM@R, will enhance the design decisions addressing the critical elements such as lay-down, utilities, traffic control, and pedestrian safety. An aggressive project schedule, programmatic complexity and strict cost control is essential for an experienced CM@R, with pre-qualified subcontractors, to deliver this Medication Education Campus expansion project.</p>	\$27,500,000	CM	Yes	CM

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02/13/24	2024	Covered Institution	216-18595-000	JMU - Improve East Campus Infrastructure Phase 2	<p>1) Construction Cost: Through real time cost tracking and analysis during the Design Phase of this project, the Construction Manager (CM) would be providing valuable cost control insights and options to the rest of the building team that when implemented will, in a more practical way, keep the cost of the project set firmly at the given Construction Budget value.</p> <p>2) Building Use: The Steam Plant and Chiller Plant aspects of this project present specific and specialized construction challenges that will require a specific knowledge base and experience from Mechanical, Electrical, and Controls Subcontractors. During the Design phase of this project, the CM would be able to get a head start on seeking out, recommending, and starting to strategize with such qualified subcontractors. By using this same process, the CM would be able to find and engage with the right Demolition and Foundations subcontractors who will be charged with making (re)use of some portions of the existing Resource Recovery Facility (RRF). All this would go a long way to improving the overall project schedule and to better assure a (much) higher level of quality control for this project.</p> <p>3) Project Time Line: There are portions of this project that need to be "delicately" removed early on so that the design, placement, and proper installation of significant pieces of equipment and piping can be verified in order to finalize shop drawings. There are also very long lead times for some of the equipment that is to be installed in those portions. To be able to have the CM planning and scheduling those installations during the Design phase has the real potential of reducing the duration of construction by a significant amount. It will also ensure that after it is installed, the equipment can be started up and tested within the narrow time frame allowed.</p> <p>4) Project Phasing: The ability for the CM to implement Early Release packages (such as Demolition and Hazmat Abatement, Site Mobilization and Site Utilities, Early Equipment Purchases....) before the main body of construction, will help to compress the overall project schedule and thereby, also reduce costs.</p> <p>5) Project Complexity: With this project, there are several significant "pass-through" utilities that will need to be rerouted and/or protected during demolition and construction. The CM (and select Subcontractors) would be best qualified to determine how that work could be accomplished, and when that should be done, and how to support and protect it. The planning for this could and should be done during the Design Phase, well prior to early release of the demolition work. With this project, there will also be a lot of very selective demolition which will require a high level of know-how within the Mechanical, Electrical, and the Controls trades (hence the need for qualified and experienced subcontractors).</p> <p>Also, the A/E team would like to make use of certain existing foundations/retaining walls from the RRF that is to be demolished. During the design phase, they would like to enlist the partnership of the CM to determine the best limits of demolition and sequencing of that work.</p> <p>6) Value Engineering and Constructability Analysis: In conjunction with the preceding statement, the Design Team would like to involve the CM during the design phase to have them offer up options and to compare different ways of re-routing the significant "pass-through" utilities. They would also like to involve the CM in determining how best to test and retain certain portions of the existing foundations.</p> <p>7) Cost/Design Control: Through real time cost tracking and analysis during the Design Phase of this project, the Construction Manager (CM) would be providing valuable cost control insights and options to the rest of the building team that when implemented will, in a more practical way, keep the cost of the project set firmly at the given Construction Budget value.</p> <p>8) Additional Beneficial CM Services: With the great amount of steam piping threading through the existing Chiller Plant and that which will go into the new Steam Production Plant, another valuable service that a CM can bring to this project is the use of BIM modeling and clash control. When used in the preparation of Shop Drawings, this 3D modeling software tool enables the subcontractors to work together and "build" the full building virtually. With this, they are able to make sure that various systems and elements (such as steam piping and structure) aren't competing for the same space and therefore "clashing". This could then be corrected before ordering or constructing anything in the real physical space.</p>	\$37,200,000	CM	Yes	CM

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05/15/24	2024	Covered Institution	209-B1314-000	UVA - University Hospital South Tower Shell Floors 6-8 Fit-out	<p>The 6th floor fit-out will be located directly above Transplant Recovery ICU and the 8th floor fit-out is located directly beneath the Mechanical penthouse. The work of this Project will require careful coordination, and the available hours for work are short in duration, and limited in frequency, posing further challenges. The location above Transplant unit will present challenges during every phase of construction. Patient care in existing ICU's has proven to be extremely sensitive to the noise and vibration typical of construction work. Additionally, there will be specific Infection Control processes required due to the acuity of the inpatient population on the three active floors immediately beneath the Project area, and the CM will be required to fully understand the impacts of all of their work on the MEP systems within the building to insure that no Project activities impact those systems in ways that could be problematic to the active patient care spaces.</p> <p>Adjacent spaces on 7 East in the hospital (site of the current NICU) are themselves expected to be reconfigured and re-purposed in a future phase including demolition/ re-design/ relocation of MEP systems that serve those spaces. This will require careful planning of systems for both the fit-out and the future phase, as well as phasing of the construction of those systems, especially since we need to accommodate ongoing clinical operations in the adjacent spaces.</p> <p>The CM will be critical for required preconstruction coordination with the design team and UVA hospital operations staff, providing early cost models, managing the extensive Value Management process and Constructability Analysis efforts, developing effective and optimal phasing plans, and performing preconstruction activities and commissioning. Significant complexity includes:</p> <ul style="list-style-type: none"> • Current labor shortages and supply chain delays in the construction industry will require the CM's assistance to enable cost control and effective planning for phasing. • Planning and executing a viable, efficient, multi-phased renovation plan to accommodate Medical Center staff, operations, and on-going patient care during renovations of an occupied hospital. • Scheduling and executing all staging, phased demolition work, and enabling projects to accommodate swing space, construction, and renovation activities. • Analysis of the impacts of temporarily relocating occupants in phases to expedite the construction schedule and determining the impact of those relocations to overall hospital operations will be of paramount importance. • Maintaining functionality of occupied spaces including minimizing noise and disruption, keeping existing systems online while the CM builds new systems, and developing a transition plan to switch over with input from occupants and the design team. <p>These complicating factors require a responsive phasing and logistics plan coordinated closely with the design team, clinical teams from the impacted inpatient units, and our Health System Physical Plant team, and users. Early costing exercises are essential to ensure the Project accommodates priority scope items in the renovations. This complex Project will gain significant fiscal benefit, schedule reliability, and an improved final product, from bringing a seasoned CM team on board during the design process.</p>	\$86,700,000	CM	Yes	CM

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05/16/24	2024	Covered Institution	207-B1318-000	UVA- Darden Student Housing	<p>CM at Risk procurement is recommended for this Project primarily due to the following issues:</p> <ul style="list-style-type: none"> •Fundraising – the CM will initially assist with the preparation of documentation and materials. •Complex & Challenging Nature of Building Site – the selected building site is highly constrained between three significant existing structures, the Abbott Center Dining Room & Auditorium, the Darden Garage, and the Camp Library. Constraints also include an existing courtyard and critical access roads and pedestrian walkways. The preliminary report from the geotechnical engineer indicates significant variability in the subsurface, including significant rock and unsuitable soils, adding further complication to this Project and the associated utility relocation work described below. Blasting is anticipated for rock removal. The site spans significantly different grades and the proposed buildings will each be required to have below grade levels to address the challenges of the site as indicated above. The grade differential between buildings and with the Parking Garage will be facilitated with retaining walls and infill structures. Realignment of the driveway at the Parking Garage will result in the addition of a retaining wall to conform with the steep existing grades in this area. •Complex Utility Relocations, Upgrades, & Sequencing – the new facility will be served by UVA and City of Charlottesville central utilities. All the extensive central utility infrastructure currently on the planned site (electrical duct bank, hot and chilled water, sanitary, domestic water, data) and storm drainage will require extensive relocations and upgrades during reconstruction to accommodate the new buildings and increased capacity requirements. The existing utilities also serve adjacent facilities, therefore sophisticated and methodical CM relocation sequencing will be necessary to minimize downtime and disruptions to operations. •High Volume of Vehicular & Pedestrian Traffic in Area – the CM will need to develop a substantial and intricate logistics plan and phasing strategy for construction that allows consistent fire and delivery access as well as Parking Garage access for both vehicular and pedestrian traffic to Darden and the adjacent Forum Hotel. The plan must also include laydown area, and protection of surrounding uses including the adjacent existing stream. Significant stormwater infrastructure and erosion control measures will be required throughout the Project. The drive lane adjacent to the Abbott Center and the Library (New Darden Boulevard) will be reconstructed along its current alignment to accommodate all vehicular traffic to the Abbott Center and increased vehicular traffic resulting from the loss of Darden Boulevard on the south side of the Parking Garage. Access to the Parking Garage will remain on the east side of the Garage but the entrance driveway will be realigned to accommodate the footprint of Building 'B'. Additionally, the access road to the Parking Garage and the Darden loading dock will be significantly impacted by construction. All these priorities will have cost and schedule impacts. •Value Management (VM)/ Constructability Analysis – the Project will need to go through a rigorous VM process to ensure that the scope is aligned with the construction budget. A CM with a robust and comprehensive approach to preconstruction and VM is invaluable throughout this process. Additionally, identifying and procuring critical components and long-lead items will help mitigate against escalating costs and schedule delays. •Requirement for Minimal Disruption to Adjacent Darden School Classroom, & Administrative & Hospitality Spaces – Darden is one of the top-ranked business schools and educational experiences in the world and its MBA programs are highly ranked (i.e., it was recently ranked #1 public MBA program in the World by The Financial Times). Construction must occur without disturbing educational programming and operations. Specifically, the adjacent garage accommodates the daily parking of faculty, staff, students, as well as guests of the Forum Hotel (which will also be operating continuously). Additionally, the Abbott Center, also adjacent to the site, will continue operating as a full-service dining facility for students and other guests. <p>Summary – Due to the complex and challenging factors itemized above it is believed that the Project will gain significant financial benefit and added value by engaging with a CM that has expertise with complicated projects in similar environments. CM expertise and leadership will be critical in navigating the expected complexities of this Project.</p>	\$150,000,000	CM	Yes	CM

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05/07/24	2024	Covered Institution	204-18678-000	WM - Renovate Historic Campus	<p>The Wren Building is a three-story colonial academic building originally constructed between 1695 and 1700. The Wren has been restored many times in its over 300 year history after three fires and various conservation efforts. The most recent restoration has the building restored to its colonial appearance and the building has been in continuous use since that restoration, which concluded in 1931.</p> <p>The building will remain open during construction to continue academic and operational use, as well as to maintain university cornerstone traditions to the greatest extent possible. The CM will be instrumental in coordinating access, appearance, safety, and phasing to achieve the goals of this project.</p> <p>The project remediates extensive water infiltration damage through exterior envelope and interior surface of exterior wall repairs and restorations meticulously following historic preservation standards. Early involvement by the CM in constructability reviews, specialized materials testing and acquisition, onboarding specialized trades, and coordinating with the University is essential in meeting the project timeline, completing work by the nation's semi-quincentennial anniversary in 2026. For instance, surveying, sampling, testing, and sourcing like material for the extensive mortar and stone work will save significant time and refine cost before construction is underway.</p> <p>Given the complexity of managing the renovation of a precious and irreplaceable state and national historic resource that is the preeminent architectural, academic, and cultural structure on the William & Mary campus, we believe it is in the University's best interest to deliver this project with a Construction Manager. The CM will be critical to managing the care needed to maintain the specialized scope within the project schedule and budget.</p>	\$10,248,644	CM	Yes	CM
06/07/24	2024	Covered Institution	207-B1305-000	UVA - North Grounds Parking Garage	<p>Design/ Build procurement will expedite the available use and occupancy of this simple project by at least 9 months. The Project scope is straight forward with simple detail and features that will be established by Bridging Documents. In the current construction market with escalating costs and limited availability of key trades, UVA seeks a single point of GC-A/E responsibility (a Design/ Build (D/B) Team) to coordinate this Project as CDs are completed, and it moves forward. The D/B may obtain early key Subcontractor commitments, lock in early competitive fixed pricing to limit cost escalation and establish an expedited schedule for design completion and construction – all at the award of the D/B contract well before Construction Documents (CDs) will be completed. Schedule is critical to quickly address UVA parking needs with the current shortfall in parking capacity. Due to the simple nature of this design, we believe that fast tracking this Project by overlapping the design and construction will deliver the finished Project in the most fiscally advantageous manner while meeting requirements to have the new Parking Garage complete by 2027. The timeline from A/E procurement to Project completion using D/B is anticipated to be 36 months. Our plan is to prepare Bridging Documents with a competitively procured A/E and to start procurement of a D/B Team in coordination with the completion of Bridging Documents. The D/B can start the demolition, site preparation, and utility construction early to expedite the schedule.</p>	\$33,000,000	DB	Yes	DB

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06/10/24	2024	Covered Institution	242-18704-000	CNU - Replace Plant Operations and Warehouse Building	<ul style="list-style-type: none"> • Construction Cost: \$40.3M, far exceeding the minimum threshold of \$26M for CM@R. • Building Use: Building houses essential services to campus operations. • Project Timeline: Project schedule must be maintained to prevent interruption to essential services and campus operations. • Project Phasing: Project site includes land occupied by the existing facility, which must remain in operation throughout construction. Demolition of the existing facility and construction of later phases must be carefully timed and coordinated to prevent disruption. • Project Complexity: Project is targeting Net-Zero energy, with complex details and building systems requiring Construction Management services. Project is located adjacent to a residential neighborhood and student housing. Limited site access. Substantial phasing coordination and schedule control by the CM in order to prevent interruption of essential services. • Value Engineering/Constructability Analysis: Early constructability reviews of sustainable details and systems will prevent change orders and delays. Early CM cost review provides more complete data for lifecycle cost analysis, which is critical to overall value management decision making. • Quality Control/Prequalification: Extensive QC throughout design and construction is required to achieve project goals. Prequalification allows selection of the best suited construction team based on multiple factors critical to project success. • Cost/Design Control: Achieving Net-Zero Energy requires significant coordination and expertise throughout design and construction. Lack of these results in higher costs and reduced building performance. 	\$40,321,057	CM	No	DBB
6/26/2024	2024	Covered Institution	247-241927	GMU - Construct Basketball, Training and Athletic Academic Support (RAC Addition)	<p>Building Use/Project Complexity: The original RAC building was constructed in 1970 and included in that original construction was the "Cage" Gym which is to be stated to be expanded and renovated with this project. In 2009, the RAC building was renovated and expanded. The new construction portion of the 2009 renovation "wrapped" the existing building on the east and south sides. All new building utility infrastructure was provided which fed both the original building and the new expansion area. The current addition proposes to carefully peel off two of the exterior faces of the existing cage gym to allow the gym to be enlarged in the western direction and connected to the new addition to the north. The roof will need to be added to and expanded to support this addition. The current roof warranty is ideal to remain intact. The RAC building serves as the main recreation building for the campus and will remain in operation during the construction of the addition and renovation. Design decision will need to be made in collaboration with the CMaR to ensure the continued operations. This will include how to supply HVAC services while potentially tying into the existing systems, coordination the refresh of the Cage gym with the basketball season, safe egress, as well as other unforeseen occupancy issues. The continued collaborative involvement of the CMaR with the A/E throughout preliminary design and working drawings will 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 project costs within budget. Specific project complexity considerations that push complexity higher and justify the need for CMaR include:</p> <ul style="list-style-type: none"> • Complex structural work that will require selective demolition of two sides of the Cage Gym with new roof trusses and potential cross bracing steel where the gym opens to the new addition. • Structural insufficiencies in the existing Cage Gym roof system prohibiting drifting snow loads or any mechanical equipment installed atop. • Complex coordination to allow connecting and integrating the new addition to the existing building utilities all while maintaining building operation for: <ul style="list-style-type: none"> o Power o Fire protection (both sprinkler and fire alarm work) o Domestic Water o Mechanical Systems for the Gym Expansion area o IT (data/telecom/access controls) o BAS Controls System 				

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				GMU - Construct Basketball, Training and Athletic Academic Support (RAC Addition) continued	<ul style="list-style-type: none"> o Storm water system • The existing chiller plant within the building is at capacity and is not sufficient in size for the addition. In addition, the existing equipment is at the end of its useful life and requires to either be replaced and upsized, or an additional chiller/cooling tower be provided. These would need to be placed on site rather than rooftop mounted due to the gym structural insufficiencies previously noted. The site; however, has complexities that make locating this equipment difficult. • The existing boiler in the building plant is not sufficient in size for the heating water required for the addition. A new boiler with associated pumps will need to be provided. • The existing domestic water heater/storage tanks are at the end of their useful life and are recommended to be replaced with this project. • Challenging site topography that will require large and extensive retaining walls for access as well sheeting and shoring during construction to avoid disturbance of utilities to the west of the proposed gym expansion. The new building footprint abuts the existing building loading dock which is at a different grade level than the addition and must remain active during the project. Additionally, the surrounding site is bounded on two sides by the existing building and the other two sides by active roadways, making site logistics critical and challenging. Lastly, an existing Dominion Energy electrical utility on the site will be impacted from the new addition and will need to be relocated. • Complex scheduling and critical phasing of work to ensure continuity of building use/operations for patrons/students/staff/classes during the renovation work. • Separation of the new addition space from the balance of the RAC building to allow 24-7 operation of the new space. <p>Construction Cost / Value Eng. and/or Constructability Analysis Concurrent with Design / Need for Cost/Design Control:</p> <ul style="list-style-type: none"> • CMAr will provide constructability reviews and inputs to stormwater, structural, MEP, and envelope systems. • Accurate CMAr constructability analysis coupled with timely cost estimation/feedback on scope decisions throughout design will optimize value engineering analyses conducted at each major design phase milestone while reducing the potential for time consuming budget impasse delays. • CMAr participation in maintaining an efficient design schedule with continuous cost control oversight will enhance project execution while minimizing construction change order costs and schedule impacts. <p>Need for Quality Control/Vendor Prequalification: Use of two-step procurement procedures will help ensure selection of a CMAr with the qualifications, expertise and experience best suited for this project. Due to the budget constraints and intense delivery timelines, subcontractor pre-qualification by the CMAr for certain work packages will be essential for effective financial management and cost control.</p> <p>Project Complexity: Utilities for the new addition will be fed from the existing building, including power, domestic water, and life safety systems.</p> <p>Project Timeline / Need for Project Phasing.</p>	\$21,750,000	CM	No	CM